



# NY FOOD 2025

*Capturing the State of Food Access  
in NYC During COVID-19 Recovery:  
Insights on Preparing for the Next Crisis*



**HUNTER COLLEGE  
NEW YORK CITY  
FOOD POLICY CENTER**



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# Capturing the State of Food Access in NYC During COVID-19 Recovery: Insights on Preparing for the Next Crisis

## Acknowledgements

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## New York Food 2025

This research brief is one part of a 5-part series of research briefs published as [New York Food 2025](#), a collective pursuit by the Hunter College NYC Food Policy Center, the Laurie M. Tisch Center for Food, Education & Policy, and the CUNY Urban Food Policy Institute to examine the effects of the pandemic on New York City's food policies and programs and propose specific policy measures the NYC Mayor and City Council can consider and implement to build a stronger, healthier, more just, and sustainable food system in New York City. This series of briefs builds on our group's earlier report, [New York Food 20/20: Vision, Research, and Recommendations During COVID-19 and Beyond](#), on the impact of the pandemic on New York City's food system and food workforce.

## Background

Food insecurity and difficulties accessing high quality, nutritious food are issues that have impacted New York City residents ("New Yorkers") since long before the onset of the COVID-19 pandemic. For many New Yorkers, the uncertainties associated with the virus' unpredictable nature and its impact on daily life have exacerbated the already strained system of New York City's food safety net.

Today, emergency food continues to be a lifeline for certain populations, such as low-income households with children, minorities, immigrants, older adults, people living in high poverty neighborhoods, and those who are unemployed.<sup>1</sup> Additionally, New Yorkers are paying more for grocery and supermarket food purchases; according to the USDA's 2022 Food Price Outlook, grocery store or supermarket food prices increased by 10% from March 2021 to March 2022 and are predicted to increase another 5 to 6 percent in 2022.<sup>2</sup>

Local emergency food providers and federal food assistance programs have served as an indispensable resource for New Yorkers in need. GetFoodNYC, a COVID-19 food-relief program, distributed over 225 million emergency home food deliveries and grab-and-go meals from March 2020 through September 2021.<sup>3</sup> While the number of residents receiving emergency home food deliveries declined as the pandemic progressed, there were still 37,435 New Yorkers receiving meals in September 2021, the final month of the program.<sup>4</sup>

Additionally, the Supplemental Nutrition Assistance Program (SNAP) and other federal aid programs were expanded or created in response to the pandemic.<sup>5,6</sup> This includes the Supplemental Emergency Allotment (EA), a supplement to SNAP-receiving households' normal monthly benefit amount,<sup>7</sup> and the Pandemic Electronic Benefit Transfer (P-EBT), a nutrition benefit provided to children who would have received free or reduced-price meals if their schools were open.<sup>8</sup>

While programs such as GetFoodNYC, SNAP, and P-EBT provide a crucial safety net,<sup>9,10</sup> for individuals living in underserved communities who experience economic instability and food



The purpose of this study was to better understand the unprecedented challenges related to healthy food access and food security experienced by residents living in underserved communities in New York City (NYC) during the COVID-19 pandemic using a mixed methods approach.”

insecurity at disproportionate rates,<sup>11,12</sup> there remains an urgent need to address ongoing food access issues and to prepare for future crises.

## Purpose

The purpose of this study was to better understand the unprecedented challenges related to healthy food access and food security experienced by residents living in underserved communities in New York City (NYC) during the COVID-19 pandemic using a mixed methods approach. This included qualitative data from Photovoice interviews and Twitter posts as well as quantitative data from food pantry opening/closing figures.

## Study Overview

### Photovoice Interviews

**Study Participants:** We recruited English- and Spanish-speaking adults (≥18 years) who were either residing in underserved NYC communities (See Appendix A for a list of communities and reasoning for their inclusion) or who were currently using (or previously used) some form of food assistance (e.g., SNAP, food pantries, free home deliveries). Potential participants had to have access to a device to take photos (e.g., a mobile phone or digital camera), share these photos with the researchers, and have access to a device that would allow them to participate in a videoconference (e.g., a mobile phone or computer). Information about the study was posted online through the Hunter College New York City Food Policy Center weekly newsletter as part of recruitment. The study’s 20 participants (18 women; 1 man; 1

individual who declined to identify gender) represented all five boroughs and ages ranged from 22 to 74 years. Six (30%) self-identified as Latino/Hispanic; nine (45%) Black/African-American, two (10%) White/Caucasian, and three (15%) as Other. Five (25%) participants reported having a high school education, while the remaining (75%) reported having a college or graduate/professional degree. Nine participants (45%) reported that their household was receiving SNAP benefits. Appendix B provides further details regarding the participants.

**Data Collection:** The community-based participatory research method of *Photovoice* was used to explore and visually document personal experiences related to food insecurity. Photovoice is a research method that involves giving participants an assignment which asks a question or series of questions. The three Photovoice assignments included three assignment questions, below:

- **Assignment 1:** “What helps me to eat healthy?” & “What stops me from eating healthy?”
- **Assignment 2:** “What’s needed in my own community to help improve food access or awareness around healthy food access?”
- **Assignment 3:** “Where do you see food waste happening?” & “How can we minimize food waste (either at home, organizational, farm level etc)?”

Participants are asked to take photos of any place, environment, and/or object they feel best responds to the assignment. For this study, participants were asked to take photos that answered questions related to healthy food access, food security, and food waste. Each participant’s photos then served as prompts for

a qualitative interview between the participant and a trained interviewer. Each participant was expected to complete three Photovoice assignments. A total of 59 interviews were conducted from July to September 2021 via a videoconference platform. The researchers received verbal consent from participants to use the photos they provided in this report. Interviews were coded for relevant themes, and subsequently analyzed to capture the most salient issues.

## Twitter Posts

In addition to the Photovoice interviews, we conducted a social media listening study to understand social media conversations about food security during the pandemic. Using Talkwalker, a social media listening platform, we retrieved user posts on Twitter (“Tweets”) that contain keywords related to various topics of food access, food security, and food purchasing habits from March 1, 2020, until March 31, 2021, in New York City. Examples of keywords used in the initial search:

- “food stamps”
- “wic”
- “snap benefits”
- “farmers market”
- “community fridge”
- “healthy food”
- “food insecurity”

Spam, porn, and irrelevant Tweets were removed in a rigorous data cleaning process.

This included filtering out Tweets that contained certain keyphrases and hashtags that were not associated with food access and food insecurity. For example, in searching for Tweets that talked about the Supplemental Nutrition Assistance Program (SNAP), many Tweets were retrieved about Snapchat (a social media company whose stock exchange ticker symbol is \$SNAP).

Using a natural language processing technique called Latent Dirichlet Allocation topic modeling (LDA), we organized these posts into themes to offer insights and better understand these social media conversations.

## Food Pantry Figures

In response to the COVID-19 pandemic, the Hunter College NYC Food Policy Center (“the FPC”) developed its [NYC Neighborhood Food Resource Guides](#) for each of NYC’s 59 community districts to connect New Yorkers in need with food resources in their neighborhood. In maintaining these guides, the FPC collected food pantry opening and closing data between August 2020 and February 2022. The FPC supervised a team of volunteers who made daily phone calls to hundreds of food pantries across the five boroughs to determine their status (open/closed/unknown). More than 400 volunteers made over 30,000 calls to each food pantry and soup kitchen listed in the Neighborhood Food Resource Guides, obtaining information about each pantry’s status (open/closed/unknown), hours of operation,





and any additional relevant information. Each food pantry was called by a volunteer once every six weeks to confirm open/closed status and hours of operation.

This data was supplemented with information about food pantry status provided by partners [City Harvest](#) and [Plentiful](#). Data included the total number of pantries that were open, closed, and of unknown status, organized by borough. The most up-to-date US Census data was used to determine the number of residents in each borough.<sup>13</sup> NYC Open Data was used to identify the percent of residents living in poverty (up to 100% of NYCgov threshold) or near poverty (up to 150% of NYCgov threshold).<sup>14</sup> This information was stored in the spreadsheet-database platform AirTable and updated by teams of FPC-supervised volunteers. Calls were not made by volunteers between the end of November 2021 and January 2022 due to the holidays.

Because there are multiple sources of data, measures were taken to identify and eliminate duplicates to provide accurate data regarding the status of food pantries in these neighborhoods. It is important to note that additional food pantries might have been open; however, the FPC data only includes food pantries and soup kitchens that could be contacted via phone calls. Data was imported to IBM SPSS Statistics Version 26 for analysis. Frequencies were used to determine and graph the number of open, closed, and unknown statuses by borough. For the analysis by borough

and neighborhood, crosstabs were used to identify the number of open food pantries within each category.

## Results

### Photovoice Interviews

When analyzing the interviews, we found several predominant themes related to food access in NYC. This includes a number of significant barriers and facilitators experienced by vulnerable residents, as well as issues related to food quality, prices, and lack of awareness of existing resources. Some participants also noted that the COVID-19 pandemic made many of the issues identified worse. These findings underscore the need to examine areas in NYC's food system safety net that could be vulnerable to disruption during a future crisis.

### Barriers to Food Access

Throughout our interviews, **food shortages** emerged as one of the most significant barriers to food access during the height of the COVID-19 pandemic lockdowns in the spring of 2020. Participants reported food shortages both at retail establishments (e.g., bodegas and supermarkets) and food pantries, leading many people to make do without certain foods to which they ordinarily would have access. At retail establishments, participants reported having to compromise in price, quality, and distance traveled to purchase foods. Many were confronted with empty shelves: as one participant recalled,

Certain areas are vacant for a while, like the bread aisle was just like vacant... it was so strange.

– 63 year old female, Flatbush/Ditmas Park West (Brooklyn), Interviewed 7/30/21

Supply chain issues, combined with food hoarding, led to stores placing limits on some basic products.<sup>15,16,17</sup> One participant noted that a grocer's limit on water purchases caused her soda consumption to increase, saying:



I just felt that there was more soda than water... During the pandemic...maybe you're limited to like four bottles, five bottles, the big jug, or a twenty four ounces one... You know, it was pretty rough... I was lucky to... grab even one [bottle of water].

—50-year-old woman, Kingsbridge Heights/Bedford (Bronx), Interviewed 7/28/21.

At food pantries, a few participants concluded that the food shortages were the result of poor rationing, where latecomers were often not accounted for. Extraordinarily long lines and burdensome waiting times further amplified the issue (see Figure 1). One participant said:

First people are given a lot of everything... if you are person number 15 or 20, you really get very, very little... and then you walk around and find things that has been thrown in the street because they don't take it.

—36-year-old woman, Melrose/Mott Haven (Bronx), Interviewed 7/13/21 (see Figure 2).

The **increasing cost of food** was another barrier frequently reported by participants. Items of concern that participants repeatedly mentioned include bread, eggs, and meat. With these foods surging in price, participants described methods to “stretch your dollar,” including eating less of (or completely omitting) certain foods from their grocery lists. Compounding this issue was food price inflation occurring across the country.<sup>18,19</sup> As one participant recalled:

I notice the prices of everything have gone up really, really high. A loaf of bread is almost five dollars. A piece of chicken, chicken wings, a pound of chicken wings is almost twelve dollars. It's ridiculous. I'm eating less of everything because the prices are higher.

—62-year-old woman, Port Richmond (Staten Island) Interviewed 8/6/21

Participants also repeatedly noted **poor food quality** in grocery stores. Specifically, participants spoke about issues with food freshness and the nutritional content of ultra-processed foods for months after the pandemic's first surge. Participants also described the wilted produce, damaged food packaging, freezer

burnt food products, and moldy foods available at grocery stores and supermarkets. Similar issues of poor food quality were noted at many food pantries. Participants also expressed concerns related to the nutritional quality of foods distributed by food pantries. They reported that nutrient-dense foods (relied upon by certain medically at-risk populations) were difficult to access at food pantries.



**Figure 1.** Unattended empty carts waiting in line outside a food pantry



**Figure 2.** Bananas from a food pantry left on top of trash bin



## Facilitators to Food Access

When asked about facilitators to healthy food access, participants mentioned weekly sales, geographic convenience, and acceptance of EBT cards at retail food establishments. Community programs such as community gardens, community fridges, and food pantries were also identified as key facilitators in supporting food access.

Many participants voiced strong support for **community gardens**. Gardens helped participants access fresh produce while simultaneously serving as communal social spaces during the social isolation of the pandemic (see Figure 3). One participant reflected on the social value of gardening:

Usually when I grow food, I share what I grow with people...if you're around when I harvest, I share it with you. And so, in sharing with you, you share with me how you're going to eat it...so., just the—the emotional attachment that you get from eating healthy: it wasn't there...And not to...be able to have discussions around food and how that makes us healthy. [Pause] It was just like a missing factor in my life.

—31-year-old woman, East Tremont (Bronx),  
Interviewed 7/29/21

Participants also noted that community gardens provide an opportunity to grow culturally relevant produce that is often unavailable or unaffordable at grocery stores in their neighborhoods.



**Figure 3.** Community garden started by a tenant in the unused outdoor space of an apartment building

**Community fridges**, which are often neighborhood-led projects,<sup>20</sup> were frequently cited by participants as helpful resources for accessing healthy food. Participants reported that community fridges provided a fair selection of fresh produce and other healthy staple foods (see Figure 4). However, some participants raised concerns about the cleanliness of fridges: there were complaints of some fridges being “very dirty” or infested with “rats eating the food.” Other participants expressed difficulty locating community fridges near them due to a lack of information available online or in person, a lack of signage identifying fridges, and poor lighting in the area around fridges.

Many participants reported utilizing food pantries throughout the pandemic; some were new to food pantries, having never used them before the onset of the pandemic, while others reported using food pantries even before the pandemic. Participants reported noticing increased utilization of pantries by the community. One participant mentioned the difference in food access at pantries before and during the pandemic:



**Figure 4.** A well-stocked community fridge filled with fresh vegetables, shared by a participant from Canarsie, Brooklyn

Let's say they were handling 200 people a week. Then during COVID, they got 500 people a week, you know, and some of them, you know, they would just put a sign up and say, we're closed. We're out of food...

—65-year old woman, Broad Channel/Rockaway (Queens), Interviewed 8/16/21

Some participants noted negative experiences when visiting food pantries. Complaints included receiving unhealthy foods, waiting in long lines, and interacting with pantry staff, who had appeared tired and frustrated with the situation. **Mobile food pantries**, on the other hand, were praised by participants as an innovative and convenient way to reach neighborhoods with low access to conventional food pantries, providing “food that’s accessible.”

Communication networks emerged as another facilitator to healthy food access. **Word-of-mouth** communication was noted as one of the most efficient means of circulating information about food resources throughout a community. Digital platforms also played a significant role in facilitating communication. **Digital and communications apps**, such as WhatsApp (an online instant messaging service), and **social media platforms**, such as Instagram, provided online spaces for community members to exchange information about food availability and stay updated on rapidly changing issues. Participants reported that these digital and communication resources were essential in providing information that would otherwise be unknown or inaccessible to them, including food pantry hours of operation, free grocery distribution events, and sales at local grocery stores.

STATE OF NEW YORK  
OFFICE OF TEMPORARY AND DISABILITY ASSISTANCE

REQUEST: February 10, 2021

In the Matter of the Appeal of  
[REDACTED]

from a determination by the New York City  
Department of Social Services

DECISION  
AFTER  
FAIR  
HEARING

**JURISDICTION**

Pursuant to Section 22 of the New York State Social Services Law (hereinafter Social Services Law) and Part 358 of Title 18 NYCRR (hereinafter Regulations), a fair hearing was held on June 24, 2021, in New York City, before [REDACTED], Administrative Law Judge. The following persons appeared at the hearing:

For the Appellant  
[REDACTED]

For the Social Services Agency  
[REDACTED]

**ISSUE**

Was the Agency's determination, dated December 7, 2020, not to provide the Appellant household with SNAP benefits after the household's certification period expired because the Appellant failed to timely recertify eligibility correct?

**FINDINGS OF FACT**

An opportunity to be heard having been afforded to all interested parties and evidence having been taken and due deliberation having been had, it is hereby found that:

1. The Appellant was receiving SNAP benefits.
2. By Notice of Expiration/Recertification for Supplemental Nutrition Assistance dated December 7, 2020, the Agency notified the Appellant that "your SNAP benefits will end

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F66 CENTRALIZED MAIL UNIT  
PO BOX 29008  
BROOKLYN, NY 11202-9816

NOTICE OF DECISION ON YOUR  
SUPPLEMENTAL NUTRITION ASSISTANCE.

SI USTED DESEA RECIBIR NOTIFICACIONES FUTURAS  
EN ESPAÑOL, POR FAVOR PONGASE EN CONTACTO  
CON SU TRABAJADOR(A).

NOTICE NUMBER: [REDACTED]	DATE: December 7, 2020	CASE NUMBER: [REDACTED]
OFFICE: [REDACTED]	UNIT: [REDACTED]	WORKER: [REDACTED]
UNIT OR WORKER NAME: [REDACTED]		TELEPHONE NO.: [REDACTED]

<b>AGENCY TELEPHONE NUMBERS</b> GENERAL TELEPHONE NO. FOR QUESTIONS OR HELP: 718-722-8013 OR Agency Conference: 718-637-2754 Fair Hearing information and assistance: 718-637-2754 Record Access: 718-637-2754 Child/Teen Health Plan: 718-557-1399	CASE NAME / AND ADDRESS [REDACTED]
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If you are blind or seriously visually impaired and need notices or other written materials in an alternative format (large print, audio, or data CD, or Braille), contact your local social services district.

**SUPPLEMENTAL NUTRITION ASSISTANCE**

Your SNAP benefits will end on December 31, 2020 unless you complete the below three steps.

Hurry! Your time to recertify for SNAP benefits is running out! We have not heard from you. You will experience an interruption in benefits if you do not complete all three steps listed below.

Here's how you do it:

**STEP 1: SUBMIT YOUR SNAP RECERTIFICATION FORM**

To avoid an interruption of benefits, complete and submit your signed recertification application as soon as you receive this letter. Submit online today to save yourself mail processing time.

Go to: [www.nyc.gov/accessshra](http://www.nyc.gov/accessshra)

Don't have access to a computer? See other ways to submit your recertification form on the next page.

CONTINUED ON [REDACTED]

**Figure 5.** (Left) A notice informing a participant about the discontinuation of her SNAP benefits. (Right) A notice containing the Fair Hearing decision on the participant's SNAP benefits case.





**Some participants noted negative experiences when visiting food pantries. Complaints included receiving unhealthy foods, waiting in long lines, and interacting with pantry staff, who had appeared tired and frustrated with the situation.**

Forty-five percent (9 out of 20) of our participants received **SNAP** (food assistance) benefits. However, our interviews revealed that some participants experienced obstacles in obtaining these benefits. The complicated SNAP enrollment process is a major challenge, with applicants feeling burdened by the extensive list of eligibility criteria and lengthy application. The annual recertification process also caused issues, with one participant sharing her experience of losing SNAP benefits due to complications related to recertification:

Because of COVID...you didn't go to the SNAP center to recertify for SNAP benefits or food stamps, and you had to do everything with the New York City app. So, you took pictures of all your documents and you uploaded it to the app...I'm not the only person this happened to..., some of the documents weren't received in the office, and so they discontinued your food stamps. This was on December 31st [2020], my food stamps were discontinued...to this date, they still have not been reinstated. And today is August 9th [2021]... I presented my information to the judge and the judge ruled in my favor, and that was maybe a month ago or two months ago, but still no answer from the SNAP center.

—65-year-old woman, *Broad Channel/Rockaway (Queens)*, Interviewed 8/9/21

Two months after this participant's benefits were discontinued, she received a favorable decision in a [Fair Hearing](#) with the [Office of Temporary and Disability Assistance](#) (see Figure 5). Six months after this decision, she had still yet to have her benefits reinstated. In addition to the bureaucratic burdens, others conveyed that the social stigma attached to using SNAP might prevent some eligible individuals and households from applying at all.

### Social Media Listening

Approximately 2 million Tweets from March 2020 to 2021 were retrieved. Topic modeling was used to assist in the qualitative analysis of these Tweets. Topic modeling analysis identified certain themes about the use of benefits programs such as SNAP; similar to some extent to what we found in our Photovoice findings.

Increased and continued benefits were clearly needed by many New Yorkers throughout the pandemic. Many Twitter users acknowledged the need for SNAP benefits, but the application process resulted in delays in receiving funds, as noted by this post:

I'm running out of food with no hope in sight. Applied for snap benefits but haven't received anything, govt phone lines go straight to voicemail. Also this is probably the last month I'll be able to pay rent. Tried to drain my retirement but not vested enough to get money 🙄



**In every month from August 2020 to February 2022, Manhattan and Staten Island (the boroughs with the lowest percentages of individuals living in or near poverty) had the most open food pantries per 100,000 individuals living in or near poverty, whereas the Bronx (the borough with the highest percentage of individuals living in or near poverty) had the fewest.**

However, some Twitter users wrote about how helpful SNAP benefits were for them, particularly as benefits were expanded under the American Rescue Act.

#SNAP was a godsend for me. If you think you might qualify, don't waste time. APPLY. Having to ration food after my #eviction & yrs afterwards was one of the \*most\* painful aspects of being poor. #hunger #foodrationing #foodinsecurity

\$500 in food stamps is the highlight of the day

### Food Pantry Data

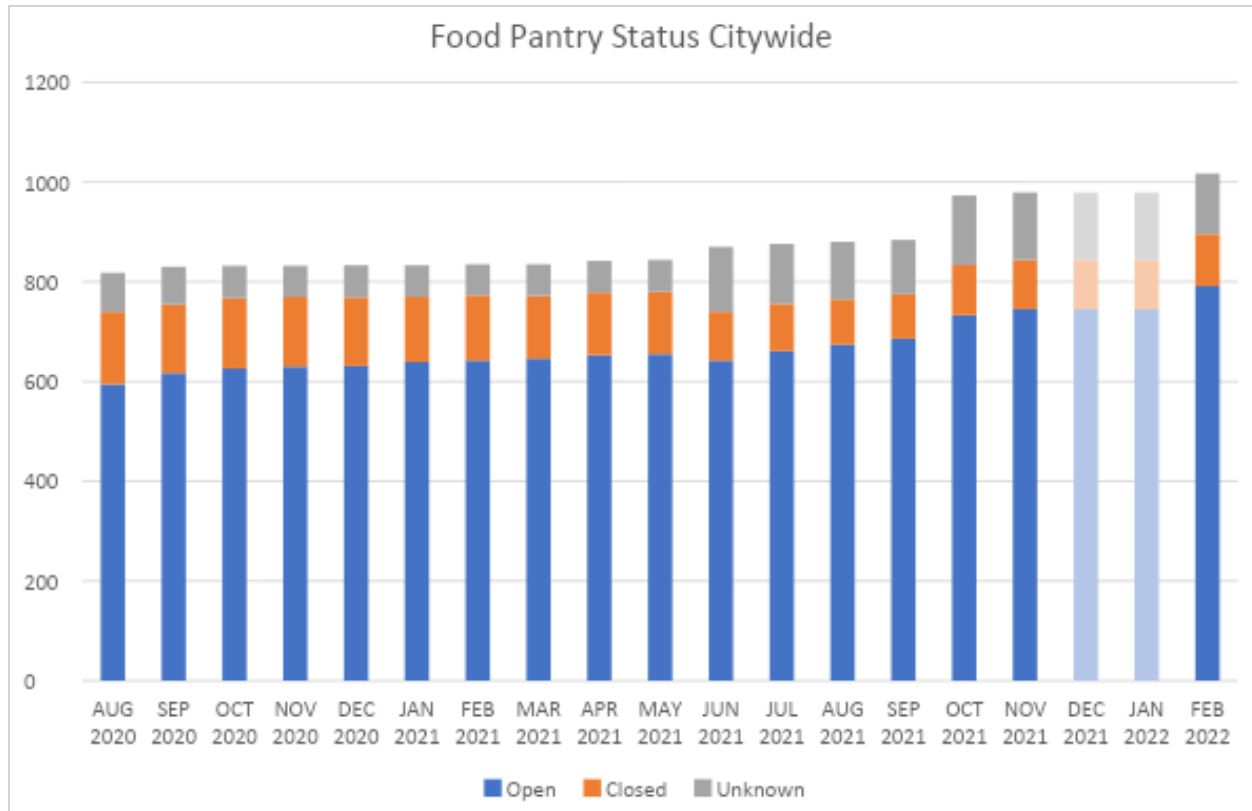
Data from January 2021 to February 2022 shows a net increase in open food pantries citywide during this time period (see Figure 6). The open or closed status of food pantries remained fairly consistent from August 2020 through September 2021, with a small decrease in open food pantries during June 2021. (Of note: due to methodological changes in data collection from one of the data partners, an increased number of pantries were included starting in October 2021. Therefore, there is an increased number of food pantries with unknown status starting at that time.)

Just under six hundred food pantries were open citywide in August 2021. By the end of February 2022, this number increased to nearly eight hundred. When compared to census data, this translates to one open food pantry per 5,773 individuals in or near poverty in August 2020 and one open food pantry per

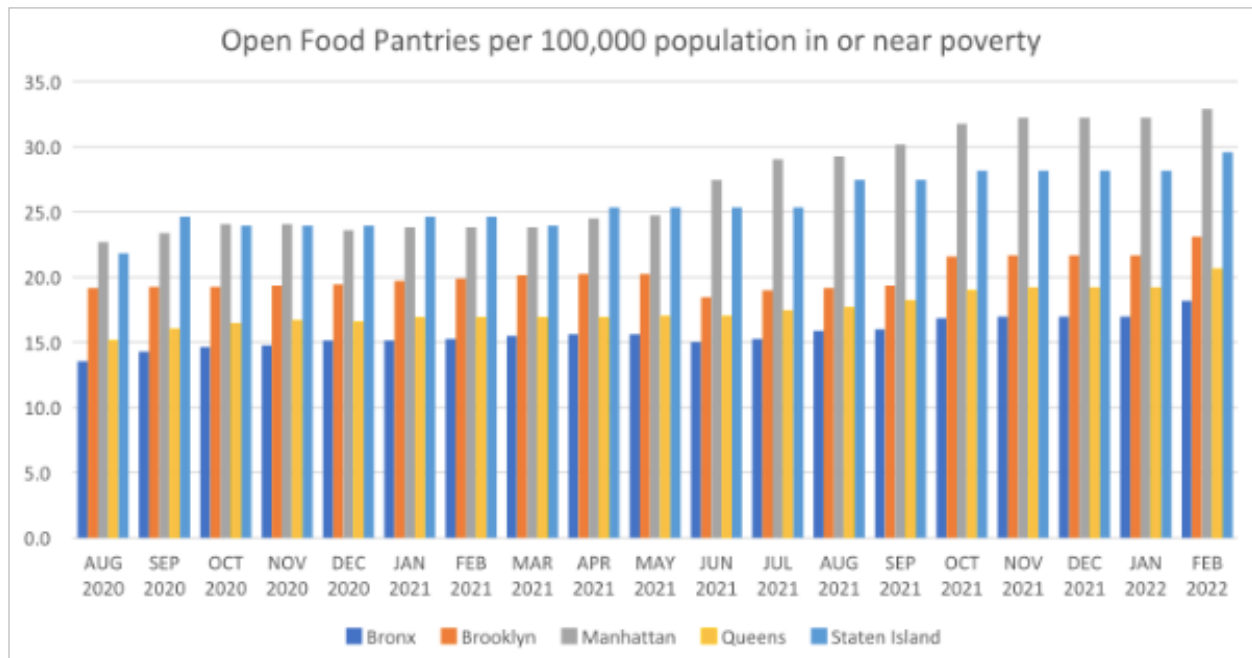
4,197 individuals in or near poverty in February 2022.<sup>21</sup> These numbers reflect the large increase in demand reported by many food pantries as a result of the pandemic.<sup>22</sup>

This data was also examined across the boroughs. Figure 7 presents the number of open food pantries per 100,000 individuals in or near poverty within each borough. The number of open food pantries increased from August 2020 to February 2022 across all five boroughs, but those food pantries which were open were not necessarily distributed equally across all five boroughs. In every month from August 2020 to February 2022, Manhattan and Staten Island (the boroughs with the lowest percentages of individuals living in or near poverty<sup>23</sup>) had the most open food pantries per 100,000 individuals living in or near poverty, whereas the Bronx (the borough with the highest percentage of individuals living in or near poverty<sup>24</sup>) had the fewest. Though the total number of food pantries increased citywide, the data shows that food access disparities continue to exist.





**Figure 6.** Distribution of open, closed, and unknown status of food pantries in New York City from August 2020 to February 2022. Note: No updates were made to the data from November 2021 to January 2022 due to the holidays



**Figure 7.** Open food pantries from August 2020 to February 2022 per 100,000 population living in or near poverty, by borough

## Conclusions

Through our analysis of multiple data sources, we found several key overarching themes related to facilitators and barriers to healthy food access in NYC during the pandemic. Federal, state, and local responses, including **SNAP**, were invaluable resources that people used to access food. Expanded SNAP benefit allocations, as well as P-EBT, provided New Yorkers with needed assistance to access food.<sup>25,26</sup>

The importance of **community-led initiatives** emerged as one of the predominant findings, as many of NYC's most vulnerable populations reported utilizing these services. **Food pantries, community fridges, and mobile food pantry trucks** (and the vital volunteers who help run these initiatives) were the frontline of defense against food insecurity during the height of the COVID-19 pandemic in the spring of 2020.

Many of these programs proved to be critical facilitators to healthy food access, including fresh fruits and vegetables, dairy products, and other important staples of a nutrient-rich diet. Our investigation also revealed that there are significant gaps in the current food system, such as a susceptibility to **food shortages** during times of crisis, **insufficient communication** regarding food pantry locations and hours, **lack of culturally appropriate food choices** in emergency food settings, and a **preponderance of highly processed packaged foods** available in these settings. In addition, our food pantry data highlights the extreme burden placed on local food pantries to support individuals and households in or near poverty, particularly in the highest need borough of the Bronx. Moreover, the **bureaucratic complexity of applying for and maintaining SNAP benefits** proved to be a barrier for many people in obtaining nutritious and affordable food.

Many Photovoice participants noted that food retailers such as **bodegas** and **neighborhood supermarkets** were valuable resources for ensuring food security in their communities due to geographic convenience, affordable prices (including regular sales), and acceptance of EBT cards. In addition, communication strategies such as **word-of-mouth, digital apps,**

**and social media platforms** proved to be highly effective tools for informing people about food resources available to them. However, in light of rising grocery costs due to ongoing supply chain issues, economic inflation, and the continued uncertainty wrought by the COVID-19 pandemic,<sup>27,28</sup> it is critical to increase government responses such as SNAP and strengthen NYC's emergency food system so it can withstand future crises.

## Limitations

Each of the three studies had certain limitations. To recruit participants for the Photovoice study, we posted recruitment announcements in the Hunter College NYC Food Policy Center's weekly e-newsletter, *NYC Food Policy Watch*. Potential participants had to have received and read the newsletter or known someone who could share the recruitment information with them. With 18 of our 20 participants identifying as female, our data does not reflect the food access experiences of a wide variety of people with different gender identities. Participants completed all Photovoice assignments and interviews between July and September 2021, so the barriers and facilitators to healthy food access experienced by participants might have been influenced by seasonal availability of food products. Furthermore, COVID restrictions and closures might have limited participants' ability to take photos within their food environment.

In the social media listening project, Tweets were collected only if they contained one or more keywords related to food access, and we limited the Tweets retrieved to users posting only from within NYC. While finalizing our search keywords, we decided to remove any posts that contained "snap" (lowercase) after reviewing a random sample of some of these posts and concluding that none of them were related to the Supplemental Nutrition Assistance Program ("SNAP", uppercase). There is also a limitation in using LDA as a topic modeling technique. While this technique is among the most commonly used topic modeling techniques in the literature, it was initially designed to be used with longer texts such as articles and is not optimal for use with short texts such as Tweets.



Food pantry data collection was limited by the FPC's volunteer schedule. Calls were not made by volunteers between the end of November 2021 and January 2022 due to the holidays, so the data for the months of December 2021 and January 2022 are static based on data from November 2021. In October 2021, one of the FPC's partners changed the methodology of how they collected data about food pantry status, which resulted in an increased number of pantries unknown to be open or closed.

### Implications for Policy

During the COVID-19 pandemic, community-based and government-sponsored programs worked diligently to address the growing need for food across NYC. As demand for emergency food and other forms of food assistance soared, Grab-and-Go meals, SNAP, emergency food deliveries, local food pantries, community gardens, and community fridges provided a lifeline to New Yorkers facing food insecurity. Still, the COVID-19 pandemic brought to light the urgent need to strengthen our food system. Through the analysis of multiple data sources, we have identified numerous challenges related to food access for New Yorkers from different communities. Addressing these challenges is crucial to building a resilient food system that can respond to the urgent needs of New Yorkers during times of crisis.

Policy recommendations include:

- Build a multilingual, citywide **communication infrastructure** that includes **word-of-mouth** and **digital media platforms** (including social media). **Community stakeholders** can be leveraged to strengthen word-of-mouth communication networks. Social media platforms such as WhatsApp can be used to disseminate information about food resources to New Yorkers quickly and broadly. Strengthening communication pathways during times of non-crisis can lead to a more resilient, adaptable food system in times of crisis.
- Increase funding and resources for **food pantries** to expand and provide **culturally appropriate foods** in neighborhoods with high percent of population living in or near poverty. This includes expanding access to **mobile food pantries** in underserved communities and supporting initiatives that distribute culturally relevant, familiar foods to NYC's diverse communities.
- Streamline the **SNAP enrollment and recertification** process. This can be done by promoting the use of **digital tools** such as the Access HRA mobile app and expanding its functionality to allow individuals to apply for SNAP benefits on the app.
- Engage **community members** and institutions to work towards building a food system that is sustainable, culturally responsive, and coordinated. **Local food pantries, community gardens, and community fridges** have been an effective response to the widening need for food during the COVID-19 pandemic. However, many of these efforts are siloed. There needs to be a more consistent, connected, and coordinated effort amongst neighborhood and community organizations. Building a robust, community-based **network of volunteers** to support these programs is indispensable in addressing increased food insecurity during times of crisis. Local policymakers can mobilize community members, local businesses, and stakeholders to address food insecurity, especially during emergencies.



## Appendix A: Underserved Communities in NYC

The underserved communities included as a potential qualifier for study participation were determined by the [NYC Poverty Tool](#).<sup>29</sup> Community districts at 55 percent or more of residents living in or near poverty are defined as “underserved” for the purposes of this study.

Table 1. Underserved Communities	
Hunts Point/Longwood	Bronx-2
East Harlem	Manhattan-11
Melrose / Mott Haven	Bronx-1
Belmont / East Tremont	Bronx-6
Morrisania / Crotona	Bronx-3
Brownsville	Brooklyn-16
Fordham / University Heights	Bronx-5
Elmhurst / Corona	Queens-4
Kingsbridge Heights/Bedford	Bronx-7
Morningside Heights / Hamilton Heights	Manhattan-9
Highbridge / Concourse	Bronx-4
Borough Park	Brooklyn-12
Central Harlem	Manhattan-10
Sunset Park	Brooklyn-7
East Flatbush	Brooklyn-17
Bushwick	Brooklyn-4
East New York / Starret City	Brooklyn-5
Stapleton / St George	Staten Island-1
Washington Heights / Inwood	Manhattan-12
Jamaica / Hollis	Queens-12
Broad Channel / Rockaway	Queens-14
Bedford / Stuyvesant	Brooklyn-3



## Appendix B: Demographic Characteristics of Participants

Table 2. Demographic Characteristics of Photovoice Project Participants	
Characteristic	Total frequency
<b>Age (years), mean (SD)</b>	43.8 (15.8)
<b>Range</b>	52
<b>Gender, n (%)</b>	
Female	18 (90%)
Male	1 (5%)
Declined to answer	1 (5%)
<b>Marital status, n (%)</b>	
Single	15 (75%)
Married	4 (20%)
Window/Widower	1 (5%)
<b>Live alone, n (%)</b>	
Yes	5 (25%)
No	15 (75%)
<b>Household size, n (%)</b>	
2 people	5 (33%)
3 people	3 (20%)
4 people	1 (7%)
5 people	6 (40%)
<b>Race, n (%)</b>	
Latino	6 (30%)
Black/African American	9 (45%)
White/Caucasian	2 (10%)
Other	3 (15%)
<b>Lives in NYCHA, n (%)</b>	
Yes	3 (15%)
No	17 (85%)
<i>Continued on following page</i>	

**Table 2. (Continued)**  
**Demographic Characteristics of Photovoice Project Participants**

Characteristic	Total frequency
<b>Highest Level of Education, n (%)</b>	
High School	5 (25%)
College	9 (45%)
Graduate/Professional Degree	6 (30%)
<b>Receiving SNAP, n (%)</b>	
Yes	9 (45%)
No	11 (55%)
<b>Neighborhood, n (%)</b>	
<b>Bronx</b>	<b>5 (25%)</b>
Melrose/Mott Haven	1 (5%)
Highbridge/Concourse	1 (5%)
Belmont/East Tremont	1 (5%)
Kingsbridge Heights/Bedford	1 (5%)
Throgs Neck/Co-op City	1 (5%)
<b>Brooklyn</b>	<b>6 (30%)</b>
Fort Greene/Brooklyn Heights	1 (5%)
Bedford/Stuyvesant	1 (5%)
Flatbush/Midwood	2 (10%)
East Flatbush	1 (5%)
Canarsie/Flatlands	1 (5%)
<b>Manhattan</b>	<b>3 (15%)</b>
Clinton/Chelsea	1 (5%)
Morningside Heights/Hamilton Heights	1 (5%)
East Harlem	1 (5%)
<b>Queens</b>	<b>5 (25%)</b>
Jackson Heights	1 (5%)
Jamaica/Hollis	1 (5%)
Broad Channel/Rockaway	3 (15%)
<b>Staten Island</b>	<b>1 (5%)</b>
Stapleton/St. George	1 (5%)

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