

# Medley Food Desert Project

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# A. Introduction

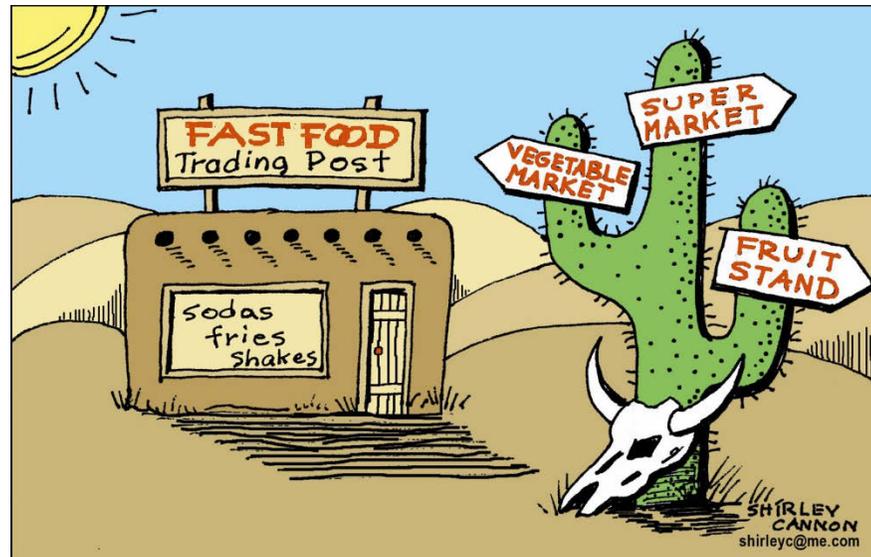
***“Civilization as it is known today would not have evolved, nor can it survive, without an adequate supply of food.”***

NORMAN BORLAUG, AMERICAN AGRONOMIST, NOBEL LAUREATE, “FATHER” OF THE GREEN REVOLUTION.



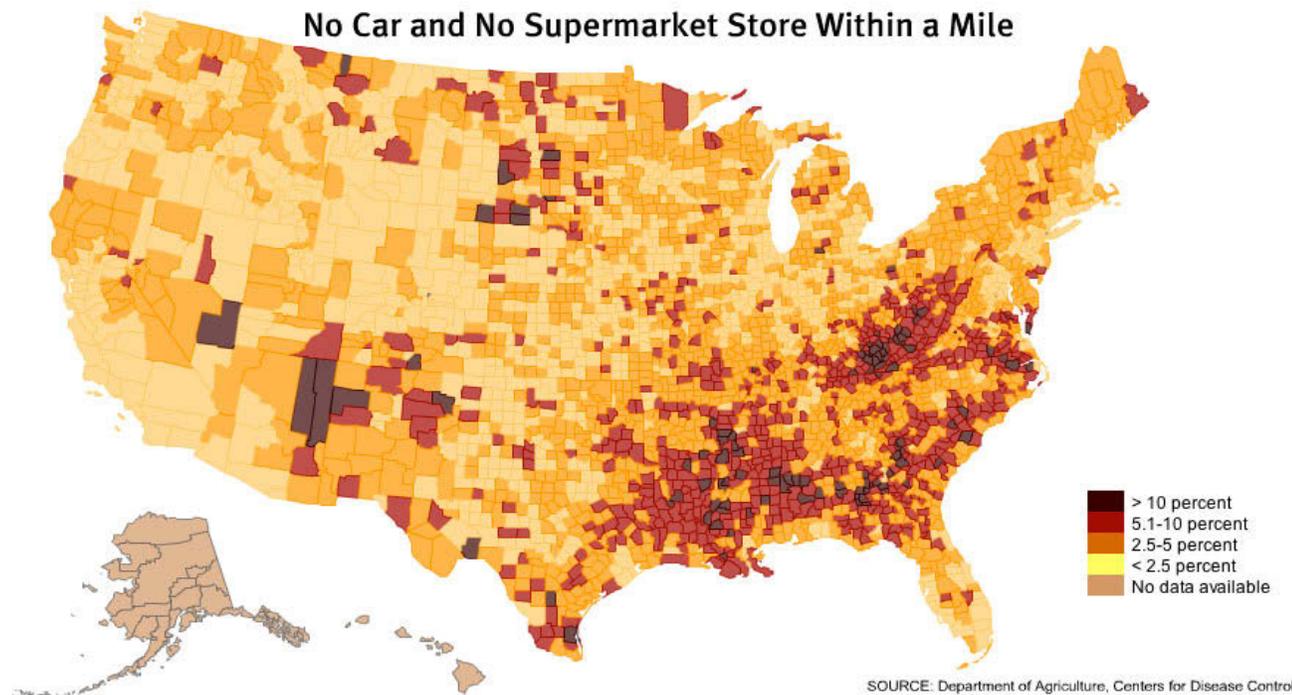
# What is a Food Desert?

- A food desert is an area where people have limited access to a variety of healthy and affordable food.
- The USDA defines a Food Desert as a **Census Tract** with substantial **Low Income** populations that have **Low Access** to affordable, **healthful food retail** such as **supermarkets**.



# B. Life in a Food Desert

- 23.5 millions Americans, including 6.5 million children live in food deserts in the inner city and in rural communities.



The absence of supermarkets forces residents to rely on fast-food restaurants and convenience stores, leading to limited food options and diet-related medical problems such as obesity, high blood pressure, and diabetes.



In hundreds of neighborhoods across the country, nutritious, affordable, and high quality food is out of reach—particularly low-income neighborhoods, communities of color, and rural areas.



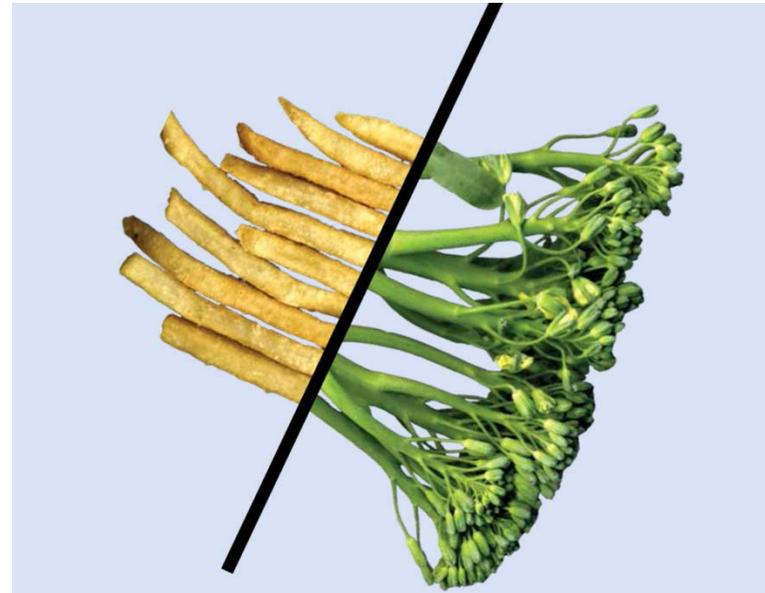
The majority of low-income neighborhoods do not have any type of grocery store or farmer's market. Instead they have corner stores or "bodegas" that are stocked up with junk food such as potato chips and sodas, and copious amounts of beer and liquor.

The rare corner stores that do have a somewhat healthy selection increase the prices substantially, which makes these foods nearly unattainable.



# Lack of Supermarkets

The lack of supermarkets within low-income inner-city minority communities is not a demographic accident or a consequence of “natural” settlement patterns.



# Expanding Supermarket Access

Based on the experience of Pennsylvania's Fresh Food Financing Initiative, there are 3 main phases in the process of mobilizing resources to support food access policy strategies in local communities: 1) to identify need; 2) to convene leaders; and 3) to create public policy.



Policymakers at the local, state, and national level need to recognize the role that access to healthy food plays in promoting healthy local economies, healthy neighborhoods, and healthy people.

# C. Food Desert Studies & Statistics

- Areas with higher levels of poverty are more likely to be food deserts, but for other factors, such as vehicle availability and use of public transportation, the association with food desert status varies across very dense urban areas, less dense urban areas, and rural areas.
- In all but very dense urban areas, the higher the percentage of minority population, the more likely the area is to be a food desert.

*Characteristics and Influential Factors of Food Deserts* Economic Research Service/USDA

# (Contd.)

- Adults with no supermarket within a mile of their homes are 25–46% less likely to have a healthy diet than those with the most supermarkets near their homes. <sup>1</sup>
- African Americans are half as likely to have access to chain supermarkets and Hispanics are a third less likely to have access to chain supermarkets. <sup>2</sup>
- Area-specific studies have found that minority communities are more likely to have smaller grocery stores carrying higher priced, less varied food products than other neighborhoods. <sup>3</sup>



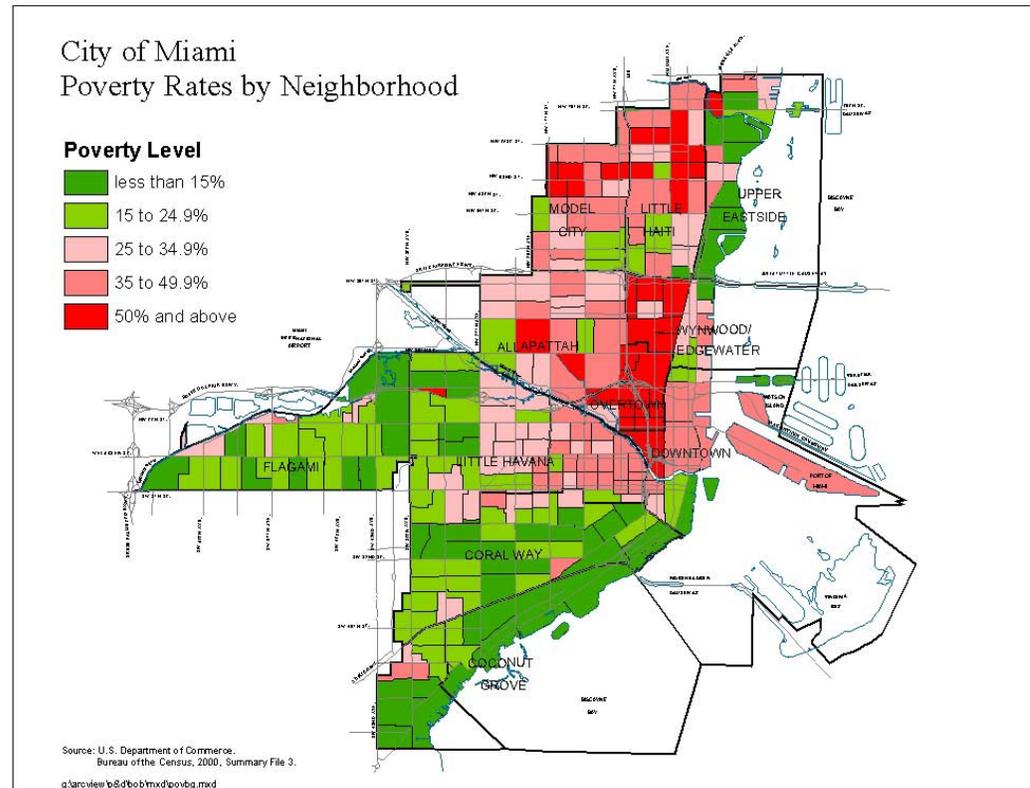
Leading public health experts, including the Centers for Disease Control and Prevention and the Institute of Medicine, agree healthy food access is a critical component in the fight against obesity.

African Americans and Hispanics suffer from rates of obesity at 45% and 36.8% respectively, comparatively higher than the white rate of obesity at 30%.<sup>4</sup>

Obesity has been linked to a wide range of health problems including Type 2 Diabetes, cardiovascular disease, various types of cancer, high blood pressure, and high cholesterol among both adults and children.<sup>5</sup>

# Miami, Florida

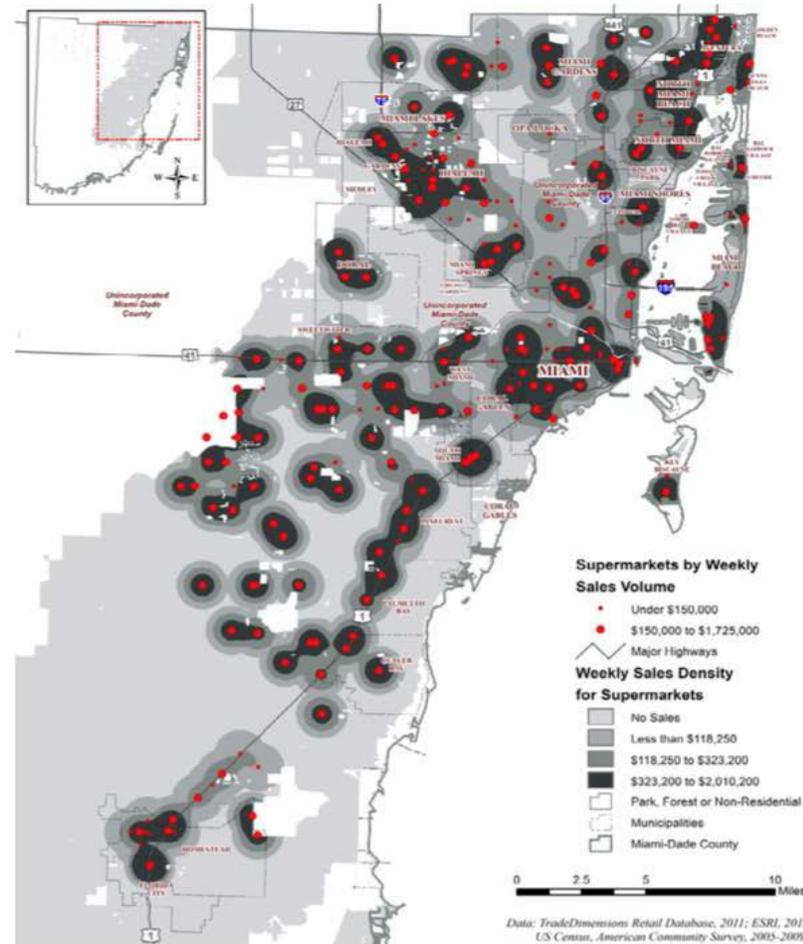
- Food insecurity is a large issue in our very own City of Miami. Many people have to travel well over 3 miles to access fresh food.



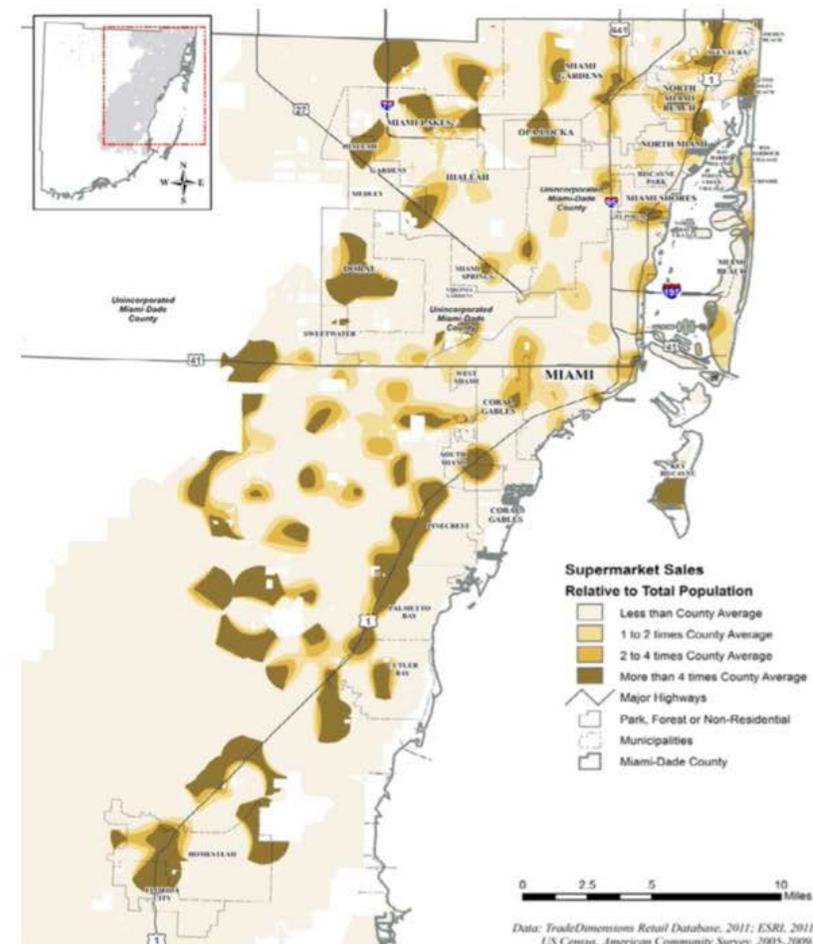
# D. Miami Food Access Issues

## Maps

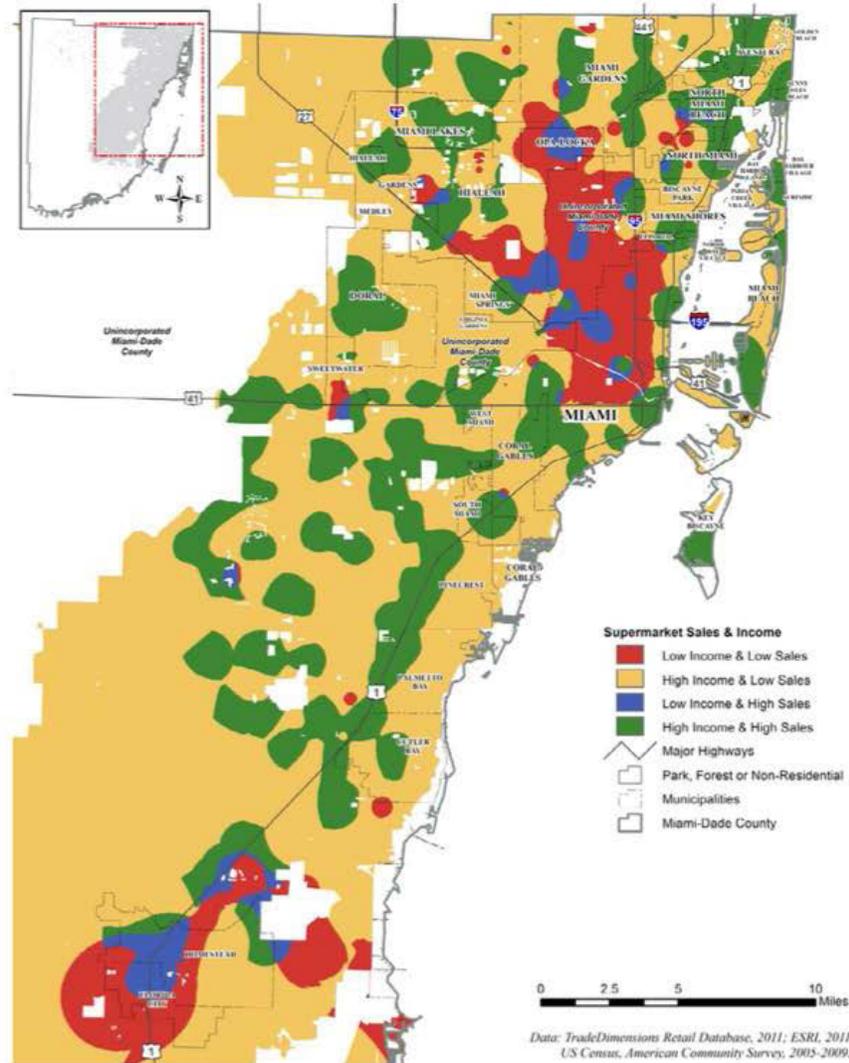
**MAP 1: Weekly Sales Volume for Supermarkets**



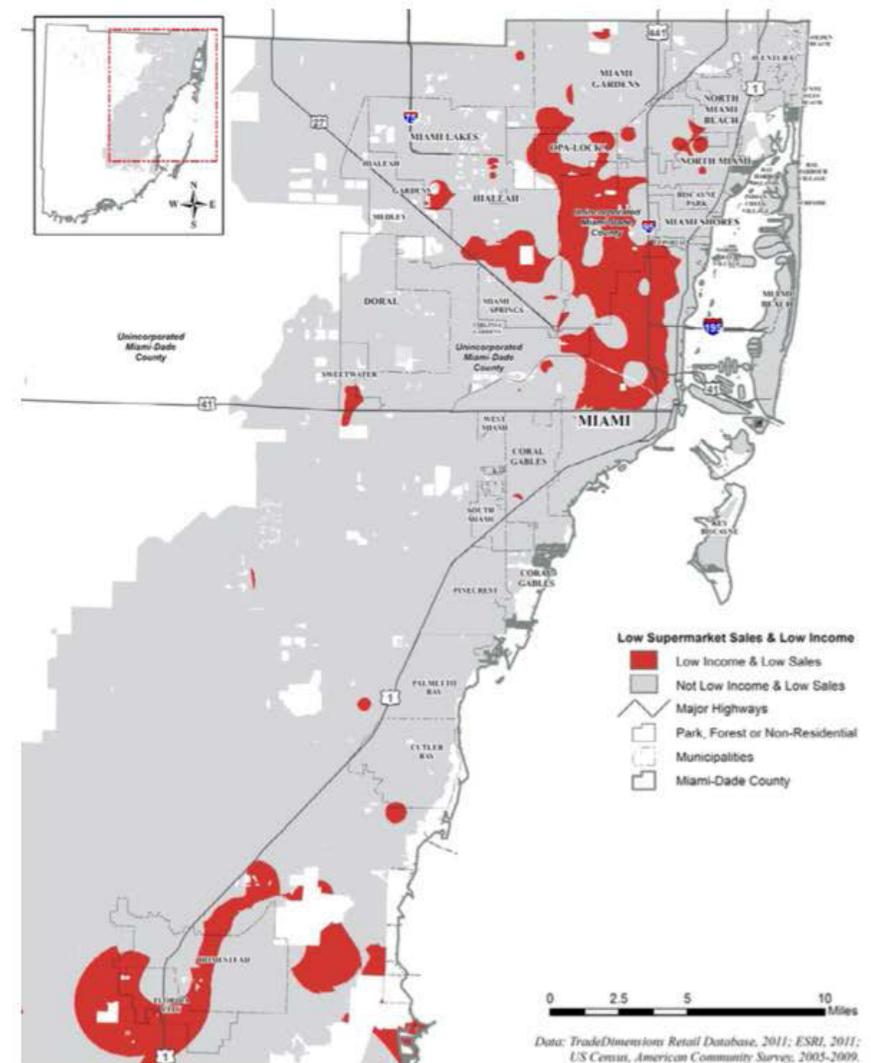
**MAP 2: Supermarket Sales and Population**



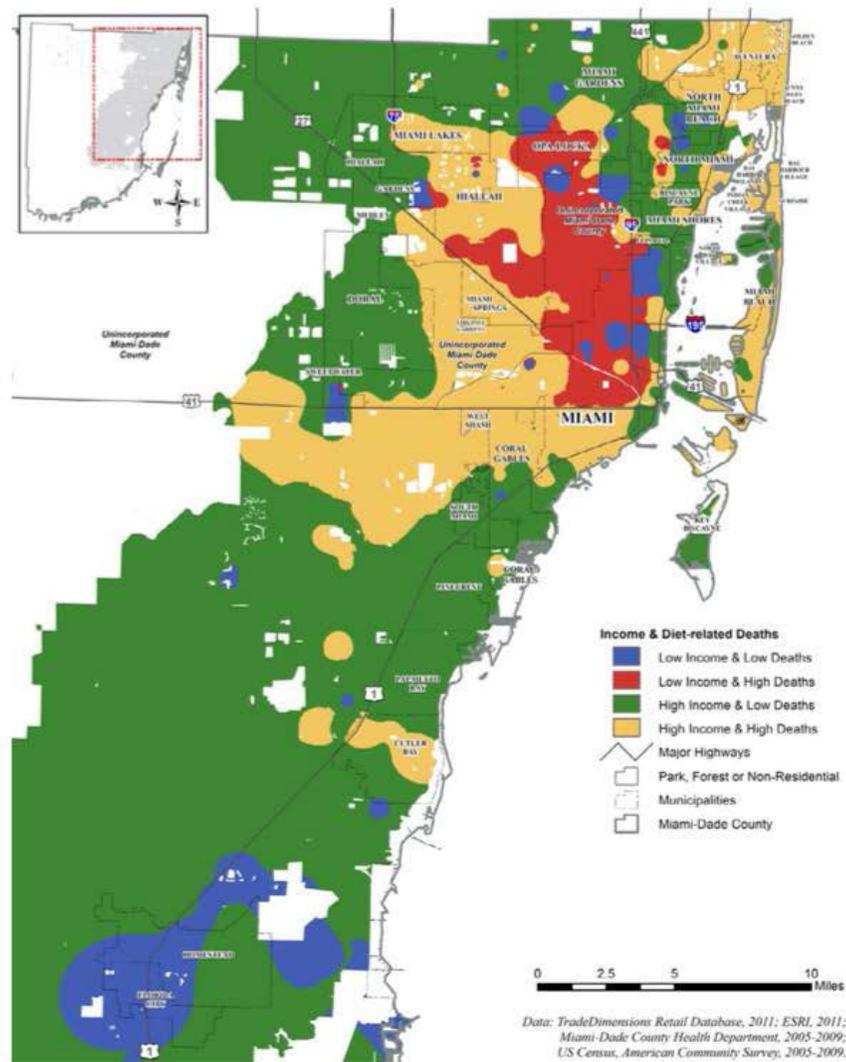
**MAP 3: Supermarket Sales and Income**



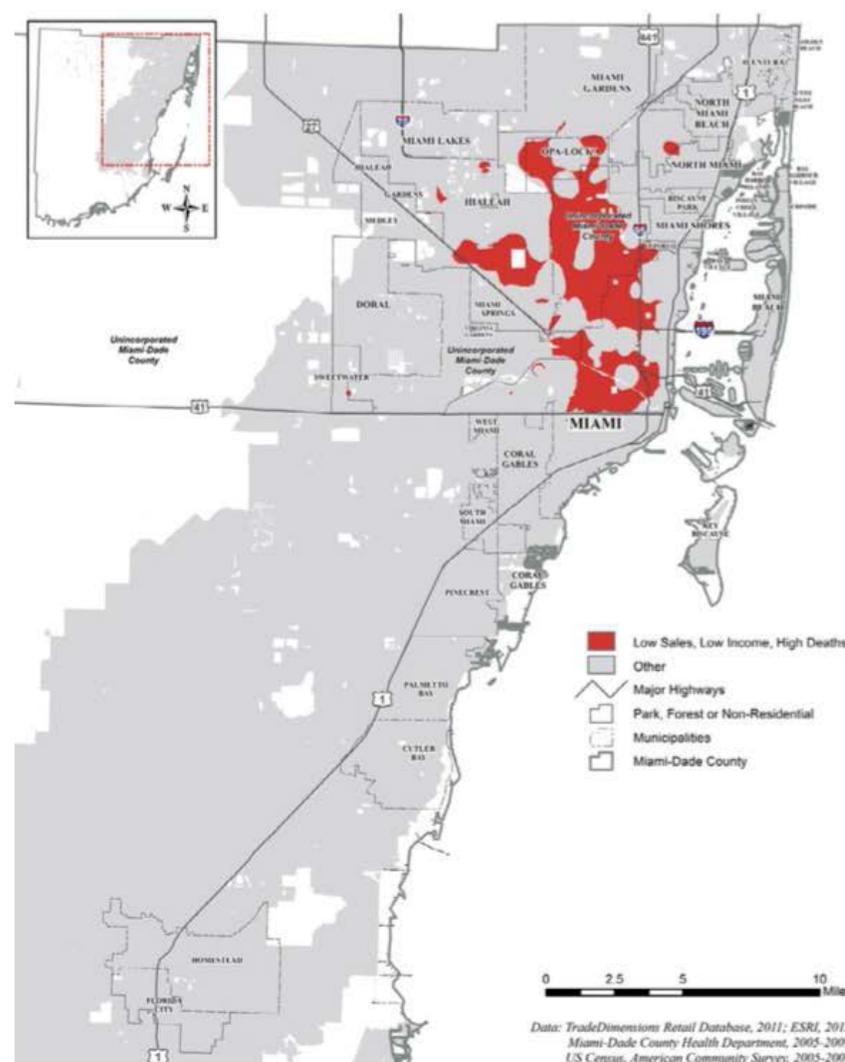
**MAP 4: Low Supermarket Sales and Low Income**



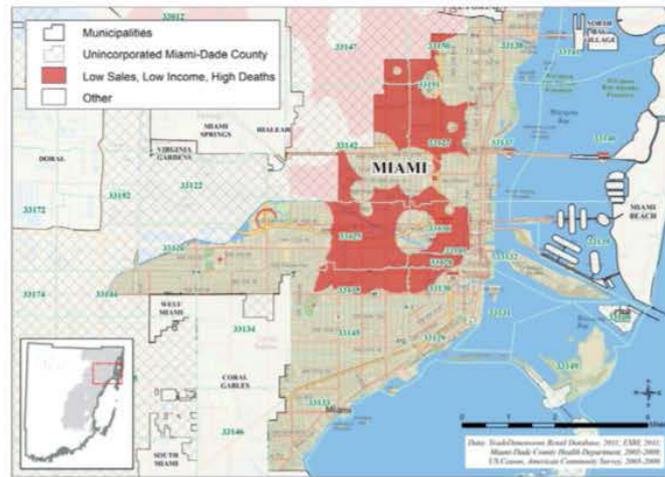
**MAP 5: Income and Diet-Related Deaths**



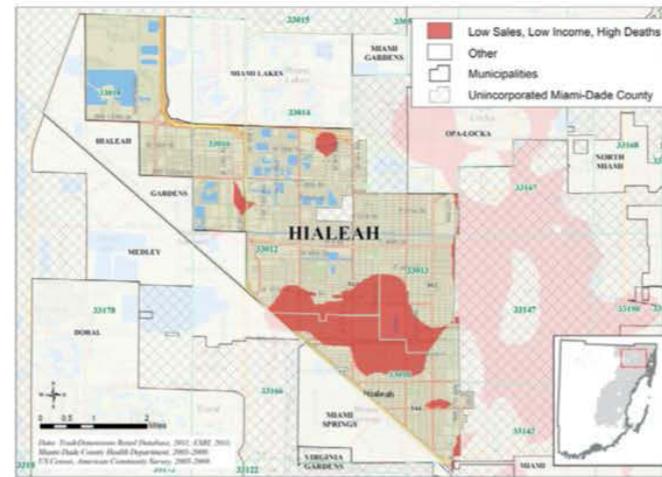
**MAP 6: Areas with Greatest Need**



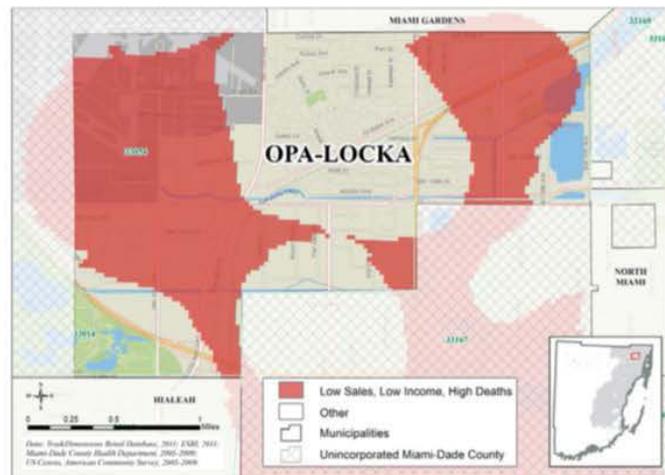
**MAP 7: Areas with Greatest Need in the City of Miami, MDC, FL**



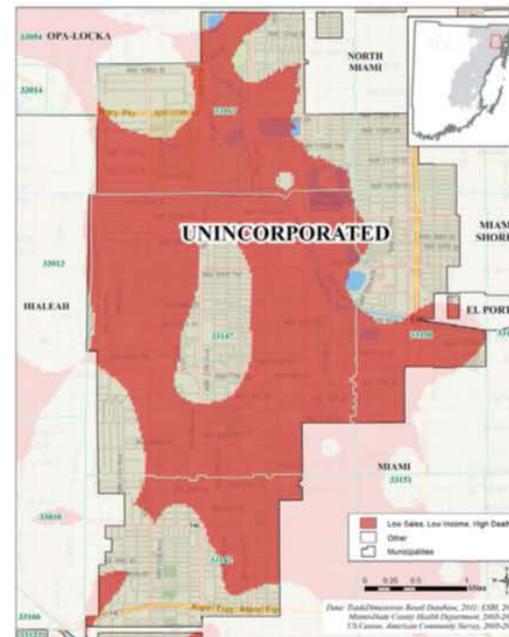
**MAP 8: Areas with Greatest Need in the City of Hialeah, MDC, FL**



**MAP 9: Areas with Greatest Need in the City of Opa-Locka, MDC, FL**



**MAP 10: Areas with Greatest Need in Unincorporated\*\*, MDC, FL**

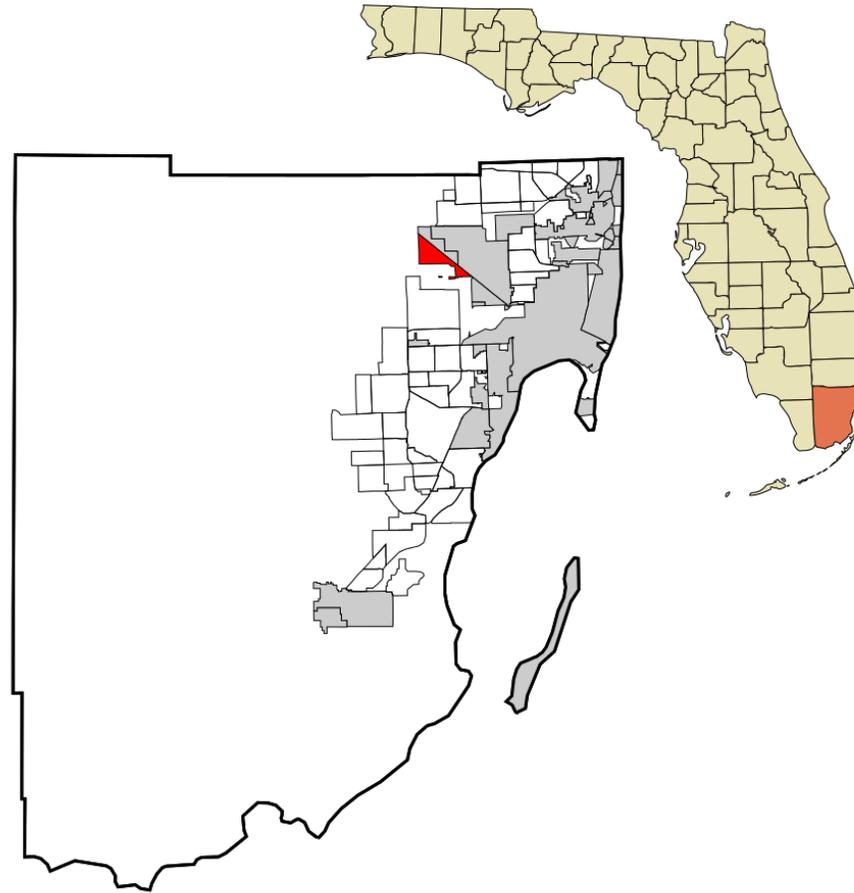


**MAPS 7-10** show lower-income communities within City of Miami, Opa-Locka, Hialeah, and Unincorporated Miami-Dade County that also have low supermarket sales and high rates of death from diet-related diseases.\* These underserved areas are priority communities for new supermarket development and other initiatives to increase the availability of nutritious and affordable food.

\* Only deaths from diet-related causes, including diabetes, heart disease, stroke, and cancer, are included in the analysis.

# E. Town of Medley, Miami Florida

- Medley is a town in Miami-Dade County.
- 2010 Census, total population of 838.
- Its primary tax base is industrial development, which is why the population is so small, and the town so dense.
- In 2000, the median income for a household in the town was \$23,167. The per capita income for the town was \$11,955.
- Approximately 20% of the population were below the poverty line.



# Why the Town of Medley?

- Many of the residents of Medley are over the age of 55, lack a means of transportation, and have a low-income.
- A significant amount of Medley's residents are dealing with Hypertension, Diabetes, and other concerning diseases.
- Farm Share has teamed up with Mayor of Medley to sponsor a weekly food distribution at the Recreation Center at Medley's City Hall to feed almost a thousand of hungry families in Medley.



# Why the Town of Medley?

- Aside from Medley being an ideal town for our Food Desert Project, our Professor at the time, Dr. Tiffany Troxler, had close ties with the Mayor of Medley and was able to set up a meeting with the Mayor's office
- Luckily for us, she had also been in contact with Mr. Mike Burns of the EPA, who also attended our first meeting
- Everyone showed great support for our project and was onboard immediately



# Our Purpose:

- To alleviate some of the strains imposed by living in a local food desert by building raised garden beds.
- To supply fresh, local, sustainable foods to the senior residents of Lakeside Retirement Park in Medley.
- To show the residents how to maintain and sustain the garden themselves.



# For the Community:



- Social advantages include improving community food security as well as linking consumers to food production.
  - Our garden makes certain fruits and vegetables readily available to the locals Lakeside Retirement Community who may otherwise be unable to access it due to financial or disability issues.
- We have raised community engagement by placing it behind the retirement center where locals can see it, care for it if they would like to, and take food from it.

# For the environment:

- To reduce our carbon footprint
  - Sustainable management, planting, and rehabilitation can increase carbon sequestration in areas which have been deforested and degraded especially in the Town of Medley.
- Green farming promises environmental benefits resulting from the saving and recycling of resources and reduced food miles.
  - We make our own soil through composting.



# Carrying out our plan...

- In May 2015, we each applied for a grant for up to \$1,000 from FIU.
- June 2015, we each received a \$500 grant from the Global Civic Engagement Program at FIU to build our garden.
- Our next step was to meet with Mayor Martell again to find a location for our garden.
- In July 2015, we built our garden behind the Community Center at Medley's Lakeside Retirement Homes.
  - A small, but important part of our project was presenting to the children at Medley's afterschool care program about the importance of reducing our carbon footprint and living a sustainable lifestyle

# Budget: (Part 1)

<b>Medley Food Garden Materials- Carolina Diaz de Villegas</b>		
<b>Expenditure Category</b>		<b>Cost</b>
Irrigation System	Solar electronic timer (1 x \$50.00) mrdrip.com #542- Solar 2 Dial Timer	\$50.00
	Snip-n-Drip for Soaker System for Multiple Beds (1 x 34.95) gardeners.com #40-205	\$34.95
	Snip-n-Drip Raised Bed Connector kit (1 x 16.95) gardeners.com #8588040	\$16.95
	1" x 10' PVC pipe (2 x 4.66) homedepot.com #531194	\$9.32
	50 gal. Rain Barrel w/ Brass Spigot homedepot.com #202403933	\$92.77
Garden Bed Medium	Vigoro 0.5 cu. ft. River Pebbles (32 x 4.25) homedepot.com #54250V	\$136.00
	Miracle-Gro 2 cu. Ft. garden soil for flowers and vegetables (20 x 7.97) homedepot.com #73452430	\$159.40
<b>Estimated Total</b>		<b>\$499.39</b>

# Budget: (Part 2)



Medley Food Garden Materials- Kiara Rodriguez		
Expenditure Category		Cost
Garden Bed Materials	48 in. x 96 in. Cedar Raised Garden Bed (2 x \$91.47) homedepot.com # 202520864	\$182.94
	Hi-Rise Super Hoops, Set of 6 (2 x \$29.95) gardeners.com #8586835	\$59.99
	10" Extra-Tall Earth Staples (4 x 4.95) gardeners.com #32-669	\$19.80
	11 7/8 in. x 11 7/8 in. Red Concrete Step Stone (5 x \$ .98) homedepot.com #100333084	\$4.90
	Summerweight Garden Fabric 6x50 (1 x \$12.95) gardeners.com #32-645	\$12.95
Garden Bed Tools	Nitrile Gloves Size Small ( 2 x \$5.00) gardeners.com #35-675	\$10.00
	Ergo Gel Grip Hand Trowel ( 2 x \$7.97) homedepot.com #205186023	\$15.94
	Stanley Long Handle Tool Combo (1 x \$69.99) (4-Piece) homedepot.com # 204682016	\$69.99
	Softouch Bypass Pruner(1 x \$10.97) homedepot.com # 100117986	\$10.97
	1.6 gal. Black Plastic Easy Pour Watering Can homedepot.com # 205558287 (2 x 9.97)	\$19.94
Garden Bed Vegetables and Seeds	Men's Straw Hat in Brown (2x 9.97) homedepot.com #203634743	\$19.94
	Native Florida Wild Everglades Tomato Seeds (100 seeds) (1 x \$10.00) <a href="http://www.localharvest.org/native-florida-wild-everglades-tomato-seeds-C19069">http://www.localharvest.org/native-florida-wild-everglades-tomato-seeds-C19069</a>	\$10.00
	Okra Seeds Emerald (3 ounces) (3x 1oz seeds \$4.95) <a href="http://www.localharvest.org/okra-seeds-emerald-C29918">http://www.localharvest.org/okra-seeds-emerald-C29918</a>	\$14.85
	Organic Sweet Potatoes- Whole Foods- 5lbs	\$15.00
	Spinach -Bloomsdale Heirloom NonGMO- 50 seeds- (2x 1.50) <a href="http://www.localharvest.org/spinach-bloomsdale-heirloom-nongmo-C16362">http://www.localharvest.org/spinach-bloomsdale-heirloom-nongmo-C16362</a>	\$3.00
	Organic Genovese Basil Seeds 1/4 lb (1x \$24)	\$24.00
	Cilantro Mexican Specialty 100 Seeds Organic (1x \$3.99) <a href="http://www.localharvest.org/cilantro-mexican-specialty-100-seeds-organic-C14483">http://www.localharvest.org/cilantro-mexican-specialty-100-seeds-organic-C14483</a>	\$3.99
	Rosemary- 15 seeds- (1x \$1.95) <a href="http://www.localharvest.org/herb-rosemary-seed-C29070">http://www.localharvest.org/herb-rosemary-seed-C29070</a>	\$1.95
	<b>Estimated Total</b>	<b>\$500.15</b>

# Our Garden:

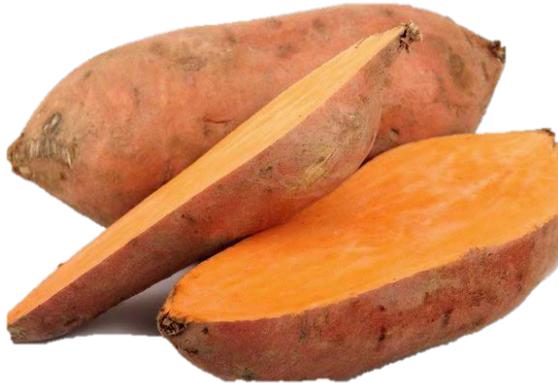
- Our garden consists of **two 8' by 4' cedar garden beds**, occupying a total of **64 sq. ft.**
- The beds are irrigated by an eco-friendly drip system connected to a 50 gal. rain barrel, which serves as a water reservoir in times of little rain.





# Our Vegetables

- Sweet Potatoes
- Okra
- Onions
- Tomatoes
- Variety of herbs (Basil, mint etc.)



- All of these have been specifically chosen due to their durability in hot, dry climates. They are ideal for growing year-round in South Florida and require minimal care.

# Our progress:

- So far we have harvested plenty of okra, tomatoes, peppers, green onions, sweet potatoes, mint, and basil.









- We believe that urban agriculture can be beneficial to the environment, and to the health and wellbeing of community members.
- Our community garden helps reduce negative environmental impacts by promoting sustainable agriculture; reducing food transportation costs and reducing water runoff.



# Residents and employees of Lakeside Retirement Park receiving the harvest



# Medley residents of Lakeside Retirement Park

- The Medley residents and employees are pleased with our community garden.
- Some of the residents have even been inspired to plant herbs and vegetables in their yards and patio space.
- The community members who help maintain the garden state that it improves their mental health and promotes relaxation.
- Other residents have been introduced to healthy vegetables and herbs like okra and basil.



# Our strategies to increase access to fresh, wholesome foods, include:

- Teaching the kitchen staff of the Lakeside Retirement Canter how to separate food scraps for composting.
- Continuing to supply vegetables and herbs to the residents of Medley biweekly.
- Providing the residents with simple recipes which they could make using our herbs and vegetables.
- Building more raised garden beds in town of Medley and other affected areas in Miami like Opa-Locka and Hialeah.



# How to conquer food deserts?

Food Deserts ————— A VISUAL STUDY ————— 5

## FOOD DESERT SOLUTIONS



**COMMUNITY**  
FOCUS ON LOCAL AGRICULTURAL SOLUTIONS TO DECENTRALIZE SUPPLY AND INCREASE THE AVAILABILITY OF QUALITY FOOD.

- 1 GROW FOOD LOCALLY**  
Build and develop backyard and community gardens as well as larger scale urban agriculture
- 2 DEVELOP ALTERNATIVE RETAIL OUTLETS**  
Farmers Markets, Public Markets, Cooperatives, Farm Stands, and Community Supported Agriculture (C.S.A.) Programs

**ACCESS**  
INCREASE THE EASE OF OBTAINING QUALITY FOOD.

- 3 REPLACE "CONVENIENT" WITH QUALITY**  
Increase stocks of fruits and vegetables at corner stores or small groceries
- 4 MORE FULL-SCALE GROCERY STORES**  
Attract and/or develop more grocery stores and supermarkets where they are scarce.
- 5 TRANSPORTATION**  
Improve transportation to grocery stores and farmer's markets

**SEVEN STEPS TOWARDS PUTTING HEALTHY FOOD IN GOOD HANDS**

**EMPOWERMENT**  
EQUIP INDIVIDUALS AND FAMILIES WITH THE TOOLS TO MAKE HEALTHIER FOOD CHOICES.

- 6 COOKING CLASSES**  
Implement programs at shelters, churches, community colleges, & civic centers teaching people how to cook cheap, simple, and healthy meals.
- 7 NUTRITIONAL EDUCATION**  
Teach classes on nutritional information including the dangers of preserved and fast food while stressing the healthy benefits of freshly prepared meals.

# I. Conclusion

- Community gardens increase the access to fresh foods, increase physical activity through garden maintenance activities, and reduce the risk of obesity and obesity-related diseases.
- Community gardens allow for the creation of social ties and build a greater feeling of community. These connections help reduce crime, empower residents and allow residents to feel safe in their neighborhoods.

***Any questions?***

We would to like thank  
Mr. Michael Burns,  
Dr. Tiffany Troxler, and Mayor  
Roberto Martell for their  
continued support.

# References

**1** Moore L, Roux A, Nettleton J., and Jacobs D. 2008. Associations of the local food environment with diet quality—a comparison of assessments based on surveys and geographic information systems: the multi ethnic study of atherosclerosis. *American Journal of Epidemiology*, 167, 917–924.

**2** Lisa M. Powell, Sandy Slater, Donka Mirtcheva, et al., *Food Store Availability and Neighborhood Characteristics in the United States*, 44 *Preventive Med.* 189, 189 (2007)

**3** Sarah Treuhaft, Michael J. Hamm & Charlotte Litjens, Policy Link, Fair Food Network & The C.S. Mott Group, *Healthy Food For All: Building Equitable and Sustainable Food Systems in Detroit and Oakland* 17 (2009), [http://www.fairfoodnetwork.org/sites/default/files/Healthy-FoodForAll\\_FullReport.pdf](http://www.fairfoodnetwork.org/sites/default/files/Healthy-FoodForAll_FullReport.pdf).

**4** Cynthia L. Ogden, et al, *Prevalence of Overweight and Obesity in the United States, 1999-2004*, 295 *JAMA* 1539, 1539 (2006).

**5** Nat'l Cntr. for Chronic Disease Prevention and Health Promotion, *Obesity: Halting the Epidemic by Making Health Easier*, Cntr. for Disease Control, [http://www.cdc.gov/chronicdisease/resources/publications/aag/pdf/2010/AAG\\_Obesity\\_2010\\_Web\\_508.pdf](http://www.cdc.gov/chronicdisease/resources/publications/aag/pdf/2010/AAG_Obesity_2010_Web_508.pdf). (Last visited on Apr. 25, 2012).