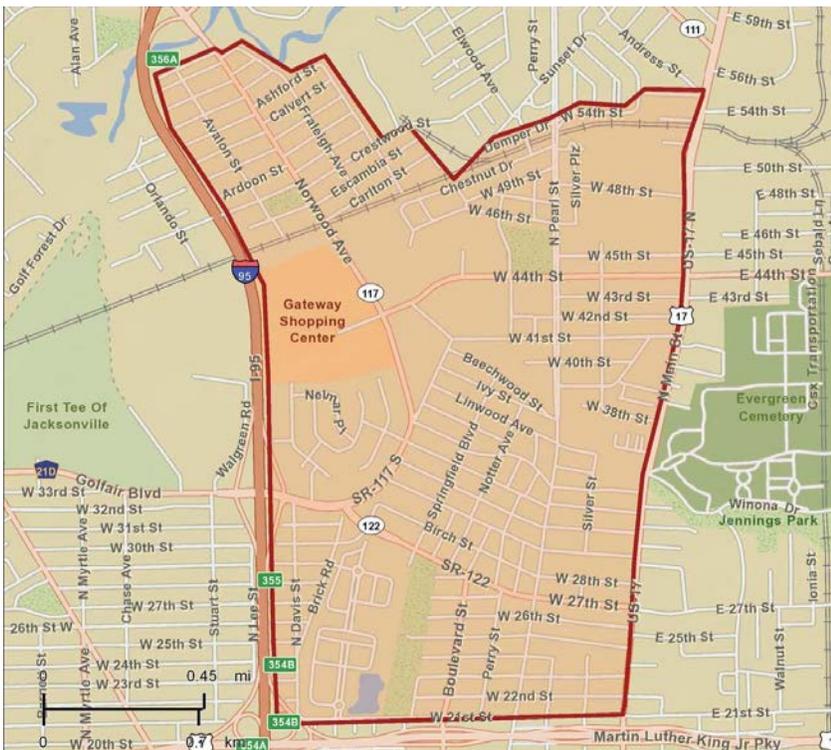


January 2014

Embrace a  
Healthy  
Florida  
Initiative

*Discovering Brentwood:  
Inspiring Actions/Achieving Results*



Health Impact  
Assessment

Funded by a grant from

**Florida Blue**   
Foundation

Florida Blue Foundation is a trade name of the Blue Cross and Blue Shield of Florida Foundation, an Independent Licensee of the Blue Cross and Blue Shield Association



## Zoning Health Impact Assessment 2014

*Sponsors:* Florida Blue Foundation

*Produced by:* Health Planning Council of Northeast Florida and Diettrich Planning

*Authored by:* Lara Diettrich and Dr. Dawn Emerick

*Staff Support:* Northeast Florida Regional Council

Report and Executive Summary available at Northeast Florida Counts website: [www.neflcounts.org](http://www.neflcounts.org)

*Acknowledgements:* Many individuals and organizations participated in and contributed valuable information to the Health Impact Assessment. This collaborative approach was essential in determining the health impacts of rezoning Brentwood.

## ACKNOWLEDGEMENTS

The Health Impact Assessment (HIA) report, *Discovering Brentwood: Inspiring Actions/Achieving*, was made possible by many agency, non-profit and community stakeholders who worked together to identify priorities, goals, and strategies to improve quality of life in the Brentwood community.

### Brentwood HIA Participants

- Abzolute Fitness
- Agape Community Health Center
- Brentwood Elementary
- Brentwood Lakes Apartments' Residents and Management
- Central Metropolitan CME
- Chamberlin University
- City of Jacksonville Planning and Development Department
- City of Jacksonville Public Works Department
- City of Jacksonville City Council
- City of Jacksonville Parks and Recreation
- Community Rehab Center
- Eugene Butler Middle School
- FDOT
- Girls on the Run
- Grace & Truth CDC
- Health Planning Council Northeast Florida
- Jacksonville Housing Authority
- Jacksonville Integrated Planning Project Team Members
- JTA
- Magnolia Project
- Mayo Clinic
- Metro North Community Development Corporation
- Northeast Florida Healthy Start
- Northwest Community Development Corporation
- North Shore Elementary
- Renaissance
- Smart Pope Livingston Elementary
- University of Florida
- War on Poverty, Florida
- Wells Fargo

## TABLE OF CONTENTS

ACKNOWLEDGEMENTS.....	1
Brentwood HIA Participants .....	1
<b>1 EXECUTIVE SUMMARY .....</b>	<b>4</b>
<b>2 SCREENING .....</b>	<b>6</b>
2.1 Project Goals.....	6
Project Work Program .....	7
Strategic Teaming .....	7
Community Engagement .....	7
2.2 What Is A Health Impact Assessment? .....	8
2.3 Why Use A Health Impact Assessment? .....	10
Values .....	10
Reasons to Use HIA .....	10
2.4 Objectives of the Discovering Brentwood HIA.....	13
<b>3 SCOPING .....</b>	<b>13</b>
3.1 Brentwood Community History and Metro North... ..	13
Innovation & Comprehensiveness: Raising Public Awareness .....	15
Transferability: Giving Citizens the Tools to Build a Vibrant Neighborhood .....	15
Team Building: Partnerships for the Future .....	15
Execution: Brentwood Strategic Implementation Plan (SIP) .....	16
Metro North Community Development Corporation Inc. ....	17
Housing & Community Development.....	21
3.2 The Need for Action to Improve Health in Brentwood .....	21
Community Assets .....	21
3.3 Selected Outcomes.....	22
<b>4 ASSESSMENT.....</b>	<b>28</b>
4.1 Basic Definition of Zoning and Its Uses .....	28
4.2 Relationship of Zoning and Health .....	28
4.3 Demographics and Health Indicators.....	29
Socio Economic Demographics.....	29
Census 2010 Summary Profile.....	29
Housing Profile .....	29
Household Income Profile .....	30
Medical Expenditures .....	30
Business Summary .....	30
Retail Marketplace Profile Data Table.....	31
Understanding Retail Leakage .....	31
Understanding Retail Surplus .....	31
Disposable Income Profile .....	32
Recreation Expenditures.....	32
Race by Census Tract, Block Group .....	33

	Business Profile: New Occupations 2012-2013.....	55
	Poverty Rate by Census Tract.....	61
	Health Indicators .....	65
	Infant Health Indicators .....	66
	Adult ER Visits.....	69
	Environmental Risks .....	69
	Health Assets .....	70
	Public Schools with Proximity to Food Establishments.....	72
	Education Facilities .....	74
	Elder Care Facilities.....	75
	Medical Facilities .....	76
	Sidewalks & Bicycle Facilities.....	77
	Public Facilities .....	78
	Transportation: Bus Routes .....	79
4.4	Health Indicators .....	80
4.5	Meeting Observations .....	100
	Walking Audit .....	100
	Recommendations .....	104
4.6	Literature Review .....	105
4.7	Zoning Code Analysis.....	105
	Development Patterns .....	106
	Future Land Use Development Patterns.....	107
	Zoning District Regulations.....	108
	Code Enforcement Incidents: 2012-2013 .....	109
	CrimeView Community Maps .....	110
	Crime Incidents .....	111
	Chapter 656, Zoning Code Examination .....	112
4.8	Impact Assessment .....	116
	Topic Areas .....	116
5	<b>PATHWAY: HEALTH OUTCOMES AND RECOMMENDATIONS .....</b>	<b>120</b>
6	<b>RECOMMENDATIONS .....</b>	<b>121</b>
	Violent Crime.....	121
	Obesity and Obesity-Related Illnesses .....	122
	Physical Activity and Pedestrian Safety and Connectivity .....	123
	Diet and Nutrition .....	125
7	<b>APPENDIX .....</b>	<b>127</b>
	Websites .....	127
	Literature Review .....	127

## 1 EXECUTIVE SUMMARY

The project focus is on improving land-planning techniques, processes, and practices to create healthy environments for our children and facilitate healthier living. A Health Impact Assessment (HIA) is a flexible, data-driven approach that identifies the health consequences of policies and programs, and develops strategies to enhance health benefits of a community and minimize adverse effects. HIA methods are used to influence zoning policies relative to urban neighborhoods where obesity and associated chronic disease is disproportionate to other areas in the city. Incorporating public health goals in zoning is a promising practice that has broad implications and will result in a healthier built environment.

The Brentwood Community is located in the greater core of the City of Jacksonville. While the low-density nature of Health Zone 1 can present quality of life challenges such as decreased walkability and increased auto and transit dependence, identified as Health Zone 1 also includes natural, social and physical assets that can be leveraged to increase quality of life. Brentwood has made great strides over the years due to a concentration of planning and grant efforts by the City of Jacksonville, the Jacksonville Housing Authority, the Metro North Community Development Corporation, the NFL, and many other local agencies, non-profit organizations, and dedicated community stakeholders.

While these assets have improved the quality of life in the Brentwood Community, there is still much work to be done to assure that this progress continues and the existing assets remain sustainable; that the community and its assets continue to serve its residents and merchants; and that necessary improvements are made to protect the health, welfare and safety of the community's residents, merchants, and visitors. It is critical to **MAINTAIN THE GAIN!**

There are a variety of ways in which zoning may positively and negatively affect health. It is likely that zoning's impact on health occurs through its potential to shape the built environment. Changes in the built environment can have both direct and indirect impacts on health. One way zoning may directly impact health is through its effects on the local food environment by allowing for uses such as supermarkets, farmers markets, or community gardens in residential areas. Having access to these types of uses in neighborhoods may provide greater access to fresh produce and nutrient dense food, increasing the likelihood that residents will have improved nutrition and thus reduce their risk for obesity, diabetes, or other obesity-related illnesses. Because zoning can also regulate private building appearances, landscaping design, signage, and lighting, it contributes to the aesthetic appeal of neighborhoods and thereby the likelihood that people will walk in those neighborhoods. Zoning can also restrict or facilitate mixed use (i.e. the allowance of multiple land uses in the same area), which has been shown to promote functional physical activity in the form of walking to needed services. Zoning may also affect the social environment and, thus, exhibit indirect impacts on health (i.e.

mixed-use and urban design features that facilitate natural resident surveillance have been shown to reduce criminal activity including violent crimes, land use and zoning regulations that permit off-premise sales of alcohol and on premise consumption outlets). But crime and perceptions of safety have more far-reaching implications for promoting healthy behaviors and creating healthy communities. In particular, crime and safety are important determinants of neighborhood-based physical activity, including walking or biking to school, among children and adolescents. Perceptions of safety may be a more important determinant of physical activity among children and adolescents than access to recreational spaces and walkable communities. The ability to have a safe place to play is a major contributing factor to physical, emotional, and psychological health risks that impact the development of children in high risk neighborhoods.

Childhood obesity is epidemic in the United States. More than one in six U.S. children is obese—three times the rate in the 1970s. Obesity is a major contributor to cardiovascular disease, diabetes, and several types of cancer. About 70 percent of obese youth have at least one additional risk factor for cardiovascular disease (for example, hypertension or high cholesterol), and nearly 40 percent have at least two additional risk factors. Increases in obesity over the past few decades are reflected in higher rates of type 2 diabetes. Youth now constitute almost half of the population of new cases that have type-2 diabetes in some communities. Children who are obese after age six have a greater than 50 percent chance of being obese as adults, regardless of parental obesity status; 80 percent of children who were overweight at ages 10-15 were obese at age 25. Obesity in children under age eight that persists into adulthood is also associated with more severe adult obesity.

Addressing socioeconomic factors has the largest potential impact on population health, most notably, education, transportation, and agriculture being important to long-term success. Changes to the social and physical environment that make people's default choices healthy ones have the next-greatest potential impact. By coordinating with governmental and nongovernmental partners to address current conditions through revised zoning regulations and infrastructure improvements, the built environment in the Brentwood Community can continue to improve as a healthy and safe environment for residents and businesses to thrive.

Communities throughout the United States have used innovative strategies to tackle environmental, economic, and public health challenges similar to those observed in the Brentwood community as well as greater Jacksonville, Florida. In support of these nationwide strategies, the Health Planning Council of Northeast Florida and Dietrich Planning, with support from the Northeast Florida Regional Council, prepared recommendations that have been derived from a multitude of sources ranging from contributions from the community meetings and walking audit; Zoning Code and literature review; the War on Poverty's Northwest Jacksonville Community Asset Analysis; and the Jacksonville Integrated Planning Project (*JIPP, December 2012*). Similarly, as stated in the

JIPP, the recommendations outlined in this HIA report were selected for being community driven, cost-effective or revenue/job generating, accessible, and with options to start small and grow capacity.

## 2 SCREENING

The Health Planning Council of Northeast Florida partnered with War on Poverty (WOP), Metro North Community Development Corporation, the City of Jacksonville Planning and Development Department (COJ PDD), and Diettrich Planning for the undertaking of a Healthy Places Initiative for the Brentwood Community. Through its *“Embrace a Healthy Florida”* childhood obesity initiative, the Blue Cross/Blue Shield Foundation of Florida provides grants to support promising practices and applied research. Jacksonville was the recipient of an award from the Blue Cross/Blue Shield Foundation of Florida for this project to assess elements in the built environment that effect health.

### 2.1 Project Goals

***The project focus is on improving land-planning techniques, processes, and practices to create healthy environments for our children and facilitate healthier living.*** It is a challenge to promote redevelopment in Jacksonville’s older-urban communities while working within the confines of the City’s existing land development-regulations. The City of Jacksonville has one set of “default” regulations for land development in a metro area made up of many diverse communities. This project will explore alternatives or enhancements to current development regulations that are more specific to Brentwood, and that may include, but not be limited to:

- Evaluation of a mix of land uses: commercial, retail, and residential
- To promote better development practices
- Assessing viable housing options and their access to healthy foods
- Increasing connectivity between activity nodes
- Addressing crime prevention through *Crime Prevention Through Environmental Design* (CPTED)
- Improving infrastructure (roads, sidewalks, and multi-use paths) to promote walking and bicycling
- Evaluating health and human services availability
- Enhancing the character and spirit of our community
- Exploring transit options
- Sustaining quality of life by providing more options for healthy lifestyles

A conceptual action plan based on a collective community dialogue is one goal of the project with the intent of promoting future infill development that makes economic sense and enhances the vitality of the neighborhoods and the health of all residents.

## Project Work Program

The work program consists of many steps that will lead to the development of a community action plan. An efficient use of technical resources and responsible use of citizen ties will lead to a successful outcome. Health Impact Assessment (HIA) is a flexible, data-driven approach that identifies the health consequences of new policies, and develops strategies to enhance health benefits of a community and minimize adverse effects. HIA methods will be used to influence zoning policies relative to urban neighborhoods where obesity and associated chronic disease is disproportionate to other areas in the city. Incorporating public health goals in zoning is a promising practice that has broad implications and will result in a healthier built environment. The objectives of HIA as a promising practice to influence zoning policies, include, but are not limited to:

- Identify opportunities to maximize health gains, minimize adverse effects and improve community health;
- Recognize potential conflicting interests and the costs and benefits of various choices;
- View health from a broad perspective accounting for a wide range of environmental factors, such as housing conditions, roadway safety, and social economic variables;
- Consider subgroups within an affected population that may be more vulnerable to a given impact;
- Promote public involvement; and
- Present an impartial, science-based appraisal of the risks, benefits, trade-offs and alternatives.

## Strategic Teaming

**Leadership Committee** – convene a committee to oversee project logistics, review direction with consultant team and make administrative recommendations.

**Technical Advisory Committee** – engage experts in public health, urban planning and design, land use law, engineering, marketing, economy and other government agency representatives to offer technical support as requested.

**Safe Routes to School** – align with *Safe Routes to Schools* (SRTS) program for greater impact and community outreach.

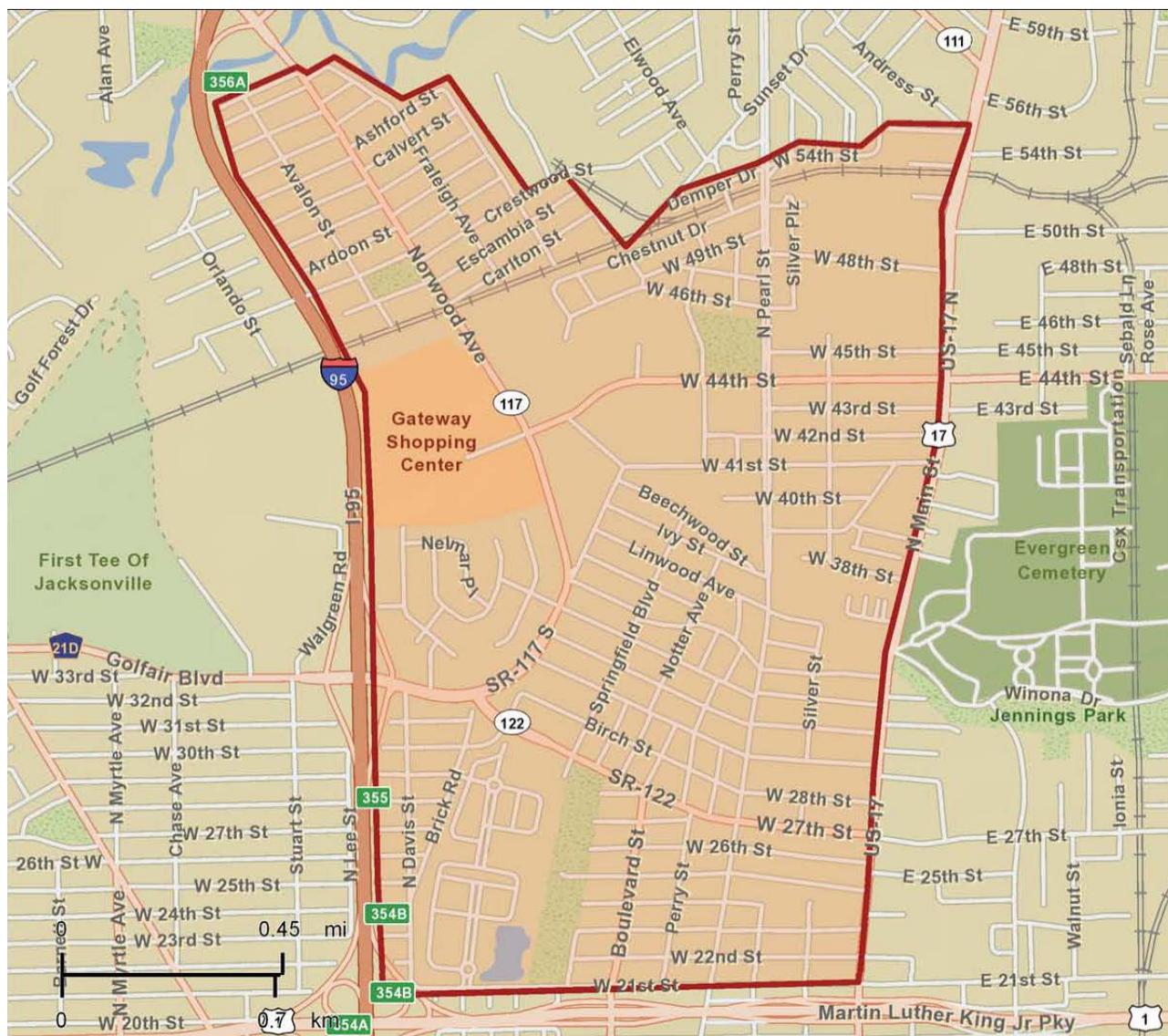
## Community Engagement

**Discovering Brentwood** is a collaborative community effort and a true partnership between residents, business and property owners, and government agencies. The following practices were used throughout the process:

**Key Informant Interviews**—conducted one-on-one meetings with community stakeholders including, but not limited to, residents, property owners, developers, community organizations, and government agency representatives.

**Neighborhood Dialogue**—garnered specific insights on topics, recommendations, and geographic perspectives from residents and property owners.

## 2.2 What Is A Health Impact Assessment?



*Discovering Brentwood: HIA Study Boundary Map.*

Doctors advise their patients on how they can stay healthy. In many ways, Health Impact Assessment (HIA) provides the same advice to communities. This advice helps communities make informed choices about improving public health through community design.

HIA is a process that helps evaluate the potential health effects of a plan, project, or policy before it is built or implemented. An HIA can provide recommendations to increase positive health outcomes and minimize adverse health outcomes. HIA brings potential public health impacts and considerations to the decision-making process for plans, projects, and policies that fall outside the traditional public health arenas, such as transportation and land use.

The National Research Council (NRC) defines HIA as “A systematic process that uses an array of data sources and analytic methods, and considers input from stakeholders to determine the potential effects of a proposed policy, plan, program, or project on the health of a population and the distribution of those effects within the population. HIA provides recommendations on monitoring and managing those effects.”

The major steps in conducting an HIA include:

- Screening (identifying plans, projects or policies for which an HIA would be useful),
- Scoping (identifying which health effects to consider),
- Assessing risks and benefits (identifying which people may be affected and how they may be affected),
- Developing recommendations (suggesting changes to proposals to promote positive health effects or to minimize adverse health effects),
- Reporting (presenting the results to decision-makers), and
- Monitoring and evaluating (determining the effect of the HIA on the decision).

The 2011 Center for Disease Control (CDC) co-sponsored NRC report *Improving Health in the United States: The Role of Health Impact Assessment* found that the HIA holds promise for incorporating aspects of health into decision-making because of the following:

- Applicability to a broad array of policies, programs, plans, and projects;
- Consideration of adverse and beneficial health effects;
- Ability to consider and incorporate various types of evidence; and
- Engagement of communities and stakeholders in a deliberative process.

HIA is different from a public health assessment, a health risk assessment, and an environmental impact assessment. HIA is usually voluntary, though several local and state laws support the examination of health impacts in decision-making, and a few explicitly require the use of the HIA. (*Center for Disease Control and Prevention: Healthy Places*)

## 2.3 Why Use A Health Impact Assessment?

### Values

HIA is based on four values that link the HIA to the policy environment in which it is being undertaken:

1. Democracy—allowing people to participate in the development and implementation of policies, programs or projects that may impact on their lives.
2. Equity—HIA assesses the distribution of impacts from a proposal on the whole population, with a particular reference to how the proposal will affect vulnerable people (in terms of age, gender, ethnic background and socio-economic status).
3. Sustainable development—both short and long term impacts are considered, along with the obvious and less obvious impacts.
4. Ethical use of evidence—the best available quantitative and qualitative evidence must be identified and used in the assessment. A wide variety of evidence should be collected using the best possible methods.

### Reasons to Use HIA

#### *Promotes Cross-Sectoral Working*

The health and well-being of people is determined by a wide range of economic, social and environmental influences. Activities in many sectors beyond the health sector influence these determinants of health. HIA is a participatory approach that helps people from multiple sectors to work together. HIA participants consider the impacts of the proposed action on their individual sector, and other sectors—and the potential impact on health from any change. Overlaps with other policy and project initiatives are often identified, providing a more integrated approach to policy making. “Joined up thinking” and “cross-sectoral working” are phrases that apply to the HIA way of working.

#### *A Participatory Approach That Values the Views of the Community*

An initial stage within the HIA process is to identify the relevant stakeholders. This process usually produces a large number of relevant people, groups and organizations. The HIA can be used as a framework to engage stakeholders in a meaningful way, allowing their messages to be heard.

Stakeholders commonly include:

- The local community/public, particularly vulnerable groups
- Developers
- Planners
- Local/Regional/State/Federal government entities
- Voluntary agencies, nongovernmental organizations
- Health workers at local, state, federal or international levels

- Employers and unions
- Representatives of other sectors affected by the proposal
- The decision-makers
- The network of people and organizations that will carry out the HIA.

HIA provides a way to engage with members of the public affected by a particular proposal. An HIA can send a signal that an organization or partnership wants to involve a community and is willing to respond constructively to their concerns. Because the HIA process values many different types of evidence during the assessment of a proposal, the views of the public can be considered alongside expert opinion and scientific data, with each source of information being valued equally within the HIA. It is important to note that the decision makers may value certain types of evidence more than others may, and community expectations must be managed to avoid over-promising what an HIA can deliver. An HIA does not make decisions; it provides information in a clear and transparent way for decision makers.

#### *The Best Available Evidence Is Provided To Decision-Makers*

The purpose of an HIA is to provide decision-makers with a set of evidence-based recommendations about the proposal. The decision-makers can then decide to accept, reject or amend the proposal, in the knowledge that they have the best available evidence before them. Evidence used in an HIA can be both qualitative and quantitative, and each is valuable. HIA should consider a range of different types of evidence—going beyond published reviews and research papers, to include the views and opinions of key players who are involved or affected by a proposal. Often, information of the quality and quantity demanded by decision-makers cannot be found, and a note of this is made within the HIA and the best available evidence is provided.

#### *Improves Health and Reduces Inequalities*

Addressing inequalities and improving health is a goal for many organizations and all governments. One way of contributing to the health and inequalities agenda is through the use of HIA. At the very least, HIA ensures that proposals do not inadvertently damage health or reinforce inequalities. HIA uses a wide model of health and works across sectors to provide a systematic approach for assessing how the proposal affects a population, with particular emphasis on the distribution of effects between different subgroups within the population. Recommendations can specifically target the improvement of health for vulnerable groups.

#### *It Is a Positive Approach*

HIA looks not only for negative impacts (to prevent or reduce them), but also for impacts favorable to health. This provides decision-makers with options to strengthen and extend the positive features of a proposal, with a view to improving the health of the population.

### *Appropriate For Policies, Programs and Projects*

HIA is suitable for use at many different levels. HIA can be used on projects, programs (groupings of projects) and policies, though it has most commonly been used on projects. The flexibility of HIA allows these projects, programs, and policies to be assessed at either a local, regional, national, or international level—making HIA suitable for almost any proposal. However, choosing the right moment to carry out an HIA is important.

### *Timeliness*

To influence the decision-making process, HIA recommendations must reach the decision-makers well before any decisions about the proposal will be made. This basic principle of HIA highlights the practical nature of the approach. Experienced HIA practitioners can work within most timeframes, undertaking comprehensive (longer) or rapid (shorter) HIAs.

### *Links with Sustainable Development and Resource Management*

If the HIA is undertaken at a sufficiently early stage in the project process, it can be used as a key tool for sustainable development. For example, an HIA on building a road would enable inclusion of health and other sustainability aspects—such as bicycle lanes, noise and speed reduction interventions—to be included from the very beginning, rather than at a later date. This enables health objectives to be considered at the same level as socio-economic and environmental objectives, an important step towards sustainable development. Another feature of HIA is its possible combination with other impact assessment methods. This integration allows proposals to be assessed from a sustainable development perspective including health, education, employment, business success, safety and security, culture, leisure and recreation, and the environment. Drawing on the wider determinants of health, and working across different sectors, HIA can play an important role in the sustainability agenda.

### *Many People Can Use HIA*

Because it is a participatory approach, there are many potential users of HIA, including:

- Decision-makers who may use the information to select options more favorable to health;
- The HIA subject community, who use it to consult widely and gather differing views, to build capacity and develop strong partnerships;
- HIA workers who carry out the individual components of the HIA, including consultants, local staff from a wide variety of organizations, and the community;
- Stakeholders, who want their views to be considered by decision-makers.

*(World Health Organization: Programs and Projects)*

## 2.4 Objectives of the Discovering Brentwood HIA

The Health Planning Council and Diettrich Planning's intent of this HIA is to influence the City of Jacksonville to review and consider amending the current Zoning Code, Chapter 656, by contributing information that will be used to achieve two primary objectives:

1. Inform stakeholders and decision-makers that an amended Zoning Code has the potential to create healthier communities and decrease health disparities, with an emphasis on preventing obesity and crime; improving safety, infrastructure, and connectivity for vehicular, bicycle and pedestrians throughout the community; access to healthy foods; improving health service availability; and explore transit options through the review of the literature and quantitative assessments of potential impacts.
2. Provide recommendations about how to increase the health-promoting potential of the amended Zoning Code and mitigate any unanticipated negative health consequences based on literature review, quantitative assessment of impacts, and expert opinion.

## 3 SCOPING

### 3.1 Brentwood Community History and Metro North Community Development Corporation

Neighborhoods change over time. These changes will either strengthen or weaken the fabric that holds a community together. Changes may occur as a result of internal or external forces. The key to a healthy community is to influence the forces that cause positive changes.

The Brentwood community is located within the urban core and Northwest Planning District (5). It also located within Health Planning Zone 1. The Brentwood community resulted from an expansion of residential growth from Downtown Jacksonville. The neighborhood was partially platted and sparsely settled in the nineteenth century. The majority of the development occurred during the first quarter of the twentieth century.

Prior to its residential development, the land was used mostly for agricultural purposes. The development of Metro North was an extension of the nearby Springfield area. This was during a period known as the "Jacksonville Renaissance", a time of economic and population growth that sprung from the rebuilding effort that followed the Great Fire of 1901. A number of private developers built subdivisions in the area, such as Springfield Northwest and Brentwood. The Norwood and Northshore neighborhoods were developed between 1912 and 1940, and contained residences designed for the city's growing middle class. The influx of people into the area was facilitated by the Federal Housing Authority's (FHA) guaranteed mortgages.

The City of Jacksonville acquired land in the Metro North area and built Brentwood Park as well as several public schools. Public housing came to the neighborhood in 1937, when the Jacksonville Housing Authority (JHA) was established in response to the housing crisis following the Great Depression. In 1939, the JHA opened the Brentwood Housing Project, a development that still exists. A combination of events during subsequent decades caused a racial and economic shift in the Metro North area. Racial integration enabled blacks to move into the neighborhood from nearby African American communities such as Durkeeville, thus precipitating "White Flight." Additionally, the construction of I-95 diverted travelers from local commercial corridors such as Main Street, which negatively impacted local commerce.

The Metro North Neighborhood Action Plan (NAP) was initiated in the summer of 2003 by the City of Jacksonville's Planning and Development Department and the Metro North Community Development Corporation (Metro North CDC) to create a revitalization plan for the Metro North community. The Metro North neighborhood is larger than Brentwood and is the boundary proposed for this *Discovering Brentwood HIA*. *For purposes of the HIA grant, the study area is referred to as Brentwood*. The Metro North boundary that was designated in the development of the Metro North NAP is bound by the Trout River to the north; Martin Luther King, Jr. Parkway to the south; Interstate 95 to the west; and Main Street/US 17 to the east. For purposes of focusing efforts, energies, investments and resources, the Brentwood Strategic Implementation Plan focused on a boundary more specific and references it as Brentwood, being bound by Golfair Boulevard and 27<sup>th</sup> Street to the north; Martin Luther King, Jr. Parkway to the south; Interstate 95 to the west; and Main Street/US 17 to the east.

This plan was developed with extensive input from neighborhood residents, business owners and community leaders. This collaborative effort had four major results:

1. The resulting plan was a reflection of community needs and concerns;
2. Public awareness of neighborhood issues and planning was increased;
3. Community members were given the tools to build a vibrant neighborhood through capacity building workshops; and
4. Partnerships among the active organizations in the Metro North community were built.

The plan that resulted from this public involvement process included strategies that produced recommendations for the following key community issues: improvement of existing commercial areas, the need for a business association, increasing home-ownership, improvement of existing housing, design guidelines for new development, zoning issues, and the need for a strategic plan that establishes better links between the neighborhood and a new HOPE VI project within the community. Due to the high level of community involvement and buy-in, many of the NAP recommendations were and continuing to be implemented.

## Innovation & Comprehensiveness: Raising Public Awareness through Planning

Community members were involved in the Metro North planning process from the very beginning. The planning team worked closely with the Metro North Community Development Corporation (CDC) to get the word out about public workshops. The diversity of workshop participants reflected the diversity of the community. Planning workshops were used to obtain feedback from community members about key community issues, as well as community assets. Workshops focused on a range of issues, including zoning, housing conditions, community design and commercial redevelopment. In addition to the valuable input participants gave the Planning Team, community members walked away from the Metro North NAP process with a better understanding of community conditions and how to address them.

## Transferability: Giving Citizens the Tools to Build a Vibrant Neighborhood

One key goal of the Metro North planning process was to maximize consensus and community involvement. A series of workshops devoted to building community capacity were held as a parallel process to the overall NAP public involvement process. These workshops were rooted in the principles of Asset Based Community Development. Five major topics were covered through these workshops:

1. Mobilizing Citizens
2. Community Partnerships
3. The Role of Institutions
4. Building Inclusive Communities
5. Organizing for Housing Implementation Planning

There were two key goals of the capacity-building workshops: giving community members the tools to support the implementation of plan recommendations and improve their community as a whole, and building relationships among community leaders that will aid neighborhood mobilization and decision-making.

One important outcome of the planning process and capacity-building workshops was the revival of the North Shore Neighborhood Association, an organization that was dormant for several years. Participants from the North Shore neighborhood, located in the northern section of the Metro North community, realized the importance of community organizations and revived the neighborhood association with great response.

## Team Building: Partnerships for the Future

The Metro North Community Council formed as a result of this planning process. Metro North is a large and diverse community with several active community organizations. The Metro North Community Council is a partnership among these organizations that meets regularly to share community concerns and successes. This partnership enables the

neighborhoods of Metro North/Brentwood to work together in order to have a greater impact on the larger community.

The Metro North NAP planning process raised community awareness of neighborhood issues and the importance of planning in one key way: it got people talking. By providing a forum for the diverse population of the Metro North community to come together, the Metro North NAP planning process enabled community members to discover common goals and issues. Members of the Metro North community are now using these common goals to move toward building a stronger neighborhood.

### Execution: Brentwood Strategic Implementation Plan (SIP)

The Metro North NAP study area is fairly large and for implementation purposes, a Strategic Implementation Plan (SIP) area was designated in the southernmost region of the study area being the most in need. The Brentwood boundary consists of Golfair Boulevard to the north, Main Street to the east, Martin Luther King Boulevard/20<sup>th</sup> Street Expressway to the south, and I-95 to the west. The Jacksonville Planning and Development Department (PDD) and APD, Inc. continue to further the original efforts set forth in the Metro North NAP, as well as, developing new, additional projects and services throughout the Brentwood Community. The SIP was designed to complement the HOPE VI Housing Development Project constructed in Brentwood through the Jacksonville Housing Authority. The HOPE VI Project was completed in 2005. The SIP specifically addressed connectivity and linkage between the HOPE VI project area and the adjoining neighborhood to insure a seamless neighborhood redevelopment initiative. The SIP integrated the following specific housing and community development actions, which were implemented:

- New in-fill housing
- Renovation of existing vacant and abandoned housing
- Land Use and Zoning changes to make consistent with existing area
- Streetscape and landscape improvements
- Community involvement and capacity building
- Marketing and community outreach
- Expansion and redevelopment of local small businesses
- Public transportation improvements
- Park facilities rehabilitation and new development
- Continuing local school achievements
- Creation of neighborhood associations

The SIP provided specific project scenarios and suggested funding sources for maintaining and improving the existing housing stock, building new in-fill single-family homes, and renovating existing neighborhood retail buildings. In addition, while the Metro North NAP stimulated the resurgence of the North Shore Neighborhood Association, the Brentwood

SIP inspired the creation of the Norwood, Brentwood Manor, and Metro Gardens Neighborhood Associations.

Significant progress has transpired within the SIP project area. Specifically, the Metro North CDC purchased nine vacant residential parcels of land, constructed seven new single-family homes, purchased five single-family homes for demolition and new infill residential development and sold four of the newly constructed infill redeveloped single-family homes. The PDD's Town Center Initiative Program and the Florida Department of Transportation worked in conjunction with one another to complete streetscape and infrastructure improvements to the segment of Main Street bordering Brentwood, from 21<sup>st</sup> Street to the Trout River.

The NFL made a substantial contribution as a result of the City of Jacksonville hosting the XXXIX Super Bowl which was utilized to develop the Youth Education Town (YET) Center in Catherine Hester McNair Park, also known as Brentwood Park, which serves the community's youth in multiple capacities, as it was given over to the Boys and Girls Club of America to manage. Local, State and Federal funding sources contributed to the collective efforts of the Planning and Development Department, Jacksonville Housing Authority, Jacksonville Housing Commission, and the Jacksonville Economic Development Commission to revitalize Brentwood. The Metro North NAP and the Brentwood SIP not only sparked the attention of the residents but other city agencies, organizations and associations who continue to bring their services, assistance and support as contributions to this neighborhood's continued revitalization.

## Metro North Community Development Corporation Inc. Organizational History

### 2000

- Began meeting July 2000 to form a Community Development Corporation
- 2 Semi Annual Community meetings
- Monthly task force meetings
- Established an interim Board of Directors
- Established the name Metro North Community Development Corporation semi-annual Community meeting

### 2001

- Held regular monthly Board Meetings
- Held Task force meetings
- Articles of Corporation was accepted 5 February 2001
- Received 501c3 Federal tax exempt status 6 September 2001
- Held 3 Community Meetings for training and development
- First Funding November 2001—Hired Executive Director and set up office in East Side Business Center Office

## 2002

- Had numerous committee meeting
- Regular monthly Board Meetings
- 2 semi-annual Community Meetings
- Establish relationships with various city service providers, funders and other resources necessary for us to accomplish housing Production goals
- Established Metro North Strategic Plan
- The city of Jacksonville donated a deteriorated residential home located at 4347 Springfield Boulevard to us to renovate and sell

## 2003

- Completed the renovation of 4347 Springfield Boulevard and sold to a first time homeowner with a 12-year-old son. She is a probation officer
- Purchased and began renovation of 658 Basswood Street
- Purchased 1 lot at 530 Alder Street
- Purchased 1 lot at 534 Alder Street
- Purchased 1 lot at 315 Basswood Street
- Began construction of a home at 534 Alder Street
- We also began the gruesome work of developing our Metro North Action Plan which gave us a blueprint to begin holistically assessing opportunities of the community
- Started putting together a Town Center Plan for Main Street (Martin Luther King Expressway to Winona Street)
- A Meeting was called in December by Ronnie Ferguson of the Jacksonville Housing Authority. In attendance was representatives from the city of Jacksonville Planning Department, Jacksonville Housing Commission, Northeast Builders Association—Builders Care, Habijax, National football league Super Bowl Host Committee, Jaguar Foundation, the boys and girl club, and Metro North Community Development Cooperation to discuss our partnership in developing a neighborhood that would be cohesive

The Jacksonville Housing Commission and the Jacksonville Planning Department pledged to support Metro North CDC with resources to take on the momentous task of solidifying a neighborhood which consist of 425 public housing units, 96 Habijax homes, new and renovated homes offered for sale by Metro North CDC, many existing homeowners, several rental single family homes, several small 4-8 plex rental units, and the new Yet Center proposed for Brentwood (Catherine McNair) Park.

## 2004

- Continued work on our Metro North Action Plan
- Continued to Work on a Town center Plan for Main Street (Martin Luther King Expressway to Winona Street). Completed and adopted in April 2004 by the City of Jacksonville City Council
- Began developing an implementation Plan for the Brentwood.
- Sold 658 Basswood to a young lady that has two children (she works for the Times Union newspaper and attend College
- Sold 534 Alder to a husband and wife with 1 child. The wife work as an assistant principle
- April 1, 2004 purchased 540 W. 23rd Street (house had a fire and we demolished it)
- Re-established the Northshore Neighborhood Association
- Re-established the Norwood Neighborhood Association
- Painted house at 540 Alder Street using volunteers from M-Fuge a religious mission group.
- Had a mass rally on 22nd Street where the Sheriff Participated 2 days in the walk and clean-up. Code enforcement was involved and the area got crime and code violation attention
- Landscaped Main Street from Martin Luther King Expressway to 22nd Street by using the Mayor Matching Grant Fund to plant Shrubbery and flowers on the boulevards, and installed Metro North Identification signs. We were assisted by the Boys and girl club, Jax Pride, Department of Transportation, city of Jacksonville, Public works, Hughes Catering, other businesses and residents

## 2005

- Metro North Action Plan was adopted by the City Council April 14, 2005
- Brentwood Strategic Implementation Plan was adopted by the City Council September 30, 2005
- Purchased 534 W. 23rd Street May 2005 (House had a fire and we demolished it)
- M-Fuge, a religious retreat mission, manicured eight city blocks. They removed grass that had grown over the sidewalk, edged sidewalks and curbs, clean streets and trimmed trees. They worked with us for 6 weeks
- Purchased 1 lot (439 Alder Street) November 10, 2005
- Purchased 1 lot (445 Alder Street) November 10, 2005
- Began new house construction on 439 Alder Street
- Began new house construction on 445 Alder Street
- 4 residential new home lots on west 21st Street were donated to us by the City of Jacksonville
- Began construction on 315 Basswood Street. (new)
- Began construction on 530 Alder Street. (new)
- Established a 3 year Strategic Plan

- Established Metro North Community Advisory Council
- Identified commercial opportunities for which could lend value to the Community

### 2006

- Sold 315 Basswood to a young lady with a 7 year old girl; occupation manager of a credit union and she is attending college
- Sold 530 Alder to a single lady whose occupation is assistant teacher.
- Began Construction on 534 West 23<sup>rd</sup> Street
- Began Construction on 540 West 23<sup>rd</sup> Street
- Reviewed our 3 year Strategic Plan
- Purchased 4006 Perry Street (renovate the house and build a new house adjacent to it)
- Purchased 523 Basswood Street (Had a fire and we will renovate it)
- Explored the possibility of converting Lola Culver Elementary School to Condominiums
- Researched beneficial real estate investment that will enhance our Community
- The Metro North CDC develops a *Semi-Regional Metro North Community Advisory Council* so as to represent a broad base of support for the viability, comfort, tranquility, and plain livability in our entire community

### 2008 to Current

- Establishment of Eight (8) Neighborhood Associations: Worked with residents of the Greater Brentwood area to establish or re-establish 8 neighborhood associations focused on eliminating crime, improving the community and creating neighborhood pride.
- Established the Metro North Community Advisory Council: this organization is a conglomeration of all neighborhood groups in the Greater Brentwood area and includes both business and civic groups. The organization meets bimonthly with JSO, City Code and Zoning Enforcement, Crime Stoppers and other groups aimed at improving the community.
- Applied for two NFL Park Grants with community-based athletic associations, which are aimed at improving parks for youth sports and recreation.
- Annually provide holiday baskets to needy seniors in the Greater Brentwood Community (Thanksgiving & Christmas).
- Crime Reduction: The Greater Brentwood area has seen a steady reduction of crimes over the last five years. Residents have become engaged as block captains for both Neighborhood Watch and their Community Associations, which has been critical to successful anti-crime efforts. Citizens from the area are also attending CPAC and SHADCO meetings and are working closely with JSO on critical neighborhood "hot spots".
  - Neighborhood Watch Groups Formed: 6
  - Block Captains Established: 32

- Neighborhood Beautification Projects: 16
- JSO Self Defense Forums: 4
- National Crime Stop Program Collaborations/Training: 2
- National Night Out Event Management: 4

## Housing & Community Development

MNCDC focuses on eliminating slum and blight in urban communities by acquiring and rehabilitating troubled properties. The MNCDC took a house or apartment complex that was once a community problem and turned it into a development that the community could be proud of. Many of these complexes were drug infested and havens for crime—through MNCDC’s community development activities, a positive impact was made by targeting communities.

MNCDC housing efforts were also involved in the acquisition of foreclosed and condemned properties for rehabilitation or demolition. Vacant lots and blighted properties that were not substantially rehabilitated were converted to community gardens or new single-family homes. All newly constructed and rehabilitated homes were sold to low-to-moderate income households. Through these housing programs, MNCDC helped to stabilize this inner city community.

- Single-Family Housing Units: 50
- Multifamily Housing Units: 16

Through Metro North’s housing, financial literacy/counseling, community-outreach/organizing, and crime reduction programs, the following number of individuals were served since 2008:

- Families: 380
- Children: 760
- Seniors: 180

## 3.2 The Need for Action to Improve Health in Brentwood

### Community Assets

The six zip codes that make up Health Zone 1 include a wide range of communities and land use patterns whose present day forms have been shaped by the city’s history and growth patterns. Land uses range from concentrated industrial areas near the Jacksonville Port to the downtown’s commercial core and surrounding historic homes to residential areas spread between the commercialized arterial roads that fan out from the downtown area. At 840 square miles, Jacksonville is the largest city in the continental United States when measured by land area. While denser than other areas of the city, Health Zone 1 is still less densely populated than other major urban centers in the United States. This history of low density development was exacerbated by suburbanization trends in the

latter half of the 20th Century, which contributed to a declining center-city population and the concentration of lower-income and minority residents in the urban core.

While the low-density nature of Health Zone 1 can present quality of life challenges such as decreased walkability and increased auto and transit dependence, Health Zone 1 also includes natural, social and physical assets that can be leveraged to increase quality of life. More specifically, Brentwood has improved over the years due to a concentration of planning and grant efforts by the City of Jacksonville, the Jacksonville Housing Authority, the Metro North CDC, the NFL, and many other organizations. Brentwood's assets include:

- Numerous community-based non-profits and social organizations;
- Active and nationally recognized environmental justice advocates;
- Historic architecture and housing stock;
- Easy access to Interstate 95, MLK Expressway/20th Street Expressway, and US 17 (Main Street);
- Streets like Golfair Boulevard, Norwood Avenue, 44th Street, and Pearl Street that have a high concentration of locally owned businesses;
- The Trout River and Catherine Hester McNair Park;
- Presence of three national grocery stores and mixed use retail;
- McNair Park Villas single family residential development;
- Youth Education Town (YET) Center operated by the Boys and Girls Club;
- Brentwood Lakes Apartments with a community center, multi-family housing, active adult housing, and a Shands UF Health Family Clinic, with connected access to the YET Center
- Good elementary, middle and high schools; and
- Gateway Shopping Plaza.

While these assets have improved the quality of life in the Brentwood Community, there is still much work to be done to assure that this progress continues and the existing assets remain sustainable; that it continues to serve its residents and merchants; and that necessary improvements are made to protect the health, welfare and safety of the community's residents, merchants, and visitors.

### 3.3 Selected Outcomes

Based on the health issues that Jacksonville and Brentwood face, the results of the scoping interviews conducted for the Brentwood HIA and evidence used from scientific studies during the literature review that are incorporated in this HIA report, further the importance of the nexus between the built environment and health. The Brentwood HIA focused on the following groups of health outcomes and health-related behaviors:

1. Violent Crime
2. Obesity and Obesity-Related Illnesses
3. Physical Activity and Pedestrian Safety and Connectivity
4. Diet and Nutrition

Childhood obesity is epidemic in the United States. More than one in six U.S. children is obese—three times the rate in the 1970s. Obesity is a major contributor to cardiovascular disease, diabetes, and several types of cancer. About 70 percent of obese youth have at least one additional risk factor for cardiovascular disease (for example, hypertension or high cholesterol), and nearly 40 percent have at least two additional risk factors. Increases in obesity over the past few decades are reflected in higher rates of type 2 diabetes. Youth now constitute almost half of the population of new cases that have type 2 diabetes in some communities.

Children who are obese after age six have a greater than 50 percent chance of being obese as adults, regardless of parental obesity status; 80 percent of children who were overweight at ages 10-15 were obese at age 25. Obesity in children under age eight that persists into adulthood is also associated with more severe adult obesity.

Addressing socioeconomic factors, such as poverty and education, has the largest potential impact on population health. Interventions to alter existing socioeconomic conditions often require broad societal change. However, engagement of sectors beyond public health—most notably, education, transportation, and agriculture—will be important to long-term success. Changes to the social and physical environments that make people's default choices healthy ones have the next-greatest potential impact. Public health officials can implement many of these interventions, alone or in coordination with other governmental and nongovernmental partners. By contrast, clinical interventions against obesity will have limited population impact, and education and counseling will have the smallest potential impact.

Changing our food environment can improve nutrition and reduce obesity through a three prong strategy: altering relative food prices, shifting our exposure to food, and improving the image of healthy food while making unhealthy food less attractive. In addition to insufficient exercise, obesity results from eating too much as well as eating the wrong things. Consuming food and beverages high in energy density but low in overall nutritional value, such as food high in sugar and fat, is associated with weight gain and obesity. Sugar-sweetened beverages—prime contributors to weight gain and obesity—constitute nearly 11 percent of children's total calorie consumption. Each additional daily serving of sugared soda increases a child's risk of obesity by 60 percent. Frequent soda consumption is most common in demographic groups at high risk of developing obesity. Drinking water instead of sugar-sweetened beverages would reduce caloric intake among youth.

Zoning restrictions can limit the density of fast-food establishments or can establish buffer zones between schools and recreation areas and businesses such as fast-food restaurants, convenience stores, and mobile food vendors. Evidence that greater density of neighborhood fast-food outlets is associated with increased obesity suggests that zoning regulations are worthy of further study. Nonetheless, restrictions on fast-food establishments alone are likely to be insufficient because of the availability of less healthy food elsewhere.

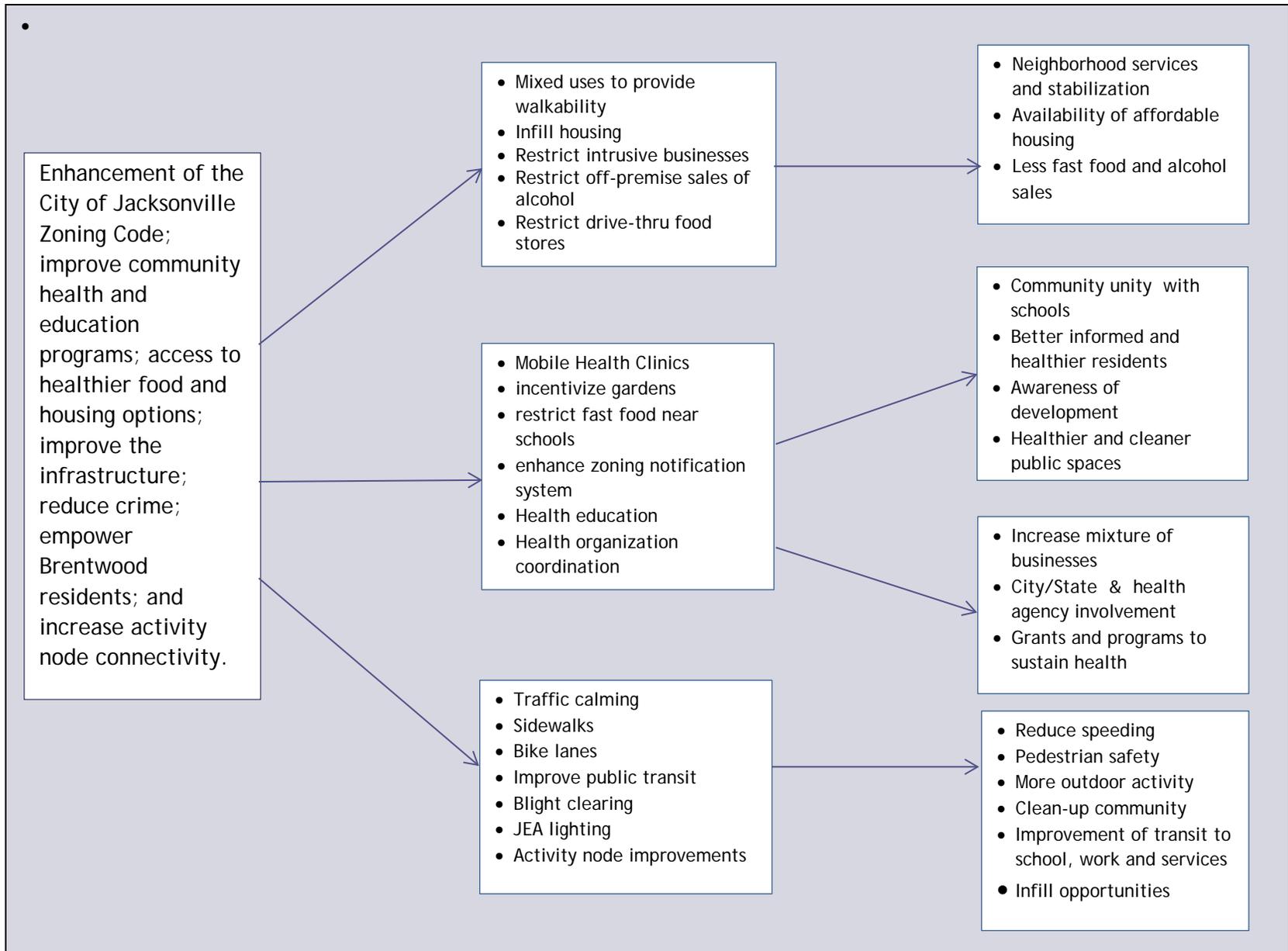
Retaining and sustaining full service whole foods markets are critical. In addition, increased physical activity is paramount to preventing and/or diminishing obesity. In areas of high crime rates, physical activity is directly impacted as the community does not feel safe to play, walk, run and ride bicycles outdoors in the neighborhoods; keeping them inside or having to travel distances on a daily basis to other neighborhoods and communities. Policies can change the context to make physical activity easier, safer, and more attractive in neighborhoods with high obesity rates.

# PRE-OUTCOME PATHWAY

## DECISIONS

## IMMEDIATE IMPACTS

## LONG TERM IMPACTS



## 4 ASSESSMENT

### 4.1 Basic Definition of Zoning and Its Uses

Zoning is an urban planning tool that significantly influences the shape of the neighborhoods in which people live, work, and play. Zoning laws regulate private land and have historically been focused on restricting land uses and governing the placement, size, and design of buildings. Beyond these substantive regulations of land and buildings, Zoning Codes also include procedural steps for applying these rules to specific areas of a community through the zoning map, conditional use permits, and overlay zones. These laws also outline the procedures for owners seeking relief from current zoning through variances and amendments. Zoning Codes were initially developed in an effort to protect the general health, safety and welfare of citizens.

Today, Zoning Codes are the primary tools guiding land use in most U.S. cities and influence property values, neighborhood livability, and economic development. Current trends in zoning include increasing traditional neighborhood development, designing form-based codes, and including sustainability measures.

### 4.2 Relationship of Zoning and Health

There are a variety of ways in which zoning may positively and negatively affect health. It is likely that zoning's impact on health occurs through its potential to shape the built environment. Changes in the built environment can have both direct and indirect impacts on health. One way zoning may directly impact health is through its effects on the local food environment by allowing for uses such as supermarkets, farmers markets, or community gardens in residential areas. Having access to these types of uses in neighborhoods may provide greater access to fresh produce and nutrient dense food, increasing the likelihood that residents will have improved nutrition and thus reduce their risk for obesity, diabetes, or other obesity-related illnesses. Because zoning can also regulate private building appearances, landscaping design, signage, and lighting, it contributes to the aesthetic appeal of neighborhoods and thereby the likelihood that people will walk in those neighborhoods. Zoning can also restrict or facilitate mixed use (i.e. the allowance of multiple land uses in the same area), which has been shown to promote functional physical activity in the form of walking to needed services.

Zoning may affect the social environment and, thus, exhibit indirect impacts on health. For example, mixed-use and urban design features that facilitate natural resident surveillance have been shown to reduce criminal activity including violent crimes. Streets with high-volume traffic and a high concentration of non-residential land use are associated with higher crime. Specific types of non-residential land uses are known to serve as crime generators and crime attractors. Off-premise alcohol outlets such as liquor stores, on the other hand are documented crime attractors because potential offenders

are drawn or attracted to patronize them. The concentrations of both off-premise alcohol sales outlets and bars have been associated with violent injuries. Both off-premise alcohol sales outlets and bars can also have the potential to be regulated—at least in part—through zoning.

Zoning usually includes off-street parking requirements for larger residential and commercial uses, which can affect traffic volume. Changing these requirements has been shown to reorient transportation choices towards non-car alternatives that provide more opportunities for functional physical activity. Given that land use regulations can also allow or limit particular types of food outlets such as fast food and supermarkets, zoning may compliment other policies and strategies intended to facilitate equitable access to healthy food outlets and limit undue concentrations of unhealthy food outlets in certain areas.

The impact of zoning on crime, violence, and safety may be particularly important for obesity prevention. Perhaps the most obvious health impacts of crime are the resultant injuries and deaths associated with violent crimes. However, crime and perceptions of safety have more far-reaching implications for promoting healthy behaviors and creating healthy communities. In particular, crime and safety are important determinants of neighborhood-based physical activity, including walking or biking to school, among children and adolescents. Perceptions of safety may be a more important determinant of physical activity among children and adolescents than access to recreational spaces and walkable communities.

### 4.3 Demographics and Health Indicators

#### Socio Economic Demographics

The following data table captions summarize the collected data tables located in this section.

#### Census 2010 Summary Profile

The population of the study area is 6,349, comprised of 89.4% blacks, 8.3% whites, and 1.8% Hispanic origin, having a median age of 36.7, which is slightly younger than the national average. There are 3,333 total housing units, for which 1,104 are owner occupied, 1,620 are renter occupied, and 609 are vacant. Of these housing units, 2,720 are considered households as they are occupied. Their median occupancy is 2.34 persons having a median income of \$17,638, an average income of \$27,149, and a per capita income of \$11,457. *(Source: U.S. Census Bureau, Census 2010 Summary File 1)*

#### Housing Profile

It is projected that the population for the study area may slightly decline over the next four years. This forecast correlates with the aging population that resides within the study area. Over 67% of the study area population is over the age of 45, with 30% of that group

being over the age of 65. It is projected that the median household income will increase by 2.09% with 90% of the owner occupied housing units being valued under \$99,999. It is projected that this will remain relatively the same over the next four years with a slight increase in median and average housing unit value. Of the 11.03 owner occupied housing units, 30% are owned free and clear. *(Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2012 and 2017)*

### Household Income Profile

Of the projected population from 2012 and looking forward to 2017, over 43% have a household income of less than \$15,000. In 2017, projections show residents making between \$15,000 and \$49,999 making up of over 36%, which is a decline from the 2012 projections. This may correlate with the aging population of the community. *(Source: U.S. Census Bureau, Census Summary File 1. Esri Forecasts for 2012 and 2017)*

### Medical Expenditures

The Spending Potential Index (SPI) is household-based, and represents the amount spent for a product or service relative to a national average of 100. Detailed figures in this data table may not reach a total sum due to rounding. The SPI in this data table is 45 having an average amount of medical expenditures totaling \$1,624.74. The highest average amounts spent on medical services were and are projected for things such as physician, dental, and eye services; non-prescription drugs and/or vitamins; eye glasses and contacts; and hospital room and services. The highest medical expenditure is for prescription drugs, Medicare prescription drug premiums, and Medicare payments. *(Source: Esri forecasts for 2011 and 2016, Consumer Spending data are derived from the 2006 and 2007 Consumer Expenditure Surveys, Bureau of Labor statistics.)*

### Business Summary

According to forecasts made in 2011, there are approximately 383 businesses and 3,300 employees residing and working in the study area. As identified by Standard Industrial Classification Codes (SIC), the predominant business in the area are as follows: Apparel and accessory stores, eating and drinking places, miscellaneous retail insurance carriers and agents, and other services. The top ten largest categorical employers identified are the following: transportation, other services, education institutions and libraries, motion pictures and amusements, eating and drinking places, manufacturing, food stores, health services, wholesale trade, and miscellaneous retail.

As identified by the North American Industry Classification System (NAICS) the largest categorical presence of businesses are the following: retail trade, other services except public administration health care and social assistance, and accommodation and food services. Of these businesses, the categories who employ the most people in the study area consist of: transportation and warehousing, retail trade, educational services, arts,

entertainment and recreation, health care and social assistance, public administration, and accommodation and food services.

*(Source: Business data provided by Infogroup, Omaha, Nebraska Copyright 2012, all rights reserved. Esri forecasts for 2011)*

NOTE: The study area chosen for this forecast reflects a residential population that differs from the U.S. Census 2010 Population Summary by 141 people.

### Retail Marketplace Profile Data Table

The Retail Leakage and Surplus data table examines the quantitative aspect of the community's retail opportunities. It is a guide to understanding retail opportunities but it is not an analysis that indicates unconditional opportunities. The analysis is sometimes called "a gap analysis" or "a supply and demand analysis" and can aid in the following:

- Indicating how well the retail needs of local residents are being met;
- Uncovering unmet demand and possible opportunities;
- Understanding the strengths and weaknesses of the local retail sector; and
- Measuring the difference between actual and potential retail sales.

### Understanding Retail Leakage

Retail leakage means that residents are spending more for products than local businesses capture. Retail sales leakage suggests that there is unmet demand in the trade area and that the community can support additional store space for that type of business. *However, retail leakage does not necessarily translate into opportunity.* For example, there could be a strong competitor in a neighboring community that dominates the market for that type of product or store.

### Understanding Retail Surplus

A retail surplus means that the community's trade area is capturing the local market and attracting non-local shoppers. A retail surplus does not necessarily mean that the community cannot support additional business. Many communities have developed strong clusters of stores that have broad geographic appeal. Examples of these types of retailers include sporting goods stores, home furnishing stores, restaurants, and other specialty operations that become destination retailers and draw customers from outside the trade area.

Examining the quantitative aspects (Leakage/Surplus) is only part of the evaluation of community's retail opportunities. Before any conclusions can be drawn about potential business expansion or recruitment opportunities, qualitative considerations such as trade area psychographics and buying habits must be analyzed in context of other market factors.

NOTE: The population identified in this data table is not consistent with the U.S. Census Population Summary used in most of these data table as a larger geographic boundary was reviewed to capture the retail marketplace data.

The higher leakage factors, where there is possibly an unmet demand, are in the following categories: motor vehicle dealers, lawn and garden equipment and supply stores, sporting goods, hobby, book and music stores, electronic shopping and mail order houses, and direct selling establishments.

The higher surplus factors, where the local market is being captured and non-local market is being attracted into the area, are in the following categories: the retail and food and drink trade consisting of shoe stores, clothing and accessories stores, used merchandise stores, and furniture and home furnishing stores. *(Source: Esri and Infogroup)*

### Disposable Income Profile

There is a split between the population for the study area with regard to the number of people having income below \$15,000 (46.9%) and above \$15,000 up to \$49,000 (42.9%). The median disposable income is \$16,130 and the average disposable income is \$23,678. The largest groups of people with higher disposable incomes are within the age groups of 45-54 and 55-64, combined making up 44.8% of the population of the study area having a median disposable income between roughly \$14,000 to \$18,000 and an average disposable income of \$24,000 to \$27,000. *(Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2012 and 2017.)*

### Recreation Expenditures

The predominant recreation expenditures for the study area are for entertainment/recreation fees and admissions for mostly movie theaters, theater, opera and ballet; recreational vehicles and fees for mostly RV's or boats; and reading materials for mostly books, magazine subscriptions and single copy purchases. *(Source: Esri forecasts for 2011 and 2016. Consumer Spending data are derived from the 2006 and 2007 Consumer Expenditure Surveys. Bureau of Labor Statistics.)*

## Race by Census Tract, Block Group

Demographic information is provided at the block group level, splitting the larger census tracts into sub-areas. This provides a more refined geography to understand population clusters and patterns. A majority of the population is reported to be African American, representing 85.9% of the total population within the three census tracts.

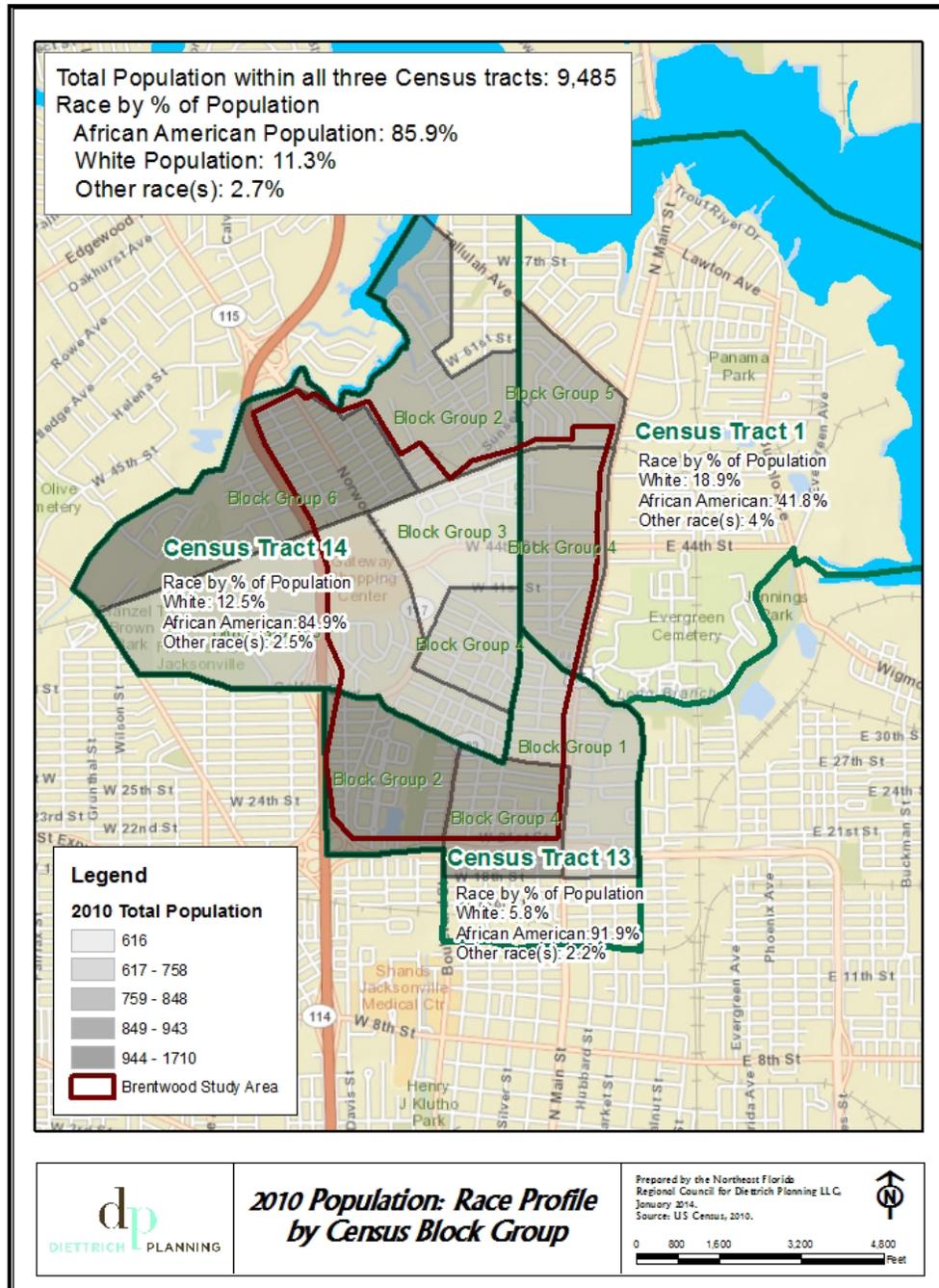


Table 1—Census 2010 Summary Profile

			2000-2010
	2000	2010	Annual Rate
Population	7,797	6,349	-2.03%
Households	3,103	2,724	-1.29%
Housing Units	3,579	3,333	-0.71%
Population by Race		Number	Percent
<b>Total</b>		<b>6,350</b>	<b>100.0%</b>
Population Reporting One Race		6,266	98.7%
White		525	8.3%
Black		5,692	89.6%
American Indian		16	0.3%
Asian		12	0.2%
Pacific Islander		2	0.0%
Some Other Race		19	0.3%
Population Reporting Two or More Races		84	1.3%
Total Hispanic Population		106	1.7%
Population by Sex			
Male		2,856	45.0%
Female		3,493	55.0%
Population by Age			
<b>Total</b>		<b>6,347</b>	<b>100.0%</b>
Age 0–4		540	8.5%
Age 5–9		463	7.3%
Age 10–14		424	6.7%
Age 15–19		484	7.6%
Age 20–24		425	6.7%
Age 25–29		413	6.5%

Age 30–34	342	5.4%
Age 35–39	337	5.3%
Age 40–44	347	5.5%
Age 45–49	432	6.8%
Age 50–54	521	8.2%
Age 55–59	499	7.9%
Age 60–64	353	5.6%
Age 65–69	255	4.0%
Age 70–74	182	2.9%
Age 75–79	147	2.3%
Age 80–84	96	1.5%
Age 85+	89	1.4%
Age 18+	4,624	72.8%
Age 65+	769	12.1%
<b>Median Age by Sex and Race/Hispanic Origin</b>		
Total Population	<b>36.2</b>	
Male	32.8	
Female	38.5	
White Alone	52.5	
Black Alone	34.3	
American Indian Alone	55.0	
Asian Alone	47.5	
Pacific Islander Alone	15.0	
Some Other Race Alone	42.5	
Two or More Races	25.3	
Hispanic Population	35.4	

Table 1 (continued)

Households by Type		
<b>Total</b>	2,723	100.0%
Households with 1 Person	1,064	39.1%
Households with 2+ People	1,659	60.9%
Family Households	1,492	54.8%
Husband-Wife Families	457	16.8%
With Own Children	142	5.2%
Other Family (No Spouse Present)	1,035	38.0%
With Own Children	552	20.3%
Nonfamily Households	167	6.1%
All Households with Children	874	32.1%
Multigenerational Households	192	7.0%
Unmarried Partner Households	203	7.5%
Male-female	188	6.9%
Same-sex	15	0.6%
Average Household Size	2.33	
Family Households by Size		
<b>Total</b>	<b>1,492</b>	<b>100.0%</b>
2 People	573	38.4%
3 People	382	25.6%
4 People	248	16.6%
5 People	157	10.5%
6 People	74	5.0%
7+ People	58	3.9%
Average Family Size	3.16	
Nonfamily Households by Size		
<b>Total</b>	<b>1,231</b>	<b>100.0%</b>
1 Person	1,064	86.4%

2 People	138	11.2%
3 People	17	1.4%
4 People	7	0.6%
5 People	3	0.2%
6 People	2	0.2%
7+ People	0	0.0%
Average Nonfamily Size	1.17	
<b>Population by Relationship and Household Type</b>		
<b>Total</b>	6,349	100.0%
In Households	6,341	99.9%
In Family Households	4,905	77.3%
Householder	1,471	23.2%
Spouse	451	7.1%
Child	2,351	37.0%
Other relative	444	7.0%
Nonrelative	191	3.0%
In Nonfamily Households	1,437	22.6%
In Group Quarters	8	0.1%
Institutionalized Population	8	0.1%
Noninstitutionalized Population	0	0.0%

*Data Note: Households with children include any households with people under age 18, related or not. Multigenerational households are families with 3 or more parent-child relationships. Unmarried partner households are usually classified as nonfamily households unless there is another member of the household related to the householder. Multigenerational and unmarried partner households are reported only to the tract level. Esri estimated block group data, which is used to estimate polygons or non-standard geography. Average family size excludes nonrelatives.*

*Source: U.S. Census Bureau, Census 2010 Summary File 1.*

Family Households by Age of Householder		
<b>Total</b>	1,492	100.0%
Householder Age 15-44	671	45.0%
Householder Age 45-54	310	20.8%
Householder Age 55-64	280	18.8%
Householder Age 65-74	140	9.4%
Householder Age 75+	91	6.1%
Nonfamily Households by Age of Householder		
<b>Total</b>	1,232	100.0%
Householder Age 15-44	223	18.1%
Householder Age 45-54	297	24.1%
Householder Age 55-64	336	27.3%
Householder Age 65-74	209	17.0%
Householder Age 75+	167	13.6%
Households by Race of Householder		
<b>Total</b>	2,725	100.0%
Householder is White Alone	299	11.0%
Householder is Black Alone	2,370	87.0%
Householder is American Indian Alone	10	0.4%
Householder is Asian Alone	5	0.2%
Householder is Pacific Islander Alone	0	0.0%
Householder is Some Other Race Alone	9	0.3%
Householder is Two or More Races	32	1.2%
Households with Hispanic Householder	43	1.6%
Husband-Wife Families by Race of Householder		
<b>Total</b>	457	100.0%
Householder is White Alone	62	13.6%
Householder is Black Alone	384	84.0%
Householder is American Indian Alone	0	0.0%
Householder is Asian Alone	1	0.2%

Householder is Pacific Islander Alone	0	0.0%
Householder is Some Other Race Alone	5	1.1%
Householder is Two or More Races	5	1.1%
Husband-wife Families with Hispanic Householder	8	1.8%
<b>Other Families (No Spouse) by Race of Householder</b>		
<b>Total</b>	<b>1,036</b>	<b>100.0%</b>
Householder is White Alone	42	4.1%
Householder is Black Alone	978	94.4%
Householder is American Indian Alone	2	0.2%
Householder is Asian Alone	2	0.2%
Householder is Pacific Islander Alone	0	0.0%
Householder is Some Other Race Alone	2	0.2%
Householder is Two or More Races	10	1.0%
Other Families with Hispanic Householder	14	1.4%
<b>Nonfamily Households by Race of Householder</b>		
<b>Total</b>	<b>1,232</b>	<b>100.0%</b>
Householder is White Alone	195	15.8%
Householder is Black Alone	1,008	81.8%
Householder is American Indian Alone	8	0.6%
Householder is Asian Alone	2	0.2%
Householder is Pacific Islander Alone	0	0.0%
Householder is Some Other Race Alone	2	0.2%
Householder is Two or More Races	17	1.4%
Nonfamily Households with Hispanic Householder	22	1.8%
<i>Source: U.S. Census Bureau, Census 2010 Summary File 1.</i>		

Total Housing Units by Occupancy		
<b>Total</b>	3,329	100.0%
Occupied Housing Units	2,724	81.8%
Vacant Housing Units		
For Rent	162	4.9%
Rented, not Occupied	11	0.3%
For Sale Only	43	1.3%
Sold, not Occupied	1	0.0%
For Seasonal/Recreational/Occasional Use	4	0.1%
For Migrant Workers	1	0.0%
Other Vacant	383	11.5%
<b>Total Vacancy Rate</b>	<b>18.3%</b>	
Households by Tenure and Mortgage Status		
<b>Total</b>	2,724	100.0%
Owner Occupied	1,104	40.5%
Owned with a Mortgage/Loan	770	28.3%
Owned Free and Clear	333	12.2%
Average Household Size	2.44	
Renter Occupied	1,620	59.5%
Average Household Size	2.25	
Owner-occupied Housing Units by Race of Householder		
<b>Total</b>	1,104	100.0%
Householder is White Alone	168	15.2%
Householder is Black Alone	917	83.1%
Householder is American Indian Alone	2	0.2%
Householder is Asian Alone	3	0.3%
Householder is Pacific Islander Alone	0	0.0%
Householder is Some Other Race Alone	3	0.3%
Householder is Two or More Races	11	1.0%
Owner-occupied Housing Units with Hispanic Householder	15	1.4%

Renter-occupied Housing Units by Race of Householder		
<b>Total</b>	1,619	100.0%
Householder is White Alone	131	8.1%
Householder is Black Alone	1,453	89.7%
Householder is American Indian Alone	8	0.5%
Householder is Asian Alone	2	0.1%
Householder is Pacific Islander Alone	0	0.0%
Householder is Some Other Race Alone	5	0.3%
Householder is Two or More Races	20	1.2%
Renter-occupied Housing Units with Hispanic Householder	28	1.7%
Average Household Size by Race/Hispanic Origin of Householder		
Householder is White Alone	1.81	
Householder is Black Alone	2.40	
Householder is American Indian Alone	1.50	
Householder is Asian Alone	2.40	
Householder is Pacific Islander Alone	0.00	
Householder is Some Other Race Alone	2.22	
Householder is Two or More Races	2.09	
Householder is Hispanic	1.98	
<i>Source: U.S. Census Bureau, Census 2010 Summary File 1.</i>		

Table 2—Housing Profile

Population		Households				
2010 Total Population	6,349	2012 Median Household Income		\$17,638		
2012 Total Population	6,312	2017 Median Household Income		\$19,558		
2017 Total Population	6,288	2012-2017 Annual Rate		2.09%		
2012-2017 Annual Rate	-0.08%					
	Census 2010		2012		2017	
Housing Units by Occupancy Status and Tenure	Number	Percent	Number	Percent	Number	Percent
Total Housing Units	3,333	100%	3,323	100%	3,360	100%
Occupied	2,724	81.7%	2,692	81.0%	2,692	80.1%
Owner	1,104	33.1%	1,032	31.1%	1,091	32.5%
Renter	1,620	48.6%	1,660	50.0%	1,601	47.6%
Vacant	609	18.3%	631	19.0%	668	19.9%
			2012		2017	
Owner Occupied Housing Units by Value			Number	Percent	Number	Percent
Total			1,031	100.0%	1,090	100.0%
<\$50,000			178	17.3%	146	13.4%
\$50,000-\$99,999			750	72.7%	767	70.4%
\$100,000-\$149,999			74	7.2%	103	9.4%
\$150,000-\$199,999			24	2.3%	58	5.3%
\$200,000-\$249,999			2	0.2%	7	0.6%
\$250,000-\$299,999			1	0.1%	4	0.4%
\$300,000-\$399,999			1	0.1%	2	0.2%
\$400,000-\$499,999			0	0.0%	0	0.0%
\$500,000-\$749,999			0	0.0%	0	0.0%
\$750,000-\$999,999			0	0.0%	0	0.0%
\$1,000,000+			1	0.1%	3	0.3%

Median Value	\$72,526	\$76,009	
Average Value	\$74,785	\$83,727	
<b>Census 2010 Owner Occupied Housing Units by Mortgage Status</b>		<b>Number</b>	<b>Percent</b>
<b>Total</b>		1,103	100.0%
Owned with a Mortgage/Loan		770	69.8%
Owned Free and Clear		333	30.2%
<b>Census 2010 Vacant Housing Units by Status</b>		<b>Number</b>	<b>Percent</b>
<b>Total</b>		609	100.0%
For Rent		162	26.6%
Rented—Not Occupied		11	1.8%
For Sale Only		43	7.1%
Sold—Not Occupied		1	0.2%
Seasonal/Recreational/Occasional Use		4	0.7%
For Migrant Workers		1	0.2%
Other Vacant		383	62.9%
<b>Census 2010 Occupied Housing Units by Age of Householder and Home Ownership</b>		<b>Owner Occupied Units</b>	
	<b>Occupied Units</b>	<b>Number</b>	<b>% of Occupied</b>
<b>Total</b>	2,725	1,105	40.6%
15-24	143	20	14.0%
25-34	379	94	24.8%
35-44	372	125	33.6%
45-54	607	248	40.9%
55-64	615	287	46.7%
65-74	350	172	49.1%
75-84	187	113	60.4%
85+	72	46	63.9%
<b>Census 2010 Occupied Housing Units by Race/Ethnicity of Householder and Home Ownership</b>		<b>Owner Occupied Units</b>	
	<b>Occupied Units</b>	<b>Number</b>	<b>% of Occupied</b>

<b>Total</b>	2,723	1,104	40.5%
White Alone	299	168	56.2%
Black/African American Alone	2,370	917	38.7%
American Indian/Alaska Native Alone	10	2	20.0%
Asian Alone	5	3	60.0%
Pacific Islander Alone	0	0	0.0%
Other Race Alone	8	3	37.5%
Two or More Races	31	11	35.5%
Hispanic Origin	43	15	34.9%
<b>Census 2010 Occupied Housing Units by Size and Home Ownership</b>		<b>Owner Occupied Units</b>	
	<b>Occupied Units</b>	<b>Number</b>	<b>% of Occupied</b>
<b>Total</b>	2,726	1,106	40.6%
1-Person	1,064	366	34.4%
2-Person	712	327	45.9%
3-Person	399	176	44.1%
4-Person	256	115	44.9%
5-Person	160	69	43.1%
6-Person	76	23	30.3%
7+ Person	59	30	50.8%
<i>Data Note: Persons of Hispanic Origin may be of any race. Source: U.S. Census Bureau, Census 2010 Summary File 1.</i>			

Table 3—Household Income Profile

Summary	2012-2017		2012-2017				
	2012	2017	Change	Annual Rate			
Population	6,312	6,288	-24.00	-0.08%			
Households	2,692	2,692	1.00	0.00%			
Median Age	36.7	37.7	1.00	0.54%			
Average Household Size	2.34	2.33	-0.01	-0.09%			
	2012		2017				
Households by Income	Number	Percent	Number	Percent			
Household Income Base	2,692	100%	2,692	100%			
<\$15,000	1,199	44.5%	1,176	43.7%			
\$15,000-\$24,999	415	15.4%	312	11.6%			
\$25,000-\$34,999	406	15.1%	364	13.5%			
\$35,000-\$49,999	289	10.7%	312	11.6%			
\$50,000-\$74,999	243	9.0%	339	12.6%			
\$75,000-\$99,999	76	2.8%	109	4.0%			
\$100,000-\$149,999	48	1.8%	60	2.2%			
\$150,000-\$199,999	9	0.3%	14	0.5%			
\$200,000+	6	0.2%	8	0.3%			
Median Household Income	\$17,638		\$19,558				
Average Household Income	\$27,149		\$30,789				
Per Capita Income	\$11,457		\$13,042				
2012 Households by Income and Age of Householder							
	15-24	25-34	35-44	45-54	55-64	65-74	75+
HH Income Base	136	377	352	577	630	366	254
<\$15,000	74	138	128	235	307	149	167
\$15,000-\$24,999	24	55	45	79	75	83	54
\$25,000-\$34,999	17	56	67	88	89	78	11
\$35,000-	16	59	40	65	64	31	13

\$49,999							
\$50,000-\$74,999	5	49	46	62	57	18	6
\$75,000-\$99,999	0	10	16	26	18	4	1
\$100,000-\$149,999	0	9	7	15	14	2	1
\$150,000-\$199,999	0	0	2	4	4	0	0
\$200,000+	0	0	1	3	2	0	0
Median HH Income	\$13,784	\$23,724	\$25,305	\$20,882	\$15,745	\$17,914	\$11,362
Average HH Income	\$18,675	\$30,358	\$32,003	\$31,936	\$27,601	\$22,385	\$15,139
<b>Percent Distribution</b>							
	15-24	25-34	35-44	45-54	55-64	65-74	75+
HH Income Base	100%	100%	100%	100%	100%	100%	100%
<\$15,000	54.4%	36.6%	36.4%	40.7%	48.7%	40.7%	65.7%
\$15,000-\$24,999	17.6%	14.6%	12.8%	13.7%	11.9%	22.7%	21.3%
\$25,000-\$34,999	12.5%	14.9%	19.0%	15.3%	14.1%	21.3%	4.3%
\$35,000-\$49,999	11.8%	15.6%	11.4%	11.3%	10.2%	8.5%	5.1%
\$50,000-\$74,999	3.7%	13.0%	13.1%	10.7%	9.0%	4.9%	2.4%
\$75,000-\$99,999	0.0%	2.7%	4.5%	4.5%	2.9%	1.1%	0.4%
\$100,000-\$149,999	0.0%	2.4%	2.0%	2.6%	2.2%	0.5%	0.4%
\$150,000-\$199,999	0.0%	0.0%	0.6%	0.7%	0.6%	0.0%	0.0%
\$200,000+	0.0%	0.0%	0.3%	0.5%	0.3%	0.0%	0.0%
<b>2017 Households by Income and Age of Householder</b>							
	15-24	25-34	35-44	45-54	55-64	65-74	75+

HH Income Base	119	368	335	522	647	435	266
<\$15,000	65	129	115	203	304	184	176
\$15,000-\$24,999	17	38	26	50	56	77	47
\$25,000-\$34,999	16	50	53	67	77	89	12
\$35,000-\$49,999	14	59	41	66	72	43	17
\$50,000-\$74,999	5	67	60	81	85	30	10
\$75,000-\$99,999	0	12	24	33	29	9	3
\$100,000-\$149,999	0	14	9	16	18	2	1
\$150,000-\$199,999	0	0	4	5	4	0	0
\$200,000+	0	0	2	3	3	0	0
Median HH Income	\$13,500	\$27,829	\$29,094	\$26,021	\$17,819	\$18,255	\$11,335
Average HH Income	\$19,134	\$34,454	\$39,586	\$36,860	\$31,973	\$23,920	\$16,194
Percent Distribution							
	15-24	25-34	35-44	45-54	55-64	65-74	75+
HH Income Base	100%	100%	100%	100%	100%	100%	100%
<\$15,000	54.6%	35.1%	34.3%	38.9%	47.0%	42.3%	66.2%
\$15,000-\$24,999	14.3%	10.3%	7.8%	9.6%	8.7%	17.7%	17.7%
\$25,000-\$34,999	13.4%	13.6%	15.8%	12.8%	11.9%	20.5%	4.5%
\$35,000-\$49,999	11.8%	16.0%	12.2%	12.6%	11.1%	9.9%	6.4%
\$50,000-\$74,999	4.2%	18.2%	17.9%	15.5%	13.1%	6.9%	3.8%
\$75,000-\$99,999	0.0%	3.3%	7.2%	6.3%	4.5%	2.1%	1.1%
\$100,000-\$149,999	0.0%	3.8%	2.7%	3.1%	2.8%	0.5%	0.4%

\$150,000- \$199,999	0.0%	0.0%	1.2%	1.0%	0.6%	0.0%	0.0%
\$200,000+	0.0%	0.0%	0.6%	0.6%	0.5%	0.0%	0.0%

Table 4—Medical Expenditures

Demographic Summary		2011	2016
Population		6,208	6,094
Households		2,657	2,629
Families		1,465	1,442
Median Household Income		\$20,344	\$23,243
Males per 100 Females		81.8	81.5
Population By Age			
Population <5 Years		8.4%	8.5%
Population 65+ Years		12.2%	13.9%
Median Age		36.2	36.8
	Spending Potential	Average Amount	
	Index	Spent	Total
Health Care	45	\$1,624.74	\$4,317,223
Medical Care	44	\$771.35	\$2,049,605
Physician Services	43	\$93.60	\$248,719
Dental Services	38	\$121.24	\$322,155
Eyecare Services	42	\$20.21	\$53,691
Lab Tests, X-Rays	43	\$23.12	\$61,428
Hospital Room and Hospital Services	46	\$61.66	\$163,833
Convalescent or Nursing Home Care	28	\$6.29	\$16,708
Other Medical services (1)	39	\$42.65	\$113,314
Nonprescription Drugs	46	\$46.16	\$122,657
Prescription Drugs	49	\$238.58	\$633,958
Nonprescription Vitamins	47	\$25.59	\$67,984
Medicare Prescription Drug Premium	56	\$27.12	\$72,059
Eyeglasses and Contact Lenses	42	\$31.66	\$84,130
Hearing Aids	37	\$7.89	\$20,959
Medical Equipment for General Use	51	\$3.11	\$8,275

Other Medical Supplies (2)	45	\$22.48	\$59,735
Health Insurance	46	\$853.39	\$2,267,617
Blue Cross/Blue Shield	44	\$240.00	\$637,722
Commercial Health Insurance	42	\$153.70	\$408,403
Health Maintenance Organization	42	\$134.64	\$357,768
Medicare Payments	54	\$216.68	\$575,767
Long Term Care Insurance	40	\$32.05	\$85,153
Other Health Insurance (3)	47	\$76.32	\$202,804

*Data Note: The Spending Potential Index (SPI) is household-based, and represents the amount spent for a product or service relative to a national average of 100. Detail may not sum to totals due to rounding.*

*(1) Other Medical Services includes Services by Medical Professionals other than Physicians, Nursing Services, Therapeutic Treatments, Blood Donation, Ambulance, Emergency Room, and Outpatient Hospital Services*

*(2) Other Medical Supplies includes Topicals, Dressings, Supportive and Convalescent Medical Equipment, Rental of Medical Equipment for General Use, and Rental of Supportive and Convalescent Medical Equipment.*

*(3) Other Health Insurance includes Medicare Supplements and Other Health Insurance excluding Blue Cross/Blue Shield.*

*Source: Esri forecasts for 2011 and 2016; Consumer Spending data are derived from the 2006 and 2007 Consumer Expenditure Surveys, Bureau of Labor Statistics*

Table 5—Business Summary

Data For All Businesses In Area				
Total Businesses:	383			
Total Employees:	3,300			
Total Residential Population:	6,208			
Employee/Residential Population Ratio:	0.53			
	Businesses		Employees	
by SIC Codes	Number	Percent	Number	Percent
Agriculture & Mining	7	1.7%	27	0.8%
Construction	13	3.3%	60	1.8%
Manufacturing	12	3.2%	162	4.9%
Transportation	12	3.2%	538	16.3%
Communication	0	0.0%	0	0.0%
Utility	0	0.0%	0	0.0%
Wholesale Trade	9	2.4%	132	4.0%
Retail Trade Summary	122	31.8%	708	21.5%
Home Improvement	4	1.0%	27	0.8%
General Merchandise Stores	3	0.8%	28	0.9%
Food Stores	19	4.8%	155	4.7%
Auto Dealers, Gas Stations, Auto Aftermarket	15	3.8%	63	1.9%
Apparel & Accessory Stores	27	7.0%	89	2.7%
Furniture & Home Furnishings	3	0.9%	11	0.3%
Eating & Drinking Places	23	6.0%	224	6.8%
Miscellaneous Retail	29	7.6%	111	3.4%
Finance, Insurance, Real Estate Summary	22	5.7%	56	1.7%
Banks, Savings & Lending Institutions	5	1.3%	10	0.3%
Securities Brokers	0	0.0%	0	0.0%
Insurance Carriers & Agents	10	2.6%	22	0.7%

Real Estate, Holding, Other Investment Offices	7	1.9%	24	0.7%
Services Summary	164	42.7%	1,328	40.2%
Hotels & Lodging	2	0.5%	12	0.4%
Automotive Services	7	1.7%	20	0.6%
Motion Pictures & Amusements	7	1.7%	279	8.4%
Health Services	12	3.2%	149	4.5%
Legal Services	2	0.5%	4	0.1%
Education Institutions & Libraries	7	1.9%	374	11.3%
Other Services	127	33.3%	490	14.9%
Government	16	4.2%	267	8.1%
Other	7	1.7%	20	0.6%
<b>Totals</b>	<b>383</b>	<b>100%</b>	<b>3,300</b>	<b>100%</b>
<i>Source: Business data provided by Infogroup, Omaha NE Copyright 2012, all rights reserved. Esri forecasts for 2011.</i>				

by NAICS Codes	Businesses		Employees	
	Number	Percent	Number	Percent
Agriculture, Forestry, Fishing & Hunting	1	0.2%	1	0.0%
Mining	0	0.0%	0	0.0%
Utilities	0	0.0%	0	0.0%
Construction	13	3.3%	60	1.8%
Manufacturing	10	2.7%	152	4.6%
Wholesale Trade	9	2.4%	132	4.0%
Retail Trade	96	24.9%	476	14.4%
Motor Vehicle & Parts Dealers	11	2.8%	49	1.5%
Furniture & Home Furnishings Stores	1	0.2%	1	0.0%
Electronics & Appliance Stores	7	1.8%	17	0.5%
Bldg Material & Garden Equipment & Supplies Dealers	4	1.0%	27	0.8%

Food & Beverage Stores	17	4.5%	155	4.7%
Health & Personal Care Stores	7	1.8%	53	1.6%
Gasoline Stations	4	1.0%	15	0.4%
Clothing & Clothing Accessories Stores	33	8.5%	103	3.1%
Sport Goods, Hobby, Book, & Music Stores	0	0.0%	0	0.0%
General Merchandise Stores	3	0.8%	28	0.9%
Miscellaneous Store Retailers	10	2.6%	28	0.8%
Nonstore Retailers	0	0.0%	0	0.0%
Transportation & Warehousing	14	3.6%	540	16.4%
Information	10	2.7%	31	0.9%
Finance & Insurance	16	4.2%	37	1.1%
Central Bank/Credit Intermediation & Related Activities	6	1.7%	15	0.5%
Securities, Commodity Contracts & Other Financial Investments & Other Related Activities	0	0.0%	0	0.0%
Insurance Carriers & Related Activities; Funds, Trusts & Other Financial Vehicles	10	2.6%	22	0.7%
Real Estate, Rental & Leasing	12	3.1%	36	1.1%
Professional, Scientific & Tech Services	22	5.7%	106	3.2%
Legal Services	2	0.5%	7	0.2%
Management of Companies & Enterprises	0	0.0%	0	0.0%
Administrative & Support & Waste Management & Remediation Services	11	2.9%	42	1.3%
Educational Services	9	2.3%	376	11.4%
Health Care & Social Assistance	34	9.0%	269	8.2%
Arts, Entertainment & Recreation	6	1.5%	286	8.7%
Accommodation & Food Services	25	6.4%	235	7.1%
Accommodation	2	0.5%	12	0.4%
Food Services & Drinking Places	23	6.0%	224	6.8%
Other Services (except Public Administration)	73	19.1%	232	7.0%

Automotive Repair & Maintenance	5	1.3%	18	0.6%
Public Administration	16	4.2%	267	8.1%
Unclassified Establishments	7	1.7%	20	0.6%
<b>Total</b>	<b>383</b>	<b>100%</b>	<b>3,300</b>	<b>100%</b>

*Source: Business data provided by Infogroup, Omaha NE Copyright 2012, all rights reserved. Esri forecasts for 2011.*

### Business Profile: New Occupations 2012-2013

The evaluation identified six activity nodes (AN), centering on major roadway intersections, and representing focal points within the area. The number of new occupations, represented by local business tax receipts paid during the 2012-2013 year, is map by location and type. Within the categories, the most prevalent business type provides a general public service (such as notaries, automotive, housekeeping, law maintenance, minor repair, drycleaners); followed by restaurants and retail services.

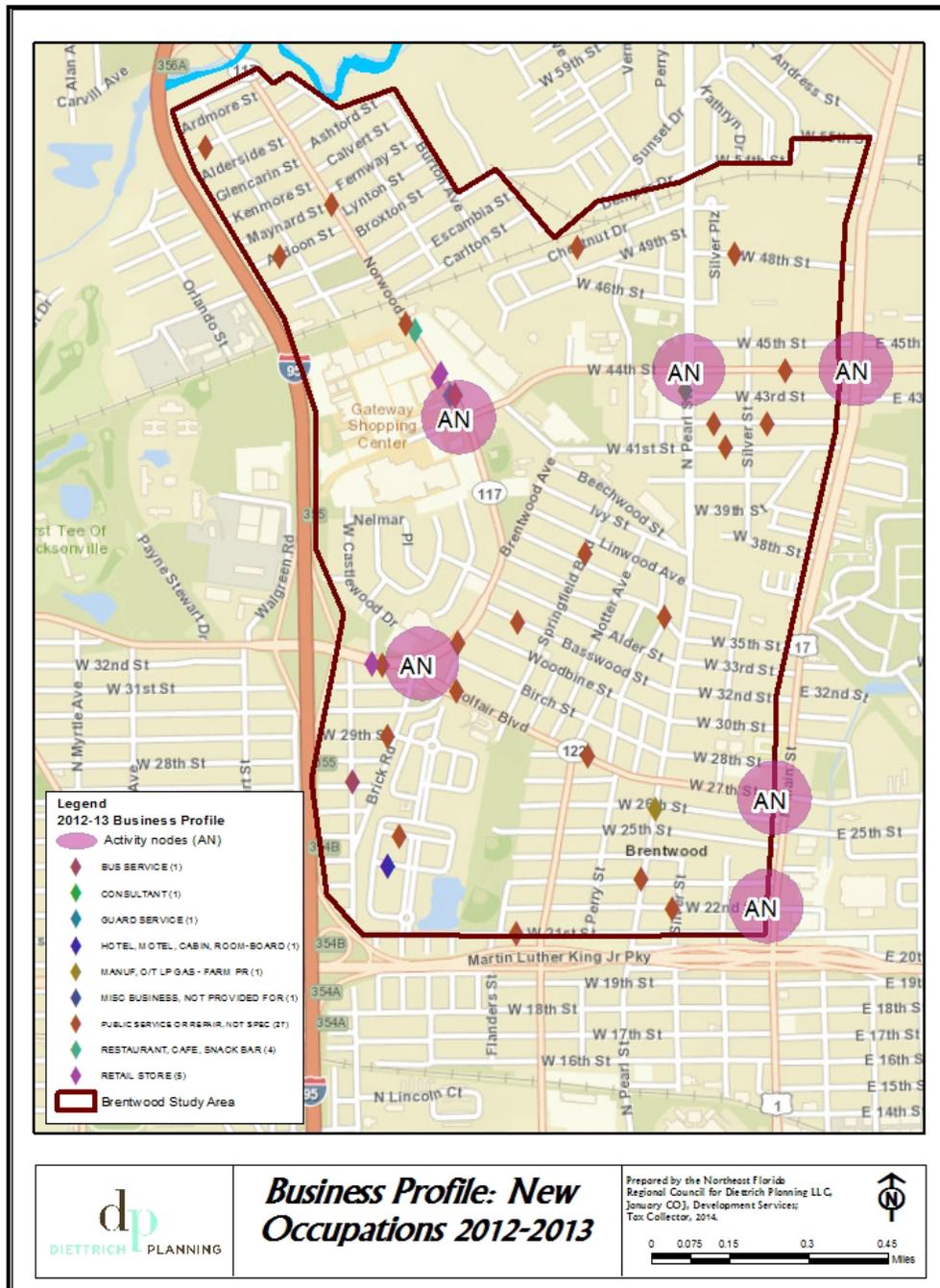


Table 6—Retail Marketplace

Summary Demographics						
<b>2010 Population</b>						8,147
<b>2010 Households</b>						3,292
<b>2010 Median Disposable Income</b>						\$18,343
<b>2010 Per Capita Income</b>						\$12,111
Industry Summary	NAICS	Demand (Retail Potential)	Supply (Retail Sales)	Retail Gap	Leakage/ Surplus Factor	Number of Businesses
<b>Total Retail Trade and Food &amp; Drink</b>	44-45 722	\$38,281,801	\$57,285,346	-\$19,003,545	-19.9	108
<b>Total Retail Trade</b>	44-45	\$32,661,584	\$50,566,823	-\$17,905,239	-21.5	87
<b>Total Food &amp; Drink</b>	722	\$5,620,217	\$6,718,523	-\$1,098,307	-8.9	21
Industry Group	NAICS	Demand (Retail Potential)	Supply (Retail Sales)	Retail Gap	Leakage/ Surplus Factor	Number of Businesses
Motor Vehicle & Parts Dealers	441	\$7,491,481	\$6,081,562	\$1,409,918	10.4	6
Automobile Dealers	4411	\$6,362,813	\$4,506,213	\$1,856,600	17.1	0
Other Motor Vehicle Dealers	4412	\$465,228	\$0	\$465,228	100.0	4
Auto Parts, Accessories & Tire Stores	4413	\$663,440	\$1,575,349	-\$911,909	-40.7	3
Furniture & Home Furnishings Stores	442	\$1,051,917	\$3,545,815	-\$2,493,897	-54.2	1
Furniture Stores	4421	\$709,682	\$3,013,228	-\$2,303,546	-61.9	2
Home Furnishings Stores	4422	\$342,235	\$532,586	-\$190,352	-21.8	1
Electronics & Appliance Stores	4431	\$1,069,704	\$503,224	\$566,479	36.0	3
Bldg Materials, Garden Equip. & Supply Stores	444	\$1,038,415	\$714,436	\$323,979	18.5	3
Bldg Material & Supplies Dealers	4441	\$983,243	\$714,436	\$268,807	15.8	0
Lawn & Garden Equip & Supply Stores	4442	\$55,172	\$0	\$55,172	100.0	12
Food & Beverage Stores	445	\$5,714,438	\$13,750,968	-\$8,036,530	-41.3	11
Grocery Stores	4451	\$5,284,447	\$13,246,699	-\$7,962,252	-43.0	1

Specialty Food Stores	4452	\$249,046	\$72,153	\$176,894	55.1	1
Beer, Wine & Liquor Stores	4453	\$180,945	\$432,116	-\$251,171	-41.0	5
Health & Personal Care Stores	446 4461	\$1,382,910	\$3,201,378	-\$1,818,467	-39.7	3
Gasoline Stations	447 4471	\$6,583,513	\$9,403,066	-\$2,819,553	-17.6	38
Clothing & Clothing Accessories Stores	448	\$1,571,958	\$9,406,397	-\$7,834,439	-71.4	25
Clothing Stores	4481	\$1,227,474	\$6,304,002	-\$5,076,528	-67.4	8
Shoe Stores	4482	\$197,629	\$2,408,377	-\$2,210,747	-84.8	5
Jewelry, Luggage & Leather Goods Stores	4483	\$146,854	\$694,018	-\$547,164	-65.1	0
Sporting Goods, Hobby, Book & Music Stores	451	\$430,780	\$0	\$430,781	100.0	0
Sporting Goods/Hobby/Musical Instr Stores	4511	\$213,007	\$0	\$213,007	100.0	0
Book, Periodical & Music Stores	4512	\$217,773	\$0	\$217,773	100.0	3
General Merchandise Stores	452	\$5,094,354	\$3,369,071	\$1,725,283	20.4	2
Department Stores Excluding Leased Depts.	4521	\$1,952,002	\$628,627	\$1,323,375	51.3	1
Other General Merchandise Stores	4529	\$3,142,352	\$2,740,444	\$401,908	6.8	7
Miscellaneous Store Retailers	453	\$561,781	\$513,858	\$47,923	4.5	1
Florists	4531	\$64,495	\$64,961	-\$466	-0.4	1
Office Supplies, Stationery & Gift Stores	4532	\$251,655	\$74,822	\$176,833	54.2	3
Used Merchandise Stores	4533	\$31,353	\$141,009	-\$109,656	-63.6	2
Other Miscellaneous Store Retailers	4539	\$214,279	\$233,066	-\$18,787	-4.2	1
Nonstore Retailers	454	\$670,332	\$77,049	\$593,284	79.4	0
Electronic Shopping & Mail-Order Houses	4541	\$267,519	\$0	\$267,519	100.0	1
Vending Machine Operators	4542	\$110,682	\$77,049	\$33,634	17.9	0
Direct Selling Establishments	4543	\$292,131	\$0	\$292,131	100.0	21
Food Services & Drinking Places	722	\$5,620,217	\$6,718,523	-\$1,098,307	-8.9	12

Full-Service Restaurants	7221	\$2,311,956	\$4,029,393	-\$1,717,437	-27.1	6
Limited-Service Eating Places	7222	\$2,861,366	\$2,224,959	\$636,407	12.5	2
Special Food Services	7223	\$291,158	\$279,032	\$12,126	2.1	2
Drinking Places— Alcoholic Beverages	7224	\$155,736	\$185,139	-\$29,403	-8.6	

*Data Note: Supply (retail sales) estimates sales to consumers by establishments. Sales to businesses are excluded. Demand (retail potential) estimates the expected amount spent by consumers at retail establishments. Supply and demand estimates are in current dollars. The Leakage/Surplus Factor presents a snapshot of retail opportunity. This is a measure of the relationship between supply and demand that ranges from +100 (total leakage) to -100 (total surplus). A positive value represents 'leakage' of retail opportunity outside the trade area. A negative value represents a surplus of retail sales, a market where customers are drawn in from outside the trade area. The Retail Gap represents the difference between Retail Potential and Retail Sales. Esri uses the North American Industry Classification System (NAICS) to classify businesses by their primary type of economic activity. Retail establishments are classified into 27 industry groups in the Retail Trade sector, as well as four industry groups within the Food Services & Drinking Establishments subsector. For more information on the Retail MarketPlace data, please view the methodology statement at:*

<http://www.esri.com/library/whitepapers/pdfs/esri-data-retail-marketplace.pdf>.

Source: ESRI and Inforgroup.

Table 7- Disposable Income

				2012-2017	2012-2017		
	Census 2010	2012	2017	Change	Annual Rate		
Population	6,349	6,312	6,288	-24	-0.08%		
Median Age	36.2	36.7	37.7	1.0	0.54%		
Household	2,724	2,692	2,692	1	0.00%		
Average Household Size	2.33	2.34	2.33	-0.01	-0.09%		
2012 Households by Disposable Income				Number	Percent		
Total				2,692	100.0%		
<\$15,000				1,263	46.9%		
\$15,000-\$24,999				491	18.2%		
\$25,000-\$34,999				391	14.5%		
\$35,000-\$49,999				275	10.2%		
\$50,000-\$74,999				187	6.9%		
\$75,000-\$99,999				52	1.9%		
\$100,000-\$149,999				26	1.0%		
\$150,000-\$199,999				5	0.2%		
\$200,000+				2	0.1%		
Median Disposable Income				\$16,130			
Average Disposable Income				\$23,678			
2012 Disposable Income by Age of Householder		Number of Households					
	<25	25-34	35-44	45-54	55-64	65-74	75+
Total	136	377	352	577	630	366	254
<\$15,000	76	144	132	244	322	166	179
\$15,000-\$24,999	27	60	60	96	104	98	46
\$25,000-\$34,999	16	73	64	87	76	63	12
\$35,000-\$49,999	14	54	48	64	60	23	11

\$50,000-\$74,999	3	33	36	56	42	13	6
\$75,000-\$99,999	0	9	7	17	16	2	0
\$100,000-\$149,999	0	3	4	10	8	0	1
\$150,000-\$199,999	0	0	1	3	1	0	0
\$200,000+	0	0	0	0	2	0	0
Median Disposable Income	\$13,421	\$21,478	\$21,456	\$18,607	\$14,697	\$16,011	\$10,684
Average Disposable Income	\$17,445	\$26,569	\$27,521	\$27,457	\$24,164	\$19,342	\$14,078
<p><i>Data Note: Disposable Income is after-tax household income. Disposable income forecasts are based on the Current Population Survey, U.S. Census Bureau. Detail may not sum to totals due to rounding.</i></p> <p><i>Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2012 and 2017.</i></p>							

### Poverty Rate by Census Tract

Three census tracts (CTs 1, 13, and 14) make up the study area and surrounding neighborhoods. Poverty status can generally be described as a comparison of person’s total family income within the last 12 months (2010) to the poverty threshold for that person’s family size and composition (number of related children under 18). If the total income is less than the threshold, then the person is listed as “below poverty”. The map below reports geographically the *percentage of the total population below the poverty level in 2010*. To illustrate, the 2010 poverty threshold for a family of four was \$23,417.

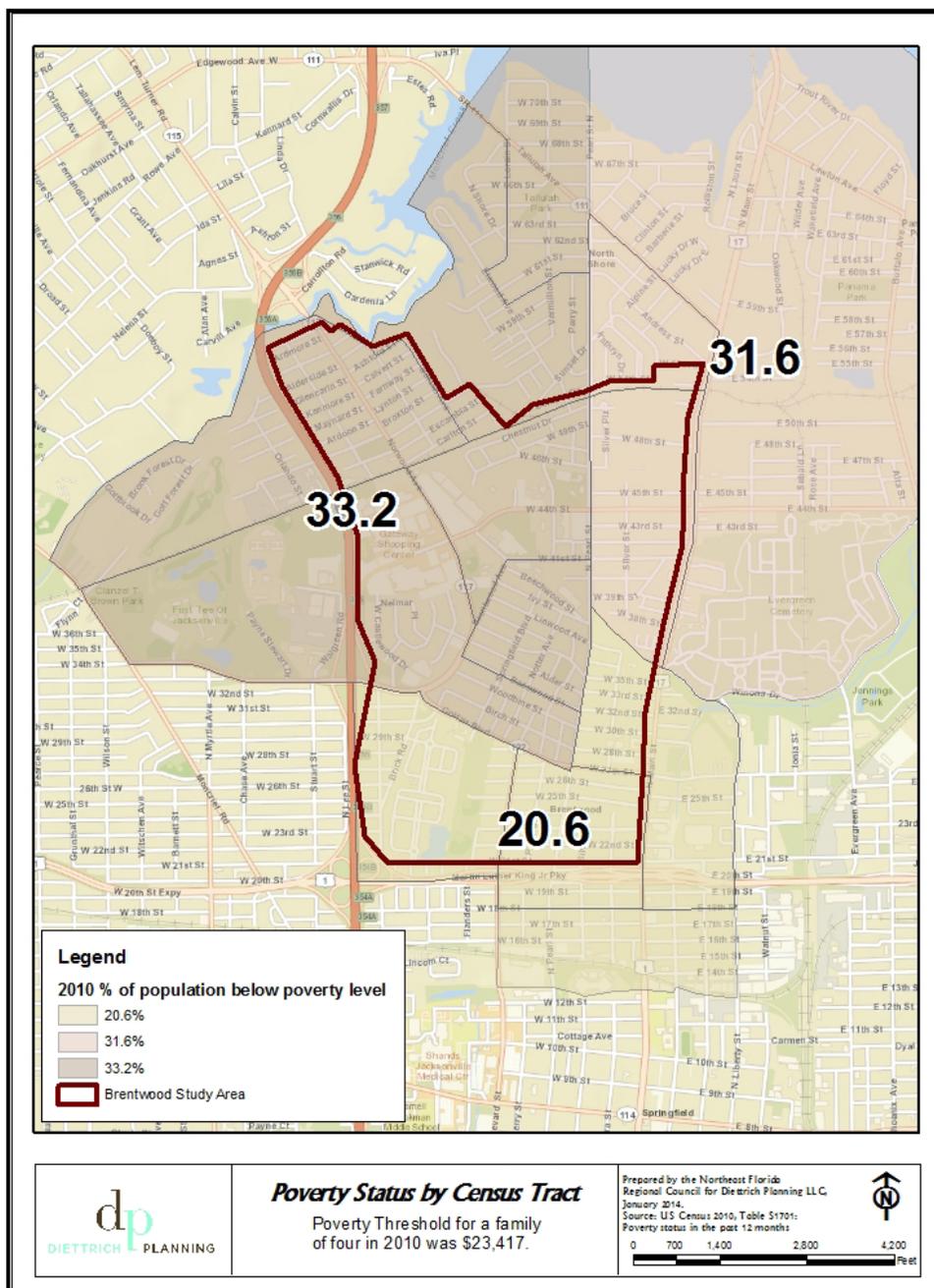


Table 8—Recreational Expenditures

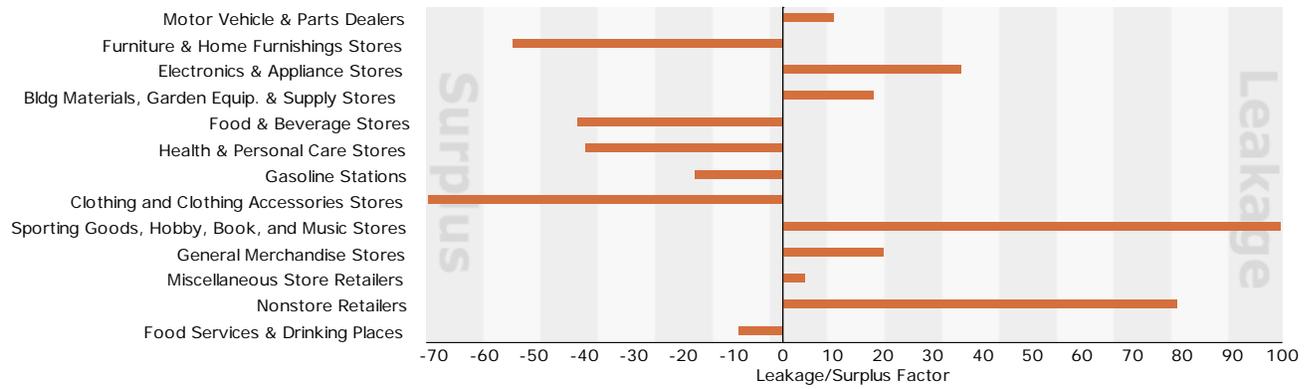
Demographic Summary		2011	2016
Population		6,208	6,094
Households		2,657	2,629
Families		1,465	1,442
Median Age		36.2	36.8
Median Household Income		\$20,344	\$23,243
	Spending Potential Index	Average Amount Spent	Total
Entertainment/Recreation Fees and Admissions	37	\$220.53	\$585,985
Admission to Movies, Theater, Opera, Ballet	40	\$58.89	\$156,491
Admission to Sporting Events, excl. Trips	39	\$22.69	\$60,293
Fees for Participant Sports, excl. Trips	37	\$38.34	\$101,881
Fees for Recreational Lessons	31	\$41.44	\$110,115
Membership Fees for Social/Recreation/Civic Clubs	37	\$58.81	\$156,259
Dating Services	47	\$0.36	\$946
Rental of Video Cassettes and DVDs	44	\$17.74	\$47,127
Toys & Games	44	\$61.83	\$164,304
Toys and Playground Equipment	44	\$60.01	\$159,457
Play Arcade Pinball/Video Games	44	\$0.82	\$2,168
Online Entertainment and Games	45	\$1.01	\$2,679
Recreational Vehicles and Fees	28	\$87.27	\$231,896
Docking and Landing Fees for Boats and Planes	38	\$2.59	\$6,883
Camp Fees	30	\$8.49	\$22,572
Purchase of RVs or Boats	27	\$73.30	\$194,773
Rental of RVs or Boats	35	\$2.89	\$7,668
Sports, Recreation and Exercise Equipment	30	\$52.20	\$138,698

Exercise Equipment and Gear, Game Tables	33	\$26.08	\$69,309
Bicycles	42	\$7.98	\$21,210
Camping Equipment	13	\$1.79	\$4,750
Hunting and Fishing Equipment	21	\$7.79	\$20,699
Winter Sports Equipment	24	\$1.52	\$4,047
Water Sports Equipment	36	\$2.34	\$6,215
Other Sports Equipment	39	\$3.60	\$9,571
Rental/Repair of Sports/Recreation/Exercise Equipment	28	\$1.09	\$2,897
Photographic Equipment and Supplies	39	\$39.07	\$103,829
Film	44	\$3.12	\$8,282
Film Processing	38	\$8.36	\$22,213
Photographic Equipment	40	\$16.53	\$43,914
Photographer Fees/Other Supplies & Equip Rental/Repair	37	\$11.07	\$29,419
Reading	41	\$61.98	\$164,685
Magazine/Newspaper Subscriptions	42	\$25.50	\$67,746
Magazine/Newspaper Single Copies	47	\$8.73	\$23,199
Books	40	\$27.75	\$73,740

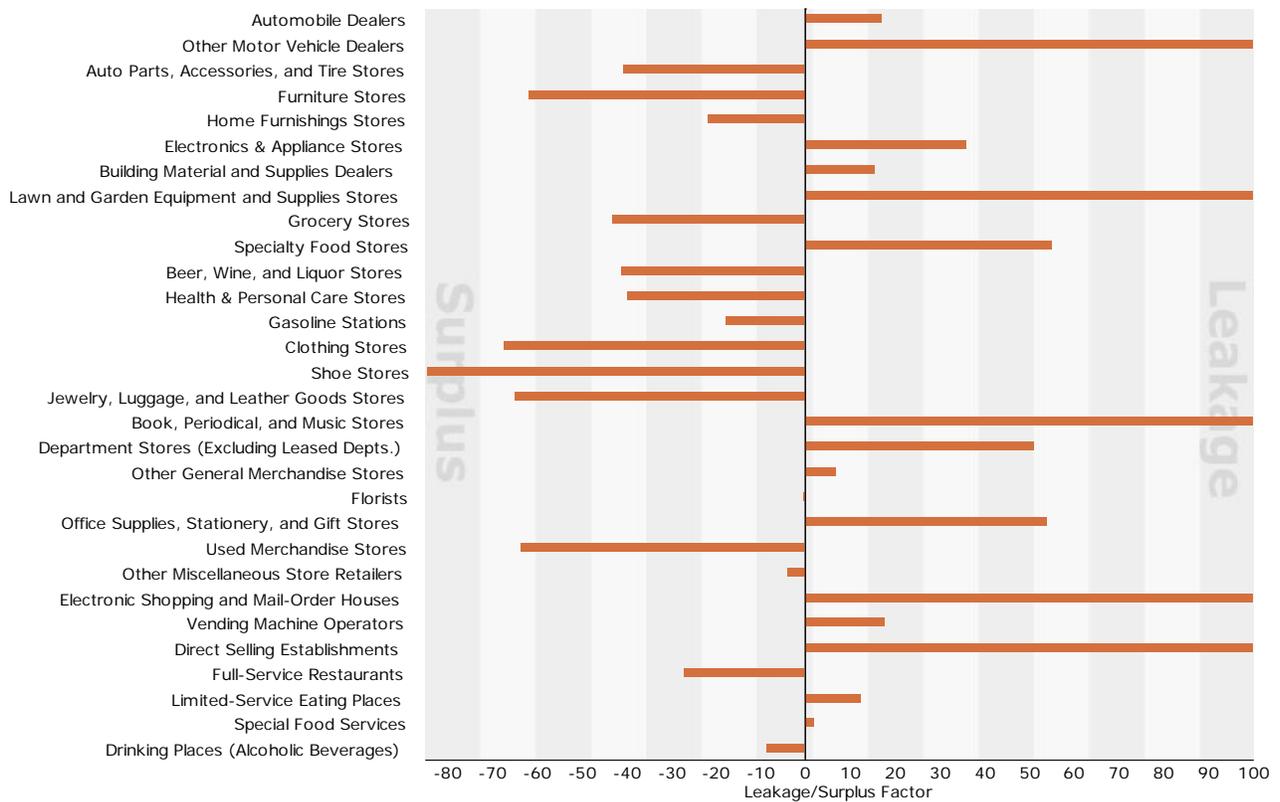
*Data Note: The Spending Potential Index (SPI) is household-based, and represents the amount spent for a product or service relative to a national average of 100. Detail may not sum to totals due to rounding.*

*Source: Esri forecasts for 2011 and 2016; Consumer Spending data are derived from the 2006 and 2007 Consumer Expenditure Surveys, Bureau of Labor Statistics.*

### Leakage/Surplus Factor by Industry Subsector



### Leakage/Surplus Factor by Industry Group



## Health Indicators

In March 2011, the Kirwin Institute released a seminal report for the Jacksonville area titled *“Mapping Child Well-Being in Duval County”*. The report mapped the distribution of opportunity for children residing in different areas of Duval County and examined the impacts of opportunity on children’s health and educational outcomes. The report evaluates opportunity across three measures: neighborhood, education, and health and environment (see chart below). Building off of the framework developed by the Kirwin Institute, Skeo Solutions and numerous agencies, non-profit organizations and community leaders in Jacksonville came together to develop a collaborative study, *The Jacksonville Integrated Planning Project (JIPP)*, to highlight health and environmental status for Health Zone 1. Indicators were grouped into health indicators, environmental risks, and health assets (see chart below). The results form a framework for understanding existing conditions in Health Zone 1 and help to identify the complex nature of the cumulative impacts experienced by environmental justice communities.

Neighborhood Indicators	Education and School-Related Indicators	Health and Environmental Indicators
Neighborhood poverty rate	Free and reduced-price lunch students	Children with diabetes, asthma, cancer
Population on public assistance	Teacher qualification	Low birth weight babies
Unemployment rate	Teacher experience	Teen births
Share of households headed by single-parent	Student/teacher ratio	Access to healthcare facilities
Home ownership rates	Test results (Math and Reading)	Availability of healthcare professionals
Housing vacancy rates	Non-promotion rate	Access to affordable food
Foreclosure rate		Exposure to environmental impairments
Adult educational attainment		Access to parks and open spaces
Crime Rates		

*(Above) Indicators used in the Kirwin Institute’s opportunity analysis of child well-being in Duval County.*

Health Indicators	Environmental Risks	Health Assets
<p><b>Infant Health Indicators</b> (infant mortality, teen births, low birth weights)</p> <p><b>Adult ER visits</b> (dental, COPD, asthma, diabetes, congestive heart)</p>	<p>Environmental Impairments:</p> <ul style="list-style-type: none"> <li>• Sites</li> <li>• Air quality</li> <li>• Water quality</li> </ul>	<p>Healthcare (primary care, dental care, emergency care, specialized services)</p> <p>Healthy food (and unhealthy food)</p>

*(Above): Indicators used in the JIPP analysis of health and environmental indicators for quality of life in Health Zone 1 of*

### Infant Health Indicators

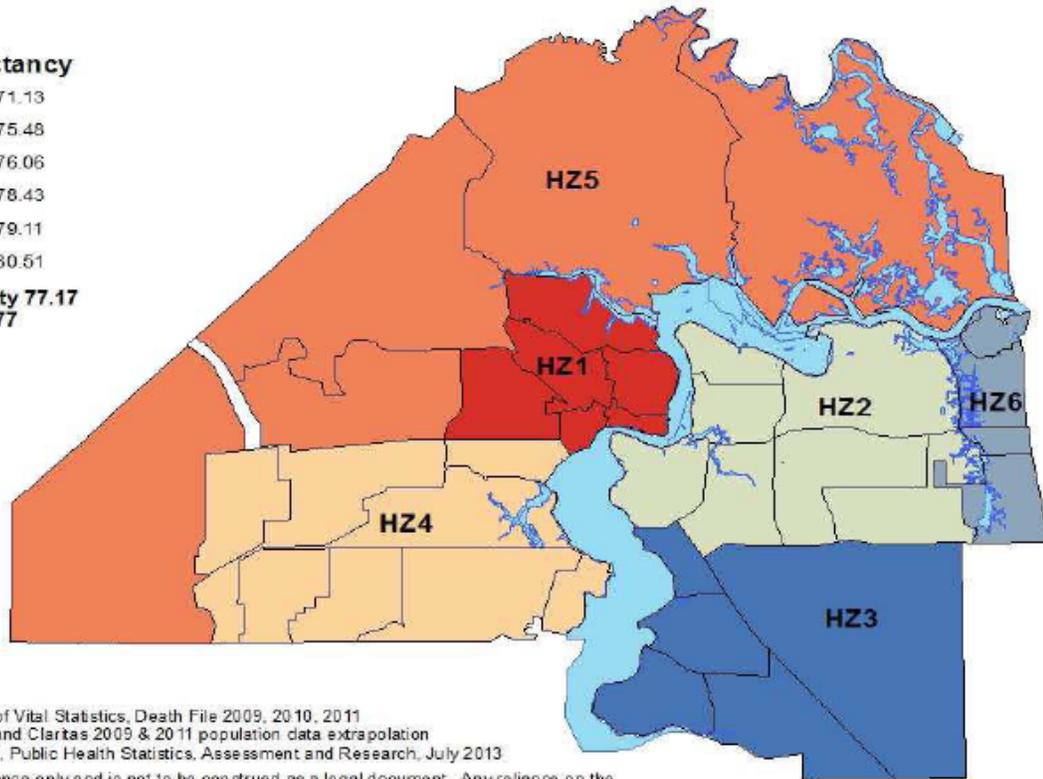
Key indicators of infant health are the infant mortality rate, birth weight and the rate of babies born to teens. Health Zone 1 leads Duval County in infant mortality, with a rate of 13.1 deaths per 1000 live births. The Duval County infant mortality rate overall is 9.5. Health Zone 1 leads Duval County in percentage of low birth weight babies. In 2006, over 13 percent of babies born to parents residing in Health Zone 1 had low birth weights. This compares to 9.5 percent of babies born in Duval County overall. The birth weight map below shows that the east side of Health Zone 1 experiences higher rates of low-birth weight babies than other areas of Health Zone 1. Health Zone 1 also leads Duval County in the rate of babies born to teens, or teen births. In 2006, teen births occurred in Health Zone 1 at a rate of 81 teen births per 1000 births. This was 58% higher than the Duval County average. The teen birth map below shows that the west side of Health Zone 1 experiences higher rates of teen births than other areas of Health Zone 1.

## Life Expectancy for an Infant by Health Zone Duval County, Florida, 2010

### Life Expectancy



Duval County 77.17  
Florida 79.77  
USA 78.7

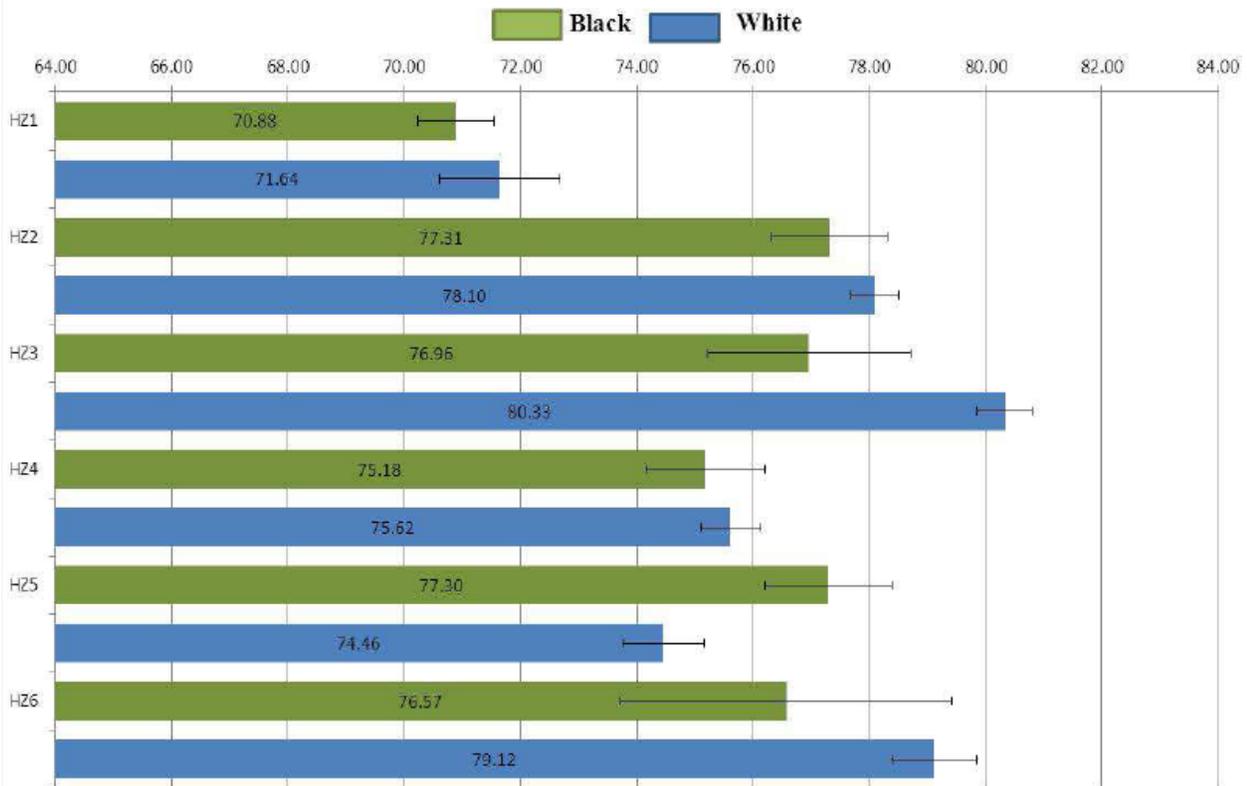


Source: FDOH, Office of Vital Statistics, Death File 2009, 2010, 2011  
Source: Census 2010 and Claritas 2009 & 2011 population data extrapolation  
Prepared by: FDOH DC, Public Health Statistics, Assessment and Research, July 2013

This product is for reference only and is not to be construed as a legal document. Any reliance on the information contained herein is at the user's own risk. The Florida Department of Health and its agents assume no responsibility for any use of the information contained herein or any loss resulting therefrom.

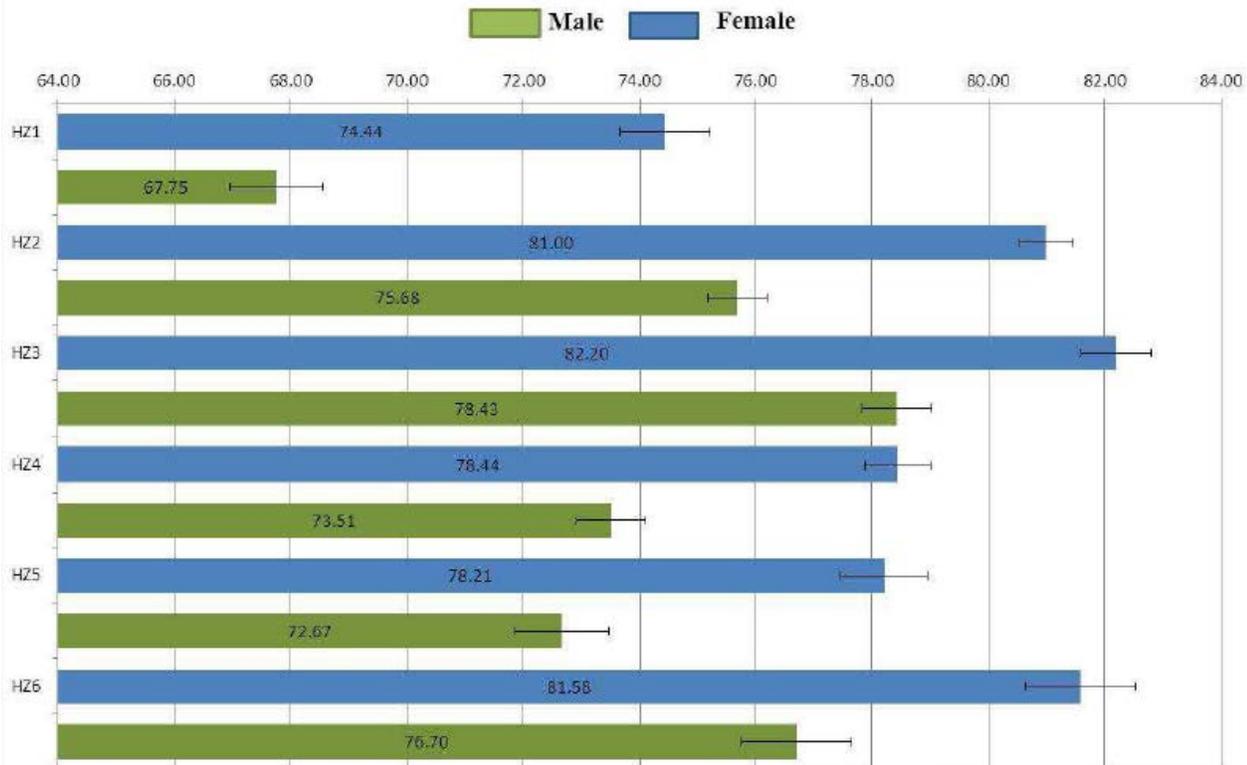
Florida Department of Health Duval County, Public Health Statistics, Assessment and Research, (2013). Health: Place Matters 2013. Volume 11, Issue 1 (Summer 2013).

### Life Expectancy of Infants Born in Duval County By Race and Health Zone, 2010



Florida Department of Health Duval County, Public Health Statistics, Assessment and Research, (2013). Health: Place Matters 2013. Volume 11. Issue 1 (Summer 2013).

### Life Expectancy of Infants Born in Duval County By Gender and Health Zone, 2010



Florida Department of Health Duval County, Public Health Statistics, Assessment and Research, (2013). Health: Place Matters 2013. Volume 11. Issue 1 (Summer 2013).

## Adult ER Visits

Health Zone 1 is home to approximately 15% of all Duval County residents, and in all cases, Health Zone 1 residents make up a disproportionately high percentage of the ER visits for each of these indicators:

- Dental-related ER visits (20.2% of Duval County total)
- Chronic Obstructive Pulmonary Disease-related ER visits (27.4% of Duval County total)
- Asthma-related ER visits (28.8% of Duval County total)
- Diabetes-related ER visits (34.2% of Duval County total)
- Congestive Heart-related ER visits (25.5% of Duval County total)

Many of the health issues represented are issues that can typically be managed through regular access to primary care, access to prescriptions and preventative lifestyle habits. The Medical Facilities Map (page 70) identifies public and private medical facilities within the study area.

In communities with limited access to primary care services, emergency rooms often become the front lines for medical treatment. The central area of Health Zone 1 consistently documents the highest admission rates for health issues in Health Zone 1. Ambulatory Care Sensitive Condition (ACSC) related sets of conditions are high in Health Zone 1, such as asthma, COPD, and diabetes, where appropriate ambulatory care prevents or reduces the need for admission to the hospital. In most instances, oversight by a primary care physician and access to prescriptions prevents the need for hospitalization. Therefore, these types of ER visits are a good proxy for understanding the lack of access to primary care in Health Zone 1.

## Environmental Risks

The distribution of potential environmental risks related to water access, contaminated sites and air quality are indicators that represent a subset of factors that may influence health and quality of life. The location of these factors does not indicate actual health or quality of life conditions for any specific household; however, it is helpful to understand the distribution of potential environmental exposure risk within Health Zone 1 and for visualizing the effect of the cumulative impact of multiple risk factors on certain residential areas.

Proximity to water access risks is represented by the selection of residences and schools within water drainage basins that have documented fish consumption and swimming risks. These risks limit recreational activities in Health Zone 1 and represent damage to Health Zone 1's natural resources. In instances where restrictions are ignored or not understood, the environmental contamination represented by these risks can have negative health impacts on humans.

Proximity to contaminated sites is represented by the selection of residences and schools within walking distance, or a quarter mile, of contaminated sites. Residences and schools with proximity to a greater number of contaminated sites may experience a higher level of risk, depending on the type of contamination and its location within the soil or groundwater. Proximity to potential air quality risks is represented by the selection of residences and schools that have proximity to two or more air quality risks. Proximity measures vary depending on the type of risk and are based on the air quality buffer recommendations found in the Air Quality and Land Use Handbook (California Air Resources Board, 2005).

Risk Factor	Air Quality Buffer
High traffic roads (arterial roads and freeways)	500 feet
Industrial land use	500 feet
Jacksonville Port area	1000 feet

## Health Assets

### *Access to Affordable Care*

Although there are numerous affordable primary and dental care locations in Health Zone 1, the dramatic health disparities experienced by residents led the Jacksonville Health Assessment study (EPA, 2012) to conclude:

“There is a misalignment between community health care needs and the system for delivering health care currently in place to meet these needs. Many residents are not accessing basic preventative services, are traveling significant distances to get services, or are using emergency rooms in place of primary care services.”

The report goes on to identify barriers to healthcare access in Health Zone 1 that include:

- Transportation challenges
- Limited hours of operation at provider locations
- Manner of service delivery
- Financial barriers to prescription purchases
- Racial, cultural and historical patterns that discourage the use of primary and preventative
- Care services
- Limited access to information on available care

The report also points out those healthy lifestyles are dependent on not only access to healthcare but also on transportation options, walkability of the built environment, safe and healthy housing and many other sustainability-related characteristics of the built environment. Therefore, the location of a healthcare facility may be just as important as

the services it provides. A follow-up study could examine opportunities for integrating health and wellness considerations into reuse planning processes, using the Fairfax Wood Treater Superfund Site in Health Zone 1 as a pilot project.

### *Access to Healthy Food*

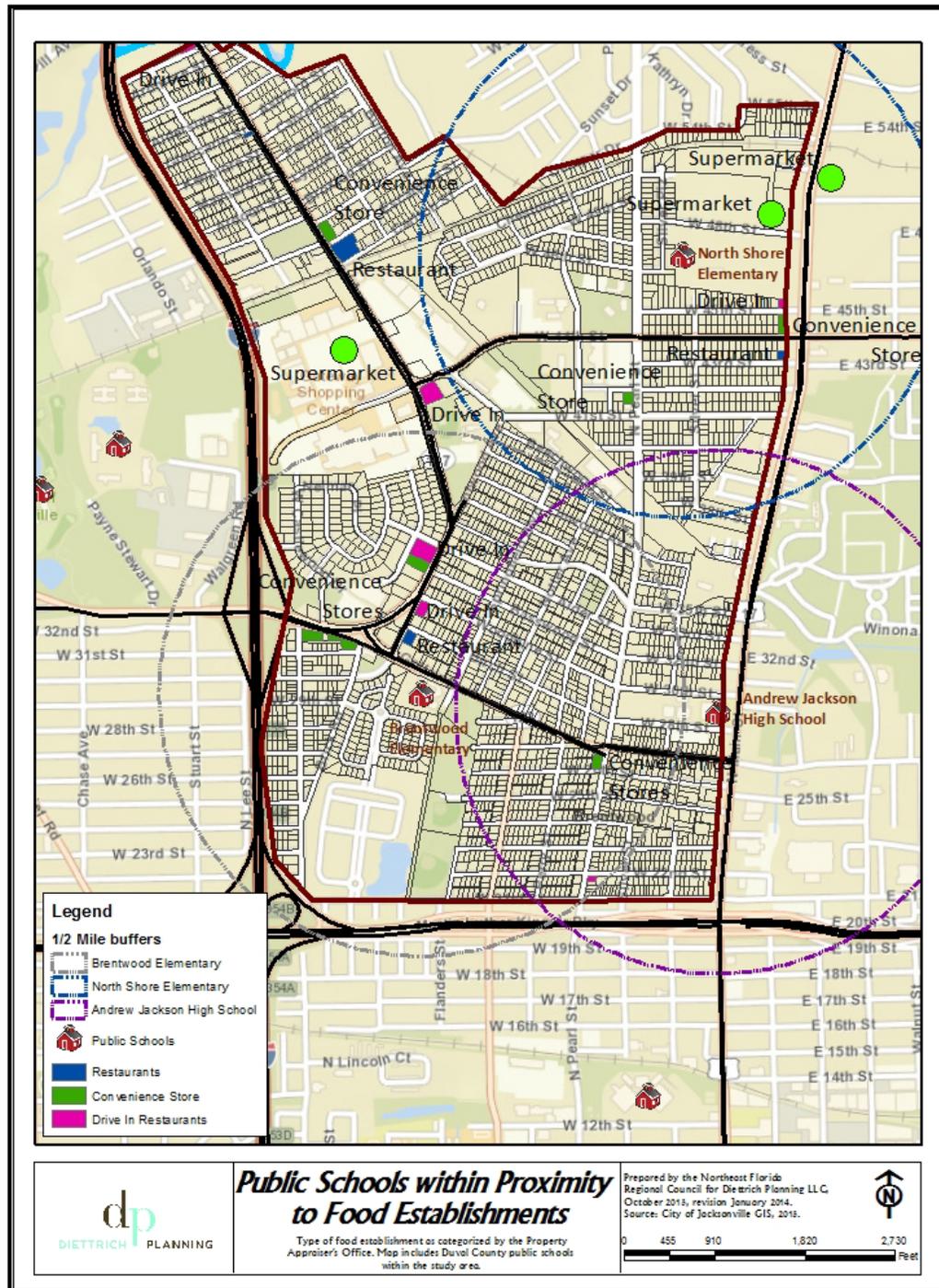
Availability of healthy, affordable food is critical to healthy communities. According to the Healthy Food Financing Initiative, a food desert is considered a low-income census tract where at least 33% of households are further than one mile from a grocery store. In these communities, food costs and transportation challenges may limit access.

The Public Schools with Proximity to Food Establishments Map (Page 51) shows the closeness of residential areas and public schools to food sources, including grocery stores, convenience stores, and fast food within a half mile of one of the three public schools in the study area. Research demonstrates that students with fast food restaurants in this proximity consume fewer fruit and vegetables, consume more soda, and are more likely to be overweight or obese (Davis and Carpenter, 2009); food sources and health are closely related.

- Increased numbers of neighborhood grocery stores are associated with reduced odds for obesity (Bodor et al., 2010).
- Urban farms, markets, and community gardens can be a source of fresh, local food, create community, and support economic development.
- Fast food/convenience store access is predictive of greater obesity odds (Bodor et al., 2010).
- Frequent consumption of fast food is associated with weight gain and an increased risk of Type 2 diabetes (NIH, 2004).

## Public Schools with Proximity to Food Establishments

The study area is served by establishments providing food products for on and off site consumption. The map below displays the distribution of supermarkets, convenience stores, and a selection of drive in and sit down restaurants within a half mile of the three main public schools.



## Access to Open Space

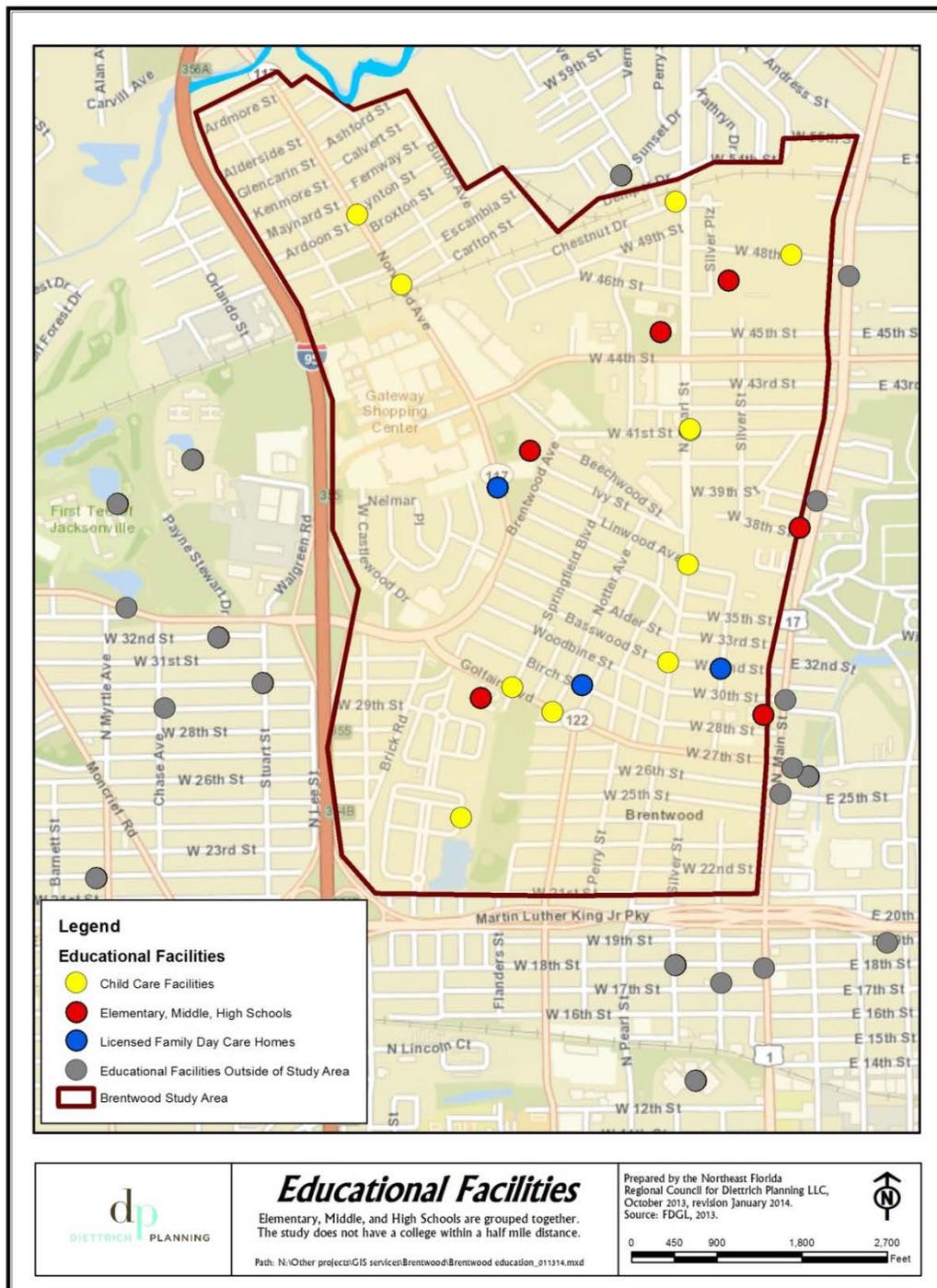
Florida state guidelines recommend providing a neighborhood park within a half-mile (10-minute walk) of residential areas and including play structures, courts, and picnic areas. Healthy parks, trees, and open space can help:

- Reduce obesity.
- Improve attention deficit disorder (ADD) in children.
- Increase development of muscle strength and coordination, language, and cognitive abilities by providing children with play space.
- Reduce mental fatigue and increase focus and coping abilities.
- Build healthy communities by creating stable neighborhoods and stronger social ties.
- Increase community investment.

The following maps reflect the elements of the physical environment with the study area. The map series identifies the location of and/or proximity between educational facilities, elder care facilities, medical facilities, sidewalk and bicycle facilities, public facilities (parks, libraries, community centers), and public bus transportation routes. The purpose of the facilities map series is to relate the geography between where the residents live to the places they recreate, receive health services, and learn to how they go about getting there and back again. It is noted that residents outside of a one mile walk or bus route may have limited access to food establishments, schools, recreational facilities, and medical facilities.

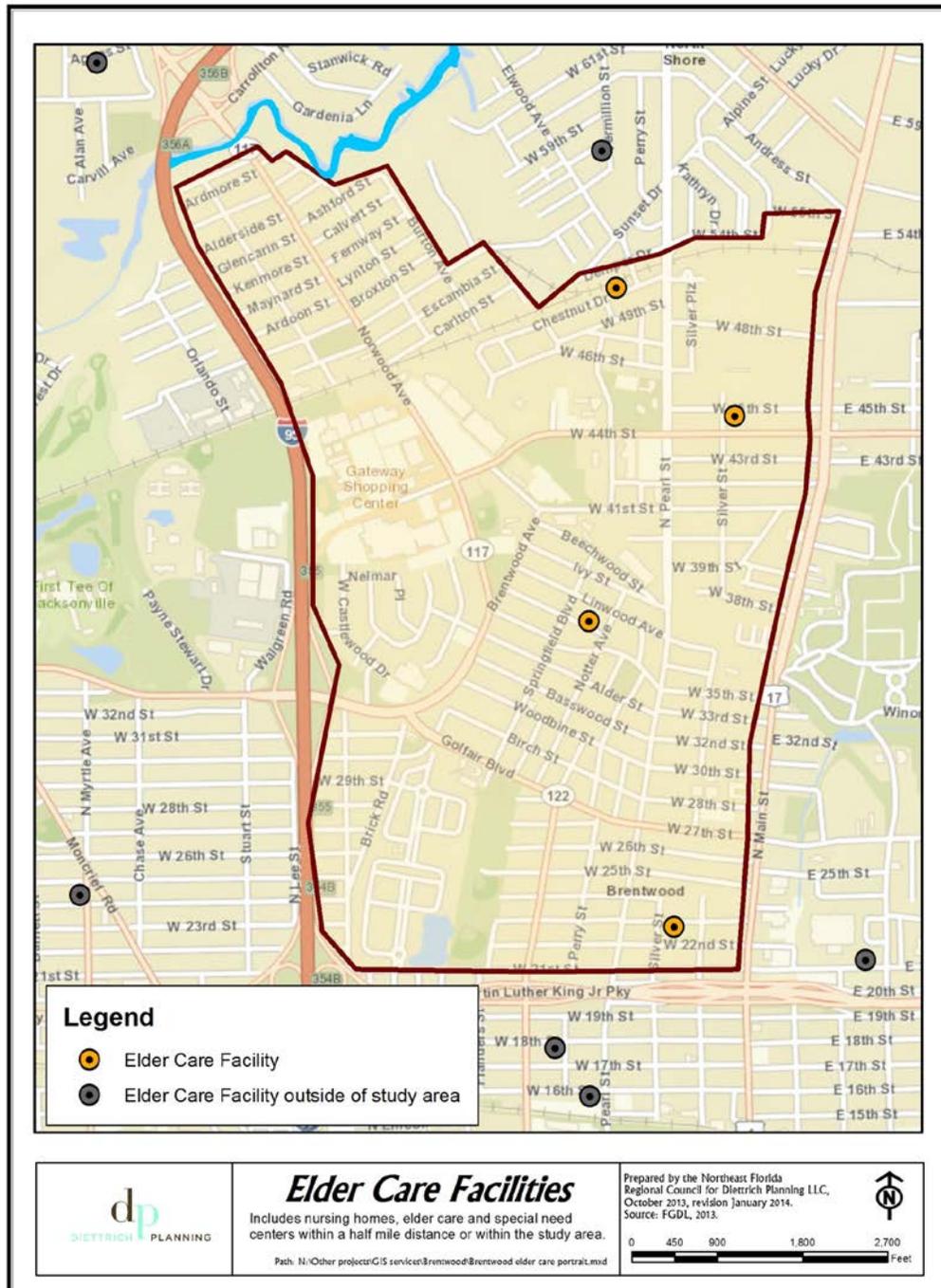
## Education Facilities

The study area includes 10 childcare facilities distributed throughout the residential areas and commercial corridors along Pearl Street and Golfair Boulevard. These facilities are supported by three licensed family day care homes. Three Duval County schools—North Shore Elementary, Brentwood Elementary, and Andrew Jackson High School—are also located within the study area.



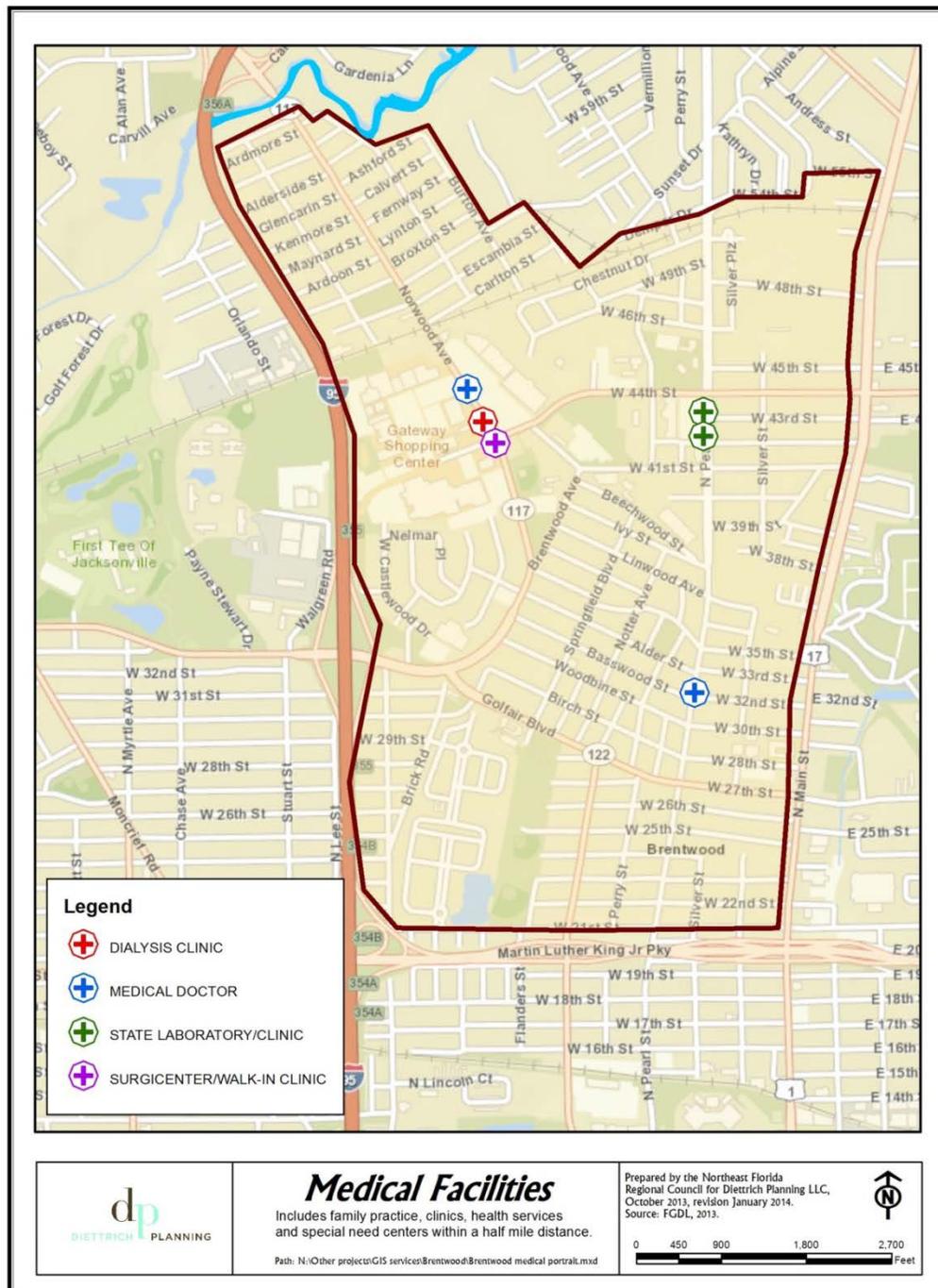
## Elder Care Facilities

The study area includes three elder care facilities with additional facilities located within a half-mile distance of the study area boundary. Elder care facilities include assisted living facilities for the elderly, nursing homes, and special needs centers. The map reflects four facilities generally aligned along the east and west sides of the Pearl Street commercial corridor.



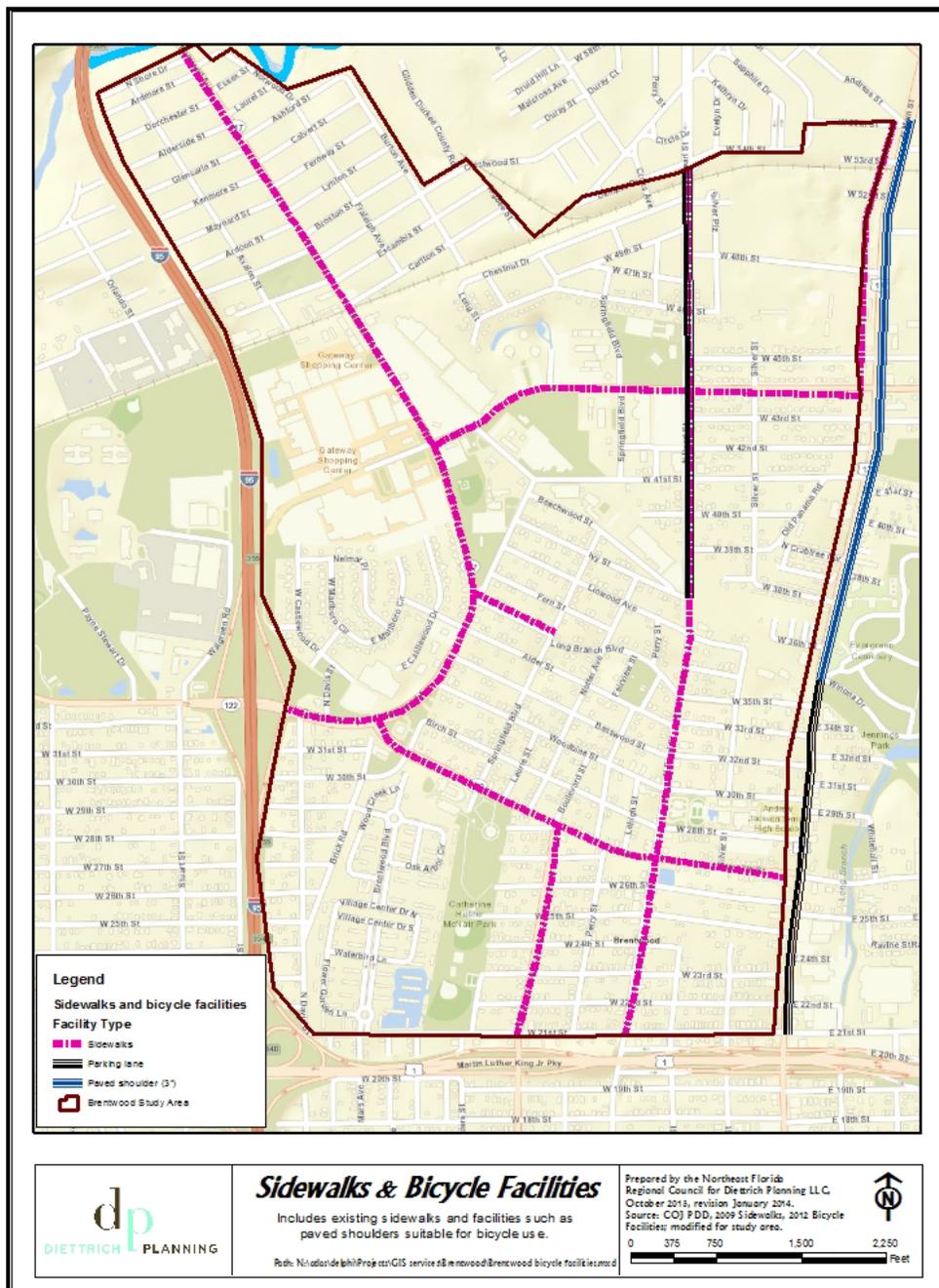
## Medical Facilities

The Brentwood study area includes six different medical facilities along the commercial corridors, split between Norwood Avenue and Pearl Street. There are two Duval County Health Department Clinics providing access to clinic services for women and children and providing immunizations. The area includes two private practitioners for primary care medicine that include access to a network of other service providers.



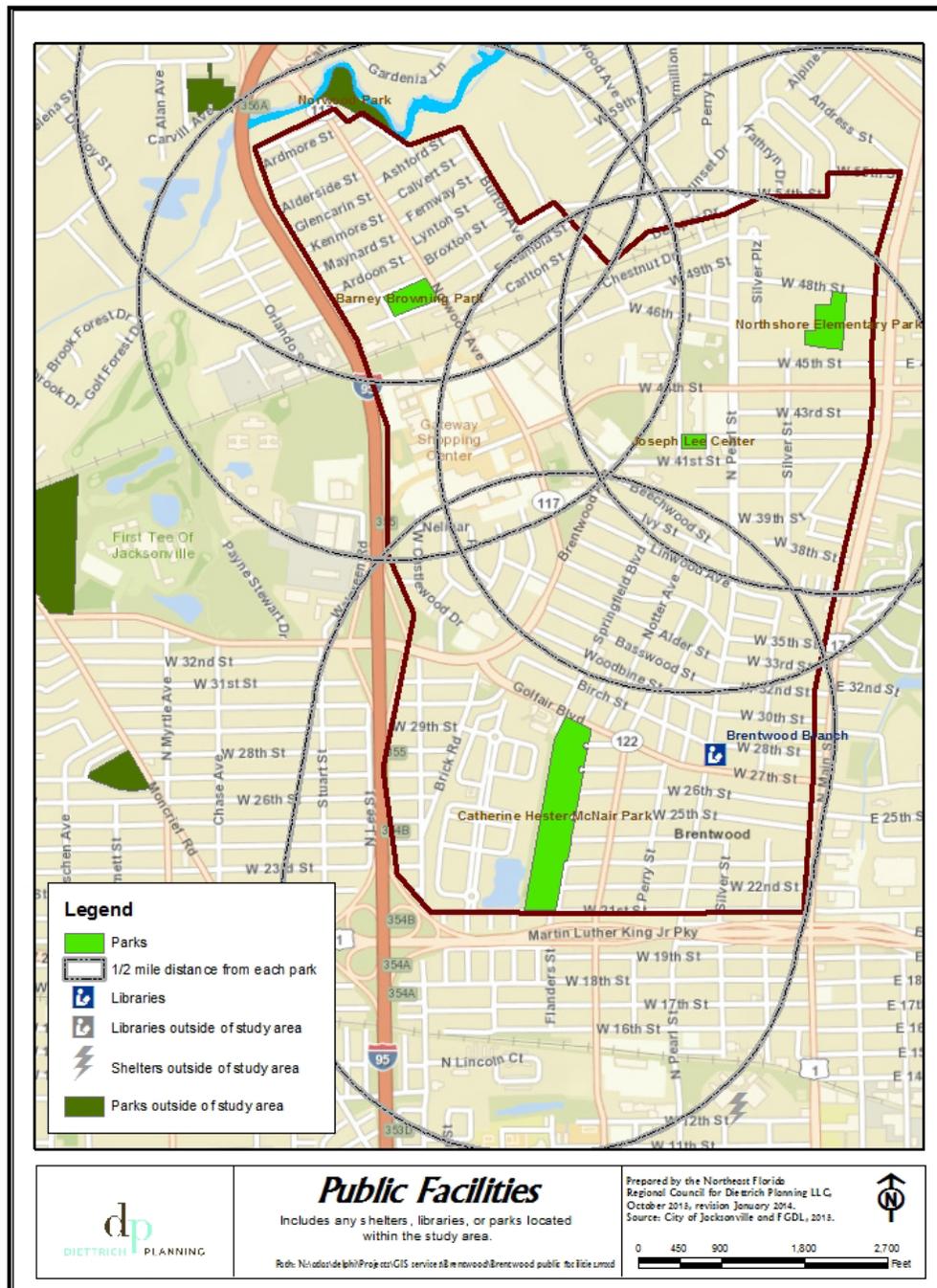
## Sidewalks & Bicycle Facilities

The area includes a fair network of sidewalks along the major roadways of Norwood Avenue, 44<sup>th</sup> Street, Golfair Boulevard, Pearl Street, and portions of Main Street. Although the area does not include any designated on street bicycle facilities (marked or signed), Pearl Street and Main Street include on street features that may double as space for cyclists in off peak times. Along Main Street, the cross section includes a three foot paved shoulder. Along Pearl Street, the cross section includes on street parking that is underutilized.



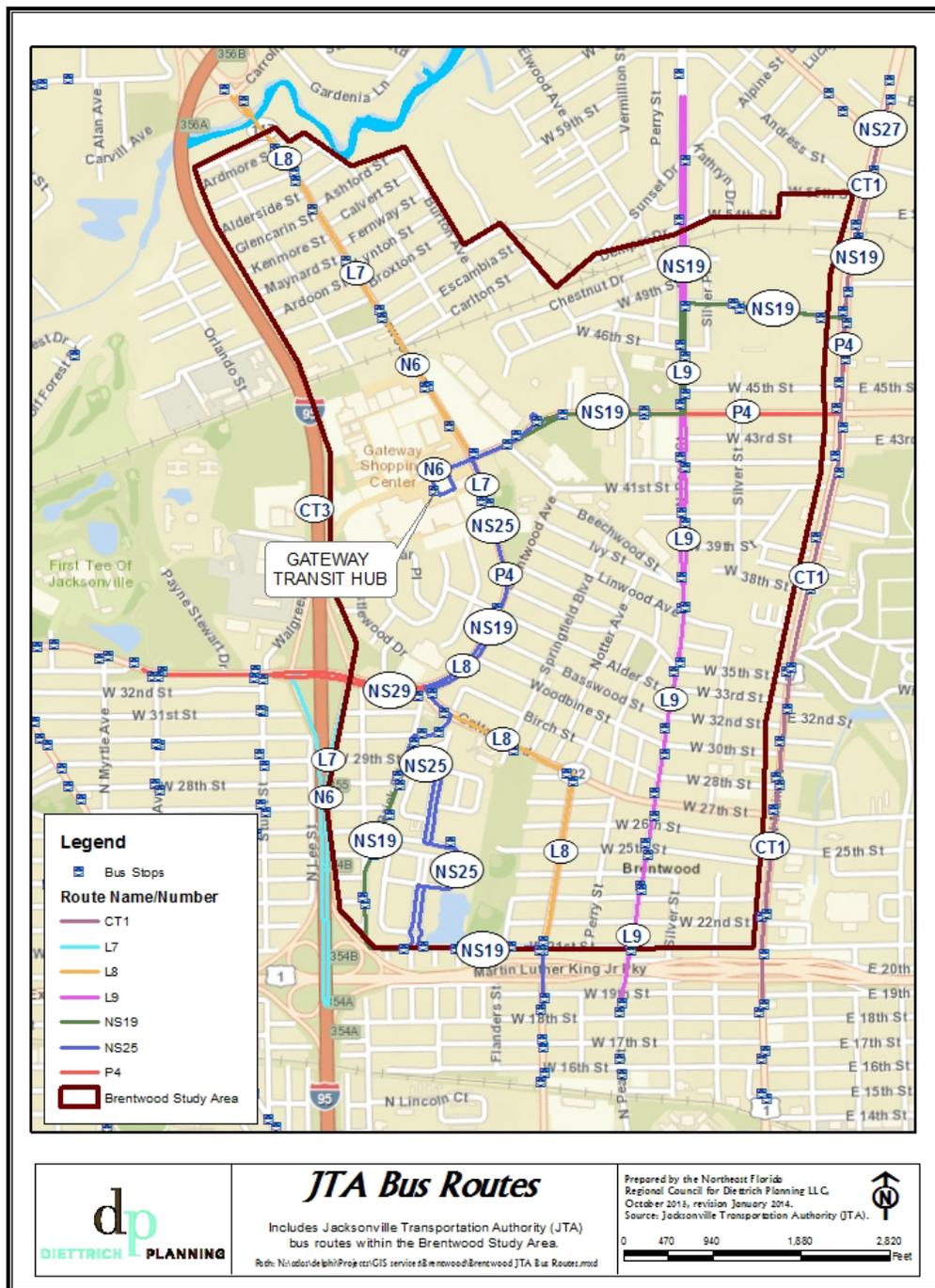
## Public Facilities

The area includes four community and neighborhood parks, distributed throughout each quadrant. The map includes ½-mile zones centered on each individual park to illustrate proximity to adjacent homes and parks. Overlap exists between park pairings, providing access to recreational opportunities.



### Transportation: Bus Routes

The Gateway Transit Hub, with seven individual routes, is located in Brentwood. The frequency of service varies by bus route: CT1- 20 minute peak/30 minute off peak, L7- 30 minute peak/60 minute off peak, L8- 30 minute peak/60 minute off peak, L9- 60 minutes all day, N6-45 minutes all day, NS19-65 minus all day, P4- 40 minute peak/60 minute off peak.

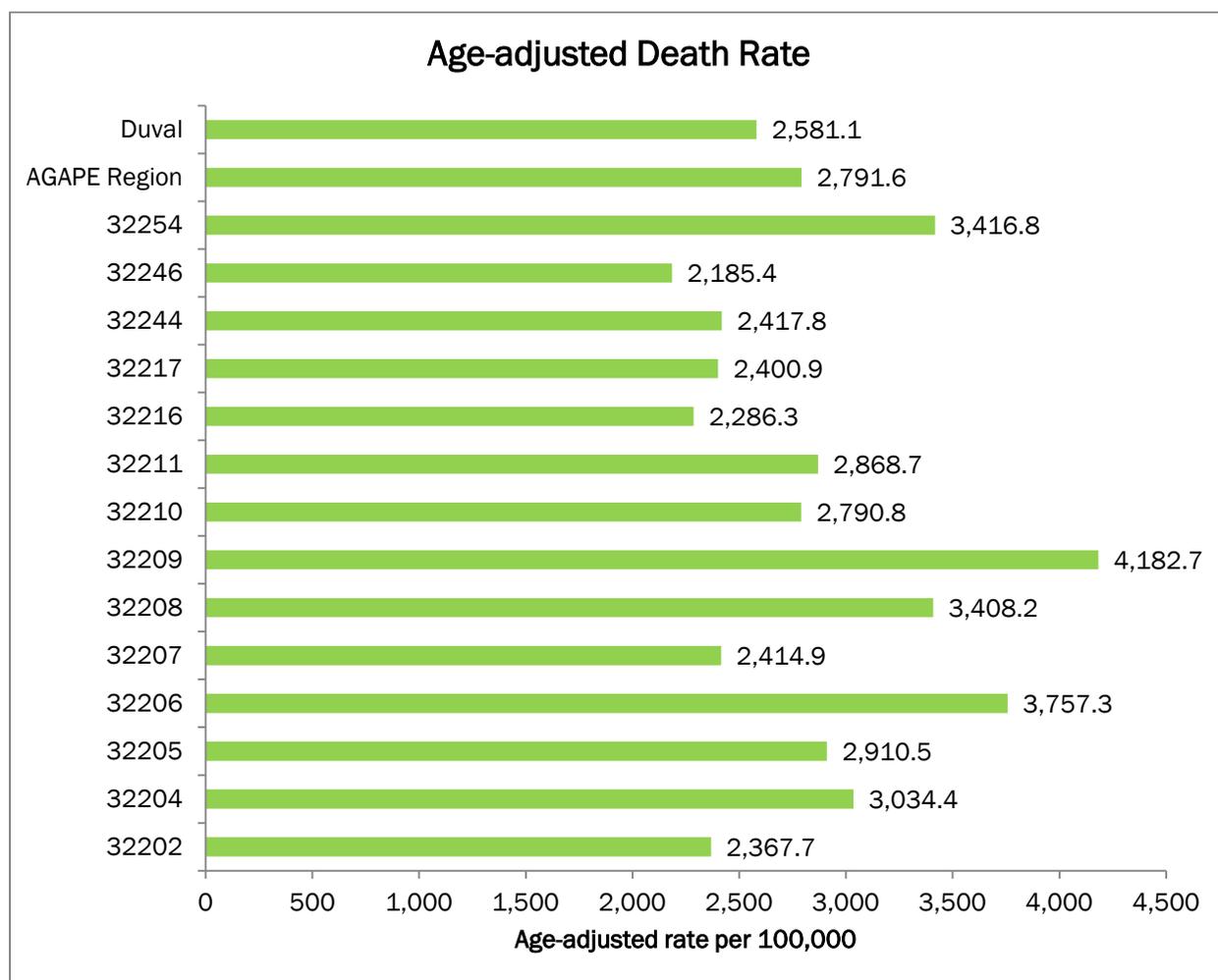


### 4.4 Health Indicators

The Health Planning Council of Northeast Florida completed a health profile of the Northwest Quadrant of Jacksonville. The Northwest Quadrant includes Health Zone 1, within which the Brentwood Neighborhood is located. Three of the fourteen zip codes assessed in the health profile cover the Brentwood Neighborhood: 32206, 32208, and 32209. NOTE: only a small portion of 32209 falls within the Brentwood Study Area.

The following chart series provides information for the Brentwood Study area zip codes (32206, 32208, and 32209) in comparison to the Northwest Quadrant, Duval (City of Jacksonville) and the Region or State, depending on the indicator. The charts address Chronic Diseases, beginning with an overview of the age-adjusted Death Rate.

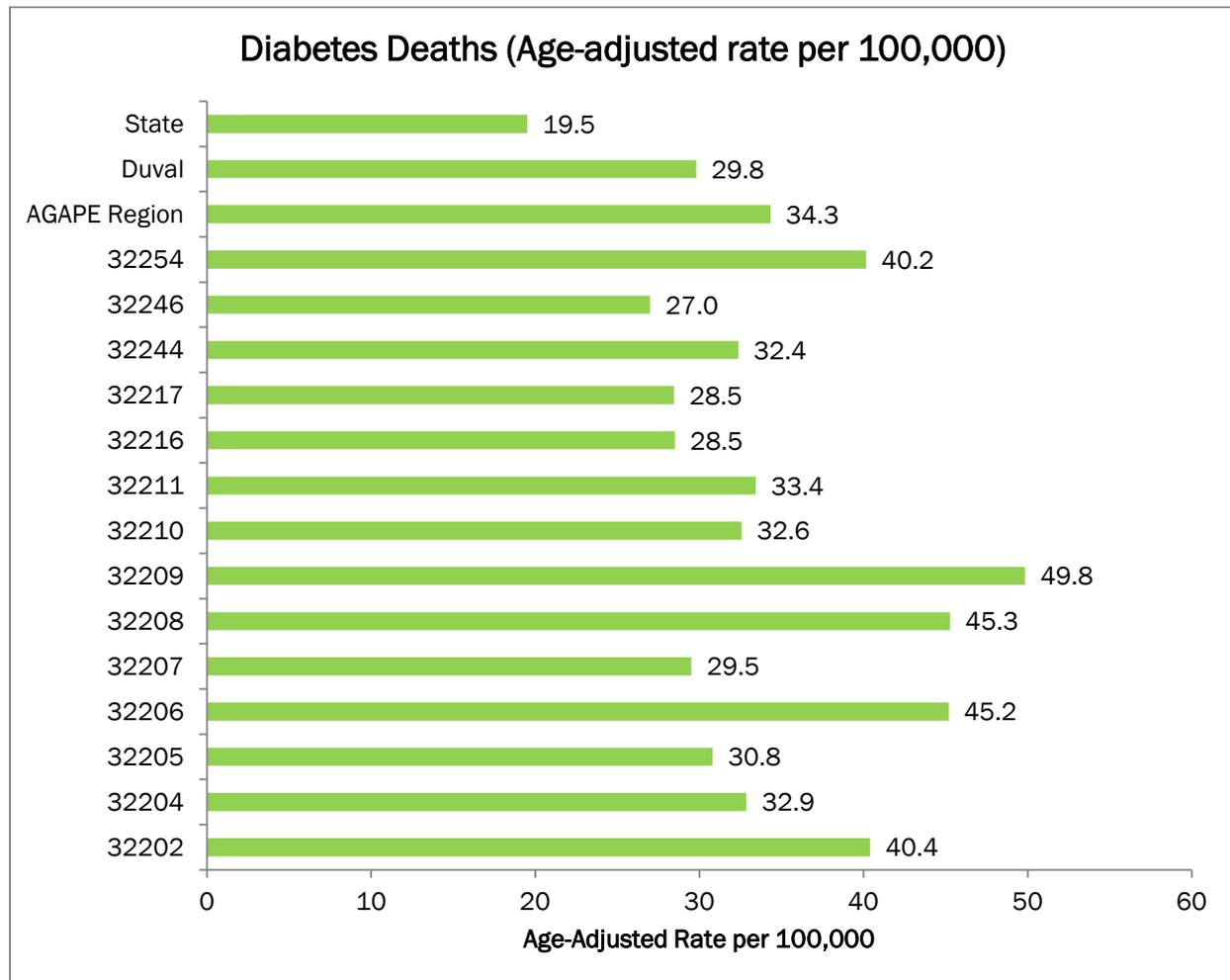
#### Chronic Diseases



Florida Community Health Assessment Resource Tool Set (CHARTS) (2009-2011)

The age-adjusted death rate was highest in 32209 (4,182.7). It seems as though race affects this indicator more than economic conditions, as 32209, the zip code with the highest death rate, was comprised of nearly all Black individuals. The NW Quadrant level (2,791.6) was higher than the county level (2581.1).

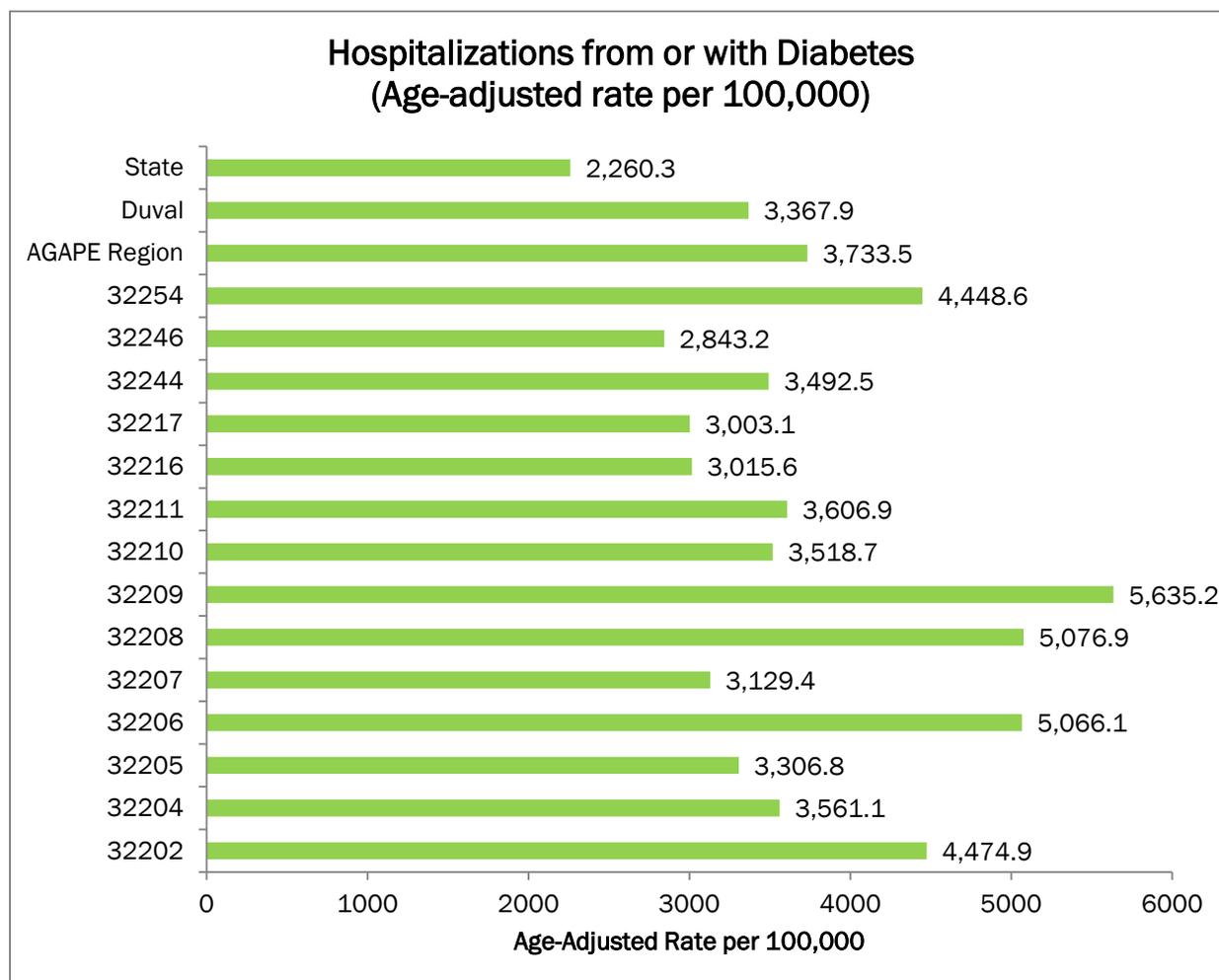
### Diabetes



Diabetes death rates (Florida and Duval): Florida CHARTS—Florida Department of Health, Bureau of Vital Statistics (2009-2011 3-Year Rolling Rate)

This data was extrapolated using rates stratified by race. The rate of diabetes deaths in the NW Quadrant (34.3) was higher than the county rate of 29.8 and more than 1.5 times the state level of 19.5. The rate in 32209 of 49.8 was the highest in the NW Quadrant.

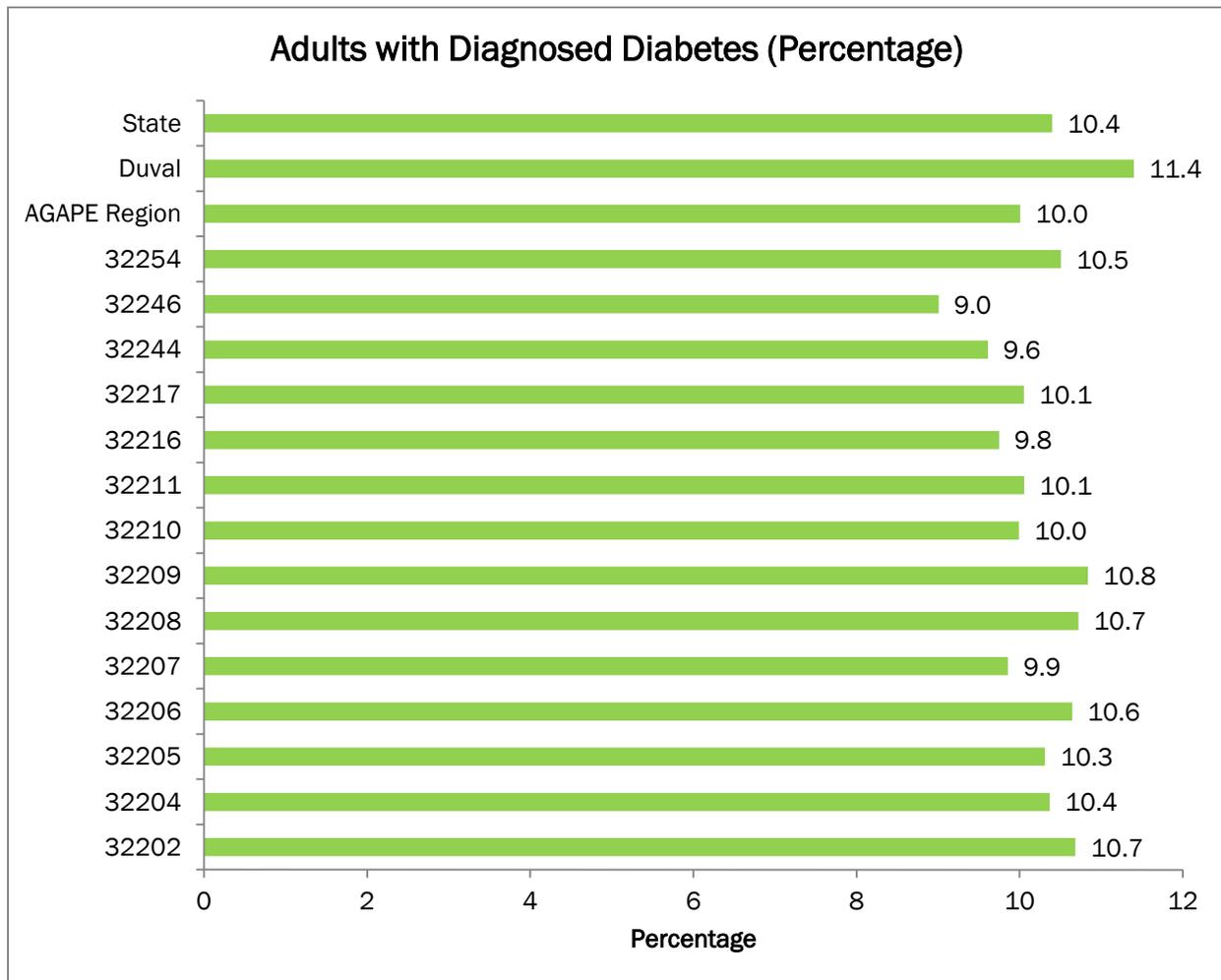
### Diabetes-Related Hospitalizations



Diabetes hospitalization rates (Florida and Duval): Florida CHARTS—Florida Agency for Health Care Administration (AHCA) (2009-2011 3-Year Rolling Rate)

This data was extrapolated using rates stratified by race. The number of hospitalizations from or with diabetes was higher in the NW Quadrant (3,733.5) than in Duval County as a whole (3,367.9) and the state (2,260.3). The rate was highest in 32209 (5,635.2) and was higher than 5,000 in 32208 and 32206 (5,076.9 and 5,066.1 respectively). Even the lowest value in the NW Quadrant was higher than the state level.

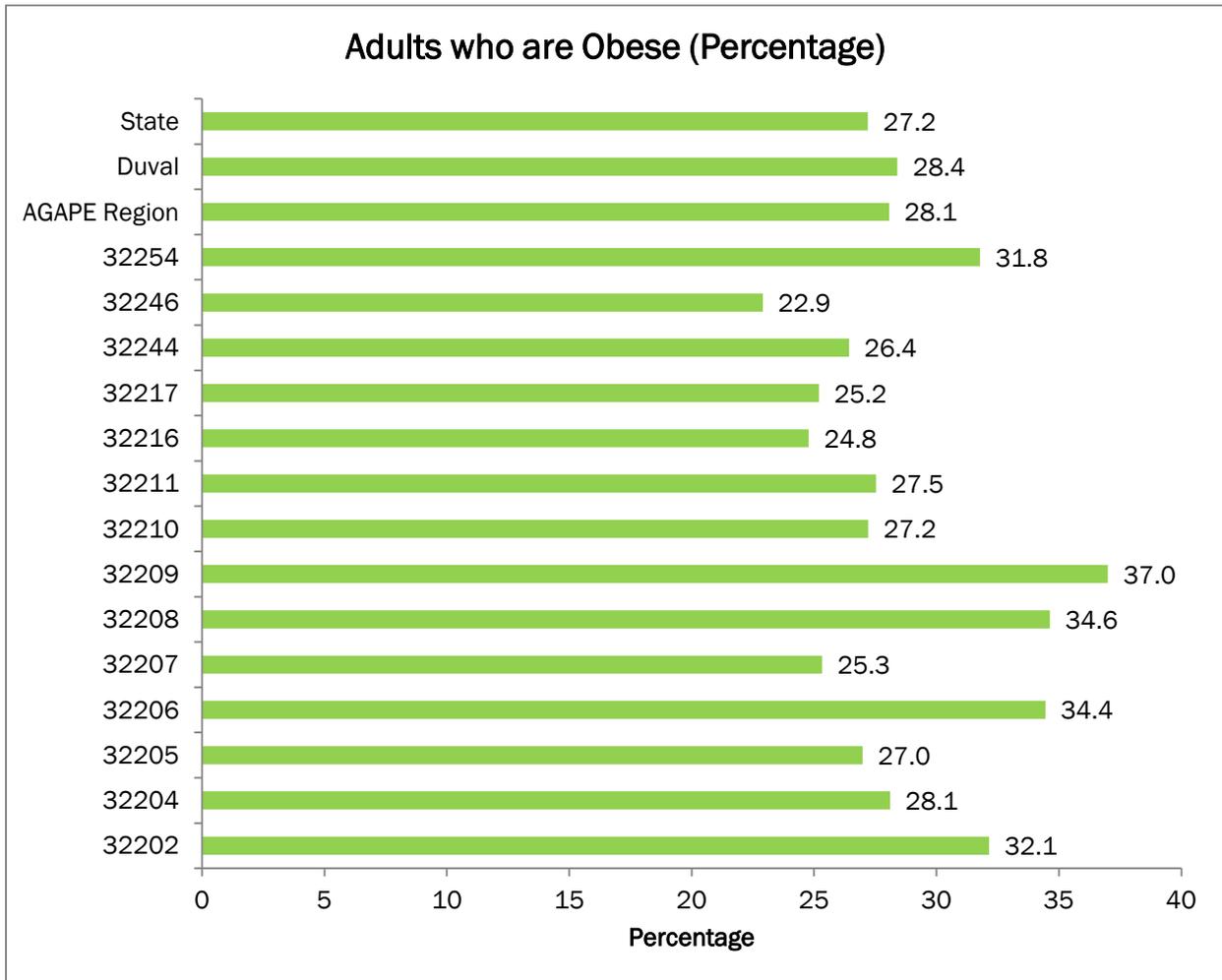
Adults with Diagnosed Diabetes (Percentage)



Adults with diagnosed diabetes percentages (Florida and Duval): Florida CHARTS—Florida County-level Behavioral Risk Factors Surveillance Telephone Survey conducted by the Florida Department of Health, Bureau of Epidemiology (2010)

This data was extrapolated using percentages stratified by race. Adults with diagnosed diabetes in the NW Quadrant (10.0%) were lower than both the county and state percentages (11.4% and 10.4% respectively). All of the zip codes in the NW Quadrant had levels within one percent of 10%, with a range from 9.0% in 32246 to 10.8% in 32209.

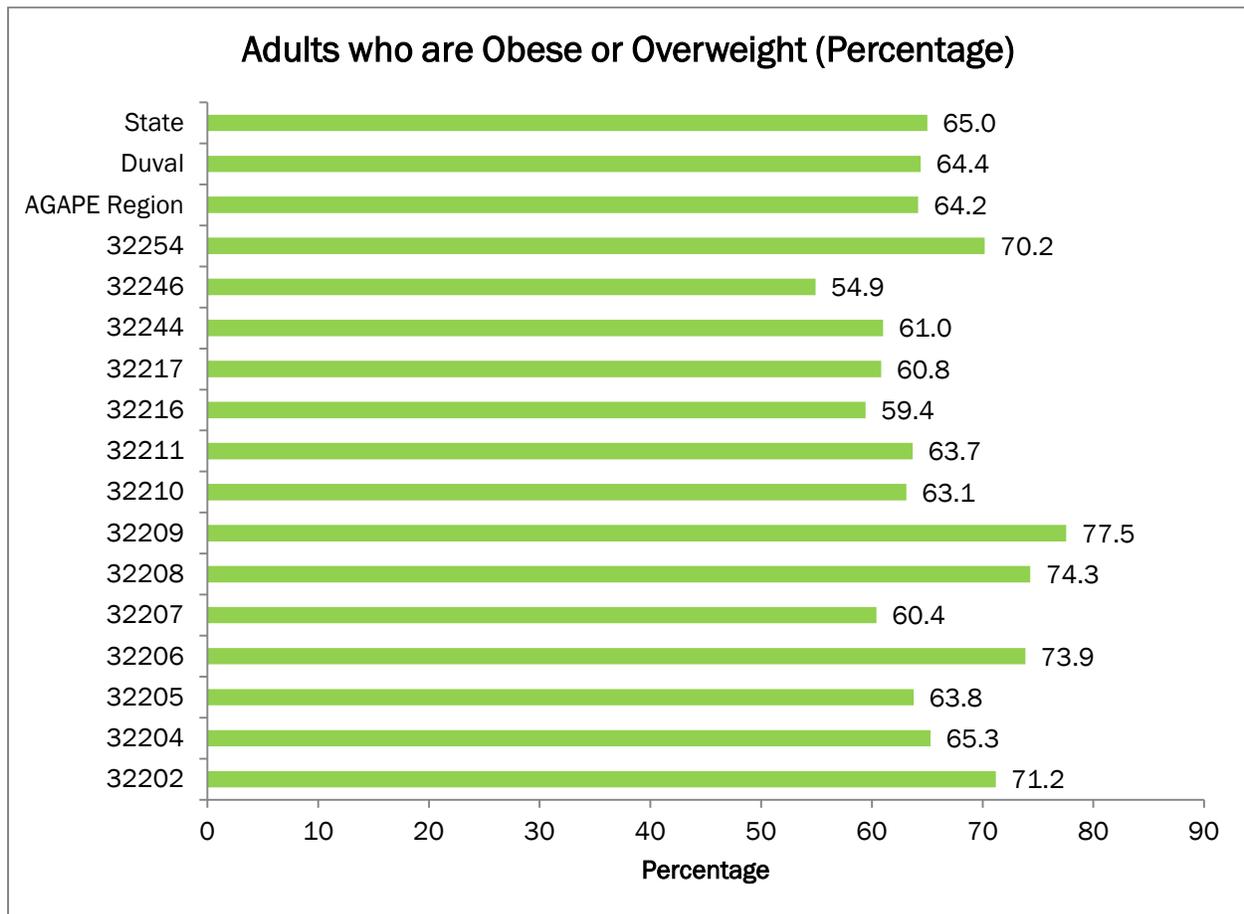
### Obesity



Obesity percentages (Florida and Duval): Florida CHARTS—Florida County-level Behavioral Risk Factors Surveillance Telephone Survey conducted by the Florida Department of Health, Bureau of Epidemiology (2010)

This data was extrapolated using percentages stratified by race. The zip code 32209 had the highest percentage at 37.0%, while 32246 had the lowest at 22.9%.

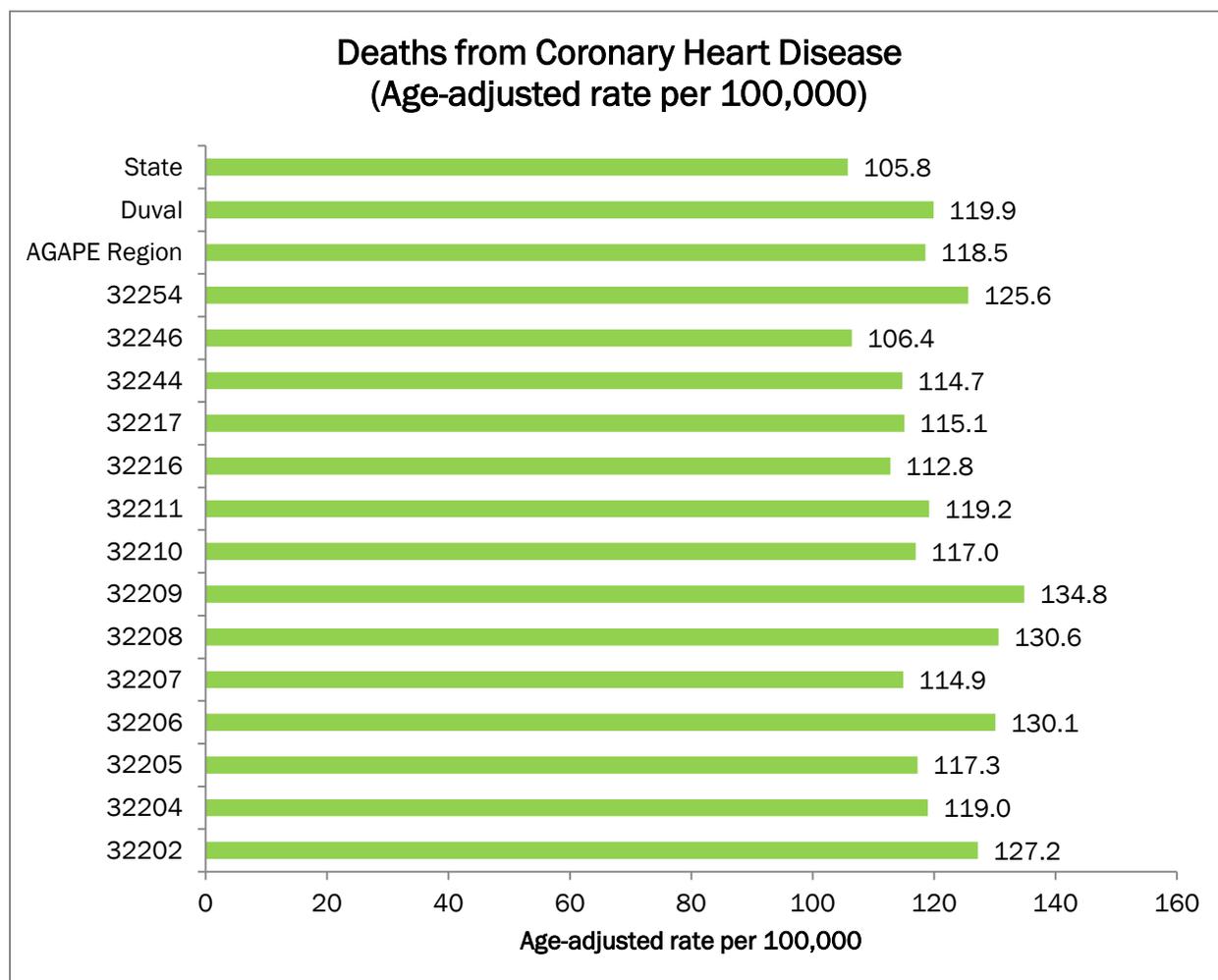
### Obesity (Percentage)



Obesity and overweight percentages (Florida and Duval): Florida CHARTS—Florida County-level Behavioral Risk Factors Surveillance Telephone Survey conducted by the Florida Department of Health, Bureau of Epidemiology (2010)

This data was extrapolated using percentages stratified by race. The combination of obesity and overweight indicators showed that many of the individuals who live in the NW Quadrant, Duval County, and the state of Florida did not have a healthy weight. 32209 had the highest level, with more than three quarters of its residents qualifying as overweight or obese (77.5%). Even the zip code with the lowest level, 32246 at 54.9%, saw more than half of its residents with an unhealthy weight.

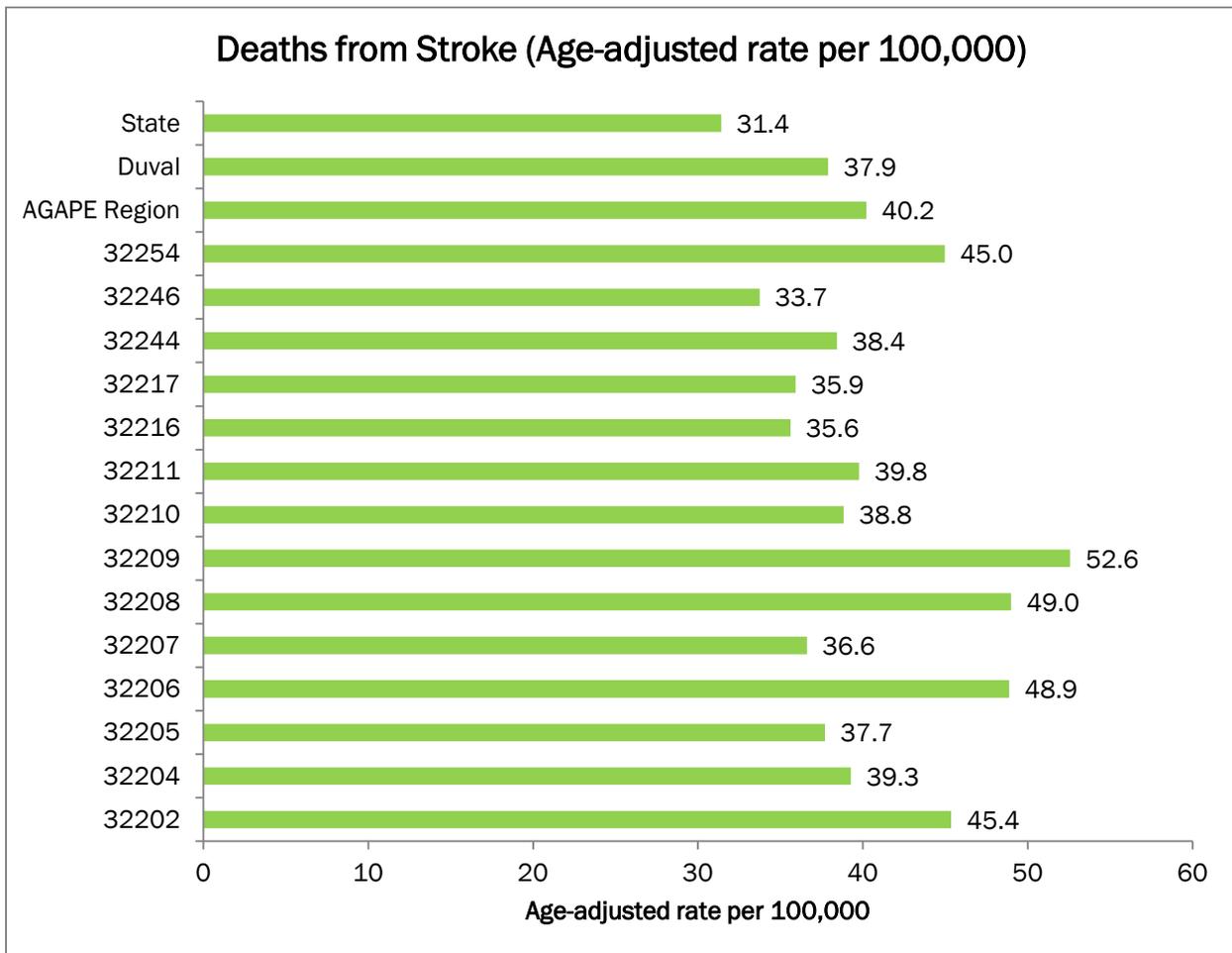
### Cardiovascular Disease



Coronary Heart Disease Rates (Florida and Duval): Florida CHARTS—Florida Department of Health, Bureau of Vital Statistics (2009-2011)

This data was extrapolated using rates stratified by race. Deaths from coronary heart disease in the NW Quadrant (118.5) and Duval County (119.9) were higher than the state average of 105.8. The zip code 32209 saw the highest rate at 134.8. Additionally, 32206 and 32208 sat above the rate of 130.0 deaths per 100,000 (130.1 and 130.6 respectively). As the zip code closest to the state average, 32246 saw the lowest rate at 106.4.

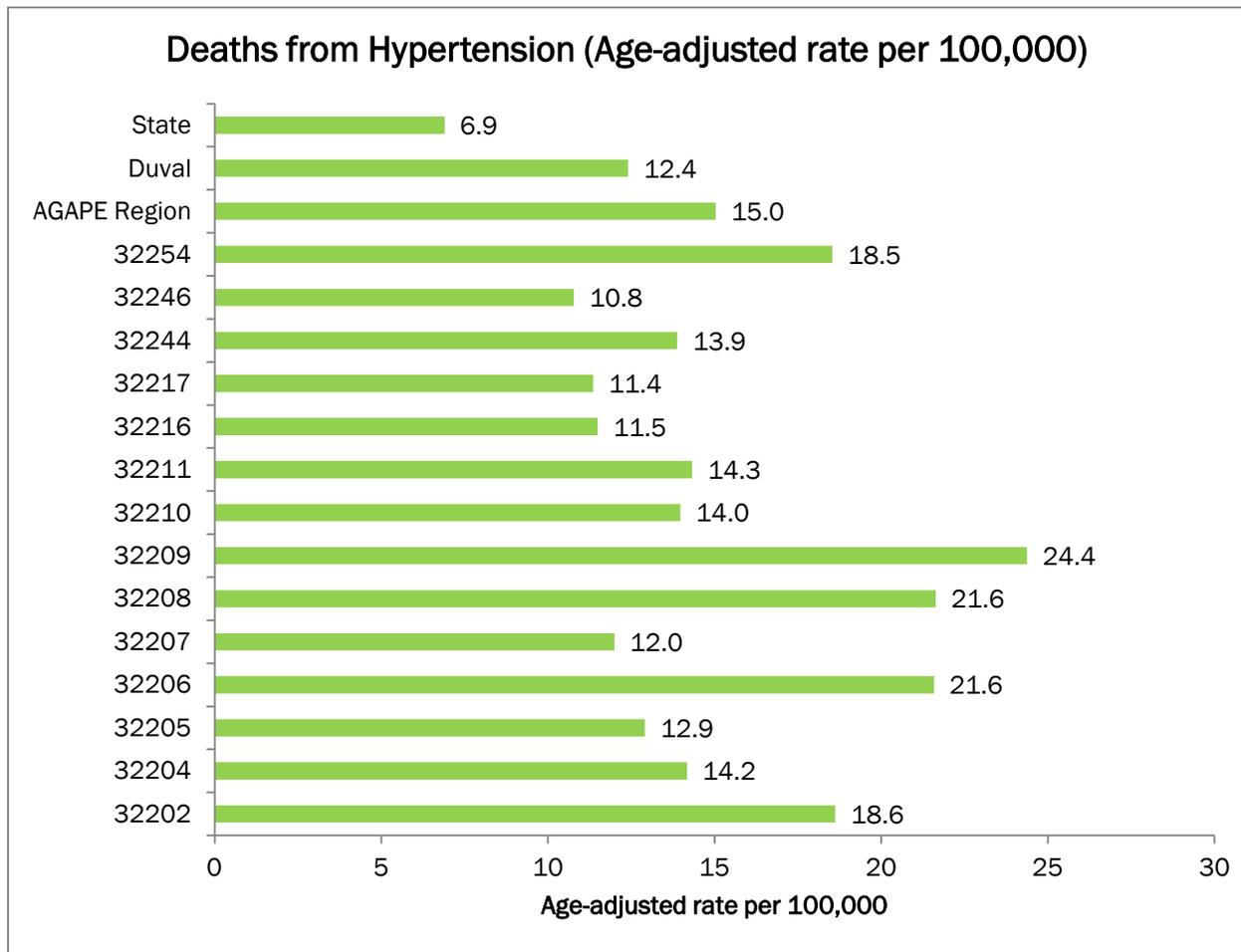
Stroke



Stroke Rates (Florida and Duval): Florida CHARTS—Florida Department of Health, Bureau of Vital Statistics (2009-2011)

This data was extrapolated using rates stratified by race. Deaths from stroke were higher in the NW Quadrant (40.2) than the county level of 37.9 and the state level of 31.4. 32209 had the highest rate at 52.6 and 32246 had the lowest rate at 33.7.

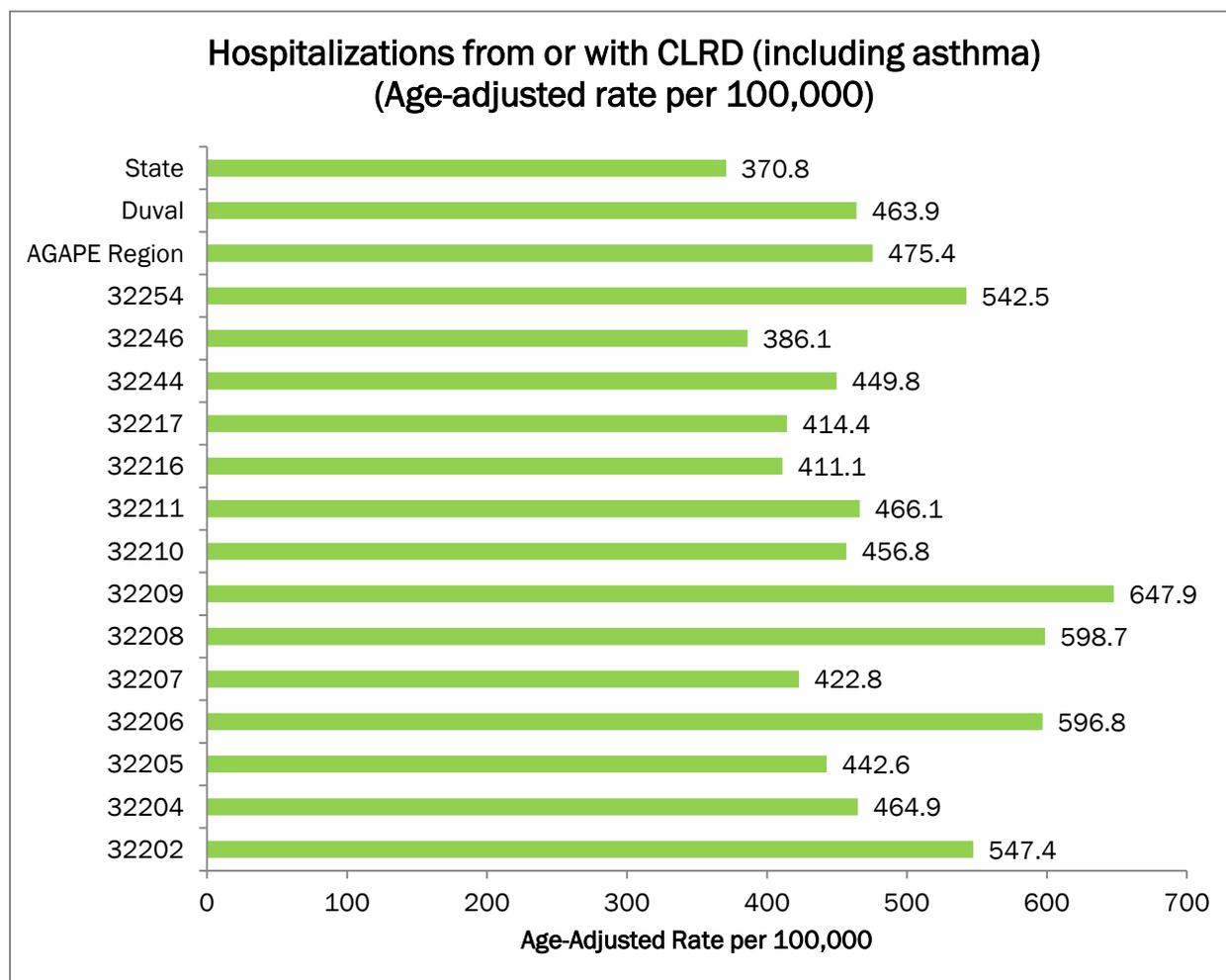
### Hypertension



Hypertension Rates (Florida and Duval): Florida CHARTS—Florida Department of Health, Bureau of Vital Statistics (2009-2011)

This data was extrapolated using rates stratified by race. Hypertension death rates were much higher than the state level of 6.9 across the NW Quadrant. The average of these 14 zip codes was 15.0, more than double the state level and higher than the Duval County level (12.4). The zip code 32209 had the highest level (24.4), nearly double the county level. Even the zip code with the lowest rate, 32246 with 10.8, was higher than the state level.

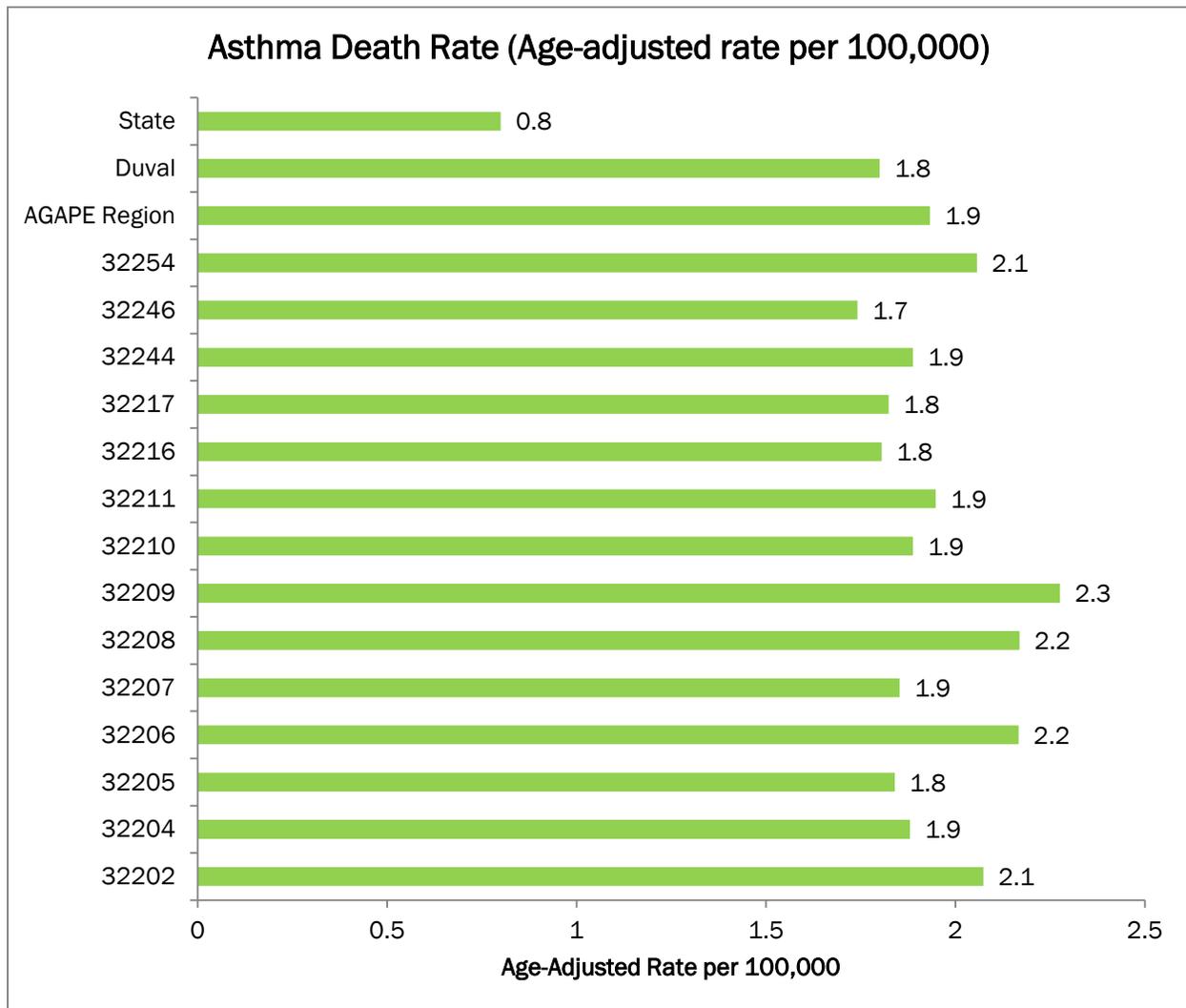
### Respiratory Disease



CLRD Hospitalization Rates (Florida and Duval): Florida CHARTS—Florida Agency for Health Care Administration (AHCA) (2009-2011)

This data was extrapolated using rates stratified by race. Hospitalizations from or with chronic lower respiratory diseases (CLRD—including asthma) were much higher in the NW Quadrant (475.4) and Duval County (463.9) as a whole than the state average (370.8). The zip code 32209 was the only zip code with a hospitalization rate over 600.0 (647.9). On the other hand, 32246 had the lowest hospitalization rate at 386.1, a rate still higher than the state average.

### Asthma Death Rate

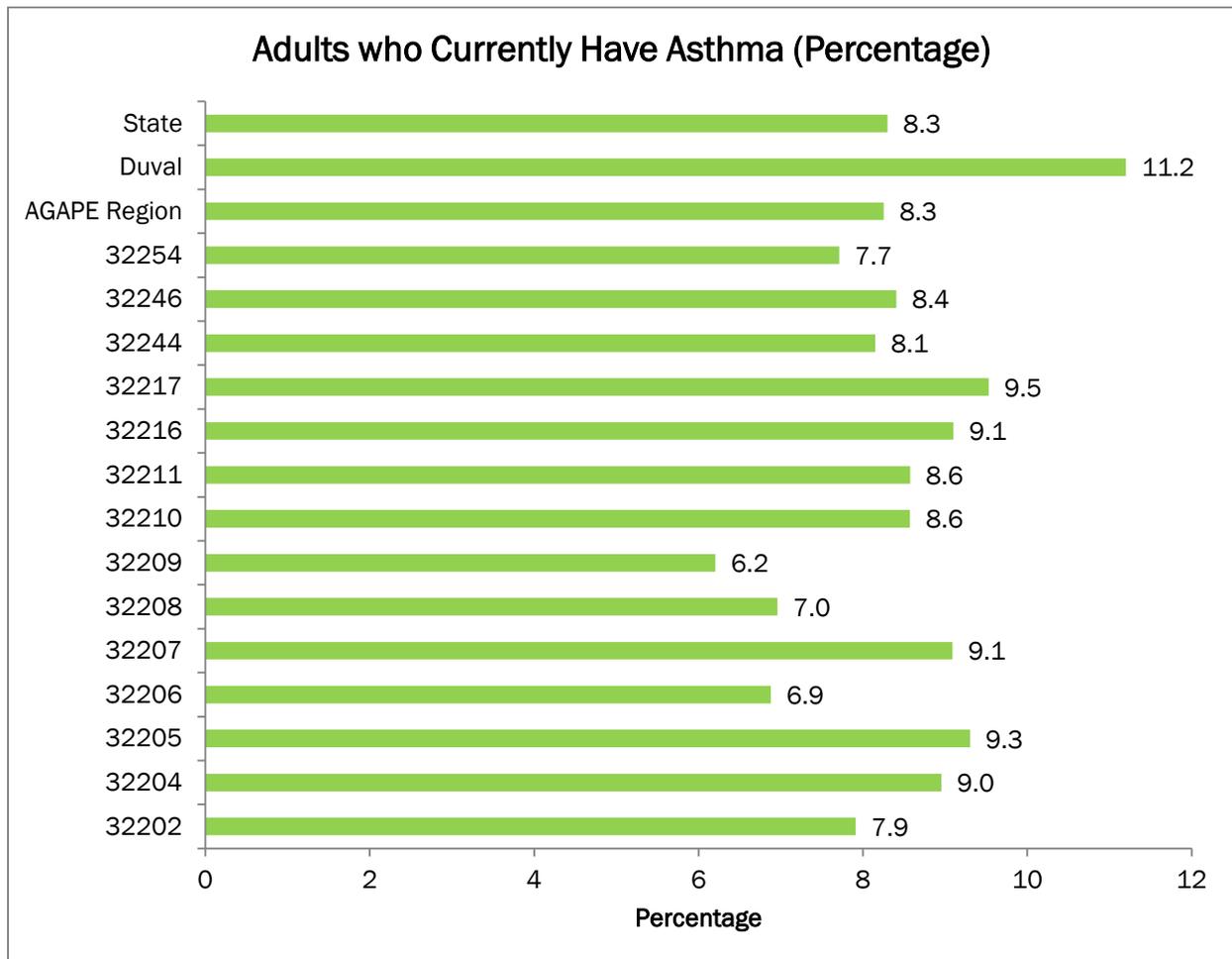


Asthma Rates (Florida and Duval): Florida CHARTS— Florida Department of Health, Bureau of Vital Statistics (2009-2011)

This data was extrapolated using rates stratified by race. The difference in the asthma death rate across zip codes was very small (range=0.6 deaths per 100,000). However, Duval County, the NW Quadrant, and all of its zip codes were more than double the state level of 0.8.

Note: because these values are so small, differences may appear more significant than they actually are.

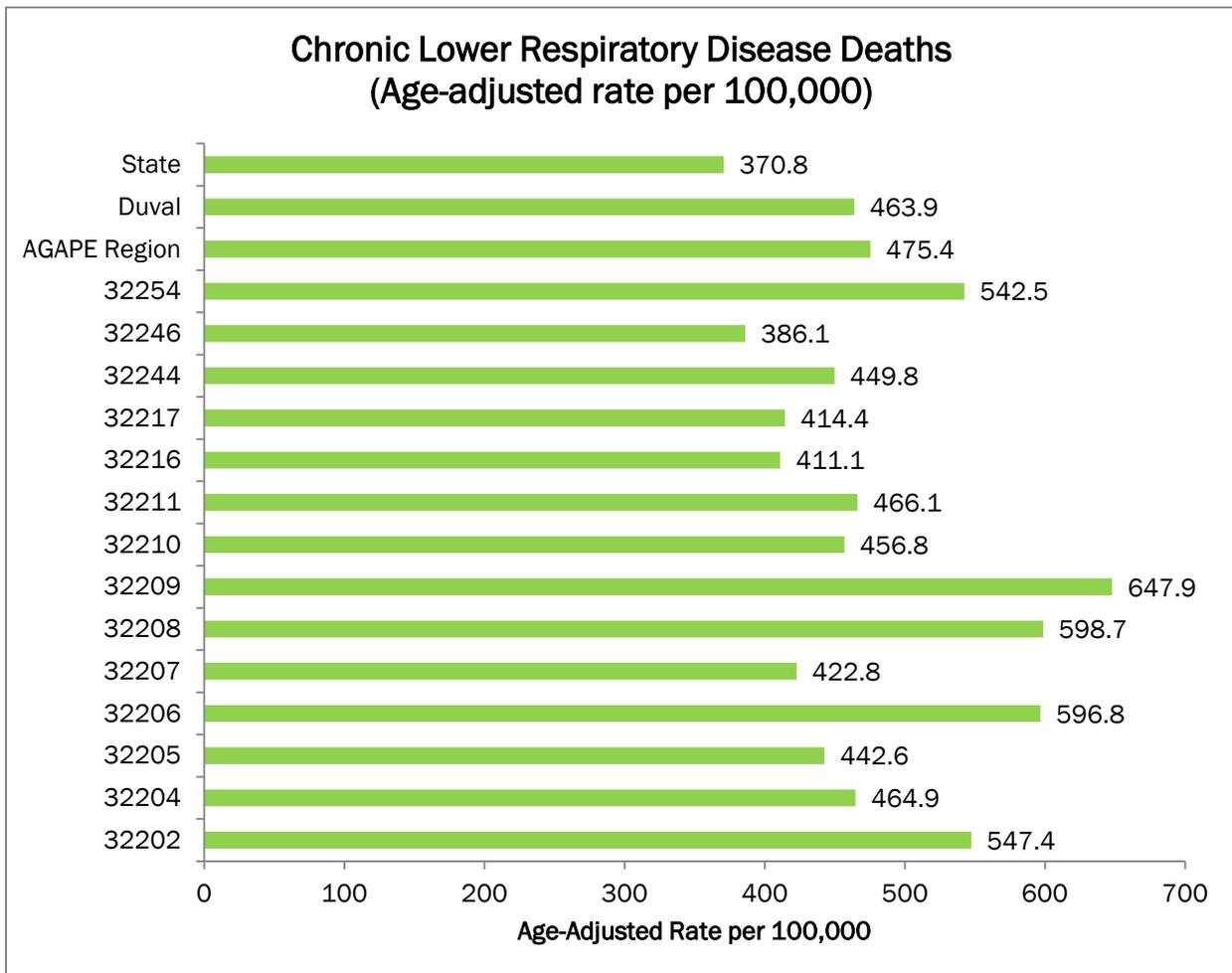
Adult Asthma (Percentage)



Adults with diagnosed asthma percentages (Florida and Duval): Florida CHARTS—Florida County-level Behavioral Risk Factors Surveillance Telephone Survey conducted by the Florida Department of Health, Bureau of Epidemiology (2010)

This data was extrapolated using percentages stratified by race. The percentage of adults who currently have asthma was higher in Duval County (11.2) than the state average or the NW Quadrant (both 8.3). The zip code 32217 saw the highest level of adults with asthma at 9.5, while 32209 had the lowest level at 6.2. 32205, 32207, and 32216 were also above 9.0 (9.3, 9.1, and 9.1 respectively).

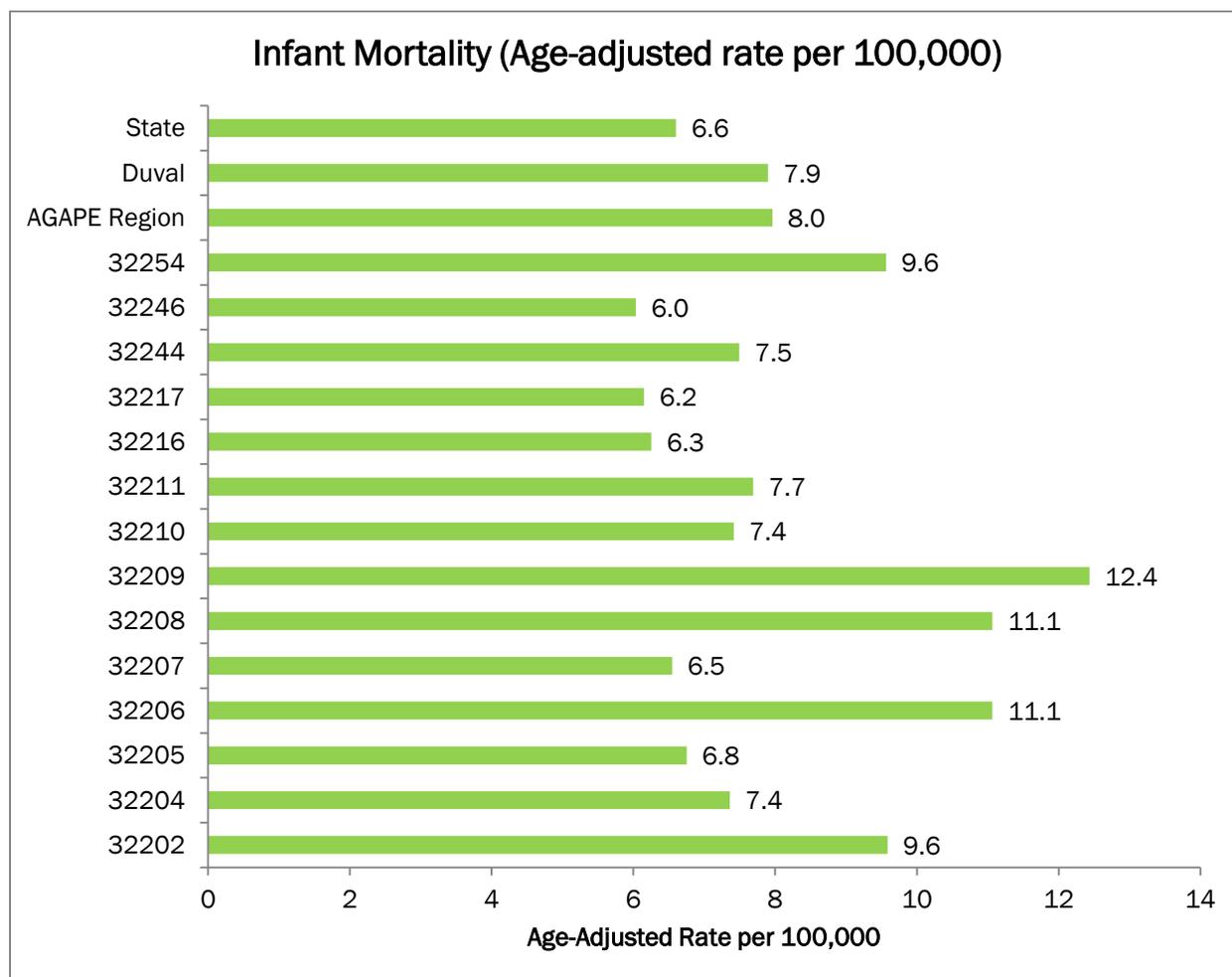
### Chronic Lower Respiratory Disease



CLRD Rates (Florida and Duval): Florida CHARTS— Florida Department of Health, Bureau of Vital Statistics (2009-2011)

This data was extrapolated using rates stratified by race. Deaths from chronic lower respiratory disease were much higher in Duval County (463.9) and the 14-zip code NW Quadrant (475.4) than the state level of 370.8. The zip code 32209 saw the highest death rate at 647.9, while 32246 saw the lowest death rate at 386.1.

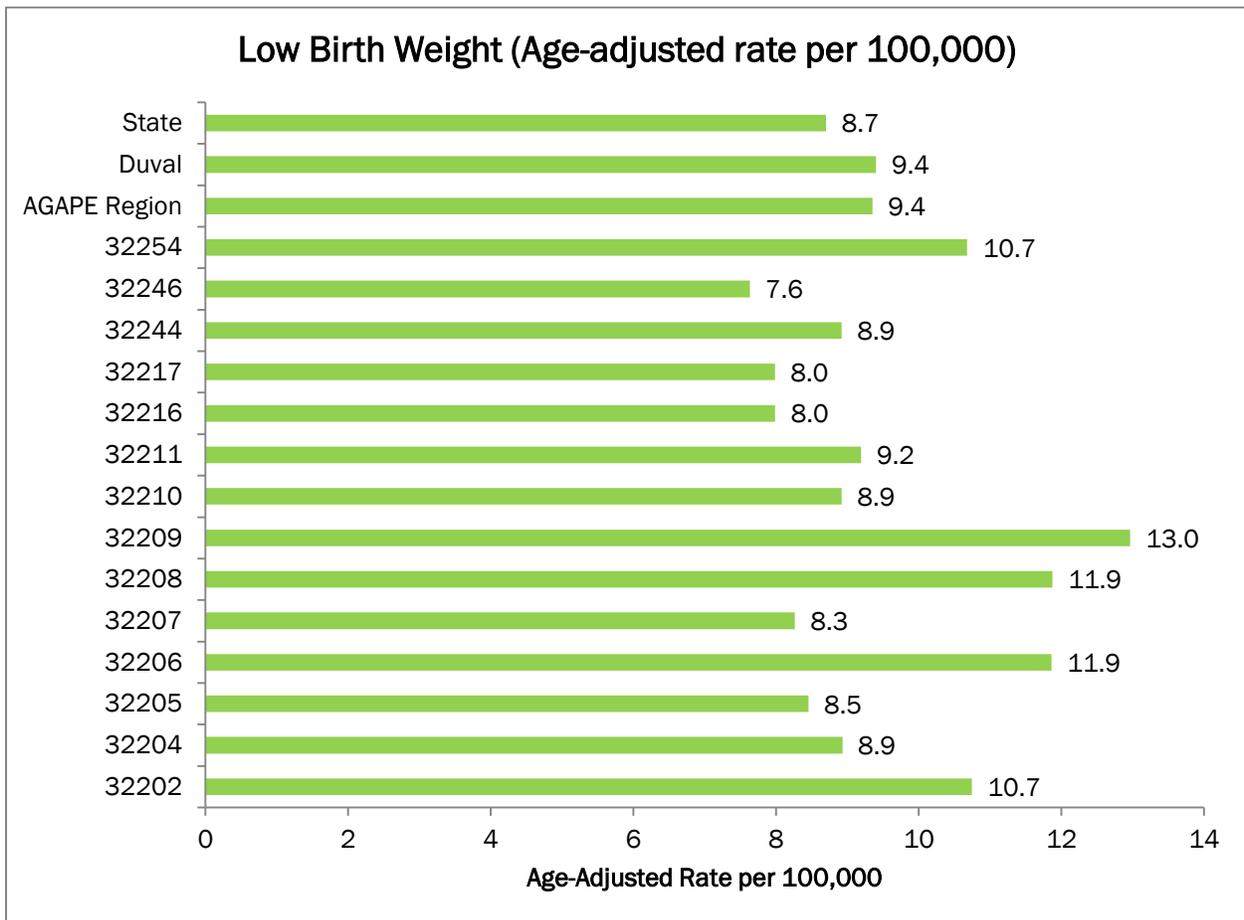
### Prenatal & Perinatal Infant Mortality



Infant Mortality Rates (Florida and Duval): Florida CHARTS— Florida Department of Health, Bureau of Vital Statistics (2009-2011)

This data was extrapolated using rates stratified by race. Infant mortality was higher in Duval County (7.9) and the NW Quadrant (8.0) than the state level of 6.6. The zip code 32209 saw the highest death rate at 12.4, nearly double the state level, while 32246 saw the lowest mortality rate at 6.0.

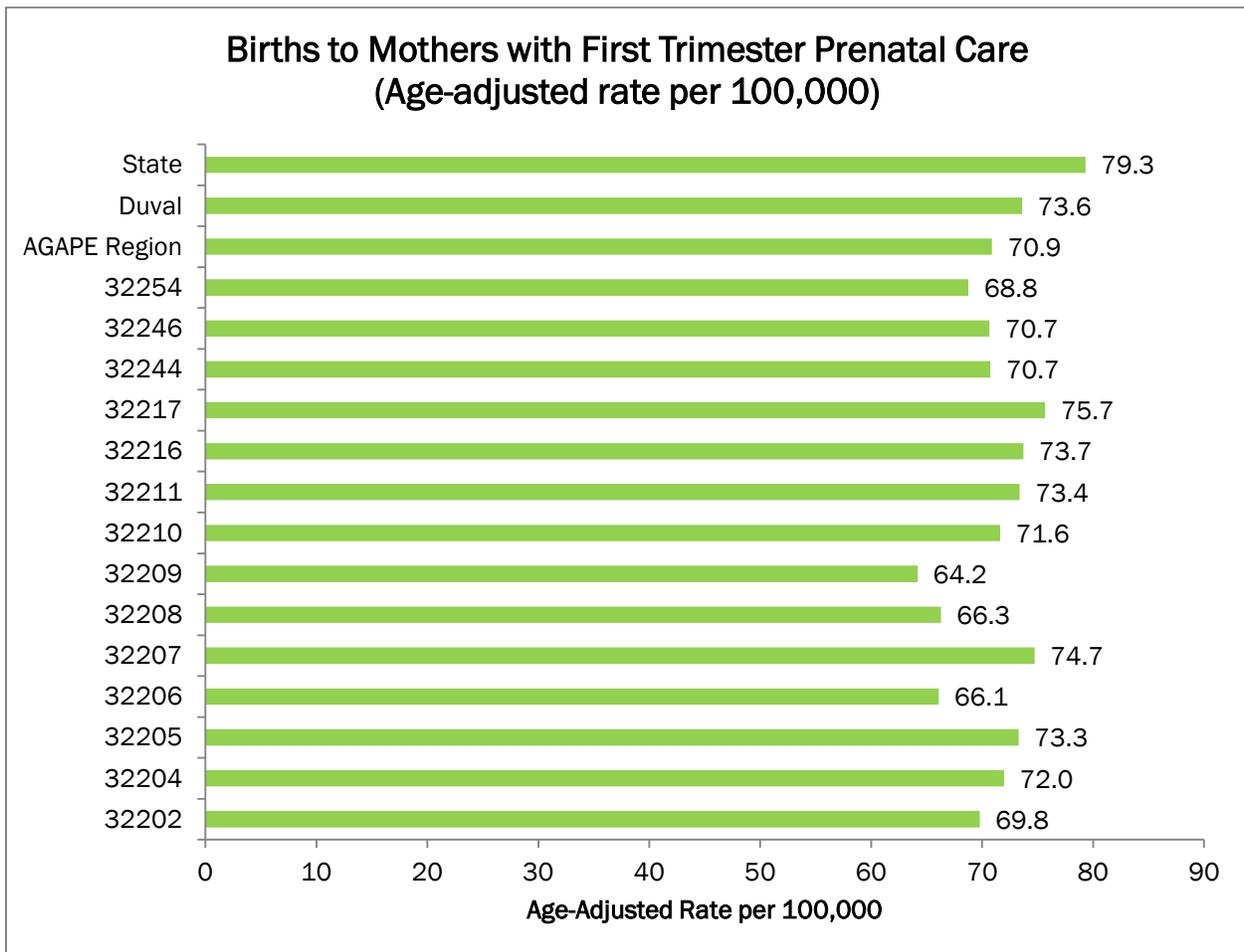
### Low Birth Weight



Low Birth Weight Rates (Florida and Duval): Florida CHARTS— Florida Department of Health, Bureau of Vital Statistics (2009-2011)

This data was extrapolated using rates stratified by race. Both Duval County and the NW Quadrant saw rates of 9.4, slightly higher than the state level of 8.7. The zip code 32246 had the lowest rate (7.6) while 32209 had the highest rate (13.0). Additionally, both 32206 and 32208 had rates of nearly 12 (11.9).

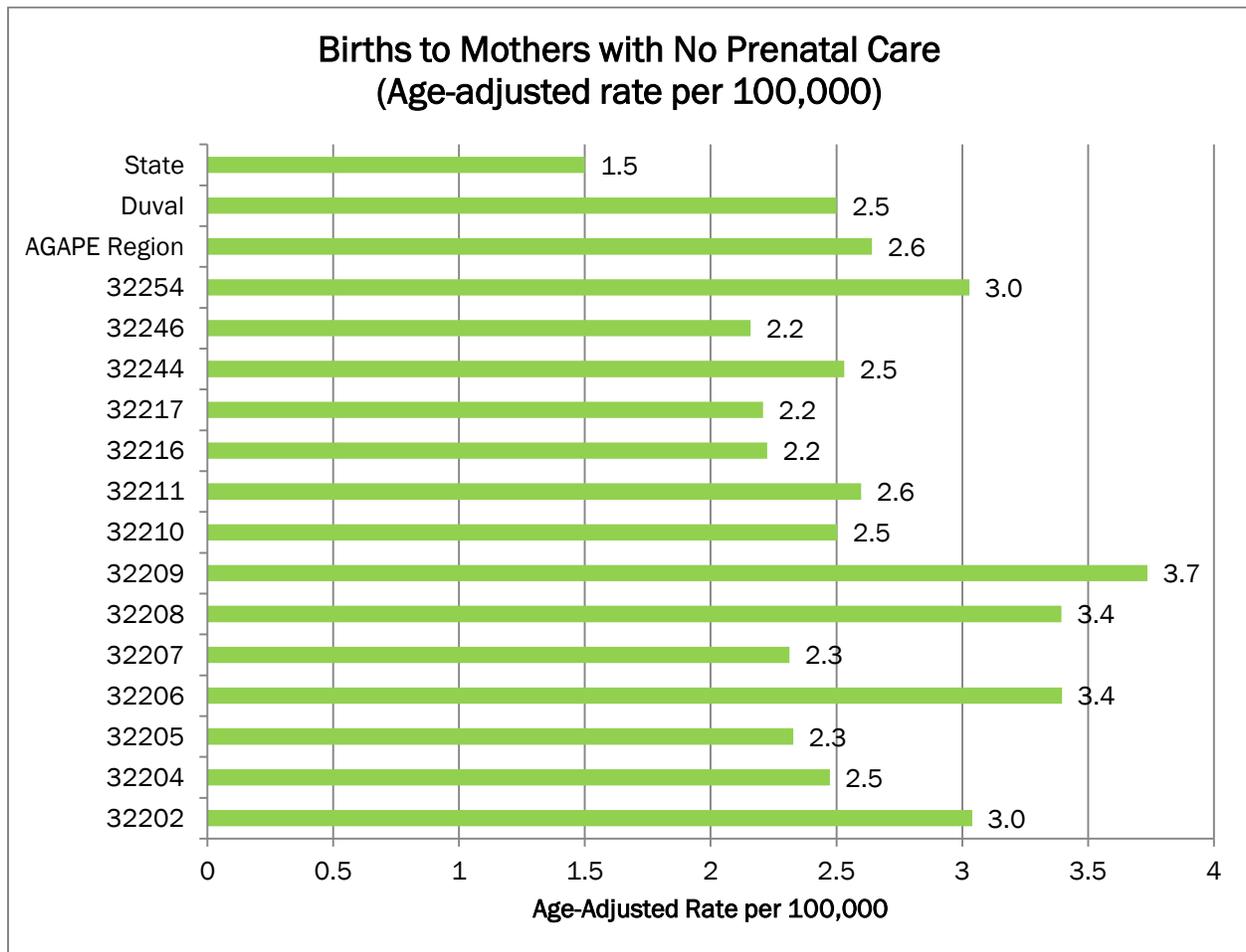
### First Trimester Prenatal Care



Prenatal Care Rates (Florida and Duval): Florida CHARTS— Florida Department of Health, Bureau of Vital Statistics (2009-2011)

This data was extrapolated using rates stratified by race. Mothers in the NW Quadrant (70.9) were less likely to have first trimester prenatal care than those in Duval County (73.6) or the state as a whole (79.3). The zip code 32209 saw the lowest rate at 64.2, while 32217 had the highest level at 75.7.

Births to Mothers with No Prenatal Care

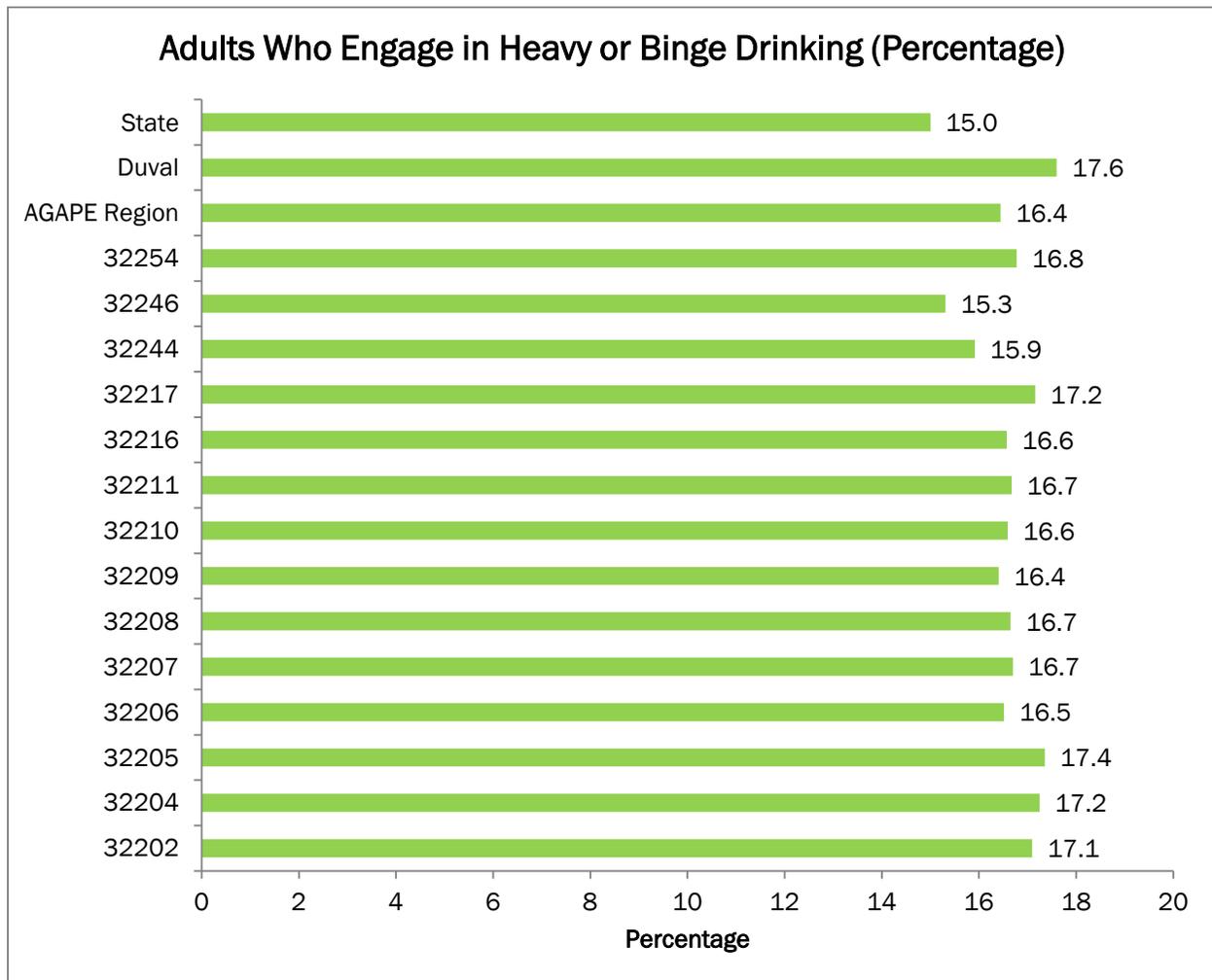


Prenatal Care Rates (Florida and Duval): Florida CHARTS— Florida Department of Health, Bureau of Vital Statistics (2009-2011)

This data was extrapolated using rates stratified by race. The rate of births to mothers with no prenatal care was higher in the NW Quadrant (2.6) and Duval County (2.5) than the state level of 1.5. 32209 saw the highest rate at 3.7, while 32216, 32217, and 32246 all had the rate of 2.2, the lowest of the zip codes evaluated.

Note: Because the scale of this data is so small, difference in rates may appear to be more significant than they are.

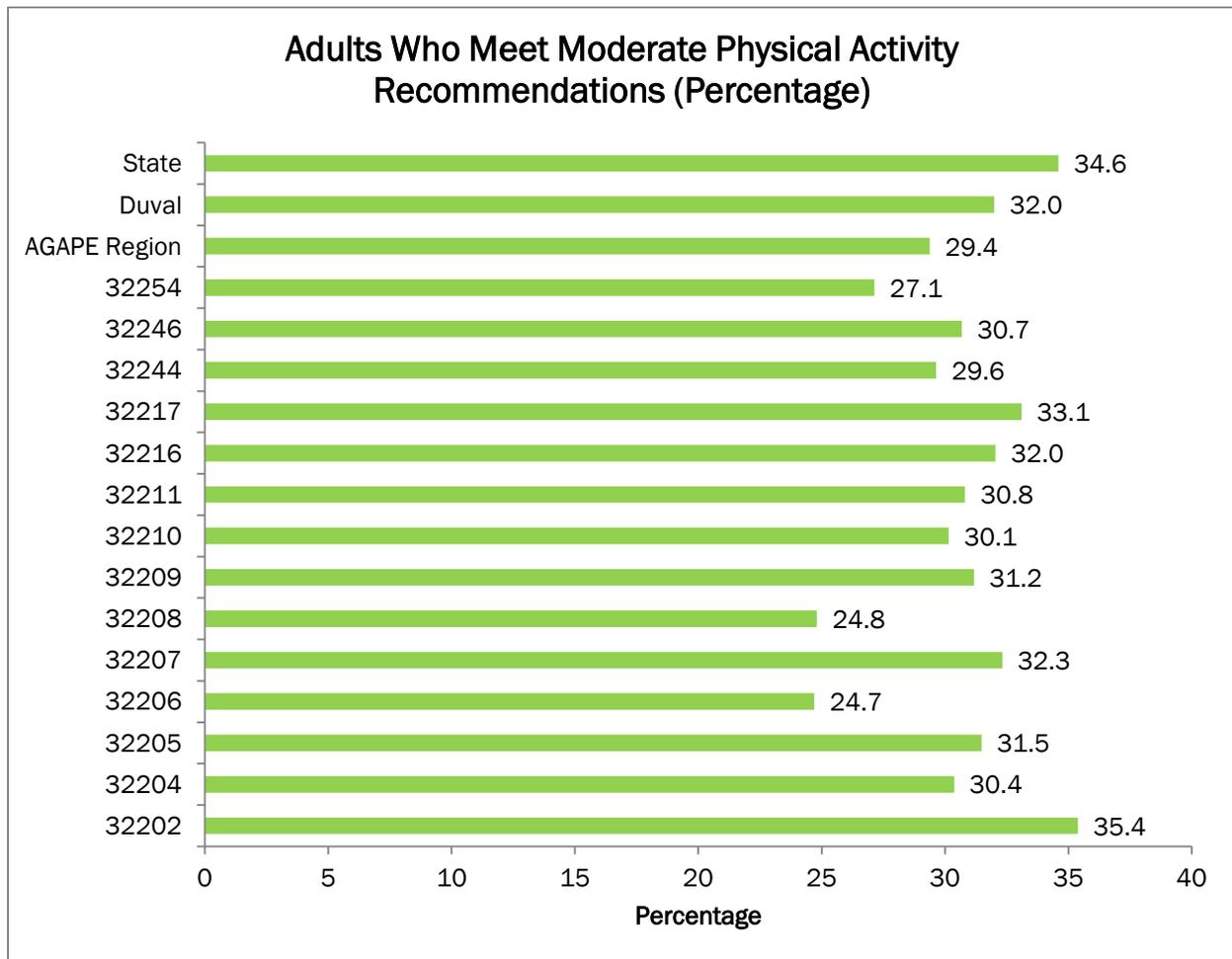
Mental Health, Substance Abuse, & Behavioral Health



Binge drinking percentages (Florida and Duval): Florida CHARTS—Florida County-level Behavioral Risk Factors Surveillance Telephone Survey conducted by the Florida Department of Health, Bureau of Epidemiology (2007)

This data was extrapolated using percentages stratified by race. The percentage of adults who engage in heavy or binge drinking was higher at the county level (17.6%) than the NW Quadrant and the state levels (16.4% and 15.0% respectively). Within the NW Quadrant, binge drinking percentages did not vary much, with a range of 2.1%, the lowest level occurring in 32246 (15.3%) and the highest in 32205 (17.4%).

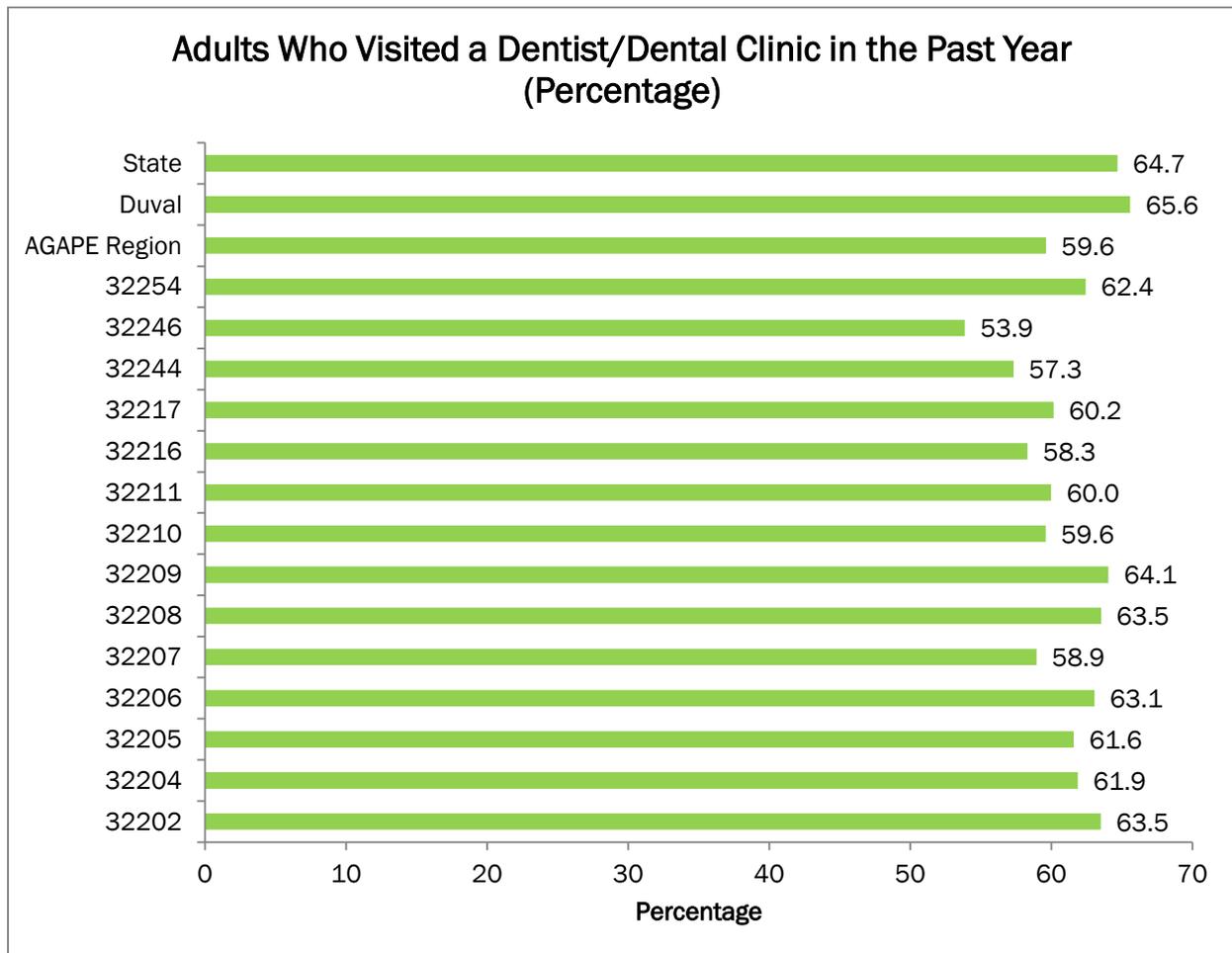
### Moderate Physical Activity



Physical activity percentages (Florida and Duval): Florida CHARTS—Florida County-level Behavioral Risk Factors Surveillance Telephone Survey conducted by the Florida Department of Health, Bureau of Epidemiology (2007)

This data was extrapolated using percentages stratified by race. In reference to adults who meet moderate physical activity recommendations, the state level of 34.6% is higher than the county percentage (32.0%) and the NW Quadrant (29.4%). The least active residents appear to live in 32206 and 32208 (24.7% and 24.8% respectively). Those in 32202, however, met the physical activity recommendations most often (35.4% of the time).

### Oral Health



Florida County-level Behavioral Risk Factors Surveillance Telephone Survey conducted by the Florida Department of Health, Bureau of Epidemiology (2010)

This data was extrapolated using percentages stratified by race. The percentage of people who visited the dentist in the past year was higher in Duval County (65.6%) than the state (64.7%) and the NW Quadrant (59.6%). 53.9% of residents in 32246 went to the dentist in the past year, while 64.1% of 32209 residents did the same.

## 4.5 Meeting Observations

The primary goals of our interview processes were to first, better understand the Zoning Code classifications, regulations and applications; secondly, to gather information about aspects of the Zoning Code that this HIA is considering for recommendations to change relevant to healthy community planning; thirdly, to determine where these changes might occur; and fourthly, to better understand possible unintended consequences of proposing changes to the Zoning Code.

Interviewed participants were identified from among those professionals with current involvement in the Zoning Code (such as the planners and consultants who utilize and manage the Zoning Code and/or submit zoning applications; those who would likely have a future role in approving the code (Planning Commission, Land Use and Zoning Committee, and City Council); those who would be charged with implementing and enforcing the code (Planning and Development Department, Planning Commission, Land Use and Zoning Committee, and City Council), and those other stakeholders who could provide perspectives on the impacts of the code such as: Citizens Planning Advisory Committees, grassroots organizations, developers, attorneys, architects and engineers.

A public meeting was held in cooperation with *The War on Poverty* organization to kick off the project. Karen Landry, the Executive Director of War on Poverty introduced everyone and then the Health Planning Council of Northeast Florida gave an overview of the *Embrace a Healthy Florida Initiative*. Then Dan Burden, walkability guru and founder of the *Walkable and Livable Communities Institute*, gave a presentation on *Healthy Community Design* and then took all the participants on a walking audit of Brentwood.

### Walking Audit

A walking audit is an assessment of the walkability or pedestrian access of an external environment. Walking audits are often undertaken in street environments to consider and promote the needs of pedestrians as a form of transport. They can be undertaken by a range of different stakeholders including: local community groups, transportation planners and engineers, urban designers, local police officers, and local politicians. Walking audits often collect both quantitative and qualitative data on the walking environment. Approximately 40 participants started walking from the office of *War on Poverty* and traversed the activity nodes, such as Gateway Shopping Center, down Norwood Avenue, through the southern portion of Brentwood by Brentwood Elementary School, Catherine Hester McNair Park, Brentwood McNair Villas, Brentwood Lakes Apartments, along 21st Street, Pearl Street, Main Street and Golfair Boulevard. The major concern that was identified by the participants was crime and safety. The Brentwood Community is a highly active pedestrian neighborhood with many of its residents using public transportation or walking as a sole means of getting to their neighborhood services, work, and school. The recommendations that came out of the walking audit are as follows:

- At the western end of 21<sup>st</sup> Street where it curves north bound to become Davis Street, the turn is dangerous not only for vehicles but for pedestrians and bicyclists. A roundabout at this bend in the road would slow the traffic down, serving as a traffic calming device, that would also incorporate sidewalks and bicycle lanes and/or road sharrows, which are painted images on the street in a traffic lane that depict a cyclist with two forward arrows pointing the direction of flow.



*Example of neighborhood roundabout for 21<sup>st</sup> Street & Davis Street*

*21<sup>st</sup> Street eastbound at Pearl Street*

- From the curve on 21<sup>st</sup> Street going eastbound to the signal at Main Street/US-17, the double yellow stripe down the middle of 21<sup>st</sup> Street should be “removed” or painted black to omit it from the roadway. Instead, 21<sup>st</sup> Street should then be striped with on-street parking on both sides, which is a traffic calming measure, bike lanes and sharrows put in as well and no middle strip. By removing a middle stripe on local neighborhood roadways, the driver must now consciously navigate his way as he is sharing the roadway. This is a nationally proven practice to slow local traffic down while also providing appropriate pathways for pedestrians and cyclists.
- Davis Street is twenty (20) feet in width. The double yellow line on Davis Street should be “removed” or painted black to omit it from the roadway. White edge stripes one (1) foot in width should be painted along both sides of Davis Street with speed limits reposted at 25 mile per hour.



*Brick Street northbound view*



*Davis Street southbound view*

- The fence gate on Brick Street that appears to provide access to Brentwood McNair Villas should be activated with a code so that residents may access instead of the current chain that is around the gateway. NOTE: This is not a gated community; there are two entrances to the Brentwood McNair Villas and Brentwood Lakes Apartments that are open access points: one at the northwestern edge on Brick Street and the other on 21st Street just east of Brick Street.
- The primary activity node at Norwood Avenue and 44th Street, which is the most utilized access point into Gateway Shopping Center, has sidewalks and cross walks but no bike lanes or bike sharrows. The sidewalks are in need of repair and there are poles located in some areas where ADA regulations may be compromised. Norwood Avenue is a 4-lane road that may not merit having four lanes but it does have a buffered sidewalk on both sides. It does not provide a bike lane or road sharrows.



*Norwood Avenue & 44<sup>th</sup> Street*

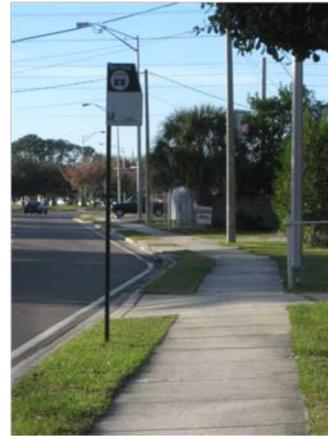


*Norwood Avenue northbound*

- Golfair Boulevard should be on a “road diet” as it is 4-lane street. Four-lane roads are dangerous because they enable drivers to pass a vehicle that is yielding to a pedestrian. If vision is obscured by the yielding vehicle, the results can be a fatal accident. It is unlikely that traffic volumes here justify four lanes. A road diet would reduce Golfair Boulevard from four lanes to two with buffered bike lanes.



*Golfair Blvd. 4-lane roadway*



*Golfair Blvd. narrows further east*

- Norwood Avenue should be on a “road diet” as it is 4-lane road. Four-lane roads are dangerous because they enable drivers to pass a vehicle that is yielding to a pedestrian. If vision is obscured by the yielding vehicle, the results can be a fatal accident. It is unlikely that traffic volumes here justify four lanes. A road diet would reduce Norwood Avenue from four lanes to two with buffered bike lanes. NOTE: There are currently buffered sidewalks on both sides.

These recommendations are relatively easy and inexpensive to implement as some of them involve paint or the removal of paint. Others require a bit more effort and funding, such as with a road diet but again, placing buffers and pedestrian and bicycle-friendly lanes into existing right of way that is already in place is easier than having to obtain the right of way and clearing it. These recommendations came from Dan Burden during the walking audit of Brentwood.

Another community meeting was held in Brentwood Lakes Apartments Community Center with residents of the development and from the greater Brentwood neighborhoods. The Health Planning Council of Northeast Florida and Dietrich Planning, LLC gave a joint presentation on what an HIA is, how it is developed, why it is so important to a community, how Zoning Code regulations in particular can help to guide, restrict, encourage and enforce a built and open space environment that is healthier holistically.

These are the recommendations that came from the participants from the second community meeting:

- ADA access needs to be created and/or improved for all sidewalks in Brentwood not just some of them; some individuals that use wheelchairs have been seen avoiding the sidewalks and using the roadways—somehow it should be enforced that they have to use sidewalks;

- Pathway Discussion: Outcomes from putting in place better Zoning Code regulations and encouraging the existence of parks, sidewalks, safer roadways, access to healthy foods, less pollution, and less crime:
  - Pedestrian safety
  - Improved health
  - Less pain, aches, and stress
  - Less heart disease and heart attacks
  - Less drive time
  - Saves money
  - Air quality improved
  - Environment is cleaner
  - Less rodents and insects
  - Less trash and neighborhood dumping
- Pathway Discussion: Outcomes from putting in place better Zoning Code regulations and encouraging the more economic development, neighborhood services and mixture of uses:
  - More job opportunities
  - More neighborhood services
  - Walk to work with local businesses, which in turn will allow you to exercise more have more energy; not be as “stiff”, and drive less
  - Less depression
  - More socialization and activities
  - Less fast food drive-ins
  - No 24-hour establishments
  - No adult entertainment establishments
  - Less off-premise alcohol sales establishments
  - More bona fide restaurants

## Recommendations

- Better inclusion in public process;
- Pay more attention to public notifications;
- While adult entertainment establishments have distance requirements with and without the sale of alcohol, the Zoning Code should consider adding an additional distance requirement between another adult entertainment establishment, to avoid the creation of a “red light district”;
- Improve access from I-95 to Gateway Plaza, providing direct access to encourage more activity;
- Improve the Bus Rapid Transit (BRT) services provided by JTA;
- Consistency and commitment by the residents, business owners, the City and various agencies, and elected officials for the community;

- Involve all ages in the discussions so that the young people are raised with ore awareness of the issues and how to constructively improve their community; and;
- Build a skate park for the children of Brentwood at Gateway Shopping Center so that they have a safe, healthy, fun, and monitored place to play and congregate with one another in a positive environment.

## 4.6 Literature Review

A literature review was conducted to identify relationships between zoning-related built environment features and specific health outcomes and behaviors. The literature review focused on built environment factors, health outcomes, and health behaviors identified from scientific literature, expert opinion, interviews, meeting observations, and code analysis. There is large amount of information available regarding planning and health, interestingly; numerous urban planning fundamentals and principles have stood out to be relevant in any community. In reviewing various articles, studies and plans, information utilized for the Brentwood HIA was more specific to older neighborhoods that tend to have a higher crime rate, lower income, are more pedestrian dependent, and have high incidents of poor health.

The literature review focused on relationships between the built environment relevant to zoning. This review took into account specific objectives outlined earlier in this report, related to crime, obesity and obesity-related illnesses, pedestrian safety, connectivity, physical activity, access to healthy foods; improving health service availability; and exploring transit options through the review of literature and quantitative assessments of potential impacts. Research on the relationship of off-premise alcohol sales outlets and crime was further explored using the current Jacksonville Sheriff's Office (JSO) data.

## 4.7 Zoning Code Analysis

An evaluation of the City of Jacksonville Zoning Code was performed to review regulations that influence, affect, or otherwise impact health outcomes and behaviors such as obesity, physical activity, nutrition, and violent crime. This included identifying any requirements that preclude or prevent healthy development, noting omissions, if any.

The evaluation includes two main components: identification of the zoning districts and other land use development patterns within the Brentwood Study Area and examination of the adopted Zoning Code, Chapter 656. Findings or conclusions drawn from the components were verified through interviewing Jacksonville Planning Department staff and field work to verify mapped findings.

## Development Patterns

The 1.5 square mile (or 924 acres) Brentwood Study Area is divided into 15 individual zoning districts; a majority of which are residential zoning districts. This pattern is repeated for the Future Land Use categories designated within the area. The following maps identify the zoning districts and Future Land Use categories within the study area, demonstrating the distribution of zones and uses within the area and along roadway corridors and open space features.

Some individuals we interviewed were quickly able to connect the ways a Zoning Code might impact human health—such as in creating more walkable neighborhoods. The following highlights the main points from these conversations concerning zoning:

- Links between zoning and health are often difficult to immediately establish;
- People are used to talking about zoning only in terms of physical arrangement of buildings, not in terms of human or social impacts;
- There is interest in how the rewrite can promote healthy communities; and
- Addressing health via zoning is in line with Comprehensive Plan.

With regards to zoning analysis and discussions with participants, one of the themes that emerged was to what extent changing the Zoning Code alone could influence health. The following summarizes the key issues raised:

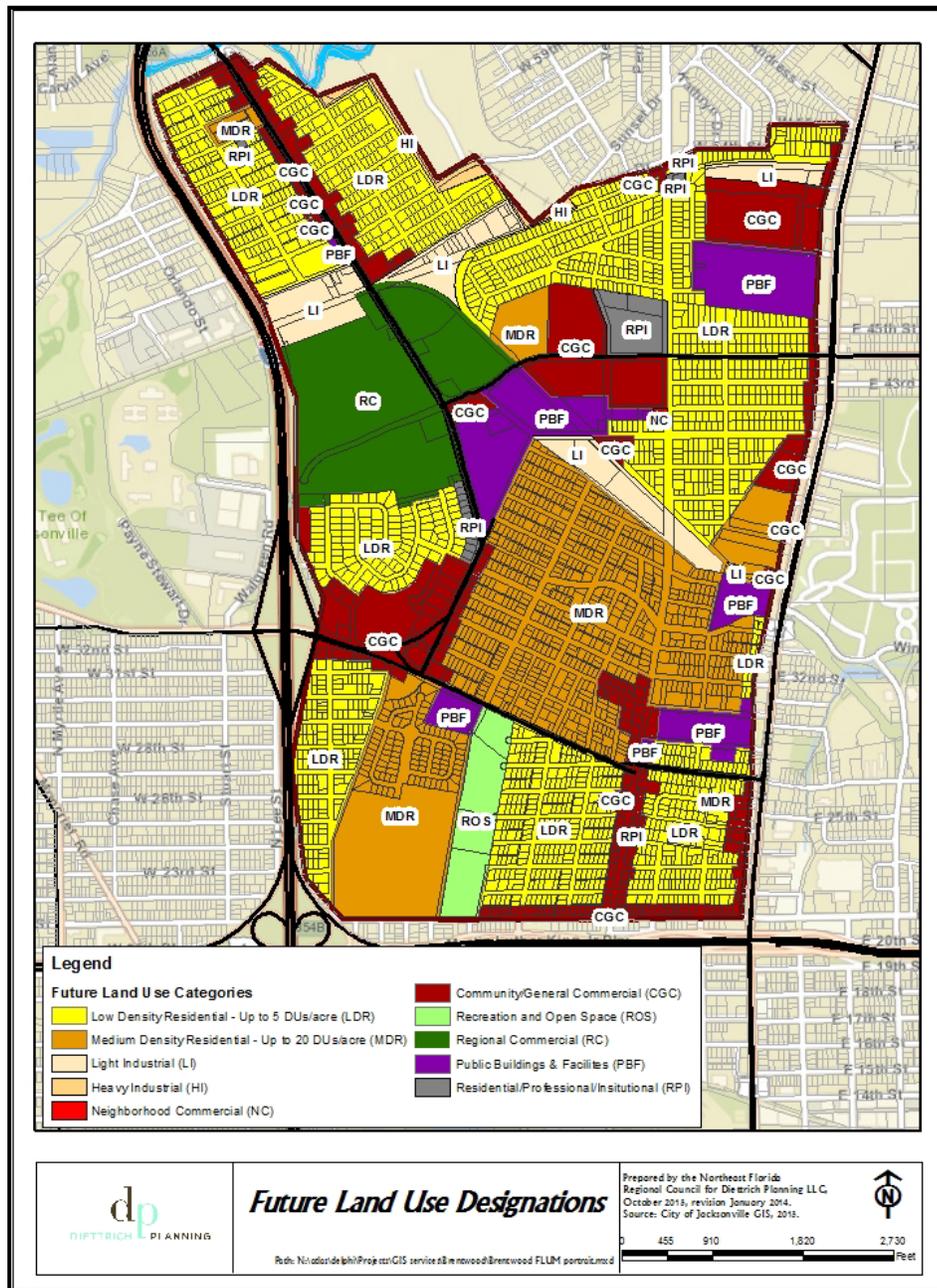
- View that many factors other than zoning contribute to these issues;
- Changes in zoning may not lead to changes in the physical environment;
- No agreement on what features make a use “healthy”;
- Ability for zoning to influence health depends on the new zoning maps; and
- Social issues, such as resistance to increased density, may influence content of the rewrite.

Discussions about zoning and health in terms of healthy neighborhoods helped bring forth ideas for what should be emphasized which include:

- Use evidence about what creates a healthy neighborhood to inform zoning rewrite;
- Need for a database that lets potential retailers know what resources are available and what is required by other City codes;
- New code should help accommodate people with a variety of abilities and needs;
- Need tools in zoning to address vacant lots and buildings on row house blocks;
- It is challenging to address severely distressed neighborhoods via zoning;
- Enforcement of the code is IMPORTANT!

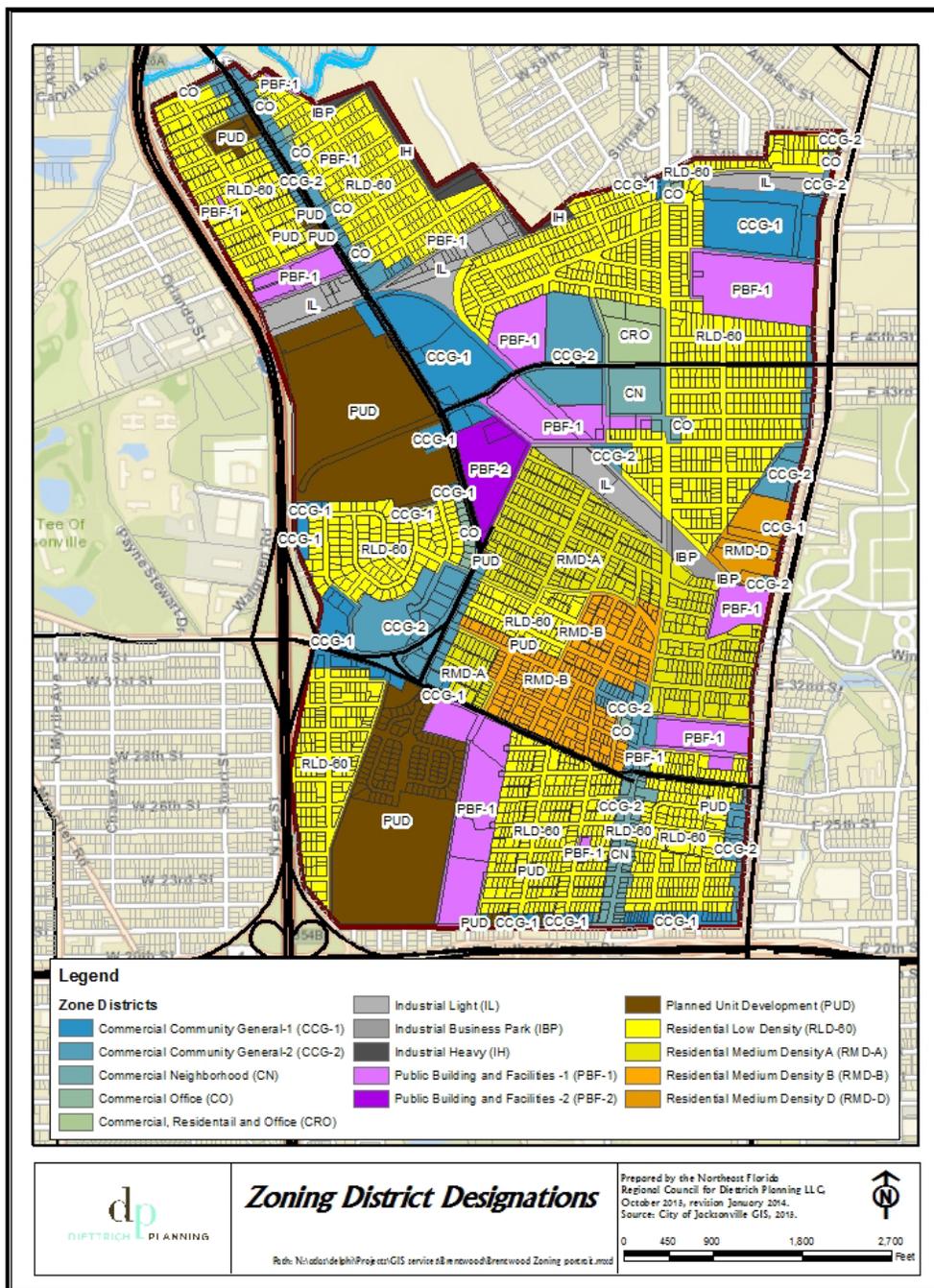
### Future Land Use Development Patterns

Of the 924 acres within the study area, residential land uses dominate the pattern of development (61%) over the non-residential categories (39%). Within these general uses, low density (0-7 dwelling units/ac) slightly exceeds medium density (0-20 dwelling units/acre) by comparison 38% to 23% of the total area designated. Commercial general uses (15%) exceed all other uses with Regional Commercial demanding 7% of the total area at the Gateway Shopping Center.



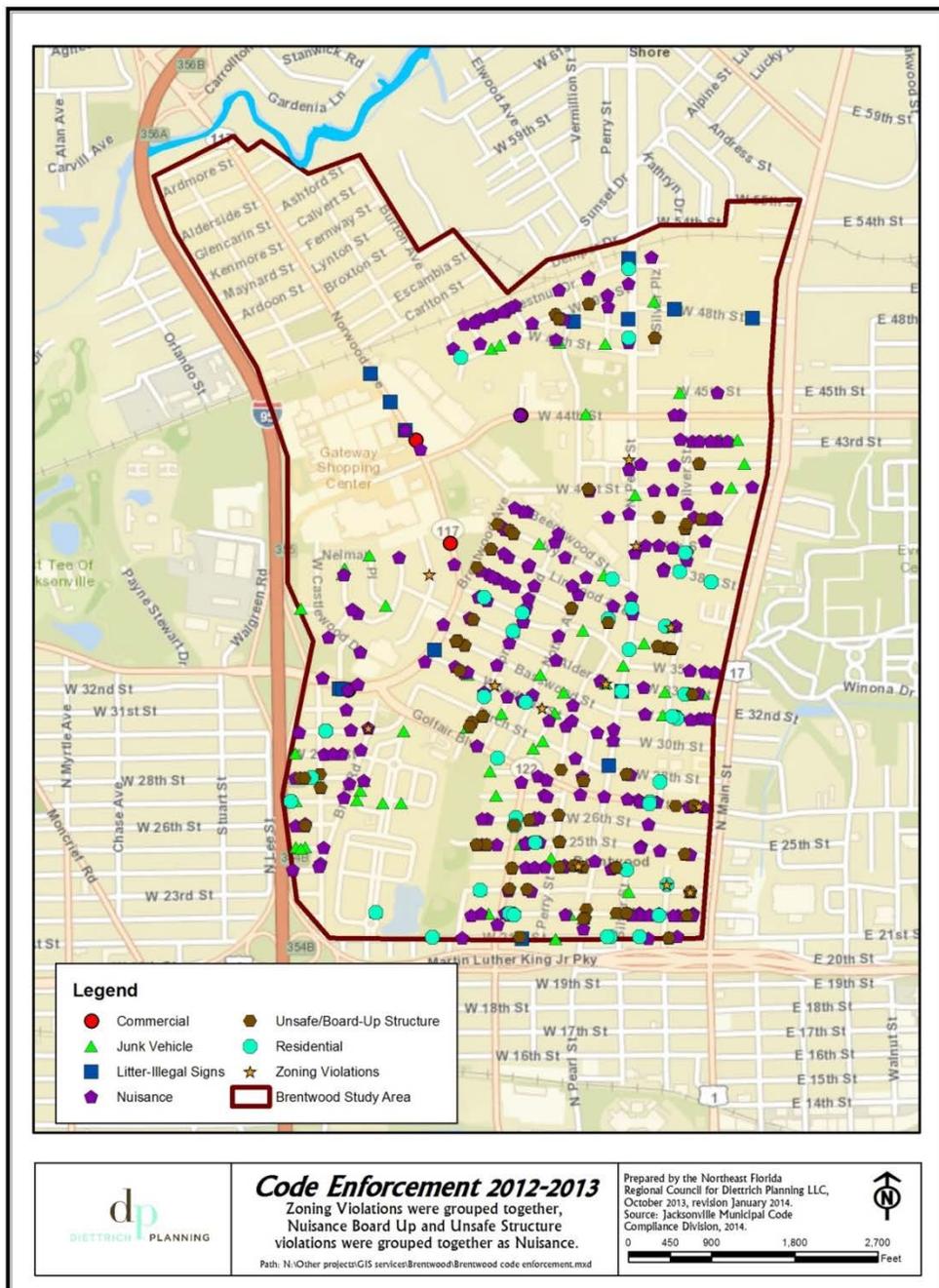
## Zoning District Regulations

The distribution of zoning district designations mirror the land use categories with residential zones representing 53% of the total area and residential low density taking a majority of the residential zones (38%). Community commercial zoning districts represent the non-residential development pattern, with 38% zoned commercial neighborhood and 23% commercial residential office as the primary zoning districts.



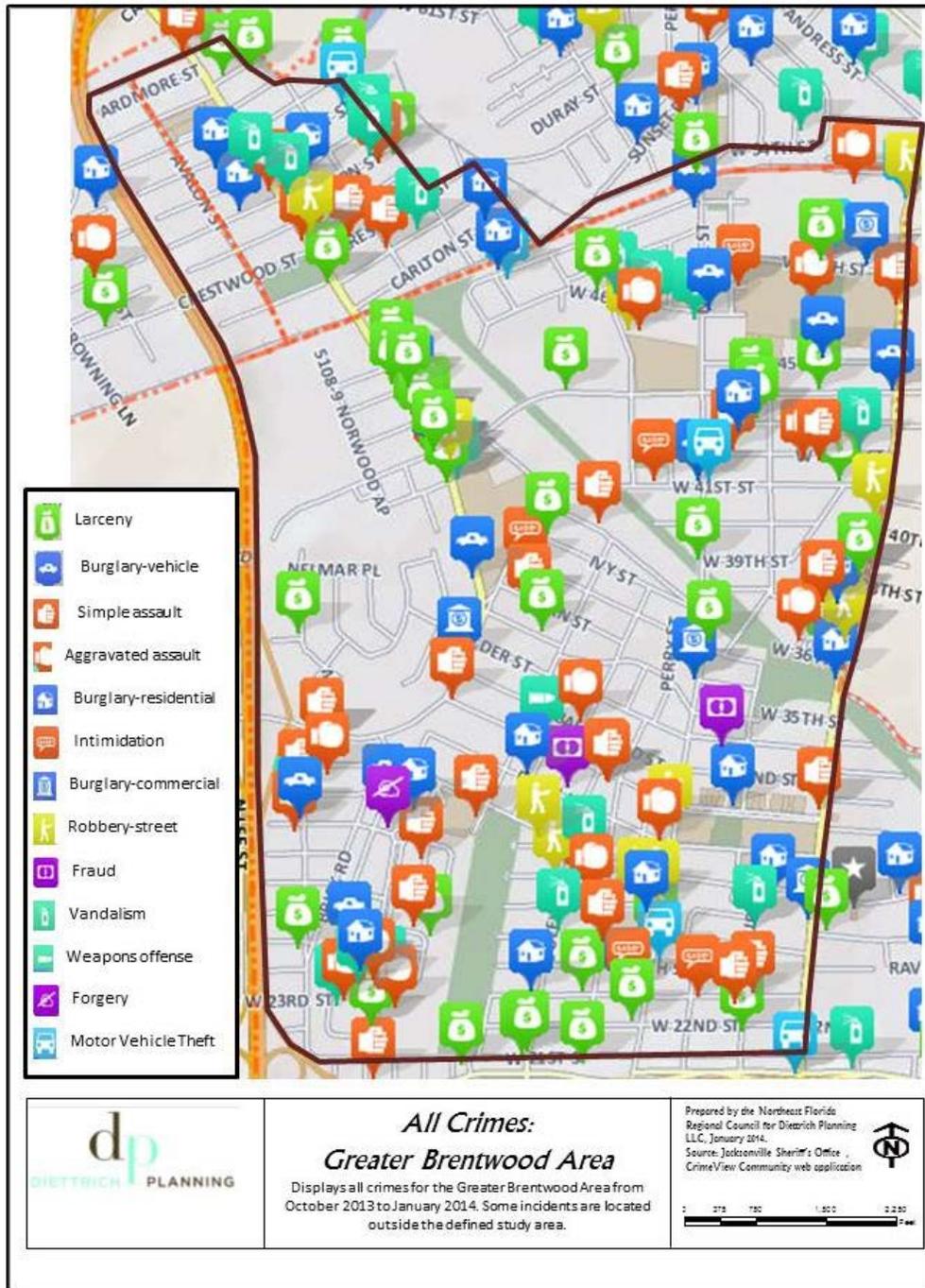
### Code Enforcement Incidents: 2012-2013

The number of violations inspected in the study area represents less than 1% of all inspections conducted in Jacksonville during the same timeframe. During the reporting year, 907 incidents were noted as shown below. The incidents are grouped generally by type relating to use (commercial or residential), nuisance, signage, and zoning violations. For the study area, nuisance violations are most reported (517 of the total 907). This type of violation includes nuisance overgrowth, accumulation of garbage/trash/rubbish/debris, graffiti on private property, and pools with water clarity problems.



### CrimeView Community Maps

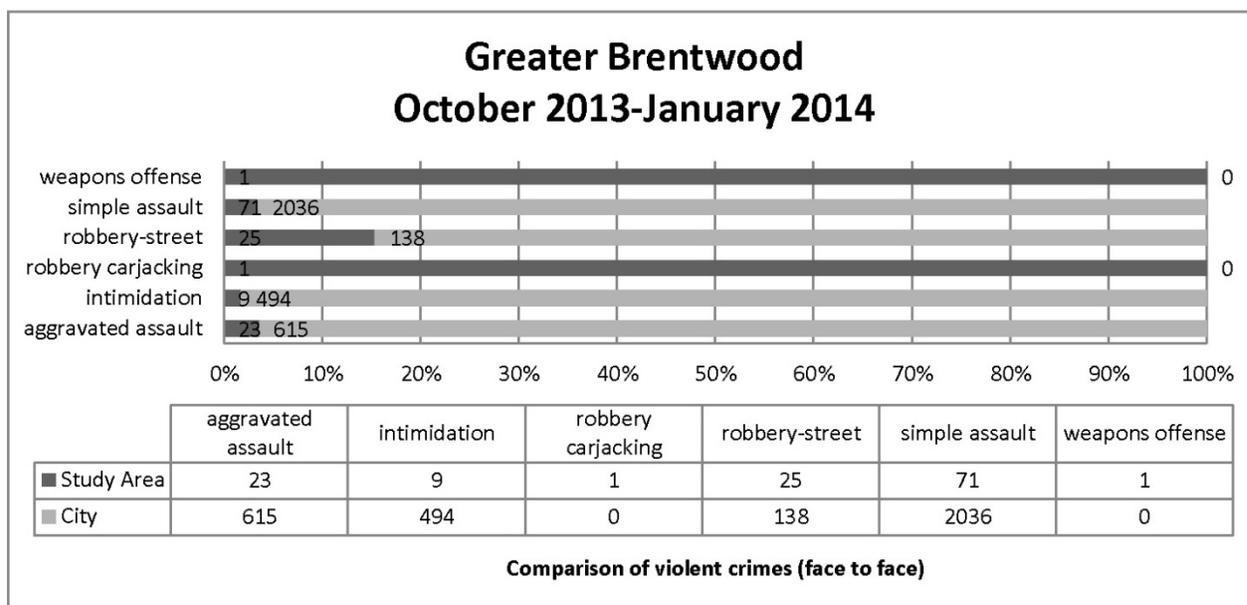
The Jacksonville Sheriff’s Office provides an on line community crime view application. The results of the query from October 2013-January 2014 reflect the greater Brentwood area. Greater Brentwood includes three neighborhoods the JSO uses to track incidents (45<sup>th</sup> & Moncrieff, Tallulah, and Brentwood). Comparatively, crime incidents in Greater Brentwood represent 3% of all crimes reported for the City of Jacksonville during the same timeframe.



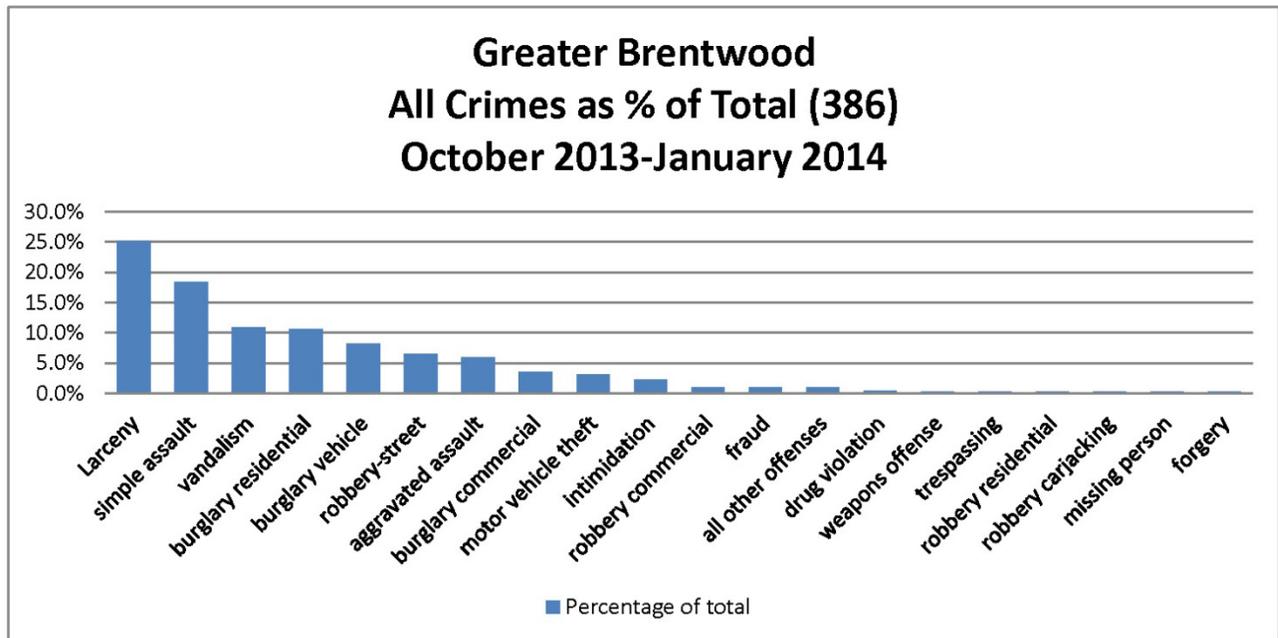
## Crime Incidents

Queries were generated for all crimes from October 2013 to January 2014 on a citywide basis and then specifically for the three neighborhoods that cover the Brentwood Study Area. The query reports the 10 most frequent incidents. Therefore, some incidents may not be prevalent on the city scale when compared to the specific neighborhood. For example, robbery carjacking and weapons offense incidents did not meet the threshold of the top ten incidents on the city level and is reported as not occurring during the time frame.

From October 2013 to January 2014, robbery-street crimes total approximately 20% of all robbery-street crimes within the entire City of Jacksonville. This crime is defined as taking property from a person by force, threat of force, or fear with the location occurring in the street, versus a residential or commercial building. This type of crime is considered violent crime because of the face to face interaction when the robbery occurs. In addition to the personal toll the crime takes, the frequency of the crime influence perceptions of safety within the public realm, along streets and sidewalks. This perception can prevent citizens from using the existing pedestrian connections and enjoying the public and private open spaces.



Focusing within the study area, the following chart reflects the frequency (% of the total) by crime type for Brentwood.



Larceny and simple assault represent crimes totaling 15% or more than all crimes (386). Larceny occurs when someone unlawfully takes, carries, leads or rides away with or of property from the possession, or constructive possession, of another person. This can occur one on one or from private property. Simple assault is an attack upon a person where neither the offender displays a weapon, nor does the victim suffer obvious severe injury.

### Chapter 656, Zoning Code Examination

Overall, the Jacksonville Zoning Code, Chapter 656, incorporates regulations that promote health, safety, and welfare. Six specific topic areas were evaluated within the regulatory provisions of the fifteen (15) zone districts found with the study area. The topic areas include provisions for mixed-use development, provisions for alcohol sales either on or off site consumption, provisions for recreation uses, provisions for educational facilities including schools and daycare, provisions for residential uses, and provisions for pedestrian oriented design. Examining how these uses are permitted, either by right, special exception, or prohibited all together, provides the starting point to understand how the zoning code might be modified, identifying bridges and gaps between regulations.

Of the zone districts located in Brentwood, the study area does not include any specific overlay zoning districts or supplementary regulations that are unique to the neighborhood. The zone districts found within the study area include general districts found throughout the City of Jacksonville as a whole, as compared to the special overlay zones like the

Downtown Overlay Zone or the Springfield Zoning Overlay and Historic District. These special overlay zoning districts incorporate performance standards and development criteria exclusive to the areas they cover to protect, preserve, or redevelop to a specific character. General zoning districts do not provide the area specific community character or placement standards. These findings are supported by the matrix tables that follow.

To navigate the tables, move from left to right, noting the table introduces the topic areas outlined above, refines these areas into subparts, and then lists the zone districts found within the study area. The tables are split in two: residential and commercial districts. Within each table, the zone districts are abbreviated to the short reference as shown the study area Zoning District Regulations map (page 66).

The matrix tables address how each topic area is permitted within the study area zone districts. The purpose of the tables is to identify quickly gaps or bridges provided by the zoning code. For example, readers will quickly note that community gardens are not specifically mentioned (unlisted) in all zone districts. This represents a gap. Readers will also quickly note alcohol outlets are more likely to require a special exception rather than be permitted by right. This represents a bridge.

Following the tables, the Impact Assessment section highlights gaps and bridges that may be filled or further reinforced by changes to the zoning code, bringing forward each topic area to describe how the zoning code addresses each area.

Discovering Brentwood: Evaluating topic areas within the 15 zone districts found in Brentwood.

		ZONING DISTRICTS										
		Business/Commercial			Industrial			Public Facilities		Special Districts		
TOPIC AREA	USE CATEGORY	CCG-1	CCG-2	CN	CO	CRO	IL	IBP	IH	PBF-1	PBF-2	PUD
Mixed Use	Vertical or horizontal mix	V/H*	N	V	N	H	N	N	N	N	N	*
Alcohol Sales	Restaurant	ABR	ABR	SE	N	SE	ABR	SE*	ABR	N	SE	*
	Tavern	SE	SE	SE	N	N	SE*	SE*	ABR	N	SE	*
	Lounge	SE	SE	SE	N	N	SE*	SE*	ABR	N	SE	*
	Bar	SE	SE	SE	N	N	SE*	SE*	ABR	N	SE	*
	Liquor store	SE	ABR	SE	N	N	SE*	SE*	N	N	SE	*
Recreation	Community gardens	UL	UL	UL	UL	UL	UL	UL	UL	UL	UL	UL
	Pocket parks	N	N	N	N	ABR*	N	N	N	ABR	ABR*	*
	Other	N	N	N	N	ABR*	N	N	N	ABR	ABR*	*
Education facilities	Schools	SE*	SE*	N	N	ABR*	N	N	N	ABR	ABR*	*
	Daycare	ABR*	N	SE*	N	SE*	N	SE*	N	N	N	*
Residential	All housing types/ SFD	A*/N	N	ABR*	N	ABR/SE	N	N	N	ABR	N	ABR
Pedestrian oriented design	Pedestrian features mentioned	UL	UL	UL	UL	UL	UL	UL	UL	UL	UL	UL
	<b>ACRES</b>	<b>63</b>	<b>76</b>	<b>19</b>	<b>6</b>	<b>9</b>	<b>33</b>	<b>3</b>	<b>7</b>	<b>86</b>	<b>13</b>	<b>122</b>
C - business and commercial districts ordered by intensity of allowable uses												
I - industrial districts ordered by intensity of allowable uses												
P - public facilities, buildings and grounds; ordered by intensity of allowable uses												
PUD - site specific zone district. Many factors as to allowable uses. See specific ordinances for details.												
N - not permitted; prohibited												
UL - unlisted; no reference												
SE - permitted as special exception												
ABR - allowed by right												
A - allowed as accessory or minor use to the primary use												
* - certain performance standards required												
H - horizontal mix												
V - vertical mix												

Discovering Brentwood: Evaluating topic areas within the 15 zone districts found in Brentwood		ZONING DISTRICTS						
		0-7 DU/AC	0-20 DU/AC		20-60 DU/AC		Special Districts	
TOPIC AREA	USE CATEGORY	Low Density Residential	Medium Density Residential	Higher Density Residential	RMD-D	RMD-D	RMD-D	Special Districts
Mixed Use	Vertical or horizontal mix	RLD-60	RMD-A	RMD-B	RMD-D	SE*	SE*	PUD
Alcohol Sales	Restaurant	N	SE*	SE*	SE*	A*	A*	*
	Tavern	N	N	N	N	N	N	*
	Lounge	N	N	N	N	N	N	*
	Bar	N	N	N	N	N	N	*
	Liquor store	N	N	N	N	N	N	*
Recreation	Community gardens	UL	UL	UL	UL	UL	UL	UL
	Pocket parks	ABR*	ABR*	ABR*	ABR*	ABR*	ABR*	*
	Other	ABR*	ABR*	ABR*	ABR*	ABR*	ABR*	*
Education facilities	Schools	SE*	SE*	SE*	SE*	SE*	SE*	*
	Daycare	SE*	SE*	SE*	SE*	SE*	SE*	*
Residential	All housing types/ SFD	N/ABR	ABR/ABR	ABR/ABR	ABR/ABR	ABR/ABR	ABR/ABR	ABR
Pedestrian oriented design	Pedestrian features mentioned	UL	UL	UL	UL	UL	UL	UL
	<b>ACRES</b>	355	77	43	11	-	-	122
	<b>Average Lot size (SQFT)</b>	10,779	8,635	5,923	73,962	-	-	-

R - residential districts ordered from lowest density to higher density.

PUD - site specific zone district. Many factors as to allowable uses. See specific ordinances for details.

N - not permitted; prohibited

UL - unlisted; no reference

SE - permitted as special exception

ABR - allowed by right

A - allowed as accessory or minor use to the primary use

\* - certain performance standards required

## 4.8 Impact Assessment

It is difficult to estimate the potential impacts of future policy changes to the Zoning Code on the health outcomes of interest. There are many steps between changes in a Zoning Code and potential health impacts. Since new zoning rules would only apply to new development or redevelopment of existing sites, the new code will only have an impact when sites are developed or redeveloped, or when owners desire to use their property for a different purpose. Then, for there to be health impacts, the changes to the code need to generate a difference in how the site is developed, compared to what would have happened under the old code. The health impacts would then accrue over time as a result of changes in the built environment. Much time could elapse between when the code is passed and when health impacts could be felt, and many factors along the way could affect the size and existence of any health impacts.

### Topic Areas

The zoning analysis makes recommendations, coupled with the walking audit, as to specific changes that could make a positive impact on the Brentwood Community and how the Zoning Code addresses current conditions.

- Provisions for mixed use (i.e. residential uses vertically or horizontally mixed with commercial uses) to allow residents to conveniently access (walk) needed services such as food establishments, medical care, and open space.

A majority of the study area is designated Residential Low Density-60 (RLD-60). This residential zone district does not permit independent commercial uses. Therefore, to open access to needed services, this zone district may be modified to permit neighborhood based commercial uses as special exceptions. As a special exception, commercial uses could be introduced in the residential areas where most appropriate, balancing between providing needed services and protecting the residential neighborhood. An example of a potential neighborhood use as a special exception would include community gardens with mobile food delivery.

- Regulations addressing location and concentration of on and off-premises alcohol sales establishments (bars, taverns, liquor stores) in order to reduce linkages to violent crime.

The zoning code addresses the sale of alcohol for onsite (bars, taverns, restaurants) and offsite consumption (package stores, liquor stores, wholesale establishments) by categorizing these uses within zone districts with like intensities. The zoning code also addresses the placement of alcohol sales outlets relative to school and church sites. For the study area, alcohol sales within restaurants and liquor stores are permitted by right within the CCG-2 zone district. The CCG-2 zone district covers 76 acres of the 924 acres of the study area or roughly 8%. The CCG-2 zone district is found in five main clusters: Main

Street & 50<sup>th</sup> Street, Main Street & W 35<sup>th</sup> Street, Pearl Street & Golfair Boulevard, Golfair Boulevard & Norwood Avenue, and west of 44<sup>th</sup> & Pearl. These areas represent concentrations of the CCG-2 zone districts, not concentrations of alcohol sales outlets. The CCG-2 zone district, permits by right (i.e. without public hearing), the sale of alcohol through restaurants or liquor stores. Of the five clusters, four are near each of the three public schools in the study area. This applies the second component of the zoning code, separation standards between alcohol sales outlets and public schools.

- Provisions for education facilities (standard curriculum) to take advantage of collocating resources like ball fields, community centers and libraries, increase accessibility for students, parents and teachers, and establish prohibition zones for undesirable uses.

The zoning code permits schools as special exceptions in the residential zone districts and the CCG1 and 2 commercial districts. Schools are permitted by right in the PBF1 and 2 zone districts. Each of the three schools are zoned PBF. Section 656, Part 8 addresses Alcoholic Beverages including distance limitations between off premises sales of alcoholic beverage and schools, churches, and adult entertainment facilities of 500 feet. A distance limitation of 500 feet is set between restaurants serving alcoholic beverages and an established church or school. For on premise consumption of alcohol without food service, the distance elimination is 1,500 feet from an established church or school.

From a zoning perspective, the separation of incompatible uses (sale or consumption of alcohol, schools, and churches), address public health and safety by influencing development patterns. The location of the three established schools and these provisions represent a bridge to maintaining the gains toward community health.

- Provisions for healthy uses, promoting open space, recreation, and community gardens through zoning incentives (i.e. zoning incentive exchanges of development rights for recreation sites, community gardens, food stores that carry healthy food, or pedestrian connections).

The Jacksonville zoning code does not yet include incentive based performance standards available in the general zone districts. Incentive based performance standards provide exchanges for additional uses, rights, or placement standards in return for the provision of needed public improvements. Together, these exchanges provide balanced development to improve the community. Typical examples include protecting wetlands on site in exchange for increased density or intensity credits. More unique examples include the provision of public arts projects as well as food stores that carry healthy food products. It is critical to set the exchange rate for zoning incentive programs for two primary reasons: to attract property owners to use the program and to avoid unintended consequences.

In conjunction with zoning incentive exchanges or as an alternative, distance limitations between processed food outlets and schools and residences could be considered to address the gap between the numbers of healthy food outlets in the study area. This approach creates a window for the other uses to settle in the zone districts to achieve the public purpose of improving access to healthy food options.

- Allowable permitted uses such as community gardens, pocket parks and other recreation facilities.

The evaluation has touched upon community gardens and recreation sites throughout to highlight the importance of access to these facilities. Within the zoning code, and the specific zone districts found in the study area, community gardens are unlisted, or otherwise not permitted, and parks are not cited as a primary use within the commercial zone district. However, parks are allowed by right subject to supplemental design standards regarding hours of operation and lighting. To encourage access to fresh fruits and vegetables, cultivate community activities, and potentially redevelop vacant lots within the majority zoned residential districts, the zoning code could be revised to specifically address community gardens.

An alternative to modifying the zoning code for community gardens, it may be beneficial to initiate a public works project establishing a community corridor garden along the pedestrian trail that connects the northern residential areas along 44<sup>th</sup> street to Andrew Jackson High School. The community garden would gain awareness from the student foot traffic as well as benefit from redeveloping the grassed sidelines to vegetation that produces edibles. This follows existing movement within the United States to provide food lots, orchards, or fruit trees within parks and right of ways as available supplemental food sources for the public.

- Provisions for pedestrian oriented design as a supplemental design standard for zone districts, including provisions for Crime Prevention through Environmental Design (CPTED), that to help prevent crime (connectivity, lighting, landscaping, maintenance).

It is important also to examine the area, height and bulk regulations for the residential zone districts of the study area as a measure of evaluating how the development pattern will result in pedestrian oriented design. The area, height and bulk regulations, typically referred to as setbacks, when taken together, provide the building envelope for construction of a structure within a lot. If private property is generally found to be non-conforming to these regulations, development may be constrained and therefore impacted by the zoning provisions.

For the study area, parcels were summarized by lot size within each residential zone district. A total of 1,817 individual parcels are designated RLD-60. RLD-60 requires a minimum lot width of 60 feet and minimum lot area of 6,000 feet. The average parcel size of all parcels zoned RLD-60 is 6,105 square feet, ranging from a minimum of 1,400 square feet to a maximum of 47,033 square feet. The Jacksonville Zoning Code includes provisions to allow development on legal lots of record, which at the time of creation met the area, height and bulk regulations of the zoning code. If the parcels are a legal lot of record, then development is excused from the minimum lot width and size requirements, but must meet setbacks and height. In conclusion, the differences in lot size would not preclude development of the vacant parcels and would seem to match the minimum lot requirements of the denser zone districts of RMD-A, B, and D. In addition, small lot size supported by central water and sewer, does not alone negatively impact health.

The Jacksonville Zoning Codes does not include a specific section regarding crime prevention through environmental design. However, components of the zoning code and supplemental design standards, address lighting requirements for commercial sites, landscaping requirements, and connectivity. To be effective, the site planning review within the zoning code, should address these requirements both for single-family uses and commercial sites to avoid creating areas out of view, corridors attractive for nuisance or loitering and vacancies devoid of public uses.

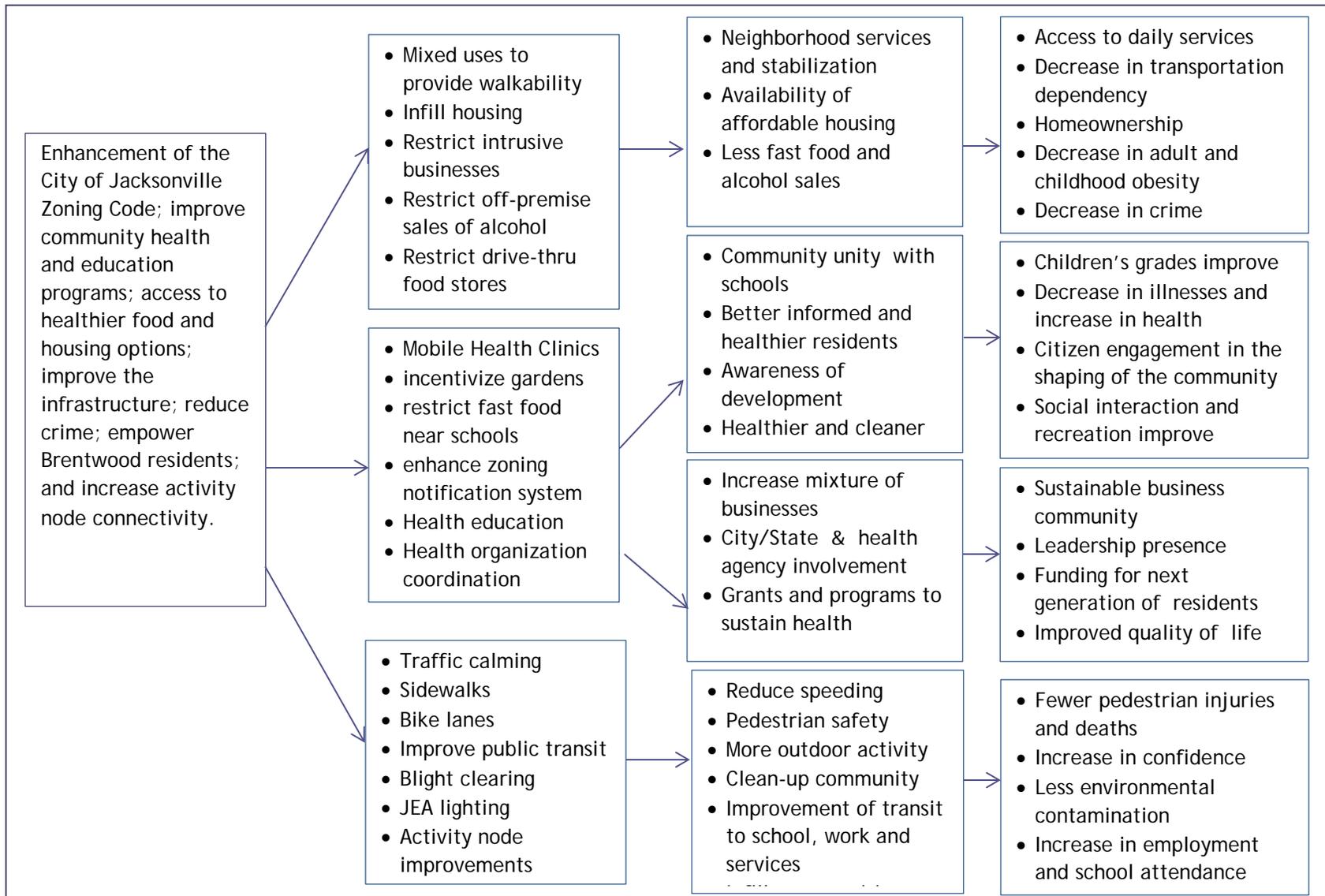
## 5 PATHWAY: HEALTH OUTCOMES AND RECOMMENDATIONS

### DECISIONS

### IMMEDIATE IMPACTS

### LONG TERM IMPACTS

### HEALTH OUTCOMES



## 6 RECOMMENDATIONS

Communities throughout the United States have used innovative strategies to tackle environmental, economic, and public health challenges similar to those observed in Jacksonville, Florida. In support of these nationwide strategies, recommendations have been derived from a multitude of sources ranging from contributions from the community meetings and walking audit, to Zoning Code and literature review, to the *War on Poverty's Northwest Jacksonville Community Asset Analysis* and the *Jacksonville Integrated Planning Project*. Recommendations were selected that are grassroots and community or neighborhood-based, cost-effective or revenue/job generating, scalable, and with options to start small and grow capacity. The following are recommendations that are working well in other communities and are recommended for the Brentwood Community.

The Brentwood HIA focused on the following groups of health outcomes and health related behaviors, which are repeated below. The recommendations that follow are aligned with these outcomes. Some recommendations qualify as outcomes for more than one category therefore they are repeated where applicable.

1. Violent Crime
2. Obesity and Obesity-Related Illnesses
3. Physical Activity and Pedestrian Safety and Connectivity
4. Diet and Nutrition

### Violent Crime

1. The City should encourage more formations of neighborhood crime watch organizations, as there are already some in place in Brentwood.
2. Investigate the potential to leverage the City of Jacksonville's Neighborhood Stabilization Project (NSP) program by focusing work group strategies on NSP designated funding locations within the Eastside and Springfield neighborhoods. (*JIPP, December 2012*)
3. The community should establish a more cohesive school-community collaboration in support of the youth living in the area through more programmed after school activities.
4. Create a notification system that exceeds the current City system for land use and zoning applications. Currently all property owners within a 350 foot radius of a property involved in an application process receive a notice. Renters and those who live outside the 350 radius are not notified. A Neighborhood Bill of Rights would allow anyone or any organization to register with the City to be notified of all activities in Brentwood.

## Obesity and Obesity-Related Illnesses

1. The community should establish a more cohesive school-community collaboration in support of the youth living in the area through more programmed after school activities.
2. Provide mobile health clinics as an alternative way into the health care system for the medically disenfranchised in urban communities. *(JIPP, December 2012)*
3. Improve access to health services by collaborating with Duval County Health Department, Jacksonville Transportation Authority, Metro North CDC, and the Jacksonville Integrated Planning Coalition.
4. Provide community health educators and peer coaches to help patients manage chronic disease and prevent worsening conditions. They may be paid employees or volunteers and typically come from the target community. *(JIPP, December 2012)*
5. Initiate tele-monitoring systems to allow patients to report information about their conditions, help patients better manage chronic conditions, and reduce number of medical appointments. *(JIPP, December 2012)*
6. Provide cultural competency training to raise awareness about health disparities that may exist, as well as the barriers faced by underserved communities. *(JIPP, December 2012)*
7. Incentivize location of community gardens and food establishments that sell healthy products within the ½-mile radius of the public schools; discourage drive-in food establishments within the same ½-mile radius and prohibit drive-ins within 1,500 feet of existing facilities. *(JIPP, December 2012)*
8. Investigate programs that allow consumers to buy into a “share” of a season’s harvest with weekly pickups or deliveries that are designed to allow food growers and consumers to share in the risks and benefits of farming. *(JIPP, December 2012)*
9. Investigate small scale, neighborhood-based markets combined with community-building benefits of traditional farmers markets with the flexibility of mobile markets, “mini” or “pop up” markets. A “produce aisle on wheels,” a mobile farmers market takes fresh, healthy, and affordable produce directly to communities that need it most. *(JIPP, December 2012)*
10. Build and maintain more community gardens at key community hubs (e.g., schools, clinics, rehabilitation centers) which can increase food security and build social capital. This may include cultivating a corridor garden along the neighborhood path from 44<sup>th</sup> Street to Andrew Jackson High School. *(JIPP, December 2012)*
11. Create a notification system that exceeds the current City system for land use and zoning applications. Currently all property owners within a 350 foot radius of a property involved in an application process receive a notice. Renters and those who live outside the 350 radius are not notified. A Neighborhood Bill of Rights would allow anyone or any organization to register with the City to be notified of all activities in Brentwood.

12. Increase parks advocacy organizations to increase community access to park amenities. (*JIPP, December 2012*)
13. Investigate liability insurance to help overcome possible barriers to park access for local sports teams and public events. (*JIPP, December 2012*)
14. Engage the community to take an increased role in the brownfield redevelopment process—from community visioning for plan implementation. (*JIPP, December 2012*)
15. Investigate the potential to leverage the community's support by aligning efforts with the EPIC Communities project being led by the Local Initiatives Support Corporation (LISC) and the U.S. Department of Housing and Urban Development (HUD). (*JIPP, December 2012*)

### Physical Activity and Pedestrian Safety and Connectivity

1. From the curve on 21<sup>st</sup> Street going eastbound to the signal at Main Street/US-17, the double yellow stripe down the middle of 21<sup>st</sup> Street should be "removed" or painted black to omit it from the roadway. Instead, 21<sup>st</sup> Street should then be striped with on-street parking on both sides, which is a traffic calming measure, bike lanes and sharrows put in as well and no middle strip. By removing a middle stripe on local neighborhood roadways, the driver must now consciously navigate his way as he is sharing the roadway. This is a nationally proven practice to slow local traffic down while also providing appropriate pathways for pedestrians and cyclists.
2. Change the more heavily zoned areas to Commercial Neighborhood (CN), Commercial Office (CO), and Residential-Professional-Institutional (RPI) along the southern portion of Main Street from 20<sup>th</sup> Street/MLK Expressway north to the Trout River. These are more transitional commercial uses to the residential neighborhoods that they surround. Keeping the character of the commercial corridors consistent with residential community.
3. Change the more heavily zoned areas to Commercial Neighborhood (CN), Commercial Office (CO), and Residential-Professional-Institutional (RPI) along Pearl Street north to 44<sup>th</sup> Street.
4. Change the zoning of the residential parcels in the southern portion of Brentwood north to Golfair Boulevard to RLD-50 and RMD-A as the older and/or historic parcels may not meet the lot requirements currently outlined in the Zoning Code. This may preclude future single family and multi-family residential new development and infill redevelopment.
5. The City should consider more traffic calming devices on Golfair Boulevard, Norwood Avenue, Pearl Street, 44<sup>th</sup> Street and 21<sup>st</sup> Street, particularly at locations where these roadways are interfacing with schools, parks, and residential neighborhoods.
6. Review the bus stops and Bus Rapid Transit (BRT) routes and times to better serve the Brentwood community residents as they are largely dependent upon public

transportation with approximately 25% of its residents are without a vehicle (U.S. Census 2010).

7. At the western end of 21<sup>st</sup> Street where it curves north bound to become Davis Street, the turn is dangerous not only for vehicles but for pedestrians and bicyclists. A roundabout at this bend in the road would slow the traffic down, serving as a traffic calming device, that would also incorporate sidewalks and bicycle lanes and/or road sharrows, which are painted images on the street in a traffic lane that depict a cyclist with two forward arrows pointing the direction of flow.
8. Davis Street is twenty (20) feet in width. The double yellow line on Davis Street should be "removed" or painted black to omit it from the roadway. White edge stripes one (1) foot in width should be painted along both sides of Davis Street with speed limits reposted at 25 mile per hour.
9. The fence gate on Brick Street that appears to provide access to Brentwood McNair Villas should be activated with a code so that residents may access instead of the current chain that is around the gateway. NOTE: This is not a gated community; there are two entrances to the Brentwood McNair Villas and Brentwood Lakes Apartments that are open access points: one at the northwestern edge on Brick Street and the other on 21<sup>st</sup> Street just east of Brick Street.
10. The primary activity node at Norwood Avenue and 44<sup>th</sup> Street, which is the most utilized access point into Gateway Shopping Center, has sidewalks and cross walks but no bike lanes or bike sharrows. The sidewalks are in need of repair and there are poles located in some areas where ADA regulations may be compromised. Norwood Avenue is a 4-lane road that may not merit having four lanes but it does have a buffered side walk on both sides. It does not provide a bike lane or road sharrows.
11. Golfair Boulevard should be on a "road diet" as it is 4-lane street. Four-lane roads are dangerous because they enable drivers to pass a vehicle that is yielding to a pedestrian. If vision is obscured by the yielding vehicle, the results can be a fatal accident. It is unlikely that traffic volumes here justify four lanes. A road diet would reduce Golfair Boulevard from four lanes to two with buffered bike lanes.
12. Norwood Avenue should be on a "road diet" as it is 4-lane road. Four-lane roads are dangerous because they enable drivers to pass a vehicle that is yielding to a pedestrian. If vision is obscured by the yielding vehicle, the results can be a fatal accident. It is unlikely that traffic volumes here justify four lanes. A road diet would reduce Norwood Avenue from four lanes
13. Create a notification system that exceeds the current City system for land use and zoning applications. Currently all property owners within a 350 foot radius of a property involved in an application process receive a notice. Renters and those who live outside the 350 radius are not notified. A Neighborhood Bill of Rights would

allow anyone or any organization to register with the City to be notified of all activities in Brentwood.

## Diet and Nutrition

1. Provide mobile health clinics as an alternative way into the health care system for the medically disenfranchised in urban communities. (*JIPP, December 2012*)
2. Improve access to health services by collaborating with Duval County Health Department, Jacksonville Transportation Authority, Metro North CDC, and the Jacksonville Integrated Planning Coalition.
3. Provide community health educators and peer coaches to help patients manage chronic disease and prevent worsening conditions. They may be paid employees or volunteers and typically come from the target community. (*JIPP, December 2012*)
4. Initiate tele-monitoring systems to allow patients to report information about their conditions, help patients better manage chronic conditions, and reduce number of medical appointments. (*JIPP, December 2012*)
5. Provide cultural competency training to raise awareness about health disparities that may exist, as well as the barriers faced by underserved communities. (*JIPP, December 2012*)
6. Incentivize location of community gardens and food establishments that sell healthy products within the ½ mile radius of the public schools; discourage drive-in food establishments within the same ½ mile radius and prohibit drive-ins within 1,500 feet of existing facilities. (*JIPP, December 2012*)
7. Investigate programs that allow consumers to buy into a “share” of a season’s harvest with weekly pickups or deliveries that are designed to allow food growers and consumers to share in the risks and benefits of farming. (*JIPP, December 2012*)
8. Investigate small scale, neighborhood-based markets combined with community-building benefits of traditional farmers markets with the flexibility of mobile markets, “mini” or “pop up” markets. A “produce aisle on wheels,” a mobile farmers market takes fresh, healthy, and affordable produce directly to communities that need it most. (*JIPP, December 2012*)
9. Build and maintain more community gardens at key community hubs (e.g., schools, clinics, rehabilitation centers) which can increase food security and build social capital. This may include cultivating a corridor garden along the neighborhood path from 44<sup>th</sup> Street to Andrew Jackson High School. (*JIPP, December 2012*)
10. Create a notification system that exceeds the current City system for land use and zoning applications. Currently all property owners within a 350 foot radius of a property involved in an application process receive a notice. Renters and those who live outside the 350 radius are not notified. A Neighborhood Bill of Rights would allow anyone or any organization to register with the City to be notified of all activities in Brentwood.

11. Encourage more GED workforce programs for adults in the community. (NOTE: At the Brentwood Lakes Apartments, there are GED programs at the Community Center).
12. Examine the physical site layouts of the existing medical facilities including the routes from the elder care/assisted living facilities in the study area to inspect the sites for safe movement and clear accessibility for this vulnerable population.

## 7 APPENDIX

### Websites

#### *What is an HIA?*

<http://www.cdc.gov/healthyplaces/hia.htm>

#### *Why use an HIA?*

<http://www.who.int/hia/en/>

#### *Barriers and Strengths of Implementation*

[http://www.ph.ucla.edu/hs/health-impact/training/pdfs/HIAman07\\_s7\\_Barriers.pdf](http://www.ph.ucla.edu/hs/health-impact/training/pdfs/HIAman07_s7_Barriers.pdf)

[http://www.euro.who.int/\\_\\_data/assets/pdf\\_file/0016/160810/e96481.pdf](http://www.euro.who.int/__data/assets/pdf_file/0016/160810/e96481.pdf)

### Literature Review

1. City of Jacksonville Zoning Code, Chapter 656.
2. Asset Management Disposition, Inc., HDR, Inc., Henry Moore Building Communities, Inc. Jacksonville Planning and Development Department Staff. City of Jacksonville Metro North Neighborhood Action Plan adopted April 13, 2005.
3. Asset Property Disposition, Inc., and Jacksonville Planning and Development Staff. City of Jacksonville Brentwood Strategic Implementation Plan adopted September 30, 2005.
4. Johns Hopkins Children's Center: The Center for Child and Community Health Research. Zoning for a Healthy Baltimore: A Health Impact Assessment of the Transform Baltimore Comprehensive Zoning Code Rewrite 2009-2010.
5. Skeo Solutions, the JIPP Coalition. Jacksonville Integrated Planning Project. December 2012.
6. The Institute on Assets and Social Policy: the Heller School for Social Policy and Management, Brandeis University. Northwest Jacksonville Community Asset Analysis, June 2007.
7. Frieden, Thomas R., Dietz, William, Collins, Janet. Reducing Childhood Obesity through Policy Change: Acting Now to Prevent Obesity. *Health Affairs*, 29, no. 3 (2010): 357-363.
8. Health Planning Council of Northeast Florida. Healthy Jacksonville: Childhood Obesity Prevention Coalition. 2013. Safe Routes to School Duval County Schools. Brentwood E.S., Livingston E.S., Eugene Butler M.S.
9. Feet First: Puget Sound Pedestrian Advocacy. Central Area Traffic Tamers Tour February 28, 2004.
10. LISC Jacksonville. Northwest Jacksonville: Community Quality-of-Life-Plan 2012.

11. Group Health Research Institute June 11, 2010. Childhood Obesity Linked to Neighborhood Social and Economic Status. [www.grouphealthresearch.org/news-and-events/newsrel/2010/100611.html](http://www.grouphealthresearch.org/news-and-events/newsrel/2010/100611.html)[3/6/2013 12:05:53 PM]
12. Cohen, Rebecca. The Impacts of Affordable Housing on Health: A Research Summary. Insights from Housing Policy Research May, 2011.