

Innovations in NYC Health & Human Services Policy:

Food Policy

Maeve Gearing and Theresa Anderson February 2014

In his 12 years as mayor of New York City, Michael Bloomberg made food policy a top priority, as evidenced by a host of new, innovative programs his administration introduced. The Bloomberg administration focused its food policy efforts on increasing awareness of and access to healthy food, improving the nutrition of food served or provided by the city, and enhancing food support and addressing hunger. More recently, supporting sustainable food systems has also become a priority. In this brief, we discuss the food policy context in New York City, the new policies created, and the different factors that either promoted or impeded the implementation of these policies.

To understand innovation in food policy under the Bloomberg administration, the Urban Institute conducted nearly a dozen interviews via telephone with key informants from the city government, universities, advocacy groups, and nonprofits. All informants were intimately connected to food policy, either directly through the development of programs under the Bloomberg administration, as advocates for particular aspects of food policy, or as researchers and evaluators of food policy programs. Interviewees were asked about their relationship to food policy, their impressions of the development of and success with particular programs, major challenges, and next steps needed in food policy in the city. Analysis of the interviews was conducted to identify major themes. We also reviewed the existing literature on policy programs and their effectiveness. It is too early to assess the success of these initiatives, but lessons can be gleaned from the policy process. We seek to identify the major themes surrounding innovation in food policy in New York City and to provide lessons for future leaders in this and other cities around the country grappling to reduce obesity and hunger.

We found a number of innovative programs demonstrating a strong focus on food policy and creative approaches to improving the lives of New Yorkers. The development of these programs and the food policy agenda was often challenging, particularly in the areas of getting internal and external buy-in, crafting effective policy, and balancing obesity and hunger concerns. However, successes occurred through policy framing, internal and external partnerships, and employing data. Interviewees suggested promising new ways to build on these successes and further improve the food environment in the city.

Context

"Food policy" as a concept can cover a multitude of programmatic areas, from farming and sustainable agriculture to nutrition to food taxes to hunger to food delivery and everything in between. In New York City, while food policy has touched on all of these areas, more focused attention has been placed on obesity and hunger. Obesity and hunger are twin problems confronting cities nationwide, each with substantial negative consequences for individuals, families, and communities. Obesity is associated with poor health in the short- and long-term, as well as lower productivity, lower education, and lost wages (Baum and Ford 2004; Gregory 2010). Researchers have similarly tied low food security to poor health and chronic disease (Weiser et al. 2013), poor academic performance (Jyoti, Frongillo, and Jones 2005) and poor social development (McLaughlin et al. 2012). Both obesity and hunger confront the most vulnerable in society—particularly children and the poor—and both demand public policy action.

In New York City, as in other cities, rates of obesity in both adults and children have risen dramatically since the 1970s. As shown in figure 1, when Mayor Bloomberg took office in 2002, 18 percent of adults in the city were obese, and another 35 percent of adults were overweight. In 2012, as the mayor entered the last years of his term, 24 percent of adults in the city were obese and another 32 percent were overweight (New York Department of Health and Mental Hygiene 2012). These obesity rates are below the national average, but the rise is concerning to city government. Although we have not identified the factors responsible for this increase, researchers and policymakers on the national stage have discussed several possible culprits. In the long term, decreasing prices of food, with a particularly steep decline in the price of processed food and sugarsweetened beverages, have increased incentives to purchase calorie-dense foods and beverages and led to larger portion sizes; these price decreases potentially contribute to the positive association between obesity and poverty. Although food prices have been increasing again since the early 2000s (contributing to food insecurity), less nutritious foods remain comparatively cheaper, encouraging less healthy diets (Food and Agriculture Organization of the United Nations 2011). Overall, being obese or overweight, both of which are associated with cardiovascular disease, diabetes, asthma, and other conditions, represent the second leading cause of preventable death in the United States (Mokdad et al. 2004).

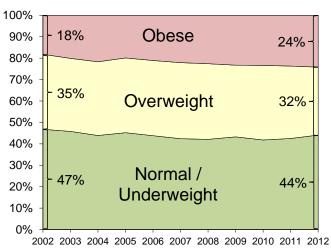


Figure 1. Distribution of Obese, Overweight, and Normal/Underweight in NYC, 2002–12

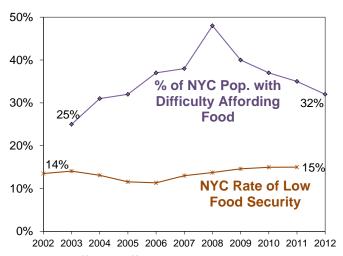


Figure 2. Difficulty Affording Food and Food Insecurity in NYC, 2002–12

At the same time, many New Yorkers report difficulty affording needed food, as shown in figure 2. According to a survey conducted by the Food Bank for New York City, 32 percent of the city's population had difficulty affording needed food in 2012, down from 48 percent at the peak of the recession but still above the 25 percent reporting difficulty affording food in 2003 (2012). Further, 39 percent of households with children reported difficulty affording food in 2012, up from 32 percent in 2003 (Food Bank for New York City 2012).

Official measures of hunger are less alarming, but still concerning. Food security—a measure developed by the US Department of Agriculture (USDA)—indicates a household's level of food access and hunger. Low food security indicates that a household reports reduced quality, variety, or desirability of diet, but there is little or no indication of reduced food intake. By this measure, 14 percent of New York City households in 2002 had low food security. This changed little by 2011, when 15 percent of households reported low food security. The variation in this indicator across the decade tracks closely with fluctuations in the city's poverty rate.

Figure 3 shows how the Supplemental Nutrition Assistance Program (SNAP, formerly Food Stamps) has served New Yorkers over the decade as they cope with poverty and hunger. SNAP provides a maximum of \$189 per month for a single-person household and \$497 per month to a family of three. SNAP recipients can only use these funds to purchase unprepared food products in grocery stores and farmer's markets. The SNAP benefit amount is the same nationally, though the cost of groceries in the New York metropolitan area is 5 percent higher than the US metropolitan average (Crawford and Church 2013). Nearly one-quarter of the city's population (22.5 percent) received SNAP benefits in April 2013, up from 10.2 percent in 2002; 4 across the state, take-up of SNAP among those who are income eligible increased consistently across the 2002 to 2010 time frame

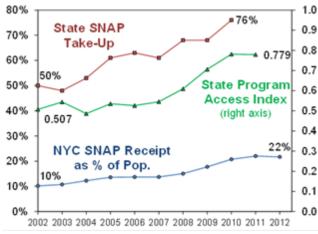


Figure 3. State SNAP Take-Up and Program Access and NYC SNAP Receipt as a Percentage of the Population

(Cunnyngham 2011, 2012; Cunnyngham and Castner 2009, 2009, 2010; Cunnyngham, Castner, and Schirm 2006, 2007; Cunnyngham and Schirm 2005a, 2005b). The state-level program access index—a rough estimate of accessibility of SNAP benefits for those who appear income eligible—shows that program access improved substantially between 2002 and 2011 (USDA, Office of Research and Analysis 2007, 2009, 2011, 2012).⁵

Economic pressures may tie hunger and obesity together. Tight budgets lead many families to pick less expensive, less healthy foods. Economically, these tradeoffs can make sense—maximizing calories at a meal when the next meal is uncertain is a documented coping mechanism (Campbell et al. 2011). Institutional and environmental constraints may exacerbate these trends. The National Institute of Health has found that lack of access to healthy foods correlates with both food insecurity and obesity, under different conditions and in different populations (Beaulac, Kristjansson, and Cummins 2009; Schafft, Jensen and Hinrichs 2009).

The Bloomberg administration has faced these two deeply intertwined conditions, both disproportionately affecting poor populations, with a multitude of economic and environmental causes. This poses a challenge for policy: with no single cause, there is unlikely to be one solution. On the other hand, it also offers opportunities to target different aspects of obesity and hunger through different policies and to combine policies for more comprehensive approaches.

Policy Response

According to several interviewees, the Bloomberg administration approached the complex problems of hunger and obesity by "layering" policies that address various aspects of these issues—approaching hunger and obesity from different angles with multiple policies and working within the government to overcome administrative barriers that had effectively siloed earlier efforts at individual agencies. Table 1 presents a timeline of the various food policy developments that occurred throughout the administration.

Table 1. Timeline of Food Policy Developments in New York City under the Bloomberg Administration

Date	Policy
2003	Longer SNAP recertification periods enacted by the state for elderly households
Aug. 2003	New York State introduces the Combined Application Project for recipients of Supplemental Security Income (SSI)
Oct. 2003	State SNAP rules change so that all children who satisfy other SNAP eligibility requirements such as income and asset limits are eligible for food assistance
Sep. 2004	City introduces online applications for SNAP applicants
2005	Health Bucks piloted in South Bronx
2006	Health Bucks expands to Brooklyn and Harlem and adds benefits for Electronic Benefit Transfer (EBT) recipients
2006	Healthy Bodegas launched
Jun. 2006	State SNAP rules change to allow recertification by telephone without documenting household hardship
Nov. 23, 2006	City announces food policy coordinator position
2007	Water jets program initiated in schools
May 2007	State SNAP rules change to disqualify applicants if they do not meet TANF requirements
Jun. 2007	State SNAP rules change to no longer require digital imaging of applicants, but New York City retains this requirement
Jul. 1, 2007	Restriction on trans fats first applied
2008	Star Bodegas program launched
2008	Garden to Café program piloted in 20 schools
Jan. 2008	State SNAP rules change to introduce broad-based categorical eligibility without an asset limit fo families with dependent care expenses
Jan. 2008	Longer SNAP recertification periods enacted by the state for households with earnings
Feb. 2008	NYC SNAP rules change to allow electronic signature on online applications
Mar. 13, 2008	Legislation enacting Green Carts program passed
Mar. 31, 2008	Calorie posting required for food service establishments
Sep. 2008	State SNAP rules change to allow initial certification by telephone without documenting household hardship
Sep. 19, 2008	New York City Agency Food Standards legislation passed
Oct. 29, 2008	Findings of Going to Market (supermarket shortage) study presented
Dec. 2008	SNAP call centers open
2009	Pouring on the Pounds public awareness campaign on sugar-sweetened beverages
2009	Vending machine standards for beverage-dispensing machines go into effect
Dec. 9, 2009	Food Retail Expansion to Support Health (FRESH) adopted by city council
May 13, 2010	Citywide School Gardens Initiative launched in partnership with Rachel Ray
2011	Vending machine standards for food-dispensing machines go into effect
Mar. 2011	Sugar-sweetened beverage policy proposed by New York City Department of Health and Mental Hygiene
May 11, 2011	FRESH expanded in Queens
Oct. 2011	City Food Standards revised
Nov. 2011	City announces it will seek waiver for SNAP to restrict sugar-sweetened beverage purchases
Dec. 2011	Obesity Task Force convened
May 17, 2012	Governor Cuomo announces ending digital imaging requirement for SNAP

Date	Policy
Jul. 2, 2012	Health Bucks expands to all farmer's markets
July 24, 2013	City launches four-month fruits and vegetables prescription pilot program
Aug. 23, 2013	Mayor Bloomberg announces plan to partner with Whole Foods to install salad bars in all schools

These policy developments can be understood from the perspective of Mayor Bloomberg's food policy goals. Through multiple task forces and commissioned reports that engaged stakeholders, the Bloomberg administration identified three priorities for food policy:

- increasing retail access to healthy foods;
- increasing the nutrition content of food served by the city; and
- improving access to food support programs such as SNAP.

More recently, the Mayor's office has made supporting sustainable food systems a priority. Because many of the sustainability initiatives are only just underway or in development, we do not address them fully here.⁶

Policies addressing the three primary targets—retail access, nutrition content, and food support—are generally coordinated through the Mayor's Office of Food Policy, which the Bloomberg administration established in 2006, appointing the Food Policy Coordinator as the office lead. This office brought together anti-obesity and anti-hunger policies and stakeholders for the first time and allowed for city agencies to take a broader perspective on food policy. The Mayor's Office of Food Policy also brought departmental programs that Mayor Bloomberg created earlier under a broader food policy umbrella. Since 2006, the city government modified or expanded these programs layered a host of new programs onto the food policy landscape. We summarize these programs briefly below.

Healthy Food and Nutrition

Health Bucks, created before the Mayor's Office of Food Policy was formed, offers coupons through community-based organizations to those using SNAP for purchases at farmer's markets. For example, a SNAP recipient who makes a \$5 purchase at the farmer's market receives a \$2 coupon that he or she can use toward the purchase of fresh fruit and vegetables at the market. First piloted in the South Bronx, the program is now available citywide. Healthy Bodegas, another early innovation, originally worked with small food purveyors to provide more fresh fruits and vegetables. The program evolved into Shop Healthy, through which various city agencies work to change all the retail food stores within particular neighborhoods. Early evaluation of both Healthy Bodegas and Shop Healthy found that they significantly increased the availability and sale of healthy items in underserved neighborhoods; one study found that three times as many customers bought healthier food options after the introduction of Healthy Bodegas (Dannefer et al. 2012). Green Carts, or permits for mobile fruit and vegetable sellers, has helped supply fresh produce to areas with few bodegas or supermarkets—about 500 carts were in operation as of mid-2012 in designated areas of the five boroughs (Bornstein 2012). Results from an early evaluation of Green Carts suggest positive effects (Lucan et al. 2011; Leggat, Kerker, and Nonas 2012), although more time is needed to assess the effects of the network of programs oriented toward healthy food access. Finally, the Food Retail Expansion to Support Health (FRESH) program offers zoning and tax incentives for large supermarkets to locate in food deserts underserved by other markets; 17 projects have been approved to date.

Working through multiple areas of government and multiple levels of retail food access, these programs have raised awareness of areas with low-food access and increased both retail access itself and interest in new modes of creating access. The programs also interact to create a web of healthy food access. By covering farmers' markets, bodegas, street corners, and supermarkets, the programs have aided New

Yorkers—particularly those who would otherwise had limited access—in the purchase of healthy food from a variety of venues.

The city government has also implemented many innovative and ambitious programs to improve the nutrition of prepared meals and foods served in New York City. In 2007, New York was one of the first cities to restrict artificial trans fats in food service establishments; that policy was recently recommended nationwide by the US Food and Drug Administration. In 2008, according to one interviewee, nutrition standards for all foods served by the city—including at schools, city government cafeterias, elder care and childcare facilities, and city jails and prisons—were established, affecting over 2.5 million meals served daily. Revised in 2011, these standards impose limits on sodium and calories and require minimum servings of fruits and vegetables. These nutrition standards were extended to cover vending machines through new beverage vending nutrition standards in 2009 and new food vending nutrition standards in 2011 for all machines contracted by the city.

The administration also paid particular attention to nutrition in its 1,800 public schools. The Citywide School Gardens Initiative and the Garden to School Café Program encourage schools to plant gardens. School cafeterias then use the produce from these gardens in school meals. As of the 2012–13 school year, 66 schools participated in the Garden to School Café program (City of New York 2013). The Mayor's Office of Food Policy also worked with various city agencies to install water jets, which are meant to encourage children to drink more tap water. In 2012, the mayor's office announced a plan to partner with Whole Foods to establish fresh salad bars in every school cafeteria.

Moving from meals directly served by the city to those commercially available, in 2008 the City Health Code and Rules changed to require chain restaurants to post calorie information on menu boards and menus. This policy applied to over 1,500 licensed restaurants in New York City. Informants described calorie posting as a way both to encourage healthier consumption and to increase consumer information. Early research suggests mixed effects in different populations, with higher-income respondents more likely to reduce calorie consumption when presented with calorie counts than lower-income respondents (Elbel et al. 2009; Vadiveloo, Dixon, and Elbel 2011; Dumanovsky et al. 2011). Calorie posting has since become more common across the country and was included as a provision of the Affordable Care Act of 2010 for chain restaurants. At the same time, the city embarked on several public service campaigns to encourage healthier eating. The Pouring on the Pounds campaign, for instance, targeted sugar-sweetened beverages and graphically depicted sodas as fat. The campaign (with advertisements, billboards, and online commercials) raised a tremendous amount of public attention. Supporters praised the administration for increasing awareness of the effects of sugar-sweetened beverages. Detractors criticized the administration for focusing on poor populations in the placement of some of the advertisements. 12

The city received national and international attention in March 2012 when the NYC Board of Health proposed restricting the sale of sugar-sweetened beverages in containers larger than 16 ounces. The restriction would have applied to restaurants, food carts, delis, and concessions at entertainment venues, but would not have applied to supermarkets and convenience stores, since the state regulates those businesses. Following a lawsuit brought by organizations, including the American Beverage Association, Teamsters, National Restaurant Association, Statewide Coalition of Hispanic Chambers of Commerce, and the New York Korean-American Grocers Association, a state judge ruled the plan invalid, 13 although the city is appealing the decision. 14

Food Assistance and Security

The Bloomberg administration enacted or expanded several programs in the area of food assistance and security. The NYC Department of Education expanded the SchoolFood Lunch Program, a USDA program providing free lunch to children, to include lunch through the summer. City administrators examined data

on usage at different sites to target locations for more meal provision, and they deployed food trucks to reach underserved areas. The result was a large increase in the number of meals served—by July 2013, the program had already served 50,000 more meals than over the entire course of summer 2012. 15

The city government also expanded other food support programs. The NYC Human Resources Administration increased information and outreach on SNAP. The state made application and recertification simpler for the elderly and disabled individuals receiving Supplemental Security Income. City administrators worked to combine these programs with other business processes and customer service initiatives, such as online applications and electronic signatures, to simplify the application process and reduce application processing time. The city made other efforts to increase SNAP participation, including a large-scale data match to identify Medicaid recipients not receiving food benefits, followed by outreach to those identified.

Most of these initiatives found wide public support, but the city also enacted or continued some more controversial programs. In June 2007, New York State discontinued the use of fingerprinting for SNAP recipients, in response to criticism that it deterred participation without meaningful effects on fraud. The city applied for and received a waiver to this policy and continued fingerprinting until May 2012, when the state rescinded the waiver and ended fingerprinting. The effects of this policy in New York City have not been formally evaluated, but some other research suggests that fingerprinting can reduce program participation (Ratcliffe, McKernan, and Finegold 2007; Bartlett 2004). From 2006 to 2010, rates of SNAP participation grew markedly, though it is not possible to tell if the increase in participation would have been different in the absence of the fingerprinting requirement.

The city proposed another change to SNAP when, in November 2011, the city applied for a waiver from USDA to restrict the purchase of sugar-sweetened beverages using SNAP benefits. This policy straddled the areas of both food security and access to healthy foods and, in many ways, is emblematic of what one informant termed the mayor's efforts to "tackle [obesity] where the problem is more prevalent"—among lower-income populations. Many nutritionists and health-care advocates supported the policy, but many hunger advocacy groups critiqued it as essentially punishing the poor. ¹⁸ USDA ultimately denied the waiver proposal.

Challenges and Successes

In speaking with informants and reviewing documents, four major challenges emerged:

- Gaining buy-in for the broad food policy agenda both internally (in city government) and externally (with advocacy groups and the public);
- Getting buy-in for specific food policy programs;
- Crafting layered, targeted, and effective programs; and
- Balancing obesity and hunger concerns within the food policy umbrella.

However, as the administration worked through these challenges, successes followed. For agenda buyin, major successes were found with framing—using targeted messages to increase support for food policy. For program buy-in, successes were found through partnerships. For policy creation, success was found in using data to target policy. Finally, the tension between obesity and hunger policy has been the most enduring challenge, but some success has been found in using framing, partnerships, and data to try to change and refocus the debate. We discuss each challenge and success pair below.

Agenda Buy-In: Importance of Framing

Getting internal and external support for Mayor Bloomberg's broad food policy agenda was a major challenge. In overcoming this challenge, however, the administration found great success. While the

government still fights battles on individual policies, the city is near a consensus that food policy is an important topic meriting government intervention. Getting to this point has involved a long process of building buy-in from a variety of stakeholders.

Externally, there were multiple challenges to gaining popular support for food policy changes. A broad concern for many people was an encroaching "nanny state" with an increase in government programs focusing on obesity and hunger. Some felt that obesity was an area outside the government's purview; if people choose to eat too much, critics said, who is Bloomberg to stop them? While this critique still exists, the Bloomberg administration successfully used framing to change the discussion around obesity and food policy from an individual concern to a collective one. Framing—how an issue is conceptualized and discussed in the public sphere—is a critical part of setting public policy priorities. The way an issue is framed can take it from a long-ignored afterthought to a hot-button priority and changing frames can be critical in garnering public support. The Bloomberg administration's successful framing tactic involved using lessons from tobacco policy to change the debate on food policy.

The framing of smoking as a public-health hazard focused on nonsmokers and helped usher in wide restrictions on smoking in public spaces (Studlar 2008). Several interviewees drew a parallel between the public opinion campaign on tobacco policy and food policy, particularly obesity policy. The lesson from the smoking ban was, as one person put it, "if you want to smoke, smoke. If you want to kill yourself smoking cigarettes, smoke cigarettes, but don't kill me. Don't light up your cigarette where I have to breathe it in." In other words, while smoking may be an individual decision, it can have collective consequences. The parallel on obesity is not as straightforward, but the collective concern arises because the city puts \$4 billion of taxpayer dollars toward expenses for treating diabetes and heart disease as a result of obesity.²⁰

The administration used this frame repeatedly to garner public support for food policy. Healthier eating policies such as the new nutrition standards and sugar-sweetened beverage policy drew on tobacco advertising. One interviewee noted that

We borrowed the successful ads. Tobacco is a much easier issue because it's just "don't smoke"; you can't say "don't eat." You can reduce sugar sweetened beverages, which we have, but there is a whole range of calories that you still have. There are much more difficult things [when dealing with obesity issues].

The NYC Department of Health and Mental Hygiene rolled out several public awareness campaigns, such as Pouring on the Pounds, with graphic representations of the effect of soda consumption (figure 4). Public statements about food policy programs focused on health and well-being, casting food security and nutrition as a health emergency with consequences for all. This framing has not been without its critics; some feel that the public health dangers that obesity poses are overstated, while others have attacked the Bloomberg administration's messages as unfairly targeting poor and minority neighborhoods. Despite drawing critics, this framing has inarguably brought attention to obesity and food policy and helped create public buy-in for new food policy innovations.



Figure 4. Pouring on the Pounds Ad Campaign

Within city government, the struggle to gain buy-in centered on changing existing department mandates to include food policy. Many agency directors had no history in food policy, and even those with extensive experience in nutrition, hunger, or obesity had rarely conceptualized food policy. Creating the Office of Food Policy in the Office of the Mayor, then, was one of the first and most important steps in gaining buy-in. The Center for Economic Opportunity funded the office, forging links in policy between poverty, hunger, and obesity. Further, the creation marked food policy as an important concern and

explicitly tied hunger and obesity under one policy banner. As one interviewee said, "I think that's a unique thing that the Bloomberg administration did: create an office of food policy so there would be a coordination of among the many, many aspects of government that didn't intend to be food policy but actually [are]." The Mayor's Office of Food Policy raised consciousness about food policy publicly and tied together food security and obesity as twin concerns, meriting distinct attention outside the existing channels of city government. This set the stage for an increase in food-related programs across city agencies.

The Bloomberg administration also employed other frames to increase buy-in from government stakeholders. They tailored these frames to the existing goals and mandates of different agencies, including mandates to reduce disparities (highlighting the disproportionate burden of obesity on the poor), increase equity (by equalizing access to good nutrition across neighborhoods), improve competition (through more supermarkets and more retail access to healthy food), increase consumer choice and information (through calorie labeling), or reduce intergenerational poverty (through multiple programs such as Health Bucks and others that reduce hunger). This layering of motivations for food policy allowed government officials to connect food policy to their other areas of focus. It also broadened the scope of what might be considered food policy, thus allowing government stakeholders to innovate in the creation of policy. The focus was on the ultimate goal—reducing obesity and increasing food security—without defining how this was to be accomplished. Several informants discussed the freedom to initiate policy discussions or proposals; as one stakeholder said, the Bloomberg administration "[gave] me license to look around and see what is important."

Framing, then, was an important tool used by the Bloomberg administration to increase buy-in for food policy broadly outside and inside city government. The next step was to gain buy-in for food policy programs.

Program Buy-In: Importance of Partnerships

While agencies might support the motivations behind anti-obesity or other food policies, many still expressed doubts about particular programs. The solution, according to many, was to develop partnerships within and outside of government to give agencies a greater stake in food policy and to help create more innovative policy. According to interviewees:

Partnerships play a very important role. [They] get us to think differently about different things we weren't thinking about...[they] bring us new things. We also help [other agencies and groups] by getting them to think about how to make changes in this system.

It's an intellectual contribution and funding contribution to get [programs] off the ground.

[The partnership] creates a constituency and momentum.

The most prominent partnerships have been between different city agencies. The city developed Health Bucks, for instance, with input from both the Human Resources Administration and the Department of Health and Mental Hygiene; this cross-cutting initiative effectively addressed both hunger and obesity because of the secured buy-in. Partnerships also extend across the city in other ways. Green Carts was formed partially with funding from the Laurie M. Tisch Illumination Fund. Separately, a recently launched pilot for food and vegetable "prescriptions" partnered the Department of Health and Mental Hygiene with city hospitals. Less formal collaborations also exist across cities; several agency officials participate in regular roundtables and conference calls with their counterparts in other cities, sharing information about policy innovations.

The Mayor's Office of Food Policy actively pursues such partnerships; one stakeholder advised, for other cities interested in pursuing similar policies, "do a public-private partnership because, ultimately, what people eat is driven not by the city alone, but by the private sector and having as many people at the table can help to leverage your impact." Officials at the office and other agencies recognize the importance of sustaining the partnerships through regular collaboration. Together, the public and private sectors combine individual strengths to help create innovative policy targeted to New York City's needs and goals.

Of course, while partnerships represent a solution to some challenges, they can create other challenges. Several interviewees spoke of territoriality among city agencies and private groups that felt excluded from the policy discussion. They also discussed unrealistic expectations among stakeholders for new policy. However, it seems that conflicts have been well resolved, thanks to several aspects of the partnerships and the Mayor's Office of Food Policy. First, while partnerships emphasize the collaborative nature of food policy in New York City, strong central authority remains. Ultimately, this has been the mayor's priority, housed in the Mayor's Office, and his influence has been effective at overcoming disagreements and pushing policy forward. As one respondent noted, because food policy "has the mayor's support, I get more buy-in" from others in and across agencies. This strong mayoral authority can engender bad feelings—particularly from those who feel that the mayor does not share their priorities—but it does facilitate more progress on many policy initiatives. One interviewee noted, "It's hard to find a place that's doing more in [the food policy] realm than...here under Bloomberg."

While a central authority ensures that everyone comes to the table, freedom within partnerships to take ownership of particular policy initiatives helps allay some of the territoriality common among interagency collaboration. The administration encouraged agency leaders to devise and implement their own programs. The Mayor's Office of Food Policy acts as coordinator, not owner, of policies, and credit flows to agencies that undertake the innovations. Agencies work together, but one acts as a lead, and the policy "lives" with a particular entity, easing implementation and facilitating ownership.

Finally, extensive internal education campaigns helped partnerships between agencies and across public and private groups. Smaller agencies could accomplish some things by acting by fiat. As one city government respondent stated, "if we can't bring you on board, we have to agree to disagree." However, larger agencies and programs needed more buy-in. This buy-in was gained through targeted education efforts, specifically frequent meetings with internal and external stakeholders to explain the purpose of the policy and details about its implementation. At one agency, an interviewee explained that collaboration within and across the agency was fostered "because we had a plan and education at every level" —from the most senior officials down to front-line workers and even the clients. This was identified as the key to success in this particular intervention, but it appears to have been important more broadly in establishing and maintaining productive relationships in food policy.

Creating Policy: Importance of Data

With buy-in for specific policies achieved through partnerships, deciding how and where to focus resources and policy efforts represented the next challenge. Evidence that explains the complex factors that contribute to and might mitigate the effects of obesity is still scarce. As one respondent admitted, "we know eating more fruits and vegetables is a good thing...but beyond moderation and eat lots of fruits and vegetables, we really don't know that much." And, while studies have shown SNAP helps moderate hunger, there is still debate about the best ways to administer such programs. Any new policy represents an educated guess. The Bloomberg administration, however, put a premium on making that guess as educated as possible, through the use of data in targeting food policy.

New York is an unusually data-heavy city; in addition to the typical administrative data collected through day-to-day operations, the city participates in many national surveys and has launched several

surveys of its own to assess and track the well-being of citizens. The Bloomberg administration used these data to identify food policy needs and feasibility. City agencies developed multiple programs, including Health Bucks, Green Carts, and FRESH, with geographic needs and resources in mind. They used detailed analysis, maps of food deserts in the city, and overlays between poverty, food insecurity, and obesity to determine where to push for more farmers' markets, mobile food carts, and new supermarkets. The Department of Education expanded the SchoolFood Lunch Program to include meals during the summer months based on similar data about food needs and current program utilization in various neighborhoods and information on where children were spending their time in the summer. More broadly, data about high rates of unhealthy food and beverage consumption and increasing rates of obesity motivated the development and priorities of the Mayor's Office of Food Policy. The focus on sugar-sweetened beverages, for instance, came about through examination of data on consumption and the literature on the negative effects of such consumption. Overall, stakeholders described these policies as heavily "data-driven."

City agencies also created programs and initiatives explicitly to make use of data on certain populations. Administrators matched data across programs to identify underserved populations for SNAP, school lunch, and school breakfast. Other policies include efforts to improve the quality and frequency of data collection; again, policies to improve school meal take-up rates have included data collection efforts. These types of data usage also promote cross-agency collaboration, as data are often housed in separate agencies, and coordination across them helps program development and implementation.

Finally, the city uses data in program evaluation to improve information available for future programs and to tweak programs as needed to improve efficacy. Officials are generally eager to have their policies proven; as one respondent said, "I'm interested in doing things with the data we collect to show people the success or non-success." There seems to be a mantra in New York City that policies should be evidence-based:

Things should be data driven, you should have some understanding about why you make policies, and you should evaluate it.

By grounding policy efforts in what is known, the city government made food policy more targeted and, in many ways, more innovative and responsive to city needs.

Balancing Hunger and Obesity: Partnerships, Framing, and Data

One of the largest challenges to the Mayor's food policy efforts has been the tension between anti-hunger and anti-obesity efforts. While both focus on food and access to it, hunger and obesity have often been uneasy bedfellows in public policy. Some anti-hunger advocates perceive efforts to reduce access to unhealthy foods by Mayor Bloomberg and other leaders across the country as unfairly burdening and stigmatizing those most at risk for food insecurity. However, some anti-obesity advocates feel that some anti-hunger policies contribute to obesity. Some anti-obesity groups have criticized the debate about introducing breakfast in the classroom, for instance, as promoting overeating, while anti-hunger groups have lauded it as helping to increase child food security. The tension is ultimately over priorities. As one interviewee put it:

From the hunger perspective, [anti-hunger groups] are totally horrified by the obesity epidemic, they totally believe in causes to improve the access to affordable and nutritious food, but those causes come in second to eliminating hunger.

This tension becomes most acute when policies target those at risk of both hunger and obesity: the poor. As previously discussed, economic factors have contributed to higher rates of both food insecurity and obesity among low-income groups, making it challenging to tread the line between discouraging unhealthy food consumption and ensuring adequate caloric intake for all. Critics of the Bloomberg

administration feel that the Mayor crossed the line from supporting to penalizing the poor. This perception has made it more difficult to get the necessary support for more controversial food policy initiatives, such as limits on SNAP purchases.

The Bloomberg administration has been aware of these criticisms and the difficulties they create. Through partnerships, framing, and data, the administration has tried to get more buy-in from anti-hunger groups for both hunger and obesity initiatives, with some success. Partnerships have been crucial. Though some anti-hunger advocates have criticized the administration for its record on food supports, many food policy initiatives have had the backing of major anti-hunger groups. Partnerships with some hunger groups through Green Carts, FRESH, and calorie labeling have been important in securing this support. Getting input from multiple constituencies helps ensure that more voices are heard and that concerns about balancing hunger and obesity get a fair hearing.

The administration also used framing and data to try to dispel perceived tension in anti-obesity and anti-hunger goals. Through the appointment of the food policy coordinator and the creation of the Office of Food Policy, funded through the Center for Economic Opportunity, both obesity and hunger are framed as poverty issues, twin problems rather than antagonists. By pointing out the negative consequences of obesity, the consequences of which are particularly severe for the poor, the administration emphasized that anti-obesity efforts are a way to help them avoid ill health, lower wages, and early mortality. Further, by emphasizing that all efforts are geared toward improving the quality of life for all residents of the city, the administration identified the common good to bring opposing groups together. Data supported these efforts. Mapping poverty, access to healthy foods, and obesity together for programs like FRESH and Green Carts has visually emphasized the burdens on the poor and helped draw the connection between healthy food access, antipoverty, and anti-hunger initiatives. Some internal framing of food policy has explicitly tied together obesity and intergenerational poverty, arguing that obesity helps to entrench cycles of poverty through greater burdens of disease and poor wages. In this way, the Bloomberg administration alleviated some tension between hunger and obesity policies.

These efforts are ongoing; continuing to address the perceived tension between anti-obesity and antihunger policy is likely to remain a top priority in order to facilitate advances in food policy.

Looking Ahead

The Bloomberg administration created a host of innovative food policies. Through the use of framing, partnerships, and data, the Mayor helped to overcome opposition within and without government to food policy and introduce targeted policy to try to reduce rates of obesity and food insecurity. So what are the next steps? First on the agenda is evaluation. As mentioned previously, evaluation was a priority for the administration, to determine the empirical success of new programs and use evaluation information to craft new and better policies in the future. But evaluations, by their nature, take time, and, with long-term problems like obesity, meaningful effects may take years to detect. In the meantime, respondents had several suggestions for food policy for the future.

Focusing on particular policies, many expressed interest in continuing to try to reduce consumption of sugar-sweetened beverages. While the proposals to limit the purchase of sodas using SNAP and to limit the portion sizes of sodas more broadly were, thus far, unsuccessful, there remains a desire to reduce access to sugar-sweetened beverages. Interviewees pointed to efforts in other cities, perhaps influenced by the awareness of the issue raised by New York City, to apply a soda tax, while other efforts to limit SNAP purchases are under way. With other cities moving in this direction, these might be policies that are revisited.

There is also strong interest in more public-private partnerships across the food policy spectrum. These partnerships, seen in Green Carts and other programs, have been extremely important in launching new programs and getting public support and buy-in.

Finally, several respondents, including city employees, researchers, and advocates, expressed a desire to see greater layering of policy, particularly through intensive interventions in geographically-limited areas. Layering of policy has been a theme throughout Mayor Bloomberg's food policy initiative, from layering of motivations in getting buy-in for the food policy agenda, to approaching issues like food access from multiple points through layered programs like Green Carts, Healthy Bodegas, and FRESH (each expanding access to healthy foods in poor neighborhoods in different ways). A natural evolution, according to respondents, would be to intensify food policy layering in a particular neighborhood, akin to the Harlem Children's Zone project. There, the focus was on education and poverty, with the goal to usher cohorts of children to college by providing intensive intervention in every area of their lives. A similar plan could be created focused on hunger and obesity, with family, community, school, and other level interventions designed to eradicate hunger and obesity in a neighborhood. This type of intervention could tie together existing food policy initiatives with programs launched by the Bloomberg administration in physical activity areas, neighborhood revitalization, and food system sustainability. Such a project would require significant resources and strong partnerships, and results would take years to assess. However, it could provide important information about the interactions of policy and the level of intervention necessary to change obesity and hunger rates. Moreover, it would, in many ways, present a natural culmination to the city's efforts to innovate in food policy. By creating a localized experiment, new policies could be created and new lessons learned, pushing off from other innovations toward an ultimate network of solutions to hunger and obesity.

Acknowledgment

This policy brief, one of a series by the Urban Institute, was prepared for the Center for Economic Opportunity under contract no. 06910H071700G-4. The views expressed are those of the authors and do not necessarily reflect those of the Center for Economic Opportunity or of the Urban Institute, its trustees, or its sponsors.

References

- Bartlett, S., N. Burstein, W. Hamilton, R. Kling, and M. Andrews. 2004. *Food Stamp Program Access Study: Final Report.* (Program No. EFAN-03013-3.) Washington, DC: US Department of Agriculture, Economic Research Service.
- Baum, C.L., and W. F. Ford. 2004. "The Effects of Obesity: A Longitudinal Study." *Health Economics* 13 (9): 885–99. doi: 10.1002/hec.881.
- Beaulac, J., E. Kristjansson, and S. Cummins. 2009. "A Systematic Review of Food Deserts, 1966–2007." *Preventive Chronic Disease* 6 (3). http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2722409/.
- Campbell, E., H. Hudson, K. Webb, and P. B. Crawford. 2011. "Food Preferences of Users of the Emergency Food System." *Journal of Hunger and Environmental Nutrition* 6 (2): 179–87. doi:10.1080/19320248.2011.576589.
- City of New York. 2013. *New York City Food Policy: 2013 Food Metrics Report.* New York: City of New York. http://www.nyc.gov/html/nycfood/downloads/pdf/ll52-food-metrics-report-2013.pdf.
- Crawford, M., and J. Church, eds. 2013. *CPI Detailed Report: Data for October 2013*. Washington, DC: US Bureau of Labor Statistics. http://www.bls.gov/cpi/cpid1310.pdf.
- Cunnyngham, K.E. 2011. Reaching Those in Need: State Supplemental Nutrition Assistance Program Participation Rates in 2009. Alexandria, VA: US Department of Agriculture (USDA), Food and Nutrition Service. http://www.mathematicampr.com/publications/PDFs/nutrition/FNS09rates.pdf.
- ——. 2012. Reaching Those in Need: State Supplemental Nutrition Assistance Program Participation Rates in 2010. Alexandria, VA: USDA, Food and Nutrition Service. http://www.mathematica-mpr.com/publications/PDFs/nutrition/fns10rates.pdf.
- Cunnyngham, K. E., and L. A. Castner. 2008. *Reaching Those in Need: State Supplemental Nutrition Assistance Program Participation Rates in 2006*. Alexandria, VA: USDA, Food and Nutrition Service. http://www.mathematicampr.com/publications/PDFs/FNS06rates.pdf.
- ——. 2009. Reaching Those in Need: State Supplemental Nutrition Assistance Program Participation Rates in 2007. Alexandria, VA: USDA, Food and Nutrition Service. http://www.mathematica-mpr.com/publications/PDFs/nutrition/fns07rates.pdf.
- ——. 2010. Reaching Those in Need: State Supplemental Nutrition Assistance Program Participation Rates in 2008. Alexandria, VA: USDA, Food and Nutrition Service. http://www.mathematica-mpr.com/publications/PDFs/nutrition/fns08rates.pdf.
- Cunnyngham, K. E., L. A. Castner, and A. L. Schirm. 2006. *Reaching Those in Need: State Supplemental Nutrition Assistance Program Participation Rates in 2004*. Alexandria, VA: USDA, Food and Nutrition Service. http://www.mathematicampr.com/publications/PDFs/fns04rates.pdf.
- ——. 2007. Reaching Those in Need: State Supplemental Nutrition Assistance Program Participation Rates in 2005. Alexandria, VA: USDA, Food and Nutrition Service. http://www.mathematica-mpr.com/publications/PDFs/fns05rates.pdf.
- Cunnyngham, K. E., and A. L. Schirm. 2005a. *Reaching Those in Need: State Supplemental Nutrition Assistance Program Participation Rates in 2002*. Alexandria, VA: USDA, Food and Nutrition Service. http://www.mathematicampr.com/publications/PDFs/fns02rates.pdf.
- ——. 2005b. Reaching Those in Need: State Supplemental Nutrition Assistance Program Participation Rates in 2003. Alexandria, VA: USDA, Food and Nutrition Service. http://www.mathematica-mpr.com/publications/PDFs/fns03rates.pdf.
- Dannefer, R., D. A. Williams, S. Baronberg, and L. Silver. 2012. "Healthy Bodegas: Increasing and promoting healthy foods at corner stores in New York City." American Journal of Public Health 102 (10): e27–e31. doi: 10.2105/AJPH.2011.300615.
- Dumanovsky, T., C. Y. Huang, C. A. Nonas, T. D. Matte, M. T. Bassett, and S. D. Silver. 2011." Changes in Energy Content of Lunchtime Purchases from Fast Food Restaurants after Introduction of Calorie Labeling: Cross Sectional Customer Surveys." British Medical Journal 343: 44–64. doi: http://dx.doi.org/10.1136/bmj.d4464.

- Elbel, B., R. Kersh, V. L. Brescoll, and B. Dixon. 2009. "Calorie Labeling and Food Choices: A First Look at the Effects on Low-Income People in New York City." *Health Affairs* 28 (6): w1110-w1121. doi:10.1377/hlthaff.28.6.w1110.
- Food and Agriculture Organization of the United Nations. 2011. *Recent Trends in World Food Commodity Prices: Costs and Benefits*. http://www.fao.org/docrep/014/i2330e/i2330e03.pdf.
- Food Bank for New York City. 2012. NYC Hunger Experience 2012: One City, Two Realities. http://www.foodbanknyc.org/files//dmfile/NYCHungerExperience2012 FINAL2.PDF.
- Gregory, C. A. 2010. "Three Essays on the Economics of Obesity." Doctoral dissertation. Retrieved from NC Docks http://libres.uncg.edu/ir/uncg/f/Gregory_uncg_0154D_10083.pdf.
- Jyoti, D. F., E. A. Frongillo, and S. J. Jones. 2005. "Food Insecurity Affects School Children's Academic Performance, Weight Gain, and Social Skills." *Journal of Nutrition* 135 (12): 2831–39.
- Leggat, M., B. Kerker, and C. Nonas, 2012. "Pushing Produce: The New York City Green Carts Initiative." *Journal of Urban Health:* Bulletin of the New York Academy of Medicine 89 (6): 937–38. doi:10.1007/s11524-012-9688-4.
- Lucan, S. C., A. Maroko, R. Shanker, W. B. and Jordan. 2011. "Green Carts (mobile produce vendors) in the Bronx—Optimally Positioned to Meet Neighborhood Fruit-and-Vegetable Needs?" *Journal of Urban Health* 88 (5): 977–81. doi: 10.1007/s11524-011-9593-2.
- McLaughlin, K. A., J. G. Green, M. Alegria, E. J. Costello, M. J. Guber, N. A. Sampson, and R. C. Kessler. 2012. "Food Insecurity and Mental Disorders in a National Sample of U.S. adolescents." *Journal of the American Academy of Child and Adolescent Psychiatry* 51 (12): 1293–1303. doi: 10.1016/j.jaac.2012.09.009.
- Mokdad, A. H., J. S. Marks, D. F. Stroup, and J. L. Gerberding. 2004. "Actual Causes of Death in the United States, 2000." *Journal of the American Medical Association* 291: 1238–45. doi:10.1001/jama.291.10.1238.
- Ratcliffe, C., S. McKernan, and K. Finegold. 2007. *The Effect of State Food Stamp and TANF Policies on Food Stamp Program Participation*. Washington, DC: The Urban Institute. http://www.urban.org/publications/411438.html.
- Schafft, K. A, E. B. Jensen, and C. C. Hinrichs. 2009. "Food Deserts and Overweight Schoolchildren: Evidence from Pennsylvania." *Rural Sociology* 74 (2): 153–77. doi: 10.1111/j.1549-0831.2009.tb00387.
- Studlar, D. T. 2008. "U.S. Tobacco Control: Public Health, Political Economy, or Morality Policy?" *Review of Policy Research* 25 (5): 393–410. doi:10.1111/j.1541-1338.2008.00343.
- USDA, Office of Research and Analysis. 2007. *Calculating the SNAP Program Access Index: A Step-by-Step Guide*. Alexandria, VA: USDA, Food and Nutrition Service. http://www.fns.usda.gov/sites/default/files/PAI2011.pdf.
- ——. 2009. Calculating the SNAP Program Access Index: A Step-by-Step Guide. Alexandria, VA: USDA, Food and Nutrition Service. http://www.fns.usda.gov/sites/default/files/PAI2011.pdf.——. 2011. Calculating the SNAP Program Access Index: A Step-by-Step Guide 2010. Alexandria, VA: USDA, Food and Nutrition Service. http://www.fns.usda.gov/sites/default/files/PAI2011.pdf.
- ——. 2012. Calculating the SNAP Program Access Index: A Step-by-Step Guide 2011. Alexandria, VA: USDA, Food and Nutrition Service. http://www.fns.usda.gov/sites/default/files/PAI2011.pdf.Weiser, S. D, A. Hatcher, E. A. Frongillo, D. Guzman, E. D. Riley, D. R. Bangsberg, and M. B. Kushel. 2013. "Food Insecurity is Associated with Greater Acute Care Utilization among HIV-Infected Homeless and Marginally Housed Individuals in San Francisco." Journal of General Internal Medicine 28 (1): 91–98. doi: 10.1007/s11606-012-2176-4.
- Vadiveloo, M. K., B. L. Dixon, and B. Elbel. 2011. "Consumer Purchasing Patterns in Response to Calorie Labeling Legislation in New York City." *International Journal of Behavioral Nutrition and Physical Activity* 8 (51).

Notes

[&]quot;Overweight and obesity, Trends (Age-adjusted)," New York City Department of Health and Mental Hygiene, accessed January 6, 2014, https://a816-

 $healthpsi.nyc.gov/SASS to red Process/guest?_PROGRAM=\%2FEpiQuery\%2FCHS\%2FchsX\&year=Trends\&strat1=none\&strat2=none\&qtype=univar\&var=bmicat3\&crude=no.$

² "Definitions of Food Security," USDA, Economic Research Service, last modified September 4, 2013, accessed January 6, 2014, http://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/definitions-of-food-security.aspx#.Ur2DCvRDt7c.

- ⁷ Bornstein, D., "Conquering Food Deserts with Green Carts," New York Times, April 18, 2012, http://opinionator.blogs.nytimes.com/2012/04/18/conquering-food-deserts-with-green-carts/.
- ⁸ "FDA targets trans fat in processed foods," US Food and Drug Administration, last modified December 12, 2013, accessed January 7, 2014, http://www.fda.gov/forconsumers/consumerupdates/ucm372915.htm.
- ⁹ "About Us," New York City Department of Education, accessed January 7, 2014, http://schools.nyc.gov/AboutUs/default.htm.
- "Mayor Bloomberg and Whole Foods Market open new store and announce donation of 57 salad bars to city public schools as part of city's new plan to install salad bars in all schools," City of New York, news release, August 23, 2012, http://www.nyc.gov/portal/site/nycgov/menuitem.c0935b9a57bb4ef3daf2f1c701c789a0/index.jsp?pageID=mayor_press_releas e&catID=1194&doc_name=http%3A%2F%2Fwww.nyc.gov%2Fhtml%2Fom%2Fhtml%2F2012b%2Fpr305-12.html&cc=unused1978&rc=1194&ndi=1.
- ¹¹ 76 Fed. Reg. 19192 (April 6, 2011).
- ¹² Slotnik, D. E., "Pouring on the pounds, in good taste?" *New York Times*, December 14, 2009, http://www.cityroom.blogs.nytimes.com/2009/12/14/pouring-on-the-pounds-in-good-taste/?apage=2&_r=0; and "Pouring on the pounds ad campaign," New York City Department of Health and Mental Hygiene, accessed January 8, 2014, http://www.nyc.gov/html/doh/html/living/sugarydrink-media.shtml.
- ¹³ New York Statewide Coalition of Hispanic Chambers of Commerce v. New York City Department of Health and Mental Hygiene (Sup Ct NY County 2012).
- ¹⁴ New York Statewide Coalition of Hispanic Chambers of Commerce v. New York City Department of Health and Mental Hygiene, No. 30609(U), slip op. (Sup Ct, NY County 2013).
- ¹⁵ Gonzalez, S., "Free summer meals go to where the children are," WNYC, July 24, 2013, http://www.wnyc.org/story/308539-free-summer-meals-go-where-children-are/.
- ¹⁶ Eligon, J., "Cuomo pushing city to end food-stamp fingerprinting," *The New York Times*, May 17, 2012, http://www.nytimes.com/2012/05/18/nyregion/cuomo-seeks-to-end-fingerprinting-for-food-stamps-in-nyc.html.
- ¹⁷ "New York City estimated food stamp participation rates: 2006-2010," New York City Human Resources Administration Department of Social Services, accessed January 8, 2014, http://www.nyc.gov/html/hra/downloads/pdf/facts/snap/nyc_estimated_food_stamp_participation_rates_2006_2010.pdf.
- ¹⁸ Berg, J., letter to Secretary Tom Vilsack, October 10, 2010, http://www.nyccah.org/files/Vilsack_SNAP_restrictions.pdf.
- ¹⁹ Wilson, J. J., "New York nanny state of mind," *The Weekly Standard*, April 14, 2010, http://www.weeklystandard.com/blogs/new-york-nanny-state-mind.
- ²⁰ "Mayor Bloomberg, Public Advocate Deblasio, Manhattan Borough President Stringer, Montefiore Hospital CEO Safyer, Deputy Mayor Gibbs and Health Commissioner Farley highlight health impacts of obesity," City of New York, press release, June 5, 2012, http://www.nyc.gov/portal/site/nycgov/menuitem.c0935b9a57bb4ef3daf2f1c701c789a0/index.jsp?pageID=mayor_press_releas e&catID=1194&doc_name=http%3A%2F%2Fwww.nyc.gov%2Fhtml%2Fom%2Fhtml%2F2012a%2Fpr200-12.html&cc=unused1978&rc=1194&ndi=1
- ²¹ Park, A., "The New York City soda ban, and a brief history of Bloomberg's nudges," *Time*, May 31, 2012, http://healthland.time.com/2012/05/31/bloombergs-soda-ban-and-other-sweeping-health-measures-in-new-york-city/.

³ Tabulations completed by the NYC Human Resources Administration based on US Census Bureau, Current Population Survey food security supplement data. The data for each year reflect a three-year moving average; for example, 2002 reflects 2001–03 data. (Data for earlier years are not available.)

^{4 &}quot;Supplemental Nutrition Assistance Program (SNAP) Caseloads and expenditures: beginning 2002," State of New York, last modified February 28, 2013, accessed January 5, 2014, https://data.ny.gov/Human-Services/Supplemental-Nutrition-Assistance-Program-SNAP-Cas/dq6j-8u8z.

⁵ "Program Access Index 2004-2010," USDA, accessed January 9, 2014, http://www.statesperform.org/TrendChart.aspx?id=29&states=1.

⁶ For more information on these and other initiatives, please refer to the NYC food web site, http://www.nyc.gov/html/nycfood/html/about/sustainability.shtml.