RESEARCH
Research Paper

"Come with us for a week, for a month, and see how much food lasts for you:" A Qualitative Exploration of Food Insecurity in East Harlem, New York City

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ABSTRACT

Background Food insecurity refers to uncertain access to food on a consistent basis and the stress experienced by families who worry about having sufficient resources to provide balanced meals in their households. Food insecurity has a disproportionate influence on people of color. A robust body of evidence links food insecurity to poor health outcomes.

Objective To document experiences of food insecurity among linguistically and ethnically diverse residents of the East Harlem neighborhood of New York City by exploring the ways in which food availability and cost intersect with household budgets, personal preferences, and shopping strategies.

Design In-depth qualitative interviews were conducted with adult residents of New York City's East Harlem neighborhood to provide insights about the links between food insecurity, well-being, and quality of life.

Participants/setting Thirty-seven adult residents of East Harlem were recruited through purposive sampling. Eligibility requirements included living in an East Harlem zip code (10029 or 10035); being aged 18 years or older; being the main food shopper and food decision-maker in the household; and speaking English, Spanish, or Mandarin Chinese. The study was conducted from February to May 2018.

Statistical analyses performed Interviews were analyzed using a grounded theory approach. Codes were organized into broad thematic topics and cross-case analyses were conducted.

Results Participants discussed overall perceptions of food insecurity and seven themes related to the challenges of and strategies for coping with food insecurity: intermittent vs chronic food insecurity, shopping and budgeting strategies, pantries as a vital community resource, social support systems, food insecurity and health, frustration with an unjust system, and pride in "making it work."

Conclusions To manage food insecurity, many study participants carefully managed food spending, dedicated substantial time to visiting stores and accessing food pantries, and relied on a public benefits cycle that left many without sufficient financial resources at the end of each month.
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FOOD INSECURITY REFERS NOT ONLY TO UNCERTAIN access to food on a consistent basis, but also to the stress experienced by families who worry about having sufficient resources to provide nutritionally balanced meals in their households.[1,2] According to 2019 data, food insecurity affects 10.5% of households in the United States.[3] The severity and duration of food insecurity has deepened over the past decade and disproportionately impacts non-Hispanic Black, and Latinx persons compared with non-Hispanic Whites.[4-9] Whereas the empirical data on food insecurity among Asian Americans is limited, studies suggest that some Asian-American subgroups, such as people who are nonnaturalized/legal permanent residents and those who are members of certain ethnic subgroups, may be at higher risk for food insecurity than aggregate data for this diverse population would suggest.[6-9] Together, these data provide a vivid example of the profoundly negative influence of structural racism on health, social, and economic outcomes in communities of color.[10-12] Structural racism refers to the many ways in which racism is embedded in local, state, and

federal laws, policies, and practices, oppressing communities of color and providing advantages to people who are White and non-Hispanic.[10,13,14] As a result of this systematic exclusion, people of color are more likely to live in poverty, have unstable housing, live and work in unsafe conditions, and less likely to have access to quality education.[15-17] In addition, striking differences in chronic disease prevalence and outcomes by race and ethnicity persist across the nation, with Black and Latinx individuals having poorer outcomes for hypertension, type 2 diabetes mellitus, high cholesterol levels, and human immunodeficiency virus than Whites.[18,19] Food insecurity exacerbates outcomes related to these conditions.[20] During the past 2 decades, data linking food insecurity with diet-related diseases have fostered an increasingly closer alignment between the public health and antihunger communities, as public health researchers consider transdisciplinary structural approaches to improve food access and antihunger advocates develop interventions focusing on improving dietary quality as fundamental to increasing food security.[4]

In New York City (NYC), the Department of Health and Mental Hygiene (hereafter, Health Department) has examined food insecurity as part of its broader efforts to eliminate race-based health inequities through its Bureaus of Neighborhood Health (hereafter, Bureaus) in East Harlem, Central Brooklyn, and the South Bronx—neighborhoods with high rates of chronic disease and premature mortality.[21] The Bureaus employ a place-based approach to advance health equity and address social determinants of health (SDH), recognizing the need to eliminate race-based health disparities to advance the health of all populations.[22-25] These Bureaus are charged with seeking innovative solutions to the interrelated challenges of poverty, racism, and poor health outcomes, and developing programming that responds to local issues to advance health equity.[23] In East Harlem, the Bureau found high rates of food insecurity among English, Spanish, and Mandarin Chinese (hereafter, Mandarin) speakers who participated in Bureau programs and identified the need to better understand this issue to inform program planning and respond to community needs. This need was aligned with the broader Health Department vision that every New Yorker will live in a thriving neighborhood with equitable access to resources that help support healthy individuals and communities.[26]

The objective of this study was to gain insights into the ways in which food availability and cost intersect with household budgets, personal preferences, and shopping strategies among English, Spanish, and Mandarin speakers who reside in East Harlem. This study was conducted to inform Bureau programming and policy recommendations to improve food security for neighborhood residents.

METHODS

The study was approved by the NYC Health Department's Institutional Review Board.

Setting

Known for its diversity, culture, and history of community activism, East Harlem is a dynamic neighborhood with a population of 124,000, of which 50% of residents are Latinx, 30% are Black, 12% are White, and 6% are Asian American.[21]

RESEARCH SNAPSHOT

Research Question: How do food insecurity, availability, and cost intersect with household budgets, personal preferences, and shopping strategies among ethnically and linguistically diverse residents of one New York City neighborhood?

Key Findings: In-depth interviews with 37 East Harlem residents who spoke English, Spanish, or Mandarin Chinese demonstrated that food insecurity was a complex and consistent factor in most participants' daily lives. Seven themes emerged related both to the challenges of living in food-insecure households and strategies for coping with food insecurity, including intermittent vs chronic food insecurity, shopping and budgeting strategies, food pantries, social support systems, health concerns, frustration with an unjust system, and pride in "making it work."

Nearly one-quarter of East Harlem residents are foreign-born, immigrating from Mexico, the Dominican Republic, and China, among other countries.[21] However, like many neighborhoods across the United States that are predominantly Black and Latinx, East Harlem has experienced decades of disinvestment and concentrated poverty as a result of racist policies.[11] East Harlem is the 12th poorest of 59 NYC neighborhoods, with 23% of residents living in poverty.[21] Nearly half (48%) of East Harlem residents pay more than 30% of their income for housing,[21] placing extreme pressure on household budgets and contributing to food insecurity. In 2014, an estimated 23% of East Harlem residents were food insecure and, in 2015, 27% participated in the Supplemental Nutrition Assistance Program (SNAP).[27]

In parallel to these inequities, East Harlem residents experience a high burden of chronic disease and a higher rate of premature mortality than NYC overall.[21] Comorbidities related to hypertension and diabetes—health conditions that have been explicitly linked to food insecurity and SDH[20]—are among the leading causes of premature mortality in East Harlem.[28]

Recruitment

The research team aimed to recruit a minimum of 30 participants across three language groups as well as adults aged 18 to 65 years, and aged 65 years and older (older adults) to ensure sufficient representation by the age and linguistic groups of interest, although recruiting continued until saturation was reached. These language and age groups defined the study subgroups. To be eligible, participants had to live in an East Harlem ZIP code (10029 or 10035), be aged 18 years or older, be the main food shopper and food decision maker in the household, and speak English, Spanish, or Mandarin. Purposive sampling was used to ensure sufficient numbers of participants in each subgroup. Study participants were recruited from the organization's programs, including a nutrition education program, a community health worker program, and a childhood asthma program, as well as from the neighborhood at large through flyers in English, Spanish, and Mandarin that stated the eligibility requirements and provided a telephone number for interested individuals to call. Flyers advertising the study were posted in community

centers, public housing lobbies, grocery stores, daycare centers, and other public spaces. Due to the possibility that Harlem Bureau program participants would be more connected to nutrition and food resources than other East Harlem residents, recruitment from these programs was limited to 30% of total participants.

Interested participants called the study coordinators, who conducted an eight-question screener by telephone to confirm eligibility and collect additional background information (eg, age, number of years lived in the neighborhood, and housing type). Participants were scheduled for an in-person interview or placed on a waitlist.

Interview Process

Interviews were conducted by four research team members at the Harlem Bureau offices and a senior center in East Harlem between February and May 2018. In addition to conducting interviews in English, one team member conducted interviews in Spanish and another conducted interviews in Mandarin. These research team members were trained in qualitative research techniques by an experienced qualitative researcher.

Before the interview, participants completed a 16-question self-administered survey that asked about health conditions, food insecurity, participation in public assistance programs (eg, SNAP), and additional demographic information. Risk for food insecurity was assessed using the validated two-question screener developed by Children's HealthWatch.[29]

Following completion of the survey, the interviewer reviewed the purpose of the study, explained that participation was voluntary, and obtained the participants' verbal consent to participate and be audio-recorded. The research team used a semistructured interview guide that focused on food shopping routines, barriers to shopping in East Harlem, challenges to food insecurity, food decision-making priorities, and health considerations. This article focuses on questions in the interview guide related to food shopping and food insecurity (see the Figure). Interviews lasted approximately 90 minutes and participants received a $20 gift card for participating.

Throughout data collection, researchers wrote memos to summarize interviews and reflect on emerging themes. The team met regularly during the interview period to discuss these early findings, including findings among the study subgroups. During data collection, differences emerged in the experiences of a subset of younger English-speaking participants who had young children in the household. This divergence in experience only occurred within the English-speaking subgroup; therefore, the team recruited additional participants with these characteristics to reach thematic saturation. When no new themes were identified, data saturation was reached, and data collection ended.

Data Analysis

Interviews were audio-recorded. The English and Spanish audio recordings were transcribed using an online transcription software. Spanish transcriptions were translated

Food shopping and decision making
Can you please tell me about the people who live in your home?
Please tell me about the places whether you regularly shop for food. How often do you shop at each location? What types of foods/groceries do you usually by at each store?
How do you usually get there? How long does it take you to get there from your home?
What do you like about the places where you shop for food? What don't you like?
What are important things you consider when deciding what foods to buy?
Can you walk me through how you plan your shopping? How do you get information about sales at the stores you shop at? How do you usually pay for groceries? Do you use SNAP[a] or WIC[b] to buy food?
When you shop for food, how many people do you typically shop for? Does anyone go to the store with you?
Is it ever hard to get the types of food that you want in your neighborhood?
Food security
Are there times when you have less money to buy food or the kinds of food you like? What do you do in those situations? How does what you eat change during those times?
Health
How would you describe your health?
(For people who discussed having a health condition): How has your health condition affected the food that you eat?
[a]SNAP = Special Nutrition Assistance Program.
[b]WIC = Special Supplemental Nutrition Program for Women, Infants, and Children.

Figure. Questions from a semistructured interview guide used to explore East Harlem, New York City, residents' experiences related to food shopping, decision making, food insecurity, and health.

internally, and all transcriptions were reviewed for errors, which were corrected by members of the research team. Mandarin audio recordings were simultaneously translated and transcribed into English by an external translation service. To develop a codebook, two researchers from the interview team independently coded one transcript using the interview guide domains and research questions to generate initial codes. They compared their coding and identified new additional codes using a grounded theory approach.[30] One researcher then used the codebook to code all transcripts in Atlas.ti[31] and added emerging codes as needed. The coder met regularly with the rest of the research team to discuss code application.

After initial coding, codes were organized into broader thematic topics. For the codes under each theme, cross-case analyses were conducted, with each respondent representing a case, to identify similarities or differences across participants. Analyses were organized by subgroup (eg, older adults, nonolder adults; English, Spanish, and Mandarin speakers) to identify within and across group patterns.[32] This approach provided a system for organizing and drawing meaning from a large amount of data. To validate research findings, all participants were invited to take part in small group discussions to explore initial results and determine whether the research team's interpretation of the data resonated with the participants. During that session, participants were encouraged to provide additional feedback, where needed, to support a nuanced understanding of the findings. Participants received a gift bag valued at approximately $20. Twenty-three participants attended one of the discussion sessions. Overall, participants agreed that the main results of the study captured their experiences and perspectives.

To protect participants' privacy, pseudonyms are used for their names when presenting the results.

RESULTS

Semistructured interviews were conducted with 37 participants, of which 18 were in English, 11 in Spanish, and eight in Mandarin. Twenty-five participants were classified as being at risk for food insecurity based on their responses to the validated screener (see the Table). However, several additional participants shared experiences indicative of occasional or chronic food insecurity, particularly through use of food pantries, though they were not identified as at risk for food insecurity based on the screening intermittent vs social support systems, food insecurity and health, frustration with an unjust system, pride in "making it work." An overview of food insecurity among study participants is presented followed by key findings of each of these themes.

Overview of Food Insecurity

Food insecurity was common among participants, but the term food insecurity was not used by respondents. Instead, food-insecure participants described "running out of" or "running low on" food, "when the budget's too tight," "when I don't have as much things as I really want to have," exhausting money or public assistance, and relying on a food pantry.

Food insecurity experiences were most frequently described by Spanish-speaking participants and English-speaking participants younger than age 65 years. For many Spanish-speaking participants, food insecurity was influenced by household composition. In many cases, one adult was the sole income earner, whereas another adult, often the mother, stayed home to care for young children. Some households also had a grandparent living in the home, and many such households lacked access to public assistance programs due to immigration status.

English-speaking participants younger than age 65 years had high SNAP participation and most were unemployed, with little additional income to put toward food. Many reported being unemployed due to a disability or a chronic health condition and received monthly disability income, whereas others were able to work and actively seeking employment. Among those who were employed, food insecurity experiences were not common, and they were less likely to use food pantries as an emergency or a regular source of food.

Current experiences with food insecurity were less common among English-speaking older adults. Some of these participants described experiencing hunger or witnessing chronic hunger in their communities as a child. Potentially shaped by these experiences, some of these participants expressed chronic worry about their food budget and shopping options, whereas others believed that food was more easily accessible now than at earlier times during their lives. Most did not go to pantries regularly, but some described receiving food from pantries earlier in their lives, when their household size was larger. For older adults who did have experiences with food insecurity, they were able to access a reliable social support system that provided them with meals and groceries when needed.

Among Mandarin-speaking respondents, perceptions of and experiences with food insecurity were similar across age groups. Most participants received SNAP and whereas most Mandarin-speaking participants visited a food pantry regularly, they did not believe that food insecurity was a significant issue in their households. Many first-generation immigrant participants in the Mandarin-speaking subgroup described experiences of more severe food insecurity and hunger while living in China. Comparatively, they believed that food was more readily available in the United States and that the issue of food insecurity was not critical for them.

Key Themes Related to Food Insecurity

Intermittent vs Chronic Food Insecurity. Although food insecurity was common among participants, its frequency varied. Some participants characterized food insecurity as an infrequent occurrence or an emergency situation, whereas for others it was a chronic challenge, often occurring every month. Across subgroups, chronic food insecurity was particularly common among SNAP participants and study participants with children. Especially among SNAP participants, chronic food insecurity followed a cyclical monthly pattern. SNAP participants felt more food secure at the beginning of the month when they received their monthly benefit. There was a greater amount and variety of food available and meals were larger. Participants also believed they had more choice of foods, including the ability to buy more healthy products like fresh fruits and vegetables. At the

Table. Demographic characteristics of 37 residents from East Harlem, New York City, participating in in-depth interviews about food shopping, decision making, food insecurity, and health

Characteristic	n (%)
Interview language	
English	18 (48.6)
Spanish	11 (29.7)
Mandarin Chinese	8 (21.6)
Age[a] (y)	
18-24	2 (5.4)
25-44	7 (18.9)
45-64	17 (45.9)
≥ 65	11 (29.7)
Gender	
Woman	35 (94.6)
Man	2 (5.4)
Race/ethnicity	
Latinx	17 (45.9)
Asian	9 (24.3)
Black/African American	8 (21.6)
White	1 (2.7)
Multiracial	1 (2.7)
Other	1 (2.7)
Education	
Never attended school or only kindergarten	1 (2.7)
Elementary school or less	8 (21.6)
Some high school	5 (13.5)
High school graduate	11 (29.7)
Some college or technical school	2 (5.4)
College graduate	9 (24.3)
Employment	
Employed for wages or salary	6 (16.2)
Homemaker	8 (21.6)
Retired	8 (21.6)
Unable to work	6 (16.2)
Unemployed	4 (10.8)
Annual household income	
< $25,000	25 (67.6)
$25,000-$49,000	10 (27.0)
≥ $50,000	1 (2.7)
Participation in food and/or economic assistance programs[b]	31 (83.8)
Participation in SNAP[c]	20 (54.1)
Food insecure[d]	25 (67.6)
Household size	
Mean no. of people	2.7
Mean no. of children, among households with children[e]	1.5
Housing	
NYCHA[f]	20 (54.1)
Rent	8 (21.6)
Section 8[g]	5 (13.5)
Own	2 (5.4)
Time lived in East Harlem (y)	
≤ 4	7 (18.9)
5-9	6 (16.2)
10-19	6 (16.2)
≥ 20 y	18 (48.6)

[a]Median = 55.7 years.
[b]Includes Supplemental Nutrition Assistance Program; Special Supplemental Nutrition Program for Women, Infants, and Children program; Medicaid; Social Security Income; Temporary Assistance for Needy Families; General Assistance; Housing Assistance; free or reduced-price school meals; and food pantry.
[c]SNAP = Supplemental Nutrition Assistance Program.
[d]Defined as a positive response to either of the two questions in the Children's Health Watch food insecurity screener.[29]
[e]n = 15.
[f]NYCHA = New York City Housing Authority, a New York State development corporation that provides public housing in New York City.
[g]Federal low-income rental assistance programs managed by the US Department of Housing and Urban Development.

end of the month, they ran low on food and money and felt more food insecure.

Janet was a 60-year old woman who was interviewed in English and identified as Black or African American. Her experiences illustrated this cycle. Janet reported having diabetes and hypertension and had developed several other serious health issues following cancer treatment. She lived in public housing with her husband, was a SNAP participant, shopped at multiple food retailers in East Harlem, and visited one of several food pantries weekly. She described in detail the challenges of where and how to obtain more food and her strategies for managing her budget, such as making hard decisions about whether to buy medications or pay her rent when her benefits were insufficient to cover both.

> *Like this month I'm telling my husband, you know, wow, my whole check is gone. It's gone. The whole check—$1200. Gone. I have rent. I said wow, we got cable, we got life insurance, we got my loans. Ain't no food. Imma work it out…I don't know how I hold it together. Between the bills, my health, and everything else that I deal with.*

About a week ago, we were broke. I didn't know what we were gunna do. I can always borrow. But it's my pride…So I said, let me check my credit card, which I pay, and I use it. It's like you rob Peter to pay Paul. I went shopping for food. This month is so much, I have to tell them I'm gunna be $200 short on my rent...I have glaucoma because of the cancer. It's crazy. Three hundred dollars I pay for eye drops…I'm going to be late on my rent. (Janet, English, age 60 years)

Other participants described similar experiences:

Actually, 1 or 2 weeks at the end of the month, I see my refrigerator go down. I can just see my food going down. Even though it's just me and my fiancé, I feel that I don't want to be hungry. (Crystal, English, age 49 years)

In contrast to those who experienced chronic food insecurity, some participants described infrequent experiences. Carla, a 53-year old Latina woman interviewed in Spanish, described going through "moments when there's less," but noted that these situations did not occur with regularity. She explained that "emergencies arise" when she has had to send money to her brother in the Dominican Republic, which meant she had less money to spend on food. During that time, she tried to adapt with a smaller budget, but shared that less food was available for her household.

Shopping And Budgeting Strategies. Participants identified several strategies they used to prevent completely exhausting their food supply, covering the entire spectrum of food planning, procurement, and preparation. Despite having physical access to food retailers, participants felt limited to shopping at stores where food was cheapest. Many noted that prices at stores fluctuated frequently, necessitating a price-hunting strategy:

I have a look here and there. I will go where [it is] cheaper or [where] they have discounts. (Hui Zhu, Mandarin Chinese, age 58 years)

Participants described planning and shopping differently as their food supply diminished, often prioritizing shelf-stable foods and buying fewer fresh fruits and vegetables. Toward the end of the month, some participants prepared "meals that last," which made use of shelf-stable items like beans, lentils, and pasta. For others, meals were similar throughout the month, but smaller in portion size as the month came to an end.

These 2 months…I feel it's because everything has been a little more expensive. Like for 1 week, it had not lasted…Because the fruit…my children eat a lot of fruit, but sometimes you can't buy it. (Paola, Spanish, age 32 years)

We look in the [EBT] card and we look at what we have. And then we go okay, can we spread this out so next week, it may not be a lot, but we do spread everything out. So, if we have a bag of rice, we can use that bag for two days and beans for two days. We just spread it out. (Rosa, English, age 23 years)

Sonia, an English-speaking, a 28-year old Latina woman who lived with her three young children and husband, described the challenge of feeding her entire family when money and benefits ran low. Like other participants with young children, shopping trips toward the end of the month often focused on necessities and no longer included snack foods that her children enjoyed.

There's this situation where they give me food stamps, but sometimes I'm out of it. So even though your budget's too tight, you have to be with your stomach full. Are you gonna be starving for the whole day? So, it's kind of difficult because I have three kids. I have to provide them with breakfast, lunch, and dinner. So, when I'm out of the food stamps, I have to calculate myself with the money. But when you don't have the food stamps and, you know, you have to economize. Like say, I can't take too much of this because I'm not going to have enough money to buy the meat or like I need to buy milk for you and if I buy chips I like… it's so difficult. (Sonia, English, age 28 years)

Pantries as a vital community resource. Food pantries, which have been established to serve as occasional emergency food resources, were accessed regularly by participants as an essential resource. When asked where they regularly shopped for food, many participants referred to pantries as a "shopping" outlet instead of an emergency food option and considered pantries to be their primary source for items like rice, beans, oats, and in some cases fruits and vegetables. Participants liked the variety and availability of fresh fruits and vegetables at some pantries but also described difficulties in accessing food through pantries, including waiting in long lines, inconvenient hours, and lack of choice. In addition, some participants worried about the effect of visiting a pantry on their immigration status.

The pantry…they have grapefruits, they have oranges, they have some other stuff in there. Every Friday, you can stand in line they give you plenty of fruits, you just got to be there…Sometimes they give you things you really need like milk, cereal, like a lot of fruits. You have to wait 2 hours or 3 hours to get what you need…and sometimes you don't get meats. (Crystal, English, age 49 years)

Interviewer: You mentioned that you also go to pantries nearby to get free food, right?

Ai Ying: Yes…that's a good way for shopping. Sometimes you can save for a meal.

Interviewer: Without these agencies [pantries] existing nearby, do you think you would have enough to eat?

Ai Ying: Without the relief? For the time being, it would not be enough.

(Ai Ying, Mandarin Chinese, age 64 years)

I haven't gone because they say that affects us in the future when we are trying to fix our immigration status. That's why I don't go to a lot of places. (Lucia, Spanish, age 31 years)

Social support systems. Participants discussed sharing meals and groceries with family and friends and relying on

their social network in times of need. This was a common resource for many participants and these networks provided peace of mind for participants, reassuring them that they had support systems in place to cope with difficult times. Older adults discussed having family and friends nearby that were available to "help out," which included shopping, paying for groceries, and sharing SNAP benefits. Doris, an 89-year old woman who identified as Black or African American, lived with her two adult sons and grandson, who had all recently moved in with her. One of her sons recently relocated to NYC and was looking for work and her other son worked odd jobs. Everyone in the household helped with food shopping, including contributing money to pay for food and helping to carry groceries during her shopping trips. She also had another son living outside of NYC who was close enough to bring her groceries regularly. She described the importance of this support.

> *Well to be honest with you, if it wasn't because he (my son) gives me a little hand, it would be a little difficult because I have all these other bills. I mean I got to pay, you know. I do get two checks because I worked. I have a pension and I also have a Social Security. But at the same token, I pay copayments for my medications. So yeah, it's a little rough if I didn't have that little help. It would be hard. Definitely hard. Then a lot of times my older son brings stuff down from upstate because […] he likes Walmart and some of those stores and food markets.* (Doris, English, 89 age years)

Having a support system was also important for participants younger than age 65 years. Joe was a 57-year old, Latino, English-speaking man who lived alone in public housing, and had high cholesterol levels and arthritis. These conditions caused him chronic pain that left him unable to work and primarily reliant on SNAP for his monthly food budget. Typically, when Joe received his benefits, he made a large grocery shopping trip, purchasing many items at dollar stores, where he could find snacks and frozen foods at affordable prices. Like others, Joe reached a point during each month when his supply ran low, forcing him to rely on his family for the rest of the month.

> *Sometimes, now that I'm getting my benefits, you know, I'll buy a little something here and there, but if I do it very carefully, it'll last me 3 weeks. If I'm running a little low, I tell my sister, listen, I need a care package, I'm running low. But close to the end of the month or a week before the end of the month, I'll go very low, very low…She says, ok, I'm cooking rice and beans and whatever. Come over. She gives me a big bowl of rice and beans or whatever. She says listen, you need eggs, bread?* (Joe, English, 57 age years)

Food Insecurity and Health. Overall, the monthly cycle of food insecurity played an important role in diet consistency, with participants noting challenges to being able to make healthy choices when food, money, and benefits ran low.

> *You know, like usually a few days before the end of the month, that's when I don't have as much things as I really want to have. There is always stuff because you know I get the pantry stuff...there's some things I don't really like, you know, but you got to eat what you have. Well sometimes, I'm eating less...but otherwise I make do because...I always keep canned soup and stuff like that. You know I could always fall back on it, but it's not like how I would normally eat a nutritious meal. So, you know, a few days here and there. It's always near the end of the month.* (Patricia, English, age 68 years)

"Eating only what you can afford" could translate to unhealthy choices. Participants spoke about buying "lower-quality meats," fewer fresh fruits and vegetables, and more snack foods and prepared foods because they were "too good a deal to pass up." Janet described being forced into this choice:

> *I don't like to buy franks [hot dogs]. Franks are really bad, but they were cheap and we had to do that. We had to get it. You know, I don't really like eating corned beef out the can. That's bad too. But we gotta do it…* (Janet, English, age 60 years)

Frustration with an Unjust System. Although participants were savvy and resourceful in obtaining food during times of food insecurity, they expressed frustration and dissatisfaction with their socioeconomic position and with the constraints and stress they experienced in feeding themselves and their families, as well as the time and energy required to obtain sufficient food within their budget. Many of the participants reported having attended nutrition education classes organized and led by the Harlem Bureau, senior centers, or other organizations in the neighborhood and expressed a clear preference for healthy foods. However, in lean times price was the ultimate determinant of food choice, even if the foods chosen were unhealthy. Participants believed that food was too expensive, especially given other contributing factors to the high cost of living in NYC, such as rent and transportation. Moreover, constant changes to in-store prices meant more time was spent trying to find the best prices.

> *...why you want to pay so much more for when next week you go and they're selling it for cheaper. It's just not right. It's like y'all can do these prices whatever y'all feel like it. It's not right.* (Tina, English, age 53 years)

SNAP benefits, although an essential financial resource, were often inadequate. Participants questioned how decisions were made about the amount of assistance given to them. Joe expressed frustration that decision makers seemed unaware of the day-to-day realities experienced by SNAP participants.

> *It's like, you know, they don't understand. These bureaucrats can afford. They're not in our situation…Come with us for a week, for a month, and see how much food lasts for you.* (Joe, English, age 57 years)

Pride in "making it work.". Despite describing challenges to consistently maintaining enough food in their households, participants were proud of the ways that they were able to "make it work." Although participants expressed frustration with the need to carefully manage a small budget by visiting multiple stores and seeking out the best bargains, they also expressed pride in their ability to stretch their financial

resources and navigate a complex food environment in which prices change constantly. Janet regularly employed multiple strategies to ensure that her monthly food supply was sufficient for her and her husband, including stretching meals and eating smaller portions. She proudly shared a recent experience when she made a healthy and satisfying meal using only a small quantity of expensive meat and enhancing the dish with Puerto Rican flavors that she and her husband enjoyed:

> *Let me tell you what I did. I'm very smart. I bought a pack of chicken breasts. I made one chicken breast for dinner for me and him and it lasts 2 days. You know what I did, I sliced that chicken breast. I sliced it. I put garlic, cilantro, onions, celery, basil, sofrito, Sazón, olive oil. A little bit of oil and sautéed it. Delicious.* (Janet, English, age 60 years)

Other participants, including Katie, a Chinese-American participant, described learning about ways to "make it work:"

> *Katie: [I go to a] soup kitchen maybe like two to three times a week. But in Chinatown they have dinner also.*
>
> *Interviewer: How often do you go to the soup kitchen?*
>
> *Katie: A week? Maybe two to three times a week. Mostly in the weekend. In the weekend I go…I learned very young you have to plan. I learned very young like you have to save money.* (Katie, English, age 27 years)

DISCUSSION

This qualitative study explored food insecurity within an ethnically and linguistically diverse group of residents in NYC's East Harlem neighborhood—a densely populated, predominantly Black and Latinx urban setting that is influenced by high rates of poverty and chronic disease while also offering numerous food retail options, including supermarkets and green carts. By conducting the study within this unique setting, the findings augment existing qualitative literature on food insecurity, which has focused largely on environments with limited food access.[33,34] This study was unusual in having study participants from three different ethnic and linguistic groups, including Chinese Americans, who comprise the largest subgroup of the Asian-American population, the fastest-growing racial/ethnic minority group in the United States, and for whom data on food insecurity are limited.[8,35,36]

Results showed that many participants experienced stress related to food budgeting and shopping, which contributed to feelings of being burdened by an unjust system. Participants spent a considerable amount of time carefully managing their food budgets and benefits, planning their shopping excursions, visiting numerous stores, and accessing food pantries. The themes that emerged from the interviews reflected findings from earlier qualitative studies.[33,37] In particular, participants' strategies for coping with food insecurity were similar to those identified in research conducted among a national sample of SNAP participants. That study highlighted coping strategies such as restricting food intake, modifying food choices, relying on networks, visiting food pantries, and seeking sales, which resulted in extensive travel among participants to secure bargains and planning meals almost entirely around the sales.[37]

Participants described challenges to eating a healthy diet within food-insecure households. Even as participants expressed the desire to eat healthfully, they also described their inability to do so consistently because of the high costs of more nutritious foods. A few participants discussed the added stressor of managing their chronic illness within this context. In addition, as documented in prior research,[38] the current study also found that for some participants, the cost of medications, which included co-pays for prescription drugs among the insured, consumed a significant amount of the household budget and influenced their ability to pay for other necessities.

The findings also documented some differences among study subgroups. Chronic food insecurity was common among households with children, which is consistent with national data.[5] Coping strategies differed between older adult groups. Although many English-speaking older adults reported food support from family, friends, and community resources like senior centers, these supports were less common among other subgroups. In addition, first-generation Chinese American participants did not identify food insecurity as a priority issue in their households, despite reporting frequent food pantry visits. Efforts to combat food insecurity should ensure that this population is not overlooked.

Taken together, these findings underscore the precarious economic situation of many New Yorkers. The coronavirus disease 2019 pandemic has further exposed the fragility of economic stability and food security for many and food assistance programs are being reshaped in real time to address these urgent needs.[39-44] These emergency measures are essential, but addressing entrenched inequities by aligning public health goals with policy efforts in the fields of antihunger and poverty alleviation is also critical. Income equity has emerged as a key part of broader strategy to improve health and well-being, with universal basic income gaining increasing attention as a means toward increasing the financial resources of people with low-incomes[45,46] Other strategies that merit further investigation include increasing the monthly SNAP allocation,[47] instituting universal free lunch throughout public schools[48] eliminating cost as a barrier to accessing medications for people with and without insurance,[49] and increasing support for vulnerable populations, including expanding public assistance for undocumented immigrants.[50,51]

This study elucidated methodological considerations. Several participants reported shopping at food pantries and shared other experiences with food insecurity but were not identified as being at risk for food insecurity through the two-question Children's HealthWatch food insecurity risk screener.[29] To comprehensively capture the depth and breadth of food insecurity experiences, the research team is exploring pairing these screening questions with an additional question on food pantry use. More broadly, deepening community engagement in health equity research is an important component of neighborhood-based public health work. This study's approach to sharing findings with the community to elicit feedback, questions, and guidance to inform the research process offers one way to deepen engagements with communities. Finally, consistent assessment of food insecurity within clinical settings must be prioritized, including documenting food insecurity with the relevant International Classification of Diseases, 10th Revision, code.[52]

The Hunger Vital Sign National Community of Practice and the Gravity Project provide models for improving electronic health record-based interventions to document, assess, and address food insecurity and other SDH in clinical settings.[53,54]

This study had limitations. Participants were a purposive sample of residents. However, the investigators aimed to recruit a wide range of study participants to reflect the diversity of the neighborhood. The sample was ethnically diverse and represented all adult age groups, but interviews were conducted during weekdays when potential participants may have been working or engaged in other routine daily activities, such as child care or elder care. Therefore, important perspectives and experiences may have been missed. The majority of participants were women. Participants were interviewed by Health Department staff and most were interviewed at Health Department offices, which may have influenced participants' responses in relation to health and healthy eating. Lastly, East Harlem is a unique neighborhood and results may not be transferable.

CONCLUSIONS

Food insecurity was a complex and consistent part of the lives of a linguistically and ethnically diverse group of residents of NYC's East Harlem neighborhood. Carefully managing benefits within overall food budgets to have sufficient food for their households presented a burden for many participants in this study. Many participants described spending substantial time visiting stores and accessing food pantries while simultaneously coping with a public benefits cycle that left them without sufficient financial resources at the end of each month. Future research should explore transdisciplinary approaches to understanding and alleviating food insecurity through an alignment of public health, antihunger, and antipoverty policies and programs.

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STATEMENT OF POTENTIAL CONFLICT OF INTEREST

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