A Healthier Future
FOR MIAMI-DADE COUNTY

Expanding Supermarket Access in Areas of Need

Consortium For A Healthier Miami-Dade

Florida Department of Health, Miami-Dade County Health Department

MAKE HEALTHY HAPPEN MIAMI

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FLORIDA DEPARTMENT OF HEALTH

Rick Scott
Governor

H. Frank Farmer, Jr., MD, PhD, FACP
State Surgeon General

Lillian Rivera, RN, MSN, PhD
Administrator

Dear Fellow Miami-Dade Residents,

Research shows that better access to affordable, nutritious food is associated with healthier eating habits. People living in communities with a supermarket are more likely to maintain a healthy weight. Supermarkets serve as important anchors in communities, creating jobs and sparking economic revitalization.

Map 6 of this report shows that 250,000 Miami-Dade residents (10%) live in low-income areas that have poor supermarket access and higher than average death rates from diet-related causes.

This report documents areas of Miami-Dade County that are most affected by lack of access to supermarkets and presents model initiatives that direct resources to these areas of greatest need.

Two out of every three adults in Miami-Dade are overweight or obese. However, obesity is preventable. One key strategy to stop the obesity epidemic is to change neighborhood environments to support healthy eating.

This report brings greater public attention to the food access gaps faced by lower-income residents of Miami-Dade and creates a blueprint for public and private initiatives to address this issue.

Imagine what we can do together…

Make Healthy Happen Miami!

Sincerely,

Lillian Rivera, RN, MSN, PhD
Administrator
Miami-Dade County Health Department

Miami-Dade County Health Department
8175 NW 12 Street, #300, Miami, Florida 33126
Tel: (305) 324-2400 Fax: (786) 336-1297
Website: www.dadehealth.org

Public Health
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Background

FOOD ACCESS AND DIET-RELATED DISEASE

Recent studies demonstrate how better access to affordable nutritious food correlates to healthier eating:

- There is a 32% increase in consumption of fruits and vegetables among African Americans for every additional supermarket in a census tract.[1]
- 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.[2]
- Each additional meter of shelf space devoted to fresh vegetables is associated with an additional .35 servings of vegetables per day.[3]

Supermarket presence in a neighborhood is associated with decreased obesity and overweight, while convenience stores are associated with higher rates of diet-related disease.[4] The lack of full-service supermarkets in some communities of Miami-Dade County means that residents must shop at convenience and corner stores with higher prices and more items of poor nutritional quality.[5, 6]

The lack of supermarket access and increased incidence of diet-related diseases in lower-income neighborhoods suggest the need for incentive programs and policies to support healthy food retail development in underserved areas. Such an investment has a positive impact on community health and economic development as food retail markets bring jobs to neighborhoods that need them the most.

This report documents the uneven distribution of supermarket access throughout Miami-Dade County and identifies areas in greatest need of healthy food retail development.

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.

Pennsylvania's Fresh Food Financing Initiative:

A NATIONAL MODEL FOR EXPANDING SUPERMARKET ACCESS

In 2001, a nonprofit group, The Food Trust, began an effort to focus attention on the lack of supermarkets in low-income communities and its correlation with diet-related disease. The Food Trust produced a special report documenting that many lower-income neighborhoods in Philadelphia experienced both a lack of supermarkets and high rates of diet-related deaths.

The report and maps sparked City Council hearings and The Food Trust was asked to convene a task force to develop policy recommendations to support grocery stores in these neighborhoods. The Food Trust convened a task force of high level leaders from the fields of public health, government, economic development, finance, and supermarket industry representatives.

All of these representatives play an important role in helping identify the barriers to supermarket development in underserved communities and in formulating a series of recommendations to overcome those barriers. Community Development Financial Institutions (CDFI's) were a key voice at the table as part of this process.

During this task force process, one key recommendation was to address the need for financing to help retailers overcome higher upfront costs of operating in underserved areas (for land assembly, construction, workforce training and security).

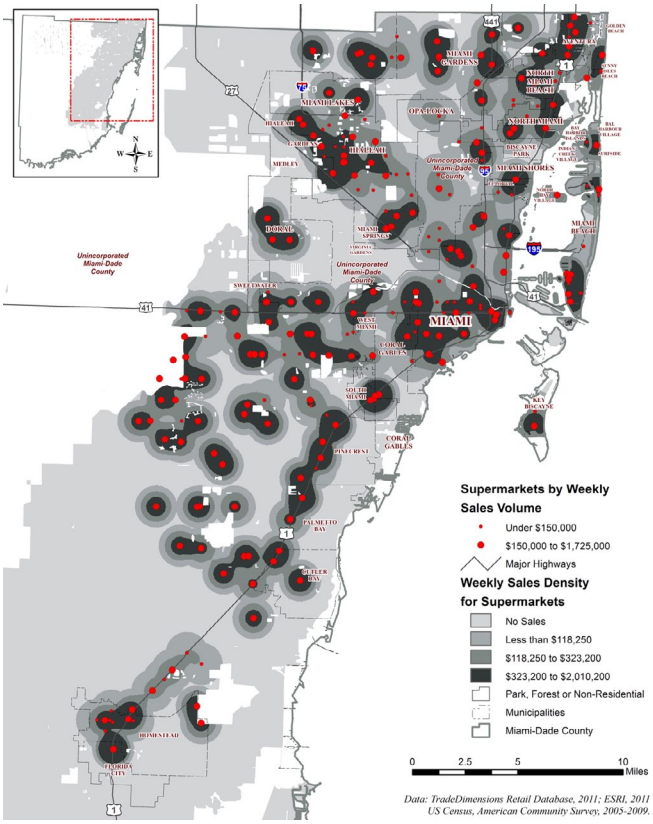
In 2004, the State of Pennsylvania appropriated $10 million to create the Fresh Food Financing Initiative (FFFI) to stimulate the development of grocery stores in underserved communities across the state. Over the course of 3 years, the State appropriated a total of $30 million. This public funding was leveraged by The Reinvestment Fund, a local CDFI, to raise additional private investments for a total of $120 million in financing. The fund provided grant and loan funding for 6 years from 2004–2010 for development of 88 fresh food retail projects across Pennsylvania. These stores have improved access to healthy food, created or retained 5,000 jobs, increased local tax revenues, and sparked additional development in underserved areas.

Identify Need

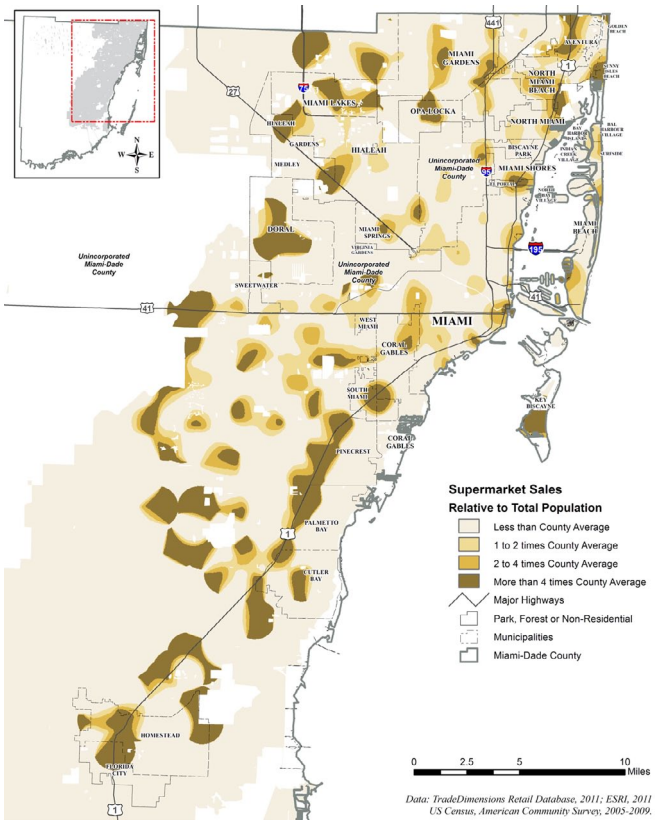
The maps presented here are intended to help policy makers and local stakeholders understand where food access issues are of most relevance and help direct resources to these areas of greatest need.

Phase 1

MAP 1: Weekly Sales Volume for Supermarkets



MAP 2: Supermarket Sales and Population

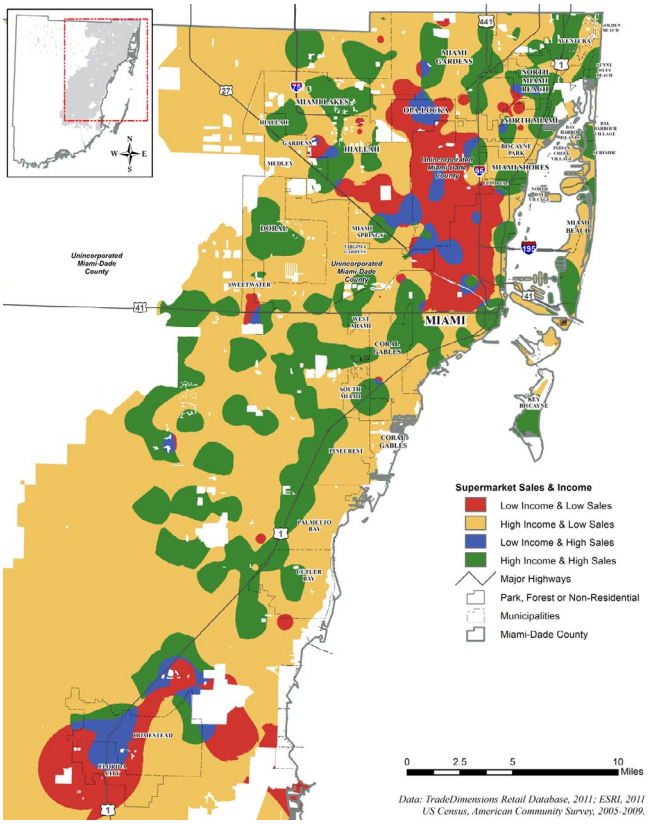


MAP 1: Weekly Sales Volume for Supermarkets shows the location of 257 stores throughout Miami-Dade County, and weekly sales volume for each store. The smaller red circles represent lower weekly sales volume; the larger red circles represent higher weekly sales volume. The gray shading represents weekly sales density per square mile. The darkest areas have the highest concentration of supermarket sales, whereas the light areas have the lowest sales, indicating that few or no supermarkets are located there. Map 1 shows that supermarkets in Miami-Dade County are unevenly distributed. Supermarkets are especially sparse in Opa-Locka and Unincorporated Miami-Dade.

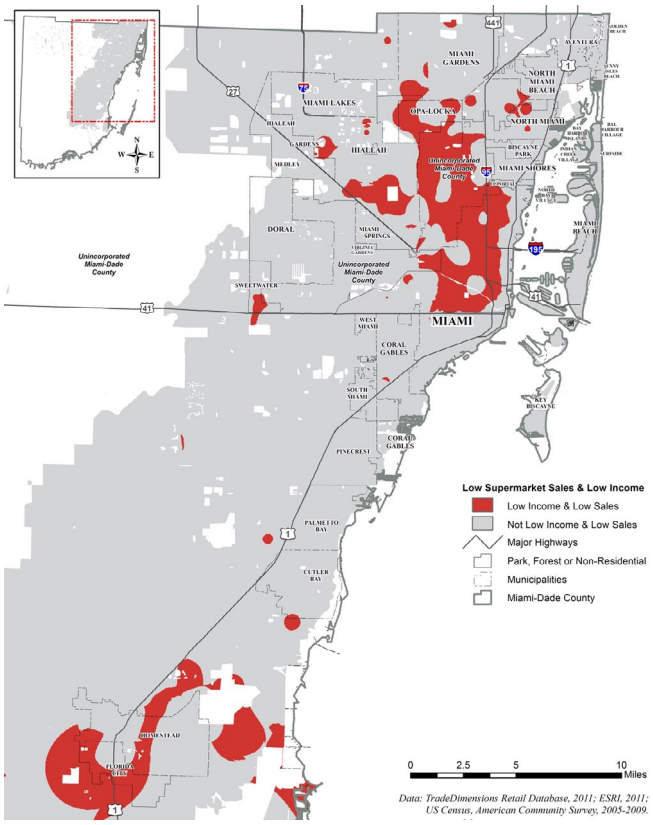
MAP 2: Supermarket Sales and Population shows supermarket sales in an area relative to the population of that area. Communities with greater than average supermarket sales relative to total population are shown in yellow and brown tones. In these communities, people are either spending more than average in supermarkets, as might be the case in higher-income communities, or more people are buying groceries in these communities than the number of people who live there, indicating that people are traveling from outside the area to shop there.

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.

MAP 3: Supermarket Sales and Income



MAP 4: Low Supermarket Sales and Low Income

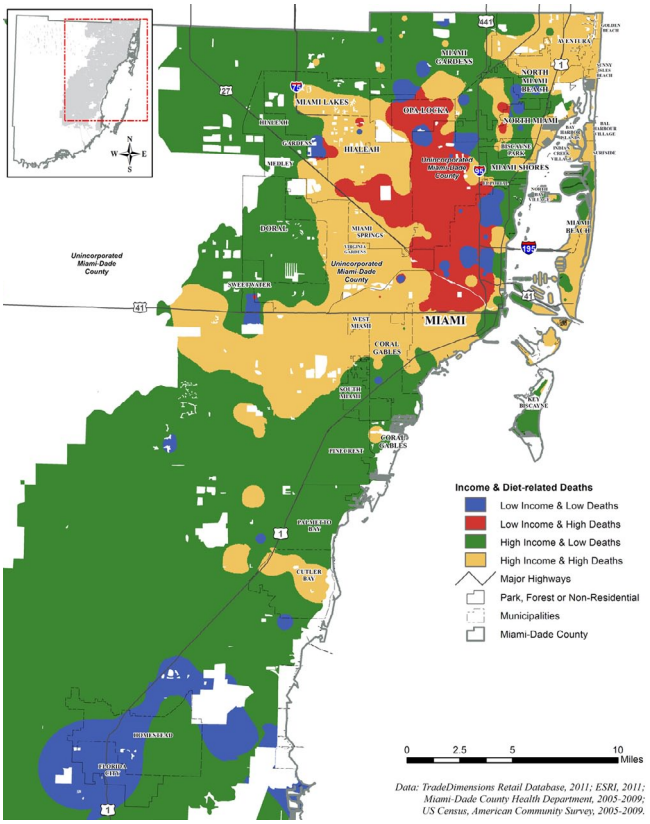


MAP 3: Supermarket Sales and Income shows the distribution of supermarket sales and the distribution of income throughout Miami-Dade. Higher-income areas with higher supermarket sales have the best access to food resources and are indicated by green areas of the map. In some lower-income areas, there are communities with higher than average supermarket sales volumes, as highlighted in blue. People in the areas shown in yellow have fewer supermarkets to shop at in their community. However, since these communities are higher-income, residents often have high car ownership rates and are more able to afford driving longer distances to shop. Red areas represent lower-income communities not adequately served by supermarkets.

MAP 4: Low Supermarket Sales and Low Income further highlights lower-income areas with low supermarket sales due to few or no supermarkets locations. Since income is lower in these areas, families face more difficulty traveling to areas where supermarkets are concentrated, especially if public transit is not accessible or convenient. In Miami-Dade County, these lower-income areas with insufficient access to supermarkets are concentrated in Opa-Locka, Unincorporated Miami-Dade County, inner city Miami, and parts of Hialeah, Homestead and Florida City.

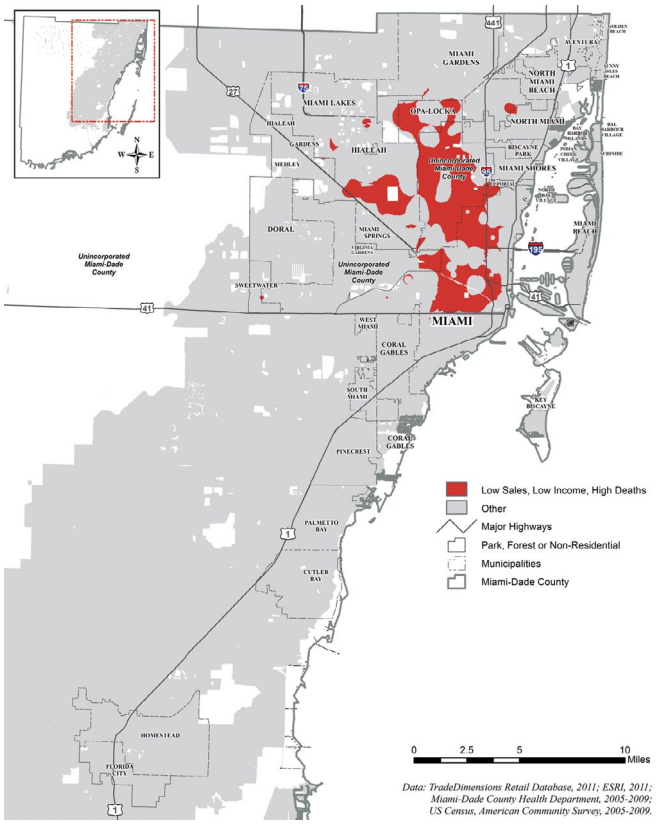
Accessing healthy food is a challenge for many Miami-Dade residents, particularly those living in low-income communities.

MAP 5: Income and Diet-Related Deaths



MAP 5: Income and Diet-Related Deaths shows diet-related mortality data by income. Only deaths from diet-related causes, including diabetes, heart disease, stroke, and cancer, are included in the analysis. Red areas indicate a higher than average rate of diet-related deaths occurring in lower-income areas. The yellow areas display higher rates of diet-related deaths occurring in higher-income areas. The blue and green areas have lower rates of diet-related deaths. Diet-related deaths are associated with many factors, including lack of access to a nutritious diet.

MAP 6: Areas with Greatest Need

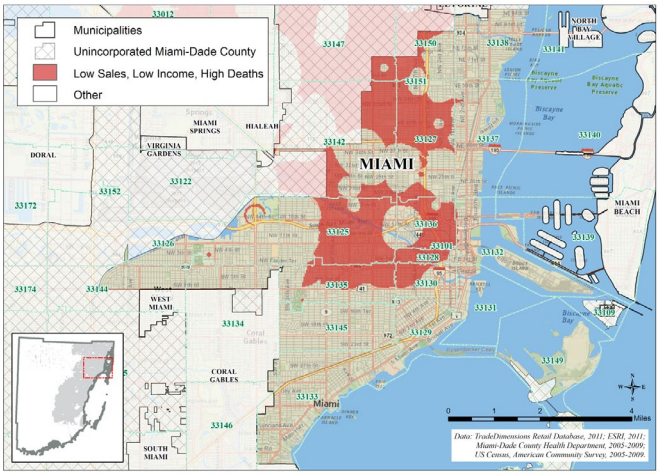


MAP 6: Areas with Greatest Need displays lower-income communities with low supermarket sales and high rates of death from diet-related diseases.* These areas have the greatest need for more supermarkets. To expand access to affordable and nutritious food in these areas, Miami-Dade County and the municipalities of Opa-Locka, Hialeah and the City of Miami should encourage new supermarket development and other initiatives to increase the availability of nutritious and affordable food.

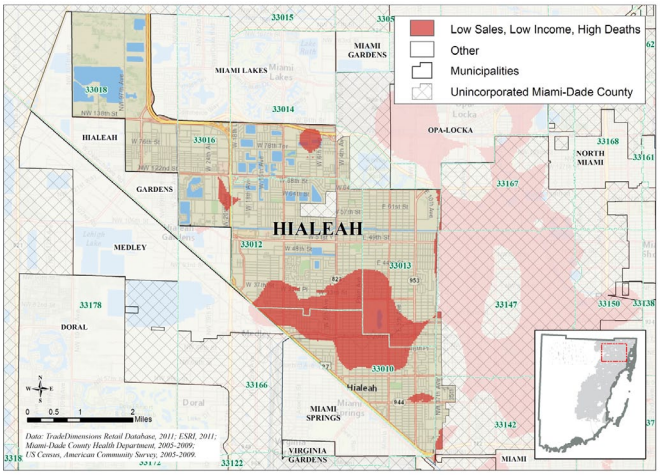
* Only deaths from diet-related causes, including diabetes, heart disease, stroke, and cancer, are included in the analysis.

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.

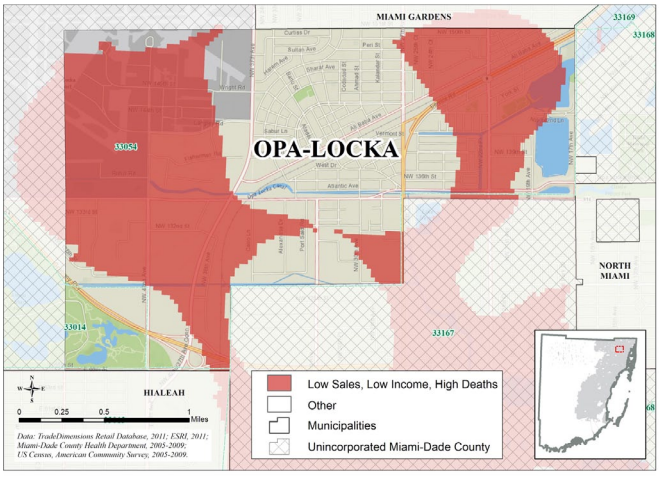
MAP 7: Areas with Greatest Need in the City of Miami, MDC, FL



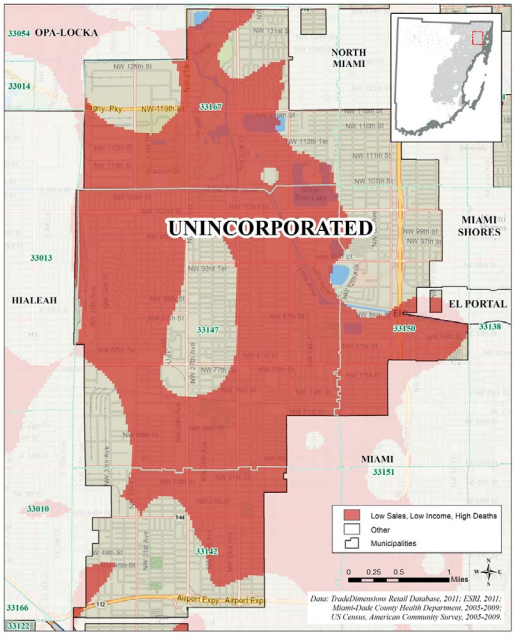
MAP 8: Areas with Greatest Need in the City of Hialeah, MDC, FL



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.

** Everglades and other non-residential conservation areas are not included in the analysis.

Convene Leaders

The goal of convening leaders is to generate meaningful solutions for retailers to support new or improved stores in underserved areas.

Phase 2

The Consortium for a Healthier Miami-Dade already convenes partners at a local level to discuss food access challenges and opportunities. Developing model food access intiatives is a major priority of the Consortium's Access to Healthy Foods Workgroup. The Miami-Dade County Planning Department is also engaged in the conversation about local food access and will continue to have a valuable role in reaching stakeholders.

More outreach is needed with independent grocers and contacts from the grocery industry to meet to discuss their perspective. Often, a grocer meeting can be very informative to understand from a retailer perspective the challenges they face in coming into, and operating in, an underserved community.

The convening process begins by meeting with grocers, maps in hand, to share the neighborhoods of greatest need and kick-start conversations about opportunities and policy solutions to reduce barriers to opening stores in underserved communities. The Pennsylvania Fresh Food Financing Initiative was formed as a result of creating maps and generating recommendations that then became a platform for public policy.

The community needs depicted in the maps serve as a conversation starter with policy makers and business leaders. Convening leaders then advances the conversation to identify action steps for creating programs to attract grocery retailers to underserved neighborhoods.

A grocer meeting can be very informative to understand from a retailer perspective the challenges they face coming into, and operating in, an underserved community.

Create Public Policy

Public policy and public-private investments can help expand supermarket access in underserved communities and improve the health of children and families in inner city Miami, Opa-Locka, Hialeah, Unincorporated Miami-Dade County and other underserved areas across the county.

Phase 3

Working closely with retailers, task forces often develop policy recommendations to reduce barriers to development in underserved areas. Advocates often work with state and local officials to create incentive programs to attract healthy food retail vendors and outlets to underserved neighborhoods.

In the past, recommendations have included:

- **Reducing regulatory barriers to business that sell fresh food.** Including a streamlined process for businesses making inquiries and submitting applications for licenses and permits, and a fast-tracked permitting process for fresh food retailers planning to locate in underserved communities.

- **Prioritizing tax incentives to encourage the sale of fresh food.** Could include revisiting tax rates on fresh food, or incentivizing retailers to expand their selection of fresh food, such as through rebate mechanisms or other discounted tax rates.

- **Compiling available financing and incentive programs for potential retailers.** Often retailers may not be aware of the funds already available to support the development of staff, or infrastructure costs for retail in underserved areas. From minority business funding to new market tax credits, making business owners aware of existing economic development programs can support the development and upgrades of stores.

- **Transportation agencies should develop transportation services for shoppers without convenient access to a full service supermarket.** Low-income households are 6 to 7 times less likely to own a car than other households and also less likely to live in a neighborhood with a supermarket—as a result transportation costs can contribute an additional $400 per year to household budgets. Developing incentives for businesses to locate along walkable routes or near public transportation stops can help both stores and community residents.

New York City's FRESH Program:

ZONING AND FINANCIAL INCENTIVES FOR GROCERY STORE OPERATORS

The City of New York established the Food Retail Expansion to Support Health (FRESH) program that offers zoning and financial incentives to promote the establishment and retention of neighborhood grocery stores in underserved communities. Different city agencies have made a range of coordinated incentives available to eligible grocery store operators and developers. Some sample incentives include:

- Additional development rights (e.g., additional square foot of residential floor area for every square foot provided for a grocery store in mixed use buildings)

- Exemptions from parking requirements (e.g., up to 40,000 square feet of ground floor grocery retail space is exempt from parking requirements in certain districts);

- Real estate tax reductions (e.g., 25-year land tax abatement for grocery projects in priority districts)

- Sales tax exemptions (e.g., for materials used to construct, renovate and equip stores)

For additional FRESH program details, visit the New York City Economic Development Corporation website at www.nycedc.com/program/food-retail-expansion-support-health-fresh or email fresh@nycedc.com.

Programmatic Initiatives to Expand Healthy Food Access

In addition to working on public policy to support long-term supermarket development in underserved areas, programmatic initiatives serve as more immediate strategies for ensuring that every community has access to healthy food in their neighborhood.

Nationally there is a significant effort underway to implement outreach strategies with existing small groceries and convenience stores to expand marketing of fresh food and implement store layout changes to favor healthy items. The Healthy Corner Store Network offers a wealth of resources that support corner stores in selling healthy food. Examples of strategies used with these store owners are:

- Implementing healthy snack shelves
- Supplying refrigerated barrels for fresh fruit and water
- Requesting healthy end caps and other store layout changes to increase visibility of healthier options
- In-store promotional strategies at shelf and at the point of purchase to encourage healthy sales

Another approach to expand healthy food access is to foster distribution channels for local sourcing from farms to small groceries and convenience stores. A key issue in many areas is distribution, and efforts to identify a partner interested and willing to work with local stores to deliver smaller quantities of product at competitive wholesale prices is of critical importance.

Beginning with an eye toward distribution is an important complement to policy and programmatic strategies. There are several examples of innovative distribution strategies. If a broad-line distributor is already serving the area, it can be a matter of connecting that distributer with a local producer to form a partnership. Other examples of distribution systems include school districts working with small stores or even local churches to supply produce that will be sold to community members.

Produce for sale at the Upper Eastside Farmers' Market in Miami, FL. The market accepts SNAP benefits and offers SNAP customers a dollar for dollar match for up to $10.

Miami Spotlight:

GROWING FARMERS' MARKETS IN MIAMI-DADE

The goal of Miami Dade County Health Department's "Make Healthy Happen Miami" campaign is to make healthy living accessible to all Miami-Dade residents. One component of the initiative is expansion of farmers' markets to improve access to locally grown fresh produce.

The Health Department has sponsored 7 markets throughout the county and conducted onsite community health outreach events, including providing blood pressure exams, heart screenings and other health fair activities.

The fresh fruits and vegetables available at market are nutritious and affordable. The farmers' markets accept cash, credit, debit and SNAP food stamps. Some of the farmers' markets offer SNAP users an incentive to purchase fresh produce: $20 worth of fruits and vegetables for $10.

Working Toward a Healthier Miami-Dade

In addition to developing public policy, several practice-based strategies are already underway in Miami-Dade County that are working to improve access to healthy foods in priority areas:

- Partner organizations of the Consortium for a Healthier Miami-Dade are implementing 7 new farmers' markets in the region to bring local food into underserved areas.
- The Consortium's Access to Healthy Foods Workgroup successfully advocated with the City of Miami to approve a Farmers Market Ordinance in December 2011. The ordinance amends Chapter 62, Article XIII of the city code and creates Section 62-536 for the Farmers' Market Pilot Program to ease zoning and permitting requirements for new markets.
- The Consortium's Access to Healthy Foods Workgroup is also working with the City of Miami to explore policy changes that will support the urban agriculture system, including cultivating, processing and distributing food in and around the city.
- South Florida Regional Planning Council is examining food availability in corner stores and developing initiatives to introduce new healthy items into existing food retail.
- Member organizations of the Consortium are also forming a Food Policy Council for Miami-Dade County to carry momentum on food policy issues into the future.

These strategies work in tandem with supermarket policy solutions and to address community needs in the immediate term.

Miami Spotlight:

REDLAND MARKET RECEIVES FEDERAL GRANT FOR EXPANSION

Neighbors and Neighbors Association (NANA), a Miami-based Community Development Corporation, was recently awarded a grant through the national Healthy Food Financing Initiative (HFFI). HFFI is a federal initiative similar to Pennsylvania's FFFI program. HFFI supports projects that increase access to healthy, affordable food in underserved communities or "food desert" areas.

NANA will use HFFI funds for the Redland Market Village Expansion Project, which will create and expand food retail outlets, create new jobs, and expand access to healthy food in Miami-Dade County. The expansion will focus on a local farmers' market and the existing Redland Market in Homestead. The initiative combines physical renovation of the farmers' market and construction of a food court with an effort to train and equip producers and vendors for growing revenues and jobs. In addition, NANA will sponsor the creation of a new Redland Mobile Farmer's Market to reach an additional 17,000-plus consumers every month.

The project will modernize the Redland Market and create new full-time jobs in the growing food retail sector.

Healthy Foods Retail Act:

FLORIDA BILLS WOULD CREATE A STATEWIDE HEALTHY FOOD RETAILERS FINANCING PROGRAM

Several bills have been introduced in the Florida Legislature to create a Healthy Foods Retail program (SB 852, filed November 2011; and SB 1658, filed January 2012). The legislation, if enacted, would create a loan and grant financing program for food retail outlets similar to Pennsylvania's Fresh Food Financing Initiative. The Florida program would attract supermarkets, grocery stores and farmers' markets to underserved areas in the state, increase access to affordable, healthy food, promote the sale and consumption of fresh fruits and vegetables, and expand economic opportunities in low-income and rural communities.

Recommendations

Miami-Dade County needs to address the lack of supermarkets in underserved communities, particularly in lower-income areas of inner city Miami, Opa-Locka, Hialeah, and Unincorporated Miami-Dade County.

A key strategy to create more supermarkets in lower-income communities is for state and local governments to create a grant and loan program that supports fresh food retail development and increases the availability of affordable and nutritious food in underserved areas.

This approach to supermarket financing helps operators cover additional start-up costs associated with locating stores in economically distressed communities. The funding acts as a catalyst for economic development as opposed to a long-term source of operating support.

Economic impact research from Pennsylvania shows that a new supermarket **increases economic activity** in the neighborhood and region.[7, 8] Supermarket employees tend to live in distressed areas that are in close proximity to financed stores, resulting in a net increase in quality jobs and employment for local communities. Financed supermarkets also act as retail anchors and boost home values in nearby communities.

The number of supermarkets in a neighborhood is a key factor contributing to the health and economic development of that community. People living in lower-income areas without access to supermarkets suffer from higher rates of diet-related deaths. Public and private investment can help increase the number of supermarkets in underserved communities and improve the health of children and families across Miami-Dade County.

> The areas of greatest need identified in this report should be the focus of public and private initiatives to support healthy food retail development.

Appendix: GIS Methodology

All data was prepared in MS Excel and mapped in ArcGIS 10 with Spatial Analyst extension. Also used were ET GeoWizards v10 and Hawth's Analysis Tools v3.27. The coordinate system and projection used during mapping and analysis were the North American Datum 1983 and Florida State Plane East Zone. All Miami-Dade countywide analysis was done at the Census tract level using interpolated rasters and density grids.

SUPERMARKET SALES

Supermarkets in the 2011 TradeDimensions retail database were included in the analysis of sales. For the purposes of this study, the definition of a supermarket is any store that has an SIC code of 541105 and an annual sales volume of greater than $2 million. There were 257 supermarkets in Miami-Dade County with an aggregate weekly sales volume of $83,805,000. Stores were plotted using the latitude and longitude coordinates for each record and then classified into two categories; above and below $150,000 in weekly sales volume. Weekly sales volume was further transformed from a series of points to a continuous raster grid representing the sales density per square mile using the Kernel Density function with a one mile radius in Spatial Analyst. Values of sales density were used to classify the raster grid into the four categories shown in map #1: Weekly Sales Volume for Supermarkets.

POPULATION

Population data estimates for Miami-Dade County by Census tract were retrieved from the US Census Bureau website (www.census.gov) for the 2005–2009 American Community Survey (Miami-Dade County total of 2,418,603 people). Geographies with no population were removed from the analysis, as indicated on the maps. Density of total population was calculated from the Census tract centroid points using Kernel Density with a search radius of one mile, or 5,280 feet.

SALES AND POPULATION

The density of weekly sales volume raster was divided by the density of total population raster. The result was then divided by $34.11 (the county-wide ratio of sales to population: $83,805,000/2,418,603) to create an odds ratio for weekly supermarket sales per person for Miami-Dade County. An odds ratio of 1 is equivalent to the countywide rate. Anything below 1 is below the countywide rate. An odds ratio of 2 means the rate is twice the countywide rate. This is used for map #2: Supermarket Sales and Total Population.

INCOME

Median household income (Miami-Dade County: $42,969), number of households (Miami-Dade County: 827,931), and per capita income data were retrieved from the US Census Bureau website (www.census.gov) for the 2005–2009 American Community Survey. Median household income was multiplied by number of households, and the result was divided by total population to create an average per capita income (Miami-Dade County: $14,478.93). Local per capita income by Census tract was divided by this number giving an income odds ratio above or below the countywide rate. The odds ratio, assigned to the Census tract centroid, was used to interpolate a grid, which was then reclassified to yield two distinct values, those below and those above the odds countywide rate.

SALES AND INCOME

The Sales and Income odds ratios were combined resulting in four distinct values which correspond to the four possible combinations of high and low odds ratios, which were used to classify map #3: Supermarket Sales and Income and map #4: Low Supermarket Sales and Low Income.

DIET-RELATED DEATHS

The Miami-Dade County Health Department provided mortality data for the specified list of ICD-10 codes for the years 2005 to 2009. A total of 101,315 diet-related deaths were mapped to at the Census tract level for the county for this five year period. The data were summarized based upon the Census tract number to obtain a count of diet-related deaths per Census tract.

DIET-RELATED DEATHS AND POPULATION

The total number of deaths attributed to each Census tract was divided by the total population of that Census tract. This result was divided by the countywide ratio of diet-related deaths to total population to calculate an odds ratio (101,315 deaths / 2,418,603 population = 0.0418899, or 420 diet-related deaths per 10,000 people over 5 years or an average of 20,263 deaths per year, equal to 0.00837798 or 84 diet-related deaths per 10,000 people annually). The odds ratio, assigned to the Census tract centroid, was used to interpolate a grid, which was then reclassified to yield two distinct values, those below and those above the countywide odds rate.

DIET-RELATED DEATHS AND INCOME

The two rasters of Deaths and Income odds ratios were combined through multiplication to calculate a new layer. This resulted in four distinct values which correspond to the four possible combinations of high and low deaths and income, which were used to classify map #5: Income and Diet-related Deaths.

DIET-RELATED DEATHS, SALES AND INCOME

The two reclassified rasters of 1) Deaths and 2) Low Supermarket Sales and Low Income were combined to create a new raster layer. These results were reclassified to only retain one value: High Deaths, Low Supermarket Sales and Low Income areas and mapped to produce map #6: Areas with Greatest Need.

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