



EATING

IN

EAST

HARLEM

AN ASSESSMENT OF CHANGING FOODSCAPES
IN COMMUNITY DISTRICT 11, 2000-2015



A REPORT BY THE CUNY GRADUATE SCHOOL OF PUBLIC HEALTH AND HEALTH POLICY AND THE NEW YORK CITY FOOD POLICY CENTER AT HUNTER COLLEGE

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*Web appendices are available at eatingineastharlem.org

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SECTION 1

INTRODUCTION

Since 2000, East Harlem has changed dramatically.

New retail and housing developments are springing up on Third Avenue, 125th Street and along the East River. New populations are moving in, changing the demographic composition of the community. Since 2014, a new Mayor and City Council have made improving East Harlem a priority, bringing new public resources into the neighborhood. In the food sector, many new food businesses and public and non-profit food programs have opened, presenting East Harlem residents with a wide variety of food choices.



A Green Cart in East Harlem

At the same time, since 2000, East Harlem has changed hardly at all. It still has among the worst health statistics in the city and reports high levels of both food insecurity and diet-related diseases. For 40 years, East Harlem has been one of the poorest neighborhoods in New York City. The most common food outlets in East Harlem, now as in 2000, are bodegas and fast food outlets that sell mostly unhealthy food. Two of the largest supermarkets, Pathmark and Associated, recently closed, making it harder to find healthy, affordable food. Now, as in 2000, many East Harlem residents still depend on SNAP (the Supplemental Nutrition Assistance Program, or Food Stamps) and soups kitchens struggle to get enough food to feed their families. For many, even these supports are not enough to ensure that no one goes to bed hungry. East Harlem still has the second highest public housing density in the city, providing a stable supply of affordable housing. However, inadequate maintenance, an aging public housing infrastructure, development pressures and rising costs of food and other commodities make living conditions difficult and contribute to high rates of preventable health conditions among public housing residents.



The Pathmark Supermarket located at 125th Street and Lexington Avenue closed in November 2015.

How can we understand these two accurate but profoundly different assessments of East Harlem? Figure 1-1 provides an overview of some of the demographic and social changes in East Harlem since 2000. It shows improvements in some areas, but limited or no progress in others. How can we better understand what has and has not changed, and why? How can we use evidence of change to set meaningful goals for food policy in East Harlem for the next five, 10 or 15 years? How can we ensure that the residents, organizations and leaders of East Harlem have the information they need to make informed decisions about our community's future?

In this report, we analyze how foodscapes have changed in East Harlem since 2000. We hope the report will help the people of East Harlem to recognize and celebrate the progress we have made. But we also want East Harlem to be better able to identify the additional changes that we need in order to create a community where hunger and food insecurity are history, and where epidemics of diet-related conditions like obesity and diabetes are on the road to elimination. No community can prosper and sustain itself without access to healthy, affordable food for all of its residents. This report is dedicated to strengthening East Harlem's capacity to turn that vision into reality.

Figure 1-1 An Overview of Demographic and Health Changes in East Harlem Since 2000

CHARACTERISTIC	2000-2002	2013/2014*	% CHANGE
Demographic			
Total Population	108,092	123,579	14
Race/ethnicity (%)			
Hispanic Origin	55	50	-9
Black/African American, non-Hispanic	33	31	-6
White non-Hispanic	6	12	100
Asian Pacific Islander, non-Hispanic	3	6	100
Foreign-Born Population (%)	21	26	24
Age (%)			
17 and under	28	22	-21
65 and over	11	12	9
Median Household Income	\$33,815	\$30,736	-9
Income Distribution (%)			
Less than \$40,000/year	46	50	9
More than \$100,000/year	15	15	0
Poverty Rate (%)	37	31	-16
Unemployment Rate (%)	17	12	-29
Total Housing Units	45,964	55,000	20
Serious Crime Rate (per 1,000 residents)	22.7	17.1	-25
Health and Health Care			
No Health Insurance Coverage (%)	12 (2003)	24 (2013)	-100**
Have Personal Doctor (%)	72.7	75.1	3
Rate Own Health as Fair or Poor (%)	30	30	0
Deaths per 1,000 Population, all ages	9.4	7.5	-20
Live Births per 1,000 Population	15.4	22.1	44
Infant Mortality per 1,000 Live Births	8.1	6.0	-26

An Overview of Demographic and Health Changes in East Harlem Since 2000

+ Based on year for which data are available *Based on latest available data

**Does not reflect changes based on 2014 and 2015 enrollment in Affordable Care Act

Sources: New York City Department of Health and Mental Hygiene, East Harlem Community Health Profiles, 2002, 2015; Furman Center, State of New York City's Neighborhoods and Housing, 2014; New York City Vital Statistics, 2000 and 2013

In this report, we focus on food because in the last 15 years, food has become a lens through which we can examine health, poverty, economic development, culture and happiness. Since 2000, East Harlem and New York City have also witnessed a new interest in food policy—more than a dozen new food policies and programs have been implemented since Michael Bloomberg was elected Mayor in 2002. In the last two years, Mayor de Blasio has introduced additional measures that influence food environments. To date, however, no one has completed or documented an analysis of the cumulative impact of these changes on a single community like East Harlem; a summary of what is known about which initiatives have worked and which have failed; or an examination of whether these changes have had a positive impact on the food-related inequalities that have long characterized neighborhoods like East Harlem.

What do we mean with the term “foodscapes”? Foodscapes are defined here as the places where people in East Harlem acquire, prepare and eat their food. They also describe the institutional arrangements, cultural and social spaces, and policies that shape how and what people eat. A foodscape includes physical structures, like the supermarkets and bodegas in a community, as well as the social factors that influence whether and how people in the neighborhood choose to shop in those outlets.



East Harlem is a vibrant and diverse community located in Upper Manhattan.

ASSESSING CHANGING FOODSCAPES BY MAKING COMPARISONS

To identify changes in health and well-being, researchers make comparisons across time and place. Figure 1-1 above compares changes within East Harlem between 2000 and 2015. This comparison allows us to see what has and has not changed in our community. Other comparisons provide different insights. Figure 1-2 compares East Harlem and the neighboring community of the Upper East Side in 2015 (or the latest year for which data are available). The health indicators show that people in East Harlem live, on average, nine years fewer and are three times more likely to die before the age of 65 than people living on the Upper East Side. Infants born in East Harlem are six times more likely to die in their first year of life.

Comparing East Harlem to one of the wealthiest and healthiest communities in New York City allows us to ask what changes in living and economic conditions in East Harlem could produce the health results achieved by residents of the Upper East Side. Differences in economic and social conditions shown in this table also have an influence on food environments. Thus, East Harlem residents seeking to reduce the many gaps between our community and our wealthier neighbors to the south will need to consider what economic and social changes are needed to achieve our food goals, and what changes in the food environment may contribute to the broader goal of a healthier, more equal city.

Figure 1-2 Comparison of Neighborhood Conditions in East Harlem and the Upper East Side, 2015

	East Harlem Community District 11	Upper East Side Community District 8	Ratio East Harlem/ UES
Health			
Life Expectancy in Years	76	85	.9
Premature Mortality Rate per 100,000 Population	301	97.4	3.1
Infant Mortality Rate per 1,000 Live Births	6.0	1	6
Income and Benefits			
Median Household Income	\$31,016	\$99,325	0.3
Percent Living At or Below Poverty Rate	34	6	5.7
Percent With No Health Insurance	15.1	6	2.5
Percent Receiving SNAP/Food Stamp Benefits	27.2	3.3	8.2
Percent Not U.S. Citizens	14	11	1.3
Employment and Education			
Percent Unemployed	8.6	6	1.4
Percent of Local Jobs Paying <40k/Yr	51	44	1.2
Percent of Youth Age 16-25 Not Employed or In School	22.3	8	2.3
Percent High School Graduate or Above	73.1	97.5	0.7
Percent of Households With Limited English Language Ability	13.8	3.1	4.4
Percent Not in Labor Force	43.1	27.3	1.6
Percent Employed in Service Sector	6.6	0.8	8.2
Housing, Community and Infrastructure			
Percent Change in Residential Sales Price Per Sq. Ft, 2010-2014	74.3	30.8	2.4
Percent Rent Burdened	50.2	44.2	1.1
Percent of Residents 1/2 Mile or More From Grocery Store	0.81	0	NA
Percent Change in Manufacturing Lot Area	136.5	-81.4	1.7

Figure 1-2 Comparison of Neighborhood Conditions in East Harlem and the Upper East Side, 2015 Cont'd

	East Harlem Community District 11	Upper East Side Community District 8	Ratio East Harlem/ UES
Finance and Credit			
Percent of Residents With High Credit Card Debt (Using Over 30% of Total Credit)	65	4	16.2
Bank branches per 10,000 people	1	3.3	0.3
Number of Total Reported EDC Dollars Invested (by Thousands)	\$221,626	515,840	0.4

Source: Association for Neighborhood and Housing Development Inc., *Equitable Economic Development Indicators*.

Available at: https://anhdnyc.cartodb.com/viz/3b7ee144-3559-11e5-8f88-0e9d821ea90d/embed_map

REPORT OVERVIEW

Eating in East Harlem aims to summarize some of what is known about changes in foodscapes in this community over the last 15 years. Each section seeks to answer a few questions about changes in the various components of our community's foodscape. In each of the next four sections, we examine the social and economic trends, and the changes in policy, that have contributed to the observed changes. We consider the impact of changes in policy and practices between 2000 and 2015 from both the initiatives begun by Mayor Michael Bloomberg and his administration, as well as more recent initiatives by Mayor de Blasio. We recognize that policies and programs often span administrations, and state and national policies also drive city policies. A policy implemented during this administration may have been initiated under Bloomberg, and programs initiated under Mayors Bloomberg or de Blasio may have been the result of state or national policies that were introduced during a different administration.

SECTION 2 What changes have occurred in retail food establishments (i.e., the places where people pay money for food that they either take home or eat at the establishment)? How has the number and distribution of grocery stores, bodegas, supermarkets, food carts, farmers markets, fast food chains and independent restaurants that sell food in East Harlem changed since 2000?

SECTION 3 How have the availability and utilization of federal food benefits such as SNAP and WIC, and the number and reach of local food assistance programs such as soup kitchens and food pantries, changed in East Harlem?

SECTION 4 What changes have occurred in the food programs in schools in East Harlem, and in other public and non-profit programs that serve food within their institutions? How has East Harlem's "public plate" (i.e., food that is prepared or paid for by city government and served in public and non-profit organizations) changed?

SECTION 5 Who is providing nutrition education to the residents of East Harlem? What changes have occurred in the quality, number and reach of these programs that are offered by schools, public agencies and community

organizations? What is known, or not known, about the impact of this education?

We then turn to our final question, which examines how the health, well-being and health behavior of East Harlem residents have changed, especially those related to diet and nutrition.

SECTION 6 How have the rates of food insecurity and diet-related diseases changed in East Harlem in this period? What has been the cumulative impact of these and other changes on food insecurity and diet-related diseases in East Harlem since 2000? To what extent does evidence show that changes in food landscapes contributed to changes in food security or health?

Finally, in **SECTION 7**, we summarize our overall findings, identify questions that need further research, and suggest practical next steps for identifying goals for the next 15 years. The ultimate goal of *Eating in East Harlem* is to provide evidence that will guide East Harlem residents, organizations and policy makers to make positive changes in the community's food environment, thereby ensuring that when the next report on changing foodscapes in East Harlem is written in 2030, we will be able to document remarkable successes in solving the problems we have identified here.



East 116th Street has many retail food outlets.

ABOUT THE REPORT

For this report, we used publicly available data, identified by source in our reference notes. In some cases, we were forced to use different start or end dates because of the lack of availability of data for certain years. We noticed that different data sources (e.g., U.S. Census reports and New York City Department of Health reports) often use different geographic boundaries or different definitions of key indicators. We did our best to reconcile such differences but were not always able to do so. Whenever possible, we used data from zip codes 10029 and 10035, the two areas that constitute Community Board 11.

In several cases, we gathered additional information through telephone interviews with city officials or food policy analysts or advocates. These interviews are included in our reference notes. Through preparing this report, we were reminded that reconstructing a foodscape from publicly available data is fraught with problems. One of the values of this project was identifying the indicators we need to track at the community level in order to determine more reliably and accurately the changes in a community's foodscape. We hope our report will help others who want to take on this task.

SECTION 2

CHANGES IN RETAIL FOOD
IN EAST HARLEM

A produce vendor sells affordable fruit and vegetables from a cart in East Harlem

INTRODUCTION AND OVERVIEW

Where people in East Harlem buy and eat their food has changed significantly since the late 1990s. At that time, community activists who were concerned about the lack of large, full-service food retailers in East Harlem led the City to support the creation of a Pathmark supermarket the size of a city block.¹ Almost 20 years later, the neighborhood has more of every kind of food retail establishment: Costco, the world's second largest retailer² and America's largest organic food seller³ shares space with Target

and Aldi in a giant shopping center on the East River. Smaller supermarkets have been upgraded, and new independent grocers have moved to the neighborhood. A network of Green Carts, farmers markets and community supported agriculture (CSA) programs provides alternative access to fresh produce. But East Harlem also has more unhealthy food available than it did in 2000: there are now four times as many franchise (fast food) restaurants today as in 2000, and 26 percent more bodegas.

As this report was being written, Pathmark, which the community fought so hard to bring to East Harlem, shut its doors, and another large supermarket, the Associated on 116th Street and Third Avenue, also announced its intention to close. These closures are at least partly a result of economic development policies that have made these sites much more lucrative for residential and commercial developments than for supermarkets. The closures illustrate how gentrification can change food environments, and suggest the importance of close attention to the effect of development policies on food retail.

As shown in Figure 2-1, the most significant changes in East Harlem's food environment between 2000 and 2015 include:

- 42 percent increase in the number of food retailers;
- 80 percent increase in the number of supermarkets, from 10 in 2000 to 18 in 2015 (of which three have closed in the last few months);
- 26 percent growth in the number of small grocers/bodegas;
- 84 percent increase in restaurants, with the number of fast food franchises more than quadrupling from 11 to 47;
- Increase in fast food sales from 28 percent to 38 percent of all restaurant sales;
- Seven chain pharmacies started selling food since 2000; and
- Seven farmers markets, up from only one in 2000 and 18 Green Carts, up from zero in 2000.

Figure 2-1 Changes in Number of Food Establishments in East Harlem by Type, 2000 and 2015

TYPE OF ESTABLISHMENT	2000	2015	% CHANGE
Food Retailers	146	208	42
Supermarkets	10	18	80
Small Grocers/Bodegas	100	126	26
Pharmacies Selling Food	0	7	NA
Produce Markets	8	7	-12
Meat/Poultry/Fish Markets	17	7	-59
Wine/Liquor	11	18	64
Farmers Markets	1	7	700
Green Carts/Other Produce Vendors	0	18	NA
Eating and Drinking Establishments	121	222	84
Restaurants	119	218	83
Franchise Restaurants	11	47	327
Independent Restaurants	108	171	58
Bars/Lounges	2	4	100
Total Food Establishments	268	430	61.0

Sources: ^{4,5}

These changes in the distribution of retail outlets and their sales have several implications for nutrition, health and community well-being:

- The increase in the number of supermarkets, Green Carts, and farmers markets suggests that fruits and vegetables are now more available in East Harlem than in 2000. Some studies suggest that more fruit and vegetable availability in low-income communities leads to greater consumption.⁶
- The increase in the number of restaurants, combined with the increase in their revenues, suggests that people are eating more frequently outside of their homes, a trend associated with diets higher in calories, fat, sugar and salt that creates an increased risk of diet-related diseases.⁷

- The rapid growth of sales by chain restaurants suggests that more people are eating larger quantities of unhealthy food. For example, total sales at the only Dunkin' Donuts outlet in East Harlem in 2000 totaled \$432,000; by 2015, four outlets netted almost \$3.3 million dollars, a nearly eightfold increase.
- The significant increase in the number of chain (franchise) restaurants, and supermarkets that are part of chains, shows that more food outlets today than in 2000 are taking profits generated within East Harlem to national corporate headquarters outside East Harlem. This trend contributes to the outflow of dollars from East Harlem.

THE ROLE OF POLICY IN CHANGING FOOD ENVIRONMENTS

Two levels of policies are responsible for re-shaping East Harlem's retail food environment over the past 15 years: (1) targeted public health interventions, from Green Carts to healthy bodega programs, have created new opportunities to buy healthier food; and (2) citywide economic development and zoning policies have increased development pressures, leading to new investments in supermarkets and restaurants and the displacement of food retailers like Pathmark and Associated.

TARGETED FOOD POLICIES



Super Fi Emporium, a FRESH supermarket, located on Lexington Avenue between 103rd and 104th Streets

Supermarket Incentives

In 2009, the New York City Department of City Planning (DCP) identified East Harlem as one of several communities with insufficient healthy food retailers.⁸ The City adopted a program called Food Retail Expansion to Support Health (FRESH)⁹ to use financial and zoning incentives to address the barriers to supermarket development in these underserved neighborhoods. The financial incentives included tax abatements and exemptions, while the zoning incentives included a "density bonus" (one additional square foot of residential floor area for each square foot of supermarket space, up to 20,000 additional square feet) for incorporating a supermarket on the ground floor of a new residential building. To qualify for this bonus, FRESH supermarkets must have at least 6,000 square feet of retail space for general groceries, half of the store's area must be used to sell food intended for home preparation and consumption, 30 percent must sell perishable food, and there must be at least 500 square feet of space selling fresh produce. The FRESH zoning also reduces parking requirements, allows food stores to be located on land zoned for light manufacturing, and provides tax breaks for the store's operator.

Profile of Super Fi Emporium, a FRESH Supported Supermarket

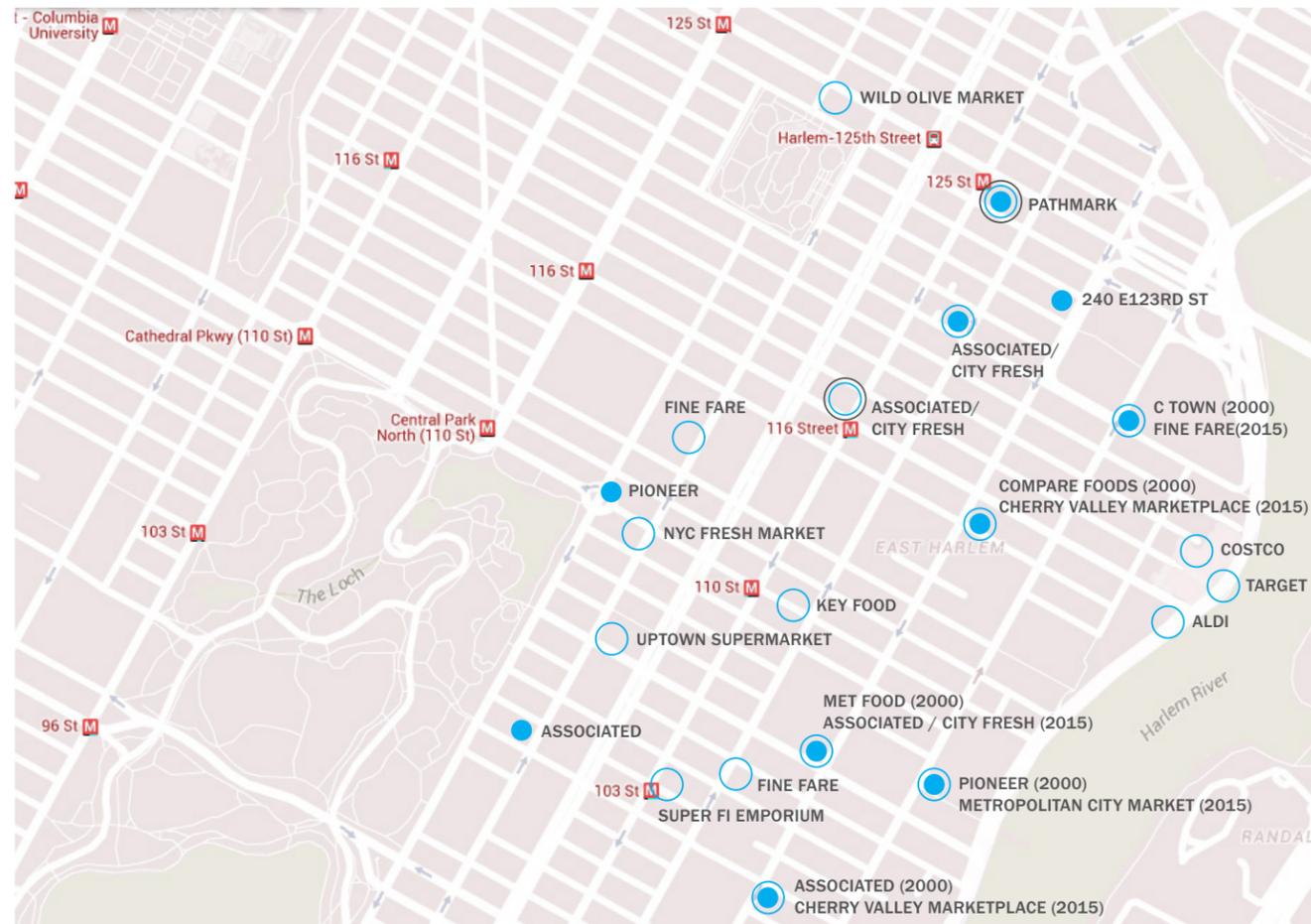
Super Fi Emporium opened in June 2013 at 1635 Lexington Avenue, between 103rd and 104th Streets. The store, owned by Anthony Reynoso, employs 38 workers. It received a comprehensive package of benefits, including a mortgage recording tax deferral, land tax abatement, building tax abatement and sales tax exemption from FRESH. Reynoso's family has owned businesses in East Harlem since 1982. "I knew that if I could cut costs, I would be in a better situation to be able to provide better pricing and service for my customers," said Reynoso. He added that FRESH "has benefited my business by helping me provide more for our customers and employees. We pay all of our employees above minimum

wage. We're committed to local hiring." Thanks to FRESH financial incentives and customers in East Harlem, Reynoso says, "we have been able to invest in our business in the form of a juice bar, full-service kitchen and deli, flower shop, price checkers throughout our store, scent air machines, ice machines, elevator, etc. ... We do things that other stores won't do. We are big on social media. We have over 1,200 likes on Facebook. We are active on Instagram, Pinterest, and Twitter. Our website is regularly updated so customers can see our weekly sales."¹³

In 2013, one supermarket in East Harlem, Super Fi Emporium, took advantage of FRESH's financial benefits (mortgage recording tax deferral, land tax abatement, sales tax exemption on store equipment) to open a 12,500 square foot store,¹⁰ at 1635 Lexington Avenue.¹¹ See the store's profile below. Super Fi plans to open another 12,000 square foot supermarket, using FRESH incentives, in a new building to be constructed at 2211 Third Avenue.¹² FRESH has assisted two of East Harlem's 18 supermarkets.

Figure 2-2 shows the distribution of supermarkets in East Harlem in 2000 and 2015. The map illustrates that while more stores are now in place, some sections of the community, primarily in the north and west, continue to be underserved. Of the 18 supermarket sites in East Harlem in 2015, seven had supermarkets on the same site in 2000, and only two (Compare and Pathmark) had the same owner.

Figure 2-2 Map of Supermarket Distribution in East Harlem, 2000 and 2015



For the full list of supermarkets in East Harlem, 2000 and 2015, see Web Appendix 2-1

- Open in 2000
- Open in 2015
- Closed in 2015

Bodega Enhancements

Bodegas (small grocers) earn high profit margins by selling beer, soda, cigarettes, lottery tickets, and shelf-stable, processed foods. By comparison, many bodega operators view fresh fruits and vegetables and other healthy but perishable foods as financially risky, less profitable and not worth the effort.¹⁴ Recognizing that bodegas are ever-present, cities throughout the U.S., including New York, have provided technical assistance and financial support to help them sell healthier food.¹⁵

- The New York City Department of Health and Mental Hygiene (DOHMH)'s *Healthy Bodegas*¹⁶ program, launched in 2006, had three components:
 - *Move to Fruits and Vegetables* encouraged participating bodegas to stock and promote the sale of fruits and vegetables;¹⁷
 - *Moooove to 1% Milk* encouraged bodegas to sell and promote low-fat milk;¹⁸ and
 - *Adopt a Bodega* encouraged community based organizations to partner with individual bodegas to increase healthy food sales.¹⁹
- By 2008, in East and Central Harlem, the program had successfully recruited 170 bodegas to participate in the *Move to Fruits and Vegetables* campaign and 329 bodegas for the *Moooove to 1% Milk* campaign.²⁰
- In 2008, DOHMH launched *Star Bodegas*, which promoted exemplary stores that marketed a wider range of nutritious foods beyond fruits and vegetables and low-fat milk, and that also hosted DOHMH nutrition and cooking lessons.²¹
- In 2012, *Healthy Bodegas* evolved into the program *Shop Healthy*, which helps bodegas and local supermarkets increase the availability and visibility of healthy foods.²² *Shop Healthy* also collaborates with wholesalers to facilitate bodega owners' purchase of healthier foods.²³



A bodega in East Harlem receives a "Shop Healthy" proclamation from the NYC Department of Health and Mental Hygiene and State Senator Jose Serrano. The Shop Healthy Program was launched in East Harlem in 2015.

In 2014, DOHMH recruited 81 bodegas and 15 larger grocers to implement Shop Healthy in the southern portion of East Harlem (zip code 10029).²⁴ By 2015, 61 retailers remained in the program, with 21 named official *Shop Healthy* markets for their achievement of the program's goals.²⁵ *Shop Healthy* will be expanded to the northern part of East Harlem (zip code 10035) in 2016.²⁶ For a list of *Shop Healthy* retailers in zip code 10029, see Web Appendix 2.2.

Green Carts

In 2008, the City partnered with the Laurie M. Tisch Illumination Fund to create a network of mobile fruit and vegetable vendors in neighborhoods with insufficient healthy food retail. The program was envisioned as a way to increase long-term demand for healthy food, change eating behaviors and reduce diet-related diseases. To create the network, DOHMH authorized 1,000 additional mobile vending licenses for specially designated Green Carts, which were restricted to selling fresh fruits and vegetables in designated neighborhoods like East Harlem.²⁷ After one year, by June 30, 2009, the

City had issued 248 Green Cart permits citywide, including 58 for Manhattan.²⁸ By June 30, 2013, 150 permits had been issued in Manhattan, and by 2015, DOHMH reported 329 permits being issued.

Because the City only tracks permits, not the number and location of the carts themselves, and some vendors buy permits that they do not use, there is no reliable data on how many Green Carts are in operation in a particular place, and visual surveys conducted a year apart reported very different results. In addition, the number of Green Carts on the streets changes by season and with weather, making any single count unreliable. A 2013 survey by Columbia University researchers found 18 located in East Harlem with 16 in zip code 10029, and a survey in 2014 by DOHMH observed 5 carts in 10029.^{29,30} Some surveys have found Green Carts near existing brick and mortar fruit and vegetable retailers, not in parts of the neighborhood lacking fresh produce, a finding that disturbed store owners. Other observers note, however, that Green Carts and supermarkets attract different customers, making proximity less of an issue. In addition, increased competition for customers' fruits and vegetables purchases may benefit consumers, leading to lower prices and improvements in food quality.

Farmers and Other Markets

In 2000 there was one farmers market in East Harlem; today there are seven, including two youth-run markets, as shown in Figure 2-3. The markets are supported by City policies that include funding for EBT (Electronic Benefit Transfer) readers to accept federal food benefits like SNAP and a subsidy

program called *Health Bucks*, which provides SNAP recipients with \$2 vouchers for every \$5 in SNAP purchases made at a farmers market. One East Harlem market, the HERBan Farmers Market at Marcus Garvey Park, participates in the DOHMH program *Stellar Farmers Market*,³¹ in which City staff use the space to offer free cooking and nutrition classes and to promote its *Health Bucks* program.³² Two of the oldest farmers markets in East Harlem are operated by Harvest Home, an organization that manages farmers markets in low-income Black and Latino communities in the New York metropolitan region.³²



Mount Sinai Greenmarket on Madison Avenue and 99th Street, Manhattan. photo credit: New York Common Pantry

Figure 2-3 Farmers Markets in East Harlem, 2000 to 2015

MARKET NAME	LOCATION	YEAR STARTED
Harvest Home East Harlem Farmers Market	104th Street and 3rd Avenue	1997
Mt. Sinai Hospital Greenmarket	Madison Avenue	2008 ³³
Harvest Home Metropolitan Market	99th Street and 3rd Avenue	2008
Mt. Morris Park HERBan Farmers Market	18 Mt Morris Park	2010 ³⁴
El Barrio Youth Marqueta	E. 115th St and Park Avenue	2014 ³⁵
PS 7 Farm Stand	E. 119th and 3rd Avenue	2014 ³⁶
Chenchita's Community Garden	112th St. and Madison Avenue	2015 ³⁷

Additional Source:³⁸

Several programs enable residents to purchase bundles of produce grown by regional farms on a weekly basis. At two locations, GrowNYC, a group that manages farmers markets around the city, sells weekly shares of \$25 worth of fruits and vegetables grown by Greenmarket farmers for a discounted price of \$12. The Corbin Hill Food Project distributes weekly shares of food grown upstate at two East Harlem locations: Central Park East School at 19 East 103rd Street, and the Urban Garden Center at La Marqueta, 1640 Park Avenue.

Farm to PreSchool

The program, a 2014 partnership between NYC DOHMH, GrowNYC and Corbin Hill Food Project, offers weekly produce shares combined with nutrition education and food preparation demonstrations to parents of children in preschools located in low-income communities. In 2015,

one of the city's 12 sites was located at the East Harlem Bilingual Head Start program.³⁹

Public Food Market

La Marqueta is an East Harlem public food market that has been in operation since 1936. While it is still a retail market, in recent years much of the space has been converted to food manufacturing space that is leased to entrepreneurs.⁴⁰ In 2011, the City supported the bakery and social venture Hot Bread Kitchen, investing \$2 million in capital improvements to establish a commercial kitchen and retail space for Hot Bread Almacén, located at the La Marqueta site.⁴¹ In 2014, the City invested \$3 million to further improve La Marqueta's infrastructure, layout, and manufacturing and retail spaces.⁴² La Marqueta currently houses five food retailers, four food producers and a garden shop, and seasonally hosts mobile food vendors in their adjacent outdoor space.⁴³ Several groups are exploring the redevelopment of La Marqueta.

LAND USE POLICIES

Zoning changes since 2000 have increased the population density of East Harlem, spurring new residential and commercial developments that have attracted higher income residents. These changes will continue to lead to larger-scale developments as properties are sold and bought, which is likely to further change the demographic and socioeconomic characteristics of the community. Under Mayor de Blasio's housing plan, East Harlem and other low-income communities will be rezoned to stimulate housing development that will include affordable and market rate units, thereby increasing numbers of middle- and upper-income residents and accelerating the socioeconomic transformation of the community.

Changes in land use affect the retail food environment in at least two ways. First, allowing higher density development and more lucrative uses of the land may both attract businesses that can afford to pay higher rents, as well as offer new spaces attractive enough to command higher rents. Together, these changes can alter the current mix of retail businesses in the community. The changes, already visible on 125th Street, Third Avenue and 116th Street, encourage franchises and stores offering higher-priced goods to move in, potentially forcing smaller local businesses, who cannot afford these higher rents, to vacate.

Second, higher-income residents who move into newly constructed higher-rent buildings are likely to have more disposable income than existing East Harlem residents; their greater purchasing power may encourage food markets to offer higher-priced items and new and different types of food that appeal to those with higher

incomes. New restaurants with higher prices may also find it profitable to move to the community. Over the long run, development has the potential to put upward pressure on commercial rents, leading to a change in the types of stores located in the neighborhood, shifting from local businesses to chain stores, as can be seen already in West and Central Harlem.⁴⁴

Development Policies in the 2000s

The changes to East Harlem's retail food environment reflect real estate developments that have occurred throughout Northern Manhattan since the 1990s and are made possible by public policies and financing that encourage real estate development in Northern Manhattan. The Upper Manhattan Empowerment Zone (UMEZ), for example, was established in 1994 and provided \$73 million in loans to mixed-use real estate development projects, commercial businesses, and small business enterprises,⁴⁵ as well as tax-exempt bonds for real estate development projects. UMEZ funding included a \$15 million loan and \$40 million in tax-exempt bonds to East River Plaza, an East Harlem shopping mall now occupied by food retailers Costco, Target and Aldi that opened in 2009.⁴⁶



East River Plaza is home to Costco, Target, Aldi and other big box retailers in East Harlem.

City agencies like the Department of City Planning, Housing Preservation and Development, the Economic Development Corporation (EDC), and the Upper Manhattan Empowerment Zone have also used the disposition of City-owned property, tax subsidies, and upzoning (increasing the size of buildings allowed in the area being rezoned) to encourage new development. The effects on East Harlem's residential and commercial landscape have been significant:

- A special zoning designation in 1999 created the East River Plaza shopping center (between 116th and 119th Streets, adjacent to FDR Drive) with space for big box retailers Costco and Target;
- In 2002, the rezoning of First, Second, and Third Avenues allowed more than a dozen new 8-12 story mixed-use residential and commercial buildings (and CUNY's Silberman building), adding higher-income residents and new retail to the neighborhood;

- In 2008, the rezoning and acquisition of property from 125th Street to 127th Street, between Second and Third Avenues, to construct a 1.7 million square foot housing, retail, and cultural project, will increase property values throughout the community;^{47,48}
- The 2008 comprehensive rezoning of 125th Street has increased property values and encouraged new investments by developers, leading to changes like the sale of Pathmark to a developer who will replace it with a much larger mixed-use building;⁴⁹
- Targeted zoning changes throughout East Harlem have led to new residential and commercial spaces:
 - "Harlem Park," a 500,000 square foot mixed-use development with a hotel, 100 residential units, offices, retail space, and a parking garage;⁵⁰
 - A 110-unit rental building with 5,400 square feet of ground floor commercial/ retail space and 450 square feet of community space;⁵¹
 - A 314-unit, 296,000 square foot housing project with 2,340 square feet of commercial space on a City-owned lot between Harlem River Drive and the Metro North railroad;⁵²
 - The conversion of an old public school into an arts facility with 89 units of affordable live/work space for artists and their families;⁵³ and
 - The sale of City-owned property at 413 East 120th Street to a developer to build a 12-story building (Acacia Gardens) with 179 units of affordable housing, 5,450 square feet of retail, 3,920 square feet of community facility space, 27 parking spaces and 9,410 square feet of recreational open space.⁵⁴

EFFECTS OF DEVELOPMENT ON EAST HARLEM FOOD RETAIL

Some development policies have directly affected food retail in East Harlem. For example, the special permit that created East River Plaza brought Costco and Target to the community. Rezoning 125th Street and adjacent blocks increased the value of the property occupied by Pathmark and Associated so much that owners decided to sell the properties for other uses.

Other policies have stimulated higher-priced development, resulting in increased property values and real estate development activity.^{55,56} While not directly affecting supermarkets, by increasing residential and commercial rents (since 2000, retail rents in Upper Manhattan have risen 41 percent⁵⁷), these policies change the socioeconomic composition of the community and its commercial mix, leading to the displacement of lower-priced retailers by less affordable alternatives. Between 2005 and 2013, East Harlem's income diversity, the gap between highest and lowest income earners in a community (measured by dividing the income of households in the 80th percentile by the income of households in the 20th percentile) has widened from 6.2 to 8.0. A growing income gap may lead to a larger gap in food affordability.

CHANGES IN FOOD RETAILERS

Targeted programs, as well as broader land use and economic changes in East Harlem, have resulted in a denser and more diverse retail food environment in 2015 as compared to 2000. An increase in supermarkets, together with other healthier retail options, has increased access to fresh produce and made it easier for residents of East Harlem to acquire a wide range of healthy food. Unfortunately, though, unhealthy food venues have increased even more rapidly, with fast food restaurants becoming ubiquitous and the number of bodegas continuing to increase.

By the end of 2015, East Harlem is neither simply a food desert (i.e., a place where no healthy food can be found) nor is it a food swamp (i.e., a community with abundant but largely unhealthy food options). Rather, our community is a complex mix of healthy and less healthy food sources, innovative food purchasing programs and conventional supermarket chains, and a combination of fast food and ethnic restaurants.

For many East Harlem residents, especially those with lower incomes, unhealthy food is more available than it was 15 years ago, and for the most part, continues to be cheaper and more accessible than healthier food options. The business practices, policies and programs put in place over the past 15 years will continue to affect East Harlem's food retail mix. Forthcoming zoning changes to implement the de Blasio administration's affordable housing plan will also significantly affect the retail food environment.

To reduce food insecurity and diet-related diseases in East Harlem, residents, activists, health professionals and elected officials need to focus on two levels. On the first level, East Harlem needs targeted programs and policies that encourage retailers to sell healthier foods and that bring healthier and more affordable foods to the community. Second, the community as a whole needs broader civic engagement in planning, zoning, and economic development policies, in an effort to ensure both that food retail is taken into consideration during redevelopment and that neighborhood development does not displace affordable food retailers. By acting on these two levels, East Harlem will be able to create new opportunities for healthy food retailers to open and thrive in our community.

SECTION 3

CHANGES IN FOOD INSECURITY AND FOOD ASSISTANCE IN EAST HARLEM



New York Common Pantry is located on 109th Street between Lexington and Fifth Avenues.

Food security is vital to ensuring health, well-being and the ability to lead an active lifestyle. For some East Harlem residents, unstable social and economic conditions result in limited or uncertain access to adequate and healthy food. Public policies shape the conditions that contribute to food security and can also help alleviate the negative impacts of food insecurity. Between 2000 and now, changes in federal, state and local food benefit programs have directly affected residents in East Harlem and their levels of food security. Using the sometimes limited data that are available, this section summarizes trends in food insecurity, food benefits, and food assistance in East Harlem and New York City.

FOOD INSECURITY IN EAST HARLEM

Measuring food insecurity is a difficult task, and no New York City organization has been able to track hunger and food insecurity by neighborhood with consistent measures over time. Between 2009 and 2012, East Harlem ranked 14th among the city's 59 community districts for the highest in levels of food insecurity.¹ In 2014, the Food Bank for New York City estimated that 23 percent of East Harlem's residents—more than 28,000 people—were food insecure, again ranking 14th highest among the city's community districts.² The Food Bank for New York City calculates the “meal gap” for the city as a whole and for various neighborhoods within the city, using factors such as poverty and local food costs. In 2015, compared to other neighborhoods, East Harlem District 11 had a “high” annual meal gap, meaning that families and individuals struggling with food insecurity collectively missed between 4.5 and 5.8 million meals that year.³

FIGHTING HUNGER IN EAST HARLEM: SNAP PARTICIPATION



Previously known as the Food Stamp Program, the Supplemental Nutrition Assistance Program (SNAP) aims to alleviate hunger and malnutrition through monthly benefits to eligible low-income families. These benefits are designed to boost recipients' food-purchasing power.⁴ SNAP is the largest nutrition assistance program administered by the United States Department of Agriculture (USDA) and accounts for most of the USDA's budget.⁵ A national survey in 2012 demonstrated that SNAP has reduced the percentage of food-insecure households by at least five to 10 percent.⁶

According to New York City Human Resources Administration (HRA)'s Community District Demographics and Program Statistics, between 2001 and 2015, the percentage of East Harlem residents receiving SNAP more than doubled, from 16.8 percent to 39 percent. In Fiscal Year 2011-12, the peak year for SNAP enrollment, 50,042 East Harlem residents and 64 percent of all EH residents were receiving SNAP.^{7,8,9} Web appendix 3-1 shows these data.

Numerous factors at all three levels of government have contributed to the higher rates of enrollment in SNAP among East Harlem residents over the last 15 years. Web Appendix 3-2 shows the major local, state and federal level policy changes that have had an impact on East Harlem residents' SNAP eligibility, application and recertification processes, and benefit amounts.

Prior to the period described here, during the era of welfare reform in the mid-1990s, SNAP participation dropped to an all-time low.¹⁰ Policy changes reduced SNAP benefits, increased the bureaucracy involved in application and eligibility verification processes, and required frequent recertification. Nearly one third of participants nationwide had to reapply every three months.¹¹ In New York City, Food Stamp Program participation declined 44 percent between February 1995 and February 2002.¹² In East Harlem, enrollment in the public assistance program known as Temporary Aid to Needy Families (TANF)—often paired with Food Stamps—fell by 53.5 percent between 1994 and 2001.¹³ These reductions set the stage for increases in the next period.

CHANGES IN THE ECONOMY AND SOCIAL POLICY

After 2002, some barriers to SNAP enrollment were rescinded, and a steep increase in participation followed. Another substantial leap in participation rates occurred from 2007 to 2009 during the Great Recession.¹¹ In 2009, the recession was considered to have ended and employment rates began to recover. For many low-income residents, however, including those in East Harlem, recovery was slow, and even those who did find employment were often stuck in low-wage jobs. By 2015, people with the lowest salaries after the recession remained in poverty, often having experienced reductions in income. For the bottom fifth of American workers, income actually fell by five percent between 2006 and 2012. The number of households living in poverty in East Harlem remains persistently high, despite national and local declines in unemployment. Thus, SNAP participation continues to grow as low-wage earners require ongoing support to alleviate food insecurity.

In addition to policies that have expanded access to SNAP and reduced barriers to participation, public and non-profit organizations and city agencies have amplified efforts to facilitate enrollment in emergency assistance programs. Such agencies have ensured that all allowable deductions are calculated correctly, in order to maximize benefits for potential participants. City-wide, the proportion of users of emergency assistance programs enrolled in SNAP increased from 31 percent of eligible persons in 2004 to 57 percent in 2012.¹⁴ By 2013, increased enrollment and outreach for SNAP increased the proportion of eligible

participants enrolled in New York City to 77 percent, up from less than 70 percent in 2006.¹⁵ On the one hand, increased local participation in SNAP helps relieve the demand felt by charitable food suppliers committed to meeting the needs of food-insecure New Yorkers. On the other, the fact that more than half of the people using emergency food assistance programs were also enrolled in SNAP shows that the nation's largest food benefit program fails to ensure food security.

In November 2013, Congress approved federal cuts in SNAP funding. More than one million households in New York City lost an average of \$18 per month in benefits. For some families, such a loss meant missing several meals per month, or relying on inexpensive, calorie-dense, nutrient-poor foods to satisfy hunger.¹⁶ Further cuts are expected in 2016.



Many retailers in East Harlem accept SNAP and WIC benefits.

IMPROVED ACCESS TO SNAP IN EAST HARLEM

In recent years, the city has made many efforts to improve access to SNAP for eligible residents.

- Much of the low-income, SNAP-eligible population is employed, and many hold multiple jobs. Despite expanded hours at the Waverly SNAP Center on 14th Street, many of these working families still have trouble getting to a SNAP Center during open hours. To meet their needs, the city launched an online SNAP application website, AccessNYC, in 2008. The site screens users for various city, state, and federal health and human service benefits, and allows the user to apply for benefits for which they qualify.
- In 2012, SNAP screenings, made possible by a partnership among Greenmarkets, the Food Bank of NYC and the NYC Coalition Against Hunger, were introduced at farmers markets in East Harlem and other neighborhoods.
- In 2008 and June of 2012, New York City Human Resources Administration reached out to SNAP participants in East Harlem (and other areas served by the District Public Health Offices) to inform them about *Health Bucks* incentives at farmers markets (\$2 coupons for every \$5 spent in SNAP dollars at farmers markets). As a result, many new customers began to attend farmers markets in East Harlem, SNAP purchases of fresh fruits and vegetables increased, and additional participants became aware of the *Health Bucks* incentive.¹⁷



Health Bucks are \$2 coupons given for every \$5 spent in EBT at farmers markets throughout the city.

ENROLLMENT DIFFICULTIES BASED ON DEMOGRAPHICS

Several demographic groups face distinct challenges in the SNAP enrollment process.

IMMIGRANTS

New York City is a city of immigrants, and East Harlem is no exception. In 2013, about 28 percent of East Harlem residents aged five years and older were foreign-born, and 44 percent spoke a language other than English at home.¹⁸ The SNAP application process often presents many barriers for immigrants. On the national level, legislative restrictions and changes have barred undocumented immigrants from receiving food benefits and limited access for documented immigrants. The recent changes in eligibility rules for applications also create barriers and confusion, making documented immigrants and their citizen children less likely than other eligible groups to participate in SNAP.¹⁹ In 2000, the East Harlem area of zip code 10029

was estimated to have 1,449 eligible immigrants not participating in SNAP.¹⁹ The Urban Justice Center found that administrative obstacles, including complex program rules, documentation requirements and language barriers, pose key challenges to enrollment and participation for immigrants. The Center has urged more thorough services for, and greater outreach to, immigrant communities.¹⁹ As of 2015, benefit information in New York City is available in seven languages: English, Spanish, Chinese, Russian, Korean, Arabic and Haitian Creole.

SENIOR CITIZENS

One third of older New Yorkers live in poverty, while thousands more are financially insecure. Many seniors live on fixed social security income and must cope with high medical and pharmaceutical bills. These financial constraints often mean that many New York seniors are not able to afford the food that they need and are food insecure. The Council of Senior Centers and Services (CSCS) found that in East Harlem Community District 11, 56 percent of New Yorkers aged 60 and older are eligible for, but not enrolled in SNAP.²⁰ Among households receiving SNAP in 2013 in New York Congressional District 13, which includes East Harlem, 41 percent had one or more members aged 60 years or older, although this may be a conservative estimate.²¹ If all eligible seniors in East Harlem were enrolled, they could potentially receive almost \$12.5 million collectively in SNAP benefits each year. The potential boost to the local economy translates to more than \$22 million annually.²²

SNAP PURCHASING POWER IN EAST HARLEM

If food costs increase while food benefits remain stable, families will not be able to purchase as much food, reducing the role of SNAP in preventing hunger and food insecurity. As of October 1, 2014, the maximum standard SNAP allotment for a family of four was set at \$632 monthly.²³ Due to the high cost of living in New York City, many families on fixed budgets still struggle to meet their nutritional needs, even with the assistance of SNAP benefits. While SNAP benefits are the same nationwide, costs of food in New York City and rates of food price inflation routinely exceed the national average. According to the Council for Community and Economic Research, grocery costs in New York City are about 30 percent higher than elsewhere in the country.²⁴ Benefits nationwide are computed through the Thrifty Food Plan, a low-cost diet developed by the United States Department of Agriculture (USDA)'s Center for Nutrition and Policy Promotion. USDA's Thrifty Food Plan includes a menu demonstrating ways to limit financial costs while optimizing nutrition. Multiple researchers and organizations find that SNAP benefits based on the Thrifty Food Plan do not allow families to purchase enough food to last until their next monthly SNAP allotment and do not allow families to buy food items needed for adequate nutrition. Additionally, this plan has been estimated to require more than twice the number of hours of food preparation than the average American food preparer spends.²⁵

LOCAL GROCERS

New York City SNAP participants contribute federal dollars to local food stores. The use of SNAP benefits boosts local food retailers' business and promotes economic growth. Every \$1 in SNAP benefits is estimated to generate \$1.70 in economic activity.²⁶ According to the USDA SNAP Retail Locator in October 2015, there were 135 SNAP eligible stores in East Harlem.²⁷ For these East Harlem retailers, SNAP provides an important source of revenue.

THE EMERGENCY FOOD ASSISTANCE PROGRAM: THE LAST LINE OF DEFENSE AGAINST HUNGER

East Harlem, like other low-income New York City neighborhoods, has a robust network of soup kitchens, food pantries, food banks and food rescue organizations providing emergency food assistance. Data from emergency food organizations indicate that the term "emergency food" is, in many cases, a mischaracterization of their programs, because food pantries and soup kitchens appear to be a regular source of food for many New Yorkers.²⁸

Many barriers deter access to emergency food. An East Harlem resident who works during the day will not find many food pantries or soup kitchens that are open beyond typical daytime business hours. Figure 3-2 shows the decline in number of food assistance programs in East Harlem since 2004, from 44 in 2004 to 30 in 2015. It was not possible to ascertain whether the number of people served has changed or the extent of the gap in services. Figure 3-3 is a screen shot of FoodHelp.nyc, an interactive tool designed to help users locate emergency food resources.²⁹

Figure 3-2 Food Assistance Programs in East Harlem, 2004-2015

EAST HARLEM CB 11	2004	2015
Soup Kitchens	15	8
Food Pantries	29	22
Estimated Meals Served	3,072,755	Data not available

Sources: ^{30,31}

Figure 3-3 FoodHelp.nyc

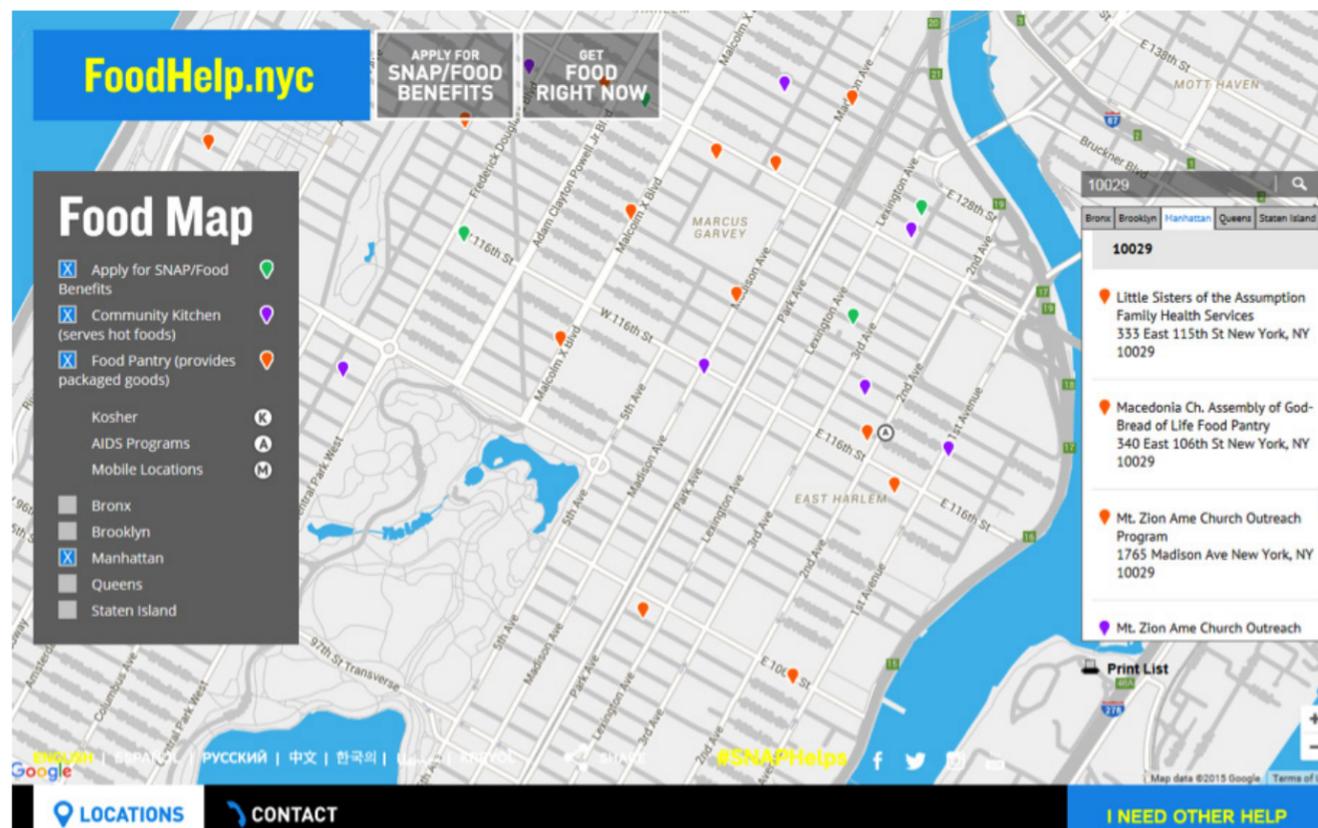


Image credit: FoodHelp.nyc

FUNDING FOR EMERGENCY FOOD PROGRAMS

A mix of federal, state and local government funds, along with private and charitable sources, support the emergency food assistance system. Some New York City-based organizations receive funding assistance from the HRA-administered Emergency Food Assistance Program (EFAP), which coordinates distribution of non-perishable food to soup kitchens and food pantries. Other funding streams include the Emergency Food and Shelter Program (EFSP), the Hunger Prevention and Nutrition Assistance Program (HPNAP), and the federal-level Emergency Food Assistance Program (TEFAP). The Food Bank for New York City operates the Tiered Engagement Network (TEN) partnership of programs with different capacities that work together in meeting community needs from emergency food to SNAP benefits. The TEN provides organizations with training, technical and operation assistance, and support for grant applications.³²

Following the cuts to SNAP in November of 2013, the citywide network of the Food Bank for New York City reported immediate and widespread increases in demand for food assistance services. By the end of the month, half of the pantries and soup kitchens had run out of food, and a quarter of the providers were forced to reduce rations in an effort to stretch resources.³³ The latest 2015 report from the Food Bank for New York City shows that demand at emergency food sites remained high and visitor traffic at food pantries and soup kitchens has increased in the wake of the November 2013 SNAP cuts.³⁴

Profile of New York Common Pantry

The New York Common Pantry is dedicated to “reducing hunger throughout New York City while promoting dignity and self-sufficiency.” Based in East Harlem, the organization serves both local and non-local residents. This pantry and hot meal kitchen is open seven days per week and provides more than just emergency food assistance. Services include:

- **Choice Pantry**, which allows participants to choose their own food packages to fit their unique cultural and nutritional needs. Members can order in advance online or onsite via wireless touch screen tablets. The program has placed on emphasis on providing fresh vegetables and fruits over canned produce.
- **Help 365**, which supplies case management services that help individuals apply for and obtain resources, such as SNAP benefits.

- **Project Dignity**, which provides case management services to homeless individuals and offers showers, laundry and mail services on site. The program aims to help individuals gain back their health, well-being and self-sufficiency.

- **Live Healthy! Program**, a part of *Eat Smart New York*, which offers nutrition education, healthy lifestyle and cooking classes for all SNAP participants.

- Outreach and other services to help the many unenrolled but eligible seniors sign up for various benefits.

Dedicated staff and volunteers provide this multi-layered approach to reducing food insecurity, serving a vital role in the health of the community by providing essential services promoting dignity and wellness.³⁵



Thanksgiving Drive at New York Common Pantry, November, 2015.
Photo credit: New York Common Pantry

SPECIAL SUPPLEMENTAL NUTRITION PROGRAM FOR WOMEN, INFANTS AND CHILDREN (WIC)

The WIC program provides additional assistance for low-income pregnant, postpartum and breastfeeding women and infants, and children determined to be at “nutritional risk” by a health professional. WIC provides nutritious foods to supplement diets, information on healthy eating practices, breastfeeding encouragement, and support and referrals to health care. To be eligible, applicants’ pre-tax income must be at or below 185 percent of the U.S. Poverty Income Guidelines.³⁶ Two health care providers located in East Harlem enroll eligible women and children in WIC: the East Harlem Council for Human Services and the Institute for Family Health.

In 2009, the New York State Department of Health determined that 17,247 women, infants and children were eligible for WIC in East Harlem,³⁷ but data on those actually enrolled are not available. The WIC program has undergone changes in the last 15 years, most notably in 2009 when the WIC food package was expanded to include fresh fruits and vegetables. All participating women receive \$10 per month in fruit and vegetable cash vouchers within their monthly food package.³⁸

The WIC Farmers Market Nutrition Program (FMNP) is a federally funded and state-administered program created to provide fresh, locally grown produce to WIC participants while boosting visits and sales at farmers markets. The vouchers, valued at \$4, are provided monthly from June to November.³⁹

In 2009, New York State introduced the WIC Vegetables and Fruits Check Program (WIC-VF), which allows monthly WIC vegetable and fruit checks to be redeemed at participating farmers markets. New York was the first state to adopt this change.³⁹

IMPROVING FOOD SECURITY IN EAST HARLEM

Improving the health of East Harlem residents will require a commitment to reducing food insecurity. In the long run, ending food insecurity will require ensuring that all workers are paid a living wage and that rents remain stable and affordable. In the current economic reality, however, many East Harlem residents continue to live in poverty and the costs of food and housing continue to rise. Thus, expanding participation in food benefit programs and increasing government support for better access to emergency food are great needs in this community. Furthermore, as discussed in the next section, improving institutional food programs, especially school food, offers another path to making East Harlem more food secure.

SECTION 4

CHANGES IN INSTITUTIONAL FOOD: THE PUBLIC PLATE IN EAST HARLEM



One of 65 East Harlem schools serving children food.

On almost any weekday, a visitor might observe the following in East Harlem:

- Students in elementary, middle and high schools between September and June eating breakfast or lunch at school, prepared and served by employees of the New York City Department of Education (DOE);
- Senior citizens sitting down to a hot lunch in one of eight senior centers under contract to the New York City Department for the Aging (DFTA);
- Patients at Metropolitan Hospital Center eating meals prepared in the Health and Hospitals Corporation's (HHC) cook-chill facility in Brooklyn and delivered by truck;

- Residents of various residential treatment centers eating meals regulated by the New York City Department of Health and Mental Hygiene (DOHMH);
- Children in day care centers overseen by the New York City Administration for Children's Services (ACS) eating lunch and snacks, and sometimes breakfast or dinner, prepared on site or purchased from vendors, but regulated by the federal, state and city governments;
- Inmates and corrections officers from East Harlem at Rikers Island eating meals planned and prepared by the New York City Department of Correction (DOC);
- Children and youth in after school programs contracted by the Department of Youth and Community Development (DYCD) eating snacks and sometimes dinner;
- Residents of the Charles H. Gay Shelter for Men on Ward's Island eating breakfast and dinner.

The above are examples of institutional food at work in East Harlem. The "public plate" (food prepared and served to individuals at public institutions) is one of the sectors of the food system most directly susceptible to intentional government intervention. When public agencies prepare and serve meals, or fund meals served by other organizations, they are able to exercise a high degree of control over who eats the meals and what is served. Thus, the public plate enables government to address both food insecurity and diet-related disease.

Although institutional food is a very significant part of the East Harlem foodscape, its precise contours are difficult to ascertain because very few agencies report data at the neighborhood or community district level. We have data on school meals for the Department of Education’s District 4, which coincides with the neighborhood, and some data for senior centers and hospitals, and we shall use these three types of institutional food to illustrate the power of the public plate to alter or maintain the neighborhood’s food system.

East Harlem School Food by the Numbers

- New York City SchoolFood serves meals at **65 schools** in East Harlem
- On an average school day, **9,450 students** in District 4 eat the official school lunch
- District 4 schools served **1,693,340 school lunches** in 2015
- District 4 schools, enrolling **16,251 children** served **694,323 breakfasts** in 2015
- East Harlem schools serve nearly **2.4 million meals** a year

Source: Community Food Advocates

SCHOOL FOOD

All public schools in East Harlem serve breakfast and lunch, and have done so for many years. Meals are planned and prepared by the Office of School Food and Nutrition Services of the New York City Department of Education, commonly known as SchoolFood. The overwhelming majority of these meals, 90 percent, are served to students eligible to eat free.¹

Since 2000, the number of lunches served has dropped by 15 percent, largely due to declines in enrollment. School enrollments have dropped by about 12 percent—about 5,000 fewer children—in East Harlem, as a result of the reduction in the school-age population in the neighborhood. The number of school breakfasts served, on the other hand, has increased, reflecting a policy change that made breakfast free for all students beginning in school year 2003-2004, and the addition of Breakfast in the Classroom in some schools in subsequent years. School breakfasts served in the neighborhood rose to a peak of 881,613 in school year 2011-2012.

In assessing school meal participation, attendance is more important than enrollment; you cannot eat school lunch or breakfast if you are not in school. In short, school *lunch* participation as a percentage of average daily attendance has varied only slightly since 2002, while school breakfast participation as a percentage of average daily attendance nearly doubled before a significant decline last year, explained partly by a substantial increase in attendance despite a modest drop in enrollment.

SCHOOL MEALS AND COMMUNITY WELL-BEING

Reducing Food Insecurity and Preventing Hunger

School meals reduce hunger and food insecurity by providing healthy meals free or at low cost; they stave off hunger for students who would otherwise do without, and provide a complete, balanced meal for many who would otherwise have gotten by on an inadequate meal – the proverbial soft drink and a bag of chips in too many cases. The federal government reimburses schools for meals served through the National School Lunch and Breakfast Programs in varying amounts based on the family income of the students. Schools are required to serve meals free of charge to students from families with incomes below 130 percent of the federal poverty level (currently \$26,117 annually for a family of three), and at a sharply reduced price to students from families with incomes under 180 percent of the poverty line (currently \$37,167 annually for a family of 3). The locally determined charge for a paid lunch is \$1.75. Since 2000, New York City has taken several steps to enable more students to benefit from these meals. As noted above, breakfast became free for all students in 2003, and since 2013, New York City has offered lunches free to students whose family income qualifies for the reduced price lunch, in addition to those who qualify for free lunch. About 80 percent of students in East Harlem qualify for free meals; on a typical school day in the 2014-2015 school year, more than 12,000 meals, or 90 percent of the meals served, were consumed by students eligible to eat free.² School food serves as an important defense against food insecurity for many school-aged children in the neighborhood.

One third of East Harlem's schools³ take advantage of one of two federal programs that allow them to serve meals free to all students in the school, a practice generally referred to as universal free school meals. Eleven schools participate in the program known as Provision Two, and another 11 participate in the Community Eligibility Program (CEP). Provision Two has been available in New York City throughout the study period; CEP was instituted citywide in stand-alone middle schools beginning with the 2014-2015 school year. Participation in school food programs is notably higher in schools that offer universal meals. In East Harlem elementary schools for which data are available, participation (as a percent of attendance) averaged 79 percent in schools using Provision Two, and 68 percent in those that did not offer the universal approach.⁴

The hunger prevention effects of school meals, however, are not limited to meeting the immediate needs of students who participate. The programs also allow families to use their resources for other needs at home. At lunchtime, the average daily participation (ADP) of free and reduced price eligible students in East Harlem was 8,562. If these meals are valued at \$3.15 each, the federal reimbursement rate for free meals in New York City, then free and reduced price school lunches saved East Harlem families \$26,970 each school day, or \$4.85 million over the course of the 180-day school year. Similar calculations for breakfast, for which ADP was 3,913 last year and the federal free breakfast reimbursement rate is \$1.99, would yield savings to the families of East Harlem students of \$7,787 per day, or about \$1.4 million for the year. Given the tight budgets of many East Harlem households, some portion of these freed resources were likely used to purchase food to feed the family at home, presumably with many purchases made at neighborhood shops, thus supporting local businesses and employment.

Improving Nutrition and Promoting Health



New York City SchoolFood menu board

School meals in East Harlem, as across the city, must meet rigorous federal and local nutrition standards. Over the course of the last dozen years, meals have undergone significant changes. The City began a process of improving both nutrition and palatability early in the period under study. During school year 2003-2004, sodium and cholesterol limits were established and soda was eliminated from vending machines. In the next year, an executive chef was hired to develop new recipes, trans fats were eliminated,

higher nutrition standards were set, and the City launched a marketing campaign aimed at making school food “cool.”⁵

In 2008, the Mayor's Office of Food Policy convened a task force to establish food standards for the City, first disseminated by an Executive Order in September 2008. The standards set regulations for food purchased and meals served, and they hastened the process of upgrading the nutritional quality of

school meals. As a result of doing so, when the federal standards were revised pursuant to the Healthy Hunger Free Kids Act in 2010, New York City had few changes left to make. In addition to limiting sodium, eliminating trans fats, and prohibiting deep-fat frying as a preparation method, these standards require the use of whole grains and specify the amount of fruits and non-starchy vegetables that must be included in each meal and in each week's menus.⁶

SchoolFood has subsequently enhanced its new, healthier meals through the installation of salad bars and water jets in schools. Since 2004, New York City has installed more than 1,000 salad bars; by 2014, there were a total of 1,426 salad bars in New York City schools.⁷ The City's goal was to have a salad bar in every school by the end of 2015. The provision of free water is mandated by both the New York City nutrition standards and the revised federal standards, emphasizing the importance of drinking water with meals. In order to avoid reliance on expensive bottled water, SchoolFood has been installing water jets in cafeterias. Recent regulations have also set nutritional standards for foods sold in vending machines, school stores, bake sales and other foods sold in competition with reimbursable meals.

Schools in East Harlem have used a variety of approaches to promote the new, healthier menus, and to use them as a basis to teach students about food and health. Some of these innovations are described in Section 5, which focuses on nutrition education.

Other Contributions

In addition to their primary goals of reducing food insecurity and improving nutrition, school food programs also affect the neighborhood in other ways. They provide jobs, create markets for local and regional foods, and generate a waste stream.

Jobs

Jobs in school food service operate on the school calendar, and thus they are of particular importance to communities with large numbers of single-parent families. Unfortunately, this is one aspect of the school foodscape that has not improved. The union contract between District Council 37/Local 372, which represents school food workers, and SchoolFood specifies that 5.5 labor hours are required for each 100 lunches served, and school food service jobs are calculated at 6.6 hours per day. Because of the drop in lunches served between school years 2002-2003 and 2014-2015 (1,681 fewer lunches per day), and based on the labor hours required for that many meals, about 14 jobs were lost during this time frame. The increase in breakfasts has replaced some of those jobs, but not many, because breakfasts are figured at only two labor hours per 100 meals; the additional 1,241 breakfasts per day provided less than 4 additional jobs.

Markets

Procurement for school meals in New York City is performed centrally through large supply contracts; it is not decentralized to individual school districts. Nevertheless, SchoolFood tries to purchase New York State milk, yogurt and fresh and frozen produce whenever possible, even emphasizing them on "New York Thursdays," an initiative launched in September

2015. In 2014, DOE spent \$25.5 million on locally or regionally produced milk, yogurt and produce—\$19.2 million on dairy and \$6.3 million on produce.⁸ In this way, school meals and the school children of East Harlem help support the regional agricultural economy.

Waste

Until 2010, schools in East Harlem were sending about 65,000 Styrofoam trays to the incinerator each week, more than two million each year. In 2010, the initiation of Trayless Tuesdays reduced that number by about 20 percent. In 2012, SchoolFood entered an agreement with other major cities to search for an affordable biodegradable tray. The result was a "trayplate," a large, rounded plate with raised sides and a compartment in the middle designed to hold a milk carton, made of completely biodegradable material. With the adoption of the new biodegradable plates, East Harlem schools are now Styrofoam-free. Students are learning to care for the environment, and there is significantly less Styrofoam—a nearly indestructible material—flowing into local landfills and incinerators.

SENIOR MEALS

In contrast to school food, where ample time series data are available at the district level, neighborhood level information on senior meals is readily available only for the current year. Eight senior centers funded by the Department for the Aging (DFTA) are located in East Harlem, where the population aged 60 and over numbers nearly 19,000.⁹ Together, these centers serve about 740 congregate lunches on an average day. To put this small number in context, compare it with the school data above: the 16,251 children enrolled in East Harlem schools consume an average of 9,450 lunches per school day. Of course, some East Harlem seniors may be attending senior centers in other neighborhoods, but overall, the volume of congregate senior meals is small. While there are no neighborhood level time series data, the Mayor's Management Report shows that citywide, the number of meals served at senior centers has declined substantially over the past 15 years, from 29,240 per day in fiscal year 2001 to 24,238 in fiscal year 2014.¹⁰

Despite the relatively small volume, the meals are very important to the seniors who consume them. First, many East Harlem seniors live alone – 42 percent as compared to a citywide average of 29.4 percent.¹¹ Second, many East Harlem seniors are poor. While the national poverty rate for seniors is relatively low at 9.9 percent, almost a quarter (24 percent) of older adults living in East Harlem have incomes under the federal poverty threshold.¹² Third, many seniors in the area do not take advantage of other programs designed to assist them in obtaining adequate food. A recent study by the Council of Senior Centers and

Services estimated that more than half, approximately 56 percent, of seniors eligible for SNAP in Community District 11 are not enrolled.¹³ Based on these data, it is apparent that many seniors could benefit from meals served at senior centers to supplement their daily diets and to ensure adequate nutrition.

The meals themselves have changed over the course of the study period. DFTA has long had nutrition standards for meals, and agency nutritionists make at least two site visits per year to each center to monitor for compliance. The New York City Food Standards implemented in 2008 established stronger limits on sodium and greater requirements for fiber, fruits and vegetables. DFTA created an online menu-planning tool and provided centers with assistance in locating the lower sodium products they needed, as well as assistance in procuring and preparing fresh produce. As the DFTA Director of Nutrition for senior center programs explained:

The implementation of the NYC Food Standards created an opportunity for DFTA Nutritionists to engage program staff in conversations about the benefits of cooking with more fresh ingredients and reducing sodium in the diet. As a result, we've noticed that more fresh ingredients and less processed foods that are high in sodium are being used.¹⁴

Overall, senior center directors report that compliance with the new standards is high.¹⁵

Lunch at Carver Senior Center



Lunch at Carver Senior Center in East Harlem

Menu: baked ziti with marinara sauce, fresh green salad, steamed green beans, low-fat milk, juice, water, individual cups of canned peaches

The small kitchen of the Carver Senior Center, located on the ground floor of one of the buildings of Carver Houses, a New York City Housing Authority Project, produces about 100 delicious and nutritious lunches every weekday. Art instruction, exercise classes, dominoes, card games, flower arranging and health information are frequent complements to the healthy meals.

A contribution of \$1 is recommended, but not required, for each lunch, and the meal service collects between \$90 and \$100 each day.

Any person 60 or over may become a member of the Center, without regard to place of residence, citizenship status, race, creed, disability, gender, sexual orientation, marital status or national origin. In addition, the spouse of a member and any disabled resident of Carver Houses, regardless of age, may become a member. Most members are residents of Carver Houses, and 80 percent are women, though people travel to the Center from as far away as Queens. The Center, sponsored by the Institute for the Puerto Rican and Hispanic Elderly, has a strong Puerto Rican identity, with Puerto Rican flags prominently displayed, and island cultural traditions reflected in art, activities, and sometimes in the menu.

Five of the East Harlem senior centers cook their own meals on site, and three receive meals prepared at other senior centers. No East Harlem senior center uses a commercial meal vendor, although that is an option under DFTA contracts. The centers spend between \$1.50 and \$3.00 per meal on the purchase of food, with an average of \$2.70.

There has been no systematic study of meal quality in East Harlem senior centers, but in brief interviews conducted for this report, center directors expressed general satisfaction with the rules and a conviction that the standards have promoted better health among seniors. At the same time, they stressed the importance of preparing and providing “cultural dishes that the seniors like.” As one put it, “no one really says anything except about the [reduction in] salt; seniors always complain about salt.” Despite the center’s workshops on sodium intake and health, she reported, “sometimes they bring their own salt and pepper shakers.”¹⁶

Senior meal programs also have an impact on the economy of the neighborhood. They create jobs, and they bring federal, state and city dollars into the area. The centers interviewed used a variety of procurement strategies for fresh produce and other food; two obtain most from their regular distributor, and one goes to the local Cash and Carry store. Another indicated that the center had occasionally bought from a local farmers market and expressed interest in a DFTA initiative to promote direct purchase from upstate vendors.

HOSPITALS

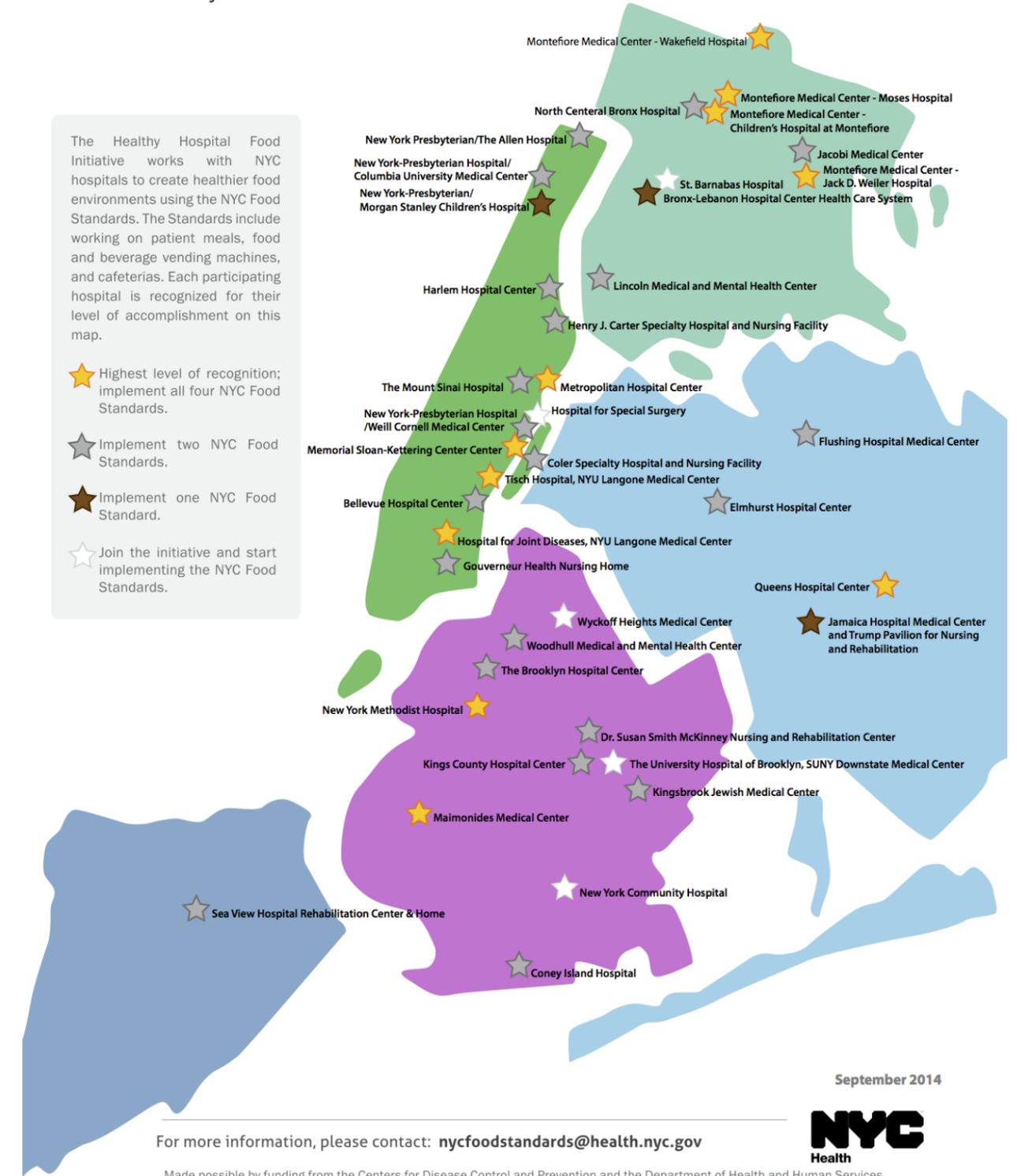
Two hospitals are located in East Harlem: Metropolitan Hospital, which is a public facility run by New York City Health and Hospitals, formerly known as HHC; and Mount Sinai Hospital, a private, non-profit institution. Another public facility, Harlem Hospital Center, is located close enough to the neighborhood that it undoubtedly provides medical care for many East Harlem residents. Patient meals in public hospitals and residential care facilities in New York City are prepared in a central “cook-chill” facility in Brooklyn and delivered by truck to various sites.¹⁷ The conversion to this centralized production system began in 2004 and affected meals served at both Metropolitan Hospital and Harlem Hospital Center.

Beginning in 2008, patient meals in HHC hospitals were required to meet the New York City Food Standards, as well as the standards of the Joint Commission on Hospital Accreditation and various therapeutic specifications prescribed by physicians. The Food Standards specify nutritional requirements for foods purchased, such as sodium limits for bread and canned vegetables, and for meals served, such as the inclusion of at least two fruit or vegetable servings at lunch and dinner.

New York City | HEALTHY HOSPITAL FOOD INITIATIVE

The Healthy Hospital Food Initiative works with NYC hospitals to create healthier food environments using the NYC Food Standards. The Standards include working on patient meals, food and beverage vending machines, and cafeterias. Each participating hospital is recognized for their level of accomplishment on this map.

- ★ Highest level of recognition; implement all four NYC Food Standards.
- ☆ Implement two NYC Food Standards.
- ★ Implement one NYC Food Standard.
- ☆ Join the initiative and start implementing the NYC Food Standards.



For more information, please contact: nycfoodstandards@health.nyc.gov



Made possible by funding from the Centers for Disease Control and Prevention and the Department of Health and Human Services.

NYC Healthy Hospital Food Initiative Map, September 2014

Patient meals, however, are only part of the picture. Hospitals also serve meals to the city's 125,000 hospital employees and thousands of visitors. In public hospitals, meals for employees and visitors must also comply with the New York City Food Standards with regard to foods purchased. Although the City cannot specify the meals that staff and visitors will select, it strives to "make the healthy choice the easy choice." The City has been using the following tactics to accomplish this goal: promoting the installation of salad bars in hospital cafeterias and otherwise increasing the availability of fresh fruits, vegetables and whole grains; promoting healthy value meals; eliminating fried foods; and limiting the promotion of high calorie beverages.¹⁸ The staff at the New York City Department of Health and Mental Hygiene indicated that Metropolitan Hospital has done an especially good job with its café. Metropolitan was offering either pre-packaged or made-to-order salads by July 2012, and Harlem Hospital Center joined the list of eight HHC hospitals offering such meals by July 2013.¹⁹

In addition to meals served, hospitals dispense food through snack and beverage vending machines. The Food Standards provide very clear standards for both. According to DOHMH, The standards for beverage vending machines "decrease the availability of high calorie beverages, including addressing the placement of high calorie beverages, and ensure that advertisements on machines are promoting healthy choices." The standards for food vending machines include "nutrition requirements for calories, saturated fat, sodium, sugar, fiber and other nutrients in stocked products."¹⁸

New York City's move toward healthier food has benefited private, as well as public institutions, and hospitals provide, perhaps, the clearest example of the potential influence of public agencies on private organizations. In 2011, with support from the federal Centers for Disease Control and Prevention (CDC), DOHMH launched the New York City Healthy Hospital Food Initiative to encourage all hospitals in the city, public or private, to increase access to healthier foods and beverages. The initiative defines four components for which food and drink need to be made healthier: patient meals, beverage vending, food vending and cafeterias or dining rooms serving visitors and staff. Mount Sinai Hospital in East Harlem quickly joined in, and by September 2012, 17 private hospitals had committed to participating.

DOHMH developed a rating system based on participation in and compliance with the Healthy Hospital Food Initiative, applicable to both public and private institutions. Joining the program merited a white star. The hospital earned a bronze star for meeting the standards in a single component. Complying with standards in two components merited a silver star, and meeting the standards for all four components earned a gold star. DOHMH provided technical assistance and created an appealing graphic display of the stars on a brightly colored map of the city. The map served to stimulate competition among participating institutions. By the time the first map was released in July 2013, all three hospitals serving East Harlem had earned silver stars. When the final map was published in September 2014, Metropolitan Hospital Center had achieved a gold star, one of only four institutions in Manhattan, and one of two public institutions citywide, to do so.

The mapping and the monitoring stopped when the grant funds ran out in the fall of 2014, but DOHMH continues to encourage hospitals to serve healthier food.

SUMMARY: THE PUBLIC PLATE IN EAST HARLEM

Despite occasional complaints about palatability or cultural sensitivity of institutional food, meals provided or funded by New York City's public agencies enhance the foodscape of East Harlem in several ways. These meals:

- Reduce hunger and food insecurity by creating access to food for low-income individuals and families and freeing household resources to meet other needs;
- Improve nutrition and combat diet-related disease by serving meals that meet rigorous nutrition standards and by contributing to the development of healthy eating habits;
- Provide jobs, sometimes with adequate wages and benefits, for East Harlem residents;
- Generate business for local vendors; and
- Model innovation and best practices.

East Harlem will be well-served by efforts to expand resources for its institutional food programs in order to improve quality and increase use.

SECTION 5

CHANGES IN EDUCATION FOR HEALTHIER EATING IN EAST HARLEM



An “Iron Chef” class at Association to Benefit Children where parents created meals utilizing the contents of farm fresh produce without knowing what the ingredients would be. Photo credit: Association to Benefit Children

A fundamental strategy for improving health is to help people learn more about food and nutrition and increase their capacity to make healthy eating choices. In the last 15 years, nutrition education initiatives in East Harlem have increased in response to growing concerns about obesity and diet-related diseases. Such initiatives are supported by the development of new policies and funding streams for educating people about food and nutrition. The following section

describes New York City’s diet-related health education campaigns and policy initiatives and discusses the efforts of East Harlem institutions and community organizations to educate residents about healthy eating and nutrition.

BUILDING THE FOUNDATION FOR A CULTURAL SHIFT TOWARDS HEALTHY EATING

CITY INITIATIVES

The Bloomberg administration enacted several citywide policy changes and public education campaigns to educate New Yorkers about the dangers of consuming foods high in fat, sugar and salt. These policy changes took place during a time in which obesity had become a salient national issue, with the media focusing attention on diet and diet-related diseases. Films such as “Super Size Me” (2004), “Food, Inc.” (2008) and “Forks Over Knives” (2011) helped to raise the public’s general awareness about the health effects of processed foods and the industry’s influence over our eating decisions. Michelle Obama’s Let’s Move! Campaign attracted further attention to food and health. These efforts combined to make healthy eating campaigns more visible to the average New Yorker, while also sparking a dialogue about the city health department’s role in educating the public about healthy eating.

Calorie Labeling (2008)

On March 31, 2008, new City rules required all chain restaurants to post calorie information on menu boards and printed menus. The rationale for this policy was that displaying calorie information would prompt consumers to make healthier choices when ordering foods at a restaurant. To date, evaluation studies have shown mixed results.^{1,2} One study found that higher-income respondents were more likely to reduce calorie consumption when presented with calorie counts than lower-income respondents.^{3,4} Another study showed that after calorie labeling became a requirement, some fast food outlets changed their recipes to reduce calories in their products.⁵



Pouring on the Pounds Advertisement, NYC DOHMH (2009)

Pouring on the Pounds Campaign (2009)

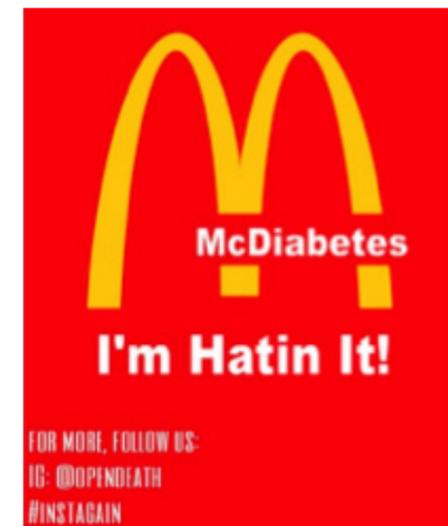
This citywide campaign raised awareness about the effects of consuming sugar-sweetened beverages. Graphic images of soda being poured into glasses and turning into adipose fat were visible all over the city on billboards, subways and online commercials. Reactions were mixed, but overall, public health advocates agree that the campaign successfully alerted the public to the health perils of sugar-sweetened beverages.⁶ In the last few years, sugary beverage consumption has declined substantially, both in New York City and nationally.

Soda Cap (2012)

Although it was not an education campaign, the City's attempt to restrict the sale of sugar-sweetened beverages in containers larger than 16 ounces became a hallmark event that increased public dialogue about sugary drinks. Widespread media coverage of the proposed rule and a vigorous counter-campaign by the soda industry and its allies provoked public debate about the role that sugar-sweetened beverages and portion sizes play in health and disease. Although state courts rejected the proposed rule, some observers credit the public debate with contributing to a decline in soda consumption in New York City during this period.⁷

COMBATING THE EFFORTS OF THE FOOD AND BEVERAGE INDUSTRY: FOOD MARKETING AND ADVERTISING

As the discussion about the intersection of food and health became a more popular subject for public discussion, the food industry's marketing efforts intensified. Specifically, food and beverage companies made a concerted effort to target marketing for nutritionally poor foods directly to Black and Hispanic youth.⁸ Such targeted marketing is of particular importance in East Harlem, where 50 percent of the population is Hispanic and 31 percent is Black.⁹ Researchers at the University of Connecticut's Rudd Center for Food Policy and Obesity conducted a study in 2015 and found that fast food and other restaurants spend the most money on advertising in targeted media, totaling \$244 million in Spanish-language television and \$61 million in Black-targeted television.¹⁰ Of particular concern, researchers also noted that an exceptionally high proportion of candy advertisements are targeted to Hispanic and Black consumers. To combat these advertising ploys, public health practitioners are beginning to create initiatives that seek to reduce unhealthy food marketing to youth of color and increase marketing of nutritious foods.¹¹ Box 4-1 describes two programs in East Harlem that aim to raise awareness about the marketing of unhealthy foods and beverages.



Counter-marketing images developed by Youth Food Educators for East Harlem

East Harlem Programs that Raise Awareness and Knowledge about the Marketing of Unhealthy Food and Beverages

The *We All Want Healthy Children Campaign*, operated by the East and Central Harlem District Public Health Office, conducts presentations developed by the UConn Rudd Center for Food Policy and Obesity for staff of community agencies. The workshops explain the importance of food and beverage marketing for health, how advertising targets children, and what parents can do to address this issue. Agencies are asked to sign a petition to limit marketing to youth. Some participating agencies then develop their own activities. The program began in 2013.

The Youth Food Educators in East Harlem (YOFE) Program, developed by the New York City Food Policy Center and the CUNY School of Public

Health, prepares young people in East Harlem and other neighborhoods to develop and deliver counter-marketing campaigns against unhealthy food. YOFE uses an empowerment model to engage youth in counter-marketing against food and beverage companies in East Harlem. The youth food educators become healthy food advocates, as well as whistleblowers for misinformation and targeted advertising by corporate food giants. The youth also serve as community-based educators, holding workshops and presentations in schools, community centers and senior centers about food advertising strategies and misinformation. The program began in 2015.

EDUCATING COMMUNITY RESIDENTS IN EAST HARLEM INSTITUTIONS

While major policy changes were occurring at the city level, institutions in East Harlem, including hospitals, schools, after school programs and day care centers increased their efforts in the community to combat diet-related diseases. We compiled an inventory of all programs that operated in East Harlem between 2002 and 2015, based on written reports, reviews of program websites, interviews with East Harlem professionals and residents, and our personal knowledge. A complete listing of these programs or initiatives is available in Web Appendix 5-1. Because there is no comprehensive listing of such programs, the list may be incomplete or the assessments inaccurate. Readers are invited to submit missing information or correct inaccuracies. Figures 5-1 to 5-3 summarize the findings from this inventory.

HOSPITALS & HEALTH CENTERS

One example of an institution-based health education program is the East Harlem Partnership for Diabetes Prevention (EHPDP)'s Project HEED (Help Educate to Eliminate Diabetes). Created in 2008, Project HEED is a lifestyle intervention program offered to East Harlem residents through a community-academic partnership. The partnership includes several groups such as Mount Sinai School of Medicine, Union Settlement Association and community leaders who represent faith-based organizations, senior centers, tenants' associations and other local groups. The HEED curriculum is based on the peer education model of the Chronic Disease Self-Management Program developed by the Stanford University School of Medicine Patient Education department.¹² Classes meet for one hour each week for 10 weeks and are held at community centers throughout East Harlem. The goal of the program is to help participants prevent or delay diabetes onset by helping them to lose weight, maintain stable blood sugar levels, and share healthy eating and exercise habits with family and friends.

A unique feature of the development of the HEED program was the use of community-based participatory research (CBPR). HEED applied CBPR by working closely with community partners in each step of the research process, including grant writing, program development, study design, participant recruitment and data analysis.¹³ Results from a pilot program among overweight adults with pre-diabetes in East Harlem suggest that a modest low-cost, peer-led program such as HEED could lead to weight loss and help prevent diabetes.¹⁴ EHPDP reports that between 2008 and 2012, they worked with 54 community organizations

in East Harlem and conducted 32 workshops, reaching an estimated 550 community residents.¹⁵ Programs like HEED are an important response to the need for chronic disease prevention programs in East Harlem and may serve as a model for other hospitals and health care centers.

SENIOR CENTERS

Each Department for the Aging (DFTA)-funded senior center is required to provide six units of nutrition education per year. According to DFTA Senior Center Standards, programs are expected to provide “nutrition and consumer education to groups of participants on topics such as planning nutritious meals, maximizing the use of food dollars, being a wise purchaser, and understanding the reason for good dietary practices.”¹⁶ Data on the number of people reached or the impact of the education on diet and health behavior are not available.

SCHOOLS

In 2004, the Child Nutrition and WIC Reauthorization Act of 2004, established by U.S. Congress, required all school districts that participate in federally funded school meal programs to develop and implement a wellness policy. The New York City Department of Education (DOE) adopted a wellness policy in 2006, and revised it in 2010, with the goal of promoting and protecting students’ health and well-being.¹⁷

The DOE Wellness Policy¹⁸ states that, in order to support nutrition education and promotion in schools, DOE commits to three major items:

1. The Office of SchoolFood (SchoolFood) will work within all New York City Public Schools to develop and maintain partnerships with members of the school community. In partnership meetings, SchoolFood will discuss nutrition-related topics and the food service program at the school.
2. School Wellness Councils will work with SchoolFood Partnerships to promote and monitor nutritional and physical activity, as well as policies and programs in their respective schools.
3. The Office of Fitness and Health Education will complement these efforts by addressing nutrition education in professional development trainings for the DOE’s recommended comprehensive health education curricula, HealthTeacher (grades K-5) and HealthSmart (grades 6-12).

Although the School Wellness Policy reinforces health and nutrition education in schools, several problems arise in its implementation. First, nutrition education is one of many topics in the HealthTeacher (K-5) and HealthSmart (6-12) curricula, which cover a breadth of health information. There is no specific mandate for teachers to focus specifically on nutrition education in the classroom, although it is encouraged. Further compounding the issue is the lack of incentive for teachers to provide health education at all. Instead, teachers often face pressure to focus their academic curricula on math and science, in preparation for state exams and to improve their school’s quality report, which covers student achievement in those subjects. There is no existing “health report card” that principals must submit to DOE to account for health and nutrition education in classrooms; the only mandated report currently is for FitnessGram, an annual assessment that measures students’ Body Mass Index and fitness performance.

With the introduction of the new Common Core Standards in the 2014-2015 school year, teachers had to adjust to new demands and instructional shifts in the classroom. With the additional responsibility to implement Common Core, teachers found it even more difficult to include nutrition education in the classroom. In order to mitigate the burden of teaching nutrition education as a separate subject, many schools are now exploring the option of integrating and aligning nutrition with the Common Core across all grade levels. The integration would create an opportunity for students to receive nutrition education over multiple years, which has been found to have a larger effect than when it is taught at only one grade level.¹⁹

Despite the barriers to providing nutrition education, schools across the city made major strides towards prioritizing wellness initiatives over the past 10 years. As noted in a 2014 report by the Laurie M. Tisch Center for Food, Education and Policy, the majority of school-based Nutrition Education Programs (NEPs) operating today started in 2005 or later.²⁰ The report also states that NEPs often target high-need schools, defined as schools with high poverty and/or high chronic disease rates, including schools in East Harlem. Web Appendix 5-1 shows the number of school-based NEPs that were introduced to East Harlem schools from 2002 to the present.

Schools in East Harlem have adopted a menu of options to support healthy eating including programs offered by non-profit and for-profit groups external to DOE. Groups that offer nutrition, cooking and gardening education such as Red Rabbit, Edible Schoolyard NY and Green Beetz, to name a few, support nutrition education beyond the recommended HealthTeacher curriculum in East Harlem. These organizations use their own models and strategies to educate students, teachers and staff about healthy eating, and often include evaluation components to demonstrate their programs’ effectiveness.

For example, Green Beetz, a non-profit organization that offers nutrition education using media activities, conducted a pilot program in May and June 2014 in two East Harlem schools, PS 007 and the East Harlem School at Exodus House. The pilot reached 160 fifth and sixth graders over the course of eight classroom exposures. An evaluation conducted by the Mailman School of Public Health at Columbia

University showed that there were significant positive impacts on knowledge about healthy eating and attitudes towards healthy eating after the pilot.²¹ NEPs like Green Beetz demonstrate that even short nutrition education interventions can have an impact in East Harlem classrooms.

In addition to the increase in NEPs in schools, the Strategic Alliance for Health (SAFH), based in East Harlem, created the Excellence in School Wellness Award (ESWA) in 2007, designed to incentivize elementary schools to increase their wellness programming. Awards were given based on criteria that schools based on five categories, including physical activity, nutrition and wellness coordination.²² Schools were recognized for their efforts to create a healthy school environment with gold, silver and bronze awards based on the number of criteria met in each category.

After SAFH ended in 2012, the New York City Department of Health and Mental Hygiene (DOHMH), in partnership with a number of organizations across the city, took over the planning, administration and selection process of the awards. Since 2012, a platinum award has been added, as well as additional categories including physical education and mental, emotional and social health. In East Harlem, 16 schools have won this award or received honorable mention between 2007 and 2015.

COMMUNITY GARDENS

Community gardens provide spaces for people to cultivate plants, spend time outdoors and, in some cases, to grow food. The community gardening movement began in New York City in the early 1970s, reclaiming land abandoned by developers, landlords and city government in the aftermath of the City's fiscal crisis. East Harlem residents and activists played an important role in building the community gardens movement. Today, according to the City's latest Food Metrics Report, East Harlem has 37 community gardens, of which 26 grow food. Together, these gardens occupy four acres of East Harlem land.²³ While community gardens do not play a significant role in producing food for East Harlem, they can be important sites for nutrition education and intergenerational interactions.



A community garden in East Harlem

MOBILIZING THE COMMUNITY TO ENGAGE IN HEALTHY EATING EFFORTS

While schools and after school programs in East Harlem were moving to address the need to teach healthy eating in their classrooms, community-based organizations (CBOs) and other agencies were doing the same in the community. Various food box programs, farmers markets, cooking classes and nutrition education programs have been established in East Harlem since 2002. These programs are listed in Web Appendix 5-1.

A cooking and nutrition education project proposed by Sisterhood Mobilized for AIDS/HIV Research & Treatment (SMART) was a capital project chosen in 2013 through a process called participatory budgeting

(PB). Participatory budgeting, launched by the New York City Council in 2011, and later endorsed by Council Speaker Melissa Mark-Viverito, is a democratic process in which community members directly decide how to spend part of a public budget.²⁴ In SMART's project, a Mobile Cooking Classroom (MCC) or "kitchen-on-wheels" provides culturally appropriate nutrition and cooking education to special populations, such as youth, seniors and people with HIV/AIDS in East Harlem and the South Bronx. The goal of the project is to improve residents' access to healthy affordable foods in their own community and to implement healthy lifestyle change using the SMART Body curriculum. The curriculum covers label reading, healthy adaptations of traditional ethnic recipes, and shopping on a budget, among other topics. The SMART MCC was selected by 534 residents who took part in the vote and ranked fourth out of 21 projects submitted in the PB process.²⁵



Mobile Cooking Classroom Rendering, SMART (2015)

CHANGES IN NUMBER AND TYPE OF NUTRITION EDUCATION PROGRAMS IN EAST HARLEM

Web Appendix 5.1 shows the total number of healthy eating and nutrition education programs that have been introduced in East Harlem institutions from 2002 to the present. We used this inventory of food programs to assess changes in the number and type of nutrition education programs serving East Harlem residents,

Over the period examined, the number of food and nutrition programs operating in East Harlem increased substantially. Of the 64 programs sponsored by 30 organizations that were identified in 2015, 15 started before 2009 and 34 after 2009, and a start date could not be ascertained for 15 programs.

These programs delivered a number of core messages. The most common message, disseminated by 39 percent of the programs, related to basic nutrition facts. Other core messages were related to: healthy cooking skills, 23 percent; reducing consumption of unhealthy foods, nine percent; shopping healthy, eight percent; and engaging in food activism, five percent. Many programs had more than one core message. Given the emerging consensus in nutrition education that basic nutrition facts by themselves play only a modest role in changing eating habits,²⁶ organizations conducting nutrition education in East Harlem may want to consider expanding their repertoire of core messages and aligning them with evidence on effectiveness. In addition, since East Harlem residents and organizations may be the most powerful and effective advocates for healthier local food environments, more programs may want to emphasize food activism.

Figure 5-1 shows that while most programs seek to reach the community at large, children, especially school-aged children, are the most common age-specific recipients of nutrition education. Populations that might benefit from additional nutrition education include young children (where the lifetime benefits of prevention are high), older adults (where the prevalence of diet-related disease is high), people with diet-related diseases (who are over-represented in East Harlem) and recent immigrants (who may need help in finding accessible and culturally appropriate nutrition information).



City Surfers after school participants show off their hot peppers at Jefferson Gardens in East Harlem. Photo credit: Concrete Safaris

Figure 5-1 Main Population Groups Reached by Nutrition Education Programs in East Harlem

MAIN POPULATION REACHED (N= 64, MANY PROGRAMS SERVE MULTIPLE POPULATIONS)	NUMBER OF PROGRAMS
Young Children	4
School-Aged Children (5-12)	19
Teens (13-19)	19
Young Adults (20-25)	10
Adults (25-60)	14
Older Adults (>60)	2
People with Diet-Related Conditions (e.g., obesity or diabetes)	4
Recent Immigrants or Non-English Speakers	0
Community at Large	25

Number of Programs

Of the 64 nutrition programs identified in East Harlem, about half (33) operate exclusively in East Harlem; the others are part of citywide or borough-wide programs, as shown in Figure 5-2. The most common settings for nutrition education in East Harlem are schools and youth programs. Although many senior centers provide food and occasionally hold sessions on nutrition, few appear to have structured, ongoing nutrition education programs. Senior centers, as well as New York City

Housing Authority (NYCHA) facilities, may be promising settings for expanded nutrition education, given the high prevalence of diet-related diseases among participants and residents.

Figure 5-2 Settings for Nutrition Education Programs in East Harlem

PROGRAM SETTING	NUMBER OF PROGRAMS	NUMBER IN EAST HARLEM ONLY (I.E., NOT PART OF A CITYWIDE PROGRAM)
Schools Only	10	4
Youth Program Only	14	6
Child Care Only	2	1
Senior Centers Only	1	1
NYCHA Only	3	3
Health Care Only	3	3
Multiple Settings	31	15

Nutrition education programs in East Harlem use a variety of strategies to bring about changes in dietary practices, attitudes or knowledge. Figure 5-3 shows that cooking-based programs are the most common, followed by classroom instruction, gardening-based, media and retail interventions. Few programs have the resources to evaluate their interventions or to report the evidence that led them to use that strategy; there may be a great value in strengthening the capacity for evaluation and evidence-based program development.

Figure 5-3 Program Strategies for Nutrition Education Used in East Harlem

PROGRAM STRATEGY	NUMBER OF PROGRAMS
Cooking-Based	18
Classroom Instruction (in or out of school)	10
Gardening-Based	7
Store or Farmers Market Based	7
Media-Based (e.g., subway ads, television, social media)	7
Other: Advocacy, Photovoice, Campaign/Coalition Work, Community Organizing, Group Support	15

LOOKING FORWARD TO A HEALTHIER EAST HARLEM

East Harlem has seen an increase in the number of healthy eating initiatives in the community over the past 15 years. Some of these programs have been successful in engaging community members,²⁷ increasing the dialogue about healthy eating in schools,²⁸ and modestly improving health outcomes.²⁹ However, there are gaps in providing nutrition education services for vulnerable groups in East Harlem, including those with limited English proficiency, young children and the senior population.

In the coming years, coordinating the multiple healthy eating and nutrition education efforts in East Harlem represents a key challenge, but also an opportunity to maximize the collective impact of the more than 60 programs now providing nutrition education. Sharing best practices among organizations is crucial to strengthening and sustaining successful programs. In order to facilitate this knowledge transfer, institutions and CBOs should prioritize the proper documentation and evaluation of their programs to better quantify their impact and reach. Furthermore, to avoid the duplication of efforts, this information should be easily accessible to community members, advocates, funders, researchers and other interested parties. One of the biggest nutritional successes of the East Harlem community has been its enthusiastic response to the need for more and better nutrition education at the institutional and grassroots levels. Coordinating these efforts to contribute to a healthier East Harlem is an achievable and meaningful goal.

SECTION 6

CHANGES IN HEALTH AND DIET IN EAST HARLEM

In this section, we review changes in diet, health and health behavior in East Harlem from 2000 to 2015 and also compare East Harlem to New York City as a whole. As we have seen in earlier sections, East Harlem has experienced multiple changes in food policies and food environments in this period. In such a complex and dynamic situation, no study can definitively link any particular change in diet or health to any particular policy initiative, but by documenting trends, we can see if improvements in health are moving in the right direction. We begin this section by describing changes in two broad areas:

1. Health and dietary behavior
2. Self-reported diet-related and other health conditions and diagnoses

We then consider to what extent these changes show progress towards the broader goals of improving health and reducing diet-related health problems in East Harlem. By identifying health-related outcomes that have improved, stayed the same, or gotten worse over time, we hope to be able to inform the planning of food-related initiatives in East Harlem for the next period.

Our primary sources of data for this section are:

1. The New York City Department of Health's Community Health Survey (CHS), an annual telephone survey of a representative sample of New York City adult residents. We compare changes over time from 2002 to 2013, the last year for which survey data are available in East Harlem (zip codes 10029 and 10035) and New York City as a whole. Note that because of the small sample size from East Harlem, year-to-year fluctuations are often large. Our focus is on the overall trends from 2000 to 2015.
2. The Youth Risk Behavior Survey (YRBS) is a biannual survey of New York City school children conducted by the CDC. The survey has been conducted in odd-numbered years since 1997. Data are collected from students through a self-administered questionnaire. The results represent public high school students in grades nine through 12. Rates for various behaviors for selected high-risk neighborhoods, including the combined East and Central Harlem area, have been available since 2005.
3. East Harlem findings from the New York City Department of Education's FitnessGram, a system designed to measure changes in weight and fitness of all New York City school children instituted in 2006. FitnessGram provides data on students in grades kindergarten through eighth grade, a population not included in the YRBS data set.
4. Selected other sources of data on the health of people living in East Harlem.

HEALTH AND DIETARY BEHAVIORS

The New York City CHS and the YRBS survey provide data on several dietary behaviors associated with health. These behaviors include fruit and vegetable consumption, sugary beverage intake, and use of salt (sodium).

CONSUMPTION OF FRUITS AND VEGETABLES

Adults

The consumption of fruits and vegetables is associated with overall health, including decreased risk for some cancers¹ and cardiovascular disease.² In addition, increasing the consumption of fruits and vegetables has been associated with maintaining a healthy weight.³

Figure 6-1 Percent of Adults Reporting No Daily Consumption of Fruits and Vegetables in New York City and East Harlem

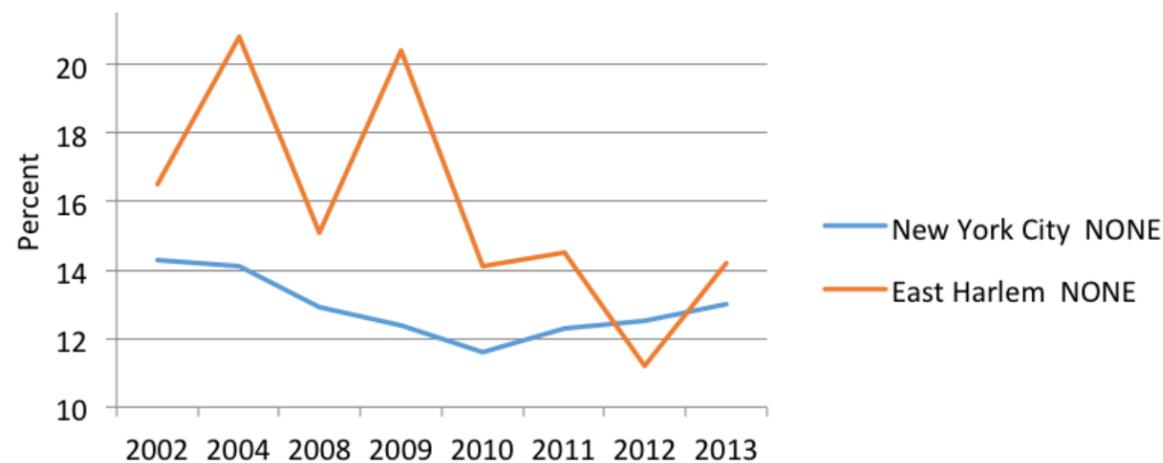


Figure 6-2 Percent of Adults Reporting Consumption of 5 or More Daily Servings of Fruits and Vegetables in New York City and East Harlem

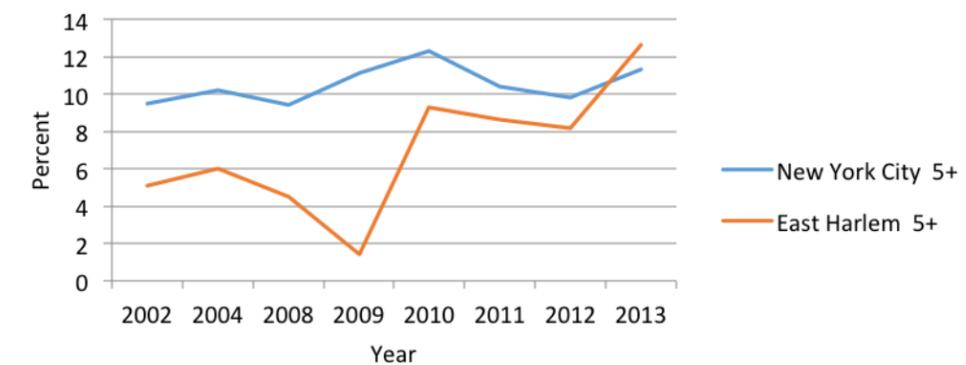


Figure 6-1 shows that over the 12-year period, East Harlem residents were 1.2 times more likely to report no consumption of fruits and vegetables on the previous day than New York City residents. In every year except one, East Harlem residents reported higher levels of no consumption. Over this period, residents of both East Harlem and New York City as a whole showed a small decline in the proportion reporting no fruit and vegetable consumption, 14 percent in East Harlem and 9 percent in New York City.

Figure 6-2 shows that over the 12-year period, New York City residents were 1.5 times more likely to report consuming five or more servings of fruits or vegetables on the previous day, meeting the federal Centers for Disease Control and Prevention (CDC) recommendations. However, the rate of increase in the percent of adults reporting five or more portions a day was much higher in East Harlem than in New York City. Over the 12 years, the percent reporting CDC recommended levels of consumption in East Harlem

more than doubled (from 5.1 percent to 12.6 percent), while in New York City the increase was only 18 percent (from 9.5 percent to 11.3 percent). In 2013, for the first time, the percent reporting recommended fruit and vegetable consumption levels was higher in East Harlem than New York City as a whole. However, it is worth noting that in 2013, slightly more East Harlem residents reported consuming no fruits and vegetables than the proportion meeting CDC recommendations of 5 or more portions a day, a disappointing finding that shows the progress still needed.

Children and Youth

For children and youth, available data show combined results for Central and East Harlem.

Figure 6-3 Percent of Children and Youth Not Meeting CDC Recommendations for Daily Fruit and Vegetable Consumption in New York City and East and Central Harlem

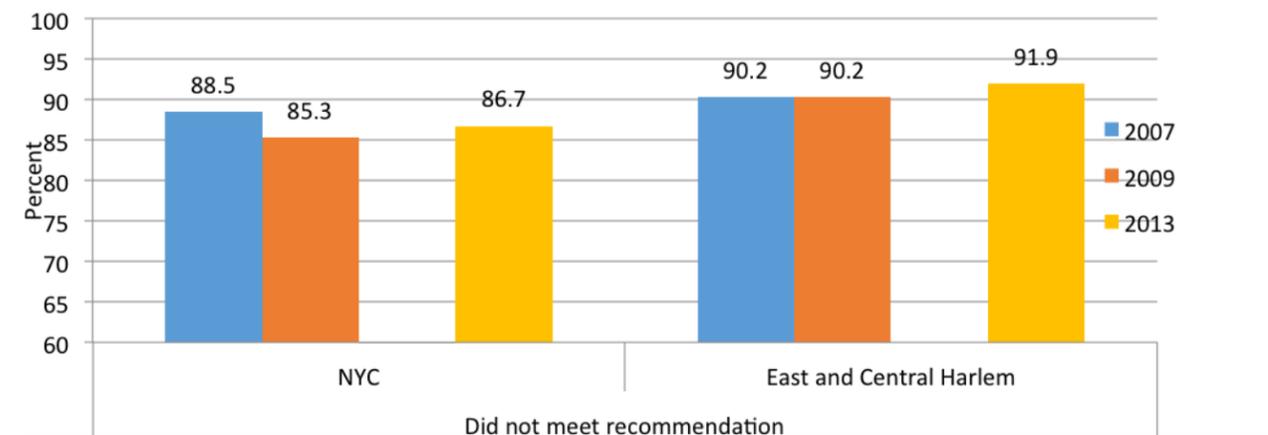
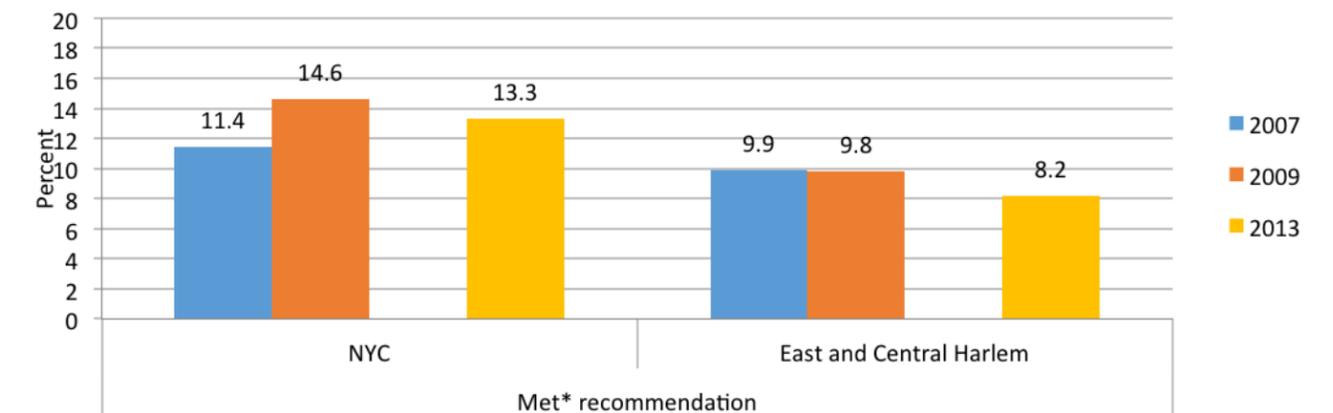


Figure 6-4 Percent of Children and Youth Meeting CDC Recommendations for Daily Fruit and Vegetable Consumption in New York City and East and Central Harlem



*Notes: For Figures 6-3 and 6-4, 2011 data not available. "Fruit" does not include 100 percent fruit juice.

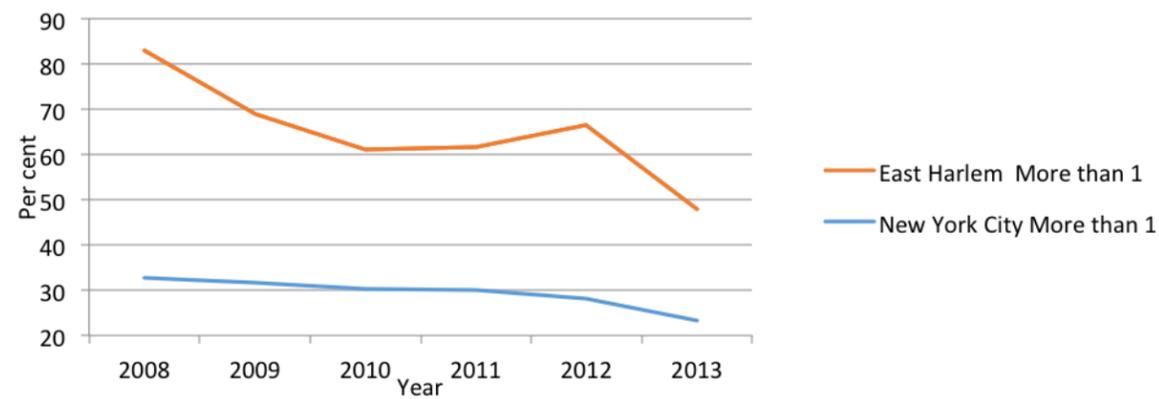
Figure 6-3 shows the percentage of students reporting that they consumed fruits and vegetables less than CDC recommends. Throughout this period, the percentage of students not consuming fruits and vegetables on a daily basis was higher in East and Central Harlem than in New York City (8.2 and 7.5 percent, respectively, in 2013; data not shown).

Figure 6-4 shows the percentage of students reporting consumption of fruits and vegetables more than four times per day in the past seven days, categorized as meeting the CDC recommendations. For both New York City and East and Central Harlem, the percentage of students who met the CDC recommendations decreased by nine percent for New York City as a whole and by 16 percent in East and Central Harlem. This discouraging trend highlights the importance of further work in this area.

CONSUMPTION OF SUGAR-SWEETENED BEVERAGES

Sugary drinks include soda, sweetened drinks (such as sports drinks, fruit punch, and other fruit-flavored drinks), and chocolate or other flavored milk. Consumption of these beverages has been associated with lower overall diet quality and increased weight.⁴ Among children, these beverages have also been associated with loss of bone density and dental caries.^{5,6}

Figure 6-5 Percent of Adults Reporting Consumption of More than One Can of Sugary Beverages per Day, New York City and East Harlem

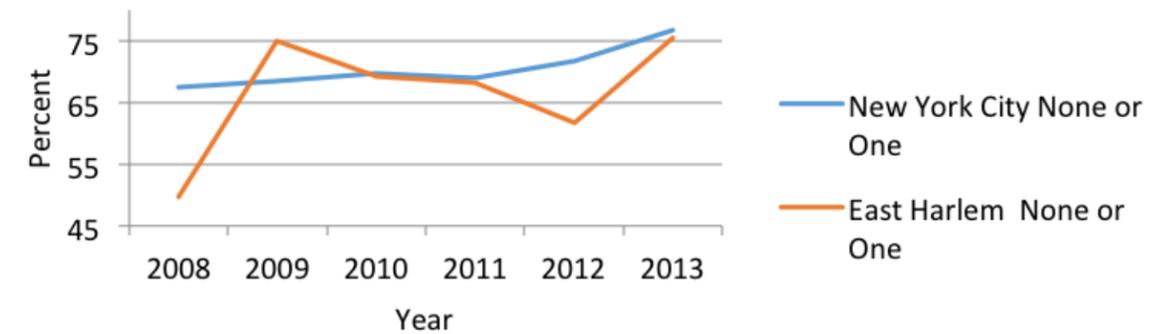


Adults

Figure 6-5 shows that East Harlem residents are 1.2 times more likely to report daily consumption of more than one can of sugary beverages per day over the six year period, compared to New York City as a whole. However, the decline in this level of consumption was 26 percent in East Harlem compared to only 9 percent in New York City as a whole, suggesting more rapid progress in East Harlem. Figure 6-6 shows that

over the six years studied, the portion of East Harlem residents who reported consuming zero or one can of sugary beverages per day reached about the same level as for New York City residents as a whole. From 2008 to 2013, New York City residents reported slightly higher rates of limited or no sugary beverage consumption than East Harlem residents.

Figure 6-6 Percent of Adults Reporting Consumption of One or Fewer Cans of Sugary Beverages per Day, New York City and East Harlem



Children and Youth

Figure 6-7, based on YRBS data for soda consumption, shows a downward trend in daily consumption of one or more cans of soda from 2005 to 2013. The percentage of students reporting daily soda consumption in East and Central Harlem decreased by 43 percent; similarly, in New York City, consumption fell by 46 percent. Throughout this period, however, the percentage of teens consuming more than one soda per day in East and Central Harlem has been higher than in New York City as a whole.

Figure 6-7 Percent of Children and Youth Reporting Consumption of More than One Can of Soda per Day, New York City and East and Central Harlem

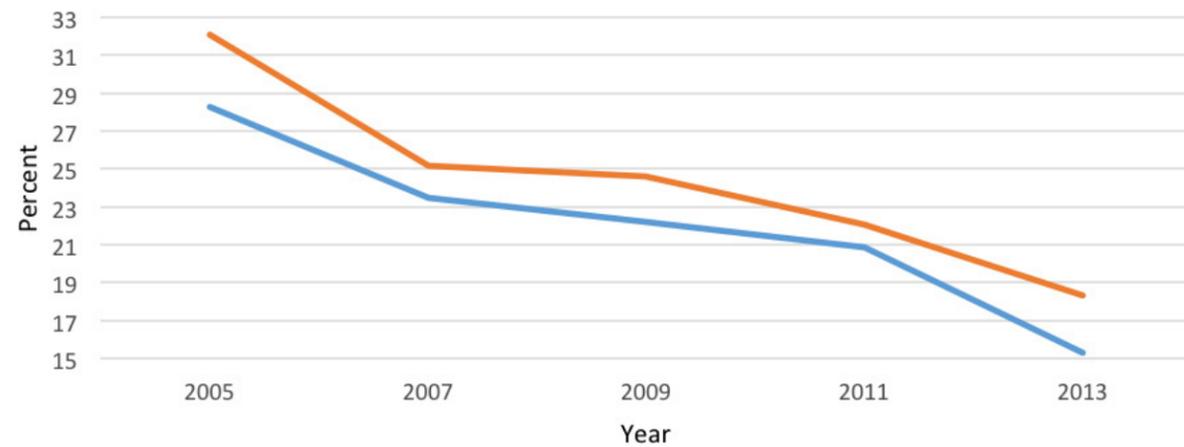
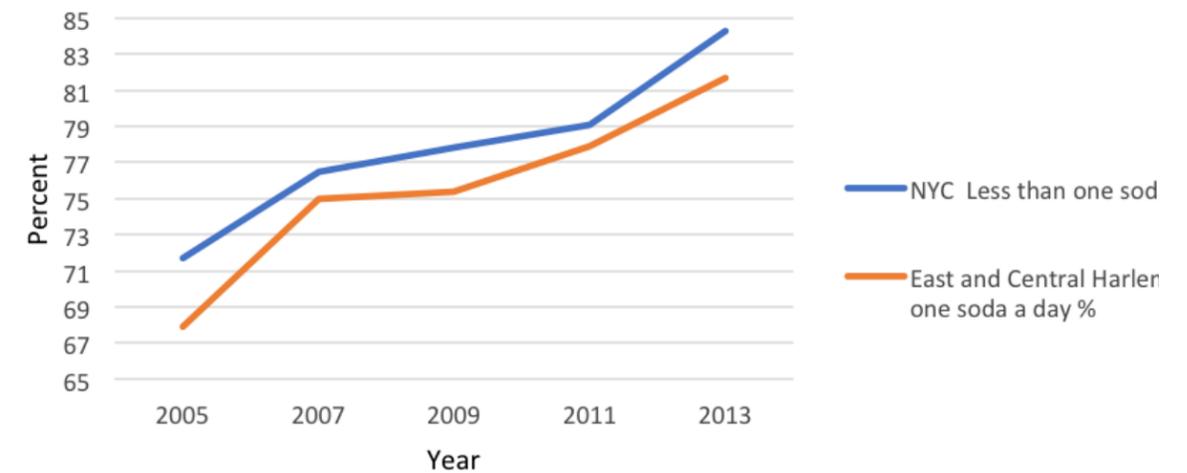


Figure 6-8 shows the trends for students consuming less than one soda per day. Both East and Central Harlem and New York City showed increases in the proportion of teens reporting low soda consumption. However, rates of reduced soda consumption were lower in East and Central Harlem than in New York City as a whole throughout the period.

The consumption of sugary beverages among students showed a more modest decrease. Using data available from YRBS, the percentage of students consuming less than one sugary beverage a day increased from 40.5 percent in 2007 to 41.9 percent 2009 in East and Central Harlem, and from 43.3 percent to 46.3 percent in New York City in the same period (data not shown).

Figure 6-8 Percent of Children and Youth Reporting Consumption of One or Fewer Cans of Soda per Day, New York City and East and Central Harlem



SODIUM INTAKE

Salt and sodium consumption has an important influence on blood pressure. In 2010, the CHS asked how often people added salt to their food at the table. Sixty five percent of New York City residents reported rarely or never adding salt at the table, compared to 60 percent of East Harlem residents, suggesting a slightly higher level of salt use at the table in a community with high rates of high blood pressure.

In 2012 and 2013, the CHS asked respondents whether in the last 30 days they had ever changed their minds about buying a food product because of the sodium or salt content listed on the nutrition facts panel. In both years, about 20 percent more East Harlem than New York City residents reported making decisions about purchasing salty foods based on the label.

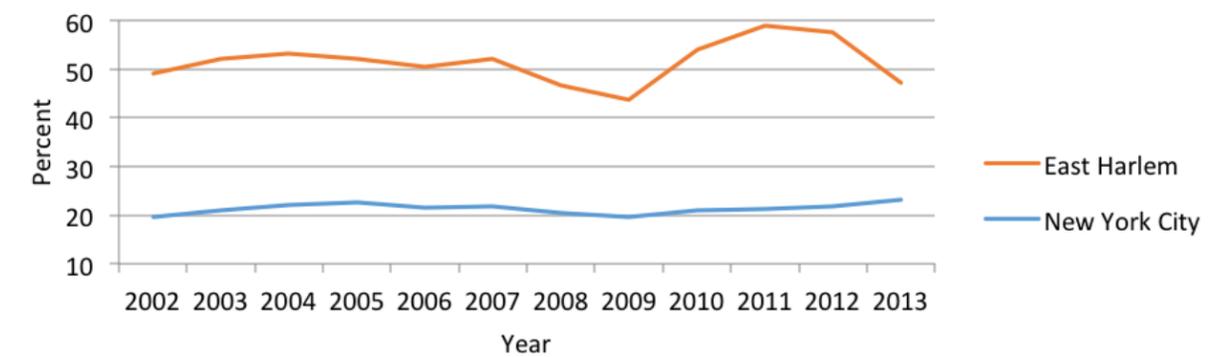
SELF-REPORTED HEALTH CONDITIONS AND DIAGNOSES

SELF-REPORTED HEALTH

Adults

Figure 6-9 shows that from 2002 to 2013, East Harlem residents were about 1.4 times more likely than New York City residents as a whole to report that their health status was fair or poor, compared to good or excellent. Evidence suggests that self-reported health status correlates to food security and nutritional status.⁷

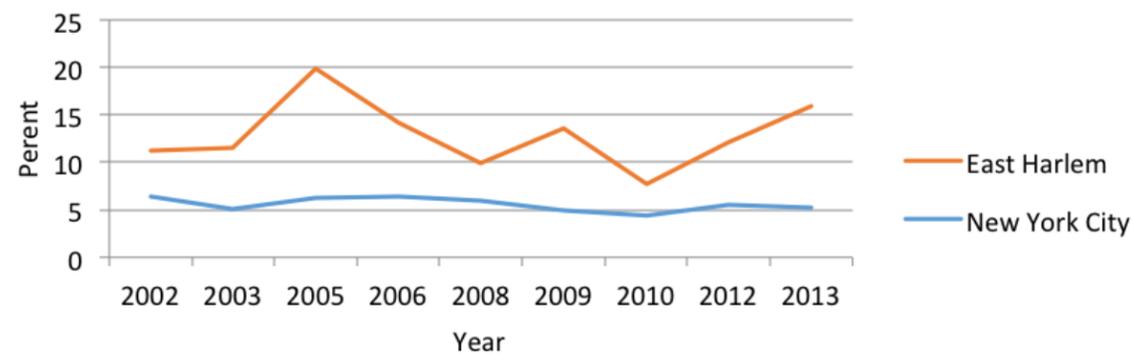
Figure 6-9 Percent of Adults Reporting Fair or Poor Health Status, New York City and East Harlem



MENTAL HEALTH

Figure 6-10 shows that between 2002 and 2013, residents of East Harlem were 1.3 times more likely to report serious psychological distress than residents of New York City as a whole. The gap between New York City and East Harlem residents grew much larger in 2010-2013, compared to 2002-2003. Research suggests two-way relationships exist between psychological distress and food insecurity, overweight and diet-related diseases.⁸

Figure 6-10 Percent of Adults Reporting Serious Psychological Distress, 2002-2013, New York City and East Harlem

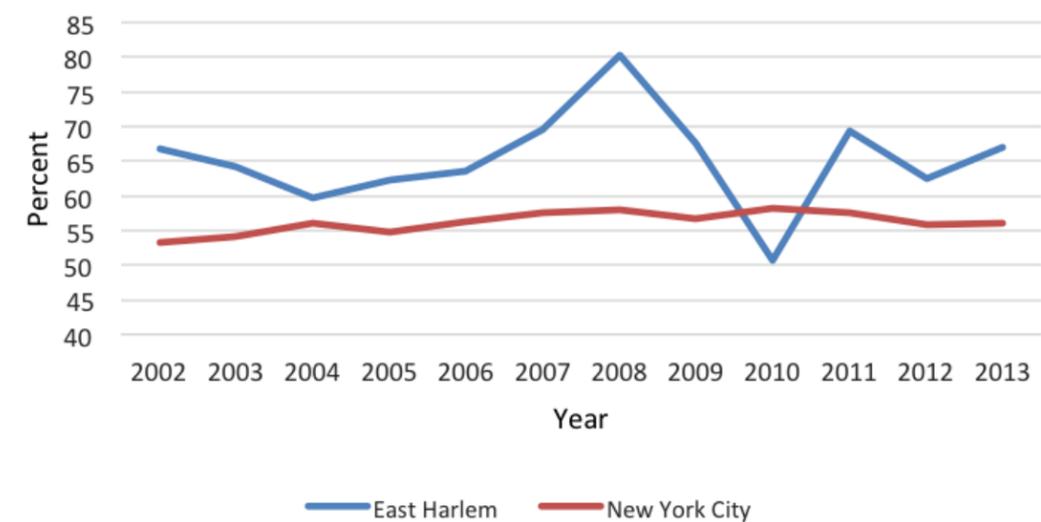


WEIGHT STATUS

Adults

Figure 6-11 shows the proportion of the adult population in East Harlem and New York City who are overweight or obese, defined here as having a body mass index (BMI) greater than 26. In East Harlem, on average, 65.3 percent of the population was overweight or obese between 2002 and 2013, compared to 56.2 percent in New York City. The rate of elevated body weight was 16 percent higher in East Harlem than the city as a whole. The figure also shows that the gap between East Harlem and New York was about the same in 2013 as in 2002, suggesting that East Harlem has not yet made progress in reducing its excess burden of overweight.

Figure 6-11 Adult Overweight and Obesity Rates, East Harlem, 2002-2013



Children and Youth

The YRBS survey assesses weight status in two ways: perceived and actual. Perceived weight (presented in dashed lines in Figure 6-12) is assessed with the question, “How would you describe your weight?” Response options are “very or slightly underweight,” “about the right weight,” “slightly overweight,” and “very overweight.” For the purpose of this report, the categories “slightly” and “very” overweight are combined. Figure 6-12 shows that compared to New York City students, a higher proportion of East and Central Harlem students consistently perceive their weight status as overweight, with trends remaining more or less constant from 2007 to 2013. Actual BMI is calculated from self-reported height and weight.

As the trend shows, between 2005 and 2013, the percentage of students in New York City as a whole who perceived themselves as overweight or obese was closer to the percentage of students actually classified as such, compared to the trends for students in East and Central Harlem.

Figure 6-12 Perceived and Actual Weight (Percent Overweight or Obese) Among Students Grades 9-12

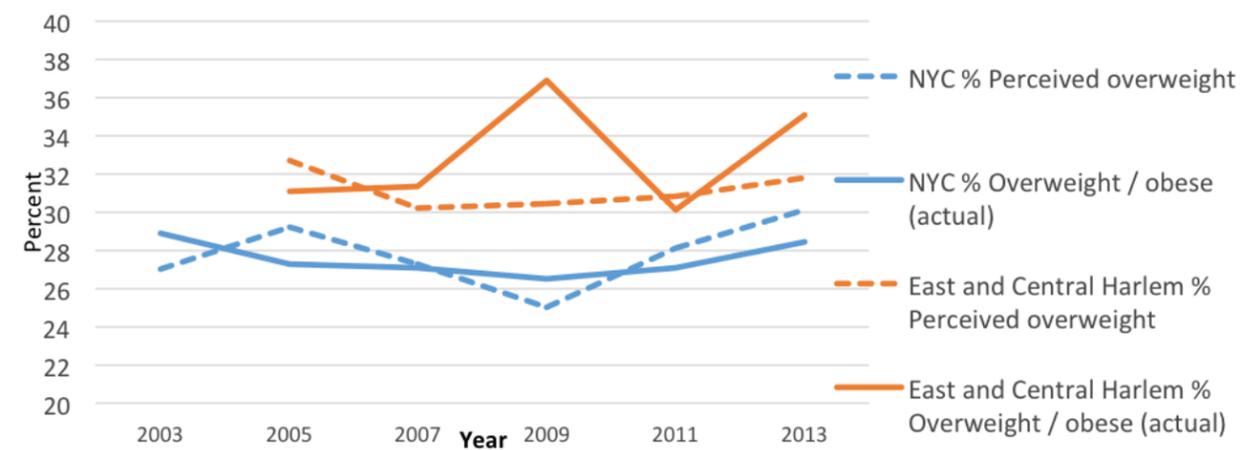
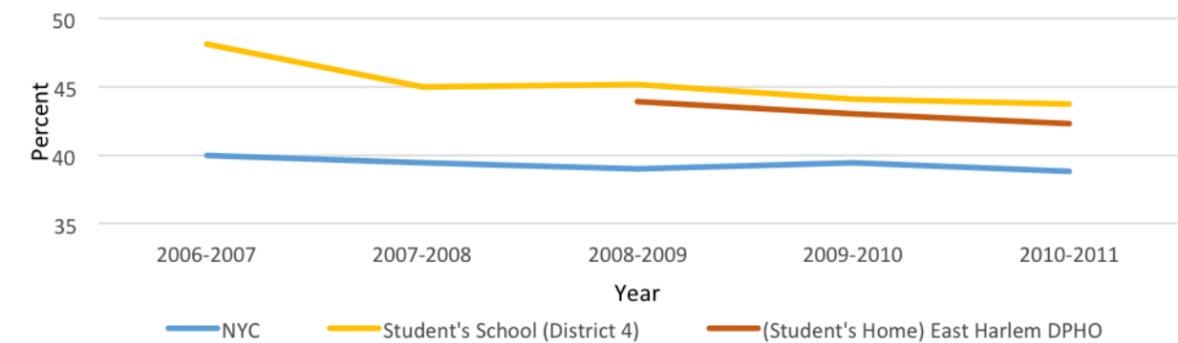


Figure 6-13 Percent of Students Aged 5-14 Overweight or Obese in New York City, Department of Education District 4 (East Harlem), and Residing in East Harlem Public Health District

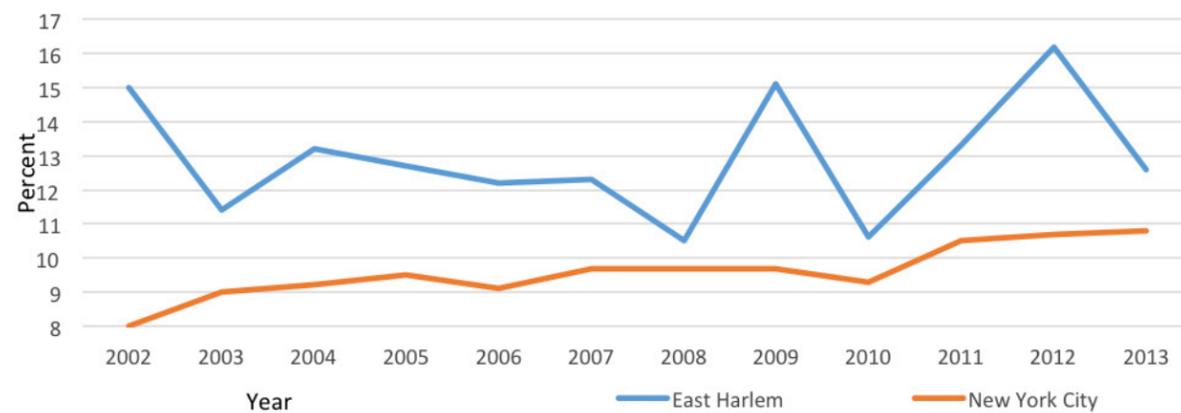


Source: FitnessGram

Weight status for younger children, grades K-8, was obtained from FitnessGram, the data system that records school children’s weight, height and other fitness measures. Figure 6-13 presents data for New York City overall, compared to school district (District 4) and home neighborhood (East Harlem). These data show a modest decline (nine percent) in youth overweight and obesity in East Harlem across the school years. The percentage of students grades K-8 who were classified as overweight or obese between the 2006-2007 and 2010-2011 school years decreased from 48.1 percent to 43.7 percent in District 4, and from 40.0 percent to 38.8 percent in New York City as a whole.

FitnessGram data also shows small percentage of students classified as extremely obese (a BMI ≥120 percent of the 95th percentile). In East Harlem, this group decreased by 23 percent from school year 2006-2007 to 2010-2011; in New York City, the decline for this time period was much lower at only nine percent. As in the case of adult weight status, these figures show that the gap in health statuses between East (and in some cases Central) Harlem and New York City as a whole has been maintained across the years.

Figure 6-14 Percent of Adults Ever Given a Diagnosis of Diabetes in East Harlem and New York City, 2002-2013



DIABETES

Figure 6-14 shows that, between 2002 and 2013, the percent of the population who reported they had ever been told they had diabetes increased in both East Harlem and New York City. For the 12-year period, the rate in East Harlem was almost 1.4 times higher than for New York City as a whole. Comparing 2002-2007 to 2008-2013, the rate of those reporting a diagnosis of diabetes rose about 10 percent in both East Harlem and New York City as a whole. These data exclude those who have diabetes but have not been officially diagnosed, an estimated 26 percent of those with diabetes in New York City in 2013.

Figure 6-15 Death Rates per 100,000 Population from Diet-Related Diseases in East Harlem and New York City, 2000 to 2013

CAUSE	2000 NYC	2000 EAST HARLEM	2013 NEW YORK CITY	2013 EAST HARLEM	% CHANGE 2000-2013 NYC	2000-2013 EAST HARLEM
Heart Diseases	309.3	281.1	199.4	173.2	-36	-38
Diabetes	22.8	43.3	21.9	37.2	-4	-14
Cerebrovascular	24.5	37.4	20.3	25.1	-17	-33
All Causes	760	940	640	750	-16	-20

Unhealthy diets play a major role in heart diseases, diabetes and cerebrovascular diseases (e.g., strokes and other conditions related to high blood pressure), and these are significant causes of death in New York City and East Harlem. Death rates for all of these conditions declined between 2000 and 2013 in both the city and East Harlem; the decline in diabetes and stroke was much steeper in East Harlem than in the city as a whole. Nevertheless, the death rate for diabetes in East Harlem was more than 1.6 times higher than in New York City in both 2000 and 2013,

showing that East Harlem still has a long way to go to close the diabetes death gap. The lower rates of heart disease in East Harlem are primarily a function of the younger population in this community compared to New York City as a whole, not necessarily an indicator of better health.

CREATING POSITIVE TRENDS IN HEALTH IN EAST HARLEM

Since 2000, East Harlem has seen various trends in health, both positive and negative, as shown in Figure 6-16. By accelerating some of the observed trends—increasing fruit and vegetable consumption and falling sugary beverage consumption—and reversing rising or flat rates of overweight, obesity and diabetes, East Harlem can forge a path to better health and a lower burden of health inequalities.

Figure 6-16 Trends in Diet-Related Health Problems in East Harlem, 2002-2015

POSITIVE TRENDS (RELEVANT FIGURES)	TROUBLING TRENDS (RELEVANT FIGURES)
<p>1. Modest increases in the proportion of East Harlem adult residents who meet CDC recommendations for daily fruit and vegetable consumption and decreases in the proportion reporting no daily consumption. (Figure 6-1 and 6-2)</p> <p>2. Although East Harlem adults have generally reported less daily fruit and vegetable consumption than adults in New York City as a whole, the gap has gotten smaller over time. (Figures 6-1 and 6-2)</p>	<p>1. Very few East Harlem adults meet the CDC’s recommendations for daily fruit and vegetable consumption. (Figures 6-1 and 6-2)</p> <p>2. Most children and youth in East and Central Harlem do not meet CDC recommendations for daily fruit and vegetable consumption. (Figures 6-3 and 6-4)</p>

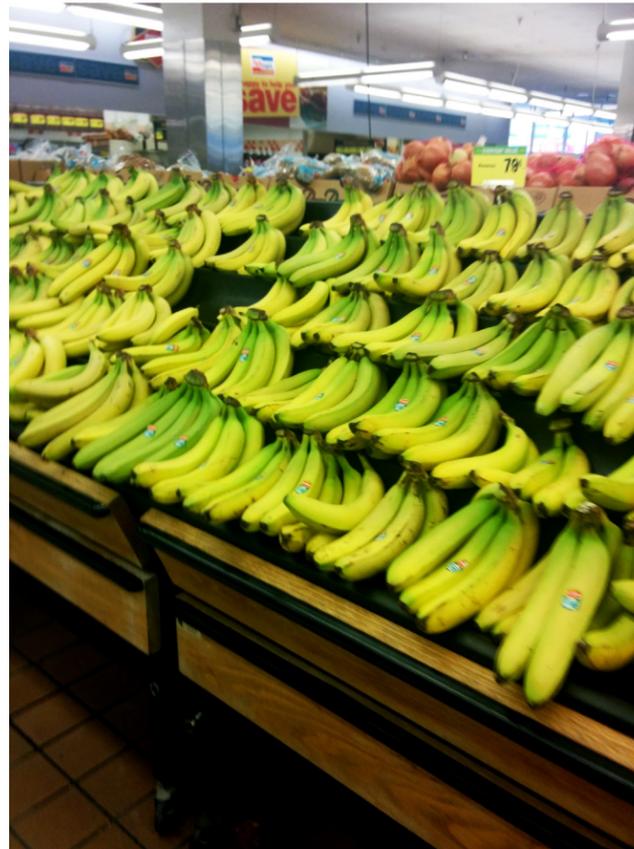
POSITIVE TRENDS (RELEVANT FIGURES)	TROUBLING TRENDS (RELEVANT FIGURES)
<p>3. The proportion of East Harlem adults and children and youth who consume more than one can of soda a day has dropped over the last 5 years and the portion consuming one can a day or less has increased. In addition, the gap between daily soda consumption rates in East Harlem and New York City for adults as a whole had shrunk considerably in the past five years. (Figures 6-5 to 6-8)</p> <p>4. The proportion of children aged 5-14 who attend school or live in East Harlem who are overweight or obese has declined somewhat between 2006 and 2011 and this decline has been greater than the decline for New York City as a whole. (Figure 6-13)</p> <p>5. The gap between the proportion of adults in East Harlem who have been diagnosed with diabetes and those in New York City as a whole with such a diagnosis was smaller in 2013 than 2002. However, part of the decline in the gap was due to an increase in the diabetes rates in NYC as a whole. (Figure 6-14)</p> <p>6. The death rates for diet-related diseases such as heart diseases, diabetes and cerebrovascular diseases declined in East Harlem between 2000 and 2013 and the decline was greater in East Harlem than in New York City as a whole. (Figure 6-15)</p>	<p>3. For children and youth, the gap between the higher rates of daily consumption of more than one can of soda a day in East and Central Harlem and New York City as a whole has not shrunk over the last five years. (Figure 6-8)</p> <p>4. The proportion of East Harlem adults who report fair or poor health and serious psychological problems is much higher in East Harlem than in New York City as a whole and the gaps have not diminished over time. (Figures 6-9 and 6 -10)</p> <p>5. The proportion of adults in East Harlem and youth in Central and East Harlem whose height and weight (BMI) make them overweight or obese is higher in East Harlem than New York City as a whole and the gap has not declined over time. (Figures 6-11 and 6-12)</p> <p>6. The death rates from diabetes, cerebrovascular diseases and all causes were higher in East Harlem than in New York City as a whole in both 2000 and 2013. (Figure 6-15)</p>

SECTION 7

CONCLUSIONS AND RECOMMENDATIONS

Our review of the food landscape in East Harlem between 2000 and 2015 and our comparison of East Harlem to New York City as a whole show some significant improvements, some deterioration and other areas that have barely changed.

Figure 7-1 provides an overview of these changes, giving the authors' views on which changes fall in the positive, negative and neutral categories based on our assessment of the potential for these changes to improve food-related outcomes in East Harlem.



Healthy food is now more available in East Harlem than it was 15 years ago.

Figure 7-1 An Overview of Changes in East Harlem (EH) Food Landscapes

DOMAIN	POSITIVE CHANGES	NEGATIVE CHANGES	NO CHANGE
Food Retail	<ul style="list-style-type: none"> • More supermarkets • More farmers markets and street produce vendors • Some bodegas selling healthier food 	<ul style="list-style-type: none"> • More chain restaurants • Sales volume of chain restaurants tripled • More places to eat out 	<ul style="list-style-type: none"> • Most bodegas continue to sell unhealthy food • Many food outlets still sell mostly unhealthy food • La Marqueta has trouble achieving its potential to improve food landscape • No increase in number of indoor year-round produce markets • Few robust affordable alternatives to mass-produced unhealthy food
Food Benefits	<ul style="list-style-type: none"> • More EH households receiving SNAP benefits • Proportion of eligible households enrolled in SNAP has increased 	<ul style="list-style-type: none"> • Many more EH households require SNAP to achieve food security • Fewer food assistance programs in EH now than in past 	<ul style="list-style-type: none"> • EH continues to have high “meal gap” compared to other NYC communities
Institutional Food	<ul style="list-style-type: none"> • Nutritional quality of school food and other City institutional food programs has improved 	<ul style="list-style-type: none"> • Proportion of EH children attending school who eat school lunch has declined in last few years 	<ul style="list-style-type: none"> • Many users of institutional food programs continue to complain of quality and operational problems

DOMAIN	POSITIVE CHANGES	NEGATIVE CHANGES	NO CHANGE
Institutional Food Cont'd	<ul style="list-style-type: none"> • More EH children participate in school breakfast program 	<ul style="list-style-type: none"> • Only slightly more than half of EH schools offer free lunch to all students • The number of EH seniors getting meals at senior centers has declined 	<ul style="list-style-type: none"> • No local food hub to assist programs to improve institutional food or achieve economies of scale
Nutrition Education	<ul style="list-style-type: none"> • Many more nutrition education programs now operate in EH • Many EH schools have established nutrition education or other food programs 	<ul style="list-style-type: none"> • Food companies making high-sugar, -fat and -salt products have increased targeted marketing of unhealthy products to Latinos, Blacks and young people and these ads are main source of nutrition education for most EH residents 	<ul style="list-style-type: none"> • No group exists to coordinate quality, reach or gaps in nutrition education
Health and Health Behavior	<ul style="list-style-type: none"> • Adults and children are consuming more fruits and vegetables • Adults and children are consuming fewer sugary beverages • Modest decline in overweight and obese children in EH • EH residents reported higher rates of making decisions about purchasing salty foods based on the label than did NYC residents 	<ul style="list-style-type: none"> • More EH than NYC residents report adding salt at the table 	<ul style="list-style-type: none"> • Most EH residents eat fewer than the recommended portions of daily fruits and vegetables • More EH residents than NYC residents drink more than one can of soda or other sugary beverages per day • EH residents report worse perceptions of their physical and mental health than New York City residents

DOMAIN	POSITIVE CHANGES	NEGATIVE CHANGES	NO CHANGE
Health and Health Behavior Cont'd	<ul style="list-style-type: none"> • Death rates from diet-related diseases have declined significantly in EH and at a slightly higher rate than for NYC as a whole 		<ul style="list-style-type: none"> • Almost two thirds of adults, 40 percent of children and a third of teens in EH are overweight or obese • The gap in overweight and obesity rates between EH and NYC has not narrowed • The gap between death rates for diet-related diseases between EH and New York City remains high
Other	<ul style="list-style-type: none"> • Increased concerns from policy makers about EH food environment and willingness to take action to reduce food-related inequalities • Commitment to maintain and increase supply of affordable housing 	<ul style="list-style-type: none"> • Increase in inflow of capital for retail and housing development that does not meet needs of existing EH residents. 	<ul style="list-style-type: none"> • Higher rates of poverty, unaffordable housing and unemployment in EH than in NYC

It is clear that the East Harlem food environment has changed considerably since 2000. While more retail outlets sell healthy food now, an even greater number sell mostly unhealthy food. One encouraging finding is that fruit and vegetable consumption has increased somewhat and that the proportion of East Harlem residents drinking more than one can of sugary beverages per day has declined. These are two important indicators of movement towards a healthier diet. At the same time, revenues doubled for all restaurants since 2000 and tripled for chain restaurants, whereas there were more modest increases in supermarket revenues, suggesting that East Harlem residents are now spending more income on foods high in sugar, salt and fats, the main contributors to diet-related diseases.



In East Harlem unhealthy food is still widely available and heavily promoted.

The decline in death rates from diet-related diseases is also promising, although there is still a significant gap in death rates between East Harlem and New York City as a whole. National research suggests that some of these declines in death rates are due to better access to health care, rather than to improvements in diet.¹

Most alarming is the persistence of high rates of overweight and obesity among East Harlem children, youth and adults. Long-term reductions in premature deaths and preventable illnesses will require prevention strategies to reduce the onset of overweight or obesity and its associated health consequences. Until this goal is achieved, East Harlem will continue to experience higher rates of diet-related diseases.

Also of great concern, given its lifetime adverse consequences, is the persistence of high rates of food insecurity in East Harlem. Given the close links between food insecurity and obesity, it should be a high priority to develop strategies that simultaneously reduce these two adverse outcomes in East Harlem.

In the coming months, researchers, public health professionals, health care providers, community workers, activists, and residents in East Harlem will need to consider which of the following approaches will be the best option to reduce high rates of food insecurity, overweight, obesity and diet-related diseases in East Harlem:

- 1. We are on the right track—keep doing the same.** This approach argues that some important indicators are moving in the right direction (e.g., more fruit and vegetable and less soda consumption) and we simply need to continue with current efforts.
- 2. We are on the right track, but need to do more.** This line of reasoning posits that our basic approaches are moving us in the right direction, but we need to expand and intensify these activities, coordinate them better, and identify the most (and least) effective activities and use these findings to make changes in what we are doing.
- 3. To achieve more meaningful changes, we need more transformative approaches to policy and programs that affect diets and health.** In this view, current efforts do not address the fundamental causes of diet-related diseases—poverty, racism, inequality and a food system that makes unhealthy food more available and less expensive than healthy food. Unless we take on these deeper causes, our efforts will not bring about significant reductions in diet-related disease and food insecurity.

These three arguments are not mutually exclusive, but only by discussing and analyzing the evidence we present in this report can we decide which approach will help create the most lasting, positive changes moving forward for the various problems identified. In turn, this will help the people and organizations of East Harlem to determine the most effective strategies for achieving our common goals. In the coming months, the authors of this report look forward to engaging with others working in food and nutrition in East Harlem to develop strategies for creating more healthful food environments in the community.



Youth Food Educators developing strategies to combat the aggressive promotion of unhealthy food in their community

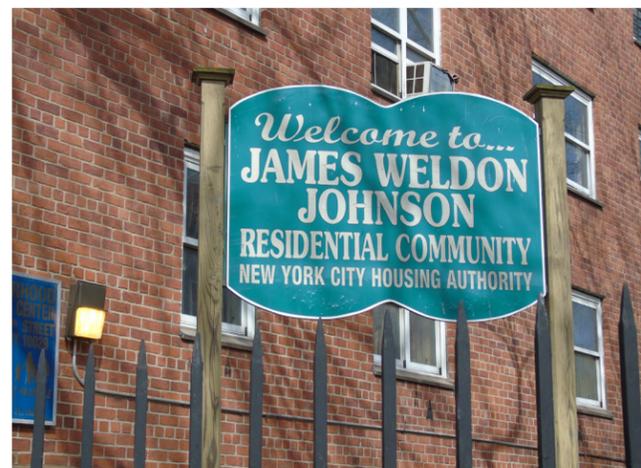
POLICY RECOMMENDATIONS

Based on both the findings of this report and extensive conversations with others working on food in East Harlem and New York City, we recommend ten broad food policy goals for discussion and action in East Harlem. While we believe that achieving these specific goals will create a healthier foodscape in East Harlem, our larger aim is to encourage community discussion on crosscutting, intersectoral food policy goals and strategies. Our recommendations are intended to spark that discussion.

1. Create more community-based and community-owned alternative food outlets, such as farmers markets, food co-ops, CSAs and mobile markets, to provide options for low-income East Harlem residents to access healthier foods and to build a food sector more resilient to the adverse consequences of gentrification.
2. Reduce promotion and prevalence of unhealthy food at community, city, state and national levels by expanding school and community nutrition education, revising zoning policies, launching counter-marketing campaigns, advocating for state and national taxes on unhealthy food, and encouraging enforcement and updating of regulations that limit promotion of unhealthy food.
3. Find new ways to use SNAP to encourage purchase of healthier food, increase demand for healthy, affordable food, and maximize enrollment in SNAP in East Harlem. Such measures will bring new food dollars to East Harlem and, with local and municipal social marketing campaigns, will increase demand for healthy food, thus encouraging food retailers to sell more of it.
4. Create an East Harlem-based healthy food procurement center that can assist local service agencies, child care and senior programs, private schools and others to purchase more affordable, healthy and, where appropriate, local food for their institutional food programs. Such a center will help with specifications, bid aggregation, funding and financing options, and technical assistance to institutional feeding programs in East Harlem.
5. Encourage public agencies and community institutions to adopt a “food in all policies” approach, in which the nutritional and health impact of zoning and community development, affordable housing, retail expansion, taxation, subsidies and other measures on the well-being of people in East Harlem are considered before the policy or program is implemented.
6. Create and sustain an East Harlem Food Policy Council to monitor the foodscape in East Harlem, set and evaluate action to achieve goals for reducing food insecurity and diet-related diseases, and coordinate the multiple streams of funding, programming and activity. Such a council could be either part of or independent of city government.
7. Establish East Harlem’s Community School District 4 as a district in which all schools served by the Department of Education’s Office of SchoolFood offer free school meals to all students, regardless of children’s household income status.
8. Launch an East Harlem Soda-Free Community Campaign. High rates of obesity and diabetes, and the

evidence that sugary beverages play a large role in increasing in these health outcomes, combined with the high rates of soda consumption in East Harlem, make a community-wide campaign to reduce sugary beverage consumption a promising strategy. By changing community norms on soda consumption, such a social marketing campaign could accelerate current trends towards reduced soda consumption, thereby preventing obesity, illness and premature deaths.

9. Organize a coordinated and comprehensive initiative for healthy eating for New York City Housing Authority (NYCHA) residents in East Harlem. Such an effort could include instituting new retail food outlets within NYCHA, expanding nutrition education and cooking options (e.g., community kitchens), providing food job training, and enhancing SNAP enrollment. NYCHA residents would play a key role in planning and implementing such an initiative.



James Weldon Johnson Houses, a New York City Housing Authority development in East Harlem

10. Create a centralized public database that lists and describes all food and nutrition education programs in East Harlem, the goals and reach of the programs, their funding sources and, if available, results of evaluation studies. With this type of resource, funders could make appropriate and timely funding decisions; public health practitioners and community groups could develop better programs; advocates could better identify the gaps and opportunities in the community's efforts to improve health outcomes and optimize available resources; researchers could further investigate and identify the gaps in the community's efforts to improve health outcomes; and policy makers could make more informed decisions about allocating resources for improving food environments in East Harlem.

East Harlem is rich in the human assets that can transform our foodscape from one that too often leaves many of our community's residents hungry or sick. We invite the people and organizations of East Harlem to join the growing movement to make healthy, affordable food within reach for all residents.

REFERENCES

Section 2

- 2.1** Lavin M. (2005) Supermarket access and consumer wellbeing: the case of Pathmark in Harlem. *Intl J of Retail & Distrib Mgt.* 2005; 33(5):388-398. doi:10.1108/09590550510596759
- 2.2** Deloitte. Consumer Business industry reports. Global Powers of Retailing. *Deloitte Belgium.* <http://www2.deloitte.com/be/en/pages/consumer-business/articles/global-powers-of-retailing.html>. 2015.
- 2.3** Is Costco the new organic leader? *Foodbusinessnews.net.* http://www.foodbusinessnews.net/articles/news_home/Food-Service-Retail/2015/06/Is_Costco_the_new_organic_lead.aspx?ID=%7B4D-B18C69-FE2B-431F-A333-D7AFEDA54ABA%7D&cck=1. June 3, 2015.
- 2.4** Infogroup, Inc. (2000). US Businesses. Retrieved September 14, 2015, from ReferenceUSA Historical database.
- 2.5** Infogroup, Inc. (2015). US Businesses. Retrieved September 14, 2015, from ReferenceUSA database.
- 2.6** Evans A, Jennings R, Smiley A, et al. Introduction of farm stands in low-income communities increases fruit and vegetable among community residents. *Health & Place.* 2012;18(5):1137-1143. doi:10.1016/j.healthplace.2012.04.007.
- 2.7** Nguyen BT, Powell LM. The impact of restaurant consumption among US adults: effects on energy and nutrient intakes. *Public Health Nutr.* 2014;17(11):2445-52. doi:10.1017/s1368980014001153.
- 2.8** New York City Department of City Planning. Going to the Market: New York City's Neighborhood Grocery Store and Supermarket Shortage. *nyc.gov.* Available at: <http://www.nyc.gov/html/dcp/html/supermarket/presentation.shtml>. 2015.
- 2.9** New York City Food Retail Expansion to Support Health. FRESH Projects. *nyc.gov.* Available at: http://www.nyc.gov/html/misc/html/2009/fresh_projects.shtml. 2013.
- 2.10** Good Food Jobs New York. NYCIDA Project Cost/Benefit Analysis. *Goodjobsny.org.* Available at: http://goodjobsny.org/sites/default/files/docs/reycosupermarkets_llc_public_hearing_package_redacted.pdf. 2012.
- 2.11** New York City Food Retail Expansion to Support Health. FRESH Projects. *nyc.gov.* Available at: http://www.nyc.gov/html/misc/html/2009/fresh_projects.shtml. 2013.
- 2.12** Works A. Super Fi Emporium Acquires 12,000 SF Grocery Space in East Harlem. *Rebusinessonline.com.* Available at: <http://rebusinessonline.com/super-fi-emporium-acquires-12000-sf-grocery-space-in-east-harlem/>. 2015.
- 2.13** New York City Economic Development Corporation. Inside a FRESH Supermarket: Super Fi Emporium. *NYCEDC.com.* Available at: <http://www.nycedc.com/blog-entry/inside-fresh-supermarket-super-fi-emporium>. 2015.
- 2.14** Kiszko K, Cantor J, Abrams C et al. Corner Store Purchases in a Low-Income Urban Community in NYC. *Journal of Community Health.* 2015;40(6):1084-1090. doi:10.1007/s10900-015-0033-1.
- 2.15** Langellier BA, Garza JR, Preliop ML, et al. Corner Store Inventories, Purchases, and Strategies for Intervention: A Review of the Literature. *Calif J Health Promot.* 2013;11(3):1-13.
- 2.16** New York City Department of Health and Mental Hygiene. New York City Economic Development Corporation. NYC Healthy Bodegas Initiative 2010 Report. *New York City Department of Health and Mental Hygiene.* <http://www.nyc.gov/html/doh/downloads/pdf/cdp/healthy-bodegas-rpt2010.pdf>. 2010.
- 2.17** New York City Department of Health and Mental Hygiene. New York City Economic Development Corporation. New York City Healthy Bodegas Initiative 2010 Report. *New York City Department of Health and Mental Hygiene.* Available at: <http://www.nyc.gov/html/doh/downloads/pdf/cdp/healthy-bodegas-rpt2010.pdf>. 2015.
- 2.18** New York City Department of Health and Mental Hygiene. New York City Economic Development Corporation. New York City Healthy Bodegas Initiative 2010 Report. *New York City Department of Health and Mental Hygiene.* Available at: <http://www.nyc.gov/html/doh/downloads/pdf/cdp/healthy-bodegas-rpt2010.pdf>. 2015.
- 2.19** New York City Department of Health and Mental Hygiene. New York City Healthy Bodegas Initiative. *New York City Department of Health and Mental Hygiene.* Available at: <http://www.nyc.gov/html/doh/downloads/pdf/cdp/healthy-bodegas-rpt2010.pdf>. 2010.
- 2.20** New York City Department of Health & Mental Hygiene (DOHMH) Center for Economic Opportunity. CEO Internal Program Review Summary. *New York City Department of Health & Mental Hygiene Center for Economic Opportunity.* Available at: http://www.nyc.gov/html/ceo/downloads/pdf/hb_prr.pdf. 2008.
- 2.21** New York City Department of Health & Mental Hygiene Center for Economic Opportunity. CEO Internal Program Review Summary. *New York City Department of Health & Mental Hygiene Center for Economic Opportunity.* Available at: http://www.nyc.gov/html/ceo/downloads/pdf/hb_prr.pdf. 2008.
- 2.22** Gearing M, Anderson T. Innovations in NYC Health & Human Services Policy: Food Policy. Washington, D.C.: *Urban Institute.* Available at: <http://www.urban.org/sites/default/files/alfresco/publication-pdfs/413054-Innovations-in-NYC-Health-and-Human-Services-Policy-Food-Policy.PDF>. 2015.
- 2.23** New York City Department of Health and Mental Hygiene. Shop Healthy NYC Year 1 Evaluation Report. *New York City Department of Health and Mental Hygiene.* Available at: <http://www.nyc.gov/html/doh/downloads/pdf/pan/shop-sealthy-report.pdf>. 2014.

- 2.24** Jensen M. CDC's Public Health Associate at The New York City Department of Health & Mental Hygiene, Long Island City, NY. 2015. [Email].
- 2.25** Solis G. East Harlem Bodegas Go Healthy For City Initiative. *DNAinfo New York*. Available at: <http://www.dnainfo.com/new-york/20151007/east-harlem/east-harlem-bodegas-go-healthy-for-city-initiative>. October 7, 2015.
- 2.26** Jensen M, CDC's Public Health Associate at *The New York City Department of Health & Mental Hygiene*, Long Island City, NY. Email to Apoorva Srivastava, New York City Food Policy Center, New York City, NY, September 4, 2015.
- 2.27** New York City Department of Health and Mental Hygiene. Report To The New York City Council On Green Carts FY2008-2009. *New York City Department of Health and Mental Hygiene*. Available at: http://www.nyc.gov/html/doh/downloads/pdf/cdp/green_carts_areas.pdf. 2009.
- 2.28** New York City Department of Health and Mental Hygiene. Report To The New York City Council On Green Carts FY2008-2009. *New York City Department of Health and Mental Hygiene*. Available at: http://www.nyc.gov/html/doh/downloads/pdf/cdp/green_carts_areas.pdf. 2009.
- 2.29** New York City Department of Health and Mental Hygiene. Report To The New York City Council On Green Carts FY2008-2009. *New York City Department of Health and Mental Hygiene*. Available at: http://www.nyc.gov/html/doh/downloads/pdf/cdp/green_carts_areas.pdf. 2009.
- 2.30** Jensen, M. CDC's Public Health Associate at *The New York City Department of Health & Mental Hygiene*, Long Island City, NY. Email to Diana Johnson, New York City Food Policy Center, New York City, NY. March 4 2015.
- 2.31** New York City Department of Health and Mental Hygiene. NYC Stellar Farmers Market Program. *New York City Department of Health and Mental Hygiene*. Available at: http://www.nyc.gov/html/doh/downloads/pdf/dpho/healthbucks_stellar.pdf. 2016.
- 2.32** Harvest Home Farmers' Markets. Our Story. *Harvesthomefm.org*. Available at: http://www.harvesthomefm.org/our_story_.aspx. 2016.
- 2.33** Halter L, GrowNYC's Greenmarket Staff. Personal Conversation with Apoorva Srivastava, *New York City Food Policy Center*, New York City, NY). October 16, 2015.
- 2.34** Mount Morris Park Community Improvement Association. Farmers' Market Vendors Combine the Freshest of Ingredients and Lots of Hard Work to Bring Their Passions to Marcus Garvey Park. *The Mount Morris Park Community Improvement Association*. 2016. Available at: <http://mmpcia.org/site/2010/08/06/farmers-market-vendors-combine-the-freshest-of-ingredients-and-lots-of-hard-work-to-bring-their-passions-to-marcus-garvey-park/>.
- 2.35** Halter L, GrowNYC's Greenmarket Staff. Personal Conversation with Apoorva Srivastava. *New York City Food Policy Center*, New York City, NY. October 16, 2015.

- 2.36** Heaberg K, Edible Schoolyard. Personal Conversation with Apoorva Srivastava, *New York City Food Policy Center*, New York City, NY. October 16, 2015.
- 2.37** Johnson N, Policy and Advocacy Director / Farmers' Market Network Manager, Just Food, New York City, NY. Personal Conversation with Apoorva Srivastava. *New York City Food Policy Center*, New York City, NY. October 16, 2015.
- 2.38** New York City Department of Health and Mental Hygiene. Use Your EBT Card at a Farmers' Market. *New York City Department of Health and Mental Hygiene*. Available at: <http://www.nyc.gov/html/doh/downloads/pdf/cdp/health-bucks-poster-mn.pdf>. 2015.
- 2.39** Weinberg J. Health Department Launches New Farm to Pre-school Program. *New York City Department of Health and Mental Hygiene*; 2014; Available at: <http://www.nyc.gov/html/doh/html/pr2014/pr036-14.shtml>.
- 2.40** Scattergood A. La Marqueta: Examining the Retail Landscape of East Harlem. *New York City: Graduate School of Architecture, Planning, and Preservation, Columbia University*. Available at: <http://academiccommons.columbia.edu/catalog/ac:percent3A162117>. 2013.
- 2.41** Durkin E. Upgrades Coming to East Harlem's La Marqueta, Melissa Mark-Viverito announces. *New York Daily News*. Available at: <http://www.nydailynews.com/blogs/dailypolitics/upgrades-coming-east-harlem-la-marqueta-melissa-mark-viverito-announces-blog-entry-1.1895908>. August 7, 2014.
- 2.42** Solis G. La Marqueta to Get a \$3 Million Facelift Compliments of City Council. *DNAinfo*. Available at: <http://www.dnainfo.com/new-york/20140813/east-harlem/la-marqueta-get-3-million-facelift-compliments-of-city-council>. August 13, 2014.
- 2.43** New York City Economic Development Corporation. La Marqueta. *New York City Economic Development Corporation*. Available at: <http://www.nycedc.com/project/la-marqueta>.
- 2.44** Zukin S, Trujillo V, Frase P, Jackson D, Recuber T, Walker A. New Retail Capital and Neighborhood Change: Boutiques and Gentrification in New York City. *City & Community* 2009;8(1):47-64.
- 2.45** Upper Manhattan Empowerment Zone. Who We Are. *The Upper Manhattan Empowerment Zone Development Corporation*. Available at: <http://www.umez.org/index.cfm?e=inner2&itemcategory=59425>. 2015.
- 2.46** Upper Manhattan Empowerment Zone. The Initiative for a Competitive Inner City. *The Upper Manhattan Empowerment Zone Development Corporation*. Available at: http://assimediainal.s3.amazonaws.com/site557/reseller84/company831/user28794/1410875471_UMEZ.Channelingpercent20Growthpercent20Opportunities.pdf. June 2014.
- 2.47** New York City Economic Development Corporation. Request for Proposals. *New York City Economic Development Corporation*. Available at: <http://www1.nyc.gov/assets/hpd/downloads/pdf/125thRFPFinal.pdf>.

- 2.48** New York City Mayor's Office of Sustainability. City Environmental Quality Review Environmental Assessment Statement. *New York City Mayor's Office of Sustainability*. Available at: http://www.nyc.gov/html/oec/downloads/pdf/dme_projects/07DME025M/07DME025M_EAS_For_Web.pdf.
- 2.49** New York City Department of City Planning. 125th Street-Approved! *New York City Department of City Planning*. Available at: <http://www.nyc.gov/html/dcp/html/125th/125th6.shtml>.
- 2.50** City Planning Commission. Negative Declaration Review. Department of City Planning of the City of New York. Environmental Assessment and Review. *New York City Mayor's Office of Sustainability*. Available at: http://www.nyc.gov/html/oec/downloads/pdf/edeg_materials/manhattan/04DCP053M_Determination_of_significance.PDF. May 10, 2004.
- 2.51** City Planning Commission. C 050482 HAM. *New York City Department of City Planning*. Available at: <http://www.nyc.gov/html/dcp/pdf/cpc/050483.pdf><http://www.nyc.gov/html/dcp/pdf/cpc/050483.pdf>. October 19, 2005.
- 2.52** City Planning Commission. C 110096 HAM. *New York City Department of City Planning*. Available at: <http://www.nyc.gov/html/dcp/pdf/cpc/110096.pdf><http://www.nyc.gov/html/dcp/pdf/cpc/110096.pdf>. February 16, 2011.
- 2.53** City Planning Commission. C 090145 HAM. *New York City Department of City Planning*. Available at: <http://www.nyc.gov/html/dcp/pdf/cpc/090145.pdf><http://www.nyc.gov/html/dcp/pdf/cpc/090145.pdf>. February 18, 2009.
- 2.54** City Planning Commission. C 150212 HAM. *New York City Department of City Planning*. Available at: <http://www.nyc.gov/html/dcp/pdf/cpc/150212.pdf><http://www.nyc.gov/html/dcp/pdf/cpc/150212.pdf>. July 1, 2015.
- 2.55** Satow J. Developers are Making Bets on a Rising East Harlem. *New York Times*. Available at: http://www.nytimes.com/2013/03/20/realestate/commercial/developers-are-making-bets-on-a-rising-east-harlem.html?_r=0. March 19, 2014.
- 2.56** Satow J. Developers are Making Bets on a Rising East Harlem. *New York Times*. Available at: http://www.nytimes.com/2013/03/20/realestate/commercial/developers-are-making-bets-on-a-rising-east-harlem.html?_r=0. March 19, 2014.
- 2.57** Rebny.com. REBNY Retail Reports. *REBNY.com*. Available at: <https://www.rebny.com/content/rebny/en/newsroom/research/REBNYRetailReport.html>. 2015

Section 3

- 3.1** Food Systems, New York City, 2009-2012. via Measure of America, *Social Science Research Council*. DATA2GO.NYC, 2015.
- 3.2** Food Bank For New York City analysis of Gundersen, C., E. Engelhard, A. Satoh, & E. Waxman. *Map the Meal Gap 2014: Food Insecurity and Child Food Insecurity Estimates at the County Level*. Feeding America, 2014.
- 3.3** Food Bank for New York City. The Meal Gap 2015. Meal Gap by Community District. *Food Bank for New York City*. Available at: <http://www.foodbanknyc.org/A584AE10-FBC2-11E3-998B00304864E324#CC>.
- 3.4** United States Department of Agriculture, Economic Research Service. Supplemental Nutrition Assistance Program (SNAP): Background. *United States Department of Agriculture, Economic Research Service*. Available at: <http://www.ers.usda.gov/topics/food-nutrition-assistance/supplemental-nutrition-assistance-program-snap/background.aspx>. Updated June 4, 2012.
- 3.5** Oliveira V. The Food Assistance Landscape: FY 2014 Annual Report, EIB-137. *United States Department of Agriculture, Economic Research Service*. Available at: <http://www.ers.usda.gov/publications/eib-economic-information-bulletin/eib-137.aspx>. March 2015.
- 3.6** Mabli J, Ohls J, Dragoset L, et al. Measuring the effect of Supplemental Nutrition Assistance Program Participation on Food Security. *United States Department of Agriculture, Food and Nutrition Service*. Available at: <http://www.fns.usda.gov/sites/default/files/Measuring2013.pdf>. August 2013.
- 3.7** Citizens' Committee for Children (CCC) of New York. Keep Track Online, The status of New York City Children. SNAP (Food Stamps) by Recipient. *Citizens' Committee for Children of New York*. Available at: <http://data.cccnewyork.org/data/bar/142/snap-food-stamps-142/89,90/1,13/227/9>.
- 3.8** Human Resources Administration Community District Demographics and Program Statistics. District Resource Statement, Fiscal and Service Reports for Fiscal years 2012 and 2013. *New York City Human Resources Administration*. Available at: http://www1.nyc.gov/assets/hra/downloads/pdf/facts/drs/drs_hra_2012_2013.pdf.
- 3.8** Human Resources Administration Community District Demographics and Program Statistics. District Resource Statement, Fiscal and Service Reports for Fiscal years 2013 and 2014 and 2014 and 2015. *New York City Human Resources Administration*. Available at: http://www1.nyc.gov/assets/hra/downloads/pdf/facts/drs/drs_hra_2013_2014.pdf and <http://www1.nyc.gov/assets/hra/downloads/pdf/facts/drs/DRS2014-15.pdf>
- 3.9** Gearing M, Anderson T. Innovations in NYC Health and Human Services Policy: Food Policy. *Urban Institute*. Available at: <http://www.urban.org/sites/default/files/alfresco/publication-pdfs/413054-Innovations-in-NYC-Health-and-Human-Services-Policy-Food-Policy.PDF>. 2014.

- 3.10** Andrews M, Smallwood D. What's behind the rise in SNAP participation? *Amber Waves*. Available at: <http://www.ers.usda.gov/amber-waves/2012-march/what-percent2-percent80-percent99s-behind-the-rise-in-snap-participation.aspx#.VikDzf7D-UI>. 2012.
- 3.11** Martinez OA, Wisdom R, Ewart E. Nourishing NYC: Increasing food stamp access in immigrant communities. *Homeless Outreach and Prevention Project*, Urban Justice Center. Available at: https://snp.urbanjustice.org/sites/default/files/NOURISH_NYC_FINAL_WEB.pdf. 2008.
- 3.12** Pati S, Romero D, Chavkin W. Changes in Use of Health Insurance and Food Assistance Programs in Medically Underserved Communities in the Era of Welfare Reform: An Urban Study. *American Journal of Public Health*. 2002;92 (9):1441-1445.
- 3.13** Food Bank for New York City. Hunger's new normal: Redefining emergency in post-recession New York City. *Food Bank for New York City*. Available at: <https://www.foodbanknyc.org/files//dmfile/FINALFINALDRAFTSNParticipantrptNoEmb.pdf>. October 30, 2013.
- 3.14** Human Resources Administration Program Facts and Reports. SNAP Program Access Index and Participation Rates 2002-2013. *New York City Human Resources Administration*. Available at: <http://www1.nyc.gov/assets/hra/downloads/pdf/facts/snap/2002.2013NYCSNAPParticipation.pdf>.
- 3.15** Food Bank for New York City. Research Brief: The Hunger Cliff One Year Later: 56 million meals lost and need for emergency food remains high. *Food Bank for New York City*. Available at: https://www.foodbanknyc.org/files//dmfile/HungerCliff_ResearchBrief.pdf. November 24, 2014.
- 3.16** GrowNYC. Healthy Food, Healthy City: A look at GROWN NYC's EBT project and food access initiatives in 2012. *GrowNYC*. <http://www.grownyc.org/files/gmkt/EBT/2012EBTReport.pdf>.
- 3.17** United States Census Bureau. American Fact Finder Community Facts. *United States Census Bureau*. Available at: http://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml.
- 3.18** Martinez OA, Wisdom R & Ewart E, 2008. Nourishing NYC: Increasing food stamp access in immigrant communities. *Homeless Outreach and Prevention project*, Urban Justice Center. Available at: https://snp.urbanjustice.org/sites/default/files/NOURISH_NYC_FINAL_WEB.pdf
- 3.19** Council of Senior Centers and Services of NYC, Inc. Preventing hunger among the elderly: under enrollment of SNAP by older New Yorkers. *Council of Senior Centers and Services of NYC, Inc*. Available at: http://cscs-ny.org/files/SNAP_Benefit_Older_Adults.pdf. February 6, 2013.
- 3.20** Martinez OA, Wisdom Reward E. Nourishing NYC: Increasing food stamp access in immigrant communities. *Homeless Outreach and Prevention Project*, Urban Justice Center. Available at: https://snp.urbanjustice.org/sites/default/files/NOURISH_NYC_FINAL_WEB.pdf. 2008.

- 3.21** Council of Senior Centers and Services of NYC, Inc. Preventing hunger among the elderly: under enrollment of SNAP by older New Yorkers. *Council of Senior Centers and Services of NYC, Inc*. Available at: http://cscs-ny.org/files/SNAP_Benefit_Older_Adults.pdf. February 6, 2013.
- 3.22** U.S. Department of Agriculture, Food and Nutrition Service. SNAP - fiscal year 2015 Cost-Of-Living Adjustments. *U.S. Department of Agriculture Food and Nutrition Service*. Available at: http://www.fns.usda.gov/sites/default/files/snap/SNAP_%20FY_2015_Cost_of_Living_Adjustments.pdf. 2014.
- 3.23** Smartasset.com. What is the True Cost of Living in New York City? *Smartasset.com*. Available at: <https://smartasset.com/mortgage/what-is-the-cost-of-living-in-new-york-city>. 2015.
- 3.24** Food Research and Action Center. Replacing The Thrifty Food Plan In Order To Provide Adequate Allotments For SNAP Beneficiaries. *Food Research and Action Center*. Available at: http://frac.org/pdf/thrifty_food_plan_2012.pdf. 2012.
- 3.25** Center on Budget and other Policy Priorities. New York Supplemental Nutrition Assistance Program. *Center on Budget and Other Policy Priorities*. Available at: <http://www.cbpp.org/sites/default/files/atoms/files/NY.pdf>. 2015.
- 3.26** New York Supplemental Nutrition Assistance Program. *Center on Budget and Other Policy Priorities*. Available at: <http://www.cbpp.org/sites/default/files/atoms/files/NY.pdf>. 2015.
- 3.27** Poppendieck, J, Dwyer JC. Hungry City. In: Hauck-Lawson A, Deutsch J eds. *Gastropolis*. Columbia University Press; 2009. 308-326.
- 3.28** New York City Human Resources Administration. About the Campaign. *foodhelp.nyc*. Available at: <http://www.foodhelp.nyc>. 2015.
- 3.29** Food Bank For New York City - Food Program Locator. *foodbanknyc.org*. Available at: <http://www.foodbanknyc.org/foodprogramlocator>. 2016.
- 3.30** New York City Coalition Against Hunger. Food & Assistance Guides. *nyccah.org*. Available at: <http://nyccah.org/get-food/food-assistance-guides>. 2015.
- 3.31** Food Bank for New York City. TEN (Tiered Engaged Network). *Food Bank for New York City*. Available at: <http://www.foodbanknyc.org/our-programs/ten>.
- 3.32** Paddock, B, Otis GA. Hunger Crisis: charities are strained as nearly 1 in 5 New Yorkers depend on aid for food. *New York Daily News*. Available at: <http://www.nydailynews.com/new-york/1-5-new-yorkers-rely-charities-food-article-1.1723671>. March 16, 2014.
- 3.33** Food Bank for New York City. Hunger Cliff NYC: Bridging a city's monthly 5.3 million meal loss. *Food Bank for New York City*. Available at: <http://www.foodbanknyc.org/files//dmfile/HungerCliffNYC2015ResearchBrief.pdf>. 2015.
- 3.34** Profile based on New York Common Pantry website and telephone interview. <http://www.nycommonpantry.org/>.

- 3.35** U.S. Department of Agriculture Food and Nutrition Service. FNS Rules and Regulations. *U.S. Department of Agriculture Food and Nutrition Service*. Available at: <http://www.fns.usda.gov/wic/wic-laws-and-regulations>.
- 3.36** WIC RFA Attachment 10 WIC Program Planning Area Data and Maps http://www.health.ny.gov/funding/rfa/inactive/0711070817/rfa_package.pdf Found at: Funding Opportunities/ Request for Applications - Special Supplemental Nutrition Program for Women, Infants and Children (WIC) and Commodity Supplemental Food Program (CSFP) -Documents: Request for Applications.
- 3.37** New York State Department of Health. Farmers' Market Nutrition Program. *New York State Department of Health*. Available at: <http://www.health.ny.gov/prevention/nutrition/fmnp/>.
- 3.38** GrowNYC. Healthy Food, Healthy City: A Look At GrowNYC's EBT Project And Food Access Initiatives In 2012. *GrowNYC*. Available at: <http://www.grownyc.org/files/gmkt/EBT/2012EBTReport.pdf>. 2012.

Section 4

- 4.1** That is, they are income eligible for either free or reduced price, and thus are served free under the revised rules that went into effect in 2013.
- 4.2** Of the 13,363 school meals served on average each day in East Harlem in School Year 2014-2015, 84.5 percent were served to students eligible for free meals, another 5.6 percent were served free to students in the Reduced Price category, and just under 10 percent of the meals went to students whose family incomes would require them to pay. All of the breakfasts were served free, and some of the "Paid" lunches were also served free to students in middle schools or students in schools using Provision 2 or CEP School meal participation data provided by Community Food Advocates.
- 4.3** Using a total count of 66 schools obtained from the *School-Food* website by aggregating schools located in zip codes 10029 and 10035. These schools are geographically located in School District 4, but some of them are special education or other programs that may be administered through other districts.
- 4.4** Author calculations based on data provided by Community Food Advocates.
- 4.5** Morgan K, Sonnino R, *The School Food Revolution: Public Food and the Challenge of Sustainable Development*. London: Earthscan; 2008.54-60.
- 4.6** Perlman SE, Nonas C, Lindstrom LL, Chloe-Castillo J, McKie H, Alberti PM, A menu for health: changes to New York City school food, 2001 to 2011. *Sch Health*.2012; 82: 484-491.
- 4.7** New York City Mayor's Office of Food Policy. 2014 Food Metrics Report, page 21. *New York City Mayor's Office of Food Policy*. Available at: <http://www.nyc.gov/html/nycfood/downloads/pdf/2014-food-metrics-report.pdf>. 2014.
- 4.8** New York City Mayor's Office of Food Policy. 2014 Food Metrics Report, page 19. *New York City Mayor's Office of Food Policy*. Available at: <http://www.nyc.gov/html/nycfood/downloads/pdf/2014-food-metrics-report.pdf>. 2014.
- 4.9** Census data reported in the American Community Survey for zip codes 10029 and 10035.
- 4.10** Mayor's Management Report, 2005, page 59 (data for fiscal years 2001-2005) and Mayor's Management Report, 2014, page 171 (data for fiscal years 2010-2014.)
- 4.11** Drobnjak M. Food access for elderly residents of East Harlem, prepared for the New York City Food Policy Center and the East Harlem Senior Working Group, May 2015: 21.
- 4.12** Drobnjak M. Food access for elderly residents of East Harlem, prepared for the New York City Food Policy Center and the East Harlem Senior Working Group, May 2015:24.
- 4.13** Council of Senior Centers and Services of NYC, Inc. Preventing Hunger Among the Elderly: Under Enrollment of SNAP by Older New Yorkers. New York, NY. *Council of Senior Centers and Services of NYC, Inc*. Available at: http://cscs-ny.org/files/SNAP_Benefit_Older_Adults.pdf. 2013.
- 4.14** Dinzes E. Director of Nutrition, Bureau of Community Services, Department for the Aging. E-mail communication. November 20, 2015.
- 4.15** New York City Mayor's Office of Food Policy. 2014 Food Metrics Report. *New York City Mayor's Office of Food Policy*. Available at: <http://www.nyc.gov/html/nycfood/downloads/pdf/2014-food-metrics-report.pdf>. 2014.
- 4.16** E-mail and telephone interviews with staff from the Gaylord White Senior Center, the Carver Senior Center, and the Beatrice Lewis Neighborhood Senior Center conducted by Marissa Sheldon, September 2015.
- 4.17** See Public Plate Working Group, The public plate in New York City: a guide to institutional meals. New York City Food Policy Center at Hunter College; 2014; p 2.
- 4.18** "Health Department Announces New Program to Support Healthier Food in Hospitals" Press release # 025-12, September 25, 2012, New York City Department of Health and Mental Hygiene.
- 4.19** New York City Mayor's Office of Food Policy. 2014 Food Metrics Report, p. 21. *New York City Mayor's Office of Food Policy*. Available at: <http://www.nyc.gov/html/nycfood/downloads/pdf/2014-food-metrics-report.pdf>. 2014.

Section 5

- 5.1** Cantor J, Torres A, Abrams C, Elbel B. Five Years Later: Awareness Of New York City's Calorie Labels Declined, With No Changes In Calories Purchased. *Health Aff (Millwood)*. 2015;34(11):1893-900.
- 5.2** Elbel B, Kersh R, Brescoll VL, Dixon LB. Calorie Labeling And Food Choices: A First Look At The Effects On Low-Income People In New York City. *Health Aff*. 2009;28(6):w1110-w1121.
- 5.3** Vadiveloo MK, Dixon LB, Elbel B. Consumer purchasing patterns in response to calorie labeling legislation in New York City. *Int J Behav Nutr Phys Act*. 2011;8(51). (Report: urban institute innovations 2014).
- 5.4** Duran C, Johnson M. Innovations in NYC Health And Human Services Policy: Homelessness Prevention, Intake And Shelter For Single Adults And Families. *Center for Economic Opportunity*. Available at: <http://www.urban.org/sites/default/files/alfresco/publication-pdfs/413060-Innovations-in-NYC-Health-and-Human-Services-Policy-Homelessness-Prevention-Intake-and-Shelter-for-Single-Adults-and-Families.PDF>. 2014.
- 5.5** Dumanovsky T, Huang CY, Nonas CA, Matte TD, Bassett MT, Silver LD. Changes in energy content of lunchtime purchases from fast food restaurants after introduction of calorie labeling: cross sectional customer surveys. *BMJ*. 2011;343:d4464.
- 5.6** Pouring on the Pounds Community Action Kit. New York City Department of Health and Mental Hygiene. Available at: <http://www.nyc.gov/html/doh/downloads/pdf/cdp/pouring-on-the-pounds-comm-action-kit.pdf>. 2014.
- 5.7** Farley T. *Saving Gotham: A Billionaire Mayor, Activist Doctors, and the Fight for Eight Million Lives*. New York, NY: W.W. Norton & Company; 2015.
- 5.8** UConn Rudd Center for Food Policy and Obesity. Food advertising targeted to Hispanic and Black youth: Contributing to health disparities. *UConn Rudd Center for Food Policy and Obesity*. Available at: http://www.uconnruddcenter.org/files/Pdfs/272-7%20%20Rudd_Targeted%20Marketing%20Report_Release_081115%5B1%5D.pdf. 2015.
- 5.9** New York City Department of Health and Mental Hygiene. Community Health Profiles 2015. New York City Department of Health and Mental Hygiene. Available at: <http://www1.nyc.gov/assets/doh/downloads/pdf/data/2015chp-mn11.pdf>. 2015.
- 5.10** UConn Rudd Center for Food Policy and Obesity. Food advertising targeted to Hispanic and Black youth: Contributing to health disparities. *UConn Rudd Center for Food Policy and Obesity*. Available at: http://www.uconnruddcenter.org/files/Pdfs/272-7%20%20Rudd_Targeted%20Marketing%20Report_Release_081115%5B1%5D.pdf. August 2015.
- 5.11** UConn Rudd Center for Food Policy and Obesity. Food advertising targeted to Hispanic and Black youth: Contributing to health disparities. *UConn Rudd Center for Food Policy and Obesity*. Available at: http://www.uconnruddcenter.org/files/Pdfs/272-7%20%20Rudd_Targeted%20Marketing%20Report_Release_081115%5B1%5D.pdf. August 2015.
- 5.12** Chronic Disease Self-Management Program (Better Choices, Better Health® Workshop). *Stanford Patient Education Research Center*. Available at: <http://patienteducation.stanford.edu/programs/cdsmtp.html>.
- 5.13** Parkih P, Simon EP, Kezen F, Looker H, Goytia C, Horowitz CR. Results of a Pilot Diabetes Prevention Intervention in East Harlem, New York City: Project HEED. *Am J Public Health*. 2010;100(Suppl 1):S232-S239.
- 5.14** Parkih P, Simon EP, Kezen F, Looker H, Goytia C, Horowitz CR. Results of a Pilot Diabetes Prevention Intervention in East Harlem, New York City: Project HEED. *Am J Public Health*. 2010;100(Suppl 1):S232-S239.
- 5.15** Project HEED (Help Educate to Eliminate Diabetes). *Projectheed.com*. Available at: <http://www.projectheed.com>. 2015.
- 5.16** New York City Department for the Aging. Performance Standards for Contracted Services. *New York City Department for the Aging*. Available at: http://www.nyc.gov/html/dfta/downloads/pdf/publications/standards_for_web.pdf.
- 5.17** General Programs/Services and Other Information. *New York City Department of Education*. Available at: <http://schools.nyc.gov/Offices/Health/GenProgServ/Wellness.htm>. 2015.
- 5.18** The New York City Department of Education Wellness Policies on Physical Activity and Nutrition. *New York City Department of Education*. Available at: http://schools.nyc.gov/NR/rdonlyres/2B99376C-5BA2-4D97-9F85-1C5DA395EFF4/0/NYCDOEWellnessPolicy_June2010.pdf. June 2010.
- 5.19** Connell DB, Turner RR, Mason EF. Summary of findings of the School Health Education Evaluation: health promotion effectiveness, implementation, and costs. *JSch Health*. 1985;55(8): 316-321.
- 5.20** Laurie M. Tisch Center for Food, Education & Policy Program in Nutrition at Teachers College, Columbia University. Expanding Nutrition Education Programs in New York City Elementary Schools: Understanding Practice to Inform Policy. *Teachers College, Columbia University*. Available at: http://www.tc.columbia.edu/i/a/document/31019_NE-PreportFINAL.pdf. March 2014.
- 5.21** GreenBeetz. Pilot Programs. *GreenBeetz*. Available at: <http://www.greenbeetz.com/green-beetz-pilot-programs/>. 2014.
- 5.22** NYC Excellence in School Wellness Award. Award Application, School Year 2014-2015. *New York City Department of Education*. Available at: <https://www1.nyc.gov/html/doh/downloads/pdf/dpho/school-wellness-award-app.pdf>.
- 5.23** New York City Mayor's Office of Food Policy. 2015 Food Metrics Report. Appendix C, Green Thumb Gardens: 46-59. *New York City Mayor's Office of Food Policy*. Available at: <http://www.nyc.gov/html/nycfood/downloads/pdf/2015-food-metrics-report.pdf>. 2015.
- 5.24** Participatory Budgeting FAQ. *The New York City Council*. Available at: <http://council.nyc.gov/html/pb/faq.shtml>. 2015.

5.25 Feeney MJ. Grassroots East Harlem group will get city funds to promote healthy eating via mobile cooking classroom. *New York Daily News*. Available at: <http://www.nydailynews.com/new-york/uptown/east-harlem-group-funds-mobile-cooking-classroom-article-1.1326739>. April 25, 2015.

5.26 Hoelscher DM, Kirk S, Ritchie L, Cunningham-Sabo L. Position of the Academy of Nutrition and Dietetics: Interventions for the Prevention and Treatment of Pediatric Overweight and Obesity. *J Acad Nutr Diet*. 2013;113(10): 1375 – 1394.

5.27 Feeney MJ. Grassroots East Harlem group will get city funds to promote healthy eating via mobile cooking classroom. *New York Daily News*. Available at: <http://www.nydailynews.com/new-york/uptown/east-harlem-group-funds-mobile-cooking-classroom-article-1.1326739>. April 25, 2015.

5.28 United Federation of Teachers. New York City Excellence in School Wellness Award Ceremony 2015. *Uft.org*. Available at: <http://www.uft.org/galleries/photo/new-york-city-excellence-school-wellness-award-ceremony-2015>. 2015.

5.29 Project HEED (Help Educate to Eliminate Diabetes). *Projectheed.com*. Available at: <http://www.projectheed.com>. 2015.

Section 6

6.1 Vainio H, Weiderpass E. Fruit and vegetables in cancer prevention. *Nutrition and Cancer* 2006;54(1):111–142.

6.2 Bazzano LA, He J, Ogden LG, et al. Fruit and vegetable intake and risk of cardiovascular disease in US adults: the first National Health and Nutrition Examination Survey Epidemiologic Follow-up Study. *American Journal of Clinical Nutrition* 2002;76(1):93– 99.

6.3 Rolls BJ, Ello-Martin JA, Tohill BC. What can intervention studies tell us about the relationship between fruit and vegetable consumption and weight management? *Nutrition Reviews* 2004;62(1):1–17.

6.4 Vartanian LR, Schwartz MB, Brownell KD. Effects of soft drink consumption on nutrition and health: a systematic review and meta-analysis. *American Journal of Public Health* 2007;97(4):667–675.

6.5 Whiting SJ, Healey A, Psiuk S, Mirwald R, Kowalski K, Bailey DA. Relationship between carbonated and other low nutrient dense beverages and bone mineral content of adolescents. *Nutrition Research* 2001; 21(8):1107–1115.

6.6 Tahmassebi JF, Duggal MS, Malik-Kotru G, Curzon ME. Soft drinks and dental health: a review of the current literature. *Journal of Dental Research* 2006;34(1):2–11.

6.7 Alvarez C, Lantz P, Sharac J, Shin P. Food insecurity, food assistance and health status in the U.S. community health center population. *J Health Care Poor Underserved*. 2015;26(1): 82-91.

6.8 Hemmingsson E. A new model of the role of psychological and emotional distress in promoting obesity: conceptual review with implications for treatment and prevention. *Obes Rev*. 2014 Sep;15(9):769-79.

6.9 New York City Department of Health and Mental Hygiene. Epi Data Brief. (26). *New York City Department of Health and Mental Hygiene*. Available at: <http://www.nyc.gov/html/doh/downloads/pdf/epi/databrief26.pdf>. April 2013.

Section 7

7.1 Pearson-Stuttard J, Guzman Castillo M, Penalvo JL, Rehm CD, Afshin A, Danaei G, Kyridemos C, Gaziano T, Mozaffarian D, Capewell S, O'Flaherty M. Modeling Future Cardiovascular Disease Mortality in the United States: National Trends and Racial and Ethnic Disparities. *Circulation*. 2016 Feb 4. pii: CIRCULATIONAHA.115.019904.

EAST HARLEM REPORT

GLOSSARY OF ACRONYMS

A

ADP Average daily participation

C

CB Community Board

CEP Community Eligibility Program

CBO Community-based organizations

CBPR Community-based participatory research

CDC Centers for Disease Control and Prevention

CHS Community Health Survey

CNR Child Nutrition and WIC Reauthorization Act

CSCS Council of Senior Centers and Services

CSA Community Supported Agriculture

D

DCP New York City Department of City Planning

DFTA New York City Department for the Aging

DOC New York City Department of Correction

DOE New York City Department of Education

DOHMH Department of Health and Mental Hygiene

DPHO District Public Health Office

DYCD Department of Youth and Community Development

E

EDC Economic Development Corporation

EFAP Emergency Food Assistance Program

EFSP Emergency Food and Shelter Program

EHPDP East Harlem Partnership for Diabetes Prevention

ESWA Excellence in School Wellness Award

F

FMNP WIC Farmers Market Nutrition Program

FRESH Food Retail Expansion to Support Health

H

HHC New York City Health and Hospitals Corporation (now New York City Health and Hospitals)

HPNAP Hunger Prevention and Nutrition Assistance Program

HRA New York City Human Resources Administration

M

MCC Mobile Cooking Classroom

MMR Mayor's Management Report

MOFP Mayor's Office of Food Policy

N

NEPs Nutrition Education Programs

NYCHA New York City Housing Authority

P

PB Participatory budgeting

Project HEED Help Educate to Eliminate Diabetes

S

SAFH Strategic Alliance for Health

SMART Sisterhood Mobilized for AIDS/HIV Research & Treatment

SNAP Supplemental Nutrition Assistance Program

SSB Sugar sweetened beverages

T

TANF Temporary Assistance for Needy Families

TEFAP The Emergency Food Assistance Program

TEN Tiered Engagement Network

TFP Thrifty Food Plan

W

WIC Special Supplemental Nutrition Program for Women, Infants, and Children

WIC-VF WIC Vegetables and Fruits Check Program

Y

YOFE East Harlem Youth Food Educators Program

YRBS: Youth Risk Behavior Survey

U

UMEZ Upper Manhattan Empowerment Zone

USDA United States Department of Agriculture