An Integrated Assessment of Transportation to Healthy Food in Eastern Washtenaw County

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Prepared for the City of Ypsilanti and Washtenaw County

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Cover photo credit: Food Gatherers Produce Giveaway, 2011, from <www.annarbor.com>

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1 Summary

This research project investigated the degree to which residents of eastern Washtenaw County experience difficulty in accessing healthy food, with a focus on finding suggestions for overcoming transportation barriers. The project used a wide variety of methods to understand the problem of inaccessibility to healthy food, including quantitative spatial analysis, meetings with stakeholders, carrying out a food inventory, engaging residents through focus group discussions, and investigating several case studies of successful interventions.

Key observations include:

- A wide range of food is available in close proximity to eastern Washtenaw County. We identified 190 stores with varying food offerings within a five-mile reach of the study area, including 11 major grocery stores.

- Despite a wide array of food offerings in close proximity, the eastern part of Washtenaw County has several pockets of territory where some people experience difficulty in traveling to food stores by both automobile and public transit.

- Most food stores in the region are built and located on the assumption that consumers will drive by automobile. We find that food shopping is predominantly carried out with private vehicles, even among people who otherwise are dependent on using public transit. Many people who do not own an automobile find ways to share rides by auto with others.

- Residents of the region commonly expressed that they place such high value on having a wide range of choices in food that they will travel to multiple destinations in order to meet their needs. These shoppers are willing to trade off the additional costs of travel in exchange for other benefits they perceive, such as price savings, higher quality of goods, and better service.

- Low-income people who are otherwise far more likely to use public transit than the general population are nevertheless reluctant to use public transit for food shopping, for reasons that include a lack of schedule flexibility, a lack of adequate connection to preferred destinations, and fear of traffic fatalities.

- Driving a car for food shopping is perceived to be so superior compared to other options that people will take unusual steps to cooperate and share private vehicles with family and friends.

- A majority of focus group participants shopped for supplies every two weeks or every month. This infrequent shopping requires buying large quantities of food suggesting that such shoppers are less likely to use public transit for food shopping.

2 Introduction: Transportation's Role in Accessing Healthy Food in Urban Neighborhoods

Providing the ability to reach opportunities is an essential goal of public policy, but one that is often undermined in the United States where urban form is characterized by sprawling land-use patterns and high degrees of segregation by race and class. Despite the need to provide access to opportunities, transportation policy has for decades placed emphasis on achieving fast movement of vehicles which has had the effect of inducing yet further the spread of land uses (Transportation Research Board 1995). The result is what some refer to as an "autocentric" urban form – a spatial arrangement of opportunities that favors people who can afford to own and operate a private vehicle. Unfortunately, those who are unable or unwilling to drive a car – people living in poverty, with disabilities, or those who are too young or too old to drive – are seriously disadvantaged in their ability to reach important opportunities (Grengs 2010; Rosenbloom 2003; Wachs 1988). Although only about 11 percent of households nationwide have no car available, the share of households without cars can be as high as 50 percent in high-poverty neighborhoods of central cities (Grengs 2004). These are neighborhoods that not only have unusually high degrees of carlessness, but also troubling degrees of abandonment, so that the people with the fewest transportation options are precisely those who most need to engage in long travel to access jobs, banks, childcare, and other essential destinations.

Just as our transportation system has changed to favor independent car travel since WWII, the market has failed to maintain retail food access within urban neighborhoods. Eisenhauer (2001) found that many inner-city and low income neighborhoods were left with few food retail stores due to retail consolidation. Between 1950 and 1960, supermarkets surged ahead of independent grocers as the predominant food source, growing from 35% of the market share to 70%. Now, the food retail industry is largely dominated by a few corporate chain stores that favor big-box stores in suburban locations (Pothukuchi and Kaufman 2000; Yim 1992). Studies confirm that access to grocery stores and supermarkets varies by race and class (Grengs 2009; Helling and Sawicki 2003; Moore and Diez Roux 2006; Raja, Ma, and Yadav 2008; Zenk et al. 2005). Residents of lower-income areas, such as eastern Washtenaw County, often must rely on the limited food offerings of convenience or liquor/party stores. Some thirty million Americans (10% of the population) do not have reliable and regular access to affordable, nourishing, and culturally-appropriate food and therefore are categorized as 'food insecure' (Nord, Andrews, and Carlson 2007). Recognizing and repairing the disconnection between our urban food and transportation systems is one step toward addressing this food insecurity problem and increasing residents' health, well-being, and independence.

In recent years, community-based interventions have attempted to address the lack of adequate transportation to healthy food. Shenot and Salomon (2006) state that increasing access to healthy food is necessary for reducing obesity and diet-related diseases and Parker (2009) writes, "although health is strongly influenced by state, regional, national, and international trends and actions, many strategies for addressing childhood obesity must be carried out at the local level to make a difference" (15). While transportation policy has

recognized the damaging effects of urban sprawl on inner-city unemployment and has provided funding to help poor people reach jobs (Blumenberg and Schweitzer 2006), no such transportation policy currently supports improving access to food. Instead, a number of experiments and initiatives have emerged to help transportation-disadvantaged people reach destinations providing fresh and healthy food, and often from outside traditional transportation institutions such as nonprofit community-based organizations (Flournoy and Truehaft 2005). Possible strategies to address this concern can include providing food at places that people already frequent, such as places of worship, childcare centers, or public transit stations, working with supermarkets to establish their own private van services, or providing reasonably priced food delivery programs. One of the most interesting developments is the concept of "food hubs" at prominent public transit stops (Gottlieb et al. 1996).

A 2010 community-based needs assessment identified food and transportation as the two areas of greatest concern for residents of eastern Washtenaw County. This finding is consistent with broader transportation and food systems literatures that consistently find that lower income residents and residents of color are less likely to have easy access to healthy, affordable, culturally-appropriate food within their neighborhoods.

The study that follows is an integrated assessment that builds on previous work to examine how community-based efforts can repair the transportation/food disconnect that is common amongst our poorest, urban neighborhoods. This place-based process aims to engage local governments, transportation agencies, public health and human services, residents, local non-profit organizations, and private enterprises to prioritize appropriate interventions that would enable healthier lifestyles. While this is a place-based intervention, the lessons of how to creatively link and supplement the existing activities of public, private, and non-profit organizations to encourage community-based food/transportation interventions has policy implications for communities throughout the country, particularly other lower-density areas with suburban-oriented land development patterns.

3 Mapping and Spatial Analysis: Evaluating Access to Food

This chapter presents the results of an empirical analysis of the spatial arrangement of food locations in eastern Washtenaw County, with the aim of evaluating the ease with which residents can access healthy food. After defining the study area, we identify neighborhoods with particularly high needs based on data that suggest difficulty in traveling to food sources, we map a wide range of food stores and food pantries, and finally we evaluate the degree to which public transit provides service to grocery stores for residents who cannot rely on a private vehicle for their shopping.

3.1 The Study Area

The research described in this report focuses on the population that resides in the study area marked in purple in Figure 1 below. The study area consists of the City of Ypsilanti along with a portion of the county bounded approximately by Ypsilanti to the west and the county line to the east, including portions of Ypsilanti Township and Superior Township.

The study area contains a disproportionately large share of people with characteristics known to make traveling to opportunities difficult. Table 1 summarizes how people in the study area compare to people of other geographies. The table shows, for example, that people in the study area have lower incomes on average than other nearby counterparts: households in the county as a whole had a median income of $58,807 in 2009, but households in the study area had a substantially lower median income of $38,281. While only about 7 percent of households in the county had no car available in 2010, almost 11 percent of households in the study area had no car. And while about 28 percent of families in the county consisted of single-headed households with children, nearly half of the families in the study area were headed by a single adult with children.

Residents are somewhat evenly spread throughout the study area, as shown in the density map of Figure 2 (on page 12). Notice that few residences are located in a large swath of territory at the eastern edge, bounded by US Highway 12 to the north and Interstate 94 to the south, due to an airport and industrial land uses. The highest concentrations of residents occur near downtown (near the street label “Hamilton” on the map), around the campus of Eastern Michigan University (near the street label “Cross” on the map), and at portions of territory to the south of I-94.

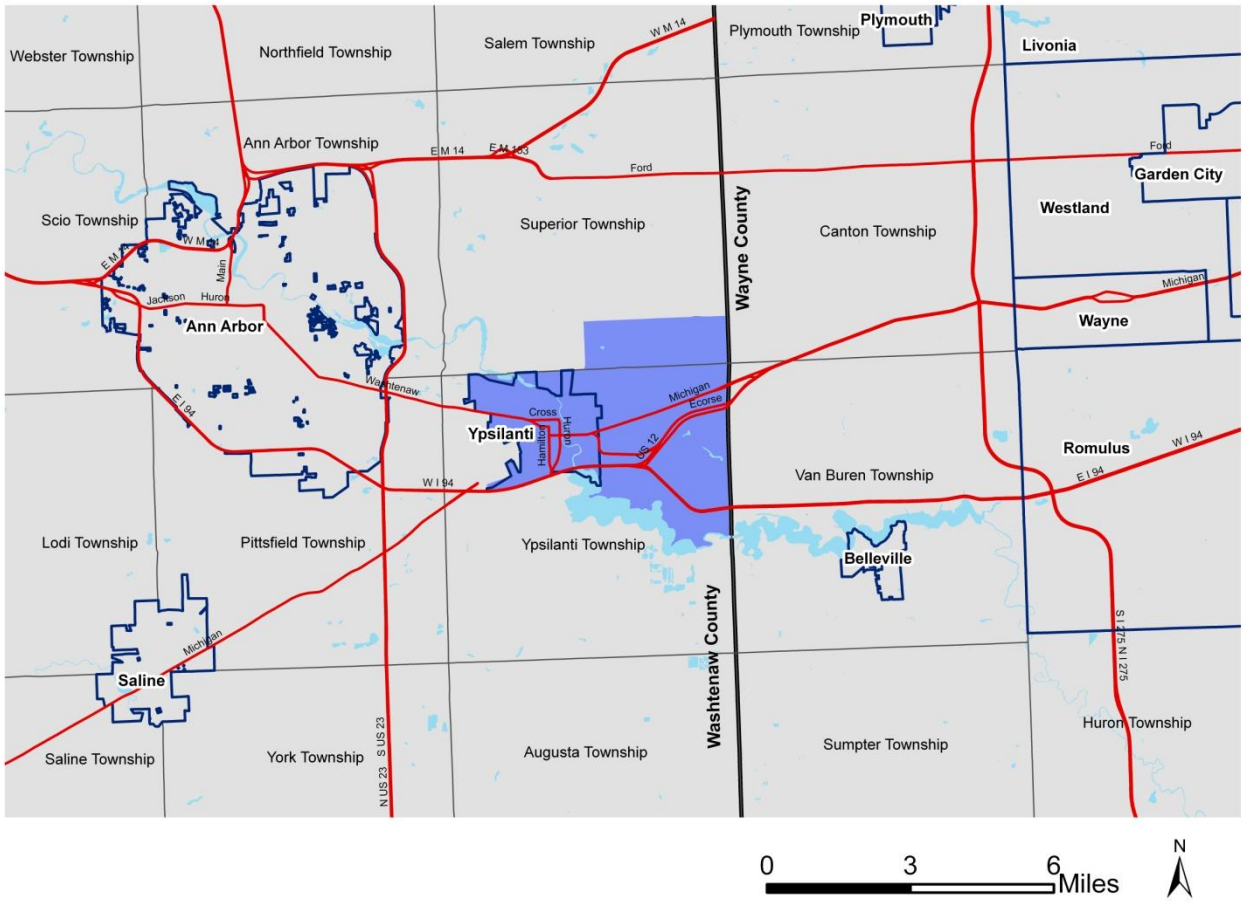

Figure 1. Study Area and Surrounding Region, Washtenaw County and Wayne County, Michigan

Table 1. Study Area Indicators

	Population (2010)	Median Household Income (2009 $)	Share of Households with No Vehicle Available (%, 2005-2009 Avg)	Share of Single-Headed Families with Children (%, 2005-2009 Avg)
Michigan	9,883,640	48,700	7.0	33.1
Washtenaw County	344,791	58,807	6.6	27.6
City of Ypsilanti	19,435	33,734	12.9	35.4
Study Area	51,827	38,281	10.6	49.8

Source: Census 2010; American Community Survey 2005 - 2009

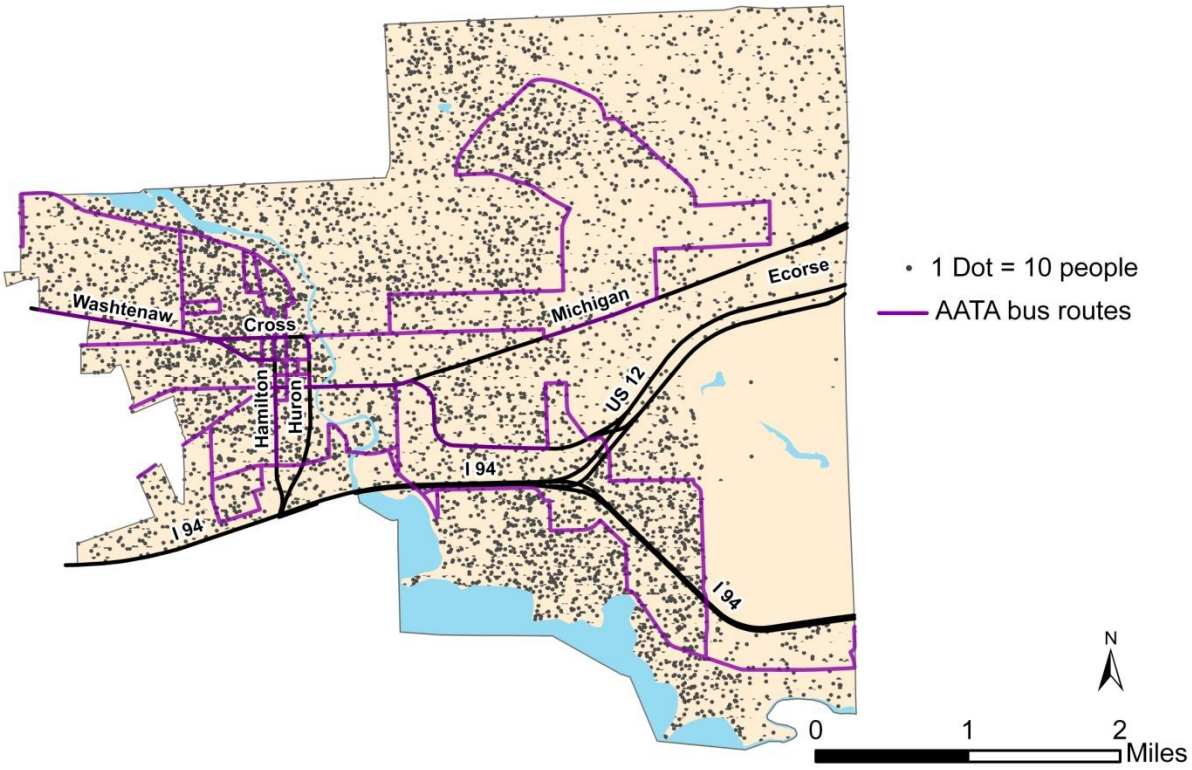

Figure 2. Population Density, Study Area, Washtenaw County, 2010

Source: Census 2010; Ann Arbor Transportation Authority; Michigan Geographic Data Library

3.2 Identifying "Needs Areas"

Although residents are relatively evenly distributed throughout the study area (as shown in Figure 2), the people with the highest needs for accessing food tend to be clustered in particular neighborhoods. To identify neighborhoods with high needs, we focus on three characteristics of a household that have been shown to impose difficulties on travel. First, low-income households are more disadvantaged than higher-income households in their ability to travel because of fewer resources available for the purchase of a private vehicle and for covering other costs such as insurance, parking, and fuel. Second, people who live in a household with no vehicle are highly restricted in their travel compared to people with easy access to a car. Furthermore, carless households often must rely on using public transit that, although more cost-effective than owning a car, imposes serious restrictions on traveling by schedule, area coverage, and the ability to carry goods and cargo. Third, families headed by a

single adult who care for one or more children tend to experience fewer options for traveling, compared to adults with no children, or to families with multiple adults who can share childcare duties. The presence of children in a household adds to the need for more travel – to school, to childcare, to recreational activities, and for more frequent stocking up of household goods through such activities as visiting pharmacies and supermarkets. Children also require accommodating additional passengers while traveling, and they often impose less flexibility in choices of travel, such as time-of-day scheduling around, for instance, school or recreational activities.

In a series of three maps that follow (see Figure 3, Figure 4, and Figure 5), these characteristics – household income, the availability of an automobile, and the location of single-headed families with children – show that people facing these challenges in travel are not evenly spread throughout space but rather occur in distinct clusters in the study area.

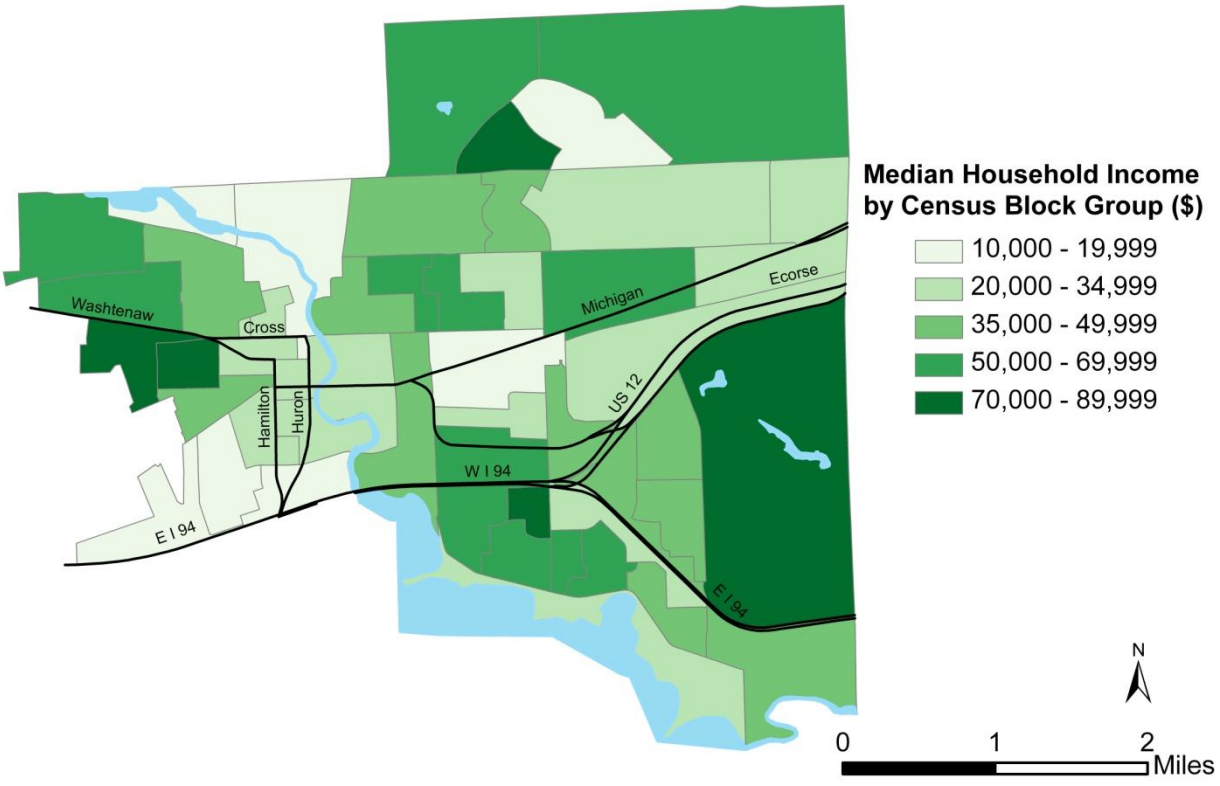

Figure 3. Median Household Income, Study Area, Washtenaw County (2005-2009 Average)

Source: American Community Survey, 2005 – 2009; Census 2000 TIGER/Line; Michigan Geographic Data Library

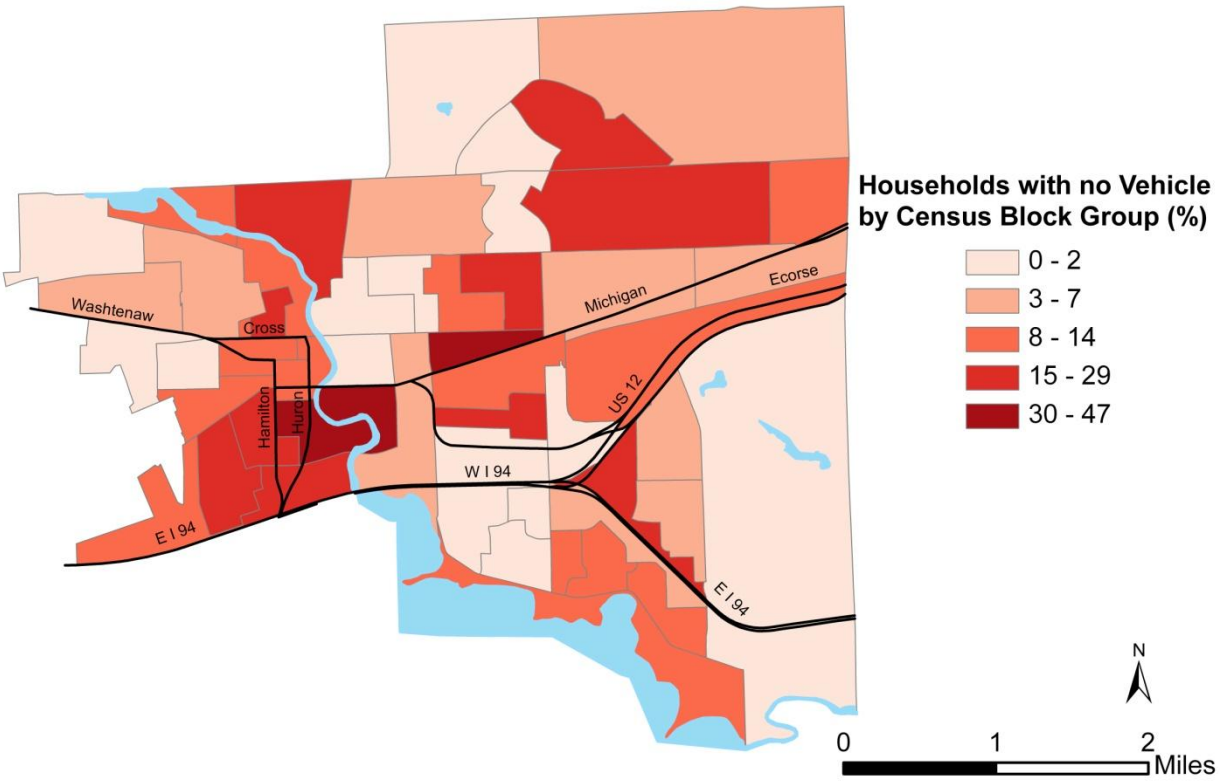

Figure 4. Households with no Vehicle Available, Study Area, Washtenaw County (2005-2009 Average)

Source: American Community Survey, 2005 – 2009; Census 2000 TIGER/Line; Michigan Geographic Data Library

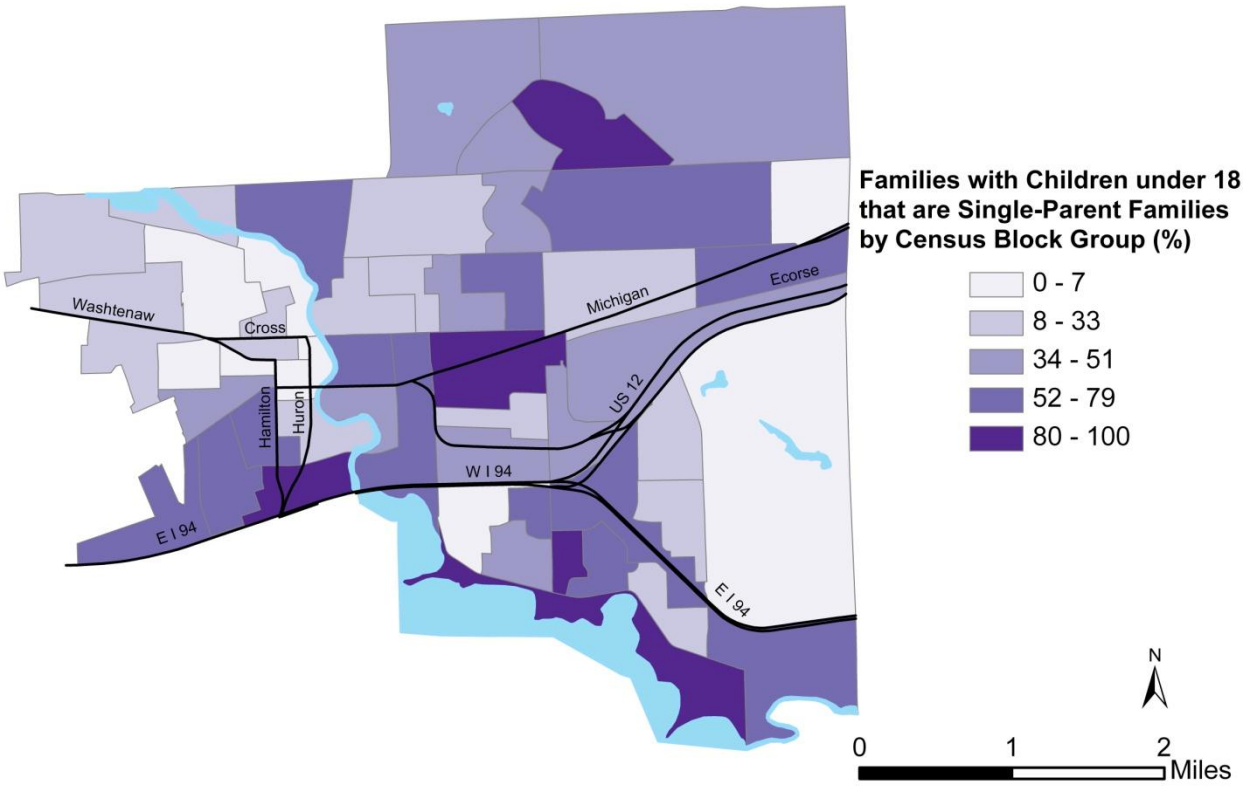

Figure 5. Single-Parent Families with Children, Study Area, Washtenaw County (2005-2009 Average)

Source: American Community Survey, 2005 – 2009; Census 2000 TIGER/Line; Michigan Geographic Data Library

In order to focus on the neighborhoods with the highest needs, we combined these key characteristics into a single measure to identify what we refer to as "Needs Areas." A "Needs Area" is a place where conditions exist that are known to make travel difficult, including jointly having a high share of households with low incomes, a high share of households with no private vehicle available, and a high share of single-headed families with children. We defined "Needs Areas" in a two-step process: first, we assessed American Community Survey data to rank block groups according to need and, second, we incorporated input from stakeholders with local knowledge of the area.

We rank ordered the 53 Census 2000 block groups that make up the study area by median household income, percentage of households with no vehicle, and percentage of families with children under 18 that are single-headed families. For each of the three characteristics, each block group received a rank, 1 through 53, where a rank of 53 indicated the greatest need (i.e.

lowest income, highest percentage of households with no vehicle, or highest percentage of families with children under 18 that are single-parent families). We summed the rank numbers to get a "needs score" for each block group and selected the 10 highest scores as the initial needs areas.[1]

We presented this initial set of block groups on maps to local stakeholders and asked for feedback. We asked whether our initial Needs Areas were considered to have particularly great need for improved access to healthy food, and we asked whether other neighborhoods ought to be included. Stakeholders largely agreed that the areas we identified had high needs, especially southwest Ypsilanti and MacArthur Boulevard. In addition, several stakeholders suggested that we include the West Willow neighborhood (specifically, the area bounded by US 12, Dorset Avenue, Tyler Road, and Eugene Street) because it is isolated from stores by two major roads, the southeast portion of the study area (south of I 94 and west of Wiard Road) because of the large number of apartment complexes, and the area near Prospect Road, Holmes Road, Sweet Road, and East Clark Road because it was perceived as having a low level of bus service.

We followed up on these suggestions from stakeholders by visiting these areas, taking photographs, and then presenting these findings to our community partners from the City of Ypsilanti and Washtenaw County. Through discussions with our partners and based on their local knowledge, we further refined our selected areas by adding several block groups. Figure 6 shows the location of the final Needs Areas, with the most prominent clusters of needs located just south of the downtown area and in the southeast corner of the study area (south of I-94 and the West Willow neighborhood at block group 4123001).

[1] Initial block groups included were 4116001, 4106003, 4074002, 4112002, 4106002, 4106001, 4107002, 4116002, 4108003, and 4107001.

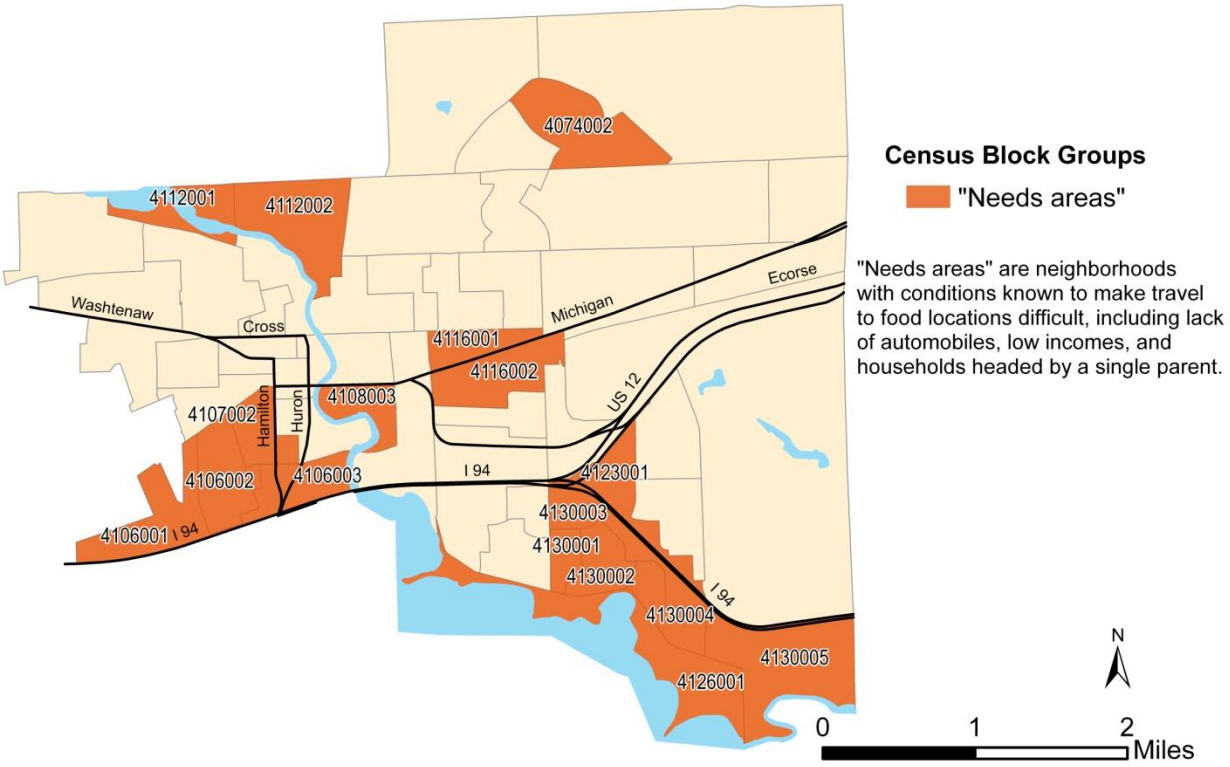

Figure 6. Needs Areas, Study Area, Washtenaw County (2005-2009 Average)

Source: American Community Survey, 2005 – 2009; Census 2000 TIGER/Line; Michigan Geographic Data Library

3.3 Mapping Food Stores

To evaluate the proximity of food offerings to residents in the study area, we restricted our analysis to places that provide food within a five-mile distance from the study area. Studies have shown consistently that most people typically do not travel great distances when visiting supermarkets and food stores. According to the most recent National Household Travel Survey, the average distance traveled by automobile for the trip purpose of "Shopping/Errands" was six miles in 2009 (U.S. Department of Transportation 2011). This category, however, is a broad one and includes many kinds of shopping other than food, including clothes, furniture, and many other kinds of household goods. Trips for the purpose of food shopping tend to be among the shortest among all shopping trips. A recent household travel survey conducted in the state of Michigan provides a finer level of detail about shopping, and includes data specifically on trips to grocery stores by automobile (Michigan Department of Transportation 2005). The survey

suggests that, among respondents statewide in 2006, about 84 percent of all trips to grocery stores by automobile occurred within a five-mile limit. We expect that our five-mile buffer around the study area is a conservative estimate and that even though some travelers would be expected to occasionally travel beyond this limit, this range safely captures the majority of potential food shopping destinations among people traveling in eastern Washtenaw County.

Figure 7 provides an overview of the available food options within this five-mile buffer, by showing all categories of food locations, including major grocery stores, farmers' markets, dollar stores, liquor stores, convenience stores, gas station mini marts, wholesale clubs, small grocery stores and ethnic food stores, large retail stores without produce, limited assortment stores, mass merchandisers, pharmacy stores, specialty stores, emergency food pantries, and emergency hot meal providers.[2] The map makes clear that residents of eastern Washtenaw County have an abundance of options for accessing food.

But the wide range of options shown in Figure 7 can be deceiving because not all locations provide an equal level of opportunity for accessing healthy food. As discussed in the chapter that follows, we categorized food locations into subgroups to represent the various niches within the food system. For example, major grocery stores are attractive to consumers for the wide range of selection they offer at reasonable prices and for the option to purchase in bulk. By contrast, smaller markets often provide specialty or ethnic-oriented offerings not found at major grocery stores. To illustrate the spatial layout of these various types of food locations, we created a series of maps focusing on different food store categories.

Figure 8 focuses exclusively on major grocery stores. It shows three principal findings. First, there is no shortage of major grocery stores in the area, with 11 12 such stores falling within the five-mile buffer of the study area. Second, despite this high number of major grocery stores in the region, only one falls within the boundaries of the study area (the Kroger on Michigan Avenue east of downtown Ypsilanti), suggesting that residents of the study area are likely to need an automobile to travel to most of the stores in the region. Finally, several major grocery stores – particularly to the south and east of the study area – are not within walking distance of bus routes, further suggesting the need for an automobile for accessing these stores.

Although major grocery stores are located at a moderate distance from most residents of the study area, this does not mean that food offerings are absent from the study area. Other stores are located in closer proximity than major grocery stores, as shown in the map of Figure 9. This map shows that several smaller markets and ethnic food stores are located within the study area boundary. The degree to which these stores provide healthy food at reasonable prices is the subject of the chapter that follows.

[2] Several stores located in and near Canton are not part of these maps, including one Meijer's store at 9701 Belleville Road in Belleville, and two Kroger's stores at 1905 North Canton Center Road in Canton and 45540 Michigan Avenue in Canton.

We mapped other kinds of food offerings, but we include them in the appendix as a series of maps showing the location of other categories of food stores relative to the Needs Areas and to the bus routes of the Ann Arbor Transportation Authority. Maps in the appendix include locations falling within a five-mile buffer of the study area for food stores accepting Women, Infants, and Children (WIC) Benefits, stores accepting Electronic Benefits Transfer (EBT), and food pantries (refer to Figure 15, Figure 16, Figure 17 in the appendix).

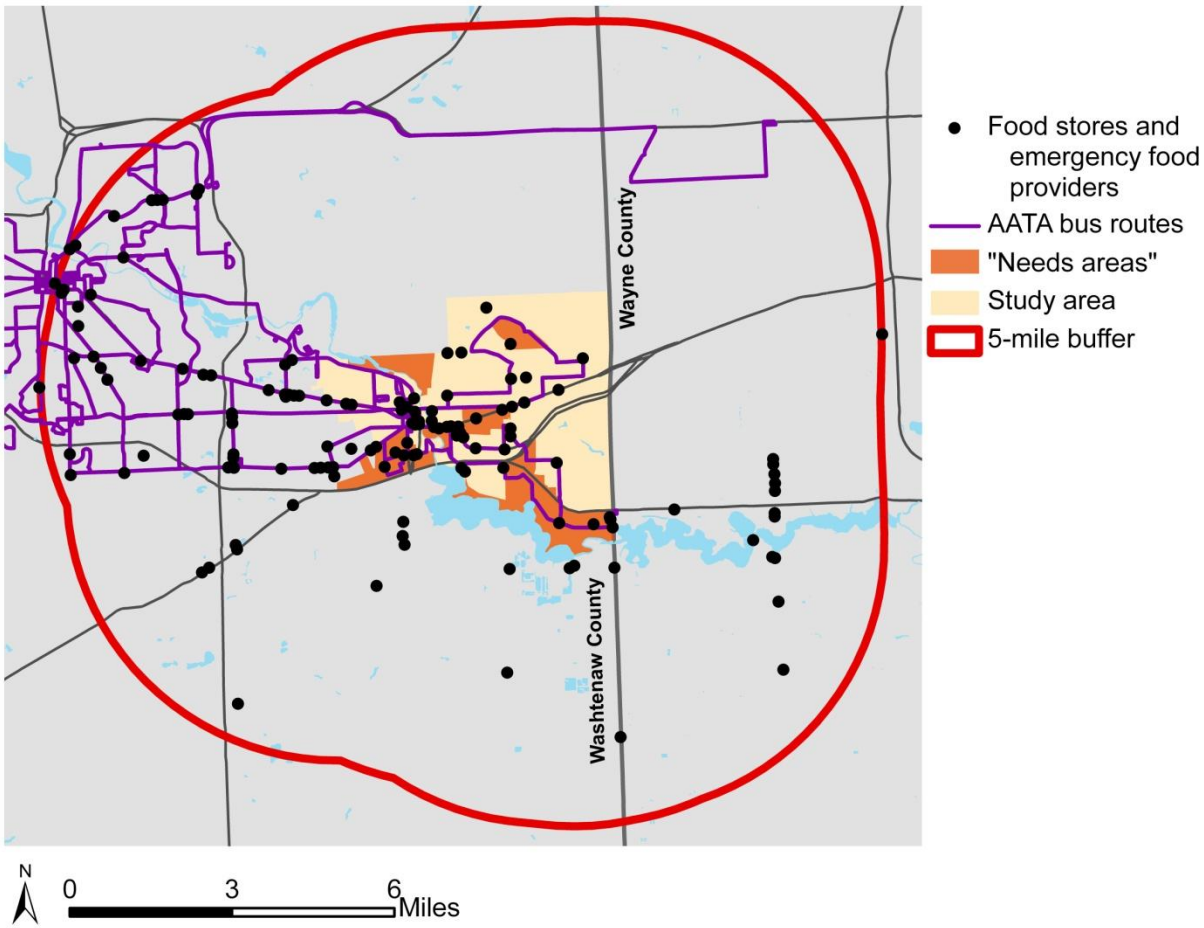

Figure 7. Stores Selling Food and Emergency Food Providers within Study Area and 5-Mile Buffer, Washtenaw County and Wayne County, 2012

Source: Reference USA; Field Surveys; Ann Arbor Transportation Authority

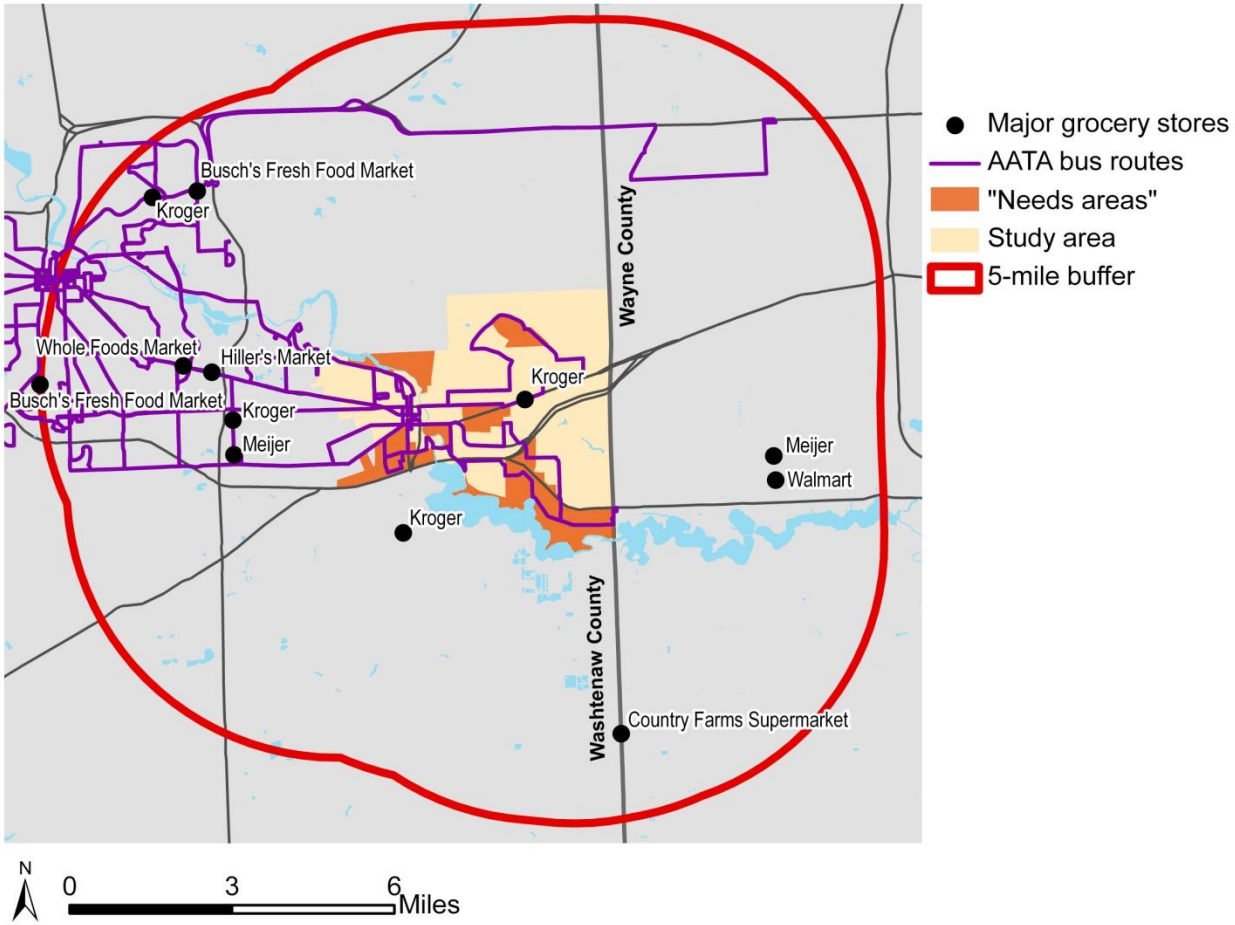

Figure 8. Major Grocery Stores, Study Area and 5-Mile Buffer, Washtenaw County and Wayne County, 2012

Source: Reference USA; Field Surveys; Ann Arbor Transportation Authority

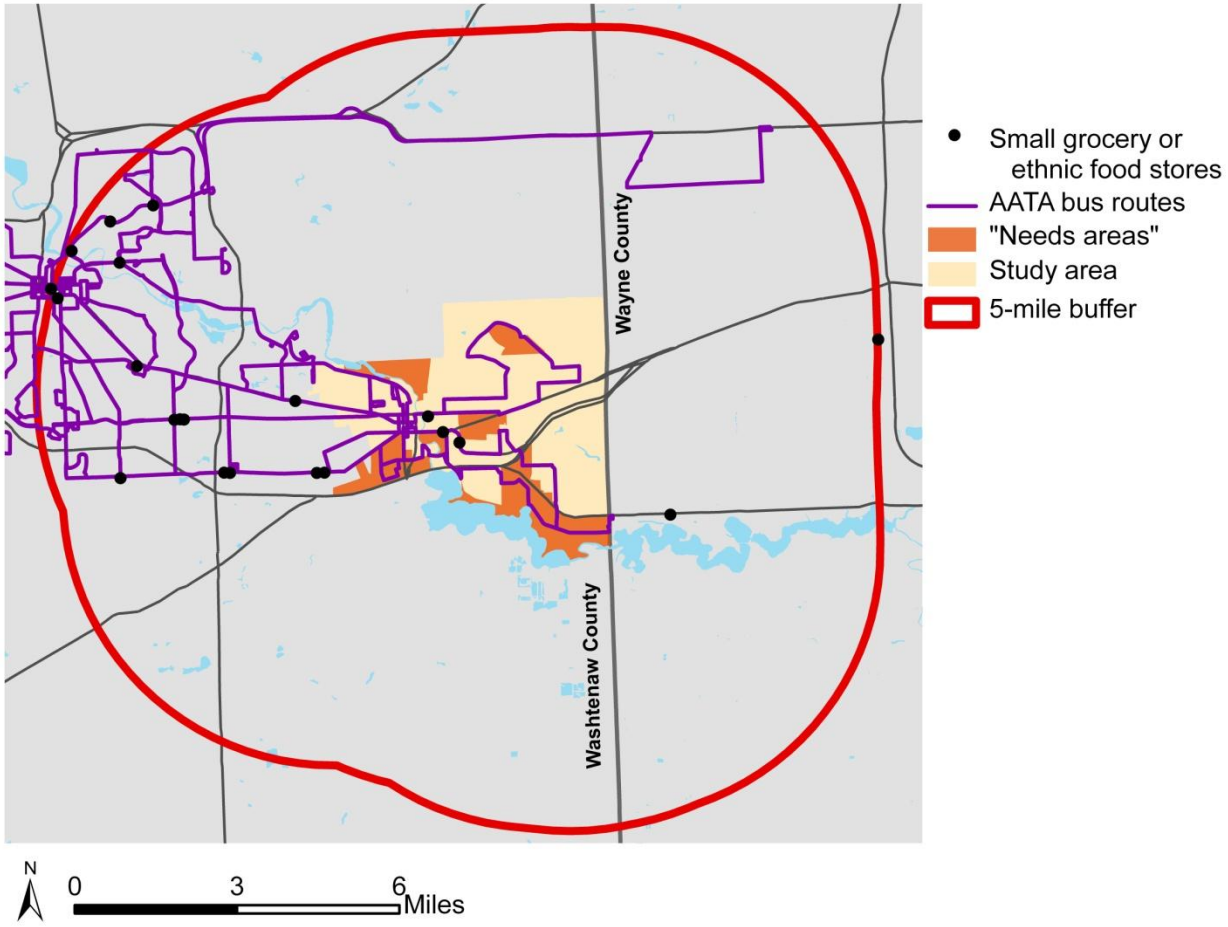

Figure 9. Small Grocery and Ethnic Food Stores, Study Area and 5-Mile Buffer, Washtenaw County and Wayne County, 2012

Source: Reference USA; Field Surveys; Ann Arbor Transportation Authority

3.4 Evaluating Public Transit Accessibility to Grocery Stores

The location of food offerings relative to the Needs Areas suggests that many residents are likely to rely on an automobile for doing their food shopping. As we discovered from holding focus groups, and as discussed in a later chapter, many residents of the study area do indeed rely heavily on automobiles for their shopping. Nevertheless, nearly 11 percent of households in the study area do not have a private vehicle available (as shown in Table 1), and the neighborhoods that make up the Needs Areas are those with the highest rates of carlessness in the study area. In a series of maps that appear at the end of this chapter section, we evaluated the extent to which residents of the Needs Areas have sufficient access to major grocery stores by public transit.

Our approach is to create an "envelope" that represents the geography from which a resident can travel to a given grocery store within a predefined time limit.[3] Using the network analysis capabilities of geographic information systems (GIS), along with data about the public transit routes, stops, and schedules, we found the area covered by public transit for travel to grocery stores.[4]

A traveler's ability to reach destinations by public transit is highly sensitive to the time of day of the trip, because a particular bus stop is normally scheduled with fairly long intervals of time between the arrival of the next bus (i.e., with headways of, for example, 30 minutes). Travelers who leave home at a random time can expect long waits if the bus is scheduled with fairly long headways. So the maps we present were created on the assumption that travelers are familiar with the schedule and deliberately time their trip to meet the bus at its scheduled arrival time, an assumption that reasonably represents the behavior of most transit riders in the Ann Arbor/Ypsilanti region.

Figure 10 shows public transit coverage to major grocery stores within a 20-minute travel time. Black points on the map represent stores that can be reached from somewhere in the study area within 20 minutes. Orange points represent stores that cannot be reached within this time limit. Each store reachable within 20 minutes is associated with an "envelope" polygon of a unique color. To interpret this envelope area, any person living within the boundaries of this polygon can reach that store within 20 minutes by public transit. To illustrate, the Kroger on East Michigan Avenue, represented by the light brown envelope area in the map, is reachable from residences almost entirely within the study area. By contrast, all the other stores are reachable at this time limit from a small portion of the study area, and only from the westernmost reaches of the study area. Finally, the map also shows the Needs Areas in light orange (note that the Needs Areas are shown with transparency so that we can see the interaction of Needs Areas and envelope areas). The main message of Figure 10 is that the Needs Areas are not well served for reaching grocery stores by public transit at this time threshold.

Figure 11 shows the same information as Figure 10, except that the travel time threshold is expanded from 20 to 40 minutes. By doubling the travel time, the envelope areas are expanded considerably. For example, consider the case of the Kroger store on East Michigan Avenue, represented by the light brown envelope area in the map: by looking back and forth between

[3] Geographic information systems techniques typically refer to this area as a "service area," but we use the shorthand "envelope" to avoid confusion with the more standard meaning of "service area" used by public transit officials to denote the geographic extent of a transit system.

[4] The analysis was performed by Melinda Morang using an ArcGIS tool that she developed called "GTFS_NATools," details of which can be found at http://transit.melindamorang.com/. We used the most recent General Transit Feed Specification (GTFS), a recently-developed data format for storing public transit routes, stops, and schedules, developed by Google Maps and commonly used by major public transit systems. GTFS data were provided by the Ann Arbor Transportation Authority. Travel time thresholds include both walking time to a stop (we assume 3 miles per hour) and in-vehicle travel time.

Figure 10 and Figure 11 we can see that a substantially larger portion of the study area can reach the store within 40 minutes compared to 20.

Despite the substantially improved coverage at the 40-minute travel time, two observations emerge from Figure 11. First, many stores remain out of reach of public transit altogether. Notice that the five stores not reachable in 20 minutes (shown in Figure 10), are also not reachable at 40 minutes (shown Figure 11).[5] This is largely a result of the geographic limits of the bus service. For example, the two stores in orange to the south of the study area fall outside of the transit agency's service area. This finding suggests that to the extent that shoppers desire the ability to shop at multiple stores – a key finding from focus groups discussed in a later chapter – travel by public transit is highly restrictive compared to travel by automobile. Using public transit for multiple-store shopping is further restricted by the amount of time it would take to arrange using multiple bus routes or making multiple stops. Second, although many of the Needs Areas are covered at a 40-minute travel time, a substantial portion of the Needs Areas is not covered at all (at the southeast of the study area) and several Needs Areas are limited by the ability to reach only one store.

Finally, Figure 12 provides an alternative view of these findings by showing three levels of service, at 20, 30, and 40 minute travel times.

[5] Note that the orange points shown on the map, despite their close proximity to the envelopes encompassing residences within reach of other stores, remain beyond the reach of the study area.

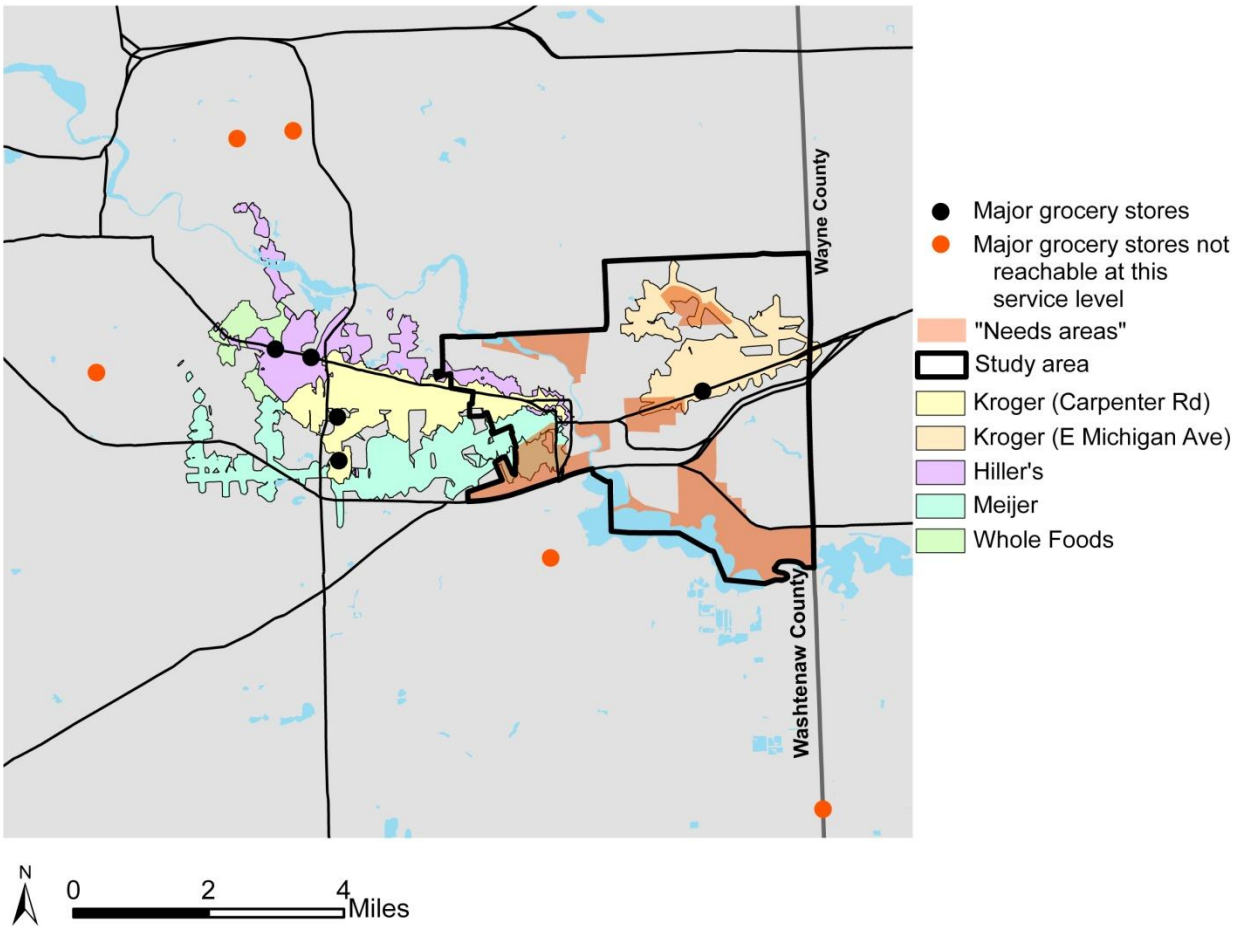

Figure 10. Public Transit Coverage of Study Area to Major Grocery Stores, 20-Minute Travel Time, Washtenaw County, 2012

Source: Reference USA; Field Surveys; Ann Arbor Transportation Authority; Michigan Geographic Data Library

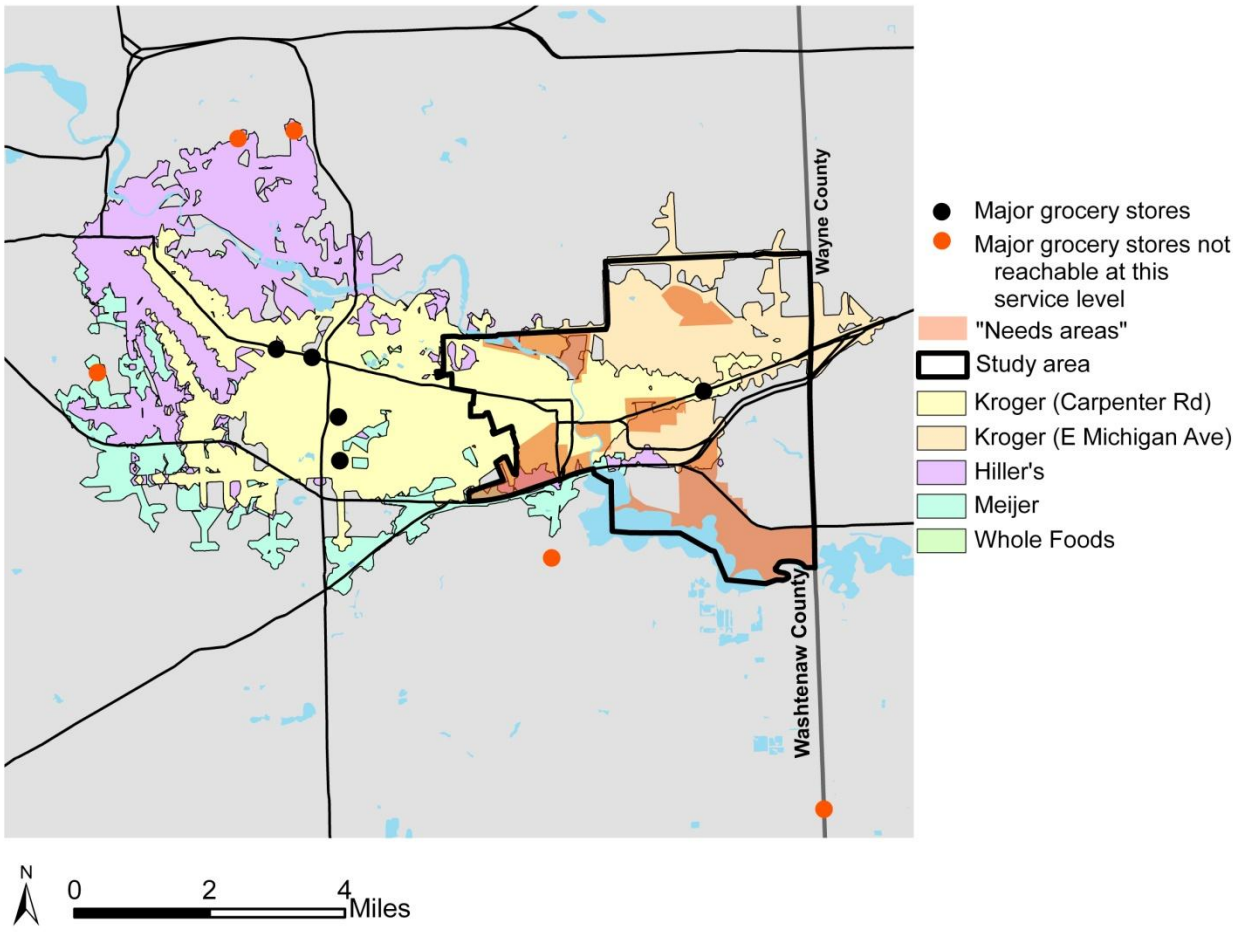

Figure 11. Public Transit Coverage of Study Area to Major Grocery Stores, 40-Minute Travel Time, Washtenaw County, 2012

Sources: Reference USA; Field Surveys; Ann Arbor Transportation Authority; Michigan Geographic Data Library

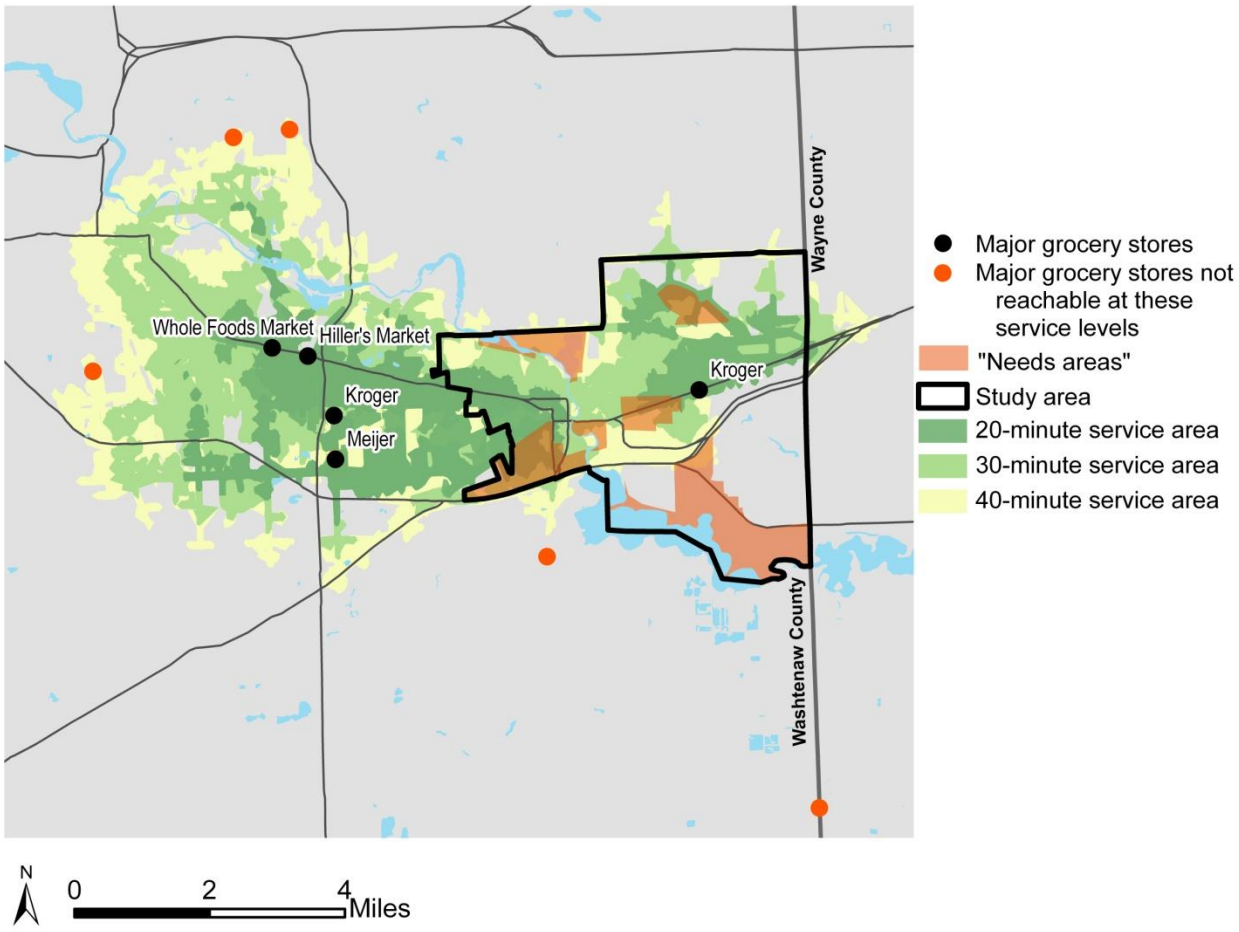

Figure 12. Public Transit Service Thresholds, for Service to Major Grocery Stores from Study Area, Washtenaw County, 2012

Source: Reference USA; Field Surveys; Ann Arbor Transportation Authority; Michigan Geographic Data Library

4 Food Inventory: Assessing the Availability, Quality, and Price of Food

Much has been written about the presence of food deserts in our cities (Gordon et al. 2007). The term evocatively calls to mind urban neighborhoods with few grocery stores. However, the term can be misleading. Food deserts relate to a more complex set of issues around 1) physical access, 2) economic access, 3) food quality and 3) cultural appropriateness. Therefore, in addition to mapping the physical location of food retailers and emergency food providers, we also conducted a store inventory to investigate price and food quality.

Table 2. Food Store Categories

Food Store Category*	Examples	Number of Stores in 5 Mile Area
Major Grocery Store	Meijer, Kroger (15,000 square feet and larger)	11
Mass Merchandiser with Ltd Food	Target, Kmart, Dollar Stores	16**
Ltd Assortment Grocery Store	Aldis, Save-A-Lot	4
Small Grocery/Ethnic Food Store	Dos Hermanos, Trader Joe's	25
Specialty Store	Bakery, Meat Market	1
Convenience Store (no gas)	7 Eleven	16
Gas Station Store	Circle K	32
Pharmacy	CVS, Rite Aid, Walgreens	15
Liquor Store	Prospect Party Store	27
Emergency Food Supplier	Food Pantry, Hot Meal Site	36
Farmers' Market	Depot Town Market	7
Total		190

* These categories are based on the Food Marketing Industry's Categories and they are more extensive than the Bureau of Labor Statistics Categories

** This number includes 8 Dollar Stores

4.1 Major Grocery Stores

First, we were interested in understanding how the prices of healthy foods varied among the major grocery stores and specifically how they varied on a range of healthy food types. Based on field observations, we surveyed all of the major grocery stores for the presence and price of seven 'healthy' foods. These seven healthy foods are 1) 1 gallon of skim milk, 2) 32 oz. low fat yogurt, 3) 16 oz. of cottage cheese, 4) 1 lb of apples, 5) 1 lb of oranges, 6) 1 lb of bananas, and 7) 1 lb of fresh leafy greens (any type). This list of healthy foods is based in part on the research conducted by Chai and colleagues (2007) in New York City. If more than one brand or type of healthy food existed in a grocery store, we recorded the lowest priced option. The least

expensive store was Walmart in nearby Belleville where these seven food items could be purchased for a total of $9.92. The most expensive grocery store, although not in the five-mile buffer, was Plum Market in Ann Arbor where the food items totaled $19.30. The most expensive store in the five-mile buffer area was the Whole Foods on Washtenaw Avenue where the food items totaled $17.36. To rank the stores relative to price, we divided the difference between the most expensive store and least expensive store to create three categories: lowest prices ($9.92 - $12.50), moderate prices (Medium = $12.51 - $ 15.62) and highest prices ($15.63 - $19.30). Six of the major grocery stores ranked relatively 'low' in price, five ranked 'medium', and one ranked 'high'. By mapping the location of these grocery stores with different colors to indicate their relative affordability we can see that grocery stores closest to the needs areas are those that offer lower priced or affordable healthy foods. The more expensive grocery stores are generally located to the west in Ann Arbor.

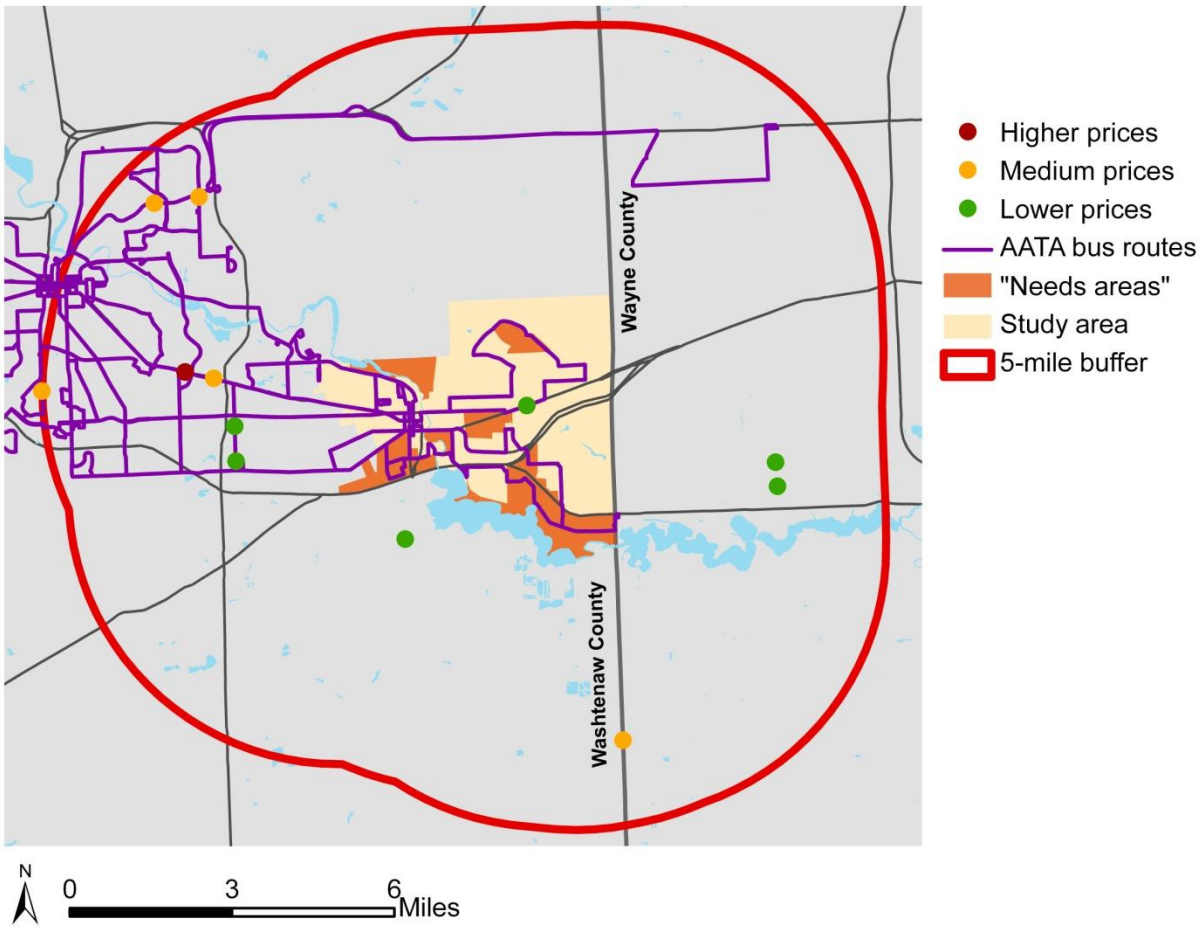

Figure 13. Relative Prices of Healthy Foods at Major Grocery Stores, Study Area, Washtenaw County, 2012

Source: Reference USA; Field Surveys; Ann Arbor Transportation Authority; Michigan Geographic Data Library

4.2 Smaller Grocery Stores and Ethnic Food Stores

Second, we were interested in determining whether the smaller grocery stores and ethnic food stores offered a healthy array of food offerings. While food prices were generally higher compared with the major grocery stores, we surveyed the 25 stores for the presence/absence of the seven healthy food items (listed above). Stores with none, one, or two of the healthy food items were ranked as low. Stores with two, three, or four of the healthy food items were ranked as medium and stores with five, six, or all of the healthy food items were ranked as high. We rated eight stores as low, twelve stores as medium, and three stores as high. When this is mapped relative to the needs areas, we see that one 'high' store exists central to the needs areas and several medium stores are located in close proximity. Therefore, smaller grocery stores and ethnic food stores nearby the needs areas do offer relatively healthy food items.

Additional information on the food inventory can be found in two tables in the appendix.

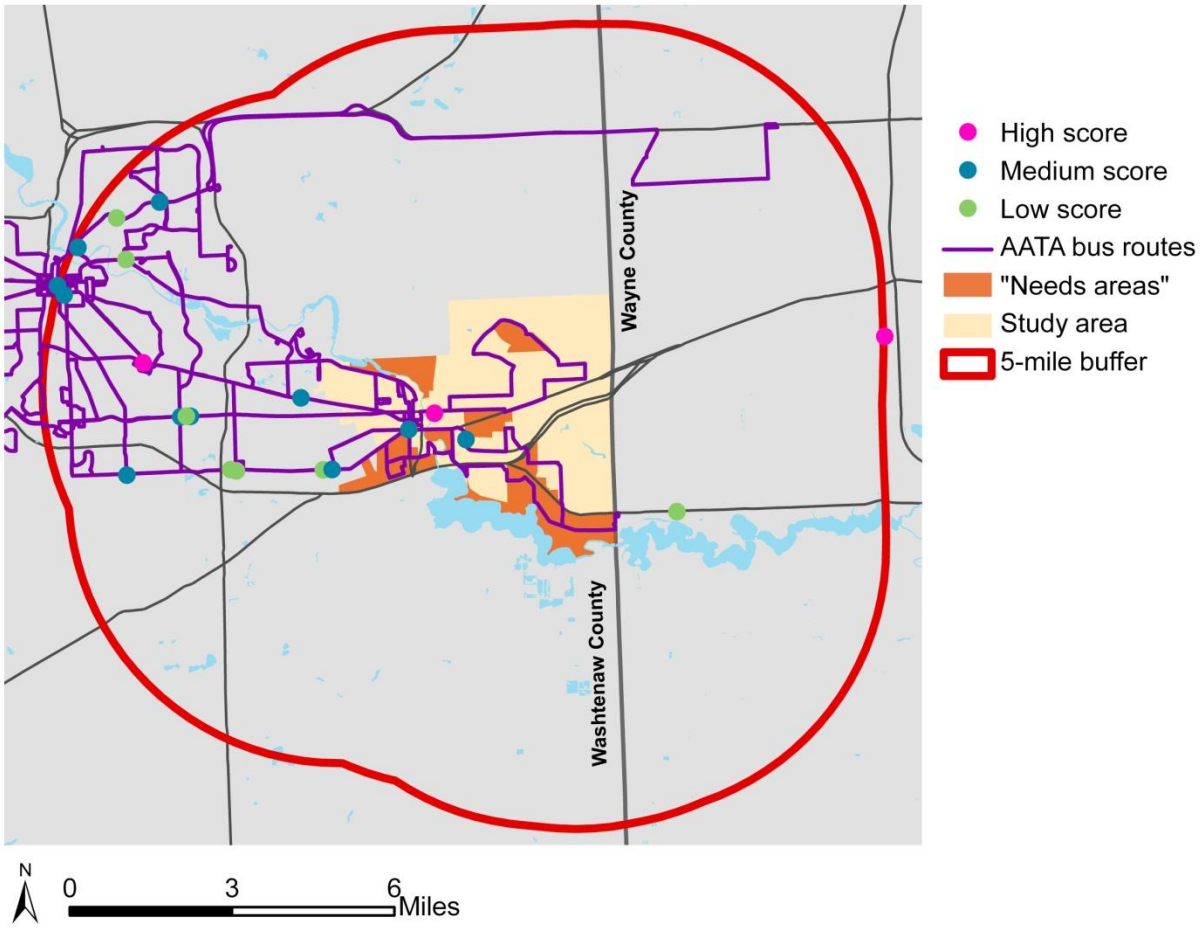

Figure 14. Ranking of Healthy Food Options at Smaller Grocery Stores, Study Area, Washtenaw County, 2012

Source: Reference USA; Field Surveys; Ann Arbor Transportation Authority; Michigan Geographic Data Library

5 Focus Groups: Learning from Residents

The empirical analysis presented in Chapter 0 was useful for revealing general trends among a large population, but studying data at such an aggregate level is not well suited for understanding individual behaviors, attitudes, and desires. Focus group research allows for a more in-depth, qualitative understanding at a finer-grained level of detail. This chapter presents findings from a set of focus groups that we conducted in order to hear directly from residents about their personal experiences in accessing healthy food in eastern Washtenaw County.

We used the results of the empirical spatial analysis to guide the questions and issues to explore in our focus groups. The aims of the focus groups were primarily to examine how residents travel to access their food, to ascertain perceptions about the strengths and weaknesses of traveling by car, transit, or some other means, and to discover the strategies that shoppers use to overcome the challenges they face in accessing food. To illustrate, we asked questions about how frequently participants used a car or public transit, the kinds of stores they typically visit, and the characteristics of stores that were most important in deciding where to shop. We also asked for ideas about changes that might improve their ability to access healthy food.

Our empirical analysis also informed the selection of participants in focus groups. We held five focus group meetings with about 10 to 15 participants in each meeting, with discussion lasting about 1-1/2 hours. The five groups consisted of:

- Participants in the Women, Infants, and Children Food Assistance Program, held at the Washtenaw County Public Health Building;
- Residents of Chidester Place, a subsidized housing apartment complex near downtown Ypsilanti;
- Residents of the West Willow neighborhood, held at the West Willow Community Resource Center;
- Food-bank participants, held at the Community Church of God on the south side of Ypsilanti (two independent focus groups).

These groups were selected to achieve a mix of geographic location and demographic characteristics known to experience mobility constraints. Participants were primarily low-income residents of the study area, with a large share of women with children, and with a representative number of seniors and people with disabilities. We transcribed audio recordings of the proceedings and conducted a content analysis. Although the focus groups provided a rich and detailed set of lessons covering a wide range of topics, we provide a brief summary of only the principal findings below. We do not include participant names in order to ensure the privacy of the focus group members.

5.1 The Value of Diversity in Shopping Destinations

Focus group participants consistently cited a desire to shop at multiple stores. ***These shoppers place such high value on having a wide range of choices in food that they will travel to multiple destinations in order to meet their needs.*** Such shoppers are thus willing to trade off the additional costs of travel in exchange for other benefits they perceive, such as price savings, higher quality of goods, and better service.

Several participants spoke about how visiting multiple stores allows them to engage in comparison shopping, to ensure that they are finding the best combination of price and quality. Residents of eastern Washtenaw County appear to be highly experienced in their shopping and know multiple stores in the region well.

A set of remarks reflect the desire to find cost-effective prices:

> Female: "We know that cereal is always cheaper at WalMart. Cereal items. We hit WalMart first. That's just the way it is."
>
> Female: "You go to Meijer and it's six dollars for one box of cereal. You go to WalMart and get it for three. The same box. Truthfully, I go to four or five stores and I catch the bus."
>
> Female: "I go for price and quality. If it doesn't look good in one place, I'll go somewhere else to buy it … If it's not good at one store, I go to another store. I'm really picky about my food. Especially vegetables."
>
> Female: "Once I got pregnant, I wanted vegetables and so when I crave 'em – I really stock up on fruits and vegetables. And I'm really picky about how they look. If I go to Meijer and they look really bad, I'll go to Kroger. Or I just won't buy it. Price is also really important. Because I have to buy diapers and all of that. It really adds up."
>
> Female: "I go to Kroger – so I can eat all month. I mean the quality is not that bad. Save-a-Lot is where I go meat shopping – unless it's chicken. But I don't like bad quality."
>
> Female: "I got two grandkids that live with me, and anywhere a sale is on is where I go, [laughs], oh, and I go [in the morning]. So I go to Sam's, Walmart, Dollar Store, Big Lots [sounds of agreement from others], anywhere I can get some sales, you know, I go to Kroger's."
>
> Male: "You know what's cheaper but it's so far away? Aldi's. You guys been to Aldi's? It's awesome for canned goods, can't beat it. But, again, it's way out Jackson Road and, the other side of Ann Arbor."

This exchange illustrates a commonly cited desire to comparison shop:

> Male 2: "[I go to] Save-A-Lot, Kroger's and Meijer's.
>
> Moderator: "Ok, so you go to different places."
>
> Male 2: "Yeah, to comparison shop."

One participant reflected on how she would prefer to visit multiple stores, but for reasons related to transportation and the carrying of groceries, she now feels limited to a single store:

> Female: "When I was younger and had a family I think I looked more for sales but now I make my list of what I'm going to get, I go to one store, gas is too high for me to run from store to store, so I go to one store. I don't shop for large quantities anymore because I don't feel like putting them up and dragging them in the house. When I go, I get just what I need and then I'm out of there. I have a senior parent, and I do shop for him from time to time. But because I do most of the cooking for him, it's usually me, just little things that he wants special. Kroger is my store."

Some participants indicated a detailed knowledge about multiple stores, especially on the availability or quality of offerings:

> Female: "[I go to] Meijer's, and Hiller's for meat, the meat is pretty good there except the chicken."
>
> Female: "I generally try to go Hiller's for meat when it's on sale, because they kind of rotate their sales, and their sale prices on meat are good and their meat is really good. I might buy some at Meijer's, but not usually, but I do shop at Meijer's and I do shop at Kroger's. And then I go to the Mexican store, Dos Hermanos. And once in a while I go to the co-op. So that's … yeah ... and then Costco."

This exchange among participants in the West Willow neighborhood, an isolated neighborhood with few shopping options nearby, indicates a high level of knowledge about store quality in the region, and in particular a dissatisfaction with the one store close to the neighborhood:

> Female 3: "Kroger's do get the bus, over there on Michigan Avenue."
>
> Female 1: "No, that one's dirty, it's nasty. That's like the Meijer's on Carpenter Road."
>
> Female 5: "Oh, I agree."
>
> Female 2: "And the Kroger's on Packard is a little bit better, but if you compare that to the one they have on Whittaker, it's totally different."

Female 5: “Oh, the one on Whittaker is great.”

Female 2: “It’s still overpriced.”

Female 1: “I think the Kroger’s on Michigan Ave, and the Meijer’s, they look at their clientele, who comes in there, and therefore … [throws up her hands in exasperation].”

Moderator: “They don’t try very hard?”

Female 1: “Mm-hmm. They don’t try at all.”

Female 2: “They don’t try.”

Some participants like the ability to shop at multiple stores so that they can find particular foods that are not necessarily available at all stores:

Female: “Sometimes I do go to Von’s, if I’m over in that area, cause I go to the community center off of Clark Road, and if I’m over there, I think Von’s deals more with the Afro-American—it appeals to me because their vegetables, and they try and keep their prices down … [but] their meat department, I don’t shop there. I go in and get what I want … I’m getting green peppers, or greens, or something like that, and for dry beans and things like that, they carry the bulk dry beans, and a lot of times they’ll be on sale…and I guess I’m kind of a junkie for sales.”

Female: “I will go to Hiller’s when they have their pork chops on sale.”

Female: “I stopped going to the places out here [on the east side of Ypsilanti] and started just going to the this meat market in Wayne and the vegetable store, and you leave the vegetable store [Randazzo’s a wholesale provider of fresh vegetables], fifty dollars gives you a cart full of vegetables … And between those two—and I might go to Aldi’s for like, dry stuff—but between those three places, I’m spending maybe two thirds of what I used to spend, and it’s way better quality, and you know, it’s a whole day grocery shopping cause you gotta go out to Wayne, but to me it’s so worth it, because I fill up the deep freezer, and then the vegetables last two or three weeks as opposed to three days.”

5.2 Public Transit is Not Well Matched with Needs Associated with Food Shopping

Public transit is an essential service that brings a wide array of benefits to a community, including meeting such important public goals as better air quality, reduced road congestion, and providing a vital link to opportunities for people who are unable or unwilling to drive a car. Despite these many well-known benefits, public transit was never designed to be competitive

with a private automobile for nonwork trips such as shopping. Public transit has traditionally worked best for the journey-to-work commute. Riding a bus for shopping is usually far inferior to driving a car: a bus is slower, less flexible in schedule, less comfortable, and limits a shopper to about two bags of groceries.

Focus group participants regularly made comments that were consistent with this perception of public transit, reflecting a desire to avoid using public transit in general, and especially because of challenges related to food shopping. These comments suggest that ***low-income people who are otherwise far more likely to use public transit than the general population are nevertheless reluctant to use public transit for food shopping.*** Reasons for this reluctance range from a lack of scheduling flexibility, to a lack of adequate connection to important destinations, and to fears of crime and traffic fatalities.

Several participants made comments that summarized their preference for avoiding public transit while shopping:

> Female: "We all—I'm sure everybody here prefers to ride in a car, as opposed to the bus, just because it's, you know, just such a hassle, with groceries, the kids, you got to stand out there waiting when it's wintertime, that plays a part in it."
>
> Female: "I used to catch the bus, but you really can't go grocery shopping when you're catching the bus, unless you're just going to get small things. That's really hard, to carry a lot of bags on the bus, and then you have to walk a long distance with it too … yeah, that's going to be kind of hard."
>
> Female: "It severely limits how much you can do. Cause if you're riding by yourself, you don't want to be coming home after dark usually, and I usually scooter from the terminal to here."
>
> Female: "I drive, I have my own car. I used to catch the bus but it's so irritating. I'm blessed to have my car now."

Some comments made reference to frustrations with attempting to match a transit schedule to one's personal schedule, and also avoiding transit because of a sense of danger from having to interact with a built environment designed for cars rather than pedestrians or buses:

> Male: "Well, first of all, you have to—distances are important, and times. You have to be here to catch this bus, to get over there, to catch this transfer, to get over here, but this bus stops running after six o'clock, so you have to back it up and go, well if I don't leave by noon, I won't get to the store in time to get back at night, and it's crazy … trying to figure out where you're going and how you'll—especially if you're going someplace you haven't gone before. Being on the streets, trying to cross, crosswalks, it's a game, they're looking—I mean, nobody wants to kill you, but it feels like it … If you want to get someplace—if you can even get there on the bus, which you might not always be able to do—you'd

better time it out exactly and have it figured out and hope that none of the buses are late, or break down, because you'll be stuck."

Female: "The other day I needed to go to Arborland … and then to, um, the cigarette store on Washtenaw, and then to Meijer's. I had to take the 4 to Arborland, then I had to take the 22 to Meijer's and then the 22 back to Washtenaw, and then the 4 back to the cigarette store. Then I got off and, instead of riding the bus at that point … I rode home [on her scooter]. You know on Cross [Street] on the back there. Cause there's no frickin' sidewalks on Washtenaw."

A widely cited reason for not using public transit is that buses do not go where participants want to go:

Female: "I just wish the bus would go to Sam's."

Male: "So, to take the bus you have to go to the scaggy Kroger, of course, on Michigan [Avenue]."

Female: "From my understanding Ann Arbor – they pay their bills and that why they have better bus service. Ypsi – they don't pay their bills and that's why they have limited. Like on Sunday. If you're trying to go somewhere – well you can forget about it. Because I ride the number 6 and there ain't a bus going anywhere … Like there is a bus that goes to Kmart in Belleville – but that only runs Monday through Friday. If you wanted to go that way – well then you're just stuck with the Kmart on Washtenaw. Places like Kroger. Like I don't like the one over here on Carpenter. The bus don't go to the ones you want. So you're sort of stuck where the bus takes you – not where you want to go. Just like at the Super WalMart down there on Michigan Avenue way down in no man's land. So we're just stuck with the high, cut-and-dried, little bitty Walmart."

This exchange was in response to a question about what would make public transit more appealing:

Female 1: "Like everybody else was saying – access. You know. Every mile there should be some access."

Female 2: "Like number 6 [bus], you can't go to the store. Like in Detroit, the buses run all night."

Female 1: "They don't do that no more. Certain buses do run all night but it depends on where you're at."

Some people were reluctant to use the bus because of the challenge of carrying groceries, as stated clearly in this exchange:

> Female: "Yeah, I usually take a car. In the past, I've taken the bus or walked."
>
> Moderator: "And why did you take the bus or walk? Is it because you didn't have a car?"
>
> Female: "At that time I did not have a car."
>
> Moderator: "And what about taking a bus was trouble?"
>
> Female: "It just limits what you can carry, basically."

Similarly, one comment suggested frustration with having to fight for limited space in order to carry groceries on a bus:

> Female: "If they can put bike racks on the front of the bus, they can have a spot for me to sit with my basket."

Public transit works best in high-density environments, and in locations where many destinations are reachable because they are nearby and linked by transit routes. This comment comes from a resident of the West Willow neighborhood to the east of Ypsilanti, a neighborhood notoriously isolated from surrounding destinations because it is surrounded by highways, railroad tracks, and industrial developments. Her comment indicates how some locations are better than others when it comes to using public transit:

> Female: " … you can't, you can't ride the bus [from this neighborhood]. When I lived in downtown Ypsi, I could take the bus, and the bus station was directly across the street from my house so I could do it, but here, there's no way."

Finally, this exchange among a group of women, all of whom are older than the age of about 50, is in response to a question about what would make riding a bus better:

> Female 3: "If they put air fresheners up there [general laughter]. No, I'm dead serious … All the young kids be on there, acting a fool and just—I just really don't want to get on that bus."
>
> Female 6: "They need just like an over-fifty or an over-thirty bus … You don't want to do that thing early in in the morning [be with noisy young people]."
>
> Female 3: "They need a grown-up bus!"
>
> Female 6: "And you know they talking, rapping and all that. You don't want to hear that early in the morning."
>
> Female 5: "I don't want to hear it anytime."

Female 6: “I know! You got other things on your mind, going this way and that way, and they’re on there.”

Female 2: “There’s no, as far as grocery stores go, there’s no good grocery stores on the bus, except for like Whole Foods and Hiller’s.”

5.3 Cooperation to Take Advantage of an Automobile

Given the widespread perception that public transit does not meet the needs of food shopping well, it is not surprising that many people believe that the convenience, flexibility, and cargo space of an automobile are a necessity for shopping. Focus group discussions commonly suggested that ***driving a car for food shopping is so superior compared to other options that people will take unusual steps to cooperate and share the resource with family and friends***.

Note that the degree of cooperation evident from the comments of focus group participants is not typical among the traveling public at large. Privileged car-owners typically require high economic incentives before engaging in the cooperative use of a private vehicle, such as through business-sponsored carpool programs or high-occupancy vehicle lanes. The comments that follow show, by contrast, that people with few travel options often resourcefully resort to social solutions in order to take advantage of the powerful benefits of an automobile.

The most common means of cooperation is to share rides with friends or relatives in order to get to a food store:

Female: “[I’ll] just call, you know, maybe my sister, y’all going to the store today? Yes, no, maybe tomorrow, ok … or if my son and his family are on the job hunt and have to do whatever, you know, they might be going one way and I’ll say, ok, drop me off and swing by and grab me … it works out most of the time.”

Male: “I go to a meeting with a friend every Tuesday and he has a wife and three kids so he goes shopping so I go with him every Tuesday.”

Female: “We can share, like, the gas and go in one car. We go—just women—when the kids are in school, especially in the morning when the kids are in school, we go. Sometimes we go five families, four families, in one car.”

Female: “People just call others to see who’s going. Usually you, usually you make a connection with somebody and you kind of figure out when they’re going and you call and say, can I go, or can you pick up something for me.”

Female: “We all just pile up. When we going out, shopping to like Randazzo’s, we get people from church, sometimes like three or more, we just pile up, get all this fruit, especially when we have something at church, oh yeah, a bunch of us … Yeah, and all of us get together and say, ok, nine o’clock we’re meeting at the churchyard or at my house, or somewhere, nine o’clock, everybody be there,

> because we want to be there, whatever time it opens … we'll be there, so we just pile up and get like grapefruits and all this stuff … "

Another cooperative strategy to take advantage of a private vehicle is to have others do shopping for you, or to do the shopping for others, or to share the load jointly with others:

> Female: "I have my own car, I do have a disability, riding a bus for me would be—frankly, I have so many triggers, and it's severe enough that I'm on oxygen for it. Unable to get out in the summertime, unable to get out in the wintertime, so, friends, neighbors, a family from church does a lot of my grocery shopping for me when I can't."
>
> Female: "Yeah, I don't ever drive, so I'm always with somebody else. So I call like two or three of my friends that I know shop the same way I do, and I'll say when are you going, I'll go with you, or organize like that. Or I'll call my mom and ask her, or sometimes I'll shop for my dad."
>
> Female: "Cause I know [names someone in the neighborhood], they did take her car from her, she ninety-three years old, you know, when I'm over on that side of town, she needs milk or something like that, I'll get her milk and stuff."
>
> Female: "Yeah, it's good to have friends who are willing to go shopping with you, so you can split up the load and, what Sue said, if you go to the big stores, if you get a ride or have a scooter, that you get the big stuff, because you don't want to try to drag—it weighs too much, for one thing."

Finally, this comment illustrates not the sharing of a vehicle, but rather an inventive social solution to overcome a lack of parking for a car, thus allowing a family to shop more easily by using a vehicle. The woman making the comment explained that she turned to the solution of cruising near the farmers' market while her grandchildren do the shopping, rather than avoiding the busy downtown farmers' market altogether because of an inability to find parking:

> Female: "Well, usually when I go to the farmers' market I'll have picked up my grandchildren from the school bus, so if I can't find a place to park, they go around and tell me what the prices are, and then they come back to the car, tell me what they want, and I just give them the money and they [buy it]."

6 Case Studies: Lessons from Successful Initiatives

List of Case Studies

AATA Senior Ride: Ann Arbor, MI
Baltimarket: Baltimore, MD
Northwest Detroit Farmers' Market Shuttle: Detroit, MI
Fresh Corner Café: Detroit, MI
Lena's Food Market Shuttle: Milwaukee, WI
Peaches and Greens: Detroit, MI
Austin Grocery Bus: Austin, TX

6.1 AATA Senior Ride: Ann Arbor, MI

Overview

The Ann Arbor Transportation Authority (AATA) offers a service called Senior Ride, which takes seniors living in six senior citizen housing complexes to two local grocery stores for a fare of $0.75 each way. Over time, the service has included fewer stops due to declining use, but AATA will likely continue to offer the Senior Ride to those who rely on it.

History

AATA has offered the Senior Ride for at least 20 years. Stop and route changes are rare and occur only if ridership declines to fewer than five people per housing complex. AATA seldom adds new stops, but the Senior Ride coordinator explains that if a senior housing complex were interested in having a Senior Ride pick-up, AATA would consider it as long as it was located in Ann Arbor and at least five people would regularly use the service.

The bus used to take riders to Busch's on Green Road, but stopped because not enough people wanted to shop there. Louis, the Senior Ride driver, guesses that the seniors thought Busch's was too expensive. The Senior Ride also used to operate every Tuesday and Thursday but now runs only on Tuesdays. Currently, it takes passengers from six senior housing complexes to the nearest Kroger or Meijer location.

Inputs

The Senior Ride uses a regular AATA bus, and all of the senior housing complexes are located in Ann Arbor, excluding Carpenter Place (3400 Carpenter Road), which is in Ypsilanti. Since the funding for Senior Ride comes mainly from Ann Arbor property taxes, AATA will not consider adding new stops outside Ann Arbor. However, since Carpenter Place residents rely on this service, AATA continues to pick up at this location.

According to AATA controller Phil Webb, funding for the Senior Ride comes from the same sources as the regular AATA fixed route service (about 40 percent from Ann Arbor property taxes, 30 percent from state operating assistance, and 20 percent from fares). Since the Senior Ride accounts for such a small portion of AATA's total service hours, it does not appear as a separate line item on the AATA budget.

Outputs

The Senior Ride takes about 5 – 15 people from each location to the grocery store every week. The reduced fare of $0.75 per trip is half of the regular AATA fare of $1.50, but people over 60 qualify for half-price fares anyway, and those over 65 can ride the fixed-route service for free (with an AATA Senior Card).

Management/Operation

Staff

AATA employs one person to coordinate the Senior Ride service and one driver. The coordinator contacts each of the six senior citizen housing complexes at the beginning of each month to distribute the schedule for that month. Typically, the schedule is the same every month. Staff members at the housing complexes then post the schedule for residents to see.

The same driver usually operates the Senior Ride each week, but another driver will fill in if he is unavailable. AATA drivers bid on routes three times per year, and AATA has a few driver positions called "extra board." Drivers with this title are available when regular drivers are off. One particular extra board driver, Lou, drives the Senior Ride every Tuesday.

According to the Senior Ride schedule, the driver's responsibilities include:

- Taking a passenger count at each pick-up point and at the start of each return trip, allowing no more than two hours for shopping,
- Assisting passengers with boarding and alighting,
- Assisting passengers with their bags,
- Notifying passengers of the departure time,
- Starting the return trip only when the event is complete

Operations

AATA's Senior Ride offers three routes: A, B, and C. Route A runs only on the first Tuesday of the month and stops at two Kroger locations (Maple Road and Carpenter Road). AATA selected these stores for the first week of the month because they have banks or ATMs, which people often need in the beginning of the month for cashing or depositing checks. Routes B and C stop

at two Meijer locations (Ann Arbor-Saline Road and Carpenter Road). After the third Tuesday (route C), the schedule alternates between routes B and C, which are almost identical, except for a few 5 minute differences. AATA selected these stores based on proximity to the senior citizen housing complexes and riders' preferences.

Senior Ride schedule (May 2012)

The following schedule reflects the actual destinations and pick-up locations, but the times may have changed.

A - Tuesday 5/1

Destination: Kroger (Maple Road)
Pick-up location: Cranbrook Towers (10:00 AM)
Destination: Kroger (Maple Road)
Pick-up locations: Courthouse Square (10:15 AM), Lurie Terrace (10:25 AM), Sequoia Place (10:35 AM)
Destination: Kroger (Carpenter Road)
Pick-up locations: Ann Arbor Woods/Arbor Village (11:15 AM), Carpenter Place/American House (11:30 AM)
1st return trip: Kroger (Maple Road, 11:45 AM) to Cranbrook Towers
2nd return trip: Kroger (Maple Road, 12:10 PM) to Courthouse Square, Lurie Terrace, Sequoia Place
3rd return trip: Kroger (Carpenter Road, 1:00 PM) to Ann Arbor Woods/Arbor Village

B - Tuesday 5/8

Destination: Meijer (Ann Arbor-Saline Road)
Pick-up location: Cranbrook Towers (10:00 AM)
Destination: Meijer (Ann Arbor-Saline Road)
Pick-up locations: Courthouse Square (10:20 AM), Lurie Terrace (10:30 AM), and Sequoia Place (10:35 AM)
Destination: Meijer (Carpenter Road)
Pick-up locations: Ann Arbor Woods/Arbor Village (11:15 AM) and Carpenter Place/American House (11:30 AM)
1st return trip: Meijer (Ann Arbor-Saline Road, 11:45 AM) to Cranbrook Towers
2nd return trip: Meijer (Ann Arbor-Saline Road, 12:10 PM) to Courthouse Square, Lurie Terrace, and Sequoia Place
3rd return trip: Meijer (Carpenter Road, 1:00 PM) to Ann Arbor Woods/Arbor Village and Carpenter Place/American House

C - Tuesday 5/15

Destination: Meijer (Ann Arbor-Saline Road)
Pick-up location: Cranbrook Towers (10:00 AM)
Destination: Meijer (Ann Arbor-Saline Road)
Pick-up locations: Courthouse Square (10:15 AM), Lurie Terrace (10:25 AM), and Sequoia Place (10:35 AM)
Destination: Meijer (Carpenter Road)

Pick-up locations: Ann Arbor Woods/Arbor Village (11:15 AM) and Carpenter Place/American House (11:30 AM)
1st return trip: Meijer (Ann Arbor-Saline Road, 11:45 AM) to Cranbrook Towers
2nd return trip: Meijer (Ann Arbor-Saline Road, 12:10 PM) to Courthouse Square, Lurie Terrace, and Sequoia Place
3rd return trip: Meijer (Carpenter Road, 1:00 PM) to Ann Arbor Woods/Arbor Village and Carpenter Place/American House

B - Tuesday 5/22 (same as 5/8)

C - Tuesday 5/29 (same as 5/15)

Challenges & Solutions

The main challenges with the Senior Ride are declining ridership and the unpredictability of its timing. AATA has handled the declining ridership issue by reducing the frequency of the shuttle from twice to once per week. According to Lois Crawford, AATA does not actively market the service and is not looking to expand it beyond the six current stops. AATA relies on the staff at the housing complexes to let residents know about the Senior Ride.

The timing issue seems to be only a minor inconvenience, and riders seem to be patient and understand that there is only one driver to help everyone board and exit with bags. Boarding and exiting with bags accounts for most of the delays. The driver's willingness and ability to help passengers is essential to the success of the Senior Ride. When assisting passengers, Lou's speed, efficiency, and positive attitude were remarkable.

Lessons Learned

AATA's Senior Ride provides a necessary service to a small number of senior citizens in Ann Arbor and Ypsilanti. Over time, the program has declined in ridership and services, but communication with AATA staff suggests that AATA continues to offer the service because it has been running for so long and because it is essential to the few people who still use it. Additionally, having a dedicated driver who is willing to help passengers is essential for this service since so many passengers need assistance with bags, wheelchairs, walkers, and carts. The driver also needs to be flexible and able to revise the route according to passengers' needs.

Sources:

AATA Senior Ride Calendar. May 2012.
Lois Crawford, AATA. Personal communication. May 20, 2012.
Louis. AATA bus driver. Personal communication. May 22, 2012.
Phil Webb, AATA controller. Personal communication. May 20, 2012.
http://www.theride.org/fares.asp

6.2 Baltimarket: Baltimore, MD

Overview

Baltimarket, a program of the Baltimore City Health Department, links communities with high food-access needs to a virtual grocery and delivery service offered by Santoni's supermarket. Currently, Baltimarket facilitates grocery ordering and delivery at six central sites in the city: three at branches of the Enoch Pratt Free Library, one at George Washington Elementary School, and two at senior homes. Every week at each of the sites, Baltimarket staff members assist community members to submit their grocery orders online. At each site, this 3-hour ordering session is offered at the same time each week. (Shoppers also have the option to order online on their own time from any location). During a weekly 1-hour delivery period that is specified for each site, shoppers can pick up and pay for their groceries with the Santoni's driver. The driver accepts cash, EBT, debit and credit card.

Baltimarket also provides healthy cooking demonstrations and a $10 incentive for healthy food purchases. The health food incentives are issued on a customer's first order and then every fourth order.

History

Baltimarket grew out of an idea developed by a Masters student at Johns Hopkins School of Public Health. In the pilot program, churches were used as the ordering and delivery sites. The church sites proved not to be as successful as hoped; very few community members who didn't belong to the churches participated in the earliest version of the program.

When Baltimarket officially launched in March 2010, two library sites were selected in place of the church sites. The official program was supported by a $50,000 grant through the American Recovery and Reinvestment Act.

After exploring a relationship with various grocery stores in Baltimore, Baltimarket made an agreement with Santoni's, a local grocer that has been in business for over 80 years. Santoni's was chosen because the store already offered remote ordering and home delivery, supplied a variety of fresh and packaged food as well as home and personal care items, and offered competitive prices. Perhaps most importantly, owner Rob Santoni was eager and willing to make his store's products and services accessible to more people in the community.

Currently, Baltimarket operates ordering and delivery sites at three branches of the Enoch Pratt Library and to an elementary school. Within the past year, Baltimarket has opened additional sites at two senior homes; these sites are run chiefly by community members. Program staff members are communicating with the city's Housing Authority and are making plans to offer delivery at several public housing developments in the city. They hope that delivery to these new sites will begin within the next year.

Location

The communities currently served by Baltimarket are located in Cherry Hill, Washington Village ("Pigtown"), and Jonestown/Oldstown. All of these communities have been identified as "food deserts" on the Baltimore Food Desert Map, created by the Johns Hopkins Center for a Liveable Future. The sites were chosen for three reasons: 1) They are located in communities that have a need for fresh, affordable food access, 2) Baltimarket staff had existing relationships with community partners connected to these sites, and 3) in some cases, community members expressed a strong interest in bringing a site to their neighborhood.

Inputs and Outputs

Inputs

- Staff time: two full-time employees and one part-time employee (approx. 15 hours/week); staff salary and benefits represent roughly 90% of the program's costs
- Space: Office space at the Baltimore Health Department; borrowed table space at ordering/delivery sites
- Equipment: Two laptop computers are carried by Baltimarket staff to assist shoppers with ordering
- Truck: Mini-van (no refrigeration or other alterations) maintained, operated and funded by Santoni's
- Relationship with Santoni's: Baltimarket subsidizes Santoni's delivery costs; they hope to eliminate this cost as the customer base grows

Outputs

- Number of grocery orders placed varies by location; one location see 3-4 orders each week, while another averages 12-15.
- The average order approximates $40.
- Over 150 community members participate in the program
- Over $21,000 worth of groceries have been purchased over the course of the program's existence

Management/Operation

Staffing: Laura Fox has been the program's coordinator since 2010. The program also employs a full-time community organizer who performs most of the community outreach, including working with the Neighborhood Food Advocates, community members who meet to discuss

their community's specific needs and priorities around food access and spread information with others in their community. A third staff member works part-time with Baltimarket; she facilitates some of the ordering and delivering sessions at various sites.

Schedule: (does not include newest sites at senior homes)

Orleans St. Library branch: Order Tues. 12:30–3:30PM; Delivery Wed. 4-5PM

Washington Village Library branch: Order Mon. 11-2, Delivery Tues. 4-5

George Washington Elementary: Order Mon. 2:30-5, Delivery Tues. 2:30-3:30

Cherry Hill Library branch: Order Thurs. 12:30-3:30, Delivery Fri. 4-5

Challenges and Solutions

A major challenge is that the program is not reaching enough people. The library sites and the elementary school site only bring a handful of customers each week. However, the senior homes already have a much higher customer base. Due to this success at senior homes, the program staff members have turned their attention to residential sites. They've surmised that there may be a stigma associated with picking up one's groceries at a public site, while having groceries delivered to one's home is socially acceptable, convenient, and easier for shoppers. This solution also avoids the problem of working around a public institution's hours of operation and consumer traffic.

Baltimarket staff members believe that the program's media campaign needs to be stronger. In the beginning of the program, they bought an advertisement on the public bus system but realized that this method wasn't appropriate for the scale of the program. They've used flyers, attended community meetings, and recruited community advocates to spread the word. These methods have been effective; word-of-mouth is probably the best tactic for a program of this scale. The program has also generated a lot of publicity, but this doesn't seem to have brought about more customer traffic. With more funding, Baltimarket could dedicate more staff energy and expenses to developing its presence in local media outlets.

An additional issue is the sustainability of the program. Baltimarket currently operates on three grants. Planning and moving projects forward has been hindered by the on-going uncertainty of whether the program will be funded another year. Staff members will continue to support community residents to take greater responsibility for the program operations; eventually, they hope that each community will operate its delivery site with minimal staff support. If a delivery site can generate enough orders, Santoni's will likely agree to waive the delivery charge. This solution would allow components of the program to be sustained even if Baltimarket loses funding for its current staff.

Lessons Learned

The Neighborhood Food Advocates represent part of an ongoing effort to engage community members in the evolution and ownership of Baltimarket. Last summer, the program staff recruited advocates to spread the word about the weekly grocery ordering and delivery. During the course of the summer's twice-monthly meetings with the advocates, the community organizer realized that the advocates were interested in other issues and opportunities related to food access. He has supported these groups to pursue projects that they deem most important, including the development of a community garden. Baltimarket staff members plan to continue to provide a structure for communities to identify and pursue their own goals related to food access.

Virtual Supermarket

Line Item	*Current level 12 month Amount*
Project Coordinator Salary & Fringe	
Project Community Outreach Worker (Including Fringe)	
Project Assistant- (Part-Time at 20 hrs including Fringe)	
Verizon Wireless for 3 computers	$1,440
Equipment Maintenance	$1,000
Start up computer Cost	$3,500
Design Costs (1 MICA student/ semester- for 2 Semesters)	$1,500
Baltimarket Website (includes VSP and all FPTF recs)	$2,000
Flyers, Posters, Banners	$3,000
Baltimarket Bags	$5,000
Delivery Fees	$4,000
Healthy Cooking Demonstrations	$2,000
Incentives for Healthy Food Purchasing (coupons)	$5,000
Travel (Gas Reimbursement)	$1,000
Presentations/Training	$1,500
Total	$30,940

6.3 Northwest Detroit Farmers' Market Shuttle: Detroit, MI

Overview

Grandmont Rosedale Development Corporation (GRDC), a community development corporation in northwest Detroit, operates the Northwest Detroit Farmers' Market. The Northwest Detroit Farmers' Market is a small market with about 15 vendors selling mostly fruits and vegetables as well as some other items such as baked goods, coffee, tea, and honey. In 2011, GRDC received funding to implement a pilot shuttle program to improve access to healthy food. The shuttle ran through the nearby Brightmoor neighborhood, whose residents tend to be low income and have limited access to personal vehicles and healthy food options. This case study serves as an example of the "bringing people to food" model for improving healthy food access. Due to the many food assistance programs available at the market, the food is affordable for most shoppers.

History

In 2011, GRDC received funding from the USDA (via the Eastern Market Corporation) to run a pilot shuttle program at the Northwest Detroit Farmers' Market. The farmers' market is open from 4:00 PM to 8:00 PM every Thursday and has operated each summer (May through October) since 2006. Since most vendors do not have credit card machines, customers can swipe their credit, debit or EBT cards in exchange for tokens at the Market Central tent. All vendors accept EBT tokens, and the percentage of sales from EBT cards has increased over the past few years. Many vendors also accept Senior Project FRESH/Market FRESH coupons. Additionally, the market participates in the Double Up Food Bucks program, which matches Bridge card purchases up to $20 per visit. Shoppers can redeem the Double Up Food Busks tokens and Senior Project FRESH/Market FRESH coupons for Michigan-grown fruits and vegetables at the market. In order insure that shuttle riders had a wide enough selection of food-assistance-eligible products to choose from, the shuttle started running the first week in July, as this is the time when the most Michigan produce is available, and continued through the market season.

Inputs

GRDC used most of the $6,000 USDA grant to rent a small school bus. Per the recommendation of a Brightmoor resident and vendor at the farmers' market, GRDC partnered with a Brightmoor non-profit organization, City Mission, which owns a small school bus that can accommodate about 20 adult passengers. Part of GRDC's contract with City Mission included an hourly wage for a shuttle driver and attendant. City Mission employed the driver and attendant and paid them using the funds from GRDC, and GRDC had t-shirts and name badges with the farmers' market logo made for the driver and attendant.

GRDC staff hired a local resident to design a banner for the bus and yard signs to place at the shuttle stops. The banners were about 2' x 4' and were attached to the sides of the bus using bungee cords. The yard signs said "Farmers' Market, Free Shuttle Stop, Pickup time." GRDC staff

placed Velcro on the signs and attached laminated sheets with the pickup times (e.g. 4:00 PM). That way, they could change the times without buying new signs.

GRDC also bought 20 folding chairs and used a pop-up tent as a waiting area at the market for those waiting for rides home. GRDC staff provided a cooler full of ice and water bottles, so riders could wait comfortably for the bus.

Outputs

During the first few weeks, about 3 to 4 people rode the shuttle each week. Gradually, ridership increased to about 8 to 10 people per week by August. Ridership increased throughout the summer, especially after GRDC changed the schedule to include more senior apartment buildings.

Management/Operation

Staff

GRDC's Market Master and summer intern planned and coordinated the shuttle service, but City Mission employed the driver and attendant. The driver (or sometimes the intern) would place the yard signs at the shuttle stops every Thursday morning. At the end of the day, after helping the last passengers off the shuttle, the attendant would pick up the yard signs and take them back to City Mission.

Schedule and partner organizations

Initially, GRDC staff contacted several churches, a senior apartment building, and a community center to see if these organizations would be willing to have a shuttle stop at their locations and help with spreading the word about the shuttle. Four organizations agreed – a low income senior apartment building, a soup kitchen, a community center, and a church. Representatives at all four locations agreed to help spread the word about the shuttle.

The driver would go to City Mission at 3:30 PM to get the bus and arrive at the first stop at 4:00 PM. Once passengers had boarded at a given stop, the driver would take them directly to the market. Since Brightmoor Community Center and Citadel of Praise were so close (about half a mile or one minute apart), the shuttle was scheduled to pick up passengers from both at the same time and then go to the market. After several weeks during which no one boarded at the community center or the church, GRDC decided to discontinue those stops. Since the senior apartment building tended to have the most riders, GRDC staff contacted more senior apartment buildings. By the end of the summer, the schedule included three senior apartment buildings, the soup kitchen, and City Mission.

Initial pickup schedule (May 2011):

4: 00 PM Restoration Tower
5:00 PM St. Christine's Soup Kitchen
6:00 PM & 7:00 PM Brightmoor Community Center
6:00 PM & 7:00 PM Citadel of Praise

Revised pickup schedule (August 2011):

4: 00 PM Restoration Tower
4:15 PM St. Christine's Soup Kitchen
5:00 PM City Mission
5:15 PM Faith Manor
6:00 PM Greenhouse Apartments

Since ridership was low and the stops were close together, the driver could keep track of who boarded at which stop and could adjust the return trips as needed. The pickup times were far enough apart that the driver could take groups home on the way to the next pickup or make special return trips between pickups.

Challenges & Solutions

The main challenge was marketing and letting people know about the service. The Northwest Detroit Farmers' Market is small and has limited offerings, so it is not as well-known as the grocery stores or Eastern Market. Therefore, it is likely that people were reluctant to accept a free ride to a place they have never been, or perhaps had never even heard of before. The Double Up Food Bucks program was a major draw for many shoppers and shuttle riders. Ridership was low at first and increased slowly. Maintaining frequent communication with staff at the stops was essential. Part of the success of the senior apartment building was likely due to staff that would make announcements over the loudspeakers at these apartment buildings and remind people about the shuttle.

Another challenge was coordinating and communicating with staff at City. On one occasion, when the driver went to get the bus, it was not there because the church was using it. GRDC contacted the person in charge at the church and resolved the issue, but the bus was late all day and many of the riders and partner organizations were upset about the delay.

Lessons Learned

Several lessons emerged from GRDC's first summer running the free shuttle. People living in senior apartment buildings were the most receptive to the shuttle. These apartment buildings have dedicated staff members who can help with letting people know about the service and answer questions. Second, having an attendant to assist riders is necessary, especially when most of the riders are seniors. The attendant can help carry bags, lift walkers and wheelchairs, and answer questions. The attendant can also record how many people board at each stop and hand out rider surveys periodically. Finally, maintaining regular communication with all partner

organizations helped to ensure that everyone involved understood what was going on at all times.

6.4 Fresh Corner Café: Detroit, MI

Overview

Fresh Corner Café is a fresh meal delivery service that partners with local restaurants and food producers to provide healthy pre-packaged meals to liquor stores, gas stations, small grocers, cafes, schools, and corporate offices throughout the City of Detroit. It currently offers fresh salads, wraps, soups, and fruit cups. Their main mission is to increase access to wholesome, high-quality, and affordable foods in Detroit.

Operation

Fresh Corner Café is operated by a three-person staff and many youth staff hired from the Youth Food Brigade at Eastern Market that get paid on commission to sell products. Fresh Corner Café does not package or prepare their products, rather they buy prepared and packaged products wholesale. Lunchtime Detroit provides the salads and wraps and Peaches & Greens provides the cut fruit. Fresh Corner Café labels them, prices them, and packages them in insulated bags to distribute to stores.

Fresh Corner Café has a network of twenty stores to which they deliver twice a week, using a refrigerated delivery truck. Each store has a Fresh Corner Café cooler which Fresh Corner Café owns. The salads and wraps have a five-day shelf life and the fruit cups have a 7-day shelf-life. A specific staff-member is assigned to manage each order. Store-owners are able to order online or by phone, and payment can be made by cash, credit or check.

> "Initially, storeowners were unwilling to take the risk on unproven products, especially with the low margin that we could offer them. They pay us up front, but we credit them for products that don't sell before expiration. In other words, they return the product or we buy it back. Now that we have increased awareness and developed a more attractive product and brand, storeowners are more willing to take the risk. We've also lowered our wholesale costs, (due to wholesale volume) which allows us to increase the storeowner margin without increasing the retail price. We are aiming to move away from the consignment model in which storeowners can return unsold product. We hope to eventually shift all the risk to storeowners."

Fresh Corner Café serves roughly 8,000 customers. Half of the stores they serve are in Midtown, New Center, and Downtown. Another half of the stores are located in Northwest Detroit in Grandmont-Rosedale, Joy-Southfield, and the North End. In 2011, they generated $16,000 in profits.

"Corner Stores do really well in Detroit because many accept Bridge Card. Many of our customers use Bridge Card to buy our meals. "

Challenges

1. Store-owners' business needs can be erratic. What they ask for one day, they may not want the next day.

2. It is difficult to maintain a quality product. One wilted salad may ruin a customer's perception of Fresh Corner Café's products.

3. Fresh Corner Café has had a $5,000-$10,00 product loss. They have to keep a certain volume of products in all the coolers even though they know it won't all be sold.

   "There's tension between aesthetic display and accurate stocking. In the beginning we had to stock enough to make it look substantial and appealing, even though we knew the demand wasn't necessarily there. Product loss was considered a marketing expense. We've reduced product loss significantly, but it still exists. It's very difficult to predict how much will sell from week to week, day to day. There are costs to a customer coming to a store and expecting a product to be there when it's not. We have to balance those costs with the actual costs of product loss."

Impact

"It's a good start, we've heard positive reviews from many customers, and we're on a good path."

History

Fresh Corner Café started out as a class project for a group of Master of Business students at the University of Michigan. In a Social Venture Business course, students worked together to develop a business plan to make and distribute fresh produce at corner stores and party stores in Detroit. Groups in the class worked in competition for a $1,000 grant to pilot their business. The Fresh Corner Café group had the winning business plan and was granted $1,000. Students in the group contributed $4,500 of their own money for this cause, raised $12,500 from a kickstarter online fundraiser, and launched Fresh Corner Café in 2010. The initial business model involved approaching store-owners directly to sell produce that was packaged and distributed by the small staff of Fresh Corner Café.

Evolution

The initial business plan was not successful because it did not turn a profit, and within a year Fresh Corner Café revamped its business model. The first business plan involved selling packaged fresh produce, such as individually wrapped apples or pears. Many corner stores or party stores are stigmatized as dingy places, so packaging the produce in this way was meant to

keep it fresh. After one year, Fresh Corner Café changed their business model. They started processing the produce into simple and healthy on-the-go meals to distribute to their network of stores across Detroit.

Lessons Learned

According to Noam Kimelman, the CEO of Fresh Corner Café, the first business model failed for two reasons. One reason was that the packaged produce requires a lot of upkeep and a nice display in order to sell. Also, since the profit per product is low; making a profit requires selling a great volume of the product. Under the first business model, a great volume was not sold. Noam and the staff of Fresh Corner Café believe that prepared meals will serve as the anchor for the business by bringing in a consistent profit over time. With this anchor, the business will be able to grow and increase their products, offering less-processed options over time and eventually trying fruits and vegetables again.

Another lesson learned is that a good relationship with the store-owners can have a great benefit on overall profits. In some cases, store-owners are the most effective advocates for Fresh Corner Café products, so store-owner buy-in can be crucial for the success of this kind of business. Many store-owners know their customers well and can influence their choices. If Fresh Corner Cafe has a good relationship with the store-owners, they will talk up their products to their customers and give reasons to choose a Fresh Corner packaged meal instead of another option. For Fresh Corner Café, building positive relationships like this has doubled or tripled their profits at some stores.

Lastly, Fresh Corner Café has learned to transform some product loss by offering products a few days old at a reduced price. Marking these products down to cover their input prevents product loss and also allows them to cater to more people. According to Kimelman, the working-poor populations of Detroit cannot afford their products at full price, but are able to afford the reduced price items.

Coming Soon

Fresh Corner Café was approached by The National Kidney Foundation and The United Way with offers of financial support to boost their efforts to increase healthy food access in Detroit. The National Kidney Foundation has partnered with Fresh Corner Café to purchase large open-air coolers to install in its network of stores to increase its products and the volume of items at each store. Fresh Corner Café will hire a fourth employee and acquire another refrigerated delivery truck in August.

6.5 Lena's Food Market Shuttle: Milwaukee, WI

Overview

Lena's Food Market, a family-owned grocery store chain with three locations in Milwaukee, offers its customers free shuttle service. The store accepts WIC and food stamps, and

customers who spend at least $75 can get a free ride home from the store. The challenges associated with carrying heavy bags or arranging or paying for return transportation can influence the grocery shopping decisions of those who do not drive. This case study shows how grocery stores can help to improve access to healthy food by providing free transportation service.

History

The first Lena's Food Market opened in the 1960s. During the store's early years, a few senior citizens began offering shuttle service from the store as a way to earn extra income. In 1989, Lena's Food Market purchased its own vans and started offering free shuttle service for its customers. Now Lena's has three store locations (2322 West Oak Street, 4623 West Burleigh, and 4030 North Teutonia), each with three to four shuttle vans running daily.

Inputs

Lena's Food Market purchased three to four Dodge Caravans for each of its three store locations. The vans have the Lena's Food Market logo on the side and dividers in the trunk to separate each passenger's groceries. Each store also has two to four drivers working everyday day. Driving shifts usually begin at 8 AM, 9 AM, and 1 or 2 PM but vary depending on the store, day, and season.

The vans are not wheelchair accessible, but Lena's Food Market staff observes that most people with disabilities have other transportation options and therefore do not choose to use the shuttle. If someone who needs assistance inquires about the shuttle service, Lena's staff asks that a family member ride with the person.

Outputs

Since the group of seniors had already been offering an informal shuttle service prior to the start of the official Lena's Food Market shuttle service, Lena's shuttles had riders right away. A van can carry up to four people with groceries, but the vans often take just one person. Each store's vans run as needed and make several trips per day. During slow parts of the day, most of the shuttle riders are seniors, but during busy times, ridership includes people of all ages, especially after people have just received food stamps.

Management/Operation

Staff

One person manages the shuttle service for all three locations, and each location has two to four shifts per day for shuttle drivers.

Operations

Since Lena's is a family-owned and operated business, it does not have many strict rules. For example, it does not enforce the $75 grocery minimum for seniors or regular customers. It also does not define a specific service area. Drivers will take passengers anywhere within a reasonable distance but only to their homes (not to the pharmacy or to pick up kids from day care, for example). In general, passengers are responsible for placing their own grocery bags in the trunk and removing them when they arrive. This policy prevents drivers from giving passengers the wrong bags. However, most drivers will help seniors and those with disabilities, but the passenger must inspect the bags to make sure they get the correct groceries.

Challenges & Solutions

The main challenge is the cost of operating the shuttle, especially gasoline costs. The shuttle does not create any revenue directly, but Lena's Food Market views the service as a necessity that contributes to the store's high quality of customer service.

Lessons Learned

Despite the shuttle service's high costs, Lena's Food Market considers it worthwhile and finds that many loyal customers need and appreciate the service. Feedback from customers has been highly favorable, and shuttle riders often contact the store to report excellent customer service. Customers frequently offer tips to the shuttles drivers, but Lena's Food Market does not allow drivers to accept gratuity. Additionally, some customers, especially seniors, seem to view trips to the grocery store an enjoyable activity, and walking to the store provides good exercise.

6.6 Peaches and Greens: Detroit, MI

Overview

Peaches and Greens operates a stationary produce market and a mobile food vending truck in the central Woodward neighborhood of Detroit, Michigan; the program has been operating since 2008. Peaches and Greens is a ministry of the Central Detroit Christian Community Development Corporation. Its purpose is to provide access to affordable fresh fruits and vegetables for the residents of central Detroit; these residents would otherwise depend on corner convenience stores with limited produce options or grocery stores outside of their neighborhood. The Peaches and Greens store is open Tuesday through Friday from 10am-7pm, and on Saturdays from 10am-4pm. The truck makes stops on its route on Wednesdays and Thursdays and delivers a few individual orders on Tuesdays.

History

Peaches and Greens debuted the mobile produce vending truck in the summer of 2008. The truck's visibility was the forerunner of the store, which opened in October of that year. Since its opening, the truck has chosen different stops throughout the Central Detroit Christian CDC

service area, depending on response from community members and the truck driver's interest in trying new sites. Peaches and Greens has employed five (I wrote down 6- AS) different drivers over the course of its operation. Within the past year, the business bought a new, more reliable truck and had it covered with their logo and pictures of fresh fruits and vegetables. In May of 2012, the store employed a new manager, Liz Etim, to allow the current manager, Kate Cramer-Herbst, to focus on youth programming.

Location

Central Woodward neighborhood in Detroit, MI

Inputs and Outputs

Inputs

- Staff time: 2 full-time employees for the store; 1 truck driver (about ¾ time?); 1 Peaches and Greens program manager (salary paid by CDC-CDC); 1 part-time youth employee through the Pay it Forward program (who pays her salary?)

- Space: Store space located at 8838 Third Street, Detroit. Equipped with store displays, cash registers, EBT/debit/credit machine, produce refrigerator, and commercial kitchen (and kitchen tools) for food preparation and demonstrations.

- Truck: Purchase of Mercedes-Benz diesel commercial truck; fuel (need more info on costs).

- Produce purchase: Money up-front for the week's produce, purchased by produce buyer from Detroit Produce Terminal.

Business Process

The Peaches and Greens manager makes a shopping list each Monday for their produce buyer; the list includes the previous week's wholesale prices. The manager adjusts the type and quantity of the items on the buying list based on the previous week's customer demand and her knowledge of seasonal demand (e.g. the popularity of sliced watermelon in the hotter months). She then calculates the estimated total and gives the list and cash to the produce buyer. In the past, the manager also has acted as the produce buyer. However, they have found it is more efficient to use a produce buyer who has or can easily form relationships with the wholesalers; this helps the buyer to get better prices. The buyer purchases produce from the Detroit Produce Terminal in the early hours of Tuesday morning. The store takes deliveries and conducts inventories on Tuesday morning. The Peaches and Greens truck makes individual deliveries (at no charge to customers) on Tuesdays, but they have found it is too chaotic to receive the produce delivery and go out on the truck route on the same day.

The truck follows its regular route on Wednesdays and Thursdays. The truck driver arrives at the store 10 AM, sets prices and quantities with the manager, and loads the truck. The driver is

on the road by 11:30 AM. During our observation, the truck stopped at three locations for approximately an hour each time. The truck may stop at some locations on both Wednesday and Thursday and others only one day. All stops are within the 2-square-mile service area of the Central Detroit Christian Community Development Corporation. The manager and driver, relying on the driver's relationships with customers and their impression of how well certain stops do, set the route stops. Prior to loading the truck, the driver fills out an inventory with the quantity and price of the items going on the truck. When the truck returns, the money and EBT/debit/credit receipts are totaled and placed in the store's safe, and the total is checked against the expected revenue (price times quantity from the inventory sheet).

Challenges and Solutions

In order for the business' revenue to cover their three employees' salaries, Peaches and Greens would need to bring in gross revenue of $383 per day, 5 days/ week. The store manager reported that the business almost never reaches this goal. This might be surprising given the market's quality produce and competitive prices. Additionally, Peaches and Greens seems to be very popular in the community and around the country (First Lady Michelle Obama even visited the truck!), but this popularity does not seem to be reflected in the business' financial success. The store manager attributes their slow business in part to the lack of emphasis on marketing. When the business sent out flyers to advertise the Double Up Food Bucks program to EBT cardholders one summer, they saw a threefold increase in business. Since then, they have dedicated very little staff and financial resources to marketing. Increasing emphasis on marketing could be an effective way for the business to increase revenues.

Another factor that might contribute to Peaches and Greens' unmet revenue goals is the surrounding community's perception of the central Woodward neighborhood. The nearby Boston-Edison neighborhood, a wealthier community, might be reluctant to enter the Woodward neighborhood in order to shop at the market. The market manager suggested that outreach and building relationships with members of Boston-Edison might increase their customer base.

Lessons Learned

Peaches and Greens has seen a lot of success from hiring employees who "look like" their customers. Most importantly, their truck driver, who interfaces with community members outside of the store, should evoke a sense of comfort and familiarity from customers. All of the trucks' drivers have been African-American, reflecting the demographics of the majority of the customers. The business also has had increased success since hiring a produce buyer who "fits in" with the mostly male, of-Italian-descent wholesale sellers at the Detroit Produce Terminal.

At the market and on the truck, Peaches and Greens makes a large profit from prepared foods (i.e. sliced-up and packaged watermelon); any kind of ready-to-eat produce tends to be popular with customers. The business manager also has learned that she can and should mark up the produce 50% from the wholesale price in order to generate a fair profit margin. Peaches and Greens has also benefited from having different aspects of their business—the store, the

mobile vending, home or office delivery, and occasional wholesale distribution. A board member owns a business that services many doctors' offices, which provided a connection for Peaches and Greens to deliver to those offices. This has been a steady source of revenue, helping to "diversify [their] funding streams".

Community partnerships with institutions have been crucial to the business' success. By communicating with staff at the health department, senior centers, and apartment complexes, Peaches and Greens has formed strong, long-term relationships with these stops along the truck's route. These relationships have helped them to increase the customer base at each of these stops. Additionally, choosing to stop at places where people are already gathered, such as senior centers, senior apartment complexes, or the health department building, efficiently serves the most customers and helps spread word quickly.

6.7 Austin Grocery Bus: Austin, TX

As reported by Stephanie Etkin, a resident of Austin:

I had lunch today with Ronda Rutledge, founder of the Sustainable Food Center (SFC) here in Austin. The proposed idea for the grocery bus came out of a 1996 SFC study of East Austin that showed the serious food access problems the low-income residents of East Austin were facing. There were only two small grocery stores to serve the 24,000 people living in the six square-mile area, and although there were bus routes from downtown to these markets, there were not buses running within the neighborhood. Residents were literally taking the bus downtown and then back out to get to the grocery stores. The grocery bus ran mostly within the East Austin neighborhood and zig-zagged through the area before ending up at one of the grocery stores. The route ended a few years later when one that grocery store closed and it was never re-instated. Not a very exciting story.

Twelve years later, that neighborhood still only has two grocery stores, and bus routes are still not terribly useful. But, SFC just combined all of their food stands and services in East Austin (including the WIC clinic market I had mentioned) into one central location. The new location at a YMCA is not on a great bus route, and so before finalizing the location SFC did a feasibility study to find out if residents would still take advantage of the food resources. It turns out most East Austin residents do not use the bus to get groceries even if a bus is available. They prefer to borrow a car or even call a taxi instead of dealing with the hassle of riding the bus with bags of groceries. The new location has only been open a few weeks so there are no real conclusive results on its effectiveness, but there is one unique thing about it. The Tuesday morning farmers' market at this location offers double dollars for every WIC or SNAP dollar spent. In addition, the market is the first program in the state of Texas that is able to accept regular WIC points (not the small farmers' market allowance allotted ever summer) at the market. Accepting WIC points is complicated and required the purchase of machines entirely separate from the SNAP card readers, and WIC is tracking every purchase made at the market, but it is a great pilot program and SFC is hoping to be able to simplify it over time and expand the program to farmers' markets across Texas.

Finally, Austin is embarking on a giant joint project between public, private and non- profit agencies throughout the city to research the idea of creating a food hub in Austin to help improve food access, particularly in the low-income minority east side. Apparently LA has the best food hub at the moment, which combines cold storage, processing and distribution all into one place. I can get more info on this initiative if you'd like.

7 Conclusions

The purpose of this research was to investigate the finding of the 2010 Community Needs Assessment that the majority of eastern Washtenaw County residents identified problems with transportation and food access as the greatest challenges in their daily lives and to suggest strategies that might lessen this problem. In this research project, we undertook multiple actions that each produced useful findings.

We identified the needs areas using demographic information and refined the spatial extent of these areas based on the insights of community social service providers. We then mapped the locations of 190 different stores within 5 miles of these needs areas and then overlaid the AATA bus routes to determine where service gaps existed. We found that a substantial portion of the neighborhoods with the highest needs experience low access to food stores.

We surveyed the food offerings and prices of healthy food items in the 11 major grocery stores and 25 smaller grocery stores within the 5 mile buffer area. We found that within the 5 mile buffer area multiple major grocery stores offered affordable foods. We also found that of the 25 smaller grocery stores and ethnic food stores within the 5 mile buffer area, several stores with high or moderate healthy food assortments were located either within or nearby the needs areas.

We conducted 5 focus groups with 50 area residents to ask about their shopping behaviors, use of private vehicles and buses, and receptivity to creative transportation/food programs from other locations. We found that participants' choice of food store was based on 1) price, 2) food quality (particularly fresh produce and meats), 3) food variety (selection), and 4) availability of ethnic/specialty foods. The majority of focus group participants were using their own private vehicles or getting rides from friends and family. While a small number of focus group participants did use the bus (particularly people with mobility restrictions and the elderly), the inflexibility of the bus schedule, bus routes, and the challenge of carrying groceries on the bus were identified as significant reasons to seek out private rides.

In reflection, the focus group participants represented four different subpopulations with unique concerns. These categories were 1) extremely poor residents, 2) households with young children, 3) people with disabilities, and 4) the elderly. While some focus group participants belonged to several of these four subpopulations, dividing participants in this manner helped expose some of the critical issues. For extremely poor residents, bus fare is a significant expense, particularly when individuals need to visit multiple locations and when children need to accompany them. The bus routes also didn't serve all the locations that residents' wished to visit. For households with young children, flexibility of travel times was important and traveling with children (who might need car seats) made shuttle services challenging. For people with disabilities, the special ride services offered by AATA were still expensive relative to their fixed incomes. The special ride services also made it impossible to visit different locations during one outing and the requirement that riders call for return pick-up once their task has been completed greatly extended the time needed to complete the trip. For people with disabilities,

the location of the bus stop and the distance to the store from the stop were concerns. The elderly shared many of the concerns voiced by focus group participants with disabilities. In addition to these, elderly residents often needed help getting their groceries onto the bus and off the bus to their home.

We compiled seven case studies from comparable locations. These case studies included the targeted grocery bus operated by AATA and serving Ann Arbor senior housing facilities, the on-line ordering and delivery program called Baltimarket, the one-way shuttle operated by the Milwaukee grocery store to take customers back to their homes (Lena's), the mobile vending truck delivering fresh produce to lower income neighborhoods (Peaches and Greens), the program to sell healthy food in existing convenience stores (Fresh Corner Café), and the targeted ride program to and from a farmers' market (NW Detroit program).

We assessed the applicability of the case studies in two ways. The first way involved comparing the attributes of each case study to the desired shopping characteristics identified in the focus groups. We added time as an extra evaluation criteria to the desired shopping characteristics. The matrix shown in Table 3 below summarizes this comparison between the desired shopping characteristics and the case studies.

Based on the desired food shopping characteristics as expressed by the focus group participants, the targeted ride programs run by the bus company, the one-way shuttle, and the target ride program to and from the famers' market addressed more of these concerns adequately. The on-line ordering reduced the shopper's abilities to comparison shop and to inspect the quality of the food. In our on-line ordering case study, while $21,000 of groceries had been purchased thus far, the program had cost $30,940 to operate. This is not to minimize those purchases but it is an expensive form of intervention. Based on our analysis, it seemed unlikely that the mobile vending truck could offer the prices and selection residents desire (unless highly subsidized). Through our research, we also learned that operating a mobile vending truck generally requires a store-front location as well. This significantly increases the program start-up costs but may be possible through a creative private or non-profit partnership. Amending the offerings of healthy foods at convenience stores also seemed like a labor intensive approach that would struggle with price and freshness issues due to low volumes. While all food stores in the area, particularly small grocery stores and convenience stores, are not equal in the affordability, selection, and food quality, we were pleasantly surprised that residents in the needs area were relatively close to affordable major grocery stores and that smaller stores did offer some healthy food options.

The second evaluation method involved comparing the concerns of each subpopulation with the strengths of each case study approach, as shown in Table 4 below.

Entering into this project, we anticipated making several recommendations of how alternative food access programs could be implemented in eastern Washtenaw County. However, based on the findings from this research, we are uncertain that any of the identified approaches would have a significant impact. As we noted, people find getting groceries on the bus to be challenging and the majority either drive or share rides with friends and family. We were

surprised that only 11 percent of the households in the needs area were without a car as we expected this percentage to be higher considering the lower household median income levels. The desirability of owning a car was echoed by the majority of focus group participants.

The targeted grocery bus operated by AATA is an excellent option for elderly residents in Ann Arbor. It would also work well for residents who have mobility issues, such as those living in Chidester Place. Expanding this service to selected residential sites in Ypsilanti is one of the most promising approaches. However, it would be extremely difficult to direct phase 2 grant funding toward the expansion of AATA's service. The second most effective option in our opinion would be to have a one-way shuttle service offered by a local grocery store. In this case, finding a willing private partner is key, and then it is questionable as to whether the phase 2 grant funding should be used to subsidize a private business.

After much work and thought, we are uncertain that smaller, community-based efforts like those we proposed under the funding grant supporting this research could sufficiently impact the residents in need. The problems identified in the Community Needs Assessment do involve food access and transportation but on close inspection reflect larger structural problems of inequities, limited economic opportunities that yield a living wage, and the lower density physical character of our local landscape.

Table 3. Comparison of Food Access Programs with Desired Grocery Store Characteristics

	Price	Quality of Food	Selection	Availability of Ethnic/Specialty Foods	Time
Targeted Ride run by bus co.	Excellent	Excellent	Excellent	Good	Varies
Online ordering and delivery	Varies with participating store	No ability to inspect the produce or meats	Good	Varies	Excellent
One-way shuttle operated by grocery store	Excellent	Excellent	Excellent	Good	Good
Mobile vending	Varies	Varies	Probably would not include meat , dairy or grains	Probably none	Excellent
Amending existing offerings in convenience stores	Mediocre	Difficult to predict	Difficult to predict	Probably none	Good
Targeted ride to/from farmers' market	Good (particularly with Double Up Bucks)	Good - Excellent	Varies widely	Probably none	Varies

Table 4. Comparison of Food Access Programs in Meeting Subpopulation Needs

	Extreme Poverty	Households with Young Children	People with Disabilities	Elderly
Targeted Ride run by bus co.	-Bus would need to stop at various shopping locations to permit comparison shopping -Help with price of transfers	-Could be expensive for families to pay for multiple fares	-Bus would need to be accessible -Bus driver would need to be helpful with getting on and off and loading/unloading groceries	-Bus would need to be accessible -Bus driver would need to be helpful with getting on and off and loading/unloading groceries
Online ordering and delivery	-Eliminates cost of transit -Computer with Internet access necessary	-Saves hassle of shopping with children	-Eliminates cost of transit -Saves hassle of traveling if mobility is limited	-Eliminates cost of transit -Saves hassle of traveling if mobility is limited
	Applicable to all - doesn't allow for bargain shopping or assessing quality of food			
One-way shuttle	-Excellent if minimum spending amount was not prohibitive	-Would need car seat(s) for children	-Van would need to be specially equipped for mobility issues	- Excellent
	Applicable to all -Could still be expensive/difficult to get to store -Could be quicker than taking public transit			
Mobile vending	-Prices would have to be low	-Eliminates problems associated with traveling with kids	-Saves hassle of traveling	-Saves hassle of traveling
Amending existing offerings in convenience stores	-Prices would not likely be competitive with major grocery stores	-Store may not be able to carry enough volume to support a family's grocery needs	-Could make it easier to travel (if pain, equipment are a barrier)	-Could make it easier to travel (if pain, equipment are a barrier)
Targeted ride to/from farmers' market	-Prices competitive (Double Up Food Bucks could be useful incentive)	-Would kids be allowed on the bus? -Could be expensive for families to pay for multiple fares	-Bus would need to be accessible -Bus driver would need to be helpful with getting on and off and loading/unloading groceries	-Bus would need to be accessible -Bus driver would need to be helpful with getting on and off and loading/unloading groceries

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9 Appendix: Additional Figures and Tables

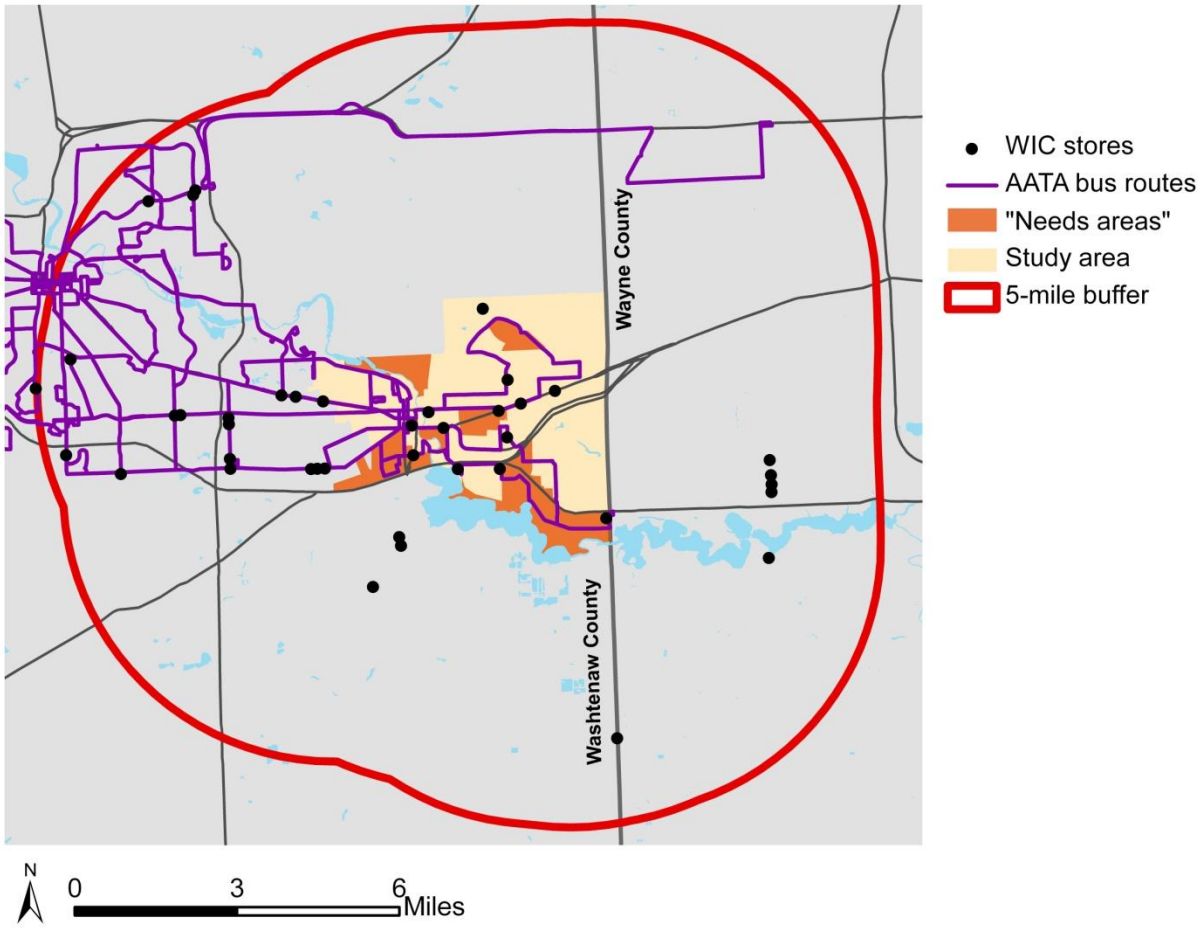

Figure 15. Food Stores Accepting Women, Infants, and Children (WIC) Benefits, Study Area and 5-Mile Buffer, Washtenaw County and Wayne County, 2012

Source: Women, Infants, and Children; Field Surveys; Ann Arbor Transportation Authority

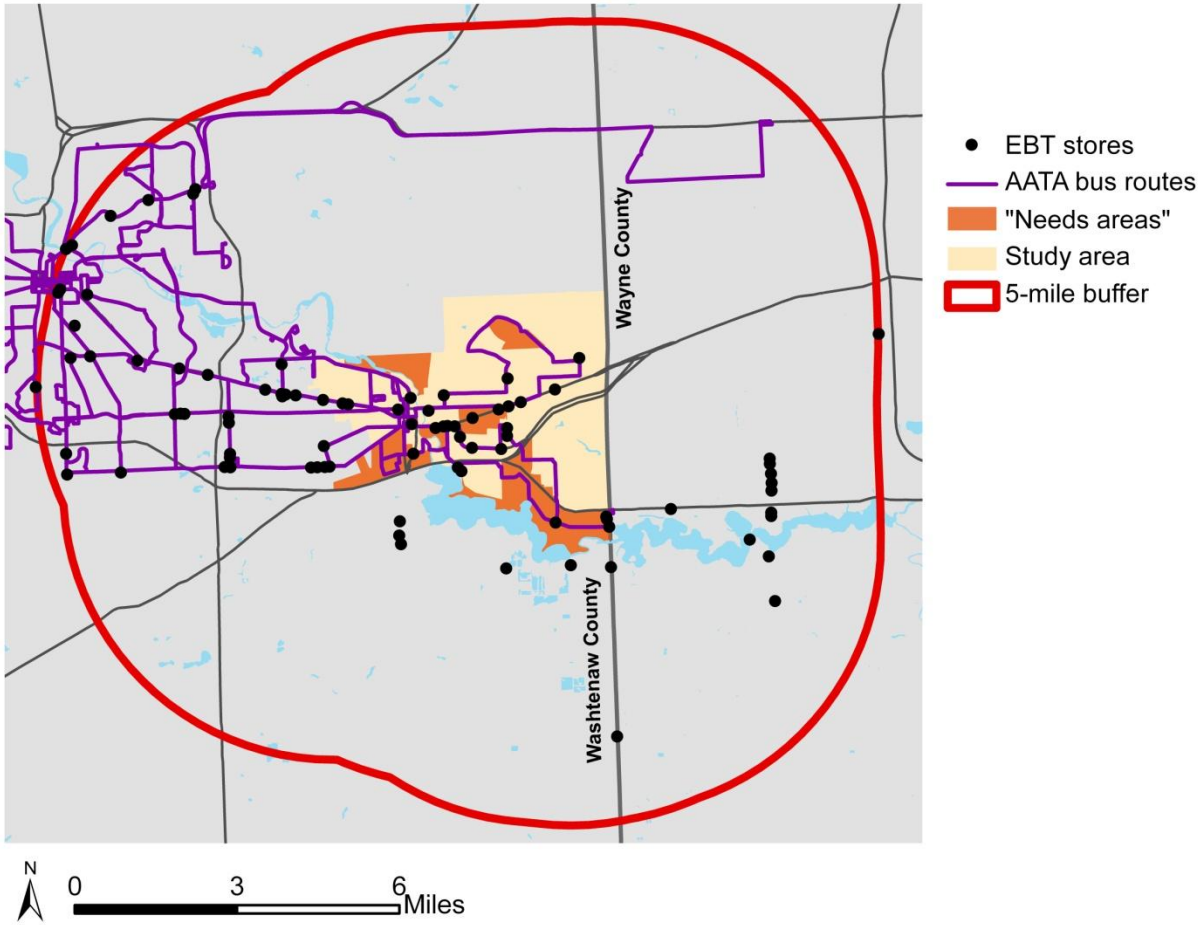

Figure 16. Food Stores Accepting Electronic Benefits Transfer (EBT), Study Area and 5-Mile Buffer, Washtenaw County and Wayne County, 2012

Sources: Field Surveys; Ann Arbor Transportation Authority

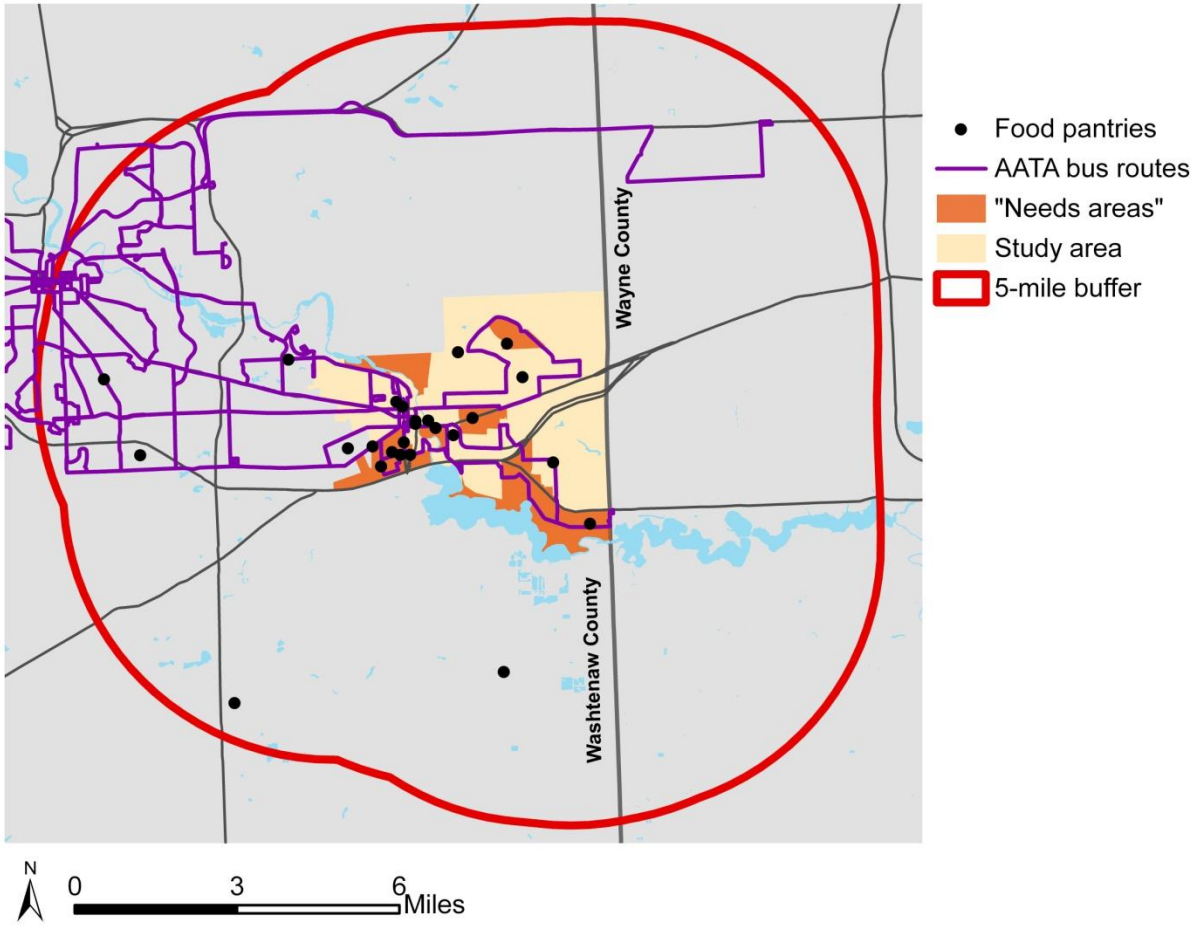

Figure 17. Food Pantries, Study Area and 5-Mile Buffer, Washtenaw County, 2012

Source: Food Gatherers; Friends in Deed; Field Surveys; Ann Arbor Transportation Authority

Table 5. Price Comparison for Healthy Foods Among Major Grocery Stores

Name	Street	City	Skim Milk 1 Gallon	Low Fat Yogurt 32 OZ	Cottage Cheese 16 OZ	Apples 1LB	Oranges 1LB	Bananas 1LB	Leafy Greens 1LB	Healthy Food Price Check*	Relative Rank**
Walmart	10562 Belleville Road	Belleville	2.49	2.18	1.84	1.22	0.76	0.52	0.91	$9.92	Low
Kroger	1771 E Michigan Ave	Ypsilanti	2.49	2.19	1.59	1.00	1.26	0.89	1.29	$10.71	Low
Meijer	3825 Carpenter Rd	Ypsilanti	2.79	1.93	1.79	1.33	1.07	0.54	1.29	$10.74	Low
Kroger	3200 Carpenter Rd	Ypsilanti	2.49	2.19	2.19	1.23	0.92	0.54	1.29	$10.85	Low
Meijer	9701 Belleville Road	Belleville	2.79	1.93	2.19	1.33	0.94	0.54	1.29	$11.01	Low
Meijer	3145 Ann Arbor Saline Rd	Ann Arbor	2.79	1.93	2.55	1.16	1.00	0.54	1.29	$11.26	Low
Kroger	2010 Whittaker Rd	Ypsilanti	2.79	2.59	1.79	1.59	0.87	0.59	1.29	$11.51	Low
Country Farms Supermarket	9090 Rawsonville Road	Belleville	2.99	2.99	2.55	1.00	0.80	0.69	1.49	$12.51	Medium
Busch's Fresh Food Market	2020 Green Rd	Ann Arbor	2.79	2.39	3.40	1.49	1.58	0.59	0.99	$13.23	Medium
Busch's Inc	2240 S Main St	Ann Arbor	2.79	2.39	3.40	1.49	1.58	0.59	0.99	$13.23	Medium
Kroger	2641 Plymouth Rd	Ann Arbor	2.79	4.78	2.19	1.00	0.92	0.54	1.29	$13.51	Medium
Hiller's Market	3615 Washtenaw Ave	Ann Arbor	2.49	3.19	2.44	1.69	1.49	0.69	1.69	$13.68	Medium
Whole Foods Market	3135 Washtenaw Ave	Ann Arbor	2.49	4.49	3.62	1.99	1.49	0.79	2.49	$17.36	High
Whole Foods Market	990 W Eisenhower Pkwy	Ann Arbor	2.49	4.49	3.62	1.99	1.49	0.79	2.49	$17.36	High
Plum Market Ann Arbor	375 N Maple Rd	Ann Arbor	3.49	4.49	4.26	1.69	1.59	0.79	2.99	$19.30	High

* When multiple brands or varieties of the same item where present, we selected the lowest priced item

** Prices for the Healthy Food Price Check Ranged from $9.92 to $19.30.

Low = $9.92 - $12.50

Medium = $12.51 - $ 15.62

High = $15.63 - $19.30

Plum Market, Meijer (3145 Ann Arbor Saline Rd), and Whole Foods (990 W Eisenhower Pkwy) are not within the 5 mile buffer.

Table 6. Availability of Healthy Foods in Smaller Grocery Stores and Ethnic Food Stores

Store Name	Street Address	City	WIC	EBT	Skim Milk	Low Fat Yogurt	Cottage Cheese	Apples	Oranges	Bananas	Leafy Greens	# Healthy Foods	Healthy Food Relative Rating*
Aladdin's Market	3188 Packard St	Ann Arbor	no	yes		Y			Y	Y	Y	4	M
Babo Market	403 E Washington St	Ann Arbor	no	no	Y	Y	Y	Y				4	M
Bombay Grocers	3010 Packard St	Ann Arbor	yes	yes		Y			Y		Y	3	M
Dos Hermanos Market	412 W Michigan Ave	Ypsilanti	no	yes			Y	Y		Y	Y	4	M
Foods of India	1168 Broadway	Ann Arbor	no	no		Y			Y		Y	2	L
Galleria Asian Market	3111 Packard St	Ann Arbor	yes	yes	Y							1	L
Groceries Yogi	4015 Carpenter Rd	Ypsilanti	no	yes					Y	Y		2	L
Hua Xing Asia Market	2867 Washtenaw Avenue	Ypsilanti	no	no				Y	Y	Y	Y	4	M
Hyundai Asian Market	3895 Ellsworth	Ann Arbor	no	yes								0	L
Jerusalem Market	1713 Plymouth Rd	Ann Arbor	no	yes		Y		Y				2	L
Knight's Market Inc	420 Miller Ave	Ann Arbor	no	no	Y	Y	Y	Y			Y	5	M
La Espigal Dorada Market	161 E corse Rd	Ypsilanti	no	yes	Y		Y			Y	Y	4	M
Mediterranean Market	4019 S toney School Rd	Ann Arbor	Yes	yes				Y	Y	Y	Y	4	M
Montroy's Market	41375 Van Born Rd	Belleville	no	yes	Y		Y	Y	Y	Y	Y	6	H
Om Market	2713 Plymouth Road	Ann Arbor	unknown	unknown		Y	Y			Y		3	M
Oriental Foods & Gifts-Manna	1149 Broadway St	Ann Arbor	no	yes				Y	Y	Y	Y	4	M
Rose Market	2243 Ellsworth Rd	Ypsilanti	Yes	yes		Y	Y	Y			Y	4	M
Sahara International Market	2447 Ellsworth Rd	Ypsilanti	Yes	yes	Y	Y						2	L
Tienda La Libertad	2231 W Liberty St	Ann Arbor	no	yes								0	L
Trader Joe's	2398 E Stadium Blvd	Ann Arbor	no	yes	Y	Y	Y	Y	Y	Y	Y	7	H
Tsai Grocery	3115 Oak Valley Dr	Ann Arbor	no	no					Y	Y	Y	3	M
Unicorn	2200 Fuller Ct #7b	Ann Arbor	unknown	unknown					Y	Y		2	L
White Market Inc	609 E William St	Ann Arbor	no	yes	Y	Y	Y	Y				4	M
Willow Run Food Market	49365 S Interstate 94 Service Dr	Belleville	no	yes				Y			Y	2	L
Ypsilanti Food Co-Op	312 N River St	Ypsilanti	Yes	yes	Y	Y	Y	Y	Y	Y	Y	7	H

Y = Presence

*Relative Rank Low = 0,1,2; Medium = 3,4,5; High = 6,7

Tienda La Libertad and Tsai Grocery are not within the 5 mile buffer.