VOLUSIA COUNTY

COMMUNITY HEALTH NEEDS

AdventHealth

HALIFAX HEALTH

Volusia County FLORIDA

Florida HEALTH Volusia County

Assessment 2019

2019 Volusia County Community Health Needs Assessment

Sponsored by:
AdventHealth
County of Volusia
Florida Department of Health in Volusia County
Halifax Health

Produced by: Flagler Cares
Data Supported by: Office of Planning and Performance Management, Florida Department of Health in Volusia County

Acknowledgements: Thank you to the Volusia County Community Health Needs Assessment Partner organizations, Steering Committee members and Leadership Team members who committed extensive time, expertise and resources toward this collaborative assessment process and who continue to be focused on improving the health and wellbeing in our county.

There are many factors that influence the health and wellbeing of a community. These include health behaviors, access to health care, social and economic status, and the physical environment. It is important to identify and measure all these factors to improve community health outcomes and understand the inequities preventing some people from living long, happy lives.

The Florida Department of Health in Volusia County (DOH-Volusia) refers to this report as the Volusia County Community Health Assessment (Volusia CHA) which identifies key needs and issues through systematic, comprehensive data collection and analysis by a Leadership Team selected to represent the community at large.

The Volusia CHA now exists as a resource to serve as the basis of the Community Health Improvement Plan (CHIP): a strategic plan, external to DOH-Volusia, outlining how to address the identified areas of need. DOH-Volusia is accredited under the standards of the Public Health Accreditation Board, as is every health department in Florida. The Volusia CHA will facilitate connecting this health department with those in other counties and provides the important public health service of assessment.

The Volusia CHA and supplemental materials are available Volusiahealth.com. To provide feedback or request additional information, please contact the DOH-Volusia Office of Planning and Performance Management at (386) 281-6239.

Community Benefit is a strategic arm of AdventHealth. The 2019 Volusia Community Health Needs Assessment serves as the guide for identifying 2020 – 2022 Health Priorities.

AdventHealth will use the Community Health Needs Assessment in collaboration with community partners to develop, implement and track the 2020-2022 Community Health Plan. Partnership collaboration and accountability will maximize efforts to produce positive outcomes impacting the health of communities served, delivering the promise to feel whole. Feel Whole is the AdventHealth brand promise to the entire community.

Engagement at a grassroots level, helps to address social determinants of health that drive communities to wellness, to feeling whole.

For over 90 years, Halifax Health has been committed to implementing solutions to identified health needs. As the designated safety-net hospital in the region, Halifax Health is responsible for expanding access to care and enhancing services to support the needs of the under-served and underinsured community while ensuring the provision of quality healthcare to all residents in a fiscally responsible manner.

The Volusia Community Health Assessment (CHA) was developed under the leadership of the Department of Health in Volusia County in collaboration with Halifax Health, AdventHealth, other healthcare providers and local community leaders for the additional purpose of meeting the Community Health Needs Assessment (CHNA) requirements of non-profit hospitals as defined by the Affordable Care Act and the Internal Revenue Service. The resulting collection of information will assist Halifax Health in the development of its updated 2020-2023 Community Health Improvement Plan.

The County of Volusia is committed to the health and well-being of all of its citizens. With our partners we have worked to begin the process to address the needs of the community. This Community Health Needs Assessment will enable strategic decisions to be made and implemented to provide positive impact on all of our residents, but most especially the most vulnerable through our next step which is completing a Community Health Improvement Plan.

This plan will have strategic leaders – both individuals and organizations in key areas of concern that will collaborate, plan and implement on an ongoing basis to improve the overall health of our community. The County of Volusia is committed to partnering and leading where able in this process.

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Executive Summary

Volusia County embarked on a Community Health Needs Assessment (CHNA) process in November 2018 culminating with the publication of this report in August 2019. The process was spearheaded and resourced by a Steering Committee of leaders from four community organizations:

- AdventHealth
- County of Volusia
- Florida Department of Health in Volusia County
- Halifax Health

The Community Health Needs Assessment Process included four components:

- A County Health Survey reaching 3,692 respondents in Volusia & Flagler counties
- 16 focus groups that discussed community health and wellness issues
- Analysis of population-health data organized into 12 health issues
- A Leadership Team of representatives from over 20 Volusia County organizations

2020-2022 Priority Health Issues

After a review of data collected and analyzed, the Leadership Team and the Steering Committee identified five priority health issues to focus on beginning in 2020.

Turning Assessment into Action

Organizations involved in the CHNA process and other community organizations will be engaged in specific action steps and activities to collaboratively address the identified priority health issues, including:

- Sharing the findings with community leaders and elected officials
- Using CHNA data to inform specific actions organizations can take to address health issues in Volusia County
- Participating in community collaborations and coalitions working to improve health outcomes

Community Health Needs Assessment (CHNA)

Purpose

The purpose of this assessment is to provide a general snapshot of the current health of the community. Many factors shape the health of a community, including the places where people live, learn, work and play. It is important to identify and measure all these factors to improve community health outcomes and understand the inequities preventing some people from living long, happy lives. Access to social, educational and economic opportunities, known as the social determinants of health, have as much impact on wellness as healthy eating, physical activity and access to medical services. To improve the health and quality of life of a community, it is necessary to address not only the multiple social determinants of health, but also to move from a focus on sickness and disease to one based on prevention and wellness. Sustained and broad community involvement is necessary to address the strategic health issues of a community—no single organization, no matter how well resourced or powerful, can tackle these issues alone.

To address these challenges, the Volusia County CHNA partners are committed to working together to achieve broad impact on the health of our community. This report takes stock of the county's health and wellbeing and is designed for use by various audiences. It provides data that will hopefully be used widely to support community health improvement efforts, including:

- Hospital-based community benefit plans
- Organizational strategic plans
- Action planning by new and existing multi-agency collaboratives
- Grant applications for new financial resources

2019 CHNA Partners

The 2019 CHNA process in Volusia County was resourced by four community organizations committed to the health of Volusia residents. Each partner provided financial support and leadership resources throughout the community health needs assessment process and have committed to leading strategies within their systems, and collaboratively with other organizations, to address the identified Priority Health Issues for 2020-2022.

Assessment Components

The Volusia CHNA process included four major components that informed the process to identify county-level priority health issues for 2020-2022. The CHNA process began with dialogue among the project partners in November of 2018 and culminated with the creation of this report published in August 2019. The subsequent Community Health Planning process is anticipated to occur throughout the summer and conclude with a formal Community Health Improvement Plan by 2020.

County Survey

A primarily Internet-based county health survey was implemented that included 31 questions about quality of life, community health concerns, and social determinants of health. In Volusia and Flagler counties, 3,692 individuals completed the survey, including 2,608 Volusia residents.

Focus Groups

Sixteen focus groups were conducted across Volusia County focused on seven populations: youth, college students, older adults, impoverished communities/neighborhoods, Spanish speakers, maternal and child health groups and professional groups. The 1 to 2-hour focus groups were professionally facilitated, transcribed and summarized.

Analysis of Statistical Data

Publicly available population-level health data was collected and organized into 12 health issues. The data was analyzed, and a summary of the data was presented as *Indicators of Concern* for each health issue. This summary included a review of data trends, county and state comparison and magnitude of impact.

Leadership Team

Leaders from key community sectors were invited to participate in a review of primary and secondary data and to engage in a dialogue regarding the selection of Priority Health Issues for 2020-2022. The team included leaders from public health, hospitals, county government, businesses and organizations that serve the community's most vulnerable citizens.

Volusia County CHNA Leadership Team

Leaders from over 20 Volusia County organizations served on the Leadership Team, including:

AdventHealth
Bethune-Cookman University
Community Partnership for Children
County of Volusia
Daytona Regional Chamber
Daytona State College
Department of Children and Families
Early Learning Coalition of Flagler & Volusia
ElderSource
Family Health Source Medical Centers
Florida Department of Health in Volusia County
Halifax Health
Healthy Start Coalition of Flagler & Volusia Co.
LSF Health Systems, Inc
Spring Hill Resource Center
Team Volusia
United Way of Volusia-Flagler Counties
Volusia County Schools
Volusia/Flagler Behavioral Health Consortium
Volusia/Flagler Coalition for the Homeless

Selecting Priority Health Issues

The Volusia County CHNA Leadership Team utilized an action-oriented decision framework to review information and data collected and to guide their dialogue leading to the identification of Priority Health Issues for action during the 2020-2022 implementation cycle. The framework included considerations for data review and analysis, potential implementation strategies for short and long-term action. Primary (County Health Survey results) and secondary (over 300 health indicators) data were distributed to the Leadership Team for their review and analysis prior to meetings on May 24 and August 26, 2019, at the Florida Department of Health in Volusia County.

Health Priority Considerations

- **Magnitude:** What is the number of people affected by the issue?
- **Severity:** What is the risk of morbidity and mortality associated with the issue?
- **Impact on Vulnerable Populations:** Does the issue particularly impact vulnerable populations?
- **Trend Direction:** Has the trend improved or worsened in the last five years?
- **Comparison:** How does the county status compare to the state?
- **Relationship to other Issues:** Does the issue affect other problems?
- **Importance of the Issue:** How important is this issue to the community?

Solution Considerations

- **Efficacious Intervention:** Are there successful strategies to address this issue? Is there a positive cost-benefit to addressing the issue? How resource intensive are strategies to address this issue?
- **Community Readiness:** How likely is the community to support strategies to address the issue?
- **Current Capacity:** Does the community have existing resources and capacity to address the issue?
- **Economic Impact:** What is the cost of NOT addressing the issue?

Priority Health Issues & Implications for Action

- **Issues with Technical Fixes.** Issues that can be addressed by relatively straightforward policy or practice changes supported by a strong evidence base. *Examples: vaccinations, trauma informed care approaches*
- **Complex Problems Requiring Complex Solutions.** Issues that call for long-term, complex, multi-sector interventions. *Examples: mental illness and substance abuse, interpersonal violence*
- **Root Causes.** Issues that interact with each other in a vicious cycle, within and across generations, and contribute to high-risk environments, unhealthy behaviors, injury, illness, & death. *Examples: poverty, crime*
- **System-Level Barriers to Effective Action**. Issues that hinder effective action to improve health outcomes and the environment in which health outcomes develop. *Examples: working ineffectively across sectors, systemic underfunding of interventions targeting social determinants of health*

Process Limitations

The purpose of this assessment is to provide a general snapshot of the current health of the community. Although a wide variety of health data is available at the county level, there were limitations in the depth and breadth of data available. For some health indicators, the available data can be several years old and may no longer be representative of the community. For some data, local details concerning socioeconomic, demographic, or geographic distribution were not available and some significant health events can occur in small numbers and hamper the ability to conduct meaningful subgroup analyses by race, ethnicity, or gender.

The County Health Survey design and process also had limitations. The convenience sampling methodology used for the survey is a non-probability sampling technique that relies on the collection of data from populations within easy reach of the researcher. This method was selected for ease and budget restrictions but limits the use of the findings as results are not representative of the entire population. The survey process was also primarily an Internet-based survey which tends to cause underrepresentation of lower income, less educated and minority households.

Turning Assessment into Action

The partnering organizations are committed to sharing and monitoring the progress of activities implemented independently and collaboratively in response to the 2019 CHNA findings and identified Priority Health Issues. Other organizations will be encouraged to contribute to action steps, including:

- Sharing the findings with community leaders and elected officials
- Using CHNA data to inform specific actions organizations can take to address health issues in Volusia County
- Participating in community collaborations and coalitions working to improve health outcomes

2020-2022 Priority Health Issues

The 2019 Community Health Needs Assessment activities in Volusia County culminated with the identification of five health priorities for future health improvement activities.

Adult & Youth Behavioral Health

Mental Illness and Substance Use Disorders are a significant health concern and impact many other health issues.

Indicators of concern include: (Adult) Binge Drinking, Alcohol Suspected Traffic Incidents/Deaths, Chronic Liver Disease/Cirrhosis, Opioid Drug Overdoses, Smoking, Poor Mental Health, Depression, Suicide & Self-inflicted injury. (Youth) Delinquency, Alcohol Use, Marijuana Use, Cigarette Use and E-cigarette Use.

Cardiovascular Diseases & Diabetes

Heart Disease, Stroke and Diabetes account for over 30% of all Volusia deaths.

Indicators of concern include: Coronary Heart Disease, Stroke Death and Hospitalization, Diabetes Hospitalization.

Barriers to Accessing Health Care Services

Equal 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.

Indicators of concern include: Health Resources per Population Births Covered by Medicaid, Adults with a Doctor, Providers per Population.

Healthy Eating & Physical Activity

Achieving and maintaining a healthy weight and an active lifestyle is critical for overall health.

Indicators of concern include: Youth and Adult Physical Activity, Youth and Adult Healthy Weight, Injury Deaths.

Social & Economic Issues

Social and economic factors significantly affect how well and how long we live.

Indicators of concern include: Median Household Income, Poverty, Free/Reduced Price Lunch, High School Graduation, Food Insecurity, Per Capita Income, Housing Cost Burden, Homelessness, Single Parent Households.

Volusia County Demographics

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.

Volusia County was home to 538,692 individuals in 2017. The largest city, Deltona, had a 2017 population of 90,746 and an estimated 120,000 individuals lived in unincorporated Volusia County.

2017 Population

City	Estimate	%
Daytona Beach	68,055	12.6%
Daytona Beach Shores	4,514	0.8%
DeBary	20,784	3.9%
DeLand	32,506	6.0%
Deltona	90,746	16.8%
Edgewater	22,399	4.2%
Holly Hill	12,218	2.3%
Lake Helen	2,780	0.5%
New Smyrna Beach	26,470	4.9%
Oak Hill	2,127	0.4%
Orange City	11,697	2.2%
Ormond Beach	42,816	7.9%
Pierson	1,883	0.3%
Ponce Inlet	3,241	0.6%
Port Orange	63,203	11.7%
South Daytona	12,936	2.4%
Unincorporated Volusia County*	120,317	22.3%
TOTAL Volusia County	538,692	100.0%

Source: US Bureau of the Census
**Calculated by subtracting total of city populations from county population*

2017 Population by Sex

Gender	Estimate	Percent
Male	263,063	48.8%
Female	275,629	51.2%
Total	538,692	100.0%

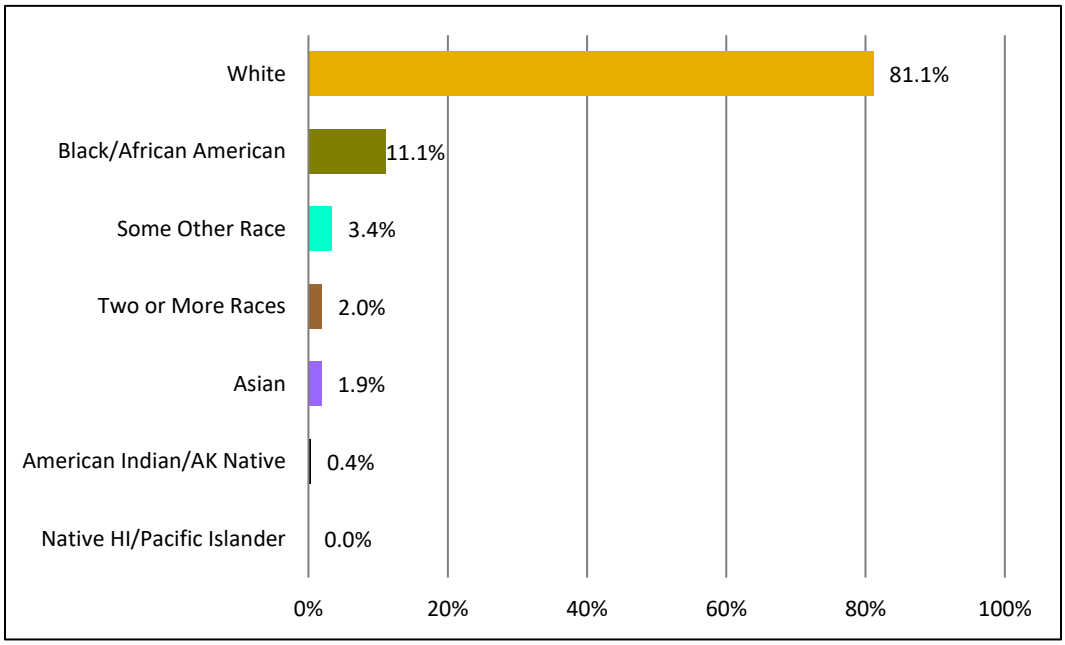
Source: US Bureau of the Census, 2017 American Community Survey 1-Year Estimates

2017 Population by Ethnicity

Ethnicity	Estimate	Percent
Hispanic/Latino	74,582	13.8%
Not Hispanic/Latino	464,110	86.2%
Total	538,692	100.0%

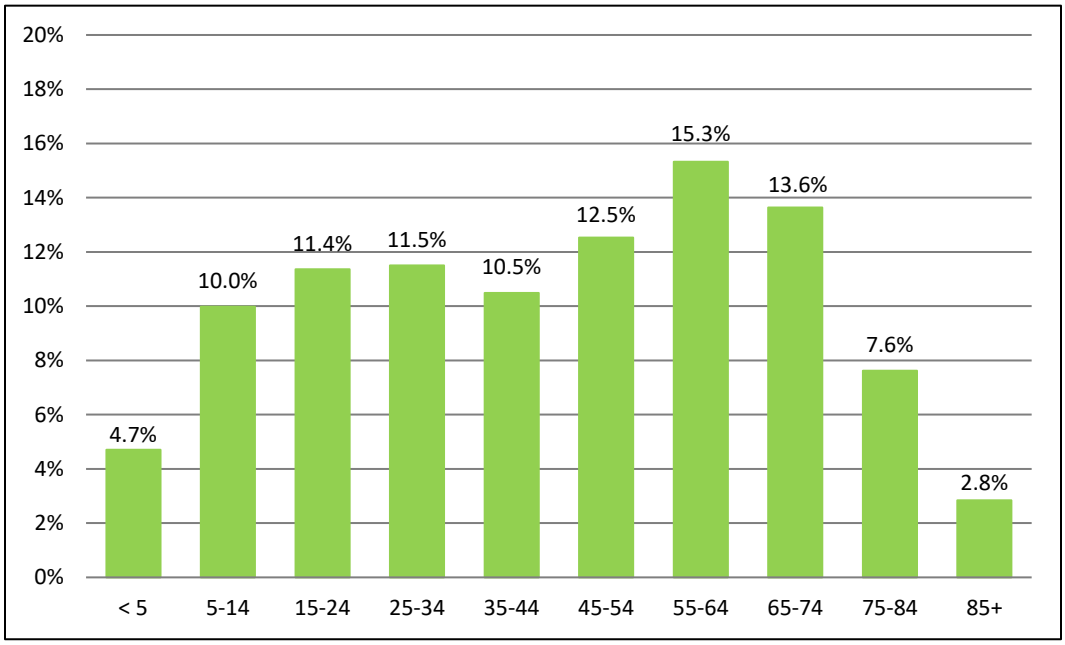
Source: US Bureau of the Census, 2017 American Community Survey 1-Year Estimates

2017 Population by Race



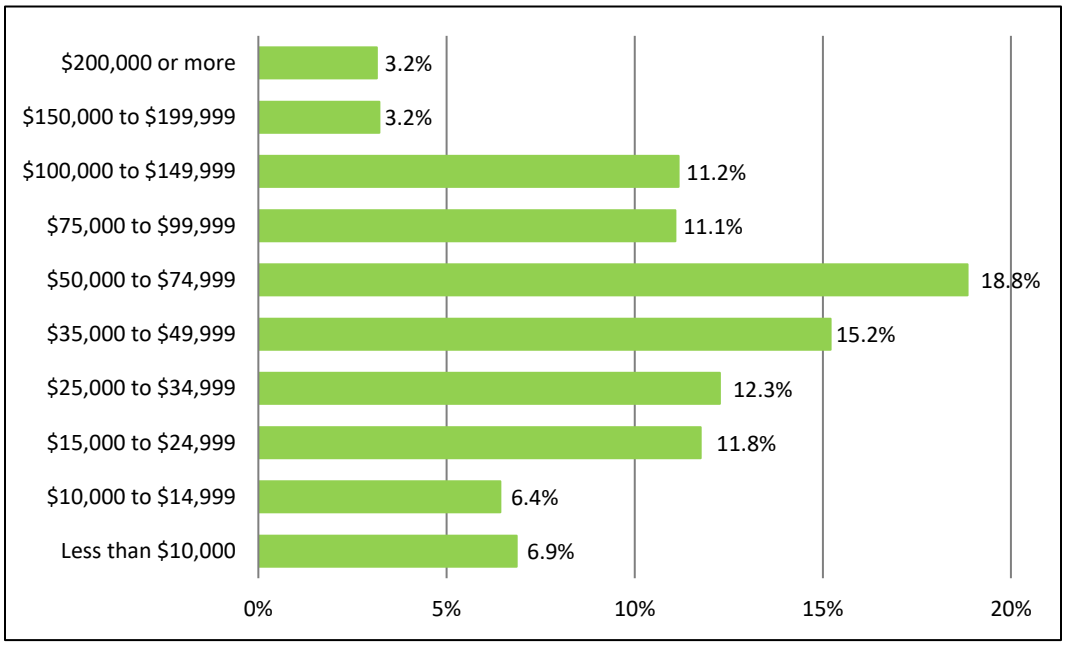
Source: US Bureau of the Census, 2017 American Community Survey 1-Year Estimates

Population by Age Group



Source: US Bureau of the Census, 2017 American Community Survey 1-Year Estimates

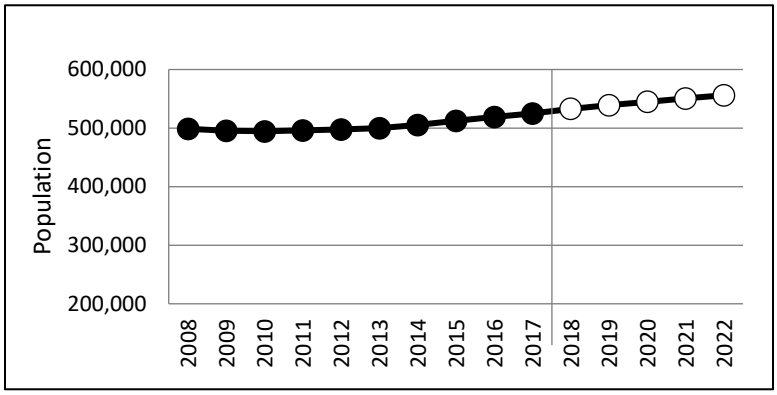
2017 Household Income Brackets



Source: US Bureau of the Census, 2017 American Community Survey 1-Year Estimates

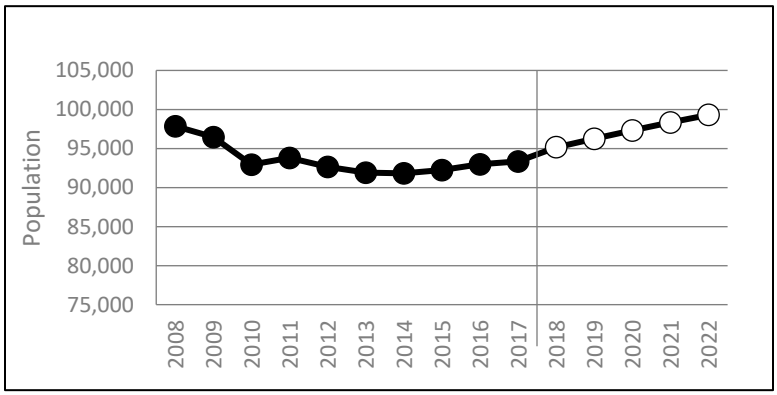
Volusia Population Trends

Volusia General Population



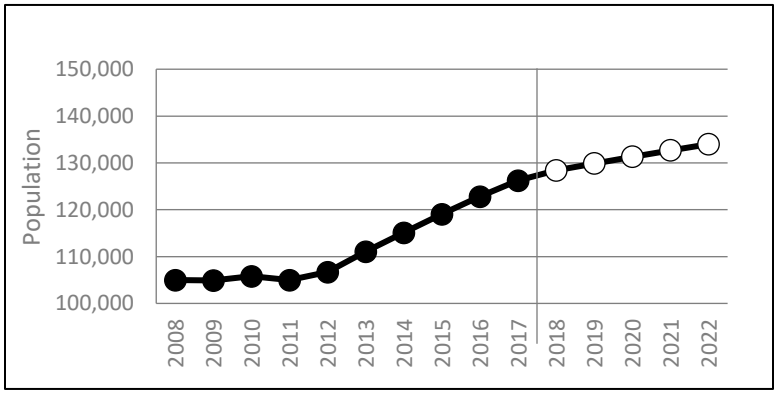
Source: Florida Health CHARTS, The Florida Legislature, Office of Economic and Demographic Research

Volusia Population Under 18



Source: Florida Health CHARTS, The Florida Legislature, Office of Economic and Demographic Research

Volusia Population 65 and Over



Source: Florida Health CHARTS, The Florida Legislature, Office of Economic and Demographic Research

County Health Survey 2019

Methodology

The 2019 County Health Survey in Volusia and Flagler Counties relied primarily on an Internet-based survey (which was collected using SurveyMonkey) 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.countyhealthsurvey.com. Paper surveys, also available in Spanish and English, were utilized to reach individuals without convenient access to the Internet and were manually entered. The survey was open from January to March 2019. There were 3,692 completed surveys: 2,722 Internet surveys and 970 paper surveys.

The online and paper surveys were promoted and distributed through email communication, community meetings, postings on various websites, social media posts and promotional items and paper surveys made available at partners' places of business. Based on the survey response audience, initiatives were developed to distribute additional surveys and conduct focus groups to reach underrepresented populations.

The 31-question survey 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.

Survey respondents were asked "where is your permanent residence?" and of the 3,668 completed surveys:

- 2,608 reported they lived in Volusia County (70.5%)
- 966 reported they lived in Flagler County (26.3%)
- 102 reported they lived in another Florida County (2.8%)
- 7 reported they lived outside of Florida and 9 provided no response to the question (0.4%)

Only the 2,608 Volusia respondents are included in this presentation of survey results.

Limitations

Convenience Sampling: A convenience sampling methodology was used for the 2019 County 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 2019 County Health Survey for several subsets of the Volusia County population including males and individuals ages 18-24 who were underrepresented. 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. Internet surveys tend to underrepresent lower-income, less educated and minority households.

County Health Survey Respondent Demographics

Age	Volusia	
	Number	Percent
Less than 18	18	0.7
18-24	169	6.5
25-34	425	16.3
35-44	385	14.8
45-54	457	17.5
55-64	596	22.9
65+	386	14.8
No response	172	6.6
Total	2,608	100

Race Identification *Race: Which group do you most identify with? (Check ONE selection)*	Volusia	
	Number	Percent
Asia	31	1.2
Black/African American	307	11.8
Hawaiian Native/ Pacific Islander	2	0.1
Mixed Race	100	3.8
Native American/ Alaskan Native	8	0.3
Other Race	142	5.4
White/Caucasian	1,800	69.0
No response	218	8.4
Total	2,608	100

Ethnic Identification *Ethnicity: Which group do you most identify with? (Check ONE selection)*	Volusia	
	Number	Percent
Hispanic/Latino	319	12.2
Not Hispanic/Latino	1,971	75.6
No response	318	12.2
Total	2,608	100

Gender	Volusia	
	Number	Percent
Female	1,963	75.3
Male	451	17.3
No response	194	7.4
Total	2,608	100

Marital Status	Volusia	
	Number	Percent
Single	722	27.7
Married	1,284	49.2
Divorced	303	11.6
Widowed	117	4.5
No response	182	7.0
Total	2,608	100

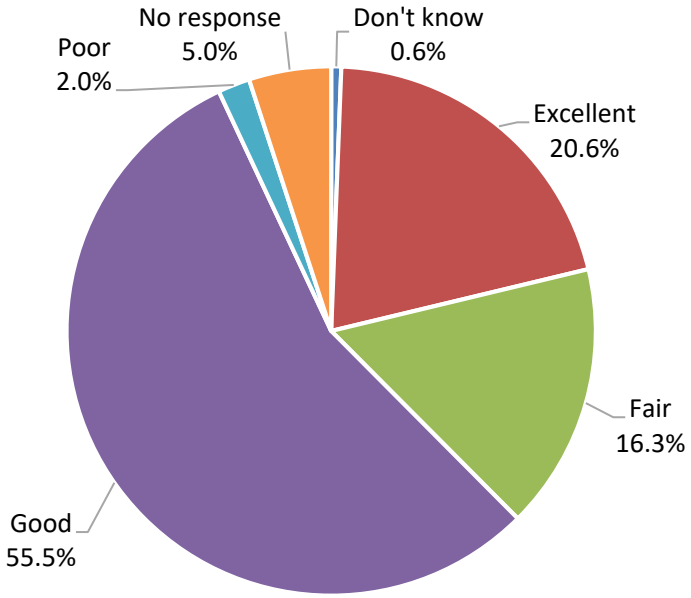
Education *Education: Please check the highest level completed: (Check ONE selection)*	Volusia	
	Number	Percent
Elementary/Middle School	72	2.8
High School Diploma or GED	320	12.3
Technical/Community College	352	13.5
4-year College/Bachelor's degree	596	22.9
Graduate/Advanced degree	518	19.9
Some college	561	21.5
No response	189	7.2
Total	2,608	100

Employment Status	Volusia	
	Number	Percent
Employed full-time	1,402	53.8
Employed part-time	209	8.0
Unemployed	161	6.2
Self-employed	93	3.6
Not seeking work	15	0.6
Retired	319	12.2
Homemaker	89	3.4
Student	40	1.5
Other	98	3.8
No response	182	7.0
Total	2,608	100

Annual Household Income	Volusia	
	Number	Percent
Less than $10,000	215	8.2
$10,000 to $19,999	222	8.5
$20,000 to $29,999	305	11.7
$30,000 to $49,999	467	17.9
$50,000 to $74,999	488	18.7
$75,000 to $99,999	280	10.7
$100,000 or more	372	14.3
No response	259	9.9
Total	2,608	100

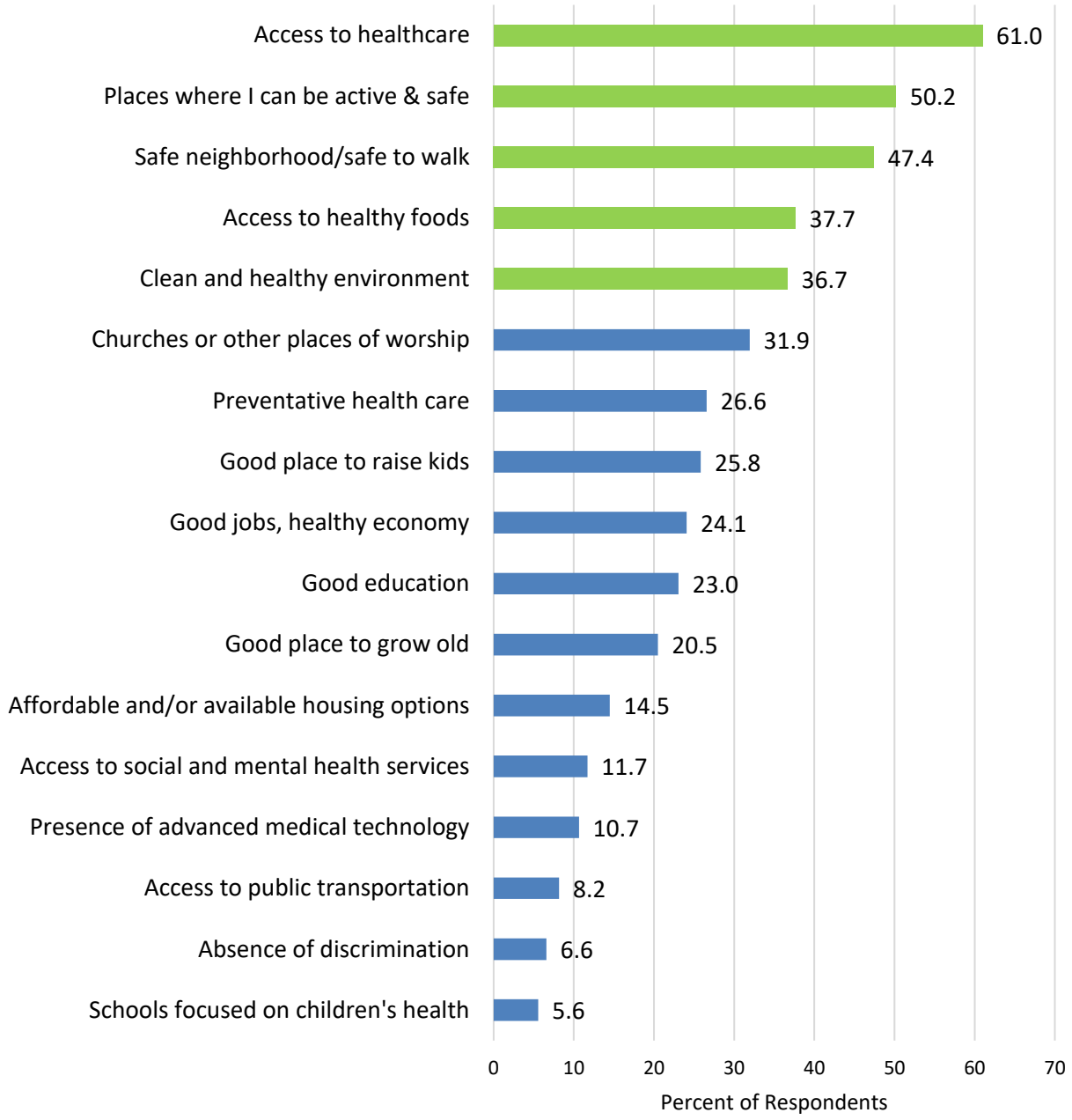
Overall Health

Survey Question: How do you rate your overall health?



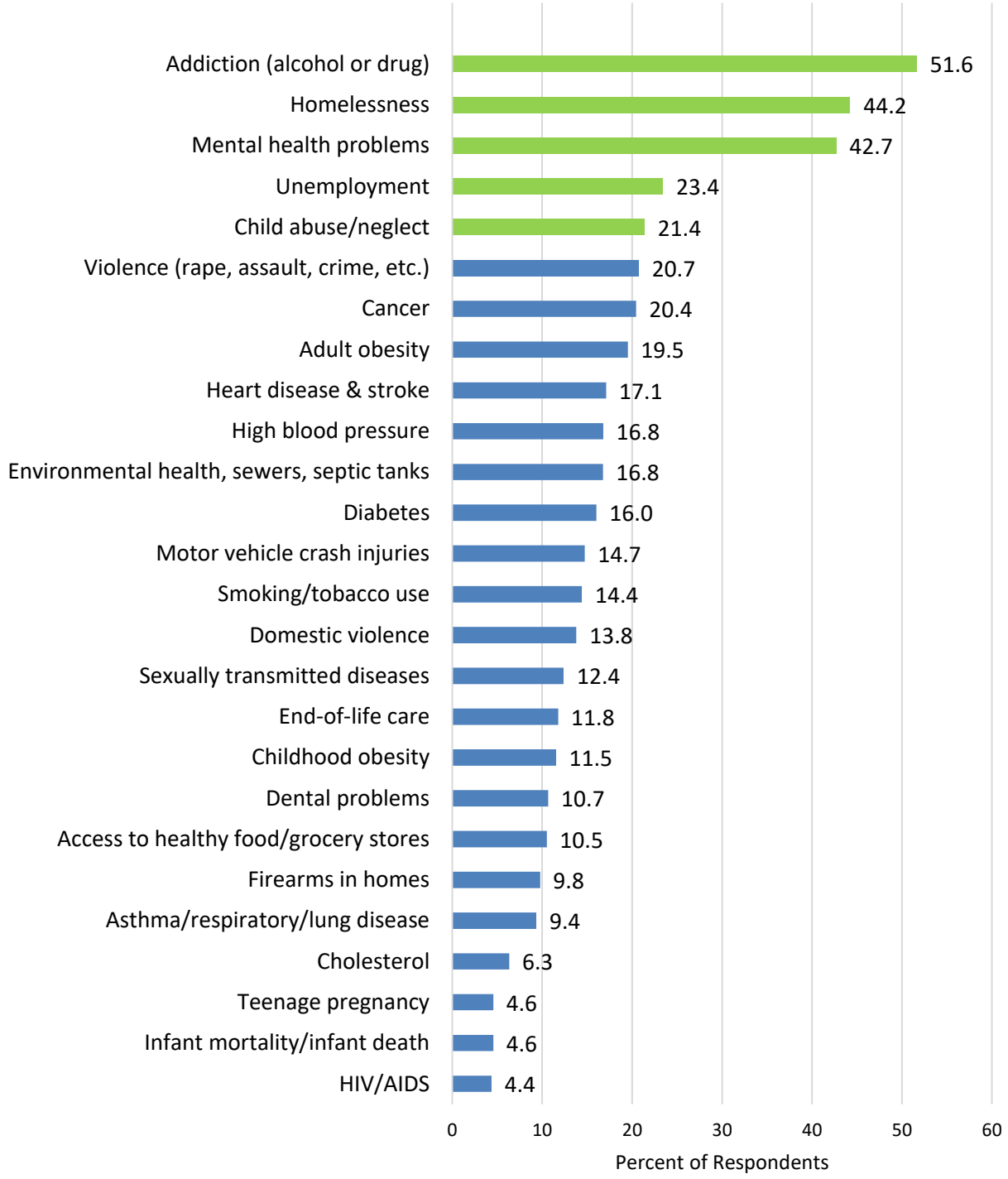
Things that Allow YOU To Be Healthy Where You Live

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



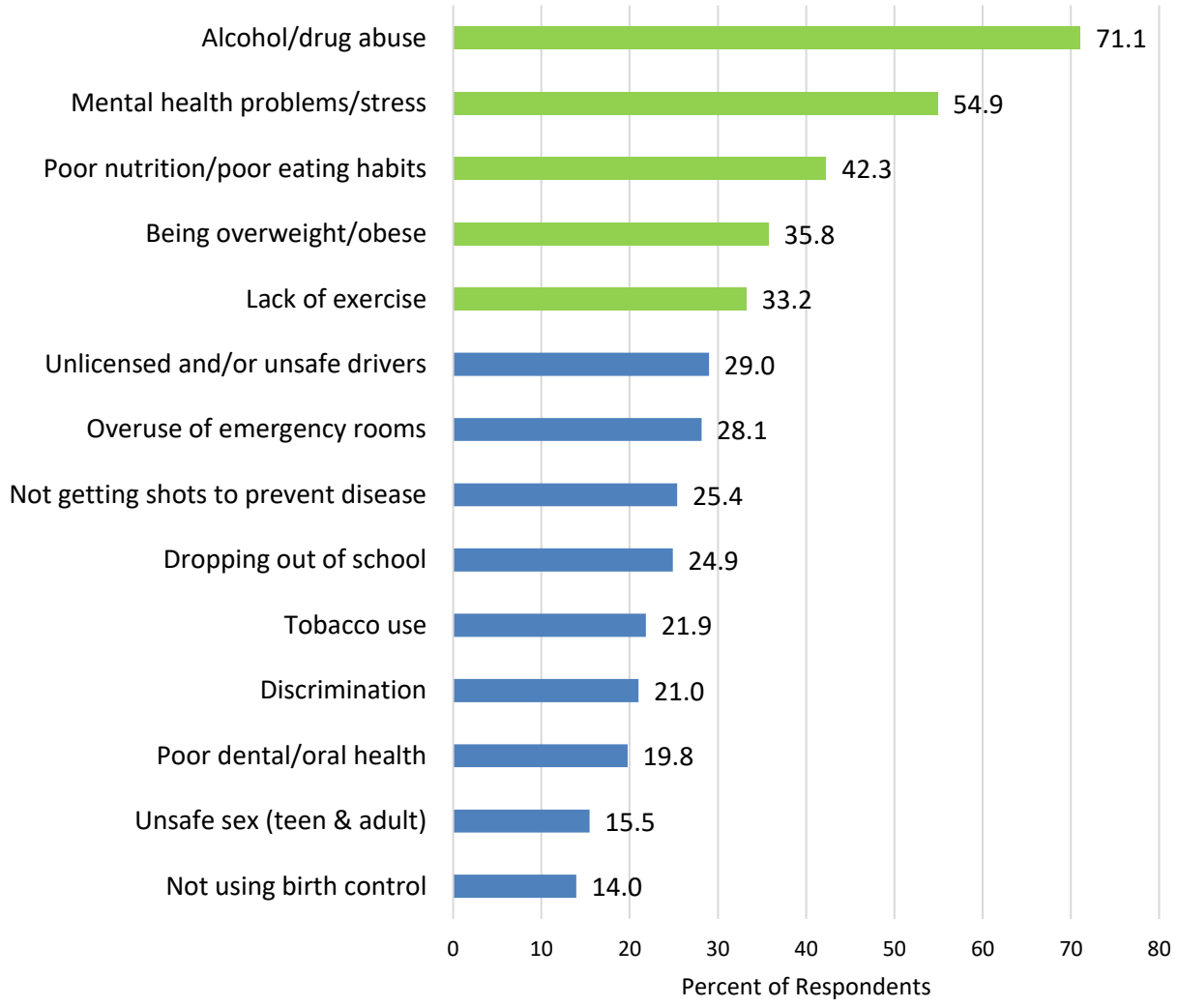
Health Issues YOU Are Most Concerned About

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



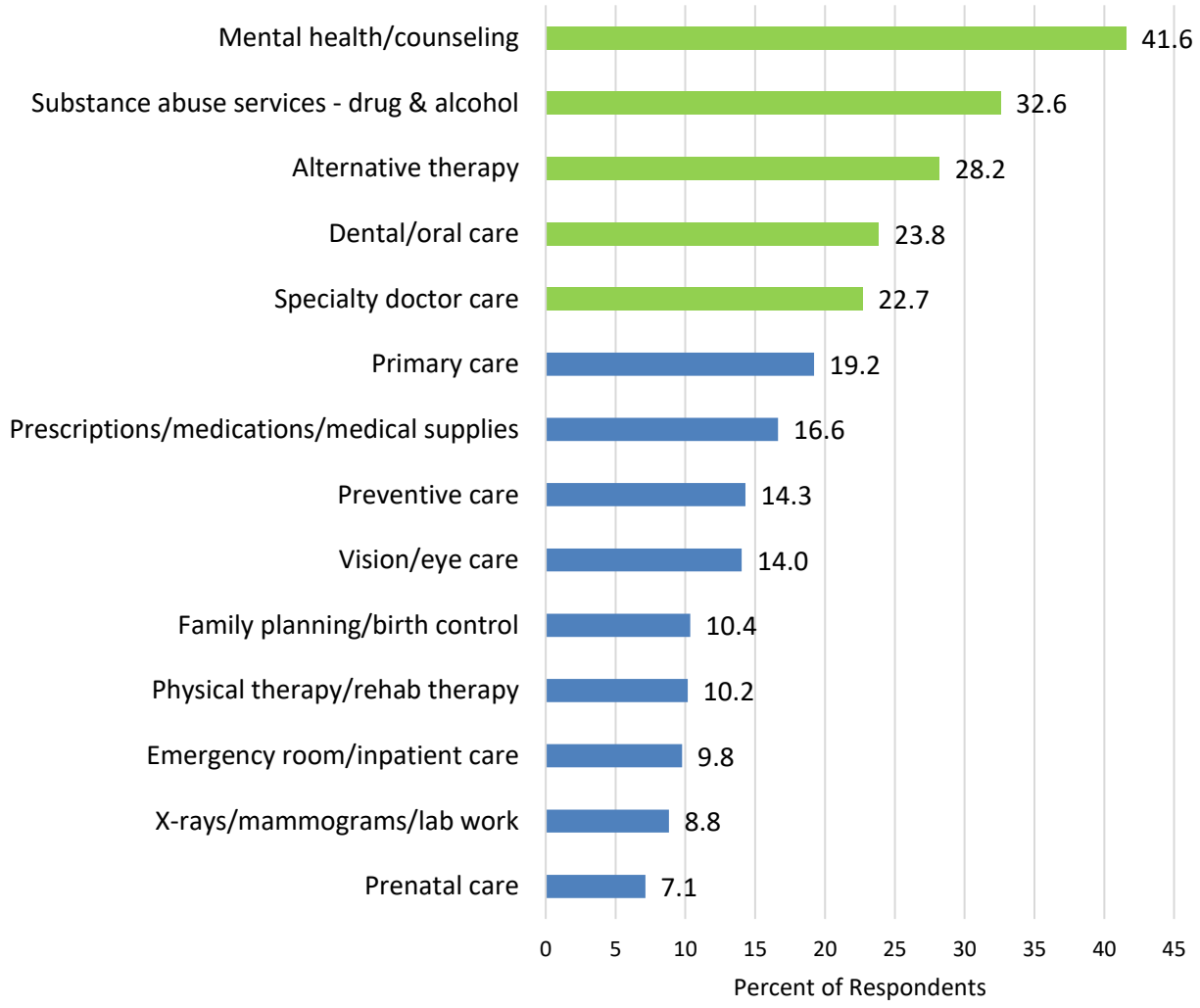
Unhealthy Behaviors YOU Are Most Concerned About

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



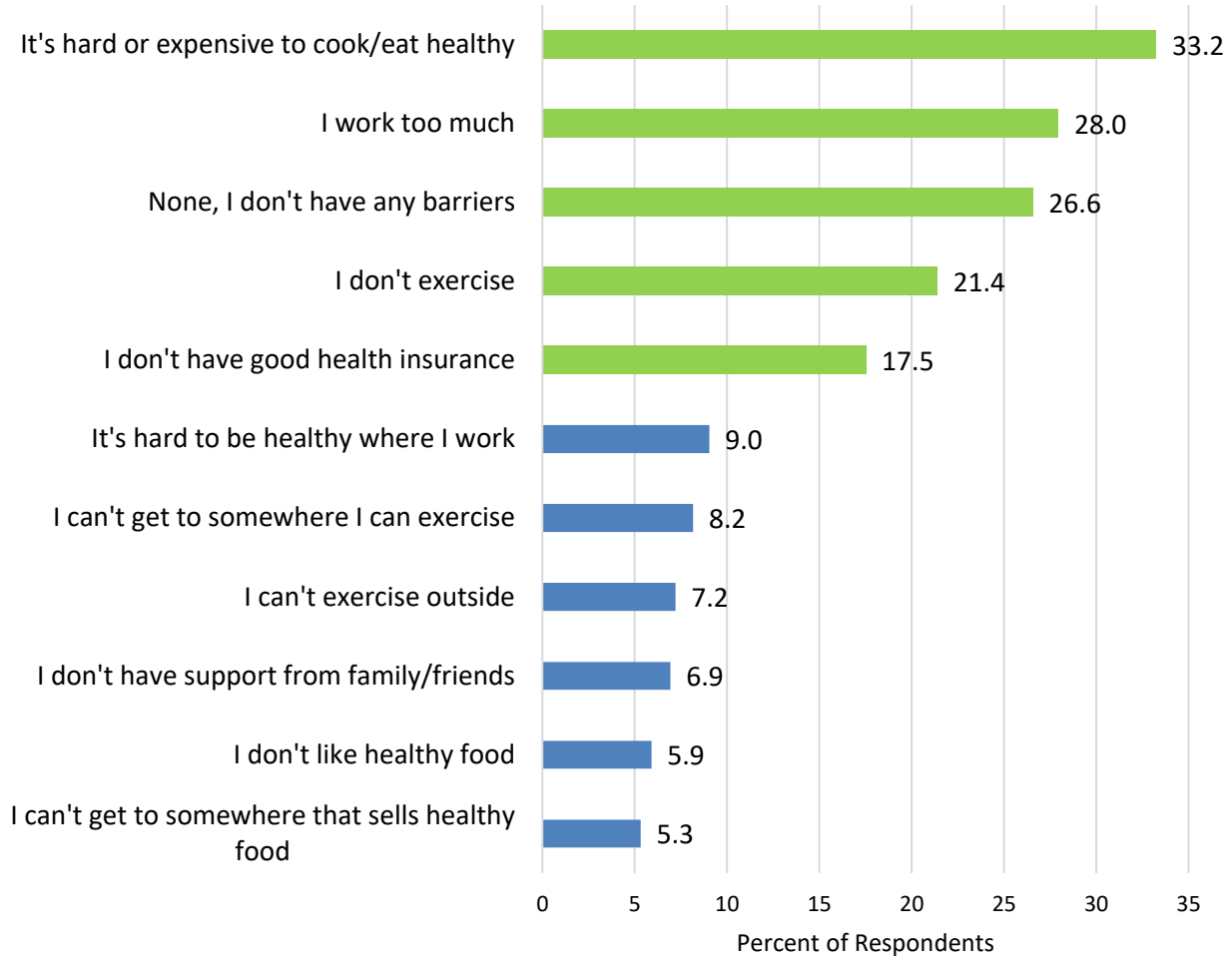
Health Services that Are Difficult to Obtain

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



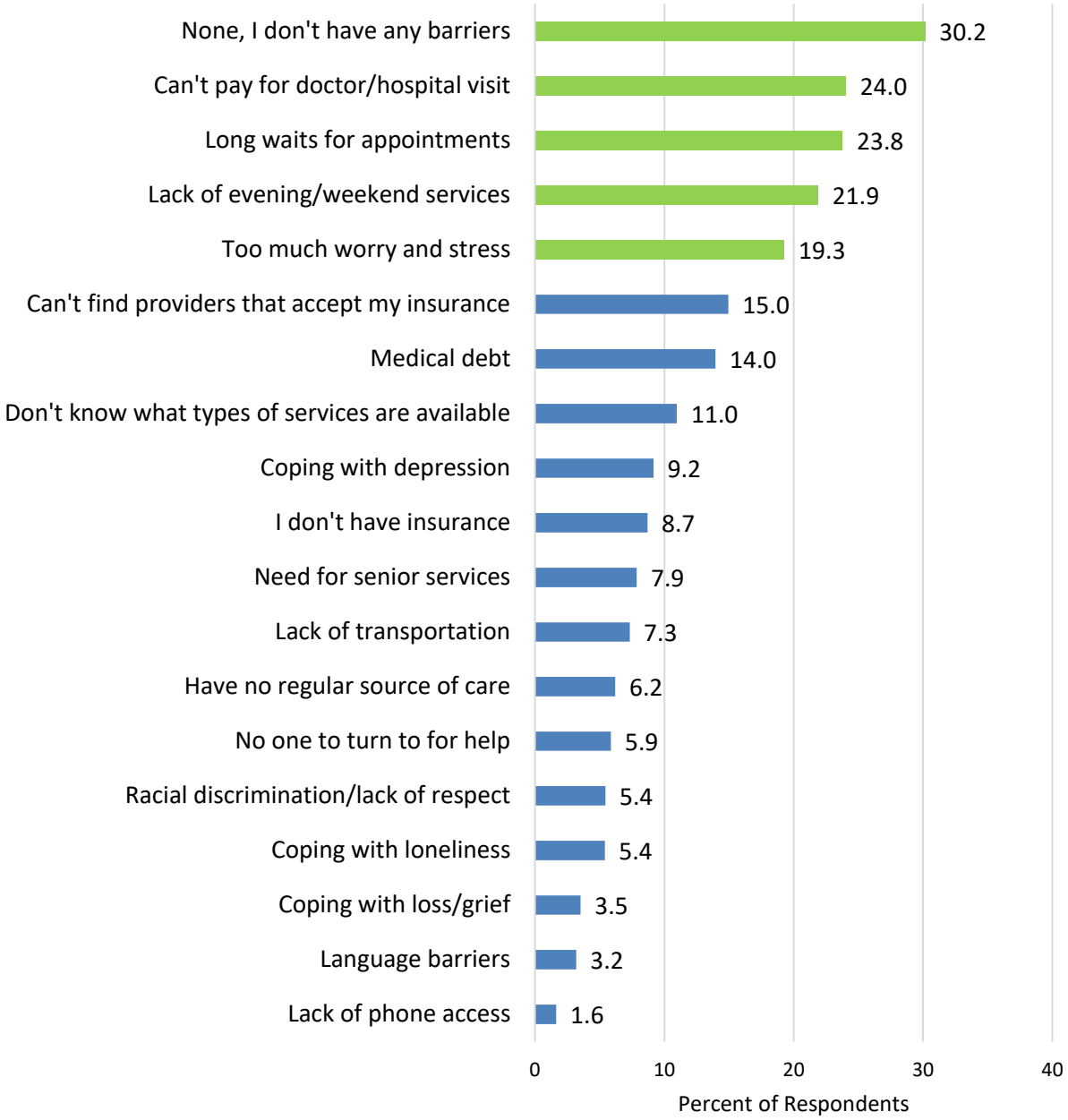
Barriers for YOU to Get or Stay Healthy

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



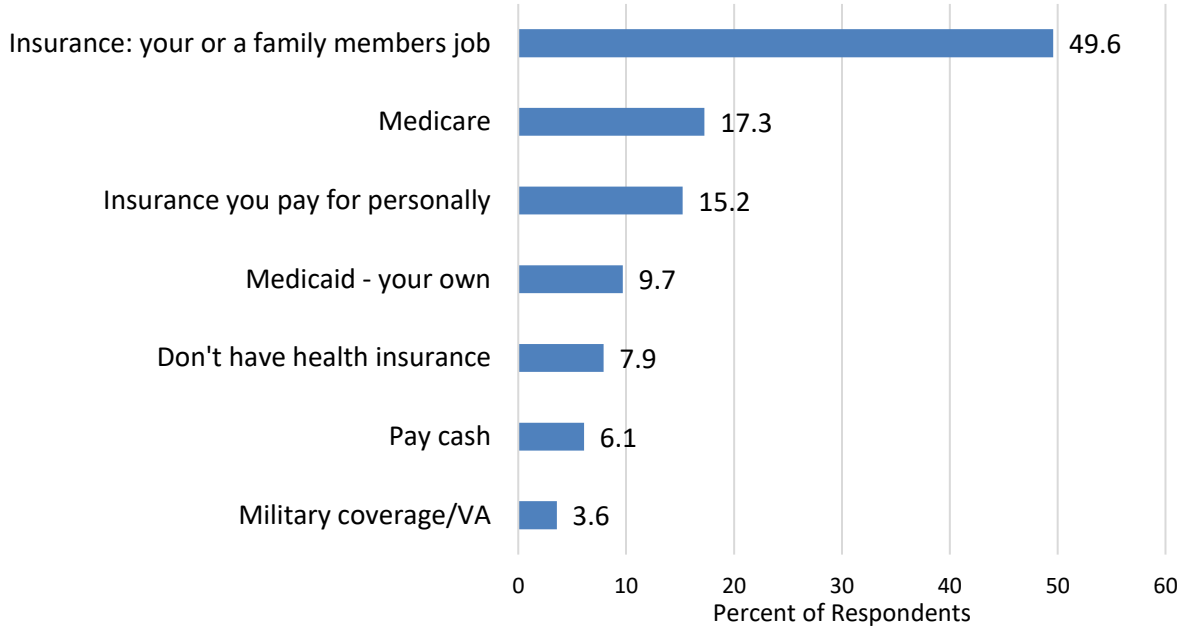
Barriers for YOU to get Health Care

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



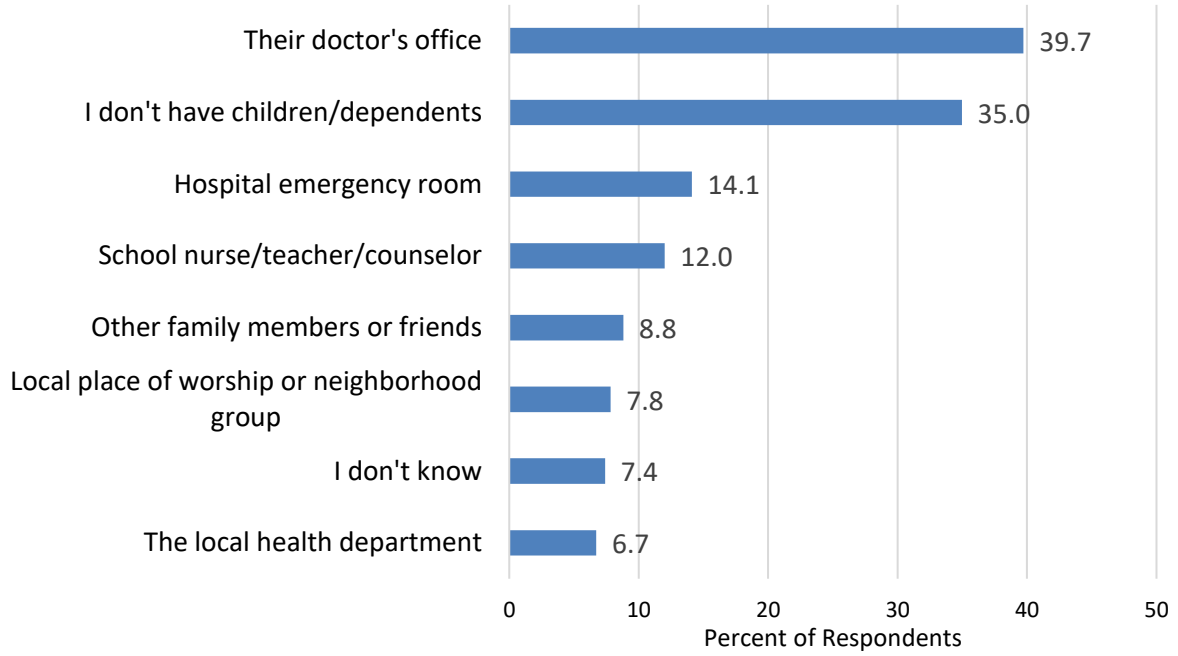
Health Coverage

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



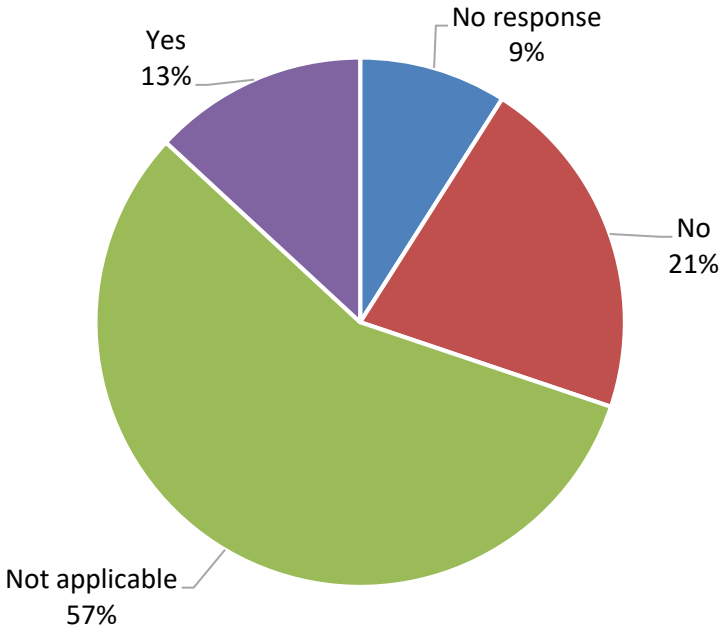
Where You Would Go if You Were Concerned about Your Child

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



Child Care

Survey Question: Do problems getting child care make it difficult for you to work or study?

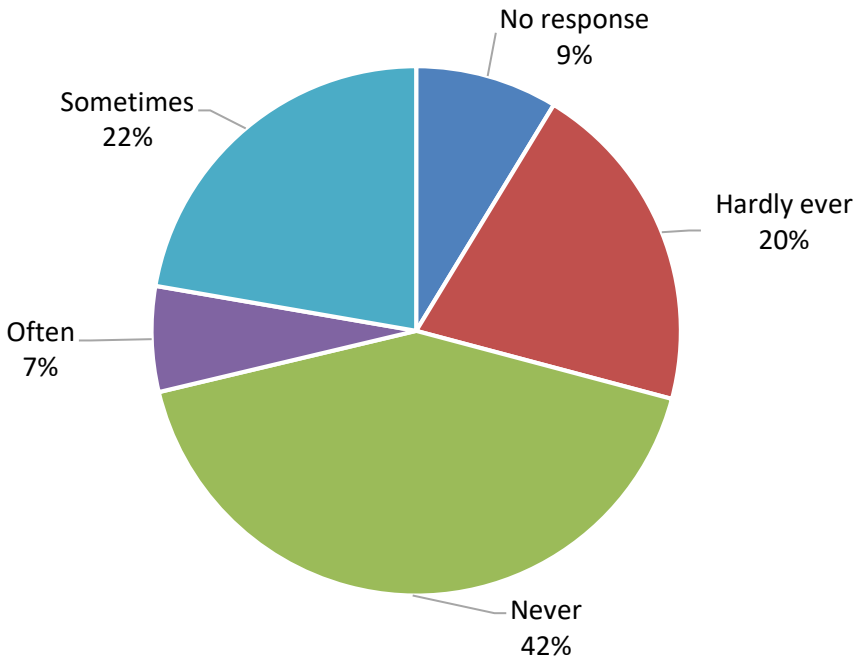


Survey Questions	Yes	No	Don't Know/ Not Sure	No response
Safety: Are you afraid you might be hurt in your apartment building or house?	**5.4%**	**78.5%**	**9.8%**	**6.4%**
Safety: Do you have a safe place or is there someplace where you feel safe?	**86.3%**	**4.0%**	**2.7%**	**7.0%**
Stable Housing: Are you worried or concerned that in the next 2 months you may not have stable housing that you own, rent, or stay in as part of a household?	**8.8%**	**78.6%**	**5.8%**	**6.9%**

Survey Question: **Within the last 12 months:**	Yes	No	Don't Know/ Not Sure	No response
Utilities: Has the utility company shut off your services for not paying your bills?	**6.3%**	**86.1%**	**0.9%**	**6.7%**
Food Insecurity: Did you ever eat less because there wasn't enough money for food?	**19.1%**	**73.2%**	**0.7%**	**7.0%**
Food Insecurity: Did you worry if your food would run out before you got money to buy more?	**21.5%**	**68.2%**	**1.4%**	**8.9%**
Healthcare Costs: Was there a time you needed to see a doctor but could not because of cost?	**30.1%**	**59.7%**	**1.1%**	**9.2%**
Transportation: Ever had to go without health care because you didn't have a way to get there?	**8.7%**	**81.0%**	**1.4%**	**9.0%**

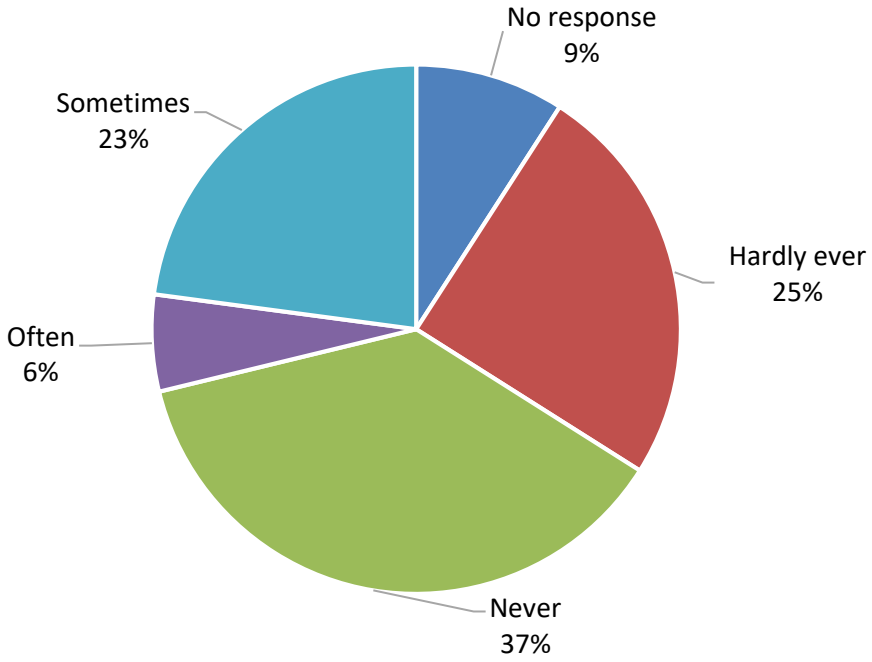
Social Isolation

Survey Question: How often do you feel that you lack companionship?



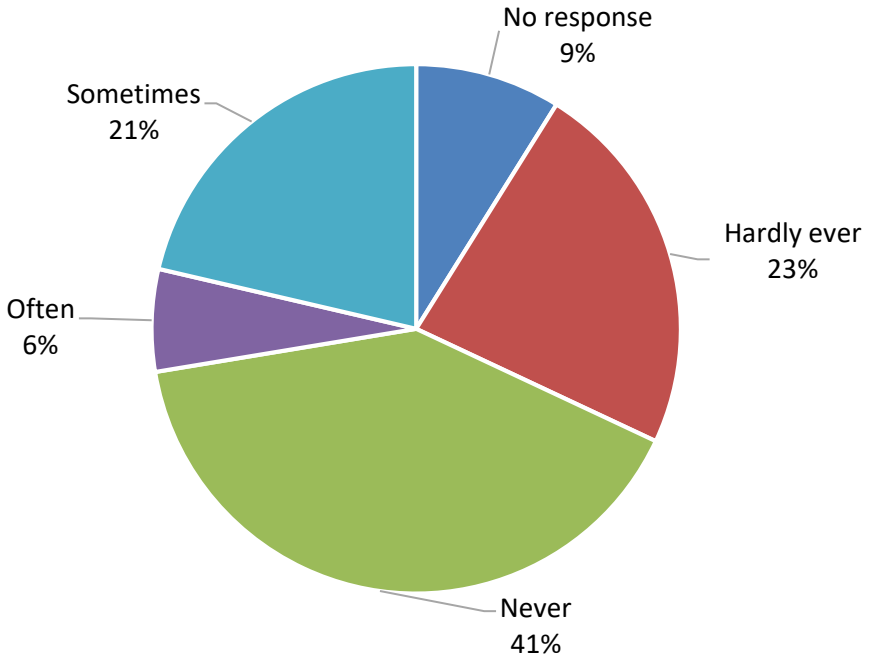
Social Isolation

Survey Question: How often do you feel left out?



Social Isolation

Survey Question: How often do you feel isolated from others?



Focus Group Summary

Volusia County conducted 16 focus groups across the county from March to April 2019. The goal was to conduct focus groups in seven populations – youth, college students, older adults, impoverished communities/neighborhoods, Spanish speakers, maternal and child health groups and professional groups. The focus groups were one to two hours in length, digitally recorded and transcribed verbatim. Focus group participants discussed concerns about health, community, and access to healthcare and other resources that promote optimal health. A summary of findings is below, and the full report is included in the Appendices.

> A **focus group** is a confidential gathering of deliberately selected people assembled to participate in a guided discussion about a particular topic in a non-threatening environment.

- **Affordable Housing** – Participants, from students to the elderly, discussed their inability to afford or obtain housing in the county. Poverty and availability of housing were mentioned to be a problem. One participant said they do not qualify for food stamps but cannot make it, and their check doesn't cover a place to live. Housing was a major point of concern for Bethune-Cookman University students. They could not afford to live off campus nor could they afford the higher cost of living on campus.

- **Healthcare and Social Services** – Participants cited a lack of knowledge concerning resources, difficulty accessing mental health services, high cost for care, and lack of insurance as barriers to health care and social services. The burden of expensive medication was a primary concern for the 55 and over population. Bethune-Cookman University students identified the lack of health services on campus as a concern.

- **Mental Health Services** – Participants stated they had difficulty obtaining mental health services for adults and children. The groups felt that trauma must be identified and addressed earlier to prevent mental health issues later in life.

- **Homelessness –** Many participants who experienced housing challenges also reported homelessness to be a major burden. They expressed the need to expand resources to the homeless population as well.

- **Sense of Community** – Participants explicitly described "no sense of community" where they lived. Lack of community trust and safety and inability to depend on neighbors were specified as contributing factors. Bethune-Cookman University students expressed a sense of disconnect from the Daytona Beach community. The crime and violence surrounding them fosters their disengagement.

- **Diminishing Responsibility to Youth** – Participants expressed a need for more youth programs, community centers, male role models and a better criminal justice system. They also mentioned that families needed places to gather, exercise and play.

- **Community Improvements** – Participants identified the need for Votran routes in the Pierson area, more employment opportunities, improved street lighting, more community resources, and crime interventions.

- **Social Media** – Students expressed their concerns about the negative impact of social media among school aged children. Some teens use social media (texting, blogs, social networking, etc.) to harass, threaten, or embarrass a peer. Some compare themselves to unrealistic body images. Some students are addicted to electronics.

- **Substance Abuse** – University Students reported many of their peers are experimenting with drugs on and off campus while unaware of the dangers. Parents are not always of aware of the experimentation.

- **School Readiness** – University Students expressed not feeling prepared for college, stressed to past the test, and not being taught life skills.

- **School Safety** – University Students expressed their concerns about feeling safe on campus. School administration does not listen to them and the mock drills are scary.

- **Criminal History** –Participants who had felonies on their record faced a particularly hard time securing gainful employment and housing.

Focus Group Questions

A. What makes you most proud of our community?
B. What is the most important issue impacting you and other people you know? Why? In other words, what keeps you up at night?
C. What would success or improvement look like for you and other people in your age group? Why?
D. If you had unlimited resources and power and were granted 3 wishes for Yourself what would they be?
E. If you had unlimited resources and power and were granted 3 wishes for your Community what would they be?
F. What do you believe are 2 to 3 most important characteristics of a community?
G. What are the most significant concerns in the community that may impact the way you live, learn, work, and play?
H. What are the main reasons why these concerns are present?
I. What **assets/resources** does your community or neighborhood have that can be used to improve where you live, learn, work, and play?
J. Is your community or neighborhood a good one to raise children and grow old in? Is there a difference between the two? If so, what's the difference?
    i. **Prompts: What makes it good or bad? What can make it better?**
K. What do you believe are the top 5 issues that must be addressed to improve the quality of life in your community or neighborhood?

Volusia County Health Issues

The following section includes a collection of data graphs, tables and maps depicting population-level data for indicators organized into 12 identified health issues, including:

Priority Health Issues

1. Adult & Youth Behavioral Health
2. Cardiovascular Diseases & Diabetes
3. Barriers to Health Care Services
4. Healthy Eating & Physical Activity
5. Social & Economic Issues

Other Health Issues

6. Aging-related Issues
7. Child & Adolescent Issues
8. Respiratory Disorders & Cancer
9. Communicable & Infectious Diseases
10. Crime, Domestic Violence & Child Abuse
11. Early Childhood
12. Women's Health, Prenatal Care & Birth Outcomes

Tips for Reviewing Health Indicator Data in the Following Sections

There are important components of each data indicator to note prior to interpretation, including:

- **Scale:** The scale for each indicator is different. It may appear that graphs on the same page are visually similar but notice the range between tick marks on each indicator.
- **Range 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 and range of the y-axis.
- **Crude Rate:** Unless otherwise noted, all graphs in the Community Health Needs Assessment 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

3-Year Rolling Rate is a calculation to analyze data points by creating a series of sums 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 calculated on 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.

- **Key for Indicators of Concern: Trend, Comparison, # Impacted columns**

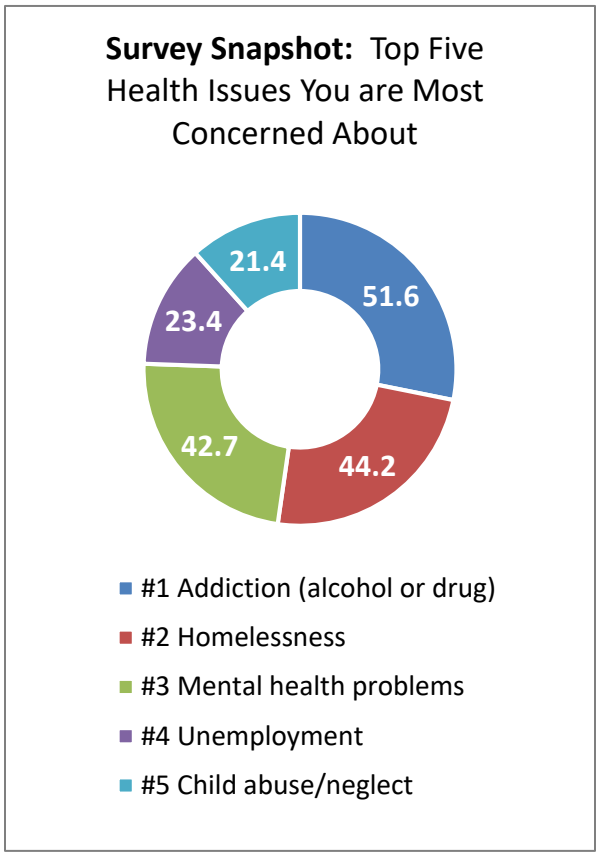
  Arrows up and down ↑ ↓ denote trend direction or that data is higher or lower than Florida. **Green** color denotes positive trend or comparison and **red** denotes negative trend or comparison. The number impacted by issue for most recent year is provided, if available.

1. Adult & Youth 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 major depression or bipolar disorder, as well as substance use disorders 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.

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. Mental illnesses, such as depression and anxiety, affect a person'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.



50% of all lifetime cases of mental illness begin by age 14 and 75% by age 24. (National Institute of Mental Health). 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, inhibit some adolescents and their families from seeking help.

Substance Use and Tobacco Use

Drug and alcohol 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.

The earlier youth start using substances, the greater their chances of continuing to use substances and developing substance use problems later in life. When teens begin drinking at an early age, they increase the chance of becoming addicted to or continuing to abuse substances later in life.

Indicators of Concern		Volusia Trend	Florida Comparison	# Impacted
Binge Drinking	**Figure 1.1.** Heavy/Binge drinking has increased slightly from 2010 to 2016. The percent is highest for white individuals.	↑		
Alcohol-suspected Traffic Incidents	**Figure 1.2 and 1.3.** Volusia alcohol-suspected motor vehicle crashes and traffic crash injuries rates have decreased since 2014 but are slightly higher than Florida.	↓	↑	426
Alcohol-suspected Traffic Deaths	**Figure 1.4.** Alcohol-suspected traffic crash deaths increased between 2015 and 2016 in Volusia and the Volusia rate is higher than Florida.	↑	↑	38
Chronic Liver Disease/Cirrhosis	**Figure 1.5.** The Volusia death rate is higher than Florida. The rate is highest for white individuals.		↑	125
Opioid Drug Use	**Figure 1.7 and 1.8.** Volusia's rate of Opioid-involved overdose hospitalizations increased from 2015 to 2017 and is higher than Florida's. The rate of death from Opioid overdoses increased in the last year and now exceeds the Florida rate.	↑	↑	256
Smoking	**Figure 1.10.** The percent of Volusia adults who smoke is higher than Florida. (the difference is statistically significant)		↑	
Poor Mental Health	**Figure 1.11**. The percent of Volusia adults who had 14 or more poor mental health days in the last month is higher than Florida. (the difference is statistically significant)		↑	
Depression	**Figure 1.12**. The percent of Volusia adults with a depressive disorder is higher than Florida. (the difference is statistically significant for Hispanic population)		↑	
Suicide	**Figure 1.15**. Volusia's suicide rate is increasing and is higher than Florida's.	↑	↑	123
Self-Inflicted Injury	**Figure 1.18.** Volusia's age 19-21 rate of hospitalizations for self-inflicted injuries has increased but is lower than Florida's.	↑	↓	15
Delinquency	**Figure 1.23.** The rate of youth referred to the Department of Juvenile Justice has declined since 2014 but has remained higher than Florida.	↓	↑	2,225
Marijuana Use	**Figure 1.24.** The percent of Volusia middle and high school students using marijuana decreased between 2016 and 2018 but remains higher than Florida.	↓	↑	
Alcohol Use	**Figure 1.25 and 1.26** The percent of student alcohol use has been decreasing since 2008 but remains slightly higher than Florida.	↓	↑	
Cigarette Use	**Figure 1.29 and 1.30.** Reported cigarette use among Volusia middle and high school students has declined, but both rates remain higher than Florida.	↓	↑	

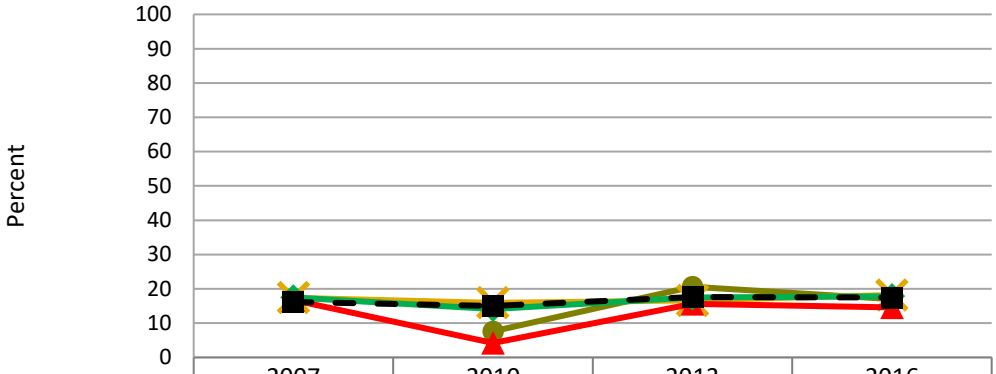
Indicators of Concern

		Volusia Trend	Florida Comparison	# Impacted
Vaporizer/ E-Cigarette Use	**Figure 1.31.** The middle and high school use of Vaporizers/E-cigarettes has increased since 2016 and far exceeds cigarette use among middle and high schoolers. Volusia's rate is higher than Florida's. (data only collected since 2016)	↑	↑	

Indicators Included:

Indicator	Reference
Adults Who Engage in Heavy or Binge Drinking	**Figure 1.1**
Alcohol-suspected Motor Vehicle Traffic Crashes	**Figure 1.2**
Alcohol-suspected Motor Vehicle Traffic Crash Injuries	**Figure 1.3**
Alcohol-suspected Motor Vehicle Traffic Crash Deaths	**Figure 1.4**
Chronic Liver Disease and Cirrhosis 3-Year Age-adjusted Death Rate	**Figure 1.5**
Chronic Liver Disease and Cirrhosis 3-Year Age-adjusted Death Rate by Gender	**Figure 1.6**
Opioid Related Age-adjusted Hospitalization Rate	**Figure 1.7**
Opioid Related Age-adjusted Death Rate	**Figure 1.8**
Most Common Primary Drug of Choice at Intake (Adults Entering Substance Abuse Treatment at SMA Healthcare)	**Figure 1.9**
Adults Who Are Current Smokers	**Figure 1.10**
Adults Who Had Poor Mental Health on 14 or More of the Past 30 Days	**Figure 1.11**
Adults Who Have a Depressive Disorder	**Figure 1.12**
Average Number of Unhealthy Mental Days in the Past 30 Days	**Figure 1.13**
Baker Act Involuntary Exam Initiations (All Ages)	**Figure 1.14**
Suicide Age-adjusted Death Rate, 3-Year Rolling Rates	**Figure 1.15**
Suicide Age-adjusted Death Rate by Gender, 3-Year Rolling Rates	**Figure 1.16**
Suicide Death Rate, Ages 19-21, 3-Year Rolling Rates	**Figure 1.17**
Non-Fatal Hospitalizations for Self-inflicted Injuries, Ages 19-21, 3-Year Rolling Rates	**Figure 1.18**
Number of Membership Associations	**Figure 1.19**
Children in Schools Grades K-12 with Emotional/Behavioral Disability	**Figure 1.20**
Suicide 3-year Death Rate, Ages 12-18	**Figure 1.21**
Non-Fatal Hospitalizations for Self-Inflicted Injuries, Ages 12-18, 3-Year Rolling Rates	**Figure 1.22**
Referrals to Department of Juvenile Justice	**Figure 1.23**
Middle and High School Students Who used Marijuana/Hashish in the Past 30 Days	**Figure 1.24**
High School Students Who Used Alcohol in Past 30 Days	**Figure 1.25**
Middle School Students Who Used Alcohol in Past 30 Days	**Figure 1.26**
High School Students Reporting Binge Drinking in the Past 30 Days	**Figure 1.27**
Middle School Students Reporting Binge Drinking in the Past 30 Days	**Figure 1.28**
Middle School Students Smoking Cigarettes in the Past 30 Days	**Figure 1.29**
High School Students Smoking Cigarettes in the Past 30 Days	**Figure 1.30**
Middle and High School Students Using Vaporizer/E-Cigarette in Past 30 days	**Figure 1.31**

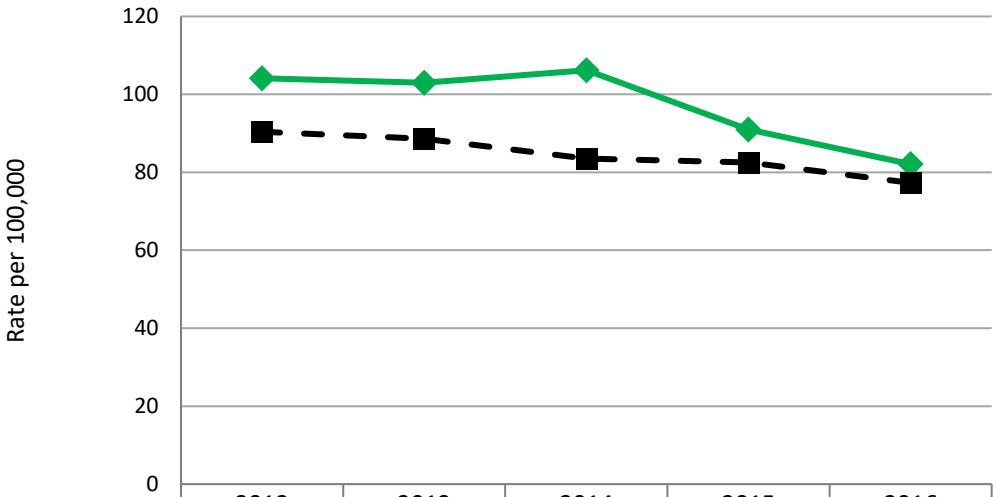
Figure 1.1 Adults Who Engage in Heavy or Binge Drinking



	2007	2010	2013	2016
Black		7.6	20.6	17.0
White	17.4	15.9	16.6	18.2
Hispanic	16.7	4.2	15.6	14.6
Volusia	17.5	14.1	17.5	17.8
Florida	16.2	15.0	17.6	17.5

Source: Florida Behavioral Risk Factor Surveillance System
NOTE: Black = Non-Hispanic, Black; White = Non-Hispanic, White
NOTE: Blank cells indicate a sample size less than 30, which would yield statistically unreliable estimates

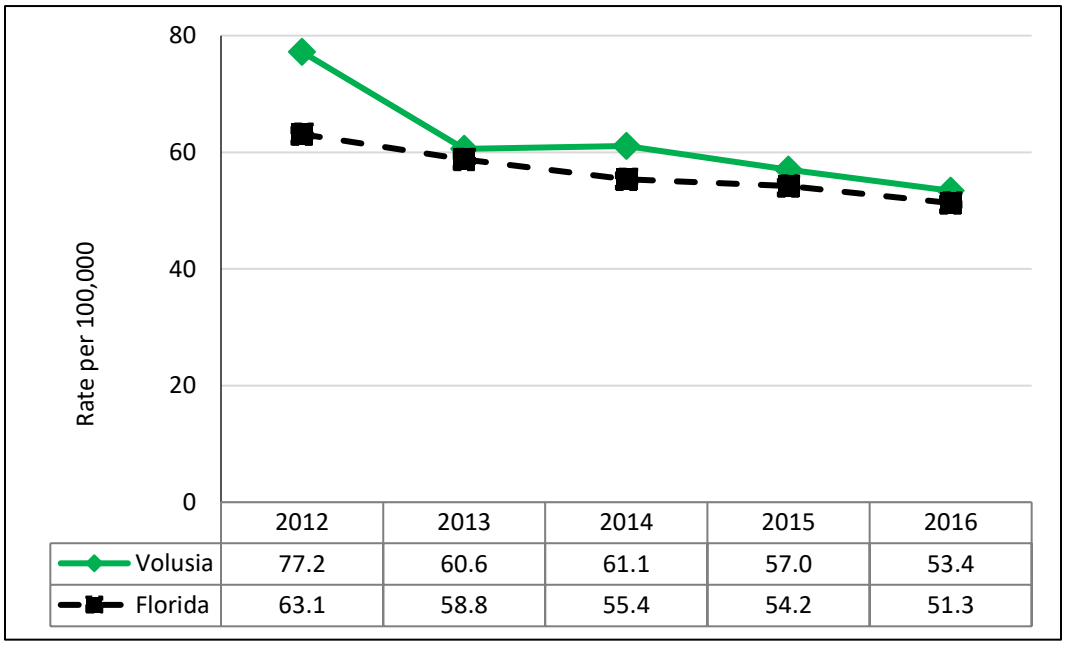
Figure 1.2 Alcohol-suspected Motor Vehicle Traffic Crashes



	2012	2013	2014	2015	2016
Volusia	104.1	103.0	106.2	91.0	82.1
Florida	90.4	88.6	83.5	82.5	77.3

Source: Florida Department of Highway Safety and Motor Vehicles

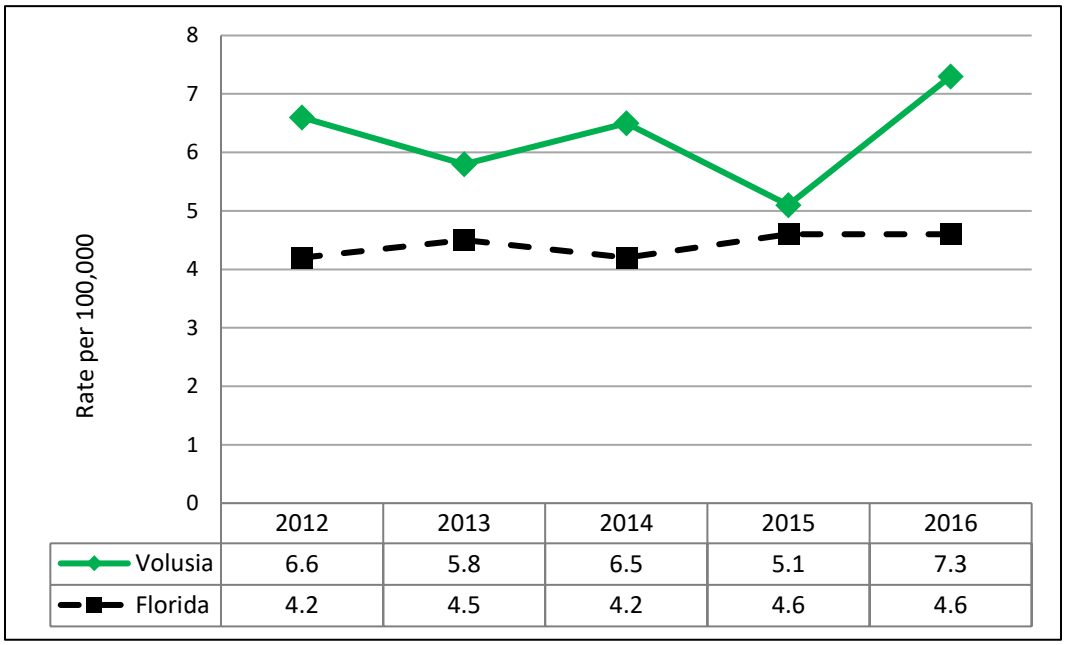
Figure 1.3 Alcohol-suspected Motor Vehicle Traffic Crash Injuries



	2012	2013	2014	2015	2016
Volusia	77.2	60.6	61.1	57.0	53.4
Florida	63.1	58.8	55.4	54.2	51.3

Source: Florida Department of Highway Safety and Motor Vehicles

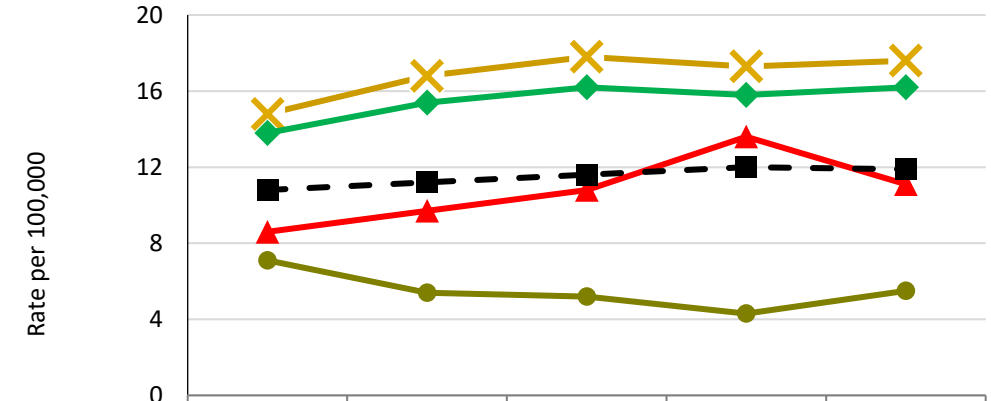
Figure 1.4 Alcohol-suspected Motor Vehicle Traffic Crash Deaths



	2012	2013	2014	2015	2016
Volusia	6.6	5.8	6.5	5.1	7.3
Florida	4.2	4.5	4.2	4.6	4.6

Source: Florida Department of Highway Safety and Motor Vehicles

Figure 1.5 Chronic Liver Disease and Cirrhosis, 3-year Age-adjusted Death Rate



	2011-13	2012-14	2013-15	2014-16	2015-17
Black	7.1	5.4	5.2	4.3	5.5
White	14.8	16.8	17.8	17.3	17.6
Hispanic	8.6	9.7	10.8	13.6	11.1
Volusia	13.8	15.4	16.2	15.8	16.2
Florida	10.8	11.2	11.6	12.0	11.9

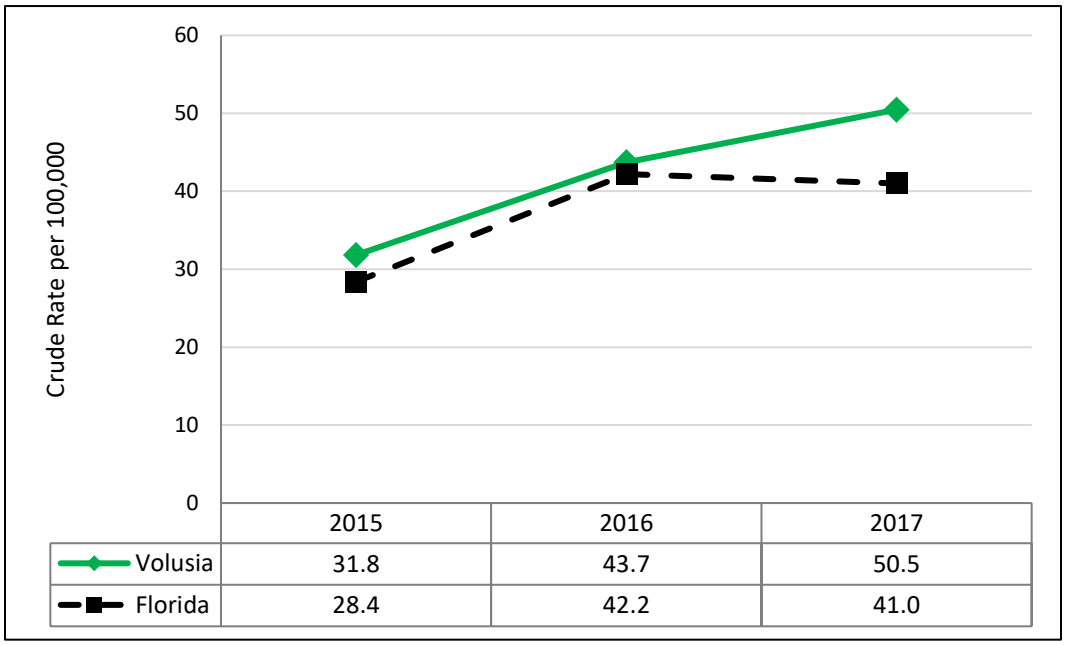
Source: Florida Department of Health, Bureau of Vital Statistics

Figure 1.6 Chronic Liver Disease and Cirrhosis, 3-Year Age-adjusted Death Rate by Gender

	Male		Female	
Timeframe	**Count**	**Rate**	**Count**	**Rate**
2015-2017	220	21.1	132	11.8
2014-2016	213	20.4	130	11.7
2013-2015	204	20.0	131	12.8
2012-2014	187	19.1	124	12.0
2011-2013	175	18.1	103	10.0

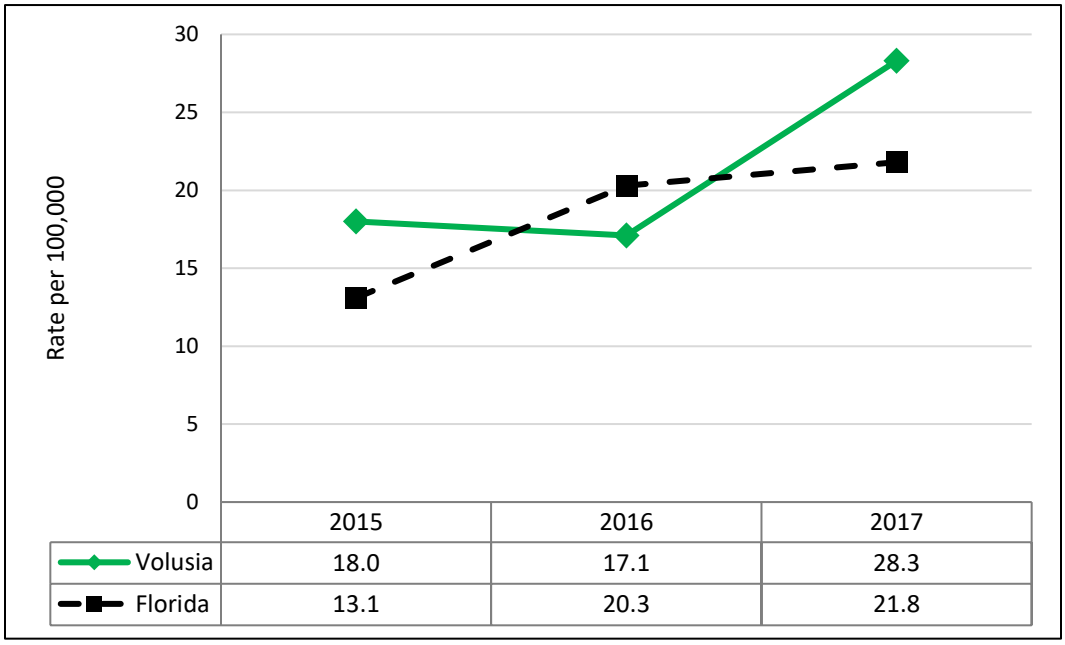
Source: Florida Department of Health, Bureau of Vital Statistics
Note: Rates are per 100,000

Figure 1.7 Opioid-Involved Non-Fatal Overdose Hospitalizations, Crude Rate



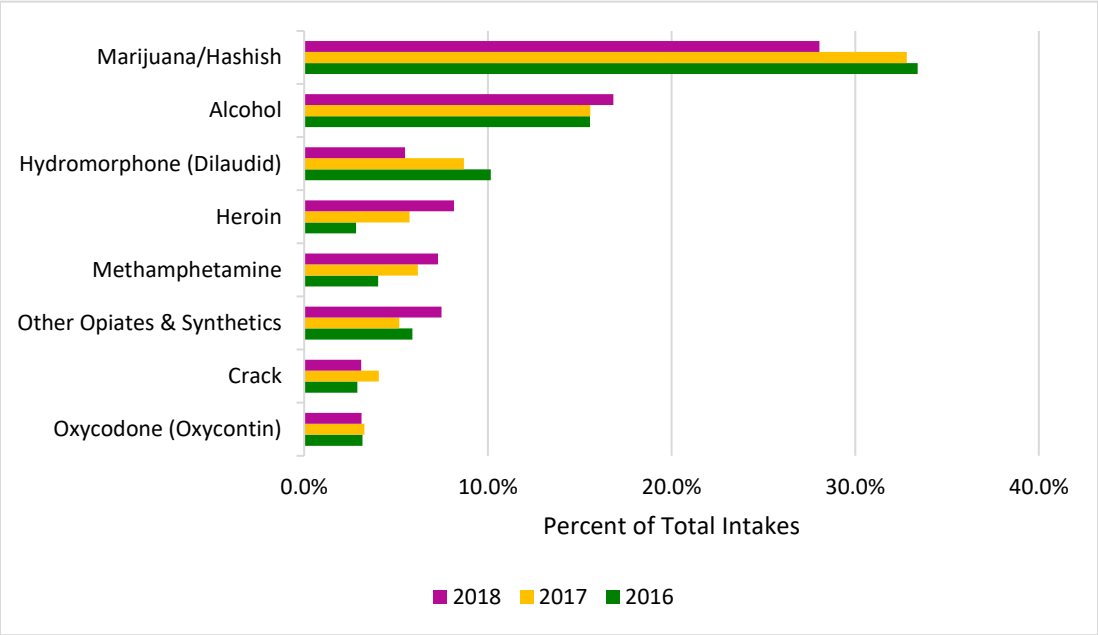
Source: Florida Department of Health, data supplied by UF FROST
Note: Data is provisional

Figure 1.8 Opioid Overdose Age-adjusted Death Rate



Source: Florida Department of Health, data supplied by UF FROST
Note: Data is provisional

Figure 1.9 Most Common Primary Drug of Choice at Intake (Flagler County and Volusia County Adults entering Substance Abuse Treatment at SMA Healthcare)



Source: SMA Healthcare

Figure 1.10 Adults Who Are Current Smokers

Adults who are current smokers, 2016	Volusia	Florida
	Percent	Percent
Total – Overall	20.8*	15.5
Men	22.4	17.8
Women	19.5*	13.3
Non-Hispanic, White	24.2*	17.8
Non-Hispanic, Black	1.5*	12.4
Hispanic	14.8	11.7
18-44	29.3*	17.0
45-64	23.4	19.0
65 & Older	9.5	8.4
< High School	43.7*	25.5
High School/GED	26.9	18.7
> High School	14.3	11.5
< $25,000	29.7	23.5
$25,000-$49,999	15.8	16.5
$50,000 or More	14.1	10.3

Source: Florida Behavioral Risk Factor Surveillance System
**Indicates the difference observed between the county and state measure is statistically significant*

Figure 1.11 Adults Who Had Poor Mental Health Days on 14 or More of the Past 30 Days

Adults who had poor mental health days on 14 or more of the past 30 days, 2016	Volusia	Florida
	Percent	Percent
Total – Overall	15.7*	11.4
Men	9.3	9.5
Women	21.1*	13.2
Non-Hispanic, White	14.8	12.2
Non-Hispanic, Black	8.7	10.8
Hispanic	25.1*	9.9
18-44	15.7	12.5
45-64	20.8*	13.0
65 & Older	9.7	7.3
< High School	16.9	15.3
High School/GED	18.0	12.1
> High School	14.1	10.1
< $25,000	29.3*	17.8
$25,000-$49,999	9.2	11.9
$50,000 or More	8.6	7.6

Source: Florida Behavioral Risk Factor Surveillance System
**Indicates the difference observed between the county and state measure is statistically significant*

Figure 1.12 Adults Who Have a Depressive Disorder

Adults who have a depressive disorder, 2016	Volusia	Florida
	Percent	Percent
Total – Overall	18.2	14.2
Men	12.1	10.4
Women	23.4	17.8
Non-Hispanic, White	16.4	16.6
Non-Hispanic, Black	14.0	9.8
Hispanic	27.1*	12.1
< High School	28.0	19.3
High School/GED	17.4	14.7
> High School	16.7	12.9
< $25,000	27.3	20.6
$25,000-$49,999	14.5	14.9
$50,000 or More	11.9	9.9

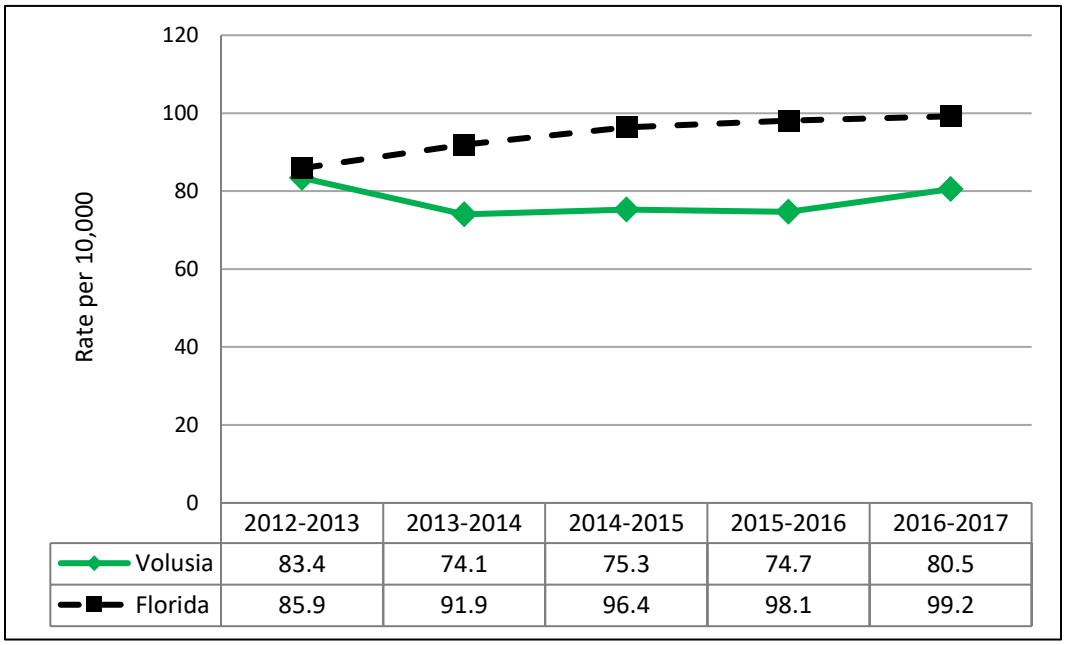
Source: Florida Behavioral Risk Factor Surveillance System
*Indicates the difference observed between the county and state measure is statistically significant

Figure 1.13 Average Number of Unhealthy Mental Days in the Past 30 Days

Average number of unhealthy mental days in the past 30 days, 2016	Volusia	Florida
	Number	Number
Total – Overall	4.8*	3.6
Men	3.6	3.0
Women	5.8*	4.1
Non-Hispanic, White	4.6	3.8
Non-Hispanic, Black	3.2	3.5
Hispanic	6.6	3.1
18-44	5.1	4.0
45-64	6.2*	3.9
65 & Older	2.8	2.3
< High School	5.5	4.6
High School/GED	5.5	3.8
> High School	4.3	3.2
< $25,000	7.8*	5.3
$25,000-$49,999	2.9	3.7
$50,000 or More	3.1	2.6

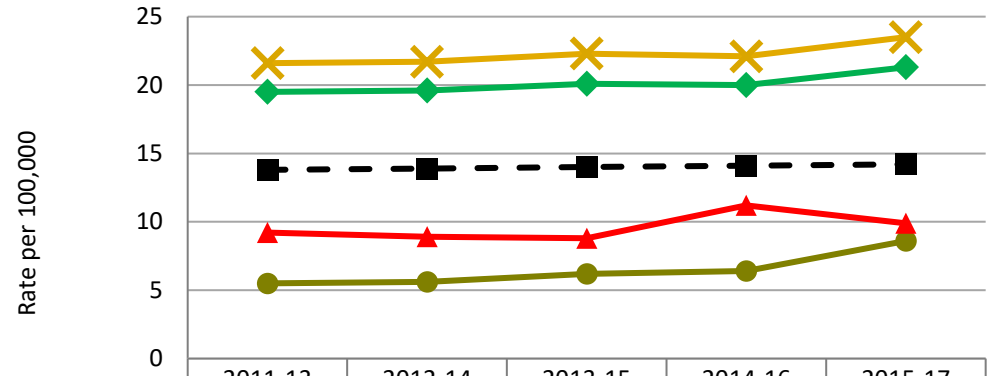
Source: Florida Behavioral Risk Factor Surveillance System
*Indicates the difference observed between the county and state measure is statistically significant

Figure 1.14 Baker Act Involuntary Exam Initiations (All Ages)



Source: Baker Act Reporting Center, College of Behavioral and Community Sciences, University of South Florida

Figure 1.15 Suicide Age-adjusted Death Rate, 3-Year Rolling Rates



	2011-13	2012-14	2013-15	2014-16	2015-17
Black	5.5	5.6	6.2	6.4	8.6
White	21.6	21.7	22.3	22.1	23.5
Hispanic	9.2	8.9	8.8	11.2	9.9
Volusia	19.5	19.6	20.1	20.0	21.3
Florida	13.8	13.9	14.0	14.1	14.2

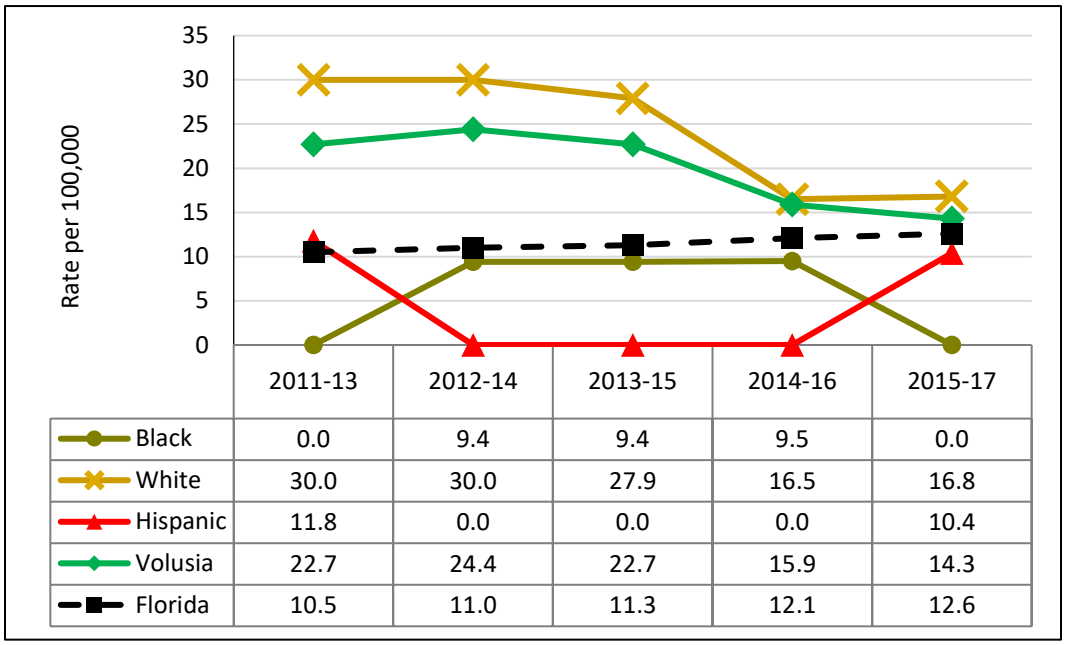
Source: Florida Department of Health, Bureau of Vital Statistics

Figure 1.16 Suicide Age-adjusted Death Rate by Gender, 3-Year Rolling Rates

	Male		Female	
Timeframe	**Count**	**Rate**	**Count**	**Rate**
2015-2017	264	32.1	86	11.2
2014-2016	250	30.2	83	10.3
2013-2015	247	30.2	88	10.7
2012-2014	238	28.7	94	11.1
2011-2013	241	29.1	87	10.6

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

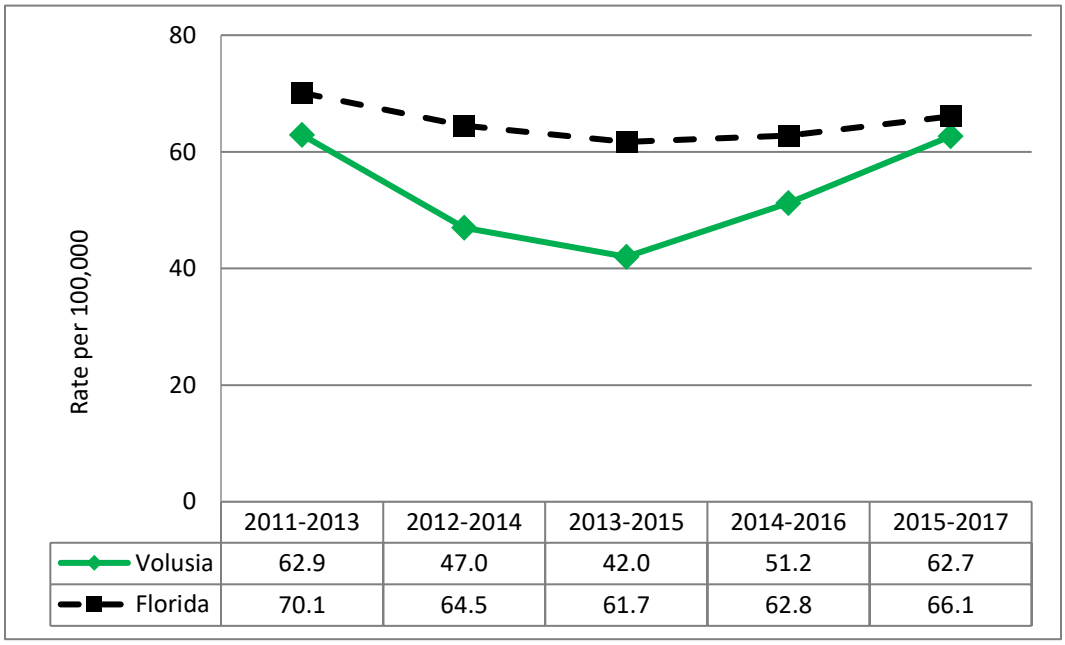
Figure 1.17 Suicide, Ages 19-21, 3-Year Rolling Rates



	2011-13	2012-14	2013-15	2014-16	2015-17
Black	0.0	9.4	9.4	9.5	0.0
White	30.0	30.0	27.9	16.5	16.8
Hispanic	11.8	0.0	0.0	0.0	10.4
Volusia	22.7	24.4	22.7	15.9	14.3
Florida	10.5	11.0	11.3	12.1	12.6

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

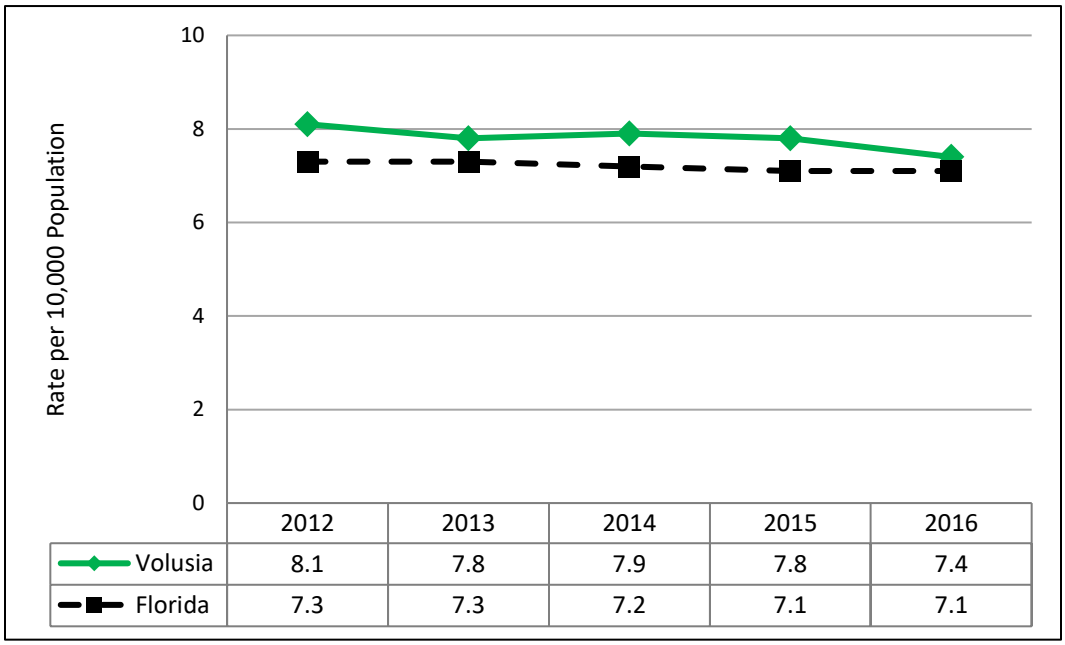
Figure 1.18 Non-fatal Hospitalizations for Self-inflicted Injuries, Ages 19-21, 3-Year Rolling Rates



	2011-2013	2012-2014	2013-2015	2014-2016	2015-2017
Volusia	62.9	47.0	42.0	51.2	62.7
Florida	70.1	64.5	61.7	62.8	66.1

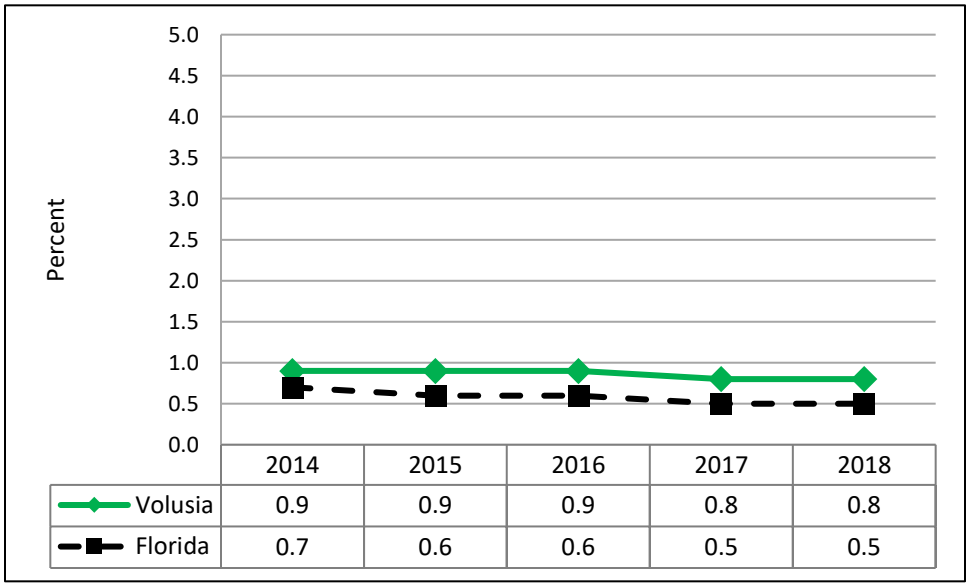
Source: Florida Agency for Health Care Administration (AHCA)

Figure 1.19 Number of Membership Associations



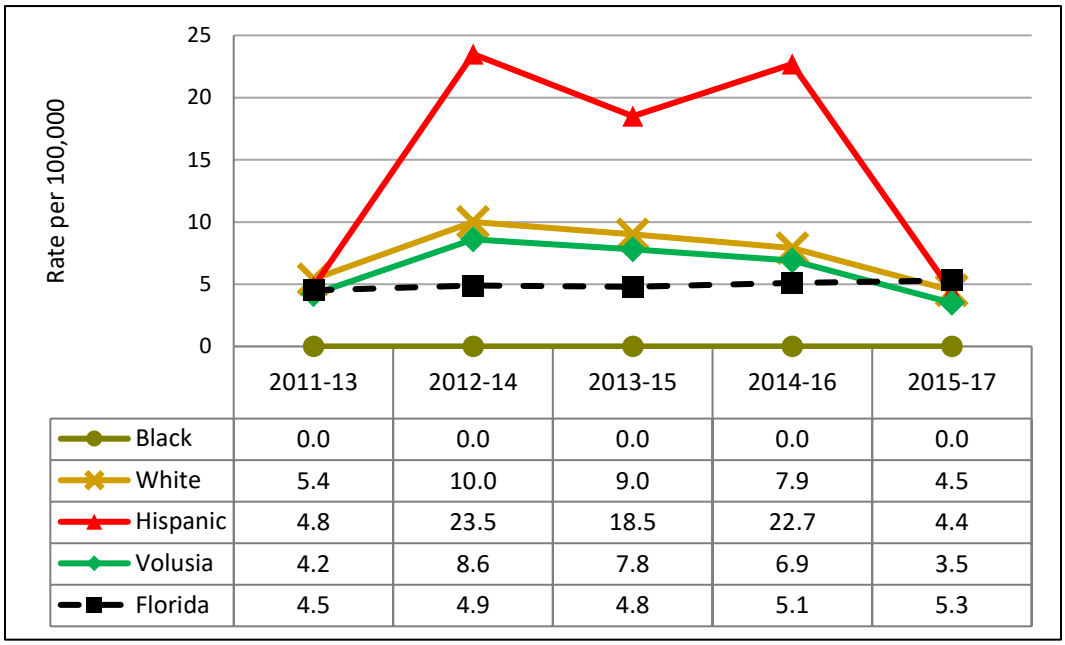
Source: County Business Patterns

Figure 1.20 Children in Schools Grades K-12 with Emotional/Behavioral Disability



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

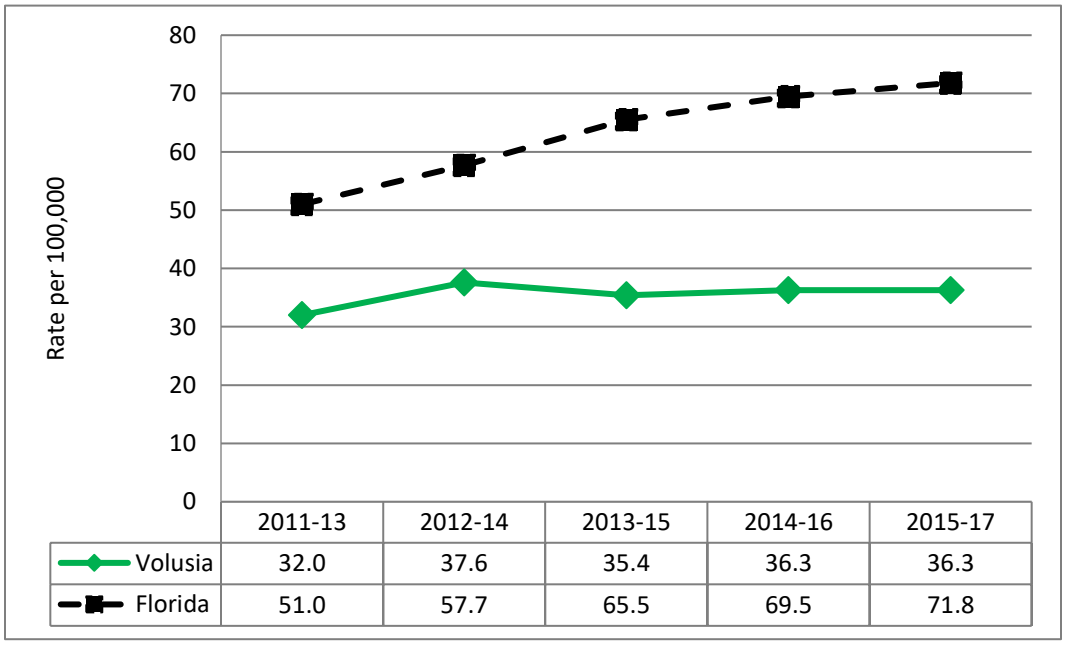
Figure 1.21 Suicide, Ages 12-18, 3-year Rolling Rates



	2011-13	2012-14	2013-15	2014-16	2015-17
Black	0.0	0.0	0.0	0.0	0.0
White	5.4	10.0	9.0	7.9	4.5
Hispanic	4.8	23.5	18.5	22.7	4.4
Volusia	4.2	8.6	7.8	6.9	3.5
Florida	4.5	4.9	4.8	5.1	5.3

Source: Florida Department of Health, Bureau of Vital Statistics

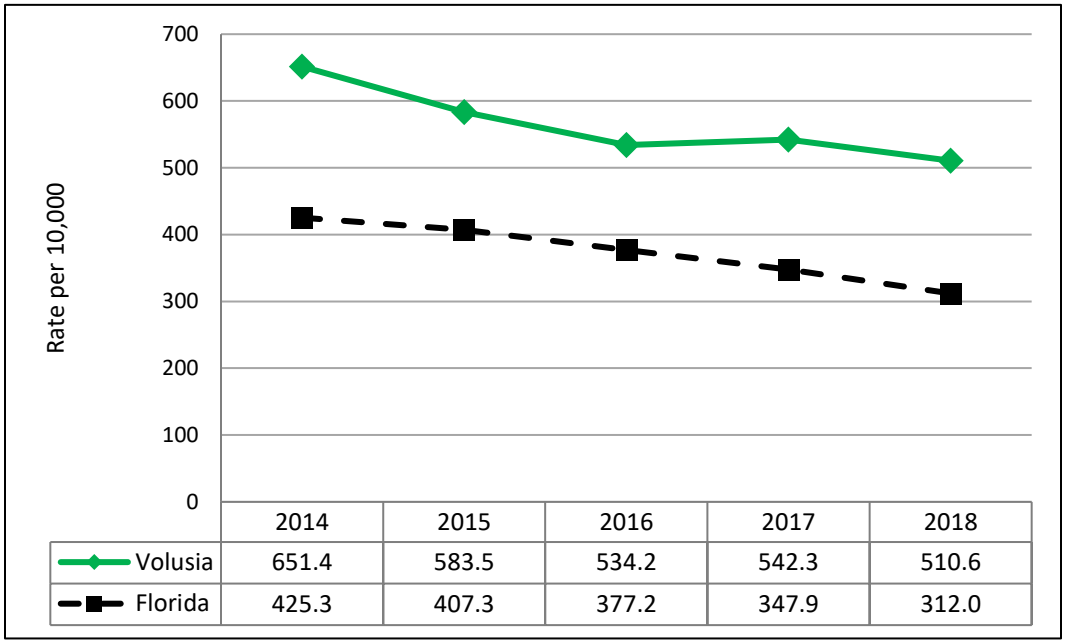
Figure 1.22 Non-fatal Hospitalizations for Self-inflicted Injuries, Ages 12-18, 3-year Rolling Rates



	2011-13	2012-14	2013-15	2014-16	2015-17
Volusia	32.0	37.6	35.4	36.3	36.3
Florida	51.0	57.7	65.5	69.5	71.8

Source: Florida Agency for Health Care Administration (AHCA)

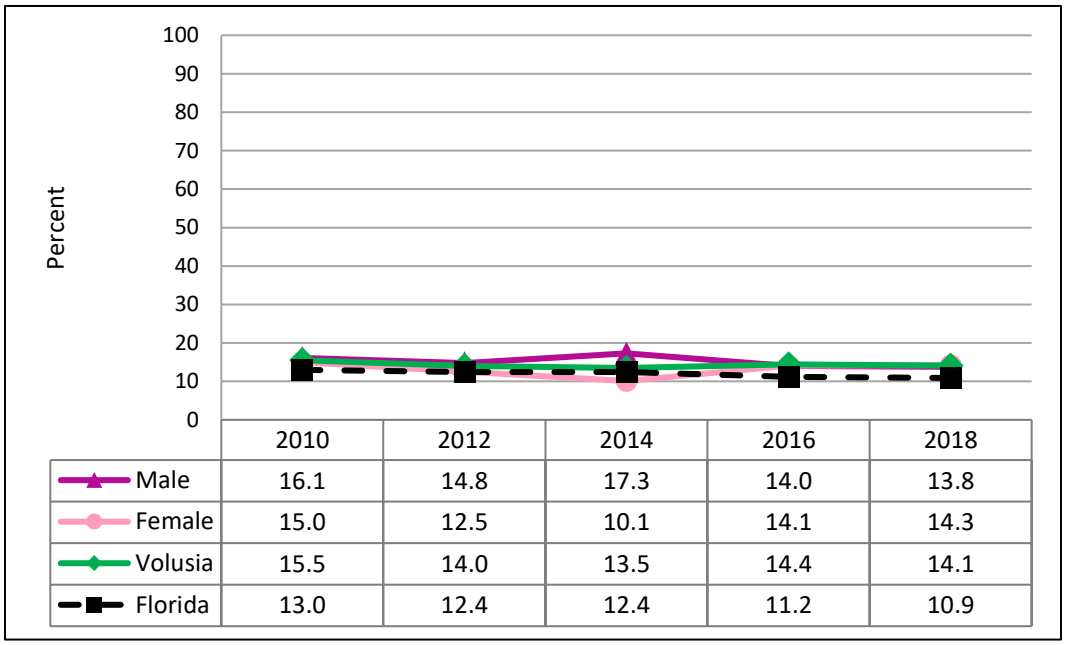
Figure 1.23 Referrals to Department of Juvenile Justice



	2014	2015	2016	2017	2018
Volusia	651.4	583.5	534.2	542.3	510.6
Florida	425.3	407.3	377.2	347.9	312.0

Source: Florida Department of Juvenile Justice
Note: Starting in 2017, the state total includes out-of-state arrests of Florida residents

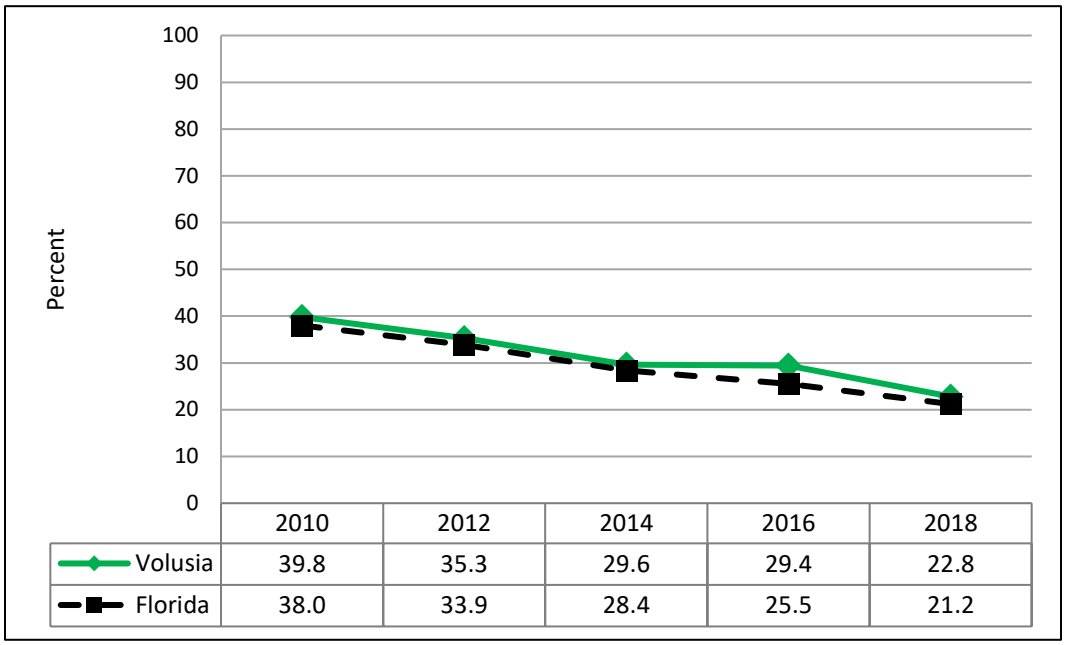
Figure 1.24 Middle and High School Students Using Marijuana/Hashish in the Past 30 Days



	2010	2012	2014	2016	2018
Male	16.1	14.8	17.3	14.0	13.8
Female	15.0	12.5	10.1	14.1	14.3
Volusia	15.5	14.0	13.5	14.4	14.1
Florida	13.0	12.4	12.4	11.2	10.9

Source: Florida Youth Substance Abuse Survey (FYSAS)

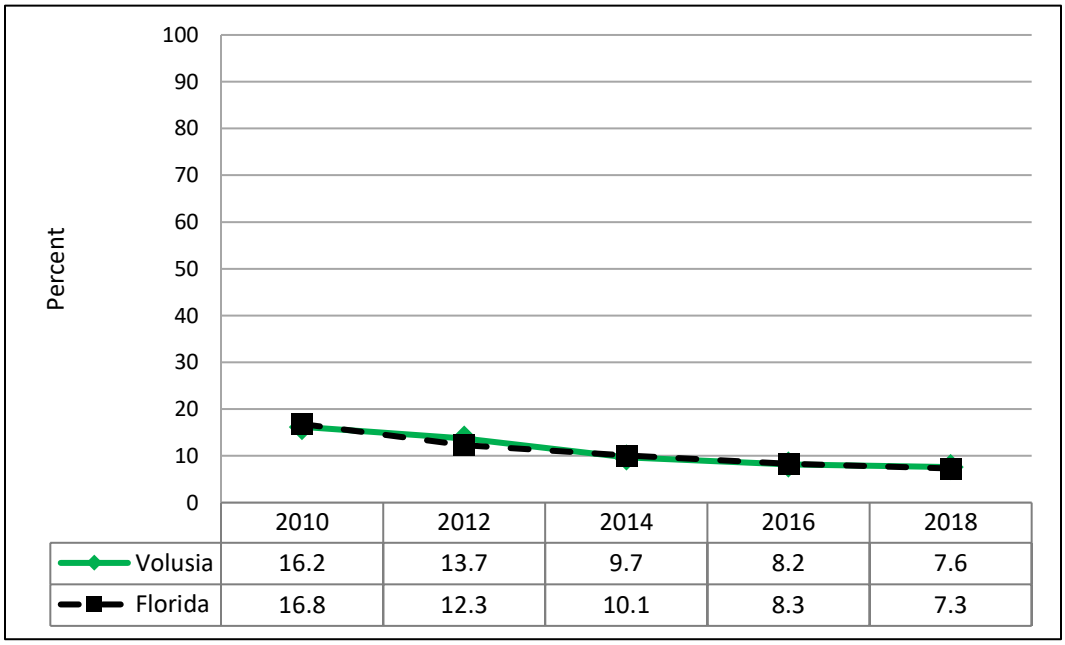
Figure 1.25 High School Students Who Used Alcohol in the Past 30 Days



	2010	2012	2014	2016	2018
Volusia	39.8	35.3	29.6	29.4	22.8
Florida	38.0	33.9	28.4	25.5	21.2

Source: Florida Youth Substance Abuse Survey (FYSAS)

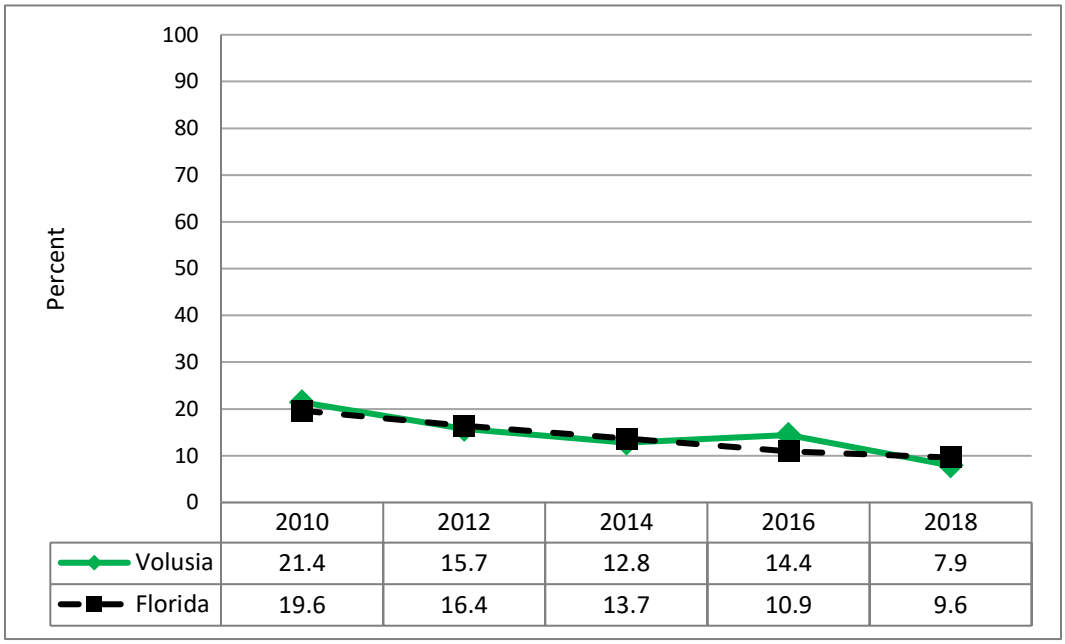
Figure 1.26 Middle School Students Who Used Alcohol in the Past 30 Days



	2010	2012	2014	2016	2018
Volusia	16.2	13.7	9.7	8.2	7.6
Florida	16.8	12.3	10.1	8.3	7.3

Source: Florida Youth Substance Abuse Survey (FYSAS)

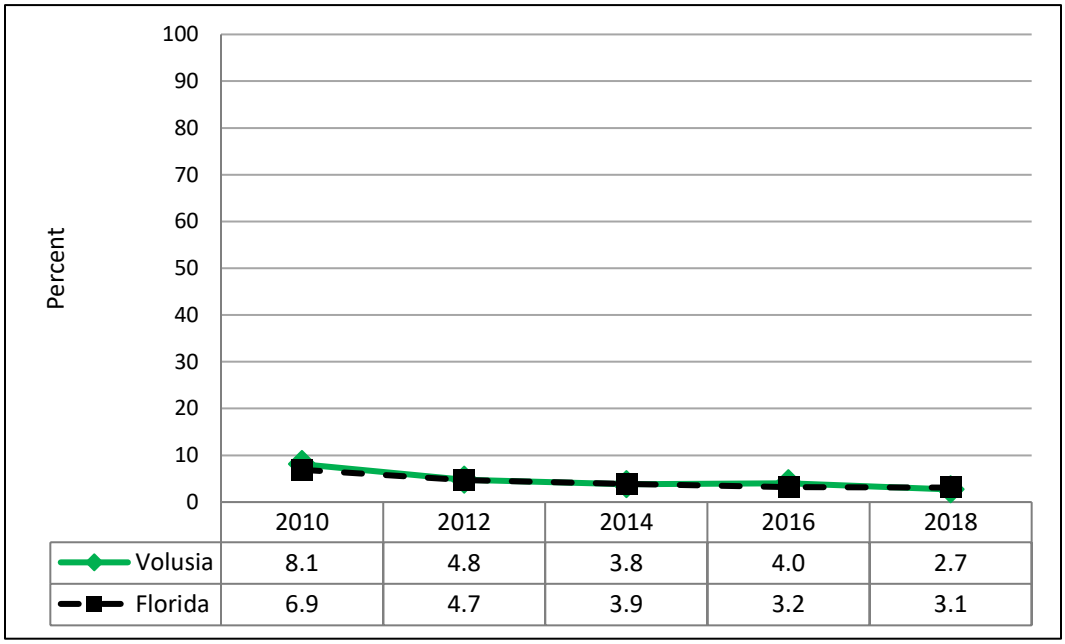
Figure 1.27 High School Students Reporting Binge Drinking in the Past 30 Days



	2010	2012	2014	2016	2018
Volusia	21.4	15.7	12.8	14.4	7.9
Florida	19.6	16.4	13.7	10.9	9.6

Source: Florida Youth Substance Abuse Survey (FYSAS)

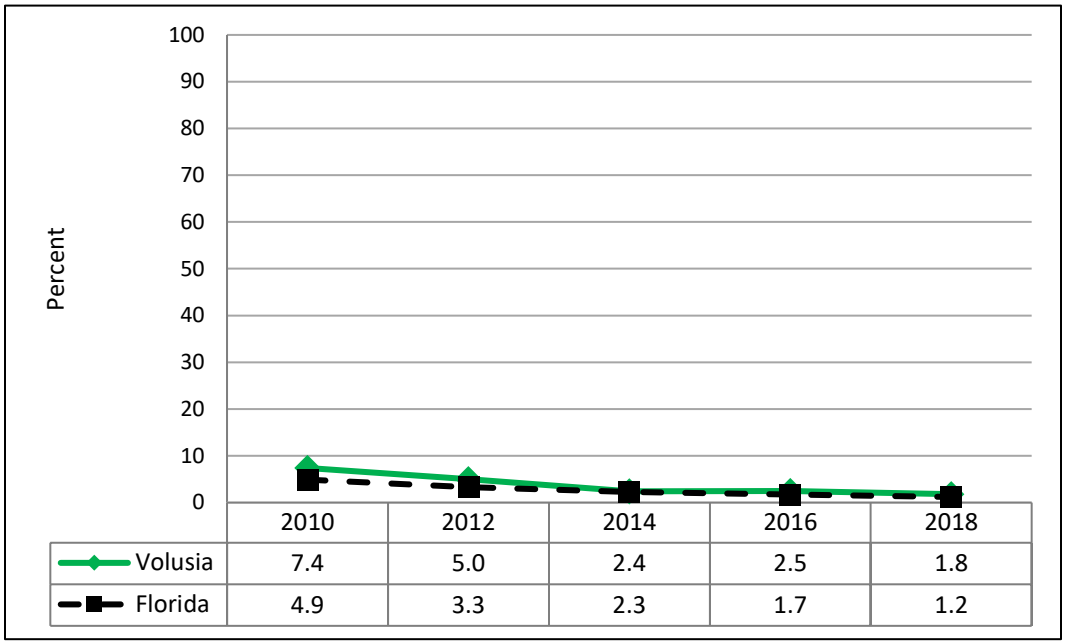
Figure 1.28 Middle School Students Reporting Binge Drinking in the Past 30 Days



	2010	2012	2014	2016	2018
Volusia	8.1	4.8	3.8	4.0	2.7
Florida	6.9	4.7	3.9	3.2	3.1

Source: Florida Youth Substance Abuse Survey (FYSAS)

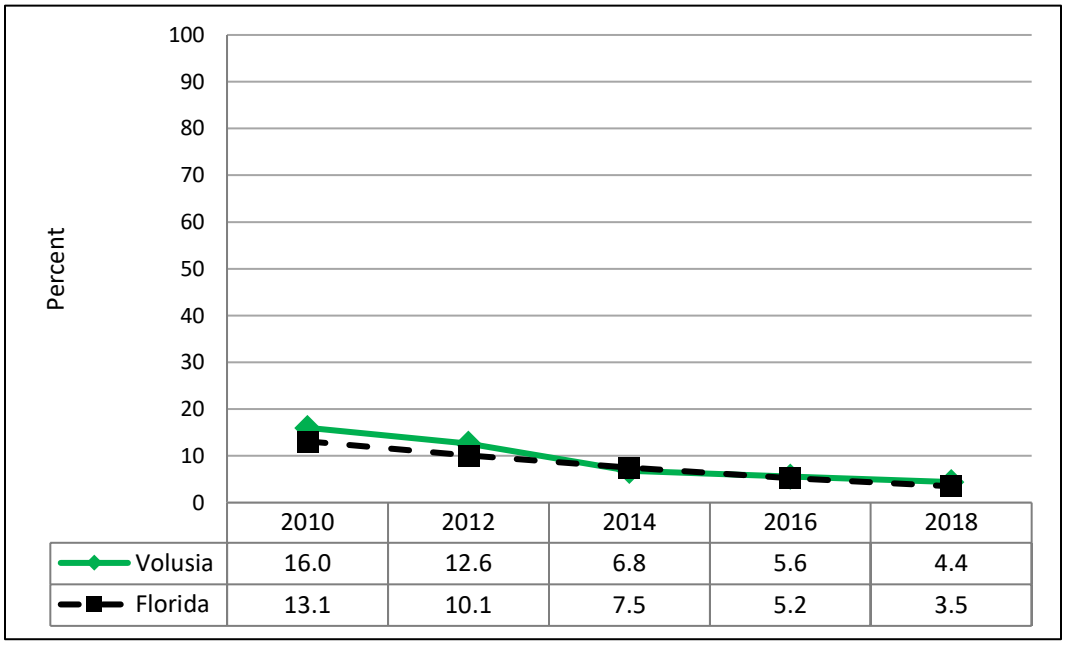
Figure 1.29 Middle School Students Smoking Cigarettes in the Past 30 Days



	2010	2012	2014	2016	2018
Volusia	7.4	5.0	2.4	2.5	1.8
Florida	4.9	3.3	2.3	1.7	1.2

Source: Florida Youth Tobacco Survey (FYTS)

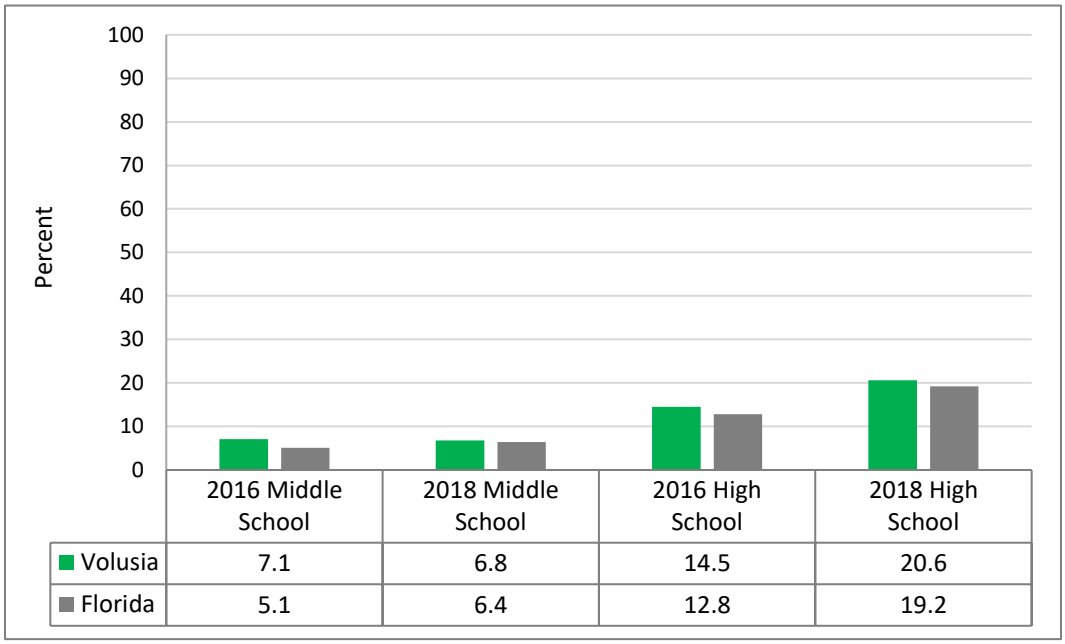
Figure 1.30 High School Students Smoking Cigarettes in the Past 30 Days



	2010	2012	2014	2016	2018
Volusia	16.0	12.6	6.8	5.6	4.4
Florida	13.1	10.1	7.5	5.2	3.5

Source: Florida Youth Tobacco Survey (FYTS)

Figure 1.31 Middle and High School Students Using Vaporizer/E-Cigarette in Past 30 days



	2016 Middle School	2018 Middle School	2016 High School	2018 High School
Volusia	7.1	6.8	14.5	20.6
Florida	5.1	6.4	12.8	19.2

Source: Florida Youth Tobacco Survey (FYTS)

2. Cardiovascular Diseases & 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.

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

- Six in 10 adults in the U.S. have a chronic disease and four in 10 have two or more.
- Heart Disease, Stroke and Diabetes are three of the eight leading causes of death in Volusia County and account for over 30% of all deaths.

Leading **Causes of Death**		#	%
1	Heart Disease	1,734	23.3
2	Cancer	1,560	21.0
3	Chronic lower respiratory disease	554	7.4
4	Stroke	457	6.1
5	Unintentional Injury	377	5.1
6	Alzheimer's Disease	309	4.2
7	Diabetes	240	3.2
8	Septicemia	132	1.8

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 and early death related to chronic diseases and conditions.

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.

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.

Indicators of Concern

		Volusia Trend	Florida Comparison	# Impacted
Premature Death	**Figure 2.2**. The Years of Potential Life Lost (YPLL) rate for Volusia County increased from 2014 to 2017 and is higher than Florida.	↑	↑	
Heart Failure Death	**Figure 2.4.** The Volusia death rate for heart failure is higher than Florida.		↑	170
Heart Failure Hospitalization	**Figure 2.6**. Volusia's hospitalization rate for Congestive Heart Failure is higher than Florida's and the rate for Black individuals is much higher.		↑	11,023

Indicators of Concern

		Volusia Trend	Florida Comparison	# Impacted
Coronary Heart Disease Hospitalization	**Figure 2.7.** The Volusia hospitalization rate for coronary heart disease is higher than Florida and the rate for Black individuals is higher than the rate for all.		↑	2,457
Coronary Heart Disease Death	**Figure 2.8.** The Volusia death rate for coronary heart disease is higher than Florida.		↑	1,072
Stroke Hospitalization	**Figure 2.10.** The Volusia hospitalization rate for stroke is higher than Florida and the rate for Black individuals is higher than other groups.		↑	2,151
Stroke Death	**Figure 2.11**. The Volusia death rate for stroke is higher than Florida and the rate for Black individuals is higher than other groups.		↑	457
Diabetes Death	**Figure 2.14.** The death rate from diabetes increased between 2016 and 2017 and is higher in Volusia than in Florida. The rate is highest for Black individuals.	↑	↑	240
Diabetes Preventable Hospitalizations	**Figure 2.16.** The rate of preventable hospitalizations for adults under 65 from diabetes is increasing and higher than Florida.	↑	↑	739

Indicators Included:

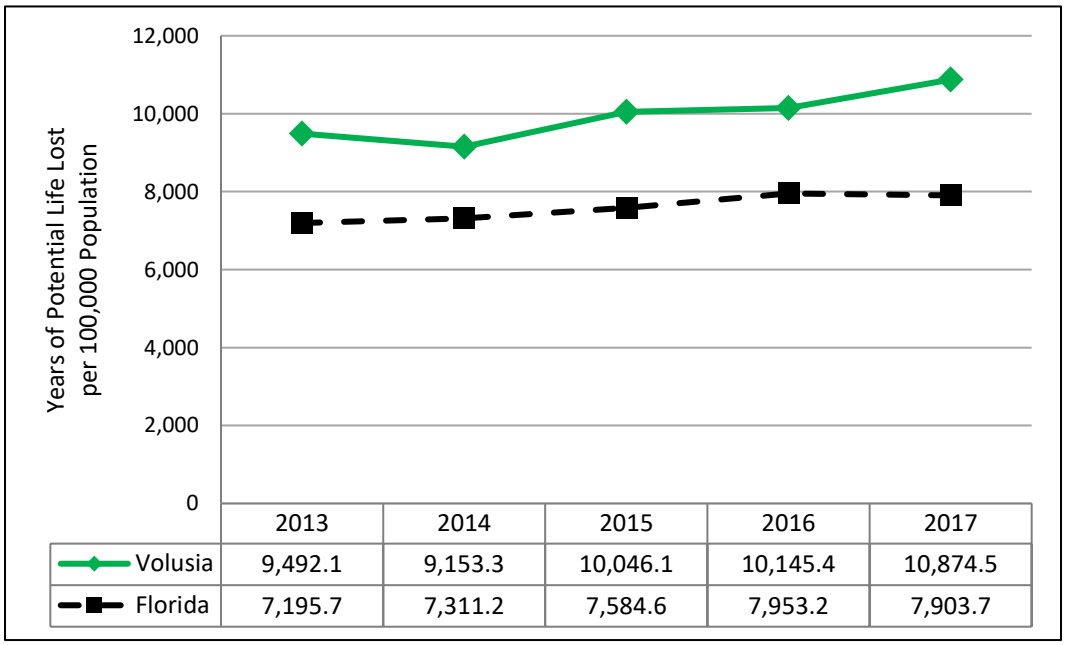
Indicator	Reference
Volusia County Top Ten Causes of Death 2017	**Figure 2.1**
Heart Disease Age-adjusted Death Rate 2017 Map	**Figure 2.2**
Premature Death (Under Age 75)	**Figure 2.3**
Heart Failure Age-adjusted Death Rate	**Figure 2.4**
Heart Failure Age-adjusted Death Rate by Gender	**Figure 2.5**
Congestive Heart Failure Age-adjusted Hospitalization Rate	**Figure 2.6**
Coronary Heart Disease Age-adjusted Hospitalization Rate	**Figure 2.7**
Coronary Heart Disease Age-adjusted Death Rate	**Figure 2.8**
Coronary Heart Disease Age-adjusted Death Rate by Gender	**Figure 2.9**
Stroke Age-adjusted Hospitalization Rate	**Figure 2.10**
Stroke Age-adjusted Death Rate	**Figure 2.11**
Stroke Age-adjusted Death Rate 2017 Map	**Figure 2.12**
Stroke Age-adjusted Death Rate by Gender	**Figure 2.13**
Diabetes Age-adjusted Death Rate	**Figure 2.14**
Diabetes Age-adjusted Death Rate by Gender	**Figure 2.15**
Preventable Hospitalizations Under 65 from Diabetes	**Figure 2.16**
Diabetes Hospitalizations, Ages 12-18	**Figure 2.17**
Adults with Diagnosed Diabetes	**Figure 2.18**
Number of Hospital Stays for Ambulatory-Care Sensitive Conditions (Preventable Hospital Stays)	**Figure 2.19**

Figure 2.1 Volusia County Top Ten Causes of Death 2017

Cause of Death	Deaths	Percent of Total Deaths	Crude Rate Per 100,000	Age-adjusted Death Rate Per 100,000
1. Heart Disease	1,734	23.3	330.2	184.4
2. Cancer	1,560	21.0	297.1	173.0
3. Chronic Lower Respiratory Disease	554	7.4	105.5	58.0
4. Stroke	457	6.1	87.0	46.8
5. Unintentional Injuries	377	5.1	71.8	67.4
6. Alzheimer's Disease	309	4.2	58.8	30.1
7. Diabetes Mellitus	240	3.2	45.7	26.8
8. Septicemia	132	1.8	25.1	15.3
9. Pneumonia/Influenza	132	1.8	25.1	14.1
10. Chronic Liver Disease and Cirrhosis	125	1.7	23.8	18.1
All Causes	7,445	100.0	1,417.8	858.9

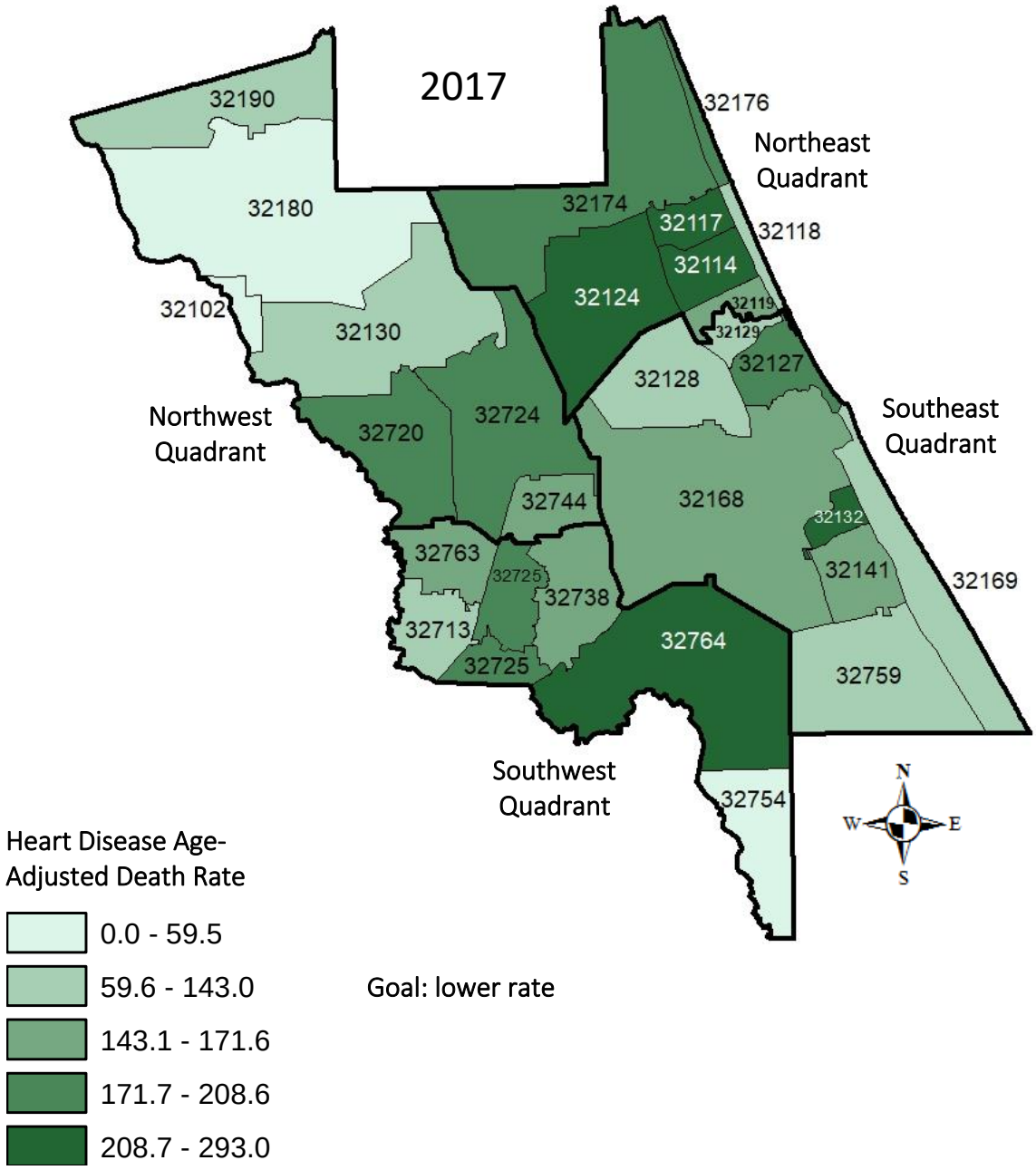
Source: Florida Department of Health, Bureau of Vital Statistics

Figure 2.2 Premature Death (Under Age 75)



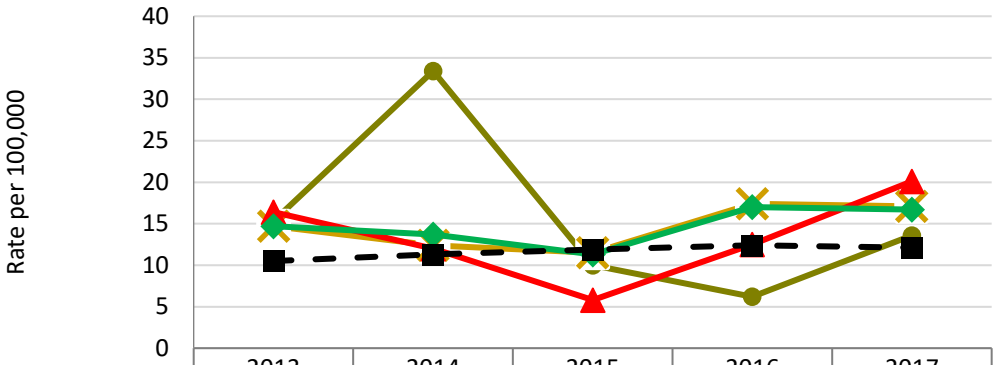
Source: Florida Department of Health, Bureau of Vital Statistics

Figure 2.3 Heart Disease Age-Adjusted Death Rate 2017



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

Figure 2.4 Heart Failure, Age-adjusted Death Rate



	2013	2014	2015	2016	2017
Black	15.3	33.4	10.0	6.2	13.6
White	14.7	12.4	11.5	17.4	17.1
Hispanic	16.4	12.0	5.8	12.5	20.1
Volusia	14.7	13.7	11.3	17.0	16.7
Florida	10.5	11.3	11.9	12.4	12.1

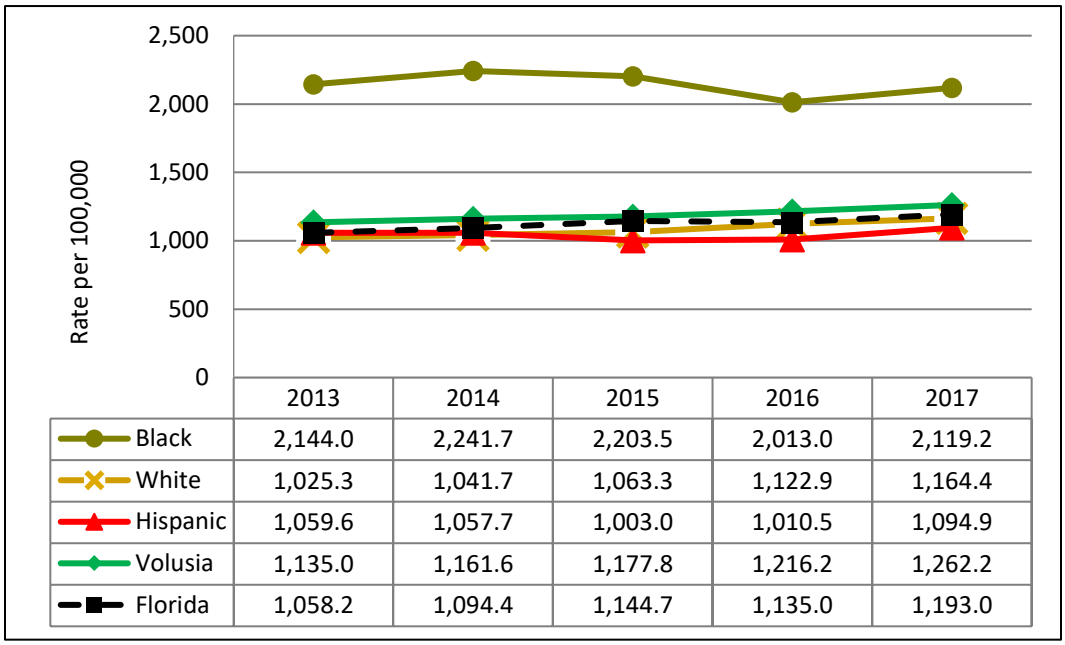
Source: Florida Department of Health, Bureau of Vital Statistics

Figure 2.5 Heart Failure, Age-adjusted Death Rate by Gender

	Male		Female	
Year	**Count**	**Rate**	**Count**	**Rate**
2017	78	18.4	92	15.7
2016	84	20.6	82	14.0
2015	62	15.1	50	8.1

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

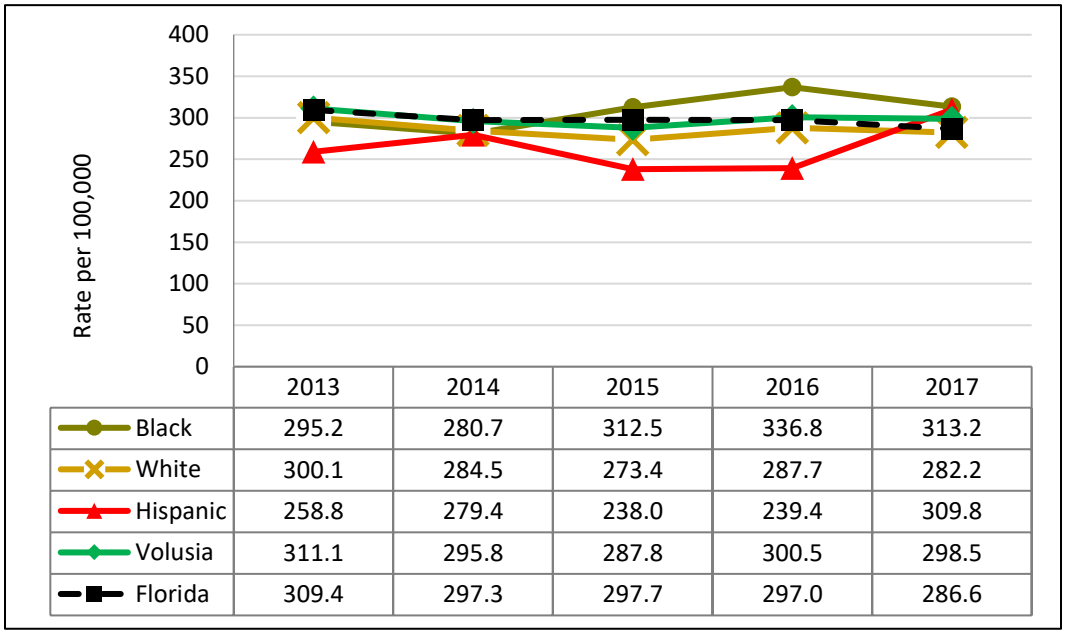
Figure 2.6 Congestive Heart Failure, Age-adjusted Hospitalization Rate



	2013	2014	2015	2016	2017
Black	2,144.0	2,241.7	2,203.5	2,013.0	2,119.2
White	1,025.3	1,041.7	1,063.3	1,122.9	1,164.4
Hispanic	1,059.6	1,057.7	1,003.0	1,010.5	1,094.9
Volusia	1,135.0	1,161.6	1,177.8	1,216.2	1,262.2
Florida	1,058.2	1,094.4	1,144.7	1,135.0	1,193.0

Source: Florida Agency for Health Care Administration (AHCA)

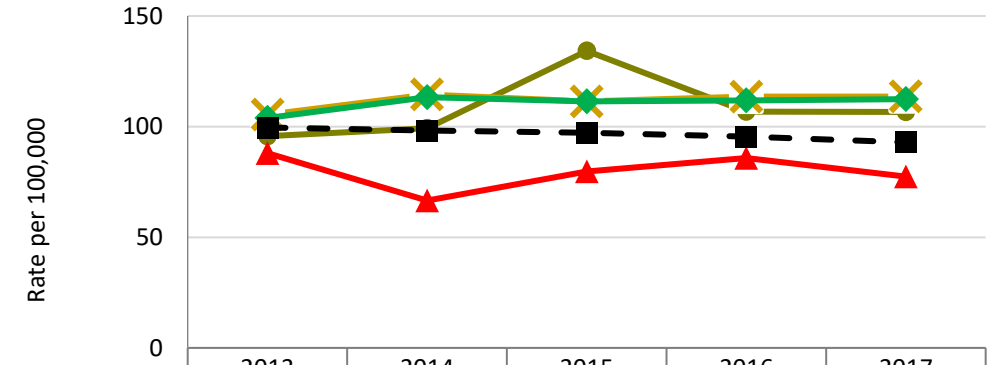
Figure 2.7 Coronary Heart Disease, Age-adjusted Hospitalization Rate



	2013	2014	2015	2016	2017
Black	295.2	280.7	312.5	336.8	313.2
White	300.1	284.5	273.4	287.7	282.2
Hispanic	258.8	279.4	238.0	239.4	309.8
Volusia	311.1	295.8	287.8	300.5	298.5
Florida	309.4	297.3	297.7	297.0	286.6

Source: Florida Agency for Health Care Administration (AHCA)

Figure 2.8 Coronary Heart Disease, Age-adjusted Death Rate



	2013	2014	2015	2016	2017
Black	95.7	99.3	134.2	106.8	106.7
White	105.4	114.5	111.4	113.5	113.6
Hispanic	88.0	66.6	79.7	85.8	77.4
Volusia	103.9	113.3	111.4	111.9	112.4
Florida	99.6	98.2	97.2	95.5	92.9

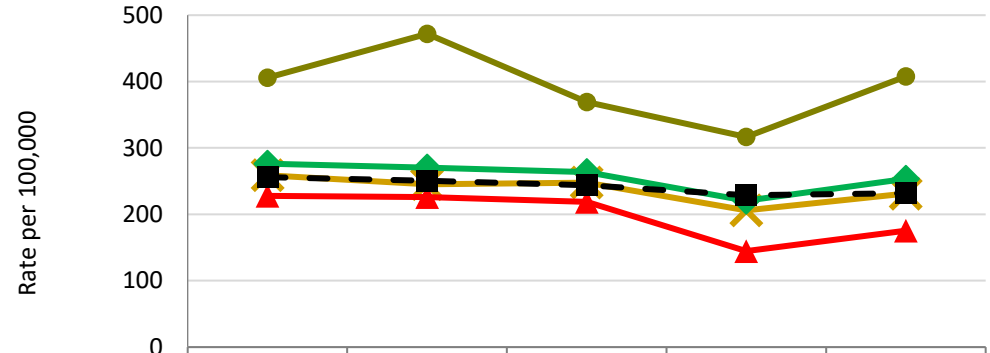
Source: Florida Department of Health, Bureau of Vital Statistics

Figure 2.9 Coronary Heart Disease, Age-adjusted Death Rate by Gender

	Male		Female	
Year	**Count**	**Rate**	**Count**	**Rate**
2017	632	152.4	440	78.2
2016	607	152.1	419	77.9
2015	607	155.7	413	74.6

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

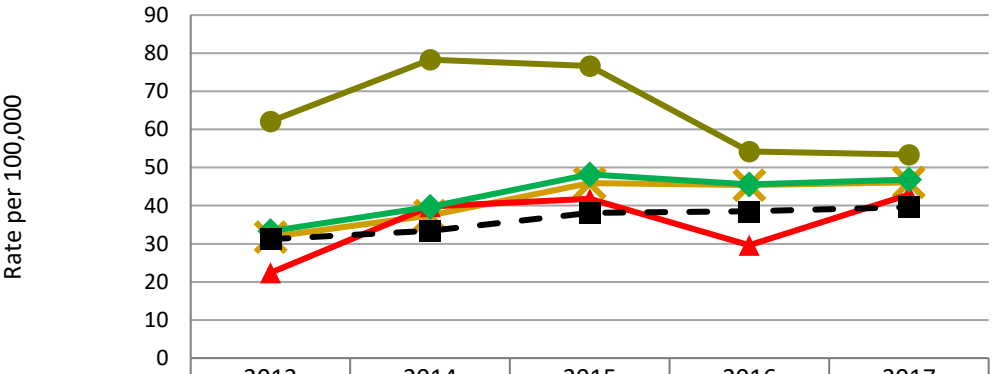
Figure 2.10 Stroke, Age-adjusted Hospitalization Rate



	2013	2014	2015	2016	2017
Black	405.9	471.9	369.0	316.6	407.7
White	258.8	245.4	247.9	206.0	231.3
Hispanic	227.8	225.9	219.0	144.6	175.5
Volusia	276.3	270.3	263.4	220.5	253.4
Florida	256.0	250.8	244.0	228.8	231.6

Source: Florida Agency for Health Care Administration (AHCA)

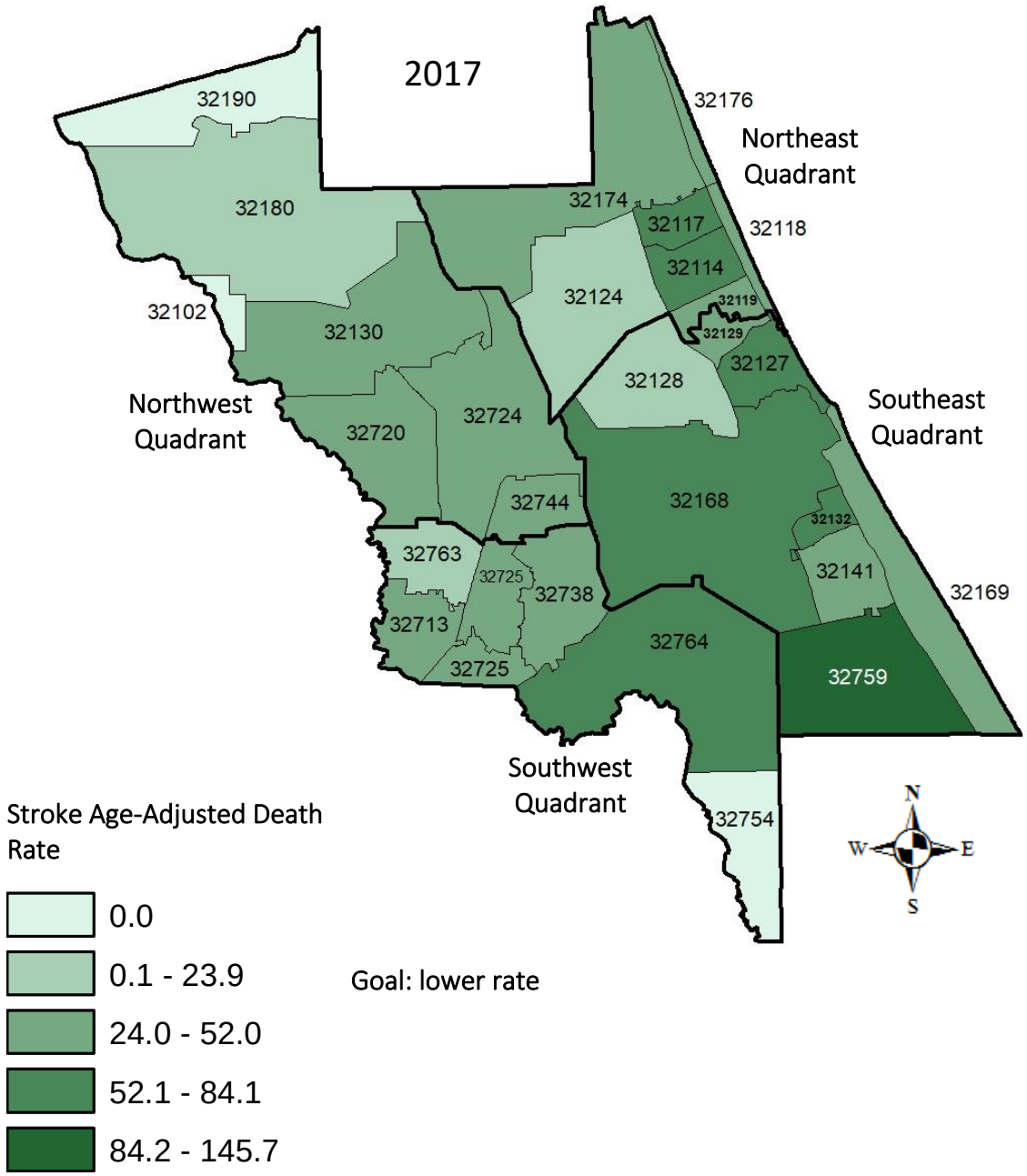
Figure 2.11 Stroke, Age-adjusted Death Rate



	2013	2014	2015	2016	2017
Black	62.1	78.3	76.6	54.2	53.4
White	31.8	37.4	45.9	45.4	46.1
Hispanic	22.4	39.8	41.8	29.6	42.9
Volusia	33.3	39.7	48.2	45.6	46.8
Florida	31.2	33.4	38.1	38.5	39.6

Source: Florida Department of Health, Bureau of Vital Statistics

Figure 2.12 Stroke Age-adjusted Death Rate 2017



Source: Florida Agency for Health Care Administration

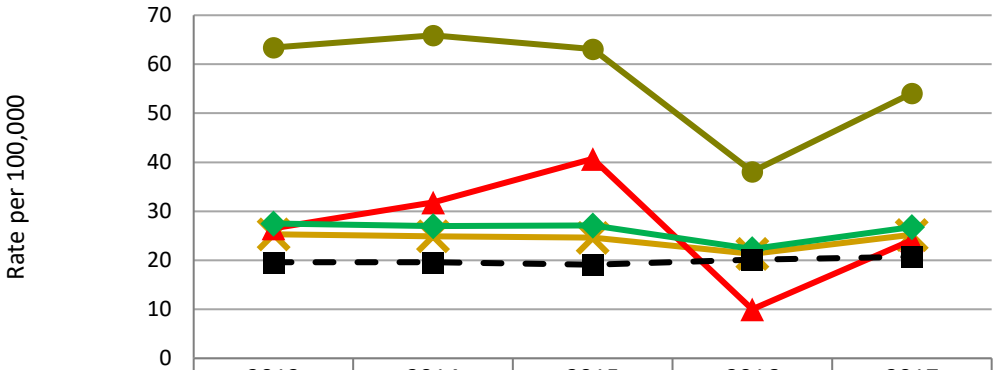
Note: Rate per 100,000

Figure 2.13 Stroke, Age-adjusted Death Rate by Gender

	Male		Female	
Year	Count	Rate	Count	Rate
2017	184	44.5	273	47.5
2016	177	44.3	258	45.4
2015	187	47.3	255	48.3

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

Figure 2.14 Diabetes, Age-adjusted Death Rate



	2013	2014	2015	2016	2017
Black	63.4	65.9	63.1	38.1	54.1
White	25.3	24.9	24.6	21.3	25.2
Hispanic	26.5	31.8	40.7	10.0	24.1
Volusia	27.5	27.0	27.1	22.3	26.8
Florida	19.6	19.6	19.1	20.1	20.7

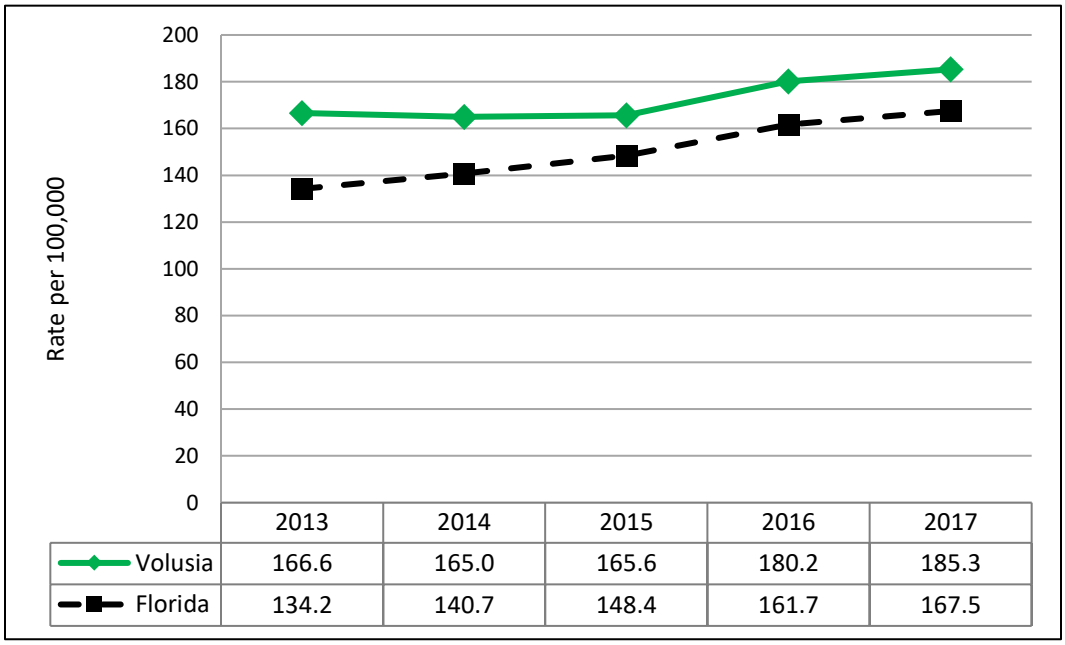
Source: Florida Department of Health, Bureau of Vital Statistics

Figure 2.15 Diabetes, Age-adjusted Death Rate by Gender

	Male		Female	
Year	Count	Rate	Count	Rate
2017	134	34.1	106	20.4
2016	115	29.2	83	16.3
2015	139	36.4	89	19.1

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

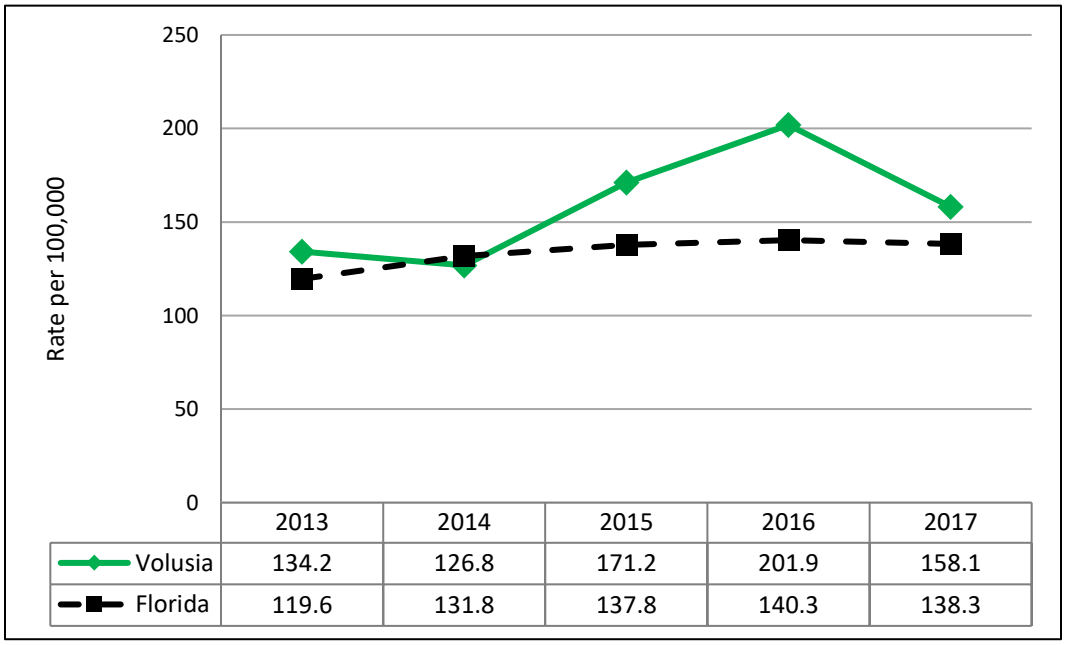
Figure 2.16 Preventable Hospitalizations Adults Under 65 from Diabetes



	2013	2014	2015	2016	2017
Volusia	166.6	165.0	165.6	180.2	185.3
Florida	134.2	140.7	148.4	161.7	167.5

Source: Florida Agency for Health Care Administration

Figure 2.17 Diabetes Hospitalizations, Ages 12-18



	2013	2014	2015	2016	2017
Volusia	134.2	126.8	171.2	201.9	158.1
Florida	119.6	131.8	137.8	140.3	138.3

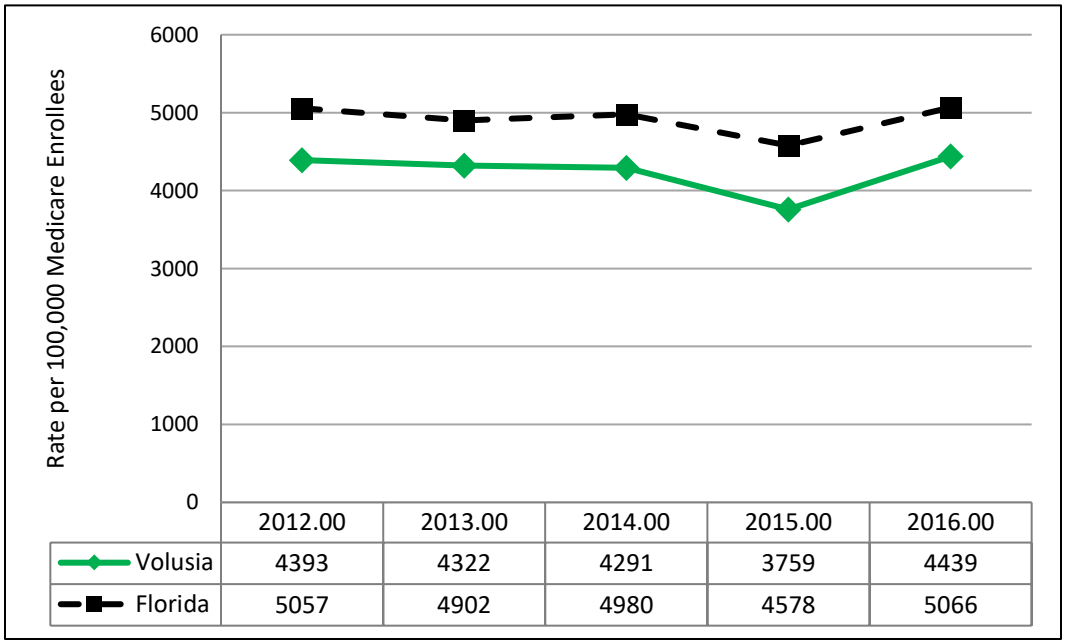
Source: Florida Agency for Health Care Administration (AHCA)

Figure 2.18 Adults with Diagnosed Diabetes

Adults with diagnosed diabetes, 2016	Volusia	Florida
	Percent	Percent
Total – Overall	14.2	11.8
Men	17.8	12.5
Women	11.2	11.0
Non-Hispanic, White	13.6	11.5
Non-Hispanic, Black	16.8	14.5
Hispanic	19.3	10.9
18-44	3.3	3.4
45-64	17.0	13.4
65 & Older	21.8	23.5
< High School	20.3	18.6
High School/GED	15.4	12.6
> High School	12.9	9.7
< $25,000	21.8	16.6
$25,000-$49,999	13.9	11.9
$50,000 or More	9.1	8.0

Source: Florida Behavioral Risk Factor Surveillance System

Figure 2.19 Number of Hospital Stays for Ambulatory-Care Sensitive Conditions (Preventable Hospital Stays)



Source: Dartmouth Atlas of Health Care

3. Barriers to Accessing Health Care

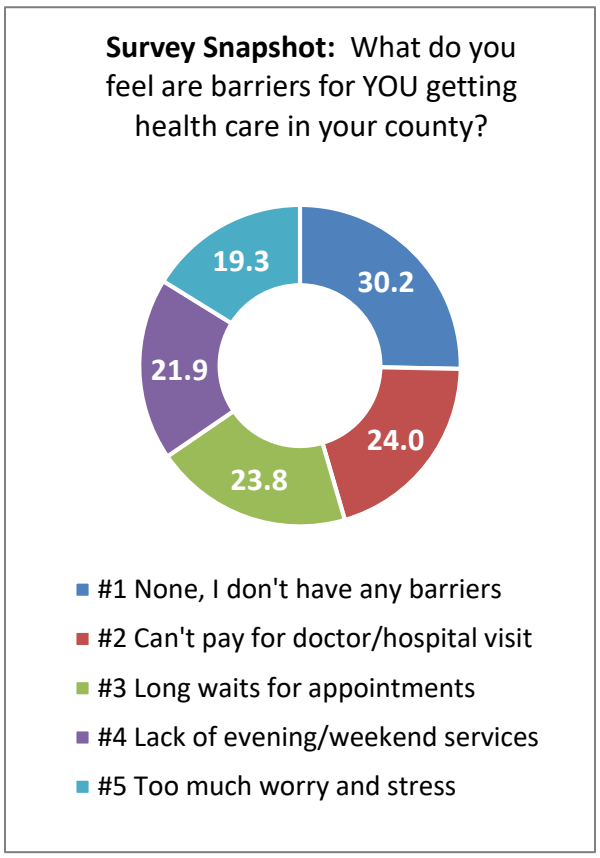
Access to comprehensive quality health care services is important for the achievement of health equity and for increasing the quality of a healthy life for everyone (Healthy People 2020). The Healthy People 2020 health target is to increase the proportion of people with a primary care provider to 83.9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

Access to health services means the timely use of personal health services to achieve the best health outcomes. It requires three 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

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).

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.

Indicators of Concern

		Volusia Trend	Florida Comparison	# Impacted
Health Resources per Population	**Figure. 3.1.** Volusia rate of health resources per population are lower than Florida in the categories of: physicians, internists, OB/GYN, and pediatricians.		↓	
Births Covered by Medicaid	**Figure 3.4**. Volusia has a higher percentage of births covered by Medicaid than Florida. Rates for Black and Hispanic individuals are higher.		↑	2,828
Adults with a Doctor	**Figure 3.7**. The percent of Volusia adults with a personal doctor is lower than Florida.		↓	
Provider Resources per Population	**Figure 3.9, 3.10 and 3.11**. Volusia has a lower ratio of primary care physicians, dentists and mental health providers to population than Florida.		↓	

Indicators:

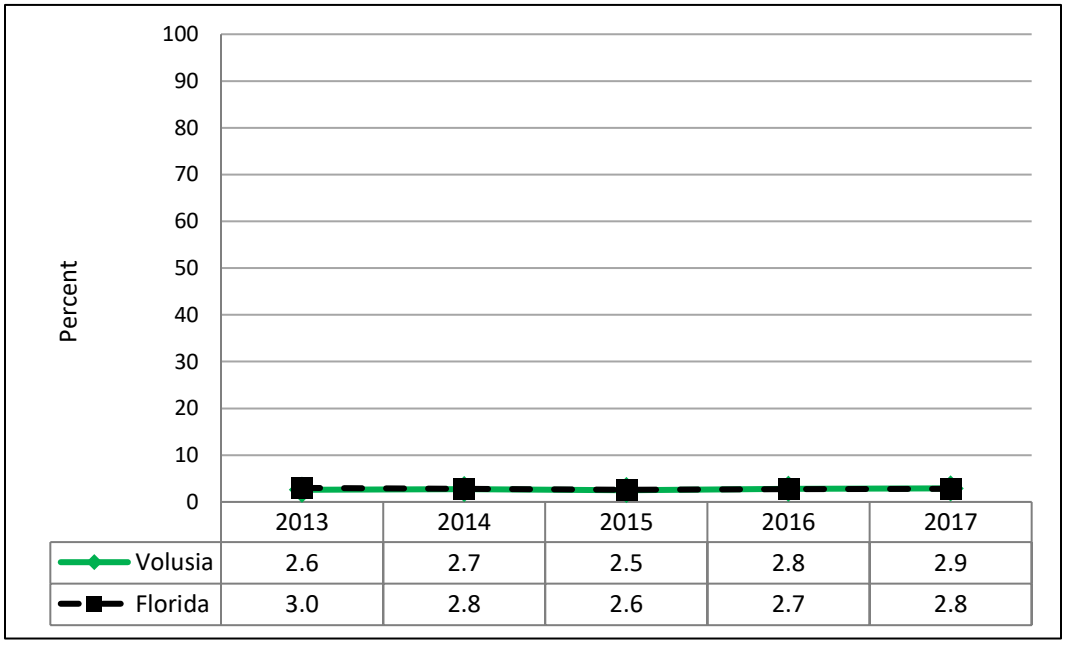
Indicator	Reference
Health Resource Capacity: Health Department, Physicians, Hospital Beds and Nursing Home Beds	**Figure 3.1**
Children < 5 Covered by MediKids	**Figure 3.2**
Adults with Any Type of Health Care Insurance Coverage	**Figure 3.3**
Births Covered by Medicaid	**Figure 3.4**
Births to Uninsured Women (“Self-Pay” Checked on Birth Certificate)	**Figure 3.5**
Females 18-64 Who Have Heath Care Insurance Coverage	**Figure 3.6**
Adults Who Have a Personal Doctor or Health Care Provider	**Figure 3.7**
Adults Who Said Their Overall Health was “Fair” or “Poor”	**Figure 3.8**
Primary Care Physicians	**Figure 3.9**
Dentists	**Figure 3.10**
Mental Health Providers	**Figure 3.11**

Figure 3.1 Health Resource Capacity

Category	Type	Volusia County		Florida
		Number	Rate per 100,000	Rate per 100,000
Health Department *2017*	Full-Time Employees	280	53.5	47.0
Physicians *FY 2017-18*	Total Licensed Physicians	1,211	230.6	310.6
	Total Licensed Family Practice	140	26.7	19.2
	Total Licensed Internists	164	31.2	47.8
	Total Licensed OB/GYN	35	6.7	9.5
	Total Licensed Pediatricians	49	9.3	22.3
Hospital Beds *2017*	Total Acute Care Beds	1,294	246.4	253.5
	Total Hospital Beds	1,564	297.8	312.3
	Total Specialty Beds	270	51.4	58.8
Nursing Home Beds *2017*	Total Nursing Home Beds	3,427	652.6	407.6

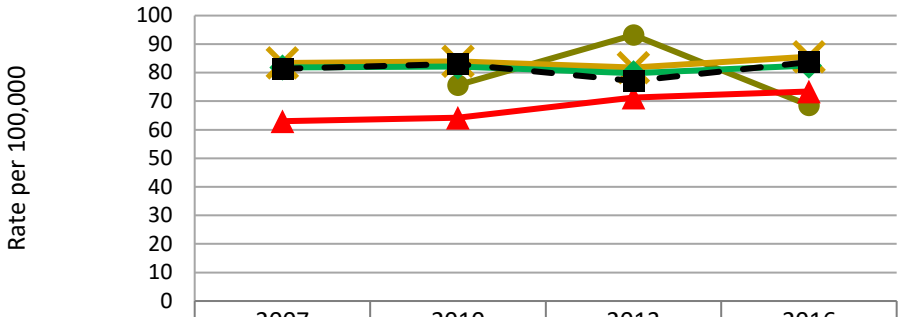
Source: Florida Department of Health, Division of Medical Quality Assurance, Agency for Health Care Administration.

Figure 3.2 Children < 5 Covered by MediKids



Source: Florida Agency for Health Care Administration (AHCA)

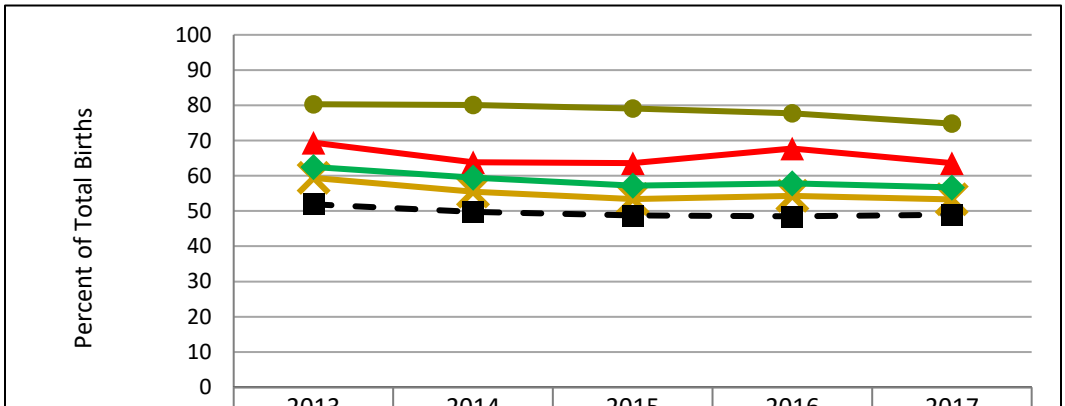
Figure 3.3 Adults with Any Type of Health Care Insurance Coverage



	2007	2010	2013	2016
Black		75.7	93.2	68.6
White	83.4	84.0	81.8	85.6
Hispanic	63.0	64.2	71.3	73.4
Volusia	81.8	82.1	79.8	82.5
Florida	81.4	83.0	77.1	83.7

Source: Florida Behavioral Risk Factor Surveillance System (BRFSS)
NOTE: Black = Non-Hispanic, Black; White = Non-Hispanic, White
NOTE: Blank cells indicate a sample size less than 30, which would yield statistically unreliable estimates

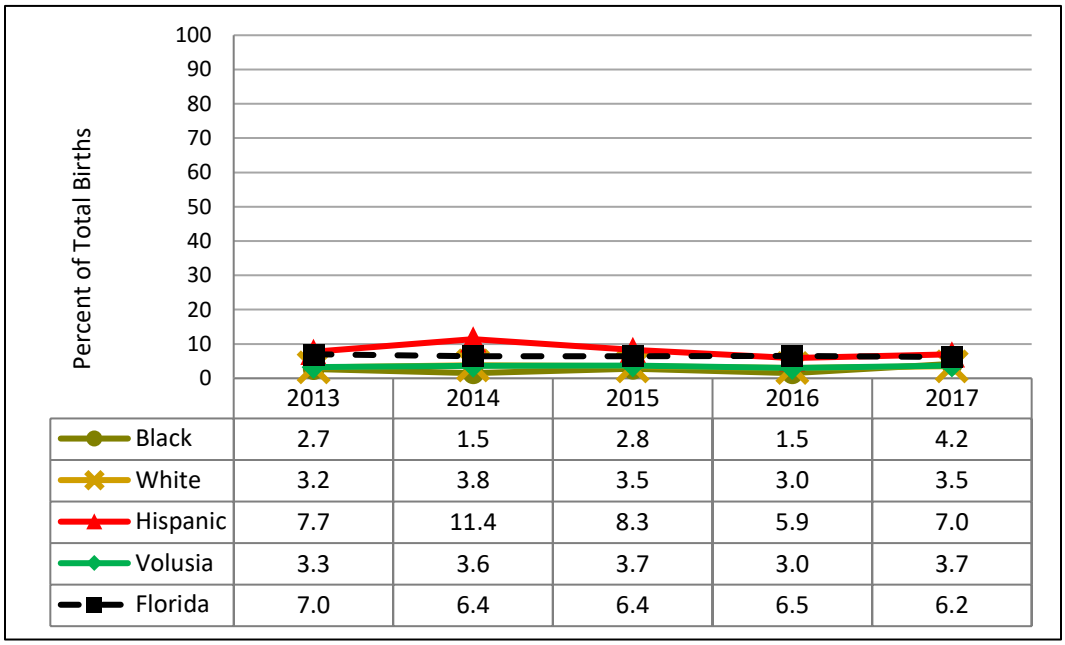
Figure 3.4 Births Covered by Medicaid



	2013	2014	2015	2016	2017
Black	80.3	80.1	79.1	77.7	74.8
White	59.4	55.5	53.4	54.3	53.3
Hispanic	69.4	63.8	63.6	67.7	63.6
Volusia	62.5	59.5	57.2	57.8	56.7
Florida	51.9	49.8	48.8	48.5	48.9

Source: Florida Department of Health, Bureau of Vital Statistics

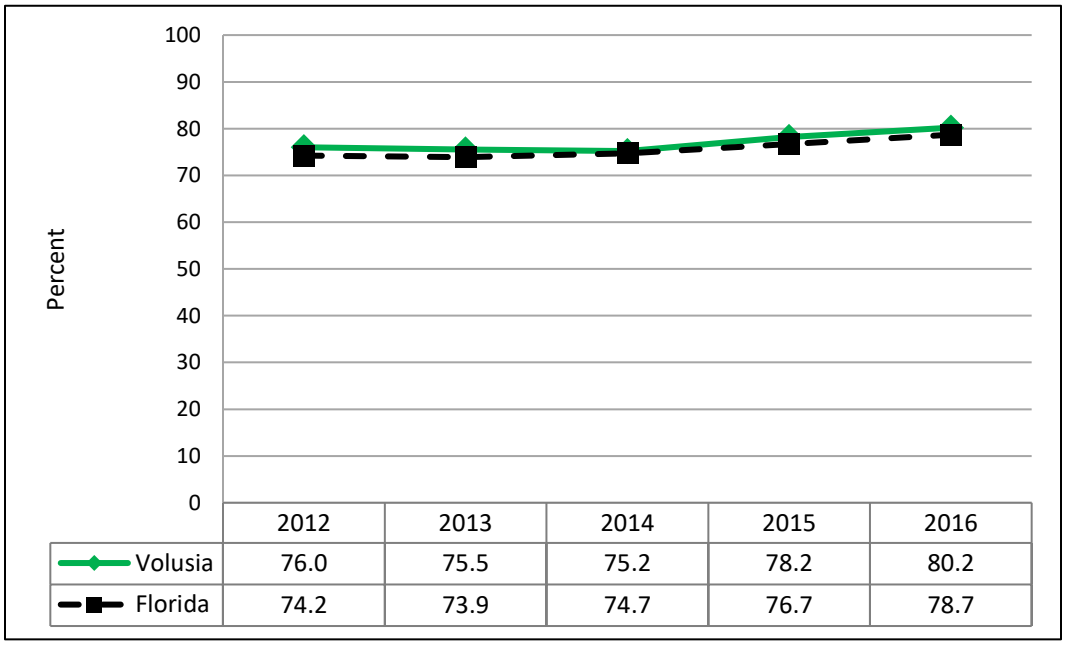
Figure 3.5 Births to Uninsured Women ("Self Pay" Checked on Birth Certificate)



	2013	2014	2015	2016	2017
Black	2.7	1.5	2.8	1.5	4.2
White	3.2	3.8	3.5	3.0	3.5
Hispanic	7.7	11.4	8.3	5.9	7.0
Volusia	3.3	3.6	3.7	3.0	3.7
Florida	7.0	6.4	6.4	6.5	6.2

Source: Florida Department of Health, Bureau of Vital Statistics

Figure 3.6 Females 18-64 Who Have Health Care Insurance Coverage



	2012	2013	2014	2015	2016
Volusia	76.0	75.5	75.2	78.2	80.2
Florida	74.2	73.9	74.7	76.7	78.7

Source: US Bureau of the Census, American Community Survey

Figure 3.7 Adults Who Have a Personal Doctor

Adults who have a personal doctor, 2016	Volusia	Florida
	Percent	Percent
Total – Overall	68.7	72.0
Men	64.5	66.5
Women	72.3	77.1
Non-Hispanic, White	70.2*	78.6
Non-Hispanic, Black	61.8	70.9
Hispanic	67.7	57.7
18-44	37.8*	54.3
45-64	75.5	78.0
65 & Older	91.2	93.2
< High School	49.6	57.5
High School/GED	65.0	68.5
> High School	73.1	77.3
< $25,000	57.6	64.9
$25,000-$49,999	72.8	72.4
$50,000 or More	75.7	79.7

Source: Florida Behavioral Risk Factor Surveillance System

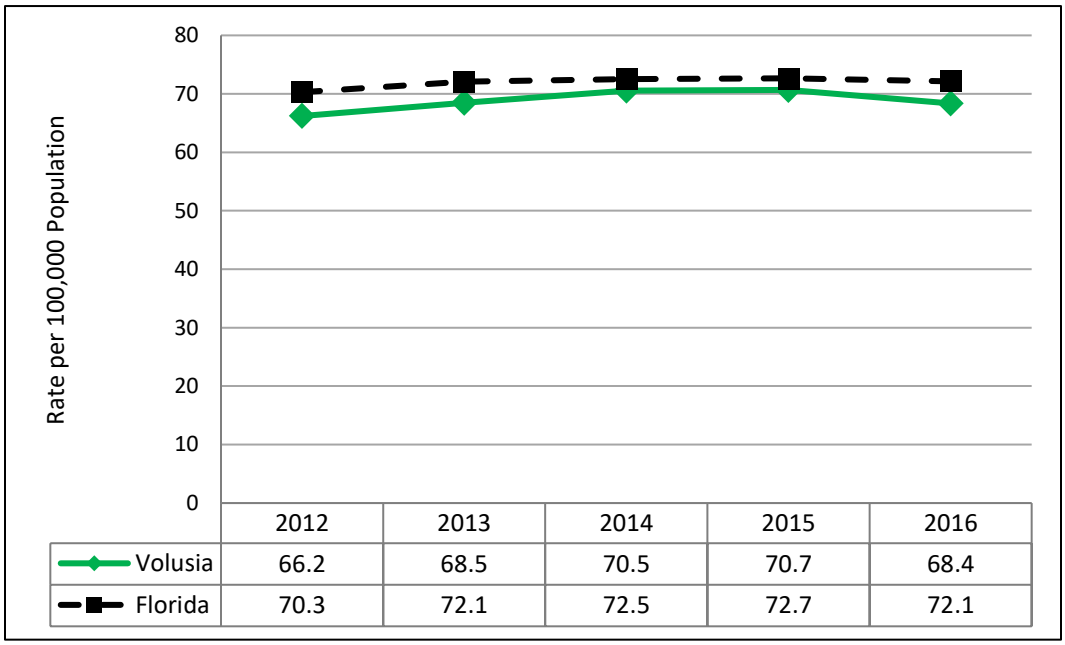
*Indicates the difference observed between the county and state measure is statistically significant

Figure 3.8 Adults Who Said Their Overall Health Was "Fair" or "Poor"

Adults who said their overall was "fair" or "poor", 2016	Volusia 2013	Florida 2013	Volusia 2016	Florida 2016
	Percent	Percent	Percent	Percent
Total – Overall	17.1	19.5	21.5	19.5
Men	17.8	18.4	17.8	18.6
Women	16.4	20.6	24.7	20.3
Non-Hispanic, White	16.7	17.7	18.4	17.7
Non-Hispanic, Black	11.1	19.7	33.2	18.7
Hispanic	25.1	24.0	33.7	25.2

Source: Florida Behavioral Risk Factor Surveillance System

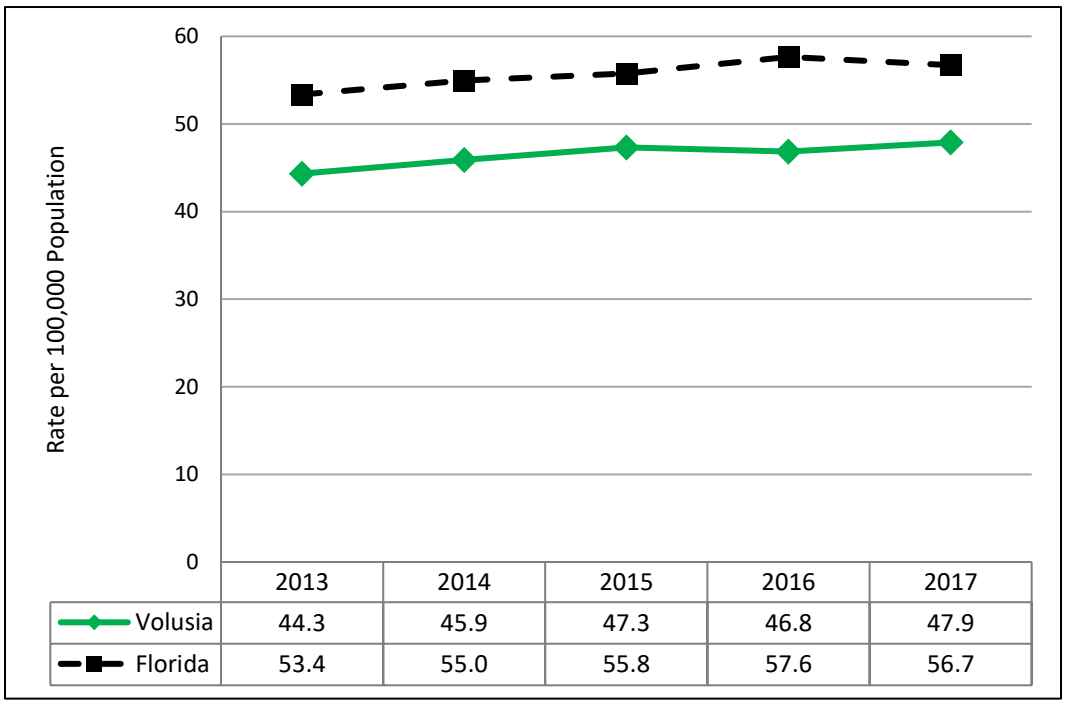
Figure 3.9 Primary Care Physicians



	2012	2013	2014	2015	2016
Volusia	66.2	68.5	70.5	70.7	68.4
Florida	70.3	72.1	72.5	72.7	72.1

Source: Area Health Resource File/American Medical Association

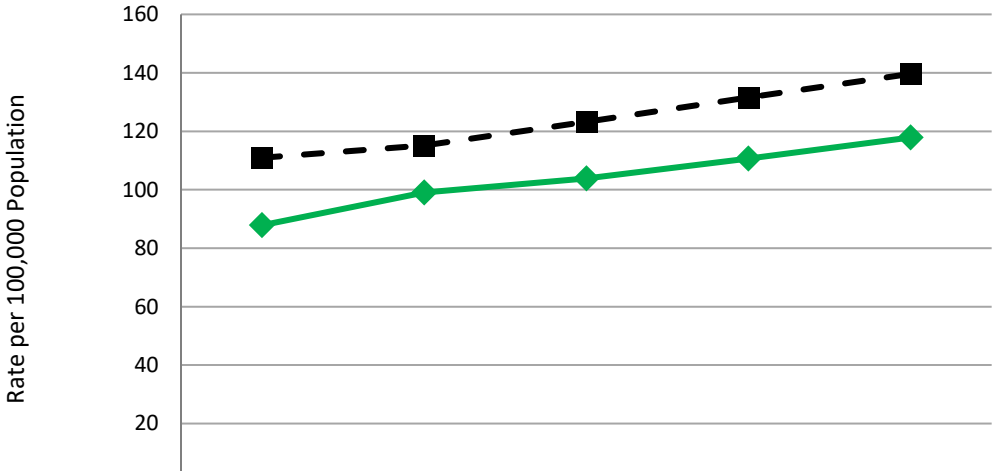
Figure 3.10 Dentists



	2013	2014	2015	2016	2017
Volusia	44.3	45.9	47.3	46.8	47.9
Florida	53.4	55.0	55.8	57.6	56.7

Source: Area Health Resource File/National Provider Identification file

Figure 3.11 Mental Health Providers



	2013	2014	2015	2016	2017
Volusia	87.9	99.1	103.9	110.7	117.9
Florida	111.0	115.2	123.3	131.6	139.7

Source: CMS, National Provider Identification

4. Healthy Eating & Physical Activity

Achieving and maintaining a healthy weight is a critical component of overall health and is only achieved through a lifestyle that includes healthy eating, regular physical activity, and balancing the number of calories you consume with the number of calories your body uses.

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 (CDC), 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. 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.

The availability of healthy, affordable foods contributes to a person's diet and risk of related chronic disease. According to the CDC, fewer than one in 10 children and adults eat the recommended daily amount of vegetables.

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 youth 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.

Indicators of Concern

		Volusia Trend	Florida Comparison	# Impacted
Youth Physical Activity	**Figure 4.1**. Over 70% of Volusia middle and high school students lack vigorous physical activity and the percent increased from 2014 to 2016. The percent is better than Florida.	↑	↓	
Adult Physical Activity	**Figure 4.4.** The percent of Volusia adults who are sedentary increased from 2007 to 2016 and is now higher than Florida.	↑	↑	
Youth Healthy Weight	**Figure 4.6.** The percent of Volusia middle and high schoolers who were obese increased significantly from 2014 to 2016.	↑		
Adult Healthy Weight	**Figure 4.10.** The percent of Volusia adults who are obese increased between 2013 and 2016 and the percent is now higher than Florida.	↑	↑	
Injury Deaths	**Figure 4.15** Injury deaths are increasing and higher than Florida.	↑	↑	550

Indicators Included:

Indicator	Reference
Middle School and High School Students Without Sufficient Vigorous Physical Activity	**Figure 4.1**
Adults Who Meet Muscle Strengthening Recommendations	**Figure 4.2**
Adults Who Are Inactive or Insufficiently Active	**Figure 4.3**
Adults Who Are Sedentary	**Figure 4.4**
WIC Children >=2 Years Who Are Overweight or Obese	**Figure 4.5**
Middle and High School Student Weight	**Figure 4.6**
Middle School students reporting BMI at or above 95th percentile	**Figure 4.7**
High School students reporting BMI at or above 95th percentile	**Figure 4.8**
Adults Who Are Overweight	**Figure 4.9**
Adults Who Are Obese	**Figure 4.10**
Adults Who Are at a Healthy Weight	**Figure 4.11**
Adults with ”Good” to “Excellent” Overall Health	**Figure 4.12**
Poor Physical Health Days	**Figure 4.13**
Population with Adequate Access to Locations for Physical Activity	**Figure 4.14**

Figure 4.1 Middle School and High School Students Without Sufficient Vigorous Physical Activity

Students Without Sufficient Vigorous Physical Activity	Volusia 2014	Florida 2014	Volusia 2016	Florida 2016
	Percent	Percent	Percent	Percent
Middle School Students	70.7	75.2	75.6	78.3
High School Students	76.7	78.5	77.5	80.6

Source: Florida Department of Health, Florida Youth Tobacco Survey (FYTS)

Figure 4.2 Adults Who Meet Muscle Strengthening Recommendations

Adults who meet muscle strengthening recommendations, 2016	Volusia	Florida
	Percent	Percent
Total – Overall	37.2	38.2
Men	40.0	42.9
Women	34.6	33.5
Non-Hispanic, White	39.9	38.0
Non-Hispanic, Black	NA	38.5
Hispanic	NA	37.2
18-44	39.1	45.1
45-64	34.6	34.3
65 & Older	38.2	31.0
< High School	NA	23.9
High School/GED	38.0	36.5
> High School	38.5	41.1
< $25,000	22.9	31.8
$25,000-$49,999	36.1	37.8
$50,000 or More	47.3	42.1

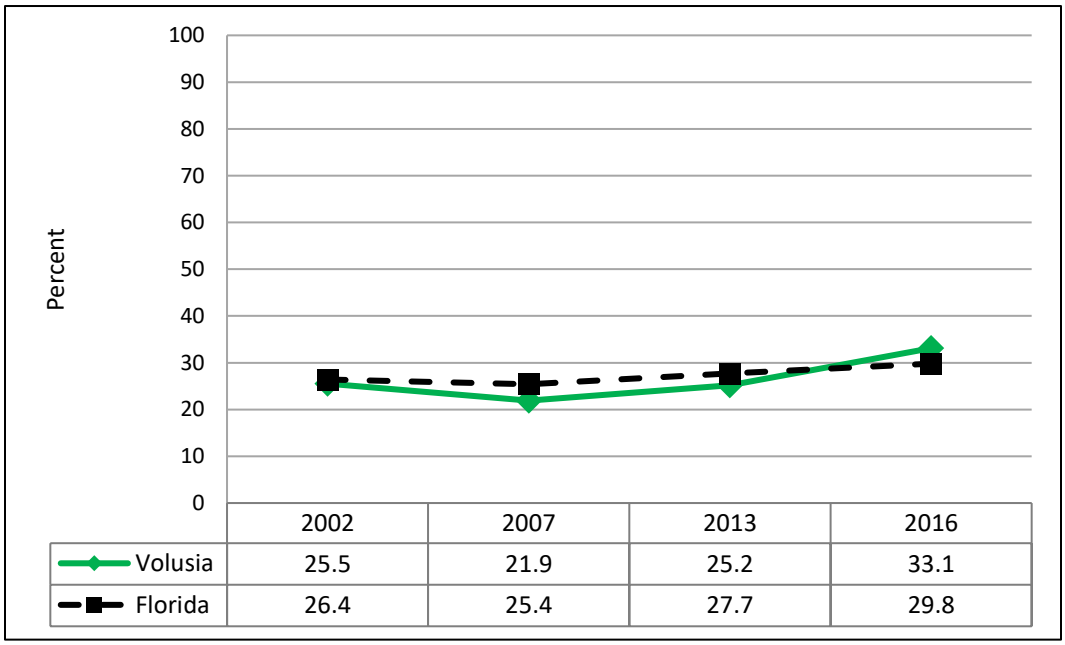
Source: Florida Behavioral Risk Factor Surveillance System
NA=Not available due to respondent counts of less than 30

Figure 4.3 Adults Who Are Inactive or Insufficiently Active

Adults who are inactive or insufficiently active, 2016	Volusia	Florida
	Percent	Percent
Total – Overall	58.2	56.7
Men	55.5	53.5
Women	60.3	59.7
Non-Hispanic, White	55.3	51.7
Non-Hispanic, Black	74.0	61.7
Hispanic	72.8	65.3
18-44	54.8	55.9
45-64	64.6	58.4
65 & Older	54.3	55.9
< High School	73.7	73.3
High School/GED	64.1	63.1
> High School	52.9	48.4
< $25,000	68.0	67.5
$25,000-$49,999	62.8	57.6
$50,000 or More	39.5	42.2

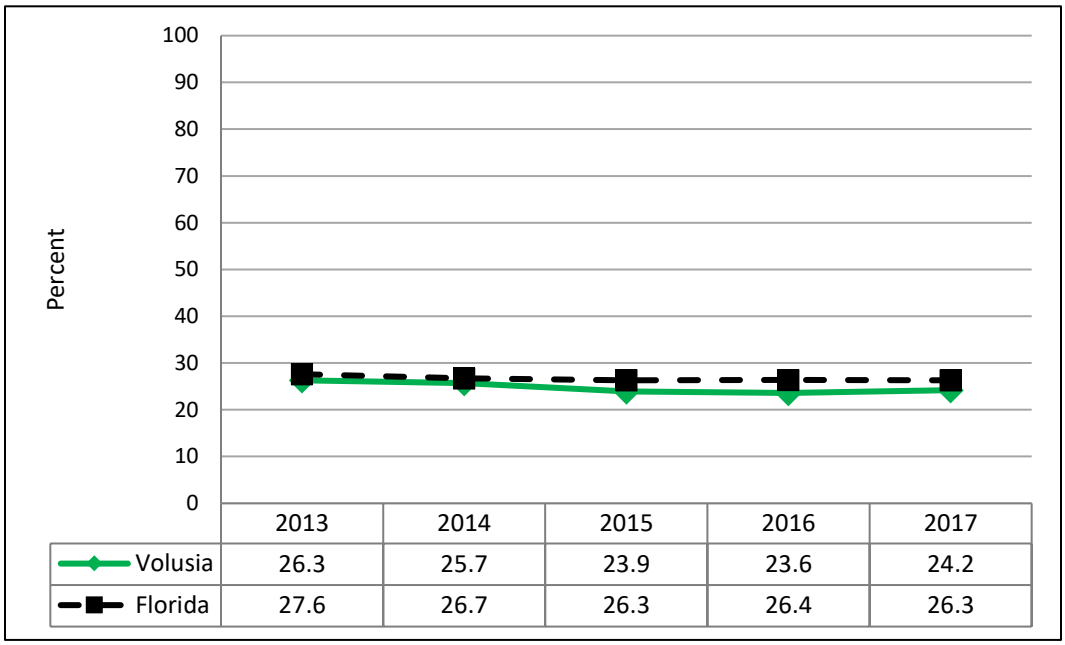
Source: Florida Behavioral Risk Factor Surveillance System

Figure 4.4 Adults Who Are Sedentary



Source: Florida Behavioral Risk Factor Surveillance System

Figure 4.5 WIC Children >= 2 Years Who are Overweight or Obese



	2013	2014	2015	2016	2017
Volusia	26.3	25.7	23.9	23.6	24.2
Florida	27.6	26.7	26.3	26.4	26.3

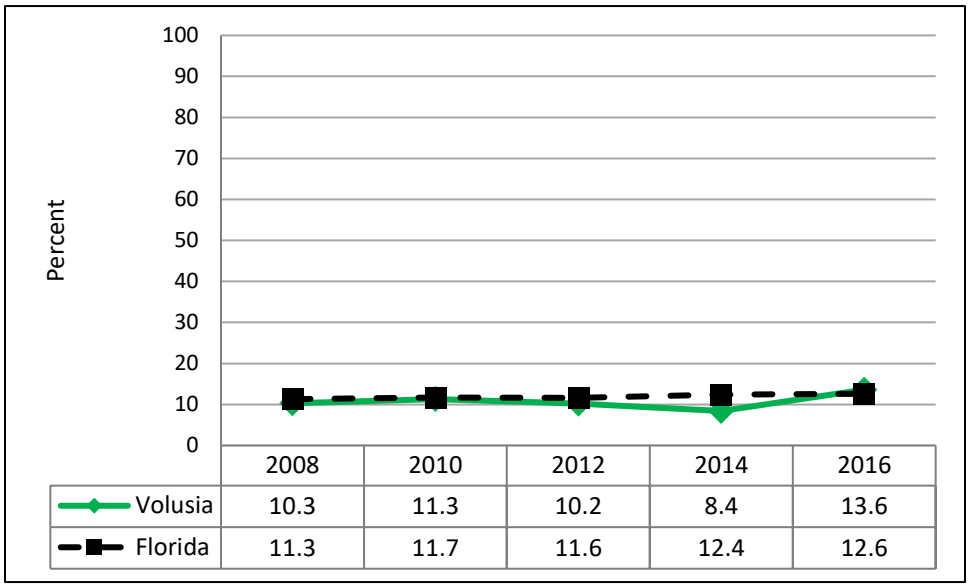
Source: Florida Department of Health, WIC and Nutrition Services

Figure 4.6 Middle and High School Student Weight

Middle and High School Student Weight	Volusia 2014		Florida 2014		Volusia 2016		Florida 2016	
	Middle School	High School	Middle School	High School	Middle School	High School	Middle School	High School
	Percent		Percent		Percent		Percent	
Healthy Weight	68.9	69.4	65.9	68.8	64.4	64.2	65.3	67.1
Underweight	4.7	2.6	5.4	3.4	4.3	6.1	5.2	3.6
Overweight	17.9	18.2	16.3	15.5	17.7	14.0	16.9	15.9
Obese	8.4	9.8	12.4	12.3	13.6	15.7	12.6	13.3

Source: Florida Youth Tobacco Survey

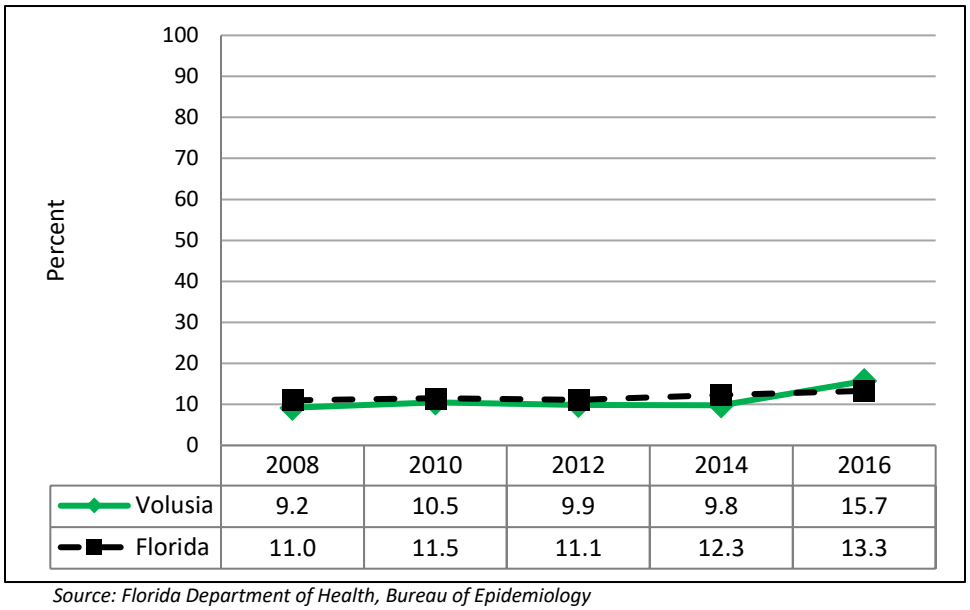
Figure 4.7 Middle School Students with BMI At or Above the 95th Percentile



	2008	2010	2012	2014	2016
Volusia	10.3	11.3	10.2	8.4	13.6
Florida	11.3	11.7	11.6	12.4	12.6

Source: Florida Department of Health, Bureau of Epidemiology

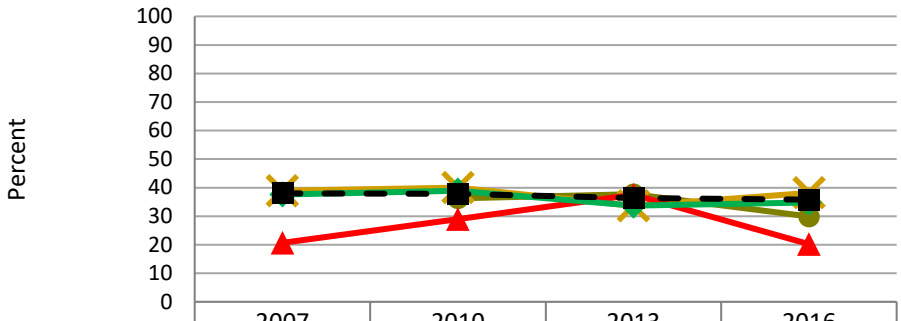
Figure 4.8 High School Students with BMI At or Above the 95th Percentile



	2008	2010	2012	2014	2016
Volusia	9.2	10.5	9.9	9.8	15.7
Florida	11.0	11.5	11.1	12.3	13.3

Source: Florida Department of Health, Bureau of Epidemiology

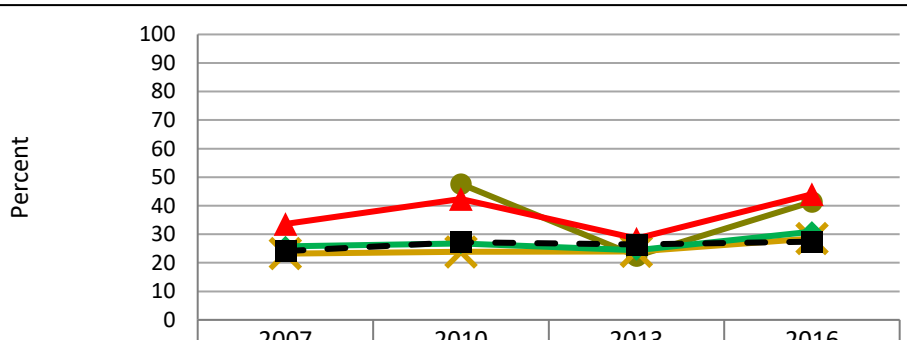
Figure 4.9 Adults Who Are Overweight



	2007	2010	2013	2016
Black		36.2	37.7	29.9
White	38.9	40.0	33.6	38.2
Hispanic	20.7	29.0	37.5	20.2
Volusia	37.6	38.9	33.7	34.8
Florida	38.0	37.8	36.4	35.8

Source: Florida Behavioral Risk Factor Surveillance System
NOTE: Black = Non-Hispanic, Black; White = Non-Hispanic, White
NOTE: Blank cells indicate a sample size less than 30, which would yield statistically unreliable estimates

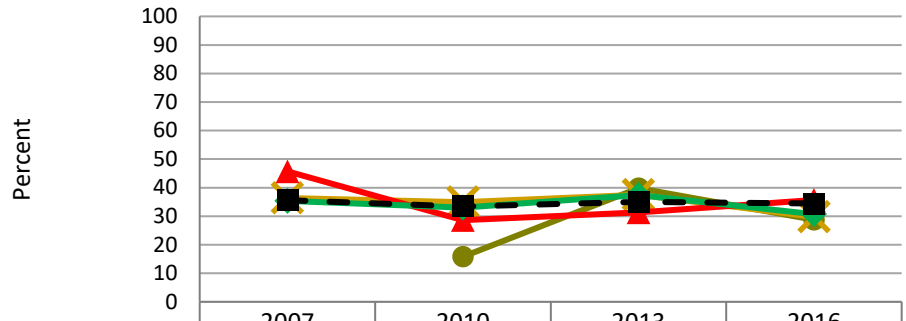
Figure 4.10 Adults Who Are Obese



	2007	2010	2013	2016
Black		47.6	22.4	41.3
White	23.2	23.8	24.0	28.5
Hispanic	33.6	42.4	28.5	44.0
Volusia	25.8	26.8	24.4	30.9
Florida	24.1	27.2	26.4	27.4

Source: Florida Behavioral Risk Factor Surveillance System
NOTE: Black = Non-Hispanic, Black; White = Non-Hispanic, White
NOTE: Blank cells indicate a sample size less than 30, which would yield statistically unreliable estimates

Figure 4.11 Adults Who Have a Healthy Weight



	2007	2010	2013	2016
Black		15.8	39.8	28.7
White	36.4	34.9	37.5	29.8
Hispanic	45.7	28.6	31.3	35.7
Volusia	35.4	33.0	37.4	30.7
Florida	35.6	33.4	35.0	34.5

Source: Florida Behavioral Risk Factor Surveillance System
NOTE: Black = Non-Hispanic, Black; White = Non-Hispanic, White
NOTE: Blank cells indicate a sample size less than 30, which would yield statistically unreliable estimates

Figure 4.12 Adults with "Good" to "Excellent" Overall Health

Adults with "good" to "excellent" overall health, 2016	Volusia	Florida
	Percent	Percent
Total – Overall	78.5	80.5
Men	82.2	81.4
Women	75.3	79.7
Non-Hispanic, White	81.6	82.3
Non-Hispanic, Black	66.8	81.3
Hispanic	66.3	74.8
18-44	83.9	86.1
45-64	74.6	77.1
65 & Older	77.5	75.7
< High School	66.5	57.3
High School/GED	69.6	78.9
> High School	84.6	87.1
< $25,000	59.4	65.4
$25,000-$49,999	85.6	83.2
$50,000 or More	90.4	91.6

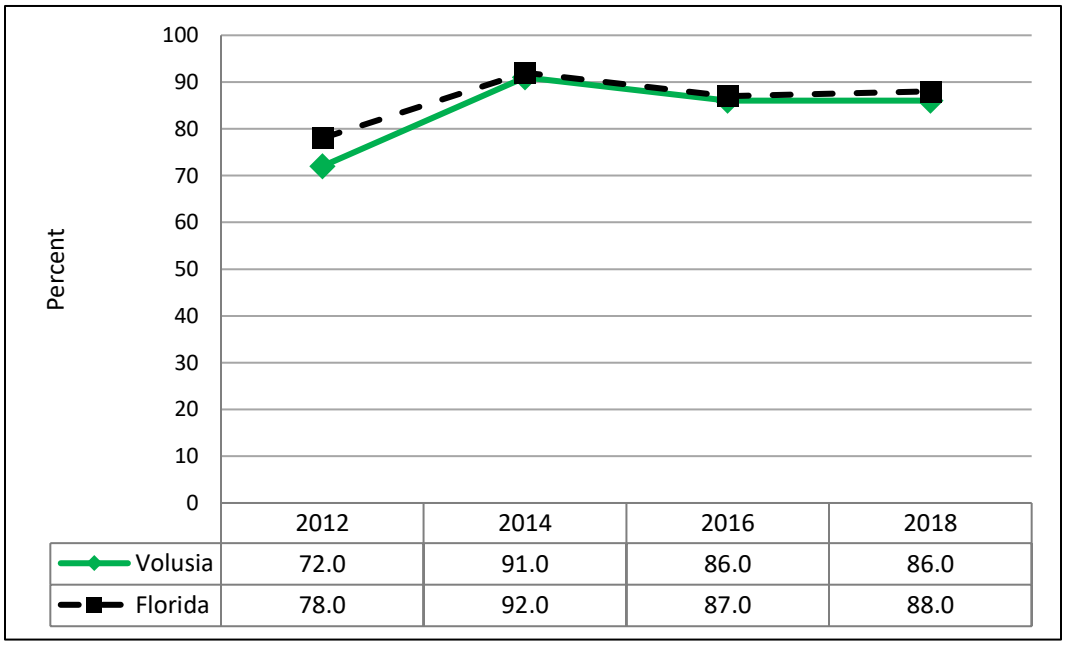
Source: Florida Behavioral Risk Factor Surveillance System

Figure 4.13 Poor Physical Health Days

Average number of unhealthy physical days in the past 30 days, 2016	Volusia	Florida
	Percent	Percent
Total – Overall	5.0	4.0
Men	4.1	3.7
Women	5.7*	4.3
Non-Hispanic, White	4.7	4.4
Non-Hispanic, Black	4.6	3.6
Hispanic	6.3	3.6
18-44	3.6	2.7
45-64	6.1	5.0
65 & Older	5.0	4.9
< High School	5.4	5.9
High School/GED	5.4	4.2
> High School	4.7	3.5
< $25,000	7.7	6.6
$25,000-$49,999	3.6	3.6
$50,000 or More	3.5	2.4

Source: Florida Behavioral Risk Factor Surveillance System
NA=Not available due to respondent counts of less than 30
**Indicates the difference observed between the county and state measure is statistically significant*

Figure 4.14 Population with Adequate Access to Locations for Physical Activity



Source: Business Analyst, Delorme map data, ESRI, & US Census Tigerline Files

5. Social & Economic Issues

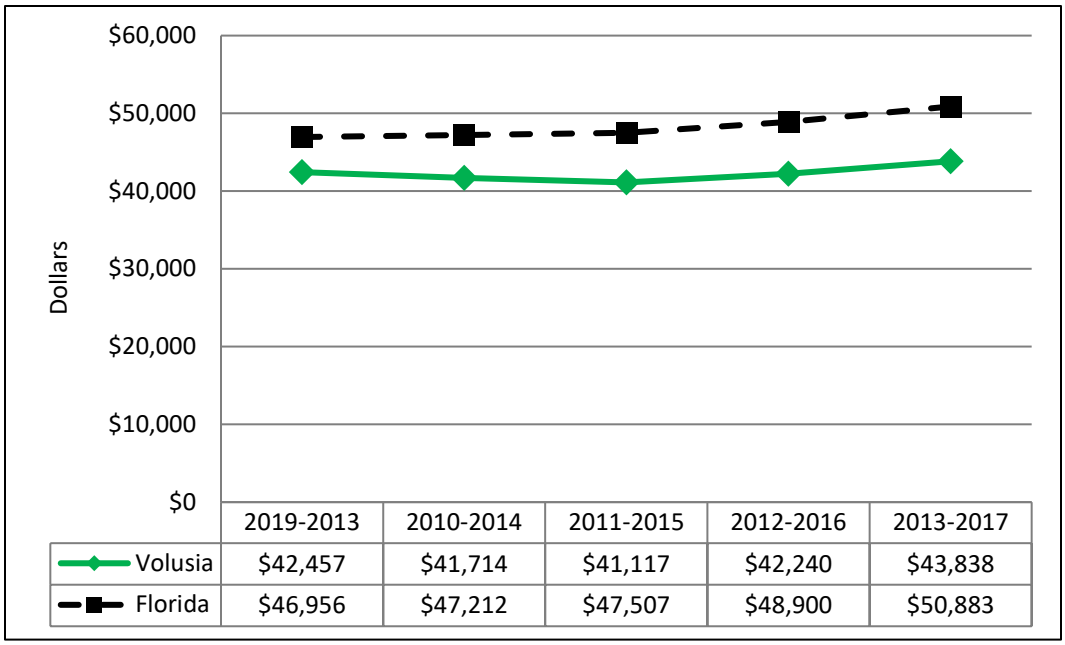
Social and economic factors, such as income, education, employment, community safety, and social supports can significantly affect how well and how long we live. These factors affect our ability to make healthy choices, afford medical care and housing, manage stress, and more. Healthy People 2020 highlights the importance of addressing the social determinants of health by including them in one of the four overarching goals for the decade. According to the National County Health Rankings, "Social and Economic Factors" account for over 40% of the health of a community.

Indicators of Concern		Volusia Trend	Florida Comparison	# Impacted
Median Household Income	**Figure 5.1.** Volusia's median household income is lower than Florida's.		↓	
Poverty	**Figure 5.3. and Figure 5.4.** Volusia's percent of individuals and individuals below age 18 below poverty are both slightly higher than Florida's.		↑	
Free/Reduced Price Lunch	**Figure 5.5 and 5.6.** The Volusia percent of elementary and middle school students eligible for free/reduced price lunches is higher than Florida. (a proxy measure for low income)		↑	9,389
High School Graduation	**Figure 5.8.** The Volusia high school graduation rate is lower than Florida.		↓	
Adults Limited by Problems	**Figure 5.11.** The Volusia percent of adults limited by physical, mental or emotional problems is higher than Florida. (difference is statistically significant)		↑	
Food Insecurity	**Figure 5.13.** Volusia's food insecurity rate is higher than Florida's**.**		↑	
Per Capita Income	**Figure 5.15.** Volusia's per capita income is lower than Florida's.		↓	
Housing Cost Burden	**Figure 5.18 and Figure 5.19.** Over 30% of Volusia households spend more than 30% of their income on housing and workers in 8 of the top 20 industries in Volusia are estimated to be housing burdened based on average hourly wage.			276,271
Homelessness	**Figure 5.20.** The Volusia number of individuals counted during the Point-In-Time count was higher in 2019 than in 2018.	↑		745
Student Homelessness	**Figure 5.21.** The Volusia number of homeless students has been increasing since 2016.	↑		2,720
Single Parent Households	**Figure 5.26.** Volusia's percent of single parent households is higher than Florida's.		↑	

Indicators Included:

Indicator	Reference
Median Household Income	**Graph 5.1**
Families Below Poverty Level	**Graph 5.2**
Population Under Age 18 Below Poverty Level	**Graph 5.3**
Individuals Below Poverty Level	**Graph 5.4**
Elementary School Students Eligible for Free/Reduced Price Lunch	**Graph 5.5**
Middle School Students Eligible for Free/Reduced Price Lunch	**Graph 5.6**
Owner-Occupied Housing Units	**Graph 5.7**
High School Graduation Rate	**Graph 5.8**
Population 25 Years and Over Without a High School Diploma or Equivalency	**Graph 5.9**
Unemployment Rate	**Graph 5.10**
Adults Who Are Limited in Any Way in Any Activities because of Physical, Mental, or Emotional Problems	**Graph 5.11**
Population Age 5+ that Speak English Less Than Very Well	**Graph 5.12**
Households where no one over age 14 speaks English "very well"	**Graph 5.13**
Food Insecurity Rate	**Graph 5.14**
Per Capita Income	**Graph 5.15**
Children Under Age 19 Without Health Insurance	**Graph 5.16**
Workers Who Used Public Transportation	**Graph 5.17**
Occupied Households with Monthly Housing Costs of 30% or More of Household Income (Housing Cost Burden)	**Graph 5.18**
Wage and Rent Affordability Comparison for Top 20 Industries	**Graph 5.19**
Annual Point in Time Homelessness Count	**Graph 5.20**
Homeless Students	**Graph 5.21**
Population 25 Years and Over, Some College but No Degree	**Graph 5.22**
Percentage of Adults Ages 25-44 with Some Post-Secondary Education	**Graph 5.23**
Income Inequality (Gini Index)	**Graph 5.24**
Income Inequality (Ratio of Household Income at the 80th Percentile to Income at the 20th Percentile)	**Graph 5.25**
Children in single parent households	**Graph 5.26**

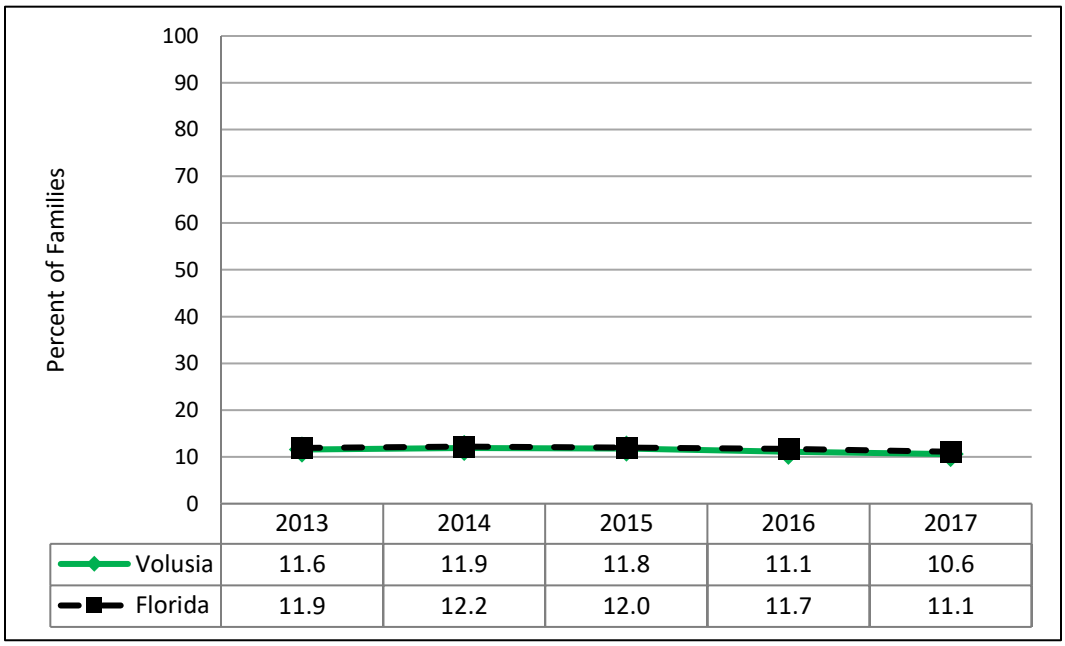
Figure 5.1 Median Household Income



	2019-2013	2010-2014	2011-2015	2012-2016	2013-2017
Volusia	$42,457	$41,714	$41,117	$42,240	$43,838
Florida	$46,956	$47,212	$47,507	$48,900	$50,883

Source: US Bureau of the Census, American Communities Survey 5-Year Estimates

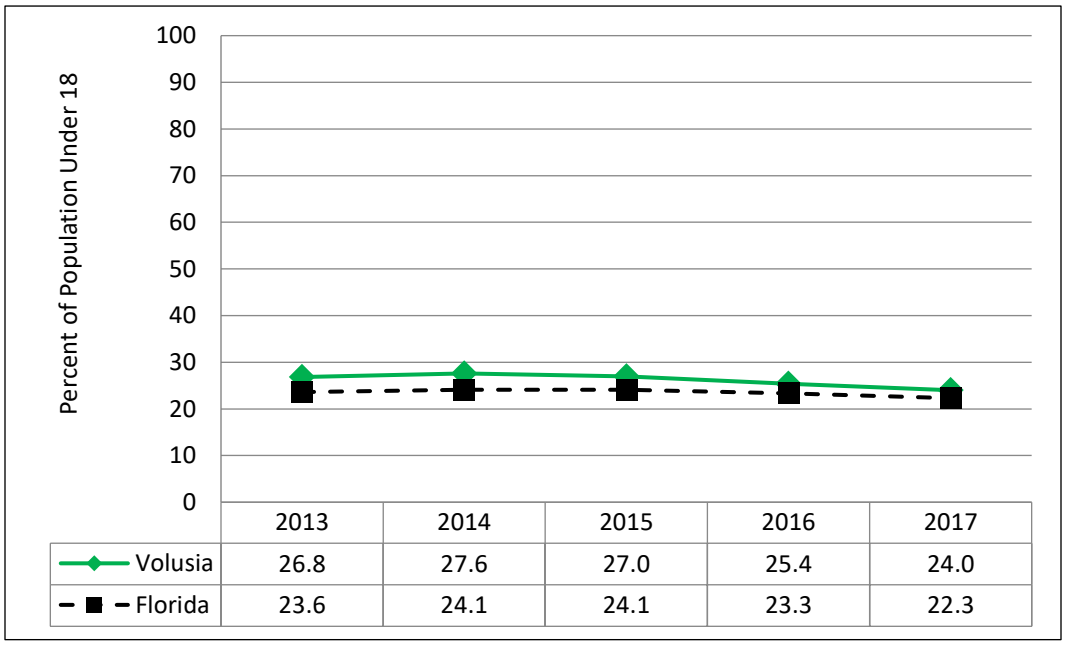
Figure 5.2 Families Below Poverty Level



	2013	2014	2015	2016	2017
Volusia	11.6	11.9	11.8	11.1	10.6
Florida	11.9	12.2	12.0	11.7	11.1

Source: US Bureau of the Census

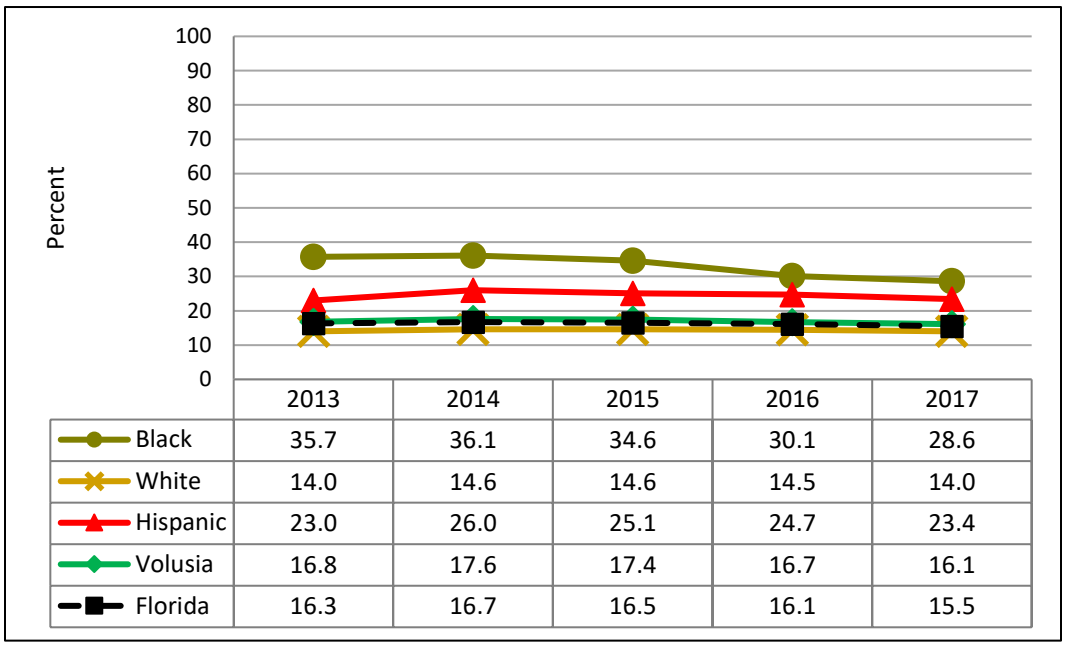
Figure 5.3 Individuals Under 18 Below Poverty Level



	2013	2014	2015	2016	2017
Volusia	26.8	27.6	27.0	25.4	24.0
Florida	23.6	24.1	24.1	23.3	22.3

Source: US Bureau of the Census

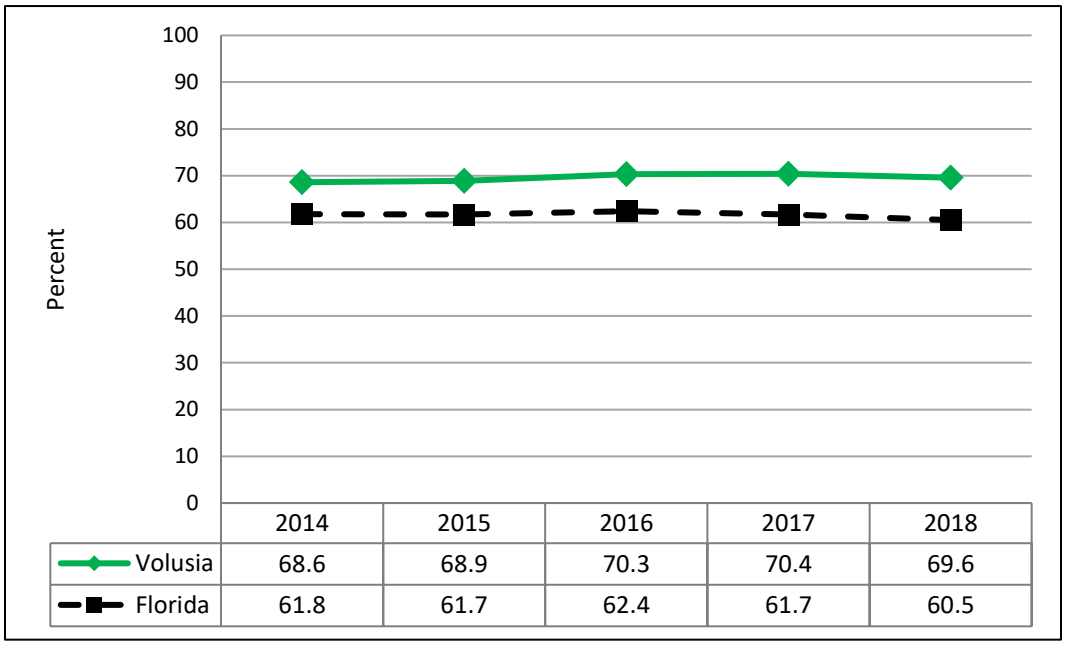
Figure 5.4 Individuals Below Poverty Level



	2013	2014	2015	2016	2017
Black	35.7	36.1	34.6	30.1	28.6
White	14.0	14.6	14.6	14.5	14.0
Hispanic	23.0	26.0	25.1	24.7	23.4
Volusia	16.8	17.6	17.4	16.7	16.1
Florida	16.3	16.7	16.5	16.1	15.5

Source: US Bureau of the Census, American Community Survey

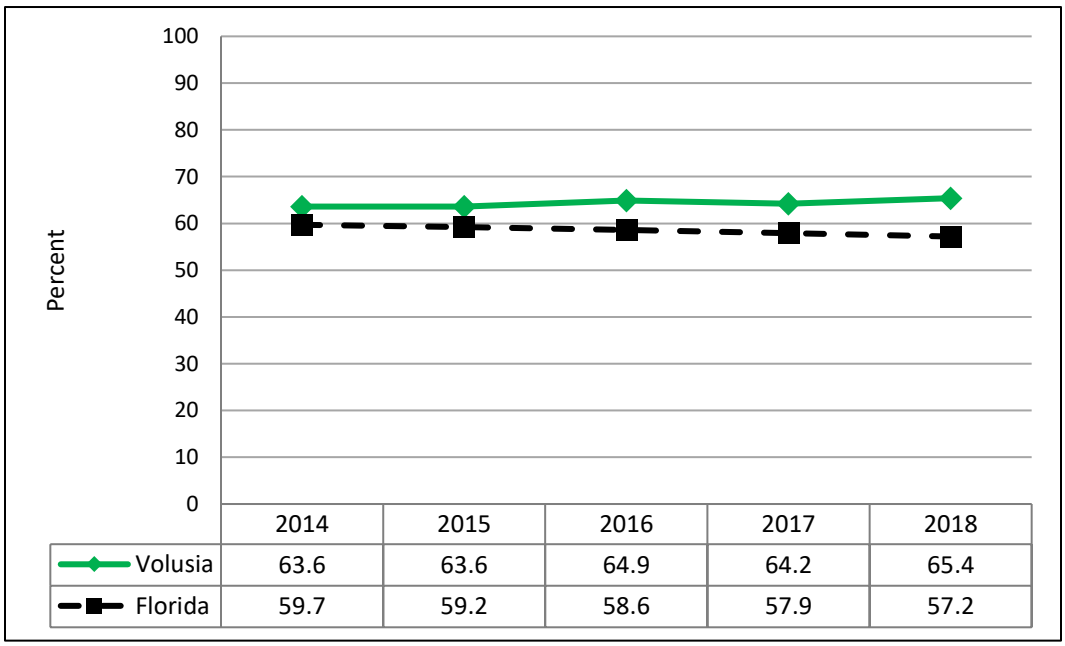
Figure 5.5 Elementary School Students Eligible for Free/Reduced Price Lunch



	2014	2015	2016	2017	2018
Volusia	68.6	68.9	70.3	70.4	69.6
Florida	61.8	61.7	62.4	61.7	60.5

Source: Florida Department of Education, Education Information and Accountability Services (EIAS)

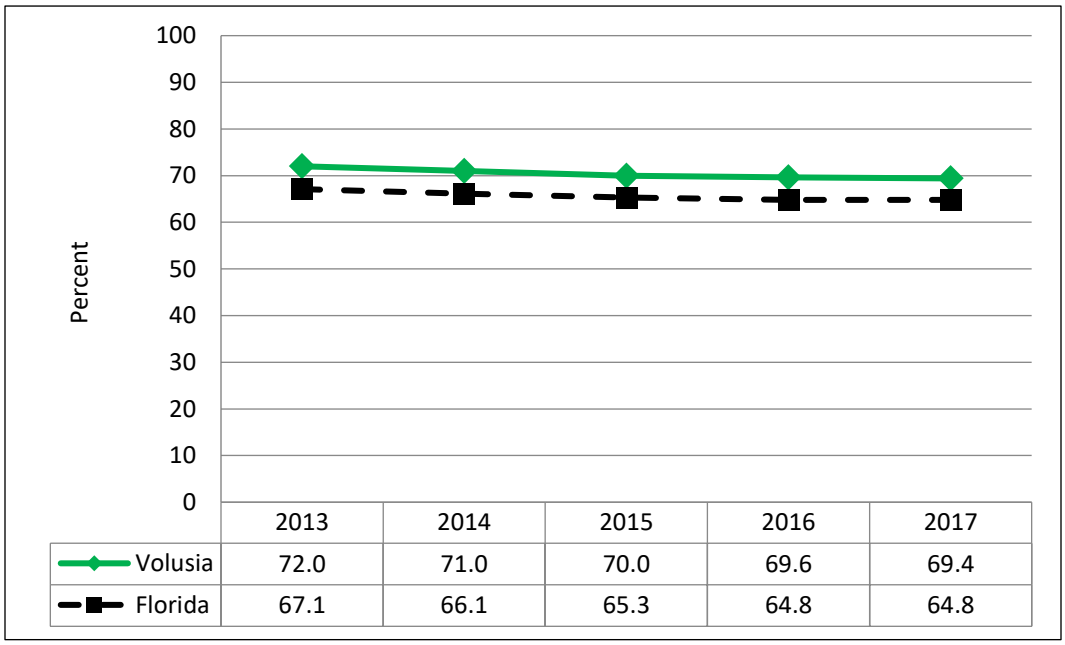
Figure 5.6 Middle School Students Eligible for Free/Reduced Price Lunch



	2014	2015	2016	2017	2018
Volusia	63.6	63.6	64.9	64.2	65.4
Florida	59.7	59.2	58.6	57.9	57.2

Source: Florida Department of Education, Education Information and Accountability Services (EIAS)

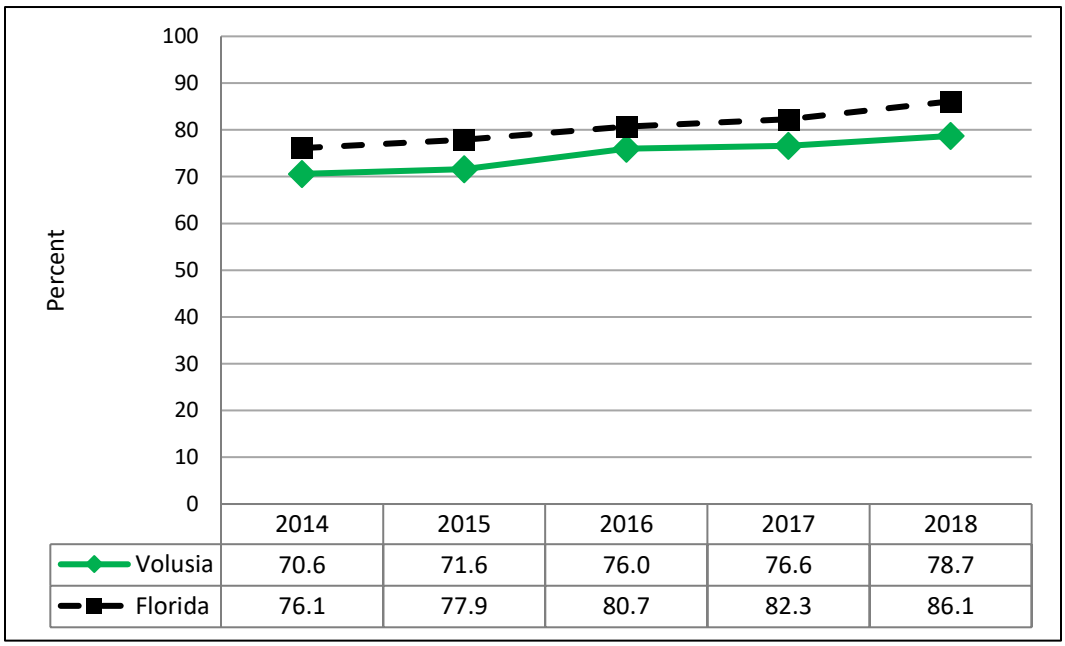
Figure 5.7 Owner Occupied Housing Units



	2013	2014	2015	2016	2017
Volusia	72.0	71.0	70.0	69.6	69.4
Florida	67.1	66.1	65.3	64.8	64.8

Source: US Census Bureau

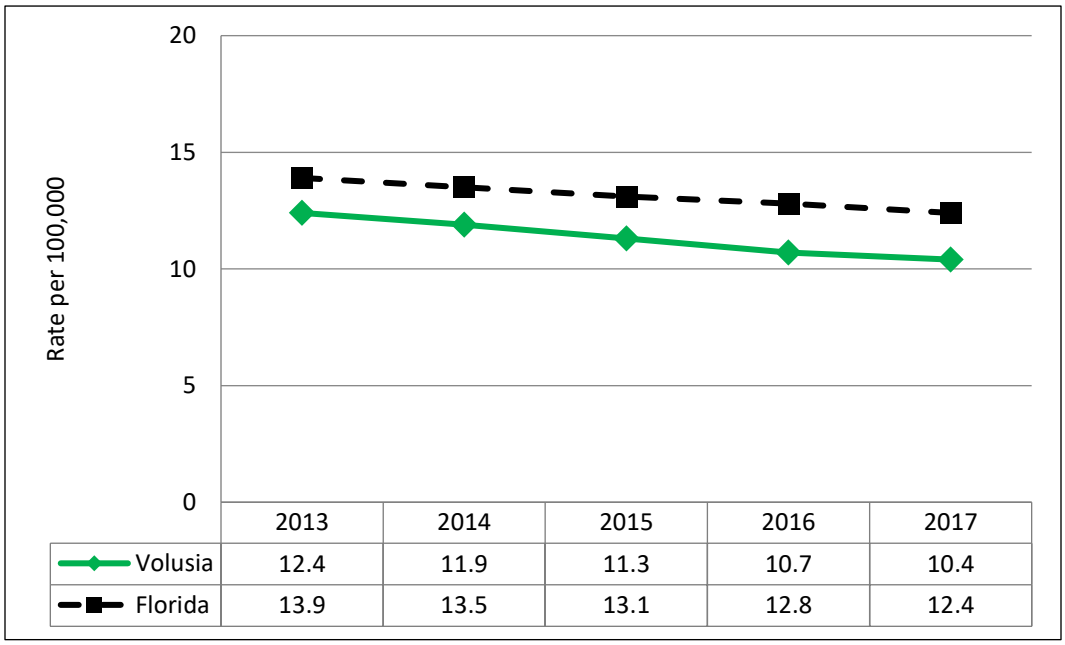
Figure 5.8 High School Graduation Rate



	2014	2015	2016	2017	2018
Volusia	70.6	71.6	76.0	76.6	78.7
Florida	76.1	77.9	80.7	82.3	86.1

Source: Florida Department of Education, Education Information and Accountability Services (EIAS)

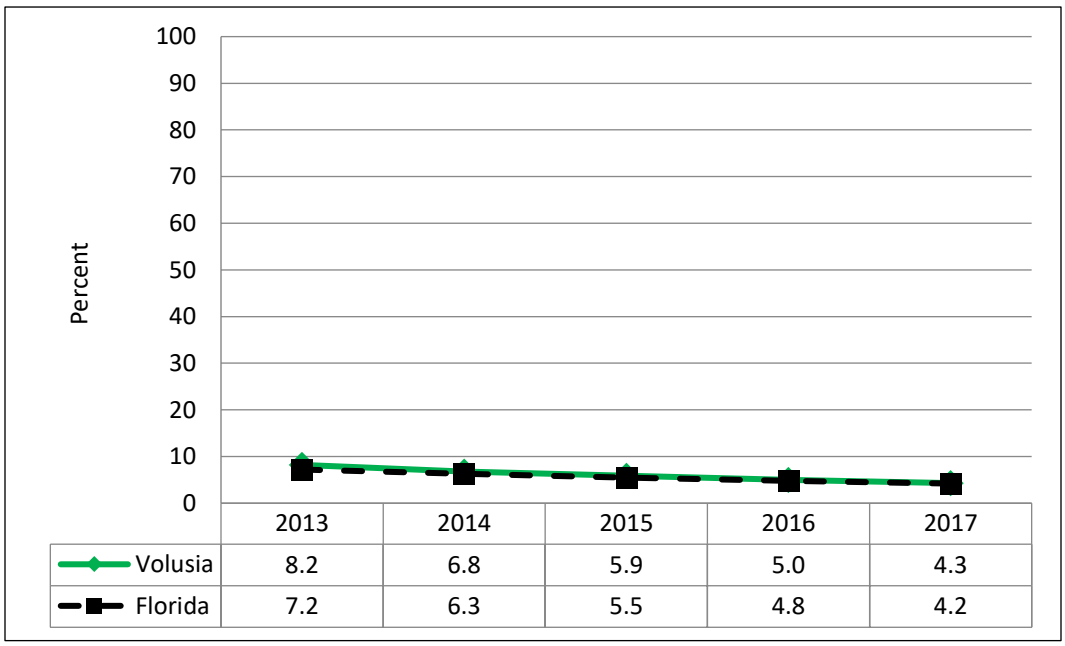
Figure 5.9 Individuals 25 Years and Over with No High School Diploma



	2013	2014	2015	2016	2017
Volusia	12.4	11.9	11.3	10.7	10.4
Florida	13.9	13.5	13.1	12.8	12.4

Source: US Bureau of the Census

Figure 5.10 Unemployment Rate



	2013	2014	2015	2016	2017
Volusia	8.2	6.8	5.9	5.0	4.3
Florida	7.2	6.3	5.5	4.8	4.2

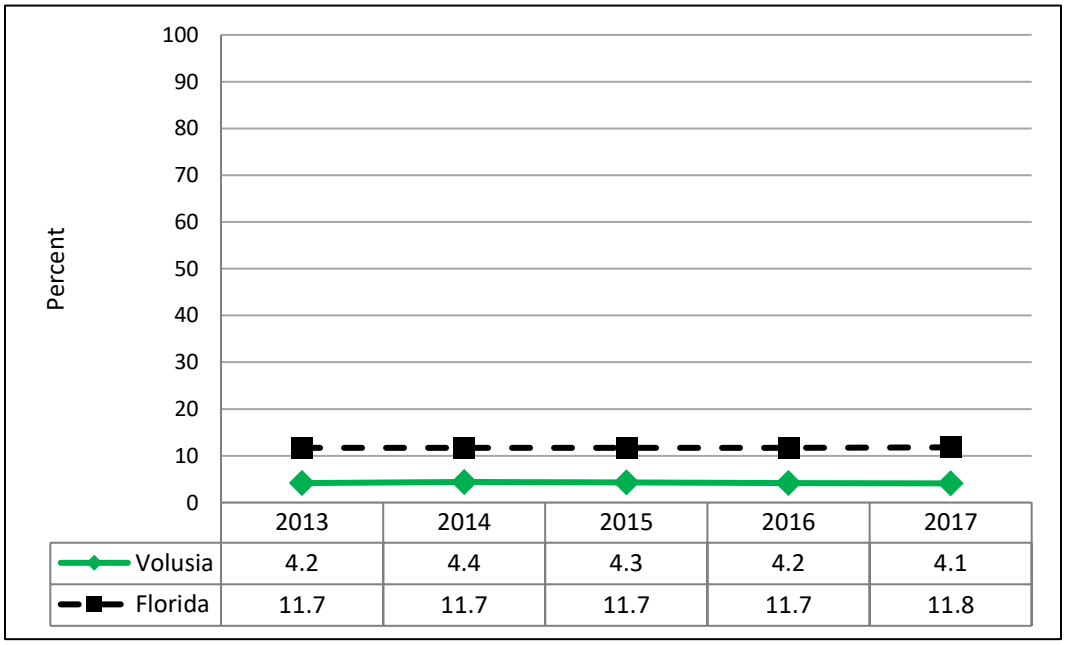
Source: US Department of Labor, Bureau of Labor Statistics

Figure 5.11 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, 2016	Volusia	Florida
	Percent	Percent
Total – Overall	28.7*	21.2
Men	26.0	20.5
Women	31.0*	21.8
Non-Hispanic, White	31.9	25.4
Non-Hispanic, Black	9.7	18.1
Hispanic	20.8	13.9
18-44	18.1	13.2
45-64	37.0*	26.4
65 & Older	29.8	27.1
< High School	38.6	28.3
High School/GED	30.9	21.2
> High School	26.2*	19.4
< $25,000	39.3	29.7
$25,000-$49,999	25.7	21.2
$50,000 or More	18.4	14.7

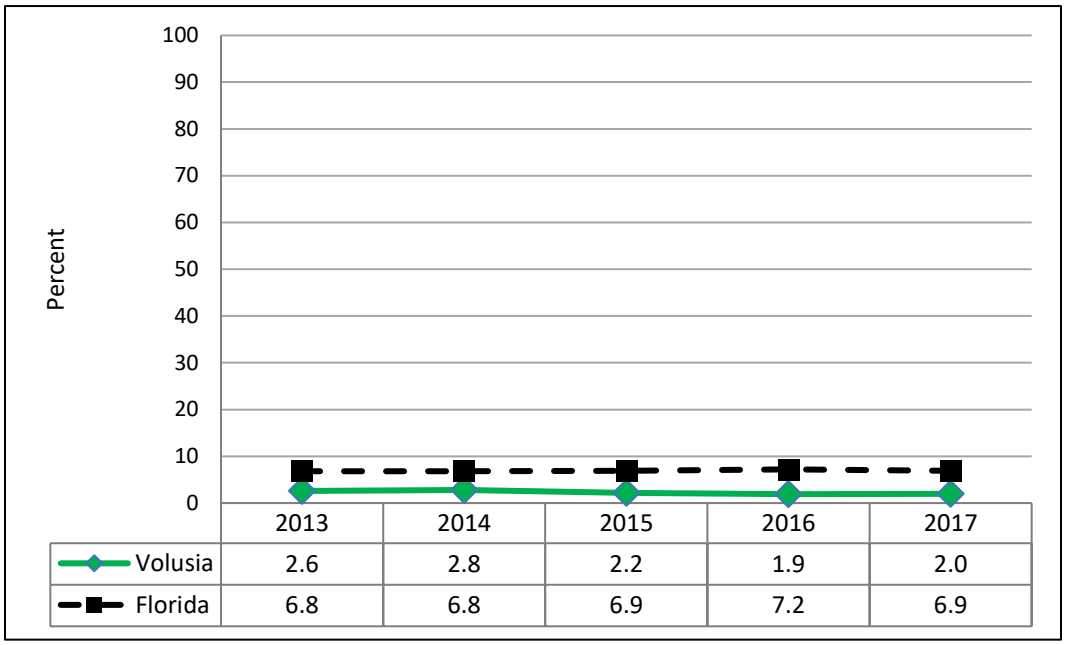
Source: Florida Behavioral Risk Factor Surveillance System
*Indicates the difference observed between the county and state measure is statistically significant

Figure 5.12 Population 5+ that Speak English Less Than Very Well



Source: US Bureau of the Census, American Community Survey

Figure 5.13 Households Where No One Over Age 14 Speaks English "Very Well"



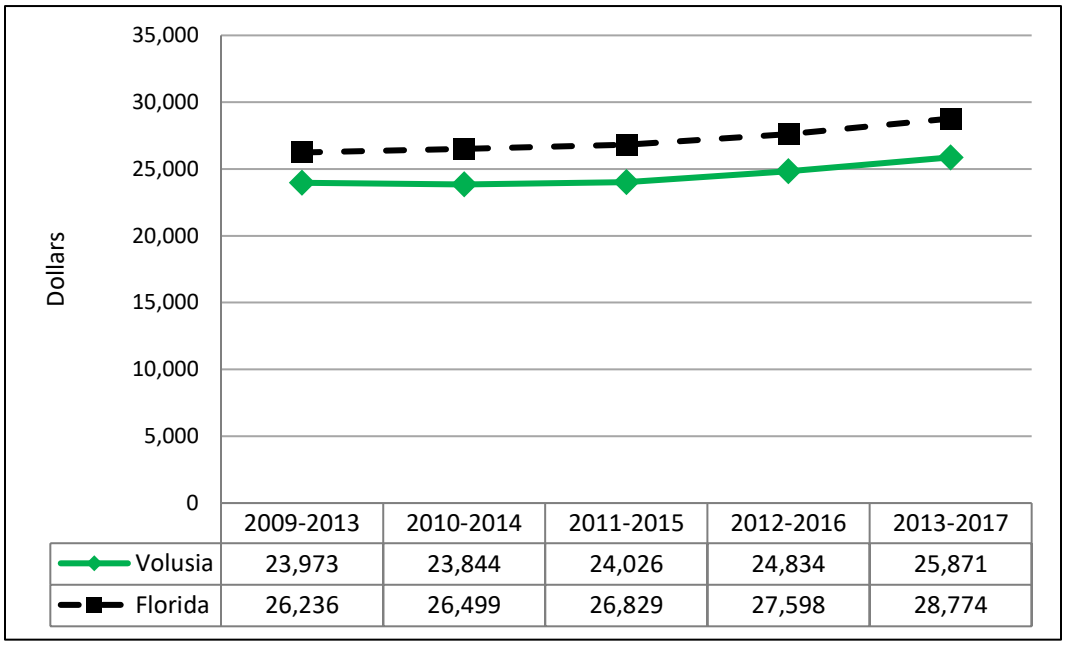
Source: US Bureau of the Census, American Community Survey

Figure 5.14 Food Insecurity Rate

	Volusia Percent	Florida Percent
2016	15.1	13.9
2015	16.0	15.1
2014	16.3	16.2

Source: Feeding America, Map the Meal Gap

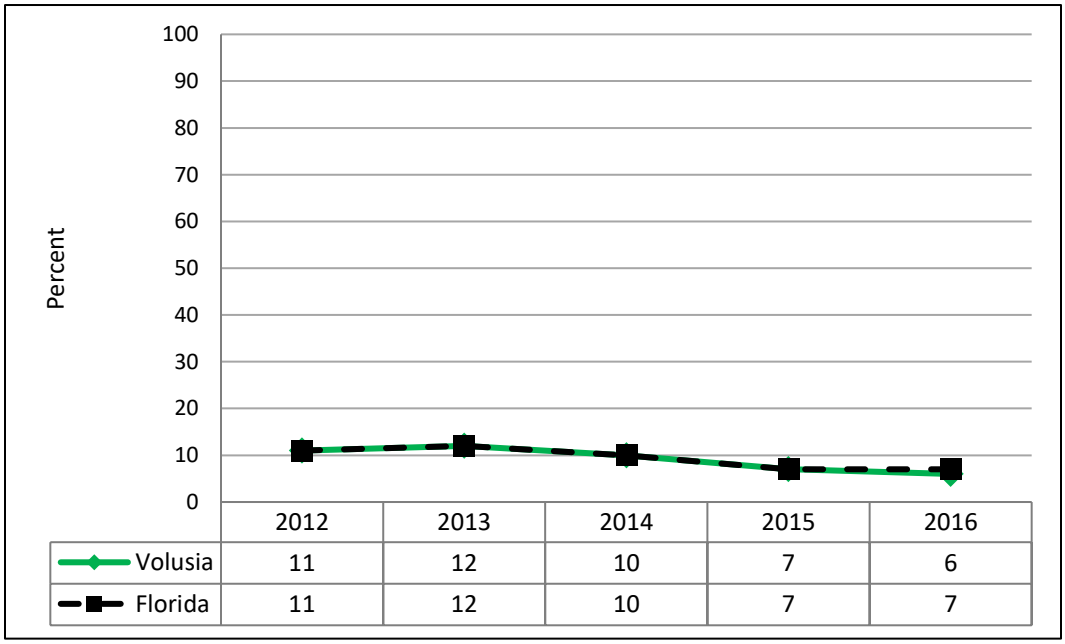
Figure 5.15 Per Capita Income



	2009-2013	2010-2014	2011-2015	2012-2016	2013-2017
Volusia	23,973	23,844	24,026	24,834	25,871
Florida	26,236	26,499	26,829	27,598	28,774

Source: U.S. Bureau of the Census, American Community Survey 5-Year Estimates

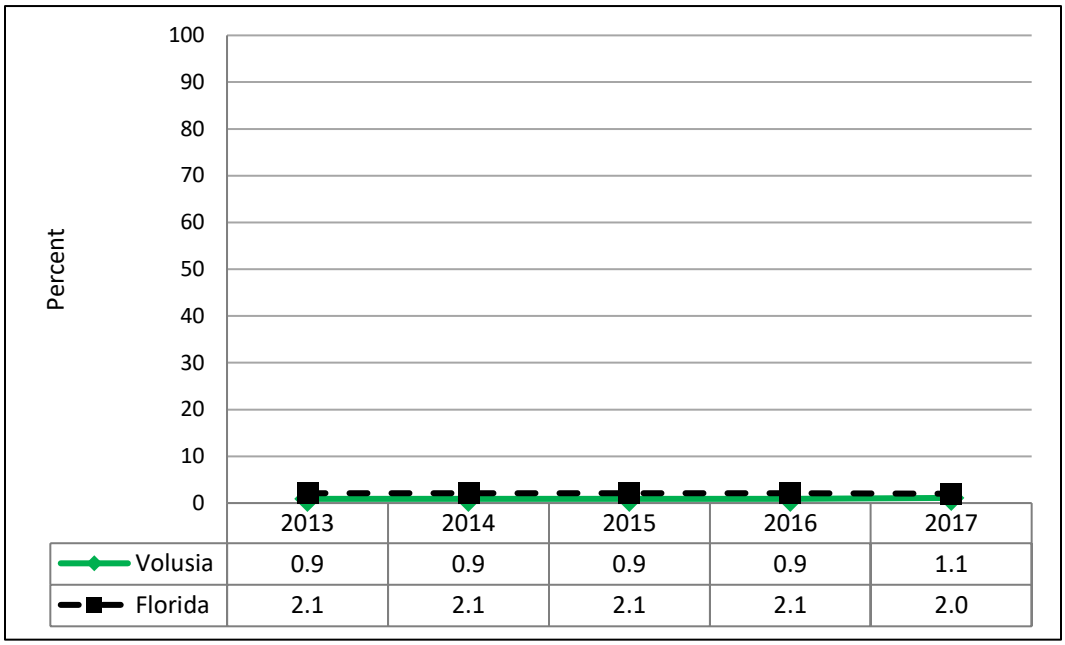
Figure 5.16 Children Under Age 19 Without Health Insurance



	2012	2013	2014	2015	2016
Volusia	11	12	10	7	6
Florida	11	12	10	7	7

Source: 2008 - 2016 Small Area Health Insurance Estimates (SAHIE) using the American Community Survey (ACS)

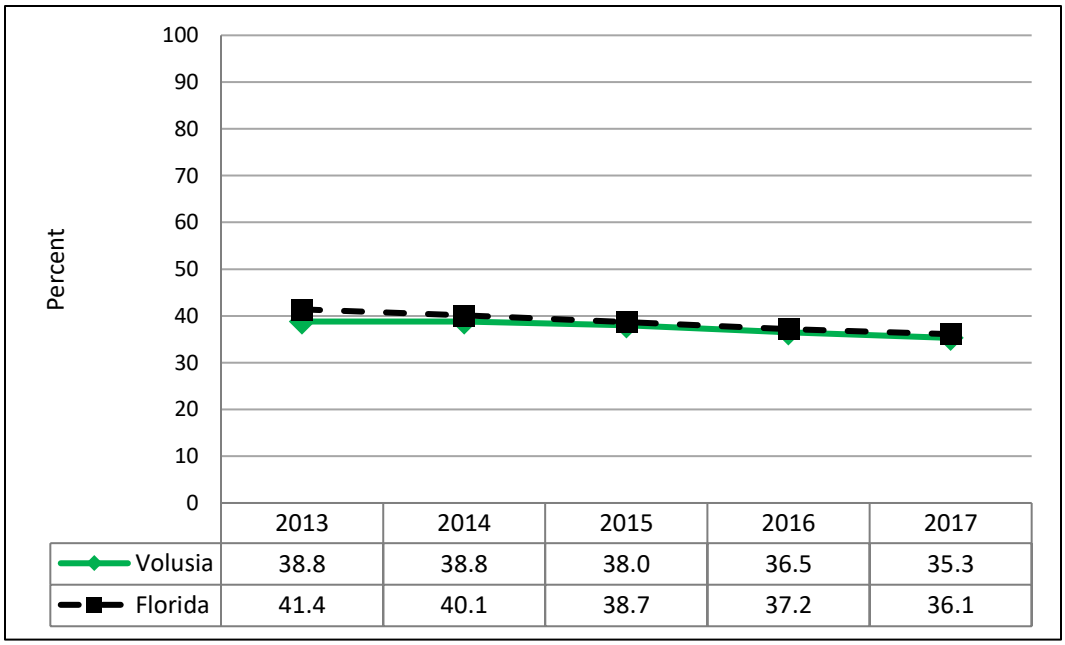
Figure 5.17 Workers Who Used Public Transportation



	2013	2014	2015	2016	2017
Volusia	0.9	0.9	0.9	0.9	1.1
Florida	2.1	2.1	2.1	2.1	2.0

Source: U.S. Bureau of the Census, American Communities Survey

Figure 5.18 Occupied Households with Monthly Housing Costs of 30% or More of Household Income (Housing Cost Burden)



	2013	2014	2015	2016	2017
Volusia	38.8	38.8	38.0	36.5	35.3
Florida	41.4	40.1	38.7	37.2	36.1

Source: U.S. Bureau of the Census, American Community Survey

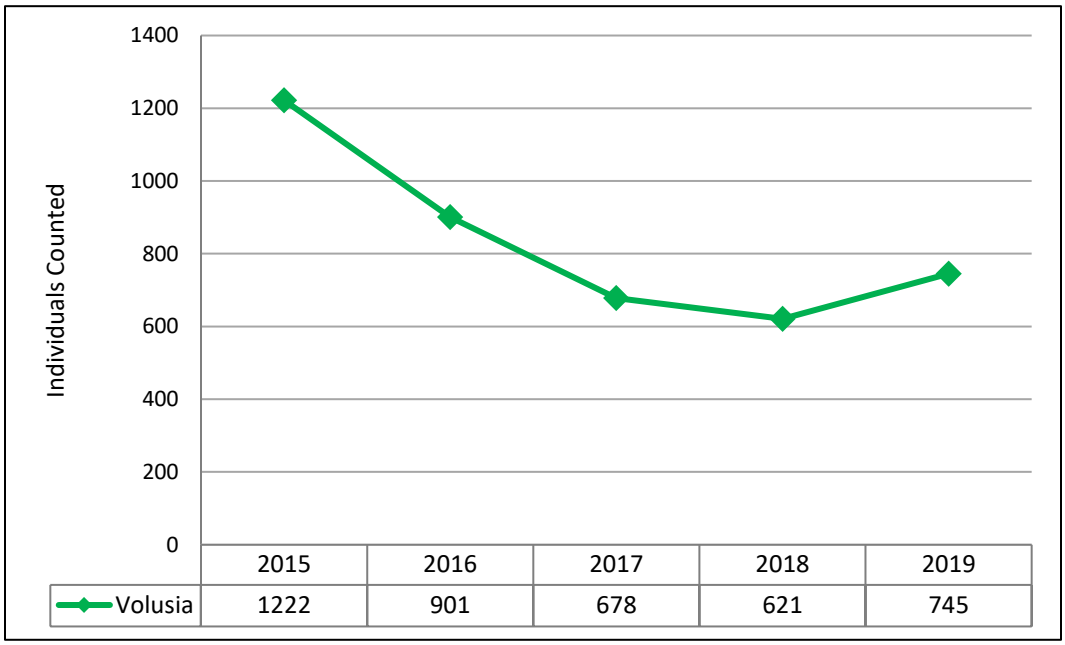
Figure 5.19 Rent and Wage Comparisons for Top 20 Industries

Estimates based on 2-bedroom Fair Market Rent of $959 per month. Thirty percent or less of income spent on housing is considered "affordable".

Industry	# of Workers in 2017	Median Wage Worker		
		Average Hourly Wage	Max. Affordable Rent	% Income Needed for 2 BR
Service-Providing	145,514	$18.63	$932	**31%**
Education and Health Services	43,736	$22.41	$1121	26%
Trade, Transportation, and Utilities	33,363	$16.13	$806	**36%**
Health Care and Social Assistance	29,387	$22.78	$1139	25%
Leisure and Hospitality	27,186	$9.95	$497	**58%**
Retail Trade	26,136	$13.48	$674	**43%**
Goods-Producing	23,516	$22.22	$1111	26%
Accommodation and Food Services	22,936	$9.22	$461	**62%**
Professional and Business Services	18,958	$21.40	$1070	27%
Educational Services	14,348	$21.64	$1082	27%
Construction	11,500	$20.76	$1038	28%
Administrative and Waste Services	11,268	$16.66	$833	**35%**
Manufacturing	10,534	$25.36	$1268	23%
Durable Goods Manufacturing	8,347	$26.68	$1334	22%
Public Administration	7,662	$27.32	$1366	21%
Financial Activities	7,165	$24.19	$1209	24%
Professional and Technical Services	6,643	$23.84	$1192	24%
Other Services	5,618	$16.11	$805	**36%**
Arts, Entertainment, and Recreation	4,250	$13.89	$694	**41%**
Wholesale Trade	4,194	$25.87	$1293	22%

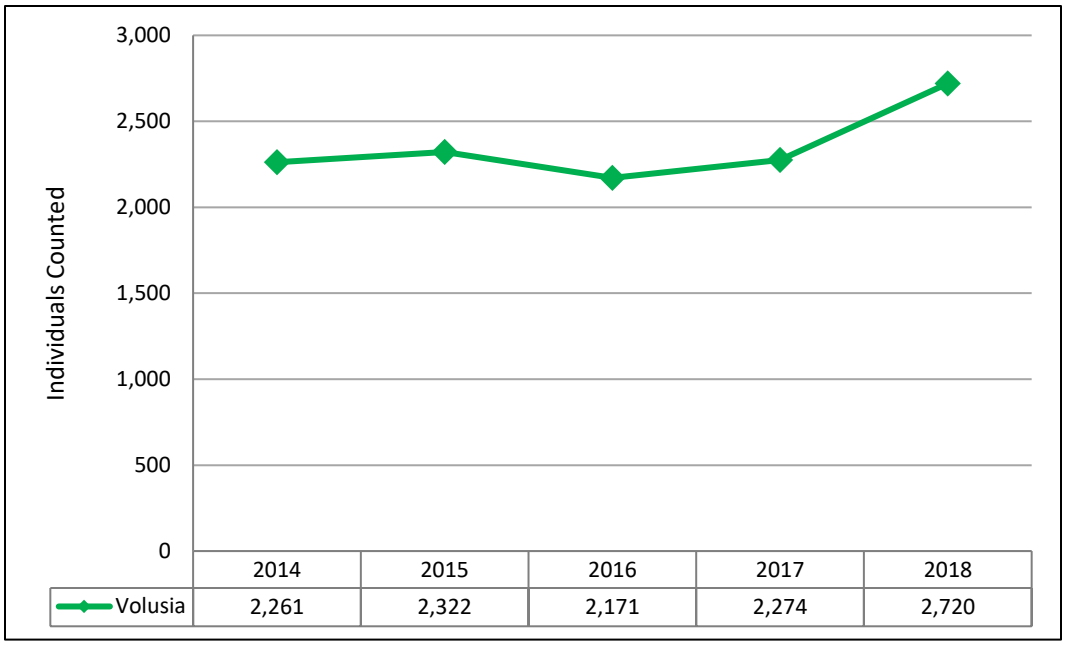
Source: Shimberg Center for Housing Studies, UF

Figure 5.20 Annual Point-in-Time Homelessness Count



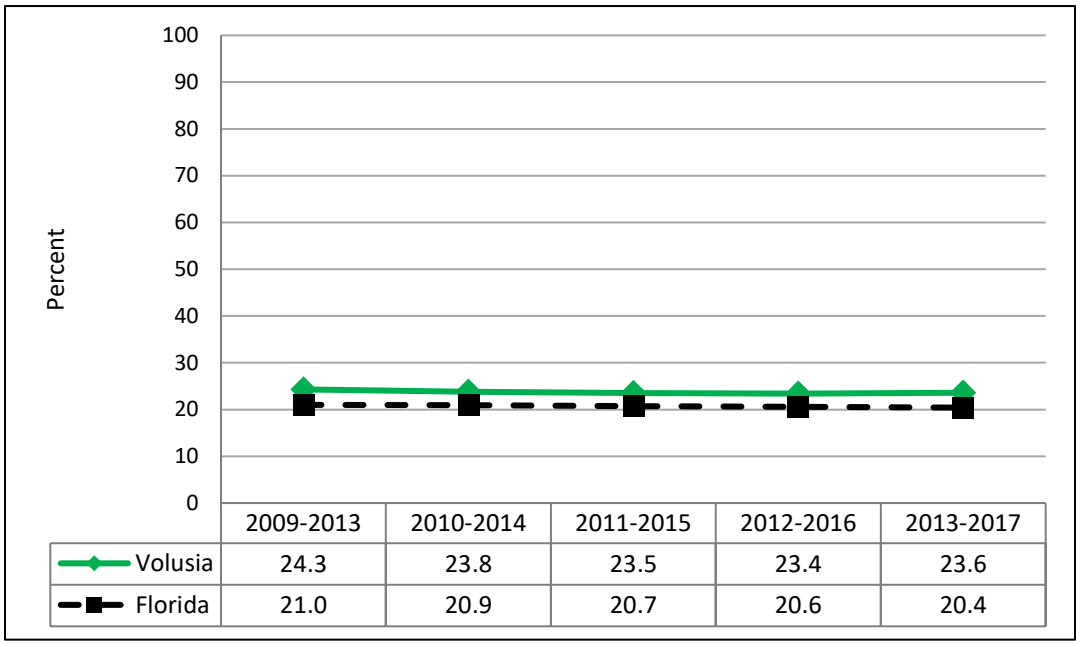
Source: Volusia Flagler County Coalition for the Homeless

Figure 5.21 Homeless Students



Source: Volusia County Schools
Note: DOE uses the McKinney-Vento Definition of Homelessness (different than HUD Definition)

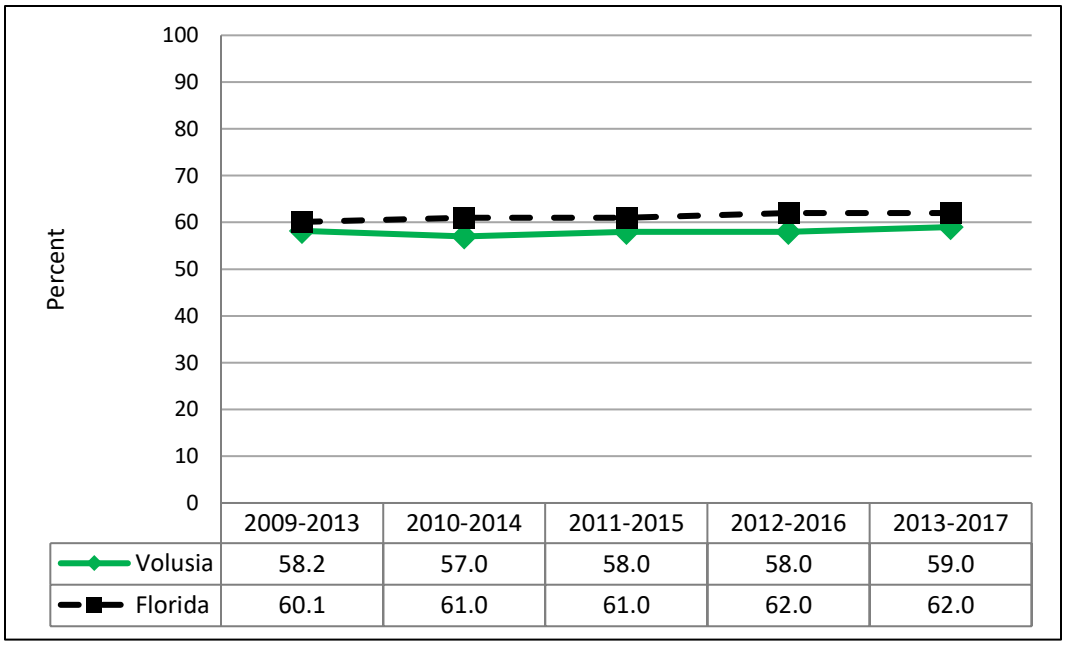
Figure 5.22 Population 25 Years and Over, Some College but No Degree



	2009-2013	2010-2014	2011-2015	2012-2016	2013-2017
Volusia	24.3	23.8	23.5	23.4	23.6
Florida	21.0	20.9	20.7	20.6	20.4

Source: U.S. Bureau of the Census, American Community Survey 5-Year Estimates

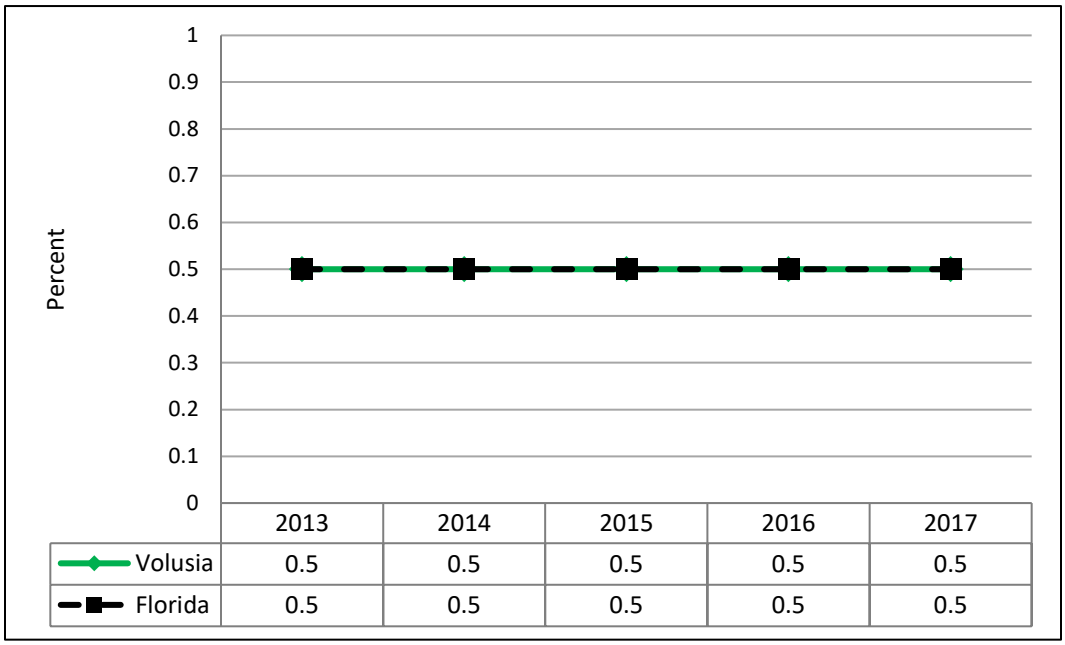
Figure 5.23 Percentage of Adults Ages 25-44 with Some Post-Secondary Education



	2009-2013	2010-2014	2011-2015	2012-2016	2013-2017
Volusia	58.2	57.0	58.0	58.0	59.0
Florida	60.1	61.0	61.0	62.0	62.0

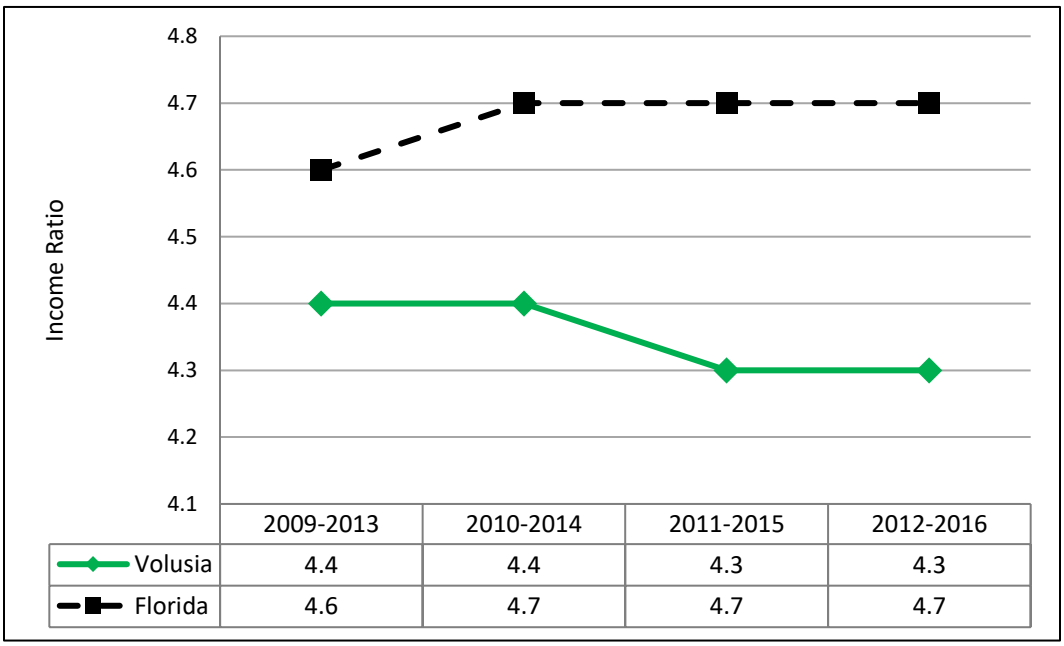
Source: U.S. Bureau of the Census, American Community Survey 5-Year Estimates

Figure 5.24 Income Inequality (Gini Index)



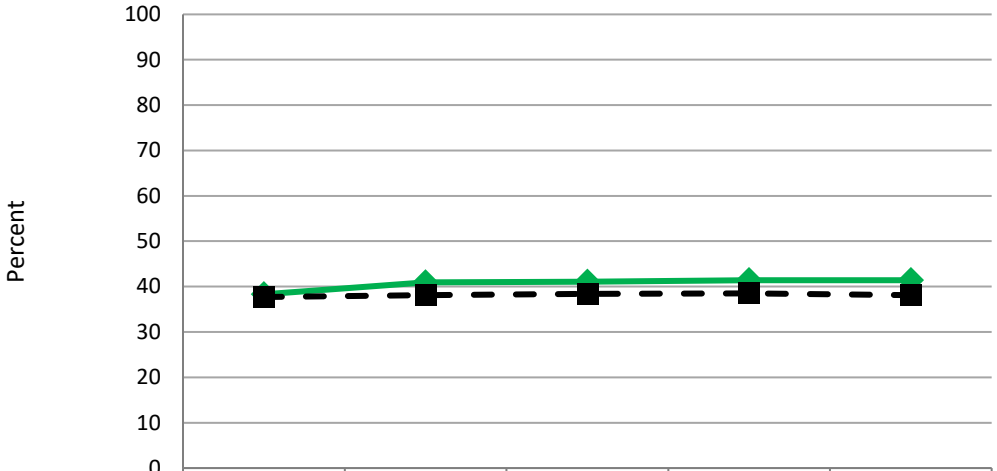
Source: U.S. Bureau of the Census, American Community Survey
NOTE: 0=Perfect Equality, 1=Perfect Inequality

Figure 5.25 Income Inequality (Ratio of Household Income at the 80th Percentile to Income at the 20th Percentile)



Source: U.S. Bureau of the Census, American Community Survey, 5-year estimates

Figure 5.26 Children in Single Parent Households



	2013	2014	2015	2016	2017
Volusia	38.3	40.9	41.1	41.4	41.4
Florida	37.7	38.1	38.4	38.5	38.1

Source: U.S. Bureau of the Census, American Community Survey

6. Aging-related Issues

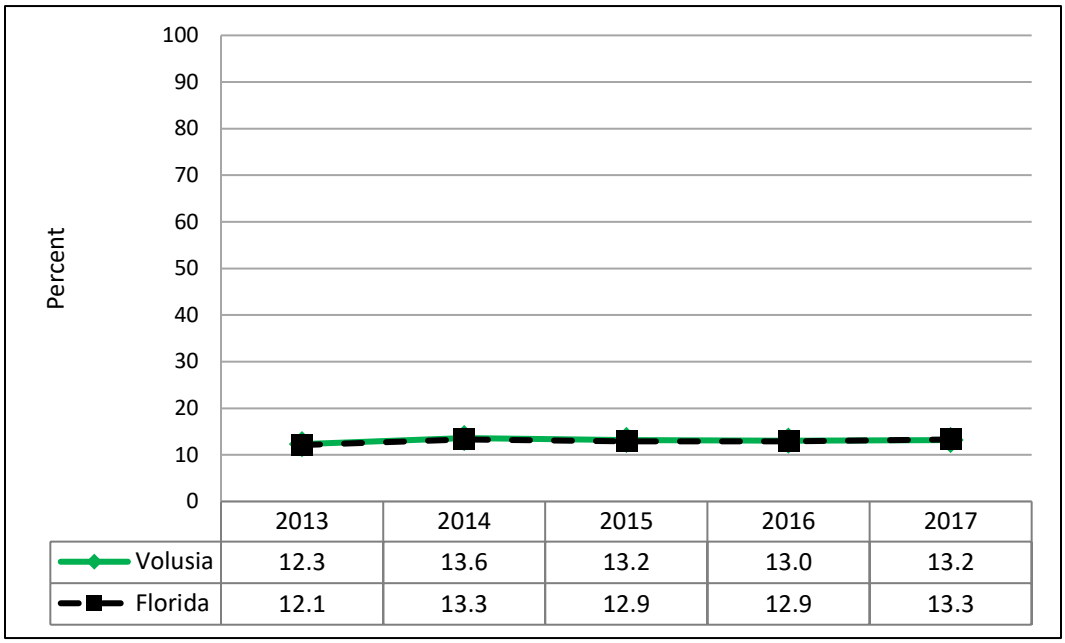
Volusia County is part of the Sun belt that has long been attracting a continuous stream of seniors seeking to retire here. When the influx of seniors moving into the area is coupled with the aging of baby-boomers, the 65+ population is projected to continue being the fastest growing segment of the population in Volusia County through 2020 and beyond. In 2017, 24% of the Volusia population was 65 or older.

Indicators of Concern		Volusia Trend	Florida Comparison	# Impacted
Suicide	**Figure 6.6.** The suicide death rate among individuals 60 and older is higher than Florida.		↑	34

Indicators Included:

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

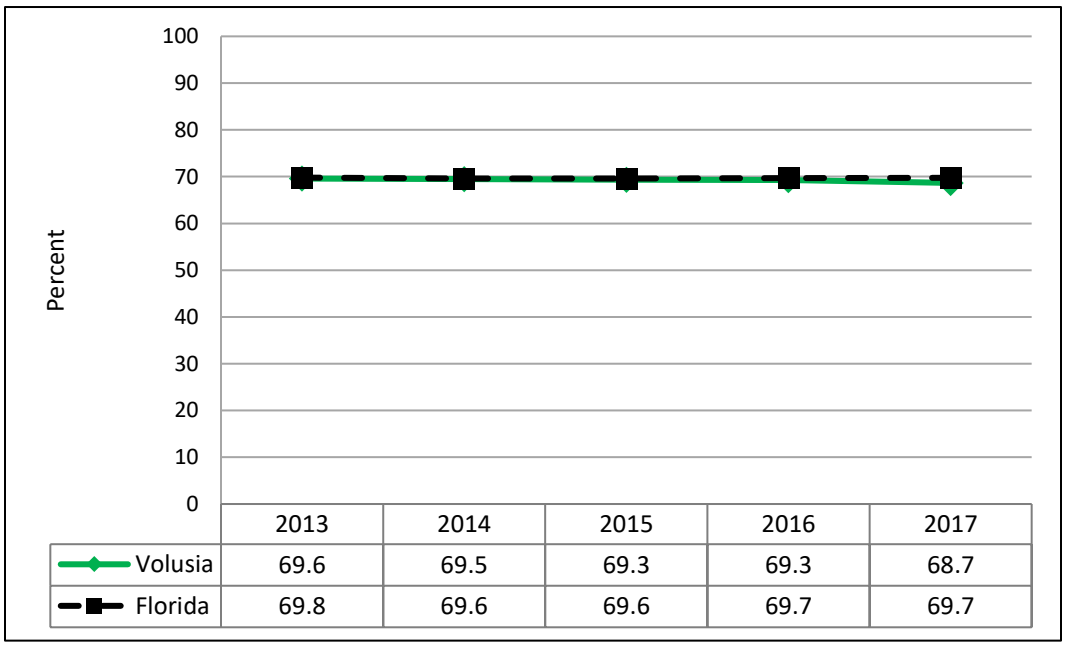
Figure 6.1 Probable Alzheimer's Cases, Ages 65+



	2013	2014	2015	2016	2017
Volusia	12.3	13.6	13.2	13.0	13.2
Florida	12.1	13.3	12.9	12.9	13.3

Source: Florida Department of Elder Affairs

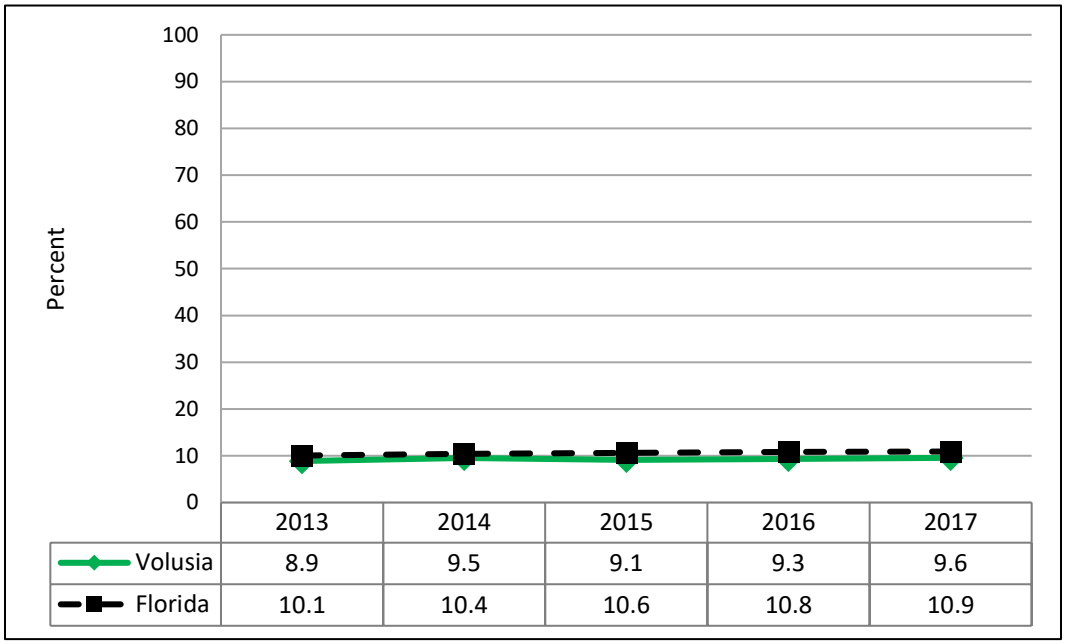
Figure 6.2 Ages 60+ with No Disabilities



	2013	2014	2015	2016	2017
Volusia	69.6	69.5	69.3	69.3	68.7
Florida	69.8	69.6	69.6	69.7	69.7

Source: Florida Department of Elder Affairs

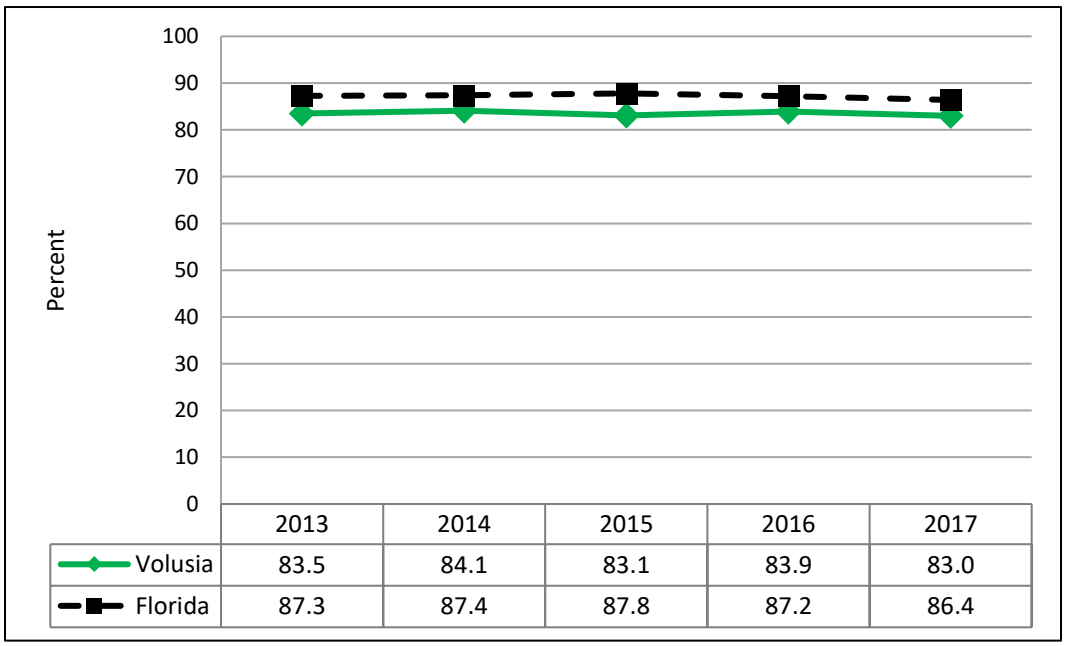
Figure 6.3 Ages 60+ Below Poverty Guideline



	2013	2014	2015	2016	2017
Volusia	8.9	9.5	9.1	9.3	9.6
Florida	10.1	10.4	10.6	10.8	10.9

Source: Florida Department of Elder Affairs

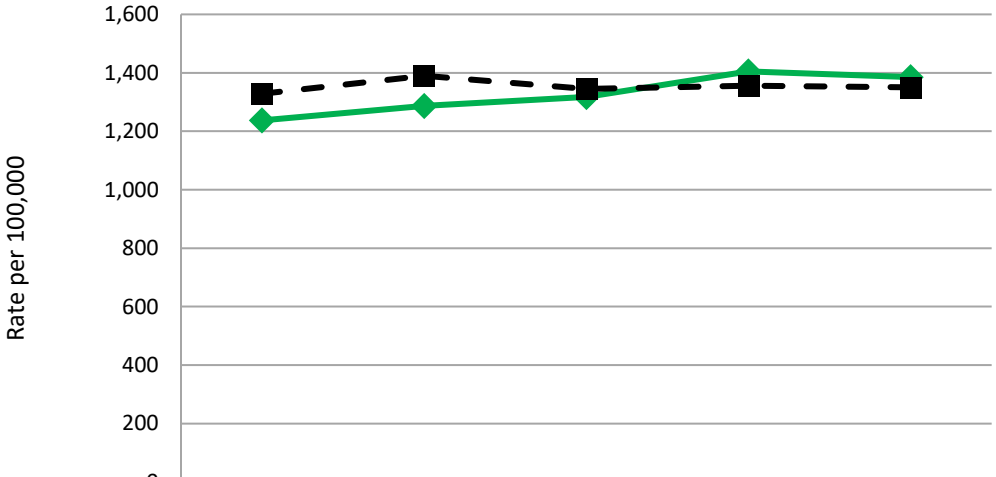
Figure 6.4 Skilled Nursing Facility Occupancy



	2013	2014	2015	2016	2017
Volusia	83.5	84.1	83.1	83.9	83.0
Florida	87.3	87.4	87.8	87.2	86.4

Source: Florida Department of Elder Affairs

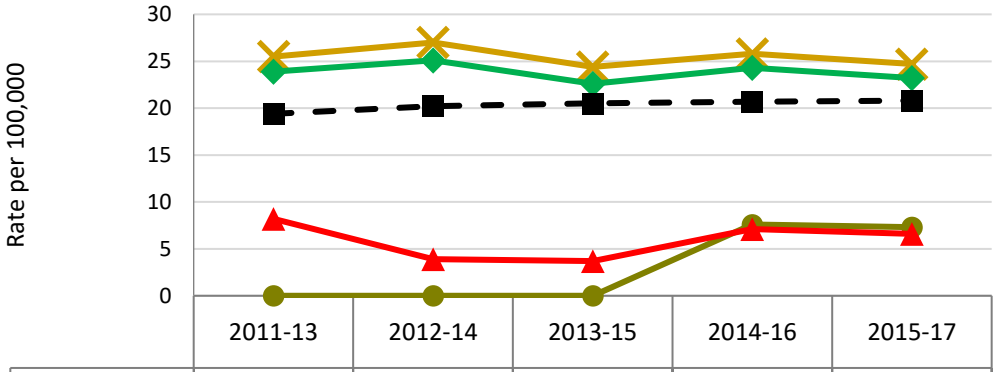
Figure 6.5 Hospitalizations from Unintentional Falls, Age 65+



	2013	2014	2015	2016	2017
Volusia	1,237.4	1,286.6	1,317.8	1,404.8	1,385.7
Florida	1,328.5	1,389.8	1,345.5	1,355.6	1,350.4

Source: Agency for Health Care Administration, Hospital Discharge Data

Figure 6.6 Suicide, Age 60+, 3-Year Rolling Rates



	2011-13	2012-14	2013-15	2014-16	2015-17
Black	0.0	0.0	0.0	7.6	7.3
White	25.5	27.0	24.4	25.8	24.7
Hispanic	8.2	3.9	3.7	7.1	6.6
Volusia	23.9	25.1	22.6	24.3	23.2
Florida	19.4	20.2	20.5	20.7	20.8

Source: Florida Department of Health, Bureau of Vital Statistics

7. Child & Adolescent Issues

According to the Federal Interagency Forum on Child and Family Statistics, 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.

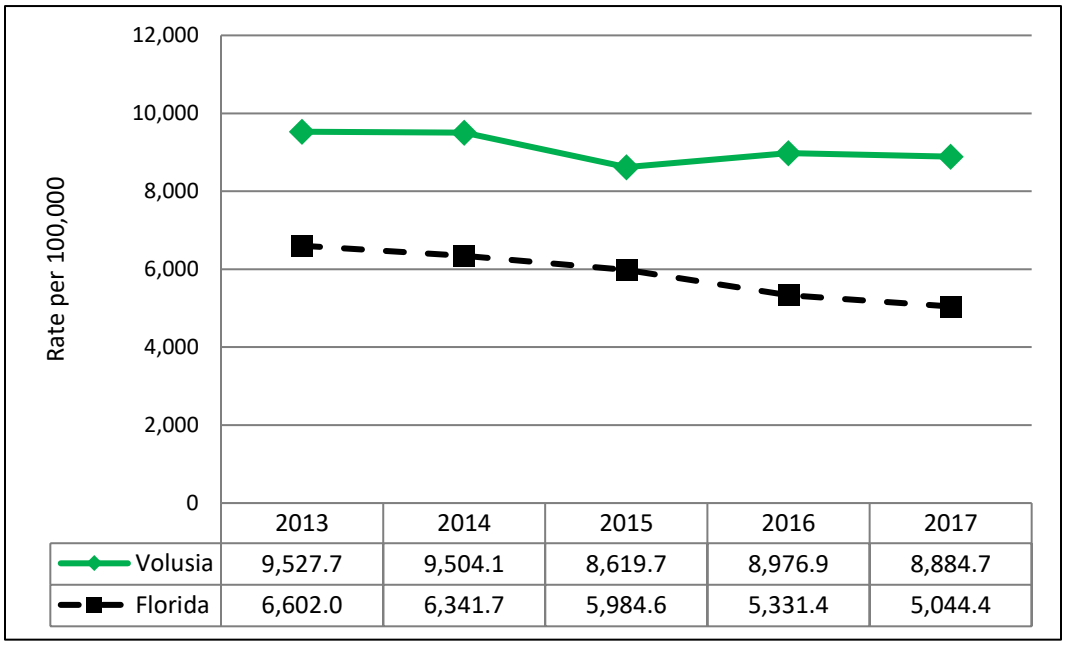
Indicators of Concern

		Volusia Trend	Florida Comparison	# Impacted
Out of School Suspensions	**Figure 7.1.** Volusia's K-12 Out-of-School Suspension rate decreased from 2016-2017 but is higher than Florida.	↓	↑	5,524
School Safety Incidents	**Figure 7.2.** The rate of School Environmental Safety Incidents per student is higher in Volusia than in Florida.		↑	
Child Passengers Injured/Killed in Crashes	**Figure 7.6.** The rate of child passengers age 5-11 injured or killed in motor vehicle crashes is increasing.	↑		158
Teen Driver Crashes	**Figure 7.8.** The rate of motor vehicle crashes for licensed drivers age 15-18 have increased and are higher than Florida.	↑	↑	

Indicators Included:

Indicator	Reference
Middle School Student Out-of-School Suspensions	**Figure 7.1**
School Environmental Safety Incidents	**Figure 7.2**
Head Injury Deaths, Age 5-11	**Figure 7.3**
Homicide Deaths, Ages 5-11	**Figure 7.4**
Homicide Deaths, Ages 12-18	**Figure 7.5**
Child Passengers Injured or Killed in Motor Vehicle Crashes, Ages 5-11, 3-Year Rolling Rate	**Figure 7.6**
Child Passengers Injured or Killed in Motor Vehicle Crashes, Ages 12-18, 3-Year Rolling Rate	**Figure 7.7**
Licensed Drivers in Motor Vehicle Crashes, Ages 15-18, 3-Year Rolling Rate	**Figure 7.8**

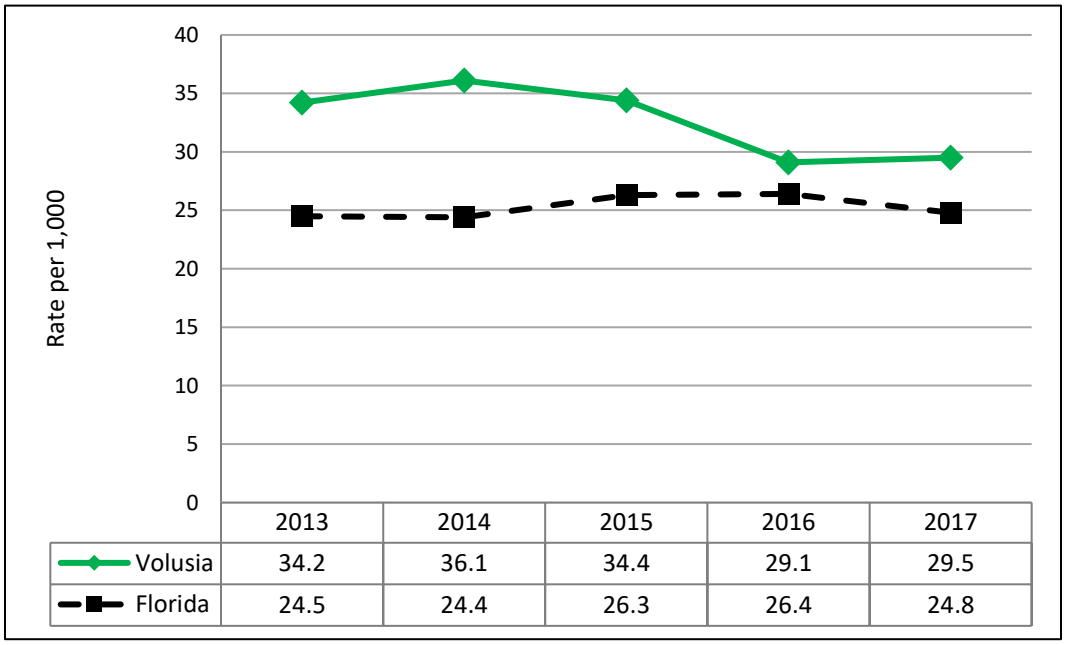
Figure 7.1 Out-of-School Suspensions K-12



	2013	2014	2015	2016	2017
Volusia	9,527.7	9,504.1	8,619.7	8,976.9	8,884.7
Florida	6,602.0	6,341.7	5,984.6	5,331.4	5,044.4

Source: Florida Department of Education, Education Information and Accountability Services (EIAS)

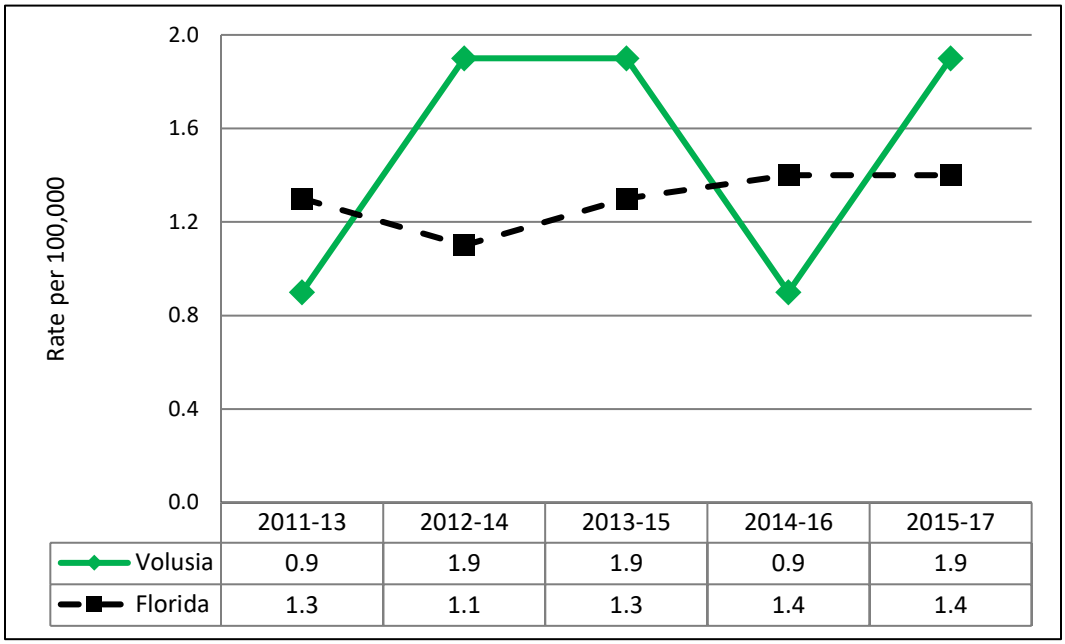
Figure 7.2 School Environmental Safety Incidents (Includes Sexual Battery, Battery, Weapons Possession, and Fighting)



	2013	2014	2015	2016	2017
Volusia	34.2	36.1	34.4	29.1	29.5
Florida	24.5	24.4	26.3	26.4	24.8

Source: Florida Department of Education, Office of Safe Schools

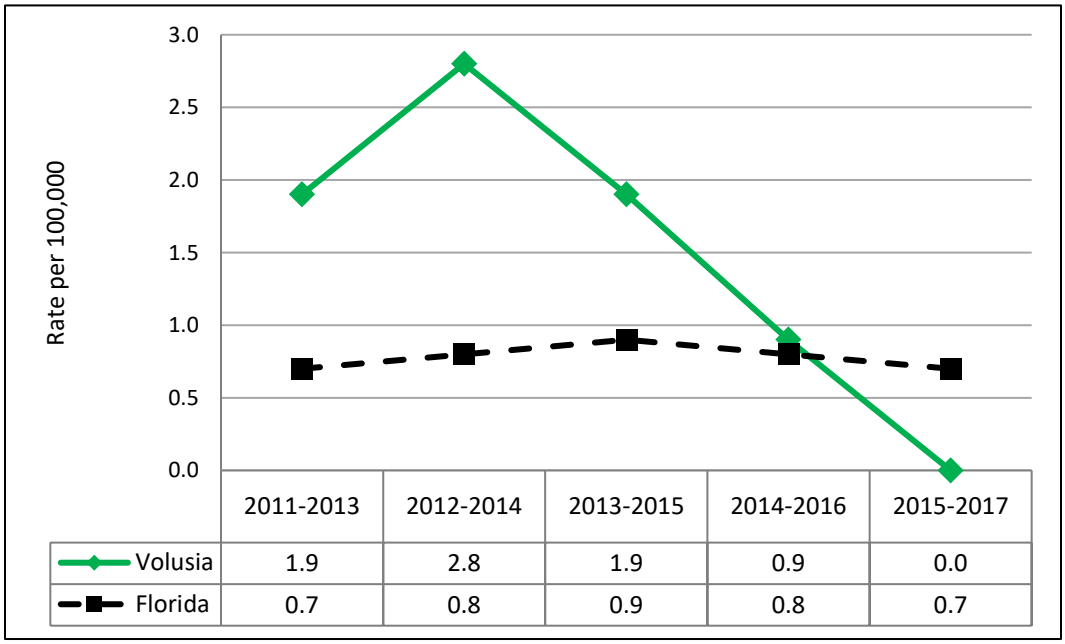
Figure 7.3 Head Injury Deaths, Ages 5-11, 3-Year Rolling Rate



	2011-13	2012-14	2013-15	2014-16	2015-17
Volusia	0.9	1.9	1.9	0.9	1.9
Florida	1.3	1.1	1.3	1.4	1.4

Source: Florida Department of Health, Bureau of Vital Statistics

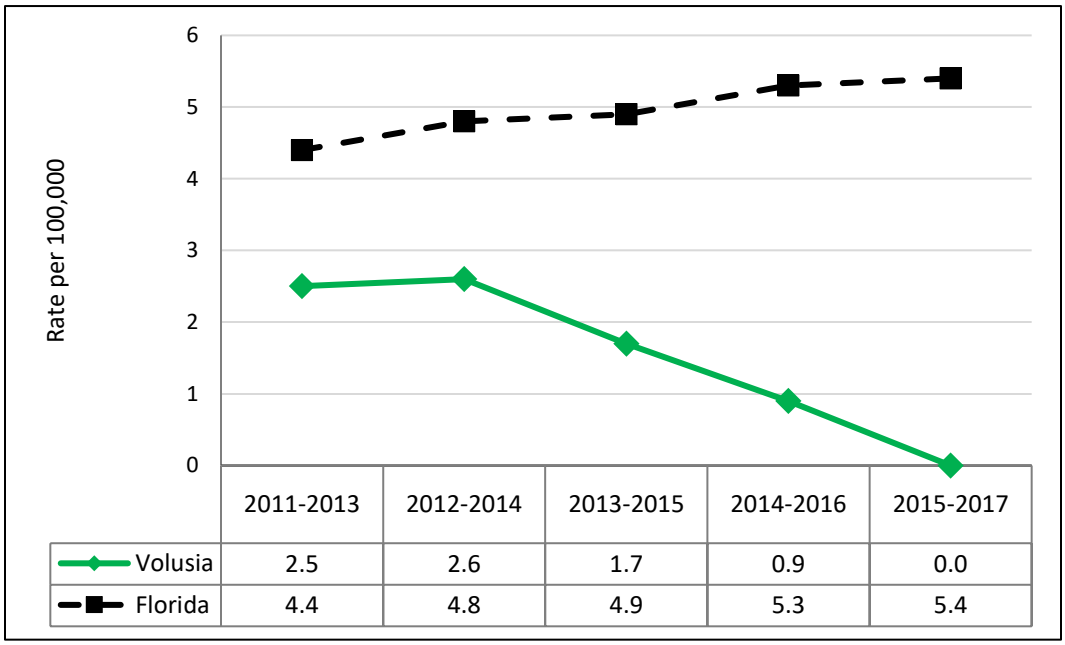
Figure 7.4 Homicide Deaths, Ages 5-11, 3-Year Rolling Rate



	2011-2013	2012-2014	2013-2015	2014-2016	2015-2017
Volusia	1.9	2.8	1.9	0.9	0.0
Florida	0.7	0.8	0.9	0.8	0.7

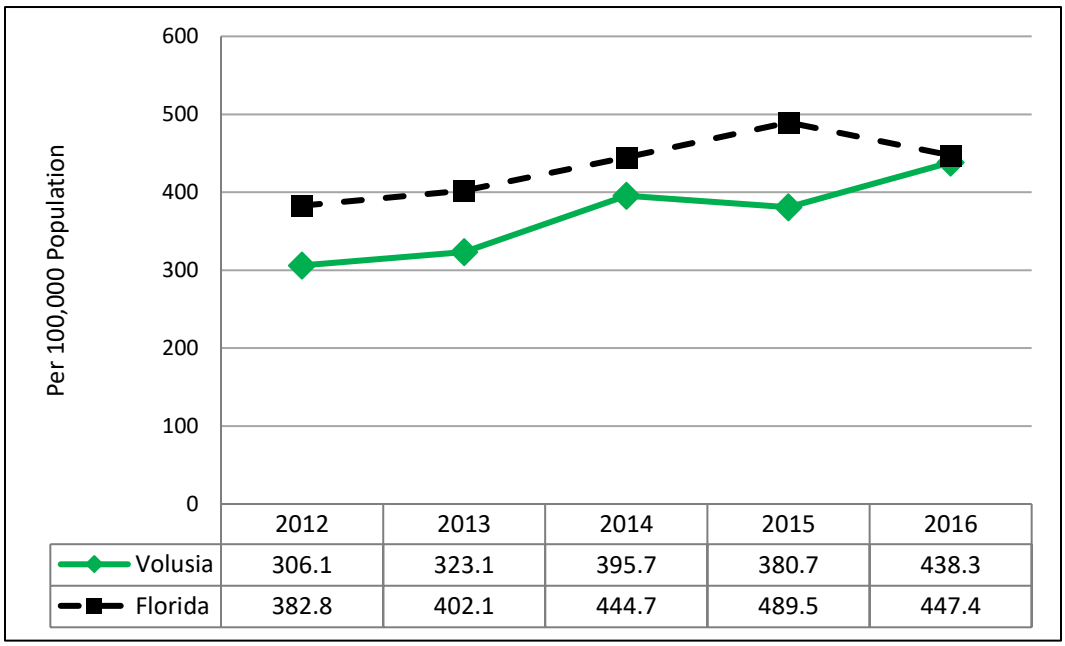
Source: Florida Department of Health, Bureau of Vital Statistics

Figure 7.5 Homicide Deaths, Ages 12-18, 3-Year Rolling Rate



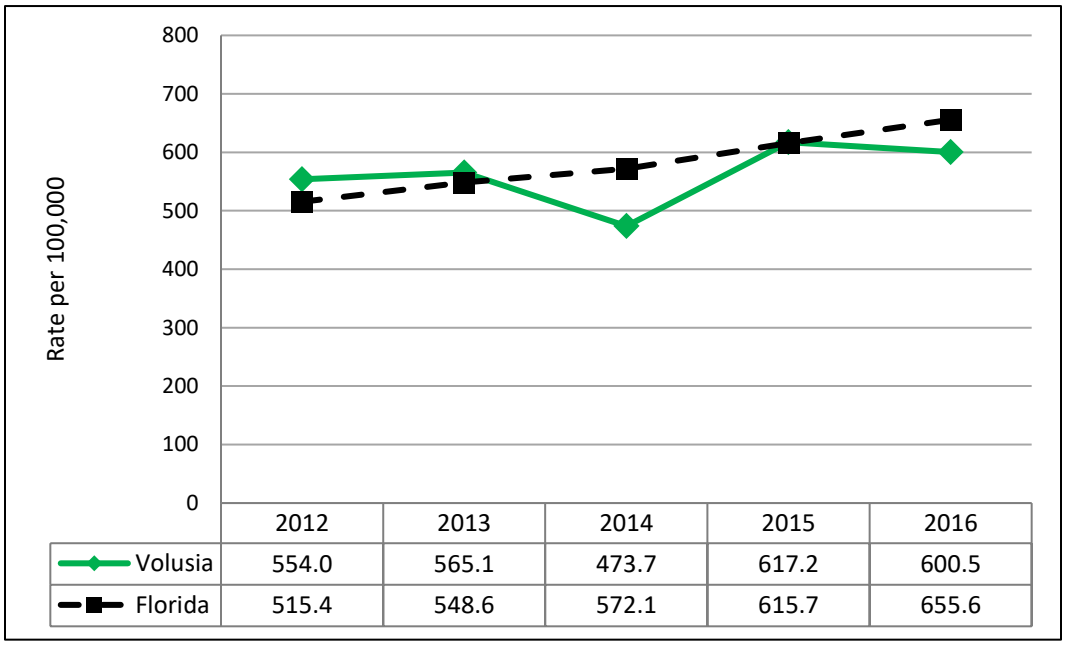
Source: Florida Department of Health, Bureau of Vital Statistics

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



Source: Florida Department of Highway Safety & Motor Vehicles

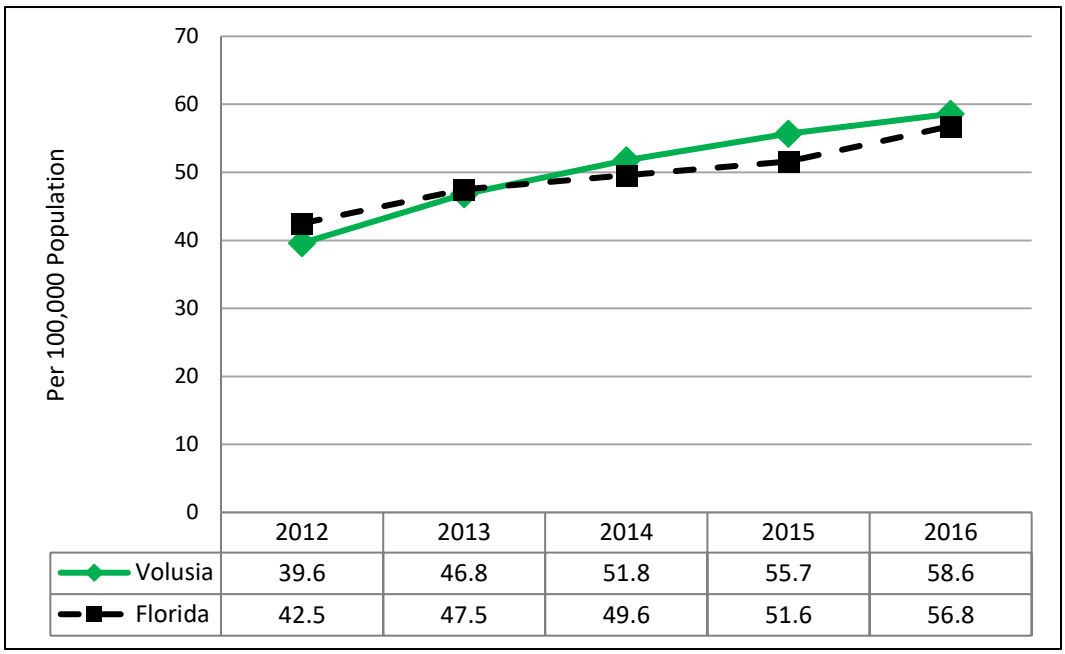
Figure 7.7 Child Passengers Injured or Killed in Motor Vehicle Crashes, Ages 12-18



	2012	2013	2014	2015	2016
Volusia	554.0	565.1	473.7	617.2	600.5
Florida	515.4	548.6	572.1	615.7	655.6

Source: Florida Department of Highway Safety & Motor Vehicles

Figure 7.8 Licensed Drivers in Motor Vehicle Crashes, Ages 15-18



	2012	2013	2014	2015	2016
Volusia	39.6	46.8	51.8	55.7	58.6
Florida	42.5	47.5	49.6	51.6	56.8

Source: Florida Department of Highway Safety & Motor Vehicles

8. Respiratory Disorders & Cancer

Respiratory disease is a medical term that encompasses pathological conditions affecting the organs and tissues that make gas exchange possible and includes conditions of the upper respiratory tract, trachea, bronchi, bronchioles, alveoli, pleura and pleural cavity, and the nerves and muscles of breathing. Respiratory diseases can range from mild conditions such as the common cold, to life-threatening conditions such as COPD, pneumonia, pulmonary embolism, and lung cancer.

Asthma: Asthma causes the airways to become inflamed and hypersensitive to environmental allergens, irritants and viral infections. Although this chronic disease is most commonly diagnosed during childhood, it affects all age groups.

Chronic Lower Respiratory Disease (CLRD) and Chronic Obstructive Pulmonary Disease (COPD): Chronic obstructive 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.

Cancer: Cancer is a leading cause of death in the United States and the 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.

Indicators of Concern

		Volusia Trend	Florida Comparison	# Impacted
Cervical Cancer Incidence Rate	**Figure 8.3.** Volusia's incidence rate for cervical cancer has been increasing and is higher than Florida's.	↑	↑	21
Chronic Lower Respiratory Disease (CLRD) Death	**Figure 8.9.** The Volusia rate of CLRD death is higher than Florida.		↑	554
Hospitalizations From/With Asthma	**Figure 8.12.** The rate of Black individuals hospitalized from or with asthma is much higher than other groups.		↑	260
Adults with Asthma	**Figure 8.16,** The percent of Volusia adults with asthma is higher than Florida (difference is statistically significant)		↑	

Indicators Included:

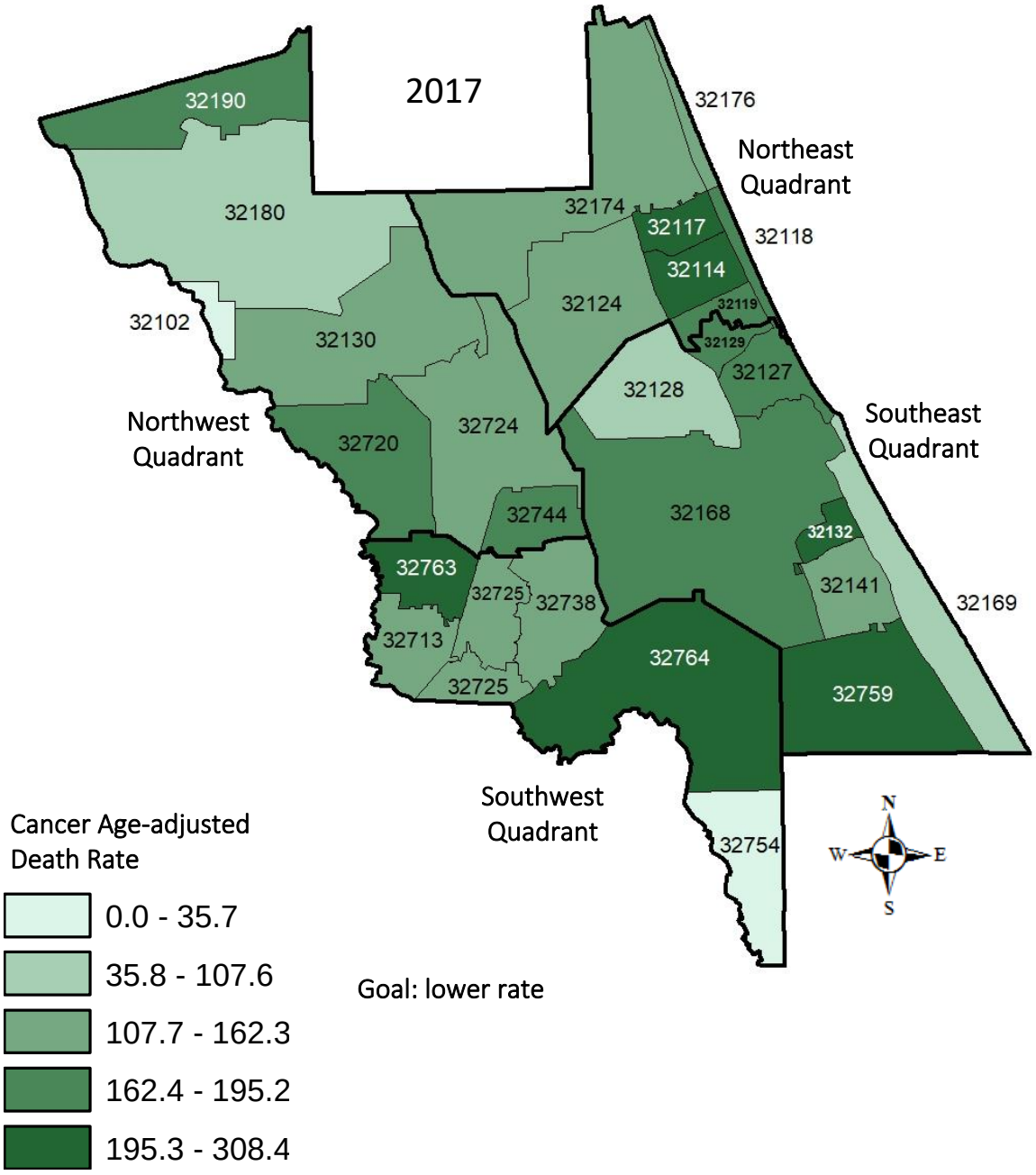
Indicator	Reference
Volusia County Top Ten Causes of Death, 2017	**Figure 8.1**
Cancer Age-adjusted Death Rate 2017 Map	**Figure 8.2**
Cervical Cancer 3-Year Age-Incidence Death Rate	**Figure 8.3**
Cervical Cancer 3-Year Age-adjusted Death Rate	**Figure 8.4**
Colorectal Cancer Age-adjusted Incidence Rate	**Figure 8.5**
Colorectal Cancer Age-adjusted Death Rate	**Figure 8.6**
Prostate Cancer Age-adjusted Incidence Rate	**Figure 8.7**
Prostate Cancer Age-adjusted Death Rate	**Figure 8.8**
Chronic Lower Respiratory Disease (CLRD) Age-adjusted Death Rate	**Figure 8.9**
Chronic Lower Respiratory Disease (CLRD) Age-adjusted Death Rate 2017 Map	**Figure 8.10**
Chronic Lower Respiratory Disease (CLRD) Age-adjusted Hospitalizations w/ Asthma	**Figure 8.11**
Age-adjusted Hospitalizations from or with Asthma	**Figure 8.12**
Asthma Age-adjusted Hospitalizations	**Figure 8.13**
Asthma Hospitalizations, Ages 5-11	**Figure 8.14**
Asthma Hospitalizations, Ages 12-18	**Figure 8.15**
Adults Who Currently Have Asthma	**Figure 8.16**
Female Medicare Enrollees Ages 65-74 that Receive Mammography Screening	**Figure 8.17**

Figure 8.1 Volusia County Top Ten Causes of Death 2017

Cause of Death	Deaths	Percent of Total Deaths	Crude Rate Per 100,000	Age-adjusted Death Rate Per 100,000
1. Heart Disease	1,734	23.3	330.2	184.4
2. Cancer	1,560	21.0	297.1	173.0
3. Chronic Lower Respiratory Disease	554	7.4	105.5	58.0
4. Stroke	457	6.1	87.0	46.8
5. Unintentional Injuries	377	5.1	71.8	67.4
6. Alzheimer's Disease	309	4.2	58.8	30.1
7. Diabetes Mellitus	240	3.2	45.7	26.8
8. Septicemia	132	1.8	25.1	15.3
9. Pneumonia/Influenza	132	1.8	25.1	14.1
10. Chronic Liver Disease and Cirrhosis	125	1.7	23.8	18.1
All Causes	7,445	100.0	1,417.8	858.9

Source: Florida Department of Health, Bureau of Vital Statistics

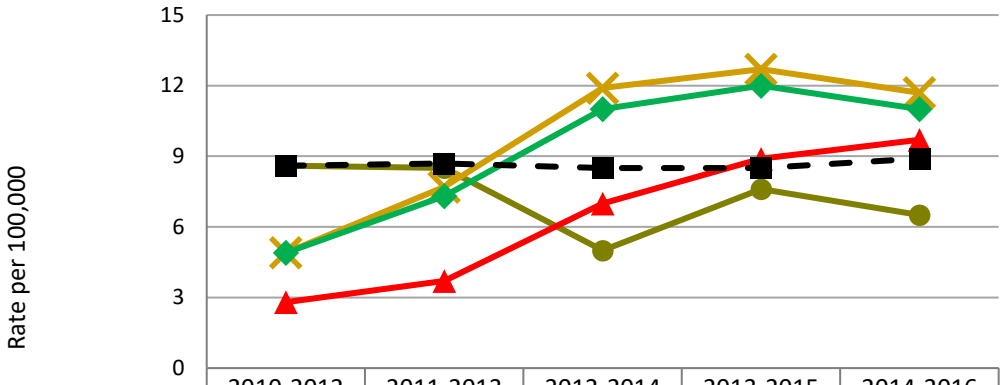
Figure 8.2 Cancer Age-adjusted Death Rate 2017



Source: Florida Agency for Health Care Administration

Note: Rate per 100,000

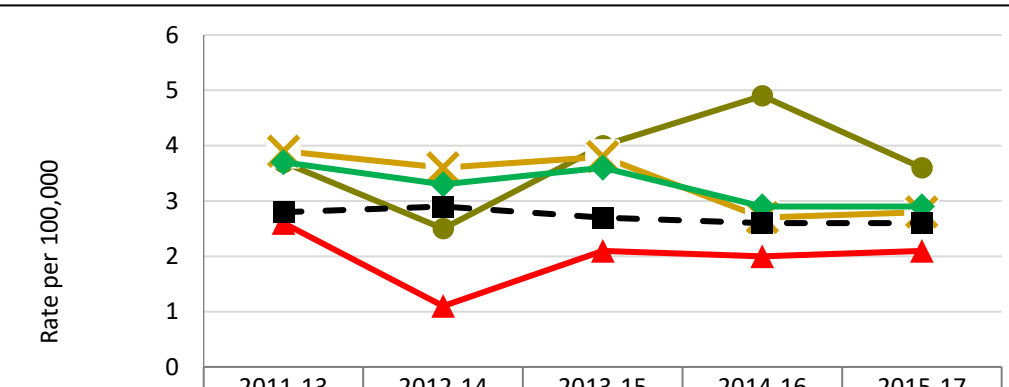
Figure 8.3 Cervical Cancer, Age-adjusted Incidence Rates, 3-Year Rolling Rates



	2010-2012	2011-2013	2012-2014	2013-2015	2014-2016
Black	8.6	8.5	5.0	7.6	6.5
White	4.9	7.7	11.9	12.7	11.7
Hispanic	2.8	3.7	7.0	8.9	9.7
Volusia	4.9	7.3	11.0	12.0	11.0
Florida	8.6	8.7	8.5	8.5	8.9

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

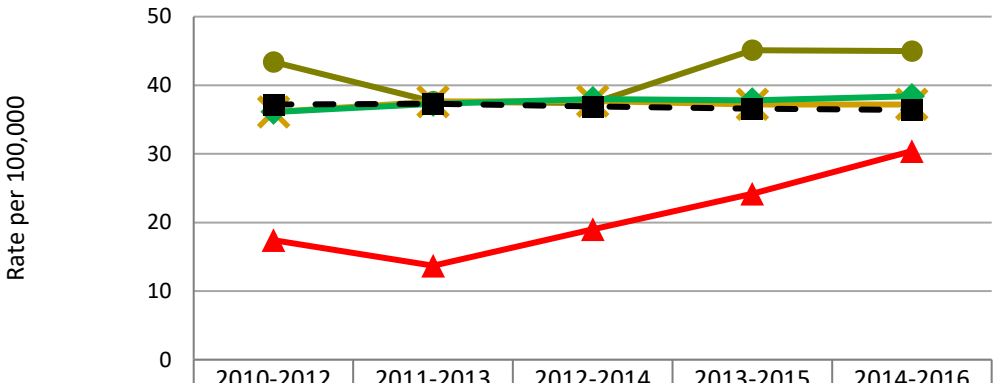
Figure 8.4 Cervical Cancer, Age-adjusted Death Rates, 3-Year Rolling Rates



	2011-13	2012-14	2013-15	2014-16	2015-17
Black	3.7	2.5	4.0	4.9	3.6
White	3.9	3.6	3.8	2.7	2.8
Hispanic	2.6	1.1	2.1	2.0	2.1
Volusia	3.7	3.3	3.6	2.9	2.9
Florida	2.8	2.9	2.7	2.6	2.6

Source: Florida Department of Health, Bureau of Vital Statistics

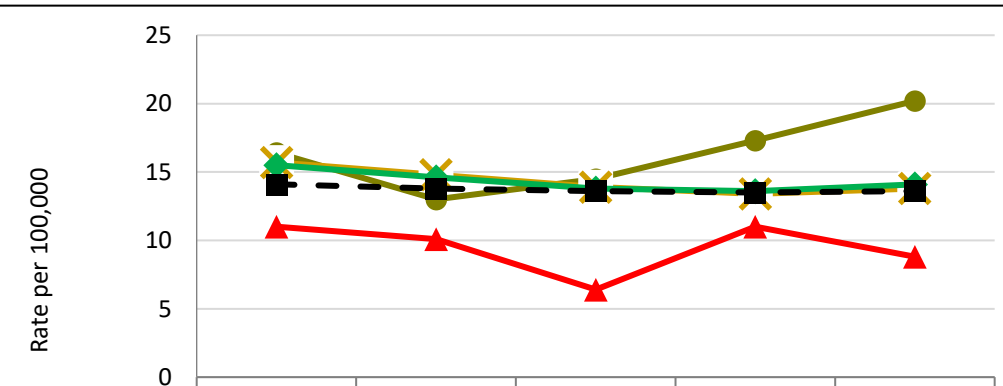
Figure 8.5 Colorectal Cancer, Age-adjusted Incidence Rates, 3-Year Rolling Rates



	2010-2012	2011-2013	2012-2014	2013-2015	2014-2016
Black	43.4	37.6	37.4	45.1	45.0
White	36.1	37.6	37.7	37.2	37.2
Hispanic	17.4	13.7	19.0	24.2	30.4
Volusia	36.1	37.3	38.0	37.8	38.4
Florida	37.2	37.3	36.9	36.6	36.4

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

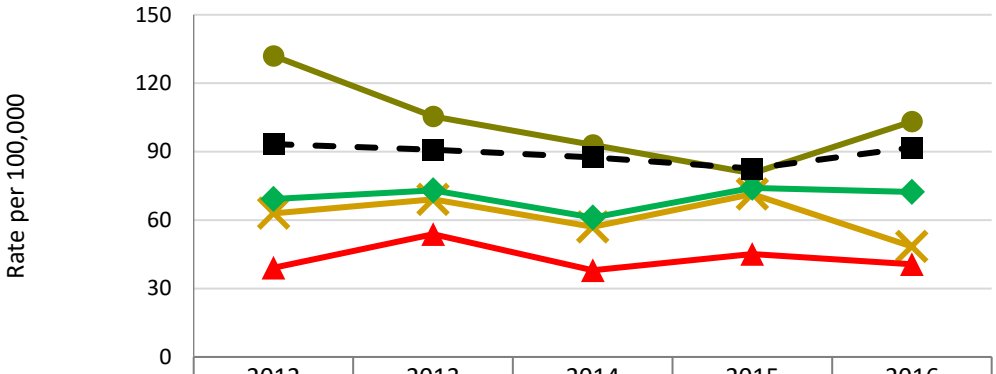
Figure 8.6 Colorectal Cancer, Age-adjusted Death Rates, 3-Year Rolling Rates



	2011-2013	2012-2014	2013-2015	2014-2016	2015-2017
Black	16.4	13.0	14.5	17.3	20.2
White	15.7	14.8	13.9	13.4	13.8
Hispanic	11.0	10.1	6.4	11.0	8.8
Volusia	15.5	14.6	13.8	13.6	14.1
Florida	14.1	13.8	13.6	13.5	13.6

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

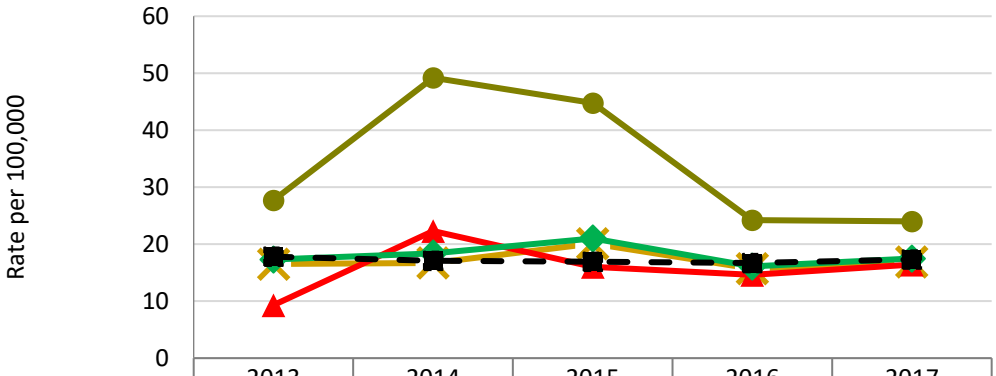
Figure 8.7 Prostate Cancer, Age-adjusted Incidence Rates



	2012	2013	2014	2015	2016
Black	132.0	105.5	93.0	80.5	103.2
White	63.0	69.1	57.0	71.4	48.4
Hispanic	39.1	53.8	38.0	45.1	40.6
Volusia	69.2	73.1	61.1	74.1	72.3
Florida	93.3	90.8	87.5	82.6	91.9

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

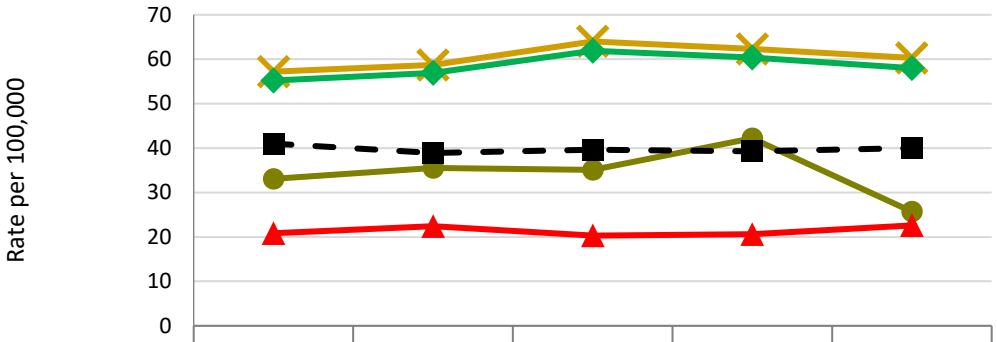
Figure 8.8 Prostate Cancer, Age-adjusted Death Rates



	2013	2014	2015	2016	2017
Black	27.7	49.2	44.8	24.2	24.0
White	16.5	16.7	20.1	15.7	16.9
Hispanic	9.3	22.3	16.0	14.6	16.4
Volusia	17.3	18.4	21.0	16.1	17.5
Florida	17.8	17.1	16.9	16.7	17.3

Source: Florida Department of Health, Bureau of Vital Statistics

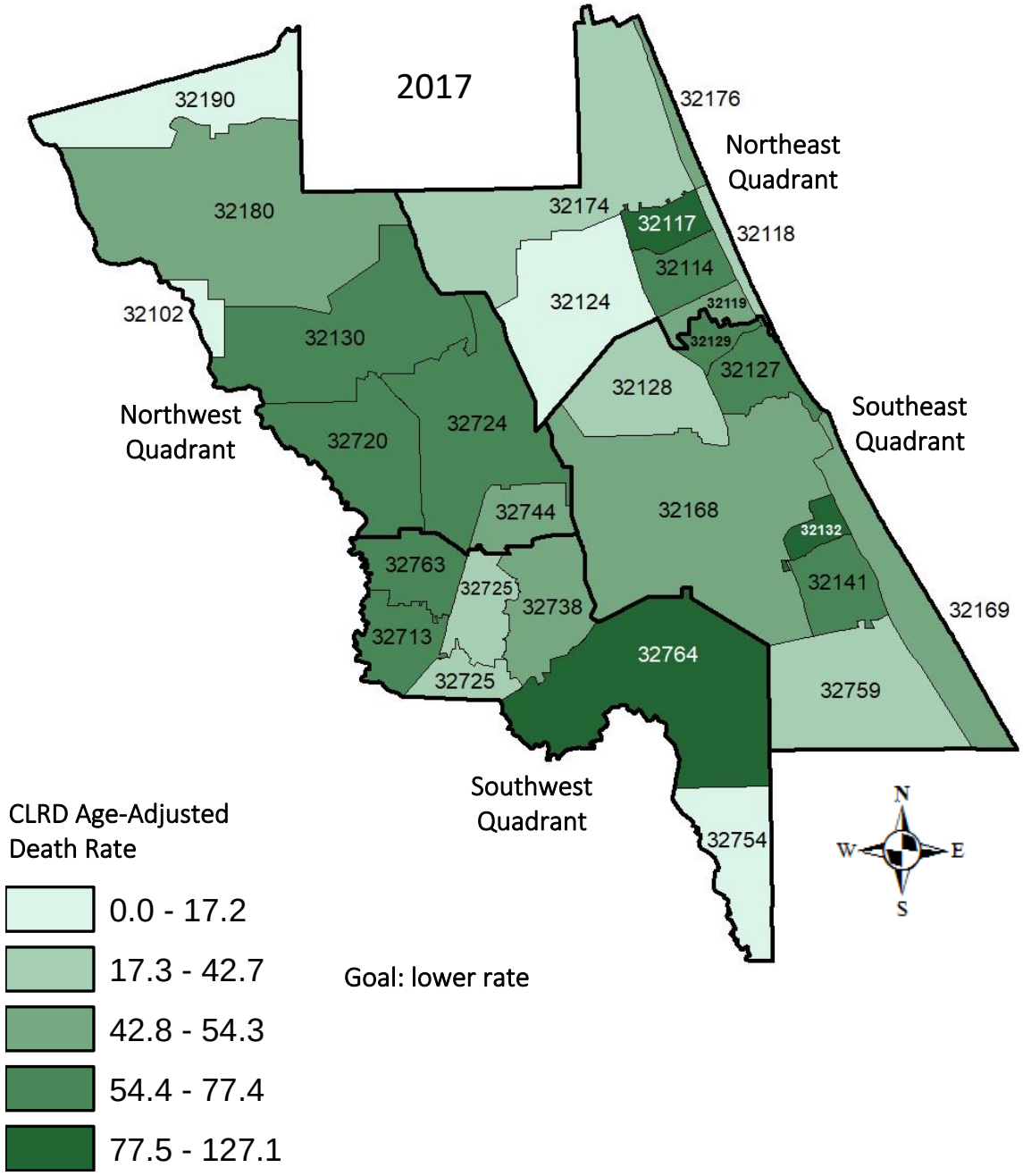
Figure 8.9 Chronic Lower Respiratory Disease (CLRD) Age-adjusted Death Rate



	2013	2014	2015	2016	2017
Black	33.1	35.5	35.1	42.2	25.7
White	57.2	58.7	64.0	62.3	60.3
Hispanic	20.8	22.4	20.3	20.6	22.6
Volusia	55.2	56.9	61.9	60.4	58.0
Florida	41.0	38.9	39.6	39.3	40.0

Source: Florida Department of Health, Bureau of Vital Statistics

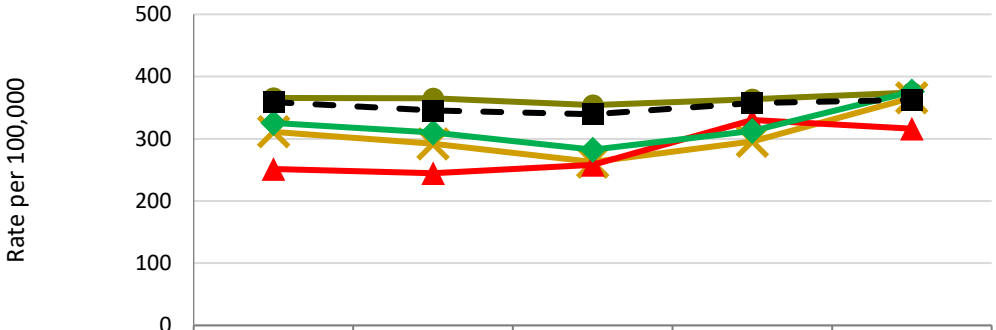
Figure 8.10 Chronic Lower Respiratory Disease (CLRD) Age-adjusted Death Rate



Source: Florida Agency for Health Care Administration

Note: Rate per 100,000

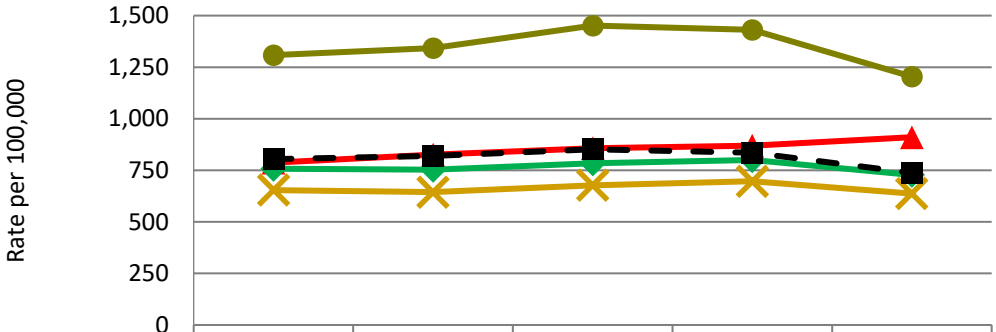
Figure 8.11 Chronic Lower Respiratory Disease (CLRD) Age-adjusted Hospitalizations with Asthma



	2013	2014	2015	2016	2017
Black	365.6	365.1	354.1	363.3	374.3
White	311.2	292.0	262.7	295.7	365.9
Hispanic	251.6	244.6	258.1	330.2	316.4
Volusia	325.5	310.3	282.5	312.6	375.7
Florida	359.0	345.6	339.4	357.2	362.5

Source: Florida Agency for Health Care Administration
Note: Include primary diagnosis only

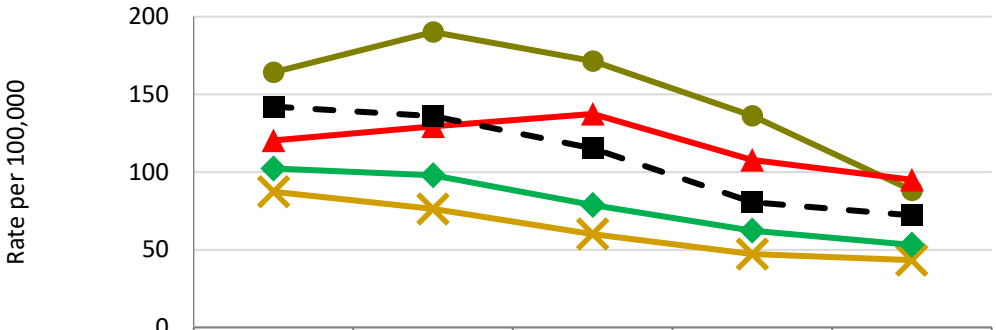
Figure 8.12 Hospitalizations From or With Asthma, Age-adjusted Rates



	2013	2014	2015	2016	2017
Black	1,308.5	1,342.2	1,451.7	1,431.5	1,204.1
White	654.3	643.7	677.1	697.0	636.9
Hispanic	787.0	825.2	856.4	870.0	910.4
Volusia	757.0	752.4	783.4	800.0	727.4
Florida	803.7	820.2	851.8	835.1	737.4

Source: Florida Department of Health, Bureau of Vital Statistics
Note: Includes both primary and contributing diagnoses

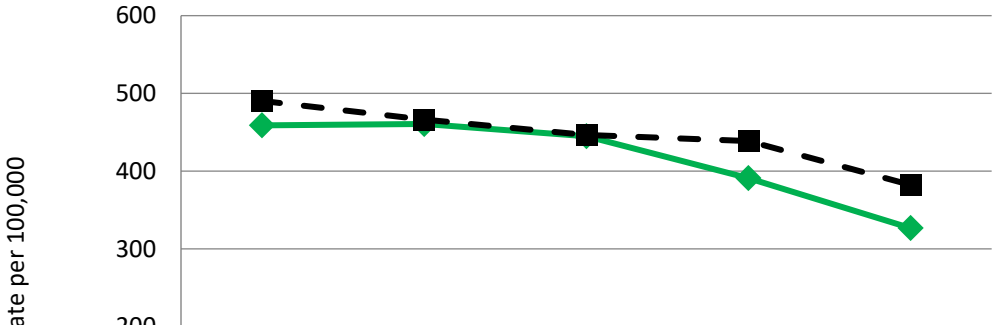
Figure 8.13 Asthma Age-adjusted Hospitalizations



	2013	2014	2015	2016	2017
Black	164.3	190.1	171.5	136.2	88.3
White	87.3	76.2	60.0	47.2	43.3
Hispanic	120.4	129.3	137.4	107.8	95.0
Volusia	102.3	97.9	78.7	62.2	53.1
Florida	142.1	135.9	115.2	80.5	72.1

Source: Florida Department of Health, Bureau of Vital Statistics
Note: Include primary diagnosis only

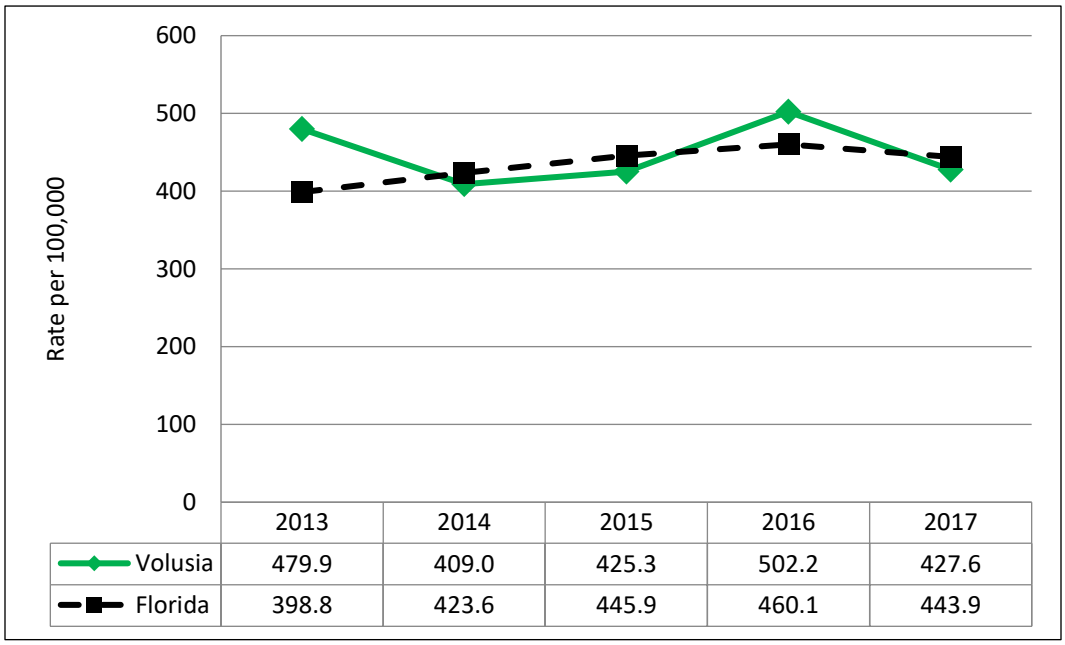
Figure 8.14 Asthma Hospitalizations, Ages 5-11



	2013	2014	2015	2016	2017
Volusia	459.1	460.7	445.1	391.1	326.8
Florida	490.3	466.5	446.5	438.9	382.3

Source: Florida Agency for Health Care Administration

Figure 8.15 Asthma Hospitalizations, Ages 12-18



	2013	2014	2015	2016	2017
Volusia	479.9	409.0	425.3	502.2	427.6
Florida	398.8	423.6	445.9	460.1	443.9

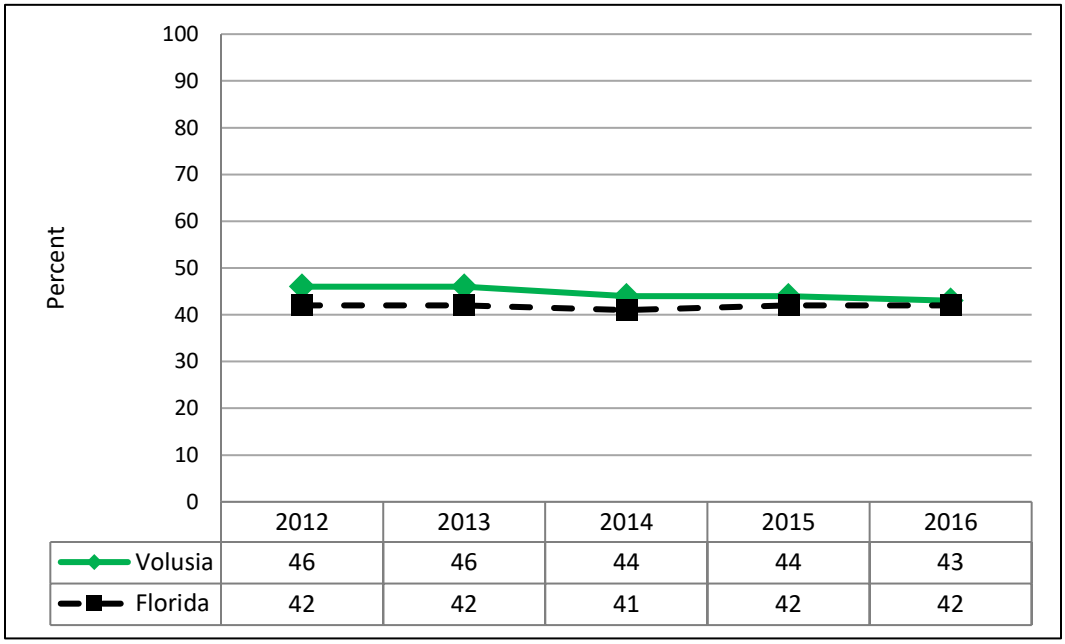
Source: Florida Agency for Health Care Administration
Note: Includes both primary and contributing diagnoses

Figure 8.16 Adults Who Currently Have Asthma

Adults who currently have asthma, 2016	Volusia	Florida
	Percent	Percent
Total – Overall	10.0*	6.7
Men	7.3	5.2
Women	12.3	8.2
Non-Hispanic, White	9.6	6.9
Non-Hispanic, Black	16.6	7.6
Hispanic	12.3	5.9
18-44	10.5	6.6
45-64	12.3	7.6
65 & Older	6.9	5.9
< High School	17.4	8.9
High School/GED	10.7	6.7
> High School	8.2	6.3
< $25,000	11.6	9.1
$25,000-$49,999	5.8	5.8
$50,000 or More	10.8	6.0

Source: Florida Behavioral Risk Factor Surveillance System
*Indicates the difference observed between the county and state measure is statistically significant

Figure 8.17 Female Medicare Enrollees Ages 65-74 that Receive Mammography Screening



	2012	2013	2014	2015	2016
Volusia	46	46	44	44	43
Florida	42	42	41	42	42

Source: Dartmouth Atlas of Health Care

9. Communicable & Infectious Diseases

Communicable diseases spread from one person to another or from an animal to a person. The spread is often through airborne viruses or bacteria but can also happen via bodily fluids. There are many ways to prevent the spread of disease. Vaccinations have helped eliminate or greatly reduced disease threats. Proper handwashing, especially before and after handling food and using the toilet, helps keep germs at bay. Other important ways to slow or stop disease transmission are by ensuring the food we eat and water we drink is safe, avoiding people who are sick and practicing safe sex.

Indicators of Concern

		Volusia Trend	Florida Comparison	# Impacted
HIV/AIDS Cases and Deaths	**Figure 9.3, 9.4 and 9.5.** Volusia's rate of new reported HIV cases, new AIDS cases and HIV/AIDS deaths rate is much higher for Black individuals than all other groups.		↑	82
Bacterial STDs	**Figure 9.6**. The rate of bacterial STDS are increasing but are lower than Florida. **Figure 9.7**. The rate of bacterial STDs for ages 15-19 has increased since 2014 and was lower than Florida until 2017.	↑	↓	3,119
Hepatitis A Cases	**Figure 9.12.** The Volusia and Florida rates for Hepatitis A cases increased significantly between 2013-15 and 2014-17.	↑		3
Hepatitis B Cases	**Figure 9.13**. Volusia's acute hepatitis B rate has increased since 2011-13 and surpassed Florida in 2015-17.	↑	↑	77
Influenza/ Pneumonia Death	**Figure 9.14.** Volusia's influenza/pneumonia death rate is increasing and higher than Florida.	↑	↑	132

Indicators Included:

Indicator	Reference
Adults Who Received a Flu Shot in the Past Year	**Figure 9.1**
Percentage of Adults Who Have Ever Been Tested for HIV	**Figure 9.2**
Newly Reported HIV Cases	**Figure 9.3**
Newly Reported AIDS Cases	**Figure 9.4**
HIV/AIDS Age-adjusted Death Rate	**Figure 9.5**
Bacterial STDs (Total Gonorrhea, Chlamydia & Infectious Syphilis)	**Figure 9.6**
Bacterial STDs (Total Gonorrhea, Chlamydia & Infectious Syphilis), Ages 15-19	**Figure 9.7**
Total Vaccine Preventable Diseases	**Figure 9.8**
Pertussis Reported	**Figure 9.9**
Meningococcal Disease Reported	**Figure 9.10**
Tuberculosis (TB) Cases Reported	**Figure 9.11**
Hepatitis A Cases Reported	**Figure 9.12**
Hepatitis B, Acute Cases Reported	**Figure 9.13**
Pneumonia/Influenza Death Rate	**Figure 9.14**

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

Adults who have received a flu shot in the past year, 2016	Volusia	Florida
	Percent	Percent
Total – Overall	32.2	35.0
Men	27.8	32.8
Women	35.9	37.0
Non-Hispanic, White	35.5	39.8
Non-Hispanic, Black	17.6	26.3
Hispanic	26.2	27.6
18-44	14.4*	23.0
45-64	30.9	32.7
65 & Older	51.7	57.4
< High School	16.1*	31.4
High School/GED	33.4	32.1
> High School	33.9	37.3
< $25,000	25.8	29.8
$25,000-$49,999	32.5	34.3
$50,000 or More	32.1	37.7

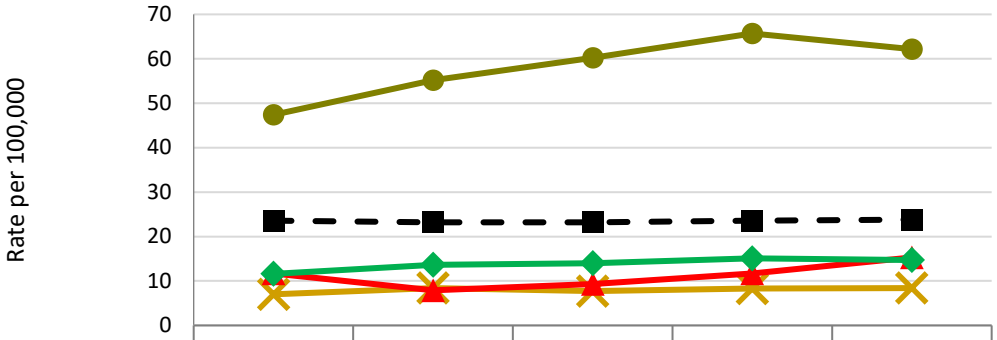
Source: Florida Behavioral Risk Factor Surveillance System
NA=Not available due to respondent counts of less than 30
*Indicates the difference observed between the county and state measure is statistically significant

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

Adults who have ever been tested for HIV, 2016	Volusia	Florida
	Percent	Percent
Total – Overall	43.7	46.9
Men	42.8	45.8
Women	44.4	48.0
Non-Hispanic, White	43.8	39.8
Non-Hispanic, Black	61.5	64.8
Hispanic	41.5	55.9
18-44	60.3	58.8
45-64	46.9	50.5
65 & Older	23.2	21.6
< High School	49.8	48.9
High School/GED	46.6	43.1
> High School	41.3	48.5
< $25,000	59.8	52.7
$25,000-$49,999	40.9	45.7
$50,000 or More	39.5	46.7

Source: Florida Behavioral Risk Factor Surveillance System

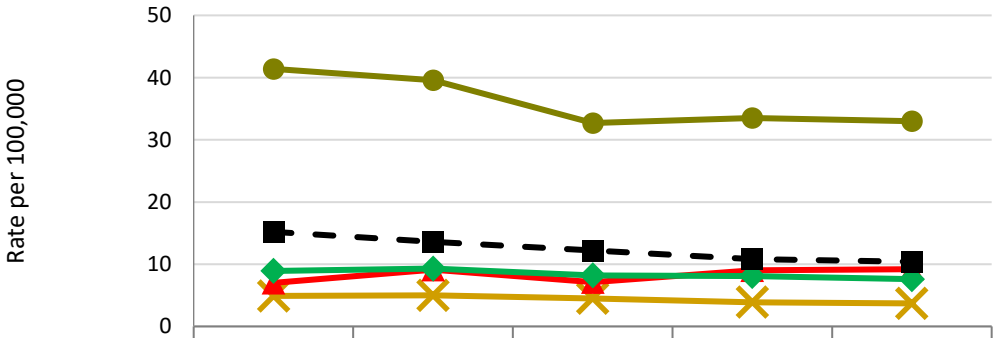
Figure 9.3 Newly Reported HIV Cases, 3-Year Rolling Rates



	2011-2013	2012-2014	2013-2015	2014-2016	2015-2017
Black	47.4	55.2	60.2	65.7	62.2
White	7.0	8.4	7.7	8.3	8.4
Hispanic	11.7	7.9	9.3	11.7	15.3
Volusia	11.6	13.6	14.0	15.1	14.7
Florida	23.6	23.2	23.2	23.6	23.8

Source: Florida Department of Health, Bureau of HIV/AIDS
NOTE: Black = Non-Hispanic, Black; White = Non-Hispanic, White

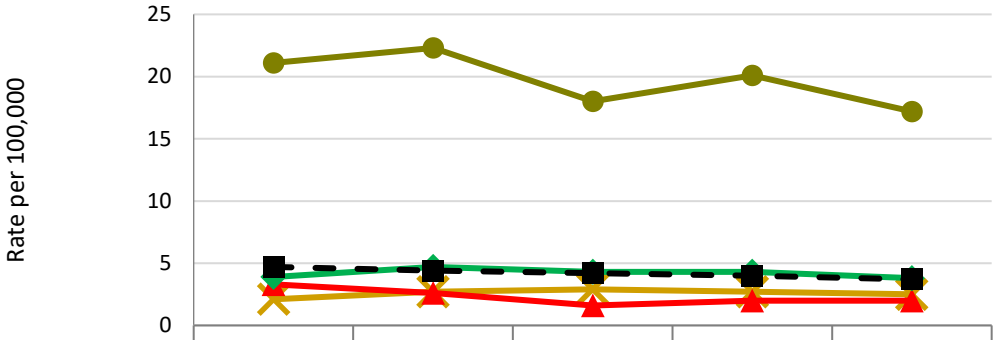
Figure 9.4 Newly Reported AIDS Cases, 3-Year Rolling Rates



	2011-2013	2012-2014	2013-2015	2014-2016	2015-2017
Black	41.4	39.6	32.7	33.5	33.0
White	4.9	5.0	4.5	3.9	3.7
Hispanic	7.0	9.1	7.1	9.0	9.2
Volusia	8.9	9.3	8.2	8.1	7.6
Florida	15.2	13.6	12.2	10.8	10.4

Source: Florida Department of Health, Bureau of HIV/AIDS
NOTE: Black = Non-Hispanic, Black; White = Non-Hispanic, White

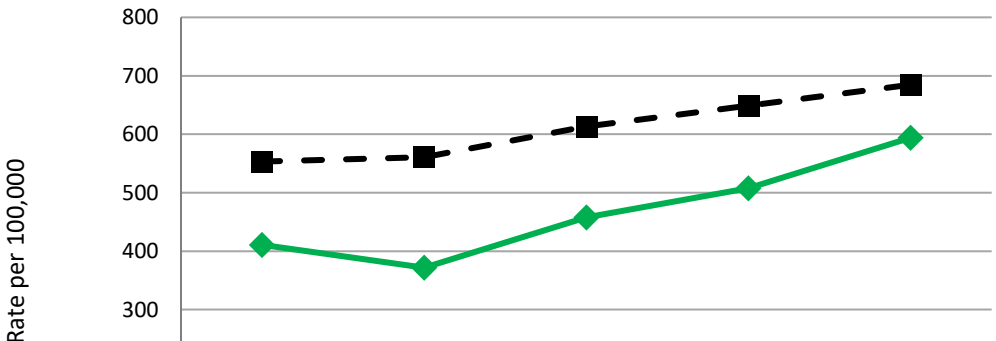
Figure 9.5 HIV/AIDS Age-adjusted Death Rate, 3-Year Rolling Rates



	2011-2013	2012-2014	2013-2015	2014-2016	2015-2017
Black	21.1	22.3	18.0	20.1	17.2
White	2.1	2.7	2.9	2.7	2.5
Hispanic	3.3	2.6	1.6	2.0	2.0
Volusia	3.9	4.7	4.3	4.3	3.8
Florida	4.7	4.4	4.2	4.0	3.7

Source: Florida Department of Health, Bureau of Vital Statistics

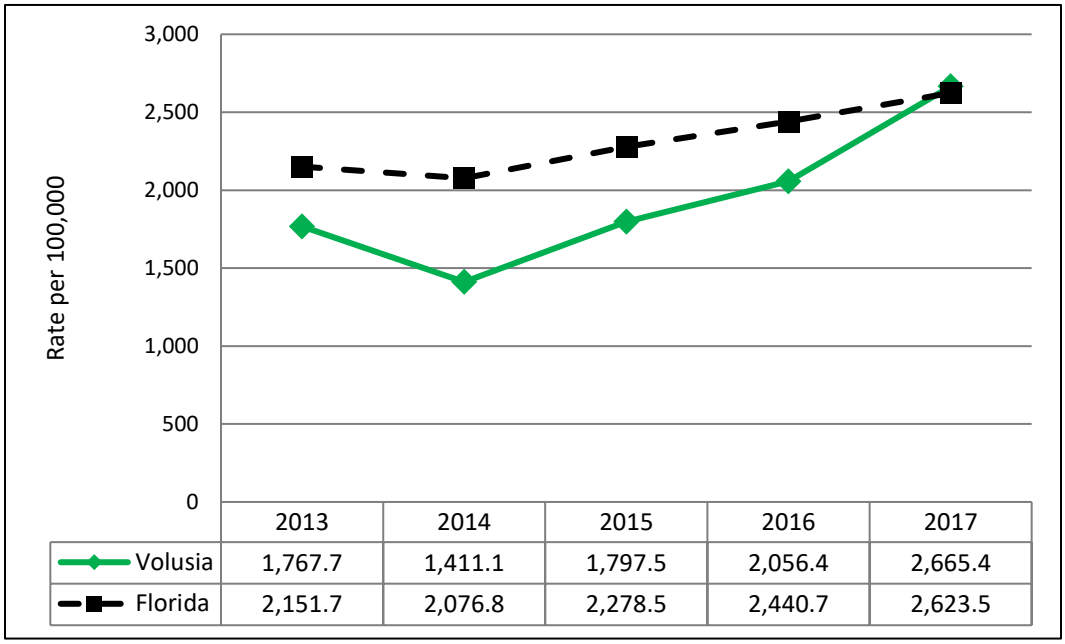
Figure 9.6 Bacterial STDs (Total Gonorrhea, Chlamydia, & Infectious Syphilis)



	2013	2014	2015	2016	2017
Volusia	410.9	371.8	457.6	507.7	594.0
Florida	553.3	560.6	613.1	648.7	684.7

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

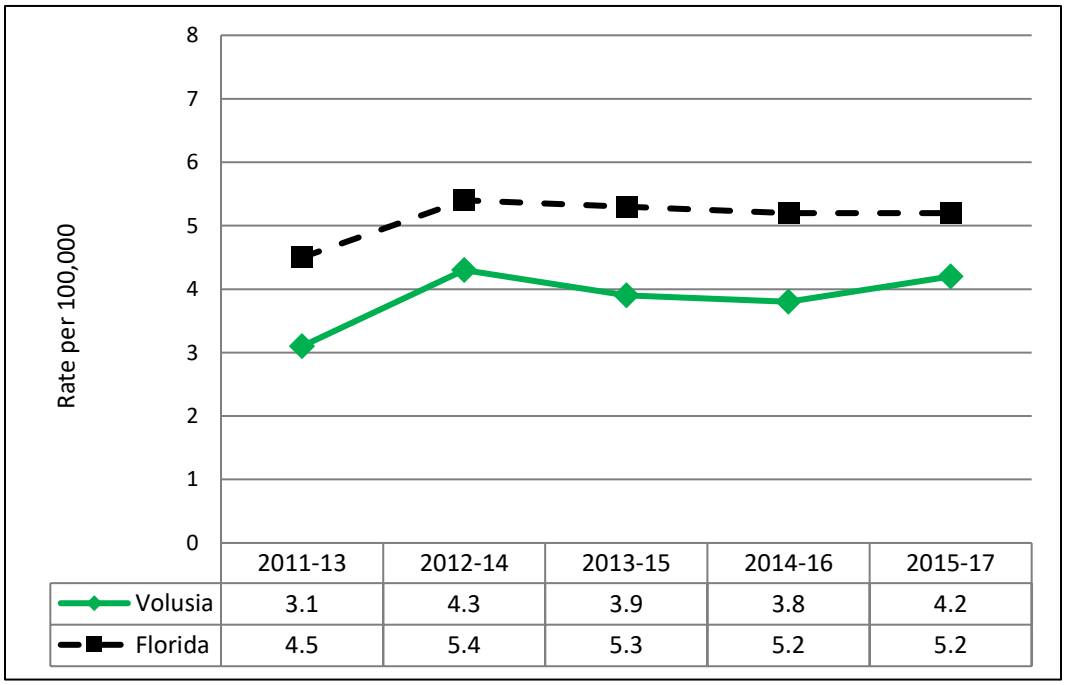
Figure 9.7 Bacterial STDs (Total Gonorrhea, Chlamydia, & Infectious Syphilis), Ages 15-19



	2013	2014	2015	2016	2017
Volusia	1,767.7	1,411.1	1,797.5	2,056.4	2,665.4
Florida	2,151.7	2,076.8	2,278.5	2,440.7	2,623.5

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

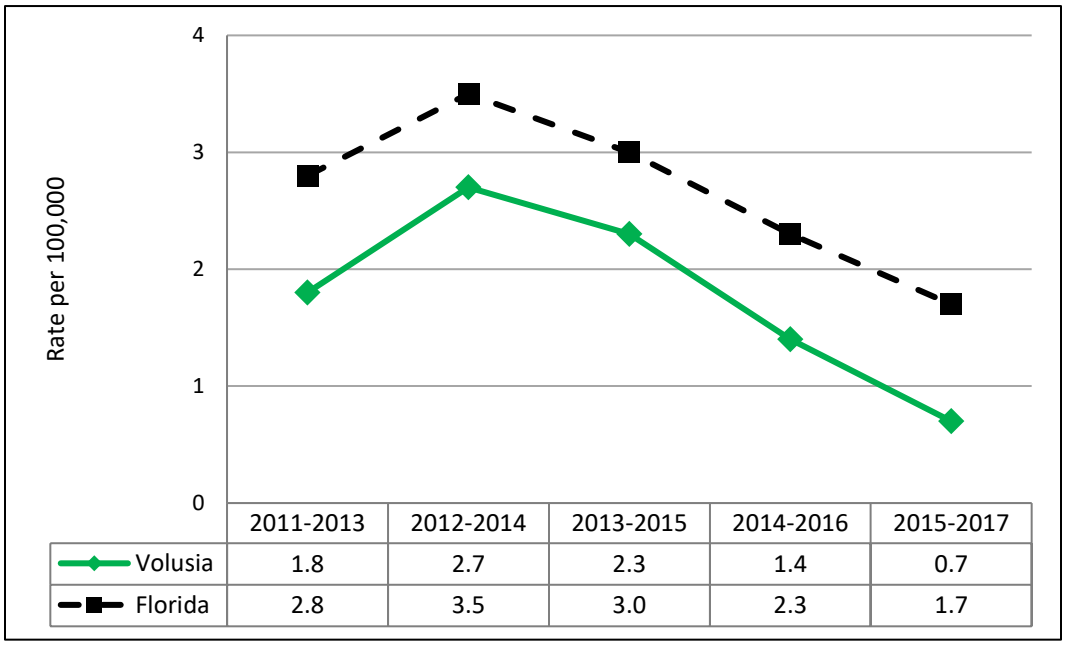
Figure 9.8 Selected Vaccine-preventable Diseases (Includes: Diphtheria, Acute Hepatitis B, Measles, Mumps, Pertussis, Rubella, Tetanus, and Polio)



	2011-13	2012-14	2013-15	2014-16	2015-17
Volusia	3.1	4.3	3.9	3.8	4.2
Florida	4.5	5.4	5.3	5.2	5.2

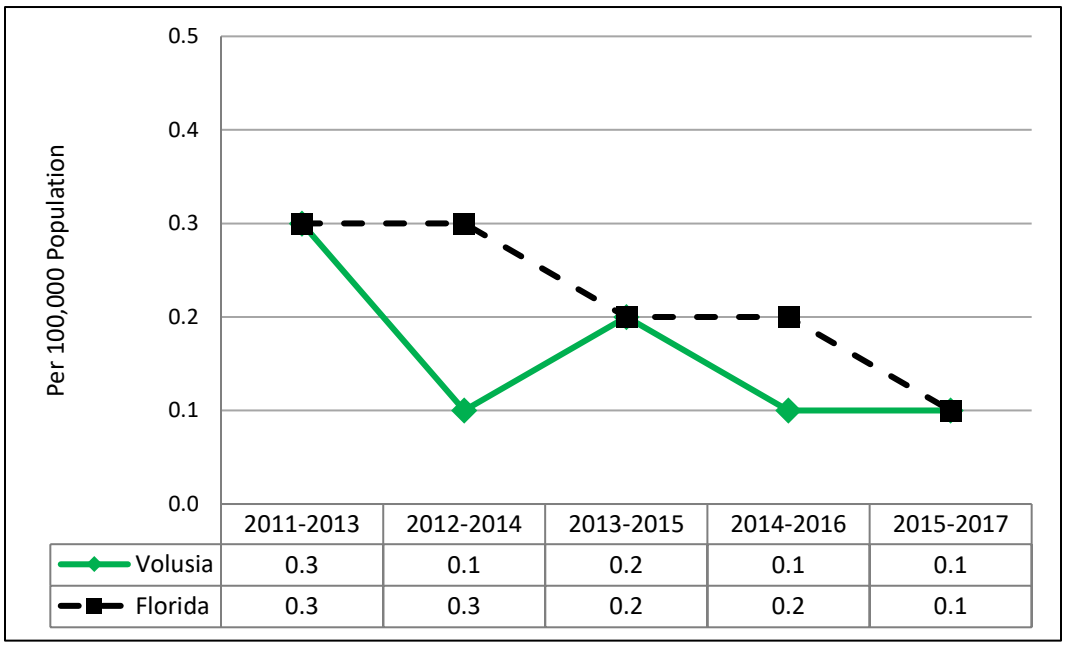
Source: Florida Department of Health, Bureau of Epidemiology

Figure 9.9 Pertussis Reported, 3-Year Rolling Rates



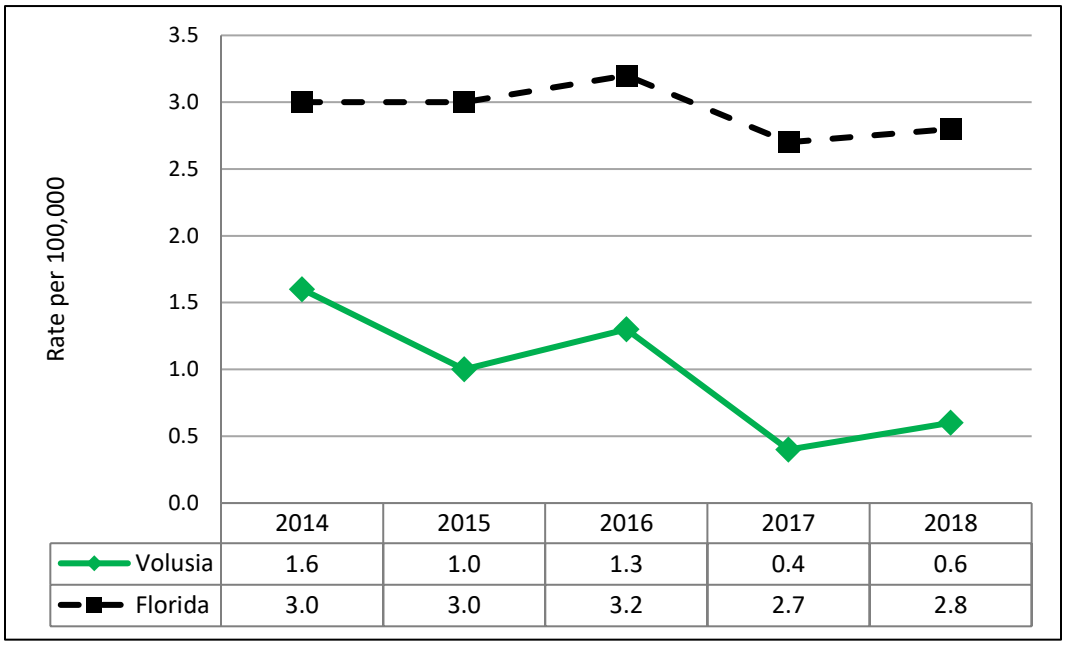
Source: Merlin, Florida's web-based reportable disease surveillance system

Figure 9.10 Meningococcal Disease Reported, 3-Year Rolling Rates



Source: Florida Department of Health, Bureau of Epidemiology

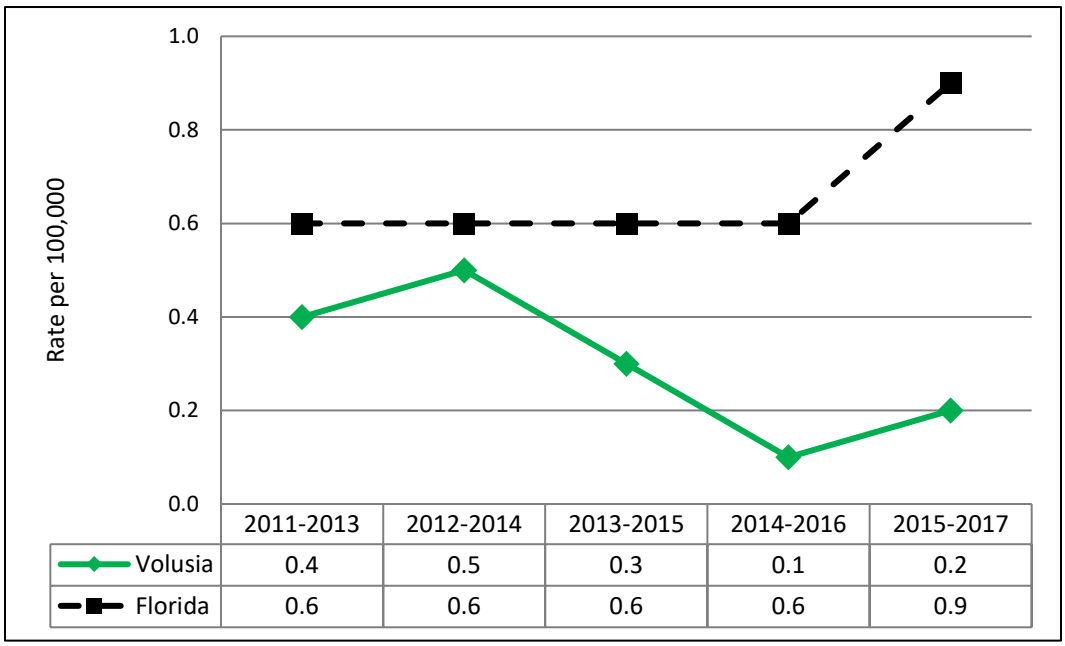
Figure 9.11 Tuberculosis (TB) Cases Reported



	2014	2015	2016	2017	2018
Volusia	1.6	1.0	1.3	0.4	0.6
Florida	3.0	3.0	3.2	2.7	2.8

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

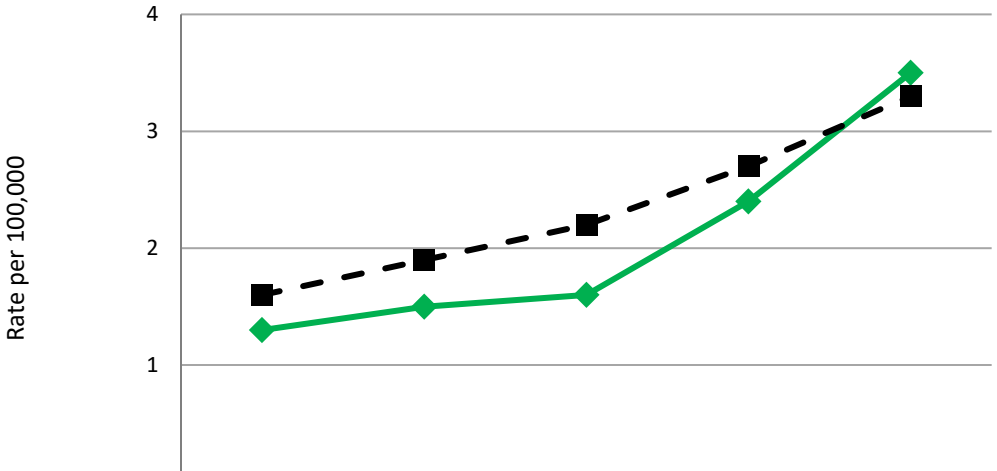
Figure 9.12 Hepatitis A Cases Reported, 3-Year Rolling Rates



	2011-2013	2012-2014	2013-2015	2014-2016	2015-2017
Volusia	0.4	0.5	0.3	0.1	0.2
Florida	0.6	0.6	0.6	0.6	0.9

Source: Merlin, Florida's web-based reportable disease surveillance system

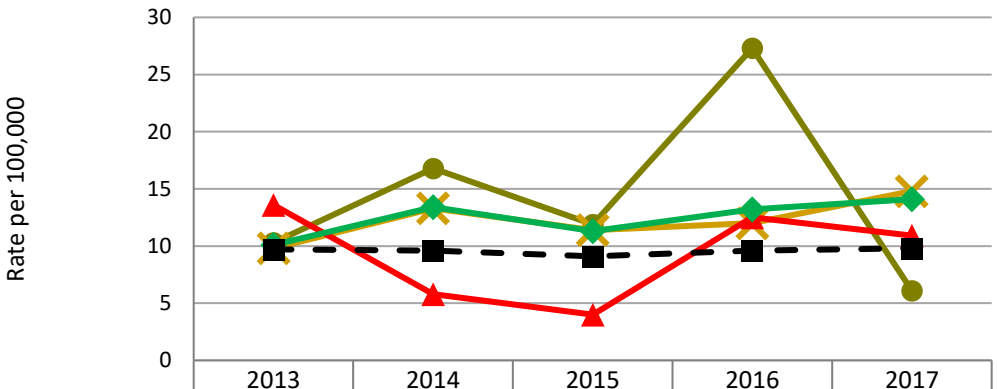
Figure 9.13 Hepatitis B, Acute Cases Reported, 3-Year Rolling Rates



	2011-2013	2012-2014	2013-2015	2014-2016	2015-2017
Volusia	1.3	1.5	1.6	2.4	3.5
Florida	1.6	1.9	2.2	2.7	3.3

Source: Merlin, Florida's web-based reportable disease surveillance system

Figure 9.14 Influenza/Pneumonia Age-adjusted Deaths



	2013	2014	2015	2016	2017
Black	10.3	16.8	11.9	27.3	6.1
White	9.8	13.3	11.4	12.0	14.8
Hispanic	13.6	5.8	4.0	12.5	10.9
Volusia	10.1	13.4	11.3	13.2	14.1
Florida	9.7	9.6	9.1	9.6	9.8

Source: Florida Department of Health, Bureau of Vital Statistics

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 Centers for Disease Control and Prevention, 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.

Child Abuse: There are several types of child abuse including physical, sexual, and emotional abuse. 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, work, and school.

Survey Snapshot: Top five health issues you are most concerned about in your county?

#5 Response: Child Abuse & Neglect

#6 Response: Violence

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.

Indicators of Concern

		Volusia Trend	Florida Comparison	# Impacted
Larceny Offense Rates	**Figure 10.1.** Volusia's Larceny Offense rate declined in 2017 but is higher than Florida's.	↓	↑	10,833
Domestic Violence Offense Rates	**Figure 10.6.** Volusia's Domestic Violence Offense rate declined in 2017 but is higher than Florida's.	↓	↑	4,285

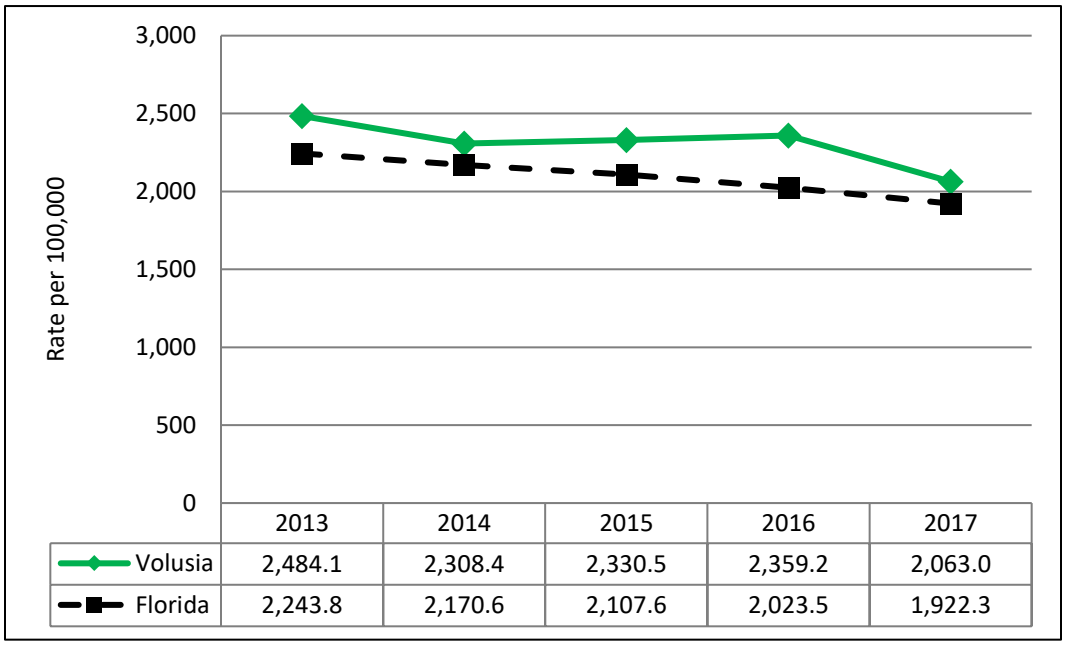
Indicators of Concern

		Volusia Trend	Florida Comparison	# Impacted
Child Abuse Rates	**Figure 10.7 and 10.8.** Volusia's rate of children age 5-11 experiencing child abuse has been declining since 2015 but is higher than Florida's. Children 5-11 who experienced sexual violence declined in 2015-17 but is also higher than Florida.	↓	↑	353
Foster Care (infants) Rates	**Figure 10.9**. The rate of Volusia infants in foster care has been declining since 2015 but is higher than Florida.	↓	↑	76
Foster Care (age 1-5) Rates	**Figure 10.10.** The rate of Volusia children age 1-5 in foster care is increasing and higher than Florida.	↑	↑	277
Foster Care (age 5-11, 12-17) Rates	**Figure 10.11 and 10.12.** The rate of Volusia children age 5-11 and 12-17 in foster care is increasing and higher than Florida.	↑	↑	399
Children Entering Out-of-Home Care	**Figure 10.13.** The rate of Volusia children entering out-of-home care is consistently higher than Florida.		↑	

Indicators Included:

Indicator	Reference
Larceny Offense Rate	**Figure 10.1**
Burglary Offense Rate	**Figure 10.2**
Motor Vehicle Theft Offense Rate	**Figure 10.3**
Robbery Offense Rate	**Figure 10.4**
Murder Offense Rate	**Figure 10.5**
Domestic Violence Offense Rate	**Figure 10.6**
Children Experiencing Child Abuse, Ages 5-11	**Figure 10.7**
Children Experiencing Sexual Violence, Ages 5-11, 3-Year Rolling Rate	**Figure 10.8**
Infants in Foster Care	**Figure 10.9**
Children in Foster Care, Ages 1-5	**Figure 10.10**
Children in Foster Care, Ages 5-11	**Figure 10.11**
Children in Foster Care, Ages 12-17	**Figure 10.12**
Children Entering Out-of-Home Care	**Figure 10.13**
Violent Crime Rate	**Figure 10.14**

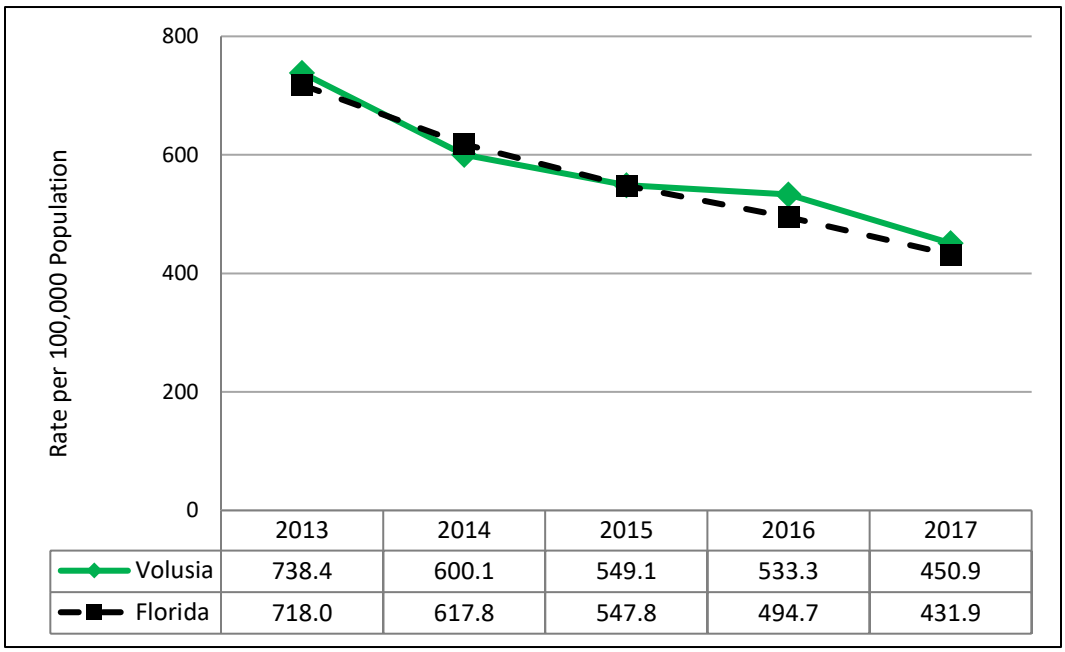
Figure 10.1 Larceny Offense Rate



	2013	2014	2015	2016	2017
Volusia	2,484.1	2,308.4	2,330.5	2,359.2	2,063.0
Florida	2,243.8	2,170.6	2,107.6	2,023.5	1,922.3

Source: Florida Department of Law Enforcement

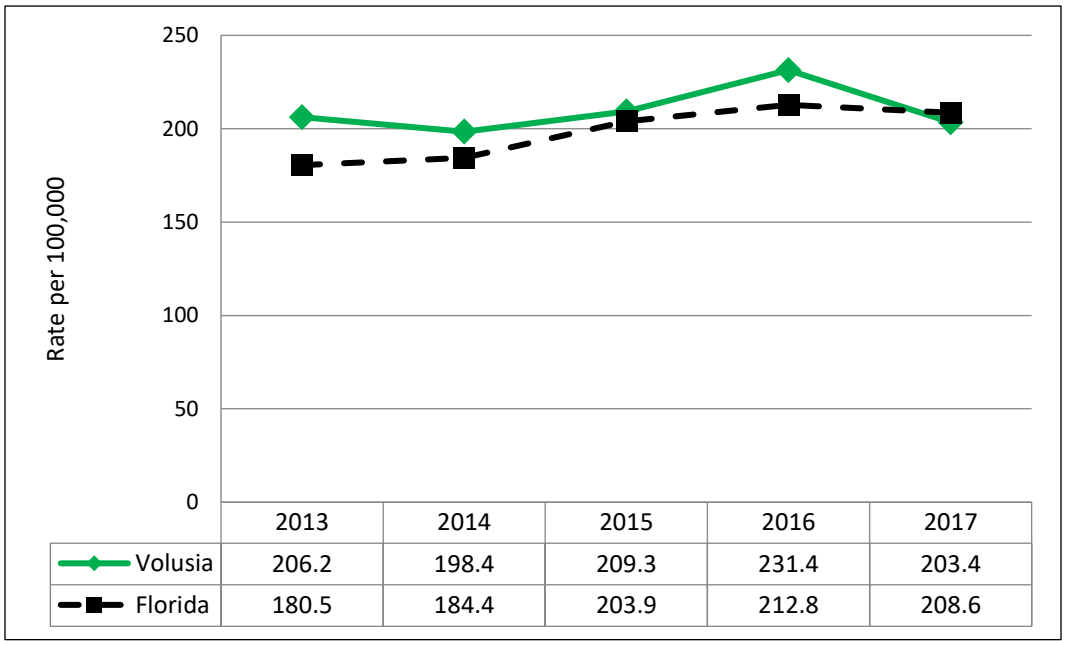
Figure 10.2 Burglary Offense Rate



	2013	2014	2015	2016	2017
Volusia	738.4	600.1	549.1	533.3	450.9
Florida	718.0	617.8	547.8	494.7	431.9

Source: Florida Department of Law Enforcement

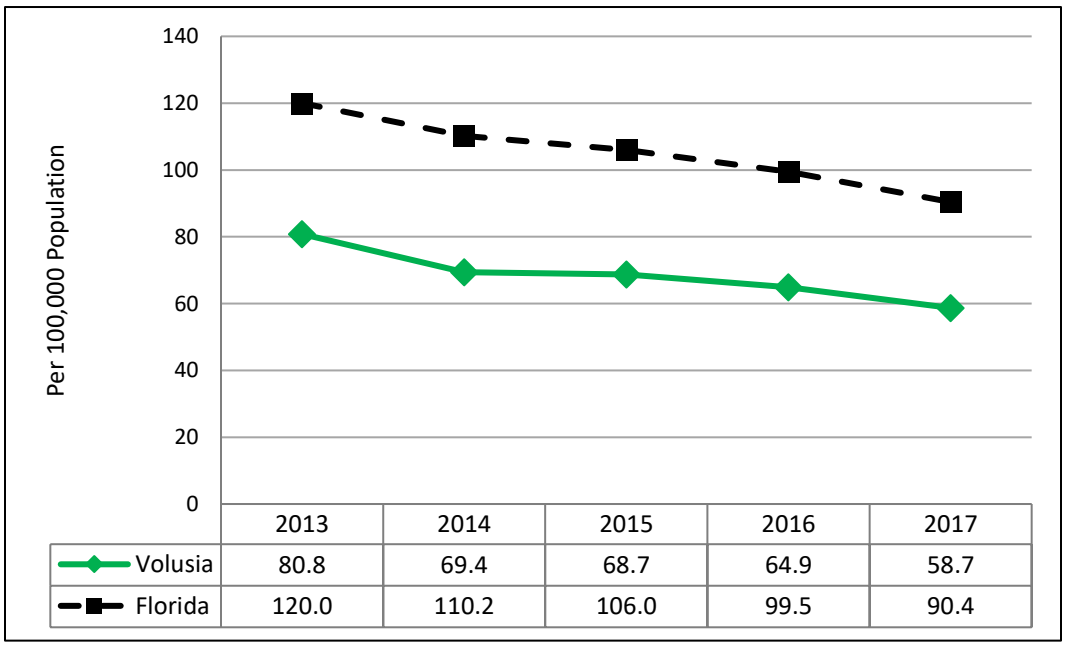
Figure 10.3 Motor Vehicle Theft Offense Rate



	2013	2014	2015	2016	2017
Volusia	206.2	198.4	209.3	231.4	203.4
Florida	180.5	184.4	203.9	212.8	208.6

Source: Florida Department of Law Enforcement

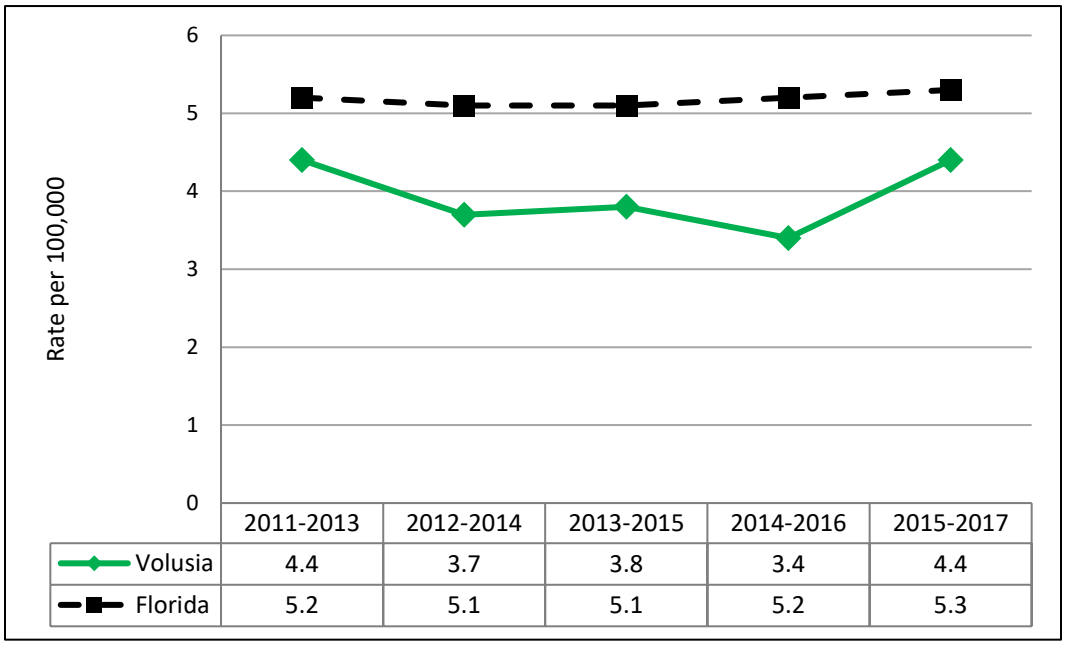
Figure 10.4 Robbery Offense Rate



	2013	2014	2015	2016	2017
Volusia	80.8	69.4	68.7	64.9	58.7
Florida	120.0	110.2	106.0	99.5	90.4

Source: Florida Department of Law Enforcement

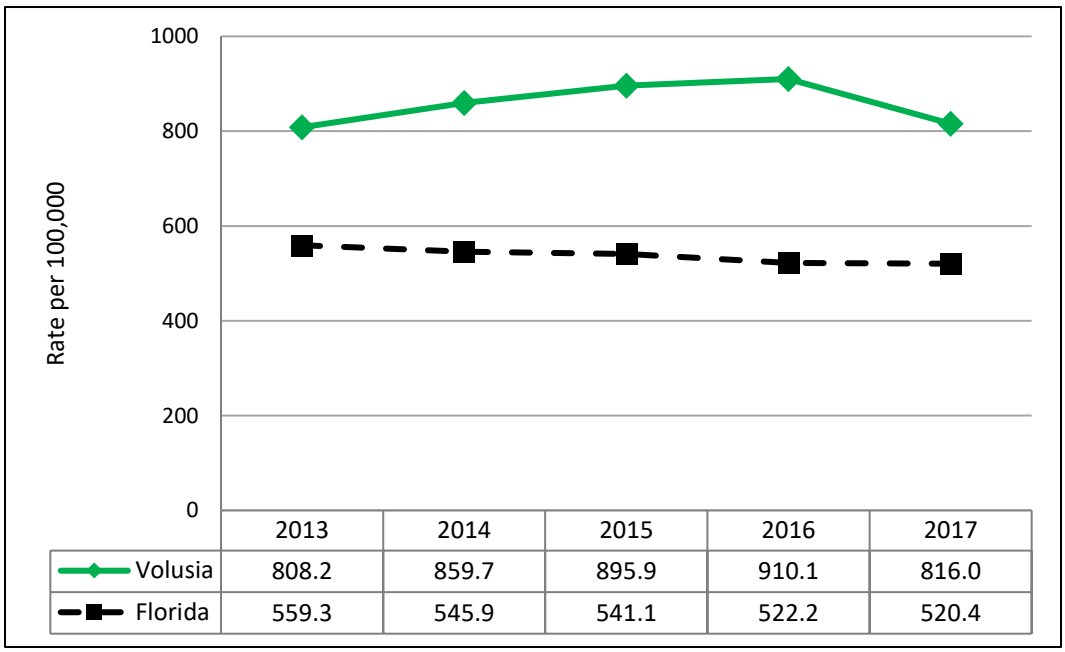
Figure 10.5 Murder Offense Rate, 3-Year Rolling Rate



	2011-2013	2012-2014	2013-2015	2014-2016	2015-2017
Volusia	4.4	3.7	3.8	3.4	4.4
Florida	5.2	5.1	5.1	5.2	5.3

Source: Florida Department of Law Enforcement

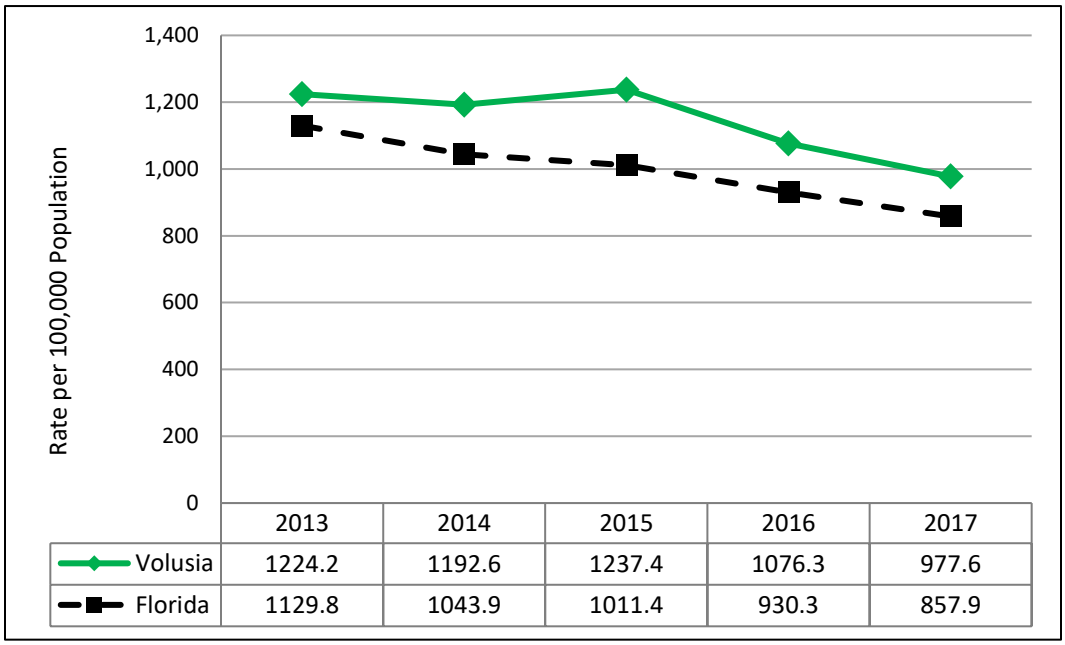
Figure 10.6 Domestic Violence Offense Rate



	2013	2014	2015	2016	2017
Volusia	808.2	859.7	895.9	910.1	816.0
Florida	559.3	545.9	541.1	522.2	520.4

Source: Florida Department of Law Enforcement

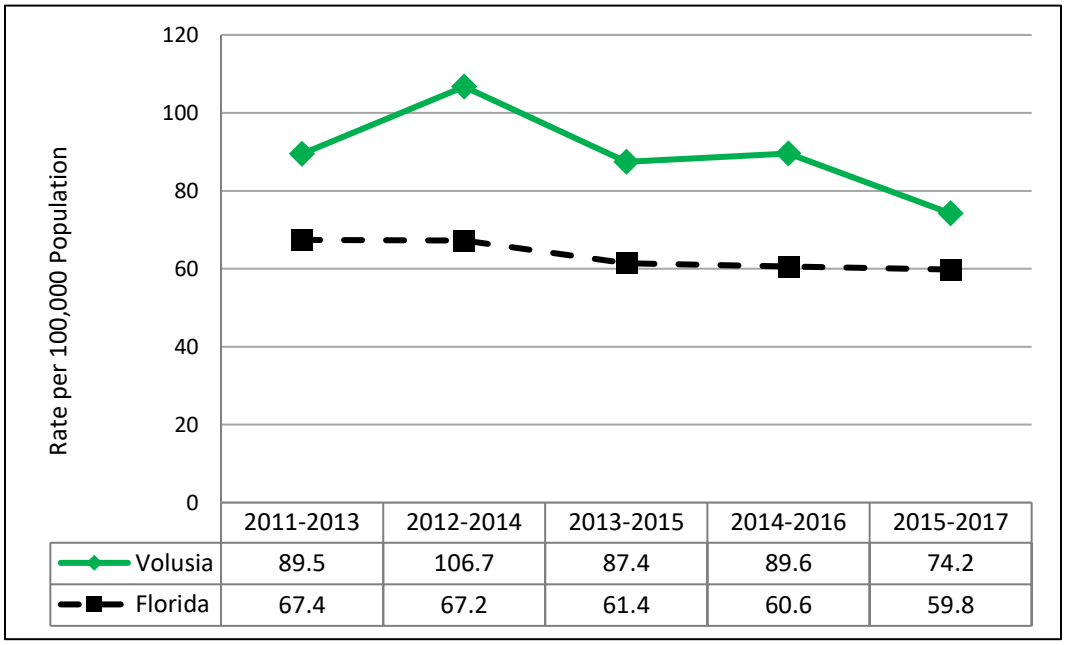
Figure 10.7 Children Experiencing Child Abuse, Ages 5-11



	2013	2014	2015	2016	2017
Volusia	1224.2	1192.6	1237.4	1076.3	977.6
Florida	1129.8	1043.9	1011.4	930.3	857.9

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

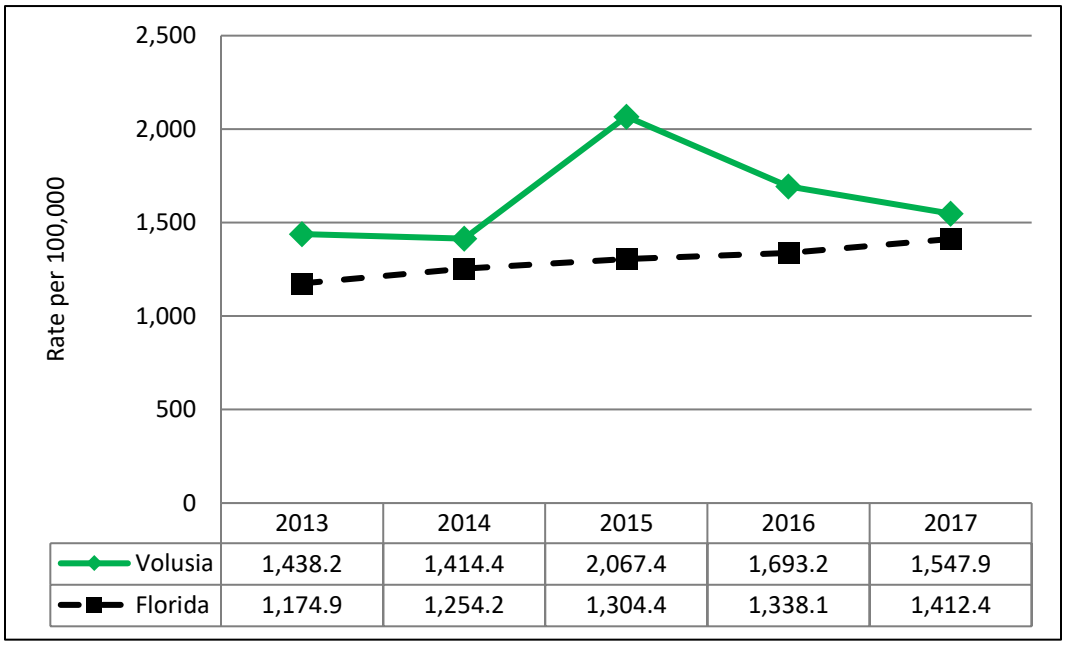
Figure 10.8 Children Experiencing Sexual Violence, Ages 5-11, 3-Year Rolling Rate



	2011-2013	2012-2014	2013-2015	2014-2016	2015-2017
Volusia	89.5	106.7	87.4	89.6	74.2
Florida	67.4	67.2	61.4	60.6	59.8

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

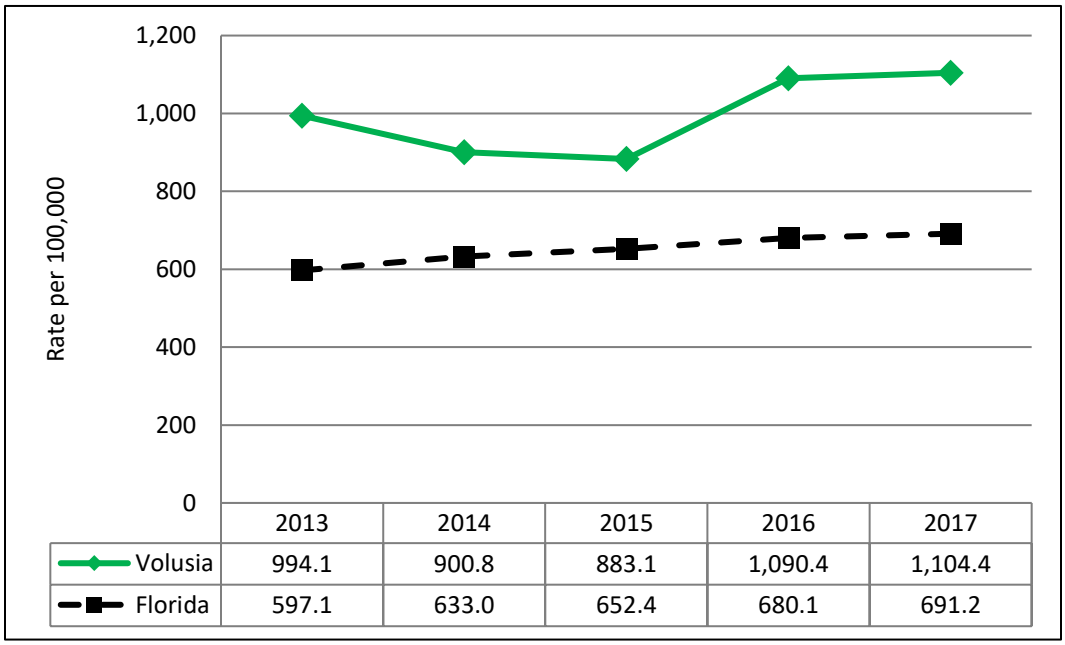
Figure 10.9 Infants in Foster Care



	2013	2014	2015	2016	2017
Volusia	1,438.2	1,414.4	2,067.4	1,693.2	1,547.9
Florida	1,174.9	1,254.2	1,304.4	1,338.1	1,412.4

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

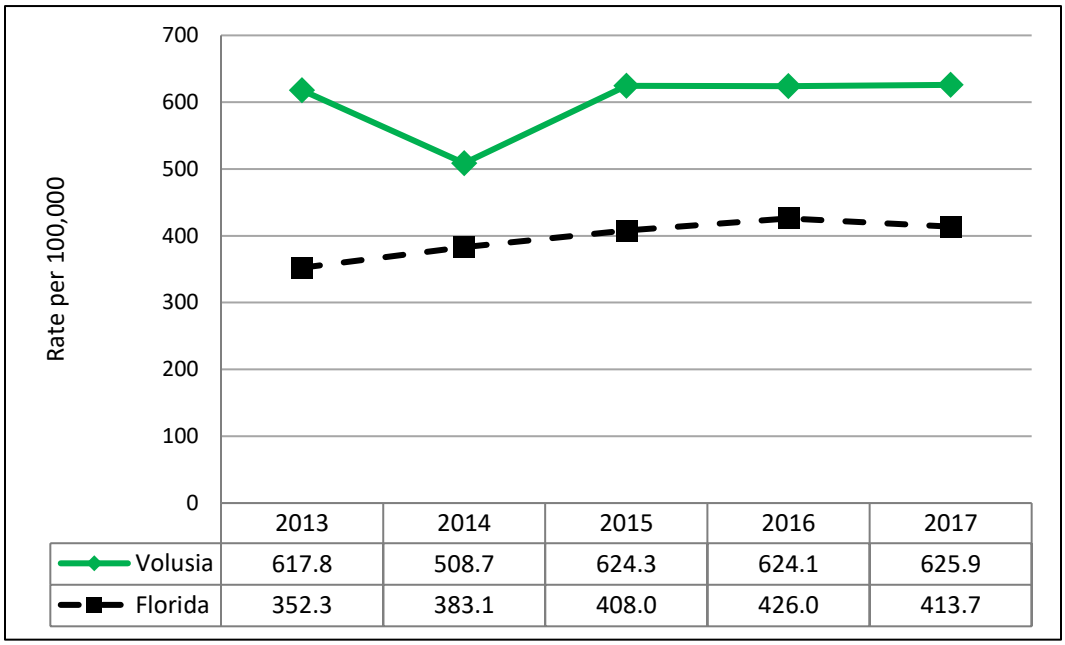
Figure 10.10 Children in Foster Care, Ages 1-5



	2013	2014	2015	2016	2017
Volusia	994.1	900.8	883.1	1,090.4	1,104.4
Florida	597.1	633.0	652.4	680.1	691.2

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

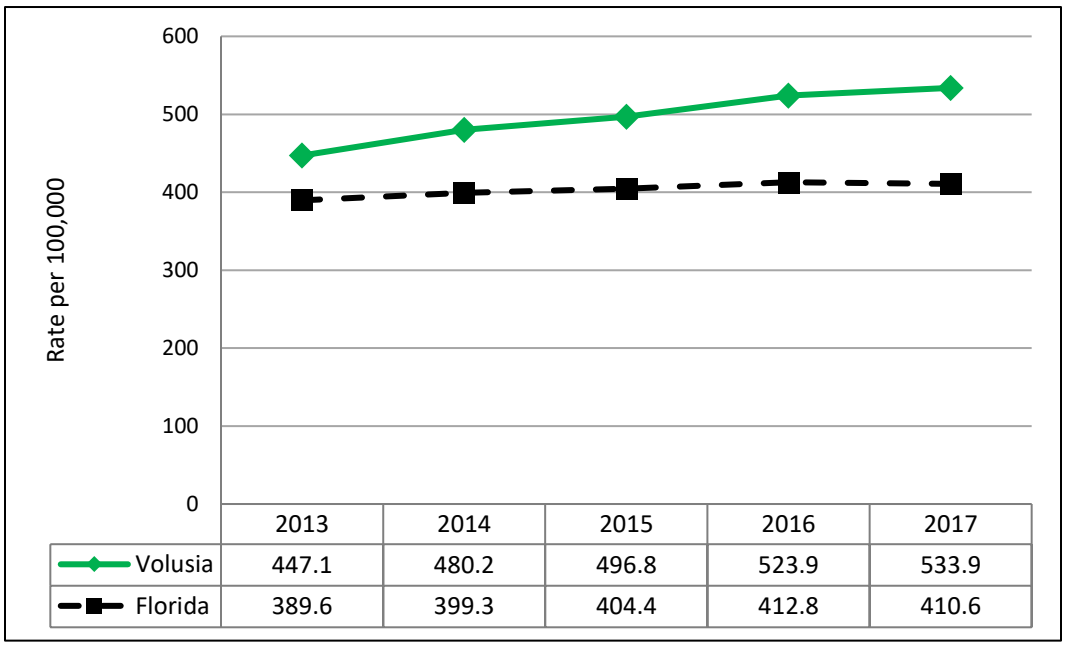
Figure 10.11 Children in Foster Care, Ages 5-11



	2013	2014	2015	2016	2017
Volusia	617.8	508.7	624.3	624.1	625.9
Florida	352.3	383.1	408.0	426.0	413.7

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

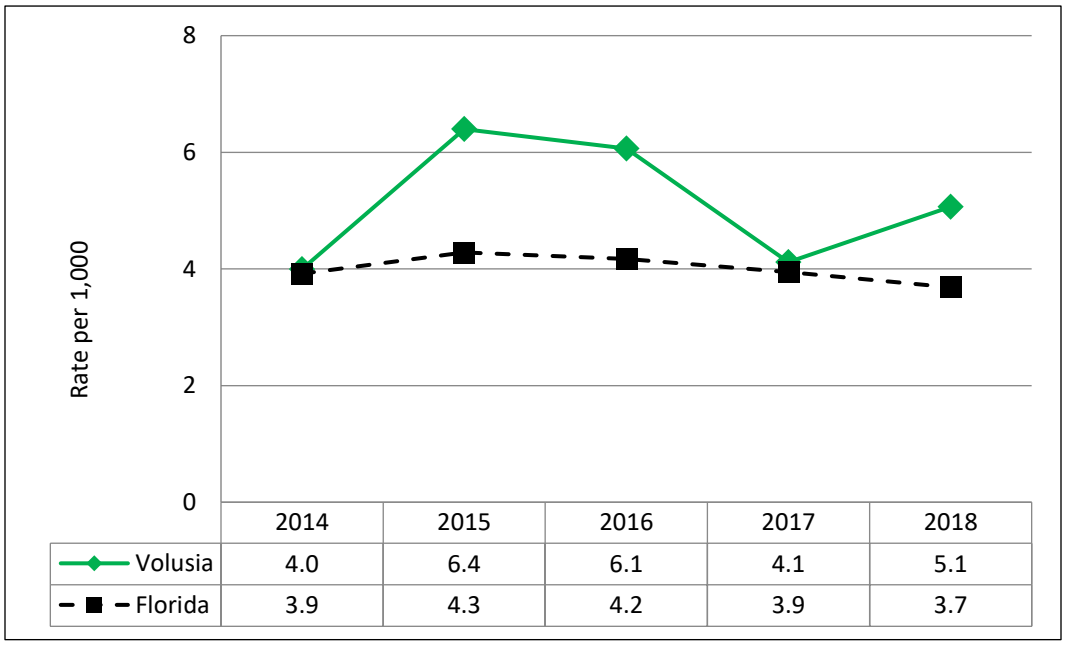
Figure 10.12 Children in Foster Care, Ages 12-17



	2013	2014	2015	2016	2017
Volusia	447.1	480.2	496.8	523.9	533.9
Florida	389.6	399.3	404.4	412.8	410.6

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

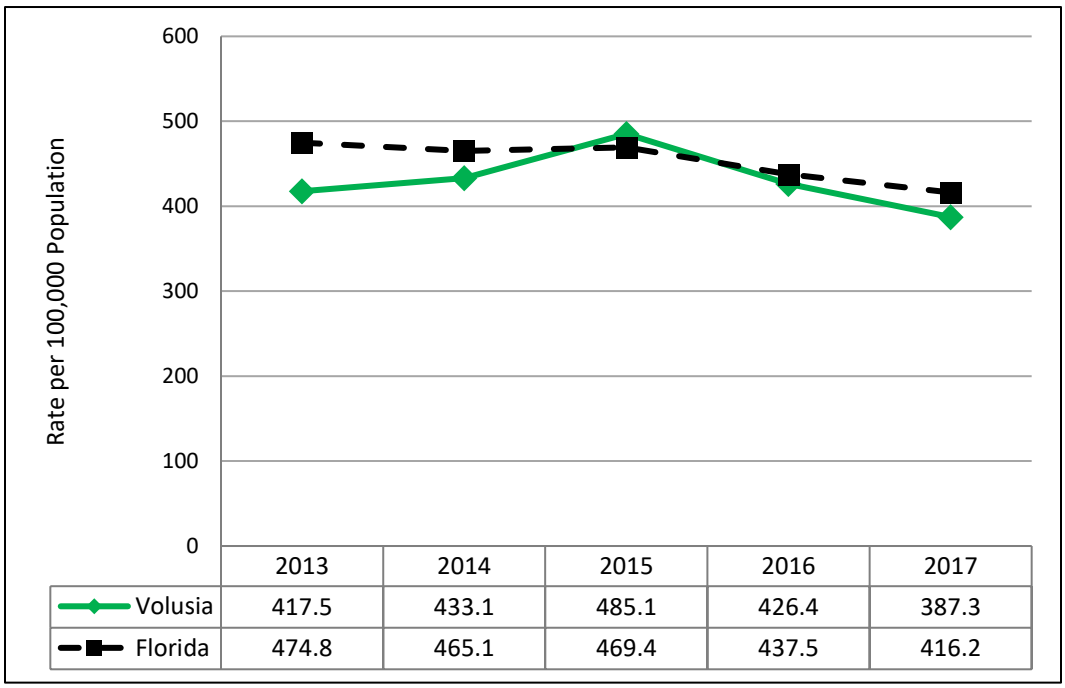
Figure 10.13 Children Entering Out-of-Home Care



	2014	2015	2016	2017	2018
Volusia	4.0	6.4	6.1	4.1	5.1
Florida	3.9	4.3	4.2	3.9	3.7

Source: Department of Children and Families

Figure 10.14 Violent Crime Rate



	2013	2014	2015	2016	2017
Volusia	417.5	433.1	485.1	426.4	387.3
Florida	474.8	465.1	469.4	437.5	416.2

Source: Florida Department of Law Enforcement

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. It constitutes a unique phase for capitalizing on developmental forces to prevent or minimize disabilities and potential secondary conditions.

Indicators of Concern

		Volusia Trend	Florida Comparison	# Impacted
Kindergarten Readiness	**Figure 11.3**. The percent of Volusia children "Ready for Kindergarten" decreased between 2017 and 2018.	↓		
Breastfeeding Initiation	**Figure 11.6.** The percent of Volusia moms who initiated breastfeeding is consistently lower than Florida.		↓	3,850
Children with Emotional Problems	**Figure 11.7.** The percent of children in K-12 schools with emotional and behavioral disabilities is higher than Florida.		↑	489
Postneonatal Death	**Figure 11.10.** The rate of Volusia post neonatal deaths has increased and is higher than Florida.	↑	↑	8
Infant Deaths	**Figure 11.11 and 11.12.** The Volusia rate of infant deaths has increased and is now higher than Florida. The rate of Sudden Unexpected Infant Death has increased and is higher than Florida. The Volusia rate is higher for Black children.	↑	↑	29
Child Drownings	**Figure 11.15.** The Volusia rate of unintentional drownings for ages 1-5 is higher than Florida but has declined since 2013-15.	↓	↑	

Indicators Included:

Indicator	Reference
Licensed Child Care Providers	**Figure 11.1**
Children in School Readiness Programs (Subsidized Child Care)	**Figure 11.2**
Children Participating in Voluntary Pre-K Programs	**Figure 11.3**
School Readiness at Kindergarten Entry	**Figure 11.4**
Kindergarten Children Fully Immunized	**Figure 11.5**
Mothers who Initiate Breastfeeding	**Figure 11.6**
Children in Schools Grades K-12 with Emotional/Behavioral Disability	**Figure 11.7**
Children Ages 1-5 Receiving Mental Health Treatment Services	**Figure 11.8**
Neonatal Mortality (0-27 days)	**Figure 11.9**
Postneonatal Mortality (28-364 days)	**Figure 11.10**

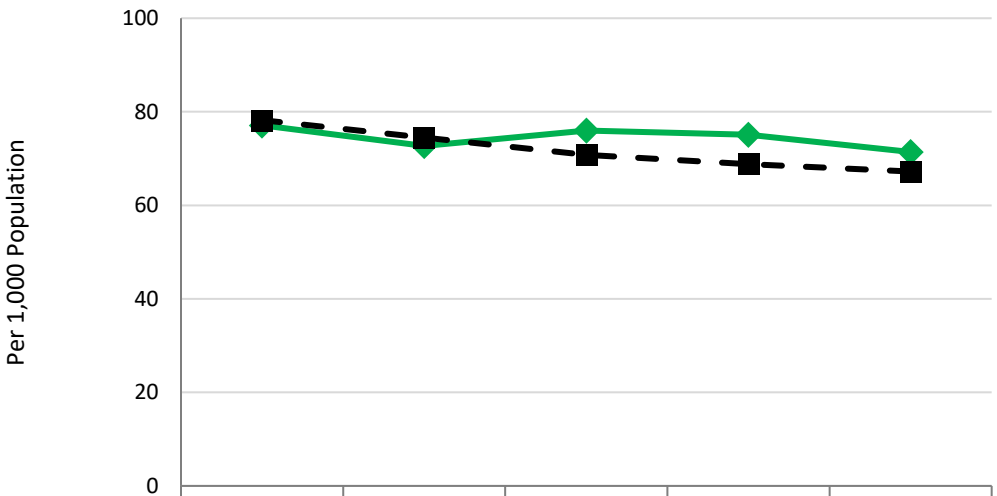
Indicator	Reference
Infant Mortality (0-364 days)	**Figure 11.11**
Deaths from SUID (sudden unexpected infant death)	**Figure 11.12**
Asthma hospitalizations, Ages 1-5	**Figure 11.13**
Non-Fatal Injuries Leading to Emergency Department Visits & Hospitalization, < Age 5	**Figure 11.14**
Unintentional Drowning Crude Death Rate, Ages 1-5	**Figure 11.15**

Figure 11.1 Licensed Child Care Providers

Child Care Providers	**259**
Licensed	**212**
Registered	**30**
Exempt	**17**
Child Care Facilities	**165**
Family Day Care Homes	**65**
Licensed	**35**
Registered	**30**
Large Family Child Care Homes	**12**
Religious Exempt	**17**
Public Schools	**2**

Source: Florida Department of Children and Families

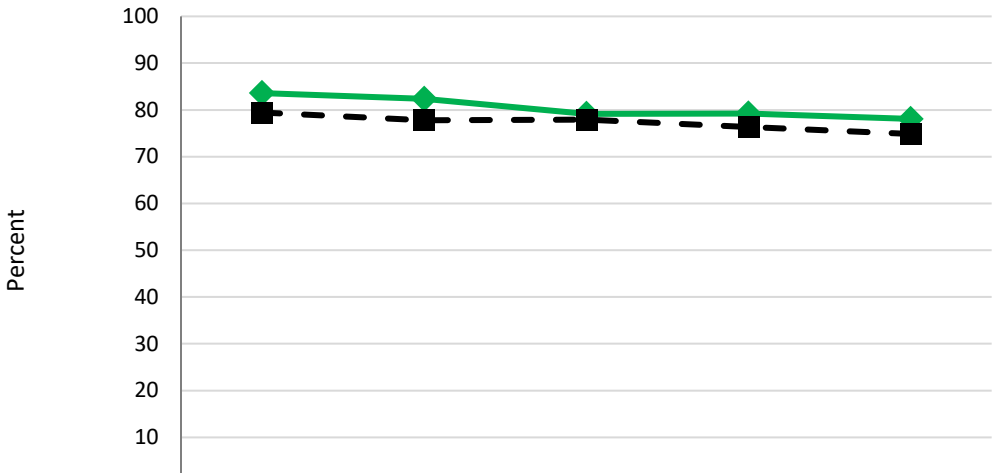
Figure 11.2 Children in School Readiness Programs (Subsidized Child Care)



	2014	2015	2016	2017	2018
Volusia	77.1	72.7	76.0	75.1	71.4
Florida	78.2	74.5	70.8	68.8	67.2

Source: Florida Department of Education, Office of Early Learning

Figure 11.3 Children Participating in Voluntary Pre-K Programs



	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018
Volusia	83.6	82.4	79.1	79.2	78.1
Florida	79.4	77.8	78.0	76.3	74.9

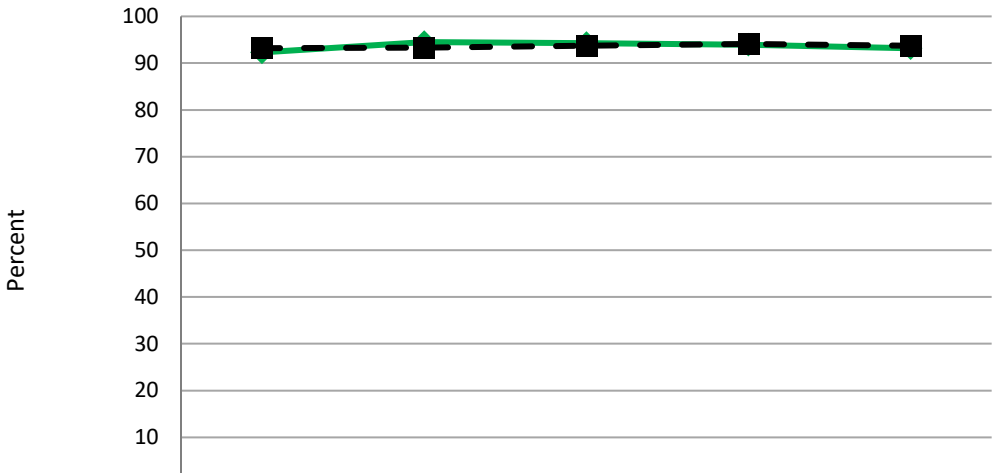
Source: Florida Department of Education, Office of Early Learning

Figure 11.4 School Readiness at Kindergarten Entry

Percent "Ready for Kindergarten"	Volusia	Florida
Year	**Percent**	**Percent**
2018	55.0	52.7
2017	61.7	54.0

Florida Department of Education, Office of Early Learning
Note: Ready for Kindergarten" (Scoring 500+ on Start Early Literacy Assessment

Figure 11.5 Kindergarten Children Fully Immunized



	2014	2015	2016	2017	2018
Volusia	92.3	94.5	94.3	93.9	93.2
Florida	93.2	93.3	93.7	94.1	93.7

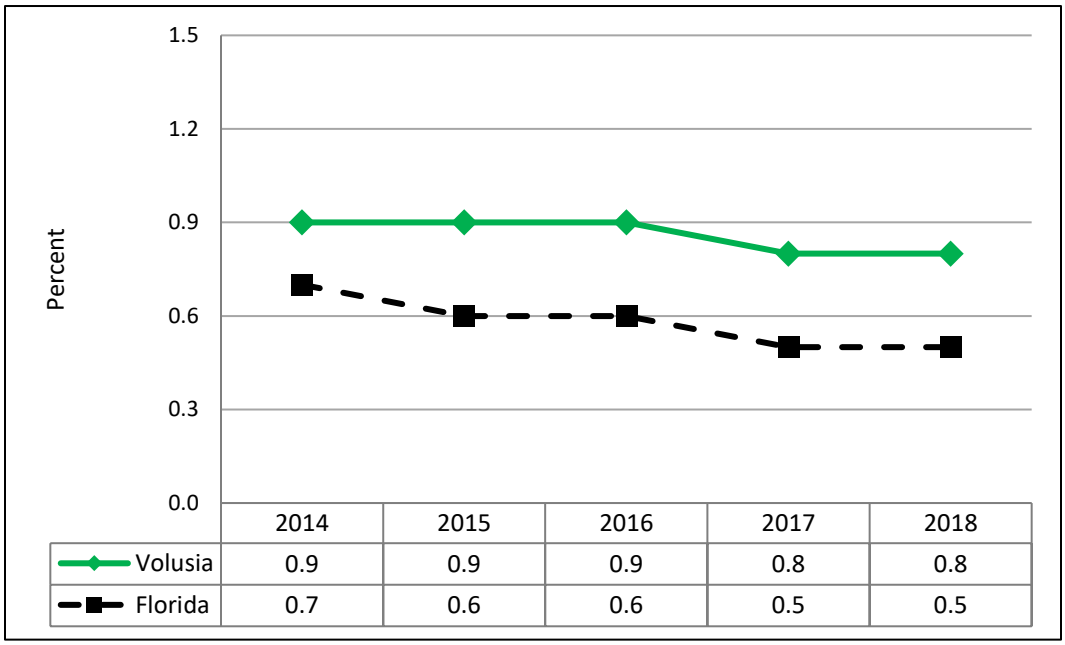
Source: Florida Department of Health, Bureau of Immunization

Figure 11.6 Mothers who Initiate Breastfeeding

	Volusia		Florida	
Year	**Count**	**Rate (%)**	**Count**	**Rate (%**
2017	3,850	77.2	192,199	86.0
2016	3,940	78.3	193,508	86.0
2015	3,714	75.2	191,057	85.2
2014	3,566	74.8	185,186	84.2
2013	3,402	73.4	177,535	82.5
2012	3,436	73.0	172,427	81.0
2011	3,375	72.5	169,717	79.6
2010	3,482	73.9	171,905	80.1
2009	3,677	72.1	174,561	78.8
2008	3,807	72.4	180,957	78.2

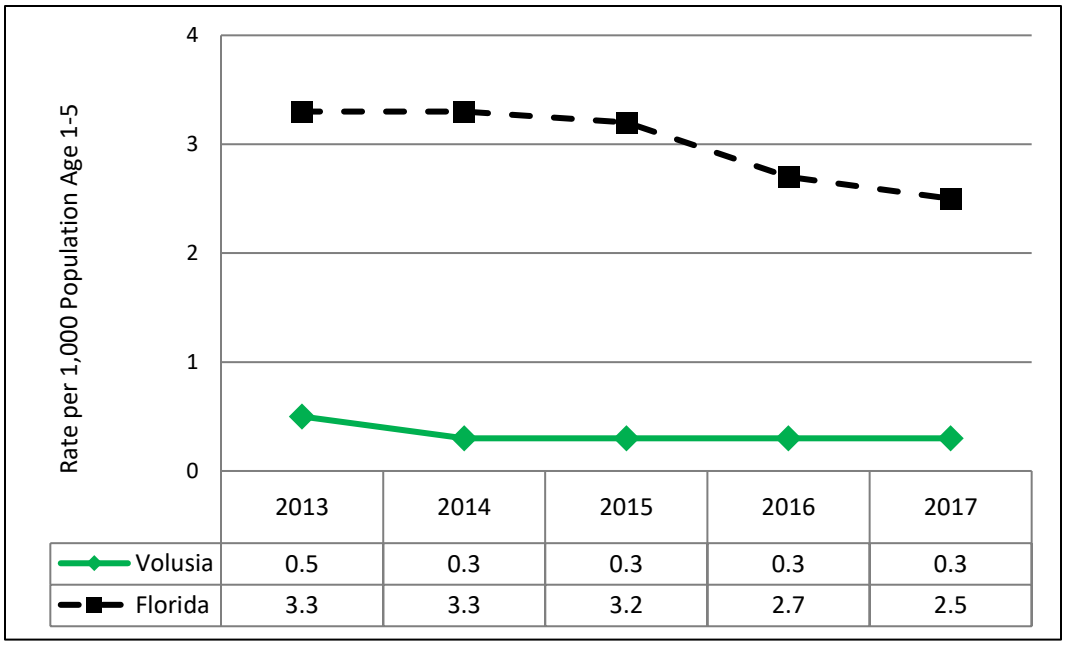
Source: Florida Department of Health, Bureau of Vital Statistics

Figure 11.7 Children in Schools Grades K-12 with Emotional/Behavioral Disability



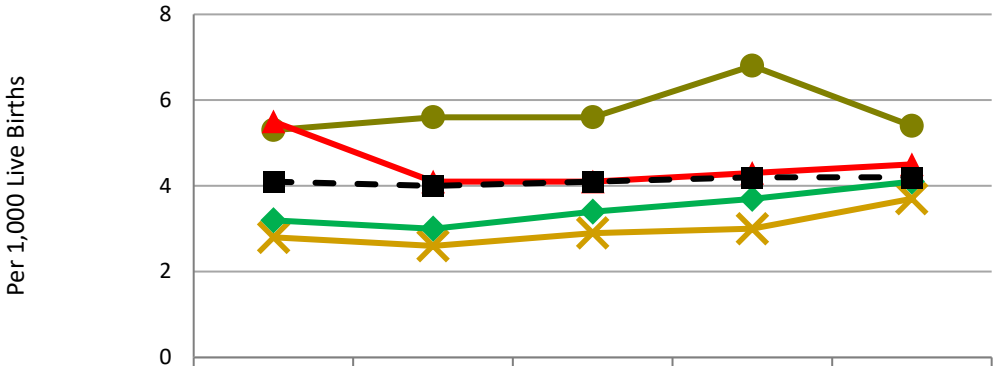
Source: Florida Department of Education, Education Information and Accountability Services (EIAS)

Figure 11.8 Children Ages 1-5 Receiving Mental Health Treatment Services



Source: Florida Department of Children and Families

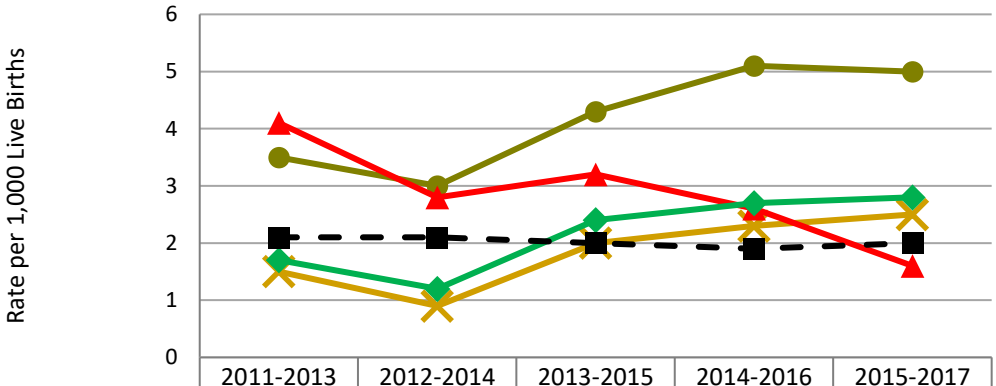
Figure 11.9 Neonatal Deaths (< 28 days), 3-Year Rolling Rates



	2011-2013	2012-2014	2013-2015	2014-2016	2015-2017
Black	5.3	5.6	5.6	6.8	5.4
White	2.8	2.6	2.9	3.0	3.7
Hispanic	5.5	4.1	4.1	4.3	4.5
Volusia	3.2	3.0	3.4	3.7	4.1
Florida	4.1	4.0	4.1	4.2	4.2

Source: Florida Department of Health, Bureau of Vital Statistics

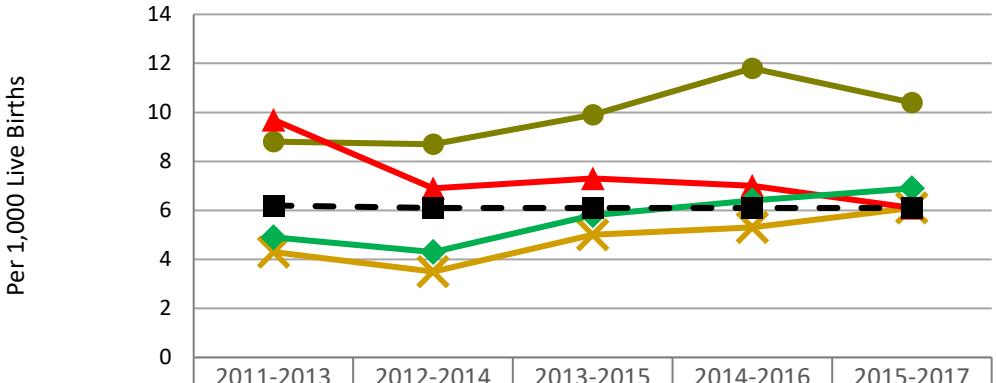
Figure 11.10 Postneonatal Deaths (28-364 days), 3-Year Rolling Rates



	2011-2013	2012-2014	2013-2015	2014-2016	2015-2017
Black	3.5	3.0	4.3	5.1	5.0
White	1.5	0.9	2.0	2.3	2.5
Hispanic	4.1	2.8	3.2	2.6	1.6
Volusia	1.7	1.2	2.4	2.7	2.8
Florida	2.1	2.1	2.0	1.9	2.0

Source: Florida Department of Health, Bureau of Vital Statistics

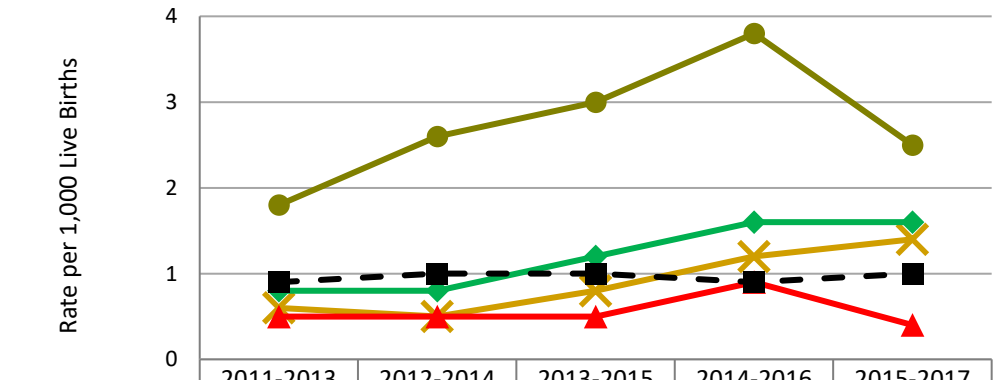
Figure 11.11 Infant Deaths (0-364 Days), 3-Year Rolling Rates



	2011-2013	2012-2014	2013-2015	2014-2016	2015-2017
Black	8.8	8.7	9.9	11.8	10.4
White	4.3	3.5	5.0	5.3	6.1
Hispanic	9.7	6.9	7.3	7.0	6.1
Volusia	4.9	4.3	5.8	6.4	6.9
Florida	6.2	6.1	6.1	6.1	6.1

Source: Florida Department of Health, Bureau of Vital Statistics

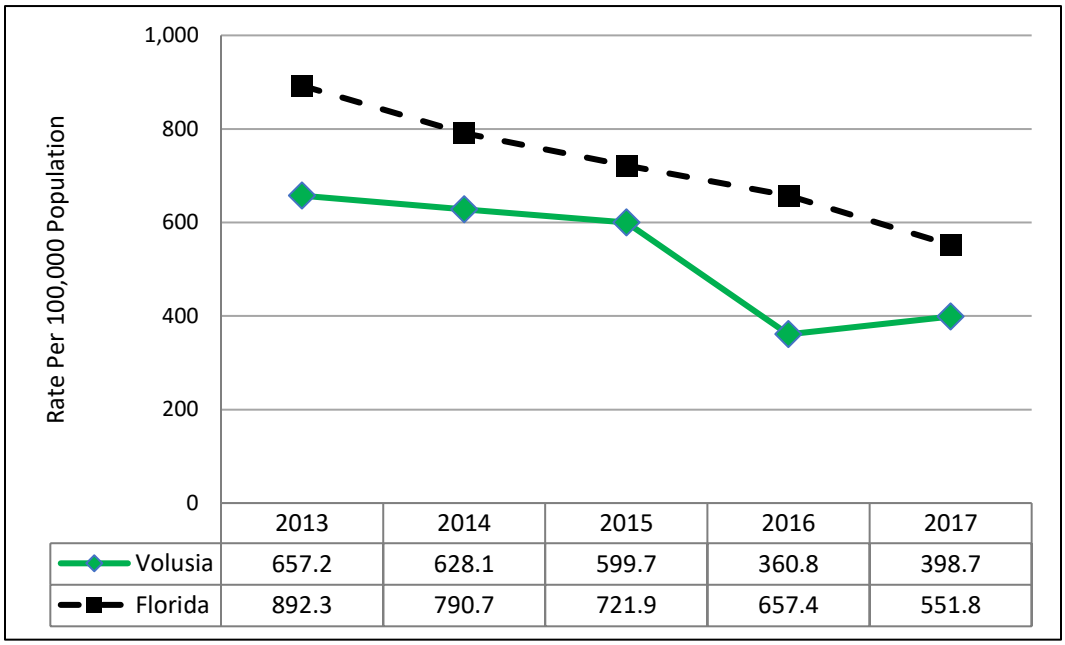
Figure 11.12 Deaths from SUID (Sudden Unexpected Infant Death), 3-Year Rolling Rates



	2011-2013	2012-2014	2013-2015	2014-2016	2015-2017
Black	1.8	2.6	3.0	3.8	2.5
White	0.6	0.5	0.8	1.2	1.4
Hispanic	0.5	0.5	0.5	0.9	0.4
Volusia	0.8	0.8	1.2	1.6	1.6
Florida	0.9	1.0	1.0	0.9	1.0

Source: Florida Department of Health, Bureau of Vital Statistics

Figure 11.13 Asthma Hospitalizations, Ages 1-5



	2013	2014	2015	2016	2017
Volusia	657.2	628.1	599.7	360.8	398.7
Florida	892.3	790.7	721.9	657.4	551.8

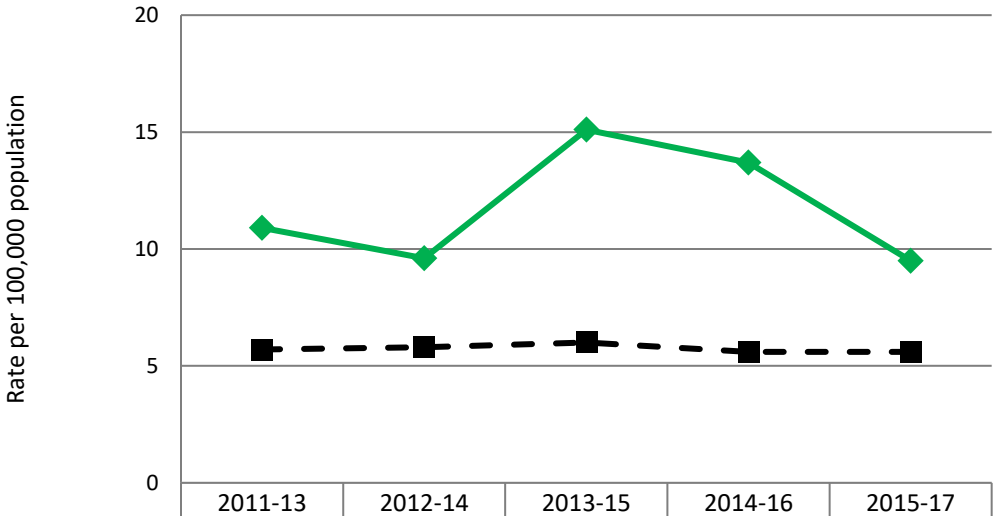
Source: Florida Agency for Health Care Administration
Note: Includes both primary and contributing diagnoses

Figure 11.14 Non-Fatal Injuries Leading to Emergency Department Visits and Hospitalization, Under Age 5

	2017 Volusia Non-Fatal Injury Emergency Department Visits, By Mechanism and Age Group		2017 Volusia Non-Fatal Injury Hospitalization Visits, By Mechanism and Age Group	
Mechanism	Age <1	Age 1-4	Age <1	Age 1-4
Bite/Sting	27	265	<5	<5
Cut, Pierce	7	57	<5	<5
Drowning, Submersion	<5	<5	<5	<5
Fall	129	587	6	6
Fire, Flame	<5	6	<5	<5
Firearm	<5	<5	<5	<5
Hot Object, Substance	5	29	<5	<5
Machinery	<5	<5	<5	<5
Motor Vehicle Traffic	20	70	<5	<5
MVT – Motorcyclist	<5	<5	<5	<5
MVT – Occupant	18	46	<5	<5
MVT – Other/Unspecified	<5	17	<5	<5
MVT – Pedalcyclist	<5	<5	<5	<5
MVT – Pedestrian	<5	<5	<5	<5
Natural, Environmental	<5	<5	<5	<5
Not E Coded	198	1,400	<5	<5
Other Spec & Classifiable	6	32	<5	<5
Other specified, Child Abuse	<5	12	<5	<5
Other specified, Foreign body	26	219	<5	<5
Other specified, Classifiable	6	32	<5	<5
Other specified, not elsewhere classified	<5	<5	<5	<5
Overexertion	<5	36	<5	<5
Pedalcyclist, Other	<5	5	<5	<5
Pedestrian, Other	<5	<5	<5	<5
Poisoning	8	117	<5	8
Struck By/Against	28	268	<5	<5
Suffocation	<5	<5	<5	<5
Transport, (Land/Other)	<5	<5	<5	<5
Unspecified	26	175	<5	<5
Total	**487**	**3,293**	**13**	**35**

Source: Florida Department of Health, Bureau of Vital Statistics

Figure 11.15 Unintentional Drowning Crude Death Rate, Ages 1-5, 3-Year Rolling Rates



	2011-13	2012-14	2013-15	2014-16	2015-17
Volusia	10.9	9.6	15.1	13.7	9.5
Florida	5.7	5.8	6.0	5.6	5.6

Source: Florida Department of Health, Bureau of Vital Statistics

12. Women's Health, Prenatal Care & 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 as cited by Healthy People 2020. 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.

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.

Fetal Mortality: Fetal mortality is the death of a fetus or baby after 20 weeks' gestation.

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.

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.

Indicators of Concern

		Volusia Trend	Florida Comparison	# Impacted
Teen Births	**Figure 12.2.** The Volusia rate of births to mothers age 15-19 is higher than Florida.		↑	289
Births to Obese Mothers	**Figure 12.6.** The Volusia rate of births to obese mothers is slightly higher than Florida.		↑	1,257
Births to Unwed Mothers	**Figure 12.8. and Figure 12.9.** The Volusia rate of births to unwed mothers ages 15-19 and ages 20-54 is higher than Florida.		↑	2,615

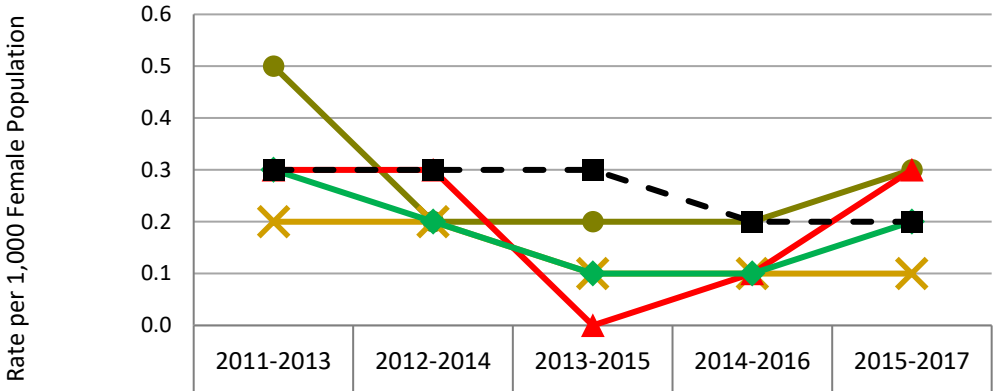
Indicators of Concern

		Volusia Trend	Florida Comparison	# Impacted
Smoking During Pregnancy	**Figure 12.14.** The Volusia percent of births to mothers who smoked during pregnancy is significantly higher than Florida.		↑	474
STDs	**Figure 12.15.** The Volusia rate of bacterial STDs among women 15-34 has steadily increased since 2014 and exceeded Florida in 2017.	↑	↑	2,695
Female Binge Drinking	**Figure 12.16.** The Volusia rate of women over 17 who engage in heavy or binge drinking increased from 2013 to 2016 and is higher than Florida.	↑	↑	
Fetal Death	**Figure 12.21.** The Volusia rate of fetal death is declining but is higher than Florida.	↓	↑	30
Births with no Prenatal Care	**Figure 12.24.** The Volusia percent of births with no prenatal care is higher than Florida.		↑	135

Indicators Included:

Indicator	Reference
Births to Mothers, Ages 10-14	**Figure 12.1**
Births to Mothers, Ages 15-19	**Figure 12.2**
Births to Mothers > 35	**Figure 12.3**
Births to Mothers Who Were at a Healthy Weight at the Time Pregnancy Occurred	**Figure 12.4**
Births to Mothers Who Were Overweight at the Time Pregnancy Occurred	**Figure 12.5**
Births to Mothers Who Were Obese at the Time Pregnancy Occurred	**Figure 12.6**
Births to Mothers with Less Than High School Education	**Figure 12.7**
Births Among Unwed Mothers, Ages 15-19	**Figure 12.8**
Births Among Unwed Mothers, Ages 20-54	**Figure 12.9**
Repeat Births to Teenage Mothers, Ages 15-17	**Figure 12.10**
Repeat Births to Teenage Mothers, Ages 15-19	**Figure 12.11**
Repeat Births to Teenage Mothers, Ages 18-19	**Figure 12.12**
Births with Inter-Pregnancy Interval < 18 Months	**Figure 12.13**
Resident Live Births to Mothers Who Smoked During Pregnancy	**Figure 12.14**
Bacterial STDs (Women Ages 15-34)	**Figure 12.15**
Females >17 Who Engage in Heavy or Binge Drinking	**Figure 12.16**
Very Low Birth Weight (Live Births Under 1500 Grams)	**Figure 12.17**
Low Birth Weight (Live Births Under 2500 Grams)	**Figure 12.18**
Multiple Births (Twins, Triplets, or More)	**Figure 12.19**
Preterm Births (< 37 Weeks Gestation)	**Figure 12.20**
Fetal Deaths	**Figure 12.21**
Births with Adequate Prenatal Care (Kotelchuck Index)	**Figure 12.22**
Prenatal Care Began in First Trimester	**Figure 12.23**
Births with No Prenatal Care	**Figure 12.24**

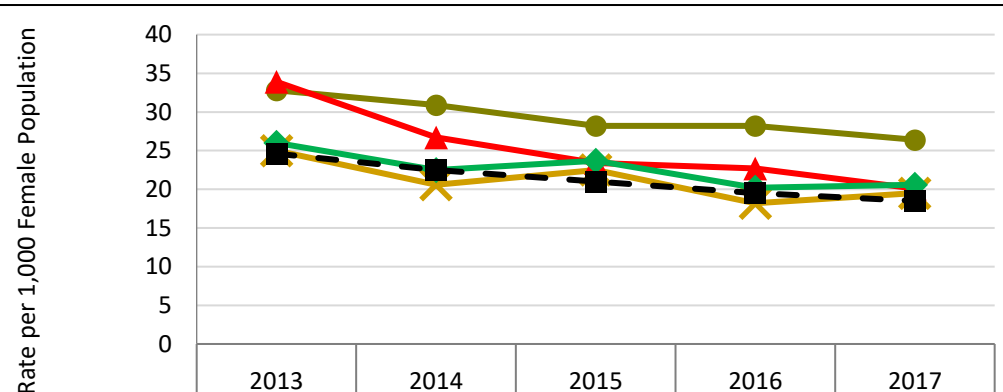
Figure 12.1 Births to Mothers, Ages 10-14, 3-Year Rolling Rates



	2011-2013	2012-2014	2013-2015	2014-2016	2015-2017
Black	0.5	0.2	0.2	0.2	0.3
White	0.2	0.2	0.1	0.1	0.1
Hispanic	0.3	0.3	0.0	0.1	0.3
Volusia	0.3	0.2	0.1	0.1	0.2
Florida	0.3	0.3	0.3	0.2	0.2

Source: Florida Department of Health, Bureau of Vital Statistics

Figure 12.2 Births to Mothers, Ages 15-19



	2013	2014	2015	2016	2017
Black	32.8	30.9	28.2	28.2	26.4
White	25.0	20.6	22.5	18.2	19.5
Hispanic	33.9	26.7	23.4	22.7	20.1
Volusia	26.0	22.5	23.7	20.2	20.6
Florida	24.6	22.5	21.0	19.5	18.5

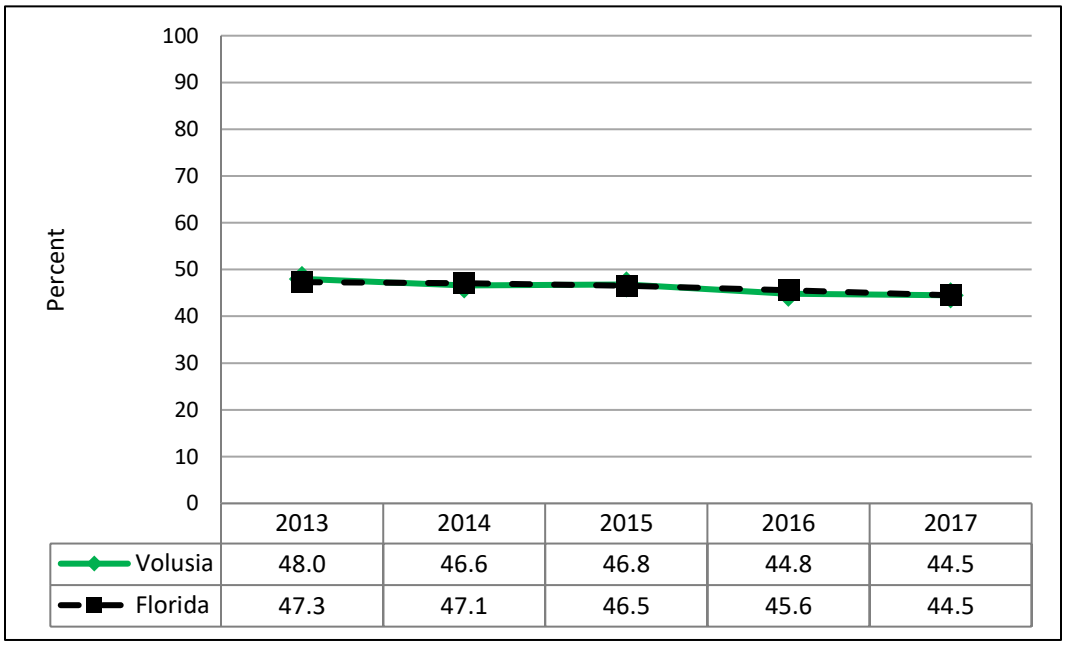
Source: Florida Department of Health, Bureau of Vital Statistics

Figure 12.3 Births to Mothers Greater than 35 Years of Age per 1,000 Live Births

	Volusia		Florida	
Year	Count	Rate (%)	Count	Rate (%)
2017	753	4.3	40,166	6.4
2016	685	4.0	39,100	6.3
2015	660	3.9	37,352	6.2
2014	602	3.6	35,459	6.0
2013	585	3.6	33,750	5.8

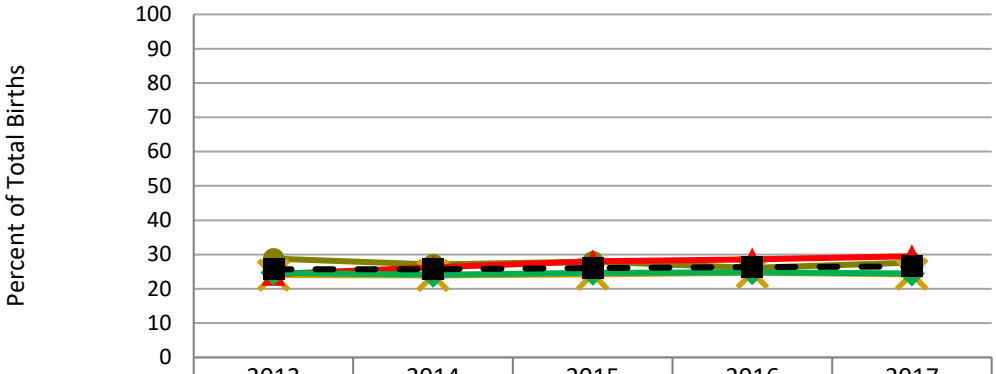
Source: Florida Department of Health, Bureau of Vital Statistics

Figure 12.4 Births to Mothers Who are at a Healthy Weight at Time of Pregnancy



Source: Florida Department of Health, Bureau of Vital Statistics

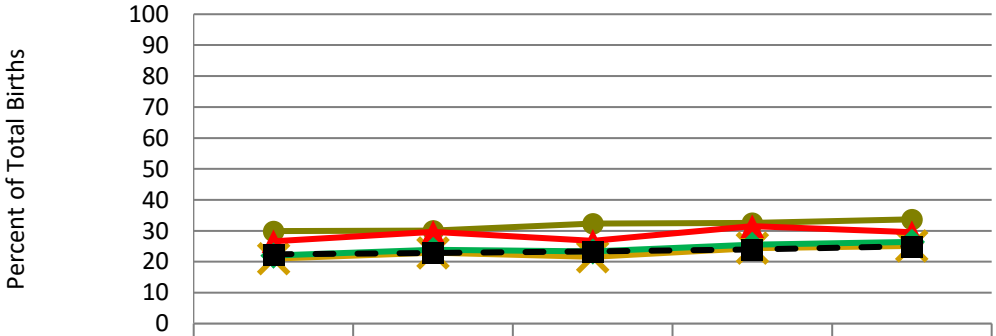
Figure 12.5 Births to Overweight Mothers at Time Pregnancy Occurred



	2013	2014	2015	2016	2017
Black	28.8	27.1	27.9	26.1	27.6
White	24.0	23.9	24.2	24.7	24.2
Hispanic	24.3	26.2	28.0	28.6	29.5
Volusia	24.7	24.1	24.7	24.8	24.5
Florida	25.7	25.7	26.1	26.3	26.5

Source: Florida Department of Health, Bureau of Vital Statistics

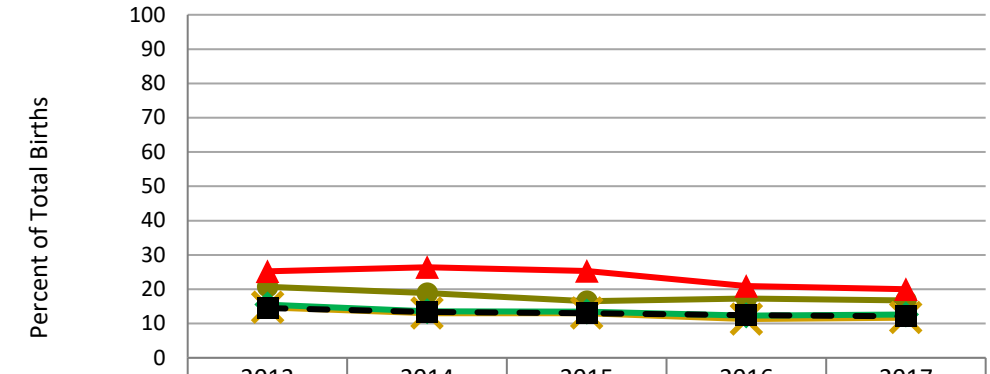
Figure 12.6 Births to Obese Mothers at Time Pregnancy Occurred



	2013	2014	2015	2016	2017
Black	29.9	30.1	32.3	32.5	33.7
White	21.0	22.9	21.6	24.4	25.1
Hispanic	26.6	29.6	26.8	31.5	29.5
Volusia	22.0	23.9	23.3	25.5	26.4
Florida	22.4	22.8	23.3	24.0	25.0

Source: Florida Department of Health, Bureau of Vital Statistics

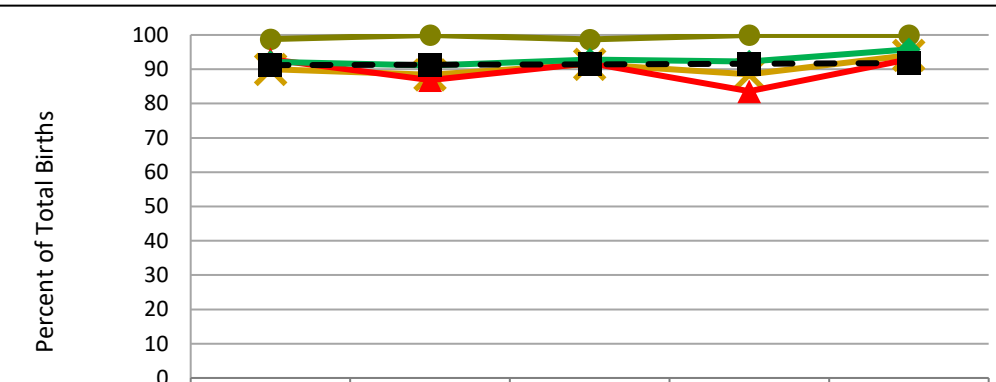
Figure 12.7 Births to Mothers with Less Than High School Education



	2013	2014	2015	2016	2017
Black	20.7	18.9	16.5	17.3	16.7
White	14.7	13.0	13.0	11.3	11.7
Hispanic	25.2	26.4	25.3	20.9	20.0
Volusia	15.5	13.6	13.5	12.3	12.6
Florida	14.5	13.4	13.0	12.4	12.1

Source: Florida Department of Health, Bureau of Vital Statistics

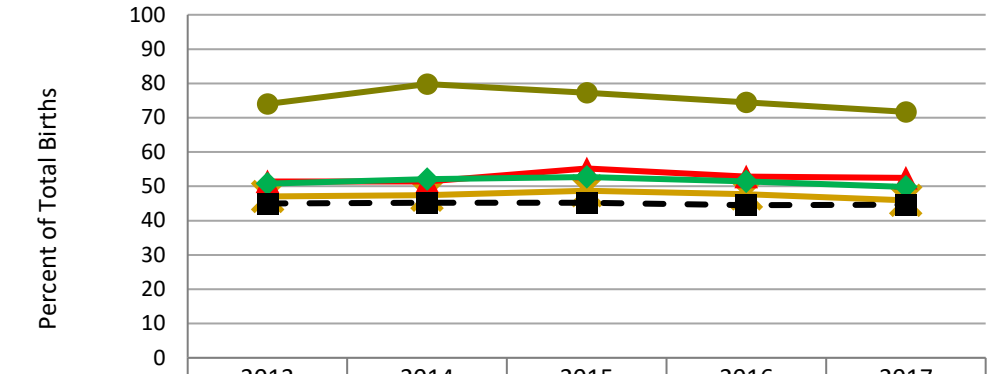
Figure 12.8 Births to Unwed Mothers, Ages 15-19



	2013	2014	2015	2016	2017
Black	98.8	100.0	98.7	100.0	100.0
White	90.0	88.4	91.5	88.5	94.1
Hispanic	92.9	86.8	91.8	83.6	92.9
Volusia	92.2	91.1	92.8	92.3	95.8
Florida	91.2	91.3	91.4	91.6	91.8

Source: Florida Department of Health, Bureau of Vital Statistics

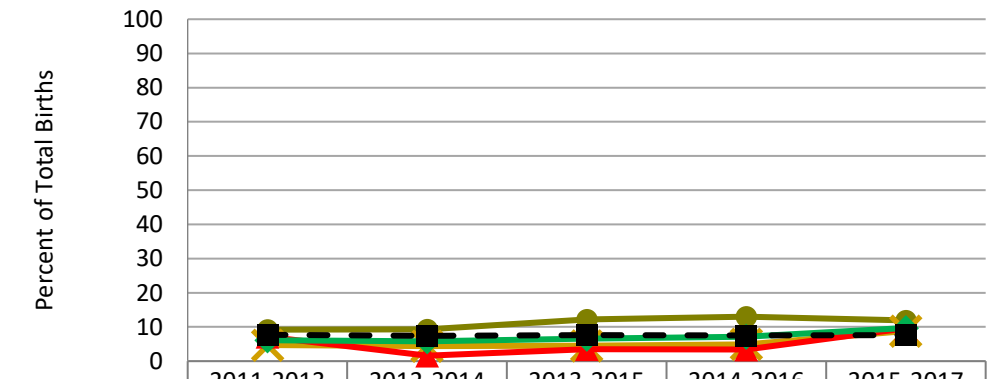
Figure 12.9 Births to Unwed Mothers, Ages 20-54



	2013	2014	2015	2016	2017
Black	74.0	79.8	77.3	74.5	71.7
White	47.0	47.4	48.7	47.7	45.9
Hispanic	51.4	51.4	55.2	52.8	52.5
Volusia	50.8	52.1	52.7	51.4	49.8
Florida	45.0	45.2	45.2	44.5	44.6

Source: Florida Department of Health, Bureau of Vital Statistics

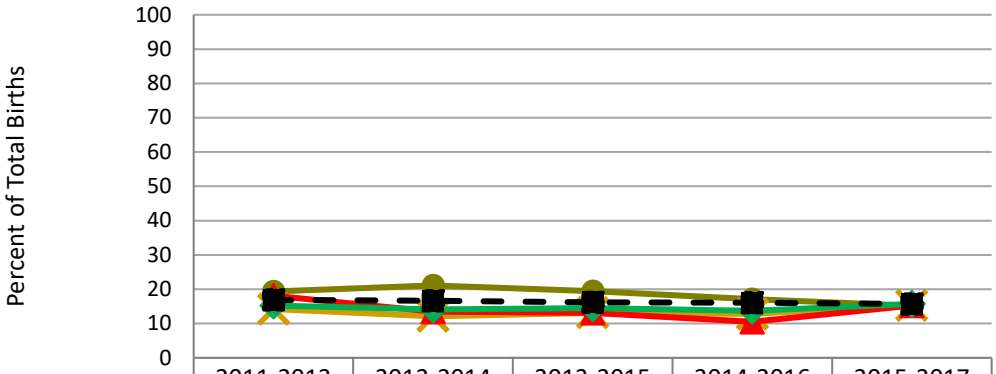
Figure 12.10 Repeat Births to Mothers, Ages 15-17, 3-Year Rolling Rates



	2011-2013	2012-2014	2013-2015	2014-2016	2015-2017
Black	9.2	9.3	12.2	13.0	11.9
White	4.7	4.4	4.5	4.9	8.8
Hispanic	7.1	1.6	3.5	3.4	9.6
Volusia	6.1	5.8	6.6	7.1	9.7
Florida	7.7	7.4	7.6	7.5	7.6

Source: Florida Department of Health, Bureau of Vital Statistics

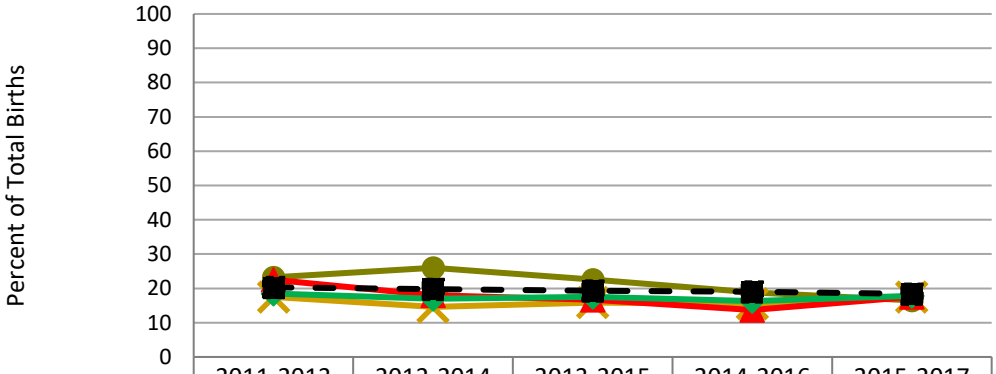
Figure 12.11 Repeat Births to Mothers, Ages 15-19, 3-Year Rolling Rates



	2011-2013	2012-2014	2013-2015	2014-2016	2015-2017
Black	19.3	21.1	19.4	17.1	15.2
White	14.2	12.1	13.1	12.8	15.3
Hispanic	18.1	13.5	13.1	10.5	15.2
Volusia	15.2	14.1	14.5	13.7	15.7
Florida	16.9	16.6	16.2	16.1	15.7

Source: Florida Department of Health, Bureau of Vital Statistics

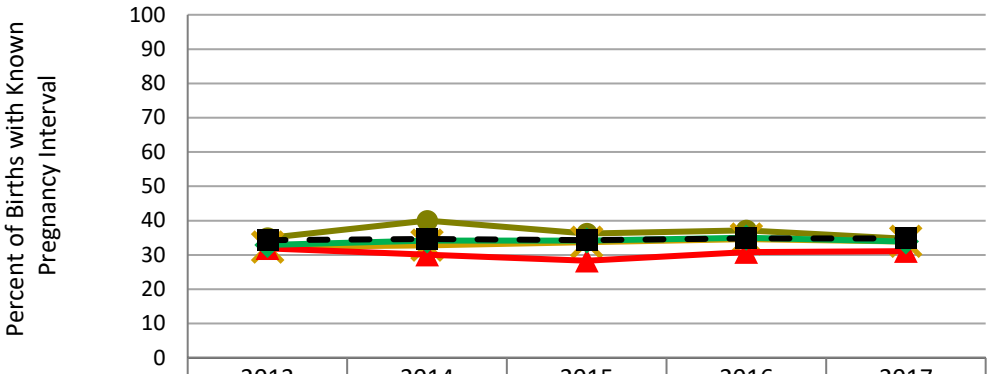
Figure 12.12 Repeat Births to Mothers, Ages 18-19, 3-Year Rolling Rates



	2011-2013	2012-2014	2013-2015	2014-2016	2015-2017
Black	23.2	26.0	22.6	18.8	16.5
White	17.5	14.6	15.9	15.5	17.5
Hispanic	22.5	18.0	16.7	13.7	17.5
Volusia	18.5	17.0	17.5	16.3	17.8
Florida	20.3	19.8	19.3	19.0	18.4

Source: Florida Department of Health, Bureau of Vital Statistics

Figure 12.13 Births with Inter-Pregnancy Interval < 18 Months



	2013	2014	2015	2016	2017
Black	34.9	40.0	36.2	37.2	34.7
White	32.3	32.8	33.7	34.6	33.9
Hispanic	31.9	30.1	28.3	30.8	31.1
Volusia	32.9	34.2	34.2	35.0	33.9
Florida	34.3	34.6	34.3	34.8	34.8

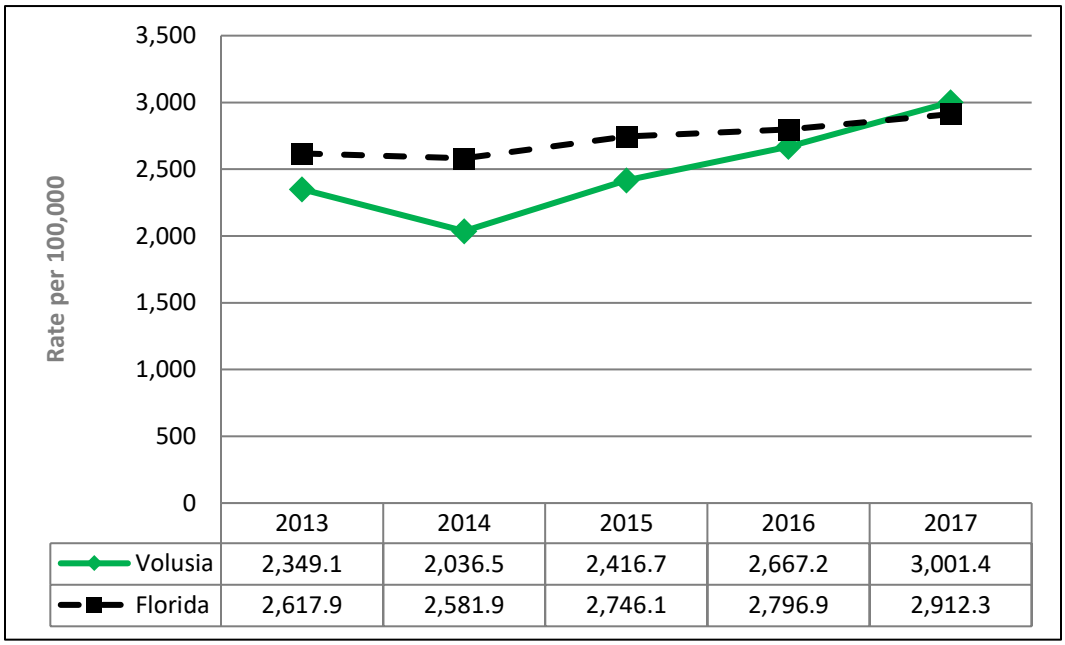
Source: Florida Department of Health, Bureau of Vital Statistics

Figure 12.14 Births to Mothers Who Smoked During Pregnancy

	2013	2014	2015	2016	2017
Volusia	12.7	12.1	11.5	10.1	9.5
Florida	6.6	6.4	5.8	5.1	4.8

Source: Florida Department of Health, Bureau of Vital Statistics

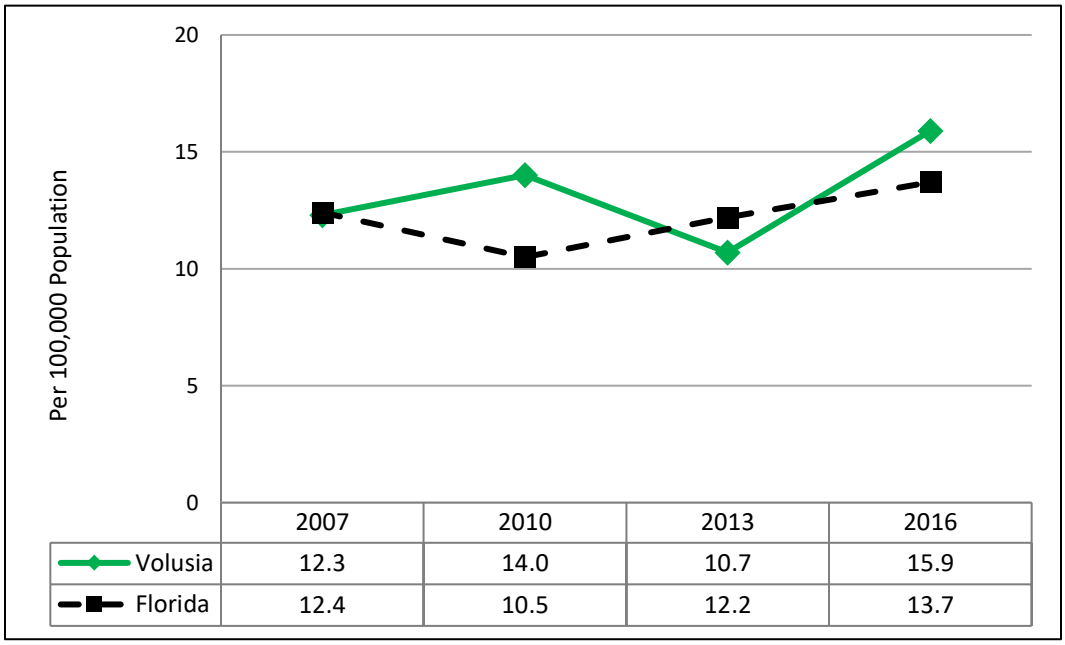
Figure 12.15 Bacterial STDs (Women Ages 15-34)



	2013	2014	2015	2016	2017
Volusia	2,349.1	2,036.5	2,416.7	2,667.2	3,001.4
Florida	2,617.9	2,581.9	2,746.1	2,796.9	2,912.3

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

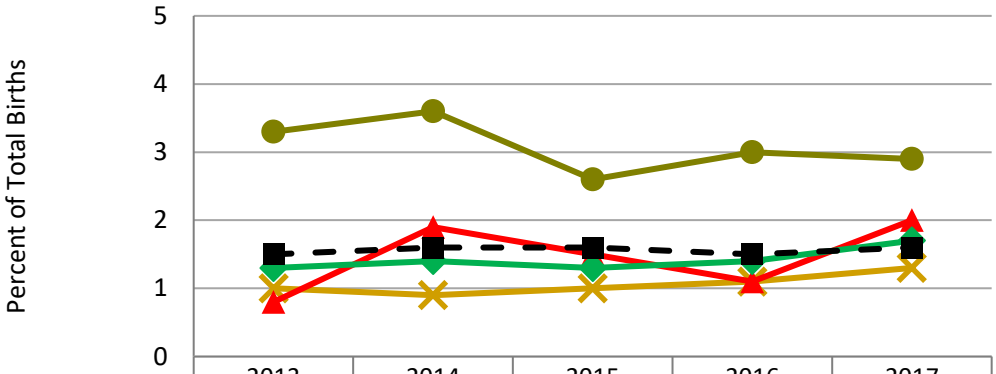
Figure 12.16 Females > 17 Who Engage in Heavy or Binge Drinking



	2007	2010	2013	2016
Volusia	12.3	14.0	10.7	15.9
Florida	12.4	10.5	12.2	13.7

Source: Florida Behavioral Risk Factor Surveillance System

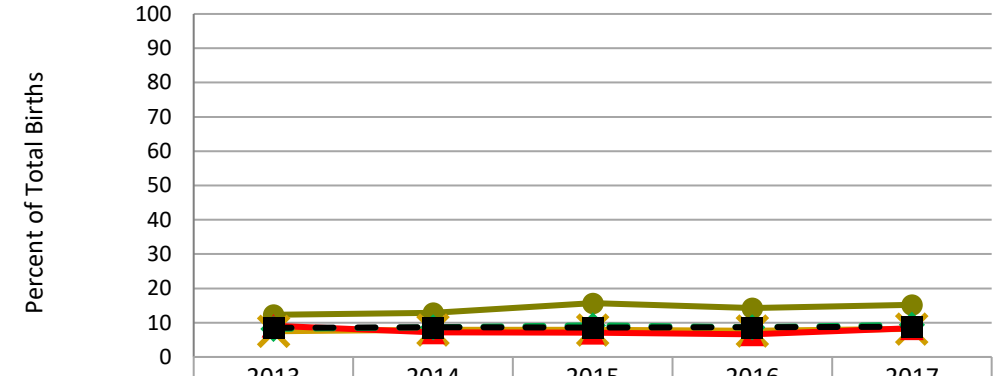
Figure 12.17 Very Low Birth Weight (Live Births Under 1500 Grams)



	2013	2014	2015	2016	2017
Black	3.3	3.6	2.6	3.0	2.9
White	1.0	0.9	1.0	1.1	1.3
Hispanic	0.8	1.9	1.5	1.1	2.0
Volusia	1.3	1.4	1.3	1.4	1.7
Florida	1.5	1.6	1.6	1.5	1.6

Source: Florida Department of Health, Bureau of Vital Statistics

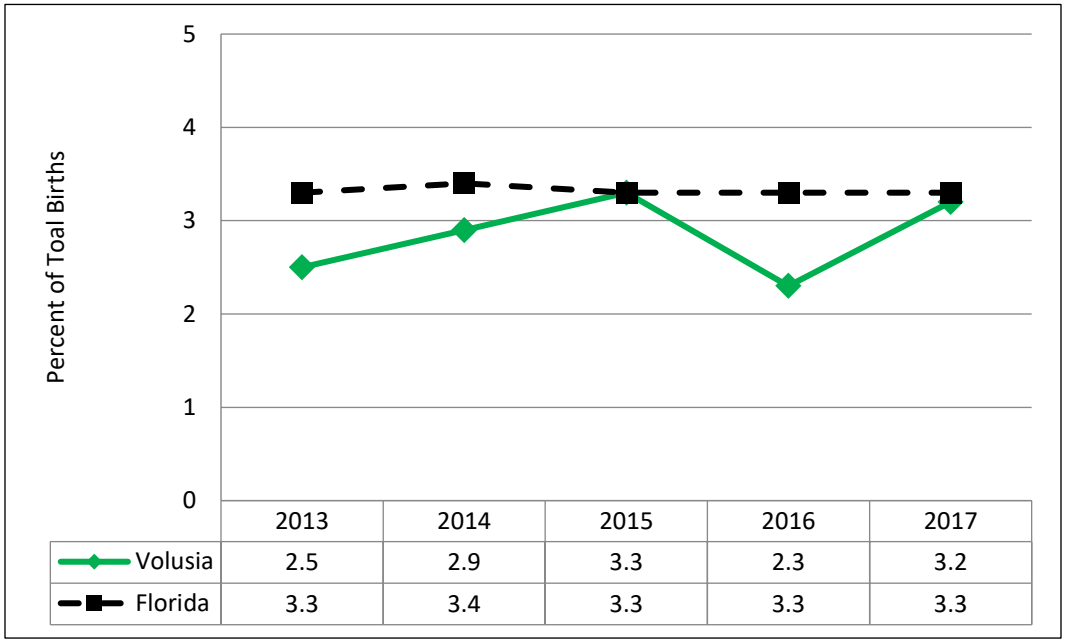
Figure 12.18 Low Birth Weight (Live Births Under 2500 Grams)



	2013	2014	2015	2016	2017
Black	12.3	12.9	15.7	14.3	15.2
White	7.5	7.9	7.9	7.6	8.2
Hispanic	9.1	7.2	7.1	6.6	8.4
Volusia	8.2	8.7	9.2	8.7	9.4
Florida	8.5	8.7	8.6	8.7	8.8

Source: Florida Department of Health, Bureau of Vital Statistics

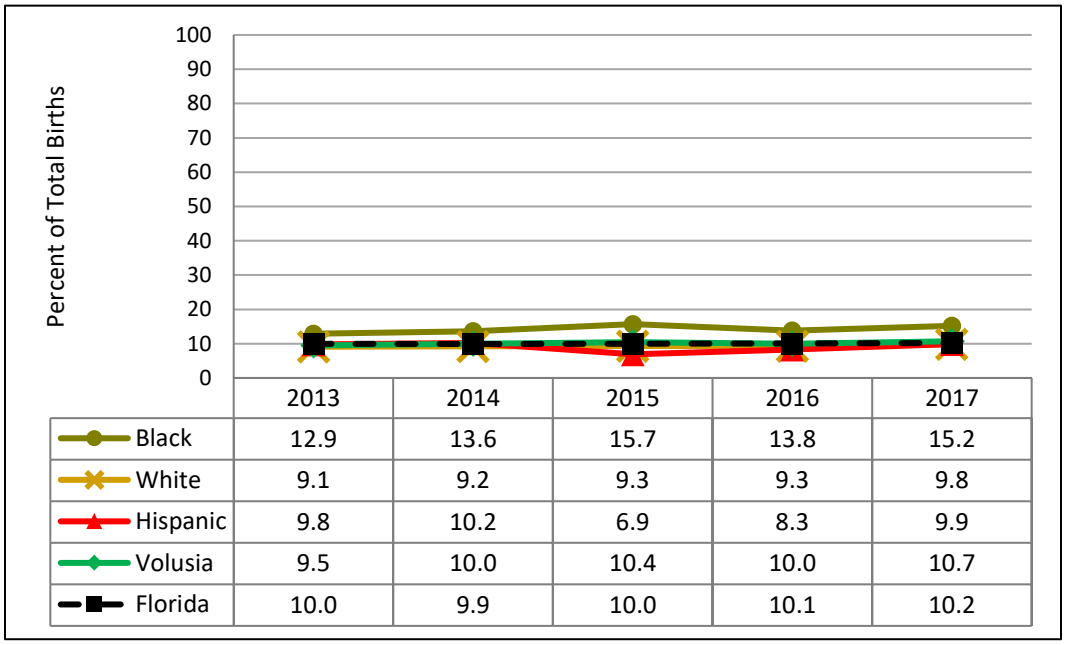
Figure 12.19 Multiple Births (Twins, Triplets, or More)



	2013	2014	2015	2016	2017
Volusia	2.5	2.9	3.3	2.3	3.2
Florida	3.3	3.4	3.3	3.3	3.3

Source: Florida Department of Health, Bureau of Vital Statistics

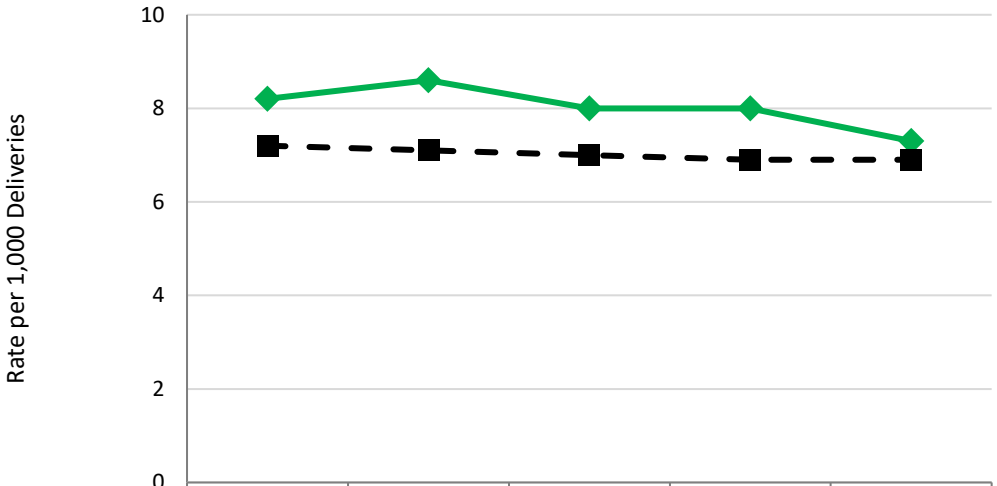
Figure 12.20 Preterm Births (<37 Weeks Gestation)



	2013	2014	2015	2016	2017
Black	12.9	13.6	15.7	13.8	15.2
White	9.1	9.2	9.3	9.3	9.8
Hispanic	9.8	10.2	6.9	8.3	9.9
Volusia	9.5	10.0	10.4	10.0	10.7
Florida	10.0	9.9	10.0	10.1	10.2

Source: Florida Department of Health, Bureau of Vital Statistics

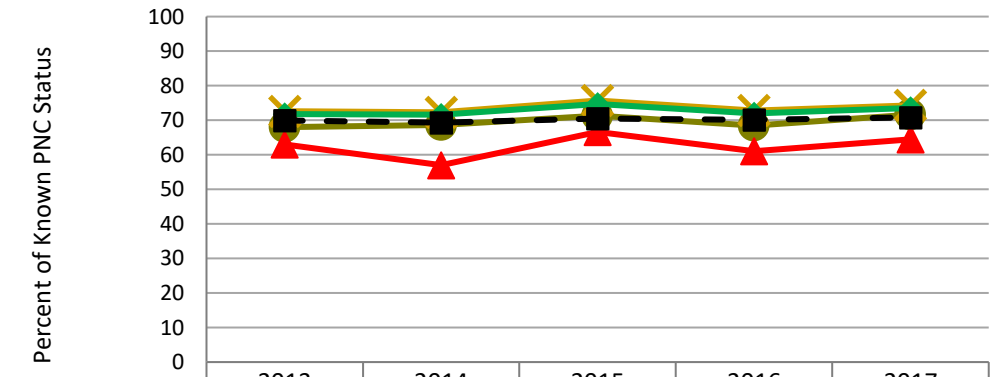
Figure 12.21 Fetal Deaths, 3-Year Rolling Rates



	2011-2013	2012-2014	2013-2015	2014-2016	2015-2017
Volusia	8.2	8.6	8.0	8.0	7.3
Florida	7.2	7.1	7.0	6.9	6.9

Source: Florida Department of Health, Bureau of Vital Statistics

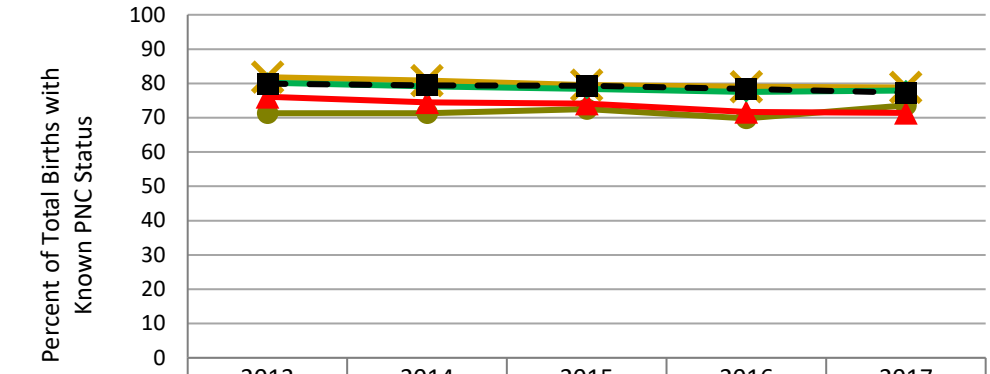
Figure 12.22 Births with Adequate Prenatal Care (Kotelchuck Index)



	2013	2014	2015	2016	2017
Black	68.0	68.6	71.3	68.4	71.6
White	72.6	72.3	75.7	72.8	74.3
Hispanic	63.0	57.0	66.6	61.0	64.5
Volusia	71.8	71.6	74.7	72.0	73.5
Florida	69.9	69.3	70.5	70.1	70.8

Source: Florida Department of Health, Bureau of Vital Statistics

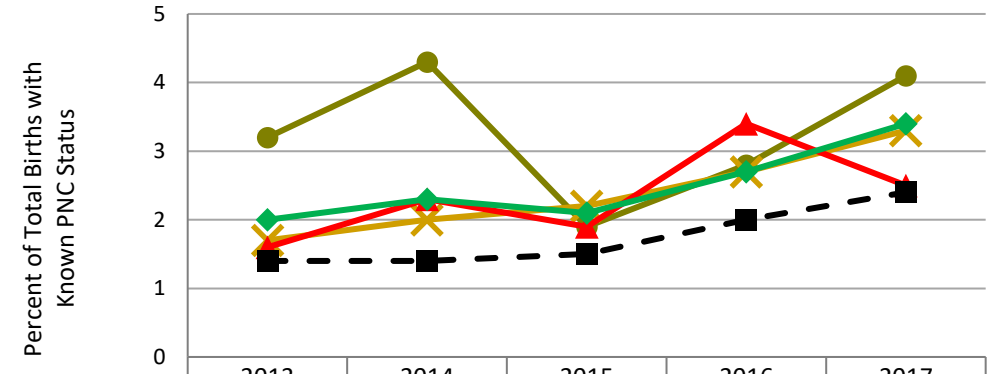
Figure 12.23 Prenatal Care Began in the First Trimester



	2013	2014	2015	2016	2017
Black	71.3	71.3	72.5	69.8	73.6
White	81.8	80.8	79.5	79.0	78.8
Hispanic	76.1	74.5	74.1	71.7	71.4
Volusia	80.2	79.1	78.4	77.5	77.9
Florida	79.9	79.4	79.3	78.4	77.3

Source: Florida Department of Health, Bureau of Vital Statistics

Figure 12.24 Births with No Prenatal Care



	2013	2014	2015	2016	2017
Black	3.2	4.3	1.9	2.8	4.1
White	1.7	2.0	2.2	2.7	3.3
Hispanic	1.6	2.3	1.9	3.4	2.5
Volusia	2.0	2.3	2.1	2.7	3.4
Florida	1.4	1.4	1.5	2.0	2.4

Source: Florida Department of Health, Bureau of Vital Statistics

Appendix A: Acknowledgments

The dedication, expertise, and leadership of many organizations and people made this 2019 Volusia County Community Health Needs Assessment (CHNA) possible. We sincerely thank everyone who made this project possible and look forward to collaboration on the health improvement strategies to be implemented. This shared ownership of community health among diverse stakeholders will be the cornerstone of our success.

Volusia County CHNA Partners

- **AdventHealth:** Deborah McNabb, Steve Jenkins, Russell Mariott, Ida Babazadeh
- **County of Volusia:** Dona Butler
- **Florida Department of Health in Volusia County:** Patricia Boswell
- **Halifax Health:** Bob Williams, Sharon Warriner

Florida Department of Health in Volusia County, Office of Planning and Performance Management

- Thomas Bryant III; Dr. Laureen Husband; Marisol Bahena; Lynn Kennedy; Akisia Hicks-German

Volusia County CHNA Leadership Team

- AdventHealth Daytona Beach: Ed Noseworthy, CEO; Stephanie Mellenberndt, Marketing Director; Ida Babazadeh, Community Outreach Representative
- AdventHealth DeLand: Sam Aguero; Ivy Guardiola-Torres
- AdventHealth Central Florida Division – North: Deborah McNabb, Community Benefits Director; Russell Mariott, Executive Director of Marketing; Steven Jenkins, Vice President of Strategy & Marketing; Clarissa Moholick
- Azalea Health: Laura Spencer, CEO
- Bethune-Cookman University: Deanna Wathington, Executive Dean, College of Health Sciences
- CareerSource, Christine Sikora, Vice President of Innovative Workforce Solutions
- Community Partnership for Children: Mark Jones, CEO
- County of Volusia: Dona Butler, Director of Community Services; Joe Pozzo, Public Protection Director; Councilmember Billie Wheeler
- Daytona Regional Chamber: Nancy Keefer, President and CEO
- Daytona State College: Amy Szoka, Chair, School of Nursing
- Department of Children and Families: Charles Puckett, Circuit 7 Community Development Administrator
- Early Learning Coalition of Flagler/Volusia: D.J. Lebo, CEO
- ElderSource: Janet Dickenson
- Family Health Source Medical Centers, Laurie Asbury, CEO
- Florida Department of Health in Volusia County: Patricia Boswell, Health Officer; Thomas Bryant III, Director of Planning and Performance Management; Lynn Kennedy, Community Health

- Halifax Health: Bill Griffin, Director for Strategic Planning; Bob Williams, Vice President Population Health Business Development; Sharon Warriner, Grant Writer, Business Development
- Healthy Start Coalition of Flagler/Volusia: Dixie Morgese, Executive Director
- LSF Health Systems: Dusty Pye, Chief Integration Officer
- Spring Hill Resource Center, Taylor Hibel
- Team Volusia: Heather Shubirg, Executive Vice President
- United Way of Volusia-Flagler Counties: Courtney Edgcomb, President
- Volusia County Schools: Kelly Amy, Manager of Strategic Partnerships
- Volusia/Flagler Behavioral Health Consortium: Ivan Cosimi, Chair
- Volusia/Flagler County Coalition for the Homeless: Jeff White, Executive Director

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 Planning and Performance Management. Special thanks are extended to the staff for their significant contribution to this project.

The majority of the data was pulled directly from the Florida Department of Health **Florida Health CHARTS** system that is an assemblage of data from over 25 programs and agencies. Throughout this document, the specific data source noted in the **Florida Health CHARTS** system was listed for each graph, table or map even if the data was gathered through the **Florida Health CHARTS** system.

FLHealthCHARTS
Community Health Assessment Resource Tool Set
www.flhealthcharts.com

American Health Resource Files
https://data.hrsa.gov/topics/health-workforce/ahrf

Baker Act Reporting Center, University of South Florida
https://www.usf.edu/cbcs/baker-act/

Centers for Disease Control (CDC)
http://www.cdc.gov/

Dartmouth Atlas Project
https://www.dartmouthatlas.org/

Feeding America, Map the Meal Gap
https://map.feedingamerica.org/

Florida Agency for Health Care Administration
www.ahca.myflorida.com

Florida Department of Children and Families
www.myflfamilies.com, http://centerforchildwelfare.fmhi.usf.edu/
Florida Safe Families Network Data Mart/Data Registry
Florida Youth Substance Abuse Survey
https://www.myflfamilies.com/service-programs/samh/prevention/fysas/

Florida Department of Education
www.fldoe.org
Education Information & Accountability Services; Office of Early Learning; Office of Safe Schools

Florida Department of Elder Affairs
http://elderaffairs.state.fl.us/

Florida Department of Health
www.floridahealth.gov, http://www.flhealthcharts.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; Division of Medical Quality Assurance; 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

Merlin, Florida's Web-Based Reportable Disease Surveillance System
http://www.floridahealth.gov

Shimberg Center for Housing Studies, Florida Housing Data Clearinghouse
http://flhousingdata.shimberg.ufl.edu/

SMA Healthcare
https://smahealthcare.org/

University of Florida, Drug-Related Outcomes Surveillance and Tracking System (FROST)
https://frost.med.ufl.edu/

University of Miami (FL) Medical School, Florida Cancer Data System
https://fcds.med.miami.edu/inc/welcome.shtml

University of South Florida, Baker Act Reporting Center
https://www.usf.edu/cbcs/baker-act/

U.S. Bureau of the Census
http://www.census.gov

American Community Survey, American Community Survey 1-year estimates, American Community Survey 5-year estimates; County Business Patterns

U.S. Department of Labor, Bureau of Labor Statistics
http://www.bls.gov

Volusia County Schools
http://myvolusiaschools.org

Volusia/Flagler County Coalition for the Homeless
http://www.vfcch.org/

Appendix C: Volusia County Focus Group Report

June 28, 2019

Compiled by the Florida Department of Health in Volusia County

Volusia County conducted its community health needs assessment using quantitative and qualitative methodologies. This report describes the qualitative efforts to gather feedback from the residents of the community. Focus groups were used to probe for qualitative information in a manner that typical surveys are unable to do. The focus group facilitators were able to gather in-depth feedback utilizing open-ended questions (see appendix). These questions allowed for interaction between group members which may encourage participants to make connections to various concepts through discussions that may not occur otherwise.

As a part of the 2019 Community Health Needs Assessment process, 16 focus groups were conducted throughout Volusia County from March to April. The goal was to conduct focus groups in seven populations – youth, college students, older adults, Spring Hill Community, Spanish speakers, maternal and child health groups and professional groups. The focus groups were 1-2 hours in length, digitally recorded and transcribed verbatim. The focus group facilitators explored residents' concerns about health, community, and access to healthcare and other resources that promote optimal health.

Qualitative analyses of the focus group transcripts, notes and audio recordings revealed themes within each group. Two themes were consistently identified across all groups – lack of housing and barriers to healthcare and social services.

- **Lack of Affordable Housing.** Participants discussed their frustrations and difficulties experienced related to their inability to afford or obtain housing throughout the county. Most participants agreed that having a safe and affordable place to live were key to living a healthy life. Many indicated that limited access to affordable housing was a burden that impacts their overall health and well-being. Similarly, other related barriers, such as poverty and availability of housing, were mentioned and agreed upon in many focus groups to be a problem.

- **Barriers to Accessing Healthcare and Social Services.** Participants discussed a range of factors they felt prevented them from accessing the care or services they needed. Lack of knowledge concerning resources, difficulty accessing mental health services, high cost, and lack of insurance were all cited as barriers to care.

This report summarizes the focus group findings by population group. Each population group section has a group profile that includes location, date and time, number of participants, list of primary themes, and a brief description of participant feedback. Following the focus group profiles is a more in-depth overview of primary themes and supporting quotes.

Focus Groups: Maternal Child Health

Focus Group Profile

Three maternal child health focus groups were conducted. Focus group 1 was conducted at the Derbyshire Place Community Center on Monday, March 11, 2019, at 6:30 PM. Five participants were in attendance. Focus Group 2 was conducted at The Chiles Academy on Tuesday, April 9, 2019, at 11 AM. Twenty participants were in attendance. Focus Group 3 was conducted at Healthy Start Coalition, Café Dialogue on Friday, April 26, at 6 PM. Thirteen participants were in attendance. A total of 38 women attended these focus groups. The primary themes identified were barriers to accessing healthcare and social services, affordable housing, and lost sense of community.

Barriers to Accessing Healthcare and Social Services

Barriers to accessing health care and social services was a prominent theme that emerged in the maternal child health focus groups. Participants discussed a range of factors they felt impeded their ability to receive care or services to address existing needs. Issues related to transportation, navigating medical insurance and feelings of "getting the run around" were reported.

- I remember having to walk down there to the health department, by where y'all use to be (before Keech St.), breathing machine and all. The bus schedules can't work; the bus is inconvenient.
- Then there's transportation and trying to get to doctor's appointments and groceries and having to get on the bus with a baby and groceries and you have to get back on those three buses just to get back to your place.
- We assume people have transportation, but they don't. We need a single, one place that people can go to for resources.
- I like what she was saying, have everything to come together in one place. Yes, we have these resources, but it's like going on an Easter egg hunt. They're hard to find. Nothing is coming together.
- I know it's hard to get the help. They send you on a goose chase. You go to one place and you tell them to go to another.
- My insurance, I have to pay $400, so for example my daughter's shots were late because I didn't have the money and transportation.
- I couldn't see an OBGYN until six months because all my doctors wouldn't take the Medicaid and that you have to be this many months until you can come in. I had to take $200 out of pocket for five shots.
- I have pregnancy Medicaid and no doctors accepted it.

In addition to these barriers, participants discussed the concern that they and residents they know had limited knowledge of the services available in their community.

- We need more outreach so people know what's available. We have a lot of different resources that people don't even know about. We need to take the resources to the community.
- We have to educate people on what they are and why they're important, and how to take advantage of them.
- Daytona State, it's an open institution, lots of programs that only take a semester or two, a lot of people don't know about it. People can get trained and get a foot in the door to a better job-better education.

Although some participants reported having limited information about resources and difficulty accessing healthcare and other services, those who were currently service recipients had positive experiences.

- We have enough resources around; you can pretty much get what you need if you look hard enough. I'm working with Healthy Start and Healthy Families, CPC, there's a lot that is connected. They'll help you find what you're looking for. I've called at six at night and they're still willing to help me, not a lot of places do that. I've been very lucky to have that, and so many resources. I'm lucky to have food stamps, I'm proud that I have that. Medicaid for the kids, I'm happy for that. Not everything in our community is bad. The only issues I have are with homeless and housing.
- I do feel like resource are limited but some people make excuses
- Nobody wants DCF involved, but when they are involved, they really do help. They help with food assistance, mental health, child health. Playgrounds, water parks, those are great to help build friendships. We have Stewart-Marchman for people who do have issues; it's a great resource. Lots of community resources. We need people there to help other people, and the more the better. I'm glad they're there so we can focus on fixing issues.

Lack of Affordable Housing

Lack of affordable housing was a significant theme in all focus groups. Participants expressed frustration with the lack of available and affordable housing throughout Volusia County. Participants recounted difficulties they, or someone they knew, experienced while seeking housing.

- Adequate housing, I feel that there's not a lot of support for people who may not be at the poverty level, but they still need help. I was looking for a new apartment, and I don't qualify for low-income housing, but I can't afford the regular apartments. There needs to be help for people who are self-sufficient but still can't afford housing.
- Affordable rent. I too recently was looking. We make enough to cover, but the rent is crazy, crazy high. Soon we'll need a three bedroom, but we can barely afford a two bedroom. Maybe putting a cap on the rent? The rates are crazy. The other thing we ran into-policy-they can't deny for you to live somewhere due to a criminal record. But we are both felons and that's why we had to move because we were kicked out. The big complexes wouldn't take us (background check). So, we find private renters, but where do you find them? I grabbed the first thing available, even if it wasn't what I wanted. Because there aren't many options.
- Above poverty level, but not at a sustainable income level. Can't qualify for food stamps, but can't make it by. Sometimes the check doesn't cover a place to live.
- More funding for housing, rent is too expensive, gentrification is a problem too, people being "bought out" – more government regulation on this.
- You look for an apartment if you're not on welfare. Go, but there's 40 other people on the waiting list as well but they only take 20 people. Are you going to be one of those 20 people? You have to make three times the amount of rent. A lot of times you have to then be employed for 6 months.

Homelessness

Many participants who experienced housing challenges also reported homelessness to be a major burden. They expressed the need to expand resources to the homeless population as well.

- I think we need more assistance for people who are experiencing homelessness, no matter what the reason is.
- We need feeding programs and funding for more resources like housing and homeless shelter.

- It's not a good place to raise children, but's it's an okay place to grow old. For me, there's a lot of homelessness. It's hard to raise kids because you'd have to be a hovering parent when they're outside.
- They're turning Westside Elementary into a senior center to help the homeless. And honestly, if there are a lot of people on the street that are homeless, I get that, I feel bad, but the justice system puts them there.

Lost Sense of Community
Lost sense of community was discussed across all focus groups. Participants explicitly described that there was "no sense of community" where they lived. Lack of community trust and safety and inability to depend on nearby neighbors were specified as contributing factors.

- I would like people to get back to sense of community. We have people who live next to each other but don't know each other. I'd like for people to have health and to feel empowered.
- There is no sense of community, you suppose to "love thy neighbor" and help each other out but nobody cares. Everyone lives in survival mode.
- There is no community or safety here (Daytona) and no community trust, nobody watching to see if you're okay.
- I'm not proud anymore. I mean there use to be lots of events at Derbyshire Park and community is like the backbone and love. We need to have something like take back your community event.
- People getting along, camaraderie, supporting the community in any way is important. There's a man in my neighborhood who picks up trash. It's some of those little things that makes the community better.

Diminishing Responsibility to Youth
Participants also discussed the community's diminishing responsibility to its youth and support programs. Participants reported the following concerns.

- I'd wish they'd bring back the big brother/sister program; more youth programs for teenage groups, so they don't have time to be on the street. In my day, there weren't so many electronics. Now they go to school and then there's nothing.
- I wish there more positive male role models in the community to reach out to the drug abusers, to help them. More financial resources available to the kids. Right now, especially the teenagers, they are out, just hanging out at street corners, getting quick money, there's no ambition. If things were structured like they used to be, I think youth would be on a better path.
- I wish there was some kind of structure in the police department. Like people get locked up for stealing a candy bar, and they can't get out of it because of who they were with. They pile on charges and charges and then they lose everything in an instant. They just assume that you stole it, they don't listen. We need a better justice system.

Focus Groups: Older Adults Ages 55 and Older

Focus Group Profile
Three older adult focus groups were conducted. Focus group 1 was conducted at the Florida Department of Health in partnership with the Parkinson Association on Thursday, April 18, 2019, at 11:00 AM. Eight participants were in attendance. Focus group 2 was conducted at an unincorporated neighborhood near Pierson, FL, on April 24, 2019, at 6:00 PM. Five participants were in attendance. Focus Group 3 was conducted at the Council on Aging dining site in Ormond Beach, FL, on June 7, 2019,

at 11:00 AM. Twenty participants were in attendance. A total of 35 women and men attended these focus groups. The primary themes identified were lack of affordable housing and lack of affordable healthcare and prescription medication.

Lack of Affordable Housing

The primary concern discussed by older adult participants was the lack of availability and affordability of housing for older adults living on a fixed income. A participant described the need for affordable housing to be an issue across all age demographics. Others in this group agreed. Participants explicitly reported limited access to transportation as a barrier to maintaining a level of independence as they age.

- Affordable housing is again another one of those pervasive issues and it cuts across age demographics. We look where we live. We were fortunate. We live in a beautiful place and what does that attract a lot of time? Services jobs - where do those people the waiters and waitresses live? So again, affordable housing for me that's a huge one again across all age demographics
- I wonder for people who are not really well off financially what it's like for older people? Is there affordable housing for senior citizens on fixed incomes and inexpensive affordable health care?
- We are lacking affordable housing; we need people who can help people living on Social Security.
- There is no support for the elderly in the community. Transportation services are needed.
- Transportation is a problem, I can’t drive at night, I have to pay $30 at night to Uber.

Homelessness

Participants ages 55 and older identified homelessness to be a growing issue over the many years they have lived in Volusia County. They discussed several community resources that pull together to feed and support the homeless population throughout the county. Faith-based organizations were the most frequently quoted support group. However, participants in all groups agreed that more assistance is needed to adequately help homeless residents.

- I hope your audio is listening. Countywide, we need places these homeless people can go and even if they're not literate I could say, “do you need help?” You can go here and here but I know that there has to be places. We need to put in place that help.
- I was just at my church the other day and we have a program for homeless people they get one day a week, one bag lunch. The church around the corner from me they feed the Homeless every Wednesday too.
- Yeah those are programs that are constantly being cut, the homeless issue is very pervasive. There's a lot going on with respect to that but with respect to the resources that seems to be the bigger issue how they allocate where it goes, who it's coming from who pitches in for homelessness. For example, they told the cities to kind of pony-up and build a center for these people to go to in western Daytona, but then it becomes “not in my backyard” type of thing in the city or the county finds that Port Orange doesn't want to pony-up because they don't have as much of a problem and it's more of a parochial type of problem. Then it is specific to one city.

Inability to Age in Place

Participants declared aging in place or aging comfortably outside of a healthcare facility as an important health outcome to achieve as they age. Furthermore, much like maintaining a sense of independence support by affordable housing and access to transportation, participants explicitly discussed the burden of feeling that assisted-living or long-term care facilities can be a possibility someday.

- To talk about these assisted living homes, forget about that that's not affordable housing. Let's face the reality I'm a baby boomer and to me that's a note like hey you better check into that before I'm the one that's in one of those facilities.
- What we used to do I know my grandmother lived with us and I think lived with others and she passed in hospice. My other grandmother died and was in long-term care facility and that's not how I want to go.
- If you're truly blessed, you can establish yourself so you can have a comfortable life so you can live out the rest of your life when you can't do as much for yourself. That doesn't always happen though; circumstances change.

Lack of Affordable Healthcare and Prescription Medication
Frustrations about the gaps in healthcare were addressed as participants recounted the circumstances they or someone they knew experienced. Participants articulated limited medical coverage and the burden of expensive medication as their primary concerns.

- Particularly the cost of medication I know personally from the work I do with the guardianship people just can't afford their medications and having to decide which medicines to take. That's not right in this country. Somebody needs to do something.
- That is a big problem. It's aggravating when you see in Europe they pay about a third that we pay. The drug companies don't want to lower the prices.
- For older people, instead of making things easier, say you rely on food stamps or Medicaid as you get older, it decreases. My mom is 72, and they cut her food stamps down to $20. How do you live on $20? She gets Medicaid but she has to reach a share of cost. But it's so high, she can never reach that amount. It's wonderful that you want to build up the community and make it beautiful. That money could be going to people, helping people, making sure people are taken care of and their needs are being met. It's really hard for a person to live in beauty when it's a constant struggle.

Chemical Environmental Hazards
One participant discussed living with poorer health since working at the ferneries. The entire group agreed that they, or someone they know, felt the field work was bad for their health. Additionally, exposure to harmful chemicals was described as a contributor to the adverse health outcomes some participants experience.

- Work in the fields is affecting their health: arthritis, cancer, infections and they don't feel they get help, specially from the current U.S. president
- There are no benefits from working so many years in the fields. The chemicals at work are killing us.
- Our septic tanks get too full and run into the waterways polluting the waterways

Focus Groups: Spanish Speakers

Focus Group Profile
Three Spanish-speaking focus groups were conducted. Focus group 1 was conducted at the Farmworkers Association in Pierson, FL, on Thursday, April 4, 2019, at 5:00 PM. Eight participants were in attendance. Focus group 2 was conducted at the Family Health Source in Pierson, FL on Thursday April 11, 2019, at 4:30 PM. Five participants were in attendance. Focus group 3 was conducted at the Farmworkers Association on June 13, 2019, at 5:00 PM. Eighteen participants were in attendance. A

total of 31 participants attended the focus groups. The primary themes identified were youth delinquency and the need of engagement, lack of community resources, low access to services and transportation and infrastructure improvements.

Youth Delinquency/Engagement

Pierson focus group participants highlighted several concerns with the youth of their community. Residents identified use of illicit drugs, dealing/selling drugs, school drop-outs, and engaging in promiscuous sexual behavior as the risky behaviors of youth. Lack of healthy activities for students after school and over the summer were identified as issues of concern as well. Below are some of the direct quotes from the focus group discussions.

- We have a playground, but we need more recreational activities for our youth to stay off drugs and other inappropriate activities.
- We need recreational parks for our youth.
- One of the most significant concerns is low level of education and students that drop out of school.
- It was reported that students are having sex in the bathrooms.
- School staff should randomly check everyone without notice to catch the perpetrators.
- Adolescents having sex start having children and their children follow their footsteps.
- We heard of a twelve-year old student who took a knife to school and almost stabbed a classmate.

Lack of Community Resources

Participants articulated the lack of a community center (like the YMCA) for families to gather and exercise as a barrier. They explained that there is enough land in Pierson to build such a facility. They observed that playgrounds close early, and this does not give those who work until 5:00 PM a chance to utilize them. Below are direct quotes from the focus group discussions.

- One of the most significant concerns in the community is the lack of sports opportunities for the Hispanic community.
- We have play fields, but we need organizers/leaders to set up teams.
- We would build a YMCA or such place in Pierson for families if we had unlimited resources and power.
- Recreation park for parents and children to have fun and relax.
- Recreation for the whole family would be fantastic (like YMCA). There are a lot of empty lots to build something where people can exercise and learn how to swim.

Barriers to Accessing Services

Participants noted that for the Hispanic community, language is often a barrier to access services. The location of services was also described as a barrier as well as not having health insurance. Below are direct quotes from this discussion.

- Immigrants, farmworkers, and Black residents are affected more due to lack of health insurance when trying to access help or care.
- Bilingual services are needed, such as bilingual doctors.
- Language barrier is one of the reasons for the most significant concerns in the community.
- A dentist is needed. They took away from us the one in Pierson and the dental clinic from the health department in DeLand.
- The Family Health Source is the only medical facility nearby. DeLeon Springs has nothing. Pierson is far from the city.

Transportation and Infrastructure Improvements
Participants expressed feelings of appreciation for Pierson's small-town atmosphere. They would like to keep it this way, but felt the need for extended Votran routes, more employment opportunities, improved street lighting, more community resources, and crime interventions. Some participants also described experiences with discrimination. Below are some direct quotes on this theme.

- Discrimination is one of the most significant concerns in the community that impacts the way we live, learn, work, and play.
- There is lack of employment opportunities; only ferneries.
- There is pesticide contamination. Chemicals are killing us!
- We need public transportation available more often. Votran only comes in the morning and in the evening.
- Crime is one the most important issues that must be addressed to improve the quality of life in our community.
- We need more lighting in the park to walk in the evenings and there is not enough street lighting.
- Pierson is a good place to raise kids and grow old, but not so much for those in between as they must leave or travel far for employment opportunities
- Society, crime. The way it has become over the years, can't even go to the store without being scared. Fix crime, people would not be as nervous.

Focus Group: College Students

Focus Group Profile
One college focus group with ten students was conducted at Bethune-Cookman University on Wednesday March 20, 2019 at 5:30 PM. Primary themes identified were lack of affordable housing, lack of community engagement and low access to health services.

Lack of Affordable Housing
Participants made several comments relating to the affordability and attainability of housing in the Daytona Beach area. Most participants agreed that having a safe affordable place to live is an important aspects of their health. Concerns around the high cost of apartments and the even higher cost of living on campus were mentioned. It was noted that living off campus introduces more food-related expenses. A sentiment expressed by one participant, and agreed upon by the entire group, was that at times their attention has shifted from school to working to maintain stable housing. They stated that this has changed their focus from their primary reason for moving to Daytona Beach – getting a college education.

- Housing is a concern for me because if I can't afford it then I need to get a job and it causes me to lose track of the real reason I'm here (school). You start worrying about bills and you're not able to study as much.
- Sometimes staying on campus is out of the question. For the amount that you pay, you might as well stay off campus.
- There should be some type of program where college students can get cheaper meals. Some nights we don't have money, and it's like what are we going to eat? They make us pay out of pocket to get food on campus if we don't live on campus anymore.

- This community does not support college students, especially the ones at Bethune-Cookman. I feel like it's harder for us. It's hard to get housing or the housing is too expensive for the college student to afford it.

Lack of Engagement

A sense of disconnect from the Daytona Beach community was expressed by all student participants. Crime and violence surrounding Bethune-Cookman were cited as one of the main reasons they disengage from the local community. Most participants said they were from cities that do a better job at engaging young adults and providing resources. The student participants indicated it is unlikely they would stay in the Daytona Beach area after graduation for these reasons.

- We always getting text saying stay clear of this or that from the school. Shooting here or robbery there.
- Being from Miami, I feel like the culture is rich there. Everybody is doing something, so you can dream bigger there.
- I feel like it (crime) kind of stopped our college experience because we can't have much events because of safety problems.
- It's always something that's going on in Miami. Down there you know somebody that can connect you. That may just be because I'm not from Daytona.
- In Orlando, we have homeless people, but in Daytona you have homeless people everywhere. They have places to go but I guess they don't go to those places.
- I would prefer to raise my children in a city in a busier area. I would probably move back home or go to Orlando. Something that's a little faster pace. You have accessibility to more things.

Barriers to Health Resources

All participants encountered significant barriers to receiving health/medical care while in school. This was especially true for students who were no longer on their parent's insurance or were from out of state.

- I think it should also be like free clinics for people who don't have insurance. If you go a while without getting needed treatment, it could eventually lead to a real concern. A lot of students don't have their primary care doctor to get regular checkups so maybe that would work.
- We don't even have a nurse or a physician's assistant in the campus clinic. All we can get are band-aids and condoms.
- They sometimes do testing, but only once a month, and it's only the first 25 people free.
- Out-of-state college students are impacted (the most). Because Florida residents have access to different benefits than people out of state. Like (lower) school cost.
- They tell us to go to urgent care, but that cost 100 dollars.
- Half of us aren't even from here. Then you get here, and you don't know what's going on. You get told one thing and then it's another. Like the clinic and thinking they did more. I think the locals know where to go and what to do.

Focus Group: Professionals

Focus Group Profile
One professional group was conducted at the Daytona Beach Chamber of Commerce. The Non-profit Roundtable focus group was on March 22, 2019, at 8:30 AM. Fourteen participants were in attendance. The primary themes identified were youth are our future, low access to mental health services, building relationships, increased multigenerational communication, access to quality education, and access to care. Key thoughts were recorded.

Youth
Participants repeated ideas of how the youth are our future. They supported an early start to help youth be physically healthy and to show them how to dream. Participants explained that we must provide youth with the mentorship and support needed to achieve their dreams.

- Youth physical activity leads to decreased obesity. Free programs with nutritional information are needed.
- Mentors are very important for elementary-aged children. Youth need a new lens interjected to show them future possibilities.

Mental health
Participants explained that mental health services are difficult to secure for adults and children. The group felt that trauma must be identified and addressed earlier to prevent mental health issues later in life.

- It is hard to get children into counseling. There is a long wait for appointments.
- (Physicians) are too quick to write a prescription. It's good for doctors to interview you every visit. We need to convince payors this is important.

Lack of Supportive Relationships
Participants discussed how better relationships lead to better communities and that quality relationships are most important. It was explained that if we spend time with family, know our neighbors and support our community, we can have safe, secure and healthy communities. Participants explained further that we must love everyone just a little bit more, help others more, and promote a community of loving all.

- The direction is shifting to alignment. There are more organizations working toward the same goal. Our community is more connected to one another than other communities. We still wave to one another even if we don't know each other.
- We need to tell the story of individuals to humanize the issues and bring it back to relationships.

Lack of Multigenerational Communication/Support
Participants described the need for greater intergenerational communication and support. It was expressed that we must connect older age persons in the community with the youth. One participant believed that fathers should accompany young sons to doctor visits.

- We need more older people accompanying younger people to pass down generational knowledge.

Lack of a Quality Education
Participants agreed that access to quality education without cost should be available for all. It was suggested that early education be made available, so all children start school at age 5 ready to learn.

This would help close the gap between racial and income groups. Participants explained that school must be more than a factory for supplying the workforce.

- Fund education for 15-18 student/teacher ratio
- Teaching children the way they learn - the autism rate is 1 out of 5

Barriers to Accessing Care

Participants explained that there continues to be barriers to accessing health/medical care. They noted that lack of program funding, health care costs, lack of knowledge, and fear make it difficult to proceed with obtaining the proper care.

- Removing barriers to care – making access to care easier in a non-judgmental way.
- Health care coverage is increasing in cost. It's becoming unaffordable even for successful people. Out-of-pocket costs result in hard choices to make.

Focus Groups: Youth

Focus Groups Profile

Four youth focus groups were conducted. Focus group 1 was conducted at Silver Sands Middle School on March 15, 2019. Eight students participated. Focus group 2 was conducted at DeLand High School on March 27, 2019. Ten students participated. Focus Group 3 was conducted at DeBary Elementary on March 27, 2019. Fifteen students participated. Focus Group 4 was conducted at the Boys and Girls Club, Daytona Beach. Ten students participated. A total of 43 students participated. The primary themes identified were lack of school preparedness, influence of social media, substance abuse, and school safety.

Lack of School Preparedness

The lack of school preparedness was the overarching theme during focus groups among school aged children. Students expressed not feeling prepared for college, stressed to pass the test, and not being taught life skills. A good education has the power to change a life. Education is what provides the tools and skills needed for navigating through life. Education is essential for nearly every type of job or career. Below are some of the direct quotes from the focus group discussions.

- School is focused on testing outcomes, not on learning. I feel unprepared for college.
- School is not inclusive to all learning types.
- Preparation for graduation is very stressful. You have to complete volunteer hours, extracurricular events for college entry, all while maintaining grades.
- Students lack life skills needed for everyday life. I'm clueless about how to fill out an application for college.
- Teachers express their dissatisfaction of the job and being underpaid to students.

Negative Impact of Social Media

The influence of social media was identified as a theme during student focus groups. Many popular social media frequented by youth – include Facebook, Twitter, Snapchat and Instagram – can have both positive and negative impacts on youth. Students expressed their concerns about social media among school aged children.

- Some teens use social media (texting, blogs, social networking, etc.) to harass, threaten, or embarrass a peer.

- Students compare themselves to unrealistic body images, which leads to depression, drug abuse, eating disorders, and lack of self-acceptance.
- Kids are addicted to electronics.

Substance Abuse
Substance abuse is the harmful pattern of using substances. This can include alcohol, illegal substances, medicines that doctors prescribe to treat illness, or common over the counter medications. Substance abuse/drug use among youth can lead to problems at school, cause or aggravate physical and mental health-related issues, promote poor peer relationships, cause motor-vehicle accidents, and place stress on the family. Students expressed their concerns about drug use/abuse among school-aged children.

- Lots of kids are experimenting with drugs on and off campus.
- Kids are unaware of the real dangers of drug use/abuse.
- Parents are not always aware that their child is experimenting with drugs. They may work a lot.
- Students feel that this problem (drug use) stems from peer pressure, depression and trying to fit in.
- Drugs mentioned during focus groups include Vaping, Juuls, K2, Marijuana, pills.

School Safety
School Safety and gun violence were themes that emerged in all the youth focus groups. In the wake of several mass shootings on school campuses across America, students expressed their concerns about feeling safe on campus. Mock drills are conducted across schools in the county to train students and school staff on what to do if a situation was to arise on campus.

- School administration does not listen to student concerns.
- Why are guns more important than my life?
- I don't feel safe.
- Schools are getting threats.
- Drills are scary.

In addition to the primary themes, students were asked the question, "What does success look like for you and other young people?" The following were reported:

- Fulfilling my passion in life.
- Achieving goals based off of personal standards.
- Seeing things from a different perspective and relating them to life.
- Moving away from expectations of your peers and finding your true calling.
- Doing things that give you pride, self-love and self-confidence.

Focus Groups: Spring Hill Community

Focus Groups Profile
Two focus groups were conducted at the Spring Hill Resource Center in the Spring Hill community of DeLand, FL. Focus group I was conducted on April 4, 2019, at 4:00 PM. Eighteen participants were in attendance. Focus group II was conducted on June 5, 2019, at 5:00 PM. Seventeen participants were in attendance. A total of 35 residents were in attendance. The primary theme identified was criminal history and its associated barriers.

Criminal History
Criminal backgrounds were revealed in the Spring Hill community focus group as a primary barrier to obtaining employment and housing. Participants discussed other issues related to limited educational and professional experience. Participants who had felonies on their record faced a particularly hard time securing gainful jobs and housing.

- I am a felon. I have 35 felonies. I can't even get a job at Burger King, only at the Salvation Army. They should make jobs for everyone.
- When people can't find housing or employment that is where the excessive criminal behavior develops.
- There are lots of homeless looking for housing. They have no access to it with a criminal background/felony.
- I'm having a hard time because I cannot pass a background check to get a job or apartment.
- When asked what their wish was for their community, one resident stated "Jobs for felons."
- I went to school. I am a Medical Assistant, but no one will hire me because I have no experience.

Focus Group Questions

A. What makes you most proud of our community?

B. What is the most important issue impacting you and other people you know? Why? In other words, what keeps you up at night?

C. What would success or improvement look like for you and other people in your age group? Why?

D. If you had unlimited resources and power and were granted 3 wishes for Yourself what would they be?

E. If you had unlimited resources and power and were granted 3 wishes for your Community what would they be?

F. What do you believe are 2 to 3 most important characteristics of a community?

G. What are the most significant concerns in the community that may impact the way you live, learn, work, and play?

H. What are the main reasons why these concerns are present?

I. What **assets/resources** does your community or neighborhood have that can be used to improve where you live, learn, work, and play?

J. Is your community or neighborhood a good one to raise children and grow old in, is there a difference between the two? If so, what's the difference?

   i. Prompts: What makes it good or bad? What can make it better?

K. What do you believe are the top 5 issues that must be addressed to improve the quality of life in your community or neighborhood?

Appendix D. 2019 County Health Survey Instrument

Spanish version also available

Creating a Healthier Flagler & Volusia: 2019 Community Survey

We need your assistance to better understand the health of Volusia & Flagler counties. You can help by completing this health survey. The survey results will be used to compile the community health needs assessment. Thank you!

1. Where do you live? ☐ Flagler ☐ Volusia ☐ Another Florida County ☐ Outside of Florida **2. Zip code:** _____

3. How do you rate your overall health? (Check ONE) ☐ Excellent ☐ Good ☐ Fair ☐ Poor ☐ Don't know

4. Check up to 5 things that allow YOU to be healthy where you live:

- ☐ Churches or other places of worship
- ☐ Access to health care
- ☐ Places where I can be active & safe
- ☐ Access to public transportation
- ☐ Affordable and/or available housing options
- ☐ Access to social and mental health services
- ☐ Good place to raise kids
- ☐ Good jobs, healthy economy
- ☐ Good education
- ☐ Safe neighborhood/safe to walk
- ☐ Preventative health care
- ☐ Clean and healthy environment
- ☐ Absence of discrimination
- ☐ Presence of advanced medical technology
- ☐ Good place to grow old
- ☐ Schools focused on children's health
- ☐ Access to healthy foods
- ☐ Other _____

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
- ☐ Infant mortality/infant death
- ☐ Sexually transmitted diseases
- ☐ High blood pressure
- ☐ Unemployment
- ☐ Cholesterol
- ☐ Addiction – alcohol or drug
- ☐ Mental health problems
- ☐ Cancer
- ☐ Diabetes
- ☐ Motor vehicle crash injuries
- ☐ Firearms in homes
- ☐ Dental problems
- ☐ Smoking/tobacco use
- ☐ Homelessness
- ☐ Child abuse/neglect
- ☐ Teenage pregnancy
- ☐ HIV/AIDS
- ☐ Domestic violence
- ☐ Adult obesity
- ☐ Childhood obesity
- ☐ Violence (rape, assault, crime, etc)
- ☐ Access to healthy food/grocery stores
- ☐ Other _____

6. Check up to 5 unhealthy behaviors YOU are most concerned about in your county:

- ☐ Alcohol/drug abuse
- ☐ Poor nutrition/poor eating habits
- ☐ Dropping out of school
- ☐ Mental health problems/stress
- ☐ Poor dental/oral health
- ☐ Lack of exercise
- ☐ Not getting "shots" to prevent disease
- ☐ Not using birth control
- ☐ Discrimination
- ☐ Overuse of emergency rooms
- ☐ Tobacco use
- ☐ Unlicensed and/or unsafe drivers
- ☐ Unsafe sex (teen & adult)
- ☐ Being overweight/obese
- ☐ Other

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

- ☐ Alternative therapy
- ☐ Dental/oral care
- ☐ Emergency room/Inpatient care
- ☐ Family planning/birth control
- ☐ X-rays/mammograms/lab work
- ☐ 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
- ☐ Prenatal care
- ☐ Mental health/counseling
- ☐ Physical therapy/rehab therapy
- ☐ Vision/eye care
- ☐ Other

8. 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
- ☐ I don't have good health insurance
- ☐ I can't get to somewhere I can exercise
- ☐ I don't exercise
- ☐ None, I don't have any barriers
- ☐ I can't get to somewhere that sells healthy food
- ☐ I can't exercise outside
- ☐ It's hard or expensive to cook/eat healthy
- ☐ Other _____

9. 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
- ☐ Language barriers
- ☐ Need for senior services
- ☐ Have no regular source of care
- ☐ Lack of evening and/or weekend services
- ☐ Long waits for appointments
- ☐ No one to turn to for help
- ☐ Lack of daily needs for survival
- ☐ Coping with loneliness
- ☐ Coping with depression
- ☐ Racial discrimination/lack of respect
- ☐ Medical debt
- ☐ Lack of phone access
- ☐ I don't have insurance
- ☐ Coping with loss/grief
- ☐ None, I don't have any barriers
- ☐ Other_____

Please continue to page 2.

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10. How is your health care covered? (Check ALL that apply):

- ☐ Insurance: your or a family member's job
- ☐ Insurance you pay for personally
- ☐ Medicare
- ☐ Military coverage/VA
- ☐ Medicaid – your own
- ☐ Pay cash
- ☐ Don't have health insurance
- ☐ Other _____

11. 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
- ☐ Other family members or friends
- ☐ The local health department
- ☐ Hospital emergency room
- ☐ Local place of worship or neighborhood group
- ☐ School nurse/teacher/counselor
- ☐ I don't know
- ☐ Other _____

12. Do problems getting child care make it difficult for you to work or study?	☐ Yes	☐ No	☐ Not applicable
13. Are you afraid you might be hurt in your apartment building or house?	☐ Yes	☐ No	☐ Don't know/not sure
14. Are you worried or concerned that in the next 2 months you may not have stable housing that you own, rent, or stay in as part of a household?	☐ Yes	☐ No	☐ Don't know/not sure
15. Do you have a safe place or is there someplace where you feel safe?	☐ Yes	☐ No	☐ Don't know/not sure

Within the last 12 months:

16. Has the utility company shut off your services for not paying your bills?	☐ Yes	☐ No	☐ Don't know/not sure
17. Did you ever eat less because there wasn't enough money for food?	☐ Yes	☐ No	☐ Don't know/not sure
18. Did you worry if your food would run out before you got money to buy more?	☐ Yes	☐ No	☐ Don't know/not sure
19. Was there a time you needed to see a doctor but could not because of cost?	☐ Yes	☐ No	☐ Don't know/not sure
20. Ever had to go without health care because you didn't have a way to get there?	☐ Yes	☐ No	☐ Don't know/not sure

21. How often do you feel that you lack companionship?	☐ Never	☐ Hardly ever	☐ Sometimes	☐ Often
22. How often do you feel left out?	☐ Never	☐ Hardly ever	☐ Sometimes	☐ Often
23. How often do you feel isolated from others?	☐ Never	☐ Hardly ever	☐ Sometimes	☐ Often

Demographics:

24. Age: ☐ less than 18 ☐ 18-24 ☐ 25-34 ☐ 35-44 ☐ 45-54 ☐ 55-64 ☐ 65+

25. Marital Status: ☐ Single ☐ Married ☐ Divorced ☐ Widowed

26. Gender: ☐ Female ☐ Male

27. Race: With which group do you most identify? (Check ONE selection)

- ☐ Black/African American
- ☐ Mixed Race
- ☐ Asian
- ☐ Hawaiian Native/Pacific Islander
- ☐ White/Caucasian
- ☐ Native American/Alaskan Native
- ☐ Other _____

28. With which ethnic group do you most identify? (Check ONE selection) ☐ Not Hispanic/Latino ☐ Hispanic/Latino

29. Education: Please check the highest level completed: (Check ONE selection)

- ☐ Elementary/Middle School
- ☐ High School Diploma or GED
- ☐ Some College
- ☐ Technical/Community College
- ☐ 4-year College/Bachelor's Degree
- ☐ Graduate/Advanced Degree

30. Employment Status: (Check ONE selection):

- ☐ Employed full-time
- ☐ Employed part-time
- ☐ Self-employed
- ☐ Unemployed
- ☐ Not seeking work
- ☐ Retired
- ☐ Home maker
- ☐ Other_____
- ☐ Student

31. Annual Household Income: (Check ONE selection)

- ☐ Less than $10,000
- ☐ $10,000 to $19,999
- ☐ $20,000 to $29,999
- ☐ $30,000 to $49,999
- ☐ $50,000 to $74,999
- ☐ $75,000 to $99,999
- ☐ $100,000 or more

Thank you for taking the time to complete this survey! If you have any questions or would like to participate in the community health needs assessment process, email Laureen Husband at Laureen.Husband@flhealth.gov. Mail completed surveys to Community Health Survey, Department of Health-Volusia, 1845 Holsonback Drive, Bin #126, Daytona Beach, FL 32117.