2019 Community Health Needs Assessment

AdventHealth Orlando

Table of Contents

Chapter 1: Introduction

Chapter 2: Executive Summary

Chapter 3: AdventHealth Orlando and the Surrounding Community

Chapter 4: Methodology

Chapter 5: Top Community Health Needs

Chapter 6: Community Profile of Orange County

Chapter 7: Health Needs of the Community

Chapter 8: Health Disparities

Chapter 9: Hot Spotting Summary

Chapter 10: Compliance and Priorities

Appendix A: Primary Data Collection Tools

This report was prepared by AdventHealth Central Florida Division-South Region's Community Health team.
Special thanks to Strategy Solutions, Inc. for their support and contribution in the process.
Questions or comments can be directed to FH.Community.Health@AdventHealth.com.

CHAPTER ONE

Introduction

Kraft Azalea Park Winter Park, FL

Orange County

MESSAGEFROMTHELEADER

AdventHealth Central Florida Division

80,000

Minds One

Purpose

No matter what brings you in, no matter which of our providers, facilities or medical services you need, we're all connected by more than just our name. We're connected by our commitment to your whole-person health.

At AdventHealth, we have a sacred mission of Extending the Healing Ministry of Christ. That mission extends far beyond our walls and into the communities we serve. Our commitment is to address the needs of our community with a wholistic focus. That wellness isn't just about the physical, but also includes mental, spiritual, environmental and social health. We want to help our neighbors get well and stay well.

As a not-for-profit health care system, we are proud to support and partner with other organizations that share our vision of a healthier, more whole Central Florida.

We have once again worked with Orlando Health, Aspire Health Partners and the Departments of Health to produce this Community Health Needs Assessment (CHNA). Our partnership has expanded to include the local Federally Qualified Health Centers (FQHCs), which will further help us identify where we can have the most impact on the health of Central Florida.

We're committed to helping address Central Florida's greatest health challenges. From expanding mental health services to fighting food insecurity to reducing chronic diseases, we're working to bring change and empower our neighbors to live their healthiest lives.

Daryl Tol

President & CEO
AdventHealth Central Florida Division

AdventHealth

AdventHealth – Central Florida Division Executive Office Building

Introduction to the Community Health Needs Assessment

Thank you for being part of our community.

AdventHealth Orlando is proud to present our 2019 Community Health Needs Assessment (CHNA). AdventHealth Orlando is part of the AdventHealth Central Florida Division South Region. This report summarizes a comprehensive review and analysis of public health, socioeconomic and other demographic data from our immediate service area within Orange County, Florida. It also includes input gathered directly from local residents and stakeholders. All data was reviewed and analyzed to determine the top health issues facing our immediate and surrounding communities.

To conduct this CHNA, AdventHealth Orlando participated in the Central Florida Community Collaborative (the Collaborative), which included: AdventHealth Central Florida Division, Aspire Health Partners, Orlando Health, the Departments of Health in Lake, Orange, Osceola and Seminole counties, Community Health Centers, Inc., Orange Blossom Family Health, Osceola Community Health Services and True Health.

This CHNA will assist our hospital, community organizations and social service agencies to identify community health needs and develop strategic interventions to improve the health of the communities we serve.

We offer special thanks to the many community-based organizations and more than 1500 citizens and stakeholders that participated in this assessment. We appreciate their time and valuable input throughout the CHNA process.

Thank You!

CHAPTERTWO

Executive Summary

Wekiwa Springs State Park
Apopka, FL

Orange County

Formerly known as Florida Hospital Orlando, Adventist Health System/Sunbelt, Inc. dba AdventHealth Orlando will be referred to in this document as AdventHealth Orlando or "the Hospital." AdventHealth Orlando conducted a Community Health Needs Assessment in 2019. The goals of the assessment were to:

- Engage with the community, targeting underrepresented populations, to understand their unique needs
- Connect with public health representatives and community stakeholders serving low-income, minority and other underrepresented populations
- Assess and understand the community's health issues and needs
- Understand the health behaviors, risk factors and social determinants that impact health
- Identify community resources and collaborate with community partners
- Publish the Community Health Needs Assessment
- Use assessment findings to develop and implement a 2020-2022 Community Health Plan based on AdventHealth Orlando's prioritized issue

Data Sources

To support this assessment, numerous qualitative and quantitative data sources were used to validate findings using the data triangulation method. The data triangulation method looks at primary data (collected through community input) and two types of relevant local secondary data (either hospital utilization records/patient data or county, region-specific, or state data) looking for common themes and trends across all three sources. The data sources used in this method are outlined in Figure 2.1.

FIGURE 2.1: DATA TRIANGULATION

To support the CHNA in Orange County, the Collaborative collected a total of 1,240 community surveys, 111 key informant surveys, conducted 21 stakeholder interviews, 9 focus groups with 140 participants and 86 intercept surveys.

To assist the Collaborative in facilitating this CHNA, Strategy Solutions, Inc. (SSI) was contracted to provide support for the data collection and identification of priorities. SSI is a planning and research firm with the mission to create healthy communities. National best practices were used for the framework of the CHNA including: the Association for Community Health Improvement (ACHI, a division of the American Hospital Association), the Mobilizing for Action Through Planning and Partnership (MAPP) developed by the National Association for City and County Health Officials (NACCHO), Healthy People 2020 (HP2020) and the Robert Wood Johnson Foundation's County Health Rankings and Roadmaps. Data were compiled from the most up-to-date resources. This was augmented with primary research conducted with community residents, providers and stakeholders. Hospital utilization data for the uninsured patient population was also utilized in this CHNA.

Zip code level demographic and socio-economic data for the service area was collected from the U.S. Census Bureau (obtained through Environics Analytics and IBM Market Expert), the American Community Survey and the Bureau of Labor Statistics.

Key Findings

After reviewing the primary and secondary data in this CHNA, the following key findings were identified for Orange County and its residents. The goal of the key findings is to deliver a comprehensive overview of the data, which highlights the strengths and areas of improvement for the community. The key findings are broken down by themes seen in primary data collection, as well as by strengths and weaknesses identified through secondary data.

COMMUNITY THEMES AS IDENTIFIED BY PRIMARY DATA

The themes were compiled using data from the community surveys, stakeholder interviews, focus groups, key informant surveys and intercept surveys conducted for this CHNA as areas of need or community issues:

- Need for and access to mental health services
- Access to affordable health care
  - Health care costs
  - Inappropriate use of emergency department
  - Lack of trust in seeking of medical care due to undocumented status
  - Coordination of services for seniors
  - Access to dental care
  - Health education/health literacy
- Chronic conditions
  - Diabetes
  - Obesity
  - Asthma/COPD
  - Heart disease
  - Cancer
  - High cholesterol
- Food insecurity including access to quality/nutritious foods
- Prevalence of substance use
  - Opioid use
  - Smoking prevalence
- Living in poverty
  - Prevalence of stress
  - Lack of family support
  - Need for affordable housing
  - Residents receiving low wages
  - Lack of employment opportunities
  - Homelessness/affordable housing
- Transportation

COMMUNITY STRENGTHS

The community strengths assessment includes indicators that improved by 10 percent or more of value since the 2016 CHNA or from 2013 to 2015 if the data was not included in the last CHNA:

- Economic conditions
  - Persons living below poverty level decreased
  - Unemployment rate decreased
- School and student demographics
  - High school gang activity decreased
- Communicable diseases
  - Influenza vaccinations for adults aged 65 and older increased
- Preventative services
  - Women aged 40 and older who received a mammogram in past year increased
  - Adults aged 50 and older who received a stool test in past year increased
- Chronic conditions
  - Diabetes hospitalizations for children ages 5-11 decreased
  - Preventable hospitalizations for adults under age 65 from congestive heart failure decreased
  - Colorectal cancer incidence decreased
  - Lung cancer incidence decreased
  - Adults who currently have asthma decreased
  - Asthma hospitalizations for ages 1-1 and ages 5-11 decreased
- Injury
  - Unintentional drownings decreased
- Quality of life/mental health
  - Adults who have ever been told they have a depressive disorder decreased
  - Suicide rate of children ages 12-18 decreased
- Behavioral risk factors
  - Adults who are current smokers decreased
  - Middle and high school students smoking cigarettes in past 30 days decreased
  - Middle and high school student binge drinking decreased
  - Heroin use in high school decreased
  - Heroin-related deaths decreased
  - Rate of controlled prescriptions of opioids decreased
- Injury related to behavioral risk factors
  - Alcohol-related motor vehicle crashes decreased
  - Domestic violence offenses decreased
- Health care access
  - Adults with any type of health care insurance coverage by age 45-64 years old increased
  - Adults with any type of health care insurance coverage by annual income of $25-49K increased

COMMUNITY OPPORTUNITIES FOR IMPROVEMENT

Findings for opportunities for improvement includes indicators that have worsened by 10 percent or more of value since the 2016 CHNA or from 2013 to 2015 if the data was not included in the last CHNA:

- Economic conditions
  - Students receiving free and reduced lunch increased
- School and student demographics
  - Student absenteeism increased
- Communicable diseases
  - Pneumonia vaccination for adults ages 65 and older decreased
  - New HIV cases reported increased
- Preventative care
  - Men aged 50 and older who received a PSA (prostate screening) test in past two years decreased
  - Adults who are obese increased
  - Middle and high school students reporting BMI at or above 95th percentile increased
- Injury
  - Motor vehicle crash deaths increased
  - Unintentional falls and poisonings increased
- Birth characteristics
  - Infant deaths increased
  - Births to uninsured mothers increased

- Quality of life/mental health
  - Suicide rate for ages 19-21 increased
- Behavioral risk factors
  - Heroin use in middle school students increased
  - Fentanyl-related deaths
- Injury related to behavioral risk factors
  - Drug-related motor vehicle crashes increased
  - Drug and alcohol-related motor vehicle crashes increased
  - Drug-related injuries increased
  - Drug and alcohol-related injuries increased
  - Firearm discharge injuries increased
- Health care access
  - Adults who could not see doctor in the past year due to cost decreased

Community Health Needs Assessment Committees

In order to ensure broad community input throughout the CHNA process, representatives from AdventHealth participated in regional and local CHNACs to help guide and inform the prioritization process. Participation in the regional CHNAC took place through our membership in the Central Florida Community Collaborative. The local CHNAC was comprised of representatives from all AdventHealth hospitals in the Central Florida Division-South Region (CFD-South): AdventHealth Altamonte; AdventHealth Apopka; AdventHealth Celebration; AdventHealth East Orlando; AdventHealth Kissimmee; AdventHealth Orlando; and AdventHealth Winter Park; as well as from AdventHealth Corporate Services. Both CHNACs included representatives from departments of health and local community organizations. Additional information is provided below.

The regional CHNAC (the Collaborative)

The Central Florida Community Collaborative Steering Committee, comprised of representation from all member organizations—AdventHealth CFD-South; Aspire Health Partners; Orlando Health; Departments of Health in Lake, Orange, Osceola and Seminole Counties; Community Health Centers; Orange Blossom Family Health; Osceola Health Services and True Health (see Chapter 4 for a description of the Collaborative), served as the regional CHNAC for Lake, Orange, Osceola and Seminole counties (four-county region). The Steering Committee met 22 times throughout 2018 and 2019, either in person or via bi-weekly conference calls, and included representation from the hospital systems, public health experts and the broad community. This included intentional representation from organizations that serve minorities, low-income and underrepresented populations. The Collaborative participants reviewed the primary and secondary data to identify a list of priorities. (see Chapter 10)

The local CHNAC

Representatives from Central Florida Division-South Region and Corporate Services participated in a meeting, which included individuals from community organizations serving underrepresented, low income and minority populations; all AdventHealth hospitals in the CFD-South Region, as well as public health experts. The 120 participants reviewed the primary and secondary data, as well as the Collaborative's CHNAC priorities, to help define the needs to be addressed by CFD-South.

Prioritization Criteria

Specific criteria were used to aid in the prioritization process to identify and select the top needs that would be addressed. Members of the local CHNAC were asked to rank the criteria on a scale of 1 to 10 for each of the needs that had been identified during the data reviews and discussions. OptionFinder, an electronic polling platform that enables operators to build lists that can be voted on anonymously by audience participants, was used to rate all of the criteria. The criteria used is outlined below:

1. Accountable organization: The extent to which the organization is positioned in the community to lead the planning or deployment of programming to address the need.
2. Magnitude of the problem: The degree to which the need leads to death, disability or impaired quality of life and/or could be an epidemic based on the rate or percentage of the population that is impacted by the issue.
3. Impact on health outcomes: The extent to which the issue impacts health outcomes and/or is the driver of other conditions.
4. Capacity/resources: The extent to which CFD-South has the systems and resources in place or available to implement evidence-based solutions.

These criteria were used to generate an aggregated number for each identified need, in order to develop a ranking to determine potential impact in addressing the needs.

AdventHealth CFD-South Prioritization Process

On April 2, 2019 the Collaborative met to review and discuss the primary and secondary data. Priorities were determined utilizing the above-mentioned criteria and voted on with OptionFinder. The list of the Collaborative priorities can be found in Chapter 10.

On April 3, 2019 AdventHealth CFD-South's local CHNAC met to review and discuss the primary and secondary data, as well as the priorities identified by the Collaborative. The local CHNAC then ranked the identified needs to select a priority. The meeting was attended by 120 representatives from AdventHealth, local departments of health and community organizations.

The following outlines the steps taken by the local CHNAC to identify the health priorities of the community.

Step 1: Data Review

Meeting attendees reviewed the primary and secondary data, as well as the any trends that had been identified in the data. The data was looked at on a county specific level to ensure it was relevant for all campuses.

Step 2: Campus Specific Breakouts

AdventHealth representatives from each hospital campus engaged in a campus specific breakout session for further discussion. When a campus had a shared service area or leadership structure, breakout sessions were combined to ensure a unified strategic vision. Community and public health representation attended the breakout sessions that aligned with the community they serve from a geographic perspective. For example, public health representation for the Altamonte Springs campus was from the Department of Health in Seminole County, which is in the Hospital's service area. Here, campus breakouts selected the top identified top health priorities for their campus' primary service areas. For a list of the AdventHealth Orlando specific breakout session attendees see Tables 4.1 and 4.2.

During the breakout sessions, attendees discussed the data and the unique needs of their campus and the communities they serve to create a list of 10-12 potential priorities. Through data review and discussion, each individual completed a grid with the identified needs they viewed as top priorities, which was then returned to CFD-South community health staff. The CFD-South community health staff entered the identified needs from the breakout sessions into the OptionFinder system. These identified needs were used to create a master list; any need that appeared on a grid submitted from more than one breakout session is designated by a "D" on the CFD-South aggregated needs table in Chapter 10.

Step 3: CFD-South Prioritization Exercise

At the conclusion of the breakout sessions, the local CHNAC reconvened to vote on the overarching CFD-South priority. Using the OptionFinder system and criteria previously described, the group ranked the identified needs from the master list that had been created with input from the breakout sessions. Top ranked health priorities were used to identify an overarching priority for CFD-South: "Increasing Access for Vulnerable Populations."

The decision to have one overarching priority was done with the community and AdventHealth team members in mind. The singular priority encompasses the intentionality and focus of the work CFD-South will target in the coming years, while providing something that is clear to articulate. This aids in communicating the intention to the community and strengthens the ability of team members to remember, understand and rally behind the priority.

Step 4: Identifying Campus Specific Needs

Following the April 3, 2019 meeting, CFD-South community health staff reviewed the grids collected from all participants in each breakout session. CFD-South community health staff created aggregate lists of needs for each campus breakout group.

Step 5: Selecting Priority Targeted Areas

After reviewing the aggregate campus specific needs, common trends were identified that were compiled into four targeted areas of focus as follows. These targeted areas of focus represent a further refinement of the overarching priority of "Increasing Access for Vulnerable Populations."

- Care coordination
- Mental and behavioral health
- Community development
- Food security

The targeted areas were selected due to the overlap between the needs identified at each campus and the ability to address multiple issues under the focus area.

Step 6: Finalizing the CFD-South Priority and Campus Alignments

The CFD-South priority—"Increasing Access for Vulnerable Populations"—will be addressed through regional initiatives encompassing all CFD-South campuses. Additionally, campus-specific programming will be designed to address the four targeted areas. Each campus' unique initiatives will be reflective of the needs of their own communities. This will help to align and streamline resources across all seven campuses. For example, under the targeted areas of focus community development, one campus identified a need for youth development or mentorship programs, while another campus saw a need for programs addressing affordable housing.

Leadership from each of the campus breakout sessions met with CFD-South community health staff to approve the priority, Increasing Access for Vulnerable Populations and to ensure the targeted areas were reflective of the needs of their communities and discussions. A complete list of identified needs and their subsequent ranking for both CFD-South and the Hospital are available in Chapter 10.

Community Asset Inventory

As part of the IRS regulatory requirement AdventHealth Central Florida Division South Region (CFD-South) completed a Community Asset Inventory (CAI). Traditionally the CAI is used as a resource when selecting a priority to:

- Identify existing resources
- Limit duplication of services

CFD-South saw this as an opportunity to create a resource that went beyond the aforementioned goals. Our CAI provided the necessary information to understand the resources available for potential priorities and was also used to:

- Identify gaps in resources by services provided or location
- Identify potential opportunities for alignment
- Provide a publicly available resource guide that would be accessible to and for underrepresented populations to utilize when needed
- Provide an internal resource that can be used by care management teams to refer patients to appropriate services that are geographically convenient

The information included in this inventory was compiled from publicly available resources. The organizations included offer free and reduced cost services or target underrepresented populations. Organizations were contacted during the process to ensure that they had the bandwidth to provide services for new clients/patients. At the time of this publication all organizations listed had the bandwidth and resources necessary to serve additional community members. Several organizations included in the inventory have multiple locations; each location may provide different services.

The Community Asset Inventory for CFD-South is available here: https://www.adventhealth.com/community-benefit/central-florida/community-health

Approvals

On December 19, 2019 the AdventHealth Orlando Board of Directors, the governing body for all of AdventHealth Orlando's seven hospital campuses, approved the Community Health Needs Assessment findings, priority and final report. A link to the 2019 Community Health Needs Assessment was posted on the Hospital's website prior to December 31, 2019.

Next Steps

The local CHNAC will work with AdventHealth Orlando to develop a measurable implementation strategy to address the priority issue. The 2020-2022 Community Health Plan will be completed and posted on the Hospital's website prior to May 15, 2020.

CHAPTERTHREE

AdventHealth Orlando and the Surrounding Community

Moss Park
Orlando, FL

Orange County

TRANSITION TO ADVENTHEALTH

In January of 2019, every wholly-owned entity across our organization adopted the AdventHealth system brand. Our identity has been unified to represent the full continuum of care our system offers. Throughout this report, we will refer to our facility as AdventHealth Orlando. Any reference to our 2016 Community Health Needs Assessment in this document will utilize our new name for consistency.

AdventHealth Orlando is part of the larger AdventHealth system, with more than 80,000 skilled and compassionate caregivers nationwide. AdventHealth is a connected system of care for every stage of life and health with a sacred mission of Extending the Healing Ministry of Christ.

ABOUT ADVENTHEALTH ORLANDO

AdventHealth Orlando, a 1,366-bed acute care medical center that serves as AdventHealth's main campus in Central Florida was founded in 1908.

AdventHealth Orlando Snapshot

National Research Corporation Consumer Choice Award	
Annual number of inpatient visits	52,193
Annual number of outpatient visits	198,489
Annual number of emergency cases	37,215
Annual number of surgeries	4,447
Annual number of deliveries	122,303
Number of licensed beds	1,366
Number of critical care beds	336
Number of staff physicians*	2,587
Number of employees	8,121

*Total AdventHealth staff physicians in Florida

Hospital services include: 24-Hour Emergency Department; Advanced Diagnostic Imaging Center, (CAT, MRI, PET, MEG); Audiology; Brain Surgery; Cardiovascular Institute; Behavioral Health; Critical Care; Diabetes Institute; Digestive Health; Family Practice Residency; AdventHealth for Children; Cancer Institute; Center for Interventional Endoscopy; Epilepsy; Fracture Care Center; Gamma Knife® Center; General Medical/Surgical; GYN Oncology; High-risk Perinatal Care/Fetal Diagnostic Center; Home Care; Hyperbaric Medicine and Wound Care; Interventional Neuroradiology; Kidney Stone Center; Level III Neonatal Intensive Care; Maternal Fetal Medicare; Neuroscience Institute; Nutritional Counseling; Obstetrics; Occupational Health; Open Heart Surgery; Organ Transplantation, (bone marrow, kidney, liver, pediatric liver, pancreas, heart, lung,); Orthopedic Institute; Outpatient Services; Pain Medicine; Pediatric Hematology/Oncology; Psychiatry; Radiation Therapy; Radiology; Rehabilitation and Sports Medicine; Respiratory Care; Sleep Disorders/Diagnosis and Treatment; Spine Surgery; Surgical Oncology; Urology and Women's Services.

Defining the Community

In compliance with the IRS guidelines at the time of data collection for this assessment, AdventHealth Orlando defined its community as Orange County, the Hospital's primary service area. This is the geography from which 75-80 percent of its patients seen, on an inpatient or outpatient basis, reside.

The Collaborative's overall service area includes four counties in Central Florida: Lake, Orange, Osceola and Seminole. This document will refer to this combined service area as the four-county region. Figure 3.1 outlines the primary service area for this CHNA for the Hospital and the Central Florida Collaborative overall.

FIGURE 3.1: ADVENTHEALTH ORLANDO'S PRIMARY SERVICE AREA

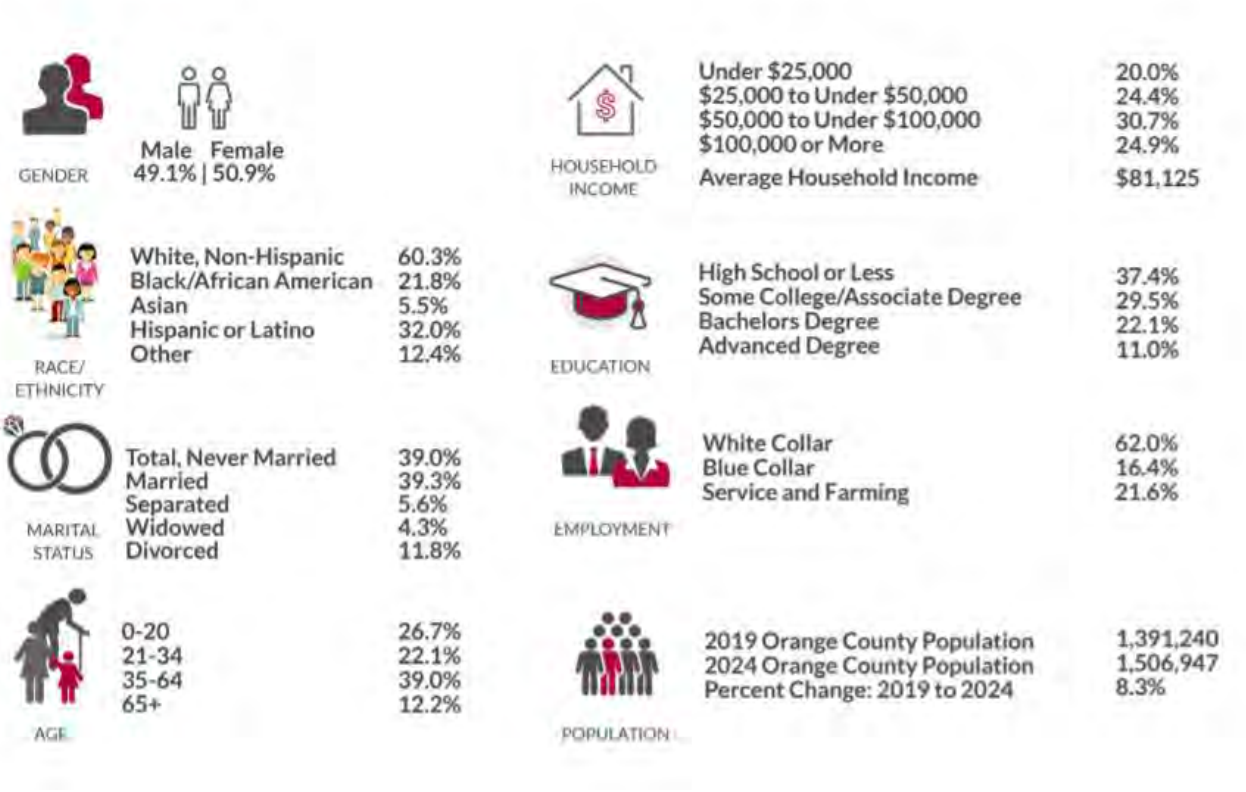
Source: Central Florida Community Collaborative

Community Description and Demographics

In order to understand the community and the challenges faced, AdventHealth Orlando looked at both demographic information for the primary service area population, as well as available data on social determinants of health. According to the Centers for Disease Control and Prevention (CDC), social determinants of health include conditions in the places where people live, learn, work and play which affect a wide range of health risks and outcomes.

Residents of the AdventHealth Orlando primary service area are described by the demographic data illustrated in Figure 3.2. It is important to note that race/ethnicity equals more than 100 percent because those that identify as Hispanic or Latino ethnicity may also identify with a race group, such as White or Black/African American. Occupations (white collar, blue collar, and service and farming) are assigned by the US Census Bureau based on the Standard Occupational Classification (SOC) system used in census reporting. White collar occupations are professional and technical in nature such as engineers, scientists, health diagnosing occupations, librarians, planners and lawyers. Blue collar occupations include precision production and repair occupations such as mechanics and repairers, construction trades, metalworking, woodworking and extractive, as well as testers and plant and system operators. Service and farming occupations cover protective services occupations including firefighting, police and corrections as well as food service occupations such as servers, cooks and bartenders. This occupation category also includes health care services occupations such as dental assistants and nurse aids, cleaning and building service occupations, as well as personal service occupations such as hairdressers, daycare workers and transportation attendants.

FIGURE 3.2: ORANGE COUNTY DEMOGRAPHICS



*Race/Ethnicity percentages add up to more than 100 percent because Hispanic or Latino individuals can also be White, Black or some other race.
Source: Strategy Solutions, Inc.

As seen in Figure 3.2, over the next 5-year period, Orange County is expected to grow by almost 8 percent, from an estimated 1,391,240 in 2019 to an estimated 1,506,947 in 2024. The county has slightly more females (50.9 percent) than males (49.1 percent), the majority of the population is married (39.3 percent). The population is also predominantly White (60.3 percent) and has a sizable Hispanic population (32 percent).

The majority of residents living in the county have an education beyond high school (62.6 percent), with 33.1 percent attaining a bachelor's degree or higher. The average household income is $81,125 with 55.6 percent of the families in the county having incomes above $50,000.

Health is influenced by conditions where we live and the ability and means to access healthy food, good schools, affordable housing and jobs. Unfortunately, significant gaps in life expectancy persist across many cities, towns, zip codes and neighborhoods in the United States.

For the AdventHealth Orlando service area, Table 3.1 lists the poverty percentage and unemployment rates by zip code. The Orlando zip code 32805 has the highest poverty rate (37.3 percent) and unemployment rate (10.5) in the county. The second highest poverty rate (27.22 percent) and unemployment rate (27.22) are in the Orlando zip code 32808.

TABLE 3.1: ORANGE COUNTY POVERTY AND UNEMPLOYMENT DEMOGRAPHICS

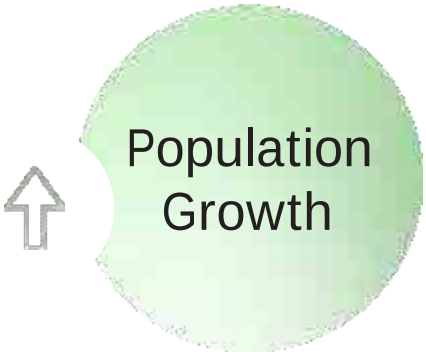
City	Zip Code	Poverty Range	Unemployment Rate	Poverty Rate
Orlando	32805	>20%	10.5	37.30%
Orlando	32807	>20%	5.2	22.86%
Orlando	32808	>20%	8	27.22%
Orlando	32809	>20%	5.1	21.26%
Orlando	32811	>20%	6.8	22.34%
Union Park	32817	>20%	4.9	22.74%
Orlando	32822	>20%	5.7	21.70%
Alafaya	32826	>20%	5.3	23.74%
Orlando	32839	>20%	4.3	24.67%
Orlando	32810	15.01% - 20.00%	5.7	17.21%
Ocoee	32818	15.01% - 20.00%	6.2	18.07%
Alafaya	32825	15.01% - 20.00%	5.7	15.82%
University Park	32828	15.01% - 20.00%	3.5	15.06%
Gotha	34734	15.01% - 20.00%	4.4	15.86%
Apopka	32703	15.01%-20.00%	4.5	17.23%
Christmas	32709	15.01%-20.00%	4.3	16.27%
Winter Park	32792	15.01%-20.00%	4.8	17.93%
Orlando	32812	10.01% - 15.00%	5	14.88%
Orlando	32819	10.01% - 15.00%	3.2	10.52%
Bithlo	32820	10.01% - 15.00%	3.7	13.50%
Williamsburg	32821	10.01% - 15.00%	3.5	11.64%
Orlando	32824	10.01% - 15.00%	6	13.52%
Orlando	32829	10.01% - 15.00%	4.7	10.58%
Wedgefield	32833	10.01% - 15.00%	4.3	10.15%

City	Zip Code	Poverty Range	Unemployment Rate	Poverty Rate
Orlando	32835	10.01% - 15.00%	4.4	10.88%
Bay Hill	32836	10.01% - 15.00%	2.2	10.24%
Ocoee	34761	10.01% - 15.00%	4.4	10.76%
Maitland	32751	10.01%-15.00%	3.1	10.74%
Mount Dora	32757	10.01%-15.00%	3.6	27.22%
Winter Park	32789	10.01%-15.00%	3.3	10.17%
Orlando	32801	10.01%-15.00%	2.6	14.85%
Orlando	32803	10.01%-15.00%	2.5	10.96%
Orlando	32804	10.01%-15.00%	3.4	10.45%
Orlando	32806	10.01%-15.00%	4.2	11.61%
Orlando	32814	5.01% - 10.00%	2	7.98%
Orlando	32827	5.01% - 10.00%	3.6	6.08%
Orlando	32831	5.01% - 10.00%	1.8	7.89%
Orlando	32832	5.01% - 10.00%	3.6	6.98%
Hunter's Creek	32837	5.01% - 10.00%	3.4	9.65%
Oakland	34760	5.01% - 10.00%	3.8	9.87%
Windermere	34786	5.01% - 10.00%	3.1	5.89%
Winter Garden	34787	5.01% - 10.00%	3.7	9.98%
Apopka	32712	5.01%-10.00%	4.3	9.07%
Apopka	32798	5.01%-10.00%	2.1	6.52%

Demographics at a Glance

Figure 3.3 identifies individual demographic indicators and how they are changing. Red means that the indicator has worsened and green means that there has been an improvement since the 2016 CHNA.

FIGURE 3.3: DEMOGRAPHIC INDICATORS



Source: US Census Bureau

Demographics: Summary of Indicators

The following includes both a narrative as well as a visual (chart or table) summary of indicators reported on in this section. While the above colored icon illustrates an observed trend from the data reported in the 2016 CHNA, this section is designed to highlight relevant information on each indicator and provide a narrative of the data included in the charts/tables that follow.

POPULATION GROWTH (2010-2018)

According to the U.S. Census Bureau, the population has increased in Orange County more than 15 percent from 2010 (1,148,593) to 2018 (1,380,645). (See Chart 3.1)

POPULATION BY AGE (2019 ESTIMATED)

When looking at population by age, residents between the ages of 0-14 are the largest age group in the state (17.5 percent) and in Orange County (18.5 percent). The next largest age group in Orange County is age 25- 34 at 16.4 percent, followed closely by age 35-44 at 14.2 percent. (See Chart 3.2)

POPULATION GROWTH BY AGE (2010-2040 ESTIMATED)

When looking at population growth by age, all age groups are estimated to steadily increase from 2020 to 2040. In the year 2025, it is estimated that Orange County residents ages 0-19 will begin to make up the largest segment of the population, this is consistent through 2040. The largest increase across all age groups is for residents 75 and above; for this group the population is estimated to more than double between 2020 and 2040. (See Chart 3.3)

POPULATION BY GENDER (2019 ESTIMATED)

In Orange County, the gender distribution is nearly equal, with slightly more women (50.9 percent) than men (49.1 percent). The county closely mirrors the state (51.2 percent female, 48.8 percent male). (See Chart 3.4)

POPULATION BY RACE (2017)

When looking at population by race in 2017, Orange County (68.1 percent) and the state (77.4 percent) were predominantly White. Black (22.8 percent) and Asian (5.7 percent) are the next most numerous groups in Orange County. American Indian and Native Hawaiian each make up less than 1 percent of the population in both Orange County and the state. (See Chart 3.5)

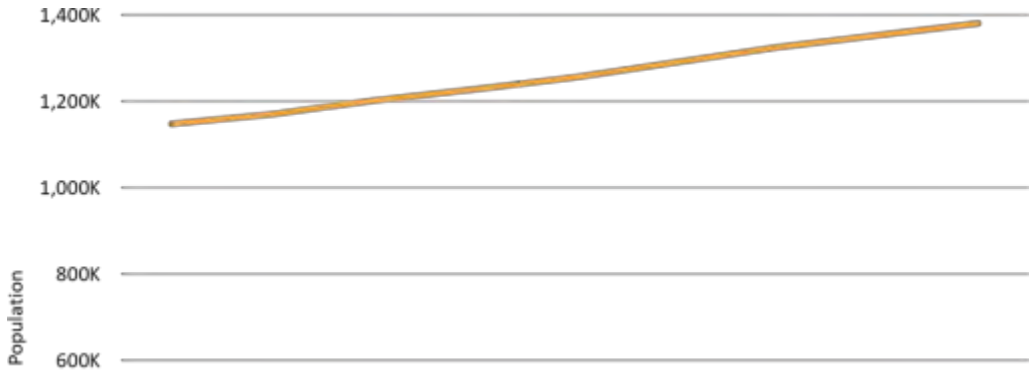
POPULATION BY ETHNICITY (2017)

In 2017, more than a quarter of Florida residents are Hispanic or Latino (25.6 percent). Orange County (31.4 percent) is above the state percentage of Hispanic or Latino residents. (See Chart 3.6)

LANGUAGE OTHER THAN ENGLISH SPOKEN AT HOME (2017)

Orange County (35.3 percent) has a larger percentage of residents speaking a language other than English at home compared to the state (28.7 percent). (See Chart 3.7)

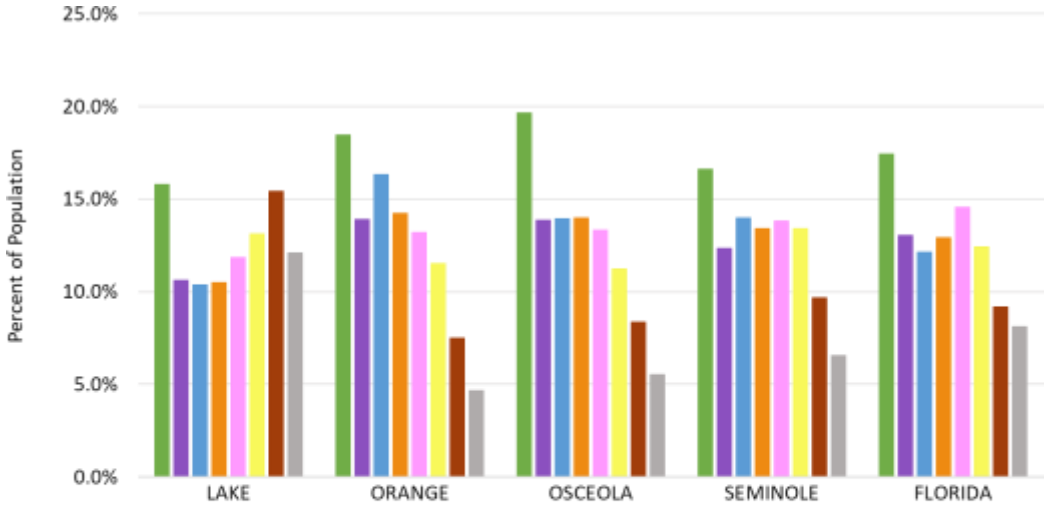
CHART 3.1: POPULATION GROWTH (2010–2018)



	2010	2011	2012	2013	2014	2015	2016	2017	2018
Lake	297,708	300,488	303,738	308,002	315,388	325,091	334,748	345,087	356,495
Orange	1,148,593	1,170,526	1,202,594	1,227,642	1,256,908	1,290,639	1,324,843	1,352,933	1,380,645
Osceola	269,841	278,637	288,908	299,304	311,137	323,578	337,730	352,661	367,990
Seminole	423,057	426,307	430,539	435,531	441,453	448,246	455,665	462,236	467,832

Source: U.S. Census Bureau, American Fact Finder

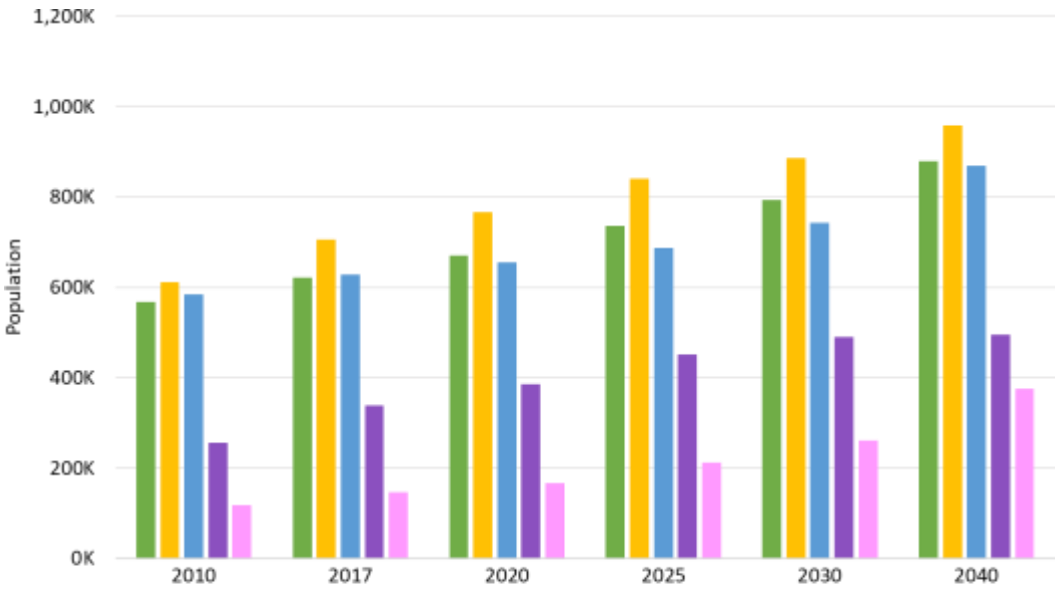
CHART 3.2: POPULATION BY AGE (2019 ESTIMATED)



	LAKE	ORANGE	OSCEOLA	SEMINOLE	FLORIDA
Age 0-14	15.8%	18.5%	19.7%	16.6%	17.5%
Age 15-24	10.7%	13.9%	13.9%	12.4%	13.1%
Age 25 - 34	10.4%	16.4%	14.0%	14.0%	12.2%
Age 35 - 44	10.5%	14.2%	14.0%	13.5%	12.9%
Age 45 - 54	11.9%	13.2%	13.3%	13.9%	14.6%
Age 55 - 64	13.1%	11.6%	11.3%	13.5%	12.4%
Age 65 - 74	15.5%	7.5%	8.4%	9.7%	9.2%
75+ Years	12.1%	4.7%	5.5%	6.6%	8.2%

Source: Claritas- Pop-Facts Premier 2019, Environics Analytics

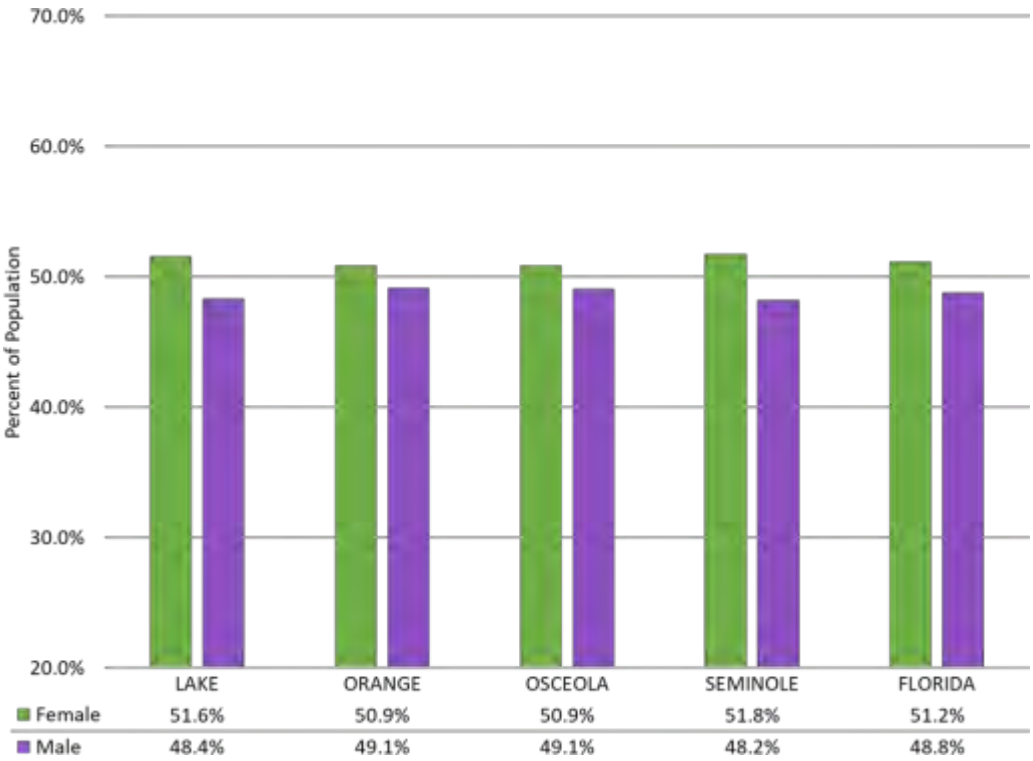
CHART 3.3: POPULATION GROWTH BY AGE (2010-2040 ESTIMATED)



	2010	2017	2020	2025	2030	2040
0-19	567,012	621,738	669,335	736,072	792,364	878,145
20-39	610,801	704,856	766,253	839,940	885,195	958,198
40-59	584,297	627,601	655,004	687,035	742,207	867,999
60-74	255,588	338,540	384,971	450,671	488,997	494,800
75+	116,708	145,240	165,483	211,201	259,947	374,345

Source: Florida Bureau of Economic and Business Research

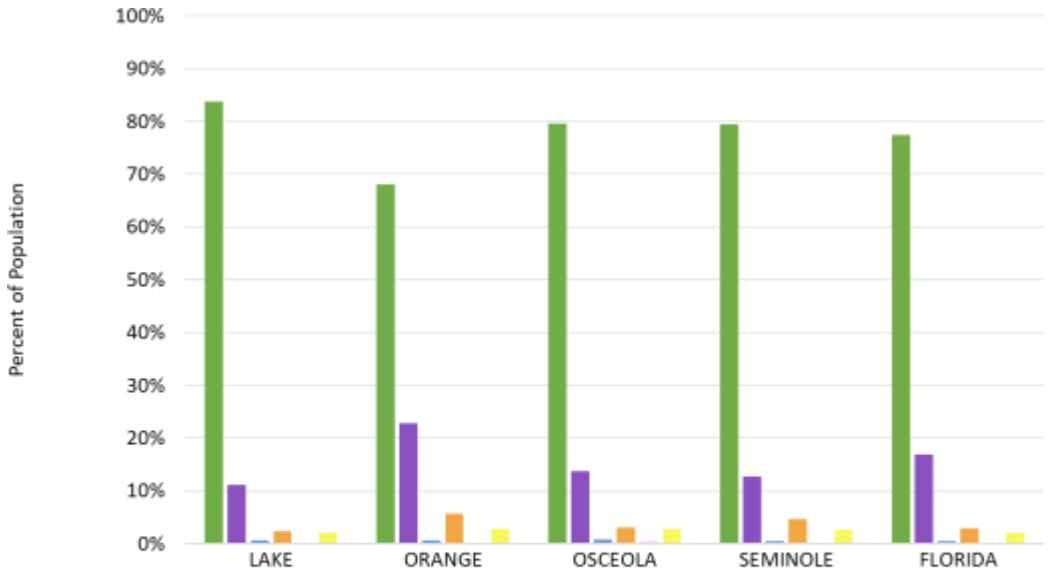
CHART 3.4: POPULATION BY GENDER (2019 ESTIMATED)



	LAKE	ORANGE	OSCEOLA	SEMINOLE	FLORIDA
Female	51.6%	50.9%	50.9%	51.8%	51.2%
Male	48.4%	49.1%	49.1%	48.2%	48.8%

Source: Claritas- Pop-Facts Premier 2019, Environics Analytics

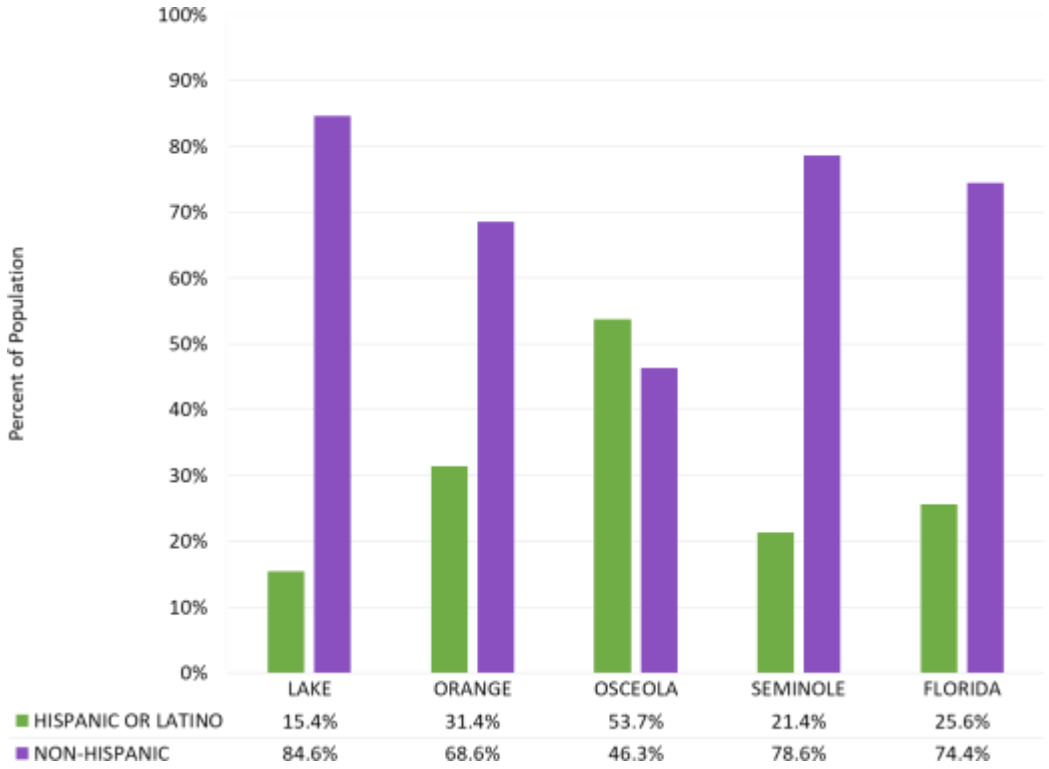
CHART 3.5: POPULATION BY RACE (2017)



	LAKE	ORANGE	OSCEOLA	SEMINOLE	FLORIDA
White	83.7%	68.1%	79.5%	79.4%	77.4%
Black	11.1%	22.8%	13.7%	12.7%	16.9%
American Indian	0.6%	0.6%	0.8%	0.4%	0.5%
Asian	2.3%	5.7%	3.0%	4.7%	2.9%
Native Hawaiian	0.2%	0.2%	0.3%	0.1%	0.1%
2+ Races	2.0%	2.7%	2.7%	2.6%	2.1%

Source: Census Quick Facts

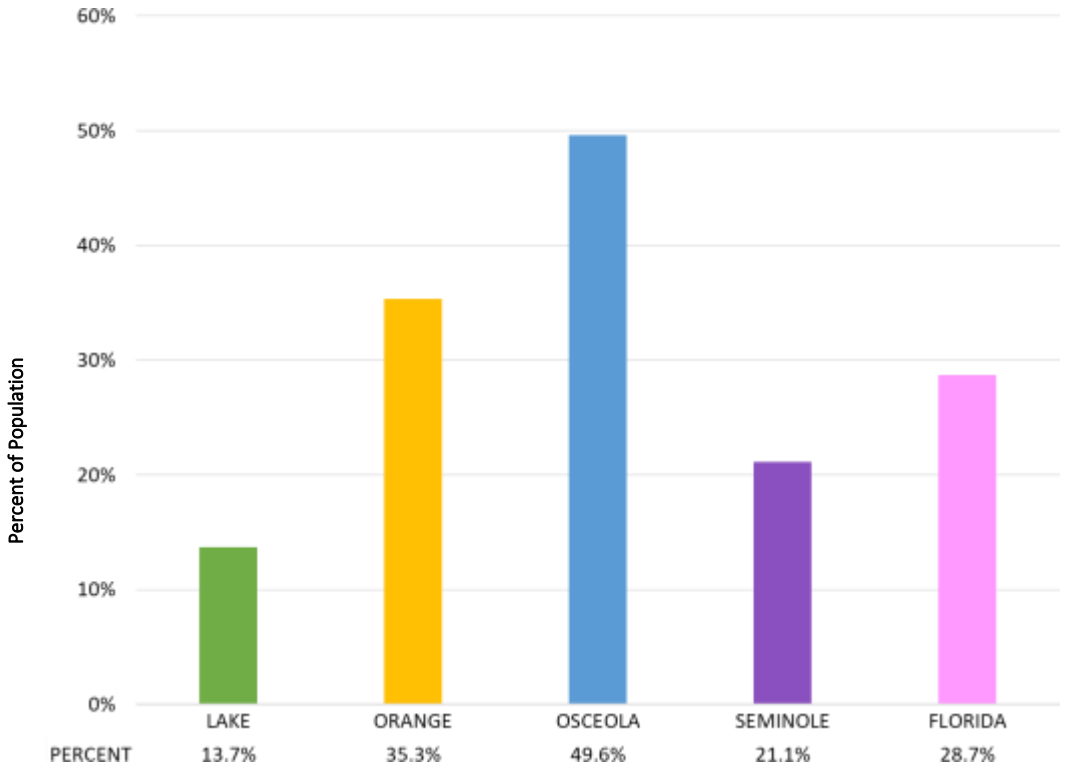
CHART 3.6: POPULATION BY ETHNICITY (2017)



	LAKE	ORANGE	OSCEOLA	SEMINOLE	FLORIDA
HISPANIC OR LATINO	15.4%	31.4%	53.7%	21.4%	25.6%
NON-HISPANIC	84.6%	68.6%	46.3%	78.6%	74.4%

Source: Census Quick Facts

CHART 3.7: LANGUAGE OTHER THAN ENGLISH SPOKEN AT HOME (2017)



Source: Florida Office of Economic and Demographic Research

CHAPTER FOUR

Methodology

Kelly Park
Apopka, FL

Orange County

The Origins of the CHNA

The Affordable Care Act, passed in 2010, established a regulatory requirement that all not-for-profit hospitals conduct a Community Health Needs Assessment (CHNA) at least every three years. This work provides a detailed look into the health needs of the communities served by these hospitals.

About the Central Florida Community Collaborative

In addition to not-for-profit hospitals, county health departments in Florida are also required to conduct a CHNA or a Community Health Assessment (CHA) to determine public health priorities. Due to the overlap in requirements for not-for-profit hospitals and the Departments of Health, as well as the positive synergies for our community, in 2012 the Central Florida Community Collaborative (the Collaborative) was created. The partners included AdventHealth Central Florida Division, Aspire Heath Partners, Orlando Health and the Florida Department of Health in Orange County. This collaborative worked together to complete a single, comprehensive CHNA.

This collaboration continued for the 2016 CHNA, and the Collaborative was expanded to include the Florida Departments of Health that serve the population of the individual counties of Lake, Osceola and Seminole. For the 2019 CHNA, the Collaborative expanded once again to include four local Federally Qualified Health Centers (FQHC): Community Health Centers, Inc., Orange Blossom Family Health, Osceola Community Health Services and True Health to better understand the needs of the community. The leadership from the partner organizations form the Steering Committee for this study.

In 2017, 12.9 percent of the state's population lacked health insurance, putting Florida well above the national average of 8.8 percent. As public health servants and not-for-profit community health care providers, the Collaborative sees the struggles of the uninsured and underinsured populations in our communities and is committed to continuing to serve these populations, propelled and guided by this CHNA.

The members of the Collaborative are interested in community comments and feedback on this report, as well as the individual member hospital and health department reports that were developed using the data collected through the CHNA process. The Collaborative report as well as each of the individual hospital and health department reports can be found on each member's website. Each member organization's website offers the opportunity to provide written comments on their individual CHNA report as well as on the collaborative regional report.

The Central Florida Community Collaborative Member Organizations

Hospital community benefit activities promote health and well-being by collaboratively addressing community health needs. In Central Florida, there is a well-established tradition of health care organizations, providers, community partners and individuals committed to working together to meet our local health needs. The four-county region is home to several respected hospitals that are ranked in the nation's top 100, a Level One Trauma Center, the busiest heart transplant program in the Southeast, nine designated teaching hospitals and the University of Central Florida College of Medicine. The Collaborative's membership includes:

AdventHealth Central Florida Division

AdventHealth Central Florida Division is represented in the Collaborative by AdventHealth Altamonte Springs, AdventHealth Apopka, AdventHealth Celebration, AdventHealth East Orlando, AdventHealth Kissimmee, AdventHealth Orlando, AdventHealth Waterman and AdventHealth Winter Park. The AdventHealth system is comprised of more than 80,000 skilled and compassionate caregivers nationwide, in physician practices, hospitals, outpatient clinics, skilled nursing facilities, home health agencies and hospice centers providing individualized, wholistic care.

Aspire Health Partners

Committed to providing individuals and families of Central Florida with compassionate, comprehensive and cost-effective behavioral health care services that lead to successful living and healthy, responsible lifestyles.

Orlando Health

Based in Orlando, FL, Orlando Health is a $3.8 billion not-for-profit health care organization and a community- based network of hospitals, physician practices and outpatient care centers across Central Florida. The organization is home to the area's only Level One Trauma Centers for adults and pediatrics and

is a statutory teaching hospital system that offers both specialty and community hospitals.

Florida Department of Health in Lake, Orange, Osceola and Seminole Counties

For more than 125 years, the Florida Department of Health has been serving all residents in the four-county region through their ICARE vision: Innovation, Collaboration, Accountability, Responsiveness and Excellence.

Community Health Centers, Inc.

A FQHC, Community Health Centers, is a private, not-for-profit organization that provides health care services to insured, uninsured, underinsured and underserved children and adults within Central Florida.

Orange Blossom Family Health

A FQHC, Orange Blossom Family Health, provides quality health care services that improve the lives of the homeless and medically indigent people of our community.

Osceola Community Health Services

A FQHC, Osceola Community Health Services, offers affordable health services for the entire family including family medicine, pediatrics, maternity care, women's health, dental, optometry, pharmacy and men's health.

True Health

A FQHC, True Health is a private, not-for-profit 501 (c)(3) that has been serving low-income, uninsured, underinsured and underserved population in Central Florida since 1977, operating eight service delivery locations within Orange and Seminole counties.

A top priority of the Collaborative was to ensure that the 2019 CHNA be as conclusive and inclusive as possible. The group spent several months determining the most important indicators to assess through the input of community and key informant survey instruments, the focus groups and stakeholder interviews and identifying secondary data to include from county, state and federal agencies. A concerted effort was made to reach out to all members of the Central Florida region and obtain perspectives across age, race and ethnicity, gender, profession, household income, education level and geographic location. In this CHNA process, the Collaborative built upon existing partnerships with health care providers, county and state agencies, nonprofits, media, faith-based groups and business and civic organizations.

The Collaborative reviewed all the data and prioritized the health priorities according to intensity of the need, current initiatives around the issue and the potential for future collaboration. The Collaborative review and process was the same as the method used for local CHNAC, which is outlined in Chapters 2 and 10. The only difference in the data reviewed is the data presentation for the Collaborative included all the data for the four counties, while the local CHNAC data presentation only included data for Orange, Osceola and Seminole Counties.

The Local Community Health Needs Assessment Committee (CHNAC)

The Community Health Needs Assessment Committee for AdventHealth Orlando's breakout session includes representation from community organizations and AdventHealth CFD-South.

Table 4.1 includes community representatives from AdventHealth Orlando's service area that attended the local CHNAC, a description of their organizations' services and notes what populations they serve. These representatives provided leadership and insight throughout the CHNAC process.

TABLE 4.1: LOCAL CHNAC COMMUNITY REPRESENTATIVES

Name	Title	Organization	Description of Services	Low Income	Minority	Other Underrepresented Populations
Martin Berstine	Executive Director	Juvenile Diabetes Research Foundation	Research, Advocacy	X	X	X

Name	Title	Organization	Description of Services	Low Income	Minority	Other Underrepresented Populations
Karen Broussard	Vice President, Agency Relations & Programs	Second Harvest	Food Distribution, Mobile Food Delivery, Kids' Programs, Disaster Relief, Culinary Training, Nutrition Education, Advocacy	X	X	X
Angela Cohen	Chief Operations Officer	Ronald McDonald House	Housing, Primary Care, Dental, Grant Funding	X	X	X
Carla Cox	Program Director	United Against Poverty	Crisis Care, Case Management, Employment Training, Resource Connection, Emergency Food Assistance	X	X	X
Ellen Geiger	Assistant Director	Healthy Start Coalition of Orange County	Prenatal Support, Newborn Care Education and Support, Childbirth and Breastfeeding Classes, Parenting Education, Nutrition Education, Supportive Counseling, Resource Connection	X	X	X
Lynn Ivanek	Director of Philanthropy	Grace Medical Home	Vaccinations, Health Screenings, Primary Care, Laboratory, Health Education, X-Rays, Resource Connection, Mental Health and Counseling, and Spiritual Care	X	X	X
Kandis Natoli	Executive Director	Mother's Milk Bank of Florida	Breastmilk Donation and Distribution	X	X	X

Table 4.2 includes AdventHealth CFD-South employees who actively participated and provided leadership and insight during the AdventHealth Orlando breakout session.

TABLE 4.2: LOCAL CHNAC ADVENTHEALTH ORLANDO REPRESENTATIVES

Name	Title
Brett Spenst	President & Chief Executive Officer
Kari Vargas	Vice President, Institutes
Dr. Rajan Wadhawan	President, Children's Hospital
Debbie Spielman	Vice President, Children's Hospital
Jessica Breetzke	Vice President, Finance

Name	Title
Shannon Gravitte	Vice President, Public Affairs
Lisa Bowman	Vice President, Chief Nursing Officer
Peter Schoch	Senior Vice President, Population Health
Scott Spielman	Director, Behavioral Health
Laura Burke	Executive Director, Care Management
Gregory Ellis	Assistant Vice President, Mission & Ministry
Meghan Curren	Director, Community Relations & Corporate Partnerships
Patricia Robinson	Senior Director, Research
Traci Woods	Executive Director, Patient & Family Experience
Nancy Jolly	Director, Patient Access
Kelly Van Gennip	Director, Market Development
Dr. Afsoon Elmore	Dentist
Tracee Simpson (Johnson)	Practice Manager, Community Medicine Clinic
Adrian Hodge	Social Worker, Community Medicine Clinic
Jennifer Miller	Nurse
Edwin Alicea	Senior Chaplain
Jocelyn Shaw	Chaplain I
Matthew Lowe	Nursing Manager, Emergency Department

Public Health Participation

Public Health played an extensive role in the regional CHNAC, their contributions to discussions ensured that the Public Health perspective was included in all decision making and priority selection processes. The public health representatives involved in the regional CHNAC (the Collaborative) are outlined in Table 4.3.

TABLE 4.3: PUBLIC HEALTH REPRESENTATION

Name	Title	Department
Page Barningham, MPA, CCHW, R.S.	Operations & Management Consultant II	Lake County Health Department
Jason Martinez	Government Analyst II	Osceola County Health Department
Udgit Mehta, MBA, FCCM	Administrative Service Director II	Seminole County Health Department
Ellis Perez, MPH	Government Analyst II, Population Health & Quality Improvement Data Manager	Orange County Health Department
Donna Walsh, MPA, BSN, RN	Health Officer	Seminole County Health Department

Primary and Secondary Data Sources

Primary and secondary data was collected for the CHNA to be representative of the entire four-county service area of the Collaborative. When available, county specific data was used. Each hospital and county provided and used data that was specific to their primary service area for their individual CHNAs.

Primary Data

The primary data collection for this study included five different qualitative methods: a community survey, stakeholder interviews, focus groups, a key informant survey and an intercept survey. These are outlined in Figure 4.1.

FIGURE 4.1: 2019 CHNA PRIMARY DATA COLLECTION METHODS

Source: Strategy Solutions, Inc.

Community Survey

The purpose of conducting a community survey is to:

- Learn about community needs through data collection from a subset of the population
- Receive detailed information from a larger and more representative group of people
- Ensure that actions taken are in line with needs that are expressed by the community
- Foster community support for actions that will be undertaken

The audience for the community survey included:

- General community, concentrating on the underrepresented populations
- A subset of the population that was representative of the population demographics or geographic location

The platform of the community survey included:

- Online surveys available via SurveyMonkey and accessible through a link or QR Code
- Paper surveys placed strategically throughout the four counties in four languages so those not able to access the online survey could complete it; staff from AdventHealth collected the paper surveys and inputted them into SurveyMonkey
- Survey was made available in the following languages:
  - English
  - Latin American Spanish
  - Brazilian Portuguese
  - Haitian Creole

The community survey was launched on January 7, 2019 and available for data collection until March 4, 2019. A total of 2,708 surveys were completed for the four-county region overall; 1,240 were completed by Orange County residents.

An incentive was included to encourage community residents to complete the survey. All employees of the Collaborative member organizations were ineligible to participate in the incentive drawing and all incentive logistics were handled by SSI.

Table 4.4 below shows the breakdown of the community survey respondent totals by county and language.

TABLE 4.4: CENTRAL FLORIDA COMMUNITY SURVEY RESPONDENTS BY COUNTY AND LANGUAGE

	English	Latin American Spanish	Brazilian Portuguese	Haitian Creole	Total
Lake County	653	3	0	0	656
Orange County	**1120**	**89**	**7**	**24**	**1240**
Osceola County	250	36	3	0	289
Seminole County	516	7	0	0	523
	2539	135	10	24	2708

Source: Strategy Solutions, Inc.

Stakeholder Interviews

The purpose of conducting stakeholder interviews is to:

- Explore complex issues and allow for follow-up questions to probe for understanding
- Access and understand the needs of underrepresented populations
- Give respondents the opportunity to clarify questions and concepts
- Provide a uniform approach to gathering information along with immediate results

The audience for the stakeholder interview collection tool was:

- Community members who represent the underserved population through programs and service offered

Interviews were conducted between January 1, 2019 and May 7, 2019 by Strategy Solutions, Inc. staff. Table 4.5 lists the interviews conducted relevant to Orange County. A total of 21 stakeholders participated from Orange County.

TABLE 4.5: ORANGE COUNTY STAKEHOLDERS

Interview Date	Stakeholder Name	Organization
01/07/19	Debbie Quick	Central Florida YMCA
01/07/19	Rebecca Sayago	Primary Care Access Network
01/08/19	Katherine Schroeder	Aspire Health Partners
01/08/19	Ken Peach	Health Council of East Central Florida
01/10/19	Elizabeth Whitton	MetroPlan Orlando
01/11/19	Karen Broussard	Second Harvest Food Bank of Central Florida
01/11/19	Shelley Lauten	Central Florida Commission of Homelessness
01/15/19	Bill D'Aiuto	Florida Department of Children and Families
01/22/19	Dr. Kevin Sherin	Florida Department of Health in Orange County
01/22/19	Jill Krohn	Florida Department of Children and Families
01/29/19	Xan Nowakowski	Florida State University College of Medicine
02/06/19	Candy Crawford	Mental Health Association of Central Florida
02/12/19	Latrice Steward	True Health
02/21/19	Donna Wyche	Orange County Government
02/28/19	Jean Zambrano	Shepherd's Hope
03/01/19	Ericka Dickerson	Boys and Girls Club of Central Florida
05/02/19	Margaret Brennan	Community Health Centers
05/06/19	David Drape	Florida Department of Children and Families
05/06/19	Sue Aboul-Hosn	Florida Department of Children and Families
05/07/19	Lance Morgan	Florida Department of Children and Families
05/07/19	Fawn Moore	Florida Department of Children and Families

Source: Strategy Solutions, Inc.

Focus Groups

The purpose of conducting focus groups is to gather community input on:

- Health status
- Health needs
- Community issues
- Access to services
- Potential solutions

The target audience for the focus groups included:

- Underrepresented populations
- People representing underrepresented populations
- People representing specific areas of interest, such as mental health, food insecurity, individuals experiencing homelessness, etc.

The platform used for conducting focus groups included:

- SSI staff conducted focus groups both in person and virtually:
  - In person used a combination of open discussion, list generation and OptionFinder with anonymous voting
  - Virtual focus groups were conducted with the Healthy Seminole Community Health Partners group and Aspire Health Partners

Focus groups were conducted between October 11, 2018 and April 4, 2019. A total of 15 focus groups were conducted with the nine below having representation from Orange County.

TABLE 4.6: FOCUS GROUPS WITH REPRESENTATION FROM ORANGE COUNTY

Focus Group Name	Counties	Date Conducted	# of Participants
United Against Poverty-Orlando- Food Security, Skills Training and Assistance	Orange	10/11/18	9
United Against Poverty-Orlando- Step Program- Food Security, Skills Training and Assistance	Orange	10/11/18	16
Health and Hunger Task Force- Food Security	4 County Representation	10/12/18	15
Mental and Behavioral Health	4 County Representation	10/13/18	23
Homelessness	4 County Representation	10/13/18	20
Emergency Personnel	4 County Representation	10/13/18	19
Senior Care	4 County Representation	10/13/18	13
Advent Care Center- Health Care Access, Food Security, Assistance	4 County Representation	12/14/18	16
Aspire Health Partners- Mental and Behavioral Health	Orange, Osceola and Seminole	02/08/19	9
Total Focus Group Participants			140*

*may not represent total number of non-duplicated individuals

Source: Strategy Solutions, Inc.

Intercept Survey

The purpose of conducting an intercept survey is to:

- Gather on-site feedback from an identified population
- Understand from the identified populations what their community health needs, barriers to care and needed services are

The audience for an intercept survey was:

- Individuals representing the underrepresented populations

The platform used to conduct intercept surveys was in-person, one-on-one conversations.

To support this CHNA in Orange County, a total of 86 intercept surveys were conducted with individuals at United Against Poverty, AdventHealth Community Medicine Clinic and the Christian Service Center during the week of December 12, 2018. For the intercept surveys completed by the consultant team, the collection tool was available in English, Latin American Spanish, Brazilian Portuguese and Haitian Creole. AdventHealth supplied interpreters to assist with talking to community members. Table 4.7 outlines the number of intercept surveys collected overall and by county. In Orange County one intercept survey was completed in Haitian Creole and six were completed in Spanish.

TABLE 4.7: INTERCEPT SURVEY BREAKDOWN BY COUNTY

Total Intercept Surveys	Lake County	Orange County	Osceola County	Seminole County
135	26	86	9	14

Source: Strategy Solutions, Inc.

Key Informant Survey

The purpose of conducting a key informant survey is to:

- Obtain vital information about the community
- Gather information for a CHNA and utilize the findings for effective prevention planning
- Assess if the needs in the community have changed over time
- Collect input from individuals who are knowledgeable about specific needs or issues, including underrepresented populations

The audience for the key informant survey collection tool was:

- Individuals who represented a particular population and/or sectors in the community that were not able to be included in the stakeholder interviews or focus groups.

The key informant survey was conducted as an on-line survey through Survey Monkey from December 17, 2018 through January 11, 2019.

Table 4.8 lists the totals for the key informant survey participation by county, with 111 surveys identified as relevant to Orange County. Please note that the total surveys completed does not equal the sum of the breakdown by county number as respondents were able to select multiple counties that their organization or agency serves. The AdventHealth Orlando service area includes Orange County.

TABLE 4.8: KEY INFORMANT SURVEY BREAKDOWN BY COUNTY*

Lake County	Orange County	Osceola County	Seminole County	Total
75	111	97	83	172

Source: Strategy Solutions, Inc.

*Total surveys completed does not equal the sum of the breakdown by county number as respondents were able to select multiple counties that their organization or agency serves.

Secondary Data

Figure 4.2 illustrates the sources used to capture the qualitative and quantitative secondary data that inform the AdventHealth Orlando's 2019 Community Health Needs Assessment report.

FIGURE 4.2: 2019 CHNA SECONDARY DATA

Claritas-Pop-Facts Premier 2019 Environics Analytics

Public health and community data from 15 additional sources

Inpatient and outpatient utilization data for uninsured patients from AdventHealth Orlando for 2016, 2017 and 2018

Source: Strategy Solutions, Inc

The secondary quantitative data collection process included:

- Demographic and socio-economic data obtained from the United States Census Bureau with data obtained through Claritas-Pop-Facts Premier, 2018, Environics Analytics and the U.S. Census Bureau, American Fact Finder
- Economic data obtained from the United States Census Bureau
- Disease incidence and prevalence data obtained from FLHealthCHARTS, Florida Department of Health
- Centers for Disease Control and Prevention
- Behavioral Risk Factor Surveillance Survey (BRFSS) data collected by the Centers for Disease Control and Prevention
- American Community Survey
- Healthy People 2020 goals from HealthyPeople.gov
- Florida Department of Education
- County Health Rankings
- United States Department of Agriculture
- Environmental Systems Research Institute (ESRI) (an international supplier of geographic information system software, web GIS and geodatabase management applications)
- Selected emergency department and inpatient utilization data from the Hospital were also utilized to produce the hot spot maps and analysis

The data presented are the most recent published by the source at the time of the data collection.

Healthy People 2020 is a set of goals and objectives with 10-year targets designed to guide national health promotion and disease prevention efforts to improve the health of all citizens. This framework reflects the idea that setting objectives and providing science-based benchmarks to track and monitor progress can motivate and focus action. Its comprehensive set of objectives and targets is used to measure progress for health issues in specific populations and serves as a model for measurement at the state and local levels.

Data Limitations

There are limitations in the primary and secondary data collected to conduct this assessment. Researchers were limited to the collection of the most recent available data sources of which many are two (2) or more years old. FLHealthCharts periodically updates data compiled and reported on through their website as new data is available and/or methods of reporting indicators change. The data in this report from FLHealthCharts is the data publicly available on their website at the time it was pulled between January and May 2019. FLHealthCharts may have updated or modified data on their website after data was pulled for inclusion in this report. Additionally, all primary data is qualitative and does not necessarily reflect a representative sample of the service area since it was collected through convenience sampling.

General Findings

The information sections of this report, where the primary and secondary data findings are available, are structured to provide insight into the Social Determinants of Health (SDOH) and how they impact the residents of the four-county region or Orange County. Each section outlined in Chapters 6 and 7 follow the same structure with three distinct sections for each major topic:

1. What the community is saying: includes the primary data collected through the focus groups, community surveys, intercept surveys, key informant surveys and stakeholder interviews from the four-county region.
2. At a glance: includes a graphic summary of the indicators in this section with a color-coded snapshot. Red means that the indicator has worsened and green means that there has been an improvement since the 2016 CHNA in Orange County.
3. Summary of indicators: includes a narrative description of the secondary data indicators included in the section specific to Orange County.

The charts within the report are designed to provide longitudinal data when available, to highlight the trends and changes that have occurred over time in the data. Some of the charts, especially those that highlight disparities among different racial and ethnic groups, contain “line breaks” where the data is not available for that population for one or more years. An asterisk (*) on a chart indicates the rate for one specific year.

A full report of all of the indicators reviewed can be found in the Central Florida Community Benefit Collaborative Community Health Needs Assessment at: https://www.adventhealth.com/community-health-needs-assessments.

CHAPTER FIVE

Top Community Health Needs

Bill Frederick Park
Orlando, FL

Orange County

Top Community Health Needs

Below are the top issues and priorities as identified through primary data collection for Orange County.

Orange County Community Survey Top 10 issues affecting respondents and their families:

1. Hypertension/High blood pressure
2. Obesity and overweight
3. High cholesterol
4. Diabetes
5. Employment opportunities/lack of jobs
6. Influenza and pneumonia
7. Access to affordable health care
8. Asthma/COPD
9. Heart disease
10. Cancer

Orange County Top 10 priorities impacting community members from Stakeholder Interviews:

1. Mental/behavioral health
2. Opioid/substance use
3. Access to care including coordination of services and services for seniors
4. Affordable housing
5. Chronic disease
6. Food insecurity
7. Trauma informed care
8. Obesity
9. Uninsured/insurance costs
10. Child fatality injury prevention

Orange County Top 9 issues impacting community members from Key Informant Surveys:

1. Heart disease
2. Living with a disability
3. STIs and HIV
4. Human Trafficking
5. Affordability of health care
6. Mental health/illness
7. Asthma homelessness
8. Inappropriate ER use
9. Poor birth outcomes

Orange County Focus Groups Top 10 needs/issues impacting the community:

1. Health care costs
2. Transportation
3. Mental health
4. Housing
5. Substance use
6. Access to health care
7. Dental care
8. Food insecurity/access to healthy food/nutrition
9. Senior services
10. Health education/literacy

Top Community Health Needs (Continued)

Primary and secondary data were reviewed and analyzed by SSI. The needs that rose to the top either through incidence rate in secondary or frequency through primary or a correlation of both are included in Table 5.1. All data and indicators were presented at the April 3rd meeting for review.

Table 5.1: TOP COMMUNITY HEALTH NEEDS FOR ORANGE COUNTY

Identified Need	Secondary Data	Community Survey	Stakeholder Interviews	Focus Groups	Intercept Surveys	Key Informant Surveys
ACCESS TO CARE						
Services for Aging Population				X	X	
Cost of Care/Insurance/ Medications	X		X	X	X	X
Insurance Coverage	X				X	X
General Wellness (Screenings, Vaccinations, Prevention)	X	X		X	X	
Lack Awareness of Available Resources and How to Navigate			X		X	
Health Education and Literacy			X	X	X	
Inappropriate Use of ED					X	X
Transportation			X	X		X
BEHAVIORAL RISK FACTORS						
Access to Mental Health Care				X		
Mental Health			X	X		
Binge Drinking	X					
Risky Sexual Behaviors		X				
Lack of Substance Abuse Providers				X		
Youth Substance Abuse (Drugs and Alcohol)	X			X		
Sedentary Adults	X					
Substance Abuse (Drugs, Alcohol, Tobacco, Vaping/E-Cigarettes)			X	X	X	

Identified Need	Secondary Data	Community Survey	Stakeholder Interviews	Focus Groups	Intercept Surveys	Key Informant Surveys
BIRTH CHARACTERISTICS						
Infant Mortality	X					
Self-Pay for Delivery Method	X					
Births to Mothers with Less Than High School Education	X					
Births to Teen Mothers	X					
Low Birth Weight Babies	X					
Mothers Obese at Time of Pregnancy	X					
Pre-Term Births						
Medicaid Births	X					
Mothers Not Receiving Prenatal Care First 3 Months/Difficulty Accessing Prenatal	X	X				
Maternal Health						X
Poor Birth Outcomes						X
BUILT ENVIRONMENT						
Access to Affordable Foods/Food Insecurity			X	X	X	X
Connectivity to Public Utilities/ Infrastructure						X
Safe Recreation				X	X	
Safe/Usable Sidewalks			X	X	X	
CHRONIC DISEASE						
Asthma and Asthma Hospitalizations	X					X
Cancer				X	X	X
Cardiovascular Disease (Heart Disease)	X				X	X
Chronic Disease			X		X	
Diabetes						X
Obesity	X			X	X	X
COMMUNICABLE DISEASE						
Childhood Immunizations	X					

Identified Need	Secondary Data	Community Survey	Stakeholder Interviews	Focus Groups	Intercept Surveys	Key Informant Surveys
Influenza Vaccinations	X					
Pneumonia Vaccinations	X					
Sexually Transmitted Infections		X				X
HIV/AIDS	X		X		X	
Hepatitis C			X		X	
ECONOMIC CONDITIONS						
Employment/ Livable Wages		X	X		X	
Affordable/ Adequate/Stable Housing	X	X	X		X	X
Homelessness			X	X	X	X
Poverty	X			X		X
Students Receiving Free and Reduced Lunch	X					
HEALTH CARE PROVIDERS AND FACILITIES						
Availability of Primary Care Physicians (Accessible Hours and Wait Times)						X
Dental Care				X	X	X
Specialists					X	
Coordinated Care Among Providers			X	X		
Mental Health Providers				X		X
INJURY						
Motor Vehicle Crash Deaths	X					
Unintentional Falls	X					X
Unintentional Poisonings	X					
Domestic Violence	X					
QUALITY OF LIFE/MENTAL HEALTH						
Lack of Services and Providers				X	X	
Children Receiving Mental Health Treatment	X					
Child Abuse	X					
Mental Health (in General)			X	X	X	X

Identified Need	Secondary Data	Community Survey	Stakeholder Interviews	Focus Groups	Intercept Surveys	Key Informant Surveys
Stigma				X		
Social Insolation				X		
Substance Use				X		X
SCHOOL AND STUDENT DEMOGRAPHICS						
Child Sexual Abuse		X				
Gun Violence		X				
Delinquency/ Youth Arrests	X	X				
Student Absenteeism	X					

Source: Strategy Solutions, Inc.

CHAPTER SIX

Community Profile of Orange County

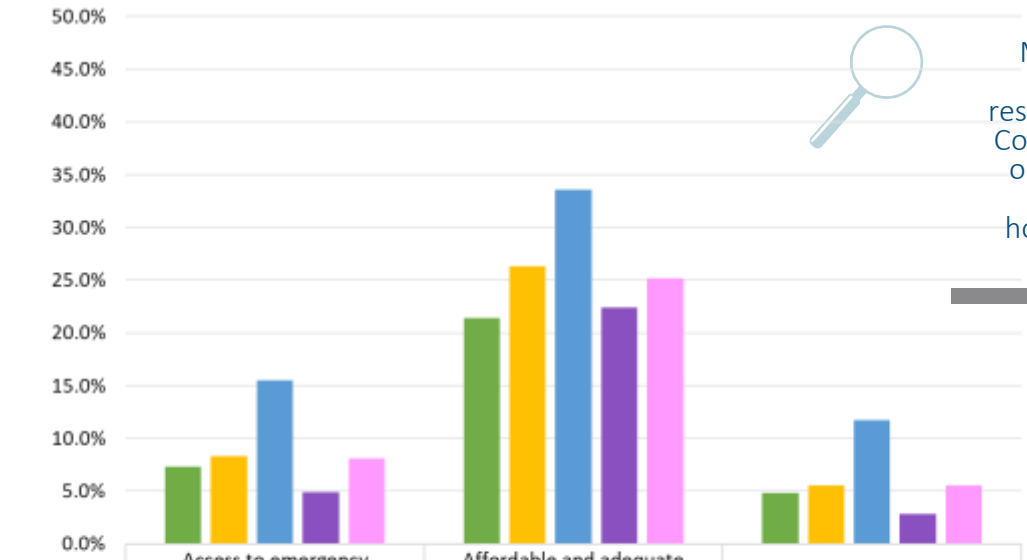
Cypress Grove Park
Orlando, FL

Orange County

Economic Conditions: What the Community is Saying

Figure 6.1 illustrates the experiences of Orange County community survey respondents related to housing. Of the Orange County community survey respondents, 8.3 percent indicated that they or a family member had accessed an emergency shelter in the area in the past year. More than one in four respondents (26.3 percent) indicated that they or a family member experienced difficulty with affordable and adequate housing in the past year.

FIGURE 6.1: HOUSING NEEDS, COMMUNITY SURVEY 2019



	Access to emergency shelter in the area	Affordable and adequate housing	Homelessness
LAKE	7.3%	21.4%	4.8%
ORANGE	8.3%	26.3%	5.5%
OSCEOLA	15.5%	33.6%	11.7%
SEMINOLE	4.9%	22.4%	2.8%
OVERALL	8.1%	25.2%	5.5%

More than 1 in 20 community respondents in Orange County indicated they or a family member had experienced homelessness in the last year.

Source: Central Florida Community Collaborative Community Survey, Strategy Solutions, Inc.

Figure 6.2 outlines some of the impacts of economic conditions identified by community survey respondents.

FIGURE 6.2: IMPACTS OF ECONOMIC CONDITIONS, COMMUNITY SURVEY 2019

Food Did Not Last		Utilities Shut Off		Worried About Stable Housing	
Lake	8.3%	Lake	4.9%	Lake	6.3%
Orange	11.2%	Orange	6.3%	Orange	10.4%
Osceola	22.6%	Osceola	9.0%	Osceola	18.1%
Seminole	7.8%	Seminole	6.4%	Seminole	4.5%
Overall	11.1%	Overall	6.3%	Overall	9.1%

More than 1 in 10 community respondents in Orange County indicated they or a family member did not have food last in the past year.

Source: Central Florida Community Collaborative Community Survey, Strategy Solutions, Inc.

Figure 6.3 outlines the percentages of community survey respondents that are struggling with employment-related needs and issues.

FIGURE 6.3: EMPLOYMENT-RELATED NEEDS, COMMUNITY SURVEY 2019

% Affected by Employment-Related Needs	
Lake	11.1%
Orange	8.3%
Osceola	11.2%
Seminole	22.6%
Overall	7.8%

Nearly 1 in 10 of Orange County respondents were affected by employment-related issues.

Source: Central Florida Community Collaborative Community Survey, Strategy Solutions, Inc.

Participants in the primary research identified the following needs and issues related to economic conditions:

- Debt caused by jobs not paying a livable wage
- Lack of affordable housing
- Lack of job training
- Homelessness
- Difficulty to get insurance if you are homeless

Barriers to care identified by primary research participants included:

- Lack of money, income, and living wages
- Lack of transportation makes it difficult to get to work and appointments
- Restrictions on housing that makes it difficult to end homelessness

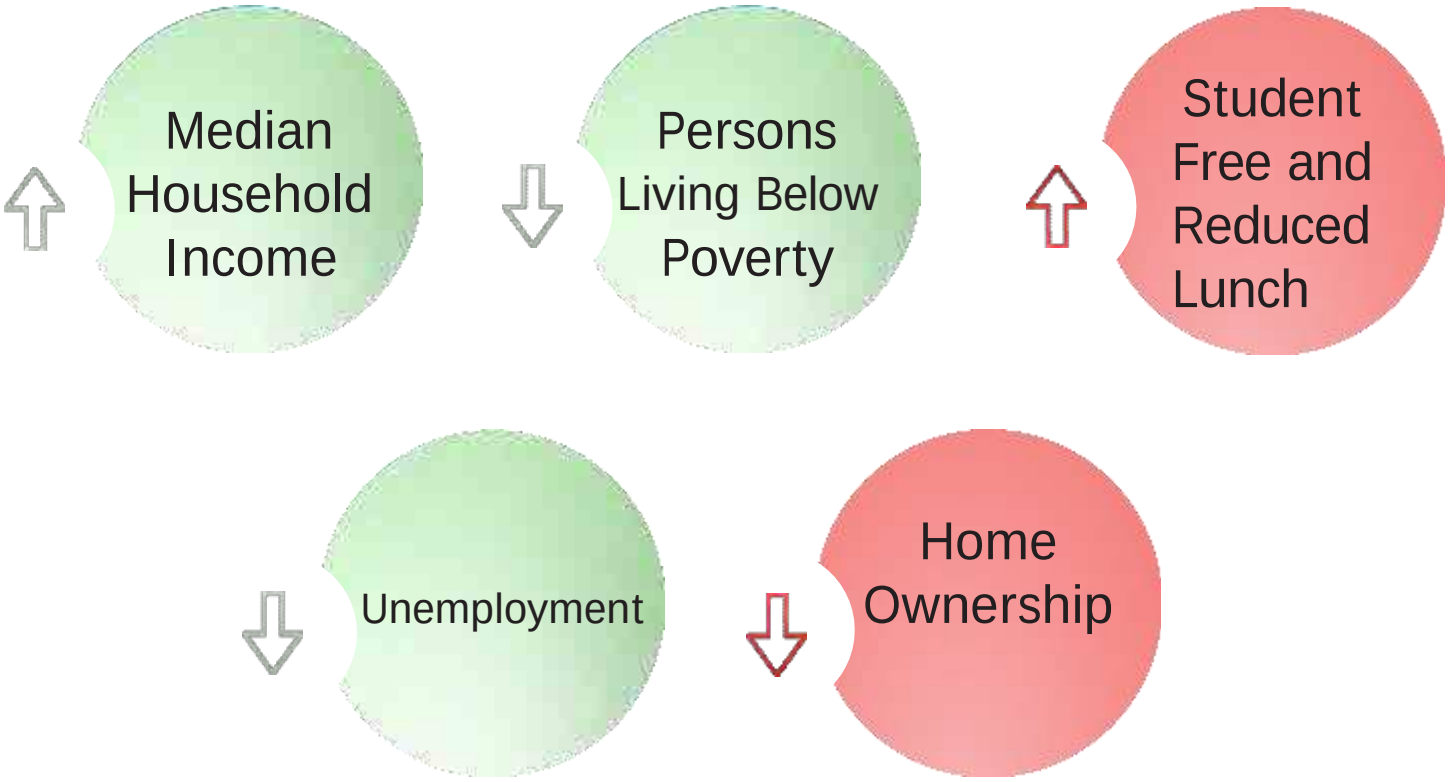
Needed services related to economic conditions that were identified by primary research participants included:

- Homeless support and shelter
- Affordable quality housing
- Increased public transportation (routes and times)
- Job training and placement
- Transitional housing

Economic Conditions at a Glance

The key indicators related to economic conditions that have changed since the last CHNA are identified in Figure 6.4. Red means that the indicator has worsened and green means that there has been an improvement since the 2016 CHNA.

FIGURE 6.4: ECONOMIC INDICATORS



Source: Strategy Solutions, Inc.

Economic Conditions: Summary of Indicators

The following includes both a narrative as well as a visual (chart or table) summary of indicators reported on in this section. While above colored icons illustrate observed trends from the data reported in the 2016 CHNA, this section is designed to highlight relevant historical information on each indicator and provide a narrative of the data included in the charts/tables that follow.

MEDIAN HOUSEHOLD INCOME (2000-2017)

Orange County ($41,311 in 2000 to $51,586 in 2017) consistently had a higher median household income than the state ($38,819 in 2000 to $50,883 in 2017). Both rates increased from 2000-2017. (See Chart 6.1)

PERSONS LIVING BELOW POVERTY LEVEL (2000-2017)

Orange County's percentage of people living below the poverty line increased from 12.1 percent in 2000 to 15.3 percent in 2017. The county percentage was lower than that of the state in 2000 (12.5 percent) but increased above the state's (14 percent) in 2017. (See Chart 6.2)

STUDENTS RECEIVING FREE & REDUCED LUNCH (2014-2018)

The National School Lunch Program, School Breakfast Program, Special Milk Program, Child And Adult Care Food Program, and Summer Food Service Program provide income-eligible students with free and reduced-price meals. According to County Health Rankings and Roadmaps in 2018, Orange County had 63.9 percent of students receiving free and reduced lunch, while the state had 58.8 percent. This was an increase from 2014 when the numbers increased in both Orange County and the state from 50.2 percent and 48.7 percent respectively. (See Chart 6.3)

UNEMPLOYMENT RATE (2008-2018)

The average unemployment rate in Orange County fluctuated from 2008 to 2018. In 2008, the rate was 6 percent, with a peak at 10.8 percent in 2010 followed by a decline to 3.1 percent in 2018. The county's rate has been consistently equal to (at 10.4 in 2009) or lower than state's rate for most of that period, including in 2018, when the state rate was 3.6 percent. (See Chart 6.4)

HOMEOWNERSHIP RATES (2000-2017)

The Orange County Homeowner rate decreased from 60.7 percent in 2000 to 54.5 percent in 2017, the county rate was consistently below that of the state. The state rate was 70.1 percent in 2000 and 64.8 percent in 2017. (See Chart 6.5)

COST BURDEN OF HOUSEHOLDS (2016, 2013-2017)

According to the Department of Housing and Urban Development (HUD), households who pay more than 30 percent of their income for housing are considered cost burdened. Those who pay more than 50 percent are severely cost burdened. In Orange County, 22.9 percent were cost burdened and 23.7 percent were severely cost burdened in 2016, higher than the state level for both. In the state, 20.4 percent reported being cost burdened and 21.3 percent severely cost burdened. (See Chart 6.6 and Figure 6.5)

HOMEOWNER COST BURDEN (2016)

Homeowners are less likely to be burdened by the cost of their home than renters. In 2016, Orange County homeowners, with 62.2 percent reporting not being cost burdened, was close to the state level (65.1 percent). (See Chart 6.7)

GROSS RENT AS A PERCENT OF INCOME- 5-YEAR ESTIMATES (2016)

In 2016, residents who rent in Orange County report that 43 percent are paying less than 30 percent of their income on rent, equal to the state percentage. Orange County had more residents cost burdened than the state (28.2 percent, 27.8 percent), but fewer who were severely cost burdened (28.7 percent, 29.2 percent). (See Chart 6.8)

COST BURDEN EXPERIENCED BY RENTER HOUSEHOLDS (2016, 2013-2017)

In 2016, Orange County had more residents who rent that are cost burdened (26.3 percent) and severely cost burdened (32.7 percent) than the state did (24.8 percent and 31.3 percent respectively). (See Chart 6.9 and Figure 6.6)

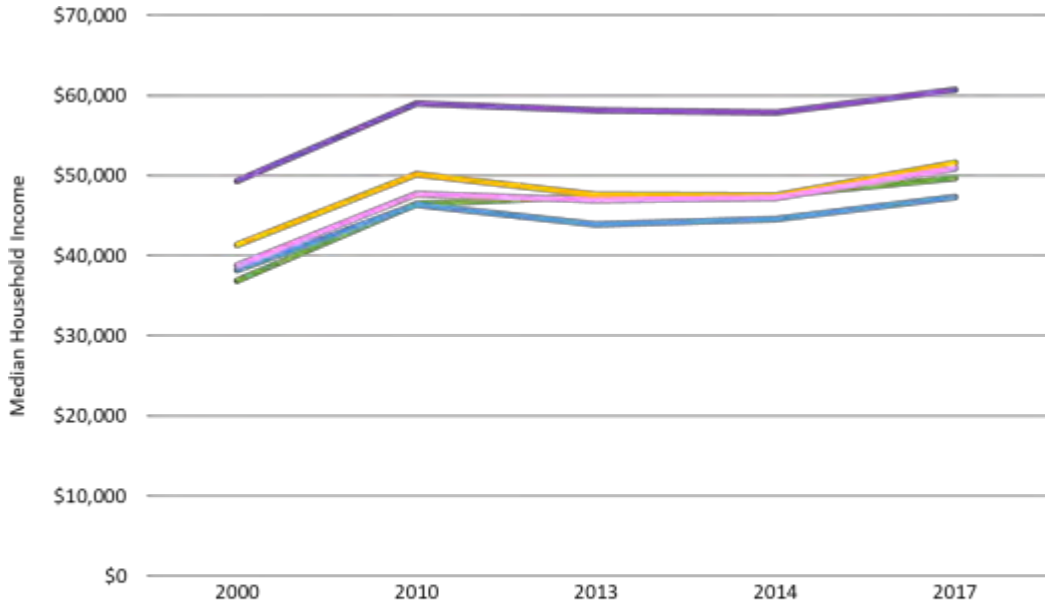
HOMELESS INDIVIDUALS BY COUNTY (2010-2018)

The number of homeless individuals has fluctuated in Orange County, which reported 1,539 homeless in 2018, an increase from 1,494 in 2010. There was a spike between 2011 (2,872) and 2013 (2,937). (See Table 6.1)

INCOME INEQUALITY (2018)

Income inequality refers to the uneven distribution of income across a population. One measure of income inequality involves generating percentiles for household income. Then, the income (in dollars) at the 20th and 80th percentiles are used to generate a ratio; the higher the ratio, the higher the income inequality. The ratio in Orange County (4:6) is lower than the state (4:7), indicating a more equal distribution of income. (See Chart 6.10)

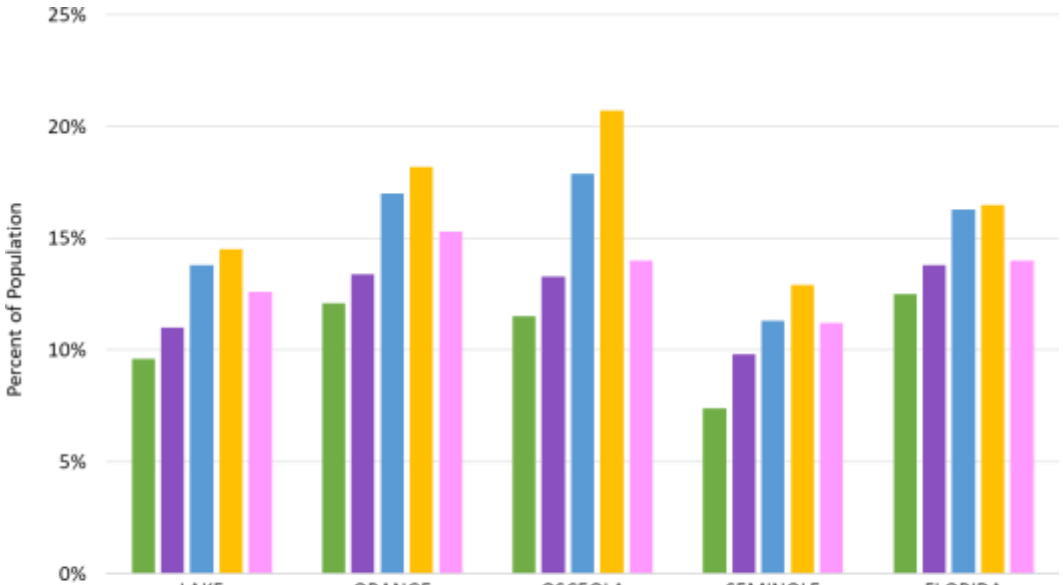
CHART 6.1: MEDIAN HOUSEHOLD INCOME (2000-2017)



	2000	2010	2013	2014	2017
LAKE	$36,903	$46,477	$47,439	$47,465	$49,734
ORANGE	$41,311	$50,138	$47,581	$47,556	$51,586
OSCEOLA	$38,214	$46,328	$43,891	$44,551	$47,343
SEMINOLE	$49,326	$58,971	$58,175	$57,875	$60,739
FLORIDA	$38,819	$47,661	$46,956	$47,212	$50,883

Source: U.S. Census Bureau, American Fact Finder

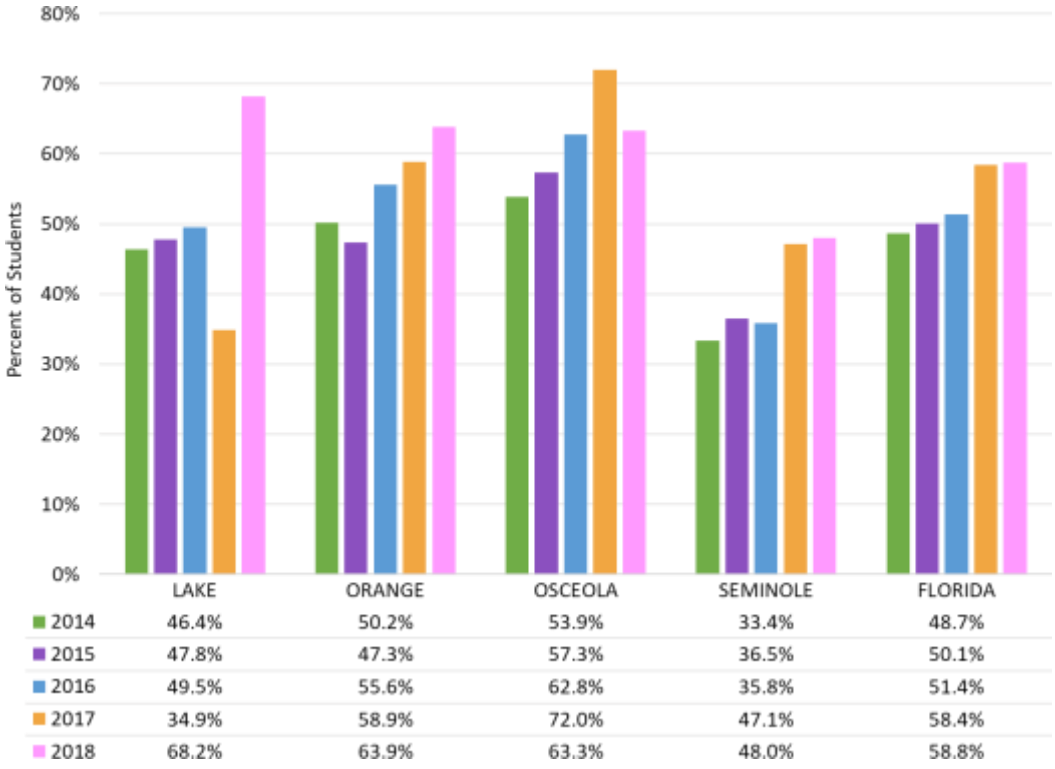
CHART 6.2: PERSONS LIVING BELOW POVERTY LEVEL (2000-2017)



	LAKE	ORANGE	OSCEOLA	SEMINOLE	FLORIDA
2000	9.6%	12.1%	11.5%	7.4%	12.5%
2010	11.0%	13.4%	13.3%	9.8%	13.8%
2013	13.8%	17.0%	17.9%	11.3%	16.3%
2014	14.5%	18.2%	20.7%	12.9%	16.5%
2017	12.6%	15.3%	14.0%	11.2%	14.0%

Source: U.S. Census Bureau, American Fact Finder

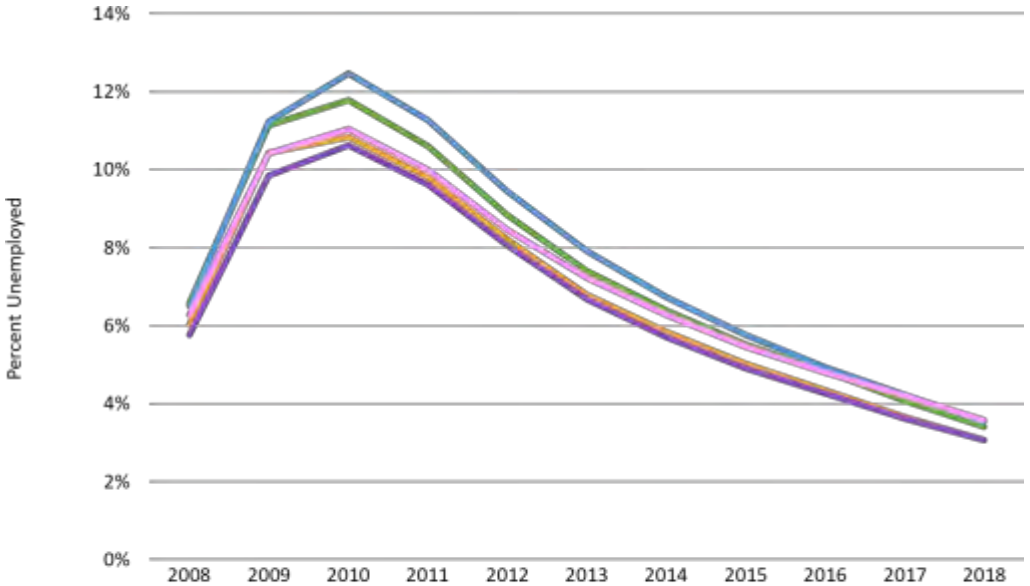
CHART 6.3: STUDENTS RECEIVING FREE & REDUCED LUNCH (2014-2018)



	LAKE	ORANGE	OSCEOLA	SEMINOLE	FLORIDA
2014	46.4%	50.2%	53.9%	33.4%	48.7%
2015	47.8%	47.3%	57.3%	36.5%	50.1%
2016	49.5%	55.6%	62.8%	35.8%	51.4%
2017	34.9%	58.9%	72.0%	47.1%	58.4%
2018	68.2%	63.9%	63.3%	48.0%	58.8%

Source: County Health Rankings and Roadmaps

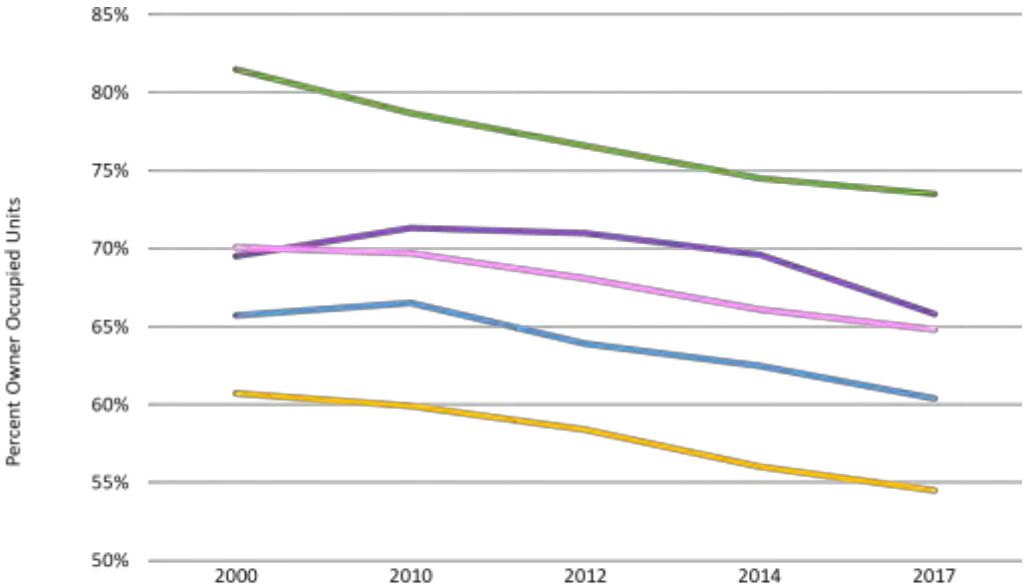
CHART 6.4: UNEMPLOYMENT RATE (2008–2018)



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
LAKE	6.6%	11.1%	11.8%	10.6%	8.8%	7.4%	6.4%	5.5%	4.8%	4.1%	3.4%
ORANGE	6.0%	10.4%	10.8%	9.8%	8.2%	6.8%	5.8%	5.0%	4.3%	3.7%	3.1%
OSCEOLA	6.5%	11.2%	12.5%	11.3%	9.5%	7.9%	6.7%	5.8%	4.9%	4.2%	3.6%
SEMINOLE	5.8%	9.8%	10.6%	9.6%	8.1%	6.7%	5.7%	4.9%	4.3%	3.6%	3.1%
FLORIDA	6.3%	10.4%	11.0%	10.0%	8.5%	7.2%	6.3%	5.5%	4.8%	4.2%	3.6%

Source: US Department of Labor, Bureau of Labor Statistics

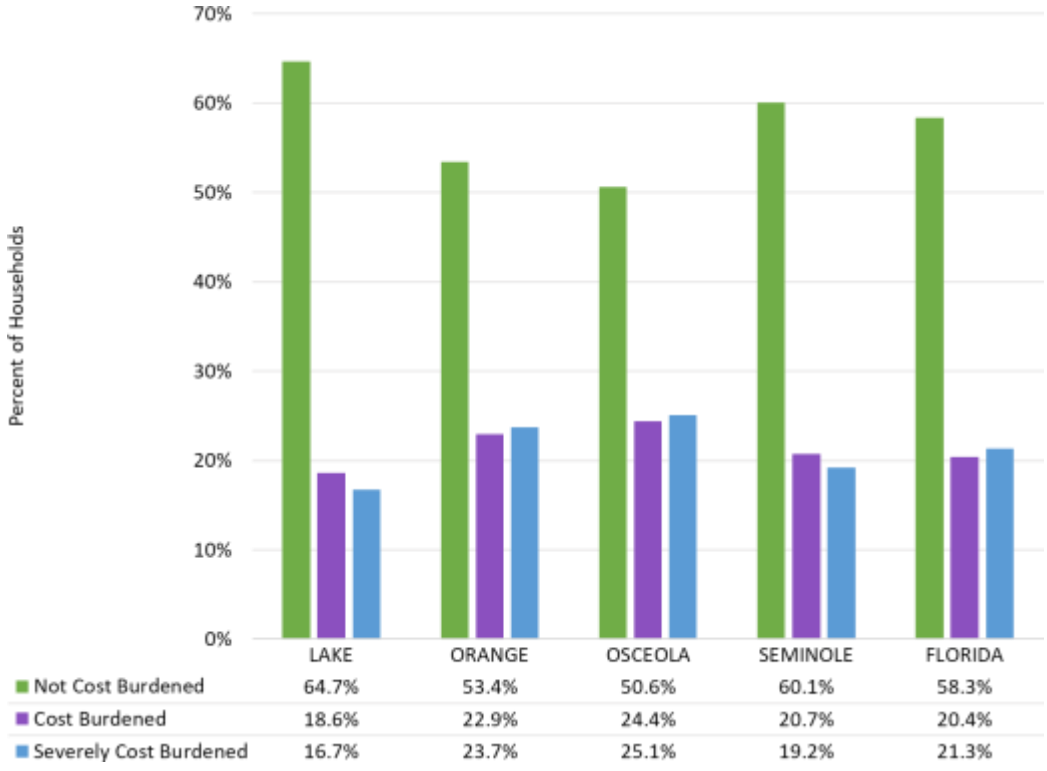
CHART 6.5: HOMEOWNERSHIP RATES (2000–2017)



	2000	2010	2012	2014	2017
LAKE	81.5%	78.7%	76.6%	74.5%	73.5%
ORANGE	60.7%	59.9%	58.4%	56.0%	54.5%
OSCEOLA	65.7%	66.5%	63.9%	62.5%	60.4%
SEMINOLE	69.5%	71.3%	71.0%	69.6%	65.8%
FLORIDA	70.1%	69.7%	68.1%	66.1%	64.8%

Source: Florida Housing Data, Shimberg Center

CHART 6.6: COST BURDEN OF HOUSEHOLDS (2016)



	LAKE	ORANGE	OSCEOLA	SEMINOLE	FLORIDA
Not Cost Burdened	64.7%	53.4%	50.6%	60.1%	58.3%
Cost Burdened	18.6%	22.9%	24.4%	20.7%	20.4%
Severely Cost Burdened	16.7%	23.7%	25.1%	19.2%	21.3%

Source: Florida Housing Data, Shimberg Center

FIGURE 6.5: HOMEOWNER COST BURDEN MAP (2013-2017)

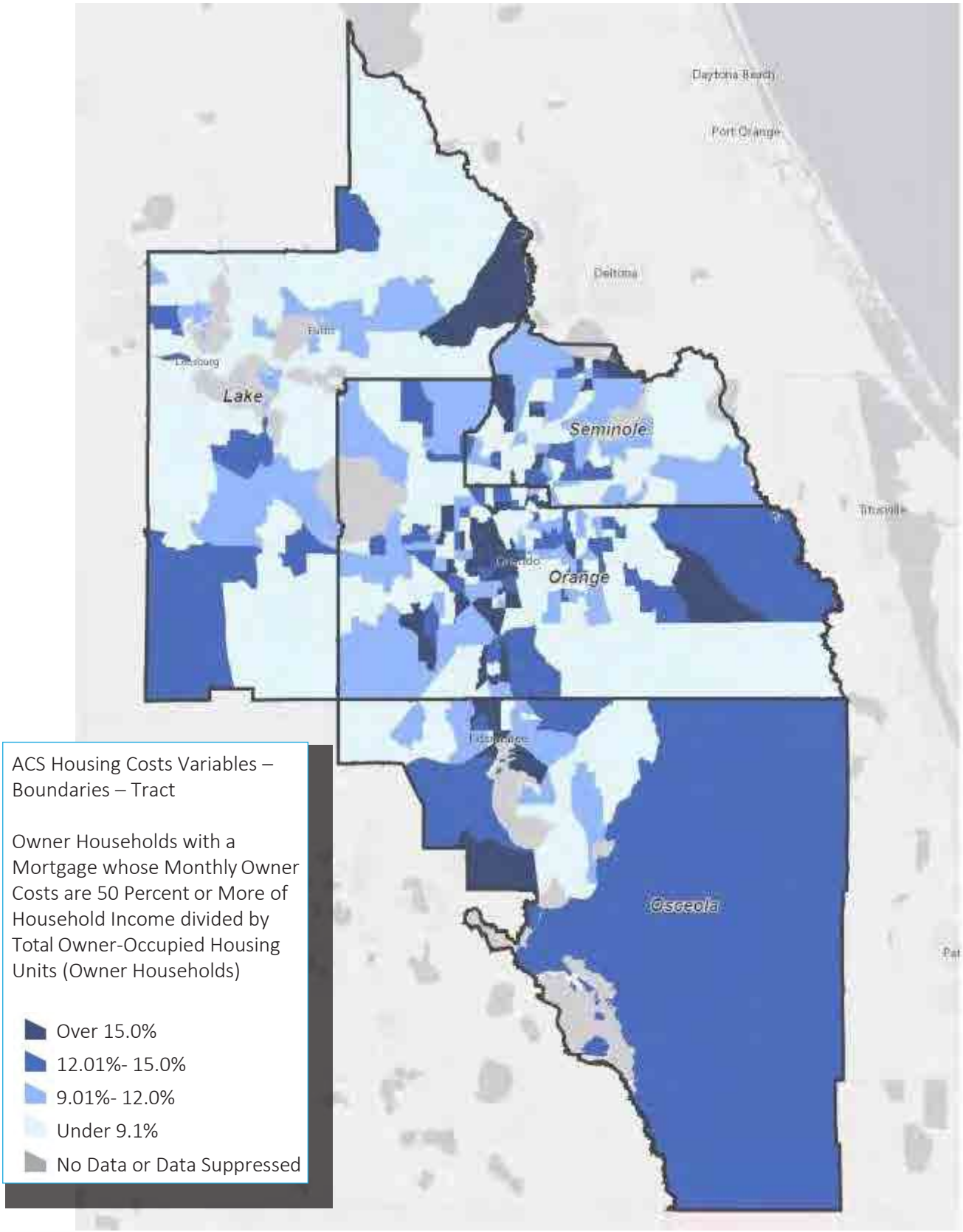
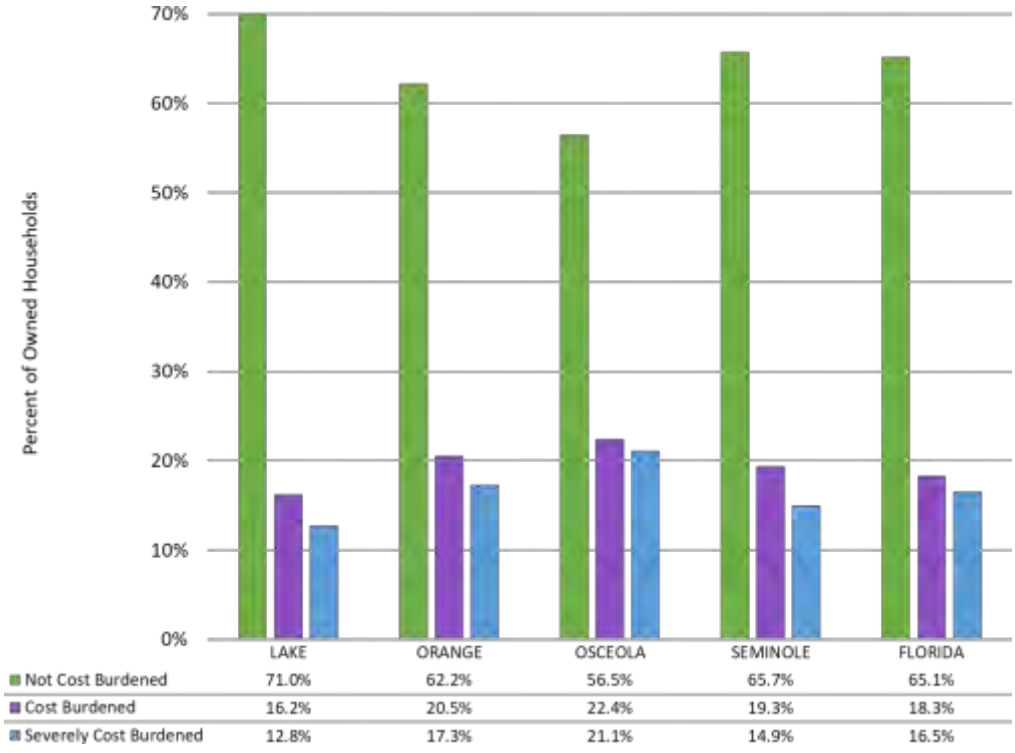


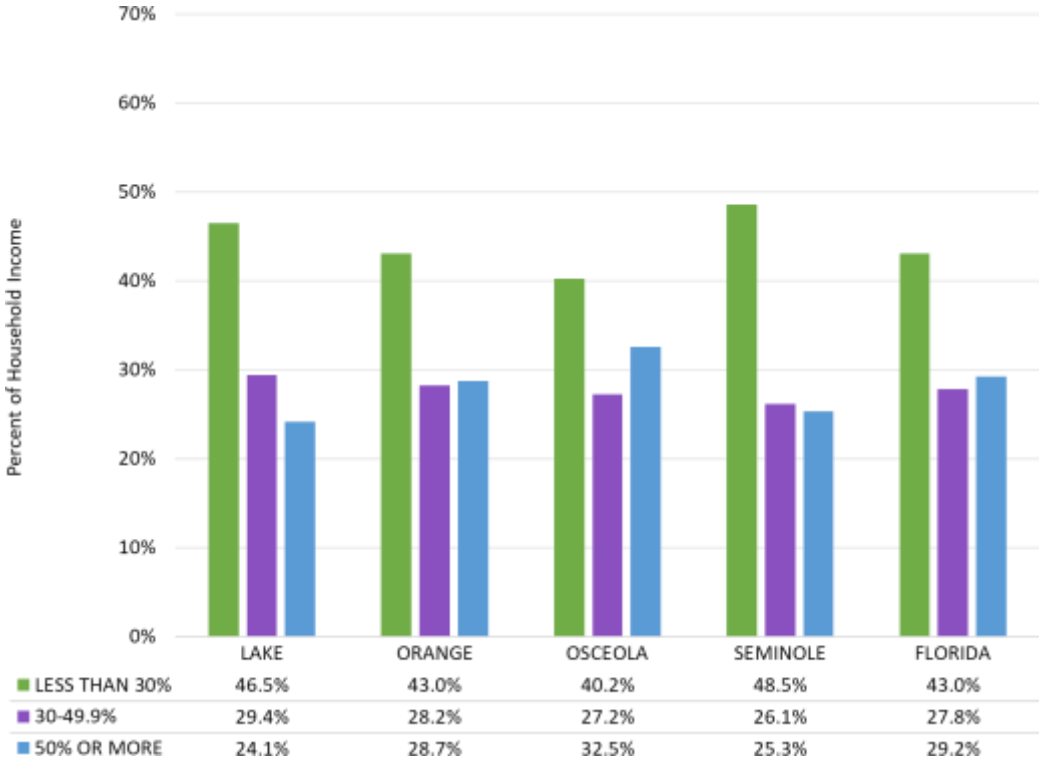
CHART 6.7: HOMEOWNER COST BURDEN (2016)



	LAKE	ORANGE	OSCEOLA	SEMINOLE	FLORIDA
Not Cost Burdened	71.0%	62.2%	56.5%	65.7%	65.1%
Cost Burdened	16.2%	20.5%	22.4%	19.3%	18.3%
Severely Cost Burdened	12.8%	17.3%	21.1%	14.9%	16.5%

Source: Florida Housing Data, Shimberg Center

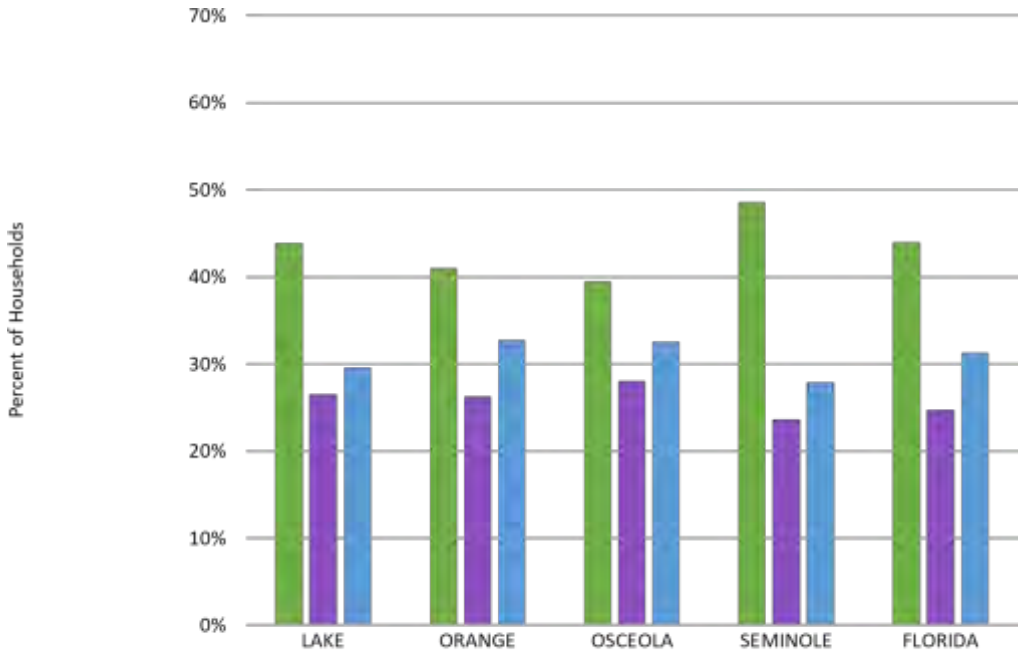
CHART 6.8: GROSS RENT AS A PERCENT OF INCOME- 5-YEAR ESTIMATES (2016)



	LAKE	ORANGE	OSCEOLA	SEMINOLE	FLORIDA
LESS THAN 30%	46.5%	43.0%	40.2%	48.5%	43.0%
30-49.9%	29.4%	28.2%	27.2%	26.1%	27.8%
50% OR MORE	24.1%	28.7%	32.5%	25.3%	29.2%

Source: Florida Housing Data, Shimberg Center

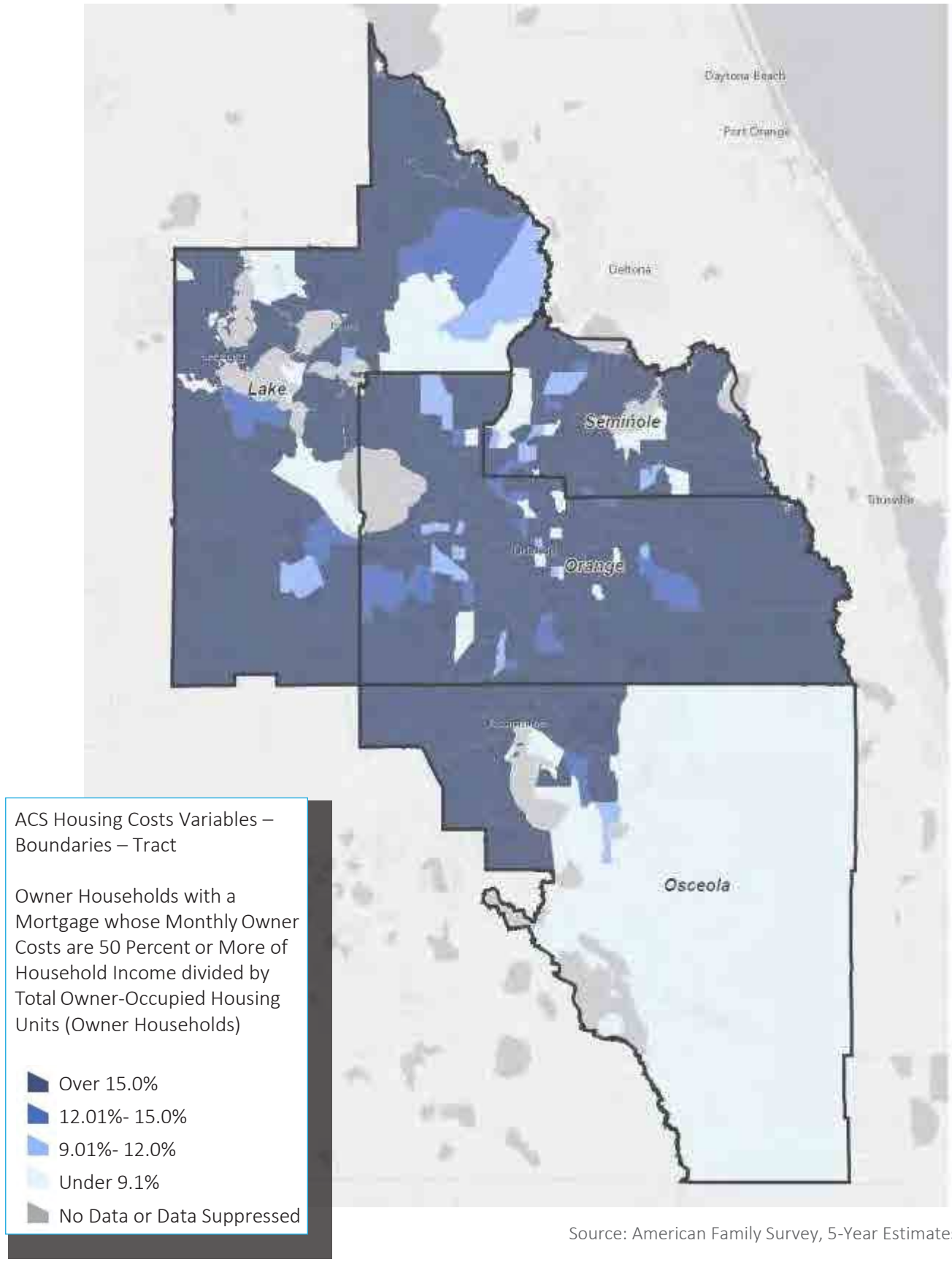
CHART 6.9: COST BURDEN EXPERIENCED BY RENTER HOUSEHOLDS (2016)



	LAKE	ORANGE	OSCEOLA	SEMINOLE	FLORIDA
Not Cost Burdened	43.9%	41.0%	39.4%	48.6%	44.0%
Cost Burdened	26.5%	26.3%	28.0%	23.6%	24.8%
Severely Cost Burdened	29.6%	32.7%	32.5%	27.9%	31.3%

Source: Florida Housing Data, Shimberg Center

FIGURE 6.6: COST BURDEN EXPERIENCED BY RENTER HOUSEHOLDS MAP (2013-2017)



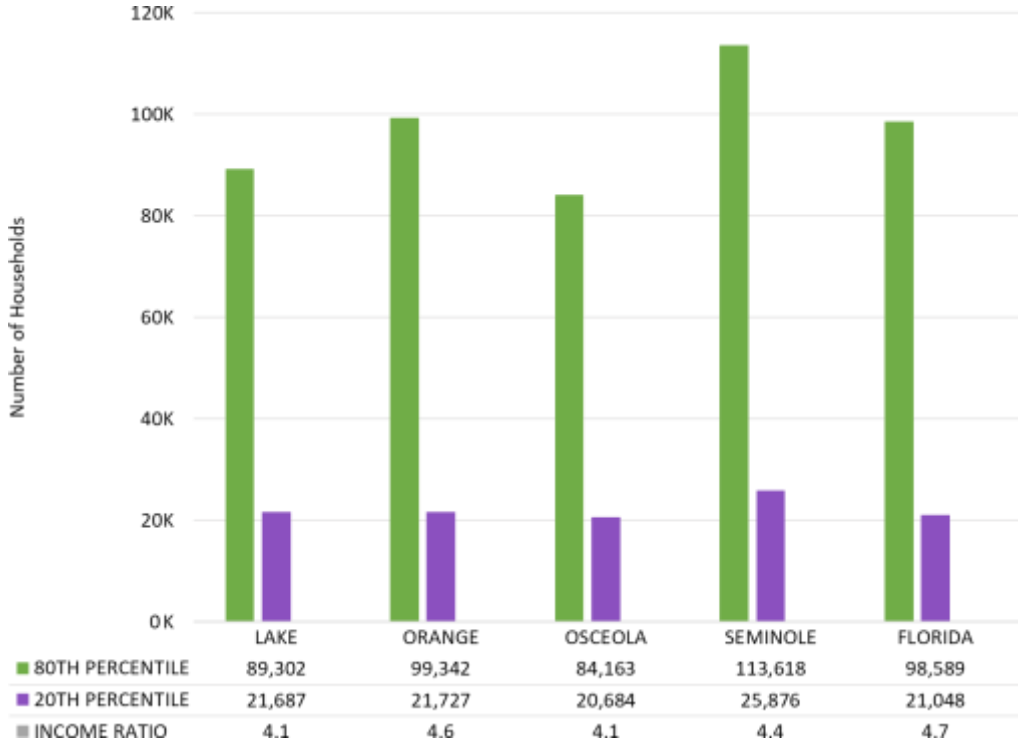
Source: American Family Survey, 5-Year Estimates

TABLE 6.1: HOMELESS INDIVIDUALS BY COUNTY (2010-2018)

County	2010	2011	2012	2013	2014	2015	2016	2017	2018
Lake	796	1,008	1,019	282	187	265	198	242	312
Orange	1,494	2,872	2,281	2,937	1,701	1,396	1,228	1,522	1,539
Osceola	443	833	722	599	278	372	175	239	226
Seminole	397	810	658	842	275	344	210	313	288
Total	3,130	5,523	4,680	4,660	2,441	2,377	1,811	2,316	2,365

Source: Florida Department of Children and Families Council on Homelessness Annual Report

CHART 6.10: INCOME INEQUALITY (2018)



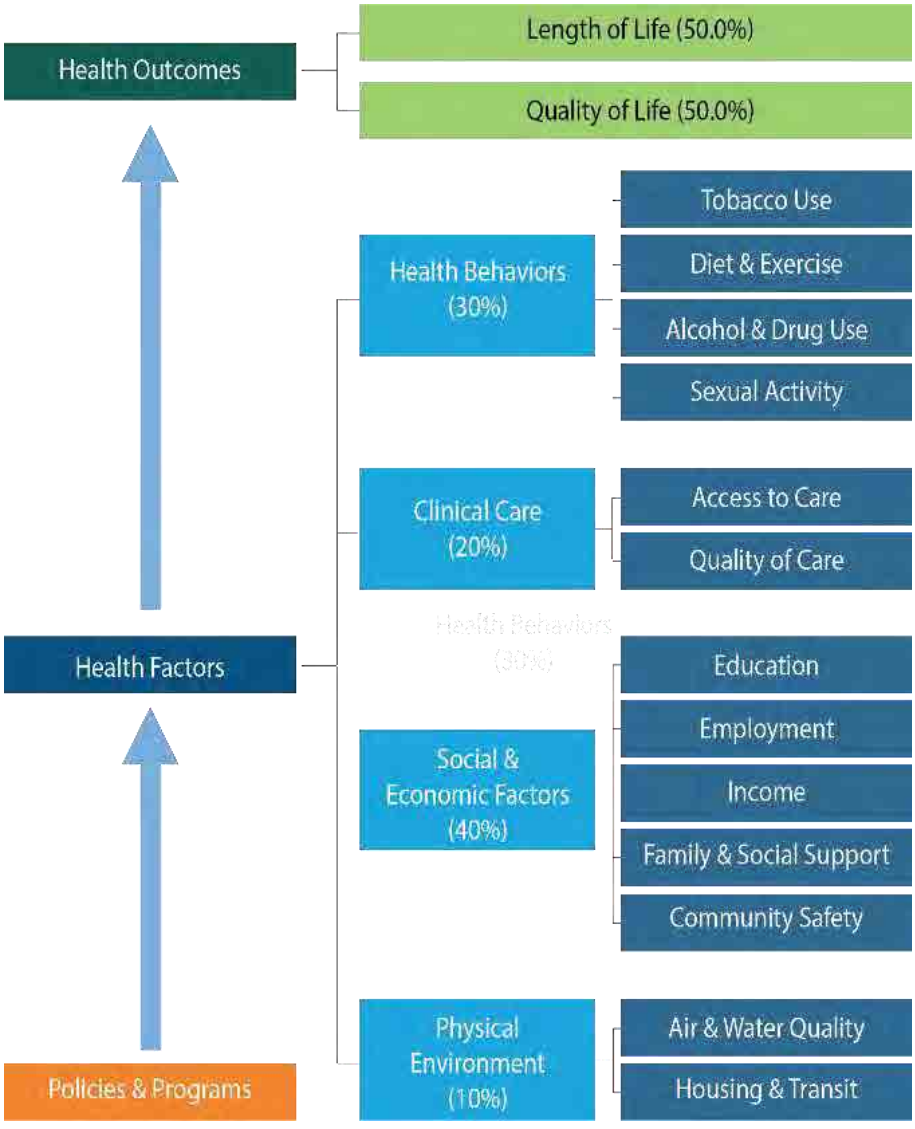
Source: Florida Housing Data, Shimberg Center

County Health Rankings and Roadmaps

The County Health Rankings & Roadmaps (CHR) program is a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute. They believe America can become a nation where getting healthy, staying healthy and making sure our children grow up healthy are top priorities. They envision an America where we all strive to live together to build a national culture of health that enables all in our diverse society to lead healthy lives, now, and for generations to come.

The County Health Rankings are based on a model of community health that emphasizes the many factors that influence how long and how well we live. The rankings use more than 30 measures that help communities understand how healthy their residents are today (health outcomes) and what will impact their health in the future (health factors). Health outcomes weigh length of life and quality of life equally and health factors are comprised of health behaviors (30 percent), clinical care (20 percent), social and economic factors (40 percent) and physical environment (10 percent). The model is outlined in Figure 6.7. This model outlines how numerical rankings are determined. All 67 counties in Florida receive rankings.

FIGURE 6.7: COUNTY HEALTH RANKINGS



Source: County Health Rankings and Roadmaps

To assess changes in the four-county region since the 2016 CHNA, Table 6.2 includes data from 2016 and 2018. When looking at all of identified health outcomes and factors identified by County Health Rankings, Orange County is approximately in the top quarter of the state as the 15th and 19th best respectively in the state.

When the components of health outcomes are broken down, Orange County was 18th in the state in social & economic factors, 7th in the state for resident length of life and 13th in health behavior. (See Table 6.3)

TABLE 6.2: CENTRAL FLORIDA COUNTY HEALTH RANKINGS 2016/2018

	2016		2018	
County	Health Outcomes	Health Factors	Health Outcomes	Health Factors
Lake	14	17	24	24
Orange	21	21	15	19
Osceola	32	40	30	32
Seminole	5	3	4	5

Source: County Health Rankings and Roadmaps

TABLE 6.3: HEALTH OUTCOME/FACTOR RANKINGS 2018

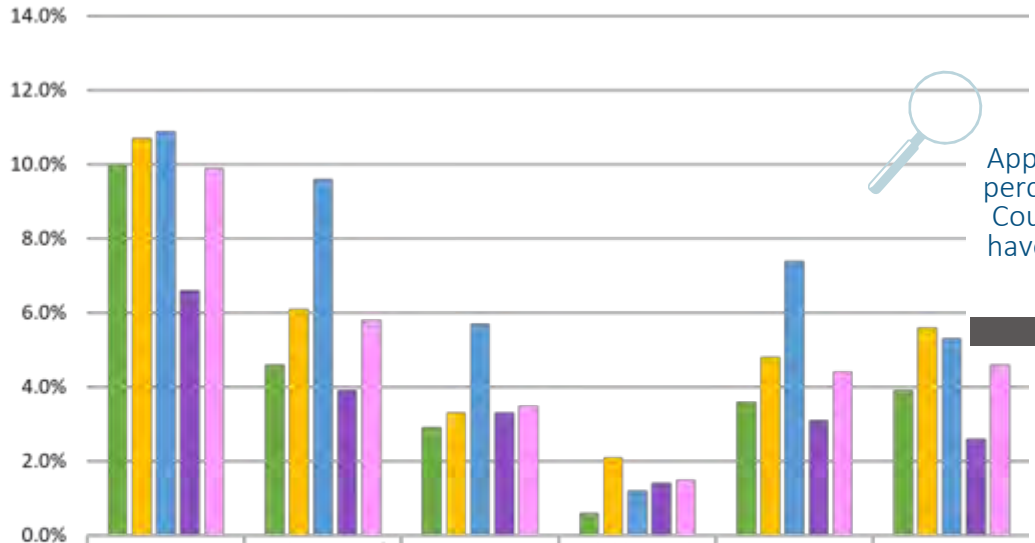
County	Length of Life	Quality of Life	Health Behavior	Clinical Care	Social & Economic Factors	Physical Environment
Lake	26	20	21	12	21	51
Orange	7	28	13	23	18	48
Osceola	8	51	18	48	26	65
Seminole	5	8	10	5	2	55

Source: County Health Rankings and Roadmaps

School and Student Characteristics: What the Community is Saying

Figure 6.8 illustrates the experience of the community survey respondents related to crime, delinquency and violence. Respondents from Orange County are more likely to have experienced gun violence and child sexual abuse than respondents from the other counties in the four-county region.

FIGURE 6.8: CRIME AND DELINQUENCY EXPERIENCE, COMMUNITY SURVEY 2019



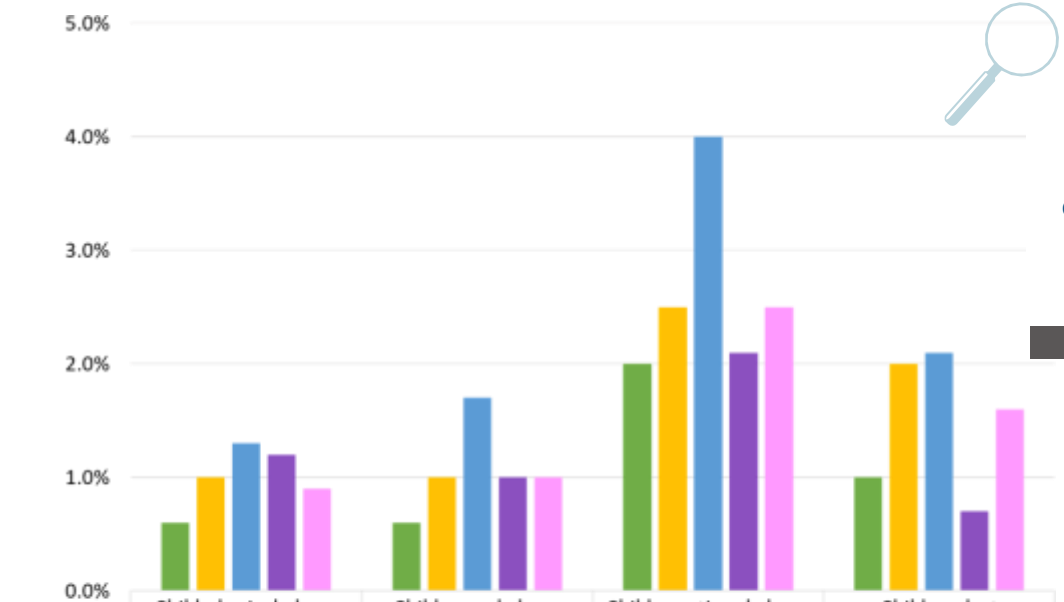
	Crime	Delinquency/ youth crime	Domestic violence	Child sexual abuse	Violence	Gun violence
LAKE	10.0%	4.6%	2.9%	0.6%	3.6%	3.9%
ORANGE	10.7%	6.1%	3.3%	2.1%	4.8%	5.6%
OSCEOLA	10.9%	9.6%	5.7%	1.2%	7.4%	5.3%
SEMINOLE	6.6%	3.9%	3.3%	1.4%	3.1%	2.6%
OVERALL	9.9%	6.8%	4.1%	1.5%	4.4%	4.6%

Source: Central Florida Community Collaborative Community Survey, Strategy Solutions, Inc.

Approximately 11 percent of Orange County residents have experienced crime.

A small percentage (1 percent) of community survey respondents indicated that they or their family have experienced physical or sexual child abuse. These are outlined in Figure 6.9.

FIGURE 6.9: CHILD ABUSE AND NEGLECT, COMMUNITY SURVEY 2019



	Child physical abuse	Child sexual abuse	Child emotional abuse	Child neglect
LAKE	0.6%	0.6%	2.0%	1.0%
ORANGE	1.0%	1.0%	2.5%	2.0%
OSCEOLA	1.3%	1.7%	4.0%	2.1%
SEMINOLE	1.2%	1.0%	2.1%	0.7%
OVERALL	0.9%	1.0%	2.5%	1.6%

Source: Central Florida Community Collaborative Community Survey, Strategy Solutions, Inc.

Child neglect was experienced by 2 percent of community survey respondents from Orange County.

Participants in the primary research identified the following needs and issues related to school and student characteristics:

- Youth not having a place to go for resources
- Obesity
- Lack of quality childcare
- Lack of parental involvement
- Lack of quality food

Barriers to care identified by primary research participants included:

- Lack of safe places to play
- Lack of transportation
- Lack of parental support

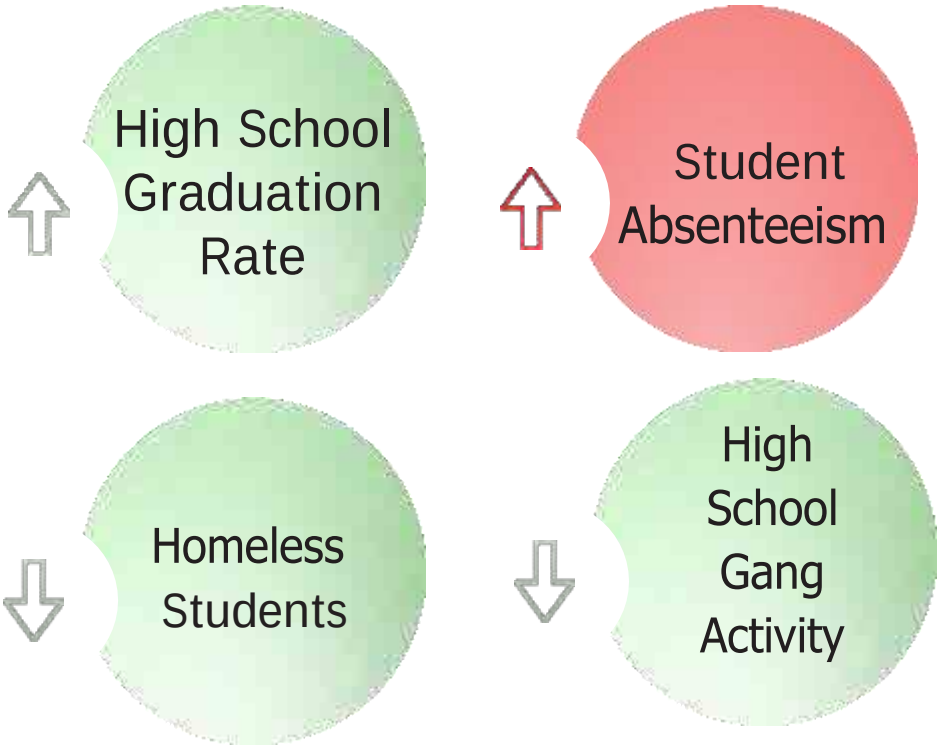
Needed services related to school and student characteristics that were identified by primary research participants included:

- Dental care
- Affordable preventative care
- Affordable quality housing
- Jobs with livable wages
- Quality education for all

School and Student Demographic Characteristics at a Glance

The key indicators related to school and student demographic characteristics that have changed since the last CHNA are identified in Figure 6.10 Red means that the indicator has worsened and green means that there has been an improvement since the 2016 CHNA.

FIGURE 6.10: SCHOOL AND STUDENT CHARACTERISTICS INDICATORS



Source: Strategy Solutions, Inc.

School and Student Characteristics: Summary of Indicators

The following includes both a narrative as well as a visual (chart or table) summary of indicators reported on in this section. While the above colored icons illustrate observed trends from the data reported in the 2016 CHNA, this section is designed to highlight relevant historical information on each indicator and provide a narrative of the data included in the charts/tables that follow.

STUDENT RACE/ETHNICITY BY PERCENT (2017)

In 2017, the majority of students in Orange County (62.5 percent) were White, lower than in the state (70 percent). More than 25 percent (27.1 percent) of students in Orange County were Black, higher than in the state (22.2 percent). More than a third (35.6 percent) were Hispanic, also higher than in the state (30.1 percent).

It should be noted that by measuring race and ethnicity separately, the percentages may total more than 100 percent. Students may identify as White or Black racially and also be Hispanic. (See Chart 6.11)

STUDENT RACE/ETHNICITY BY NUMBER (2017)

In 2017, there were 145,466 White students, 63,086 Black students and 82,894 Hispanic students in Orange County. (See Chart 6.12)

HIGH SCHOOL GRADUATION RATE (2012-2013/2016-2017)

Orange County's graduation rate in 2016-2017 was 84.7 percent, a steady increase each year since 2012-2013 (75.9 percent). The county's rate was higher than the state rate in 2016-2017 of 82.3 percent. (See Chart 6.13)

STUDENT ABSENTEEISM (2013-2014/2017-2018)

Orange County had 12.6 percent of students absent 21 or more days in 2017-2018, an increase from 9.6 percent in 2013-2014. The state percentage in both 2013-2014 (9.5 percent) and 2017-2018 (11.3 percent) was higher than the percentage in the county. (See Chart 6.14)

HOMELESS STUDENTS (2012-2013/2016-2017)

The percentage of homeless students in Orange County remained relatively steady from 2012-2013 (4 percent) to 2016-2017 (2.8 percent), although there was a decrease. The county percentage has been similar to that of the state (2 percent in 2012-2013 and 2.5 percent in 2016-2017). (See Chart 6.15)

HIGH SCHOOL GANG ACTIVITY (2014/2017)

In 2017, Orange County's high school gang activity percentage (1.8 percent) was lower than that of the state (3 percent). This was a decrease in the county from 3.2 percent in 2014, while the state had an increase from 2.1 percent. (See Chart 6.16)

YOUTH ARRESTS, ALL OFFENSES, AGES 10-17 (2012-2016)

Orange County's youth arrest rate per 100,000 decreased from 6,629.1 per in 2012 to 5,026.9 in 2016. The county rate was consistently higher than the state rate, which was 5,237.7 in 2012 and 3,762.9 in 2016. (See Chart 6.17)

BULLYING PREVALENCE K-12 (2018)

More than half of all students in Orange County admitted that they had taunted or teased another student in 2018 (55.7 percent), slightly lower than the state (56 percent). Orange County students were less likely than students statewide (6.7 percent versus 8.1 percent) to have skipped school because of bullying or to have ever physically bullied others (14.4 percent versus 15.1 percent). Orange County students were more likely to have ever cyber bullied others compared to the state (11.1 percent versus 10.9 percent) or to have ever verbally bullied others (27.9 percent versus 27.1 percent). (See Chart 6.18)

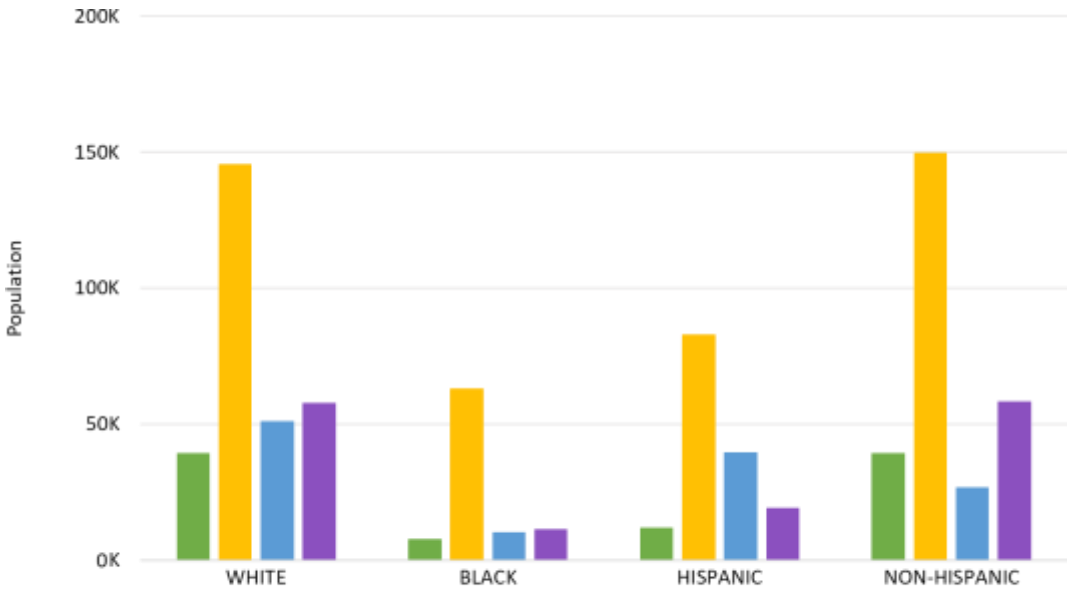
CHART 6.11: STUDENT RACE/ETHNICITY BY PERCENT (2017)

	WHITE	BLACK	HISPANIC	NON-HISPANIC
LAKE	76.7%	15.2%	23.4%	76.6%
ORANGE	62.5%	27.1%	35.6%	64.4%
OSCEOLA	76.9%	15.4%	59.6%	40.4%
SEMINOLE	74.8%	14.8%	24.7%	75.3%
FLORIDA	70.0%	22.2%	30.1%	69.9%

Source: School-Aged Child and Adolescent Profile, Florida Department of Health

*Race/Ethnicity percentages add up to more than 100 percent because Hispanic or Latino individuals can also be White, Black or another race.

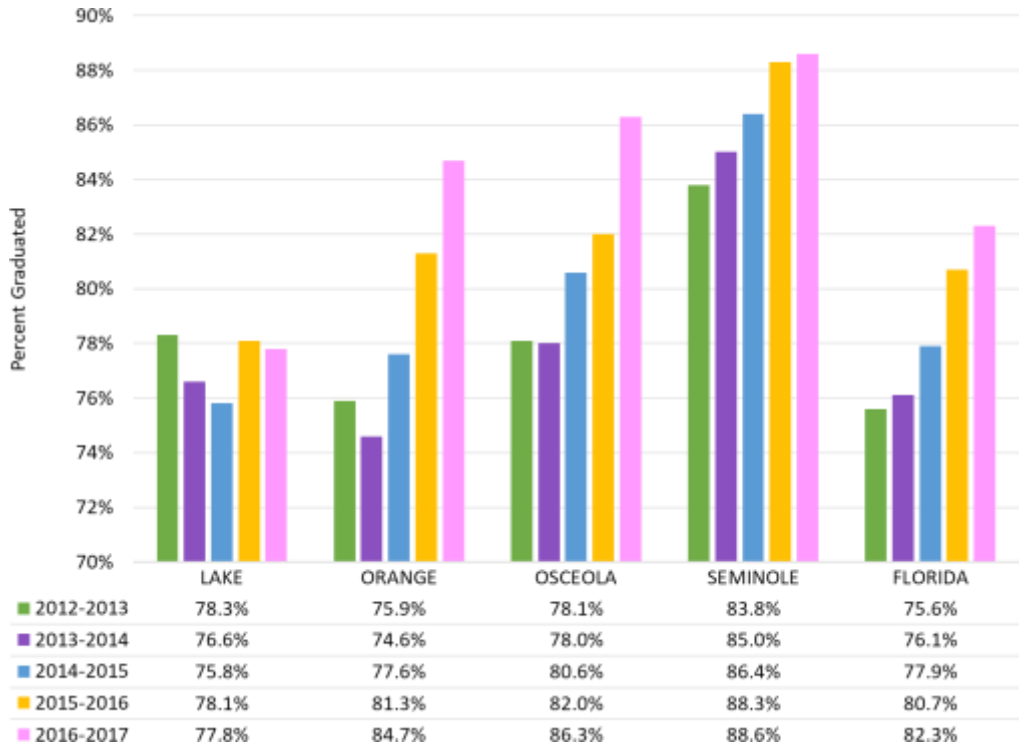
CHART 6.12: STUDENT RACE/ETHNICITY BY NUMBER (2017)



	WHITE	BLACK	HISPANIC	NON-HISPANIC
LAKE	39,445	7,838	12,029	39,407
ORANGE	145,466	63,086	82,894	149,729
OSCEOLA	50,927	10,168	39,473	26,732
SEMINOLE	57,876	11,460	19,095	58,252

Source: School-Aged Child and Adolescent Profile, Florida Department of Health

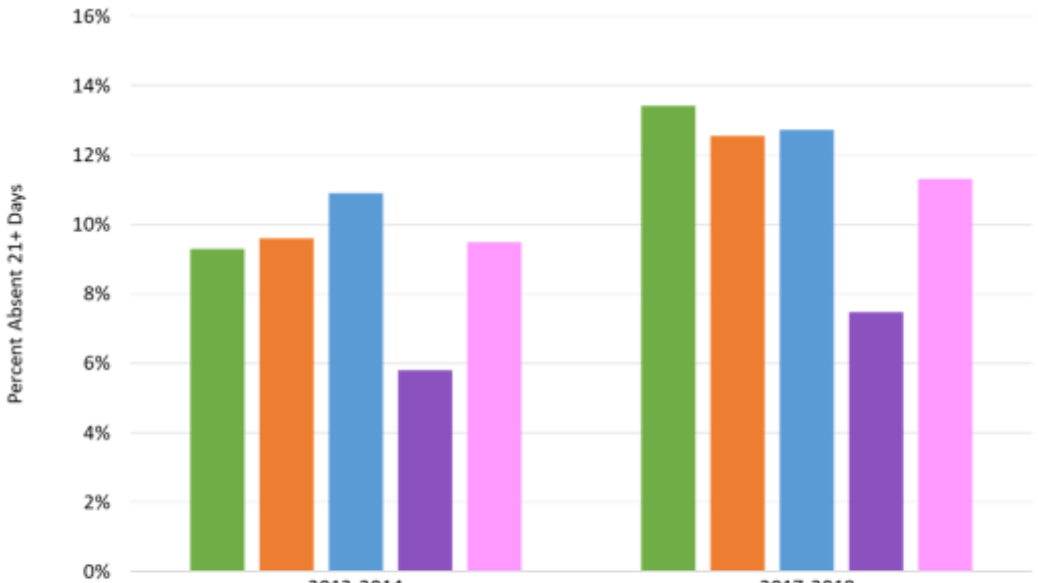
CHART 6.13: HIGH SCHOOL GRADUATION RATE (2012-2013/2016-2017)



	LAKE	ORANGE	OSCEOLA	SEMINOLE	FLORIDA
2012-2013	78.3%	75.9%	78.1%	83.8%	75.6%
2013-2014	76.6%	74.6%	78.0%	85.0%	76.1%
2014-2015	75.8%	77.6%	80.6%	86.4%	77.9%
2015-2016	78.1%	81.3%	82.0%	88.3%	80.7%
2016-2017	77.8%	84.7%	86.3%	88.6%	82.3%

Source: County Health Rankings and Roadmaps

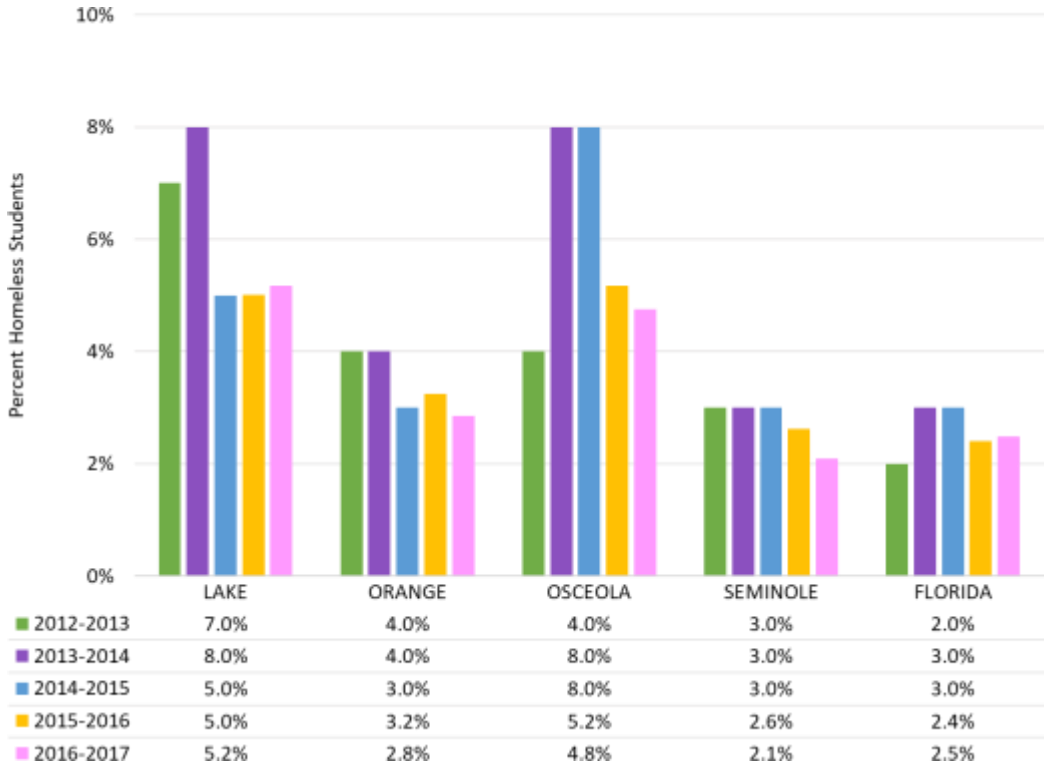
CHART 6.14: STUDENT ABSENTEEISM (2013-2014/2017-2018)



	2013-2014	2017-2018
LAKE	9.3%	13.4%
ORANGE	9.6%	12.6%
OSCEOLA	10.9%	12.7%
SEMINOLE	5.8%	7.5%
FLORIDA	9.5%	11.3%

Source: Florida Department of Education

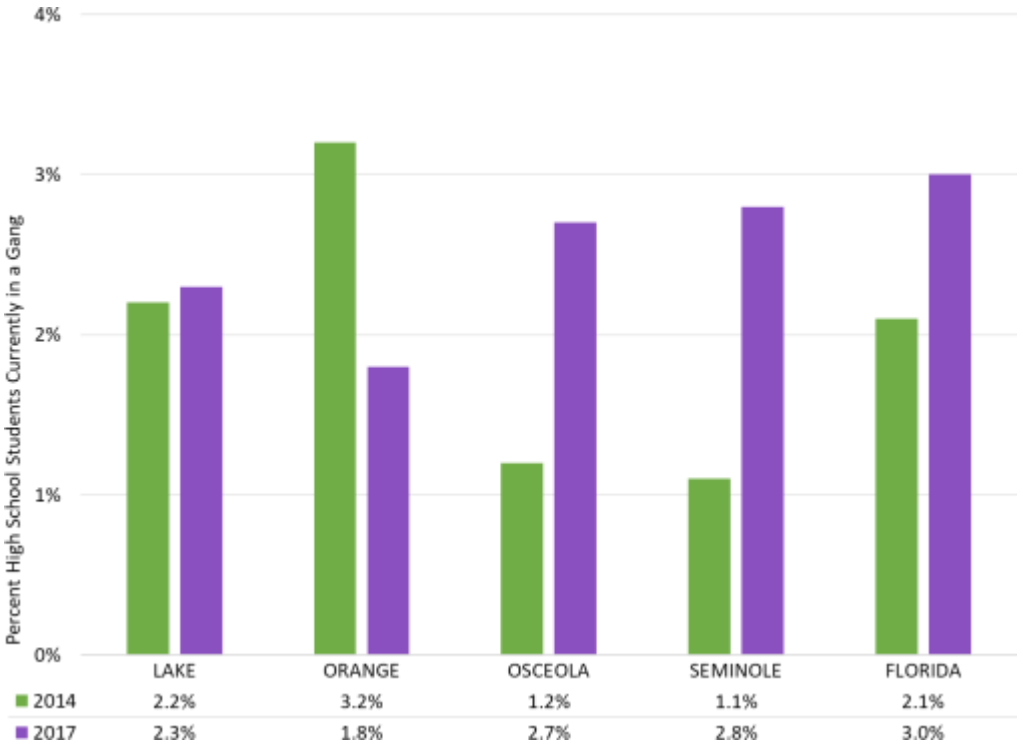
CHART 6.15: HOMELESS STUDENTS (2012-2013/2016-2017)



	LAKE	ORANGE	OSCEOLA	SEMINOLE	FLORIDA
2012-2013	7.0%	4.0%	4.0%	3.0%	2.0%
2013-2014	8.0%	4.0%	8.0%	3.0%	3.0%
2014-2015	5.0%	3.0%	8.0%	3.0%	3.0%
2015-2016	5.0%	3.2%	5.2%	2.6%	2.4%
2016-2017	5.2%	2.8%	4.8%	2.1%	2.5%

Source: Florida Department of Children & Families Council on Homelessness

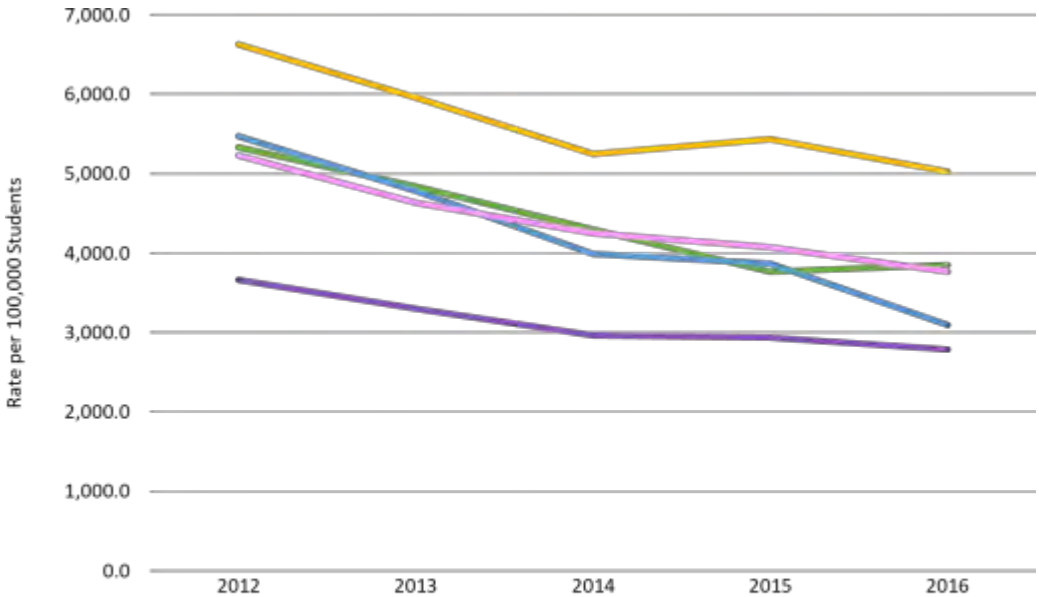
CHART 6.16: HIGH SCHOOL GANG ACTIVITY (2014/2017)



	LAKE	ORANGE	OSCEOLA	SEMINOLE	FLORIDA
2014	2.2%	3.2%	1.2%	1.1%	2.1%
2017	2.3%	1.8%	2.7%	2.8%	3.0%

Source: Florida Substance Abuse Survey, Florida Department of Children & Families

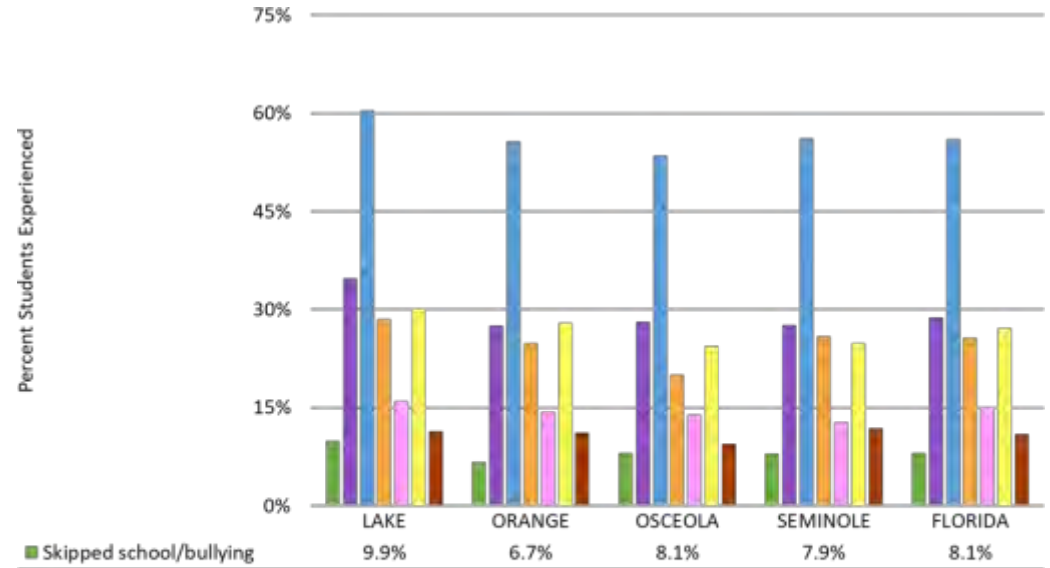
CHART 6.17: YOUTH ARRESTS, ALL OFFENSES, AGES 10-17 (2012-2016)



	2012	2013	2014	2015	2016
LAKE	5,331.3	4,834.0	4,300.4	3,763.3	3,846.0
ORANGE	6,629.1	5,953.5	5,252.9	5,438.2	5,026.9
OSCEOLA	5,470.7	4,783.8	3,989.8	3,865.2	3,092.4
SEMINOLE	3,661.4	3,303.0	2,967.5	2,940.7	2,791.2
FLORIDA	5,232.7	4,637.0	4,250.1	4,073.5	3,762.9

Source: FLHealthCHARTS: Florida Department of Health

CHART 6.18: BULLYING PREVALENCE K-12 (2018)



	LAKE	ORANGE	OSCEOLA	SEMINOLE	FLORIDA
Skipped school/bullying	9.9%	6.7%	8.1%	7.9%	8.1%
Ever kicked/shoved	34.8%	27.5%	28.1%	27.6%	28.8%
Ever taunted/teased	60.4%	55.7%	53.5%	56.1%	56.0%
Ever victim of cyber bullying	28.5%	24.8%	20.0%	25.9%	25.6%
Ever physically bullied others	16.0%	14.4%	13.9%	12.8%	15.1%
Ever verbally bullied others	30.0%	27.9%	24.4%	24.8%	27.1%
Ever cyber bullied others	11.4%	11.1%	9.4%	11.9%	10.9%

Source: Florida Youth Substance Abuse Survey

CHAPTER SEVEN

Health Needs of the Community

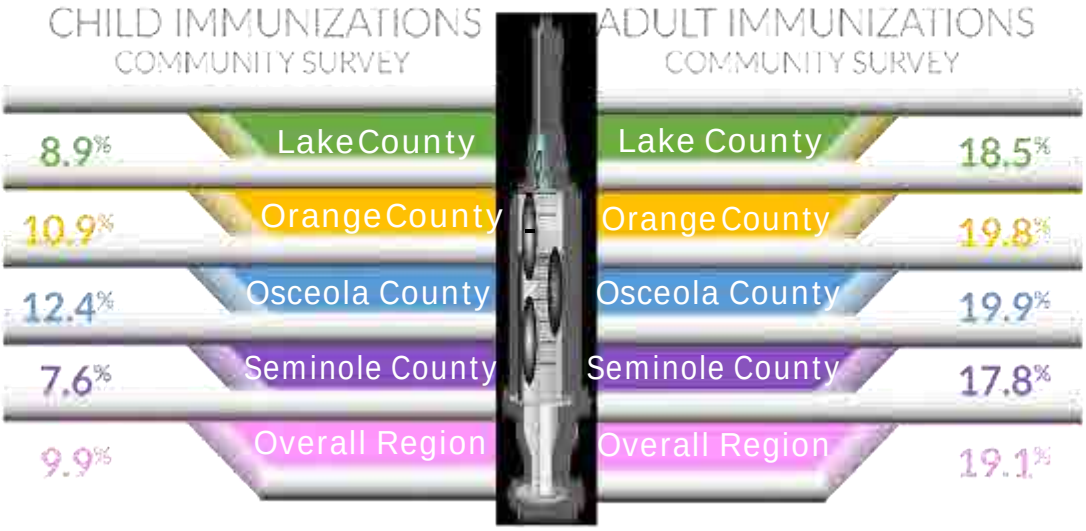
Lake Eola Park
Orlando, FL

Orange County

Communicable Diseases: What the Community is Saying

Figure 7.1 identifies the percentages of community survey respondents within Orange County who have experienced difficulty getting immunizations in the past 12 months. Respondents in Orange County reported having the most difficulty obtaining immunizations in the four-county region.

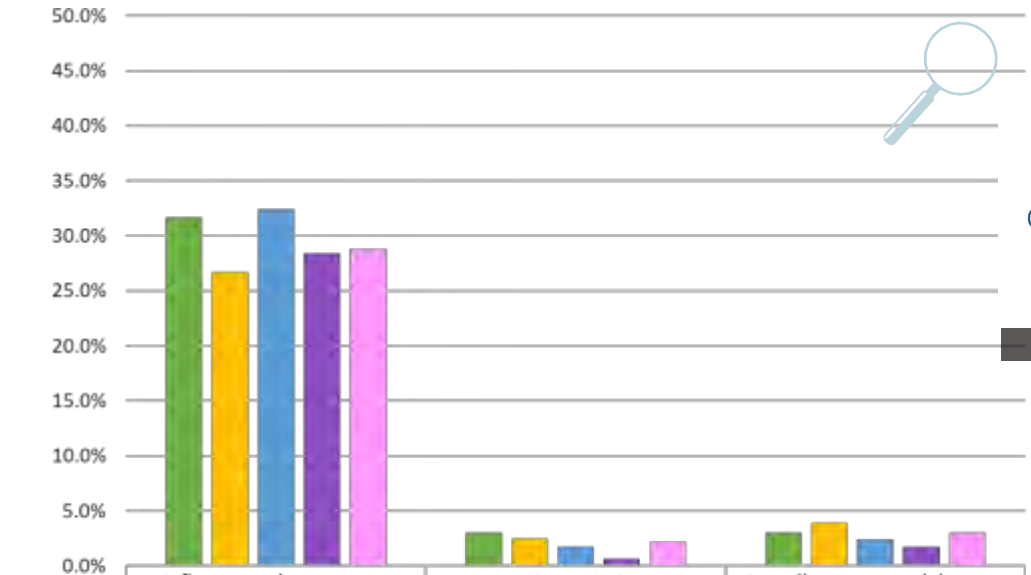
FIGURE 7.1: IMMUNIZATION CHALLENGES, COMMUNITY SURVEY 2019



Source: Central Florida Community Collaborative Community Survey, Strategy Solutions, Inc.

In Orange County, 26.7 percent of community survey respondents said they or someone in their family were affected by influenza or pneumonia over the past two years. Far fewer respondents had challenges with hepatitis C and sexually transmitted diseases, which were at 2.5 and 3.9 percent respectively. Orange County experienced the highest percentage in the four-county region for sexually transmitted diseases. This is outlined in Figure 7.2.

FIGURE 7.2: COMMUNICABLE DISEASES IMPACTING COMMUNITY SURVEY RESPONDENTS 2019



	Influenza and pneumonia	Hepatitis C	Sexually transmitted diseases
LAKE	31.7%	3.0%	3.0%
ORANGE	26.7%	2.5%	3.9%
OSCEOLA	32.4%	1.7%	2.4%
SEMINOLE	28.4%	0.6%	1.7%
OVERALL	28.8%	2.2%	3.0%

Source: Central Florida Community Collaborative Community Survey, Strategy Solutions, Inc.

More than one fourth of survey respondents in Orange County have experienced influenza or pneumonia.

Participants in the primary research identified the following needs and issues related to communicable diseases:

- HIV and Hepatitis C
- Stigma around HIV/AIDS
- Increase of Sexually Transmitted Diseases (STDs) as a result of substance abuse

Barriers to care identified by primary research participants included:

- Cost of treatment associated with communicable diseases
- High cost of medication for HIV/AIDS
- Lack of housing for those with HIV/AIDS

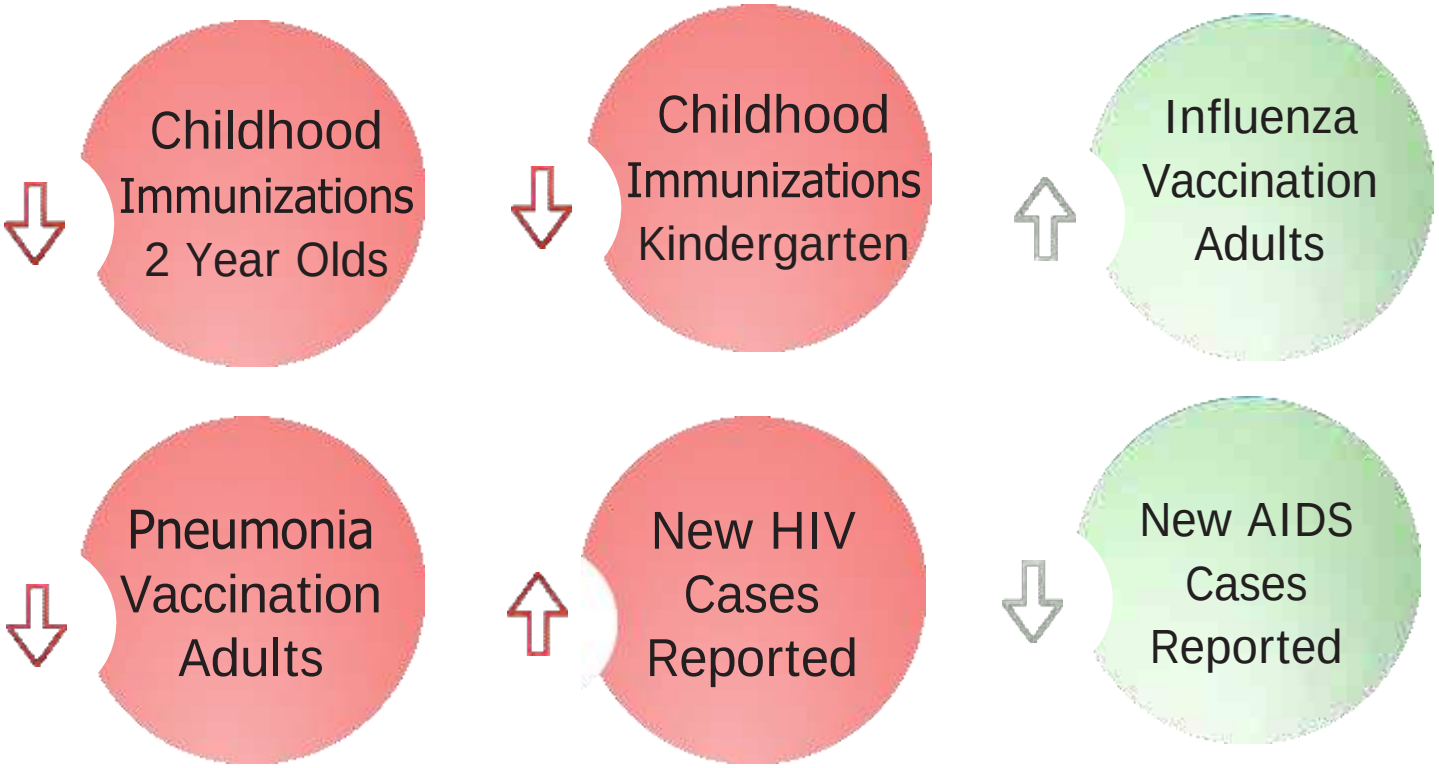
Needed services related to communicable diseases that were identified by primary research participants included:

- Availability and access to specialists, especially those that care for HIV/AIDS
- Prevention and education resources
- Testing and treatment options

Communicable Diseases at a Glance

The key indicators related to communicable diseases that have changed since the last CHNA are identified in Figure 7.3. Red means that the indicator has worsened and green means that there has been an improvement since the 2016 CHNA.

FIGURE 7.3: COMMUNICABLE DISEASE INDICATORS



Source: Strategy Solutions, Inc.

Communicable Diseases: Summary of Indicators

The following includes both a narrative as well as a visual (chart or table) summary of indicators reported on in this section. While the above colored icons illustrate observed trends from the data reported in the 2016 CHNA, this section is designed to highlight relevant historical information on each indicator and provide a narrative interpretation of the data included in the charts/tables that follow.

CHILDHOOD IMMUNIZATIONS 2 YEAR OLDS (2008-2017)

Childhood immunization percentages for 2-year-olds have fluctuated from 2008 to 2017 in the county, while staying between 81 percent and 87 percent in the state during this time. Orange County's immunization percentage decreased from 74.3 percent in 2008 to a low of 67.4 percent in 2009, before steadily increasing to 87 percent in 2011 and then decreasing to 74.4 percent in 2012. It then increased to 80.2 percent in 2017. The state percentage dropped from a high of 87.2 percent in 2009, to a low of 81.1 percent in 2010 before increasing to 86.1 percent in 2017. (See Chart 7.1)

CHILDHOOD IMMUNIZATIONS KINDERGARTEN (2009-2018)

Kindergarten-age children in the county have consistently had immunization percentages exceeding 90 percent. While state percentages have gradually increased from 2009 to 2018 (89.8 percent to 93.7 percent), county percentages have fluctuated. The Orange County percentage has decreased slightly from 92.9 percent in 2009 to 91.1 percent in 2018. (See Chart 7.2)

INFLUENZA VACCINATION ADULTS AGES 65 AND OLDER (2007-2016)

Influenza (flu) vaccinations percentages for adults ages 65 and older decreased from 2007 to 2013 (59.3 percent to 47.4 percent) in Orange County. The percentage then increased in 2016 to 53 percent. The state percentage decreased from 64.6 percent in 2007 to 54.6 in 2013 before increasing to 57.6 percent in 2016. (See Chart 7.3)

PNEUMONIA VACCINATION ADULTS AGES 65 AND OLDER (2007-2016)

Pneumonia vaccination percentages for Orange County adults ages 65 and older increased from 63 percent in 2007 to 68.5 percent in 2013, before decreasing to 65.6 percent in 2016. In 2007 the percentage in the state was 63 percent. There was an increase to 66.2 percent in 2013 and a decrease to 65.6 percent in 2016. (See Chart 7.4)

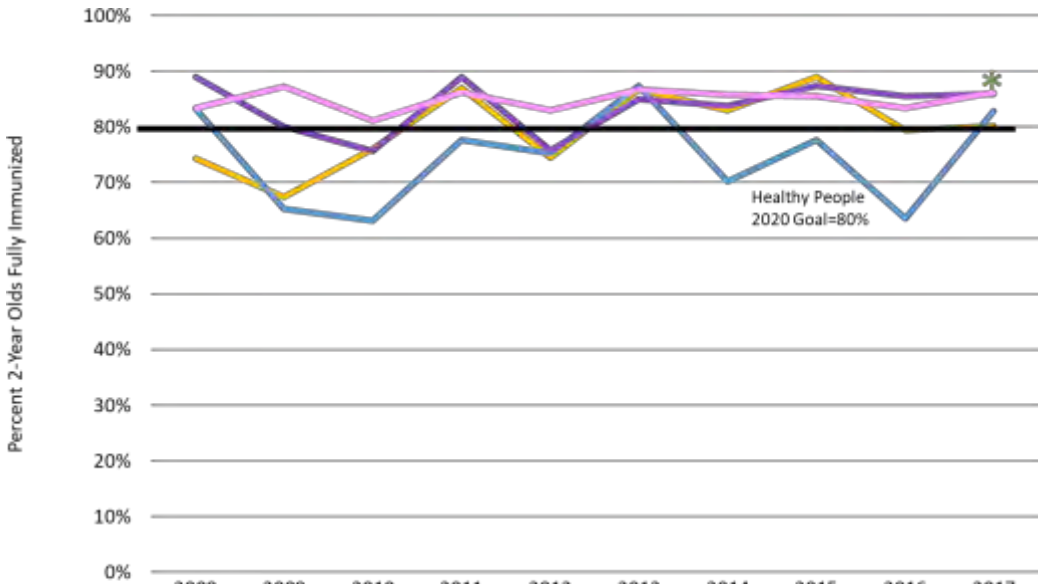
NEW HIV CASES REPORTED (2008-2017)

The rate of new HIV cases per 100,000 population decreased in Orange County (40.3 to 38.9) from 2008 to 2017. The state rate also decreased during the same time (32.5 to 24.1). (See Chart 7.5)

NEW AIDS CASES REPORTED (2008-2017)

The rate of new AIDS cases per 100,000 decreased in Orange County and the state from 2008 to 2017. Orange County's rate was 20.6 in 2008 and 14.6 in 2017. The state rate decreased from 22.3 in 2008 to 9.9 in 2017. (See Chart 7.6)

CHART 7.1: CHILDHOOD IMMUNIZATIONS 2 YEAR OLDS (2008-2017)

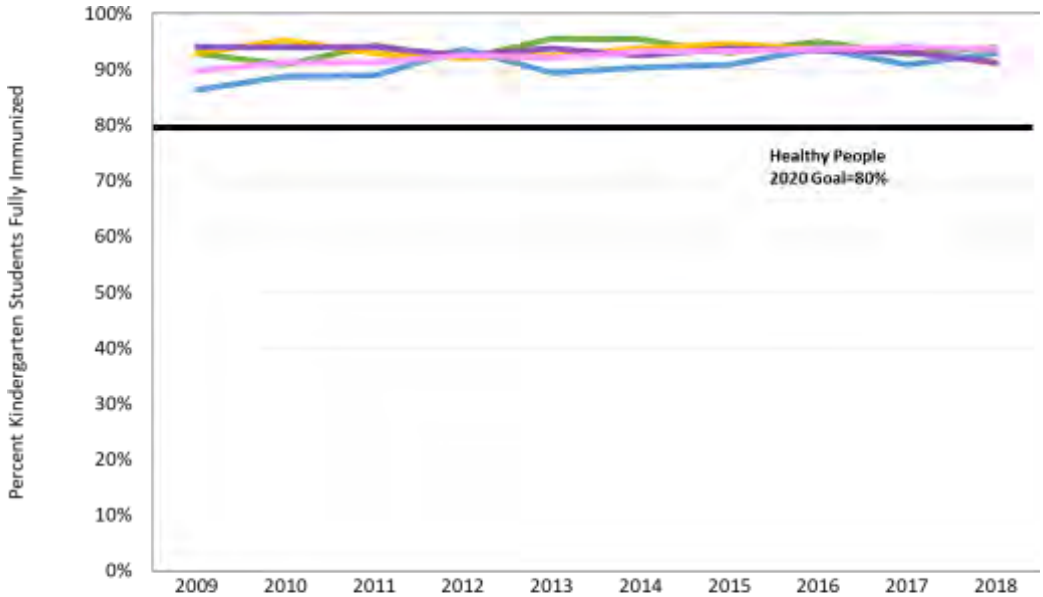


	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	88.3%
ORANGE	74.3%	67.4%	76.1%	87.0%	74.4%	86.7%	83.0%	88.9%	79.4%	80.2%
OSCEOLA	83.3%	65.3%	63.2%	77.7%	75.2%	87.3%	70.2%	77.7%	63.6%	82.9%
SEMINOLE	89.0%	80.0%	75.7%	89.0%	75.8%	85.0%	83.7%	87.4%	85.5%	85.9%
FLORIDA	83.4%	87.2%	81.1%	86.1%	83.0%	86.7%	85.7%	85.5%	83.4%	86.1%

Source: FLHealthCHARTS: Florida Department of Health, Behavioral Risk Factor Surveillance System

*Represents a single data point where there has been inconsistent data for a county

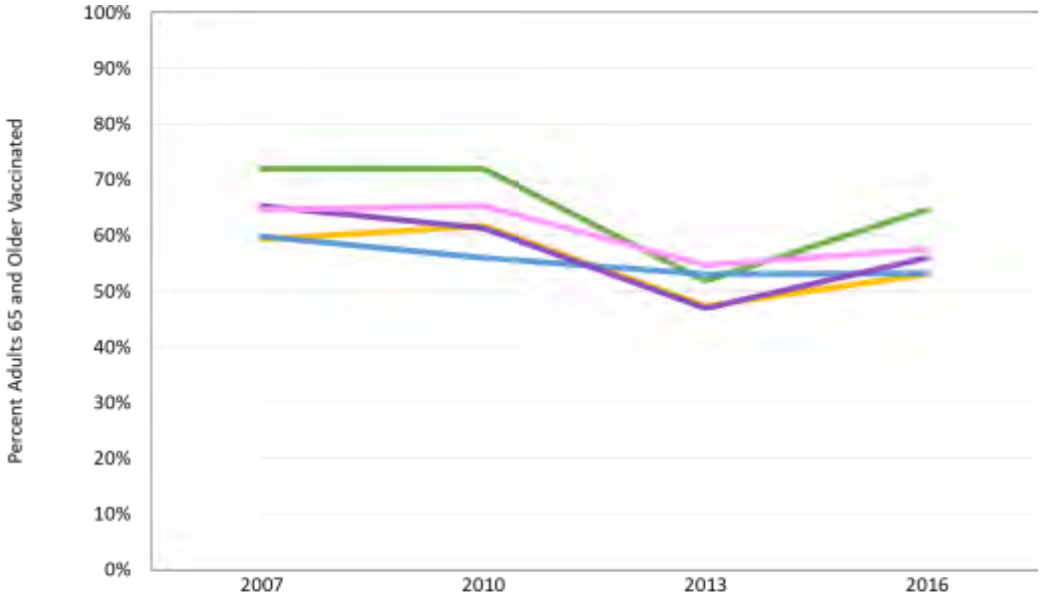
CHART 7.2: CHILDHOOD IMMUNIZATIONS KINDERGARTEN (2009-2018)



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
LAKE	92.9%	90.8%	94.3%	91.9%	95.5%	95.4%	93.0%	95.0%	92.7%	93.9%
ORANGE	92.9%	95.3%	92.8%	92.1%	92.4%	93.8%	94.6%	93.7%	93.3%	91.1%
OSCEOLA	86.3%	88.7%	88.9%	93.7%	89.4%	90.3%	90.8%	93.8%	90.9%	92.9%
SEMINOLE	94.0%	93.9%	94.1%	92.5%	93.8%	92.4%	93.8%	93.4%	93.1%	91.3%
FLORIDA	89.8%	91.3%	91.3%	92.6%	92.1%	93.2%	93.3%	93.7%	94.1%	93.7%

Source: FLHealthCHARTS: Florida Department of Health, Behavioral Risk Factor Surveillance System

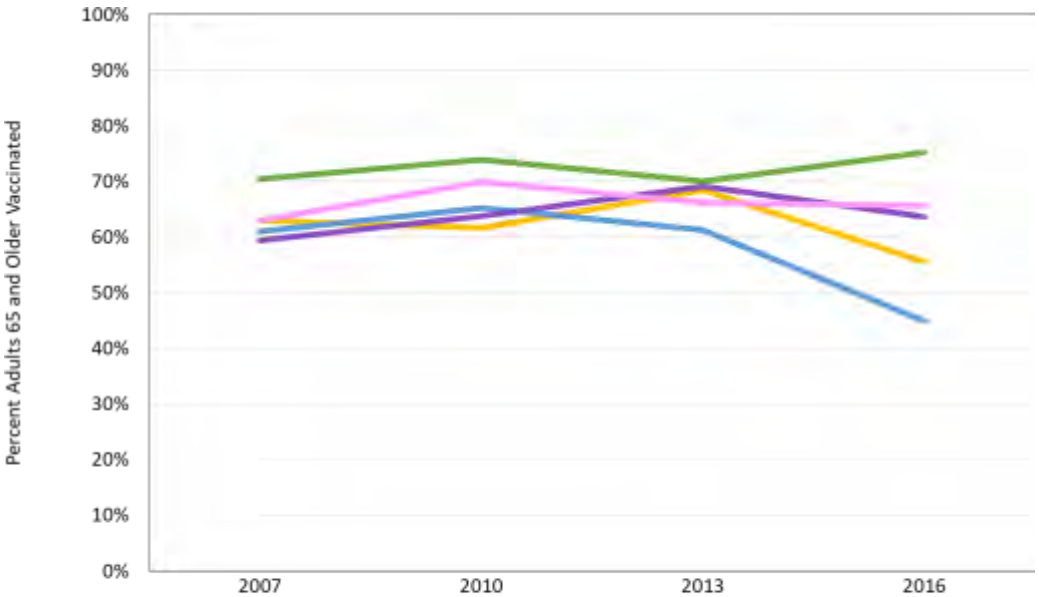
CHART 7.3: INFLUENZA VACCINATION ADULTS AGES 65 AND OLDER (2007-2016)



	2007	2010	2013	2016
LAKE	71.9%	71.9%	51.8%	64.7%
ORANGE	59.3%	61.7%	47.4%	53.0%
OSCEOLA	59.9%	56.0%	53.1%	53.2%
SEMINOLE	65.3%	61.3%	47.0%	56.0%
FLORIDA	64.6%	65.3%	54.6%	57.6%

Source: FLHealthCHARTS: Florida Department of Health, Behavioral Risk Factor Surveillance System

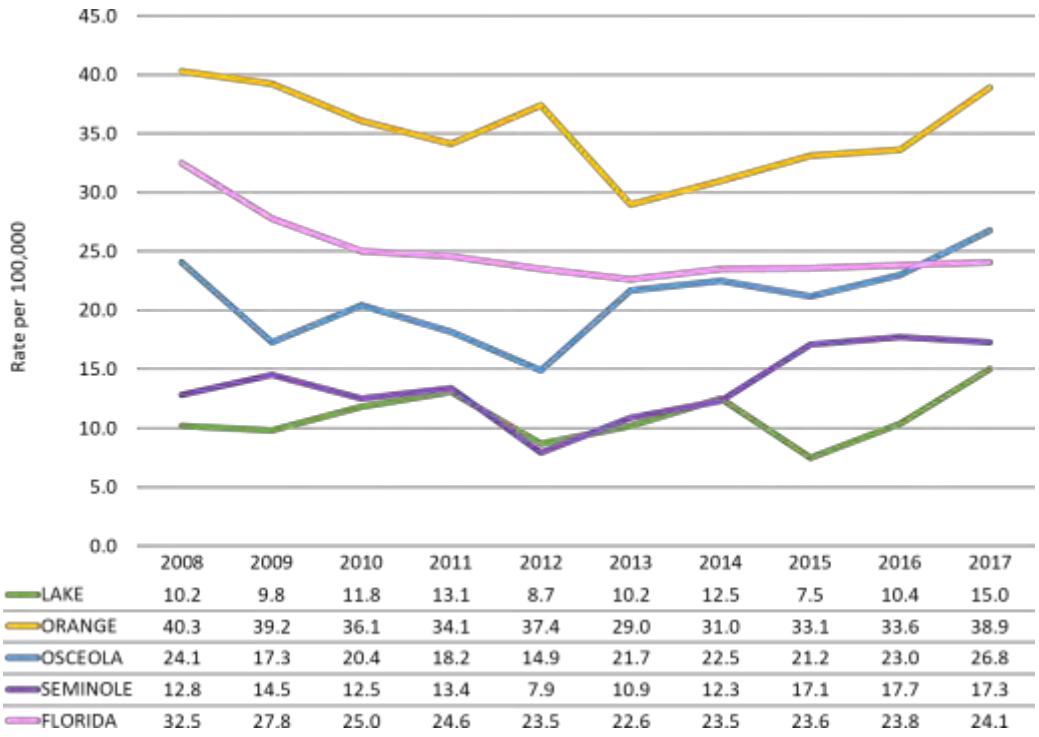
CHART 7.4: PNEUMONIA VACCINATION ADULTS AGES 65 AND OLDER (2007-2016)



	2007	2010	2013	2016
LAKE	70.4%	73.9%	70.1%	75.2%
ORANGE	63.0%	61.6%	68.5%	55.6%
OSCEOLA	61.0%	65.2%	61.3%	44.9%
SEMINOLE	59.4%	63.8%	69.1%	63.6%
FLORIDA	63.0%	69.9%	66.2%	65.6%

Source: FLHealthCHARTS: Florida Department of Health, Behavioral Risk Factor Surveillance System

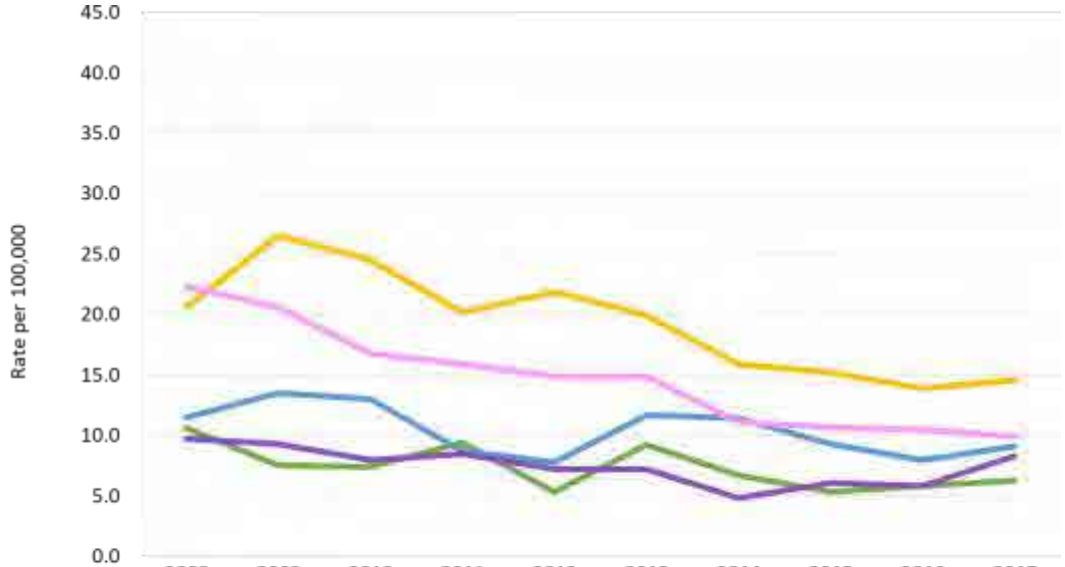
CHART 7.5: NEW HIV CASES REPORTED (2008-2017)



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	10.2	9.8	11.8	13.1	8.7	10.2	12.5	7.5	10.4	15.0
ORANGE	40.3	39.2	36.1	34.1	37.4	29.0	31.0	33.1	33.6	38.9
OSCEOLA	24.1	17.3	20.4	18.2	14.9	21.7	22.5	21.2	23.0	26.8
SEMINOLE	12.8	14.5	12.5	13.4	7.9	10.9	12.3	17.1	17.7	17.3
FLORIDA	32.5	27.8	25.0	24.6	23.5	22.6	23.5	23.6	23.8	24.1

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

CHART 7.6: NEW AIDS CASES REPORTED (2008-2017)



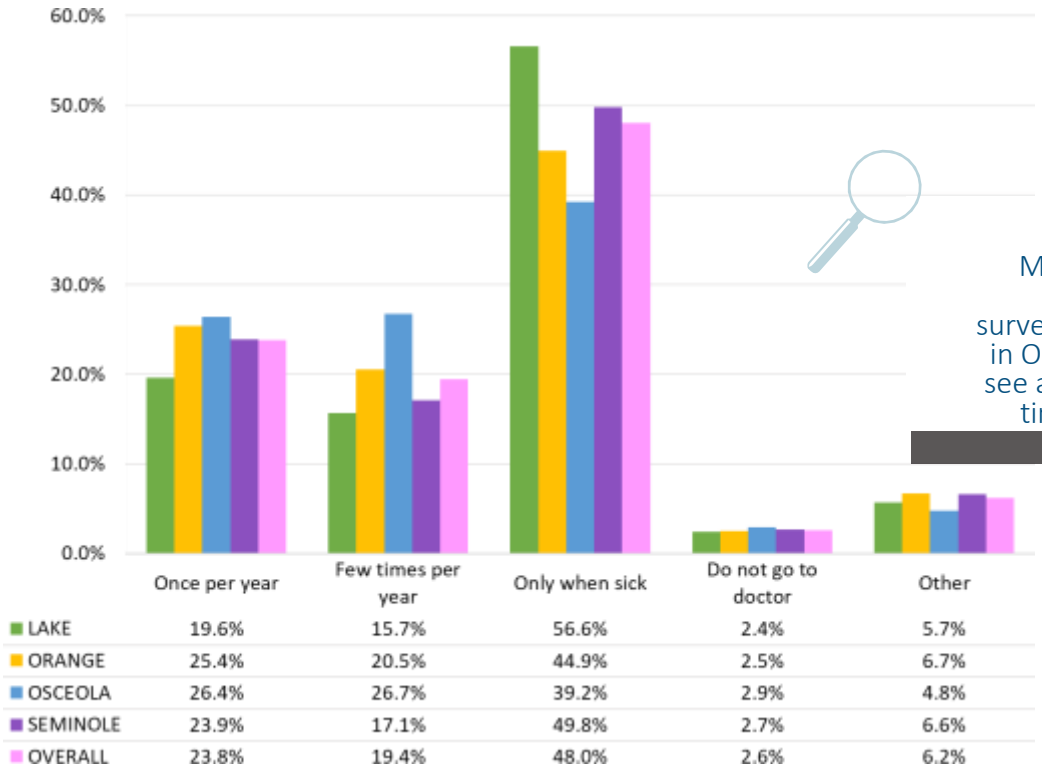
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	10.6	7.5	7.4	9.4	5.3	9.2	6.7	5.3	5.8	6.3
ORANGE	20.6	26.5	24.5	20.2	21.9	19.9	15.9	15.2	13.9	14.6
OSCEOLA	11.5	13.5	13.0	8.7	7.8	11.7	11.4	9.3	8.0	9.1
SEMINOLE	9.7	9.3	8.0	8.5	7.2	7.2	4.8	6.1	5.8	8.3
FLORIDA	22.3	20.6	16.8	15.9	14.9	14.9	11.1	10.7	10.5	9.9

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

Preventative Care: What the Community is Saying

More than a quarter (25.4 percent) of the community survey respondents from Orange County indicated that they see a doctor or a medical provider once a year. Almost half (44.9 percent) of the respondents only see a doctor or provider when they are sick. This is illustrated in Figure 7.4.

FIGURE 7.4: FREQUENCY OF DOCTOR VISITS, COMMUNITY SURVEY 2019



	Once per year	Few times per year	Only when sick	Do not go to doctor	Other
LAKE	19.6%	15.7%	56.6%	2.4%	5.7%
ORANGE	25.4%	20.5%	44.9%	2.5%	6.7%
OSCEOLA	26.4%	26.7%	39.2%	2.9%	4.8%
SEMINOLE	23.9%	17.1%	49.8%	2.7%	6.6%
OVERALL	23.8%	19.4%	48.0%	2.6%	6.2%

Source: Central Florida Community Collaborative Community Survey, Strategy Solutions, Inc.

More than one fifth of survey respondents in Orange County see a doctor a few times a year.

Table 7.1 outlines the percentages of the community survey respondents by county and in the four-county region that accessed preventative care services over the past two years.

TABLE 7.1: PREVENTATIVE CARE SERVICES, COMMUNITY SURVEY 2019*

	Overall	Lake	Orange	Osceola	Seminole
Annual exam	70.6%	75.2%	68.8%	67.5%	71.1%
Prostate specific antigen test (PSA Test)	4.6%	7.0%	4.0%	0.3%	5.4%
Dental exam	62.8%	66.6%	62.2%	55.0%	63.7%
Sigmoidoscopy	1.2%	1.1%	1.2%	0.3%	1.7%
Lab screenings or lab work	70.5%	76.4%	68.3%	66.4%	70.6%
Eye exam	58.7%	66.6%	55.6%	54.3%	58.5%
Colonoscopy	13.3%	16.9%	11.5%	11.1%	14.0%
Blood pressure screening	55.0%	58.2%	54.0%	43.9%	59.7%
Pap test	41.6%	38.0%	43.1%	45.7%	40.3%
Diabetic screening	28.7%	27.4%	30.6%	23.2%	28.9%
Mammogram	38.5%	44.1%	35.2%	38.4%	39.2%
Cholesterol screening	50.6%	54.4%	49.1%	40.5%	55.1%

*lowest scores are highlighted in red.

Source: Central Florida Community Collaborative Community Survey, Strategy Solutions, Inc.

Participants in the primary research identified the following needs and issues related to preventative care:

- Health literacy
- Understanding the connection between routine checkups and overall health
- People who are underinsured

Barriers to care identified by primary research participants included:

- Lack of health insurance

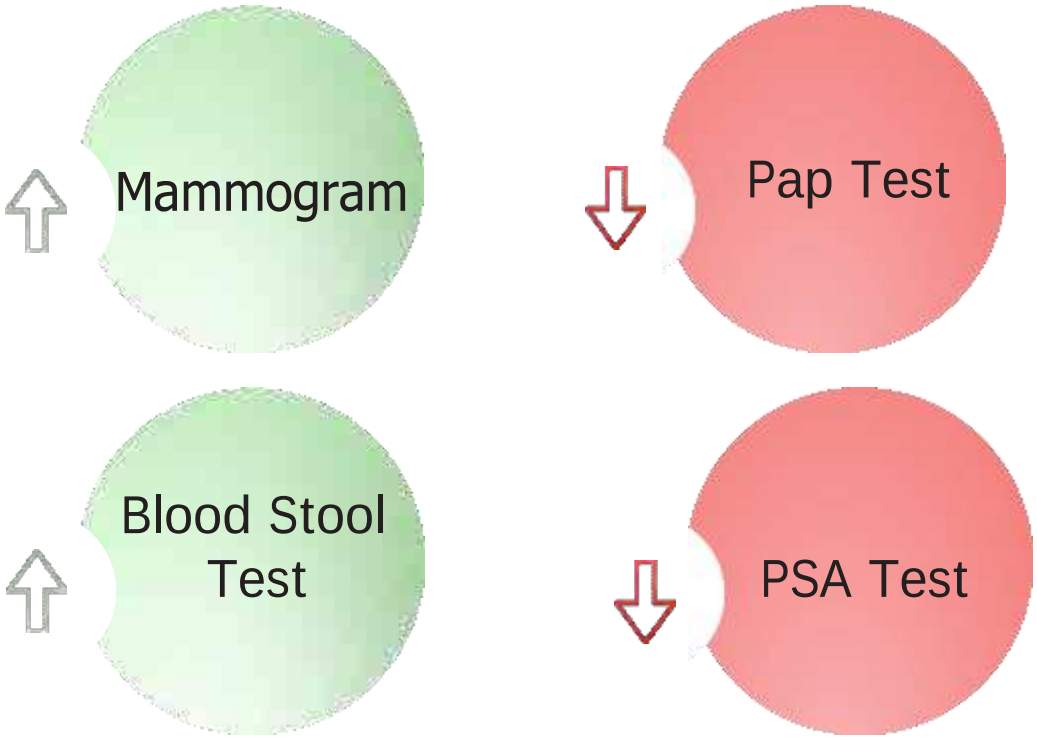
Needed services related to preventative care that were identified by primary research participants included:

- More primary care providers
- More education on the need for preventative care and healthy living
- Healthy aging education

Preventative Care at a Glance

The key indicators related to preventative care that have changed since the last CHNA are identified in Figure 7.5. Red means that the indicator has worsened and green means that there has been an improvement since the 2016 CHNA.

FIGURE 7.5: PREVENTATIVE CARE INDICATORS



Source: Strategy Solutions, Inc.

Preventative Care: Summary of Indicators

The following includes both a narrative as well as a visual (chart or table) summary of indicators reported on in this section. While the above colored icons illustrate observed trends from the data reported in the 2016 CHNA, this section is designed to highlight relevant historical information on each indicator and provide a narrative interpretation of the data included in the charts/tables that follow.

USPSTF RECOMMENDATIONS ON PREVENTATIVE SERVICES

The U.S. Preventive Services Task Force (USPSTF) is an independent, volunteer panel of national experts in disease prevention and evidence-based medicine. The task force works to improve the health of all Americans by making evidence-based recommendations about clinical preventative services. The USPSTF is the leading independent panel of private-sector experts in prevention and primary care. The USPSTF recommendations are based on rigorous, impartial assessments of the scientific evidence for the effectiveness of a broad range of clinical preventative services, including screening, counseling and preventative medications.

The mission of the USPSTF is to evaluate the benefits of individual services based on age, gender and risk factors for disease, make recommendations about which preventative services should be incorporated routinely into primary medical care and for which populations, and identify a research agenda for clinical preventative care. Recommendations issued by the USPSTF are assigned a letter grade of A, B, C, D or I to help clinicians recommend appropriate services to their patients. For a complete list of grades and their definitions, please visit https://content.highmarkprc.com/Files/Region/hwvbcbs/EducationManuals/ClinicalGuidelines/guideline-19-64.pdf

The grades are defined in Figure 7.6. Note that USPSTF reports indicators as 'aged', whereas FLHealthCHARTS reports indicators as 'ages.'

FIGURE 7.6: USPSTF GRADE DEFINITIONS

Grade	Definition	Suggestions for Practice
A	The USPSTF recommends the service. There is high certainty that the net benefit is substantial.	Offer or provide this service.
B	The USPSTF recommends the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.	Offer or provide this service.
C	The USPSTF recommends selectively offering or providing this service to individual patients based on professional judgment and patient preferences. There is at least moderate certainty that the net benefit is small.	Offer or provide this service for selected patients depending on individual circumstances.
D	The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits.	Discourage the use of this service.
I Statement	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service. Evidence is lacking, of poor quality, or conflicting, and the balance of benefits and harms cannot be determined.	Read the clinical considerations section of USPSTF Recommendation Statement. If the service is offered, patients should understand the uncertainty about the balance of benefits and harms.

Source: U.S. Preventive Services Task Force

WOMEN AGED 40 AND OLDER WHO RECEIVED A MAMMOGRAM IN PAST YEAR (2002-2016)

2019 USPSTF recommendations:

Women aged 40-49 years	C
Women aged 50-74 years	B
Women aged 75 years or older	I
All women	I
Women with dense breasts	I

In Orange County the percentage of women aged 40 years and older who received a mammogram in the previous year increased from 2002 (57.8 percent) to 2016 (59.4 percent). The percentage in 2016 was a decrease from a high of 61.1 percent in 2007. The percentage in Orange County was consistently lower than that of the state, which was 65.3 percent in 2002 and 60.8 percent in 2016. (See Chart 7.7)

WOMEN AGED 18 AND OLDER WHO RECEIVED PAP TEST IN PAST YEAR (2002-2016)

2018 USPSTF recommendations:

Women aged 21-65 years (Pap smear) every three years or	A
30-65 (in combo with HPV testing) every five years	
Women younger than 30 years, HPV testing	D
Women younger than 21 years, HPV testing	D
Women older than 65, who have had adequate prior screening	D
Women who have had a hysterectomy	D

In both Orange County (71.2 percent to 51.3 percent) and the state (70.7 percent to 48.4 percent) the number of women aged 18 years and older who received a Pap test in the previous year decreased from 2002 to 2016. (See Chart 7.8)

ADULTS AGED 50 AND OLDER WHO RECEIVED A SIGMOIDOSCOPY OR COLONOSCOPY IN PAST FIVE YEARS (2002-2016)

2019 USPSTF recommendations:

Adults aged 50-75 years:	A
Adults aged 76-85 years:	C

- Colonoscopy every 10 years or
- Fecal occult blood test home three-pack (FOBT test) or
- FIT fecal immunochemical test every year or
- Flexible sigmoidoscopy every five years or
- Flexible sigmoidoscopy every 10 years with FIT every year or
- CT colonography every five years or
- Cologuard (DNA stool screening) every three years

In Orange County and the state, the percentage of adults ages 50 years and older who had received a sigmoidoscopy or colonoscopy in the past five years increased from 2002 to 2016. In 2016, Orange County's percentage (49.6 percent) was lower than that of the state (53.9 percent). (See Chart 7.9)

ADULTS AGED 50 AND OLDER WHO RECEIVED A BLOOD STOOL TEST IN PAST YEAR (2002-2016)

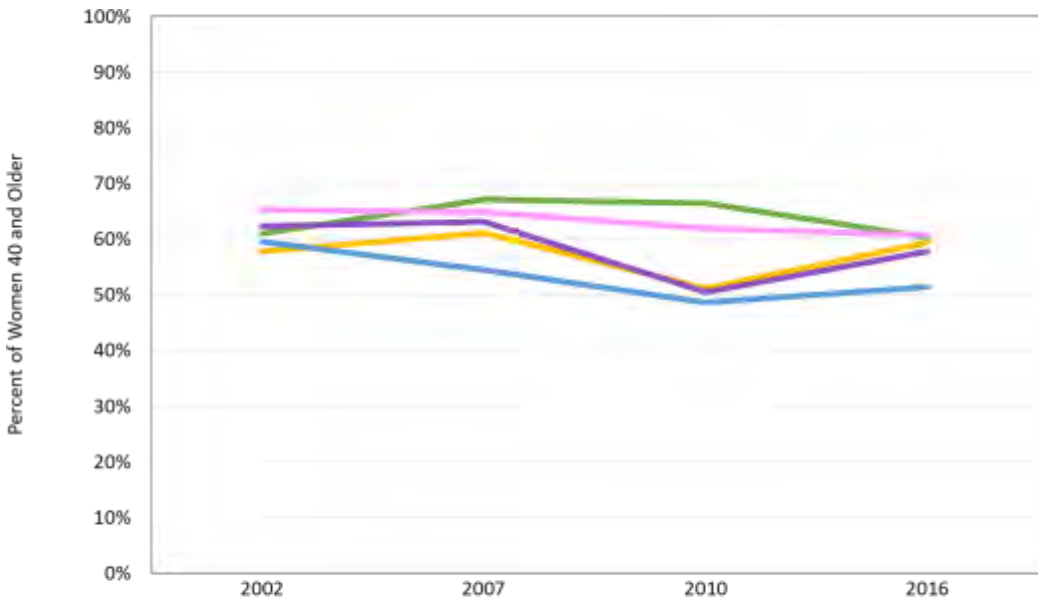
The percentage in Orange County of adults ages 50 and older who received a blood stool test in the past year decreased from 26 percent in 2002 to 9.9 percent in 2016. The county percentage was lower than that of the state in 2002 (24.7 percent) and in 2016 (16 percent). (See Chart 7.10)

MEN AGED 50 AND OLDER WHO RECEIVED A PSA TEST IN PAST TWO YEARS (2007-2016)

2019 USPSTF recommendations:
Men aged 55-69, screening with PSA (Prostate-Specific Antigen) C

In Orange County the percentage of men aged 50 years and older receiving a PSA test was consistently lower than that of the state. There was an increase in both between 2007 (58.8 percent in the county and 60.2 percent in the state) and 2010 (69.1 percent and 77.6 percent respectively) followed by a decrease in 2016. The Orange County percentage in 2016 (52.7 percent) was lower than that of the state (54.9 percent). (See Chart 7.11)

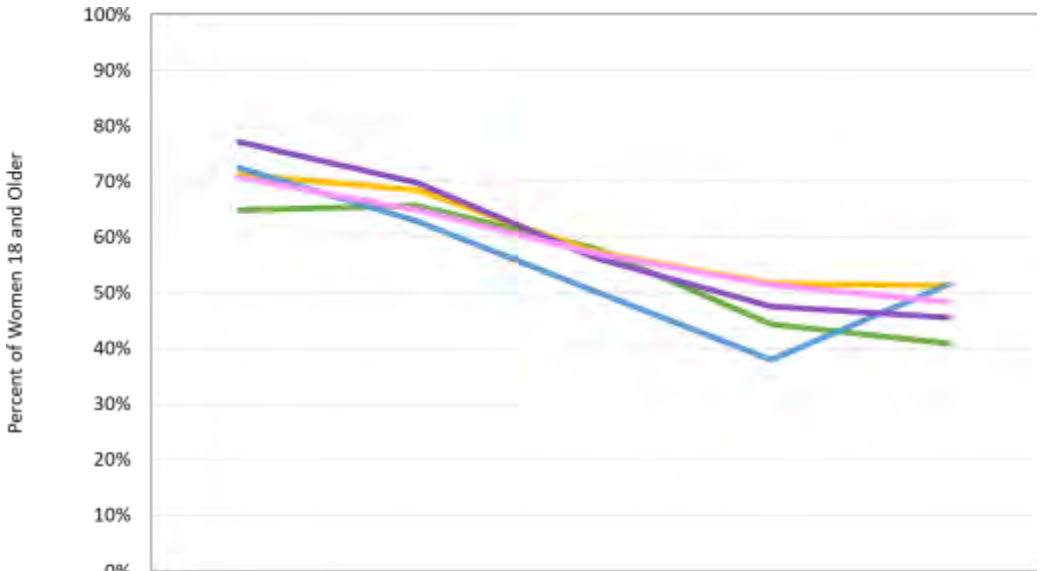
CHART 7.7: WOMEN AGED 40 AND OLDER WHO RECEIVED A MAMMOGRAM IN PAST YEAR (2002-2016)



	2002	2007	2010	2016
LAKE	61.0%	67.1%	66.5%	60.4%
ORANGE	57.8%	61.1%	51.2%	59.4%
OSCEOLA	59.5%	54.5%	48.6%	51.4%
SEMINOLE	62.3%	63.2%	50.5%	57.8%
FLORIDA	65.3%	64.9%	61.9%	60.8%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

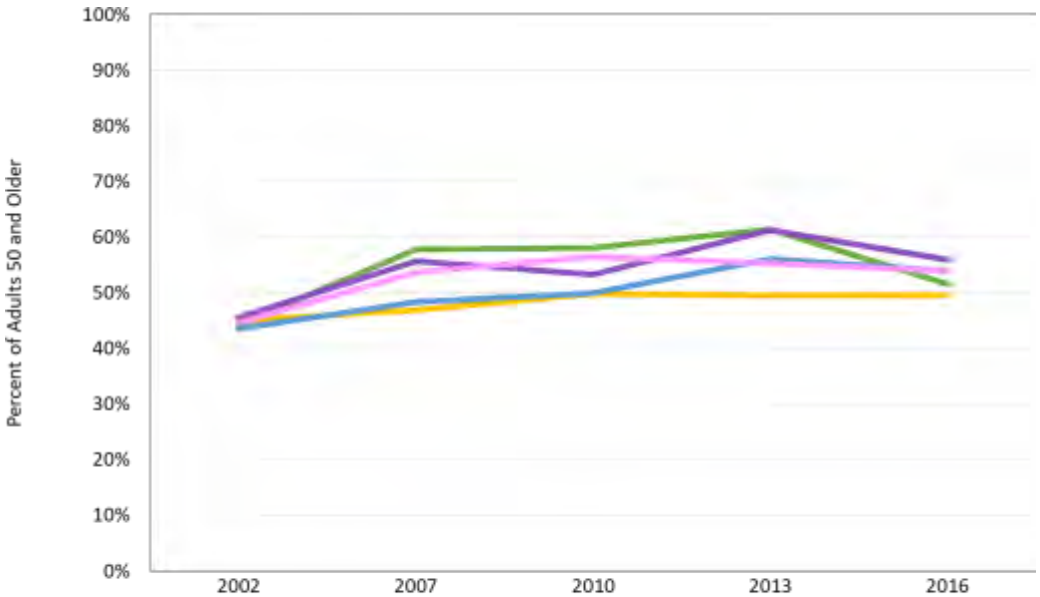
CHART 7.8: WOMEN AGED 18 AND OLDER WHO RECEIVED PAP TEST IN PAST YEAR (2002-2016)



	2002	2007	2010	2013	2016
LAKE	64.8%	65.7%	58.1%	44.3%	40.9%
ORANGE	71.2%	68.4%	57.4%	51.7%	51.3%
OSCEOLA	72.5%	62.8%	50.3%	38.0%	51.5%
SEMINOLE	77.1%	69.8%	56.3%	47.5%	45.5%
FLORIDA	70.7%	64.8%	57.1%	51.4%	48.4%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

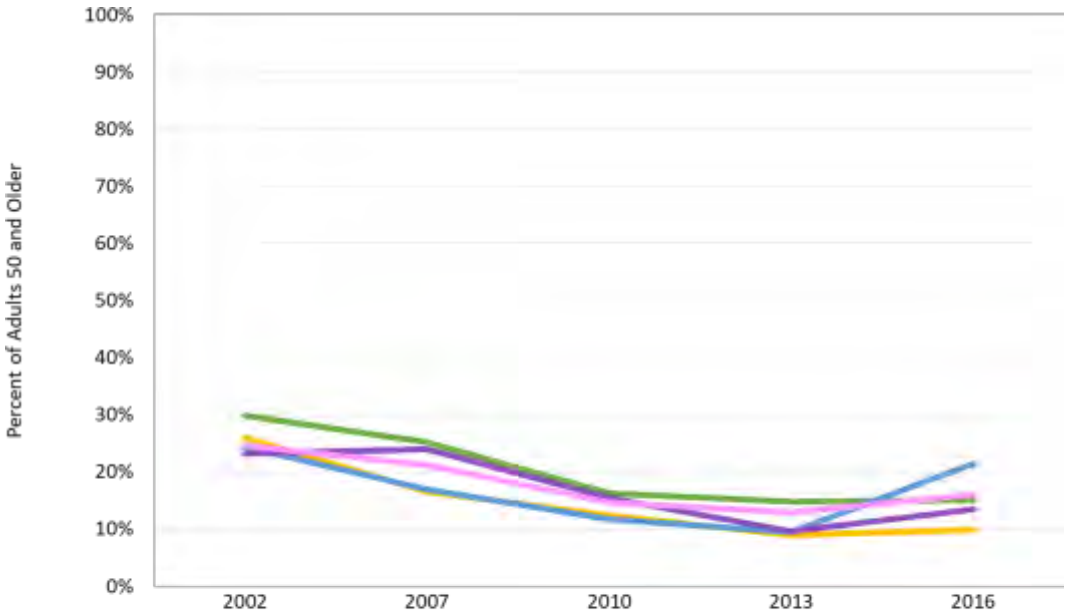
CHART 7.9: ADULTS AGED 50 AND OLDER WHO RECEIVED A SIGMOIDOSCOPY OR COLONOSCOPY IN PAST 5 YEARS (2002-2016)



	2002	2007	2010	2013	2016
LAKE	44.2%	57.8%	58.1%	61.4%	51.5%
ORANGE	45.0%	46.9%	49.8%	49.6%	49.6%
OSCEOLA	43.6%	48.4%	50.0%	56.1%	54.0%
SEMINOLE	45.5%	55.7%	53.3%	61.2%	55.9%
FLORIDA	44.6%	53.7%	56.4%	55.3%	53.9%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

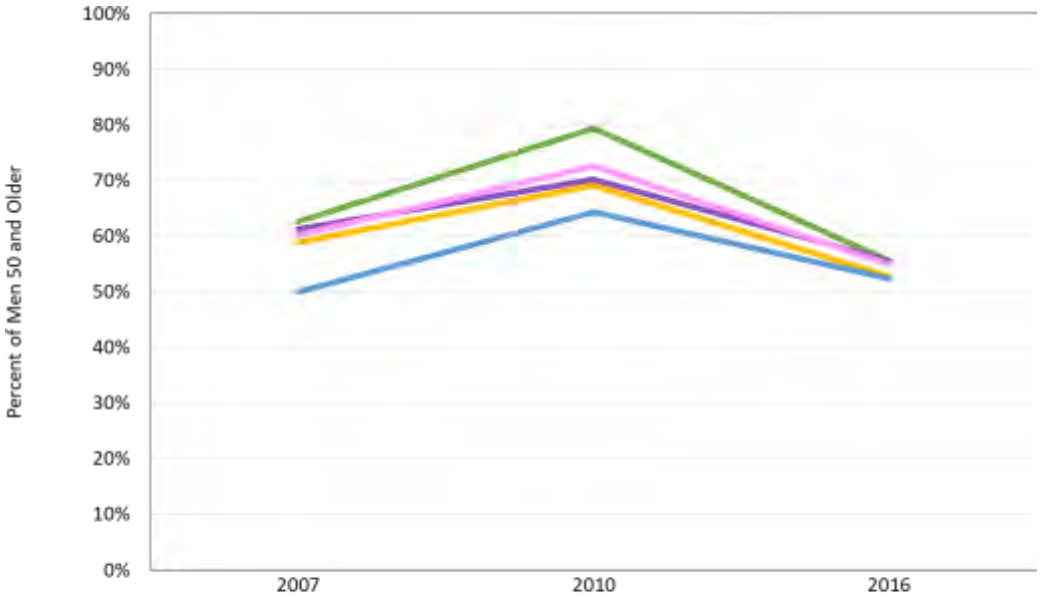
CHART 7.10: ADULTS AGED 50 AND OLDER WHO RECEIVED A BLOOD STOOL TEST IN PAST YEAR (2002-2016)



	2002	2007	2010	2013	2016
LAKE	29.8%	25.2%	16.3%	14.8%	15.0%
ORANGE	26.0%	16.5%	12.4%	8.9%	9.9%
OSCEOLA	24.4%	16.9%	11.7%	9.5%	21.5%
SEMINOLE	23.2%	24.0%	15.5%	9.6%	13.4%
FLORIDA	24.7%	21.2%	14.7%	12.9%	16.0%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

CHART 7.11: MEN AGED 50 AND OLDER WHO RECEIVED A PSA TEST IN PAST TWO YEARS (2007-2016)



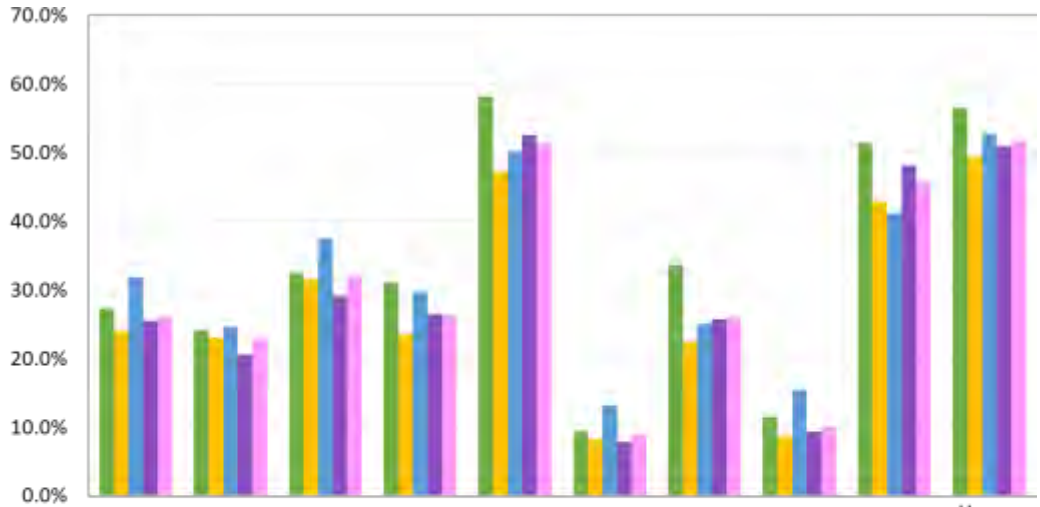
	2007	2010	2016
LAKE	62.6%	79.4%	55.5%
ORANGE	58.8%	69.1%	52.7%
OSCEOLA	50.0%	64.3%	52.4%
SEMINOLE	61.3%	70.2%	55.6%
FLORIDA	60.2%	72.6%	54.9%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

Chronic Conditions: What the Community is Saying

Figure 7.7 illustrates the percentages of community survey respondents that are experiencing either chronic conditions or risk factors related to chronic conditions. Approximately half of Orange County community survey respondents indicated that they consider themselves overweight or obese or had high blood pressure.

FIGURE 7.7: CHRONIC CONDITIONS AND RISK FACTORS, COMMUNITY SURVEY 2019



	Asthma/ COPD-related issues	Cancer	Diabetes	Heart disease	Obesity and over-weight	Child-hood obesity	Cardio-vascular disease	Stroke	High choles-terol	Hyper-tension/ high blood pressure
LAKE	27.3%	24.1%	32.5%	31.1%	58.1%	9.4%	33.7%	11.5%	51.4%	56.6%
ORANGE	24.0%	23.1%	31.5%	23.5%	47.3%	8.2%	22.4%	8.6%	42.9%	49.4%
OSCEOLA	31.8%	24.6%	37.4%	29.7%	50.2%	13.2%	25.0%	15.3%	41.2%	52.7%
SEMINOLE	25.5%	20.6%	29.1%	26.5%	52.6%	7.8%	25.7%	9.3%	48.1%	51.0%
OVERALL	26.0%	22.9%	31.8%	26.4%	51.3%	8.9%	25.9%	10.1%	45.7%	51.7%

Source: Central Florida Community Collaborative Community Survey, Strategy Solutions, Inc.

Participants in the primary research identified the following needs and issues related to chronic conditions:

- Chronic condition management
- People who are noncompliant with their medications
- Lack of understanding about how to manage follow up care
- Heart disease
- Living with a disability
- Cancer
- Diabetes

Barriers to care identified by primary research participants included:

- Lack of awareness of available services
- Cost of care
- Lack of transportation
- Inability to access healthy food
- Lack of insurance

Needed services related to chronic conditions that were identified by primary research participants included:

- Health education
- Access to physicians for second opinion
- Affordable care

Chronic Conditions at a Glance

The key indicators related to chronic conditions that have changed since the last CHNA are identified in Figures 7.8 and 7.9. Red means that the indicator has worsened and green means that there has been an improvement since the 2016 CHNA.

FIGURE 7.8: CHRONIC CONDITIONS INDICATORS

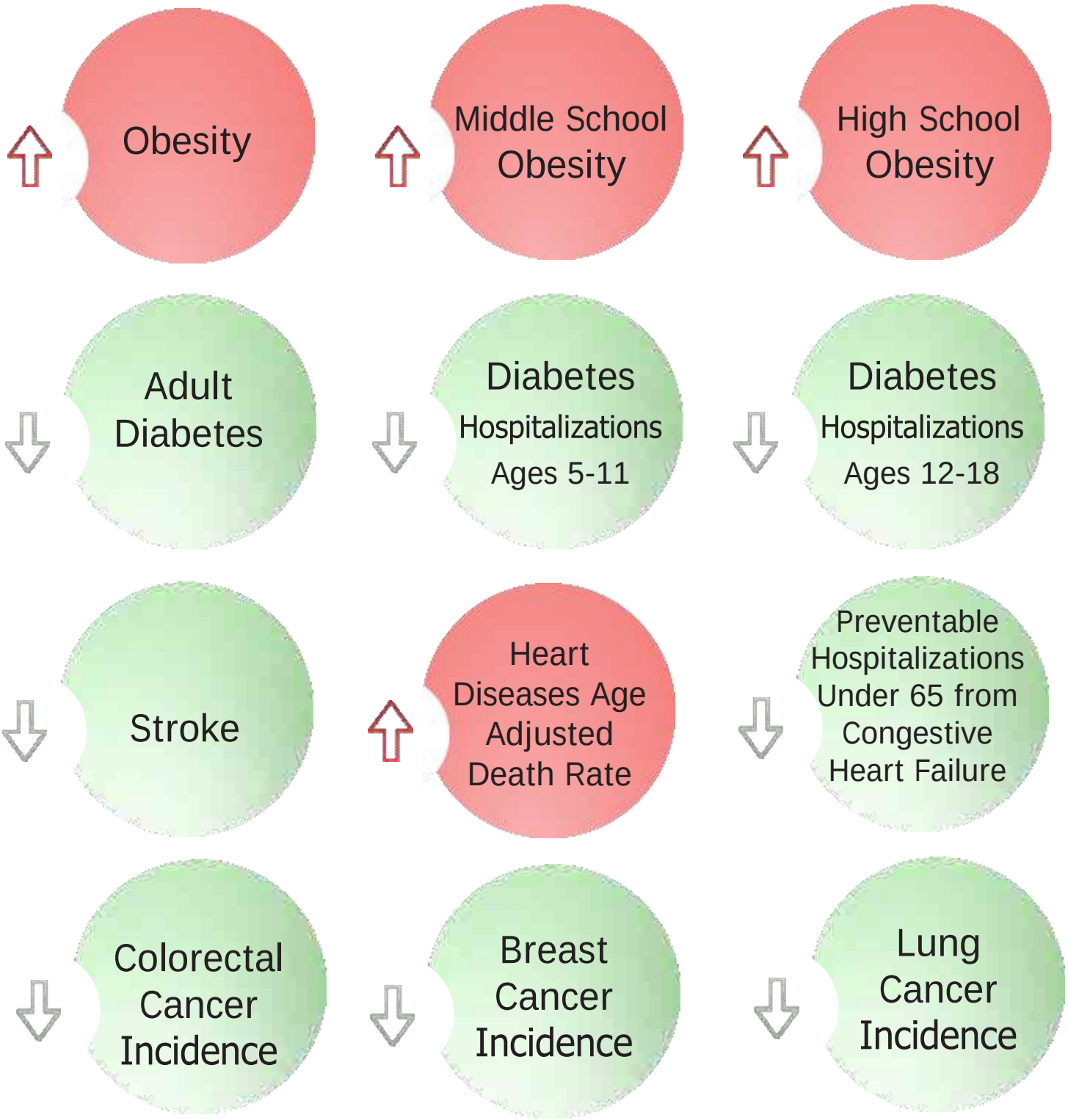
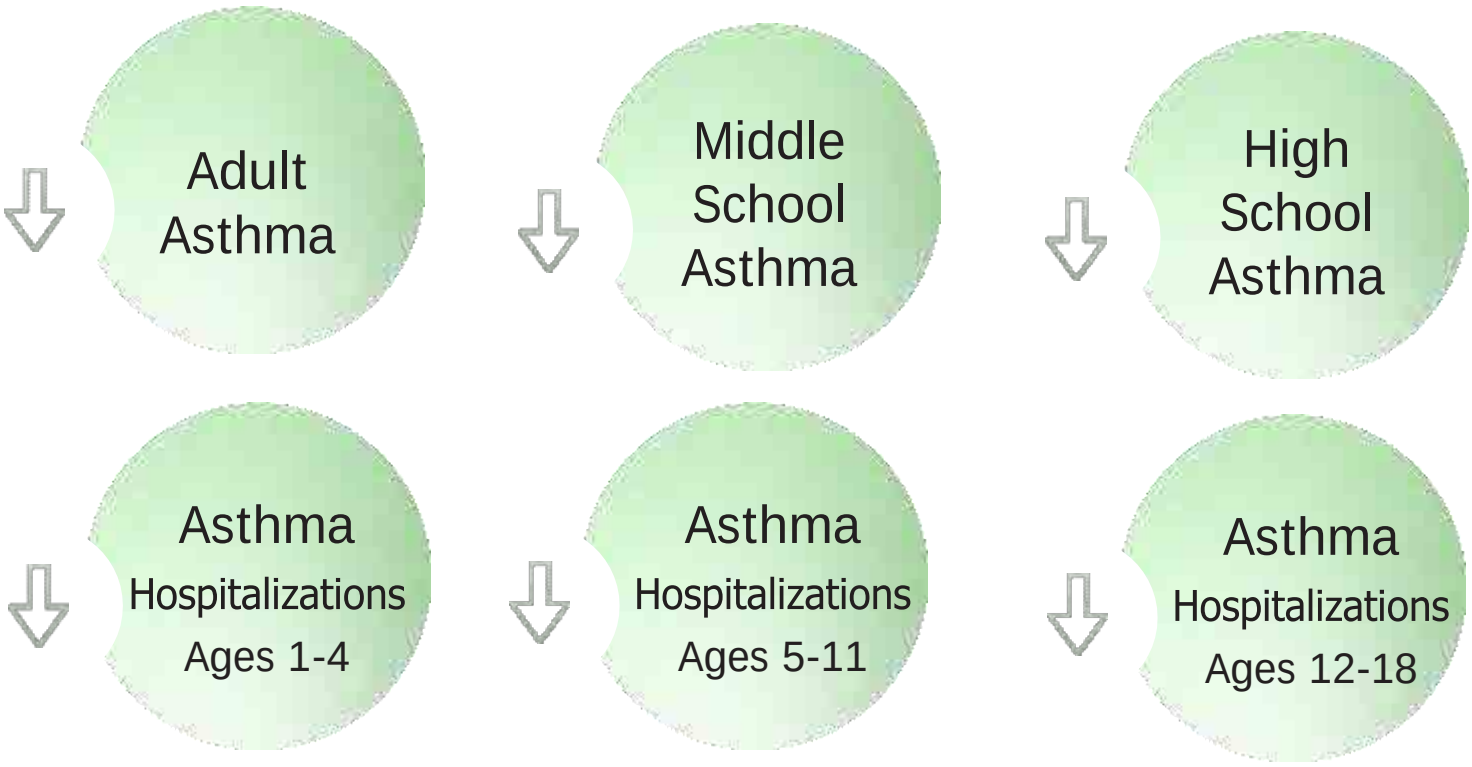


FIGURE 7.8: CHRONIC CONDITIONS INDICATORS, CONTINUED



Source: Strategy Solutions, Inc.

Chronic Conditions: Summary of Indicators

The following includes both a narrative as well as a visual (chart or table) summary of indicators reported on in this section. While the above colored icons illustrate observed trends from the data reported in the 2016 CHNA, this section is designed to highlight relevant historical information on each indicator and provide a narrative interpretation of the data included in the charts/tables that follow.

ADULTS WHO ARE OBESE (2002-2016)

The percentage of adults who are obese in Orange County was below the HP2020 goal of 30.5 percent from 2002 to 2016. However, Orange County's percentage trended upward from 2002 (23.3 percent) to 2016 (27.5 percent). Orange County's percentage in 2016 (27.5 percent) was higher than the state, although the percentage in the state had increased from 20.4 percent in 2002 to 27.4 percent. (See Chart 7.12)

MIDDLE SCHOOL STUDENTS REPORTING BMI AT OR ABOVE 95TH PERCENTILE (2006-2016)

The percentage of middle school students reporting a body mass index (BMI) at or above the 95th percentile remained relatively constant in the county from 2006 to 2016 with a decrease from 11.4 percent in 2006 to 9.5 percent in 2012, followed by an increase in 2014 (10.3 percent) and 2016 (12.3 percent). In the state there was an increase from 2006 (11.3 percent) to 2012 (11.6 percent). This was followed by an additional increase in 2014 (12.4 percent) and 2016 (12.6 percent). (See Chart 7.13)

HIGH SCHOOL STUDENTS REPORTING BMI AT OR ABOVE 95TH PERCENTILE (2006-2016)

The percentage of high school students reporting a BMI at or above the 95th percentile in Orange County increased from 8.5 percent in 2006 to 11.6 percent in 2016, the county percentage was consistently lower than that of the state. The state's percentage increased from 11.2 percent to 13.3 percent during this time. (See Chart 7.14)

ADULTS DIAGNOSED WITH DIABETES (2002-2016)

The percentage of adults diagnosed with diabetes in Orange County increased from 7.4 percent in 2002 to 9.7 percent in 2016, although it was consistently lower than the percentage in the state. In the state there was an increase from 8.2 percent in 2002 to 11.8 percent in 2016. (See Chart 7.15)

DIABETES HOSPITALIZATIONS CHILDREN AGES 5-11 (2011-2017)

Orange County's rate per 100,000 of diabetes hospitalizations for children ages 5-11 decreased from 2011 (49.6) to 2017 (33.2). The decline in the county was in contrast to the state rate where there was an increase from 40.9 (2011) to 41.1 (2017) over the same time. (See Chart 7.16)

DIABETES HOSPITALIZATIONS CHILDREN AGES 12-18 (2011-2017)

Orange County's rate per 100,000 of diabetes hospitalizations for children ages 12-18 was 99.2 in 2011, it increased to 145 in 2014 before increasing again to 155.5 in 2016. The county rate in 2017 (134.4) declined slightly from 2016 numbers. The state percentage was higher than that of the county in 2011 (111.6) and 2017 (138.3). (See Chart 7.17)

ADULTS EVER TOLD THEY HAVE HYPERTENSION (HIGH BLOOD PRESSURE) (2002-2013)

The percentage in Orange County of adults who were told they had hypertension increased from 21.8 percent in 2002 to 29.9 percent in 2013. The state percentage in 2002 (27.7 percent) and 2013 (34.6 percent) was higher than that in the county. (See Chart 7.18)

ADULTS WITH HYPERTENSION WHO TAKE BLOOD PRESSURE MEDICATION (2002-2013)

In 2013, the percentage of adults with hypertension who take blood pressure medication in Orange County (73.5 percent) was lower than that of the state (79.4 percent). The percentage in Orange County decreased from 75.3 percent in 2002, while there was an increase in the state percentage (76 percent) from 2002. (See Chart 7.19)

ADULTS WHO HAVE EVER BEEN TOLD THEY HAD A STROKE (2007-2016)

The percentage of adults who have ever been told they had a stroke in Orange County increased from 2.1 percent in 2007 to 2.7 percent in 2016. There was also an increase in the state during this time from 3.1 percent to 3.5 percent. (See Chart 7.20)

ADULTS WHO HAVE EVER BEEN TOLD THEY HAD HIGH CHOLESTEROL (2002-2013)

The percentages of adults who have ever been told they had high cholesterol in Orange County fluctuated between 2002 (27.4 percent) and 2013 (25.6 percent) but had an overall decrease. This is well above the 13.5 percent target for HP2020. Percentages in Orange County were consistently lower than those in the state; in 2002 the percentage in state was 35.2 and in 2013 it was 33.4 percent. (See Chart 7.21)

HEART DISEASES, AGE-ADJUSTED DEATH RATE (2007-2017)

Orange County's age adjusted death rate per 100,000 from heart diseases fluctuated over time decreasing from 169.6 in 2007 to 148.5 in 2013, followed by an increase to 152.9 in 2017. The state fluctuated as well with an overall decrease, from 163.8 in 2007 to 152.6 in 2013, before an additional decrease to 148.5 in 2017. (See Chart 7.22)

PREVENTABLE HOSPITALIZATIONS UNDER AGE 65 FROM CONGESTIVE HEART FAILURE (2007-2017)

Preventable hospitalizations under age 65 from congestive heart failure per 100,000 have decreased in Orange County and the state from 2007 to 2017. The county rate (114.2 in 2007 and 67.7 in 2017) has been similar to the state rate (117.9 in 2007 and 73.7 in 2017) for this time frame. (See Chart 7.23)

COLORECTAL CANCER INCIDENCE, AGE-ADJUSTED (2007-2016)

While the rates have fluctuated between 2007 and 2016, Orange County has seen a net decline in colorectal cancer incidence per 100,000 from 45.1 in 2007 to 36.8 in 2016. The county rate was higher than the state rate, which was 42.2 in 2007 and 36.5 in 2016. Orange County's rate has been consistent to the state in this time frame. (See Chart 7.24)

FEMALE BREAST CANCER INCIDENCE, AGE-ADJUSTED (2007-2016)

From 2007 to 2016, the incidence of female breast cancer per 100,000 has had a net decrease in Orange County, even though the rate has fluctuated to some degree. The county rate was 118.2 in 2007, which was higher than the state rate of 113.7. In 2016, the county rate (116) was lower than the state rate (121.8). (See Chart 7.25)

LUNG CANCER INCIDENCE, AGE-ADJUSTED (2007-2016)

The age-adjusted lung cancer incidence rate per 100,000 in Orange County was often lower than that of the state from 2007 to 2016, with the exception of 2008 when the state rate was higher (70.2 and 67 respectively). The county rate decreased from 63.5 in 2007 to 51.2 in 2016, while the state rate decreased from 65.9 to 57.5 during this time. (See Chart 7.26)

ADULTS WHO CURRENTLY HAVE ASTHMA (2007-2016)

The percentage of adults who currently have asthma increased in Orange County from 5.1 percent in 2007 to 8.6 percent in 2010, followed by a decrease to 7.7 percent (2013). This was followed by another decrease in 2016 to 6.8 percent. The percentage in the state was higher than the county percentage in 2007 (6.2 percent), 2013 (8.3 percent) and 2016 (6.7 percent). (See Chart 7.27)

MIDDLE SCHOOL STUDENTS WITH KNOWN ASTHMA (2006-2016)

Orange County and the state have seen increasing percentages of middle school students with known asthma. The county percentage increased from 16 percent in 2006 to 18.7 percent in 2016. The state percentage was higher than that of the county in 2006 (18.9 percent) and in 2016 (19.5 percent). (See Chart 7.28)

HIGH SCHOOL STUDENTS WITH KNOWN ASTHMA (2006-2016)

Orange County had a net increase in high school students with known asthma between 2006 and 2016. The percentage increased from 16.7 percent in 2006 to 19.9 percent in 2016. This was slightly lower than the state percentage in 2006 (17.9 percent) and 2016 (20.5 percent). (See Chart 7.29)

ASTHMA HOSPITALIZATIONS AGES 1-4 (2003-2017)

The rate of asthma hospitalizations per 100,000 children ages 1-4 in both Orange County and the state fluctuated from 2003 to 2017 with an overall decrease. The Orange County rate was 801.7 in 2003 and increased to a high of 965.2 in 2012. The rate then decreased to an all-time low during these years of 372.2 in 2017. The state rate was 982 in 2003 and 551.8 in 2017. (See Chart 7.30)

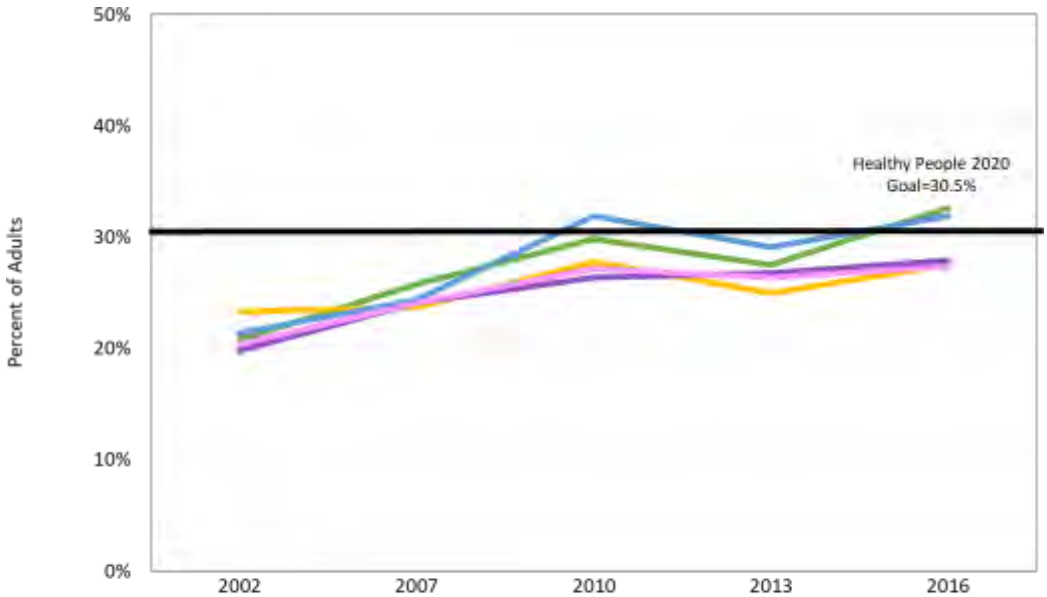
ASTHMA HOSPITALIZATIONS AGES 5-11 (2003-2017)

The rate of asthma hospitalizations per 100,000 children ages 5-11 fluctuated from 2003 to 2017, with an increase occurring in both Orange County and the state. Orange County's rate increased between 2003 (318) and 2017 (416.4). The state rate increased from 366.7 (2003) to 382.3 (2017). (See Chart 7.31)

ASTHMA HOSPITALIZATIONS AGES 12-18 (2003-2017)

From 2003 to 2017, the rate of asthma hospitalizations per 100,000 for children ages 12-18 has fluctuated in Orange County and the state, both increasing over that time. The Orange County rate increased from 303.2 in 2003 to 510.5 in 2017, higher than the 2003 (265) and 2017 state rate (443.9). (See Chart 7.32)

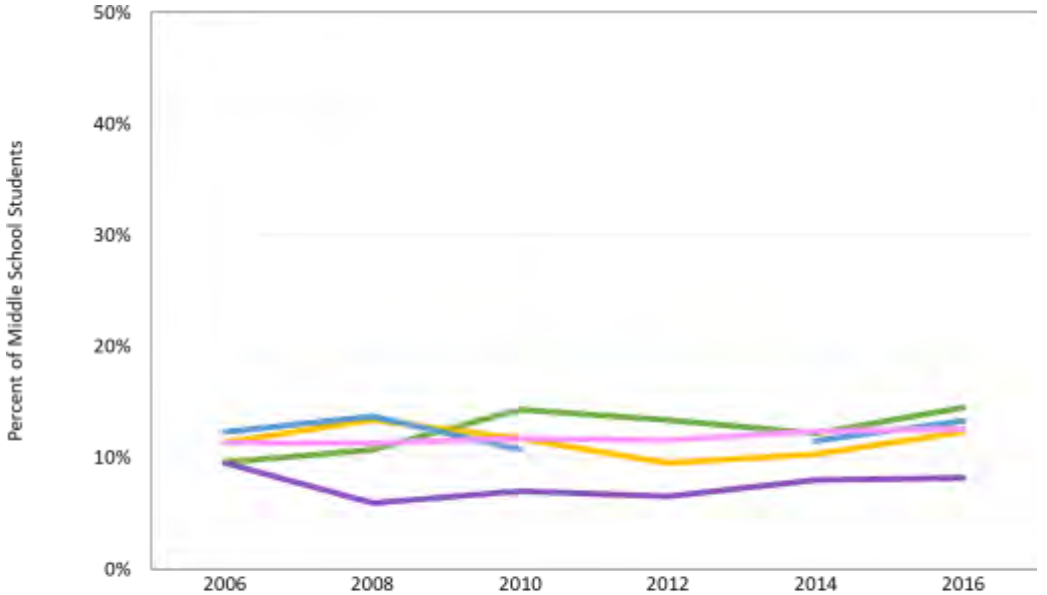
CHART 7.12: ADULTS WHO ARE OBESE (2002-2016)



	2002	2007	2010	2013	2016
LAKE	20.8%	25.8%	29.8%	27.5%	32.6%
ORANGE	23.3%	23.7%	27.8%	25.0%	27.5%
OSCEOLA	21.4%	24.4%	31.9%	29.1%	31.9%
SEMINOLE	19.8%	24.1%	26.4%	26.8%	27.9%
FLORIDA	20.4%	24.1%	27.2%	26.4%	27.4%

Source: FLHealthCHARTS: Florida Department of Health, Behavioral Risk Factor Surveillance System

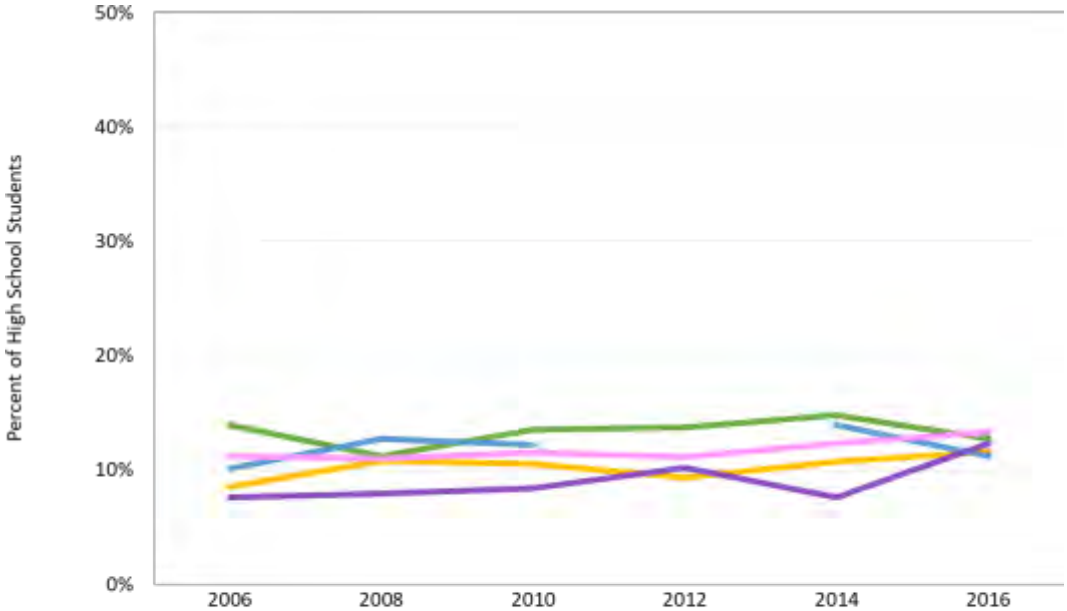
CHART 7.13: MIDDLE SCHOOL STUDENTS REPORTING BMI AT OR ABOVE 95TH PERCENTILE (2006-2016)



	2006	2008	2010	2012	2014	2016
LAKE	9.6%	10.7%	14.3%	13.4%	12.2%	14.5%
ORANGE	11.4%	13.4%	11.7%	9.5%	10.3%	12.3%
OSCEOLA	12.3%	13.7%	10.7%	N/A	11.5%	13.3%
SEMINOLE	9.5%	5.9%	7.0%	6.5%	8.0%	8.2%
FLORIDA	11.3%	11.3%	11.7%	11.6%	12.4%	12.6%

Source: FLHealthCHARTS: Florida Department of Health, Bureau of Epidemiology

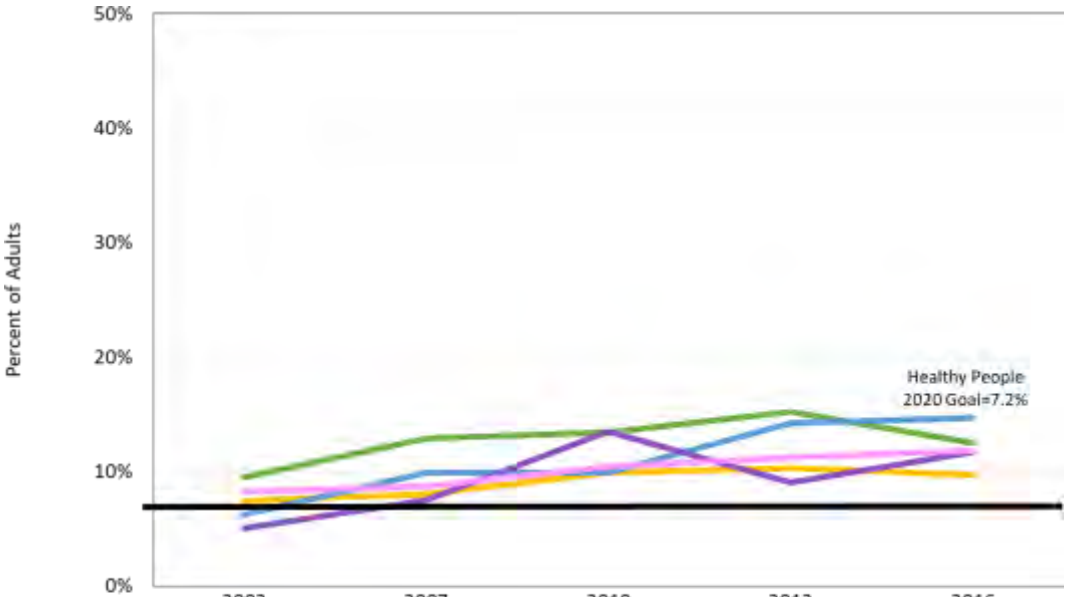
CHART 7.14: HIGH SCHOOL STUDENTS REPORTING BMI AT OR ABOVE 95TH PERCENTILE (2006-2016)



	2006	2008	2010	2012	2014	2016
LAKE	13.9%	11.2%	13.5%	13.7%	14.8%	12.7%
ORANGE	8.5%	10.8%	10.5%	9.3%	10.7%	11.6%
OSCEOLA	10.1%	12.7%	12.2%	N/A	13.9%	11.2%
SEMINOLE	7.6%	7.9%	8.4%	10.2%	7.6%	12.3%
FLORIDA	11.2%	11.0%	11.5%	11.1%	12.3%	13.3%

Source: FLHealthCHARTS: Florida Department of Health, Bureau of Epidemiology

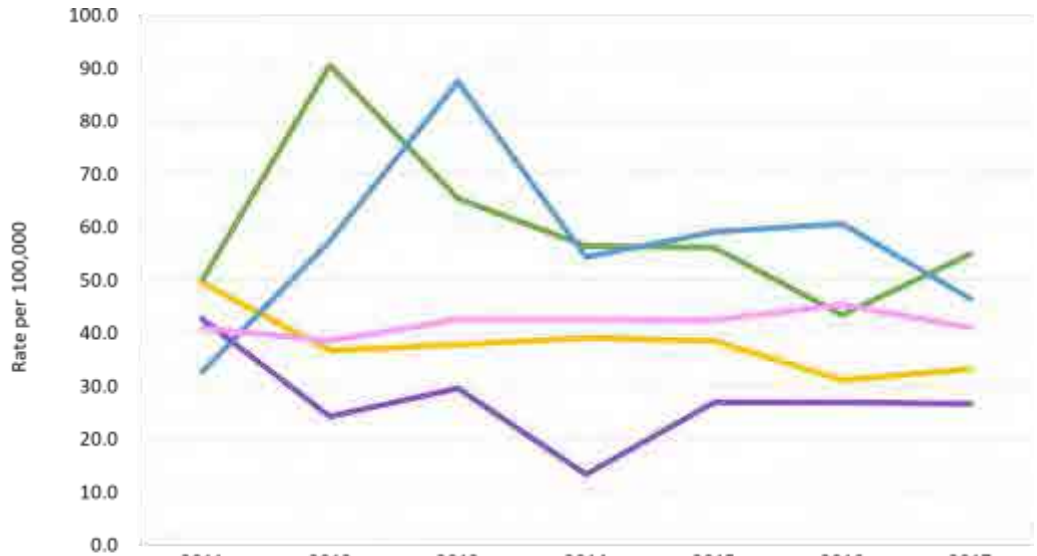
CHART 7.15: ADULTS DIAGNOSED WITH DIABETES (2002-2016)



	2002	2007	2010	2013	2016
LAKE	9.5%	12.9%	13.4%	15.2%	12.5%
ORANGE	7.4%	8.0%	9.9%	10.3%	9.7%
OSCEOLA	6.2%	9.9%	9.9%	14.2%	14.7%
SEMINOLE	5.0%	7.5%	13.5%	9.0%	11.7%
FLORIDA	8.2%	8.7%	10.4%	11.2%	11.8%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance

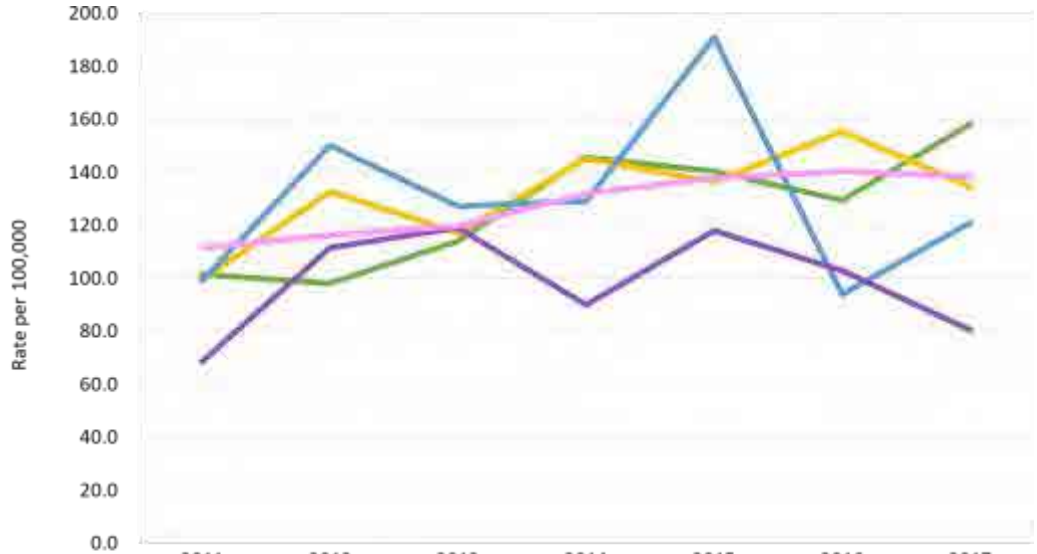
CHART 7.16: DIABETES HOSPITALIZATIONS CHILDREN AGES 5-11 (2011-2017)



	2011	2012	2013	2014	2015	2016	2017
LAKE	49.8	90.5	65.4	56.4	56.2	43.4	54.9
ORANGE	49.6	36.7	37.9	39.1	38.5	31.1	33.2
OSCEOLA	32.6	57.4	87.5	54.3	59.1	60.7	46.5
SEMINOLE	42.8	24.3	29.6	13.4	26.9	26.9	26.6
FLORIDA	40.9	38.5	42.6	42.6	42.4	45.4	41.1

Source: FLHealthCHARTS: Florida Agency For Healthcare Administration (AHCA)

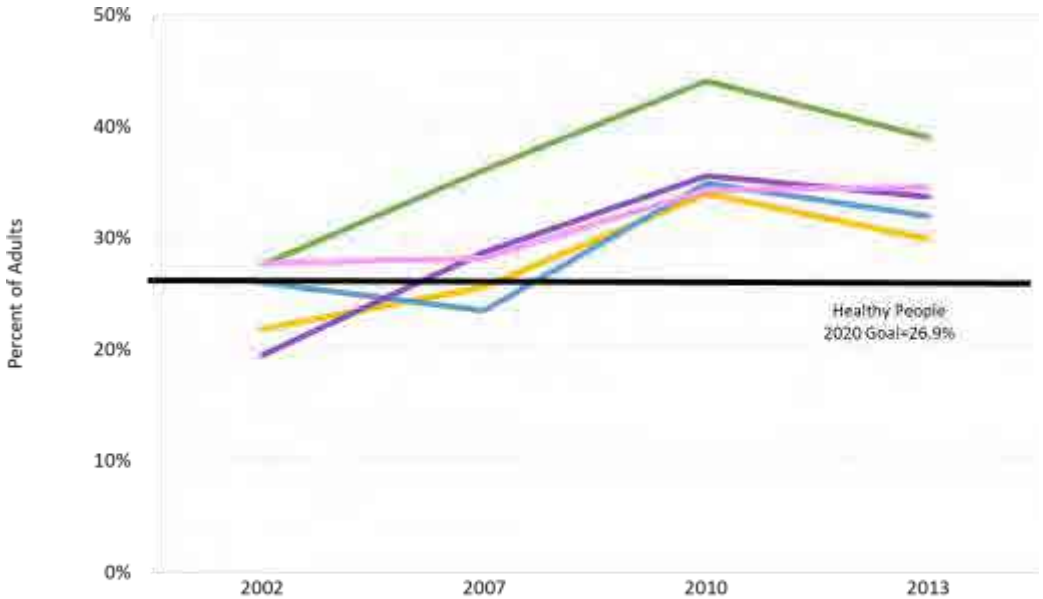
CHART 7.17: DIABETES HOSPITALIZATIONS CHILDREN AGES 12-18 (2011-2017)



	2011	2012	2013	2014	2015	2016	2017
LAKE	101.4	98.0	114.1	145.6	140.2	129.5	158.1
ORANGE	99.2	132.8	117.0	145.0	136.5	155.5	134.4
OSCEOLA	98.9	150.1	127.0	129.0	190.9	93.8	120.9
SEMINOLE	68.3	111.4	118.9	89.9	117.9	102.9	80.5
FLORIDA	111.6	116.1	119.6	131.8	137.8	140.3	138.3

Source: FLHealthCHARTS: Florida Agency For Healthcare Administration (AHCA)

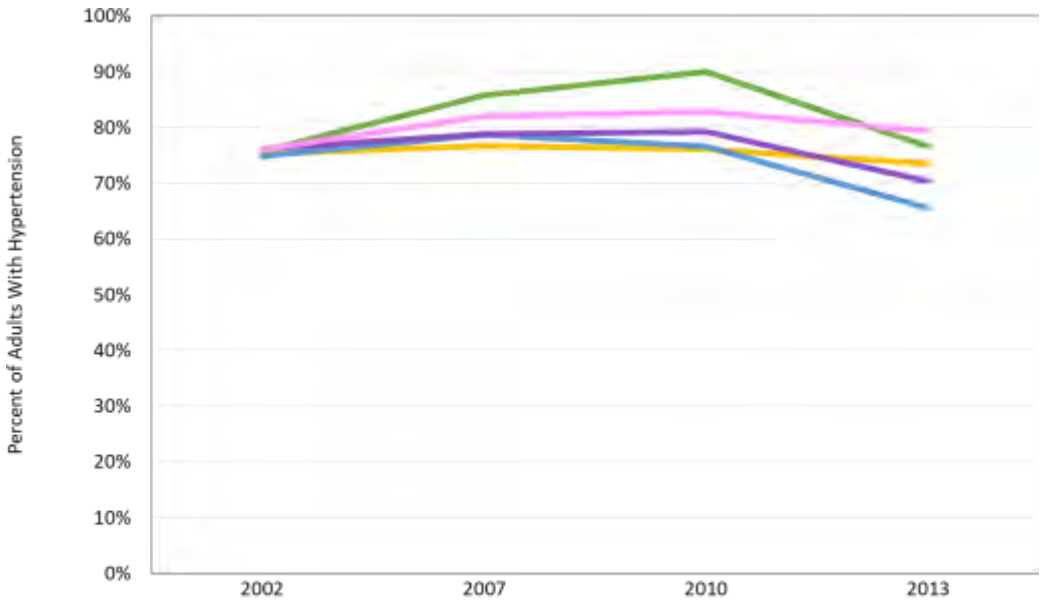
CHART 7.18: ADULTS EVER TOLD THEY HAVE HYPERTENSION (HIGH BLOOD PRESSURE) (2002-2013)



	2002	2007	2010	2013
LAKE	27.6%	36.1%	44.1%	39.0%
ORANGE	21.8%	25.6%	34.0%	29.9%
OSCEOLA	26.0%	23.5%	34.9%	32.0%
SEMINOLE	19.5%	28.7%	35.6%	33.7%
FLORIDA	27.7%	28.2%	34.3%	34.6%

Source: FLHealthCHARTS: Florida Behavioral Risk Factor Surveillance System

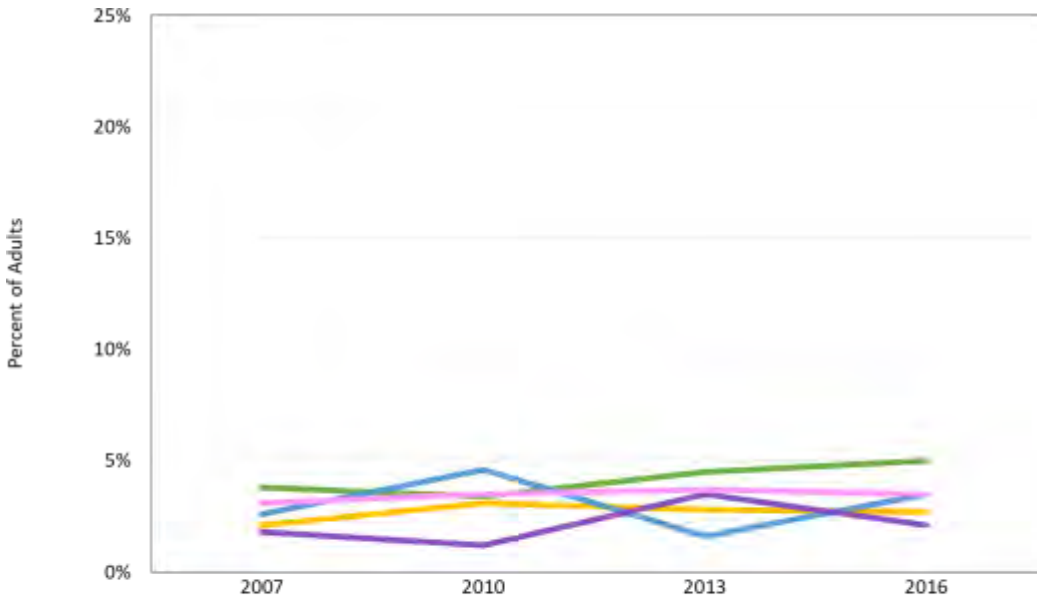
CHART 7.19: ADULTS WITH HYPERTENSION WHO TAKE BLOOD PRESSURE MEDICATION (2002-2013)



	2002	2007	2010	2013
LAKE	75.8%	85.8%	90.0%	76.6%
ORANGE	75.3%	76.7%	76.0%	73.5%
OSCEOLA	74.9%	78.7%	76.6%	65.5%
SEMINOLE	76.2%	78.9%	79.2%	70.4%
FLORIDA	76.0%	82.1%	82.8%	79.4%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

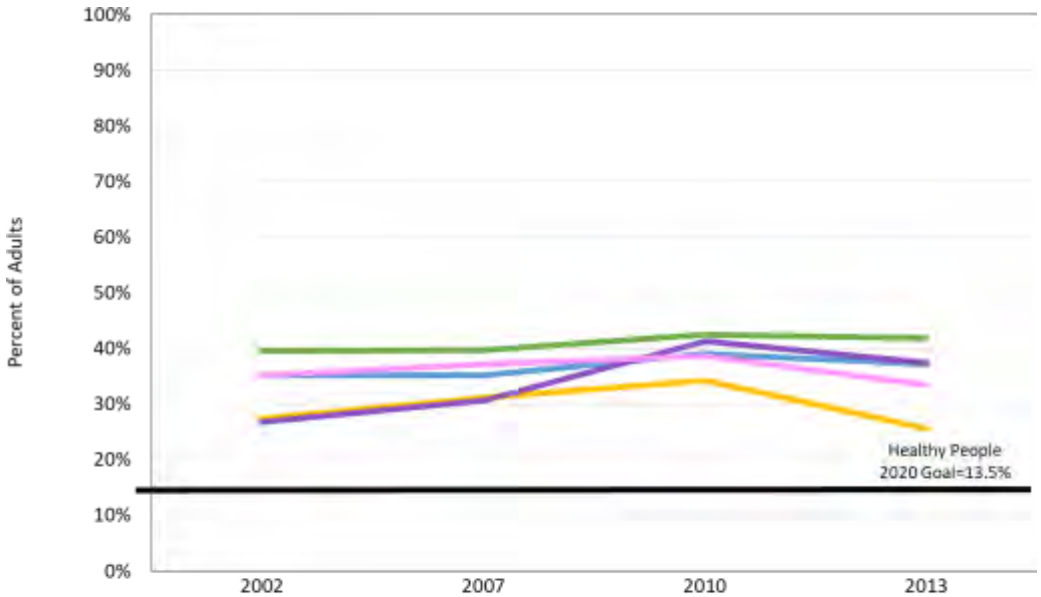
CHART 7.20: ADULTS WHO HAVE EVER BEEN TOLD THEY HAD A STROKE (2007-2016)



	2007	2010	2013	2016
LAKE	3.8%	3.4%	4.5%	5.0%
ORANGE	2.1%	3.1%	2.8%	2.7%
OSCEOLA	2.6%	4.6%	1.6%	3.5%
SEMINOLE	1.8%	1.2%	3.5%	2.1%
FLORIDA	3.1%	3.5%	3.7%	3.5%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

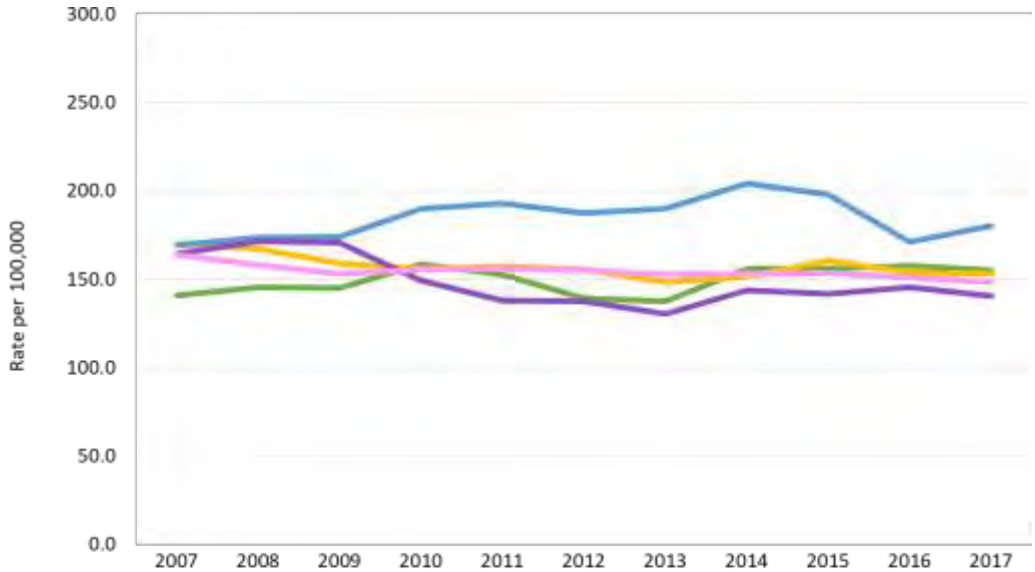
CHART 7.21: ADULTS WHO HAVE EVER BEEN TOLD THEY HAD HIGH CHOLESTEROL (2002-2013)



	2002	2007	2010	2013
LAKE	39.6%	39.7%	42.5%	41.8%
ORANGE	27.4%	31.1%	34.2%	25.6%
OSCEOLA	35.2%	35.2%	39.0%	37.2%
SEMINOLE	26.7%	30.6%	41.3%	37.4%
FLORIDA	35.2%	37.1%	38.6%	33.4%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

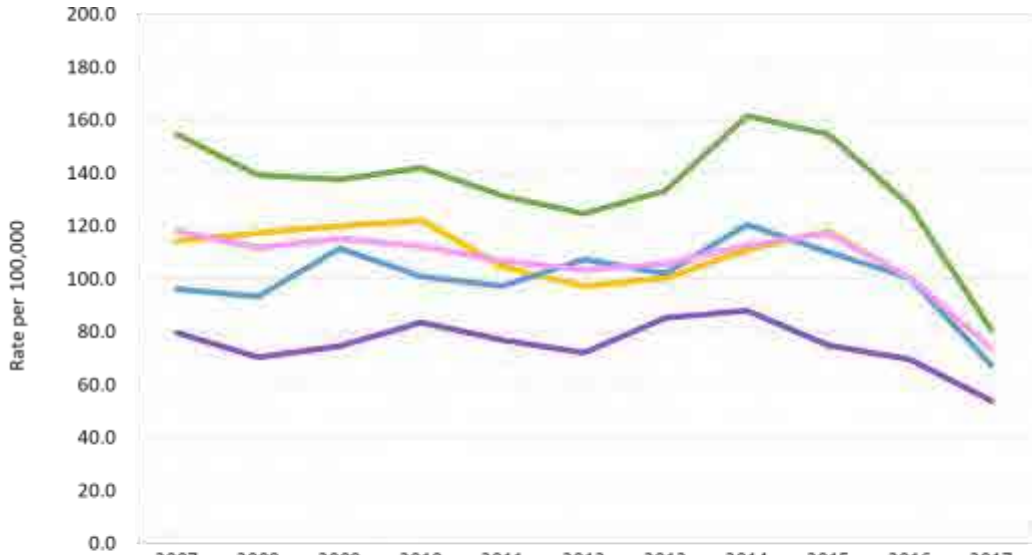
CHART 7.22: HEART DISEASES, AGE-ADJUSTED DEATH RATE (2007-2017)



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	141.0	145.4	145.1	158.3	152.6	139.0	137.5	156.0	156.0	157.4	155.2
ORANGE	169.6	167.2	158.9	155.7	157.0	155.3	148.5	151.2	160.6	153.7	152.9
OSCEOLA	169.4	173.7	174.1	189.8	193.0	187.4	190.0	204.2	197.8	170.9	180.3
SEMINOLE	164.2	171.5	170.7	149.3	137.7	137.5	130.4	143.9	141.8	145.4	140.5
FLORIDA	163.8	158.0	152.8	155.3	155.8	155.1	152.6	153.0	153.3	150.7	148.5

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

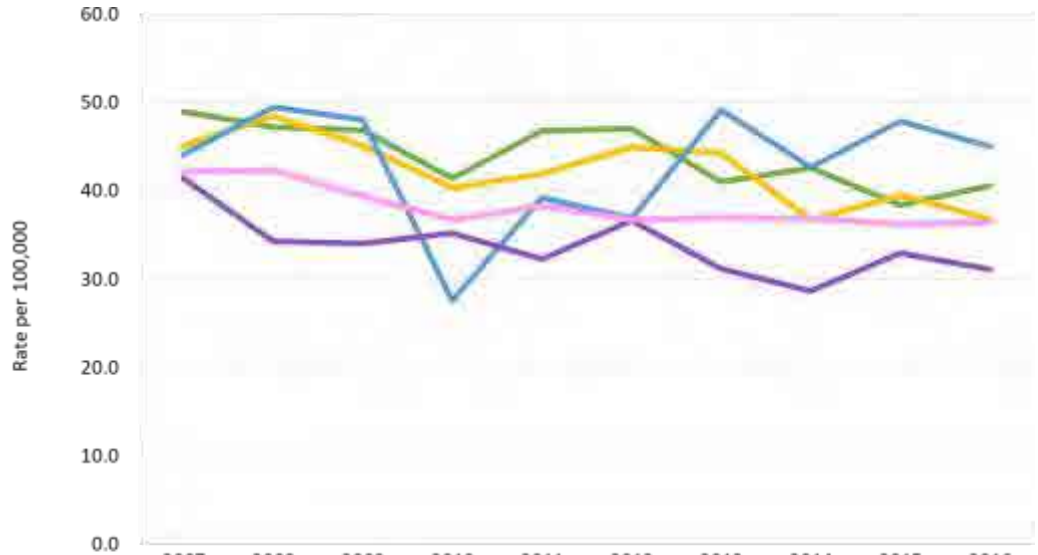
CHART 7.23: PREVENTABLE HOSPITALIZATIONS UNDER AGE 65 FROM CONGESTIVE HEART FAILURE (2007-2017)



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	154.5	139.2	137.6	141.9	131.4	124.7	133.4	161.6	154.6	127.6	80.7
ORANGE	114.2	117.4	119.9	122.2	104.4	97.3	100.2	110.8	117.8	100.2	67.7
OSCEOLA	96.0	93.4	111.4	100.8	97.2	107.4	102.1	120.3	110.0	100.3	67.2
SEMINOLE	79.7	70.4	74.6	83.5	76.7	72.0	85.1	88.1	74.9	69.5	53.9
FLORIDA	117.9	111.7	115.1	112.4	106.6	103.4	105.7	112.7	117.0	100.6	73.7

Source: FLHealthCHARTS: Florida Agency For Healthcare Administration

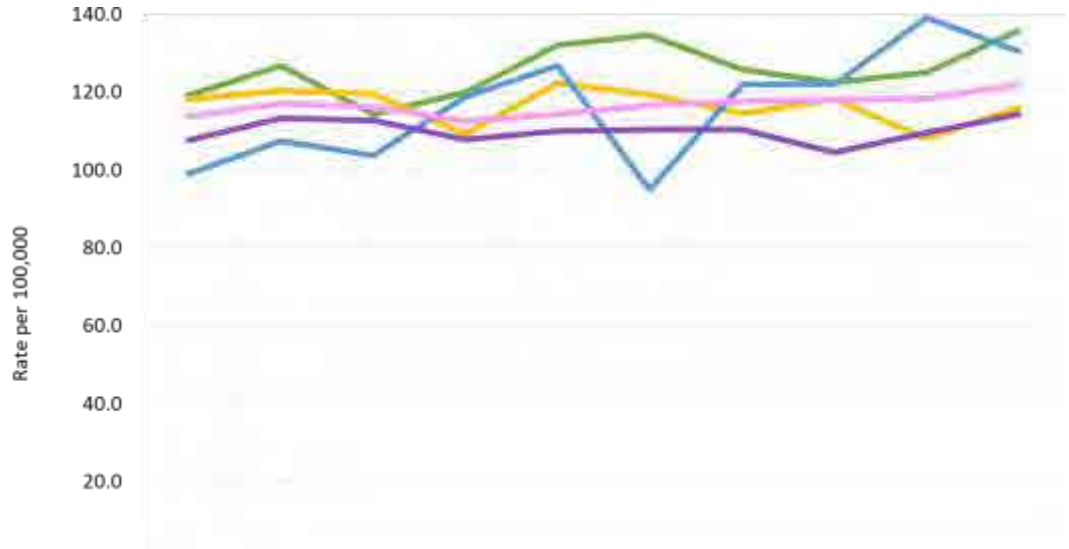
CHART 7.24: COLORECTAL CANCER INCIDENCE, AGE-ADJUSTED (2007-2016)



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
LAKE	49.0	47.2	46.9	41.4	46.8	47.0	41.0	42.6	38.4	40.6
ORANGE	45.1	48.5	45.1	40.3	41.9	44.9	44.3	36.7	39.5	36.8
OSCEOLA	44.1	49.5	48.0	27.6	39.2	36.9	49.1	42.7	47.9	45.0
SEMINOLE	41.4	34.3	34.0	35.2	32.3	36.6	31.2	28.7	32.9	31.1
FLORIDA	42.2	42.3	39.4	36.7	38.3	36.7	37.0	36.9	36.2	36.5

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

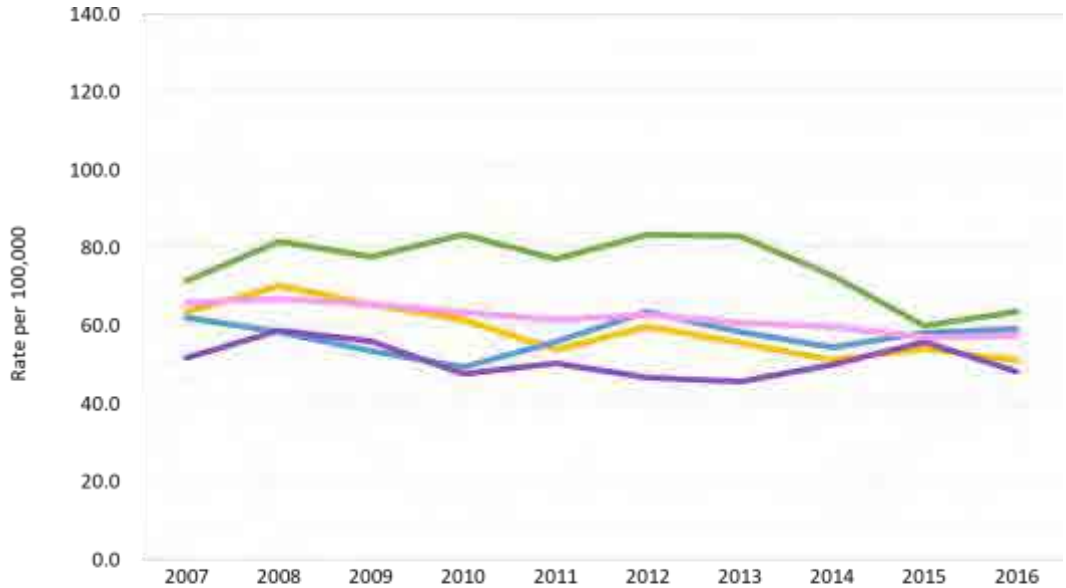
CHART 7.25: FEMALE BREAST CANCER INCIDENCE, AGE-ADJUSTED (2007-2016)



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
LAKE	119.1	126.8	114.3	119.9	132.1	134.5	125.8	122.4	124.9	135.8
ORANGE	118.2	120.3	119.6	109.1	122.3	119.3	114.4	118.1	108.0	116.0
OSCEOLA	99.0	107.5	103.6	118.8	126.7	95.0	121.9	122.1	139.0	130.5
SEMINOLE	107.6	113.2	112.7	107.7	109.9	110.3	110.4	104.5	109.5	114.2
FLORIDA	113.7	116.9	116.1	112.4	114.3	116.6	117.5	118.0	118.3	121.8

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

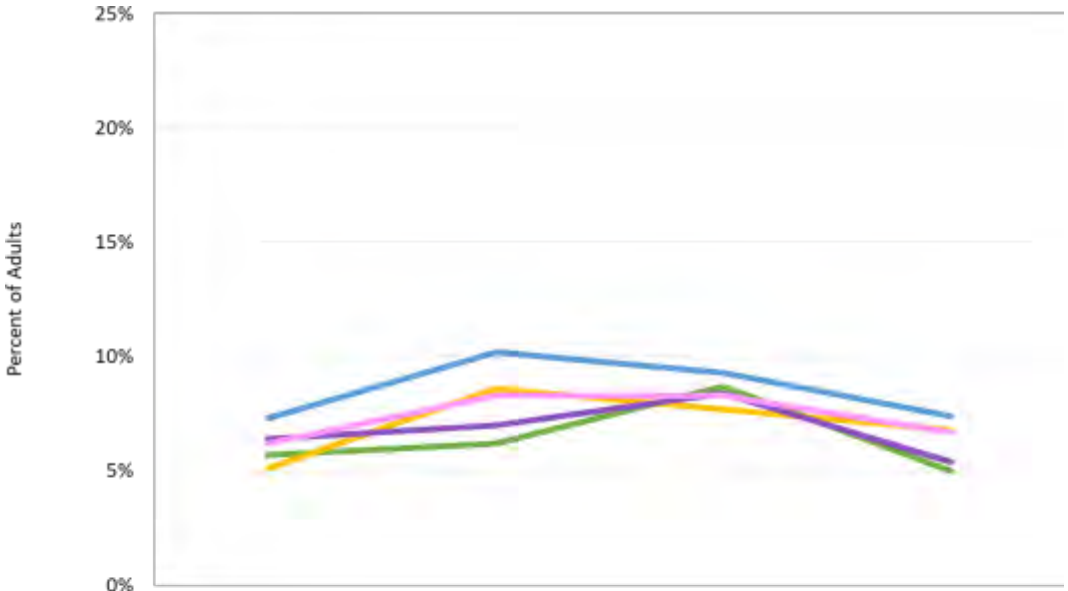
CHART 7.26: LUNG CANCER INCIDENCE, AGE-ADJUSTED (2007-2016)



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
LAKE	71.5	81.7	77.7	83.3	77.1	83.4	83.0	72.9	59.9	63.6
ORANGE	63.5	70.2	65.4	61.5	53.8	59.7	55.6	51.1	54.0	51.2
OSCEOLA	62.1	58.3	53.5	49.4	55.9	63.6	58.4	54.5	58.1	59.1
SEMINOLE	51.8	58.7	56.1	47.6	50.4	46.7	45.7	49.9	55.8	48.2
FLORIDA	65.9	67.0	65.5	63.4	61.6	62.8	60.7	59.7	57.0	57.5

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

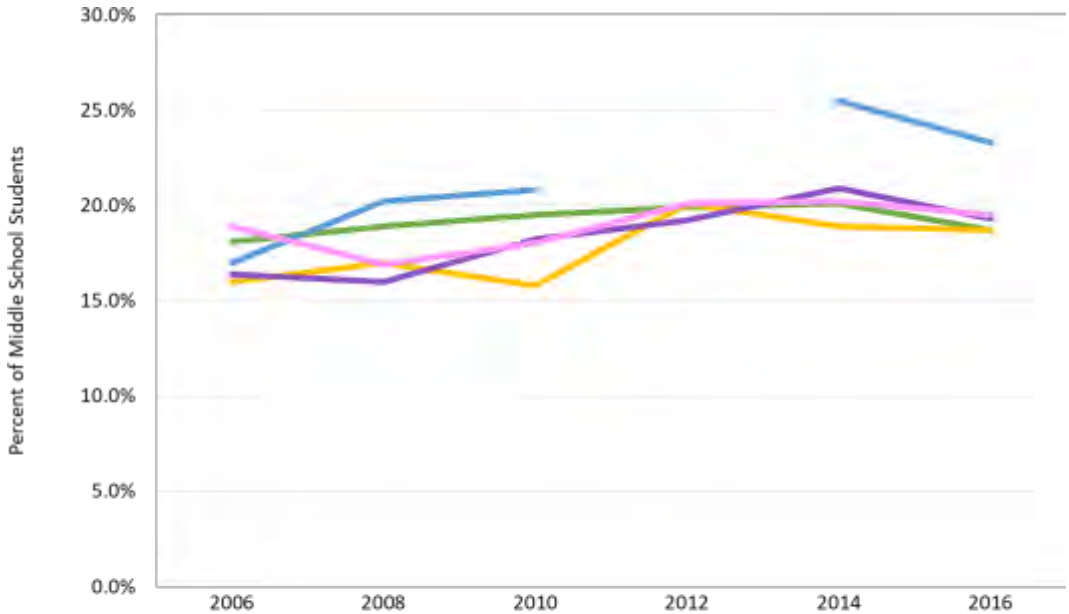
CHART 7.27: ADULTS WHO CURRENTLY HAVE ASTHMA (2007-2016)



	2007	2010	2013	2016
LAKE	5.7%	6.2%	8.7%	5.0%
ORANGE	5.1%	8.6%	7.7%	6.8%
OSCEOLA	7.3%	10.2%	9.3%	7.4%
SEMINOLE	6.4%	7.0%	8.4%	5.4%
FLORIDA	6.2%	8.3%	8.3%	6.7%

Source: FLHealthCHARTS: Florida Behavior Risk Factor Surveillance System

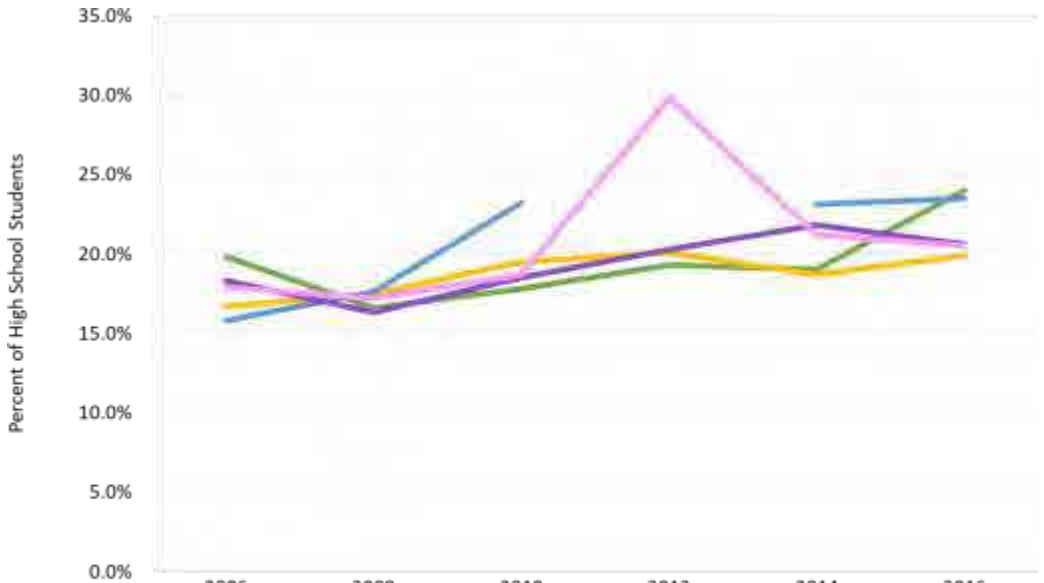
CHART 7.28: MIDDLE SCHOOL STUDENTS WITH KNOWN ASTHMA (2006-2016)



	2006	2008	2010	2012	2014	2016
LAKE	18.1%	18.9%	19.5%	19.9%	20.1%	18.7%
ORANGE	16.0%	17.0%	15.8%	20.1%	18.9%	18.7%
OSCEOLA	17.0%	20.2%	20.8%	N/A	25.5%	23.3%
SEMINOLE	16.4%	16.0%	18.2%	19.2%	20.9%	19.3%
FLORIDA	18.9%	16.9%	18.0%	20.1%	20.2%	19.5%

Source: FLHealthCHARTS: Florida Department of Health, Bureau of Epidemiology

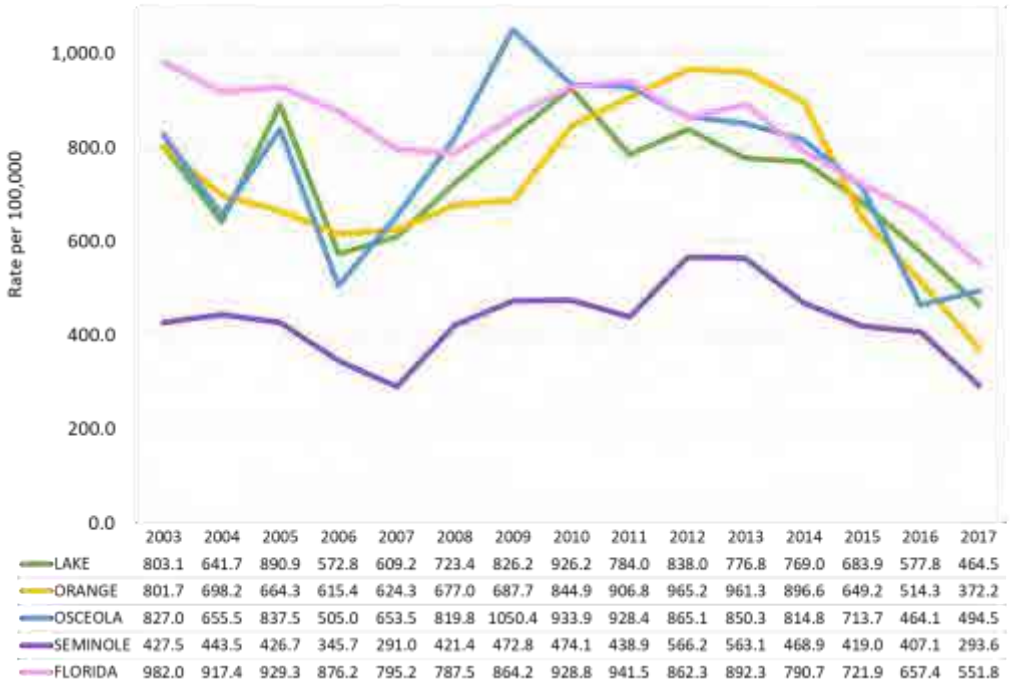
CHART 7.29: HIGH SCHOOL STUDENTS WITH KNOWN ASTHMA (2006-2016)



	2006	2008	2010	2012	2014	2016
LAKE	19.8%	16.6%	17.8%	19.3%	19.0%	24.0%
ORANGE	16.7%	17.5%	19.5%	20.1%	18.7%	19.9%
OSCEOLA	15.8%	17.6%	23.2%	N/A	23.1%	23.5%
SEMINOLE	18.3%	16.3%	18.5%	20.3%	21.8%	20.6%
FLORIDA	17.9%	17.2%	18.7%	29.8%	21.2%	20.5%

Source: FLHealthCHARTS: Florida Department of Health, Bureau of Epidemiology

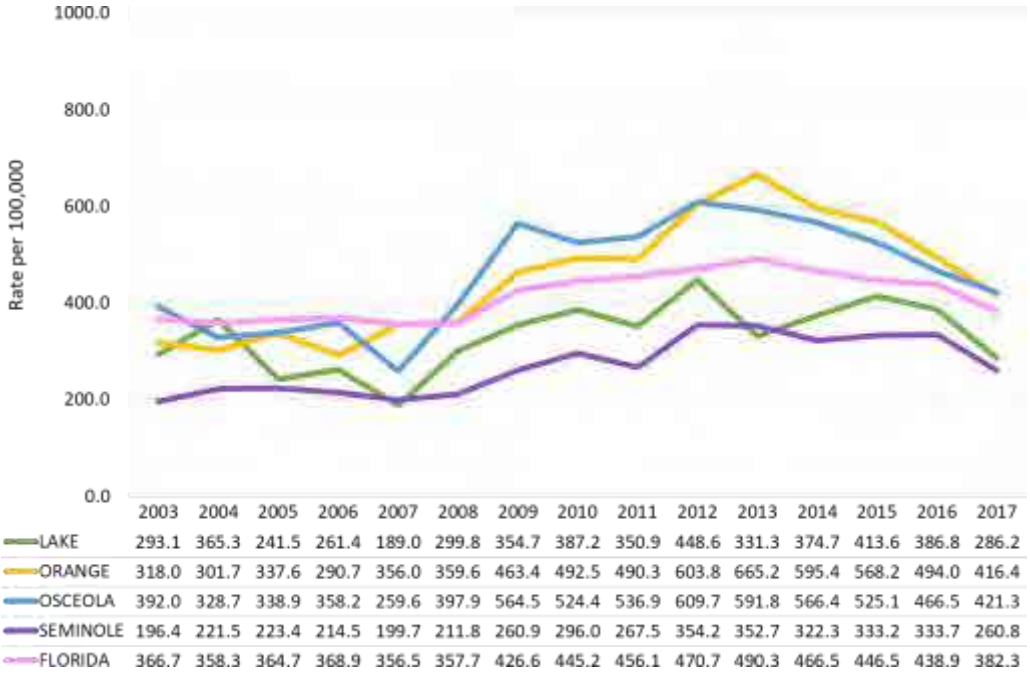
CHART 7.30: ASTHMA HOSPITALIZATIONS AGES 1-4 (2003-2017)



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	803.1	641.7	890.9	572.8	609.2	723.4	826.2	926.2	784.0	838.0	776.8	769.0	683.9	577.8	464.5
ORANGE	801.7	698.2	664.3	615.4	624.3	677.0	687.7	844.9	906.8	965.2	961.3	896.6	649.2	514.3	372.2
OSCEOLA	827.0	655.5	837.5	505.0	653.5	819.8	1050.4	933.9	928.4	865.1	850.3	814.8	713.7	464.1	494.5
SEMINOLE	427.5	443.5	426.7	345.7	291.0	421.4	472.8	474.1	438.9	566.2	563.1	468.9	419.0	407.1	293.6
FLORIDA	982.0	917.4	929.3	876.2	795.2	787.5	864.2	928.8	941.5	862.3	892.3	790.7	721.9	657.4	551.8

Source: FLHealthCHARTS: Florida Agency For Healthcare Administration

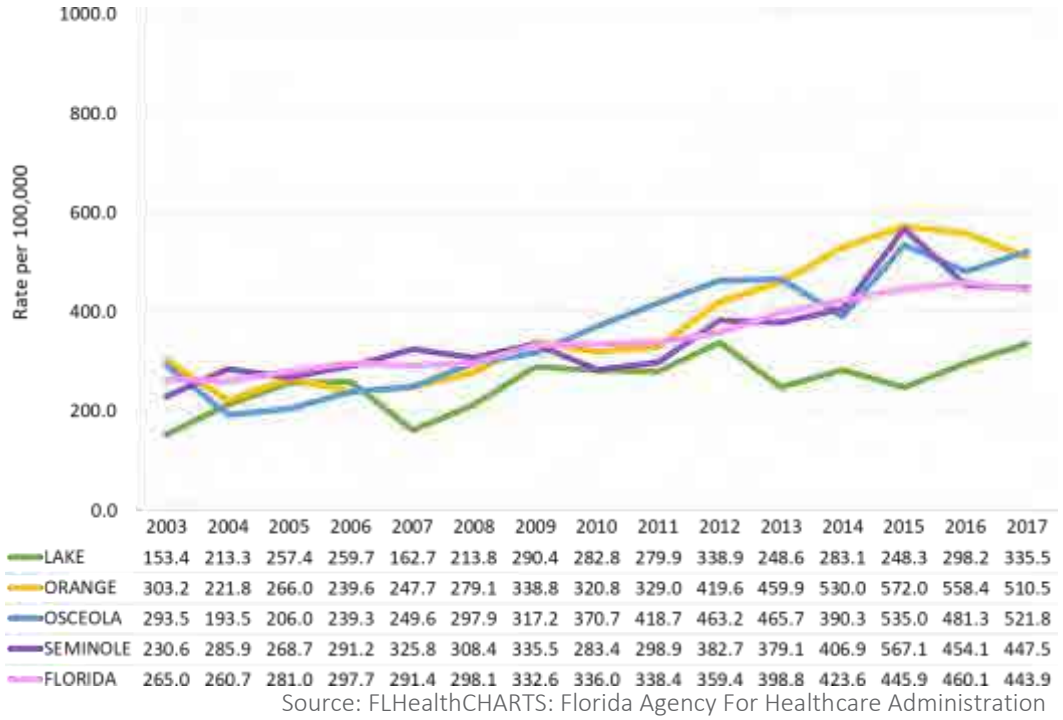
CHART 7.31: ASTHMA HOSPITALIZATIONS AGES 5-11 (2003-2017)



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	293.1	365.3	241.5	261.4	189.0	299.8	354.7	387.2	350.9	448.6	331.3	374.7	413.6	386.8	286.2
ORANGE	318.0	301.7	337.6	290.7	356.0	359.6	463.4	492.5	490.3	603.8	665.2	595.4	568.2	494.0	416.4
OSCEOLA	392.0	328.7	338.9	358.2	259.6	397.9	564.5	524.4	536.9	609.7	591.8	566.4	525.1	466.5	421.3
SEMINOLE	196.4	221.5	223.4	214.5	199.7	211.8	260.9	296.0	267.5	354.2	352.7	322.3	333.2	333.7	260.8
FLORIDA	366.7	358.3	364.7	368.9	356.5	357.7	426.6	445.2	456.1	470.7	490.3	466.5	446.5	438.9	382.3

Source: FLHealthCHARTS: Florida Agency For Healthcare Administration

CHART 7.32: ASTHMA HOSPITALIZATIONS AGES 12-18 (2003-2017)



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	153.4	213.3	257.4	259.7	162.7	213.8	290.4	282.8	279.9	338.9	248.6	283.1	248.3	298.2	335.5
ORANGE	303.2	221.8	266.0	239.6	247.7	279.1	338.8	320.8	329.0	419.6	459.9	530.0	572.0	558.4	510.5
OSCEOLA	293.5	193.5	206.0	239.3	249.6	297.9	317.2	370.7	418.7	463.2	465.7	390.3	535.0	481.3	521.8
SEMINOLE	230.6	285.9	268.7	291.2	325.8	308.4	335.5	283.4	298.9	382.7	379.1	406.9	567.1	454.1	447.5
FLORIDA	265.0	260.7	281.0	297.7	291.4	298.1	332.6	336.0	338.4	359.4	398.8	423.6	445.9	460.1	443.9

Source: FLHealthCHARTS: Florida Agency For Healthcare Administration

Leading Causes of Death: Summary of Indicators

According to the Centers for Disease Control and Prevention, cause-of-death ranking is a useful tool for illustrating the relative burden of cause-specific mortality. However, it should be used with a clear understanding of what the rankings mean. Literally, the rankings denote the most frequently occurring causes of death among those causes eligible to be ranked. Rankings do not illustrate cause-specific mortality risk as depicted by mortality rates. The rank of a specific cause (i.e., its mortality burden relative to other causes) may decline over time even if its mortality rate has not changed, or its rank may remain the same over time even if its mortality rate is decreasing.

Another tool used to depict the relative burden of cause-specific mortality is the proportion of total deaths from the rankable causes. This maps directly to the rankings such that, within a given year or population group, the causes with the highest rankings also have the highest proportion of total deaths. When making comparisons over time, however, it is important to note that the rank of a specific cause may remain the same even though the proportion of deaths attributable to that cause may have changed. Similarly, two population groups may have the same rank for a specific cause but different attributable proportions.

The following includes both a narrative as well as visual (chart or table) summary of indicators reported on in this section.

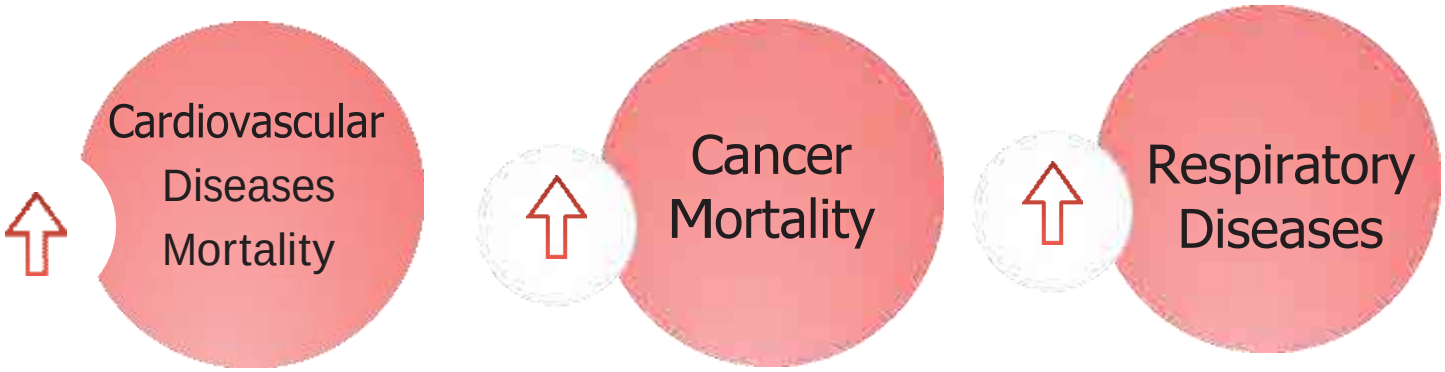
LEADING CAUSES OF DEATH INDICATORS, AGE-ADJUSTED, PER 100,000 POPULATION, ORANGE COUNTY (2012-2017)

Cardiovascular diseases top the list of leading causes of death in Orange County with the rate increasing from 205 in 2014 to 221.8 in 2017. Cancer deaths have also increased during this timeframe (150.8 to 152.3).

Respiratory diseases have fluctuated with little change from 55.2 in 2014 to 55.5 in 2017. (See Table 7.4)

Figure 7.9 identifies the leading causes of death for Orange County in 2017. Red means that the indicator has worsened and green means that there has been an improvement since the 2016 CHNA.

FIGURE 7.9: LEADING CAUSES OF DEATH INDICATORS, ORANGE COUNTY



Source: Strategy Solutions, Inc.

TOP 10 LEADING RANKABLE CAUSES OF DEATH, AGE-ADJUSTED, PER 100,000 POPULATION, ORANGE COUNTY (2012-2017)

Cancer is the top leading rankable cause of death in Orange County with the rate increasing from 150.8 in 2014 to 152.3 in 2017. Heart diseases are the second leading rankable cause of death in the county, with the rate also increasing from 151.2 to 152.9. Unintentional injury death rates have increased from 37.5 to 45.4. (See Table 7.3)

TABLE 7.2: LEADING CAUSES OF DEATH, AGE-ADJUSTED, PER 100,000 POPULATION, ORANGE COUNTY (2012-2017)

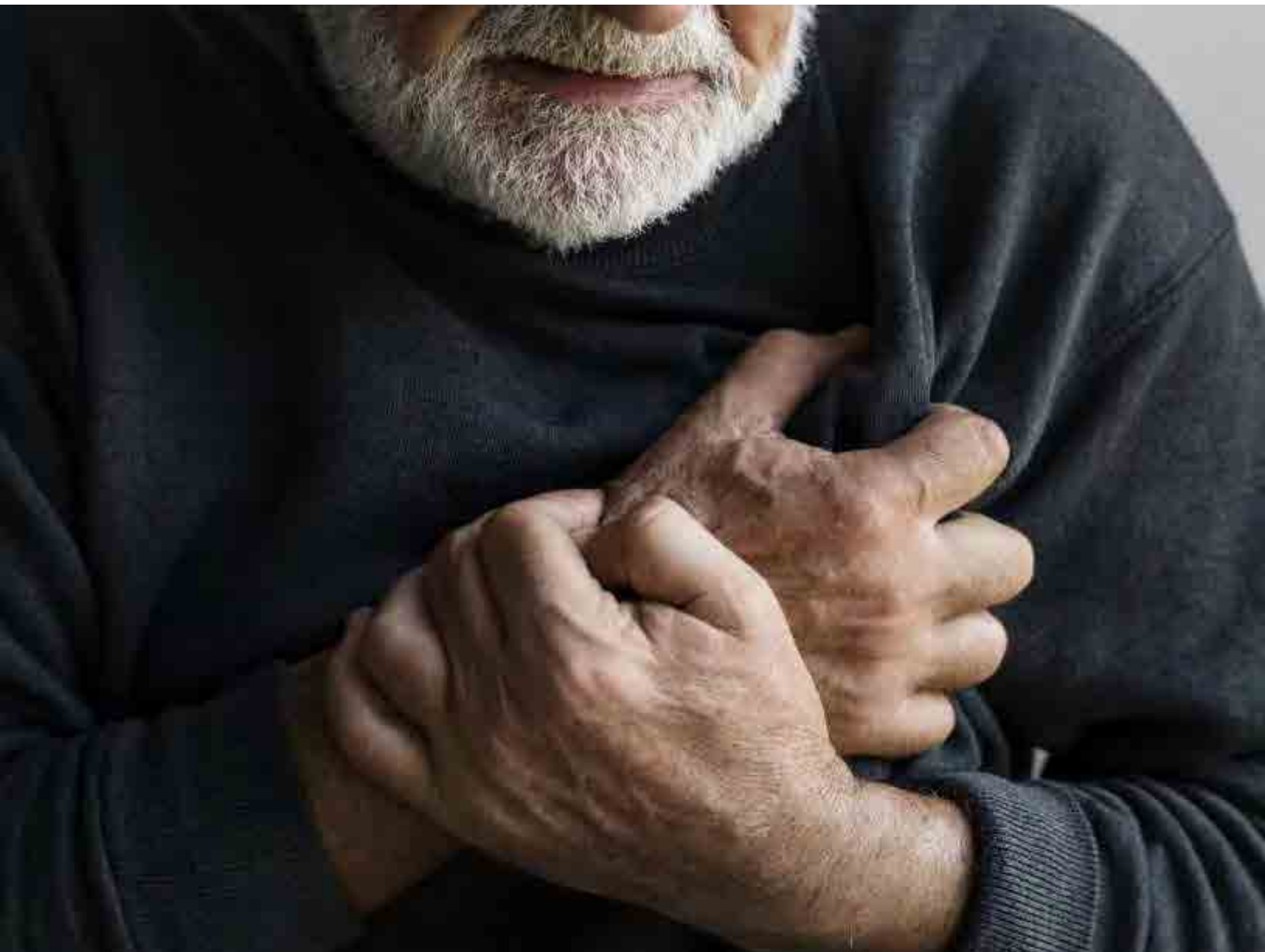
	2012	2013	2014	2015	2016	2017	Total
Cardiovascular diseases	209.9	204.0	205.0	220.0	218.7	221.8	213.5
Cancer	166.4	159.6	150.8	153.8	154.6	152.3	155.9
Other causes (residual)	80.1	84.7	76.1	69.0	72.0	71.0	75.2
External causes	53.4	51.5	54.9	58.3	62.3	64.2	57.6
Respiratory diseases	63.3	60.5	55.2	58.9	54.9	55.5	57.9
Nervous system diseases	28.2	27.1	28.0	31.6	33.7	31.3	30.1
Nutritional and metabolic diseases	25.8	24.9	24.1	23.6	21.9	26.4	24.4
Infectious diseases	24.7	23.1	22.8	22.2	21.5	18.9	22.1
Urinary tract diseases	11.7	10.9	13.4	16.4	13.9	10.8	12.8
Digestive diseases	8.8	9.1	11.2	10.6	11.4	12.0	10.6

Source: Florida Department of Health, Office of Vital Statistics, DeathStat Database

TABLE 7.3: TOP 10 LEADING RANKABLE CAUSES OF DEATH, AGE-ADJUSTED, PER 100,000 POPULATION, ORANGE COUNTY (2012-2017)

	2012	2013	2014	2015	2016	2017	Total
Cancer	166.4	159.6	150.8	153.8	154.6	152.3	155.9
Heart diseases	155.3	148.5	151.2	160.6	153.7	152.9	153.7
Unintentional injury	34.4	34.0	37.5	39.9	42.0	45.4	39.0
Cerebrovascular diseases	35.1	36.9	35.9	47.0	48.6	54.8	43.4
Chronic lower respiratory disease	38.3	36.1	33.5	35.7	31.1	32.0	34.3
Diabetes mellitus	25.0	24.5	23.1	21.4	19.0	22.6	22.5
Alzheimer's disease	20.6	18.3	20.4	23	24.3	21.9	21.5
Nephritis, nephrotic syndrome, nephrosis	11.5	10.9	13.3	16.3	13.5	10.6	12.7
Suicide	11.2	10.0	10.0	10.5	9.8	10.8	10.4
Septicemia	12.6	11.1	11.6	11.7	11.6	10.7	11.5

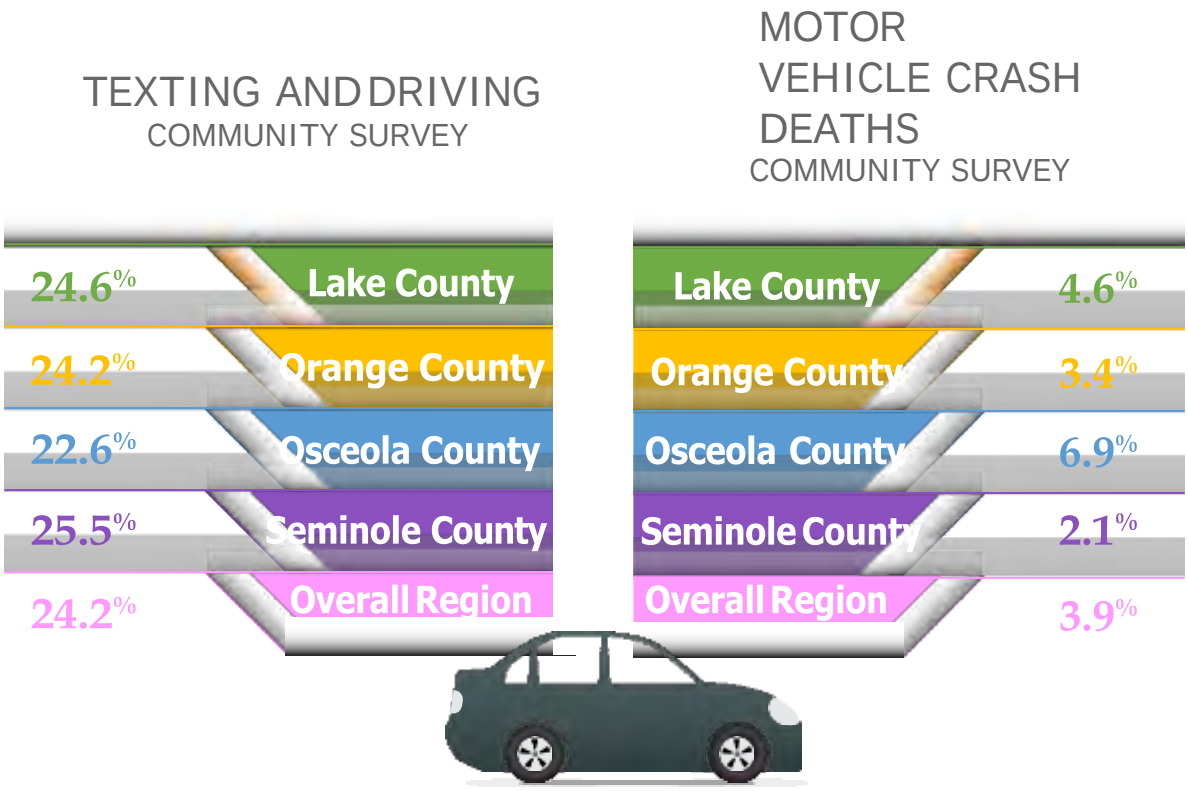
Source: Florida Department of Health, Office of Vital Statistics, DeathStat Database



Injury: What the Community is Saying

Figure 7.10 displays the input from community survey respondents related to injury. Residents of Orange County mirror the rate of having experienced texting and driving (24.2 percent) of the overall region (24.2 percent). Orange County respondents were less likely to experience a motor vehicle crash death (3.4 percent) compared to the region (3.9 percent).

FIGURE 7.10: INJURY INDICATORS, COMMUNITY SURVEY 2019



Source: Central Florida Community Collaborative Community Survey, Strategy Solutions, Inc.

Not all primary research participant groups discussed injury-related needs and issues. Those who did identified injury prevention and falls as well as older adult safety and mobility as important community issues that their clients deal with.

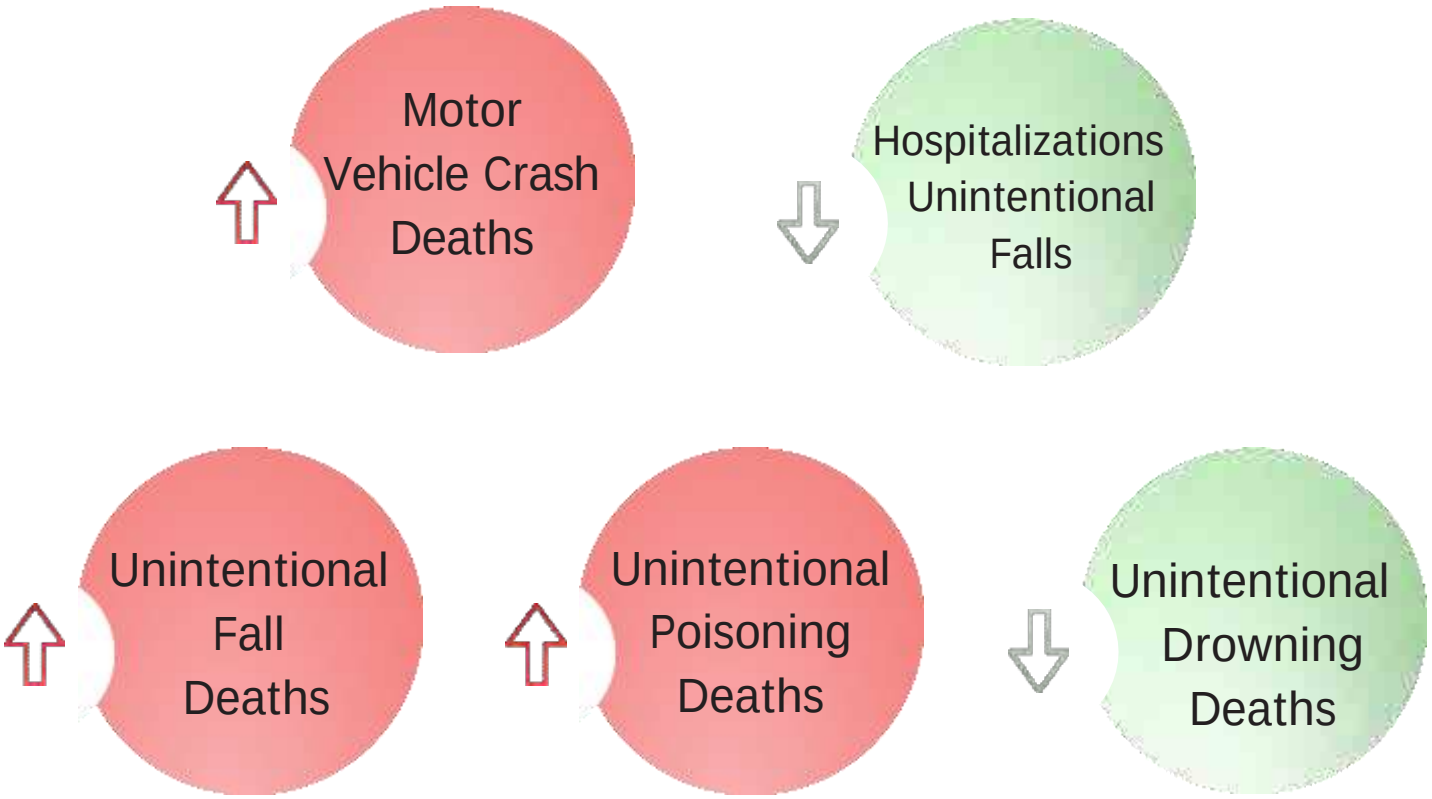
Barriers identified by primary research participants included lack of accessible care and difficulty navigating the system to find help.

Needed services identified by primary research participants included more in-home supports, particularly for seniors.

Injury at a Glance

The key indicators related to injury that have changed since the CHNA are identified in Figure 7.11. Red means that the indicator has worsened and green means that there has been an improvement since the 2016 CHNA.

FIGURE 7.11: INJURY INDICATORS



Source: Strategy Solutions, Inc.

Injury: Summary of Indicators

The following includes both a narrative as well as a visual (chart or table) summary of indicators reported on in this section. While the above colored icons illustrate observed trends from the data reported in the 2016 CHNA, this section is designed to highlight relevant historical information on each indicator and provide a narrative interpretation of the data included in the charts/tables that follow.

MOTOR VEHICLE CRASH DEATHS (2002-2017)

Orange County's rates of motor vehicle deaths per 100,000 people fluctuated from 2002 to 2017 with an overall decrease. The Orange County rate in 2002 was 17.2 and increased to a high of 17.4 in 2004. The rate then decreased to a low of 9.6 in 2012 before increasing again to 13.5 in 2017. The state rate also fluctuated over this time period, decreasing from 18.7 in 2002 to 14.9 in 2017. (See Chart 7.33)

NON-FATAL HOSPITALIZATIONS FOR MOTOR VEHICLE-RELATED INJURIES BY AGE (2017)

In 2017, individuals age 15-19 had the highest rate (98.5) per 100,000 of non-fatal hospitalizations for motor vehicle-related injuries in the state. The rate for this age group in 2017 in Orange County was 81.9, the highest of all groups reported. (See Chart 7.34)

CHILD MOTOR VEHICLE CRASH DEATHS BY AGE (2015-2017)

Orange County had 3.3 child motor vehicle crash deaths per 100,000, for children from ages 0-4 years, from 2015 to 2017, slightly above the state rate of 2.5. Orange County had a rate of 1.5 deaths for ages 5-11 years, compared to the state rate of 2.2. Orange County was just below the state figure of 8.7 for ages 12-18 years at 7.2. For ages 19-21, Orange County's rate of 18 was lower than the state rate of 26.6. (See Chart 7.35)

HOSPITALIZATIONS FOR NON-FATAL UNINTENTIONAL FALLS (2006-2017)

Hospitalizations for non-fatal unintentional falls per 100,000 has increased in Orange County (96.1 to 252.6) and the state (282.1 to 353.4) from 2006 to 2017. Orange County saw a sharp increase in rates from 2006 to 2008 (96.1 to 217.7) before fluctuating to a peak of 266.1 in 2015, followed by a slight decrease to 252.6 in 2017. (See Chart 7.36)

UNINTENTIONAL FALL, AGE-ADJUSTED DEATHS (2006-2017)

Orange County's unintentional fall age-adjusted death rate per 100,000 increased from 6.2 in 2006 to 10.9 in 2013 then decreased to 10.8 in 2017. The state rate increased from 6.8 in 2006 to 10.1 in 2017. (See Chart 7.37)

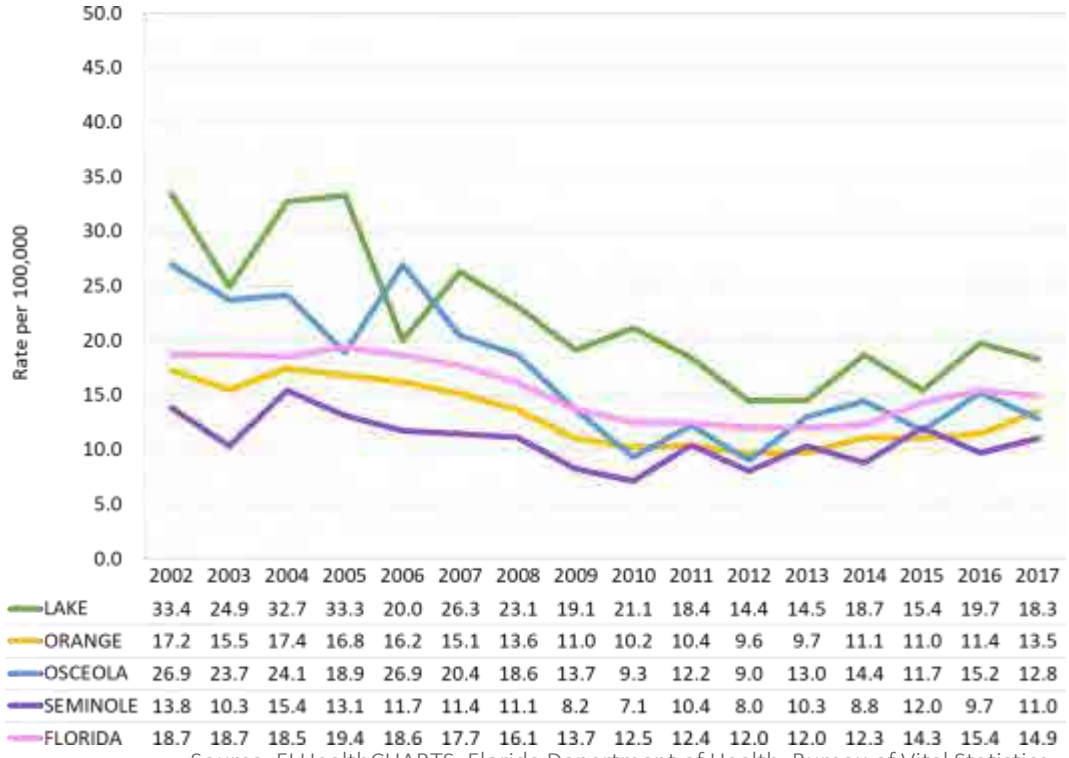
UNINTENTIONAL POISONING, AGE-ADJUSTED DEATHS (2002-2017)

Unintentional poisoning age-adjusted deaths per 100,000 rose in Orange County and across the state between 2002 and 2017. Orange County's rate increased from 6.3 in 2002 to 16.1 in 2017. The state rate was 9.5 in 2002 and 23.5 in 2017. (See Chart 7.38)

UNINTENTIONAL DROWNING, AGE-ADJUSTED DEATHS (2002-2017)

The rate of unintentional drowning age-adjusted deaths per 100,000 fluctuated from 2002 to 2017. In Orange County the rate was 1.3 in 2002, had a spike to 2.4 in 2007, and by 2017 dropped to 1.6. The state rate remained more constant from 2.1 in 2002 to 2 in 2017. (See Chart 7.39)

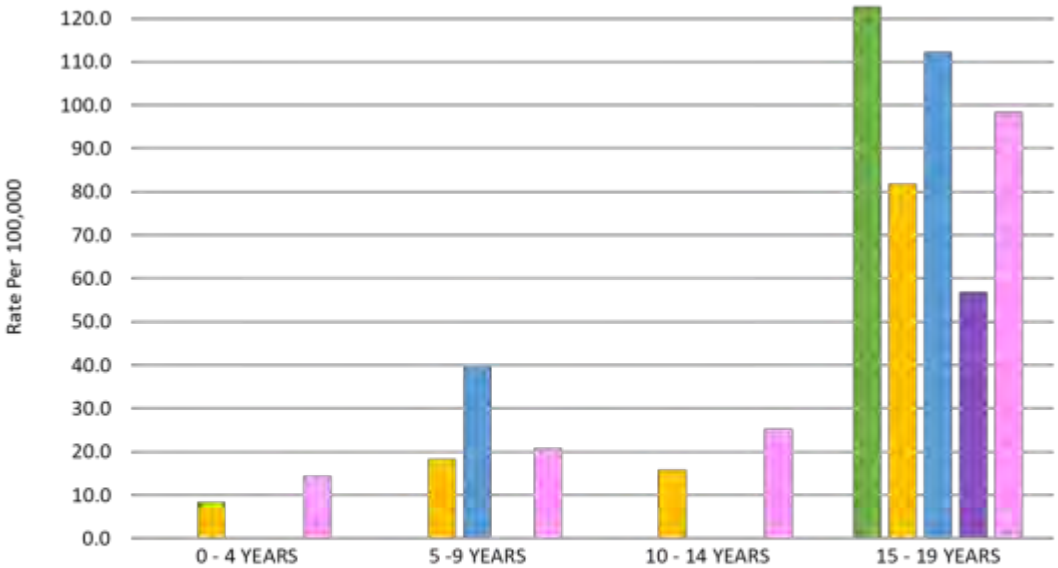
CHART 7.33: MOTOR VEHICLE CRASH DEATHS (2002-2017)



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	33.4	24.9	32.7	33.3	20.0	26.3	23.1	19.1	21.1	18.4	14.4	14.5	18.7	15.4	19.7	18.3
ORANGE	17.2	15.5	17.4	16.8	16.2	15.1	13.6	11.0	10.2	10.4	9.6	9.7	11.1	11.0	11.4	13.5
OSCEOLA	26.9	23.7	24.1	18.9	26.9	20.4	18.6	13.7	9.3	12.2	9.0	13.0	14.4	11.7	15.2	12.8
SEMINOLE	13.8	10.3	15.4	13.1	11.7	11.4	11.1	8.2	7.1	10.4	8.0	10.3	8.8	12.0	9.7	11.0
FLORIDA	18.7	18.7	18.5	19.4	18.6	17.7	16.1	13.7	12.5	12.4	12.0	12.0	12.3	14.3	15.4	14.9

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

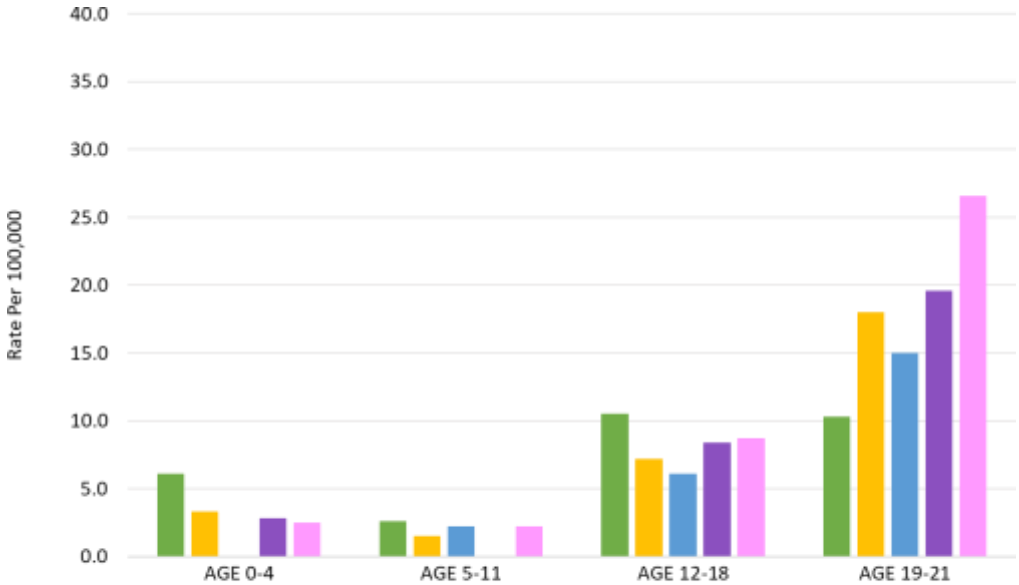
CHART 7.34: NON-FATAL HOSPITALIZATIONS FOR MOTOR VEHICLE-RELATED INJURIES BY AGE (2017)



	0 - 4 YEARS	5 -9 YEARS	10 - 14 YEARS	15 - 19 YEARS
LAKE	N/A	N/A	N/A	122.8
ORANGE	8.4	18.4	15.9	81.9
OSCEOLA	0.0	39.7	N/A	112.2
SEMINOLE	N/A	N/A	N/A	56.9
FLORIDA	14.5	20.8	25.2	98.5

Source: FLHealthCHARTS: Florida Agency For Healthcare Administration (AHCA)

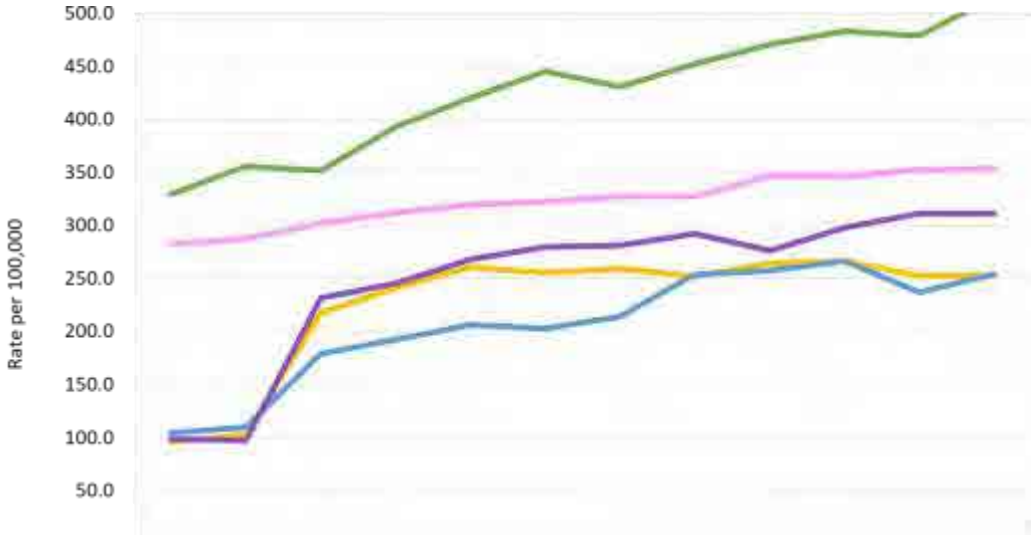
CHART 7.35: CHILD MOTOR VEHICLE CRASH DEATHS BY AGE (2015-2017)



	AGE 0-4	AGE 5-11	AGE 12-18	AGE 19-21
LAKE	6.1	2.6	10.5	10.3
ORANGE	3.3	1.5	7.2	18.0
OSCEOLA	0.0	2.2	6.1	15.0
SEMINOLE	2.8	0.0	8.4	19.6
FLORIDA	2.5	2.2	8.7	26.6

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

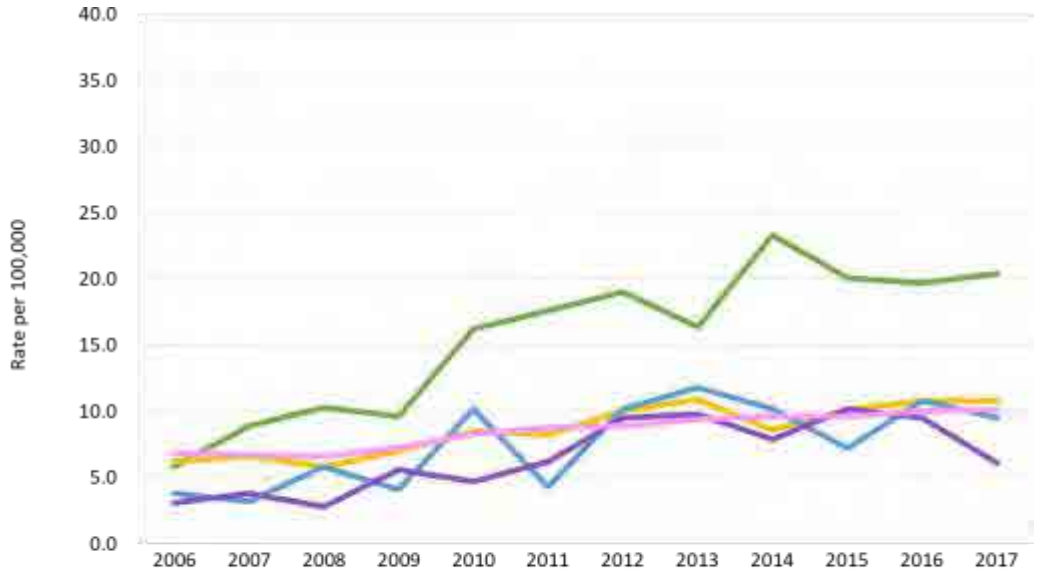
CHART 7.36: HOSPITALIZATIONS FOR NON-FATAL UNINTENTIONAL FALLS (2006-2017)



	2006*	2007*	2008*	2009*	2010*	2011*	2012*	2013*	2014*	2015*	2016*	2017*
LAKE	328.9	355.7	351.6	392.7	419.7	444.9	430.5	451.9	470.1	483.1	478.7	515.0
ORANGE	96.1	102.7	217.7	241.4	260.9	255.2	259.0	251.7	264.5	266.1	252.6	252.6
OSCEOLA	104.5	109.8	178.9	191.9	206.3	202.9	213.6	253.5	257.5	266.0	237.2	253.6
SEMINOLE	98.8	97.5	231.3	245.6	267.4	279.7	281.0	292.1	276.3	297.5	311.3	310.9
FLORIDA	282.1	287.5	302.1	311.5	319.3	322.5	327.2	327.2	346.6	345.7	352.2	353.4

Source: FLHealthCHARTS: Florida Agency For Healthcare Administration; *All rates are significantly different than the state

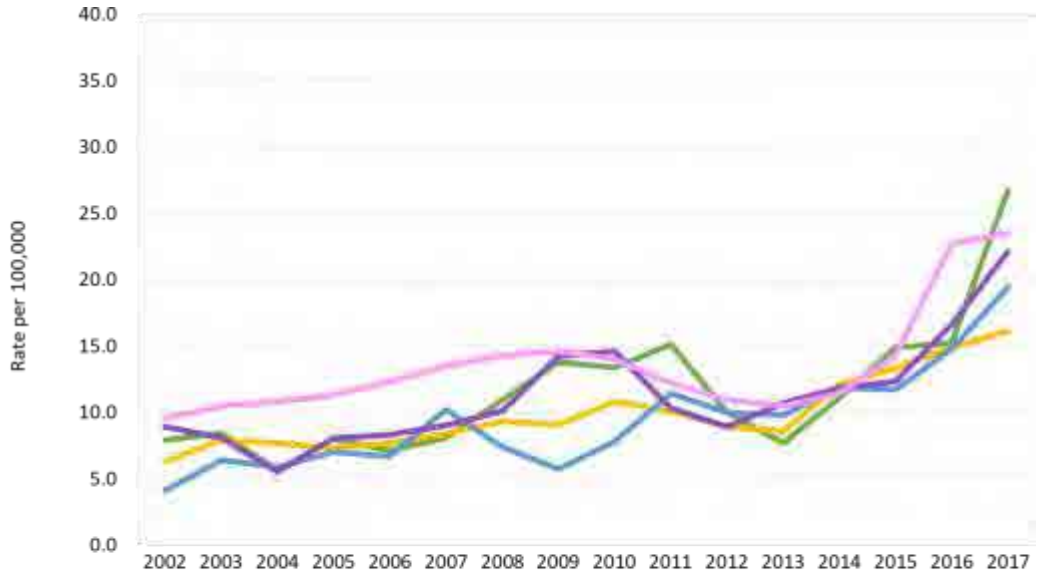
CHART 7.37: UNINTENTIONAL FALL, AGE-ADJUSTED DEATHS (2006-2017)



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	5.8	8.9	10.3	9.6	16.2	17.6	19.0	16.4	23.3	20.1	19.7	20.4
ORANGE	6.2	6.6	5.8	7.0	8.5	8.2	10.0	10.9	8.6	10.1	10.8	10.8
OSCEOLA	3.8	3.2	5.8	4.1	10.2	4.3	10.2	11.8	10.2	7.2	10.8	9.5
SEMINOLE	3.1	3.8	2.8	5.6	4.7	6.2	9.5	9.8	7.9	10.2	9.5	6.1
FLORIDA	6.8	6.7	6.6	7.3	8.3	8.8	8.9	9.4	9.6	9.6	10.0	10.1

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

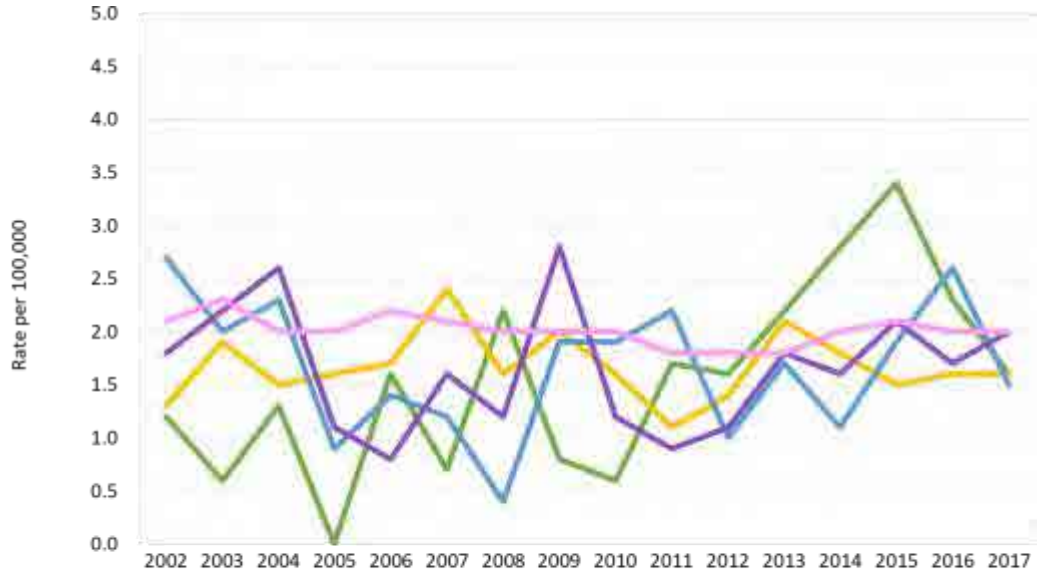
CHART 7.38: UNINTENTIONAL POISONING, AGE-ADJUSTED DEATHS (2002-2017)



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	7.9	8.4	5.6	8.0	7.1	8.1	10.9	13.8	13.4	15.1	10.0	7.7	11.1	14.9	15.2	26.7
ORANGE	6.3	7.9	7.7	7.3	7.7	8.4	9.3	9.1	10.8	10.1	8.9	8.6	12.1	13.3	14.9	16.1
OSCEOLA	4.1	6.4	5.9	7.0	6.7	10.2	7.4	5.7	7.8	11.4	10.0	9.8	11.9	11.7	14.8	19.4
SEMINOLE	8.9	8.1	5.5	8.1	8.3	9.0	10.1	14.2	14.6	10.3	8.9	10.7	11.8	12.3	16.6	22.1
FLORIDA	9.5	10.5	10.8	11.3	12.3	13.5	14.3	14.6	14.0	12.2	10.9	10.5	11.4	14.3	22.7	23.5

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

CHART 7.39: UNINTENTIONAL DROWNING, AGE-ADJUSTED DEATHS (2002-2017)



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	1.2	0.6	1.3	0.0	1.6	0.7	2.2	0.8	0.6	1.7	1.6	2.2	2.8	3.4	2.3	1.6
ORANGE	1.3	1.9	1.5	1.6	1.7	2.4	1.6	2.0	1.6	1.1	1.4	2.1	1.8	1.5	1.6	1.6
OSCEOLA	2.7	2.0	2.3	0.9	1.4	1.2	0.4	1.9	1.9	2.2	1.0	1.7	1.1	1.9	2.6	1.5
SEMINOLE	1.8	2.2	2.6	1.1	0.8	1.6	1.2	2.8	1.2	0.9	1.1	1.8	1.6	2.1	1.7	2.0
FLORIDA	2.1	2.3	2.0	2.0	2.2	2.1	2.0	2.0	2.0	1.8	1.8	1.8	2.0	2.1	2.0	2.0

Source: FLHealthCHARTS: Florida Department of Health, Bureau of Vital Statistic

Leading Causes of Injury Deaths: Summary of Indicators

The following includes both a narrative as well as a visual (chart or table) summary of indicators reported on in this section.

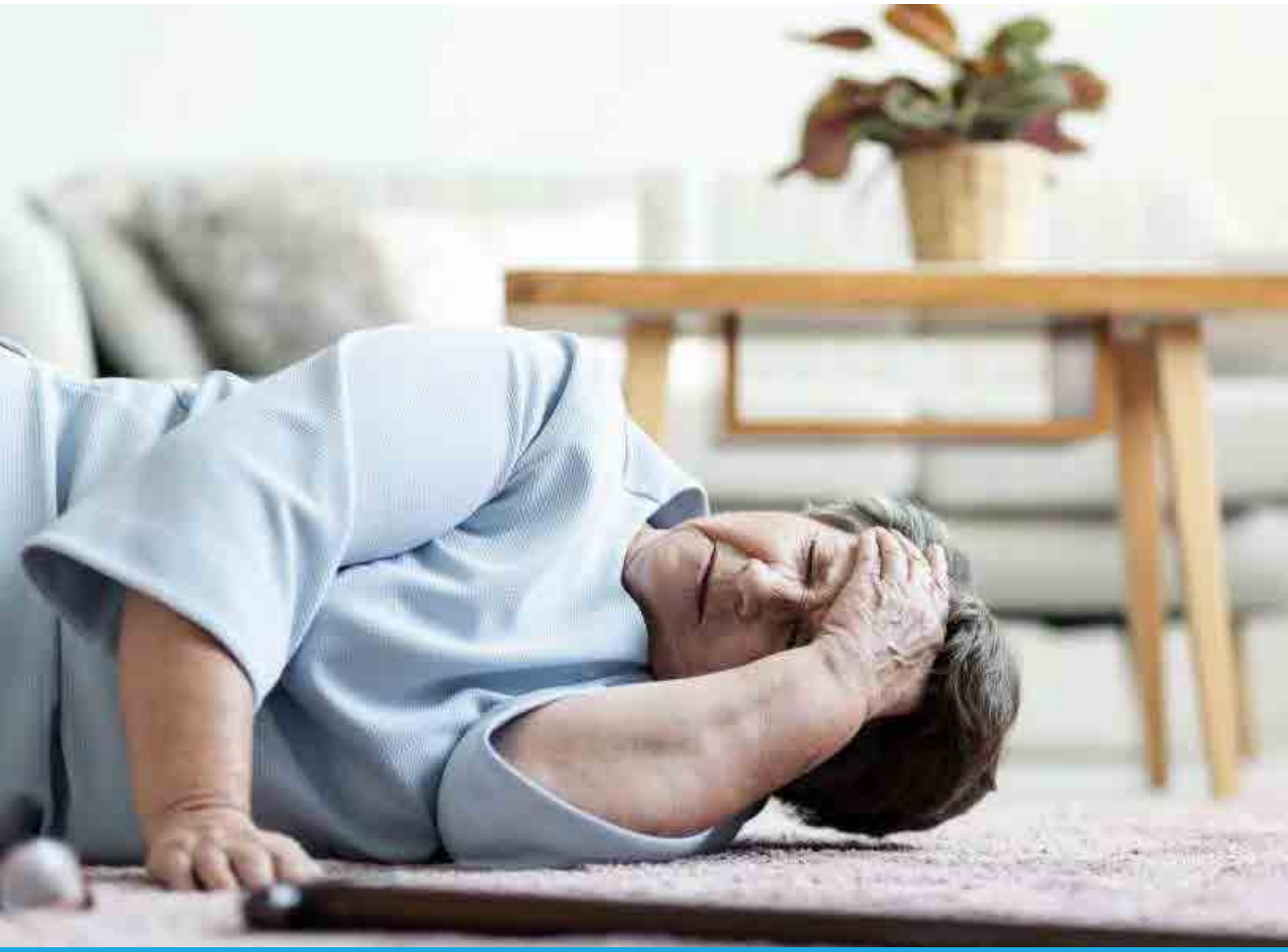
TOP 10 LEADING CAUSES OF INJURY DEATH, AGE-ADJUSTED, ORANGE COUNTY (2012-2017)

In Orange County, poisoning was the leading cause of injury death, with the rate increasing more than a third between 2012 (11.8) and 2017 (17.4). Falls are the second leading cause of injury death, with rates remaining consistent for the six reportable years (10.1 in 2012 and 11 in 2017). Firearms are the third leading cause of injury death, with rates remaining consistent from 2012 (10) to 2017 (10.8). Motor vehicle traffic-occupant is the fourth leading cause of injury death, with rates having the highest increase in the six-year reportable period from 1.3 in 2012 to 6.9 in 2017 (an increase of 530 percent). Suffocation is the fifth leading cause of injury death, with rates remaining consistent between 2012 (4.1) and 2017 (4.1). (See Table 7.14)

TABLE 7.4: TOP 10 LEADING CAUSES OF INJURY DEATH, AGE-ADJUSTED, ORANGE COUNTY (2012-2017)

	2012	2013	2014	2015	2016	2017
Poisoning	11.8	10.6	14.7	15.5	16.9	17.4
Fall	10.1	10.9	8.9	10.2	10.9	11.0
Firearm	10.0	9.8	9.6	10.0	12.3	10.8
Motor vehicle traffic - occupant	1.3	2.2	2.0	3.0	1.2	6.9
Suffocation	4.1	3.5	3.8	4.3	3.7	4.1
Motor vehicle traffic - pedestrian	0.2	0.0	0.0	0.0	0.1	3.4
Motor vehicle traffic - motorcyclist	2.8	2.9	2.8	3.4	4.3	2.0
Drowning, submersion	1.7	2.4	2.2	1.7	1.9	1.9
Unspecified	1.6	1.3	1.6	1.4	1.7	1.5
Other specified & classifiable	0.7	0.6	0.6	0.8	0.6	0.7

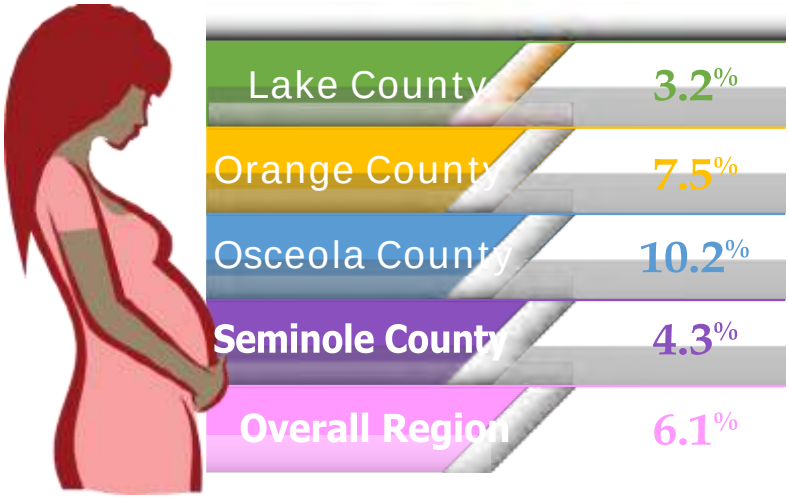
Source: Florida Department of Health, Office of Vital Statistics, DeathStat Database



Birth Characteristics: What the Community is Saying

Figure 7.12 outlines the percentages of community survey respondents that experienced difficulty in accessing prenatal care. Orange County respondents (7.5 percent) reported more difficulty in accessing prenatal care than the region overall (6.1 percent).

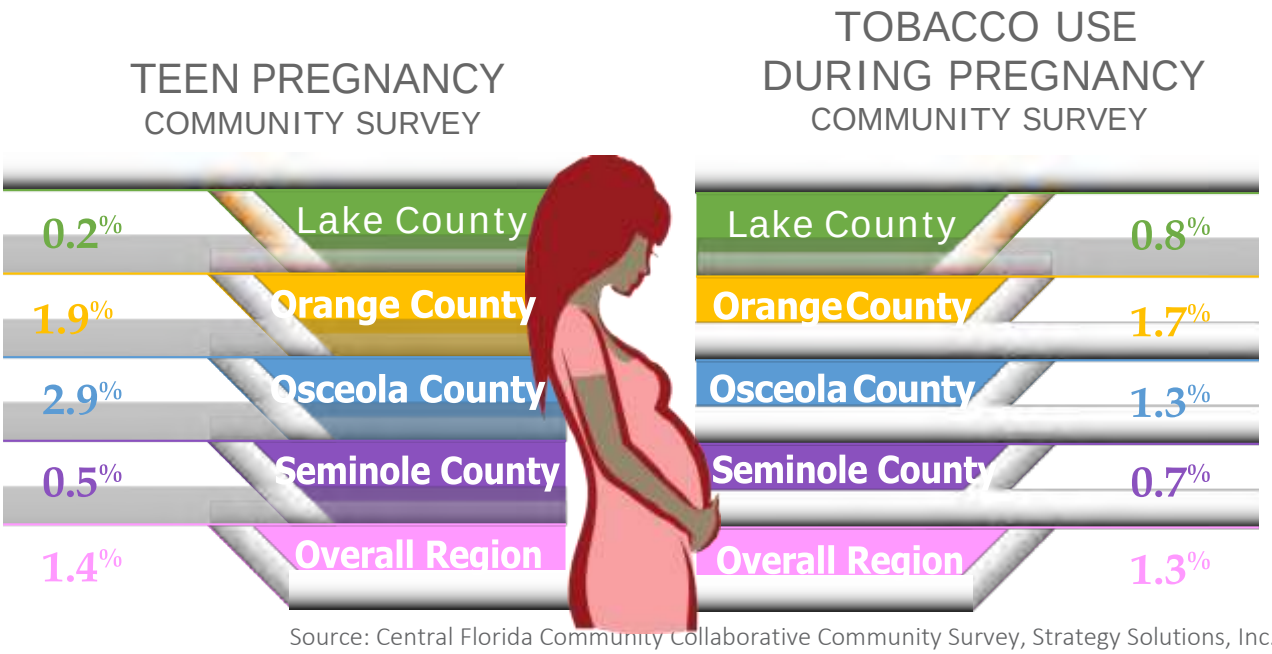
FIGURE 7.12: DIFFICULTY ACCESSING PRENATAL CARE, COMMUNITY SURVEY 2019



Source: Central Florida Community Collaborative Community Survey, Strategy Solutions, Inc.

Figure 7.13 outlines the percentage of community survey respondents that experienced teen pregnancy and smoking during pregnancy. Less than 2 percent of Orange County respondents indicated that they experienced teen pregnancy or tobacco use during pregnancy.

FIGURE 7.13: TEEN PREGNANCY AND SMOKING DURING PREGNANCY, COMMUNITY SURVEY 2019



Source: Central Florida Community Collaborative Community Survey, Strategy Solutions, Inc.

Participants in the primary research identified the following needs and issues related to birth characteristics:

- High infant mortality rate for certain populations

Barriers to care identified by primary research participants included:

- Affordable prenatal care
- Lack of access to housing
- Working long hours that makes it difficult to access appropriate care
- Lack of access to quality care
- Lack of a support system

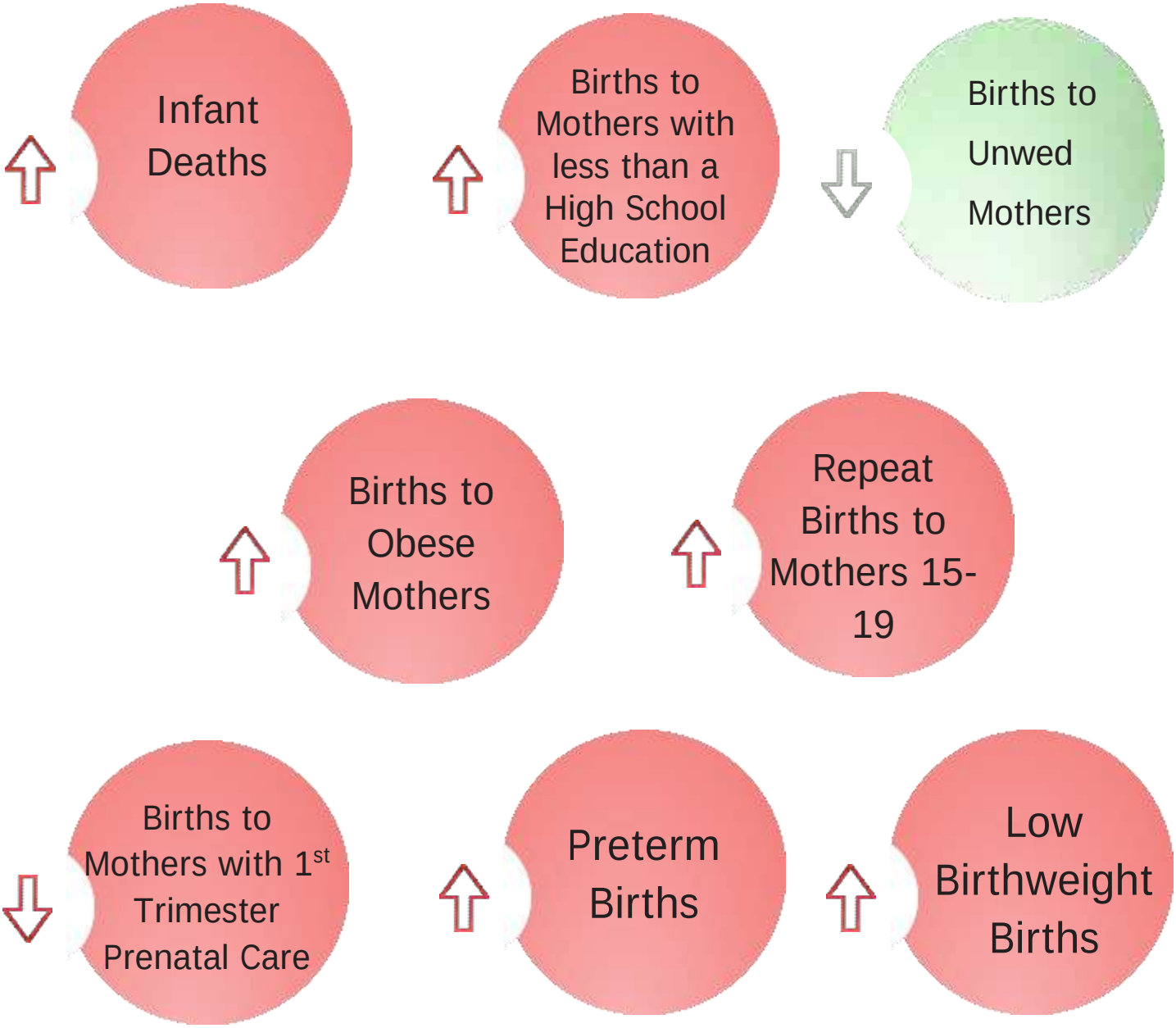
Needed services related to birth characteristics that were identified by primary research participants included:

- Access to quality, prenatal care, including for those who are undocumented
- Access to other health and social services
- Parenting classes in public schools
- Support systems
- Access to birth control
- Access to WIC services
- Access to cleaning and education on the importance of oral hygiene during pregnancy
- Importance of maternity fitness and nutrition

Birth Characteristics at a Glance

The key indicators related to birth characteristics that have changed since the last CHNA are identified in Figure 7.14. Red means that the indicator has worsened and green means that there has been an improvement since the 2016 CHNA.

FIGURE 7.14: BIRTH CHARACTERISTICS INDICATORS



Birth Characteristics: Summary of Indicators

The following includes both a narrative as well as a visual (chart or table) summary of indicators reported on in this section. While the colored icons, located on the previous page, illustrate observed trends from the data reported in the 2016 CHNA, this section is designed to highlight historical relevant information on each indicator and provide a narrative interpretation of the data included in the charts/tables that follow.

INFANT DEATHS PER 1,000 LIVE BIRTHS (2003-2017)

The rate for infant deaths per 1,000 live births decreased in both Orange County and the state from 2003 to 2017. In the county there was a decrease from 8.2 in 2003 to 7.2 in 2017 and in the state from 7.5 to 6.1 during this time. The county and state were above the HP2020 goal of 6 per 1,000 live births in 2003 and 2017. (See Chart 7.40)

BIRTHS TO WOMEN WITH SELF-PAY FOR DELIVERY PAYMENT SOURCE (2004-2017)

The percentages of births with self-pay for delivery has fluctuated between 2004 and 2017 in Orange County and the state. During that time, the percentage had a net increase in Orange County from 4.4 percent to 9.8 percent, with an overall high of 13.5 in 2007. In the state there was an overall decrease from 2004 (7.6 percent) to 2017 (6.2 percent). (See Chart 7.41)

BIRTHS TO MOTHERS WITH LESS THAN HIGH SCHOOL EDUCATION (2003-2017)

The percentage of births to mothers with less than a high school education decreased in Orange County and the state between 2003 and 2017. Orange County's percentage decreased from 17.1 percent in 2003 to 11.1 percent in 2017. The state decreased from 20 percent to 12.1 percent during this time. (See Chart 7.42)

BIRTHS TO UNWED MOTHERS (2003-2017)

The percentage of births to unwed mothers in Orange County was close to or lower than the state from 2003 to 2017. Both percentages have increased in this time period: Orange County increased from 39.9 percent in 2003 to 44.6 percent in 2017 and the state increased from 39.9 percent to 46.9 percent during this time. (See Chart 7.43)

BIRTHS TO MOTHERS WHO WERE OBESE AT TIME OF PREGNANCY (2004-2017)

The percentage of births to mothers who were obese at time of pregnancy has increased in Orange County and the state from 2004 and 2017. Orange County's percentages increased from 16.5 percent to 24.8 percent during this time period. The state percentage increased from 18.7 percent (2004) to 25 percent (2017). (See Chart 7.44)

REPEAT BIRTHS TO MOTHERS AGES 15-19 (2003-2017)

The percentage of repeat births to mothers ages 15-19 decreased in both the county and the state from 2003 to 2017. In Orange County the percentage decreased from 22 percent to 16.2 percent and in the state from 19.9 percent to 15.2 percent during this time. (See Chart 7.45)

BIRTHS TO MOTHERS WITH FIRST TRIMESTER PRENATAL CARE (2003-2017)

The percentage of births to mothers with first trimester prenatal care has been consistently higher in Orange County than the state from 2003 and 2017. While the percentages have fluctuated, they have also decreased; Orange County's percentage decreased from 88.8 percent to 78 percent. The state percentage decreased from 85.8 percent in 2003 to 77.3 percent in 2017. (See Chart 7.46)

PRETERM BIRTHS <37 WEEKS GESTATION (2003-2017)

Orange County's percentage of preterm births decreased from 12.3 percent to 10.3 percent from 2003 to 2017. The state percentage decreased slightly from 10.8 percent to 10.2 percent during this time. (See Chart 7.47)

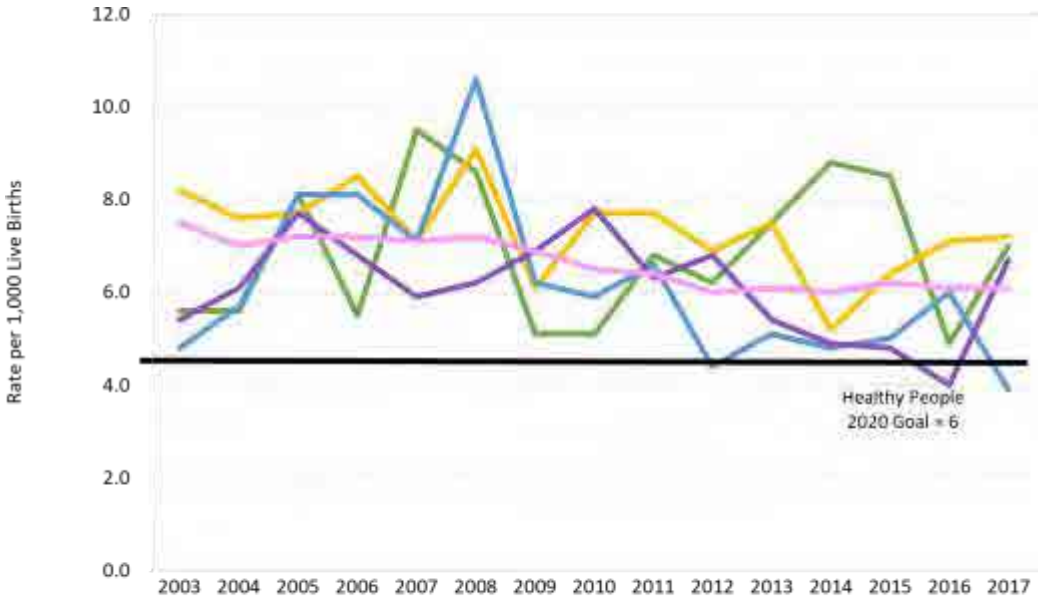
LOW BIRTHWEIGHT BIRTHS <2500 GRAMS (2003-2017)

The percentage of low birthweight babies born in Orange County decreased slightly from 2003 (9.6 percent) and 2017 (8.9 percent). The state percentage increased slightly from 8.5 percent to 8.8 percent during this time. (See Chart 7.48)

BIRTHS COVERED BY MEDICAID (2004-2017)

The percentage of births covered by Medicaid has consistently increased in Orange County and the state. The county's percentage increased from 36.6 percent in 2004 to 45.5 percent in 2017. The state percentage has increased from 36.6 percent to 48.9 percent during this time. (See Chart 7.49)

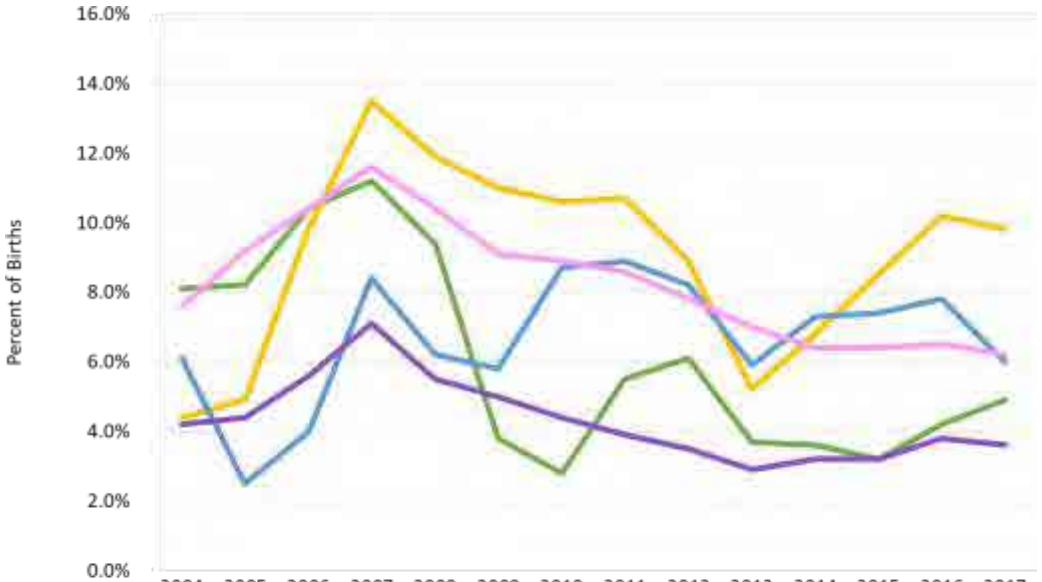
CHART 7.40: INFANT DEATHS PER 1,000 LIVE BIRTHS (2003-2017)



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	5.6	5.6	8.1	5.5	9.5	8.6	5.1	5.1	6.8	6.2	7.5	8.8	8.5	4.9	7.0
ORANGE	8.2	7.6	7.7	8.5	7.1	9.1	6.1	7.7	7.7	6.9	7.5	5.2	6.4	7.1	7.2
OSCEOLA	4.8	5.7	8.1	8.1	7.1	10.6	6.2	5.9	6.6	4.4	5.1	4.8	5.0	6.0	3.9
SEMINOLE	5.4	6.1	7.7	6.8	5.9	6.2	6.9	7.8	6.3	6.8	5.4	4.9	4.8	4.0	6.7
FLORIDA	7.5	7.0	7.2	7.2	7.1	7.2	6.9	6.5	6.4	6.0	6.1	6.0	6.2	6.1	6.1

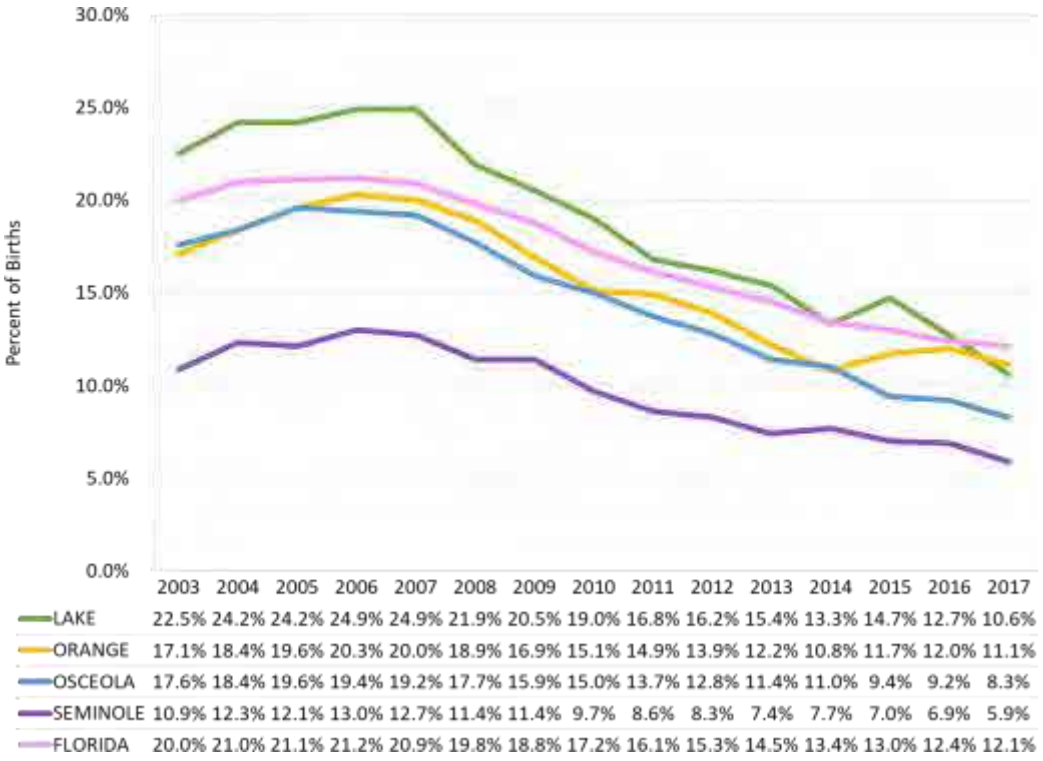
Source: FLHealthCHARTS: Florida Department of Health, Bureau of Vital Statistics

CHART 7.41: BIRTHS TO WOMEN WITH SELF-PAY FOR DELIVERY PAYMENT SOURCE (2004-2017)



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	8.1%	8.2%	10.4%	11.2%	9.4%	3.8%	2.8%	5.5%	6.1%	3.7%	3.6%	3.2%	4.2%	4.9%
ORANGE	4.4%	4.9%	9.8%	13.5%	11.9%	11.0%	10.6%	10.7%	8.9%	5.2%	6.8%	8.5%	10.2%	9.8%
OSCEOLA	6.1%	2.5%	4.0%	8.4%	6.2%	5.8%	8.7%	8.9%	8.2%	5.9%	7.3%	7.4%	7.8%	6.0%
SEMINOLE	4.2%	4.4%	5.6%	7.1%	5.5%	5.0%	4.4%	3.9%	3.5%	2.9%	3.2%	3.2%	3.8%	3.6%
FLORIDA	7.6%	9.2%	10.4%	11.6%	10.4%	9.1%	8.9%	8.6%	7.8%	7.0%	6.4%	6.4%	6.5%	6.2%

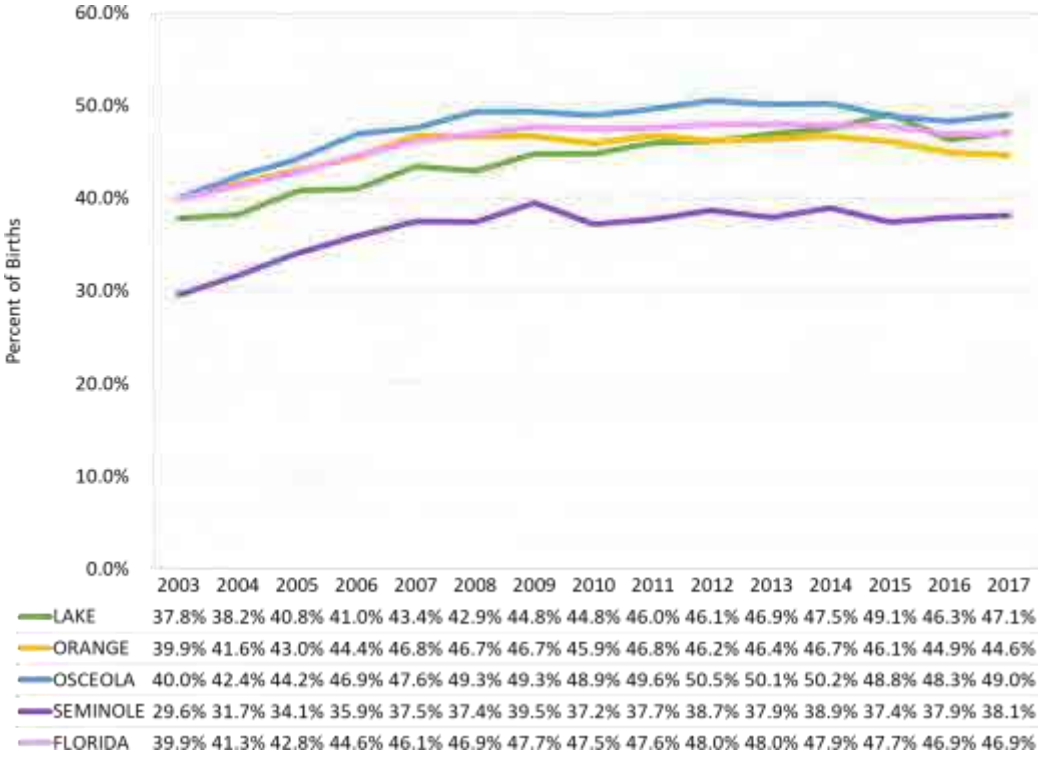
CHART 7.42: BIRTHS TO MOTHERS WITH LESS THAN HIGH SCHOOL EDUCATION (2003-2017)



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	22.5%	24.2%	24.2%	24.9%	24.9%	21.9%	20.5%	19.0%	16.8%	16.2%	15.4%	13.3%	14.7%	12.7%	10.6%
ORANGE	17.1%	18.4%	19.6%	20.3%	20.0%	18.9%	16.9%	15.1%	14.9%	13.9%	12.2%	10.8%	11.7%	12.0%	11.1%
OSCEOLA	17.6%	18.4%	19.6%	19.4%	19.2%	17.7%	15.9%	15.0%	13.7%	12.8%	11.4%	11.0%	9.4%	9.2%	8.3%
SEMINOLE	10.9%	12.3%	12.1%	13.0%	12.7%	11.4%	11.4%	9.7%	8.6%	8.3%	7.4%	7.7%	7.0%	6.9%	5.9%
FLORIDA	20.0%	21.0%	21.1%	21.2%	20.9%	19.8%	18.8%	17.2%	16.1%	15.3%	14.5%	13.4%	13.0%	12.4%	12.1%

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

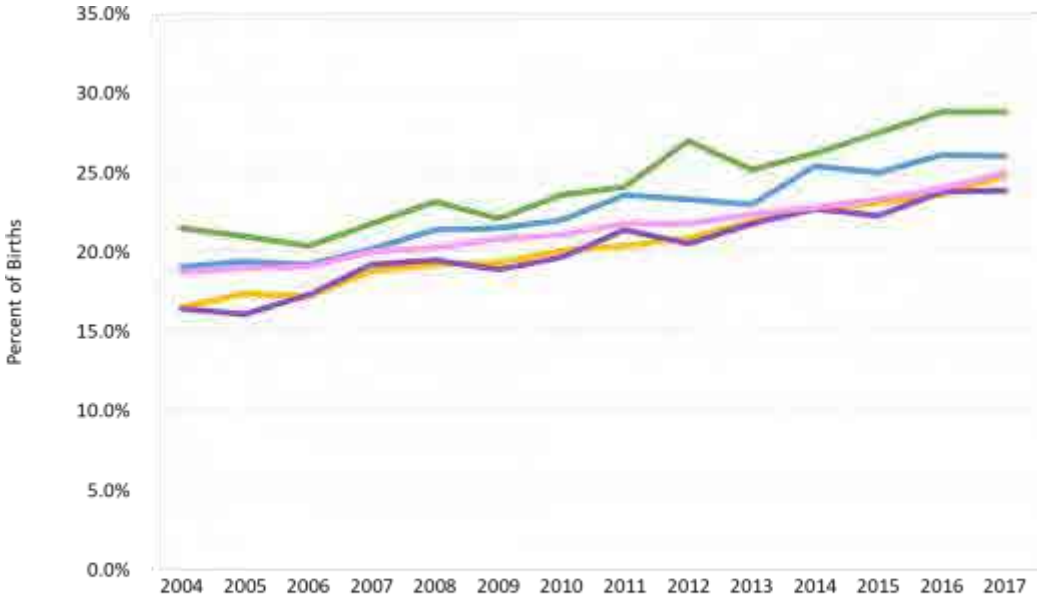
CHART 7.43: BIRTHS TO UNWED MOTHERS (2003-2017)



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	37.8%	38.2%	40.8%	41.0%	43.4%	42.9%	44.8%	44.8%	46.0%	46.1%	46.9%	47.5%	49.1%	46.3%	47.1%
ORANGE	39.9%	41.6%	43.0%	44.4%	46.8%	46.7%	46.7%	45.9%	46.8%	46.2%	46.4%	46.7%	46.1%	44.9%	44.6%
OSCEOLA	40.0%	42.4%	44.2%	46.9%	47.6%	49.3%	49.3%	48.9%	49.6%	50.5%	50.1%	50.2%	48.8%	48.3%	49.0%
SEMINOLE	29.6%	31.7%	34.1%	35.9%	37.5%	37.4%	39.5%	37.2%	37.7%	38.7%	37.9%	38.9%	37.4%	37.9%	38.1%
FLORIDA	39.9%	41.3%	42.8%	44.6%	46.1%	46.9%	47.7%	47.5%	47.6%	48.0%	48.0%	47.9%	47.7%	46.9%	46.9%

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

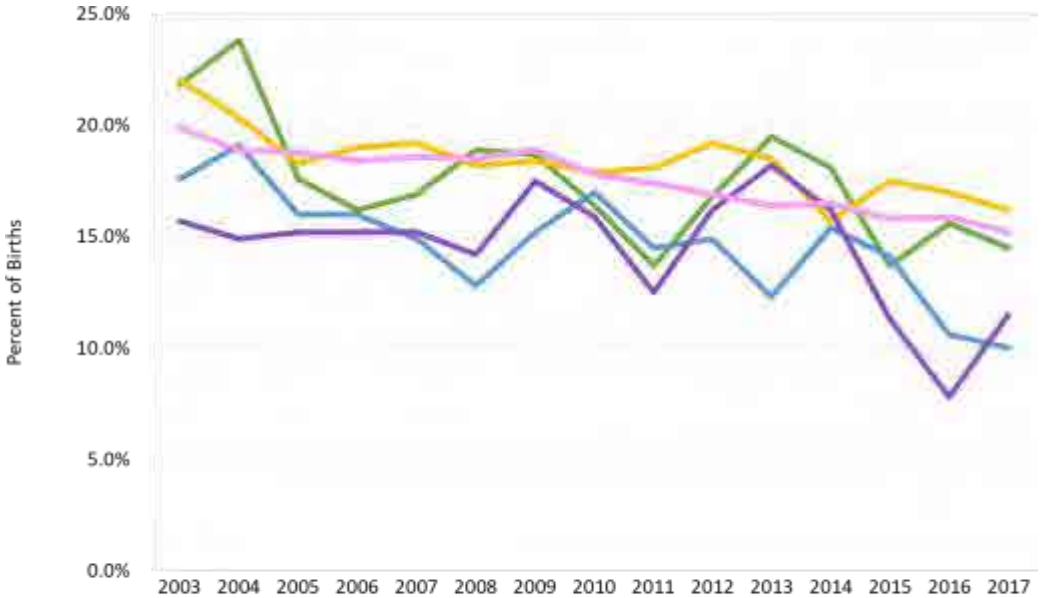
CHART 7.44: BIRTHS TO MOTHERS WHO WERE OBESE AT TIME OF PREGNANCY (2004-2017)



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	21.5%	21.0%	20.4%	21.8%	23.2%	22.1%	23.6%	24.1%	27.0%	25.2%	26.2%	27.5%	28.8%	28.8%
ORANGE	16.5%	17.4%	17.2%	18.8%	19.2%	19.3%	20.1%	20.4%	20.9%	21.9%	22.7%	23.1%	23.6%	24.8%
OSCEOLA	19.1%	19.4%	19.2%	20.2%	21.4%	21.5%	22.0%	23.6%	23.3%	23.0%	25.4%	25.0%	26.1%	26.0%
SEMINOLE	16.4%	16.1%	17.3%	19.2%	19.5%	18.9%	19.7%	21.4%	20.5%	21.8%	22.7%	22.3%	23.8%	23.9%
FLORIDA	18.7%	19.0%	19.1%	20.0%	20.3%	20.8%	21.1%	21.8%	21.8%	22.4%	22.8%	23.3%	24.0%	25.0%

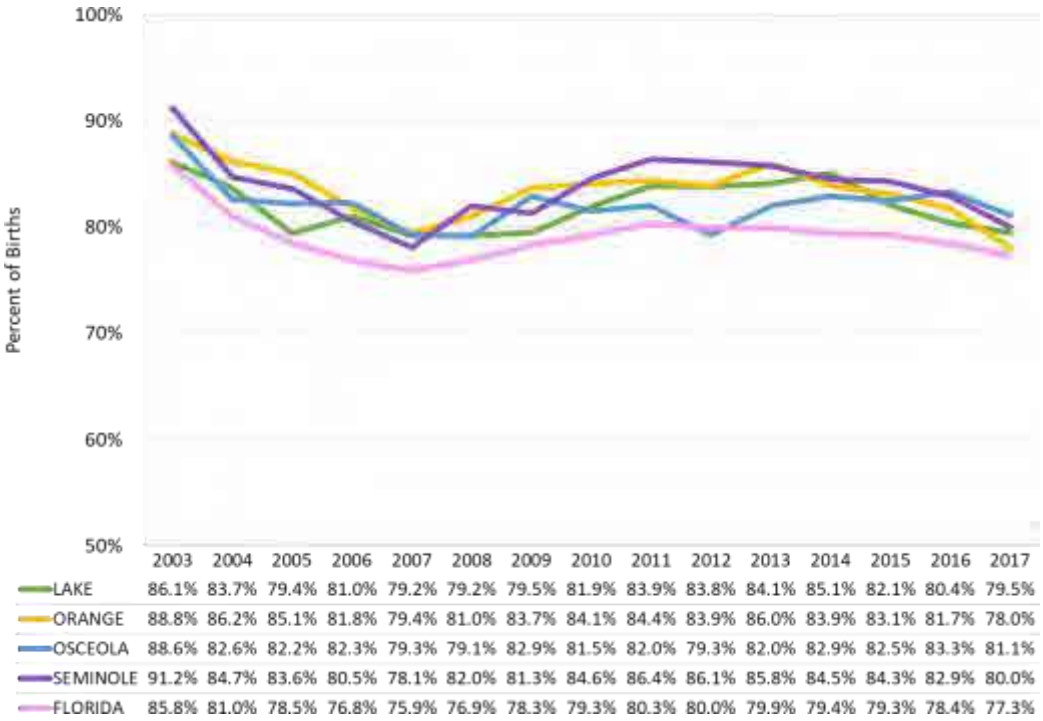
Source: FLHealthCHARTS: Florida Department of Health, Bureau of Vital Statistics

CHART 7.45: REPEAT BIRTHS TO MOTHERS AGES 15-19 (2003-2017)



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	21.8%	23.8%	17.6%	16.2%	16.9%	18.9%	18.7%	16.4%	13.7%	16.8%	19.5%	18.1%	13.7%	15.6%	14.5%
ORANGE	22.0%	20.3%	18.3%	19.0%	19.2%	18.2%	18.4%	17.9%	18.1%	19.2%	18.5%	15.7%	17.5%	17.0%	16.2%
OSCEOLA	17.6%	19.1%	16.0%	16.0%	14.9%	12.8%	15.2%	17.0%	14.5%	14.9%	12.3%	15.4%	14.1%	10.6%	10.0%
SEMINOLE	15.7%	14.9%	15.2%	15.2%	15.2%	14.2%	17.5%	15.9%	12.5%	16.2%	18.2%	16.2%	11.3%	7.8%	11.5%
FLORIDA	19.9%	18.9%	18.8%	18.4%	18.6%	18.5%	18.9%	17.8%	17.4%	16.9%	16.4%	16.5%	15.8%	15.9%	15.2%

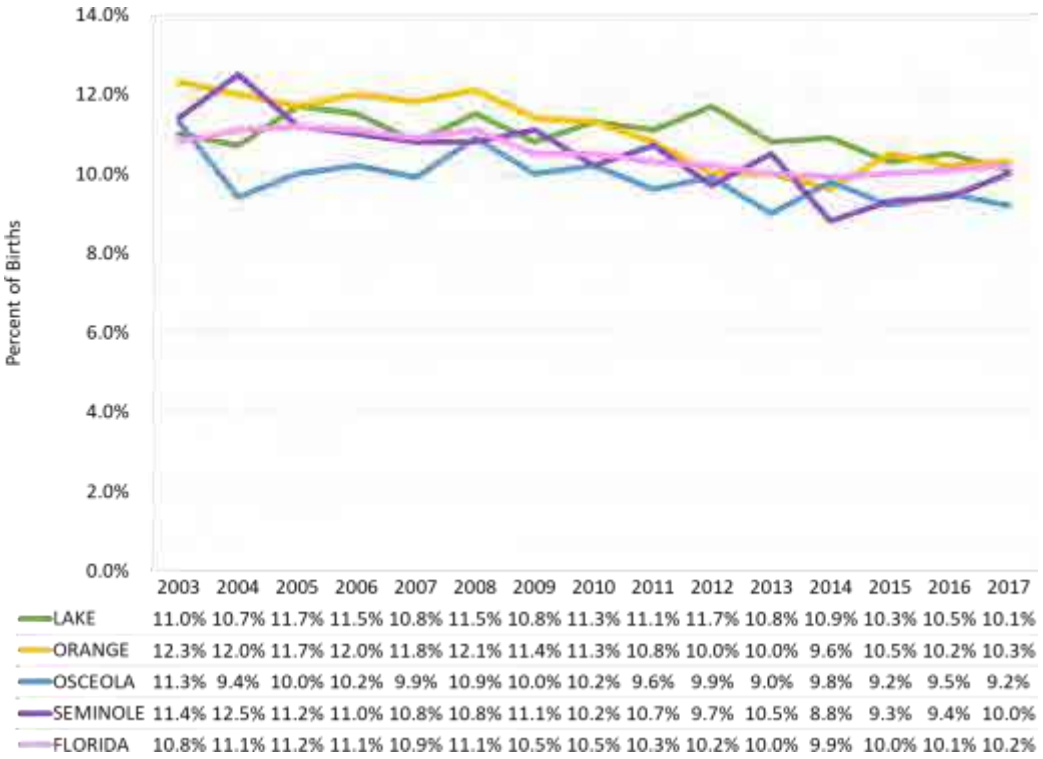
CHART 7.46: BIRTHS TO MOTHERS WITH FIRST TRIMESTER PRENATAL CARE (2003-2017)



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	86.1%	83.7%	79.4%	81.0%	79.2%	79.2%	79.5%	81.9%	83.9%	83.8%	84.1%	85.1%	82.1%	80.4%	79.5%
ORANGE	88.8%	86.2%	85.1%	81.8%	79.4%	81.0%	83.7%	84.1%	84.4%	83.9%	86.0%	83.9%	83.1%	81.7%	78.0%
OSCEOLA	88.6%	82.6%	82.2%	82.3%	79.3%	79.1%	82.9%	81.5%	82.0%	79.3%	82.0%	82.9%	82.5%	83.3%	81.1%
SEMINOLE	91.2%	84.7%	83.6%	80.5%	78.1%	82.0%	81.3%	84.6%	86.4%	86.1%	85.8%	84.5%	84.3%	82.9%	80.0%
FLORIDA	85.8%	81.0%	78.5%	76.8%	75.9%	76.9%	78.3%	79.3%	80.3%	80.0%	79.9%	79.4%	79.3%	78.4%	77.3%

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

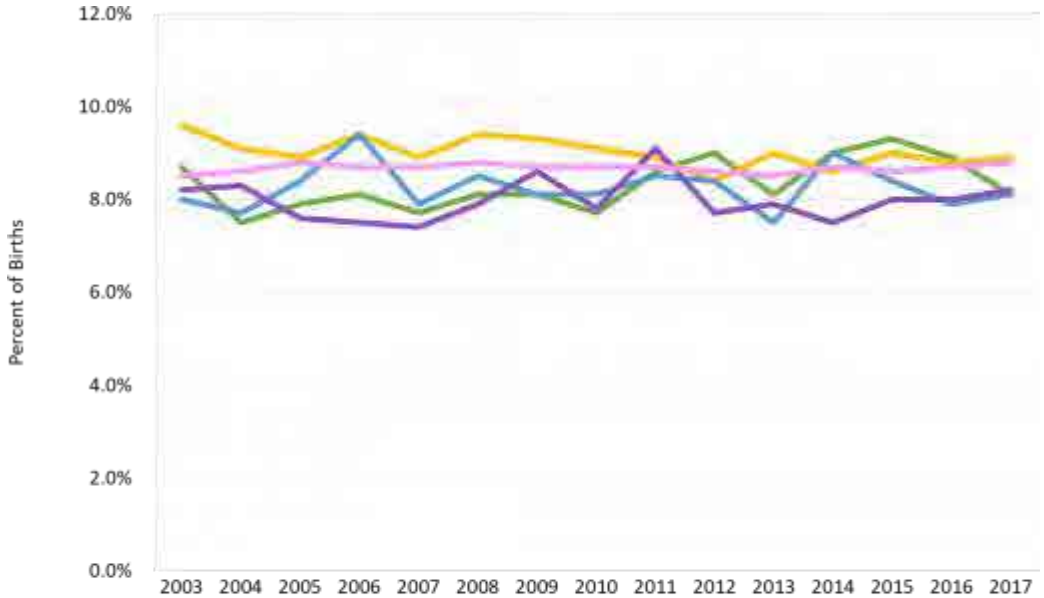
CHART 7.47: PRE-TERM BIRTHS <37 WEEKS GESTATION (2003-2017)



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	11.0%	10.7%	11.7%	11.5%	10.8%	11.5%	10.8%	11.3%	11.1%	11.7%	10.8%	10.9%	10.3%	10.5%	10.1%
ORANGE	12.3%	12.0%	11.7%	12.0%	11.8%	12.1%	11.4%	11.3%	10.8%	10.0%	10.0%	9.6%	10.5%	10.2%	10.3%
OSCEOLA	11.3%	9.4%	10.0%	10.2%	9.9%	10.9%	10.0%	10.2%	9.6%	9.9%	9.0%	9.8%	9.2%	9.5%	9.2%
SEMINOLE	11.4%	12.5%	11.2%	11.0%	10.8%	10.8%	11.1%	10.2%	10.7%	9.7%	10.5%	8.8%	9.3%	9.4%	10.0%
FLORIDA	10.8%	11.1%	11.2%	11.1%	10.9%	11.1%	10.5%	10.5%	10.3%	10.2%	10.0%	9.9%	10.0%	10.1%	10.2%

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

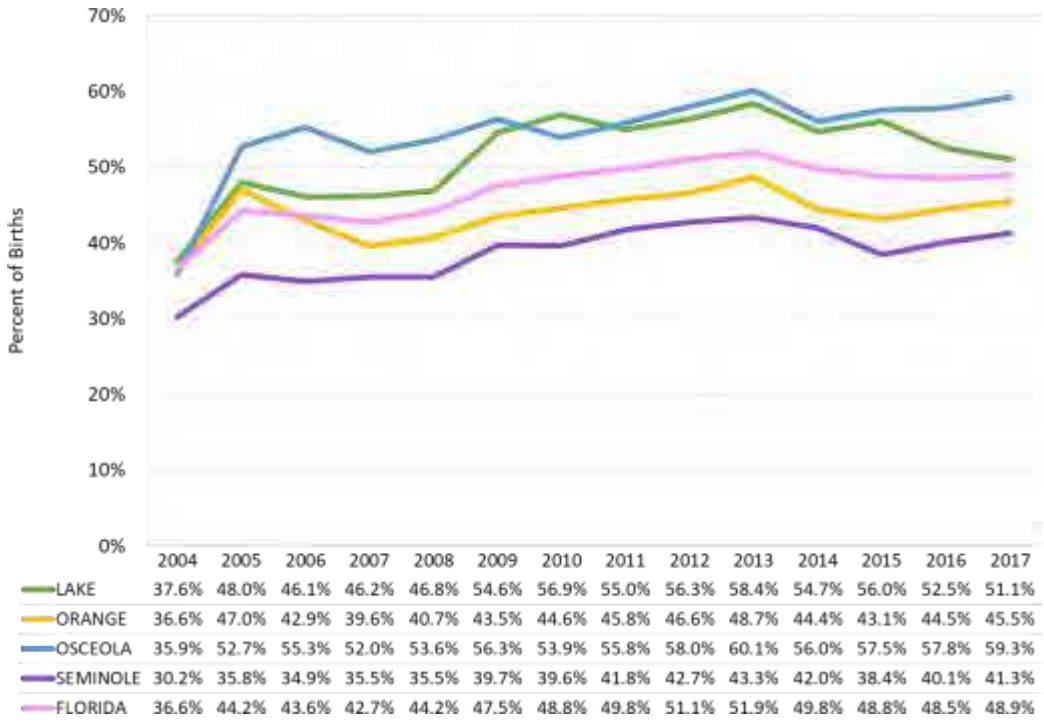
CHART 7.48: LOW BIRTHWEIGHT BIRTHS <2500 GRAMS (2003-2017)



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	8.7%	7.5%	7.9%	8.1%	7.7%	8.1%	8.1%	7.7%	8.6%	9.0%	8.1%	9.0%	9.3%	8.9%	8.1%
ORANGE	9.6%	9.1%	8.9%	9.4%	8.9%	9.4%	9.3%	9.1%	8.9%	8.4%	9.0%	8.6%	9.0%	8.8%	8.9%
OSCEOLA	8.0%	7.7%	8.4%	9.4%	7.9%	8.5%	8.1%	8.1%	8.5%	8.4%	7.5%	9.0%	8.4%	7.9%	8.1%
SEMINOLE	8.2%	8.3%	7.6%	7.5%	7.4%	7.9%	8.6%	7.8%	9.1%	7.7%	7.9%	7.5%	8.0%	8.0%	8.2%
FLORIDA	8.5%	8.6%	8.8%	8.7%	8.7%	8.8%	8.7%	8.7%	8.7%	8.6%	8.5%	8.7%	8.6%	8.7%	8.8%

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

CHART 7.49: BIRTHS COVERED BY MEDICAID (2004-2017)



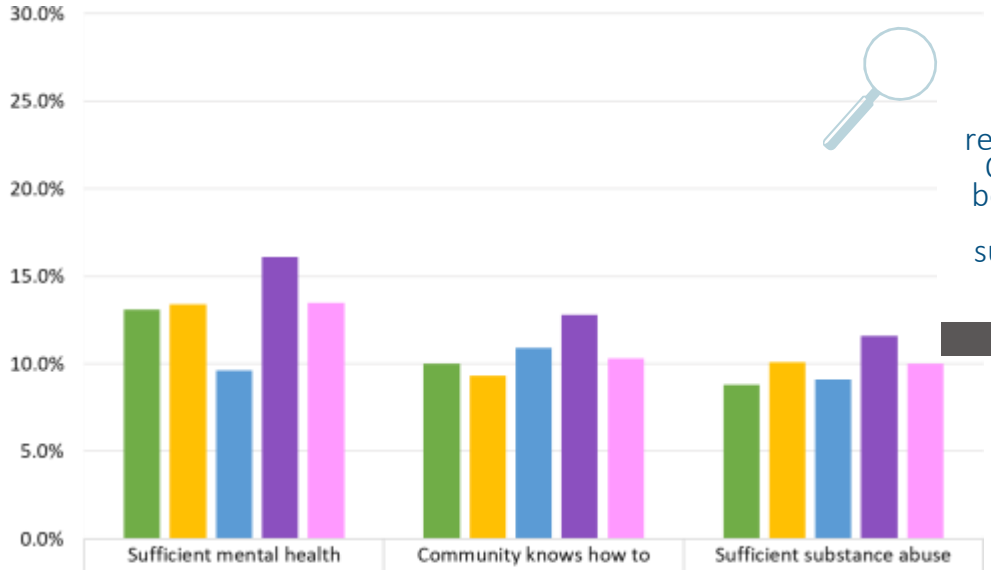
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	37.6%	48.0%	46.1%	46.2%	46.8%	54.6%	56.9%	55.0%	56.3%	58.4%	54.7%	56.0%	52.5%	51.1%
ORANGE	36.6%	47.0%	42.9%	39.6%	40.7%	43.5%	44.6%	45.8%	46.6%	48.7%	44.4%	43.1%	44.5%	45.5%
OSCEOLA	35.9%	52.7%	55.3%	52.0%	53.6%	56.3%	53.9%	55.8%	58.0%	60.1%	56.0%	57.5%	57.8%	59.3%
SEMINOLE	30.2%	35.8%	34.9%	35.5%	35.5%	39.7%	39.6%	41.8%	42.7%	43.3%	42.0%	38.4%	40.1%	41.3%
FLORIDA	36.6%	44.2%	43.6%	42.7%	44.2%	47.5%	48.8%	49.8%	51.1%	51.9%	49.8%	48.8%	48.5%	48.9%

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

Quality of Life/Mental Health: What the Community is Saying

Figure 7.15 illustrates the percentages of community survey responses from Orange County on quality of life and mental health questions. Less than 1 in 8 respondents indicated that there were sufficient mental health services and less than 1 in 10 respondents believe the community knows how to access them.

FIGURE 7.15: QUALITY OF LIFE AND MENTAL HEALTH, COMMUNITY SURVEY 2019



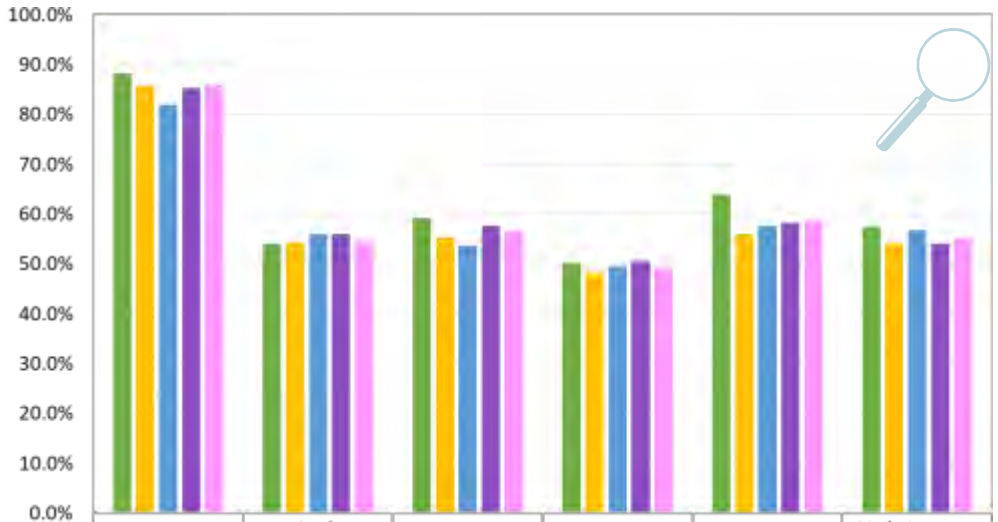
	Sufficient mental health services	Community knows how to access mental health services	Sufficient substance abuse services
LAKE	13.1%	10.0%	8.8%
ORANGE	13.4%	9.3%	10.1%
OSCEOLA	9.6%	10.9%	9.1%
SEMINOLE	16.1%	12.8%	11.6%
OVERALL	13.5%	10.3%	10.0%

Only 1 in 10 respondents from Orange County believe there are sufficient substance abuse services.

Source: Central Florida Community Collaborative Community Survey, Strategy Solutions, Inc.

Figure 7.16 illustrates the mental health-related challenges identified by community survey respondents. The majority of Orange County community survey respondents (85.7 percent) indicated that they or a family member have had difficulty sleeping in the past two weeks. A little more than half (54.3 percent) of the respondents indicated that they lack companionship or feel left out (55.3 percent). More than half of respondents indicated that they feel depressed (56 percent) or have little interest/pleasure in activities (54 percent).

FIGURE 7.16: MENTAL HEALTH-RELATED EXPERIENCES, COMMUNITY SURVEY 2019



	Difficulty sleeping	Lack companion-ship	Feel left out	Feel isolated	Depressed/ hopeless	Little interest or pleasure in activities
LAKE	88.3%	54.0%	59.1%	50.1%	63.9%	57.4%
ORANGE	85.7%	54.3%	55.3%	48.2%	56.0%	54.0%
OSCEOLA	82.0%	56.0%	53.6%	49.5%	57.6%	56.8%
SEMINOLE	85.3%	56.0%	57.6%	50.5%	58.3%	54.0%
OVERALL	85.8%	54.7%	56.4%	49.2%	58.5%	55.1%

Source: Central Florida Community Collaborative Community Survey, Strategy Solutions, Inc.

Almost half of Orange County respondents report feeling isolated.

Participants in the primary research identified the following needs and issues related to quality of life/mental health:

- Lack of mental health providers
- High levels of stress that people experience
- Mental health issues in the homeless population

Barriers to care identified by primary research participants included:

- Continued stigma associated with mental health
- Many providers do not accept certain insurances
- High prescription costs
- Wait times to get an appointment
- Access to mental health services

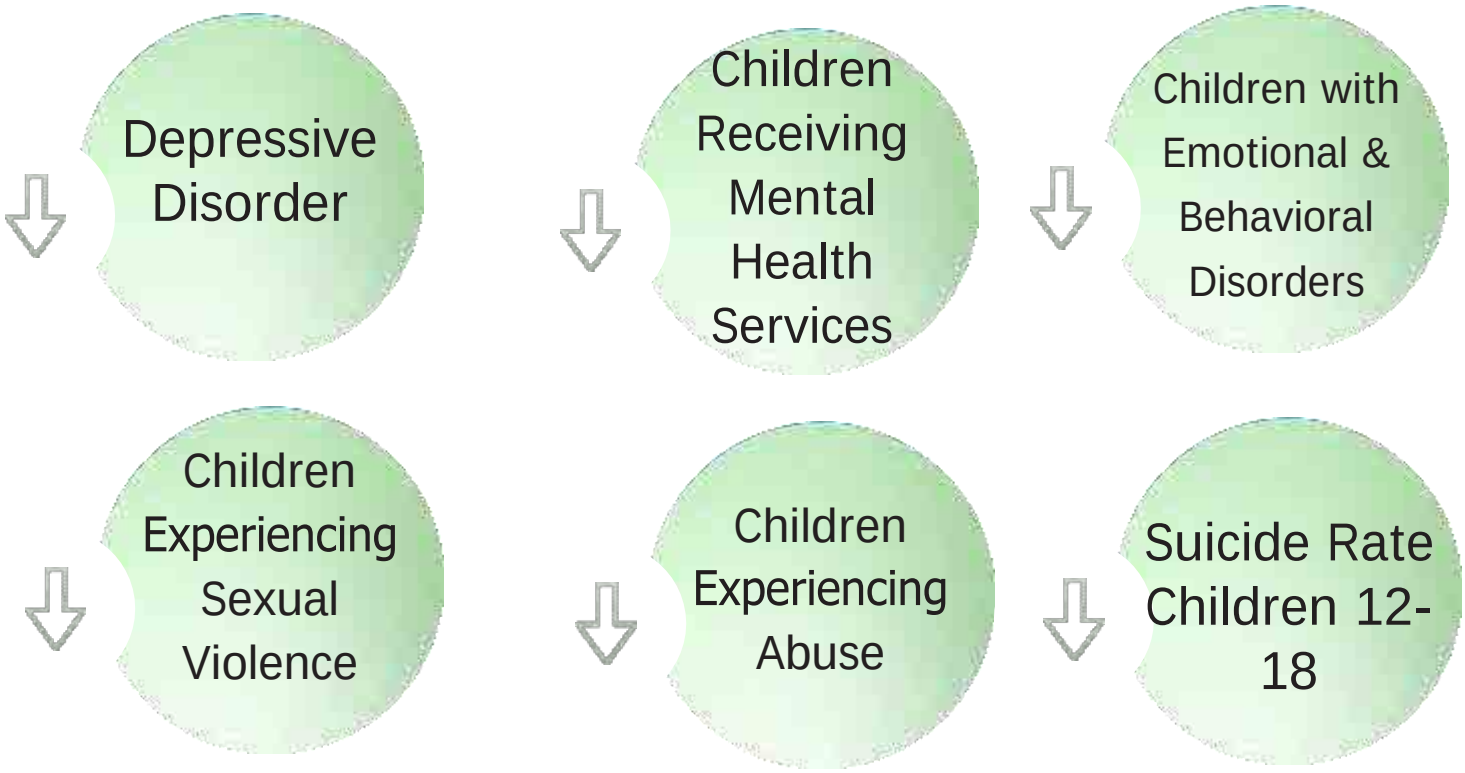
Needed services related to quality of life/mental health that were identified by primary research participants included:

- Widespread education to remove stigma
- Geriatric psychology
- More resources for the LGBTQ community, homeless, sexual assault and human trafficking victims
- Supported services to manage mental health
- Patient navigators

Quality of Life/Mental Health at a Glance

The key indicators related to quality of life/mental health that have changed since the last CHNA are identified in Figure 7.17. Red means that the indicator has worsened and green means that there has been an improvement since the 2016 CHNA.

FIGURE 7.17: MENTAL HEALTH/QUALITY OF LIFE INDICATORS



Source: Strategy Solutions, Inc.

Quality of Life/Mental Health: Summary of Indicators

The following includes both a narrative as well as a visual (chart or table) summary of indicators reported on in this section. While the above colored icons illustrate observed trends from the data reported in the 2016 CHNA, this section is designed to highlight relevant historical information on each indicator and provide a narrative interpretation of the data included in the charts/tables that follow.

ADULTS WHO HAVE EVER BEEN TOLD THEY HAD A DEPRESSIVE DISORDER (2013-2016)

The percentage of adults who have ever been told they had a depressive disorder decreased in Orange County and the state from 2013 to 2016. In the county the percentage decreased from 15.3 percent to 13.6 percent and in the state from 16.8 percent to 14.2 percent. (See Chart 7.50

ADULTS WITH A DEPRESSIVE DISORDER BY AGE (2013-2016)

The percentage of adults with depressive disorder decreased in most groups in both Orange County and the state from 2013 to 2016, with the exception of those age 45-64 in the county. The largest decrease in the both the county and the state was for adults 65 and older, from 19.9 percent to 12.1 percent in the county and from 14.6 percent to 11.8 percent in the state. The percentage for adults 45-64 increased in the county from 15.6 percent to 16 percent from 2013 to 2016, while in the state the percentage fell from 19.6 percent to 17.3 percent during this time. Those 18-44 in Orange County had percentages drop from 14.3 percent to 12.4 percent and in the state this group had a percentage decrease from 15.8 percent to 13.3 percent from 2013 to 2016. (See Chart 7.51)

ADULTS WITH A DEPRESSIVE DISORDER BY INCOME (2013-2016)

The percentage of adults with a depressive disorder was lowest for adults making more than $50K a year in Orange County (9.1 percent) and the state (9.9 percent). Adults with incomes less than $25K had a decrease in the county from 16.1 percent to 14.9 percent, while the state percentage fell from 23.8 percent to 20.6 percent during this time. There was a decrease for those with incomes of $25-$49K in Orange County from 18.6 percent (2013) to 15.2 percent (2016) and in the state from 16.5 percent to 14.9 percent over this time. (See Chart 7.52)

CHILDREN AGES 1-5 RECEIVING MENTAL HEALTH TREATMENT SERVICES (2004-2016)

The rate of children ages 1-5 receiving mental health treatment services per 100,000 in Orange County and across the state have decreased from 2004 to 2016. The county rate in 2004 (12) was the highest over the 13 years and fell to an overall low of 1.3 in 2014 before rising slightly to 1.7 in 2016. The county rate was consistently lower during this time than the state which decreased from 16.6 in 2004 to 3.4 in 2016. (See Chart 7.53)

CHILDREN IN GRADES K-12 WITH EMOTIONAL/BEHAVIORAL DISABILITY (2004-2018)

The percentage of children in grades K-12 with an emotional or behavioral disability decreased steadily in Orange County from 2004 (1 percent) to 2018 (0.2 percent). Orange County has consistently had a lower or equal percentage to the state throughout this time period. The state percentage during this time decreased from 1.5 percent to 0.5 percent. (See Chart 7.54)

CHILDREN AGES 5-11 EXPERIENCING SEXUAL VIOLENCE (2003-2017)

The rate per 100,000 of children ages 5-11 experiencing sexual violence fluctuated dramatically in Orange County from 2003 to 2017. The county's rate increased from 66.3 in 2003 to 100.4 in 2005 and then decreased to 50.9 in 2013 before rising to 53.4 in 2017. The state rate has fluctuated in similar fashion to the county with an overall increase from 51.3 in 2003 to 59.6 in 2017. (See Chart 7.55)

CHILDREN AGES 5-11 EXPERIENCING CHILD ABUSE (2003-2017)

The rate of children ages 5-11 experiencing child abuse per 100,000 has increased in both Orange County and the state from 2003 to 2017. The Orange County rate fluctuated from 682.6 in 2003 to a peak of 1274.4 in 2011, followed by a decrease to 744.5 in 2017. The state rate was higher than Orange County's rate in 2003 (674.6) and 2017 (857.9). (See Chart 7.56)

SUICIDE RATE OF CHILDREN AGES 12-18 (2004-2017)

The suicide rate per 100,000 of children ages 12-18 has fluctuated in Orange County and the state from 2004 to 2017. The Orange County rate was 2.8 in 2004 and increased to a high of 4.5 in 2007 before decreasing to 2.5 in 2017. The state rate increased from 3.2 (2004) to 5.5 (2017). (See chart 7.57)

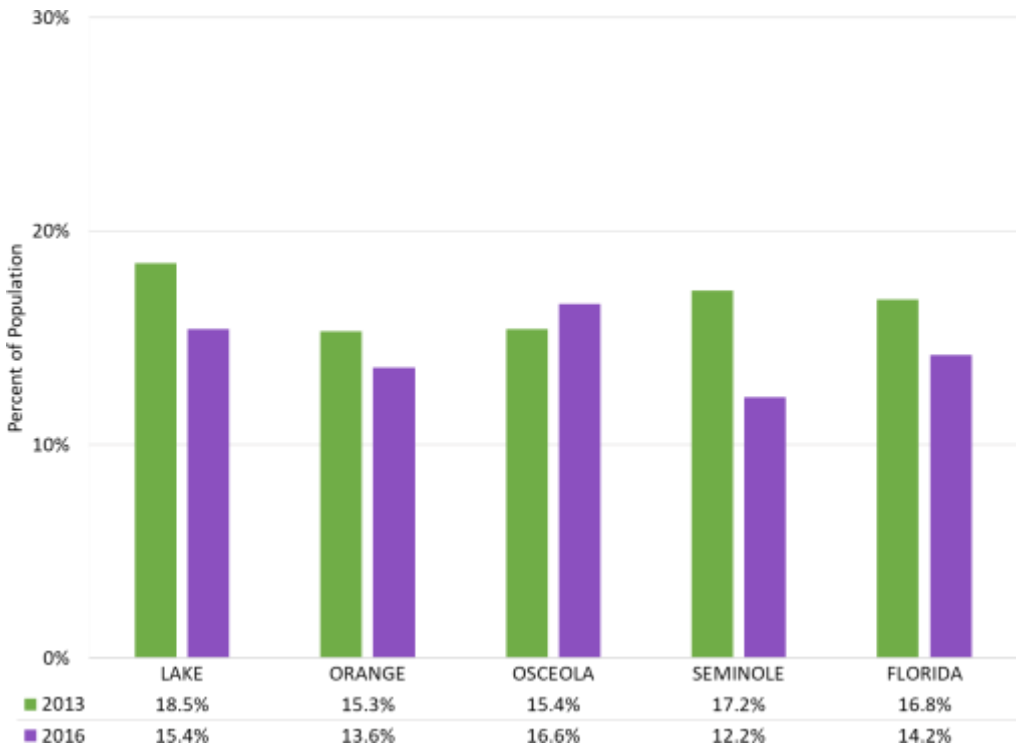
SUICIDE RATE AGES 19-21 (2004-2017)

The suicide rate ages 19-21 per 100,000 fluctuated between 2004 and 2017 in Orange County over time. Orange County's rate was 10.5 in 2004 before decreasing to a low 1.6 in 2011 and 2013. It then increased to 13 in 2015 before decreasing to 11.5 in 2016 and 2017. The state rate increased from 12 (2004) to 13.3 (2017) during this time with a low of 8.1 in 2010. (See Chart 7.58)

SUICIDE RATE AGES 22 AND OLDER (2004-2017)

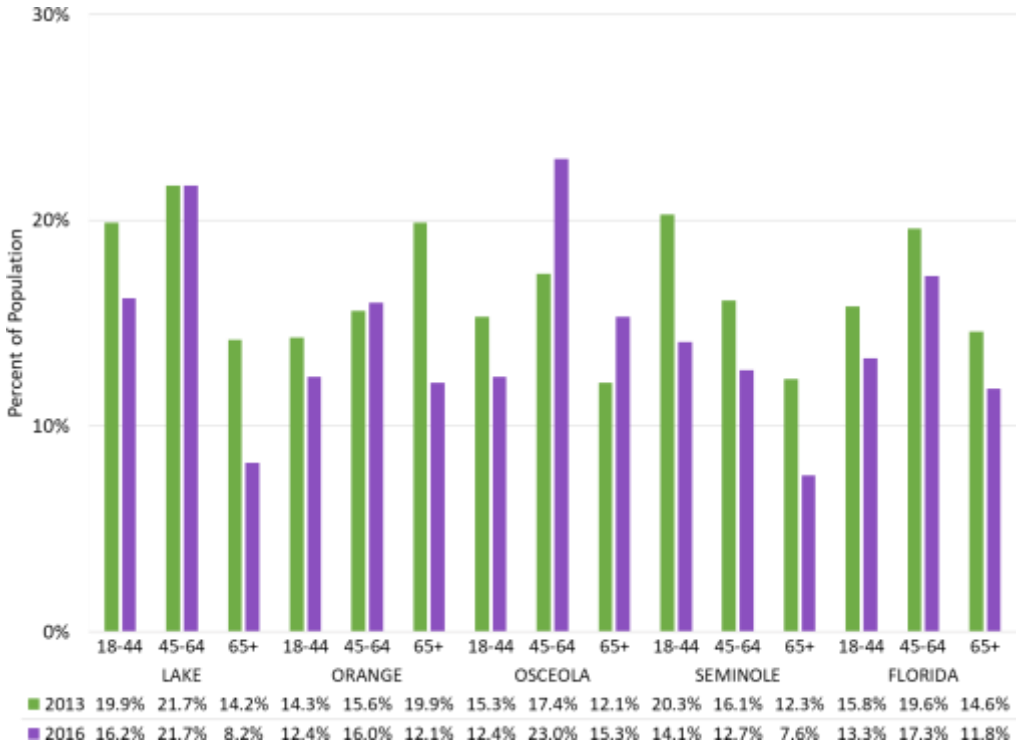
The suicide rate ages 22 and older per 100,000 fluctuated in Orange County and the state between 2004 and 2017. In the county in 2004 the rate was 14.6 before a decrease to a low of 12.2 in 2006 (also in 2016), before increasing to a high of 16.2 in 2008. The county rate in 2017 was 14.5, lower than that of the state (19.4). (See Chart 7.59)

CHART 7.50: ADULTS WHO HAVE EVER BEEN TOLD THEY HAD A DEPRESSIVE DISORDER (2013-2016)



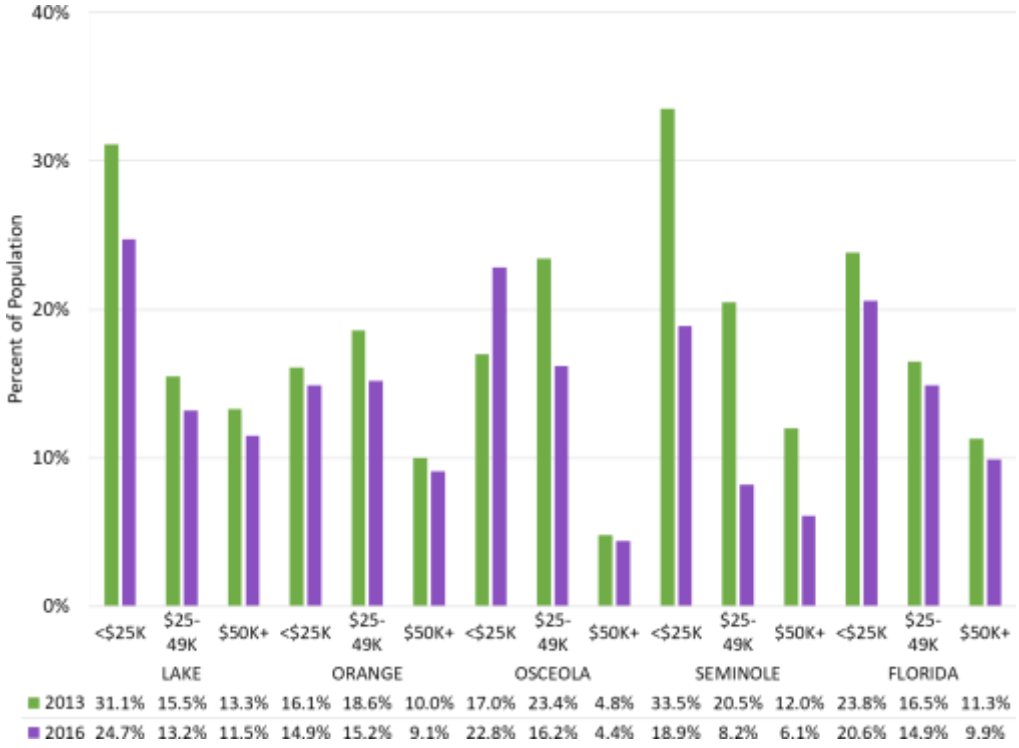
Source: FLHealthCHARTS: Florida Department of Health, Florida Behavior Risk Factor Surveillance System

CHART 7.51: ADULTS WITH A DEPRESSIVE DISORDER BY AGE (2013-2016)



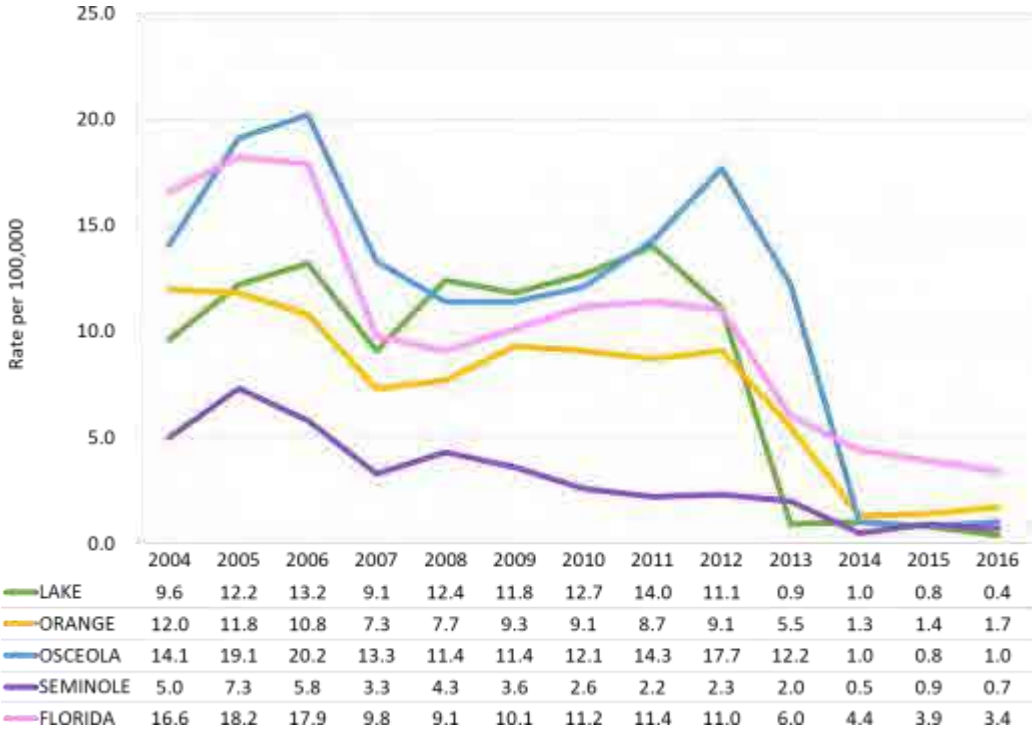
Source: FLHealthCHARTS: Florida Department of Health, Florida Behavior Risk Factor Surveillance System

CHART 7.52: ADULTS WITH A DEPRESSIVE DISORDER BY INCOME (2013-2016)



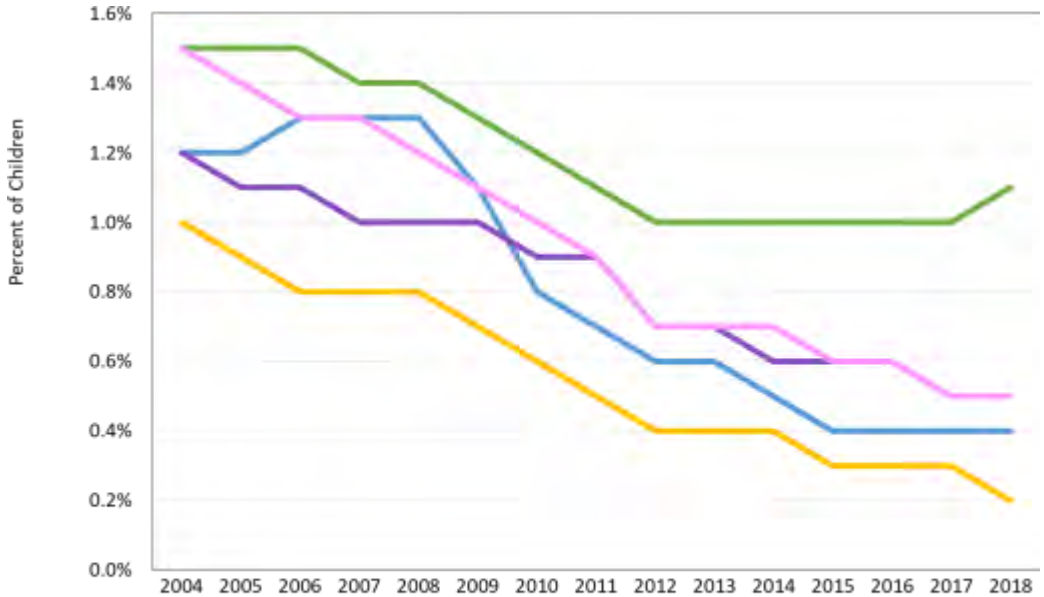
Source: FLHealthCHARTS: Florida Department of Health, Florida Behavior Risk Factor Surveillance System

CHART 7.53: CHILDREN AGES 1-5 RECEIVING MENTAL HEALTH TREATMENT SERVICES (2004-2016)



Source: FLHealthCHARTS: Florida Department of Children and Families

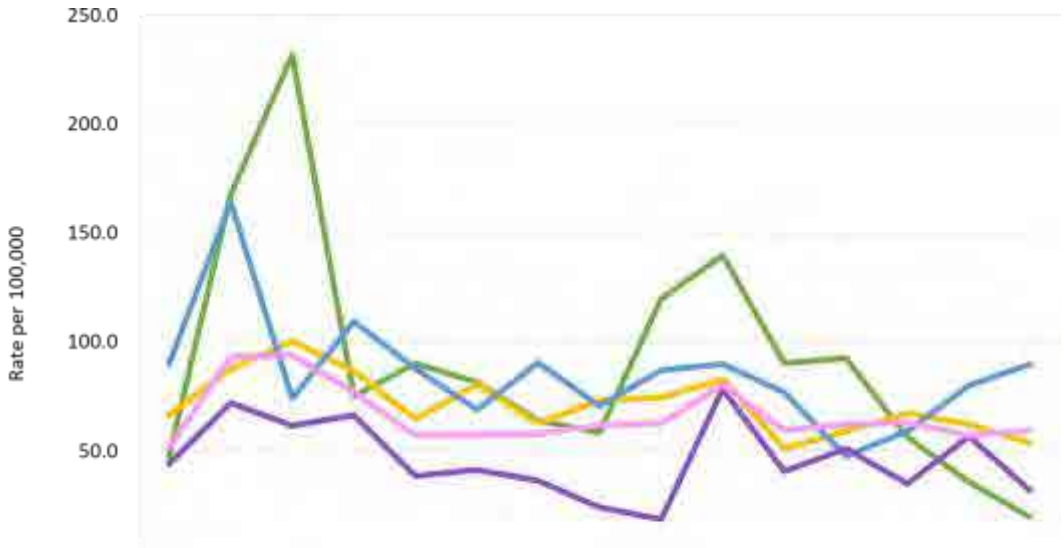
CHART 7.54: CHILDREN IN GRADES K-12 WITH EMOTIONAL/BEHAVIORAL DISABILITY (2004-2018)



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
LAKE	1.5%	1.5%	1.5%	1.4%	1.4%	1.3%	1.2%	1.1%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.1%
ORANGE	1.0%	0.9%	0.8%	0.8%	0.8%	0.7%	0.6%	0.5%	0.4%	0.4%	0.4%	0.3%	0.3%	0.3%	0.2%
OSCEOLA	1.2%	1.2%	1.3%	1.3%	1.3%	1.1%	0.8%	0.7%	0.6%	0.6%	0.5%	0.4%	0.4%	0.4%	0.4%
SEMINOLE	1.2%	1.1%	1.1%	1.0%	1.0%	1.0%	0.9%	0.9%	0.7%	0.7%	0.6%	0.6%	0.6%	0.5%	0.5%
FLORIDA	1.5%	1.4%	1.3%	1.3%	1.2%	1.1%	1.0%	0.9%	0.7%	0.7%	0.7%	0.6%	0.6%	0.5%	0.5%

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

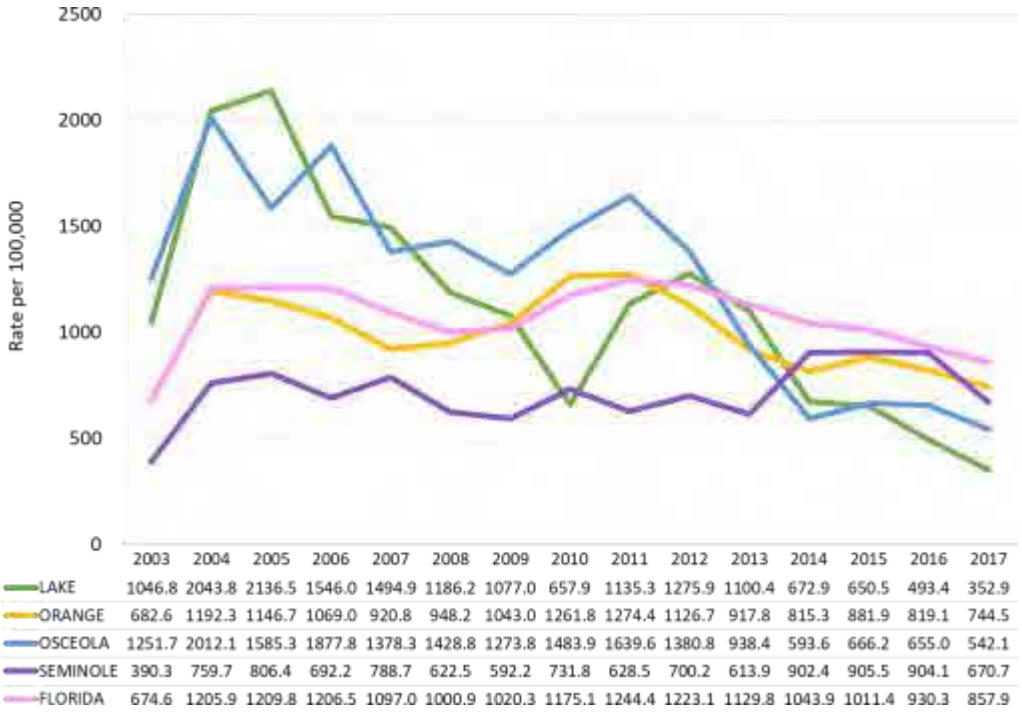
CHART 7.55: CHILDREN AGES 5-11 EXPERIENCING SEXUAL VIOLENCE (2003-2017)



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	47.1	167.9	232.2	75.3	90.2	81.4	64.1	58.3	119.7	139.9	90.0	92.7	56.2	35.5	19.6
ORANGE	66.3	87.7	100.4	86.6	64.6	80.5	62.6	73.5	74.4	82.8	50.9	59.1	67.2	62.2	53.4
OSCEOLA	89.7	164.3	74.0	109.3	87.7	68.7	90.5	70.7	87.1	89.7	77.0	47.5	59.1	79.9	89.8
SEMINOLE	43.9	72.1	61.6	66.4	38.4	41.3	36.5	24.2	18.7	78.4	40.4	51.0	34.9	56.5	31.9
FLORIDA	51.3	93.2	93.9	76.8	57.5	57.5	57.7	61.8	62.6	80.3	59.4	62.2	62.8	56.9	59.6

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

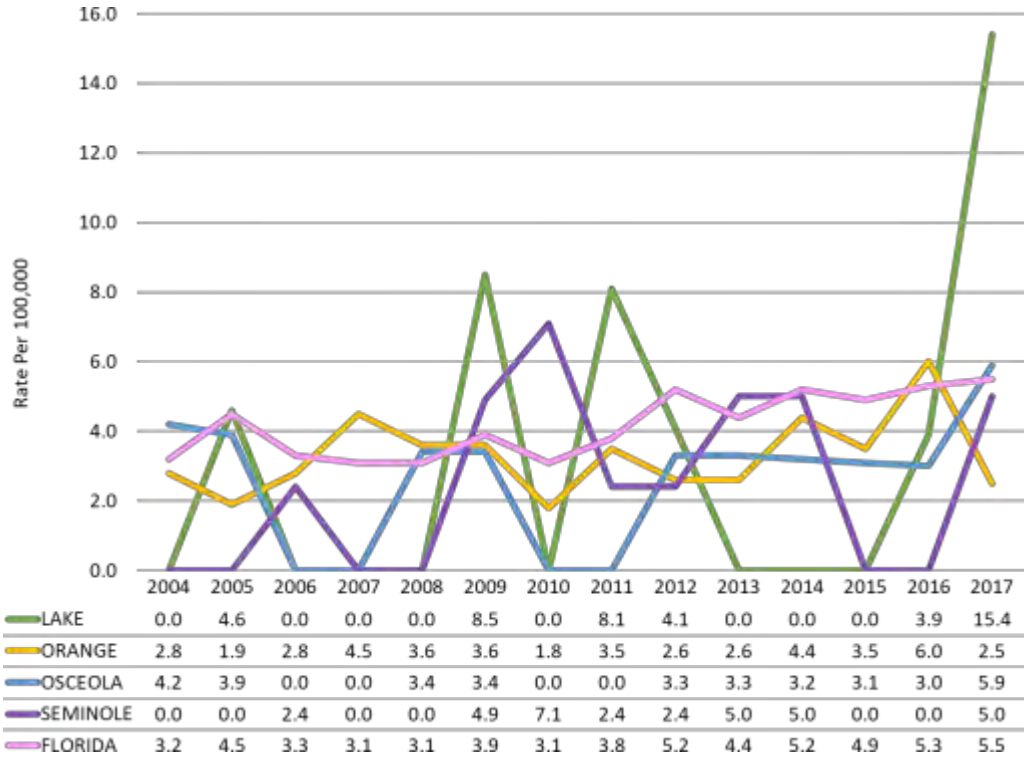
CHART 7.56: CHILDREN AGES 5-11 EXPERIENCING CHILD ABUSE (2003-2017)



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	1046.8	2043.8	2136.5	1546.0	1494.9	1186.2	1077.0	657.9	1135.3	1275.9	1100.4	672.9	650.5	493.4	352.9
ORANGE	682.6	1192.3	1146.7	1069.0	920.8	948.2	1043.0	1261.8	1274.4	1126.7	917.8	815.3	881.9	819.1	744.5
OSCEOLA	1251.7	2012.1	1585.3	1877.8	1378.3	1428.8	1273.8	1483.9	1639.6	1380.8	938.4	593.6	666.2	655.0	542.1
SEMINOLE	390.3	759.7	806.4	692.2	788.7	622.5	592.2	731.8	628.5	700.2	613.9	902.4	905.5	904.1	670.7
FLORIDA	674.6	1205.9	1209.8	1206.5	1097.0	1000.9	1020.3	1175.1	1244.4	1223.1	1129.8	1043.9	1011.4	930.3	857.9

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

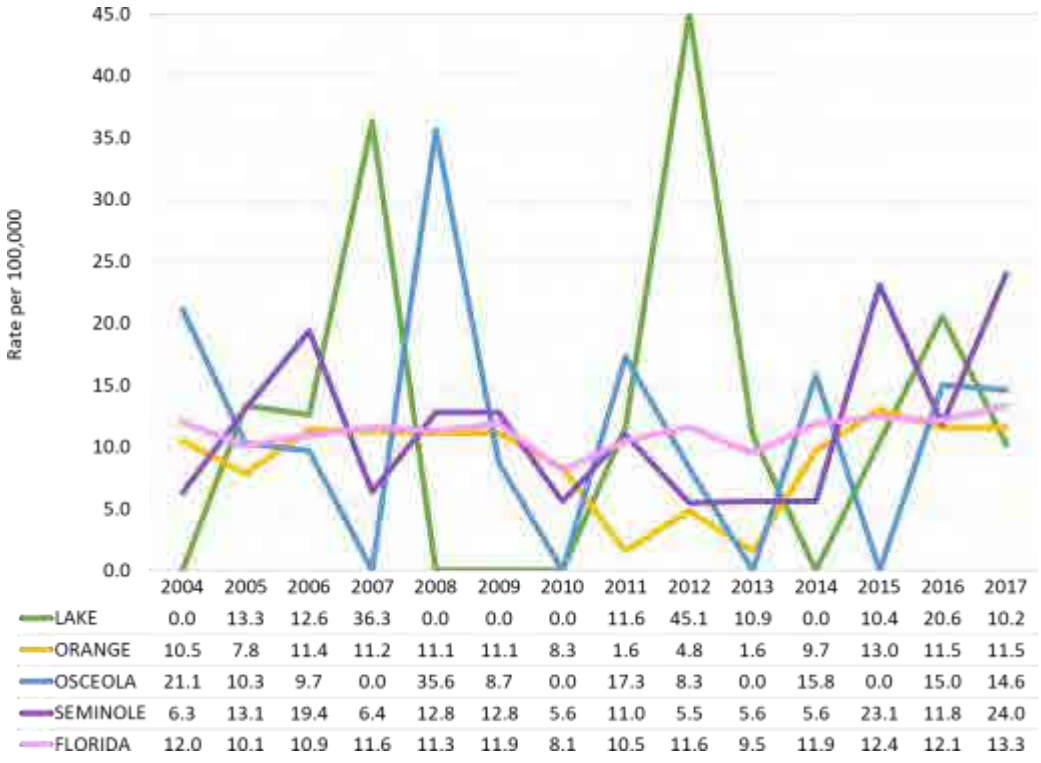
CHART 7.57: SUICIDE RATE OF CHILDREN AGES 12-18 (2004-2017)



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	0.0	4.6	0.0	0.0	0.0	8.5	0.0	8.1	4.1	0.0	0.0	0.0	3.9	15.4
ORANGE	2.8	1.9	2.8	4.5	3.6	3.6	1.8	3.5	2.6	2.6	4.4	3.5	6.0	2.5
OSCEOLA	4.2	3.9	0.0	0.0	3.4	3.4	0.0	0.0	3.3	3.3	3.2	3.1	3.0	5.9
SEMINOLE	0.0	0.0	2.4	0.0	0.0	4.9	7.1	2.4	2.4	5.0	5.0	0.0	0.0	5.0
FLORIDA	3.2	4.5	3.3	3.1	3.1	3.9	3.1	3.8	5.2	4.4	5.2	4.9	5.3	5.5

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

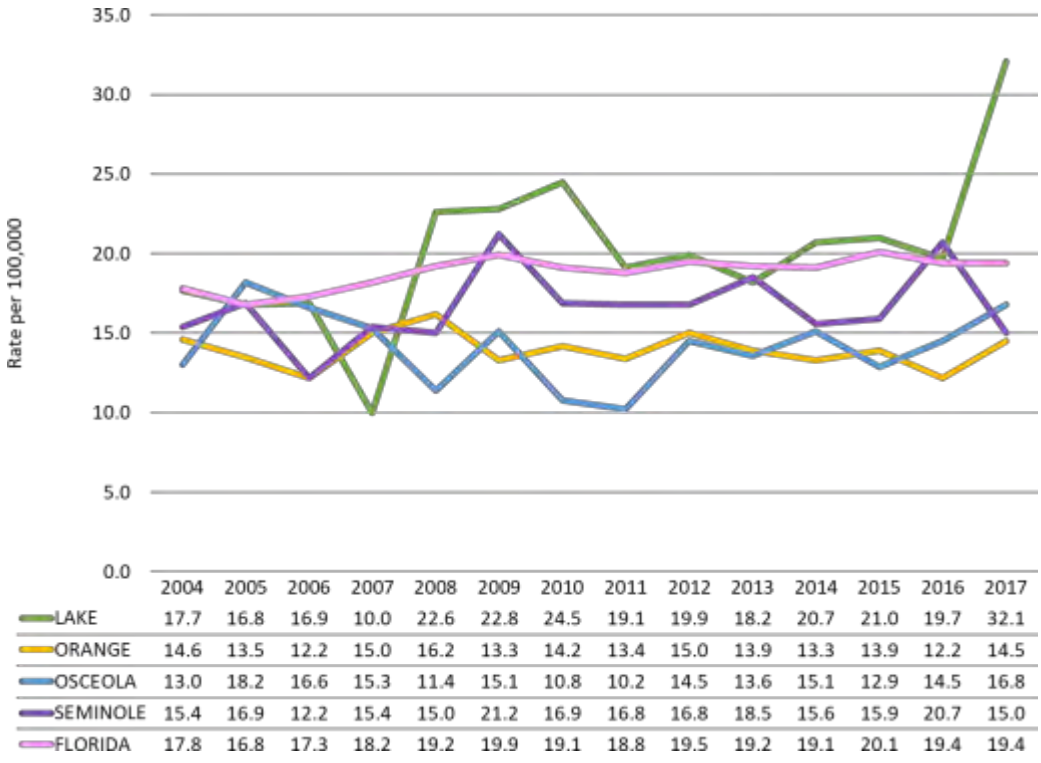
CHART 7.58: SUICIDE RATE AGES 19-21 (2004-2017)



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	0.0	13.3	12.6	36.3	0.0	0.0	0.0	11.6	45.1	10.9	0.0	10.4	20.6	10.2
ORANGE	10.5	7.8	11.4	11.2	11.1	11.1	8.3	1.6	4.8	1.6	9.7	13.0	11.5	11.5
OSCEOLA	21.1	10.3	9.7	0.0	35.6	8.7	0.0	17.3	8.3	0.0	15.8	0.0	15.0	14.6
SEMINOLE	6.3	13.1	19.4	6.4	12.8	12.8	5.6	11.0	5.5	5.6	5.6	23.1	11.8	24.0
FLORIDA	12.0	10.1	10.9	11.6	11.3	11.9	8.1	10.5	11.6	9.5	11.9	12.4	12.1	13.3

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

CHART 7.59: SUICIDE RATE AGES 22 AND OLDER (2004-2017)



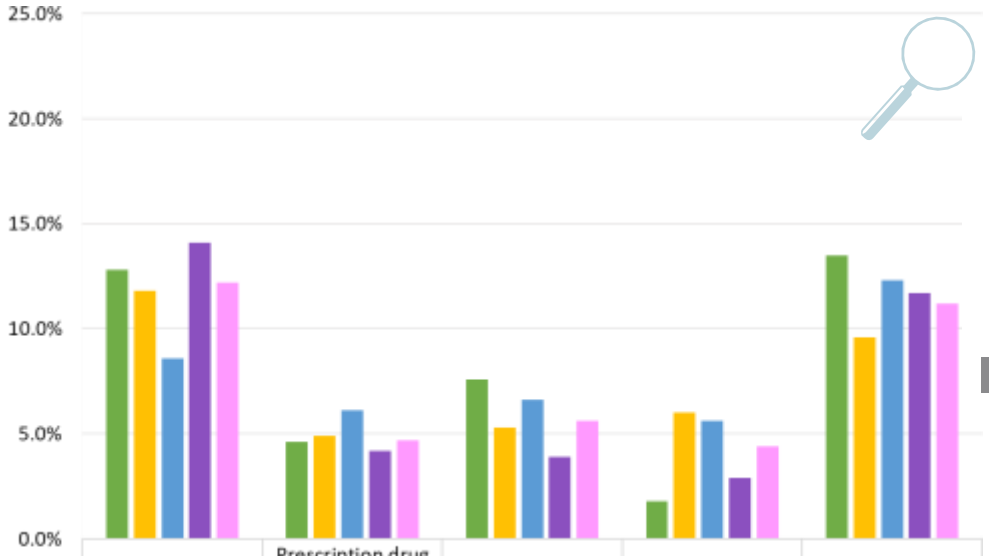
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	17.7	16.8	16.9	10.0	22.6	22.8	24.5	19.1	19.9	18.2	20.7	21.0	19.7	32.1
ORANGE	14.6	13.5	12.2	15.0	16.2	13.3	14.2	13.4	15.0	13.9	13.3	13.9	12.2	14.5
OSCEOLA	13.0	18.2	16.6	15.3	11.4	15.1	10.8	10.2	14.5	13.6	15.1	12.9	14.5	16.8
SEMINOLE	15.4	16.9	12.2	15.4	15.0	21.2	16.9	16.8	16.8	18.5	15.6	15.9	20.7	15.0
FLORIDA	17.8	16.8	17.3	18.2	19.2	19.9	19.1	18.8	19.5	19.2	19.1	20.1	19.4	19.4

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

Behavioral Risk Factors: What the Community is Saying

Figure 7.18 illustrates the percentages of community survey respondents experiencing various behavioral risk factors. Sexual behaviors were defined in the survey as unprotected, irresponsible/risky.

FIGURE 7.18: BEHAVIORAL RISK FACTORS, COMMUNITY SURVEY 2019



	Alcohol abuse	Prescription drug abuse	Illegal drug use	Sexual behaviors	Tobacco use
LAKE	12.8%	4.6%	7.6%	1.8%	13.5%
ORANGE	11.8%	4.9%	5.3%	6.0%	9.6%
OSCEOLA	8.6%	6.1%	6.6%	5.6%	12.3%
SEMINOLE	14.1%	4.2%	3.9%	2.9%	11.7%
OVERALL	12.2%	4.7%	5.6%	4.4%	11.2%

Source: Central Florida Community Collaborative Community Survey, Strategy Solutions, Inc.

In Orange County, more than 1 in 10 of community survey respondents reported alcohol abuse.

Participants in the primary research identified the following needs and issues related to behavioral risk factors:

- Prevalence of substance abuse disorders
- Incidence of substance use and homelessness is increasing
- More rehabilitation is needed
- Need services to address the underlying causes of addiction
- Rate of smoking is high

Barriers to care identified by primary research participants included:

- Lack of affordable treatment options

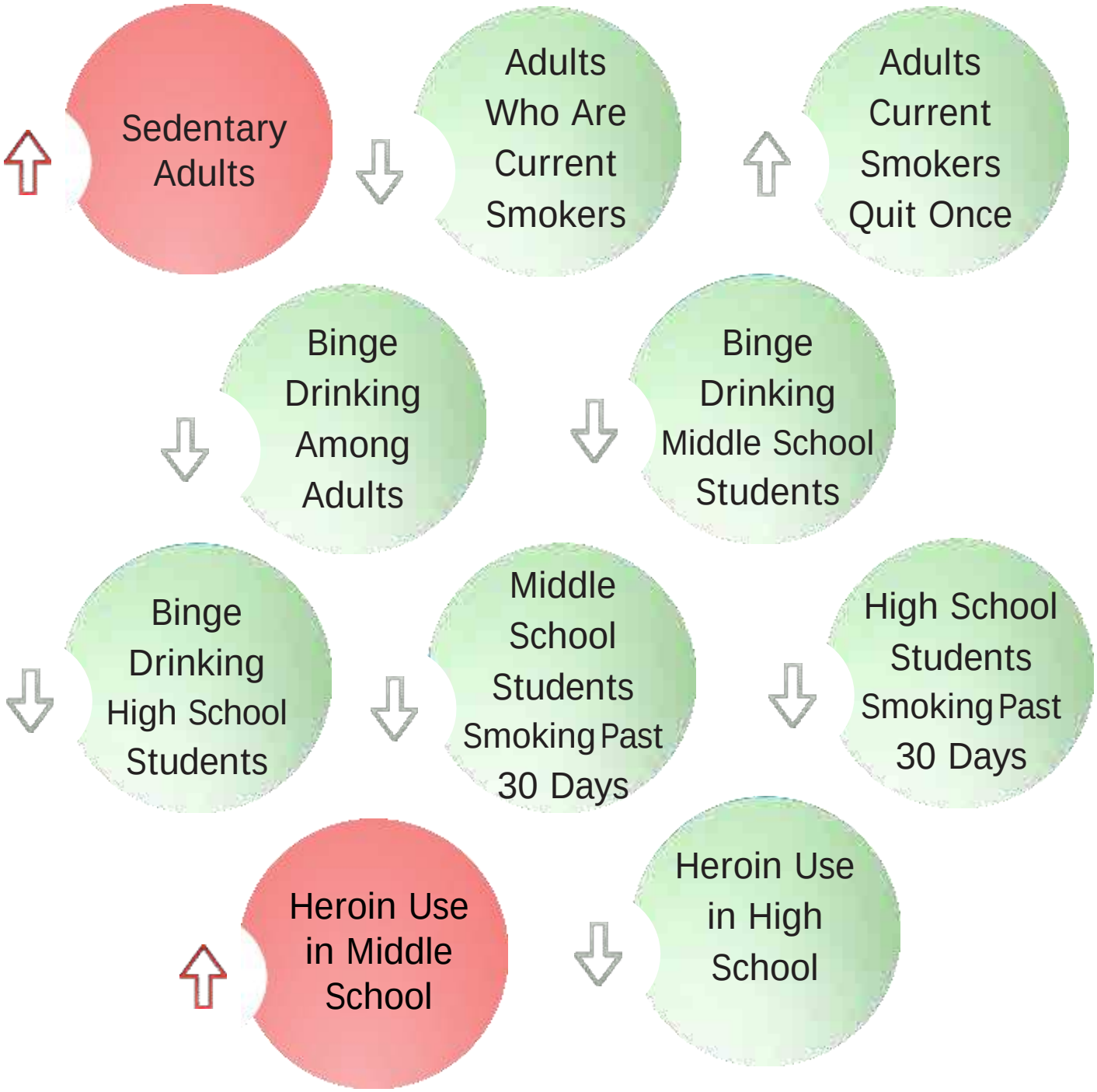
Needed services related to behavioral risk factors that were identified by primary research participants included:

- State funding for inpatient and outpatient treatment facilities for substance use disorders
- More medication assisted treatment services
- More transitional housing
- More rehabilitation services
- Address the underlying causes of substance use

Behavioral Risk Factors at a Glance

The key indicators related to behavioral risk factors that have changed since the last CHNA are identified in Figure 7.19. Red means that the indicator has worsened and green means that there has been an improvement since the 2016 CHNA.

FIGURE 7.19: BEHAVIORAL RISK FACTOR INDICATORS.



Source: Strategy Solutions Inc.

Behavioral Risk Factors: Summary of Indicators

The following includes both a narrative as well as a visual (chart or table) summary of indicators reported on in this section. While the colored icons, located on the previous page, illustrate observed trends from the data reported in the 2016 CHNA, this section is designed to highlight relevant historical information on each indicator and provide a narrative interpretation of the data included in the charts/tables that follow.

MIDDLE SCHOOL STUDENTS WITHOUT SUFFICIENT VIGOROUS PHYSICAL ACTIVITY (2014-2016)

The percentage of middle school students without sufficient vigorous physical activity increased in Orange County and the state between 2014 and 2016. The county's percentage increased from 74.5 percent to 77.3 percent. The state percentage increased from 75.2 percent to 78.3 percent. (See Chart 7.60)

HIGH SCHOOL STUDENTS WITHOUT SUFFICIENT VIGOROUS PHYSICAL ACTIVITY (2014-2016)

The percentage of high school students without sufficient vigorous physical activity increased in both Orange County and the state between 2014 and 2016. The county's percentage increased slightly from 80.5 percent to 81.3 percent and the state percentage increased from 78.5 percent to 80.6 percent during this time. (See Chart 7.61)

SEDENTARY ADULTS (2002-2016)

The percentage of sedentary adults in Orange County decreased from 2002 to 2016 from 30.6 percent to 27.9 percent, with a low of 23.1 percent in 2007. The state percentage increased over this time period (26.4 percent to 29.8 percent) but also saw a low in 2007 (25.4 percent). (See Chart 7.62)

ADULTS WHO ARE CURRENT SMOKERS (2002-2016)

The percentage of adults who are current smokers fluctuated from 2002 to 2016, decreasing from 21.4 percent in 2002 to 13.3 percent in 2010, then increasing to 16 percent in 2013, before an overall low of 12.4 percent in 2016. The state level decreased during this time from 22.2 percent to 15.5 percent. (See Chart 7.63)

ADULT CURRENT SMOKERS WHO QUIT SMOKING AT LEAST ONCE IN PAST YEAR (2002-2016)

The percentage of adult current smokers who quit at least once in the past year fluctuated in both Orange County and the state between 2002 and 2016. The county percentage decreased overall from 59.6 percent to 59.3 percent and the state percentage had a net increase from 55.3 percent to 62.1 percent. (See Chart 7.64)

MIDDLE SCHOOL STUDENTS SMOKING CIGARETTES IN PAST 30 DAYS (2010-2018)

The percentage of middle school students smoking cigarettes in the past 30 days decreased in Orange County and the state between 2010 and 2018. Orange County's percentage decreased from 3.8 percent in 2010 to 0.4 percent in 2018. The state percentage decreased from 4.9 percent to 1.3 percent during this time. (See Chart 7.65)

HIGH SCHOOL STUDENTS SMOKING CIGARETTES IN PAST 30 DAYS (2010-2018)

The percentage of high school students smoking cigarettes in the past 30 days decreased in Orange County and the state between 2010 and 2018. Orange County's percentage was consistently lower than the state from 2010 to 2018; the county percentage decreased from 11.2 percent to three percent. The state percentage decreased from 13.1 percent to 3.6 percent during this time. (See Chart 7.66)

BINGE DRINKING AMONG ADULTS (2002-2016)

The percentage of binge drinking among adults increased in both Orange County and the state from 2002 to 2016. In Orange County, the percentage increased slightly from 18.2 percent in 2002 to 19.5 percent in 2016, although the percentage had decreased to 14.2 percent in 2010. In the state there was an increase from 16.4 percent to 17.5 percent during this time. (See Chart 7.67)

BINGE DRINKING MIDDLE SCHOOL STUDENTS (2012-2018)

The percentage of binge drinking middle school students decreased in Orange County and the state between 2012 and 2018. The county's percentage dropped from 5 percent to 2.6 percent during this time and has been consistently lower than the state percentage since 2012. The state percentage also decreased, from 5 to 3.1 percent between 2012 and 2018. (See Chart 7.68)

BINGE DRINKING HIGH SCHOOL STUDENTS (2012-2018)

The percentage of binge drinking high school students decreased in Orange County and the state between 2012 and 2018. Orange County's percentage decreased from 15 percent in 2012 to 8.3 percent in 2018. The state also decreased from 16 percent in 2012 to 9.6 percent in 2018. (See Chart 7.69)

HEROIN USE IN MIDDLE SCHOOL (2010-2018)

Only a small percentage of middle school students report heroin use, although there was an increase in the county and a decrease the state. Orange County's percentage increased from 0.5 percent to 0.6 percent between 2010 and 2018. The state percentage decreased from 0.9 percent to 0.4 percent. (See Chart 7.70)

HEROIN USE IN HIGH SCHOOL (2010-2018)

Only a small percentage of high school students report heroin use in Orange County and the state, there was a decrease in both from 2010 to 2018. The county's percentage decreased from 1.4 percent to 0.3 percent from 2010 to 2018, similar to the state decline from 1.1 percent to 0.3 percent. (See Chart 7.71)

HEROIN-RELATED DEATHS (2013-2017)

The rate per 100,000 of heroin-related deaths in Orange County and the state increased from 2013 to 2017. Orange County's rate increased from 2.6 in 2013 to 4.2 in 2017. The state rate increased from one in 2013 to 4.5 in 2017. (See Chart 7.72)

FENTANYL-RELATED DEATHS (2013-2017)

The rate per 100,000 of fentanyl-related deaths increased in Orange County and the state from 2013 and 2017. In the county the rate increased from 1.4 to 9.4, similar to the state increase from 0.9 to 8.3 during that time. (See Chart 7.73)

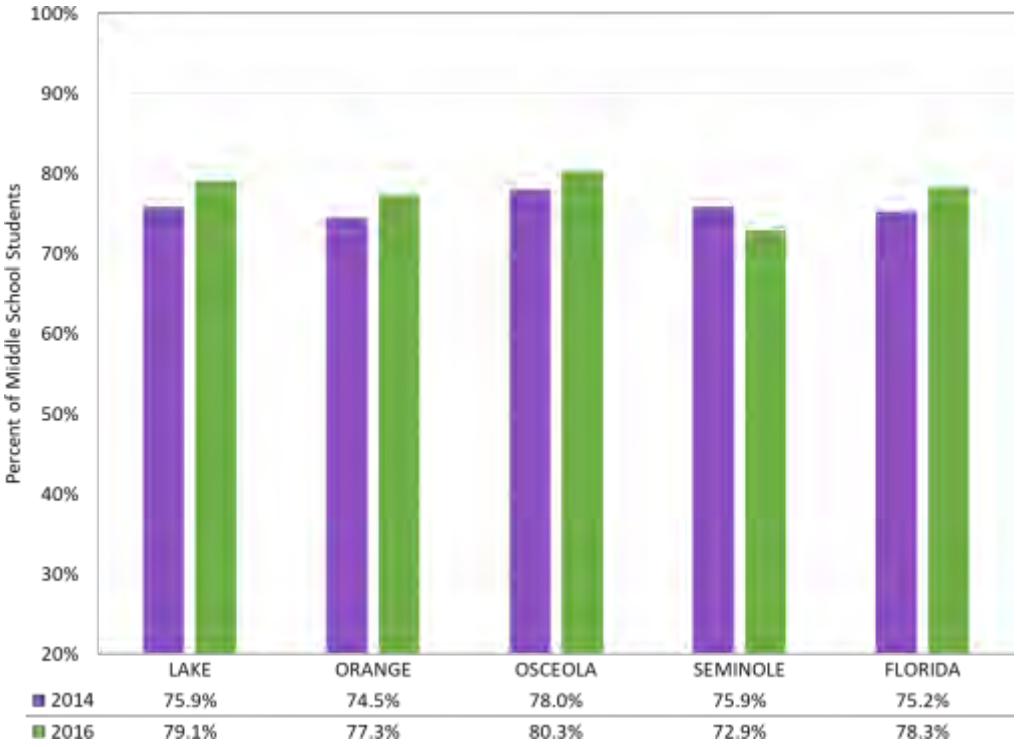
RATE OF CONTROLLED PRESCRIPTIONS OF OPIOIDS (2013-2017)

The rate per 100,000 of controlled prescriptions of opioids increased in Orange County in 2015 (592.5) from the rate in 2013 (503.8), then decreased in 2017 (527.7). The state rate for 2017 was unavailable, although rates in both 2013 (735) and 2015 (671) were higher than the county rates. (See Chart 7.74)

DRUG ARRESTS (2013-2017)

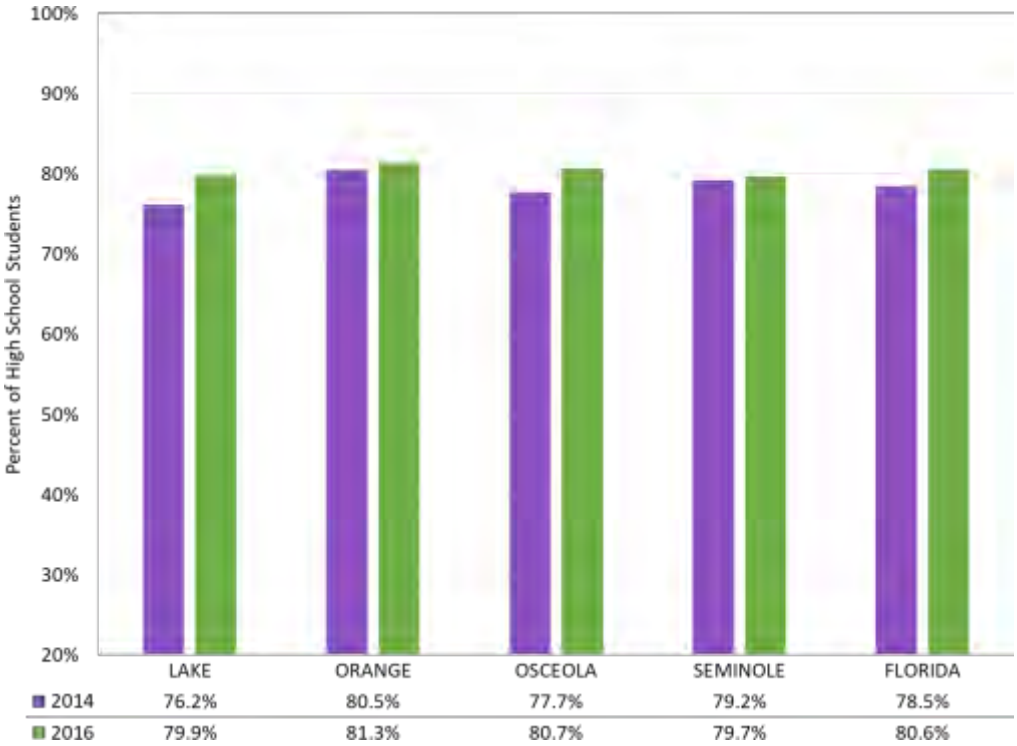
The rate of drug arrests per 100,000 decreased in Orange County between 2013 and 2017 from 651.9 to 563.5. There is no data available for the state for this indicator. (See Chart 7.75)

CHART 7.60: MIDDLE SCHOOL STUDENTS WITHOUT SUFFICIENT VIGOROUS PHYSICAL ACTIVITY (2014-2016)



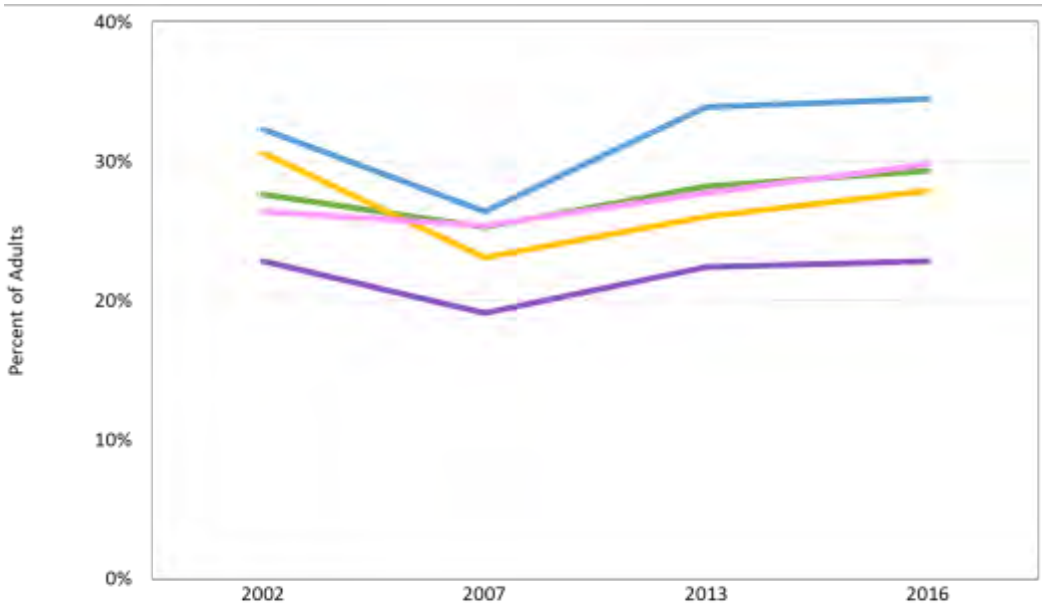
Source: FLHealthCHARTS: Florida Department of Health, Bureau of Epidemiology

CHART 7.61: HIGH SCHOOL STUDENTS WITHOUT SUFFICIENT VIGOROUS PHYSICAL ACTIVITY (2014-2016)



Source: FLHealthCHARTS: Florida Department of Health, Bureau of Epidemiology

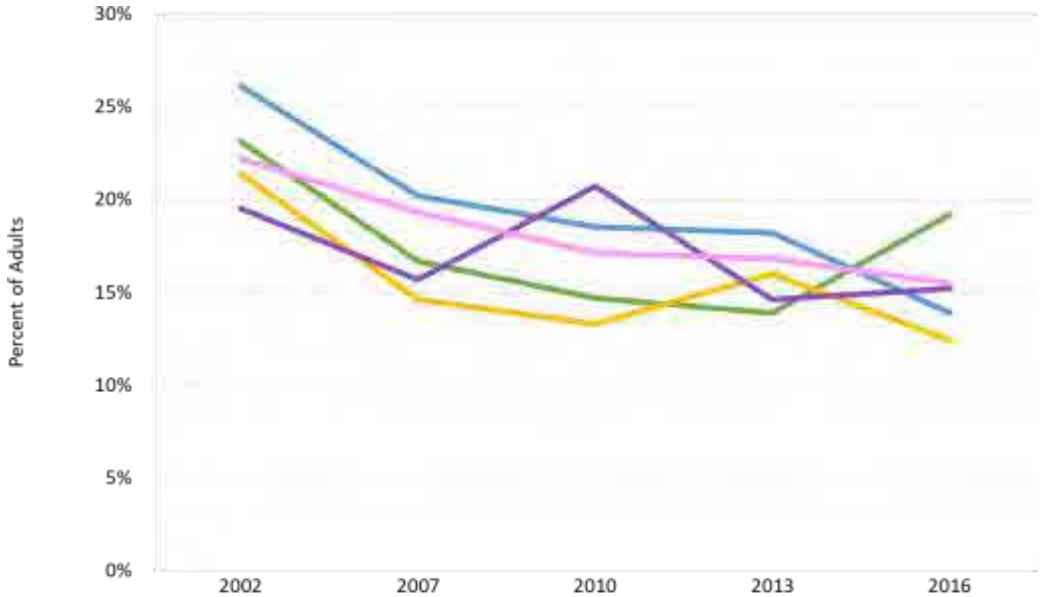
CHART 7.62: SEDENTARY ADULTS (2002-2016)



	2002	2007	2013	2016
LAKE	27.6%	25.3%	28.2%	29.3%
ORANGE	30.6%	23.1%	26.0%	27.9%
OSCEOLA	32.3%	26.4%	33.9%	34.5%
SEMINOLE	22.8%	19.1%	22.4%	22.8%
FLORIDA	26.4%	25.4%	27.7%	29.8%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

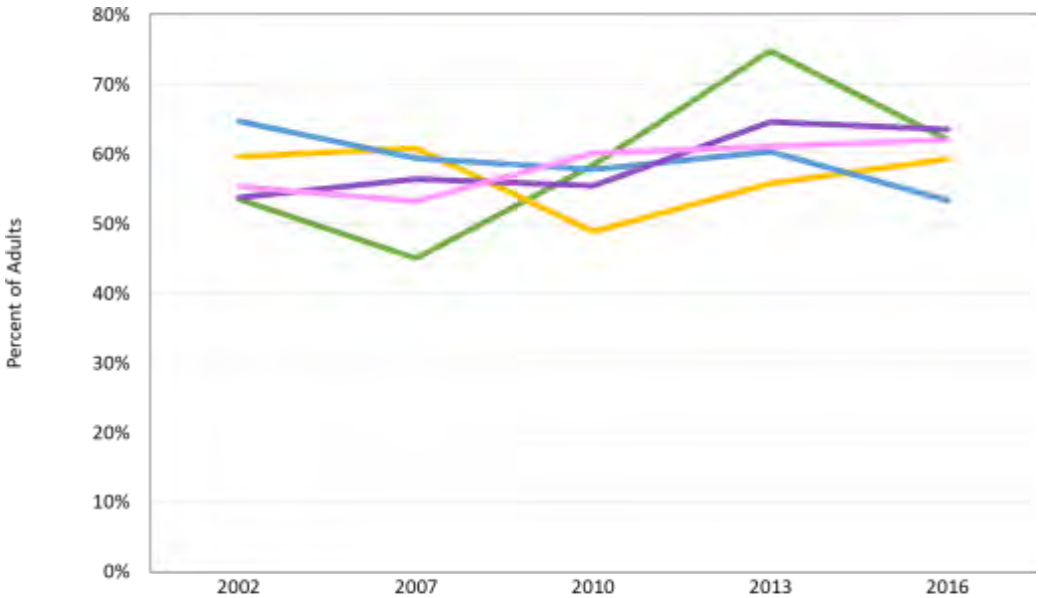
CHART 7.63: ADULTS WHO ARE CURRENT SMOKERS (2002-2016)



	2002	2007	2010	2013	2016
LAKE	23.1%	16.7%	14.7%	13.9%	19.2%
ORANGE	21.4%	14.6%	13.3%	16.0%	12.4%
OSCEOLA	26.1%	20.2%	18.5%	18.2%	13.9%
SEMINOLE	19.5%	15.7%	20.7%	14.6%	15.2%
FLORIDA	22.2%	19.3%	17.1%	16.8%	15.5%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

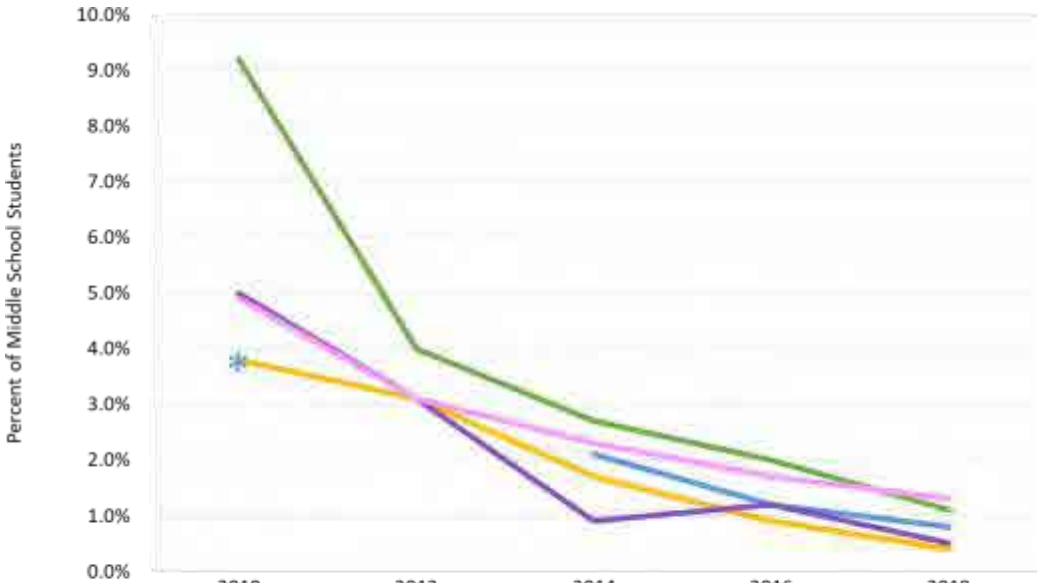
CHART 7.64: ADULT CURRENT SMOKERS WHO QUIT SMOKING AT LEAST ONCE IN PAST YEAR (2002-2016)



	2002	2007	2010	2013	2016
LAKE	53.5%	45.0%	58.4%	74.8%	62.1%
ORANGE	59.6%	60.9%	48.9%	55.8%	59.3%
OSCEOLA	64.7%	59.4%	57.8%	60.3%	53.3%
SEMINOLE	53.7%	56.4%	55.4%	64.6%	63.5%
FLORIDA	55.3%	53.2%	60.1%	61.1%	62.1%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

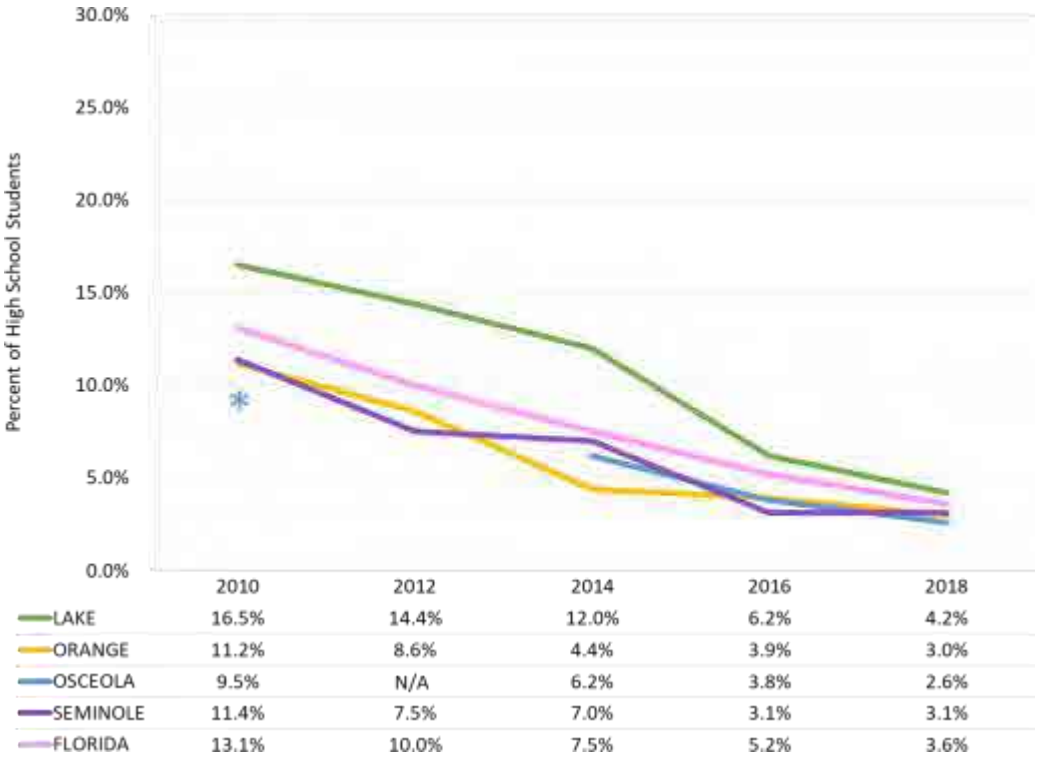
CHART 7.65: MIDDLE SCHOOL STUDENTS SMOKING CIGARETTES IN PAST 30 DAYS (2010-2018)



	2010	2012	2014	2016	2018
LAKE	9.2%	4.0%	2.7%	2.0%	1.1%
ORANGE	3.8%	3.1%	1.7%	0.9%	0.4%
OSCEOLA	3.8%	N/A	2.1%	1.2%	0.8%
SEMINOLE	5.0%	3.1%	0.9%	1.2%	0.5%
FLORIDA	4.9%	3.1%	2.3%	1.7%	1.3%

Source: FLHealthCHARTS: Florida Youth Survey Tobacco Survey
*Represents a single data point where there has been inconsistent data for a county

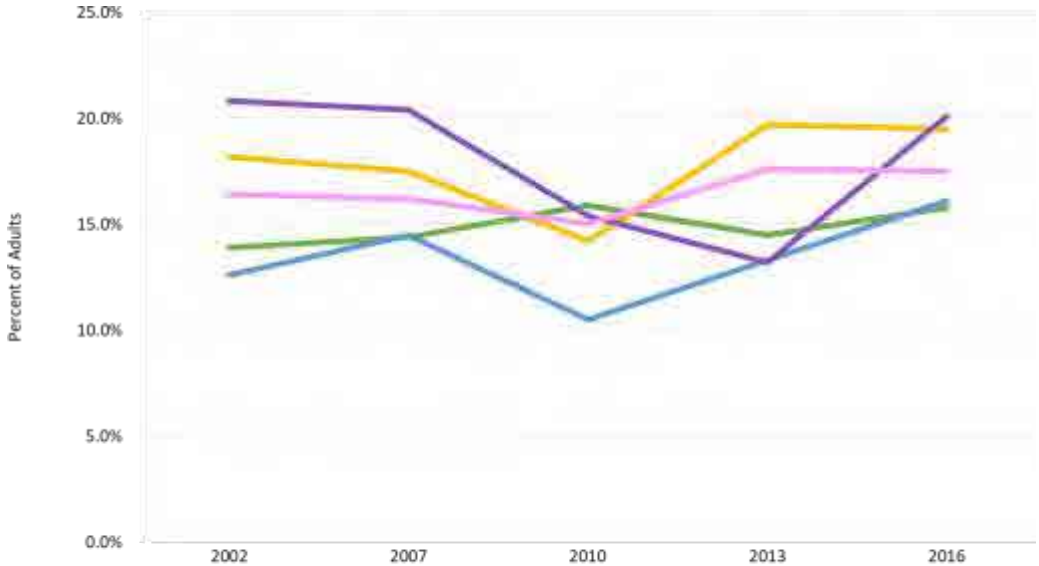
CHART 7.66: HIGH SCHOOL STUDENTS SMOKING CIGARETTES IN PAST 30 DAYS (2010-2018)



	2010	2012	2014	2016	2018
LAKE	16.5%	14.4%	12.0%	6.2%	4.2%
ORANGE	11.2%	8.6%	4.4%	3.9%	3.0%
OSCEOLA	9.5%	N/A	6.2%	3.8%	2.6%
SEMINOLE	11.4%	7.5%	7.0%	3.1%	3.1%
FLORIDA	13.1%	10.0%	7.5%	5.2%	3.6%

Source: FLHealthCHARTS: Florida Youth Tobacco Survey
*Represents a single data point where there has been inconsistent data for a county

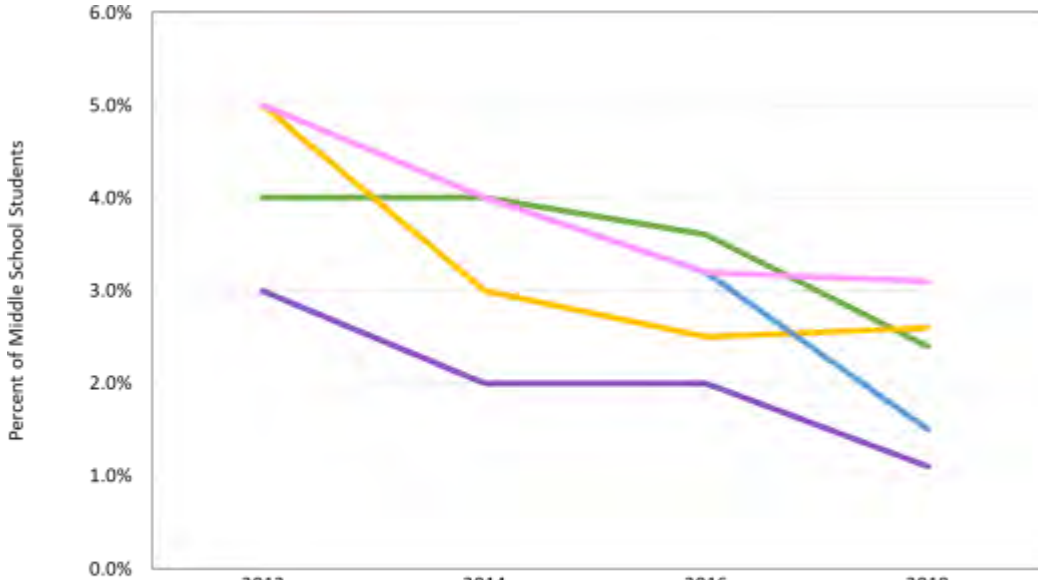
CHART 7.67: BINGE DRINKING AMONG ADULTS (2002-2016)



	2002	2007	2010	2013	2016
LAKE	13.9%	14.4%	15.9%	14.5%	15.8%
ORANGE	18.2%	17.5%	14.2%	19.7%	19.5%
OSCEOLA	12.6%	14.5%	10.5%	13.3%	16.1%
SEMINOLE	20.8%	20.4%	15.4%	13.2%	20.1%
FLORIDA	16.4%	16.2%	15.0%	17.6%	17.5%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance Survey

CHART 7.68: BINGE DRINKING MIDDLE SCHOOL STUDENTS (2012-2018)

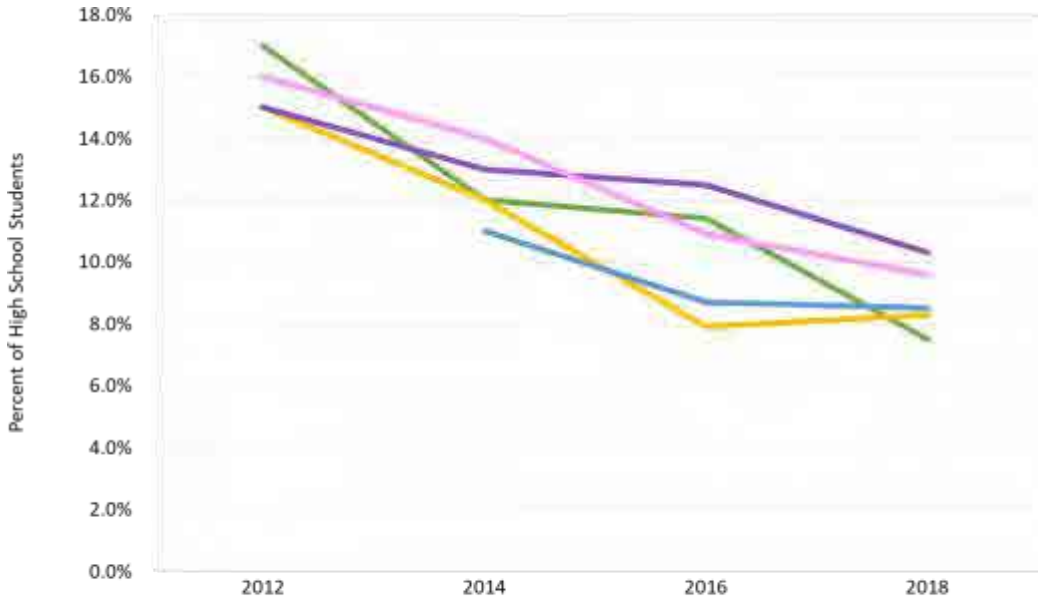


	2012	2014	2016	2018
LAKE	4.0%	4.0%	3.6%	2.4%
ORANGE	5.0%	3.0%	2.5%	2.6%
OSCEOLA	N/A	4.0%	3.2%	1.5%
SEMINOLE	3.0%	2.0%	2.0%	1.1%
FLORIDA	5.0%	4.0%	3.2%	3.1%

Source: FLHealthCHARTS: Florida Youth Substance Abuse Survey

Note: Data is not available for Osceola County in 2012, the data for Osceola County for 2014 is not shown on the chart because it closely aligns with Florida and is hidden behind the state line.

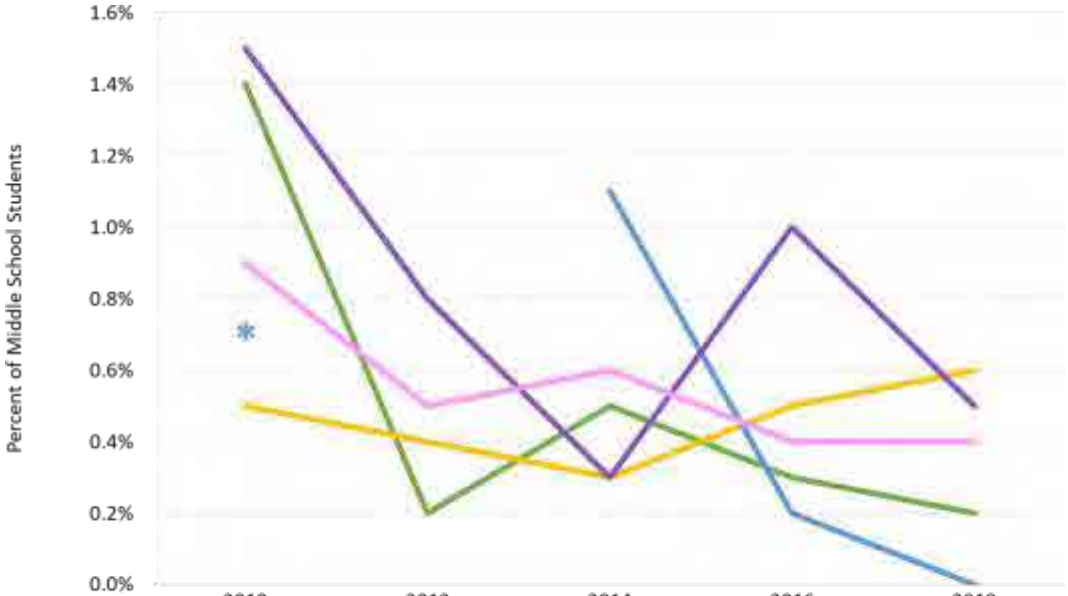
CHART 7.69: BINGE DRINKING HIGH SCHOOL STUDENTS (2012-2018)



	2012	2014	2016	2018
LAKE	17.0%	12.0%	11.4%	7.5%
ORANGE	15.0%	12.0%	7.9%	8.3%
OSCEOLA	N/A	11.0%	8.7%	8.5%
SEMINOLE	15.0%	13.0%	12.5%	10.3%
FLORIDA	16.0%	14.0%	10.9%	9.6%

Source: FLHealthCHARTS: Florida Youth Substance Abuse Survey

CHART 7.70: HEROIN USE IN MIDDLE SCHOOL (2010-2018)

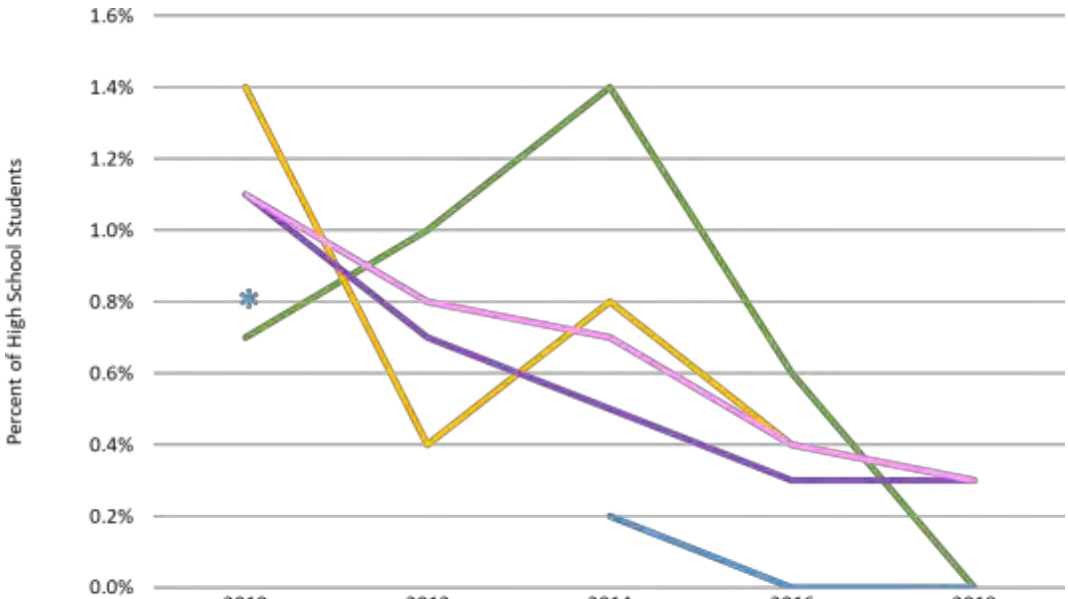


	2010	2012	2014	2016	2018
LAKE	1.4%	0.2%	0.5%	0.3%	0.2%
ORANGE	0.5%	0.4%	0.3%	0.5%	0.6%
OSCEOLA	0.7%	N/A	1.1%	0.2%	0.0%
SEMINOLE	1.5%	0.8%	0.3%	1.0%	0.5%
FLORIDA	0.9%	0.5%	0.6%	0.4%	0.4%

Source: FLHealthCHARTS: Florida Youth Substance Abuse Survey

*Represents a single data point where there has been inconsistent data for a county

CHART 7.71: HEROIN USE IN HIGH SCHOOL (2010-2018)

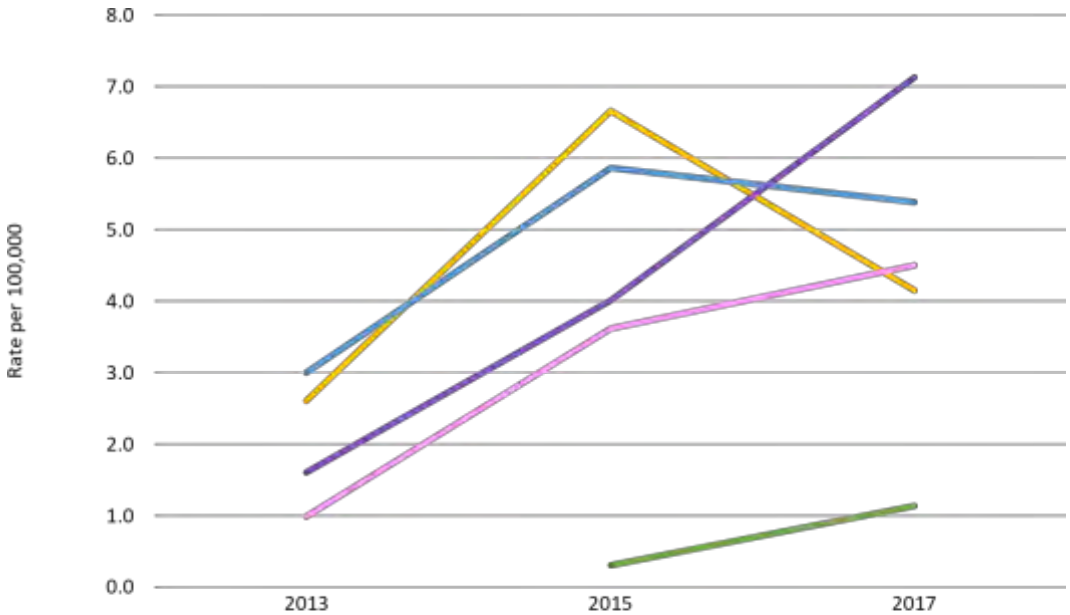


	2010	2012	2014	2016	2018
LAKE	0.7%	1.0%	1.4%	0.6%	0.0%
ORANGE	1.4%	0.4%	0.8%	0.4%	0.3%
OSCEOLA	0.8%	N/A	0.2%	0.0%	0.0%
SEMINOLE	1.1%	0.7%	0.5%	0.3%	0.3%
FLORIDA	1.1%	0.8%	0.7%	0.4%	0.3%

Source: FLHealthCHARTS: Florida Youth Substance Abuse Survey

*Represents a single data point where there has been inconsistent data for a county

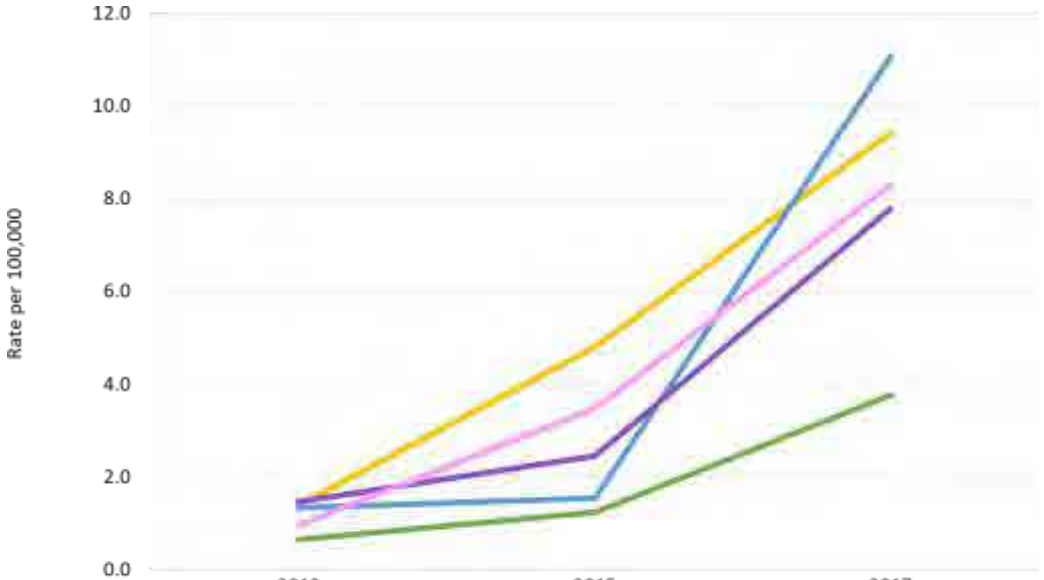
CHART 7.72: HEROIN-RELATED DEATHS (2013-2017)



	2013	2015	2017
LAKE	N/A	0.3	1.1
ORANGE	2.6	6.7	4.2
OSCEOLA	3.0	5.9	5.4
SEMINOLE	1.6	4.0	7.1
FLORIDA	1.0	3.6	4.5

Source: Medical Examiners Contacted Via Email, Orange County Health Department, FDLE

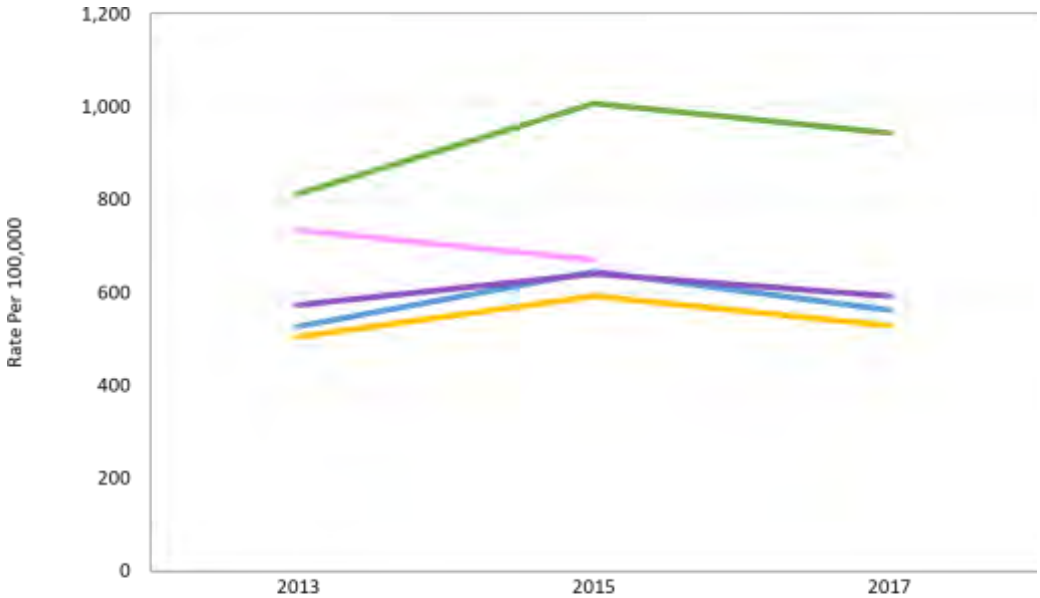
CHART 7.73: FENTANYL-RELATED DEATHS (2013-2017)



	2013	2015	2017
LAKE	0.7	1.2	3.8
ORANGE	1.4	4.8	9.4
OSCEOLA	1.3	1.5	11.1
SEMINOLE	1.5	2.5	7.8
FLORIDA	0.9	3.5	8.3

Source: University of Florida College of Medicine Florida Drug-Related Outcomes Surveillance and Tracking System

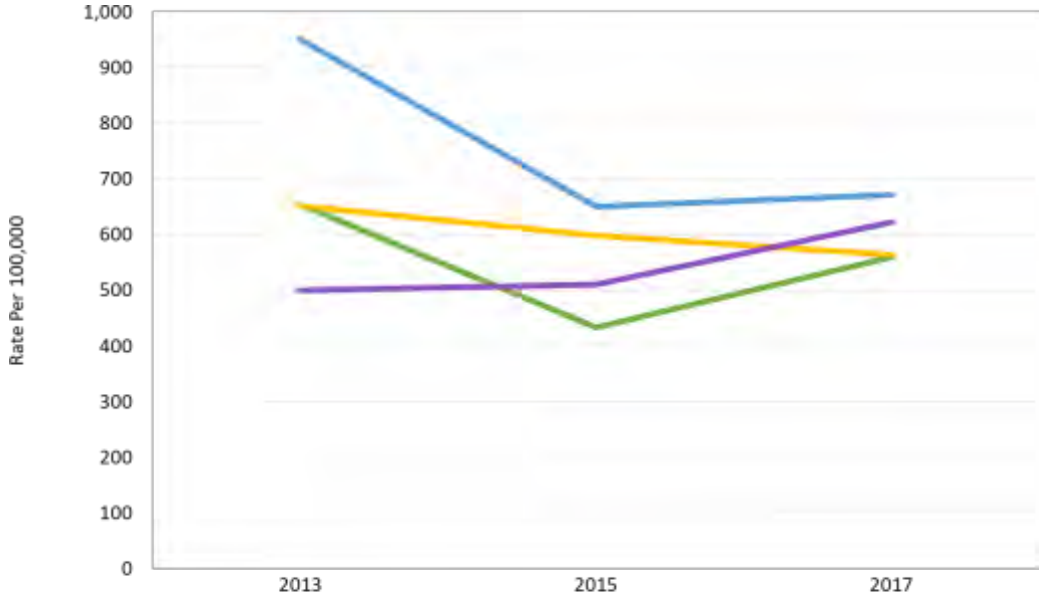
CHART 7.74: RATE OF CONTROLLED PRESCRIPTIONS OF OPIOIDS (2013-2017)



	2013	2015	2017
LAKE	813.2	1006.8	942.9
ORANGE	503.8	592.5	527.7
OSCEOLA	526.0	645.1	562.1
SEMINOLE	573.3	639.9	592.2
FLORIDA	735.0	671.0	N/A

Source: University of Florida College of Medicine Florida Drug-Related Outcomes Surveillance and Tracking System

CHART 7.75: DRUG ARRESTS (2013-2017)



	2013	2015	2017
LAKE	654.1	433.1	558.9
ORANGE	651.9	598.7	563.5
OSCEOLA	950.2	649.6	671.5
SEMINOLE	499.9	509.8	621.7

Source: University of Florida College of Medicine Florida Drug-Related Outcomes Surveillance and Tracking System

Injury Related to Behavioral Risk Factors: Summary of Indicators

The following includes both a narrative as well as a visual (chart or table) summary of indicators reported on in this section.

ALCOHOL-RELATED MOTOR VEHICLE CRASHES (2014-2016)

The percentage of motor vehicle crashes that were alcohol-related decreased in both Orange County and the state between 2014 and 2016. The county's percentage decreased from 1.25 percent to 1.12 percent between 2014 and 2016, slightly lower than the state percentage which decreased from 1.64 percent to 1.32 percent. (See Chart 7.76)

DRUG-RELATED MOTOR VEHICLE CRASHES (2014-2016)

Orange County's drug-related motor vehicle crash percentage increased from 0.06 percent in 2014 to 0.11 percent in 2016. Orange County's percentage has been consistently lower than the state percentage during this time, which also increased slightly from 0.14 percent to 0.16 percent. (See Chart 7.77)

DRUG AND ALCOHOL-RELATED MOTOR VEHICLE CRASHES (2014-2016)

The combined drug and alcohol-related motor vehicle crash percentage in Orange County has been consistently lower or equal to the state, increasing slightly from 0.05 percent in 2014 to 0.09 percent in 2016. The state has remained relatively consistent around 0.09 percent over the same time period. (See Chart 7.78)

ALCOHOL-RELATED INJURIES (2014-2016)

Alcohol-related injuries as a percentage of all injuries decreased in Orange County and the state between 2014 and 2016. The county's percentage decreased from 0.97 percent in 2014 to 0.95 percent in 2016. In the state there was a decrease from 1.5 percent to 1.24 percent during this time. (See Chart 7.79)

DRUG-RELATED INJURIES (2014-2016)

Drug-related injuries as a percentage of all injuries increased in Orange County from 2014 to 2016, although the state percentage remained relatively consistent at 0.21 percent. Orange County's percentage increased from 0.09 percent in 2014 to 0.13 percent in 2015 and 2016. (See Chart 7.80)

DRUG AND ALCOHOL-RELATED INJURIES (2014-2016)

The percentage of drug and alcohol-related injuries as a percentage of all injuries Orange County was consistently lower than the state percentage. The county percentage increased from 0.02 percent in 2014 to 0.11 percent in 2015 before decreasing to 0.07 percent in 2016. During this time, the state percentage increased from 0.10 percent in 2014 to 0.13 percent in 2015 back to 0.10 percent in 2016. (See Chart 7.81)

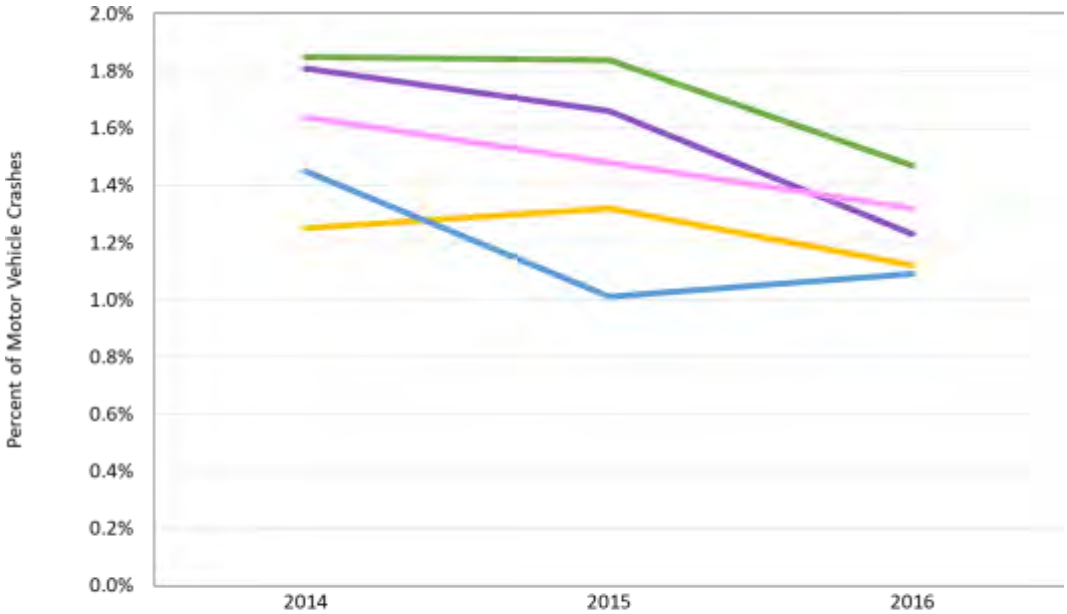
FIREARMS DISCHARGE, AGE-ADJUSTED DEATH RATE (2004-2017)

The firearms discharge age-adjusted death rate per 100,000 has fluctuated in Orange County and the state from 2004 and 2017, with a net increase in both. Orange County's rate increased from 8.4 in 2004 to 10.8 in 2017; the state's rate increased from 10.5 to 12.5 over the same time period. (See Chart 7.82)

DOMESTIC VIOLENCE (2013-2017)

The domestic violence rate per 100,000 in Orange County decreased from 698.6 in 2013 to 636.3 in 2017. The state rate decreased from 560.9 to 522.3 during this time period. (See Chart 7.83)

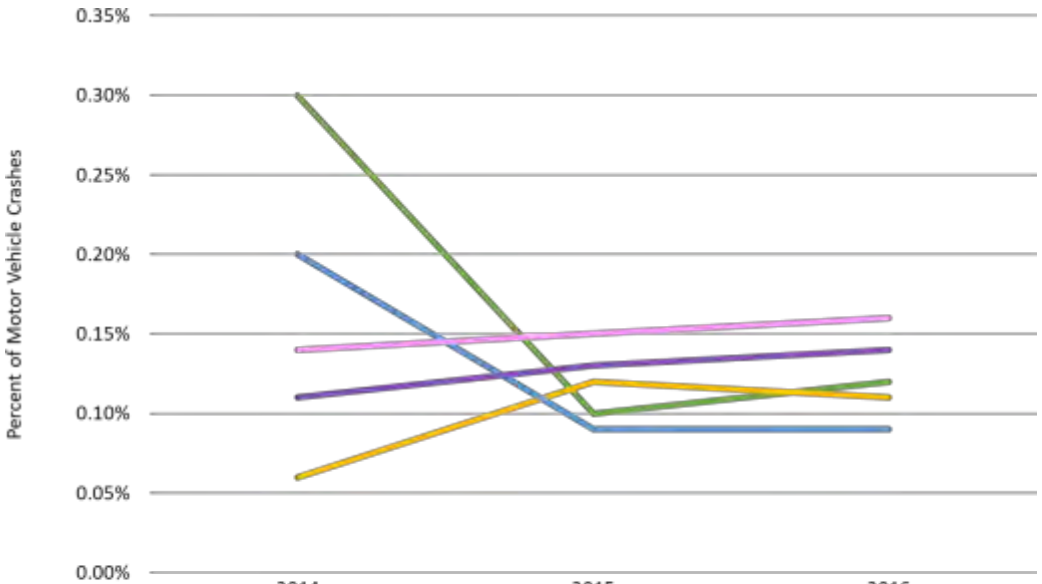
CHART 7.76: ALCOHOL-RELATED MOTOR VEHICLE CRASHES (2014-2016)



	2014	2015	2016
LAKE	1.85%	1.84%	1.47%
ORANGE	1.25%	1.32%	1.12%
OSCEOLA	1.45%	1.01%	1.09%
SEMINOLE	1.81%	1.66%	1.23%
FLORIDA	1.64%	1.48%	1.32%

Source: University of Florida College of Medicine Florida Drug-Related Outcomes Surveillance and Tracking System

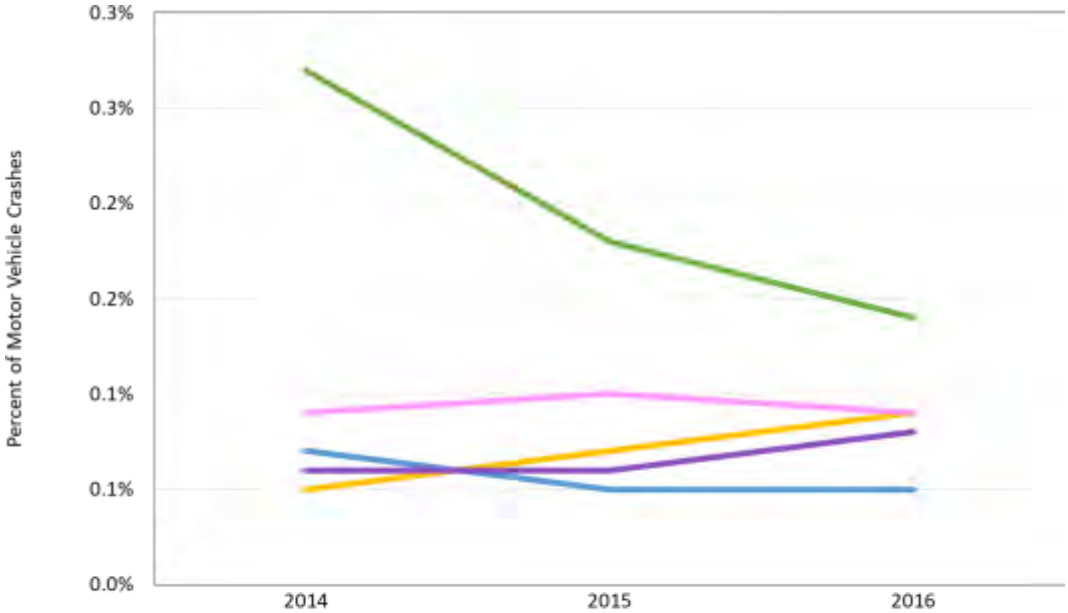
CHART 7.77: DRUG-RELATED MOTOR VEHICLE CRASHES (2014-2016)



	2014	2015	2016
LAKE	0.30%	0.10%	0.12%
ORANGE	0.06%	0.12%	0.11%
OSCEOLA	0.20%	0.09%	0.09%
SEMINOLE	0.11%	0.13%	0.14%
FLORIDA	0.14%	0.15%	0.16%

Source: University of Florida College of Medicine Florida Drug-Related Outcomes Surveillance and Tracking System

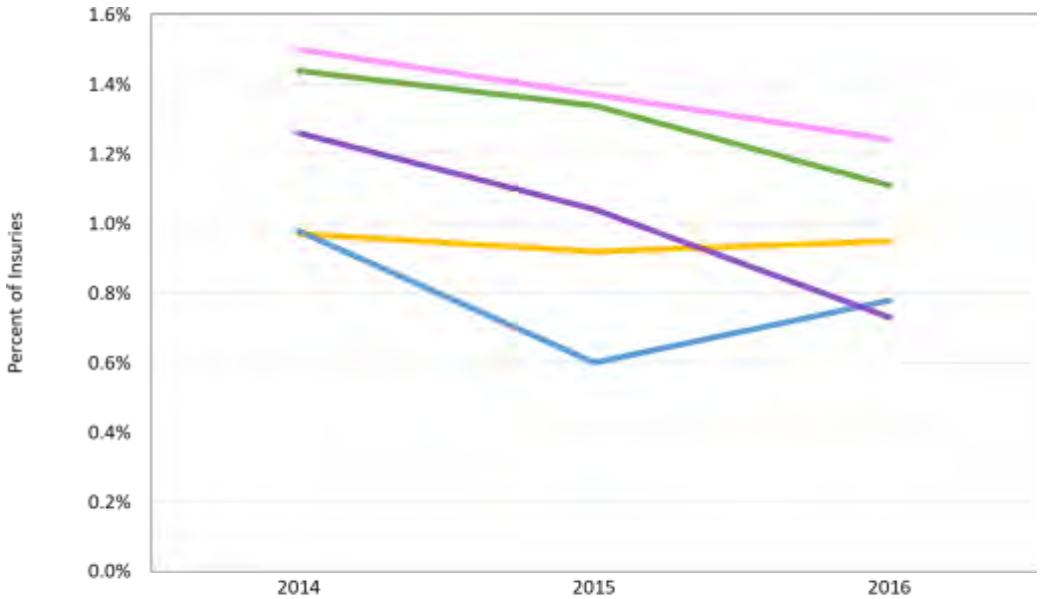
CHART 7.78: DRUG AND ALCOHOL-RELATED MOTOR VEHICLE CRASHES (2014-2016)



	2014	2015	2016
LAKE	0.27%	0.18%	0.14%
ORANGE	0.05%	0.07%	0.09%
OSCEOLA	0.07%	0.05%	0.05%
SEMINOLE	0.06%	0.06%	0.08%
FLORIDA	0.09%	0.10%	0.09%

Source: University of Florida College of Medicine Florida Drug-Related Outcomes Surveillance and Tracking System

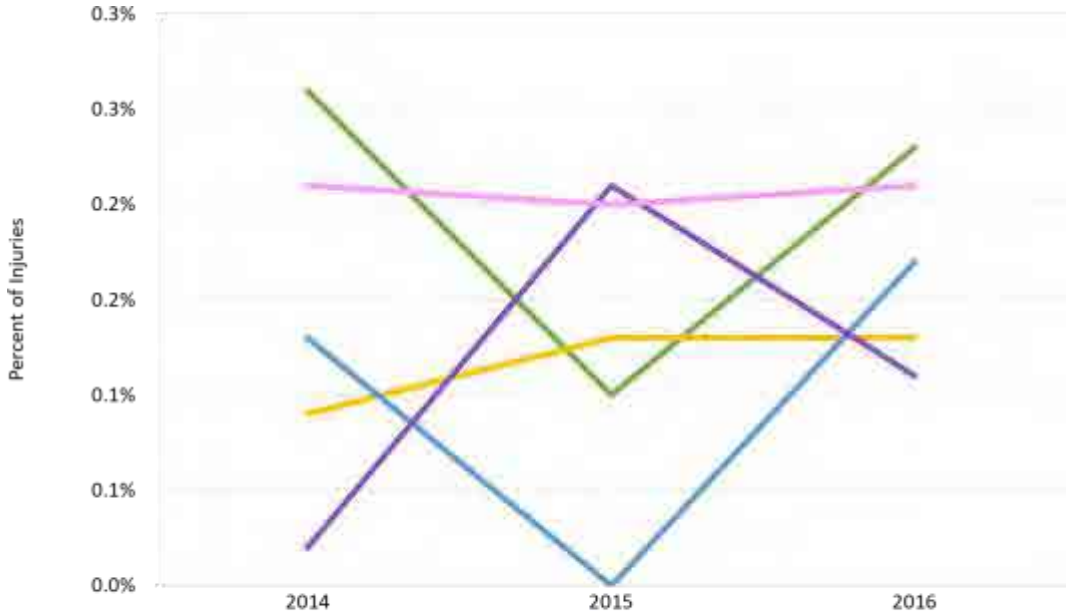
CHART 7.79: ALCOHOL-RELATED INJURIES (2014-2016)



	2014	2015	2016
LAKE	1.44%	1.34%	1.11%
ORANGE	0.97%	0.92%	0.95%
OSCEOLA	0.98%	0.60%	0.78%
SEMINOLE	1.26%	1.04%	0.73%
FLORIDA	1.50%	1.37%	1.24%

Source: University of Florida College of Medicine Florida Drug-Related Outcomes Surveillance and Tracking System

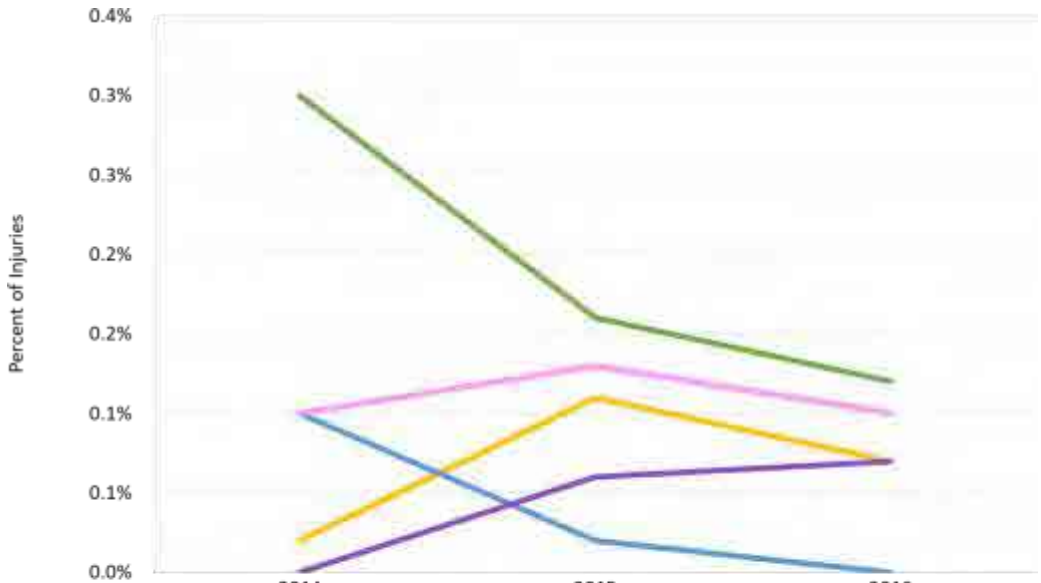
CHART 7.80: DRUG-RELATED INJURIES (2014-2016)



	2014	2015	2016
LAKE	0.26%	0.10%	0.23%
ORANGE	0.09%	0.13%	0.13%
OSCEOLA	0.13%	0.00%	0.17%
SEMINOLE	0.02%	0.21%	0.11%
FLORIDA	0.21%	0.20%	0.21%

Source: University of Florida College of Medicine Florida Drug-Related Outcomes Surveillance and Tracking System

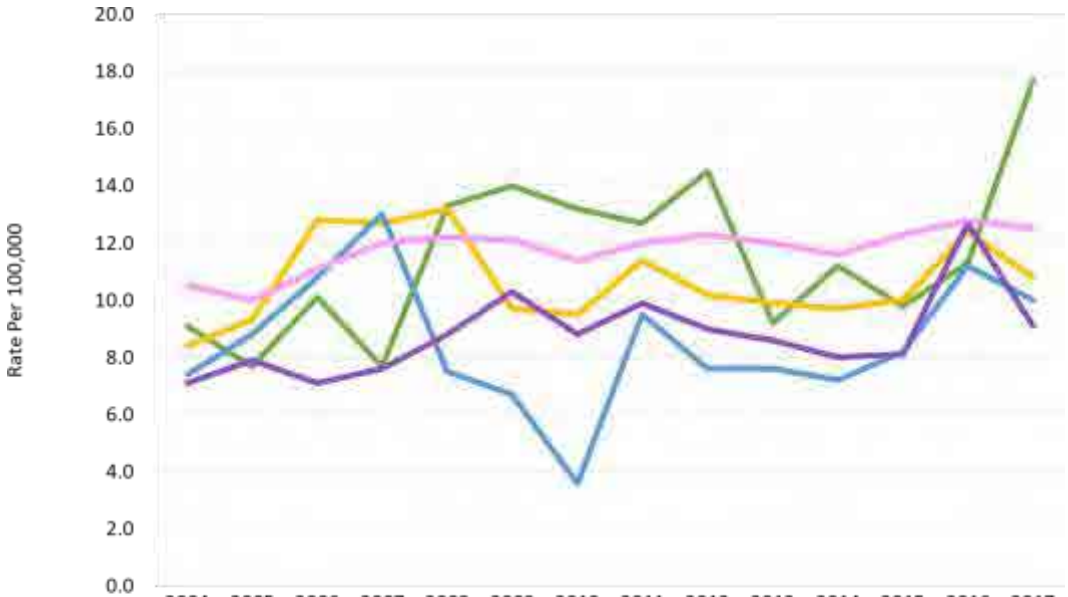
CHART 7.81: DRUG AND ALCOHOL-RELATED INJURIES (2014-2016)



	2014	2015	2016
LAKE	0.30%	0.16%	0.12%
ORANGE	0.02%	0.11%	0.07%
OSCEOLA	0.10%	0.02%	0.00%
SEMINOLE	0.00%	0.06%	0.07%
FLORIDA	0.10%	0.13%	0.10%

Source: University of Florida College of Medicine Florida Drug-Related Outcomes Surveillance and Tracking System

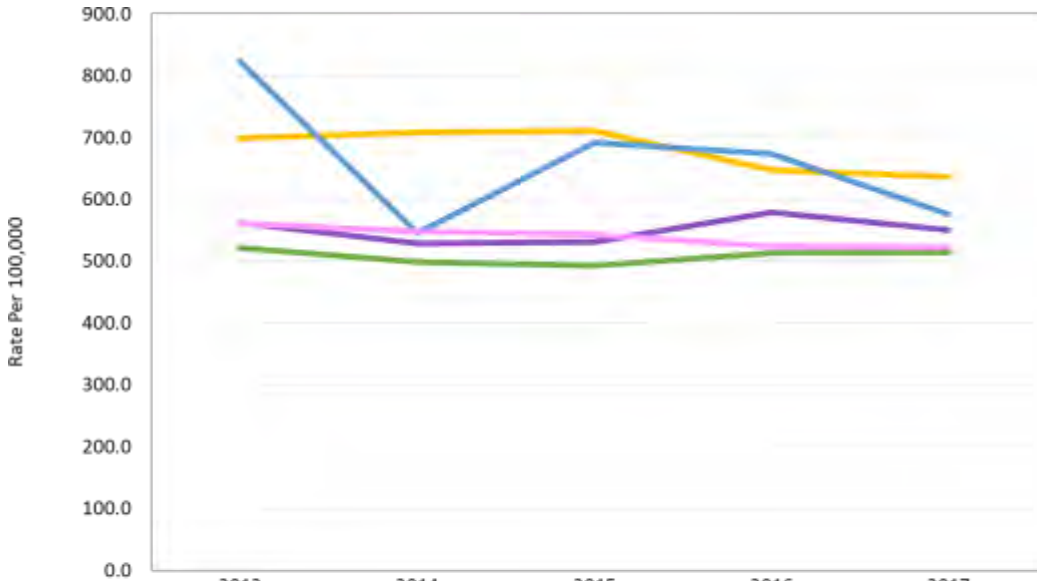
CHART 7.82: FIREARMS DISCHARGE, AGE-ADJUSTED DEATH RATE (2004-2017)



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	9.1	7.7	10.1	7.7	13.3	14.0	13.2	12.7	14.5	9.2	11.2	9.8	11.3	17.7
ORANGE	8.4	9.3	12.8	12.7	13.2	9.7	9.5	11.4	10.2	9.9	9.7	10.0	12.4	10.8
OSCEOLA	7.4	8.8	10.8	13.0	7.5	6.7	3.6	9.5	7.6	7.6	7.2	8.2	11.2	10.0
SEMINOLE	7.1	7.9	7.1	7.6	8.8	10.3	8.8	9.9	9.0	8.6	8.0	8.1	12.7	9.1
FLORIDA	10.5	10.0	11.1	12.0	12.2	12.1	11.4	12.0	12.3	12.0	11.6	12.3	12.8	12.5

Source: FLHealthCHARTS: Florida Behavioral Risk Factor Surveillance System

CHART 7.83: DOMESTIC VIOLENCE (2013-2017)



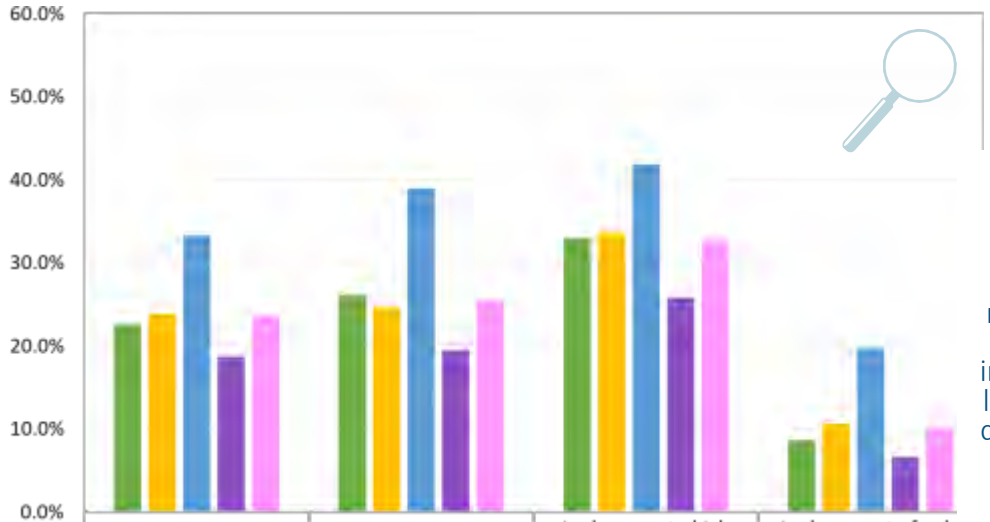
	2013	2014	2015	2016	2017
LAKE	520.9	499.1	492.8	513.3	514.0
ORANGE	698.6	708.4	710.7	647.4	636.3
OSCEOLA	822.9	545.4	691.5	674.0	574.9
SEMINOLE	561.9	529.2	530.6	579.4	550.0
FLORIDA	560.9	547.9	543.4	524.3	522.3

Source: FLHealthCHARTS: Florida Behavioral Risk Factor Surveillance System

Built Environment: What the Community is Saying

Figure 7.20 outlines the experience of community survey respondents related to the built environment. Slightly fewer than 1 in 4 Orange County respondents indicated that they lack recreational opportunities (23.9 percent) and safe roads and sidewalks (24.7 percent). More than 1 in 10 respondents indicated that they lack access to fresh, available, safe drinking water (10.6 percent).

FIGURE 7.20: BUILT ENVIRONMENT INDICATORS, COMMUNITY SURVEY 2019



	Lack recreational opportunities	Lack safe roads/sidewalks	Lack access to high quality, affordable healthy food	Lack access to fresh, available drinking water
LAKE	22.6%	26.1%	33.0%	8.6%
ORANGE	23.9%	24.7%	33.7%	10.6%
OSCEOLA	33.3%	38.9%	41.8%	19.8%
SEMINOLE	18.7%	19.5%	25.8%	6.6%
OVERALL	23.6%	25.5%	32.8%	10.3%

More than one third of respondents from Orange County indicated that they lack access to high quality, affordable, healthy food.

Source: Central Florida Community Collaborative Community Survey, Strategy Solutions, Inc.

Participants in the primary research identified the following needs and issues related to built environment:

- Insufficient access to healthy and affordable food options
- Lack of useable sidewalks
- Access to physical activity
- Population growth adds stress to infrastructure
- Lack of clean water and housing in the community

Barriers identified by primary research participants included:

- Unaffordability of healthy food options

Needed services related to built environment that were identified by primary research participants included:

- Safe recreation and exercise spaces
- Nutrition education (what are healthy foods, healthy cooking demonstrations)

Built Environment: Summary of Indicators

The following includes both a narrative as well as a visual (chart or table) summary of indicators reported on in this section.

POPULATION LIVING WITHIN ½ MILE OF A PARK (2016)

In 2016, the percentage of the population living within a half mile of a park in Orange County was 29.6 while the state was 43.2. (See Figure 7.21)

RECREATION AND FITNESS FACILITIES (2016)

The US Census Bureau considers a recreation and fitness facility an establishment primarily engaged in operating fitness and recreational sports facilities featuring exercise and other active physical fitness conditioning or recreational sports activities, such as swimming, skating, or racquet sports. Orange County had a total of 247 recreation and fitness facilities. (See Table 7.5)

PERCENTAGE OF THE POPULATION WITH ACCESS TO EXERCISE (2018)

Access to exercise opportunities measures the percentage of individuals in a county who live reasonably close to a location for physical activity. Physical activity locations are defined as parks or recreational facilities.
Individuals are considered to have access to exercise opportunities if they reside in a census block that is within
a half mile of a park or reside in an urban census block that is within one mile of a recreational facility. Individuals who reside in a rural census block that is within three miles of a recreational facility are considered to have access to exercise opportunities.

According to the above definition, Orange County residents have slightly more access to exercise (93 percent) compared to the state percentage for Florida (88 percent). (See Figure 7.22)

FOOD DESERTS (2014)

Based on guidelines from the Healthy Food Financing Initiative (HFFI) working group, to qualify as a food desert census tract at least 33 percent of the tract's population, or a minimum of 500 people in the tract, must have low access to a supermarket or large grocery store. Some census tracts that contain supermarkets or large grocery stores may meet the criteria of a food desert if a substantial number or share of people within that census tract are more than one mile (urban areas) or 10 miles (rural areas) from the nearest supermarket.
Residents of food desert census tracts may live within one or 10 miles of a supermarket; these residents were not counted as low access and thus not counted in the total (Community Commons, 2015).

There are a number of food deserts throughout Orange County, a number of which overlap with high levels of Supplemental Nutrition Assistance Program (SNAP) beneficiaries. (See Figures 7.23-7.32)

MODIFIED RETAIL FOOD ENVIRONMENT INDEX (2015)

Centers for Disease Control and Prevention (CDC) created a modified retail food environment index (mRFEI) which identifies food deserts and food swamps by combining them into a single measure within census tracts for every state. According to the USDA, a food swamp refers to neighborhoods saturated with fast food chains, corner stores, and other unhealthy food providers, while food deserts are parts of the county lacking fresh fruit, vegetables and other healthy foods, usually found in impoverished areas. Although the state-wide mRFEI was created by census tract level, large static mRFEI maps for each state could not identify small communities within the state.

North American Industry Classification Codes (NAICS) were utilized to categorize retail food businesses as healthy or less healthy. Retail food data was purchased from Environmental Systems Research Institute (ESRI) and was current as of January 2015. The mRFEI ranges from 0 to 100 and was calculated as the number of healthy food retailers divided by the sum of healthy food retailers plus less healthy food retailers and multiplied by 100.

$$mRFEI = 100 \times \frac{\#\,\text{Healthy Food Retailers}}{\#\,\text{Healthy Food Retailers} + \#\,\text{Less Healthy Food Retailers}}$$

Lower scores indicate that census tracts contain a higher number of less healthy retailers than healthy retailers. The mRFEI was calculated based on food retailers within a census tract and within a half mile buffer of a census tract boundary, identified using geoprocessing tools including clip, buffer, count, and spatial join with ARCGIS 10.3 and PYWIN 32. Classification of the mRFEI used the same methodology as the CDC's original maps: 0 (no healthy food retailers), 0.1–5 (fewer less healthy food retailers), 5.1–10, 10.1–37.5, and 37.6–100 (more healthy food retailers). Since the mRFEI is based on census tracts it is possible for there to be variations within a county, with pockets having high availability of healthy food retailers while other areas have low availability.

Orange County had the highest percentage of less healthy food retailers (44.2 percent). (See Table 7.6)

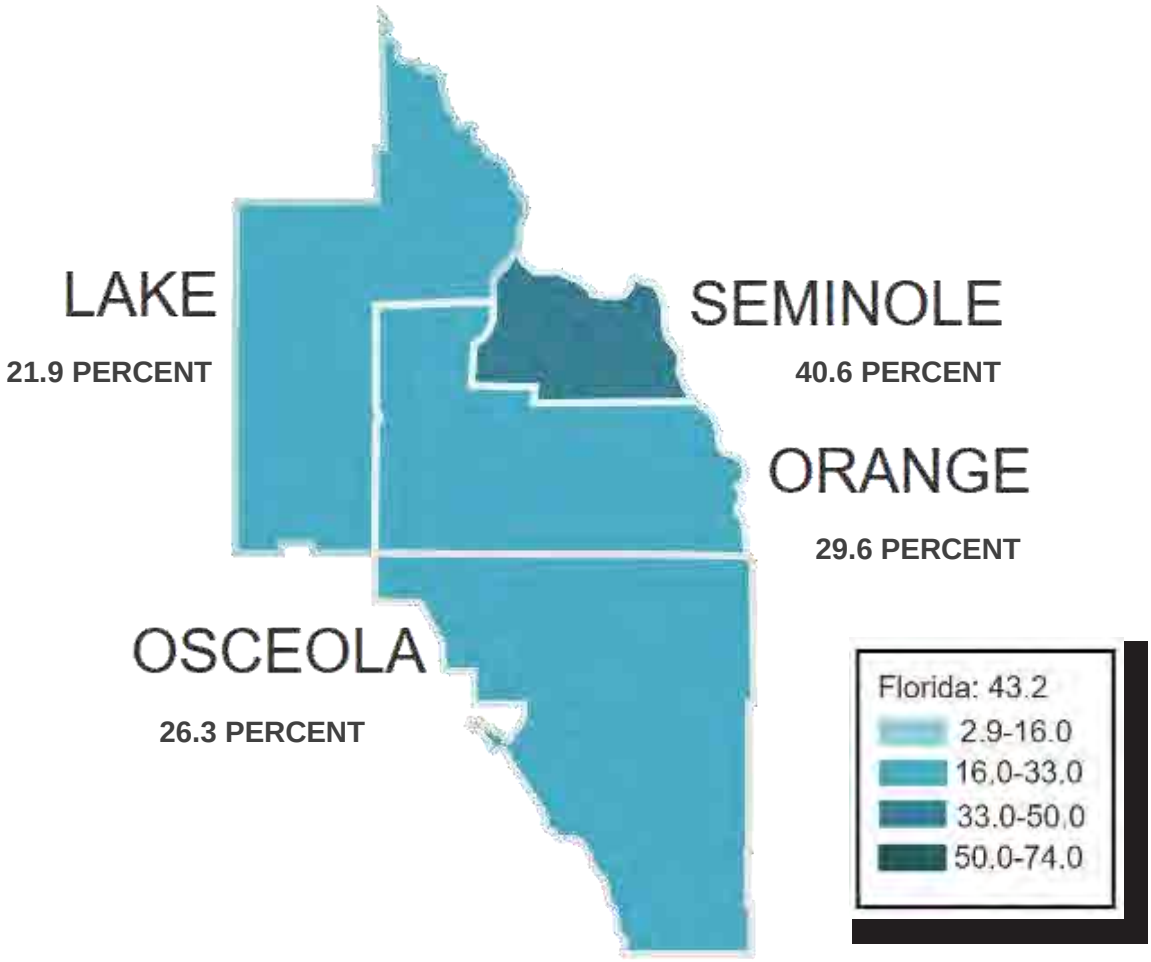
FRUIT AND VEGETABLE EXPENDITURES (2016)

This indicator analyzes fruit and vegetable expenditures by low-income households and higher income households and compares the sensitivity of both groups' purchases to changes in income. On average, low-income households spent $3.59 per capita per week on fruits and vegetables in 2000 while higher income households spent $5.02, a statistically significant difference. In addition, a statistical demand model indicates that marginal increases in income received by low-income households are not spent on additional fruits and vegetables. In contrast, increases in income received by higher income households do result in an increase in fruit and vegetable expenditures. One interpretation of this finding is that low-income households will allocate an additional dollar of income to other food or nonfood items deemed more essential to the household such as meats, clothing or housing.

The United States Department of Agriculture (USDA) maps fruit and vegetable expenditures by census tracts with the amount of expenditure broken into and mapped as a quintile. A quintile is a statistical value of a data set that represents 20% of a given population. The USDA considers the highest expenditures as the first quintile (80 percent to 100 percent).

Orange County has a few more areas that are in the 1st quintile of expenditures as well as several in the 2nd quintile. (See Figures 7.33-7.36)

FIGURE 7.21: POPULATION LIVING WITHIN ½ MILE OF A PARK (2016)



Source: FLHealthCHARTS, Florida Department of Public Health

TABLE 7.5: RECREATION AND FITNESS FACILITIES (2016)

County - Primary	County – Secondary*	ZCTA	Geographic Area Name	Number Of Establishments
Lake		32159	Zip 32159 (Lady Lake, FL)	2
Lake		32726	Zip 32726 (Eustis, FL)	1
Lake	Orange	32757	Zip 32757 (Mount Dora, FL)	4
Lake		32778	Zip 32778 (Tavares, FL)	4
Lake		32784	Zip 32784 (Umatilla, FL)	1
Lake		34698	Zip 34698 (Dunedin, FL)	8
Lake		34711	Zip 34711 (Clermont, FL)	11
Lake		34714	Zip 34714 (Clermont, FL)	2
Lake		34715	Zip 34715 (Clermont, FL)	3
Lake		34731	Zip 34731 (Fruitland Park, FL)	1
Lake		34736	Zip 34736 (Groveland, FL)	3
Lake		34737	Zip 34737 (Howey in the Hills, FL)	2
Lake		34748	Zip 34748 (Leesburg, FL)	3
Lake		34788	Zip 34788 (Leesburg, FL)	3
Volusia	Lake	32720	Zip 32720 (Deland, FL)	1
Total Establishments in Lake County				49
Orange	Seminole	32703	Zip 32703 (Apopka, FL)	9
Orange		32709	Zip 32709 (Christmas, FL)	1
Orange		32712	Zip 32712 (Apopka, FL)	2
Orange	Seminole	32751	Zip 32751 (Maitland, FL)	7
Orange		32789	Zip 32789 (Winter Park, FL)	21
Orange	Seminole	32792	Zip 32792 (Winter Park, FL)	9
Orange		32801	Zip 32801 (Orlando, FL)	5
Orange		32803	Zip 32803 (Orlando, FL)	10
Orange		32804	Zip 32804 (Orlando, FL)	8
Orange		32805	Zip 32805 (Orlando, FL)	2
Orange		32806	Zip 32806 (Orlando, FL)	6
Orange		32807	Zip 32807 (Orlando, FL)	6
Orange		32808	Zip 32808 (Orlando, FL)	1
Orange		32809	Zip 32809 (Orlando, FL)	8
Orange		32810	Zip 32810 (Orlando, FL)	3
Orange		32811	Zip 32811 (Orlando, FL)	6
Orange		32812	Zip 32812 (Orlando, FL)	4
Orange		32814	Zip 32814 (Orlando, FL)	5
Orange		32817	Zip 32817 (Orlando, FL)	8
Orange		32818	Zip 32818 (Orlando, FL)	1
Orange		32819	Zip 32819 (Orlando, FL)	27
Orange		32821	Zip 32821 (Orlando, FL)	1
Orange		32822	Zip 32822 (Orlando, FL)	5
Orange		32824	Zip 32824 (Orlando, FL)	1

*Note that some zip codes cross county lines

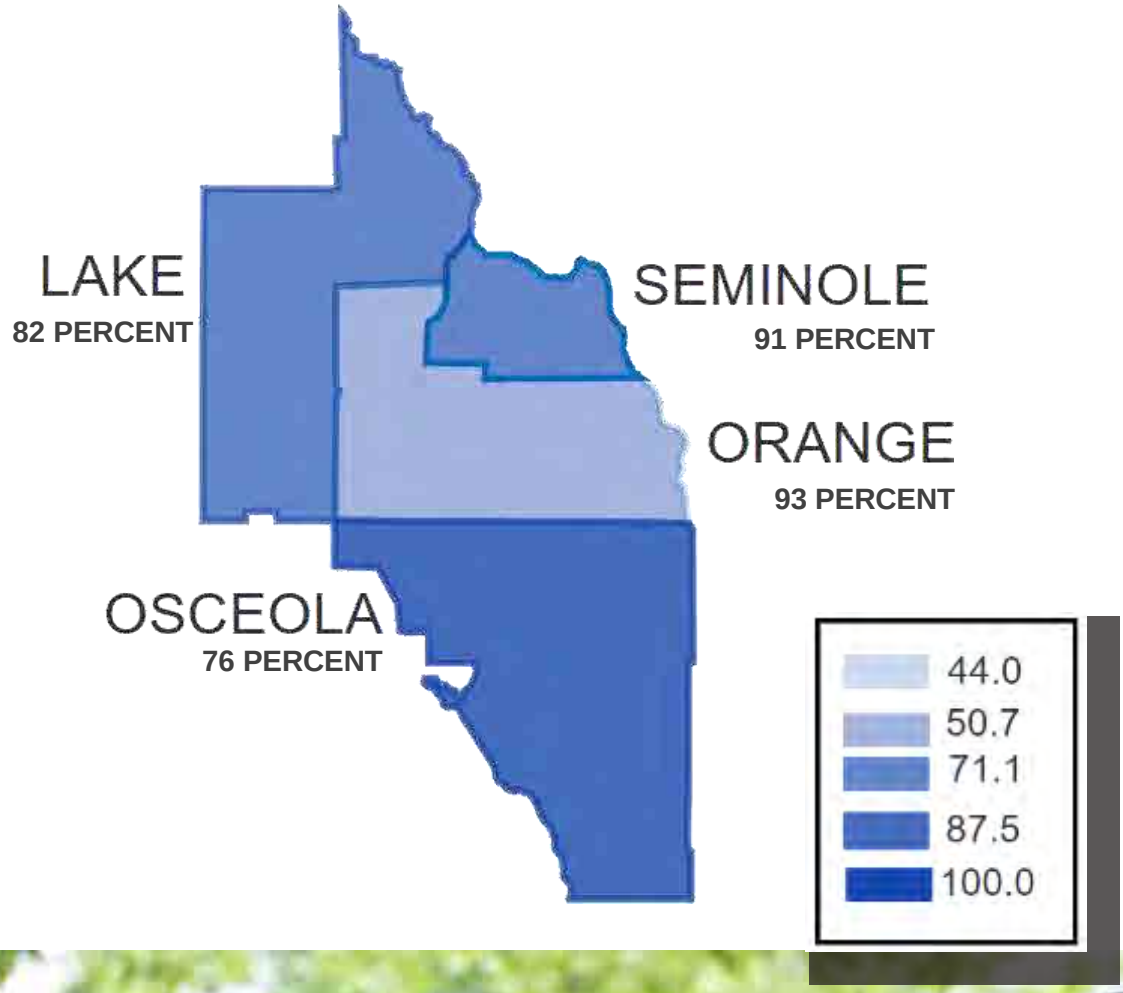
TABLE 7.5: RECREATION AND FITNESS FACILITIES (2016), CONTINUED

County - Primary	County – Secondary*	ZCTA	Geographic Area Name	Number Of Establishments
Orange		32825	Zip 32825 (Orlando, FL)	2
Orange		32827	Zip 32827 (Orlando, FL)	5
Orange		32828	Zip 32828 (Orlando, FL)	18
Orange		32829	Zip 32829 (Orlando, FL)	2
Orange		32832	Zip 32832 (Orlando, FL)	3
Orange		32835	Zip 32835 (Orlando, FL)	8
Orange		32836	Zip 32836 (Orlando, FL)	2
Orange		32837	Zip 32837 (Orlando, FL)	10
Orange		32839	Zip 32839 (Orlando, FL)	2
Orange		34761	Zip 34761 (Ocoee, FL)	9
Orange		34786	Zip 34786 (Windermere, FL)	10
Orange	Lake	34787	Zip 34787 (Winter Garden, FL)	20
Total Establishments in Orange County				247
Okeechobee	Osceola	34972	Zip 34972 (Okeechobee, FL)	1
Osceola		34741	Zip 34741 (Kissimmee, FL)	9
Osceola		34743	Zip 34743 (Kissimmee, FL)	2
Osceola		34744	Zip 34744 (Kissimmee, FL)	2
Osceola		34746	Zip 34746 (Kissimmee, FL)	1
Osceola		34747	Zip 34747 (Kissimmee, FL)	3
Osceola		34758	Zip 34758 (Kissimmee, FL)	1
Osceola		34769	Zip 34769 (Saint Cloud, FL)	2
Osceola		34771	Zip 34771 (Saint Cloud, FL)	2
Osceola		34772	Zip 34772 (Saint Cloud, FL)	1
Polk	Osceola	33896	Zip 33896 (Davenport, FL)	1
Total Establishments in Osceola County				27
Seminole		32701	Zip 32701 (Altamonte Springs, FL)	3
Seminole		32707	Zip 32707 (Casselberry, FL)	6
Seminole		32708	Zip 32708 (Winter Springs, FL)	7
Seminole		32714	Zip 32714 (Altamonte Springs, FL)	13
Seminole		32746	Zip 32746 (Lake Mary, FL)	14
Seminole		32750	Zip 32750 (Longwood, FL)	15
Seminole		32765	Zip 32765 (Oviedo, FL)	14
Seminole		32766	Zip 32766 (Oviedo, FL)	2
Seminole		32771	Zip 32771 (Sanford, FL)	5
Seminole		32779	Zip 32779 (Longwood, FL)	6
Total Establishments in Seminole County				85

*Note that some zip codes cross county lines

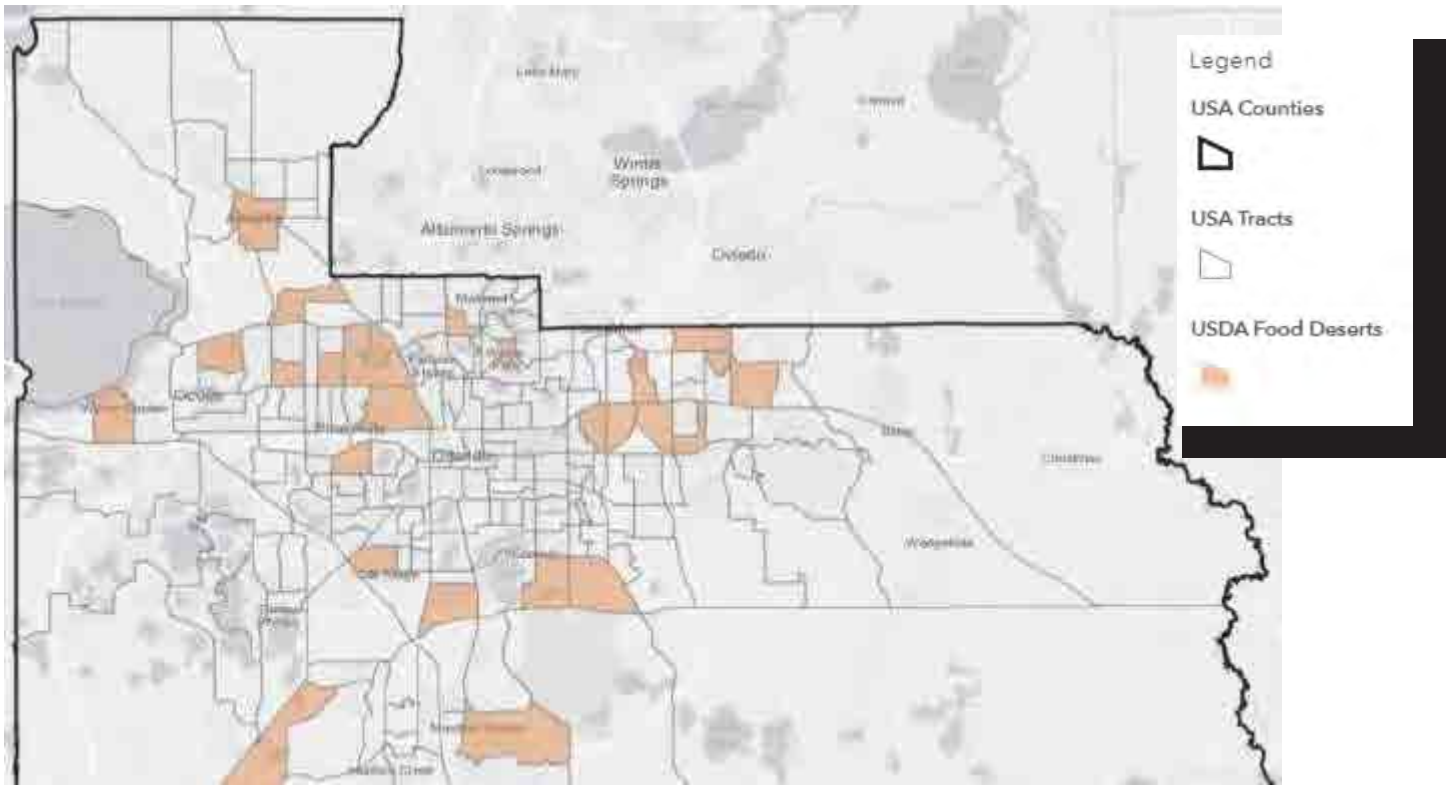
Data Source: US Census Bureau, County Business Patterns. Source Geography: ZCTA

FIGURE 7.22: PERCENTAGE OF THE POPULATION WITH ACCESS TO EXERCISE (2018)



Source: County Health Rankings and Roadmaps

FIGURE 7.23: ORANGE COUNTY FOOD DESERTS (2014)



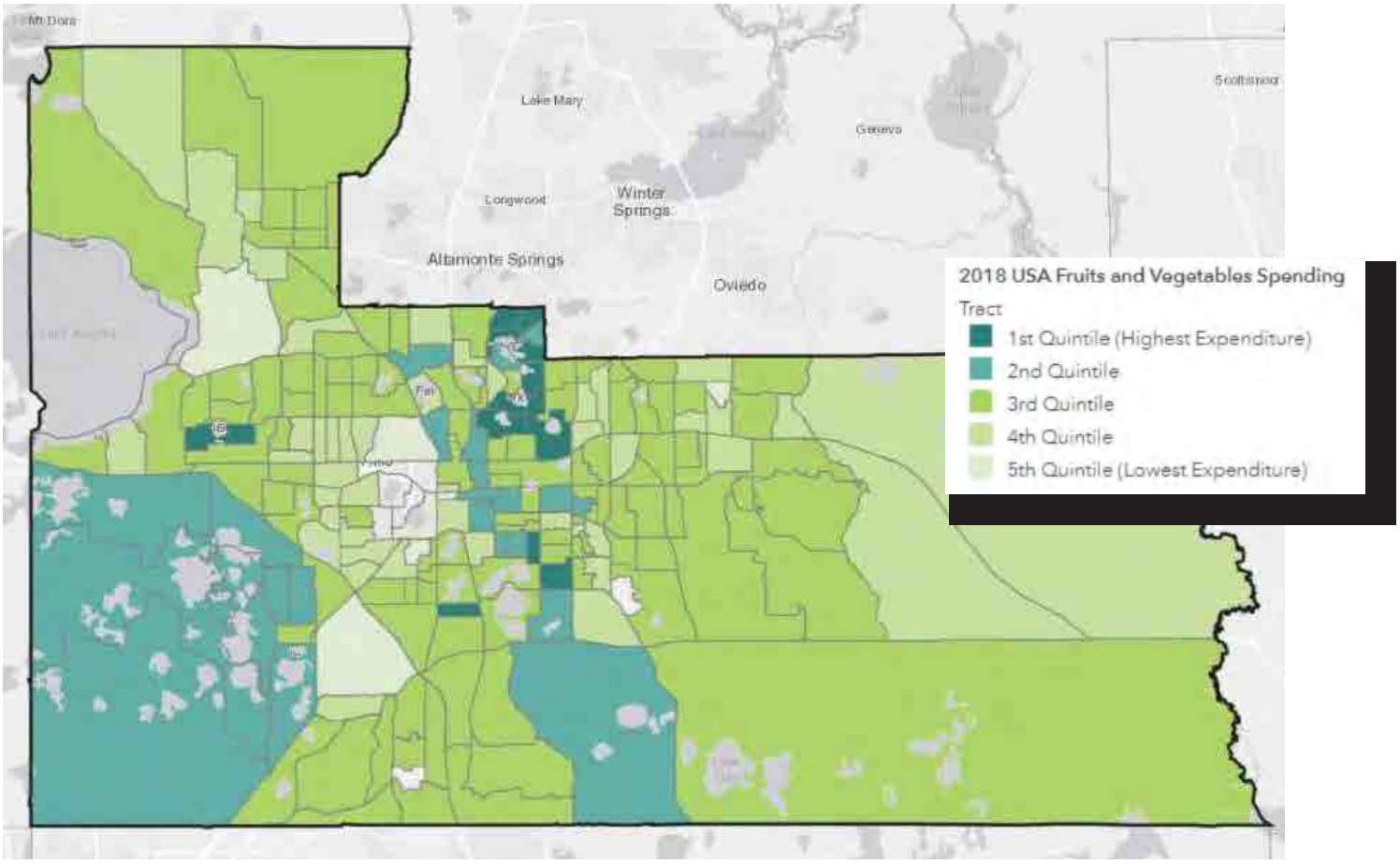
Source: US Census Bureau, FARA

TABLE 7.6: MODIFIED RETAIL FOOD ENVIRONMENT INDEX (2015)

	Lake		Orange		Osceola		Seminole	
Zero	3	20.0 %	19	12.3%	2	10.0%	7	10.8%
Under 10	2	13.3%	68	44.2%	4	20.0%	26	40.0%
10	0	0.0%	8	5.2%	0	0.0%	2	3.1%
Above 10	10	66.7%	59	38.3%	14	70.0%	30	46.2%
Total	15		154		20		65	

Source: Centers for Disease Control

FIGURE 7.24: FRUIT AND VEGETABLE EXPENDITURES, ORANGE COUNTY (2016)



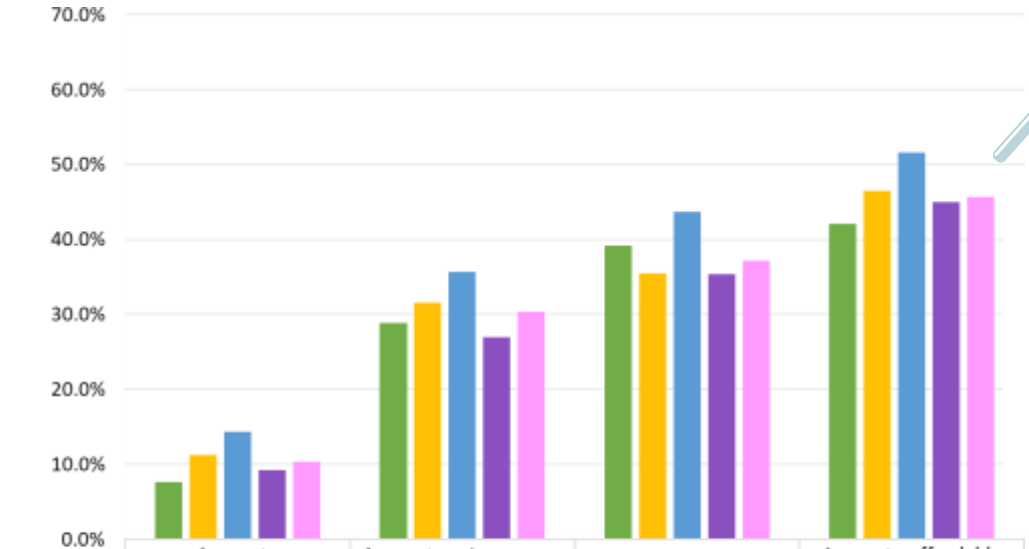
Source: United States Department of Agriculture, Economic Research Service

Health Care Access: What the Community is Saying

Figure 7.25 illustrates the experience of community survey respondents related to barriers to access.

Almost half of respondents (46.5 percent) indicated that they have experienced challenges with access to affordable health care and more than 1 in 3 have experienced difficulty in finding a specialist.

FIGURE 7.25: BARRIERS TO ACCESS, COMMUNITY SURVEY 2019



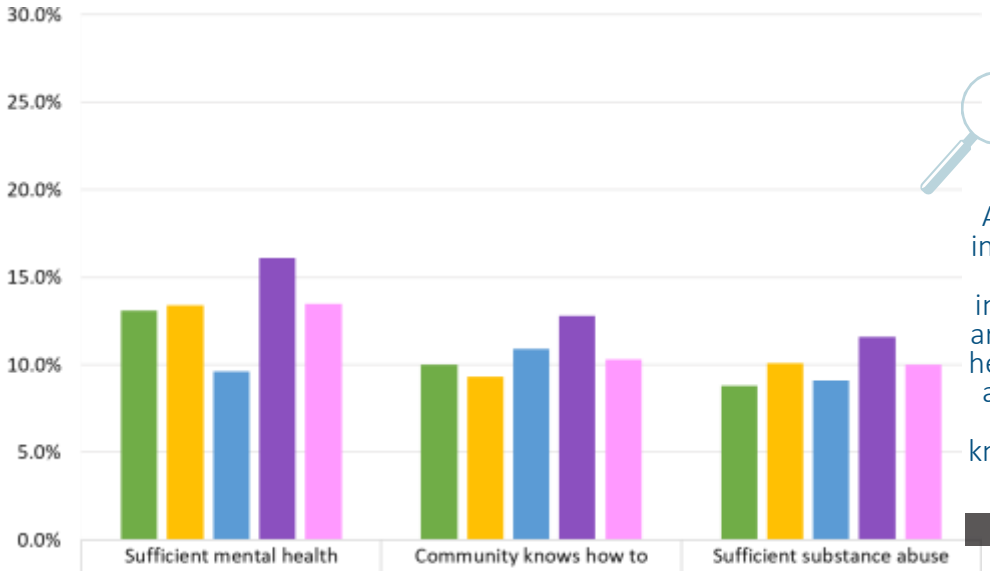
	Access to transportation	Access to primary care providers	Access to specialists	Access to affordable health care
LAKE	7.6%	28.8%	39.2%	42.1%
ORANGE	11.2%	31.6%	35.5%	46.5%
OSCEOLA	14.3%	35.7%	43.7%	51.6%
SEMINOLE	9.2%	26.9%	35.4%	45.0%
OVERALL	10.3%	30.4%	37.2%	45.7%

Source: Central Florida Community Collaborative Community Survey, Strategy Solutions, Inc.

Almost one third of Orange County respondents reported challenges accessing primary care providers.

Figure 7.26 illustrates the percentages of community survey respondents who indicated that the community does not have sufficient access to mental health services.

FIGURE 7.26: MENTAL HEALTH CARE ACCESS, COMMUNITY SURVEY 2019



	Sufficient mental health services	Community knows how to access mental health services	Sufficient substance abuse services
LAKE	13.1%	10.0%	8.8%
ORANGE	13.4%	9.3%	10.1%
OSCEOLA	9.6%	10.9%	9.1%
SEMINOLE	16.1%	12.8%	11.6%
OVERALL	13.5%	10.3%	10.0%

Source: Central Florida Community Collaborative Community Survey, Strategy Solutions, Inc.

Approximately 1 in 10 Orange County respondents indicated that there are sufficient mental health and substance abuse services and the community knows how to access them.

Participants in the primary research identified the following needs and issues related to access to quality health care:

- Lack of insurance
- Limited access to high quality primary care physicians and specialists
- Fear of deportation
- Lack of knowledge of available services
- Lack of providers
- Limited service hours

Barriers to care identified by primary research participants included:

- High cost of insurance through employers
- Transportation
- Cost of prescriptions
- Appointment times and availability

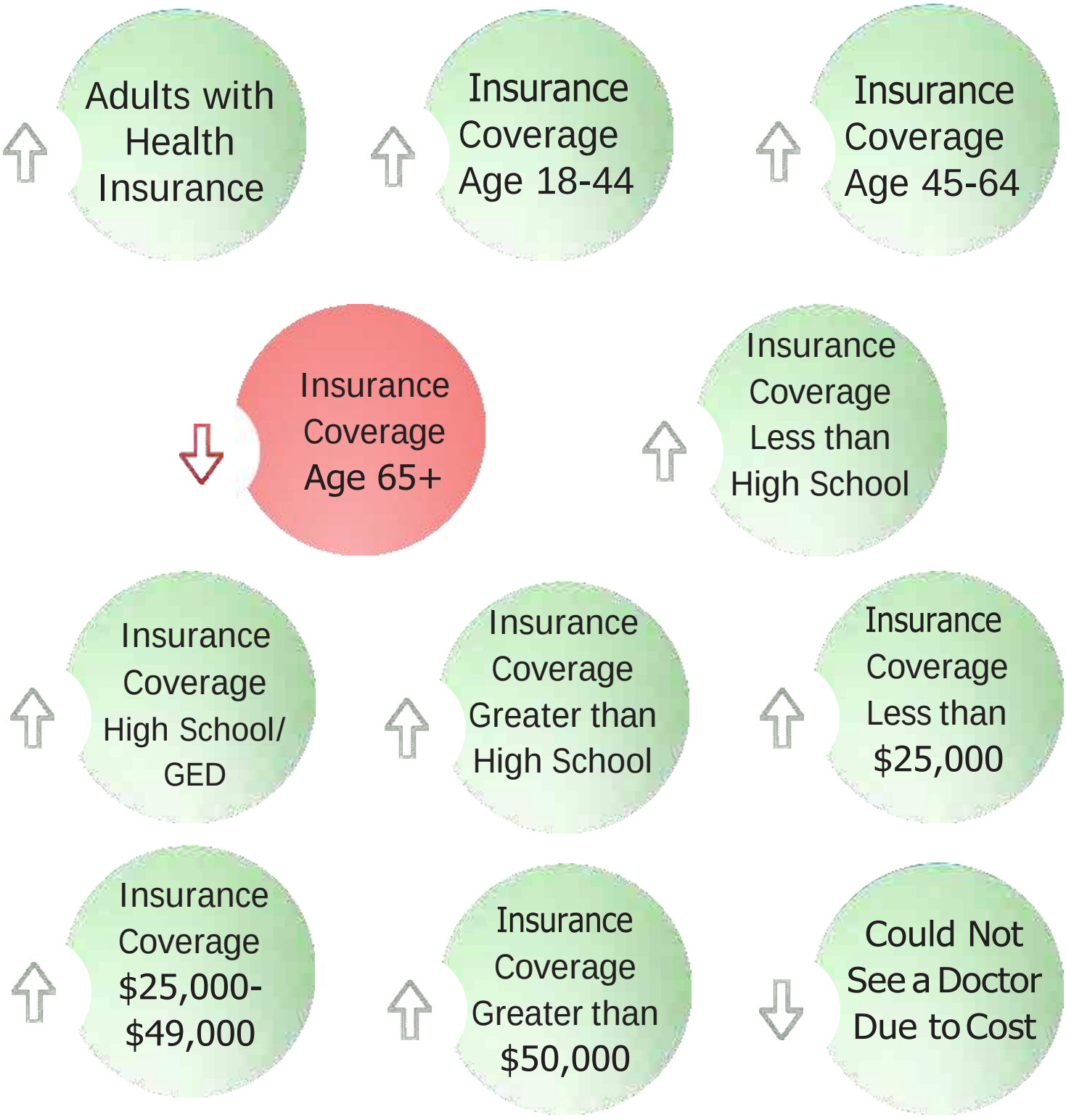
Needed services related to access to quality health care that were identified by primary research participants included:

- Distribution of information on available services
- Access to affordable care
- More federally qualified health care centers (FQHCs)
- Extended physician office hours
- More affordable medication
- Incentives for good physicians
- More services for the LGBTQ community and immigrants

Health Care Access at a Glance

The key indicators related to health care access that have changed since the last CHNA are identified in Figure 7.27. Red means that the indicator has worsened and green means that there has been an improvement since the 2016 CHNA.

FIGURE 7.27 HEALTH CARE ACCESS INDICATORS



Health Care Access: Summary of Indicators

The following includes both a narrative as well as a visual (chart or table) summary of indicators reported on in this section. While the colored icons illustrate, located on the previous page, observed trends from the data reported in the 2016 CHNA, this section is designed to highlight relevant historical information on each indicator and provide a narrative interpretation of the data included in the charts/tables that follow.

ADULTS WITH ANY TYPE OF HEALTH CARE INSURANCE COVERAGE (2007-2016)

The percentage of adults with any type of health care insurance coverage in Orange County and the state fluctuated between 70 percent and 85 percent between 2007 and 2016. In 2016, the percentage of adults with health insurance in Orange County (79.7 percent) was lower than the state (83.7 percent). (See Chart 7.84)

ADULTS WITH ANY TYPE OF HEALTH CARE INSURANCE COVERAGE, BY AGE (2007-2016)

The percentage of adults ages 18-44 in Orange County with any type of health care insurance decreased from 74.5 percent in 2007 to 72.9 percent in 2016. The state percentage for this age group increased during this time from 72.4 percent to 74.5 percent.

In 2016, the percentage of adults age 45-64 that had health insurance in Orange County (83 percent) was higher than adults age 18-44 (72.9 percent) and lower than those age 65 and older (94.7 percent). The percentage for adults age 45-64 at the state level had a slight increase, from 82.7 (2007) percent to 84.3 percent (2016).

The percentage of adults age 65 and older with insurance in Orange County (96.9 in 2007 to 94.7 in 2016) is consistently higher than other age groups but less than the state percentage for this same age range (97.3 to 98.1). (See Charts 7.85- 7.87)

ADULTS WITH ANY TYPE OF HEALTH CARE INSURANCE COVERAGE, BY EDUCATION (2007-2016)

Adults with less than a high school education are less likely to have health insurance. Between 2007 and 2016, there was a decrease in Orange County in the percentage of individuals who had coverage, from 75 percent to 54.9 percent. The state percentage increased from 60.8 percent in 2007 to 64.7 percent in 2016.

Those with a high school/GED education have higher percentages of health insurance coverage than those without a high school education. The percentage in Orange County increased from 68.8 percent in 2007 to 75.9 percent in 2016, less than the state percentages of 73.8 percent and 80.6 percent respectively.

Those with education beyond high school in the four-county region have higher percentages of having health insurance compared to those with lower levels of education. However, Orange County (85.6 percent) in 2016 was lower than the state average (89.9 percent). (See Charts 7.88-7.90)

ADULTS WITH ANY TYPE OF HEALTH CARE INSURANCE COVERAGE, BY ANNUAL INCOME (2007-2016)

Residents with annual incomes under $25K in the four-county region have lower percentages of insurance coverage than any other income group with the percentage covered increasing as income increases. Those that have annual incomes of $50K and over have the highest insurance percentages of all income groups. In Orange County the percentage of adults with incomes less than $25K with insurance coverage increased between 2007 (62.8 percent) and 2016 (65.3 percent). The state saw a comparable trend (64.5 percent to 71 percent). In 2016, Orange County had 82.7 percent of adults with incomes between $25K and $49K with health insurance. When looking at adults with incomes above $50K, Orange County had an increase in coverage from 2013 (87.8 percent) to 2016 (96.3 percent). The state (92.6 percent to 94.4 percent) saw an increase as well during this time. (See Charts 7.91 to 7.93)

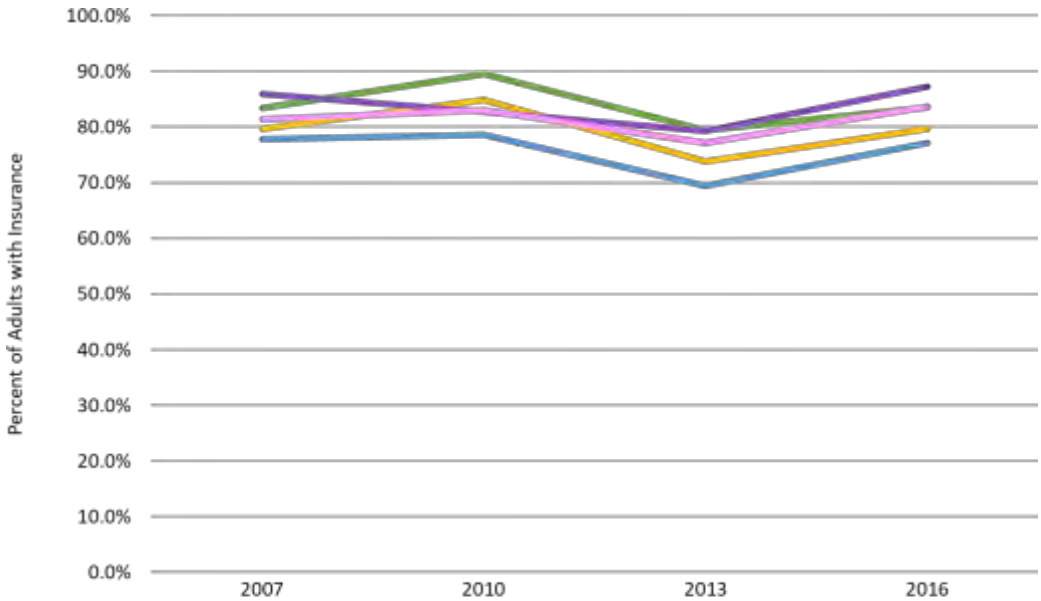
ADULTS WHO COULD NOT SEE A DOCTOR IN THE PAST YEAR DUE TO COST (2007-2016)

The percentage of adults in Orange County and the state that could not see a doctor due to cost in the past year increased from 2007 and 2013. In Orange County there was an increase from 17.2 percent to 20.3 percent and in the state from 15.1 percent to 16.6 percent. (See Chart 7.94)

ADULTS WHO COULD NOT SEE A DOCTOR IN THE PAST YEAR DUE TO COST, BY ANNUAL INCOME (2016)

In 2016, those with annual incomes under $25K were three times more likely to indicate that they were not able to see a doctor in the past year due to cost than those with incomes above $50K. This trend (that those with lower incomes are more likely not to see the doctor due to cost) is similar in both Orange County and the state. (See Chart 7.95)

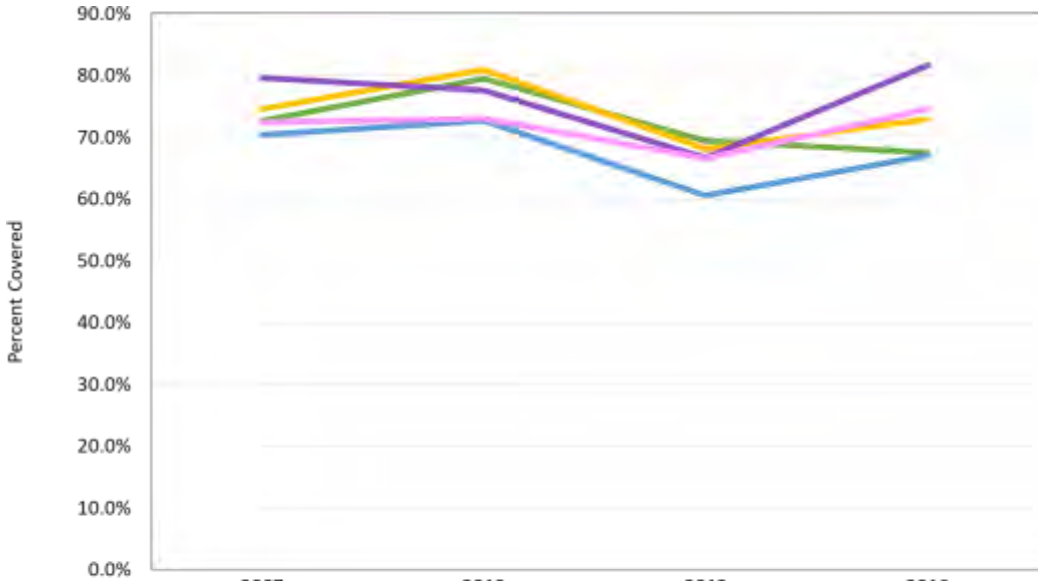
CHART 7.84: ADULTS WITH ANY TYPE OF HEALTH CARE INSURANCE COVERAGE (2007-2016)



	2007	2010	2013	2016
LAKE	83.4%	89.5%	79.4%	83.5%
ORANGE	79.7%	84.8%	73.8%	79.7%
OSCEOLA	77.8%	78.6%	69.4%	77.1%
SEMINOLE	85.9%	82.7%	79.2%	87.2%
FLORIDA	81.4%	83.0%	77.1%	83.7%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

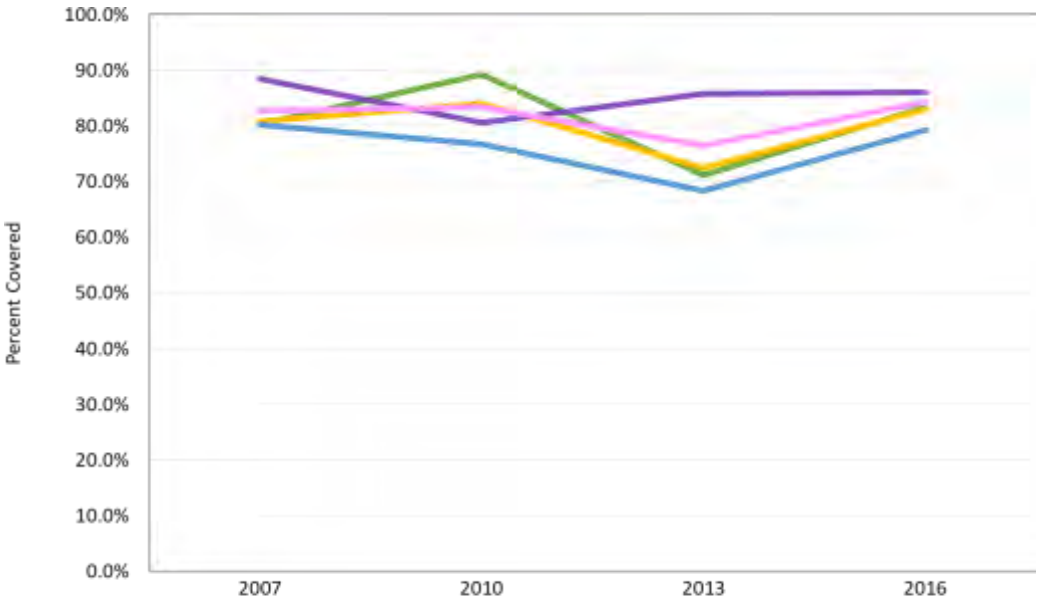
CHART 7.85: ADULTS WITH ANY TYPE OF HEALTH CARE INSURANCE COVERAGE, BY AGE, 18-44 (2007-2016)



	2007	2010	2013	2016
LAKE	72.6%	79.5%	69.4%	67.5%
ORANGE	74.5%	80.9%	68.1%	72.9%
OSCEOLA	70.4%	72.7%	60.6%	67.0%
SEMINOLE	79.6%	77.5%	66.6%	81.6%
FLORIDA	72.4%	73.0%	66.5%	74.5%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

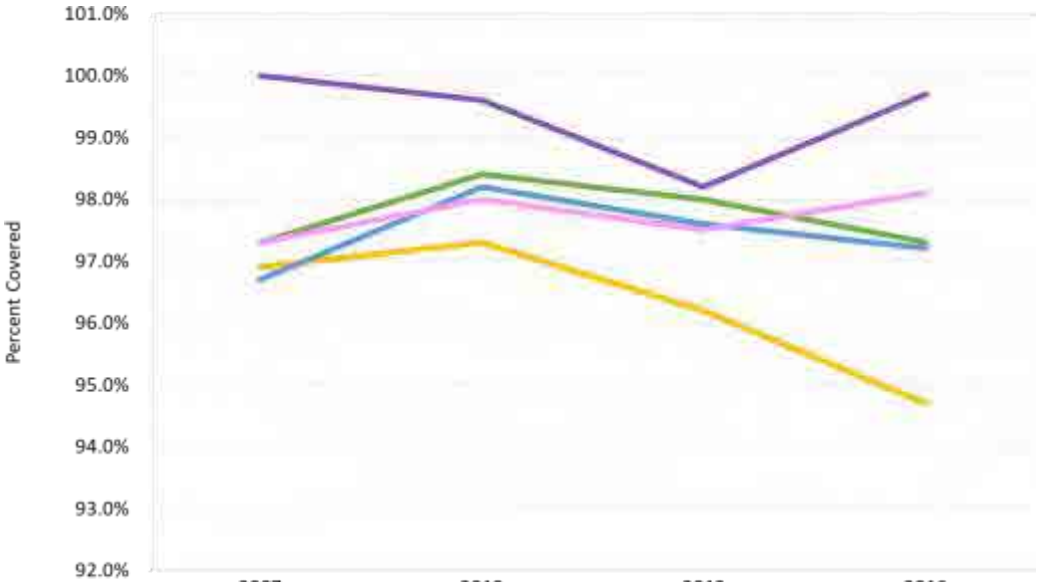
CHART 7.86: ADULTS WITH ANY TYPE OF HEALTH CARE INSURANCE COVERAGE, BY AGE, 45-64 (2007-2016)



	2007	2010	2013	2016
LAKE	80.3%	89.2%	71.1%	83.4%
ORANGE	80.8%	84.1%	72.4%	83.0%
OSCEOLA	80.2%	76.7%	68.4%	79.3%
SEMINOLE	88.4%	80.6%	85.8%	86.1%
FLORIDA	82.7%	83.4%	76.4%	84.3%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

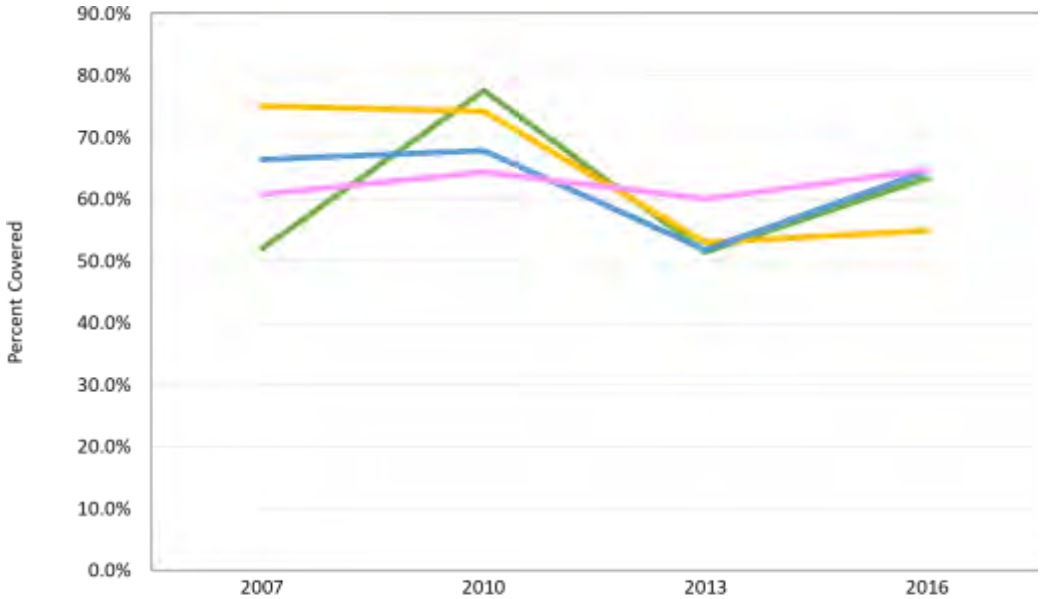
CHART 7.87: ADULTS WITH ANY TYPE OF HEALTH CARE INSURANCE COVERAGE, BY AGE, 65 & OLDER (2007-2016)



	2007	2010	2013	2016
LAKE	97.3%	98.4%	98.0%	97.3%
ORANGE	96.9%	97.3%	96.2%	94.7%
OSCEOLA	96.7%	98.2%	97.6%	97.2%
SEMINOLE	100.0%	99.6%	98.2%	99.7%
FLORIDA	97.3%	98.0%	97.5%	98.1%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

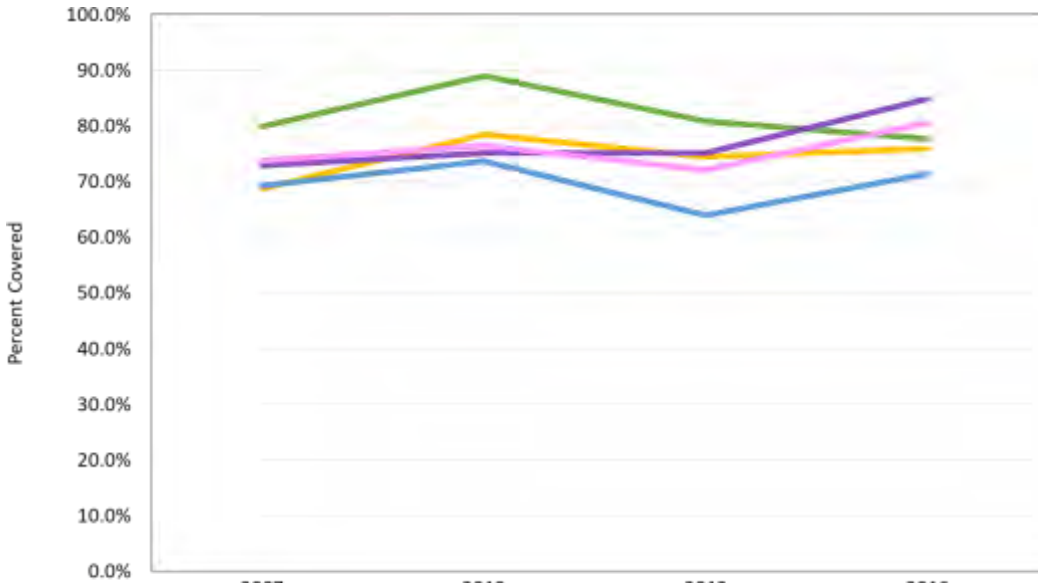
CHART 7.88: ADULTS WITH ANY TYPE OF HEALTH CARE INSURANCE COVERAGE, BY EDUCATION < HIGH SCHOOL (2007-2016)



	2007	2010	2013	2016
LAKE	52.0%	77.5%	51.5%	63.4%
ORANGE	75.0%	74.2%	53.0%	54.9%
OSCEOLA	66.4%	67.8%	51.8%	64.6%
SEMINOLE	N/A	N/A	N/A	N/A
FLORIDA	60.8%	64.4%	60.1%	64.7%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

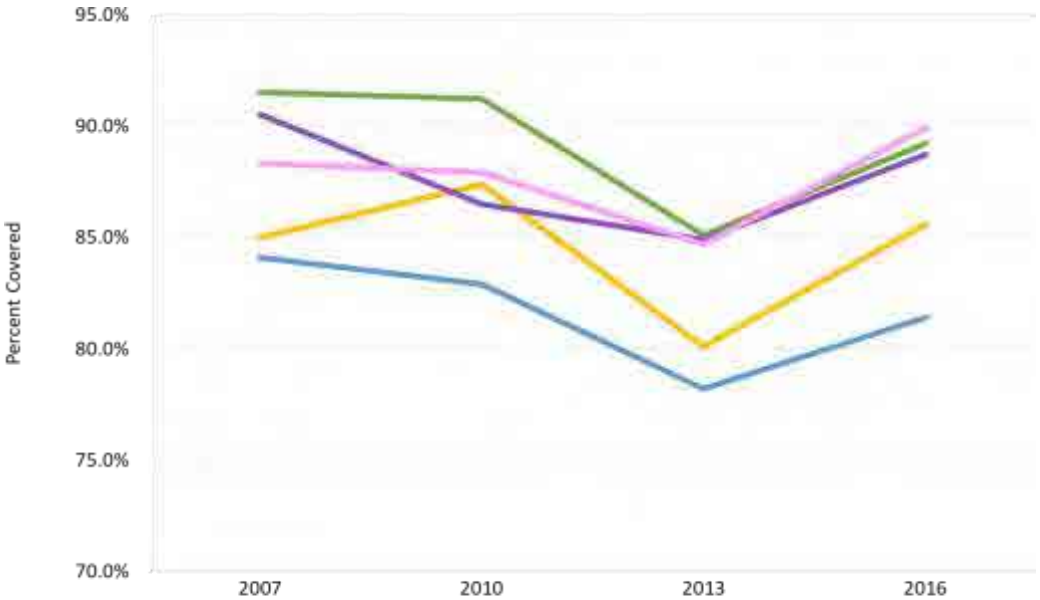
CHART 7.89: ADULTS WITH ANY TYPE OF HEALTH CARE INSURANCE COVERAGE, BY EDUCATION-HIGH SCHOOL/ GED (2007-2016)



	2007	2010	2013	2016
LAKE	79.9%	89.0%	80.9%	77.6%
ORANGE	68.8%	78.4%	74.4%	75.9%
OSCEOLA	69.3%	73.7%	63.9%	71.4%
SEMINOLE	72.9%	75.1%	75.1%	84.9%
FLORIDA	73.8%	76.5%	72.1%	80.6%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

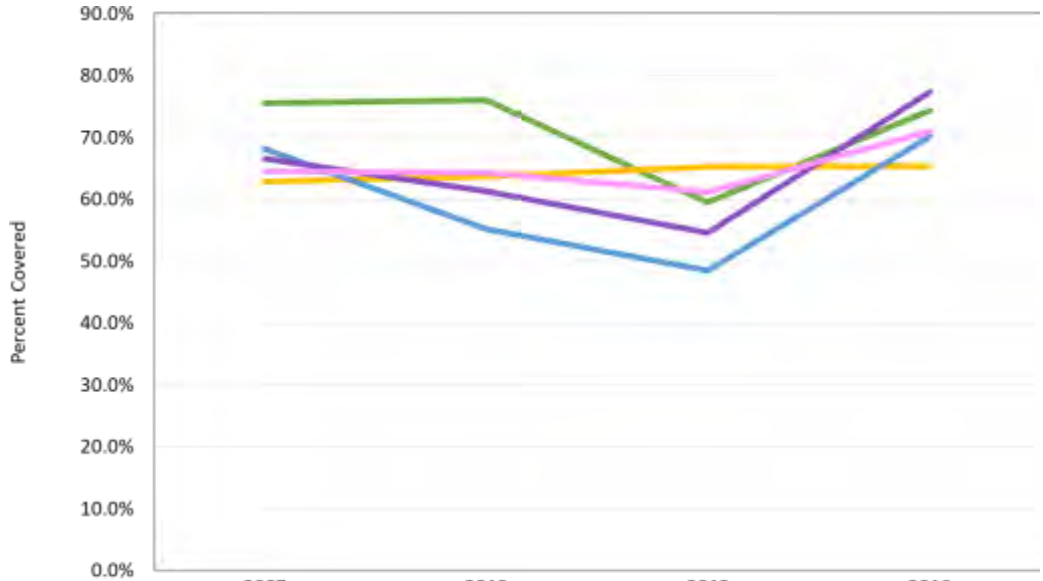
CHART 7.90: ADULTS WITH ANY TYPE OF HEALTH CARE INSURANCE COVERAGE, BY EDUCATION > HIGH SCHOOL (2007-2016)



	2007	2010	2013	2016
LAKE	91.5%	91.2%	85.1%	89.2%
ORANGE	85.0%	87.4%	80.1%	85.6%
OSCEOLA	84.1%	82.9%	78.2%	81.4%
SEMINOLE	90.5%	86.5%	84.9%	88.7%
FLORIDA	88.3%	87.9%	84.7%	89.9%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

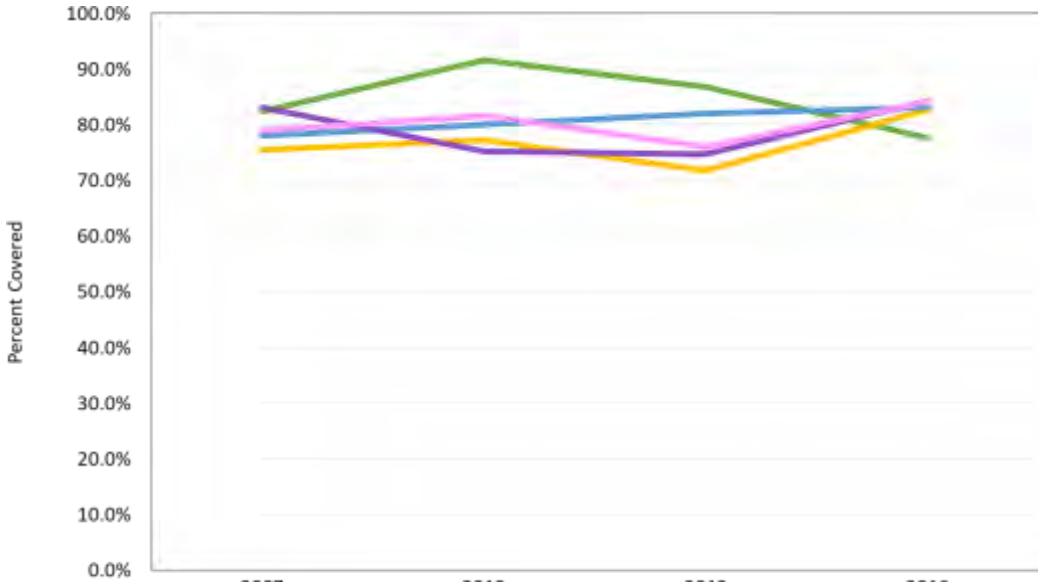
CHART 7.91: ADULTS WITH ANY TYPE OF HEALTH CARE INSURANCE COVERAGE, BY ANNUAL INCOME <$25K (2007-2016)



	2007	2010	2013	2016
LAKE	75.5%	76.0%	59.5%	74.3%
ORANGE	62.8%	63.6%	65.2%	65.3%
OSCEOLA	68.1%	55.1%	48.5%	70.1%
SEMINOLE	66.5%	61.3%	54.5%	77.3%
FLORIDA	64.5%	64.2%	61.2%	71.0%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

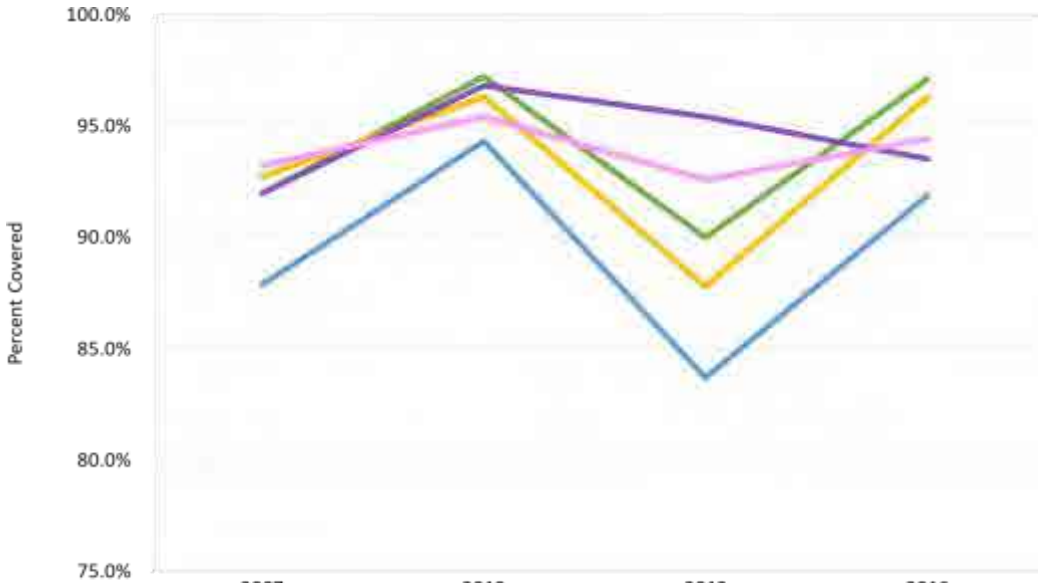
CHART 7.92: ADULTS WITH ANY TYPE OF HEALTH CARE INSURANCE COVERAGE, BY ANNUAL INCOME $25K-$49K (2007-2016)



	2007	2010	2013	2016
LAKE	82.5%	91.6%	86.9%	77.6%
ORANGE	75.5%	77.2%	71.8%	82.7%
OSCEOLA	78.1%	80.0%	82.0%	83.1%
SEMINOLE	83.1%	75.2%	74.7%	84.3%
FLORIDA	79.0%	81.7%	76.0%	84.2%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

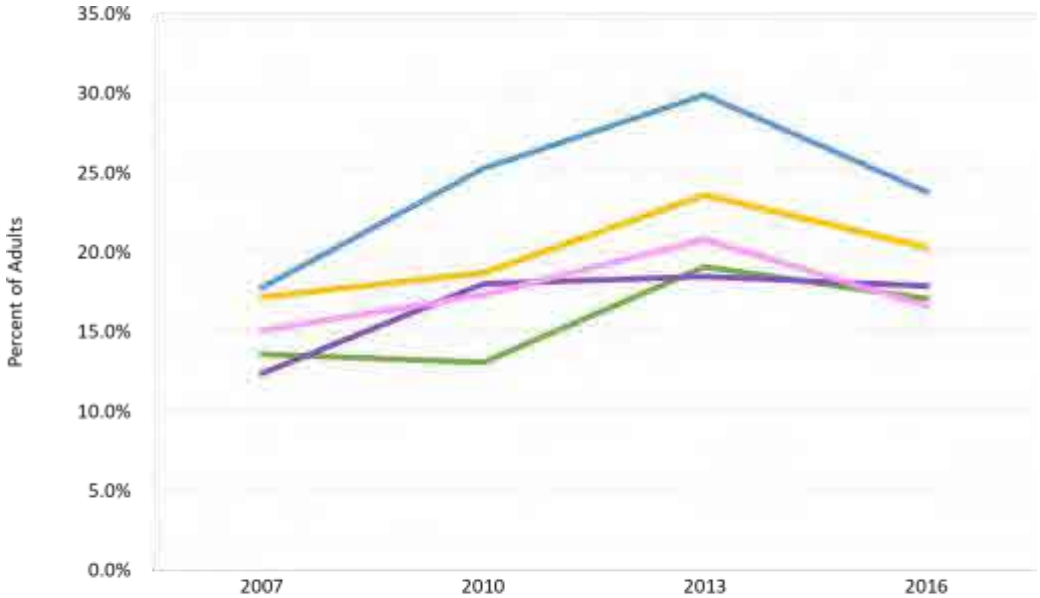
CHART 7.93: ADULTS WITH ANY TYPE OF HEALTH CARE INSURANCE COVERAGE, BY ANNUAL INCOME $50K+ (2007-2016)



	2007	2010	2013	2016
LAKE	92.0%	97.2%	90.0%	97.1%
ORANGE	92.7%	96.3%	87.8%	96.3%
OSCEOLA	87.9%	94.3%	83.7%	91.9%
SEMINOLE	92.0%	96.8%	95.4%	93.5%
FLORIDA	93.2%	95.4%	92.6%	94.4%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

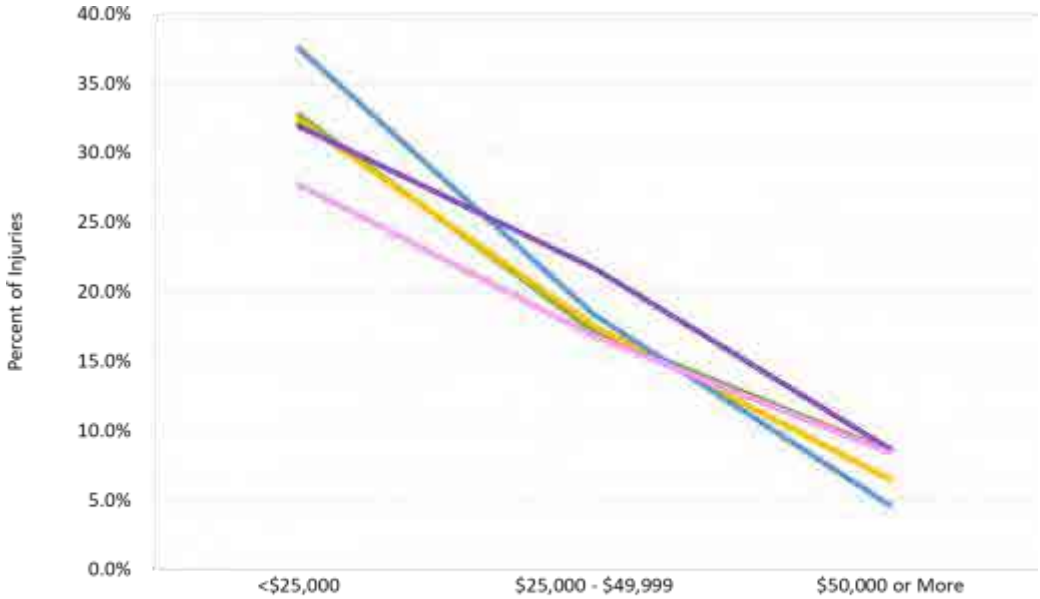
CHART 7.94: ADULTS WHO COULD NOT SEE A DOCTOR IN THE PAST YEAR DUE TO COST (2007-2016)



	2007	2010	2013	2016
LAKE	13.6%	13.1%	19.1%	17.1%
ORANGE	17.2%	18.7%	23.6%	20.3%
OSCEOLA	17.8%	25.3%	29.9%	23.8%
SEMINOLE	12.4%	18.0%	18.5%	17.9%
FLORIDA	15.1%	17.3%	20.8%	16.6%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

CHART 7.95: ADULTS WHO COULD NOT SEE DOCTOR IN PAST YEAR DUE TO COST, BY ANNUAL INCOME (2016)



	<$25,000	$25,000 - $49,999	$50,000 or More
LAKE	32.7%	17.1%	8.5%
ORANGE	32.4%	17.5%	6.5%
OSCEOLA	37.5%	18.3%	4.6%
SEMINOLE	31.9%	21.7%	8.7%
FLORIDA	27.7%	16.8%	8.4%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

Health Care Providers and Facilities

LICENSED HOSPITALS

There are 32 hospitals in the four-county region, 17 of which are not-for-profit and belong to one of the three health systems that are members of the Collaborative: AdventHealth, Aspire Health Partners and Orlando Health. These 17 hospitals contain a total of 5,448 beds, 4,830 of which are acute care beds. The Collaborative member hospitals provide a wide variety of services including acute care, neonatal intensive care, rehabilitation, psychiatric, substance use and Level One Trauma.

Outside of the Collaborative membership, there are five for-profit acute care hospitals in the region, one not- for-profit acute care hospital and a nonprofit children's acute care hospital. There are also four for-profit and two not-for-profit behavioral health hospitals. Additionally, there are two for-profit long-term care hospitals with 99 beds as well as one for-profit rehabilitation hospital with 60 beds. (See Table 7.7)

ADVENTHEALTH

AdventHealth operates 50 hospitals and hundreds of care centers in nine states, making it one of the largest faith-based health care systems in the United States. Eight AdventHealth hospital facilities participated in this assessment, including AdventHealth Orlando, a major tertiary referral hospital for Central Florida and much of the southeast, the Caribbean and South America. These eight facilities have service areas encompassing parts of each county in the Central Florida region with a total of 2,953 beds, including acute care, pediatric care, organ transplant, NICU levels II and III, comprehensive rehabilitation, adult psychiatric care and much more. While these AdventHealth facilities are located in Lake, Orange, Osceola and Seminole counties, their primary service areas extend into Brevard, Polk and Volusia. Below is a description of the services provided at AdventHealth Orlando and each of AdventHealth's hospital campuses included in this assessment.

AdventHealth Altamonte Springs

AdventHealth Altamonte Springs, a 393-bed acute-care community hospital in Seminole County, was established in 1973 as AdventHealth Orlando's first satellite campus and continues to be the leading health care provider in Seminole County.

Hospital services include: 24-hour emergency department, audiology, The Baby Place℠, The Breast Imaging Center of Excellence, breast surgery, AdventHealth Cancer Institute, cancer care, AdventHealth Cardiovascular Institute, cardiology, Center for Spine Health, critical care, diabetes, diagnostic imaging (including CT, MRI, ultrasound, nuclear cardiology), digestive health, Eden Spa (image recovery services for oncology patients), general surgery, gynecology, Heartburn and Acid Reflux Center, infusion services, interventional cardiology, interventional radiology, minimally invasive and robotic surgery, obstetrics, orthopedics, pain medicine, radiation therapy, rehabilitation and sports medicine, respiratory care and women's services.

AdventHealth Apopka

AdventHealth Apopka is a 120-bed acute-care community hospital in Orange County. AdventHealth Apopka has offered a wide range of health care services since its inception in 1975.

Hospital services include: 24-hour emergency department, cardiology, cath lab, chapel and meditation garden, critical care, CT, diagnostic imaging, DEXA, endoscopy, general surgery, laboratory services, mammography, medical care, MRI, nuclear cardiology, outpatient services, outpatient surgery, pediatric-friendly rooms, pulmonary services, radiology, rehabilitation and sports medicine, respiratory care, sleep medicine, ultrasound and urology services.

AdventHealth Celebration

AdventHealth Celebration, a 237-bed acute-care community hospital located in Osceola County opened in 1997. It is a is a leader in innovation and offers cutting edge services in digestive health, cancer, robotic surgery, neonatology, neuroscience, women's and men's health and imaging diagnostics.

Additional hospital services include: 24-hour emergency department, 24-hour critical care coverage, level II neonatal intensive care unit, global robotics institute, Center for Advanced Diagnostics with Seaside Imaging, women's center, women's imaging, head and neck surgery program, comprehensive breast health center,

primary stroke center designation, level I cardiovascular services designation, fitness center, sports medicine center, joint replacement center, spine center, Nicholson Center For Surgical Advancement, bariatric (weight loss) surgery, obesity medicine, endocrinology, reproductive endocrinology, neurosurgery, neurotology, diagnostic and interventional cardiology, transition clinic, health assessments, occupational medicine, oral surgery, primary care, behavioral health, cardiology, obstetrics/ gynecology, gynecologic oncology, general surgery, thoracic surgery, ENT, neurology, oncology, gastroenterology, advanced gastroenterology (ERCP and EUS), ophthalmology, podiatry, orthopedics, pain medicine, plastic surgery, spine surgery, vascular surgery, robotic surgery, urology, urologic oncology, sleep disorders, diabetes, respiratory, diagnostic imaging, laboratory, observation medicine, nutrition, outpatient surgery, retail pharmacy, inpatient and outpatient rehabilitation, spiritual care, education center, centralized and integrated scheduling, patient tracking, wireless networks, document imaging and telemedicine.

AdventHealth East Orlando

AdventHealth East Orlando, a 295-bed acute-care community hospital located in east Orange County, became part of the AdventHealth system in 1990. It includes residency programs in family medicine, podiatry and emergency medicine, as well as a dedicated Children's Emergency Center and a hospital-based Center for Medical Simulation and Education.

Additional hospital services include: 24-hour emergency department with a dedicated pediatric unit, audiology, AdventHealth Cancer Institute, cardiology, chest pain observation unit, critical care, diabetes, digestive health, endoscopy, home health, medical imaging, oncology unit, orthopedics, outpatient services, pain medicine, pediatric/adolescent and adult rehabilitation, primary stroke center, radiation therapy, seizure monitoring, sleep disorders center, surgery center and women's health pavilion.

AdventHealth Kissimmee

AdventHealth Kissimmee, a 162-bed acute-care community hospital located in north Osceola County, became part of the AdventHealth system in 1993.

Hospital services include: 24-hour emergency department, 24-hour critical care coverage, DNV- accredited primary stroke center, dedicated outpatient endoscopy center, comprehensive health care services, cancer treatment including radiation therapy and chemotherapy, cardiac diagnostics (including diagnostic catheterizations), cardiology, diabetes, gastroenterology, inpatient and outpatient rehabilitation, minimally invasive surgery, neurology, interventional radiology, imaging (digital mammography, MRI, CT, PET, nuclear medicine, ultrasound, 4-D ultrasound, diagnostic x-ray), inpatient and outpatient surgery services including breast surgery, colorectal surgery, gastrointestinal surgery, general surgery, gynecologic surgery, hand surgery, ENT surgery and ophthalmology, oral surgery, orthopedics (sports med/joint), podiatry, urology and pulmonology.

AdventHealth Orlando

AdventHealth Orlando, a 1,366-bed acute-care medical center that serves as AdventHealth's main campus in Central Florida, was founded in 1908. It is one of the largest and most comprehensive medical centers in the Southeast and includes AdventHealth for Children, one of the premier children's health systems in the nation.

Hospital services include: 24-hour emergency department, advanced diagnostic imaging center (CT, MRI, PET, meg), audiology, brain surgery, cardiovascular institute, behavioral health, critical care, diabetes institute, digestive health, family practice residency, AdventHealth for Children, cancer institute, center for interventional endoscopy, epilepsy, fracture care center, Gamma Knife® center, general medical/surgical, gynecology, high-risk perinatal care/fetal diagnostic center, home care, hyperbaric medicine and wound care, interventional neuroradiology, kidney stone center, level III neonatal intensive care, maternal fetal Medicare, neuroscience institute, nutritional counseling, obstetrics, occupational health, open heart surgery, organ transplantation (bone marrow, kidney, liver, pediatric liver, pancreas, heart, lung), orthopedic institute, outpatient services, pain medicine, pediatric hematology/oncology, psychiatry, radiation therapy, radiology, rehabilitation and sports medicine, respiratory care, sleep disorders/diagnosis and treatment, spine surgery, surgical oncology, urology and women's services.

AdventHealth Waterman

AdventHealth Waterman is a 299-bed acute-care community hospital located in Lake County, was established in 1938 and has been the cornerstone of health care excellence in Lake County.

Hospital services include: 24-hour emergency department, advanced heart program, including an accredited chest pain center, open heart and thoracic surgery, comprehensive Cancer Institute certified Joint Replacement Center, Community Primary Health Clinic, critical care services, demonstration kitchen with nutritional counseling, diabetes, most advanced imaging services (3D mammography, CT, MRI, ultrasound, nuclear medicine), digestive health care, fitness center, home care services, inpatient and outpatient rehabilitation services, laboratory services, sports medicine, surgical services including minimally invasive and robotic assisted surgeries, urology, Women and Children's Center, wound and hyperbaric medicine and spiritual care.

AdventHealth Winter Park

AdventHealth Winter Park, a 320-bed acute-care community hospital serving northeastern Orange and southeastern Seminole counties, became part of the AdventHealth system in 2000. The facility began caring for patients in February 1955 when it first opened its doors as Winter Park Memorial Hospital.

Hospital services include: 24-hour emergency department, The Baby Place℠ (comprehensive maternity care), breast care, cancer care, cardiology, critical care, diagnostic imaging, digestive health, ENT services, educational classes and support groups, endoscopy, family medicine residency program, geriatric medicine, gynecology, laboratory, neonatal intensive care (NICU), orthopedics, primary stroke center, rehabilitation & sports medicine, radiation therapy, sleep disorders center and AdventHealth for Women - Winter Park. Inpatient and outpatient surgery services include colorectal surgery, gastrointestinal and general surgery, gynecology, hand surgery, ENT, ophthalmology, oral surgery, orthopedics (sports med/joint), podiatry and urology.

ASPIRE HEALTH PARTNERS

Aspire Health Partners (Aspire) is a community-based, not-for-profit provider of behavioral health services. Aspire provides a full continuum of prevention, intervention and treatment services for children, adolescents and adults with, or at-risk of developing: mental health, substance use and co-occurring disorders; HIV/AIDS and Hepatitis Spectrum disease; homelessness; and juvenile delinquency. Service components include community and school-based prevention and intervention services; outpatient and residential treatment for mental health, substance use and co-occurring disorders; detoxification and crisis stabilization, inpatient psychiatric care, supportive housing and homeless support. Aspire is the designated public receiving facility for involuntary mental health commitments in Orange and Seminole counties and operates the only Addictions Receiving Facility for involuntary substance use commitments in Central Florida. Aspire operates 90 psychiatric acute care hospital beds, 130 crisis stabilization beds for adults and children, 50 detoxification beds for adults and children, 160 mental health/substance abuse residential treatment beds for adults, 36 substance abuse residential beds for adolescents, 30 juvenile justice residential beds and 271 supportive housing beds.

With a team of over 1,400 professionals, more than 50 program sites, serving five Central Florida counties (Orange, Osceola, Seminole, Lake and Brevard), Aspire is able to provide a comprehensive, cost efficient, seamless continuum of behavioral health care. In 2018, Aspire provided direct prevention, intervention, treatment, juvenile justice and HIV/AIDS services to more than 35,000 individuals. Aspire's programs are licensed by the Florida Department of Children and Families (DCF), the Florida Agency for Health Care Administration (AHCA) and are nationally accredited through the Commission on Accreditation of Rehabilitative Facilities (CARF).

ORLANDO HEALTH

The Orlando Health health care system is one of Florida's most comprehensive private, not-for-profit health care organizations with a community-based network of physician practices, hospitals and outpatient care centers throughout Central Florida. As a statutory teaching hospital system, Orlando Health offers
the region's only Level One Trauma Center; the area's first heart program; specialty hospitals dedicated to children, women and babies; a major cancer center; and long-standing community hospitals.

With 2,424 hospital beds, facilities include: Orlando Health Orlando Regional Medical Center (ORMC); Orlando Health UF Health Cancer Center; Orlando Health Arnold Palmer Hospital for Children; Orlando Health Winnie Palmer Hospital for Women & Babies; Orlando Health Dr. P. Phillips Hospital; Orlando Health South Seminole Hospital; Orlando Health – Health Central Hospital; and Orlando Health South Lake Hospital. Areas of expertise include heart and vascular, cancer care, neurosciences, surgery, pediatric orthopedics and sports medicine, neonatology and women's health.

Orlando Health Orlando Regional Medical Center

Orlando Health Orlando Regional Medical Center (ORMC), located in Orlando, is Orlando Health's flagship medical center with 866 acute care and comprehensive rehabilitation beds. Orlando Health ORMC specializes in orthopedics, neurosciences, cardiology, trauma and critical care medicine. Orlando Health ORMC is home to Central Florida's only Level One Trauma Center and burn unit. The hospital offers other specialty centers, including memory disorders, epilepsy and the Orlando Health rehabilitation institute. Orlando Health ORMC also is one of the state's six major teaching hospitals. Orlando Health ORMC's primary service area extends from Orange County into Lake, Seminole and Osceola counties. All jurisdictions in Seminole, except for Geneva, are considered in the primary service area. The cities of Kissimmee and St. Cloud (in Osceola), and Clermont and Minneola (in Lake) are included in the service area.

Orlando Health UF Health Cancer Center

Orlando Health UF Health Cancer Center is a statewide cancer treatment and research program with the University of Florida specializing in cancer detection and treatment. It is home to the Marjorie and Leonard Williams Center for Proton Therapy, Central Florida's first — and only the nation's 23rd proton therapy center. The cancer center's specific services include genetic counseling, integrative medicine, nutrition services, counseling and rehabilitation. Although it serves all of Central Florida, the cancer center's primary service area is the entirety of Orange County.

Orlando Health Arnold Palmer Hospital for Children

Orlando Health Arnold Palmer Hospital for Children is a pediatric teaching hospital and the first facility in Central Florida to provide emergency care for pediatric patients. With 156 beds, Orlando Health Arnold Palmer offers numerous pediatric specialties, including cardiology and cardiac surgery, emergency and trauma care, endocrinology and diabetes, gastroenterology, nephrology, neuroscience, oncology and hematology, orthopedics, rheumatology, pulmonology and sleep medicine. Orlando Health Arnold Palmer has received national recognition for its programs in orthopedics, pulmonology and cardiology and heart surgery. The hospital offers the most comprehensive heart care in Central Florida for infants, children, and teens with heart disease. Orlando Health Arnold Palmer also has the only Level One Pediatric Trauma Center in the region. The primary service area of Orlando Health Arnold Palmer extends throughout the Central Florida region and into Polk County, southern Brevard County and Volusia County (Deltona).

Orlando Health Winnie Palmer Hospital for Women & Babies

Orlando Health Winnie Palmer Hospital for Women & Babies is dedicated to the health of women and babies in the Central Florida region. With 350 beds, the teaching hospital is one of the largest birthing hospitals in the nation. Orlando Health Winnie Palmer's Level III neonatal intensive care unit (NICU) is one of the largest NICUs in the world and has one of the highest survival rates in the country for low birth-weight babies. Specialized programs and services that Orlando Health Winnie Palmer offers to mothers and babies include those for
high-risk births, neonatal, obstetrics and gynecology, breastfeeding, childbirth and parenting classes, and surgical and specialized care. The extent of the primary service area of this facility extends to all jurisdictions in Orange, Seminole, except for Geneva, as well as the cities of Kissimmee and St. Cloud (Osceola County) and Clermont and Minneola (Lake County).

Orlando Health Dr. P. Phillips Hospital

Orlando Health Dr. P. Phillips Hospital is a 237-bed, full-service medical and surgical facility that provides emergency services, diagnostic imaging, rehabilitation and surgical services, including vascular, neurosurgery, oncology, orthopedics and the DaVinci robotic surgical system. The hospital also includes cardiovascular care as a fully accredited chest pain center and a designated primary stroke center. Cancer treatments, home health care and wound care therapies also are provided at Orlando Health Dr. P. Phillips. The primary service area is the southwestern portion of Orange County, including the municipalities of Windermere, Winter Garden, Oakland, Ocoee, Belle Isle, Orlando and the community areas of Bay Hill, Dr. Phillips, Hunters Creek, Southchase and Bay Lake. The service area also encompasses the communities of Celebration and Poinciana in Osceola County.

Orlando Health South Seminole Hospital

Orlando Health South Seminole Hospital, located in Longwood, is a full-service medical and surgical facility with 206 beds, including an 80-bed psychiatric unit. Services offered through the hospital include endoscopy, women's health, behavioral health, wound care and hyperbaric medicine, and therapies (physical, occupational and speech). The facility is home to one of Orlando Health's three Air Care Team helicopter bases. Orlando Health South Seminole's primary service area covers the majority of Seminole County, including all municipalities except for Geneva, which is located in eastern Seminole County. The service area extends into southwestern Volusia County to include the city of Deltona.

Orlando Health – Health Central Hospital

Orlando Health – Health Central Hospital, located in West Orange County, is a 211-bed, full-service medical and surgical facility that provides emergency services, cardiac care, women's health, neurology, neurosurgery, orthopedic and spine care, endocrinology, oncology, wound care, mammography and general surgery. Orlando Health – Health Central also offers a primary stroke center. The primary service area is western Orange County, including Winter Garden, Ocoee, Windermere, Pine Hills, South Apopka and west Orlando.

Orlando Health South Lake Hospital

Orlando Heath South Lake Hospital, located in Clermont, Florida is a full-service medical and surgical facility with 140 inpatient beds, along with 30 short-term rehabilitation beds. The hospital serves south Lake County and provides a variety of medical services, including diagnostic, imaging, orthopedics, robotic surgery, urology and cardiac care. It is situated on a 180-acre health, education and wellness campus that also includes the Center for Women's Health, the National Training Center, the SkyTop View Rehabilitation Center and other outpatient services. The primary service areas are Clermont, Minneola, Groveland, Mascotte and Montverde.
This makes up the whole of southern Lake County.

LICENSED PHYSICIAN RATE (2012/2013- 2017/2018)

The rate of physicians per 100,000 population licensed in Florida remained relatively stable from FY 2012/13 to FY 2017/2018. Orange County (382.8) had the highest rate and is the only county in the region with a rate above the state level (310.6). (See Chart 7.96)

TOTAL NUMBER OF LICENSED PHYSICIANS (2013/2014- 2017/2018)

The number of licensed physicians increased by 20.4 percent in the four-county region between 2013 and 2018 from 5,570 in fiscal year 2013/2014 to 6,707 in fiscal year 2017/2018. The number in Orange County increased the most from 3,604 to 5,044. (See Table 7.8

LICENSED DENTIST RATE (2012/2013- 2017/2018)

Over the past few years, only in Orange County (56.8) has there been an increase in the rate of licensed dentists practicing in the four-county region, although the rate dropped slightly in 2017/2018. (See Chart 7.97)

TOTAL NUMBER OF LICENSED DENTISTS (2013/2014- 2017/2018)

The number of dentists in the four-county region decreased over the past five years from 1,078 in fiscal year 2013/2014 to 1,029 in fiscal year 2017/2018. Only Orange County increased the number of dentists from 589 in fiscal year 2013/2014 to 748 in fiscal year 2017/2018. (See Table 7.9)

RATIO OF MENTAL HEALTH PROVIDERS TO POPULATION (2015-2018)

In 2018, across the region and at the state level, the ratio of providers to residents has improved over the past few years, Orange County (507:1) had the most, more positive than the state level (703:1). (See Table 7.10)

EMERGENCY DEPARTMENT SERVICES (2019)

There is a total of 21 dedicated emergency departments throughout the four-county region, 14 of which are part of the Collaborative member hospitals. The region also has one licensed burn unit located at Orlando Health ORMC, although 15 regional hospitals offer burn emergency services. The region also has five Level I cardiovascular and six Level II cardiovascular services facilities. There are also nine primary stroke centers and four comprehensive stroke centers in the four-county region. The four-county region also has one Level I Trauma Center, located at Orlando Health ORMC, and one Level II Trauma Center. (See Table 7.11)

TRANSPLANT SERVICES (2019)

The only hospital (AdventHealth Orlando) in the region for transplants is included in the Collaborative. (See Table 7.12)

TOTAL LICENSED HOSPITAL BEDS (2019)

There are 7,321 total licensed hospital beds in the four-county region. The majority (5,448, 74.4 percent) are operated by Collaborative member hospitals. Of the hospital beds included in the four-county region, 4,536 (62 percent) of the total beds are located in Orange County. (See Chart 7.98 and Table 7.7)

TOTAL LICENSED ACUTE CARE BEDS (2019)

There are 14 hospital partners in this assessment that operate 4,830 of the 5,980 total licensed acute-care beds. The Collaborative partners represent more than 72 percent of the acute-care beds available in the four-county region. 60.2 percent (3,600) of all licensed acute-care beds in the four-county region are located in Orange County. (See Chart 7.99 and Table 7.7)

TOTAL NICU II AND III BEDS (2019)

In Orange County, there are 130 NICU II beds across two AdventHealth campuses (Winter Park and Orlando) and one Orlando Health campus (Orlando Health Winnie Palmer). There are 126 NICU III beds at AdventHealth Orlando and Orlando Health Winnie Palmer. The remaining Orange County NICU II and III beds are outside of the Collaborative (See Table 7.13)

TOTAL COMPREHENSIVE REHAB BEDS (2019)

Throughout the four-county region, there are a total of 189 comprehensive rehabilitation beds. The majority of the beds in Orange County for comprehensive rehabilitation (83 of 88) are spread across two AdventHealth campuses (Winter Park and Orlando) and one Orlando Health campus (Orlando Health ORMC). (See Table 7.14)

TOTAL LICENSED ADULT PSYCHIATRIC BEDS (2019)

There are a total of 521 licensed adult psychiatric beds in the four-county region in 2019. Orange has 322 (61.8 percent of the total beds), Of those, 149 beds in Orange County are affiliated with Collaborative member hospitals. (See Chart 7.100 and Tables 7.7 and 7.15)

TOTAL PSYCHIATRIC TREATMENT FACILITY BEDS (2019)

There is a total of 930 adult psychiatric, child and adolescent psychiatric, residential treatment facility and intensive residential treatment facility beds in the four-county region. The majority of the beds are located in Orange County (590) with providers outside the Collaborative membership. (See Table 7.15)

TOTAL ADULT SUBSTANCE ABUSE BEDS (2019)

The four-county region has a total of 45 licensed substance abuse beds. The 14 beds in Orange County are not part of AdventHealth nor are they part of the Collaborative. (See Table 7.16)

TABLE 7.7: LICENSED HOSPITAL FACILITIES, CENTRAL FLORIDA FOUR-COUNTY REGION (2019)

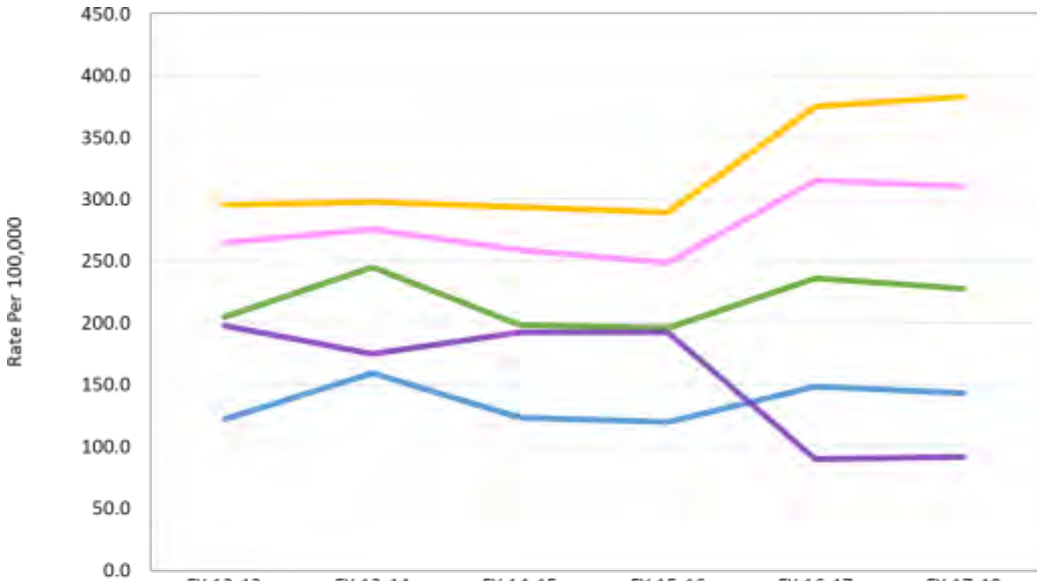
				LICENSED BEDS																
							NICU		Psychiatric			Substance Abuse				Non CON Regulated Services				
ID#	AHCA#	Facility Name	City	Total Beds	Acute Care Beds	LTC Hosp. Beds	Level II	Level III	Adult	Child/ Adol	IRTF	Adult	Child/ Adol	SNU	Rehab	Burn Units	Level II Adult Cardio	Level I Adult Cardio	Comp. Stroke Center	Primary Stroke Center
3053	100057	AdventHealth Waterman	Tavares	269	269												1			1
3077	100084	Leesburg Regional Medical Center	Leesburg	308	308												1			1
3239	104018	Lifestream Behavioral Center	Leesburg	46					41			5								
3077	100214	LRMC Senior Behavioral Health Center	Leesburg	21					21											
3047	100051	Orlando Health South Lake Hospital	Clermont	170	140									30				1		1
		Lake County Total		814	717				62			5		30			2	1		3
3258	120003	AdventHealth Apopka	Apopka	120	120															
3019	100021	AdventHealth East Orlando	Orlando	295	295															1
3258	100007	AdventHealth Orlando	Orlando	1,366	1,195		28	74	59						10		1		1	
31	100162	AdventHealth Winter Park	Winter Park	320	288		12								20					1
3112	100129	Aspire Health Partners, Inc.	Orlando	90					90											
	23960083	Central Florida Behavioral Hospital	Orlando	174					109	65										
3310	110051	La Amistad Residential Treatment Center	Maitland	40							40									
	23960096	Nemours Children's Hospital	Orlando	100	77		2	16							5					
3028	100030	Orlando Health - Health Central	Ocoee	211	211													1		1
3005	120001	Orlando Health Arnold Palmer	Orlando	156	156															
3005	120002	Orlando Health Dr. P. Phillips	Orlando	237	237													1		1
3005	100006	Orlando Health ORMC	Orlando	866	813										53	1	1		1	
3005	120001	Orlando Health Winnie Palmer	Orlando	350	208		90	52												
	23960043	Select Specialty Hospital-Orlando (North Campus)	Orlando	35		35														
	23960068	Select Specialty Hospital-Orlando (South Campus)	Orlando	64		64														
3314	1 10047	University Behavioral Center	Orlando	112					64	32		16								
		Orange County Total		4,536	3,600	99	132	142	322	97	40	16			88	1	2	2	2	4
	23960017	AdventHealth Celebration	Celebration	237	227		10											1		1
3082	100089	AdventHealth Kissimmee	Kissimmee	162	162															1
	23960129	Blackberry Center	St. Cloud	64					50			14								
3096	100110	Osceola Regional Medical Center	Kissimmee	404	333		10	8	25						28		1		1	
	23960111	Poinciana Medical Center	Kissimmee	76	76															
3067	100074	St. Cloud Regional Medical Center	St. Cloud	84	84															
		Osceola County Total		1,027	882		20	8	75			14			28		1	1	1	2
3258	120004	AdventHealth Altamonte Springs	Altamonte Springs	393	383		10											1		1
3138	100161	Central Florida Regional Hospital	Sanford	221	208										13		1			1
	23960115	Encompass Health Rehabilitation Hospital of Altamonte	Altamonte Springs	60											60					
3266	100263	Orlando Health South Seminole	Longwood	206	126				62	8		10						1		1
	23960121	Oviedo Medical Center (Licensed 1/26/2017)	Oviedo	64	64															
		Seminole County Total (Per Actual Numbers Written)		944	781		10		62	8		10			73		1	2		3
		Total Regional Bed Count		7,321	5,980	99	162	150	521	105	40	45	0	30	189	1	6	6	3	12

*Gray shading denotes collaborative member facilities

Sources: Florida Agency for Healthcare Administration; Central Florida Collaborative

Note: Data reported in this chart was the most recent publicly available data as of January 2019. Individual hospital narratives reflect internal hospital data.

CHART 7.96: LICENSED PHYSICIAN RATE (2012/2013-2017/2018)



	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18
LAKE	205.1	245.1	198.4	195.7	236.0	227.5
ORANGE	295.6	298.0	293.9	289.5	374.9	382.8
OSCEOLA	122.3	159.3	123.4	119.9	148.6	143.2
SEMINOLE	197.5	175.1	192.2	192.2	89.9	91.5
FLORIDA	264.6	275.7	258.8	248.6	315.5	310.6

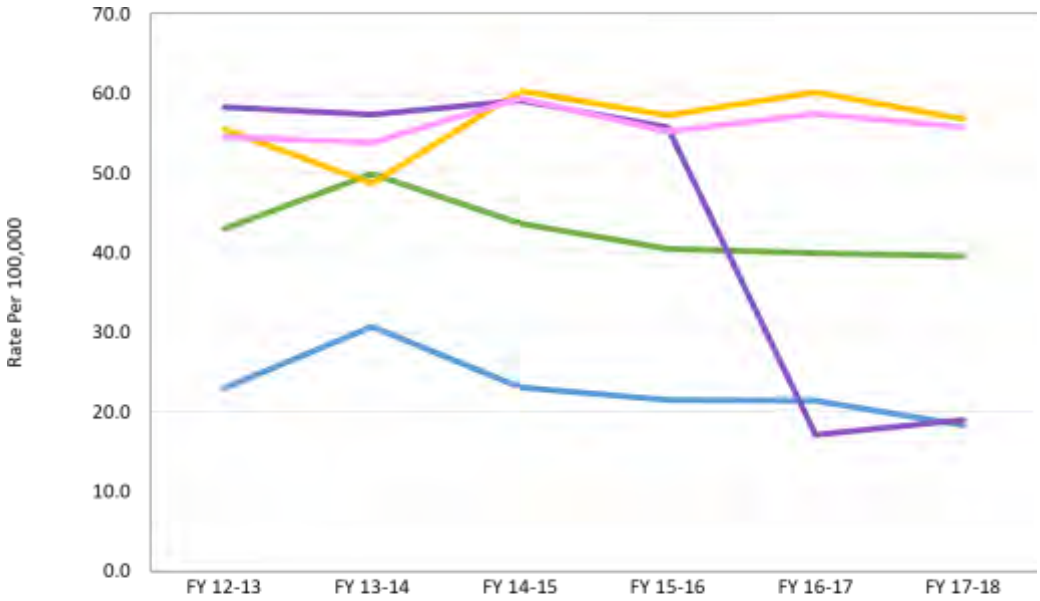
Source: FLHealthCHARTS: Division of Medical Quality Assurance

TABLE 7.8: TOTAL NUMBER OF LICENSED PHYSICIANS (2013/2014- 2017/2018)

	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18
Lake	747	618	623	769	759
Orange	3,604	3,626	3,645	4,827	5,044
Osceola	462	368	374	485	486
Seminole	757	843	854	405	418
Region Total	5,570	5,455	5,496	6,486	6,707
Florida	53,259	50,679	49,456	63,825	63,849

Source: FLHealthCHARTS: Division of Medical Quality Assurance

CHART 7.97: LICENSED DENTIST RATE (2012/2013-2017/2018)



	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18
LAKE	43.0	49.9	43.7	40.5	39.9	39.6
ORANGE	55.5	48.7	60.3	57.3	60.2	56.8
OSCEOLA	23.0	30.7	23.1	21.5	21.4	18.3
SEMINOLE	58.3	57.4	59.1	55.8	17.1	19.0
FLORIDA	54.6	53.8	59.4	55.2	57.5	55.8

Source: FLHealthCHARTS: Division of Medical Quality Assurance

TABLE 7. 9: TOTAL NUMBER OF LICENSED DENTISTS (2013/2014-2017/2018)

	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18
Lake	152	136	129	130	132
Orange	589	744	722	775	748
Osceola	89	69	67	70	62
Seminole	248	259	248	77	87
Region Total	1,078	1,208	1,166	1,052	1,029
Florida	10,396	11,635	10,986	11,641	11,475

Source: FLHealthCHARTS: Division of Medical Quality Assurance

TABLE 7.10: RATIO OF MENTAL HEALTH PROVIDERS TO POPULATION (2015-2018)

	2015	2016	2017	2018
Lake	1,318:1	1,283:1	1,375:1	1,285:1
Orange	591:1	544:1	553:1	507:1
Osceola	992:1	884:1	842:1	769:1
Seminole	690:1	627:1	706:1	675:1
Florida	744:1	689:1	747:1	703:1

Source: County Health Rankings and Roadmaps

TABLE 7.11: EMERGENCY DEPARTMENT SERVICES (2019)

County	Facility Name	Collaborative Member	Emergency Department	Burn Services	Cardio	Stroke Center	Trauma
Lake	AdventHealth Waterman	X	X		Level II	Primary	
Lake	Orlando Health South Lake Hospital	X	X	X	Level I		
Lake	Leesburg Regional Medical Center		X			Primary	
Orange	AdventHealth Apopka	X	X	X			
Orange	AdventHealth East Orlando	X	X	X			
Orange	AdventHealth Orlando	X	X	X	Level II	Comp.	
Orange	AdventHealth Winter Park	X	X	X		Primary	
Orange	Orlando Health Arnold Palmer Hospital for Children	X	X	X			
Orange	Orlando Health Winnie Palmer Hospital for Women & Babies	X					
Orange	Orlando Health Dr. P. Phillips Hospital	X	X	Burn Unit	Level II	Comp.	
Orange	Orlando Health Orlando Regional Medical Center	X	X	X	Level II	Comp.	Level I
Orange	Nemours Children's Hospital		X				
Orange	Orlando Health – Health Central Hospital	X	X		Level I	Primary	
Osceola	AdventHealth Celebration	X	X	X	Level I	Primary	
Osceola	AdventHealth Kissimmee	X	X	X		Primary	
Osceola	Osceola Regional Medical Center		X		Level II	Comp.	
Osceola	St. Cloud Regional Medical Center		X				
Osceola	Poinciana Medical Center		X	X			
Seminole	AdventHealth Altamonte Springs	X	X	X	Level I	Primary	
Seminole	Orlando Health South Seminole Hospital	X	X	X	Level I	Primary	
Seminole	Central Florida Regional Hospital		X	X	Level II	Primary	Level II
Seminole	Oviedo Medical Center		X	X			
		15	21	15			

Sources: Florida Agency For Healthcare Administration; Central Florida Collaborative

TABLE 7.12: TRANSPLANT SERVICES (2019)

Program (A=Adult; P=Pediatric)	AdventHealth Orlando	4-County Region	Florida
Transplant	1	1	10
Heart Transplant (A)	1	0	7
Heart Transplant (P)	0	0	4
Kidney Transplant (A)	1	1	10
Kidney Transplant (P)	1	1	4
Liver Transplant (A)	1	1	8
Liver Transplant (P)	0	0	2
Lung Transplant (A)	1	1	5
Lung Transplant (P)	0	0	2
Bone Marrow Transplant (A)	1	1	6
Bone Marrow Transplant (P)	1	1	6
Pancreas/Transplant (A)	1	1	5
Pancreas/Transplant (P)	0	0	1

Source: Florida Agency For Healthcare Administration

CHART 7.98: TOTAL LICENSED HOSPITAL BEDS (2019)

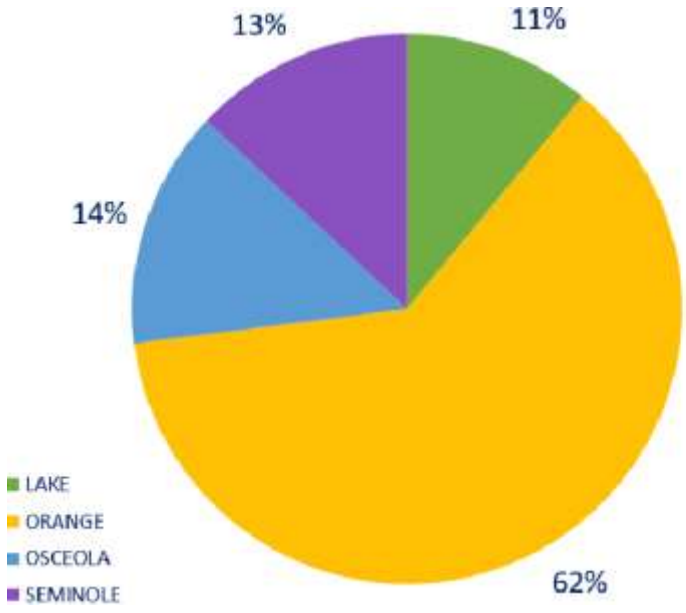
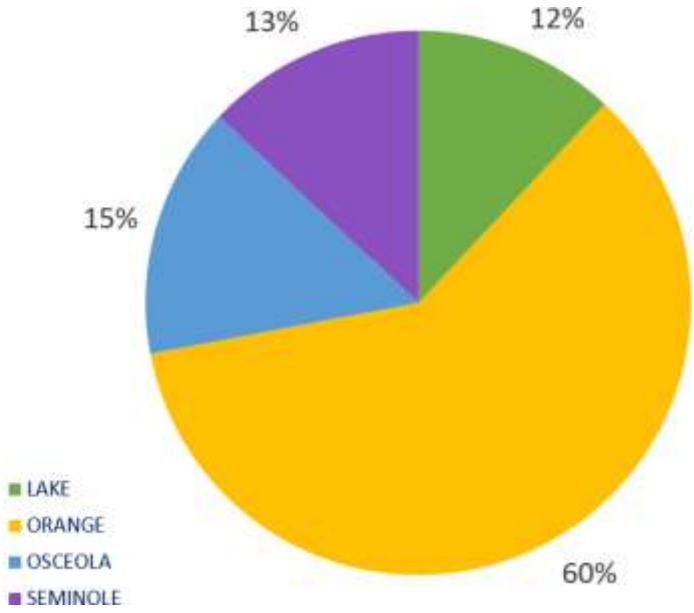


CHART 7.99: TOTAL LICENSED ACUTE CARE BEDS (2019)



Source: Florida Agency For Healthcare Administration

TABLE 7.13: TOTAL NICU II AND NICU III BEDS (2019)

County	NICU II	NICU III
Orange	132 Beds	142 Beds
	• AdventHealth Winter Park • AdventHealth Orlando	• AdventHealth Orlando
	• Orlando Health Winnie Palmer Hospital for Women & Babies	• Orlando Health Winnie Palmer Hospital for Women & Babies
	• Nemours Children's Hospital	• Nemours Children's Hospital
Osceola	20 Beds	8 Beds
	• AdventHealth Celebration • Osceola Regional Medical Center	• Osceola Regional Medical Center
Seminole	10 Beds	
	• AdventHealth Altamonte Springs	

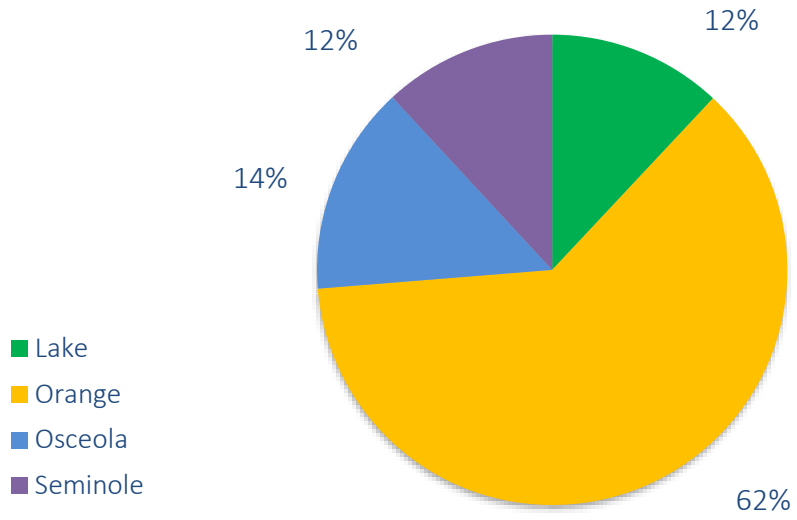
Source: Florida Agency For Healthcare Administration

TABLE 7.14: TOTAL COMPREHENSIVE REHAB BEDS (2019)

County	Comprehensive Rehabilitation Beds
Orange	83 beds among Collaborative partner hospitals
	• AdventHealth Winter Park • AdventHealth Orlando • Orlando Health Orlando Regional Medical Center
	Beds among non-affiliated organizations
Orange	• Nemours Children's Hospital (5 beds)
Osceola	• Osceola Regional Medical Center (28 beds)
Seminole	• Central Florida Regional Hospital (13 beds) • Encompass Health Rehabilitation Hospital (60 beds)

Source: Florida Agency For Healthcare Administration

CHART 7.100: TOTAL LICENSED ADULT PSYCHIATRIC BEDS (2019)



Source: Florida Agency For Healthcare Administration

TABLE 7.15: TOTAL PSYCHIATRIC TREATMENT FACILITY BEDS (2019)

County	Own	Facility Type	Name	Licensed Beds
Lake	NFP	Adult Psychiatric Hospital	Lifestream Behavioral Center	41
	NFP	Residential Treatment Facility	Lifestream Behavioral Center (4 locations)	51
	NFP	Adult Psychiatric Hospital	LRMC Senior Behavioral Center	21
Orange	NFP	Adult Psychiatric Hospital	AdventHealth Orlando	59
	NFP	Adult Psychiatric Hospital	Aspire Health Partners	90
		Residential Treatment Facility	Aspire Health Partners (2 locations)	52
	FP	Adult Psychiatric Hospital	Central Florida Behavioral Hospital	109
	FP	Child/Adolescent Psychiatric Hospital	Central Florida Behavioral Hospital	65
	FP	Intensive Residential Treatment Facility	LaAmistad Residential Treatment Center	40
	FP	Residential Treatment Facility	LaAmistad Behavioral Health Services	45
	FP	Residential Treatment Facility	Pasadena Villa	16
	FP	Residential Treatment Facility	Pasadena Villa at LaSalle	5
	FP	Residential Treatment Facility	Pasadena Village at Lake Highland	5
	FP	Residential Treatment Facility	Pasadena Village at North Shore	3
	FP	Residential Treatment Facility	Pasadena Villa at Summerlin Park	5
	FP	Adult Psychiatric Hospital	University Behavioral Center	64
	FP	Child/Adolescent Psychiatric Hospital	University Behavioral Center	32
Osceola	FP	Adult Psychiatric Hospital	Blackberry Center	50
	FP	Adult Psychiatric Hospital	Osceola Regional Medical Center	25
	NFP	Residential Treatment Facility	Park Place Behavioral Health Care	15
Seminole	NFP	Residential Treatment Facility	Aspire Health Partners	12
	NFP	Residential Treatment Facility	Lakewood Center (2 locations)	55
	NFP	Adult Psychiatric Hospital	Orlando Health South Seminole Hospital	62
	NFP	Child/Adolescent Psychiatric Hospital	Orlando Health South Seminole Hospital	8

Source: Florida Agency For Healthcare Administration

TABLE 7.16: TOTAL SUBSTANCE ABUSE BEDS (2019)

COUNTY	ADULT SUBSTANCE ABUSE
Lake	5 beds
	• Lifestream Behavioral Center
Orange	16 beds
	• University Behavioral Center
Osceola	14 beds
	• Blackberry Center
Seminole	10 beds
	• Orlando Health South Seminole Hospital

Source: Florida Agency For Healthcare Administration

CHAPTEREIGHT

Health Disparities

Downey Park
Orlando, FL

Orange County

Health disparities (differences in health outcomes between groups that reflect social inequalities) related to access, preventative care and food access exist within Orange County and the state. Income, race and education affect lifestyle in addition to access to care rates of preventative testing, chronic diseases, births, infant mortality and mental health. These disparities demonstrate the need for concerted action to achieve health equity and overall health improvement for the entire population. An opportunity for action exists in data collection; consistently in the data sourced for this chapter there are gaps across racial and ethnic groups. These gaps are in the publicly available data and make it difficult to understand the disparities and needs of diverse populations; until the disparities and needs are fully understood it is difficult to successfully address them.

Preventive Care Disparities

MAMMOGRAM AGES 40 AND OLDER BY RACE/ETHNICITY (2007-2016)

There has been a decline across racial and ethnic groups in Orange County in the number of women ages 40 and older who have received mammograms from 2007 to 2016. Complete data is available for all groups with the exception of Black women in Orange County in 2016. In the county the percentage for White women decreased from 61 percent in 2007 to 54.5 percent in 2010 before rising to 59.1 percent in 2016. There was a decrease from 2007 to 2016 in the state from 65.4 percent to 60.9 percent.

Percentages for Black women have decreased in the county from 64.4 percent in 2007 to 48 percent in 2010, which is almost double the percentage of decline seen for White women during the same time period. In the state, percentages for Black women decreased from 70.2 percent in 2007 to 61.7 percent in 2016.

The percentage of Hispanic women ages 40 and older receiving mammograms fluctuated over this time, with an overall decline in the county. Percentages decreased from 71.1 percent in 2007 to 43.5 percent in 2010 before rising again to 59.5 percent in 2016. At the state level there was a decrease from 2007 (63.2 percent) to 2016 (60.7 percent), making it the smallest decrease at the state level in all groups. (See Charts 8.1-8.3)

PAP TEST AGES 18 AND OLDER BY RACE/ETHNICITY (2007-2016)

Percentages have decreased from 2007 to 2016 for all racial and ethnic groups across Orange County and the state in the number of women ages 18 and older who have received a Pap test in the past year. The percentage of White women receiving Pap tests in Orange County fell from 65.2 percent to 53.7 percent from 2007 to 2016. For Black women, there was a decrease from 69 percent to 39.4 percent, the largest decline across all groups at the county level, and for Hispanic women from 72.4 percent to 56.1 percent during this time.

At the state level, the percentage of White women ages 18 and older who received a Pap test in the past year decreased from 64.4 percent in 2007 to 46 percent in 2010, the largest decline across all groups at the state level. The percentage for Black women decreased from 70.9 percent to 55.8 percent from 2007 to 2016 and for Hispanic women the numbers fell from 64.5 percent to 51.5 percent in the same time frame. (See Charts 8.4-8.6)

SIGMOIDOSCOPY/COLONOSCOPY AGES 50 AND OLDER BY RACE/ETHNICITY (2007-2016)

The data for adults 50 and older who received a sigmoidoscopy or colonoscopy from 2007 to 2016 is complete for groups in both the county and the state. The trends for White adults were inverse to those for Black and Hispanic adults; percentages for White adults increased at the county level but decreased at the state level. In Orange County, the percentage of White adults who received a sigmoidoscopy/colonoscopy increased from 45.3 percent to 57.7 percent from 2007 to 2016. Data for Black adults shows a decrease from 52.6 percent to 41.5 percent and for Hispanic adults from 45 percent to 37.7 percent.

From 2007 to 2016 at the state level, White adults were the only group with a decrease (56.8 percent to 55.9 percent), Black adults had an increase from 48.9 percent to 51.2 percent and percentages for Hispanic adults increased from 39 percent to 49.6 percent from 2007 to 2016. (See Charts 8.7-8.9)

BLOOD STOOL TEST ADULT AGES 50 YEARS AND OLDER BY RACE/ETHNICITY (2007-2016)

The available data for adults ages 50 and older who have received a blood stool test in the past year is complete for all racial and ethnic groups in Orange County, with the exception of Hispanics in 2010. There is complete data for all groups at the state level. The percentage for White adults decreased from 2007 to 2016 in Orange County from 20 percent to 6.6 percent. White adults were the only group to see an overall decrease at the county level. Black adults had an increase from 2007 (13.2 percent) to 2016 (14.5 percent), however in 2013 there was a large decline in individuals who received a test (1.8 percent). Percentages for Hispanic adults increased from 8.3 percent in 2007 to 13.1 in 2016.

In the state from 2007 to 2016, the percentage of both White and Black adults receiving a blood stool test decreased (23.3 percent to 15.7 percent and 21.7 percent to 18.6 percent respectively). The percentage for Hispanic adults almost doubled from 8.7 percent to 15.4 percent. (See Charts 8.10-8.12)

PSA TEST ADULT AGES 50 YEARS AND OLDER BY RACE/ETHNICITY (2007-2016)

The available data for men ages 50 and older who have received a PSA (Prostate-Specific Antigen) test in the past two years from 2007 to 2016 is complete for White men at the county level, but unavailable for Black men and incomplete for Hispanic men. For White men in Orange County, the percentage from 2007 (64 percent) to 2016 (54.7 percent) decreased but fluctuated to a high of 70.9 percent in 2010. There was an overall increase in the percentage of Hispanic men who received the test from 39.3 percent in 2007 to 48.2 percent in 2016, although there is no available data for 2010.

There has been a decline across all groups at the state level for adult men 50 and older receiving a PSA test from 2007 to 2016. The percentage of White men ages 50 and older receiving the test decreased from 63.1 percent to 58.2 percent from 2007 to 2016 and for Black men the numbers dropped from 71.5 percent to 48.4 percent for the same time frame. The percentages for Hispanic men declined the least during these years from 51.8 percent to 47 percent. (See Charts 8.13-8.15)

Chronic Condition Disparities

ADULTS WITH DIABETES BY RACE/ETHNICITY (2002-2016)

From 2002 to 2016 there has been an increase in the percentage of diabetes across all racial and ethnic groups at the state level. The percentage of White adults increased the least from 8 percent to 11.5 percent, for Black adults the increase was the highest from 10.6 percent to 14.5 percent, and the numbers for Hispanic adults rose from 7.1 percent to 10.9 percent.

Percentages for White adults in Orange County increased from 6.5 percent in 2002 to 10.6 percent in 2013, before decreasing to 8.8 percent in 2016. Data for Black adults diagnosed with diabetes in the county fluctuated from 17.1 percent in 2002 to a high of 21.5 percent in 2010 before decreasing to 10.9 percent in 2016. Hispanic adults had the largest overall increase in the county for diabetes; increasing from 2.8 percent in 2002 to 15 percent in 2013, before decreasing to 10.6 percent in 2016. (See Charts 8.16-8.18)

HIGH BLOOD PRESSURE BY RACE/ETHNICITY (2002-2013)

There has been an increase across all racial and ethnic groups at the state level in the percentage of adults who have been told they have high blood pressure from 2002 to 2013. The percentage of White adults increased the most in all groups, from 28.7 percent in 2002 to 38.4 percent in 2013. The percentages rose the least for Black adults from 32.2 percent in 2002 to 33.7 percent in 2013, percentages for Hispanic adults increased from 21.1 percent to 28.3 percent during this time.

Both White adults and Hispanic adults in Orange County had an increase in the percentages of being told they had high blood pressure during this time. For White adults there was an increase from 20 percent in 2002 to 31.8 percent in 2013. Percentages for Hispanic adults almost doubled during this time from 15.6 percent to 30.2 percent. Black adults were the only group to have an overall decrease from 40.1 percent in 2002 to 26.5 percent in 2013, however there was a spike to 45.5 percent in 2010. (See Charts 8.19-8.21)

STROKE BY RACE/ETHNICITY (2007-2016)

In Orange County, there is complete data for all racial and ethnic groups with the exception of Black adults in 2007. The only complete available data for adults in all groups who have been told they had a stroke is at the state level. At the state level the percentage for White adults has increased from 3.5 percent (2007) to 4.2 percent (2016), for Black adults percentages rose from 3.7 percent (2007) to 3.9 percent (2016). Hispanic adults increased less than a third from 1.4 percent (2007) to 1.8 percent (2016).

In the county, only White adults had an increase in incidences of being told they had a stroke from 2007 to 2016, other groups had an overall decrease. There was an increase for White adults from 2.5 percent in 2002 to 3.7 percent in 2016. No data is available for Black adults in 2007, but there was a decrease from 5.8 percent in 2010 to 5.3 percent in 2016 in Orange County. Percentages for Hispanic adults decreased from 1.6 percent in 2007 to 1.2 percent in 2016. (See Charts 8.22-8.24)

CORONARY HEART DISEASE BY RACE/ETHNICITY (2012-2017)

In both Orange County and in the state, there has been a decrease in age-adjusted death rates per 100,000 from coronary heart disease across all racial and ethnic groups. In the county, rates for White adults decreased from 106.8 in 2012 to 87.7 in 2017, the largest decline across all groups. For Black adults, rates during the same time decreased from 98.8 to 85.6, and for Hispanics adults the decrease was from 80.3 in 2012 to 70.6 in 2017.

At the state level, rates for White adults declined from 103 in 2012 to 92.8 in 2017; the largest decrease was in Black adult rates during the same time from 113.4 to 95.1, and rates for Hispanics adults fell from 87.3 to 81.4. (See Charts 8.25-8.27)

COLORECTAL CANCER BY RACE/ETHNICITY (2012-2016)

There was a decline in age-adjusted colorectal cancer incidences per 100,000 across all racial and ethnic groups in the state from 2012 to 2016. Both White and Hispanic adult rates at the state level decreased by .6 percentage points, 36.1 to 35.5 and 33.9 to 33.3 respectively from 2012 and 2016; rates for Black adults declined from 41.5 to 38.9 during this time.

In Orange County, there was a decrease in colorectal cancer rates in both White adults and Black adults from 2012 to 2016, from 43.1 to 36.8 and 53.8 to 32.3 respectively. There was an increase in rates for Hispanic adults in the county during this time from 30.8 to 33.4. (See Chart 8.28-8.30)

BREAST CANCER BY RACE/ETHNICITY (2012-2016)

The rates for breast cancer incidence per 100,000 in the state rose for all racial and ethnic groups from 2012 and 2016. Rates for White adults increased the least from 117.4 to 119.7, for Black adults the rate increased from 109.7 to 114.9 and for Hispanic adults from 88.2 to 92 during this time.

From 2012 to 2016 the breast cancer incidence for White and Black adults decreased in Orange County from 122.3 to 114.9 and 97.7 to 96.7 respectively. The Hispanic adult breast cancer incidence rate increased from 74.9 to 88.5 during this same time. (See Charts 8.31-8.33)

LUNG CANCER BY RACE/ETHNICITY (2012-2016)

From 2012 to 2016, the lung cancer incidence rate followed the same trend with a decrease for all racial and ethnic groups in the state. For White adults in the state, the rate per 100,000 decreased from 65.3 (2012) to 59.1 (2016). The incidence rate for Black adults in the state fell from 51.7 in 2012 to 43.9 in 2016, the largest decrease among all groups in the state. Rates for Hispanic adults decreased from 35.6 to 35 during this time.

The incidence rate for White adults in Orange County decreased from 66 (2012) to 55 (2016), the only county level decrease across groups. For Black adults the rate increased from 39.5 in 2012 to 39.6 in 2016 and for Hispanic adults from 25.4 to 27.1 during the same time. (See Charts 8.34-8.36)

ADULTS WITH ASTHMA BY RACE/ETHNICITY (2007-2016)

There is complete data for all racial and ethnic groups at the county and state level for adults who have asthma from 2007 to 2016. All groups in Orange County had an increase during this time. The percent of White adults who currently have asthma in the county increased from 3.5 percent in 2007 to 6.8 percent in 2016, the largest county level increase. The increase for Black adults was from 7 percent (2007) to 10.2 percent (2016) and for Hispanic adults from 4.4 percent to 4.9 percent during this time.

At the state level there was an increase from 6.4 percent to 6.9 percent for White adults from 2007 to 2016. There was no change in the percentage of Black adults with asthma from 2007 (7.6 percent) to 2016 (7.6 percent), although there was an increase in 2013 to 8.9 percent. Percentages for Hispanic adults increased in the state from 4.8 percent to 5.9 percent during this time. (See Charts 8.37-8.39)

Leading Causes Of Death Disparities

When looking at the leading causes of death disparities per 100,000, the Florida Department of Health classifies Hispanics as White Hispanics and Black Hispanics. The Black/Other category includes all Non-Hispanic Blacks.

Heart diseases and cancer were the top two leading causes of death for White adults (290.6, 262.1), Black/Other adults (182.9, 165.4), White Hispanic adults (114.4, 110) and Black Hispanic adults (44.9, 41.6) in Orange County. Chronic lower respiratory disease was the third cause for White adults (67). Cerebrovascular diseases were the third leading cause for Black/Other adults (53.5) and White Hispanic adults (31.4). Unintentional injury was the third leading cause of death for Black Hispanic adults (12.6). (See Table 8.1)

Birth Characteristics Disparities

INFANT MORTALITY BY RACE/ETHNICITY (2012-2017)

Infant mortality rates per 1,000 live births for all racial and ethnic groups fluctuated from 2012 to 2017. Only rates for White babies decreased in both Orange County and the state. Rates for both Black and Hispanic births increased at both the county and the state level. Rates for White babies in Orange County decreased from 5.2 (2012) to 3.8 (2017), while the state rate declined from 4.6 to 4.4.

Black infant mortality rates increased in Orange County from 11.6 (2012) to 15.5 (2017) and in the state (10.7 to 10.8). The Hispanic infant mortality rate increased in the county from 5.1 to 5.5 and in the state from 4.4 to 5.2. (See Charts 8.40-8.42)

BIRTHS WITH SELF-PAY FOR DELIVERY PAYMENT SOURCE (2004-2017)

The percentage of births with self-pay for delivery increased for all racial and ethnic groups in Orange County and decreased for all groups in the state from 2004 to 2017. The percentage for White women increased in the county from 4.8 percent (2004) to 10 percent (2017). For Black women the percentage increased from 2.7 percent in 2004 to 8 percent in 2017 and for Hispanic women from 7.1 percent to 14.4 percent, the highest county level increase for all groups during this time.

At the state level there was decrease in self pay for delivery as a payment source for White women from 8.3 percent in 2004 to 6.4 percent in 2017. The decrease in percentage was the smallest across all groups for Black women, at the state level from 4.9 percent (2004) to 4.8 percent (2017). The percentage decreased the most for Hispanic women in the state, from 16.6 percent in 2004 to 10 percent in 2017. (See Charts 8.43-8.45)

BIRTHS TO MOTHERS WHO HAVE LESS THAN HIGH SCHOOL EDUCATION BY RACE/ETHNICITY (2004-2017)

The number of births to mothers who have less than a high school education decreased in Orange County and the state for all racial and ethnic groups from 2004 to 2017. The percentages for White mothers decreased in Orange County during this time from 16.9 percent to 9.6 percent. Births to Black mothers with less than a high school education decreased from 24.3 percent to 16.5 percent. From 2004 to 2017 the largest decrease for all groups in the county was for births to Hispanic mothers from 26.7 percent to 13.6 percent.

At the state level the percentages declined the most for Hispanic mothers (31.7 percent to 17.9 percent), followed by Black mothers (25.9 percent to 14.2 percent) and White mothers (19.9 percent to 11.7 percent). See Charts 8.46-8.48)

BIRTHS TO UNWED MOTHERS BY RACE/ETHNICITY (2004-2017)

Births to unwed mothers for both White and Hispanic women increased in both Orange County and at the state level from 2004 to 2017. There was a decrease in both county and state percentages in the number of births to unwed mothers for Black women during this time. Births to unwed White mothers increased in the county from 34.8 percent to 40 percent and in the state from 34.6 percent to 41.9 percent from 2004 to 2017. Percentages for births to unwed Hispanic mothers increased in the county from 47.2 percent to 50.8 percent from 2004 to 2017 and at the state level from 43 percent to 50.5 percent during this time.

The percentage of births to unwed Black mothers decreased in the county from 65.8 percent to 62.2 percent and at the state level from 67.7 percent to 67.6 percent. (See Charts 8.49-8.51)

BIRTHS TO MOTHERS WHO WERE OBESE DURING PREGNANCY BY RACE/ETHNICITY (2004-2017)

The percentage of births to mothers who were obese during pregnancy rose across all racial and ethnic groups in Orange County and the state from 2004 to 2017. Births to White women who were obese increased in the county from 14.8 percent to 22 percent. The percentage of births to Black women in Orange County rose from 23 percent to 34.9 percent, the largest increase among all groups during this time. The increase in the county for Hispanic women was from 16.4 percent to 23.9 percent from 2004 to 2017

For White women in the state, the percentage rose from 16.8 percent (2004) to 22.9 percent (2017). The percentage of births to Black women who were obese during pregnancy increased from 2004 to 2017 in the state from 27.5 percent to 34.6 percent. The percentage of births to Hispanic women who were obese during pregnancy rose in the state from 16 percent to 23.4 percent during this time. (See Charts 8.52-8.54)

REPEAT BIRTHS TO MOTHERS AGES 15-19 BY RACE/ETHNICITY (2004-2017)

The percentage of repeat births to mothers ages 15 to 19 decreased in both Orange County and the state from 2004 to 2017. The largest decrease in the county was for repeat births to Hispanic mothers ages 15-19 from 20.5 percent (2004) to 15 percent (2017). This was followed by a decrease in repeat births to Black mothers from 23.6 percent to 18.6 percent and White mothers with a decrease from 18 percent to 15.2 percent from 2004 to 2017.

At the state level the largest decline was in births to Black mothers (22.4 percent to 15.8 percent), followed by Hispanic mothers (19.5 percent to 15 percent) and White mothers (17.1 percent to 14.8 percent) from 2004 to 2017. (See Charts 8.55-8.57)

PRETERM BIRTH RATE < 37 WEEKS BY RACE/ETHNICITY (2004-2017)

The percentages for preterm births decreased for all racial and ethnic groups in both Orange County and in the state from 2004 to 2017. Preterm births for White mothers decreased the most in the county from 11.2 percent to 9.2 percent from 2004 to 2007. Followed by a decrease in preterm births for Black mothers from 14.5 percent to 13.7 percent and Hispanic mothers from 10.8 percent to 10.1 percent during the same time.

The largest decline at the state level was in the percentages for White mothers (10.1 percent to 9.1 percent), followed by Black mothers (14.6 percent to 14 percent) and Hispanic mothers (9.4 percent to 9.1 percent). (See Charts 8.58-8.60)

LOW BIRTH WEIGHT (<2500 GRAMS) BY RACE/ETHNICITY (2004-2017)

Percentages for low birth weight births varied across all counties and all groups from 2004 to 2017. In Orange County the percentage of low birth weight babies to White mothers decreased (7.5 percent to 7.2 percent), at the state level there was no change from 2004 to 2017 (7.2 percent).

The percentage of low birth weight babies born to Black mothers decreased in Orange County from 13.1 percent to 12.9 percent and increased in the state (13.1 percent to 13.8 percent) from 2004 to 2017. There was an increase in low birth weight babies for Hispanic mothers in Orange County (7.9 percent to 8.3 percent) from 2004 to 2017. Births to Hispanic mothers increased the least of all groups in state (7 percent to 7.3) during this time. (See Charts 8.61-8.63)

BIRTHS COVERED BY MEDICAID BY RACE/ETHNICITY (2004-2017)

The percentage of births covered by Medicaid increased from 2004 to 2017 in both Orange County and the state for all racial and ethnic groups. The percentage of Medicaid births covered for White mothers increased in Orange County from 31.9 percent to 41 percent during this time. The largest increase in the county was for Black mothers from 52.5 percent (2004) to 62.6 percent (2017); the percentage for Hispanic mothers increased from 46.2 percent to 52.5 percent during this time.

Births to White mothers covered by Medicaid in the state increased from 32.2 percent to 43.8 percent from 2004 to 2017, the smallest decrease across all groups in the state. The percentage of births to Black mothers increased in the state from 53.7 percent to 68.4 percent during this time. The increase in the percentage of births to Hispanic mothers was the largest of all groups from 37.6 percent to 52.2 percent. (See Charts 8.64-8.66)

Quality Of Life/Mental Health Disparities

Please note the data sourced for this chapter is from FLHealthCHARTS, which does not provide the same race and ethnicity options for all indicators. In the section below, White refers to Non-Hispanic White adults, Black refers to Non-Hispanic Black adults and Hispanic refers to all Hispanic adults regardless of race.

ADULTS WHO HAD POOR MENTAL HEALTH 14 OR MORE DAYS OF THE PAST 30 BY RACE/ ETHNICITY (2007-2016)

The percentage of individuals who had poor mental health 14 or more days of the past 30 by race/ethnicity fluctuated in both Orange County and at the state level from 2007 to 2016. The percentage of White adults with 14 or more poor mental health days in the past 30 days increased in both the county (5 percent to 13.7 percent) and in the state from 9.1 percent to 12.2 percent during this time.

Black adults in Orange County who had 14 or more poor mental health days in the last 30 increased overall from 9.6 percent (2007) to 11.7 percent (2016), the 2016 level was a decrease from a spike to 18.9 percent in 2013. At the state level, there was a decrease from 12.8 percent (2007) to 10.8 percent (2016).

From 2007 to 2016 there was an increase in the percentage of Hispanic adults who had 14 or more poor mental health days in the past 30 in Orange County from 9.6 percent to 11.7 percent, the 2016 percentage was a decrease from a spike to 23.4 percent in 2010. At the state level there was a decrease from 10.2 percent to 9.9 percent during this time. (See Charts 8.67-8.69)

ADULTS WHO HAD POOR MENTAL HEALTH 14 OR MORE DAYS OF THE PAST 30 BY INCOME

Percentages for adults who had poor mental health 14 or more days of the past 30 with income less than $25K increased in Orange County and the state from 2007 to 2016. The increase in Orange County was from 7.7 percent to 14.8 percent and at the state level from 16.1 percent to 17.8 percent during these years.

The percentages of adults who had poor mental health 14 or more days in the past 30 with an income between $25K and $49K increased in Orange County and the state from 2007 to 2016. Percentages in Orange County increased from 10.1 percent to 13.8 percent. The smallest increase in all income ranges was in this bracket at the state level from 11.3 percent to 11.9 percent from 2007 to 2016.

There was an increase in Orange County and at the state level for adults who had an income above $50K in the percentage of poor mental health days. The county percentage increased from 5.5 percent to 8.8 percent from 2007 to 2016. The increase at the state level was from 5.7 percent to 7.6 percent during this time. (See Charts 8.70-8.72)

ADULTS WHO HAD POOR MENTAL HEALTH 14 OR MORE DAYS OF THE PAST 30 BY EDUCATION (2007-2016)

The percentage in Orange County of adults who had poor mental health 14 or more days in the past 30 and less than a high school education increased from 7.7 percent (2007) to 12.7 percent (2016). At the state level there was a decrease from 15.8 percent to 15.3 percent over the same time.

The percentage of adults with a high school education or GED who experienced 14 or more poor mental health days in the past 30 increased in Orange County and at the state level. In the county there was an

increase from 6.7 percent to 12.3 percent from 2007 to 2016 and at the state level from 11 percent to 12.1 percent during the same time.

Adults reporting poor mental health 14 or more days in the past 30 with more than a high school education increased in both Orange County and at the state level from 2007 to 2016. In the county there was an increase from 6.9 percent to 11.7 percent and at the state level from 8.2 percent to 10.1 percent during this time. (See Charts 8.73-8.75)

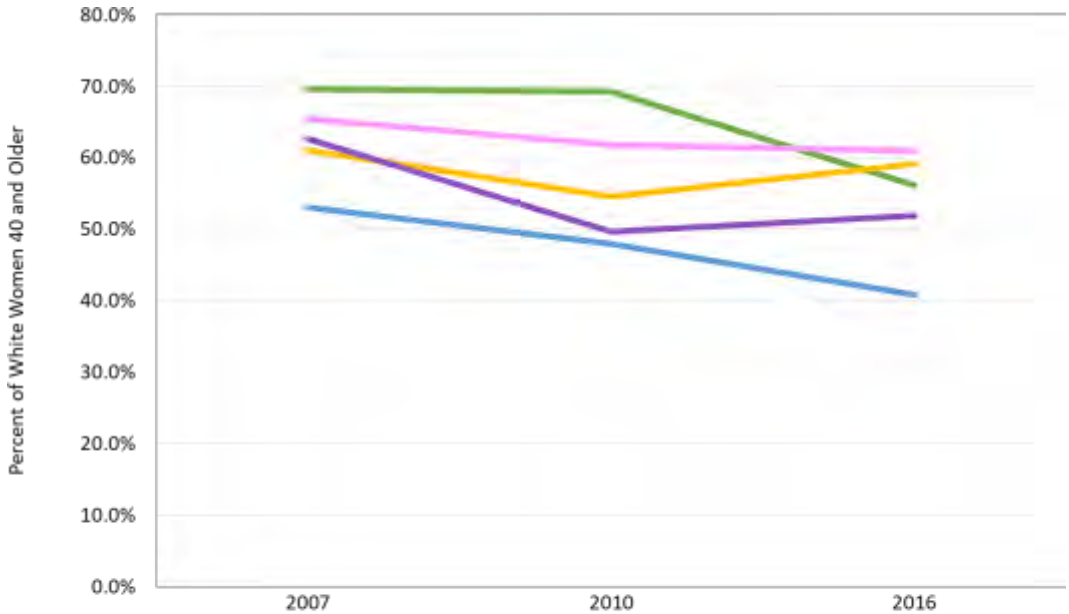
Health Care Access Disparities

INSURANCE COVERAGE BY RACE/ETHNICITY (2007-2016)

Insurance coverage for all groups across the state increased from 2007 to 2016. The largest increase was for Hispanic adults from 61.4 percent to 71.1 percent during this time. This was followed by an increase in coverage for Black adults from 77.2 percent in 2007 to 81 percent in 2016 and for White adults from 87.8 percent to 89.5 percent during this time.

There was an increase in coverage for both White adults (87.2 percent to 89.2 percent) and Hispanic adults (56.1 percent to 67.9 percent) from 2007 to 2016. Black adults had a decrease in coverage from 83.3 percent to 82.2 percent during this time. (See Charts 8.76-8.78)

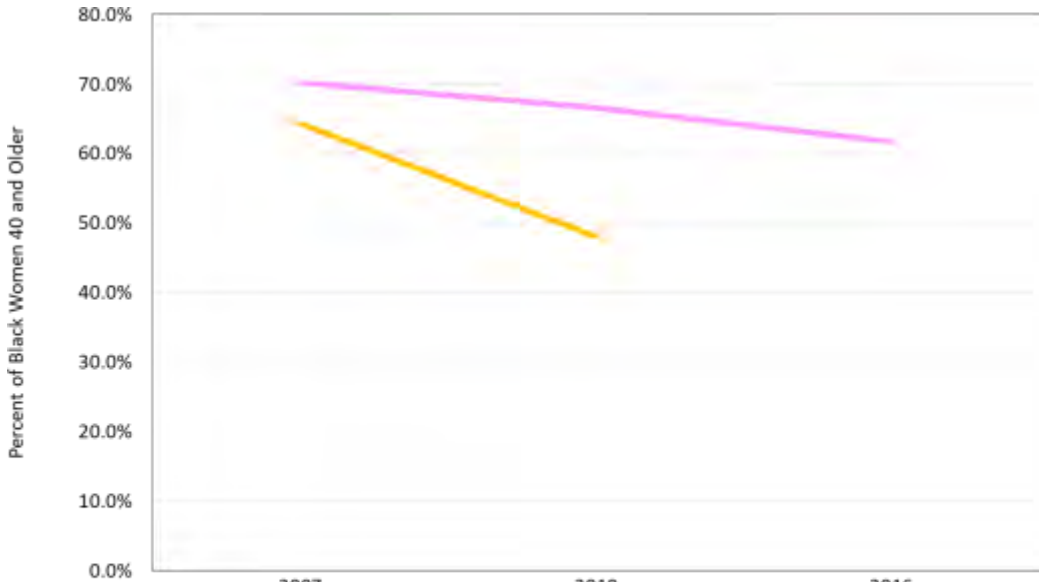
CHART 8.1: PERCENT OF WHITE WOMEN AGES 40 AND OLDER WHO RECEIVED MAMMOGRAMS (2007-2016)



	2007	2010	2016
LAKE	69.6%	69.3%	56.1%
ORANGE	61.0%	54.5%	59.1%
OSCEOLA	53.1%	47.9%	40.8%
SEMINOLE	62.7%	49.6%	51.9%
FLORIDA	65.4%	61.8%	60.9%

Source: Florida Department of Health: University of Miami (FL) Medical School, Florida Cancer Data Systems

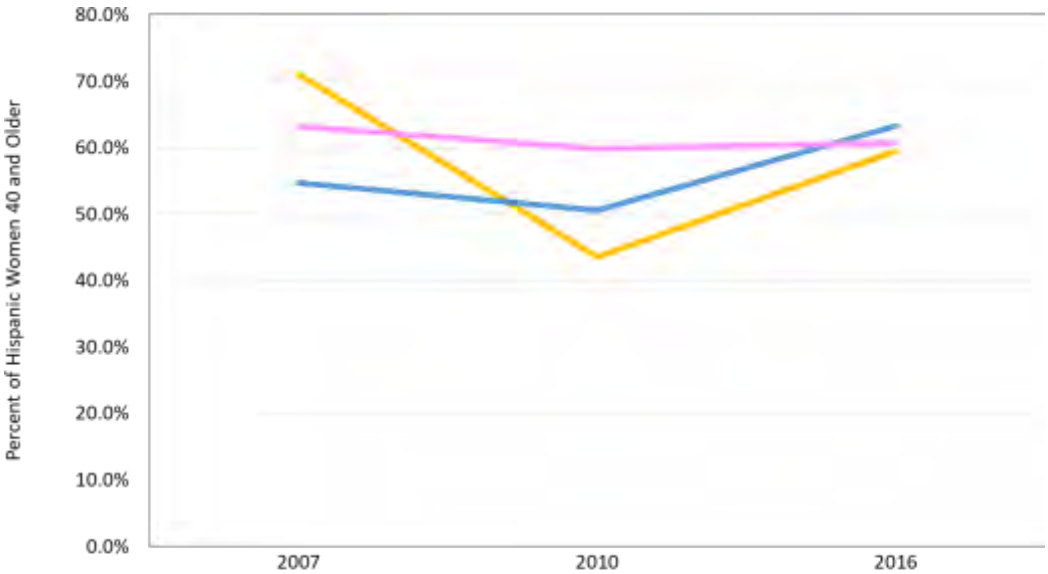
CHART 8.2: PERCENT OF BLACK WOMEN AGES 40 AND OLDER WHO RECEIVED MAMMOGRAMS (2007-2016)



	2007	2010	2016
LAKE	N/A	N/A	N/A
ORANGE	64.4%	48.0%	N/A
OSCEOLA	N/A	N/A	N/A
SEMINOLE	N/A	N/A	N/A
FLORIDA	70.2%	66.6%	61.7%

Source: Florida Department of Health: University of Miami (FL) Medical School, Florida Cancer Data Systems

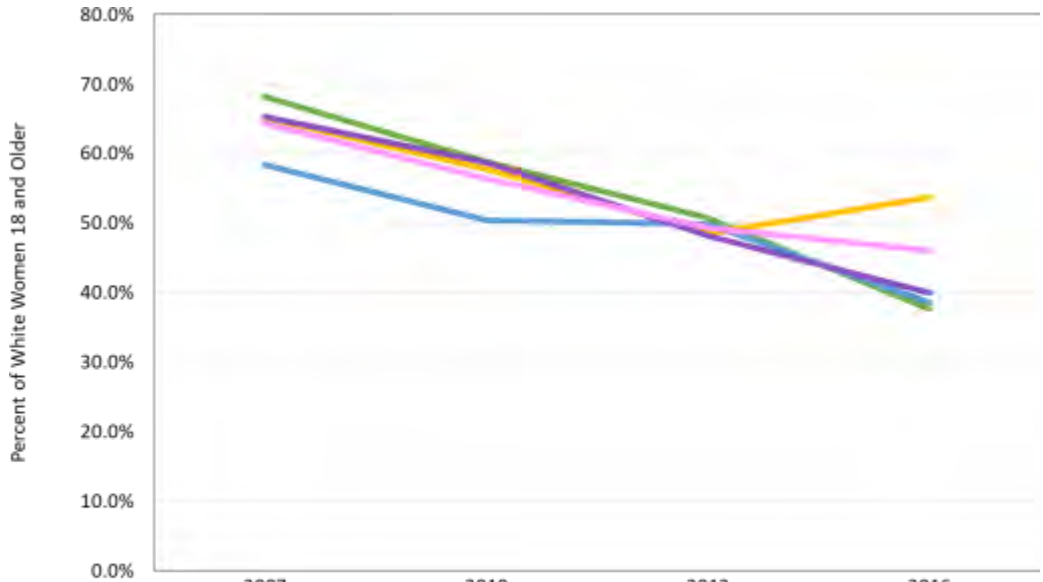
CHART 8.3: PERCENT OF HISPANIC WOMEN AGES 40 AND OLDER WHO RECEIVED MAMMOGRAMS (2007-2016)



	2007	2010	2016
LAKE	N/A	N/A	N/A
ORANGE	71.1%	43.5%	59.5%
OSCEOLA	54.7%	50.6%	63.3%
SEMINOLE	N/A	N/A	N/A
FLORIDA	63.2%	59.8%	60.7%

Source: Florida Department of Health: University of Miami (FL) Medical School, Florida Cancer Data Systems

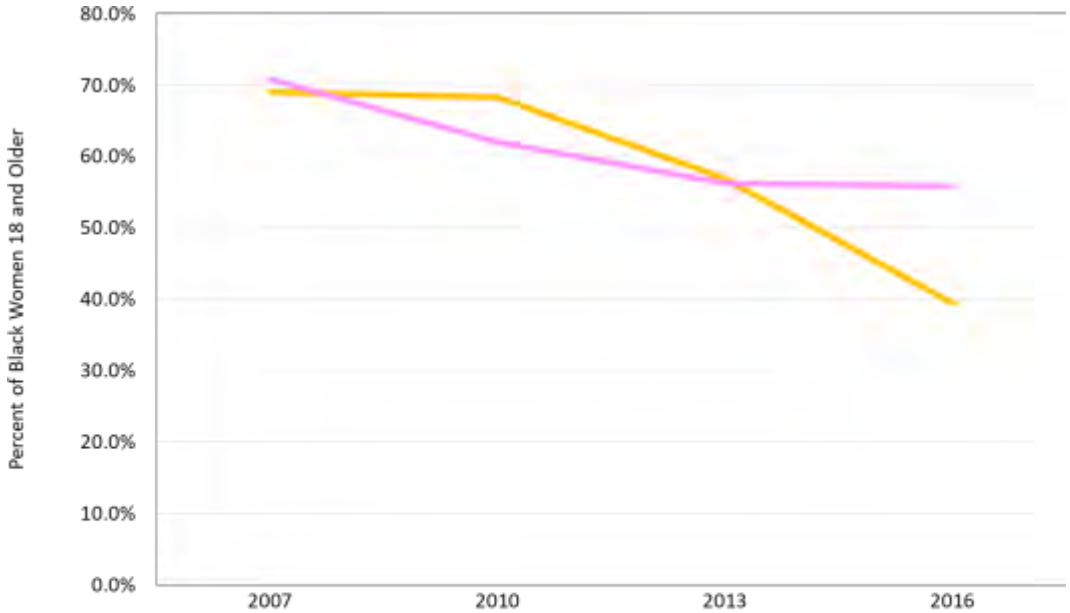
CHART 8.4: WHITE WOMEN AGES 18 YEARS AND OLDER WHO RECEIVED PAP TEST IN PAST YEAR (2007-2016)



	2007	2010	2013	2016
LAKE	68.2%	58.8%	50.7%	37.6%
ORANGE	65.2%	57.8%	48.5%	53.7%
OSCEOLA	58.4%	50.4%	49.9%	38.6%
SEMINOLE	65.3%	58.7%	48.2%	40.0%
FLORIDA	64.4%	56.4%	49.3%	46.0%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

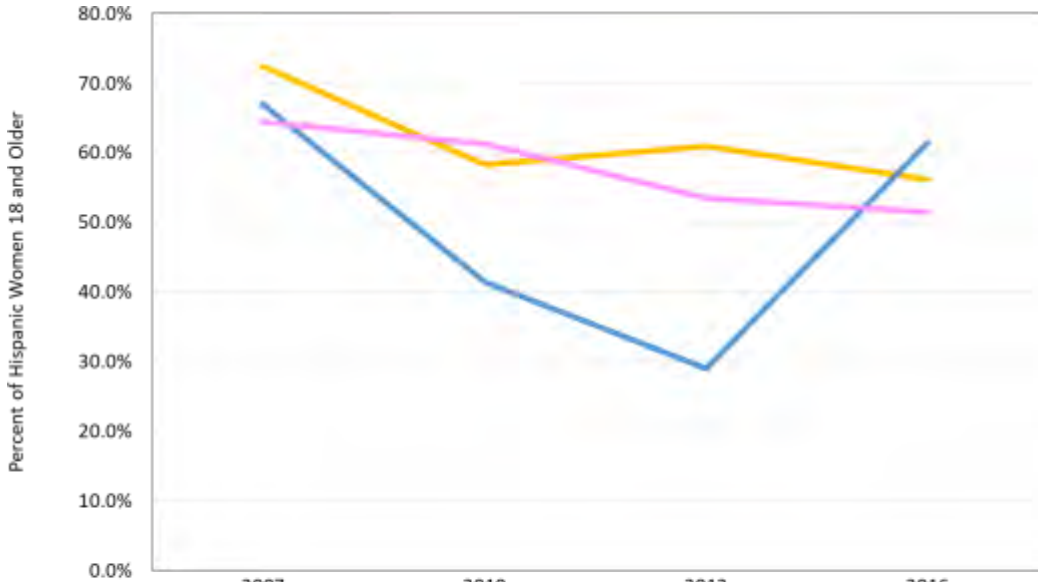
CHART 8.5: BLACK WOMEN AGES 18 YEARS AND OLDER WHO RECEIVED PAP TEST IN PAST YEAR (2007-2016)



	2007	2010	2013	2016
LAKE	N/A	N/A	N/A	N/A
ORANGE	69.0%	68.3%	56.9%	39.4%
OSCEOLA	N/A	N/A	N/A	N/A
SEMINOLE	N/A	N/A	N/A	N/A
FLORIDA	70.9%	62.0%	56.3%	55.8%

Source: Florida Department of Health: University of Miami (FL) Medical School, Florida Cancer Data Systems

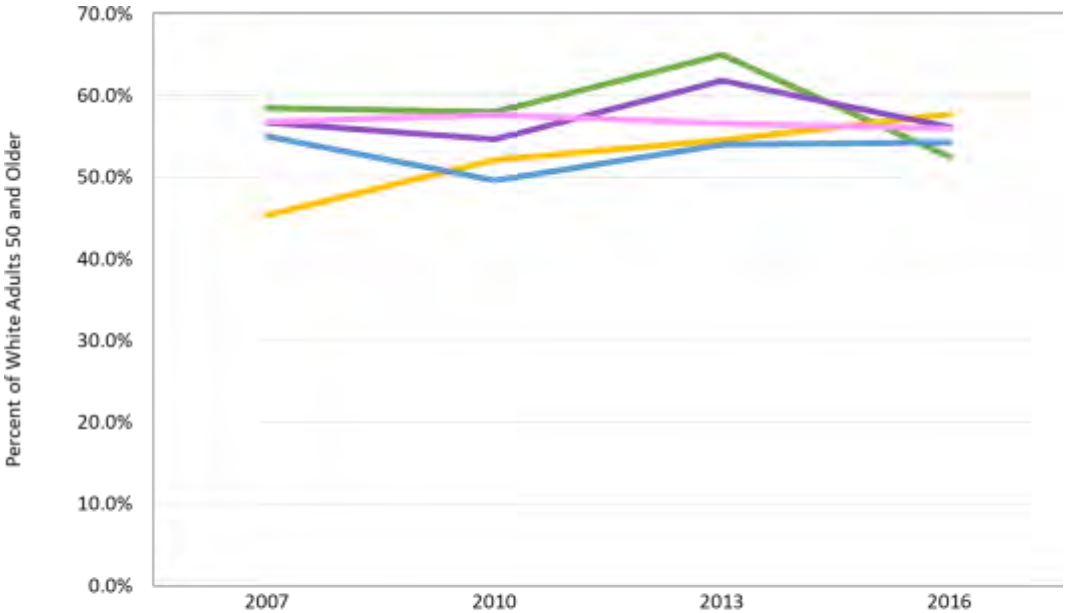
CHART 8.6: HISPANIC WOMEN AGES 18 YEARS AND OLDER WHO RECEIVED PAP TEST IN PAST YEAR (2007-2016)



	2007	2010	2013	2016
LAKE	N/A	N/A	N/A	N/A
ORANGE	72.4%	58.3%	60.9%	56.1%
OSCEOLA	67.0%	41.4%	29.0%	61.5%
SEMINOLE	N/A	N/A	N/A	N/A
FLORIDA	64.5%	61.3%	53.5%	51.5%

Source: Florida Department of Health: University of Miami (FL) Medical School, Florida Cancer Data Systems

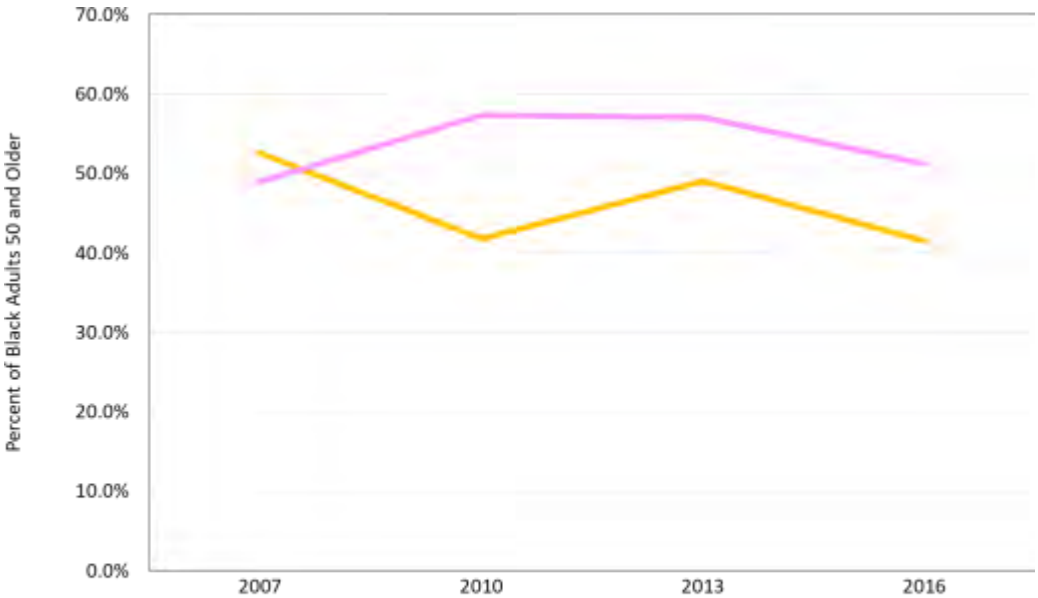
CHART 8.7: WHITE ADULTS AGES 50 AND OLDER WHO RECEIVED SIGMOIDOSCOPY OR COLONOSCOPY (2007-2016)



	2007	2010	2013	2016
LAKE	58.5%	58.0%	65.0%	52.5%
ORANGE	45.3%	52.1%	54.5%	57.7%
OSCEOLA	55.0%	49.6%	54.0%	54.3%
SEMINOLE	56.7%	54.6%	61.8%	56.1%
FLORIDA	56.8%	57.6%	56.6%	55.9%

Source: Florida Department of Health: University of Miami (FL) Medical School, Florida Cancer Data Systems

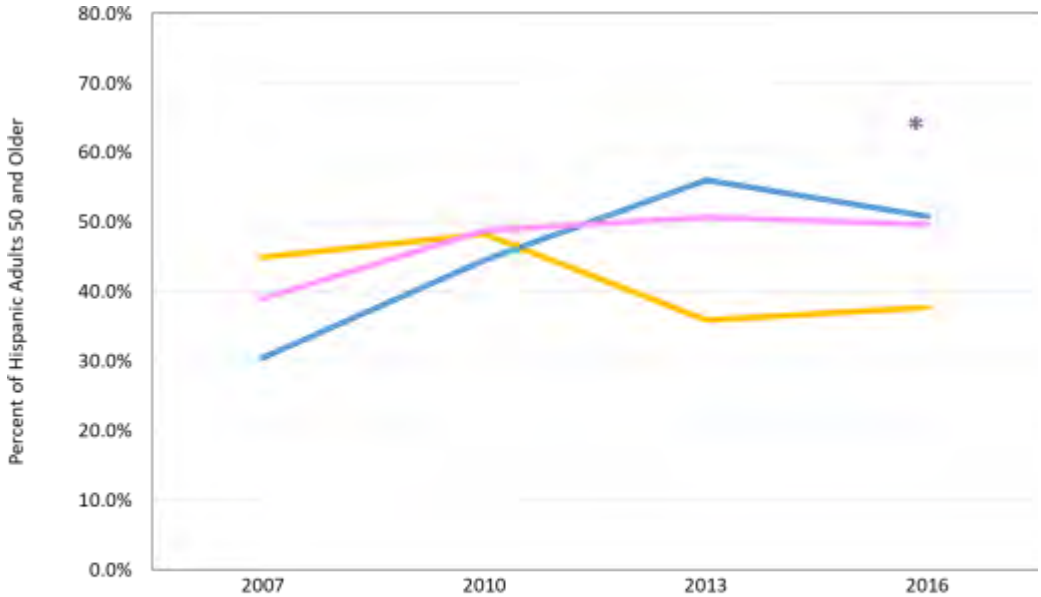
CHART 8.8: BLACK ADULTS AGES 50 AND OLDER WHO RECEIVED SIGMOIDOSCOPY OR COLONOSCOPY (2007-2016)



	2007	2010	2013	2016
LAKE	N/A	N/A	N/A	N/A
ORANGE	52.6%	41.8%	49.0%	41.5%
OSCEOLA	N/A	N/A	N/A	N/A
SEMINOLE	N/A	N/A	N/A	N/A
FLORIDA	48.9%	57.3%	57.1%	51.2%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

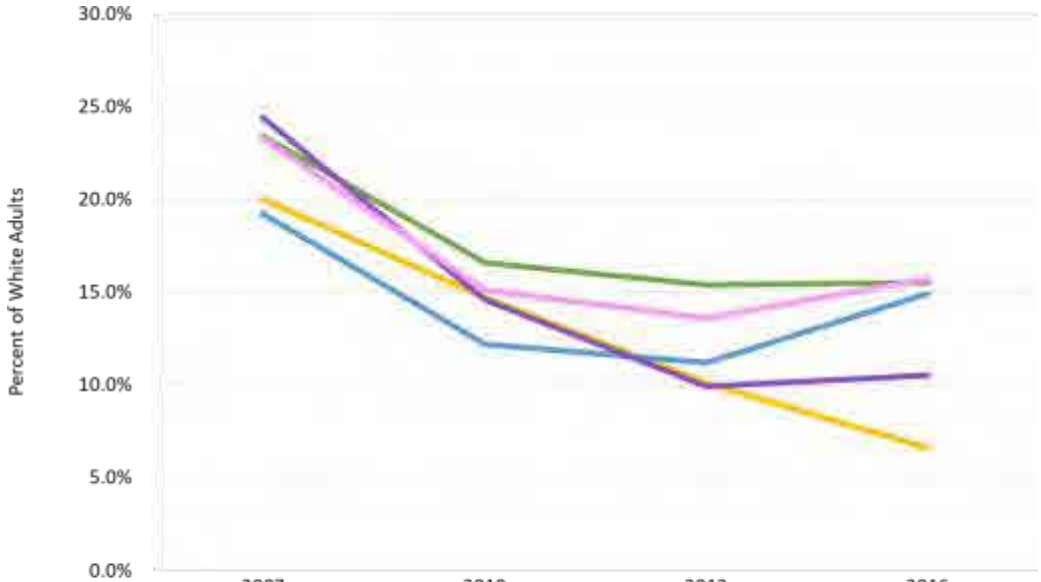
CHART 8.9: HISPANIC ADULTS AGES 50 AND OLDER WHO RECEIVED SIGMOIDOSCOPY OR COLONOSCOPY (2007-2016)



	2007	2010	2013	2016
LAKE	N/A	N/A	N/A	N/A
ORANGE	45.0%	48.3%	35.9%	37.7%
OSCEOLA	30.5%	44.5%	56.0%	50.8%
SEMINOLE	N/A	N/A	N/A	70.6%
FLORIDA	39.0%	48.8%	50.7%	49.6%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System
*Represents a single data point where there has been inconsistent data for a county

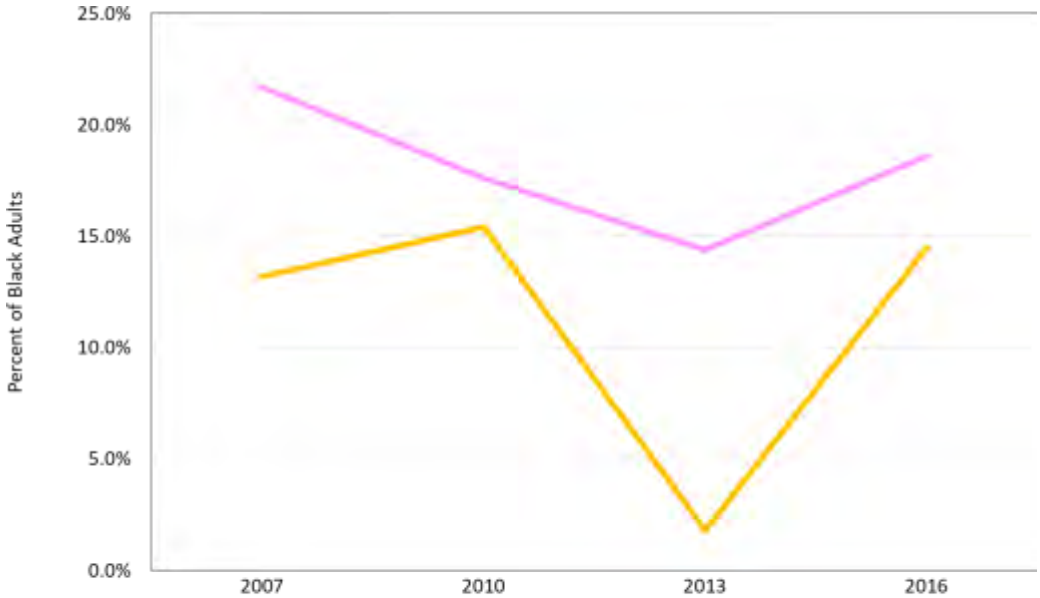
CHART 8.10: WHITE ADULTS AGES 50 AND OLDER WHO RECEIVED A BLOOD STOOL TEST IN THE PAST YEAR (2007-2016)



	2007	2010	2013	2016
LAKE	23.4%	16.6%	15.4%	15.5%
ORANGE	20.0%	14.7%	10.1%	6.6%
OSCEOLA	19.2%	12.2%	11.2%	14.9%
SEMINOLE	24.4%	14.6%	9.9%	10.5%
FLORIDA	23.3%	15.1%	13.6%	15.7%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

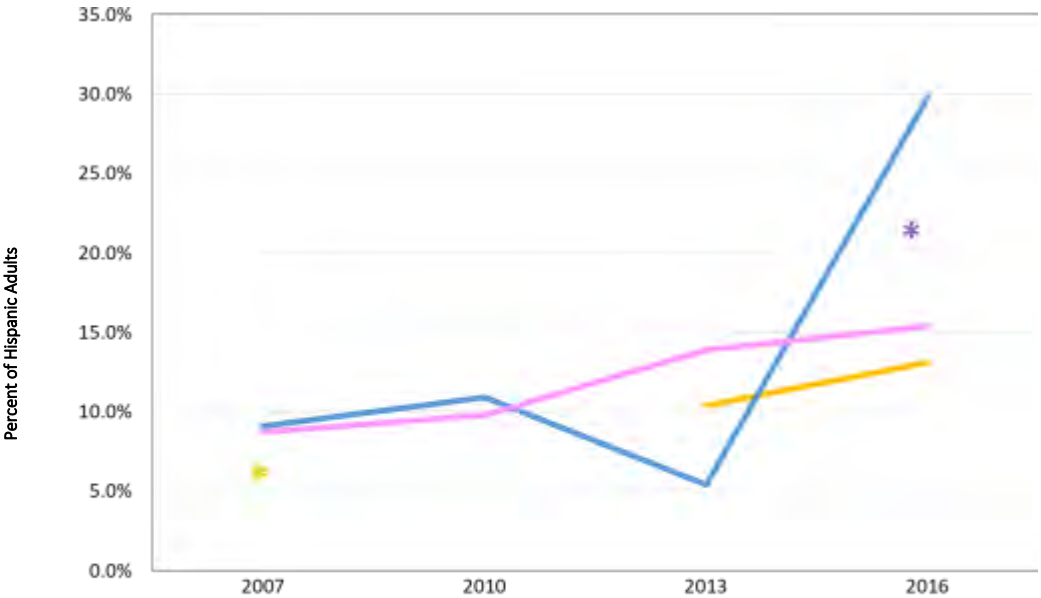
CHART 8.11: BLACK ADULTS AGES 50 AND OLDER WHO RECEIVED A BLOOD STOOL TEST IN THE PAST YEAR (2007-2016)



	2007	2010	2013	2016
LAKE	N/A	N/A	N/A	N/A
ORANGE	13.2%	15.4%	1.8%	14.5%
OSCEOLA	N/A	N/A	N/A	N/A
SEMINOLE	N/A	N/A	N/A	N/A
FLORIDA	21.7%	17.6%	14.4%	18.6%

Source: Florida Department of Health: University of Miami (FL) Medical School, Florida Cancer Data Systems

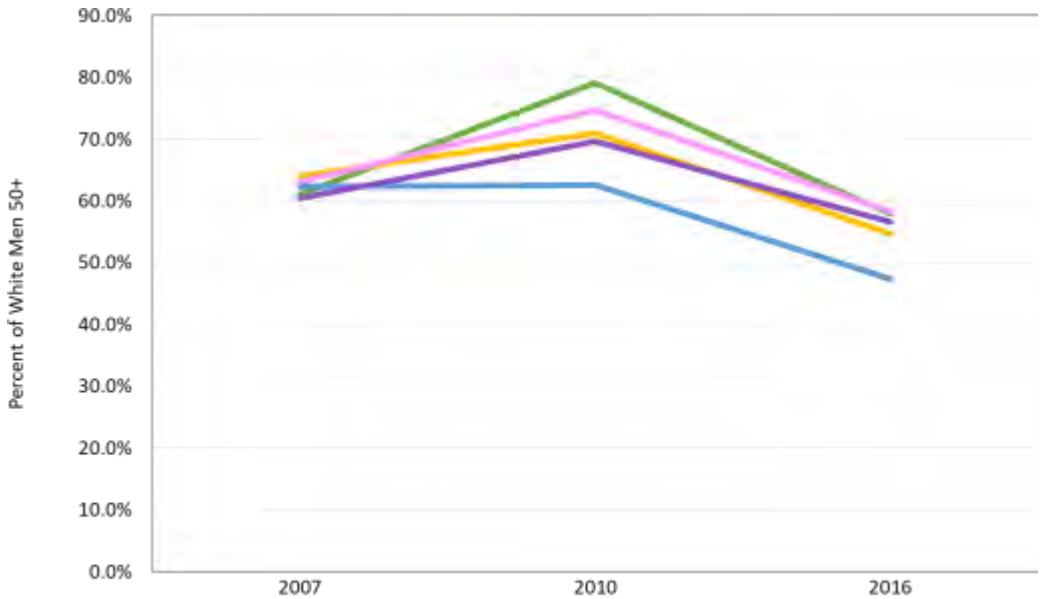
CHART 8.12: HISPANIC ADULTS AGES 50 AND OLDER WHO RECEIVED A BLOOD STOOL TEST IN THE PAST YEAR (2007-2016)



	2007	2010	2013	2016
LAKE	N/A	N/A	N/A	N/A
ORANGE	8.3%	N/A	10.4%	13.1%
OSCEOLA	9.1%	10.9%	5.4%	29.8%
SEMINOLE	N/A	N/A	N/A	24.6%
FLORIDA	8.7%	9.8%	13.9%	15.4%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System
*Represents a single data point where there has been inconsistent data for a county

CHART 8.13: WHITE MEN AGES 50 AND OLDER WHO RECEIVED A PSA TEST IN THE PAST TWO YEARS (2007-2016)



	2007	2010	2016
LAKE	61.0%	79.1%	57.9%
ORANGE	64.0%	70.9%	54.7%
OSCEOLA	62.3%	62.6%	47.4%
SEMINOLE	60.4%	69.6%	56.6%
FLORIDA	63.1%	74.7%	58.2%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

CHART 8.14: BLACK MEN AGES 50 AND OLDER WHO RECEIVED A PSA TESTS IN THE PAST TWO YEARS (2007-2016)

	2007	2010	2016
LAKE	N/A	N/A	N/A
ORANGE	N/A	N/A	N/A
OSCEOLA	N/A	N/A	N/A
SEMINOLE	N/A	N/A	N/A
FLORIDA	71.5%	67.0%	48.4%

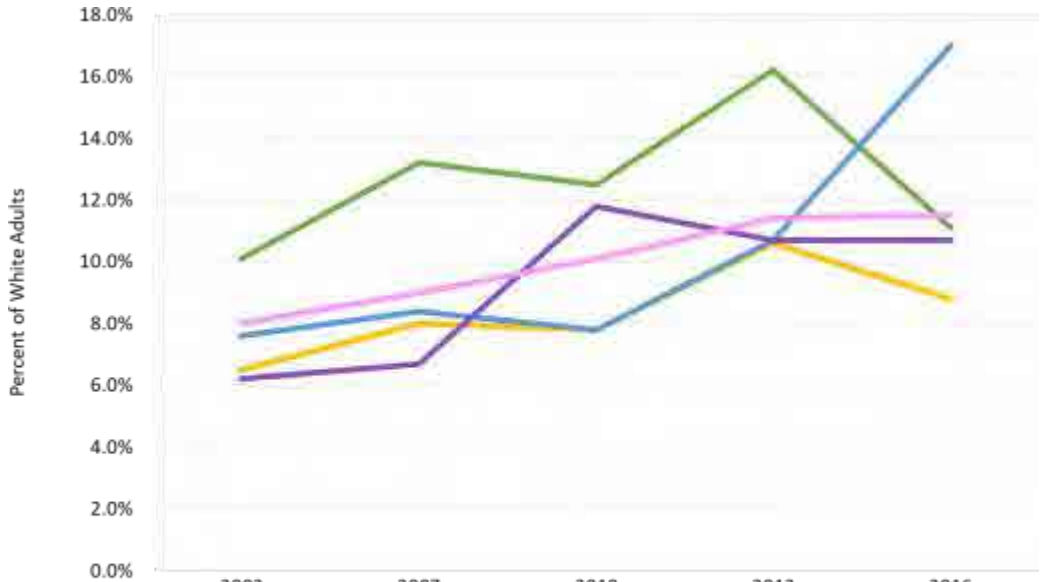
Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

CHART 8.15: HISPANIC MEN AGES 50 AND OLDER WHO RECEIVED A PSA TEST IN THE PAST TWO YEARS (2007-2016)

	2007	2010	2016
LAKE	N/A	N/A	N/A
ORANGE	39.3%	N/A	48.2%
OSCEOLA	27.3%	N/A	N/A
SEMINOLE	N/A	N/A	N/A
FLORIDA	51.8%	60.7%	47.0%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System
*Represents a single data point where there has been inconsistent data for a county

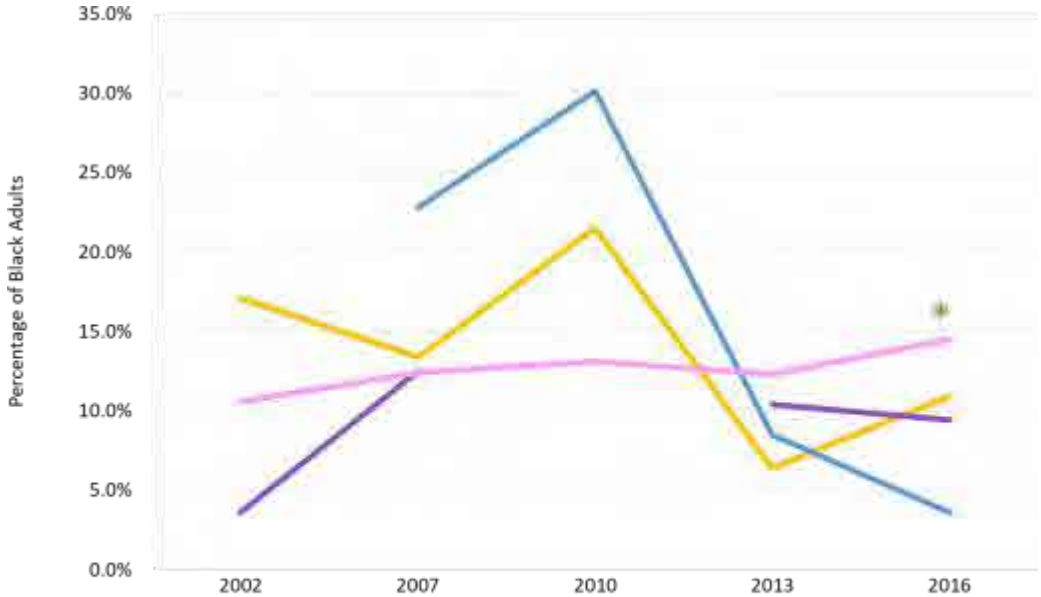
CHART 8.16: WHITE ADULTS WITH DIAGNOSED DIABETES (2002-2016)



	2002	2007	2010	2013	2016
LAKE	10.1%	13.2%	12.5%	16.2%	11.1%
ORANGE	6.5%	8.0%	7.8%	10.6%	8.8%
OSCEOLA	7.6%	8.4%	7.8%	10.7%	17.0%
SEMINOLE	6.2%	6.7%	11.8%	10.7%	10.7%
FLORIDA	8.0%	9.0%	10.1%	11.4%	11.5%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

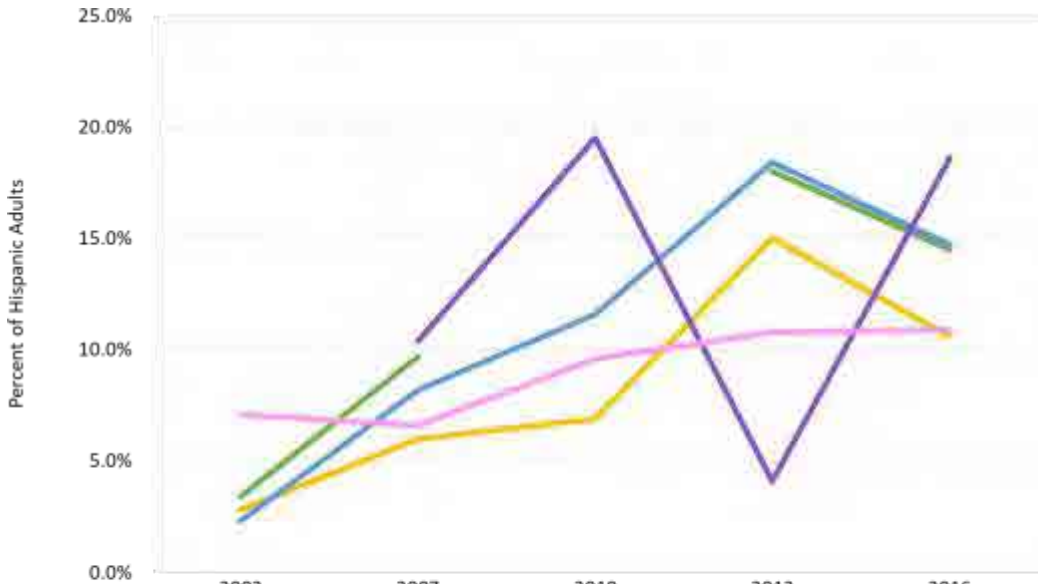
CHART 8.17: BLACK ADULTS WITH DIAGNOSED DIABETES (2002-2016)



	2002	2007	2010	2013	2016
LAKE	N/A	N/A	N/A	N/A	18.5%
ORANGE	17.1%	13.4%	21.5%	6.4%	10.9%
OSCEOLA	N/A	22.8%	30.1%	8.5%	3.6%
SEMINOLE	3.6%	12.5%	N/A	10.4%	9.4%
FLORIDA	10.6%	12.4%	13.1%	12.3%	14.5%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System
*Represents a single data point where there has been inconsistent data for a county

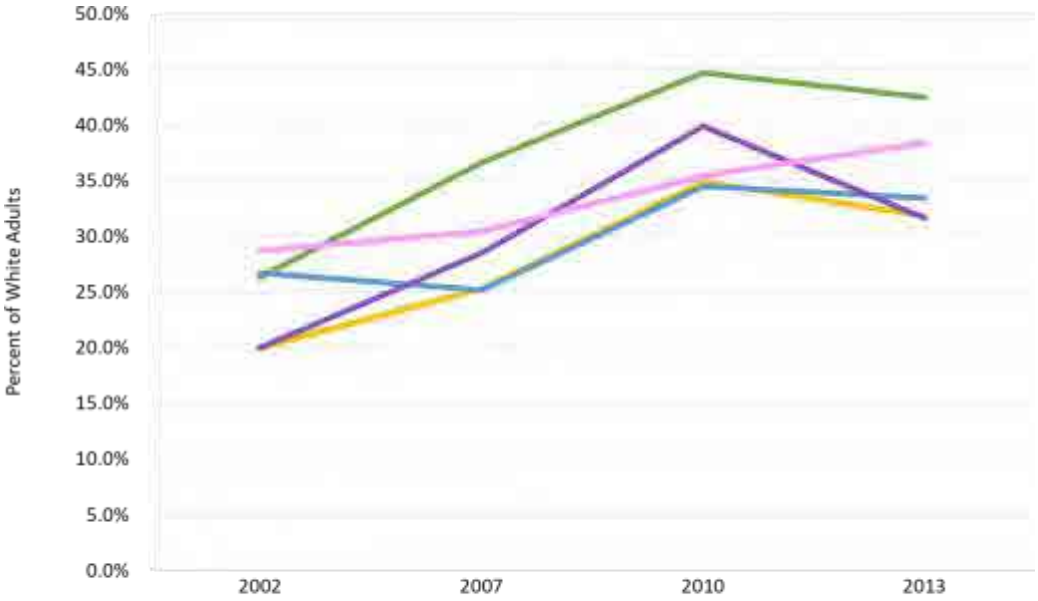
CHART 8.18: HISPANIC ADULTS WITH DIAGNOSED DIABETES (2002-2016)



	2002	2007	2010	2013	2016
LAKE	3.4%	9.7%	N/A	18.0%	14.5%
ORANGE	2.8%	6.0%	6.9%	15.0%	10.6%
OSCEOLA	2.3%	8.2%	11.6%	18.4%	14.7%
SEMINOLE	N/A	10.4%	19.5%	4.1%	18.6%
FLORIDA	7.1%	6.6%	9.6%	10.8%	10.9%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

CHART 8.19: WHITE ADULTS WHO HAVE BEEN TOLD THEY HAVE HIGH BLOOD PRESSURE (2002-2013)



	2002	2007	2010	2013
LAKE	26.3%	36.6%	44.7%	42.5%
ORANGE	20.0%	25.3%	34.9%	31.8%
OSCEOLA	26.7%	25.2%	34.5%	33.4%
SEMINOLE	20.0%	28.5%	39.9%	31.6%
FLORIDA	28.7%	30.4%	35.4%	38.4%

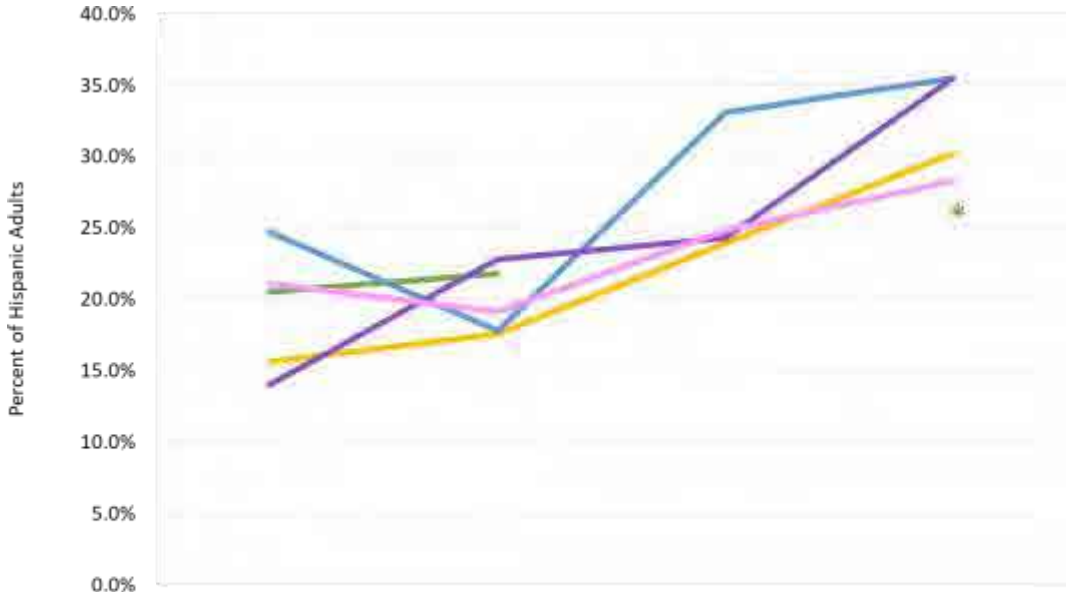
Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

CHART 8.20: BLACK ADULTS WHO HAVE BEEN TOLD THEY HAVE HIGH BLOOD PRESSURE (2002-2013)

	2002	2007	2010	2013
LAKE	N/A	N/A	N/A	N/A
ORANGE	40.1%	37.5%	45.5%	26.5%
OSCEOLA	N/A	30.7%	42.8%	15.8%
SEMINOLE	N/A	45.7%	N/A	52.0%
FLORIDA	32.2%	32.5%	41.7%	33.7%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System
*Represents a single data point where there has been inconsistent data for a county

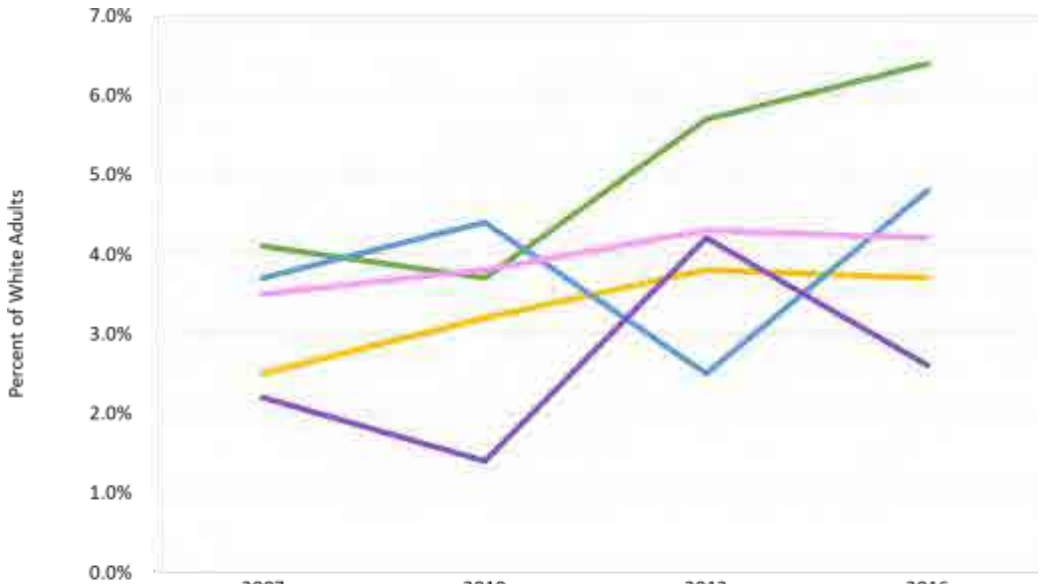
CHART 8.21: HISPANIC ADULTS WHO HAVE BEEN TOLD THEY HAVE HIGH BLOOD PRESSURE (2002-2013)



	2002	2007	2010	2013
LAKE	20.5%	21.8%	N/A	27.7%
ORANGE	15.6%	17.6%	23.9%	30.2%
OSCEOLA	24.7%	17.8%	33.1%	35.5%
SEMINOLE	14.0%	22.8%	24.3%	35.5%
FLORIDA	21.1%	19.1%	24.8%	28.3%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System
*Represents a single data point where there has been inconsistent data for a county

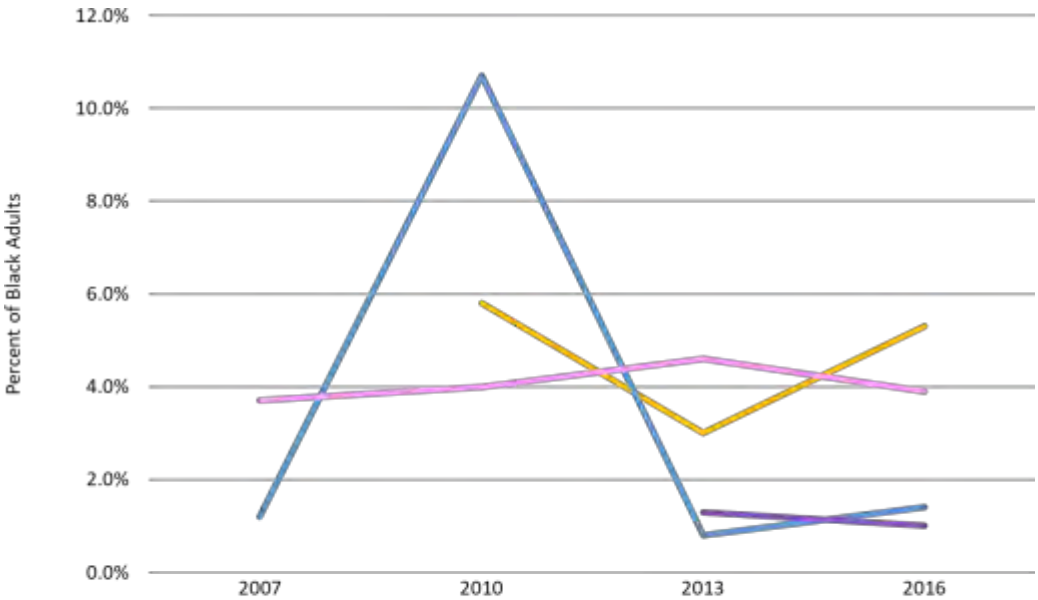
CHART 8.22: WHITE ADULTS WHO HAVE BEEN TOLD THEY HAD A STROKE (2007-2016)



	2007	2010	2013	2016
LAKE	4.1%	3.7%	5.7%	6.4%
ORANGE	2.5%	3.2%	3.8%	3.7%
OSCEOLA	3.7%	4.4%	2.5%	4.8%
SEMINOLE	2.2%	1.4%	4.2%	2.6%
FLORIDA	3.5%	3.8%	4.3%	4.2%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

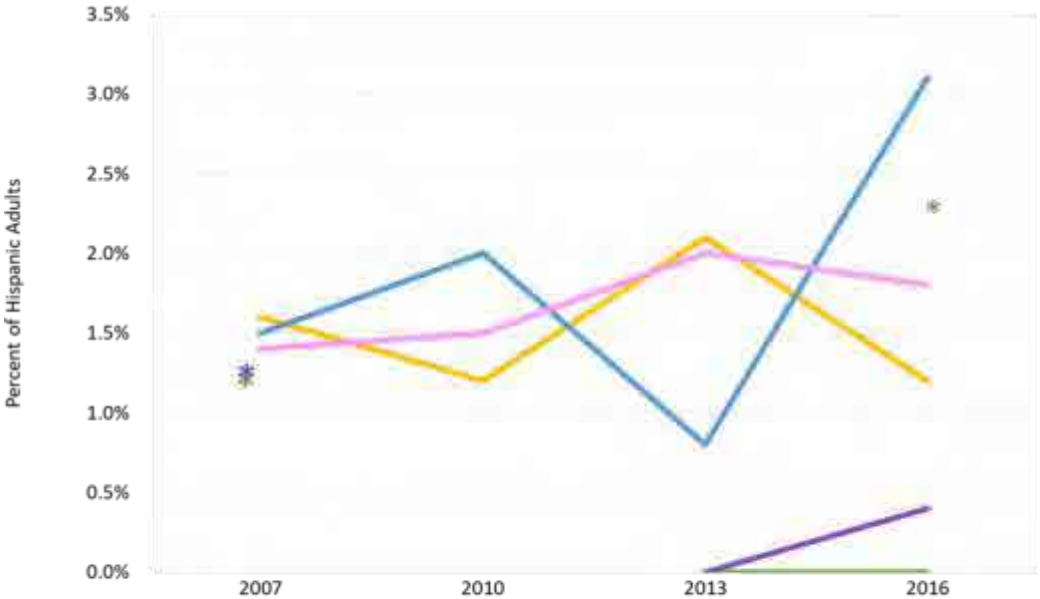
CHART 8.23: BLACK ADULTS WHO HAVE BEEN TOLD THEY HAD A STROKE (2007-2016)



	2007	2010	2013	2016
LAKE	N/A	N/A	N/A	N/A
ORANGE	N/A	5.8%	3.0%	5.3%
OSCEOLA	1.2%	10.7%	0.8%	1.4%
SEMINOLE	N/A	N/A	1.3%	1.0%
FLORIDA	3.7%	4.0%	4.6%	3.9%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

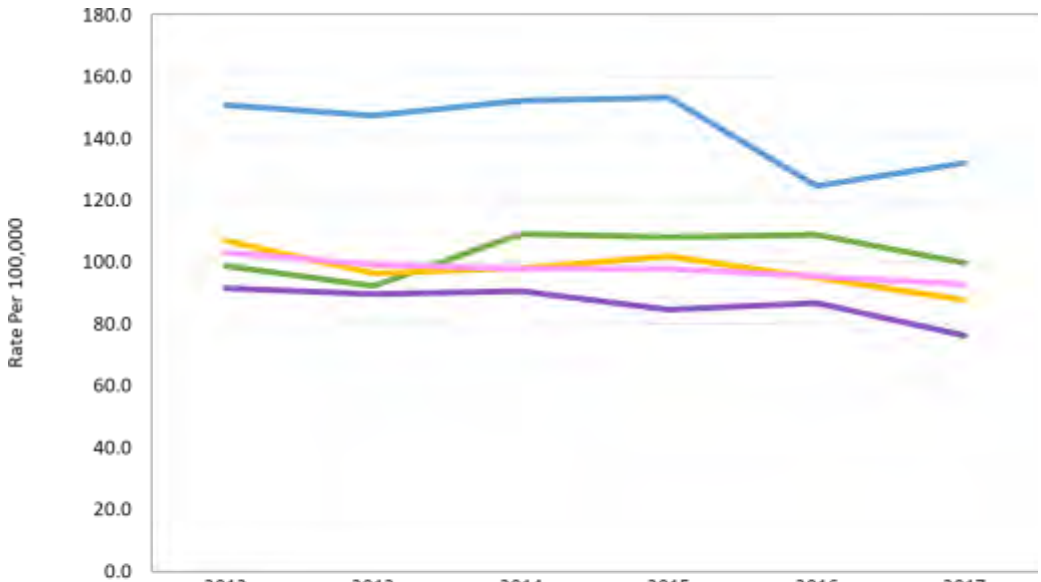
CHART 8.24: HISPANIC ADULTS WHO HAVE BEEN TOLD THEY HAD A STROKE (2007-2016)



	2007	2010	2013	2016
LAKE	1.4%	N/A	0.0%	0.0%
ORANGE	1.6%	1.2%	2.1%	1.2%
OSCEOLA	1.5%	2.0%	0.8%	3.1%
SEMINOLE	1.5%	N/A	0.0%	0.4%
FLORIDA	1.4%	1.5%	2.0%	1.8%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System
*Represents a single data point where there has been inconsistent data for a county

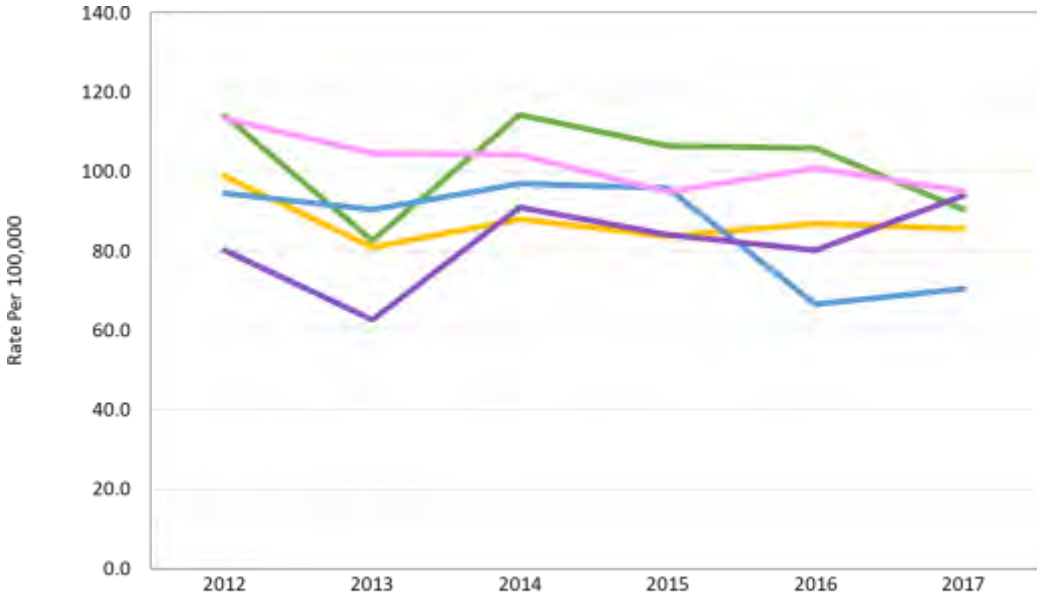
CHART 8.25: WHITE AGE-ADJUSTED DEATH RATE FOR CORONARY HEART DISEASE (2012-2017)



	2012	2013	2014	2015	2016	2017
LAKE	98.7	92.2	109.0	108.1	108.8	99.7
ORANGE	106.8	96.4	98.0	101.9	95.0	87.7
OSCEOLA	150.8	147.5	152.2	153.2	124.7	132.0
SEMINOLE	91.5	89.6	90.6	84.7	86.8	76.3
FLORIDA	103.0	99.3	97.9	97.7	95.3	92.8

Source: FLHealthCHARTS: Florida Department of Health, Vital Statistics

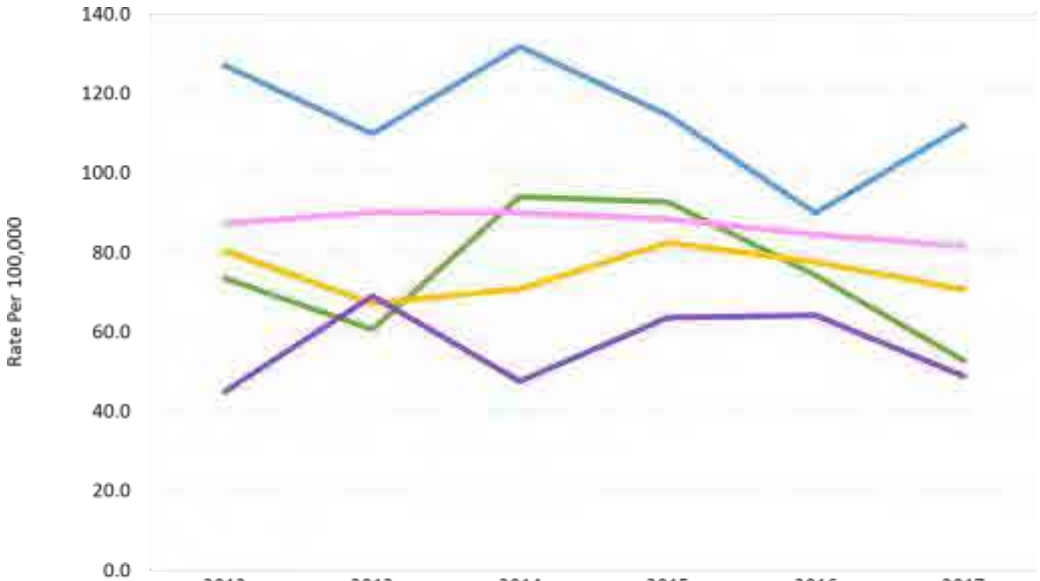
CHART 8.26: BLACK AGE-ADJUSTED DEATH RATE FOR CORONARY HEART DISEASE (2012-2017)



	2012	2013	2014	2015	2016	2017
LAKE	114.2	82.6	114.3	106.5	105.9	90.5
ORANGE	98.8	81.0	88.0	83.7	86.8	85.6
OSCEOLA	94.5	90.4	96.9	95.9	66.5	70.4
SEMINOLE	80.2	62.7	90.9	84.0	80.2	94.0
FLORIDA	113.4	104.6	104.3	94.9	100.9	95.1

Source: FLHealthCHARTS: Florida Department of Health, Vital Statistics

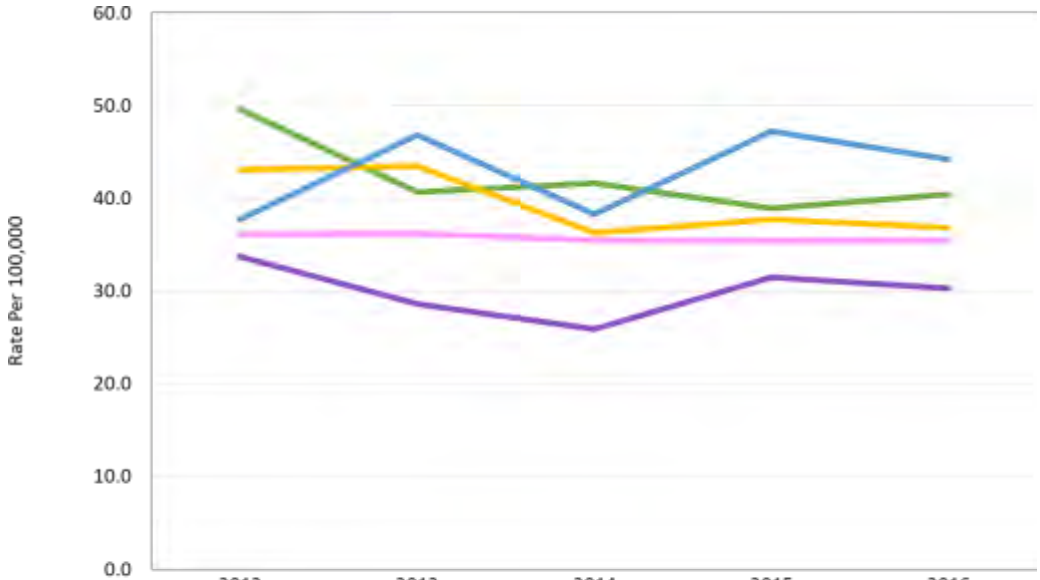
CHART 8.27: HISPANIC AGE-ADJUSTED DEATH RATE FOR CORONARY HEART DISEASE (2012-2017)



	2012	2013	2014	2015	2016	2017
LAKE	73.4	60.6	94.0	92.7	74.3	52.7
ORANGE	80.3	67.2	70.8	82.4	77.6	70.6
OSCEOLA	127.0	109.9	131.9	114.5	89.8	111.9
SEMINOLE	44.9	68.9	47.5	63.5	64.1	48.8
FLORIDA	87.3	90.0	89.9	88.3	84.4	81.4

Source: FLHealthCHARTS: Florida Department of Health, Vital Statistics

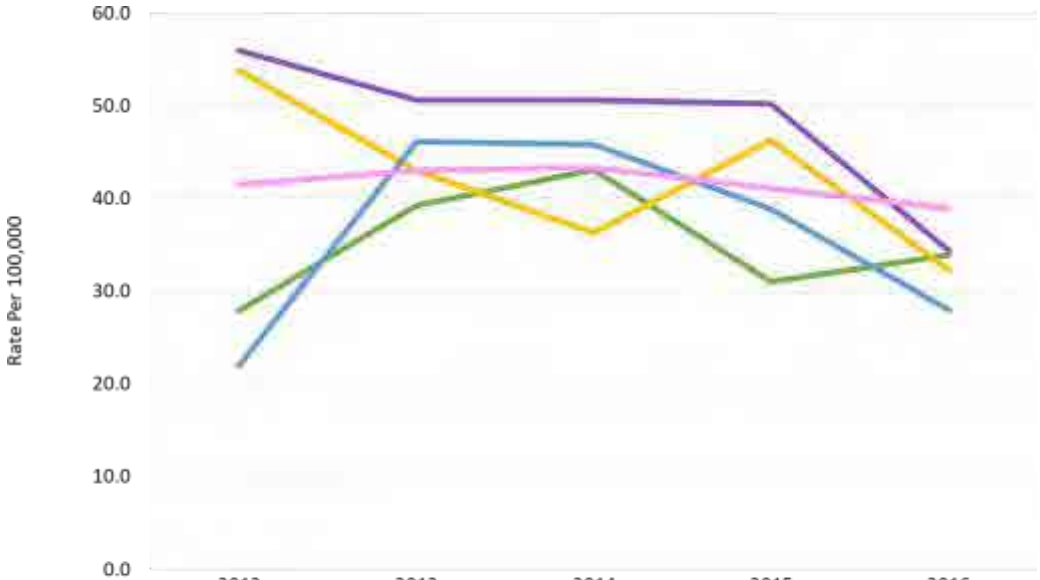
CHART 8.28: WHITE AGE-ADJUSTED COLORECTAL CANCER INCIDENCE (2012-2016)



	2012	2013	2014	2015	2016
LAKE	49.6	40.7	41.6	38.9	40.4
ORANGE	43.1	43.5	36.3	37.7	36.8
OSCEOLA	37.7	46.8	38.3	47.2	44.2
SEMINOLE	33.7	28.6	25.9	31.5	30.3
FLORIDA	36.1	36.2	35.5	35.4	35.5

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

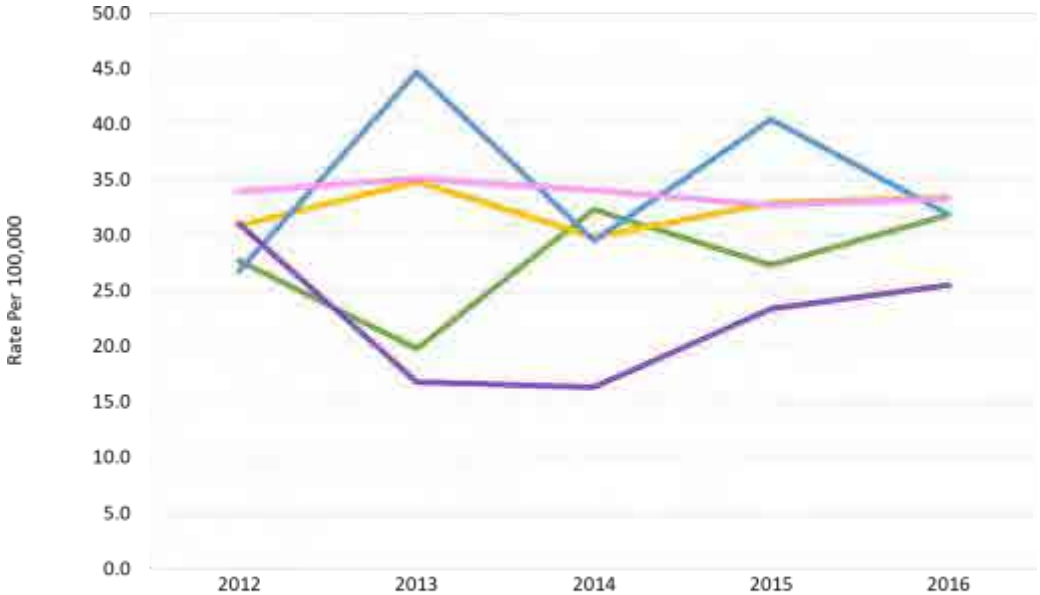
CHART 8.29: BLACK AGE-ADJUSTED COLORECTAL CANCER INCIDENCE (2012-2016)



	2012	2013	2014	2015	2016
LAKE	27.9	39.2	43.1	31.0	33.9
ORANGE	53.8	43.0	36.3	46.3	32.3
OSCEOLA	22.0	46.1	45.8	38.8	28.0
SEMINOLE	55.9	50.6	50.6	50.2	34.4
FLORIDA	41.5	43.0	43.3	41.1	38.9

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

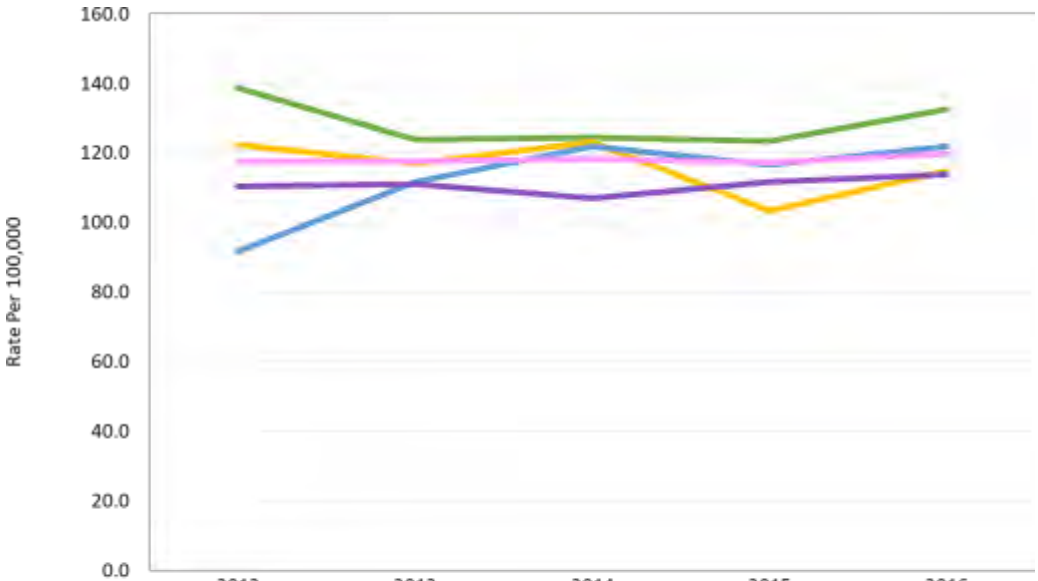
CHART 8.30: HISPANIC AGE-ADJUSTED COLORECTAL CANCER INCIDENCE (2012-2016)



	2012	2013	2014	2015	2016
LAKE	27.7	19.8	32.3	27.3	31.8
ORANGE	30.8	34.8	29.8	32.9	33.4
OSCEOLA	26.8	44.7	29.5	40.4	31.8
SEMINOLE	31.0	16.8	16.3	23.4	25.5
FLORIDA	33.9	35.1	34.0	32.7	33.3

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

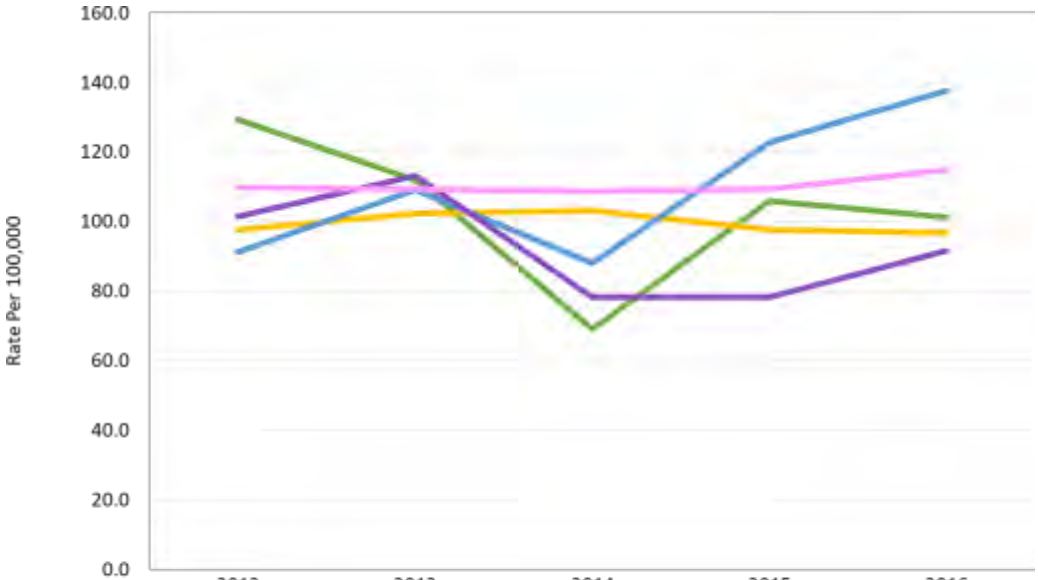
CHART 8.31: WHITE BREAST CANCER INCIDENCE (2012-2016))



	2012	2013	2014	2015	2016
LAKE	138.7	123.7	124.4	123.4	132.6
ORANGE	122.3	117.0	123.1	103.3	114.9
OSCEOLA	91.7	111.6	121.9	116.6	121.9
SEMINOLE	110.3	111.0	106.9	111.7	113.7
FLORIDA	117.4	117.7	118.3	117.2	119.7

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

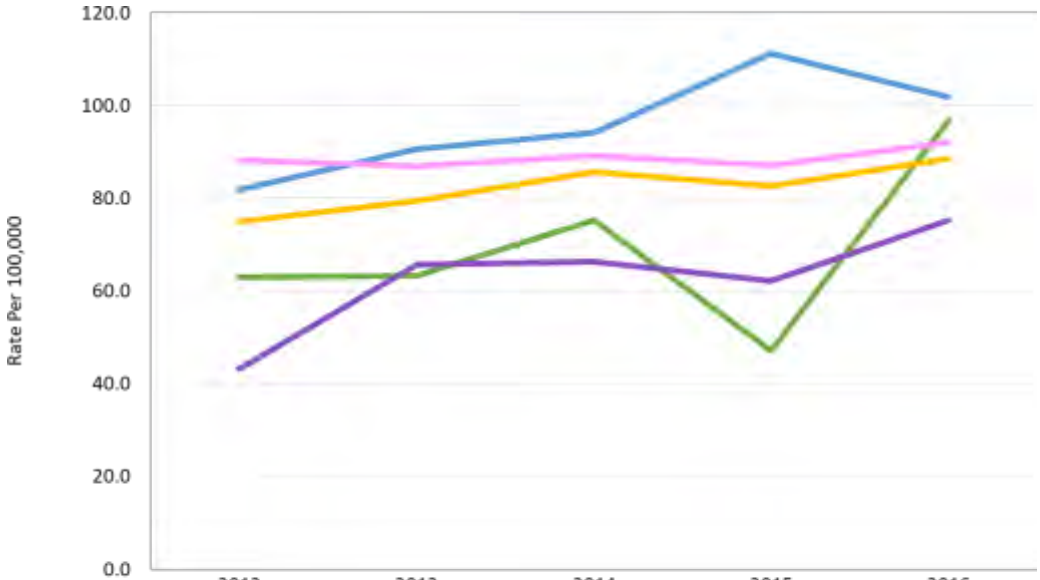
CHART 8.32: BLACK BREAST CANCER INCIDENCE (2012-2016)



	2012	2013	2014	2015	2016
LAKE	129.3	111.9	69.0	106.0	101.3
ORANGE	97.7	102.3	103.1	97.7	96.7
OSCEOLA	91.3	109.2	88.0	122.8	137.6
SEMINOLE	101.5	113.2	78.2	78.3	91.7
FLORIDA	109.7	109.3	108.7	109.3	114.9

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

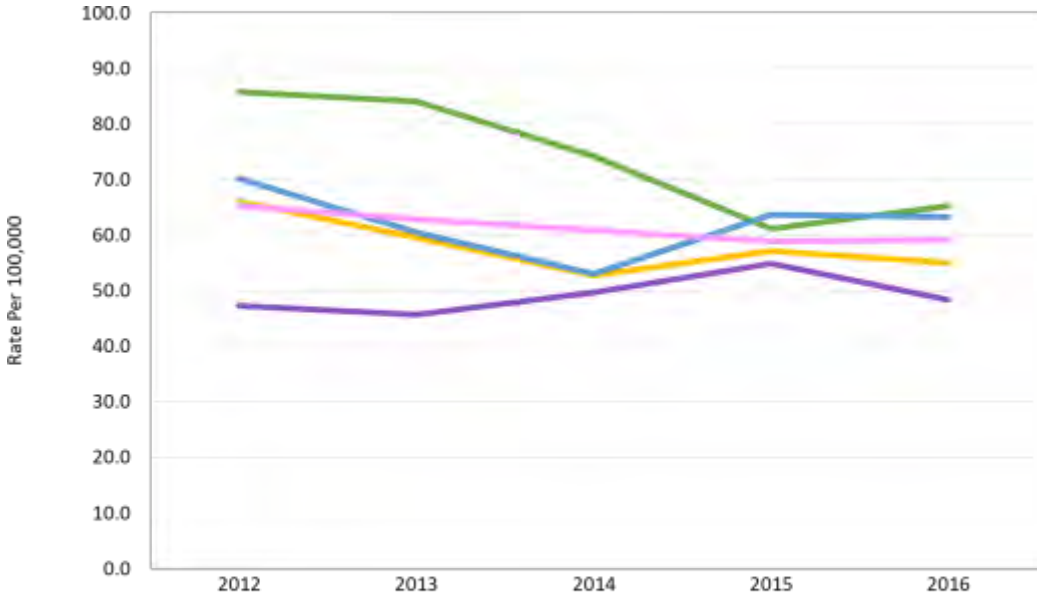
CHART 8.33: HISPANIC BREAST CANCER INCIDENCE (2012-2016)



	2012	2013	2014	2015	2016
LAKE	62.9	63.3	75.2	47.2	96.8
ORANGE	74.9	79.5	85.6	82.6	88.5
OSCEOLA	81.8	90.6	94.2	111.2	101.8
SEMINOLE	43.2	65.7	66.4	62.2	75.2
FLORIDA	88.2	87.0	89.1	87.1	92.0

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

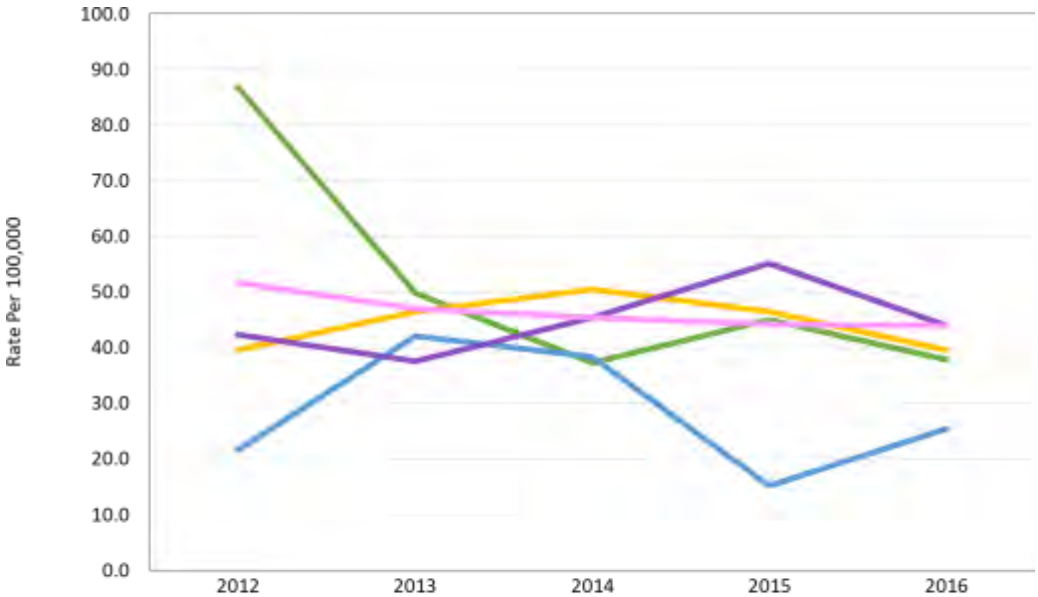
CHART 8.34: WHITE LUNG CANCER INCIDENCE (2012-2016)



	2012	2013	2014	2015	2016
LAKE	85.8	84.0	74.2	61.1	65.2
ORANGE	66.0	59.5	52.8	57.1	55.0
OSCEOLA	70.2	60.4	53.0	63.6	63.3
SEMINOLE	47.3	45.7	49.7	54.9	48.3
FLORIDA	65.3	62.9	60.9	58.9	59.1

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

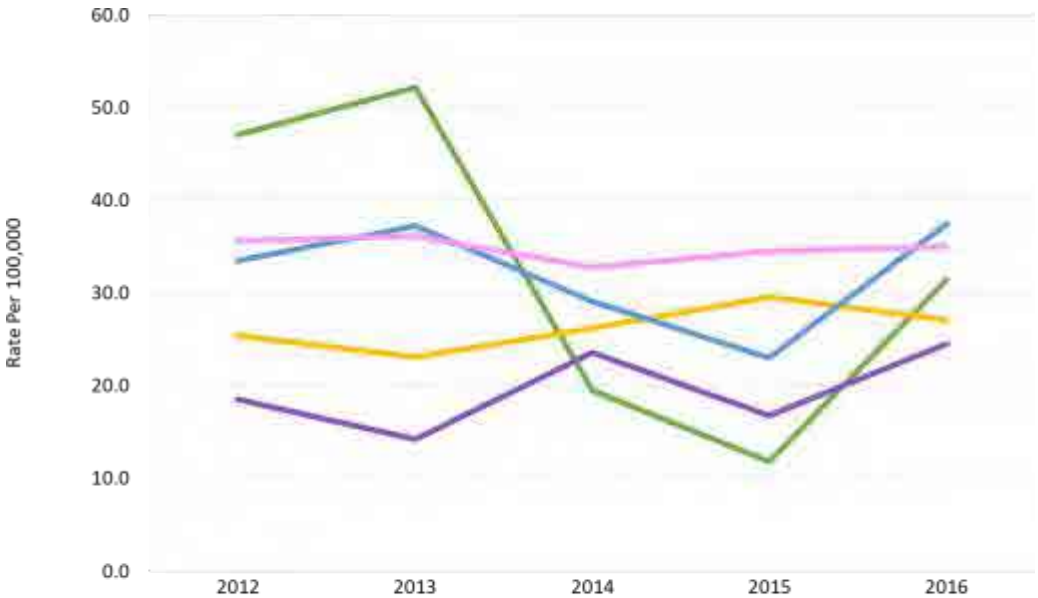
CHART 8.35: BLACK LUNG CANCER INCIDENCE (2012-2016)



	2012	2013	2014	2015	2016
LAKE	86.8	49.8	37.3	45.0	37.8
ORANGE	39.5	46.5	50.5	46.5	39.6
OSCEOLA	21.6	42.1	38.3	15.2	25.4
SEMINOLE	42.4	37.5	45.4	55.2	44.0
FLORIDA	51.7	47.0	45.4	44.2	43.9

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

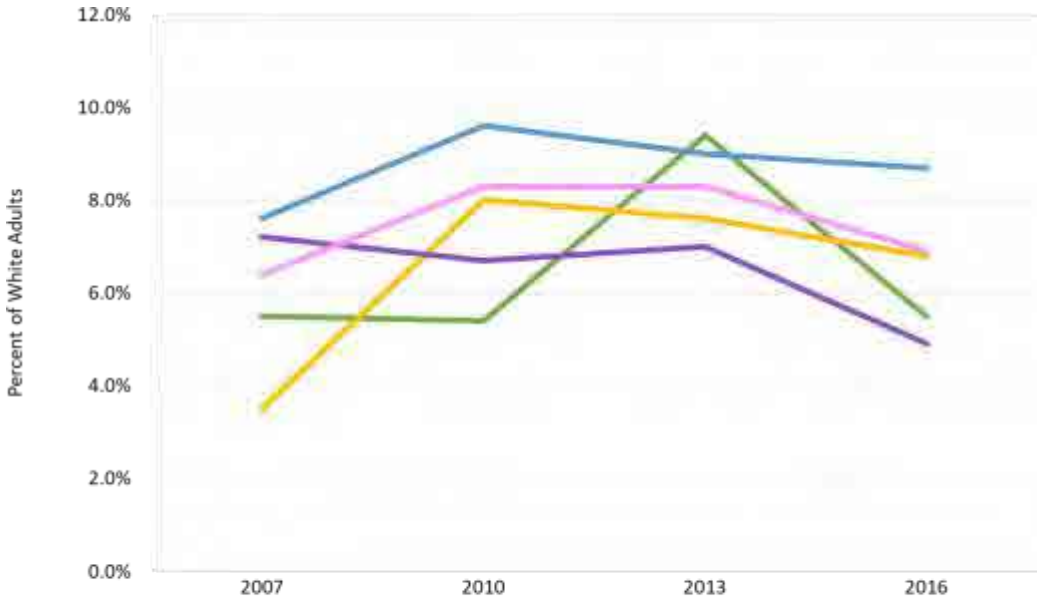
CHART 8.36: HISPANIC LUNG CANCER INCIDENCE (2012-2016)



	2012	2013	2014	2015	2016
LAKE	47.1	52.2	19.5	11.8	31.5
ORANGE	25.4	23.1	26.2	29.6	27.1
OSCEOLA	33.5	37.2	29.1	23.0	37.5
SEMINOLE	18.5	14.2	23.6	16.8	24.5
FLORIDA	35.6	36.1	32.8	34.5	35.0

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

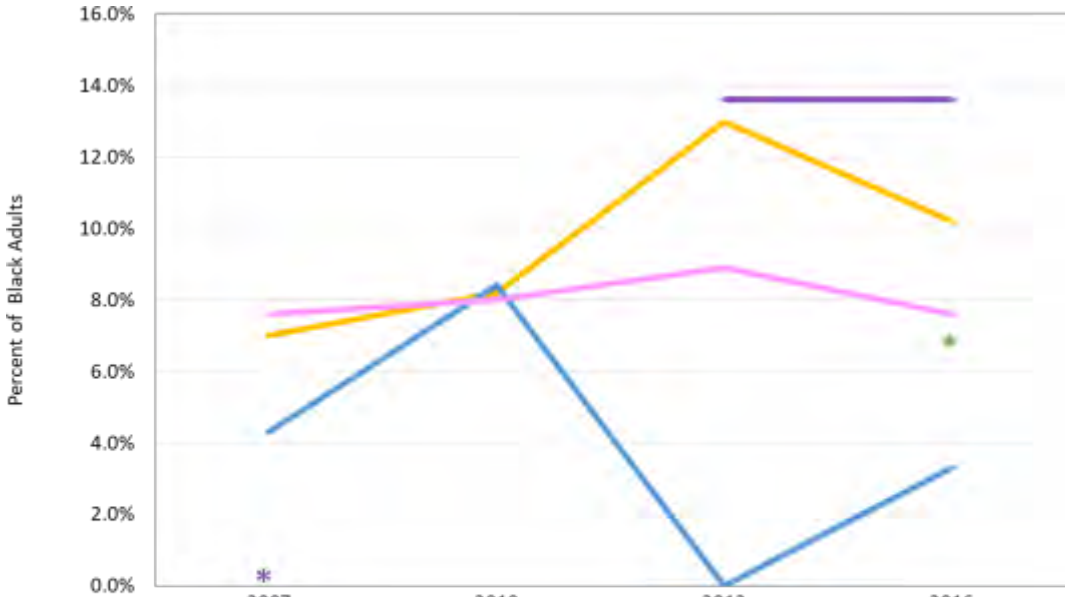
CHART 8.37: WHITE ADULTS CURRENTLY WITH ASTHMA (2007-2016)



	2007	2010	2013	2016
LAKE	5.5%	5.4%	9.4%	5.5%
ORANGE	3.5%	8.0%	7.6%	6.8%
OSCEOLA	7.6%	9.6%	9.0%	8.7%
SEMINOLE	7.2%	6.7%	7.0%	4.9%
FLORIDA	6.4%	8.3%	8.3%	6.9%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

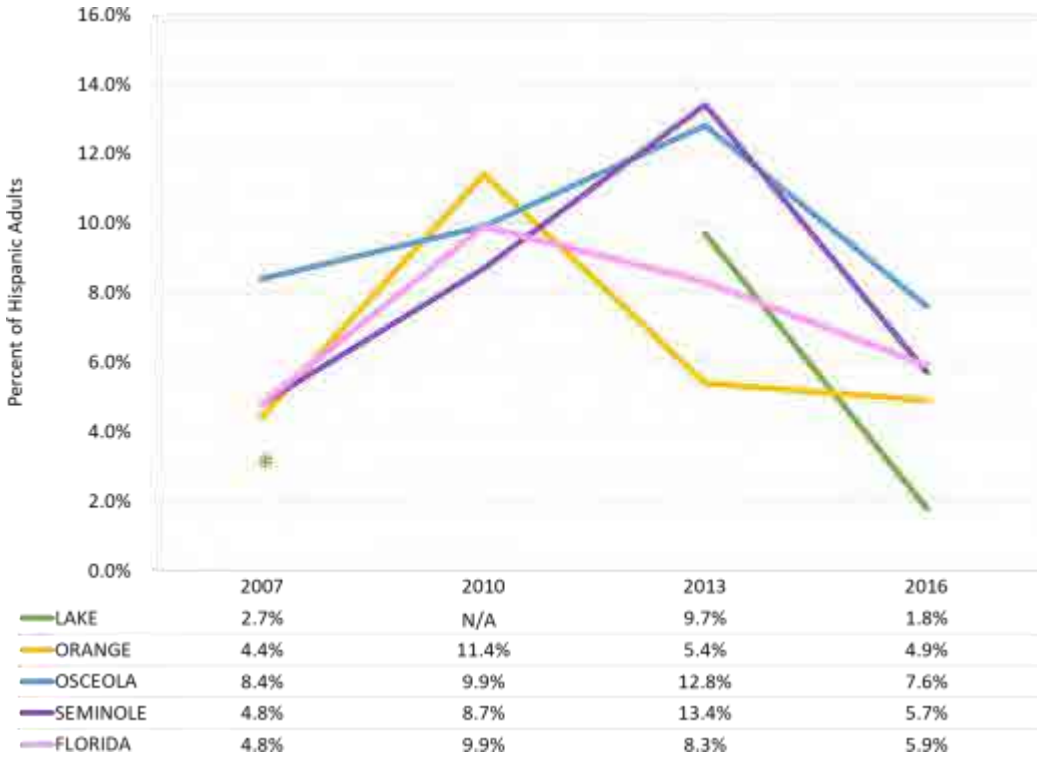
CHART 8.38: BLACK ADULTS CURRENTLY WITH ASTHMA (2007-2016)



	2007	2010	2013	2016
LAKE	N/A	N/A	N/A	7.4%
ORANGE	7.0%	8.2%	13.0%	10.2%
OSCEOLA	4.3%	8.4%	0.0%	3.3%
SEMINOLE	1.3%	N/A	13.6%	13.6%
FLORIDA	7.6%	8.0%	8.9%	7.6%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System
*Represents a single data point where there has been inconsistent data for a county

CHART 8.39: HISPANIC ADULTS CURRENTLY WITH ASTHMA (2007-2016)



	2007	2010	2013	2016
LAKE	2.7%	N/A	9.7%	1.8%
ORANGE	4.4%	11.4%	5.4%	4.9%
OSCEOLA	8.4%	9.9%	12.8%	7.6%
SEMINOLE	4.8%	8.7%	13.4%	5.7%
FLORIDA	4.8%	9.9%	8.3%	5.9%

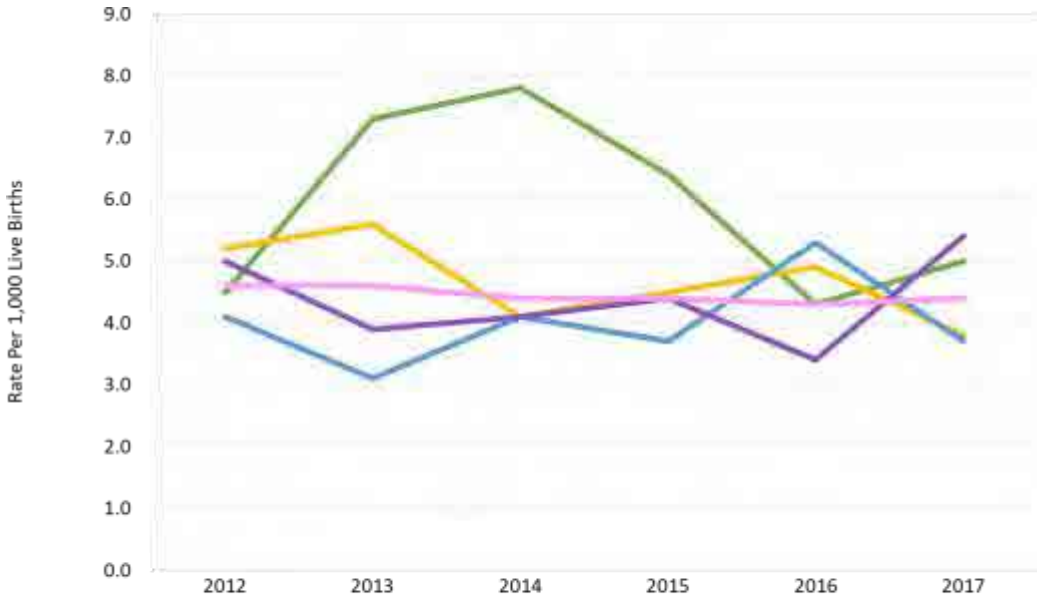
Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System
*Represents a single data point where there has been inconsistent data for a county

TABLE 8.1: LEADING CAUSES OF DEATH BY RACE/ETHNICITY PER 100,000, ORANGE COUNTY (2017)

	White	Black/ Other	White Hispanic	Black Hispanic
Heart diseases	290.6	182.9	114.4	44.9
Cancer	262.1	165.4	110.0	41.6
Cerebrovascular diseases	58.4	53.5	31.4	11.8
Unintentional injury	55.8	29.2	31.1	12.6
Chronic lower respiratory disease	67.0	21.6	16.5	3.3
Diabetes mellitus	26.0	34.2	20.8	8.0

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

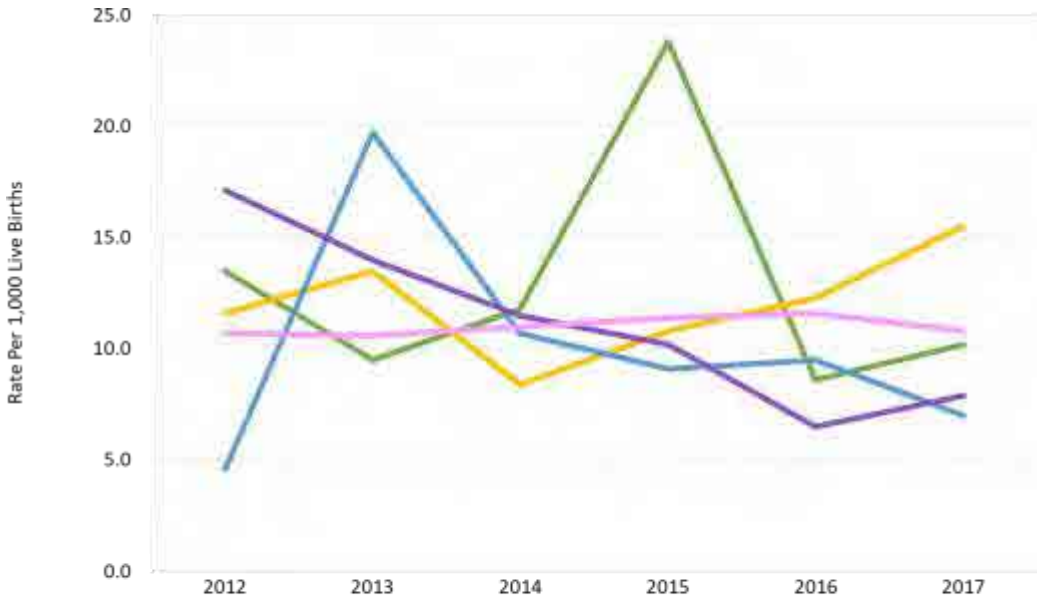
CHART 8.40: WHITE INFANT MORTALITY RATE (2012-2017)



	2012	2013	2014	2015	2016	2017
LAKE	4.5	7.3	7.8	6.4	4.3	5.0
ORANGE	5.2	5.6	4.1	4.5	4.9	3.8
OSCEOLA	4.1	3.1	4.1	3.7	5.3	3.7
SEMINOLE	5.0	3.9	4.1	4.4	3.4	5.4
FLORIDA	4.6	4.6	4.4	4.4	4.3	4.4

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

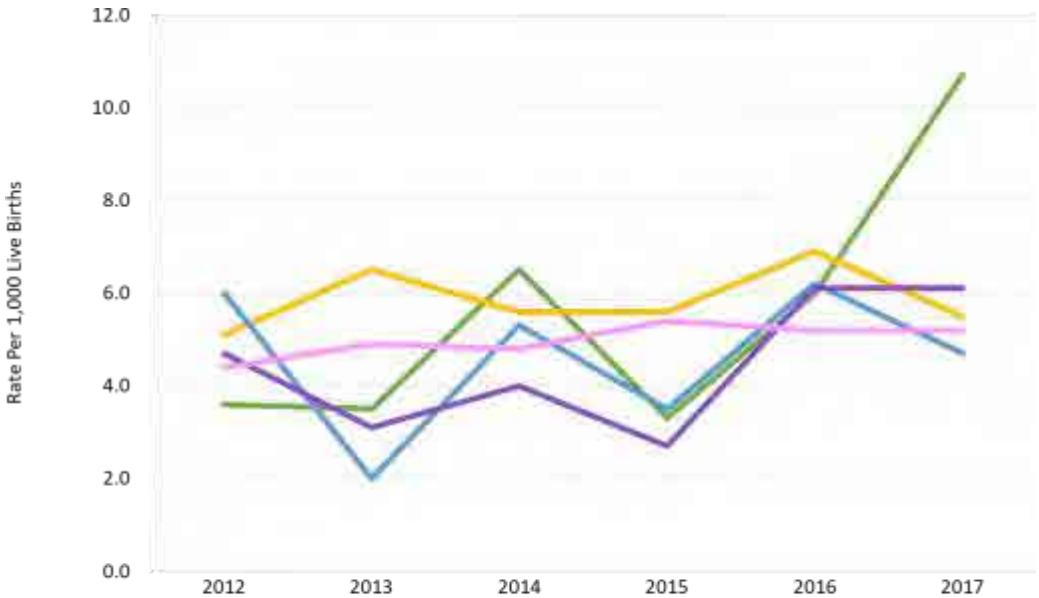
CHART 8.41: BLACK INFANT MORTALITY RATE (2012-2017)



	2012	2013	2014	2015	2016	2017
LAKE	13.5	9.5	11.8	23.8	8.6	10.2
ORANGE	11.6	13.5	8.4	10.8	12.3	15.5
OSCEOLA	4.6	19.7	10.7	9.1	9.5	7.0
SEMINOLE	17.1	14.0	11.5	10.2	6.5	7.9
FLORIDA	10.7	10.6	11.0	11.4	11.6	10.8

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

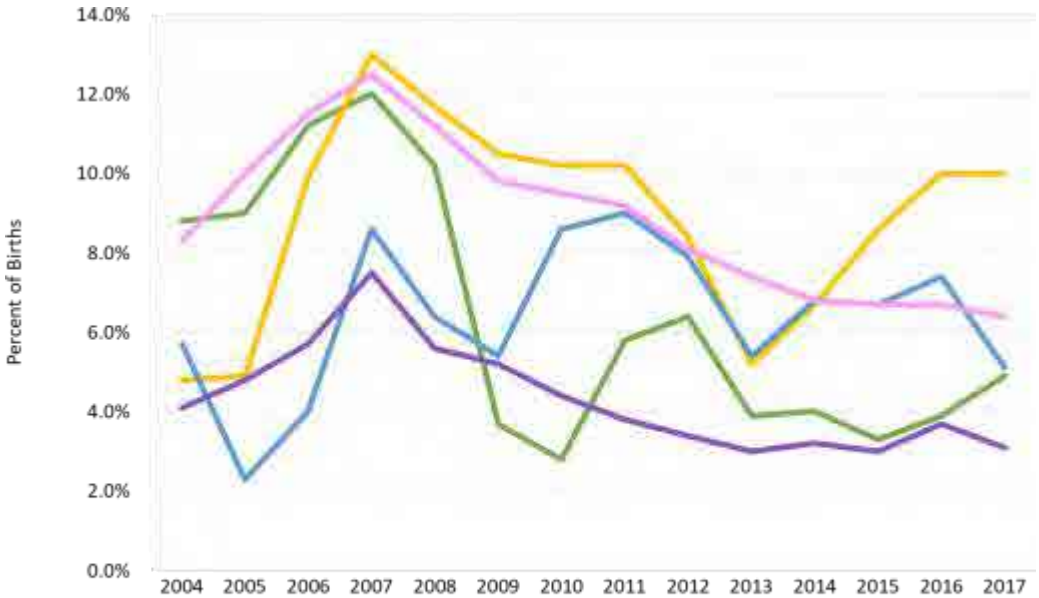
CHART 8.42: HISPANIC INFANT MORTALITY RATE (2012-2017)



	2012	2013	2014	2015	2016	2017
LAKE	3.6	3.5	6.5	3.3	6.0	10.7
ORANGE	5.1	6.5	5.6	5.6	6.9	5.5
OSCEOLA	6.0	2.0	5.3	3.5	6.2	4.7
SEMINOLE	4.7	3.1	4.0	2.7	6.1	6.1
FLORIDA	4.4	4.9	4.8	5.4	5.2	5.2

Source: FLHealthCHARTS: Florida Department of Health, Vital Statistics

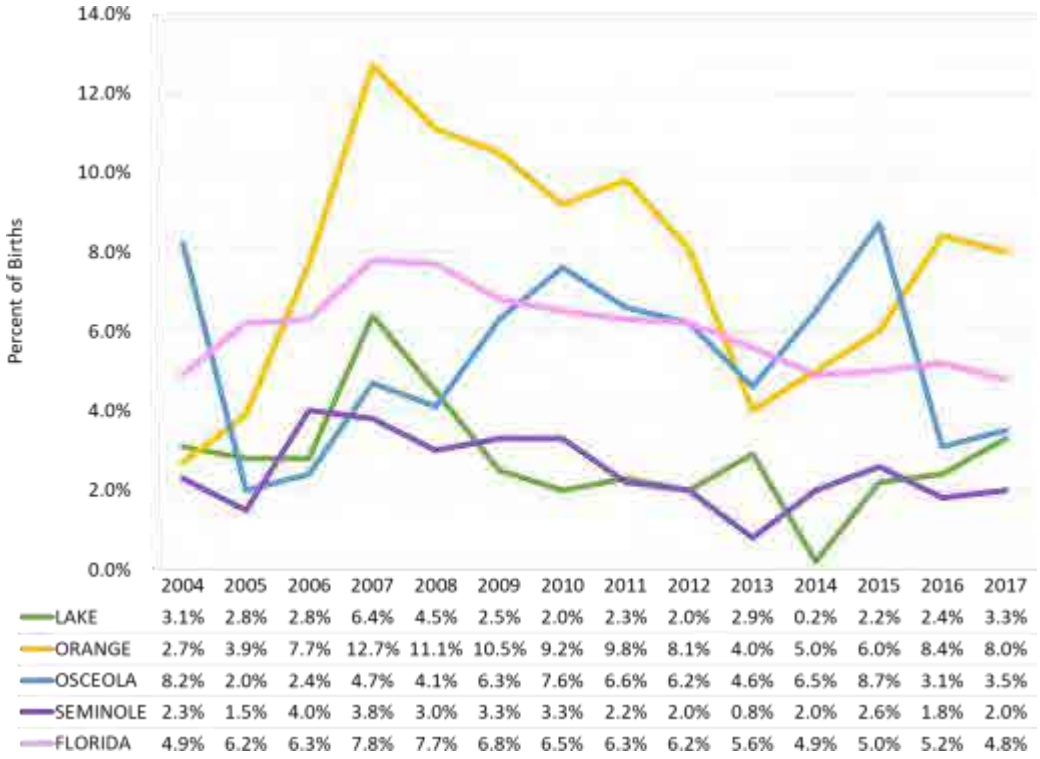
CHART 8.43: BIRTHS TO WHITE WOMEN WITH SELF-PAY FOR DELIVERY PAYMENT SOURCE (2004-2017)



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	8.8%	9.0%	11.2%	12.0%	10.2%	3.7%	2.8%	5.8%	6.4%	3.9%	4.0%	3.3%	3.9%	4.9%
ORANGE	4.8%	4.9%	9.9%	13.0%	11.7%	10.5%	10.2%	10.2%	8.4%	5.2%	6.7%	8.6%	10.0%	10.0%
OSCEOLA	5.7%	2.3%	4.0%	8.6%	6.4%	5.4%	8.6%	9.0%	7.9%	5.4%	6.8%	6.7%	7.4%	5.1%
SEMINOLE	4.1%	4.8%	5.7%	7.5%	5.6%	5.2%	4.4%	3.8%	3.4%	3.0%	3.2%	3.0%	3.7%	3.1%
FLORIDA	8.3%	10.0%	11.5%	12.5%	11.2%	9.8%	9.5%	9.2%	8.1%	7.4%	6.8%	6.7%	6.7%	6.4%

Source: FLHealthCHARTS: Florida Department of Health, Vital Statistics

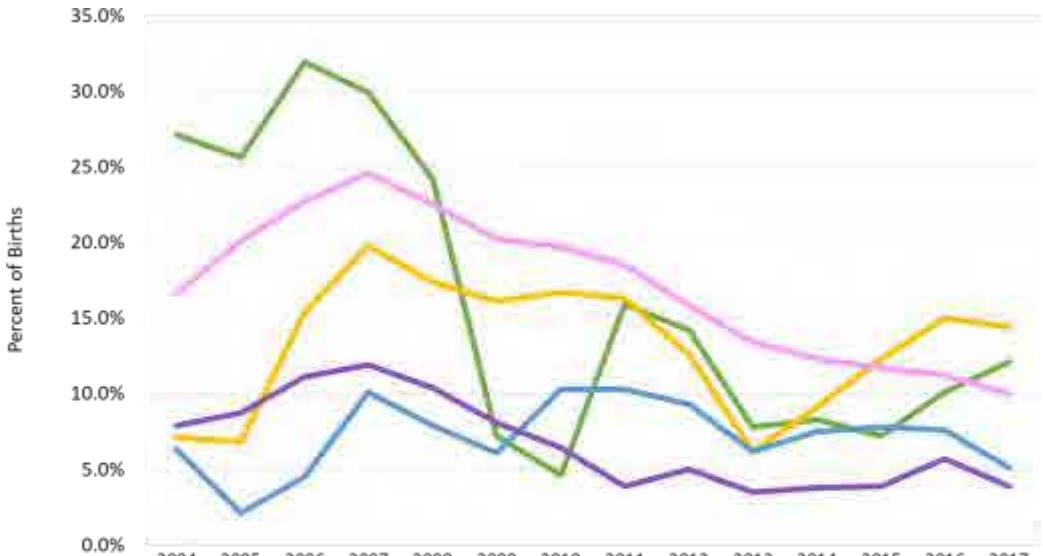
CHART 8.44: BIRTHS TO BLACK WOMEN WITH SELF-PAY FOR DELIVERY PAYMENT SOURCE (2004-2017)



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	3.1%	2.8%	2.8%	6.4%	4.5%	2.5%	2.0%	2.3%	2.0%	2.9%	0.2%	2.2%	2.4%	3.3%
ORANGE	2.7%	3.9%	7.7%	12.7%	11.1%	10.5%	9.2%	9.8%	8.1%	4.0%	5.0%	6.0%	8.4%	8.0%
OSCEOLA	8.2%	2.0%	2.4%	4.7%	4.1%	6.3%	7.6%	6.6%	6.2%	4.6%	6.5%	8.7%	3.1%	3.5%
SEMINOLE	2.3%	1.5%	4.0%	3.8%	3.0%	3.3%	3.3%	2.2%	2.0%	0.8%	2.0%	2.6%	1.8%	2.0%
FLORIDA	4.9%	6.2%	6.3%	7.8%	7.7%	6.8%	6.5%	6.3%	6.2%	5.6%	4.9%	5.0%	5.2%	4.8%

Source: FLHealthCHARTS: Florida Department of Health, Vital Statistics

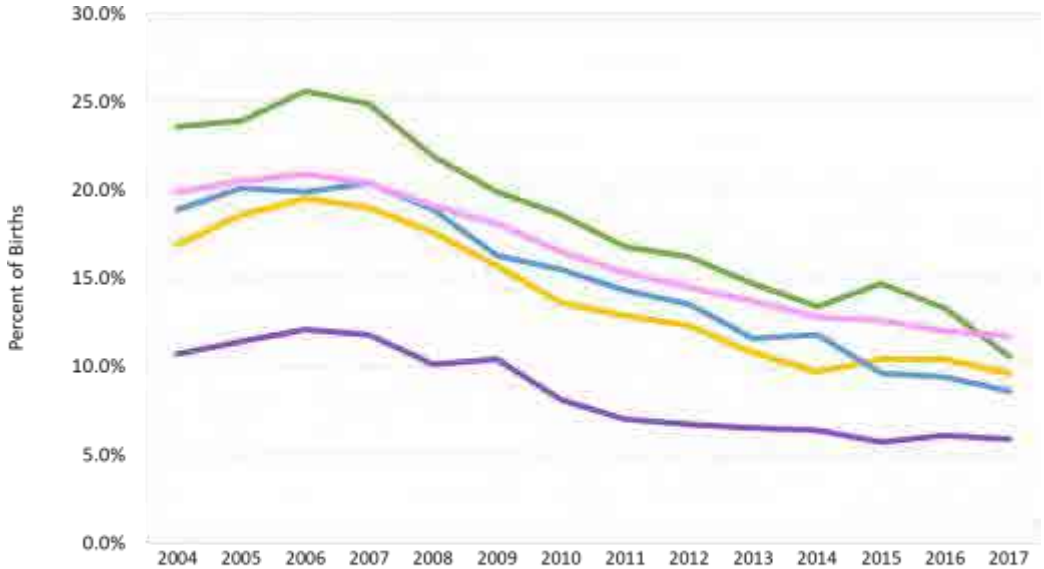
CHART 8.45: BIRTHS TO HISPANIC WOMEN WITH SELF-PAY FOR DELIVERY PAYMENT SOURCE (2004-2017)



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	27.1%	25.6%	31.9%	29.9%	24.2%	7.2%	4.6%	15.9%	14.2%	7.8%	8.3%	7.2%	10.1%	12.1%
ORANGE	7.1%	6.8%	15.4%	19.8%	17.4%	16.1%	16.7%	16.3%	12.6%	6.2%	9.1%	12.3%	15.0%	14.4%
OSCEOLA	6.3%	2.1%	4.5%	10.1%	7.9%	6.1%	10.3%	10.3%	9.3%	6.2%	7.5%	7.8%	7.6%	5.1%
SEMINOLE	7.9%	8.7%	11.1%	11.9%	10.4%	8.1%	6.4%	3.9%	5.0%	3.5%	3.8%	3.9%	5.7%	3.9%
FLORIDA	16.6%	20.1%	22.7%	24.6%	22.5%	20.2%	19.7%	18.5%	15.8%	13.4%	12.3%	11.7%	11.2%	10.0%

Source: FLHealthCHARTS: Florida Department of Health, Vital Statistics

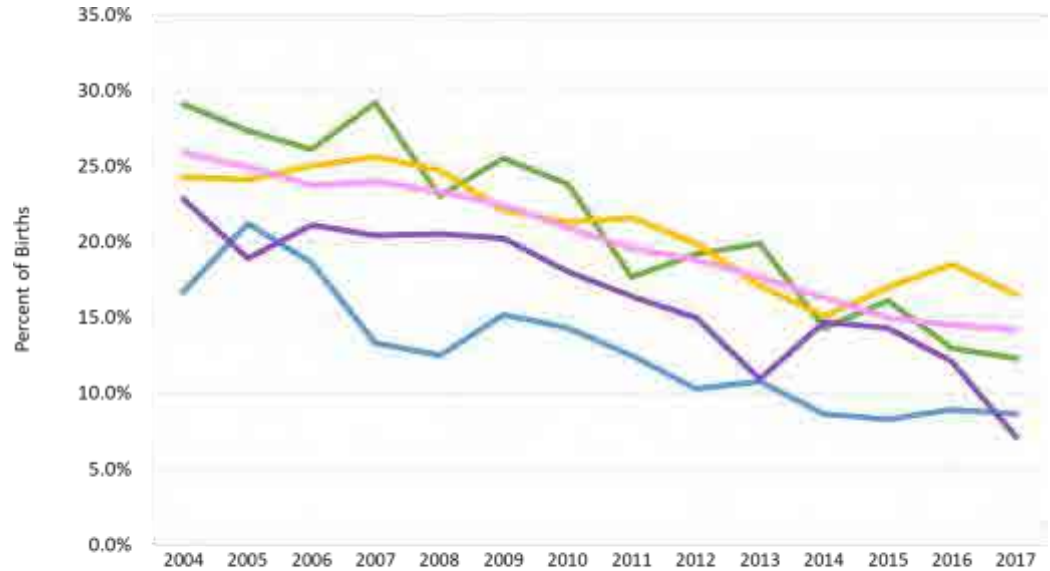
CHART 8.46: WHITE MOTHERS WITH LESS THAN A HIGH SCHOOL EDUCATION (2004-2017)



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	23.6%	23.9%	25.6%	24.9%	21.9%	19.9%	18.6%	16.8%	16.2%	14.7%	13.4%	14.7%	13.3%	10.6%
ORANGE	16.9%	18.6%	19.5%	19.0%	17.6%	15.7%	13.6%	12.9%	12.3%	10.8%	9.7%	10.4%	10.4%	9.6%
OSCEOLA	18.9%	20.1%	19.9%	20.4%	18.9%	16.3%	15.5%	14.3%	13.5%	11.6%	11.8%	9.6%	9.4%	8.6%
SEMINOLE	10.7%	11.4%	12.1%	11.8%	10.1%	10.4%	8.1%	7.0%	6.7%	6.5%	6.4%	5.7%	6.1%	5.9%
FLORIDA	19.9%	20.5%	20.9%	20.4%	19.1%	18.1%	16.5%	15.3%	14.5%	13.7%	12.8%	12.6%	12.0%	11.7%

Source: FLHealthCHARTS: Florida Department of Health, Vital Statistics

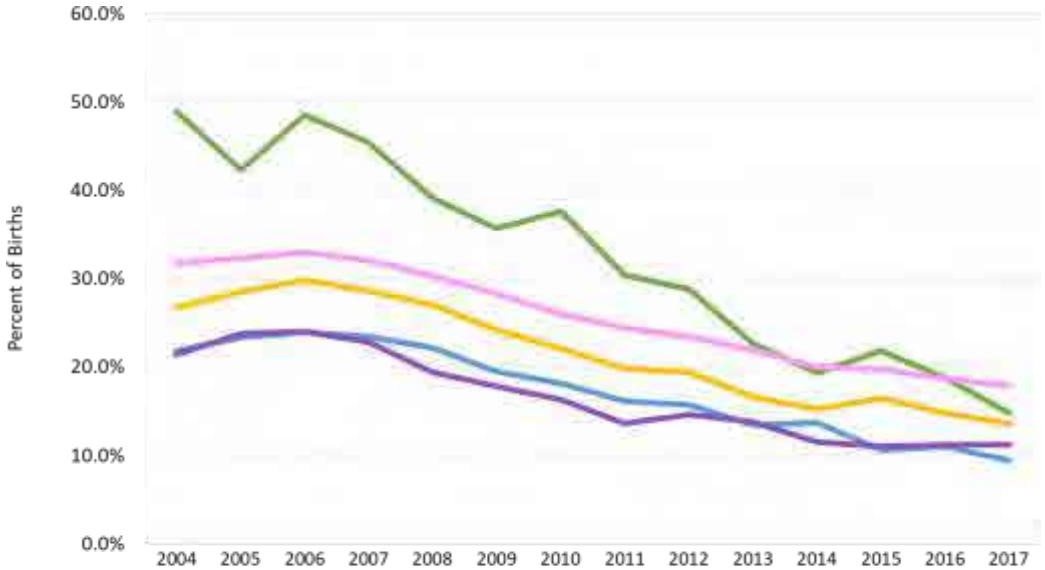
CHART 8.47: BLACK MOTHERS WITH LESS THAN A HIGH SCHOOL EDUCATION (2004-2017)



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	29.1%	27.3%	26.1%	29.2%	23.0%	25.5%	23.8%	17.7%	19.2%	19.9%	14.3%	16.1%	13.0%	12.3%
ORANGE	24.3%	24.1%	25.0%	25.6%	24.7%	22.1%	21.3%	21.6%	19.9%	17.1%	15.1%	17.0%	18.5%	16.5%
OSCEOLA	16.7%	21.2%	18.6%	13.3%	12.5%	15.2%	14.3%	12.5%	10.3%	10.8%	8.6%	8.3%	8.9%	8.6%
SEMINOLE	22.8%	18.9%	21.1%	20.4%	20.5%	20.2%	18.0%	16.4%	15.0%	10.9%	14.7%	14.3%	12.1%	7.1%
FLORIDA	25.9%	24.9%	23.7%	24.0%	23.3%	22.4%	20.9%	19.6%	18.8%	17.7%	16.3%	15.0%	14.5%	14.2%

Source: FLHealthCHARTS: Florida Department of Health, Vital Statistics

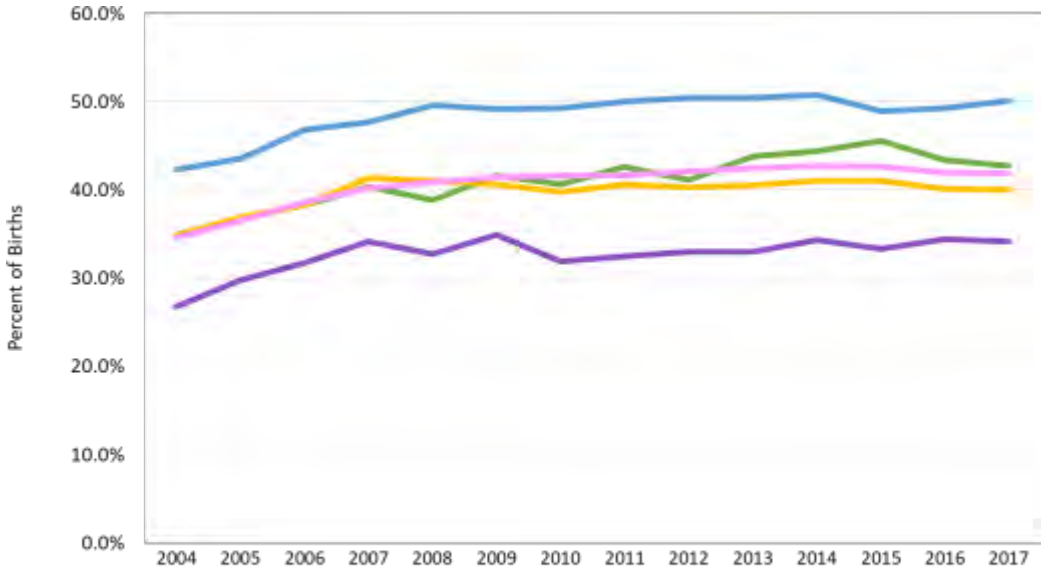
CHART 8.48: HISPANIC MOTHERS WITH LESS THAN A HIGH SCHOOL EDUCATION (2004-2017)



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	48.9%	42.3%	48.5%	45.4%	39.1%	35.7%	37.6%	30.4%	28.8%	22.7%	19.3%	21.8%	18.8%	14.8%
ORANGE	26.7%	28.5%	29.8%	28.6%	27.0%	24.2%	22.1%	19.8%	19.4%	16.6%	15.2%	16.5%	14.8%	13.6%
OSCEOLA	21.8%	23.3%	23.9%	23.4%	22.2%	19.5%	18.1%	16.1%	15.7%	13.4%	13.7%	10.6%	11.0%	9.4%
SEMINOLE	21.4%	23.8%	24.0%	22.8%	19.4%	17.8%	16.3%	13.6%	14.6%	13.8%	11.5%	11.0%	11.2%	11.2%
FLORIDA	31.7%	32.3%	33.0%	32.1%	30.3%	28.3%	25.9%	24.4%	23.4%	21.9%	20.0%	19.7%	18.7%	17.9%

Source: FLHealthCHARTS: Florida Department of Health, Vital Statistics

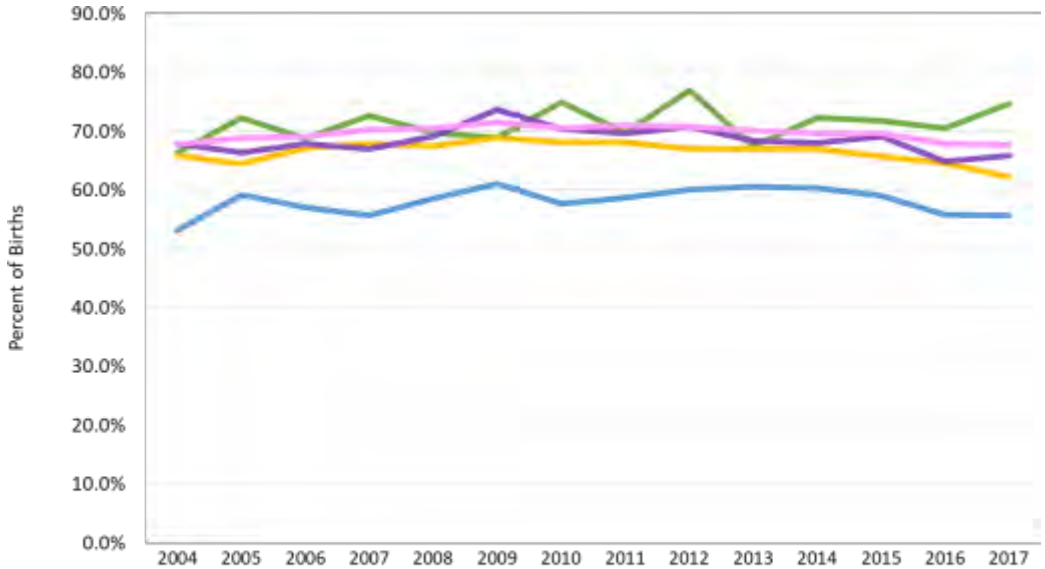
CHART 8.49: BIRTHS TO UNWED WHITE MOTHERS (2004-2017)



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	34.9%	36.8%	38.3%	40.4%	38.9%	41.6%	40.6%	42.6%	41.1%	43.8%	44.4%	45.6%	43.4%	42.7%
ORANGE	34.8%	36.9%	38.3%	41.4%	41.0%	40.6%	39.8%	40.6%	40.3%	40.5%	41.0%	41.0%	40.1%	40.0%
OSCEOLA	42.3%	43.6%	46.8%	47.7%	49.6%	49.2%	49.3%	50.0%	50.4%	50.4%	50.8%	48.9%	49.3%	50.1%
SEMINOLE	26.8%	29.8%	31.7%	34.2%	32.7%	34.9%	31.9%	32.5%	33.0%	33.0%	34.3%	33.3%	34.4%	34.2%
FLORIDA	34.6%	36.5%	38.6%	40.2%	40.9%	41.5%	41.6%	41.6%	42.1%	42.5%	42.7%	42.6%	42.0%	41.9%

Source: FLHealthCHARTS: Florida Department of Health, Vital Statistics

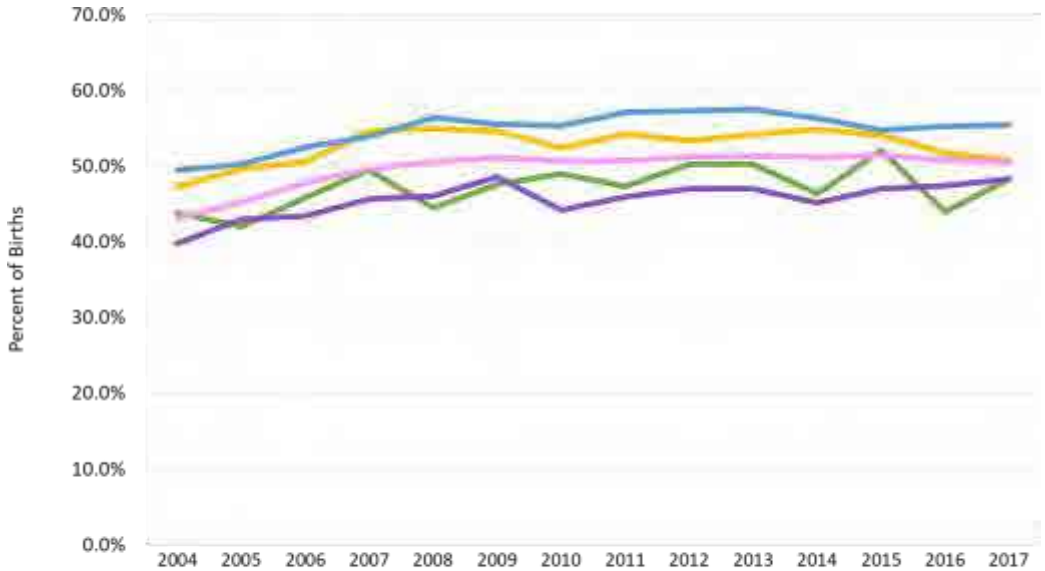
CHART 8.50: BIRTHS TO UNWED BLACK MOTHERS (2004-2017)



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	66.4%	72.2%	68.7%	72.6%	69.8%	68.9%	74.9%	69.8%	76.9%	67.5%	72.3%	71.7%	70.5%	74.7%
ORANGE	65.8%	64.5%	67.1%	67.8%	67.5%	68.9%	68.1%	68.1%	67.0%	67.0%	67.0%	65.7%	64.6%	62.2%
OSCEOLA	53.1%	59.2%	57.0%	55.7%	58.6%	61.0%	57.7%	58.7%	60.0%	60.5%	60.3%	59.1%	55.8%	55.7%
SEMINOLE	67.9%	66.3%	67.9%	67.0%	69.1%	73.7%	70.4%	69.6%	70.7%	68.3%	68.0%	69.1%	64.8%	65.8%
FLORIDA	67.7%	68.8%	69.1%	70.2%	70.5%	71.5%	70.5%	71.0%	70.7%	70.1%	69.6%	69.6%	67.9%	67.6%

Source: FLHealthCHARTS: Florida Department of Health, Vital Statistics

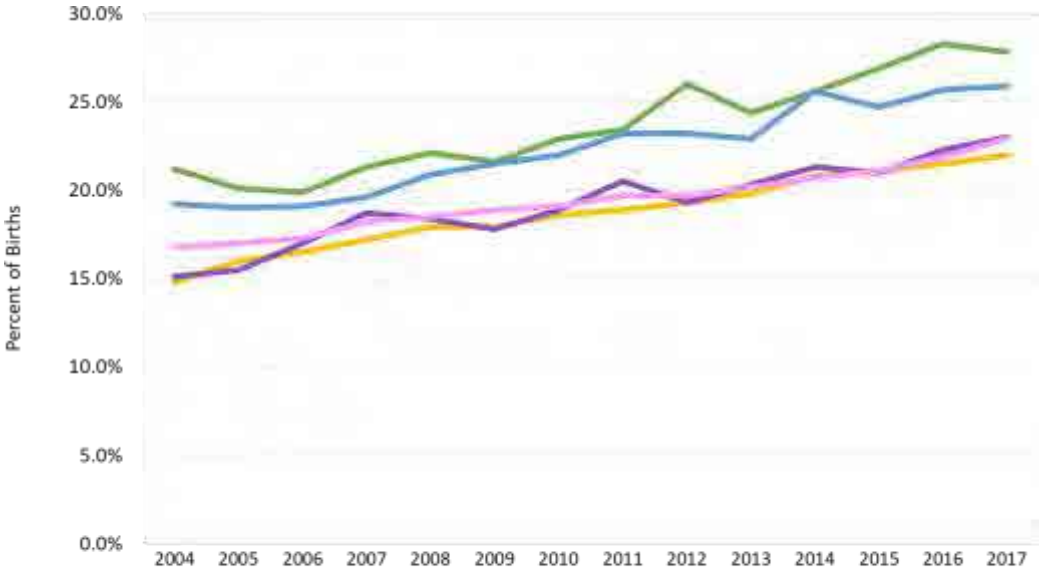
CHART 8.51: BIRTHS TO UNWED HISPANIC MOTHERS (2004-2017)



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	43.8%	42.0%	45.8%	49.4%	44.5%	47.6%	49.0%	47.3%	50.2%	50.2%	46.3%	52.1%	44.0%	48.3%
ORANGE	47.2%	49.6%	50.5%	54.6%	54.9%	54.6%	52.4%	54.2%	53.4%	54.1%	54.8%	54.0%	51.7%	50.8%
OSCEOLA	49.4%	50.2%	52.5%	53.9%	56.4%	55.5%	55.3%	57.1%	57.3%	57.5%	56.3%	54.7%	55.2%	55.4%
SEMINOLE	39.8%	43.0%	43.4%	45.6%	46.0%	48.6%	44.2%	45.9%	47.0%	47.0%	45.1%	47.0%	47.4%	48.3%
FLORIDA	43.0%	45.2%	47.8%	49.6%	50.5%	51.1%	50.6%	50.7%	51.2%	51.3%	51.1%	51.4%	50.7%	50.5%

Source: FLHealthCHARTS: Florida Department of Health, Vital Statistics

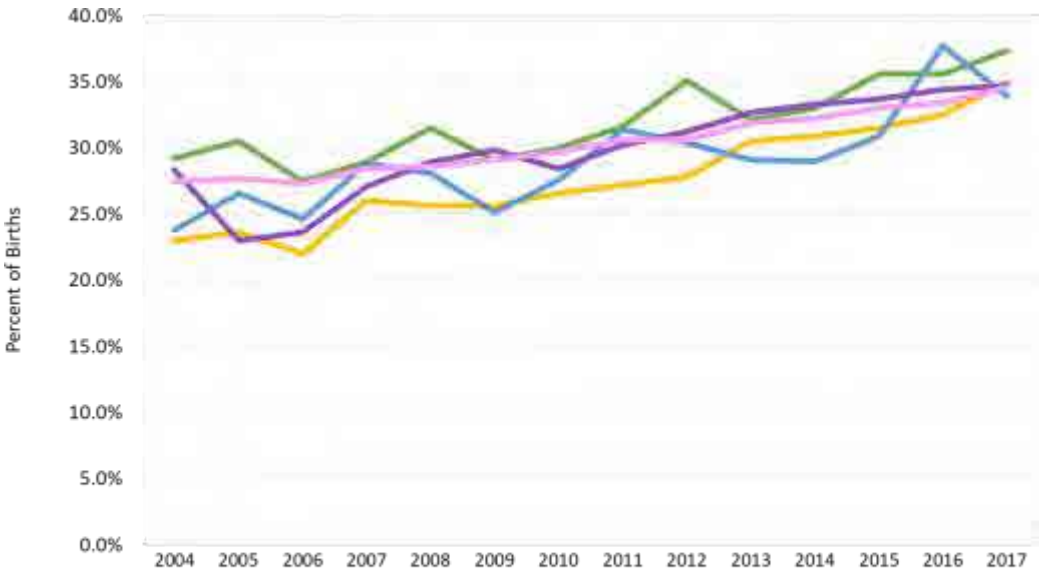
CHART 8.52: BIRTHS TO WHITE WOMEN WHO WERE OBESE DURING PREGNANCY (2004-2017)



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	21.2%	20.1%	19.9%	21.3%	22.1%	21.6%	22.9%	23.4%	26.0%	24.4%	25.6%	26.9%	28.3%	27.8%
ORANGE	14.8%	16.0%	16.5%	17.2%	17.9%	17.9%	18.6%	18.9%	19.3%	19.8%	20.8%	21.1%	21.5%	22.0%
OSCEOLA	19.2%	19.0%	19.1%	19.6%	20.9%	21.5%	22.0%	23.2%	23.2%	22.9%	25.6%	24.7%	25.7%	25.9%
SEMINOLE	15.1%	15.5%	17.0%	18.7%	18.4%	17.8%	18.9%	20.5%	19.3%	20.3%	21.3%	21.0%	22.3%	23.0%
FLORIDA	16.8%	17.0%	17.3%	18.2%	18.5%	18.9%	19.1%	19.7%	19.7%	20.2%	20.7%	21.1%	21.9%	22.9%

Source: FLHealthCHARTS: Florida Department of Health, Vital Statistics

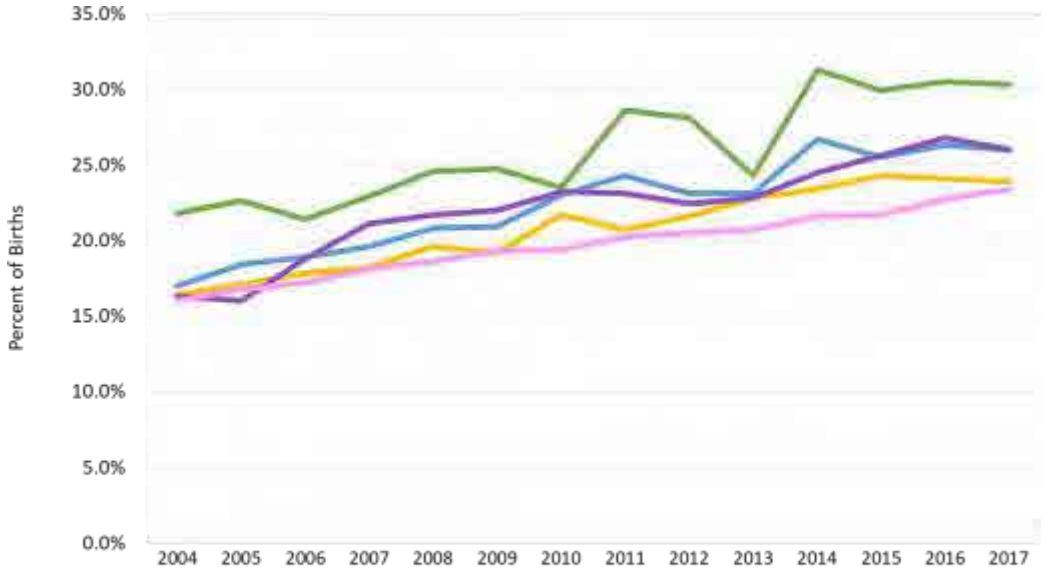
CHART 8.53: BIRTHS TO BLACK WOMEN WHO WERE OBESE DURING PREGNANCY (2004-2017)



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	29.2%	30.5%	27.5%	28.9%	31.5%	29.1%	30.0%	31.6%	35.1%	32.1%	33.0%	35.6%	35.6%	37.3%
ORANGE	23.0%	23.6%	22.0%	26.0%	25.6%	25.6%	26.6%	27.2%	27.8%	30.5%	30.9%	31.5%	32.5%	34.9%
OSCEOLA	23.8%	26.6%	24.6%	28.8%	28.1%	25.1%	27.6%	31.4%	30.4%	29.1%	29.0%	30.9%	37.7%	33.9%
SEMINOLE	28.3%	23.0%	23.6%	27.1%	28.9%	29.8%	28.4%	30.2%	31.2%	32.7%	33.3%	33.7%	34.4%	34.7%
FLORIDA	27.5%	27.7%	27.3%	28.4%	28.6%	29.1%	29.7%	30.6%	30.6%	31.9%	32.2%	33.0%	33.4%	34.6%

Source: FLHealthCHARTS: Florida Department of Health, Vital Statistics

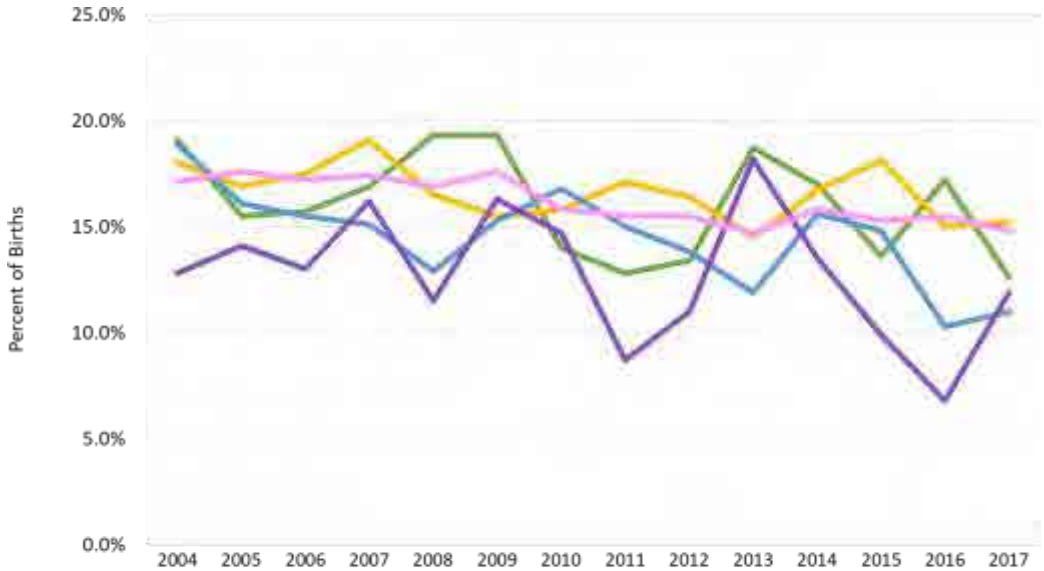
CHART 8.54: BIRTHS TO HISPANIC WOMEN WHO WERE OBESE DURING PREGNANCY (2004-2017)



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	21.8%	22.6%	21.4%	22.9%	24.6%	24.7%	23.5%	28.6%	28.1%	24.3%	31.3%	29.9%	30.5%	30.3%
ORANGE	16.4%	17.1%	17.8%	18.2%	19.6%	19.2%	21.7%	20.7%	21.6%	22.8%	23.4%	24.3%	24.1%	23.9%
OSCEOLA	17.0%	18.4%	18.9%	19.6%	20.8%	20.9%	23.0%	24.3%	23.1%	23.1%	26.7%	25.5%	26.3%	26.0%
SEMINOLE	16.3%	16.0%	18.8%	21.1%	21.7%	22.0%	23.2%	23.1%	22.4%	22.8%	24.5%	25.6%	26.8%	26.0%
FLORIDA	16.0%	16.8%	17.2%	18.1%	18.6%	19.3%	19.4%	20.2%	20.5%	20.7%	21.6%	21.7%	22.7%	23.4%

Source: FLHealthCHARTS: Florida Department of Health, Vital Statistics

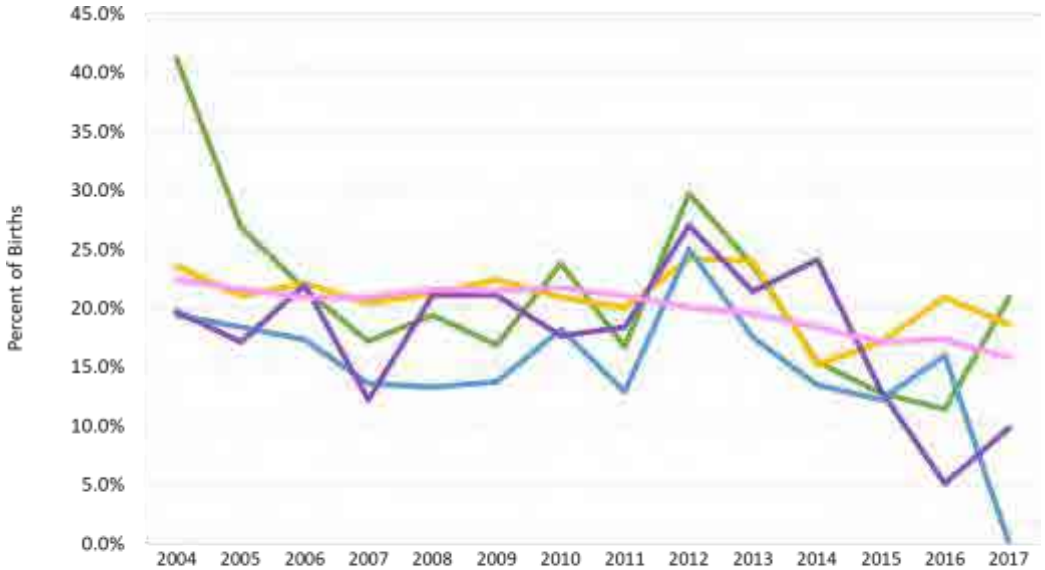
CHART 8.55: REPEAT BIRTHS TO WHITE MOTHERS AGES 15-19 (2004-2017)



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	19.1%	15.5%	15.7%	16.9%	19.3%	19.3%	14.0%	12.8%	13.4%	18.7%	17.0%	13.6%	17.2%	12.6%
ORANGE	18.0%	16.9%	17.5%	19.1%	16.5%	15.5%	15.8%	17.1%	16.4%	14.5%	16.7%	18.1%	15.0%	15.2%
OSCEOLA	18.9%	16.1%	15.5%	15.1%	12.9%	15.3%	16.8%	15.0%	13.8%	11.9%	15.6%	14.8%	10.3%	11.0%
SEMINOLE	12.8%	14.1%	13.0%	16.2%	11.5%	16.3%	14.7%	8.7%	11.0%	18.2%	13.5%	9.9%	6.8%	11.9%
FLORIDA	17.1%	17.6%	17.2%	17.4%	16.9%	17.6%	15.8%	15.5%	15.5%	14.7%	15.8%	15.3%	15.5%	14.8%

Source: FLHealthCHARTS: Florida Department of Health, Vital Statistics

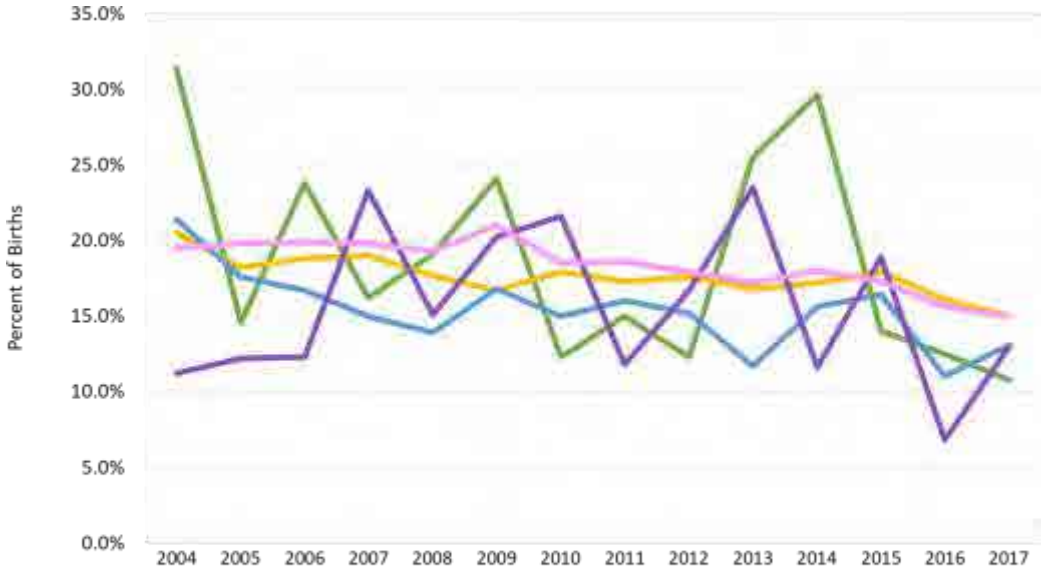
CHART 8.56: REPEAT BIRTHS TO BLACK MOTHERS AGES 15-19 (2004-2017)



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	41.2%	26.9%	21.6%	17.2%	19.4%	16.9%	23.8%	16.7%	29.7%	23.6%	15.4%	12.8%	11.4%	20.9%
ORANGE	23.6%	21.0%	22.1%	20.4%	21.2%	22.4%	20.9%	20.0%	24.2%	24.0%	15.2%	17.1%	20.9%	18.6%
OSCEOLA	19.4%	18.4%	17.3%	13.6%	13.3%	13.7%	18.2%	12.9%	25.0%	17.5%	13.5%	12.2%	16.0%	0.0%
SEMINOLE	19.7%	17.1%	22.0%	12.2%	21.1%	21.1%	17.6%	18.4%	27.0%	21.4%	24.1%	13.0%	5.1%	9.8%
FLORIDA	22.4%	21.6%	20.9%	20.9%	21.6%	21.5%	21.7%	21.0%	20.1%	19.5%	18.4%	17.1%	17.3%	15.8%

Source: FLHealthCHARTS: Florida Department of Health, Vital Statistics

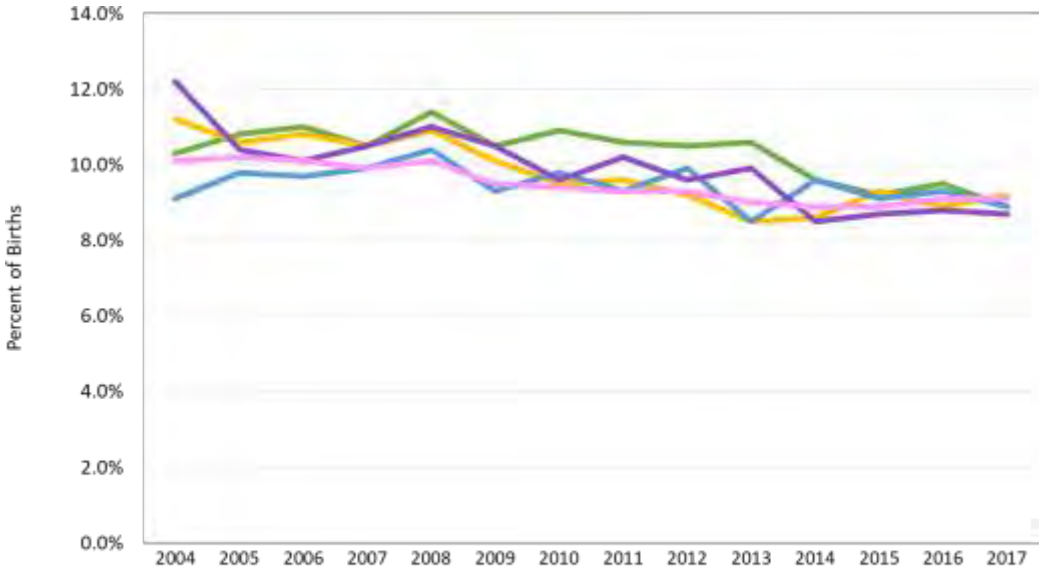
CHART 8.57: REPEAT BIRTHS TO HISPANIC MOTHERS AGES 15-19 (2004-2017)



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	31.4%	14.6%	23.8%	16.2%	19.1%	24.1%	12.3%	15.0%	12.3%	25.5%	29.6%	14.0%	12.5%	10.8%
ORANGE	20.5%	18.2%	18.8%	19.0%	17.7%	16.7%	17.9%	17.3%	17.6%	16.8%	17.2%	17.9%	16.1%	15.0%
OSCEOLA	21.4%	17.6%	16.7%	15.0%	13.9%	16.8%	15.0%	16.0%	15.2%	11.7%	15.6%	16.4%	11.0%	13.1%
SEMINOLE	11.2%	12.2%	12.3%	23.3%	15.1%	20.2%	21.6%	11.8%	16.7%	23.5%	11.6%	18.9%	6.8%	13.0%
FLORIDA	19.5%	19.8%	19.9%	19.8%	19.3%	21.0%	18.5%	18.6%	17.9%	17.2%	18.0%	17.3%	15.6%	15.0%

Source: FLHealthCHARTS: Florida Department of Health, Vital Statistics

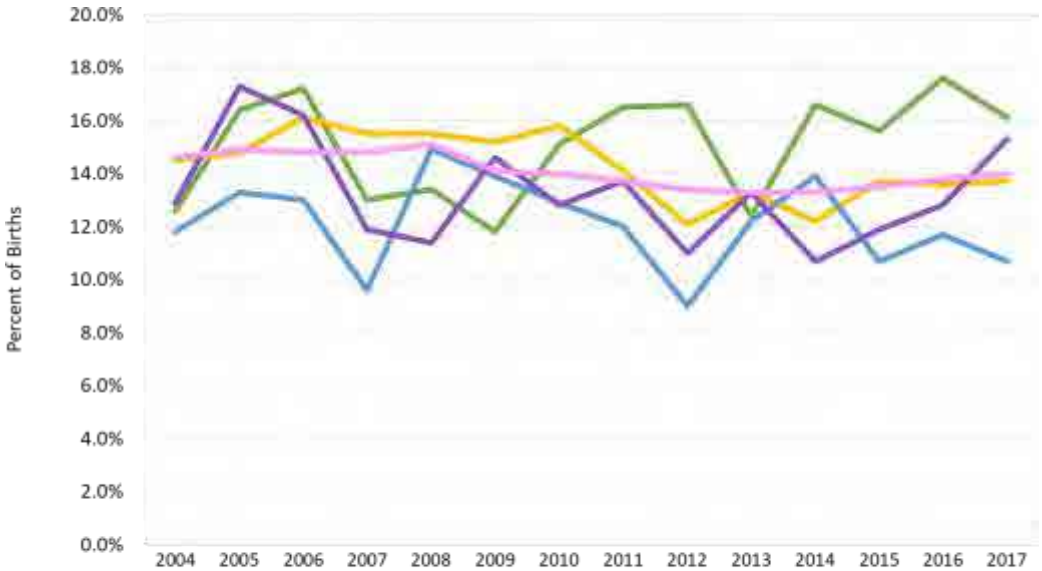
CHART 8.58: WHITE PRETERM BIRTH RATE <37 WEEKS (2004-2017)



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	10.3%	10.8%	11.0%	10.5%	11.4%	10.5%	10.9%	10.6%	10.5%	10.6%	9.6%	9.2%	9.5%	8.9%
ORANGE	11.2%	10.6%	10.8%	10.5%	10.9%	10.1%	9.5%	9.6%	9.2%	8.5%	8.6%	9.3%	8.9%	9.2%
OSCEOLA	9.1%	9.8%	9.7%	9.9%	10.4%	9.3%	9.8%	9.3%	9.9%	8.5%	9.6%	9.1%	9.3%	8.9%
SEMINOLE	12.2%	10.4%	10.1%	10.5%	11.0%	10.5%	9.6%	10.2%	9.6%	9.9%	8.5%	8.7%	8.8%	8.7%
FLORIDA	10.1%	10.2%	10.1%	9.9%	10.1%	9.5%	9.4%	9.3%	9.3%	9.0%	8.9%	8.9%	9.1%	9.1%

Source: FLHealthCHARTS: Florida Department of Health, Vital Statistics

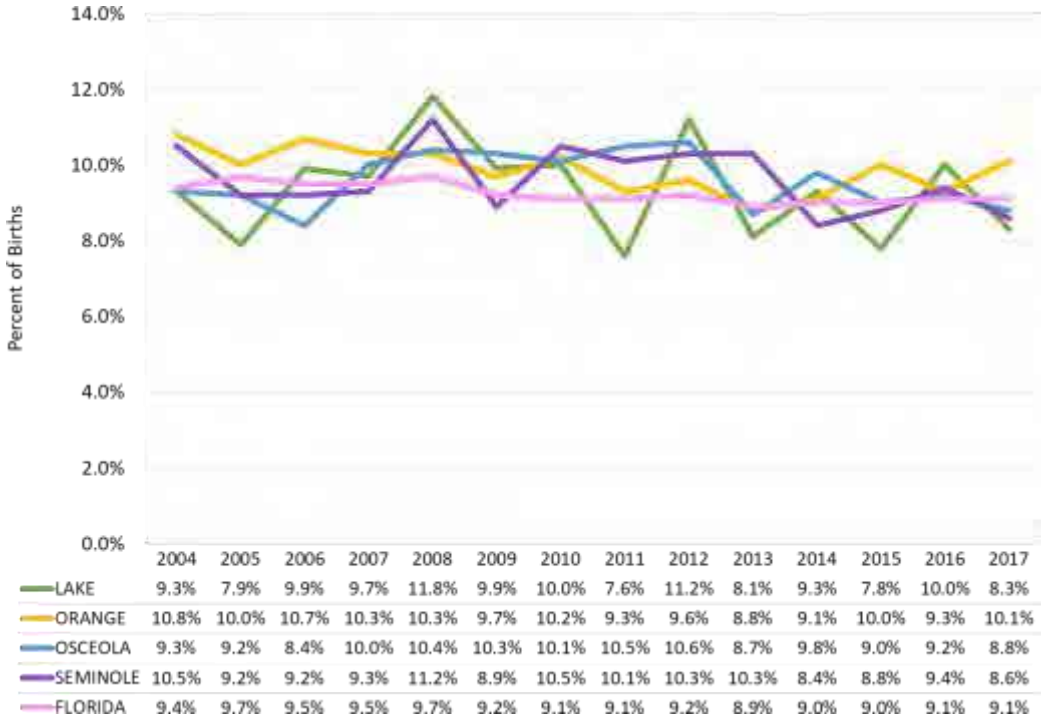
CHART 8.59: BLACK PRETERM BIRTH RATE <37 WEEKS (2004-2017)



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	12.6%	16.4%	17.2%	13.0%	13.4%	11.8%	15.1%	16.5%	16.6%	12.4%	16.6%	15.6%	17.6%	16.1%
ORANGE	14.5%	14.8%	16.1%	15.5%	15.5%	15.2%	15.8%	14.1%	12.1%	13.3%	12.2%	13.7%	13.6%	13.7%
OSCEOLA	11.8%	13.3%	13.0%	9.6%	14.9%	13.9%	12.9%	12.0%	9.0%	12.2%	13.9%	10.7%	11.7%	10.7%
SEMINOLE	12.9%	17.3%	16.2%	11.9%	11.4%	14.6%	12.8%	13.7%	11.0%	13.3%	10.7%	11.9%	12.8%	15.3%
FLORIDA	14.6%	14.9%	14.8%	14.8%	15.1%	14.1%	14.0%	13.7%	13.4%	13.3%	13.3%	13.5%	13.8%	14.0%

Source: FLHealthCHARTS: Florida Department of Health, Vital Statistics

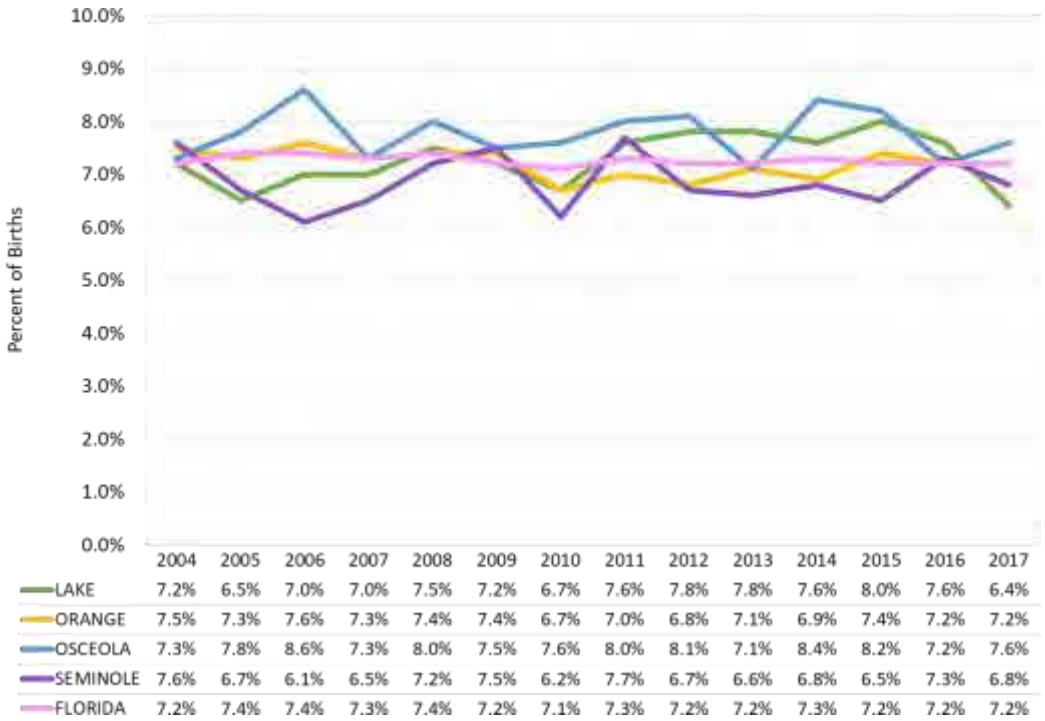
CHART 8.60: HISPANIC PRETERM BIRTH RATE <37 WEEKS (2004-2017)



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	9.3%	7.9%	9.9%	9.7%	11.8%	9.9%	10.0%	7.6%	11.2%	8.1%	9.3%	7.8%	10.0%	8.3%
ORANGE	10.8%	10.0%	10.7%	10.3%	10.3%	9.7%	10.2%	9.3%	9.6%	8.8%	9.1%	10.0%	9.3%	10.1%
OSCEOLA	9.3%	9.2%	8.4%	10.0%	10.4%	10.3%	10.1%	10.5%	10.6%	8.7%	9.8%	9.0%	9.2%	8.8%
SEMINOLE	10.5%	9.2%	9.2%	9.3%	11.2%	8.9%	10.5%	10.1%	10.3%	10.3%	8.4%	8.8%	9.4%	8.6%
FLORIDA	9.4%	9.7%	9.5%	9.5%	9.7%	9.2%	9.1%	9.1%	9.2%	8.9%	9.0%	9.0%	9.1%	9.1%

Source: FLHealthCHARTS: Florida Department of Health, Vital Statistics

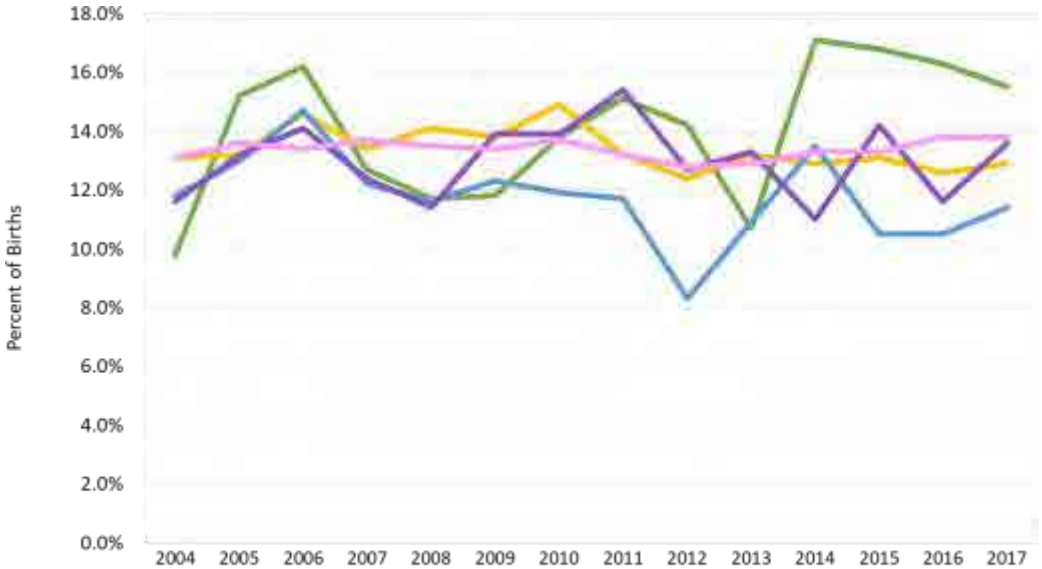
CHART 8.61: WHITE LOW BIRTH WEIGHT BIRTHS <2500 GRAMS (2004-2017)



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	7.2%	6.5%	7.0%	7.0%	7.5%	7.2%	6.7%	7.6%	7.8%	7.8%	7.6%	8.0%	7.6%	6.4%
ORANGE	7.5%	7.3%	7.6%	7.3%	7.4%	7.4%	6.7%	7.0%	6.8%	7.1%	6.9%	7.4%	7.2%	7.2%
OSCEOLA	7.3%	7.8%	8.6%	7.3%	8.0%	7.5%	7.6%	8.0%	8.1%	7.1%	8.4%	8.2%	7.2%	7.6%
SEMINOLE	7.6%	6.7%	6.1%	6.5%	7.2%	7.5%	6.2%	7.7%	6.7%	6.6%	6.8%	6.5%	7.3%	6.8%
FLORIDA	7.2%	7.4%	7.4%	7.3%	7.4%	7.2%	7.1%	7.3%	7.2%	7.2%	7.3%	7.2%	7.2%	7.2%

Source: FLHealthCHARTS: Florida Department of Health, Vital Statistics

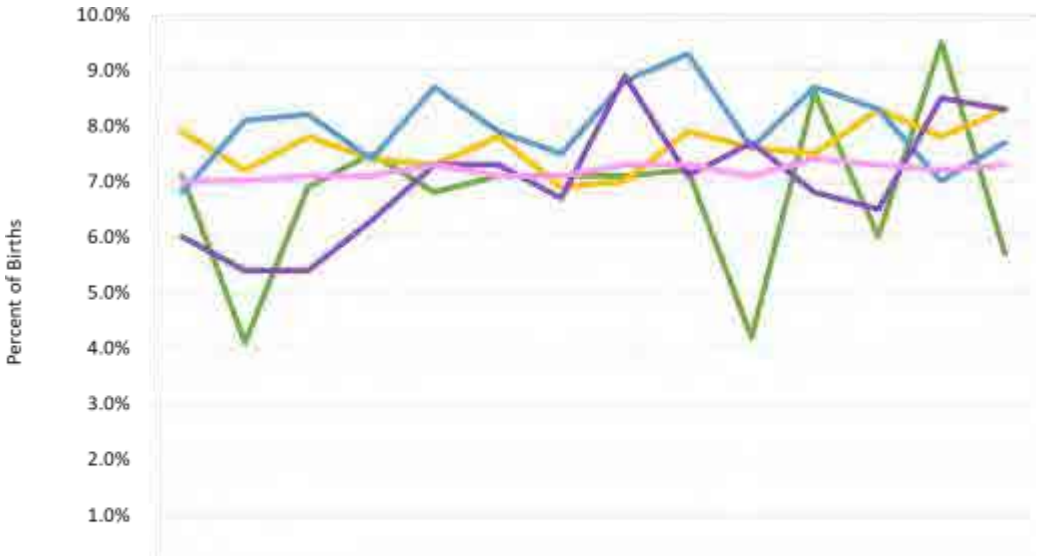
CHART 8.62: BLACK LOW BIRTH WEIGHT BIRTHS <2500 GRAMS (2004-2017)



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	9.8%	15.2%	16.2%	12.7%	11.7%	11.8%	13.8%	15.1%	14.2%	10.7%	17.1%	16.8%	16.3%	15.5%
ORANGE	13.1%	13.2%	14.6%	13.4%	14.1%	13.8%	14.9%	13.2%	12.4%	13.2%	12.9%	13.1%	12.6%	12.9%
OSCEOLA	11.8%	13.0%	14.7%	12.2%	11.6%	12.3%	11.9%	11.7%	8.3%	10.9%	13.5%	10.5%	10.5%	11.4%
SEMINOLE	11.6%	13.2%	14.1%	12.4%	11.4%	13.9%	13.9%	15.4%	12.7%	13.3%	11.0%	14.2%	11.6%	13.6%
FLORIDA	13.1%	13.6%	13.4%	13.7%	13.5%	13.4%	13.7%	13.2%	12.8%	12.9%	13.3%	13.3%	13.8%	13.8%

Source: FLHealthCHARTS: Florida Department of Health, Vital Statistics

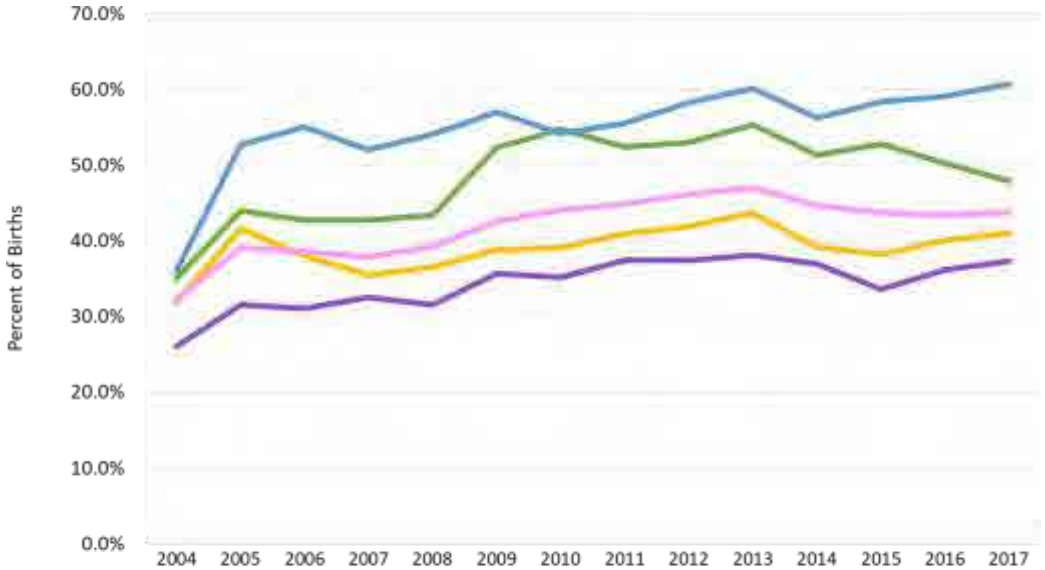
CHART 8.63: HISPANIC LOW BIRTH WEIGHT BIRTHS <2500 GRAMS (2004-2017)



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	7.1%	4.1%	6.9%	7.5%	6.8%	7.1%	7.1%	7.1%	7.2%	4.2%	8.6%	6.0%	9.5%	5.7%
ORANGE	7.9%	7.2%	7.8%	7.4%	7.3%	7.8%	6.9%	7.0%	7.9%	7.6%	7.5%	8.3%	7.8%	8.3%
OSCEOLA	6.8%	8.1%	8.2%	7.4%	8.7%	7.9%	7.5%	8.8%	9.3%	7.6%	8.7%	8.3%	7.0%	7.7%
SEMINOLE	6.0%	5.4%	5.4%	6.3%	7.3%	7.3%	6.7%	8.9%	7.1%	7.7%	6.8%	6.5%	8.5%	8.3%
FLORIDA	7.0%	7.0%	7.1%	7.1%	7.3%	7.1%	7.1%	7.3%	7.3%	7.1%	7.4%	7.3%	7.2%	7.3%

Source: FLHealthCHARTS: Florida Department of Health, Vital Statistics

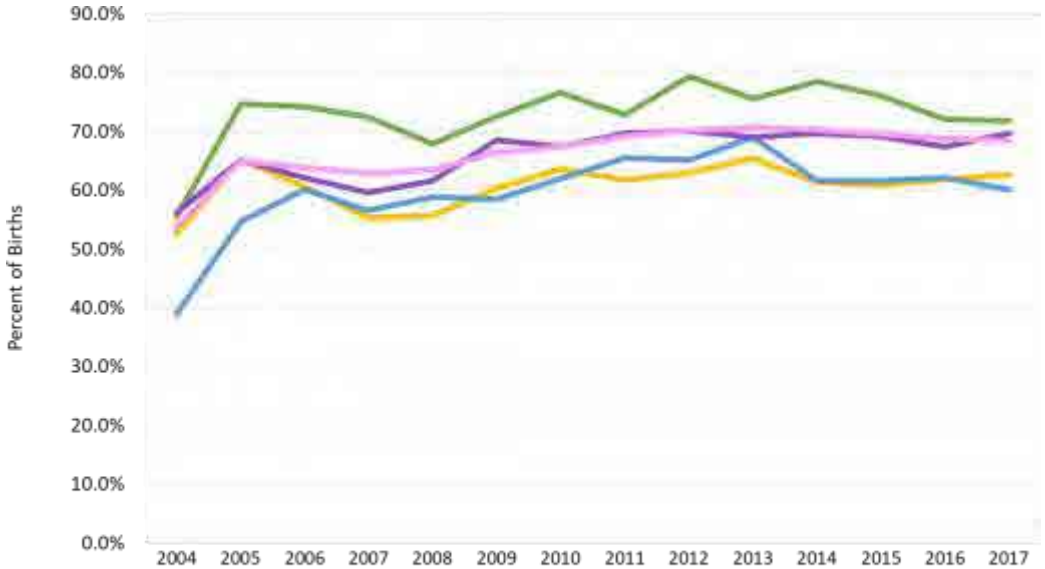
CHART 8.64: WHITE BIRTHS COVERED BY MEDICAID (2004-2017)



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	35.1%	44.0%	42.7%	42.7%	43.4%	52.3%	54.7%	52.4%	53.0%	55.3%	51.3%	52.8%	50.2%	47.9%
ORANGE	31.9%	41.6%	38.0%	35.5%	36.5%	38.8%	39.1%	40.9%	41.9%	43.7%	39.2%	38.2%	40.1%	41.0%
OSCEOLA	36.0%	52.7%	55.0%	52.0%	54.0%	57.0%	54.1%	55.5%	58.3%	60.1%	56.2%	58.4%	59.0%	60.7%
SEMINOLE	26.1%	31.5%	31.0%	32.5%	31.5%	35.6%	35.2%	37.4%	37.4%	38.1%	36.9%	33.6%	36.1%	37.3%
FLORIDA	32.2%	39.1%	38.6%	37.8%	39.3%	42.6%	44.1%	44.8%	46.1%	47.0%	44.7%	43.7%	43.4%	43.8%

Source: FLHealthCHARTS: Florida Department of Health, Vital Statistics

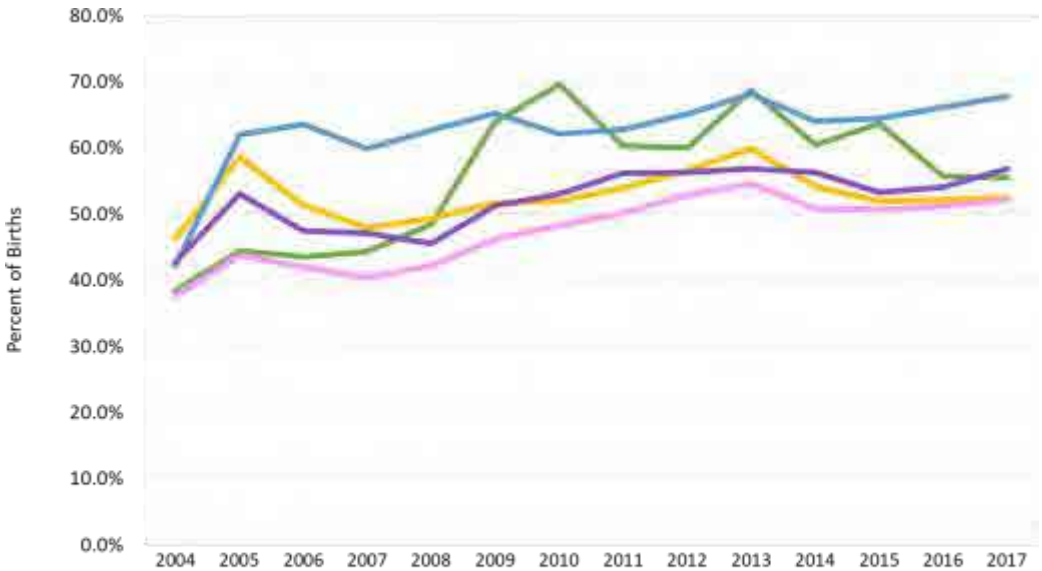
CHART 8.65: BLACK BIRTHS COVERED BY MEDICAID (2004-2017)



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	55.5%	74.7%	74.2%	72.4%	67.9%	72.5%	76.5%	72.8%	79.3%	75.5%	78.4%	76.0%	72.0%	71.8%
ORANGE	52.5%	65.2%	60.6%	55.3%	55.7%	60.3%	63.6%	61.7%	63.0%	65.4%	61.3%	60.8%	61.8%	62.6%
OSCEOLA	38.9%	54.7%	60.1%	56.5%	58.8%	58.4%	62.0%	65.5%	65.1%	69.0%	61.6%	61.6%	62.1%	60.1%
SEMINOLE	56.1%	65.1%	62.1%	59.5%	61.6%	68.5%	67.4%	69.6%	70.0%	69.0%	69.6%	69.1%	67.4%	69.6%
FLORIDA	53.7%	64.9%	63.8%	62.8%	63.5%	66.3%	67.3%	69.1%	70.1%	70.6%	70.2%	69.5%	68.7%	68.4%

Source: FLHealthCHARTS: Florida Department of Health, Vital Statistics

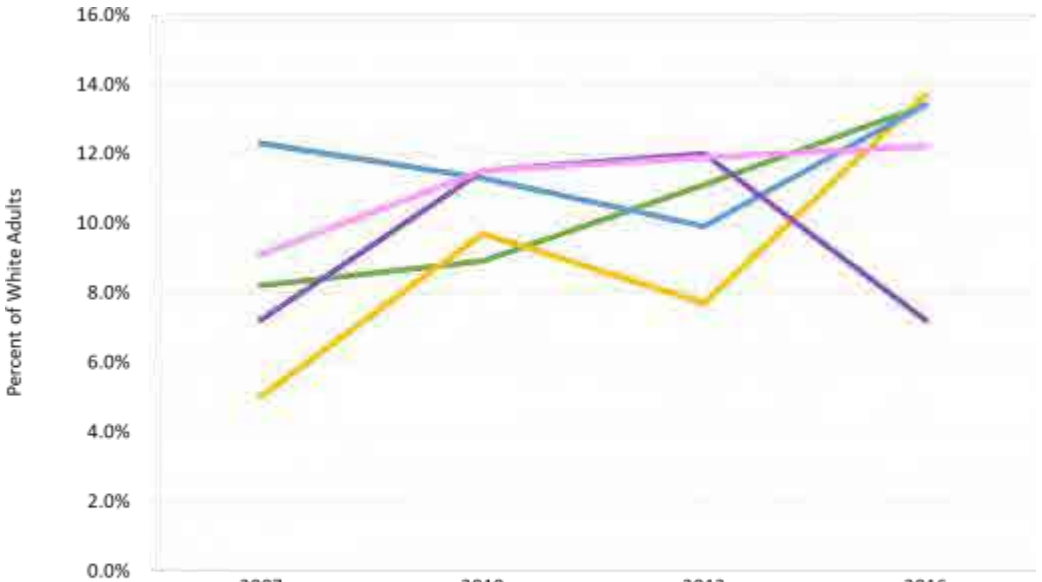
CHART 8.66: HISPANIC BIRTHS COVERED BY MEDICAID (2004-2017)



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	38.4%	44.4%	43.5%	44.3%	48.5%	63.9%	69.6%	60.3%	60.0%	68.7%	60.4%	63.7%	55.7%	55.5%
ORANGE	46.2%	58.6%	51.4%	47.9%	49.4%	51.7%	51.9%	53.9%	56.6%	59.9%	54.2%	51.9%	52.2%	52.5%
OSCEOLA	42.2%	62.0%	63.6%	59.9%	62.7%	65.2%	62.1%	62.8%	65.1%	68.2%	64.0%	64.5%	66.1%	67.8%
SEMINOLE	42.8%	53.1%	47.4%	47.1%	45.6%	51.3%	53.1%	56.2%	56.3%	56.8%	56.3%	53.3%	54.1%	56.9%
FLORIDA	37.6%	43.8%	42.0%	40.4%	42.2%	46.2%	48.3%	50.1%	52.8%	54.6%	50.8%	50.7%	51.1%	52.2%

Source: FLHealthCHARTS: Florida Department of Health, Vital Statistics

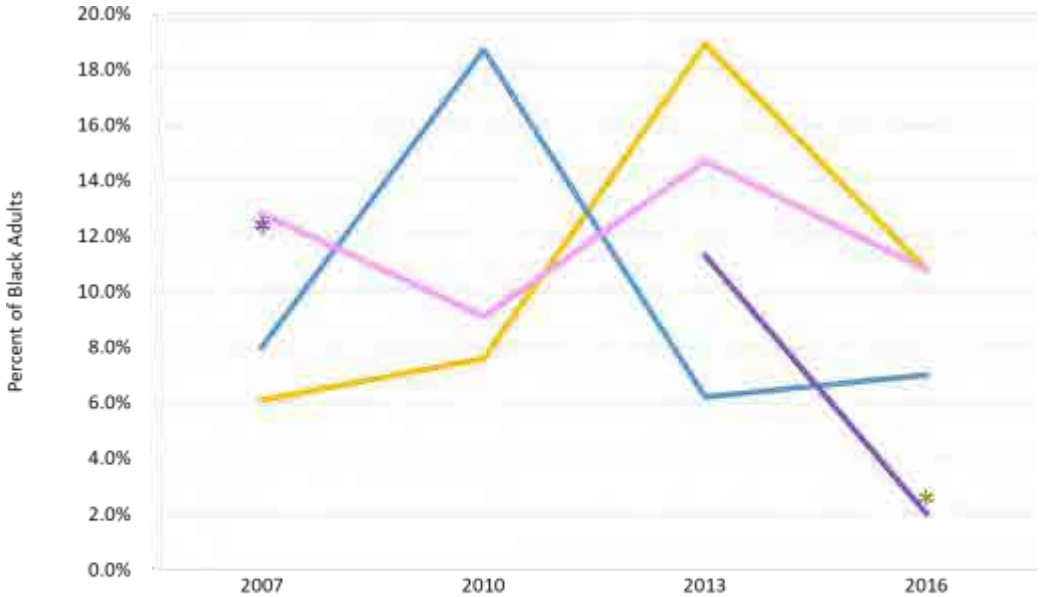
CHART 8.67: WHITE ADULTS WHO HAD POOR MENTAL HEALTH 14 OR MORE OF THE PAST 30 DAYS (2007-2016)



	2007	2010	2013	2016
LAKE	8.2%	8.9%	11.1%	13.4%
ORANGE	5.0%	9.7%	7.7%	13.7%
OSCEOLA	12.3%	11.3%	9.9%	13.4%
SEMINOLE	7.2%	11.5%	12.0%	7.2%
FLORIDA	9.1%	11.5%	11.9%	12.2%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

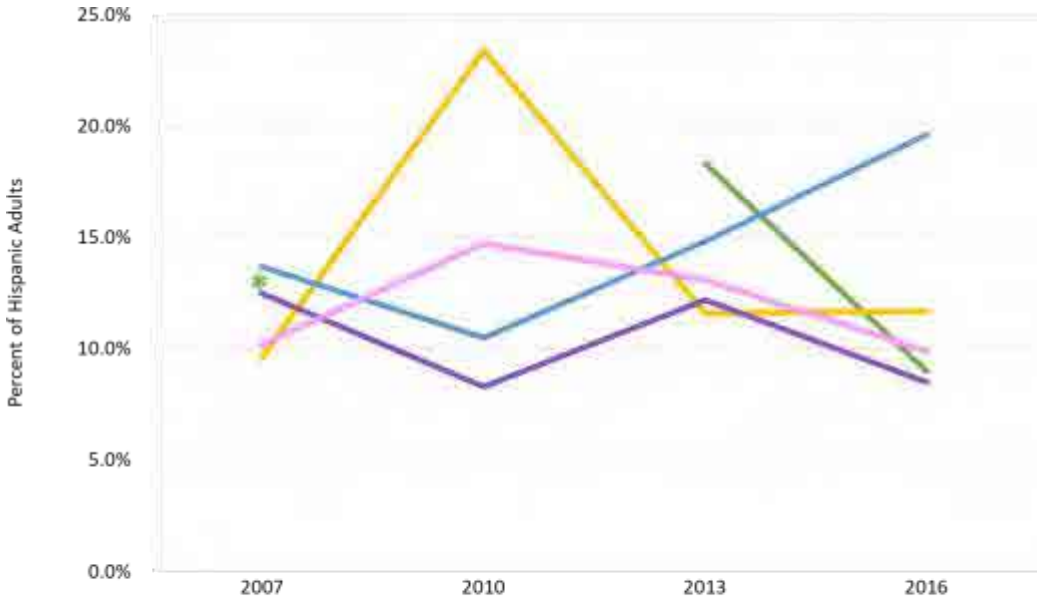
CHART 8.68: BLACK ADULTS WHO HAD POOR MENTAL HEALTH 14 OR MORE OF THE PAST 30 DAYS (2007-2016)



	2007	2010	2013	2016
LAKE	N/A	N/A	N/A	2.6%
ORANGE	6.1%	7.6%	18.9%	10.8%
OSCEOLA	8.0%	18.7%	6.2%	7.0%
SEMINOLE	12.4%	N/A	11.3%	2.0%
FLORIDA	12.8%	9.1%	14.7%	10.8%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System
*Represents a single data point where there has been inconsistent data for a county

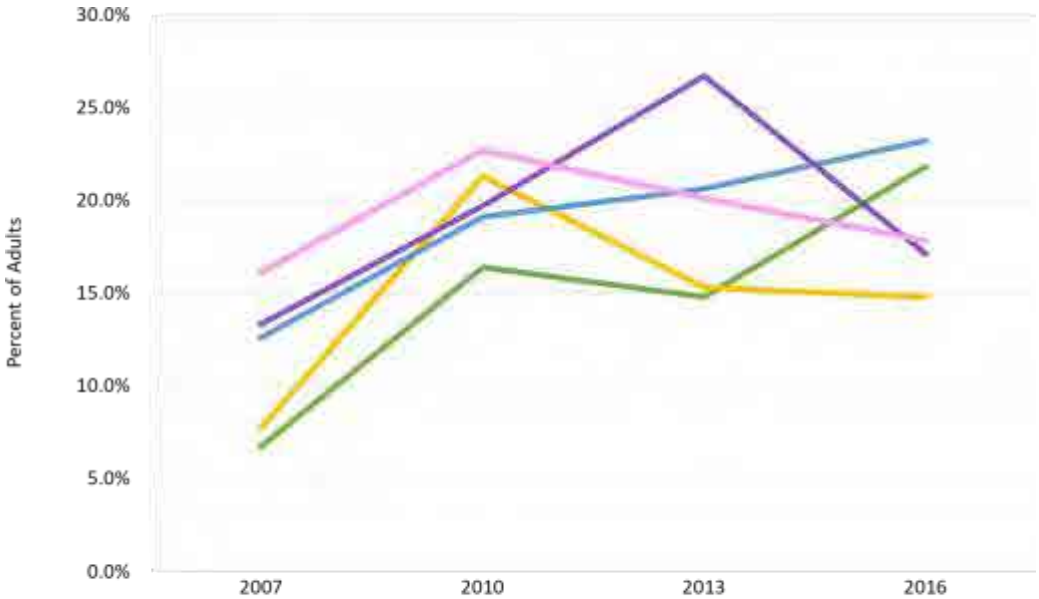
CHART 8.69: HISPANIC ADULTS WHO HAD POOR MENTAL HEALTH 14 OR MORE OF THE PAST 30 DAYS (2007-2016)



	2007	2010	2013	2016
LAKE	13.2%	N/A	18.3%	9.0%
ORANGE	9.6%	23.4%	11.6%	11.7%
OSCEOLA	13.7%	10.5%	14.8%	19.6%
SEMINOLE	12.5%	8.3%	12.2%	8.5%
FLORIDA	10.2%	14.7%	13.1%	9.9%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

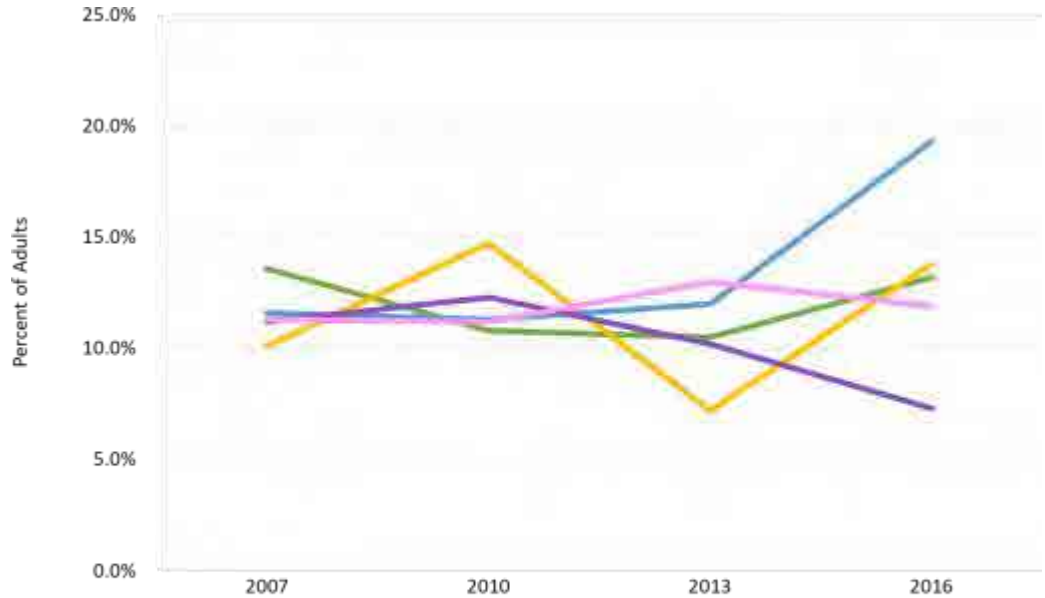
CHART 8.70: POOR MENTAL HEALTH, INCOME <25K (2007-2016)



	2007	2010	2013	2016
LAKE	6.7%	16.4%	14.8%	21.8%
ORANGE	7.7%	21.3%	15.3%	14.8%
OSCEOLA	12.6%	19.1%	20.6%	23.2%
SEMINOLE	13.3%	19.7%	26.7%	17.1%
FLORIDA	16.1%	22.7%	20.1%	17.8%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

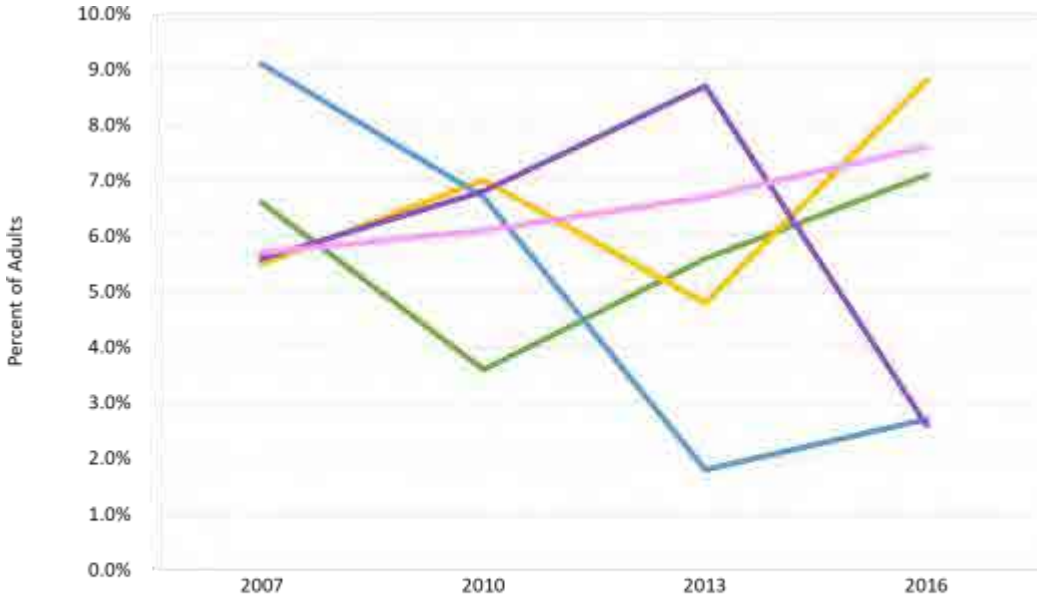
CHART 8.71: POOR MENTAL HEALTH, INCOME $25K-$49K (2007-2016)



	2007	2010	2013	2016
LAKE	13.6%	10.8%	10.5%	13.2%
ORANGE	10.1%	14.7%	7.2%	13.8%
OSCEOLA	11.6%	11.3%	12.0%	19.3%
SEMINOLE	11.2%	12.3%	10.2%	7.3%
FLORIDA	11.3%	11.2%	13.0%	11.9%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

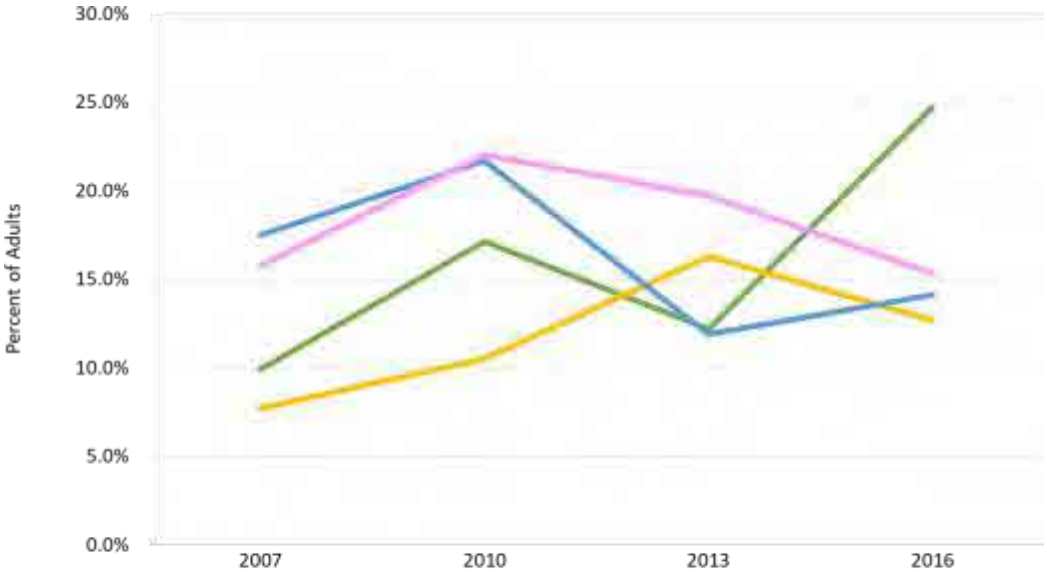
CHART 8.72: POOR MENTAL HEALTH, INCOME $50K+ (2007-2016)



	2007	2010	2013	2016
LAKE	6.6%	3.6%	5.6%	7.1%
ORANGE	5.5%	7.0%	4.8%	8.8%
OSCEOLA	9.1%	6.7%	1.8%	2.7%
SEMINOLE	5.6%	6.8%	8.7%	2.6%
FLORIDA	5.7%	6.1%	6.7%	7.6%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

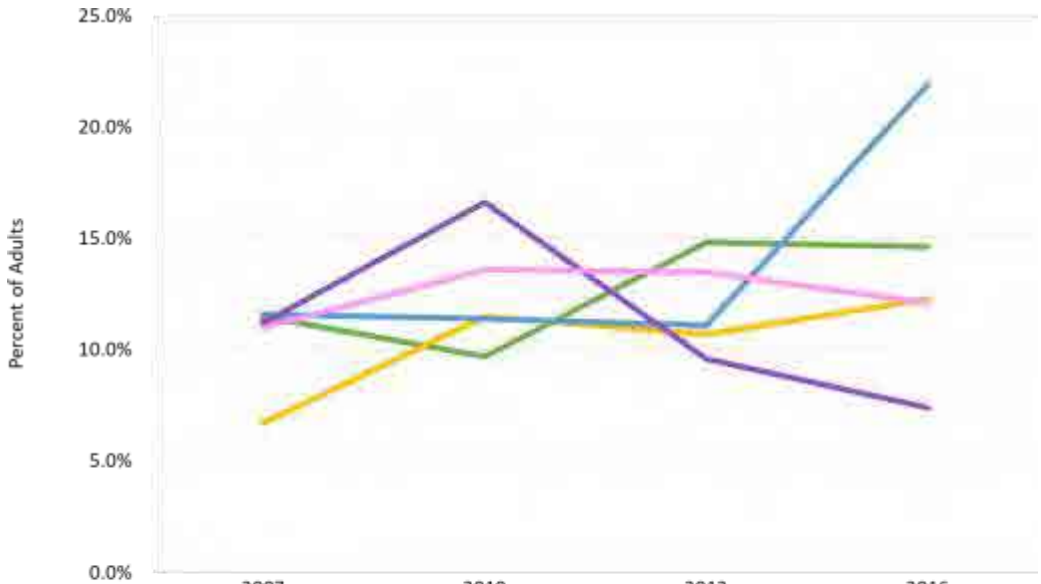
CHART 8.73: POOR MENTAL HEALTH, EDUCATION <HIGH SCHOOL (2007-2016)



	2007	2010	2013	2016
LAKE	9.9%	17.1%	12.2%	24.7%
ORANGE	7.7%	10.5%	16.3%	12.7%
OSCEOLA	17.5%	21.7%	11.9%	14.1%
SEMINOLE	N/A	N/A	N/A	N/A
FLORIDA	15.8%	22.0%	19.7%	15.3%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

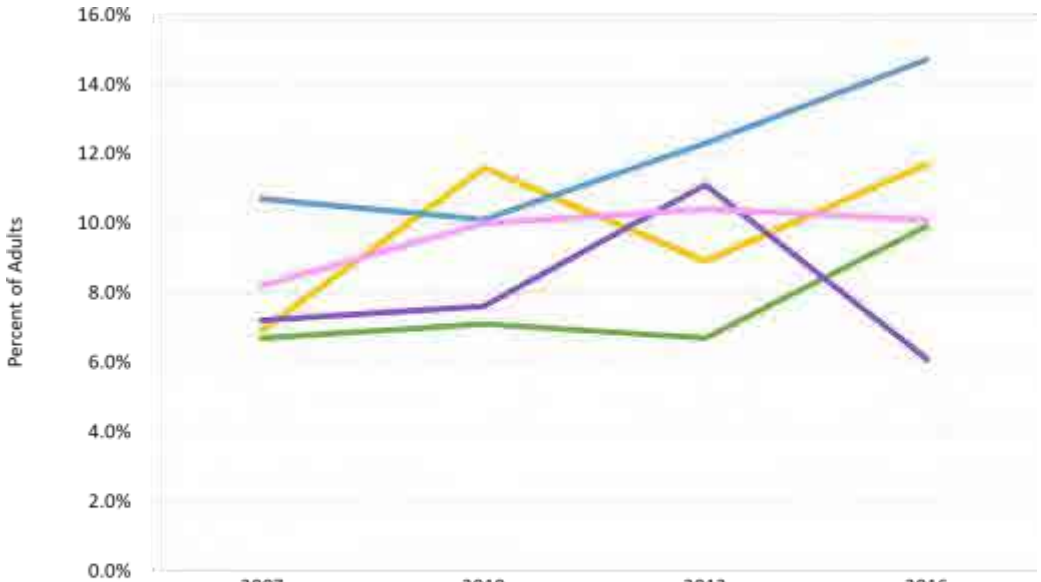
CHART 8.74: POOR MENTAL HEALTH, EDUCATION HIGH SCHOOL-GED (2007-2016)



	2007	2010	2013	2016
LAKE	11.5%	9.7%	14.8%	14.6%
ORANGE	6.7%	11.5%	10.7%	12.3%
OSCEOLA	11.6%	11.4%	11.1%	21.9%
SEMINOLE	11.2%	16.6%	9.6%	7.4%
FLORIDA	11.0%	13.6%	13.5%	12.1%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

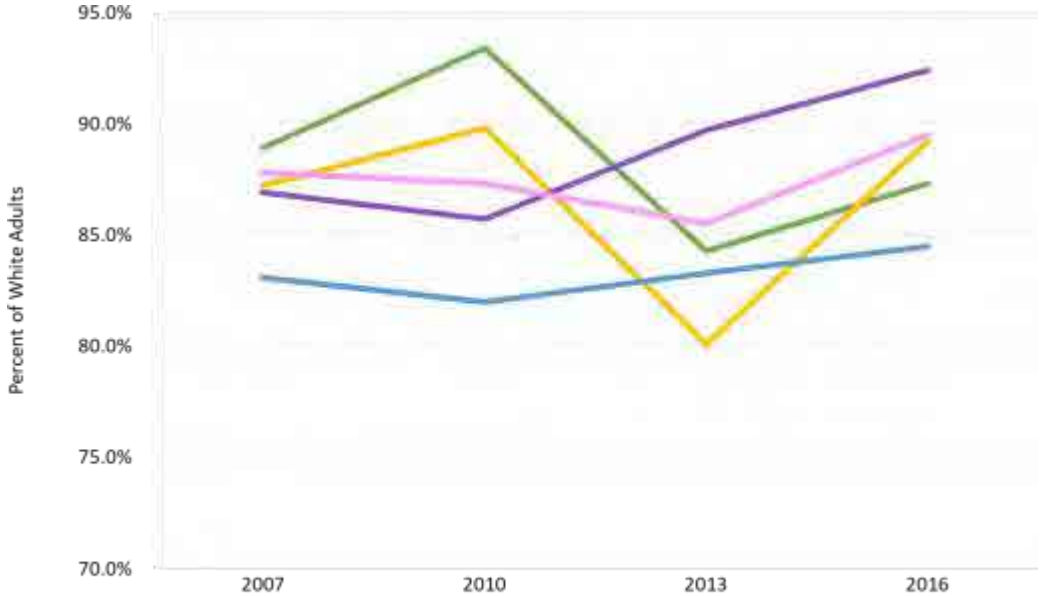
CHART 8.75: POOR MENTAL HEALTH, EDUCATION >HIGH SCHOOL (2007-2016)



	2007	2010	2013	2016
LAKE	6.7%	7.1%	6.7%	9.9%
ORANGE	6.9%	11.6%	8.9%	11.7%
OSCEOLA	10.7%	10.1%	12.3%	14.7%
SEMINOLE	7.2%	7.6%	11.1%	6.1%
FLORIDA	8.2%	10.0%	10.4%	10.1%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

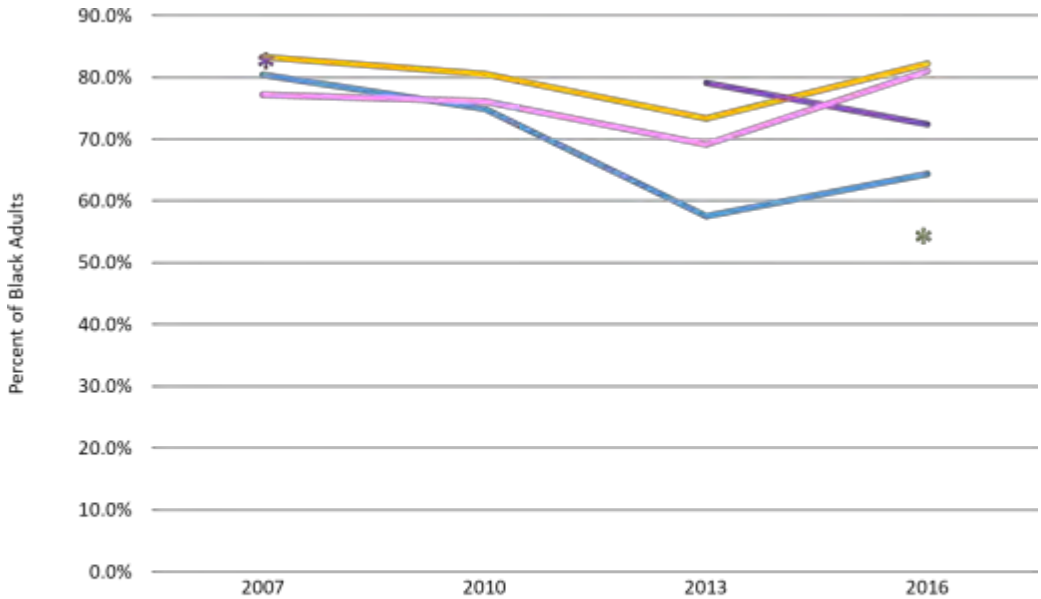
CHART 8.76: WHITE INSURANCE COVERAGE (2007-2016)



	2007	2010	2013	2016
LAKE	88.9%	93.4%	84.3%	87.3%
ORANGE	87.2%	89.8%	80.1%	89.2%
OSCEOLA	83.1%	82.0%	83.3%	84.5%
SEMINOLE	86.9%	85.7%	89.7%	92.4%
FLORIDA	87.8%	87.3%	85.5%	89.5%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

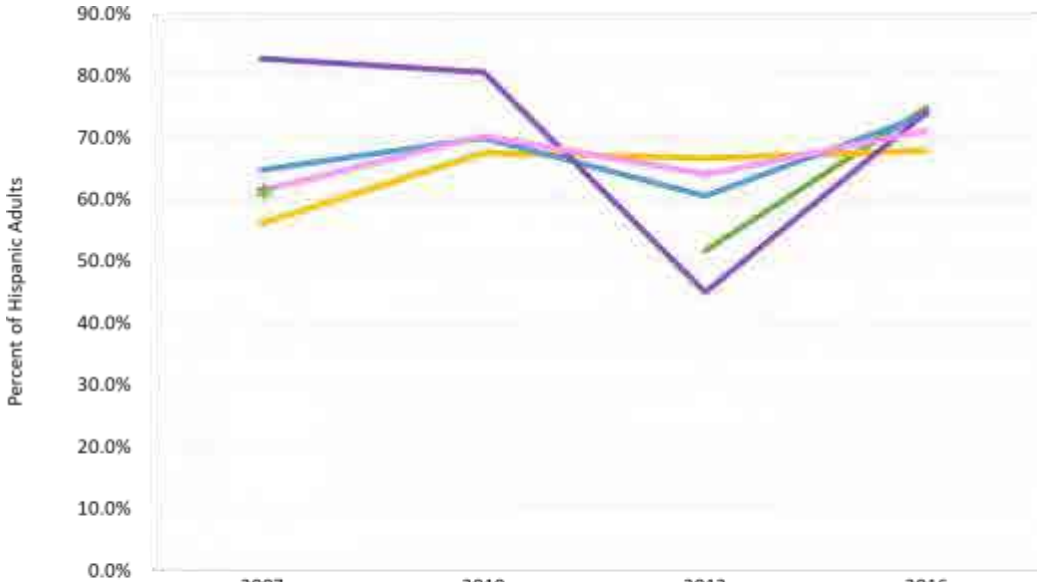
CHART 8.77: BLACK INSURANCE COVERAGE (2007-2016)



	2007	2010	2013	2016
LAKE	N/A	N/A	N/A	54.7%
ORANGE	83.3%	80.5%	73.4%	82.2%
OSCEOLA	80.4%	74.9%	57.5%	64.4%
SEMINOLE	82.8%	N/A	79.1%	72.4%
FLORIDA	77.2%	76.1%	69.2%	81.0%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System
*Represents a single data point where there has been inconsistent data for a county

CHART 8.78: HISPANIC INSURANCE COVERAGE (2007-2016)



	2007	2010	2013	2016
LAKE	61.6%	N/A	51.7%	74.8%
ORANGE	56.1%	67.5%	66.7%	67.9%
OSCEOLA	64.7%	69.9%	60.5%	73.7%
SEMINOLE	82.7%	80.5%	45.0%	74.1%
FLORIDA	61.4%	70.3%	64.0%	71.1%

Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

Insurance

CHAPTER NINE

Hot Spotting Summary

Hourglass Park
Orlando, FL

Orange County

Hospital Utilization: Hot Spotting

Hot spotting, a geographical analysis method, generates a color-coded map that illustrates a geographic area where there is a concentration of indicators being studied; for this report, it is uninsured patient visits. The hot spot maps will guide and support strategic program deployment to meet the identified in this process.

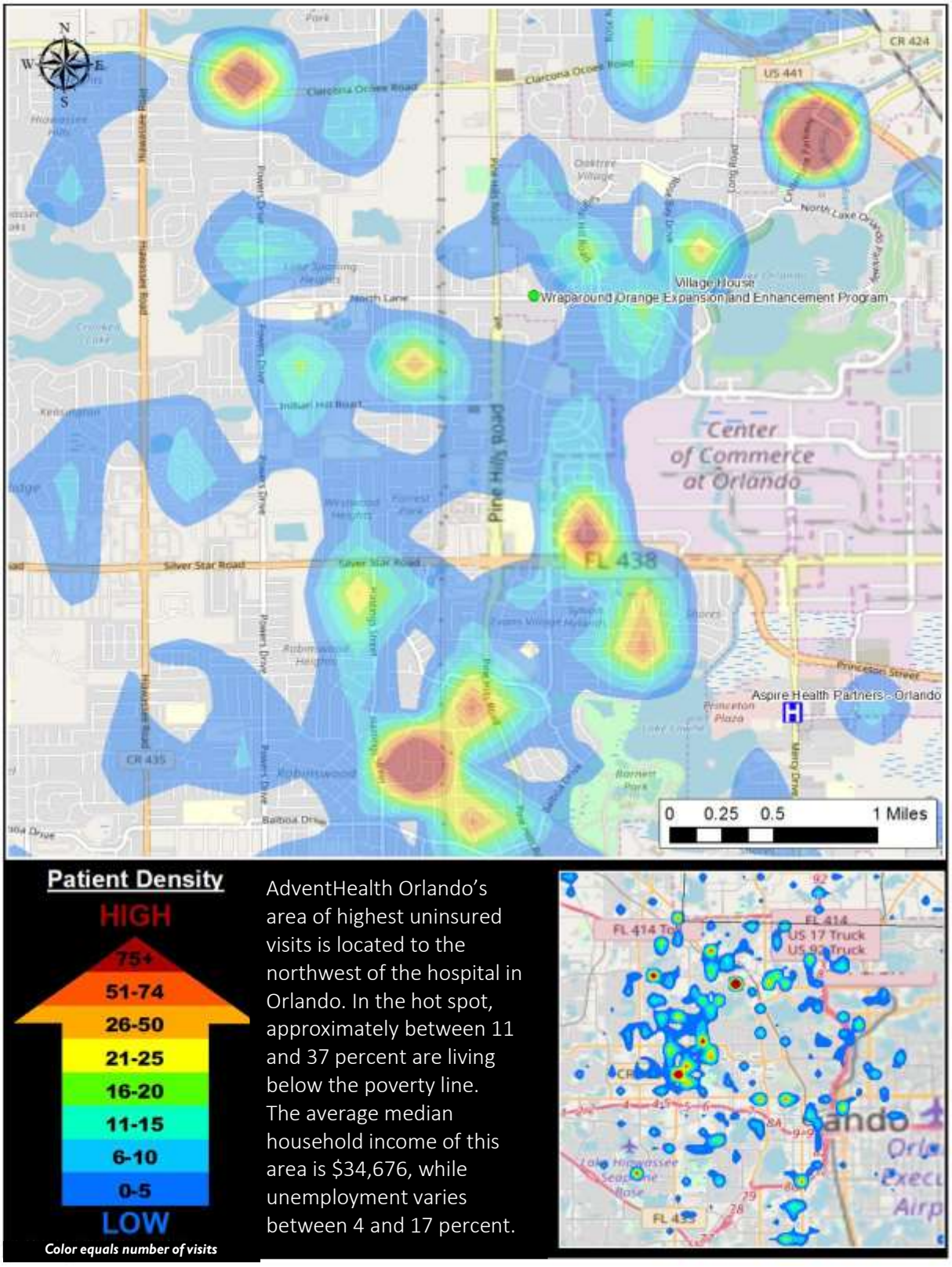
This method was applied to analyze de-identified, uninsured inpatient and outpatient (emergency department) hospital utilization data from AdventHealth Orlando. The color-coded maps (Figures 9.1 and 9.2) were created from the addresses of uninsured patient visits and represent high-density areas of utilization across the service area. Please note that the patient density color bar on each map shows the number of visits that correspond to each hot spot color, with red indicating the highest patient density and blue the lowest.

For this report, the hot spot is defined as the top five census tracts with the most uninsured patient visits overall. These census tracts may not be adjacent to one another; therefore, the hot spot analysis is reflective of the top five census tracts and not necessarily the areas of high-density utilization shown on the maps (Figure 9.1 and 9.2).

Inpatient and outpatient data for uninsured patients from the Hospital for fiscal years 2016, 2017 and 2018 were used in this analysis. In addition to the standard hospital uninsured patient data in most hot spotting projects, this hot spotting analysis includes economic variables and conditions of the area to analyze the correlation between health care utilization and the socioeconomic conditions in which people live.

Figure 9.1 illustrates the uninsured inpatient hot spot analysis for AdventHealth Orlando.

FIGURE 9.1: ADVENTHEALTH ORLANDO UNINSURED INPATIENT HOT SPOT ANALYSIS



Tables 9.1 through 9.6 outline the uninsured inpatient specific hot spot analysis for AdventHealth Orlando. The analysis includes all uninsured inpatient visits (Table 9.1) and focuses on those visits within the hot spot for fiscal years 2016 through 2018 (Tables 9.2 through 9.5). Table 9.6 displays the census tracts, what zip code(s) they are in and the economic conditions for the hot spot. In the top five census tracts (the hot spot) from which the most frequent uninsured inpatient visits are generated, the average unemployment rate is about 13 percent; approximately 27 percent of the population is living below the federal poverty level. The average annual median household income is $34,676. The 595 uninsured inpatient visits from within the hot spot cost more than $31.9 million and accounted for 8.5 percent of all uninsured inpatient visits between 2016 and 2018 (Table 9.1). Just under half (47.9 percent) of uninsured inpatient visits were made by Black or African American patients. Additionally, patients aged 30-39 accounted for 26.4 percent of uninsured inpatient visits.

Sepsis, unspecified organism, was the most frequent primary diagnosis code and had the highest total cost from uninsured inpatient visits within this hot spot at 4.9 percent and with a total cost of more than $3.1 million between 2016 and 2018. Acute kidney failure, unspecified, was the most frequent secondary diagnosis from uninsured inpatient visits within this hot spot at 5.4 percent and with a total cost of more than $2.2 million for the same time period. The primary diagnosis with the highest average cost per uninsured inpatient visit was non-ST elevation (NSTEMI) myocardial infarction with an average cost of $174,926. To protect patient privacy, any analysis that resulted in fewer than five visits or if a certain diagnosis had less than 200,000 new cases per year is not included, except for total cost per diagnosis.

TABLE 9.1: ADVENTHEALTH ORLANDO UNINSURED INPATIENT VISIT COMPARISON, 2016-2018

Criteria*	Data Snapshot
Total uninsured inpatient visits	6,970
Total uninsured inpatient visits in hot spot	595
Total uninsured inpatient cost	$420,958,957
Total uninsured inpatient cost in hot spot	$31,964,981
Percent of uninsured inpatient visits in hot spot	8.5%
Total homeless uninsured inpatient visits	558
Homeless visits as a percent of all uninsured inpatient visits	8.0%
Total cost for uninsured inpatient homeless visits	$26,878,069

*Note: Includes individuals listed as homeless, unknown or homeless shelter/service facility for each of the total uninsured rows above; however, these individuals are not included in hot spot specific rows.
Source: AdventHealth Orlando Uninsured Inpatient Data

TABLE 9.2: ADVENTHEALTH ORLANDO TOP 5 MOST FREQUENT UNINSURED INPATIENT PRIMARY DIAGNOSIS CODES, 2016-2018

Top 5* Primary Diagnosis Codes	Total Visits	Total Cost	% of all Visits in Hot Spot	Avg. Cost per Visit
A41.9 Sepsis, unspecified organism	29	$3,180,573	4.9%	$109,675
N17.9 Acute kidney failure, unspecified	12	$298,646	2.0%	$24,887
Z38.00 Single liveborn infant, delivered vaginally	11	$67,214	1.8%	$6,110
E10.10 Type 1 diabetes mellitus with ketoacidosis without coma	10	$479,876	1.7%	$47,988
F33.9 Major depressive disorder, recurrent, unspecified	8	$282,409	1.3%	$35,301
J18.9 Pneumonia, unspecified organism	8	$309,422	1.3%	$38,678

*Top 6 listed due to multiple diagnoses with same number of total visits.
Source: AdventHealth Orlando Uninsured Inpatient Data

TABLE 9.3: ADVENTHEALTH ORLANDO TOP 5 MOST FREQUENT UNINSURED INPATIENT SECONDARY DIAGNOSIS CODES, 2016-2018

Top 5 Secondary Diagnosis Codes	Total Visits	Total Cost	% of all Visits in Hot Spot	Avg. Cost per Visit
N17.9 Acute kidney failure, unspecified	32	$2,208,973	5.4%	$69,030
I10 Essential (primary) hypertension	22	$688,531	3.7%	$31,297
J18.9 Pneumonia, unspecified organism	18	$2,257,949	3.0%	$125,442
E87.1 Hypo-osmolality and hyponatremia	14	$884,637	2.4%	$63,188
E11.65 Type 2 diabetes mellitus with hyperglycemia	12	$453,399	2.0%	$37,783

Source: AdventHealth Orlando Uninsured Inpatient Data

TABLE 9.4: ADVENTHEALTH ORLANDO TOP 5 HIGHEST COST UNINSURED INPATIENT PRIMARY DIAGNOSIS CODES, 2016-2018

Top 5 Highest Cost Primary Diagnosis Codes	Total Visits	Total Cost	% of all Visits in Hot Spot	Avg. Cost per Visit
A41.9 Sepsis, unspecified organism	29	$3,180,573	4.9%	$109,675
I21.4 Non-ST elevation (NSTEMI) myocardial infarction	7	$1,224,484	1.2%	$174,926
I25.110 Atherosclerotic heart disease of native coronary artery with unstable angina pectoris*		$654,536		
C91.50 Adult T-cell lymphoma/leukemia (HTLV-1-associated) not having achieved remission*		$628,768		
E10.10 Type 1 diabetes mellitus with ketoacidosis without coma	10	$479,876	1.7%	$47,988

*To protect patient privacy, any analysis that resulted in fewer than five visits or if a certain diagnosis had less than 200,000 new cases per year is not included, except for total cost per diagnosis.
Source: AdventHealth Orlando Uninsured Inpatient Data

TABLE 9.5: ADVENTHEALTH ORLANDO UNINSURED INPATIENT VISITS BY RACE, ETHNICITY AND AGE, 2016-2018

Race	Number	%	Ethnic Group	Number	%	Age	Number	%
American Indian or Alaskan Native	0	0.0%	Hispanic or Latino	79	13.3%	0-18	22	3.7%
Asian	4	0.7%	Multiple	0	0.0%	19-29	101	17.0%
Black or African American	285	47.9%	Non-Hispanic or non-Latino	507	85.2%	30-39	157	26.4%
Multiple	13	2.2%	Unknown	9	1.5%	40-49	126	21.2%
Native Hawaiian or Pacific Islander	0	0.0%				50-59	135	22.7%
Other	35	5.9%				60-69	46	7.7%
Unknown	8	1.3%				70-79	6	1.0%
White	250	42.0%				80+	2	0.3%

Source: AdventHealth Orlando Uninsured Inpatient Data

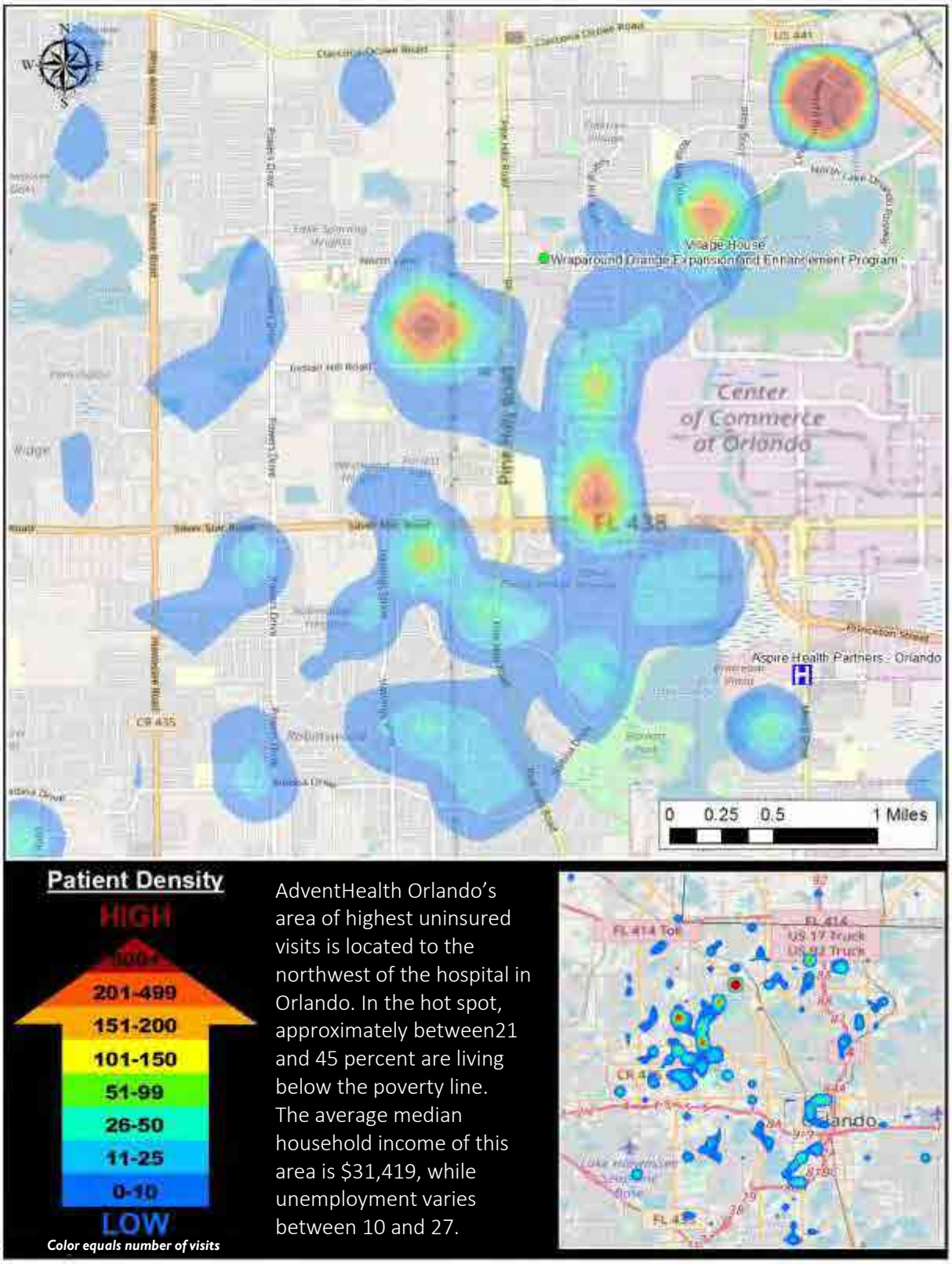
TABLE 9.6: ADVENTHEALTH ORLANDO ECONOMIC CHARACTERISTICS OF TOP 5 CENSUS TRACTS, 2012-2019

Census Tract	Census Tract within Zip Code(s)	% Unemployed	Median HH Income	% Below Poverty
12-095-15202	32810	15.5%	$28,458	37.1%
12-095-12000	32808	17.1%	$28,912	34.4%
12-095-12100	32808	12.7%	$31,330	26.7%
12-095-12401	32808, 32810	13.5%	$35,628	27.5%
12-095-15103	32703, 32810	4.1%	$49,053	11.1%
Average		12.6%	$34,676	27.3%

Source: ProximityOne | Source: U.S. Census Bureau

Figure 9.2 illustrates the uninsured outpatient hot spot analysis for AdventHealth Orlando.

FIGURE 9.2: ADVENTHEALTH ORLANDO UNINSURED OUTPATIENT HOT SPOT ANALYSIS



Tables 9.7 through 9.12 outline the uninsured outpatient specific hot spot analysis for AdventHealth Orlando. The analysis includes all uninsured outpatient visits (Table 9.7) and focuses on those visits within the hot spot for fiscal years 2016 through 2018 (Tables 9.8 through 9.11). Table 9.12 displays the census tracts, what zip code(s) they are in and the economic conditions for the hot spot. In the top five census tracts (the hot spot) from which the most frequent uninsured outpatient visits are generated, the average unemployment rate is about 16 percent; approximately 30 percent of the population is living below the federal poverty level. The average annual median household income is $31,419. The 5,542 uninsured outpatient visits from within the hot spot cost more than $24.8 million and accounted for 13 percent of all uninsured outpatient visits between 2016 and 2018 (Table 9.7). Almost three-fourths (71.5 percent) of uninsured outpatient visits were made by Black or African American patients. Additionally, patients aged 19-29 accounted for 36.2 percent of uninsured outpatient visits.

Unspecified abdominal pain was the most frequent primary diagnosis code from uninsured outpatient visits within this hot spot at 3 percent and with a total cost of more than $1.2 million between 2016 and 2018. Essential (primary) hypertension was the most frequent secondary diagnosis from uninsured outpatient visits within this hot spot at 4.3 percent and with a total cost of more than $1.3 million for the same time period. The primary diagnosis with the highest total and average costs per uninsured outpatient visit was chest pain, unspecified, with a total cost of more than $2 million and an average cost of $12,707 per uninsured outpatient visit.

.

TABLE 9.7: ADVENTHEALTH ORLANDO UNINSURED OUTPATIENT VISIT COMPARISON, 2016-2018

Criteria*	Data Snapshot
Total uninsured outpatient visits	42,698
Total uninsured outpatient visits in hot spot	5,542
Total uninsured outpatient cost	$244,752,855
Total uninsured outpatient cost in hot spot	$24,846,806
Percent of uninsured outpatient visits in hot spot	13.0%
Total homeless uninsured outpatient visits	2,802
Homeless visits as a percent of all uninsured outpatient visits	6.6%
Total cost for uninsured outpatient homeless visits	$15,466,834

*Note: Includes individuals listed as homeless, unknown or homeless shelter/service facility for each of the total uninsured rows above; however, these individuals are not included in hot spot specific rows.
Source: AdventHealth Altamonte Springs Uninsured Outpatient Data

TABLE 9.8: ADVENTHEALTH ORLANDO TOP 5 MOST FREQUENT UNINSURED OUTPATIENT PRIMARY DIAGNOSIS CODES, 2016-2018

Top 5 Primary Diagnosis Codes	Total Visits	Total Cost	% of all Visits in Hot Spot	Avg. Cost per Visit
R10.9 Unspecified abdominal pain	169	$1,254,193	3.0%	$7,421
R07.9 Chest pain, unspecified	158	$2,007,670	2.9%	$12,707
R51 Headache	133	$632,008	2.4%	$4,752
N39.0 Urinary tract infection, site not specified	128	$612,388	2.3%	$4,784
J02.9 Acute pharyngitis, unspecified	115	$187,670	2.1%	$1,632

Source: AdventHealth Orlando Uninsured Outpatient Data

TABLE 9.9: ADVENTHEALTH ORLANDO TOP 5 MOST FREQUENT UNINSURED OUTPATIENT SECONDARY DIAGNOSIS CODES, 2016-2018

Top 5 Secondary Diagnosis Codes	Total Visits	Total Cost	% of all Visits in Hot Spot	Avg. Cost per Visit
I10 Essential (primary) hypertension	236	$1,374,698	4.3%	$5,825
R10.9 Unspecified abdominal pain	92	$192,448	1.7%	$2,092
R11.2 Nausea with vomiting, unspecified	77	$523,481	1.4%	$6,798
Z72.0 Tobacco use	73	$234,376	1.3%	$3,211
R51 Headache	63	$404,422	1.1%	$6,419

Source: AdventHealth Orlando Uninsured Outpatient Data

TABLE 9.10: ADVENTHEALTH ORLANDO TOP 5 HIGHEST COST UNINSURED OUTPATIENT PRIMARY DIAGNOSIS CODES, 2016-2018

Top 5 Highest Cost Primary Diagnosis Codes	Total Visits	Total Cost	% of all Visits in Hot Spot	Avg. Cost per Visit
R07.9 Chest pain, unspecified	158	$2,007,670	2.9%	$12,707
R10.9 Unspecified abdominal pain	169	$1,254,193	3.0%	$7,421
R07.89 Other chest pain	93	$923,570	1.7%	$9,931
R51 Headache	133	$632,008	2.4%	$4,752
N39.0 Urinary tract infection, site not specified	128	$612,388	2.3%	$4,784

Source: AdventHealth Orlando Uninsured Outpatient Data

TABLE 9.11: ADVENTHEALTH ORLANDO UNINSURED OUTPATIENT VISITS BY RACE, ETHNICITY AND AGE, 2016-2018

Race	Number	%	Ethnic Group	Number	%	Age	Number	%
American Indian or Alaskan Native	3	0.1%	Hispanic or Latino	730	13.2%	0-18	537	9.7%
Asian	9	0.2%	Multiple	0	0.0%	19-29	2,006	36.2%
Black or African American	3,963	71.5%	Non-Hispanic or non-Latino	4,784	86.3%	30-39	1,256	22.7%
Multiple	37	0.7%	Unknown	28	0.5%	40-49	825	14.9%
Native Hawaiian or Pacific Islander	3	0.1%				50-59	712	12.8%
Other	390	7.0%				60-69	171	3.1%
Unknown	21	0.4%				70-79	30	0.5%
White	1,108	20.0%				80+	5	0.1%

Source: AdventHealth Orlando Uninsured Outpatient Data

TABLE 9.12: ADVENTHEALTH ORLANDO ECONOMIC CHARACTERISTICS OF TOP 5 CENSUS TRACTS, 2012-2016

Census Tract	Census Tract within Zip Code(s)	% Unemployed	Median HH Income	% Below Poverty
12-095-12000	32808	12.7%	$31,330	26.7%
12-095-12401	32808, 32810	13.5%	$35,628	27.5%
12-095-12307	32808	17.8%	$35,644	28.9%
12-095-12403	32804, 32808	9.8%	$32,924	20.6%
12-095-18700	32804, 32808	26.8%	$21,568	45.0%
Average		16.1%	$31,419	29.7%

Source: ProximityOne
Source: U.S. Census Bureau

CHAPTERTEN

Compliance and Priorities

Split Oak Forest
Orlando, Fl

Orange County

Compliance

From June 2018 to December 2019, the Central Florida Division-South Region (CFD-South) engaged in a robust CHNA process through both an external collaboration with the Collaborative—comprised of representation from AdventHealth CFD-South; Aspire Health Partners; Orlando Health; Departments of Health in Lake, Orange, Osceola and Seminole Counties; Community Health Centers; Orange Blossom Family Health; Osceola Health Services and True Health (see Chapter 4 for a description of the Collaborative)—and an internal process through the local CHNAC. Utilizing IRS guidelines to outline the CHNA approach, the goal of CFD-South was to create an informative, engaging and meaningful process that would create a healthier community through:

- Building and expanding on existing community relationships to identify and prioritize community needs through a shared initiative.
- Sharing data and resources to inform and expand the understanding of community needs.
- A better understanding of the resources available in the Central Florida region. Through this understanding, the goal is to align and streamline future strategies where possible to decrease redundancies, collaborate collectively and improve the impact of programming through a shared vision.

The synergies of the Collaborative created a network that expanded beyond individual organizations, increasing the reach and information available to support the process. The membership in the Collaborative was a primary component in accomplishing this as described below:

- The two largest health care systems in the four-county region shared data to identify the top causes of utilization in their systems and to more thoroughly understand the diverse needs of the community.
- A dedicated mental and behavioral health system to gain insight into the complex needs of the community.
- The departments of health in four counties informed the process through an understanding of the public health needs and trends in the four-county region.
- The addition of four Federally Qualified Healthcare Clinic organizations with more than 25 locations in the four-county region ensured the voices of those most in need would be included. These needs were heard not only from the inclusion of the providers who work in the clinics, but also by using the clinics as a site for primary data collection.

CFD-South built on the Collaborative's synergies and network in the development of their own internal process and prioritization. First, by utilizing the same criteria used by the Collaborative to prioritize the identified needs and second, by including the Collaborative members in the local CHNAC committees. Additional details are provided below.

The Collaborative Process

Data Collection

To create the most comprehensive snapshot of the needs and issues faced by those in the four-county region as possible, the Collaborative collected the following primary data to inform the process:

- 2,708 community surveys: through an online platform and through strategic placement of paper copies in local FQHCs
- 15 focus groups with 235 participants: with representation from: community organizations focusing on homelessness, mental and behavioral health, senior care, underserved and underrepresented populations; emergency personnel; individuals accessing crisis care and employment services, food and household subsidies, and case management assistance; the Seminole County Jail
- 34 stakeholder interviews: participants were chosen based on the populations they serve and needs their organizations address
- 172 key informant surveys: participants were chosen based on the populations they serve and needs their organizations address
- 135 intercept surveys: surveys were conducted at local FQHCs; an organization providing a daily lunch for the homeless; an organization providing food and grocery subsidies

Secondary data was sourced from more than 19 sources including the following:

- Utilization data from the hospital systems
- FLHealthCharts (a community health assessment resource tool set, providing health statistics on more than 3000 indicators at the county level)
- Centers for Disease Control and Prevention
- Healthy People 2020
- US Census Bureau

This compilation of data was collected and analyzed from September 2018 to May 2019. By utilizing a data triangulation method (outlined in Chapter 2), common themes and trends were identified to inform a data presentation given by SSI on April 2, 2019 to the Collaborative. The presentation was used to by the Collaborative (referred to as the regional CHNAC) to prioritize an aggregate list of needs (Table 10.1). Individual member organizations could use the Collaborative's aggregate list during their own prioritization exercises as a reference. The Collaborative and the local CHNAC followed the same methodology for prioritization (data review and a collective voting session). The same criteria were used for the Collaborative and local CHNAC prioritization exercise, these criteria are included below in the explanation of CFD-South's prioritization process.

The top priorities for the Collaborative are in rank order listed in Table 10.1.

TABLE 10.1: THE CENTRAL FLORIDA COMMUNITY COLLABORATIVE AGGREGATE PRIORITIES

Identified Needs	Accountability	Magnitude	Impact	Capacity	Total A+M+I+C
Communicable Disease: Childhood Immunizations	7.6	7.8	8.4	8.3	32.1
Chronic Disease: Obesity	6.9	8.6	9.3	6.6	31.4
Chronic Disease: Diabetes	7.3	8.3	9.1	6.7	31.4
Chronic Disease: Cardiovascular Disease	8.2	8.0	8.1	7.1	31.4
Chronic Disease: Childhood Obesity	7.4	8.6	9.1	5.9	31.
Communicable Disease: HIV/AIDS	7.3	7.8	7.8	7.6	30.5
Behavioral Risks: Substance Abuse (Drugs, Alcohol, Nicotine)	5.2	8.6	8.9	5.5	28.2
Birth Characteristics: Infant Mortality	6.8	8.0	7.4	6.9	29.1
Chronic Disease: Hypertension	7.4	7.1	7.7	7.1	29.3
Birth Characteristics: Low Birth Weight	6.9	7.4	7.9	6.7	28.9

Central Florida Division South Region Prioritization

In order to ensure broad community input throughout the CHNA process, representatives from AdventHealth Central Florida Division participated in regional and local CHNACs to help guide and inform the prioritization process. Participation in the regional CHNAC took place through our membership in the Collaborative outlined above. The local CHNAC was comprised of representatives from all AdventHealth hospitals in CFD-South: AdventHealth Altamonte; AdventHealth Apopka; AdventHealth Celebration; AdventHealth East Orlando; AdventHealth Kissimmee; AdventHealth Orlando; and AdventHealth Winter Park; as well as from AdventHealth Corporate Services. Both CHNACs included representatives from departments of health and local community organizations. Additional information is provided below.

The regional CHNAC (the Collaborative)

The Central Florida Community Collaborative Steering Committee (the Collaborative) was comprised of representation from all member organizations. The Steering Committee met 22 times throughout 2018 and 2019, either in person or via bi-weekly conference calls, and included representation from the hospital systems, public health experts and the broad community. This included intentional representation from organizations that serve minorities, low-income and underrepresented populations. The Collaborative participants reviewed the primary and secondary data to identify a list of priorities (see Table 10.1).

The local CHNAC

Representatives from Central Florida Division-South Region and Corporate Services participated in a meeting, which included individuals from community organizations serving underrepresented, low income and minority populations; all AdventHealth hospitals in the CFD-South Region, as well as public health experts. The 120 participants reviewed the primary and secondary data, as well as the Collaborative's CHNAC priorities, to help define the needs to be addressed by CFD-South.

Prioritization Criteria

Specific criteria were used to aid in the prioritization process to identify and select the top needs that would be addressed. Members of the local CHNAC were asked to rank the criteria on a scale of 1 to 10 for each of the needs that had been identified during the data reviews and discussions. OptionFinder, an electronic polling platform that enables operators to build lists that can be voted on anonymously by audience participants, was used to rate all of the criteria. The criteria used is outlined below:

1. Accountable organization: The extent to which the organization is positioned in the community to lead the planning or deployment of programming to address the need.
2. Magnitude of the problem: The degree to which the need leads to death, disability or impaired quality of life and/or could be an epidemic based on the rate or percentage of the population that is impacted by the issue.
3. Impact on health outcomes: The extent to which the issue impacts health outcomes and/or is the driver of other conditions.
4. Capacity/resources: The extent to which CFD-South has the systems and resources in place or available to implement evidence-based solutions.

These criteria were used to generate an aggregated number for each identified need, in order to develop a ranking to determine potential impact in addressing the needs.

AdventHealth CFD-South Prioritization Process

On April 3, 2019 AdventHealth CFD-South's local CHNAC met to review and discuss the primary and secondary data, as well as the priorities identified by the Collaborative. The local CHNAC then ranked the identified needs to select a priority. The meeting was attended by 120 representatives from AdventHealth, local departments of health and community organizations.

The following outlines the steps taken by the local CHNAC to identify the health priorities of the community.

Step 1: Data Review

Meeting attendees reviewed the primary and secondary data, as well as the any trends that had been identified in the data. The data was looked at on a county specific level to ensure it was relevant for all campuses.

Step 2: Campus Specific Breakouts

AdventHealth representatives from each hospital campus engaged in a campus specific breakout session for further discussion. When a campus had a shared service area or leadership structure, breakout sessions were combined to ensure a unified strategic vision. Community and public health representation attended the breakout sessions that aligned with the community they serve from a geographic perspective. For

example, public health representation for the Altamonte Springs campus was from the Department of Health in Seminole County, which is in the Hospital's service area. Here, campus breakouts selected the top identified top health priorities for their campus' primary service areas. For a list of the Orlando specific breakout session attendees see Tables 4.1 and 4.2.

During the breakout sessions, attendees discussed the data and the unique needs of their campus and the communities they serve to create a list of 10-12 potential priorities. Through data review and discussion, each individual completed a grid with the identified needs they viewed as top priorities, which was then returned to CFD-South community health staff. The CFD-South community health staff entered the identified needs from the breakout sessions into the OptionFinder system. These identified needs were used to create a master list; any need that appeared on a grid submitted from more than one breakout session is designated by a "D" on the CFD-South aggregated needs table.

Step 3: CFD-South Prioritization Exercise

At the conclusion of the breakout sessions, the local CHNAC reconvened to vote on the overarching CFD-South priority. Using the OptionFinder system and criteria previously described, the group ranked the identified needs from the master list that had been created with input from the breakout sessions. (See Table 10.2) Top ranked health priorities were used to identify an overarching priority for CFD-South: "Increasing Access for Vulnerable Populations."

The decision to have one overarching priority was done with the community and AdventHealth team members in mind. The singular priority encompasses the intentionality and focus of the work CFD-South will target in the coming years, while providing something that is clear to articulate. This aids in communicating the intention to the community and strengthens the ability of team members to remember, understand and rally behind the priority.

TABLE 10.2: CFD-SOUTH AGGREGATE PRIORITIES

Identified Need (D= Duplicate)	Accountability	Magnitude	Impact	Capacity	Total A+M+I+C
Access to Primary Care	7.5	8.1	8.8	6.4	30.8
Chronic Disease Management	7.2	8.3	8.5	6.2	30.2
Mental Health (D)	6.9	8.8	9.0	4.3	29.0
Access to Preventative Care	7.3	7.5	8.3	5.5	28.6
Care Coordination (D)	7.8	7.3	7.9	5.6	28.6
Access to Specialty Care (D)	8.1	6.9	7.4	6.1	28.5
Substance Abuse (D)	5.9	7.9	8.6	4.3	26.7
Food Security (Food Deserts, Chronic Health, and Affordability)	4.4	7.5	8.4	5.5	25.8
Opioid Epidemic	5.4	7.9	8.2	4.1	25.6
Prenatal Care/Early Childhood	6.1	7.1	7.3	5.1	25.6
Access to Healthcare/Health Literacy (D)	6.2	6.6	7.3	5.3	25.4
Palliative/End-of-Life Care	7.9	6.3	5.7	5.5	25.4
Childhood Obesity	4.9	7.6	7.7	4.9	25.1

Identified Need (D= Duplicate)	Accountability	Magnitude	Impact	Capacity	Total A+M+I+C
Access to Medication and Medication Management in Senior Populations	6.3	6.7	7.2	4.6	24.8
Outpatient/Post-Care for Homeless Populations	5.8	6.9	7.1	4.0	23.8
Housing/Homelessness (D)	3.4	7.5	8.4	4.0	23.3
Poverty	3.3	7.7	8.6	3.5	23.1
Information on Available Resources	5.4	5.6	6.2	5.8	23.0
Employment (D)	2.9	6.5	7.4	4.3	21.1
Immunization for Senior Populations	5.6	5.4	5.2	4.8	21.0
Access to Transportation (D)	3.5	5.8	6.7	4.5	20.5
Affordable Housing (D)	3.1	6.9	6.7	3.4	20.1
Caregiver Burden	4.8	5.7	5.8	3.4	19.7
Adverse Childhood Experiences	3.7	5.9	6.8	3.2	19.6
Domestic Abuse	3.2	5.6	6.0	3.9	18.7
Community Resource Groups/Community Support	2.8	4.9	5.5	5.1	18.3
Injuries	5.8	3.5	3.9	4.5	17.7
Undocumented Individuals	3.0	4.4	4.5	3.3	15.2
Mentorship	2.9	4.0	4.1	3.8	14.8

(D) denotes that more than one hospital/group identifies this item as a local high priority need.

Step 4: Identifying Campus Specific Needs

Following the April 3, 2019 meeting, CFD-South community health staff reviewed the grids collected from all participants in each breakout session. CFD-South community health staff created aggregate lists of needs for each campus breakout group. The aggregate list from the AdventHealth Orlando breakout session is below. (See Table 10.3)

TABLE 10.3: ADVENTHEALTH ORLANDO AGGREGATE PRIORITIES

Identified Needs	Accountability	Magnitude	Impact	Capacity	Total A+M+I+C
Communicable Disease: Childhood Immunizations	7.6	7.8	8.4	8.3	32.1
Chronic Disease: Obesity	6.9	8.6	9.3	6.6	31.4
Chronic Disease: Diabetes	7.3	8.3	9.1	6.7	31.4

Identified Needs	Accountability	Magnitude	Impact	Capacity	Total A+M+I+C
Chronic Disease: Cardiovascular Disease	8.2	8.0	8.1	7.1	31.4
Chronic Disease: Childhood Obesity	7.4	8.6	9.1	5.9	31.
Communicable Disease: HIV/AIDS	7.3	7.8	7.8	7.6	30.5
Behavioral Risks: Substance Abuse (Drugs, Alcohol, Nicotine)	5.2	8.6	8.9	5.5	28.2
Birth Characteristics: Infant Mortality	6.8	8.0	7.4	6.9	29.1
Chronic Disease: Hypertension	7.4	7.1	7.7	7.1	29.3
Birth Characteristics: Low Birth Weight	6.9	7.4	7.9	6.7	28.9

Step 5: Selecting Priority Targeted Areas

After reviewing the aggregate campus specific needs, common trends were identified that were compiled into four targeted areas of focus as follows. These targeted areas of focus represent a further refinement of the overarching priority of "Increasing Access for Vulnerable Populations."

- Care coordination
- Mental and behavioral health
- Community development
- Food security

The targeted areas were selected due to the overlap between the needs identified at each campus and the ability to address multiple issues under the focus area.

Step 6: Finalizing the CFD-South Priority and Campus Alignments

The CFD-South priority— "Increasing Access for Vulnerable Populations"—will be addressed through regional initiatives encompassing all CFD-South campuses. Additionally, campus-specific programming will be designed to address the four targeted areas. Each campus' unique initiatives will be reflective of the needs of their own communities. This will help to align and streamline resources across all seven campuses. For example, under the targeted areas of focus community development, one campus identified a need for youth development or mentorship programs, while another campus saw a need for programs addressing affordable housing.

Leadership from each of the campus breakout sessions met with CFD-South community health staff to approve the priority, Increasing Access for Vulnerable Populations, and to ensure the targeted areas were reflective of the needs of their communities and discussions.

Priority Issues to be Addressed

Table 10.4 outlines the priorities to be addressed by AdventHealth Orlando. CFD-South Community Health Staff aligned the campus specific health priorities with the identified targeted areas noted above. The table provides an analysis of the rationale used to make the decision.

TABLE 10.4 RATIONALE FOR PRIORITY ISSUES THAT THE HOSPITAL WILL ADDRESS

	Identified Need	Magnitude	Impact and Accountability	Capacity
Care Coordination	Prenatal Care/Early Intervention/Early Childhood	Orange County had an increase in infant deaths, low birthweight babies and preterm births since the 2016 CHNA. There was also a decrease in the percentage of mothers who had prenatal care in the first trimester since the 2016 CHNA.	Lack of prenatal care leads to increased risk of poor birth outcomes. Early intervention can increase quality of life and reduce risk of chronic disease.	The Hospital currently offers prenatal and parenting classes. CFD-South also has existing partnerships with community organizations that increase access to these services for patients.
Care coordination	Access to Care (Primary, Specialty, Affordable, Preventative, Awareness, Etc.)	In Orange County, 31.6 percent of community survey respondents indicated that they lacked access to a primary care provider. An additional 35.5 percent indicated they lacked access to a specialist. Limited access to high quality primary care physicians and specialists was identified as a community issue by primary research participants.	Lack of access to care (primary, preventative and specialty) can lead to poor health outcomes, increase in chronic disease incidence and decrease in quality of life.	CFD-South has several internal and external care navigator programs as well as a referral network. These programs assist patients in finding affordable, accessible primary and specialty care.
	Chronic Disease Management	Orange County has seen an increase in individuals who are obese, middle school and high school students who are reporting a BMI at or above the 95th percentile, adults with diabetes, diabetes hospitalizations for children ages 12 to 18, adults with hypertension and adults who have been told they had a stroke.	Chronic disease management is critical to improving the quality of life and health outcomes for individuals. Proper management will also reduce their need for expensive emergency room visits.	CFD-South funds an evidence-based Chronic Disease Self-Management Program and other chronic disease management programs through local partners, including Center for Change.
Mental and Behavioral Health	Behavioral Health (Mental Health and Substance Abuse) - Prevention, Care Coordination, Providers.	Mental health, behavioral health, and substance use were all identified as top community needs by stakeholders, key informants and focus groups. Only one in ten community survey respondents from Orange County believe there is sufficient substance abuse services.	Poor mental health can exacerbate physical health conditions, decreasing quality of life, making it more difficult to maintain stable housing.	CFD-South is heavily invested in addressing mental health and substance abuse and has partnered with community organizations such as: local FQHCs, Seminole County Sheriffs Offices, Aspire Health Partners and the National Alliance on Mental Illness.

	Identified Need	Magnitude	Impact and Accountability	Capacity
Community Development	Housing (Affordable, Transitional, as Healthcare)	There were over 1,500 individuals experiencing homeless in Orange County in 2018.	When individuals are experiencing homelessness, it is more difficult to access health care and manage chronic physical and mental conditions.	CFD-South is heavily invested in addressing homelessness and is involved with partners such as: Christian Service Center, Coalition for the Homeless of Central Florida, Daven's House, Family Promise of Greater Orlando, Homeless Services Network of Central Florida, and others.
Food Security	Food Insecurity/Food Deserts/Nutrition/ Food as Medicine	Over one-third of community survey respondents indicated they lack access to high quality, affordable, healthy food. Orange County had the most food deserts in the four-county region.	Having access to proper nutrition is necessary for a healthy life. Proper nutrition can also reduce the risk of, or complications from, certain diseases, such as diabetes.	CFD-South is currently working to address food security with multiple partners, including Second Harvest Food Bank. CFD-South intends to expand this work through current and future initiatives.

Priority Issues That Will Not Be Addressed

All of the issues from the AdventHealth Orlando breakout session will be addressed, with the exception of community resource groups. Although there is a multitude of resources available in the community, many community members may not know of these services or how to access them. To optimize utilization of available resources, the local CHNAC discussed potential solutions, which included creating community resource groups to inform community members of available resources, but it will not be included in the Community Health Plan.

Although the Hospital did not choose to prioritize this issue and address it through the Community Health Plans, the Community Asset Inventory created for this CHNA report includes a list of available resources in the tri-county area. This Community Asset Inventory will be updated, shared with community organizations and made publicly available.

Community Asset Inventory

As part of the IRS regulatory requirement AdventHealth Central Florida Division South Region (CFD-South) completed a Community Asset Inventory (CAI). Traditionally the CAI is used as a resource when selecting a priority to:

- Identify existing resources
- Limit duplication of services

CFD-South saw this as an opportunity to create a resource that went beyond the aforementioned goals. Our CAI provided the necessary information to understand the resources available for potential priorities and was also used to:

- Identify gaps in resources by services provided or location
- Identify potential opportunities for alignment
- Provide a publicly available resource guide that would be accessible to and for underrepresented populations to utilize when needed
- Provide an internal resource that can be used by care management teams to refer patients to appropriate services that are geographically convenient

The information included in this inventory was compiled from publicly available resources. The organizations included offer free and reduced cost services or target underrepresented populations. Organizations were contacted during the process to ensure that they had the bandwidth to provide services for new clients/patients. At the time of this publication all organizations listed had the bandwidth and resources necessary to serve additional community members. Several organizations included in the inventory have multiple locations; each location may provide different services.

The Community Asset Inventory for CFD-South is available here:
https://www.adventhealth.com/community-benefit/central-florida/community-health

Approvals

On December 19, 2019 the AdventHealth Orlando Board of Directors, the governing body for all of AdventHealth Orlando's seven hospital campuses, approved the Community Health Needs Assessment findings, priority and final report. A link to the 2019 Community Health Needs Assessment was posted on the Hospital's website prior to December 31, 2019.

Next Steps

The local CHNAC will work with AdventHealth Orlando to develop a measurable implementation strategy to address the priority issue. The 2020-2022 Community Health Plan will be completed and posted on the Hospital's website prior to May 15, 2020.

Written Comments Regarding 2016 Needs Assessment

There were no substantive written comments received regarding the 2016 AdventHealth Orlando Community Health Needs Assessment.

Review of Strategies Undertaken In the 2016 AdventHealth Orlando Community Health Plan

The 2016 AdventHealth Orlando Community Health Needs Assessment was posted on AdventHealth Orlando's website. Note that asterisks (*) refer to implementation strategies that span across all AdventHealth campuses in Orange, Osceola and Seminole counties.

Activities and accomplishments from AdventHealth Orlando's Implementation Plan include the following:

Increasing access accomplishments relating to preventative care through issues involving food security, chronic disease and child health.

- Provided three years of grant funding to a local non-profit to establish a healthy food co-op, which provides fresh, nutritionally dense foods for local food pantries located in food deserts in the tri-county area, as well as connecting clients with case management services if needed. To date the program has fed more than 400,000 people, has provided 2,100 health screenings, conducted six nutrition classes and seen 3,700 people for referrals to additional wrap around services.*
- Created the Second Helpings program where unused food from our nutritional services department is given to the local food bank to provide meals for individuals in need, to date Orlando has provided 33,000 meals.
- Collaborated and funded local non-profit to provide the evidence-based Sanford Chronic Disease Self- Management Program (CDSMP) throughout our service areas. *
- Offer Mission: FIT POSSIBLE curriculum. The Mission: FIT POSSIBLE program is a comprehensive wellness program, which brings health and wellness education to schools, churches, and

community centers. Health and wellness educators provide education during regular visits, as well as supplemental education for teachers and staff to engage kids in activities that teach them how to be physically and emotionally healthy. Two schools in AdventHealth Kissimmee's target zip codes received this program in 2018 meeting the goal.*

- Established Faith Activation Network as a pilot program, an initiative designed to connect with targeted populations through established community churches located in geographic areas identified as high need. This initiative is now being extended to remainder of service areas in targeted zip codes, at local churches to provide or increase bandwidth of food pantries, create gardens to supplement food pantries with healthier options, provide programming (CDSMP and Mission Fit). From 2017-2019,539 individuals have been served by the food pantry efforts alone. *
- Sponsor American Heart Association to promote knowledge of chronic diseases in high need areas.*

Increasing access accomplishments relating to primary and specialty health care.

- Established the Community Medicine Clinic at Orlando for uninsured patients identified in the Emergency Department who do not have primary physicians; between 2017-2019 the clinic has served 10,683 patients.
- Established the Community Care program, focusing on root causes of utilization for high utilizers who are uninsured and complex patients; at the Orlando campus 61 patients have been enrolled. *
- Created a referral program for uninsured patients to connect them with locally Federally Qualified HealthCare Clinics to establish permanent medical homes; from Orlando there have been 29,830 referrals with 3513 appointments secured.*
- Fund and staff the AdventHealth Transitions Clinic (Trina Hidalgo Heart Care Center), which provides specialty cardiac care for the uninsured in our community, the clinic provides care for all patients referred from our campuses in our tri-county service area and has served more than 1,000 people this during this year's Community Health Plan between 2017-2019.*
- Fund and staff the AdventHealth Transitions Lung Clinic, which provides specialty pulmonary care for the uninsured in our community, the clinic provides care for all patients referred from our campuses in our tri-county service area and has had more than 2,500 visits this cycle resulting in over $2.8M in medications provided at no cost and a decrease in 44.8% in patient ED visits since initial clinic visit.*
- Sponsor three local free clinics with funding providing operational dollars to expand access for the uninsured or undeserved, this serves our tri-county area. *

Increasing access accomplishments relating to mental and behavioral health.

- Sponsor Aspire Health Partners, providing funding for 12 Crisis Stabilization Unit Beds that are utilized for uninsured/underinsured patients who do not have access otherwise; these beds are available for our patients throughout our tri-county service area.
- Partnered with Aspire Health Partners to provide intensive psychosocial rehabilitation services to help prevent individuals with severe and persistent mental health disorders from becoming high utilizers of deep end services.
- Continue to fund and operate the Outlook Clinic for Depression and Anxiety; this clinic is run in partnership with the Orange County DOH, University of Central Florida Social Work Department and other community partners.

APPENDIX A

Primary Data Collection Tools

Dr. P. Phillips Community Park
Orlando, FL

Orange County

Primary Data Collection Tools

The appendix includes all the primary data collection tools used during the Community Health Needs Assessment.

Central Florida Collaborative 2018 - 2019 Community Health Survey

Community Survey

1. What is your Zip Code?_____

2. How would you rate your (personal) overall health?
   _ Excellent _ Very Good _ Good _ Fair _ Poor

3. How would you rate the health status of your community?
   _ Excellent _ Very Good _ Good _ Fair _ Poor

4. How do you pay for your Health Care? (Check all that apply)
   - _ I have Health Insurance through my employer
   - _ I am covered by the VA
   - _ I pay cash
   - _ I have Medicare
   - _ I purchased health insurance through FL Department of Health
   - _ I currently do not have health care coverage
   - _ I have Medicaid

5. What stops you from seeking medical care for yourself and/or your family? (Check all that apply)
   - _ I can't get time off from work
   - _ I don't have transportation
   - _ Cost of medical care
   - _ Cost of copay
   - _ Cost of medications
   - _ Hours – They weren't open when I could get there
   - _ I had no one to watch my children
   - _ I couldn't get an appointment for a long time
   - _ The medical staff didn't speak my language
   - _ I didn't know where to get the care I needed
   - _ Lack of health care providers
   - _ Lack of local specialists
   - _ I decided not to go because I don't like going to doctors
   - _ I do not have any barriers that keep me from seeking medical care for myself and/or my family
   - _ Other, Please Specify_____

6. How often do you see a doctor or other healthcare provider? (Mark only one)
   - _ Once per year
   - _ A few times per year
   - _ Only when I am sick
   - _ I don't go to the doctor
   - _ Other, Please Specify _____

7. Have you had any of the following tests in the last two years? (Please check all that apply)
   - _ Annual Exam
   - _ Sigmoidoscopy
   - _ Colonoscopy
   - _ Pap Test
   - _ Mammogram
   - _ Prostate Specific Antigen Test (PSA Test)
   - _ Lab Screenings or Lab Work
   - _ Blood Pressure Screening
   - _ Diabetic Screening
   - _ Cholesterol Screening
   - _ Dental Exam
   - _ Eye Exam
   - _ Other, Please Specify _____

8. Where do you usually seek medical care? (Mark only one)
   - _ At my doctor's office
   - _ I go to the emergency room
   - _ I use urgent care
   - _ At a free clinic/sliding scale clinic
   - _ I do not seek medical care
   - _ Other, Please Specify _____

Access to Care

9. Have the following directly affected **<u>you or your family</u>** in the last 2 years? (Consider things like coverage under your health benefit plan, cost of service, location, transportation, knowledge of providers, etc.)

	Very Serious Affect	Serious Affect	Somewhat of an Affect	Small Affect	No Affect	Not Applicable
Access to Adult Immunizations	□	□	□	□	□	□
Access to Childhood Immunizations	□	□	□	□	□	□

9. Have the following directly affected **you or your family** in the last 2 years? (Consider things like coverage under your health benefit plan, cost of service, location, transportation, knowledge of providers, etc.)

	Very Serious Affect	Serious Affect	Somewhat of an Affect	Small Affect	No Affect	Not Applicable
Access to General Health Screenings (including blood pressure, cholesterol, colorectal cancer and diabetes)	□	□	□	□	□	□
Access to Mental Health Care Services	□	□	□	□	□	□
Access to Prenatal Care	□	□	□	□	□	□
Access to Transportation to Medical Care Providers and Services	□	□	□	□	□	□
Access to Women's Health Services	□	□	□	□	□	□
Access to Primary Medical Care Providers	□	□	□	□	□	□
Availability of Specialists/Specialty Medical Care	□	□	□	□	□	□
Access to Affordable Health Care (related to copays and deductibles)	□	□	□	□	□	□
Access to Dementia Care Services	□	□	□	□	□	□
Access to Dental Care	□	□	□	□	□	□
Access to Emergency Shelter in the Area	□	□	□	□	□	□

Health Problems

10. Have any of the following affected **your or your family** in the last 2 years?

	Very Serious Affect	Serious Affect	Somewhat of an Affect	Small Affect	No Affect	Not Applicable
Asthma/COPD Related Issues	□	□	□	□	□	□
Cancer	□	□	□	□	□	□
Diabetes	□	□	□	□	□	□
Influenza and Pneumonia	□	□	□	□	□	□
Heart Disease	□	□	□	□	□	□
Obesity and Overweight	□	□	□	□	□	□
Childhood Obesity	□	□	□	□	□	□
Cardiovascular Disease	□	□	□	□	□	□
Stroke	□	□	□	□	□	□
High Cholesterol	□	□	□	□	□	□
Hypertension/High Blood Pressure	□	□	□	□	□	□
Dental Hygiene/Dental Problems	□	□	□	□	□	□
Allergies	□	□	□	□	□	□
Mental Health	□	□	□	□	□	□
Chronic Depression	□	□	□	□	□	□
Hepatitis C	□	□	□	□	□	□
Sexually Transmitted Diseases	□	□	□	□	□	□

11. How would you determine your personal weight?

_ Underweight _ Normal Weight _Overweight

Social and Environmental Factors

12. Have any of the following affected **you or your family** in the last 2 years?

	Very Serious Affect	Serious Affect	Somewhat of an Affect	Small Affect	No Affect	Not Applicable
Affordable and Adequate Housing	□	□	□	□	□	□
Homelessness	□	□	□	□	□	□
Employment Opportunities/ Lack of Jobs	□	□	□	□	□	□
Poverty	□	□	□	□	□	□
Lack of Recreational Opportunities	□	□	□	□	□	□
Lack of Safe Roads and Sidewalks	□	□	□	□	□	□
Lack of Early Childhood Development/Child Care	□	□	□	□	□	□
Access to High Quality Affordable Healthy Foods	□	□	□	□	□	□
Access to Fresh, Available Drinking Water	□	□	□	□	□	□

13. Have the following directly affected **you or your family**?

	Yes	No	Don't Know
Within in the past 12 months, we worried whether our food would run out before we got money to buy more.	–	–	–
Within the past 12 months, the food we bought just didn't last and we didn't have money to buy more.	–	–	–
In the past 12 months, has your utility company shut off your service for not paying your bills?	–	–	–
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?	–	–	–
Are you afraid you may be hurt in your apartment building or house?	–	–	–
Do problems getting child care make it difficult for you to work or study?			

Lifestyle

14. Have any of the following affected **you or your family** in the last 2 years?

	Very Serious Affect	Serious Affect	Somewhat of an Affect	Small Affect	No Affect	Not Applicable
Alcohol Abuse	□	□	□	□	□	□
Prescription Drug Abuse	□	□	□	□	□	□
Illegal Drug Use	□	□	□	□	□	□
Crime	□	□	□	□	□	□
Delinquency/Youth Crime	□	□	□	□	□	□
Domestic Violence	□	□	□	□	□	□
Sexual Abuse	□	□	□	□	□	□
Child Physical Abuse	□	□	□	□	□	□
Child Sexual Abuse	□	□	□	□	□	□
Child Emotional Abuse	□	□	□	□	□	□
Child Neglect	□	□	□	□	□	□
Violence	□	□	□	□	□	□
Gun Violence	□	□	□	□	□	□
Lack of Exercise/Physical Activity	□	□	□	□	□	□

14. Have any of the following affected **you or your family** in the last 2 years?

	Very Serious Affect	Serious Affect	Somewhat of an Affect	Small Affect	No Affect	Not Applicable
Sexual Behaviors (unprotected, irresponsible/risky)	□	□	□	□	□	□
Teenage Pregnancy	□	□	□	□	□	□
Tobacco Use	□	□	□	□	□	□
Tobacco Use in Pregnancy	□	□	□	□	□	□
Driving Under the Influence of Drugs or Alcohol	□	□	□	□	□	□
Texting and Driving	□	□	□	□	□	□
Motor Vehicle Crash Deaths	□	□	□	□	□	□
Gambling	□	□	□	□	□	□

15. How often do you use tobacco products? (Mark only one)

_ Multiple times a day
_ Once a day
_ Several times a week
_ I do not use any tobacco or vapor/e-cig products
_ Other, Please Specify _____

16. How often do you use vapor/e-cig products? (Mark only one)

_ Multiple times a day
_ Once a day
_ Several times a week
_ I do not use any tobacco or vapor/e-cig products
_ Other, Please Specify _____

17. How often are you physically active for 30 minutes or more? (Mark only one)

_ 1-2 times per week
_ 3-5 times per week
_ 6-7 times per week
_ I try to add physical activity when possible (taking the stairs, parking farther away, etc.)
_ None beyond regular daily activity

18. Which, if any, of the following would help you become more active? (Please check all that apply)

Transportation
Walking or Exercise Groups
Workshops or Classes
Discounts for exercise programs or gym
Low cost sneakers, sweat suites, or other equipment
_ A friend to exercise with
Safe place to walk or exercise
Information about programs in your community
Activities you can do with your children
Not applicable, I am physically active!
Other, Please Specify _____

19. What keeps you from eating fresh fruits and vegetables every day? (Mark only one)

Time it takes to prepare
Cost
_ The stores near me don't sell fresh fruits and vegetables
_ I do not like to eat healthy food
My family does not like to eat healthy
I am not sure how to cook/prepare fresh fruits and vegetables
_ I DO eat fresh fruits and vegetables
_ Other, Please Specify _____

20. What do you drink more often?

Water
Pop or Soda
100% Juice
Beer, Wine, Liquor
Other, Please Specify _____

Mental Health/Substance Use Disorder

21. Do you feel our community has/is:

	Yes	No	Don't Know
There is a sufficient number and range of mental health services in the area	_	_	_
Community members know how to access local mental health services			
There is sufficient number and range of substance abuse resources in the area	_	_	_
The local community is doing well in managing the nationwide opioid epidemic			

22. How has any of the following affected you in the past two weeks?

	Often	Some of the Time	Hardly Ever	Never
How often do you have trouble falling asleep, staying asleep, or sleeping too much?	_	_	_	_
How often do you feel that you lack companionship?				
How often do you feel left out?	_	_	_	_
How often do you feel isolated from others?				
How often have you been bothered by feeling down, depressed, or hopeless?	_	_	_	_
How often have you been bothered by little or no interest or pleasure in doing things?	_	_	_	_

Community Needs

23. What do you feel are the top three **health problems** in the community you live in? (For example: cancer, diabetes, obesity, etc.). Your response does not need to be listed to topics in previous questions.
    Problem 1: _____
    Problem 2: _____
    Problem 3: _____

24. What do you feel are the top three **social or environmental problems** in the community you live in? (For example: high rates of drug use, language, lack of jobs, etc.) Your response does not need to be listed to topics in previous questions.
    Problem 1: _____
    Problem 2: _____
    Problem 3: _____

25. What additional health care services do you feel are needed in your community?

_____

_____

Getting to Know You

26. Sex:
    _ Male _ Female

27. Gender: (Mark only one)
    _ Male _ Female _ Transgender _ Do not identify

28. Age: (Mark only one)
    _ Under 18 _ 40-49 _ 70 and over
    _ 18-29 _ 50 - 59
    _ 30-39 _ 60 - 69

29. Number of children under the age of 18 in your household? _____

30. Ethnicity: Hispanic?
    _ Yes _ No

31. Race: (Please check all that apply)
    _ White/Caucasian
    _ Black/African American
    _ Native American
    _ Latino/a
    _ Asian or Pacific Islander
    _ Prefer not to answer
    _ Other, Please Specify _____

32. Marital Status: (Mark only one)
    _ Single, Never Married
    _ Married
    _ Divorced
    _ Widowed
    _ Separated
    _ Member of an Unmarried Couple

33. Highest Grade Level of School Completed: (Mark only one)
    _ Less than 9th Grade
    _ Some High School, No Diploma
    _ High School Graduate (or GED)
    _ Some College, No Degree
    _ Associates Degree
    _ Bachelor's Degree
    _ Master's Degree
    _ Professional School Degree
    _ Doctorate Degree

34. Household Income: (Mark only one)
    _ $0 to $24,999
    _ $25,000 to $34,999
    _ $35,000 to $49,999
    _ $50,000 to $74,999
    _ $75,000 to $99,999
    _ $100,000 to $149,999
    _ $150,000 to $199,999
    _ $200,000 or more

35. Languages Spoken at Home _____

36. Current Employment Status: (Mark only one)
    _ Employed full time (40+ hours)
    _ Employed part time (up to 39 hours/week)
    _ I work multiple jobs
    _ Unemployed/currently look for work
    _ Unemployed/not currently looking for work
    _ Student
    _ Retired
    _ Homemaker
    _ Self - Employed
    _ Unable to Work

37. Immigration Status: (Mark only one)
    _ US Citizen
    _ Lawful Permanent Resident (green card holder)
    _ Other/Non-LPR
    _ Lawful Immigration Status
    _ Undocumented/no lawful status
    _ Unknown

Thank You for Completing the Central Florida Collaborative Community Health Survey!

To thank you for your participation ***ten*** participants will be selected to win one of the following:

(10) $50 American Express Gift Card

The information provided below is not connected to the survey you just completed. This information will only be used for the drawing and will not be used for later marketing efforts, nor will it be shared with any other groups.

By providing your contact information below you will be entered into a drawing for one of the ten prizes noted above. The winner will be notified by the end of February 2019.

Once you have completed the survey and entry form please separate the two and drop them in the appropriate box or envelope.

Name: _

Address: _

City, State, Zip: _

Phone: _

Email: _

Thank you again for your participation!

Key Informant Survey

Thank you to our valued community partners for taking the time to respond to the Central Florida Collaborative Key Informant Survey. Your input is vital to helping us identify the needs within the communities we serve as part of our Community Health Needs Assessment. The survey should take you no more than 10 minutes to complete. We ask that you please take a few minutes to complete this survey by January 4, 2019.

Thank you in advance for your participation!

1. Please select your **primary** community affiliation:
   - ☐ Nonprofit/social service
   - ☐ For profit/business
   - ☐ Government
2. Please provide additional information on the type of community affiliation:
   - ☐ Healthcare/Public Health
   - ☐ Education/Youth Services
   - ☐ Transportation
   - ☐ Housing
   - ☐ Mental/Behavioral Health
   - ☐ Faith-Based Organization
   - ☐ Cultural Organization
   - ☐ Community Organization
   - ☐ Other (Please specify)
3. What groups does your company/agency service? (Please mark all that apply)
   - ☐ Homeless
   - ☐ Low Income
   - ☐ Elderly
   - ☐ Veterans
   - ☐ Children
   - ☐ General Public
   - ☐ Women
   - ☐ Other (Please specific)
4. What demographic(s) are most supported by your services? (Please mark all that apply)
   - ☐ Black/African American
   - ☐ White
   - ☐ Hispanic/Latino
   - ☐ Haitian
   - ☐ Native American/American Indian
   - ☐ Asian/Pacific Islander
   - ☐ All of the Above
   - ☐ Other (Please Specify)
5. What county/counties do you serve? (Please mark all that apply)
   - ☐ Lake
   - ☐ Seminole
   - ☐ Orange
   - ☐ Osceola

6. Overall, how would you rate the health status of the community?
   - ☐ Excellent
   - ☐ Very Good
   - ☐ Good
   - ☐ Fair
   - ☐ Poor
7. Why did you rate the health status of the community the way you did?
8. How would you rate our community's overall quality of life?
   - ☐ Excellent
   - ☐ Very Good
   - ☐ Good
   - ☐ Fair
   - ☐ Poor

9. What do you think would help improve the overall quality of life in our community?

Prevention Institute defines four basic elements of community health: 1) Equitable opportunity including racial justice, jobs and education; 2) Place including parks and open space, transportation, housing, air, water and safety; 3) People including social networks and willingness to act for the common good, and; 4) Health Care Services including preventive services, treatment services, access, cultural competency, and emergency response.

10. Considering this overall look at what it takes to have a healthy community, what do you view as the major issues and barriers impacting the health of the following populations?
    - Children
    - Adults
    - Workforce
    - Seniors (Age 65+)
    - Individuals Without Health Insurance
    - Individuals with Mental Health Issues
    - Individuals with Substance Use/Abuse Issues
    - Individuals with Transportation Issues
    - Individuals with English as their Second Language
    - Individuals who have Experience Trauma
    - Individuals Living in Poverty
    - Individuals Experiencing Homelessness
    - Individuals Living with Chronic Condition
    - Individuals Living with HIV/AIDS
    - Pregnant Women
    - Undocumented Individuals

11. In the populations your agency serves, what issues do your clientele struggle with? (Please mark all that apply for the counties you serve)

	Lake County	Orange County	Osceola County	Seminole County
Affordability of Healthcare	☐	☐	☐	☐
Access to primary care	☐	☐	☐	☐
Access to secondary care	☐	☐	☐	☐
Access to dental care	☐	☐	☐	☐
Access to mental health care	☐	☐	☐	☐
Access to health insurance	☐	☐	☐	☐
Lack of Medicaid expansion	☐	☐	☐	☐
Food Security (accessibility to nutritious food)	☐	☐	☐	☐
Mental Health/Illness	☐	☐	☐	☐
Diabetes	☐	☐	☐	☐
Heart Disease	☐	☐	☐	☐
Obesity	☐	☐	☐	☐
Substance Abuse	☐	☐	☐	☐
Asthma	☐	☐	☐	☐
Cancer	☐	☐	☐	☐
STIs & HIV	☐	☐	☐	☐
Injury prevention/falls	☐	☐	☐	☐
Older adult safety/mobility	☐	☐	☐	☐
Living with disability	☐	☐	☐	☐
Rise in vapes and e-cigarettes	☐	☐	☐	☐
Maternal and child health	☐	☐	☐	☐
Poor birth outcomes	☐	☐	☐	☐
Inappropriate ER use	☐	☐	☐	☐
Poverty/low wages	☐	☐	☐	☐
Housing security (affordable housing)	☐	☐	☐	☐
Homelessness	☐	☐	☐	☐
Stressed infrastructure due to increased population	☐	☐	☐	☐
Transportation	☐	☐	☐	☐
Human Trafficking	☐	☐	☐	☐

Central Florida Collaborative Key Informant Survey *Continued*

12. Does your agency provide services to address these issues? (Please mark all that apply for the counties you serve)

	Lake County	Orange County	Osceola County	Seminole County
Affordability of Healthcare	☐	☐	☐	☐
Access to primary care	☐	☐	☐	☐
Access to secondary care	☐	☐	☐	☐
Access to dental care	☐	☐	☐	☐
Access to mental health care	☐	☐	☐	☐
Access to health insurance	☐	☐	☐	☐
Lack of Medicaid expansion	☐	☐	☐	☐
Food Security (accessibility to nutritious food)	☐	☐	☐	☐
Mental Health/Illness	☐	☐	☐	☐
Diabetes	☐	☐	☐	☐
Heart Disease	☐	☐	☐	☐
Obesity	☐	☐	☐	☐
Substance Abuse	☐	☐	☐	☐
Asthma	☐	☐	☐	☐
Cancer	☐	☐	☐	☐
STIs & HIV	☐	☐	☐	☐
Injury prevention/falls	☐	☐	☐	☐
Older adult safety/mobility	☐	☐	☐	☐
Living with disability	☐	☐	☐	☐
Rise in vapes and e-cigarettes	☐	☐	☐	☐
Maternal and child health	☐	☐	☐	☐
Poor birth outcomes	☐	☐	☐	☐
Inappropriate ER use	☐	☐	☐	☐
Poverty/low wages	☐	☐	☐	☐
Housing security (affordable housing)	☐	☐	☐	☐
Homelessness	☐	☐	☐	☐
Stressed infrastructure due to increased population	☐	☐	☐	☐
Transportation	☐	☐	☐	☐
Human Trafficking	☐	☐	☐	☐

Central Florida Collaborative Key Informant Survey *Continued*

13. What other vulnerable populations exist in your community?
14. What are the major issues/barriers impacting these populations?
15. In general, where do you think people in the community go to receive health care?
16. In general, what barriers do you think people in the community experience accessing health care?
17. Overall, how well do you think existing programs and services are doing to promote good health in the community?
    - ☐ Excellent
    - ☐ Very Good
    - ☐ Good
    - ☐ Fair
    - ☐ Poor
18. Who in our community does a good job of promoting health?
19. Who in our community does not promote good health?
20. What more could be done to promote good health in the community?

Central Florida Collaborative Intercept Survey

1. What would you say are the top 3 health needs of the community? Why do you say that?
2. Based on the 3 needs you just listed, what, if anything are the hospitals, Departments of Health or the community doing to address it?
3. What additional services are needed in the community that you feel are missing?
4. What, if any, barriers are you or your family experiencing related to health care?
5. How would you rate the health of the community? Would you say it is excellent, very good, good, fair, or poor? Why do you say that?
6. How would you rate your personal health? Would you say it is excellent, very good, good, fair, or poor? Why do you say that?