

# Food Deserts: A Global Crisis in New York City *Causes, Impacts and Solutions*

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## Abstract

This paper discusses the global issue of inner city food deserts. These are areas in which healthy and affordable food options are not available. Research has shown that a lack of nutrition leads to further health problems, cognitive gaps, and unpromising trajectories. Here, past research is analyzed and current programs are evaluated. This article focuses on food deserts in New York City, specifically in Harlem. Some field research is also included. Following a detailed review of the situation, practical recommendations are made to alleviate this crisis.

**Keywords:** food deserts; nutrition; New York City; Harlem.

## 1. Introduction

In New York City, one of the wealthiest places in the world, approximately 1.3 million people go hungry everyday.<sup>1</sup> As the saying goes, “we are what we eat.” This is evermore evident in low-income neighborhoods. One of the major concerns lies in industrialized agriculture today, which produces inexpensive crops that yield to cheap and unhealthy food. While fresh organic produce may be available in middle and upper-class communities, such food is not available to many populations in New York City. Furthermore, recent studies have found, “[...] a direct correlation between a lack of access to healthy foods and health risks, including obesity.”<sup>2</sup> Rather than produce oriented grocery stores, poor neighborhoods most commonly have small grocery stores (bodegas), which often do not provide healthy food options, but rather help perpetuate an unhealthy lifestyle by focusing their advertising on items like cigarettes, alcohol and soda. In these areas, “food deserts” are often formed, where fairly priced, good quality healthy food is unavailable.

In these areas, unbalanced diets are common, and these poor diets with micronutrient deficiencies have negative consequences such as impaired cognitive development, lower resistance to disease and increased risks during childbirth for both mothers and children. Therefore, these poor, malnourished youth are often

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<sup>1</sup> Food Poverty in NYC, Food Bank for New York City.

<sup>2</sup> Healthy Bodegas Initiative, New York City Department of Health and Mental Hygiene.

subjected to a negative trajectory from birth. In New York City, this problem has been observed in East and Central Harlem.

Along with its social toll, today's food industry has a very large impact on the environment. Among other factors, the chemicals used in food production along with the distance food travels before it is consumed are detrimental to both the Earth and personal health. Furthermore, instead of supporting local agriculture that would produce healthy food at a low cost, the government pays off property owners not to cultivate their land to ensure that large industrialized farms succeed.

Nevertheless, there are many solutions for eliminating food deserts and improving diets within poor neighborhoods. Supporting local organic farming, making farmers' markets more accessible, and providing critical nutrition education for both adults and children are a few essential solutions to this problem. This article will examine the issues with the inner city food crisis and explore possible solutions.

## 2. Food Deserts: Causes and Impacts

### 2.1 Background

Unfortunately, healthy, wholesome meals (i.e. vegetables and fruits, variety of starchy staple foods, modest amounts of meat and dairy produce, etc.) are hard to come by in poor areas. In addition, there is a lack of knowledge and awareness within impoverished communities about the importance of healthy eating. Across the nation, studies have found that there is a clear correlation between low-income, minority neighborhoods and "poor access to supermarkets and healthful food. In contrast, the availability of fast-food restaurants and energy-dense foods has been found to be greater in lower-income and minority neighborhoods."<sup>3</sup>

Supermarkets, compared to smaller grocery or convenience stores, provide a wider selection of food as well as healthier and fresher options. In addition, because of the quantities at which supermarkets sell items, most food, especially produce, is generally cheaper. Moreover, convenience stores or bodegas found in poor neighborhoods, sell mostly packaged, high-calorie foods and few fruits and vegetables. It is no surprise then, "that residents with better access to supermarkets and other retail stores that provide access to healthful food products tend to have healthier food intakes,"<sup>4</sup> while the poor suffer. A study by the University of Minnesota's Dr. Nicole Larson et al. found that, "the highest levels of obesity (32%-40%) were observed in census tracts with no supermarkets,"<sup>5</sup> where the residents only had access to bodegas and convenience stores.

### 2.2 The Government as the Cause

This disparity, however, is no coincidence. The federal government invests a lot of money in the food industry so that large corporations and farms can create the most amount of food at the cheapest price—mostly in the form of corn and soy.

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<sup>3</sup> Larson, Story, and Nelson, 74.

<sup>4</sup> *Ibid.*, 75.

<sup>5</sup> *Ibid.*

This inexpensive food, however, ends up in stores as packaged snacks high in saturated fat, sugar and calories. While local small-scale farming could fix to this problem, *New York Times* editorialist Nicholas Kristof writes:

Every year you, the American taxpayer, sends me a check for \$588 in exchange for me not growing crops on timberland I own in Oregon (I forward the money to a charity). That's right. The Agriculture Department pays a New York journalist not to grow crops in a forest in Oregon.<sup>6</sup>

It is important to understand that the government is playing a critical role in depriving underprivileged communities from healthy food. They are increasing food deserts while wasting taxpayer money to dissuade potential farmers from participating in a sustainable food system. More importantly, the Department of Agriculture could invest to improve the diets of thousands of poor citizens instead of subsidizing the food industry.

This correlation is significant because the same people who are not given the opportunity to eat healthfully are often also on Medicaid. Thus, the government must now spend more federal dollars to treat avoidable type 2 diabetes and chronic cardiac illnesses. Moreover, “A 2008 *Lancet* article shows that boys [in impoverished areas] who benefited from a randomized nutrition intervention in their first two years of life earned wages as adults that were 50 percent higher than those of non participants.”<sup>7</sup> Thus, the unnecessary spending on health costs and the proof that diet impacts achievement levels should be enough to convince the government to start investing in the nutrition within poor neighborhoods. Luckily, in recent years both New York City and—under the Obama Administration—Washington have started to address the issue. However, as of yet, their response has not been strong enough.

### 2.3 Food Stamps

New York Food Stamps is a state assistance program through which federal money is distributed to those in need. While it is a necessary and helpful program, there are many flaws. First, the application process is complicated and arduous, which can deter people from applying. Next, every applicant must go through a slow and disorganized interview process. The Food Stamp Program (FSP) further limits the access to healthy food to those living in low-income neighborhoods by not encouraging healthy shopping and failing to educate those using FSP how to prepare healthy meals with a small budget.

The national program is attempting to fix these problems. It has been renamed the Supplemental Nutrition Assistance Program (SNAP). The agency explains this move “reflects the changes we’ve made to meet the needs of our clients, including a focus on nutrition and an increase in benefit amounts.”<sup>8</sup> But again, resources are not easily accessible. The FAQs note that information about nutrition can be accessed through your state and “your eligibility worker can direct you to the nutrition

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<sup>6</sup> Kristof.

<sup>7</sup> von Braun.

<sup>8</sup> Supplemental Nutrition Assistance Program (SNAP).

education services in your community.”<sup>9</sup> However, as it is often difficult to get in contact with an eligibility worker, this means that nutrition information is inaccessible. Furthermore, these efforts are nearly useless unless significantly more money is provided to enable the purchase of healthy food. Currently in New York, according to the FSP pamphlet (Appendix 1), each person receives about \$2.20 a meal. While this supplement is supposed to be combined with some personal funds, it is naïve to assume that the recipients will have extra money to spend, especially in light of the recent recession. Finally, it is important to remember that many poor people do not even qualify for Food Stamps for various reasons and thus are left hungry.

## 2.4 The Cost of Food

No matter a person’s operating budget, good and healthy food is expensive. Dr. Adam Drewnowski, Director of the Center for Public Health Nutrition at the University of Washington, calculated, “a 2,000-calorie diet would cost just \$3.52 a day if it consisted of junk food, compared with \$36.32 a day for a diet of low-energy dense foods.”<sup>10</sup> Even with people eating a mix of foods, Dr. Drewnowski notes, most Americans spend approximately \$7 a day on food, whereas low-income people spend about \$4. It is easier to overeat the unhealthy, energy-saturated food because it often tastes better and is more satiating in volume for its cost.

## 3. The Environmental Impact of Unhealthy Food

The vast availability of cheap, unhealthy food is a much larger problem. Not only is the current food industry perpetuating food deserts, but it is also destroying the environment. If better, more sustainable practices were implemented in farming and food production, both the poor and the Earth would benefit.

Cheap oil is the main issue. In order to expedite growth times and increase production, farmers use petroleum-based pesticides, which leach toxins into the food sources, and practice monocropping, which deteriorates soil quality. While in the short term they receive better yields, they ultimately deplete the fertility of their fields. In fact, “Since the early 1990s, crop yields have stopped rising. In the United States today, it takes roughly 10 calories of hydrocarbon energy to produce 1 calorie of food consumed at the table.”<sup>11</sup> In addition, the World Watch Institute has calculated that food on average travels 1,500 miles from farm to fork.<sup>12</sup> There are some recent studies that show local organic farming, within 100 miles of a city, can produce better food at a lower price.<sup>13</sup>

The reports about food disparities within poor neighborhoods note that fast food chains are the main source of prepared food in impoverished areas.<sup>14</sup> Most fast

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<sup>9</sup> *Ibid.*

<sup>10</sup> Parker-Pope.

<sup>11</sup> Vitiello, 260.

<sup>12</sup> Sarah DeWeerd.

<sup>13</sup> *Ibid.*

<sup>14</sup> Larson, 77.

food is meat based. While this meat-heavy menu is a health concern in itself, environmental impact exacerbates the detriment. According to the UNIPCC, the meat industry pollutes 18 percent of the global carbon emissions, which is greater than emissions of transportation worldwide (only 14%).<sup>15</sup> As with the food-stock, cheap oil and irresponsible practices allow for the production and sale of inexpensive meat. Thus, meat, which is quite filling, is a more appealing option than fresh produce when one faces a tight budget.

A 2000 report from Stockholm University and the Swiss Federal Institute of Technology looked at the total energy usage involved in creating a cheeseburger. They found that the entire process takes approximately between 7 to 20 megajoules.<sup>16</sup> With the average American eating 150 burgers per year, this equals 75,000-150,000 tonnes of atmospheric carbon annually, which is equivalent to the annual carbon output from 7,500-15,000 SUVs.<sup>17</sup> It is strange that most people today won't buy a Hummer, but few strike against McDonald's.

We could solve many domestic and international issues by restructuring the current food system in America. In an op-ed by Nicholas Kristof last December, Michael Pollan was quoted saying, "Even if you don't think agriculture is a high priority, given all the other problems we face, we're not going to make progress on the issues Obama campaigned on—health care, climate change and energy independence—unless we reform agriculture."<sup>18</sup> Therefore, the ultimate elimination of food deserts is actually a global issue, which requires a multifaceted response.

#### 4. New York City Case Study: East and Central Harlem

Food deserts exist in our own backyard. This section will analyze a report produced by the New York City Department of Health (DOH), which studied food disparities in Central and East Harlem compared to the Upper East Side, an adjacent but much wealthier and healthier area. These districts can be seen on the map in Appendix 3.<sup>19</sup> While these neighborhoods are being used as a case study, it is important to remember that hundreds of such communities exist throughout the City and the United States.

Regarding the health of these residents, the DOH reports: "About 31% of adults in East Harlem and 27% in Central Harlem are obese; in contrast, the citywide obesity rate is 22%, and [...] About 13% of adults in East Harlem and 12% in Central Harlem have diabetes."<sup>20</sup> As expected based on the demographics of the areas, East and Central Harlem are significantly underserved and exposed to health risks based on the options for food purchase in the neighborhoods. The results of the research are reproduced below:<sup>21</sup>

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<sup>15</sup> International Panel on Climate Change, United Nations.

<sup>16</sup> Carlsson-Kanyama and Faist

<sup>17</sup> Cascio.

<sup>18</sup> Kristof.

<sup>19</sup> "Target Neighborhoods for the District Public Health Offices (DPHO)," New York City Department of Health and Mental Hygiene.

<sup>20</sup> Gordon, 1.

<sup>21</sup> *Ibid.*, Key Findings.

1. Bodegas are more abundant and supermarkets less common in East and Central Harlem compared with the Upper East Side. [See Appendix 3 for table.]
2. Bodegas carrying healthy foods are less likely to be located in East and Central Harlem than on the Upper East Side.
3. Restaurants are common in all 3 neighborhoods, but fast-food establishments are more prevalent in East and Central Harlem than on the Upper East Side.

Since the statistics are clear, the next step is to provide solutions in order to improve the health of these residents. It should be emphasized that the burden of solving this issue must not lie on the residents. While they should be responsible for making healthy choices on a daily basis, there must be a shift in the private and public sectors to provide these poor populations with the proper resources to stay healthy.

The Harlem report makes some sound recommendations, but does not present an action plan. It suggests that healthier food should be offered in local establishments including bodegas, restaurants and supermarkets. The report also recommends a very important tactic: advertising and promoting healthy foods outside, upfront and throughout the stores. This approach, coupled with reduced-price campaigns for trying new healthy foods, could be very effective. However, these strategies will only be possible if various governments provide the proper funding to allow for these discounts. Furthermore, stores should be monetarily rewarded for the amount of healthy food they sell per month. If there is an incentive for the businesses to make more money, they will be an excellent partners in this initiative. But as of yet, such a program does not exist.

The last two recommendations by the DOH could also be very effective if executed in the proper manner. The first is the development of new venues for purchasing healthy and affordable food such as farmers' markets, cooperatives and community-supported agriculture programs. The second is possibly the most important proposal, community nutrition education, which will lead to consumer demand for affordable healthy food. There are many feasible solutions for ending food deserts, but unless the government and the private sector work together, nothing will be accomplished.

## 5. Possible Solutions

There is a lot that has and can be done in the future to eliminate food deserts. Not every solution is applicable to New York City, but it is important to explore many options in order to understand what will work best for the Harlem communities. This problem has no quick fix, and it will take time, money, and human capital to create more sustainable and healthier neighborhoods.

New York can easily utilize its plethora of rooftops. If each building grew some fruits, vegetables or even just herbs on its roof, it would greatly reduce the amount of these items shipped into the city, as well as the need to purchase them. Moreover, green rooftops can assist in the mitigation of other environmental concerns in the city, including wastewater management, heat reduction, energy conservation and improved air quality.

However, as important as it is, a vegetative rooftop will only provide so much. Philadelphia, a city similar to New York, has created a regional food system. Due to its location, farmers and food producers can network within a few hundred-mile radius of the city. The key to this operation is communication and cooperation among the various constituencies. By cutting out a few steps, healthy food arrives much quicker, from a shorter distance, and at a lower price.

In addition to the agriculture network, there are many organizations that work within the Philadelphia system to make local food accessible to every resident in all neighborhoods of the city. Food Trust is a non-profit organization with the mission of providing nutrition education for inner city children and making healthy food available at affordable prices.<sup>22</sup> By working in kindergartens, the organization not only teaches the children at a young age about nutritious diets, but also gives them a taste of healthful eating, which generally excites them to go home and encourage their families to purchase the same kinds of foods. Education is the key to success, especially when it comes to personal health and eating habits.

Another good example of this work on a more institutionalized level is the University of Pennsylvania Center for Community Partnerships' Urban Nutrition Initiative (UNI), which works with public schools in West Philadelphia. This successful program integrates nutrition education into social studies, language arts, math and science classes. Furthermore, they provide training for agricultural jobs after school and during the summer.<sup>23</sup> Such programs are essential for the eradication of food deserts and improvement of impoverished areas. While there are some community education efforts in New York City, such a comprehensive initiative does not yet exist.

Currently in New York, there are many city and private programs that provide nutrition education. Food Bank for New York City conducts various free workshops throughout the City for people of all ages, including nutrition education that emphasizes smart purchasing decisions as well as healthful cooking classes. Just Food also trains volunteers to teach their neighbors how to select, store and preserve fresh produce, all in order to live healthier lives and support sustainable food systems.

The government is also trying to provide education for the community. The NYC DOH is working with the state to offer the Eat Well Play Hard in Child Care Settings program, which will provide a curriculum and training about nutrition and physical activity for childcare providers. While this program appears promising, "childcare centers" are only for children under the age of five. This approach is a good preventative method for the future, but will not solve the current food desert crisis. Moreover, it is unclear whether this program is actually happening anywhere. In order to make a measurable impact, the aforementioned programs must be institutionalized within the public schools as they are in Philadelphia through UNI. If children come home and ask for peanut butter on an apple as a snack and sautéed collards for dinner, parents are more likely to bring these foods into their home.

On a more immediate level, there are solutions that already exist but must become more accessible in underprivileged neighborhoods. There are many farmers markets and community-supported agriculture (CSA) organizations in New York.

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<sup>22</sup> Vitiello, 264.

<sup>23</sup> *Ibid.*, 266.

Greenmarket, which maintains 46 locations in New York and is the largest consortium of farmers markets in the country, accepts Food Stamps (Electronic Benefit Cards/EBT) at most of their stands. In fact, to encourage purchasing at farmers markets the NYC DOH has developed a program called Health Bucks. For every five dollars a person spends with Food Stamps at participating farmers markets, they will receive a two dollar coupon (see Appendix 5), which can only be used to buy fruits and vegetables at the markets. However, according to the map (see Appendix 6) there are large gaps in the middle of Harlem where such purchases are impossible. In order for participants to receive and use Health Bucks, they must be able to get to a farmer's market. There must be a concerted effort to establish markets in these neighborhoods.

Regarding this issue, Margaret Hoffman, Greenmarket Regional Operations Coordinator, said that some markets are on the borders of these neighborhoods. When asked why none are within poor communities, she did not have a reason and also did not believe there are plans to create new markets in these areas. But, Hoffman stated, "We do try to serve those populations. It's part of our mission – helping local farmers and bringing fresh food to urban populations."<sup>24</sup> Furthermore, she said that she and her co-workers do post flyers in food deserts to promote the farmers' markets. In fact, she concluded, "Tonight I'm going to the Grant Houses [public housing projects] to speak to the residents about our market and the use of Food Stamps." Ironically, her station on 114<sup>th</sup> and Broadway in front of Columbia University, does not accept EBT.

On the other hand, if farmers markets are too hard to create, then CSAs are also a good option. Both Food Bank and Just Food organize multiple cooperatives within food desert areas. In Harlem alone Just Food maintains five CSAs. Impressively, this number is only one fewer than on the Upper East Side.

Once again, New York City has tried to help by creating the Green Carts Program, which regulates the safety of produce vendor carts and, "increases availability of fresh fruit and vegetables in New York City neighborhoods so that more New Yorkers can buy fresh fruit and vegetables close to home."<sup>25</sup> While East and Central Harlem are two of the few places where these carts are permitted, in walking around the area, none appeared to be stationed nearby. Moreover, this produce is not always the best quality nor do they have the lowest prices. In order for this to be a successful program, the City needs to allow more carts, mandate certain locations, control prices and allow EBT purchases.

In another effort, working within the bounds of poor neighborhoods, the DOH has developed an education program, the Healthy Bodega Initiative, to promote healthy purchasing at the small stores where many residents shop. This ad campaign boasts attractive posters (see Appendix 7) and brochures that encourage shoppers to buy 1% milk, fruits and vegetables for healthier hearts and slimmer waists. While these are supposed to be in bodegas throughout Harlem, upon observation in one neighborhood, none were found. This project could be a promising one, but unless the store owners have an incentive to promote these items and change their stock to carry more of them, there seems to be no reason why they would want to participate.

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<sup>24</sup> Hoffman.

<sup>25</sup> "NYC Green Carts," New York City Department of Health and Mental Hygiene.

One of the easiest ways to produce food, however, is in personal home gardens. In an initiative to set an example of healthy eating and environmental sustainability for communities throughout the country, President Obama and his family have planted a vegetable garden on the South Lawn of the White House and opened a farmers market on Pennsylvania Avenue. A few months ago during the groundbreaking, First Lady Michelle Obama said, “My hope is that through children, they will begin to educate their families and that will, in turn, begin to educate our communities.”<sup>26</sup> This is a very good message—it is the model that organizations such as the Food Trust, UNI and Food Bank use. Education coupled with some powerful government subsidies to promote the sale of local organic food is the key to success. If the country follows the lead of the First Family, food deserts could be, within a decade, a vestige of the past.

## 6. Conclusion

It is clear that food deserts in New York City are a real threat. By preventing nutritious diets in poor neighborhoods, we are hurting the entire country by increasing healthcare costs, but more importantly losing productive citizens who could potentially contribute more to the success of this nation and the global community. Much has to be changed, but the task is not impossible.

The process of revamping food deserts should start with free public nutrition education to create informed eaters and consumers. Through this, the demand for community gardens, farmers’ markets, and CSAs will increase. Eventually, the goal is to create a regional food system, which will lower the price of food, improve its quality and reduce our ecological footprint. Given the current state of affairs in America, between political progress, the rebuilding of infrastructure, advancement of social justice and need for environmental sustainability, hunger-proof cities are attainable.

Yet nothing just happens. There must be an incentive for both storeowners and customers to begin selling and buying local fresh produce. The Department of Agriculture should take the money they are giving all the other non-farming property owners and provide grants for stores in food deserts so that they can sell affordable, fresh, local organic fruits and vegetables to poor residents. In return for their purchases, these customers should receive something similar to Health Bucks and other discounts. But most importantly, for every person to be nutritiously fed, America’s food system must change.

There is a glimmer of hope with the Obama administration. Secretary of Agriculture Tom Vilsack has already spoken about the importance of organics, local foods and nutritious school lunches. In addition, Deputy Secretary of Agriculture, Kathleen Merrigan, has been a lifelong supporter of just food for everyone. With this precedent in place and a well developed action plan, the poor may soon be fed as their neighborhoods become healthier places to live.

## 7. Acknowledgements

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<sup>26</sup> Burros, A1.

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## 9. Appendices

### Appendix 1: Food Stamp Eligibility

#### HOW MUCH INCOME CAN I HAVE AND STILL BE ELIGIBLE FOR FOOD STAMPS?

The Food Stamp Income Guidelines as of October 2008 and the maximum monthly allotment as of April 2009 are as follows:

FOOD STAMP INCOME GUIDELINES			
Family Size	Gross Monthly Income Limit*	Net Monthly Income Limit**	Maximum Monthly Allotment
1	\$1,127	\$867	\$200
2	\$1,517	\$1,167	\$367
3	\$1,907	\$1,467	\$526
4	\$2,297	\$1,767	\$668
5	\$2,687	\$2,067	\$793
6	\$3,077	\$2,367	\$952
7	\$3,467	\$2,667	\$1,052
8	\$3,857	\$2,967	\$1,202
Each Additional Member	+\$390	+\$300	+\$150

\*Households that incur dependent care expenses are subject to higher gross income limits.

\*\*If your household has a person who is 60 or older or disabled, you only need to meet the net income limit. If everyone in your household receives SSI, TANF, or SNA you do not need to meet any income limit. Your total income, before taxes or any other subtractions, is called **gross income**.


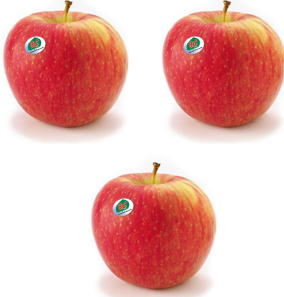
However, certain subtractions to your gross income, called deductions, are allowed. These can be for things like housing, child support payments, monthly medical expenses over \$35 for elderly or disabled people, or child-care. The amount left over after deductions is called **net income**.

The amount of Food Stamp benefits you receive depends on your household size, expenses, and your income.

Source: "Food Stamps and Food Programs," <<http://www.nyc.gov/html/hra/html/directory/food.shtml>>.

## Appendix 2: The Food Desert Eating Decision

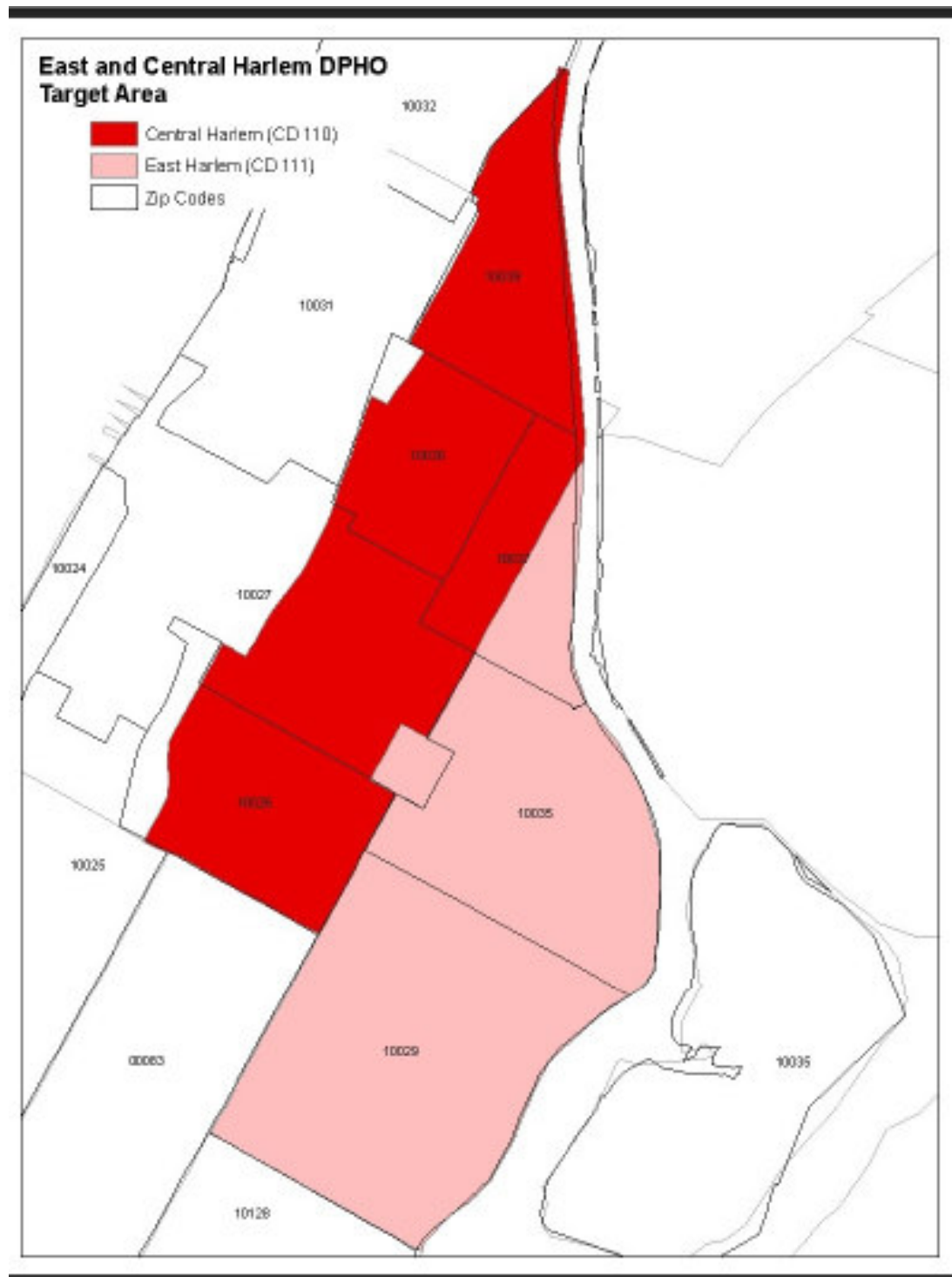
**A poor consumer must make this choice on a daily basis...**

	<b>VS.</b>	
<b>A full energy-saturated meal</b>		<b>A nutritious snack</b>
↓		↓
<b>\$2.00</b>		<b>\$3.00</b>

SOURCE: Devised by author

**Note:** These prices are approximated from neighborhood stores surrounding Morningside Heights.

### Appendix 3: East and Central Harlem Public Health District



**Source:** District “Target Neighborhoods for the District Public Health Offices (DPHO).” New York City Department of Health and Mental Hygiene. <http://www.nyc.gov/html/doh/downloads/pdf/dpho/dpho-geography.pdf>

### Appendix 4: Selected demographic indicators for neighborhood comparison

Neighborhood Demographics	Central Harlem Population: 107,109	East Harlem Population: 117,743	Upper East Side** Population: 217,063
Black/African-American Non-Hispanic	82,750 (77.3%)	42,062 (35.7%)	6,907 (3.2%)
Hispanic	18,019 (16.8%)	61,343 (52.1%)	13,026 (6.0%)
White and other races/ Non-Hispanic	6,340 (5.9%)	14,338 (12.2%)	197,130 (90.8%)
Household income below poverty level	37%	37%	7%
Living in public housing	19%	30%	1%

\*\* These Upper East Side data are for the entire neighborhood, not just the sample area surveyed in this study.

### Store type by neighborhood

Neighborhood	Bodegas	Supermarkets	Specialty	Drug stores	Convenience stores	Total
Central Harlem	153 (65.4%)	19 (8.1%)	32 (13.7%)	14 (6.0%)	16 (6.8%)	234
East Harlem	174 (66.2%)	21 (8.0%)	34 (12.9%)	15 (5.7%)	19 (7.2%)	263
Upper East Side*	46 (33.1%)	26 (18.7%)	48 (34.5%)	18 (12.9%)	1 (0.7%)	139
Totals	373 (58.6%)	66 (10.4%)	114 (17.9%)	47 (7.4%)	36 (5.7%)	636

\* Unlike East and Central Harlem, where the survey included all food stores located in these neighborhoods, the survey conducted on the Upper East Side included a sample of food stores.

**Source:** “Eating Well in Harlem: How Available Is Healthy Food?” New York City Department of Health and Mental Hygiene, 2007.

## Appendix 5: Health Bucks



**Source:** "Health Bucks." New York City Department of Health and Mental Hygiene. [http://www.nyc.gov/html/doh/downloads/pdf/dpho/healthbucks\\_harlem.pdf](http://www.nyc.gov/html/doh/downloads/pdf/dpho/healthbucks_harlem.pdf).

**Appendix 6: Participating Health Bucks Locations**



**Source:** “Health Bucks Harlem Brochure.” New York City Department of Health and Mental Hygiene. [http://www.nyc.gov/html/doh/downloads/pdf/dpho/healthbucks\\_harlem\\_inside.pdf](http://www.nyc.gov/html/doh/downloads/pdf/dpho/healthbucks_harlem_inside.pdf).

Appendix 7: Healthy Bodegas Initiative

**Mooove to 1% Milk**

**Your Heart and Your Waistline Will Thank You**

**1% Milk Tastes Good**

- In taste tests, 9 out of 10 people like 1% milk.
- Most people cannot tell the difference from whole milk.

**1% Milk is Better for You**

- 1% milk has all the nutrition of whole milk — *without* the extra fat and calories.
- After age 2, 1% or less is best.

1 cup whole milk  
• 150 calories  
• 5 grams saturated fat  
• 8 grams total fat

1 cup 1% milk  
• 100 calories  
• 1.5 grams saturated fat  
• 2.5 grams total fat

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**Move to Fruits & Vegetables**

**Your Heart and Your Waistline Will Thank You**

**They are high in the good stuff:**  
Fiber • Vitamins • Minerals

**And low in:**  
Fat • Calories • Sodium

Fruits and vegetables can help keep you healthy and reduce your risk of:

- ▶ Cancer
- ▶ Heart disease
- ▶ High blood pressure
- ▶ Diabetes

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ASOBED  
The New York City Department of Health and Mental Hygiene  
TAKE CARE NEW YORK

Source: “Healthy Bodegas Initiative.” New York City Department of Health and Mental Hygiene. [http://www.nyc.gov/html/doh/html/cdp/cdp\\_pan\\_hbi.shtml](http://www.nyc.gov/html/doh/html/cdp/cdp_pan_hbi.shtml)