

Middlesex County Food Pantry Product Dating Label Education Project



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Diane Hutchins, Aldersgate Outreach Community Center / United Methodist Church

Carol Kientz, Skeet's Pantry - First Presbyterian Church of Cranbury

Pastor James Kromholz, St. Paul's Evangelical Lutheran Church

Beth Lukacs, South River Food Bank

Fran Napoli, Calvary Chapel Crossfields

Sarah Teti, First Presbyterian Church of Metuchen

Denise Wilkens, Community Presbyterian Church Food Pantry

Bidgie Williamson, St. Francis Cathedral

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Figure 1. Food organized at a pantry

Introduction

Each year, over 108 billion pounds of food are wasted in the United States (Feeding America, 2021). This staggering statistic impacts many facets of food security, the economy, and the environment. Today, one in 10 Americans is food insecure, due in part to a reduction in the food supply as a result of food waste (USDA ERS, 2021). Environmentally, food waste leads to over \$172 billion in wasted water in addition to the significant carbon footprint left by methane production from food waste in landfills (Forbes, 2018).

One factor contributing to food waste is confusion around the meaning of date labels on food products. Food product dating provides an estimate for when food items no longer have the same level of quality as when they were produced. With the exception of baby formula, there is no federal regulation of food product dating. For this reason, manufacturer food date labels tend to vary between “sell by,” “best by,” “use by,” and

“best if used by” phrases, among others, leaving many consumers with questions about the true product expiration date, as it relates to safety. The confusion between indicators of food quality versus food safety has had a profound impact on consumer behavior nationally. Food that is otherwise safe to consume is often discarded simply because the label is past date.

The 2021-22 Ralph W. Voorhees Public Service Fellows worked with REPLENISH, Middlesex County’s emergency food distribution organization, to research how to increase awareness and dispel confusion about food product date labeling to reduce food waste. This report analyzes the ways in which individual pantries throughout Middlesex County interact with food product date labels, food waste, staff and client education, and the impact that COVID-19 has had on those topics. This project has two main objectives: (1) understanding what practices food pantries in Middlesex County currently have in place regarding food waste and past date items, and (2) exploring ways in which to increase education around date labels and reduce food waste. These objectives are guided by the following overarching research questions:

1. What knowledge do pantry staff and volunteers have surrounding food waste and food date labels, and how do they incorporate this into their work?
2. How have clients interacted with food date labels?
3. What systems do pantries have to address food waste? If so, which kinds and how?
4. How has the COVID-19 pandemic impacted food handling, date labels, and food waste?

To address these questions, we conducted interviews with Middlesex County food pantry staff. We also completed a literature review to better understand the ways in which food date labels and food waste are interconnected. This report begins with an overview of relevant background information and literature. Next, we discuss our findings from the interviews. We conclude with a series of recommendations for how REPLENISH and local pantries can increase awareness around date labels and reduce food waste.

Background and Literature Review

Food Waste in the United States

In the United States, nearly 40% of food is wasted. In other words, 108 billion pounds of food, which equates to more than \$161 billion worth of food, are thrown away each year (Feeding America, 2021). This is especially concerning considering that in 2020, more than 38 million Americans, including 12 million children, were food insecure (USDA, 2021). Food waste also negatively impacts the environment. When food is discarded, it may end up in landfills where it decomposes and releases methane gas. Methane is a greenhouse gas that is 28 times more potent and has 80 times the warming power of carbon dioxide, thus accelerating the impact of climate change (Frischmann, 2018).



Figure 2. Zucchini waiting to be picked up

Food Date Labels and Food Waste

Existing research reveals that misleading language surrounding food product date labels leads to an increase in food waste (Kavanaugh & Quinlan, 2020). Aside from baby formula, which is required to have a “use by” date printed on the package because of an infant's particular nutritional needs, there is no federal regulation on food date labeling. States have different policies on distributing food based on date labels — some having clear requirements while others having none. The lack of federal standardization gives food manufacturers the ability to identify and assign these labels themselves. According to the United States Food and Drug Administration (FDA), “manufacturers generally apply date labels at their own discretion and for a variety of reasons. The most common is to inform consumers and retailers of the date up to which they can expect the food to retain its desired quality and flavor” (FDA, 2020). In the FDA's FoodKeeper App, the FDA reassures consumers that certain past date food items are safe to eat by providing instructions detailing the amount of time that can pass from the purchase date for different types of food items. For instance, certain dairy products can be safely consumed one to two weeks past the date of purchase (FoodKeeper App, 2021).

However, food product date labels are perceived by many people, manufacturers, and distributors as expiration dates or the final date an item can be consumed. Furthermore, previous literature highlights the complexities of interpreting food product date labels. Data support that date labels that are “more suggestive of food quality (...) lead to less value of food wasted” whereas labels that are more suggestive of food safety or other aspects of food conditions are interpreted differently and are more likely to be disposed of (Wilson, et al., 2017). Confusion surrounding interpretations of food product date labels leads to food waste that could be avoided if food product date label definitions were clear and understood by the general population.

Food product date labels are one of the primary reference points for people when considering food safety and quality, and in turn, interpretation of date labels impact whether food items are consumed or wasted (Kavanaugh & Quinlan, 2020).

Respondents from a 2020 study, which assessed the relationship between food waste and knowledge of food product date labels, found that those who were able to interpret at least one label correctly were generally less likely to discard the food items within the

time period that they would be safe to consume (Kavanaugh & Quinlan, 2020). Furthermore, “findings show that a date label that is most suggestive of a food safety concern leads to the greatest value of food wasted” (Wilson, et al., 2017). These findings suggest that instituting clear date labeling processes would help this problem significantly.

Pantries and Food Waste

Food pantries play an important role in minimizing food waste by collecting and reallocating food to those in need. In fact, the U.S. Environmental Protection Agency’s (EPA) Food Recovery Hierarchy, a measure that guides organizations through food waste reduction options, considers donations to and services by food pantries as their second-most prioritized waste reduction method, after general food source reduction (U.S. EPA, 2021). Distribution networks that provide donations to food banks and pantries, such as Feeding America and the Community Food Bank of New Jersey, illustrate their understanding of their critical role in the food waste reduction system by referring to themselves as “food rescue” organizations. For instance, in 2020, the Community Food Bank of New Jersey reported that their organization and its partners “rescued” nine million pounds of food from grocery producers alone (Community Food Bank of New Jersey, 2021).

To supplement these waste reduction measures, New Jersey Governor Phil Murphy signed the Food Waste Recycling and Food Waste-to-Energy Production Law in April 2020. The law was touted as a victory for climate and environmental justice activists as it reduces pollution and harmful gas emissions from landfills and incinerators. The law, effective in October 2021, requires generators of large food waste located within 25 miles of an authorized food waste recycling facility, including food pantries, to recycle their food waste rather than use landfills and incinerators (Waste360, 2020). Furthermore, the law outlines that food donated by generators is not constituted as food waste and therefore is not counted when determining the generator’s waste production, which may push generators to donate more food to food banks and pantries.

While food pantries serve an important role in reducing food waste, challenges associated with interpreting food date labels can undermine these efforts. Food pantries mostly provide non-perishable foods since they are less complicated to stock, have a

longer shelf life, are easier for pantries to distribute, and are more flexible to store and consume for patrons (Second Harvest, 2021). Since non-perishable food date labels tend to indicate food quality rather than food safety, and New Jersey food pantries are distributing as much food as possible due to the COVID-19 pandemic and statewide food waste reduction laws, pantries will have to decide how much and which foods are suitable for distribution beyond what is suggested on the label. Pantry staff face the same challenges as everyday consumers to interpret food date labels to prevent discarding foods that can otherwise go to patrons in need. The personal judgments of clients and pantries to determine what food is safe coupled with stigmas surrounding food pantry use can inform the extent to which pantries distribute food donations past date labels. A study from Western Michigan University supported these claims and found that clients' perceptions of poor food quality at a pantry can be perceived as an attack on their self-dignity and may create dissatisfaction with pantries altogether (Fong, et al., 2016). Because food date labels are often used to evaluate food quality, the date labels on the foods that pantries provide can inform how clients perceive the



Figure 3. Extra free choice items for clients to pick

pantry, which then can influence how food pantries determine which foods to donate and throw away.

Given the challenges involved with interpreting food labels, pantry workers and volunteers may be especially cautious. The federal government has offered these entities legal protection through the Bill Emerson Good Samaritan Law. The law states that “nonprofit organizations shall not be subject to civil or criminal liability arising from the nature, age, packaging, or condition of apparently wholesome food that the nonprofit organization received as a donation in good faith from a person or gleaner, including a qualified direct donor, for ultimate distribution to needy individuals” (USDA, 2021). This provision of the law gives food banks and pantries discretion to deliver food to clients without risk as long as it is done in good faith. The protections are important for food pantries when handling and interpreting food date labels on donations that do not provide a clear representation of expiration. But, of course, implementing this well, necessitates that everyone involved better understands what food labels do and do not mean.

About Middlesex County & REPLENISH

Middlesex County is the third largest county in New Jersey with a population of 825,062 residents according to the latest U.S. Census. About 7.4% of all residents are food insecure, equating to roughly 60,910 county residents (NJSHAD, 2021).

REPLENISH, a program within the Middlesex County Department of Community Services, partners with more than 140 food pantries across the county to ensure that residents receive the food and services they require.

Methods and Data

Semi-Structured Interviews

To learn more about food pantry practices, we conducted non-confidential semi-structured interviews with food pantries in Middlesex County. We used an interview instrument with questions developed by Rutgers University, in partnership with REPLENISH, and with input from the Voorhees Fellows. Topics included: food pantry organizational knowledge of food product date labeling, reading food labels, the role of the county health department, clients and food date labels, impacts of COVID-19, perishable food waste, and organizational longevity. The semi-structured nature of the interviews allowed for follow-up questions and open discussion with pantry staff. Interviews were conducted over Zoom and lasted approximately 45 minutes.

Interview Recruitment

Fourteen pantries in Middlesex County were interviewed for this project. We contacted pantries for interviews via phone and email using a list provided by REPLENISH. We made follow-up calls and sent out follow-up emails to non-responsive pantries periodically. Interviewing began in September and concluded in mid-November. Below is a list of pantries that were interviewed.

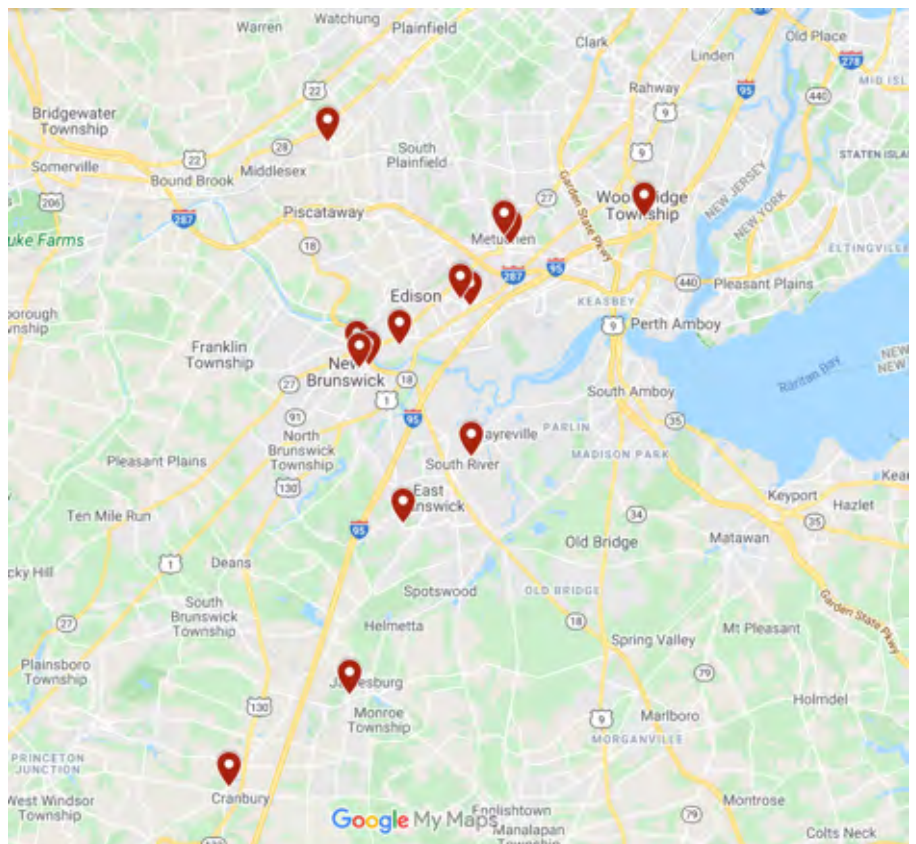


Figure 4. Map of Food Pantries Interviewed

Table 1. List of Food Pantries Interviewed

Pantry / Organization Interviewed	Representative	Municipality
Aldersgate Outreach Community Center / United Methodist Church	Diane Hutchins	East Brunswick
Beginning World Changers	Frank Cunningham	Dunellen
Calvary Chapel Crossfields	Fran Napoli	Jamesburg
Community Presbyterian Church Food Pantry	Denise Wilkens	Edison
Elijah's Promise Community Kitchen	Jason Flatt	New Brunswick
Vanessa's Pantry at Emanuel Lutheran Church	Vanessa Dunzik	New Brunswick
Skeet's Pantry - First Presbyterian Church of Cranbury	Carol Kientz	Cranbury
First Presbyterian Church of Metuchen	Sarah Teti	Metuchen
Highland Park Community Food Pantry	Janice Ballou	Highland Park
South River Food Bank	Beth Lukacs	South River
St. Francis Cathedral	Bidgie Williamson	Metuchen
St. James Food Pantry	Peggy Foley	Woodbridge
St. Paul's Evangelical Lutheran Church	James Krombholz	Edison
Unity Square Community Center	Jennifer Hinton	New Brunswick

Findings



Figure 5. Client choice food pantry set up outside due to the pandemic

Impacts of COVID-19

This section begins with a discussion of how the COVID-19 pandemic has impacted food pantry operations to provide context for our discussion of date labels and food waste. The COVID-19 pandemic has exacerbated the already crippling rates of food insecurity throughout the nation, and that trend is reflected in the food insecurity rate in Middlesex County. All of the food pantries we spoke with continued their operations during the pandemic, but there have been several significant changes that vary by pantry. A number of pantries we interviewed previously used the client choice model for food distribution, a system that allows clients to choose their own food items. This model allows for greater client dignity and communication between clients, pantry staff, and volunteers while simultaneously reducing food waste since items are selected by

clients themselves. Conversely, pre-packaged grab and go distributions tend to produce higher rates of food waste as the selection of food products distributed to clients is not always in line with personal food preferences. The uncertainty of viral transmission early in the pandemic, combined with the ever-changing safety protocols, caused many pantries to reshape their operations towards grab and go models of distribution. Pantry staff focused on creative methods that allowed them to effectively serve their clients while not putting clients or pantry staff and volunteers at risk. For instance, the grab and go model often relied on outdoor distribution.

Pantry leaders saw this shift as necessary to ensure that they remained open given the circumstances. One New Brunswick pantry, that was a leader in for the client choice model, shifted to grab and go during the pandemic. They began outdoor distribution at the start of the pandemic and faced challenges once winter came. They continued to serve their clients, but had to find a location that allowed them to distribute foods despite the weather.

Pantry staffing also evolved during the COVID-19 pandemic. Pantries tend to have older volunteers, many retired, who stopped volunteering during the pandemic. In response, some pantries reduced or eliminated volunteer programs and relied more heavily on staff. Pantries both feared exposure from additional people in the pantry and some pantries needed fewer volunteers to operate grab and go models. Most pantries also intentionally limited pantry-client interaction. Some pantries, like one in Woodbridge observed a change in their volunteers, with younger volunteers stepping up and filling in the roles that older volunteers once held.

Food pantries expressed that they had sufficient resources to attain the amount of food needed to supply their clients. Given the increasing food insecurity rates during the COVID-19 pandemic, REPLENISH supplemented pantry donations. Pantries that relied on grocery stores for donations received fewer donations from these entities during the peak of the pandemic; however, they still met client demand through individual donations, the Community Food Bank of New Jersey, and REPLENISH.



Figure 6. Dairy products at a client choice pantry

Knowledge of Food Date Labeling

When pantry staff were asked what they knew about the meaning of food product date labeling, 13 of the 14 pantries acknowledged that they were aware of the subjectivity of labels, one pantry shared that they believed date labels to be expiration dates, and zero stated they had no knowledge. Of the 13 pantries who acknowledged they were aware labels are not accurate, all had some knowledge of “best if used by,” “use by,” and “sell by” labels when asked to distinguish between them.

Availability of Food Date Resources

Despite having some knowledge about food product labels, few pantries identified resources or materials they referenced when they had questions about food product date labeling. Some pantries expressed confusion about where to find resources and suggested a need for a centralized information hub. The few that made a note of resources referenced the Center for Disease Control (CDC), United States Food and

Drug Administration (FDA), United States Department of Agriculture, eatbydate.com, and informational sheets from REPLENISH. Various interviews, however, revealed that only one staff member or volunteer from each pantry would frequently reference these sources and disseminate the information to other staff and volunteers.

What pantries know about food product date labeling mostly came from word of mouth and/or previous education that a member of the organization obtained. Across all interviews, it was evident that pantry knowledge of food product date labels, safety, and quality was inconsistent. A lack of centralized information and training often resulted in pantries relying on a single person to make decisions about past date items. However, the “go-to” pantry staff member who was consulted on this matter did not always have formal certification or training to support their directive. Some pantry staff had one or a few people certified in food safety and handling through Middlesex County. This training, however, did not cover food product date labeling.

Treatment of Date Labels and Past Date Food Items

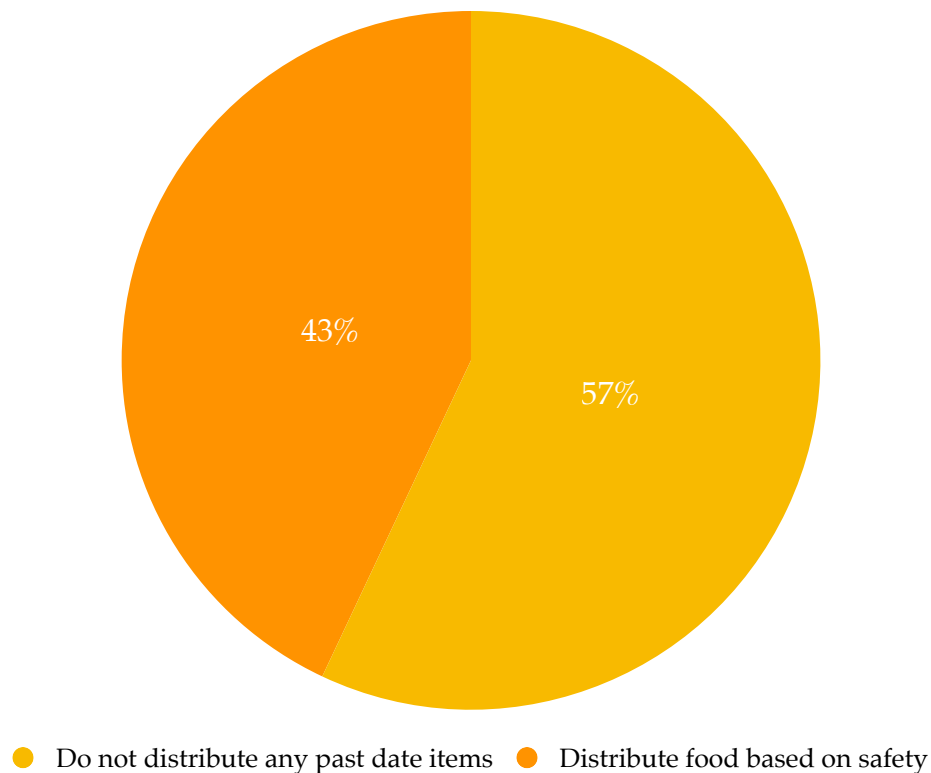
In interviewing Middlesex County food pantries, there were two common sets of practices regarding how pantries handled product date labeling. Forty-three percent of pantries understood the difference between food safety and food quality and operated according to this understanding. Pantries offer past date food items to their clients on shelves, pick-it tables, or give these items to other pantries to distribute.

How Middlesex County Pantries Handle Food Date Labels

Numerous pantries have a pick-it table that holds past date products (for example, Community Presbyterian Church Food Pantry, Highland Park Community Food Pantry, and Elijah’s Promise), which could be taken if clients were interested in the items. Pick-it tables are locations where past date food is stored and can be taken according to client comfort and preferences. While leadership understood that recently past date labels were indicators of food quality and not food safety, there is often a hesitation to distribute these materials.

The second category includes fifty-seven percent of pantries who understand what food date labels communicate but do not distribute any past date items for fear of losing client trust, legal action, and to preserve client dignity.

Figure 7. How Food Pantries Handle Food Date Labels



According to our interviews, the most common method for past date food distribution is pick-it tables. Pick-it tables are incorporated as part of the client choice model and provide clients further opportunity to decide which food items past the food product date label they are comfortable consuming. However, there are other examples of past date distribution. One pantry, for example, does not distribute any past date items to its own clients but donates past date items that were viable to a neighboring pantry with clients open to accepting past date items. Despite familiarity with the issue of date labeling and what they mean, most pantries were reluctant to distribute past date items.

Client Trust and Past Date Items

A central driver of determining food pantry operating procedures is the relationship between food pantries and their clients. Building and maintaining clients' trust was very important to the pantries and was a key factor in how they handle food date labels. Distributing past date food products can be viewed as a violation of client trust. For example, the coordinator of one pantry expressed an understanding that past date food does not automatically mean "expired" food. However, this coordinator noted that even though volunteers at the pantry have an awareness of what labels mean, if they feel strongly that there is an item they will not eat themselves, they will not give it to clients because they consider it disrespectful. The coordinator explained that food supply was very low during the pandemic and throwing away past date food that could still be consumed was a challenge.

Other pantries reported varying levels of comfort from clients in accepting past date foods. For example, one pantry supervisor explained that some clients know that past date food is safe to consume and take all of it, but many pantry guests, just like the rest of the population, are confused by food date labeling and may throw it out. According to the supervisor, most of the clients really trust her and are receptive to the idea of accepting past date food. However, even though she and many of her clients understand that past date food does not mean expired, receiving past date food at this food pantry remains optional for clients.¹ Moreover, another pantry director explained that a culture of trust and food waste reduction has occurred in the pantry since its inception. She expressed that while it can be difficult to convince certain clients that past date does not necessarily mean expired, clients mostly feel comfortable asking volunteers their questions about the food products. Although there is currently less social interaction because of COVID-19, volunteers have the opportunity to build relationships with clients to educate them on what food date labels mean. Both of these instances show that a driving factor for food pantries is that they attempt to be inclusive of client comfort levels.

The pandemic has played a role in reducing interactive opportunities between staff, volunteers, and clients, limiting opportunities for trust building activities. For example,

¹ This aspect of client choice appears in nearly every pantry.

one pantry director explained that since the pantry tries to move clients through pantry lines quickly to minimize risk of exposure to the virus, the interaction that was once a built-in aspect of this experience no longer exists. The pick-it table model seeks to reintroduce an aspect of client choice to the current “grab and go” model which was born out of necessity during the pandemic. However, there could be drawbacks to this method. By separating food that is past date from food that is not, there is an underlying message: this food is not of equal quality or value.

The Role of Volunteers

Volunteers, particularly those who engage directly with foods through packaging, stocking, and distributing, are a vital link in the chain between the food received by pantries and what is actually provided to patrons. While some pantries indicate these volunteer roles are mostly filled by individuals who hold pantry leadership positions, others delegate these responsibilities to volunteers. This section discusses two areas of interest: (1) Volunteer Training and Education, and (2) Internal Conflicts Over Food Date Labels. Each area informs pantry experiences with food date labels, handling, and quality, food waste management, and the pandemic. According to our interviews, due to the pandemic, pantries emphasized efficiency and resources in these three areas.

Volunteer Training and Education

Most pantries (77%) shared they did not have a formalized training process for new or recurring volunteers (i.e., onboarding questions, curriculums, etc.). A few pantries responded that vetting processes, such as background checks, were part of their training processes but did not highlight further measures on role preparation. Instead, most pantries’ training was described by interviewees as “on the job” in which the pantry’s more experienced volunteers and staff provide “shadowing” opportunities for volunteers to understand their roles.

With regard to food labels, some respondents shared that they did not provide instructions about handling food date label discrepancies to their volunteers. Of these respondents, some explained that their volunteers already knew about the lack of clear food quality and safety information on food date labels and, consequently, pantries chose not to provide specific training about food date labels to the volunteers. On the

other hand, there are pantries that *do* have more direct discourse about food date labels with their volunteers. There are two main training approaches among this group. Some pantries explained that they train volunteers on food date labels by advising them to understand the flexibility of food date labels but to ultimately use their personal judgements to not distribute items about which they are skeptical. This training approach leaves room for volunteers to insert their own personal biases and hesitations into the donation distribution process. Other pantries do provide more formalized training and information-sharing opportunities about food date labels to their volunteers. A significant number of the pantries in this group shared that they do so by having their “go-to” person explain food date labels and quality best practices to volunteers. Others directed their volunteers towards specific external educational resources, such as the USDA or FDA websites, for further instructions on the matter. Volunteers in these pantries are likely to receive accurate information and/or have someone available to assist them with flexibility. However, it is not guaranteed that this



Figure 8. A volunteer explaining food items that clients can choose

information will provoke changes in volunteer behavior or that staff will encourage their volunteers to adhere to correct information to minimize waste.

Volunteers will often learn key information about food handling, distribution, and labels on the job. Pantry leadership and veteran volunteers are key sources of information for new pantry volunteers. The food date label knowledge these individuals possess typically stems from their own personal beliefs, their pantry operation, and/or materials from REPLENISH. Other volunteers have access to information that pantry coordinators receive from external resources and organizations on these topics. This food date label information typically states that labels are inaccurate representations of food safety. A few respondents mentioned that volunteers will know to ask pantry leadership or more experienced volunteers for guidance whenever they come across a past date food label. Importantly, pantries shared that they are open to receiving guidance and information to promote better food safety since some mentioned they struggle to educate their volunteers on this topic.

Internal Conflicts Over Food Date Labels

Most pantries expressed awareness that some volunteers do not feel comfortable allocating food that is past date. For some pantries, volunteer perceptions about food date labeling are in line with those of the pantry leadership—either both agreed to discard foods or attempted to be more flexible. Some pantries shared a willingness to adopt flexible models for food dates, but felt they were unable to do so because they could not change the behaviors of others in their pantries, particularly volunteers. For example, one pantry coordinator stated that even if past date food was distributed to clients, volunteers would take issue with this decision.

Pantry Organization and Operation

Only two of the pantries interviewed, South River Food Bank and Elijah's Promise Community Kitchen, are independent organizations that execute food donation services as their core mission. The remaining pantries are subsidiaries of non-profit and community-based organizations who operate the pantry on a part-time or voluntary basis in addition to their core missions. All pantries in this group have “parent” facilities who serve other purposes besides handling and distributing foods. Having pantries

that are part of these parent facilities with part-time and/or volunteer leadership could explain the lack of formal volunteer education discussed by pantries as well as the diversity of training, since pantry leadership may choose which challenges and areas of improvement to tackle, given limited resources and time.

Language Diversity

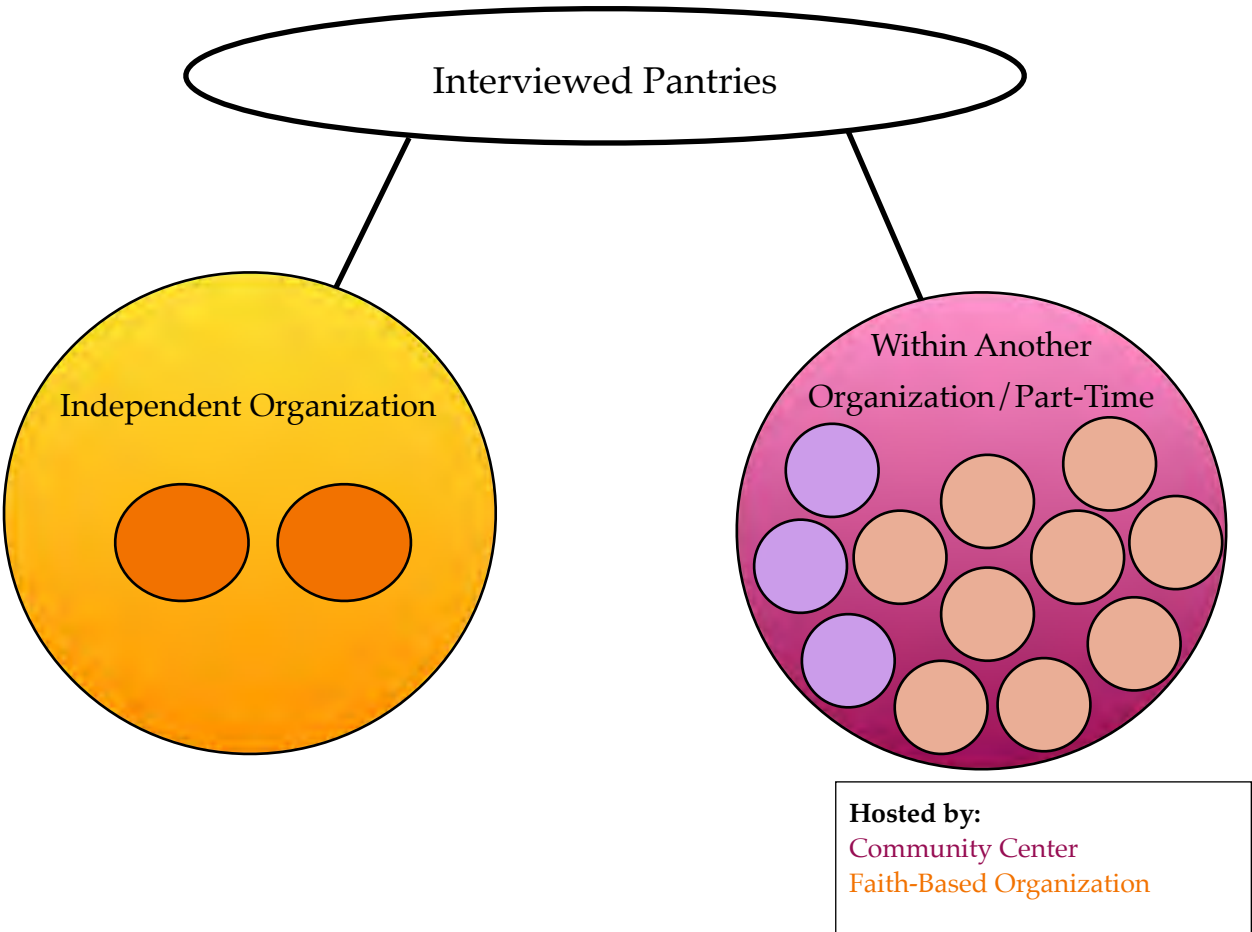
Food pantries across Middlesex County serve a number of ethnic and cultural communities that speak different languages. Seventy-nine percent of the food pantries indicated serving a multilingual population. The most common languages spoken by clients as indicated by pantry staff are English, Spanish, Arabic, Mandarin and Latin Indigenous languages. As mentioned, community education is key to reducing food waste and this cannot be accomplished without taking language into account and accommodating clients who do not speak fluent English. Language barriers pose a challenge in communication when food pantry staff directly serve and interact with clients during operating hours.

Pantry staff have shared that there are interactions where questions go unanswered and potentially useful information cannot be shared because the staff did not speak the client's native language. Some pantries used technologies such as Siri and Google Translate to communicate with clients that spoke languages besides English. Accommodating different languages will allow clients to learn about food product date labels while also empowering them at the pantry when presented with different food options since they can be made aware of what is still safe to consume past date.

Perishable and Nonperishable Food Waste

Perishable food waste is a concern. Of the 13 pantries that do serve perishable items, two find second uses for perishable foods after human consumption is no longer an option while 11 throw away this food. Pantries have communicated that they would like to find uses other than discarding spoiled perishables, but often due to a lack of resources, staff capacity, space, or in the case of composting, gardens, they feel that the only option is to discard spoiled perishables in the trash, which ultimately ends up in landfills.

Figure 9. Interviewed Pantries by Organizational Structure



Of the two pantries that do not throw away perishable foods after the point of consumption, they use several practices to mitigate the risk of these foods ending up in landfills. One practice is composting. While composting is difficult for some pantries due to the limitations previously mentioned, it can be a worthwhile investment to reduce perishable foods in landfills and further contribute to the reduction of hunger in communities via gardens. Additionally, another pantry has an innovative second-use practice for perishable foods other than composting, which includes taking spoiled perishable foods to the farm at Rutgers University for the pigs to consume.

Regarding non-perishable food waste items, there are several tactics that food pantries use to reduce food waste among these types of food items. One pantry described a

practice in which the operator has an informal network of pantries that she calls to trade high volume items or culturally unpopular items among the clientele that would otherwise go past the food date label. This informal trade network has allowed for a more effective movement of food with the goal of reducing food waste, maximizing limited food storage capacity, and serving local communities with culturally appropriate food. Additionally, having a system to manage the food inventory by date labels has helped six food pantries reduce nonperishable food waste. This allows pantries to ensure that the food products with shorter shelf life serve patrons before items with a longer shelf life. While this practice can be time consuming to implement depending on the volume of donations pantries receive, this method can ultimately help reduce food waste.

Recommendations

Implement food distribution systems based on safety, not dates

The first, and arguably most important, step pantries can take to reduce food waste is to implement distribution systems based on food safety, rather than arbitrary quality dates on packages. This practice gives pantries the ability to serve more clients and reduce the amount of discarded food that could have been consumed. By clarifying the meaning of food date labels on food date labels and servicing clients with foods that are safe to consume, pantries will reduce the stigma associated with distributing past date items.

Use existing resources to determine what food is safe to distribute

In the short term, there are existing resources pantries can use to determine food safety for specific foods. This includes eatbydate.com, which is a very helpful website that shows how long types of foods are edible for; the [Connecticut Food Bank Food Safety Training for Pantries](#), which gives guidelines for evaluating product fitness after the date label for common foods; and the University of Wisconsin-Madison's [Food Safety Guide to Reducing Food Waste](#), which also provides distribution and use guidelines for various product types.

If perishable foods are past date, freeze and sticker rather than toss

While not all food pantries have the capability to freeze food items, for those that do have a freezer can freeze foods to prevent them from spoiling. Additionally, pantries serving perishable foods could invest in a freezer to prevent spoilage to ultimately serve more clients. Stickers can be placed on food items by volunteers during handling and storage to indicate if an item is past date and note the time period after the labeled date it is safe to consume in consultation with the resources discussed above. An example of what a sticker can state is, "Freeze me up to 6 months!" Messages like this are quick to interpret and provide clients with actionable information. Creating these stickers in multiple languages is also useful to communicate food preservation information to non-English speakers.

Determine a strategy for distributing past date items

There are several practices that pantries could consider to distribute foods based on safety. Pantries can distribute foods on shelves for a client to pick, or in a pre-packaged bag based on the pantry's food delivery model. This is the most aggressive approach in normalizing the consumption of food based on safety rather than the date label. However, there are concerns that food waste among clients will occur if clients are not informed that consuming certain past date items is safe.

Another approach is for pantries to implement pick-it tables at their pantries. Pick-it tables are a good option for pantries that are wary about distributing items based on food safety rather than the food date label. Furthermore, pick-it tables provide a more incremental approach to distributing past date items because they give the client a choice, while simultaneously giving pantries an opportunity to educate clients on food safety. Additionally, with the implementation of a pick-it table, pantries can incentivize clients to pick these foods by allowing them to take an unlimited number of items from this table, along with their regular food pick-up.

Another practice pantries should consider is the implementation of call lists, which are lists of individual clients who can be contacted about an excess of food that the pantry would otherwise have to discard. Not only is food waste minimized in this situation,

Cultural Competency in the Context of the Food Pantry Network

The creation of a food pantry network could help foster cultural competency in Middlesex County. One way of defining cultural competency is "a set of congruent behaviors, attitudes, and policies that come together in a system, agency or among professionals and enable that system, agency or those professions to work effectively in cross-cultural situations" (Georgetown University Center for Child and Human Development, n.d.). The creation of a network could help foster conversation between food pantries and allow pantry leadership to learn which food needs are specific and unique to pantries serving specific cultural populations. Through the network, pantry leadership would be able to share culturally specific foods with one another and reduce their overall waste.

food pantry leadership can take into consideration individual personal preferences and cultural contexts of their clients.

Implement a food date management and waste tracking system

Pantries could have a process in place to ensure that food items with sooner dates are distributed to clients prior to items with further dates. This can include rotating products on shelves based on the soonest date labels, or packaging and distributing foods with sooner date labels first. This method ensures that food waste is reduced prior to the date label expiration occurring. Some pantries we interviewed already have similar systems in place. They explained that newer food products are placed in the back while the ones with older dates are distributed first. At one pantry, one staff member rotates cans to ensure that newer cans are located towards the back.

We also recommend that pantries implement a weekly waste tracking system to keep a record of items they have had to discard. Keeping a record of discarded food items will help identify which items are most susceptible to being wasted and will allow pantries to preemptively make plans for moving these items when they receive them.

Create food sharing networks

While food pantries across Middlesex County often function in their separate spheres, there are fruitful opportunities for coordination and collaboration efforts which would greatly reduce the amount of food being discarded. We recommend that REPLENISH help foster relationships with clustered food pantries to create donation sharing networks. These networks are essential to reducing food waste by ensuring that pantries keep their supply moving, which prevents stock from sitting on shelves for extended periods of time. For instance, if a pantry receives a large quantity of one food item, or an item that is not culturally popular at their location, they could contact their clustered food network to trade products while preventing food spoilage and loss. For example, one pantry director explained that in instances where surplus food is acquired by the pantry, other pantries are contacted about the excess products to avoid food waste. Specifically, when canned meat was donated, the pantry faced a dilemma: the donation was well-intentioned, but this item was not popular among clients in the

community that the pantry served. Instead of allowing the food to go to waste, the cans of meat were given to a food pantry where canned meat was more popular.

Foster cross-pantry knowledge sharing

The COVID-19 pandemic was extremely challenging for pantries as they expanded their services to meet unprecedented demand and influxes of donations. During this time of great upheaval and innovation, pantries formed groups to coordinate efforts. While some have suspended these efforts, others have continued to have a line of communication. This type of knowledge-sharing and networked coordination can be useful in addressing the challenges associated with pantry food waste. REPLENISH can play a role in encouraging cross-pantry sharing of knowledge and best practices. Methods for encouraging cross-pantry collaboration include hosting in-person or virtual gatherings (including workshops) and creating an online discussion board for pantries to discuss food waste issues, best practices, or trade food items. Capitalizing on the knowledge-sharing relationships formed during COVID-19 can be effective for addressing food waste challenges.

Promoting Linguistic Diversity and Cultural Awareness

Since the majority of food pantries in Middlesex County serve ethnic groups who do not speak English, it is important that all education materials accommodate those who are not fluent in English through concise, multilingual options. Our interview participants indicated English, Spanish, Arabic, Mandarin and Latin Indigenous languages as the most common languages spoken by their patrons.

Education materials should also be culturally sensitive and provide pantries with tools to accommodate clients' cultural customs, food preparation traditions, and cultural practices with past date foods. In this way, REPLENISH can motivate pantries to consider culturally-aware food waste reduction measures throughout their operations.

Compost spoiled foods

Once perishable foods spoil, we recommend that pantries compost these items. While composting can be burdensome for some pantries, compost can be used to decrease hunger in communities by way of community gardens. This recommendation is feasible for some pantries that have the space and staff capacity to implement composting; however, there are pantries that lack these luxuries that would need additional assistance to reduce food waste.

Therefore, there are steps that REPLENISH, in collaboration with Middlesex County and/or Rutgers University, can take to create a more comprehensive and integrated approach to reducing the amount of perishable food waste experienced in food pantries. For instance, because there are no centralized composting centers in Middlesex County, REPLENISH, Rutgers University, and/or Middlesex County can work to operate a composting facility. Additionally, once a site is established, the Middlesex County's Division of Solid Waste could implement a composting pickup program to transport the compost from food pantries and other entities to this facility.

For a more short-term solution, there are commercial compost providers that REPLENISH, Middlesex County, and individual pantries can contract with to address the lack of a standardized food waste management system in the county. One example is [Green Bucket Compost](#), which serves Central/Northern New Jersey and works with Waste Management to turn compost into renewable energy at affordable prices.

Partner with food safety experts to create educational materials

REPLENISH should partner with food safety experts at Rutgers University and the Middlesex County Department of Public Safety and Health to create a centralized evidence-based guide that pantries can refer to when making decisions on distributing past date foods. This informational material will give pantries the confidence needed from local and trusted experts to implement food distribution systems based on safety. We recommend the creation of three types of educational resources: a guide/curriculum for pantry staff and volunteers, a graphic poster, and a one page flier for clients.

Guide for Food Pantry Staff & Volunteers

REPLENISH could provide food pantries with a comprehensive guide on date labels and food waste. The guide could include information on how to interpret date labels, how to determine if food is safe to distribute and consume, and how to treat different types of food items. The guide could serve as a primary reference point when sorting foods and determining whether they are to be distributed to clients. These resources can be targeted to pantry staff and volunteers. In this way, increased food date label awareness is felt throughout *all* sectors of the pantry and, therefore, food waste can be reduced most effectively. The material in the guide should be easy to digest with compelling charts and graphics. The guide could include protections under the Bill Emerson Good Samaritan Food Donation Act which protects pantry staff and volunteers from liability.

Informational Poster

Key information from the guide can be distilled into a poster that can be hung as a reference in high traffic areas within the pantry. The poster is a complement to the more comprehensive guide; it should be easy to read and visually appealing and produced in multiple languages.

One Page Information Sheet for Clients

REPLENISH could create a one page information sheet for clients that contains information about date labeling and food safety. The information sheet should be clear, concise, easy to understand, and translated into multiple languages. One pagers can be distributed to clients during food pantry operational hours and other community engagement opportunities. Assuming the initial date labeling information sheet is successful, REPLENISH can create additional informational sheets for clients with food waste reduction techniques.

Training Materials for Pantries

REPLENISH could adapt the food date label informational materials described above into an easily-digestible training curriculum. REPLENISH can provide the curriculum to pantry leadership to conduct their own in-house training and/or host a training workshop for pantries and volunteers. Training and curriculum could be aimed at

debunking misconceptions about date labels and can include supplemental material such as surveys or quizzes about food date label knowledge. Furthermore, the training could focus on implementing techniques to distribute food based on safety.

Webpage with Centralized Information and Resources

Any resources implemented from those listed above should be easily accessible to pantry leadership. REPLENISH could develop a “one-stop shop” on the Middlesex County webpage for food date labeling and food waste reduction resources. This webpage could include digitized versions of the educational materials discussed above that pantry staff can easily access, print, and disseminate. The site can also include links to external articles with information about food date labeling and food waste, an adaptive list of local accessible experts, and key information on how to access county government-led, commercially-provided, and/or “do-it-yourself” composting resources. Lastly, the webpage could compile any links, listservs, or social media pages where pantry management would access food donations from other pantries and idea sharing venues, so that community-building can be more effortless.

Support passage of the Food Date Labeling Act

Policymakers and advocates have been working to address the issue of non-standard food date labeling and resulting food waste through legislation. An initial attempt to standardize food date labels occurred in 2016 with the introduction of the Food Date Labeling Act to the U.S. House of Representatives (Actions - H.R.5298, page 1). No further action was taken on this bill, but it was reintroduced again in July of 2019 and most recently on December 7, 2021. The most recent version of The Food Date Labeling Act of 2021 (H.R. 6167) seeks “to establish requirements for quality and discard dates that are, at the option of food labelers, included in food packaging, and for other purposes” (Text - H.R.3981, p. 1). U.S. Reps. Dan Newhouse (R-WA) and Chellie Pingree (D-ME) co-sponsored this bill. Standardizing food date labels would work to address confusion around food date labels and reduce food waste.

Conclusion

The focus of this report is food waste and food pantry date labeling knowledge and training for pantry staff and volunteers and how this information is translated to clients. In our interviews with fourteen pantries, we identified trends across pantries and provided recommendations that support pantry operations and food date flexibility. We found that pantries generally have a baseline understanding that food date labels do not convey food safety information but they still rely on the labels due to ample concern for the health of clients as well as legal action and concerns about client dignity. Although there are challenges in client education on this topic, pantries demonstrated strong, established relationships with their clients. Our research confirms the importance of food inventory management systems, education curriculums on food waste and food date labels for clients, and pantry staff and volunteer training to reduce food waste.

Though not the focus of our research, we also found that linguistic and cultural awareness is central to the efficacy of pantry operations and client education. Our research highlighted the diverse client base at most Middlesex pantries. Communication between pantry staff and volunteers with clients is the backbone of all pantry operations, so establishing a multilingual and culturally diverse network is needed to reduce food waste. Additionally, comprehensive resources and training curriculums for pantry staff, volunteers, and clients is critical to reducing food waste from the uncertainty of food date labels. However, this must be supplemented with proper food waste management via composting spoiled foods both on the pantry and county levels.

Further research could analyze how clients interact with food date labels and food waste after leaving the pantry. This would be critical to learning how individual behaviors play into the larger issue of food waste. Understanding food waste at the client level is essential for gaining clarity on this issue generally and also as it relates to differing behaviors. New Jersey is one of the most diverse states, therefore getting a better picture of the cultural landscape in terms of food consumption and food waste will allow for the state and counties to implement food waste policies that are shaped directly by consumer behaviors.

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