2016
Volusia County
Community Health Needs Assessment Report

Building a Healthier Tomorrow by Planning Today

Produced by One Voice for Volusia

2016 Volusia County Community Health Needs Assessment

Acknowledgements

Sponsored by:

- Bert Fish Medical Center (Now Florida Hospital New Smyrna)
- Florida Department of Health - Volusia
- Florida Hospital Volusia/Flagler
- Halifax Health
- One Voice for Volusia

Produced by: One Voice for Volusia

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Data Supported by: Office of Informatics and Assessment, Florida Department of Health in Volusia County

Acknowledgements: Thank you to the Community Health Needs Assessment Partner organizations and Leadership Team members who committed extensive time, expertise and resources towards this collaborative assessment process and the production of this document. The Volusia Community Health Needs Assessment Partnership is deeply indebted to all the community stakeholder organizations, professionals and community members who contributed their input and ideas so that a shared voice was represented in improving the health and wellbeing in Volusia County.

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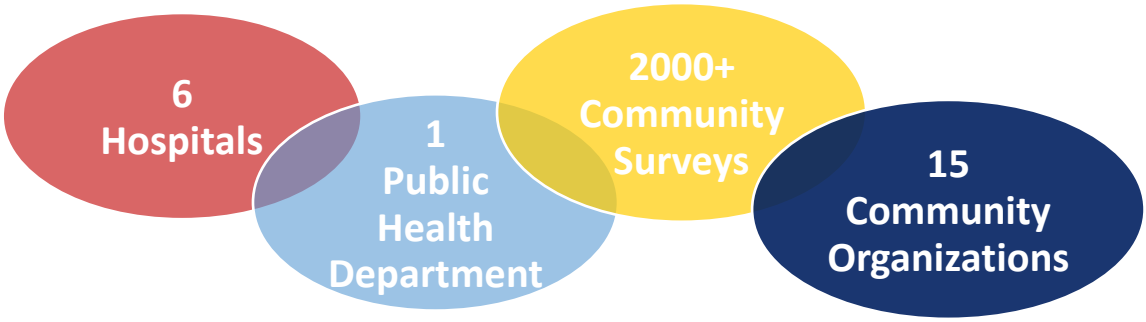
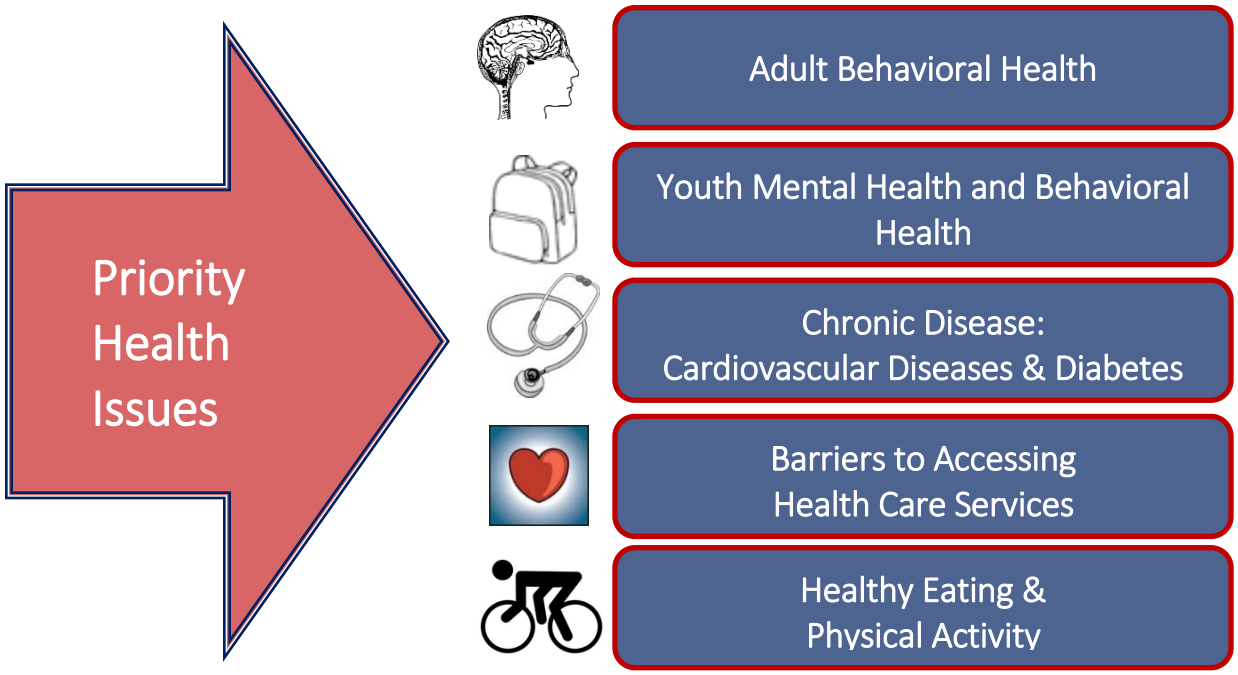
Volusia County CHNA 2016 Executive Summary



The Affordable Care Act requires tax-exempt hospitals to explicitly and publicly demonstrate community benefit by conducting a **C**ommunity **H**ealth **N**eeds **A**ssessment **(CHNA)** and adopting implementation strategies to address the identified community health needs. Health departments also engage in a cyclical community needs assessment process. In 2015, leaders from the Volusia County hospital systems and health department met with a diverse group of executives from 15 local organizations and unanimously agreed to form a Leadership Team that adopted best practices and maximized community impact by collaborating on a single communitywide health assessment. The 5 Florida Hospital campuses and Halifax Hospital along with the Florida Department of Health in Volusia County worked with One Voice for Volusia to form the Volusia County CHNA Partnership. These partners provided the leadership and resources to conduct this joint assessment and prioritization process.

Over the course of 9 months, the Leadership Team of 45 diverse community leaders collected and analyzed 335 data indicators and the responses from over 2,000 community surveys. To understand the health of the community, they reviewed local information on risk factors, quality of life, mortality, morbidity, community assets, forces of change, social determinants of health, health inequity and the public health system's provision of essential services. Using a systematic prioritization process, the Leadership Team gradually narrowed down the areas of focus to a set of 5 Priority Health Issues. In 2016, these priorities were vetted by multiple community groups across Volusia County and will now serve as the basis for **C**ommunity **H**ealth **I**mprovement **P**lanning (**CHIP**) over the next three years.



About Community Benefit & Community Health Needs Assessments

Mission-driven, tax-exempt health care organizations have a long tradition of working to improve community health through community benefit activities to maintain their tax-exempt or "charitable" status. Recent changes in legislation now require that tax-exempt hospitals explicitly and publicly demonstrate community benefit by conducting a **C**ommunity **H**ealth **N**eeds **A**ssessment (**CHNA**) and adopt an implementation strategy to meet the identified community health needs. This change in federal law has provided an impetus for these organizations to create a more structured assessment and planning process.

Health departments also engage in cyclical community needs assessments often using a process called **M**obilizing for **A**ction through **P**lanning and **P**artnerships **(MAPP).** MAPP is a strategic approach to community health improvement. This tool helps communities improve health and quality of life through community-wide strategic planning. Using MAPP, communities seek to achieve optimal health by identifying and using their resources wisely, taking into account their unique circumstances and needs, and forming effective partnerships for strategic action.

Considerations for Improving Community Health

To successfully address the health needs identified in this report, it will take forming a collective vision and community collaboration. According to the Centers for Disease Control (CDC), National Prevention Strategy and the Robert Wood Johnson Foundation, Clinical Care only represents 20% of the factors that affect health, so it is essential that the following partners should all be part of the process and solution:

- **Nonprofits**
- **Community Developers**
- **Businesses**
- **Education Systems**
- **Government**
- **Philanthropists and Investors**
- **Faith-based Organizations**
- **Public Health**
- **Health Care Providers**
- **Health Insurance**
- **Community Members**

Community Investment

As part of the Volusia County Community Health Needs Assessment, these partners were brought to the table as collaborative stakeholders to select and vet Volusia County's health priorities. Continuing partner engagement and leveraging the available community resources through investing in a balanced portfolio of interventions and strategies will bring about the highest return on investment when it comes to improving the health and well-being of Volusia citizens. Engaging a diverse group of stakeholders representing the various sectors that impact community health in the needs assessment process, helps facilitate future collaborative strategies and interventions.

According to the 2016 Catholic Health Association of the United States, it is important to consider the factors that affect health and the scale of impact. Taking into consideration that socioeconomic factors contribute to 40% of the determinates of health and well-being, creates investment opportunities in pillars such as; education, removing disparities, fueling a healthy economy with sustainable wages, and ensuring affordable housing. The second highest impact can be gained from influencing environmental changes and policy decisions that directly impact health such as; lighted neighborhoods, smoke free work places, seat belt laws, folic acid fortification, childhood immunization schedules, etc. Maximum impact occurs when these type of interventions are complemented by sound, long-lasting, protective interventions such as mammograms, colonoscopies and immunizations along with effective clinical interventions such as medication management for high blood pressure and nutrition counseling.

As Volusia County moves into their collaborative Community Health Improvement Planning process, they will be working closely with all available community partners to create a balanced portfolio of interventions and strategies in order to ensure the greatest community impact for the selected health priorities.

Volusia County Community Health Needs Assessment Partnership Methodology

Collaboration

During the first cycle of the Community Health Needs Assessments in 2012-2013, Volusia organizations each invested in their own internal assessment and planning processes, often coming up with the same needs and priorities. In 2015, to reflect best practices and maximize community impact, leaders from the following five organizations were convened to explore a collaborative process to develop a shared Community Health Needs Assessment for Volusia County.

The CHNA Partners

- Bert Fish Medical Center (Now Florida Hospital New Smyrna)
- Florida Department of Health-Volusia
- Florida Hospital Volusia/Flagler (DeLand, Fish Memorial, Memorial Medical Center/Oceanside)
- Halifax Health
- One Voice for Volusia

Volusia County CHNA Partnership

These pillar organizations unanimously agreed to work together for the greater good and they formed the ***Volusia Community Health Needs Assessment Partnership***. They committed their time, talent and resources to support the CHNA process outlined below, which was facilitated by One Voice for Volusia.

The Volusia County CHNA Partnership entities held a common vision to improve the population health and wellbeing in Volusia County. They committed to a 9-month long process of convening to review and examine county-level and sub-county level data, along with supporting the collection and review of primary-level data, in order to establish high-level and priority health issues. They agreed to invest in the creation of this shared community health needs assessment document that contains the examined and prioritized health issues, along with the data indicators and identified community assets. This shared document will then serve as a common resource for both the investing partner organizations and the many community stakeholders that will support the creation of community health improvement plans based on these findings.

The Leadership Team

Volusia County is well known for its collaborative spirit and hosts a network of highly integrated stakeholder organizations devoted to promoting and improving population health and wellness. As part of the Volusia County Community Health Needs Assessment Partnership process, a devoted group of community leaders and executives from 15 key local organizations devoted their time and expertise alongside the CHNA Partners to form the CHNA Leadership Team.

The Volusia County CHNA Partners

CEO's, Executives, Administrators, Community Benefit Managers, Researchers, Business Development and Population Health VP's, Data Experts, Finance Leaders and Community Health Specialists from these CHNA Partner Organizations provided the funding, expertise and resources to facilitate this document.

www.volusiahealth.com

www.fhdeland.org

www.fhfishmemorial.org

www.floridahospitalmemorial.org

www.fhnewsmyrna.org

www.halifaxhealth.org

www.onevoiceforvolusia.org

The Leadership Team

Special thanks to the Executives and Community Leaders from the following agencies who participated in the Community Health Needs Assessment process. Engaging active community stakeholders in the narrowing and selecting of our community's health priorities promotes asset sharing and collaboration when it comes time to address the selected health issues. See Appendix A for a full roster.

The Process

A CHNA is a process that uses quantitative and qualitative methods to systematically collect and analyze data to understand health within a specific community. An ideal assessment includes information on risk factors, quality of life, mortality, morbidity, community assets, forces of change, social determinants of health and health inequity, and information on how well the public health system provides essential services. According to the National Association of County and City Health Officials (NACCHO), community health assessment data informs community decision-making, the prioritization of health problems, and the development, implementation, and evaluation of community health improvement plans. In light of best practices, the Leadership Team provided their input and expertise by completing the following tasks through a series of meetings and document reviews:

- Reviewing secondary data detailing risk factors, quality of life, mortality, morbidity, and social determinants of health for the entire county, county quadrants and ZIP codes
- Discussing forces of change and community assets
- Interpreting community survey data and input from a variety of community stakeholders
- Reviewing the strengths and challenges of the public health system
- Assisting in gathering primary data from consumers served by representatives' organization
- Developing initial community-wide priorities to form a foundation for each partner's strategic planning activities

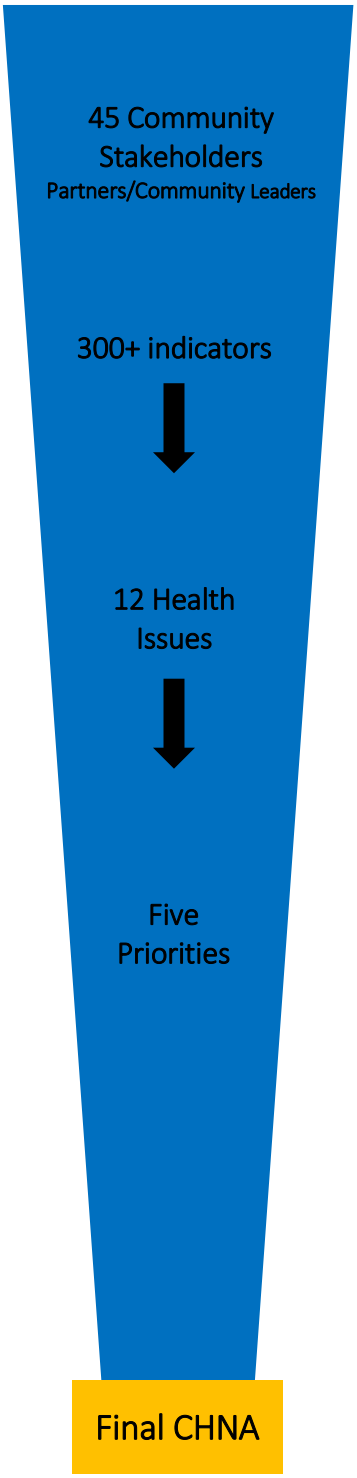
The Timeline

The Volusia CHNA process included a diverse compilation of collected data, analysis and prioritization activities that enabled the Leadership Team to gradually narrow down the areas of focus from over 300 data indicators to a final set of 5 countywide priorities for planning and action. The Leadership Team convened three times to complete these tasks, with meetings held on October 5, 2015, December 4, 2015 and March 15, 2016. Many of the Leadership Team also participated in; the Local Public Health System Assessment hosted on December 11, 2015, attended the Results-Based Accountability Workshop on February 29, 2016, hosted by Flagler Cares and One Voice for Volusia to support this process, and contributed to the vetting process at the April 13, 2016, One Voice for Volusia Coalition meeting.

By leveraging the present community assets of Volusia County against the identified and prioritized needs and disparities in this assessment, each partner will determine what to contribute to their own Community Health Improvement Plans. These individual plans will then serve as the foundation of a community-wide plan, vetted by community stakeholders, that harnesses the power of collective impact to make meaningful and significant improvements in our community. Through engaging community stakeholders on the leadership team throughout the needs assessment and vetting processes, the community will be poised for a collective vision in addressing the 5 countywide priorities.

Timeline Overview

Timeline	Process	Task
October 2015	**CHNA Leadership Team Meeting 1**	• Orientation
October-January 2015	**Gather 2003 Community Stakeholder Survey Responses**	• Community Input on health of community
December 2015	**CHNA Leadership Team Meeting 2**	• Review initial indicators (300+) • Forces of Change • Identify issues for research
December 2015	**Local Public Health System Assessment**	• Assess Public Health System
March 2016	**CHNA Leadership Team Meeting 3**	• Review data/information and determine initial priorities
April 2016	**Review & Input on Initial Priorities** *(hosted by One Voice for Volusia)*	• Validate initial priorities • Map assets and needs
April/May 2016	**Vetting & Stakeholder Engagement**	• Vet Initial priorities and engage community stakeholders - Healthy Volusia Coalition - *thrive by five Collaborative* - Volusia School Health Advisory Council - Circuit 07 Community Alliance - Volusia/Flagler Behavioral Health Consortium - The Volusia Economic Quarterly Meeting 1
June 2016	**CHNA Partner Meeting**	• Finalize Priorities & Determine next steps
June 2016	**CHNA Complete**	• CHNA finalized



The Stakeholders Scope

To maximize the reach and input received throughout the CHNA process, the Leadership Team utilized and mobilized the available community resources to gain input, review data, collect community assets, prioritize indicators and vet selections. The Volusia stakeholder scope is summarized below.

The 5 Selected Health Priorities

Through the Volusia County CHNA process the following 5 health priorities were identified by the leadership team and confirmed through a community stakeholder vetting process:

- **Adult Behavioral Health**
- **Youth Mental Health and Behavioral Health**
- **Chronic Disease: Cardiovascular and Diabetes**
- **Barriers to Accessing Health Care Services**
- **Health Eating and Physical Activity**

These 5 health priorities will be fully explored as part of the scope of this document. All 13 Health Issues reviewed throughout the CHNA prioritization process are included in the publication content and include a data cross referencing system for indicators that impact multiple priorities.

Document Utilization

The opening content of this document reviews the information and processes utilized by the partners and leadership teams to go from the over 300 health indicators they reviewed, to the selected 5 health priorities highlighted in this document. Each selected health indicator will be presented with a narrative along with supporting graphs, maps and data. The remaining portion is devoted to the other health areas of concern providing a broader picture of the communities' overall health and wellbeing. The entire document is best viewed using a social determinants of health lens when moving towards recommendations to consider for a collaborative community investment approach.

Data Collection

This document utilizes both primary and secondary data to characterize the health of Volusia County:

- **Primary data** was gathered first-hand through the collection of 2003 electronic and paper surveys that were made available to the public through the CHNA Partners and Leadership Team's internal and external outreach, social media, websites, United Way's 211, the Community Connector, radio promotion, television promotion, community posters and cards.
- **Secondary data** was collected in partnership with the Florida Department of Health in Volusia County and their Office of Informatics and Assessment. These data indicators are displayed in tables, graphs and maps throughout the document.

Data Considerations

The data compiled and analyzed in this document follows the Centers for Disease Control's (CDC) best practices approach to data utilization. The secondary data analyses provide descriptive information on demographic and socioeconomic characteristics and can be used to monitor progress and determine whether actions have the desired effect. They also characterize important parts of health status and health determinants, such as behavior, social and physical environments, and healthcare use.

The community health indicators gathered in this document follow the CDCs recommendations and are:

- Methodologically sound (valid, reliable, and collected over time)
- Feasible (available or collectable)
- Meaningful (relevant, actionable, and ideally, linked to evidence-based interventions)
- Important (linked to significant disease burden or disparity in the target community)

When available, data and indicators for the smallest geographic locations possible (e.g., county, or ZIP code-level data) have been provided to enhance the identification of local assets and gaps.

Considerations in Reviewing the Data

This is a data rich document created to reflect the current and historical trends for each selected health indicator. As you review the data portions of this document, here are some considerations to keep in mind:

Considerations when Reviewing Indicator Data

- What are Volusia County's major health risks and socio-economic problems?
- What are the County's major causes of death?
- What are the County's major causes of illness and disability?
- What are the County's major causes of hospitalizations?
- What is better/worse than Florida?
- What is getting better/worse than it has been in the past?

General Strategies for Interpreting Data

- Look for extremes and **outliers.**
- Compare to a **standard**. How does Volusia compare to Florida? How do sub-populations compare to each other, Volusia and Florida?
- Note the **magnitudes** (number of people affected)
- Look at **trends**. What are the changes over a period of time and does the trend show there is improvement or a decline?
- Identify and understand **causal factors**.

Cautions when Reviewing Indicator Data

There are important components of each graph to take note of prior to interpretation, including:

- **Scale:** The scale for each indicator is different. It may appear that charts on the same page are visually similar, but notice the range between tick marks on each indicator.
- **Scale of the y-axis (vertical axis):** Make sure you note the starting number on the y-axis (vertical axis) on each graph. For the purposes of clarity and space efficiency, some of the graphs will start the y-axis at a number other than 0. Be cautious when reviewing these graphs as the trends can appear exaggerated.
- **Trends:** When an indicator with a small number of occurrences is graphed, the trend lines can appear to move up and down significantly. Carefully consider the differences in each data point and the scale of the y-axis.
- **Crude Rate:** Unless otherwise noted, all graphs in the CHNA portray a crude rate. This rate is calculated using the total number of events in a specified time period divided by the total number of individuals in the population who are at risk for these events and multiplying by 1,000, 10,000 or 100,000, etc. Crude rates are influenced by the underlying age distribution of the population.

Important Terms When Reviewing Data

3-Year Rolling Rate is a calculation to analyze data points by creating series of different subsets of the full data set. A rolling rate is commonly used with time series data to smooth out short-term fluctuations and highlight longer-term trends or cycles. The three-year rolling rate is the sum of an indicator over 3-year rolling time periods.

Age-Adjusted Rate is the most common adjustment for public health data. The age-adjustment process removes differences in the age composition of two or more populations to allow comparisons between these populations independent of their age structure. The result is a figure that represents the theoretical risk of incidence for a population, if the population had an age distribution identical to that of a standard population.

Volusia County Profile

Stretching along 47 miles of the Atlantic Coast and west to the St. Johns River lies Volusia County, Florida. Located at the intersection of the I-4 and I-95 corridors, Volusia County is roughly the size of Rhode Island and sits about 50-miles northeast of Orlando, 60 miles north of the Kennedy Space Center, and 90 miles south of Jacksonville. Volusia County is geographically separated into east and west, and in some areas almost literally divided by wetlands. Volusia County has 16 cities--the city of Deltona, on the west, is the largest in population and Daytona Beach, on the east, ranks second, while unincorporated Volusia County makes up about one-fifth of the population.

In 2014, Volusia County's population increased over the half million mark to 507,531, growing 2.6% since 2010. Children 18 and under made up 18% of the population, while 23.2% of the population were 65 years and older.

According to the U.S. Census Bureau, the Volusia County median income was $40,818 and 11.7% of all families were living in poverty as last reported in 2014. The poverty indicator jumps to 24.0 % for households with children 18 and under and to 46.9% for female, single head of households with children under 18.

Preliminary Volusia County unemployment statistics for December 2015 have been released by the U.S. Department of Labor, Bureau of Labor Statistics, Local Area Unemployment Statistics Program. They show the civilian labor force at 236,801; total employment at 225,072 and total unemployment at 11,729, indicating an unemployment rate of 5.0 %, formerly at 10.8 % in 2011.

Volusia County is home to nine regionally-accredited colleges and universities and two technical colleges, with over 35,000 students enrolled in a variety of degree and certificate programs. These institutions offer a diverse focus of academic programs and have been recognized by U.S. News and World Report in the 2015 Best Colleges Rankings. 88.9% of Volusia residents have a high school education or higher and 22.5% have a bachelor degree or higher. During the 2015-16 school year, total public school enrollment (PreK-12) was 62,937.

In 2014, the Volusia County population was 83.9% white, 10.5% black and 5.6% other races or multi-racial. 12.2% of the population was Hispanic.

Volusia City Population[1]					
City	Number	Percent	City	Number	Percent
Daytona Beach	63,011	12.4%	Oak Hill	1,816	0.4%
Daytona Beach Shores	4,319	0.9%	Orange City	11,056	2.2%
DeBary	19,648	3.9%	Ormond Beach	39,075	7.7%
DeLand	29,194	5.8%	Pierson	1,746	0.3%
Deltona	86,890	17.1%	Ponce Inlet	3,100	0.6%
Edgewater	21,121	4.2%	Port Orange	58,742	11.6%
Holly Hill	11,765	2.3%	South Daytona	12,397	2.4%
Lake Helen	2,648	0.5%	Unincorporated Volusia County*	117,345	23.1%
New Smyrna Beach	23,658	4.7%	TOTAL Volusia County	507,531	100%

Population by Age (% of Total Population)	Volusia		Florida	
	Number	Percent	Number	Percent
Total Population	**507,531**	**100%**	**19,893,297**	**100%**
Under 18 years	91,735	18.1%	4,054,023	20.4%
Under 5 years	23,848	4.7%	1,077,572	5.4%
5 to 17 years	67,887	13.1%	2,976,451	15.0%
5-14 years	51,010	10.1%	2,270,896	11.4%
15-17 years	16,877	3.3%	705,555	3.5%
18-64	298,085	58.7%	12,048,320	60.6%
18 to 19 years	11,544	2.3%	490,484	2.5%
20 to 34 years	87,036	17.1%	3,820,223	19.2%
35 to 49 years	84,452	16.6%	3,736,953	18.8%
50 to 64 years	115,053	22.7%	4,000,660	20.1%
65 +	117,711	23.2%	3,790,954	19.1%
65 to 84 years	99,592	19.6%	3,266,698	16.4%
85 years and over	18,119	3.6%	524,256	2.6%

Sources: U.S. Census Bureau, 2014 American Community Survey unless otherwise noted
[1]U.S. Census Bureau, Annual Estimates of the Resident Population: July 1, 2014
**Calculated by subtracting total of city populations from county population*
Notes: Percentages may not add up to 100% due to rounding, Population age groups may not add up due to data from Census counts and Census estimates.

Population by ZIP code				
Quadrant	**ZIP code**	**City**	**ZIP code Population**	**Quadrant Population***
1	32102	Astor	N/A	80,288
	32130	De Leon Springs	5,364	
	32180	Pierson	4,166	
	32190	Seville	1,029	
	32720	DeLand	31,187	
	32724	DeLand	34,511	
	32744	Lake Helen	4,031	
2	32114	Daytona Beach	31,815	165,189
	32117	Daytona Beach	24,749	
	32118	Daytona Beach	16,850	
	32119	Daytona Beach	21,046	
	32124	Daytona Beach	6,663	
	32174	Ormond Beach	49,862	
	32176	Ormond Beach	14,204	
3	32713	DeBary	20,850	139,427
	32725	Deltona	46,273	
	32738	Deltona	45,948	
	32754	Mims	3,489	
	32763	Orange City	22,867	
	32764	Osteen	N/A	
4	32127	Daytona Beach	29,497	133,921
	32128	Port Orange	19,001	
	32129	Daytona Beach	20,768	
	32132	Edgewater	7,432	
	32141	Edgewater	18,270	
	32168	New Smyrna Beach	25,526	
	32169	New Smyrna Beach	10,682	
	32759	Oak Hill	2,745	

Sources: NEFLCounts.org, Claritas Data, January 2016
**Calculated by adding ZIP code population*

Population by Gender	Volusia		Florida	
	Number	Percent	Number	Percent
Male (% of Total Population)	247,580	48.8%	9,722,228	48.9%
0-17 (% of 0-17)	47,002	51.2%	2,071,679	51.1%
18-64 (% of 18-64)	147,170	49.4%	5,947,831	49.4%
65 + (% of 65+)	53,408	45.4%	1,702,718	44.9%
Female (% of Total Population)	259,951	51.2%	10,171,069	51.1%
0-17 (% of 0-17)	44,733	48.8%	1,982,344	48.9%
18-64 (% of 18-64)	150,915	50.6%	6,100,489	50.6%
65 + (% of 65+)	64,303	54.6%	2,088,236	55.1%

Population by Race (% of Total Population)	Volusia		Florida	
	Number	Percent	Number	Percent
White alone	425,788	83.9%	15,113,860	76.0%
Black or African-American alone	53,147	10.5%	3,221,160	16.2%
American Indian or Alaska Native alone	2,406	0.5%	53,014	0.3%
Asian alone	8,953	1.8%	524,583	2.6%
Native Hawaiian or other Pacific Islander alone	160*	0.0%*	15,149	0.1%
Some other race alone	8,277*	1.6%*	489,726	2.5%
Two or more races	8,800*	1.7%*	475,805	2.4%

Population by Ethnicity (% of Total Population)		Volusia		Florida	
		Number	Percent	Number	Percent
Hispanic or Latino (% of Total Population)		62,111*	12.2%*	4,788,870	24.1%
Population 5 years and over, Speak English less than "very well"	Spanish spoken at home**	17,677	3.7%	1,701,785	9.0%
	Other Indo-European languages spoken at home**	3,813*	0.8%*	331,252	1.8%
	Asian/Pacific Islander language spoken at home**	983*	0.2%*	134,345	0.7%
	Other languages spoken at home**	1,107*	0.2%*	30,744	0.2%

Other Population Characteristics	Volusia		Florida	
	Number	Percent	Number	Percent
Women of child-bearing age,15-50 (% of Total Pop.)	103,629	20.4%	4,516,605	22.7%
Total Births[1]	4,767		219,905	
Population of Veterans (% of 18+)	50,310	12.1%	1,461,722	9.3%

Sources:
U.S. Census, 2014 American Community Survey unless otherwise noted
1 Florida CHARTS
** Items have a large margin of error*

A “Social Determinants of Health” Lens:

To truly effect change, health indicators cannot be viewed or understood simply through primary or secondary data reviews or a clinical perspective. We ask all readers of this document to do so, using a “social determinants of health” lens. According to the Centers for Disease Control, conditions in the places where people live, learn, work, and play affect a wide range of health risks and outcomes. These conditions are known as social determinants of health (SDOH). Understanding data on social determinants of health, such as income, educational level, and employment, can help focus efforts to improve community health as it has been determined that 40% of an individual’s health and well-being will stem from their socio-economic status.

We know that poverty limits access to healthy foods and safe neighborhoods and that more education is a predictor of better health. We also know that differences in health are striking in communities with poor SDOH such as unstable housing, low income, unsafe neighborhoods, or substandard education. Healthy People 2020 highlights the importance of addressing SDOH by including “create social and physical environments that promote good health for all” as one of the four overarching goals for the decade. As we move to address the five identified health issues to include in the Community Needs Assessment, it will be important to review each one through the lens of the social determinants of health.

Median household Income: Median household income reflects the relative affluence and prosperity of an area. Areas with higher median household incomes are likely to have more educated residents and lower unemployment rates. Higher employment rates lead to better access to health care and better health outcomes, since many families get their health insurance through their employer. Areas with higher median household incomes also have higher home values and their residents enjoy more disposable income.

The 2014 Volusia median household income was $40,818, while Florida’s median household income was $47,463. Volusia's median household income has been consistently lower than Florida's. Although it has increased since 2011, it has not recovered to the 2010 estimate of $41,556.

Unemployment: The unemployment rate is a key indicator of the local economy. Higher rates of unemployment have both individual and societal ramifications and long term unemployment impacts housing, access to insurance and medical care, family dynamics and is associated with a higher prevalence of both physical and behavioral health issues due to the strain and stress and lack of access to care. A high unemployment rate also places a strain on social services and government systems.

Preliminary Volusia County unemployment statistics for December 2015 have been released by the U.S. Department of Labor, Bureau of Labor Statistics, Local Area Unemployment Statistics Program. They show the civilian labor force at 236,801; total employment at 225,072 and total unemployment at 11,729, indicating an unemployment rate of 5.0%, formerly at 10.8 % in 2011.

Wages: The living hourly wage was calculated at $10.22 for a single adult living in Volusia County in 2014 and the top 3 Occupations by number of jobs in 2014 were Retail Salespersons, Cashiers, and Waiter/Waitress with hourly wages ranging from $8.99 to $9.87. Restaurant Cooks were the fastest growing occupation by percent, earning an average of $10.55 an hour.

Housing: Spending a high percentage of household income on housing can create financial hardship, especially for lower-income renters. With a limited income, paying a high rent may not leave enough money for other expenses, such as food, transportation and medical. Moreover, high rent reduces the proportion of income a household can allocate to savings each month. In 2013, almost 50% of Volusia renters spent 35% or more of their gross household income on their rent making them housing-burdened.

Poverty: According to the US Census Bureau, 27.4% of Volusia children under 18 years of age were below the poverty level and that number almost doubles for female head of households with children under 5 in 2014. According to the United Way ALICE (**A**sset **L**imited, **I**ncome **C**onstrained, **E**mployed) Report, cited below, 46 % of Volusia County households are ALICE. It is also significant to note that there continues to be a disparity in poverty in Volusia County, with Blacks consistently having a greater percent of individuals below the poverty level than other ethnic/racial groups, the county and the state. Blacks and Hispanics in Volusia had a greater percentage of individuals below the poverty level than the county overall or the state.

Educational Impact of Poverty and Homelessness: According to the Institute for Children and Poverty, homeless children are nine times more likely to repeat a grade, four times more likely to drop out of school, and three times more likely to be placed in special education programs than their housed peers. Volusia County Schools reported that 2322 students met the federal definition of homeless and 213 Volusia County students were classified as homeless and unaccompanied in the 2015-16 school year.

An exhaustive study by the Educational Testing Service (ETS) Center for Research on Human Capital and Education Research in July 2013, found that children growing up in poverty complete less schooling, work and earn less as adults, are more likely to receive public assistance, and have poorer health. Boys growing up in poverty are more likely to be arrested as adults and their female peers are more likely to give birth outside of marriage. Researchers have estimated that the costs associated with child poverty total about $500 billion per year, or 4 percent of Gross Domestic Product (GDP).

Today, the achievement gap between the poor and the non-poor is twice as large as the achievement gap between Black and White students as reported by the ETS Center for Research on Human Capital and Education Research. The tracking of differences in the cognitive performance of toddlers, elementary and middle school students, and college-bound seniors shows substantial differences by income and/or poverty status.

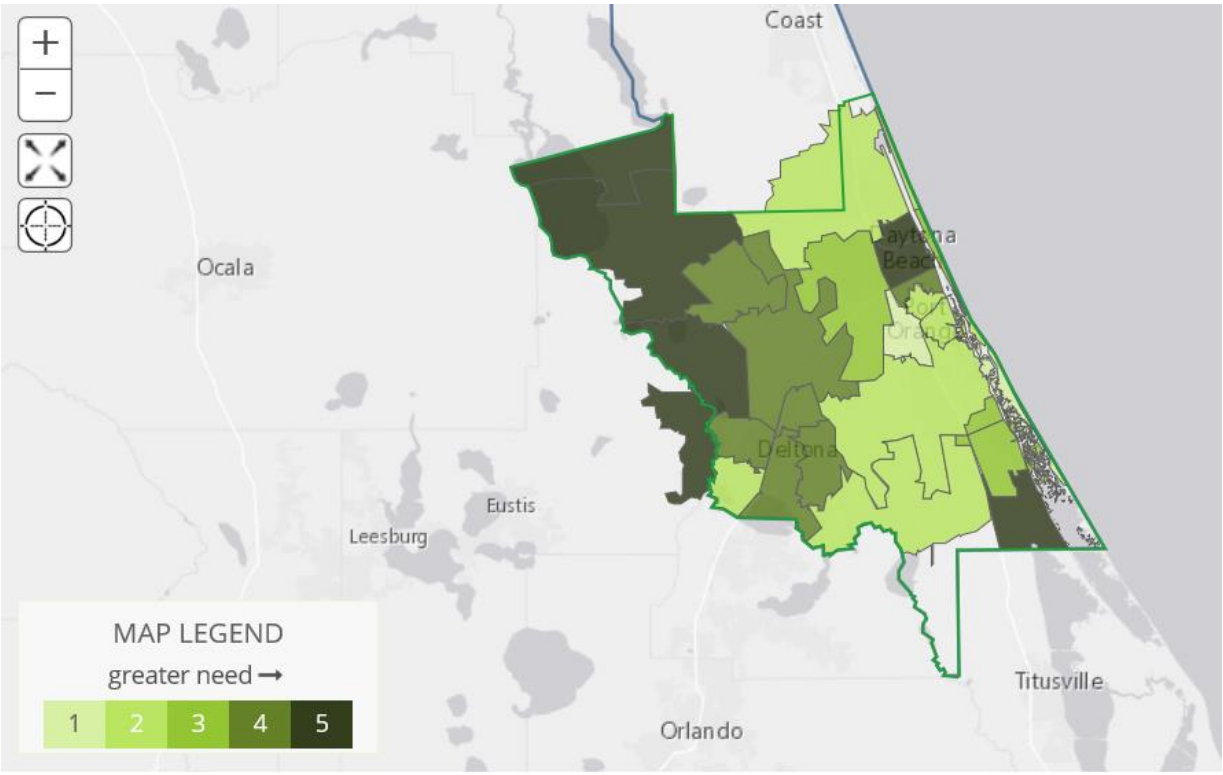
Educational Attainment: For many, having a bachelor's degree or certification combined with possessing soft skills such as promptness, strong communication skills, being a self-starter who is adaptable and able to problem solve, is the key to a solid economic future. Having a degree or in-demand certification also opens up career opportunities in a variety of fields, and is often the prerequisite to a higher-paying job. It is estimated that college graduates earn about $1 million more per lifetime than their non-graduate peers. In Volusia County 88.9% of residents 25 and older are High School graduates or higher and 22.5% hold a Bachelor’s Degree or higher.

Volusia's SocioNeeds Index

Created by Healthy Communities Institute, www.nefloridacounts.org

The 2016 SocioNeeds Index, created by Healthy Communities Institute, is a measure of socioeconomic need that is correlated with poor health outcomes. All ZIP codes, counties, and county equivalents in the United States are given an Index Value from 0 (low need) to 100 (high need). Areas in each location are ranked from 1 (low need) to 5 (high need) based on their Index Value.

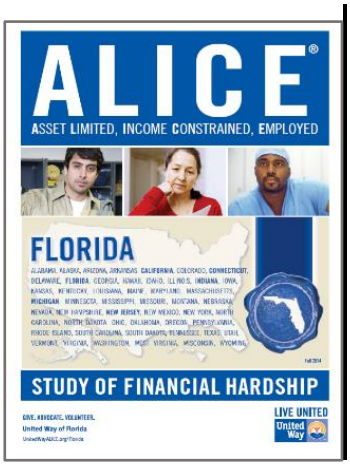
The SocioNeeds Index summarizes multiple socio-economic indicators into one composite score for easier identification of high need areas by ZIP code or county. The SocioNeeds Index is calculated for a community from several social and economic factors, ranging from poverty to education, that may impact health or access to care. The index is correlated with potentially preventable hospitalization rates, and is calculated using Nielsen Claritas estimates for 2016.



ZIP code	City	County Quadrant	Population	Index	Rank
32130	De Leon Springs	1	5,364	68.3	4
32180	Pierson	1	4,166	89.3	5
32190	Seville	1	1,029	80.5	5
32720	DeLand	1	31,187	78.8	5
32724	DeLand	1	34,511	64.3	4
32744	Lake Helen	1	4,031	66.2	4
32114	Daytona Beach	2	31,815	93.8	5
32117	Daytona Beach	2	24,749	93.7	5

ZIP code	City	County Quadrant	Population	Index	Rank
32118	Daytona Beach	2	16,850	57.1	3
32119	Daytona Beach	2	21,046	65.6	4
32124	Daytona Beach	2	6,663	60.8	3
32174	Ormond Beach	2	49,862	37.2	2
32176	Ormond Beach	2	14,204	47.6	2
32127	Daytona Beach	3	29,497	46.2	2
32128	Port Orange	3	19,001	20	1
32129	Daytona Beach	3	20,768	46.9	2
32132	Edgewater	3	7,432	54.8	3
32141	Edgewater	3	18,270	54.2	3
32168	New Smyrna Beach	3	25,526	49.1	2
32169	New Smyrna Beach	3	10,682	24.6	1
32713	DeBary	3	20,850	41.1	2
32725	Deltona	3	46,273	70.7	4
32738	Deltona	3	45,948	66.7	4
32759	Oak Hill	3	2,745	89.3	5
32763	Orange City	3	22,867	70.2	4
32764	Osteen	3	3,489	44.9	2

2014 ALICE Report: Asset Limited, Income Constrained, Employed



The official U.S. poverty rate, which was developed in 1965, has not been updated since 1974, and is not adjusted to reflect cost of living differences across the U.S. A lack of accurate measurements and even language to frame a discussion has made it difficult for states – including Florida – to identify the full extent of the economic challenges that so many of their resident's face.

This Report presents four groundbreaking instruments that measure the size and condition of households struggling financially, and it introduces the term ALICE – Asset Limited, Income Constrained, Employed. The Report includes findings on households that earn below the ALICE Threshold, a level based on the actual cost of basic household necessities in each county in Florida.
-ALICE Study of Financial Hardship

ALICE in Volusia County (2014)

Population (2012): 496,950 **Number of Households (2012):** 197,599
Median Household Income (2012): $40,106 (state average: $45,040)

How many households are struggling?
ALICE households (HH) earn more than the U.S. poverty level, but less than the basic cost of living for the county. Combined, the number of poverty and ALICE households equals the total population struggling to afford basic needs. Almost 46% of Volusia households are walking a financial tightrope. They are working hard, but falling short of what they need to consistently cover the basic costs of living. Unable to save for the future, they are vulnerable to a single emergency that can push them into crisis and even poverty.

Poverty 34,0166 HH 17%	**ALICE** 57,686 HH 29%	STRUGGLING	**Above ALICE** 105,897 HH 54%

Household Survival Budget, Volusia County		
Budget Item	**Single Adult**	**Family (Infant & Pre-K)**
Housing	$596	$866
Child care	$0	$950
Food	$176	$531
Transportation	$350	$699
Health care	$107	$426
Miscellaneous	$138	$361
Taxes	$151	$134
Monthly Total	$1,516	$3,968
ANNUAL TOTAL	$18,196	$47,617
POVERTY ANNUAL TOTAL	$11,170	$23,050

Economic Viability Dashboard, 2012

Index scores are from a possible 1 (worst) to 100 (best). Scores are coded by thirds: poor = bottom third; fair = middle third; good = top third of scores for each index.

	Volusia County
Housing Affordability Index Indicators include: Housing stock that ALICE households can afford, the housing burden, and real estate taxes	**Poor (45)**
Job Opportunities Index Indicators include: Income distribution, the unemployment rate, and new hire wages	**Poor (50)**
Community Support Index Indicators include: The violent crime rate, the size of the human services nonprofit sector, and access to health care.	**Good (58)**

ALICE Population and Housing Burden, Volusia County Towns, 2012

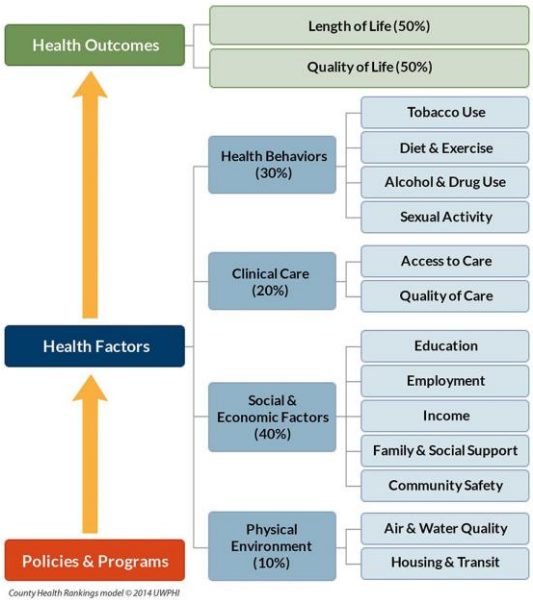
	Total Households	% ALICE & Poverty	Housing Burden	
			Owner pays over 30% of income	Renter pays over 30% of income
Central Volusia CCD	12,734	23%	36%	54%
Daytona Beach	21,560	62%	36%	52%
De Leon Springs CDP	856	43%	28%	3%
DeBary	7,780	32%	34%	61%
DeLand	9,704	48%	32%	57%
DeLand Southwest CDP	357	68%	43%	38%
Deltona	28,413	39%	35%	61%
Edgewater	8,358	38%	31%	62%
Holly Hill	4,875	60%	36%	54%
New Smyrna Beach	10,566	37%	36%	48%
North Peninsula CCD	11,894	45%	34%	46%
Orange City	4,996	54%	30%	74%
Ormond Beach	15,669	35%	31%	59%
Ormond-by-the-Sea CDP	3,922	44%	35%	51%
Pierson-Seville	2,471	44%	36%	50%
Ponce Inlet	1,509	20%	33%	19%
Port Orange CCD	27,662	46%	32%	51%
South Daytona	5,153	55%	34%	67%
South Peninsula	5,653	35%	37%	52%
West DeLand CDP	1,249	28%	27%	72%

2015 National County Health Rankings

www.countyhealthrankings.org

The *County Health Rankings*, a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, measure the health of nearly all counties in the nation and rank them within states. The *Rankings* are compiled using county-level measures from a variety of national and state data sources. These measures are standardized and combined using scientifically-informed weights.

The *County Health Rankings* are based on a conceptual model of population health that includes both Health Outcomes (length and quality of life) and Health Factors (determinants of health). These Outcomes and Factors are broken down into a number of components that are broken down further into subcomponents we call Focus Areas.



Volusia County rankings are displayed below and show how we "measure up" in comparison to the other 66 Counties in Florida over the last 6 years using this process. The lower the score the better the county ranks. To see how we compare to our fellow counties go to: http://www.countyhealthrankings.org/app/florida/2016/overview

Rank out of 67 Counties (lower is better)		**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
Health Outcomes	**Health Outcomes Overall**	**35**	**37**	**42**	**43**	**45**	**40**
	Length of Life	34	36	45	45	46	44
	Quality of Life	36	37	46	47	50	30
Health Factors	**Health Factors Overall**	**25**	**26**	**30**	**32**	**27**	**29**
	Health Behaviors	33	32	33	28	31	32
	Clinical Care	9	15	23	17	17	22
	Social & Economic Factors	32	36	38	43	37	40
	Physical Environment	15	21	11	32	54	44

Forces of Change Assessment

A facilitated "Forces of Change" brainstorming session took place on December 4, 2015 with the Volusia County CHNA Leadership Team members. The discussion sought to answer the following questions:

1. What has occurred recently that may affect our local health system or community?
2. What may occur in the future?
3. Are there any trends occurring that will have an impact?
4. What forces are occurring locally? Regionally? Nationally? Globally?
5. What characteristics of our county and state may pose an opportunity or threat?
6. What may occur or has occurred that may pose a barrier to achieving the shared vision

Forces of Change were identified and discussed by the participants in the context of eight categories:

1. Social/Population
2. Economic
3. Political
4. Environmental
5. Health
6. Technological/Scientific
7. Legal/Ethical
8. Other

Forces of Change include:

- **Trends**, patterns over time, such as migration in and out of a community or a growing disillusionment with government.
- **Factors**, discrete elements, such as a community's large aging population, a rural setting, or a jurisdiction's proximity to a major waterway.
- **Events,** one-time occurrences, such as a hospital closure, a natural disaster, or the passage of new legislation.

Discussion Results

Social/Population

- There are pockets of low income communities
- Deltona is experiencing an influx in the Puerto Rican population
- There is a trend toward an aging population
    - Need more indicators for this population
    - Most indicators are not in quartile 3 or 4
- Compared to the United States, there is an aging population
- There is a trend toward a more diverse population
- There is a change in the pattern of drug use/abuse
    - Affects the HIV/AIDS rate
    - Due to policy changes
- Increase in the number of single-parent households (in pockets of the community)
- Increase in grandparents raising grandchildren
- Decrease in the number of adults with bachelor's level education

Economic

- Still recovering from the recession
    - Affected construction
    - Gravy boat curve (flatter bottom of curve)
- Use of social services continues to increase

- Volusia County Community Services is seeing fewer clients
    - There is a higher population of working poor
    - Fewer people can sustain themselves
    - People have jobs so they don't qualify for receiving services
- Increased rate of underemployed
    - Working part-time rather than full-time
- Increased rate of uninsured due to eligibility brackets
- Increased population searching for work
    - Not included in the unemployment data
- Hospital funding for low income has decreased due to policy change
- More transient population due to tourist-based economy
- Considering pro-rated taxes in other states affecting the population here
- Curve toward more expensive care and/or higher deductibles leading less routine care
- State funds for mental health has been steady for years
- Public funds for mental health is for low income

Political

- Change of Medicaid to HMOs has decreased the number eligible
- Taxing districts are being viewed by legislators – potential changes may lead to change in response
- Lack of Medicaid expansion is affecting access
- Changes coming to food stamp eligibility will eliminate eligibility for some
- Hospitals are penalized for re-visits after discharge – trying to get to population health
- Current policies are focused on end results for individuals
    - Need to move toward using influential capital (legislative/political capital)
- Need to use time with policy makers wisely
    - Narrowing/focusing the message to come from all will help with this
- Need to hold legislatures accountable for improvements
    - Be involved in policy change
- Potential change in Baker Act

Environmental

- Transportation system can create barriers to care, work, etc.
- We are not a transportation-dependent community
    - This is more of a barrier for West Volusia
- Culture of "don't want to change my behavior – fix me when needed"
    - Truly affects end-of-life care
- Volusia County does not have a "culture of health"
- Schools have efforts started
    - There are limitations due to education time constraints

Health

- Recruitment of physicians is a challenge
    - More for specialties than family physicians
- Not "all" family physicians see "all" patients
- Changes are coming to models of care leading to more "retail" style
- Family practice residency program has helped us
- Shift from self-employed physicians to employed physicians

- Growing mistrust leading to poorer relationships with doctors leading to more use of web-based research and "treatment"
- Personal health philosophy affects timing of seeking care
- Underlying mental health challenges throughout the county affects seeking care
- Health issues for seniors are deeper than what presents
    - Look at aging in place safely
- Family dynamics affect health lifestyle choices
    - Need to reach people in their environment to change the norm
- Those who want to change still have barriers
    - Need to help them
    - Need to change their social determinant barriers
- Opportunities to reach individuals is in schools
- Physicians not accepting Medicaid leads to self-diagnosis and treatment by patients

Technology/Scientific

- Build trust to build relationships
- New technology leads to new opportunities to break out of siloes and use data to determine how to get positive outcomes (on leading edge now)
- It will take a long time due to breaches
- Use of telehealth
- Health care is very advanced for treatment but not records
- Push of electronic medical records has helped
- Highest risk population does not use personal technology to its fullest advantages
- Opportunity to increase health literacy through technology

Legal/Ethical

- Changed rules for consent for HIV testing
- Shared information – need ways to share data
- Next step to care continuum is shared/networked databases (also for analytics)
- All hospitals and hospital physicians and 85% of private physicians are on electronic health records
    - They are not shared
- Having difficulty with proprietary nature of electronic health records apps
    - It is a very complicated problem

Other

- Reduction of government has affected community
    - Decreased county health department staff
    - Decreased social services
    - Education
- Need to reach out to other "systems"; i.e., churches, etc.

Volusia County Local Public Health System Assessment

A special community meeting was hosted by Healthy Volusia and the Florida Department of Health in Volusia County on December 11, 2015 to engage community stakeholders in the assessment of the local public health system in Volusia County. 68 individuals representing 27 organizations participated in the meeting. The facilitated discussions and small group work was based on a national assessment model and instrument designed by the National Association of County & City Health Officials (NACCHO). The goal of the meeting was to assess the level of local activity in the 10 Essential Public Health Services:

1. **Monitor health status** to identify and solve community health problems
2. **Diagnose and investigate** health problems and health hazards in the community
3. **Inform, educate, and empower** people about health issues
4. **Mobilize community partnerships** to identify and solve health problems
5. **Develop policies and plans** that support individual and community health efforts
6. **Enforce laws and regulations** that protect health and ensure safety
7. **Link people to needed personal health services** and assure the provision of health care when otherwise unavailable
8. **Assure a competent** public and personal health care **workforce**
9. **Evaluate** effectiveness, accessibility, and quality of personal and population-based health services
10. **Research** for new insights and innovative solutions to health problems

Summary of Findings

The primary purpose of the Local Public Health System Assessment Report summarized here is to promote continuous improvement that will result in positive outcomes for system performance. The report can be used as a working tool to:

- Better understand current system functioning and performance
- Identify and prioritize areas of strengths, weaknesses, and opportunities for improvement
- Articulate the value that quality improvement initiatives will bring to the public health system
- Develop an initial work plan with specific quality improvement strategies to achieve goals
- Begin taking action for achieving performance and quality improvement in one or more targeted areas
- Re-assess the progress of improvement efforts at regular intervals.

Calculation of Scores

The assessment instruments are constructed using the 10 Essential Services as a framework. Within the Local Instrument, each Essential Service includes between 2-4 Model Standards that describe the key aspects of an optimally performing public health system. Each Model Standard is followed by assessment questions that serve as measures of performance. Responses to these questions indicate how well the Model Standard - which portrays the highest level of performance or "gold standard" - is being met.

Levels of Activity for Essential Services and Model Standards

Optimal Activity (76-100%)	Greater than 75% of the activity described within the question is met.
Significant Activity (51-75%)	Greater than 50%, but no more than 75% of the activity described within the question is met.
Moderate Activity (26-50%)	Greater than 25%, but no more than 50% of the activity described within the question is met.
Minimal Activity (1-25%)	Greater than zero, but no more than 25% of the activity described within the question is met.
No Activity (0%)	0% or absolutely no activity.

Using the responses to all of the assessment questions, a scoring process generates score for each Model Standard, Essential Service, and one overall assessment score.

Summary of Average Scores, by Essential Service

Average Overall Scores	**48.3**
ES 1: Monitor Health Status	**63.9**
ES 2: Diagnose and Investigate	**63.9**
ES 3: Educate/Empower	**61.1**
ES 4: Mobilize Partnerships	**64.6**
ES 5: Develop Policies/Plans	**47.9**
ES 6: Enforce Laws	**48.1**
ES 7: Link to Health Services	**37.5**
ES 8: Assure Workforce	**21.4**
ES 9: Evaluate Services	**39.2**
ES 10: Research/Innovations	**35.4**

Prioritization of Model Standards

After the scoring results were compiled, participants were asked to participate in a prioritization process at the Healthy Volusia meeting on January 26,2016. The following Model Standards received the highest priority rating by the assembled group.

Model Standard	**Priority Rating**
1.1 Community Health Assessment	10
1.2 Current Technology	10
1.3 Registries	10
2.1 Identification/Surveillance	10
2.3 Laboratories	10
3.1 Health Education/Promotion	10
3.2 Health Communication	10
3.3 Risk Communication	10
4.1 Constituency Development	10

Model Standard	Priority Rating
4.2 Community Partnerships	10
5.1 Governmental Presence	10
5.2 Policy Development	10
5.3 CHIP/Strategic Planning	10
35.4 Emergency Plan	10
7.1 Personal Health Services Needs	10
7.2 Assure Linkage	10
8.1 Workforce Assessment	10
8.2 Workforce Standards	10
8.3 Continuing Education	10
8.4 Leadership Development	10
10.1 Foster Innovation	10
10.2 Academic Linkages	10
10.3 Research Capacity	10

Primary Data Collection: Volusia Community Health Survey 2015-2016

Methodology

The 2015-2016 Community Health Survey in Volusia and Flagler Counties relied primarily on an Internet based survey (which was collected using Survey Monkey) to reach as many respondents as possible within the limits of the project budget. The online survey was available in English and Spanish via www.communityhealthsurvey.com. There were 2,150 Internet surveys collected. Paper surveys, also available in Spanish and English, were utilized to reach individuals without convenient access to the Internet and were manually entered. 530 paper surveys were manually entered.

The online and paper surveys were promoted and distributed through email communication, postings on various websites, social media, radio and television and paper surveys made available at partner's places of business. Partners included:

- The nonprofit, governmental and business partners involved in the Community Health Needs Assessment process
- The members and 115 partner organizations of One Voice for Volusia
- The Community Connector, an e-blast system with over 2,900 subscribers.

The 21-questions survey, based on an instrument used nationally, included questions regarding perceived quality of life and health of the community, health concerns, barriers to health care, use of health care, health care needs and demographic information.

A total of 2,680 individuals completed the Volusia/Flagler Community Health Survey (online or via paper surveys). Five individuals completed the survey online in Spanish (no Spanish paper surveys were completed). The survey respondents were asked "*Where is your permanent residence*?"

- 2,003 reported that they lived in Volusia county
- 584 reported that they lived in Flagler county
- 81 reported that they lived in another Florida county
- 12 reported that they lived outside of Florida

Only the 2,003 Volusia respondents are included in the presentation of survey results in the following tables.

Limitations

Convenience Sampling

A convenience sampling methodology was used for the 2015-2016 Community Health Survey. The convenience sampling process is a non-probability sampling technique that relies on the collection of data from populations within easy reach of the researcher. In this case, community agencies were asked to promote the survey with their customers, staff and other stakeholders. This method was selected for ease and budget restrictions. Convenience sampling is much different from a random sampling methodology where the survey population is randomly sampled to gain responses from every population subset.

Limitations and Cautions with Convenience Sampling
Convenience sampling can lead to the under-representation or over-representation of particular groups within the sample. This was the case with the 2015-2016 Community Health Survey for several subsets of the Volusia County population including males and individuals age 18-24. It is important to understand that convenience samples do not produce representative results because of the inherent biases. The results presented here cannot be considered representative of the entire population.

Limitations of Internet Surveys
Although paper surveys were made available, the survey process relied primarily on the Internet survey. Households without access to the Internet and Internet survey results tend to underrepresent lower-income, less educated and minority households.

Community Health Survey Respondent Demographics

Gender	**Volusia** (n=2,003)	
	number	percent
Male	363	18.12
Female	1,544	77.08
No Response	96	4.79
Total	2,003	100.00

Race Identification	**Volusia** (n=2,003)	
	number	percent
Black/African American	192	9.59
White/Caucasian	1,612	80.48
Asian/Pacific Islander	19	0.95
Other	98	4.98
No response	82	4.09
Total	2,003	100.00
Question: Race: Which group do you most identify with? (Check ONE selection)		

Ethnic Identification	Volusia (n=2,003)	
	number	percent
Not Hispanic/Latino	1,255	62.66
Mexican	18	0.90
Puerto Rican	92	4.59
Cuban	4	0.20
South American	16	0.80
Central American	66	3.30
Other	245	12.23
No response	307	15.33
Hispanic Subtotal	196	9.79
Total	2,003	100.00
Question: Ethnicity: Which group do you most identify with? (Check ONE selection)		

Age	Volusia (n=2,003)	
	number	percent
Less than 18	14	0.70
18-24	58	2.90
25-35	177	8.84
35-44	293	14.63
45-54	443	22.12
55-64	522	26.06
65+	422	21.07
No response	74	3.69
Total	2,003	100.00

Marital Status	Volusia (n=2,003)	
	number	percent
Single	409	20.42
Married	1,026	51.22
Divorced	320	15.98
Widowed	191	9.54
No response	57	2.85
Total	2,003	100.00

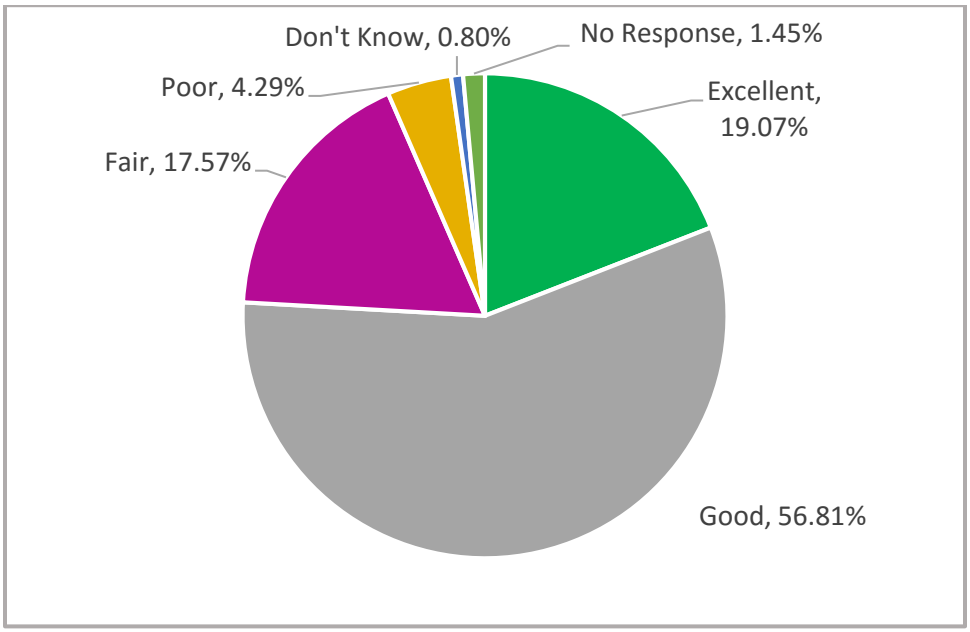
Education	Volusia (n=2,003)	
	number	percent
Elementary/Middle School	38	1.90
High school diploma or GED	265	13.23
Technical/Community College	362	18.07
4-year College/Bachelor's degree	500	24.96
Graduate/Advanced degree	382	19.07
Some college	389	19.42
No Response	67	3.34
Total	2,003	100.00
Question: Education: Please check the highest level completed: (Check ONE selection)		

Employment Status	Volusia (n=2,003)	
	number	percent
Employed full-time	1,221	60.96
Employed part-time	160	7.99
Unemployed	42	2.10
Self-Employed	50	2.50
Not seeking work	8	0.40
Retired	354	17.67
Home maker	44	2.20
Student	25	1.25
Other	56	2.80
No Response	43	2.15
Total	2,003	100.00

Household Income	Volusia (n=2,003)	
	number	percent
Less than $10,000	166	8.29
$10,000 to $19,999	250	12.48
$20,000 to $29,999	254	12.68
$30,000 to $49,999	354	17.67
$50,000 to $74,999	372	18.57
$75,000 to $99,999	215	10.73
$100,000 or more	270	13.48
No Response	122	6.09
Total	2,003	100.00

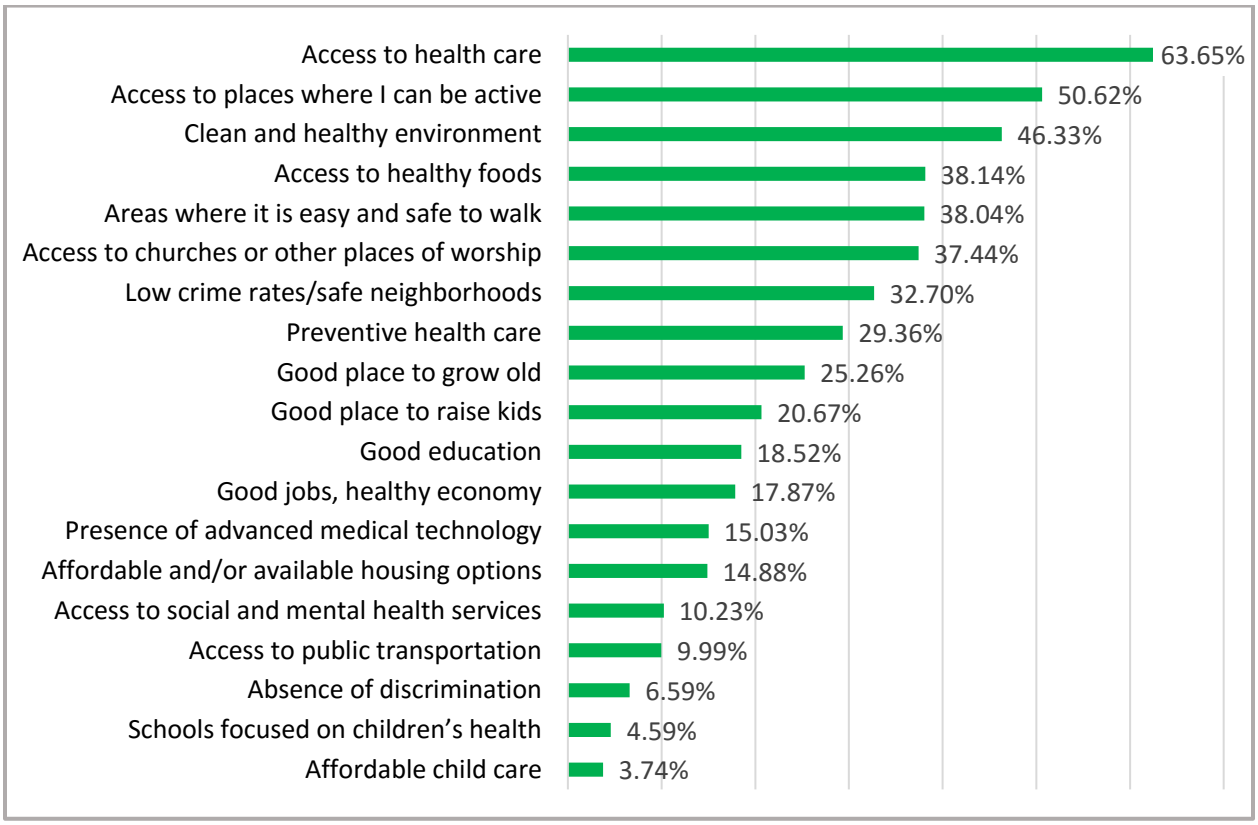
Overall Health

Survey Question: How do you rate your overall health?



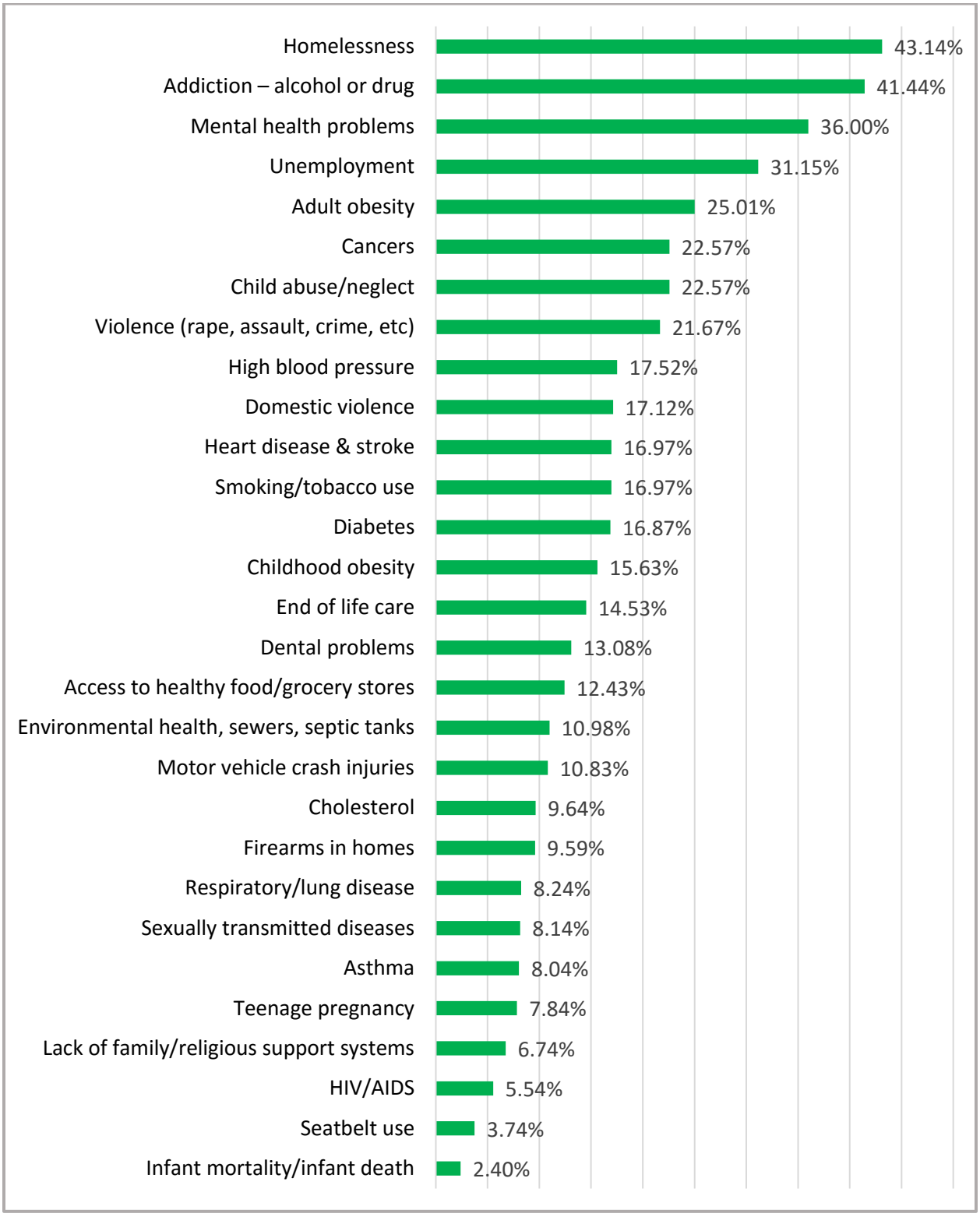
Things that Allow YOU to be Healthy Where You Live

Survey Question: Check up to 5 things that allow YOU to be healthy where you live



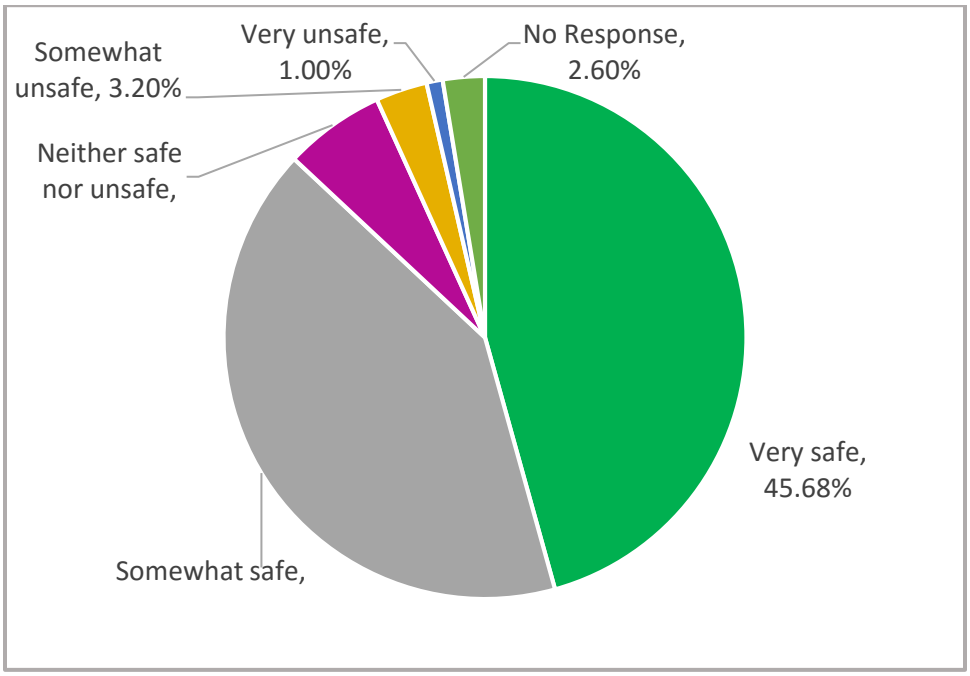
Health Issues YOU are Most Concerned About

Survey Question: Check up to 5 health issues YOU are most concerned about in your county:



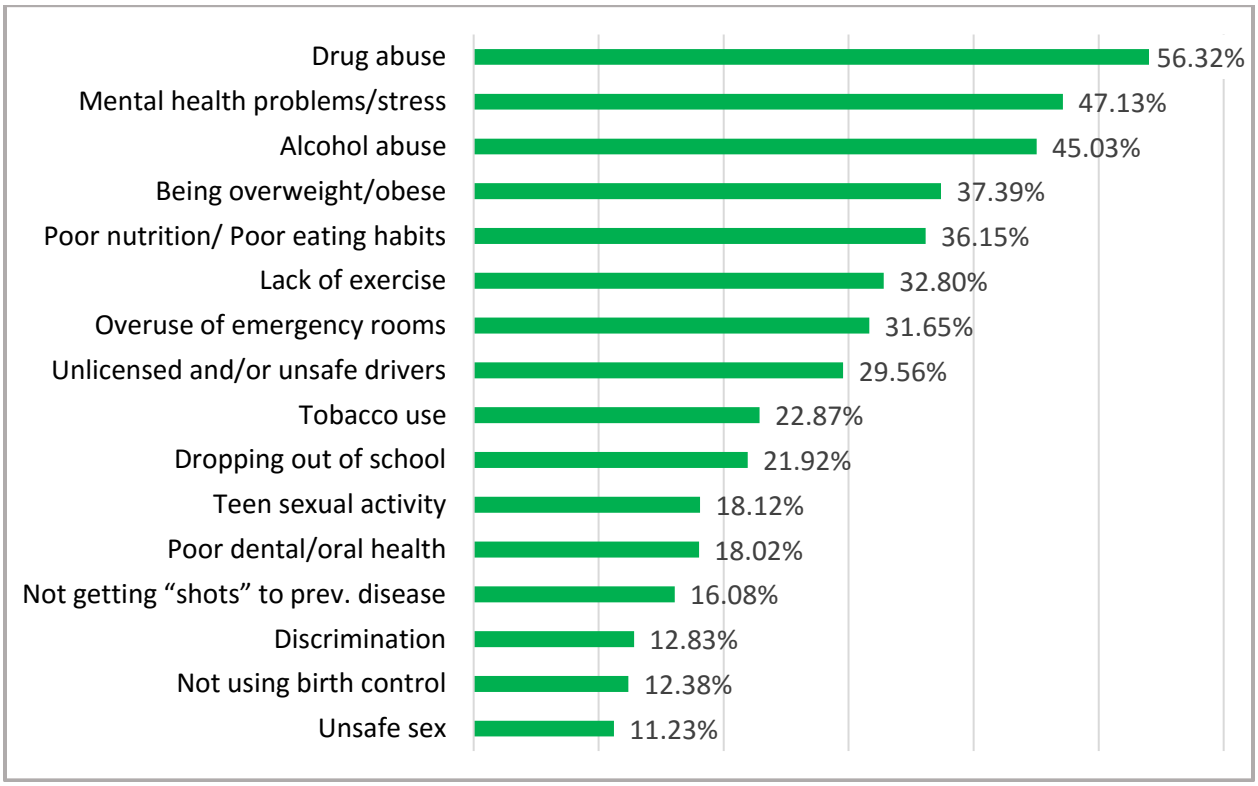
How Safe Do You Feel?

Survey Question: How safe do you feel where you live?



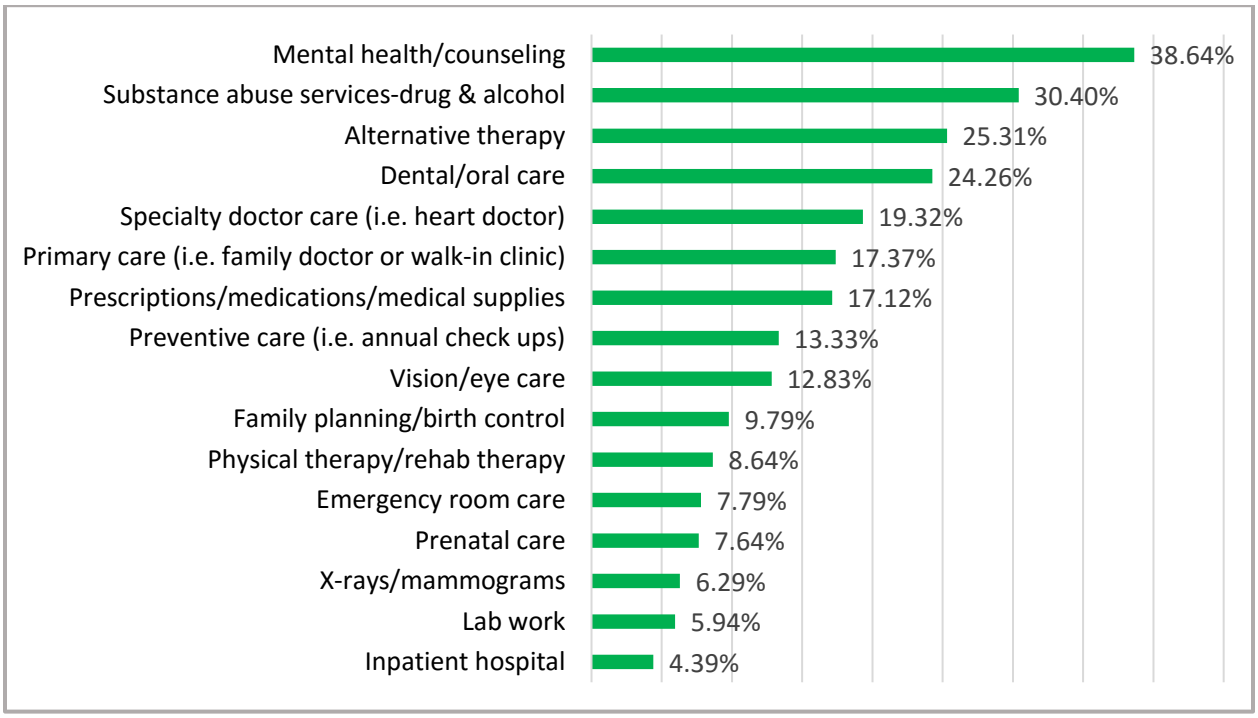
Unhealthy Behaviors YOU are Most Concerned About

Survey Question: Check up to 5 unhealthy behaviors YOU are most concerned about in your county



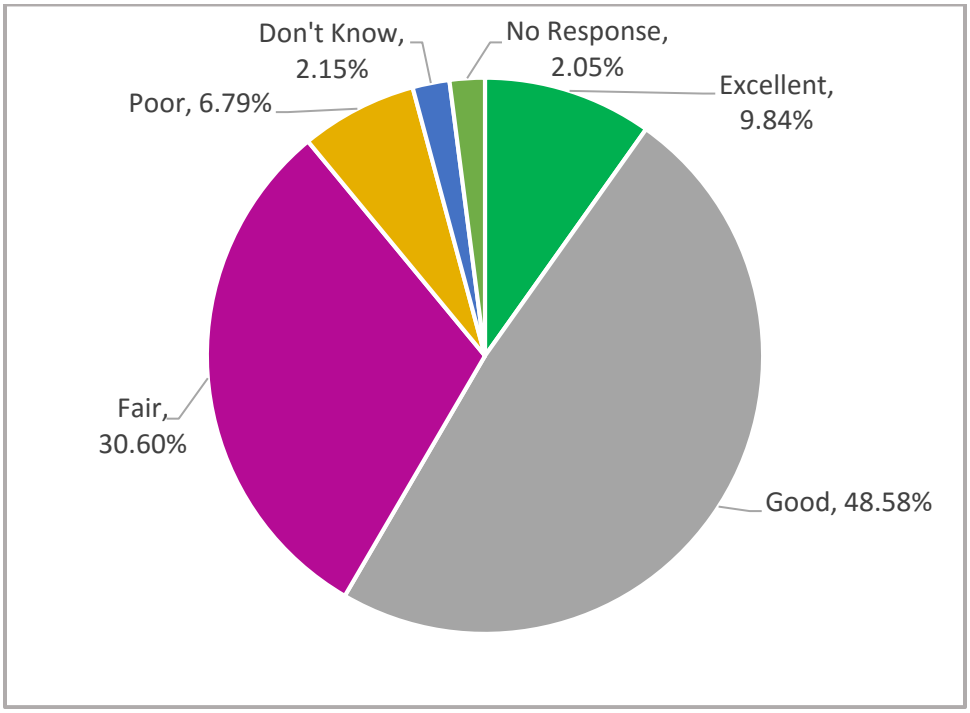
Health Services that are Difficult to Obtain

Survey Question: What health care services are difficult to obtain in your community? (Check ALL that apply)



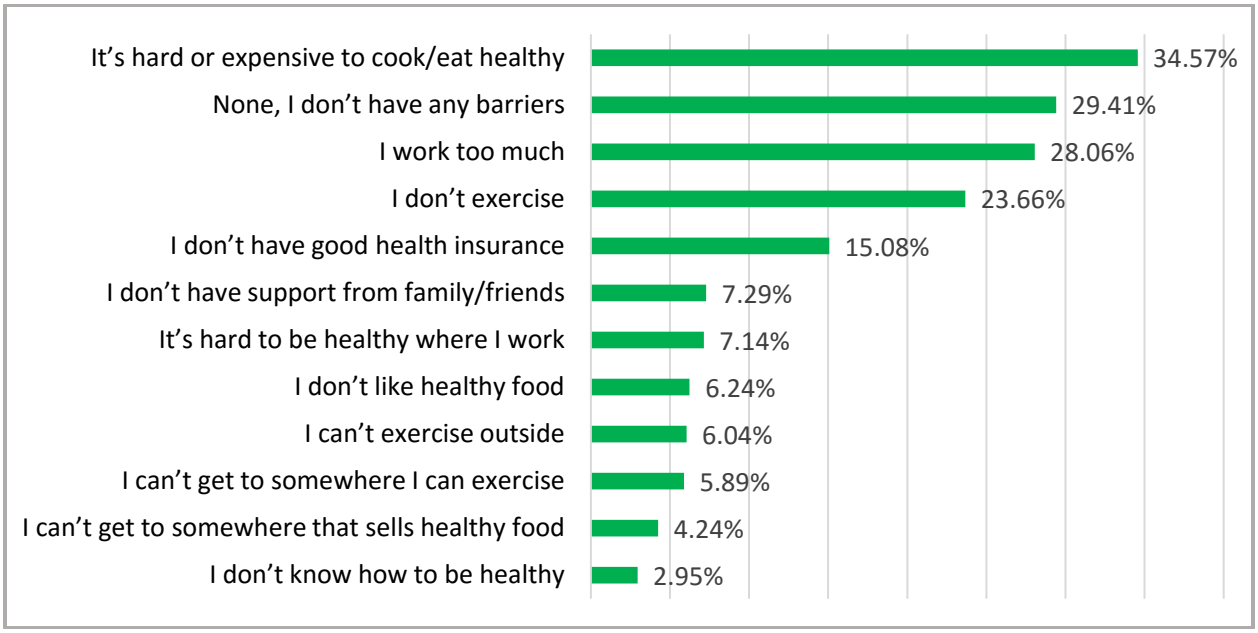
Quality of Health Services

Survey Question: How do you rate the quality of health services in your county?



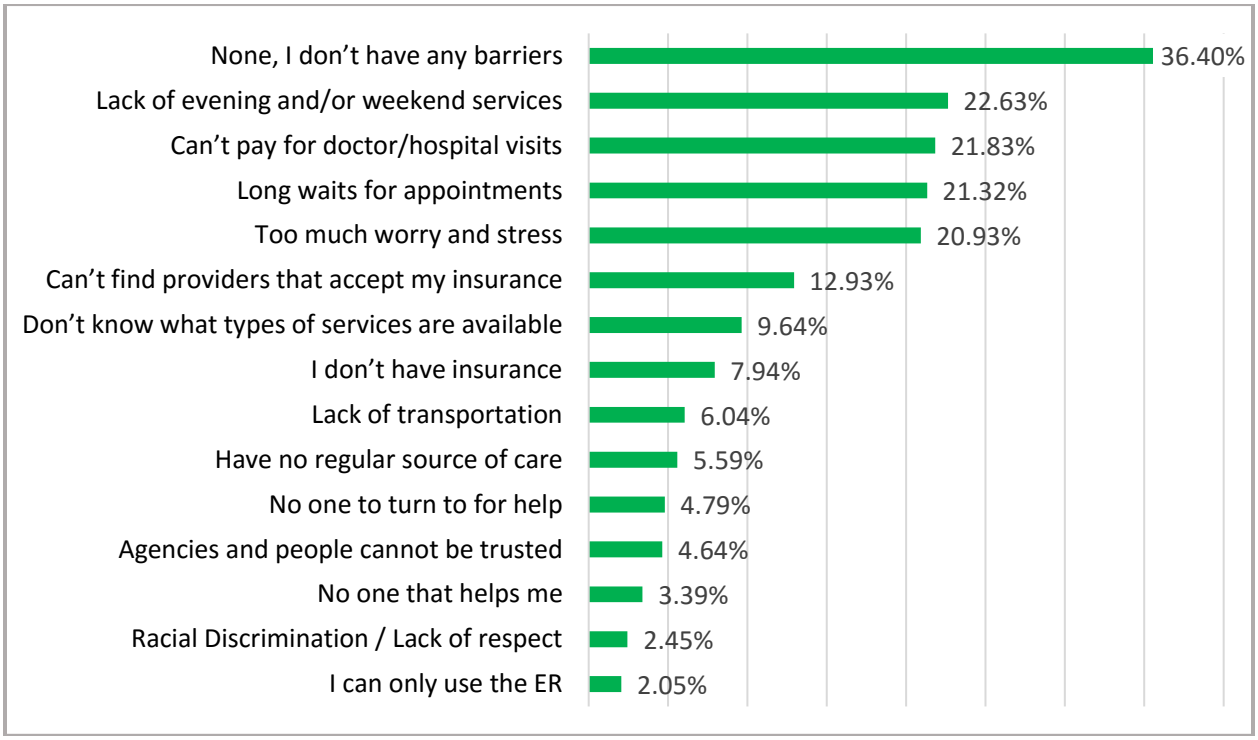
Barriers for YOU to Get or Stay Healthy

Survey Question: What do you feel are barriers for YOU getting or staying healthy in your county? (Check ALL that apply):



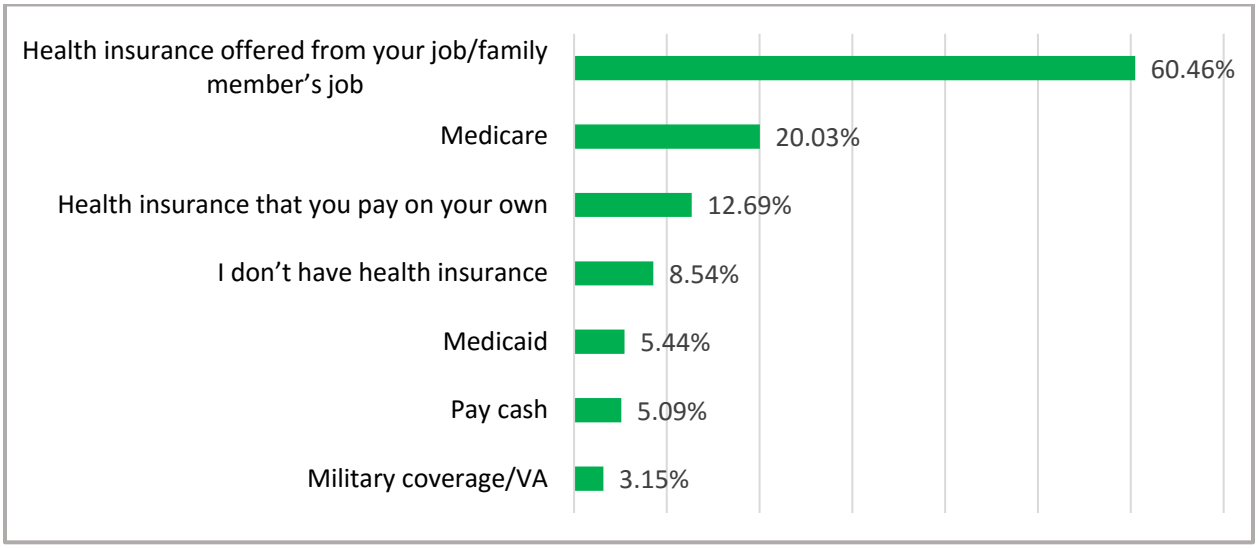
Barriers for YOU to get Health Care

Survey Question: What do you feel are barriers for YOU getting health care in your county? (Check ALL that apply)



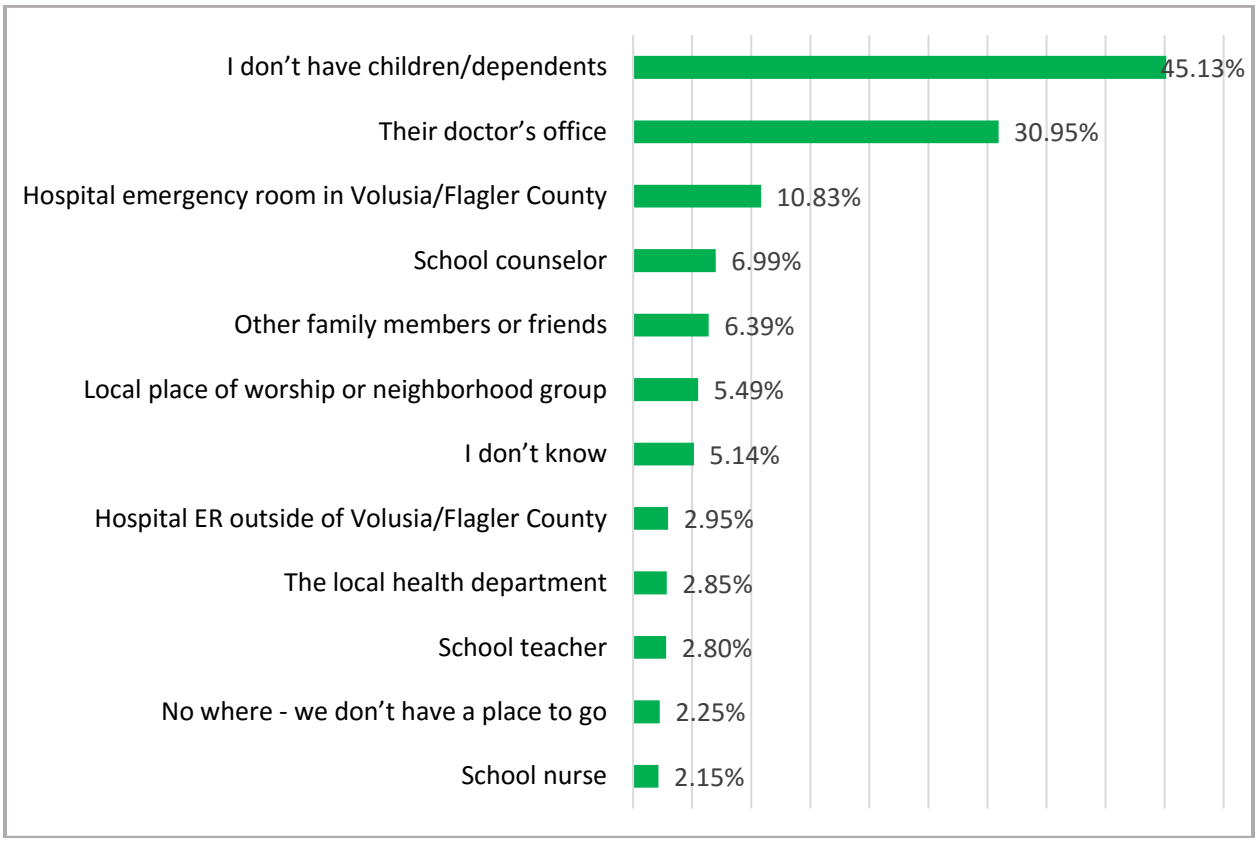
Health Coverage

Survey Question: How is your health care covered? (Check ALL that apply)



Where You Would Go if you were Concerned about Your Child

Survey Question: Where would you go if you were worried about your child's mental, physical or social health? (Check ALL that apply)



Major Causes of Death & Contributing Factors

In 2014, the 10 leading causes of death in Volusia were heart disease, cancer, chronic lower respiratory diseases, unintentional injuries, stroke, Alzheimer's disease, diabetes, suicide, chronic liver disease and cirrhosis, and Kidney disease. Understanding the contributing factors and modifiable risk factors related to the causes of death becomes important in the quest to both extend life expectancy and increase the quality of life.

Volusia County Top Ten Causes of Death, 2014

(sorted by Age-adjusted Death Rate)

Cause of Death	Deaths	Percent of Total Deaths	Crude Rate Per 100,000	Age-adjusted Death Rate Per 100,000
Heart Disease	1,584	23.7	314.8	181.6
Cancer	1,424	21.3	283.0	172.0
Chronic Lower Respiratory Disease	503	7.5	100.0	58.0
Unintentional Injuries	254	3.8	50.5	42.9
Stroke	355	5.3	70.6	40.5
Alzheimer's Disease	334	5.0	66.4	34.7
Diabetes Mellitus	224	3.3	44.5	27.4
Suicide	106	1.6	21.1	19.5
Chronic Liver Disease and Cirrhosis	116	1.7	23.1	16.9
Kidney Disease	120	1.8	23.8	14.0
All Causes	6,695	100	1,330.50	808.4

Source: *Florida Department of Health, Bureau of Vital Statistics*

Chronic diseases are the leading causes of death not just in Volusia, but world-wide and a small set of common risk factors are responsible for most of the main chronic diseases. These major risk factors are modifiable and the same in men and women; unhealthy diet, physical inactivity and tobacco use. Harmful alcohol use is also an important contributor to the global burden of disease but its relationship to chronic disease is more complex.

The major modifiable risk factors, in conjunction with the non-modifiable risk factors of age and heredity, explain the majority of new events of heart disease, stroke, chronic respiratory diseases and some important cancers. Other risk factors for chronic disease include infectious agents that are responsible for cervical and liver cancers, and some environmental factors, such as air pollution, which contribute to a range of chronic diseases including asthma and other chronic respiratory diseases. Psychosocial and genetic factors also play a role.

There is now extensive evidence that conditions before birth and in early childhood influence health in adult life. For example, low birth weight is now known to be associated with increased rates of high blood pressure, heart disease, stroke and diabetes.

The underlying determinants of chronic diseases are a reflection of the major forces driving social, economic and cultural change – globalization, urbanization, population aging, and the general policy environment. Poverty and chronic disease are interconnected in a vicious circle. The poor are more vulnerable for several reasons, including greater exposure to risks and decreased access to health services. Psychosocial stress also plays a role and over 36% of Volusia residents listed Mental Health problems and stress as one of the "top unhealthy behaviors YOU are most concerned about" in the recent Community Health Survey.

Prevention

Many conditions and diseases can be prevented through healthy lifestyle choices, avoidance of environmental risks and management of other conditions. Vaccines and immunizations can also prevent the onset of certain diseases.

- **A Healthy Eating Plan** emphasizes fruits, vegetables, whole grains, and fat-free or low-fat milk and milk products; Includes lean meats, poultry, fish, beans, eggs, and nuts; is low in saturated fats, trans fats, cholesterol, salt (sodium), and added sugars; and stays within your daily calorie needs.
- **Regular Physical Activity** helps improve your overall health and fitness, and reduces your risk for many chronic diseases.
- **A Healthy Weight** is achieved through a lifestyle that includes healthy eating, regular physical activity, and balancing the number of calories consumed with the number of calories a body uses. People who are obese, compared to those with a normal or healthy weight, are at increased risk for many serious diseases and health conditions.
- **Avoiding Too Much Alcohol,** which can raise blood pressure levels and the risk for heart disease. It also increases levels of triglycerides, a form of cholesterol, which can harden your arteries.
- **Avoiding Tobacco Use,** which increases the risk for heart disease and heart attack and harms nearly every organ of the body, causes many diseases.
- **Vaccines and Immunizations** can prevent many conditions, including Cervical Cancer (Human Papillomavirus), Hepatitis A and B, Influenza (Flu), and Tuberculosis (TB).

Early Detection

Screening and testing for particular conditions can increase the likelihood of early detection, successful interventions and proper management of particular conditions.

Cancer: The CDC supports screening for breast, cervical, colorectal (colon), and lung cancers

Heart Disease

- Check Cholesterol: test blood levels of cholesterol at least once every 5 years
- Control Blood Pressure: measure your blood pressure at least once every 2 years

Diabetes: Anyone aged 45 years or older should consider getting tested for diabetes, especially if they are overweight.

Shared Risk Factors

Many chronic diseases have risk factors in common, including health behaviors and other health conditions.

	Conditions				Behaviors				
	High Blood Pressure	High Cholesterol	Diabetes	Heart Disease	Unhealthy Diet	Physical Inactivity	Obesity	Too Much Alcohol	Tobacco Use
Heart Disease	X	X	X		X	X	X	X	X
Chronic Lower Respiratory Disease									X
Stroke	X	X	X	X	X	X	X	X	X
Diabetes Mellitus		X				X	X		
Chronic Liver Disease and Cirrhosis								X	

Volusia County 5 Priority Health Issues:

The Volusia CHNA Leadership Team met on March 15, 2016, to discuss twelve health issues detailed in a 140-page document sent to each member prior to the meeting. The document included a summary of the Forces of Change exercise, the Local Public Health System Assessment, the 2015-16 Community Health Survey results and the latest indicator data related to each health issue. Members were asked to consider each health issue through the lens of three prioritization criteria:

1. **Impact:** How much does this issue affect other issues? What is the cost of NOT addressing the problem?
2. **Trend & Magnitude of Difference:** Has the trend improved or worsened in the last five years? How much worse is the problem in Volusia compared to Florida?
3. **Feasibility:** Are there successful strategies to address this problem? Is there a positive cost-benefit to addressing the problem?

Utilizing a multi-voting technique, the 12 selected health issues were reduced to 5 initial priorities. These 5 selected priorities were then presented to other community leaders, citizens and stakeholders for validation and input. The priorities outlined below along with the in-depth data reports that led to their selection will be explored in detail throughout this document and will lay the foundation for community-wide health improvement planning. The other health issues explored during this process remain an important part of community health and well-being and have also been included in this document.

Adult Behavioral Health

- Adult Mental Health and Substance Abuse are closely tied to the other initial priorities and other socioeconomic issues such as domestic violence, child abuse and housing stability/homelessness.

Youth Mental Health and Behavioral Health

- It is estimated that 50 percent of mental health conditions manifest themselves during adolescence. Preventing mental and/or substance use disorders and related problems in children, adolescents, and young adults is critical to Americans' behavioral and physical health.

Chronic Disease: Cardiovascular Diseases and Diabetes

- The modifiable risk factors for both Cardiovascular Disease and Diabetes are similar and closely related to healthy eating and physical activity.
- Disparities must be addressed for sub-groups disproportionally impacted (age, gender, income, race/ethnicity, health insurance status, employment status, housing status, residence in the county).

Barriers to Accessing Health Care Services

- Despite the existence of many health care resources, there remains access barriers for some sub-groups of the population (individuals living in poverty, homeless, certain racial/ethnic groups, individuals without health insurance, individuals living in certain areas of the county)
- Of particular concern were: women of child bearing age accessing interconceptional care services and homeless individuals accessing care.

Healthy Eating and Physical Activity

- The health behaviors of Healthy Eating and Physical Activity are directly related to health and wellness in general.

1. Adult Behavioral Health

Behavioral health is a term that covers the full range of mental and emotional well-being – from coping with daily life challenges to the often complex treatment of mental illnesses, such as depression or personality disorder, as well as substance use disorder and other addictive behaviors. Now more than ever, health experts across all fields are recognizing the important link between good behavioral health and good overall health. According to the 2000+ respondents of the Community Health Survey, Behavioral Health related issues were the top three unhealthy behaviors Volusia County residents were most concerned about (Drug Abuse, 56%, Mental Health/Stress 47% and Alcohol Abuse 45%).

Mental Health

According to The Substance Abuse and Mental Health Services Administration (SAMHSA), good mental health is essential to overall health and personal well-being. The ability to lead a healthy, balanced and productive life stems, in part, from an individual's ability to handle emotions. Emotional problems can impair a person's thinking, feelings, and behavior and, over time, can become increasingly serious and disabling.

Since mental health and physical health are closely connected, mental health plays a major role in people's ability to maintain good physical health. Mental illnesses, such as depression and anxiety, affect people's ability to participate in health-promoting behaviors. In turn, problems with physical health, such as chronic diseases, can have a serious impact on mental health and decrease a person's ability to participate in treatment and recovery. The Center for Medicare Services estimates that depression in older adults occurs in 25 percent of those with other illnesses, including: arthritis, cancer, cardiovascular disease, chronic lung disease, and stroke.

According to the Healthy People 2020 report, mental disorders are among the most common causes of disability. The resulting disease burden of mental illness is among the highest of all diseases. According to SAMHSA's 2014 National Survey on Drug Use and Health (NSDUH) an estimated 43.6 million (18.1%) of Americans ages 18 and up experienced some form of mental illness. In the past year, 20.2 million adults (8.4%) had a substance use disorder. Of these, 7.9 million people had both a mental disorder and substance use disorder, also known as co-occurring mental and substance use disorders.

Suicide: Mental health disorders are the leading cause of disability in the United States and Canada, accounting for 25% of all years of life lost to disability and premature mortality. Moreover, according to the Centers for Disease Control and Prevention (CDC), suicide is the 10th leading cause of death in the United States, accounting for the deaths of approximately 41,149 Americans in 2013. In 2014, the Florida Department of Health's (FDOH) Bureau of Vital Statistics reported a 19.5 rate of suicide per 100,000 in Volusia County where the State of Florida and nation had a 13.9 and 13.4 rate per 100,000 respectively.

Substance Abuse

Drug abuse and addiction have negative consequences for individuals and for society. Estimates of the total overall costs of substance abuse in the United States, including productivity and health- and crime-related costs, exceed $600 billion annually according to the National Institutes of Health. This includes approximately $193 billion for illicit drugs, $193 billion for tobacco, and $235 billion for alcohol. As staggering as these numbers are, they do not fully describe the breadth of destructive public health and safety implications of drug abuse and addiction, such as family disintegration, loss of employment, failure in school, domestic violence, and child abuse.

Tobacco: Tobacco use is the single most preventable cause of death and disease in the United States. Each year, approximately 443,000 Americans die from tobacco-related illnesses. For every person who dies from tobacco use, 20 more people suffer with at least 1 serious tobacco-related illness. Tobacco use brings premature death to almost half a million Americans each year and in Volusia County 18.6% of adults are smoking despite these risks. Areas with a high smoking prevalence will also have greater exposure to secondhand smoke for non-smokers, which can cause or exacerbate a wide range of adverse health effects, including cancer, respiratory infections, and asthma. *(Northeast Florida Counts)*

Alcohol: Drinking alcohol has immediate physiological effects on all tissues of the body, including those in the brain. Alcohol is a depressant that impairs vision, coordination, reaction time, judgment, and decision-making, which may in turn lead to harmful behaviors. According to the CDC, excessive alcohol use, either in the form of heavy drinking (drinking more than two drinks per day on average for men or more than one drink per day on average for women), or binge drinking (drinking more than 5 drinks during a single occasion for men or more than 4 drinks during a single occasion for women), can lead to increased risk of health problems, such as liver disease and unintentional injuries.

Alcohol abuse is also associated with a variety of other negative outcomes, including employment problems, legal difficulties, financial loss, traffic accidents and other injuries, family disputes, and other interpersonal issues. The prevalence of binge drinking among men is twice that of women. In addition, it was found that binge drinkers are 14 times more likely to report alcohol-impaired driving than non-binge drinkers. Motor vehicle crashes that involve an alcohol-impaired driver kill 32 people in the United States every day. The annual cost of alcohol-related crashes totals more than $51 billion. According to a 2015 report by the Institutes of Health Metrics, Volusia County was in the worst 25% of all counties in the nation for heavy drinking and in the middle-performing 50% of all counties in the nation for binge drinking.

Drug Abuse: Drug abuse and its related problems are among society's most pervasive health and social concerns. Addicted persons frequently engage in self-destructive and criminal behavior, which can result in injury or death. In addition, recreational drug use can lead to unintentional overdose and death.

Drug overdose deaths are the leading cause of injury death in the United States, with over 100 drug overdose deaths occurring every day. The death rate due to drug overdose has been increasing over the last two decades. Volusia had a drug overdose rate of 18.9 per 100,000 according to County Health Rankings.

Local Data Summary

Behavioral Health: The percentage of Volusia residents self-reporting binge drinking was approximately the same as the Florida percentage in 2013. Although the Volusia percentage dipped in 2010, the 2013 percentages remain the same as 2007. The rate of motor vehicle crashes where alcohol was suspected has decreased over the years reported, but remains higher than the Florida rate. Injuries and deaths from alcohol-suspected motor vehicle crashes have also decreased although both were consistently higher than the Florida rates, deaths more so than injuries.

Death rates from chronic liver disease and cirrhosis have increased for all Volusia residents although the rate for Blacks in Volusia County dipped in 2012-14. Males had a higher death rate from this cause than did females but both increased over the years reported. According to SMA Behavioral Healthcare, the top three most common drugs of choice for Volusia residents entering treatment in 2015 were: 1) alcohol, 2) marijuana/hashish and 3) hydromorphone (Dilaudid).

The percentage of Volusia residents who self-reported being current smokers was 10.7% higher than the Florida percentage. More men than women reported smoking and Whites in Volusia County had a higher percentage of smokers than any other race or ethnicity. The highest percentage of smokers were adults with less than a high school education and the lowest was adults aged 65 and older.

Mental Health: The percentage of Volusia residents who reported having "poor mental health days" on 14 or more of the past 30 days was higher than the Florida percentage. Women reported a higher percentage of these days than men and Blacks in Volusia County reported a higher percentage than any other race or ethnicity. There were lower percentages of "poor mental health days" reported by Volusia residents aged 65 and older, adults with less than a high school education and residents with an income of $50,000 or more.

The percentage of Volusia resident who reported having ever been told they had a depressive disorder was about the same as the Florida percentage and was almost evenly divided between men and women. The percentage among Blacks in Volusia County was higher than any other race or ethnicity. Percentages were also higher for depressive disorders for adults with less than a higher school education in Volusia County and those with incomes less than $25,000. The percentage of "average number of unhealthy mental health days" reported by Volusia residents was approximately the same as the Florida percentage and higher for women than men. The percentage among Whites in Volusia County was lower than any other race or ethnicity. Percentages were lower for Volusia residents aged 65 and older and for those with an income of $50,000 or more. The rate of Baker Act Involuntary Exam Initiations in Volusia County decreased over the years reported while the Florida rate increased.

The age-adjusted rate of deaths from suicide has increased slightly over the years reported with the Volusia rate consistently higher than the Florida rate. The rate among Whites is the highest of any race or ethnicity and is higher than the overall Volusia rate. The suicide rate for men in Volusia County was higher than for women and was more than double in 2012-14. The suicide rate for ages 19-21 increased for Volusia residents over the years reported and was higher than the Florida rate which remained steady. The rate among Whites in Volusia County increased by 71.6% during the reported years. The rates among Blacks and Hispanics in Volusia county were considered unstable due to a count fewer than 5. Non-fatal hospitalizations from self-inflicted injuries for ages 19-21 decreased greatly over the years reported and dropped below the Florida rate in 2011-13.

Indicators Included:

Indicator	Reference
Adults Who Engage in Heavy or Binge Drinking	**Graph 1.1**
Alcohol-suspected Motor Vehicle Traffic Crashes	**Graph 1.2**
Alcohol-suspected Motor Vehicle Traffic Crash Injuries	**Graph 1.3**
Alcohol-suspected Motor Vehicle Traffic Crash Deaths	**Graph 1.4**
Chronic Liver Disease and Cirrhosis 3-Year Age-adjusted Death Rate	**Graph 1.5**
Chronic Liver Disease and Cirrhosis 3-Year Age-adjusted Death Rate by Gender	**Table 1.1**
Most Common Primary Drug of Choice at Intake (Adults Entering Substance Abuse Treatment at SMA Behavioral)	**Graph 1.6**
Adults Who Are Current Smokers	**Table 1.2**
Adults Who Had Poor Mental Health on 14 or More of the Past 30 Days	**Table 1.3**
Adults Who Have Ever Been Told They Had a Depressive Disorder	**Table 1.4**

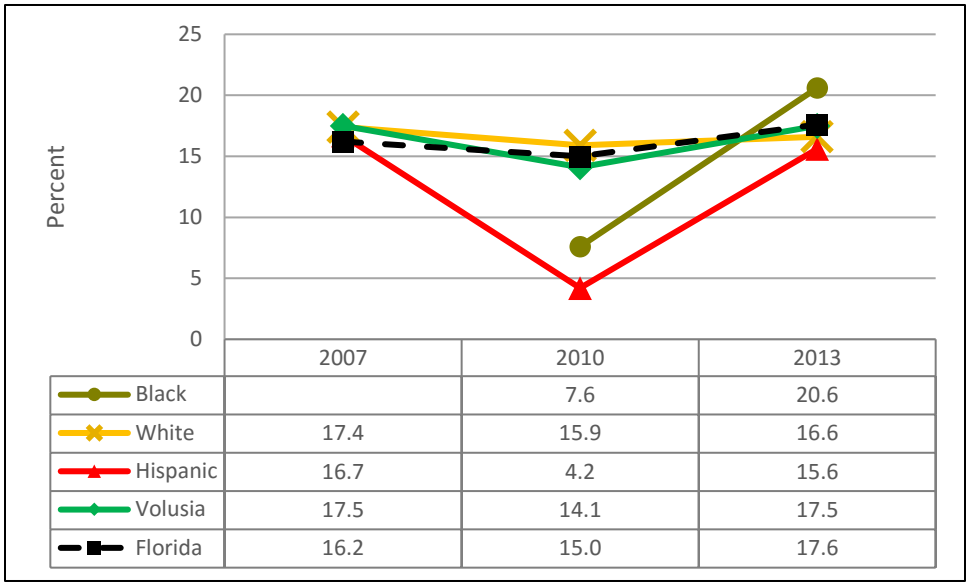
Indicator	Reference
Average Number of Unhealthy Mental Days in the Past 30 Days 2013	**Table 1.5**
Baker Act Involuntary Exam Initiations (All Ages)	**Graph 1.7**
Suicide 3-Year Age-adjusted Death Rate	**Graph 1.8**
Suicide 3-Year Age-adjusted Death Rate by Gender	**Table 1.6**
Suicide 3-Year Death Rate, Ages 19-21	**Graph 1.9**
3-Year Non-Fatal Hospitalizations for Self-inflicted Injuries, Ages 19-21	**Graph 1.10**

Other Data:

Other data related to **Behavioral Health (Adult)** can be found here:

- **Table 5.2:** Adults Who Are Inactive or Insufficiently Active
- **Graph 5.3:** Adults Who Are Sedentary
- **Graph 5.7:** Adults Who Are Overweight
- **Graph 5.8:** Adults Who Are Obese
- **8. Chronic Disease: Cancer/Respiratory Diseases (entire section)**
- **Graph 12.13:** Resident Live Births to Mothers Who Smoked During Pregnancy
- **Graph 12.15:** Females >17 Who Engage in Heavy or Binge Drinking

Graph 1.1 Adults Who Engage in Heavy or Binge Drinking



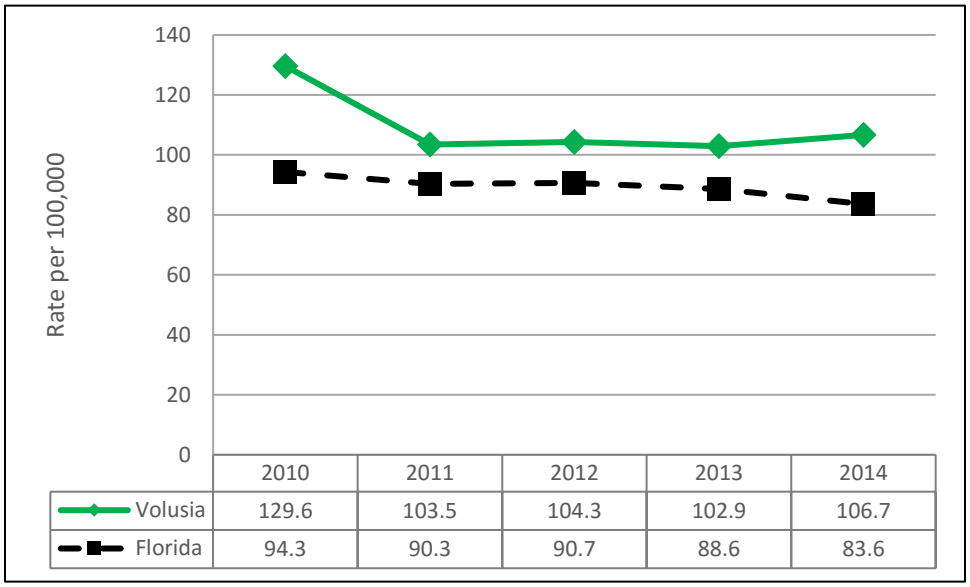
	2007	2010	2013
Black		7.6	20.6
White	17.4	15.9	16.6
Hispanic	16.7	4.2	15.6
Volusia	17.5	14.1	17.5
Florida	16.2	15.0	17.6

Source: Florida Behavioral Risk Factor Surveillance System

- The Volusia County percentage has been similar to the Florida percentage and the percentage among Whites
- The percentage among Hispanics in Volusia County was the lowest of all races/ethnicities in Volusia County
- The percentage among Blacks in Volusia County was higher than the percentage for Whites or Hispanics in 2013

Note: Data was not available for Blacks in the 2007 year for this indicator.

Graph 1.2 Alcohol-suspected Motor Vehicle Traffic Crashes

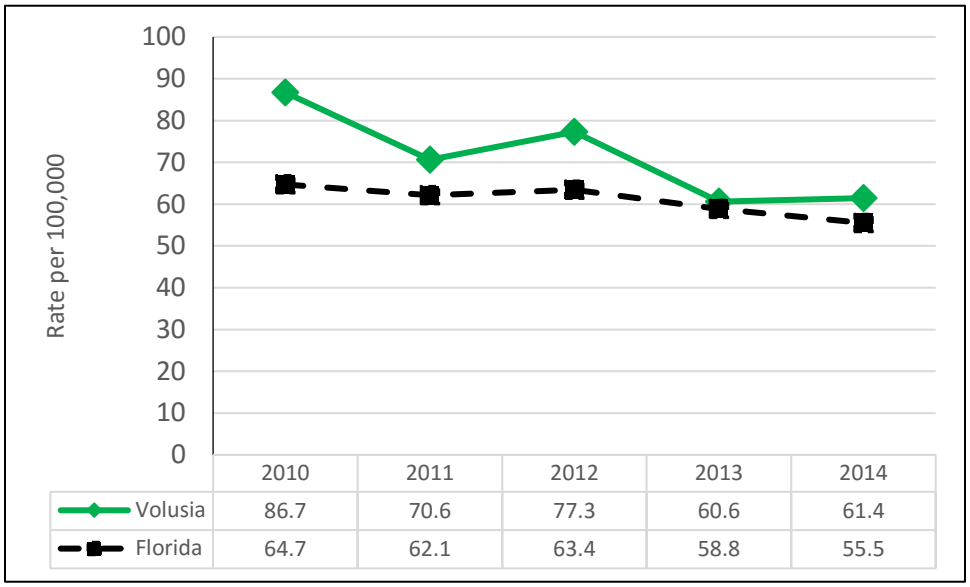


	2010	2011	2012	2013	2014
Volusia	129.6	103.5	104.3	102.9	106.7
Florida	94.3	90.3	90.7	88.6	83.6

Source: Florida Department of Highway Safety and Motor Vehicles

- The Volusia County rate was consistently higher than the Florida rate
- The Volusia County rate has decreased over the reporting period
- Sobriety checkpoints by law enforcement consistently reduce alcohol-related crashes, typically by 9%

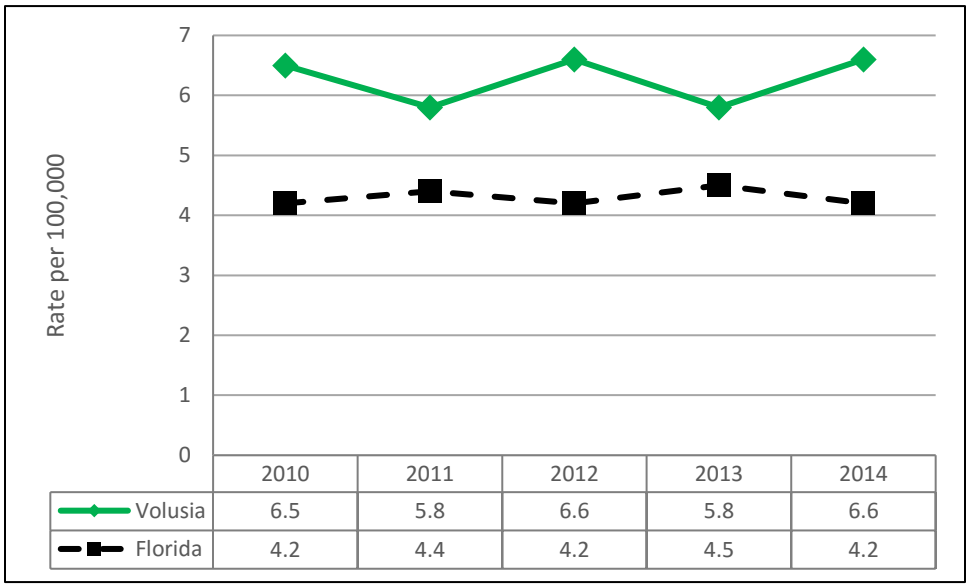
Graph 1.3 Alcohol-suspected Motor Vehicle Traffic Crash Injuries



Source: Florida Department of Highway Safety and Motor Vehicles

- From 2010 through 2014, the Volusia County rate has been consistently higher than Florida
- The Volusia County rate decreased over the reporting period

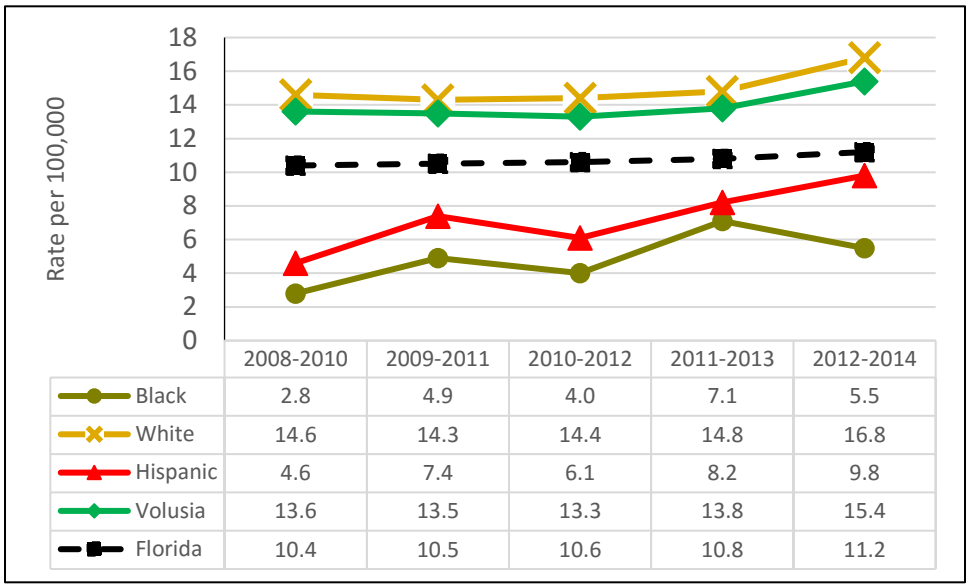
Graph 1.4 Alcohol-suspected Motor Vehicle Traffic Crash Deaths



Source: Florida Department of Highway Safety and Motor Vehicles

- The rate in Volusia County has been consistently higher than Florida
- The Volusia County rate has fluctuated over the reporting period and ended essentially the same as it began

Graph 1.5 Chronic Liver Disease and Cirrhosis 3-Year Age-adjusted Death Rate



	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014
Black	2.8	4.9	4.0	7.1	5.5
White	14.6	14.3	14.4	14.8	16.8
Hispanic	4.6	7.4	6.1	8.2	9.8
Volusia	13.6	13.5	13.3	13.8	15.4
Florida	10.4	10.5	10.6	10.8	11.2

Source: Florida Department of Health, Bureau of Vital Statistics

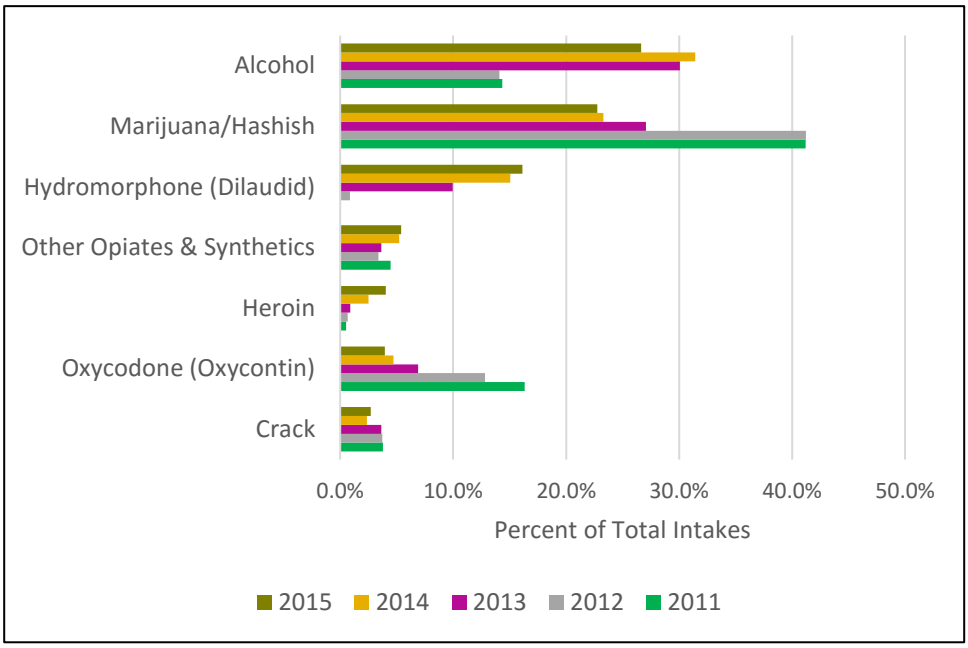
- The Volusia County rate increased by 15.8 percent from 2010-2012 to 2012-2014
- The rate among Blacks in Volusia County increased by 96.4 percent
- The rate among Hispanics in Volusia County more than doubled from 2008-2010 to 2012-2014

Table 1.1 Chronic Liver Disease and Cirrhosis 3-Year Age-adjusted Death Rate by Gender

	Male		Female	
Timeframe	**Count**	**Rate**	**Count**	**Rate**
2008-2010	171	17.9	97	9.7
2009-2011	170	17.6	100	9.8
2010-2012	175	18.2	91	8.8
2011-2013	175	18.0	103	10.0
2012-2014	187	19.0	124	12.2

Source: Florida Department of Health, Bureau of Vital Statistics
Note: Rates are per 100,000

Graph 1.6 Most Common Primary Drug of Choice at Intake (Adults Entering Substance Abuse Treatment at SMA Behavioral)



Source: Stewart-Marchman-Act Behavioral Healthcare

Table 1.2 Adults Who Are Current Smokers 2013

Adults who are current smokers 2013	Volusia	Florida
	Percent	Percent
Total – Overall	18.6	16.8
Men	22.5	19.5
Women	14.9	14.4
Non-Hispanic, White	20.4	18.6
Non-Hispanic, Black	12.6	14.4
Hispanic	9.5	13.9
18-44	20.5	19.2
45-64	26.1	19.8
65 & Older	7.2	8.7
< High School	43.1	24.8
High School/GED	19.9	19.8
> High School	13.5	13.1
< $25,000	18.4	22.3
$25,000-$49,999	24.0	17.7
$50,000 or More	14.6	11.8

Source: Florida Behavioral Risk Factor Surveillance System

Table 1.3 Adults Who Had Poor Mental Health Days on 14 or More of the Past 30 Days 2013

Adults who had poor mental health days on 14 or more of the past 30 days 2013	Volusia	Florida
	Percent	Percent
Total – Overall	14.8	12.7
Men	10.6	10.9
Women	18.8	14.4
Non-Hispanic, White	13.6	11.9
Non-Hispanic, Black	26.3	14.7
Hispanic	14.6	13.1
18-44	17.0	12.6
45-64	18.8	16.0
65 & Older	6.9	8.4
< High School	8.6	19.7
High School/GED	14.1	13.5
> High School	16.3	10.4
< $25,000	23.6	20.1
$25,000-$49,999	17.8	13.0
$50,000 or More	7.1	6.7

Source: Florida Behavioral Risk Factor Surveillance System

Table 1.4 Adults Who Have Ever Been Told They Have a Depressive Disorder 2013

Adults who have ever been told they have a depressive disorder 2013	Volusia	Florida
	Percent	Percent
Total – Overall	16.7	16.8
Men	16.0	12.1
Women	17.4	21.2
Non-Hispanic, White	16.3	18.6
Non-Hispanic, Black	22.9	14.0
Hispanic	10.9	13.8
< High School	22.1	20.9
High School/GED	13.8	15.8
> High School	17.4	16.3
< $25,000	24.8	23.8
$25,000-$49,999	19.2	16.5
$50,000 or More	10.0	11.3

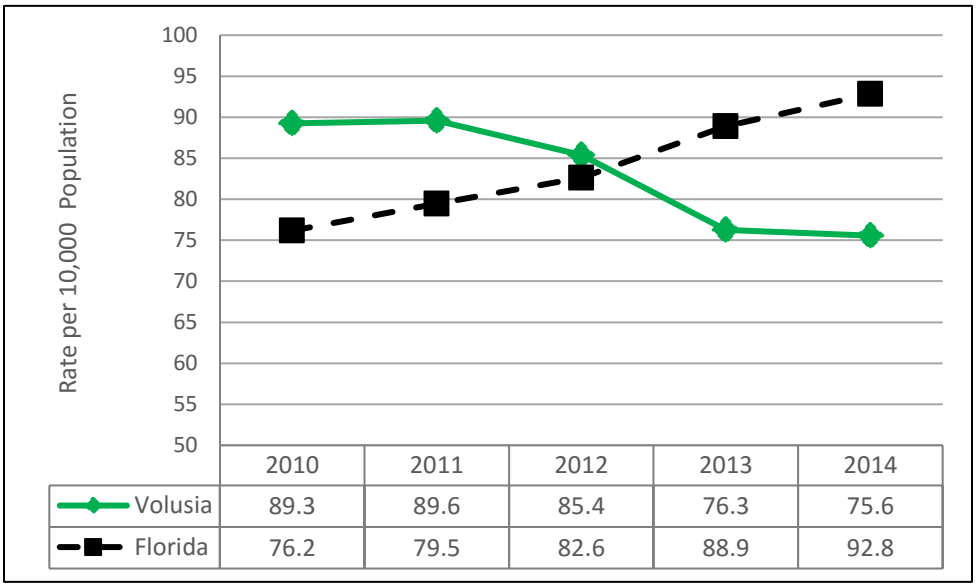
Source: Florida Behavioral Risk Factor Surveillance System

Table 1.5 Average Number of Unhealthy Mental Days in the Past 30 Days 2013

Average number of unhealthy mental days in the past 30 days 2013	Volusia	Florida
	Number	Number
Total – Overall	4.3	4.1
Men	3.2	3.5
Women	5.3	4.6
Non-Hispanic, White	3.9	3.8
Non-Hispanic, Black	6.6	4.5
Hispanic	5.3	4.4
18-44	4.9	4.2
45-64	5.5	4.9
65 & Older	2.0	2.6
< High School	3.6	6.1
High School/GED	4.1	4.2
> High School	4.5	3.5
< $25,000	6.6	6.0
$25,000-$49,999	5.0	4.3
$50,000 or More	2.3	2.4

Source: Florida Behavioral Risk Factor Surveillance System

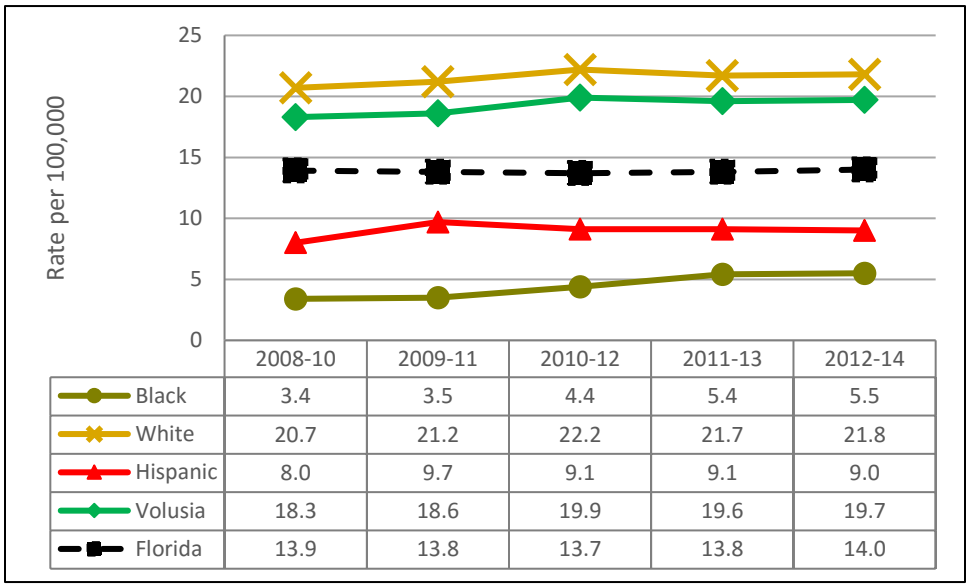
Graph 1.7 Baker Act Involuntary Exam Initiations (All Ages)



Source: Baker Act Reporting Center, Louis de la parte Florida Mental Health Institute, University of South Florida

- The Volusia County rate decreased over the reporting period
- The Volusia County rate was above the Florida rate from 2010 through 2012 and was lower than that rate in 2013 and 2014

Graph 1.8 Suicide 3-Year Age-adjusted Death Rate



	2008-10	2009-11	2010-12	2011-13	2012-14
Black	3.4	3.5	4.4	5.4	5.5
White	20.7	21.2	22.2	21.7	21.8
Hispanic	8.0	9.7	9.1	9.1	9.0
Volusia	18.3	18.6	19.9	19.6	19.7
Florida	13.9	13.8	13.7	13.8	14.0

Source: Florida Department of Health, Bureau of Vital Statistics

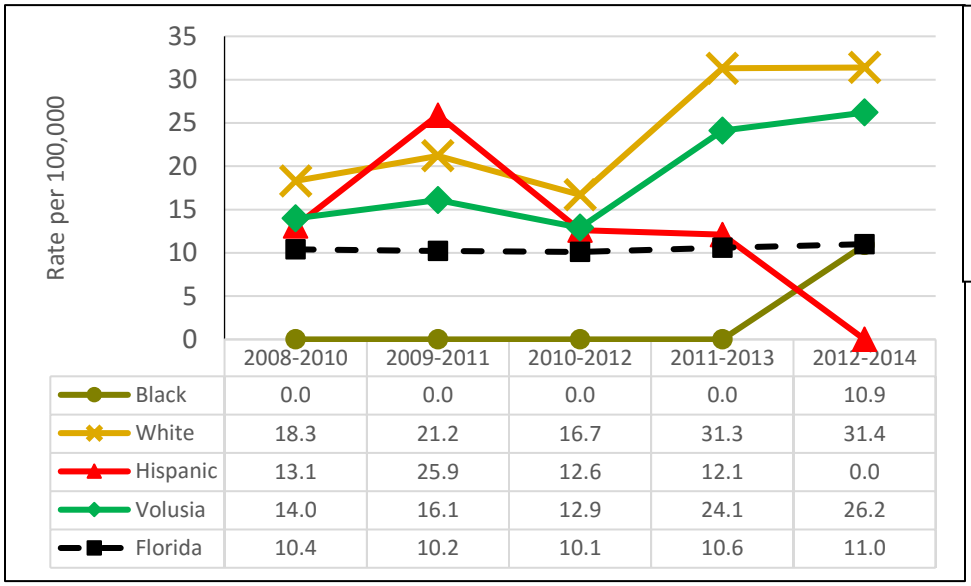
- The Volusia County rate increased slightly and was consistently higher than Florida over the reporting period
- The rate among Blacks in Volusia County was consistently lower than all other groups over the years reported
- The rate among Whites in Volusia County was consistently higher than all other groups over the years reported

Table 1.6 Suicide 3-Year Age-adjusted Death Rate by Gender

	Male		Female	
Timeframe	**Count**	**Rate**	**Count**	**Rate**
2008-2010	223	28.7	63	8.4
2009-2011	224	29.3	60	8.3
2010-2012	250	30.8	75	9.7
2011-2013	241	29.1	87	10.6
2012-2014	238	28.8	94	11.2

Source: Florida Department of Health, Bureau of Vital Statistics
Note: Rates are per 100,000

Graph 1.9 Suicide 3-Year Death Rate, Ages 19-21



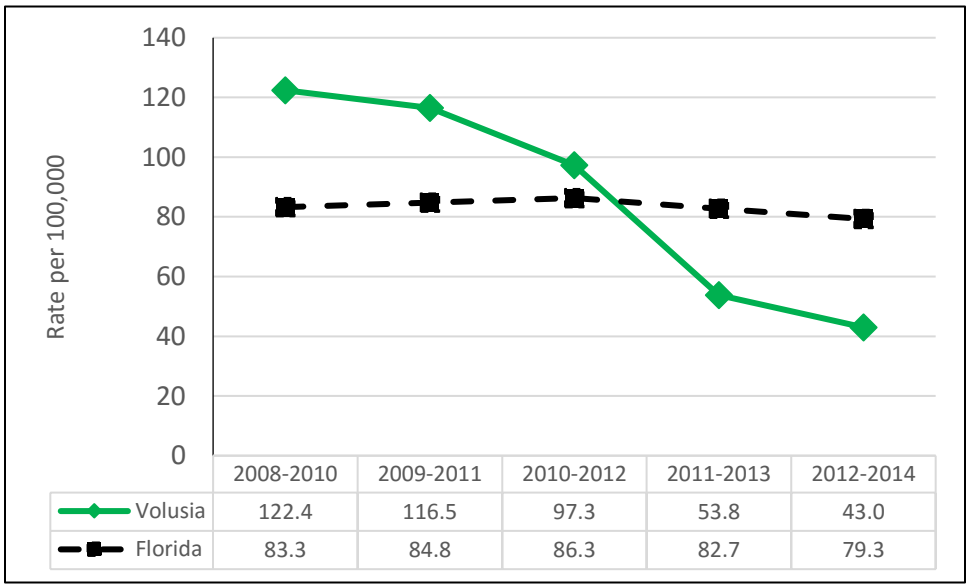
	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014
Black	0.0	0.0	0.0	0.0	10.9
White	18.3	21.2	16.7	31.3	31.4
Hispanic	13.1	25.9	12.6	12.1	0.0
Volusia	14.0	16.1	12.9	24.1	26.2
Florida	10.4	10.2	10.1	10.6	11.0

Low Count: Fewer than 5 events per year reported for Blacks and for Hispanics

Source: Florida Department of Health, Bureau of Vital Statistic

- The Volusia County rate has been consistently higher than Florida, and Volusia County's 2012-2014 rate was more than double the rate of Florida over the same time frame.
- The Volusia County rate has been rising since 2008 -2010 and in 2012-2014 had nearly doubled
- With the exception of 2009-2011, Whites in Volusia County have had the highest rate of all groups

Graph 1.10 3-Year Non-Fatal Hospitalizations for Self-inflicted Injuries, Ages 19-21



	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014
Volusia	122.4	116.5	97.3	53.8	43.0
Florida	83.3	84.8	86.3	82.7	79.3

Source: Data Source: Florida Agency for Health Care Administration

- The Volusia County rate has decreased by 64.9 percent from 2008-2010 to 2012-2014
- After being higher than the Florida rate in the earlier reported years, the Volusia rate was lower than the Florida rate in the most recent years reported

2. Youth Mental Health and Behavioral Health

Mental Health

According to SAMHSA, mental and substance use disorders can have a powerful effect on the health of individuals, their families, and their communities. In 2014, an estimated 1.7 million young adults aged 18 to 25 in the United States had a serious mental illness and 2.8 million youth (aged 12 to 17) had a major depressive episode during the past year. In 2014, an estimated 22.5 million Americans aged 12 and older self-reported needing treatment for alcohol or illicit drug use.

These disorders are among the top conditions that cause disability and carry a high burden of disease in the United States, resulting in significant costs to families, employers, and publicly funded health systems. By 2020, mental and substance use disorders will surpass all physical diseases as a major cause of disability worldwide. In addition, drug and alcohol use can lead to other chronic diseases such as diabetes and heart disease. Addressing the impact of substance use alone is estimated to cost Americans more than $600 billion each year.

Preventing mental and/or substance use disorders and related problems in children, adolescents, and young adults is critical to Americans' behavioral and physical health. Behaviors and symptoms that signal the development of a behavioral disorder often manifest two to four years before a disorder is present and according to the National Institute for Health, 50% of mental health disorders have their onset by age 14. In addition, people with a mental health issue are more likely to use alcohol or drugs than those not affected by a mental illness.

According to the U.S. Department of Health and Human Service Office of Adolescent Health, important mental health habits—including coping, resilience and good judgment—help adolescents to achieve overall wellbeing and set the stage for positive mental health in adulthood. It is estimated that approximately one in five adolescents has a diagnosable mental disorder, such as depression and/or anxiety disorders and that less than half of adolescents with psychiatric disorders are thought to have received any kind of treatment in the last year.

Mental Health Disorders

Approximately one out of five adolescents have a diagnosable mental health disorder and nearly one third show symptoms of depression. Warning signs aren't always obvious as they mimic what is considered typical teenage behavior, but more common symptoms include persistent irritability, anger, or social withdrawal, as well as major changes in appetite or sleep. Mental health disorders can disrupt school performance, harm relationships, and lead to suicide (the third leading cause of death among adolescents). Barriers such as not recognizing the symptoms early on or fear of labeling and stigma regarding mental health disorders, inhibits some adolescents and their families from seeking help.

In addition, the Institute of Medicine and National Research Council's Preventing Mental, Emotional, and Behavioral Disorders Among Young People report – 2009, notes that cost-benefit ratios for early treatment and prevention programs for addictions and mental illness programs range from 1:2 to 1:10. This means a $1 investment yields $2 to $10 savings in health costs, criminal and juvenile justice costs, educational costs, and lost productivity.

Suicide: Young people with mental health problems such as anxiety, depression, bipolar disorder, or insomnia are at higher risk for suicidal thoughts. Teens experiencing major life changes (parents' divorce, the loss of a loved one, moving, a parent leaving home due to military service or parental separation, relationships failing, financial changes) and those who are victims of bullying are at greater risk of suicidal thoughts. According to the CDC, among high school students in the United States, females were more likely to report having considered, planned, and attempted suicide compared to males.

Delinquency: Delinquency, mental health and substance abuse can be co-occurring. Youth who have a juvenile record may face future barriers that will impact their health and wellbeing, such as the inability to apply for certain jobs, gain entrance into certification programs, university systems or the military. Volusia County's reported juvenile arrests have declined 36% since 2010 with 2,506 intake arrests in the 2014-15 fiscal year according to the Juvenile Justice information system. The Volusia arrest rate exceeds the Florida rate.

Behavioral Health

While Mental Health was the initial selected health priority by the CHNA Leadership Team, there was consensus among the CHNA Partners when moving forward into the health improvement planning phases, that Youth Behavioral Health must also be considered. The information and data captured in sections 7. Child/Adolescent Issues and 10. Crime, Domestic Violence and Child Abuse also contain strong indicators and predictive tools for Youth Mental Health and will help guide and inform future strategies and approaches to improving Youth Mental Health in Volusia County. By including Youth Behavioral Health, a more data rich environment will be available for investing in screening, prevention and intervention strategies, creating safe prosocial environments, promoting youth centered policies and promoting trauma informed care practices.

Local Data Summary

Youth Mental Health: The Volusia rate of emotionally handicapped children in kindergarten through 12th grade continually decreased over the years reported and was less than 1% in 2014. The Volusia rate was slightly higher than the Florida rate throughout the reported period.

The Volusia rate of suicide for ages 12 to 18 remained steady until the 2012-14 time-period, when the rate increased. The Volusia rate was similar to the Florida rate until that time. The rate for Whites in Volusia County nearly doubled over the years reported. There were no suicides in this age group among Hispanics in Volusia County from 2008 through 2011 which increased to fewer than five per year for 2012 through 2014. There were no suicides for ages 12 to 18 among Blacks in Volusia County during the reported years. The Volusia rate for non-fatal hospitalizations for self-inflicted injuries for ages 12 to 18 decreased continually over the years reported and was consistently less than the Florida rate. In the 2010-12 time-period, the Volusia rate began to decline more rapidly as the Florida rate continued to rise.

Youth Behavioral Health: Both middle and high school students in Volusia County "used alcohol in the past 30 days" at a declining rate. Similar to Florida in rate and trend, the percentage of students was greater in high school (29.6%, 2014) than middle school (9.7%, 2014). The percentages of middle and high school students reporting binge drinking also decreased. Also similar to the Florida rate and trend, the percentage was greater for students in high school (12.8%, 2014) than middle school (3.8%, 2014).

The percentage of Volusia County middle and high school students "using marijuana/hashish in the past 30 days" ended the reported years almost as it began. After increasing from 2008 to 2010, the percentage decreased through 2014 and remained higher than the Florida percentage for all years reported. Middle school students "smoking cigarettes in the past 30 days", decreased steadily in Volusia County and was higher than the Florida percentage throughout. The percentage for Volusia County high school students increased from 2008 through 2012 and decreased by almost 53% in 2014 to drop below the Florida percentage for the first time in the years reported.

Mental Health and Behavioral Health Indicators Included:

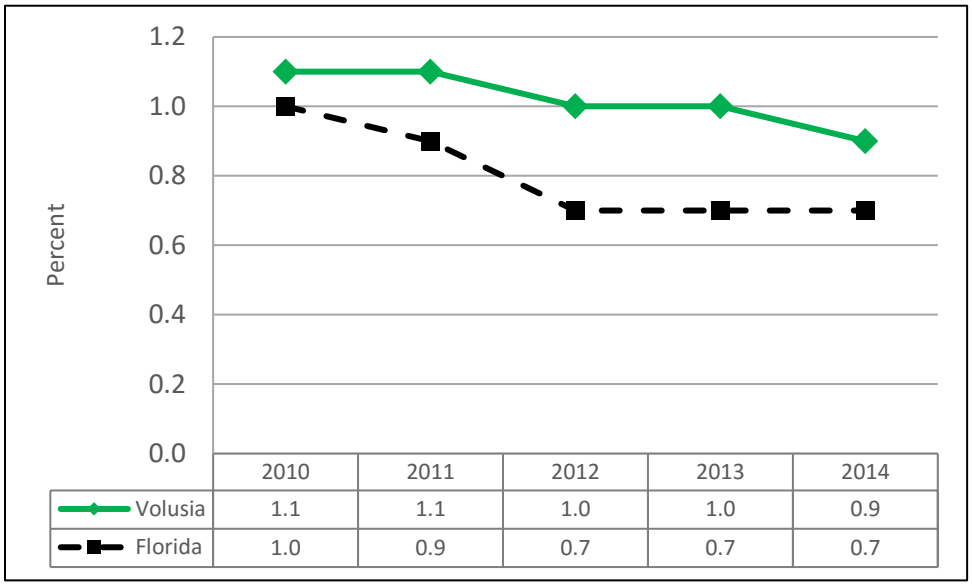
Indicator	Reference
Emotionally Handicapped Children in School Grades K-12	**Graph 2.1**
Suicide Deaths, Ages 12-18	**Graph 2.2**
Non-Fatal Hospitalizations for Self-Inflicted Injuries, Ages 12-18	**Graph 2.3**
Referrals to Department of Juvenile Justice	**Graph 2.4**
Middle School Students Who Used Alcohol in Past 30 Days	**Graph 2.5**
High School Students Who Used Alcohol in Past 30 Days	**Graph 2.6**
Middle School Students Reporting Binge Drinking	**Graph 2.7**
High School Students Reporting Binge Drinking	**Graph 2.8**
Middle and High School Students Who used Marijuana/Hashish in the Past 30 Days	**Graph 2.9**
Middle School Students Smoking Cigarettes in the Past 30 Days	**Graph 2.10**
High School Students Smoking Cigarettes in the Past 30 Days	**Graph 2.11**

Other Data:

Other data related to **Youth Mental Health** can be found here:

- **Graph 5.1:** Middle School Students Without Sufficient Vigorous Physical Activity
- **Graph 5.2:** High School Students Without Sufficient Vigorous Physical Activity
- **Table 5.3:** Middle and High School Student Weight
- **Graph 5.5:** Middle School Students Reporting BMI at or above 95th Percentile
- **Graph 5.6:** High School Students Reporting BMI at or above 95th Percentile
- **Graph 10.7:** Children Experiencing Child Abuse, Ages 5-11
- **Graph 10.8:** Children Experiencing Sexual Violence, Ages 5-11
- **Graph 10.9:** Infants in Foster Care
- **Graph 10.10:** Children in Foster Care Ages 1-5
- **Graph 10.11:** Children in Foster Care Ages 5-11
- **Graph 10.12:** Children in Foster Care Ages 12-17
- **Graph 10.13:** Children Removed/Sheltered Due to Child Abuse and Neglect
- **Graph 11.7:** Children Ages 1-5 Receiving Mental Health Treatment Services
- **Graph 13.8:** High School Graduation Rate

Graph 2.1 Emotionally Handicapped Children in School Grades K-12

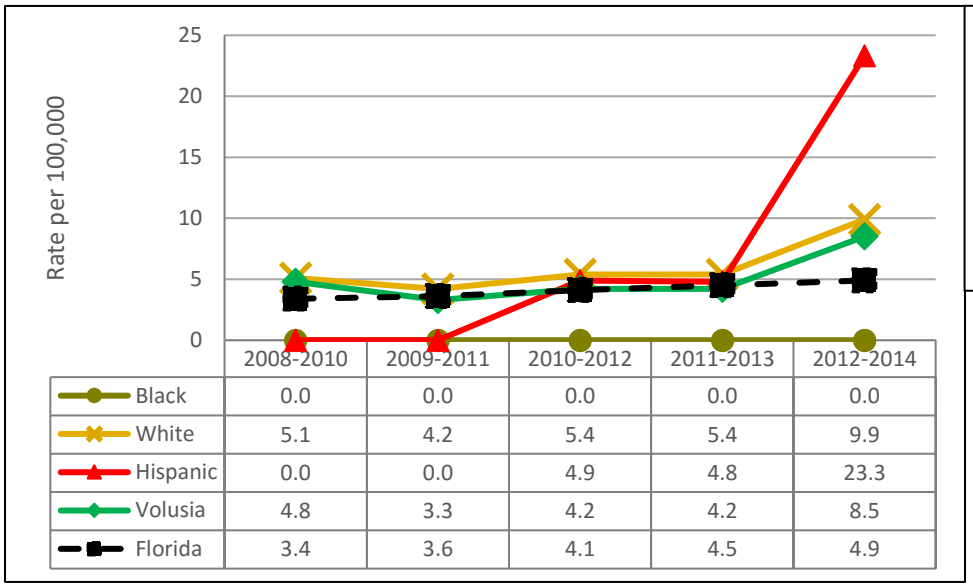


	2010	2011	2012	2013	2014
Volusia	1.1	1.1	1.0	1.0	0.9
Florida	1.0	0.9	0.7	0.7	0.7

Source: Florida Department of Education, Education Information and Accountability Services

- Volusia County has consistently had a higher percentage than Florida from 2010 to 2014
- The 2014 Volusia County percentage was .2 percent higher than Florida in 2014

Graph 2.2 3-Year Suicide Death Rate, Ages 12-18



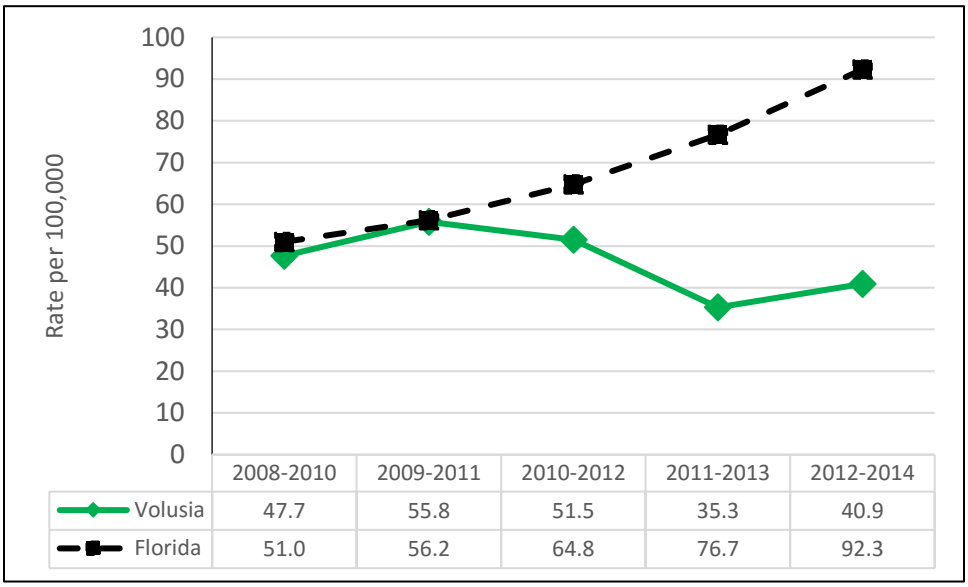
	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014
Black	0.0	0.0	0.0	0.0	0.0
White	5.1	4.2	5.4	5.4	9.9
Hispanic	0.0	0.0	4.9	4.8	23.3
Volusia	4.8	3.3	4.2	4.2	8.5
Florida	3.4	3.6	4.1	4.5	4.9

Low Count: Fewer than 5 events per year reported for Blacks and for Hispanics

Source: Florida Department of Health, Bureau of Vital Statistics

- The Volusia County rate was very similar to the Florida rate until 2012-2014 when it increased above Florida
- There were no suicides among Blacks in Volusia County from 2008 through 2014
- The rate among Hispanics in Volusia County in 2012-2014 was more than twice the Volusia rate and more than four times the Florida rate

Chart 2.3 Non-fatal Hospitalizations for Self-inflicted Injuries, Ages 12-18

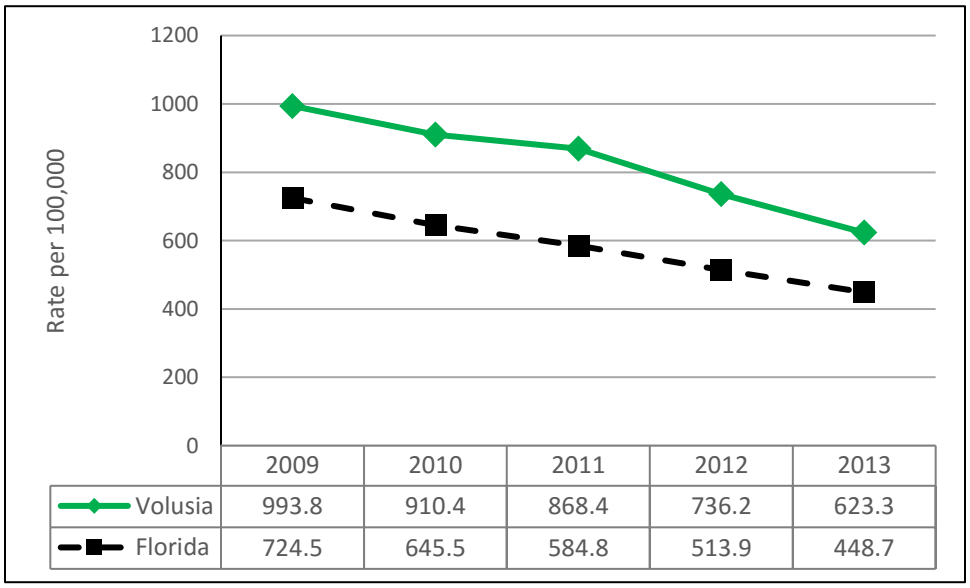


	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014
Volusia	47.7	55.8	51.5	35.3	40.9
Florida	51.0	56.2	64.8	76.7	92.3

Source: Florida Agency for Health Care Administration

- From 2008 to 2014 the Volusia County rate was consistently lower than the Florida rate
- The Volusia County rate decreased starting in 2009-2011, while the Florida rate continued to increase

Graph 2.4 Referrals to Department of Juvenile Justice

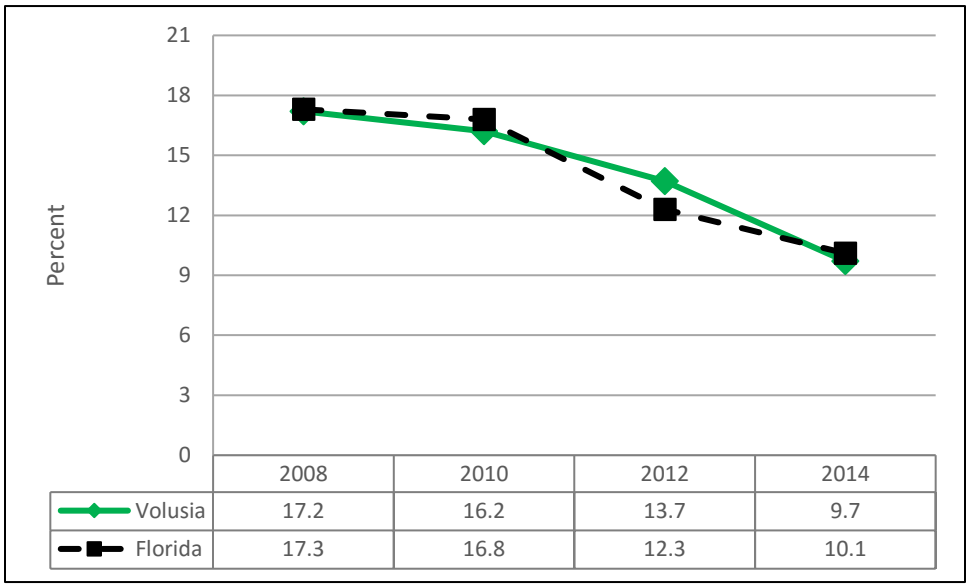


	2009	2010	2011	2012	2013
Volusia	993.8	910.4	868.4	736.2	623.3
Florida	724.5	645.5	584.8	513.9	448.7

Source: Florida Department of Juvenile Justice

- The Volusia County rate continuously decline over the time period reported
- The Volusia County rate was higher when compared to the Florida rate

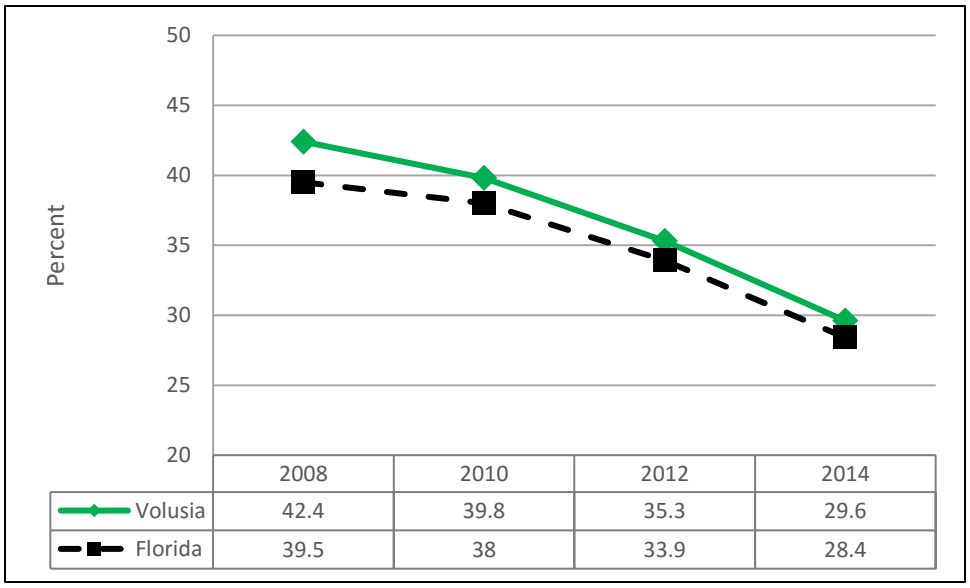
Graph 2.5 Middle School Students Who Used Alcohol in Past 30 Days



Source: Florida Department of Children and Families

- The Volusia County and Florida percentages decreased over the reporting period
- Volusia's percentage has been very similar to the state percentage

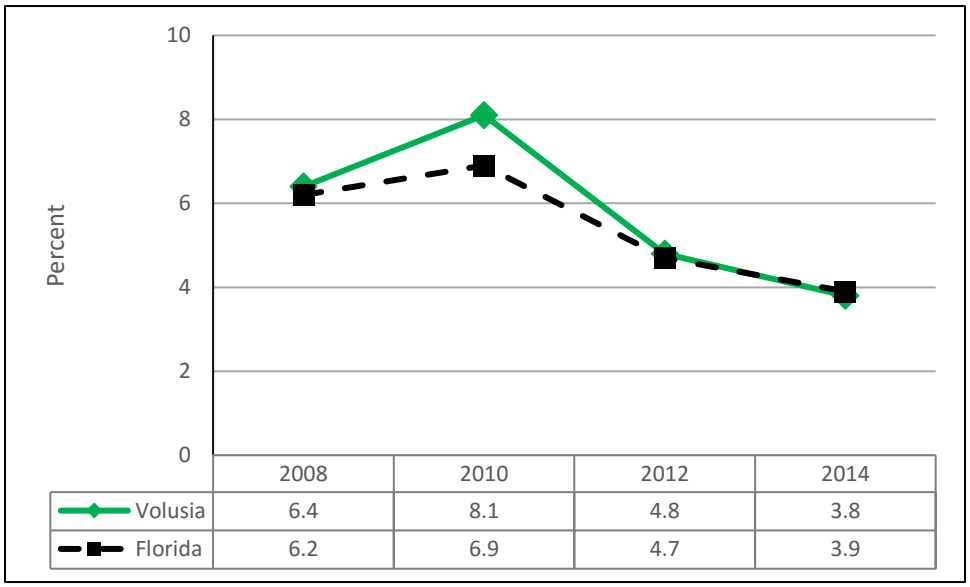
Graph 2.6 High School Students Who Used Alcohol in Past 30 Days



Source: Florida Department of Children and Families

- The Volusia County and Florida percentages declined steadily over the reporting period
- The Volusia County percentage decreased by 30% from 2008 to 2014
- While trending in the same direction, the Volusia County percent was slightly higher than the Florida percentage

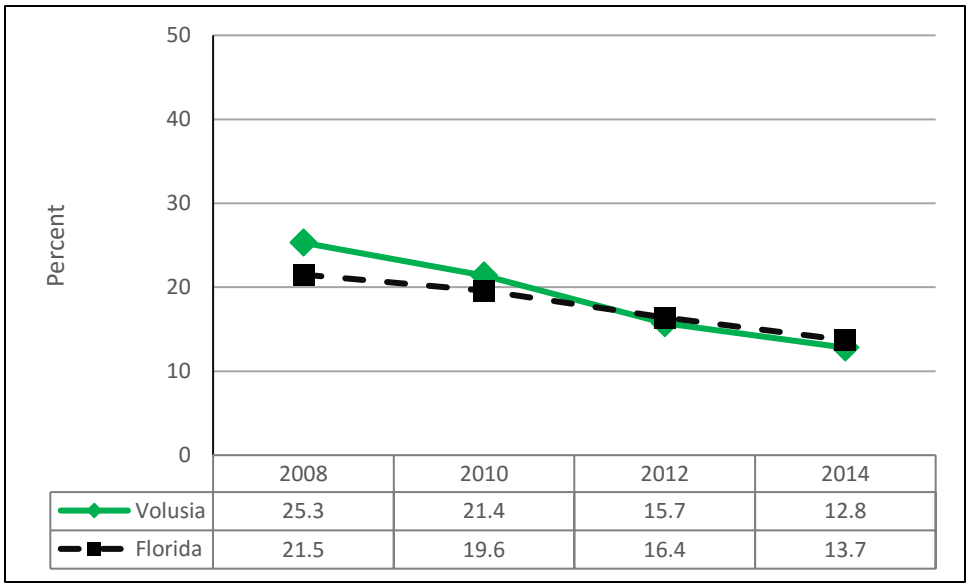
Graph 2.7 Middle School Students Reporting Binge Drinking



Source: Florida Department of Children and Families

- The Volusia County percentage declined by 41% from 2008 to 2014
- Except for 2010, the Volusia County percentage was similar to and had a similar trend as the Florida percentage

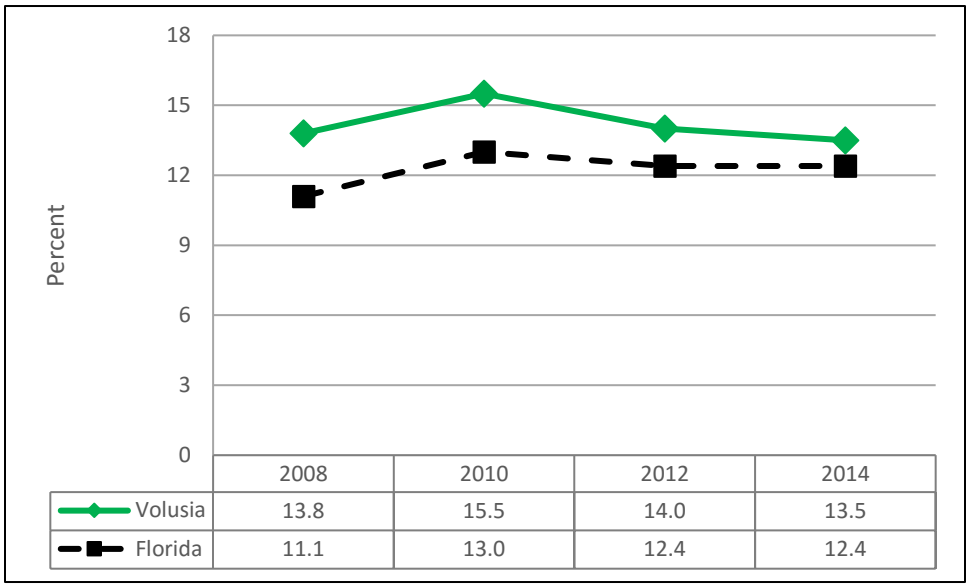
Graph 2.8 High School Students Reporting Binge Drinking



Source: Florida Department of Children and Families

- The Volusia County percentage has trended downward since 2008
- The Volusia County percentage started higher than the Florida percentage in 2008 and decreased to lower than Florida in 2014

Graph 2.9 Middle and High School Students Using Marijuana/Hashish in the Past 30 Days

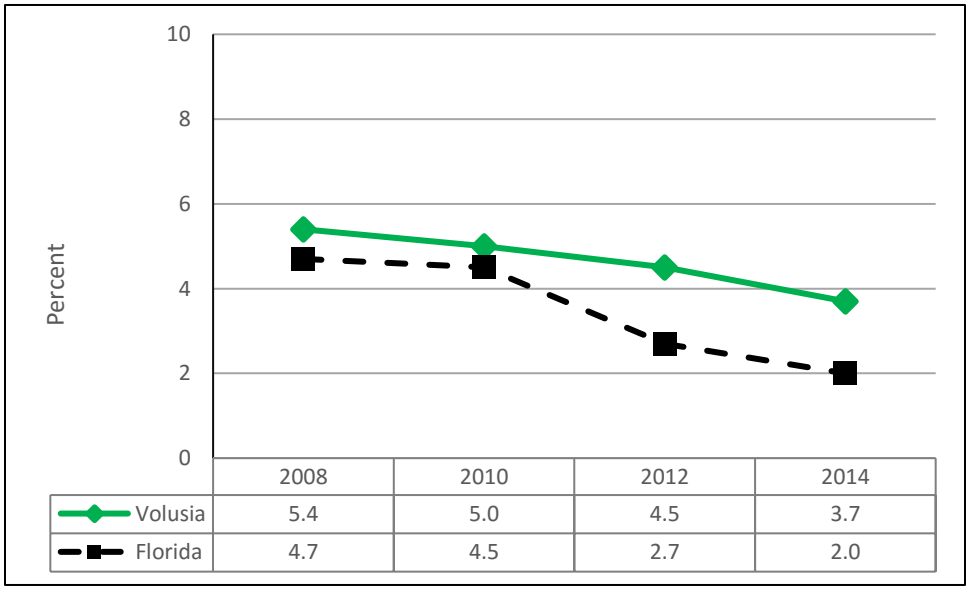


	2008	2010	2012	2014
Volusia	13.8	15.5	14.0	13.5
Florida	11.1	13.0	12.4	12.4

Source: Florida Youth Substance Abuse Survey

- The Volusia County percentage was higher than the Florida percentage over the reporting period
- The Volusia County percentage fluctuated slightly over the reporting period

Graph 2.10 Middle School Students Smoking Cigarettes in the Past 30 Days

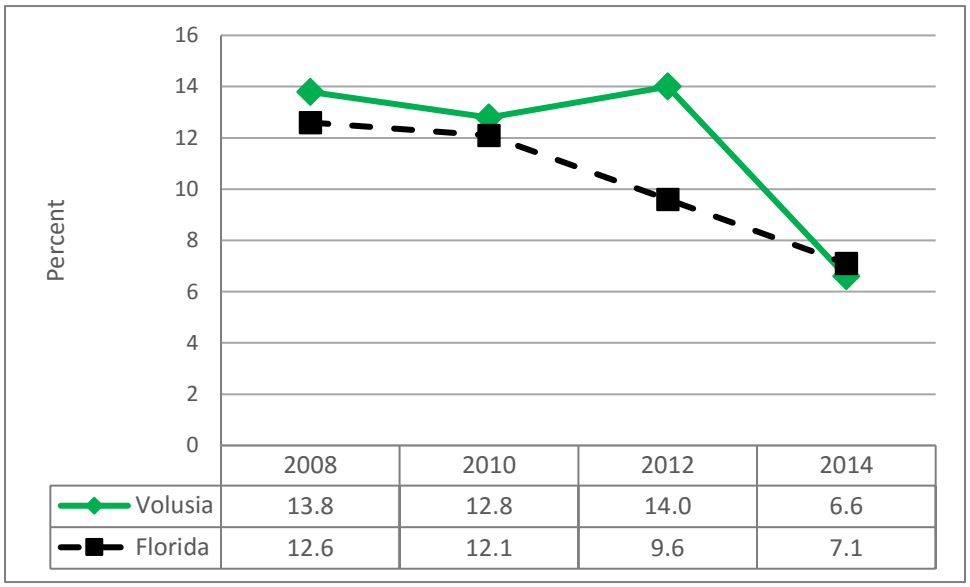


	2008	2010	2012	2014
Volusia	5.4	5.0	4.5	3.7
Florida	4.7	4.5	2.7	2.0

Source: Florida Youth Substance Abuse Survey

- The Volusia County percentage decreased over the reporting period
- The Volusia County percentage was consistently above the state percentage over the reporting period

Graph 2.11 High School Students Smoking Cigarettes in the Past 30 Days



	2008	2010	2012	2014
Volusia	13.8	12.8	14.0	6.6
Florida	12.6	12.1	9.6	7.1

Source: Florida Youth Substance Abuse Survey

- The Volusia County percentage decreased over the reporting period
- The Volusia County percentage was higher than Florida from 2008 through 2012 and fell below in 2014

3. Chronic Disease: Cardiovascular Diseases and Diabetes

Chronic diseases and conditions—such as heart disease, stroke, cancer, and diabetes—are among the most common, costly, and preventable of all health problems. These conditions shorten lives, reduce quality of life, and create considerable burden for caregivers.

Not only do chronic diseases affect health and quality of life, they are also a major driver of health care costs. According to the CDC, in 2010, eighty-six percent of all health care spending was for people with one or more chronic medical conditions. Because of their significant impact on quality of life, the cost and their economic impact, and their common modifiable risk factors, Cardiovascular Diseases and Diabetes were selected as part of the initial health priorities to address in Volusia County.

Cardiovascular Diseases

Heart Disease: The term "heart disease" refers to several types of heart conditions. The most common type of heart disease in the United States is coronary artery disease, which affects the blood flow to the heart. Decreased blood flow can cause a heart attack. In 2014, cardiovascular diseases were the leading cause of death in Volusia County accounting for 29% of all deaths.

Cerebrovascular Disease or Stroke: A stroke occurs when blood vessels carrying oxygen to the brain become clogged (or burst), thereby cutting off the brain's supply of oxygen. Each year, approximately 795,000 people in the U.S. will suffer a new or recurrent stroke. The risk of stroke more than doubles with each decade of life for those that are 55 and older. In 2014, Blacks were two times more likely to be hospitalized for stroke than Hispanics and had a death rate of 77.3 per 100,000 compared to 40.5 for all groups in Volusia County.

Diabetes: Diabetes is a disease in which blood glucose levels are above normal. Diabetes can cause serious health complications including: heart disease, blindness, kidney failure and lower-extremity amputations. In Volusia County there continues to be a large disparity in age-adjusted death rates for Blacks with diabetes. In 2014, the rate was 64.2 out of 100,000 for Blacks in Volusia while the rate for all groups in Florida was 19.8 and 27.4 in Volusia.

Correlation: According to the American Heart Association, the following statistics speak loud and clear that there is a strong correlation between cardiovascular disease and diabetes.

At least 68% of people age 65 or older with diabetes die from some form of heart disease; and 16% die of stroke.

- Adults with diabetes are two to four times more likely to have heart disease or a stroke than adults without diabetes.
- The American Heart Association considers diabetes to be one of the seven major controllable risk factors for cardiovascular disease.

Diabetes is treatable, but even when controlled, greatly increases the risk of heart disease and stroke. Because people with diabetes, particularly type 2 diabetes, may have the following modifiable conditions that contribute to their risk for developing cardiovascular disease; high blood pressure (hypertension), abnormal cholesterol and high triglycerides, obesity, lack of physical exercise, poorly controlled blood sugars (too high) or out of normal range, and smoking.

Local Data Summary:

Heart Failure (also called Congestive Heart Failure): The Volusia age-adjusted rate for heart failure decreased over the years reported and was consistently lower the Florida rate. The rate among Blacks in Volusia decreased for the first half and then increased for the second half of the years reported ending lower than it began but highest of all races/ethnicities. The rate among Hispanics in Volusia County fluctuated and decreased over the reporting period and was the lowest of all races/ethnicities for four of the five years reported. The death rate was higher among men than women in Volusia County although the counts were similar. The Volusia rate for hospitalizations from congestive heart failure decreased at a faster pace than Florida and remained below Florida's rate for the last four years. Rates for all races/ethnicities in Volusia County decreased. The rate among Blacks was consistently the highest of all groups. In 2014, the ZIP code with the highest rate of congestive heart failure hospitalizations was in the northwest quadrant with rates varying by ZIP code throughout the county.

Coronary Heart Disease: The coronary heart disease hospitalization rate in Volusia County decreased over the reported period staying slightly less than the Florida rate until 2014 when they were essentially the same. The rates among Blacks and Whites in Volusia County also decreased. The rate among Hispanics fluctuated and ended slightly higher than it began although it was the lowest rate of all races/ethnicities for three of the five years reported. In 2014, four of the five ZIP codes with the highest hospitalization rates were clustered in the northwest quadrant of the county. The death rate from coronary heart disease increased among Hispanics in Volusia County although that rate was consistently lower than all other groups. The Volusia County rate also increased over the reporting period and was similar to the Florida rate although that rate decreased. The widest gap between the two was in 2014. The rate among Blacks in Volusia fluctuated and decreased during the reported years. The rates for Volusia men was approximately twice that for women and the counts were higher as well. In 2014, there were two ZIP codes with the highest death rates: one in the northwest quadrant and one in the southeast quadrant. There were varying rates in the remaining counties.

Stroke: The Volusia and Florida rates for hospitalizations from strokes decreased slightly over the five years reported and were similar with Volusia slightly higher throughout. The rate among Blacks in Volusia County was the highest and the rate for Hispanics was the lowest of all races/ethnicities with both increasing during the reporting period. In 2014, the two ZIP codes with the highest hospitalization rates were located in the northeast and the northwest quadrants. The stroke death rate increased for all groups over the reported years with the Volusia rate slightly higher than the Florida rate. The rate among Blacks in Volusia County was the highest of all groups for all years and the rate among Hispanics consistently the lowest until 2014. The rates for men and women in Volusia County were similar with the counts higher for women. In 2014, the two ZIP codes with the highest stroke death rates were in the northwest quadrant and the southeast quadrant. The majority of ZIP codes with the lowest rates were in the southwest quadrant.

Hypercholesterolemia and Hypertension: In 2013, the percentage of Volusia adults self-reporting that they had ever been told they had high blood cholesterol was higher than the Florida percentage in all categories. The percentage for Volusia men was statistically significant when compared to Florida. The percentage for men was also higher than for women in Volusia and the overall percentage increased by age group. Blacks in Volusia County had a higher percentage than Whites or Hispanics. The percentage was higher among adults with a high school/GED education than for adults with either a lower or higher education level. The percentage was greatest among adults with an income level of $25,000 to $49,999 and about the same for adults with either a lesser or greater income level. Also in 2013, the percentage of Volusia adults who self-reported having ever been told they had hypertension (high blood pressure)

was higher for Volusia than Florida in every category. Volusia men reported a higher percentage than women. Blacks in Volusia County had the highest percentage of all races/ethnicities and Hispanics the lowest. The percentage increased by age group. The percentage was the lowest for adults with educational attainment greater than high school and highest for adults with a high school/GED education which was statistically significant when compared to that same educational attainment for Florida. Adults with an income level of $25,000 to $49,999 had a higher percentage than those with a lesser or greater income level.

Diabetes: The age-adjusted diabetes death rate for Volusia County increased over the reported year and was consistently higher than the Florida rate which remained steady. The rate among Hispanics in Volusia County was higher than the Volusia rate for three of the five years and was surpassed by the rate among Blacks which was the highest of all groups for all years and increased during the years reported. The diabetes death rate and count was consistently higher for men than for women in Volusia County. In 2014, the two ZIP codes with the highest diabetes death rate were in the southeast quadrant with varying rates throughout the remaining ZIP codes.

The rate of preventable hospitalizations for Volusia residents under age 65 with diabetes increased over the years reported and remained higher than the Florida rate throughout. The rate of diabetes hospitalizations for ages 12 to 18 decreased over the same time period, dropping below the Florida rate in 2014. The two ZIP codes with the highest rate of diabetes hospitalizations in 2014 were in the northwest and northeast quadrants with the ZIP codes in the eastern quadrants generally less than the western ZIP codes.

In 2013, the percentage of Volusia adults who self-reported that they had ever been told they had diabetes was higher than the Florida percentage. The percentage for Volusia men was slightly higher than women. The percentage for Hispanics in Volusia County was more than double that of Blacks or Whites. The percentage of adults who had been told they had diabetes increased by age group. Adults with an educational attainment of high school/GED had a higher percentage than adults with less than a high school education which was higher than adults with greater than a high school education. Volusia adults with an income level greater than $50,000 had a higher percentage than those below that income level.

Indicators Included:

Indicator	Reference
Volusia County Top Ten Causes of Death 2014	**Table 3.1**
Heart Failure Age-Adjusted Death Rate	**Graph 3.1**
Heart Failure Age-Adjusted Death Rate by Gender	**Table 3.2**
Congestive Heart Failure Age-Adjusted Hospitalization Rate	**Graph 3.2**
Congestive Heart Failure Age-Adjusted Hospitalization Rate 2014 Map	**Map 3.1**
Coronary Heart Disease Age-Adjusted Hospitalization Rate	**Graph 3.3**
Coronary Heart Disease Age-Adjusted Hospitalization Rate 2014 Map	**Map 3.2**
Coronary Heart Disease Age-Adjusted Death Rate	**Graph 3.4**
Coronary Heart Disease Age-Adjusted Death Rate by Gender	**Table 3.3**
Coronary Heart Disease Age-Adjusted Death Rate 2014 Map	**Map 3.3**
Stroke Age-Adjusted Hospitalization Rate	**Graph 3.5**
Stroke Age-Adjusted Hospitalization Rate 2014 Map	**Map 3.4**
Stroke Age-Adjusted Death Rate	**Graph 3.6**

Indicator	Reference
Stroke Age-Adjusted Death Rate by Gender	**Table 3.4**
Stroke Age-Adjusted Death Rate 2014 Map	**Map 3.5**
Adults Who Have Ever Been Told They Had High Blood Cholesterol	**Table 3.5**
Adults Who Have Ever Been Told They Had Hypertension	**Table 3.6**
Diabetes Age-Adjusted Death Rates	**Graph 3.7**
Diabetes Age-Adjusted Death Rates by Gender	**Table 3.7**
Diabetes Age-Adjusted Death Rate 2014 Map	**Map 3.6**
Preventable Hospitalizations Under 65 from Diabetes Per 100,000	**Graph 3.8**
Diabetes Hospitalizations, Ages 12-18	**Graph 3.9**
Diabetes Hospitalization Rate 2014 Map	**Map 3.7**
Adults Who Have Ever Been Told They Had Diabetes	**Table 3.8**

Other Data:

Other data related to Chronic Disease can be found here:

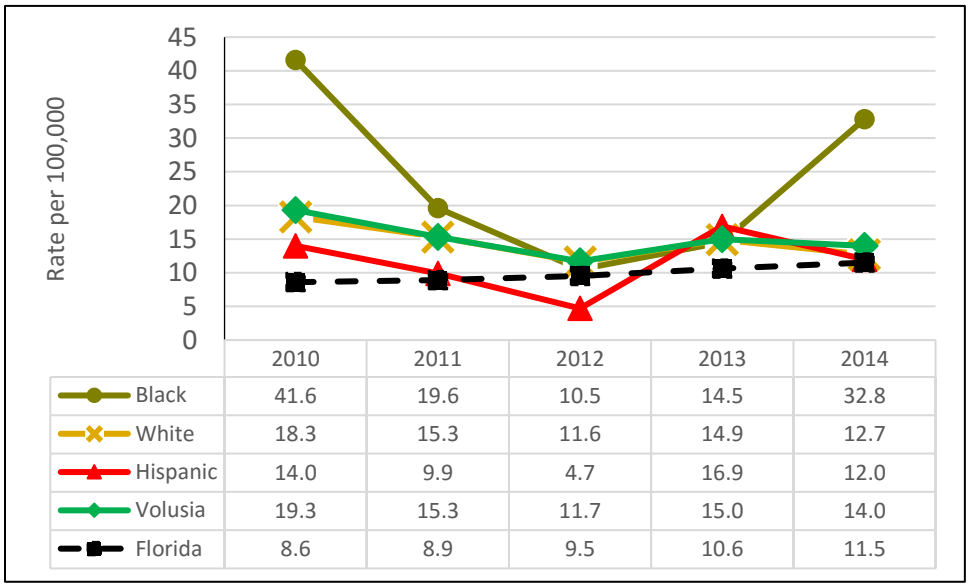
- **Graph 1.1:** Adults Who Engage in Heavy or Binge Drinking
- **Graph 1.5:** Chronic Liver Disease and Cirrhosis 3-Year Age-adjusted Death Rate
- **Table 1.1:** Chronic Liver Disease and Cirrhosis 3-Year Age-adjusted Death Rate by Gender
- **Table 1.2:** Adults Who Are Current Smokers
- **5. Healthy Eating and Physical Activity (Entire Section)**
- **8. Chronic Disease: Cancer/Respiratory Diseases (Entire Section)**
- **Graph 11.12:** Asthma hospitalizations ages 1-5

Table 3.1 Volusia County Top Ten Causes of Death 2014

Cause of Death	Deaths	Percent of Total Deaths	Crude Rate Per 100,000	Age-Adjusted Death Rate Per 100,000
1. Heart Disease	1,584	23.7	314.8	181.6
2. Cancer	1,424	21.3	283.0	172.0
3. Chronic Lower Respiratory Disease	503	7.5	100.0	58.0
4. Stroke	355	5.3	70.6	40.5
5. Alzheimer's Disease	334	5.0	66.4	34.7
6. Unintentional Injuries	254	3.8	50.5	42.9
7. Diabetes Mellitus	224	3.3	44.5	27.4
8. Kidney Disease	120	1.8	23.8	14.0
9. Chronic Liver Disease and Cirrhosis	116	1.7	23.1	16.9
10. Pneumonia/Influenza	113	1.7	22.5	13.7
All Causes	6,695	100.0	1,330.5	808.4

Source: *Florida Department of Health, Bureau of Vital Statistics*

Graph 3.1 Heart Failure Age-adjusted Death Rate



Source: Florida Department of Health, Bureau of Vital Statistics

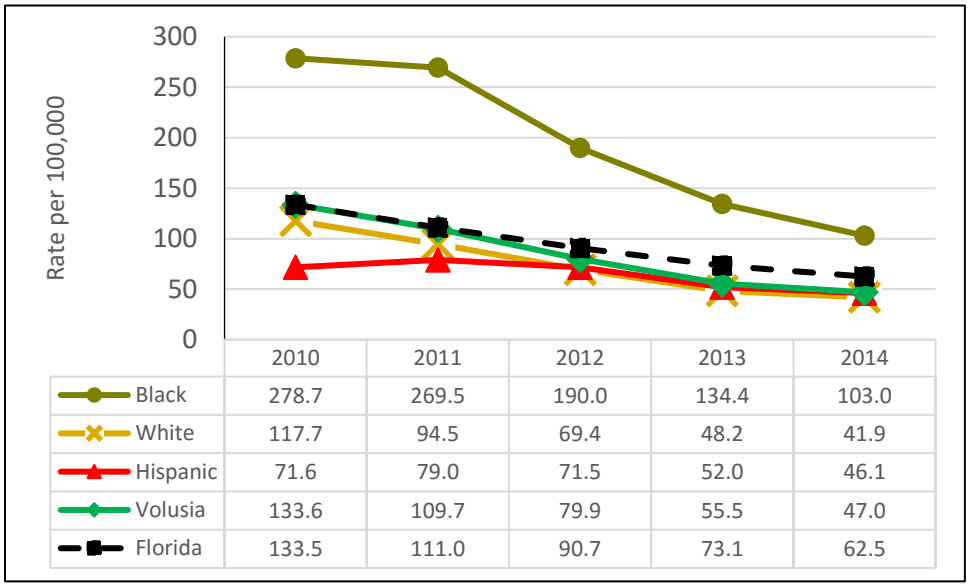
- The rate in Volusia County decreased by 27.5 percent from 2010 to 2014
- The rate among Blacks in Volusia County greatly decreased from 2010 to 2012 then increased from 2012 to 2014
- The rate among Blacks in Volusia County was higher than all other races and ethnicities in 2014

Table 3.2 Heart Failure Age-adjusted Death Rate by Gender

	Male		Female	
Year	Count	Rate	Count	Rate
2012	51	14.0	49	9.8
2013	67	18.2	70	12.4
2014	69	18.4	58	10.3

Source: Florida Department of Health, Bureau of Vital Statistics
Note: Rate per 100,000

Graph 3.2 Congestive Heart Failure Age-adjusted Hospitalization Rate

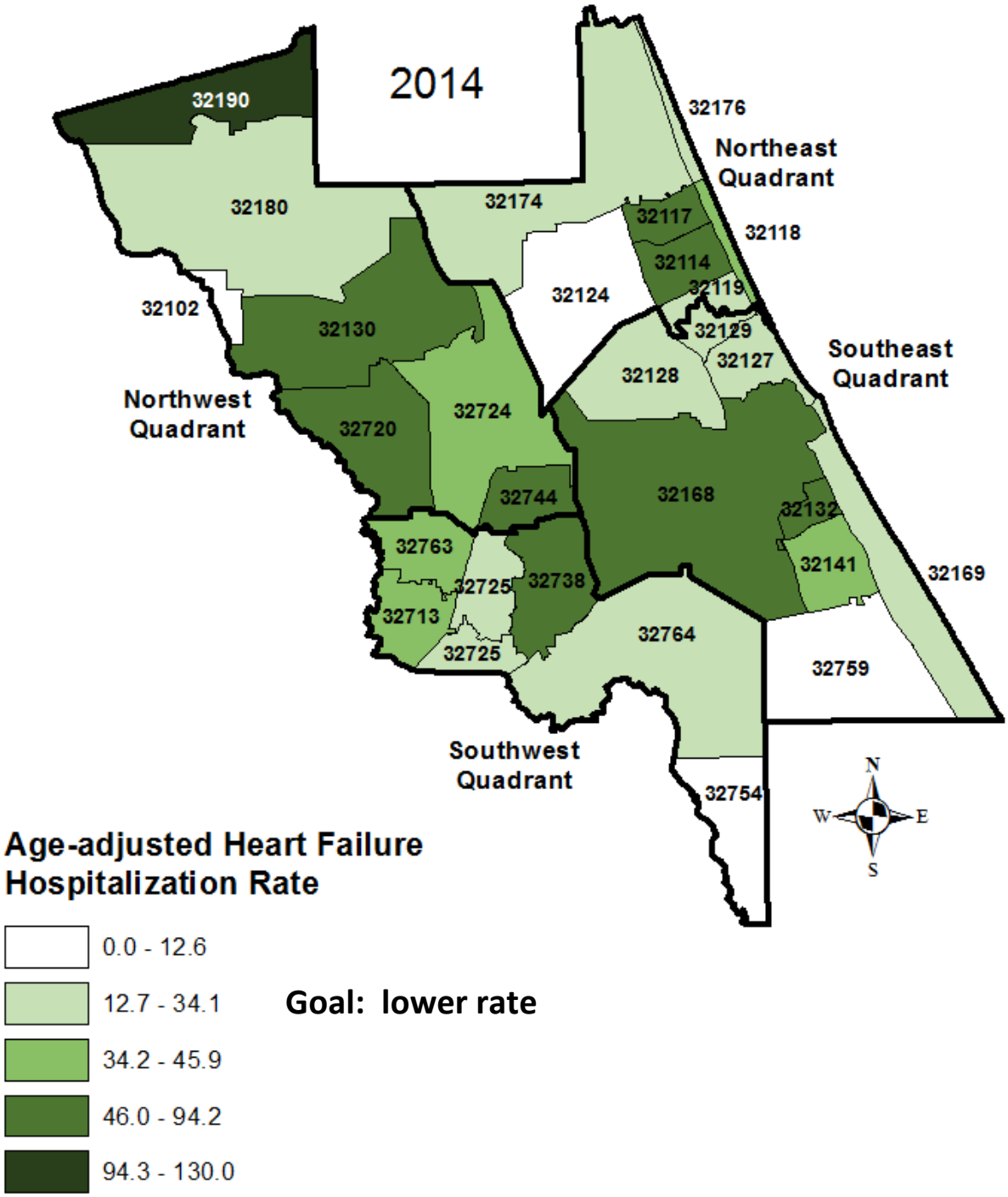


	2010	2011	2012	2013	2014
Black	278.7	269.5	190.0	134.4	103.0
White	117.7	94.5	69.4	48.2	41.9
Hispanic	71.6	79.0	71.5	52.0	46.1
Volusia	133.6	109.7	79.9	55.5	47.0
Florida	133.5	111.0	90.7	73.1	62.5

Source: Florida Agency for Health Care Administration

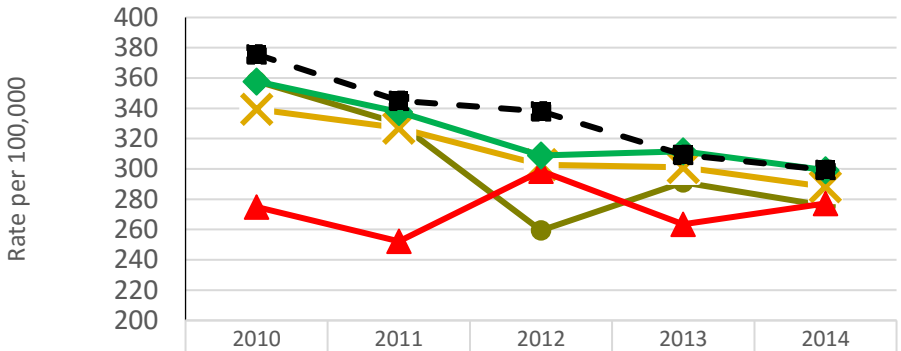
- The 2014 Volusia County rate was 33.0 percent lower than the rate of Florida
- Although the rate among Blacks in Volusia County decreased over the reporting period, the 2014 rate among Blacks was more than double the rates among Whites or Hispanics

Map 3.1 Congestive Heart Failure Age-adjusted Hospitalization Rate 2014



Source: Agency for Health Care Administration
Note: Rate per 100,000

Graph 3.3 Coronary Heart Disease Age-adjusted Hospitalization Rate

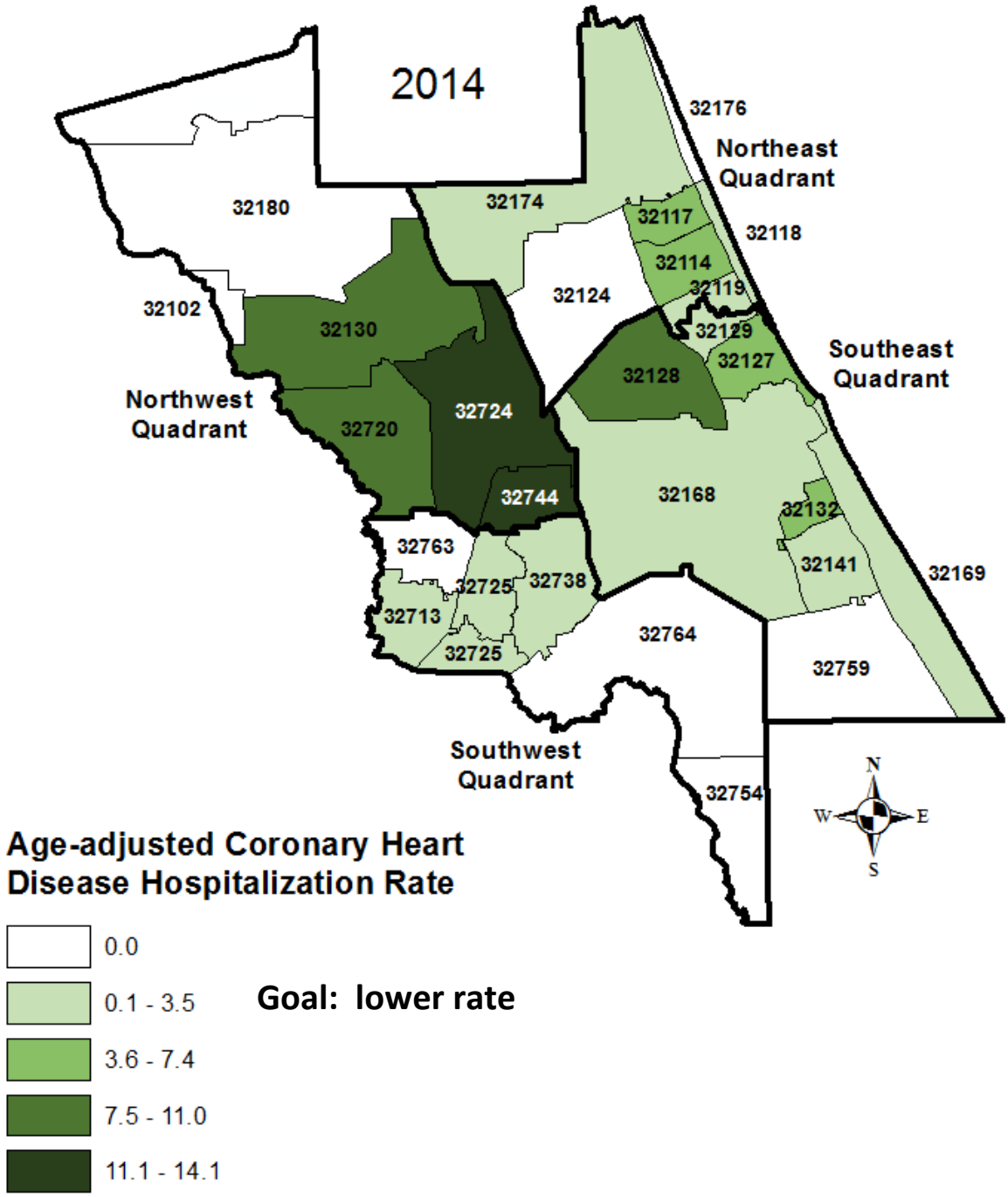


	2010	2011	2012	2013	2014
Black	357.9	330.1	259.4	291.2	275.7
White	339.4	327.0	302.8	301.0	288.2
Hispanic	274.8	252.2	298.6	263.5	277.3
Volusia	357.8	337.7	308.8	311.6	299.2
Florida	375.6	345.0	338.0	309.4	299.4

Source: Florida Agency for Health Care Administration

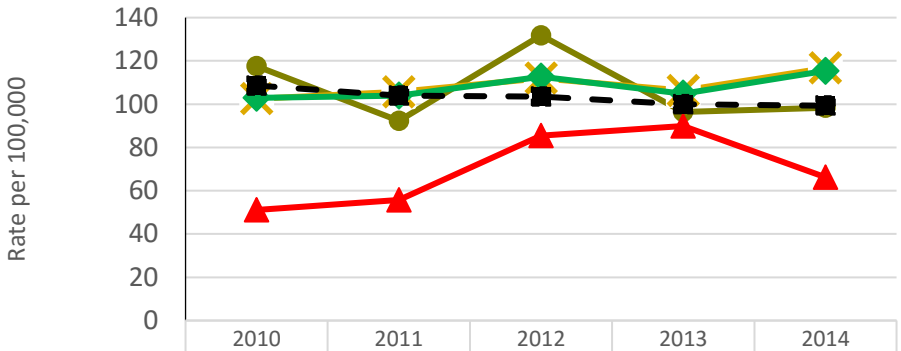
- The rate in Volusia County decreased by 18.3 percent from 2010 to 2014
- The rate among Blacks and Whites in Volusia County decreased from 2010 to 2014
- The rate among Hispanics in Volusia County increased slightly from 2010 to 2014

Map 3.2 Coronary Heart Disease Age-adjusted Hospitalization Rate 2014



Source: Agency for Health Care Administration
Note: Rate per 100,000

Graph 3.4 Coronary Heart Disease Age-adjusted Death Rate



	2010	2011	2012	2013	2014
Black	117.5	92.3	131.8	96.4	98.3
White	102.5	105.7	112.0	106.3	116.7
Hispanic	51.1	55.7	85.4	89.9	66.2
Volusia	102.9	104.0	112.7	104.9	115.4
Florida	108.6	103.9	103.5	100.0	99.3

Source: Florida Department of Health, Bureau of Vital Statistics

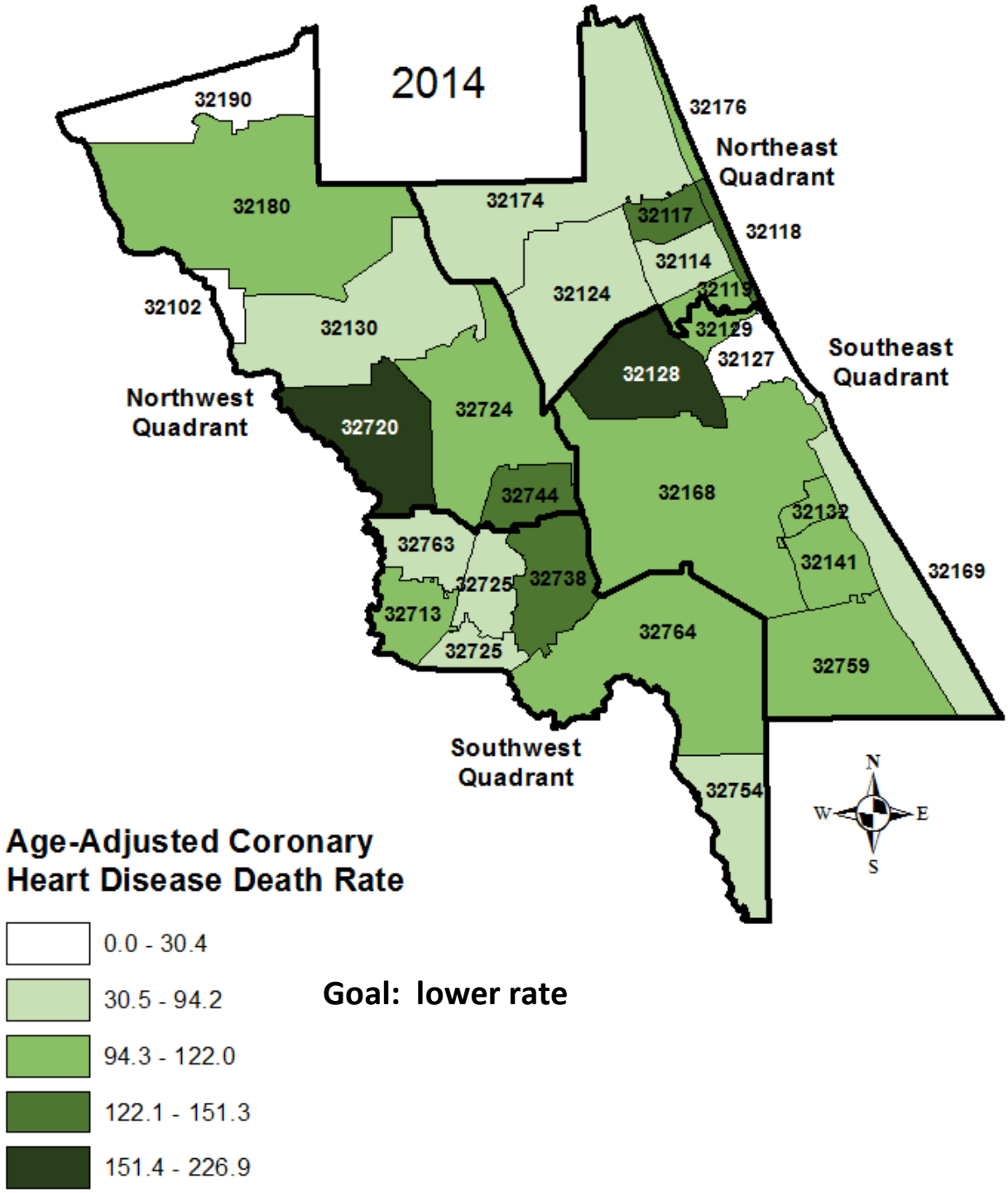
- The rate in Volusia County decreased by 12.1 percent from 2010 to 2014
- The rate among Blacks in Volusia County decreased by 16.3 percent from 2010 to 2014
- The rate among Hispanics in Volusia County increased by 29.5 percent from 2010 to 2014

Table 3.3 Coronary Heart Disease Age-adjusted Death Rate by Gender

	Male		Female	
Year	**Count**	**Rate**	**Count**	**Rate**
2012	528	150.7	393	71.2
2013	524	144.7	359	71.2
2014	584	155.0	424	82.7

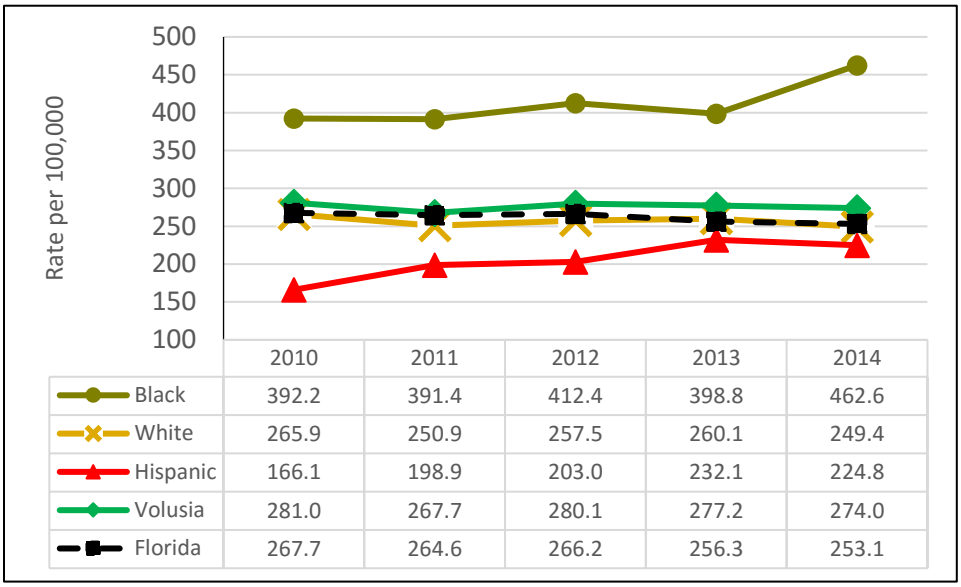
Source: Florida Department of Health, Bureau of Vital Statistics
Note: Rates are per 100,000

Map 3.3 Coronary Heart Disease Age-adjusted Death Rate 2014



Source: Florida Department of Health, Bureau of Vital Statistics
Note: Rate per 100,000

Graph 3.5 Stroke Age-adjusted Hospitalization Rate

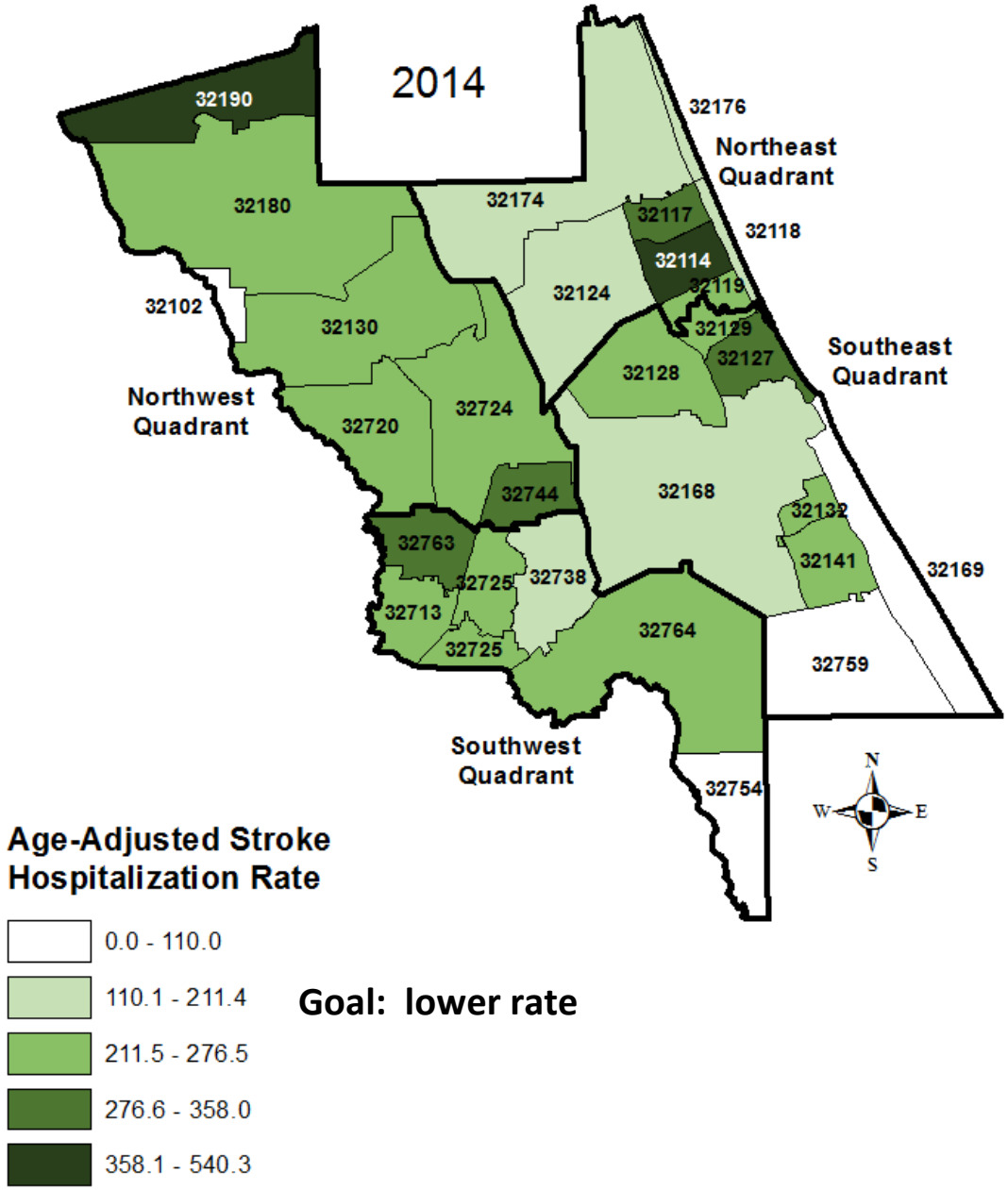


	2010	2011	2012	2013	2014
Black	392.2	391.4	412.4	398.8	462.6
White	265.9	250.9	257.5	260.1	249.4
Hispanic	166.1	198.9	203.0	232.1	224.8
Volusia	281.0	267.7	280.1	277.2	274.0
Florida	267.7	264.6	266.2	256.3	253.1

Source: Florida Agency for Health Care Administration

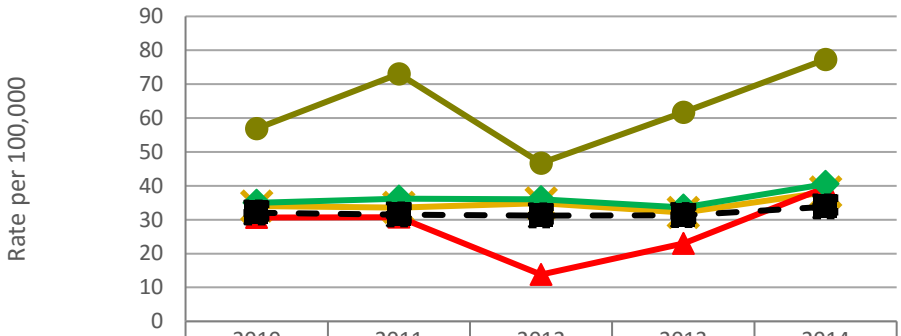
- The Volusia County rate decreased by 2.3 percent from 2010 to 2014
- The rate among Blacks in Volusia County increased by 17.8 Percent from 2010 to 2014
- The rate among Hispanics in Volusia County increased by 35.3 Percent from 2010 to 2014

Map 3.4 Stroke Age-adjusted Hospitalization Rate 2014



Source: Agency for Health Care Administration
Note: Rate per 100,000

Graph 3.6 Stroke Age-adjusted Death Rate



	2010	2011	2012	2013	2014
Black	56.9	73.0	46.7	61.7	77.3
White	34.0	33.6	34.9	32.1	38.1
Hispanic	30.6	30.7	13.8	23.0	39.5
Volusia	35.0	36.2	36.0	33.6	40.5
Florida	32.0	31.5	31.2	31.3	33.8

Source: Data Source: Florida Department of Health, Bureau of Vital Statistics

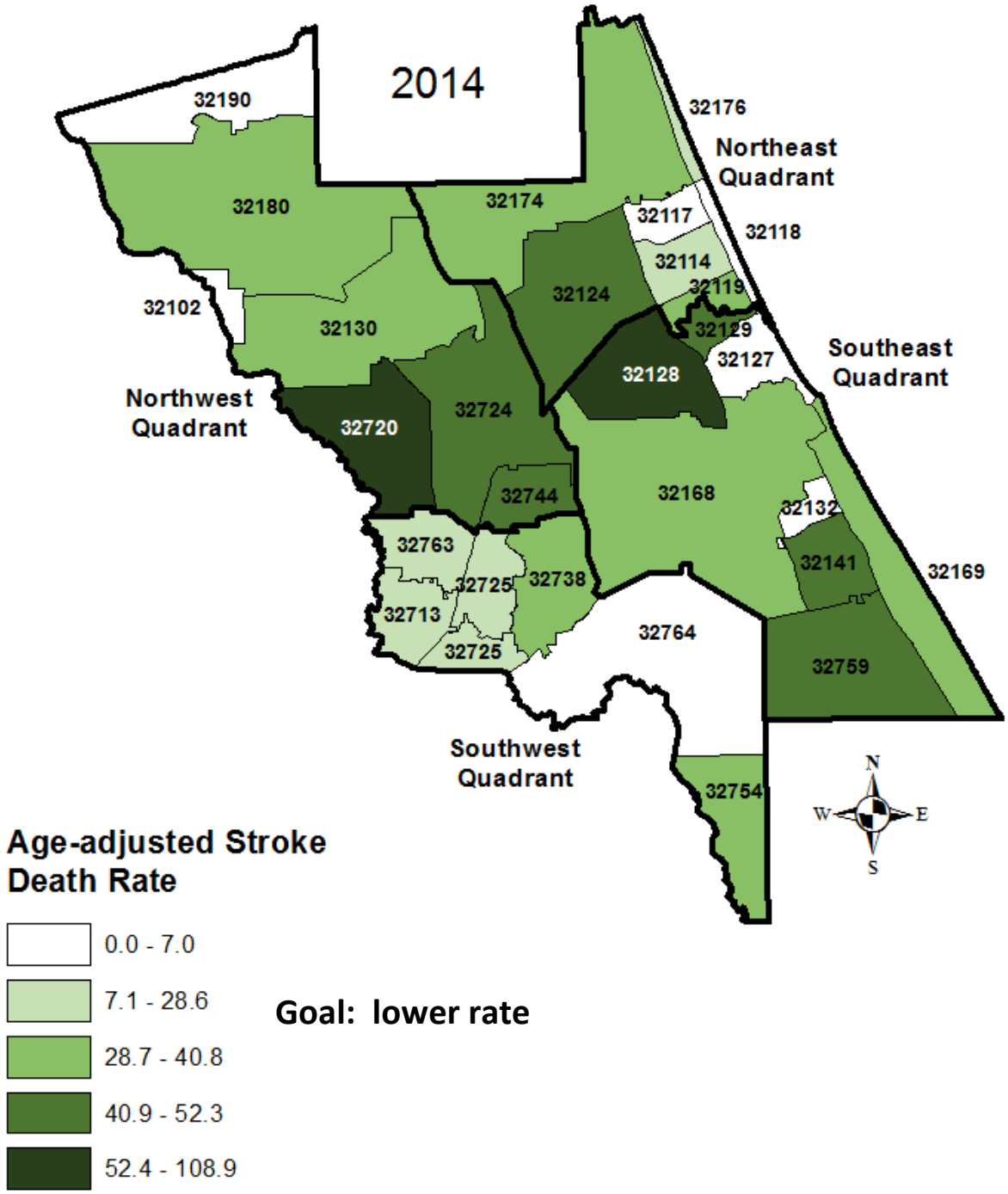
- The rate in Volusia County increased by 15.7 percent from 2010 to 2014
- The rate among Blacks in Volusia County increased by 35.9 percent from 2010 to 2014
- The rate among Hispanics in Volusia County increased by 29.1 percent from 2010 to 2014

Table 3.4 Stroke Age-adjusted Death Rate by Gender

	Male		Female	
Year	**Count**	**Rate**	**Count**	**Rate**
2012	126	36.5	182	36.4
2013	135	36.5	159	30.7
2014	144	39.1	211	40.6

Source: Florida Department of Health, Bureau of Vital Statistics
Note: Rates are per 100,000

Map 3.5 Stroke Age-adjusted Death Rate 2014



Source: Florida Department of Health, Bureau of Vital Statistics
Note: Rate per 100,000

Table 3.5 Adults Who Have Ever Been Told They Had High Blood Cholesterol 2013

Adults who have ever been told they had high blood cholesterol 2013	Volusia	Florida
	Percent	Percent
Total – Overall	39.3	33.4
Men	43.9*	33.6
Women	35.0	33.2
Non-Hispanic, White	39.4	39.0
Non-Hispanic, Black	44.4	24.5
Hispanic	34.8	27.5
18-44	19.3	13.6
45-64	40.7	42.4
65 & Older	62.9	55.7
< High School	39.6	33.9
High School/GED	48.1*	32.8
> High School	34.4	33.6
< $25,000	38.2	32.1
$25,000-$49,999	41.5	34.5
$50,000 or More	38.9	34.0

Source: Florida Behavioral Risk Factor Surveillance System

*Indicates that the difference observed between the 2013 county and state measures is statistically significant.

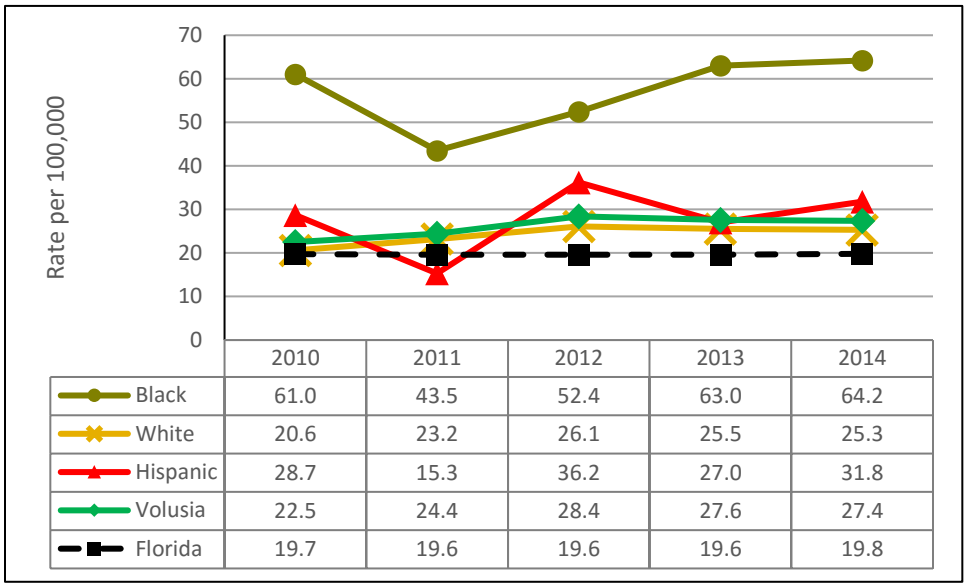
Table 3.6 Adults Who Have Ever Been Told They Had Hypertension 2013

Adults who have ever been told they had hypertension 2013	Volusia	Florida
	Percent	Percent
Total – Overall	40.0	34.6
Men	45.6	37.2
Women	34.7	32.1
Non-Hispanic, White	39.3	38.4
Non-Hispanic, Black	48.7	33.7
Hispanic	26.2	28.3
18-44	15.7	13.8
45-64	45.0	41.1
65 & Older	66.0	62.8
< High School	47.3	42.3
High School/GED	51.8*	35.8
> High School	32.1	31.9
< $25,000	39.2	37.5
$25,000-$49,999	43.6	36.9
$50,000 or More	35.2	30.7

Source: Florida Behavioral Risk Factor Surveillance System

*Indicates that the difference observed between the 2013 county and state measures is statistically significant.

Graph 3.7 Diabetes Age-adjusted Death Rates



	2010	2011	2012	2013	2014
Black	61.0	43.5	52.4	63.0	64.2
White	20.6	23.2	26.1	25.5	25.3
Hispanic	28.7	15.3	36.2	27.0	31.8
Volusia	22.5	24.4	28.4	27.6	27.4
Florida	19.7	19.6	19.6	19.6	19.8

Source: Florida Department of Health, Bureau of Vital Statistics

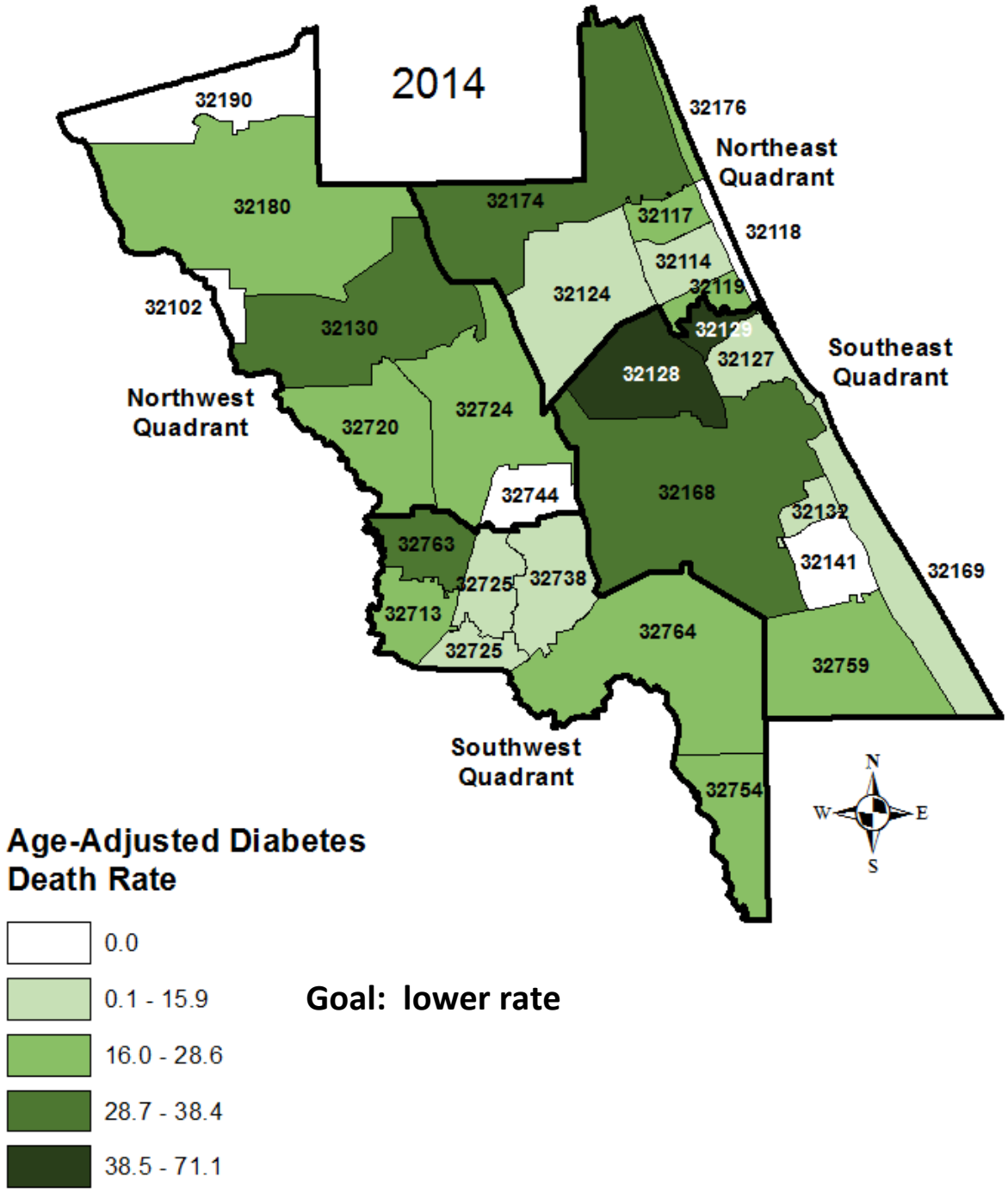
- The Volusia County rate increased for all groups from 2010 to 2014
- The rate among Blacks in Volusia County is than higher than all other groups throughout the reporting period
- All Volusia County groups had a higher rate than Florida except for Hispanics in 2011

Table 3.7 Diabetes Age-adjusted Death Rates

	Male		Female	
Year	**Count**	**Rate**	**Count**	**Rate**
2012	127	36.9	95	21.1
2013	119	33.7	107	22.0
2014	118	32.4	106	23.3

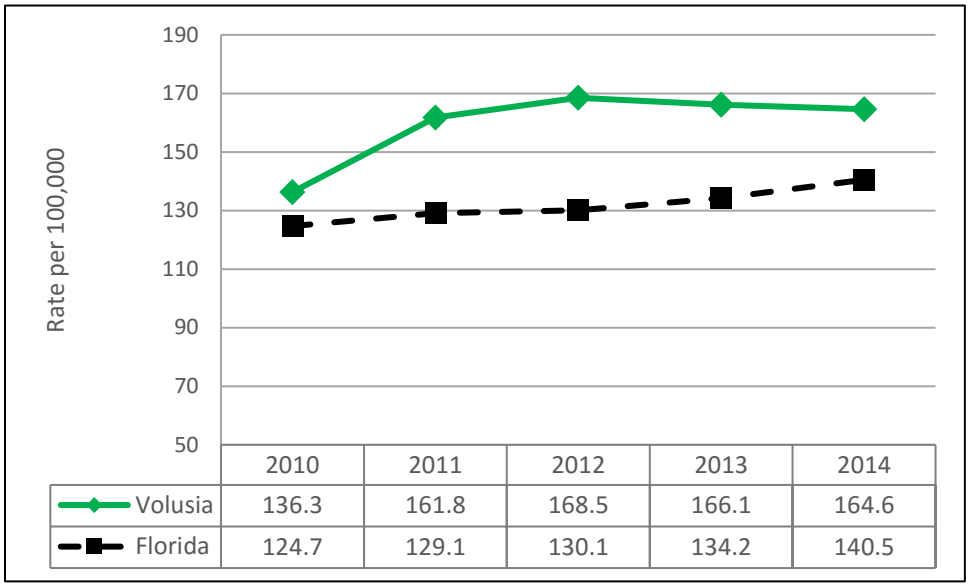
Source: Florida Department of Health, Bureau of Vital Statistics
Note: Rates are per 100,000

Map 3.6 Diabetes Age-adjusted Death Rates 2014



Source: Florida Department of Health, Bureau of Vital Statistics
Note: Rate per 100,000

Graph 3.8 Preventable Hospitalizations Adults Under 65 from Diabetes

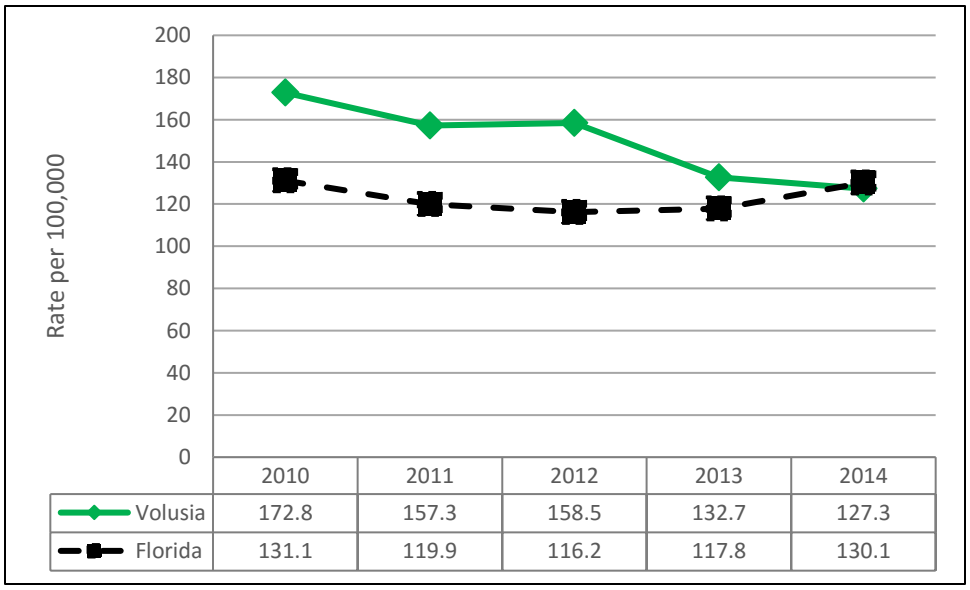


	2010	2011	2012	2013	2014
Volusia	136.3	161.8	168.5	166.1	164.6
Florida	124.7	129.1	130.1	134.2	140.5

Source: Florida Agency for Health Care Administration

- The Volusia County rate increased from 2010 to 2014
- The Volusia County rate remained above the state rate from 2010 to 2014

Graph 3.9 Diabetes Hospitalizations, Ages 12-18

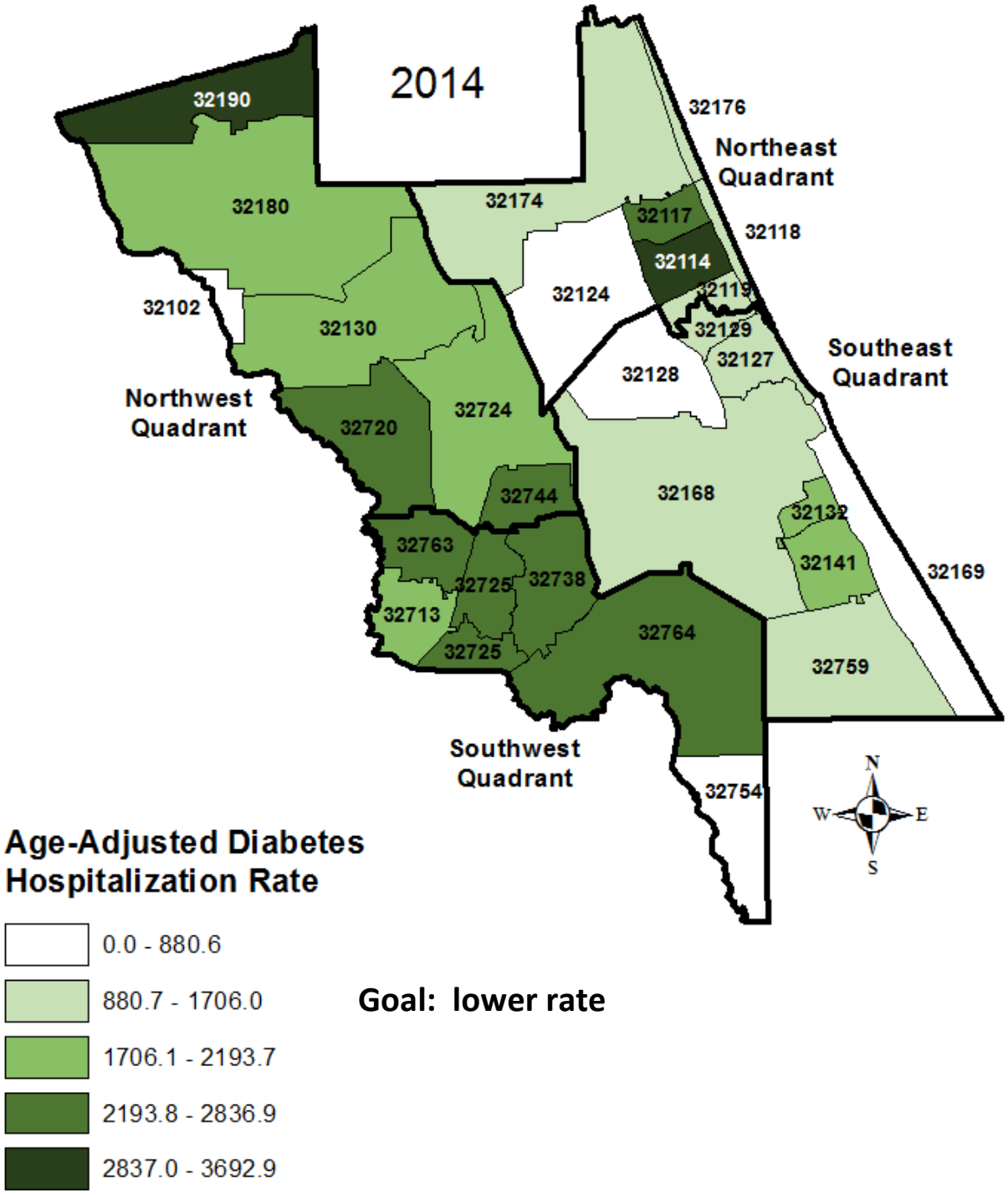


	2010	2011	2012	2013	2014
Volusia	172.8	157.3	158.5	132.7	127.3
Florida	131.1	119.9	116.2	117.8	130.1

Source: Florida Agency for Health Care Administration

- The Volusia county rate has continued to decline over the years reported
- The Volusia County rate was higher than the Florida rate until 2014

Map 3.7 Diabetes Age-adjusted Hospitalizations Rate 2014



Goal: lower rate

Source: Agency for Health Care Administration
Note: Rate per 100,000

Table 3.8 Adults Who Have Ever Been Told They Had Diabetes 2013

Adults who have ever been told they had diabetes 2013	Volusia	Florida
	Percent	Percent
Total – Overall	12.4	11.2
Men	13.0	12.3
Women	11.9	10.1
Non-Hispanic, White	10.2	11.4
Non-Hispanic, Black	12.5	12.3
Hispanic	27.3	10.8
18-44	5.0	2.6
45-64	15.1	13.5
65 & Older	17.1	23.5
< High School	13.9	18.0
High School/GED	16.0	11.5
> High School	10.2	9.2
< $25,000	11.3	14.8
$25,000-$49,999	11.2	11.9
$50,000 or More	15.3	7.5

Source: Florida Behavioral Risk Factor Surveillance System

4. Barriers to Accessing Health Care

Access to comprehensive quality health care services is important for the achievement of health equity and for increasing the quality of a healthy life for everyone (Healthy People 2020). The Healthy People 2020 health target is to increase the proportion of people with a primary care provider to 83.9%.

Definition of Access to Health Services: Access to health services means the timely use of personal health services to achieve the best health outcomes. It requires 3 distinct steps: gaining entry into the health care system; accessing a health care location where needed services are provided; and finding a health care provider with whom the patient can communicate and trust.

Access to Health Care Impacts:

- Overall physical, social, and mental health status
- Prevention of disease and disability
- Detection and treatment of health conditions
- Preventable deaths and life expectancy
- Disparities in access to health services affect individuals and society

Barriers to Accessing Health Care Services: Barriers include the lack of availability, high cost and lack of insurance coverage. These barriers can lead to unmet health needs and delays in receiving appropriate care. Barriers can also contribute to the inability to get preventive services and hospitalizations that could have been prevented.

Despite the existence of many health care resources in Volusia County, there remains access barriers for some sub-groups of the population (individuals living in poverty, homeless, certain racial/ethnic groups, individuals without health insurance, individuals living in certain areas of the county). Of particular concern among the CHNA Leadership Team advising this process were: women of child bearing age accessing interconceptional care services and homeless individuals accessing care.

According the Volusia Community Health Survey, the top 5 barriers to getting health care were:

- Lack of evening and/or weekend services (22.6%)
- Can't pay for doctor/hospital visits (21.8%)
- Long waits for appointments (21.3%)
- Too much worry and stress (20.9%)
- Can't find providers that accept my insurance (12.9%)

According to the Volusia Community Health Survey, the top health care services that were difficult to obtain were:

- Mental health/counseling and substance abuse services – drug & alcohol
- Alternative therapy
- Dental/oral care
- Specialty doctor care (i.e. heart doctor)

With the changing landscape of health insurance, it is essential that quality health insurance remains accessible to our most vulnerable populations and that this insurance links them to the appropriate provider(s) for ongoing care. Increasing access to health care will impact Volusia residents' ability to

reach their full potential, positively affecting their quality of life and the overall wellbeing of the community.

Local Data Summary

Health Resource Capacity: Volusia had a higher rate of total licensed family medicine physicians and of total nursing home beds than the Florida rate. However, in all other categories reported (health department employees, licensed physicians, and hospital beds), the Volusia rate was lower than the Florida rate.

Insurance Coverage: The Volusia rate of children under age 5 covered by MediKids declined from 2010 through 2014 and was consistently lower than the Florida rate. The percentage of Volusia adults who self-reported that they had any type of health care insurance coverage decreased slightly from 2007 to 2013 and was similar to the Florida percentage. The percentage with any type of health care insurance coverage among Hispanics in Volusia County increased over the years reported yet remained below the Volusia percentage. The percentage among Blacks in Volusia County was available for only two time periods and was less than the Volusia percentage in 2010 increasing to higher than the Volusia rate in 2013.

Births paid by Medicaid were reported as a percentage of total births. The Volusia percentage remained steady over the five years reported and was consistently higher than the Florida percentage. The percentage among Whites in Volusia County was lower than the Volusia percentage throughout. The percentage among Hispanics in Volusia County was higher than the Volusia percentage throughout and the percentage among Blacks in Volusia County was the highest of all percentages for all years reported. Births to uninsured women were indicated by “self-pay” checked on the birth certificate. The Volusia rate remained somewhat steady over the years reported and was consistently lower than the Florida rate which decreased slightly. The rate among Hispanics was consistently the highest for Volusia races/ethnicities and the rate among Blacks was consistently the lowest. The percentage of Volusia women over age 17 who self-reported they had any type of health care insurance coverage increased between 2007 and 2013. The Volusia percentage was lower than that of Florida in 2007 then rose above it in 2010 as the Volusia percentage increased and the Florida percentage decreased.

Individual Health Status: The percentage of Volusia adults who reported having a personal doctor or health care provider was slightly higher than the Florida percentage. A greater percentage of women than men in Volusia County made similar reports. The percentage among Whites in Volusia County was higher than the percentage among Blacks which was higher than the percentage among Hispanics.

The Volusia percentage with a personal doctor or health care provider increased by age group as well as by income level. The percentage was less for Volusia residents with less than a high school diploma and almost equal for those with a high school diploma/GED as those with more than a high school education. The percentage of Volusia residents who self-reported their health was “fair” or “poor” decreased from 2010 (when it was higher than the Florida percentage) to 2013 (when it was lower than the Florida percentage). For both years, the percentage of men was higher than women who reported this health status. The Volusia percentage was highest among Blacks in 2010 and among Hispanics in 2013 who reported their health was “fair” or “poor”.

Indicators:

Indicator	Reference
Health Resource Capacity: Health Department, Physicians, Hospital Beds and Nursing Home Beds	**Table 4.1**
Children < 5 Covered by MediKids	**Graph 4.1**
Adults with Any Type of Health Care Insurance Coverage	**Graph 4.2**
Births Covered by Medicaid	**Graph 4.3**
Births to Uninsured Women ("Self-Pay" Checked on Birth Certificate)	**Graph 4.4**
Females > 17 Who Have Any Type of Health Care Insurance Coverage	**Graph 4.5**
Adults Who Have a Personal Doctor or Health Care Provider	**Table 4.2**
Adults Who Rate Their Health Status as "Fair" Or "Poor"	**Table 4.3**

Other Data:

Other data related to Barriers to Accessing Health Care Services can be found here:

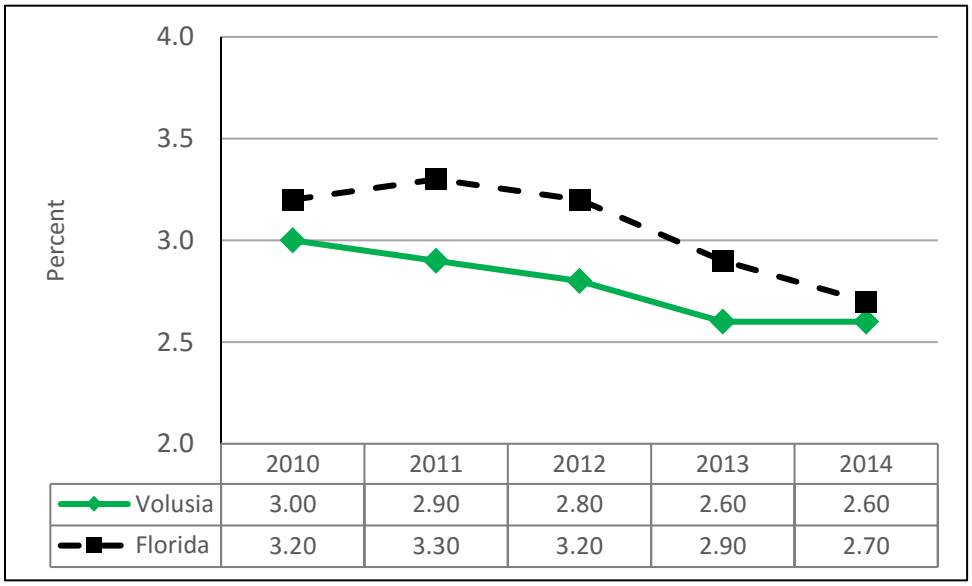
- **Graph 3.8:** Preventable Hospitalizations Under 65 from Diabetes
- **Graph 12.21:** Births with Adequate Prenatal Care (Kotelchuck index)
- **Graph 12.22:** Prenatal Care Began in First Trimester
- **Graph 12.23:** Births with No Prenatal Care
- **13. Socio-Demographics (Entire Section)**

Table 4.1 Health Resource Capacity

Category	Type	Volusia County		Florida
		Number	Rate per 100,000	Rate per 100,000
Health Department *2014*	Full-Time Employees	234	46.5	51.1
Physicians *FY 2014-15*	Total Licensed Physicians	1,051	208.9	228.6
	Total Licensed Family Medicine	203	40.3	30.2
	Total Licensed Internists	137	27.2	33.1
	Total Licensed OB/GYN	29	5.8	9.2
	Total Licensed Pediatricians	43	8.5	11.9
Hospital Beds *2014*	Total Acute Care Beds	1,296	257.6	260.3
	Total Hospital Beds	1,479	293.9	317.3
	Total Specialty Beds	183	36.4	57
Nursing Home Beds *2014*	Total Nursing Home Beds	3,427	681.1	426.7

Source: Florida Agency for Health Care Administration, Florida Department of Health Physician Workforce Surveys

Graph 4.1 Children <5 Covered by MediKids

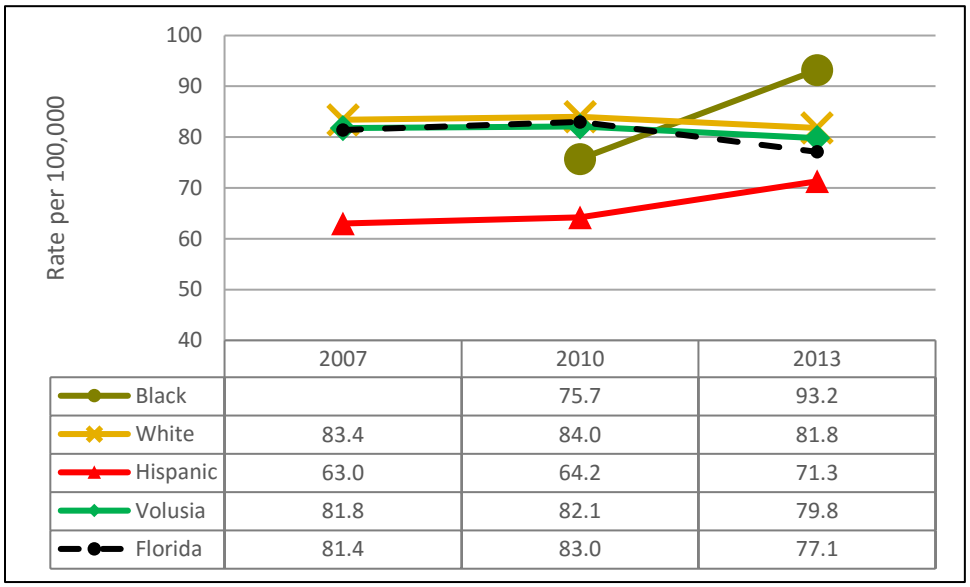


Source: Agency for Health Care Administration (AHCA)

- The Volusia County percentage declined over the reporting period
- The Volusia County percentage was lower than the Florida percentage from 2010 to 2014

Note: MediKids is one part of the larger KidCare program

Graph 4.2 Adults with Any Type of Health Care Insurance Coverage



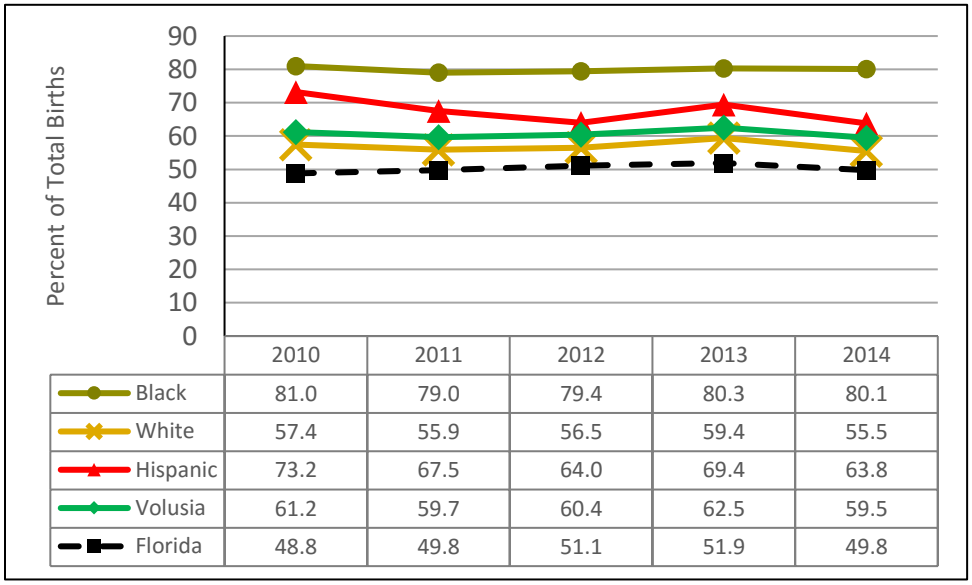
	2007	2010	2013
Black		75.7	93.2
White	83.4	84.0	81.8
Hispanic	63.0	64.2	71.3
Volusia	81.8	82.1	79.8
Florida	81.4	83.0	77.1

Source: Florida Behavioral Risk Factor Surveillance System

- The Volusia County rate is similar to the Florida rate and remained steady over the reporting period
- The rate among Hispanics in Volusia County was the lowest overall rate over the reporting period
- The rate among Blacks in Volusia County was the highest rate in 2013

Note: Data was not available for Blacks in the 2007 year for this indicator.

Graph 4.3 Births Covered by Medicaid

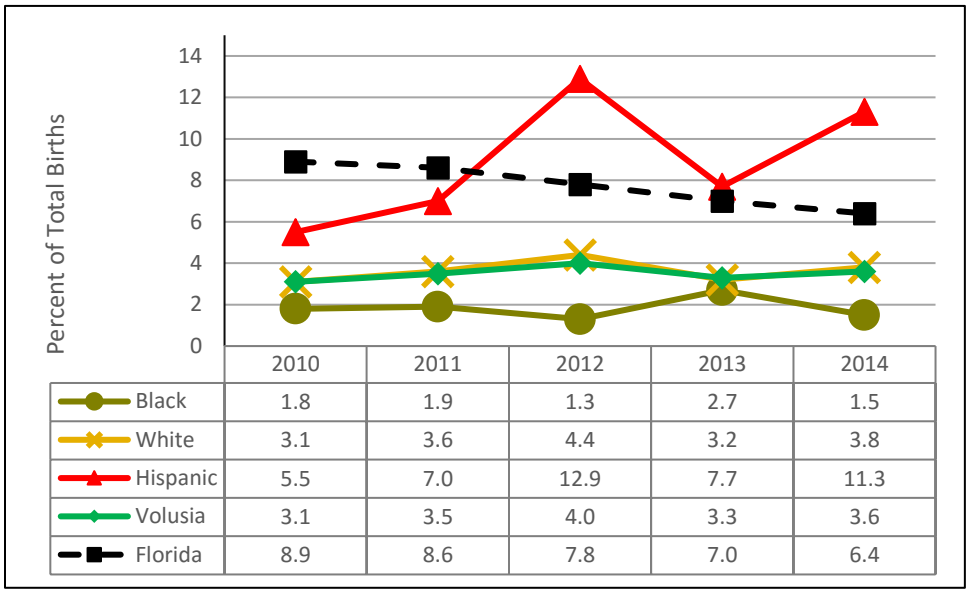


	2010	2011	2012	2013	2014
Black	81.0	79.0	79.4	80.3	80.1
White	57.4	55.9	56.5	59.4	55.5
Hispanic	73.2	67.5	64.0	69.4	63.8
Volusia	61.2	59.7	60.4	62.5	59.5
Florida	48.8	49.8	51.1	51.9	49.8

Source: Florida Department of Health, Bureau of Vital Statistics

- The Volusia County percentage was higher than the Florida percentage throughout the years reported
- The percentage among Blacks in Volusia County was the highest overall and remained steady from 2010 to 2014
- The percentage among Hispanics in Volusia County was higher than the Volusia percentage and decreased by 9.4 percent from 2010 to 2014

Graph 4.4 Births to Uninsured Women ("Self-Pay" Checked on Birth Certificate)

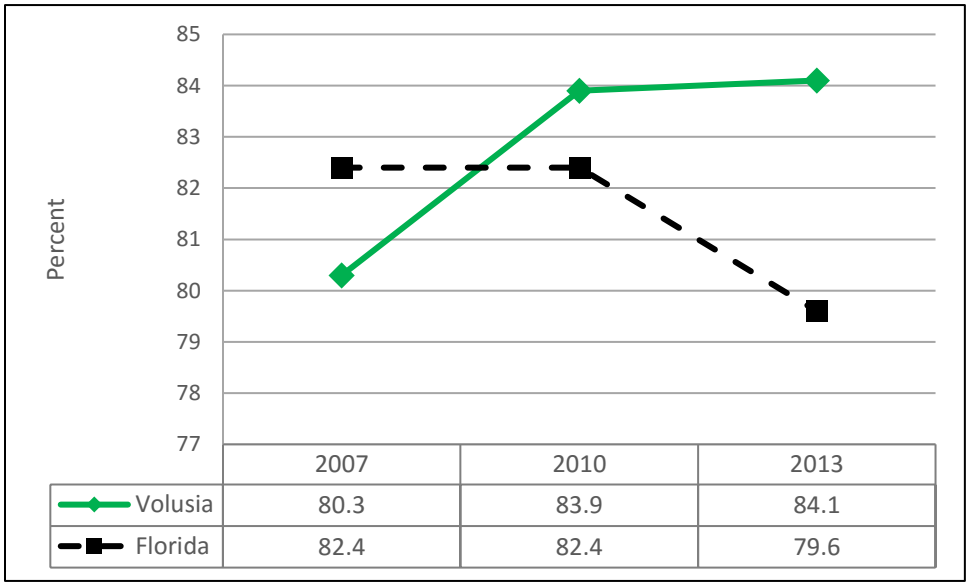


	2010	2011	2012	2013	2014
Black	1.8	1.9	1.3	2.7	1.5
White	3.1	3.6	4.4	3.2	3.8
Hispanic	5.5	7.0	12.9	7.7	11.3
Volusia	3.1	3.5	4.0	3.3	3.6
Florida	8.9	8.6	7.8	7.0	6.4

Source: Florida Department of Health, Bureau of Vital Statistics

- The Volusia County percentage was consistently lower than the Florida percentage over the reporting period
- The Volusia County percentage remained steady over the reporting period
- The percentage among Blacks in Volusia County was the lowest overall percentages over the reporting period
- The percentage among Hispanics in Volusia County was higher than all Volusia percentages and more than doubled from 2010 to 2014

Graph 4.5 Females >17 Who Have Any Type of Health Care Insurance Coverage



	2007	2010	2013
Volusia	80.3	83.9	84.1
Florida	82.4	82.4	79.6

Source: Behavioral Risk Factor Surveillance Systems

- The Volusia County percentage was higher than the state percentage in 2010 and 2013
- The Volusia County rate increased over the reporting period

Table 4.2 Adults Who Have a Personal Doctor

Adults who have a personal doctor 2013	Volusia	Florida
	Percent	Percent
Total – Overall	74.8	73.2
Men	69.7	67.8
Women	79.6	78.4
Non-Hispanic, White	78.2	79.8
Non-Hispanic, Black	70.1	71.8
Hispanic	64.3	59.7
18-44	52.8	57.0
45-64	80.1	78.0
65 & Older	96.5	95.5
< High School	67.6	59.9
High School/GED	75.4	71.2
> High School	75.7	78.0
< $25,000	64.6	61.7
$25,000-$49,999	78.6	73.2
$50,000 or More	79.5	85.1

Source: Florida Behavioral Risk Factor Surveillance System

Table 4.3 Adults Who Rate Their Health Status as "Fair" or "Poor"

Adults who rate their health status as “fair” or “poor”	Volusia 2010	Florida 2010	Volusia 2013	Florida 2013
	Percent	Percent	Percent	Percent
Total – Overall	21.7	17.1	17.1	19.5
Men	22.9	16.5	17.8	18.4
Women	20.6	17.7	16.4	20.6
Non-Hispanic, White	20.4	15.8	16.7	17.7
Non-Hispanic, Black	27.3	20.2	11.1	19.7
Hispanic	20.6	20.7	25.1	24.0

Source: Florida Behavioral Risk Factor Surveillance System

5. Healthy Eating and Physical Activity

Regular physical activity can help people manage their weight as well as reduce their risk for chronic disease. According to guidelines set by the Centers for Disease Control and Prevention, children and adolescents should get 60 minutes or more of physical activity per day, and adults 18 years and older should get 150 minutes of physical activity per week. Most people do not get the recommended amount of daily activity.

Proximity to exercise opportunities, such as parks and recreation facilities, has been linked to an increase in physical activity among residents. Regular physical activity has a wide array of health benefits including weight control, muscle and bone strengthening, improved mental health and mood, and improved life expectancy.

As reported on the Community Health Survey, Volusia residents' *Top 5 Things that Allow YOU to be Healthy Where You Live are:*

- Access to health care
- Access to places where they could be active
- Having a clean and healthy environment
- Access to healthy foods
- Areas where it is easy and safe to walk.

Adults who are Overweight: he percentage of overweight and obese adults is an indicator of the overall health and lifestyle of a community. Losing weight and maintaining a healthy weight helps prevent and control these diseases. Being overweight or obese carries significant economic costs due to increased health care spending and lost earnings. According to the Community Health Survey 37.3% of respondents said being overweight/obese is an unhealthy behavior they are most concerned about and 36.15% indicated poor nutrition/poor eating habits, followed by 32.8% indicated lack of exercise was what they are most concerned about in Volusia County.

Obesity Increases Risk of:

- Heart disease
- Type 2 diabetes
- Cancer
- Hypertension
- Stroke
- Liver
- Gallbladder disease
- Respiratory problems
- Osteoarthritis

Adults with Good Physical Health: According to the CDC, physical activity:

- Helps control weight, increases chances of living longer
- Reduces risk of cardiovascular disease
- Reduces risk of type 2 diabetes and metabolic syndrome
- Reduces risk of some cancers
- Strengthens bones and muscles
- Improves mental health and mood
- Improves ability to do daily activities and prevent falls

Children: Inactivity during childhood and adolescence increases the likelihood of being inactive as an adult. Adults who are less active are at greater risk of dying of heart disease and developing diabetes, colon cancer, and high blood pressure. Half of American youths aged 12-21 are not vigorously active on a regular basis, and about 14 percent of young people report no recent physical activity. Participation in all types of physical activity declines drastically with both age and grade in school.

Local Data Summary

Physical Activity: The percentage of both middle and high school students in Volusia County without sufficient vigorous physical activity was self-reported to be lower than the Florida percentage. The percentage increased among middle school students and decreased among high school students over the five years reported. The Volusia percentage of high school students without sufficient vigorous physical activity was greater than that of middle school students.

The percentage of adults who meet muscle strengthening recommendations was higher for Volusia than for Florida. Men had a higher percentage than women in Volusia and the percentage among Blacks was highest of all races/ethnicities followed by Hispanics and then Whites. The percentage of adults who meet muscle strengthening recommendations decreased by age group and increased by income level. Regarding educational attainment, the percentage was highest among those with greater than a high school education. The percentage of adults who are inactive or insufficiently active was self-reported to be less than the Florida percentage. The percentage was higher for women than for men in Volusia County and the percentage among Hispanics was the highest of the races/ethnicities followed by Blacks and then Whites. The percentage in Volusia decreased as age group, educational attainment and income level increased.

The percentage of Volusia adults who are sedentary was less than the Florida percentage for all years reported. The data for Blacks and Hispanics in Volusia County was limited but Hispanics saw an increase from 2010 to 2013. In 2013, the percentage among Blacks was highest of all races/ethnicities followed by Hispanics and then Whites.

Weight: The percentage of WIC (Women, Infants and Children) participants two years old or greater who were overweight or obese decreased over the reported years and was consistently lower for Volusia residents than Florida statewide. Weights for middle and high school students were reported for 2012 and 2014. Volusia had a higher percentage than Florida of students at a healthy weight and a lower percentage of obese students for both years. In 2012, the percentage of middle and high school students who were underweight or overweight was slightly lower in Volusia than Florida. In 2014, the percentage of Volusia middle and high school students who were underweight was less than Florida and the percentage of overweight students was higher than Florida. The percentage of Volusia middle and high school students with a BMI at or above the 95th percentile was consistently lower than Florida for the three years reported. The percentage of Volusia middle school students with a BMI at or above the 95th percentile fluctuated and decreased while the percentage of high school students with a BMI in that range increased over the years reported.

The percentage of Volusia adults who self-reported being overweight decreased over the three years reported and was less than the Florida percentage in 2007 and 2013. The percentage among Blacks in Volusia County increased slightly from 2010 to 2013. The percentage among Hispanics in Volusia County increased more significantly over the three years reported. The percent of Volusia residents who self-reported being obese stayed somewhat steady over the years reported and was slightly below Florida in 2007 and slightly above in 2010 and 2013. The percentage among Hispanics in Volusia was higher than

Volusia overall and decreased over the reported years. Data for Blacks in Volusia County was limited and the percentage decreased going from higher than Volusia overall in 2010 to lower in 2013.

The percentage of Volusia residents who self-reported being at a healthy weight was similar to that of Florida throughout. The percentage among Hispanics in Volusia fluctuated and decreased overall going from higher than the Volusia percentage in 2007 to lower in 2013. Data for Blacks in Volusia was limited and went from the lowest of all groups in 2010 to the highest in 2013.

Healthy Eating: The percentage of Volusia adults who self-reported eating five or more servings of fruits and vegetables per day was lower than the Florida percentage in 2013. The percentage for Volusia women was higher than for men and was the lowest of all races/ethnicities among Whites with a higher percentage among Blacks and the highest among Hispanics. The percentage of fruit and vegetable consumption for Volusia adults decreased by age group and increased by income level. Adults with an educational attainment of greater than and less than a high school education had the same percentage which was higher than those adults with a high school/GED education.

Health Status: A greater percentage of Volusia adults self-reported their overall health as "good" to "excellent" than Florida with women having a slightly higher percentage than men. The percentage among Blacks in Volusia County was highest of all races/ethnicities followed by Whites then Hispanics. The Volusia percentage increased as educational attainment and income level increased. Among ages 18-44, the percentage was 90.5% while it was 77.0% for ages 45-64. The percentage for ages 65 and older was 81.6% which was statistically significantly higher than Florida.

Indicators Included:

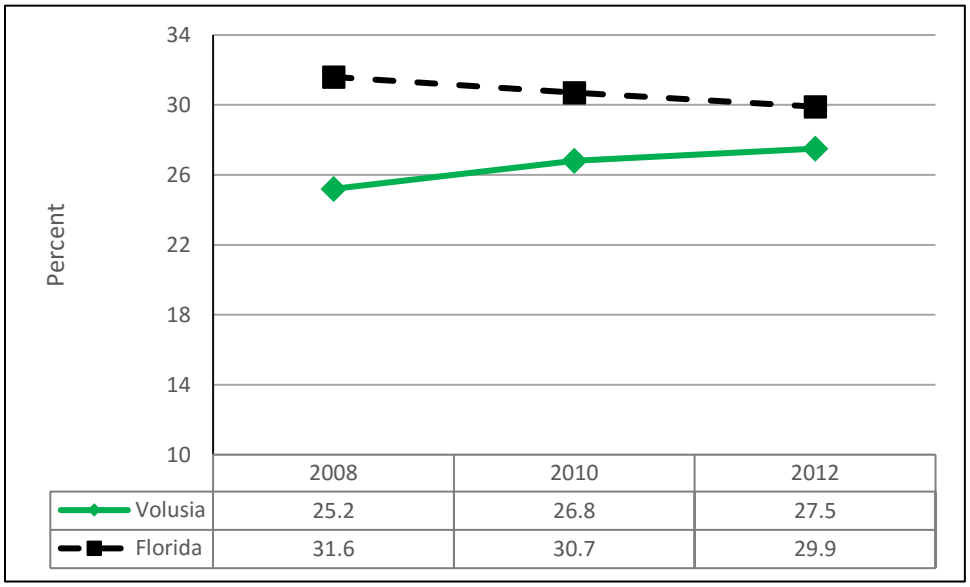
Indicator	Reference
Middle School Students Without Sufficient Vigorous Physical Activity	**Graph 5.1**
High School Students Without Sufficient Vigorous Physical Activity	**Graph 5.2**
Adults Who Meet Muscle Strengthening Recommendations	**Table 5.1**
Adults Who Are Inactive or Insufficiently Active	**Table 5.2**
Adults Who Are Sedentary	**Graph 5.3**
WIC Children >=2 Years Who Are Overweight or Obese	**Graph 5.4**
Middle and High School Student Weight	**Table 5.3**
Middle School students reporting BMI at or above 95th percentile	**Graph 5.5**
High School students reporting BMI at or above 95th percentile	**Graph 5.6**
Adults Who Are Overweight	**Graph 5.7**
Adults Who Are Obese	**Graph 5.8**
Adults Who Are at a Healthy Weight	**Graph 5.9**
Adults Who Consumed Five or More Servings of Fruits or Vegetables Per Day	**Table 5.4**
Adults Who Said Their Overall Health Was "Good" to "Excellent"	**Table 5.5**

Other Data:

Other data related to Healthy Eating and Physical Activity can be found here:

- **Graph 1.1:** Adults Who Engage in Heavy or Binge Drinking
- **Graph 1.6:** Most Common Primary Drug of Choice at Intake (Adults Entering Substance Abuse Treatment at SMA Behavioral)
- **Table 1.2:** Adults Who Are Current Smokers
- **Table 1.3:** Adults Who Had Poor Mental Health on 14 or More of the Past 30 Days
- **Table 1.4:** Adults Who Have Ever Been Told They Had a Depressive Disorder
- **Table 1.5:** Average Number of Unhealthy Mental Days in the Past 30 Days 2013
- **3. Chronic Disease: Cardiovascular Diseases/Diabetes**
- **Table 4.3:** Adults Who Rate Their Health Status as "Fair" or "Poor"
- **Graph 6.2:** Age 65+ and 60+ with No Disabilities
- **2. Behavioral Health – Youth (Entire Section)**
- **8. Chronic Disease: Cancer/Respiratory Diseases (Entire Section)**
- **Table 11.1:** Mothers Who Initiate Breastfeeding
- **Graph 12.3:** Births to Mothers Who Were at a healthy Weight at the Time Pregnancy Occurred
- **Graph 12.4:** Births to Mothers Who Were Overweight at the Time Pregnancy Occurred
- **Graph 12.5:** Births to Mothers Who Were Obese at the Time Pregnancy Occurred
- **13. Socio-Demographics (Entire Section)**

Graph 5.1 Middle School Students Without Sufficient Vigorous Physical Activity

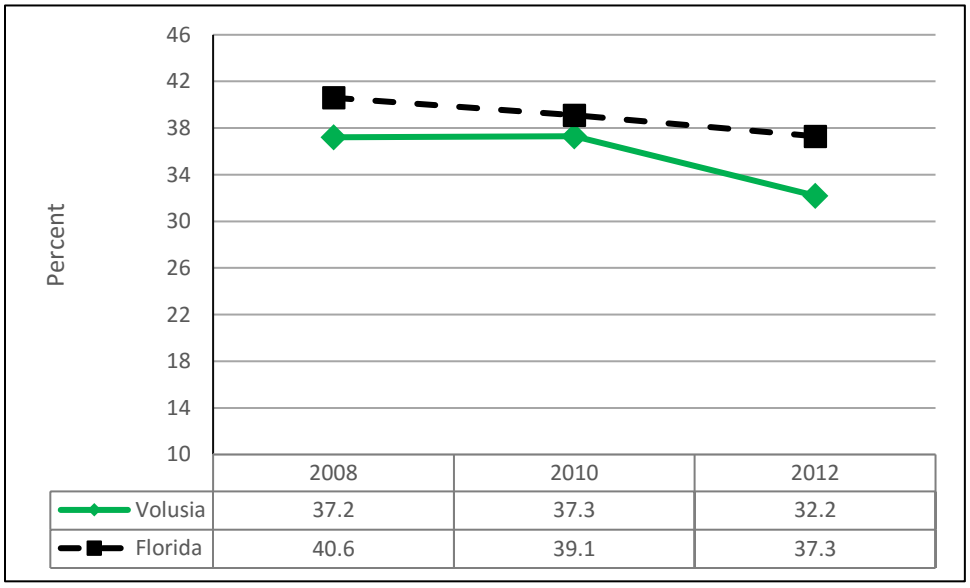


	2008	2010	2012
Volusia	25.2	26.8	27.5
Florida	31.6	30.7	29.9

Source: Florida Youth Tobacco Survey

- The Volusia County percentage increased but was consistently lower than Florida.

Graph 5.2 High School Students Without Sufficient Vigorous Physical Activity



	2008	2010	2012
Volusia	37.2	37.3	32.2
Florida	40.6	39.1	37.3

Source: Florida Youth Tobacco Survey

- The Volusia County percentage decreased from 2010 and was consistently lower than Florida.

Table 5.1 Adults Who Meet Muscle Strengthening Recommendations

Adults who meet muscle strengthening recommendations 2013	Volusia	Florida
	Percent	Percent
Total – Overall	32.9	29.6
Men	42.7	36.0
Women	23.6	23.6
Non-Hispanic, White	30.3	29.3
Non-Hispanic, Black	44.4	35.0
Hispanic	43.2	28.0
18-44	46.7	37.4
45-64	28.2	25.4
65 & Older	21.6	21.8
< High School	30.8	20.7
High School/GED	26.3	26.2
> High School	36.8	33.8
< $25,000	31.6	23.6
$25,000-$49,999	32.7	27.1
$50,000 or More	36.4	37.3

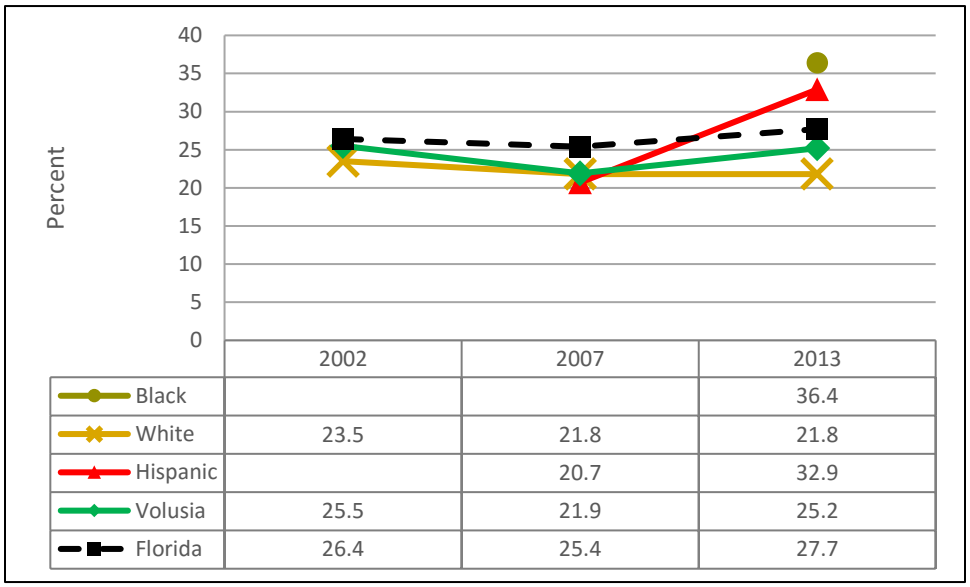
Source: Florida Behavioral Risk Factor Surveillance System

Table 5.2 Adults Who Are Inactive or Insufficiently Active

Adults who are inactive or insufficiently active 2013	Volusia	Florida
	Percent	Percent
Total – Overall	49.2	52.9
Men	46.9	51.1
Women	51.3	54.5
Non-Hispanic, White	45.2	48.8
Non-Hispanic, Black	56.8	56.9
Hispanic	59.4	59.3
18-44	55.9	54.3
45-64	49.7	55.2
65 & Older	42.6	47.5
< High School	71.3	64.2
High School/GED	50.1	55.6
> High School	44.6	48.4
< $25,000	58.8	61.0
$25,000-$49,999	46.1	56.2
$50,000 or More	43.0	43.5

Source: Florida Behavioral Risk Factor Surveillance System

Graph 5.3 Adults Who Are Sedentary



	2002	2007	2013
Black			36.4
White	23.5	21.8	21.8
Hispanic		20.7	32.9
Volusia	25.5	21.9	25.2
Florida	26.4	25.4	27.7

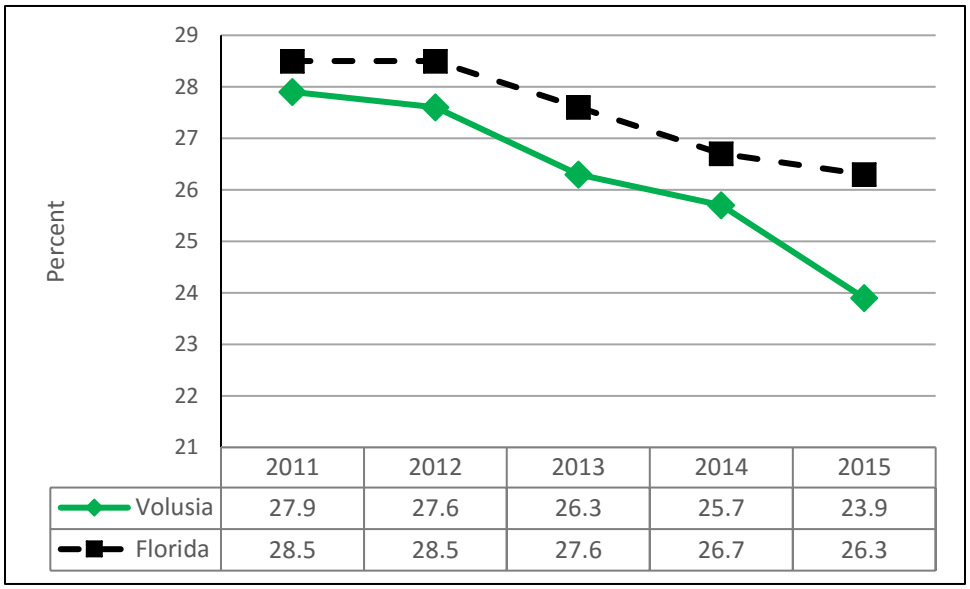
Source: Florida Behavioral Risk Factor Surveillance System

- The Volusia County percentage fluctuated and remained lower than the Florida percentage over the reporting period

Note: Data for Blacks was not available for the 2002 and 2007 years for this indicator

Note: Data for Hispanics was not available in the 2002 year for this indicator

Graph 5.4 WIC Children >=2 Years Who Are Overweight or Obese



	2011	2012	2013	2014	2015
Volusia	27.9	27.6	26.3	25.7	23.9
Florida	28.5	28.5	27.6	26.7	26.3

Source: Florida Department of Health, WIC and Nutrition Services

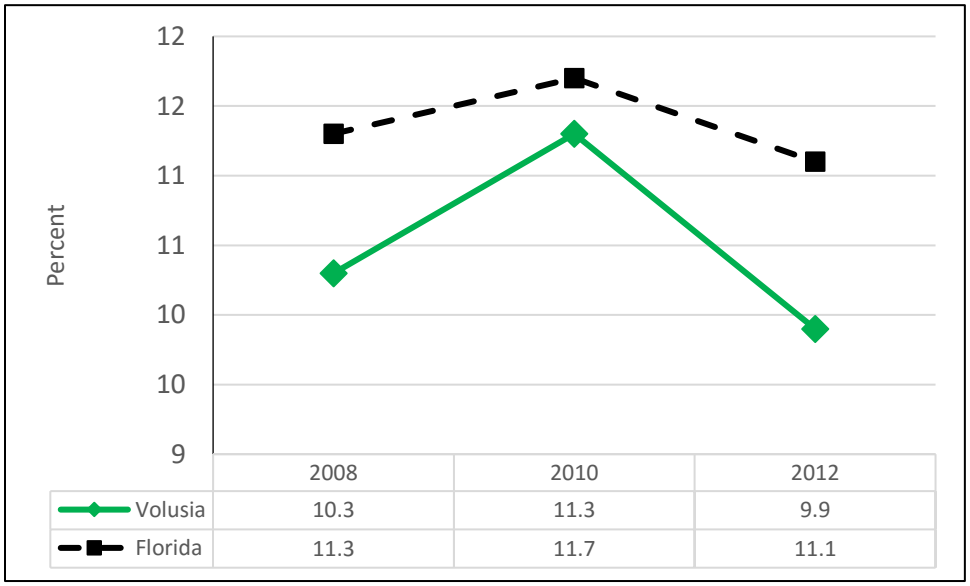
- The Volusia County rate was below that of the state from 2011-2015
- The Volusia County rate decreased continually throughout the years reported

Table 5.3 Middle and High School Student Weight

Middle and High School Student Weight	Volusia 2012	Florida 2012	Volusia 2014	Florida 2014
	Percent	Percent	Percent	Percent
Middle and High School Students who are at a healthy weight	70.9	68.7	69.2	67.6
Middle and High School Students who are underweight	4.1	4.2	3.5	4.2
Middle and High School Students who are Overweight	14.8	15.5	18.1	15.8
Middle and High School Students who are Obese	10.2	11.5	9.2	12.4

Source: Florida Youth Tobacco Survey

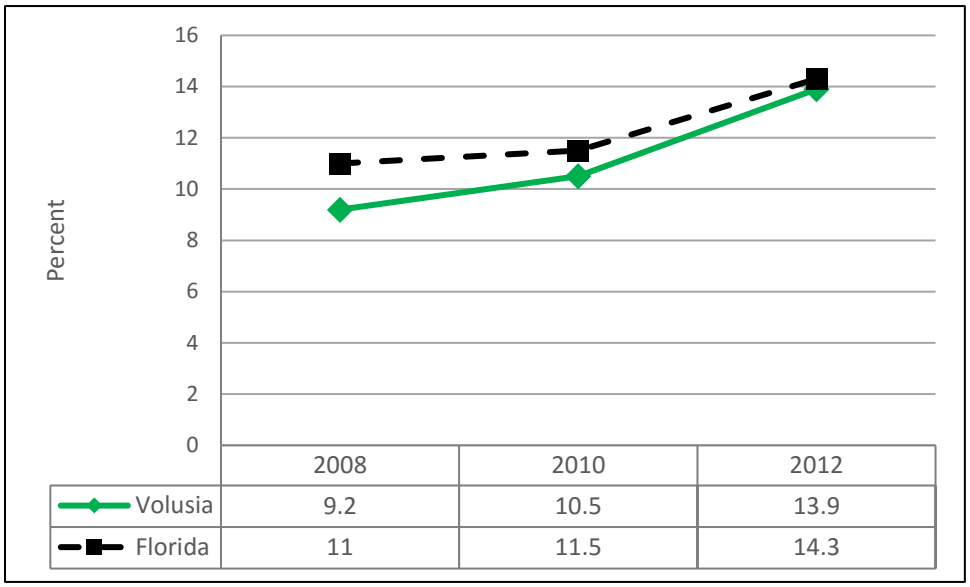
Graph 5.5 Middle School Students with BMI at or above 95th Percentile



Source: Florida Department of Health, Bureau of Epidemiology

- Volusia County had a consistently lower percentage than Florida

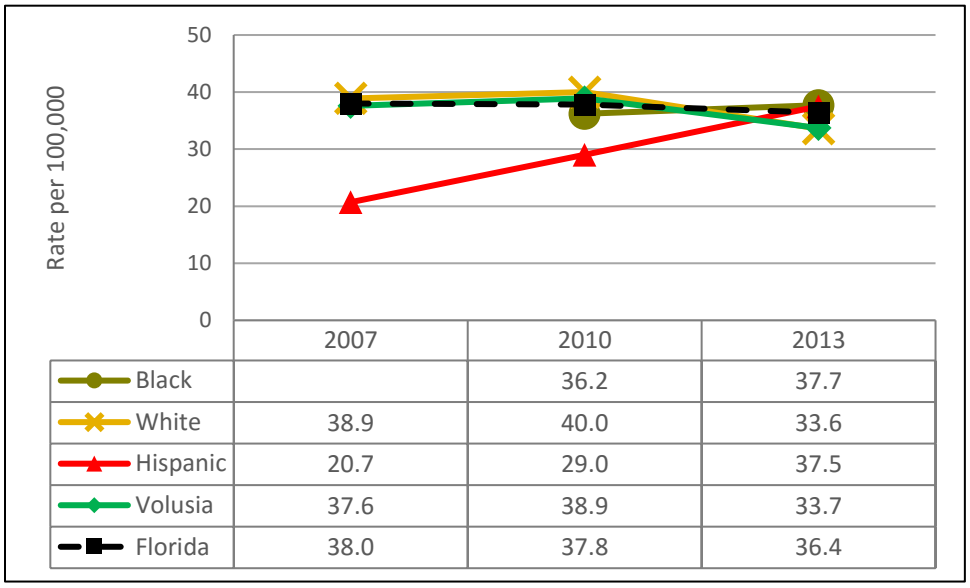
Graph 5.6 High School Students with BMI at or above 95th Percentile



Source: Florida Department of Health, Bureau of Epidemiology

- The Volusia County percentage showed an increasing trend and was consistently below the Florida figure.

Graph 5.7 Adults Who Are Overweight

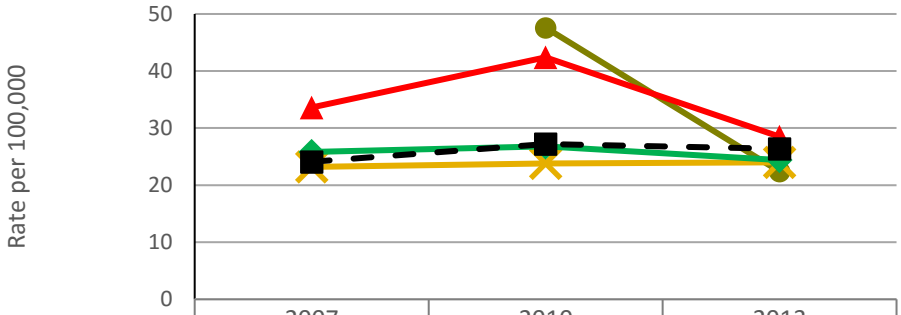


Source: Florida Behavioral Risk Factor Surveillance System

- The rate for Hispanic adults in Volusia County continued to increase over the time reported
- The Volusia County rate began to decline in 2013

Note: Data was not available for Blacks in the 2007 year for this indicator.

Graph 5.8 Adults Who Are Obese

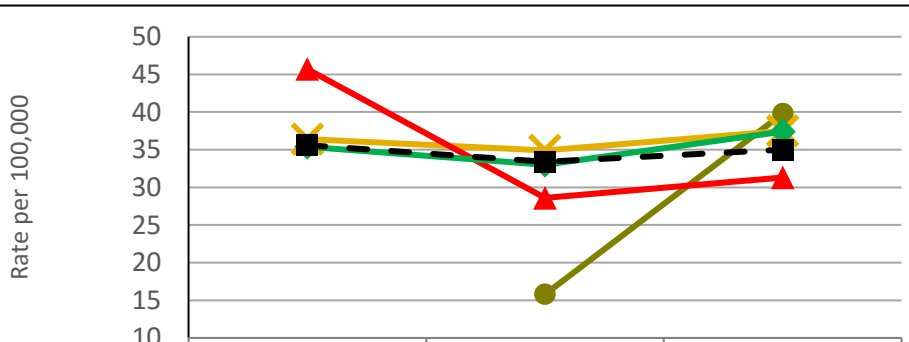


	2007	2010	2013
Black		47.6	22.4
White	23.2	23.8	24.0
Hispanic	33.6	42.4	28.5
Volusia	25.8	26.8	24.4
Florida	24.1	27.2	26.4

Source: Florida Behavioral Risk Factor Surveillance System

- The Volusia County rate fell below the Florida rate from 2010-2013
- The rate among Blacks in Volusia County was the highest of all groups 2010 and the lowest in 2013
- The rate among Whites in Volusia County was the lowest rate overall for two of the three years reported

Graph 5.9 Adults Who Have a Healthy Weight



	2007	2010	2013
Black	0.0	15.8	39.8
White	36.4	34.9	37.5
Hispanic	45.7	28.6	31.3
Volusia	35.4	33.0	37.4
Florida	35.6	33.4	35.0

Source: Florida Behavioral Risk Factor Surveillance System

- The rate in Volusia County increased by 5.6 percent from 2007 to 2013
- The rate among Blacks in Volusia County more than doubled from 2010 to 2013

Table 5.4 Adults Who Consumed Five or More Servings of Fruits or Vegetables per Day

Adults who consumed five or more servings of fruits or vegetables per day 2013	Volusia	Florida
	Percent	Percent
Total – Overall	17.4	18.3
Men	15.4	16.1
Women	19.2	20.4
Non-Hispanic, White	16.6	16.3
Non-Hispanic, Black	17.2	22.4
Hispanic	26.3	19.8
18-44	21.3	19.9
45-64	15.6	17.9
65 & Older	15.0	16.2
< High School	18.2	18.7
High School/GED	15.6	14.5
> High School	18.2	20.4
< $25,000	11.8	17.7
$25,000-$49,999	17.6	19.0
$50,000 or More	21.5	19.7

Source: Florida Behavioral Risk Factor Surveillance System

Table 5.5 Adults Who Said Their Overall Health Was "Good" to "Excellent"

Adults who said their overall health was "good" to "excellent" 2013	Volusia	Florida
	Percent	Percent
Total – Overall	82.9	80.5
Men	82.2	81.6
Women	83.6	79.4
Non-Hispanic, White	83.3	82.3
Non-Hispanic, Black	88.9	80.3
Hispanic	74.9	76.0
18-44	90.5	86.9
45-64	77.0	76.3
65 & Older	81.6*	74.6
< High School	77.4	63.3
High School/GED	77.8	79.3
> High School	86.7	85.8
< $25,000	71.9	66.3
$25,000-$49,999	84.1	82.2
$50,000 or More	90.5	91.9

Source: Florida Behavioral Risk Factor Surveillance System

*Indicates that the difference observed between the 2013 county and state measures is statistically significant.

Additional Health Issues Reviewed by the CHNA Partnership
6. Aging-related Issues

Volusia County is part of the Sunbelt that has long been attracting a continuous stream of seniors seeking to retire here. When the influx of seniors moving into the area is coupled with the aging of baby-boomers, the 65+ population is projected to continue being the fastest growing segment of the population in Volusia County through 2020 and beyond. In 2014, 22.2% of the Volusia Population is 65 or older and 45.1% of the population is 50 or older. According to the 2014 U.S. Census, American Community Survey, 17.3% of Volusia adults 65 or over had two or more disabilities. It will be important to prepare for the rising health care needs and costs of this growing population.

Vaccinations: Influenza is a contagious disease caused by the influenza virus. It can lead to pneumonia and can be dangerous for people with heart or breathing conditions. It is estimated that nationally 226,000 people are hospitalized each year due to influenza and 36,000 die - mostly the elderly. The seasonal influenza vaccine can prevent serious illness and death. The CDC recommends annual vaccinations to prevent the spread of influenza.

Mental Health: Depression is a chronic disease that negatively affects a person's feelings, behaviors and thought processes. Depression has a variety of symptoms, the most common being a feeling of sadness, fatigue, and a marked loss of interest in activities that used to be pleasurable. Many people with depression never seek treatment; however, even those with the most severe depression can improve with treatments including medications, psychotherapies, and other methods.

The Center for Medicare Services estimates that depression in older adults occurs in 25 percent of those with other illnesses, including: arthritis, cancer, cardiovascular disease, chronic lung disease, and stroke. There is an increased risk for suicide in older adults who are dealing with complex issues such as chronic illness and/or the loss of mobility, spouses and peers. The Volusia suicide rate for those who are 60 years or older has continued to increase over the last 5 years and is higher than the Florida rate.

Dementia: Dementia is a non-specific syndrome that severely affects memory, language, complex motor skills, and other intellectual abilities seriously enough to interfere with daily life. Although dementia is much more common in the geriatric population (approximately 5 percent of those over 65 are said to be affected), it can occur in the younger population, in which case it is termed "early onset dementia."

Care in the last five years of life costs much more for patients with dementia than for those who die of heart disease, cancer, or other causes, a new study shows. In addition to costing more across the board, out-of-pocket spending for patients with dementia is 81 percent higher than for people with other diseases. According to the study, conducted by the Icahn School of Medicine at Mount Sinai, Dartmouth College and University of California, Los Angeles and funded by the National Institute on Aging, the burden is disproportionately high when the patients are black, have less than a high school education or are widowed or unmarried women. The study looked at patient and family expenses as well as Medicare and Medicaid spending.

Using data from 1,702 Medicare recipients 70 or older who died between 2005 & 2010, researchers found that the average cost of caring for those with dementia in the last five years of life was $287,038, compared with $175,136 for those who died of heart disease, $173,383 for those who died of cancer, or $197,286 for those who died of other causes. (data was supplied by the Health and Retirement Study.)

Alzheimer's Disease: Alzheimer's disease is the most common form of dementia among the geriatric population, accounting for 50 to 80 percent of dementia cases. It is a progressive and irreversible disease where memory and cognitive abilities are slowly destroyed making it impossible to carry out even simple, daily tasks. Alzheimer's disease typically manifests after the age of 60. According to the Centers for Disease Control and Prevention, Alzheimer's disease is the fifth leading cause of death among adults aged 65 and older in the United States. The Alzheimer's Association notes that the number of people age 65 and older with Alzheimer's disease is estimated to reach 7.1 million by 2025—a 40 percent increase from the estimated 5 million age 65 and older currently affected by the disease. Medicare costs for those with Alzheimer's and other dementias were estimated to be $107 billion dollars in 2013.

Falls: With age physical changes and health conditions — and sometimes the medications used to treat those conditions — make falls more likely. In fact, falls are a leading cause of injury among older adults. More than one in three people age 65 years or older falls each year. The risk of falling –and fall-related problems – rises with age. According to NIH Senior's Health, each year, more than 1.6 million older U.S. adults go to emergency departments for fall-related injuries. Among older adults, falls are the number one cause of fractures, hospital admissions for trauma, loss of independence, and injury deaths. These falls are often preventable with education, improvements to the built environments and social supports.

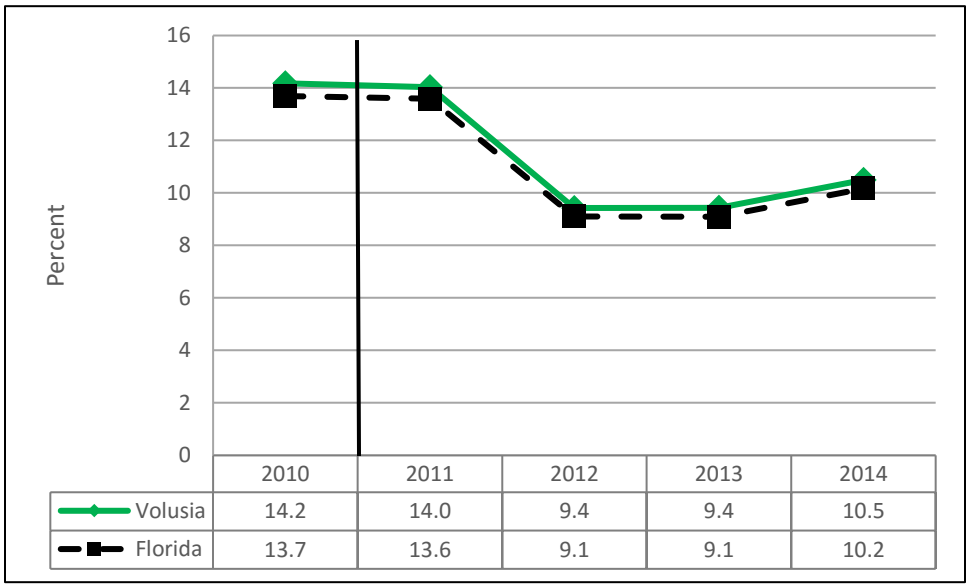
Indicators Included:

Indicator	Reference
Ages 65+ and 60+ Probable Alzheimer's Cases	**Graph 6.1**
Age 65+ and 60+ with No Disabilities	**Graph 6.2**
Age 60+ Below Poverty Guideline,	**Graph 6.3**
Skilled Nursing Facilities Occupancy	**Graph 6.4**
Hospitalizations from Unintentional Falls Age 65+,	**Graph 6.5**
Suicide Age 60+, 3-Year Rolling Rate	**Graph 6.6**

Other Data:

Table 1.1: Adults Who Are Current Smokers
Table 1.2: Adults Who Had Poor Mental Health on 14 or More of the Past 30 Days
Table 1.3: Adults Who Have Ever Been Told They Had a Depressive Disorder
Table 1.4: Average Number of Unhealthy Mental Days in the Past 30 Days 2013
Table 3.5: Adults Who Have Ever Been Told They Had High Blood Cholesterol
Table 3.6: Adults Who Have Ever Been Told They Had Hypertension
Table 3.8: Adults Who Have Ever Been Told They Had Diabetes
Table 4.2: Adults Who Have a Personal Doctor
Table 5.1: Adults Who Meet Muscle Strengthening Recommendations
Table 5.2: Adults Who Are Inactive or Insufficiently Active
Table 5.4: Adults Who Consumed Five or More Servings of Fruits or Vegetables Per day
Table 5.5: Adults Who Said Their Overall Health Was "Good" to "Excellent"
Table 8.2: Adults Who Currently Have Asthma
Table 9.1: Adults Who Received a Flu Shot in the Past Year
Table 9.2: Adults Who Have Ever Been Tested for HIV
Table 13.1: Adults Who Are Limited in Any Way in Any Activities because of Physical, mental, or Emotional Problems

Graph 6.1 Ages 65+ and 60+ Probable Alzheimer's Cases

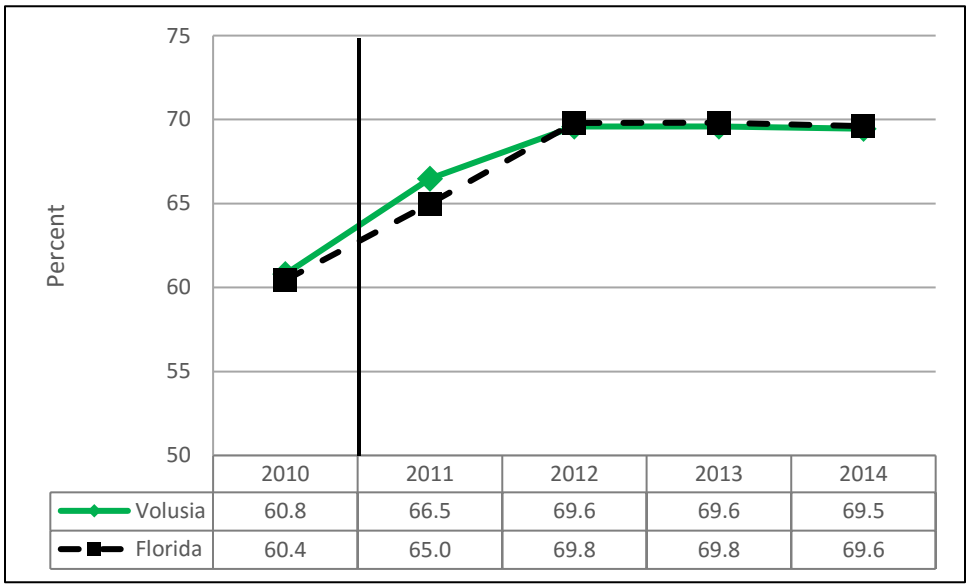


Source: Florida Department of Elder Affairs

- The Volusia County percentage was consistently similar to the Florida percentage
- The Volusia County percentage for 65+ was steady from 2010 to 2011
- The Volusia County percentage for 60+ decreased from 2011 to 2012 and increased slightly from 2012 to 2014

Note: Data source changed reporting ages from 65+ to 60+ in 2012.

Graph 6.2 Age 65+ and 60+ with No Disabilities

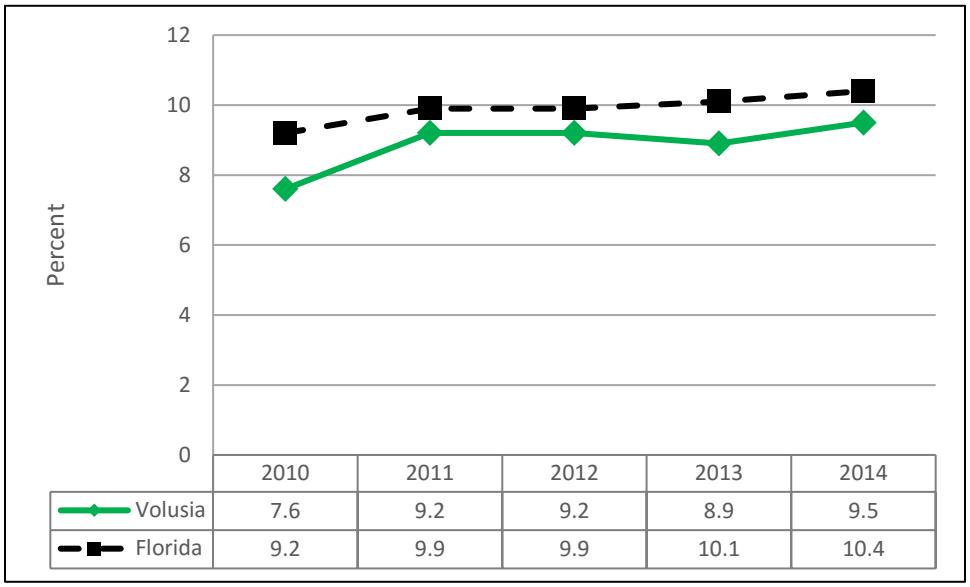


Source: Florida Department of Elder Affairs

- The Volusia County and Florida rates are essentially the same.
- The Volusia County rate for 60+ remained essentially the same from 2012 through 2014
- The Volusia County rate for 65+ increased from 2010 to 2011

Note: Data source changed reporting ages from 65+ to 60+ in 2012.

Graph 6.3 Age 60+ Below Poverty Guideline

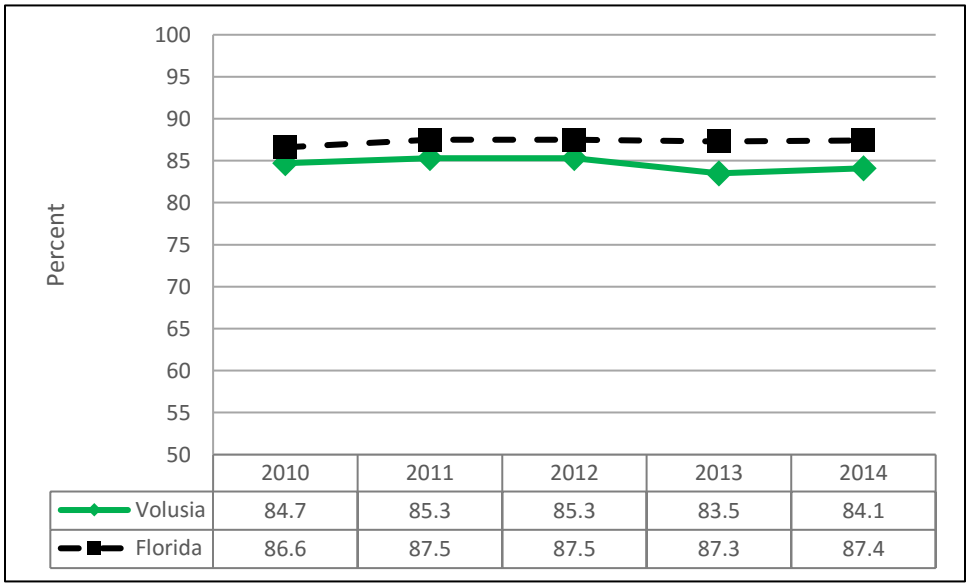


	2010	2011	2012	2013	2014
Volusia	7.6	9.2	9.2	8.9	9.5
Florida	9.2	9.9	9.9	10.1	10.4

Source: Florida Department of Elder Affairs

- The Volusia County rate was consistently lower than the Florida rate
- The Volusia County rate increased over the period reported
- The 2014 Volusia County rate (9.5%) was less than the rate for individuals (17.6%) in the overall population.

Graph 6.4 Skilled Nursing Facilities Occupancy Rates

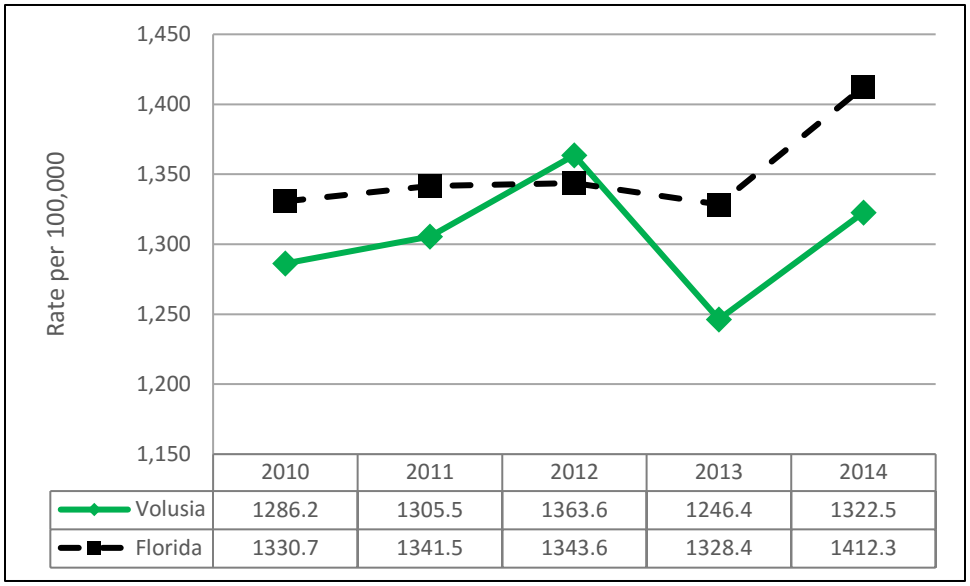


	2010	2011	2012	2013	2014
Volusia	84.7	85.3	85.3	83.5	84.1
Florida	86.6	87.5	87.5	87.3	87.4

Source: Florida Department of Elder Affairs

- The Volusia County percentage was consistently lower than the Florida percentage
- The Volusia County percentage remained steady over the reporting period
- Volusia County has 3,202 Skilled Nursing Facility Community Beds

Graph 6.5 Hospitalizations from Unintentional Falls Age 65+

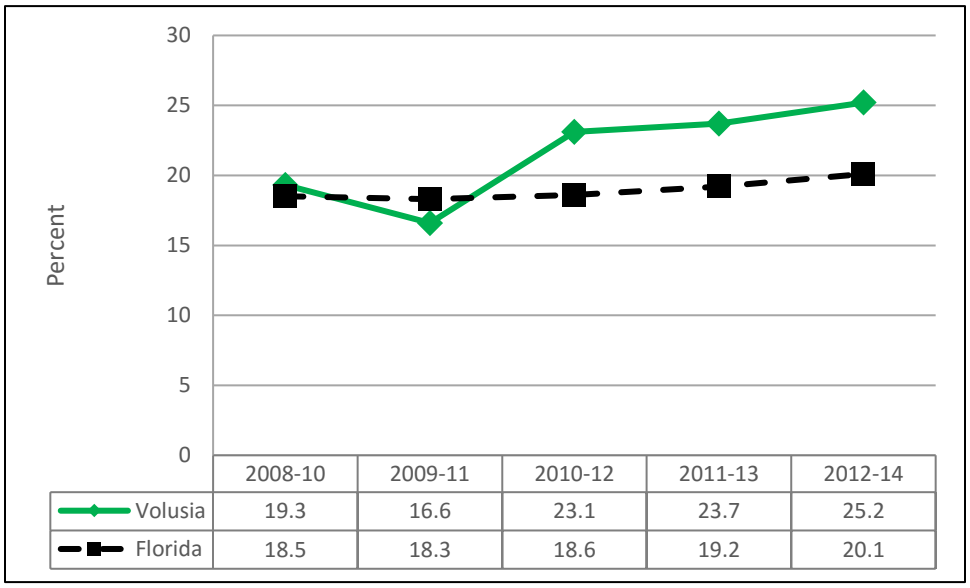


	2010	2011	2012	2013	2014
Volusia	1286.2	1305.5	1363.6	1246.4	1322.5
Florida	1330.7	1341.5	1343.6	1328.4	1412.3

Source: Florida Agency for Health Care Administration, Hospital Discharge Data

- The Volusia County rate fluctuated and increased over the reporting period
- The CDC reports that falls are the most common cause of traumatic brain injury for age 65+
- The CDC reports that more than 95% of hip fractures are caused by falling

Graph 6.6 Suicide Age 60+, 3-Year Rolling Rate



	2008-10	2009-11	2010-12	2011-13	2012-14
Volusia	19.3	16.6	23.1	23.7	25.2
Florida	18.5	18.3	18.6	19.2	20.1

Source: Florida Department of Health, Bureau of Vital Statistics

- The Volusia County rate increased over the reporting period
- The Volusia County rate increased steadily since 2009-11
- The Volusia County rate was greater than Florida's rate for four of the five reported three-year periods

7. Child/Adolescent Issues

There are many interrelated aspects of children's well-being. According to the *AMERICA'S CHILDREN: KEY NATIONAL INDICATORS OF WELL-BEING, 2015 Report***,** there are seven major domains that characterize the well-being of a child and influence the likelihood that a child will grow to be a well-educated, economically secure, productive, and healthy adult. The seven domains are family and social environment, economic circumstances, health care, physical environment and safety, behavior, education, and health. These domains are interrelated and can have synergistic effects on well-being.

Physical Environment and Safety:

Leading Causes of Death: According to the CDC, the leading cause of death throughout childhood and adolescence is accidental unintentional injuries. When looking at age breakdowns by cause of death, communities can better educate the public on prevention measures to prevent avoidable injuries and deaths.

Leading causes of death 1-4 years of age: See Section 7 Early Childhood

Leading Causes of death 5-14 years of age:

- Accidents (unintentional injuries, including motor vehicle injuries and drownings)
- Cancer
- Intentional self-harm (suicide)

Leading causes of deaths among adolescents 15-19 years of age:

- Accidents (unintentional injuries, including motor vehicle injuries and drownings)
- Intentional self-harm (suicide)
- Assault (Homicide)

Behavior and Education:

Students face a variety of challenges during childhood and adolescence. Exposure to violence and negative peer behaviors can lead to poor school performance, depression and anxiety as well as other physical and behavioral health issues that adversely affect healthy physical and academic growth and development.

Exposure to Violence:

- In the 2014-15 school year, two Volusia County Schools were listed in the top 10 out of all state 6th - 12th schools by volume of arrests.
- On the 2014 Florida Youth Substance Abuse Survey (FYSAS), 10.6% of students reported suspensions, 6.7% carried a gun, 6.7% sold drugs and 3.6% were gang members. 18.7% of high school students reported riding in a car with a driver who was under the influence of alcohol.
- The 2014 FYSAS reported that 39.9% of Middle School students worried about bullying, 11% skipped school due to bullying and 22.1% reporting being kicked or shoved in a 30-day period.

Health and Education:

Health includes indicators that characterize physical, mental, and social aspects of children's health. According to the latest CDC Child Health Report:

- 83.3 % of school-aged children 5-11 years of age and 82.7% of adolescents 12-17 years of age were in excellent or very good health (2014).

- 2.9% of school-aged children 5-11 years of age missed 11 or more days of school in the past 12 months because of illness or injury and 4.4% of adolescents 12-17 years of age missed 11 or more days of school in the past 12 months because of illness or injury (2014).
- 17.7 % of school aged children between 6-11 years of age were obese and 20.5% of adolescents 12-19 years of age were obese (CDC 2011-2012).

Health Care:
In 2014 the CDC reported that 5.5% of children under 18 years of age were without health insurance. Well-child and well-adolescent visits provide the foundation for health promotion and disease prevention through early screenings and regular care. The National Center for Health Statistics, National Health Interview Survey latest report indicated that:

- 92% of children ages 0–2 received a well-child visit in the previous 12 months
- 78% of adolescents received a well-adolescent visit in the previous 12 months
- There were similar numbers of visits for both Public and Private Insurance
- Non-insured visit rates fell 20% or more for children of all ages.

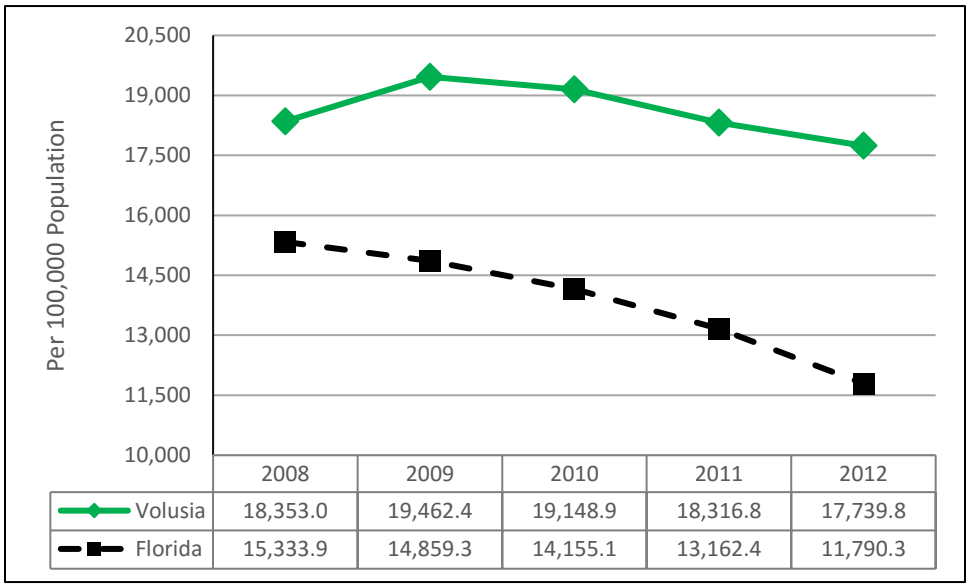
Indicators Included:

Indicator	Reference
Middle School Student Out of School Suspensions	**Graph 7.1**
Violent Acts in School Activities for K-12	**Graph 7.2**
Non-fatal Head Injury Hospitalizations, Age 5-11	**Graph 7.3**
Homicide Deaths, Ages 5-11	**Graph 7.4**
Homicide Deaths Ages, 12-18	**Graph 7.5**
Child Passengers Injured or Killed in Motor Vehicle Crashes, Age 5-11	**Graph 7.6**
Child Passengers Injured or Killed in Motor Vehicle Crashes, Age 12-18	**Graph 7.7**
Licensed Drivers in Motor Vehicle Crashes, Age 15-18	**Graph 7.8**

Other Data:
Other data related to **Child/Adolescent Issues** can be found here:

- **2. Youth Mental Health (Entire Section)**
- **Graph 3.9:** Diabetes Hospitalizations Ages 12-18
- **Graph 5.1:** Middle School Students Without Sufficient Vigorous Physical Activity
- **Graph 5.2:** High School Students Without Sufficient Vigorous Physical Activity
- **Table 5.3:** Middle and High School Student Weight
- **Graph 5.5:** Middle School students reporting BMI at or above 95th percentile
- **Graph 5.6:** High School students reporting BMI at or above 95th percentile
- **2. Behavioral Health (Youth) (Entire Section)**
- **Graph 8.10:** Asthma Hospitalizations Ages 5-11
- **Graph 8.11:** Asthma Hospitalizations Ages 12-18
- **Graph 9.5:** 3-Year Reported STD Cases, Ages 15-19
- **Graph 10.7:** Children Experiencing Child Abuse, Ages 5-11
- **Graph 10.8:** Children Experiences Sexual Violence, Ages 5-11
- **Graph 10.11:** Children in Foster Care Ages 5-11
- **Graph 10.12:** Children in Foster Care Ages 12-17
- **Graph 10.13:** Children Removed/Sheltered Due to Child Abuse and Neglect

Graph 7.1 Middle School Out-of-School Suspensions

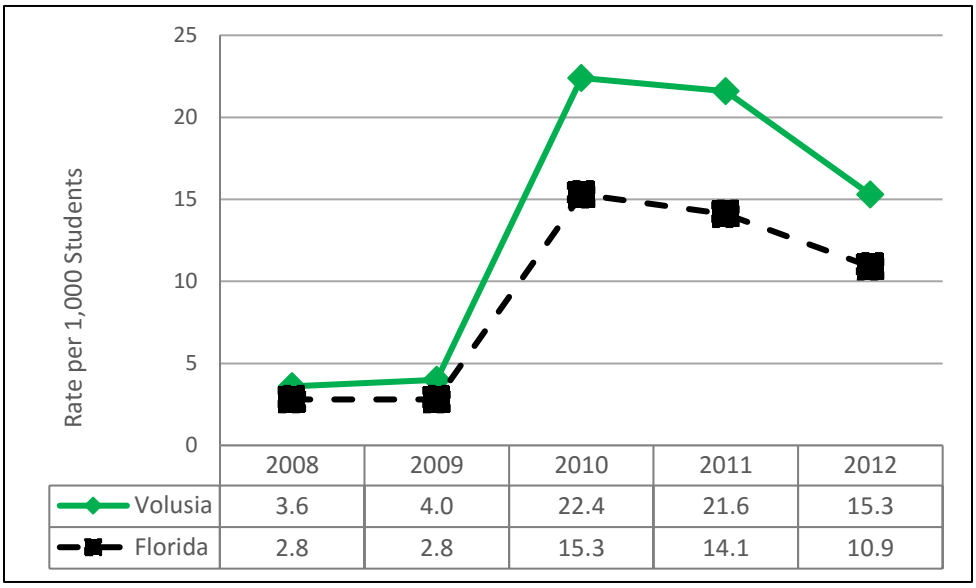


	2008	2009	2010	2011	2012
Volusia	18,353.0	19,462.4	19,148.9	18,316.8	17,739.8
Florida	15,333.9	14,859.3	14,155.1	13,162.4	11,790.3

Source: Florida Department of Education, Education Information and Accountability Services

- The Volusia County rate trended downward from 2008 to 2012
- The Volusia County rate remained consistently higher than the Florida rate over the reporting period
- The difference between Volusia County and Florida rates increased over the 5-year period

Graph 7.2 Violent Acts in School Activities for K-12



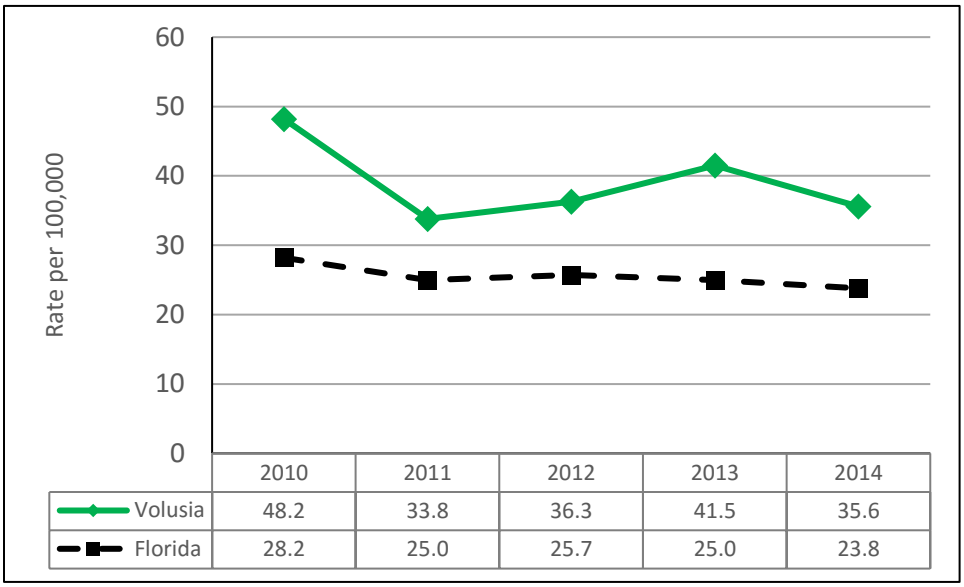
	2008	2009	2010	2011	2012
Volusia	3.6	4.0	22.4	21.6	15.3
Florida	2.8	2.8	15.3	14.1	10.9

Source: Florida Department of Education, Office of Safe Schools

- The Volusia County rate remained above the state rate throughout the years and has decreased since 2010
- There was a large increase in both the Volusia County and Florida rates in 2010.

Note: Due to a reclassification of some violent acts in 2008, the total number of violent acts dropped substantially

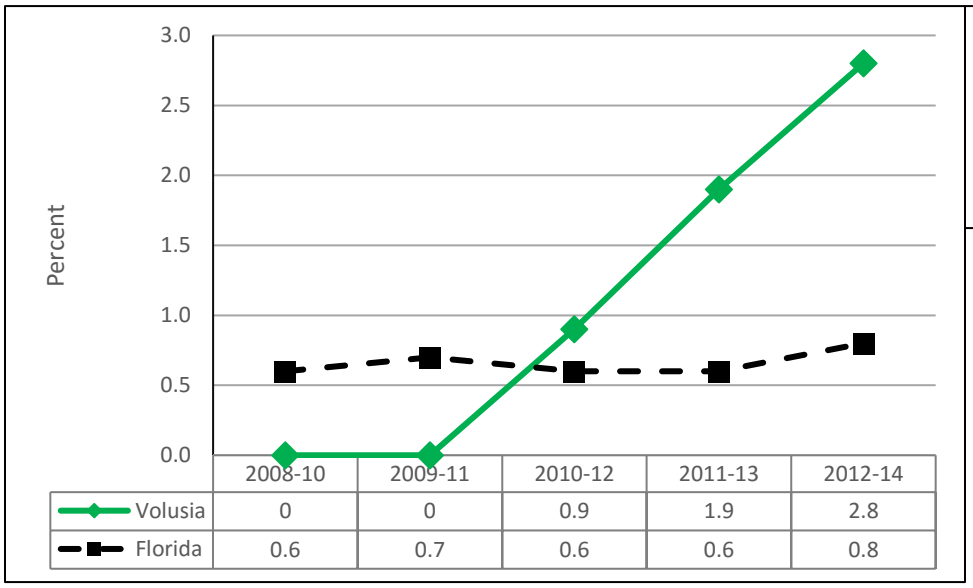
Graph 7.3 Non-fatal Head Injury Hospitalizations, Ages 5-11



Source: Florida Department of Health, Bureau of Vital Statistics

- The Volusia County rate fluctuated and decreased over the reporting period
- The Volusia County rate was continuously higher than Florida rate over the reporting period

Graph 7.4 Homicide Deaths, Ages 5-11



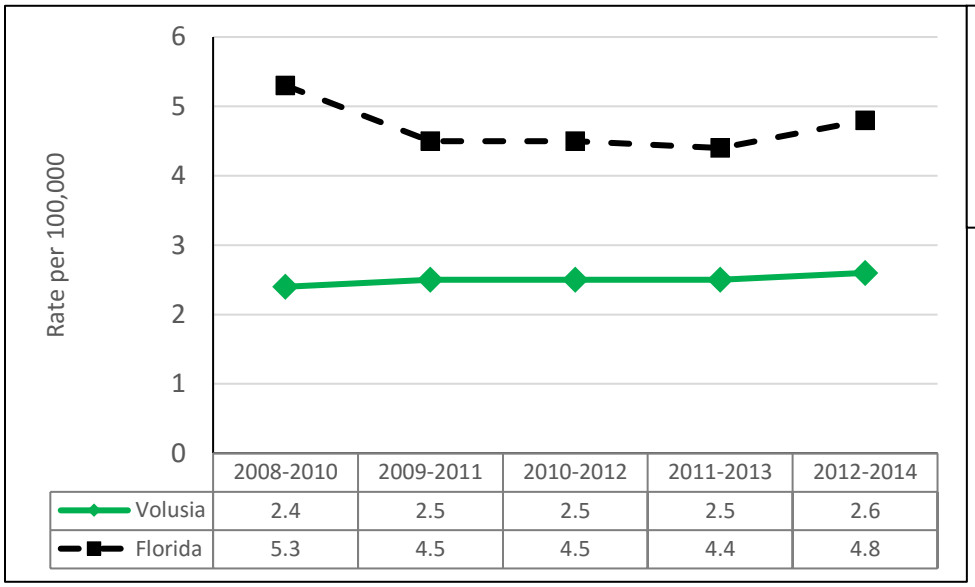
Low Count: Fewer than 5 events per three-year period

Source: Florida Department of Health, Bureau of Vital Statistics

- The Volusia County rate was higher than the state rate from 2010-12 through 2012-14
- The Volusia rate increased over the reporting period

Note: The Volusia rate represents very low numbers

Graph 7.5 Homicide Deaths, Ages 12-18

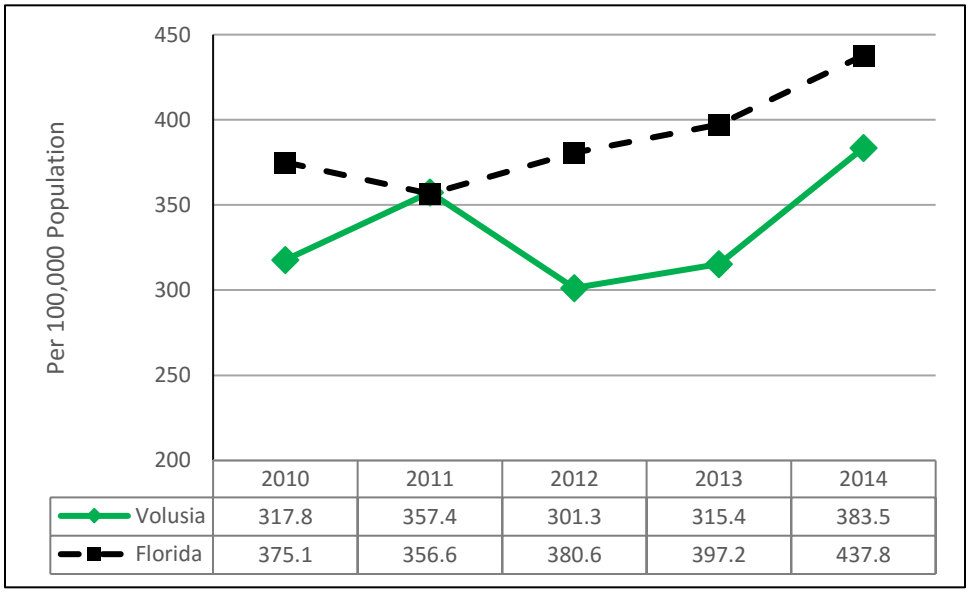


Low Count: Fewer than 5 events per three-year period

Source: Florida Department of Health, Bureau of Vital Statistics

- The Volusia County rate was consistently lower than the Florida rate
- There Volusia County rate remained somewhat steady

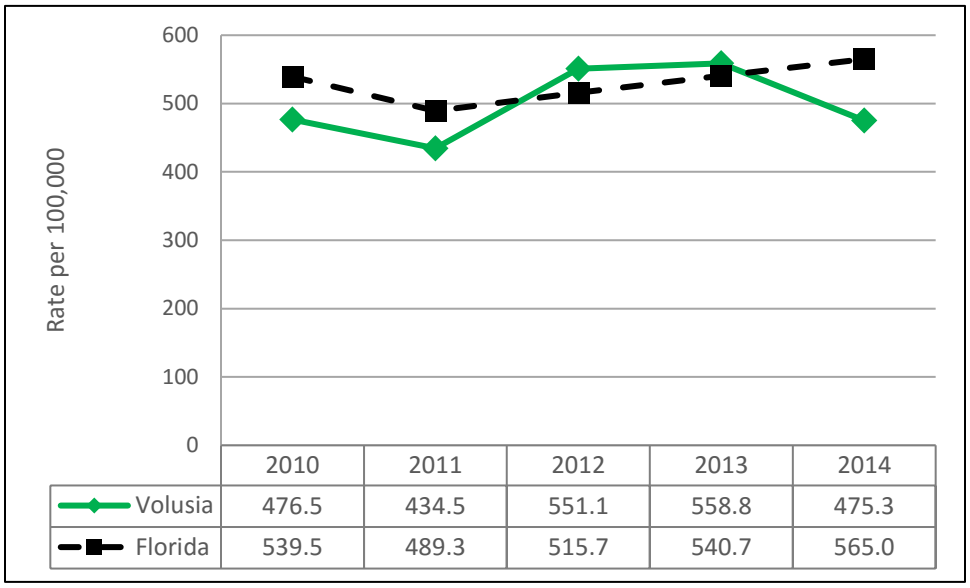
Graph 7.6 Child Passengers Injured or Killed in Motor Vehicle Crashes, Ages 5-11



Source: Florida Department of Highway Safety & Motor Vehicles

- The Volusia County rate increased by 20.7% from 2010 to 2014
- Volusia County rate was lower than the Florida rate in 4 out of 5 years since 2010

Graph 7.7 Child Passengers Injured or Killed in Motor Vehicle Accidents, Ages 12-18

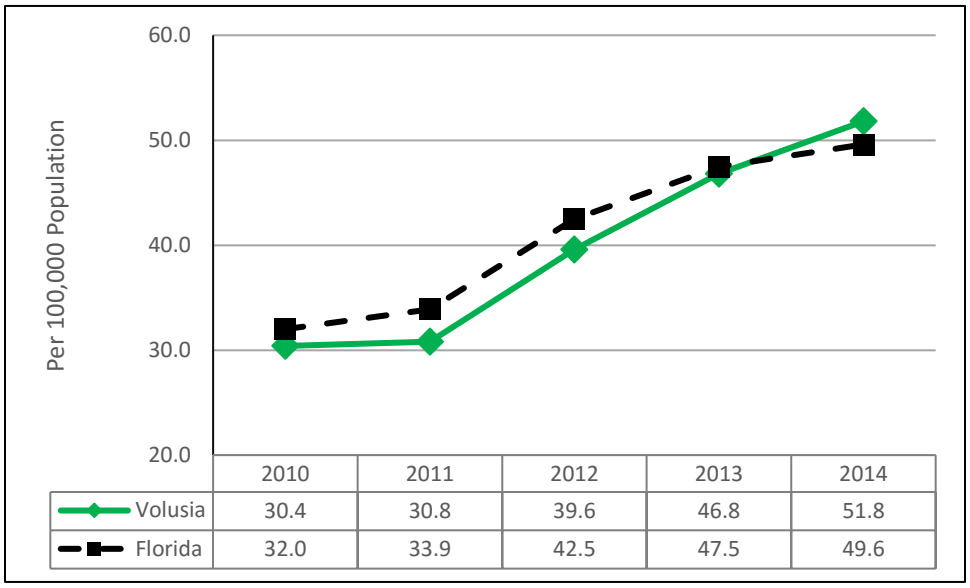


	2010	2011	2012	2013	2014
Volusia	476.5	434.5	551.1	558.8	475.3
Florida	539.5	489.3	515.7	540.7	565.0

Source: Florida Department of Health, Bureau of Vital Statistics

- The Volusia County rate was lower than the state rate from 2010-2011 and 2013-2014
- The Volusia County rate experienced an increase from 2011-2013

Graph 7.8 Crash Rates for Licensed Florida Resident Drivers, Ages 15-18



	2010	2011	2012	2013	2014
Volusia	30.4	30.8	39.6	46.8	51.8
Florida	32.0	33.9	42.5	47.5	49.6

Source: Florida Department of Highway Safety & Motor Vehicles

- The Volusia County rates surpassed Florida in 2014 despite having consistently lower rates from 2010 through 2013
- The Volusia County rate increased by 70% from 2010 to 2014

8. Chronic Disease: Cancer and Respiratory Diseases

Chronic diseases and conditions—such as heart disease, stroke, cancer, and diabetes—are among the most common, costly, and preventable of all health problems. These conditions shorten lives, reduce quality of life, and create considerable burden for caregivers.

According to the Centers for Disease Control and Prevention (CDC):

- As of 2012, about half of all adults in the United States—117 million people—had one or more chronic health conditions. One of four adults had two or more chronic health conditions.
- Seven of the top 10 causes of death in the United States in 2010 were chronic diseases. Two of these chronic diseases—heart disease and cancer—together accounted for nearly 48% of all deaths. In 2014, 45% of all Volusia County deaths were from heart disease and cancer.

Health risk behaviors contribute significantly to this high prevalence of chronic diseases. Four of these health risk behaviors—lack of exercise or physical activity, poor nutrition, tobacco use, and drinking too much alcohol—cause much of the illness, suffering, and early death related to chronic diseases and conditions.

While chronic disease affects health and quality of life, it is also a major driver of health care costs. According to the CDC, in 2010, Eighty-six percent of all health care spending was for people with one or more chronic medical conditions.

Cardiovascular Diseases

Heart Disease: The term "heart disease" refers to several types of heart conditions. The most common type of heart disease in the United States is coronary artery disease, which affects the blood flow to the heart. Decreased blood flow can cause a heart attack.

Cerebrovascular Disease or Stroke: A stroke occurs when blood vessels carrying oxygen to the brain become clogged (or burst), thereby cutting off the brain's supply of oxygen. Each year, approximately 795,000 people in the U.S. will suffer a new or recurrent stroke. The risk of stroke more than doubles with each decade of life for those that are 55 and older. In 2014 Blacks were 2 times more likely to be hospitalized for stroke than Hispanics and had a death rate of 77.3 per 100,000 compared to 40.5 for all groups in Volusia County.

Cardiovascular diseases are the leading cause of death in Volusia County and accounted for 29% of all deaths in 2014.

Cancer: Cancer is a leading cause of death in the United States and the second leading cause of death in Volusia County. The National Cancer Institute (NCI) defines cancer as a term used to describe diseases in which abnormal cells divide without control and are able to invade other tissues. There are over 100 different types of cancer. Early detection and routine screening could reduce the billions of dollars spent on cancer treatment annually.

Chronic Liver Disease and Cirrhosis: Cirrhosis and chronic liver failure are leading causes of morbidity and mortality in the United States, with the majority of preventable cases attributed to excessive alcohol

consumption, viral hepatitis, or non-alcoholic fatty liver disease. Among the numerous diseases that affect the liver, cirrhosis accounts for most of the cases of liver disease and death associated with liver failure.

Diabetes: Diabetes is a disease in which blood glucose levels are above normal. Diabetes can cause serious health complications including: heart disease, blindness, kidney failure and lower-extremity amputations. The A1C test is a common blood test used to diagnose type 1 and type 2 diabetes and then to gauge how well diabetes is being managed. In Volusia County there continues to be a large disparity in age-adjusted death rates for Blacks with diabetes. In 2014, the rate was 64.2 out of 100,000 for Blacks in Volusia while the rate for all groups in Florida was 19.8 and 27.4 in Volusia

Respiratory Disorders

Asthma: Asthma causes the airways to become inflamed and hypersensitive to environmental allergens, irritants and viral infections. This chronic disease is not choosy and while it is more commonly diagnosed during childhood, it affects all age groups. Incurable, approximately 24.6 million Americans have asthma and seven million of them are children (National Institute of Health).

Chronic Lower Respiratory Disease (CLRD) and Chronic Obstructive Pulmonary Disease (COPD): Chronic obstructed pulmonary disease, emphysema, chronic bronchitis and other respiratory illnesses are all grouped together under the name Chronic Lower Respiratory Disease. COPD is most commonly a mix of chronic bronchitis and emphysema, and usually results from tobacco use, although it can also be a result of pollutants in the air, genetic factors, and respiratory infections. There is no cure for COPD, but smoking cessation, medications, and therapy or surgery can help individuals manage their symptoms.

Indicators Included:

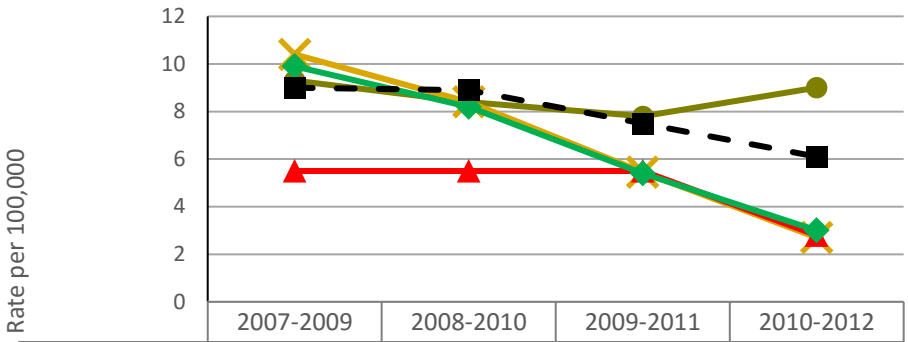
Indicator	Reference
Volusia County Top Ten Causes of Death, 2014	**Table 8.1**
Cervical Cancer 3-Year Age-Incidence Death Rate	**Graph 8.1**
Cervical Cancer 3-Year Age-Adjusted Death Rate	**Graph 8.2**
Colorectal Cancer Age-Adjusted Incidence Rate	**Graph 8.3**
Colorectal Cancer Age-Adjusted Death Rate	**Graph 8.4**
Prostate Cancer Age-Adjusted Incidence Rate	**Graph 8.5**
Prostate Cancer Age-Adjusted Death Rate	**Graph 8.6**
Chronic Lower Respiratory Disease (CLRD) Age-Adjusted Death Rate	**Graph 8.7**
Chronic Lower Respiratory Disease (CLRD) Age-Adjusted Hospitalizations w/ Asthma	**Graph 8.8**
Age-Adjusted Hospitalizations from or with Asthma	**Graph 8.9**
Asthma Hospitalizations, Ages 5-11	**Graph 8.10**
Asthma Hospitalizations, Ages 12-18	**Graph 8.11**
Adults Who Currently Have Asthma	**Table 8.2**

Other Data:

Other data related to **Chronic Disease** can be found here:

- **Graph 1.1:** Adults Who Engage in Heavy or Binge Drinking
- **Graph 1.5:** Chronic Liver Disease and Cirrhosis 3-Year Age-adjusted Death Rate
- **Table 1.1:** Adults Who Are Current Smokers
- **3. Chronic Disease: Cardiovascular and Diabetes (Entire Section)**
- **5. Healthy Eating and Physical Activity (Entire Section)**
- **Graph 11.5:** Kindergarten Children Fully Immunized

Graph 8.1 Cervical Cancer 3-Year Age-adjusted Incidence Rate



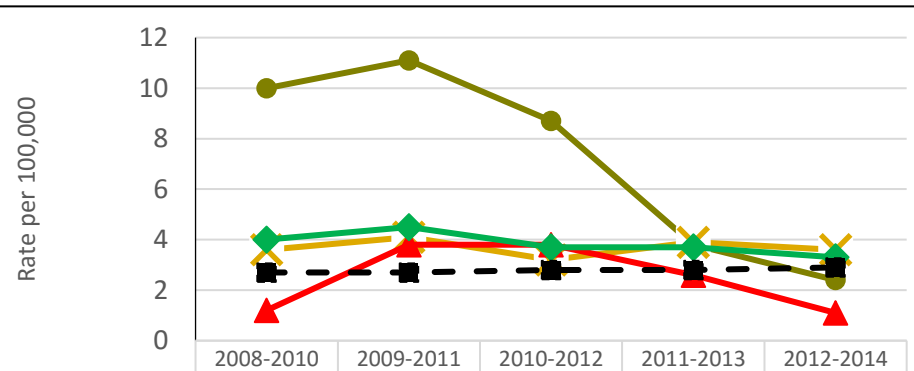
	2007-2009	2008-2010	2009-2011	2010-2012
Black	9.3	8.4	7.8	9.0
White	10.4	8.4	5.5	2.7
Hispanic	5.5	5.5	5.5	2.8
Volusia	9.9	8.2	5.4	3.0
Florida	9.0	8.9	7.5	6.1

Low Count: Fewer than 5 events per year reported for Blacks and for Hispanics

Source: University of Miami (FL) Medical School, Florida Cancer Data System

- The Volusia County rate decreased continually over the reporting period
- The rate among Hispanics in Volusia County was the overall lowest in four of the five time periods
- All groups except for Blacks had a rate reduction greater than 32 percent from 2007-2009 to 2010-2012
- The rate among Whites in Volusia County had the greatest decrease of all groups over the reporting period

Graph 8.2 Cervical Cancer 3-Year Age-adjusted Death Rate



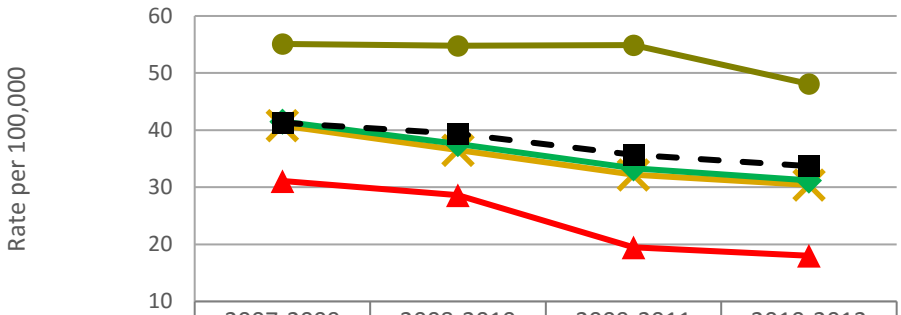
	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014
Black	10.0	11.1	8.7	3.8	2.4
White	3.6	4.1	3.2	3.9	3.6
Hispanic	1.2	3.8	3.8	2.6	1.1
Volusia	4.0	4.5	3.7	3.7	3.3
Florida	2.7	2.7	2.8	2.8	2.9

Low Count: Fewer than 5 events per year reported for Blacks and for Hispanics

Source: Florida Department of Health, Bureau of Vital Statistics

- The Volusia County rate decreased by 17.5 percent from 2008-2010 to 2012-2014
- The rate among Blacks in Volusia County decreased by 76.0 percent from 2008-2010 to 2012-2014
- The rate among Hispanics in Volusia County has generally been lower than Blacks or Whites

Graph 8.3 Colorectal Cancer Age-adjusted Incidence Rate

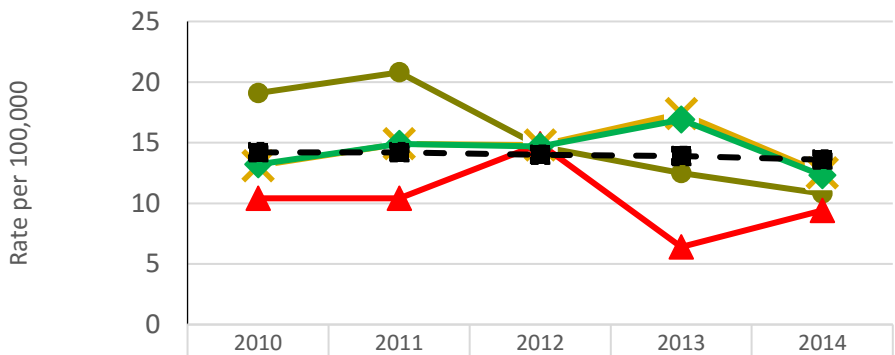


	2007-2009	2008-2010	2009-2011	2010-2012
Black	55.1	54.8	54.9	48.1
White	40.8	36.5	32.2	30.4
Hispanic	31.1	28.6	19.5	18.0
Volusia	41.5	37.6	33.3	31.2
Florida	41.3	39.4	35.7	33.7

Source: University of Miami (FL) Medical School, Florida Cancer Data System

- The Volusia County rate is very similar to the Florida rate
- The rate among Blacks in Volusia County was the highest rate in each year reported
- The rate among Hispanics in Volusia County was the lowest and also had the greatest rate reduction over the reporting period
- All rates had a continual decline over the reporting period

Graph 8.4 Colorectal Cancer Age-adjusted Death Rate



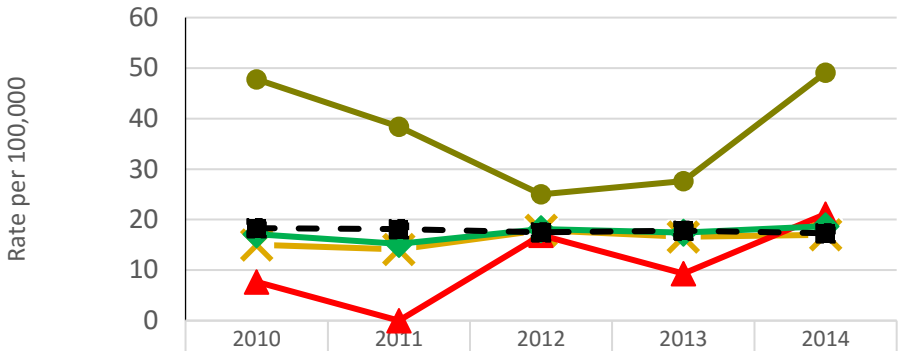
	2010	2011	2012	2013	2014
Black	19.1	20.8	14.7	12.5	10.8
White	13.1	14.9	14.8	17.4	12.5
Hispanic	10.4	10.4	14.9	6.4	9.4
Volusia	13.2	14.9	14.7	16.9	12.3
Florida	14.2	14.2	14.0	13.9	13.6

Low Count: Fewer than 5 events per year reported for Hispanics

Source: Florida Department of Health, Bureau of Vital Statistics

- The Volusia County rate decreased by 6.8 percent from 2010 to 2014
- The rate among Blacks in Volusia County decreased by 43.5 percent from 2010 to 2014
- The rate among Hispanics in Volusia County decreased by 9.6 percent from 2010 to 2014

Graph 8.5 Prostate Cancer Age-adjusted Incidence Rate



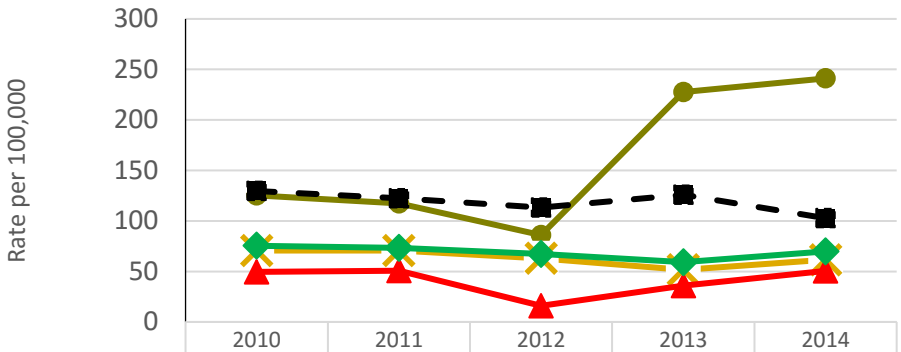
	2010	2011	2012	2013	2014
Black	47.8	38.4	25.0	27.6	49.1
White	15.0	14.1	17.9	16.6	17.0
Hispanic	7.7	0.0	16.9	9.3	21.1
Volusia	17.1	15.2	18.1	17.4	18.7
Florida	18.3	18.1	17.5	17.8	17.3

Low Count: Fewer than 5 events per year reported for Hispanics

Source: Florida Department of Health, Bureau of Vital Statistics

- The Volusia County rate increased by 7.2 percent from 2010 to 2014
- The rate among Blacks in Volusia County increased by 92.6 percent from 2010 to 2014
- The rate among Whites in Volusia County decreased by 12.9 percent from 2010 to 2014

Graph 8.6 Prostate Cancer Age-adjusted Death Rate



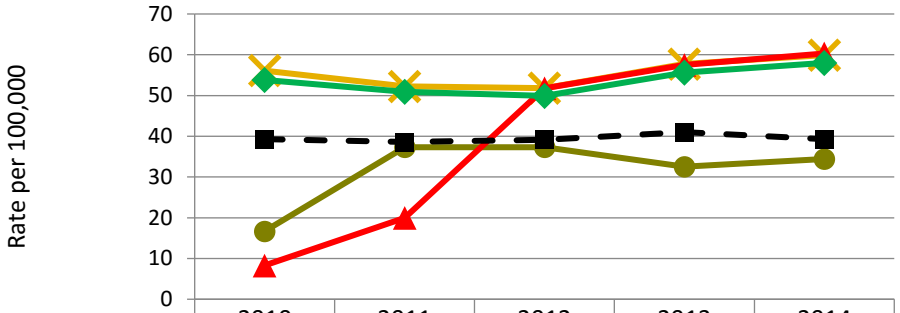
	2010	2011	2012	2013	2014
Black	125.2	117.5	86.0	227.6	241.1
White	70.7	70.7	63.0	51.6	61.6
Hispanic	49.5	50.7	16.0	35.9	50.6
Volusia	75.4	73.2	67.4	59.2	70.0
Florida	129.6	122.4	113.2	125.8	102.7

Low Count: Fewer than 5 events per year reported for Hispanics

Source: Florida Department of Health, Bureau of Vital Statistics

- The Volusia County rate increased by 9.4 percent from 2010 to 2014
- The rate among Blacks in Volusia County increased by 2.7 percent from 2010 to 2014
- The rate among Hispanics in Volusia County nearly tripled from 2010 to 2014

Graph 8.7 Chronic Lower Respiratory Disease (CLRD) Age-adjusted Death Rate

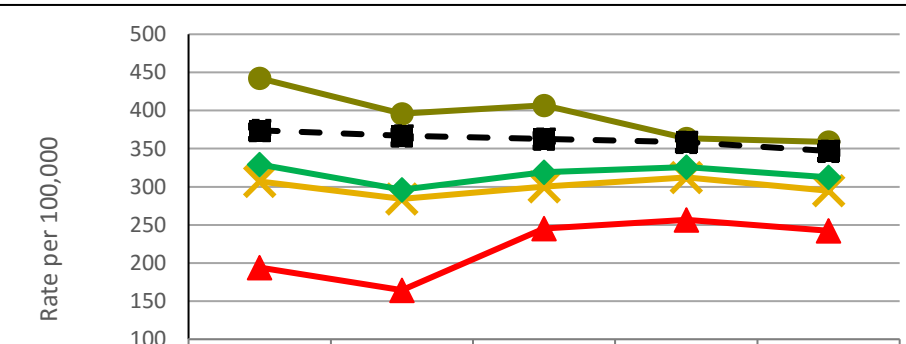


	2010	2011	2012	2013	2014
Black	16.7	37.3	37.3	32.5	34.4
White	56.1	52.2	51.8	57.7	59.9
Hispanic	8.3	20.0	51.8	57.5	60.3
Volusia	53.8	50.9	49.9	55.6	58.0
Florida	39.3	38.6	39.1	41.0	39.3

Source: Florida Department of Health, Bureau of Vital Statistics

- The Volusia County rate for and all race/ethnicities increased over the five-year period
- The Volusia County rate and the rate among Whites in Volusia County were above the state rate throughout
- The rate among Blacks in Volusia County was consistently lower than the rate for Whites, Volusia or Florida

Graph 8.8 Chronic Lower Respiratory Disease (CLRD) Age-Adjusted Hospitalizations including Asthma



	2010	2011	2012	2013	2014
Black	442.3	396.1	406.9	363.4	358.8
White	307.0	284.1	300.1	312.3	294.8
Hispanic	193.9	164.4	245.3	256.6	242.1
Volusia	329.2	296.2	319.0	325.7	312.6
Florida	374.0	366.8	362.9	358.5	346.9

Source: Florida Agency for Health Care Administration

- The Volusia County rate was lower than the state rate throughout the reporting period
- The rate among Hispanics in Volusia County was the lowest of all groups throughout the reporting period
- The rate among Blacks in Volusia County was the highest overall rate from 2010 to 2014

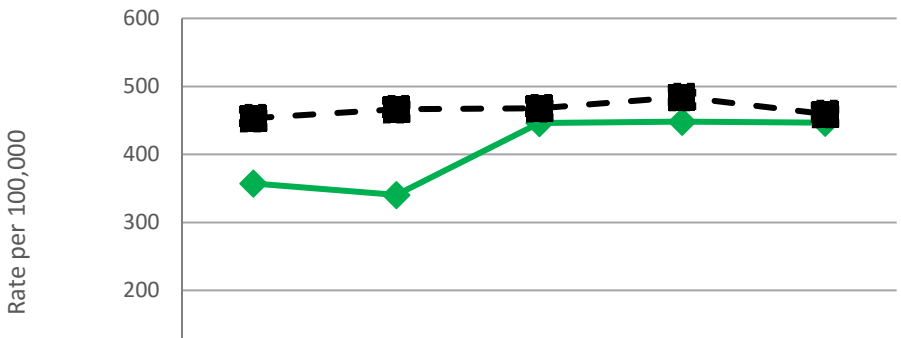
Graph 8.9 Age-adjusted Hospitalizations from or with Asthma

	2010	2011	2012	2013	2014
Black	1312.1	1255.8	1330.2	1303.4	1331.7
White	648.8	629.4	617.3	653.1	645.8
Hispanic	786.0	672.8	836.7	799.4	825.7
Volusia	744.8	700.4	726.9	756.3	755.7
Florida	777.9	773.9	789.2	804.2	823.4

Source: Florida Agency for Health Care Administration

- The Volusia County rate was lower than the state rate for all years reported
- The Volusia County rate increased slightly over the reporting period
- The rate among Blacks in Volusia County was the highest of all groups for all years

Graph 8.10 Asthma Hospitalizations, Ages 5-11

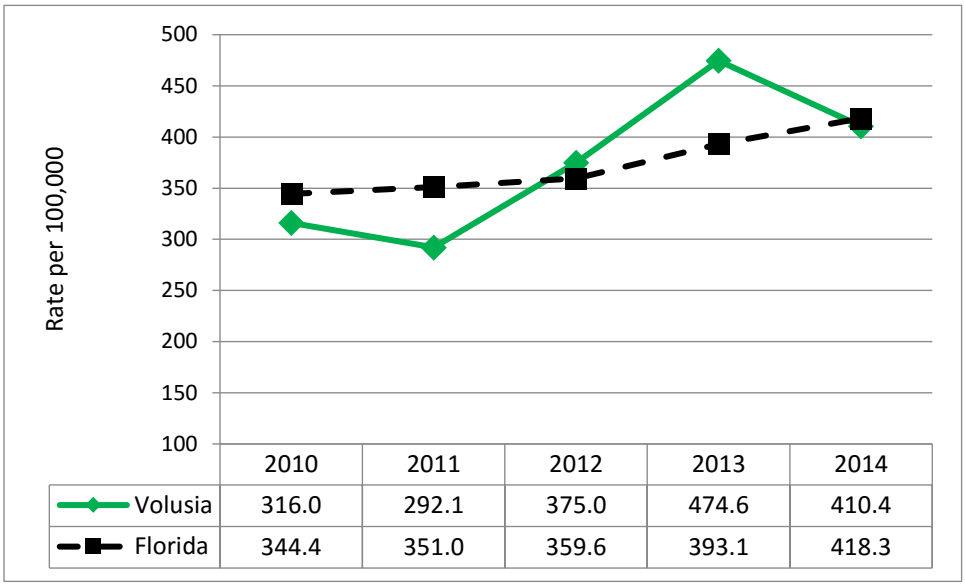


	2008	2009	2010	2011	2012
Volusia	357.5	340.5	446.4	448.2	446.5
Florida	453.3	466.6	468.0	484.3	459.3

Source: Florida Agency for Health Care Administration

- The Volusia County rate remained below the state rate over the reported years
- The Volusia County rate increased in 2010 and then remained steady through 2012

Graph 8.11 Asthma Hospitalizations, Ages 12-18



	2010	2011	2012	2013	2014
Volusia	316.0	292.1	375.0	474.6	410.4
Florida	344.4	351.0	359.6	393.1	418.3

Source: Florida Agency for Health Care Administration

- The Volusia County rate increased by 30 percent from 2010 to 2014
- The Volusia County rate exceeded the Florida rate in two of the five years examined

Table 8.2 Adults Who Currently Have Asthma 2013

Adults who currently have asthma 2013	Volusia	Florida
	Percent	Percent
Total – Overall	10.5	8.3
Men	6.4	5.7
Women	14.3	10.7
Non-Hispanic, White	9.4	8.3
Non-Hispanic, Black	20.3	8.9
Hispanic	15.7	8.3
18-44	14.3	8.0
45-64	8.8	9.1
65 & Older	7.9	7.8
< High School	9.1	12.5
High School/GED	13.1	7.3
> High School	9.3	7.7
< $25,000	12.9	12.4
$25,000-$49,999	9.3	6.9
$50,000 or More	9.6	6.0

Source: Florida Behavioral Risk Factor Surveillance System

9. Communicable & Infectious Diseases

Communicable diseases spread from one person to another or from animal to person. The spread is often through air borne viruses or bacteria but can also happen from bodily fluids.

Summary of Key Disease Trends in 2013: According to the Florida Department of Health, sexually transmitted diseases (STDs), HIV, and AIDS are the most common reportable diseases in Florida, particularly among 15- to 54-year-olds. STD's refer to more than 25 infectious organisms that are transmitted primarily through sexual activity. STD transmission is preventable and education and resources are essential for improving public health.

National Estimates:

- 19 million new STD infections each year
- Half of new infections are among ages 15-24
- Cost to health care system: $15.9 billion annually

HIV/AIDS

Since the AIDS epidemic began in 1981:

- 1.7 million Americans have been infected with HIV
- 583,298 have died of AIDS-related causes
- An estimated 12.8% of people living with HIV are undiagnosed according to the CDC
- Every 9.5 minutes, a new case is found.

Florida has one of the highest incidences of HIV in the country, and third highest incidence of AIDS and HIV/AIDS age-adjusted death rates. Although incidence of both HIV and AIDS is very high, Florida has seen a decline over the last three years. The cases of HIV reported in Volusia County are less than Florida's rate and falls in the third quartile. There were 1,486 people living with HIV in Volusia county in 2014. It is important to note that there continues to be a large disparity between both newly reported HIV cases and HIV/AIDS related deaths for Blacks in comparison to all other groups in Volusia County.

Why is this Important? According to the CDC, more than 18,000 people with AIDS still die each year in the United States. The CDC also estimates than more than one million people are living with HIV in the U.S. It is estimated that one in five (12.8%) of those people living with HIV is unaware of their infection.

Sexually Transmitted Disease

Chlamydia incidence has been increasing over the past 10 years, with over 80,000 cases reported in Florida in 2013. As chlamydia has increased, the number of gonorrhea cases has consistently decreased nationally and in Florida since 2006. However, in 2013, there was a slight increase in cases compared to 2012, but incidence was still lower than the previous 5-year average. A shift in treatment guidelines and recommendations for screening of women under the age of 25 contributed to the decrease in gonorrhea cases. Syphilis incidence has remained relatively stable for the past 10 years, but has been increasing since 2009, with a 16.8% increase in 2013 compared to the past five years. The incidence of HIV and AIDS has also decreased overall in the last 10 years, though both AIDS and HIV infection increased in 2013, partially due to an expansion of electronic laboratory reporting in 2012 which resulted in receiving more laboratory reports.

Vaccine Preventable Diseases

Despite high vaccine coverage in Florida, vaccine-preventable diseases (VPDs) continued to occur. Vaccination coverage in Florida and nationally for 2013 was published by the Centers for Disease Control and Prevention in the Morbidity and Mortality Weekly Report in August. In 2013, VPD incidence increased overall in Florida compared to 2012. Acute hepatitis A and hepatitis B incidence has declined drastically over the past decade, likely due to increased vaccination coverage. Hepatitis A incidence increased slightly in 2013 compared to 2012

Beginning with the 2008-2009 school year, children entering kindergarten were required to receive two doses of varicella vaccine. Also, pertussis incidence has increased nationwide over the past 10 years, despite routine vaccine use. In Florida, there was a sharp increase in reported pertussis cases in 2012, and incidence in 2013 was 76.2% higher than the previous 5-year average.

Arboviral (arthropod-borne viruses) diseases continued to be a threat in Florida in 2013. Lyme disease, transmitted by ticks, increased in 2013, primarily due to an increase in cases imported from other states.

Indicators Included:

Indicator	Reference
Adults Who Received a Flu Shot in the Past Year	**Table 9.1**
Percentage of Adults Who Have Ever Been Tested for HIV	**Table 9.2**
Newly Reported HIV Cases	**Graph 9.1**
Newly Reported AIDS Cases	**Graph 9.2**
HIV/AIDS Age-Adjusted Death Rate	**Graph 9.3**
Total Gonorrhea, Chlamydia & Infectious Syphilis	**Graph 9.4**
3-Year Reported STD Cases, Ages 15-19	**Graph 9.5**
Total Vaccine Preventable Diseases	**Graph 9.6**
Pertussis Reported	**Graph 9.7**
Meningococcal Disease Reported	**Graph 9.8**
Tuberculosis (TB) Cases Reported	**Graph 9.9**
Hepatitis A Cases Reported	**Graph 9.10**
Hepatitis B, Acute Cases Reported	**Graph 9.11**
Pneumonia/Influenza 3-Year Age-Adjusted Resident Death Rate	**Graph 9.12**

Other Data:

Other data related to **Communicable & Infectious Diseases** can be found here:

- **Graph 11.5:** Kindergarten Children Fully Immunized
- **Graph 12.14:** Women 15-34 with Sexually Transmitted Diseases

Table 9.1 Adults Who Received a Flu Shot in The Past Year

Adults who received a flu shot in the past year 2013	Volusia	Florida
	Percent	Percent
Total – Overall	34.4	30.7
Men	33.1	29.5
Women	35.7	31.8
Non-Hispanic, White	39.7	36.6
Non-Hispanic, Black	14.7	17.9
Hispanic	30.3	26.1
18-44	16.5	18.6
45-64	31.8	29.5
65 & Older	61.7	54.6
< High School	26.4	26.5
High School/GED	31.4	28.8
> High School	37.4	32.8
< $25,000	26.9	25.4
$25,000-$49,999	41.0	31.3
$50,000 or More	35.5	34.0

Source: Florida Behavioral Risk Factor Surveillance System

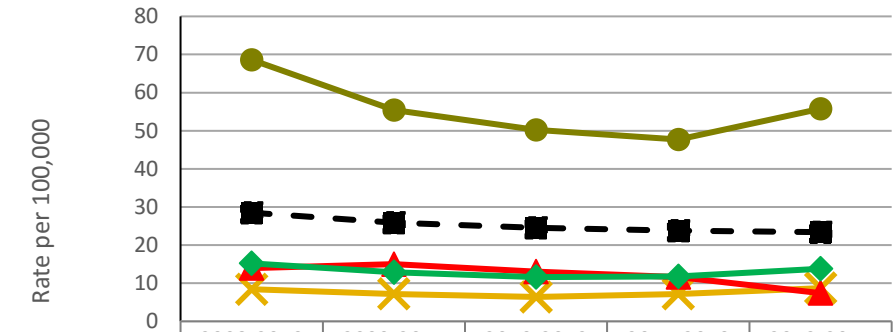
Table 9.2 Percentage of Adults Who Have Ever Been Tested for HIV

Adults who have ever been tested for HIV 2013	Volusia	Florida
	Percent	Percent
Total – Overall	35.1*	42.6
Men	34.1	41.2
Women	36.0	43.9
Non-Hispanic, White	32.0	34.4
Non-Hispanic, Black	52.4	65.8
Hispanic	25.7*	48.7
18-44	52.1	56.9
45-64	36.2	42.7
65 & Older	11.5	15.9
< High School	26.5	39.4
High School/GED	27.5	39.8
> High School	40.6	45.0
< $25,000	34.0*	48.8
$25,000-$49,999	29.3	40.8
$50,000 or More	45.6	41.7

Source: BRFSS (Behavioral Risk Factor Surveillance System)

*Indicated that the difference observed between the 2013 county and state measures is statistically significant

Graph 9.1 Newly Reported HIV Cases



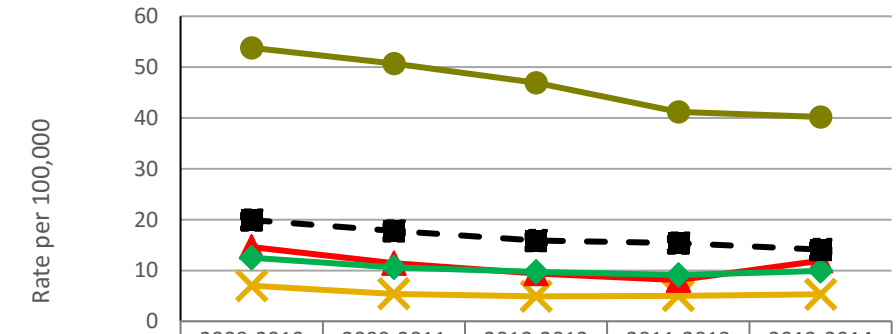
	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014
Black	68.6	55.4	50.2	47.7	55.8
White	8.4	7.2	6.4	7.2	8.7
Hispanic	14.0	15.0	13.0	11.6	7.4
Volusia	15.2	12.9	11.6	11.8	13.8
Florida	28.5	25.9	24.5	23.8	23.4

Low Count: Fewer than 5 events per year reported for Hispanics in 2012 and 2014

Source: Florida Department of Health, Bureau of HIV/AIDS

- The Volusia County rate decreased over the reporting period and remained below the Florida rate throughout
- The rate among Blacks in Volusia County was the overall highest rate
- The rate among Whites in Volusia County was the overall lowest until 2012-2014

Graph 9.2 Newly Reported AIDS Cases



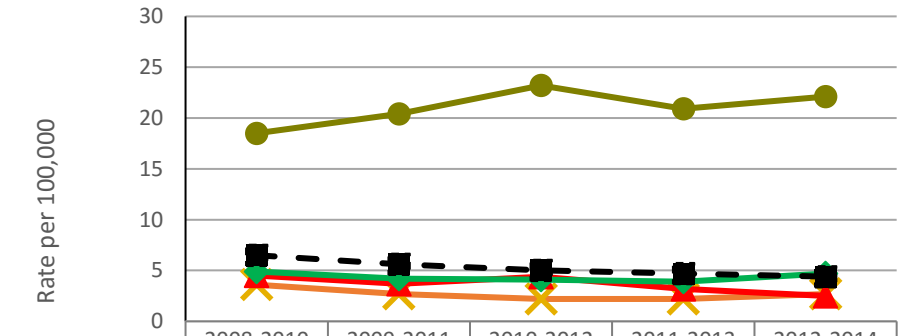
	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014
Black	53.8	50.7	46.9	41.2	40.2
White	7.0	5.4	4.9	5.0	5.3
Hispanic	14.6	11.4	9.4	8.1	11.9
Volusia	12.5	10.6	9.7	9.1	9.9
Florida	19.9	17.8	15.9	15.4	14.1

Low Count: Fewer than 5 events per year reported for Hispanics in 2011

Source: Florida Department of Health, Bureau of HIV/AIDS

- The Volusia County rate remained below that of the state throughout the years reported
- Overall, the rate among Blacks in Volusia County was consistently the highest
- Overall, the rate among Whites in Volusia County was consistently the lowest

Graph 9.3 HIV/AIDS Age-Adjusted Death Rate



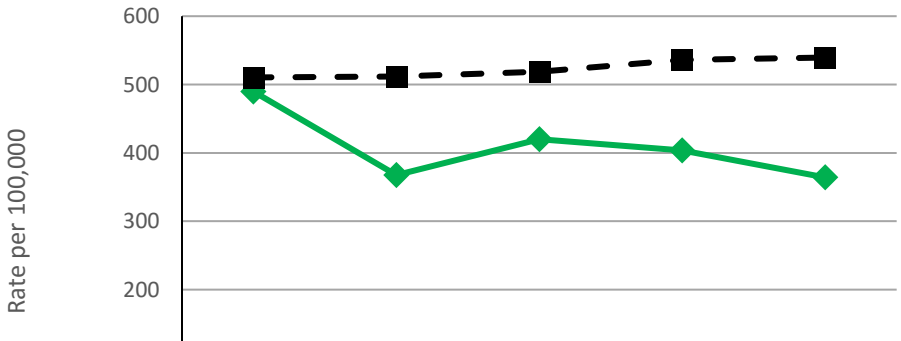
	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014
Black	18.5	20.4	23.2	20.9	22.1
White	3.6	2.7	2.2	2.2	2.7
Hispanic	4.5	3.7	4.4	3.2	2.5
Volusia	4.9	4.2	4.1	3.9	4.7
Florida	6.5	5.6	5.0	4.7	4.4

Low Count: Fewer than 5 events per year reported for Hispanics

Source: Florida Department of Health, Bureau of Vital Statistics

- The Volusia County rate remained steady over the years reported
- The rate among Blacks in Volusia increased by 19.5 percent from2008- 2010 to 2012-2014
- The rate among Hispanics in Volusia decreased by 44.4 percent from 2008-2010 to 2012-2014

Graph 9.4 Total Gonorrhea, Chlamydia, & Infectious Syphilis Cases Reported

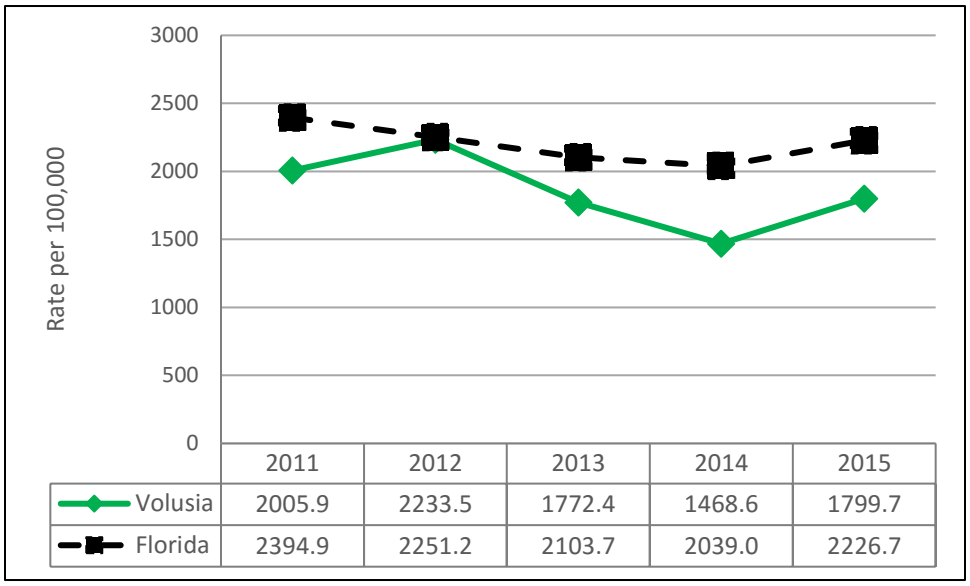


	2010	2011	2012	2013	2014
Volusia	489.7	367.5	420.1	403.7	364.1
Florida	510.4	511.9	518.7	536.1	539.5

Source: Florida Department of Health, Bureau of STD Prevention and Control

- The Volusia County rate was less than the Florida rate throughout the reporting period
- The Volusia County rate decreased over the reporting period while the Florida rate increased slightly

Graph 9.5 3-Year Bacterial STDs, Age 15-19 (Gonorrhea, Chlamydia, & Infectious Syphilis)

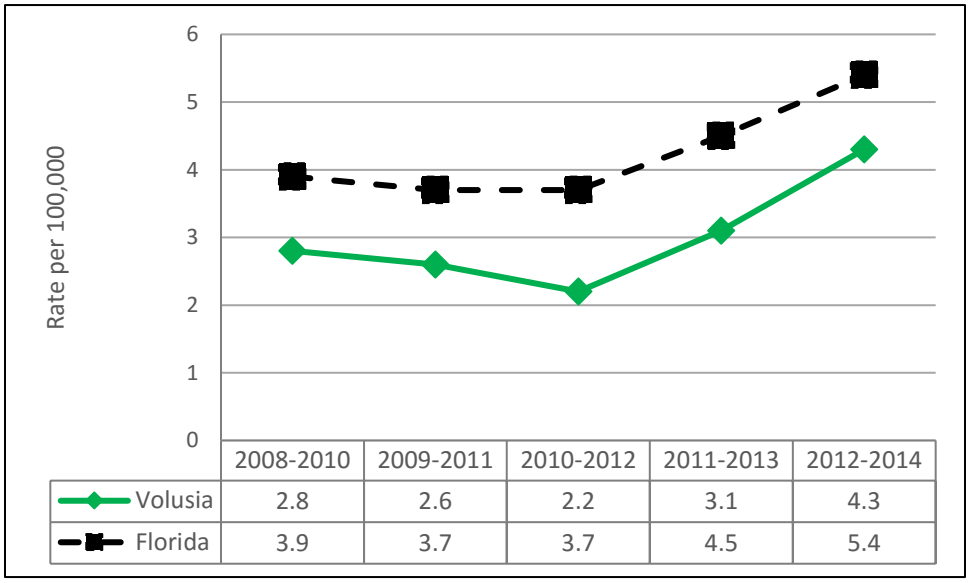


	2011	2012	2013	2014	2015
Volusia	2005.9	2233.5	1772.4	1468.6	1799.7
Florida	2394.9	2251.2	2103.7	2039.0	2226.7

Source: Florida Department of Health, Bureau of STD Prevention & Control

- The Volusia County rate was consistently lower than the Florida rate over the reporting period
- The Volusia County rate decreased over the reporting period but saw an increase from 2014 to 2015.

Graph 9.6 Selected Vaccine Preventable Diseases



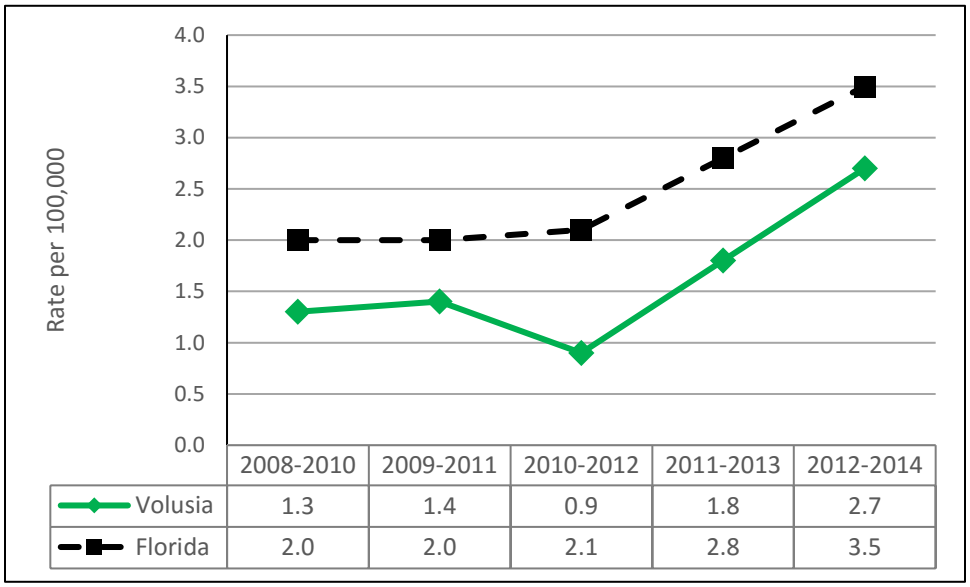
	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014
Volusia	2.8	2.6	2.2	3.1	4.3
Florida	3.9	3.7	3.7	4.5	5.4

Source: Florida Department of Health, Bureau of Epidemiology

- The Volusia County trend increased over the reporting period and the pattern followed the state trend pattern
- The Volusia County rate increased 53.6% from 2010 to 2014
- The Volusia County rate was lower than the Florida rate for each of the five years displayed

Note: Diseases included are diphtheria, acute Hepatitis B, measles, mumps, pertussis, rubella, tetanus and polio

Graph 9.7 Pertussis Cases Reported

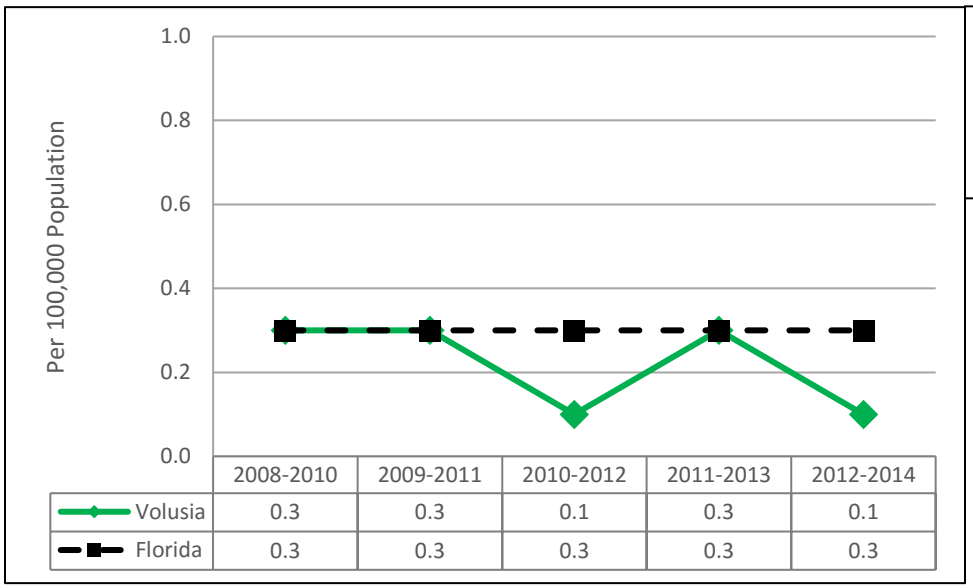


	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014
Volusia	1.3	1.4	0.9	1.8	2.7
Florida	2.0	2.0	2.1	2.8	3.5

Source: Merlin, Florida's Web-Based Reportable Disease Surveillance System

- Throughout the years reported the Volusia County rate remained below the state rate
- The Volusia County rate increased over the reporting period

Graph 9.8 Meningococcal Disease Cases Reported



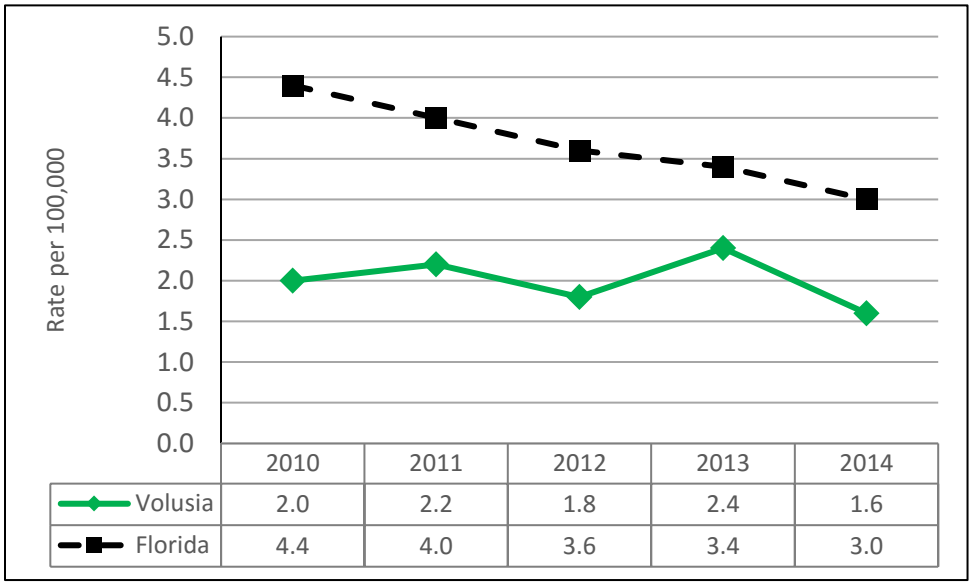
	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014
Volusia	0.3	0.3	0.1	0.3	0.1
Florida	0.3	0.3	0.3	0.3	0.3

Low Count: Fewer than 5 events per year reported

Source: Florida Department of Health, Bureau of Epidemiology

- The Volusia County rate matched Florida's for 3 out of the past 5 measurement periods but never surpassed the Florida rate
- The Volusia County rate remained between .1 and .3 per 100,000 persons over the reporting period

Graph 9.9 Tuberculosis (TB) Cases Reported

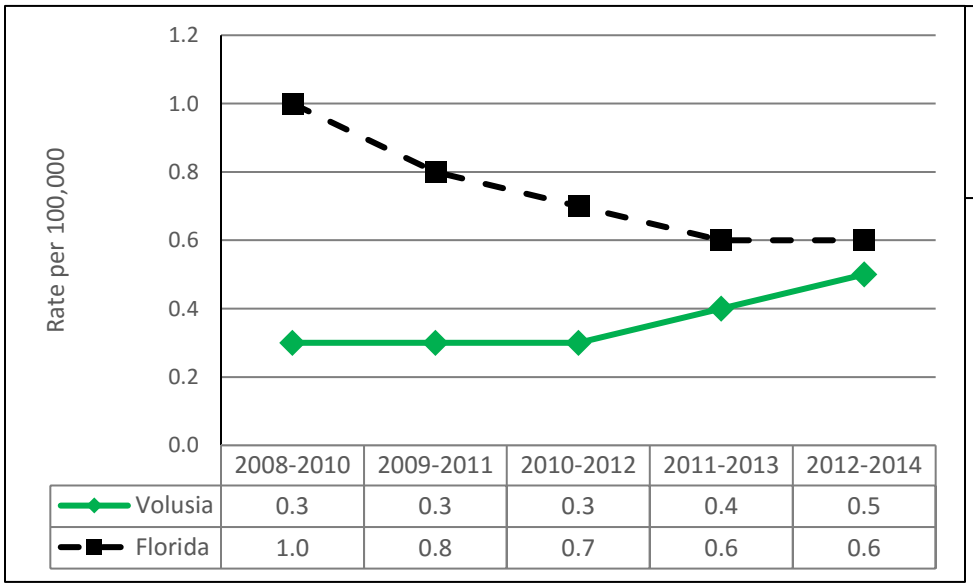


	2010	2011	2012	2013	2014
Volusia	2.0	2.2	1.8	2.4	1.6
Florida	4.4	4.0	3.6	3.4	3.0

Source: Florida Department of Health, Bureau of TB & Refugee Health

- The Volusia County rate fluctuated and decreased overall from 2010 to 2014
- The Volusia County rate was consistently lower than Florida
- The Volusia County rate was almost half the rate of Florida for much of the reporting period

Graph 9.10 Hepatitis A Cases Reported



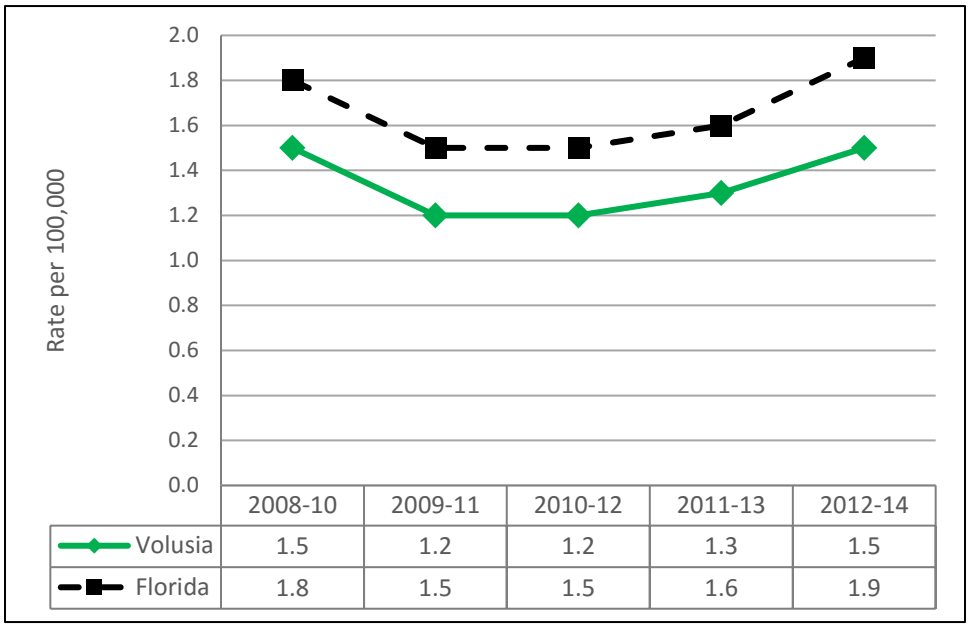
	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014
Volusia	0.3	0.3	0.3	0.4	0.5
Florida	1.0	0.8	0.7	0.6	0.6

Low Count: Fewer than 5 events per year reported

Source: Merlin, Florida's Web-Based Reportable Disease Surveillance System

- The Volusia County rate was lower than that of the state throughout the years
- The Volusia County rate increased over the time period reported

Graph 9.11 Acute Hepatitis B Cases Reported

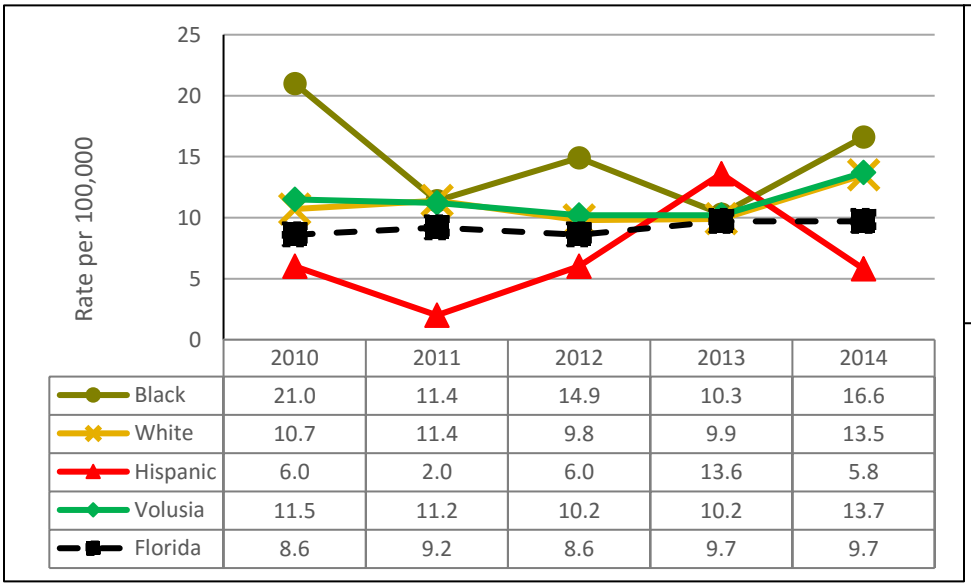


	2008-10	2009-11	2010-12	2011-13	2012-14
Volusia	1.5	1.2	1.2	1.3	1.5
Florida	1.8	1.5	1.5	1.6	1.9

Source: Merlin, Florida's Web-Based Reportable Disease Surveillance System

- The Volusia County rate was consistently lower than the Florida rate over the reporting period
- The Volusia County rate fluctuated slightly and had the same rate at the beginning and end of the reporting period

Graph 9.12 Pneumonia/Influenza Age-adjusted Death Rate



	2010	2011	2012	2013	2014
Black	21.0	11.4	14.9	10.3	16.6
White	10.7	11.4	9.8	9.9	13.5
Hispanic	6.0	2.0	6.0	13.6	5.8
Volusia	11.5	11.2	10.2	10.2	13.7
Florida	8.6	9.2	8.6	9.7	9.7

Low Count: Fewer than 5 events per year reported for Hispanics except 2013

Source: Florida Department of Health, Bureau of Vital Statistics

- The Volusia County rate increased by 19.1 Percent from 2010 to 2014
- The Volusia County rate was higher than the Florida rate for all years reported
- The rate among Blacks in Volusia County decreased by 20.9 percent from 2010 to 2014

10. Crime, Domestic Violence and Child Abuse

Violence negatively impacts communities by reducing productivity, decreasing property values, and disrupting social services. The lasting trauma of witnessing or being a victim of violence can have life-long emotional, physical and social consequences.

Domestic Violence: Domestic violence is any criminal offense resulting in physical injury or death of one family or household member by another family or household member, including assault, battery, sexual assault, sexual battery, stalking, kidnapping, or false imprisonment.

Domestic Violence impacts a large portion of our society. According to the CDC, every minute, about 20 people are physically abused by an intimate partner in the U.S. and more than 1 in 3 women will be victims of intimate partner violence in their lifetimes, as will more than 1 in 4 men. Females ages 18 to 24 and 25 to 34 generally experienced the highest rates of intimate partner violence, and abuse is more likely to occur in relationships outside of marriage. It is significant to note that given these already staggering numbers, the Domestic Violence rates in Volusia County have been consistently higher each year than surrounding counties and in 2014, Volusia rates were over 63% higher than the state rate as reported by the Florida Department of Law Enforcement.

Child Abuse: There are several types of child abuse including physical, sexual, and emotional abuse and most children who have reported abuse report multiple instances and types. Child abuse and neglect can have enduring physical, intellectual, and psychological repercussions into adolescence and adulthood. All types of child abuse and neglect have long lasting effects throughout life, damaging a child's sense of self, ability to have healthy relationships, and ability to function at home, at work, and at school. Volusia County continues to have more children in foster care than the state average.

The Adverse Childhood Experiences (ACE) Study is the largest and most influential study of the relationship between childhood adversity and long term health. As researchers followed participants over time, they discovered that a person's adverse childhood experiences had a strong correlation to numerous health, social, and behavioral problems throughout their lifespan, including being associated with adulthood high-risk health behaviors such as smoking, alcohol and drug abuse, promiscuity, and severe obesity, and correlated with ill-health including depression, heart disease, cancer, diabetes stroke, chronic lung disease and shortened lifespan, with many of these problems tending to be co-occurring. With 8,703 child abuse related protective investigations reported by Community Partnership for Children in Volusia, Flagler and Putnam Counties in fiscal year 2015 and 1,127 children living in out of home care in 2016, both the immediate safety and the long term well-being of this population must be taken into account.

School and Youth Violence: According to the 2014 FYSAS report 5.4% of youth reported attacking someone with the intent to harm, 6.7% reporting carrying a gun with .5% bringing it to school and 22.1% of middle school students reported being kicked or shoved at school and 11% reported skipping school due to bullying.

Indicators Included:

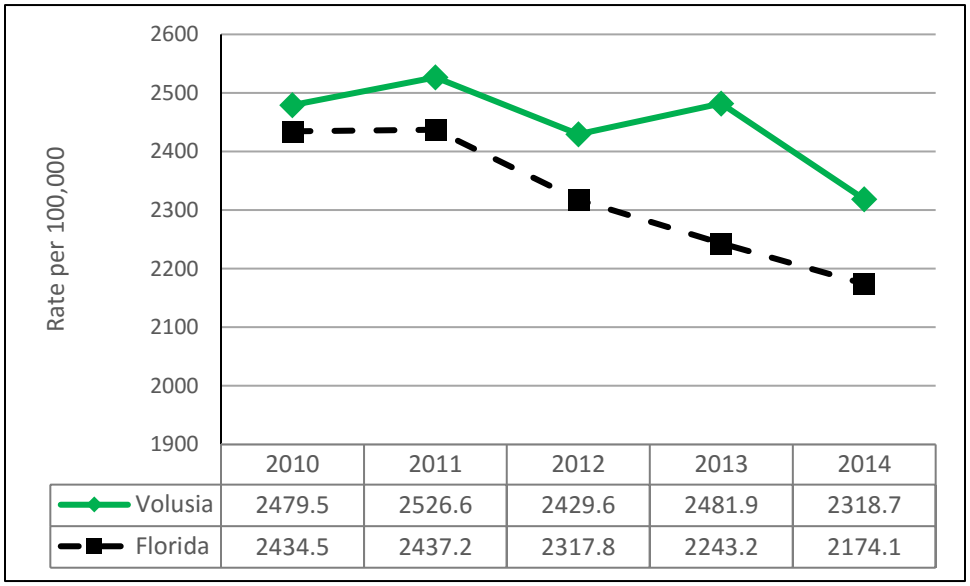
Indicator	Reference
Larceny Offense Rate	**Graph 10.1**
Burglary Offense Rate	**Graph 10.2**
Motor Vehicle Theft Offense Rate	**Graph 10.3**
Robbery Offense Rate	**Graph 10.4**
Murder Offense Rate	**Graph 10.5**
Domestic Violence Offense Rate	**Graph 10.6**
Children Experiencing Child Abuse, Ages 5-11	**Graph 10.7**
Children Experiencing Sexual Violence, Ages 5-11	**Graph 10.8**
Infants in Foster Care	**Graph 10.9**
Children in Foster Care, Ages 1-5	**Graph 10.10**
Children in Foster Care, Ages 5-11	**Graph 10.11**
Children in Foster Care, Ages 12-17	**Graph 10.12**
Children Removed/Sheltered Due to Child Abuse and Neglect	**Graph 10.13**

Other Data:

Other data related to **Crime, Domestic Violence and Child Abuse** can be found here:

- **Graph 1.2:** Alcohol-suspected Motor Vehicle Traffic Crashes
- **Graph 1.3:** Alcohol-suspected Motor Vehicle Traffic Crash Injuries
- **Graph 1.4:** Alcohol-suspected Motor Vehicle Traffic Crash Deaths
- **Graph 7.4:** Homicide Deaths Ages 5-11
- **Graph 7.5:** Homicide Deaths Ages 12-18

Graph 10.1 Larceny Offense Rate

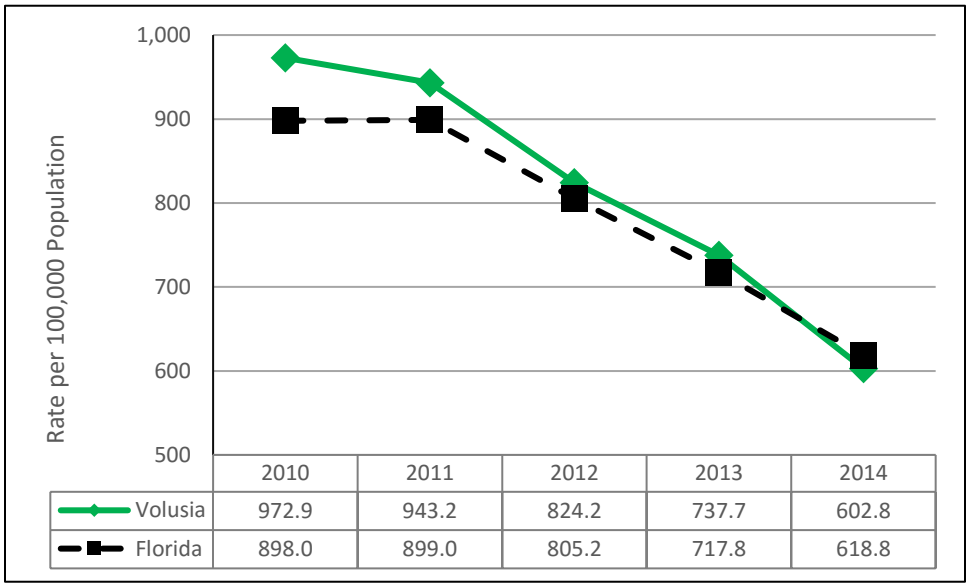


	2010	2011	2012	2013	2014
Volusia	2479.5	2526.6	2429.6	2481.9	2318.7
Florida	2434.5	2437.2	2317.8	2243.2	2174.1

Source: Florida Department of Law Enforcement

- The Volusia County rate decreased over the reporting period
- The Volusia County rate remained higher than the Florida rate throughout the years reported

Graph 10.2 Burglary Offense Rate

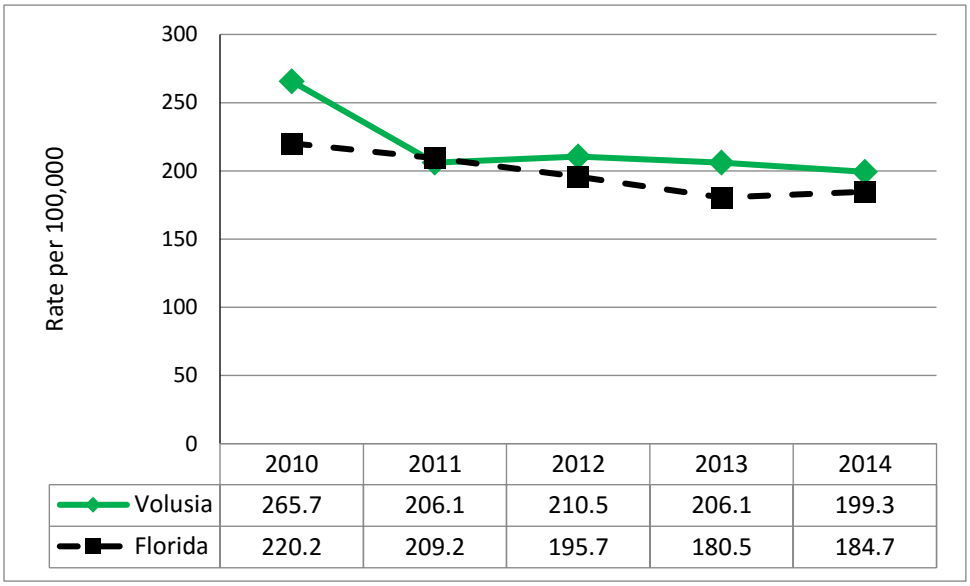


	2010	2011	2012	2013	2014
Volusia	972.9	943.2	824.2	737.7	602.8
Florida	898.0	899.0	805.2	717.8	618.8

Source: Florida Department of Law Enforcement

- The Volusia County rate decreased by 38 percent from 2010 to 2014
- The Volusia County rates were higher than Florida's until 2014

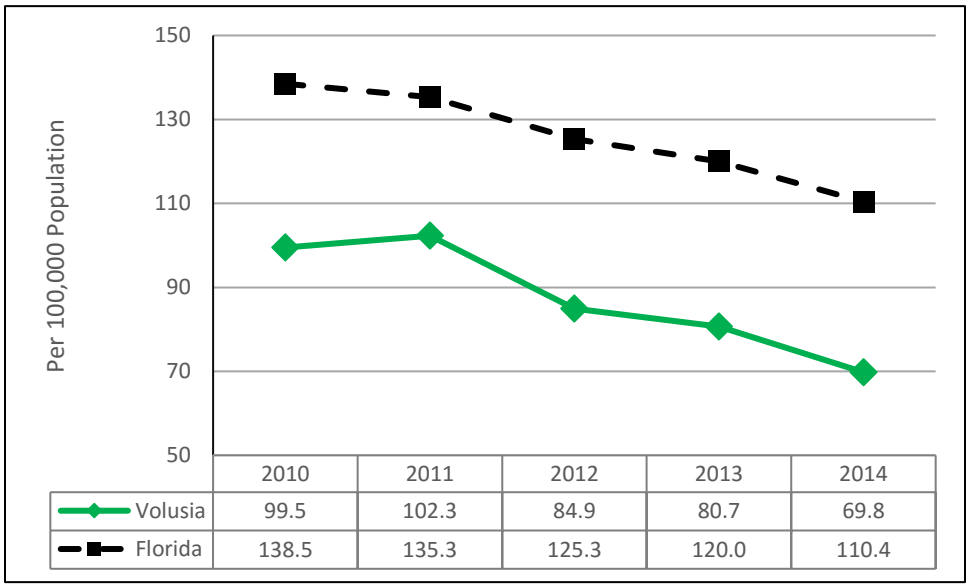
Graph 10.3 Motor Vehicle Thefts Offense Rate



Source: Florida Department of Law Enforcement

- The Volusia County rate declined steadily from 2010 to 2014
- The Volusia County rate was higher than the Florida rate for four of the five years reported

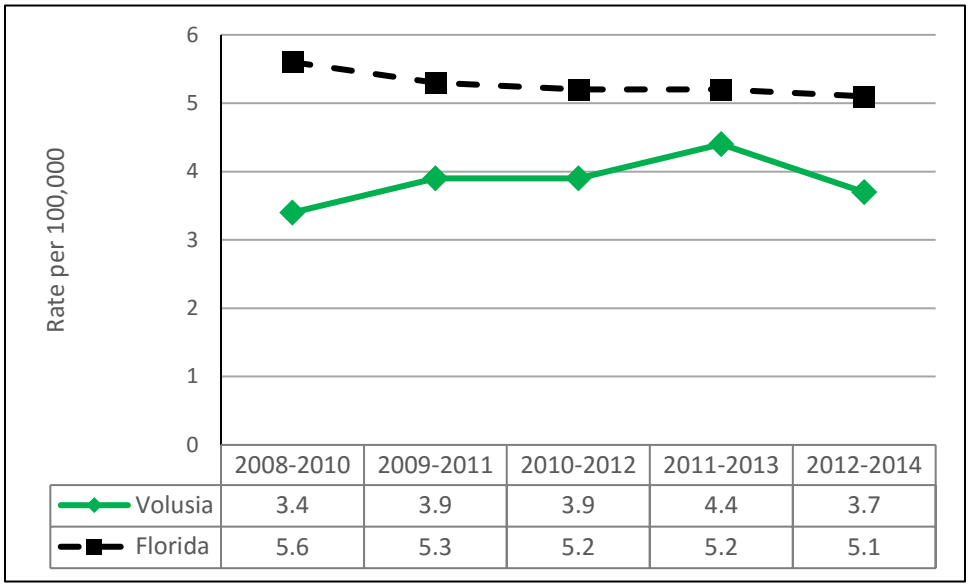
Graph 10.4 Robbery Offense Rate



Source: Florida Department of Law Enforcement

- The Volusia County rate decreased over the reporting period
- The Volusia County trend shows a pattern similar to the Florida trend
- The Volusia County rate was at least 30 percent lower than the Florida rate each year of the reporting period

Graph 10.5 Murder Offense Rate

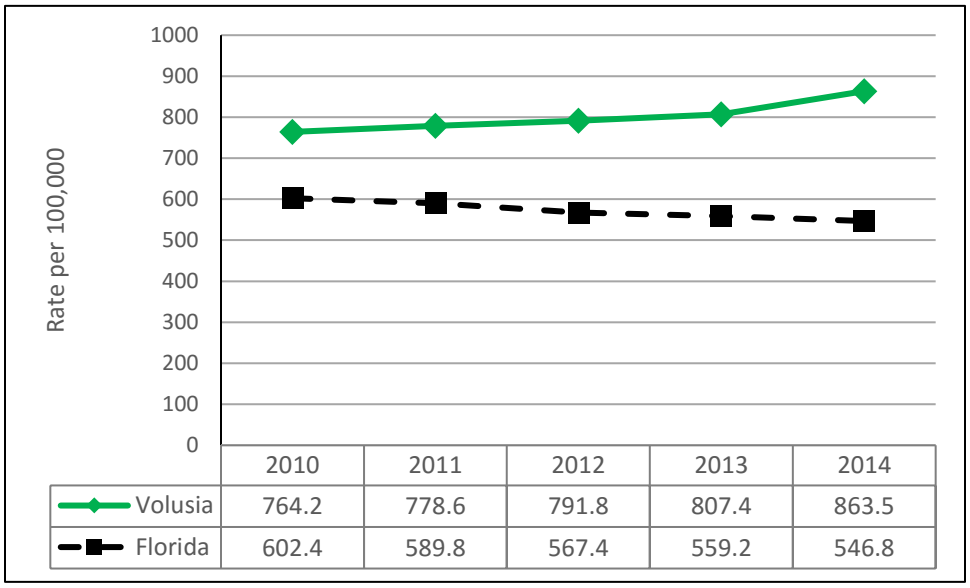


	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014
Volusia	3.4	3.9	3.9	4.4	3.7
Florida	5.6	5.3	5.2	5.2	5.1

Source: Florida Department of Law Enforcement

- The Volusia County rate was lower than the Florida rate throughout the reporting period
- The Volusia County rate fluctuated and increased slightly over the reporting period

Graph 10.6 Domestic Violence Offense Rate

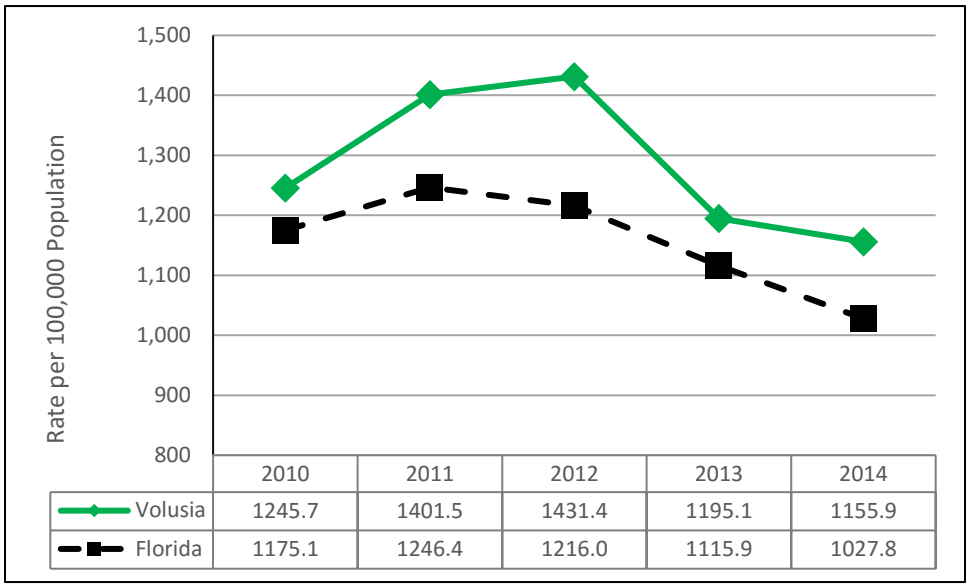


	2010	2011	2012	2013	2014
Volusia	764.2	778.6	791.8	807.4	863.5
Florida	602.4	589.8	567.4	559.2	546.8

Source: Florida Department of Law Enforcement

- The Volusia County rate increased each year of the reporting period
- The Volusia County rate was higher than the Florida rate throughout the reporting period

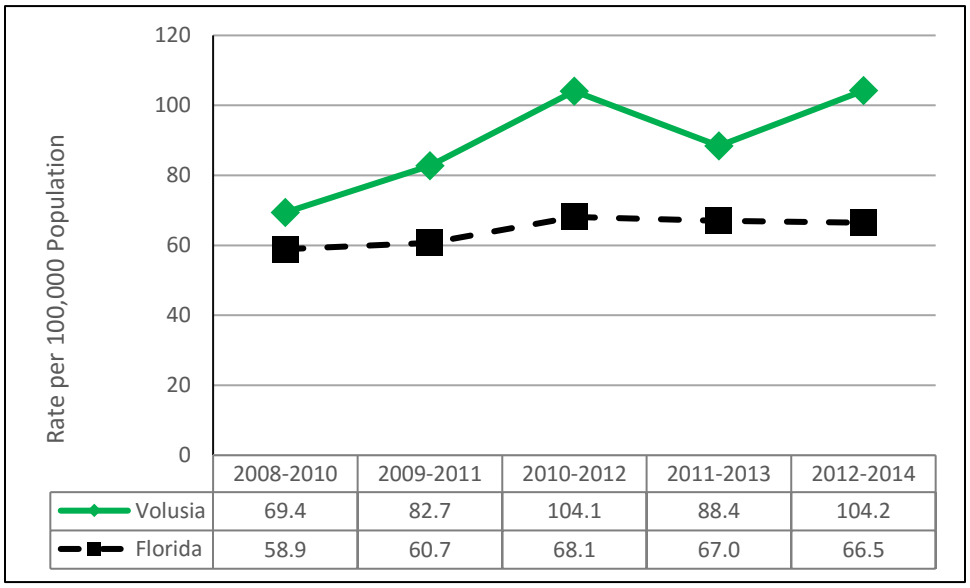
Graph 10.7 Children Experiencing Child Abuse, Ages 5-11



Source: Department of Children and Families, Florida Safe Families Network Data Mart

- The Volusia County rate fluctuated and decreased overall over the reporting period
- The Volusia County rate was continuously higher than the Florida rate over the reporting period

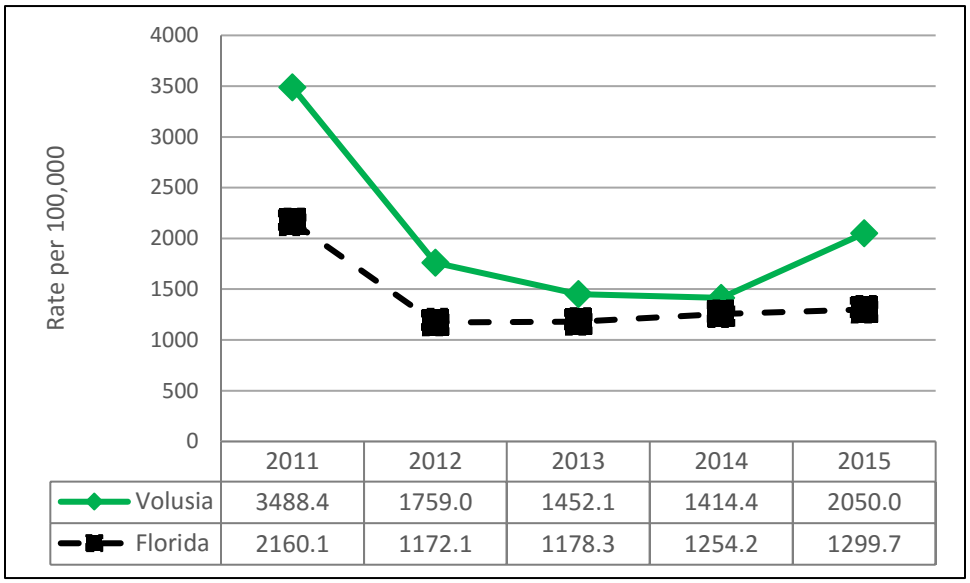
Graph 10.8 Children Experiencing Sexual Violence, Ages 5-11



Source: Department of Children and Families, Florida Safe Families Network Data Mart

- The Volusia County rate increased by 50 percent from 2008-2010 to 2012-2014
- The Volusia County rate was consistently higher than the Florida rate over the reporting period

Graph 10.9 Infants in Foster Care

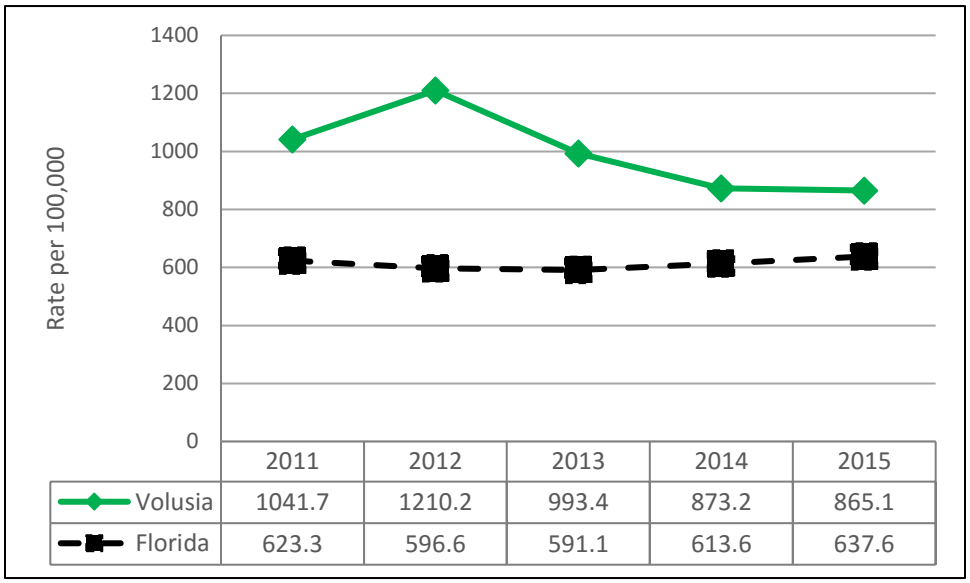


	2011	2012	2013	2014	2015
Volusia	3488.4	1759.0	1452.1	1414.4	2050.0
Florida	2160.1	1172.1	1178.3	1254.2	1299.7

Source: Department of Children and Families, Florida Safe Families Network Data Repository

- The Volusia County rate decreased by almost 60% from 2011 to 2014 then saw a 45% increase from 2014 to 2015
- The Volusia County rate was consistently higher than the Florida rate over the reporting period
- The gap between the Volusia County and Florida rates steadily decreased through 2014, then increased

Graph 10.10 Children in Foster Care, Ages 1-5

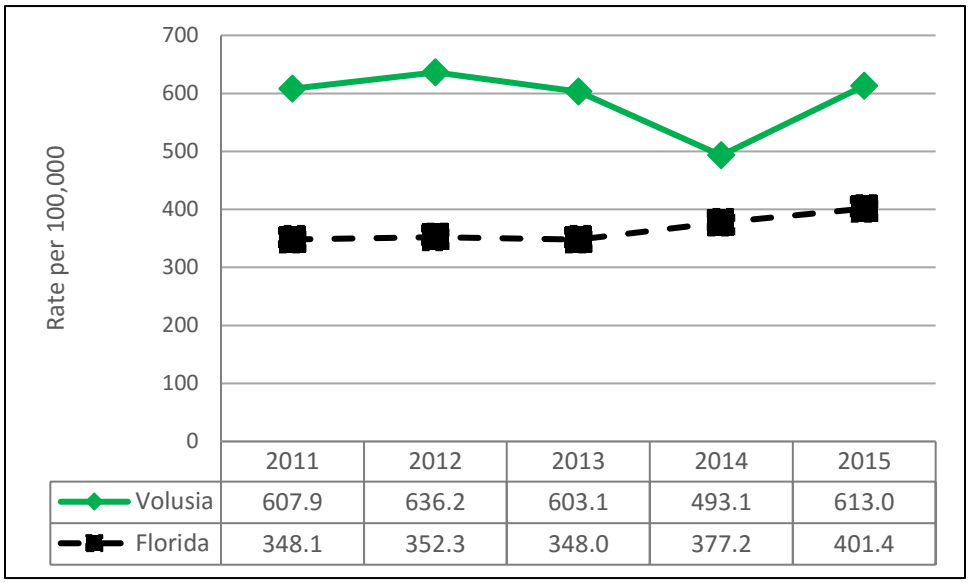


	2011	2012	2013	2014	2015
Volusia	1041.7	1210.2	993.4	873.2	865.1
Florida	623.3	596.6	591.1	613.6	637.6

Source: Department of Children and Families, Florida Safe Families Network Data Repository

- The Volusia County rate decreased by 17% over the reporting period
- The Volusia County rate remained above the Florida rate each of the years reported

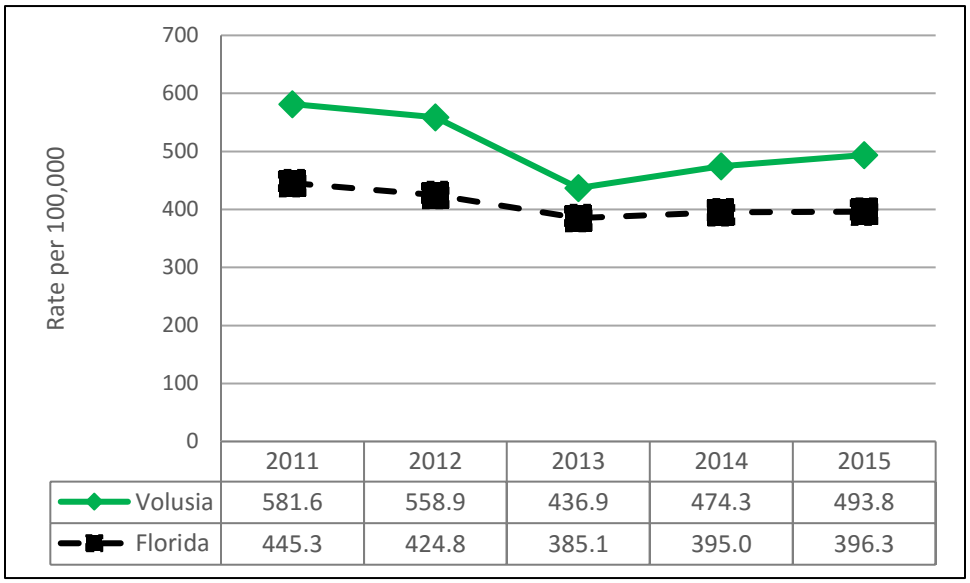
Graph 10.11 Children in Foster Care, Ages 5-11



Source: Department of Children and Families, Florida Safe Families Network Data Repository

- The Volusia County rate peaked in 2012 and decreased through 2014, then increased through 2015
- The Volusia County rate increased by 24.3% from 2014 to 2015
- The Volusia County rate was continuously higher than the Florida rate over the reporting period

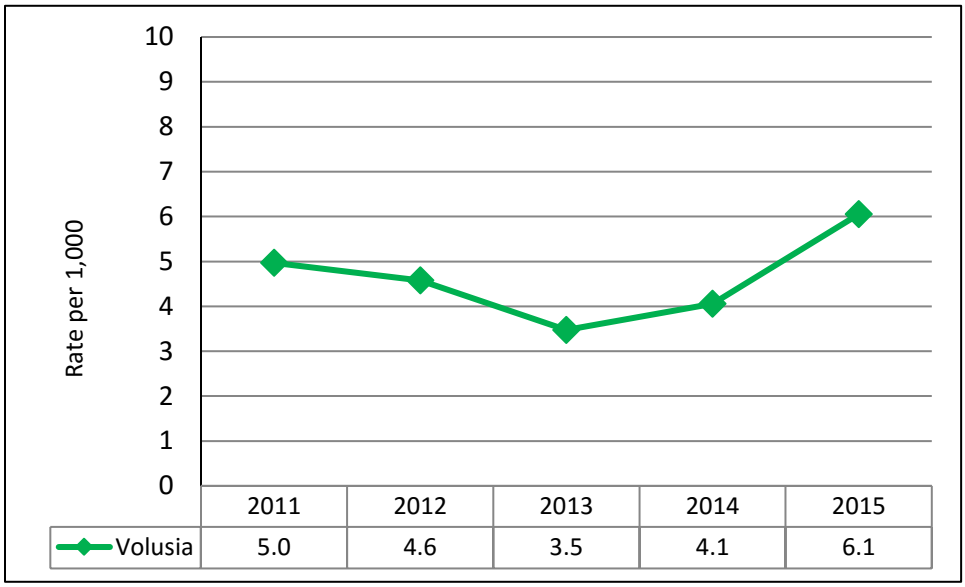
Graph 10.12 Children in Foster Care, Ages 12-17



Source: Department of Children and Families, Florida Safe Families Network Data Repository

- The Volusia County rate decreased from 2010 to 2013 and then increased through 2015
- The Volusia County rate remained above the Florida rate for all years reported

Graph 10.13 Children Removed/Sheltered Due to Child Abuse and Neglect



Source: Source: Circuit 7 Department of Children and Families

Additional Note: Statewide, approximately 75% of children removed have substance abuse and domestic violence as conditions that contributed to the removal and out of home placement.

11. Early Childhood

According to the World Health Organization, early childhood development is considered to be the most important phase in life which determines the quality of health, well-being, learning and behavior across the life span. It is a period of great opportunity, but also of great vulnerability to negative influences and constitutes a unique phase for capitalizing on developmental forces to prevent or minimize disabilities and potential secondary conditions.

Infant Mortality: Infant mortality rate is one of the most widely used indicators of the overall health status of a community. The leading causes of infant deaths are birth defects, pre-term delivery, low birth weight, Sudden Unexpected Infant Death Syndrome (SUIDS), and maternal complications during pregnancy. In Volusia County Black Infant mortality has been higher than other groups.

Accidental Injuries: After children reach one year of age, accidental injuries are the largest cause of death in the United States (National Center for Health Statistics (NCHS) Vital Statistics System. Prevention and education efforts can greatly reduce the number of accidental deaths in our communities.

Health Insurance: Health insurance plays a vital role in helping children to stay healthy. Children require regular checkups, dental and vision care, vaccinations and medical attention for illness and injury. Children with health insurance are more likely to have better health throughout their childhood and adolescence, as they have access to care. Having access to regular screenings and immunizations improves school performance through less frequent illnesses and absences, therefore reducing overall health costs.

Children Fully Immunized: Immunizations protect children from contracting and spreading communicable disease such as measles, mumps, and whooping cough. These diseases can result in extended school absences, hospitalizations, and death. Childhood illnesses also have a significant financial impact on parents including costly medical bills and loss of work time.

Immunization is one of public health's leading health indicators and a primary defense against some of the deadliest and debilitating diseases known. It is particularly important to vaccinate small children to prevent them from contracting serious diseases that can be prevented by immunizations. Volusia's child immunization rate continues to increase each year, now surpassing the state rate at 94.5% immunized in Kindergarten in 2014.

School Readiness: Child Trends reports that children with early skills are more likely to experience later success in education and employment. Volusia Counties Kindergarten readiness rates have continued to improve over the course of the last three years and have now surpassed the state despite a decline in participation in Voluntary Pre-Kindergarten Programs. A child's brain is already 80% formed by age 3; 90% by age 5, so exposing young children to early learning activities that help with language, social and emotional development, and equipping parents and caregivers with the skills to successfully support their children will improve not only their childhood but their future as an adult.

Indicators Included:

Indicator	Reference
Licensed Child Care Providers	**Table 11.1**
Children in School Readiness Programs (Subsidized Child Care)	**Graph 11.1**
Children Participating in Voluntary Pre-K Programs	**Graph 11.2**
School Readiness at Kindergarten Entry	**Graph 11.3**
Kindergarten Children Fully Immunized	**Graph 11.5**
Mothers who Initiate Breastfeeding	**Table 11.1**
Children in Grades K-12 Who Are Emotionally Handicapped	**Graph 11.6**
Children Ages 1-5 Receiving Mental Health Treatment Services	**Graph 11.7**
Neonatal Mortality (0-27 days)	**Graph 11.8**
Postneonatal Mortality (28-364 days)	**Graph 11.9**
Infant Mortality (0-364 days)	**Graph 11.10**
Deaths from SUID (sudden unexpected infant death)	**Graph 11.11**
Asthma hospitalizations, Ages 1-5	**Graph 11.12**
Non-Fatal Injuries Leading to Emergency Department Visits and Hospitalization, Under Age 5, 2014	**Table 11.2**
Hospitalizations, Ages 1-5, for Non-Fatal Near Drownings	**Graph 11.13**

Other Data:

Other data related to **Early Childhood** can be found here:

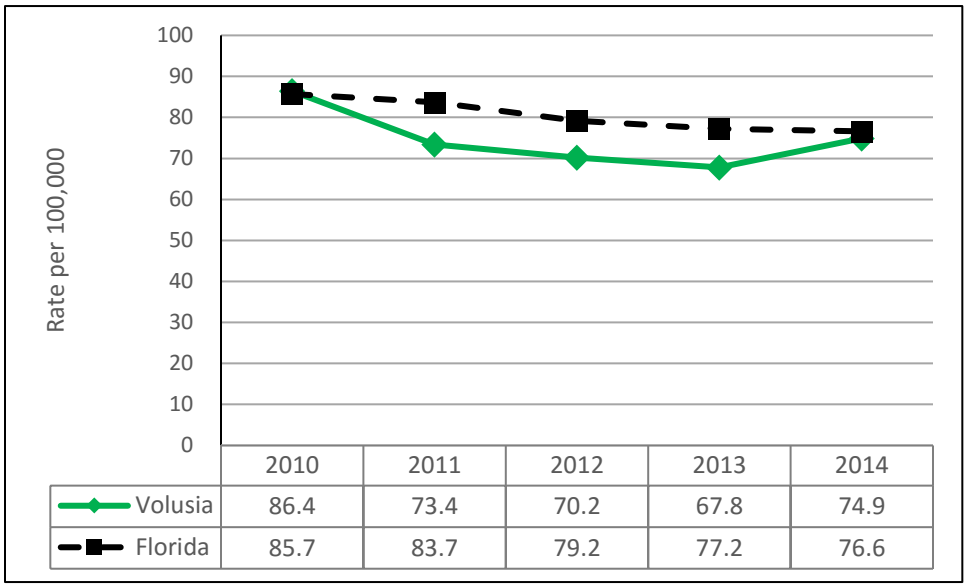
- **Graph 10.9:** Infants in Foster Care
- **Graph 10.10:** Children in Foster Care Ages 1-5
- **Graph 4.1:** Children < 5 Covered by MediKids
- **Graph 5.4:** WIC Children >=2 Years Who Are Overweight or Obese

Table 11.1 Licensed Child Care Providers

Child Care Providers	**280**
Licensed	**232**
Registered	**30**
Exempt	**18**
Child Care Facilities	**170**
Family Day Care Homes	**75**
Including Registered Family Day Care Homes	**6**
Large Family Child Care Homes	**17**
Religious Exempt	**16**
Non-public Schools	**2**

Source: Florida Department of Children and Families

Graph 11.1 Children in School Readiness Programs (Subsidized Child Care)

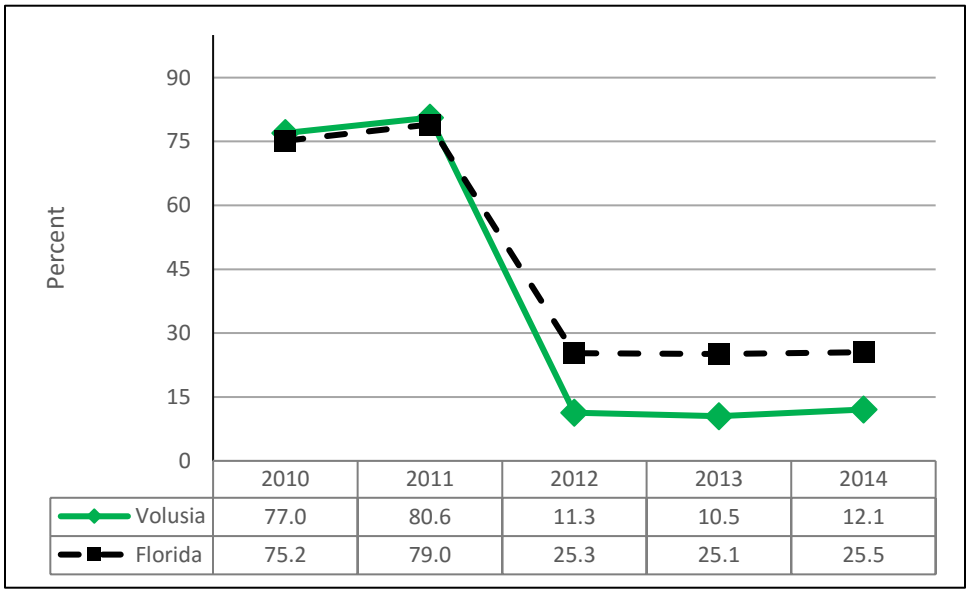


	2010	2011	2012	2013	2014
Volusia	86.4	73.4	70.2	67.8	74.9
Florida	85.7	83.7	79.2	77.2	76.6

Source: Florida Community Health Assessment Tool Set

- Both the Volusia County rate and the Florida rate decreased from 2010 through 2014
- The Volusia County rates were below the Florida rates from 2011 to 2014

Graph 11.2 Children Participating in Voluntary Pre-K Programs

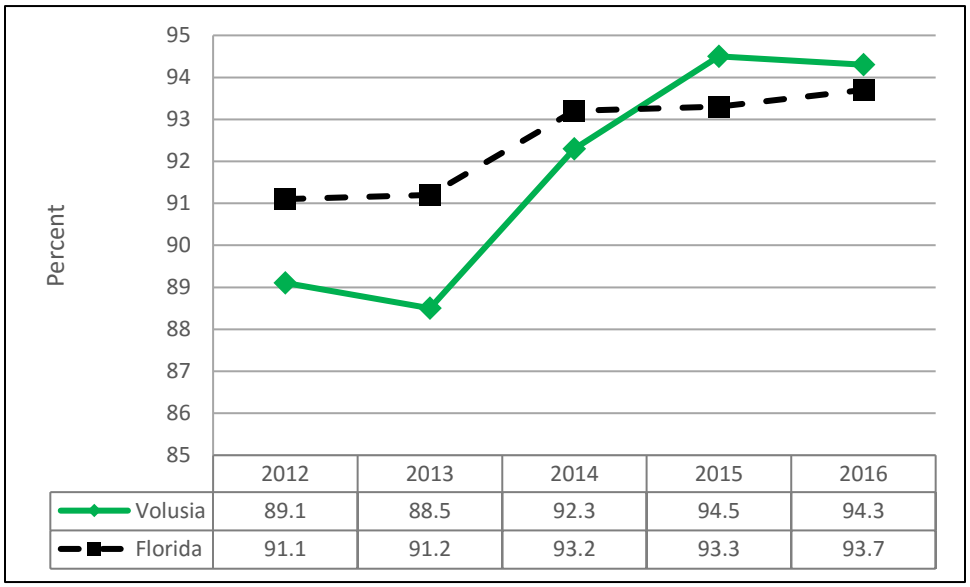


	2010	2011	2012	2013	2014
Volusia	77.0	80.6	11.3	10.5	12.1
Florida	75.2	79.0	25.3	25.1	25.5

Data Source: Florida Department of Health, Bureau of Vital Statistics

- The Volusia County percentage decreased by 84% from 2010 to 2014
- The Volusia County rate dropped below Florida's rate from 2012 through 2014
- The decrease in voluntary pre-K participation is a statewide trend

Graph 11.3 School Readiness at Kindergarten Entry

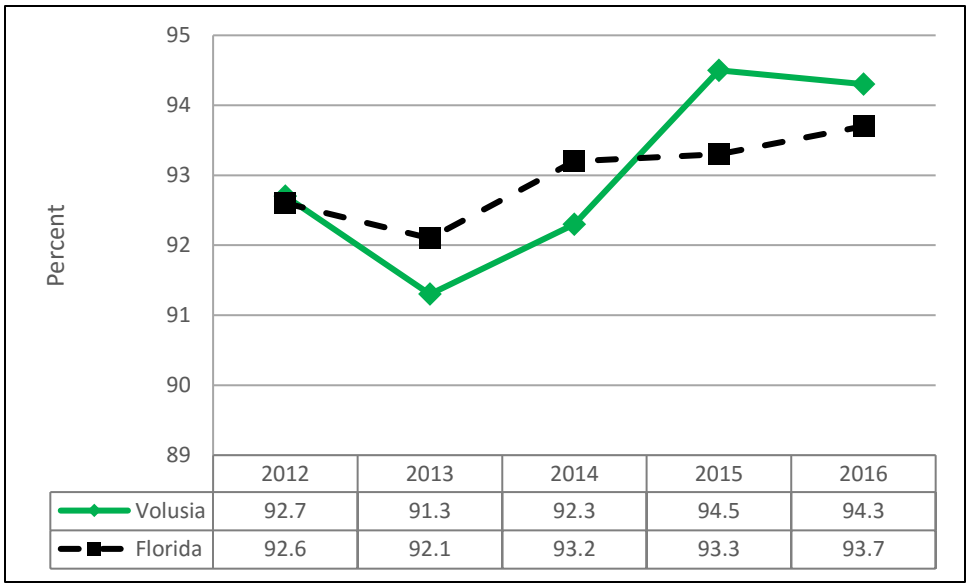


	2012	2013	2014	2015	2016
Volusia	89.1	88.5	92.3	94.5	94.3
Florida	91.1	91.2	93.2	93.3	93.7

Source: Florida Department of Education, Office of Early Learning

- The Volusia County rate increased over the reporting period
- After being lower than the state from 2012 through-2014, the Volusia rate exceeded the state in 2015 and 2016
- Child Trends reports that children with early skills are more likely to experience later success in education and employment

Graph 11.5 Kindergarten Children Fully Immunized



	2012	2013	2014	2015	2016
Volusia	92.7	91.3	92.3	94.5	94.3
Florida	92.6	92.1	93.2	93.3	93.7

Source: Florida Department of Health, Bureau of Immunization

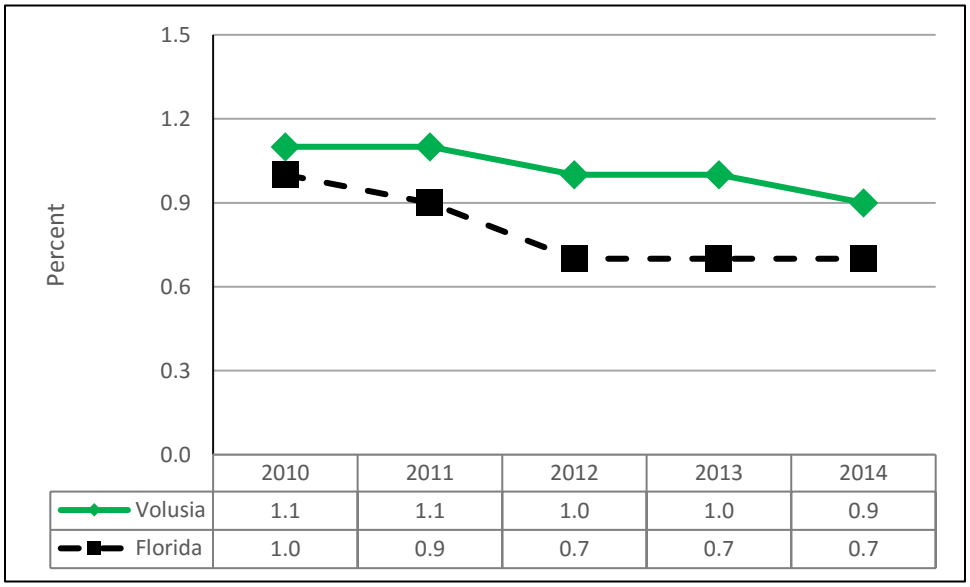
- The Volusia County percentage increased over the reporting period
- The Volusia County percentage is similar to the Florida percentage
- The Volusia County percentage was above 91 percent throughout the years reported

Table 11.1 Mothers who Initiate Breastfeeding

	Volusia		Florida	
Year	**Count**	**Rate (%)**	**Count**	**Rate (%)**
2005	3,607	70.8	172,212	76.1
2006	3,765	71.5	182,645	77.0
2007	3,850	71.1	185,598	77.6
2008	3,807	72.4	180,957	78.2
2009	3,677	72.1	174,561	78.8
2010	3,482	73.9	171,905	80.1
2011	3,375	72.5	169,717	79.6
2012	3,436	73.0	172,427	81.0
2013	3,402	73.4	177,535	82.5
2014	3,566	74.8	185,186	84.2

Source: Florida Department of Health, Bureau of Vital Statistics

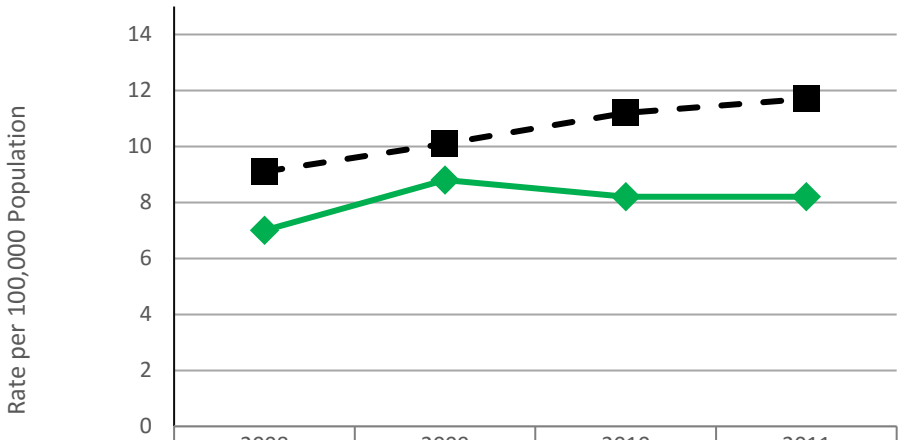
Graph 11.6 Children in Grades K-12 Who Are Emotionally Handicapped



Source: Florida Department of Education, Education Information and Accountability Services

- The Volusia County percentage was consistently higher than the Florida percentage from 2010 to 2014
- The Volusia County percentage decreased slightly over the reporting period

Graph 11.7 Children, Ages 1-5, Receiving Mental Health Treatment Services

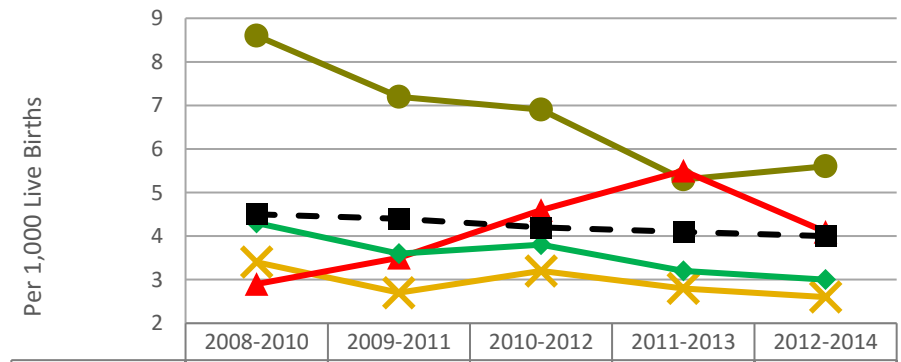


	2008	2009	2010	2011
Volusia	7.0	8.8	8.2	8.2
Florida	9.1	10.1	11.2	11.7

Source: Florida Department of Children and Families

- The Volusia County rate was lower than the Florida rate for each year from 2008 to 2011
- The Volusia County rate increased slightly over the reporting period

Graph 11.8 Neonatal Mortality (0-27 Days)



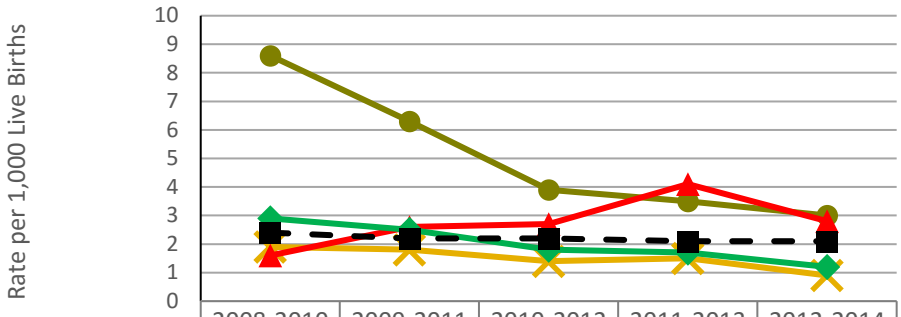
	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014
Black	8.6	7.2	6.9	5.3	5.6
White	3.4	2.7	3.2	2.8	2.6
Hispanic	2.9	3.5	4.6	5.5	4.1
Volusia	4.3	3.6	3.8	3.2	3.0
Florida	4.5	4.4	4.2	4.1	4.0

Low Count: Fewer than 5 events per year reported for Blacks in 2009, 2012, 2013 and for Hispanics in all years except 2011 (6)

Source: Florida Department of Health, Bureau of Vital Statistics

- The Volusia County rate decreased by 30 percent from 2008-2010 to 2012-2014
- The rate among Blacks and Hispanics in Volusia County decreased by almost 35% over the reporting period
- The Volusia County rate remained less than the Florida rate throughout the reported years.

Graph 11.9 Postneonatal Mortality (28-364 Days)



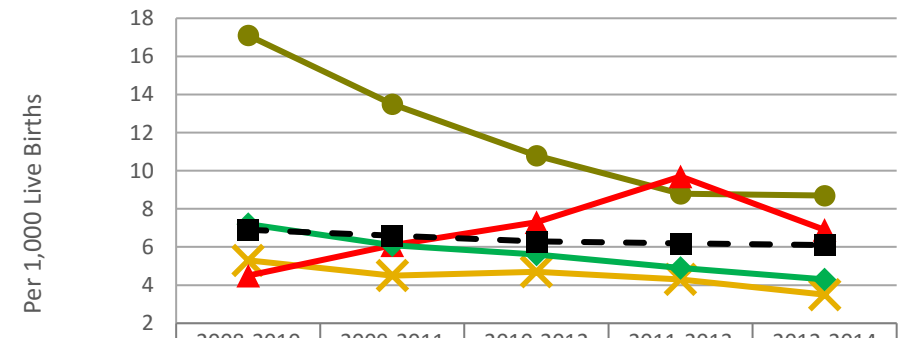
	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014
Black	8.6	6.3	3.9	3.5	3.0
White	1.9	1.8	1.4	1.5	0.9
Hispanic	1.6	2.6	2.7	4.1	2.8
Volusia	2.9	2.5	1.8	1.7	1.2
Florida	2.4	2.2	2.2	2.1	2.1

Low Count: Fewer than 5 events per year reported for Blacks, for Hispanics and for Whites except 2011

Source: Florida Department of Health, Bureau of Vital Statistics

- The Volusia County rate began to decline in the 2009-2011 period and continued to decline over the years
- The Volusia County rate was lower than the Florida rate since the 2010-2012 period
- The rate among Blacks in Volusia County decreased by 65% from 2008-2010 to 2012-2014 but was still the highest of all rates

Graph 11.10 Infant Mortality (0-364 days)



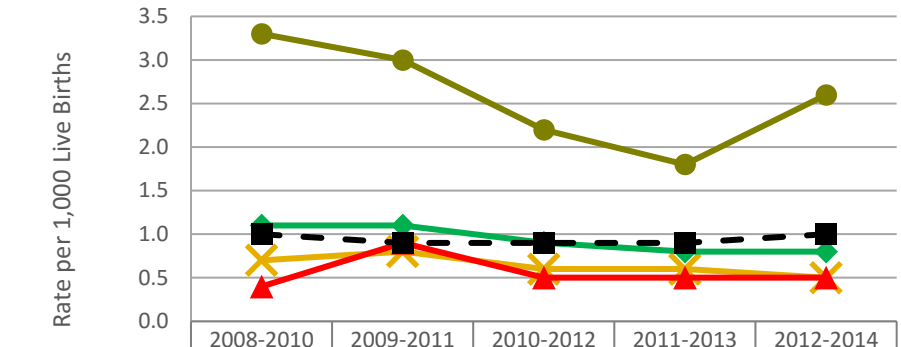
	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014
Black	17.1	13.5	10.8	8.8	8.7
White	5.3	4.5	4.7	4.3	3.5
Hipanic	4.5	6.1	7.3	9.7	6.9
Volusia	7.2	6.1	5.6	4.9	4.3
Florida	6.9	6.6	6.3	6.2	6.1

Low Count: Fewer than 5 events per year reported for Blacks in 2012, 2013 and for Hispanics in 2009, 2010, 2012, 2014

Source: Florida Department of Health, Bureau of Vital Statistics

- The Volusia County rate decreased over the reporting period and was lower than the Florida rate in recent years
- The rate among Blacks in Volusia County was higher than the Volusia County rate for all years reported
- The rate among Hispanics in Volusia County was higher than the Volusia County rate from 2009-2011 to 2012-2014

Graph 11.11 Deaths from Sudden Unexpected Infant Death (SUID)



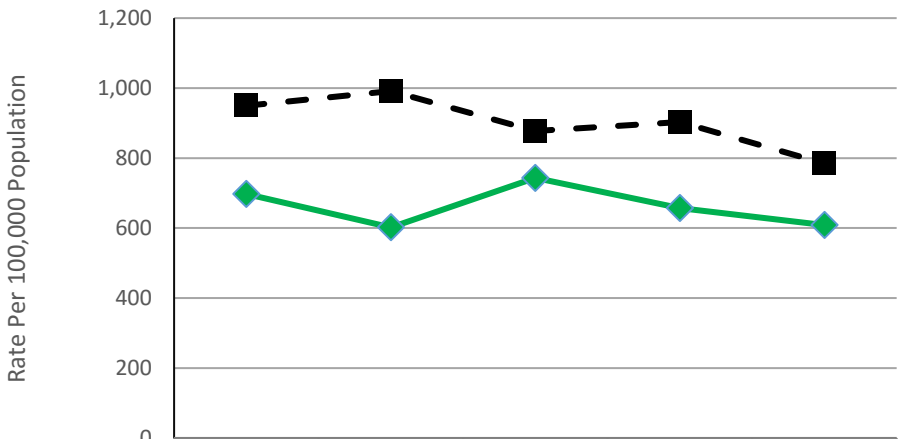
	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014
Black	3.3	3.0	2.2	1.8	2.6
White	0.7	0.8	0.6	0.6	0.5
Hispanic	0.4	0.9	0.5	0.5	0.5
Volusia	1.1	1.1	0.9	0.8	0.8
Florida	1.0	0.9	0.9	0.9	1.0

Low Count: Fewer than 5 events per year reported for Volusia County in 2010, 2012 and 2013 and all races/ ethnicities for all years

Source: Florida Department of Health, Bureau of Vital Statistics

- The Volusia County rate was essentially the same as the Florida rate over the reporting period
- The Volusia County rate decreased slightly over the reporting period
- The rate among Blacks in Volusia County decreased and was the highest rate throughout the reporting period

Graph 11.12 Asthma Hospitalizations Ages 1-5



	2010	2011	2012	2013	2014
Volusia	697.3	601.8	743.2	656.8	608.8
Florida	949.9	991.5	877.1	903.2	784.4

Source: Florida Agency for Health Care Administration

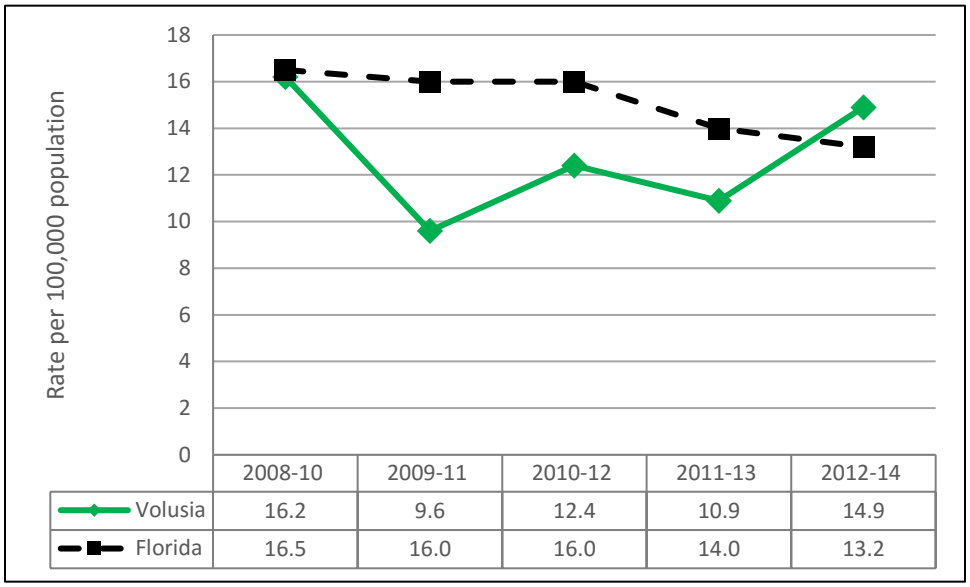
- The Volusia County rate decreased from 2010 to 2014
- The Volusia County rate consistently remained below the Florida rate from 2010 to 2014.

Table 11.2 Non-Fatal Injuries Leading to Emergency Department Visits and Hospitalization, Under Age 5

	2014 Non-Fatal Injury Emergency Department Visits, By Mechanism and Age Group		**2014 Non-Fatal Injury Hospitalization Visits, By Mechanism and Age Group**	
Mechanism	Age <1	Age 1-4	Age <1	Age 1-4
Bite/Sting	58	444	0	1
Cut, Pierce	12	138	0	1
Drowning, Submersion	2	8	0	4
Fall	212	1,098	6	14
Fire, Flame	0	5	0	1
Hot Object, Substance	10	65	0	2
MV Traffic – Occupant	27	117	0	6
MV Traffic – Other/Unspecified	0	3	0	0
MV Traffic – Pedalcyclist	0	1	0	0
MV Traffic – Pedestrian	1	5	0	1
Natural, Environmental	1	23	0	0
Not E Coded	18	75	1	0
Other Spec & Classifiable	17	273	0	4
Other Spec & NEC	21	82	0	1
Overexertion	8	99	1	0
Pedalcyclist, Other	0	21	0	0
Pedestrian, Other	0	1	0	0
Poisoning	16	98	2	6
Struck By/Against	35	464	1	3
Suffocation	8	15	0	0
Transport, Other	0	7	0	1
Unspecified	34	272	2	2
Total	**480**	**3,314**	**13**	**47**

Source: Florida Department of Health, Bureau of Vital Statistics

Graph 11.13 Hospitalizations, Ages 1-5, for Near Drownings



	2008-10	2009-11	2010-12	2011-13	2012-14
Volusia	16.2	9.6	12.4	10.9	14.9
Florida	16.5	16.0	16.0	14.0	13.2

Source: Florida Agency for Health Care Administration

- The Volusia County rate fluctuated and decreased over the reporting period
- The Volusia County rate was lower than the Florida rate for all years except 2012-14

12. Women's Health, Prenatal Care and Birth Outcomes

Improving the well-being of mothers, infants, and children is an important public health goal for the United States. Their well-being determines the health of the next generation and can help predict future public health challenges for families, communities, and the health care system (Healthy People 2020).

Health Risks in Pregnancy

- Hypertension and heart disease
- Diabetes
- Depression
- Genetic conditions
- Sexually transmitted diseases (STDs)
- Tobacco use and alcohol abuse
- Inadequate nutrition
- Unhealthy weight

Factors Affecting Pregnancy, Infant and Child Health

- Preconception health status
- Age
- Access to appropriate preconception and inter-conception health care
- Poverty
- Socio-demographic factors (family income, physical and mental health of parents and caregivers)

Low Birth Weight: Birth weight is one of the strongest predictors of an infant's health and survival. Low birth weight is often associated with premature birth. Babies born with a low birth weight are more likely to require specialized medical care and there may be risk of infant death or long-term disability.

To prevent prematurity and low birth weight:

- Take prenatal vitamins
- Good nutrition
- Stop smoking
- Stop drinking alcohol and using drugs
- Get prenatal care

Fetal Mortality: Fetal mortality is the death of fetus or baby after 20 weeks' gestation. Florida CHARTS notes that fetal mortality and the fetal mortality rate reflect the health and well-being of the population's reproductive age women, their pregnancies, and quality of the health care available.

Infant Mortality: Infant mortality is the death of a live-born baby during the first year of life. Pre-term birth (<37 weeks' gestation) is a major contributor to infant mortality. Florida CHARTS states that infant mortality and the infant mortality rate reflect the health and well-being of the populations women of reproductive age and their infants as well as the quality of health care available. It further states that infant mortality information is used by local governments and organizations to identify areas in need and designate available resources.

Births to Mothers with First Trimester Prenatal Care: Prenatal care refers to the medical care that women receive during pregnancy. Babies born to mothers who do not receive prenatal care are three times more likely to have a low birth weight and five times more likely to die than those born to mothers who do get care. To achieve the greatest benefit for both the mother and baby, it is recommended that women begin prenatal visits in the first trimester of pregnancy or as soon as pregnancy is suspected or confirmed.

Teen Pregnancy: According to Florida CHARTS, teen pregnancy is a critical public health issue that affects the health, educational, social and economic future of the mother and child. Teen pregnancy is closely linked to a host of other critical social issues as well: welfare dependency, out-of-wedlock births, responsible fatherhood, and workforce development in particular. Adolescents are less likely to seek out prenatal care because they are afraid or embarrassed. This phenomenon and the immature physical nature of adolescents result in higher rates of low birth weight babies than in other age groups.

Indicators Included:

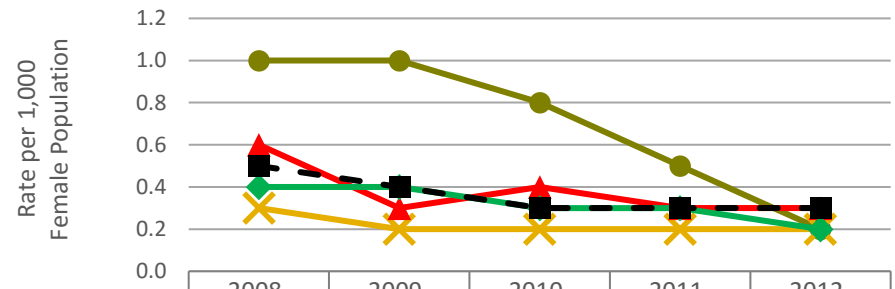
Indicator	Reference
Births to Mothers, Ages 10-14	**Graph 12.1**
Births to Mothers, Ages 15-19	**Graph 12.2**
Births to Mothers > 35	**Table 12.1**
Births to Mothers Who Were at a Healthy Weight at the Time Pregnancy Occurred	**Graph 12.3**
Births to Mothers Who Were Overweight at the Time Pregnancy Occurred	**Graph 12.4**
Births to Mothers Who Were Obese at the Time Pregnancy Occurred	**Graph 12.5**
Births to Mothers > 18 Without High School Education	**Graph 12.6**
Births Among Unwed Mothers, Ages 15-19	**Graph 12.7**
Births Among Unwed Mothers, Ages 20-54	**Graph 12.8**
Repeat Births to Teenage Mothers, Ages 15-17	**Graph 12.9**
Repeat Births to Teenage Mothers, Ages 15-19	**Graph 12.10**
Repeat Births to Teenage Mothers, Ages 18-19	**Graph 12.11**
Births with Inter-Pregnancy Interval < 18 Months	**Graph 12.12**
Resident Live Births to Mothers Who Smoked During Pregnancy	**Graph 12.13**
Women 15-34 with Sexually Transmitted Diseases	**Graph 12.14**
Females >17 Who Engage in Heavy or Binge Drinking	**Graph 12.15**
Very Low Birth Weight (Live Births Under 1500 Grams)	**Graph 12.16**
Low Birth Weight (Live Births Under 2500 Grams)	**Graph 12.17**
Low Birth Weight (Live Births Under 2500 Grams) 2014 Map	**Map 12.1**
Multiple Births (Twins, Triplets, or More)	**Graph 12.18**
Preterm Births (< 37 Weeks Gestation)	**Graph 12.19**
Fetal Deaths	**Graph 12.20**
Births with Adequate Prenatal Care (Kotelchuck index)	**Graph 12.21**
Prenatal Care Began in First Trimester	**Graph 12.22**
Prenatal Care Begun in First Trimester 2014 Map	**Map 12.2**
Births with No Prenatal Care	**Graph 12.23**

Other Data:

Other data related to **Women's Health, Prenatal Care and Birth Outcomes** can be found here:

- **Graph 4.3:** Births Covered by Medicaid
- **Graph 4.4:** Births to Uninsured Women ("Self-Pay" Checked on Birth Certificate)
- **Graph 4.5:** Females > 17 Who Have Any type of Health Care Insurance Coverage

Graph 12.1 Births to Mothers, Ages 10-14



	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014
Black	1.0	1.0	0.8	0.5	0.2
White	0.3	0.2	0.2	0.2	0.2
Hispanic	0.6	0.3	0.4	0.3	0.3
Volusia	0.4	0.4	0.3	0.3	0.2
Florida	0.5	0.4	0.3	0.3	0.3

Low Count: Fewer than 5 events per year reported for Blacks in 2010 – 2014 and for Hispanics in all years

Source: Florida Department of Health, Bureau of Vital Statistics

- The Volusia County rate declined over the years reported and was very similar to the Florida rate
- The rate among Blacks in Volusia County was the highest rate until the time period of 2012-2014
- Births to teen mothers' result in higher rates of low birth weight babies than in other age groups

Graph 12.2 Births to Mothers, Ages 15-19

	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014
Black	52.9	41.7	35.7	33.5	32.5
White	34.8	31.6	28.8	25.9	23.3
Hispanic	57.0	45.3	37.0	33.7	31.3
Volusia	37.1	33.0	29.9	27.3	25.0
Florida	36.8	32.9	29.6	26.7	24.3

Source: Florida Department of Health, Bureau of Vital Statistics

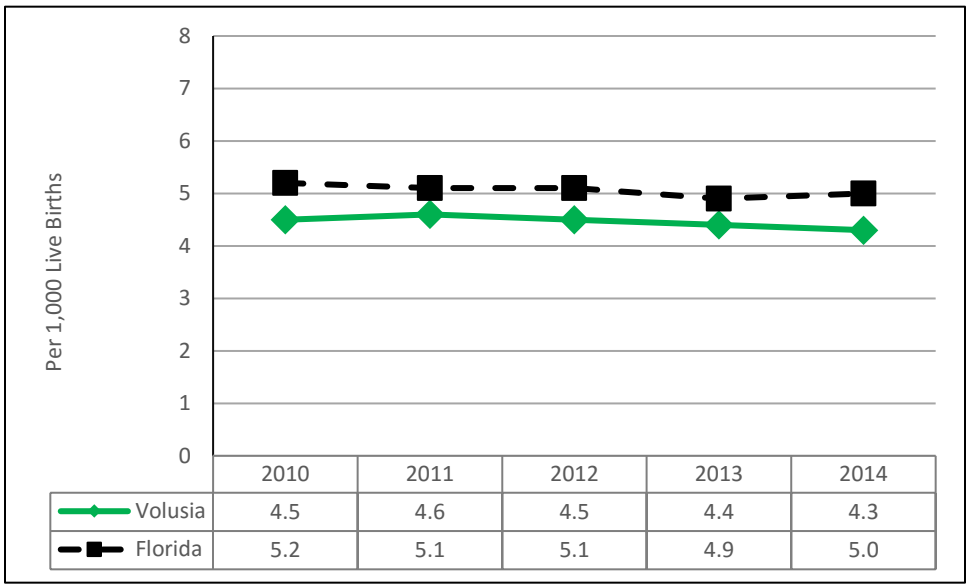
- The Volusia County rate decreased by 32.6 percent from 2008-2010 through 2012-2014
- The rate among Blacks and Hispanics in Volusia County decreased over the reporting period and were higher than the county and state rates
- Offspring of adolescent mothers are more apt than children born to older women to have health and cognitive problems and to be the victims of neglect or abuse

Table 12.1 Births to Mothers Greater than 35 Years of Age per 1,000 Live Births

	Volusia		Florida	
Year	**Count**	**Rate (%)**	**Count**	**Rate (%)**
2010	465	2.9	25,053	4.5
2011	456	2.9	25,485	4.5
2012	437	2.7	25,170	4.5
2013	435	2.7	26,095	4.6
2014	447	2.8	27,235	4.7

Source: Florida Department of Health, Bureau of Vital Statistics

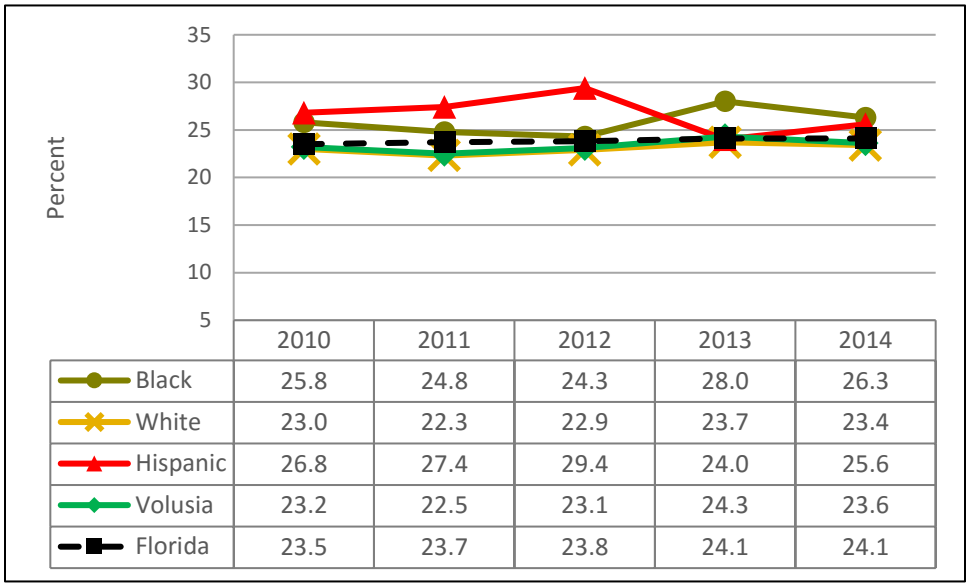
Graph 12.3 Births to Mothers who were at a Healthy Weight (BMI 18.5-24.9) at Time Pregnancy Occurred



Source: Florida Department of Health, Bureau of Vital Statistics

- The Volusia County rate was continuously slightly lower than the Florida rate over the reporting period
- The rates for both Volusia County and Florida decreased slightly from 2010 through 2014

Graph 12.4 Births to Overweight Mothers at Time of Pregnancy Occurrence

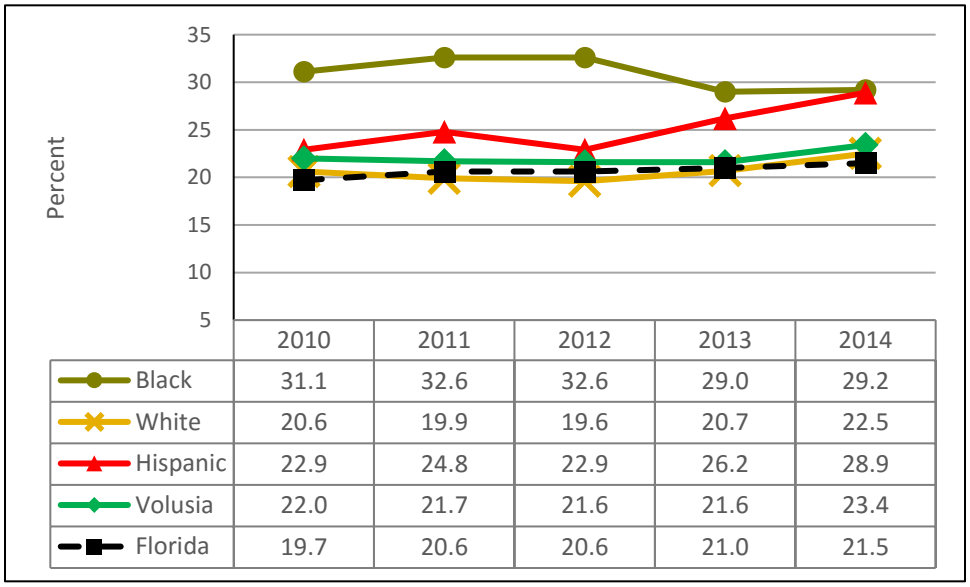


	2010	2011	2012	2013	2014
Black	25.8	24.8	24.3	28.0	26.3
White	23.0	22.3	22.9	23.7	23.4
Hispanic	26.8	27.4	29.4	24.0	25.6
Volusia	23.2	22.5	23.1	24.3	23.6
Florida	23.5	23.7	23.8	24.1	24.1

Source: Florida Department of Health, Bureau of Vital Statistics

- The Volusia and Florida percentages were essentially the same and remained steady over the reporting period
- The percentage among Hispanics in Volusia County was higher than the county percentage for four of the five years reported
- The percentage among Blacks in Volusia County was higher than the county percentage for each year reported

Graph 12.5 Births to Obese Mothers at Time of Pregnancy Occurrence

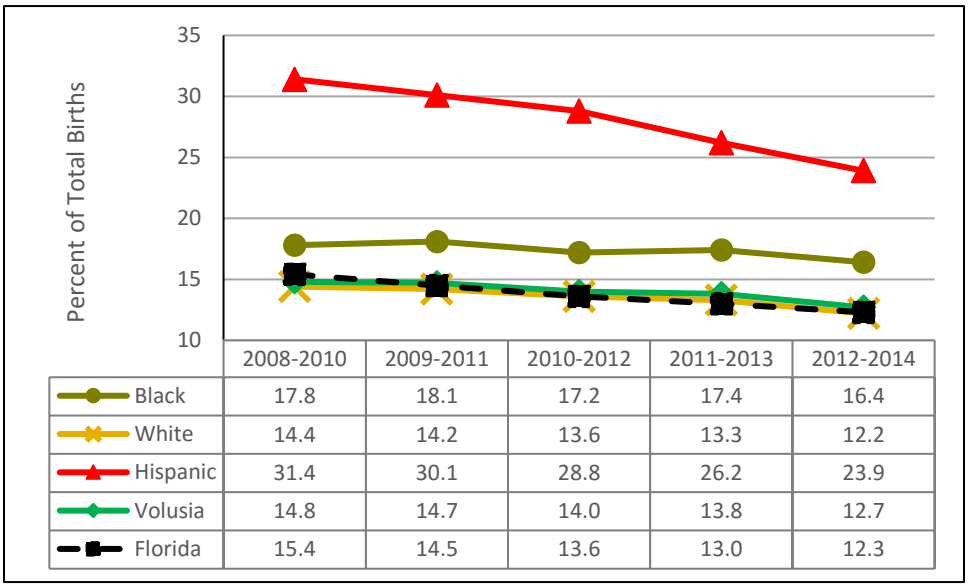


	2010	2011	2012	2013	2014
Black	31.1	32.6	32.6	29.0	29.2
White	20.6	19.9	19.6	20.7	22.5
Hispanic	22.9	24.8	22.9	26.2	28.9
Volusia	22.0	21.7	21.6	21.6	23.4
Florida	19.7	20.6	20.6	21.0	21.5

Source: Florida Department of Health, Bureau of Vital Statistics

- The Volusia County percentage was continuously higher than the Florida percent over the reporting period
- The percentage among Blacks in Volusia County was the highest overall throughout the reporting period
- The percentage among Hispanics in Volusia County was higher than the county or state percentages throughout the reporting period

Graph 12.6 Births to Mothers >18 Without High School Education

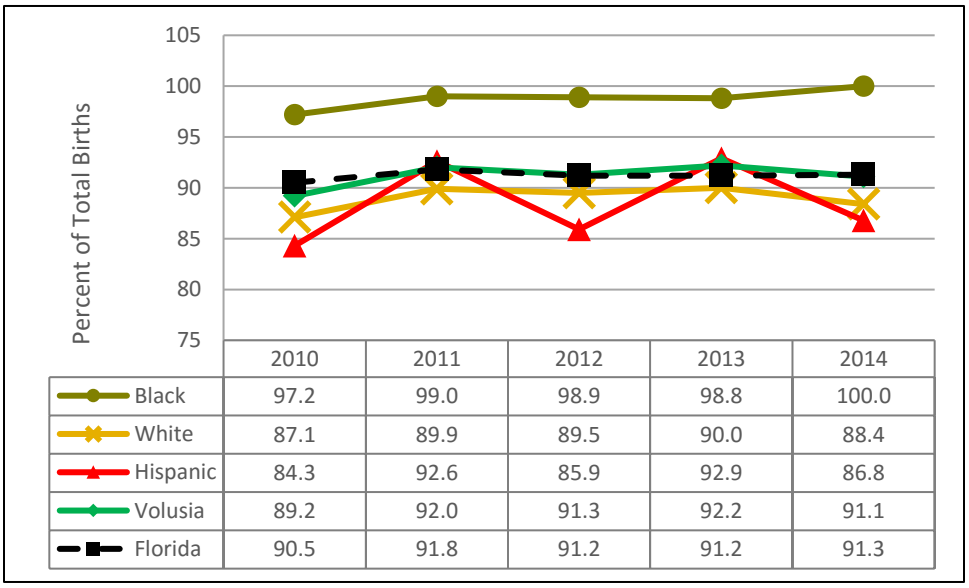


	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014
Black	17.8	18.1	17.2	17.4	16.4
White	14.4	14.2	13.6	13.3	12.2
Hispanic	31.4	30.1	28.8	26.2	23.9
Volusia	14.8	14.7	14.0	13.8	12.7
Florida	15.4	14.5	13.6	13.0	12.3

Source: Florida Department of Health, Bureau of Vital Statistics

- The Volusia County rate decreased overall and was slightly higher than the Florida rate since 2009-2011
- The rate among Blacks in Volusia County was higher than the county rate throughout the reporting period
- The rate among Hispanics in Volusia County decreased and was the highest rate for all years reported

Graph 12.7 Births to Unwed Mothers, Ages 15-19

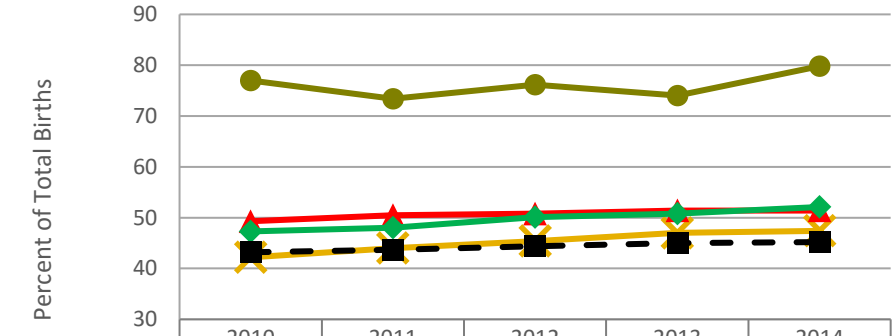


	2010	2011	2012	2013	2014
Black	97.2	99.0	98.9	98.8	100.0
White	87.1	89.9	89.5	90.0	88.4
Hispanic	84.3	92.6	85.9	92.9	86.8
Volusia	89.2	92.0	91.3	92.2	91.1
Florida	90.5	91.8	91.2	91.2	91.3

Source: Florida Department of Health, Bureau of Vital Statistics

- The Volusia County percentage increased slightly over the reporting period
- The percent among Blacks in Volusia County was the overall highest percentage for all years reported
- The percent among Hispanics in Volusia County fluctuated over the reporting period
- Being a single woman has been associated with factors that potentially contribute to poor pregnancy and infant health

Graph 12.8 Births to Unwed Mothers, Ages 20-54

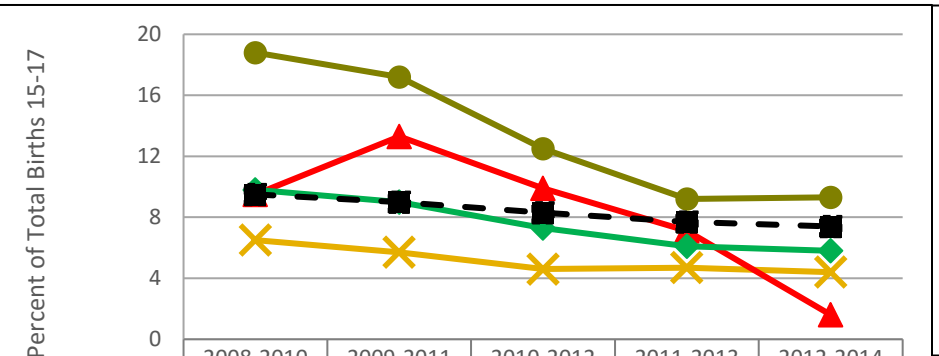


	2010	2011	2012	2013	2014
Black	77.0	73.4	76.2	74.0	79.8
White	42.2	44.0	45.4	47.0	47.4
Hispanic	49.3	50.5	50.8	51.4	51.4
Volusia	47.3	48.0	50.1	50.8	52.1
Florida	43.2	43.7	44.4	45.0	45.2

Source: Florida Department of Health, Bureau of Vital Statistics

- All groups experienced a slight increase in percentages from 2010 to 2014
- The Volusia County percentage was higher than the Florida percentage throughout the years reported
- The percentage among Blacks in Volusia County was the highest percentage for all years reported
- The strength and magnitude of association with poor birth outcomes has decreased over time and is not consistent across population groups

Graph 12.9 Repeat Births to Mothers, Ages 15-17



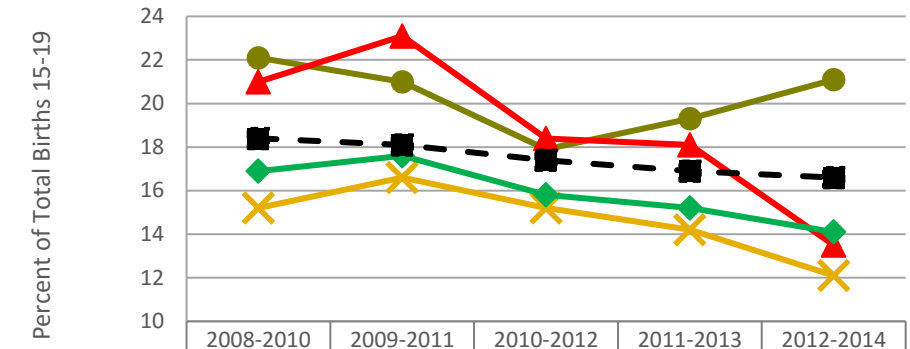
	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014
Black	18.8	17.2	12.5	9.2	9.3
White	6.5	5.7	4.6	4.7	4.4
Hispanic	9.5	13.3	9.9	7.1	1.6
Volusia	9.8	9.0	7.3	6.1	5.8
Florida	9.5	9.0	8.3	7.7	7.4

Low Count: Fewer than 5 events per year reported for each race in all years and for Volusia in 2014

Source: Florida Department of Health, Bureau of Vital Statistics

- The Volusia County rate was lower than the Florida rate from 2010-2012 through 2012-2014
- The rates for all groups trended downward from 2010 through 2014
- The rate among Blacks in Volusia County was higher than all other group for all years reported

Graph 12.10 Repeat Births to Mothers, Ages 15-19



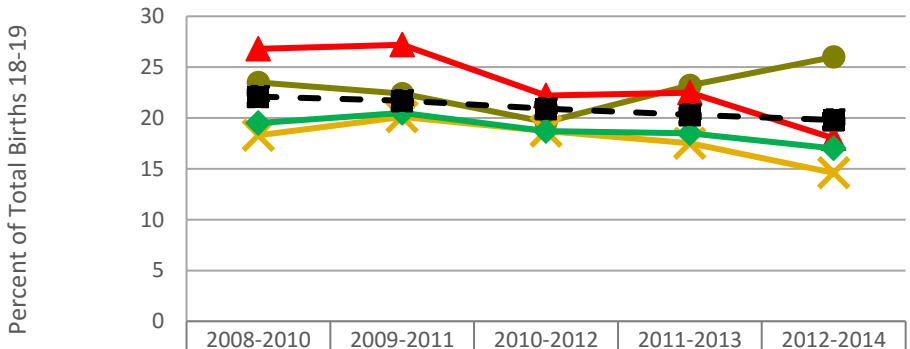
	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014
Black	22.1	21.0	17.9	19.3	21.1
White	15.2	16.6	15.2	14.2	12.1
Hispanic	21.0	23.1	18.4	18.1	13.5
Volusia	16.9	17.6	15.8	15.2	14.1
Florida	18.4	18.1	17.4	16.9	16.6

Low Count: Fewer than 5 events per year reported for Hispanics in 2014

Source: Florida Department of Health, Bureau of Vital Statistics

- The Volusia County rate declined over the reporting period
- The rate among Blacks in Volusia County fluctuated and decreased slightly over the reporting period
- The rate among Hispanics in Volusia County fluctuated and decreased overall

Graph 12.11 Repeat Births to Mothers, Ages 18-19

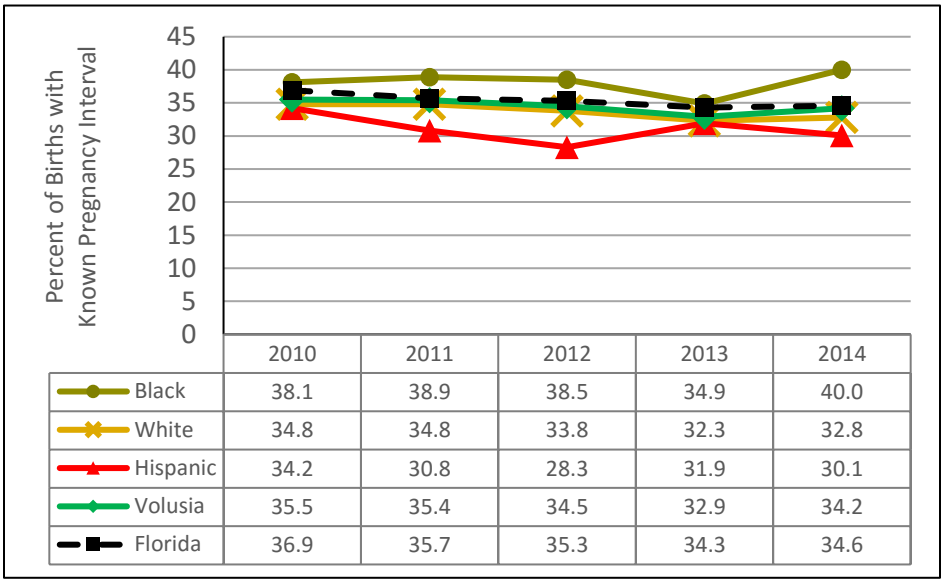


	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014
Black	23.5	22.4	19.6	23.2	26.0
White	18.3	20.1	18.7	17.5	14.6
Hispanic	26.8	27.2	22.2	22.5	18.0
Volusia	19.5	20.5	18.7	18.5	17.0
Florida	22.1	21.7	20.9	20.3	19.8

Source: Florida Department of Health, Bureau of Vital Statistics

- The Volusia County percentage peaked in 2009-2011 then decreased in each time period reported thereafter
- The percentage among Hispanics in Volusia County fluctuated and decreased over the reporting period
- The percentage among Blacks in Volusia County decreased from 2008-2010 through 2010-2012 then increased through 2012-2014 ending with an overall increase

Graph 12.12 Births with Inter-Pregnancy Interval <18 Months



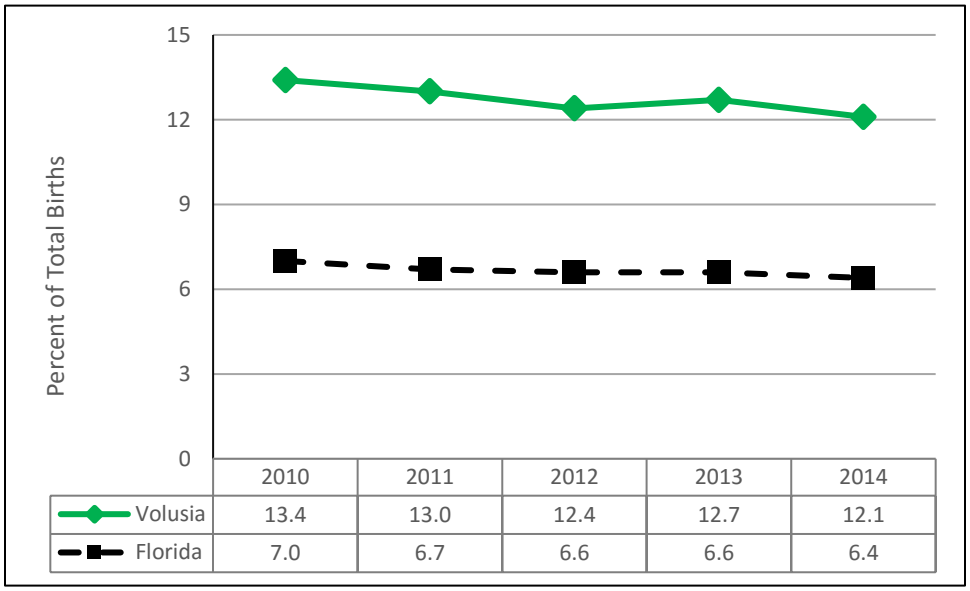
	2010	2011	2012	2013	2014
Black	38.1	38.9	38.5	34.9	40.0
White	34.8	34.8	33.8	32.3	32.8
Hispanic	34.2	30.8	28.3	31.9	30.1
Volusia	35.5	35.4	34.5	32.9	34.2
Florida	36.9	35.7	35.3	34.3	34.6

Source: Florida Department of Health, Bureau of Vital Statistics

- The Volusia County percentage was similar to the state and decreased slightly over the reporting period
- The percentage among Hispanics in Volusia County was the lowest of all groups throughout the reporting period
- The percentage among Blacks in Volusia County was the highest of all groups throughout the reporting period

Note: Data reflects the percent of births with known Inter-Pregnancy Interval

Graph 12.13 Births to Mothers Who Report Smoking During Pregnancy

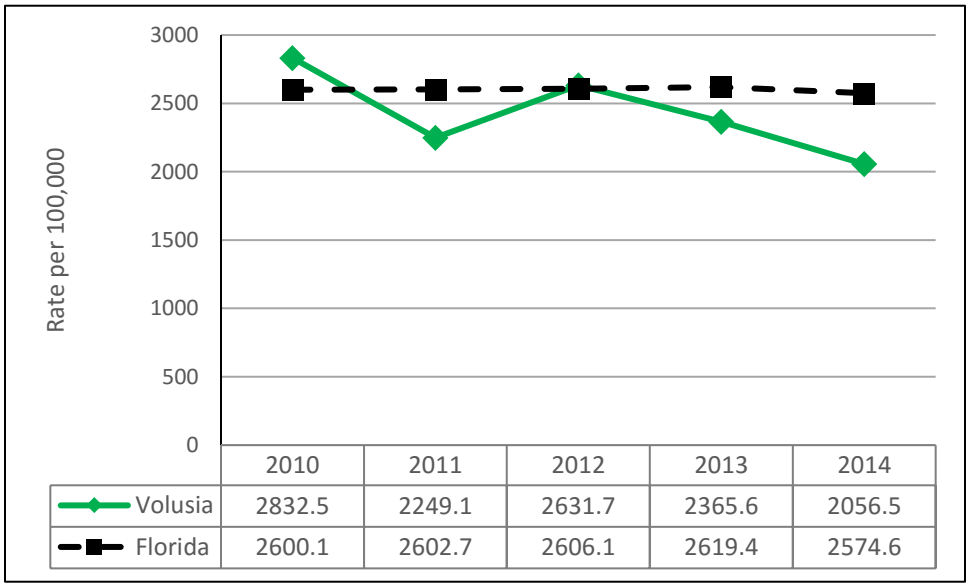


	2010	2011	2012	2013	2014
Volusia	13.4	13.0	12.4	12.7	12.1
Florida	7.0	6.7	6.6	6.6	6.4

Source: Florida Department of Health, Bureau of Vital Statistics

- The Volusia County rate was significantly higher than the Florida rate
- The Volusia County rate decreased slightly over the reporting period
- Smoking during pregnancy is associated with increased risk of low birth weight and Sudden Infant Death Syndrome (SIDS).

Graph 12.14 Bacterial STDs, (Women 15-34)

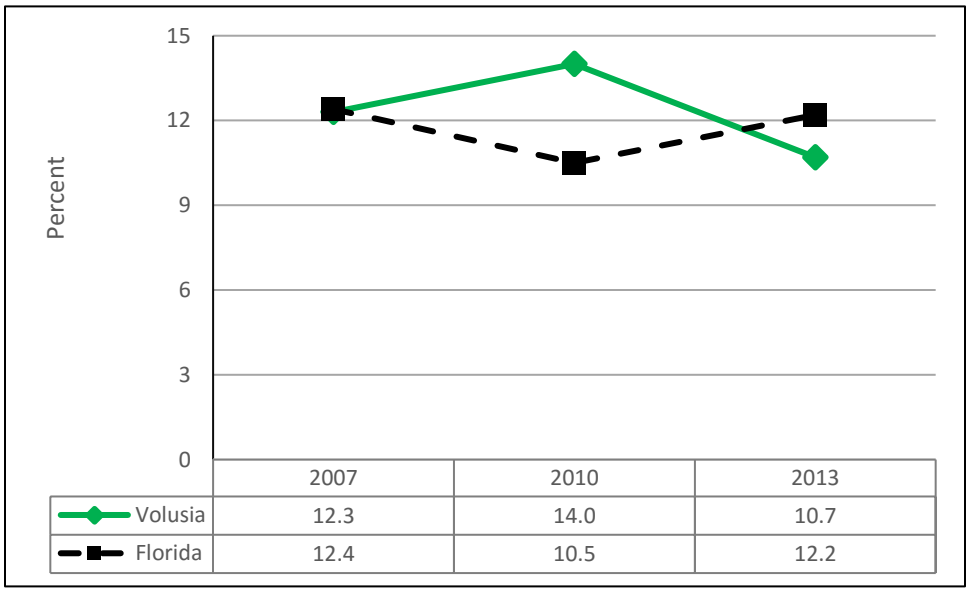


	2010	2011	2012	2013	2014
Volusia	2832.5	2249.1	2631.7	2365.6	2056.5
Florida	2600.1	2602.7	2606.1	2619.4	2574.6

Source: Florida Department of Health, Bureau of STD Prevention & Control

- The Volusia County rate decreased over the reporting period
- The Volusia County rate started higher than the Florida rate in 2010 and was lower in 2013 and 2014

Graph 12.15 Females >17 Who Engage in Heavy or Binge Drinking

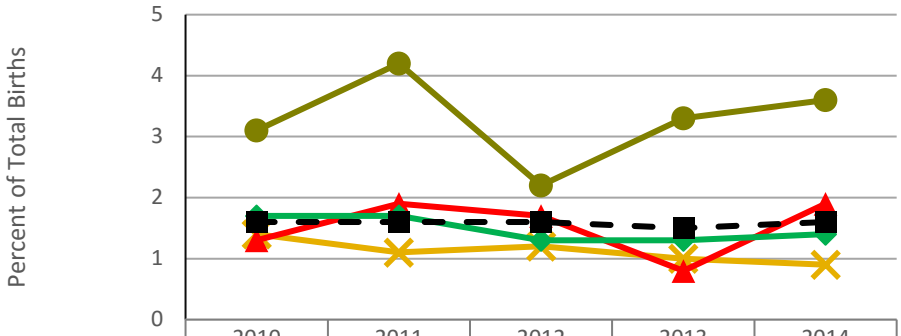


	2007	2010	2013
Volusia	12.3	14.0	10.7
Florida	12.4	10.5	12.2

Source: Florida Behavioral Risk Factor Surveillance System

- The Volusia County percentage fluctuated over the reporting period and decreased overall
- The Volusia County percentage was lower than the Florida percentage in the most recent year reported

Graph 12.16 Very Low Birth Weight (Live Births Under 1500 Grams)

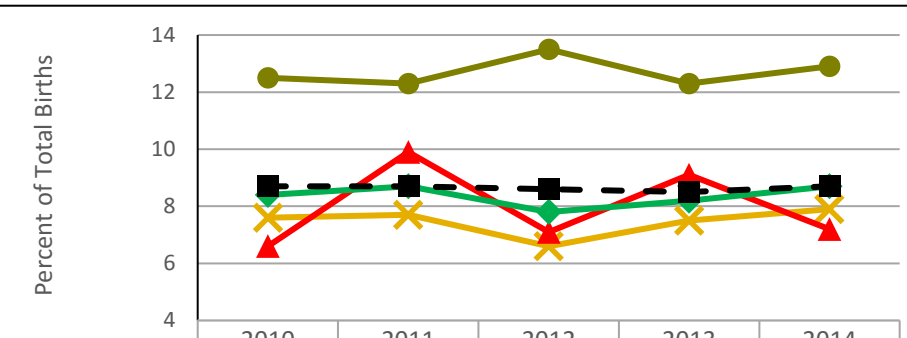


	2010	2011	2012	2013	2014
Black	3.1	4.2	2.2	3.3	3.6
White	1.4	1.1	1.2	1.0	0.9
Hispanic	1.3	1.9	1.7	0.8	1.9
Volusia	1.7	1.7	1.3	1.3	1.4
Florida	1.6	1.6	1.6	1.5	1.6

Source: Florida Department of Health, Bureau of Vital Statistics

- The Volusia County percentage remained steady was essentially the same as Florida over the reporting period
- The percentage among Blacks in Volusia County was higher than all groups throughout the reporting period
- The percent among Whites in Volusia County was the lowest of all groups over the reporting period except 2013

Graph 12.17 Low Birth Weight (Live Births Under 2500 Grams)

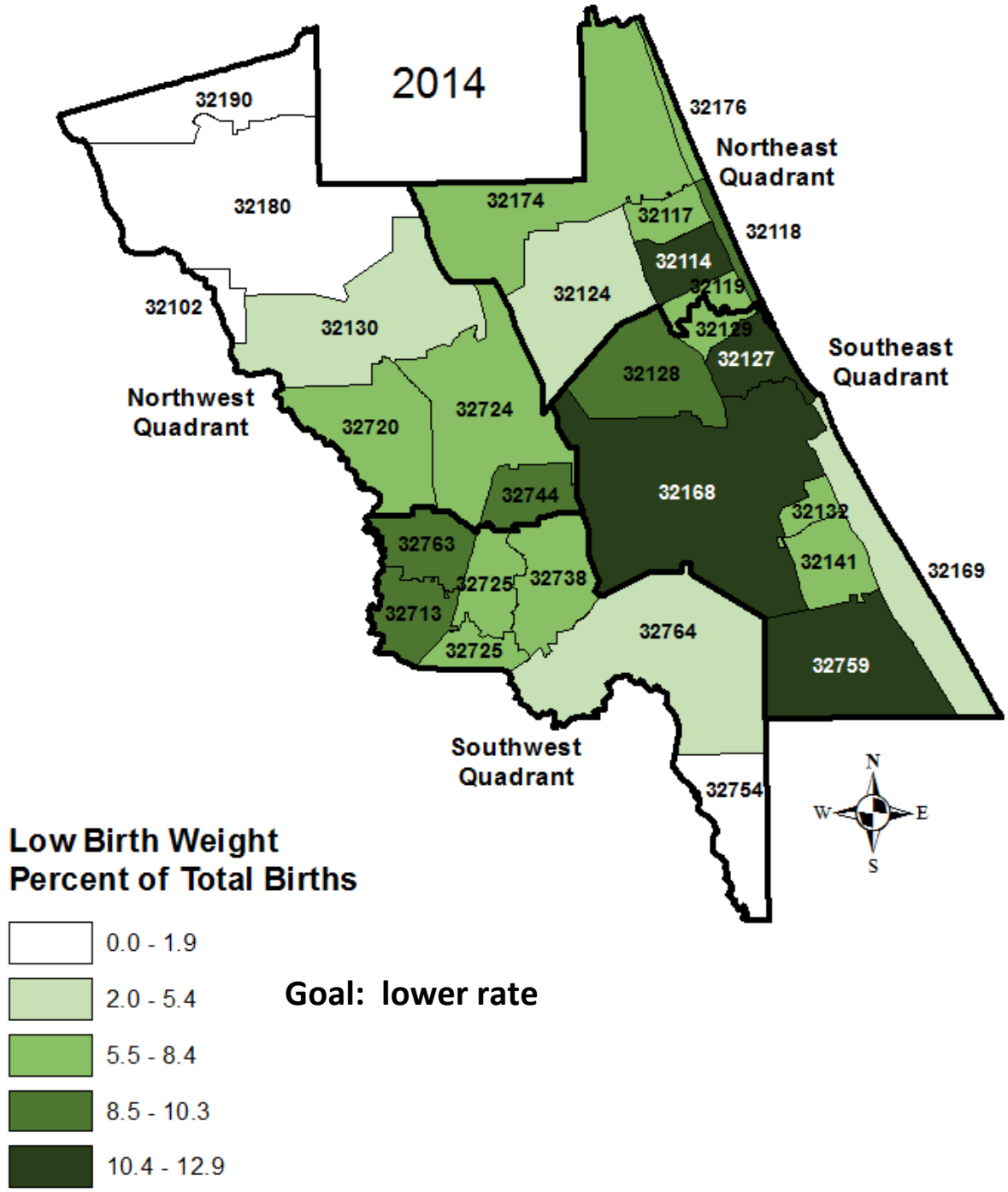


	2010	2011	2012	2013	2014
Black	12.5	12.3	13.5	12.3	12.9
White	7.6	7.7	6.6	7.5	7.9
Hispanic	6.6	9.9	7.1	9.1	7.2
Volusia	8.4	8.7	7.8	8.2	8.7
Florida	8.7	8.7	8.6	8.5	8.7

Source: Florida Department of Health, Bureau of Vital Statistics

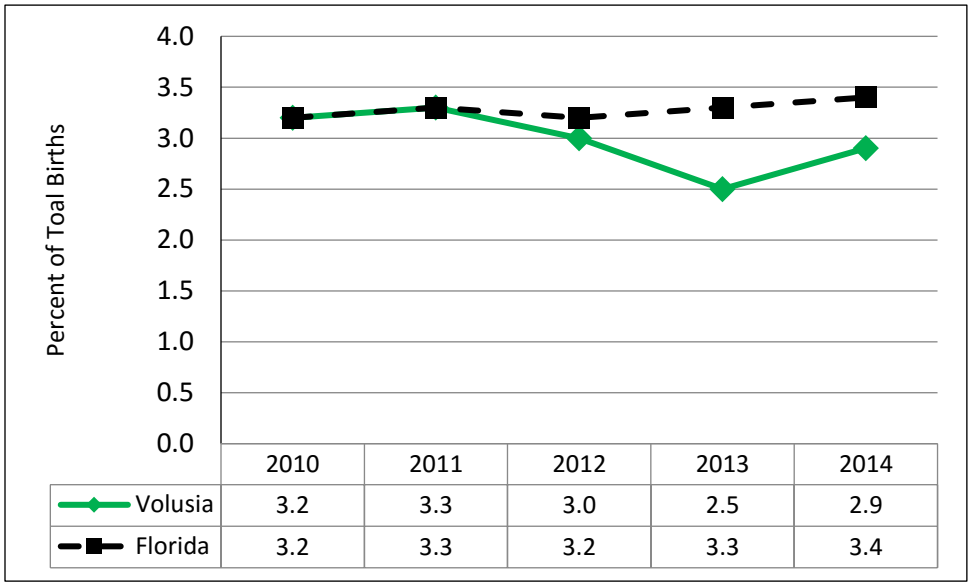
- The Volusia County percentage was essentially the same as the Florida percentage with a similar trend throughout the reporting period
- The percentage among Blacks in Volusia County was the highest overall throughout the reporting period
- The percentage among Hispanics in Volusia County was the lowest of all groups for 3 of the 5 years reported
- Birthweight is one of the strongest predictors of an infant's health and survival

Map 12.1 Low Birth Weight (Live Births Under 2500 Grams) 2014



Source: Florida Department of Health, Bureau of Vital Statistics
Note: Percent of Total Births

Graph 12.18 Multiple Births (Twins, Triplets, or More)

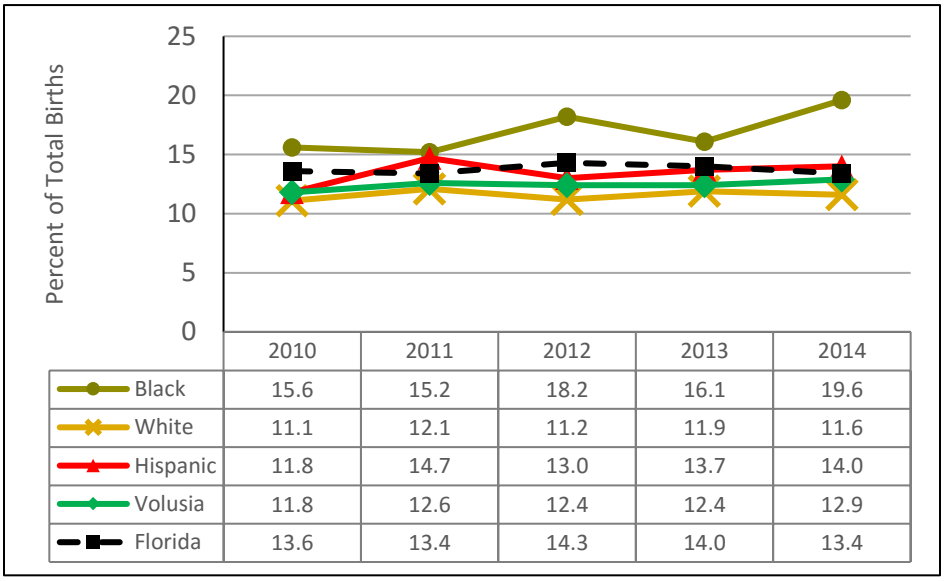


	2010	2011	2012	2013	2014
Volusia	3.2	3.3	3.0	2.5	2.9
Florida	3.2	3.3	3.2	3.3	3.4

Source: Florida Department of Health, Bureau of Vital Statistics

- The Volusia County percentage remained steady over the reporting period
- The Volusia County percentage was slightly lower than Florida from 2012 through 2014
- Pregnancies where the mother is carrying more than one baby have increased chances of complications that impact both mothers and babies

Graph 12.19 Preterm Births (<37 Weeks Gestation)

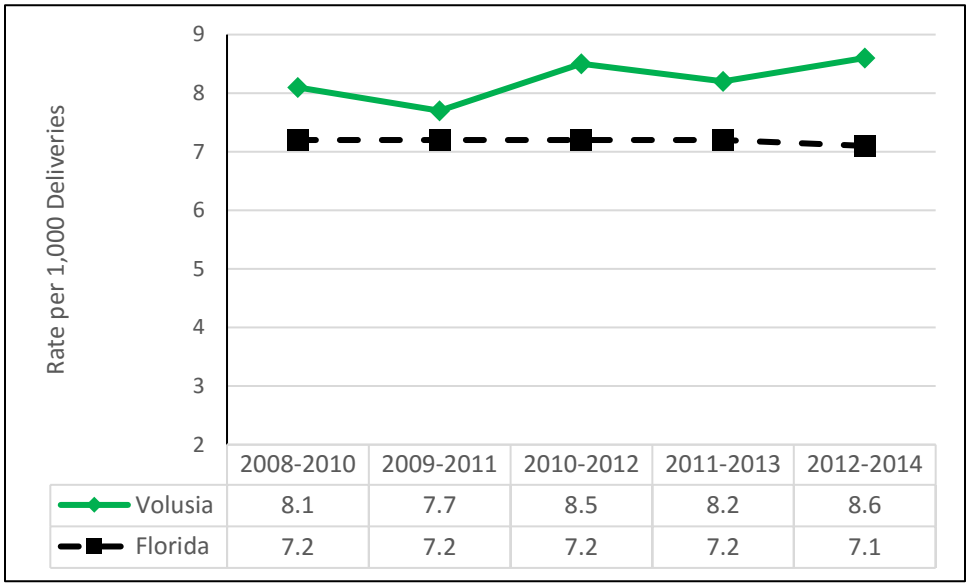


	2010	2011	2012	2013	2014
Black	15.6	15.2	18.2	16.1	19.6
White	11.1	12.1	11.2	11.9	11.6
Hispanic	11.8	14.7	13.0	13.7	14.0
Volusia	11.8	12.6	12.4	12.4	12.9
Florida	13.6	13.4	14.3	14.0	13.4

Source: Florida Department of Health, Bureau of Vital Statistics

- The Volusia County percentage was consistently lower than Florida over the reporting period
- The percentage among Blacks in Volusia County has been consistently higher than all groups over the reporting period
- Preterm births have lower chances of survival and higher chances of short and long term health problems when compared to term births

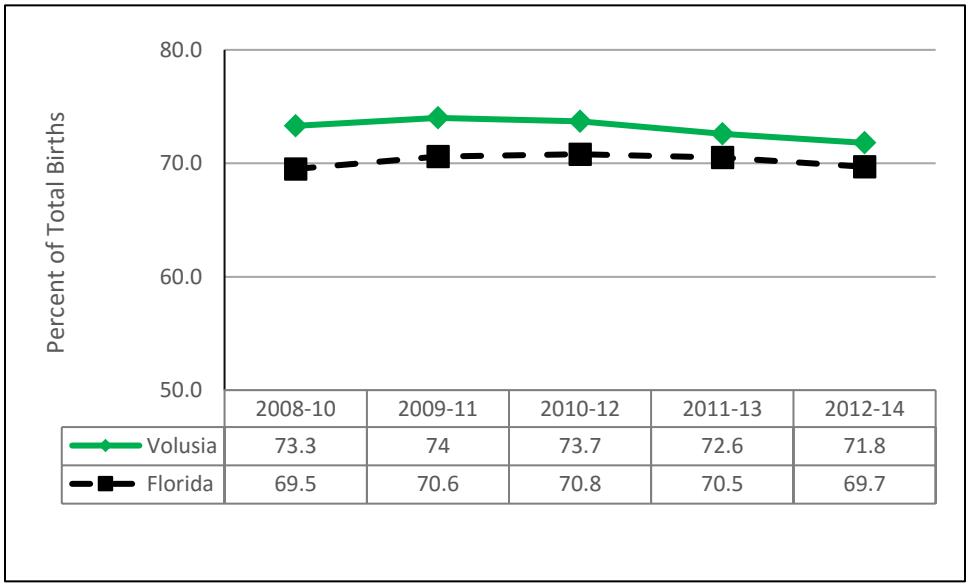
Graph 12.20 Fetal Deaths



Source: Florida Department of Health, Bureau of Vital Statistics

- The Volusia County rate increased slightly and was consistently higher than Florida over the reporting period
- The fetal mortality rate reflects the health and well-being of the population's reproductive age women and their pregnancies as well as the quality of the health care available

Graph 12.21 Births with Adequate Prenatal Care (Kotelchuck Index)

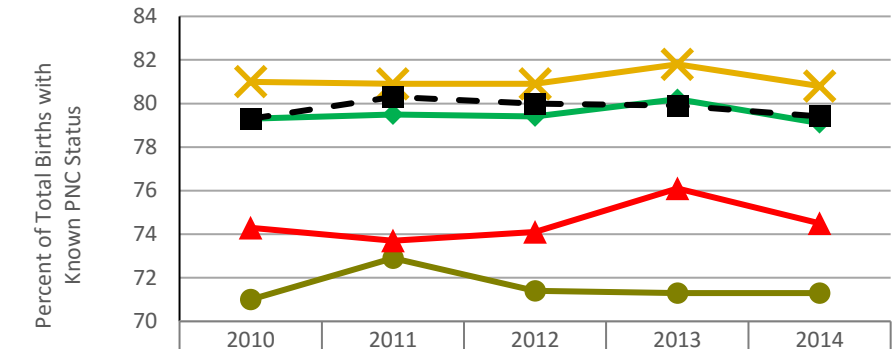


Source: Florida Department of Health, Bureau of Vital Statistics

- Although the Volusia County percentage was higher than the state, the difference declined each measurement period

Note: Indicates that prenatal care began by at least the 4th month and at least 80% of recommended prenatal visits were received

Graph 12.22 Prenatal Care Began in First Trimester

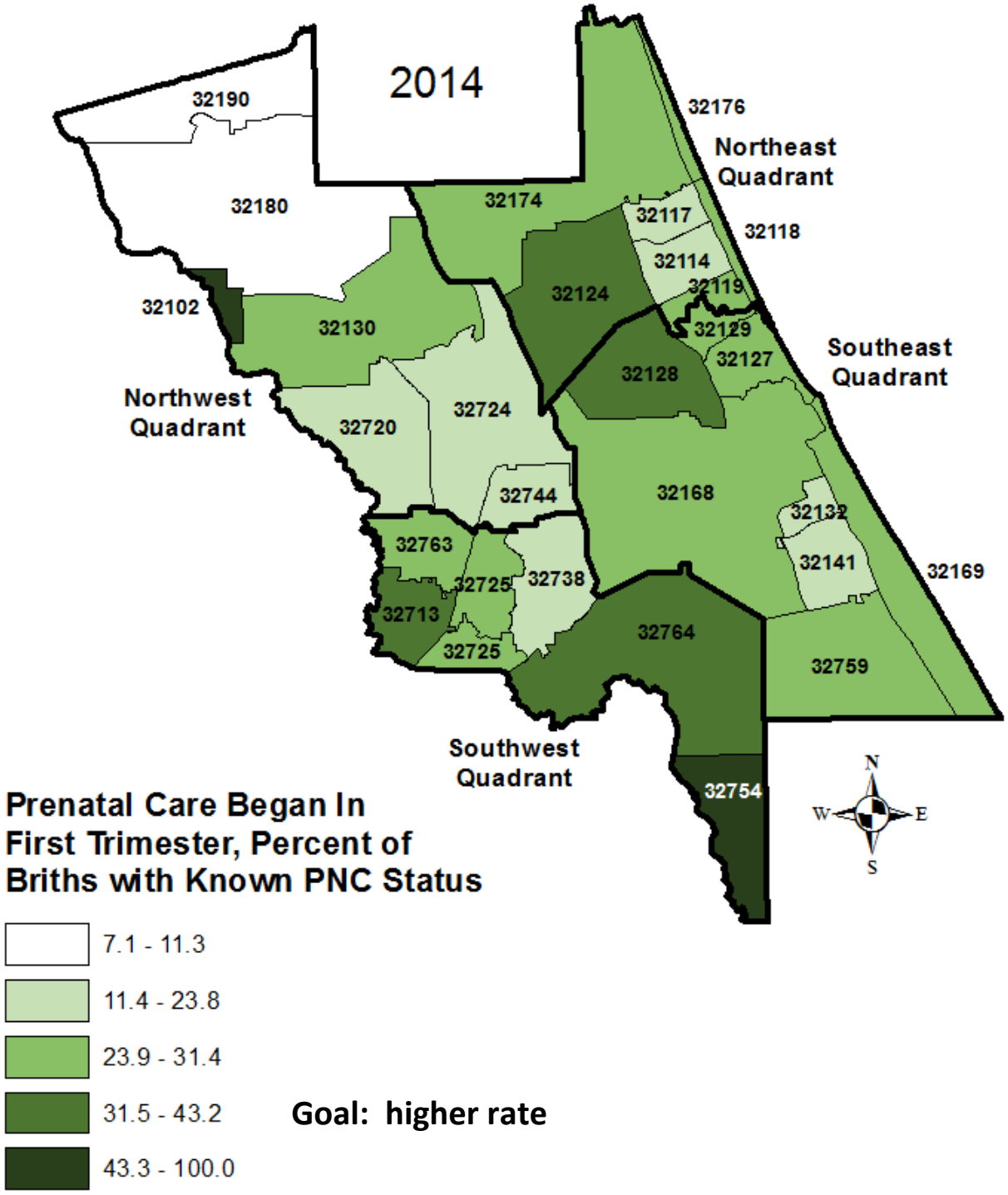


	2010	2011	2012	2013	2014
Black	71.0	72.9	71.4	71.3	71.3
White	81.0	80.9	80.9	81.8	80.8
Hispanic	74.3	73.7	74.1	76.1	74.5
Volusia	79.3	79.5	79.4	80.2	79.1
Florida	79.3	80.3	80.0	79.9	79.4

Source: Florida Department of Health, Bureau of Vital Statistics

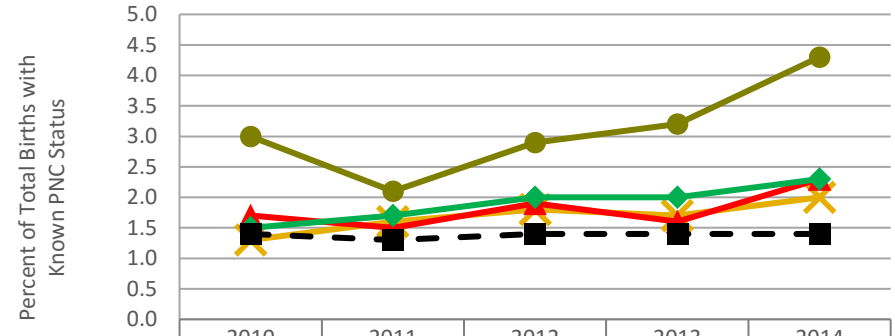
- The Volusia County percentage remained steady and was essentially the same as Florida throughout
- The percentage among Hispanics in Volusia County fluctuated slightly and was lower than the county and state
- The percentage among Blacks in Volusia County was the lowest of all groups for all years reported
- Early prenatal care helps to identify potential problems so they can be prevented or treated as early as possible

Map 12.2 Prenatal Care Began in First Trimester



Source: Florida Department of Health, Bureau of Vital Statistics
Note: Percent of Births with Known PNC Status

Graph 12.23 No Prenatal Care



	2010	2011	2012	2013	2014
Black	3.0	2.1	2.9	3.2	4.3
White	1.3	1.6	1.8	1.7	2.0
Hispanic	1.7	1.5	1.9	1.6	2.3
Volusia	1.5	1.7	2.0	2.0	2.3
Florida	1.4	1.3	1.4	1.4	1.4

Source: Florida Department of Health, Bureau of Vital Statistics

- The Volusia County percentage increased over the reporting period
- The percentage among Blacks in Volusia County increased overall and was higher than Volusia in all years reported
- Ensuring that all women receive early and adequate prenatal care is a top maternal and child health priority

13. Socio-Demographics

According to the CDC, the social factors and the physical environment are especially important because they represent the conditions in which people are born, work, & play. Quality employment opportunities can positively influence behaviors and help to create healthy lifestyles. The World Health Organization calls the living conditions that can affect health and quality of life the "social determinants of health".

Median household Income: Median household income reflects the relative affluence and prosperity of an area. Areas with higher median household incomes are likely to have more educated residents and lower unemployment rates. Higher employment rates lead to better access to health care and better health outcomes, since many families get their health insurance through their employer. Areas with higher median household incomes also have higher home values and residents enjoy more disposable income.

The 2014 Volusia median household income was $40,818, while Florida's median household income was $47,463. Volusia's median household income has been consistently lower than Florida's. Although it has increased since 2011, it has not recovered to the 2010 estimate of $41,556.

Unemployment: The unemployment rate is a key indicator of the local economy. Higher rates of unemployment have both individual and societal ramifications and long term unemployment impacts housing, access to insurance and medical care, family dynamics and is associated with a higher prevalence of both physical and behavioral health issues due to the strain and stress and lack of access to care. A high unemployment rate also places a strain on social services and government systems.

Preliminary Volusia County unemployment statistics for December 2015 have been released by the U.S. Department of Labor, Bureau of Labor Statistics, Local Area Unemployment Statistics Program. They show the civilian labor force at 236,801; total employment at 225,072 and total unemployment at 11,729, indicating an unemployment rate of 5.0%, formerly at 10.8 % in 2011.

Wages: The living hourly wage was calculated at $10.22 for a single adult living in Volusia County in 2014 and the top 3 Occupations by number of jobs in 2014 were Retail Salespersons, Cashiers, and Waiter/Waitress with hourly wages ranging from $8.99 to $9.87. Restaurant Cooks were the fastest growing occupation by percent, earning an average of $10.55 an hour.

Housing: Spending a high percentage of household income on housing can create financial hardship, especially for lower-income renters. With a limited income, paying a high rent may not leave enough money for other expenses, such as food, transportation and medical. Moreover, high rent reduces the proportion of income a household can allocate to savings each month. In 2013, almost 50% of Volusia renters spent 35% or more of their gross household income on their rent making them housing-burdened.

Poverty: According to the US Census Bureau, 27.4% of Volusia children under 18 years of age were below the poverty level and that number almost doubles for female head of households with children under 5 in 2014. According to the United Way ALICE Report cited above, 46 % of Volusia County households are ALICE (Asset Limited Income Constrained Employed). It is also significant to note, that there continues to be a disparity in poverty in Volusia County with Blacks consistently having a greater percent of individuals below the poverty level than other ethnic/racial groups, the county and the state. Blacks and Hispanics in Volusia had a greater percentage of individuals below the poverty level than the county overall or the state.

Educational Impact of Poverty and Homelessness: According to the Institute for Children and Poverty, homeless children are nine times more likely to repeat a grade, four times more likely to drop out of school, and three times more likely to be placed in special education programs than their housed peers. Volusia County Schools reported that 2322 students met the federal definition of homeless and 213 Volusia County students were classified as homeless and unaccompanied in the 2015-16 school year.

An exhaustive study by ETS Center for Research on Human Capital and Education Research in July 2013, found that children growing up in poverty complete less schooling, work and earn less as adults, are more likely to receive public assistance, and have poorer health. Boys growing up in poverty are more likely to be arrested as adults and their female peers are more likely to give birth outside of marriage. Researchers have estimated that the costs associated with child poverty total about $500 billion per year, or 4 percent of Gross Domestic Product (GDP).

Today, the achievement gap between the poor and the non-poor is twice as large as the achievement gap between Black and White students as reported by the ETC Center for Research on Human Capital and Education Research. The tracking of differences in the cognitive performance of toddlers, elementary and middle school students, and college-bound seniors shows substantial differences by income and/or poverty status.

Educational Attainment: For many, having a bachelor's degree or certification combined with possessing soft skills such promptness, strong communication skills, being a self-starter who is adaptable and able to problem solve, is the key to a solid economic future. Having a degree or in-demand certification also opens up career opportunities in a variety of fields, and is often the prerequisite to a higher-paying job. It is estimated that college graduates earn about $1 million more per lifetime than their non-graduate peers. In Volusia County 88.9% of residents 25 and older are High School graduates or higher and 22.5% hold a Bachelor’s Degree or higher.

Indicators Included:

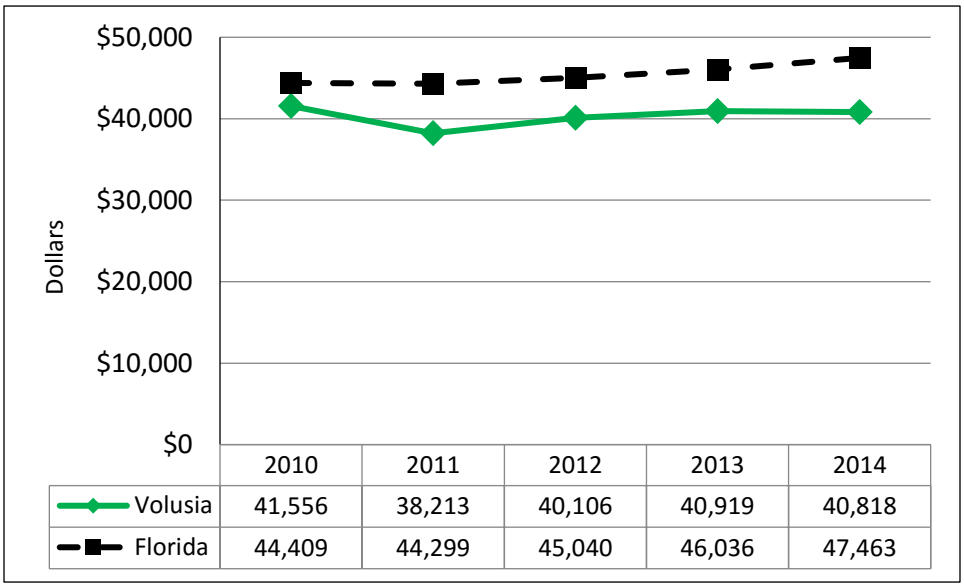
Indicator	Reference
Median Household Income	**Graph 13.1**
Families Below Poverty Level	**Graph 13.2**
Population Under Age 18 Below Poverty Level	**Graph 13.3**
Individuals Below Poverty Level	**Graph 13.4**
Elementary School Students Eligible for Free/Reduced Lunch	**Graph 13.5**
Middle School Students Eligible for Free/Reduced Lunch	**Graph 13.6**
Owner-Occupied Housing Units	**Graph 13.7**
High School Graduation Rate	**Graph 13.8**
Population 25 Years and Over Without a High School Diploma or Equivalency	**Graph 13.9**
Unemployment Rate	**Graph 13.10**
Adults Who Are Limited in Any Way in Any Activities because of Physical, Mental, or Emotional Problems	**Table 13.1**
Population Age 5+ that Speak English Less Than Very Well	**Graph 13.11**
Households where no one over age 14 speaks English "very well"	**Graph 13.12**

Other Data:

Other data related to **Socio-Demographics** can be found here:

- **Graph 1.2:** Alcohol-suspected Motor Vehicle Traffic Crashes
- **Graph 1.3:** Alcohol-suspected Motor Vehicle Traffic Crash Injuries
- **Graph 1.4:** Alcohol-suspected Motor Vehicle Traffic Crash Deaths
- **4. Barriers to Accessing Health Care**
- **Graph 7.4:** Homicide Deaths Ages 5-11
- **Graph 7.5:** Homicide Deaths Ages 12-18
- **11. Crime, Domestic Violence and Child Abuse (Entire Section)**
- **Graph 11.10:** Infant Mortality (0-364 days)
- **Graph 12.6:** Births to Mothers **> 18** Without High School Education
- **Graph 12.21:** Births with Adequate Prenatal Care (Kotelchuck Index)
- **Graph 12.22:** Prenatal Care Began in First Trimester
- **Graph 12.23:** Births with No Prenatal Care

Graph 13.1 Median Household Income

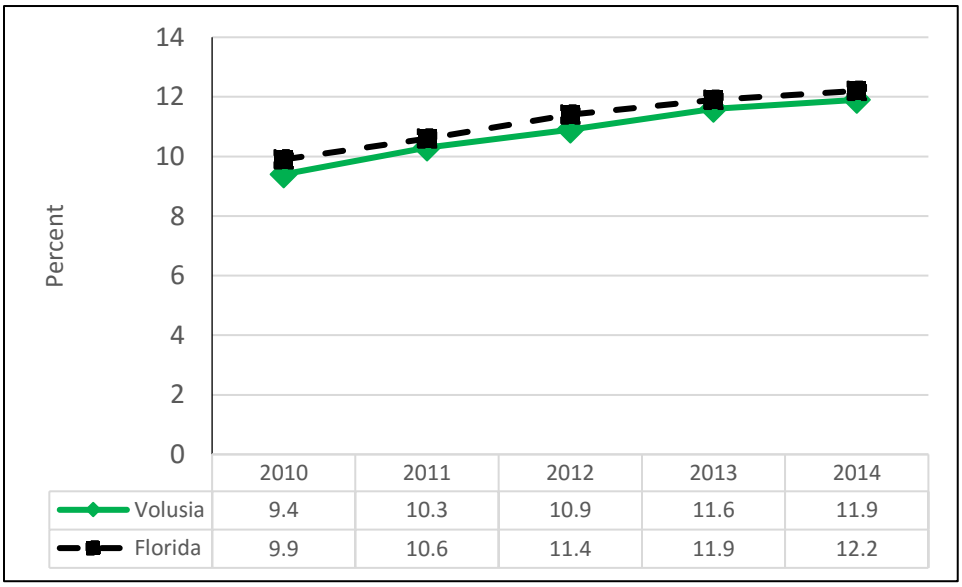


	2010	2011	2012	2013	2014
Volusia	41,556	38,213	40,106	40,919	40,818
Florida	44,409	44,299	45,040	46,036	47,463

Source: US Census Bureau, American Community Survey 5-Year Estimates

- The Volusia County median household income remained steady over the five-year period
- Volusia's median household income was consistently lower than Florida's and the difference increased over the reporting period

Graph 13.2 Families Below Poverty Level

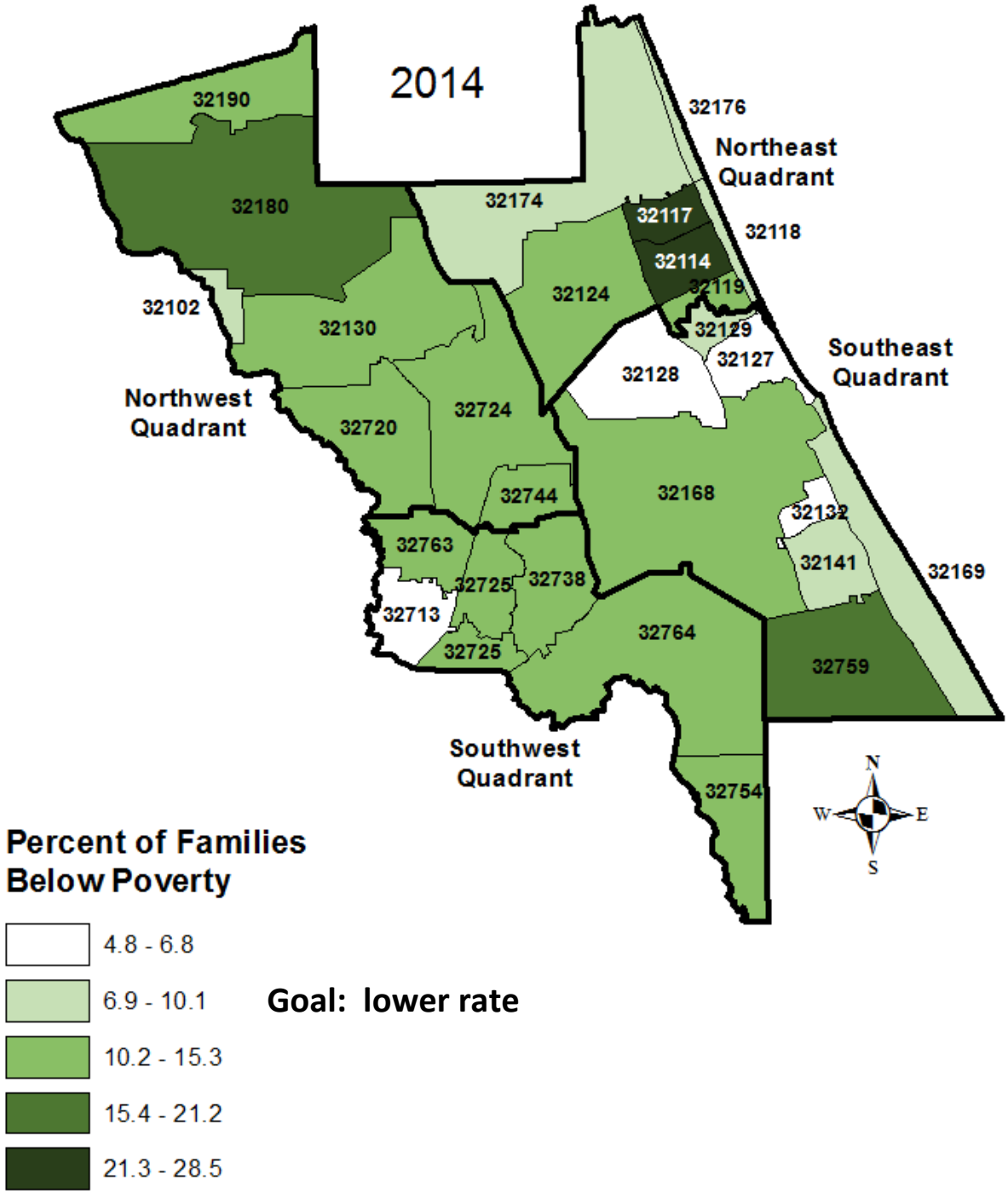


	2010	2011	2012	2013	2014
Volusia	9.4	10.3	10.9	11.6	11.9
Florida	9.9	10.6	11.4	11.9	12.2

Source: US Census Bureau, American Community Survey 5-Year Estimates

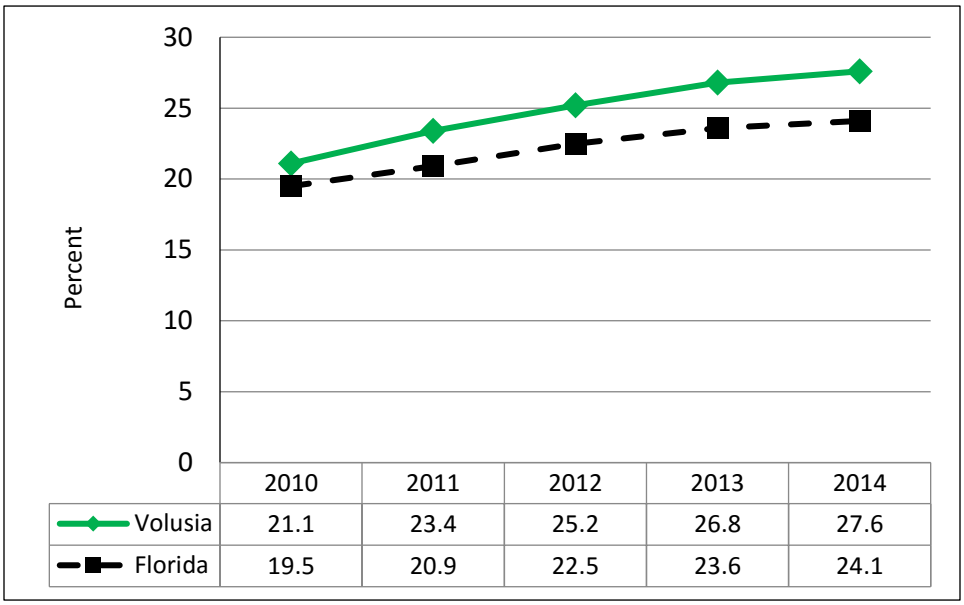
- The Volusia County percentage increased 26.6% from 2010 to 2014
- Volusia County consistently followed the state trend upward but stayed slightly lower than the state percentage

Map 14.2 Percent of Families Below Poverty Level 2014



Source: US Census Bureau, American Community Survey 2014 5-Year Estimates

Graph 13.3 Population Under Age 18 Below Poverty Level

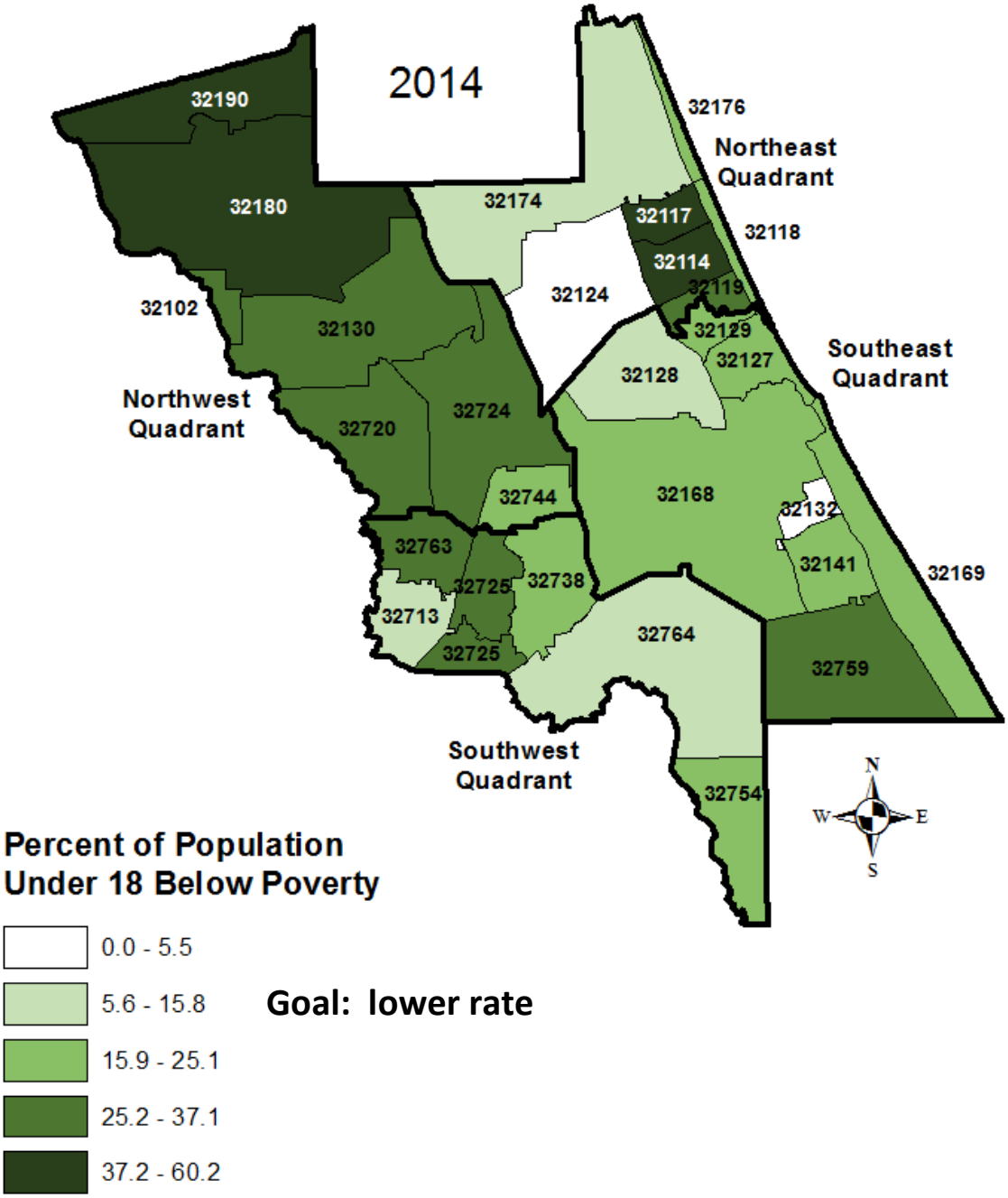


	2010	2011	2012	2013	2014
Volusia	21.1	23.4	25.2	26.8	27.6
Florida	19.5	20.9	22.5	23.6	24.1

Source: US Census Bureau, American Community Survey 5-Year Estimates

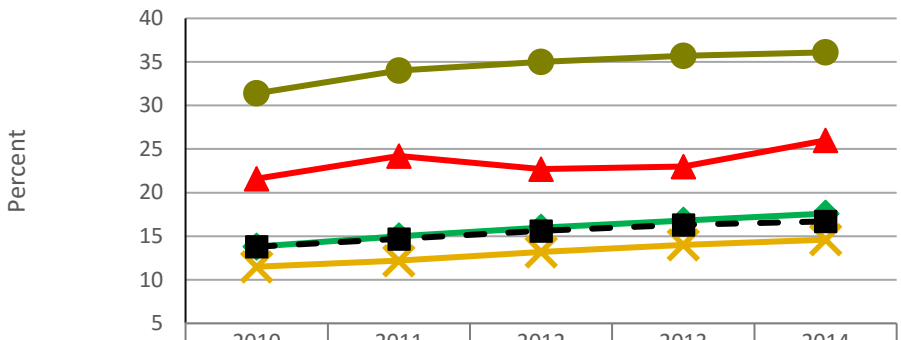
- The Volusia County percentage increased over the reporting period
- The Volusia County percentage was consistently higher than that of the state over the years reported

Map 13.3 Percent of Population Under Age 18 Below Poverty Level 2014



Source: US Census Bureau, American Community Survey 2014 5-Year Estimates

Graph 13.4 Individuals Below Poverty Level

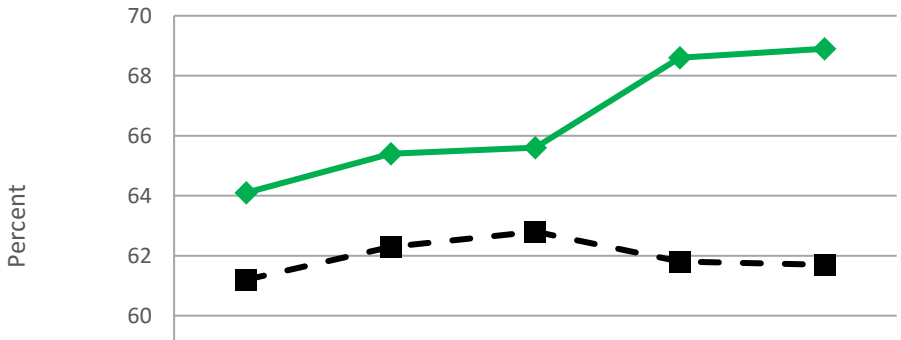


	2010	2011	2012	2013	2014
Black	31.4	34.0	35.0	35.7	36.1
White	11.5	12.2	13.2	14.0	14.6
Hispanic	21.6	24.2	22.7	23.0	26.0
Volusia	13.8	15.0	16.0	16.8	17.6
Florida	13.8	14.7	15.6	16.3	16.7

Source: US Census Bureau

- The percentage among Blacks in Volusia was consistently greater than other races/ethnicities, the county and the state.
- The percentage among Blacks and Hispanics in Volusia County was greater than the county and the state.

Graph 13.5 Elementary School Students Eligible for Free/Reduced Lunch

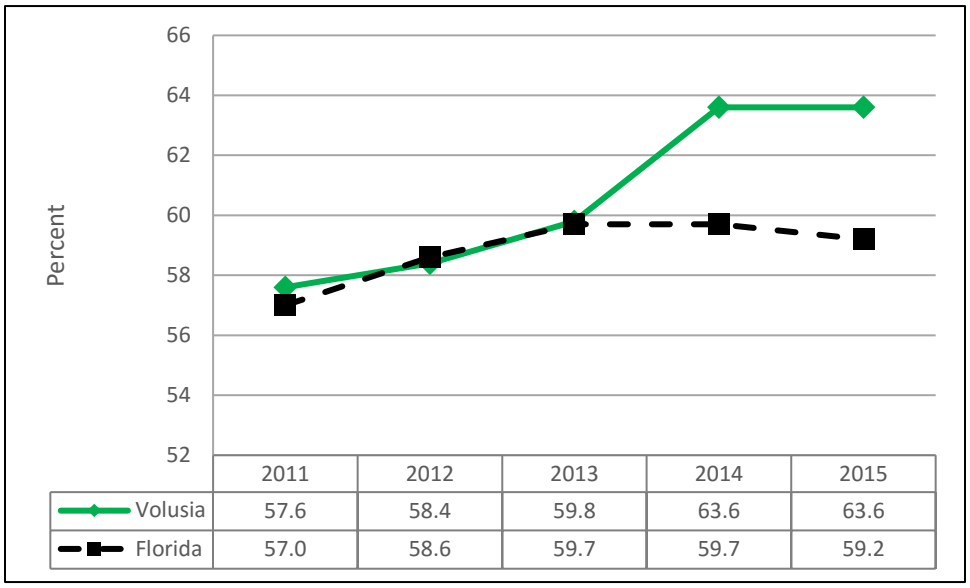


	2011	2012	2013	2014	2015
Volusia	64.1	65.4	65.6	68.6	68.9
Florida	61.2	62.3	62.8	61.8	61.7

Source: Florida Department of Education, Education Information and Accountability Services

- The Volusia County percentage increased throughout the years reported
- The Volusia County percentage was higher than that of the state for all years reported
- The Volusia County percentage continued to increase from 2013 to 2015 and the Florida percentage peaked then decreased

Graph 13.6 Middle School Students Eligible for Free/Reduced Lunch

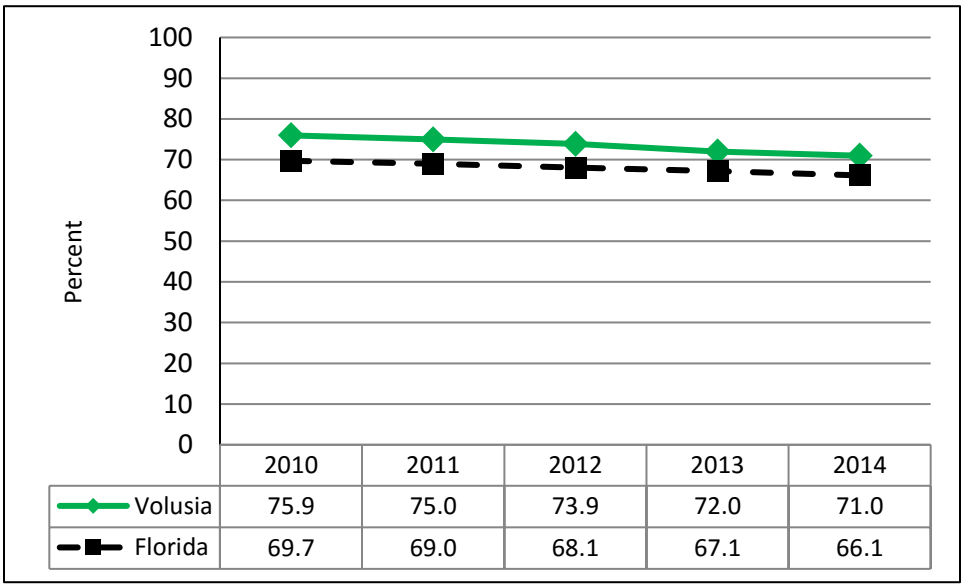


	2011	2012	2013	2014	2015
Volusia	57.6	58.4	59.8	63.6	63.6
Florida	57.0	58.6	59.7	59.7	59.2

Source: Florida Department of Education, Education Information and Accountability Services

- The Volusia County percentage increased by 10 percent over the years reported
- The Volusia County percentage was similar to Florida from 2011 to 2013 and exceeded Florida in 2014 and 2015

Graph 13.7 Owner-Occupied Housing Units

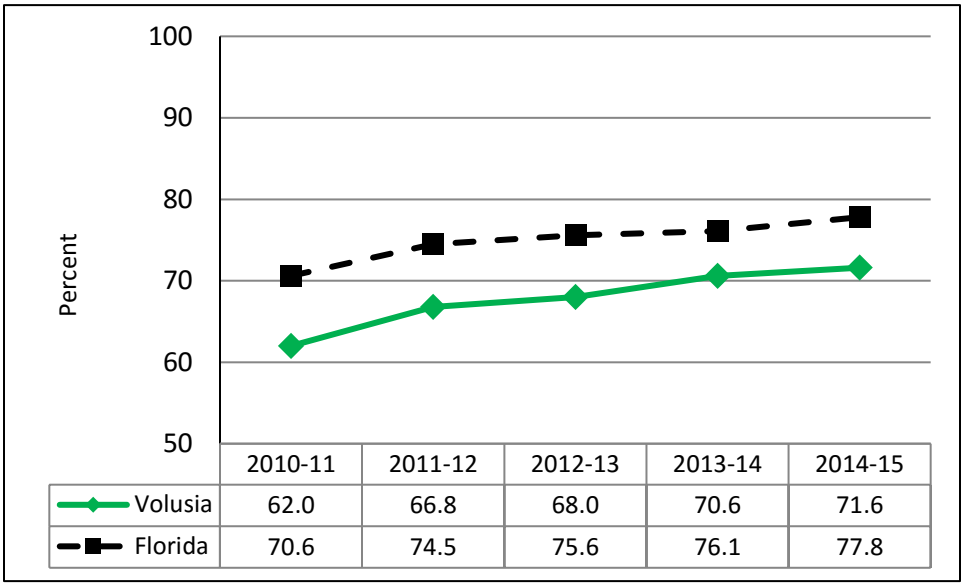


	2010	2011	2012	2013	2014
Volusia	75.9	75.0	73.9	72.0	71.0
Florida	69.7	69.0	68.1	67.1	66.1

Source: US Census Bureau, American Community Survey 5-Year Estimates

- The Volusia County percentage trended downward slightly from 2006-10 to 2010-14
- The Volusia County percentage was higher than Florida for each year from 2006-10 to 2010-14

Graph 13.8 High School Graduation Rate

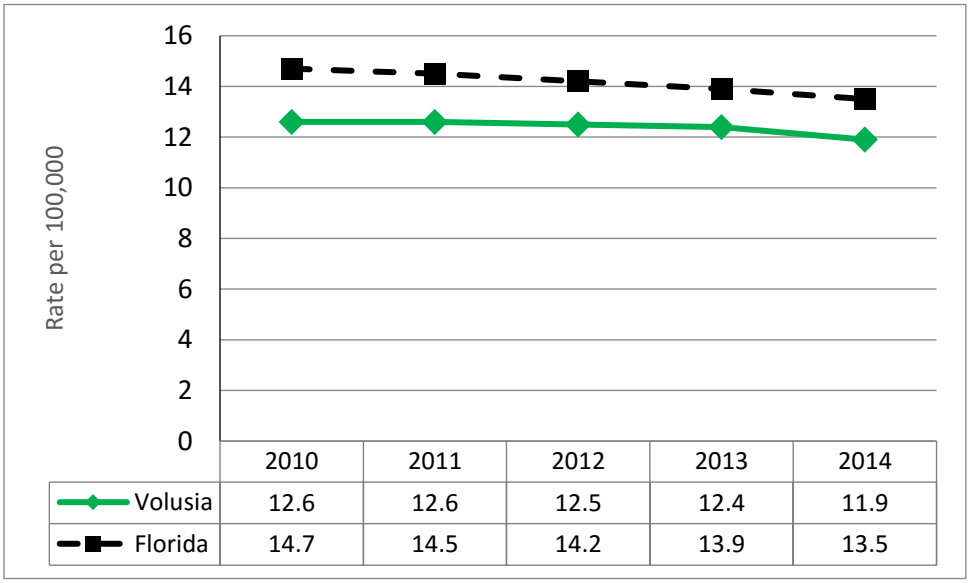


	2010-11	2011-12	2012-13	2013-14	2014-15
Volusia	62.0	66.8	68.0	70.6	71.6
Florida	70.6	74.5	75.6	76.1	77.8

Source: Florida Department of Education, Education Information and Accountability Services

- The Volusia County percentage steadily increased over the reporting period
- The Volusia County percentage was lower than the Florida percentage over the reporting period

Graph 13.9 Population 25 Years and Over Without a High School Diploma or Equivalency

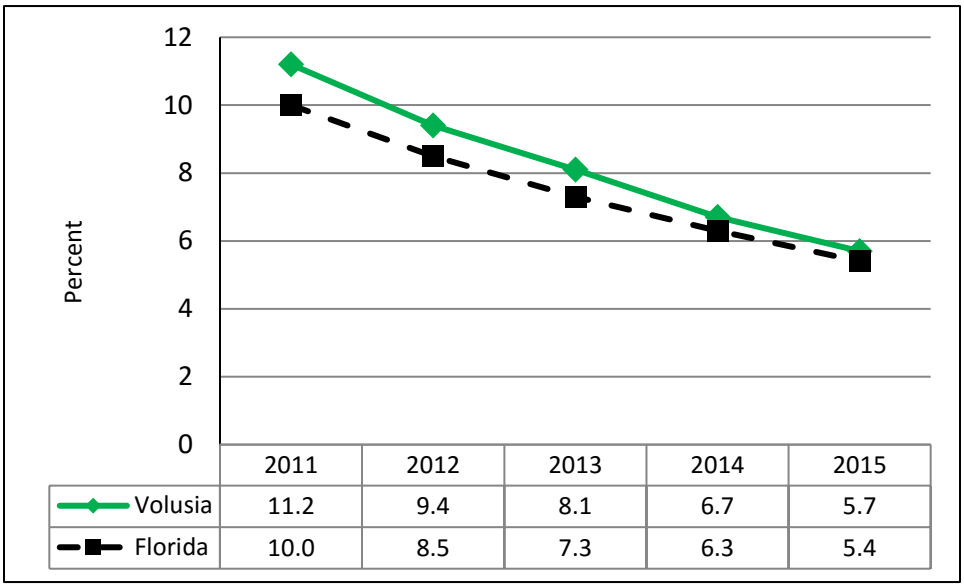


	2010	2011	2012	2013	2014
Volusia	12.6	12.6	12.5	12.4	11.9
Florida	14.7	14.5	14.2	13.9	13.5

Source: US Census Bureau, American Community Survey 5-Year Estimates

- The rate in Volusia County was lower than Florida and steadily declined from 2010 to 2014

Graph 13.10 Unemployment Rate



Source: US Bureau of Labor Statistics, Local Area Unemployment Statistics

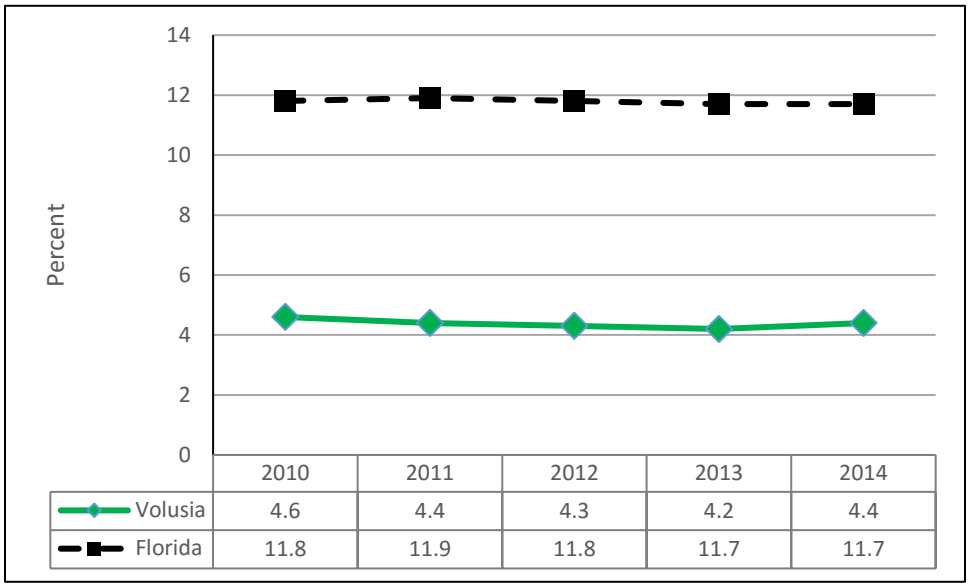
- The Volusia County rate remained above the Florida rate over the years reported
- The Volusia County rate decreased steadily from 2011 through 2015
- The rates for December, 2015, were 5.0 in Volusia and 4.8 in Florida.

Table 13.11 Adults Who Are Limited in Any Way in Any Activities because of Physical, Mental, or Emotional Problems

Adults who are limited in any way in any activities because of physical, mental, or emotional problems 2013	**Volusia**	**Florida**
	Percent	Percent
Total – Overall	23.1	21.2
Men	23.8	20.2
Women	22.4	22.1
Non-Hispanic, White	23.4	23.2
Non-Hispanic, Black	24.4	17.8
Hispanic	26.7	18.6
18-44	11.1	13.5
45-64	31.0	26.0
65 & Older	27.0	28.6
< High School	18.6	28.7
High School/GED	22.2	21.8
> High School	24.4	18.9
< $25,000	32.6	30.7
$25,000-$49,999	21.3	20.4
$50,000 or More	17.5	12.8

Source: Florida Behavioral Risk Factor Surveillance System

Graph 13.12 Population Age 5+ that Speak English Less Than Very Well

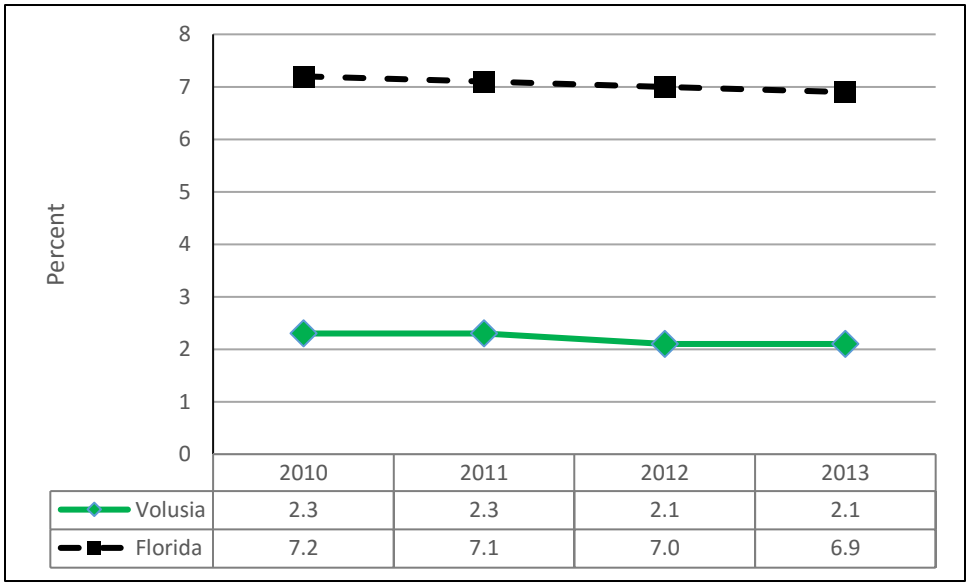


	2010	2011	2012	2013	2014
Volusia	4.6	4.4	4.3	4.2	4.4
Florida	11.8	11.9	11.8	11.7	11.7

Source: US Bureau of the Census, American Community Survey

- The Volusia County percentage was much lower than Florida.
- The Volusia County percentage remained steady over the reporting period

Graph 13.13 Households Where No One Over Age 14 Speaks English "Very Well"



	2010	2011	2012	2013
Volusia	2.3	2.3	2.1	2.1
Florida	7.2	7.1	7.0	6.9

Source: US Bureau of the Census, American Community Survey

- The Volusia County percentage remained consistently lower than the state of Florida.
- The Volusia County percentage remained steady over the reporting period

Appendix A: CHNA Participants

CHNA Participating Partners

Florida Department of Health – Volusia County

- Patricia Boswell, Administrator
- Loreen Husband, Community Health
- Thomas Bryant III, Office of Informatics and Assessment
- Ron Rondeau, Interim Director
- Dona DeMarsh Butler, Director of Community Assistance Volusia County

Florida Hospital

- Tim Cook, Former CEO – DeLand
- Robert Fulbright, Regional CEO
- Craig Bair, Marketing Leader - New Smyrna
- Beverly Ivey, Assistant VP Integrated Marketing
- Lorenzo Brown, CEO – DeLand
- Deborah McNabb, Community Benefit Manager - Fish Memorial
- Jeff Davidson, Finance Leader - New Smyrna
- Ed Noseworthy, CEO Memorial Medical Center
- Robert Denninger, CEO - Fish Memorial
- Jill Piazza, VP of Care Integration
- Nancy Evolga, Executive Director Human Resources - New Smyrna
- Daryl Tol, Former CEO Memorial Medical Center (now President and CEO Orlando market)
- Shannon Finley, Community Benefit Manager - Memorial Medical Center
- Windy Weisheimer, Quality Leader - New Smyrna
- Christina Fitzsimons, Community Benefit Manager – DeLand

Halifax Health

- Bill Griffin, Director, Research and Planning
- Bob Williams, VP of Population Health and Business Development
- Sharon Warriner, Grant Writer, Business Development

One Voice for Volusia

- Julie Barrow, Executive Director
- Lynn Kennedy, Project Director
- Carrie Baird, Consultant - Baird Solutions

Leadership Team Participants	
Family Health Source Medical Centers	Laurie Asbury, CEO
United Way of Volusia/Flagler	Dennis Burns, President-CEO
Lutheran Services Florida Health Systems	Christine Cauffield, Vice President of Substance Abuse and Mental Health
	Laurie Chesley, CFO of Substance Abuse and Mental Health
Stewart-Marchman-Act Behavioral Healthcare	Ivan Cosimi, CEO
	Rhonda Harvey, COO
Volusia County Schools	Debbie Fisher, Coordinator of Health Services
Jesus Clinic	William Gilmer, Jesus Clinic Founder/Physician
Stetson University	Laura Gunn, Associate Professor and Chair of Integrative Health Science
Council on Aging	Sarah Gurtis, CEO
Volusia-Flagler Family YMCA	Bev Johnson, Executive Vice President of Health Strategy
CareerSource Flagler/Volusia	Robin King, President/CEO
Early Learning of Flagler/Volusia	D.J. Lebo, Executive Director
Healthy Start Coalition of Flagler and Volusia	Rosha Loach, One Voice for Volusia MPH Intern
	Dixie Morgese, Executive Director of Healthy Start
Florida Department of Health – Volusia	Kevin Murphy, Operations Consultant
United Way of Volusia/Flagler	Ray Salazar, President
Easter Seals	Lynn Sinnott, President
Bethune-Cookman University	Deanna Wathington, Executive Dean/Professor, College of Health Sciences

One Voice for Volusia Coalition CHNA Vetting Attendance
April 13, 2016 at the Florida Department of Health in Volusia County

Name	Agency
Abraham, Lydia	Volunteers for Community Impact
Acevedo, Kathy	Friends of Library Access
Anthony, Wendy	Health Planning Council of Northeast Florida
Apicella, Vickie	Daytona State College-Fresh Start Program
Barbosa, Maria	DIVAS International
Barnes, Kimberly	UCF Student/OVFV Intern
Barnette, Kate	Volusia County Schools
Bass, Maia	Children's Home Society
Beauregard, Micky	Domestic Abuse Council
Berardi, Lois	Community Resident
Biro, Edie	VOTRAN
Blair, Marianne	Volusia County Schools
Bodziak, Ann	Florida Department of Health in Volusia County
Bolin, Jarrett	Magellan Complete Care
Boswell, Patricia	FDOH-Volusia
Boyle, Bryan	Boyle Financial
Bruno, Frank	Volusia COAD (Community Organizations Active in Disaster)
Bryant III, Charles	City of Daytona Beach Redevelopment Dept.
Bullard, Sam	Children's Home Society
Burgess-Hall, Nancy	Halifax Council of the Blind
Case, Joyce	Health Planning Council of Northeast Florida
Catlett, Darlyne	Florida Hospital Community Care
Cerullo, Jean	National Federation of the Blind
Cerullo, Peter	Division of Blind Services/National Federation of the Blind
Chaisson, Jeff	Christian Center for Community Connections
Chrapek, Karen	Darryl Strawberry Recovery Center
Clarke, Sharon	Magellan Complete Care
Coalson, Carl	SEDNET-Volusia, Flagler, Putnam, and St. John's Counties
Collett, Kyle	MTM, Inc
Crowe, Allison	UF Child Protection Team
Dasilva, Priscilla	Florida Hospital Community Care
Davis, Belinda	Community Resident
Davitt, Lisa	PACE Center for Girls
Deegan, Tiffany	CHS
DeVane, Steven	Duvall Home
Dick, Raymi	Darryl Strawberry Recovery Center
Edgcomb, Courtney	United Way of Volusia & Flagler Counties
Edwards-Johnson, Angela	UCF-Daytona Beach
Esposito, Shelby	Daytona Beach Health and Rehabilitation Center
Faison, Tracy	Pediatric Health Choice

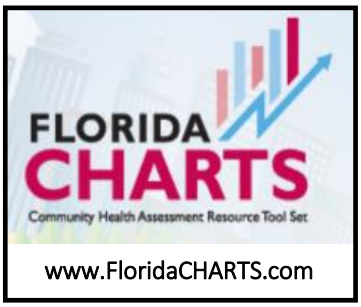
Name	Agency
Ford, Harold	Molina Healthcare
Fredsall, Cheryl	Daytona Beach Health and Rehab
German, Akisia	Bethune Cookman University-Odessa Chambliss Center
Gillikin, Doug	James Moore & Co.
Glazner, Phil	Volusia County Pharmacy Association
Graser, Tegan	Children's Home Society
Hall, Doug	DB Mayor's Alliance for Persons with Disabilities/Friends of Library Access, Inc.
Hall, Khalilah	Aetna/Coventry One
Husband, Laureen	Florida Department of Health in Volusia County
Husbands, Ashleigh	FL LINC Project
Huser, Lisa	Pathfinder Advocacy Center
Jackson, Sheila	United Way of Volusia-Flagler Counties
James, Patricia	County of Volusia-Human Services
Jennings, William	Volusia County Department of Corrections
Johnson, Catherine	Volunteers for Community Impact
Johnson, Chantel	Daytona Beach Health and Rehabilitation Center
Johnson, Lisa	PACE Center for Girls
Kirvai, John	State AB&T
Kress, Victoria	Stewart Marchman Act Behavioral Healthcare
Lawson, Devonte	The Salvation Army
Lee, Diana	Bethune Cookman University
Lewandowski, Jillian	Department of Juvenile Justice
Lill, Mica	Volusia/Flagler YMCA
Loach, Rosha	The Healthy Start Coalition of Flagler and Volusia
Long, Maria	The Healthy Start Coalition of Flagler and Volusia
Luis Torres, Angel	Pathfinder Advocacy Center
Maddox, Dorothy	Housing Authority of the City of Daytona Beach
Martin-Morgan, Dianne	Volusia County Schools
Massey, Christopher	Circuit 7
McGinley, Loren	CareerSource Flagler-Volusia
McMullin, Lori	Conklin Center
Medina, Michelle	Florida Hospital
Merrithew, Damiel	Department of Juvenile Justice
Miller, Allison	Early Learning Coalition
Nichols, Elexia	SMA Behavioral-Beach House
Nightingale, Joanna	Pediatric Health Choice
Papaj, Andrea	Eldersource/SHINE
Perry. Andy	Wise Resource
Philio, Cher	Halifax Health – Healthy Communities
Pietrewicz, Dawn	Health Planning Council of Northeast Florida
Poole, Melissa	Family Health Source
Preston, Gloria	Florida Health Care Plans
Prince, Heather	Stewart-Marchman-Act Behavioral Healthcare
Prince-Mack, Ebony	SMA Beach House

Name	Agency
Reddick, Shalacka	Community Resident
Ringue, Amy	Daytona State College
Rivera, Lisa	MTM, Inc.
Roberts, Joann	Adoption and Family Support Center
Robinson, Cindy	Florida Health Care Plans
Roebling, Christina	United Way of Volusia-Flagler
Rondeau, Ron	Florida Department of Health in Volusia County
Royall, Denise	Domestic Abuse Council
Ryals, Lisa	Boys and Girls Clubs of Volusia and Flagler Counties
Salazar, Angela	Family Health Source
Sally, Steve	The House Next Door
Sentelik, Carolyn	Stewart-Marchman-Act Behavioral Healthcare
Sinnott, Lynn	Easter Seals Volusia Flagler
Small, Vettrys	Children's Home Society
Smith, Thalia	The Healthy Start Coalition of Flagler and Volusia
Soule, Elizabeth	Volusia County Teen Court
Stout, Owanna	BAYS Florida
Szabo, John	AB&T
Taylor, Heather	Miss Wheelchair Florida
Taylor, Kim	Guardian ad Litem Program
Toubman, Jo	NTF
Walsh, Anthony	James Moore & Co
Warriner, Sharon	Children's Advisory Board
White, Theresa	Early Steps
Williams, Johnny	Health Rehab
Wise, Teresa	Wise Resource
Wilary, Loretta	United Way of Volusia Flagler
Young, Kim	Break the Cycle
One Voice Staff	
Barrow, Julie	Executive Director
Kennedy, Lynn	Project Director
Conroy, Hope	Youth Outreach Coordinator
Dinda, Nichole	Clerical Assistant
Baird, Carrie	CHNA Consultant, Baird Solutions

Appendix B: Data Sources

The secondary data included in this document was gathered, formatted and analyzed in partnership with the Florida Department of Health in Volusia County Office of Informatics. Special thanks are extended to the Office of Informatics staff for their significant contribution to this project.

The majority of the data was pulled directly from the Florida Department of Health **Florida CHARTS** system that is an assemblage of data from over twenty-five programs and agencies. Throughout this document, the specific data source noted in the **Florida CHARTS** system was listed for each graph, table or map even if the data was gathered through the **Florida CHARTS** system.



A.L.I.C.E. Report United Way of Volusia-Flagler Counties
http://www.unitedway-vfc.org

Centers for Disease Control (CDC)
http://www.cdc.gov/

Florida Agency for Health Care Administration
www.ahca.myflorida.com

Florida Department of Children and Families
www.myflfamilies.com, www.centerforchildwelfare.org/Datareports/TrendReports.shtml

Florida Safe Families Network Data Mart/Data Registry
Florida Youth Substance Abuse Survey
http://myflfamilies.com/service-programs/substance-abuse/fysas

Florida Department of Education
www.fldoe.org

Education Information and Accountability Services
Office of Early Learning
Office of Safe Schools

Florida Department of Health
www.doh.state.fl.us, www.floridacharts.com

Bureau of Epidemiology
Bureau of HIV/AIDS
Bureau of Immunization
Bureau of STD Prevention and Control
Bureau of TB & Refugee Health
Bureau of Vital Statistics
Florida Behavioral Risk Factor Surveillance System
Florida Department of Health Physician Workforce Surveys
Florida Youth Tobacco Survey
Office of Injury Prevention
WIC and Nutritional Services

Florida Department of Highway Safety and Motor Vehicles
www.flhsmv.gov

Florida Department of Juvenile Justice
www.djj.state.fl.us

Florida Department of Law Enforcement
www.fdle.state.fl.us

Florida Department of Transportation
Florida Commission for the Transportation Disadvantaged
www.dot.state.fl.us/ctd

Florida Office of Insurance Regulation
www.floir.com

Florida Research and Economic Information Database Application
http://freida.labormarketinfo.com

Florida Youth Substance Abuse Survey
http://www.myflfamilies.com/service-programs/substance-abuse/fysas/2014

Healthy Kids
http://www.healthykids.org

Healthy People 2020 Healthy People, A Federal Government Web Site Managed by the US Department of Health and Human Services
http://www.healthypeople.gov

Poverty in America
www.livingwage.mit.edu

Merlin, Florida's Web-Based Reportable Disease Surveillance System
http://www.floridahealth.gov/

National Association of County & City Health Officials (NACCHO)
http://www.naccho.org/

Northeast Florida Counts
www.nefloridacounts.org
Demographic Data, *Claritas*

Schedule H (Form 990), Hospitals IRS
http://www.irs.gov/uac/About-Schedule-H-Form-990. 19

Social Determinates of Health
www.cdc.gov/socialdeterminants/Definitions.html

U.S. Census Bureau
http://www.census.gov and https://www.census.gov/census2000/raceqandas.html

American Community Survey
American Community Survey 1-year estimates
American Community Survey 5-year estimates

U.S. Department of Labor, Bureau of Labor Statistics
http://www.bls.gov

U.S. Department of Health and Human Services
http://www.hhs.gov

U. S. Department of Health and Human Services Health Resources and Services Administration (HRSA)
http://www.hrsa.gov/shortage/ index.html

University of South Florida, Florida Mental Health Institute
http://bakeract.fmhi.usf.edu/

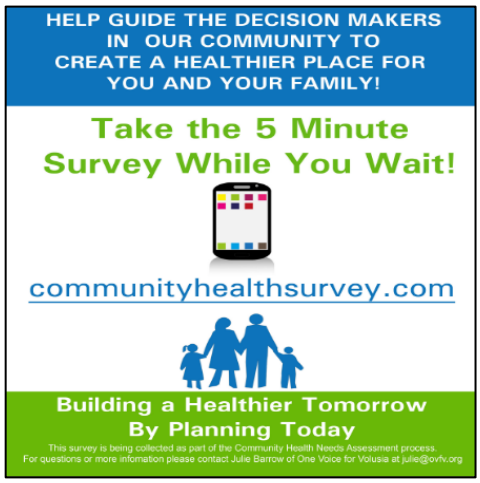
U. S. Preventive Services Task Force (USPSTF)
http://www.uspreventiveservicestaskforce.org/index.html.

World Health Organization (WHO)
http://www.who.int/healthsystems/hss_glossary/en/index5.html
http://wwwtopics/chronic_diseases/en/
http://www.who.int/topics/public_health_surveillance/en/

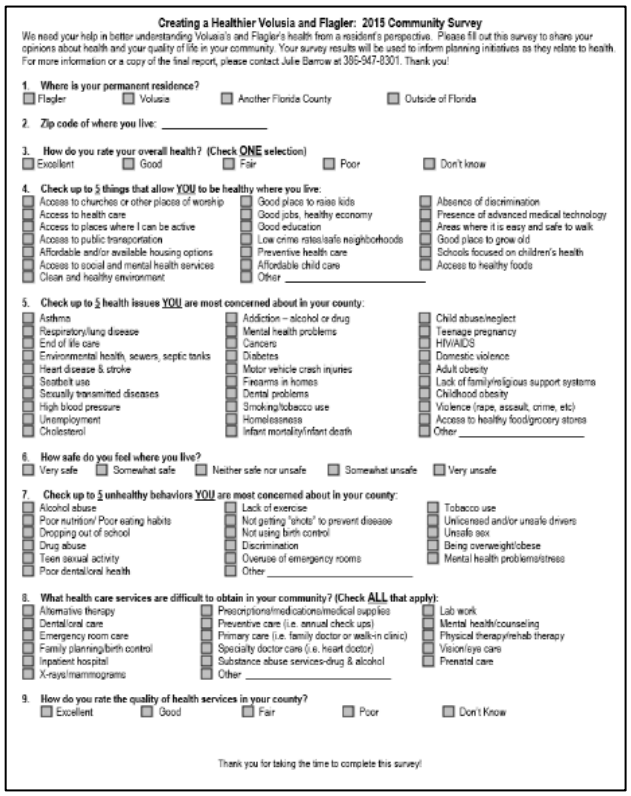
Appendixes C: Community Survey Instrument

Creating a Healthier Volusia and Flagler:
2015-16 Community Surveys in English and Spanish

Promotional Items for web survey



Paper Surveys available in English and Spanish



Creating a Healthier Volusia and Flagler: 2015 Community Survey

We need your help in better understanding Volusia's and Flagler's health from a resident's perspective. Please fill out this survey to share your opinions about health and your quality of life in your community. Your survey results will be used to inform planning initiatives as they relate to health. For more information or a copy of the final report, please contact Julie Barrow at 386-947-8301. Thank you!

1. **Where is your permanent residence?**
☐ Flagler ☐ Volusia ☐ Another Florida County ☐ Outside of Florida

2. **Zip code of where you live:** _____

3. **How do you rate your overall health? (Check ONE selection)**
☐ Excellent ☐ Good ☐ Fair ☐ Poor ☐ Don't know

4. **Check up to 5 things that allow YOU to be healthy where you live:**
☐ Access to churches or other places of worship
☐ Access to health care
☐ Access to places where I can be active
☐ Access to public transportation
☐ Affordable and/or available housing options
☐ Access to social and mental health services
☐ Clean and healthy environment
☐ Good place to raise kids
☐ Good jobs, healthy economy
☐ Good education
☐ Low crime rates/safe neighborhoods
☐ Preventive health care
☐ Affordable child care
☐ Other _____
☐ Absence of discrimination
☐ Presence of advanced medical technology
☐ Areas where it is easy and safe to walk
☐ Good place to grow old
☐ Schools focused on children's health
☐ Access to healthy foods

5. **Check up to 5 health issues YOU are most concerned about in your county:**
☐ Asthma
☐ Respiratory/lung disease
☐ End of life care
☐ Environmental health, sewers, septic tanks
☐ Heart disease & stroke
☐ Seatbelt use
☐ Sexually transmitted diseases
☐ High blood pressure
☐ Unemployment
☐ Cholesterol
☐ Addiction – alcohol or drug
☐ Mental health problems
☐ Cancers
☐ Diabetes
☐ Motor vehicle crash injuries
☐ Firearms in homes
☐ Dental problems
☐ Smoking/tobacco use
☐ Homelessness
☐ Infant mortality/infant death
☐ Child abuse/neglect
☐ Teenage pregnancy
☐ HIV/AIDS
☐ Domestic violence
☐ Adult obesity
☐ Lack of family/religious support systems
☐ Childhood obesity
☐ Violence (rape, assault, crime, etc)
☐ Access to healthy food/grocery stores
☐ Other _____

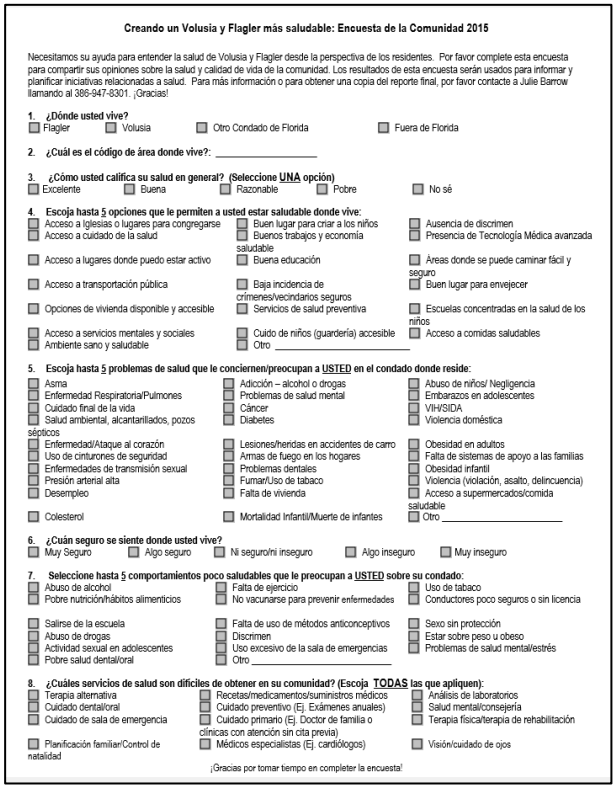
6. **How safe do you feel where you live?**
☐ Very safe ☐ Somewhat safe ☐ Neither safe nor unsafe ☐ Somewhat unsafe ☐ Very unsafe

7. **Check up to 5 unhealthy behaviors YOU are most concerned about in your county:**
☐ Alcohol abuse
☐ Poor nutrition/ Poor eating habits
☐ Dropping out of school
☐ Drug abuse
☐ Teen sexual activity
☐ Poor dental/oral health
☐ Lack of exercise
☐ Not getting "shots" to prevent disease
☐ Not using birth control
☐ Discrimination
☐ Overuse of emergency rooms
☐ Other _____
☐ Tobacco use
☐ Uninsured and/or unsafe drivers
☐ Unsafe sex
☐ Being overweight/obese
☐ Mental health problems/stress

8. **What health care services are difficult to obtain in your community? (Check ALL that apply):**
☐ Alternative therapy
☐ Dental/oral care
☐ Emergency room care
☐ Family planning/birth control
☐ Inpatient hospital
☐ X-rays/mammograms
☐ Prescriptions/medications/medical supplies
☐ Preventive care (i.e. annual check ups)
☐ Primary care (i.e. family doctor or walk-in clinic)
☐ Specialty doctor care (i.e. heart doctor)
☐ Substance abuse services-drug & alcohol
☐ Other _____
☐ Lab work
☐ Mental health/counseling
☐ Physical therapy/rehab therapy
☐ Vision/eye care
☐ Prenatal care

9. **How do you rate the quality of health services in your county?**
☐ Excellent ☐ Good ☐ Fair ☐ Poor ☐ Don't Know

Thank you for taking the time to complete this survey!



Creando un Volusia y Flagler más saludable: Encuesta de la Comunidad 2015

Necesitamos su ayuda para entender la salud de Volusia y Flagler desde la perspectiva de los residentes. Por favor complete esta encuesta para compartir sus opiniones sobre la salud y calidad de vida de la comunidad. Los resultados de esta encuesta serán usados para informar y planificar iniciativas relacionadas a salud. Para más información o para obtener una copia del reporte final, por favor contacte a Julie Barrow llamando al 386-947-8301. ¡Gracias!

1. **¿Dónde usted vive?**
☐ Flagler ☐ Volusia ☐ Otro Condado de Florida ☐ Fuera de Florida

2. **¿Cuál es el código de área donde vive?:** _____

3. **¿Cómo usted califica su salud en general? (Seleccione UNA opción)**
☐ Excelente ☐ Buena ☐ Razonable ☐ Pobre ☐ No sé

4. **Escoja hasta 5 opciones que le permiten a usted estar saludable donde vive:**
☐ Acceso a Iglesias o lugares para congregarse
☐ Acceso a cuidado de la salud
☐ Acceso a lugares donde puedo estar activo
☐ Acceso a transportación pública
☐ Opciones de vivienda disponible y accesible
☐ Acceso a servicios mentales y sociales
☐ Ambiente sano y saludable
☐ Buen lugar para criar a los niños
☐ Buenos trabajos y economía saludable
☐ Buena educación
☐ Baja incidencia de crímenes/vecindarios seguros
☐ Servicios de salud preventiva
☐ Cuido de niños (guardería) accesible
☐ Otro _____
☐ Ausencia de discrimen
☐ Presencia de Tecnología Médica avanzada
☐ Áreas donde se puede caminar fácil y seguro
☐ Buen lugar para envejecer
☐ Escuelas concentradas en la salud de los niños
☐ Acceso a comidas saludables

5. **Escoja hasta 5 problemas de salud que le conciernen/preocupan a USTED en el condado donde reside:**
☐ Asma
☐ Enfermedad Respiratoria/Pulmones
☐ Cuidado final de la vida
☐ Salud ambiental, alcantarillados, pozos sépticos
☐ Enfermedad/Ataque al corazón
☐ Uso de cinturones de seguridad
☐ Enfermedades de transmisión sexual
☐ Presión arterial alta
☐ Desempleo
☐ Colesterol
☐ Adicción – alcohol o drogas
☐ Problemas de salud mental
☐ Cáncer
☐ Diabetes
☐ Lesiones/heridas en accidentes de carro
☐ Armas de fuego en los hogares
☐ Problemas dentales
☐ Fumar/Uso de tabaco
☐ Falta de vivienda
☐ Mortalidad Infantil/Muerte de infantes
☐ Abuso de niños/ Negligencia
☐ Embarazos en adolescentes
☐ VIH/SIDA
☐ Violencia doméstica
☐ Obesidad en adultos
☐ Falta de sistemas de apoyo a las familias
☐ Obesidad infantil
☐ Violencia (violación, asalto, delincuencia)
☐ Acceso a supermercados/comida saludable
☐ Otro _____

6. **¿Cuán seguro se siente donde usted vive?**
☐ Muy Seguro ☐ Algo seguro ☐ Ni seguro/ni inseguro ☐ Algo inseguro ☐ Muy inseguro

7. **Seleccione hasta 5 comportamientos poco saludables que le preocupan a USTED sobre su condado:**
☐ Abuso de alcohol
☐ Pobre nutrición/hábitos alimenticios
☐ Salirse de la escuela
☐ Abuso de drogas
☐ Actividad sexual en adolescentes
☐ Pobre salud dental/oral
☐ Falta de ejercicio
☐ No vacunarse para prevenir enfermedades
☐ Falta de uso de métodos anticonceptivos
☐ Discrimen
☐ Uso excesivo de la sala de emergencias
☐ Otro _____
☐ Uso de tabaco
☐ Conductores poco seguros o sin licencia
☐ Sexo sin protección
☐ Estar sobre peso u obeso
☐ Problemas de salud mental/estrés

8. **¿Cuáles servicios de salud son difíciles de obtener en su comunidad? (Escoja TODAS las que apliquen):**
☐ Terapia alternativa
☐ Cuidado dental/oral
☐ Cuidado de sala de emergencia
☐ Planificación familiar/Control de natalidad
☐ Recetas/medicamentos/suministros médicos
☐ Cuidado preventivo (Ej. Exámenes anuales)
☐ Cuidado primario (Ej. Doctor de familia o clínicas con atención sin cita previa)
☐ Médicos especialistas (Ej. cardiólogos)
☐ Análisis de laboratorios
☐ Salud mental/consejería
☐ Terapia física/terapia de rehabilitación
☐ Visión/cuidado de ojos

¡Gracias por tomar tiempo en completer la encuesta!

English Version

Creating a Healthier Volusia and Flagler: 2015 Community Survey

We need your help in better understanding Volusia's and Flagler's health from a resident's perspective. Please fill out this survey to share your opinions about health and your quality of life in your community. Your survey results will be used to inform planning initiatives as they relate to health. For more information or a copy of the final report, please contact Julie Barrow at 386-947-8301. Thank you!

1. Where is your permanent residence?

☐ Flagler ☐ Volusia ☐ Another Florida County ☐ Outside of Florida

2. Zip code of where you live: _____

3. How do you rate your overall health? (Check ONE selection)

☐ Excellent ☐ Good ☐ Fair ☐ Poor ☐ Don't know

4. Check up to 5 things that allow YOU to be healthy where you live:

☐ Access to churches or other places of worship
☐ Access to health care
☐ Access to places where I can be active
☐ Access to public transportation
☐ Affordable and/or available housing options
☐ Access to social and mental health services
☐ Clean and healthy environment
☐ Good place to raise kids
☐ Good jobs, healthy economy
☐ Good education
☐ Low crime rates/safe neighborhoods
☐ Preventive health care
☐ Affordable child care
☐ Other _____
☐ Absence of discrimination
☐ Presence of advanced medical technology
☐ Areas where it is easy and safe to walk
☐ Good place to grow old
☐ Schools focused on children's health
☐ Access to healthy foods

5. Check up to 5 health issues YOU are most concerned about in your county:

☐ Asthma
☐ Respiratory/lung disease
☐ End of life care
☐ Environmental health, sewers, septic tanks
☐ Heart disease & stroke
☐ Seatbelt use
☐ Sexually transmitted diseases
☐ High blood pressure
☐ Unemployment
☐ Cholesterol
☐ Addiction – alcohol or drug
☐ Mental health problems
☐ Cancers
☐ Diabetes
☐ Motor vehicle crash injuries
☐ Firearms in homes
☐ Dental problems
☐ Smoking/tobacco use
☐ Homelessness
☐ Infant mortality/infant death
☐ Child abuse/neglect
☐ Teenage pregnancy
☐ HIV/AIDS
☐ Domestic violence
☐ Adult obesity
☐ Lack of family/religious support systems
☐ Childhood obesity
☐ Violence (rape, assault, crime, etc)
☐ Access to healthy food/grocery stores
☐ Other _____

6. How safe do you feel where you live?

☐ Very safe ☐ Somewhat safe ☐ Neither safe nor unsafe ☐ Somewhat unsafe ☐ Very unsafe

7. Check up to 5 unhealthy behaviors YOU are most concerned about in your county:

☐ Alcohol abuse
☐ Poor nutrition/ Poor eating habits
☐ Dropping out of school
☐ Drug abuse
☐ Teen sexual activity
☐ Poor dental/oral health
☐ Lack of exercise
☐ Not getting 'shots' to prevent disease
☐ Not using birth control
☐ Discrimination
☐ Overuse of emergency rooms
☐ Other _____
☐ Tobacco use
☐ Unlicensed and/or unsafe drivers
☐ Unsafe sex
☐ Being overweight/obese
☐ Mental health problems/stress

8. What health care services are difficult to obtain in your community? (Check ALL that apply):

☐ Alternative therapy
☐ Dental/oral care
☐ Emergency room care
☐ Family planning/birth control
☐ Inpatient hospital
☐ X-rays/mammograms
☐ Prescriptions/medications/medical supplies
☐ Preventive care (i.e. annual check ups)
☐ Primary care (i.e. family doctor or walk-in clinic)
☐ Specialty doctor care (i.e. heart doctor)
☐ Substance abuse services-drug & alcohol
☐ Other _____
☐ Lab work
☐ Mental health/counseling
☐ Physical therapy/rehab therapy
☐ Vision/eye care
☐ Prenatal care

9. How do you rate the quality of health services in your county?

☐ Excellent ☐ Good ☐ Fair ☐ Poor ☐ Don't Know

Thank you for taking the time to complete this survey!

Creating a Healthier Volusia and Flagler: 2015 Community Survey

10. What do you feel are barriers for YOU getting or staying healthy in your county? (Check ALL that apply):

- ☐ I work too much
- ☐ It's hard to be healthy where I work
- ☐ I don't have support from family/friends
- ☐ I don't like healthy food
- ☐ Other _____
- ☐ I don't have good health insurance
- ☐ I don't know how to be healthy
- ☐ I don't exercise
- ☐ I can't get to somewhere I can exercise
- ☐ I can't get to somewhere that sells healthy food
- ☐ I can't exercise outside
- ☐ None, I don't have any barriers
- ☐ It's hard or expensive to cook/eat healthy

11. What do you feel are barriers for YOU getting health care in your county? (Check ALL that apply):

- ☐ Lack of transportation
- ☐ Can't pay for doctor/hospital visits
- ☐ Can't find providers that accept my insurance
- ☐ Don't know what types of services are available
- ☐ Too much worry and stress
- ☐ Other_____
- ☐ Have no regular source of care
- ☐ Lack of evening and/or weekend services
- ☐ Long waits for appointments
- ☐ No one that helps me
- ☐ No one to turn to for help
- ☐ Agencies and people can not be trusted
- ☐ Racial Discrimination / Lack of respect
- ☐ I can only use the ER
- ☐ I don't have insurance
- ☐ None, I don't have any barriers

12. How is your health care covered? (Check ALL that apply):

- ☐ Health insurance offered from your job or a family member's job
- ☐ Health insurance that you pay on your own
- ☐ I don't have health insurance
- ☐ Medicare
- ☐ Military coverage/VA
- ☐ Other _____
- ☐ Pay cash
- ☐ Medicaid

13. Where would you go if you were worried about your child's mental, physical or social health? (Check ALL that apply):

- ☐ I don't have children/dependents
- ☐ Their doctor's office
- ☐ No where - we don't have a place to go
- ☐ Other family members or friends
- ☐ Other _____
- ☐ Hospital emergency room outside of Volusia/Flagler County
- ☐ The local health department
- ☐ Hospital emergency room in Volusia/Flagler County
- ☐ Local place of worship or neighborhood group
- ☐ School nurse
- ☐ School teacher
- ☐ School counselor
- ☐ I don't know

14. Age:

☐ less than 18 ☐ 18-24 ☐ 25-34 ☐ 35-44 ☐ 45-54 ☐ 55-64 ☐ 65+

15. Marital Status

☐ Single ☐ Married ☐ Divorced ☐ Widowed

16. Gender: ☐ Male ☐ Female

17. Race: Which group do you most identify with? (Check ONE selection)

☐ Black/African American ☐ White/Caucasian ☐ Asian/Pacific Islander ☐ Other_____

18. Ethnicity: Which group do you most identify with? (Check ONE selection)

☐ Not Hispanic/Latino ☐ Mexican ☐ Puerto Rican ☐ Cuban ☐ South American

☐ Central American Other_____

19. Education: Please check the highest level completed: (Check ONE selection)

- ☐ Elementary/Middle School
- ☐ 4 year College/Bachelor's degree
- ☐ High school diploma or GED
- ☐ Graduate/Advanced Degree
- ☐ Technical/Community College
- ☐ Some College

20. Employment Status: (Check ONE selection):

- ☐ Employed Full-time
- ☐ Retired
- ☐ Employed Part-time
- ☐ Home maker
- ☐ Unemployed
- ☐ Student
- ☐ Self-employed
- ☐ Other_____
- ☐ Not seeking work

21. Household Income: (Check ONE selection)

- ☐ Less than $10,000
- ☐ $50,000 to $74,999
- ☐ $10,000 to $19,999
- ☐ $75,000 to $99,999
- ☐ $20,000 to $29,999
- ☐ $100,000 or more
- ☐ $30,000 to $49,999

Thank you for taking the time to complete this survey!

Appendixes D: Community Input on Initial Health Priorities and Asset Mapping

Community Input on Volusia CHNA Initial Health Priorities

A two-part survey was conducted in April 2016 as part of the collaborative Community Health Needs Assessment (CHNA) process being performed in partnership with the Florida Hospital campuses in Volusia, the Florida Department of Health in Volusia, Halifax Health and One Voice for Volusia. In March 2016, the CHNA Leadership Team selected 5 initial health priorities for community action. This document provides community responses to those initial 5 health priorities taken from an online survey in combination with the written input from the One Voice for Volusia Coalition members at their April meeting.

Agreement with Initial Priorities (listed by rank)

Results of Online Survey, April 2016 and April One Voice for Volusia Meeting n=74

Initial Priority	Agree	Disagree	No Opinion	Ranking
Adult Behavioral Health	**82.6%**	**0.0%**	**17.4%**	**4.13**
Barriers to Accessing Health Services	**77.3%**	**0.0%**	**22.7%**	**3.86**
Youth Mental Health	**72.7%**	**0.0%**	**27.3%**	**3.64**
Healthy Eating and Physical Activity	**68.2%**	**4.6%**	**27.3%**	**3.18**
Chronic Disease: Cardiovascular Diseases & Diabetes	**63.6%**	**4.6%**	**31.8%**	**2.95**

Other Suggested Priorities:

- **Substance Abuse**, *Reason Why:* Everyone is affected by this and we need to address as a community
- **Access to affordable dental health**, *Reason Why:* poor oral health is associated with adverse pregnancy outcomes and poor cardiovascular health, absenteeism and poor quality of life
- **Reduction in Hospital Readmissions - Fire Department Community Paramedicine**, *Reason Why:* Staggering number of readmissions which could prolong/further medical issues
- **Housing**, *Reason Why:* Number of homeless pregnant moms with no placement

Text in blue was added post-survey to clarify content or from additional resources such as the Volusia-Flagler Behavioral Consortium.

Why is ADULT BEHAVIORAL HEALTH a priority issue in Volusia County?

Behavioral Health is a term that covers the full range of mental and emotional well-being – from coping with daily life challenges to the often complex treatment of mental illnesses, such as depression or personality disorder, as well as substance use disorder and other addictive behaviors. Now more than ever, health experts across all fields are recognizing the important link between good behavioral health and good overall health.

Survey Responses:

- When Adult behavioral health is addressed and corrected it can help repair an entire family which will improve the community. Getting the adults to recognize negative behavior will help them correct their family's negative behavior which will increase cohesion of family and the community.
- Behavioral health is either the root cause or a significant factor in finding a healthcare provider, following up on appointments, etc., completing courses of treatment, and maintaining the gains
- There is a large percentage of adults in Volusia County living with chronic and persistent problems - whether they be emotional and/or physical -- their needs are not being met for varied reasons. These problems seep into the fabric of the family and expand to their partners and children and other family and community members.
- Because there is gap in services for adults with complex mental health disorders. Volusia County does not have the available resources to seek follow up care and there should be more accountability for programs in place.
- A low wage region, such as Volusia County, creates an environment that makes daily life challenges a struggle for many families. Constant financial stress creates a volatile situation. Poverty coupled with the frequency of substance abuse creates a variety of personality disorders.
- Affects adults' ability to be successful employees and parents. Burdens law enforcement. Impacts long term physical health and quality of life.
- Addiction is a disease that interferes with good mental health and negatively impacts public health. Good mental health is important for personal well-being, family and interpersonal relationships and meaningful participation in society and in the community. Good mental health includes emotional balance and the flexibility to deal with life's inevitable stresses, challenges, and trauma.
- There are many issues that affect the adults in our community that lead to or involve the mental health issues for adults. Access to affordable therapy for survivors of domestic violence would be wonderful. Also looking at issues of drug and alcohol addiction.
- It is a need across our community. Working in a FQHC we see a lot of indigent patients and it is a great need for them.
- Directly related to the homeless issues that plague our area and is in immediate need of a collaborative solution.
- Quality of life for both an individual and their work and family systems are directly correlated mental and emotional well-being. With the prevalence of mental illness and the devastating impact of substance abuse disorders I feel that this issue should be a top priority. Preventing substance abuse and managing mental health increases our economic capacity by reducing absenteeism and work related accidents and insuring productivity. Good Mental Health and fewer addicts in the community would lead to lower crime rates, suicide rates, child abuse, neglect and removal rates, domestic violence rates, divorce rates, etc.

Why is YOUTH MENTAL HEALTH a priority issue in Volusia County?

Preventing mental and/or substance use disorders and related problems in children, adolescents, and young adults is critical to Americans' behavioral and physical health. Behaviors and symptoms that signal the development of a behavioral disorder often manifest two to four years before a disorder is present and according to the National Institute for Health, 50% of mental health disorders have their onset by age 14. It is estimated that one out of five adolescents has a diagnosable mental health disorder and nearly one third show symptoms of depression.

Survey Responses:

- Teaching youth a better way is essential to development.
- Because of closed environments (e.g. schools) youth mental health perhaps affects others more than adult mental health issues do. Giving our children a good start, teaching them resiliency, and helping them back on track if they divert gives them an opportunity to become productive members of the community.
- Identification and prevention are cheaper than intervention.
- Because there has been an increase adolescent mental health disorders. We are also increase drug use among adolescent students.
- Our youth are experiencing many different issues in their lives that they are unable to cope with or have any trusting person to discuss them with. Having therapy for children that have lived in, witnessed domestic violence would be great. Also for youth that are experiencing dating violence, stalking sexual assault, would be fabulous also.
- Diagnosis early on saves lives!
- Early screening is important for proper treatment and early intervention. Increasing protective factors and reducing risk factors throughout childhood and adolescents starts with parents, guardians and education systems being educated on best practices in everything from child nurturing and attachment to behavioral health assessments and interventions in the classroom. Knowledge of ACES and Trauma-informed care are important lenses as many mental health disorders and substance abuse related problems stem from childhood trauma.

Why is CHRONIC DISEASE-CARDIOVASCULAR DISEASES & DIABETES a priority issue in Volusia County?

While chronic disease affects health and quality of life, it is also a major driver of health care costs. According to the CDC, in 2010, eighty-six percent of all health care spending was for people with one or more chronic medical conditions. Cardiovascular Disease (heart disease and stroke) was the leading cause of death in Volusia County and accounted for 29% of all deaths in 2014. Diabetes is a disease in which blood glucose levels are above normal and is the 7th leading cause of death in Volusia. Diabetes can cause serious health complications including: heart disease, blindness, kidney failure and lower-extremity amputations. Both Cardiovascular Disease and Diabetes have similar contributing factors.

Survey Responses:

- It's the major factor in the leading cause of death in the county, and truly is preventable.
- It is an indicator of overall systemic issues that can be prevented when folks are young. Education is the answer to reduce ACES (Adverse Childhood Experiences) in our community.

- Because its accountable for 29% of all deaths in Volusia County and with education and preventive care those numbers could be reduced.
- Since it is so prevalent, it affects most families. Prevention and education would reduce health issues and costs and, over time, reduce the death rate. It would also improve quality of life and productivity. Empowering people to be pro-active about their health by taking a role early in life would change the mind-set that disease is inevitable.
- Key contributor to the top death rate that has means to prevent and/or manage in order to extend life.
- These are often preventable diseases and the cost of care is a burden for our community.

Why is ACCESS TO HEALTH CARE SERVICES a priority issue in Volusia County?

Access to comprehensive, quality health care services is important for the achievement of health equity and for increasing the quality of a healthy life for everyone (Healthy People 2020). The Healthy People 2020 national health target is to increase the proportion of people with a usual primary care provider to 83.9%. Access to health services means the timely use of personal health services to achieve the best health outcomes. It requires 3 distinct steps: gaining entry into the health care system; accessing a health care location where needed services are provided; and finding a health care provider with whom the patient can communicate and trust.

Survey Responses:

- Although the ratio of primary care providers to residents is close to the desired level, the distribution of primary care/medical home providers is not equally distributed throughout the county. we need to get people into a system of care somewhere where they can readily have access
- Present health care plans do not meet the needs of their customers. Entry into the health care system is fragmented, complex, and difficult to navigate. Transportation to health care locations is limited. Many health care providers are not aware of the challenges of their patients' daily struggles. Conversations are limited and reliable and truthful information is not exchanged.
- Procuring the health insurance system, understanding health insurance and access to affordable healthcare are issues for many people. It is important to find the link to these barriers to assist people in accessing the care they need to live healthy lives.
- Hours of operation are the same as most work place - one must take leave to use the services.
- Awareness of what is available and the ability to access what is available are some of the barriers in Volusia County. The services and resources may exist but locating them and then getting to them in a way that is affordable or is covered by your plan, fits into your schedule and is timely are often the issues.

One Voice for Volusia Coalition Member Responses:

- Governor Rick Scott turned down funding to expand Medicaid. General resistance to healthcare as a universal right not a privilege of the wealthy.
- The health of the entire community relies on every citizen being able to access a medical home-access is reliant on transportation, providers being available in/within the community they serve-inclusive of specialty providers.

Why is HEALTHY EATING & PHYSICAL ACTIVITY a priority issue in Volusia County?

Regular physical activity can help people manage their weight as well as reduce their risk for chronic disease and has a wide array of health benefits including weight control, muscle and bone strengthening, improved mental health and mood, and improved life expectancy. According to guidelines set by the Centers for Disease Control and Prevention, children and adolescents should get 60 minutes or more of physical activity per day, and adults 18 years and older should get 150 minutes of physical activity per week. According to Florida Behavioral Risk Factor Surveillance System 49.2% of Volusia adults were "inactive or insufficiently active" in 2013.

Survey Responses:

- Improves physical and mental health, helps connect residents to others and build community.
- Prevention is the key.
- Students face many risks to their health which impact their ability to be successful learners. When we educate our students on healthy eating and active lifestyles it promotes wellness and positive healthy behaviors.
- Lots of people don't understand how beneficial physical activity is. Need clear, simple examples of ways to be active and to eat healthy.
- If people are eating healthy and physically active, usually their quality of life increases significantly.
- Live a healthier, longer life and it saves you and the community money in the long run.
- Healthy eating and staying active prevent chronic disease and help with emotional well-being.

ADULT BEHAVIORAL HEALTH Assets & Needs

Efforts that are successfully addressing ADULT BEHAVIORAL HEALTH in Volusia County (Include specific resources, grants, groups, programs and services, organizations, efforts to impact policies/laws, system improvement efforts, collaborative groups, other strategic plans etc.)

- Break the Cycle Outpatient Program 724 S. Beach St. Daytona Beach, Fl. 32114
- The Chiles Academy
- SMA walk-in is great resource kind of like urgent care for BH
- Stewart Marchman Act Behavioral Healthcare
  - Adult Outpatient Substance Abuse Program (AOP)
  - Physician Services Medication Outpatient Program
  - Florida Assertive Community Treatment (FACT) Program
  - Anti-Drug Initiative (ADI)
  - Forensic Comprehensive Community Support Team (FCCST)
  - Family Intervention Services (FIS)
  - Family Intensive Treatment Team (FITT)
  - Community/Court Liaison (Outreach) Services
  - SMA Treatment Team at the Volusia County Corrections Department
  - Pharmacy
  - Enrichment Program Industries for persons with dev. disabilities or co-occurring disorders
  - 24-hour Crisis Stabilization and Detox Services and Screenings
  - Reality House, Re-Entry and Work Release Programs
  - Family Education Programs, Speakers Bureau and Mental Health 1st Aid
- Treatment availability
- Substance Abuse Task Force
- Halifax Urban Ministries
- Daryl Strawberry Recovery Center
- ER's treat those wanting to hurt themselves or someone else.
- Access to information on assistance available
- Volusia-Flagler Behavioral Consortium and Circuit 7 Behavioral Consortium
- Narcotics Anonymous has almost 100 meetings in the area http://www.na.org/MeetingSearch/
- AA Meeting Locations
- Healthy Start Coalition of Volusia and Flagler Counties
- Affordable medical mental health care to include alternative treatments beyond hospitalization
- One Voice for Volusia
- Halifax
- The Community Connector
- Faith based counseling centers and private counseling opportunities
- Volusia County Moms
- Salvation Army
- Career Resource Center
- NAMI
- LSF (Lutheran Services of Florida)
- Transition Team Meetings

What more could/should be done to successfully address ADULT BEHAVIORAL HEALTH in Volusia County?

- Open a detoxification / crisis unit.
- Enhanced screening opportunities
- Free transportation
- More options for low-cost or free therapy services.
- No help for some who accessed BH via SMA walk-in and needs meds to bridge the time it takes for the long-term meds to kick in. This person could be in mental hell for 3 or more weeks. By that time, they may want to hurt themselves.
- Collaborate efforts for the common good of the community
- Fire Service is beginning behavioral health programs around the country as they are usually the first to contact a potential patient
- More Drop-In Centers (we might have 2?)
- De-stigmatization
- Sharing of information between and among agencies
- More intensive outpatient options.
- Treat each case/individual separately as they have different needs
- Need a central receiving facility
- increased in- and out-patient treatment facilities
- One stop centrally located satellite site serving this population
- Don't use the" one size fits all" for this issue - there are too many factors to consider for each individual
- Crisis Stabilization Funding tied to Intensive In-Home therapy services once stabilized
- Co-occurring counseling services
- Decreased planning studies, more active intervention
- Mobile crisis teams

YOUTH MENTAL HEALTH Assets & Needs

Efforts that are successfully addressing YOUTH MENTAL HEALTH in Volusia County (Include specific resources, grants, groups, programs and services, organizations, efforts to impact policies/laws, system improvement efforts, collaborative groups, other strategic plans etc.)

- The Chiles Academy and MicroSociety
- SMA; CINS/FINS, BEACH House and Residential Adolescent Program and ADOP
- Behavioral Screening Tools now on Volusia County Schools' report cards and Problem Solving Teams and The Volusia County Behavioral Initiative (VCBI)
- Life Coach Barbie Reed
- One Voice for Volusia Youth Substance Abuse Prevention Programs and NOPE Task Force
- Circuit Seven System of Care - Evelyn Lynam
- Children's Home Society, Devereux, SMA, Halifax Behavioral, Circle of Friends, House Next Door
- Circuit Seven Early Childhood Court Team
- HBS Halifax Behavior Services
- Healthy Start Family Place and Healthy Families
- Community Partnership for Children/Community Based Care
- Pediatricians
- ADAPT Behavioral Services
- Programs offered through Domestic Abuse Council
- Cafe' Dialogues and Healthy Start Initiatives
- E.S.P Case management
- Florida United Methodist Children's Home
- PACE Center for Girls, Inc.
- Help Me Grow/211 screening tools and referrals
- School Health Advisory Committee (SHAC)
- Big Bear Behavioral Health, Inc., Presbyterian Counseling Center, Port Orange Counseling Center, Durden Consulting, Impower
- Grief Related: GriefShare, Begin Again, Hospice, Tears Foundation, Hospital Support Groups, etc. http://www.volusia.com/local-support-groups/
- Volusia Department of Juvenile Justice Council
- Prevention: Boys and Girls Clubs, Mentoring Programs, Youth Sports Leagues/Programs, PAL, After School Programs, Arts programs, Recreation Departments, Clubs, Youth Groups

What more could/should be done to successfully address YOUTH MENTAL HEALTH in Volusia County?

- Expand in- and out-patient treatment facilities
- Increase prevention
- Earlier diagnosis.
- Getting adults involved in youth programs to keep kids growing
- Increased and easy access to information for services
- A Central Receiving Facility

- Expand screening opportunities
- Coordination of services
- Availability of therapy in schools.
- Education for parents, grandparents and extended family members
- Social Norming and Stigma Reduction regarding Mental Health and increasing youth protective factors
- Campaign to rid the stigma of Mental Health diseases
- Promoting youth service organizations
- Trauma Screening by pediatricians and other first contact professionals
- Tying treatment funding for youth mental health when parent's behavioral health is compromised

Capacity Issues and Identified Gaps in services identified by the Volusia/Flagler Behavioral Consortium:

- Children's Community Action Team (Behavioral Health Consortium Priority Top Priority)
- Intensive Crises Counseling Program/Intensive In-Home Family Services (Behavioral Health Consortium Top Priority)
- Family Services Planning Team funded/redefined for our area (Behavioral Health Consortium Top Priority)
- Transitional Youth Services linked to FSPT and other services (Behavioral Health Consortium Top Priority)
- Primary Prevention Services for children funding (Behavioral Health Consortium Top Priority)
- Uniform referral process and form
- Resource Guide
- Targeted Case Management (TCM)
- Psychiatric Evaluation and services
- Psychiatric Medication Management
- Therapeutic Group Homes
- Residential Statewide Inpatient Psychiatric Beds- SIPP (regional issue)
- Respite Beds (6 added to SMA through LSF in April 2016)
- Autism Spectrum Disorders (ASD) Services
- Mobile Crisis Team
- Specialized Respite for CSEC (children who have been sexually exploited) Victims
- Transportation to PHP Program
- Promotion of Universal Awareness of Mental Health Issues/identified youth sooner though screenings

CHRONIC DISEASE-CARDIOVASCULAR DISEASES & DIABETES Assets & Needs

Efforts that are successfully addressing CHRONIC DISEASE-CARDIOVASCULAR DISEASES & DIABETES in Volusia County (Include specific resources, grants, groups, programs and services, organizations, efforts to impact policies/laws, system improvement efforts, collaborative groups, other strategic plans etc.)

- Midtown Eco-Village and The Kale Cafe
- Volusia County Schools Wellness Program
- Local hospitals
- YMCA Programs - Health and Wellness that includes Diabetes Prevention Program and Nutrition programs
- Local schools
- Florida Hospital - Creation Health, Smoking Cessation, Seminars, Workshops, Educational Campaigns
- Seminars and education programs offered by the hospitals and health departments
- Popularity and ease of use of fitness and health tracking "apps"
- Healthy Volusia and Partnerships with the Florida Department of Health
- Worksite Wellness
- Northeast Florida AHEC (Diabetes and Smoking Cessation)
- Mayor's Health Challenges across Volusia

What more could/should be done to successfully address CHRONIC DISEASE-CARDIOVASCULAR DISEASES & DIABETES in Volusia County?

- Collective impact effort on exercise, healthy food options, and regular screenings
- Continuing to address the problem and educate the population
- Increase Educational Opportunities
- Lower cost insulin resources
- Access to more affordable fresh fruits and vegetables
- Through Fire Department Community Paramedicine, agencies can visit the most frequently seen diabetics to reduce their occurrence of crisis.
- FD can also evaluate food situation at home and offer information to maintain a healthy diet
- Work place policies and insurance premium fees applied for life-style choices that lead to chronic disease
- Healthy living programs to get and keep kids moving
- More diabetes education

BARRIERS TO ACCESS TO HEALTH CARE SERVICES Assets & Needs

Why is ACCESS TO HEATHCARE SERVICES a priority issue in Volusia County? Why do you think this is an important issue?

- Governor Rick Scott turned down funding to expand Medicaid. General resistance to healthcare as a universal right not a privilege of the wealthy.
- The health of the entire community relies on every citizen being able to access a medical home- Access is reliant on transportation, providers being available in/within the community they serve- inclusive of specialty providers.

List all the community assets you can think of that support access to health care services:

Efforts that are successfully addressing ACCESS TO HEALTH CARE SERVICES in Volusia County (Include specific resources, grants, groups, programs and services, organizations, efforts to impact policies/laws, system improvement efforts, collaborative groups, other strategic plans etc.)

- Jesus Clinic and Volusia Volunteers in Medicine
- Two Family Care Coordinators at The Chiles Academy and Early Head Start
- Good Samaritan Clinic
- Healthy Start Family Place
- Walk in Clinics for quick care - new FH Centra Cares
- Health Navigators to help with insurance coverage access
- Local Health Department
- Healthy Families
- Halifax Community Clinics
- Florida Shots
- 211live.org
- Star Center
- COA services for Seniors and multiple hospices for palliative care
- HUM and Salvation Army and Halifax Hospital and other partners providing Healthcare to the homeless
- Doctors' offices now open on Saturdays
- Halifax Health Behavioral-Support groups open to the public
- Florida Breast and Cervical Cancer Prevention/Early Detection Program
- Halifax Oncology Center "ROC"
- Project Warm
- One Voice for Volusia (OVFV)

What more could/should be done to successfully address ACCESS TO HEALTH CARE SERVICES in Volusia County?

- Mobile services for screenings in collaboration with community centers, churches, schools, etc. in more rural parts of county
- Transportation

- Better public transportation between the west side and east side. Takes too long to go across county. Could be 2 plus hours one way. Maybe hospitals provide community benefit by funding more Votran Gold type transportation.
- The west side of the county needs more specialists and quick-care.
- Extended hours for service and weekend hours without having to go to an Urgent Care or Hospital which is more expensive
- Find providers able to alter hours to accommodate the working poor, e.g. after 8-5 hours and weekends
- Fire Department Community Paramedicine - assist patients with access to medications, understanding discharge orders, and accessing available social services
- Update 211live.org with more resources and show office hours under listing
- Satellite locations for WIC and child health care
- Doctors need to be free to practice medicine without the approval of the insurance companies.
- Study why people go to emergency departments, if it's convenience, what is inconvenient about non-ER providers?

HEALTHY EATING & PHYSICAL ACTIVITY Assets & Needs

Efforts that are successfully addressing HEALTHY EATING & PHYSICAL ACTIVITY in Volusia County (Include specific resources, grants, groups, programs and services, organizations, efforts to impact policies/laws, system improvement efforts, collaborative groups, other strategic plans etc.)

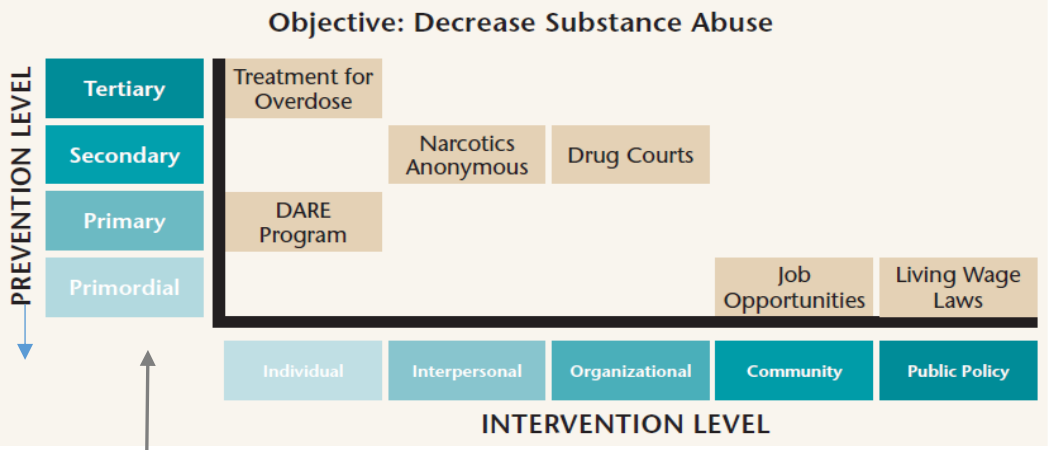
- 5210, YMCA's programs and Fitness Programs and Gyms in the community
- Boys and Girls clubs
- Sports leagues
- Bikes and Trails
- Midtown EcoVillage, The Kale Cafe
- The Chiles Academy and Early Head Start's nutrition program
- Local churches
- Volusia County moms
- Girls on the run
- Alliance for Healthier Generation
- Volusia County Schools- VCS Wellness Policy
- SHAC – School Health Advisory
- Action for Healthy Kids
- Healthy Volusia
- Team Red White and Blue
- County and City Recreation Departments
- Mayor's Fitness Challenges
- Worksite Wellness - http://www.funcoastwwc.org/

What more could/should be done to successfully address HEALTHY EATING & PHYSICAL ACTIVITY in Volusia County?

- Encourage people to try new activities, perhaps through scholarships
- Encourage entrepreneurship in starting farmer's markets
- Walkability enhancements (sidewalks, etc.)
- Fitness challenges
- Offer local tax credits for coaching, teaching, participating in exercise activities
- Address food desert issues
- Coordinated after school activities
- Apply for grant opportunities to promote healthy eating & physical activity
- Set Goals for nutritional education
- Coordinate efforts and programs that exist in the community & district
- Cross county trail/bike path that is accessible
- Outreach to adults that DO NOT have children.
- Fit-bit "type" challenges on a county wide scale. May also be options for smart phones.
- Healthy diet is a direct link to various medical issues. Community Paramedicine interacts with patients with known issues in a one-on-one basis at their home
- Policy changes and incentives/fines for health living (healthy BMI should carry same weight as non-smoker

Community Health Improvement Plan Considerations

At the April 2016 One Voice for Volusia Meeting the membership, made up of over 115 community leaders, spent time reviewing best practices for community health improvement and gave their input on the 5 selected CHNA health issues. The following strategy for identifying a systemic approach to community health improvement was reviewed and the membership's input based on this model is recorded by health issue on the remaining pages.



Prevention Levels aims to minimize the occurrence of disease or its consensus

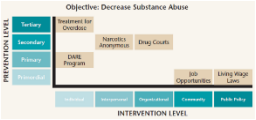
- **Primordial:** prevent the emergence of predisposing social/environmental conditions that lead to causation of disease
- **Primary:** reduce susceptibility or

Intervention Levels are built on a socioecological model that recognizes different factors affecting health

- **Individual:** characteristic of the individual such as knowledge, attitudes, behavior, self-concept, skills etc. (including developmental history)
- **Interpersonal:** formal and information social network and support systems, including family, work group, and friendship networks
- **Organizational:** social institutions with organizational characteristics, and formal/informal rules and regulations for operation
- **Community:** relationships among organizations, institutions, and informal networks within defined boundaries
- **Public Policy:** local, state, national laws and policies

One Voice for Volusia April Coalition Community Input (115 attendees)

One Voice for Volusia Members mapped out strategies and resources for consideration based on best practice models at the April Coalition meeting. Their input for each of the selected health indicators is compiled in the sections below. Behavioral Health was addressed by the entire membership and then the other health indicators were workshopped small groups.



Behavioral Health (Adult & Youth Responses)

Individual:

Primordial: Social Media; Volusia County Schools; House Next Door; Higher Education; Prevention; Coping skills; Career pathways, education-starting early or we won't get them later; Stress; Genetics; Addictions/Abuse; Education (lack of); Transportation; Outpatient services; Identifying youth needs at an earlier age (elementary school); Leisure services/recreation opportunities; Support basic needs; Financial literacy; Access to genetic counseling; Reducing access to healthcare; Transient; Give back from tourism revenue; Tax local businesses to give back to community; Educating communities on removing the stigma of mental health and that it's ok to seek help; Too much stigma, people don't feel comfortable getting help, don't know if they need help; Focus on conditions created by genetic, generational, family heredity and early identification and services provided to address; Stress management; Grief management; Socialization activities; Physical activity.

Primary: House Next Door; Volusia County Schools, Awareness; 211Live.org; Family/parental educational offerings to teach interpersonal skills and relationships; Drop the Digital!; School therapy; EAP at work; Drug-free education (DARE); Providing education; Outpatient services; School based mental health; Support Groups; Training teachers and supervisors to recognize and identify mental health issues; Reducing homelessness; Education; Identifying the causes of behavioral issues and address them; Better/universal screening tools for adults/children; Safety/protection education; Safe transportation.

Secondary: Domestic Abuse Council; Volusia County Schools; Department of Health; Outpatient services; Enough service providers available; Integrated model of care to have communication between BH/PH; No access, money for early treatment, transportation, or money for prevention; Lack of access to mental health services; Educate people to recognize the signs and symptoms of mental illness; Access to professionals for evaluation; Acceptance that help is needed.

Tertiary: Department of Health; Volusia County Schools; House Next Door; Treatment-Therapy; Substance Abuse Treatment; Exercise-Balanced Life(addressing emotional, physical, and spiritual); Education on behavioral change; Education on coping with mental health issues; Commitment Program; Treatment centers; Residential Programs; Outpatient services; Partial hospitalization/ Intensive out-patient treatment programs; Not enough services, too long of a wait; Inpatient crisis stabilization; Halifax Behavioral System-Youth, Stewart-Marchman-Act Behavioral Healthcare, Project Warm; System to identify at-risk families and early identification of children; Medication; Behavioral modification; Support from Family and Friends; Access to follow-up care; Case management; Follow-up care as recommended.

Interpersonal:

Primordial: Domestic Abuse Council; Support Groups; YMCA; Leisure Services; Elementary-High School career surveys & occupational education assessment; Coping/flexibility skills; Relationships; Family/support system; Wrap around services; Understanding the factors that contribute to behaviors; Linkage to resources to cover costs (Blue Card in W. Volusia County); Education for families; Stigma associated with behavioral health diagnosis.

Primary: Domestic Abuse Council; Support Groups; YMCA; Leisure Services; Identified skills development resources; Initiating physical activities for engagement; Family/support system; Wrap around services; Organized community functions to include individuals with diverse populations.

Secondary: Leisure Services; YMCA; Holistic approach; Communication between BH/PH providers; Increase meeting frequency of support and/or prevention programs; Increase access to available programs (ex. Having programs in their community or 5mi radius); Big Red Bus mobility with incentives.

Tertiary: YMCA; Leisure Services; Respite (e.g. CCBHC); SAMHSA grants and education; Continue to receive community support and engage in network of professionals that support behavioral health services.

Organizational:

Primordial: All healthcare systems; Provide safe environments to promote healthy lifestyles; Life skills courses; Middle/High school awareness; Career and technical education program and course offerings from elementary-high school; Communication and collaboration between agencies; Training; Financial literacy; Look at the environment (i.e. Pierson chemical plant nurseries); Education for Organizations.

Primary: All healthcare systems; Provide safe environments to promote healthy lifestyles; Educational equality; School/Academy engagement; Less behavior issues and higher attendance; Agency collaboration; Mentoring programs; Corporate training R/TMH- Worksite Wellness -EAP -Community Café; Secure more funding/grants for critical programs; Better oversight and administration of current programs and financial resources; Communication between providers; Universal Electronic Medical Record.

Secondary: All healthcare systems; Workplace HR practices to support staff with these needs and become knowledgeable of resources; Clinical trained guidance counselors; Agency collaboration, Education on nutrition that may affect prescriptions (i.e. ADHD); Screenings; Mental health training for professionals; Well visits for children and adults; Collaborating with other comprehensive programs to house services in a general location (ex. Library) to protect their privacy of accessing services; Education for first responders; Awareness in community; Suicide prevention walks.

Tertiary: YMCA; Domestic Abuse Council; All healthcare systems; Re-entry from incarceration, re-educating, supporting through community services; Agency collaboration; Education of providers on medications, resources, clients; Educate providers to cover and bill for more than Chief complaint of visit; Youth civil citation-Teen Court; System of care focus on independent living, quality of life (housing, jobs); Hospital access; Outpatient; Baker Act; Employer support; Behavioral Health Services

transportation; Reduce opiate use; Organizational policy that recognizes the need for behavioral health treatment and accommodations.

Community:

Primordial: Halifax; House Next Door; Bethune Cookman University-Nursing; Daytona State College-Nursing; University of Central Florida-Social Work; Media-all sectors of the coalition addressing the same issues and solutions; Awareness-campaigns with all sectors of community participating; Internships, career shadowing, field studies, guest speakers in classrooms; Location of services; Accessibility to services; Availability of services; Youth underserved; Outreach/identification; Reduce stigma/community bias about mental health; Community education about how to recognize warning signs of behavioral health issues such as mental illness and substance abuse; Career development programs; Access to quality education; Support and increase programs of prevention; eliminate negative socio-economic factors and stressors, Level the playing for all regardless of income levels; Community awareness/education; Public forums (i.e. Jakobs Well, Community Café, Lifetree Café); Social Marketing.

Primary: Halifax; House Next Door; More Community Programs-build a sense of belonging; Media; College/University; Pyramid Community Café; Boys & Girls Clubs; YMCA; Outreach/identification; Know how to promote resilience and prevent substance abuse and mental health issues; Know how to access Services; Workshops to teach life skills; Organized community function to include individuals with diverse populations; Reducing stigma-Community Café; Workplace support through counseling services.

Secondary: Halifax; House Next Door; Stewart-Marchman-Act Behavioral Healthcare; Children's Home Society; Halifax Behavioral Services; Darryl Strawberry Recovery Center; Multi-media P.A's that educate about behavioral health care; Services go to communities; Screenings, Counseling, Cultural awareness on a community level; Co-location of BH services to PCP; Co-location of BH services to schools; Increase community partnership; Train community volunteers to host groups and 24hr phone lines; Adequate insurance coverage including Medicaid, Medicare.

Tertiary: Department of Health; Halifax; Faith organizations; House Next Door; Re-entry from incarceration - re-educating, supporting through community services; Placement, openings in treatment centers; Community mental health (HBS only one); Access to healthy eating and food; Community needs to push for the creation of legislative policies that impact behavioral health; Empower individuals that seek care and services by reinforcing positive behavioral outcomes; Access to care with time sensitivity; Open access behavioral health care.

Public Policy:

Primordial: Department of Health; Volusia County Schools; Centers for Disease Control; Rewards/consequences tied to access to substances; Education in schools; Healthcare system that is preventative and SUPPORTIVE; Anti-Drug initiative; Change policy on education and treatment vs. punitive; Equal opportunity laws (women's rights/pay); Funding streams for education and career source organizations; Intervention prior to accessing the juvenile system; State, Federal, and Local policies that adequately fund programs and personnel and promotes policies that foster good behavioral health care; Equal funding distribution; Public Health Laws; Resources and insurance that covers everything; Policy makers recognition of social determinates of health in policy.

Primary: Department of Health; Volusia County Schools; Centers for Disease Control; Reduce exposure to online/digital presence; More outside time scheduled; Easy access to prevention and treatment; Policy change to share appropriate information with providers, Training would be required to identify

and know when to refer at-risk individuals (Employers, Educators, Physicians); Sensitivity Training to reduce stigma of mental health; De-stigmatization of behavioral health services.

Secondary: Department of Health; Centers for Disease Control; Funding; Medicaid expansion; Insurance limits; Policy impacting how someone is required to attend treatment; Electronic universal systems throughout to increase access to care; Passage of legislation for early detection.

Tertiary: Department of Health; Centers for Disease Control; One Voice for Volusia; United Way; Increase proposed legislation regarding behavioral health; Funding for transportation, medication, case management; Decriminalize addictive behavior; Public mandates for funding and timely service delivery of behavioral health; Public policy that rewards for compliance with behavioral health treatment.

Barriers to Accessing Health Care:

Individual:

Primordial: Affordability; Resist services; No health care; lack of education; Not prevention oriented; Knowledge of the system; Transportation; Education on health care coverage options
Primary: Transportation needs; Education on value of preventive care; Attitude towards prevention
Secondary: Education about importance of health care
Tertiary: Attitude towards health care

Interpersonal:

Primordial: Transportation

Organizational:

Primordial:
Primary: Expand telemedicine services; More community clinics willing/able to work with families without insurance (sliding scale, credit system); More clinics that provide evening, weekend, overnight hours; Provider network in dense geographic areas; Increase availability of access to doctors' location more than once per week in the west of Daytona; Educate and make health care a priority.
Secondary: Expand telemedicine services
Tertiary: Create at strategy to partner with private funders of programs in the community

Community:

Primordial: Availability of transportation to health care; Availability of providers; Job opportunities that provide benefits to support access to care; Non-profit Uber for health or restructure of current transport system to improve access to health services; Implement a volunteer organization/group that can provide transportation to/from Dr. appointments.
Secondary: Consider using schools as access point; Expand school services to routine medical care
Tertiary: Mobile health clinics

Public Policy:

Primordial: Socialized medicine; Addressing liability insurance barrier preventing doctors from home visits; Broken continuity of care due to switched HMO on Medicaid; Not enough physicians willing to

take Medicaid due to poor reimbursement system; Increase access to community programs in the west side of Volusia.
Primary: Expand telemedicine services
Secondary: Expand telemedicine services
Tertiary: State or federally funded mobile clinics in desert areas (i.e. West Volusia)

Healthy Eating and Physical Activity

Individual:

Primordial: WIC
Primary: Community Gardens; Food Education; Advocate for GMO Labeling and Awareness; Flexibility of parents starting work; Access to health care and medicine; Additional physical education and exercise

Interpersonal:

Primordial: Educational opportunities; Increase healthier decisions to make/prepare healthier foods and better choices when eating out
Primary: Grocery Shopping; Flexibility of parents starting work; Additional physical education and exercise; Join Weight Watchers/gyms with your family and friends

Organizational:

Primordial: Organizations offering health risk assessments and supporting wellness programs; Workforce wellness; Youth mentoring programs; Implement in food stores and restaurants to utilize nutritionists; Revamp the school lunch and other snacks offered.
Primary: Employer sponsored exercise programs; Access to health care and medicine
Secondary: Fun Runs

Community:

Primordial: Affordable housing; Free classes/community awareness; Recess (elementary/middle); Poverty-Employment education; WIC partner with local farmers to provide vouchers for fresh produce
Primary: Gardens/Community Gardens; Healthy Kids; Free health screenings; Health fair; Fitness/Community challenges
Tertiary: Transportation for children to sports/activities; Meal programs; Urban gardening

Public Policy:

Primordial: WIC restrictions in place; Ingredient awareness; Ingredient awareness (high fructose corn syrup); Endorse more unscheduled outside play with school day; Free classes in all communities
Primary: Food/GMO Education; Additional funding for childcare with food; Awareness of food additives;
Tertiary: Low/no cost sports for youth; Child care

Chronic Disease

Individual:

Primordial: Access to healthy food at home, community and school; Physical education/recess; Play areas that actually encourage exercise; Obesity/initial period of gestation-it makes children susceptible to other diseases; Assess environmental issues in homes; Increase awareness/education on diet; Personal responsibility to know your health “numbers”
Secondary: Yearly medical screenings; More timely diagnosis

Tertiary: Access to affordable insulin for diabetic patients; Access to monitoring/glucose test kits; Follow-up care as recommended and continue healthy eating and exercise; Healthy lifestyle, personal responsibility

Interpersonal:

Primordial: Increase the number of community health workers
Primary: Family wellness engagement-getting the whole family on board; Education about being healthy; Health sponsor (liaison)

Organizational:

Primordial: Access to healthy foods, recipe cards
Primary: Collaboration among agencies to promote safe and active events (5k's, play spaces); Increase scholarship availability for healthy activities;
Secondary: Mobile units for health screenings; Incentives for Health Care providers to accept Medicaid patients
Tertiary: Prevention and outreach

Community:

Primordial: Outdoor exercise stops and physical play areas in urban/low socio-economic areas; Community gardens; Food pantries; More community involvement; Increase the number of community health workers
Primary: Outreach to communicate opportunity; Gyms providing low cost/free wellness and fitness; Pollution- effects of condition causes increase in asthma/breathing conditions; Life style skills; Use local fire departments to provide local residents BP screenings
Secondary: Reduce stigma; Food incentive; Increase knowledge and awareness of the diseases
Tertiary: Strengthening the "spirit" of the community

Public Policy:

Primordial: Food education
Primary: Insurance cover gym memberships, wellness
Secondary: Insurance changes to allow weight reduction surgeries; Passage of legislation for early detection; Create and maintain diabetes registry (similar to Florida cancer registry)
Tertiary: Access to care including medication, supplies, labs, specialty care (cover the cost)

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