Food Insecurity Among Children Ages 0-3

In Baltimore City:

Barriers to Access and Initiatives for Change

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February 2011

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Introduction

Food is a basic human need. When readily available and easily accessible, food can facilitate community engagement, enhance family bonds, and satiate hunger. "Food insecurity" is a lack of access to enough safe and nutritious food to maintain a healthy lifestyle due to a lack of financial resources and encompasses worry and stress about having enough food.[1] Limited access or availability can be a source of stress and anxiety for resource-constrained families and create or exacerbate health disparities between groups. As Chilton and Rose write, "Food insecurity is considered an outcome of social and economic processes that lead to a lack of access to food. These are: lack of adequate education and living wages, lack of access to health care and health information, and exposure to unsafe living conditions such as unsafe water, poor housing, and dangerous neighborhood environments."[2] According to the U.S. Department of Agriculture, 14.7% of households experienced food insecurity during 2009.[3] Food insecurity is a complex, multi-scalar phenomenon with profound effects on communities, families, and individuals across the U.S.

This report synthesizes information from diverse sources about food insecurity among families in Baltimore City, Maryland.[4] This report targets a specific demographic: infants and toddlers ages zero to three and their primary caregivers (pregnant and postpartum women). Infants and toddlers are experiencing rapid brain growth and development and need appropriate food and nutrition. Children in this age group are therefore uniquely vulnerable to negative outcomes associated with food insecurity. Research shows that young U.S. children living in food insecure households are more likely to be hospitalized, be in fair/poor health, and be at increased risk for developmental delays[5]. Many families in Baltimore utilize services which may help mitigate some of the problems related to food insecurity and poverty, but are still insufficient to meet the present need. Because food insecurity is

[1] Nord, et. al. 2010
[2] Chilton & Rose, 2009 (p. 1204)
[3] Nord, et. al. 2010
[4] Baltimore City is its own independent county and should not be confused with Baltimore County (a separate entity). For this report, readers should understand "Baltimore" to refer exclusively to the City, not County.
[5] Hager, et. al. 2010

associated with poor health outcomes particularly in young children, this is a timely, important issue to focus on at the local level.

This report discusses academic literature about food insecurity in the target population, with a focus on literature published 2000 to the present (2011). This literature spans numerous academic disciplines and provides a foundation for the report. Sources include governmental agencies such as the U.S. Department of Agriculture and the U.S. Department of Health and Human Services. These data provide a national backdrop to the issues unfolding at a local level. The report also includes qualitative data collected between September 2010 and January 2011 in Baltimore. This data collection is the result of a collaborative effort between Hannah Emple and PaHua Cha, two Bill Emerson Hunger Fellows[6] working with the Growth and Nutrition Division at the University Of Maryland School Of Medicine and the Bureau of Healthy Homes at the Baltimore City Health Department.

Finally, the report puts forth a set of policy recommendations and outreach strategies that could benefit families experiencing food insecurity in Baltimore. The goal of this section is to provide information and resources for policymakers, service providers, academic researchers, government representatives, and others working at the local level to improve food security for Baltimore's infants, toddlers, and families. See Appendix B "Guide to Existing Resources" for a list and description of some of the programs, services, and initiatives taking place at the local level. This report is not a comprehensive discussion of food insecurity or related challenges in Baltimore, but seeks to establish the state of research in the field, advance current understandings of food insecurity within a specific population, and provide locally-relevant recommendations. The following section explores existing research on the issues that create, exacerbate, and emerge out of food insecurity.

[6] The Bill Emerson Hunger Fellowship is a national anti-hunger program run by the Congressional Hunger Center. See www.hungercenter.org for more information.

Chapter One: Understanding Food Insecurity

Definitions

Researchers from diverse academic backgrounds study food insecurity, using varied methodological approaches. Therefore, multiple definitions of food (in)security exist. These definitions differ in the scale at which they approach the issue. This report grounds food insecurity in the field of public health, due to the documented consequences food insecurity has on the health and wellbeing of both individuals and communities. However, valuable contributions from fields such as psychology, food and nutrition studies, ecology, and environmental studies have also advanced researchers understanding of the issue and its complexity. This section reviews several major definitions and briefly describes the development of food insecurity measurement tools.

Food *secure* households are those in which all members have enough food for a healthy, active life[7]. This conceptualization of food security builds off the 1990 Life Sciences Research Office of the Federation of American Societies for Experimental Biology definition.

> Food security includes at a minimum: (1) the ready availability of nutritionally adequate and safe foods, and (2) an assured ability to acquire acceptable foods in socially acceptable ways (e.g. without resorting to emergency food supplies, scavenging, stealing, or other coping strategies).[8]

Food *in*security, therefore, exists in the absence of these conditions. The U.S. Department of Agriculture (USDA) also emphasizes the uncertainty or anxiety that households experience as part of food insecurity[9]. Food insecurity in the United States is typically episodic or cyclical but may be chronic in particularly severe cases.[10]

Other definitions expand from an individual or household level understanding of food insecurity to include the broader community. Hamm and Bellows describe *community* food security more expansively.

> A condition in which all community residents obtain a safe, culturally acceptable, nutritionally adequate diet through a sustainable food system that maximizes community self-reliance, social justice, and democratic decision-making.[11]

[7] Nord, et. al. 2010
[8] Andersen, S.A. 1990
[9] ibid
[10] Frank, et. al. 2006
[11] Hamm & Bellows, 2003

By expanding an understanding of food insecurity beyond the individual act of consuming food, the study of food insecurity can incorporate varied perspectives and be a tool for understanding the dynamics of community hardships. This definition is ambitious, as it advocates for food and nutrition policies that are culturally-relative and appropriate, are socially and environmentally sustainable, encourage broader social justice, promote health and nutrition, and promote the democratic process. Charged with this tall order, few programs and services targeting food insecurity are able to successfully address all of these recommendations in a single initiative.

Chilton and Rose explore a "rights-based" approach to food insecurity, one that "repositions our understanding of food insecurity to acknowledge and actively address its social and economic determinants."[12] The authors explain that the United States has failed to frame the issue of food insecurity as an issue of the "right to food." For example, the U.S. government has a commitment to guaranteeing citizens' right to vote, but has no similar stipulation for the right to food. The "right to food" is defined by the United Nations.

> The right to have regular, permanent and unrestricted access, either directly or by means of financial purchases, to quantitatively and qualitatively adequate and sufficient food corresponding to the cultural traditions of the people to which the consumer belongs, and which ensure a physical and mental, individual and collective, fulfilling and dignified life free of fear.[13]

Both rights-based and community food security approaches encourage a broadened understanding of food insecurity and aim to improve accountability and community attention to this issue in a nuanced, participatory, and creative way.

Assessment

Assessing food insecurity effectively and accurately is an important part of understanding the problem. Measuring food insecurity among infants and toddlers is particularly challenging because there is no physical diagnostic test or anthropometric measure to determine if a child is experiencing food insecurity. Therefore, the use of an efficient, reliable screening mechanism is a critical part of food

[12] Chilton & Rose, 2009

[13] Ziegler, 2002, Commission on Human Rights Resolution 2001/25, cited in Chilton and Rose, 2009

insecurity research. Researchers, families, clinicians, and service providers must collaborate to assess food insecurity among infants and toddlers, as well as communities in general.

Food insecurity measurement tools have evolved and improved over the years. The U.S. Department of Agriculture (USDA) is the government body charged with measuring and assessing food insecurity around the country. The Household Food Security Survey (HFSS) uses 18 questions to assess families' experiences with food (in)security (see Appendix C for complete survey). At present, the survey uses the following categories: food security, marginal food security, low food security, and very low food security. These low levels of food security are referred to as "food insecurity." The distinction between low food security and very low food security is in reduced food intake and disrupted eating patterns due to a lack of access.[14] . In 2006, the USDA sought to distinguish between the physiological sensation resulting from a lack of food (hunger)[15] and the inability to access enough food at all times to maintain a healthy life (food insecurity).[16] [17] The USDA eliminated the use of the word "hunger" from its food insecurity scale, a decision which came under some scrutiny for not including public input[18] and encouraging terms that were too vague or scientific to be useful to a general audience.[19] Some researchers continue using the term "hunger" because they feel the new terminology has not been accepted by a wide enough group of scientists or advocates.[20]

Researchers developed an effective two item screen to identify families at risk for food insecurity (see Table 1).[21] If families respond affirmatively to either or both questions, they are at risk for food insecurity. Because the HFSS is lengthy and requires detailed analysis to be meaningful to researchers, alternative measurements like this one that are reliable and valid but can be administered and scored more quickly are highly useful in clinical or outreach settings.

Table 1. Two Item Food Insecurity Screen

Within the past 12 months we worried whether our food would run out before we got money to buy more. ___ Often true ___ Sometimes true ___ Never true Within the past 12 months the food we bought just didn't last and we didn't have money to get more. ___ Often true ___ Sometimes true ___ Never true

The study advances the ability of clinicians and service providers to assess food insecurity among families. The screen has excellent sensitivity and specificity in identifying food insecure families with young children.[22] The screen is easy to use and replicate and can be used in diverse settings with

[14] Nord, et. al. 2010
[15] Life Sciences Research Office, Federation of American Societies for Experimental Biology, 1990
[16] Nord, et. al. 2010
[17] Haering & Syed, 2009
[18] Chilton & Rose, 2009
[19] Cook & Jeng, 2009
[20] Frank, et. al. 2006
[21] Hager, et. al. 2010
[22] ibid

minimal training. (See Appendix D for Spanish translation.) Broader use of simple screening tools can serve two purposes: 1) helping service providers and clinicians best serve clients and provide useful referrals and 2) systematic assessment can establish the prevalence of food insecurity and trends overtime.

One study found that using a single question could effectively screen families for hunger.[23] With this tool, families are asked a single yes or no question about their experience with hunger.

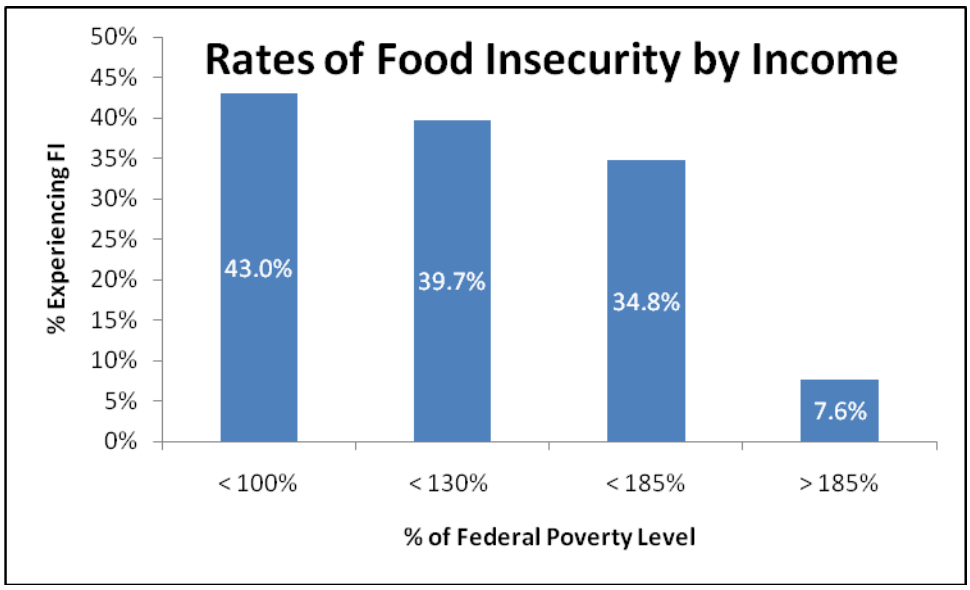
Table 2. Single Item Hunger Screen

In the past month, was there any day when you or anyone in your family went hungry because you did not have enough money for food? ____ Yes ____No

Follow up interviews with a sample of families indicated that the single-question screen was a reliable measure of identifying families experiencing hunger. However, this tool is not as sensitive or specific as the two item food insecurity screen. To quickly assess food insecurity, service providers, clinicians and other professionals may want to use the two-item screen for improved accuracy, while still saving considerable time over the 18 item HFSS.

Risk Factors and Demographic Trends

Food insecurity occurs due to constrained resources and is intimately connected to poverty. People living below the poverty level are more likely to experience food insecurity than those at higher income levels. As Graph 1 demonstrates, 43% of people living below the poverty level were food insecure in 2009, compared with 7.6% of people above 185% of the poverty level.[24] As household income level decreases, the risk of food insecurity increases.



Graph 1. Percentage of U.S. Population Experiencing Food Insecurity at Different Income Levels[25]

Data from Nord, et. al. 2010 (USDA)

[23] Kleinman, et. al. 2007
[24] Nord, et. al. 2010
[25] ibid

Recognizing poverty as a risk factor for food insecurity is an important step in designing programs and initiatives that effectively reduce a family's risk of experiencing food insecurity.

The USDA identified a comprehensive list of risk factors, or characteristics that are associated with higher prevalence of food insecurity, allowing for more targeted interventions. Risk factors include[26]:

- Low income (up to 185% of the Federal Poverty Line)
- Low levels of education (12 years or fewer)
- Black, Hispanic, and Native American household head
- Renting rather than owning a home
- Living in the central city
- Having children
- Being a single parent, and particularly a single mother
- Unemployment
- Disabled household member
- Noncitizen household head

Food insecurity disproportionately affects families with children: in 2009, 22.9% of households with children under age 6 were food insecure compared with 11.4% of households without children.[27] Over a third (36.6%) of children in households with single mothers experienced food insecurity.[28] While many rural (and even suburban) areas have residents experiencing food insecurity as well, urban residents continue to be at heightened risk. Knowing risk factors can help identify effective ways to safeguard children's health and wellbeing.

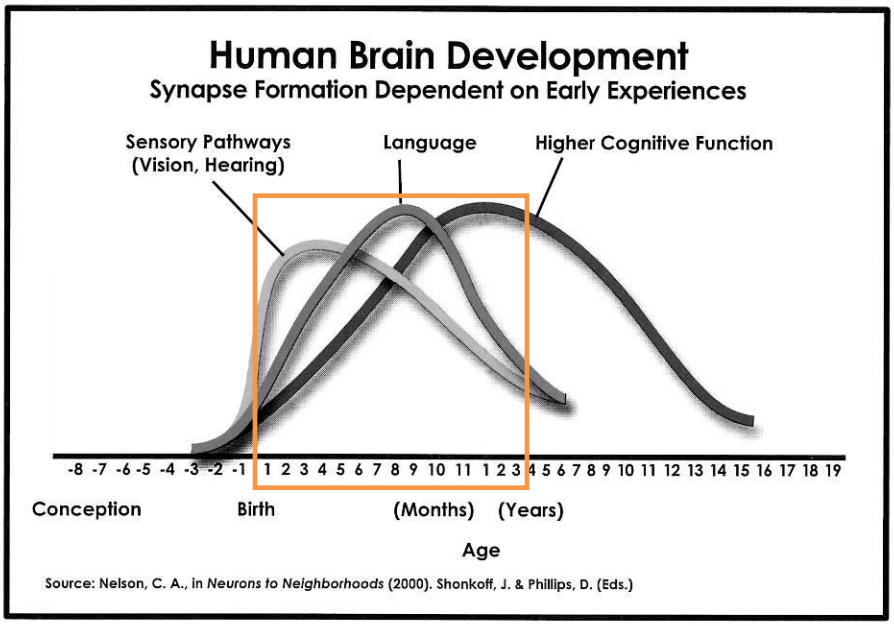
[26] Bartfeld, et. al. 2006
[27] Nord, et. al., 2010
[28] ibid

Chapter Two: Infants and Toddlers Ages 0-3

Children's Health and Development

This report focuses on families with children ages zero to three because of the particularly vulnerable nature of children in the early years. Infants and toddlers experience rapid physical, cognitive, developmental, and social growth. Food is intimately connected to children's development and growth, which means food insecurity deserves close attention, especially at this uniquely rich developmental stage. Food insecurity, poverty, and other hardships experienced during these years may have a profound impact on children's futures.

Graph 2. Human Brain Development



The graph depicts prenatal and postnatal human brain development, emphasizing the months before and in the year following birth as times of heightened synapse formation. Deprivation during this critical period of brain development can affect the formation of sensory pathways, language, and cognitive function. Understanding the associations between deprivation, poverty, and other hardships such as food insecurity helps researchers advocate for policies that promote healthy development in young children.

Children's HealthWatch (formerly known as C-SNAP) is a six city research study with over a decade of data collection on the health of infants and toddlers. Researchers with Children's HealthWatch have documented the impact of social policies, food insecurity, and other family hardships on young children since 1998.[29] The product of this research is a vast body of knowledge that demonstrates the links between food insecurity and negative consequences for children ages zero to three.

Specifically, Children's HealthWatch researchers report links between negative health and development outcomes and food insecurity. Research demonstrated that young children in food insecure households had:

- a higher risk of being in fair/poor health
- a higher risk of being hospitalized since birth[30]
- a 140% greater odds of iron deficiency anemia than food secure children[31]

[29] Children's HealthWatch website, accessed 2011
[30] Cook & Frank, 2008

These associations are alarming because they suggest a relationship between the conditions and experience of food insecurity and infant/toddler health and wellbeing. Children's HealthWatch also found that families with children who had their benefits (i.e. SNAP [food stamps] or cash assistance) reduced or terminated had:

- a 50% greater chance of being food insecure
- a 30% greater chance of having been hospitalized since birth
- a 90% greater chance of being admitted to the emergency department[32]

This suggests that the transition off public benefits programs may have adverse health effects for children. Furthermore, families leaving benefits programs may be uniquely vulnerable to experiencing hardships such as food insecurity. These findings can help shape policy decisions related to public benefit eligibility guidelines or termination policies.

Children's HealthWatch researchers found that low income children living in food insecure households were two-thirds more likely to experience developmental risk than low income children living in food secure households[33]. This builds on previous research demonstrating a connection between poverty and negative developmental consequences for children.[34] When care providers understand food insecurity as a developmental risk, they can be more effective at working with families to locate appropriate services that target food access in addition to developmental interventions. Early childhood education programs (such as Early Head Start [ages zero to three years] and Head Start [ages three to four years]) are well positioned to work with families experiencing food insecurity, because these programs already seek to address developmental risks before they influence children's cognitive growth and learning. Other child care venues are potential sites of intervention, if care providers are equipped to refer families to appropriate resources.

Energy Insecurity

Conditions not central to the availability of food can also influence food security. Living in poverty and navigating constrained resources can magnify the economic pressure a family faces. For example, the cost of utility and energy bills can lead to a "Heat or Eat" phenomenon in which families make difficult choices between paying for adequate food and adequate heating (or cooling). Research demonstrates an association between energy insecurity (defined as the lack of consistent access to the energy needed for a healthy, safe life due to constrained resources)[35] and heightened odds of food

[31] Cook & Frank, 2008
[32] ibid
[33] Rose-Jacobs, et. al. 2008
[34] Ibid
[35] Merry, et. al. 2009

insecurity, reports of fair/poor child health, and rates of child hospitalization[36]. The problem is widespread: 34% of infants and toddlers in the sample lived in households experiencing energy insecurity.[37] This suggests that many families with young children find energy costs to be a financial burden and may face difficult decisions about trade-offs. Programs that help low income families make ends meet through financial assistance with non-food related expenses (such as energy assistance or Temporary Cash Assistance programs) may in turn benefit children by avoiding or minimizing food insecurity. Children's HealthWatch data help address this issue by documenting the association between energy and food insecurity and child health.

Caregivers' Health and Well-Being

Pregnant women's experiences with food insecurity may affect children's health. In a sample of low income pregnant women, food insecurity was associated with a low birth weight delivery.[38] Additionally, there are strong links between appropriate prenatal nutrition and optimal fetal development.[39] Bouts of food insecurity during pregnancy may increase the likelihood of poor birth outcomes for babies and their mothers. Research shows that psychosocial conditions such as stress, anxiety, and depression were significantly associated with household food insecurity during pregnancy.[40]

Children's HealthWatch research also demonstrates an association between maternal depression and food insecurity. After controlling for demographic variables, researchers noted an association between maternal depression and lower child health status, more hospitalizations of the child, and changes in public benefits such as SNAP.[41] Clinicians treating parents for depression should be aware of these potential connections in order to promote a holistic approach to family health. These factors are associated with negative effects on children's wellbeing and parents' mental status and overall ability to be effective parents. This body of research suggests that programs targeting maternal food security, mental health, and social and economic well-being would benefit children, mothers, and communities in general.

Obesity and Food Insecurity

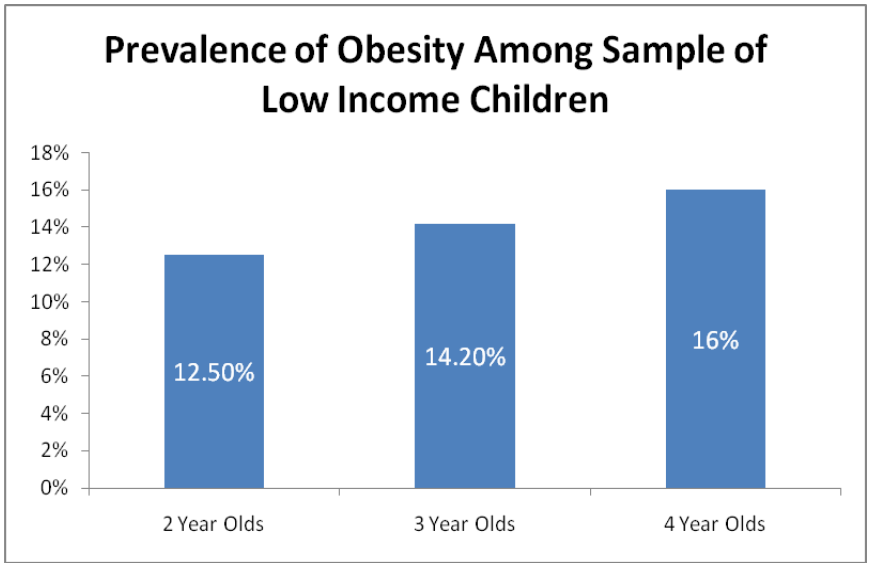
Obesity is currently a popular subject of academic research and public discussion. Current First Lady Michelle Obama's Let's Move Campaign (http://www.letsmove.gov/) has drawn increased attention to the issue of childhood obesity and its potential causes. Research shows a high prevalence of obesity and overweight among young children from diverse backgrounds. While there are numerous theories explaining the rise in childhood and adult obesity in recent years, there is *not* a firmly established association between food insecurity and weight. In fact, the evidence is inconsistent on whether the experience of food insecurity is correlated with an increase in overweight or obese among young children. A 2011 review examined 25 studies published since 2000 which all sought to determine

[36] Frank, et al. 2006
[37] ibid
[38] Borders, et. al. 2007
[39] Cook & Jeng, 2009
[40] Laraia, et. al. 2006
[41] Casey, et. al. 2004

if there is a relationship between household food insecurity and children's weight status.[42] Six of the 25 studies found a positive association between household food insecurity and a child's risk of obesity, suggesting that children living in food insecure households were more likely to be obese than those in food secure households.[43] However, five studies showed the opposite – children in food insecure households were actually less likely to be obese than food secure children. The majority of the studies (nine) found no evidence of a relationship between food insecurity status and obesity. Some studies suggest the relationship between overweight/obesity differs as a function of child age and gender. For example, one study of low income children participating in WIC (Supplemental Nutrition for Women, Infants and Children Program) showed that girls under age two living in food insecure households were *less* likely to be overweight, while girls age two to five in food insecure households were *more* likely to be overweight.[44] The inconclusive nature of this research makes it difficult to pinpoint the relationship between food insecurity and weight in very young children.

Nevertheless, as children age, they are at increased risk of obesity.[45] One study found a dramatic increase in overweight and obesity rates in children between ages one and three.[46] Because early obesity is predictive of obesity (and associated health problems) later in life[47], early childhood is an important time for intervention.

Graph 3. Prevalence of Obesity in a Sample of Low Income Children, 2000[48]



The Centers for Disease Control posit that the three major contributing factors to obesity are genetics, behavior, and environment.[49] Environmental factors also play a role in food insecurity: access barriers contribute to families' experiences with food insecurity. Therefore, while we may not be able to establish a clear correlation or causal relationship between food insecurity and obesity, we can still examine these issues as intertwined with poverty, resource constraints and a lack of access. The next section of this report will discuss the geographic, political, economic and social context in which people live and eat: the food environment.

[42] Larson & Story, 2011
[43] ibid
[44] Metallinos-Katsaras, et. al. 2009
[45] Nelson, et. al. 2004
[46] Irigoyen, et. al. 2008
[47] ibid
[48] ibid
[49] CDC, 2009, available at: http://www.cdc.gov/obesity/childhood/causes.html

Chapter Three: Food Environments

Food environments influence community experiences with food insecurity by defining availability and accessibility of food. A Johns Hopkins University Center for the Livable Future report defines a food environment as "*all food stores and food places within a geographic area of interest.*"[50] However, available food may be unhealthy or undesirable to members of a given community. The presence or absence of food stores in a given neighborhood is no guarantee that an individual or family is food secure. Accessibility may still be limited by constrained household resources. The USDA Food Environment Atlas uses a slightly broader definition of a food environment: "*the stores and restaurants in a community, food prices at those establishments, and community norms about food and health.*"[51] These definitions may still not reflect the issue of constrained financial resources or other hardships that limit accessibility, or the utilization of diverse food procurement strategies.

This report will consider a food environment to be *the geographic, social, and economic context in which a person obtains, prepares, and consumes food.* This definition includes the availability of grocery stores; the healthfulness of available food; the acceptability of available food; any financial, social, or geographic barriers to accessing food; and the presence/utilization of any federal nutrition assistance programs or other food-related services, such as food pantries. By using a purposefully inclusive definition of the food environment, this report recognizes that people of *all* backgrounds and income levels have varied strategies for obtaining their food. This section explores key aspects of the food environment: food availability and accessibility and the food assistance landscape.

Food Availability and Accessibility

Most Americans are able to access enough food for a healthy lifestyle: 85% were food secure in 2009.[52] However, the country's overall access to adequate nutrition obscures the fact that more than one in ten American experiences food insecurity. Millions of Americans face disparate access to food. Nationally, there are three times as many supermarkets per capita in upper and middle income

[50] Palmer, et. al. 2009, p. 5
[51] Golan, et. al. 2010
[52] Nord, et. al. 2010

neighborhoods than low income neighborhoods.[53] Lower-income people travel greater distances than people with upper or middle income to reach supermarkets. Alternatively, they may seek out non-supermarket options, such as convenience or corner stores which often have higher prices, less variety, and fewer healthy options.[54] Inadequate availability of and access to healthy food may contribute to disparities in obesity risk and health overall.[55]

The cost of healthy foods is a major barrier for financially-constrained individuals and families. Between 1985 and 2000, the real cost of fresh fruits and vegetables rose 40% while less healthy foods decreased in cost: fats and oils decreased by 10% and soft drinks decreased by 20%.[56] For families on tight budgets, these changes can put healthier eating out of reach. For parents working low-wage jobs and grappling with the demands of young children, the convenience of fast food may be very attractive. A single parent working a minimum wage job cannot reach the federal poverty guideline: $14,570 for two people or $18,310 for three people.[57] In this kind of resource-constrained context, parents may seek out calorie rich but nutrient poor foods, which may quickly satiate hunger but are not the healthiest option for young children and may contribute to weight gain.[58]

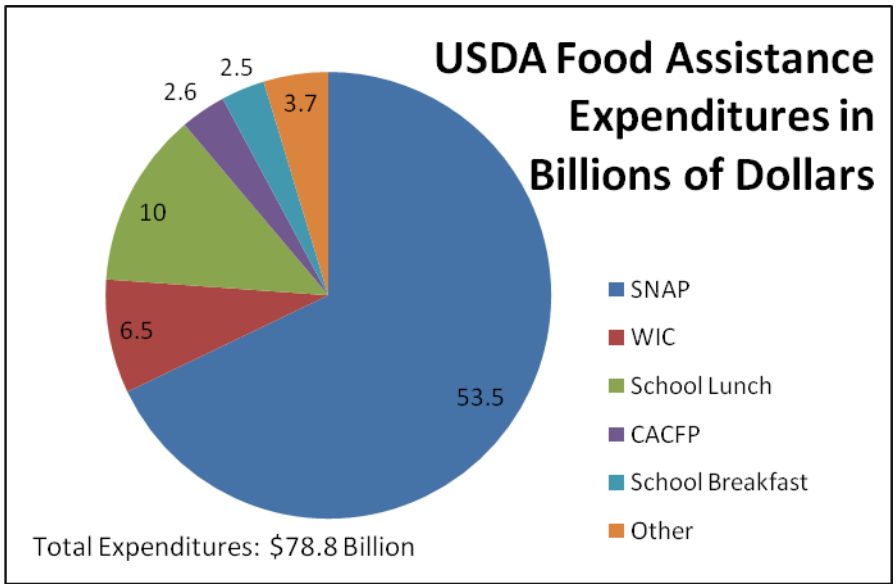
Geographic factors may impede food security for certain communities. Inadequate transportation is a frequently-cited barrier to accessing food, nutrition assistance programs, and other social and wellness services.[59] Low income people are six to seven times less likely to own a car than people with higher incomes.[60] Low income, transit-dependent parents of young children struggle to utilize the existing transit landscape to meet their needs.[61] Inadequate public transportation can put healthy food out of families' reach. Families who do not own a car must rely on a patchwork of other modes to get to and from work, school, home, the grocery store, and other essential destinations. The use of alternatives to public transportation such as taxis or hacks (unregistered, informal taxis) may be prohibitively expensive for low income people and/or dangerous for some individuals. Transportation inadequacies can create or exacerbate disparities in much the same way as resource constraints.

Food Assistance Landscape

The U.S. government has maintained an active role in providing food and nutrition assistance to its citizens and residents for many decades. Today, the USDA's Food and Nutrition Service is responsible for administering the fifteen federal nutrition assistance programs with a budget of $78.8 billion[62]. Five programs make up the majority of the budget: the Supplemental Nutrition Program for Women, Infants and Children (WIC); Supplemental Nutrition Assistance Program (SNAP), Child and Adult Care Food Program (CACFP); School Lunch; and School Breakfast (see Table 3).

[53] Vallianatos, et. al. 2002
[54] Thayer, et. al. 2008
[55] FRAC, 2009
[56] Schoonover & Muller, 2006
[57] US Department of Health and Human Services, 2009
[58] Thayer, et. al. 2008
[59] Black, et. al. 2008
[60] Vallianatos, et. al., 2002
[61] ibid
[62] USDA, 2010

Table 3. USDA Food Assistance Expenditures in Billions of Dollars[63]
Data from the Food Assistance Landscape FY 2009 Annual Report, USDA



Programs are managed at the state level where participation rates, eligibility requirements, and effectiveness can vary. These programs reach millions of U.S. families and children of all ages. The relationship between food insecurity and program utilization is complex because families who are needier tend to utilize programs at higher rates.[64] Program data can therefore seem to suggest that participating in a program results in *increased* rates of food insecurity, when in reality participating families are simply those at highest risk. Three programs that have a particular impact on families with young children will be explored next.

Supplemental Nutrition Assistance Program (SNAP)

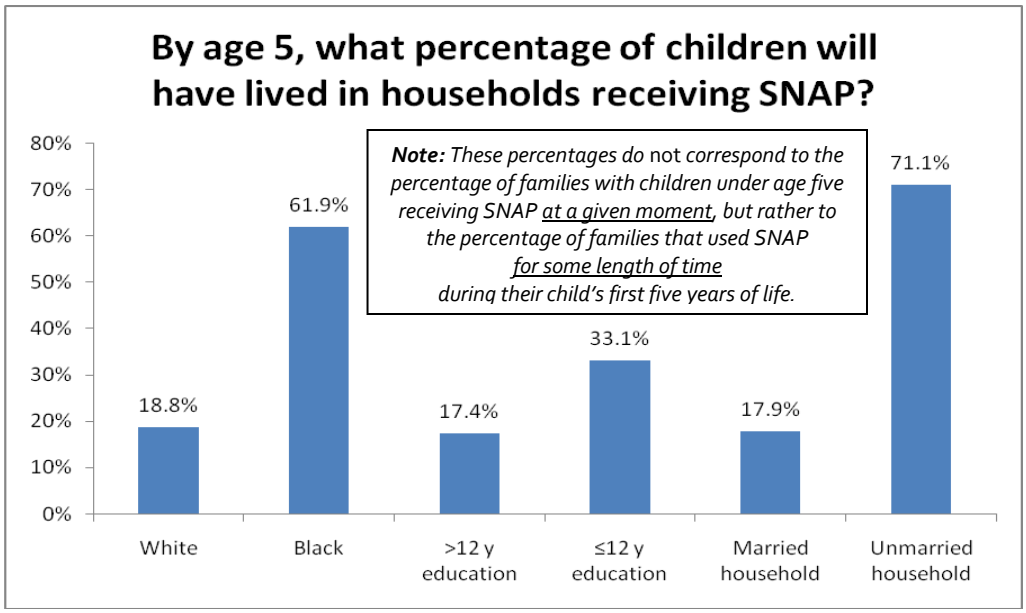
SNAP, formerly known as the Food Stamp Program, is a federally-funded, state-run nutrition assistance program, which served 27 million people nation-wide in an average month in 2008[65]. SNAP benefits can be used to buy any foods that can be eaten at home, including baby food, non-alcoholic beverages, and plants to grow food for family consumption. Recipients receive an Electronic Benefits Transfer (EBT) card which stores their monthly allotment and can be used like a debit card to make food purchases. SNAP benefits are calculated by family size and income and using the USDA's Thrifty Food Plans. These food plans are national guidelines for how much families can expect to spend weekly and monthly on food. The plans are put together considering price, food consumption, and dietary recommendations. The "Thrifty Food Plan" is roughly $126.73 per person per month. [66] However, the average monthly SNAP benefit for someone living in Baltimore City is $104.[67] A Children's HealthWatch

[63] USDA, 2010
[64] Nord, et. al. 2010
[65] Leftin, 2010
[66] USDA, 2009, Available at: http://www.cnpp.usda.gov/Publications/FoodPlans/2010/CostofFoodNov10.pdf
[67] USDA Food Atlas, 2010

report entitled "The Real Cost of a Healthy Diet" found that monthly benefits were insufficient to cover the cost of a Thrifty Food Plan, partly due to rising food costs.[68]

Nationwide, 67% of eligible individuals participate in SNAP.[69] People living below the poverty line and families with children under age 18 have participation rates of 82% or higher[70]. This shows that certain populations are more likely to utilize this service. Participation in Maryland hovers around 60%.[71] Almost 30% of all Maryland SNAP recipients live in Baltimore City, although the city makes up only 11% of the state population.[72] Improving participation among eligible families is an important way to use the existing food assistance landscape to improve food security. Stigma has been a barrier for some families in utilizing SNAP.[73] However, many Americans rely on SNAP at one time or another. Notably, by 20 years of age, 49.2% of U.S. children will have lived in a household that received SNAP for some length of time[74]. Furthermore, 19% of children will have lived in families that used SNAP for three or more years of their childhood.[75] Families are utilizing the SNAP program but may be in greater need of comprehensive services to mitigate the impact of poverty and food insecurity.

There are disparities in the usage of food stamps. Black families, families with parents that have fewer than 12 years of education, and unmarried households are more likely to rely on food stamps for some time during the child's life than white families, those with higher levels of education, and married households.[76] These disparities emerge early on. By age five, experiences with food assistance programs vary by race, parental education level and marital status. Graph 4 illustrates the rates of SNAP utilization among families with young children.



Graph 4. SNAP Participation in Households with Children under Five[77]

[68] Thayer, et. al. 2008
[69] Leftin, 2010
[70] ibid
[71] USDA Food Atlas, 2010
[72] MD Hunger Solutions, 2010; American Community Survey, 2009
[73] Black, et. al. 2008
[74] Rank & Hirschl, 2009
[75] ibid
[76] ibid
[77] ibid

These disparities point to broader social inequities that contribute negatively to the health and development of children across the U.S. SNAP utilization in and of itself is not a problem – in fact, increasing SNAP participation is a goal of many social service organizations nation-wide. A majority (87.1%) of eligible households with children zero to four years old participate in SNAP[78]. This suggests that many families with infants and toddlers who are eligible for the program are receiving the supplemental nutrition it is designed to provide. However one out of every ten children in this young and highly vulnerable group is still not receiving the benefit that family participation might provide.

Supplemental Nutrition for Women, Infants, and Children (WIC)

WIC is a national program targeting low income (below 185% of the poverty level) pregnant and postpartum women and children ages zero to five years with nutritional risk. The program provides participants with monthly vouchers for specific nutritious food items which can be redeemed at WIC-certified stores.[79] Additionally, participants receive nutrition information and counseling, support for breastfeeding, and referrals to additional services if needed. WIC began in 1974 with 88,000 participants and has grown to provide nutritional assistance to over nine million women, infants and children nation-wide.[80]

Table 4. Characteristics of WIC Participants Nationally (2009)[81]

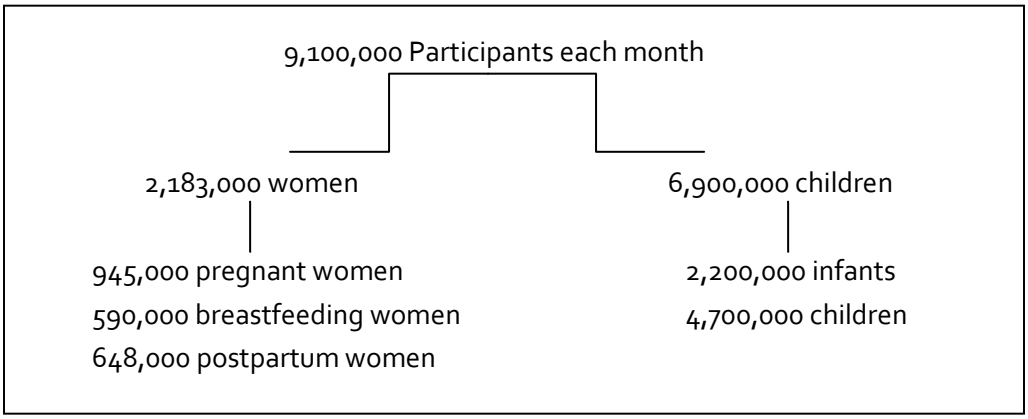
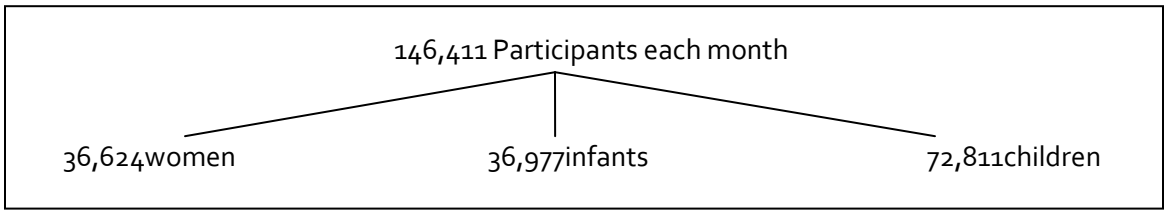


Table 5. Characteristics of WIC Participants in Maryland (2009)[82]



[78] Leftin, 2010
[79] The most up to date copy of the Maryland WIC Foods brochure (Jan 2011) is available at: http://fha.maryland.gov/pdf/wic/2011_FoodsList-Eng.pdf
[80] Jeng, et. al. 2009
[81] Data from National WIC Association, 2009, Available at: http://www.nwica.org/?q=advocacy/6
[82] FRAC, 2009

Children's HealthWatch research demonstrates WIC's effectiveness at improving the health and development of young at-risk children. Children ages zero to three years who receive WIC are more likely to be in excellent or good health, be food secure, and be at a healthy height and weight than eligible children who do not receive WIC due to a lack of access.[83] WIC is also successful at increasing rates of breastfeeding and reducing rates of anemia and low birth weight.[84] For women who experienced severe forms of food insecurity prenatally, entering the WIC program in the first or second trimester of pregnancy was associated with a significant reduction in food insecurity in the postpartum period.[85] Among children in food insecure households, more WIC visits were associated with lower risk of food insecurity at the final visit.[86] WIC is a sound investment in its target population.

Child and Adult Care Food Program (CACFP)

CACFP is another federal program that provides reimbursement to child care providers for eligible meals they serve to children at day care facilities. The program currently covers meals for almost three million low income children, although many parents may not be aware that their children are participating.[87] Children at family home day cares, Head Start, and other center-based programs can all benefit from the funds. CHILDREN'S HEALTHWATCH compared two groups of children ages 13 to 36 months enrolled in subsidized child care programs: those receiving meals through CACFP and those eating meals from home. They found that the CACFP group was 28% less likely to be in fair/poor health and 26% less likely to have been hospitalized.[88] This demonstrates that CACFP increases the ability of care providers and parents to meet the nutritional needs of young children. However, more research is needed to understand the relationship between CACFP and food insecurity.

[83] Jeng, et. al. 2009
[84] ibid
[85] Metallinos-Katsaras, et. al. 2010
[86] ibid
[87] Gayman, et. al. 2010
[88] ibid

Chapter Four: Issues in Baltimore, Maryland

Poverty

Like many U.S. cities, Baltimore has long-standing struggles with poverty and racial injustice. One in five Baltimore residents lives in poverty, and nearly a quarter of Baltimore's children ages zero to five years are in poverty.[89] Rates are even higher among certain groups: 40.5% of families with children ages zero to five years and headed by a single mother are in poverty.[90] There are also disparities between Baltimore City and the rest of the state of Maryland. Baltimore experiences much higher rates of poverty and food insecurity than other parts of the state. Rates of child poverty in Baltimore are over twice as high than the overall Maryland rate (28.4% vs. 11.6%).[91][92] The state of Maryland has comparatively low levels of poverty: in 2008, Maryland had the lowest poverty rate of all U.S. states.[93] The challenges facing low income families may therefore be less visible or seem less serious due to the overall wealth of the state as a whole.

Prevalence of Food Insecurity

There is currently no long-standing systematic assessment of food security at the city level, although the 2009 Baltimore City Community Health Survey included questions about food access and will continue to do so. Rates of food insecurity are estimated to be higher in Baltimore than the rest of Maryland: 13.5% of a sample of low income Baltimore families with infants and toddlers were food insecure[94], compared with 9.6% of people statewide.[95] The 2009 BCHD Community Health Survey found an even higher rate of food insecurity among a sample of adults: 23% reported having concerns about having enough food in the past 30 days.[96] Baltimore residents rely on different federal and local programs to make ends meet. Over a third of Baltimore children (35.4%) live in households receiving SNAP (formerly food stamps) or cash assistance (welfare).[97] Overall, 25.4% of Baltimore residents are

[89] USDA Food Atlas, 2010
[90] American Community Survey, 2009
[91] USDA Food Atlas, 2010
[92] FRAC, 2009
[93] FRAC, 2008
[94] Black, et. al. 2008
[95] FRAC, 2008
[96] BCHD, 2009
[97] American Community Survey, 2005-2009

enrolled in SNAP.[98] Considering income alone, over 44% of Baltimore children are living in SNAP-eligible households (however, some households may be ineligible due to assets that exceed the SNAP guidelines).[99] WIC serves over 28,000 women and children in Baltimore City.[100] Participation in federal nutrition assistance programs may reduce some of the stresses of food insecurity and other hardships but may not be enough to compensate for living in such a challenged food environment.

Latino Immigrants and Citizen Children

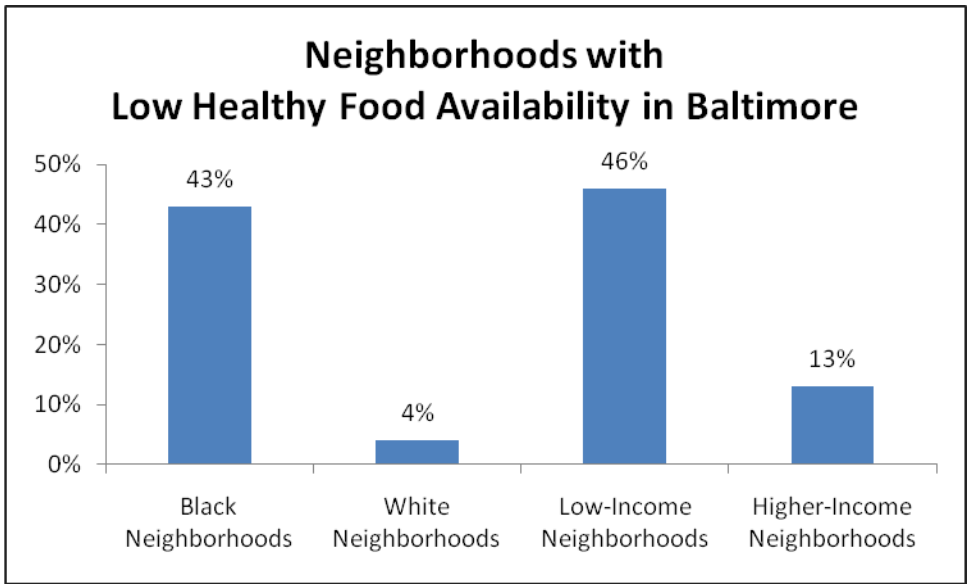
Compared to other nearby major U.S. cities, Baltimore has a relatively small proportion of Latino/Hispanic residents. In 2000, only 1.7% of Baltimore City identified as having Latino or Hispanic origin, compared with 8.8% of Washington, D.C. and 8.5% of Philadelphia.[101] However, the population is growing. Even as the city's population declined during the past decade, the Latino population grew to 3% of the total.[102] Although still small, this population may be at unique risk for food insecurity. Research shows that families with U.S. born children under age three and foreign born Mexican parents experience higher rates of household food insecurity than U.S. born children with non-Latino, non-immigrant parents, even when controlling for family income.[103] This may be partly due to additional access barriers facing noncitizen adults, such as language differences, unawareness of their children's eligibility, and fear of pursuing benefits due to immigration status.[104] Because Latino families are at potentially heightened risk of food insecurity, Baltimore service providers and clinicians should draw from the experiences of other cities to ensure that Latino residents are incorporated into the social fabric of the city and given every opportunity to access social services and public benefits programs.

[98] MD Hunger Solutions, 2009; American Community Survey, 2005-2009, Calculations by author
[99] American Community Survey, 2006-2008
[100] Maryland WIC Program Data, FY 2011 (data from 2010)
[101] U.S. Census Data, 2000
[102] American Community Survey, 2007-2009
[103] Kersey, et. al. 2007
[104] ibid

Baltimore's Food Environment

Baltimore neighborhoods have disparate availability of healthy food based on the racial and income demographics of the neighborhood. Research shows that predominantly black neighborhoods and lower-income neighborhoods had low healthy food availability compared with predominantly white neighborhoods and higher-income neighborhoods.[105] Graph 5 shows the percentage of neighborhoods with low healthy food availability.

Graph 5. Percentage of Baltimore Neighborhoods Rated "Low Healthy Food Availability"[106]



This study highlights the issue of disparate access to healthy food in Baltimore. Neighborhood characteristics such as these may contribute to food insecurity, health disparities, and potentially compound other hardships. Most Baltimore neighborhoods have access to some type of food store, but the quality, healthfulness, and price of the foods may not be at an acceptable level.

Food insecurity can mean that families may rely on calorie-rich, nutrient-poor foods to feed themselves and their children. These foods provide enough and sometimes too many calories, but do not give children the vitamins and minerals needed for a healthy start. Obesity and overweight in young children is a public health concern. Baltimore's adult obesity rate is 32.1% and obesity among low income preschool age children is 12.3%.[107] The poor food environment in areas Baltimore may present barriers to families with young children in accessing enough food for their families as well as in providing a healthy diet, which can contribute to high rates of obesity. Finding and procuring healthy food is a challenge for families of all income levels, but may present a particularly serious burden for lower-income families. For example, there are 334 fast food restaurants in Baltimore city and only 167 stores that accept WIC.[108] Low income families living in some areas may have poor access to healthy food or may pay more in their neighborhoods than they would at larger stores further from home. For

[105] Franco, et. al. 2008
[106] ibid
[107] USDA Food Atlas, 2010
[108] ibid

example, a convenience store in one Baltimore neighborhood had food prices 20% higher than a grocery store a mile away.[109] For families without a car, a distance of a mile (or even less) can present a major access barrier. Given high prices and limited selection from corner or convenience stores, families may opt for less nutritious options.

A 2006 study of food stores in Southwest Baltimore showed that many stores simply do not carry healthy food products, making it extremely challenging for community members to find healthy foods locally. Within the sample, 74% of stores carried either no milk or only whole and 2% milk. Over three-quarters of stores carried no fruits and vegetables.[110] Only 24% of surveyed stores had whole wheat bread. The study also consisted of interviews with Southwest Baltimore residents, which yielded important information about community usage of benefits programs, experiences with diet-related health problems, and barriers to food security. The sample of 96 residents indicated that 35% received SNAP and 32% received WIC, but over half said they were often or sometimes unable to purchase healthy food because they had run out of money or public assistance.[111] Although residents' eligibility is unknown, this mismatch suggests a need for increased outreach about programs and services. The following section discusses qualitative research conducted which provides more details about the experiences of low income families in Baltimore.

[109] Franco, et. al. 2007
[110] Palmer, et. al. 2006, Available at: http://www.jhsph.edu/bin/o/u/OROSWreport2009-1-1.pdf
[111] ibid

Chapter Five: Supplemental Qualitative Research

This section summarizes findings from qualitative research completed between September 2010 and January 2011, in Baltimore. This primary qualitative research is designed to supplement a broader, academic understanding of food insecurity with firsthand accounts of the problem, as it manifests in Baltimore. The interview data come from two primary sources:

- Professionals: Interviews conducted in person and over the phone with service providers, agency representatives, and other professionals working on issues related to hunger and poverty in Baltimore
- Community Members: Interviews conducted over the phone with people experiencing poverty and/or food insecurity in Baltimore

The interviews with professionals were designed to learn about social, economic, and political barriers to food security for families with infants and toddlers in Baltimore, as well as to identify existing resources and services that can address those barriers. The interviews with community members were designed to supplement this information about barriers to food security and to learn about public opinion of two benefits programs: Supplemental Nutrition Program for Women, Infants and Children (WIC) and the Supplemental Nutrition Assistance Program (SNAP)[112]. Both the professionals (many of whom provide social services or programs to people in Baltimore) and community members (who often utilize those services) are intimately familiar with conditions of food insecurity, poverty, and other hardships. This makes the inclusion of both perspectives beneficial to a comprehensive understanding of food insecurity in Baltimore.

Qualitative research is an important tool for assessing food insecurity in communities because it allows individuals to share personal observations, experiences, and knowledge in a way that encourages ownership of and investment in the research process. Qualitative methods give community members an opportunity to speak as experts about food insecurity and to participate more directly in the policy formation process. Service providers, clinicians, academics and other individuals working with governmental and private non-profit groups can provide insight into existing services and a broader view of community challenges. Any errors in reporting are the sole responsibility of the author, not the organizations described.

Interviews with Professionals

The information shared here comes from interviews with professionals from diverse educational and work backgrounds. During each interview, professionals were asked to comment on what they perceived to be the major barriers to food security for Baltimore families with children and any resources available to address these barriers. They were also asked to describe the services offered by their organization (if applicable) and identify any key obstacles to delivering those services. In many cases, the interviewers shared the two item food insecurity screen for potential use with clients (if relevant to the work being done at the organization). (See Appendix D for the two item screen in both Spanish and English.)The results of these conversations are summarized here into four main reoccurring themes.

[112] SNAP is known in Maryland as the Maryland Food Supplement Program (FSP)

Barriers to Food Security for Baltimore City Families

- Lack of Access
- Lack of Awareness
- Poverty-Related Issues
- Programmatic Limitations

This list is certainly not exhaustive, but these themes emerged in multiple interviews. For more detailed information about the organizations themselves and the services available, see Appendix B: Guide to Existing Resources.

Lack of Access

Professionals shared that many of their clients struggle to access services to improve their food security status. Physical access to nutrition assistance program offices, family support centers, health care facilities, and other locations for accessing services may be greatly hindered by inadequate transportation. Low income families without reliable access to a car face particular challenges in navigating the urban landscape due to insufficiencies in Baltimore's transit system. Transit dependency inhibits not only a family's ability to get to and from grocery stores, but also creates added difficulty in getting to and from appointments at WIC clinics or appointments to apply for or recertify with other public benefits programs.

Furthermore, characteristics of the neighborhoods families are living in are not conducive to food security. Professionals noted that some families live far from larger grocery stores and that the walkability of some neighborhoods is minimal. Meanwhile, unhealthy food is frequently more accessible to families than healthy food. One professional noted that children are frequently exposed to fast food and other calorie-rich, nutrient-poor food from stores close to their homes or schools. Professionals in school settings mentioned that youth often show up in the morning with a bag of chips and soda for breakfast because those items were easily available, affordable, familiar, and desirable. Healthy, nutritious food was out of reach for some students at lunch as well: school cafeteria food was sometimes described negatively with regard to quality and nutritional value. Early childhood service providers noted that few babies are breastfed for the desired length of time (exclusively for six months and continued to a year with supplemental foods) and that sugary juices and other drinks are introduced early.

Lack of Awareness

Another barrier that professionals identified was the lack of awareness many clients had about services they might qualify for. Because eligibility guidelines vary dramatically for different programs, clients may be unclear which programs they qualify for. For example, the income eligibility for SNAP is households below 130% of the poverty level, while WIC is available for families below 185% of the poverty level. Furthermore, because these calculations are based on family size and include different restrictions on family assets, individuals may find these percentages difficult to use in a meaningful way, since calculation is required. While WIC and SNAP tend to be well-utilized among eligible families with young children, there are still Baltimore families who qualify for but do not receive these and other benefits.

Poverty-Related Issues

Many of the professionals we spoke with recognized the intersectional and overlapping nature of many poverty-related issues that might affect a family's experience with food insecurity. Other issues that professionals worried about their clients encountering included unstable housing, lack of health care, substance abuse and mental health problems, unemployment or underemployment, and difficulty affording energy bills. Any of these issues might exist concurrently with food insecurity reinforcing a family's poverty status. At some of the organizations we visited, hunger and food access were not the primary focus of the services offered. In some of these cases, the professionals focused on a different issue and addressed food insecurity on a secondary basis. For example, for professionals at organizations focusing on homelessness, housing is considered the major underlying issue preventing a family from being food secure. Some of the professionals seemed overwhelmed by the numerous hurdles their clients faced in making ends meet and providing for their children. The diversity of issues clients face is a testament to the complexity of ending poverty.

Programmatic Limitations

Some professionals expressed frustrations about limitations inherent to their work due to constraints on funding and staffing, concerns about the sustainability of programs, and difficulties in building community trust. Finding adequate funds for programs and staffing is a major problem for many social services and non-profits trying to meet the needs of communities. Several of the non-profit organizations relied heavily on the work of volunteers and expressed that in fact there were plenty of ready and willing volunteers to assist with the work. However, others expressed great concern about the funding of their programs and ability to staff them adequately.

Several professionals expressed concerns about the ability of programs and services to make long-term sustainable change for families. Because programs must gain and build the trust of community members, short term or poorly funded initiatives may be unable to make long-lasting, effective changes. More than one interviewee mentioned the presence of community mistrust and fear toward researchers and city officials. Some members of the community have negative past experiences with researchers or service providers, which may have tainted their view of the potential positive outcomes of community-based intervention. This problem, while certainly not unique to Baltimore, suggests that researchers must strive to build reciprocal, meaningful relationships with community members to have any chance at successfully intervening on the conditions which create and reinforce poverty.

Interviews with Community Members

Phone interviews were conducted with community members to better understand families' experiences with food insecurity and other hardships in Baltimore City. Names were selected randomly

from a list of former study participants who had agreed to be contacted for follow-up after completing an interview with the Children's HealthWatch study at the University of Maryland in the past year. A total of 39 calls were made to the list and 12 interviews were completed. The other 27 numbers were either out of service/disconnected numbers or declined to participate. The 12 participants gave verbal consent and were told that their names and other identifying information would be kept confidential. No statistical analyses were conducted on these data, but the information provided through the interviews provides a snapshot of issues related to food insecurity that families in Baltimore encounter.

All participants had at least one child under the age of three, although their children's ages ranged from birth to adolescence. Participants had an average of 2.4 children, but five of the 12 participants had only one child. Only one of the twelve participants was a father; the rest were mothers. All but one of the families was receiving WIC at the time of the interview. The two item food insecurity screen[113] identified half of the participants as food insecure or at risk for food insecurity. (see Appendix D for two item screen.) Overall, participants expressed satisfaction with and gratitude for the benefits they were currently receiving.

When asked to evaluate their experience using either WIC or SNAP, participants shared both positive and negative aspects of the programs. Five participants mentioned their dissatisfaction with the changes in the WIC food choices. Complaints included: less cheese, not being able to get whole or 2% milk for children over a certain age, a limited cereal selection, and less variety of juice. Several participants did note that they were happy to be able to use WIC to buy fruits and vegetables now. The interviews were conducted in December 2010 and therefore did not evaluate the newest updates to the food package which include such additions as tofu and soy milk.[114] One interviewee expressed that his children were on special diets that made utilizing WIC cumbersome. He shared that he feels SNAP is a more useful program for his family because it allows him to make choices about what food to buy for his children.

Five participants expressed that the benefits provided by WIC and SNAP were not adequate in helping them make ends meet in a given month. Several found it hard to stretch the checks for the whole month. Another mother expressed annoyance that her SNAP benefits had still not increased to reflect the birth of her baby although five months had passed. Participants reported mixed experiences with the application processes for WIC and SNAP. Several mentioned that the applications for these programs had been easy, while others were frustrated by the length of time the application took before they received benefits and the amount of information they needed to provide to qualify. None had utilized the online Maryland SAIL application to apply for SNAP, possibly due to a lack of internet access in the home or a lack of awareness. One participant was frustrated with the recertification process and mentioned that there was a lag time in benefits if he did not recertify on time, which then created additional hardship. One interviewee mentioned that she was not able to find all of the foods at WIC-certified stores which she found frustrating because she would need to make multiple stops to find all the items. This suggests that Baltimore's WIC certified food vendors may need more careful oversight and outreach to best serve customers using WIC vouchers.

[113] Hager et. al. 2010

[114] The latest version (Jan 2011) of the Maryland WIC Authorized Foods List is available at: http://fha.maryland.gov/pdf/wic/2011_FoodsList-Eng.pdf

Three-quarters of participants relied on the bus as their primary mode of transportation and several mentioned difficulties getting to and from appointments as a concern. The one participant not receiving WIC at the time of the interview explained that she had missed her appointment to recertify and planned to reschedule. She suggested that WIC provide transportation to its clients because her experience had been that inadequate transit had been a barrier. Overall, participants used a patchwork of different modes of transportation to get to and from appointments: several were able to walk, two mentioned sometimes being able to get rides from a family member, and one relied on taxis as her sole means of transportation. Only one participant had access to a car that she owned.

In general, interview participants shared diverse perspectives on the food security barriers they face and their experiences using programs like WIC and SNAP. Nevertheless, the information they shared provides a descriptive look at the state of food access and insecurity in Baltimore. These interviews lend credence to the observations of professionals and bolster the recommendations included in the following section.

Chapter Six: Policy Recommendations

Professionals from diverse fields seek to address barriers to food access and food security for families. This section will incorporate recommendations from numerous sources that focus on addressing barriers to access, improving outreach about social service and food assistance programs, and using existing programs to effectively target at-risk groups.

Addressing Access Barriers

Inadequate transportation is a barrier to applying for programs like WIC and SNAP, which require visits to an office to apply and remain enrolled. Neighborhoods known to have a high percentage of transit dependent people would be ideal sites to explore this issue in greater depth. By conducting surveys and focus groups with low income families without cars, researchers could find out what forms of transportation are most desirable and then work with officials at the city level to address gaps. For example, surveys could determine which local routes people rely on most to get to and from social service appointments or food stores. This information would help the city know which routes might be in need of more frequent service or off-peak service. As discussed earlier, commuter-oriented routes may not serve the needs of families with young children with limited resources.

Several community members suggested during interviews that programs like WIC should provide transportation to appointments. This could give families without access to a car a simpler method of traveling to and from the office to apply and recertify for benefit programs. While this may not be a feasible option for programs on already strained budgets, it is a topic worth of discussion.

Targeted marketing is a way to improve awareness of programs. There are already advertisements on Baltimore buses asking riders "Have you heard of the new WIC foods?" These signs help raise awareness about the program in general, but could be improved if they included more specific information about the next steps families should take in applying. Furthermore, SNAP and other benefits programs could advertise on the bus as well. Posting eligibility guidelines in public places like the bus, libraries, doctors' offices, and schools could also increase parents' awareness of and comfort level asking questions about benefits programs. Publicly displaying this information could help reduce stigma as well. For example, people may be unaware how many of their fellow city residents are using these programs. The sample ad below is an example of one way to raise awareness both of how many other people use these programs, but also provide information for eligible families in how to apply.

Did you know that **1** in **4** Baltimore City residents and **43 million Americans** rely on food stamps (FSP) to help pay for food for their families?

Food Stamps Help Families Be Strong!

If you qualify, FSP can help you and your family get enough food to eat. Check your eligibility for FSP and other programs online at https://www.marylandsail.org/Screening/Default.aspx or visit a local office to find out if you're eligible or call 443-378-4600 for more information.

Outreach Strategies

Outreach can improve access through several approaches. These strategies can help increase awareness of eligibility for programs and application procedures. Streamlining the application process for benefits can increase participation. Placing benefits and outreach specialists in easily accessible locations can help with this effort to raise awareness and comfort level of potential participants.

- Outreach specialists at pediatric clinics and emergency departments can distribute materials about WIC, SNAP or other programs, ask people if they have any questions about programs, and pre-screen for eligibility.
- An outreach specialist at the library could utilize the computers there to assist with online Maryland SAIL applications for SNAP or cash assistance, pre-screen for eligibility, answer questions about the programs.
- Outreach specialists at Farmer's Markets could advertise for SNAP and WIC usage at Baltimore Farmer's Markets. If families are not already enrolled, the specialist can provide information and referrals.
- Food pantries at faith-based organizations may only open one day a week: during this limited time frame, a vulnerable population comes in for food assistance. Having a benefits specialist on hand during those hours could awareness of programs. Collaborating with faith-based groups has the potential to build community connections and reach traditionally-underserved populations
- Many programs have limited office hours or are only open during conventional business hours, which can make it hard for working families to apply or recertify. Some programs have introduced weekend or evening hours may help families with limited availability make their appointments.

- Monthly WIC clinics are already held at non-profits, Head Start centers, family support centers, and organizations like the YMCA. These outreach clinics help families access the program by bringing it to locations they already frequent and are therefore more comfortable in. They might also be closer to home or easier to travel to. Expanding these outreach clinics to include other benefits such as SNAP could improve participation in other programs.

Research about young children and food insecurity demonstrates that family hardships have profound effects on these children at a very vulnerable time. Improving access to food and better nutrition therefore should not be viewed as the only strategy to combat food insecurity in this population. Improving other programs may benefit young children living in poverty.

Using Existing Programs to Target Infants and Toddlers

Utilizing existing programs to target populations at heightened risk of food insecurity is one way to improve food security. Programs that already work with at-risk families with young children can serve as entry points to the target group.

Head Start and Early Head Start:

Early Head Start (for children ages zero to three years) and Head Start (for children three and four years) are early childhood education programs that reach over a million U.S. children[115]and is well-situated to intervene when families experience food insecurity. A study of 1,500 Head Start centers designed to assess childhood obesity initiatives showed that 80% of Head Start centers offer workshops or events that teach parents about how to prepare healthy foods and 64% offer workshops or events that teach parents how to shop for healthy foods.[116] Notably, this study did *not* focus on food insecurity or family's experiences with poverty or economic stress. However, this information suggests that Head Start staff is already in position to work with families on issues of food insecurity because they are already familiar with issues related to food and nutrition. Head Start staff is poised to expose families to other programs for which they may qualify. Having a benefits specialist on hand could help facilitate conversations about programs and increase parents' awareness of their own potential eligibility for other services. Many Head Start/Early Head Start Centers already have staff that make referrals and help connect families with services. Other day care facilities could conduct this type of outreach as well.

Child and Adult Care Food Program:

CACFP is a program that allow family day care providers to be reimbursed for meals served to eligible children up through age 12 in their care.[117] CACFP in Baltimore seeks to accomplish several goals: to improve child health and nutrition, promote healthy eating habits, and provide professional assistance to providers. Day care providers work with the Baltimore City Health Department to apply

[115] Gooze, et. al. 2010
[116] ibid
[117] Children ages 13-18 with a documented disability are also eligible. CACFP also provides reimbursement for meals served in adult day care settings for older adults.

for meal reimbursement. A manual is available online[118] which provides information for day care providers on program logistics. Guidelines include:

- Providers can be reimbursed for up to two meals and one snack or two snacks and one meal per eligible child served
- Reimbursement ranges from $.16 for a snack to $1.96 for a meal
- Participating providers must submit paperwork to receive reimbursement:
  - menus for two weeks worth of meals that conform to USDA standards
  - daily attendance information
  - records of children eating meals at the facility, even if they are not eligible
- Day care sites are visited three times annually, including two unannounced visits to ensure compliance.

These procedures help to ensure that the program is administered consistently and that children are receiving appropriate nutrition for their age. However, these requirements may also hinder day care providers from applying for and utilizing the funding available. Day care providers and city workers should strive for collaboration in order to promote participation in the program. This effort will help to ensure maximum benefit to eligible low income infants and toddlers and their families.

Medicaid:

In Maryland, children ages zero to five years living at 300% of the poverty level or below (a family of four with a yearly household income of $67,050 or below[119]) qualify for Medicaid[120], a public health insurance program funded at the state and federal level. This program is well situated to target children at risk of both food insecurity and developmental risk factors. Medicaid pays for 34% of births in the state of Maryland.[121] Therefore hospital labor and delivery units may be ideal settings for disseminating information about food assistance programs. Some hospitals already have staff trained in WIC certification. This could be expanded to have a benefits specialist on hand responsible for conducting screenings for food insecurity and referring new mothers to appropriate programs and services. Medicaid, like other programs, is not used by all eligible children. Furthermore, not all enrolled children see their care providers regularly, which can diminish the effectiveness of the program. Research has also indicated that not all providers conduct developmental risk screenings.[122] Professionals should seek to improve Medicaid participation among young children and to develop links between it and other programs.

Maryland Energy Assistance Program (MEAP):

MEAP is a program that provides financial assistance to low income people struggling to afford utility costs. Several professionals referred to this program, but noted that funding was often quite limited and could run out in the course of a season. As discussed, energy insecurity is associated with negative health outcomes for very young children. Policymakers should strive to improve energy

[118] BCHD Practices, Procedures, Guidelines Manual, available at: http://www.baltimorehealth.org/info/Child&AdultFoodCareProgram.pdf
[119] U.S. Department of Health and Human Services, 2011, available at: http://aspe.hhs.gov/poverty/11poverty.shtml
[120] Kenney & Pelletier, 2010
[121] Kaiser Family Foundation, 2007
[122] Kenney & Pelletier, 2010

assistance programs, for example by streamlining these programs with other assistance programs that families depend on and by educating primary care providers and pediatric emergency department providers on how to refer families to energy assistance programs. Like other programs described above, MEAP is already working with a population at high risk for food insecurity.

Closing Remarks

Baltimore faces complex challenges in addressing its food insecurity problems and other issues related to widespread poverty. Policy changes must therefore address the complex causes and consequences of poverty and food insecurity in order to improve on the current situation. This will require a broad-based approach to change and will need to incorporate diverse perspectives and strategies. This report has discussed numerous issues related to food insecurity among a high-risk population and has identified possible areas for improvement. By reviewing academic research and incorporating this wide body of knowledge with the observations of professionals and community members, this report advances current understandings of barriers to access and initiatives for change in Baltimore. Across the city, there are non-profits, government agencies, service providers, and researchers focusing their energy on understanding and eliminating food insecurity and broader issues of poverty. The strategies already in place are a testament to a broader commitment to these issues. Ultimately, reducing and eliminating food insecurity and other poverty-related issues will require streamlined collaboration in research, intervention, program evaluation, and locating funding sources. Through changes and improvements to policies at the local, state, and national level, diverse stakeholders can push for community food security. This is an important and worthy goal with profound implications for the health and well-being of some of the most vulnerable members of our society.

Acknowledgements

My time living in Baltimore and working at the Growth and Nutrition Division at the University of Maryland School of Medicine has given me an opportunity to delve into the complicated issues of food access, health disparities, racial injustice, and poverty that affect this city in such profound ways. I feel that I have only begun to scratch the surface and hope that these issues remain a top priority for the policymakers, service providers, researchers, and other community members already hard at work on making change. I'd like to thank all the people who were willing to take the time in person and over the phone to do interviews – your perspectives and knowledge greatly enhanced this report, as well as my time here in Baltimore. I would like to thank my supervisor, Dr. Anna Quigg, for her guidance, keen eye and thoughtful editing, and support throughout my time here. I would also like to thank Dr. Maureen Black for her contributions and oversight and for providing opportunities to attend meetings and events that otherwise might have been out of reach. Thank you to the rest of the Growth and Nutrition Division, particularly the Children's HealthWatch staff who welcomed me into the fold. Thank you also to Genevieve Birkby at the Baltimore City Health Department and Dr. Madeleine Shea for their collaborations and support. Thank you to the Congressional Hunger Center staff for making this Fellowship experience possible for me and special thanks to Nico Quintana who provided editing and logistical and emotional support throughout. Finally, a special thank you and note of recognition to my field site partner PaHua Cha: a dedicated, conscientious person I am lucky to know as a roommate, work colleague, bus companion, and friend. Last but not least, thank you to my parents, brother, and dear friends both near and far for unwavering support and love throughout this first post-graduate adventure. Your visits, phone calls, emails, and postcards over the past five months meant the world to me.

Thank you!

References:

American Community Survey. (2009) Data Sets 2005-2009. Accessed January 2011.

Andersen, S.A. ed. (1990) "Core Indicators of Nutritional State for Difficult to Sample Populations," *The Journal of Nutrition* 120:1557S-1600S.

Baltimore City Health Department. (2009) "Baltimore City Community Health Survey: Summary Results Report." Office of Epidemiology and Planning. March 2010. Available at: http://www.baltimorehealth.org/info/2010_03_26_CHS_Summary_Results_Report.pdf

Bartfeld, Judi et. al. (2006) "What Factors Account for State-to-State Differences in Food Security?" USDA. Economic Information Bulletin No. 20.

Bickel, et. al.(2000) "Guide to Measuring Household Food Security." http://www.fns.usda.gov/fsec/files/fsguide.pdf

Black, Maureen, et. al. (2008) "Food Security: Ensuring the Health of Baltimore's Babies." University of Maryland School of Medicine. Policy Action Brief.

Borders, A, et. al. (2007). "Chronic Stress and Low Birth Weight Neonates in a Low-Income Population of Women." Obstetrics & Gynecology. 109: 331-338.

Casey, Patrick, et. al. (2005) "Child Health-Related Quality of Life and Household Food Insecurity." Archives of Pediatrics and Adolescent Medicine.159: 51-56.

Casey, Patrick, et. al. (2001) "Children in Food-Insufficient, Low-Income Families: Prevalence, Health, and Nutrition Status." Archives of Pediatrics and Adolescent Medicine. 155; 508-514.

Casey, Patrick, et. al. (2004) "Maternal Depression, Changing Public Assistance, Food Security, and Child Health Status." Pediatrics. 113; 298-304.

Chilton, M. & Rose, D. (2009). "A rights-based approach to food insecurity in the United States." American Journal of Public Health. 99 (7): 1203-11.

Cook, John, et. al. (2008) "A Brief Indicator of Household Energy Security: Associations with Food Security, Child Health, and Child Development in US Infants and Toddlers." Pediatrics. Vol. 122. No. 4. 867-875.

Cook, John and Karen Jeng. (2009). "Child Food Insecurity: The Economic Impact on our Nation." Feeding America. Available at: http://feedingamerica.org/SiteFiles/child-economy-study.pdf

Dubois, L. et. al. (2006). "Family Food Insufficiency is Related to Overweight Among Preschoolers." Journal of Social Science and Medicine. 63: 1503-1516.

Food Research and Action Center. (2008). State of the States Fact Sheet: Maryland. Accessed Jan 2011.

Food Research and Action Center. (2009) FRAC's Analysis of USDA Data on Food Insecurity 2009. Data and Publications. Accessed online Jan 2011.

Frank, Deborah, et. al. (2006) "Heat or Eat: The Low Income Home Energy Assistance Program and Nutritional and Health Risks Among Children Less Than 3 Years of Age." Pediatrics. 118; 1293-1302.

Gayman, Annie, et. al. (2010) "Child Care Feeding Programs Support Young Children's Healthy Development." Children's HealthWatch Policy Action Brief.

Glanz, Karen. (2009) "Measuring Food Environments: A Historical Perspective." American Journal of Preventive Medicine; 36 (4S).

Golan, Elise, et. al. (2010) "Compare Your Area's Food Environment with the Rest of the Country." USDA Economic Research Service. Amber Waves Data Feature. Available at: http://www.ers.usda.gov/AmberWaves/December10/DataFeature/

Gooze, Rachel, et. al. (2010) "Reaching Staff, Parents, and Community Partners to Prevent Childhood Obesity in Head Start, 2008." Preventing Chronic Disease: Public Health Research, Practice, and Policy. Vol. 7. No. 3.

Gottlieb, Robert and Andrew Fisher, et. al. (1996) "Homeward Bound: Food-Related Transportation Strategies for Low Income and Transit Dependent Communities." University of California Transportation Center.

Gunderson, C, et. al. (2009) "Food Insecurity is not Associated with Childhood Obesity as Assessed Using Multiple Measures of Obesity." Journal of Nutrition. 139 (6): 1173-8.

Hager, Erin, et. al. (2010) "Development and Validity of a 2-Item Screen to Identify Families at Risk for Food Insecurity." Pediatrics. 126: 26-32.

Hamm, M. W., & Bellows, A. C. (2003) "Community Food Security: Background and Future Directions." Journal of Nutrition Education and Behavior. 35: 1. 37-43.

Irigoyen, Matilde, et. al. (2008) "Early Onset of Overweight and Obesity among Low-Income 1 to 5 Year Olds in New York City." Journal of Urban Health. 85(4): 545-554.

Kaiser Family Foundation. (2007) "Maryland: State Health Facts." Accessed at http://www.statehealthfacts.org/profileind.jsp?cat=4&rgn=22.

Kenney, Genevieve and Jennifer Pelletier. (2010) "Improving the Lives of Young Children: The Role of Developmental Screenings on Medicaid and CHIP." Urban Institute. Accessed at: http://www.urban.org/UploadedPDF/412275-improving-lives-young-children-1.pdf.

Kersey, Margaret, et. al. (2007) "Hunger in Young Children of Mexican Immigrant Families." Public Health Nutrition. 10(4): 390-395.

Kleinman, Ronald, et. al. (2007) "Use of a Single-Question Screening Tool to Detect Hunger in Families Attending a Neighborhood Health Center." Ambulatory Pediatrics. Vol. 7. Iss. 4. 278-284.

Laraia, Barbara. et. al. (2006) "Psychosocial Factors and Socioeconomic Indicators are Associated with Household Food Insecurity among Pregnant Women." Journal of Nutrition. 136: 177-182.

Larson, Nicole and Mary Story. (2011) "Food Insecurity and Weight Status Among U.S. Children and Families: A Review of the Literature." American Journal of Preventive Medicine. Vol. 40, Issue 2. 166-173.

Leftin, Joshua. (2010) "Trends in Supplemental Nutrition Assistance Program Participation Rates 2001-2008." USDA Food and Nutrition Service. Accessed at: http://www.fns.usda.gov/ora/menu/Published/snap/FILES/Participation/Trends2001-2008.pdf

Merry, Brian, et. al. (2009). "Stable housing and Utilities: Keeping Baltimore's Babies Healthy." Policy Action Brief. Children's HealthWatch.

Metallinos-Katsaras, Elizabeth et. al. (2010) "A Longitudinal Study of WIC Participation on Household Food Insecurity." Maternal and Child Health Journal.

Metallinos-Katsaras, Elizabeth, et. al. (2009) "Food Insecurity is Associated with Overweight in Children Younger than Five Years of Age." Journal of the American Dietetic Association. 109: 1790-1794.

Nelson, Jennifer, et. al. (2004) "Childhood Overweight in a New York City WIC Population." American Journal of Public Health. 94(3): 458-462.

Nord, Mark, et. al. (2010) "Household Food Insecurity in the United States, 2009." USDA. Economic Research Service .Rep No. 108.

Palmer, Anne, et. al. (2009) "Understanding and Addressing Food Insecurity in Southwest Baltimore." Johns Hopkins School of Public Health. Center for a Livable Future. Available at: http://www.jhsph.edu/bin/o/u/OROSWreport2009-1-1.pdf

Radimer, Kathy, et. al. (1990) "Development of Indicators to Assess Hunger." The Journal of Nutrition. Vol. 120, No. 11. 1544-1548.

Radimer, Kathy. (2002) "Measurement of household food security in the USA and other industrialized countries." Public Health Nutrition. 5: 859-864.

Rank, Mark and Thomas Hirschl. (2009) "Estimating the Risk of Food Stamp use and Impoverishment During Childhood." Arhives of Pediatrics and Adolescent medicine. 163(11):994-9.

Schoonover, H. and Muller, M. (2006) "Food Without Thought: How U.S. Farm Policy Contributes to Obesity." Available at http://www.iatp.org/iatp/factsheets.cfm?accountID=258&refID=89968

Shonkoff, Jack and Deborah Phillips, eds. (2000) *From Neurons to Neighborhoods: The Science of Early Childhood Development.* National Academies Press.

Thayer, Julie, et. al. (2008). "Coming Up Short: High food costs outstrip food stamp benefits." The Real Cost of a Health Diet. Children's Sentinel Nutrition Assessment Program.

Vallianatos, Mark, et. al. (2002) "Transportation and Food: The Importance of Access." Urban and Environmental Policy Institute.

USDA. (2010) "The Food Assistance Landscape, FY 2009 Annual Report." Economic Research Service. Economic Information Bulletin No. 6-7.

USDA Factbook, Chapter 2. Available at http://www.usda.gov/factbook/chapter2.pdf

Appendix A: Photo Descriptions

Front page: Vacant homes and corner of mural near the corner of Guildford Ave and E 20th St. About one block from Baltimore City Public Schools administrative building, January 2011

Page 4. BELIEVE mural: located at the corner of N Liberty St. and W Lexington St. near downtown and a few blocks from Lexington Market, January 2011

Page 5. Bench at the corner of E 32nd St and St. Paul St. with slogan "The Greatest City in America: Baltimore"

Page 7. Vacant homes in East Baltimore, January 2011

Page 12. Mural of children holding hands at Wolfe Street Academy in East Baltimore, January 2011

Page 15. Northeast Market parking lot mural, East Baltimore, one block from Johns Hopkins Hospital and School of Public Health, January 2011

Page 20. WIC Mobile, January 2011

Page 21. Broken windows in vacant homes in East Baltimore, January 2011

Page 22. Guilford Ave bridge, January 2011

Page 27. Vacant homes, January 2011

Page 30. Painted Ladies, Charles Village, January 2011

All photos were taken by the author.

Appendix B: Guide to Existing Resources

In an effort to gather more information about barriers to food security in Baltimore, the 2010-2011 Emerson Hunger Fellows conducted interviews with professionals at diverse organizations and institutions throughout the city. This guide shares basic information about the organizations visited between September 2010 and January 2011. This is *not* a comprehensive guide to resources in Baltimore, but represents a diverse sampling of the types of programs and services the community has access to. Service providers, clinicians, and other professionals working with families at risk for or experiencing food insecurity in Baltimore can use this list to provide referrals to programs that can help families make ends meet and minimize hardship. Organizations are grouped into categories for simplicity, but services at the organizations listed may encompass multiple categories. Services are FREE unless otherwise noted. Providers will want to verify the information is current before referring clients.

Families and Children

Maternal and Infant Nursing Program
Bureau of Maternal and Infant Care: Baltimore City Health Department
Address: 620 North Caroline Street, 2nd floor Baltimore, Maryland 21205
Website: www.baltimorehealth.org/maternalandinfant.html
Contact: 410-396-9404
Services offered: Pregnant women and families with infants up to age two receive case management and home visitation services from nurses, social workers, and community health workers that include assistance coordinating medical care, guidance with pregnancy and postpartum concerns, information about parenting and child development, and referrals to other services, including food and nutrition services

Family League of Baltimore City
Address: 2305 N. Charles Street, Suite 200 Baltimore, MD 21218
Website: www.flbcinc.org
Contact: 410- 662-5500
Services offered: FLBC does not provide direct service and instead offers programmatic, financial, and organizational support to organizations working on improving family and child well-being in Baltimore City. FLBC manages contracts with organizations and provides oversight and evaluation at sites such as early childhood development, after-school snack and supper, and family support programs.

Kodem Kol: Kennedy Krieger Institute
Address: 707 North Broadway Baltimore, MD 21205
Website: www.kennedykrieger.org
Contact: 410-298-7000
Services offered: Collaboration between the Kennedy Krieger Institute and Baltimore Infants and Toddlers Program that offers support to Orthodox Jewish families with children ages 0-3; services include culturally-appropriate early intervention for children who may be experiencing developmental delays; Kennedy Krieger has multiple pediatric and adolescent programs targeting diverse at-risk populations in Baltimore

Park Heights Family Support Center
Family & Children's Services of Central Maryland
Address: 4330D Pimlico Road Baltimore, MD 21215
Website: www.fcsmd.org
Contact: 410-578-0244
Services offered: Pregnant women and families with children up to age three with a focus on teenage parents can receive education and training about parenting, child development, health, employment, and computers. Families in the 21215 zip code can receive free meals and transportation.

Environmental Sustainability and Urban Agriculture

Baltimore Office of Sustainability
Address: 417 E Fayette St, 8th Floor
Website: www.baltimoresustainability.org
Contact: 410-396-8360
Services offered: Develops and supports programs that improve city-wide sustainability efforts; targets include pollution and neighborhood cleanliness, transportation, urban agriculture, green jobs, and increased awareness of the importance of these efforts

Baltimore Green Space
Address: 800 Wyman Park Drive, Suite 010 Baltimore, MD 21211
Website: http://baltimoregreenspace.org
Contact: 443-695-7504
Services offered: A non-profit land trust committed to preserving open spaces in Baltimore for use as community gardens, parks, and community-managed open space; services include providing structural, technical, and financial assistance to community organizations that seek to utilize open spaces; creates local opportunities for healthy food and urban agriculture

Eating for the Future: Center for a Livable Future
Johns Hopkins Bloomberg School of Public Health
Address: 615 N Wolfe St. Suite W7010 Baltimore, MD 21205
Website: http://www.jhsph.edu/clf/programs/eating/index.html
Contact: 410-502-7578
Services offered: The Eating for the Future (EFF) program is a CLF initiative to improve the food system in a way that increases access to healthy food, promotes sustainability, and supports community food security; Services include support for community food security assessments, development of partnerships with faith-based groups; mapping and other technical support; research on healthy food availability and ways to improve access in Baltimore

Real Food Farm: Civic Works
Address: Lake Clifton High School Campus in Clifton Park 701 St. Lo Drive, Baltimore, MD 21213
Website: http://real-food-farm.org
Contact: 410-366-8533
Services offered: Promotes neighborhood access to healthy food, environmental sustainability, and community engagement through urban agriculture in northeast Baltimore; provides experiential education and job creation for school-age youth, increases students' awareness of nutrition, environmental concerns, and interest in healthy food

Waverly Farmer's Market
Address: Corner of E 32nd St and Barclay St. on Saturday from 7am to 12pm
Website: www.32ndstreetmarket.org
Contact: 410-889-6388
Services offered: Weekly farmer's market that runs year-round providing customers with produce and other prepared goods; recently installed EBT machines that allow customers to pay using SNAP, credit or debit; market serves as a point of community engagement for the neighborhood

Youth and Early Childhood Development

Baltimore City Head Start
Address: 2700 N Charles St, Suite 201 Baltimore, MD 21218
Website: www.md-hsa.org
Contact: 410-396-7414
Services offered: Head Start is a federally funded early childhood education and early intervention program that provides preschool, access to health care and free meals, family services to low income families with children ages 3 and 4 (Early Head Start serves children from birth up to age 3); sites can be run by different organizations but all receive federal funding and mandates

Baltimore Montessori Public Charter School
Address: 1600 Guildford Ave Baltimore, MD 21202
Website: www.baltimorecityschools.org/336
Contact: 410-528-5393
Services offered: Public charter school with open lottery enrollment serving students K through 8th grade; curriculum includes opportunities for students to learn about nutrition, healthy food preparation and agriculture aided by staff, volunteers, and school garden

Hampstead Hill Elementary
Address: 500 S. Linwood St. Baltimore, MD 21224
Website: www.hha47.org
Contact: 410-396-9146
Services offered: Public charter school with open lottery enrollment serving students K through 8th grade; curriculum includes Growing Healthy Habits/Food is Elementary which allow students experiential learning about nutrition, cooking, gardening, and healthy food choices

Southeast Baltimore Early Head Start: Kennedy Krieger
Address: 2811 Dillon St. Baltimore, MD 21224
Website: http://www.kennedykrieger.org/kki_cp.jsp?pid=1797
Contact: 443-923-4300
Services offered: Early Head Start offers services to pregnant women and families with infants and toddlers up to age 3; services include parenting education and child development, classes in GED preparation and ESL, early intervention and developmental assessment, health education, and referrals to other services; SEEHS also provides free transportation and receives donations of food, baby products, and clothing to distribute to clients

Stadium School
Address: 1300 Gorsuch Avenue Baltimore, MD 21218
Website: www.baltimorecityschools.org/15
Contact: 443.984.2684
Services offered: Public middle school; one of the core 8th grade courses is a food nutrition class that students attend daily and through which experience cooking and food preparation at least twice a week

Wolfe Street Academy
Address: 245 S. Wolfe Street Baltimore, MD 21231
Website: www.wolfestreetacademy.org
Contact: 410-396-9140
Services offered: Public charter school serving pre-K through 5th grade with a significant English Language Learner population (50% of students take ESL); school addresses language barriers for families by assisting with applications for programs such as SNAP and other translation services; the school is also a Maryland Food Bank pantry site

Youth Dreamers
Address: 1430 Carswell St. Baltimore, MD 21218
Website: www.youthdreamers.org
Contact: 410-952-7003
Services offered: Youth-run youth center for students in grades K through 5th designed to promote community engagement, leadership development, and youth empowerment; a healthy snack is served to participants in the after school program

Health and Wellness:

Charm City Clinic
Address: 2222 Jefferson St. Baltimore, MD 21205
Website: http://charmcityclinic.com/
Contact: 443-478-3015
Services offered: Provides medical screenings, referrals to assistance programs, and health outreach and education to uninsured people

Moveable Feast
Address: 901 N Milton Ave Baltimore, MD 21205
Website: www.mfeast.org
Contact: 410-327-3420
Services offered: Prepares and delivers nutritious meals to people living with HIV/AIDS or other life-challenging illnesses; provides transportation for clients to medical appointments; employment training for people in food service and transportation industries; support for individuals who are homeless

University of Maryland School of Nursing: Maryland Hospitals for a Healthy Environment
Address: 655 W Lombard St. Baltimore, MD 21201
Website: http://nursing.umaryland.edu/ or http://e-commons.org/mdh2e/
Contact: 410-706-1924
Services offered: Promotes environmental sustainability and healthier foods in health care settings by promoting changes to hospital food environments

Food, Nutrition, and Hunger

Amazing Grace Lutheran Church
Address: 2424 McElderry St. Baltimore, MD 21205
Website: http://www.amazinggracelutheran.org/
Contact: 410-276-5674
Services offered: The Center for Grace-Full Living is an Amazing Grace Food Ministry project that provides a twice-weekly food pantry (Monday and Wednesday 3-5pm) to residents in need from the surrounding zip codes (21205, 21224, 21231)

Baltimarket: Baltimore City Health Department
Address: Enoch Pratt Free Library at 1303 Orleans St or 856 Washington Blvd
(2 new locations currently in the process of opening)
Website: http://baltimarket.org/
Contact: 410-545-7544
Services offered: Baltimarket is a virtual supermarket program that allows Baltimore City residents to order groceries online at library or school based locations and pick up the following day at the same location for no additional delivery fee; the program accepts SNAP, credit, debit, and cash; aims to improve accessibility of healthy food to areas underserved by grocery stores

Food and Nutrition Services, Baltimore City Public Schools
Address: 200 E North St. Room 401 Baltimore, MD 21202
Website: www.baltimorecityschools.org/216710317165278o/site/default.asp
Contact: 410-396-8755
Services offered: BCPS Food and Nutrition Services oversees school meal programs, including lunch, breakfast, and after-school snacks; families qualify based on income for free or reduced price meals at the beginning of the school year; recent initiatives have been geared toward improving participation, particularly among older students, and improving the quality of food served through the use of local urban agriculture

Maryland Department of Human Resources
Address: 311 W Saratoga St. Baltimore, MD 21201
Website: www.dhr.maryland.gov/county/baltimorecity/index.php
Contact: 443-378-4600
Services offered: The MD Department of Human Resources oversees the SNAP program, known in Maryland as FSP, the Food Supplement Program; SNAP is available to people living at or below 130% of the poverty level and provides a monthly dollar amount to be used toward the purchase of food; over 35% of children in Baltimore live in households receiving SNAP or cash assistance

Maryland Hunger Solutions
Address: 400 E Pratt St. Suite 606, Baltimore, MD 21202
Website: www.mdhungersolutions.org
Contact: 410-528-0021
Services offered: MD Hunger Solutions is a project designed improve nutrition and end hunger state-wide through improving participation in federal assistance programs, educating people about the issue of hunger and food insecurity, and advocating for policies that reduce poverty and hunger

Supplemental Nutrition for Women, Infants and Children (WIC)
Address: Clinics at multiple locations city-wide, see website for addresses
Website: www.baltimorehealth.org/wic.html
Contact: 410-396-9427 or 410-614-4848
Services offered: WIC provides pregnant and postpartum women and children ages 0-5 with vouchers for specific food items based on eligibility guidelines; participants must be at or below 185% of the poverty level and have a nutritional risk; program also provides nutrition education, breastfeeding assistance, health screenings, and referrals to other services

Financial Services

Baltimore CASH Campaign
Address: 111 Water St. Suite 201 Baltimore, MD 21202
Website: www.baltimorecashcampaign.org
Contact: 443-692-9487
Services offered: CASH stands for Creating Assets, Savings, and Hope; program provides free tax preparation for qualifying families; conducts outreach to increase awareness of the Earned Income Tax Credit; encourages financial literacy; advocates for policies that benefit low income working families

Further Reading

Baltimore City Food Policy Task Force Final Report
Accessible at:
http://cleanergreenerbaltimore.org/uploads/files/Baltimore%20City%20Food%20Policy%20Task%20Force%20Report.pdf
Date: January 2010
Description: The Food Policy Task Force was convened with the goal of improving healthy food access by addressing different aspects of the food system – production, distribution, and consumption. The report sets forth city-specific recommendations for how to achieve the goals of the Task Force and describes many of the recent food-related initiatives in Baltimore.

Children's HealthWatch
Accessible at: www.childrenshealthwatch.org
Date: Ongoing
Description: Children's HealthWatch is a research group investigating the impact of economic and social policy on the health of infants and toddlers. The website has links to reports, policy action briefs, data, and fact sheets which are all available for download.

Community Food Security in United States Cities
Accessible at: http://www.jhsph.edu/bin/s/c/FS_Literature%20Booklet.pdf
Date: Fall 2009
Description: A Center for a Livable Future report reviewing academic literature about food security. Sections include poverty, obesity, agriculture, health, and measurement.

Appendix C: U.S. Department of Agriculture Household Food Security Survey

1. "We worried whether our food would run out before we got money to buy more." Was that often, sometimes, or never true for you in the last 12 months?
2. "The food that we bought just didn't last and we didn't have money to get more." Was that often, sometimes, or never true for you in the last 12 months?
3. "We couldn't afford to eat balanced meals." Was that often, sometimes, or never true for you in the last 12 months?
4. In the past 12 months, did you or other adults in the household ever cut the size of your meals or skip meals because there wasn't enough money for food? (Yes/No)
5. (If yes to Question 4) How often did this happen – almost every month, some months but not every month, or in only 1 or 2 months?
6. In the last 12 months, did you ever eat less than you felt you should because there wasn't enough money for food? (Yes/No)
7. In the last 12 months, were you ever hungry, but didn't eat, because there wasn't enough money for food? (Yes/No)
8. In the last 12 months, did you lose weight because there wasn't enough money for food? (Yes/No)
9. In the last 12 months did you or other adults in your household ever not eat for a whole day because there wasn't enough money to buy food? (Yes/No)
10. (If yes to Question 9) How often did this happen - almost every month, some months but not every month, or in only 1 or 2 months?

Questions 11-18 were asked only if the household included children age 0-17

11. "We relied on only a few kinds of low-cost food to feed our children because we were running out of money to buy more." Was that often, sometimes, or never true for you in the last 12 months?
12. "We couldn't feed our children a balanced meal, because we couldn't afford that." Was that often, sometimes, or never true for you in the last 12 months?
13. "The children were not eating enough because we just couldn't afford enough food." Was that often, sometimes, or never true for you in the last 12 months?
14. In the last 12 months, did you ever cut the size of any of the children's meals because there wasn't enough money for food? (Yes/No)
15. In the last 12 months, were the children ever hungry but you just couldn't afford more food? (Yes/No)
16. In the last 12 months, did any of the children ever skip a meal because there wasn't enough money for food? (Yes/No)
17. (If yes to Question 16) How often did this happen – almost every month, some months but not every month, or in only 1 or 2 months?
18. In the last 12 months did any of the children ever not eat for a whole day because there wasn't enough money for food? (Yes/No)

Appendix D: Two Item Food Insecurity Screen in English and Spanish

Researchers (Hager, et. al. 2010) developed this two item food insecurity screen to have a quick, reliable measure of food insecurity in families with children. Clinicians and service providers can use these questions to learn more about whether the people they work with experience food insecurity. Responses to either question of "Often true" or "Sometimes true" mean that a family experiences or is at risk for food insecurity. This information can help organizations link clients to food and nutrition services.

English:
Below are statements that people have made about their food situation. For each, please decide how often the statement is true in the past year.

1) Within the past 12 months we worried whether our food would run out before we got money to buy more.
   ___ Often ___ Sometimes ___ Never ___ Don't Know

2) Within the past 12 months the food we bought just didn't last and we didn't have money to get more.

   ___ Often ___ Sometimes ___ Never ___ Don't Know

Spanish:

Aqui están varias declaraciones que la gente ha hecho acerca de su situación alimenticia. Para cada una de ellas, favor de decidir con qué frecuencia la declaración era verdad durante el año pasado.

1) Estabamos preocupados de que se nos acabaran los alimentos antes de obtener dinero para comprar más.

   ___ Frecuentemente ___ A veces ___ Nunca ___ No Se

2) Los alimentos que compramos no duraron mucho y no tuvimos dinero para obtener más

   ___ Frecuentemente ___ A veces ___ Nunca ___ No Se