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Individualized Healthcare and Health Disparities: An Examination of Health Disparities Related to Short-Term Response to Food Insecurity in Low-Income, Urban Communities

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An Examination of Health Disparities Related to a Short-Term Response to Food Insecurity in Low-Income, Urban Communities

by

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Abstract

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The U.S. has seen a spike in chronic diseases along with worsening health outcomes. There are many factors at play to create these circumstances, especially regarding the social determinants of health, like socioeconomic status, access to food, and geographic location. Another concern is health disparities, particularly regarding obesity, and the fact that food access and neighborhood food environments contribute to these disparities. This paper gives a broad overview of American food culture and then focuses on the local food environment in urban, low-income communities, regarding both food deserts and food swamps. There is also a discussion about the response of the emergency food system and its flaws. Emergency food is only a short-term solution and more sustainable solutions need to be provided. There are new models around the country that are trying to address the problem of food access, like innovative food pantries or city commissions finding policy approaches to these problems. Finally, this paper presents a policy brief of recommendations as a product of this review. These policy recommendations are my contribution to the field of public health and health disparities.
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Rates of chronic diseases related to food consumption, such as obesity and diabetes have escalated dramatically in the past 20 years\textsuperscript{1}. Rates of food insecurity, defined as the limited or uncertain availability of nutritionally adequate and safe foods\textsuperscript{2}, have also increased over the past 10 years\textsuperscript{3}. Some have called this the “hunger-obesity paradox\textsuperscript{4,5},” but a closer examination of our food culture, food policies and local food environments provide examples of how health disparities related to food can exist, and why low-income, urban communities are at greater risk for both food insecurity and obesity.

The purpose of this paper is mainly descriptive in nature, but I provide a critical stance on the problems and systems I discuss. I first talk about food access and the concept of food deserts in low-income, urban neighborhoods. This discussion bridges into one about what is actually available in these particular food environments. The availability and accessibility of healthy vs. unhealthy food is examined. The question of how food price influences food choice is investigated and correlations are drawn between the affordability of unhealthy diets and the expensive prices of healthy diets. Food access differs between zip codes and these disparities are looked at in relation to neighborhood characteristics. Finally, food insecurity is discussed as a consequence of lack of access to healthy foods and an abundance of energy-dense snack foods.

After painting the picture of a food environment of an urban, low-income community, I then move on to a discussion about health disparities and how they relate to food access. The same neighborhoods that suffer disproportionately from health disparities also suffer from food environments that have a lack of access to healthy foods and a plethora of unhealthy foods. I focus particularly on obesity for the sake of a singular example and also because there is evidence that links obesity with poor food access and an abundance of unhealthy foods. This correlation is discussed in depth in this section. It is also important to include a broader
conversation about the social determinants of health, like income or socioeconomic status. When issues of food insecurity and obesity are looked at more closely, we can see that their underlying causes relate to the condition of poverty. In order to solve these problems, we must address the root causes rather than just the symptoms.

The problems of food insecurity and health disparities aren’t exactly brand-new, groundbreaking issues. They have been around long enough at least for us to create responses to address these problems. I discuss a series of responses which I qualify as either appropriate or inappropriate responses to food insecurity. The example of an inadequate solution that I present is the emergency food system, composed of a network of food banks, food pantries, and soup kitchens.

My viewpoint is largely influenced by the work of Janet Poppendieck as well as my own opinions on charity and justice. I explain the flaws of the emergency food system, but I don’t endorse a recommendation to suddenly stop donating food. Instead, I suggest that we should focus our efforts on more sustainable solutions to food insecurity and work to use the emergency food system with other approaches, eventually phasing out the use of short-term emergency food.

Despite my criticisms of our inappropriate responses to food insecurity, I do think there are some wonderful examples of perfectly appropriate and effective responses to this problem. I present a series of examples of these responses, mainly from my own experiences in Hartford, Connecticut working with the Hartford Food System. During my time in Hartford, I learned about countless programs and initiatives across the country waging the war against food insecurity and its underlying causes. The examples I provide focus on Hartford because it is a low-income, urban area, the same type of neighborhood that I have focused on for the discussions about food access and health disparities. Consequently, the appropriate responses are tailored to this type of
community, and may provide examples for other similar urban communities. I discuss an innovative food pantry model, nonprofit organizations, urban gardens and agriculture, applied research and interventions, and policy approaches in this section.

Finally, I provide a policy brief of five recommendations for actions to address food insecurity and health disparities. These recommendations are to limit fast-food chains and unhealthy foods in urban, low-income neighborhoods, to promote economic development through start-up grants and loans for healthy food retailers, to support urban agriculture and locally grown foods, to encourage community members to be active participants in government by fostering relationships between them and city officials, and to continue to create coalitions and partnerships for unified action to address community issues. These ideas are meant to serve as a starting point for more concerted action surrounding the issues of food insecurity and health disparities. After my extensive investigations, these are the recommendations that I put forth and that I believe will be most effective in combating food insecurity and health disparities.

Lack of Food Culture Contributes to Chronic Diseases

Michael Pollan’s book, The Omnivore’s Dilemma, initially gave me a background in our nation’s food industry and where our food comes from. It provided an interesting perspective on the current food culture in the U.S. Pollan calls the way we eat our national eating disorder. “A country with a stable culture of food would not…eat a fifth of its meals in cars or feed fully a third of its children at a fast-food outlet every day. And it surely would not be nearly so fat.” We seem to be obsessed with eating healthy, but the way we produce food and our eating habits are anything but healthy. Pollan calls this the American paradox – “that is, a notably unhealthy people obsessed by the idea of eating healthy.” Our food production system has changed more
in the past few decades than it had thousands of years before that. The distance from farm to plate has grown exponentially and there is the “veil” that disguises the harsh reality of how our food is produced. The illusion of farm-fresh or local food is depicted all over our food labels, but the truth is far from it. Food that is locally grown, fresh, and affordable is a challenge for many people.

What should I eat for dinner? This is what Pollan calls the omnivore’s dilemma and in a time when we were hunters and gatherers, this question was far simpler. However, in the current food environment, it is complicated by a series of factors, especially by the fact that Americans seem to lack any type of unifying food culture or tradition. “The lack of a steadying culture of food leaves us especially vulnerable to the blandishments of the food scientist and the marketer, for whom the omnivore’s dilemma is not so much a dilemma as an opportunity.” The vast majority of products in supermarkets are the result of a perfect marriage between a scientist and a marketer: food created by rearranging chemicals in a lab, then creatively packaged and advertised to sell to the unassuming consumer. Most of the time, when we read the ingredient list on the nutrition label; we can’t even pronounce half of the items that we so willingly put in our bodies. So, if our current food production system is so unhealthy and is probably fueling many of the health problems we have today, like obesity and diabetes, why do we still produce food this way? Well, unfortunately, the way we produce food in the U.S. is incredibly political and has to do with a crop that most people would never think twice about: corn.

The American food industry has been changing rapidly over the past few decades, favoring trends towards mass production and efficiency. Food production has become industrial, a chain of fast food restaurants, rather than small, local, and fresh. We hardly associate the tasty hamburger on our plate with the horrifying pictures of cattle and pigs packed into concentrated
animal feed operations (CAFOs), which is where most of our food comes from. Surprisingly, the majority of the food we eat comes from corn, everything from soda to meat. For his book, Pollan attempted to trace the origins of a single meal to see where it would take him. He describes his journey following the food chain and his unexpected conclusion. “The great edifice of variety and choice that is an American supermarket turns out to rest on a remarkably narrow biological foundation comprised of a tiny group of plants that is dominated by a single species: Zea mays, the giant tropical grass most Americans know as corn.” This would come as a shock to a great many people who shop at the local Big Y or Stop and Shop every week. However, this great abundance of corn is a direct result of government subsidies. Basically, no matter how much corn a farmer grows, the government will subsidize every single bushel of corn a farmer can grow. The price of corn drops because of this excess, but the government still subsidizes it. So the farmer still grows the corn, but must grow even more corn than the year before in order to make the same amount of profit and break even. Thus, what we have is an extreme abundance of corn and what we need is a way to get rid of it. So we find ways to break it down and rearrange it in chemical labs to create the immense variety of processed food we see in grocery stores. Or we mix it with antibiotics and feed it to cattle, pigs, and chickens in CAFOs. These animals are not biologically meant to eat corn, so this requires the overuse of antibiotics and the creation of antibiotic-resistant bacteria, not to mention food safety issues. Yes, feeding corn to these animals is a really cheap way to raise and produce meat, changing meat from the luxury it used to be to a commodity accessible to all.

The way our food is produced is solely in the favor of large corporations looking to make as much profit as possible, with little to no consideration about the population as a whole. Government subsidies further exacerbate the problem by favoring crops that are not conducive to
the production of healthy food. Why not subsidize fruits or vegetables? While it would obviously be a healthier choice for the consumer, it does not serve the best interests of the massive corn farms or CAFOs. The lobbying power of the big food industry is undeniable and at times, insurmountable. This is a tough nut to crack, but we must face it if we are to improve the conditions of our current food environment. The immediate rewards of this food production system might seem beneficial, but when hidden costs and inequities of food distribution are examined, the price seems way too high.

Mark Winne writes about these disparities in his book, Closing the Food Gap: Resetting the Table in the Land of Plenty, specifically regarding the food gap. He says that the food gap can be understood as a failure of our market economy to serve the basic human needs of those who are impoverished. Food deserts have been well-documented in low-income, urban neighborhoods. Hartford, Connecticut is a perfect example, with only one supermarket within city lines—the Stop & Shop on New Park Avenue that is practically in West Hartford and incredibly inaccessible to the 36 percent of Hartford residents who are without a car. This disparity, partnered with the prevalence of unhealthy corner stores in low-income communities makes a lethal combination for a very toxic food environment. This toxic food environment then impacts the community’s health, leading to adverse health outcomes, more so than their nearby affluent counterparts. This paper will primarily discuss low-income, urban communities. I chose to focus on one specific type of neighborhood because each community has a different set of characteristics that contributes to its food environment, making each one unique.

Overgeneralization must be avoided and nuances much be acknowledged in order to appropriately address any concerns and resolve them within the community.
As Michael Pollan and Mark Winne have both documented, a food industry that is mainly concerned with profits and stockholders does not place a high priority on the healthfulness of food, or accessibility and affordability of its food to consumers. This is all well and good for the business, but not for the health status of the American people. This is a major problem that I intend to investigate by looking specifically at food access in low-income, urban communities and the resulting health disparities and food insecurity in these communities.
Chapter 1 – Painting the Picture: Food Access in Low-Income, Urban Neighborhoods

Poverty-stricken communities suffer disproportionately from a lack of access to affordable and healthy food. The problem of access becomes evident when the local food environments of these communities are evaluated. They are usually characterized by unreliable sources to healthy food, ubiquitous fast food outlets, and a relatively large amount of energy-dense snack foods with little nutritional value. This section will examine food deserts or the lack of available healthy food as well as what is actually available at local corner stores and bodegas. Also, the question of the affordability of healthy food will be investigated. Finally, the disparities in food access will be broken down as well as the resulting consequence of food insecurity.

I. Food deserts

The concept of a food desert is relatively new and has several definitions. Food deserts have a variety of definitions that have evolved and become more sophisticated as we understand more about them, though there is no standard definition. The U.S. Congress defines food deserts as “areas with limited access to affordable and nutritious food, particularly such an area composed of predominantly lower income neighborhoods.” The Center for Disease Control and Prevention (CDC) offers a similar, but more specific definition of “areas that lack access to affordable fruits, vegetables, whole grains, low-fat milk, and other foods that make up the full range of a healthy diet.”

Mari Gallagher Research and Consulting Group, a national firm known for their work on food deserts, uses a definition that is a bit more holistic and comments on an area’s general food environment. They consider a food desert to be a large geographical area that either has too few or altogether lacks any mainstream grocery stores. It is noted that a mainstream grocery store
does not have to be a chain, but rather a source of healthy food, like fresh fruits and vegetables, dairy, meat, and whole grains. They describe the concept of an imbalance of food choice, where healthy foods either aren’t readily available or are too expensive and foods high in fat, sugar, and salt are the accessible and affordable option. These unhealthy foods are called “fringe foods” and are heavily concentrated in areas considered to be food deserts. Fringe foods are convenient and cheap, but cannot support a healthy diet. It is important to acknowledge that fringe retailers, such as corner stores, bodegas, liquor stores, and gas stations with convenient stores, aren’t inherently bad, but instead do not offer fresh, healthy food as their primary products. The majority of products sold in these stores are processed, ready-made food with little to no nutritional value, so this becomes a problem when these fringe retailers are the only option in areas in which there aren’t enough mainstream grocery stores with healthy food. There is also the convenience food factor that comes into play when one shops for food. This principle defines convenience not just as location or physical access to food, but also as financial access or affordability of food, cultural access or how comfortable one is with a store, and size of the store or how easily one can navigate within the store. These variables all play a role in food choices made by consumers. The goal is for an individual to be able to maintain a healthy, affordable diet in their local food environment and one cannot do this if there is an imbalance in their food choice, which is what characterizes a food desert. All types of food need to be equally accessible in order for an individual to truly have control over their food choices. The important thing to note here is that a food desert is not only defined by the absence of healthy and affordable food, but also by what kinds of food are present instead of the kinds of food that should be readily accessible for an individual to maintain a healthy diet.
The next logical step in discussing food deserts is determining where they are located and the neighborhood characteristics that go along with them. Food deserts can exist in every type of environment – rural, suburban, and urban. However, for the purposes of this paper, food deserts and food environments in general will solely be examined in an urban environment, particularly in low-income communities. Not all food deserts are necessarily in low-income communities and not all low-income communities are necessarily a part of food deserts, since the definition of a food desert is complex and doesn’t just concern a lack of resources, but rather a disproportionate distribution of resources. Again, for my intents and purposes, the food deserts that are investigated here will be specifically urban, low-income areas.

II. What is available? Local corner stores, bodegas, and medium-sized stores

Once the parameters of a food desert have been thoroughly explained, the question of what is actually available presents itself. What is the local food environment like in urban, low-income neighborhoods? These small retailers are the predominant option. Fast-food restaurants and convenience/liquor/corner stores are typically two common types of food retailers in urban, low-income neighborhoods, with supermarkets being the least common food retailer\textsuperscript{20-22}. The term “food swamp” has been used recently to describe how small convenient stores and bodegas that are widely available, packed to the brim with foods high in fat, salt, and sugar with little nutritional value. Many of these foods are packaged and processed and not natural food. These “food stuffs” were created in labs, by breaking down and rearranging high fructose corn syrup and other chemicals\textsuperscript{6}. Yodels, cheese puffs, and Pringles are all foods that our grandparents wouldn’t even recognize, but they are commonplace on grocery store shelves, in our pantries, and on our kitchen tables. Fresh fruits and vegetables are hard to come by in these areas and any produce that is found on the shelves of local corner stores is usually inadequate in both quantity
and quality. These food retailers have been shown to carry less healthy food items than larger supermarkets. It is also less expensive and less time-consuming to walk around the corner to a bodega rather than take a long, drawn out bus ride to the supermarket on the edge of town and then have to haul all your groceries back home. Thus, the accessibility of corner stores and their unhealthy food selection have an impact on an individual’s food choice in a low-income, urban community.

Another category of food retailers is the medium-sized food stores commonly present in urban, low-income neighborhoods. Sometimes a picture of polar opposites is presented as an individual’s food choice – either corner stores or large supermarkets. However, there is a spectrum of food retailers and the mid-sized food stores are sometimes discounted, when in reality, they tend to be the main source of food for residents of urban, low-income communities. Hartford, Connecticut is an excellent example. A survey of grocery shopping habits among Hartford residents showed that the majority of Hartford residents shopped for food at Save-A-Lot (61 percent) and C-Town (65 percent), while relatively fewer residents shopped at corner markets or small neighborhood food stores as their main source of food (38 percent). The selection of food at these mid-sized stores tends to be of a lower quality than foods that one would find in the supermarket although the quality is better than what one would find at local corner stores and bodegas. These retailers might play a larger role than originally presumed in the food environment of an urban, low-income community, perhaps because they are not as available in higher-income, suburban communities.

Fast food restaurants, such as McDonald’s, Burger King, and Wendy’s, are another convenient option in urban areas. The ubiquitous nature of these fast food establishments and the attractive quality of the convenience of not even having to leave the car makes fast food a popular choice
for many Americans. The nutritional value of fast food is obviously subpar, but it is cheap and it tastes good, due to the high salt and fat contents. The dietary recommendation for an individual’s daily intake of calories is about 2,000 calories. A Cobb salad with dressing at McDonald’s is 500 calories. A McDonald’s meal of a Big Mac, large fries and a large coke would come to a grand total of 1,440 calories, which is 72 percent of the daily allowance for calories in one meal! Also, these calories are devoid of nutritional value and full of sodium, fat, and cholesterol. If fast food is a part of anyone’s regular diet, they are not just getting too many calories, but too few nutrients. This fast food paradox is found in urban food deserts and the disproportionate availability of fast food is one of the things that throws off the food balance of the local food environment.

New Haven and Hartford are two examples of urban areas in Connecticut whose food retail environments we can examine. Hartford, for instance, only has one Stop and Shop supermarket, located on the outskirts of the city (practically in West Hartford, a neighboring suburb) and well out of reach of anyone without a car. New Haven has a similar problem of accessibility to healthy foods, with availability of items like dairy, whole grains, and fresh produce found to be much worse in low-income areas. Produce quality is also worse in these same neighborhoods. In New Haven and Hartford as well as Bridgeport (three of Connecticut’s poorest urban communities), there is only 1.6 square feet of supermarket space per resident, while there are 5 to 7 square feet of supermarkets in the surrounding affluent suburbs. Healthier food and fresh produce tends to be more available in a supermarket as opposed to a local corner store or a fast food restaurant. This difference in supermarket space dictates the availability of certain types of food in urban, low-income communities.
The availability of healthy food in a food desert is limited, while unhealthy foods are more accessible. This characteristic of a food environment, as discussed above, is usually called a food desert. However, more recently, the term food swamps is being used to describe these areas in which large amounts of energy-dense snack foods are present, instead of healthy food options\textsuperscript{24}. The United States Department of Agriculture (USDA) suggests this might be a more accurate term to describe these geographic areas\textsuperscript{25}. A food swamp indicates an abundance of convenience stores and fast-food joints with easy access to unhealthy foods. This creates a toxic food environment for any community. The shift in focus from what is lacking to what is available in a food environment is an important change that has implications for interventions and policy approaches\textsuperscript{26}. Improving food access to healthy foods is no longer the only variable—decreasing access to unhealthy foods plays a key role as well.

III. Affordability of healthy food

Even if healthy food is available, how affordable is it? And are there more affordable, less healthy options available? Unfortunately, the overwhelming trend in low-income, urban neighborhoods is expensive healthy food and cheap unhealthy food. In a community where families are on tight budgets, living below the poverty line, and/or on federal assistance programs of some kind, price matters. In fact, price can trump eating “healthy” as long as there is food on the table. Competing priorities of paying rent, the heating bill, or medical costs most certainly push buying fresh fruits and vegetables way down the list. These are real considerations when talking about eating right or nutrition education or food choice. Teaching someone about the food pyramid is all well and good, but if they don’t have the means or the access to the appropriate foods, the point is moot.
For a family on a budget, it is much more appealing to buy cheap, calorie-rich foods to fill your stomach when you don’t know where your next meal is coming from. It has been shown that foods with refined grains, added sugars, and added fats are the lowest-cost sources of dietary energy, while the more nutrient-dense foods of lean meats, fish, fresh vegetables, and fruit are more expensive\textsuperscript{27, 28}. Food choice becomes more about economics and financial limitations than nutrition when these cost differences are taken into account. Diets high in fats and sweets are a low-cost option for the consumer\textsuperscript{29} and healthier foods generally cost more, even when availability is taken out of the picture. This fact alone is a huge barrier for individuals living in low-income, urban communities to maintaining a healthy diet. One market-basket survey done in stores in Los Angeles and Sacramento found that the average market-basket cost was $194, based on the U.S. Department of Agriculture’s Thrifty Food Plan for 2 weeks of food. The healthier market-basket cost was $230, which is $36 more expensive than the Thrifty Food Plan\textsuperscript{30}. This doesn’t even take into account if someone can get to where the healthy food is being sold, only the fact that healthier food is more expensive.

Even though healthy, affordable food is difficult to find, especially in a food desert or a food swamp, there are some options for a low-cost, healthy diet that we must take into consideration. Items like brown rice or whole wheat bread can be found in convenient stores, especially in WIC-certified stores that are required to carry certain foods due to the revisions in the WIC food packages in 2008\textsuperscript{31}. However, these options aren’t always chosen over the less nutritious, energy-dense snack foods\textsuperscript{32}. This is an indication that there are other factors at play besides just cost and nutritional value. Another important variable to taken into account is whether or not food is culturally and socially acceptable. When the lowest-cost, healthiest diet is designed, it provides little variation and deviates substantially from social norms\textsuperscript{32}. If this food plan is
aligned with mainstream consumption, it becomes more expensive\textsuperscript{32}. Food choice shouldn’t be restricted by dollars and cents, especially when food can play such an important role in culture and daily life. For example, recent immigrants to the U.S. who had healthier cultural diets in their home country will assimilate into our unhealthy food culture and start to experience higher chronic disease rates. The process of acculturation is often cited as a reason for unhealthier lifestyles and higher chronic disease rates among people who have emigrated to the U.S.\textsuperscript{33} Studies have found that higher rates of acculturation and food insecurity are associated with lower fruit and vegetable intake at home\textsuperscript{34}. There is a need to create affordable, healthy options that are culturally and socially acceptable in order to encourage healthy eating habits.

\textbf{IV. Disparities in food access}

There is an obvious discrepancy in food access and affordability across zip codes. Food deserts tend to be present in low-income, minority neighborhoods, rather than affluent, white neighborhoods. Correlations between socioeconomic status and food deserts have been found in urban areas\textsuperscript{11, 35}. A study measuring food deserts in New York City looked at the presence of supermarkets, healthy bodegas, and fast food restaurants in different areas as well as the accessibility of each of these types of establishments. Based on this analysis, the researchers gave each neighborhood a total food desert index score with a higher score indicating a more favorable food environment. Low scores were found in high concentrations in East and Central Harlem and North and Central Brooklyn areas with the lowest median household incomes, while neighborhoods on the Upper East Side, a predominantly upper and middle income area, had much higher food desert scores\textsuperscript{35}. These researchers utilized a holistic definition of a food desert, paying attention not just to the lack of healthy foods, but also the presence of unhealthy foods.
The disparity of locations of grocery stores in affluent vs. poor neighborhoods, partnered with the prevalence of unhealthy corner stores in low-income communities makes a lethal combination for a very toxic food environment. Additionally, there isn’t only an inequity in location of healthy food, but also in price. People living in urban areas pay significantly more (3 percent-37 percent) for the same products than people living in the suburbs shopping at large supermarkets\textsuperscript{36}. Food products are expensive in urban areas because the costs associated with operating the store are higher. More security is needed at these urban stores; insurance rates are often higher as well as rent and land prices. Furthermore, zoning requirements might be more cumbersome in urban areas\textsuperscript{37}. In his book \textit{Closing the Food Gap: Resetting the Table in the Land of Plenty}, Mark Winne describes a study done by the Hartford Food System and Citizen Research Education Network in 1983 about food prices in grocery stores both in the city and the suburbs. It found that city supermarkets were between 14 percent and 37 percent more expensive than comparable suburban stores. If a family of four bought all of its food in Hartford stores, which later research found was the case for 25 percent of the city’s low-income residents, it would spend up to $1,500 per year more than a family that shopped elsewhere\textsuperscript{7}. The poverty level for a family of four at this time was $9,900 and that means practically a third of their income would be devoted to buying food\textsuperscript{7}. He sums up the problem and says, “that the poor would pay more and be forced to devote a much larger share of their income to food, or simply buy and eat less, was perhaps the most striking feature of the food gap at that time.” This is not only the case in Hartford. Findings like these are pretty consistent across the country—the presence of a food desert in an urban, low-income area is a pretty common occurrence.

It can be argued that grocery stores are simply operating under the principles of economics and are not doing anything wrong. They go where the money is—the suburbs. Also, it is cheaper to
operate a store in a suburb, where the rent is lower and there are no added security costs. Furthermore, it is easier to transport the food to a suburban store without having worry about small city streets or awkward spaces for loading docks. Finally, it is economically sustainable to create “cookie-cutter” versions of the same operation and simply replicate the operation in multiple locations for expansion and maximum profit. It is hard to work with urban spaces that might not suit these “cookie-cutter” needs and might call for a change (possibly a costly change) in the plan. It is simply not in a grocery store’s best interests to build in an urban area.

These economic principles have been reflected in the flight of grocery stores from urban areas to suburban areas. Winne details the steady disappearance of Hartford’s large grocery stores. “In 1968, Hartford had thirteen chain supermarkets operating within its city limits. Shortly after the civil disturbances of that year and the resulting population shift, the stores began the process of closing, pulling up stakes and relocating to the suburbs. At the time I commenced my tenure at the Hartford Food System in 1979, only six stores were still open. (By 1986, there would only be two).” And now, in 2011, there is only one, a Super Stop and Shop all the way in the corner of the West End, out of the reach of so many Hartford residents, it might as well be in West Hartford. Instead, Hartford residents have access to small retailers, such as corner stores and bodegas, and medium-sized grocery stores, where the quality is decent, but still not as good as large supermarkets. Again, this is a phenomenon that is mirrored nationally and we see it firsthand in Hartford.

**V. Food insecurity as a consequence**

As defined by the United States Department of Agriculture, food insecurity is the limited or uncertain availability of nutritionally adequate and safe foods\(^2\). Food insecurity is often present
in food deserts because of the lack of accessibility and affordability of healthy foods. However, it is important to note that food insecurity can be present in areas where there is an abundance of healthy food, but a family simply cannot afford it. The term food insecurity is meant to describe a situation in which it is constantly a struggle to obtain culturally appropriate and healthy food. Food insecurity is complex and while food deserts are not the sole cause, addressing the problem of food deserts is one step in solving food insecurity.

In 2009, 14.7 percent of households were food insecure at least some time during the year, which is the highest rate since food insecurity was first measured in 1995. The chart below breaks down the food security status of U.S. households into food secure, low food security and very low food security.

![Food security status of U.S. households, 2009](image)

*Note: Food-insecure households include those with low food security and very low food security.*


*Figure 1 – Chart of food security status, 2009*
This 14.7 percent of food insecure households is equal to 50.2 million people, 17.2 million of which are children, that were uncertain of having, or unable to acquire, a sufficient amount of food for their family members because they didn’t have enough money or resources to obtain food\(^3\). Households with incomes below the poverty line had a food insecurity rate of 43 percent, much higher than the national average\(^3\). Also, the rates food insecurity have increased dramatically since 2007 and keep on rising. The graph below shows this trend for food insecurity and very low food security from 1995, when food security first started being measured.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{food_insecurity_trends.png}
\caption{Trends in food insecurity and very low food security in U.S. households, 1995-2009}
\end{figure}

*Data as collected (unadjusted) in 1995-97 are not directly comparable with data collected in 1998 and later years.


\textit{Figure 2 – Trends in food insecurity and very low food security\(^3\)}
The fact that food insecurity in the U.S. is rising presents a problem that needs to be addressed. The American Dietetic Association (ADA) released an updated position paper about their position on food insecurity in the United States. They call for systematic and sustained action to work towards food and nutrition security for every household in the U.S. by providing adequate funding for and increased utilization of food assistance programs, nutrition education, and innovative programs designed to promote and support economic self-sufficiency. The ADA describes access to food as a fundamental human right and cites solving food insecurity as paramount to improving the health status of all U.S. citizens and residents.
Chapter 2 – Painting another Picture: Health Disparities in Low-Income, Urban Neighborhoods

A possible result of poor access to healthy foods and poor nutrition is adverse health outcomes, including obesity, diabetes, and heart disease. Food is a fundamental human necessity and diet becomes a predictable health indicator, turning food access into a public health issue. Unfortunately, in our current health care system, there is very little emphasis placed on preventive medicine and far more investment in pharmaceuticals and expensive surgical procedures. A consequence of this health care system and inequalities in other social determinants, like income and education level, is health disparities. In 1990, Margaret Whitehead defined health disparities as differences in health that “are not only unnecessary and avoidable, but in addition, are unfair and unjust.” The Center for Disease Control and Prevention (CDC) Office for Minority Health describes these differences as occurring by race and ethnicity, gender, socioeconomic status or income, education level, disability status, geographic location, and sexual orientation. Health disparities are rampant among Americans in infant mortality rate, life expectancy, and disease prevalence. In 2003, the Institute of Medicine published Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care, a report detailing the presence of health status inequities and health care disparities. The disconnect is pretty incredible. It is mortifying to think that the U.S. has the most expensive health care system in the world, but ranks 15 out of 57 industrialized countries in infant mortality rate, and it’s getting worse.

We attribute poor health outcomes among low-income individuals to the failure to seek medical treatment, lack of knowledge about the health care system, and lack of ability to correctly interpret medical information or the doctor’s advice. However, there is no criticism of the fact
that the health care industry, which is a human service, is run like a business enterprise between health insurance premiums and extraordinarily selective medical schools that keep the number of doctors low and salaries high. This is a perfect example of unequal distribution of one facet of our health care system: the providers. Health care providers tend to operate where there is money and will accept patients with insurances with high reimbursement rates, leaving low-income communities at a disadvantage. Yet we continue to blame the victim for their medical condition and their unwillingness to seek medical treatment. A troubling parallel can be drawn between this system and the food industry, where the priority is to make the most profit rather than to make the healthiest food possible for human beings.

Personal responsibility is much easier to blame than any institutional barrier, especially when it comes to something like diet and the disorders that result from malnutrition, like obesity, diabetes, or hypertension. Hartford, Connecticut provides a sobering example of the public health crisis that can occur in toxic food environments. The prevalence of diabetes in Hartford is 120 percent higher than the state average and the prevalence of hypertension is 29 percent higher. Furthermore, 51 percent of Hartford adults are obese and 32 percent of their children are overweight. This section will focus on the problem of obesity and how it is about more than just personal responsibility and food choice. This diet-related disorder is present in the same environments that a food desert, food imbalance, and food insecurity are located, as described in Chapter 1. There is most certainly a correlation. Finally, a broader discussion about the social determinants of health will bring everything together about why we need to address food environments to eliminate health disparities.
I. Focus on obesity

Obesity and overweight are both defined by a measure called body mass index or BMI that is calculated from body weight and height. Adults who have a BMI between 25 and 29.9 are considered overweight and a BMI of 30 or higher is considered obese. A person’s weight is affected by many complex factors that include genetics, metabolism, behavior, environment, culture and socioeconomic status. Obesity or being overweight can result when there is an energy imbalance and someone is not getting enough physical activity and eating too many calories. The CDC identifies the areas of behavior and environment as being the most important areas for intervention to address obesity because there are many other health risks associated with it. Risks for coronary heart disease, type 2 diabetes, cancer, dyslipidemia, hypertension, stroke, liver and gallbladder disease, sleep apnea, and osteoarthritis increase along with obesity or being overweight.

Besides these health consequences, there are also great economic consequences associated with obesity. The medical costs involve preventive, diagnostic, and treatment services associated with obesity. There are also indirect morbidity and mortality costs of decreased productivity, absenteeism, restricted activity, and premature death. The U.S. has seen a dramatic increase in obesity rates over the past 20 years and in 2009, only Colorado and the District of Columbia had obesity rates less than 20 percent. The map below shows obesity prevalence in the U.S. for 2009. The southern U.S. has the highest rates of obesity and seems to be the most at risk region. The states of Alabama, Arkansas, Kentucky, Louisiana, Mississippi, Missouri, Oklahoma, Tennessee, and West Virginia all have a prevalence of obesity greater than 30 percent, making them the most obese states in the entire nation.
This data paints a troubling picture. Another unsettling fact is that neighborhoods with less economic and social resources, like low-income, urban communities, are more likely to be obese and have more barriers to physical activity. Often there are not many playgrounds or parks that residents of these neighborhoods can utilize as well as poor infrastructure or unsafe environments that discourage walking or running outside. Also, as discussed in Chapter 1, low-income, urban communities have the characteristics of food deserts or food swamps, with little healthy food and an abundance of unhealthy food. It is becoming more evident that neighborhood-level structures and services that affect physical activity and food choice play key roles in the obesity epidemic and are possible areas for public health intervention.

Our nation is getting progressively unhealthier at alarming rates despite our efforts to eat right and exercise. It seems we need to do more than just give lessons on dietary recommendations and the food pyramid. The obesity epidemic has been recognized as a national crisis and there
have been countless reports and recommendations to address this rapidly growing problem. One approach that we can take is to look at the issue of food access and correlations between poor access to healthy foods and obesity.

II. Evidence for concern: correlations between food access and obesity

Since so much of body weight has to do with food and diet, it is logical to examine food choice and food environments when looking for interventions to address obesity. Behavior and environment were the two areas the CDC identified for intervention because they are things that we can change and control. Nutrition education can only go so far when one lives in a neighborhood with very poor access to healthy foods and an abundance of foods high in fat and sugar. Environment is the key intervention I would like to examine here, specifically regarding the question of food access and its relationship to obesity.

Several studies have investigated relationships between food access and obesity as well as dietary intake. It is important to note that these relationships are complex, but many correlations have been made. Research shows that individuals with better access to large supermarkets have healthier diets and lower rates of obesity while higher access to convenience stores is associated with an increased risk of obesity. Studies that look at fast-food restaurants are more varied, but there is evidence to suggest that individuals with lower access to fast-food restaurants also have healthier diets and lower rates of obesity. Other studies have found that a greater availability of fast-food restaurants as well as the lower prices of these restaurants are related to a poorer diet, which can lead to obesity. Furthermore, it has been found that residents of low-income, urban neighborhoods are most often affected by poor access to supermarkets with healthy food and instead have higher proportions of energy-dense snack
foods with little nutritional value\textsuperscript{39,53,54}, the same neighborhood characteristics that are linked with increased rates of obesity. As discussed in Chapter 1, a consequence of poor food access or an abundance of unhealthy foods is food insecurity. There have also been studies that examine the relationship between food insecurity and weight status. The results of these studies were more varied regarding children and men, but women who experience food insecurity are more likely to be obese than women in food secure households\textsuperscript{38,40,41}.

Lack of access to healthy food isn’t the most pressing problem when it comes to obesity, but rather it’s the availability of unhealthy foods that seem to be more directly related to obesity. Living in a food swamp is the type of environment where these conditions are likely to exist. If healthier food is available at prices comparable to unhealthy foods, it is hypothesized that the consumer will choose the healthy option in an effort to curb obesity. There is not much evidence to either support or dispute this theory to date\textsuperscript{25}. However, there are several studies that examine the link between the consumption of certain types of food and obesity. Consumption of low-fat milk, fruits, and vegetables has been associated with lower BMI\textsuperscript{25}. However, it is important to point out that this does not mean that eating these foods will cause a lower BMI, but instead eating these foods is solely a factor in one’s weight status and BMI. While the relationship between consumption of healthy foods and lower BMI isn’t incredibly strong, it still plays a role in one’s weight status. If these healthy foods aren’t even readily available and affordable in the first place and there is instead an abundance of unhealthy foods, residents of the neighborhoods with poorer access to these foods are already at an unfair disadvantage. The term food swamp might be more accurate in describing these types of neighborhoods and what really has an impact on weight status and BMI\textsuperscript{24}. Our approach needs to address both sides of improving access to
nutritious foods and decreasing access to foods with little to no nutritional value. There must be a balance in order to solve the problem of obesity.

III. The bigger picture: social determinants of health

Food is a huge predictor of health, but how you get that food isn’t always completely up to you. Personal responsibility is involved in health status as well social determinants of health. The World Health Organization defines these social determinants as conditions in which people are born, grow, live, work, and age. Examples might be socioeconomic status or income, geographic location or neighborhood characteristics, access to health care, or access to healthy food and clean water. These conditions are shaped by the distribution of money, power, and resources, so the root causes of circumstances created by these social determinants, like poverty, can only be tackled by addressing the inequitable money, power, and resource distribution.

Essentially, the crisis of obesity can be related to the role that social determinants play in our everyday lives. The problem of obesity is more complex than just eating right and exercising because there are mitigating factors, like not having access to healthy foods because of the neighborhood you live in or not having the money to afford healthy foods. Obesity has been called a socioeconomic issue because it is related to having limited social and economic resources that are not sufficient to maintain a healthy lifestyle. As discussed previously, there are financial disparities between healthy and unhealthy foods, so pure individual choice is not the only factor at work here. Simply encouraging individuals to eat healthy foods is no longer an appropriate public health approach. The highest rates of obesity are found among low-income groups, which suggests that there might be a broader problem with the growing disparity in income and wealth in the U.S. This is particularly relevant for low-income, urban
communities because it seems that obesity has become less about what you eat and more about what is in your wallet.

Inequities in access to economic or social resources can result in poverty which can result in food insecurity or a diet-related disorder like obesity or both. The end result of an adverse health outcome seems to be poor lifestyle choices, but with a closer look, we can see the social determinants at play, like socioeconomic status or income. We must look upstream to understand all the factors involved in these complex problems. Although poverty seems to be the root cause for many health problems, there are root causes to poverty, too, which are related to social and economic injustice regarding distribution of power and resources. Health is not just about individual-level factors, so our public health interventions cannot just be addressing those determinants, but rather these root causes of poverty. Sustained political will and action that demands an equitable distribution of power and resources is necessary to solve the problems of food insecurity, obesity, and poverty.
Chapter 3 – Where have we gone wrong? An evaluation of the response to food insecurity

Our nation’s responses to food insecurity and hunger have been varied – some successful and others not so much. Hunger first became a public health issue in the late 1960s when the Field Foundation funded a team of doctors to visit rural Mississippi and rural poverty was thrust onto the national stage. CBS made a film called “Hunger in America” and the Citizens Board of Inquiry issued a report called “Hunger USA.” Then, a conference on food and nutrition in Washington D.C. recognized hunger as a major public health issue. The federal government has created several food assistance programs to combat hunger, including the Food Stamp Program, now called Supplemental Nutrition Assistance Program (SNAP), School Lunch and Breakfast Programs, and the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). In response to government cuts to many of these federal programs, and a national recession, the emergency food system came into existence in the late 1970s and early 1980s. These included food banks, food pantries and soup kitchens. These charitable programs experienced tremendous growth during the 80s due to a sharp recession, increasing unemployment and decreasing job security. The system in place today is the evolution of that expansion that began in the early 1980s.

Now, the way we look at hunger has become much more sophisticated, with new terms and definitions. Hunger and food insecurity are part of a spectrum that is influenced by a series of complicated factors, not simply not enough food. These nuances must be recognized when addressing the problem of food insecurity and this is where the emergency food system has failed us.
I. The emergency food system and its flaws

The emergency food system is broken down into food banks that collect food in bulk and distribute it to food pantries and soup kitchens who then distribute the food to individuals and families in the community. These food pantries or soup kitchens are private, charitable organizations that usually have some kind of religious affiliation and are not only supported by food banks, but also by private donations of food from community members. Fifty-five percent of these emergency food providers are faith-based agencies and 33 percent are other types of nonprofit organizations. They are mostly run by volunteers and they create their own criteria on who is eligible to receive food. Sixty-eight percent of food pantries and 42 percent of soup kitchens rely solely on volunteers and have no paid staff. Soup kitchens usually serve meals to the homeless, while food pantries will donate bags of food to families within their community that aren’t necessarily homeless or destitute. Furthermore, most clients of pantries or kitchens usually cannot choose their own food, it is prescribed to them. The emergency food system is a quick fix and not the sustainable solution that we need. Janet Poppendieck, author of Sweet Charity: Emergency Food and the End of Entitlement, sums up the flaws of the emergency food system as the 7 deadly “ins”: insufficiency, inappropriateness, nutritional inadequacy, instability, inaccessibility, inefficiency, and indignity.

It is insufficient because it does not solve food insecurity; it simply provides a finite amount of assistance that is not guaranteed to be there forever. Over the past four years, there has been a 27 percent increase in the number of people receiving emergency food assistance and this number keeps on growing. This supply of food will eventually run out and is insufficient to address the underlying causes of food insecurity. Seventy-six percent of client households, or ten million households that use the emergency food system, are food insecure and 36 percent of client
households are experiencing food insecurity with hunger, meaning they are sometimes completely without a source of food\textsuperscript{58}. The amount of food is just not enough—weekly or monthly allowances of food will sometimes not even feed a family of four, when there are families in need that are much larger. Emergency food doesn’t give families a socially acceptable way to obtain food that is consistent and reliable. This system is also inappropriate because it doesn’t always provide culturally appropriate foods or socially acceptable ways to obtain that food. The type of food given is prescribed by someone else who doesn’t know what the individual or family usually eats. A family of vegetarians can receive turkey or someone who eats or cooks with brown rice can receive white rice. Furthermore, there is an inherent nutritional inadequacy in the emergency food system because people have donated their leftovers, their nonperishables, and their unwanted food to be distributed at food pantries. This second-rate food rarely consists of fresh produce because storing this kind of food is expensive and outside of the means of most food pantries. Fresh produce will go bad quickly and then not be available, so it is usually not worth it to carry or distribute. Also, fresh fruits and vegetables are expensive to buy and they are usually the types of food that people want to keep for their own families to eat because that’s the good, healthy stuff. A dietary assessment of food pantry and soup kitchen users showed that 68 percent of the sample demonstrated some degree of inadequate nutritional intake\textsuperscript{59}. The food supply at food pantries is unstable because it depends upon donations of other people and food banks. There tends to be an abundance of donations during the holidays, like Thanksgiving, but rarely during the summer time, which is incidentally, when food insecurity can be at its worst. The fact that the reliability of obtaining a sufficient amount of food can rest on what time of the year it is creates an incredibly unstable system. Emergency food can be inaccessible to the population that needs it most, especially since many
potential clients of food pantries might not have a car or reliable form of transportation. Thirty-five percent of client households must choose between transportation and food, so accessibility becomes a problem. The locations of these food pantries or soup kitchens might not be common knowledge and their whereabouts might only be accessible by sometimes reliable word of mouth. Also, emergency food is very inefficient. If a school holds a food drive, everyone will bring their donations to the school, then the school will bring those donations to a food bank, and then that food bank will distribute the food to food pantries and soup kitchens, where the actual recipients of the food will have go and get the food, finally completing the cycle. The time, energy, and money it takes to transport large amounts of food through all these different hands is wholly inefficient. Finally, and probably the worst of all, there is the indignity that comes along with using a food pantry as a primary source of food. After working in a food pantry, I have seen firsthand this concept of indignity. Clients are usually embarrassed to be there in the first place and even though volunteers in food pantries are well-meaning individuals, there is a power dynamic and a demeaning paternalism present throughout the entire process. There is an expectation for the client to be grateful and gracious towards their benefactors or volunteers at the food pantry. While most pantry clients are very grateful for the food they receive, it often has at least one of the characteristics described by Poppendieck: insufficient, inappropriate, nutritionally inadequate, unstable, inaccessible, or inefficient. There is something wrong with this picture. Using a food pantry is not a socially acceptable means of obtaining food and this quick fix perpetuates the cycle of food insecurity.

Despite the negativity about the emergency food system, there is something to be said for charity. Generosity is inherently good and usually has well intentions behind it, but it is not always appropriate and this is the specific criticism of the system. Charity or giving should not
be opposed, but there are better ways to lend a helping hand rather than donating a few nonperishable food items each Thanksgiving. It makes us feel better about the fact that some people have more than others and that some people, especially children, go hungry. So, the question is, who really benefits from that food drive or from that food pantry? The food industry receives a tax break for donating food. Volunteers at food pantries receive social benefits from the network of volunteers as well as a service opportunity, especially for youth. Schools can use food drives to teach values to their students. These are all pretty long-term benefits that the so-called benefactors receive, even though the benefit that we tend to focus on is the short-term benefit of the family receiving food.

Charity becomes more about the benefactor than the benefited under the pretense of generosity. Janet Poppendieck would ask, is this fair? Is this just? She would say it is kinder, but less just\textsuperscript{57}. Food should be an entitlement; everyone should be able to have nutritious, culturally acceptable food. Food should not be something that is only reserved for those who can pay for it. Furthermore, food should not be something that can be generously given when it is decided by the ones who have it to bestow their gifts on the less fortunate. The U.N. Declaration of Human Rights states that everyone has the right to an adequate standard of living, which includes an adequate amount and proper quality of food\textsuperscript{60}. This ideal should be fought for and maintained because food is one of the most basic tenants of life. The current system of emergency food is flawed and it is important to look at it with a critical eye to see what we can do better.

\textbf{II. Connecticut as an example}

I would like to focus on the state of Connecticut’s emergency food system as an example. I used the United Way of Connecticut’s 211 Community Resource Database to look up all the food
pantries in Connecticut. Under a category called Basic Needs:

Food/Energy/Housing/Transportation, there was a category for Emergency Food, Food Stamps/WIC, Meals, and Other. Within the category of Emergency Food, there was a subcategory of Food Pantries, which brought me to all the listings in Connecticut of every establishment classified as a food pantry. There are 406 locations in the state of Connecticut that are listed as food pantries\textsuperscript{61}. After looking through the list, there appear to be one or two repeats, but every other location is a separate one. These listings just include food pantries, but do not include soup kitchens, food banks, or other places that might provide emergency food assistance. There are many other establishments that provide emergency food assistance in Connecticut and the number 406 is an underestimate of these establishments. The website also provided a map of all 406 of the food pantries in Connecticut. Each food pantry is represented by a red marker, as can be seen on the map below. There is a food pantry in about every town in Connecticut and they seem to be the sparsest along the northwestern corner of the state. They are the most densely packed around Connecticut’s major cities, like Hartford, New Haven, and Bridgeport.

Connecticut is estimated to have a population of about 3,494,487\textsuperscript{62} and a food insecurity rate of 12.3 percent as well as 428,000 food insecure people\textsuperscript{63}. Based on these numbers, there is about one food pantry in Connecticut for every 1,050 food insecure people.
There are two major food banks in Connecticut that supply the 406 food pantries. Foodshare, located in Bloomfield, and the Connecticut Food Bank, located in East Haven, cover all eight counties of Connecticut. These food banks distribute literally tons of food each day. Foodshare distributes about 16 tons of food each day and in 2009, they distributed 12 million pounds of food to the residents of the greater Hartford area. The Connecticut Food Bank, which services the majority of counties in Connecticut, distributes about 30 tons of food each day and last year, distributed about 15 million pounds of food. However, despite this enormous amount of food, it is still not enough. Foodshare says that 16 tons of food each day only provides two meals per week for every hungry person in the greater Hartford area. It is obvious that this tremendous

Figure 4 – Map of food pantries in Connecticut

406 Locations offering the requested services
BASIC NEEDS: Food/Energy/Housing/Transportation - Food, Emergency - Food Pantries
Providers are listed by city
effort falls short of addressing the underlying causes of hunger and food insecurity, mostly the condition of poverty.

III. It’s not good enough

Over the past few years, as we have realized that solely emergency food is not enough, there have been positive changes in the way we provide emergency food assistance. There have been more client-choice food pantries, where individuals and families can “shop” for their food allotment at the food pantry similar to shopping at a grocery store. Also, in Connecticut, Foodshare created Mobile Foodshare sites, which brings the food to the people instead of the people going to the food at a food pantry. There has also been an increase in the fresh produce that is available at food banks and food pantries. Concerted efforts have been made in this regard since the nutritional inadequacy of the food selection has been acknowledged as well as the need to improve it. Another improvement has been offering referrals for clients to other social services, like SNAP or WIC. These are all steps in a positive direction that should not go unnoticed. I am not suggesting complete abandonment of the emergency food system, because the short-term benefits it provides do feed hungry people. I am suggesting that we need a more long-term solution.

Regardless of the good intentions of the charity behind emergency food, it doesn’t provide a big enough safety net for food insecure people. A food security study done in Hartford, Connecticut showed that 67 percent of food insecure households did not go to a food pantry and 78 percent of those same households did not go to a soup kitchen\(^6\). There is obviously a flaw in the existing system if the vast majority of food insecure households do not utilize resources that are intended specifically for them. There is a disconnect here that needs to be addressed. Also, the
emergency food system tends to be evaluated on how much food is distributed, in pounds or tons. Simply distributing an astronomical amount of food does not mean that the problem of food insecurity is magically solved. The average monthly income for families who use the emergency food system is $940 and 70 percent of them are living below the federal poverty line, even though 36 percent of these households have one or more adults who is working. Also, 10 percent of these client households are homeless. Furthermore, 46 percent of households had to choose between paying for utilities or heating fuel and food, 39 percent had to choose between paying for rent or mortgage and food, and 34 percent had to choose between paying for medical bills and food. It is evident from this data that hunger is a symptom of larger issues, like poverty, that need a long-term solution. Food insecure households need more than a bag of food that will run out halfway through the week and is never guaranteed. Emergency food shouldn’t be stopped altogether, but should be complemented by other social services. Our focus should be on eventually phasing out emergency food because people need sustainable, stable access to food that can only be attained by tackling the underlying issues of poverty and income inequality that the emergency food system does not address.
Chapter 4 – What have we done right? More appropriate responses to food insecurity

Although the emergency food system we have now proves to not be enough to solve food insecurity, there are other promising examples of things we have done right to address this program. I would like to focus specifically on the city of Hartford, since I have done all my work with food in this area, so I know it best. Also, Hartford organizations have been leaders at the beginning of the food insecurity movement.

I have provided a couple of other examples outside of Hartford that I thought were worth noting as well. Of course, there are thousands of initiatives all across the country and probably many similar ones. I simply suggest that the following programs, initiatives, and organizations be looked to as models of what we have done right in the fight against food insecurity.

I. The food pantry, revisited

After discussing the flaws of the current, prevailing model of the emergency food system, I think it is warranted to present a model that is still a food pantry, but addresses the shortcomings of a typical food pantry. This new intervention, called Freshplace, was founded by three community agencies who then created a community-university partnership with the University of Connecticut in Hartford, Connecticut. The Chrysalis Center, Inc. is a nonprofit healthcare agency tailored for individuals with psychiatric disabilities, substance abuse, HIV/AIDS, release from incarceration, and homelessness that live in poverty. The Junior League of Hartford, Inc. is a women’s nonprofit organization dedicated to promoting voluntarism, developing the potential of women, and improving communities through action and leadership. Foodshare, as mentioned previously, is one of Connecticut’s two food banks and is the food bank for the greater Hartford area. Foodshare works to end hunger by increasing self-sufficiency of people in need, engaging
the public in real solutions, and ensuring an efficient safety net. The research for this program is supported by the Connecticut Institute for Clinical and Translational Science (CICATS), created by partnerships between the University of Connecticut, regional hospitals, state agencies, and community-based health care organizations.

Freshplace is still a food pantry that provides emergency food, located in Hartford’s Upper Albany neighborhood. However, there are a few key differences. Freshplace offers fresh fruits, vegetables, meat and dairy products as well as staple items. This food selection of fresh produce, meat, and dairy addresses the nutritional inadequacy of typical food pantries. This food pantry is client choice, so individuals can choose their own foods depending on their own health, cultural, and family needs. The appropriateness of the food the client is receiving can be ensured in this manner. Every two weeks, clients can come in and choose their foods from the fresh food pantry. Freshplace is open during some evenings and weekends to accommodate the working schedules of its clients. Also, a Project Manager meets with each client once a month to develop a Freshstart plan, which helps the client to identify goals and courses of action to become food secure and self-sufficient. This is one of the most innovative aspects of the Freshplace intervention and a huge step in the right direction towards addresses the underlying causes of food insecurity. In addition to these personalized Freshstart plans, Freshplace offers intake and referral services, like eligibility determination for federal food assistance programs, employment referral, housing referral, cooking classes, health screenings, budget coaching, and other referrals to social service programs.

The efficacy of the Freshplace intervention is being evaluated by a formal research study. This particular type of research has never been done before and should serve as a national model for other food pantry interventions. This study is a randomized control study that compares
Freshplace clients with clients going to traditional food pantries. The goal of the study is to determine if clients increase self sufficiency and food security. Dr. Katie Martin, the principal investigator for the study, meets with clients to take a baseline measurement and then a measurement at 3, 6, 9, and 12 months. These measurements are designed to evaluate food security status and self sufficiency as well as a variety of other factors. All of this data will be used to determine whether the Freshplace food pantry intervention is effective or not compared to traditional food pantries.

This Freshplace model is exciting because not only does it provide wraparound services that address the root causes of food insecurity, but it is simultaneously sustaining an effort for quality improvement of the program. There are so many innovative ideas and models out there, but so few of them are systematically evaluated and tested against other models. We spend so much time reinventing the wheel because we tend to have very little evidence for what actually works and what doesn’t. This entire project is a step in the right direction. I hope communities everywhere take a cue from Freshplace and follow suit, at least in the undertaking of systematically evaluating interventions. We can all learn so much from each other projects and initiatives.

II. Non-profit organizations

A non-profit organization in Hartford, Connecticut that I have had the honor of working with directly is the Hartford Food System, whose mission is to find sustainable, non-emergency strategies to address food insecurity in Hartford. Founded in 1978, it is one of the nation’s oldest organizations working to promote the idea of community food security. The Hartford Food System utilizes three main strategies: increase access for all residents to normal food outlets,
particularly grocery stores and farmers markets, deepen the connection between food consumers, especially our youth, and agricultural production, and advance public policies to improve affordability and quality of food\textsuperscript{67}. The organization has many programs and initiatives that implement these strategies to work towards its goal of improving community food security in Hartford.

One particular initiative by the Hartford Food System in an effort to bring healthy and affordable food to all residents of Hartford, regardless of location or income, is farmer’s markets. Hartford Food System has worked incredibly hard to coordinate all farmer’s markets in Hartford and they have done an excellent job. However, another goal was to open up new farmer’s markets in other neighborhoods in Hartford, particularly low-income communities like the North End. Hartford Food System has an employee whose sole job is to coordinate the North End Farmer’s Market. It has been a struggle and it continues to be one, but Hartford Food System has succeeded in opening up a farmer’s market in the North End of Hartford and keeping it open for the time being. This farmer’s market is an excellent way for residents of the North End to get fresh produce right in their neighborhood! The prices are even lower at the North End market after Hartford Food System negotiated with the farmers to lower the prices for residents. Hartford Food System has done everything in its power to bring healthy and affordable food to the doorsteps of those who need it most. The North End market is opening for its fourth continuous season in June 2011.

Another program run by Hartford Food System is an after school food justice club for 5\textsuperscript{th} and 6\textsuperscript{th} grade students at a local school. This nine week program invited students to engage in discussions and activities about food deserts and how to change them as well as food activists of the past. The students also were able to share some of their thoughts and ideas with state
representatives at the Capitol. These students had also volunteered at one of Hartford Food System’s urban garden sites after reading the book Seedfolks by Paul Fleischman. This powerful program is an excellent educational tool for youth and a great way to get them involved and interested early. The food justice club was run during spring of 2011, but will hopefully continue in future years. This model can be a useful tool for creating partnerships between youth and community-based organizations across the country.

III. Community gardens and urban agriculture

When fresh produce is not readily available and neighborhoods are overwhelmed by junk food, community initiatives can respond by growing their own food! The Hartford Food System provides us with several examples of community gardens and urban agriculture.

The Grow Hartford program consists of four urban sites that serve as community gardens as well as outdoor classrooms for the youth education component of the initiative. The program’s general objectives are promoting sustainable and equitable food systems in Hartford by supporting grassroots activism and youth leadership through agriculture, encouraging healthy lifestyles and community action related to food security, sustainable agriculture, and the environment, fostering responsible stewardship of urban land by using organic farming methods and revitalizing vacant lots, and restoring the link between people and agriculture by encouraging involvement of low-income urban youth and families in food production. Grow Hartford is maintained by an experienced urban farmer, assistant farm manager, and a youth coordinator. The 2011 growing season marks the first time the program will host two urban agriculture apprentices who will be learning the basics of urban food production and working on the farm. The youth education component focuses on teenage Hartford residents and offers a 6
week curriculum about food sources, healthy eating habits, and how plants grow as well as providing wages for farm labor at the urban garden sites.

Along with youth education, the other two components of Grow Hartford are community outreach and food production. For community outreach, the program offers a Community Supported Agriculture (CSA) program in which families can buy a share of the crop at the beginning of the harvest season, usually at lower than market price, and have access to fresh, locally grown produce. In 2009, twenty-one families participated in the Grow Hartford CSA, all the while forging new bonds, sharing recipes or helping out at the garden, possibly representing the beginnings of a community building a shared food culture. There were also two organizational shareholders in Grow Hartford CSA. The Living Well Health Ministry at Faith Congregational Church in Hartford’s North End distributed the food they bought from Grow Hartford for free to seniors and The Kitchen @ Billings Forge used the fresh produce in culinary training classes for Hartford residents. For the 2011 season, 32 Hartford families and at least two Hartford organizations will receive fresh produce from Grow Hartford, with discounted shares being available for low-income families who are struggling with hunger and access to healthy food.

The final tenant of Grow Hartford is the aspect of food production. This program was founded on the belief that sustainable agriculture is central to creating an equitable food system with access to healthy food for all people. An urban community garden is one way to create sustainable agriculture. The Grow Hartford site harvests thousands of pounds of food each season. In 2008, about 5,500 pounds of produce was harvested and in 2009, 7,067 pounds of produce was harvested on Grow Hartford’s 1.25 acres of land. For the 2011 season, Grow Hartford will be growing over 55 crops and over 200 varieties, including 25 kinds of tomatoes.
These numbers are beyond impressive and all of this food goes to community members or community organizations.

Another initiative regarding urban agriculture being undertaken by the Hartford Food System is the securing of the Plaza Mayor site in downtown Hartford for transformation into an urban garden, which would nearly double their total farm space in the city of Hartford. This site is currently an empty lot taking up space in the middle of the city, but Hartford Food System has big dreams for it. The land is owned by the City of Hartford and while red tape and bureaucracy have been a challenge, the Executive Director of Hartford Food System, Martha Page, is moving the process along doing whatever it takes from arranging testing of the soil to meeting with city officials to writing proposals for grants. The conversion of this site into an urban garden would continue to breathe life into the city and bring us another step closer to creating sustainable, non-emergency strategies to providing food to everyone.

IV. Applied research and interventions

In 2006, Hartford Food System launched the Healthy Food Retailer Initiative. The goal of this initiative is to create relationships and rapport with local corner store owners and work with them to create a healthier food environment in their store. This isn’t a prescriptive endeavor, but one in which there is a common goal: to better the health of the community. Trust and shared ownership is incredibly important in building these relationships and working towards measurable outcomes and Hartford Food System makes sure both of these components are accounted for. I have seen this interaction firsthand with Hartford Food System’s current outreach coordinator and it is nothing short of amazing. The rapport these store owners already have with Hartford Food System is incredible and really creates a productive and safe
environment to work towards their common goal. The store owners know Hartford Food System is there to help and, more importantly, trust Hartford Food System to help.

In one of Hartford Food System’s publications entitled “Healthy Food Retailers in Hartford’s Neighborhoods,” a description of the program is given: “To qualify as a Healthy Food Retailer, each of the six grocery stores at the Healthy Food Fair committed to shift 5 percent of the shelf space allocated to junk food and soft drinks to healthier items. In addition to this aggregate shift in inventory, each store also agreed to stock a short list of healthy items such as whole wheat bread and reduced fat milk." As an incentive for these stores to participate, the Hartford Food System has pledged to support them in this endeavor by connecting them to wholesalers and to survey residents to determine demand for certain products. The initiative started off with 6 stores in 2006, but in 2007, another 19 corner stores joined the initiative, bringing the total to 25 stores. In 2008, a grand total of 20 stores were involved in the initiative. At its peak, the program was working with 40 corner stores. Now, the initiative focuses on 6 or 7 stores.

Another publication issued by the Hartford Food System entitled “One Year Later: An Inspection of Hartford Stores Shows Measurable Progress for the Healthy Food Retailer Initiative” cites the progress of the initiative. “Since 2007, stores have shifted 8 percent of junk food inventories to regular groceries. While inventories improved in the aggregate, not all stores had positive shifts individually: 2/3 made gains over 2007 and 1/3 did not. More stores are now stocking low-fat milk and whole wheat bread compared to 2007. Three-quarters of stores have expanded shelf space and some owners have added new stores, suggesting business growth." This initiative continued in 2010 with a research project, driven by Dr. Katie Martin, to track the effectiveness of the Healthy Food Retailer Initiative by comparing stores participating in the initiative and a control group of stores. There are even articles in the Hartford Advocate, like the
one entitled “A local nonprofit pushes for Hartford's small grocery stores to offer more than chips and Lotto tickets” that talk about the Healthy Food Retailer Initiative and the Hartford Food System. “Hartford's corner markets are small, averaging about 650 square feet, and unfortunately many are like the one on New Britain Avenue I popped into last week, where immediately inside the front door, like a glittering shrine, is a wall of chips in bright bags. There are Red Hot Flavored, Onion Garlic, and Salt & Vinegar chips; Ridgies, Dipsy Doodles, Nacho Twisters, and Cheez Doodles; and of course, Cheddar Fries. Near the register are a few bananas, onions, apples. It’s markets like this one that have been targeted by Hartford Food System to upgrade the city's corner markets into healthier options for residents.” Now, the Healthy Food Retailer Initiative continues by focusing more on assisting store owners with outreach and marketing strategies to promote healthy options in their stores. The Healthy Food Retailer Initiative and Hartford Food System are doing a world of wonders for the residents of Hartford and their healthy food options.

V. Policy approaches

The Hartford Food System has been a pioneer across the country in terms of food policy and initiatives. In 1991, an ordinance issued by the Hartford City Council that was one of the first of its kind created the City of Hartford Advisory Commission on Food Policy. As the food advocate for the city of Hartford, the mission of the Commission is as follows: to eliminate hunger as an obstacle to a happy, healthy and productive life in the city, to ensure that a wide variety of safe and nutritious food is available for city residents, to ensure that access to food is not limited by economic status, location or other factors beyond a resident’s control, and to ensure that the price of food in the city remains at a level approximating the level for the state. These are all goals that address the disparities in location of grocery stores and price and
ultimately, access to fresh, healthy, and affordable food for all. The powers and duties of the Commission include monitoring the availability and quality of food in Hartford, collecting data on the hunger and nutrition of the city’s residents, monitoring and analyzing the administration of city food distribution programs, exploring new means for city government to improve the food economy, the availability, accessibility and quality of food and assisting the city government in the coordination of its efforts, and recommending to the city administration adoption of new programs to (or elimination of) existing programs as appropriate. The Commission is staffed by the Hartford Food System, other community-based organizations in Hartford, Foodshare, Hartford Health and Human Services Department, Hartford Public Schools, and the Mayor’s office. Residents of Hartford may also participate and provide input in the Commission meetings.

In 2010, the Commission issued its most recent set of recommendations to city official to promote community food security. The Commission’s recommendations have included expanding enrollment in the Food Stamp/SNAP program, continuing the Food Pantry Grant program, increasing awareness of the WIC program, supporting the Summer Food Program, supporting farmer’s markets in Hartford, banning trans fatty acids, showing calorie counts at chain restaurants, creating transparency in restaurant scoring, and promoting community gardens and urban agriculture at the Plaza Mayor site. The Commission provided a rationale for each policy recommendation as well as some best practices for food pantries involved in the Food Pantry Grant program. These recommendations were published in a report for the general public and presented to city officials. The City of Hartford was one of the first to create a commission like this one. People have called from all over the country asking how the Advisory Commission
on Food Policy in Hartford was started. The City of Hartford should be proud to serve as an example for the rest of our nation.

Another policy approach that is worth mentioning is the Fresh Food Financing Initiative in Pennsylvania created in 2004. This initiative provides start-up money to local healthy retailers in underserved communities. There is a total of a $200 million and grants up to $250,000 and loans up to $2.5 million per store are provided. This program is an effective way to address the problem of food access and can also reduce health disparities. It also creates jobs, stimulates economic development in underserved communities, and encourages much-needed investment by providing this start-up money to healthy food retailers. The program in Pennsylvania was wildly successful. It created 83 new or improved grocery stores in underserved communities, provided 400,000 residents with increased access to healthy food, and created or retained 5,000 jobs.

When this program first started, the goal was for it to be replicated in other states and eventually create a National Fresh Food Financing Initiative. In May 2011, the federal government began requesting proposals for the national Healthy Food Financing Initiative, a model based on the original program in Pennsylvania. President Obama’s FY 2012 budget provides more than $330 million for investment in this program. In the 111th Congress, sponsors from the United States Senate and U.S. House of Representatives introduced bipartisan legislation (S. 3986, H.R. 6462) establishing a Healthy Food Financing Initiative at the United States Department of Agriculture. This program should be commended for its success that it will hopefully be able to bring to the rest of the country. The Healthy Food Financing Initiative is a perfect example of a local program that was transformed into a national model, serving as an example for the rest of
the U.S., and is now being implemented throughout the country. This is also an example of a
non-emergency response to limited access to healthy food.
Chapter 5 – Bringing it all together: ideas for the future

As a final thought and product of my research, I would like to offer some ideas for policy approaches to food access and food insecurity. This policy brief can serve as a starting point for courses of action to address the problems outlined in the previous sections of this paper.

I. Policy Recommendation #1

Limit fast-food chains and unhealthy foods in urban, low-income neighborhoods through changes in zoning laws to regulate fast-food chains and implementation of new legislation, like the Staple Foods Ordinance in Minneapolis, Minnesota. This ordinance, passed in 2007, requires all grocery stores to carry at least three staple items, including meat, dairy, fish, and fresh produce. Instead of increasing access to healthy foods (which also should be done), decreasing access to unhealthy foods seems to have a greater correlation with lower BMI and obesity rates. Food swamps, where there is a plethora of unhealthy foods, instead of food deserts, where there is lack of access to healthy foods, seem to be a more accurate description of the types of environments in which BMI and obesity rates are high. Consequently, our response should address this wide availability of unhealthy food by making an effort to make them equally accessible as or even less accessible than healthy foods. I say this should particularly be done in low-income, urban areas because these communities feel the effects of food deserts, food swamps, food insecurity, and high rates of obesity disproportionately more than their more affluent counterparts.

II. Policy Recommendation #2

Promote economic development through start-up loans and grants for healthy food retailers. The Fresh Food Financing Initiative in Pennsylvania was so successful; it was used as a national
model for the Healthy Food Financing Initiative. This will not only bring in healthy foods, but it will create tax revenue for the neighborhood and even create or retain jobs as well. This start-up money will help small healthy food retailers overcome barriers like high costs of land in urban areas as well as higher costs associated with purchasing and storing fresh produce, lean meats, and dairy. Also, this promotion of economic growth by bringing healthy food retailers into the neighborhood will be the first step in creating a local food culture and community. Forming a cohesive community around food is vital for neighborhood investment in healthy eating choices and eventual better health outcomes.

III. Policy Recommendation #3

Support urban agriculture and locally grown foods by encouraging the use of fruit and vegetable WIC vouchers as well as Farmer’s Market WIC coupons. These programs create an opportunity to support local food while increasing the purchasing power of low-income households yet they are underutilized and more can be done to encourage their use to buy fresh produce. Furthermore, supporting urban agriculture and local foods goes a long way in creating a stable food community and environment. The Grow Hartford program experienced this type of community when they began their urban gardens and community shared agriculture. Also, by keeping things local, the money stays local as well, which means more revenue being pumped into the neighborhood that can revitalize the community. This resulting economic growth and development is much like my second policy recommendation, there’s just a different approach!

IV. Policy Recommendation #4

Encourage community members to be active participants in their local governments by fostering relationships with city officials. Community organizations, such as the Hartford Food System
and End Hunger CT! in Hartford can help rally citizens around food justice issues and be facilitators in this process. This recommendation steps outside the box of food issues for a moment because every issue interacts with one another. It is so important to be vocal and involved in your local government and to encourage everyone around you to do so. This is another thing that promotes buy-in from everyone in the community and encourages investment in community outcomes and well-being. In addition, a well-informed, constructively vocal community member usually translates into someone who has high self-efficacy and self-sufficiency, which are exactly the kinds of tools that empower people to work towards a solution for themselves and others.

V. Policy Recommendation #5

Continue to create coalitions and partnerships for unified action to address community issues. We have seen this in Hartford with the creation of Freshplace and the staffing of the City of Hartford Advisory Commission on Food Policy. A huge effort should be made to get all related community organizations or institutions on board in order to avoid reinventing the wheel. Ideas should be shared and information should constantly be exchanged. Evaluation of interventions and programs is key as well as dissemination of that information. As simple as it sounds, working together goes a long way.
Conclusion

Food is a basic human necessity that should be accessible to all. It is quite evident that food deserts and unhealthy corner stores are an unfortunate and unfair reality in urban, low-income areas. There has also been evidence to link higher rates of obesity with these types of toxic food environments, as well as a resulting consequence of food insecurity. Our nation’s responses to these problems have been varied, but the short-term benefits of the emergency food system aren’t enough to provide the sustainable solution we need to food insecurity and its underlying cause of poverty. However, the new Freshplace program, the work of the Hartford Food System and the City of Hartford Advisory Commission on Food Policy serve as examples of how to counter this problem and create sustainable solutions. Food should be healthy, affordable, and accessible to everyone, not just those who live in the right zip code or belong to the right tax bracket. Unfortunately, that is not the reality, but we can make it one by taking small, steady steps. The Hartford Food System and others have already been pioneers in addressing food insecurity, leading the way for many other parts of the country. We must continue to support these efforts as we work towards a healthier food environment and eventually, a healthier nation.
References


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