2019 Community Health Needs Assessment

CENTRAL FLORIDA COMMUNITY COLLABORATIVE:

Florida HEALTH

Lake County
Orange County
Osceola County
Seminole County

AdventHealth

AdventHealth Altamonte
AdventHealth Apopka
AdventHealth Celebration
AdventHealth East Orlando
AdventHealth Kissimmee
AdventHealth Orlando
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Orlando Health Arnold Palmer Hospital for Children
Orlando Health Winnie Palmer Hospital for Women & Babies
Orlando Health Dr. P. Phillips Hospital
Orlando Health - Health Central Hospital
Orlando Health Orlando Regional Medical Center
Orlando Health South Lake Hospital
Orlando Health South Seminole Hospital

ASPIRE HEALTH PARTNERS

community health centers

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"...here to care for you."

Osceola Community Health Services

true health™

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Appendix
See accompanying document*

**Community Asset Resource Listing can be found in accompanying appendix document.* (CLICK HERE)

'There are a great number of health care agencies doing incredible work.'

-Key Informant Survey Respondent

CHAPTER ONE

Introduction

Hickory Point Recreation Park
Tavares, FL

Lake County

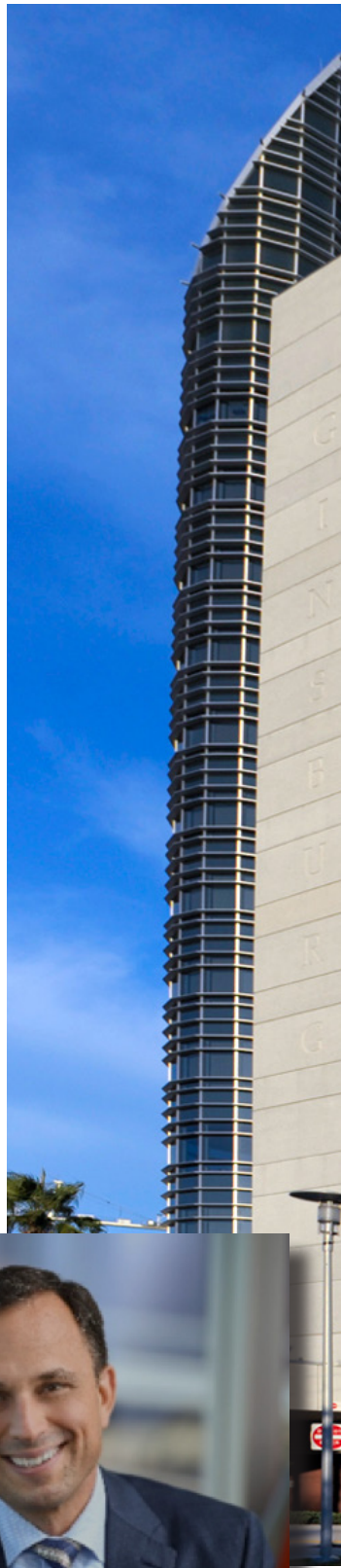
MESSAGE FROM THE LEADERS

AdventHealth

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 - Orlando

MESSAGE FROM THE LEADERS

Aspire Health

Aspire Health Partners is 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.

At Aspire Health, we are committed to providing the highest quality of services, as well as ensuring that our efforts are Saving Lives, Transforming Communities and Changing the World, one patient at a time. One way that we are able to achieve optimal care is to coordinate with our collaborative partners to improve the quality of life of individuals and expand health services offered in the communities that we serve.

Aspire Health is fully committed to addressing the health needs, specifically the behavioral health needs, of the Central Florida community. Through participating in the Community Health Needs Assessment (CHNA), we are able to ensure we focus on expanding high priority services, as well as fill gaps with behavioral health services that are of greatest need in our community. In partnership with AdventHealth, Orlando Health and the Florida Department of Health, we will strive to improve the quality of life for thousands of Central Florida residents. Together, we will achieve a healthier tomorrow, today.

Babette Hankey

President & CEO
Aspire Health Partners, Inc.

Aspire Health Partners - Princeton Plaza

MESSAGE FROM THE LEADERS

Orlando Health

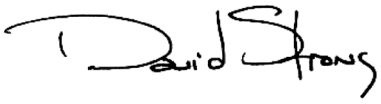
Orlando Health is one of Florida's most comprehensive private, not-for-profit healthcare networks, and is based in Orlando, FL. Our facilities, advanced medical treatments and procedures, and highly qualified staff have distinguished Orlando Health as a healthcare leader for nearly two million Central Florida residents and 10,000 international visitors annually.

At Orlando Health, we are dedicated to providing innovative, high-quality and compassionate care to millions of Central Florida residents and thousands of visitors from around the globe. We not only care for individuals, but about them.

As we enter our next 100 years of service, our priority remains the health of the community. As part of our commitment, we are continuously identifying ways to best serve Central Florida-- from lifesaving care, to life-changing technologies to life-enhancing support.

To fully serve our communities, we align with other organizations that support our vision. We have once again teamed up with AdventHealth, Aspire Health Partners and the Florida Department of Health for the Community Health Needs Assessment (CHNA). We also welcome the participation of our local federally qualified health centers to this edition of the CHNA.

With the CHNA, we continue to connect with our community and provide care to those who need it most and where it's needed most. We look forward to continuing our collaborative efforts to improve the health and quality of life across Central Florida.



David Strong

President & CEO
Orlando Health

ORLANDO HEALTH®

Orlando Health - Orlando Regional Medical Center

MESSAGE FROM THE LEADERS

Lake County Health Department

It's a new day in public health.

The Florida Department of Health works to protect, promote and improve the health of all people in Florida through integrated state, county, and community efforts.

I have had the pleasure of leading the Department of Health, in Lake County for the past 5 years, and I always look forward to the results of the Community Health Needs Assessment (CHNA). This particular CHNA, was especially exciting because of the collaboration with our neighboring counties and area hospitals. I continue to be impressed with the partnerships and their commitment to improving our communities' health in Lake County and Central Florida.

The Community Health Needs Assessment gives us a great opportunity to align our goals with our partners and focus on what will be the most important health challenges our communities will face. The Florida Department of Health in Lake County is determined to discover the most impactful health issues that we will strive to overcome in the upcoming years.

We appreciate our partners' willingness to address these issues in unison. Thank you for your continued interest in our CHNA and welcome, to what we hope will be integral in addressing a path to better health outcomes!

Aaron Kissler, MPH

Health Officer
Florida Department of Health in Lake County

Lake County Health Department - Umatilla

MESSAGE FROM THE LEADERS

Orange County Health Department

It's a new day in public health.

The Florida Department of Health works to protect, promote and improve the health of all people in Florida through integrated state, county, and community efforts.

I was recently appointed as the new interim director of the Florida Department of Health in Orange County, a very exciting, new opportunity. I am looking forward to working together with our community in our common goal: making Orange County a better place to live, work and play.

The Florida Department of Health in Orange County is focused on improving the overall conditions for all of our residents — with special emphasis on our most vulnerable populations — by eliminating health disparities through education, prevention and access to care. By focusing on such approaches, we will not only mitigate the issues identified in the assessment but also reduce healthcare costs and allow individuals to live a healthier life.

I would like to thank AdventHealth, Aspire Health Partners, Orlando Health, Community Health Centers, Inc., Orange Blossom Family Health, Osceola Community Health Services, True Health, and the Health Departments of Osceola, Lake, and Seminole counties for their participation in this major undertaking.

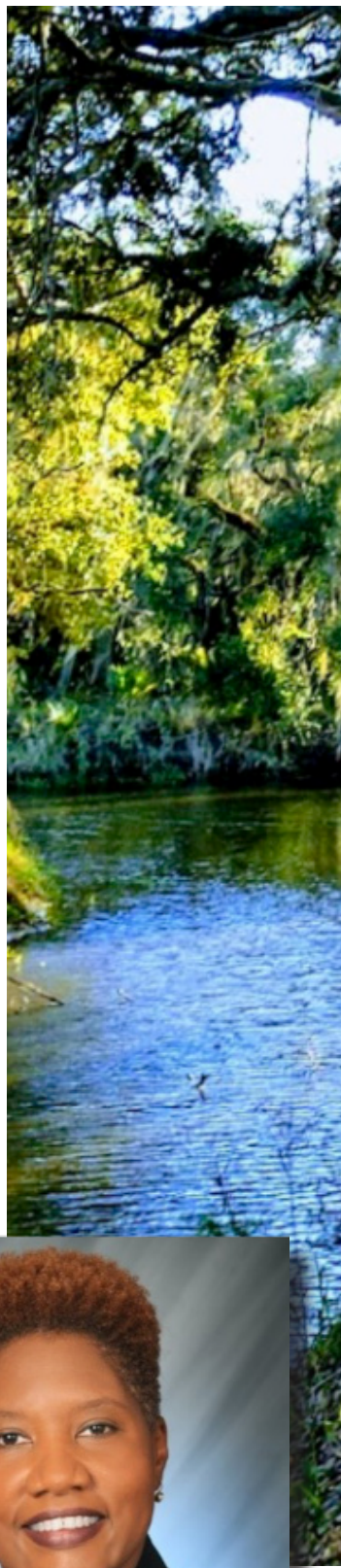
Raul Pino, MD, MPH

Interim Director
Florida Department of Health in Orange County

Lake Eola - Orlando

MESSAGE FROM THE LEADERS

Osceola County Health Department



It's a new day in public health.

The Florida Department of Health works to protect, promote and improve the health of all people in Florida through integrated state, county, and community efforts.

Since my appointment in October of 2018, I've had the privilege to meet and work alongside partners who are committed to meeting the diverse needs of our community. Within a short period of time, it was evident that one of Osceola County's greatest assets was the willingness for organizations to work collaboratively for the sake of our residents. One such example is the Community Health Needs Assessment (CHNA) in which partners and agencies came together to determine the needs of our community.

As a result, we have this foundational document that will guide planning efforts to address the barriers and gaps that impact the wellness of Osceola County. Moving forward, partners will reference this data to focus efforts and develop a Community Health Improvement Plan.

The data presents many challenges but also the opportunity for community partners to work collaboratively toward solutions that result in lasting and meaningful change. The Florida Department of Health in Osceola is committed to working alongside our partners, governments and residents to improve the wellness of our county.

Vianca McCluskey

Vianca McCluskey, MCPH

Health Officer/Administrator
Florida Department of Health in Osceola County

Lake Kissimmee State Park - Lake Wales

MESSAGE FROM THE LEADERS

Seminole County Health Department

It's a new day in public health.

The Florida Department of Health works to protect, promote and improve the health of all people in Florida through integrated state, county, and community efforts.

The health of a community is determined by various social, economic and environmental factors. As such, routine assessment of key community health indicators is core to public health and remains a critical component to identify significant health issues affecting a community. The Seminole County Health Department is pleased to once again be part of a collaborative effort with hospitals, surrounding county health departments and other stakeholders and community partners to develop a comprehensive Community Health Needs Assessment.

The CHNA is a process that collects and analyzes health data to identify current trends and opportunities for improvement. Health data utilized for the CHNA includes factors addressing health risks, quality of life, social determinants, inequity, mortality, morbidity, community assets, forces of change and the public health system's 10 essential services. This report will allow us to focus on the social determinants of health and address needs through collective impact to improve the health of the communities we serve.

Donna J. Walsh, MPA, BSN, RN

Health Officer
Florida Department of Health in Seminole County

Seminole County Health Department - Sanford

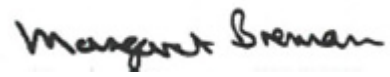
MESSAGE FROM THE LEADERS

Community Health Centers

We are a community-driven healthcare organization dedicated to serving our patients and their families locally, in the neighborhoods that they live and trust. We provide quality and compassionate healthcare services to many diverse communities and do so in a way that consistently overcomes economic, cultural and geographic barriers.

Community Health Centers' mission is to provide quality and compassionate primary healthcare services to Central Florida's diverse communities. One of the ways we carry out this mission is by collaborating with community partners to improve access for our most vulnerable population.

The CHNA identifies "hot spots" which indicate barriers to care, critical health care gaps, and the social determinants that contribute to poor health. As a Federally Qualified Health Center (FQHC) it has been a privilege to be an integral contributing partner. This needs assessment acts as a road map for our present and future call to action.



Margaret Brennan

CEO
Community Health Centers, Inc.

community health centers

Community Health Centers, Inc. - Winter Garden

MESSAGE FROM THE LEADERS

Orange Blossom Family Health

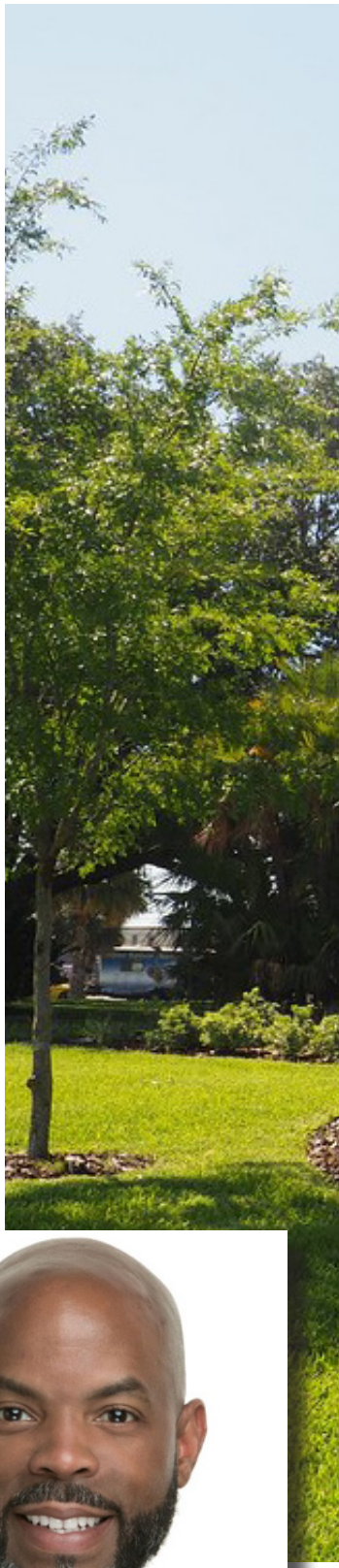
Our mission is to ensure that you and your family receive the highest quality health care services to achieve optimal wellness. We are committed to providing you an exceptional health care experience that surpasses your expectation every time. Our healthcare is personalized for each unique patient, delivered by highly skilled health care professionals, in a warm and friendly environment.

Ensuring access to quality affordable healthcare services is at the core of the mission of Health Care Center for the Homeless, dba Orange Blossom Family Health. For 26 years, we have accepted the challenge of caring for some of our most vulnerable community members and have created a system of care that is designed to meet their unique healthcare needs.

We applaud our hospital partners for the inclusiveness of the CHNA process and look forward to working collaboratively to close identified gaps in care and improve the health status of our Central Florida Region.

Bakari F. Burns, MPH, MBA

President & CEO
Orange Blossom Family Health



ORANGE BLOSSOM FAMILY HEALTH
"...here to care for you."

Orange Blossom Family Health - Ivey Lane

MESSAGE FROM THE LEADERS

Osceola Community Health Services

Your primary care medical home.

A team of health care professionals working together to meet your physical and mental health care needs, including prevention and wellness, acute care, and chronic care.

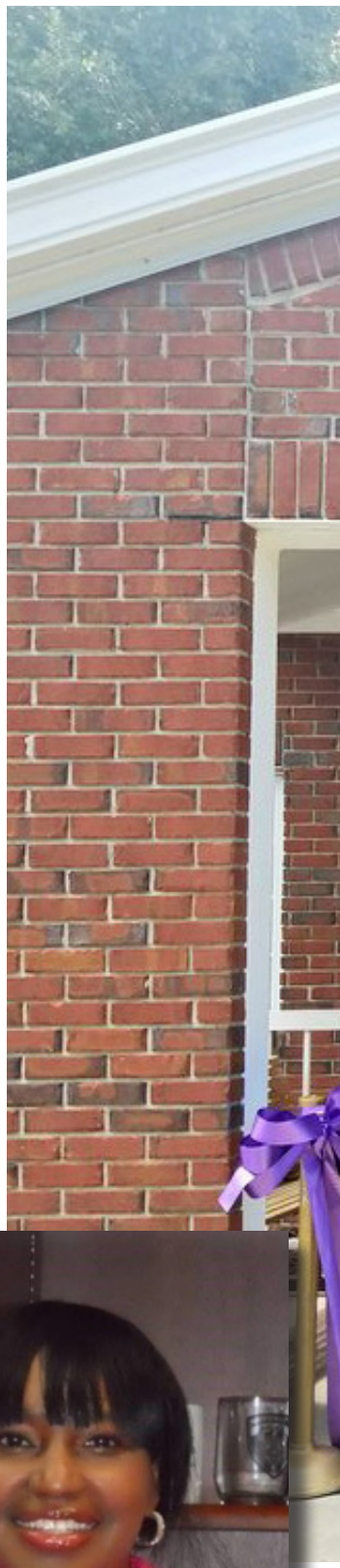
The CHNA represents a collaborative, community-based approach to identify, assess and prioritize the most important health issues affecting a community.

The CHNA looks at health status, barriers to care and other social determinants of health that can have an impact on individuals, families and the community as a whole.

Osceola Community Health Services will continue to work with community partners and stakeholders to utilize the data within the CHNA to identify community needs and health care gaps. The results of this community assessment will be used to develop a system of care that will further advance the health of our community.

Belinda Johnson-Cornett, MS, RN-BC, MBA

CEO
Osceola Community Health Services



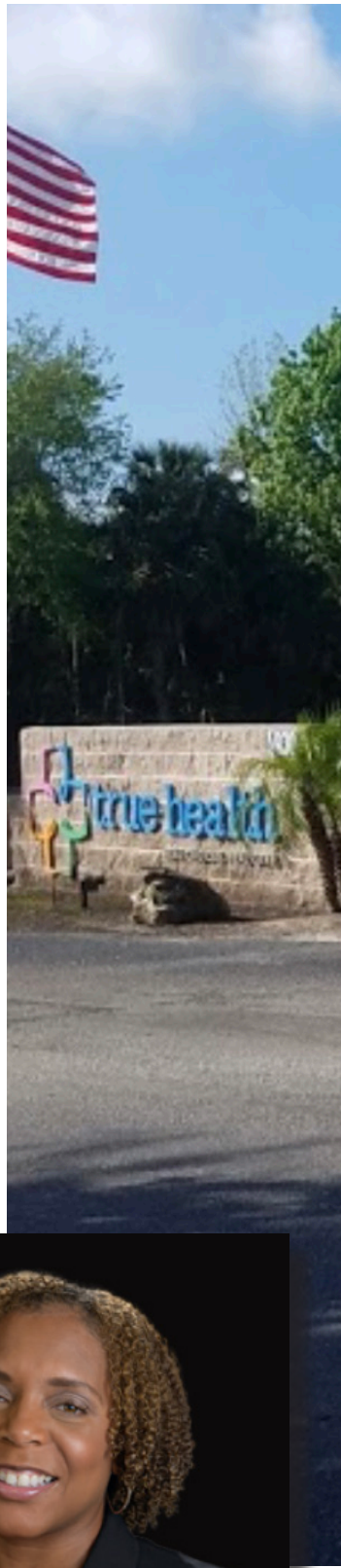
Osceola Community Health Services

Osceola Community Health Services - Kissimmee

MESSAGE FROM THE LEADERS

True Health

We provide high quality, comprehensive healthcare at a reasonable cost to everyone.



True Health has committed to serve the healthcare needs of Central Florida residents since 1977. We are a private, not-for-profit, Federally Qualified Health Center certified as a level 3 patient-centered medical home through the Accreditation Association for Ambulatory Health Care (AAAHC). Our mission at True Health is to provide high quality, comprehensive healthcare at a reasonable cost to everyone.

We are proud to partner with health systems across Central Florida to produce this Community Health Needs Assessment (CHNA). Our collective efforts seek to increase access to care, continuity of care, and ensure health services meet the needs of the community.

True Health continually evaluates areas of need to expand services so that all residents have quality options and can live long, healthy lives. From transportation assistance to affordability, True Health is dedicated to reducing the barriers Central Floridians face when seeking healthcare.

Latrice Stewart, MBA, CMPE

CEO
True Health

True Health - Sanford

‘Chronic diseases are prevalent in the community.

They are affected by social determinants like food and housing.’

-Stakeholder Interview Respondent

CHAPTER TWO

About the Central Florida Community Collaborative

Wekiwa Springs State Park
Apopka, FL

Seminole County

The Central Florida Community Collaborative's Vision:

To promote and inspire a culture of health by collaborating with traditional and non-traditional partners, ensuring access to healthcare resources, developing evidence-based programs and advancing health equity throughout the Central Florida region.

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 healthcare organizations, providers, community partners and individuals committed to working together to meet our local health needs. The 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

More than 80,000 skilled and compassionate caregivers nationwide in physician practices, hospitals, outpatient clinics, skilled nursing facilities, home health agencies and hospice centers provide 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 healthly, responsible lifestyles.

Orlando Health

Based in Orlando, FL, Orlando Health is a $3.8 billion not-for-profit healthcare 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 over 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 Federally Qualified Health Center (FQHC), Community Health Centers, is a private, non-profit organization that provides healthcare 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, 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, non-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.

‘Overall, we have great hospital systems in and around the area. The EMS [Emergency Medical System] and FD [Fire Department] programs are also a big part of prevention and do excellent work as a system with the hospitals.’
-Key Informant Survey Respondent

The Affordable Care Act, passed in 2010, established a regulatory requirement that all non-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. In parallel with the not-for-profit hospitals, all 67 county health departments in Florida are required to conduct a CHNA in order to determine public health priorities for the next three to five years.

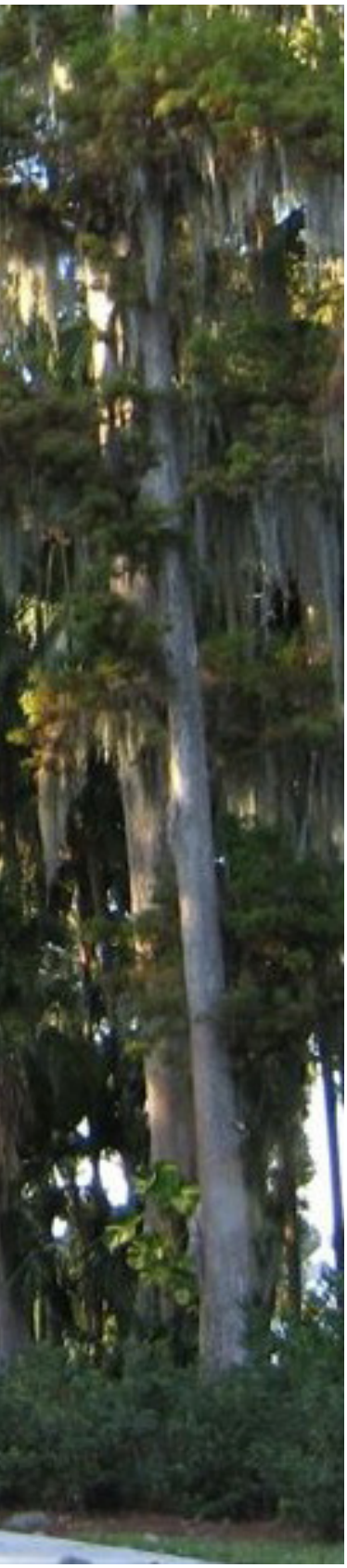
Due to the overlap in requirements for non-profit hospitals and the Departments of Health, as well as the positive synergies for our community, in 2012 the Central Florida Community Collaborative (the Collaborative) was created. The partners included AdventHealth (formerly Florida Hospital), Aspire Heath 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, as these partners are also required to conduct a CHNA. 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 non-profit community healthcare providers, the Collaborative sees the struggles of the uninsured and underinsured populations in our communities and are 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 this CHNA. 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 this collaborative regional report.

The purpose of a Community Health Needs Assessment (CHNA) is to identify and prioritize community health needs so that the hospital and partners can develop strategies and implementation plans that benefit the public as well as satisfy the requirements of the Affordable Care Act.



CHAPTER THREE

Executive Summary

Kraft Azalea Park
Winter Park, FL

Orange County

The health of a community is determined by the physical, mental, environmental, spiritual and social well-being of all community residents. Creating a healthier community requires an understanding of the complex social, environmental and behavioral aspects that determine health. A CHNA — driven by community input — is a systematic approach to collecting, analyzing and using complex data and information to identify priority areas for health improvement. This CHNA report continues the measurement of the health status of the four-county region encompassed by the Central Florida Community Collaborative (the Collaborative). Outlined in Figure 3.1 is the geography that the Collaborative identified as their collective primary service area: Lake, Orange, Osceola and Seminole counties in Central Florida.

FIGURE 3.1: CENTRAL FLORIDA COMMUNITY COLLABORATIVE PRIMARY SERVICE AREA

Source: Central Florida Community Collaborative

Using national best practices from 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 Heath Rankings and Roadmaps as a framework for the CHNA, data were compiled from the most up-to-date, publicly available resources along with input gathered from community residents, providers and stakeholders. Figure 3.2 identifies the components of the CHNA that rose to the top.

FIGURE 3.2: CHNA COMPONENTS THAT ROSE TO THE TOP

- Asset Inventory
- Availability of Access
- Behavioral Risk Factors
- Birth Characteristics
- Built Environment
- Chronic Conditions
- Communicable Diseases
- Disparities
- Economic Conditions
- Injury
- Leading Causes of Death
- Mental Health Concerns
- Preventative Care
- Quality of Life
- School and Student Characteristics
- Substance Use

Source: Strategy Solutions, Inc. Primary Data

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 data from available secondary data, primary data and relevant local data looking for common themes and trends accross all three sources. The data sources used in this method are outlined in Figure 3.3.

FIGURE 3.3: DATA TRIANGULATION

Florida CHARTS

US Census Bureau

Centers for Disease Control and Prevention

BRFSS Data

Healthy People 2020

Other Secondary Sources

Community Survey: 2,708
Lake 656 | Orange 1,240
Osceola 289 | Seminole 523

Stakeholder Interviews*: 34
Lake 16 | Orange 21
Osceola 20 | Seminole 18

Focus Groups*: 15 groups
235 participants
Lake 7 | Orange 9
Osceola 9 | Seminole 10

Key Informant Survey*: 172
Lake 75 | Orange 111
Osceola 97 | Seminole 83

Intercept Survey: 135
Lake 26 | Orange 86
Osceola 9 | Seminole 14

AdventHealth

Aspire Health Partners

Orlando Health

Florida Department of Health:
Lake County
Orange County
Osceola County
Seminole County

* Note: The total number of key informant surveys, stakeholder interviews and focus groups conducted do not match the sum of the individual county numbers as participants could represent more than one county if their agency or organization serves multiple counties.

Source: Strategy Solutions, Inc.

Secondary data was compiled from the most up-to-date, publicly available resources including FLHealthCHARTS (FLCharts), an interactive website from the Florida Department of Health, that provides longitudinal information on public health and other indicators of community health. This information was augmented with secondary data from other sources, as well as primary data collected from community residents, providers and stakeholders. Demographic and socio-economic data for the Collaborative's combined service area were collected from the U.S. Census Bureau (obtained through Environics Analytics and IBM Market Expert, a demographic subscription service that provides population estimates in between the decennial census reports), the American Fact Finder, Florida Office of Economic and Demographic Research, County Health Rankings and Roadmaps and the Bureau of Labor Statistics. In compliance with patient privacy laws, hospital utilization data was included to complete maps that identify targeted geographic areas where high volumes of uninsured inpatient and outpatient activity originated.

The Collaborative met on April 2, 2019 to review and discuss primary data, secondary data and health needs and issues present across the four-county region. During this meeting, 52 needs and issues were identified based on health, social, economic and other disparities found in the data. The needs and issues were added to the list based on disparities identified in different racial and ethnic groups, comparison to state, national or HP2020 goals, negative trends or increasing incidence.

The group completed a prioritization exercise using OptionFinder, an audience response polling system, to rate identified needs. Using four criteria (accountability, magnitude of the problem, impact on other health outcomes and capacity to implement evidence-based solutions), each need or issue was rated on a 10-point scale. The scores for each criterion were added together to get an overall priority score.

The overall priorities of the Collaborative are as follows:

1. Communicable disease: childhood immunizations
2. Chronic disease: obesity
3. Chronic disease: diabetes
4. Chronic disease: childhood obesity
5. Chronic disease: cardiovascular disease
6. Communicable disease: Human Immunodeficiency Virus (HIV)/Accquired Immunodeficiency Syndrome (AIDS)
7. Behavioral risks: substance use (drugs, alcohol, nicotine)
8. Birth characteristics: infant mortality
9. Birth characteristics: low birth weight babies
10. Chronic disease: hypertension

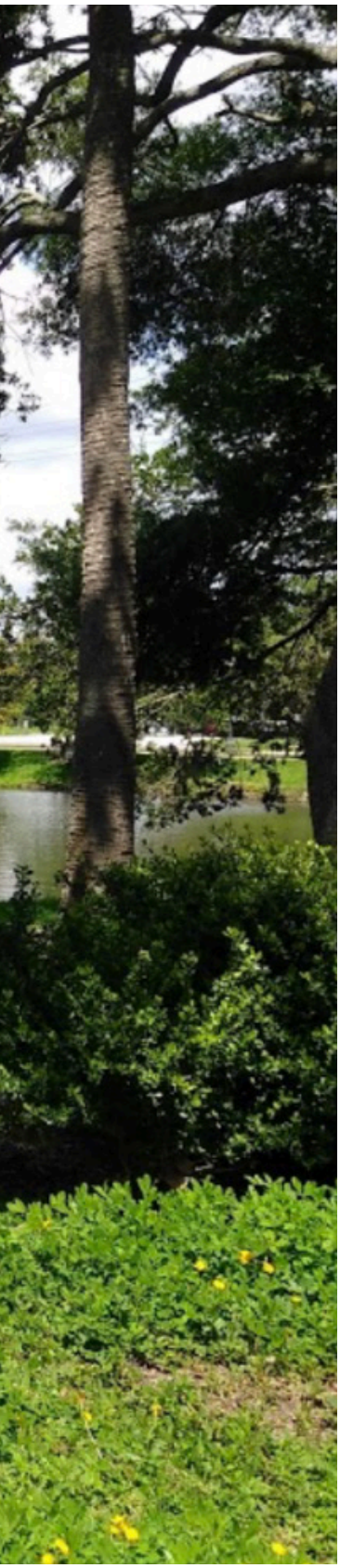
The findings from the Collaborative's CHNA demonstrate the continued need for improvement in addressing social determinants of health, health status, access to care, preventative care and built environment elements across the four counties. For more information on the overall priorities, see Chapter 5: Methodology.

The four-county region falls short of HP2020 goals in several areas and is below the state average in many others. Health disparities (differences in health outcomes between groups that reflect social inequalities) related to access, preventative care and food access exist within and across all four counties in the region. Income, race and education affect lifestyle as well as access to care, rates of preventative testing, chronic diseases, births, infant mortality and mental health, as well as risk behaviors. These disparities demonstrate the need for concerted action to achieve health equity and overall health improvement for the entire population.

Each member of the Collaborative will develop implementation strategies to address their unique service area's top priority needs based on the findings of this CHNA.

'The majority of citizens have a fairly good lifestyle and access to health/community resources.'

-Key Informant Survey Respondent



CHAPTER FOUR

Defining the Community

Kissimmee Lakefront Park
Kissimmee, FL

Osceola County

Each of the participating hospitals, Departments of Health and FQHCs participating in the Collaborative discussed and agreed upon their respective targeted communities that comprise each organization's service area. The combined service areas of all the partners in the Collaborative comprise the four counties that are included in this study: Lake, Orange, Osceola and Seminole counties in Central Florida. The Departments of Health, which are members of the Collaborative, serve the populations of the individual counties of Lake, Orange, Osceola and Seminole. These populations include all of the residents in each of the four counties, including the vulnerable populations. Vulnerable populations are groups and communities at a higher risk for poor health as a result of the barriers they experience to social, economic, political and environmental resources, as well as limitations due to illness or disability. Figure 4.1 illustrates the four-county region that is the primary service area of the Collaborative for purposes of this CHNA.

FIGURE 4.1: CENTRAL FLORIDA COMMUNITY COLLABORATIVE PRIMARY SERVICE AREA

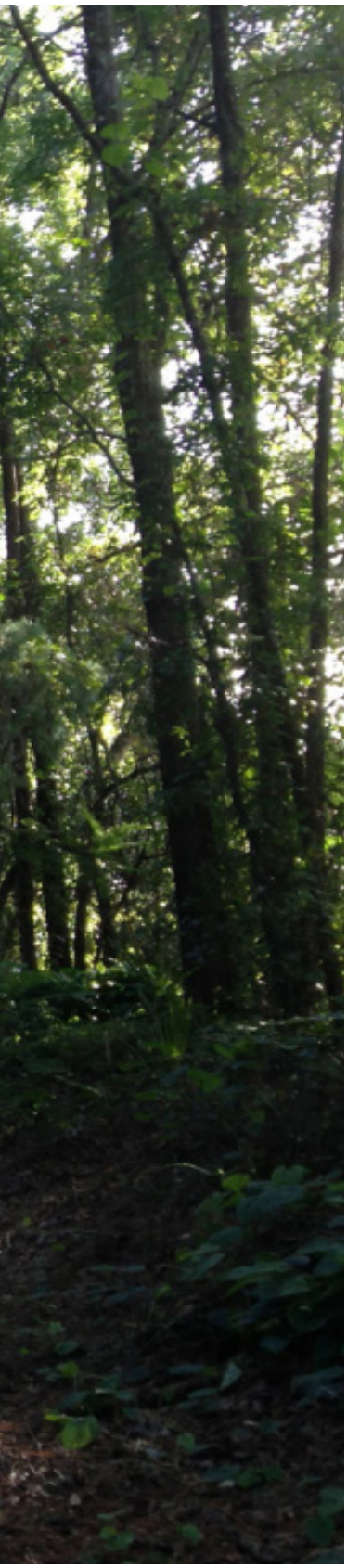
Source: Central Florida Community Collaborative

Hospital, Department of Health and FQHC leaders used their current patient census, knowledge of community needs from community outreach programs, as well as other available information to determine which specific audiences would be engaged through the primary data collection. The targeted community leaders and groups that were invited to participate in the primary data collection represented various organizations and underrepresented populations.

Underrepresented populations involved in this study included but were not limited to: adults and children living below the poverty level, homeless/transient individuals, unwed mothers, individuals in prison (both male and female), individuals living with disabilities, children and adolescents, senior citizens, caregivers, adults and children with a variety of education levels, adults and children with diverse racial identifications, undocumented individuals and healthcare professionals. Additional stakeholders were selected because of their direct understanding of community needs and issues including but not limited to: human trafficking, violence, substance use and mental health.

'Overall, I believe the community is taking better care of themselves from previous years.'

-Key Informant Survey Respondent



CHAPTER FIVE

Methodology

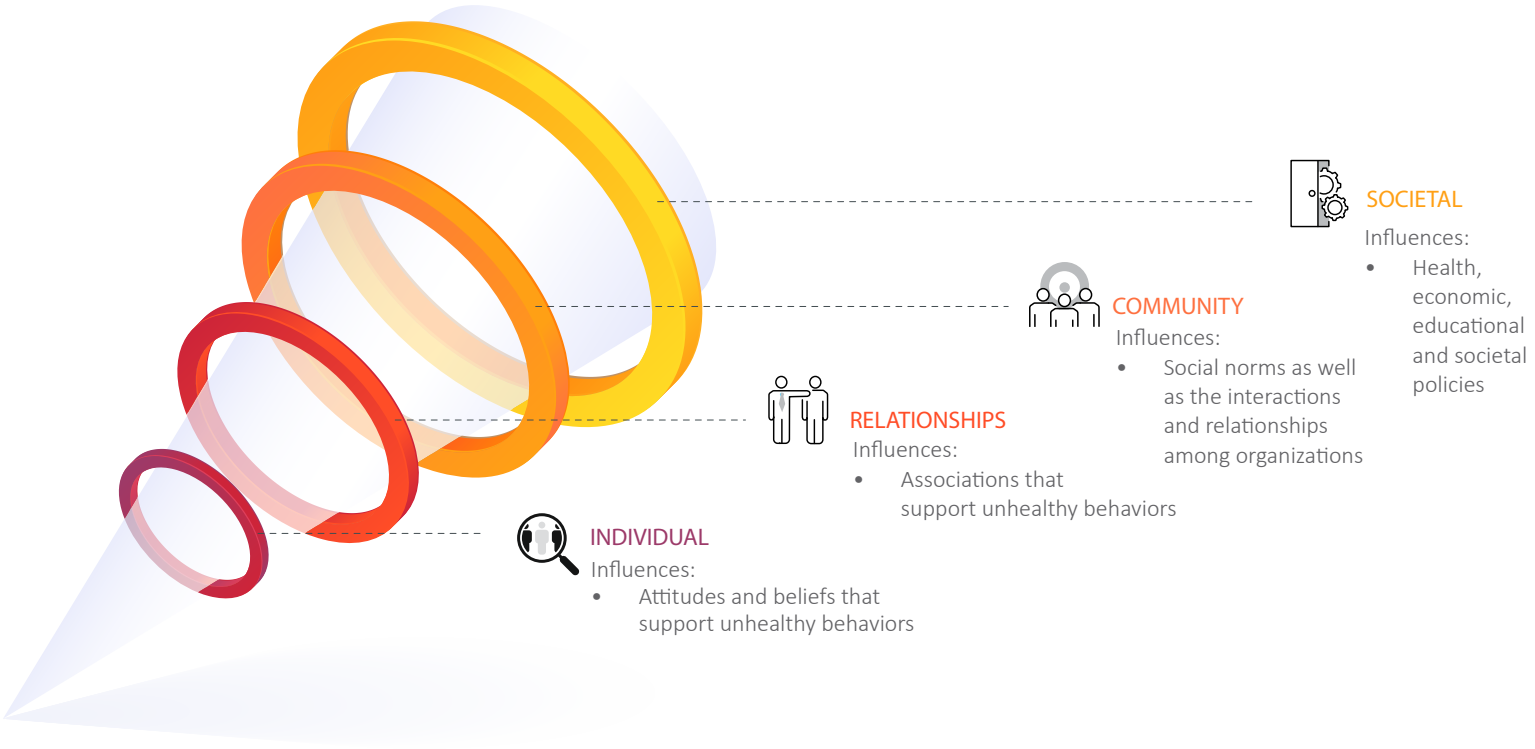
Seminole Wekiva Trail
Altamonte Springs, FL

Seminole County

Community Health Needs Assessment: Social-Ecological Model of Health

Social-ecological models were developed to help people understand the interrelationships among various personal and environmental factors that exist in communities. The Social-Ecological Model of Health (SEM) is a public health framework used to holistically describe four levels of influence that explain the complex inter-relationships between individuals and the social context within which they live, learn, work and play. Figure 5.1 outlines the Social-Ecological Model of Health.

FIGURE 5.1: SOCIAL-ECOLOGICAL MODEL OF HEALTH



Source: Centers for Disease Control and Prevention

This Community Health Needs Assessment (CHNA) provides information to improve the health, wellness and quality of life in Central Florida. In order for the Collaborative and their community partners to identify communities in need of services and support and to develop implementation strategies to address those needs, it is important to understand the context within which residents live. Health and well-being are not only shaped by individual choices and behaviors, they are influenced by the environment that often drives those choices. The SEM provides a framework to help understand the various factors and behaviors that affect health and wellness. With this model, the Collaborative can closely look at the social determinants that influence choices and outcomes.

It is challenging to attempt to change individual human behavior without understanding the context and environment within which people live. In order to better support health and wellness, intervention strategies are best focused on behavior choices and factors that influence those choices. The SEM helps identify factors that influence behavior by considering the complex interplay among individual, interpersonal, community and public policy factors. It shows how the changes and interactions between these four levels over the course of one's life greatly affect health and wellness. By utilizing the SEM, the likelihood of developing sustainable interventions with the broadest impact on health and wellness is increased.

Approach

Using the lens of the SEM, the CHNA collected and analyzed secondary and primary data that generated common themes for the four-county region, individual counties in the four-county region and select neighborhood census tracts.

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 was compiled from the most up-to-date information available. This was augmented with primary research conducted with community residents, providers and stakeholders. Hospital utilization for the uninsured patient population was also utilized in this CHNA.

About This Report

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. Each section outlined in Chapters 6 and 7 follow the same structure with four 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.
2. At a glance: includes a graphic summary of the indicators in this section with a color-coded snapshot. In this section, red means that the indicator has worsened in at least three of the regional counties, yellow means that some counties are increasing and some are decreasing or rates have remained roughly equivalent, and green means that rates have improved in at least three of the regional counties since the last CHNA or compared to the state.

   Where indicators are grouped by county, red means that the indicator has worsened and green means that rates have improved since the last year data was reported in the previous CHNA. Each narrative describes which comparison is used.
3. Summary of indicators: includes a narrative description of the secondary data indicators included in the section.
4. Key findings: includes a short summary of the takeaways from the review of the data in the section.

The charts within the report are designed to provide longitudinal data where possible, 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.

The secondary data contained in this report is the most up-to-date information available from each source at the time the data was collected for this assessment. The primary and secondary data collected for this assessment includes several limitations that are mentioned in the data trend narratives.

Much of the secondary data is from the county-level and is not specific to individual communities within counties due to geographic limitations of currently available data, which many are two or more years old. Finally, all primary data is qualitative and, although the Collaborative sought the most representative samples of the service area, a representative sample cannot be guaranteed since it was collected through convenience sampling.

FLCharts 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 FLCharts is the data publicly available on their website at the time it was pulled between January and May 2019. FLCharts may have updated or modified data on their website after data was pulled for inclusion in this report.

Secondary Data

Existing data collected by other entities were utilized in the assessment. These data sources included the U.S. Census Bureau (including population estimates from Pop-Facts Premier, Environics Analytics, 2019), as well as The American Fact Finder, FLHealthCHARTS, The Centers For Disease Control and Prevention, the Behavioral Risk Factor Surveillance Survey (BRFSS), the County Health Rankings and Roadmaps, Florida Housing Data, The Shimberg Center, ESRI (an international supplier of geographic information system software, web GIS and geodatabase management applications), Florida Council on Homelessness, Florida Department Of Law Enforcement, Uniform Crime Reporting Data, Florida Department Of Children And Families, Florida Bureau of Economics and Business Research, and Florida Department of Education, as well as individual hospital utilization data. These resources provide data related to specific health indicators, behavioral risk factors, built environment, healthcare access and utilization, homelessness and health insurance coverage. Secondary data was collected and compiled during the months of January through May 2019 and data reported is the data available during that timeframe.

Data collected from these sources report incidence, prevalence and/or age-adjusted death rates (AADR) for each indicator. Incidence refers to the rate of new cases of a disease, reflecting the risk of contracting said disease, while prevalence indicates how widespread a condition is at a given point in time. AADRs are computed after considering the relationship between a given disease and how commonly it occurs in different age groups. These numerical rates are reported per 1,000 or 100,000 residents, depending on the indicator.

HP2020 objectives are used as benchmarks for a number of indicators in this report. Healthy People is an initiative of the U.S. Department of Health and Human Services that provides empirically based national objectives for improving the health of all Americans. HP2020 is the 10-year agenda for improving the nation's health, launched in December 2010.

Following patient privacy guidelines, inpatient and outpatient hospital utilization statistics were collected for uninsured patients within each hospital's primary service area for fiscal years 2016 through 2018. This information was utilized to support the GIS hot spotting analysis. Figure 5.2 outlines the secondary data used in this CHNA.

FIGURE 5.2: 2019 CHNA SECONDARY DATA

Source: Strategy Solutions, Inc.

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 5.3.

FIGURE 5.3: 2019 CHNA PRIMARY DATA COLLECTION METHODS

* Note: The total number of key informant surveys and focus groups conducted do not match the sum of the individual county numbers as participants could represent more than one county if their agency or organization serves multiple counties.

Source: Strategy Solutions, Inc.

Community Survey

The purpose of conducting a community survey is to learn more about what the needs and issues are from the point of view of the general community. The survey enables the Collaborative partners to receive detailed information from a larger and more representative group of people. It also enables the Collaborative to learn about needs and issues that are important in the general community and/or to an underrepresented population. The survey results inform implementation strategies and help align them with the needs that are expressed by the community. The survey provides an ability to quantify the qualitative data and potentially garner more group and community support for interventions that will improve the health of the community.

The audience for the community survey included community residents, concentrating on underserved populations within the service areas of the member organizations. The survey was conducted through an online tool and by distribution of paper copies throughout the community. The distribution methods attempted to engage a representative sample of the population demographics. The community survey was created in SurveyMonkey (an online survey development, cloud-based software service company) and was made available online and accessed through a link or QR code (a machine-readable code consisting of an array of black and white squares, typically used for storing URLs or other information for reading by the camera on a smartphone). Paper surveys were placed strategically throughout the four-county region so those not able to access electronically could complete the survey. Staff from AdventHealth collected the paper surveys and completed the data entry into SurveyMonkey. An incentive was included to encourage community residents to complete the survey. All employees of the Collaborative partner organizations were ineligible to participate in the incentive drawing and all incentive logistics were handled by SSI.

Surveys were made available in English, Latin American Spanish, Brazilian Portuguese and Haitian Creole. The survey was launched January 7, 2019 and closed on March 4, 2019. A total of 2,708 surveys were completed and usable, 656 from Lake County, 1,240 from Orange County, 289 from Osceola County and 523 from Seminole County. Some surveys were not usable because respondents lived outside of the four-county region. The majority of surveys (2,539) were completed in English, while 135 were Latin American Spanish, 10 were Brazilian Portuguese and 24 were Haitian Creole. A summary of the full results of the community survey are included in Appendix A.

Stakeholder Interviews

The purpose of conducting stakeholder interviews is to gather information to explore complex issues, allow follow up questions for better understanding and to provide immediate feedback. It also enables the research team to pilot test ideas and reach underrepresented populations. The audience for the stakeholder interview collection tool included those community members who represent the underserved population through programs and services offered. A total of 34 stakeholder interviews were conducted by the consulting team via telephone between January 7, 2019 and May 7, 2019. A full list of all participants is included in Appendix B.

Focus Groups

The purpose of conducting focus groups is to gather community input and feedback on community health status and health needs, identify issues related to access to services and gather potential solutions. Focus groups target individuals that represent underserved or underrepresented populations, people representing certain areas of interest such as mental health, food insecurity, homelessness, incarcerated populations and seniors, as well as geographic areas of interest within the four-county region.

The focus group facilitation method included both in-person and virtual (online/telephone) groups. In-person meetings were facilitated by SSI staff, using a combination of open discussion, list generation and prioritization using the OptionFinder anonymous audience response polling system. Virtual focus groups were also conducted and facilitated by SSI staff to obtain community information using the ReadyTalk conference software application.

A total of 15 focus groups were conducted with a total of 235 participants between October 11, 2018 and April 4, 2019: seven focus groups with representation from Lake County, nine focus groups with representation from Orange County, nine focus groups with representation from Osceola County and 10 focus groups with representation from Seminole County. Note that the total number of focus groups conducted do not match the sum of the individual county numbers as focus group participants could represent more than one county if their agency or organization serves multiple counties. A full list of the dates and target audiences involved in the focus groups are listed in Appendix C.

Key Informant Survey

The purpose of conducting a key informant survey is to obtain vital information about the community from individuals who have expertise in a particular area or discipline. It is used to gather information for a needs assessment and utilize the findings for effective prevention planning. The survey tool can be used to assess whether the needs in the community have changed over time and to identify the top needs and priorities from a diverse point of view.

The audience for the key informant survey collection tool included professionals within various disciplines related to social determinants of health and underrepresented populations. It also targeted individuals who were not included in the stakeholder interview list or focus group list from whom the Collaborative partners wanted to receive feedback. The key informant survey was developed and distributed as an online survey through SurveyMonkey. The survey was launched on December 17, 2018 and closed on January 11, 2019.

A total of 172 individuals completed the key informant survey: 75 with representation from Lake County, 111 with representation from Orange County, 97 with representation from Osceola County and 83 with representation from Seminole County. Note that the total number of surveys completed do not match the sum of the individual county numbers as key informant survey respondents could represent more than one county if their agency or organization serves multiple counties. A summary of the results of the key informant survey are included in Appendix D.

Intercept Survey

An intercept survey is a research method used to gather onsite feedback from an identified population in a location where they are a "captive audience." The audience for the intercept survey collection tool included individuals who were members of underserved populations. Intercept surveys were conducted as in-person interviews by SSI consultants in FQHC clinic waiting rooms, food banks and a community gathering. Orange Blossom Family Health staff also conducted interviews with their patients.

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. Surveys were conducted at Community Health Centers, Inc. (multiple locations), Orange Blossom Family Health (multiple locations), United Against Poverty Orlando, True Health, The Christian Service Center and AdventHealth Community Medicine Clinic. A total of 135 intercept surveys were completed: 26 representing Lake County, 86 representing Orange County, nine representing Osceola County and 14 representing Seminole County. Of the 85 surveys completed in Orange County, 27 surveys were completed by Orange Blossom Family Health staff and scanned and emailed to SSI for data entry and analysis. A list of intercept survey dates, locations and number of residents who completed the survey is included in Appendix E.

Hospital Hot Spotting

Patients who frequently over-utilize healthcare services typically suffer from multiple chronic conditions, requiring frequent care provided by a number of different providers. Many also have complicated, adverse social situations that directly impact their ability to get and stay well. Too often high-utilizer patients experience inefficient, poorly coordinated care that results in multiple trips to emergency rooms and costly hospital admissions. Patient data from hospitals in the Collaborative allow the geographical analysis and mapping of local hot spots with high numbers of uninsured visits.

In addition to the standard hospital patient data in most hot spotting projects, this hot spotting includes economic variables and conditions of the area in order to analyze the correlation between healthcare utilizations and the socioeconomic conditions in which people live.

The hot spotting process included several steps:

Step 1: Converting hospital Excel data to GIS data. The hospitals sent data from uninsured visits for fiscal years 2016, 2017 and 2018 to the consulting team. The data had no identifying information, with the exception of address data and visit IDs. All HIPAA regulations were followed and necessary legal agreements were in place for hospitals to share data. The visit data was separated into inpatient and outpatient (emergency department/ triage) data. All data outside of the four-county region were taken out of the data file. The consulting team then imported the Excel tables into ESRI (an online geocoding software) to geocode the addresses into census tracts.

Step 2: Developing hot spots from point data. After the data were geocoded, it was imported into ArcGIS software to create maps. After the data were imported, the consulting team ran the point density function to calculate a weighted proximity average for each square area of land, known as a raster. The radius around each raster was calculated along with the point density within each raster. The parameters of this analysis were customized until neighborhood level detail was available.

Step 3: Identifying hot spots. The data were then numbered and classified to create the color codes on a map. The boundaries of the hot spot maps were customized to show the areas with the highest patient density. To analyze the data for uninsured visits the consulting team then selected all of the records for the five census tracts with the highest uninsured patient utilization and exported the associated data table into SPSS (a statistical software) for analysis and calculation of the summary results included in this report.

The detailed methodology for completing the mapping and hot spotting analysis is included in Appendix F. It is important to note that all HIPAA regulations were followed to ensure patient confidentiality. All necessary legal agreements were in place between the hospitals and Strategy Solutions, Inc. (SSI) prior to any data being shared. All data received by SSI will be destroyed after this Community Health Needs Assessment is presented.

Data Summary and Presentation

All qualitative and quantitative data were analyzed and summarized by SSI and presented to the Collaborative on April 2, 2019. Data were shared collectively in that initial group meeting, then with each member organization through a series of “data walk” meetings. These meetings with partner organizations were held both in person during the week of April 2, 2019, as well as virtually using the ReadyTalk conferencing software in the weeks that followed. The data used in the data walk presentation for the four-county region included all four counties as it related to the Collaborative overall. All members of the Collaborative were provided with presentations that were customized to reflect the data sources from their individual service area(s). A listing of all of the meetings is included in Appendix G.

Prioritization

During the data review meetings, the Collaborative members prioritized community needs and issues identified in the assessment first collectively, then individually. During the meeting of the Collaborative partners, a total of 52 distinct needs and issues were identified based on health, social, economic and other disparities found in the data. This included differences in different racial and ethnic groups, comparison to state, national or HP2020 goals, negative trends or increasing incidence. The group completed a prioritization exercise using OptionFinder, an audience response polling system, to rate identified needs on a one to 10 scale utilizing four criteria:

1. Accountability: the extent to which the hospitals/public health organizations would be accountable to address the issue/problem or if community leadership were more suited to lead intervention efforts.
2. Magnitude of the problem: the degree to which the problem 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 other health outcomes: the extent to which the issue impacts health outcomes and/or is a driver of other conditions.
4. Capacity: the extent to which systems and resources are in place or available to implement evidence-based solutions.

In addition, based on the data collected that related to their specific service area, each member organization of the Collaborative conducted a prioritization exercise and selected priority areas based on individually selected criteria. These priorities will become the basis for each member's individual implementation strategies to address the needs identified in this 2019 CHNA. The list of "data walk" meeting dates, participating organizations, prioritization approach and criteria used, and top 10 priority listings by organization and county are listed in Appendix G.

It is each organization's intention that when developing individual implementation strategies, that members of this 2019 CHNA Collaborative may partner together to work on the goals and objectives to benefit the communities served.

The top 10 priorities of the Collaborative are outlined in Table 5.1.

Identified needs	Accountability	Magnitude	Impact	Capacity	Total M+I+C	Ranking
1. Communicable disease: childhood immunizations	7.6	7.8	8.4	8.3	24.5	1
2. Chronic disease: obesity	6.9	8.6	9.3	6.6	24.5	2
3. Chronic disease: diabetes	7.3	8.3	9.1	6.7	24.1	3
4. Chronic disease: childhood obesity	7.4	8.6	9.1	5.9	23.6	4
5. Chronic disease: cardiovascular disease	8.2	8.0	8.1	7.1	23.2	5
6. Communicable disease: HIV/AIDS	7.3	7.8	7.8	7.6	23.2	6
7. Behavioral risks: substance use (drugs, alcohol, nicotine)	5.2	8.6	8.9	5.5	23.0	7
8. Birth characteristics: infant mortality	6.8	8.0	7.4	6.9	22.3	8
9. Birth characteristics: low birth weight babies	6.9	7.4	7.9	6.7	22.0	9
10. Chronic disease: hypertension	7.4	7.1	7.7	7.1	21.9	10

Source: Strategy Solutions, Inc.

Community Resource Listing

Appendix H of this report is a listing of assets and resources available in the four-county region to meet the needs of the community.

Retrospective Data Evaluation

Every organization in the Collaborative conducted a retrospective evaluation of their implementation strategies by looking backward and examining the priorities selected during the 2016 CHNA. These evaluation activities can be found in Appendix I.

Refer to Appendix J for how to access each hospital's and health departments CHNA reports.

IRS Form 990, Schedule H Compliance Listing

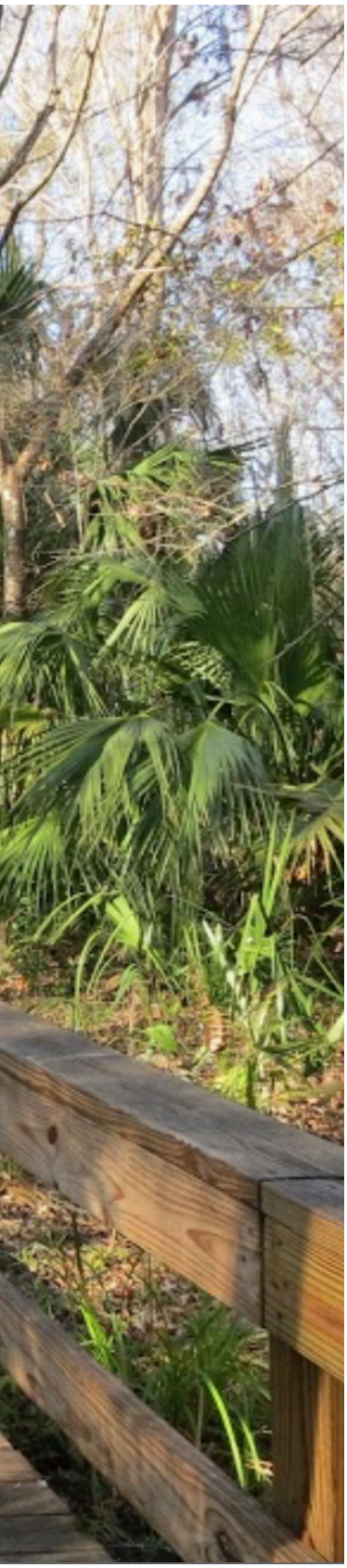
For not-for-profit hospitals, a CHNA serves to meet certain requirements of the Internal Revenue Service (IRS), pursuant to provisions of the Patient Protection & Affordable Care Act of 2010. Table 5.2 lists the sections, along with corresponding page numbers, that the IRS requires a CHNA to have in order to be compliant.

TABLE 5.2: IRS FORM 990, SCHEDULE H COMPLIANCE LISTING

IRS Requirement	See Report Page
A definition of the community served by the hospital facility and a description of how the community was determined	37
A description of the process and methods used to conduct the CHNA, including identification of information gaps that limit the hospital facility's ability to assess the community's health needs	41
A description of how the hospital facility solicited and took into account input received from persons who represent the broad interests of the community it serves	46
A prioritized description of the significant health needs of the community identified through the CHNA, along with a description of the process and criteria used in identifying certain health needs as significant and prioritizing those significant health needs	Appendix G
A description of the resources potentially available to address the significant health needs identified through the CHNA	Appendix H
An evaluation of the impact of any actions that were taken, since the hospital facility finished conducting its immediately preceding CHNA, to address the significant health needs identified in the hospital facility's prior CHNA(s)	Appendix I
Board approval or equivalent	09.23.2019

‘One big victory we’ve had is that we brought in health partners to provide direct mental health services to those in the community. It is very much a counseling model. People who are trained in social work, safe spaces for people to talk and get them to the services they need.’

-Stakeholder Interview Respondent



CHAPTER SIX

Community Profile of the Four-County Region

Cross Seminole Trail - Big Tree Park
Longwood, FL

Seminole County

Summary of Needs and Issues Identified

Tables 6.1 through 6.5 outline the top needs identified through the various methods of the needs assessment process related to access to care, behavior risk factors, birth characteristics, built environment, chronic disease, communicable disease, econimic conditions, injury and quality of life/mental health.

Table 6.1 highlights access and behavior risk factor-related needs.

TABLE 6.1: 2019 CHNA ACCESS TO CARE AND BEHAVIOR RISK FACTORS-RELATED NEEDS AND ISSUES IDENTIFIED

Identified Need	Secondary Data	Community Survey	Stakeholder Interviews	Focus Groups	Intercept Surveys	Key Informant Surveys	Added During Data Walk
ACCESS TO CARE							
Awareness of available services				X		X	
Cost of care/ insurance/ medications		X	X	X	X	X	
General wellness for seniors (screenings, vaccinations, prevention)							X
General wellness for younger adults (screenings, vaccinations, prevention)							X
Health literacy			X	X	X	X	
Immigrant/ undocumented individuals				X		X	
Transportation		X	X	X	X	X	
BEHAVIOR RISK FACTORS							
Co-occurring mental health and substance abuse							X
Lack of substance abuse providers		X		X		X	
Substance abuse (drugs, alcohol, tobacco, vaping/ e-cigarettes)		X	X	X	X	X	

Source: Strategy Solutions, Inc.

Table 6.2 identifies needs and issues related to birth characteristics and built environment.

TABLE 6.2: 2019 CHNA BIRTH CHARACTERISTICS AND BUILT ENVIRONMENT-RELATED NEEDS AND ISSUES

Identified Need	Secondary Data	Community Survey	Stakeholder Interviews	Focus Groups	Intercept Surveys	Key Informant Surveys	Added During Data Walk
BIRTH CHARACTERISTICS							
Infant mortality	X			X		X	
Low birth weight babies	X			X		X	
Maternal mortality							X
Medicaid births	X						
Mothers not receiving prenatal care first 3 months	X			X		X	
Neonatal abstinence							X
BUILT ENVIRONMENT							
Access to affordable foods/food desert		X	X	X	X	X	
Access to safe places for recreation			X	X		X	
Air/water quality			X	X		X	

Source: Strategy Solutions, Inc.

Table 6.3 outlines the needs and issues related to chronic diseases that were identified through the CHNA process.

TABLE 6.3: 2019 CHNA CHRONIC DISEASES-RELATED NEEDS AND ISSUES

Identified Need	Secondary Data	Community Survey	Stakeholder Interviews	Focus Groups	Intercept Surveys	Key Informant Surveys	Added During Data Walk
CHRONIC DISEASE							
Asthma							X
Breast cancer	X						
Cancer		X		X	X	X	
Cardiovascular disease (heart disease)	X			X	X	X	
Childhood obesity	X					X	
Diabetes	X		X	X	X	X	
Hypertension	X		X	X		X	
Lung cancer							X
Obesity	X	X	X	X	X	X	
Skin cancer							X

Source: Strategy Solutions, Inc.

Table 6.4 highlights the needs and issues related to communicable diseases, economic conditions, health care providers and facilities, injury and quality of life/mental health.

TABLE 6.4: 2019 CHNA COMMUNICABLE DISEASES, ECONOMIC CONDITIONS, HEALTH CARE PROVIDERS AND FACILITIES, INJURY AND QUALITY OF LIFE/MENTAL HEALTH-RELATED NEEDS AND ISSUES

Identified Need	Secondary Data	Community Survey	Stakeholder Interviews	Focus Groups	Intercept Surveys	Key Informant Surveys	Added During Data Walk
COMMUNICABLE DISEASES							
Childhood immunizations	X	X					
Hepatitis C			X	X	X		
HIV/AIDS	X		X	X	X	X	
ECONOMIC CONDITIONS							
Employment/livable wages		X	X	X	X	X	
Housing/homeless		X	X	X	X	X	
HEALTH CARE PROVIDERS AND FACILITIES							
Availability of primary care physicians (accessible hours and wait times)							X
Bilingual providers/ cultural competency			X	X		X	X
Dental care				X	X	X	
Specialists				X		X	
INJURY							
Adult safety and violence – intentional injuries							X
Adult safety and violence – preventable injuries							X
Drowning							X
Falls	X					X	
Infant safety (car seats, SIDS, shaken baby, hot car)							X
Motor vehicle crash deaths	X						
Unintentional poisoning	X						
QUALITY OF LIFE/MENTAL HEALTH							
Lack of services and providers		X	X	X	X	X	
Mental health prevalence		X	X	X	X	X	
Social isolation				X		X	
Stigma		X		X		X	
Suicide							X

Source: Strategy Solutions, Inc.

Table 6.5 highlights the needs and issues related to school and student demographics.

TABLE 6.5: 2019 CHNA SCHOOL AND STUDENT-RELATED NEEDS AND ISSUES

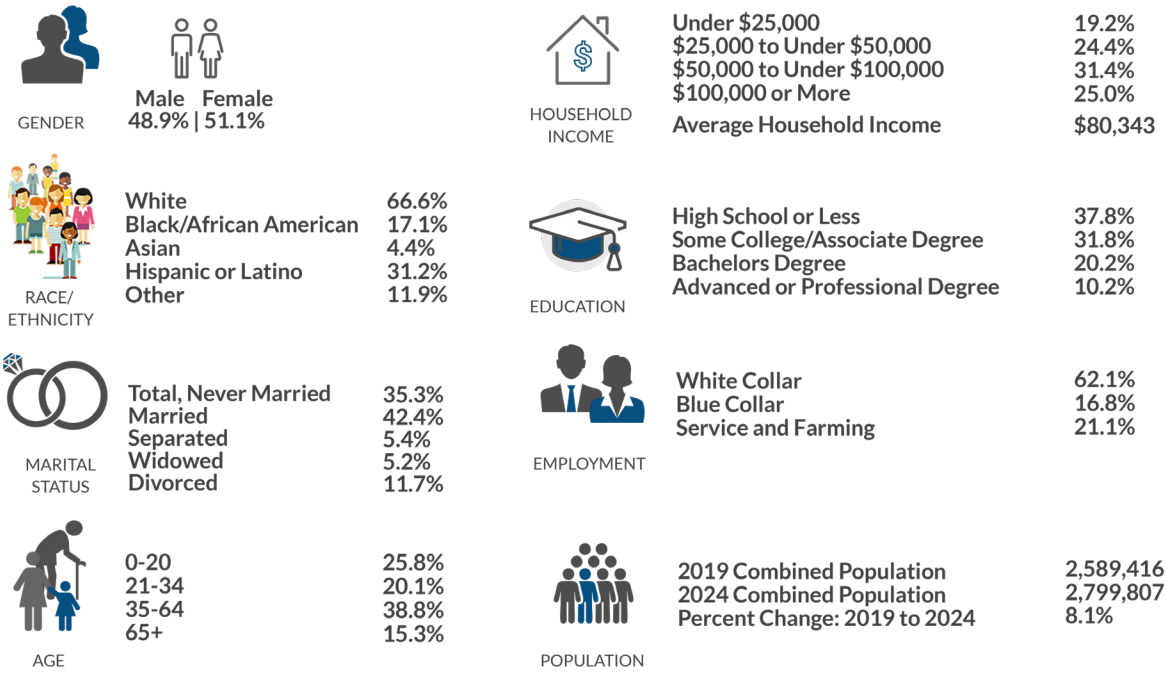
Identified Need	Secondary Data	Community Survey	Stakeholder Interviews	Focus Groups	Intercept Surveys	Key Informant Surveys	Added During Data Walk
SCHOOL AND STUDENT DEMOGRAPHICS							
Homeless youth				X		X	
Youth violence/safety			X	X	X	X	

Source: Strategy Solutions, Inc.

Demographics at a Glance

Figure 6.1 identifies the demographic characteristics of the four-county region. 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 6.1: FOUR-COUNTY REGION DEMOGRAPHIC



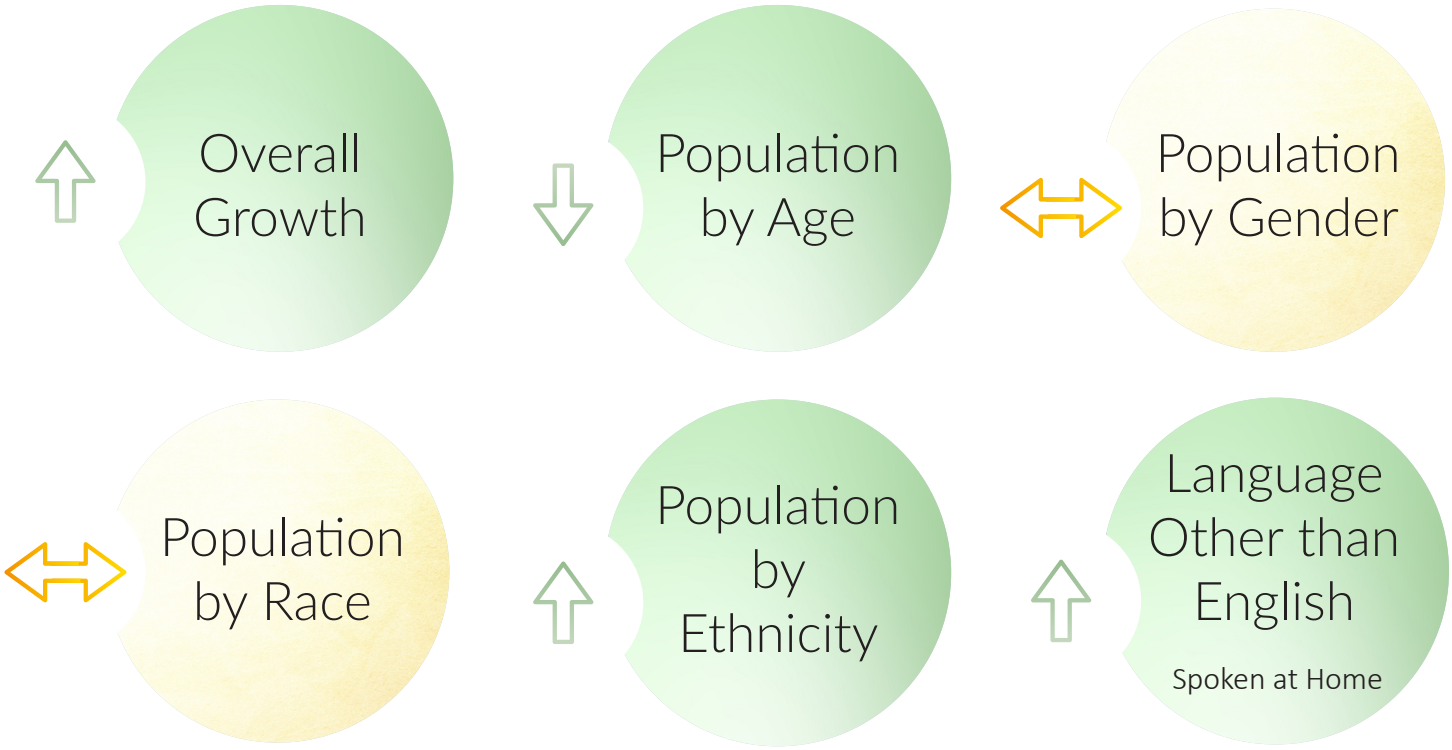
*Race/Ethnicity percentages add up to more than 100 percent because Hispanic or Latino individuals can also be White, Black or some other race.

Source: Strategy Solutions, Inc.

Demographics at a Glance

Figure 6.2 identifies individual demographic indicators and how they are changing. Red means that the indicator has worsened in at least three of the regional counties, yellow means that some counties are increasing and some are decreasing or rates have remained roughly equivalent, and green means that rates have improved in at least three of the regional counties since the most recent CHNA that data is available.

FIGURE 6.2: 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 above colored icons illustrate observed trends 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 (2000-2018)

According to the U.S. Census Bureau, the population has grown in every county in the four-county region from 2010 to 2018. As of 2018, Orange County (1,380,645) has the largest population within the four-county region which has increased from 1,148,593 in 2010. In 2018, Osceola County (367,990) had the smallest population in the four-county region increasing from 269,841 in 2010. Seminole County has had the lowest population growth in the four-county region increasing from 423,057 in 2010 to 467,832 in 2018. The population in Osceola County has increased from 269,841 in 2010 to 367,990 in 2018. (See Chart 6.1)

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 four-county region (Lake: 15.8 percent, Orange: 18.5 percent, Osceola: 19.7 percent and Seminole: 16.6 percent). Orange, Osceola and Seminole counties skew younger, while Lake County has a noticeably higher percentage of residents ages 65-74 (15.5 percent) than the other three counties. (See Chart 6.2)

POPULATION GROWTH BY AGE (2010-2040 ESTIMATED)

In the year 2040, when looking at population growth by age, residents ages 20-39 are still expected to make up the largest segment of the population. The year 2020 is expected to be the first since 2010 that there will be more youth residents than middle-aged residents: people ages 0-19 will outnumber those of ages 40-59. Across the four-county region, each age group is expected to experience an increase from 2010 to 2040, with the largest increases among those ages 0-19 (55 percent) and ages 75 and older (221 percent). (See Chart 6.3)

POPULATION BY GENDER (2019 ESTIMATED)

Across the four-county region there is a gender distribution that is nearly equal, with slightly more women than men. Orange (50.9 percent, 49.1 percent) and Osceola (50.9 percent, 49.1 percent) counties have less variation in gender distribution. Lake (51.6 percent, 48.4 percent) and Seminole (51.8 percent, 48.2 percent) counties most closely mirror the state (51.2 percent, 48.8 percent). (See Chart 6.4)

POPULATION BY RACE (2017)

When looking at population by race, the four-county region (Lake: 83.7 percent, Orange: 68.1 percent, Osceola: 79.5 percent, Seminole: 79.4 percent) and state (77.4 percent) were predominantly White. Orange County had the largest percentage of Black residents (22.8 percent). The largest percentage of Asian residents was in Orange County (5.7 percent). American Indian and Native Hawaiian each made up less than one percent in every county of the four-county region and the state as a whole. (See Chart 6.5)

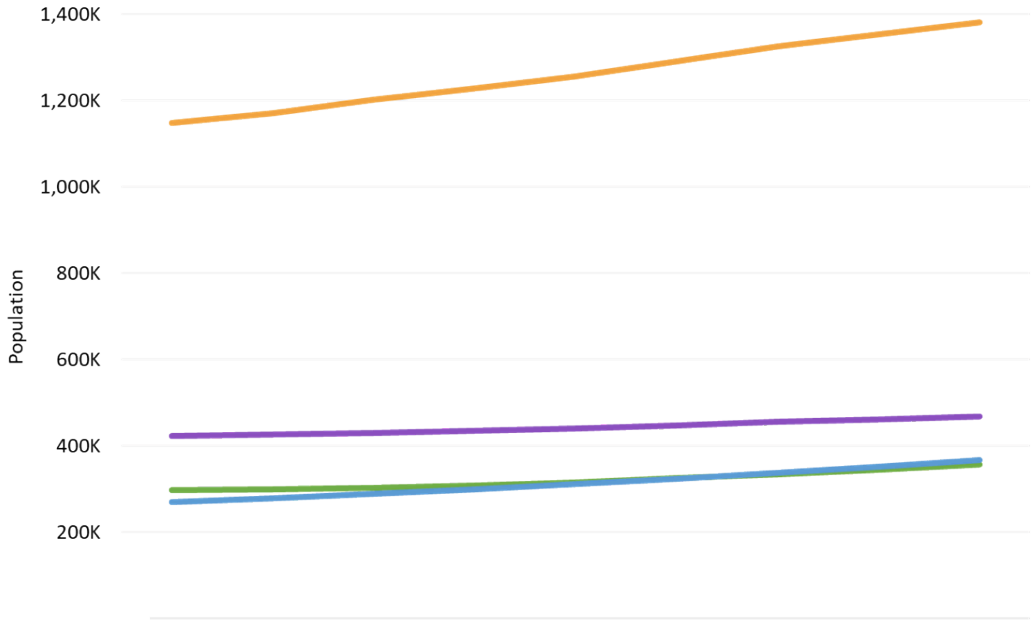
POPULATION BY ETHNICITY (2017)

Just over a quarter of Florida residents are Hispanic or Latino (25.6 percent). Over half (53.7 percent) of Osceola residents and almost one third (31.4 percent) of Orange County residents are Hispanic or Latino. Seminole (21.4 percent) and Lake (15.4 percent) counties are below the state rate of Hispanic or Latino residents. (See Chart 6.6)

LANGUAGE OTHER THAN ENGLISH SPOKEN AT HOME (2017)

Nearly half of those who live in Osceola County (49.6 percent) speak a language other than English at home. Orange County (35.3 percent) also has a higher proportion of residents speaking a language other than English at home compared to the state level of 28.7 percent. Lake County (13.7 percent) has the lowest percentage of residents who speak another language at home followed by Seminole County (21.1 percent). (See Chart 6.7)

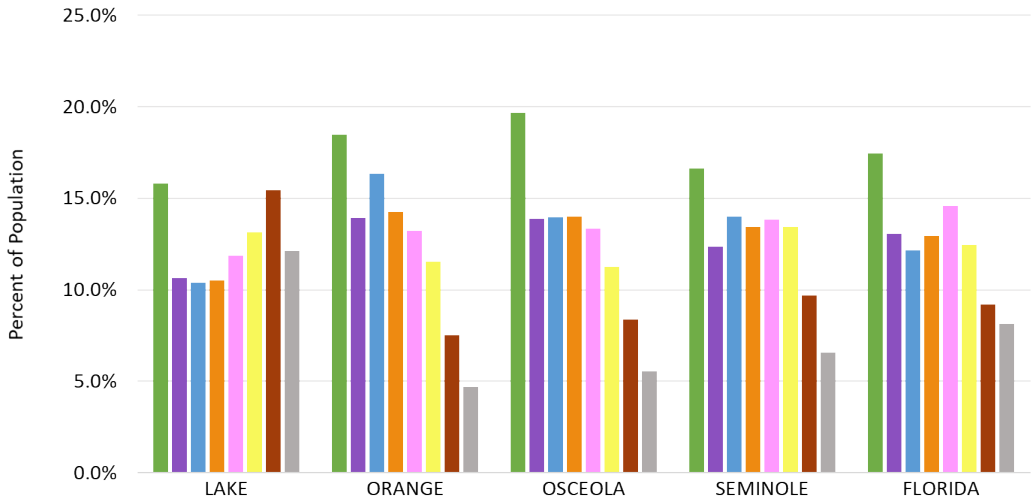
CHART 6.1: POPULATION GROWTH (2000–2018)



	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

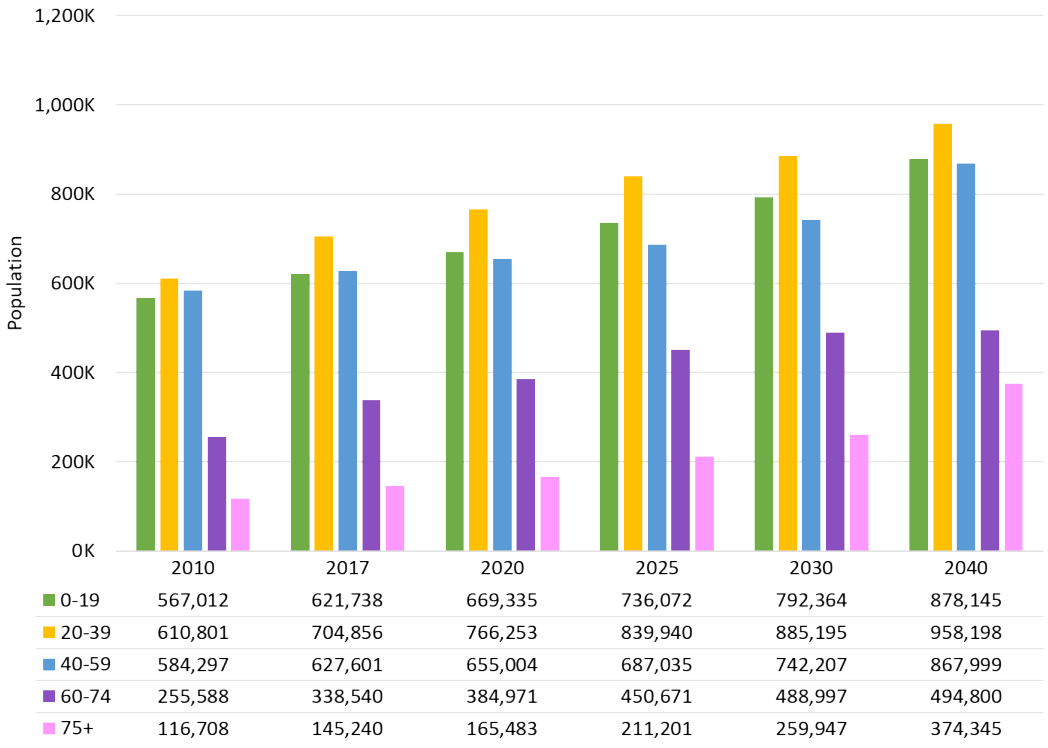
CHART 6.2: POPULATION BY AGE (2019 ESTIMATED)



	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

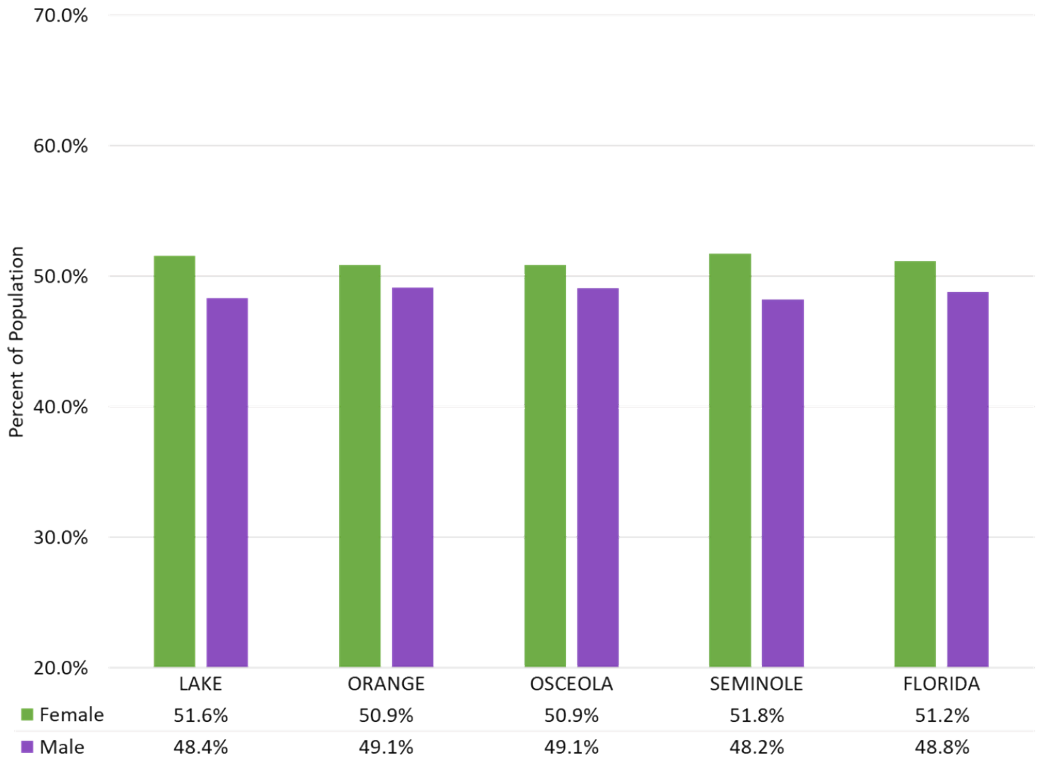
CHART 6.3: POPULATION GROWTH BY AGE (2010-2040 ESTIMATED)



	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

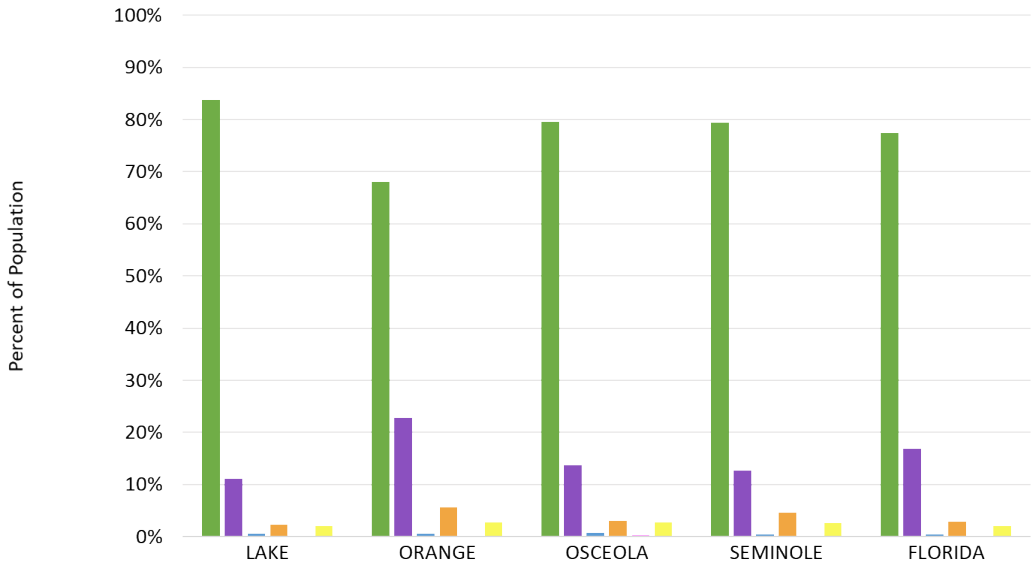
CHART 6.4: POPULATION BY GENDER (2019 ESTIMATED)



	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

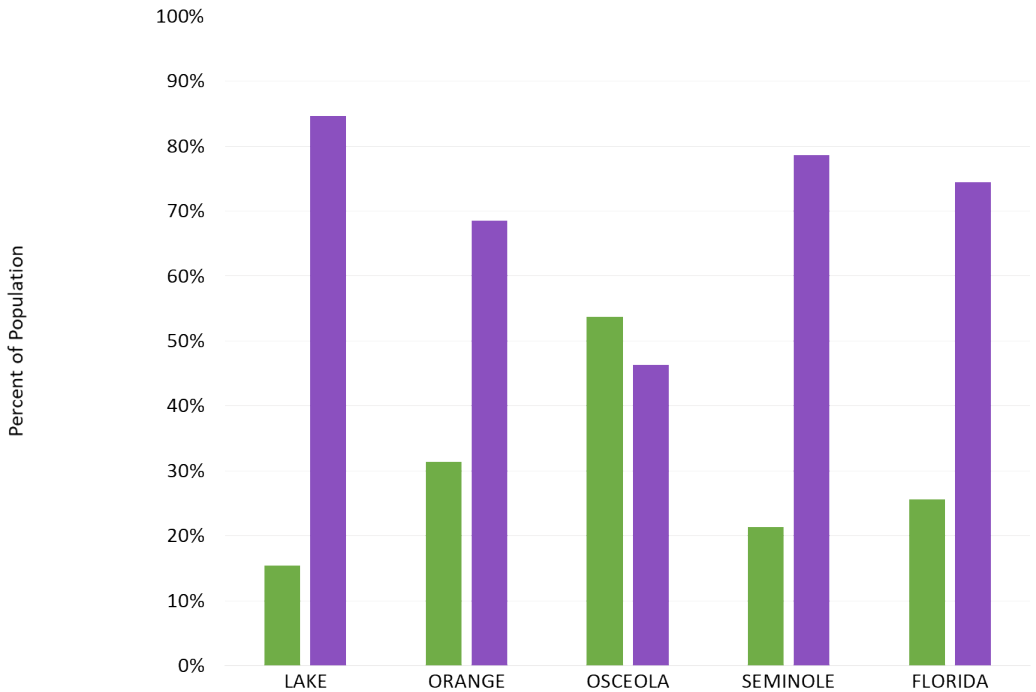
CHART 6.5: POPULATION BY RACE (2017)



	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

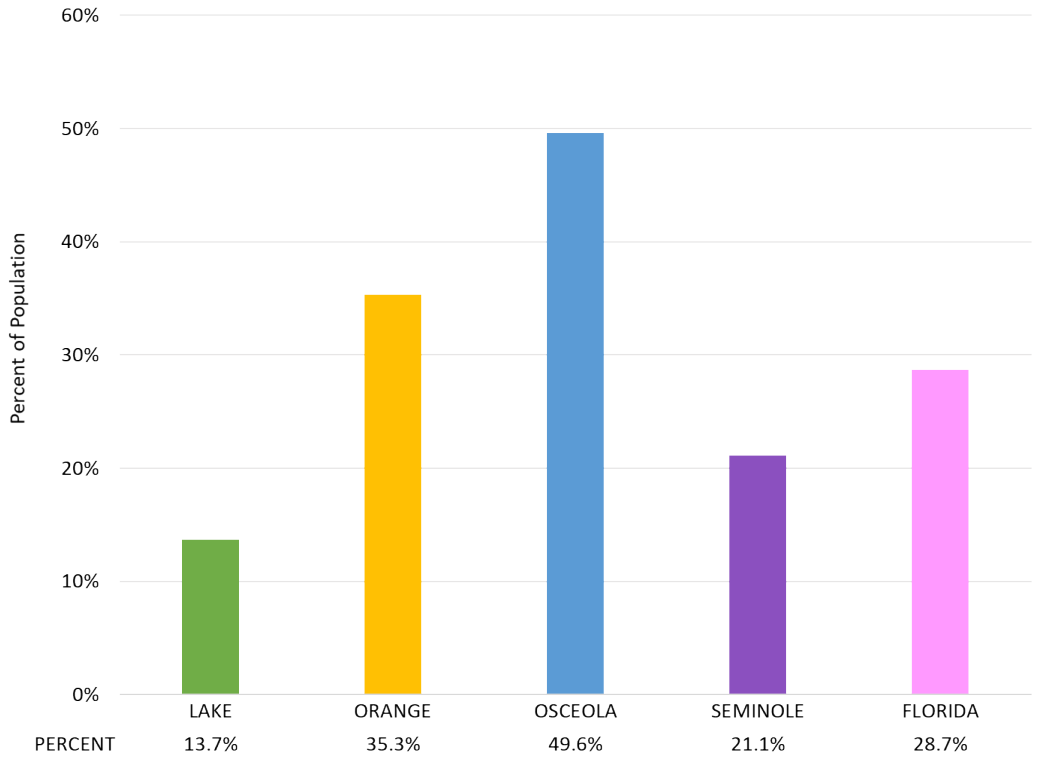
CHART 6.6: POPULATION BY ETHNICITY (2017)



	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 6.7: LANGUAGE OTHER THAN ENGLISH SPOKEN AT HOME (2017)

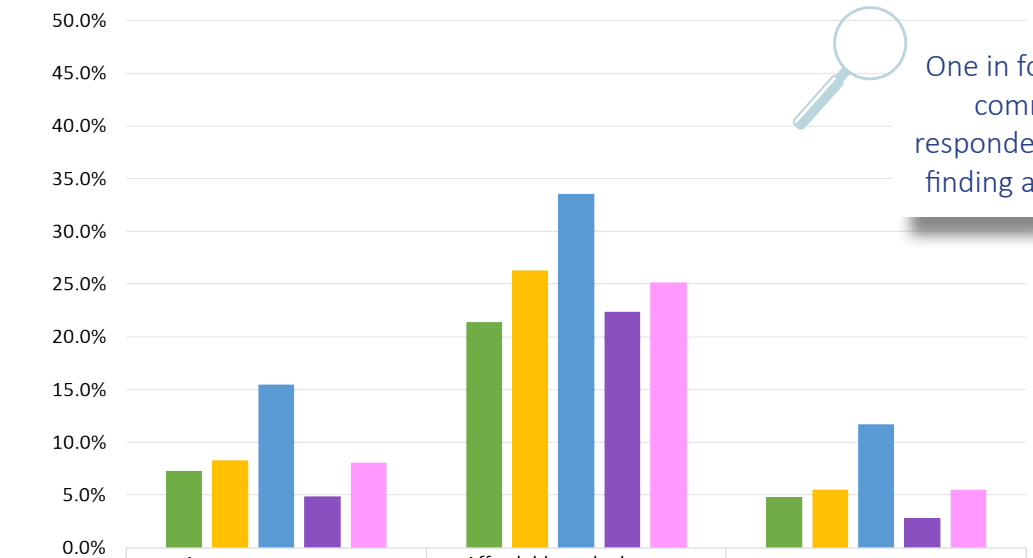


Source: Census Quick Facts

Economic Conditions: What the Community is Saying

Figure 6.3 illustrates the experiences of community survey respondents related to housing. While the percentages of residents experiencing challenges related to housing are greatest in Osceola County, between 4.9 and 15.5 percent of all respondents indicated that they have experienced challenges with access to an emergency shelter. Individuals struggling with homelessness is lowest in Seminole County (2.8 percent), but in the other counties, almost one in 20 survey respondents indicated that they have struggled with homelessness. Over one in five respondents across all counties have experienced the need for adequate and affordable housing.

FIGURE 6.3: 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%

One in four (25.2 percent) community survey respondents have problems finding affordable housing

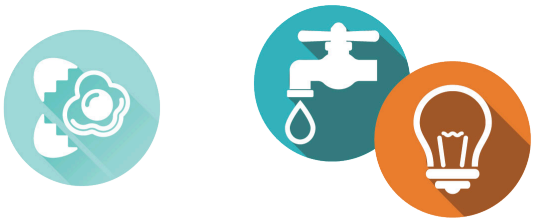
Source: Central Florida Community Collaborative Community Survey, Strategy Solutions, Inc.

Housing has been a major issue for every county in the four-county region. Participants in the primary data collection identified the following as community needs and issues related to housing:

- Homelessness
- Lack of affordable housing
- Lack of a single definition of homelessness
- Those homeless do not have access to resources to meet basic needs
- Homeless individuals rarely utilize or have access to preventative care
- Homeless individuals use emergency departments as their primary source of healthcare
- Low wages and high housing costs in the four-county region contribute to the likelihood of experiencing homelessness
- Untreated substance use and mental health conditions both contribute to the loss of wages that can lead to homelessness and make it difficult to secure housing

Figure 6.4 outlines some of the impacts of economic conditions identified by community survey respondents.

FIGURE 6.4: 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%

Respondents from Osceola County are more likely to be impacted by economic conditions than those from other counties.

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

Figure 6.5 outlines the percentages of community survey respondents that are struggling with employment-related needs and issues.

FIGURE 6.5: 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%

Over one in four community survey respondents have difficulty finding employment. Respondents from Osceola County struggle the most with employment opportunities.

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

Other community needs and issues related to economic conditions identified by the participants in the primary research included:

- Poverty
  - There are many jobs that don't offer insurance
  - Many people are living in poverty
  - People are living in debt
  - People have to work multiple jobs to survive; there is a lack of living wage jobs
  - Lack of insurance
- Financial literacy
  - Lack of financial literacy leads to lack of economic mobility and income inequality
- Health inequity
  - Health is not a focus for those living in poverty
- Transportation

Barriers to accessing needed services identified by primary research participants included:

- Lack of awareness of available services and resources
- Financial literacy
- Difficulty in navigating government programs
- Fear
- Restrictions on programs
- Low self-esteem/motivation

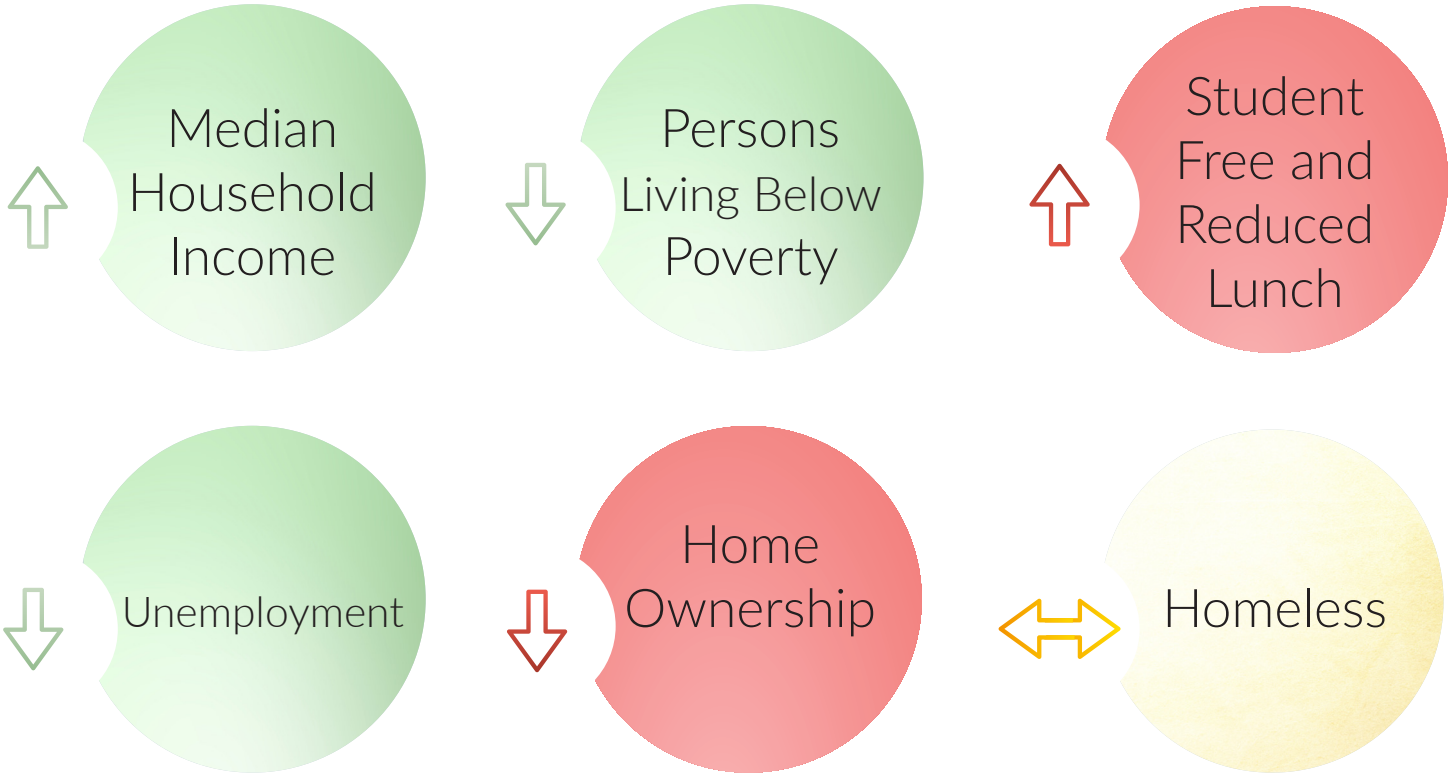
Needed services that were identified in the primary research included:

- Better collaboration among community agencies
- Housing
  - Quality, safe and affordable housing
  - A better plan to address homelessness
- Access to living wage jobs
  - Skills and job training
- Transportation
- Family reunification
- Access to legal documents
- Education
- Health navigator for the homeless

Economic Conditions at a Glance

The key indicators related to economic conditions that have changed since the last assessment are identified in Figure 6.6. Red means that the indicator has worsened in at least three of the regional counties, yellow means that some counties are increasing and some are decreasing or rates have remained roughly equivalent, and green means that rates have improved in at least three of the regional counties since the last CHNA.

FIGURE 6.6: 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 information on each indicator and provide a narrative of the data included in the charts/tables that follow.

MEDIAN HOUSEHOLD INCOME (2000-2017)

Seminole County consistently has a higher median household income than the other three counties in the four-county region and the state ($38,819 in 2000, $50,883 in 2017). Lake County has experienced consistent increases in median income since 2000 from $36,903 to $49,734 in 2017. The other three counties peaked in 2010 then slightly dropped in 2013, similar to the trend at the state level. Orange County's median household income grew from $50,138 in 2010 to $51,586 in 2017. Osceola County increased from $46,328 in 2010 to $47,343 in 2017 and Seminole County increased from $58,971 in 2010 to $60,739 in 2017. (See Chart 6.8)

PERSONS LIVING BELOW POVERTY LEVEL (2000-2017)

Every county in the four-county region has experienced an increase in the percentage of people living under the poverty line from 2000 to 2014. However, the rate decreased in all counties from 2014 to 2017. Orange County (15.3 percent) had the highest percentage in the four-county region in 2017 and is also higher than the state (14 percent). Lake (12.6 percent in 2017) and Seminole (11.2 percent in 2017) have consistently seen percentages below the state level. In 2017, Osceola County (14 percent) was equal to the state (14 percent). (See Chart 6.9)

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, Lake County (68.2 percent) had the highest percentage of free and reduced lunch in the four-county region and was higher than the state (58.8 percent). It is important to note that Lake County designated free lunch for all students of public schools in 2018. Seminole County (48 percent) had the lowest. In 2018, Orange (63.9 percent) and Osceola (63.3 percent) counties were also higher than the state. All counties in the four-county region have seen a net increase in the percentage of eligible students since 2014. (See Chart 6.10)

UNEMPLOYMENT RATE (2008-2018)

Every county in the four-county region has seen a consistent decrease in average unemployment from the high in 2010. Osceola County went from 12.5 percent in 2010 to a low of 3.6 percent in 2018. Orange and Seminole counties both had rates of 3.1 percent in 2018, which was below the state rate of 3.6 percent. Seminole County has consistently had the lowest average unemployment rate in recent years, while Osceola has had the highest. Lake County's rate peaked at 11.8 percent in 2010, then decreased to 3.4 percent in 2018. Orange County's rate peaked at 10.8 percent in 2010 then decreased to 3.1 percent in 2018. Seminole County's rate peaked at 10.6 percent in 2010 then declined to 3.1 percent in 2018. The 2018 rates for all counties in the four-county region were the lowest they have been in the past 10 years and were equal to or lower than the state rate. (See Chart 6.11)

HOMEOWNERSHIP RATES (2000-2017)

Lake County has consistently had the highest homeownership rates, but also experienced the largest decrease from 2000 to 2017, from 81.5 percent in 2000 to 73.5 percent in 2017. Seminole County also had homeownership rates higher than the state level for years 2010 to 2017, even though the Seminole County rate decreased from 69.5 percent in 2000 to 65.8 percent in 2017. Osceola County's rate decreased from 65.7 percent in 2000 to 60.4 percent in 2017. Orange County has consistently had the lowest homeownership rates in the four-county region, decreasing from 60.7 percent in 2000 to 54.5 percent in 2017. All counties have seen decreasing homeownership rates over the past 17 years. (See Chart 6.12)

COST BURDEN OF HOUSEHOLDS (2016)

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. Osceola County had the highest percentage in the four-county region of residents who are cost burdened (24.4 percent) or severely cost burdened (25.1 percent). Lake County had the lowest percentage of cost burdened (18.6 percent) and severely cost burdened (16.7 percent). In Orange County. 22.9 percent of residents were cost burdened and 23.7 percent were severely cost burdened. In Seminole County, 20.7 percent were cost burdened and 19.2 percent were severely cost burdened. (See Chart 6.13 and Figure 6.7)

HOMEOWNER COST BURDEN (2016)

Homeowners are less likely to be burdened by the cost of their home than renters. Seminole County homeowners, with 65.7 percent not cost burdened, nearly mirror the state level (65.1 percent). In 2016, Lake County homeowners were the least cost burdened at 71 percent of the population. Osceola County experiences the most cost burden with only 56.5 percent not cost burdened. In Orange County 62.2 percent of residents were not cost burdened. (See Chart 6.14)

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

Osceola (32.5 percent) and Orange (28.7 percent) counties have high percentages of residents who spend more than 50 percent of their household income on rent. In every county within the four-county region and at the state level, more than half of the residents spend more than 30 percent of their income on rent. Residents in Seminole County spend the least with 48.5 percent paying less than 30 percent of their income on rent. Lake County has the highest percentage paying between 30-49.9 percent of their income on rent (29.4 percent). (See Chart 6.15)

COST BURDEN EXPERIENCED BY RENTER HOUSEHOLDS (2016)

Seminole County residents are the least cost burdened in the four-county region, with almost half of their residents (48.6 percent) not cost burdened followed by Lake County (43.9 percent). Osceola County had the highest levels of cost burden among its renters with only 39.4 percent not cost burdened. Approximately one-third of residents in Orange County are severely cost burdened (32.7 percent). (See Chart 6.16 and Figure 6.8)

HOMELESS INDIVIDUALS BY COUNTY (2010-2018)

The number of homeless individuals has fluctuated in the four-county region. In 2018, Orange County still had the highest number of homeless individuals in the four-county region, reporting 1,539 homeless in 2018. Lake County reported 312 homeless in 2018, while Osceola County reported 226, and Seminole County reported 288 during that year. (See Table 6.5)

INCOME INEQUALITY (2018)

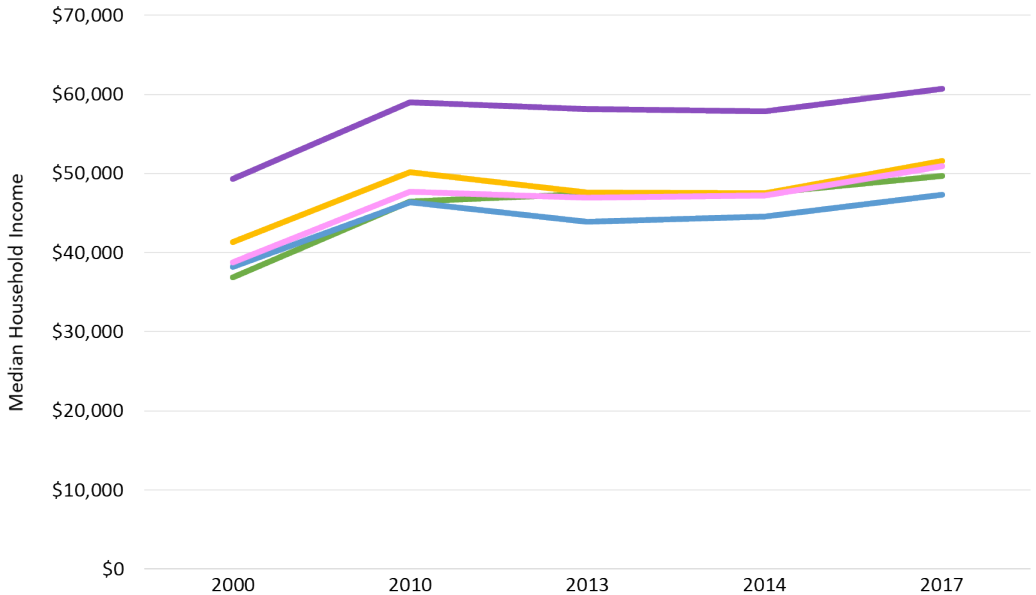
Income inequality refers to the uneven distribution of income across a population. One measure of income inequality involves generating percentiles for household income. Then, the income (in dollars) at the 20th and 80th percentiles are used to generate a ratio; the higher the ratio, the higher the income inequality. The ratio in the four-county region is lower than the state (4.7), indicating a more equal distribution of income. Lake and Osceola counties have the lowest level of income inequality in the four-county region with a ratio of 4.1; Orange County had the highest level of income inequality (4.6) followed by Seminole County (4.4). (See Chart 6.17)

Economic Conditions: Key Findings

There are many positive aspects of the economic conditions in the four-county region, including numerous demographic and economic indicators that have improved over the past few years. However, in spite of the regional economic growth, there are concentrated areas of poverty that remain in every county that limits access to care and other beneficial services to vulnerable populations. These vulnerable populations include, but are not limited to, households and families in poverty, those who must work multiple jobs to make ends meet and those who do not have health insurance. Even those considered “middle class” may struggle, including those with access to care and resources, because their incomes preclude them from qualifying for supportive services that others with slightly lower incomes may be able to access.

These groups need education, job training, navigation and coordination assistance, as well as access to other resources to help them address the SDOH that are impacting their lives.

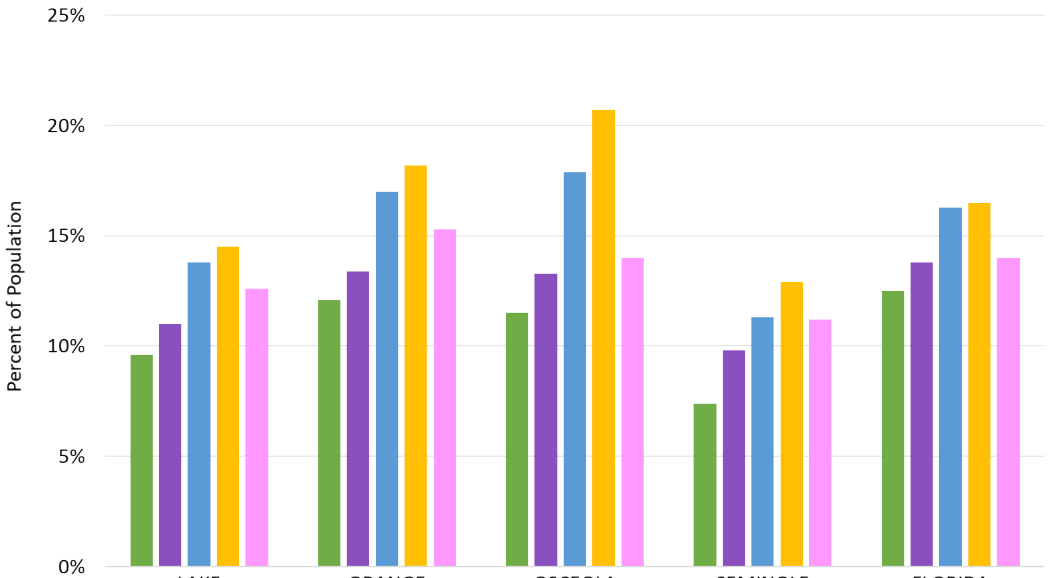
CHART 6.8: MEDIAN HOUSEHOLD INCOME (2000-2017)



	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

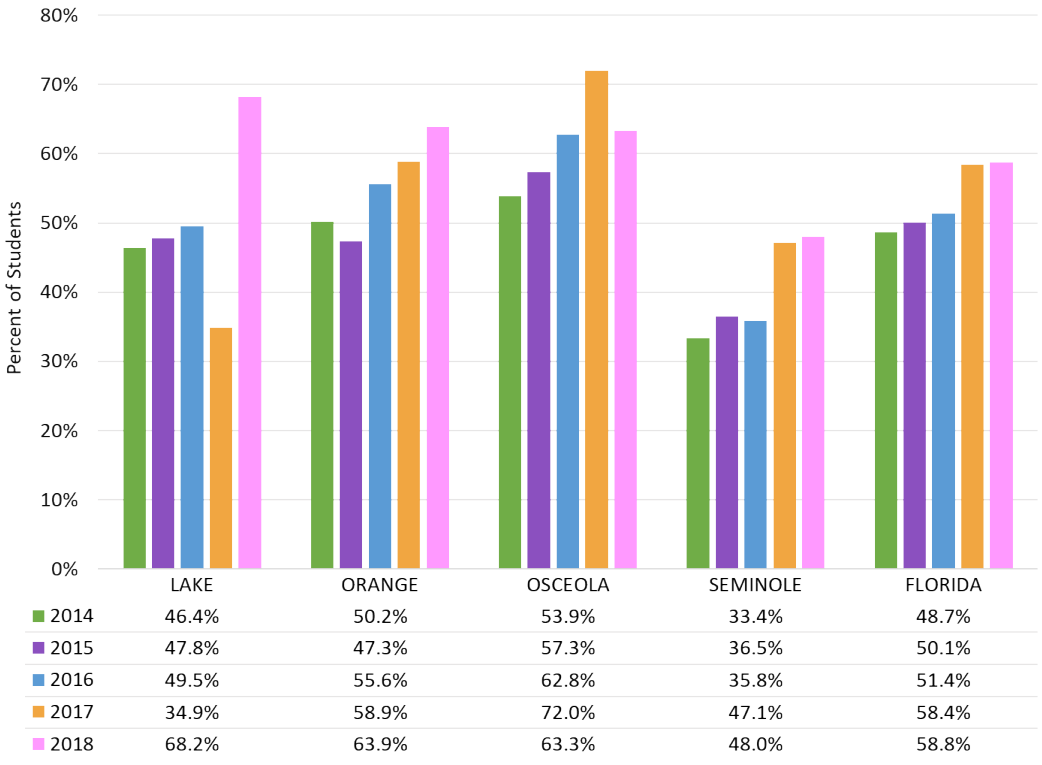
CHART 6.9: PERSONS LIVING BELOW POVERTY LEVEL (2000-2017)



	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

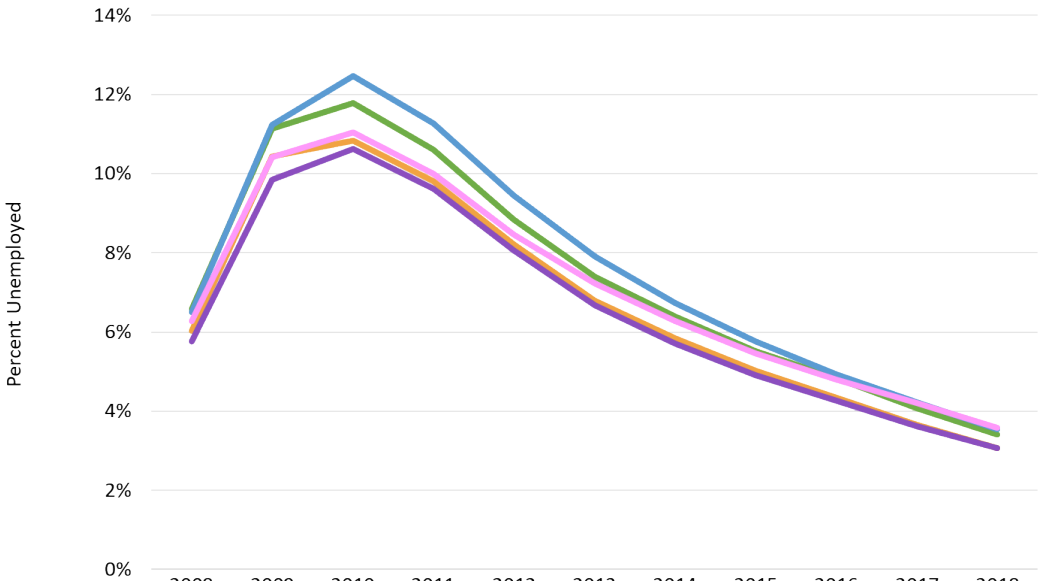
CHART 6.10: STUDENTS RECEIVING FREE & REDUCED LUNCH (2014-2018)



	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

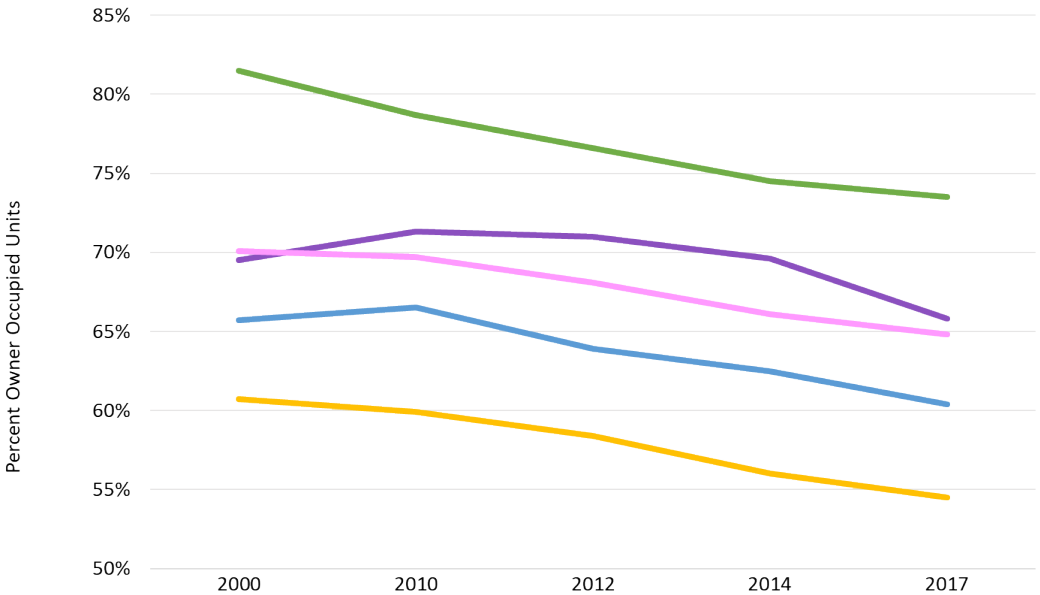
CHART 6.11: UNEMPLOYMENT RATE (2008–2018)



	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

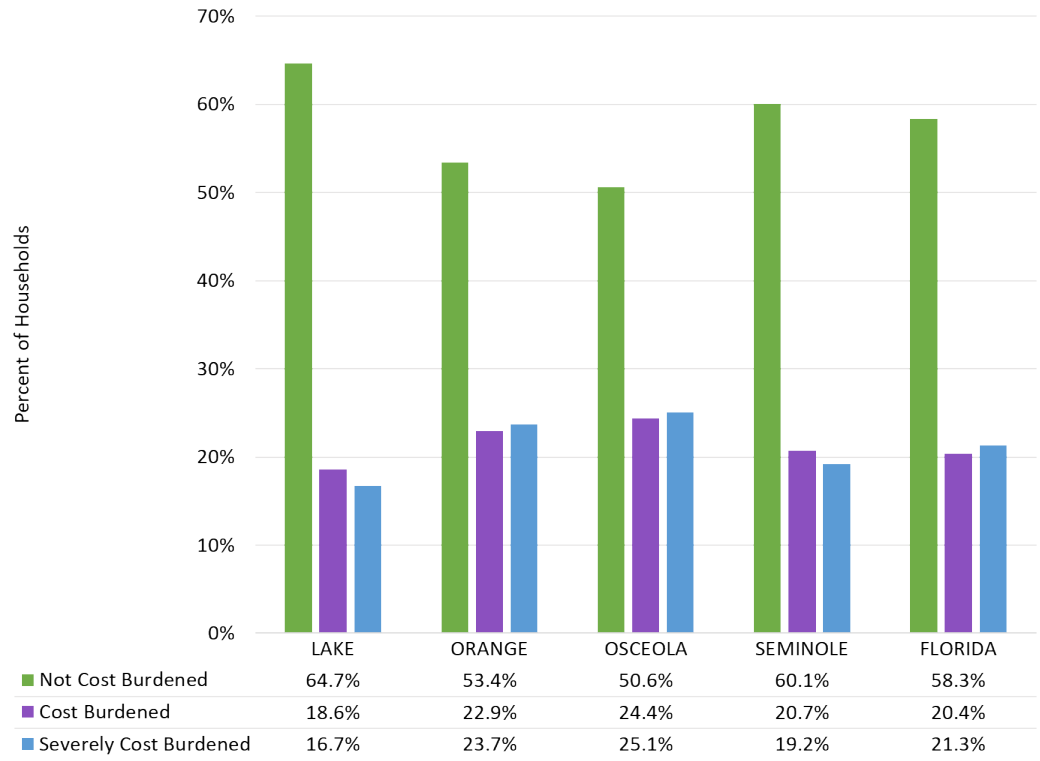
CHART 6.12: HOMEOWNERSHIP RATES (2000–2017)



	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 6.13: 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 6.7: HOMEOWNER COST BURDEN MAP (2013-2017)

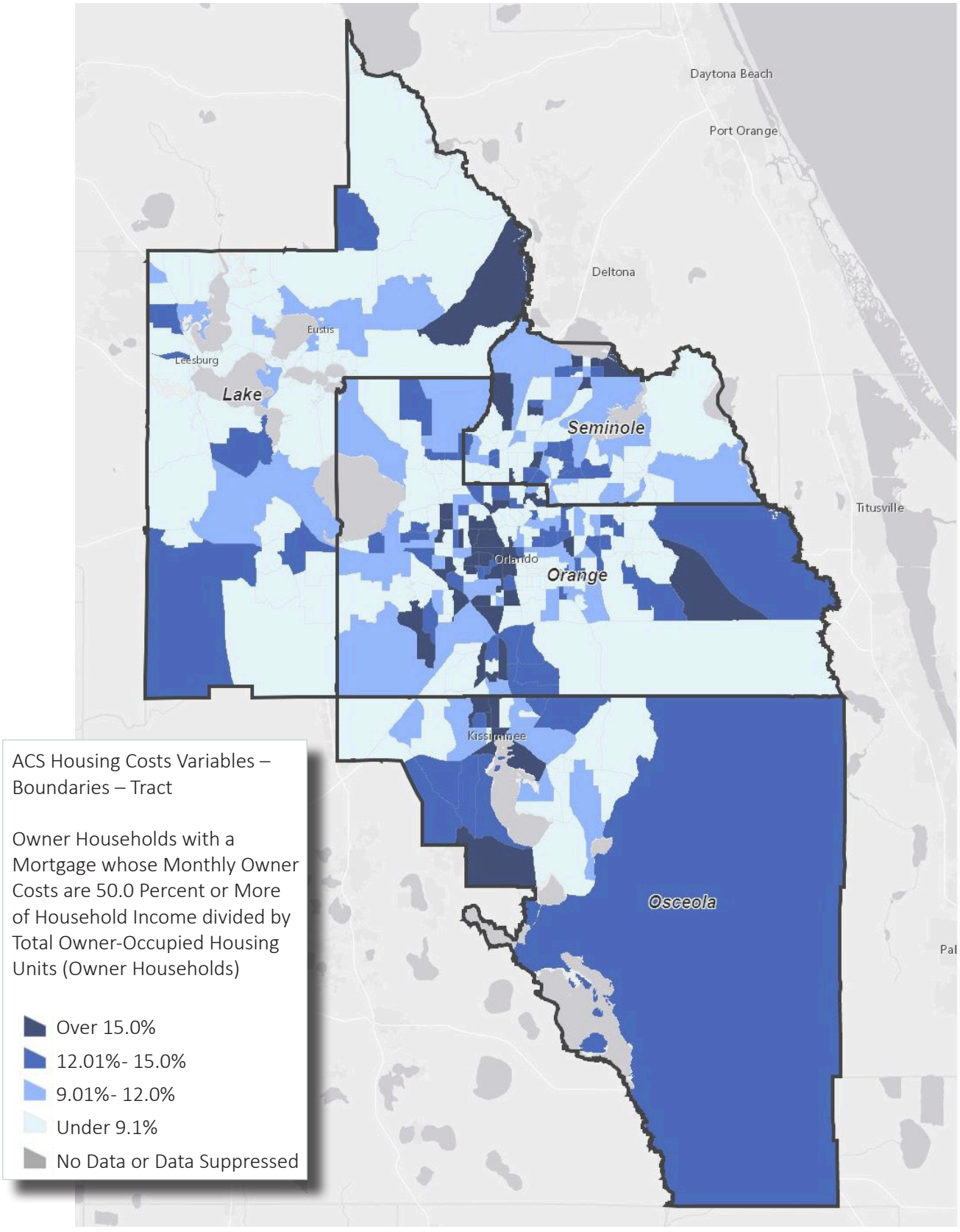
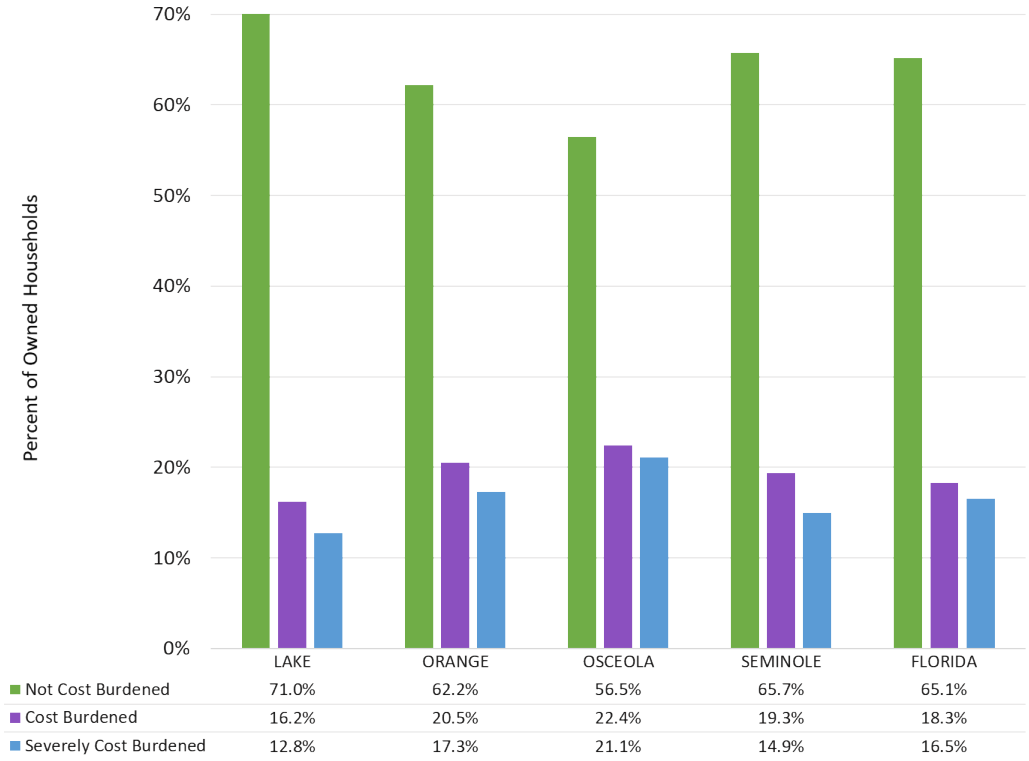


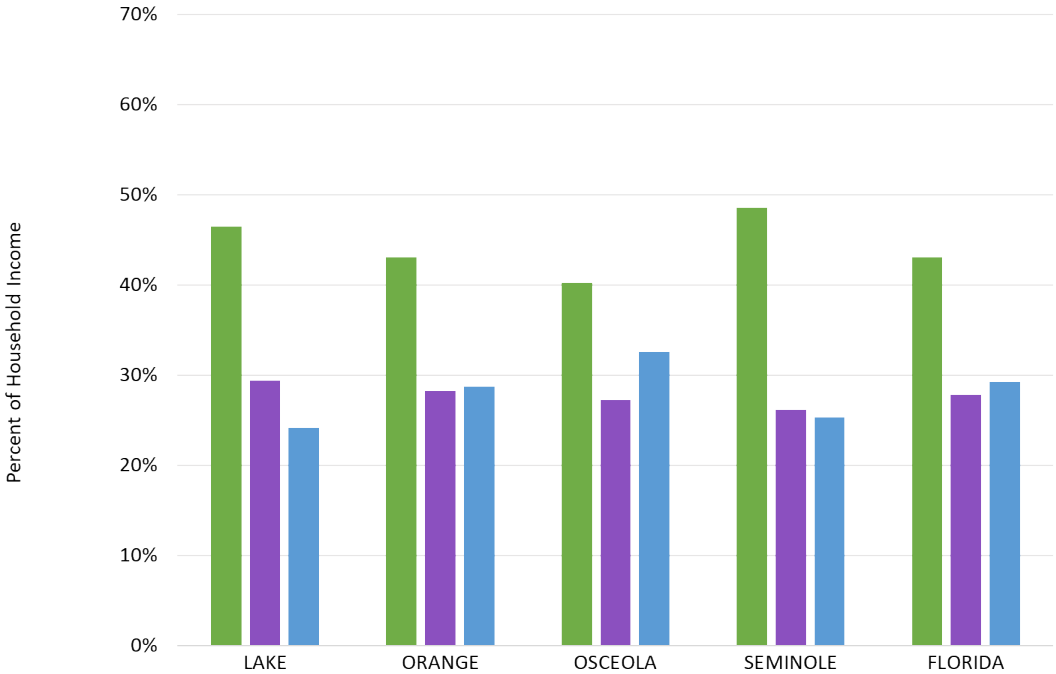
CHART 6.14: HOMEOWNER COST BURDEN (2016)



	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

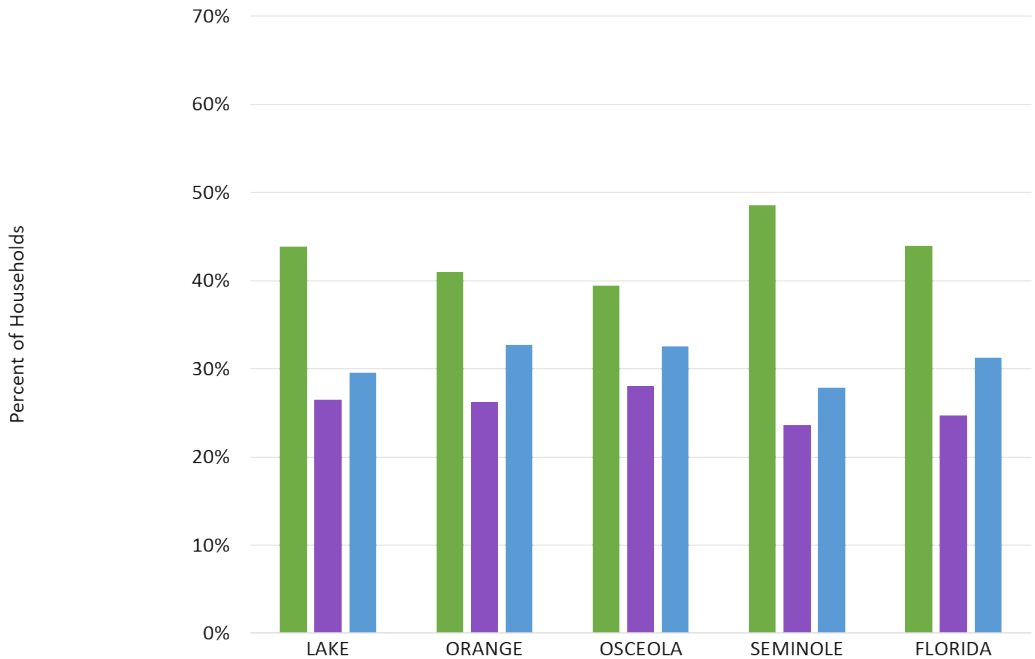
CHART 6.15: GROSS RENT AS A PERCENT OF INCOME- 5-YEAR ESTIMATES (2016)



	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

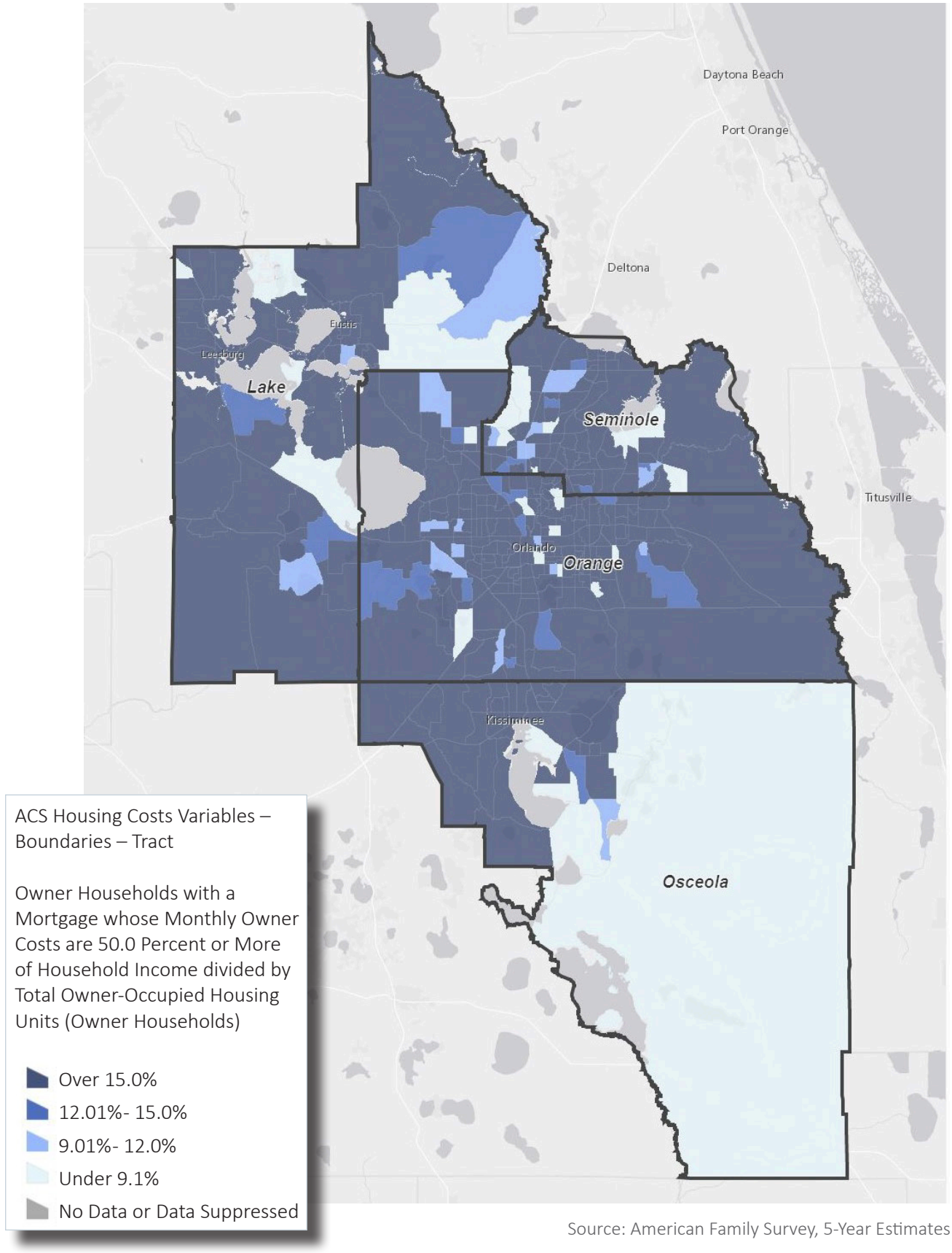
CHART 6.16: COST BURDEN EXPERIENCED BY RENTER HOUSEHOLDS (2016)



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



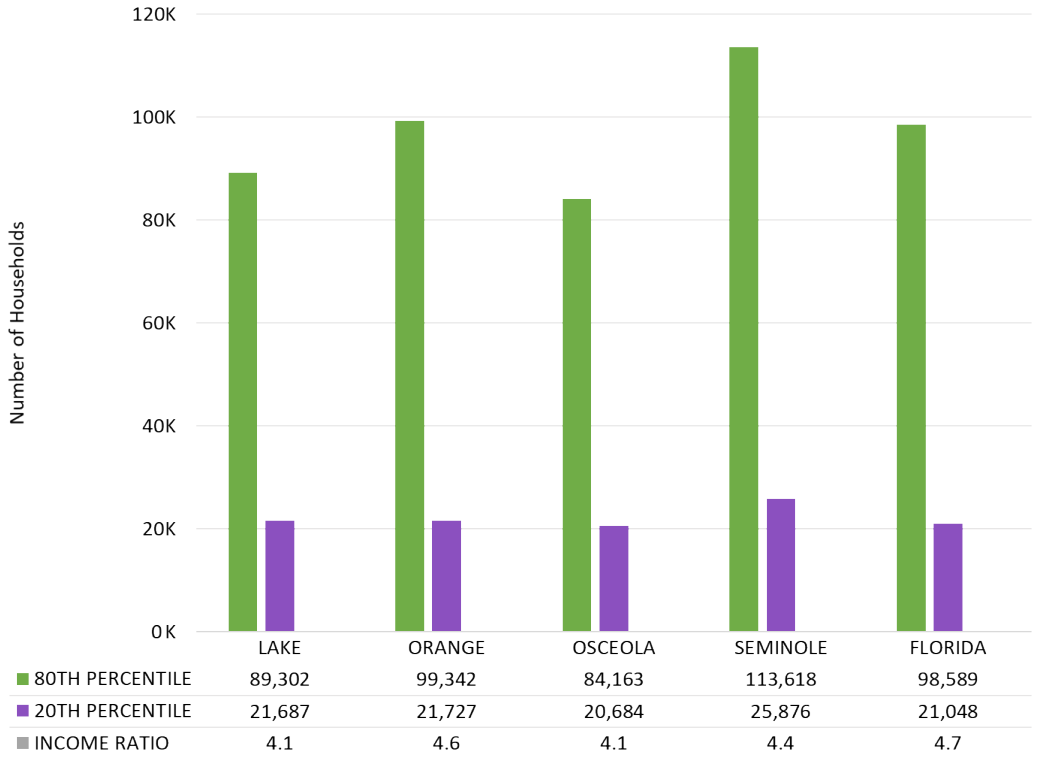
Source: American Family Survey, 5-Year Estimates

TABLE 6.5: 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 6.17: INCOME INEQUALITY (2018)



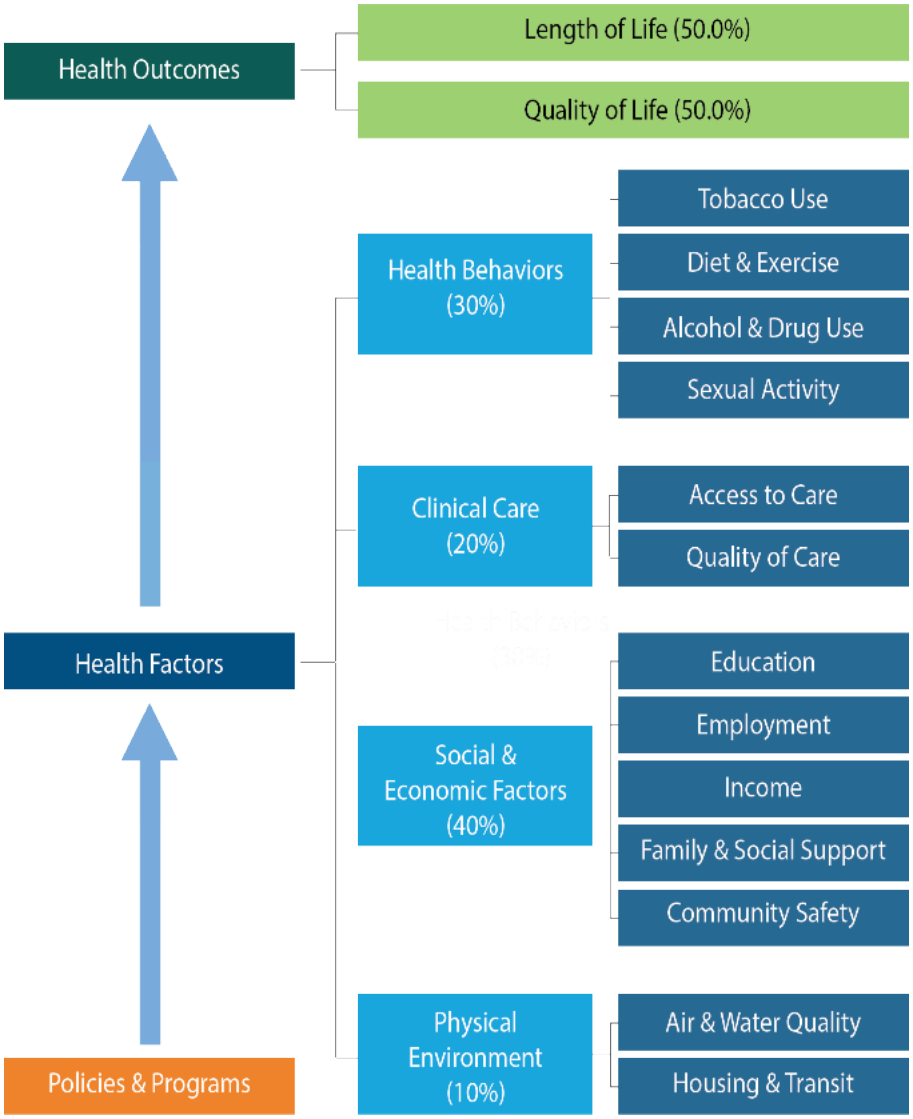
Source: Florida Housing Data, Shimberg Center

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 (weighted at 30 percent), clinical care (20 percent), social and economic factors (40 percent) and physical environment (10 percent). The model is outlined in Figure 6.9. This model outlines how numerical rankings are determined. All 67 counties in Florida receive rankings.

FIGURE 6.9: COUNTY HEALTH RANKINGS



Source: County Health Rankings and Roadmaps

To assess changes in the four-county region since the 2016 needs assessment, Table 6.6 includes data from 2016 and 2018. When looking at all of identified health outcomes and factors identified by County Health Rankings, Seminole County leads the way in the four-county region by far as the fourth and fifth best respectively in the state.

Lake and Orange counties are in the top 30 percent of the state for both outcomes and factors. Osceola was in the top half of the state for both outcomes and factors.

When the components of health outcomes are broken down, Seminole County was second in the state in social & economic factors, fifth in the state for resident length of life and eighth in quality of life. While Seminole County continues to be the standout of the four-county region in several key measures, the county falls behind in measures of the physical environment (55th). Osceola County ranks eighth in length of life and 18th for health behaviors. All regional counties rank in the bottom third of Florida counties related to the physical environment. (See Table 6.7)

TABLE 6.6: CENTRAL FLORIDA COUNTY HEALTH RANKINGS 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 6.7: HEALTH OUTCOME/FACTOR RANKINGS 2018

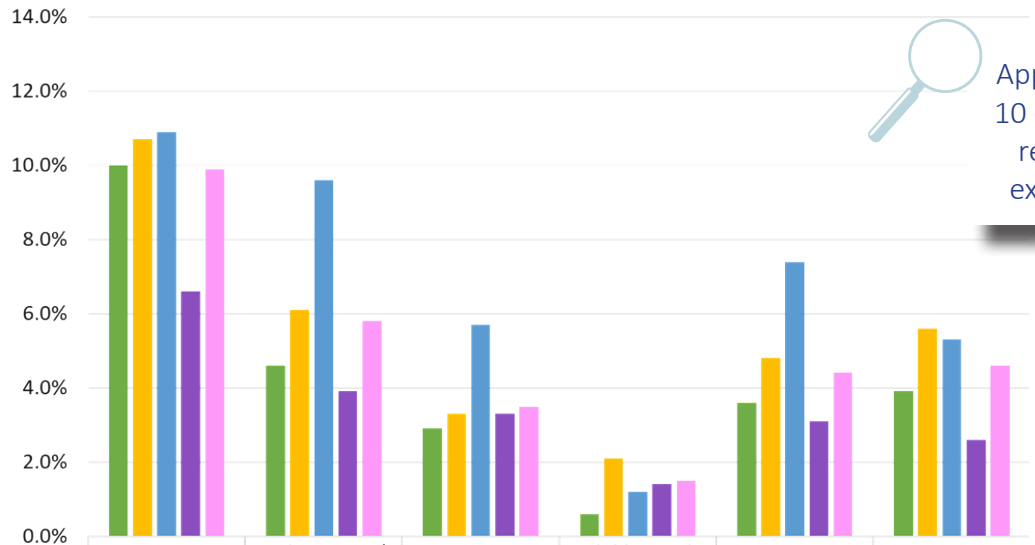
County	Length of Life	Quality of Life	Health Behavior	Clinical Care	Social & Economic Factors	Physical Environment
Lake	26	20	21	12	21	51
Orange	7	28	13	23	18	48
Osceola	8	51	18	48	26	65
Seminole	5	8	10	5	2	55

Source: County Health Rankings and Roadmaps

School and Student Characteristics: What the Community is Saying

Figure 6.10 illustrates the experience of the community survey respondents related to crime and delinquency. Approximately one in 10 respondents indicated that they have experienced crime. Respondents from Osceola County are more likely to have experienced crime, delinquency/youth crime, domestic violence and violence.

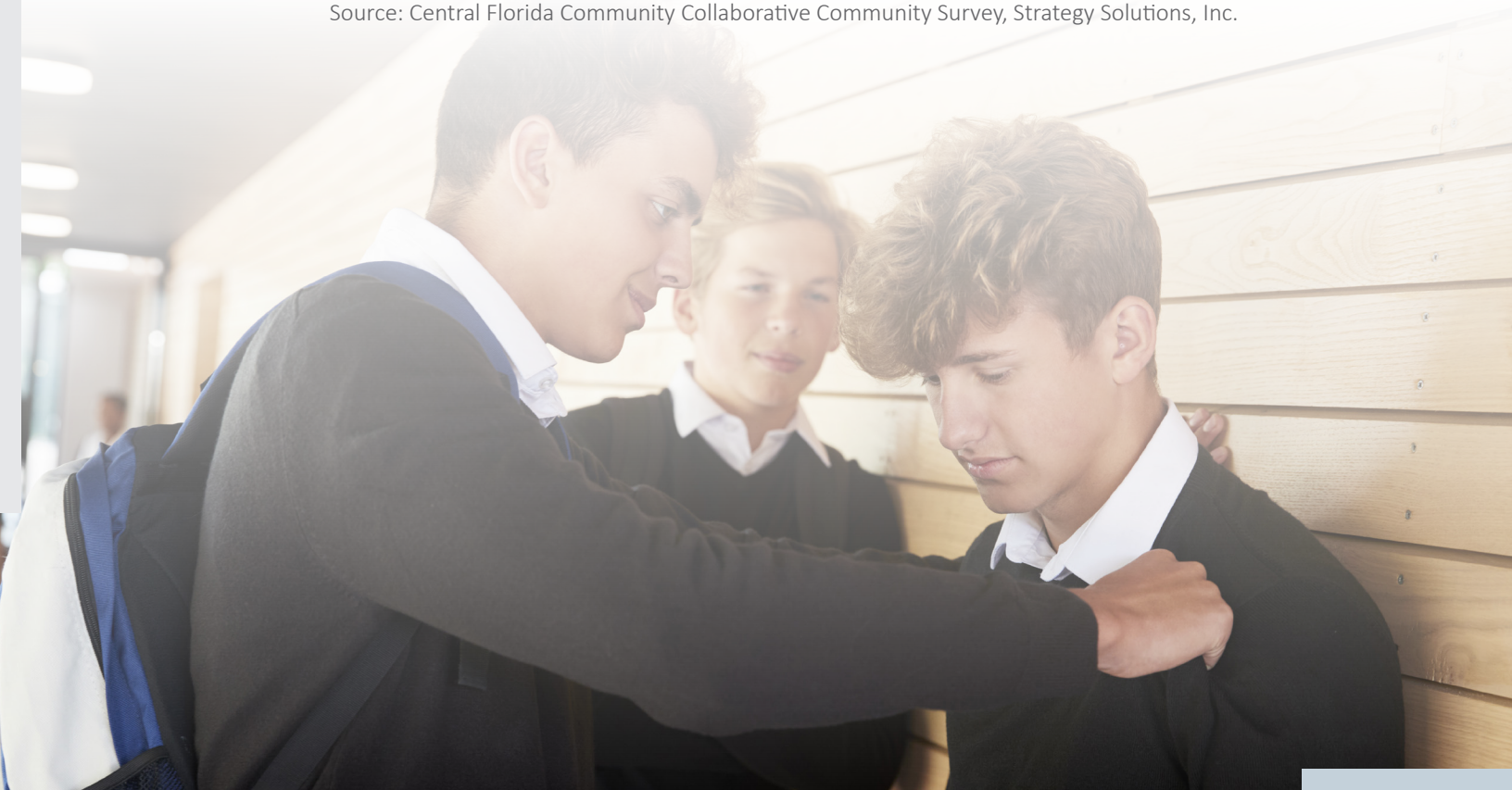
FIGURE 6.10: CRIME AND DELINQUENCY EXPERIENCE, COMMUNITY SURVEY 2019



	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%	5.8%	3.5%	1.5%	4.4%	4.6%

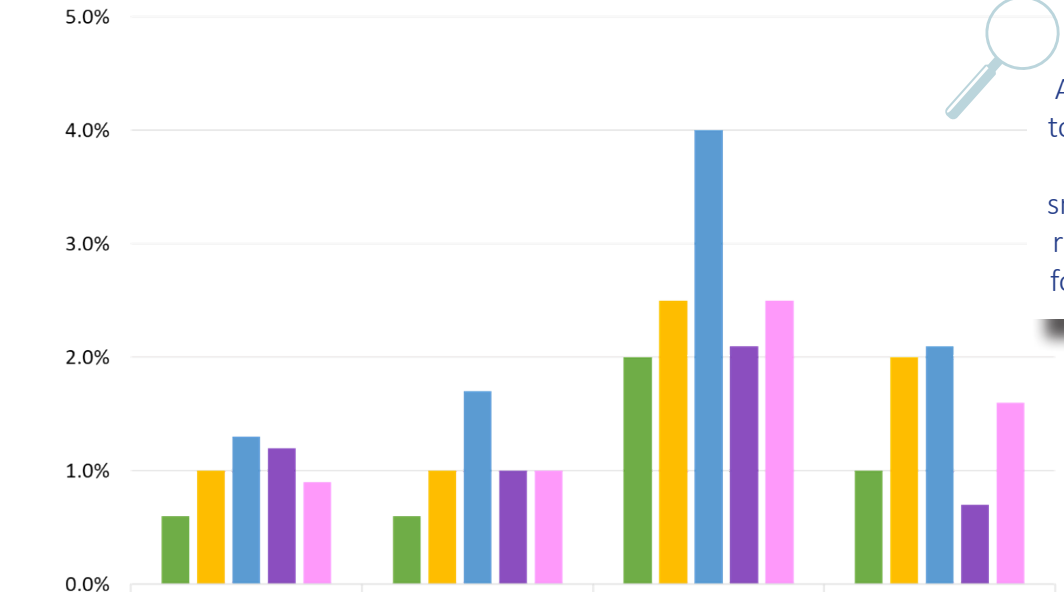
Approximately one in 10 community survey respondents have experienced crime.

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



Only a small percentage of community survey respondents indicated that they have experienced child abuse or neglect-related issues. These are outlined in Figure 6.11.

FIGURE 6.11: 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%

Abuse and neglect toward children are experienced by a small percentage of respondents in the four-county region.

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

Primary research participants in the focus groups, stakeholder interviews, key informant surveys and intercept surveys identified the following needs and issues related to school and student characteristics:

- Violence
  - Domestic violence
  - Surge of violence in emergency department as a result of mental health or substance use
  - Need prevention programs regarding crime and safety issues
  - Neighborhood safety
  - Children's safety, school shootings and gun safety
  - Bullying
  - School violence
- Sex trafficking/human trafficking
- Trauma
  - ACEs (Adverse Childhood Experiences) and the impact of parental stress on a child
  - Education
- Lack of quality childcare/education from birth
- Food insecurity
  - Lack of nutritious meals served in school
  - Access to healthy food
- Substance Use
  - Kids are self-medicating

Needs and issues related to school and student characteristics (Continued):

- Homelessness
  - Many students/teens are homeless
- Parenting
  - Grandparents raising grandchildren/lack of parental involvement
  - Planned parenting programs can be understaffed – youth need a place to go for resources
- Obesity
- Access to primary care

Barriers that students are facing identified by primary research participants included:

- Poverty
  - Parents lack living wages
  - Employment status of parents
  - Stressors on families
  - Unequal education among races
  - Cost of childcare
- Food insecurity
  - Healthy food is hard to access or unaffordable
- Housing
  - Lack of stable housing; too many children living in motels
- Transportation
  - Lack of safe mobility options
  - Lack of transportation
- Access to care
  - Not enough pediatricians accept Medicaid
  - Lack of adequate insurance
  - Lack of preventive care
  - Disconnect between the school and behavioral health provider to ensure consistency in services
  - Lack of education on gender identity
- Physical activity
  - Lack of safe places to play

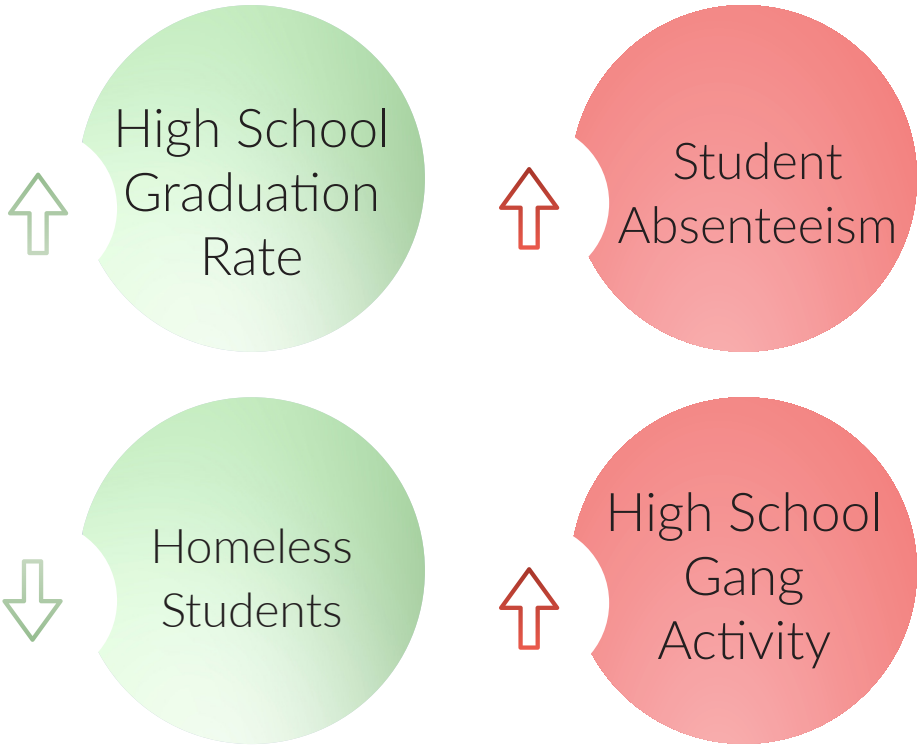
Needed services identified by primary research participants included:

- Education
  - Quality childcare programs that are prepping kids for school and have extended hours
  - Trauma-informed practices into the schools
  - Education for students on what it means to be healthy
  - Commitment from public schools to ensure that students who aren't going to college are going into a certification program, military service or some advanced skills training
  - Sexually transmitted disease awareness education in school
- Food
  - Better food options
- Teen clinics
- Housing
  - Specialty shelter, more shelters
  - Affordable housing
  - Affordable and accessible youth programs
  - Affordable respite for families
  - Better plan for homeless teens
- Access to care
  - Focus on health of our youth, including dental and vaccinations
  - More insurance coverage for kids
  - Behavioral health care, specifically crisis care
  - More pediatricians and behavioral health specialists
- Physical activity
  - Safe outdoor spaces for recreation and exercise
- Jobs
  - Livable wages

School and Student Demographic Characteristics at a Glance

The key indicators related to school and student demographic characteristics that have changed since the last assessment data is available for are identified in Figure 6.12. Red means that the indicator has worsened in at least three of the regional counties, yellow means that some counties are increasing, and some are decreasing, or rates have remained roughly equivalent, and green means that rates have improved in at least three of the regional counties since the last CHNA.

FIGURE 6.12: 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 information on each indicator and provide a narrative of the data included in the charts/tables that follow.

STUDENT RACE/ETHNICITY BY PERCENT (2017)

The majority of students in Lake (76.7 percent), Seminole (74.8 percent) and Osceola (76.9 percent) counties are White. Approximately 15 percent of students in Lake, Osceola and Seminole counties and over 25 percent of the students in Orange County are Black. Approximately one fourth of the students in Lake County (23.4 percent) and Seminole County (24.7 percent) and over half of the students in Osceola County (59.6 percent) are Hispanic. Orange County had a more diverse student population, with two-thirds of their students identifying as White (62.5 percent), over one-fourth Black (27.1 percent), and nearly 35 percent Hispanic. Seminole County had the lowest percentage of Black (14.8 percent) students. It should be noted that by measuring race and ethnicity separately, the percentages will total 200 percent instead of 100 percent. The reader should be mindful that students may identify as White or Black racially and also be Hispanic. (See Chart 6.18)

STUDENT RACE/ETHNICITY BY NUMBER (2017)

In 2017, Orange County had the largest number of White (145,466), Black (63,086), Hispanic (82,894) and Non-Hispanic (149,729) students in the four-county region as they have the largest overall resident population of the four counties. Conversely, Lake County has the lowest number of White (39,445), Black (7,838), Hispanic (12,029) and Non-Hispanic (39,407) students in the four-county region. The Osceola County student population consisted of White (50,927), Black (10,168), Hispanic (39,473) and Non-Hispanic (26,732) students. The Seminole County student population consisted of White (57,876), Black (11,460), Hispanic (19,095) and Non-Hispanic (58,252) students. (See Chart 6.19)

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

Orange, Osceola and Seminole counties have all seen at least a four percent increase in graduation rates since the 2012-2013 school year. Lake County experienced almost a three percent decrease from 2012-2013 to 2013-2014 and dropped again in the 2014-2015 school year. Lake County's graduation rate then increased in 2015-2016, and dropped slightly in 2016-2017. Seminole County had the highest graduation rate at 88.6 percent, more than six percent higher than the state average. In 2016-2017, the graduation rate in Osceola County (86.3 percent) was also above the state average (82.3 percent) by four percent. Orange County increased from 75.9 percent in 2012-2013 to 84.7 percent in 2016-2017. (See Chart 6.20)

STUDENT ABSENTEEISM (2013-2014/2017-2018)

The percentage of students in each regional county who were absent 21 or more days during the school year in 2017-2018 included: Lake (13.4 percent), Orange (12.6 percent) and Osceola (12.7 percent). These counties have percentages higher than the state average (11.3 percent). Seminole County had the lowest absentee percentage (7.5 percent). All rates have increased since 2013-2014. (See Chart 6.21)

HOMELESS STUDENTS (2012-2013/2016-2017)

Between the 2012-2013 (four percent) and 2013-2014 (eight percent) school years, the percentage of homeless students in Osceola County doubled, before dropping to 4.8 percent in 2016-2017. Seminole County's percentage decreased slightly and in 2016-2017 (2.1 percent) was now comparable with the state (2.5 percent). Orange (2.8 percent) and Lake (5.2 percent) counties also experienced a decrease in the last few school years, although the rates were higher than the state average (2.5 percent). (See Chart 6.22)

HIGH SCHOOL GANG ACTIVITY (2014/2017)

In 2017, the four-county region (Lake: 2.3 percent, Orange: 1.8 percent, Osceola: 2.7 percent, Seminole: 2.8 percent) had high school gang activity rates that were lower than the state rate of three percent. However, all counties and the state saw an increase from 2014 to 2017 with the exception of Orange County. (See Chart 6.23)

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

When looking at the four-county region, students in Orange County (5,026.9 in 2016) have consistently had a much higher youth arrest rate than the state (3,762.9 in 2016), while Seminole County (2,791.2 in 2016) has had a consistently lower rate. Lake County's rate increased slightly between 2015 and 2016 from 3,763.3 to 3,846 per 100,000 students. Osceola County has had the steepest decrease in arrests (5,470.7 in 2012 to 3,092.4 in 2016). (See Chart 6.24)

BULLYING PREVALENCE K-12 (2018)

More than half of all students in the four-county region admitted that they had taunted or teased another student. Lake County had the highest percentage of students who have taunted or teased at 60.4 percent, while Osceola County had the lowest (53.5 percent), slightly lower than the state rate of 56 percent. Additionally, almost one in 10 students have skipped school because of bullying in the four-county region, with Lake County having the highest individual county rate (9.9 percent). Orange County had the lowest rate of skipping school due to bullying (6.7 percent). Lake County also had the highest rates of ever being a victim of cyberbullying (28.5 percent) and verbally bullying others (30 percent). (See Chart 6.25)

School and Student Chacteristics: Key Findings

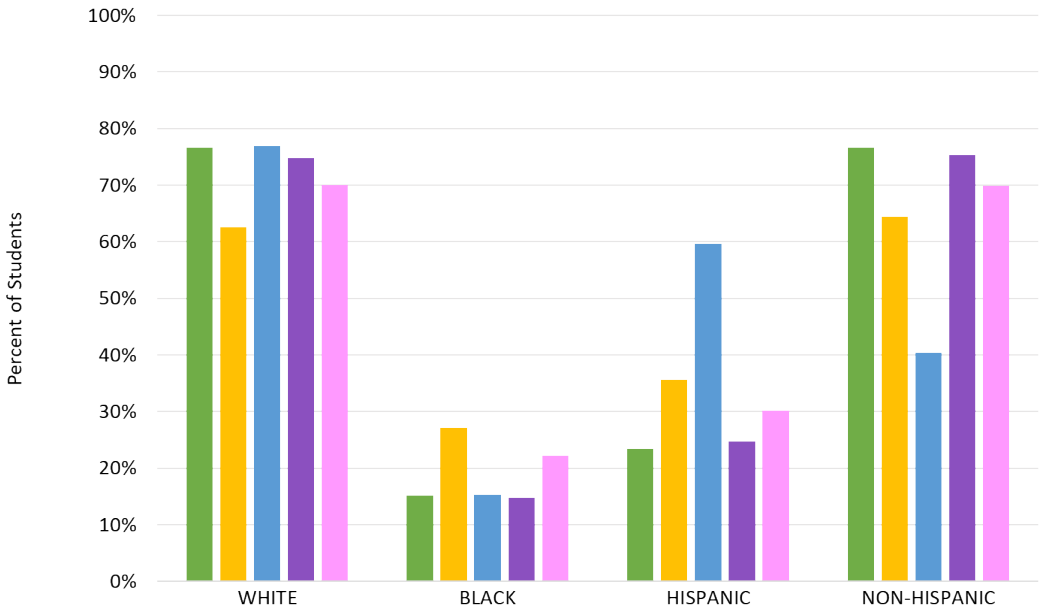
Students are impacted by economic conditions in unique ways. It is quite possible that poverty is related to a number of indicators including absenteeism, graduation rates and homelessness. Orange and Osceola counties, which have the highest percentage of students in poverty also have the highest percentage of chronically absent students and high housing cost burdens. Meanwhile, Seminole County had the lowest percentage of households below the poverty level (11.2 percent), the highest graduation rate (88.6 percent), and the lowest chronic absenteeism (7.5 percent).

Residents in the four-county region participating in the primary research identified a number of SDOH challenges faced by students that interfere with their ability to learn and even attend school. Numerous comments were made that poverty, lack of affordable housing, food insecurity, safety and other concerns are exacerbated by the additional challenges that often happen in school such as bullying and/or youth violence.

Approximately one in 10 community survey respondents report that they either have personally been affected by or that a member of their family has been affected by crime which could include delinquency and youth crime, domestic violence, sexual abuse, violence or gun violence.* Respondents to the key informant survey identified obesity, access to healthy food, bullying, school violence, instability, parental involvement and homelessness as key issues for students. Focus group participants identified violence, domestic violence and substance use as key issues affecting the student population as well as trauma, adverse childhood experiences, lack of quality childcare, lack of nutritious foods served in schools, homelessness and lack of prevention programs regarding crime and safety issues. Stakeholders identified neighborhood safety, children's safety (particularly related to school shootings) and gun safety as key issues in the community.

* Note that domestic violence, sexual abuse, violence and gun violence contribute to Adverse Childhood Experiences (ACEs) and can have an impact on school and student characteristics.

CHART 6.18: STUDENT RACE/ETHNICITY BY PERCENT (2017)

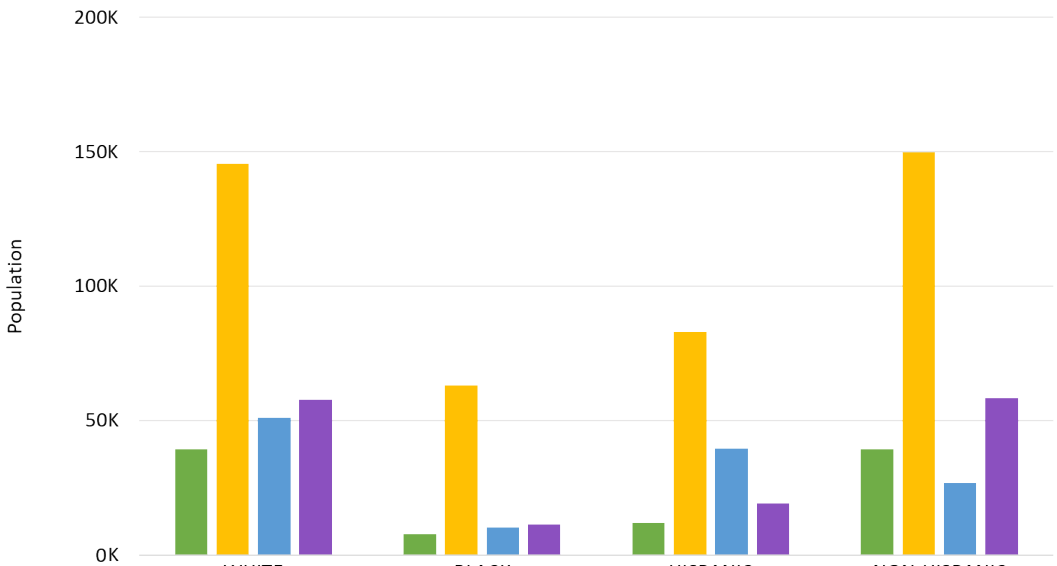


	WHITE	BLACK	HISPANIC	NON-HISPANIC
LAKE	76.7%	15.2%	23.4%	76.6%
ORANGE	62.5%	27.1%	35.6%	64.4%
OSCEOLA	76.9%	15.4%	59.6%	40.4%
SEMINOLE	74.8%	14.8%	24.7%	75.3%
FLORIDA	70.0%	22.2%	30.1%	69.9%

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 some other race.

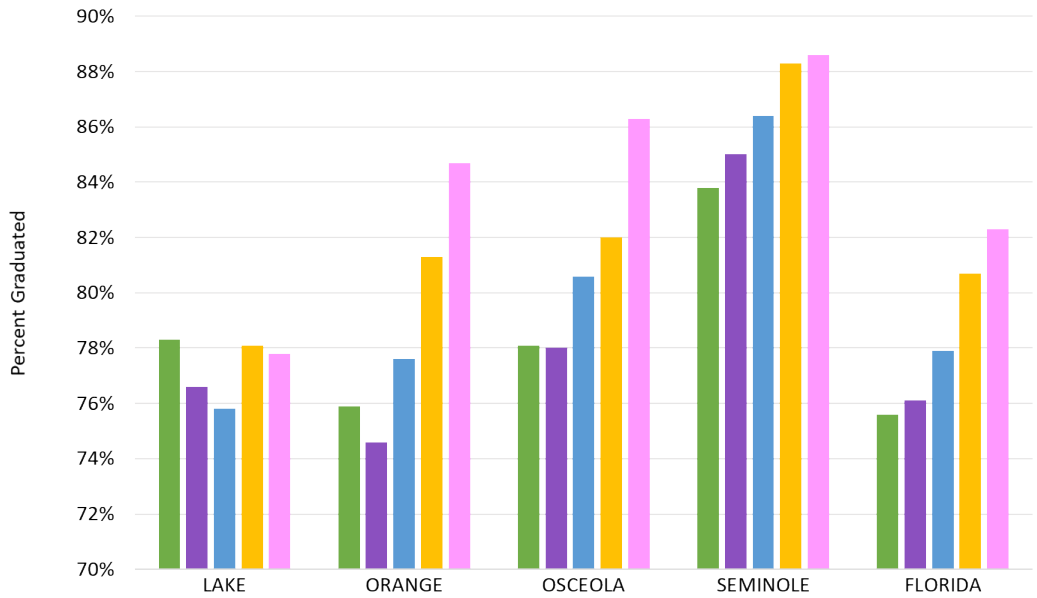
CHART 6.19: STUDENT RACE/ETHNICITY BY NUMBER (2017)



	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

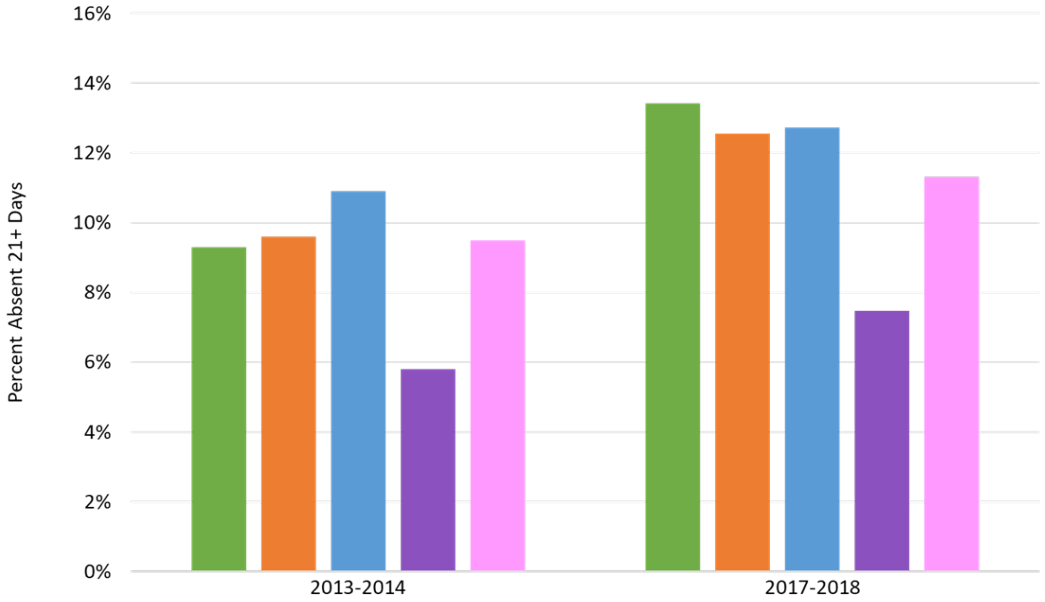
CHART 6.20: HIGH SCHOOL GRADUATION RATE (2012-2013/2016-2017)



	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

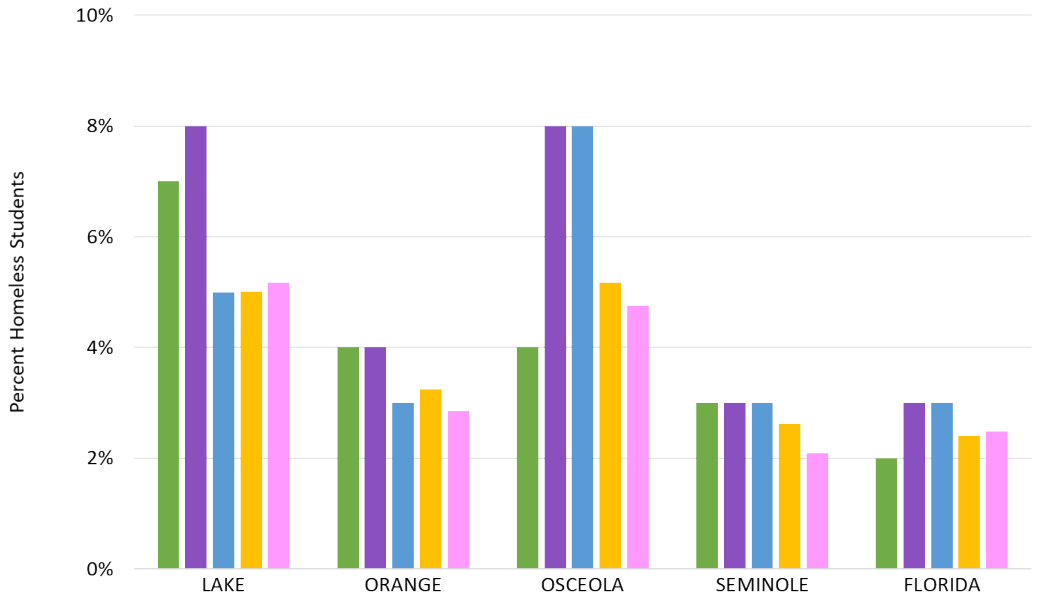
CHART 6.21: STUDENT ABSENTEEISM (2013-2014/2017-2018)



	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

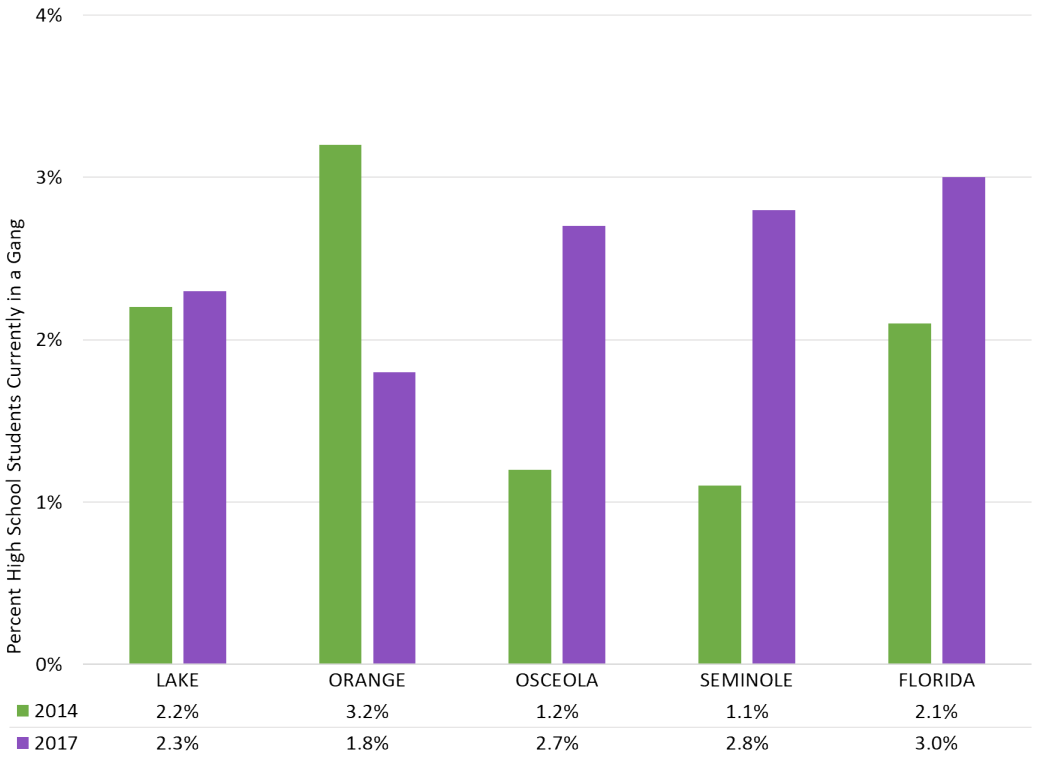
CHART 6.22: HOMELESS STUDENTS (2012-2013/2016-2017)



	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

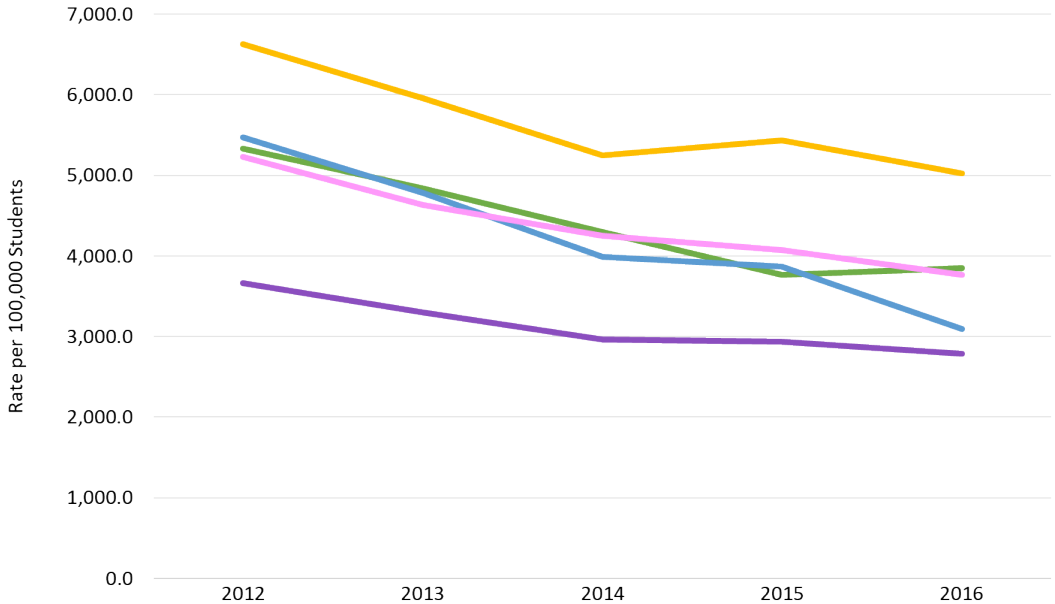
CHART 6.23: HIGH SCHOOL GANG ACTIVITY (2014/2017)



	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

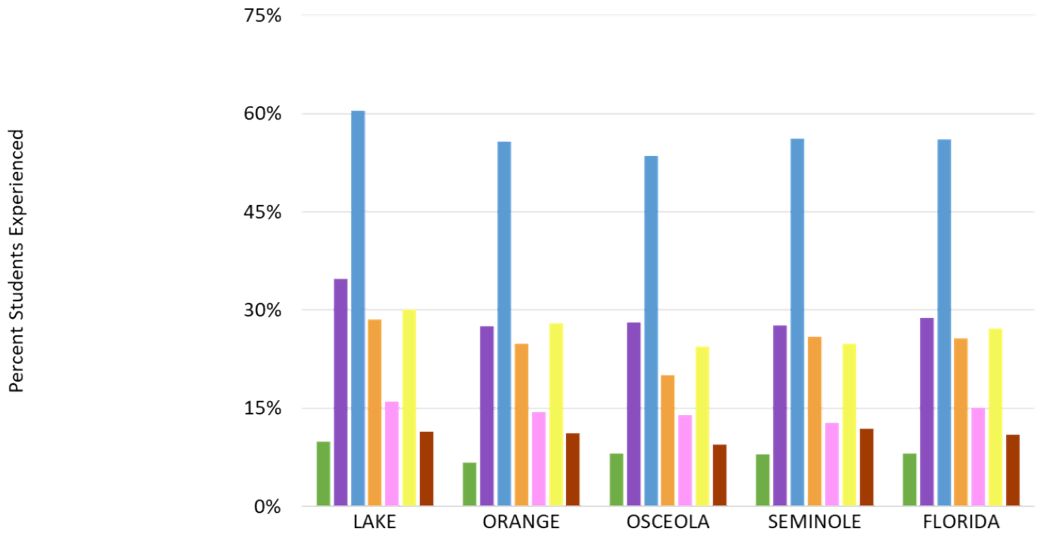
CHART 6.24: YOUTH ARRESTS, ALL OFFENSES, AGES 10-17 (2012-2016)



	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 6.25: BULLYING PREVALENCE K-12 (2018)

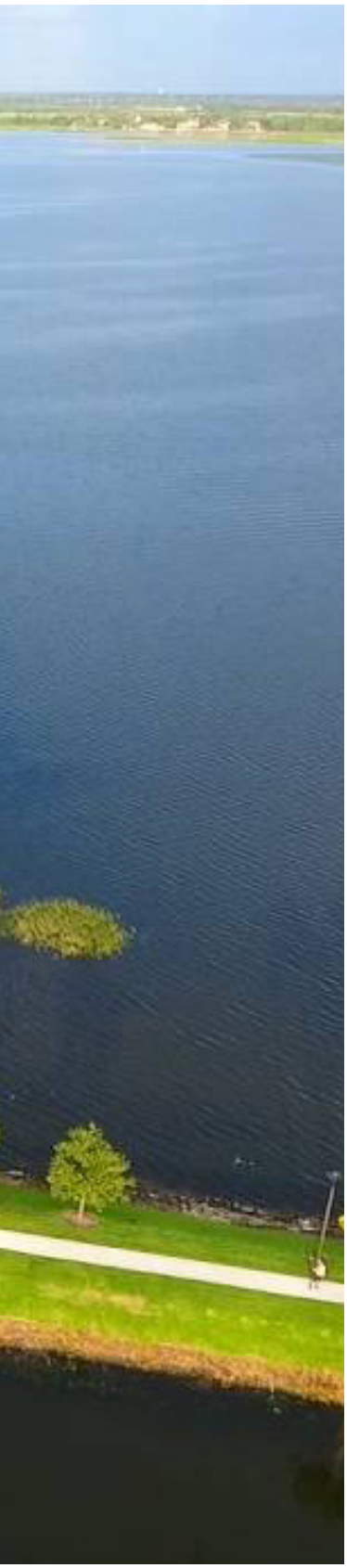


	LAKE	ORANGE	OSCEOLA	SEMINOLE	FLORIDA
Skipped school/bullying	9.9%	6.7%	8.1%	7.9%	8.1%
Ever kicked/shoved	34.8%	27.5%	28.1%	27.6%	28.8%
Ever taunted/teased	60.4%	55.7%	53.5%	56.1%	56.0%
Ever victim of cyber bullying	28.5%	24.8%	20.0%	25.9%	25.6%
Ever physically bullied others	16.0%	14.4%	13.9%	12.8%	15.1%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

'Osceola County has a broad range of outdoor activity for the community to utilize.'

-Key Informant Survey Respondent



CHAPTER SEVEN

Health Needs of the Community

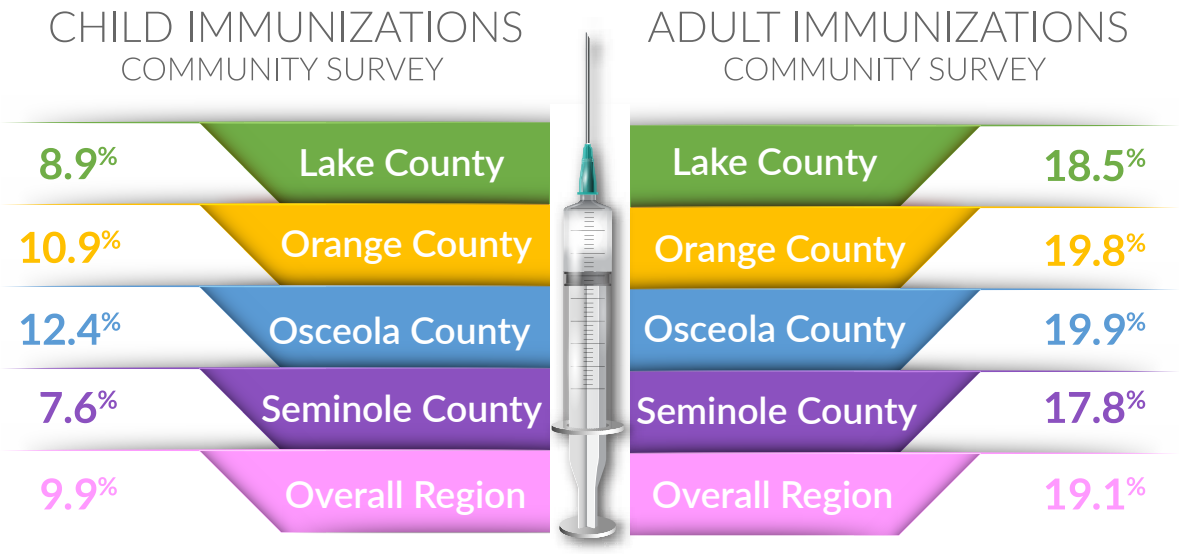
Lake Tohopekaliga
Kissimmee, FL

Osceola County

Communicable Diseases: What the Community is Saying

Figure 7.1 identifies the percentages of community survey respondents within each county and the region who have experienced difficulty getting immunizations in the past 12 months.

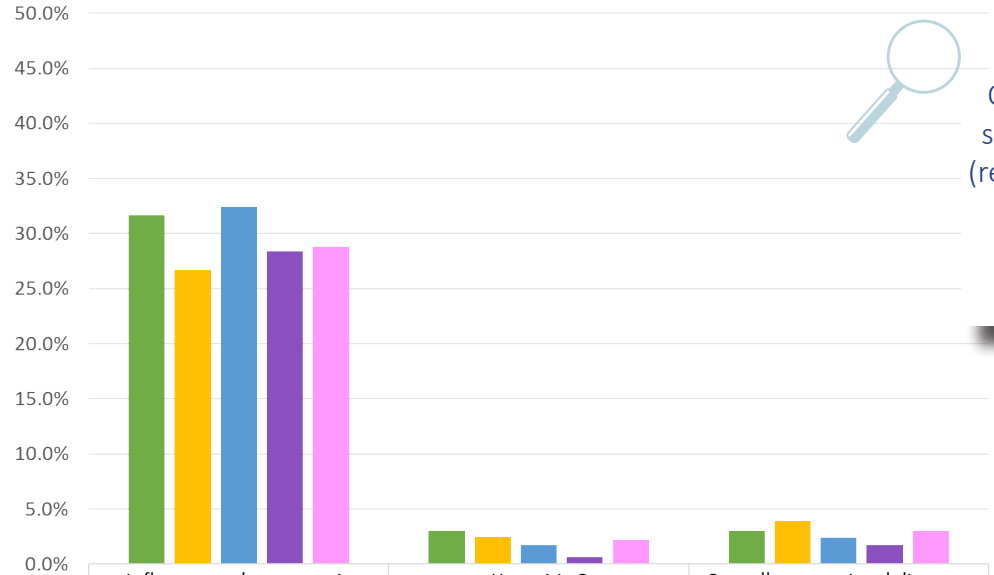
FIGURE 7.1: IMMUNIZATION CHALLENGES, COMMUNITY SURVEY 2019



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

Over one fourth (28.8 percent across the region) of community survey respondents said they or someone in their family was affected by influenza or pneumonia over the past two years. The percentages do not vary substantially by county. Smaller percentages of respondents had challenges with Hepatitis C and 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%

Over one fourth of survey respondents (regardless of county) have experienced influenza or pneumonia

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

Participants in the primary research identified a number of needs and issues in the region related to communicable diseases. They included:

- Sexually transmitted diseases (STD)
  - STD rate is high; increase in STDs as result of substance use
  - High school students with gonorrhea and chlamydia
  - High prevalence of disease is observed among incoming inmate population
- HIV/AIDS
  - The region is ranked #2 for new HIV cases in the nation
  - HIV/AIDS-stigma still exists; more resources are needed
  - Belief that AIDS has been solved
- Increase in Hepatitis C
- Access to care
- Endocarditis (infection inside heart as result of IV drug use)

Barriers to care that were identified by primary research participants included:

- Parents do not return consent for preventative services
- Cost of treatment
- Health department hours are not convenient
- For HIV/AIDS:
  - Limited access to specialized care
  - Cost of medications
  - Lack of support
  - Lack of housing for those with HIV/AIDS

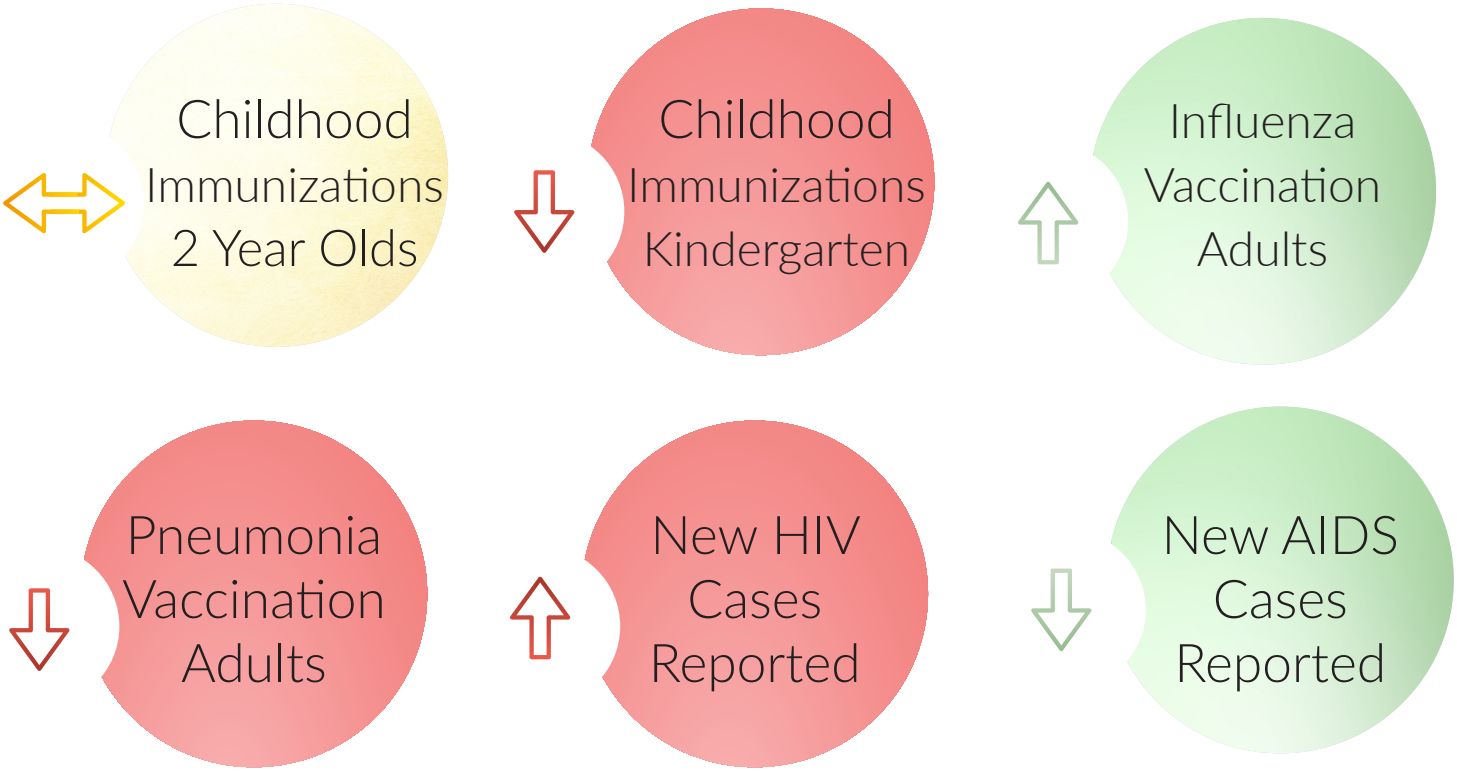
Needed services identified by the primary research participants included:

- More sexually transmitted diseases prevention
- For HIV/AIDS:
  - More access to HIV/AIDS-specialty care (PCP [Primary Care Provider], psych, etc.)
  - More supportive services
  - More housing services
  - Prevention and early diagnosis and medication
  - More access to social networks
  - Knowledge of what resources are available
  - Fair treatment
  - Nursing homes

Communicable Diseases at a Glance

The key indicators related to communicable diseases that have changed since the last assessment are identified in Figure 7.3. Red means that the indicator has worsened in at least three of the regional counties, yellow means that some counties are increasing and some are decreasing or rates have remained roughly equivalent, and green means that rates have improved in at least three of the regional counties since the last CHNA data was available.

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 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 rates have fluctuated over the past 10 years in the four-county region as well as for the state of Florida for two year olds. In 2017, all four counties as well as the state of Florida met or exceeded the HP2020 target for immunizations for two year olds. Osceola (83.3 percent in 2008 to 82.9 percent in 2017) and Seminole (89 percent in 2008 to 85.9 percent in 2017) counties had seen a decrease in the immunization rates for two year olds. Orange County (80.2 percent) had the lowest percentage of two year olds immunized for 2017, when compared to the other counties and the state (86.1 percent). Although in 2017 Orange County had the lowest percentage this was an increase from 74.3 percent in 2008. The 2017 Lake County individual rate for two year olds (88.3 percent) was not available prior to 2017. (See Chart 7.1)

CHILDHOOD IMMUNIZATIONS KINDERGARTEN (2009-2018)

Kindergarten-age children in each county have consistently had immunization rates exceeding 90 percent, except for Osceola county. As of 2017, all counties were more than 10 percentage points above the HP2020 target. While Florida rates have gradually increased over the past 10 years (89.8 percent in 2009 to 93.7 percent in 2018), regional county rates have fluctuated. Lake (92.9 percent in 2009 to 93.9 percent in 2018) and Osceola (86.3 percent in 2009 to 92.9 percent in 2018) counties have seen an increase in kindergarten-age rates, while Orange (92.9 percent in 2009 to 91.1 percent in 2018) and Seminole (94 percent in 2009 to 91.3 percent in 2018) counties have had a slight decrease. (See Chart 7.2)

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

Influenza (flu) vaccination rates for adults ages 65 and older have decreased between 2007 and 2016 for all four counties in the region, as well as the state of Florida (64.6 percent in 2007 to 57.6 percent in 2016). While rates were somewhat consistent between 2007 and 2010, the rates dropped substantially between 2010 and 2013, then rose again slightly in 2016. The exception to this trend was Osceola County, which saw a nominal decrease of 2.9 percent from 2010-2013, then a slight increase of 0.1 percent in 2016. When looking at 2007 (71.9 percent) to 2016 (64.7 percent) in Osceola County the percentage did decrease overall. Lake County decreased from 71.9 percent in 2007 to 64.7 percent in 2016. During the same time frame, Orange County decreased from 59.3 percent to 53 percent. The rate in Seminole County also decreased from 65.3 percent to 56 percent. (See Chart 7.3)

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

Pneumonia vaccination rates for Lake County adults ages 65 and older have increased from 70.4 percent in 2007 to 75.2 percent in 2016. Orange (63 percent to 55.6 percent) and Osceola (61 percent to 44.9 percent) counties have seen decreases over the 10-year period. The Seminole County rate increased from 59.4 percent to 63.6 percent. (See Chart 7.4)

NEW HIV CASES REPORTED (2008-2017)

The rate of new HIV cases per 100,000 population decreased in Orange County between 2008 (40.3) and 2017 (38.9), although the percent was consistently higher than the other three counties and the state for the same time period. The rate had increased in Lake (10.2 to 15), Osceola (24.1 to 26.8) and Seminole (12.8 to 17.3) counties, while the state of Florida decreased (32.5 to 24.1), over this 10-year period. While Lake County's rate was not as high, they saw a substantial increase between 2015 (7.5) and 2017 (15), after having previously decreased. Lake (15) and Seminole (17.3) counties remain lower than the state rate (24.1), while Osceola (26.8) and Orange (38.9) counties rates were higher than the state. (See Chart 7.5)

NEW AIDS CASES REPORTED (2008-2017)

The rate of new AIDS cases per 100,000 decreased in the four-county region over the 10-year period, but not as sharply as the state (22.3 to 9.9). Lake (10.6 to 6.3), Seminole (9.7 to 8.3) and Osceola (11.5 to 9.1) counties almost all have had rates lower than the state over the 10-year period. While the Orange County rate decreased the most since 2008 (20.6 to 14.6), the rate was still higher than the state rate. (See Chart 7.6)

Communicable Diseases: Key Findings

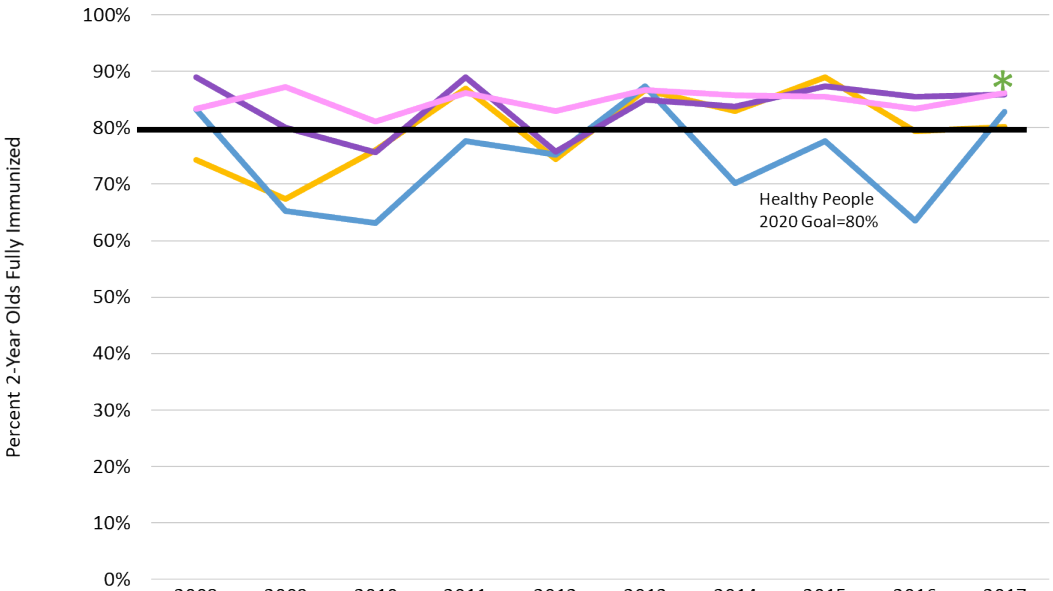
Compared to 2013, the percentage of adults age 65 and older in the four-county region in 2016 who have received an influenza vaccination has increased. During this time the percentage of adults age 65 and older who received the pneumonia vaccination increased in Lake County and decreased in Orange, Osceola and Seminole counties. The percentage of two year olds who are fully immunized increased in Osceola and Seminole counties between 2014 and 2017, while decreasing in Orange County. Data was only available for Lake County in 2017 and at 88.3 percent was higher than the other counties in the four-county region (Orange: 80.2 percent, Osceola: 82.9 percent, Seminole: 85.9 percent) and the state (86.1 percent). The percentage of kindergarten students fully immunized decreased in Lake, Orange and Seminole counties between 2014 and 2018, while increasing in Osceola County. Orange County has consistently had the highest rate of new HIV and new AIDS cases in the region. All other counties in the four-county region have been lower when compared to the state for most years. Since 2014, new HIV cases reported has increased in the four-county region and new AIDS cases have decreased in all but Seminole County.

Stakeholders and community survey respondents identified HIV and Hepatitis-C as "top three" community health issues. Focus group participants identified sexually transmitted diseases (STDs) as a key community need as a result of substance use. They also commented that the rate of high school students with gonorrhea and chlamydia, as well as Hepatitis-C are increasing. A focus group participant mentioned that the region is also ranked #2 for new HIV cases in the country. Endocarditis (infection inside the heart as a result of IV drug use) is also a problem in the region. Key informant survey participants indicated that HIV/AIDS stigma still exists and identified access to care for HIV/AIDS patients as an important community need.

Barriers to care identified in the primary research included: parents do not return consent forms for preventative services, cost of treatment, health department hours are not convenient, lack of free screening opportunities, limited access for HIV/AIDS services, cost of medications, lack of support and housing for those with HIV/AIDS.

Needed services identified in the primary research included: STD prevention, access to medications for those who need them and access to HIV/AIDS-related services. Specific services include housing, early diagnosis, medication and nursing homes. There is also a need for free screenings and preventative services.

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

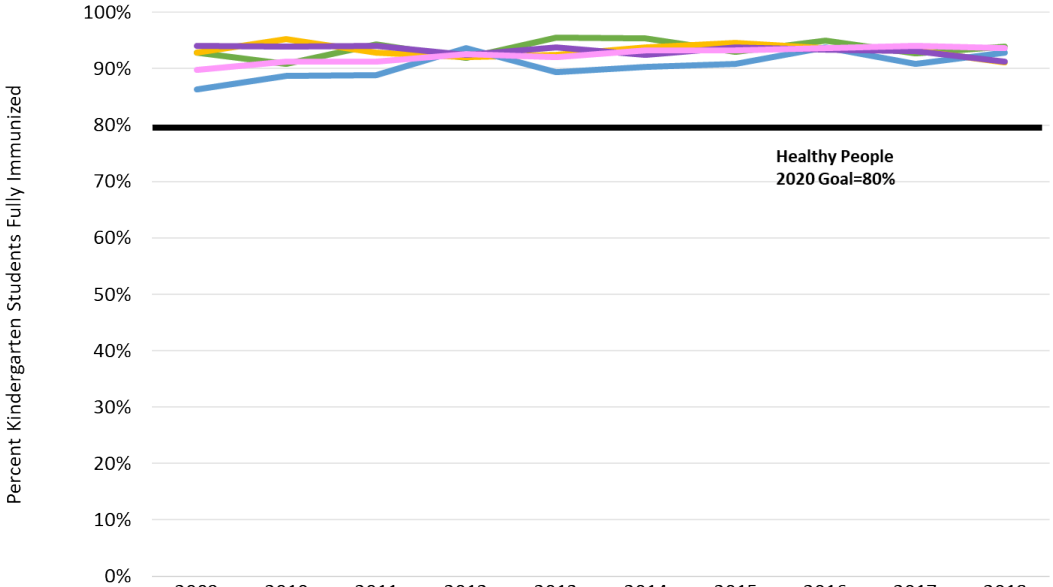


	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	88.3%
ORANGE	74.3%	67.4%	76.1%	87.0%	74.4%	86.7%	83.0%	88.9%	79.4%	80.2%
OSCEOLA	83.3%	65.3%	63.2%	77.7%	75.2%	87.3%	70.2%	77.7%	63.6%	82.9%
SEMINOLE	89.0%	80.0%	75.7%	89.0%	75.8%	85.0%	83.7%	87.4%	85.5%	85.9%
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, Bureau of Epidemiology, Immunization Section

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

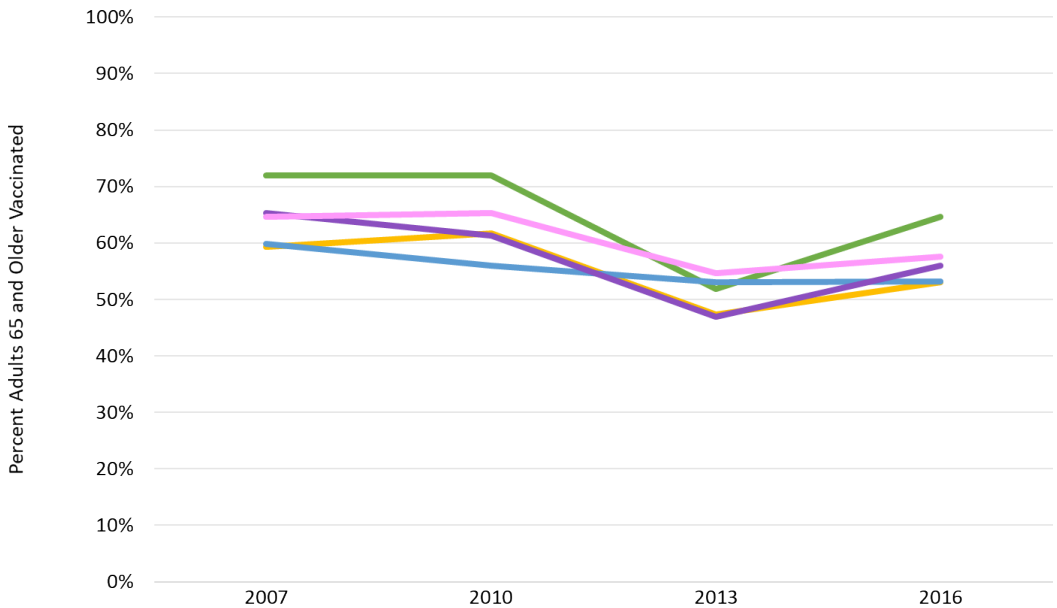
CHART 7.2: CHILDHOOD IMMUNIZATIONS KINDERGARTEN (2009-2018)



	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, Bureau of Epidemiology, Immunization Section

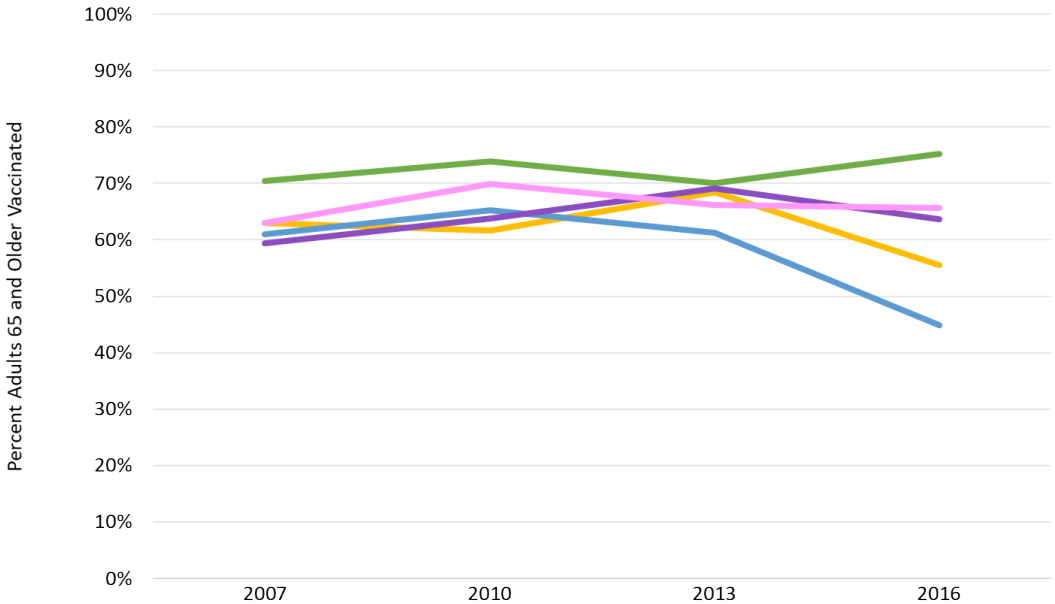
CHART 7.3: INFLUENZA VACCINATION ADULTS AGES 65 AND OLDER (2007-2016)



	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, Florida Behavioral Risk Factor Surveillance System

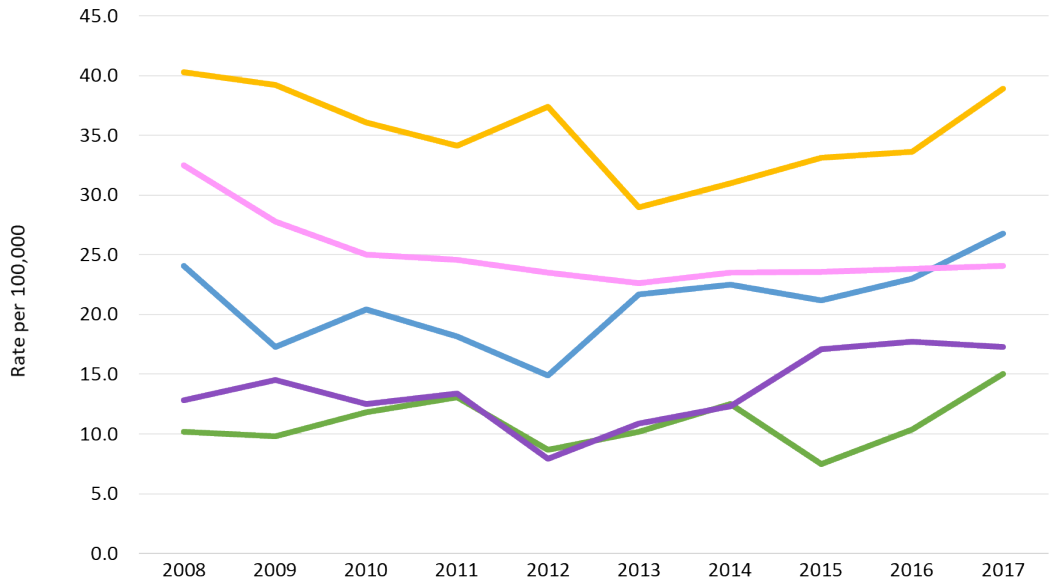
CHART 7.4: PNEUMONIA VACCINATION ADULTS AGES 65 AND OLDER (2007-2016)



	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, Florida Behavioral Risk Factor Surveillance

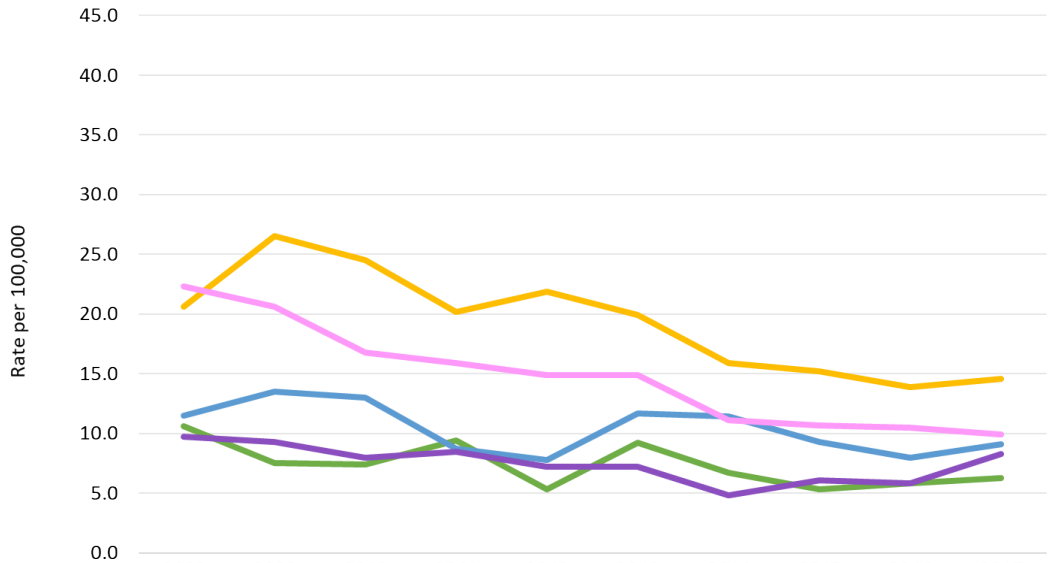
CHART 7.5: NEW HIV CASES REPORTED (2008-2017)



	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)



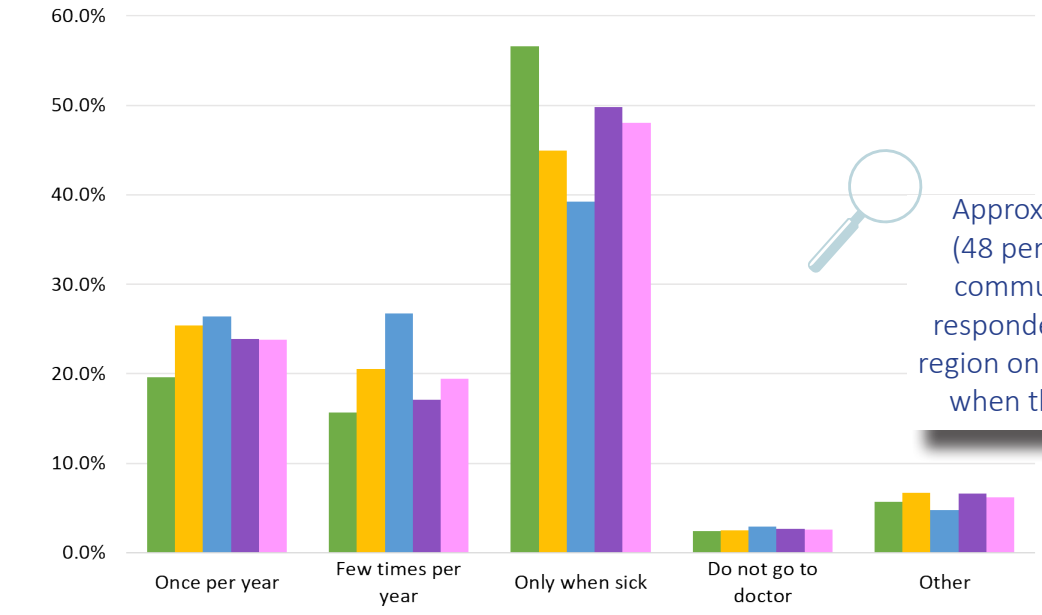
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	10.6	7.5	7.4	9.4	5.3	9.2	6.7	5.3	5.8	6.3
ORANGE	20.6	26.5	24.5	20.2	21.9	19.9	15.9	15.2	13.9	14.6
OSCEOLA	11.5	13.5	13.0	8.7	7.8	11.7	11.4	9.3	8.0	9.1
SEMINOLE	9.7	9.3	8.0	8.5	7.2	7.2	4.8	6.1	5.8	8.3
FLORIDA	22.3	20.6	16.8	15.9	14.9	14.9	11.1	10.7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

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

Preventative Care: What the Community is Saying

Overall, only around 25 percent of the community survey respondents indicated that they see a doctor or a medical provider once a year. The majority of the other 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%

Approximately half (48 percent) of the community survey respondents from the region only see a doctor when they are sick.

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

Table 7.1 outlines the percentages of the community survey respondents by county and overall 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.

Primary research participants identified the following needs and issues related to preventive care services:

- Lack of insurance
  - High rates of uninsured and underinsured
- Homelessness
  - Lack of access to care for the homeless populations
- Primary care
  - Lack of primary care utilization puts stress on the emergency departments
  - Fear what they will hear so people avoid going to the doctor
  - Denial of symptoms and/or health problems
  - People are not going for preventive care
  - Preventive care is not a high priority
  - People wait until health issue is acute
  - Recently relocated Latino population have not had access to preventive care, causing an increase of acute conditions
  - People do not understand the connection with routine checkups and their overall health
  - Seniors do not trust doctors – they worry they will be placed in a nursing home
- Dental care
  - People do not schedule routine dental care
- Emergency department use
  - People go to the emergency department when they are sick because they do not have a primary care doctor
- Women's health
  - Lack of basic healthcare for women
- Health Literacy
  - Health literacy is an issue that keeps people from accessing preventive care

Barriers to care identified by primary research participants included:

- Insurance
  - Lack of insurance
  - High copays/insurance premiums
- Poverty
  - Care is unaffordable for many
- Transportation
- Lack of affordable, healthy food
- Doctors/providers
  - Lack of doctors
  - Trust issues with providers
- Language
  - Health literacy
  - Lack of education on importance of preventive care
- Health department only provides treatment for STDs, not yeast infections

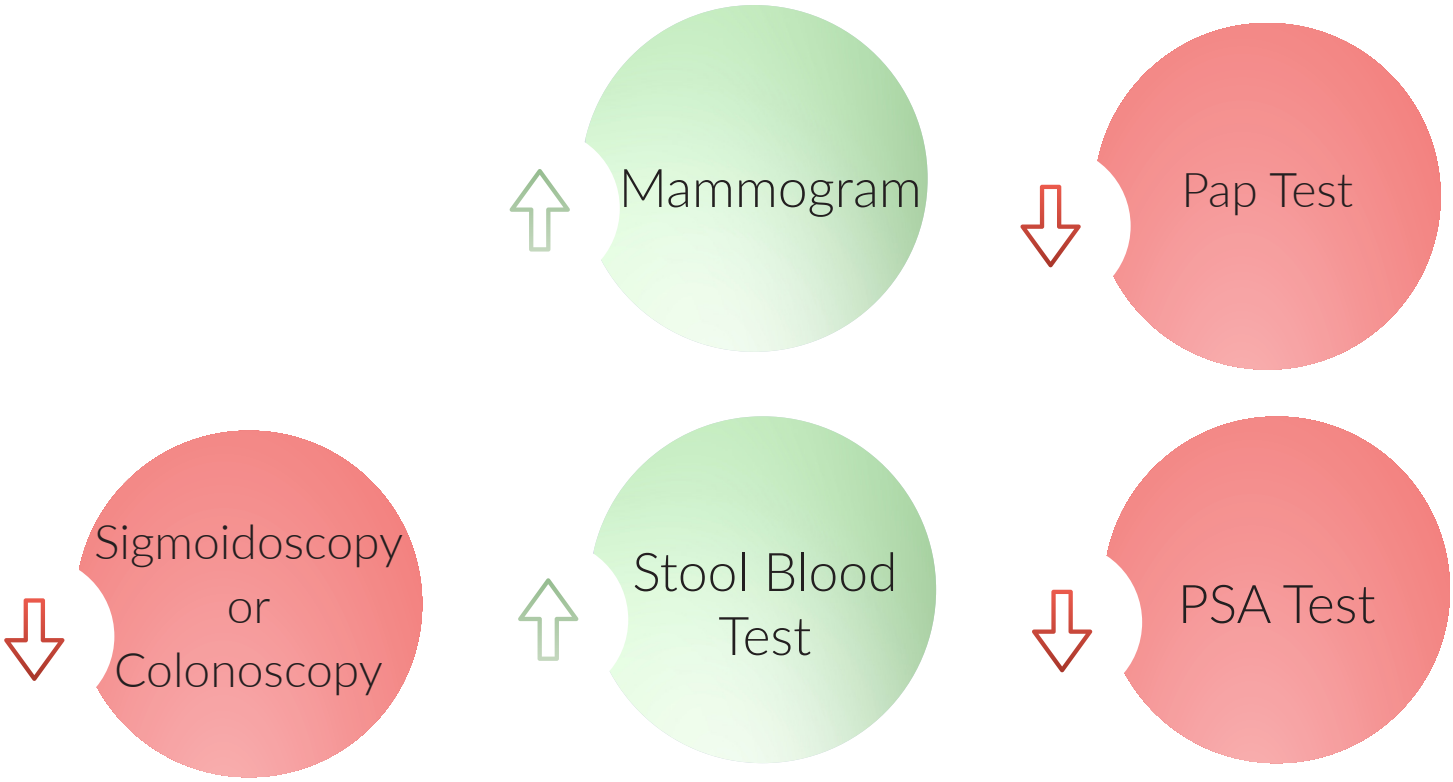
Needed services identified by primary research participants included:

- Providers
  - More community health providers
  - More providers who are bilingual, especially Spanish
  - More primary care providers
- Services
  - More access to integrated care
  - More services for seniors due to a higher risk of poor health status based on factors like obesity, diabetes, low income, malnutrition, isolation, depression, etc.
  - Coordination with churches and community centers to offer services
- Medicaid expansion
- More access to healthy food and education on nutrition
- Access to dental care for adults and children
- Cultural competency
  - Understanding cultural differences and how to reach out to certain communities; some are very proud and stoic and will not discuss health issues

Preventative Care at a Glance

The key indicators related to preventative care that have changed since the last assessment are identified in Figure 7.5. Red means that the indicator has worsened in at least three of the regional counties, yellow means that some counties are increasing and some are decreasing or rates have remained roughly equivalent, and green means that rates have improved in at least three of the regional counties since the last CHNA data was available.

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. Whilethe above colored icons illustrate observed trends from the data reported in the 2016 CHNA, this section is designed to highlight relevant 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/hdebcbs/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 50-74 years	B
Women aged 40-49 years	C
Women aged 75 years or older	I
All women	I
Women with dense breasts	I

In most of the region and the state, the percentage of women ages 40 years and older who received a mammogram in the previous year decreased from 2002 to 2016. Orange County was the only area in the region that has increased over the 15 years from 57.8 percent to 59.4 percent. In 2016, the four-county region (Lake: 60.4 percent, Orange: 59.4 percent, Osceola: 51.4 percent and Seminole 57.8 percent) had mammogram rates below the state average of 60.8 percent. Osceola County had the lowest rate (51.4 percent) with slightly more than half of women ages 40 years and older receiving a mammogram. (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 30-65 (in combo with HPV testing) every five years	A
Women younger than 30 years, HPV testing	D
Women younger than 21 years	D
Women older than 65, who have had adequate prior screening	D
Women who have had a hysterectomy	D

In all counties in the region and across the state, the number of women ages 18 years and older who received a pap test in the previous year decreased from 2002 to 2016. Orange (51.3 percent) and Osceola (51.5 percent) counties have rates above the state (48.4 percent). In 2016, Lake County had the lowest rate with 40.9 percent of women ages 18 years and older receiving a pap test. Seminole County (45.5 percent) was also lower than the state. (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

- 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

Adults aged 76-85 years C

In the four-county region and throughout 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. Seminole (55.9 percent) and Osceola (54 percent) counties rates in 2016 were slightly above the state rate (53.9 percent). Lake (51.5 percent) and Orange (49.6 percent) counties had the lowest 2016 rates. (See Chart 7.9)

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

Between 2002 and 2013, all four counties as well as the state, had a substantial drop in the percentage of adults ages 50 and older who had a blood stool test. However, all counties and the state rate increased in 2016 from the 2013 rate. Osceola County's rate more than doubled between 2013 (9.5 percent) and 2016 (21.5 percent). The rate in Lake County decreased by half from 29.8 percent in 2002 to 15 percent in 2016. Orange County experienced the biggest decline between 2002 (26 percent) and 2016 (9.9 percent). Seminole County also decreased during this time frame from 23.2 to 13.4 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 the four-county region and throughout the state, the percentage of men ages 50 years and older receiving a PSA test increased between 2007 and 2010 then decreased again in 2016. Lake (55.5 percent) and Seminole (55.6 percent) counties' rates are slightly above the state rate (54.9 percent). Osceola County's rate (52.4 percent) is the lowest in the region, with Orange County (52.7 percent) slightly higher. (See Chart 7.11)

Preventative Care: Key Findings

While statewide data show rather large variations between 2002 and 2016 for a number of indicators, counties within the four-county region have seen rather moderate reductions in preventative screenings for women and the population ages 50 years and older. Mammography rates in all counties except Orange decreased slightly between 2002 and 2016. The percentage of women receiving pap tests in the past year decreased substantially between 2002 and 2016 in all counties.

One area of substantial improvement was the number of adults ages 50 years or older who have received a sigmoidoscopy or colonoscopy in the past five years, with an increase of 10 percent in some counties over the 15 years. While PSA testing rose approximately 15 percent to 20 percent across all counties and statewide between 2007 and 2010, the rates dropped back to almost 2007 levels by 2016. A downward trend can also be seen on the statewide level and within the four-county region for blood stool tests, although all counties did increase for the most recent year.

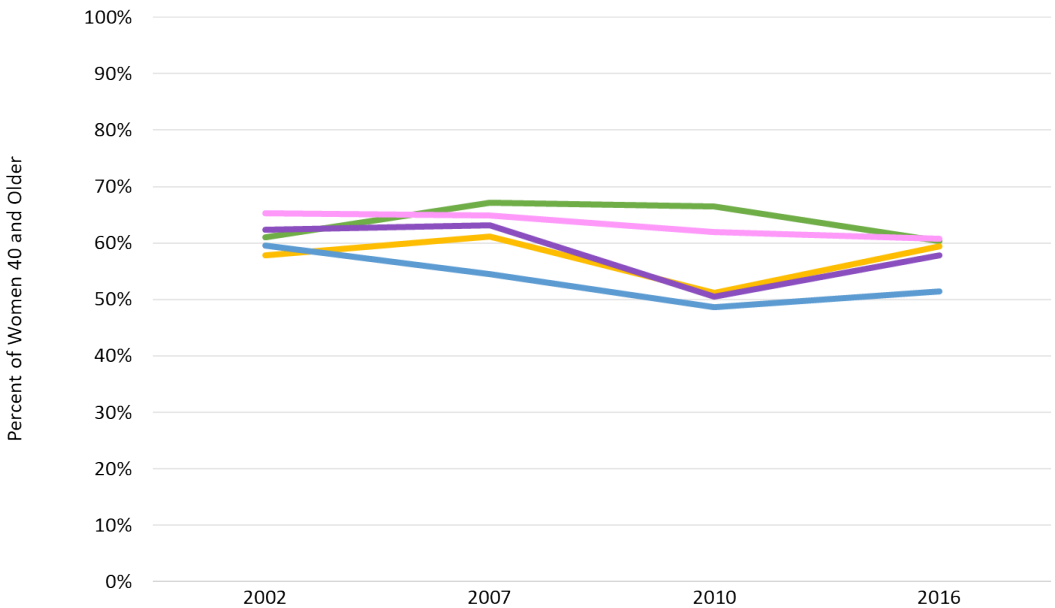
The majority of the community survey respondents who access preventative services indicated that they had an annual exam with a medical provider (low was 67.5 percent in Osceola County; high was 75.2 percent in Seminole County) and lab screenings over the past two years (low was 66.4 percent in Osceola County; high was 76.4 percent in Seminole County), while less than two thirds indicated that they have had a dental exam or an eye exam. Rates of preventative screenings were lower among Osceola County respondents, while Lake and Seminole County respondents tended to have higher rates. However 48 percent of the community survey respondents indicated that they only go to the doctor or other medical provider when they are sick or need care.

Stakeholders identified health literacy as a top three community health need. Focus group participants indicated that people are not going for preventative care because they are afraid that they will get bad news. Numerous comments were made that people will often wait until something is acute before seeking treatment. There is a large Hispanic or Latino population who relocated to Central Florida that does not have access to health care and are very sick. According to stakeholders, people do not understand the connection between routine check-ups and their general health because they do not have a primary care physician. Many seniors do not trust doctors because they are afraid that they will be placed in a nursing home. Key informant survey respondents identified lack of insurance, access to care and lack of primary care as key community needs, along with denial of symptoms and health problems. Community survey respondents identified preventative care as a top three health concern. They also identified health literacy and healthy aging as key community priorities.

Barriers to care include lack of transportation, lack of insurance, cost, health literacy and lack of affordable, healthy food. According to community members, some residents have difficulty trusting health care providers. There is also a lack of education on the importance of preventative care.

Needed services identified include health literacy programs, education on healthy living, increase in wellness programs that focus on prevention, more community health providers, more access to integrated care, more services for seniors, understanding of cultural differences, telehealth, more Medicaid providers, more affordable/sliding scale clinics and FQHCs, and more coordination with churches and community centers to offer services.

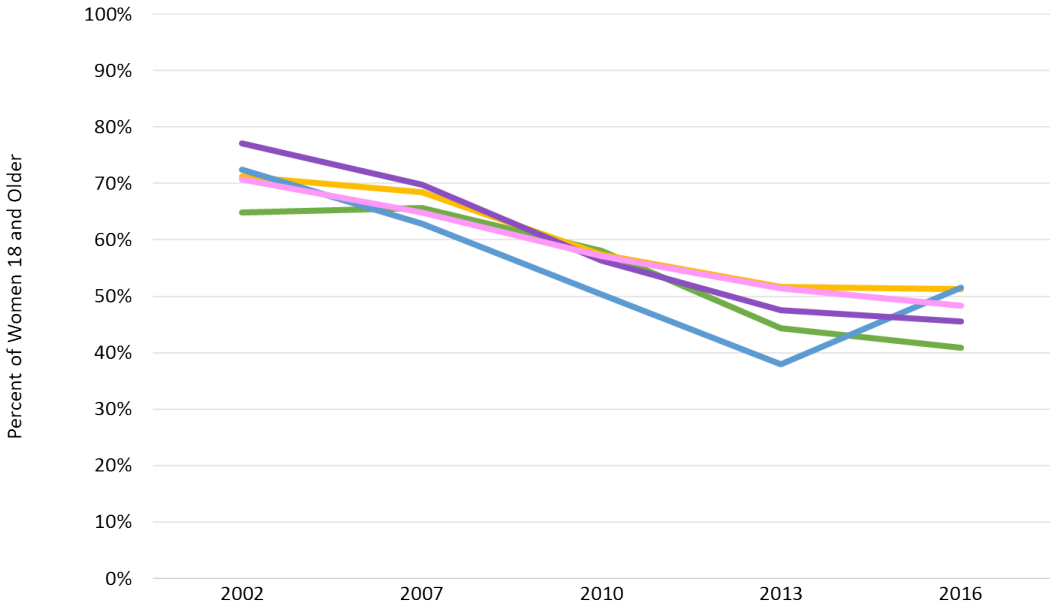
CHART 7.7: WOMEN AGED 40 AND OLDER WHO RECEIVED A MAMMOGRAM IN PAST YEAR (2002-2016)



	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

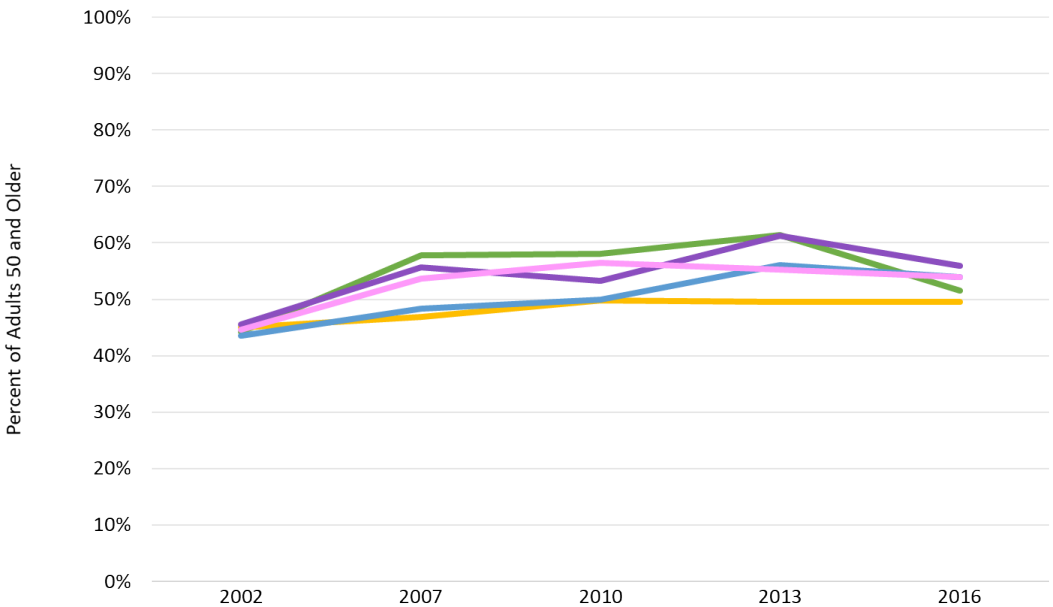
CHART 7.8: WOMEN AGED 18 AND OLDER WHO RECEIVED PAP TEST IN PAST YEAR (2002-2016)



	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

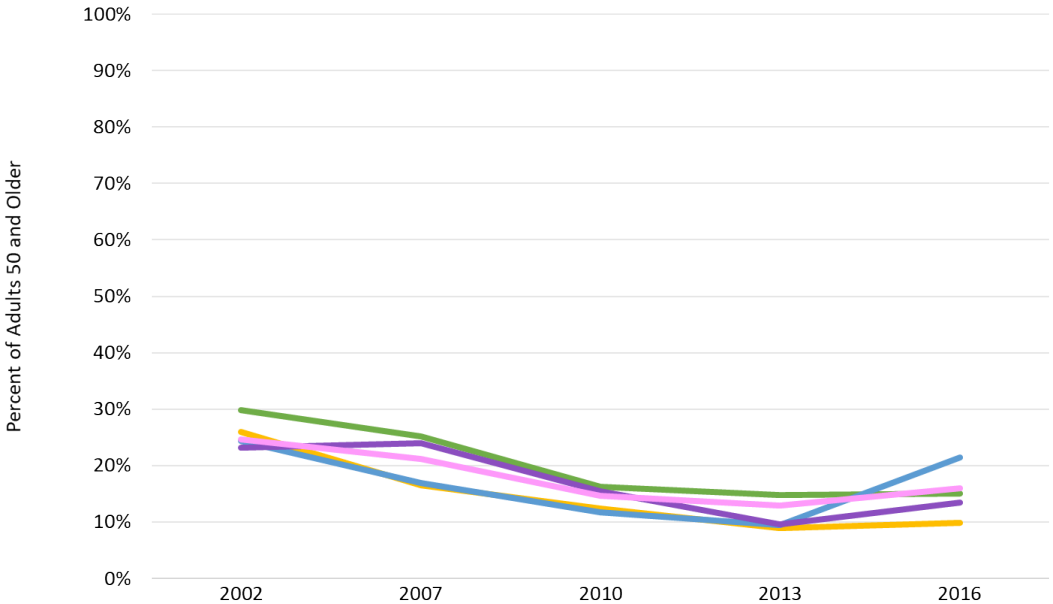
CHART 7.9: ADULTS AGED 50 AND OLDER WHO RECEIVED A SIGMOIDOSCOPY OR COLONOSCOPY IN PAST 5 YEARS (2002-2016)



	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

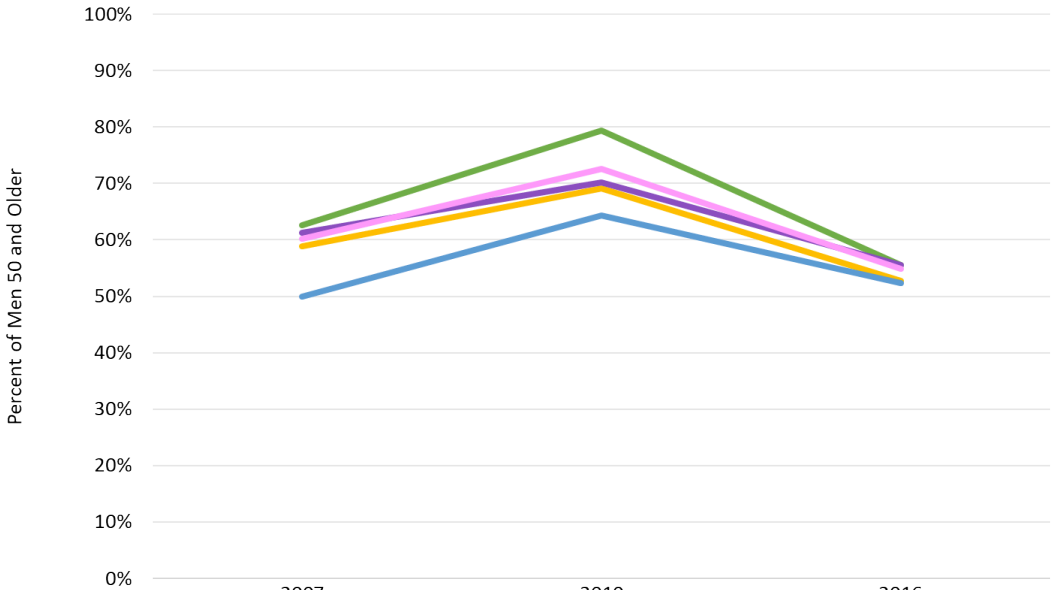
CHART 7.10: ADULTS AGED 50 AND OLDER WHO RECEIVED A BLOOD STOOL TEST IN PAST YEAR (2002-2016)



	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)



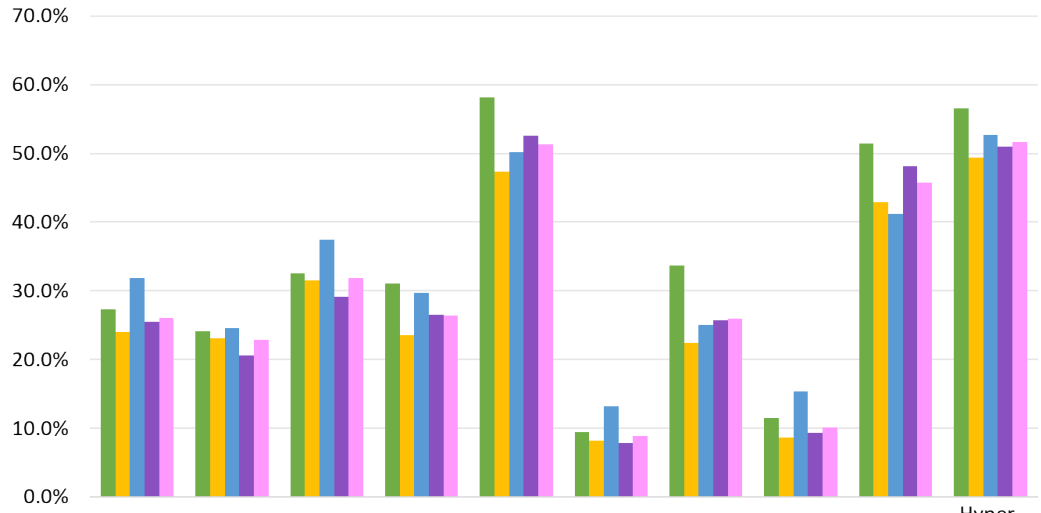
	2007	2010	2016
LAKE	62.6%	79.4%	55.5%
ORANGE	58.8%	69.1%	52.7%
OSCEOLA	50.0%	64.3%	52.4%
SEMINOLE	61.3%	70.2%	55.6%
FLORIDA	60.2%	72.6%	54.9%

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. Osceola County residents were more likely to indicate that they have experienced asthma/COPD related issues, cancer, diabetes, childhood obesity and stroke. Lake County residents were more likely to indicate that they had experienced heart disease, obesity and overweight, cardiovascular disease, high cholesterol, or hypertension/high blood pressure. The county with the highest percentage is highlighted in red.

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



	Asthma/ COPD-related issues	Cancer	Diabetes	Heart disease	Obesity and overweight	Childhood 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.

Primary research participants identified the following as needs and issues in the community related to chronic conditions:

- Residents considered overweight and obese
- Diabetes
  - People cannot afford insulin
  - Lack of access to diabetic equipment
- Heart disease
- Hypertension and high blood pressure
- Cancer
- Kidney disease
- Stroke
- Asthma
- Lack of understanding regarding patients who have dementia and/or Alzheimer's
- Chronic disease management
  - Hear people complain about chronic pain
  - Not everyone has a support system when they receive bad news
  - People are not managing their chronic conditions
  - Noncompliance with medications
  - Lack understanding of how to follow up with care
  - People do not have a plan in place for those with a progressive condition
- Sexually transmitted diseases
- HIV

Barriers to care identified by primary research participants included:

- Affordability
  - Lack of affordable specialty care
  - Lack of insurance/underinsured
  - Denial of insurance because of chronic conditions
  - Cost of care
  - May not have right insurance for condition to be covered
- Food
  - Lack of access to affordable healthy foods
- Services
  - Lack of access to care for chronic conditions
  - Hard to navigate the system
  - Long wait times to get appointments
  - Lack of coordinated care
- Awareness
  - Not understanding the importance of going to follow up care
  - Trust issues with providers
  - Unaware of available services
- Lack of transportation
- Lack of access to care for immigrants, especially for chronic conditions

Needed services identified by primary research participants included:

- Care coordination/management
  - Clear disease pathways that are discussed and actionable
  - Care companions
  - Natural community supports (people in the community who can help others)
  - Shared medical visits with same disease process
  - Set up a "Plan B"/more advanced care planning
  - Chronic disease prevention and management
  - Education
  - Medication adherence
  - Stroke education
  - Managing health
  - Access to a doctor for a second opinion
- Telehealth
- Healthy eating and access to affordable fresh produce
- Use of medical marijuana

Chronic Conditions at a Glance

The key indicators related to chronic conditions that have changed since the last assessment are identified in Figures 7.8 to 7.11. Red means that the indicator has worsened in at least three of the regional counties, yellow means that some counties are increasing and some are decreasing or rates have remained roughly equivalent, and green means that rates have improved in at least three of the regional counties since the last CHNA data was available.

FIGURE 7.8: CHRONIC CONDITIONS INDICATORS

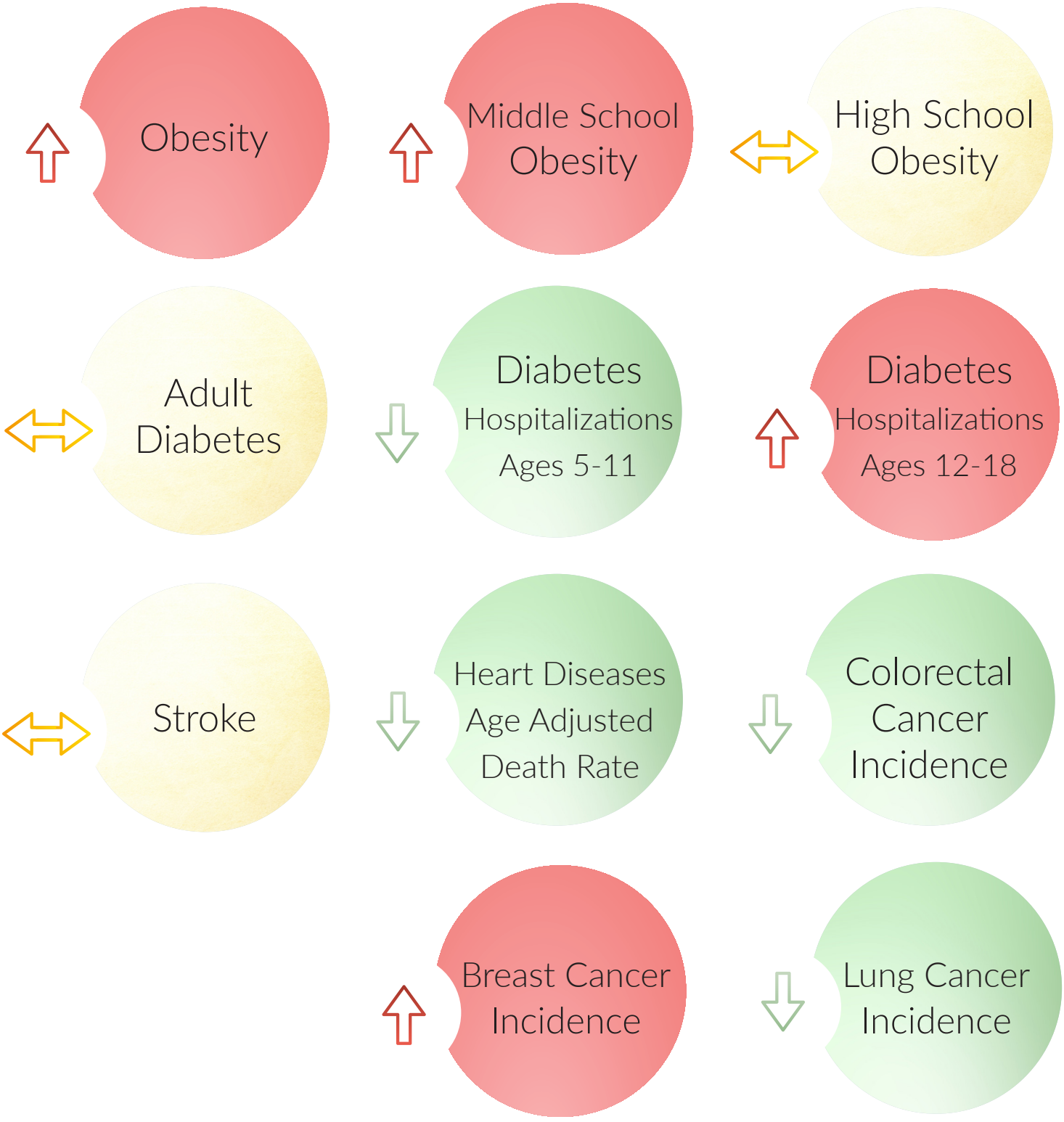
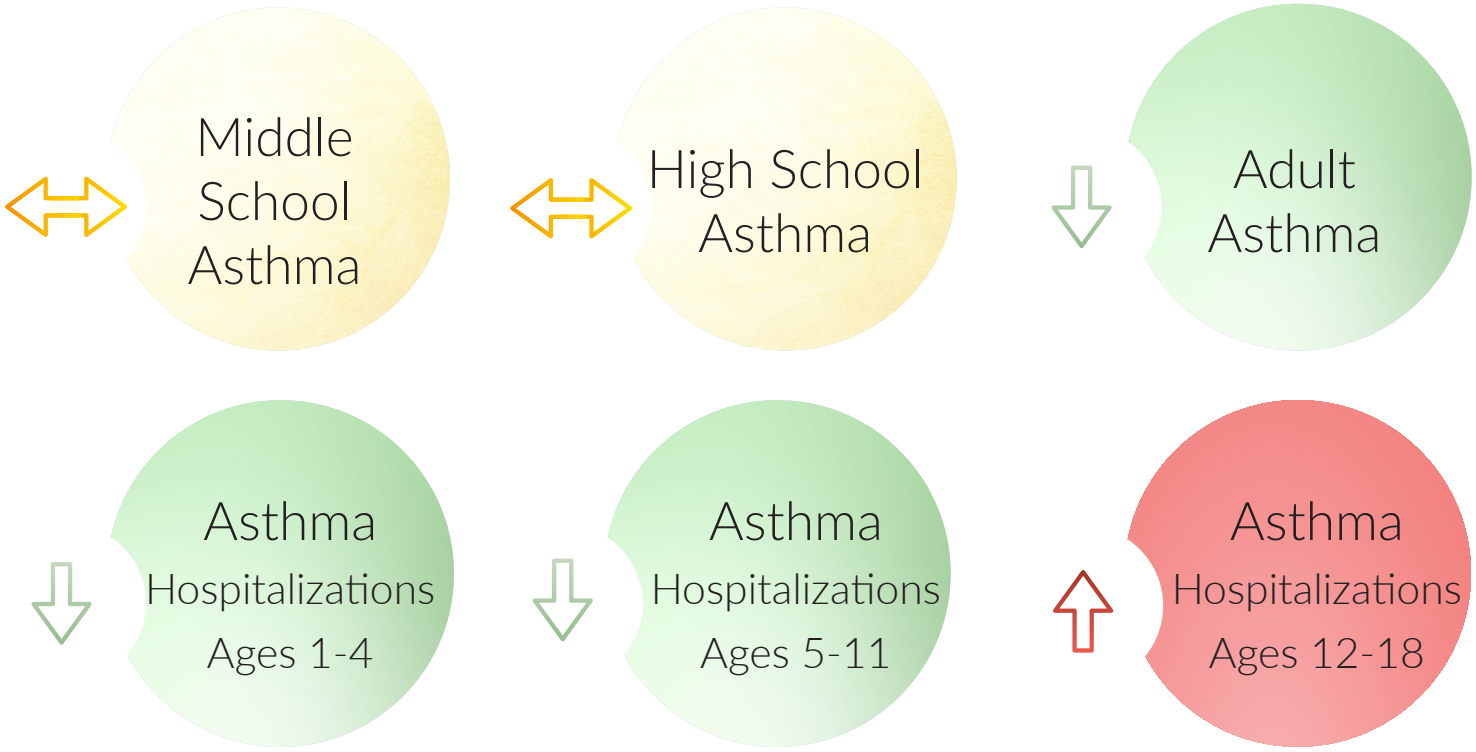


FIGURE 7.8: CHRONIC CONDITIONS INDICATORS, CONTINUED



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 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 three of the four counties (Lake, Orange and Seminole) have been able to maintain levels below the HP2020 goal of 30.5 percent for most of the past 15 years, however Lake and Osceola counties were above the HP2020 goal in 2016. Seminole and Orange counties' upward trend follows closely with that of the state from 2002 to 2016. Osceola County trended above the 30.5 percent goal in 2010 and moved below this goal in 2013. Lake, Orange and Osceola counties both trended upward through 2010 with a decline through 2013; all counties (Lake: 32.6 percent, Orange: 27.5 percent, Osceola: 31.9 percent and Seminole: 27.9 percent) increased in 2016 and were above the state (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 at the state level from 2006 (11.3 percent) to 2012 (11.6 percent), then increased in 2014 (12.4 percent) and 2016 (12.6 percent). Seminole County is the only county in the four-county region to report a net decrease over the 10 years (9.5 percent in 2006 to 8.2 percent in 2016). In 2016, Lake (14.5 percent) and Osceola (13.3 percent) counties had rates above the state average (12.6 percent), while Orange (12.3 percent) and Seminole (8.2 percent) counties have lower rates. (See Chart 7.13)

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

The state's trend for high school students reporting a BMI at or above the 95th percentile has been increasing between 2006 and 2016 from 11.2 percent to 13.3 percent. Orange and Seminole counties have followed this trend, increasing to 11.6 percent and 12.3 percent respectively. While fluctuating, Seminole County has remained consistently lower than the state rate. In 2016, the percentage of obese high school students was lower in the four-county region (Lake: 12.7 percent, Orange: 11.6 percent, Osceola: 11.2 percent and Seminole: 12.3 percent) than the state (13.3 percent). (See Chart 7.14)

ADULTS DIAGNOSED WITH DIABETES (2002-2016)

Between 2002 and 2016, there was an upward trend in the percentage of adults who have been diagnosed with diabetes in the four-county region. Osceola County had a 43 percent increase in the percentage of adults diagnosed with diabetes between 2010 (9.9 percent) and 2013 (14.2 percent). This percentage then increased at a slower pace to 14.7 percent in 2016, which has higher than the other counties in the four-county region as well as the state. Seminole County's increase between 2007 (7.5 percent) and 2010 (13.5 percent) was 80 percent. Seminole County, however, experienced a 30 percent decline in this indicator between 2010 and 2013 (nine percent), then increased again by 2016 (11.7 percent). Osceola (14.7 percent) and Lake (12.5 percent) counties have percentages above the state (11.8 percent) in 2016, while Orange (9.7 percent) and Seminole (11.7 percent) counties were below. (See Chart 7.15)

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

The rate per 100,000 for hospitalizations due to diabetes for children ages 5-11 years in the state has fluctuated throughout the region since 2011. Orange County's rates have decreased from 49.6 to 33.2 between 2011 and 2017. Osceola County experienced fluctuations in hospitalizations between 2011 and 2017. When compared to the rate in 2014 (54.3) the rate decreased in 2017 (46.5). In 2011, Lake County's rate was 49.8, then spiked to 90.5 in 2012 and then declined to 43.4 in 2016. The rate in 2017 (54.9) is lower than it was in 2014 (56.4). Seminole County has consistently had the lowest rate in the region since 2012, with a 2017 rate of 26.6. (See Chart 7.16)

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

For diabetes hospitalizations among children ages 12-18 years, Lake County's 2017 rate per 100,000 is the highest it has been for the past seven years for the county (158.1). The current Lake County rate is higher than the state (138.3). Orange County has experienced fluctuations each year, but has had an increase since 2011 from 99.2 to 134.4 in 2017. Osceola County's rate increased from 98.9 in 2011 to 120.9 in 2017. Seminole County's rate (80.5) decreased in 2017 but had increased from 68.3 in 2011 and has been consistently lower than the state rate which increased from 111.6 in 2011 to 138.3 in 2017. (See Chart 7.17)

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

The prevalence of adults with high blood pressure has increased across the region when looking at 2002 compared to 2013 upwards of 57 percent in Lake County and 80 percent in Seminole County in 2010. In 2013 in the four-county region, the prevalence of high blood pressure (hypertension) was above the HP2020 goal of 26.9 percent. In 2013 Orange (29.9 percent), Osceola (32 percent) and Seminole (33.7 percent) counties were slightly below the state (34.6 percent), while Lake County (39 percent) was above. (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 the four-county region were lower than the state (79.4 percent). Additionally, Orange, Osceola and Seminole counties experienced a decrease since 2002. Lake County, which experienced an increase since 2002, had the highest rate (76.6 percent), while Osceola County had the lowest rate (65.5 percent) in 2013. In 2013, the percentage of adults with hypertension who took blood pressure medication was 73.5 percent in Orange County and 70.4 percent in Seminole County. (See Chart 7.19)

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

Adults who have ever been told they had a stroke in the four-county region are in line with the state level trend. All counties experienced an increase between 2007 and 2016 in the percentage of adults who have ever been told they had a stroke. Osceola County experienced an increase from 2.6 percent to 3.5 percent in 2016, equal to the state average. Lake County reported the highest 2016 rate (five percent) and was the only county whose rate was above the state (3.5 percent in 2016). In 2016, Orange (2.7 percent) and Seminole (2.1 percent) counties were below the state (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 were consistently the highest in Lake County, hovering around 40 percent. This is well above the 13.5 percent target for HP2020. The percentage in Orange County had increased from 27.4 percent in 2002 to 34.2 percent in 2010 and then decreased to 25.6 percent in 2013. Osceola County's prevalence of high cholesterol has experienced the same trend as Lake County's with a slight increase in 2010, while remaining relatively constant. Seminole County has experienced the largest increase in the percentage of adults having been told they have high cholesterol, increasing from 26.7 percent in 2002 to 37.4 percent in 2013 (41.3 percent in 2010). This is an increase of 40 percent from 2002 to 2013. In 2013, Lake (41.8 percent), Osceola (37.2 percent) and Seminole (37.4 percent) counties were higher than the state (33.4 percent), while Orange County (25.6 percent) was below. (See Chart 7.21)

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

Osceola County's age-adjusted death rate in 2017 for heart diseases (180.3) was the highest in the four-county region and much higher than the state (148.5). Lake (155.2) and Orange (152.9) counties' rates were also marginally higher than the state in 2017. Only Seminole County (140.5) is lower than the state rate 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 have decreased across the four-county region and throughout the state between 2007 and 2017. Lake County had the highest rate in the region (80.7) in 2017 and is consistently above the state (73.7) in 2017. In 2017, Orange County (67.7) in 2017 has had rates consistent with the state since 2014. For the same period, Seminole County (53.9) in 2017 had rates consistently lower than the other three counties and the state. In 2017, the rate in Osceola County was 67.2. (See Chart 7.23)

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

While the rates have fluctuated in the four-county region between 2007 and 2016, most have seen a net decline, except for Osceola County which increased from 44.1 in 2007 to 45 per 100,000 in 2016. Seminole County's rate has consistently been below the state rate between 2007 and 2016, with a rate of 31.1 in 2016 versus the state rate of 36.5. Lake (40.6), Orange (36.8) and Osceola (45) counties remained above the state rate in 2016. (See Chart 7.24)

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

Over the past 10 years, Orange County was the only county in the region whose age-adjusted female breast cancer incidence rate decreased, from 118.2 per 100,000 in 2007 to 116 in 2016. Osceola County had the steepest increase from 99 in 2007 to 130.5 in 2016. Lake County also had a sharp increase from 119.1 in 2007 to 135.8 in 2016. Seminole County had the smallest increase in the past 10 years from 107.6 in 2007 to 114.2 in 2016. Orange and Seminole County's rates in 2016 were below the state rate of 121.8. (See Chart 7.25)

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

The age-adjusted lung cancer incidence rate per 100,000 in Seminole was the only county with rates consistently below the state rate for the past 10 years, going from 51.8 per 100,000 in 2007 to 48.2 in 2016. The state rate in 2016 was 57.5. Lake County's rate has been consistently higher than the state and region; the rate decreased from 71.5 in 2007 to 63.6 in 2016. Orange County's rate has fluctuated but decreased from 63.5 in 2007 to 51.2 in 2016, with a slight increase from 2015 (54). Osceola County's rate had also fluctuated during this time period (62.1 to 59.1). (See Chart 7.26)

ADULTS WHO CURRENTLY HAVE ASTHMA (2007-2016)

Since 2007, the percentage of adults who currently have asthma has increased in Orange County from 5.1 percent in 2007 to 6.8 percent in 2016. The rate in Seminole County fluctuated, increasing from 6.4 percent in 2007 to seven percent in 2010, then to 8.4 percent in 2013. The rate then decreased again to 5.4 percent in 2016. Lake County also increased from 5.7 percent in 2007 to 6.2 percent in 2010, then to 8.7 percent (2013) then decreased in 2016 to five percent. Lake and Seminole counties were lower than the Florida rate in 2016 (6.7 percent). Osceola County decreased since 2010 (10.2 percent) to 2016 (7.4 percent). In 2016, Orange (6.8 percent) and Osceola (7.4 percent) counties were both higher than the state (6.7 percent). (See Chart 7.27)

MIDDLE SCHOOL STUDENTS WITH KNOWN ASTHMA (2006-2016)

Every county in the four-county region has seen an increase in middle school students with known asthma between 2006 and 2016. Through most of the past 11 years, Osceola County had the highest percentages by far with a large jump from 20.8 percent in 2010 to 25.5 percent in 2014. The rate fell however in 2016 to 23.3 percent. Lake County's rate, while fluctuating somewhat, remained the steadiest among the four counties, increasing from 18.1 percent in 2006 to 18.7 percent in 2016. In 2016, Seminole County (19.3 percent) was comparable to the state (19.5 percent). In 2016, Orange (18.7 percent) and Lake (18.7 percent) counties had the lowest percentage of middle school children with asthma. (See Chart 7.28)

HIGH SCHOOL STUDENTS WITH KNOWN ASTHMA (2006-2016)

The four-county region has seen an increase in high school students with known asthma between 2006 and 2016. Orange County had the least fluctuation, increasing from 16.7 percent in 2006 to 19.9 percent in 2016. Lake County also increased from 19.8 percent in 2006 to 24 percent in 2016. Osceola County had the largest overall increase of all the counties in the region, increasing from 15.8 percent in 2006 to 23.5 percent in 2016. Seminole County increased from 18.3 percent in 2006 to 20.6 percent in 2016 and is comparable with the state rate in 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 fluctuated in the four-county region between 2003 and 2017, between a low of 291 to a high of 1050.4. All of the four-county region was below the state rate in 2017 (551.8). All counties showed a decline over the 15 years. Osceola County was the highest of the four counties in 2017 at 494.5, due to an increase in the rate since 2016 (464.1). Lake County's rate has been decreasing since 2012 (838) and was 464.5 in 2017. Orange County's rate also has been decreasing since 2012 (965.2) and decreased to 372.2 in 2017. Seminole has consistently had the lowest rate in the four-county region, decreasing from 566.2 in 2012 to 293.6 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 over the past 15 years, with an increase occurring in all counties and across the state between 2007 and 2012, followed by decreasing rates until 2017. Lake County's rate decreased between 2003 (293.1) and 2017 (286.2). Orange County increased from 318 in 2003 to 416.4 in 2017. Osceola County's rate increased from 392 in 2003 to 421.3 in 2017. Seminole County's rate was consistently lower than the other counties in the region with the exception of 2013, and the rate increased from 196.4 in 2003 to 260.8 in 2017. The state rate in 2017 was 382.3. (See Chart 7.31)

ASTHMA HOSPITALIZATIONS AGES 12-18 (2003-2017)

In the past 15 years, the rate of asthma hospitalizations per 100,000 for children ages 12-18 has fluctuated in every county. Lake County had the slowest rate of growth, increasing from 153.4 in 2003 to 335.5 in 2017, and is the only county in 2017 lower than the state rate (443.9). Orange County's rate increased from 303.2 in 2003 to 510.5 in 2017. Osceola County increased from 293.5 to 521.8 between 2003 and 2017. Seminole County increased from 230.6 to 447.5 during the same time period. (See Chart 7.32)

Chronic Conditions: Key Findings

In the four-county region, the percentage of adults who were obese has been increasing with two counties, Lake and Osceola, exceeding the HP2020 goal. Lake, Orange and Osceola counties saw the percentage of middle school children who were obese increase, while Seminole County saw a decrease.

Lake, Osceola and Seminole counties female breast cancer incidence rates have increased between 2014 and 2016, while Orange County's rate decreased. Orange and Seminole are the only counties in the region with lung cancer incidence rates below the state average.

While the percentage of adults with asthma had been increasing between 2007 and 2013, the rate decreased in 2016 in all counties. While the percentage of middle school students with asthma remains higher than in 2006, all counties in the four-county region saw a decrease between 2014 and 2016. Asthma hospitalizations ages 1-4 and 5-11 have been decreasing in all counties since 2013. Children within the age range of 1-4 years have the highest rate of hospitalizations due to asthma compared to children ages 5-11 years or 12-18 years.

In the four-county region, the number of children ages 12-18 that were hospitalized with diabetes increased between 2011 and 2017, while the rate for those ages 5-11 increased in Lake and Osceola counties but decreased for the other counties.

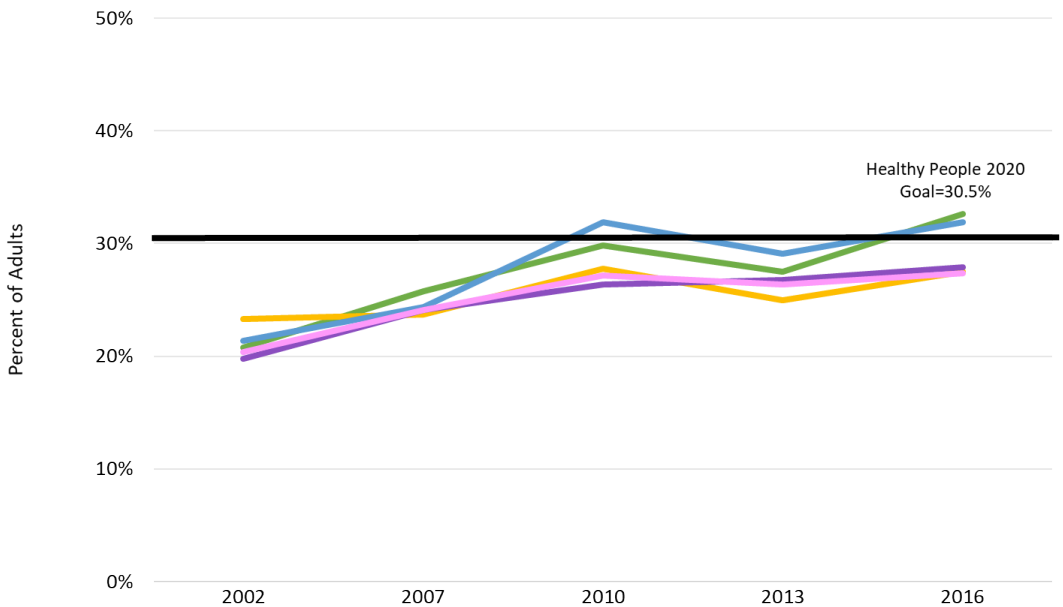
Hypertension prevalence increased in all counties between 2002 and 2013, while the percentage of those taking medications to address hypertension decreased in Orange, Osceola and Seminole counties.

Hospitalizations from congestive heart failure have decreased in every regional county between 2015 and 2017.

Approximately, half of the community survey respondents in all counties indicated that being obese or overweight affects them or their families. Approximately a third of respondents indicated that diabetes is a problem for them or a family member. Nearly one in four respondents identified cardiovascular disease, asthma and/or cancer as a problem for them or a family member.

Obesity, diabetes and hypertension were repeatedly discussed by stakeholders and primary research participants in the region. Stakeholder interview, focus group and key informant survey participants identified the connections between diabetes, poverty and access to quality and nutritious foods, as well as the importance of a healthy lifestyle and access to preventative services related to chronic diseases.

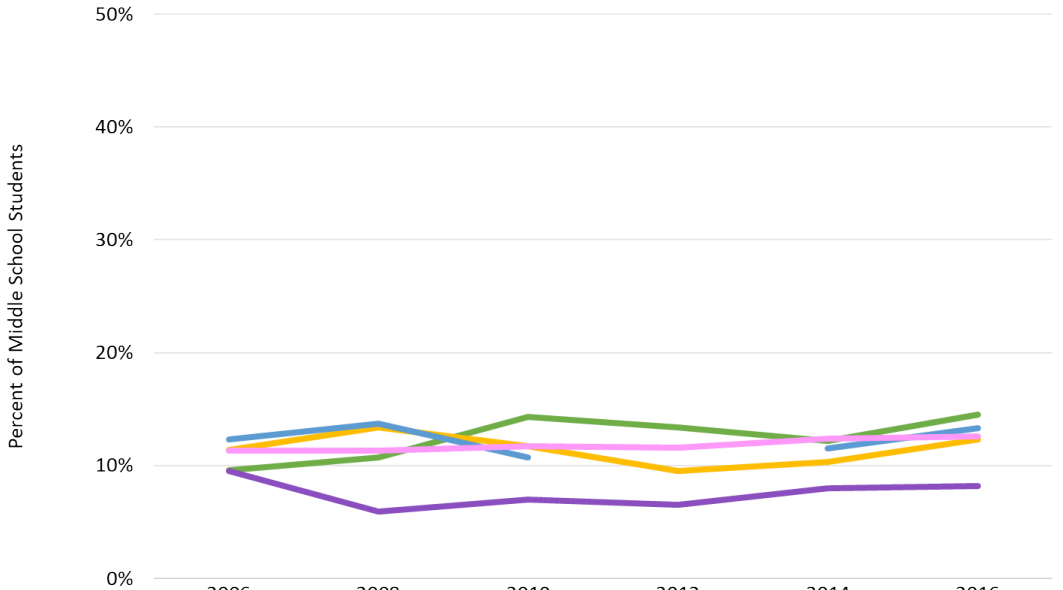
CHART 7.12: ADULTS WHO ARE OBESE (2002-2016)



	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, Florida Behavioral Risk Factor Surveillance System

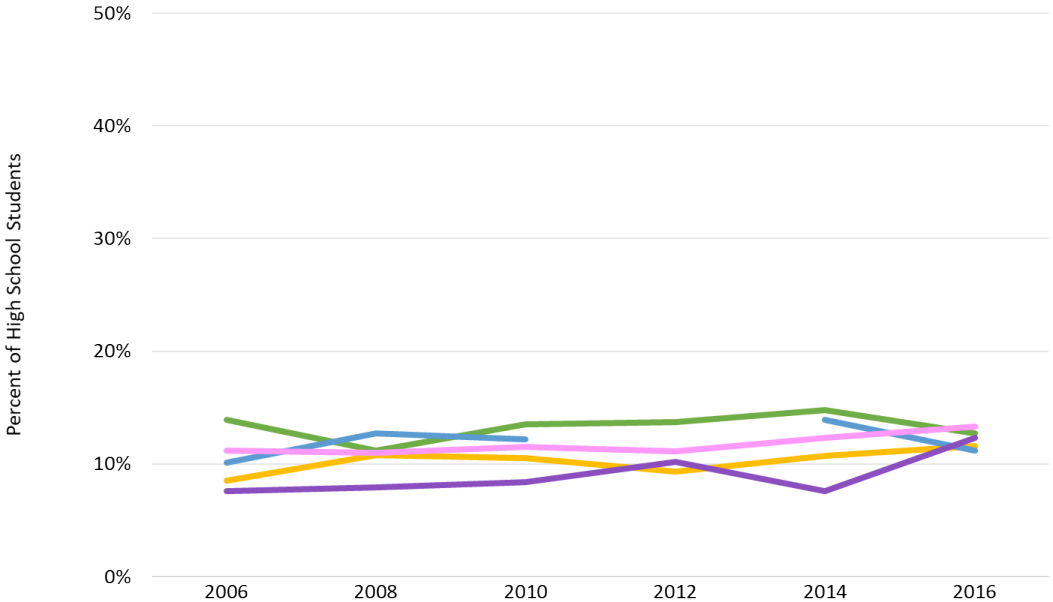
CHART 7.13: MIDDLE SCHOOL STUDENTS REPORTING BMI AT OR ABOVE 95TH PERCENTILE (2006-2016)



	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

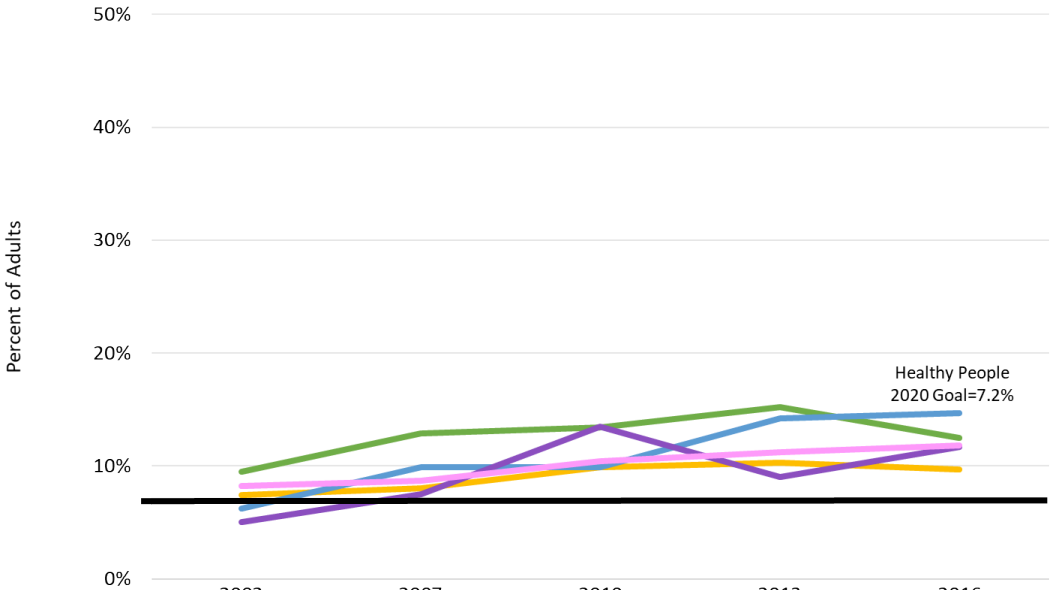
CHART 7.14: HIGH SCHOOL STUDENTS REPORTING BMI AT OR ABOVE 95TH PERCENTILE (2006-2016)



	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

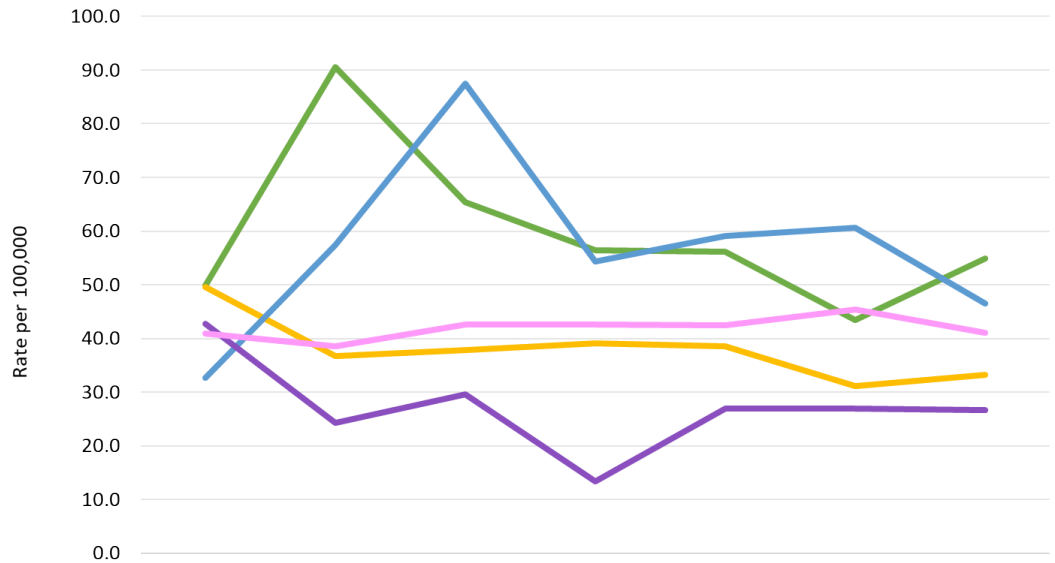
CHART 7.15: ADULTS DIAGNOSED WITH DIABETES (2002-2016)



	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 System

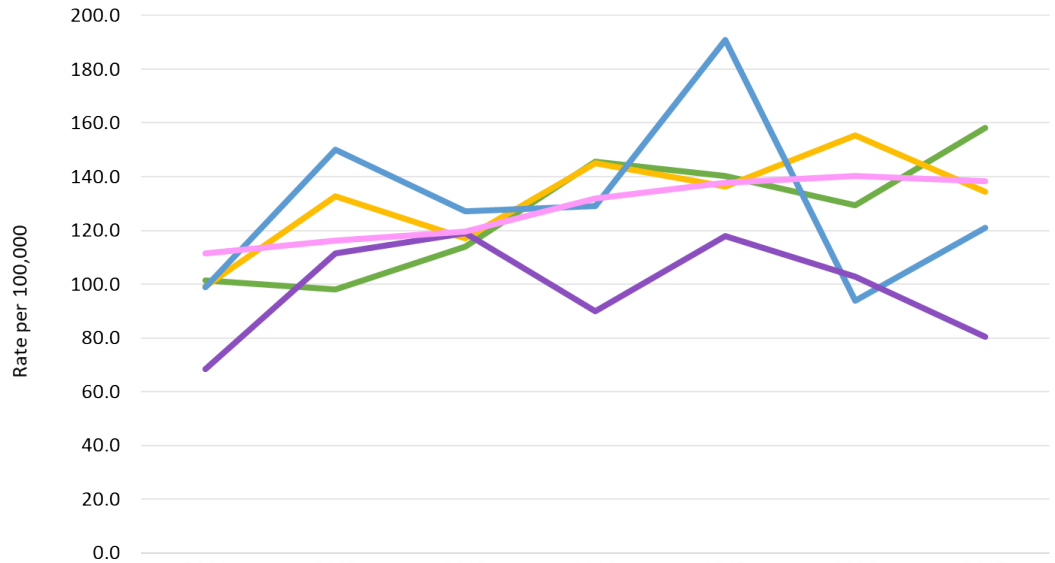
CHART 7.16: DIABETES HOSPITALIZATIONS CHILDREN AGES 5-11 (2011-2017)



	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 Health Care Administration (AHCA)

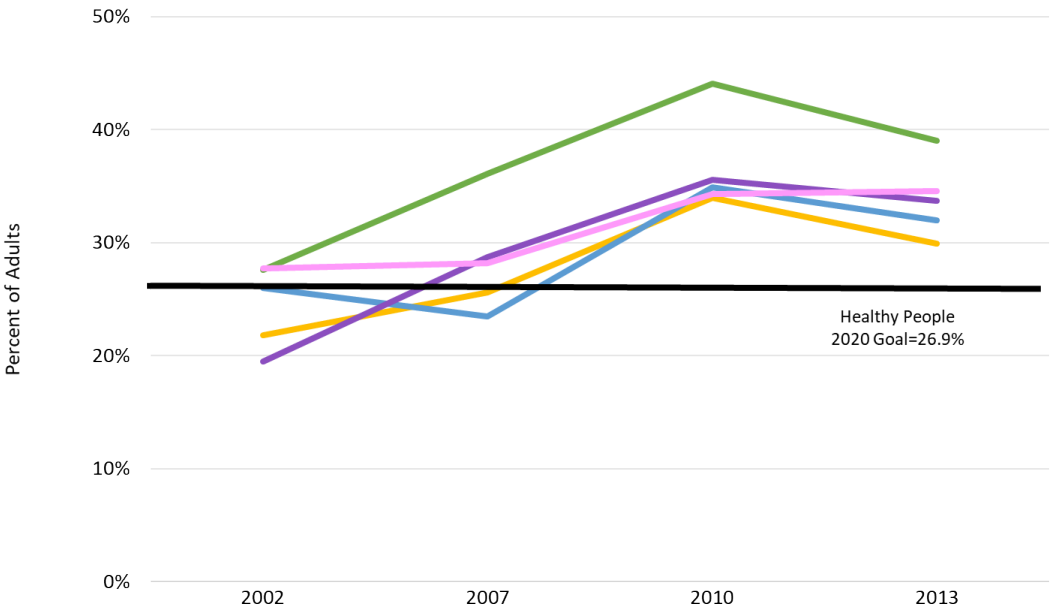
CHART 7.17: DIABETES HOSPITALIZATIONS CHILDREN AGES 12-18 (2011-2017)



	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 Health Care Administration (AHCA)

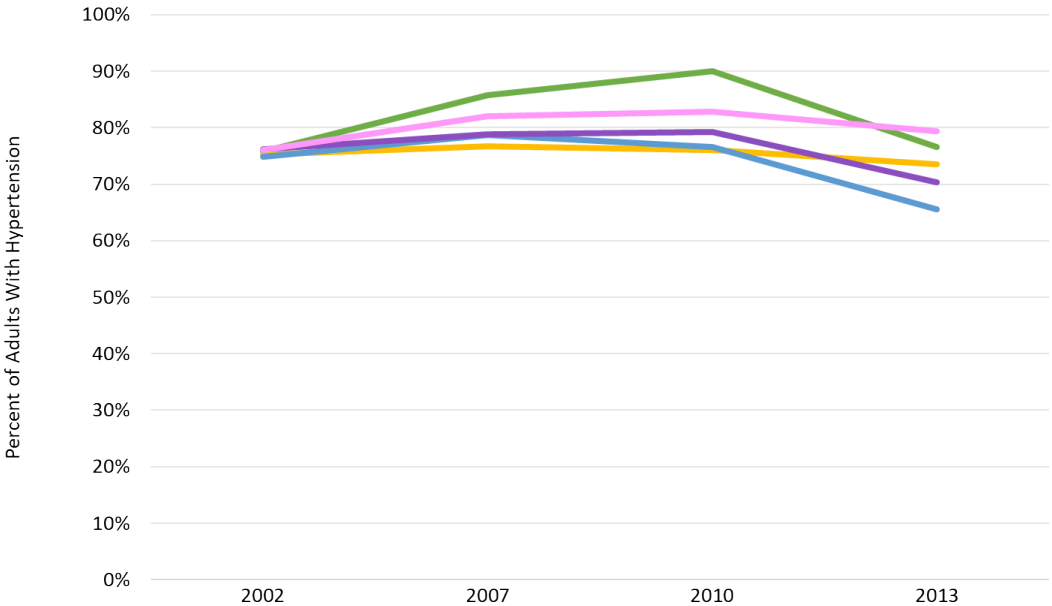
CHART 7.18: ADULTS EVER TOLD THEY HAVE HYPERTENSION (HIGH BLOOD PRESSURE) (2002-2013)



	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 Department of Health, Florida Behavioral Risk Factor Surveillance System-

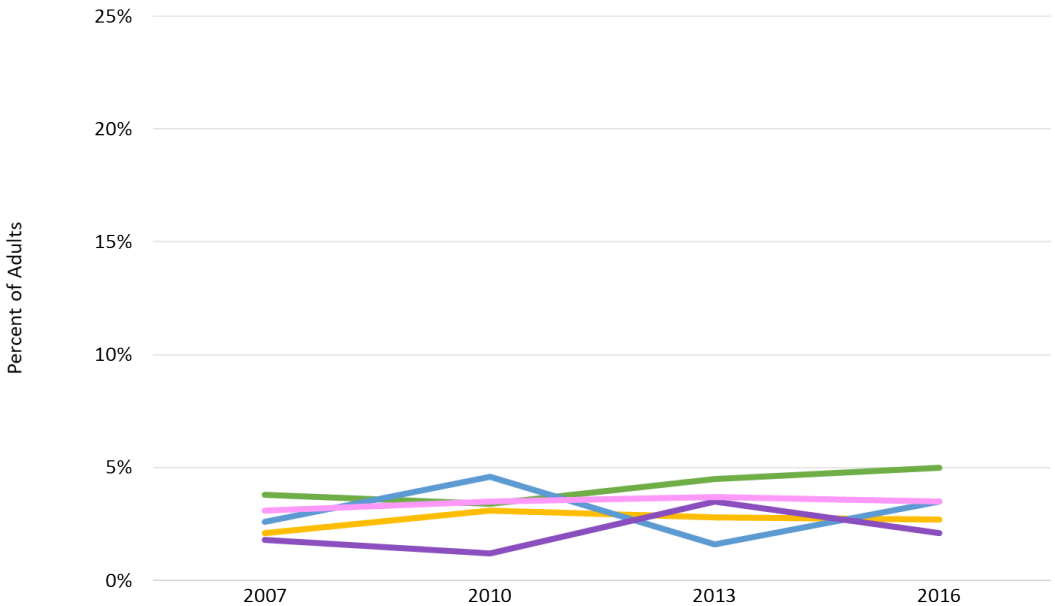
CHART 7.19: ADULTS WITH HYPERTENSION WHO TAKE BLOOD PRESSURE MEDICATION (2002-2013)



	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

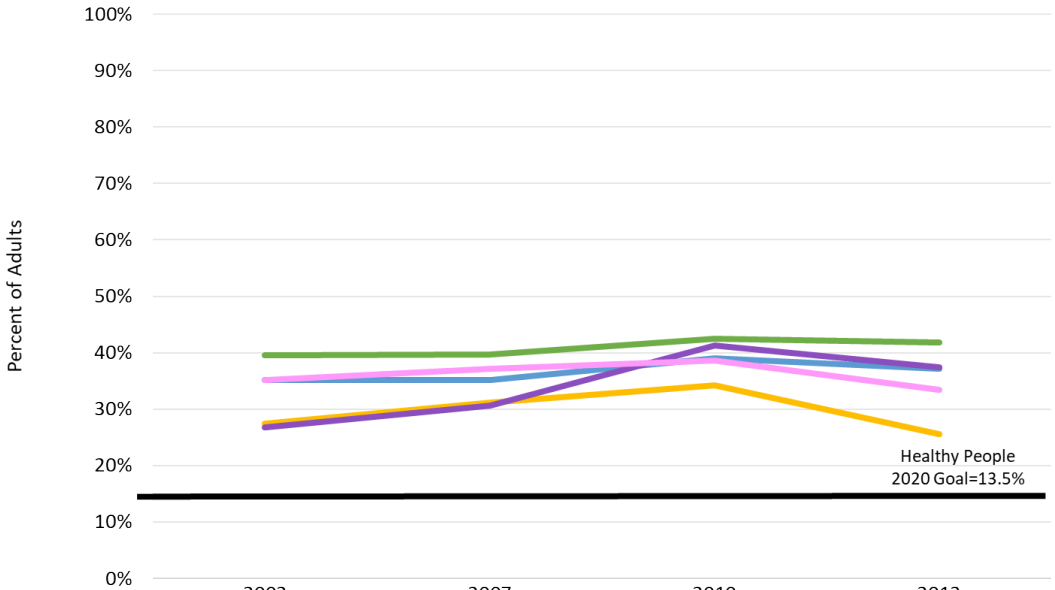
CHART 7.20: ADULTS WHO HAVE EVER BEEN TOLD THEY HAD A STROKE (2007-2016)



	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

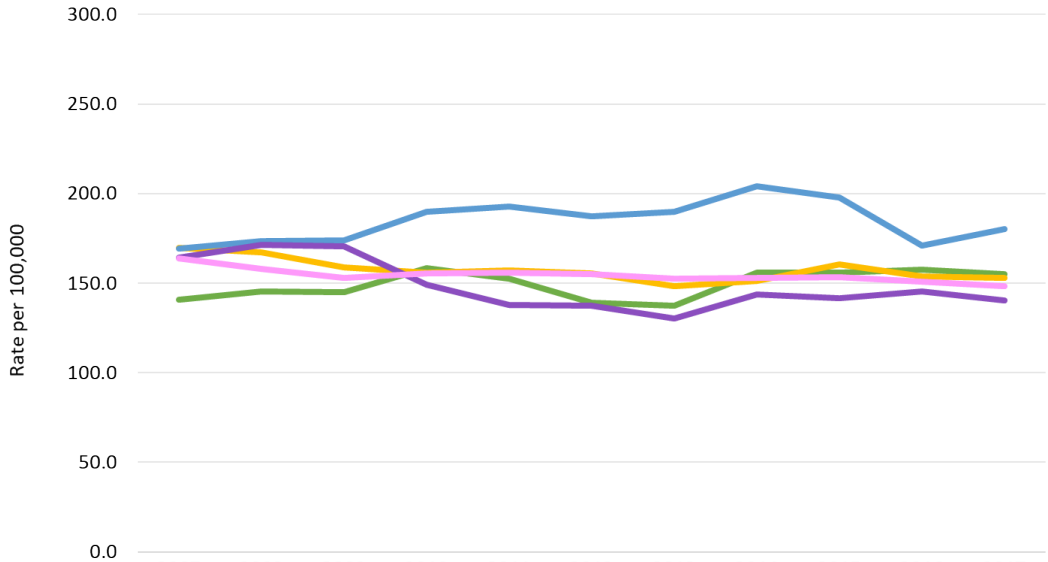
CHART 7.21: ADULTS WHO HAVE EVER BEEN TOLD THEY HAD HIGH CHOLESTEROL (2002-2013)



	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

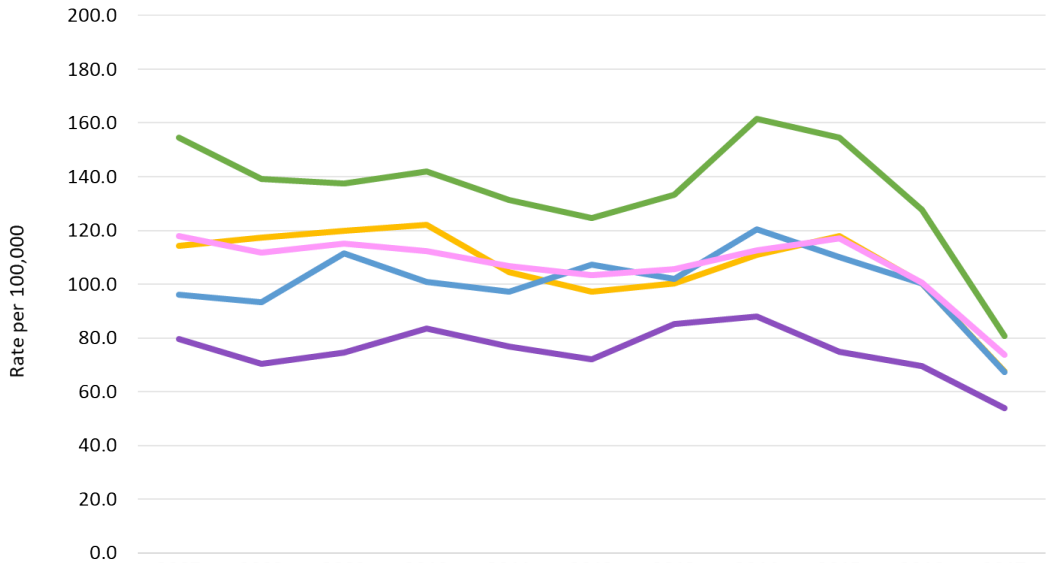
CHART 7.22: HEART DISEASES AGE-ADJUSTED DEATH RATE (2007-2017)



	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, Bureau of Vital Statistics

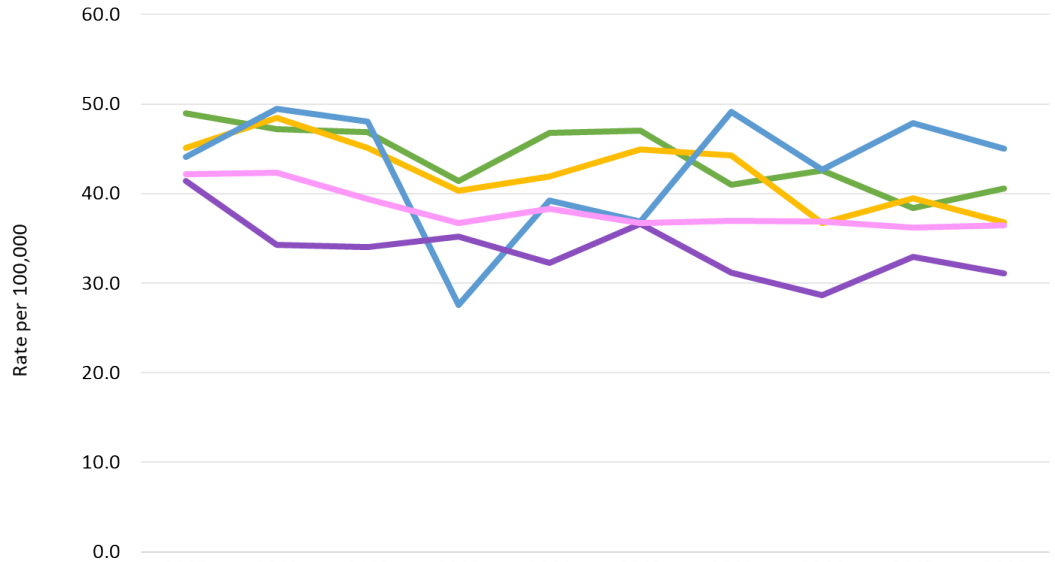
CHART 7.23: PREVENTABLE HOSPITALIZATIONS UNDER AGE 65 FROM CONGESTIVE HEART FAILURE (2007-2017)



	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 Health Care Administration (AHCA)

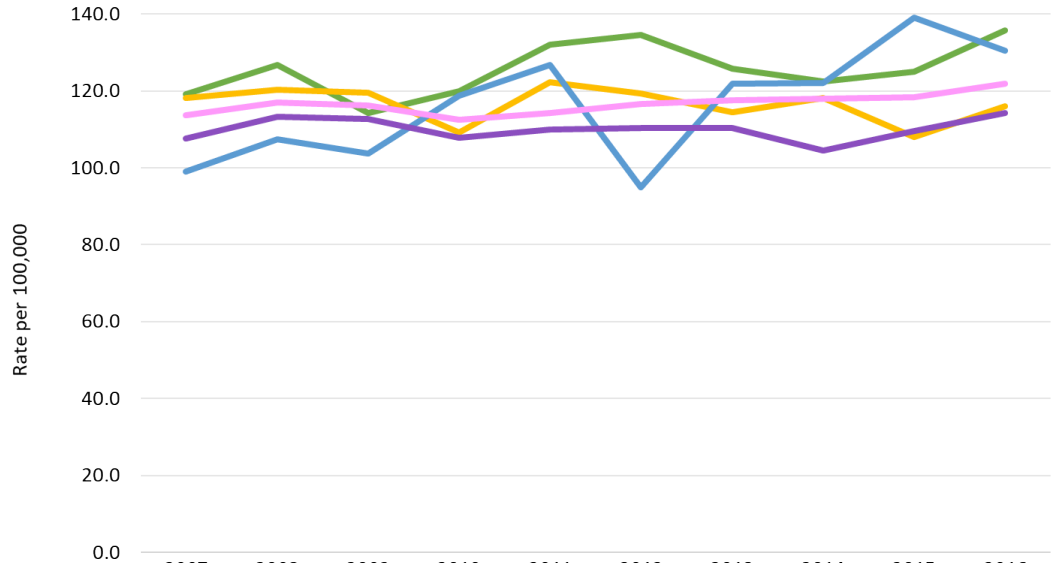
CHART 7.24: COLORECTAL CANCER INCIDENCE, AGE-ADJUSTED (2007-2016)



	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

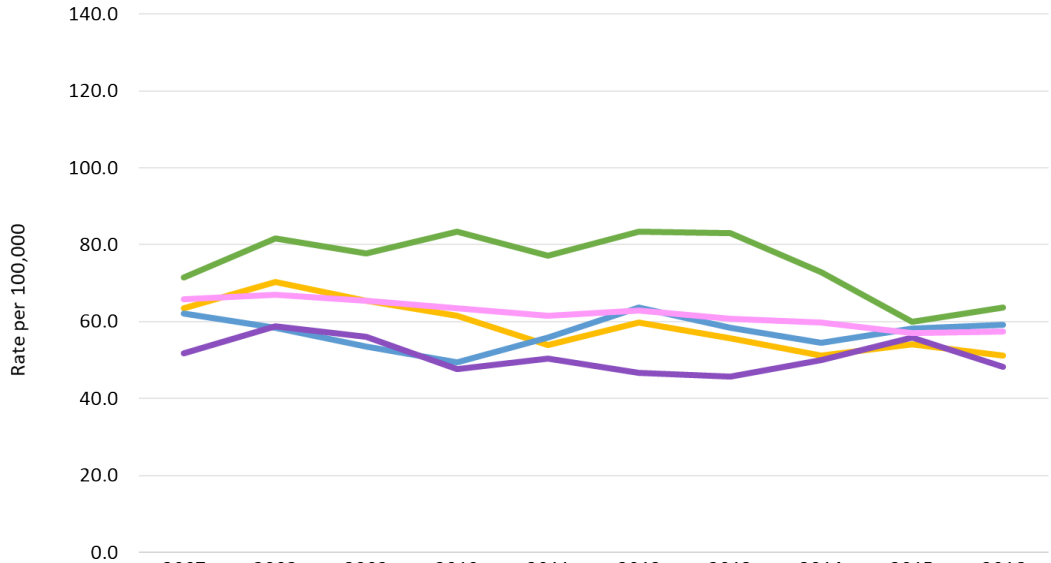
CHART 7.25: FEMALE BREAST CANCER INCIDENCE, AGE-ADJUSTED (2007-2016)



	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

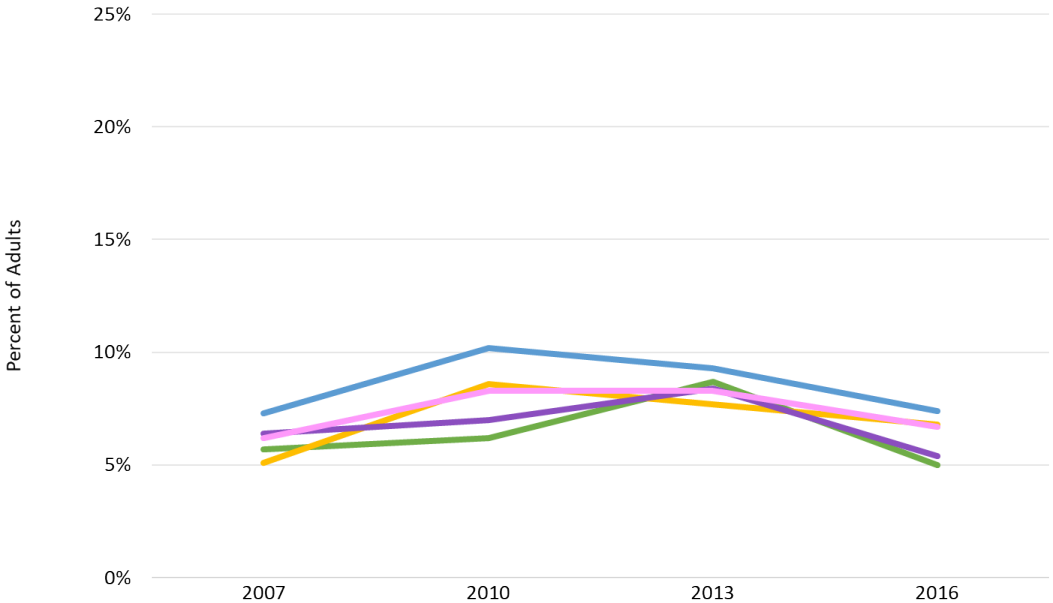
CHART 7.26: LUNG CANCER INCIDENCE, AGE-ADJUSTED (2007-2016)



	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

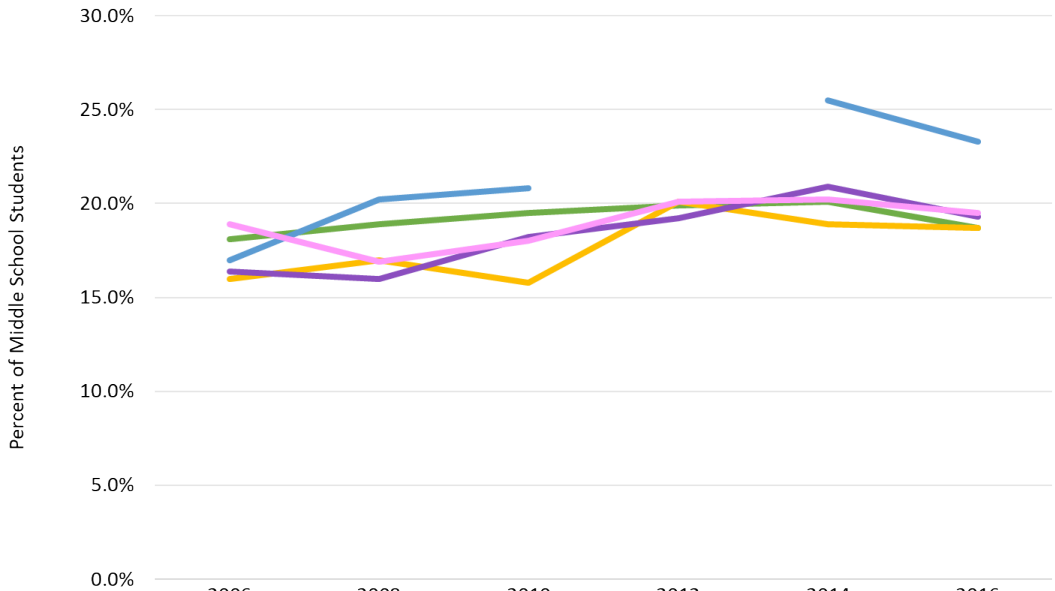
CHART 7.27: ADULTS WHO CURRENTLY HAVE ASTHMA (2007-2016)



	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 Department of Health, Florida Behavioral Risk Factor Surveillance System

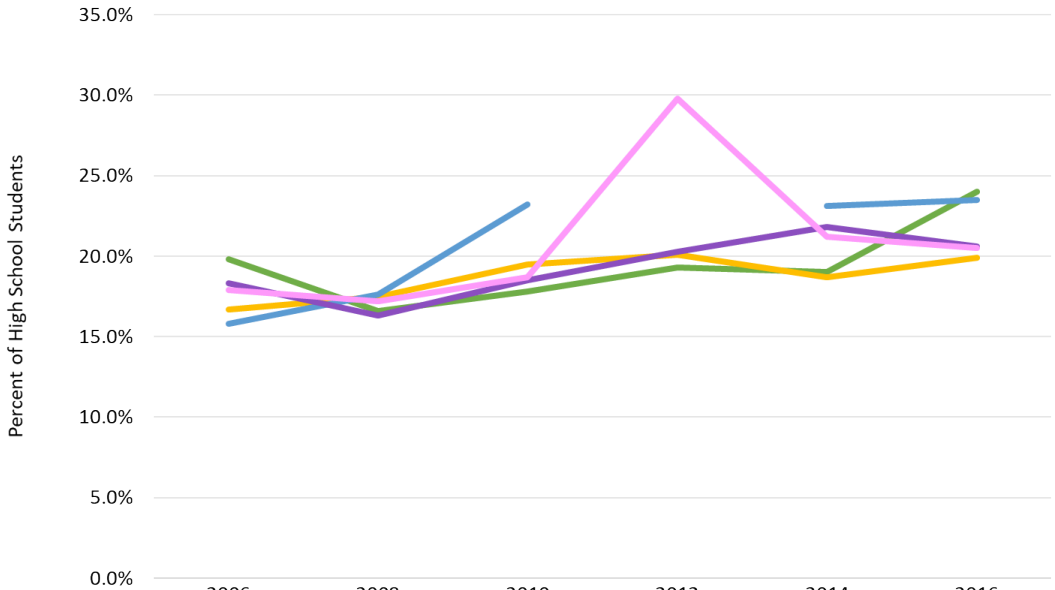
CHART 7.28: MIDDLE SCHOOL STUDENTS WITH KNOWN ASTHMA (2006-2016)



	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

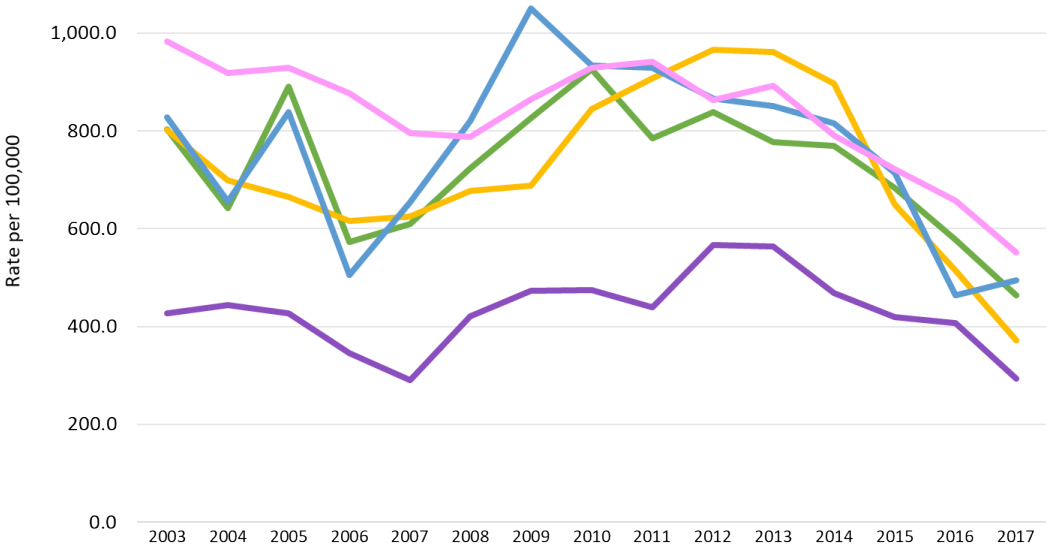
CHART 7.29: HIGH SCHOOL STUDENTS WITH KNOWN ASTHMA (2006-2016)



	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

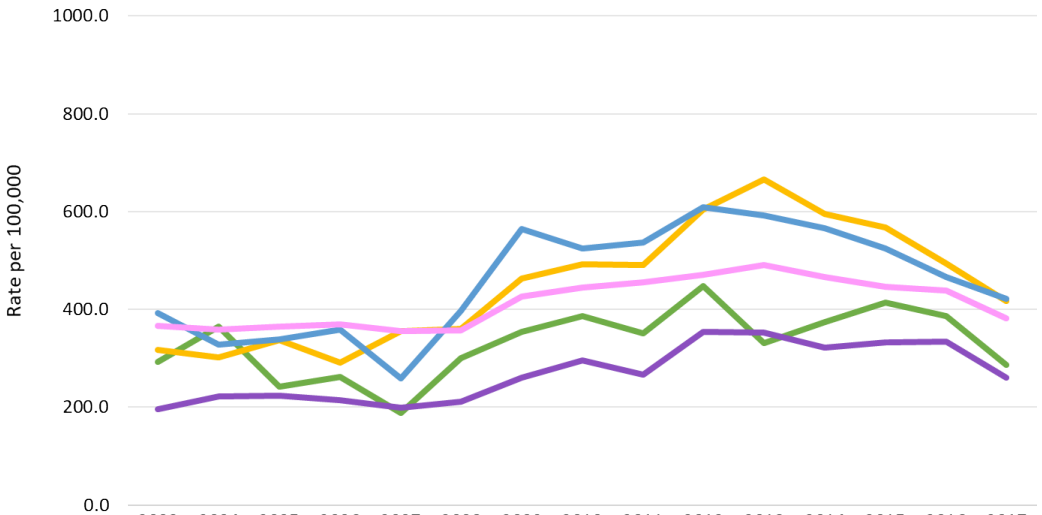
CHART 7.30: ASTHMA HOSPITALIZATIONS AGES 1-4 (2003-2017)



	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 Health Care Administration (AHCA)

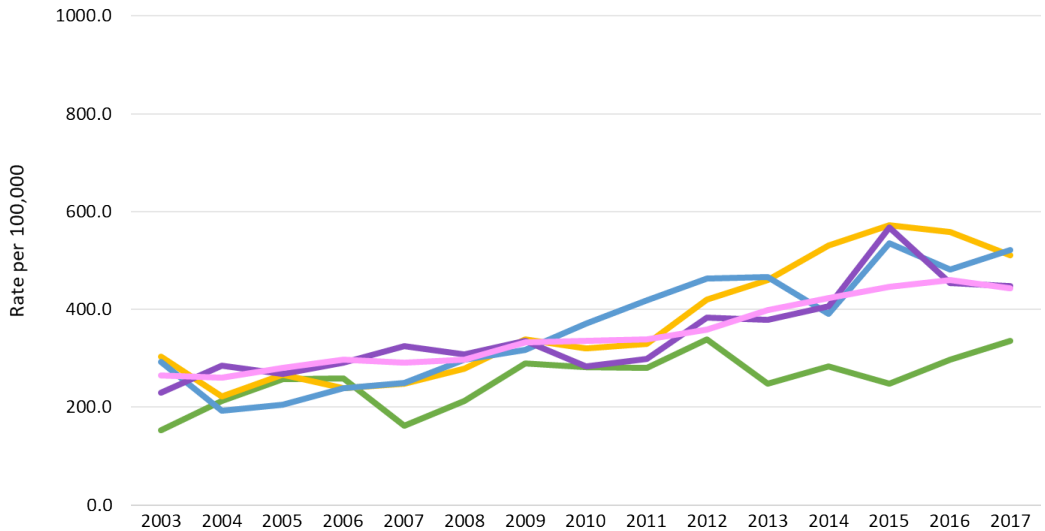
CHART 7.31: ASTHMA HOSPITALIZATIONS AGES 5-11 (2003-2017)



	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 Health Care Administration (AHCA)

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 Health Care Administration (AHCA)

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, AGE-ADJUSTED, PER 100,000 POPULATION, FOUR-COUNTY REGION (2017)

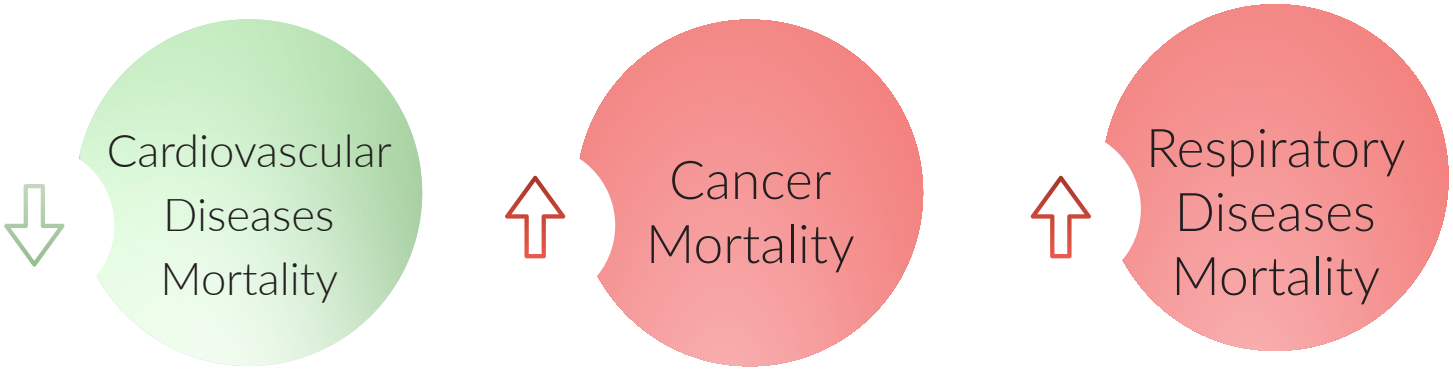
In the four-county region, cardiovascular diseases and cancer were the top two leading causes of death in all four counties. (See Table 7.2)

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

In Lake County, cardiovascular diseases are the leading cause of death per 100,000 population. Between 2014 (207) and 2017 (206.4) there was a slight decline in cardiovascular disease deaths. The cancer mortality rate increased from 153.8 in 2014 to 172.6 in 2017. Respiratory diseases have also increased from 53.8 in 2014 to 63.1 in 2017. Most other specific causes of death have increased as well. (See Table 7.3)

Figure 7.9 identifies the leading causes of death for Lake County in 2017. Red means that the indicator has worsened and green means that rates have improved since the last year data was reported in the previous CHNA.

FIGURE 7.9: LEADING CAUSES OF DEATH INDICATORS, LAKE COUNTY



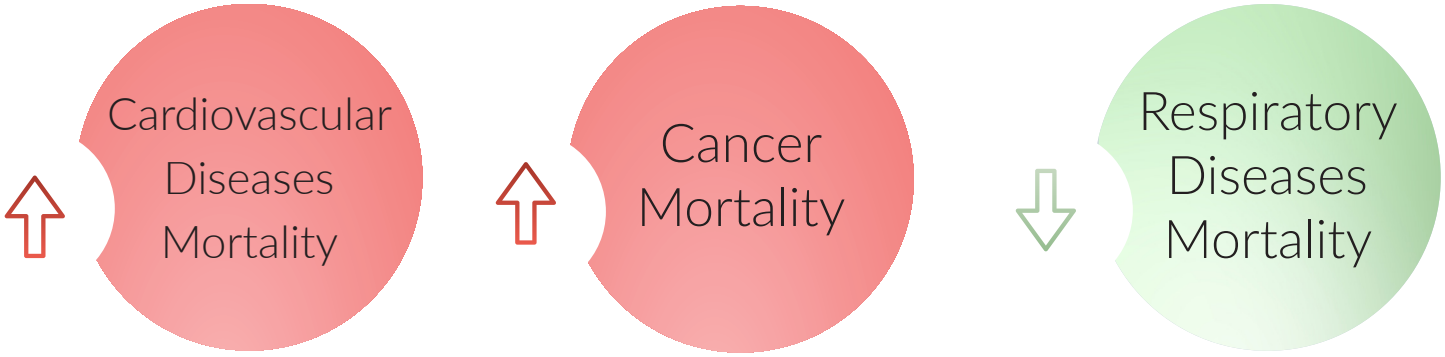
Source: Strategy Solutions, Inc.

LEADING CAUSES OF DEATH, 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 7.10 identifies the leading causes of death for Orange County in 2017. Red means that the indicator has worsened and green means that rates have improved since the last year data was reported in the previous CHNA.

FIGURE 7.10: LEADING CAUSES OF DEATH, ORANGE COUNTY



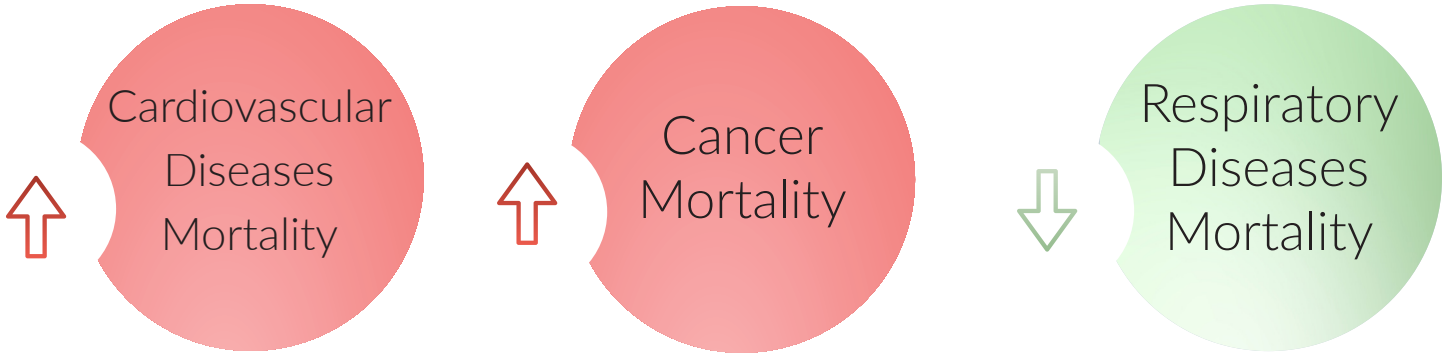
Source: Strategy Solutions, Inc.

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

Cardiovascular diseases are the leading cause of death in Osceola County with the rate increasing from 242.3 in 2014 to 243.6 in 2017. The cancer death rate has also increased from 147.6 in 2014 to 154.2 in 2017. Death from respiratory diseases have decreased from 68.7 in 2014 to 54.6 in 2017. (See Table 7.5)

Figure 7.11 identifies the leading causes of death for Osceola County in 2017. Red means that the indicator has worsened and green means that rates have improved since the last year data was reported in the previous CHNA.

FIGURE 7.11: LEADING CAUSES OF DEATH INDICATORS, OSCEOLA COUNTY



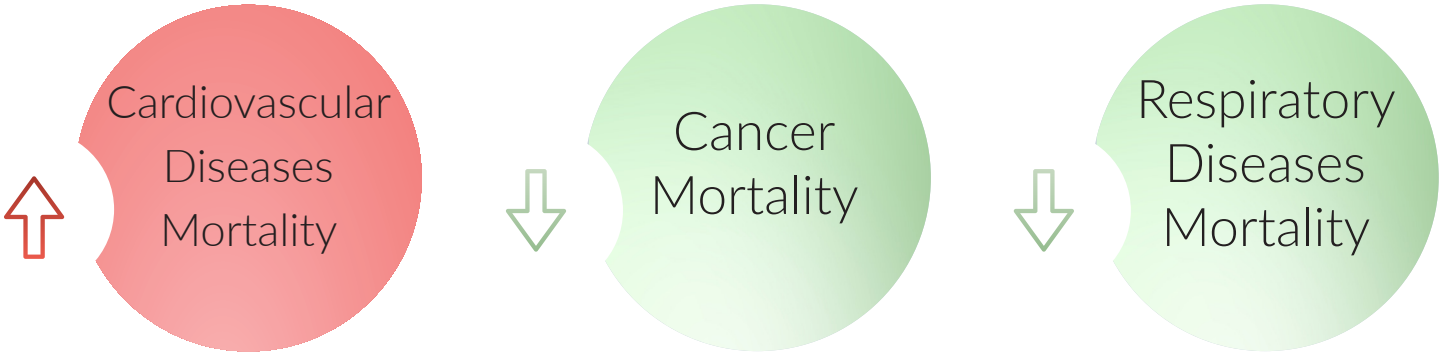
Source: Strategy Solutions, Inc.

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

Cardiovascular diseases are the leading cause of death in Seminole County with the rate increasing from 194 in 2014 to 203 in 2017. The cancer death rate fluctuated during this timeframe but remained steady when looking at 2014 (150.8) to 2017 (150.7). Deaths from respiratory diseases have decreased from 68.3 in 2014 to 63.5 in 2017. (See Table 7.6)

Figure 7.12 identifies the leading causes of death for Seminole County in 2017. Red means that the indicator has worsened and green means that rates have improved since the last year data was reported in the previous CHNA.

FIGURE 7.12: LEADING CAUSES OF DEATH INDICATORS, SEMINOLE COUNTY



Source: Strategy Solutions, Inc.

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

Cancer is the leading rankable cause of death in the four-county region, and the rate increased from 145 in 2014 to 147.3 in 2017. Heart diseases ranked second, with the rate decreasing from 142.1 in 2014 to 138.5 in 2017. Unintentional injury rates have increased in the region from 41.4 in 2014 to 51.2 in 2017. (See Table 7.7)

Figure 7.13 identifies the leading rankable causes of death in 2017 for the region. Red means that the indicator has worsened and green means that rates have improved since the last year data was reported in the previous CHNA.

FIGURE 7.13: LEADING RANKABLE CAUSES OF DEATH INDICATORS, FOUR-COUNTY REGION

Source: Strategy Solutions, Inc.

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

Cancer is the top leading rankable cause of death in Lake County with the rate increasing from 153.8 in 2014 to 172.6 in 2017. Heart diseases are the second leading rankable cause of death in the county, with the rate decreasing from 156 in 2014 to 155.2 in 2017. Unintentional injury death rates have increased from 63.2 to 71.6. Most other leading rankable causes of death have increased in Lake County between 2014 and 2017. (See Table 7.8)

Figure 7.14 identifies the leading rankable causes of death for Lake County for 2017. Red means that the indicator has worsened and green means that rates have improved since the last year data was reported in the previous CHNA.

FIGURE 7.14: LEADING RANKABLE CAUSES OF DEATH INDICATORS, LAKE COUNTY

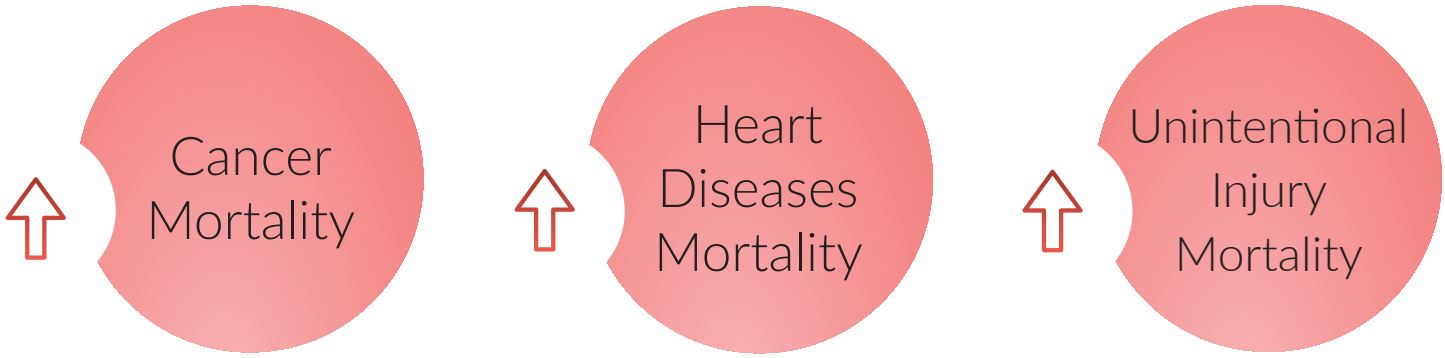
Source: Strategy Solutions, Inc.

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 7.9)

Figure 7.15 identifies the leading rankable causes of death for Orange County for 2017. Red means that the indicator has worsened since the last year data was reported in the previous CHNA.

FIGURE 7.15: LEADING RANKABLE CAUSES OF DEATH INDICATORS, ORANGE COUNTY



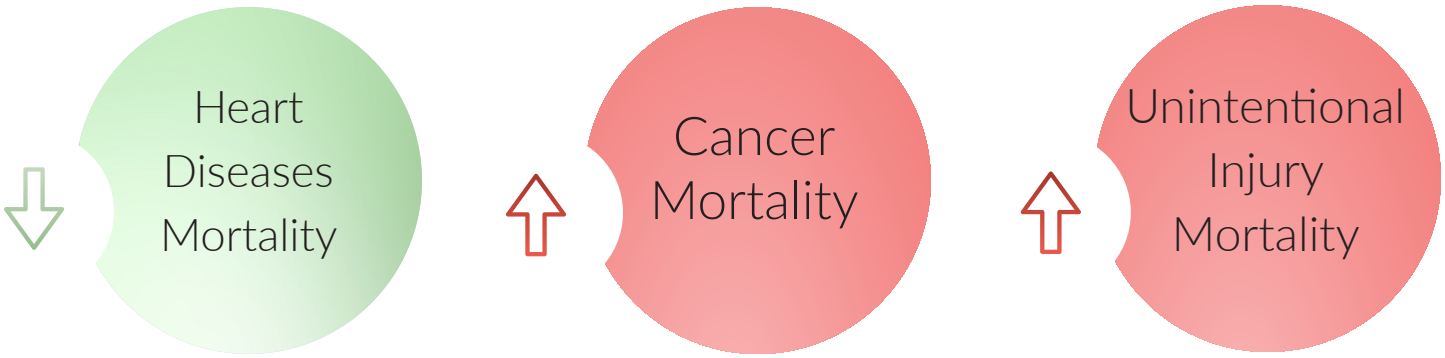
Source: Strategy Solutions, Inc.

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

Heart diseases are the top leading rankable cause of death in Osceola County with the rate decreasing from 204.2 in 2014 to 180.3 in 2017. Cancer is the second leading rankable cause of death in the county, with the rate increasing from 147.6 to 154.2. Unintentional injury death rates have also increased from 42.7 to 48.6. (See Table 7.10)

Figure 7.16 identifies the leading rankable causes of death for Osceola County for 2017. Red means that the indicator has worsened and green means that rates have improved since the last year data was reported in the previous CHNA.

FIGURE 7.16: LEADING RANKABLE CAUSES OF DEATH INDICATORS, OSCEOLA COUNTY



Source: Strategy Solutions, Inc.

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

Cancer is the top leading rankable cause of death in Seminole County with the rate fluctuating since 2014. Overall the rate has not changed much from 2014 (150.8) to 2017 (150.7). Heart diseases is the second leading rankable cause of death in the county, with the rate decreasing from 143.9 to 140.5. Chronic lower respiratory disease death rates were third in 2014 and have decreased from 41.2 to 39.3. (See Table 7.11)

Figure 7.17 identifies the leading rankable causes of death for Seminole County for 2017. Green means that rates have improved since the last year data was reported in the previous CHNA assessment.

FIGURE 7.17: LEADING RANKABLE CAUSES OF DEATH INDICATORS, SEMINOLE COUNTY

Source: Strategy Solutions, Inc.

Leading Causes of Death: Key Findings

Despite a decrease in cardiovascular diseases' rates between 2012-2017, they remain the leading cause of death in the four-county region, followed by cancer. These two leading causes of death result in approximately four times the number of deaths per 100,000 than the next top cause of death, unintentional injury, even though the rates of cancer and heart disease related deaths have decreased in several counties since 2012. Unintentional injury related deaths are the only cause that has shown a steady increase across the region. Respiratory disease related death rates have increased in some counties and decreased in others.

Cancer is the top rankable cause of death in Lake, Orange and Seminole counties, whereas cardiovascular disease is the leading rankable cause of death in Osceola County. Unintentional injury death rates have increased in all four counties but are fifth in Seminole County. Cerebrovascular diseases and chronic lower respiratory disease are also on the top 10 lists in all counties but show up in different order. Suicide is on the top 10 list in every county except Osceola.

Stakeholder interview, focus group, intercept survey and key informant survey participants identified access to preventative screenings, especially for the uninsured, as a top community need. Costs associated with screenings were also noted as a barrier to receiving preventative care, leading to the diseases that become the top causes of death.

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

	Region Total	Lake	Orange	Osceola	Seminole	Florida
Cardiovascular diseases	215.7	206.4	221.8	243.6	203.0	203.9
Cancer	154.6	172.6	152.3	154.2	150.7	149.4
Other causes (residual)	76.5	92.9	71.0	80.4	69.3	75.5
External causes	70.3	103.2	64.2	66.5	63.9	78.0
Respiratory diseases	58.0	63.1	55.5	54.6	63.5	62.1
Nervous system diseases	30.2	31.0	31.3	30.4	27.8	29.2
Nutritional and metabolic diseases	26.6	27.1	26.4	27.1	28.5	22.2
Infectious diseases	18.0	16.2	18.9	21.3	18.4	16.6

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

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

	2012	2013	2014	2015	2016	2017	Total
Cardiovascular diseases	186.8	189.2	207.0	204.3	210.1	206.4	201.1
Cancer	160.2	172.2	153.8	174.0	165.9	172.6	166.6
Other causes (residual)	72.5	91.4	82.7	85.5	84.6	92.9	85.1
Respiratory diseases	55.5	58.7	53.8	60.5	57.5	63.1	58.3
External causes	71.1	62.8	82.1	77.9	85.6	103.2	80.9
Nervous system diseases	25.4	26.2	28.0	33.8	30.1	31.0	29.2
Nutritional and metabolic diseases	22.4	23.6	22.4	18.7	26.0	27.1	23.4
Infectious diseases	17.7	21.1	17.2	18.0	15.3	16.2	17.5
Digestive diseases	15.2	13.5	13.7	14.3	19.7	17.7	15.8
Symptoms, signs & abnormal findings	14.1	10.4	12.3	6.1	6.6	5.7	9.0
Urinary tract diseases	8.2	6.4	7.1	8.8	9.1	8.8	8.1
In situ, benign neoplasms, uncertain/unknown behavior	4.0	4.5	4.0	3.8	4.3	5.1	4.3
Perinatal period conditions	4.6	3.6	7.5	6.1	3.0	6.4	5.2
Congenital & chromosomal anomalies	3.9	3.1	3.7	4.4	2.3	3.4	3.5
Anemias	1.6	0.8	1.7	1.0	1.4	2.1	1.4
Pregnancy, childbirth, puerperium complications	0.0	0.0	0.3	0.0	0.0	0.0	0.1

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

TABLE 7.4: 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 7.5: LEADING CAUSES OF DEATH, AGE-ADJUSTED, PER 100,000 POPULATION, OSCEOLA COUNTY (2012-2017)

	2012	2013	2014	2015	2016	2017	Total
Cardiovascular diseases	239.4	235.3	242.3	249.7	227.1	243.6	239.6
Cancer	163.2	161.3	147.6	146.0	146.0	154.2	152.8
Other causes (residual)	71.7	86.9	64.2	67.9	58.9	80.4	71.5
Respiratory diseases	68.9	64.0	68.7	67.2	68.7	54.6	65.0
External causes	50.6	56.0	58.9	51.8	66.6	66.5	58.7
Nervous system diseases	22.1	21.3	29.4	25.1	27.0	30.4	26.2
Infectious diseases	12.8	23.8	20.2	25.6	23.2	21.3	21.3
Nutritional and metabolic diseases	18.8	24.1	22.6	16.6	19.3	27.1	21.5
Urinary tract diseases	18.3	15.4	15.2	20.1	15.1	15.4	16.5
Digestive diseases	12.4	15.2	12.0	10.9	11.8	8.8	11.7

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

TABLE 7.6: LEADING CAUSES OF DEATH, AGE-ADJUSTED, PER 100,000 POPULATION, SEMINOLE COUNTY (2012-2017)

	2012	2013	2014	2015	2016	2017	Total
Cardiovascular diseases	187.7	179.0	194.0	203.2	210.9	203.0	196.9
Cancer	159.0	155.3	150.8	154.7	156.7	150.7	154.4
Other causes (residual)	86.8	79.4	78.6	67.5	61.7	69.3	73.4
Respiratory diseases	62.6	60.3	68.3	63.2	58.8	63.5	62.8
External causes	47.7	52.9	52.1	55.0	62.2	63.9	55.8
Nervous system diseases	24.8	25.2	31.5	35.6	34.3	27.8	30.0
Nutritional and metabolic diseases	28.8	24.0	21.5	24.4	23.0	28.5	25.1
Infectious diseases	17.4	15.9	16.5	16.8	14.1	18.4	16.5
Urinary tract diseases	8.7	11.6	11.4	12.0	10.3	11.5	10.9
Digestive diseases	10.2	10.1	12.8	9.5	11.9	10.7	10.9

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

TABLE 7.7: TOP 10 LEADING RANKABLE CAUSES OF DEATH, AGE-ADJUSTED, PER 100,000 POPULATION, FOUR-COUNTY REGION (2012-2017)

	2012	2013	2014	2015	2016	2017	Total
Cancer	155.1	157.0	145.0	152.9	152.7	147.3	151.5
Heart diseases	142.2	135.4	142.1	143.5	140.4	138.5	140.3
Unintentional injury	37.9	36.8	41.4	43.3	48.4	51.2	43.4
Cerebrovascular diseases	31.0	29.6	31.6	35.5	37.6	39.8	34.4
Chronic lower respiratory disease	34.2	34.7	32.7	36.5	32.9	32.3	33.9
Alzheimer's disease	16.9	14.8	18.0	23.2	22.5	22.6	19.8
Diabetes mellitus	18.1	19.5	18.2	16.2	17.2	19.7	18.1
Nephritis, nephrotic syndrome, nephrosis	10.6	10.4	11.0	11.8	10.7	10.1	10.8
Suicide	12.6	11.8	11.8	12.6	12.1	14.1	12.5
Influenzas & pneumonia	10.6	10.5	9.1	8.7	8.6	10.1	9.6

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

TABLE 7.8: TOP 10 LEADING RANKABLE CAUSES OF DEATH, AGE-ADJUSTED, PER 100,000 POPULATION, LAKE COUNTY (2012-2017)

	2012	2013	2014	2015	2016	2017	Total
Cancer	160.2	172.2	153.8	174.0	165.9	172.6	166.6
Heart diseases	139.0	137.5	156.0	156.0	157.4	155.2	150.6
Unintentional injury	52.1	48.4	63.2	60.1	66.4	71.6	60.6
Chronic lower respiratory disease	37.9	40.4	38.1	42.9	40.1	45.1	40.8
Cerebrovascular diseases	28.7	27.6	32.4	30.4	32.7	31.0	30.5
Alzheimer's disease	18.4	15.6	21.4	24.2	20.5	22.5	20.6
Diabetes mellitus	21.4	23.1	21.4	18.1	24.8	25.4	22.4
Chronic liver disease & cirrhosis	12.1	11.1	11.9	12.6	15.5	13.8	12.9
Suicide	15.2	12.7	13.7	13.6	12.6	23.8	15.3
Parkinson's disease	7.0	10.4	6.6	9.0	9.6	8.5	8.5

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

TABLE 7.9: 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

TABLE 7.10: TOP 10 LEADING RANKABLE CAUSES OF DEATH, AGE-ADJUSTED, PER 100,000 POPULATION, OSCEOLA COUNTY (2012-2017)

	2012	2013	2014	2015	2016	2017	Total
Heart diseases	187.3	190.0	204.2	197.8	170.9	180.3	187.9
Cancer	163.2	161.3	147.6	146.0	146.0	154.2	152.8
Unintentional injury	34.3	41.5	42.7	35.3	48.0	48.6	42.0
Chronic lower respiratory disease	37.7	39.0	43.9	38.2	39.8	32.4	38.3
Cerebrovascular diseases	36.8	27.4	28.6	38.8	43.9	48.4	37.9
Diabetes mellitus	17.9	24.1	21.0	13.9	16.6	23.2	19.4
Alzheimer's disease	15.7	15.3	23.7	18.6	21.3	22.6	19.8
Nephritis, nephrotic syndrome, nephrosis	18.3	15.4	14.9	20.1	14.8	15.4	16.4
Septicemia	6.2	13.6	9.8	13.9	17.6	13.5	12.7
Influenzas & pneumonia	16.6	12.9	14.3	12.6	9.7	10.4	12.5

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

TABLE 7.11: TOP 10 LEADING RANKABLE CAUSES OF DEATH, AGE-ADJUSTED, PER 100,000 POPULATION, SEMINOLE COUNTY (2012-2017)

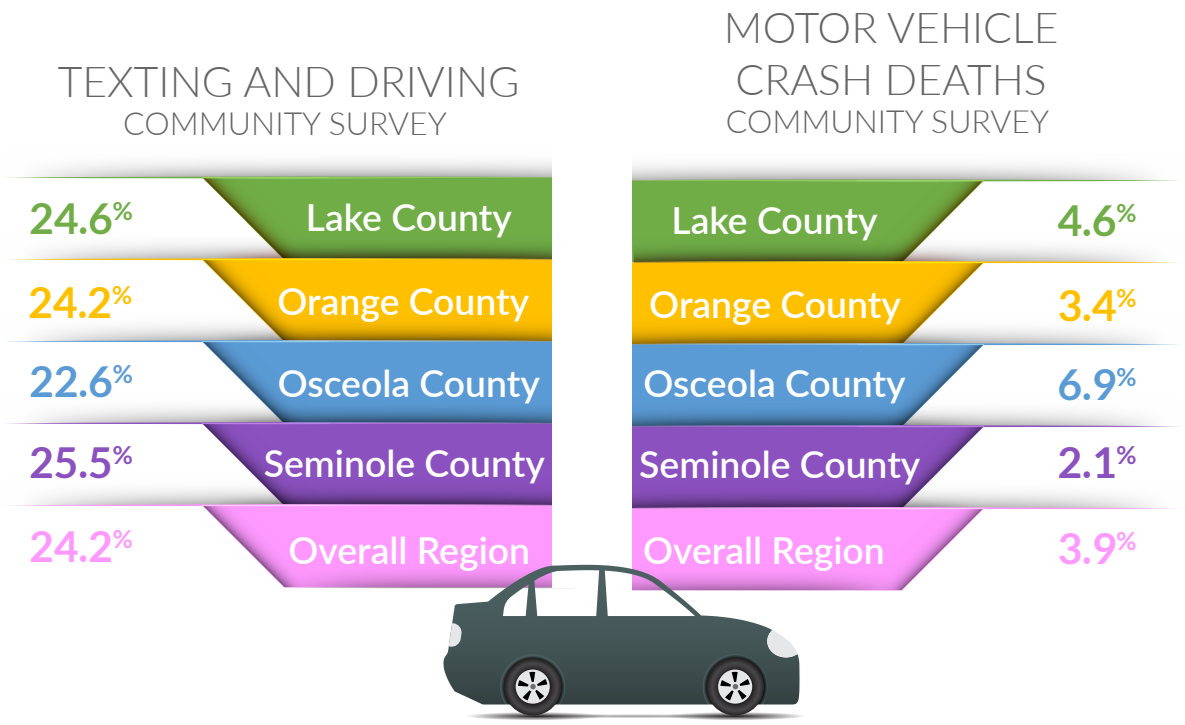
	2012	2013	2014	2015	2016	2017	Total
Cancer	159.0	155.3	150.8	154.7	156.7	150.7	154.4
Heart diseases	137.5	130.4	143.9	141.8	145.4	140.5	140.1
Cerebrovascular diseases	30.9	33.1	35.9	45.2	49.7	50.3	41.4
Chronic lower respiratory disease	39.3	40.5	41.2	41.1	39.0	39.3	40.1
Unintentional injury	30.8	35.5	36.8	41.1	39.6	47.2	38.6
Diabetes mellitus	27.1	23.4	20.5	22.6	19.2	20.3	22.1
Alzheimer's disease	17.2	17.0	24.4	26.5	25.2	19.8	21.8
Suicide	12.2	13.3	11.5	11.0	14.4	11.8	12.4
Nephritis, nephrotic syndrome, nephrosis	8.2	11.6	10.8	11.7	10.3	11.5	10.7
Influenzas & pneumonia	10.6	10.3	11.6	8.1	8.3	10.9	9.9

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

Injury: What the Community is Saying

Figure 7.18 displays the input from community survey respondents related to injury. Residents of Seminole County indicated the highest rate of having experienced texting and driving while Osceola County residents indicated the highest rate of having experienced motor vehicle crash deaths.

FIGURE 7.18: INJURY INDICATORS, COMMUNITY SURVEY 2019

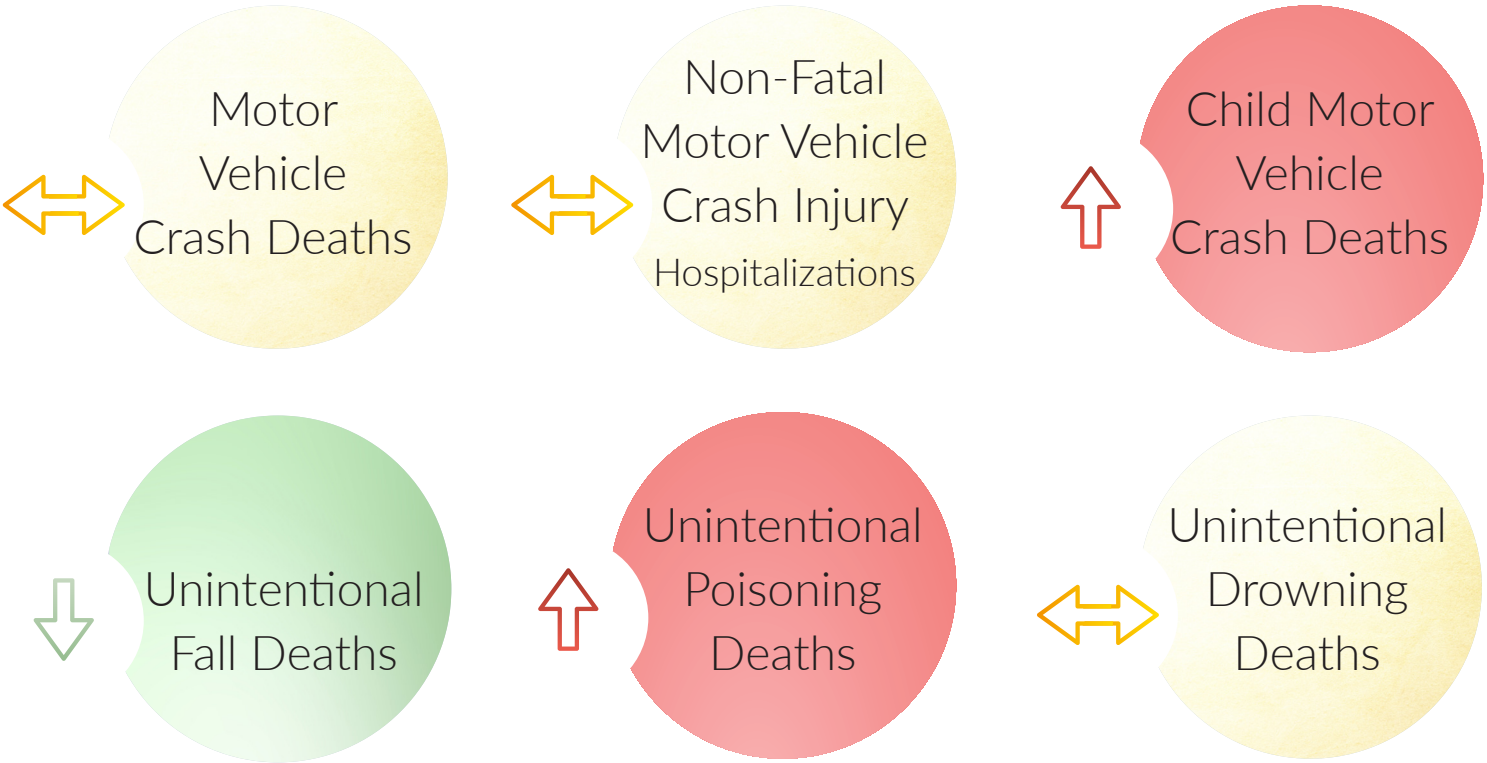


Source: Central Florida Community Collaborative Community Survey, Strategy Solutions, Inc.

Injury at a Glance

The key indicators related to injury that have changed since the last assessment are identified in Figure 7.22. Red means that the indicator has worsened in at least three of the regional counties, yellow means that some counties are increasing and some are decreasing or rates have remained roughly equivalent, and green means that rates have improved in at least three of the regional counties since the last CHNA data was available.

FIGURE 7.22: 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 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)

Since 2007, Lake County had the highest rate of motor vehicle crashes per 100,000 people in the four-county region and the state (14.9 in 2017). The Lake County rate decreased from 33.4 in 2002 to 18.3 in 2017. The Orange County rate decreased from 17.2 in 2002 to 13.5 in 2017. The Osceola County rate decreased from 26.9 in 2002 to 12.8 in 2017, while Seminole County had the lowest rate in the region from 2002 (13.8) to 2017 (11). (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 per 100,000 of non-fatal hospitalizations in the four-county region and the state. The rate for this age group in 2017 in Lake County was 122.8, Orange County 81.9, Osceola County 111.2, Seminole County 56.9 and the state 98.5. Data was not available for any other age groups for Lake and Seminole counties. Data was not available in Osceola County for individuals age 10-14 and the reported rate for those age 0-4 was zero. (See Chart 7.34)

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

In the four-county region, Lake County (6.1) had the highest rate of child motor vehicle crash deaths per 100,000, ages 0-4 years, for 2015-2017, while Osceola County had the lowest rate (zero). Orange County's rate was 3.3 while Seminole County's rate was 2.8. The Florida rate is 2.5.

Lake County also had the highest rate in the region for ages 5-11 years at 2.6, higher than the state rate of 2.2. The other counties (Osceola: 2.2, Orange: 1.5, and Seminole: zero) were all equal to or lower than the state rate.

Lake County had the highest rate in the region for ages 12-18 years at 10.5, higher than the state rate of 8.7. The other counties (Seminole: 8.4, Orange: 7.2, and Osceola: 6.1) were all lower than the state rate.

For ages 19-21, Seminole County had the highest motor vehicle crash death rate at 19.6, while Orange County's rate was slightly lower at 18. Osceola County had a rate of 15 and Lake County had the lowest regional rate at 10.3. All counties in the region were 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 increased in all counties throughout the region between 2006 and 2015. Lake County had a consistently higher rate than the other counties as well as the state. The rate in Lake County increased from 328.9 in 2006 to 515 in 2017. In 2017, the rate in Lake County was higher than state (353.4). The rate in Orange County fluctuated and when looking at all years that data is reported, increased from 96.1 in 2006 to 252.6 in 2017, which was lower than the state. Osceola County's rate also fluctuated but increased from 104.5 in 2006 to 253.6 in 2017. Although the rate in Seminole County had varied, the rate increased from 98.8 in 2006 to 310.9 in 2017. For all years (2006 to 2017) the rates for all counties were significantly different than the state. (See Chart 7.36)

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

Between 2006 and 2017, in the four-county region Lake County's unintentional fall age-adjusted death rate per 100,000 was higher than the other counties and the state, almost double the nearest other county in 2016. Lake County's rate increased substantially from 5.8 in 2006 to 20.4 in 2017. The exception to this was 2016, where Orange County's rate (10.8) was also slightly higher than the state (10.1). The Osceola County rate more than doubled from 3.8 in 2006 to 9.5 in 2017. Orange County's rate increased from 6.2 to 10.8, while Seminole County's rate nearly doubled from 3.1 to 6.1 between 2006 and 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 all counties and across the state between 2002 and 2017, with a sharp increase between 2013 and 2017. Lake County's rate increased the most in the four-county region from 7.9 in 2002 to 26.7 in 2017, higher than the state rate (9.5 and 23.5 respectively). Orange County's rate more than doubled from 6.3 to 16.1; Osceola County's rate increased from 4.1 in 2002 to 19.4 in 2017 and Seminole County's rate increased from 8.9 to 22.1. (See Chart 7.38)

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

While the rate of unintentional drowning age-adjusted deaths per 100,000 fluctuated over the 15 years, the rate remained relatively low and consistent across the four-county region and the state. Between 2002 (2.7) and 2017 (1.5), Osceola County was the only county whose rate decreased, while Lake County's rate increased from 1.2 in 2002 to 1.6 in 2017, the rate in Orange County increased from 1.3 in 2002 to 1.6 in 2017 and Seminole County's rate increased from 1.8 in 2002 to two in 2017. In 2017 the rate in Seminole County (two) was comparable to the state (two) while all other counties were lower. (See Chart 7.39)

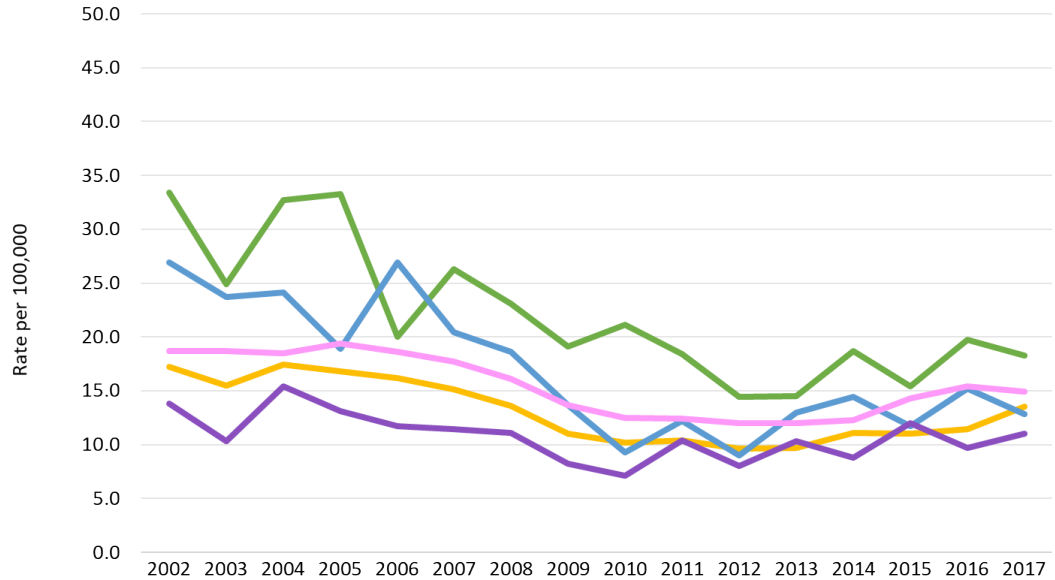
Injury: Key Findings

In the four-county region, the rate of motor vehicle crashes has decreased, while the rate of hospitalizations for unintentional falls has increased. Death rates due to falls have also increased. The rate of unintentional drowning deaths for Osceola County has slightly decreased for the years 2002 to 2017; Lake, Orange and Seminole counties rates have increased slightly for the same time period.

About a quarter of the regional respondents to the community survey (24.2 percent) indicated that texting and driving was a community issue that affected either them or their families over the past 12 months. Only 3.9 percent of the respondents indicated that motor vehicle crash deaths affected them or their families.

Injury prevention for falls and the need for in-home support were common themes identified by key informant survey respondents in Lake County. Key informant survey respondents for the other three counties in the four-county region did not identify injury topics among the top needs.

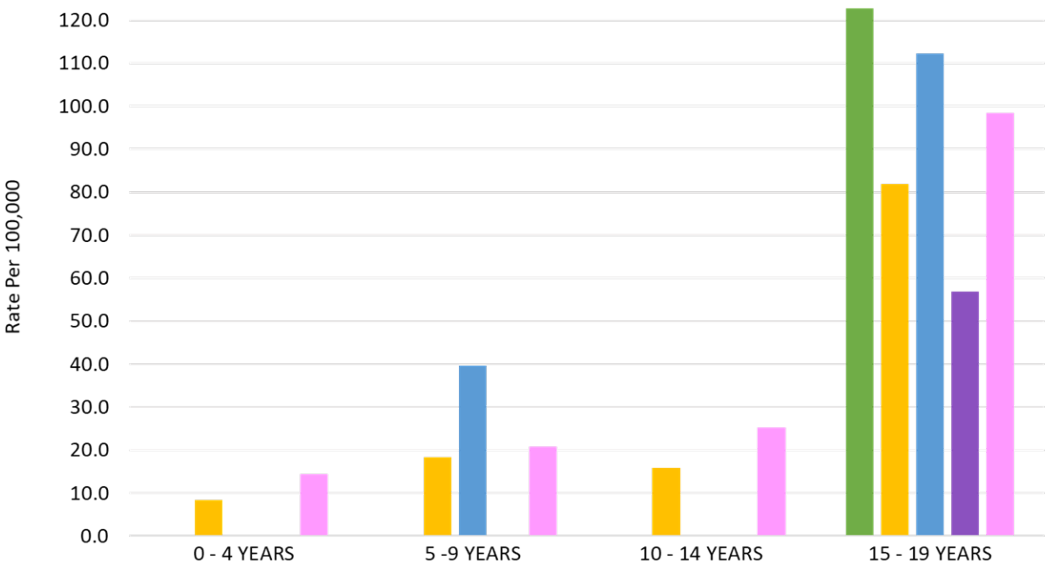
CHART 7.33: MOTOR VEHICLE CRASH DEATHS (2002-2017)



	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

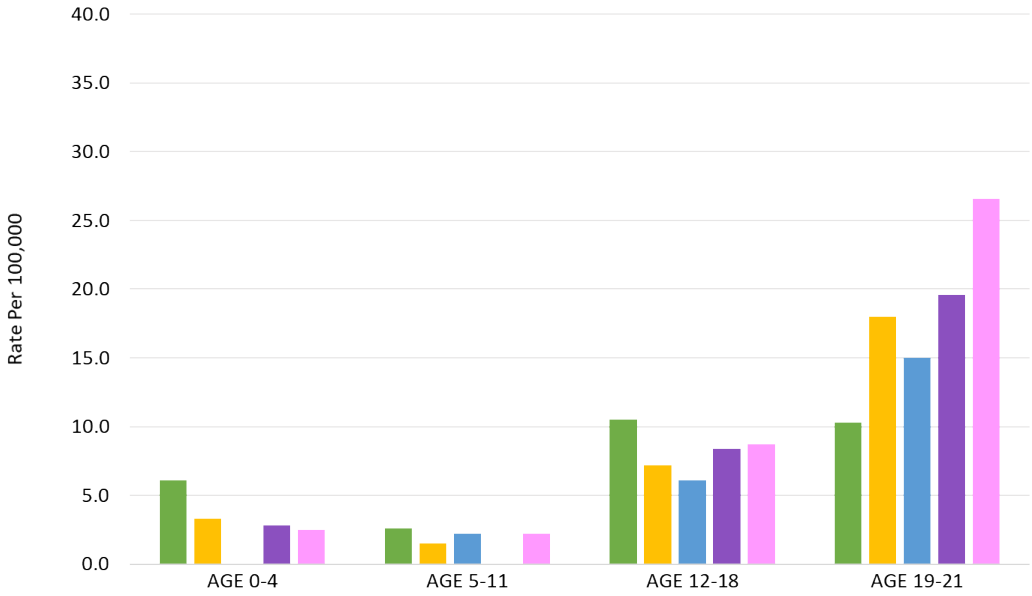
CHART 7.34: NON-FATAL HOSPITALIZATIONS FOR MOTOR VEHICLE-RELATED INJURIES BY AGE (2017)



	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 Health Care Administration (AHCA)

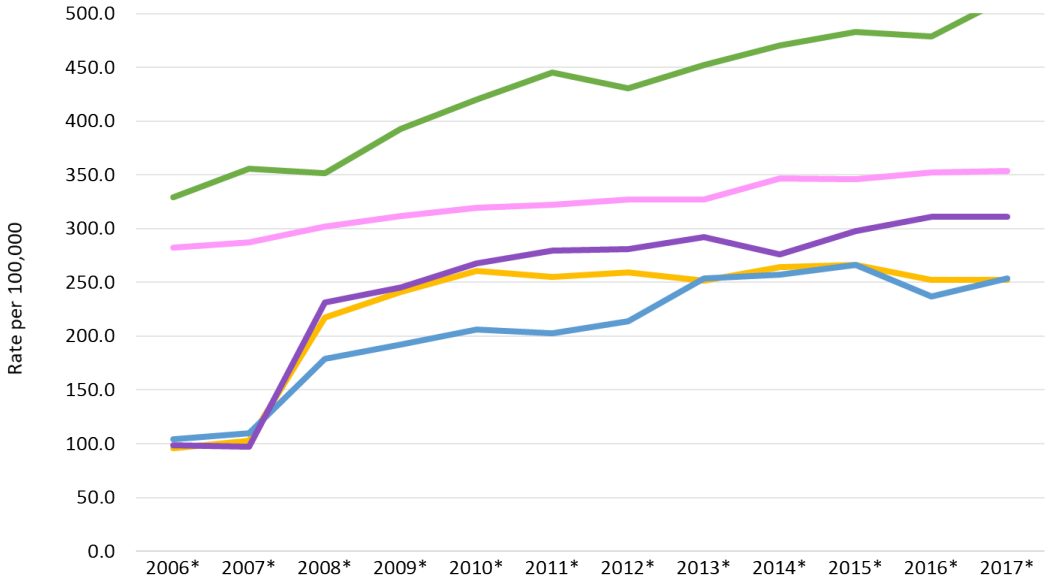
CHART 7.35: CHILD MOTOR VEHICLE CRASH DEATHS BY AGE (2015-2017)



	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

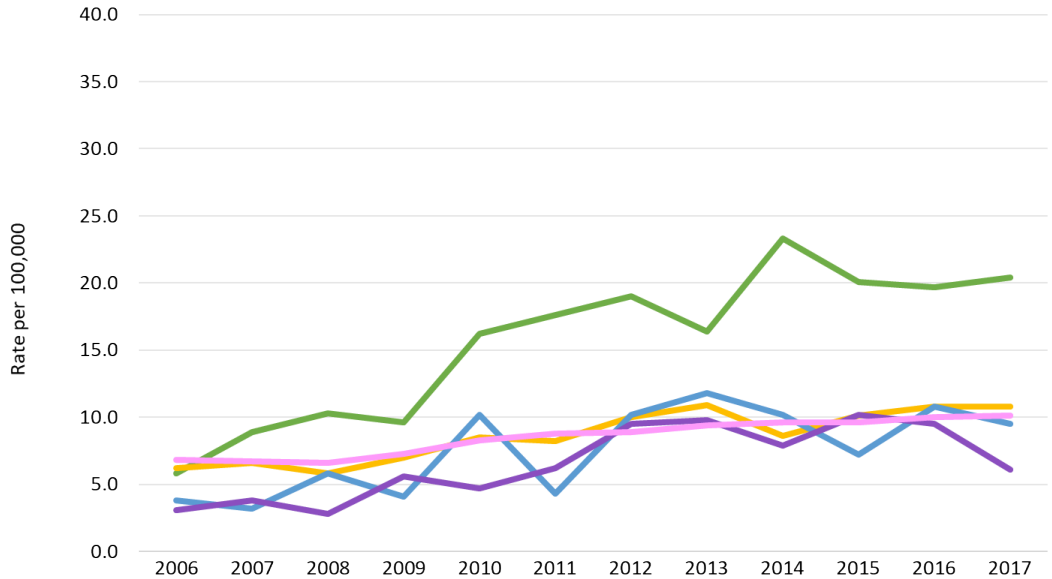
CHART 7.36: HOSPITALIZATIONS FOR NON-FATAL UNINTENTIONAL FALLS (2006-2017)



	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 Health Care Administration (AHCA)
*All rates are significantly different than the state

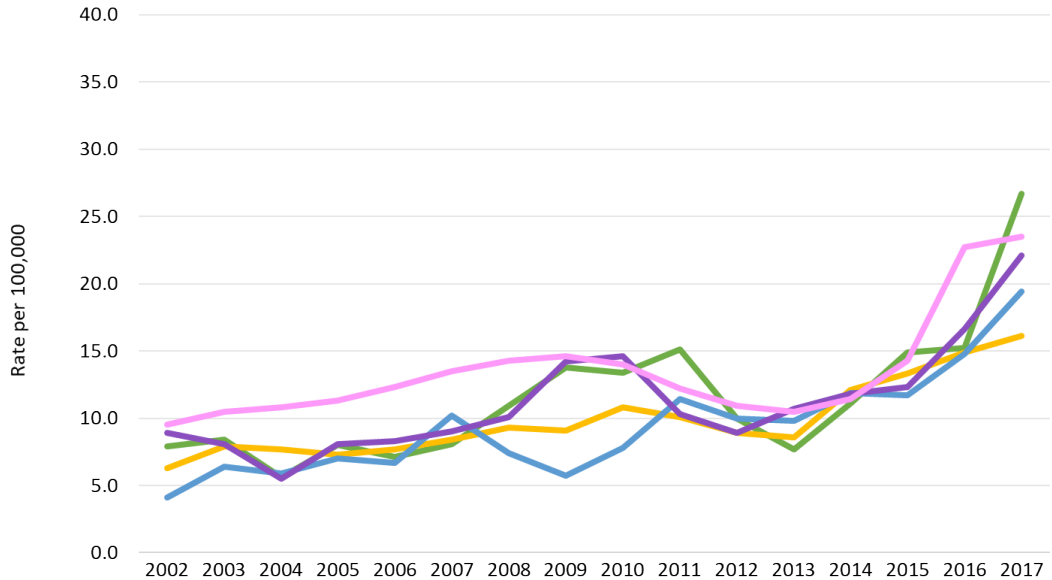
CHART 7.37: UNINTENTIONAL FALL, AGE-ADJUSTED DEATHS (2006-2017)



	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

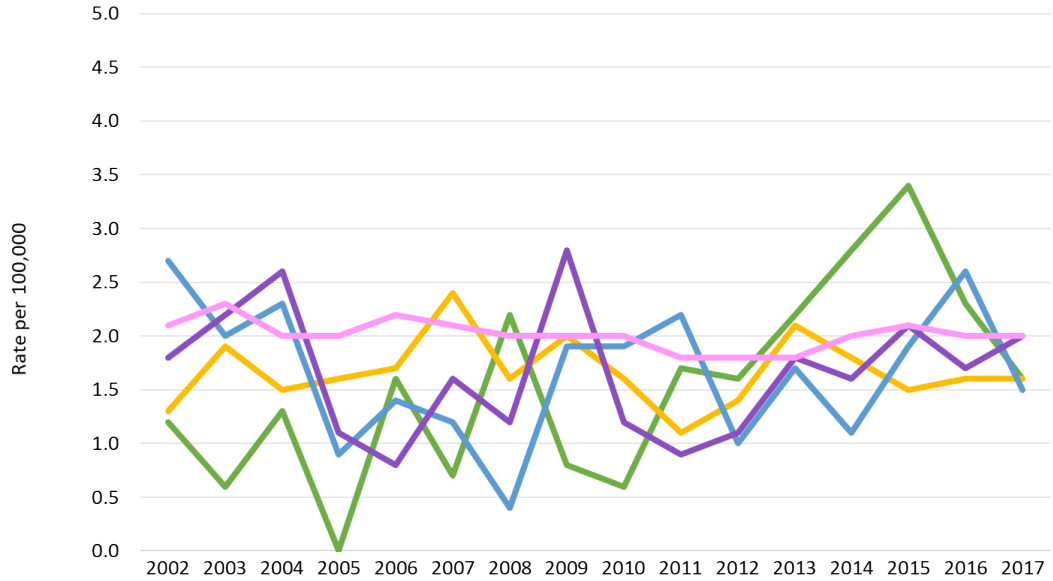
CHART 7.38: UNINTENTIONAL POISONING, AGE-ADJUSTED DEATHS (2002-2017)



	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 Statistics

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, FOUR-COUNTY REGION (2017)

In the four-county region, poisoning, firearm, fall, motor vehicle traffic-occupant and suffocation were the top five injury deaths in each regional county and the state in 2017. (See Table 7.12)

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

In Lake County, poisoning is the leading cause of injury death, increasing in rate almost three times between 2012 (11.5) and 2017 (31.6). Fall is the second leading cause of injury death, with rates remaining consistent for the six reportable years (19 in 2012 and 20.6 in 2017). Firearm is the third leading cause of injury death, with rates increasing slightly between 2012 (14.6) and 2017 (17.7). Motor vehicle traffic-occupant is the fourth leading cause of injury death, with rates almost doubling from 4.7 in 2012 to 9.1 in 2017. Suffocation is the fifth leading cause of injury death, with rates increasing slightly from 5.8 in 2012 to 7.7 in 2017. (See Table 7.13)

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

In Orange County, poisoning is the leading cause of injury death, with the rate increasing over a third between 2012 (11.8) and 2017 (17.4). Fall is the second leading cause of injury death, with rates remaining consistent for the six reportable years (10.1 in 2012 and 11 in 2017). Firearm is 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)

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

In Osceola County, poisoning is the leading cause of injury death, with the rate increasing 70 percent between 2012 (12.1) and 2017 (20.6). Firearm is the second leading cause of injury death, with rates increasing slightly for the six reportable years (7.6 in 2012 and 10 in 2017). Fall is the third leading cause of injury death, with rates decreasing slightly from 2012 (10.2) to 2017 (9.5). 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 1.4 in 2012 to 7.6 in 2017 (an increase of 443 percent). It is also important to note that there was a 1,420 percent increase between the years 2016 (0.5) and 2017 (7.6) for motor vehicle traffic-occupant injury death. Suffocation is the fifth leading cause of injury death, with rates increasing slightly between 2012 (3.1) and 2017 (4.9). (See Table 7.15)

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

In Seminole County, poisoning is the leading cause of injury death, with the rate more than doubling between 2012 (11.6) and 2017 (23.7). Firearm is the second leading cause of injury death, with rates remaining consistent for the six reportable years (8.9 in 2012 and 9.1 in 2017), although there was an increase between 2015 (8.1) and 2016 (12.6). Fall is the third leading cause of injury death, with rates decreasing by a third from 2012 (9.8) to 2017 (6.1). Suffocation is the fourth leading cause of injury death, with rates increasing from 3.6 in 2012 to 5.5 in 2017. Motor vehicle traffic-occupant is the fifth leading cause of injury death, with rates increasing from 2.5 in 2012 to 4.5 in 2017, although there was a 221 percent increase between the years 2016 (1.4) and 2017 (4.5). (See Table 7.16)

Leading Causes of Injury Deaths: Key Findings

In 2017, poisoning, firearm, fall, motor vehicle traffic-occupant, and suffocation were the top five injury deaths per county and in the state. In Lake and Orange counties, the top three leading causes of injury death were poisoning, fall and firearm. In Osceola and Seminole counties, poisoning was the leading cause of injury death, followed by firearm and fall.

The key informant survey respondents provided the most input and commentary regarding injuries, noting the importance of injury prevention, fall prevention, and providing in-home support for fall prevention. Lake County respondents were more likely to rate the need for injury prevention-related falls as well as older adult safety and mobility very high. They also noted the lack of accessible care and commented that it is difficult to find assistance to provide in-home support for fall prevention.

Please note that the highest regional rate is highlighted in red.

TABLE 7.12: TOP 10 LEADING CAUSES OF INJURY DEATH, AGE-ADJUSTED, FOUR-COUNTY REGION (2017)

	Lake	Orange	Osceola	Seminole	Florida
Poisoning	31.6	17.4	20.6	23.7	26.0
Firearm	17.7	10.8	10.0	9.1	12.5
Fall	20.6	11.0	9.5	6.1	10.4
Motor vehicle traffic – occupant	9.1	6.9	7.6	4.5	7.6
Suffocation	7.7	4.1	4.9	5.5	5.7
Motor vehicle traffic – pedestrian	3.0	3.4	2.9	3.6	2.8
Motor vehicle traffic – motorcyclist	4.6	2.0	0.8	1.9	2.8
Drowning, submersion	2.7	1.9	1.7	2.7	2.3
Unspecified	1.2	1.5	1.3	1.4	1.6
Other specified and classifiable	0.0	0.7	0.8	0.2	0.9

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

TABLE 7.13: TOP 10 LEADING CAUSES OF INJURY DEATH, AGE-ADJUSTED, LAKE COUNTY (2012-2017)

	2012	2013	2014	2015	2016	2017
Poisoning	11.5	10.0	13.9	18.5	16.9	31.6
Fall	19.0	16.4	23.3	20.1	19.7	20.6
Firearm	14.6	9.2	11.0	9.7	11.2	17.7
Motor vehicle traffic - occupant	4.7	9.6	6.6	7.7	5.9	9.1
Suffocation	5.8	4.8	7.0	6.1	6.6	7.7
Motor vehicle traffic - motorcyclist	5.6	0.0	3.7	1.0	7.5	4.6
Motor vehicle traffic - pedestrian	0.0	0.0	0.3	0.0	0.0	3.0
Drowning, submersion	1.6	3.2	2.8	3.8	2.5	2.7
Motor vehicle traffic - other, unspecified	0.9	0.5	1.0	0.4	0.2	1.5
Unspecified	1.8	3.2	2.8	1.4	2.8	1.2

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

TABLE 7.14: 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

TABLE 7.15: TOP 10 LEADING CAUSES OF INJURY DEATH, AGE-ADJUSTED, OSCEOLA COUNTY (2012-2017)

	2012	2013	2014	2015	2016	2017
Poisoning	12.1	12.0	13.7	14.3	17.8	20.6
Firearm	7.6	7.6	7.2	8.0	11.0	10.0
Fall	10.2	11.8	10.2	7.5	10.8	9.5
Motor vehicle traffic - occupant	1.4	3.1	3.6	2.6	0.5	7.6
Suffocation	3.1	4.8	3.9	2.0	4.0	4.9
Motor vehicle traffic - pedestrian	0.0	0.0	0.3	0.0	0.3	2.9
Drowning, submersion	1.4	1.7	1.4	2.7	2.6	1.7
Unspecified	1.1	0.6	2.0	2.1	1.0	1.3
Cut, pierce	0.6	0.3	1.0	0.6	0.6	1.2
Other specified & not elsewhere classifiable	1.1	0.3	1.3	0.9	0.3	1.1

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

TABLE 7.16: TOP 10 LEADING CAUSES OF INJURY DEATH, AGE-ADJUSTED, SEMINOLE COUNTY (2012-2017)

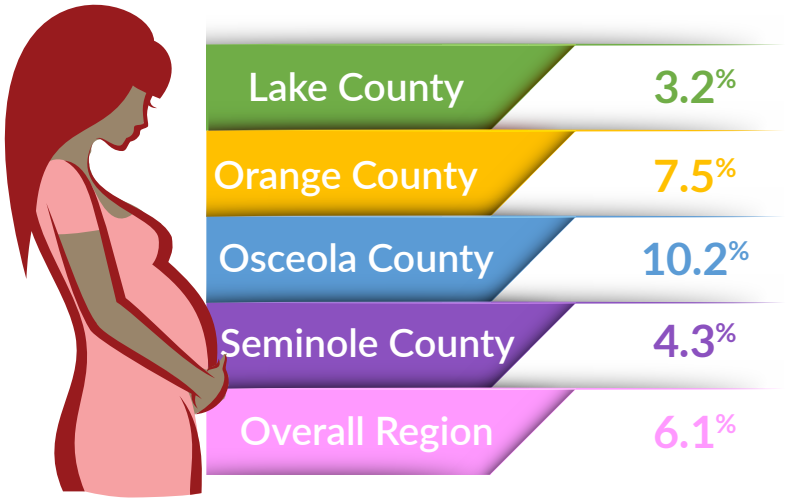
	2012	2013	2014	2015	2016	2017
Poisoning	11.6	13.6	14.0	14.8	19.7	23.7
Firearm	8.9	8.6	7.9	8.1	12.6	9.1
Fall	9.8	9.8	8.1	10.2	9.9	6.1
Suffocation	3.6	3.6	4.3	3.9	3.7	5.5
Motor vehicle traffic - occupant	2.5	4.1	3.7	3.7	1.4	4.5
Motor vehicle traffic - pedestrian	0.0	0.0	0.0	0.4	0.0	3.6
Drowning, submersion	1.4	2.2	1.9	2.1	2.4	2.7
Motor vehicle traffic - motorcyclist	2.4	1.2	1.6	2.4	4.4	1.9
Unspecified	1.3	0.9	2.5	1.4	1.2	1.4
Cut, pierce	0.7	0.7	0.5	0.0	0.6	1.1

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

Birth Characteristics: What the Community is Saying

Figure 7.19 outlines the percentages of community survey respondents that experienced difficulty in accessing prenatal care.

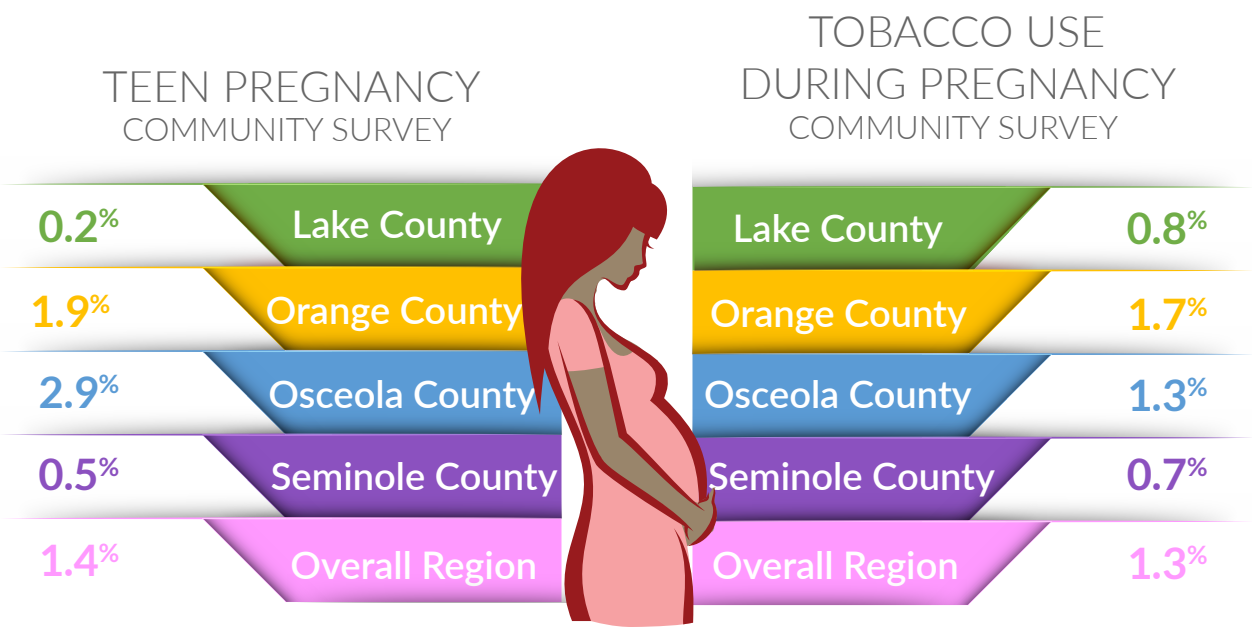
FIGURE 7.19: DIFFICULTY ACCESSING PRENATAL CARE, COMMUNITY SURVEY 2019



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

Figure 7.19 outlines the percentage of community survey respondents that experienced teen pregnancy and smoking during pregnancy. Only small percentages of the respondents indicated these characteristics.

FIGURE 7.19: 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 in the four-county region:

- Low birthweight
  - Premature/low birth weights
- Infant mortality
  - High infant mortality rates for some targeted populations
  - Teen pregnancy is tied to infant mortality
- Women are not receiving prenatal care
- Substance use by pregnant women leads to substance use exposure in newborn babies

Barriers to care identified by the primary research participants included:

- Access
  - Immigrant families are reluctant to seek care
  - Lack of access to affordable, easy to access early prenatal care
  - Lack of access to health and social services
  - Lack of access to care for those who are immigrants, especially undocumented
- Lack of housing services
- Working long hours or multiple jobs

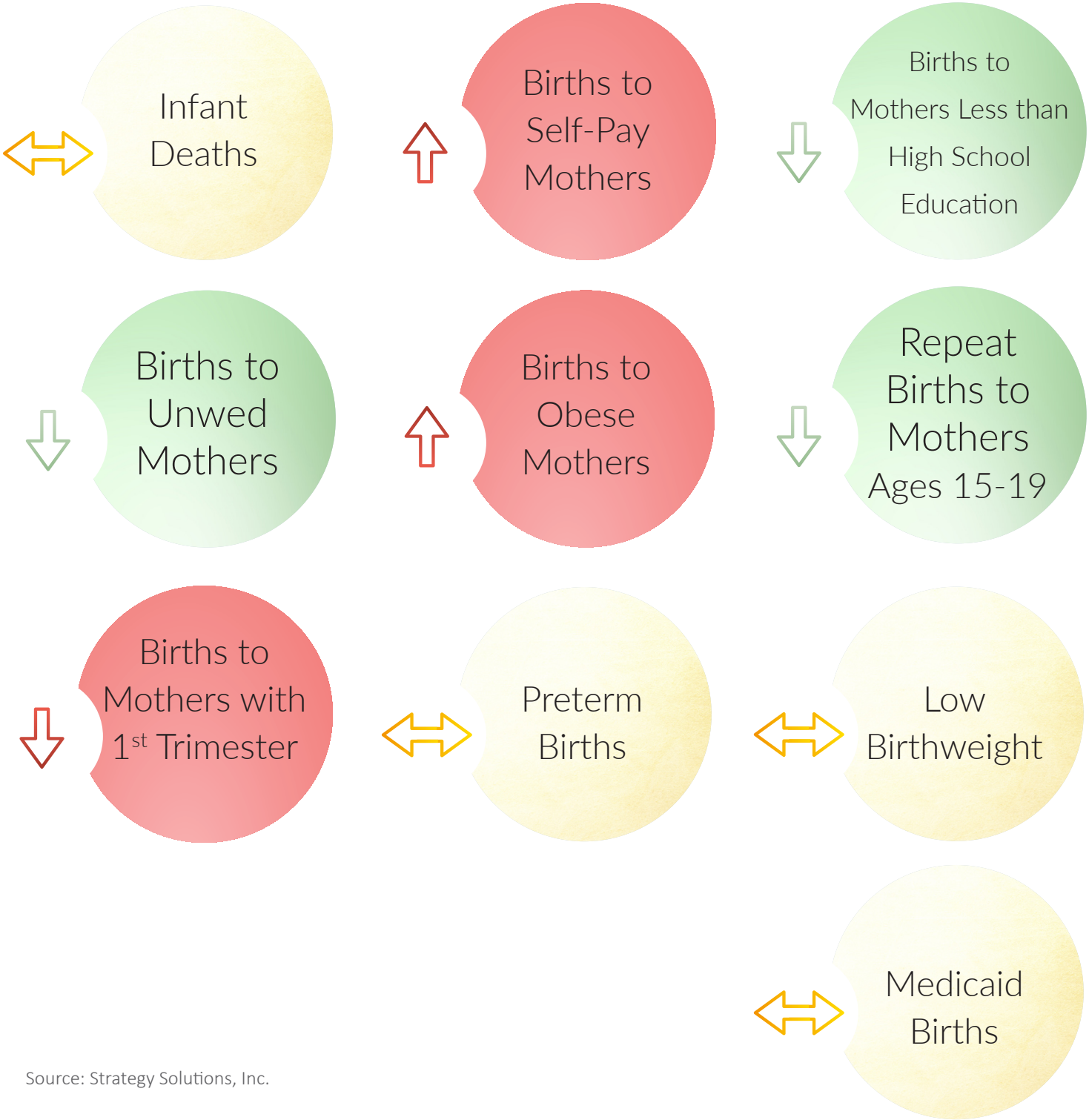
Needed services related to birth characteristics identified by primary research participants included:

- Providers
  - More high-risk obstetric physicians
- Services
  - Medication assisted treatment (MAT) for mothers with opioid use diagnoses and more facilities that can care for mothers on MAT
  - More accessible, comprehensive pre-natal care, especially for immigrants
  - Access to birth control
  - More access to WIC and nutritional education
  - For cleanings and education on importance of oral hygiene during pregnancy
  - More outpatient clinics
  - Awareness of maternity fitness and nutrition
  - Support/counseling groups
  - Parenting classes in public schools
  - Prenatal services for homeless
  - Family planning
  - Education on infant safe sleep
  - Access to birth control
  - Affordable maternal care
  - Program for babies born addicted
  - Employment/jobs
  - Work opportunities
  - Access to birth control
  - Affordable maternal care
  - Program for babies born addicted
- Employment/jobs
- Work opportunities

Birth Characteristics at a Glance

The key indicators related to birth characteristics that have changed since the last assessment are identified in Figure 7.20. Red means that the indicator has worsened in at least three of the regional counties, yellow means that some counties are increasing and some are decreasing or rates have remained roughly equivalent, and green means that rates have improved in at least three of the regional counties since the last CHNA data was available.

FIGURE 7.20: BIRTH CHARACTERISTICS INDICATORS



Source: Strategy Solutions, Inc.

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 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)

While fluctuating between 2003 and 2017, the highest regional rate for infant deaths per 1,000 live births was in Orange County in 2017, decreasing from 8.2 in 2003 to 7.2 in 2017. Lake County's rate increased from 5.6 in 2003 to seven in 2017, while the rate in Seminole County increased from 5.4 to 6.7, and in Osceola County decreased from 4.8 in 2003 to 3.9 in 2017. In 2017, Osceola County (3.9) was the only one in the four-county region that was lower than the state (6.1). All other counties and the state were above the HP2020 goal of six. (See Chart 7.40)

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

The percentages of births with self pay for delivery has fluctuated throughout the region between 2004 and 2017. During that timeframe, Lake County's percentage decreased from 8.1 percent to 4.9 percent, Osceola County's rate decreased slightly from 6.1 percent to six percent as did Seminole County's percentage (from 4.2 percent to 3.6 percent). Orange County's percentage more than doubled from 4.4 percent to 9.8 percent. Lake, Osceola and Seminole's percentages in 2017 were all lower than the state (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 all counties and the state between 2003 and 2017. Lake County consistently had the highest percentage in the four-county region until 2017 when Orange County's percentage increased to slightly above it. Lake County's percentage decreased by more than half from 22.5 percent in 2003 to 10.6 percent in 2017. Orange County's percentage decreased over a third from 17.1 percent to 11.1 percent. Osceola County's percentage decreased over half from 17.6 percent to 8.3 percent and Seminole's percentage decreased from 10.9 percent in 2003 to 5.9 percent in 2017. All counties were lower than the state in 2017 (12.1 percent). (See Chart 7.42)

BIRTHS TO UNWED MOTHERS (2003-2017)

The four-county region and the state increased for births to unwed mothers between 2003 and 2017. Seminole County (29.6 percent in 2003 to 38.1 percent in 2017) has consistently remained the lowest in the four-county region. Osceola County's percentage (increasing from 40 percent in 2003 to 49 percent in 2017) has consistently been the highest in the four-county region. Orange County increased the least over the past 15 years from 39.9 percent in 2003 to 44.6 percent in 2017. Lake County increased from 37.8 percent in 2003 to 47.1 percent in 2017. (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 steadily increased in the four-county region and the state between 2004 and 2017. Lake County has consistently been the highest in the four-county region, increasing from 21.5 percent in 2004 to 28.8 percent in 2017. Seminole and Orange County's percentages have been the lowest with Orange County increasing from 16.5 percent to 24.8 percent and Seminole County increasing from 16.4 percent to 23.9 percent during this time period. Osceola County increased from 19.1 percent to 26 percent, while the state percentage increased from 18.7 percent to 25 percent from 2004 to 2017. (See Chart 7.44)

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

The rates in the four-county region for repeat births to mothers ages 15-19 decreased. Orange County tended to have the highest rate within the region, although it decreased from 22 percent in 2003 to 16.2 percent in 2017. Lake County's rate decreased from 21.8 percent to 14.5 percent, Osceola County's rate decreased from 17.6 percent to 10 percent and Seminole County's rate decreased from 15.7 percent to 11.5 percent between 2003 and 2017. The state rate decreased from 19.9 percent in 2003 to 15.2 percent in 2017. (See Chart 7.45)

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

Generally, the rate in the four-county region for births to mothers with first trimester prenatal care has been consistently higher than the state rate between 2003 and 2017. While the rates have fluctuated, they have also decreased in the four-county region. Orange County had the largest decrease, from 88.8 percent in 2003 to 78 percent in 2017. Seminole County's rate decreased from 91.2 percent to 80 percent, Lake County's rate decreased from 86.1 percent to 79.5 percent and Osceola County's rate decreased from 88.6 percent to 81.1 percent between 2003 and 2017. The state rate decreased from 85.8 percent in 2003 to 77.3 percent in 2017. (See Chart 7.46)

PRETERM BIRTHS <37 WEEKS GESTATION (2003-2017)

The preterm birth rate in the four-county region has not changed substantially over the past 15 years. Lake County's rate decreased from 11 percent in 2003 to 10.1 percent in 2017, its lowest rate within this time period. Orange County's rate decreased from 12.3 percent to 10.3 percent, Osceola County's rate decreased from 11.3 percent to 9.2 percent and Seminole County's rate decreased from 11.4 percent to 10 percent between 2003 and 2017. The state rate decreased slightly from 10.8 percent to 10.2 percent. (See Chart 7.47)

LOW BIRTHWEIGHT BIRTHS <2500 GRAMS (2003-2017)

The percentage of low birthweight babies born in the four-county region remained relatively consistent over the past 15 years, although fluctuating from year to year within each county. Lake County's rate decreased from 8.7 percent to 8.1 percent, Orange County's rate decreased from 9.6 percent to 8.9 percent, Seminole County's rate in both 2003 and 2017 was 8.2 percent, while Osceola County's rate increased slightly from eight percent to 8.1 percent between 2003 and 2017. The state rate increased slightly from 8.5 percent in 2003 to 8.8 percent in 2017. (See Chart 7.48)

BIRTHS COVERED BY MEDICAID (2004-2017)

Over the past 14 years, the percentage of births covered by Medicaid has consistently increased in all four counties in the region as well as the state. Osceola County's rate has been consistently the highest in the region, increasing from 35.9 percent in 2004 to 59.3 percent in 2017. Lake County's rate increased from 37.6 percent to 51.1 percent, and Orange County's rate increased from 36.6 percent to 45.5 percent. Seminole County's rate has consistently been the lowest in the region, although still increasing from 30.2 percent in 2004 to 41.3 percent in 2017. The state rate has grown from 36.6 percent to 48.9 percent during this time period. (See Chart 7.49)

Birth Characteristics: Key Findings

In 2017, Osceola was the only regional county whose infant death rate was below the state average (6.1) and the healthy people goal (six).

Orange County tended to have the highest rate of births with self-pay for delivery, for much of the past 14 years, while Lake, Osceola and Seminole counties' rates have been below the state rate.

Births to mothers with less than a high school education have been consistently decreasing in all counties in the region over the past 10 years, although Orange County's rate increased briefly in 2016 before decreasing again in 2017.

The percentage of births to unwed mothers has consistently increased in the four-county region as well as the state in the past 15 years. Osceola County has consistently had the highest regional rate, while Seminole County consistently had the lowest.

Births to mothers who were obese during pregnancy have steadily increased throughout the four-county region as well as throughout the state in the past 14 years. Lake County's rate has been consistently higher than the other counties.

Repeat births to mothers ages 15-19 have decreased over the past 15 years. Individual county rates have fluctuated during this time period.

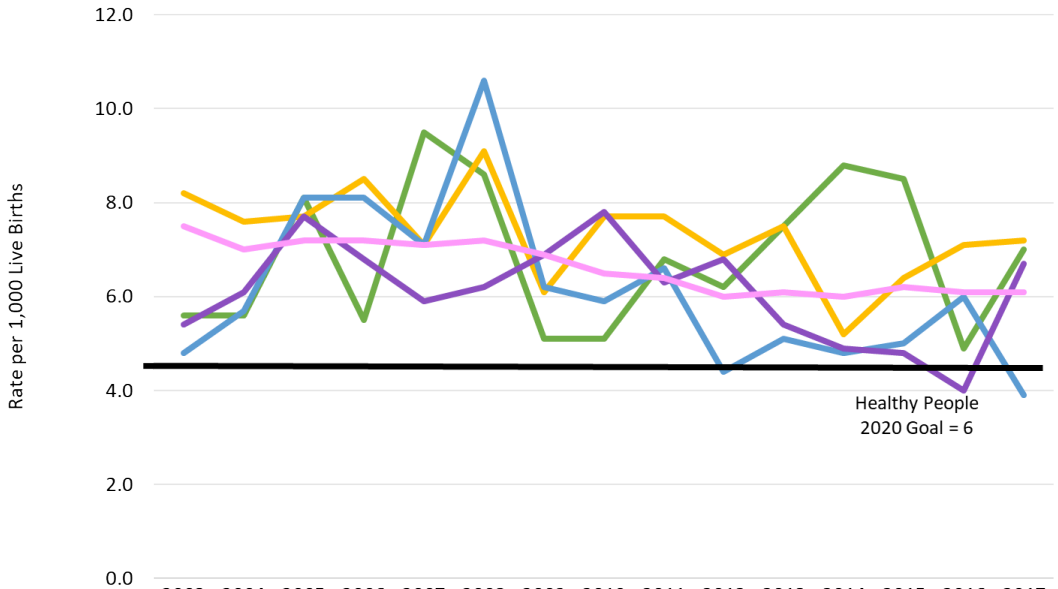
Over the past 15 years, births to mothers with first trimester prenatal care in the four-county region and state have fluctuated. The percentage has been steadily declining since 2014, and in 2017, all counties in the region were higher than the state (77.3 percent).

The rate of preterm births over the past 15 years has trended slightly downward across the region as well as throughout the state, between nine percent and 11 percent. The rate of low birthweight babies has remained relatively consistent between eight percent and nine percent.

Births covered by Medicaid in the four-county region as well as the state have trended upward over the past 14 years, with Lake and Osceola County's rate consistently above the state average, while Orange and Seminole's rates have been consistently lower.

Community survey respondents were able to identify the extent to which they or their family had difficulty accessing prenatal care in the past 12 months. A total of 6.1 percent of respondents across the region indicated that they or a family member had difficulty accessing prenatal care. The percentage was lowest in Lake County (3.2 percent) and highest in Osceola County (10.2 percent). Stakeholders, focus group and key informant survey participants did not comment on birth characteristics.

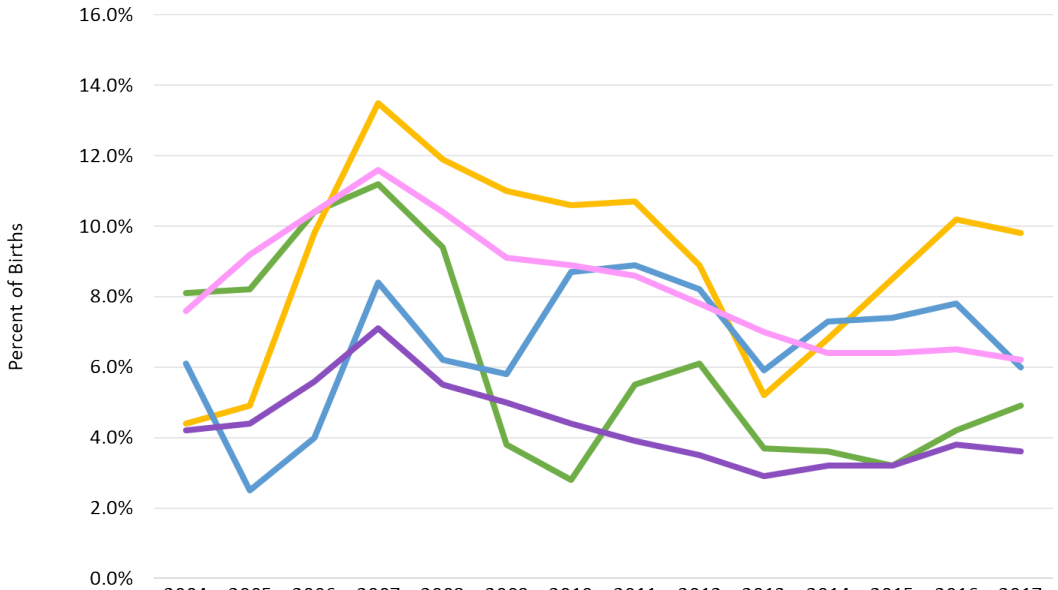
CHART 7.40: INFANT DEATHS PER 1,000 LIVE BIRTHS (2003-2017)



	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

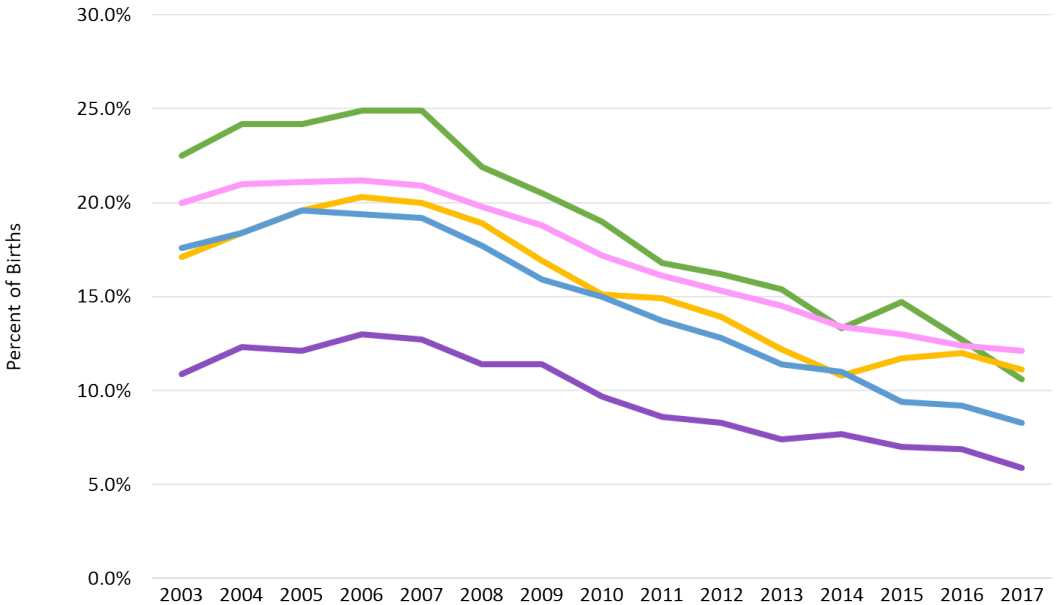
CHART 7.41: BIRTHS WITH SELF-PAY FOR DELIVERY PAYMENT SOURCE (2004-2017)



	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%

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

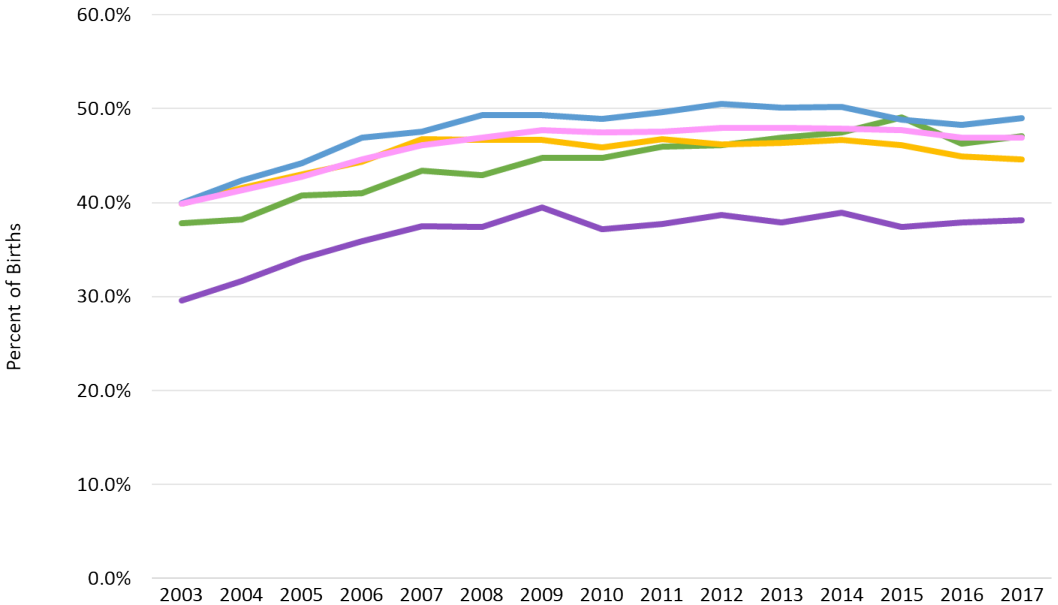
CHART 7.42: BIRTHS TO MOTHERS WITH LESS THAN HIGH SCHOOL EDUCATION (2003-2017)



	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

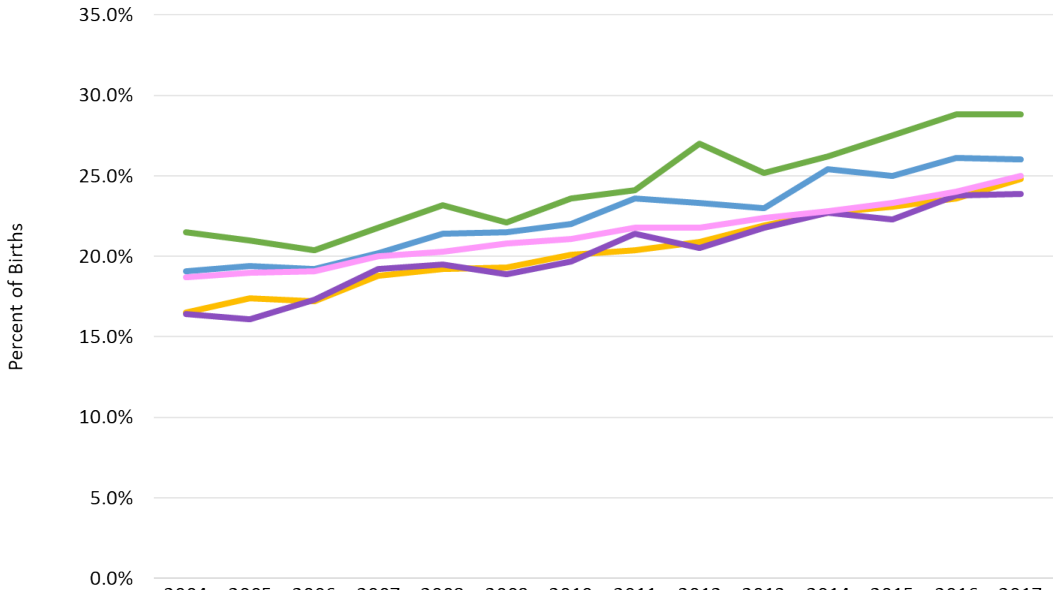
CHART 7.43: BIRTHS TO UNWED MOTHERS (2003-2017)



	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

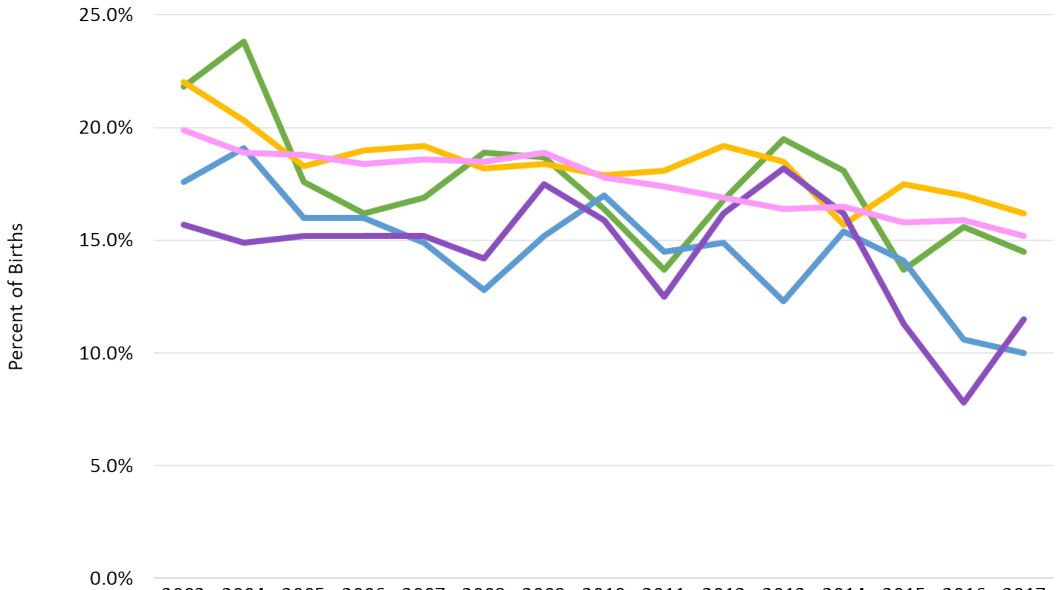
CHART 7.44: BIRTHS TO MOTHERS WHO WERE OBESE AT TIME OF PREGNANCY (2004-2017)



	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

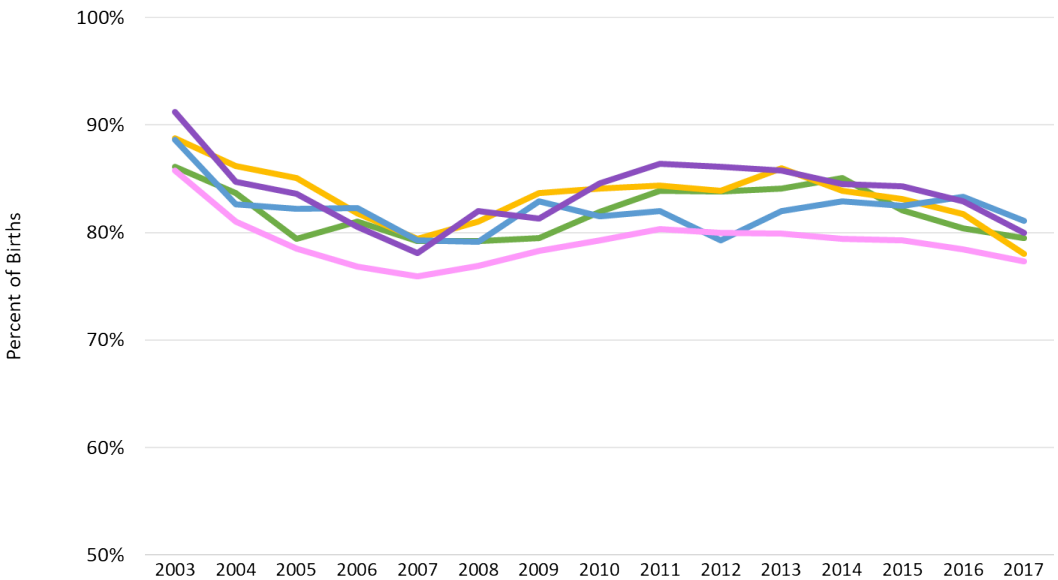
CHART 7.45: REPEAT BIRTHS TO MOTHERS AGES 15-19 (2003-2017)



	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%

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

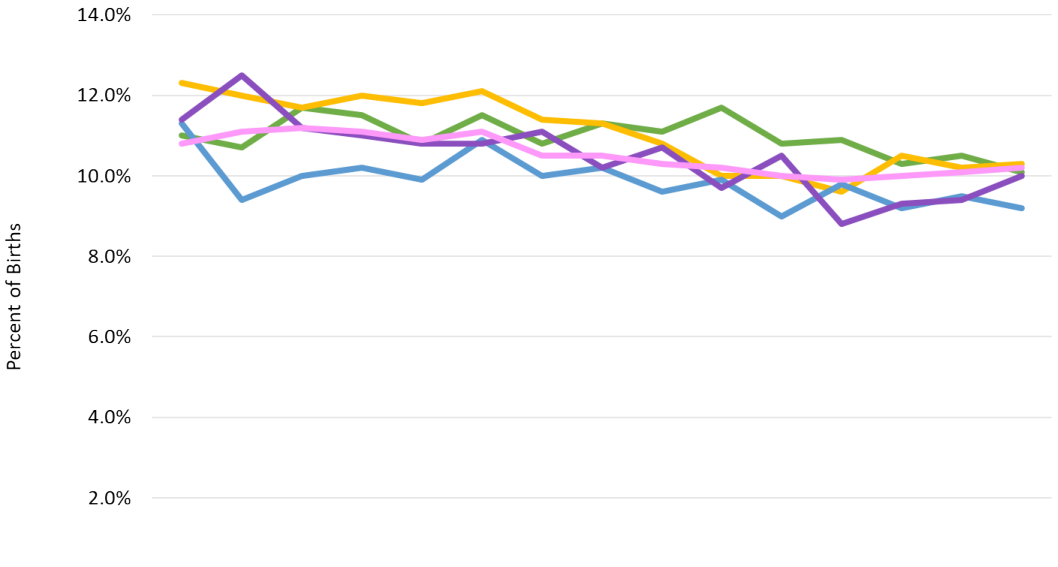
CHART 7.46: BIRTHS TO MOTHERS WITH FIRST TRIMESTER PRENATAL CARE (2003-2017)



	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

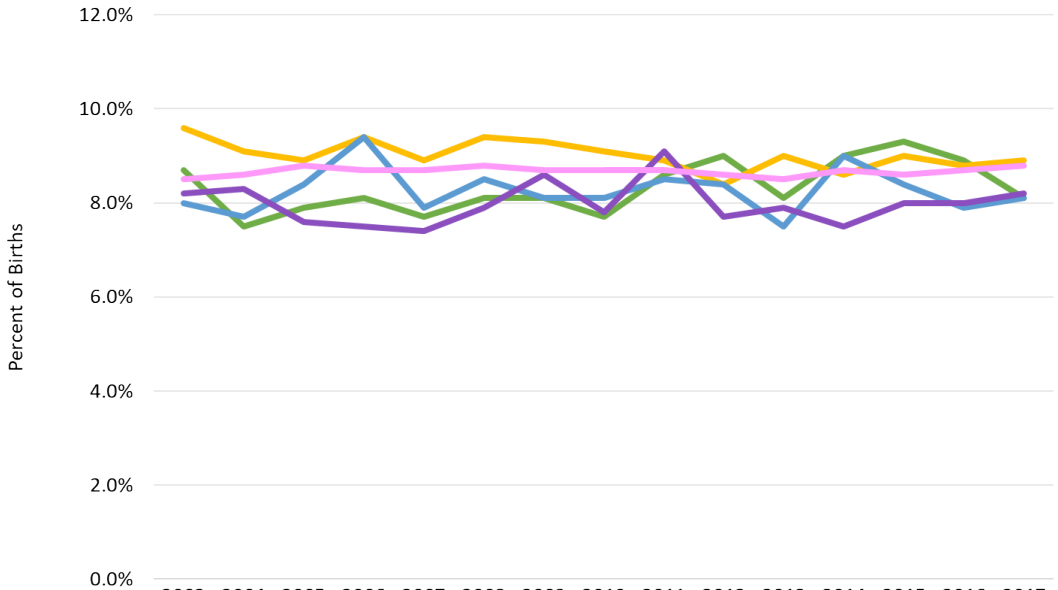
CHART 7.47: PRE-TERM BIRTHS <37 WEEKS GESTATION (2003-2017)



	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

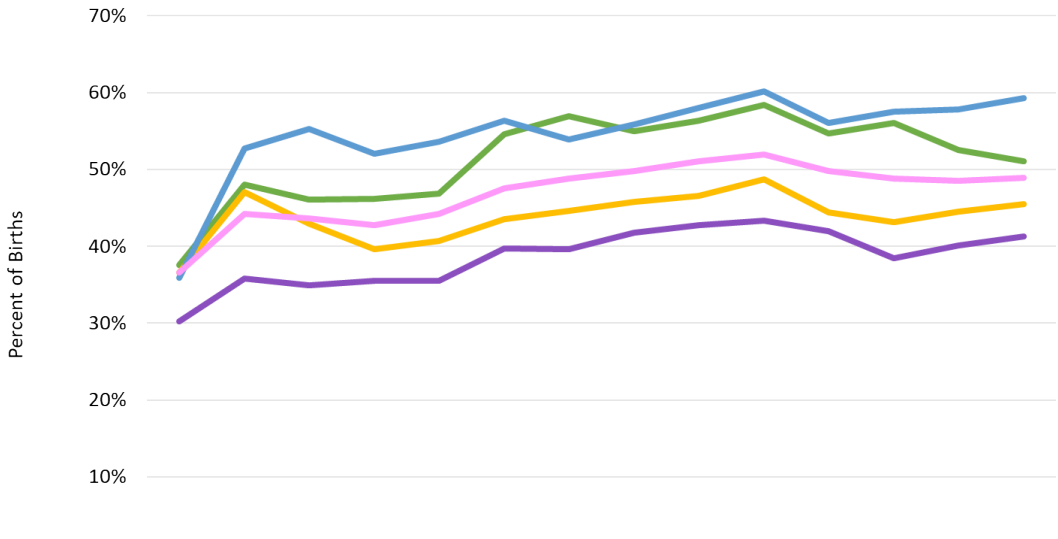
CHART 7.48: LOW BIRTHWEIGHT BIRTHS <2500 GRAMS (2003-2017)



	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)



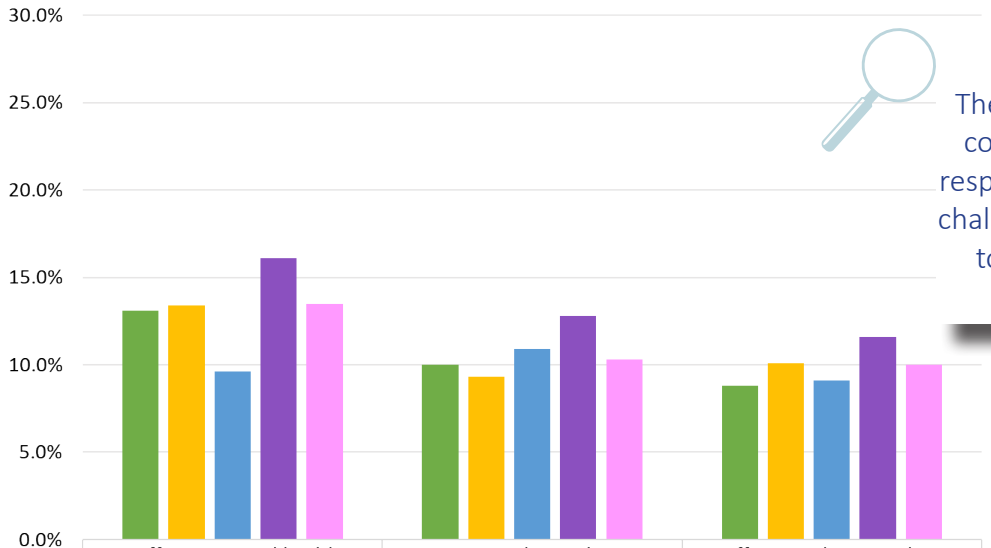
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	37.6%	48.0%	46.1%	46.2%	46.8%	54.6%	56.9%	55.0%	56.3%	58.4%	54.7%	56.0%	52.5%	51.1%
ORANGE	36.6%	47.0%	42.9%	39.6%	40.7%	43.5%	44.6%	45.8%	46.6%	48.7%	44.4%	43.1%	44.5%	45.5%
OSCEOLA	35.9%	52.7%	55.3%	52.0%	53.6%	56.3%	53.9%	55.8%	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 7.21 illustrates the percentages of community survey respondents that experienced difficulty in accessing mental health services. The majority of respondents indicated problems with access to mental health services. On average, only one in ten respondents indicated that there were sufficient mental health services, that the community knows how to access mental health services, and there are sufficient substance use services. The percentages for accessing and awareness of these services were highest in Seminole County.

FIGURE 7.21: ACCESS TO MENTAL HEALTH SERVICES, COMMUNITY SURVEY 2019



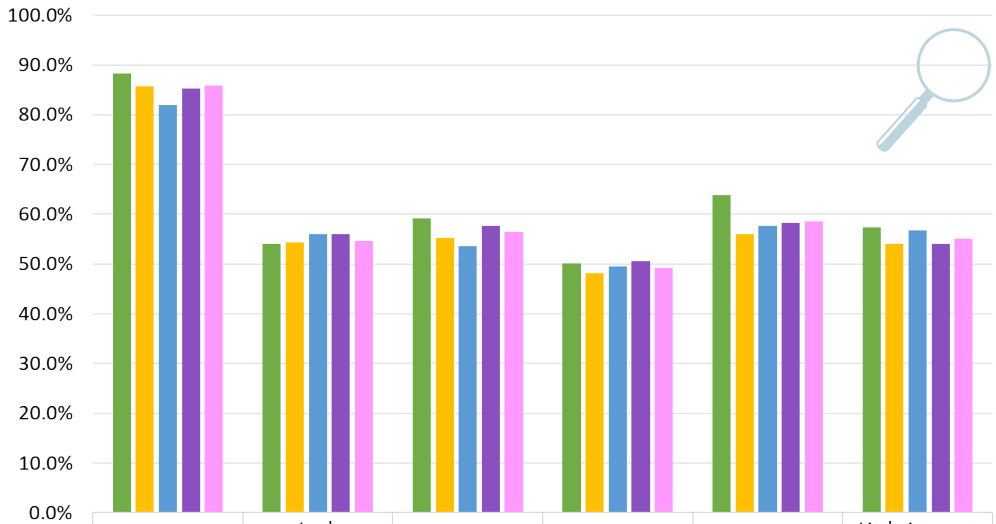
	Sufficient mental health services	Community knows how to access mental health services	Sufficient substance abuse services
LAKE	13.1%	10.0%	8.8%
ORANGE	13.4%	9.3%	10.1%
OSCEOLA	9.6%	10.9%	9.1%
SEMINOLE	16.1%	12.8%	11.6%
OVERALL	13.5%	10.3%	10.0%

The vast majority of community survey respondents indicated challenges with access to mental health services.

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

Figure 7.22 illustrates the mental health-related challenges identified by community survey respondents. The majority of community survey respondents indicated that they have had difficulty sleeping in the past two weeks. A little over half of the respondents indicated that they lack companionship, feel left out or isolated. A slightly higher percentage of respondents indicated that they feel depressed or lonely and/or have little interest/pleasure in activities.

FIGURE 7.22: 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%

Over 80 percent of the respondents indicated that they had difficulty sleeping.

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

Needs and issues related to mental health identified by primary research respondents included:

- Poverty
  - Not a lot of accessibility for uninsured or underinsured
  - Poverty/stressors
  - Providers
  - Provider shortage
- Services
  - Lack variety of service options/levels of care/services for all ages
  - Abuse of the Baker Act occurs
  - There is a lack of holistic treatment
  - Direction is needed to appropriate program
- Awareness
  - Lack of public education around mental illness
  - Older adults may be reluctant to leave their house/seniors are vulnerable population
  - Do not think people pay attention to their own mental health

Needs and issues related to mental health identified by primary research respondents included (Continued):

- Prevalence
  - Seeing a lot of mental health/more prevalent/more severe and at younger ages
  - Co-occurring issues with substance use
  - There is a huge need for mental health services
  - High levels of stress that impacts both physical and mental health
  - Isolation
  - Depression
  - High levels of stress
- Access in general as it takes people a long time to get treatment
- Medication
  - People are self-medicating with drugs and alcohol
  - Doctors switch medication after individuals are discharged from inpatient services
  - Think people are being overmedicated
- Mental health is a huge part of homelessness
- ACEs (adverse childhood experiences) need to be taken into account

Barriers to care identified by primary research respondents included:

- Funding/cost
  - Lack of funding for mental health services
  - Cost causes people to delay receiving care
  - Not enough providers that accept insurance
  - Cost of prescriptions
  - Programs that are available are way behind and are underfunded
  - Severe lack of resources
- Lack of providers/services
  - Lack of mental health care providers
  - Long wait times
  - Not all mental health professionals are welcoming or show compassion and respect
  - Lack of providers for children
  - Lack of inpatient beds
- Awareness
  - Stigma
  - Isolation
  - Behavior issues
  - Culture
  - Baker Act [Per the Florida Department of Children and Families, the Baker Act is a Florida law that enables families and loved ones to provide emergency mental health services and temporary detention for people who are impaired because of their mental illness, and who are unable to determine their needs for treatment.]
  - Lack of knowledge of services
  - System is difficult to access/navigate
  - Lack of self-awareness to recognize when someone has a mental health problem
- Lack community support for the mentally ill
- Transportation

Needed services identified by primary research respondents included:

- Funding/affordability
  - State funding for mental health facilities
  - Many insurances don't cover mental health care or cover it well so we need to provide affordable care to all
  - Affordable mental health care that is high quality and consistent
- Providers
  - Increased number and range of mental health care providers
  - Bilingual/bicultural professionals
- Services
  - Community plans around treating mental illness and addiction

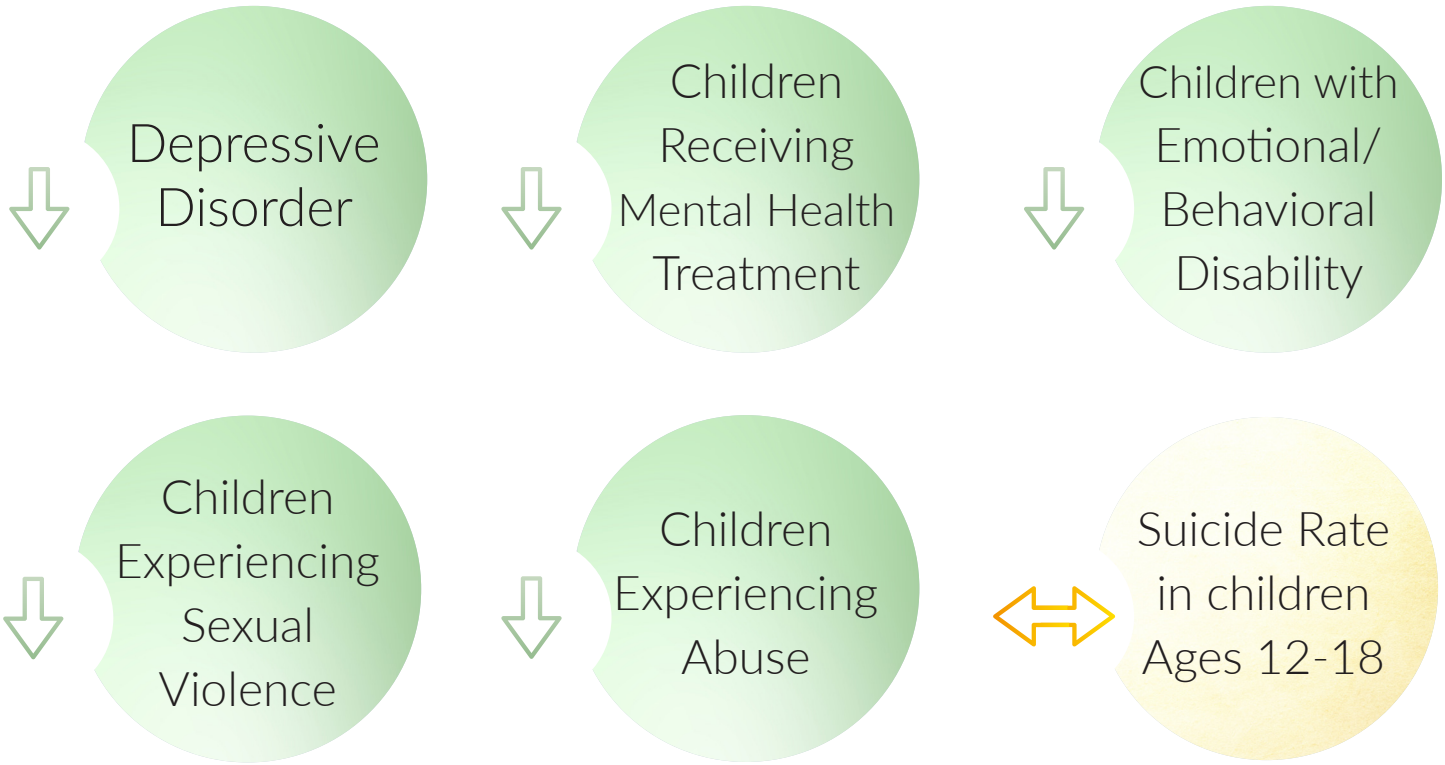
Needed services identified by primary research respondents included (Continued):

- Seniors
  - More services for seniors as they are at a higher risk of poor health status based on such factors as obesity, diabetes, low income, malnutrition, isolation, depression, etc.
  - Dedicated place for seniors with mental health conditions
  - Secured units
  - Help for seniors transitioning out of their home
  - Geriatric psychology
  - Program to connect seniors to other individuals/pets to help combat isolation and loneliness
  - Education around dementia and seniors with bi-polar disorder
- More mental health services
  - Integrated holistic care
  - Preventive programs
  - Programs for children and adolescents
  - Services beyond normal business hours
  - Enhanced suicide prevention
  - Enhanced mobile crisis intervention
  - Peer recovery and peer support programs
  - CIT (Crisis Intervention Team) training
  - Mentoring/role modeling
  - Coordinated services /patient navigator
  - Trauma informed care
  - Social support
  - Close gaps in services
  - Preventive programs
  - Easier access to psychiatric care and medication
  - Services to help those who have been victims of human trafficking
  - Lesbian, Gay, Bisexual, Transgender, Questioning (LGBTQ) resources/care for adults and youth
  - More services to those who are homeless
  - Services for those who have experienced sexual assault and domestic violence
  - Increased need for clinically sound, bilingual care
  - Care for victims of natural disasters dealing with trauma
  - More options for grief counseling
  - Services in schools
- Awareness/education
  - Widespread education to help remove the stigma
  - Education on appropriate use of Marchman Act [Per the Marchman Act of Florida, this act provides for emergency assistance and temporary detention for individuals requiring substance abuse evaluation and treatment in the state of Florida] vs. Baker Act
  - Education on mental health so people can recognize it and know where to go for help
- Transportation

Quality of Life/Mental Health at a Glance

The key indicators related to quality of life/mental health that have changed since the last assessment are identified in Figure 7.23. Red means that the indicator has worsened in at least three of the regional counties, yellow means that some counties are increasing and some are decreasing or rates have remained roughly equivalent, and green means that rates have improved in at least three of the regional counties since the last CHNA data was available.

FIGURE 7.23: 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 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 Lake (18.5 percent to 15.4 percent), Orange (15.3 percent to 13.6 percent) and Seminole (17.2 percent to 12.2 percent) counties, while increasing in Osceola County (15.4 percent to 16.6 percent) from 2013 to 2016. The state rate between 2013 and 2016 also decreased from 16.8 percent to 14.2 percent. (See Chart 7.50)

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

For 2016, adults ages 45-64 in the four-county region (Lake: 21.7 percent, Orange: 16 percent and Osceola: 23 percent) and the state (17.3 percent) tend to have the highest percentages of a depressive disorder, except in Seminole County, where the highest rates were within the 18-44 age group (14.1 percent). (See Chart 7.51)

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

In 2016, adults with incomes under $25K in the four-county region (Lake: 24.7 percent, Osceola: 22.8 percent and Seminole: 18.9 percent) and across the state (20.6 percent) tend to have the highest percentages of a depressive disorder, except in Orange County, where those with incomes between $25K-$49K have the highest percentage (15.2 percent). (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 within the four-county region and the state has varied widely over the past 13 years. Rates increased between 2004 and 2006, and then fell drastically in 2007. This was followed by an increase in utilization in every county except Seminole, which had been decreasing between 2008 and 2013. Between 2013 and 2014, rates in Osceola, Lake and Orange counties fell sharply to match Seminole County's rate. The utilization rates remained lower than the state rate (3.4) in the four-county region (Lake: 0.4, Orange: 1.7, Osceola: one and Seminole: 0.7). (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 the four-county region between 2004 and 2018, with the exception of Lake County, which increased slightly between 2017 and 2018. Lake County has consistently had higher rates than the other counties throughout this time period, with a slight decrease from 1.5 percent in 2004 to 1.1 percent in 2018. The state rate during this time decreased from 1.5 percent to 0.5 percent. Orange County consistently had the lowest rate in the four-county region, decreasing from one percent to 0.2 percent. Osceola County's rate increased between 2005 and 2008 but fell from 1.2 percent in 2004 to 0.4 percent in 2018. Seminole County's rate dropped from 1.2 percent to 0.5 percent during this time. (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 some counties of the region between 2003 and 2017. Three of the four regional counties experienced an overall decline between 2003 and 2017, except for Osceola, which increased from 47.5 in 2014 to 89.8 in 2017 after several previous years of decline. The state rate during this time remained more consistent, increasing from 51.3 to 59.6 between 2003 and 2017. Lake County's rate fell from 47.1 in 2003 to 19.6 in 2017, after a huge spike in 2005 to 232.2. Orange County's rate decreased from 66.3 in 2003 to 53.4 in 2017. Seminole County's rate decreased from 43.9 in 2003 to 31.9 in 2017, after spiking in 2012 at 78.4. (See Chart 7.55)

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

The rate per 100,000 of children experiencing child abuse fluctuated in the four-county region between 2003 and 2017. After spiking to 2136.5 in 2005, Lake County's rate fluctuated until 2014 when the rate was 672.9 then decreased over the three years to 352.9 in 2017. Orange County increased slightly from 682.6 in 2003 to 744.5 in 2017. Osceola County's rate decreased by over half from 1251.7 in 2003 to 542.1 in 2017. Seminole County's rate almost doubled from 390.3 in 2003 to 670.7 in 2017. All regional rates were lower than the state in 2017 (857.9). (See Chart 7.56)

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

The suicide rate of children ages 12-18 fluctuated in the four-county region between 2004 and 2017 ranging from zero and 8.5 until a spike in Lake County's rate in 2017 to 15.4. During this time period, Lake County's rate went from zero in 2004 to 15.4 in 2017. Orange County's rate increased from 2.8 in 2004 to six in 2016 then fell to 2.5 in 2017. The state rate during this time period increased from 3.2 in 2004 to 5.5 in 2017. Although fluctuating, Osceola County's rate generally stayed between zero and four between 2006 and 2016, then increased to 5.9 in 2017. Seminole's rate, zero in 2004 and 2005, spiked at 7.1 in 2010, decreased to zero in 2015-2016, then spiked again to five in 2017. (See Chart 7.57)

SUICIDE RATE AGES 19-21 (2004-2017)

The suicide rate ages 19-21 fluctuated between 2004 and 2017 with Lake County's rate having the most variation, spiking at a high of 45.1 in 2012. Lake County's rate increased from zero in 2004 to 10.2 in 2017. While starting higher in 2004 (21.1), Osceola County's rate varied, spiking at 35.6 in 2008 and going up and down every few years before leveling between 15 in 2016 and 14.6 in 2017. Seminole County's rate increased from 6.3 in 2004 to 24 in 2017. Orange County's rate also experienced an overall increase from 10.5 to 11.5 during this time period. The state rate increased from 12 in 2004 to 13.3 in 2017. (See Chart 7.58)

SUICIDE RATE AGES 22 AND OLDER (2004-2017)

The suicide rate ages 22 and older fluctuated in the four-county region and the state between 2004 and 2017. The rate in Lake County nearly doubled between 2004 (17.7) and 2017 (32.1) and in 2017 was significantly higher than the state (19.4). The rate did not change much in Orange County (14.6 in 2004 and 14.5 in 2017) and in 2017 was significantly lower than the state. The rate increased in Osceola County from 13 in 2004 to 16.8 in 2017. The rate in Seminole County (15) was significantly lower than the state in 2017. (See Chart 7.59)

Quality of Life/Mental Health: Key Findings

The percentage of adults who have ever been told they have a depressive disorder decreased in three of the four regional counties between 2013 and 2016 as well as in the state. Osceola County's rate increased slightly.

In 2016, in most regional counties and the state, the 44-64 age groups had the highest percentages of adults who have ever been told they had a depressive disorder. The exception to this is Seminole County, which had the highest rate among 18-44 year olds. The Osceola County rate in the 45-64 age group increased substantially between 2013 and 2016.

The rate of adults who have ever been told they have depressive disorder tends to be higher in residents with lower incomes. In most counties as well as the state, the rates were highest among those who had household incomes under $25K. The exception to this was Orange and Osceola counties which in 2013 had the highest rate in the $25K-$49K income category.

The rate of children receiving mental health services trended downward in the four-county region over the past 13 years. The state rate also trended downward during this time period. Seminole County's rate has been consistently the lowest of the counties.

Over a 15-year period, the percentages of children in grades K-12 with emotional/behavioral disability has trended downward in the four-county region as well as state-wide. Lake County has consistently had the highest regional rates and Orange County has consistently had the lowest rates.

The rate of children ages 5-11 experiencing sexual violence fluctuated dramatically in some counties between 2003 and 2017. The four-county region experienced an overall decline except Osceola County, which experienced an overall increase between 2014 and 2017.

The rate per 100,000 of children experiencing child abuse fluctuated in the four-county region between 2003 and 2017. For Lake and Osceola counties, their rates decreased from 2003 to 2017. Orange and Seminole counties had an increase in rates for the same time period, with Seminole's rate almost doubling. All regional rates were lower than the state in 2017.

The suicide rate of children ages 12-18 fluctuated in the four-county region between 2004 and 2017. Lake County's rate spiked in 2017 to 15.4 from zero in 2004. Lake and Osceola counties had a higher rate than the state in 2017.

The suicide rate of children ages 19-21 has remained relatively stable across the state for the past 15 years, although it has trended slightly upward for the past few years. In contrast, the Lake, Osceola and Seminole County rates have fluctuated widely year to year and have generally been trending upward the past few years.

Many of the stakeholder interview participants indicated that mental health and the lack of mental health services and providers is a top priority issue across the region.

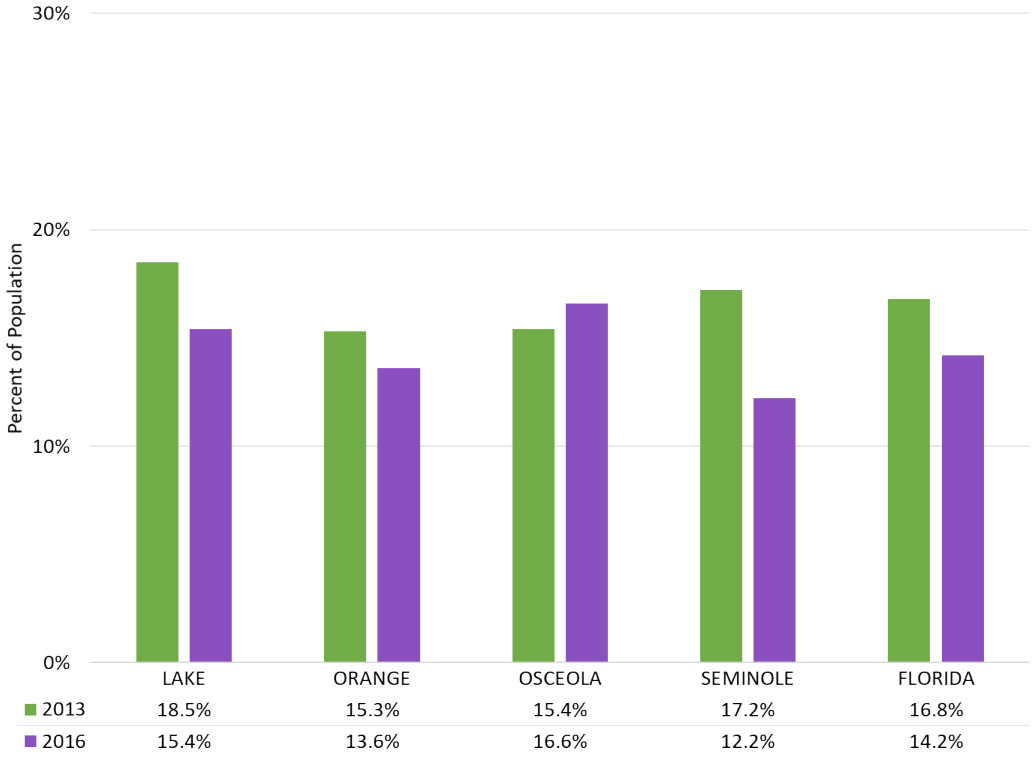
Focus group participants commented that they didn't think that people pay enough attention to their own mental health and that people may be overmedicated. There is a perception that mental health conditions are more prevalent in recent years, but participants questioned whether rates were truly increasing or if people were being over diagnosed. There is a lack of services specific to youth and a lack of holistic treatment options.

Key informant survey respondents commented that ACEs (adverse childhood experiences) needed to be taken into account and that there are more behavioral and mental health care services needed for students. The stressors related to poverty and housing instability increase the need for mental health services.

Barriers to care included the continued stigma associated with mental health challenges as well as difficulty accessing mental health services if an individual does not routinely receive health care. Participants report not all mental health professionals are welcoming or show compassion and respect to individuals who need help. There is also a lack of personal self-awareness to recognize when someone has a mental health problem and people often do not know where to go for care. There is also a lack of services for children. Transportation and insurance also impact an individual's ability to receive care, especially when there is a lack of inpatient beds. Patients who are treated, held or admitted due to the Baker Act do not always receive the attention they should either.

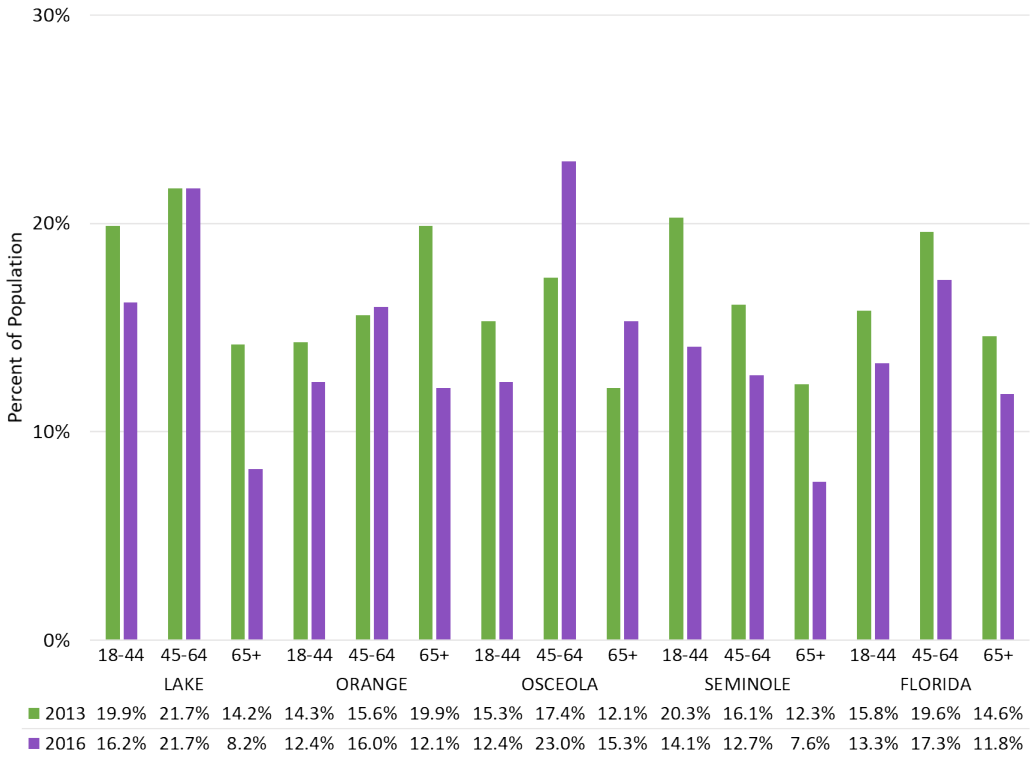
Needed services included transportation, reduced wait times for services, services in schools, and more services for LGBTQ individuals, both youth and adults. There is also a need to increase the number of providers, additional therapy services and availability of clinical care for non-English speakers. Primary research participants also expressed the need for appropriate care for victims of natural disasters dealing with trauma. The community would also benefit from more treatment options for substance use, more choices for grief counseling, and education on how to recognize when people need mental health services or support. Additional services for peer support, mentoring and role modeling, as well as education to reduce stigma are needed.

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



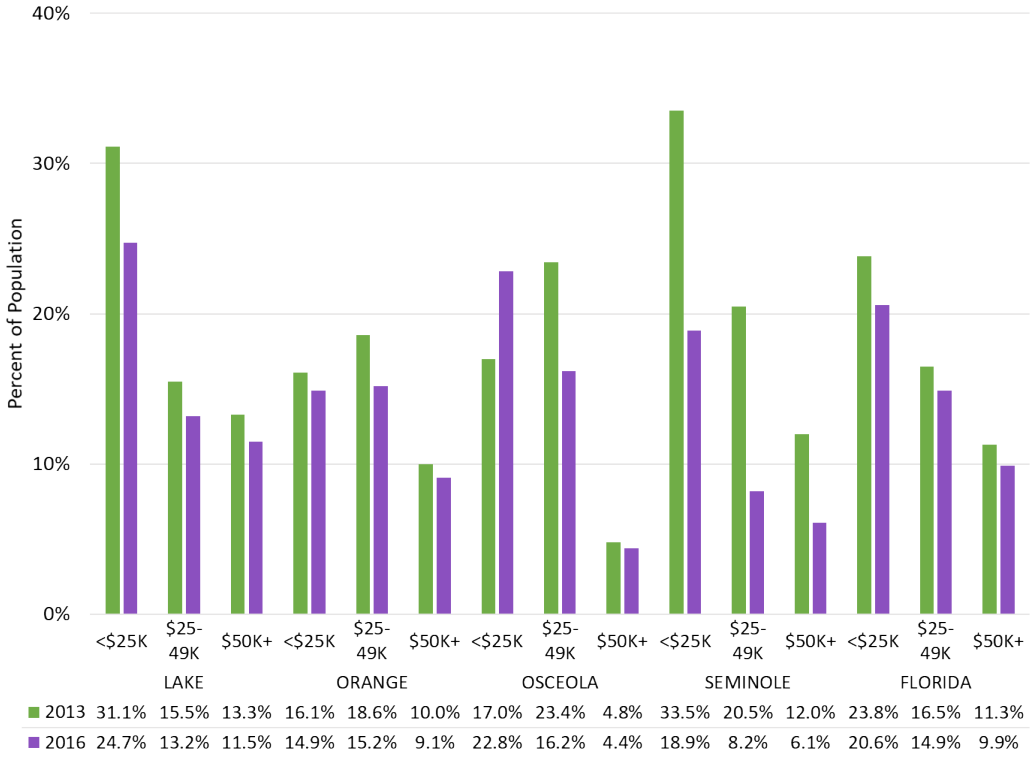
Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

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



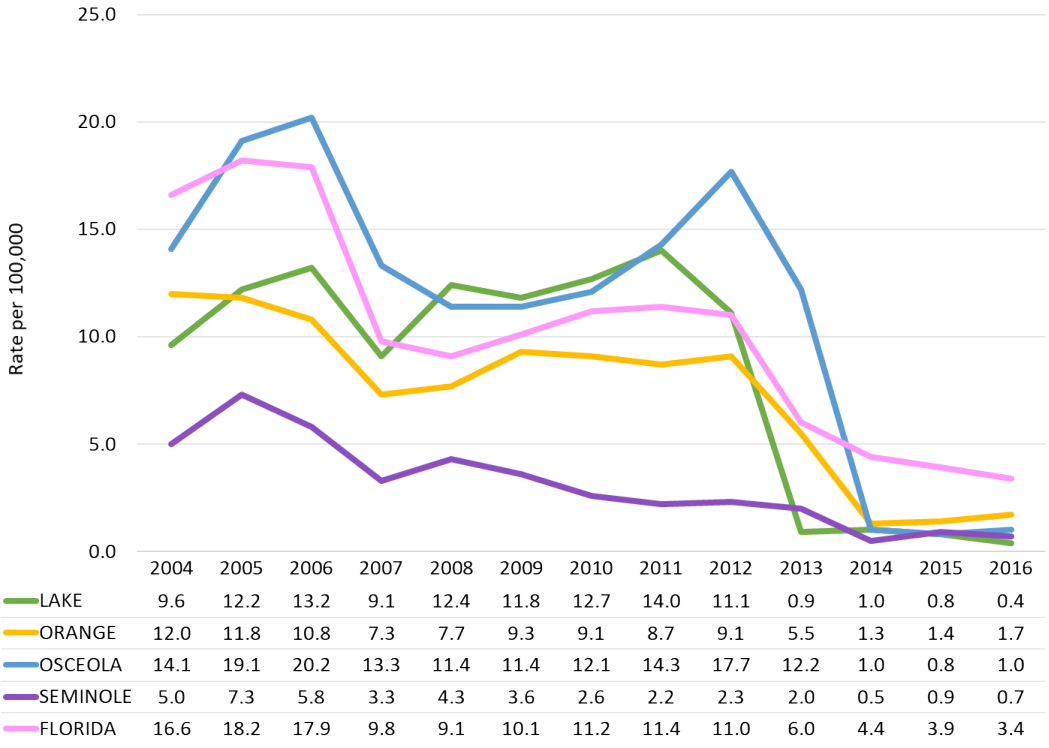
Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

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



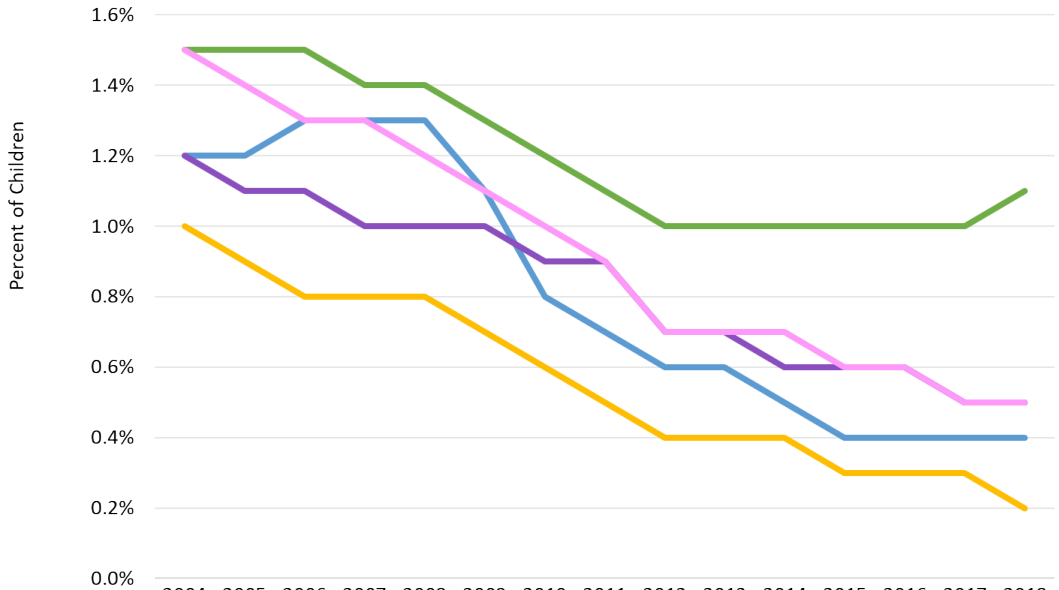
Source: FLHealthCHARTS: Florida Department of Health, Florida Behavioral Risk Factor Surveillance System

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



Source: FLHealthCHARTS: Florida Department of Children and Families

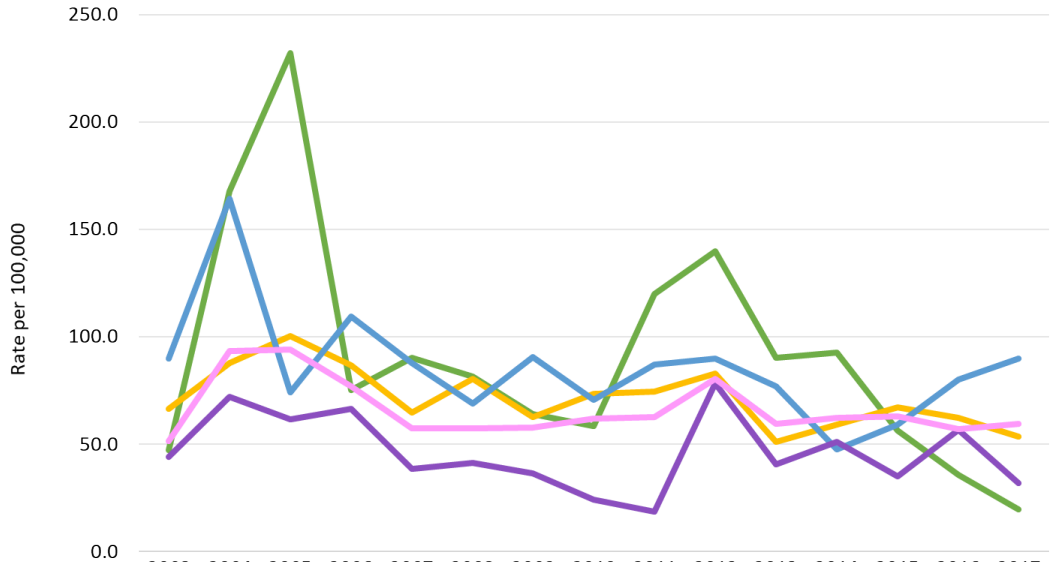
CHART 7.54: CHILDREN IN GRADES K-12 WITH EMOTIONAL/BEHAVIORAL DISABILITY (2004-2018)



	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

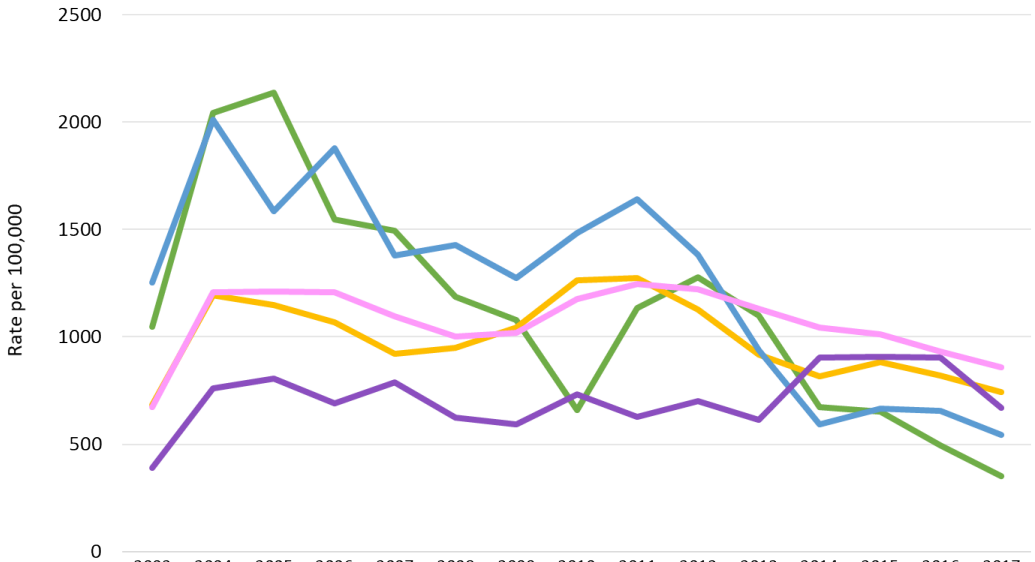
CHART 7.55: CHILDREN AGES 5-11 EXPERIENCING SEXUAL VIOLENCE (2003-2017)



	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

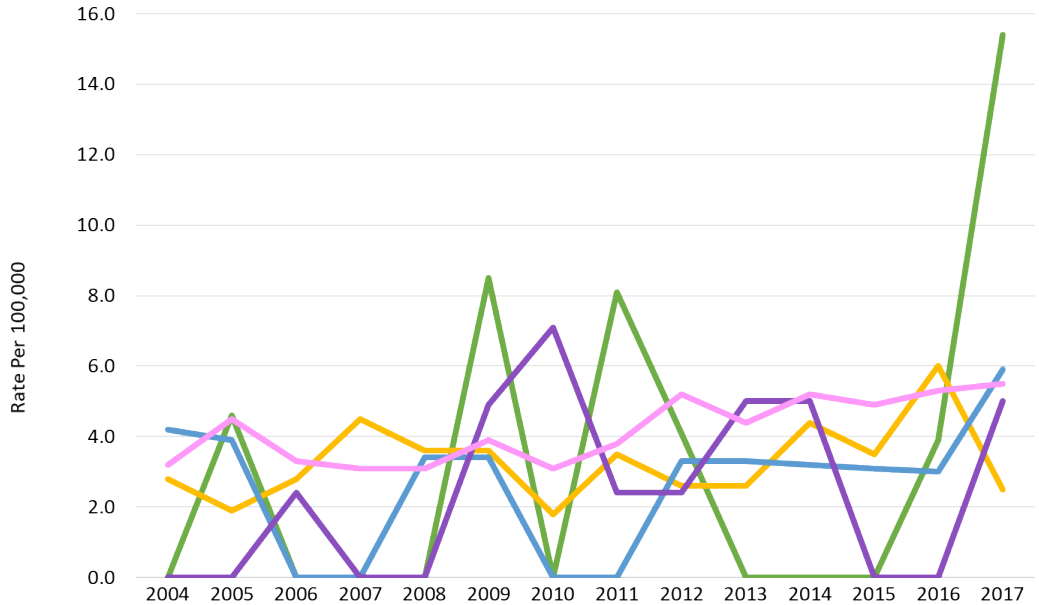
CHART 7.56: CHILDREN AGES 5-11 EXPERIENCING CHILD ABUSE (2003-2017)



	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

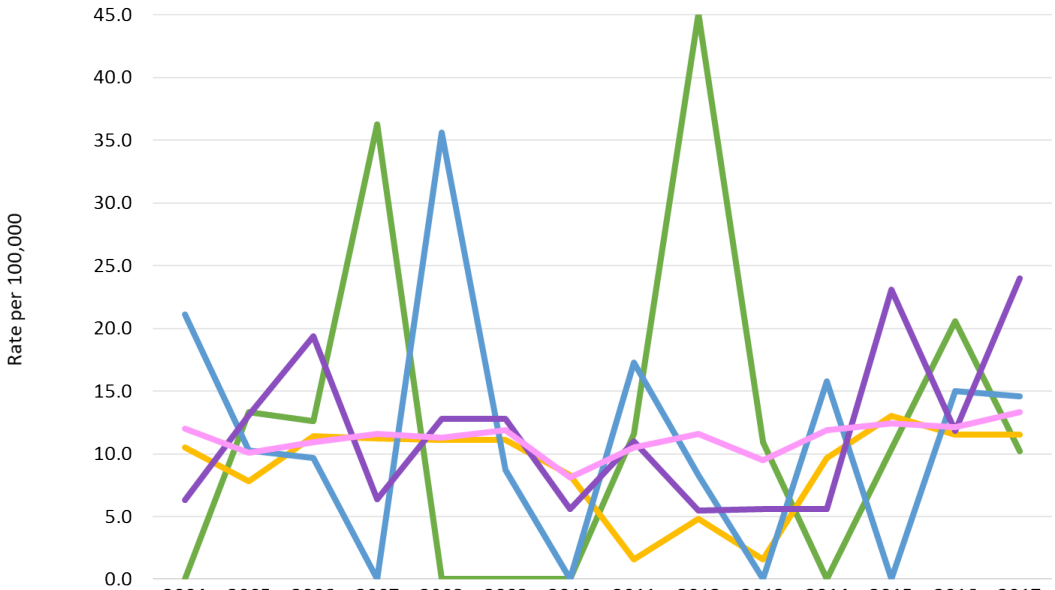
CHART 7.57: SUICIDE RATE OF CHILDREN AGES 12-18 (2004-2017)



	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 oh Health, Bureau of Vital Statistics

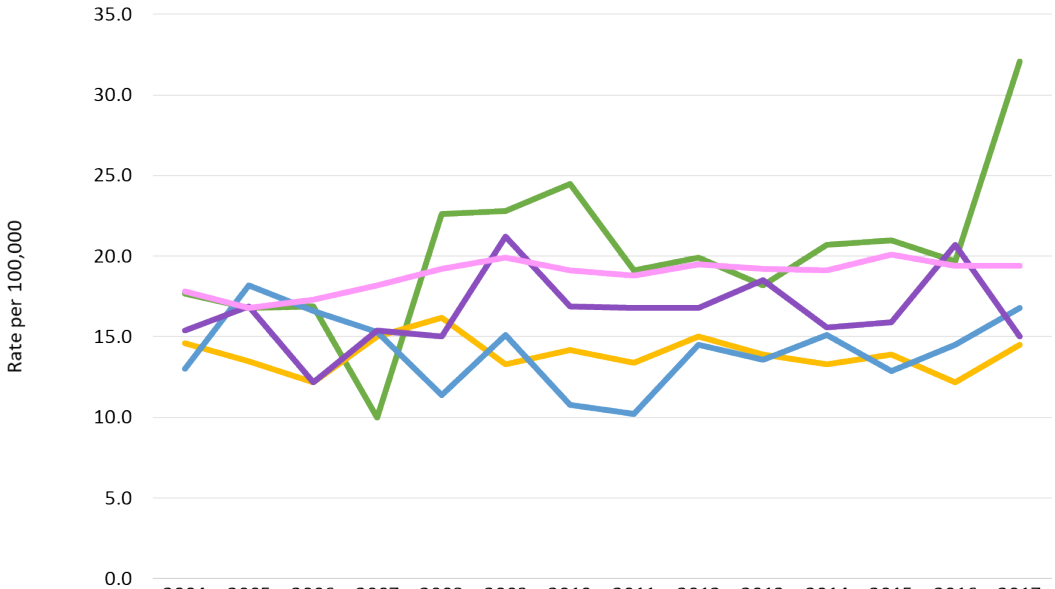
CHART 7.58: SUICIDE RATE AGES 19-21 (2004-2017)



	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)



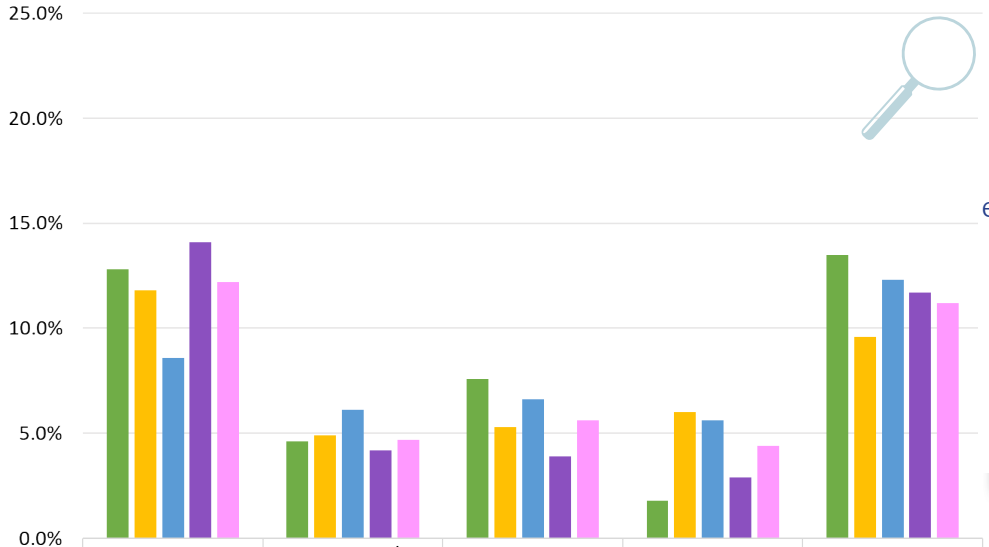
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
LAKE	17.7	16.8	16.9	10.0	22.6	22.8	24.5	19.1	19.9	18.2	20.7	21.0	19.7	32.1
ORANGE	14.6	13.5	12.2	15.0	16.2	13.3	14.2	13.4	15.0	13.9	13.3	13.9	12.2	14.5
OSCEOLA	13.0	18.2	16.6	15.3	11.4	15.1	10.8	10.2	14.5	13.6	15.1	12.9	14.5	16.8
SEMINOLE	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 7.24 illustrates the percentages of community survey respondents experiencing various behavioral risk factors. Sexual behaviors were defined in the survey as unprotected, irresponsible/risky.

FIGURE 7.24: 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%

Approximately one in 10 regional respondents have experienced alcohol abuse and tobacco use. One in twenty have experienced prescription drug abuse or illegal drug use.

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

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

- Substance use/addiction
  - Fentanyl has surpassed heroin as the leading cause of drug overdose deaths
  - Health is not priority for those struggling with addiction/they have a lot of health issues
  - Impact of opioid crisis/epidemic (especially among homeless)
  - Increase in crystal meth overdoses
  - Substance use (drugs and alcohol)
  - Incidence of homeless and substance use is increasing
  - Kids are acting out and choosing to self-medicate with synthetic drugs
  - Need for substance use services, especially for pregnant mothers
  - Stigma for substance use
- Tobacco use/vaping
  - Smoking
  - Tobacco use; rise in vaping/e-cigarettes/Juuling
  - Rates of smoking are still over 15 percent in Orange/Osceola County
- Youth suicide
- Teen pregnancy
- Surge of violence for those with co-occurring mental health concerns and substance use issues
- People shopping around for different doctors to prescribe them medication

Barriers to care identified by primary research participants included:

- Insurance/affordability
  - Lack of insurance
  - Lack of services for those struggling financially or who do not have insurance/are underinsured
  - Lack of access to affordable care, including preventive care
- Rehabilitation
  - Lack of rehab centers
  - Limited rehab options for mothers with children
  - People are given a long list of services and then fall through the cracks
- No limit to number of times someone can receive Narcan
- Lack of resources/services
- Lack of housing

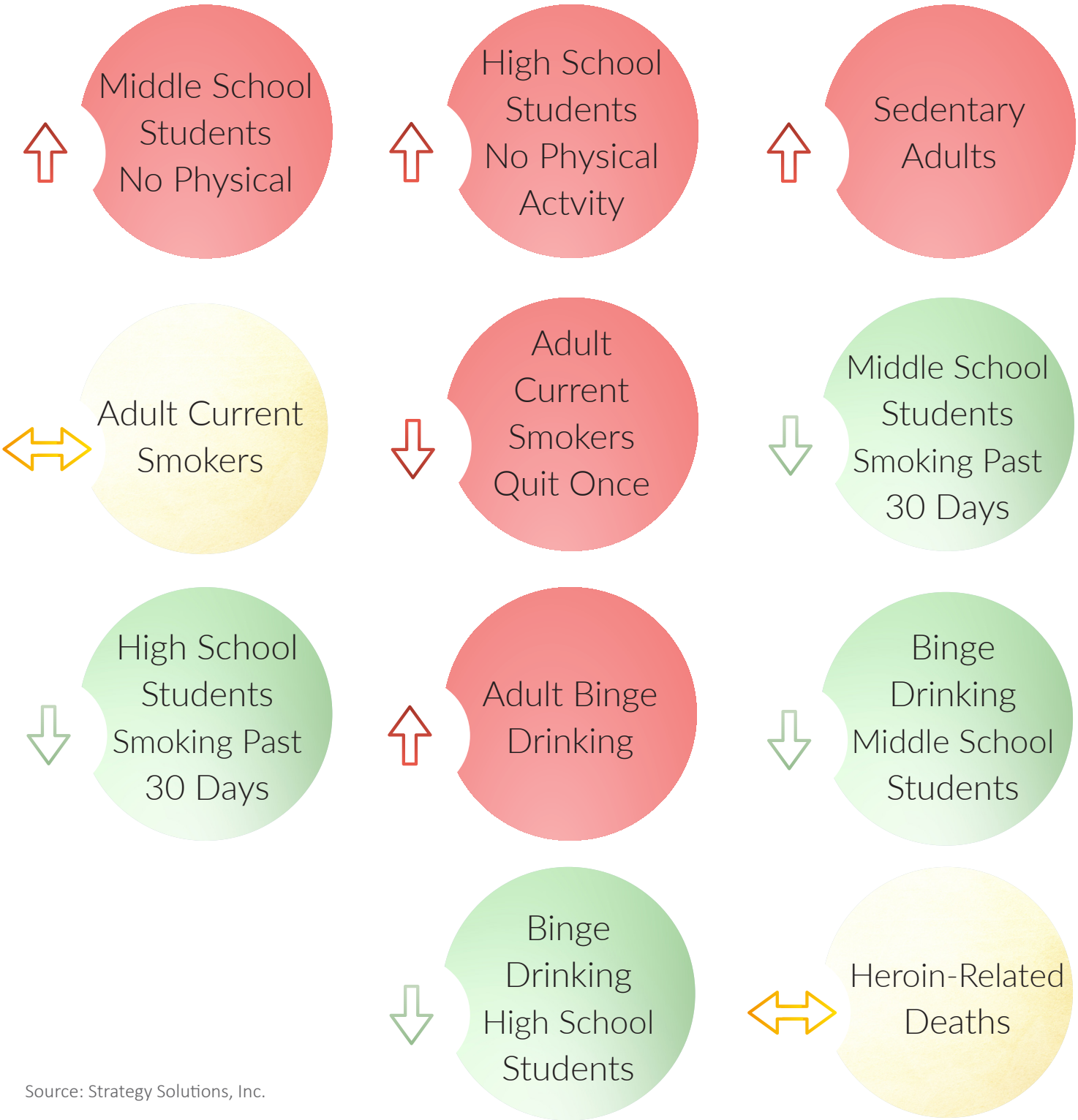
Needed services related to behavioral risk factors that were identified by primary research participants included:

- Education
  - Education on dangers of vaping/nicotine and tobacco use
  - Education to change societal norm
  - Education, prevention and treatment for tobacco/vaping
  - Education on drug addiction, what it looks like and where to get treatment
  - Community education on MAT
- Funding
  - State funding for treatment facilities, inpatient and outpatient, for substance use
  - Funding to block ads from social media that encourage teen vaping
- Facilities
  - Inpatient beds/recovery beds/long-term addiction recovery facilities
  - Treatment centers for youth/services specific to youth
  - Respite houses
  - Detox facility
  - More rehabilitation
  - Long-term support and transitional homes
  - Free substance use clinics
  - More facilities that can care for mothers on MAT
- Professionals
  - Bilingual/bicultural professionals
- Services
  - Peer recovery and peer support programs
  - Warm line programs
  - More prevention services
  - Medication-assisted treatment (MAT)
  - Support for addiction and integration back into the community
  - Women-specific habilitation services
  - MAT for mothers with opioid use diagnoses
  - Community plans around treating mental illness and addiction
  - Free or sliding scale assistance with substance use issues should be readily available and well-advertised
  - Focus on expanding community support resources
  - Accountability and impact for outpatient support groups (post-hospital discharge)
  - Mental health and substance use services that work and are affordable

Behavioral Risk Factors at a Glance

The key indicators related to behavioral risk factors that have changed since the last assessment are identified in Figure 7.25. Red means that the indicator has worsened in at least three of the regional counties, yellow means that some counties are increasing and some are decreasing or rates have remained roughly equivalent, and green means that rates have improved in at least three of the regional counties since the last CHNA data was available.

FIGURE 7.25: 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 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 most counties in the region and the state between 2014 and 2016. There was an exception to this trend in Seminole County where it decreased from 75.9 percent in 2014 to 72.9 percent in 2016. Lake County's rate increased from 75.9 percent to 79.1 percent. Orange County's rate increased from 74.5 percent to 77.3 percent. Osceola County's rate increased from 78 percent to 80.3 percent and the state rate 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 the four-county region and the state between 2014 and 2016. Seminole County had the smallest increase from 79.2 percent in 2014 to 79.7 percent in 2016. Lake County's rate increased from 76.2 percent to 79.9 percent. Orange County's rate increased from 80.5 percent to 81.3 percent and Osceola County's rate increased from 77.7 percent to 80.7 percent. The state rate increased from 78.5 percent in 2014 to 80.6 percent in 2016. (See Chart 7.61)

SEDENTARY ADULTS (2002-2016)

The percentage of sedentary adults in much of the four-county region, and the state, increased between 2002 and 2016, although there was a slight decrease in 2007. Osceola County's rate was consistently higher than the other counties, increasing from 32.3 percent in 2002 to 34.5 percent in 2016. Seminole County's rate was consistently lower than the other counties in the region, at 22.8 percent in both 2002 and 2016. Orange County's rate decreased from 30.6 percent to 27.9 percent while Lake County's rate increased from 27.6 percent to 29.3 percent. The state rate increased from 26.4 percent in 2002 to 29.8 percent in 2016. (See Chart 7.62)

ADULTS WHO ARE CURRENT SMOKERS (2002-2016)

The percentage of adults who are current smokers, both within the four-county region and the state, generally has trended downward between 2002 and 2016, although Lake and Seminole counties rates increased between 2013 and 2016. For several years, Osceola County had the highest rate in the region, although in 2016, the rate is the second lowest. The percentage decreased from 26.1 percent in 2002 to 13.9 percent in 2016. Lake County's rate decreased from 23.1 percent to 19.2 percent, Orange County's rate decreased from 21.4 percent to 12.4 percent and Seminole County's rate decreased from 19.5 percent to 15.2 percent. The state rate decreased from 22.2 percent in 2002 to 15.5 percent in 2016. (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 has generally increased in two of the four regional counties and the state between 2002 (55.3 percent) and 2016 (62.1 percent). Lake County had the largest increase going from 53.5 percent to 62.1 percent during this time period. Orange County's rate decreased slightly from 59.6 percent to 59.3 percent. Osceola County's rate also decreased from 64.7 percent in 2002 to 53.3 percent in 2016. Seminole County's rate increased from 53.7 percent in 2002 to 63.5 percent in 2016. (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 overall in all regional counties between 2010 and 2018. Lake County's rate decreased from 9.2 percent in 2010 to 1.1 percent in 2018. Orange County's rate also decreased from 3.8 percent to 0.4 percent during the same time period. Osceola County's rate decreased from 3.8 percent in 2010 to 0.8 percent in 2018. There was no data available in 2012 for Osceola County. Seminole County's rate also decreased from five percent in 2010 to 0.5 percent in 2018. The state rate decreased from 4.9 percent in 2010 to 1.3 percent in 2018. (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 had decreased in the four-county region and state between 2010 and 2018. Seminole County declined from 11.4 percent in 2010 to 3.1 percent in 2016 and remained the same in 2018. In 2018, Osceola County had the lowest percentage of high school students smoking in the past 30 days (2.6 percent, down from 9.5 percent in 2010). Orange County's percentage decreased from 11.2 percent to three percent from 2010 to 2018. Lake County's rate was consistently higher than the state from 2010 to 2018, during that time, the county rate went from 16.5 percent to 4.2 percent. The state rate decreased from 13.1 percent to 3.6 percent. (See Chart 7.66)

BINGE DRINKING AMONG ADULTS (2002-2016)

The percentage of binge drinking among adults, while fluctuating somewhat, increased between 2002 and 2016 in three of the four-county regions and the state (16.4 percent to 17.5 percent) The Seminole County rate decreased slightly from 20.8 percent in 2002 to 20.1 percent in 2016. Lake County's rate increased from 13.9 percent in 2002 to 15.8 percent in 2016. Orange County's rate increased from 18.2 percent to 19.5 percent. Osceola County's rate increased from 12.6 percent to 16.1 percent. (See Chart 7.67)

BINGE DRINKING MIDDLE SCHOOL STUDENTS (2012-2018)

The rate of binge drinking middle school students decreased in the four-county region and the state between 2014 and 2018. Seminole County's rate has been consistently lower than the other counties and decreased from three percent in 2012 to 1.1 percent in 2018. Lake County's rate dropped from four percent to 2.4 percent, while Orange County's rate dropped from five percent to 2.6 percent for the same time period. The state rate also dropped from five percent to 3.1 percent. Osceola County's rate was not available in 2012 and decreased from four percent in 2014 to 1.5 percent in 2016. (See Chart 7.68)

BINGE DRINKING HIGH SCHOOL STUDENTS (2012-2018)

The rate of binge drinking high school students decreased in the four-county region and the state between 2014 and 2018. Lake County's rate decreased the largest amount from 17 percent in 2012 to 7.5 percent in 2018. Orange County's rate decreased from 15 percent in 2012 to 8.3 percent in 2018, while Seminole County's rate dropped from 15 percent to 10.3 percent. Osceola County's rate was not available in 2012, but decreased from 11 percent in 2014 to 8.5 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)

While only a small percentage of middle school students report heroin use, the rate increased in Orange County from 0.5 percent in 2010 to 0.6 percent in 2018. There was a decrease in heroin use in middle school students in the other three counties between 2010 and 2018. Lake County's rate decreased from 1.4 percent to 0.2 percent over the same time period. Data was not available for Osceola County in 2012 and the rate decreased from 1.1 percent in 2014 to zero. Seminole County's rate decreased from 1.5 percent to 0.5 percent, while the state decreased from 0.9 percent to 0.4 percent. (See Chart 7.70)

HEROIN USE IN HIGH SCHOOL (2010-2018)

While only a small percentage of high school students report heroin use, there was a decrease observed in the four-county region between 2010 and 2018. Lake County's rate decreased from 0.7 percent to zero between 2010 and 2018. Orange County's rate decreased from 1.4 percent to 0.3 percent. Osceola County's rate decreased from 0.8 percent in 2010 to zero in 2018. Seminole County's rate decreased from 1.1 percent to 0.3 percent, equal to the state rate in 2018 (0.3 percent). (See Chart 7.71)

HEROIN-RELATED DEATHS (2013-2017)

The rate per 100,000 of heroin-related deaths in the four-county region and the state increased in the past few years. Lake County's rate increased from 0.3 in 2015 to 1.1 in 2017. Data was not available for 2013. Orange County's rate increased from 2.6 in 2013 to 6.7 in 2015, then decreased to 4.2 in 2017. Osceola County's rate increased from three in 2013 to 5.9 in 2015, then decreased to 5.4 in 2017. Seminole County's rate had a sharp increase from 1.6 in 2013 to 7.1 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 for the four-county region and the state (0.9 to 8.3) between 2013 and 2017. Osceola County had the largest increase from 1.3 in 2013 to 11.1 in 2017. Orange County's rate (1.4 in 2013 to 9.4 in 2017) has been consistently higher than the state rate, which increased from 0.9 to 8.3 between 2013 and 2017. Seminole County's rate increased from 1.5 to 7.8. Lake County has consistently had the lowest rate of the counties in the region, increasing from 0.7 to 3.8 during that time period. (See Chart 7.73)

RATE OF CONTROLLED PRESCRIPTIONS OF OPIOIDS (2013-2017)

The rate per 100,000 of controlled prescriptions of opioids increased in the four-county region in 2015 then decreased in 2017, although rates in 2017 were still higher than the 2013 rates. Lake County's rate increased from 813.2 in 2013 to 942.9 in 2017 and is the highest in the region. Orange County's rate, the lowest in the region, increased from 503.8 to 527.7 for the same time period while Seminole County's rate increased from 573.3 to 592.2. Osceola County's rate also increased from 526 to 562.1. The state rate for 2017 was unavailable. (See Chart 7.74)

DRUG ARRESTS (2013-2017)

When looking at the four-county region, the rate of drug arrests per 100,000 has decreased. Osceola County had consistently higher rates (950.2 in 2013 to 671.5 in 2017) than the other counties. Orange County's rate decreased from 651.9 to 563.5, and Lake County's rate decreased from 654.1 to 558.9, while Seminole County's rate increased from 499.9 to 621.7 during that time frame. There is no data available for the state for this indicator. (See Chart 7.75)

Behavioral Risk Factors: Key Findings

The percentage of middle school students without sufficient vigorous physical activity increased in most counties in the region and the state between 2014 and 2016. The exception was in Seminole County where there was a decrease. The percentage of high school students without sufficient vigorous physical activity increased in all counties in the region and the state between 2014 and 2016.

The percentage of sedentary adults in both the region and state increased between 2002 and 2016, although dipped slightly in 2007.

The percentage of adults who are current smokers in the four-county region and the state has trended downward between 2002 and 2016. However, the rate in Lake and Seminole counties increased between 2013 and 2016. The percentage of adult current smokers who have quit at least once in the past year has generally increased in two of the four counties and the state between 2002 and 2016.

The percentage of middle school students smoking cigarettes in the past 30 days decreased in all counties in the four-county region between 2016 and 2018.

The rate of heroin-related deaths per 100,000 in the four-county region and the state increased between 2013 and 2017. Although Orange and Osceola counties' rates decreased since 2015, the rates in both counties are higher than 2013.

The rate of fentanyl-related deaths per 100,000 increased in the four-county region and the state between 2013 and 2017.

The rate of controlled prescriptions per 100,000 of opioids in the four-county region increased in all counties in 2015 then decreased in 2017.

When looking at the four-county region, the rate of drug arrests per 100,000 in the past few years has been consistently higher in Osceola County, although the rate decreased from 2013 to 2017.

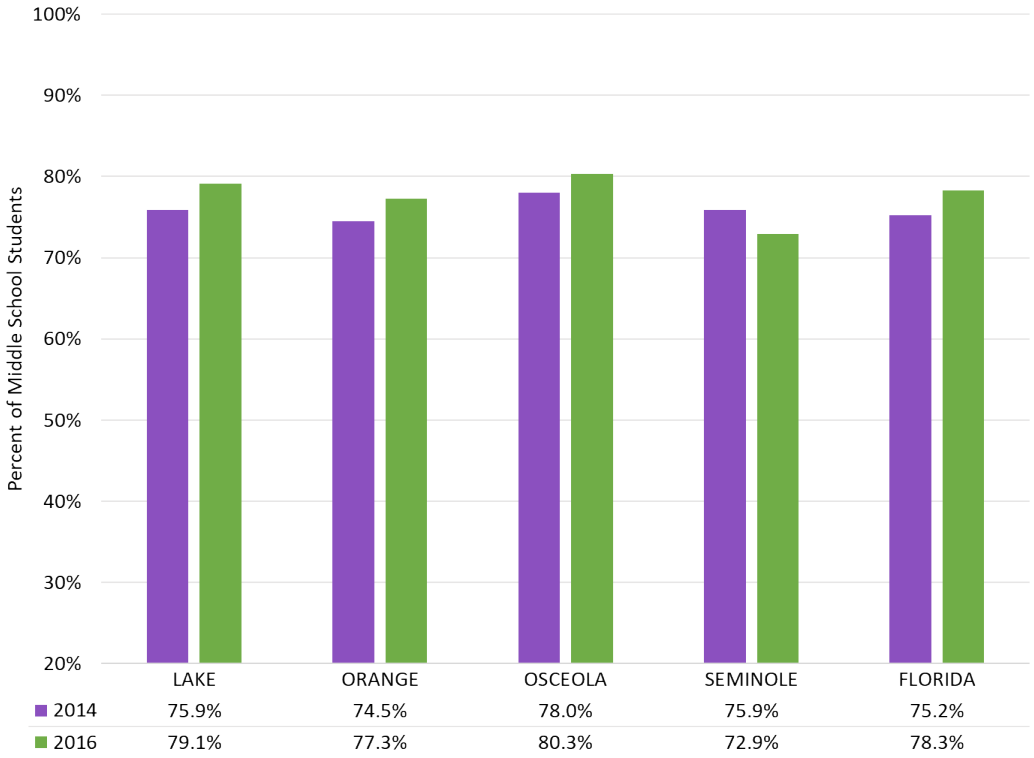
Focus group participants commented that they think drug addiction, adolescent use of e-cigarettes, vaping, Juuling and alcohol are important community problems. Participants also noted that there is a surge of violence by those with co-occurring mental health and substance use. People also shop around for different doctors to prescribe them medication.

Stakeholders stressed that substance use is a top community problem. Key informant survey respondents indicated that there is a rise in vaping and e-cigarette use.

Barriers included the lack of rehab services and limited rehab options for mothers with children. People are often given a long list of services then fall through the cracks because of the lack of care coordination.

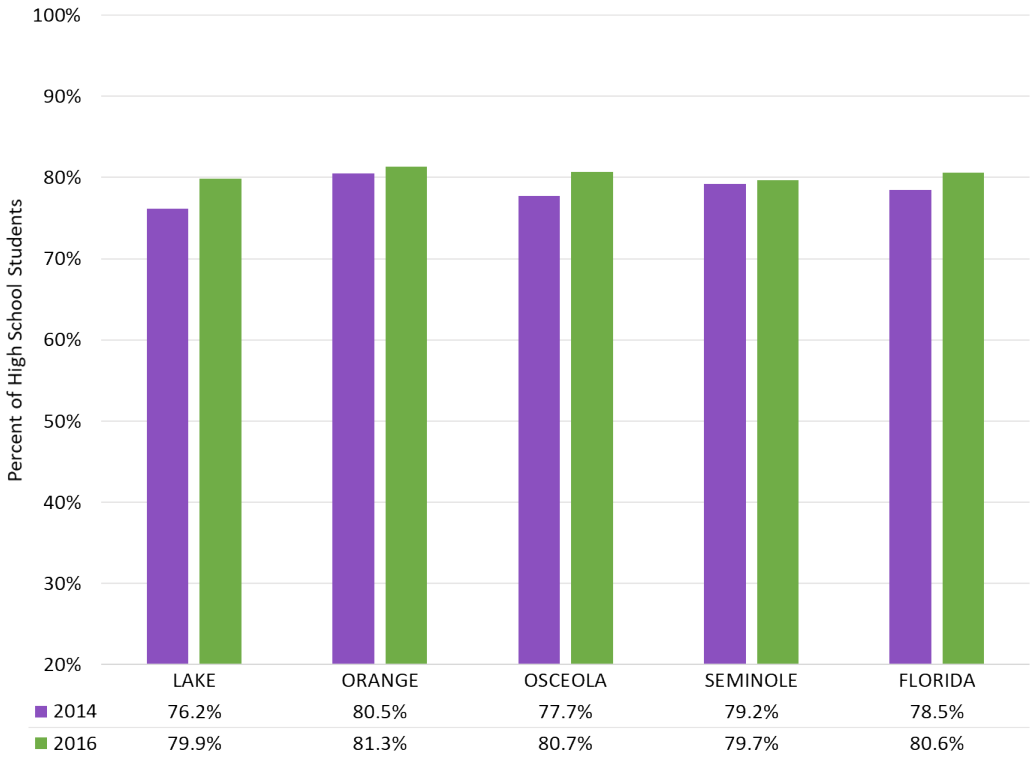
Primary research participants identified needed services which include education on drug addiction, as well as on how to identify drug addiction and where to get treatment. Support is also needed for those with addiction and help with integration back into the community. There is also a need for free substance use clinics, habilitation services for women, community education on medicated assisted treatment, and funding to block ads from social media that encourage teen vaping. Identified needs also include recovery beds and respite houses, as well as services specific to youth. There is also a need for more options to treat both mental/behavioral health and substance use.

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



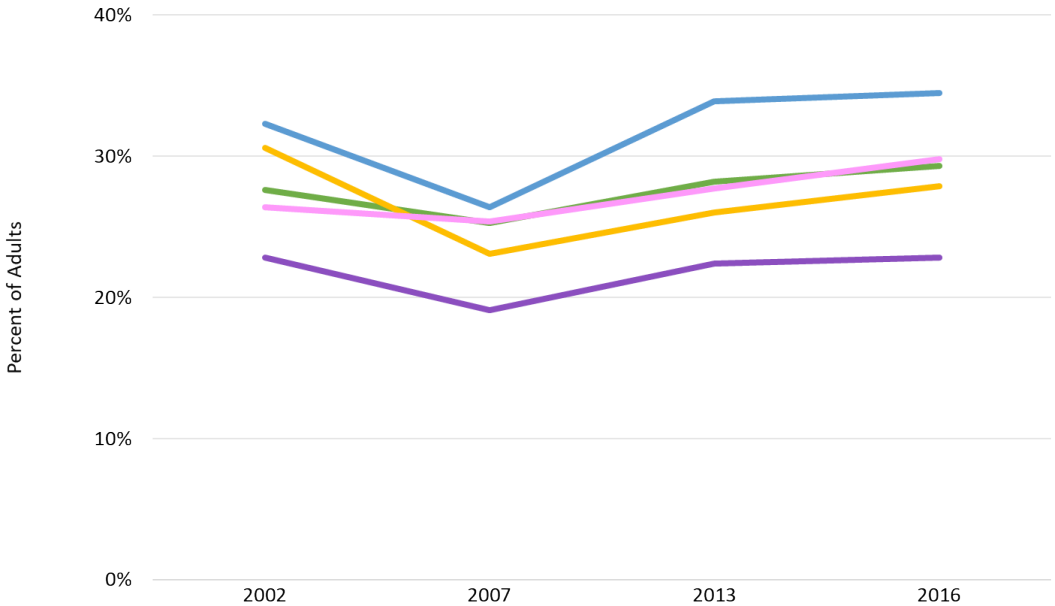
Source: FLHealthCHARTS: Florida Department of Health, Florida Youth Tobacco Survey

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



Source: FLHealthCHARTS: Florida Department of Health, Florida Youth Tobacco Survey

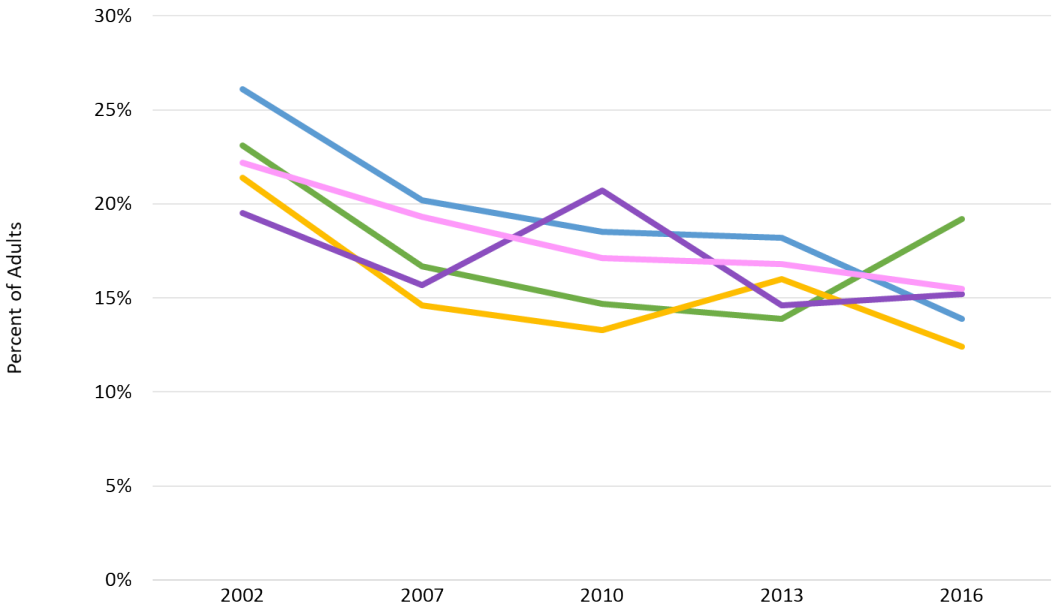
CHART 7.62: SEDENTARY ADULTS (2002-2016)



	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

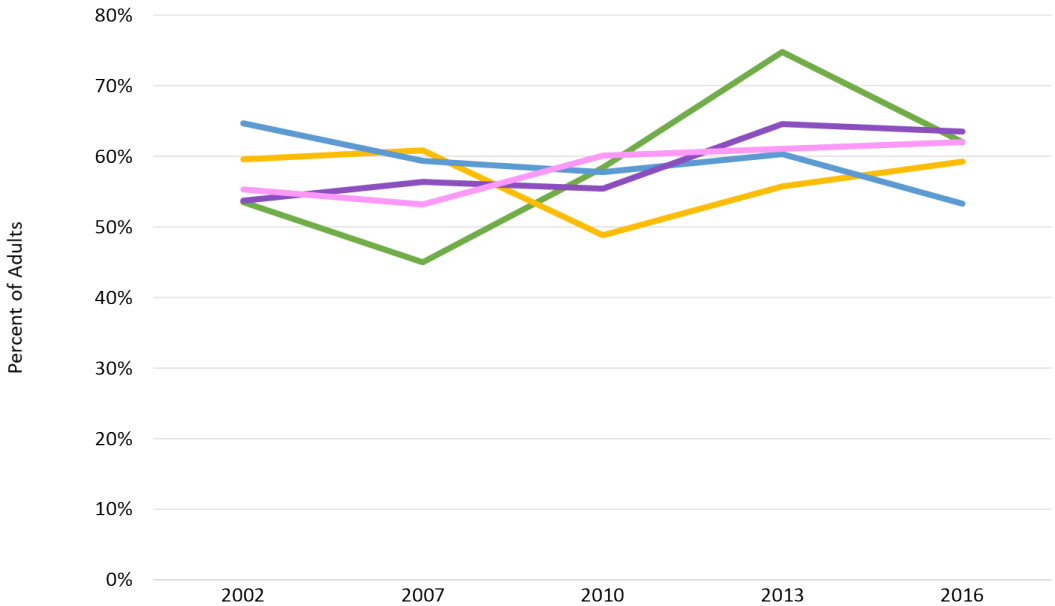
CHART 7.63: ADULTS WHO ARE CURRENT SMOKERS (2002-2016)



	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

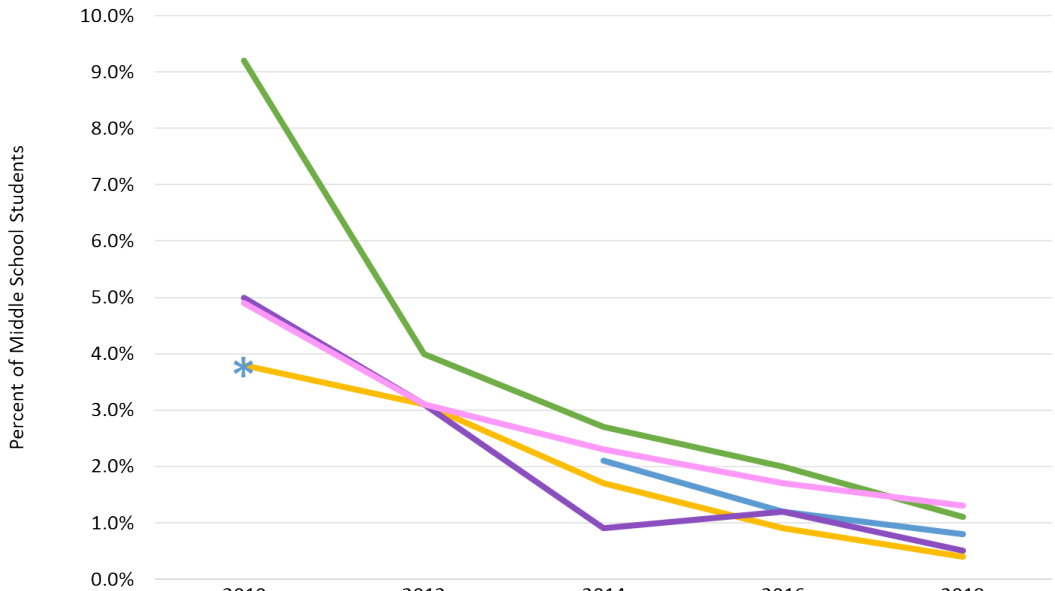
CHART 7.64: ADULT CURRENT SMOKERS WHO QUIT SMOKING AT LEAST ONCE IN PAST YEAR (2002-2016)



	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

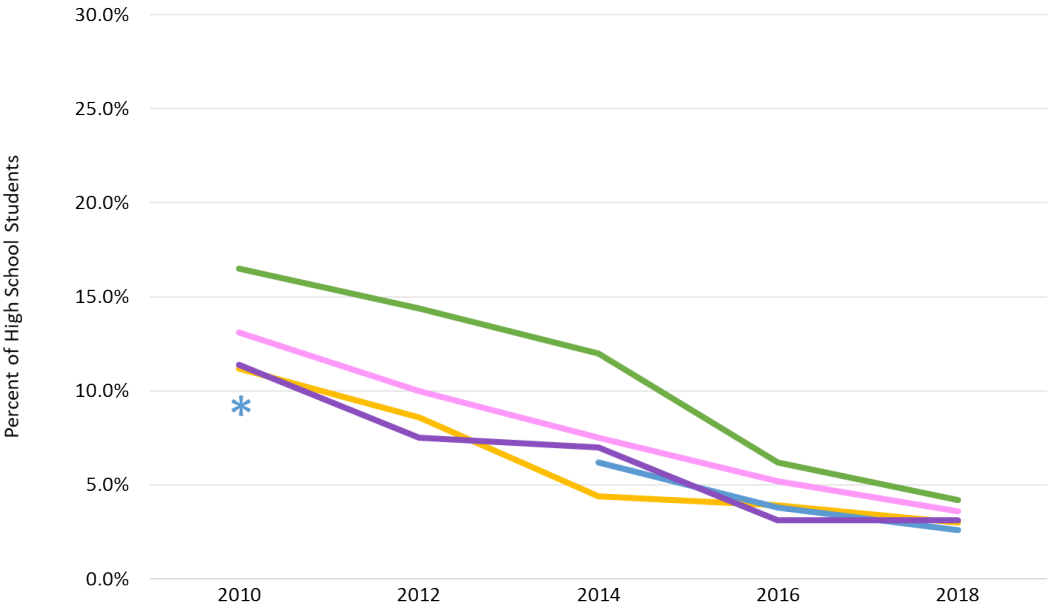
CHART 7.65: MIDDLE SCHOOL STUDENTS SMOKING CIGARETTES IN PAST 30 DAYS (2010-2018)



	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 Department of Health, Florida Youth Survey Tobacco Survey
*Represents a single data point where there has been inconsistent data for a county

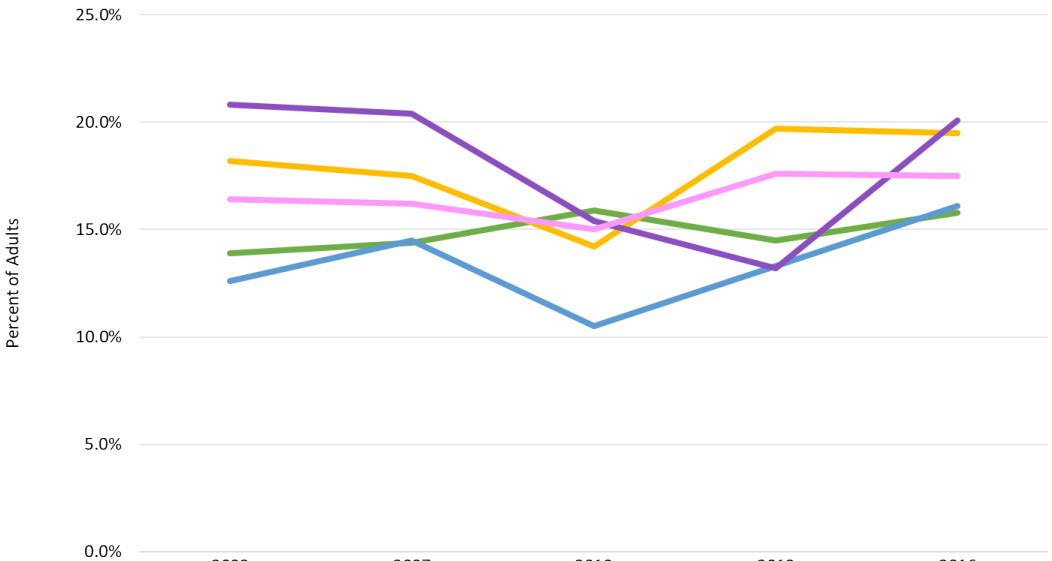
CHART 7.66: HIGH SCHOOL STUDENTS SMOKING CIGARETTES IN PAST 30 DAYS (2010-2018)



	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 Department of Health, Florida Youth Tobacco Survey
*Represents a single data point where there has been inconsistent data for a county

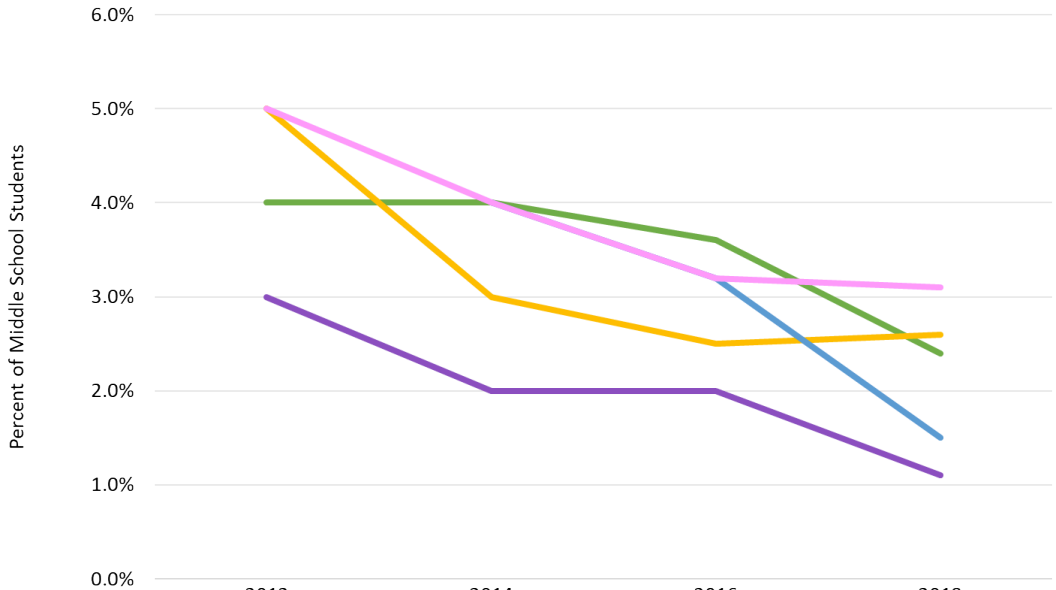
CHART 7.67: BINGE DRINKING AMONG ADULTS (2002-2016)



	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

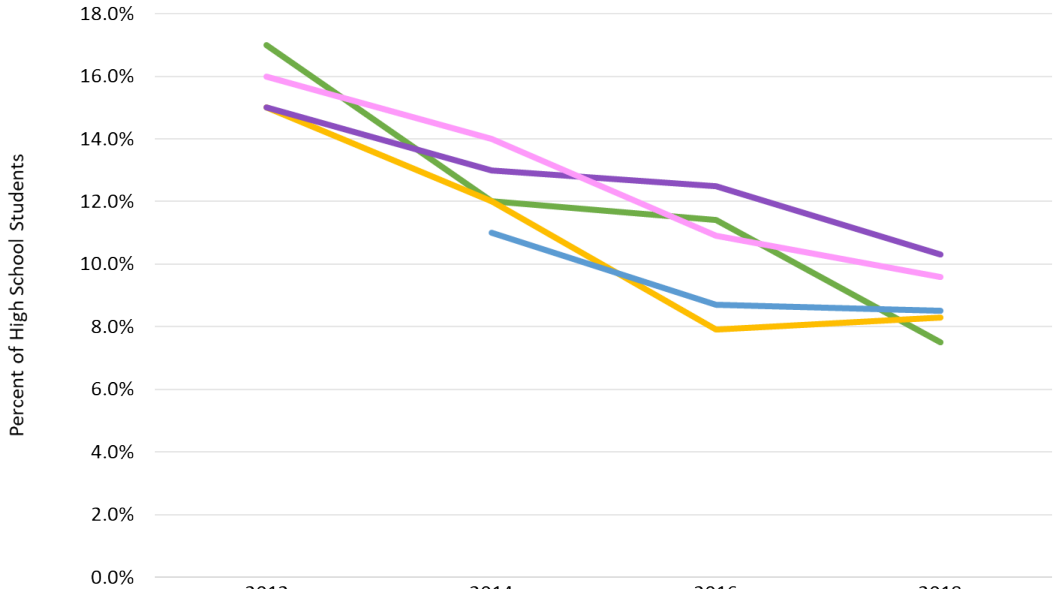
CHART 7.68: BINGE DRINKING MIDDLE SCHOOL STUDENTS (2012-2018)



	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 Department of Children and Families, 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.

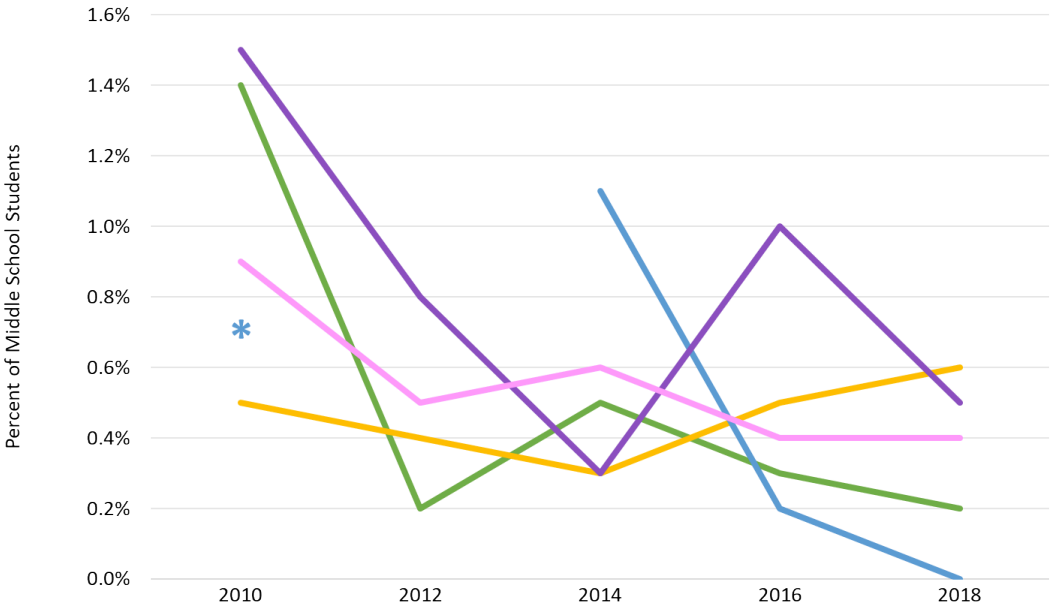
CHART 7.69: BINGE DRINKING HIGH SCHOOL STUDENTS (2012-2018)



	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 Department of Children and Families, Florida Youth Substance Abuse Survey

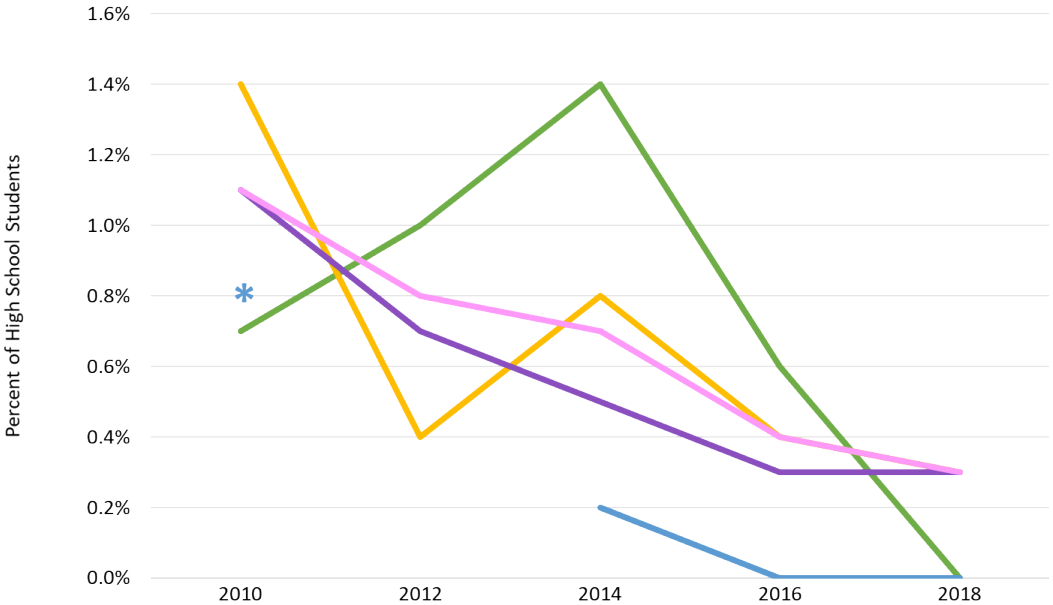
CHART 7.70: HEROIN USE IN MIDDLE SCHOOL (2010-2018)



	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 Department of Children and Families, Florida Youth Substance Abuse Survey
*Represents a single data point where there has been inconsistent data for a county

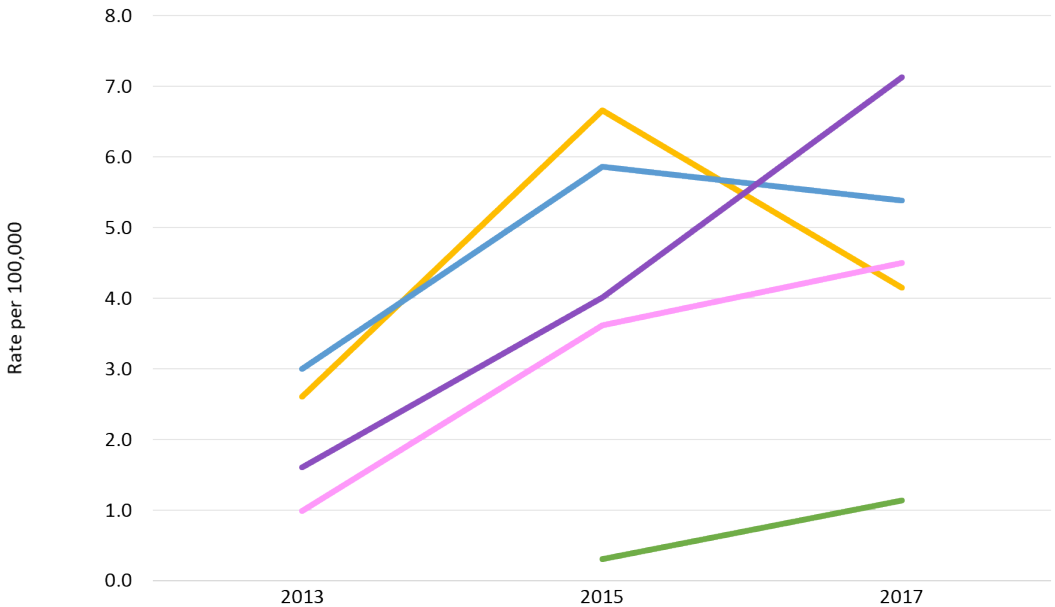
CHART 7.71: HEROIN USE IN HIGH SCHOOL (2010-2018)



	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 Department of Children and Families, Florida Youth Substance Abuse Survey
*Represents a single data point where there has been inconsistent data for a county

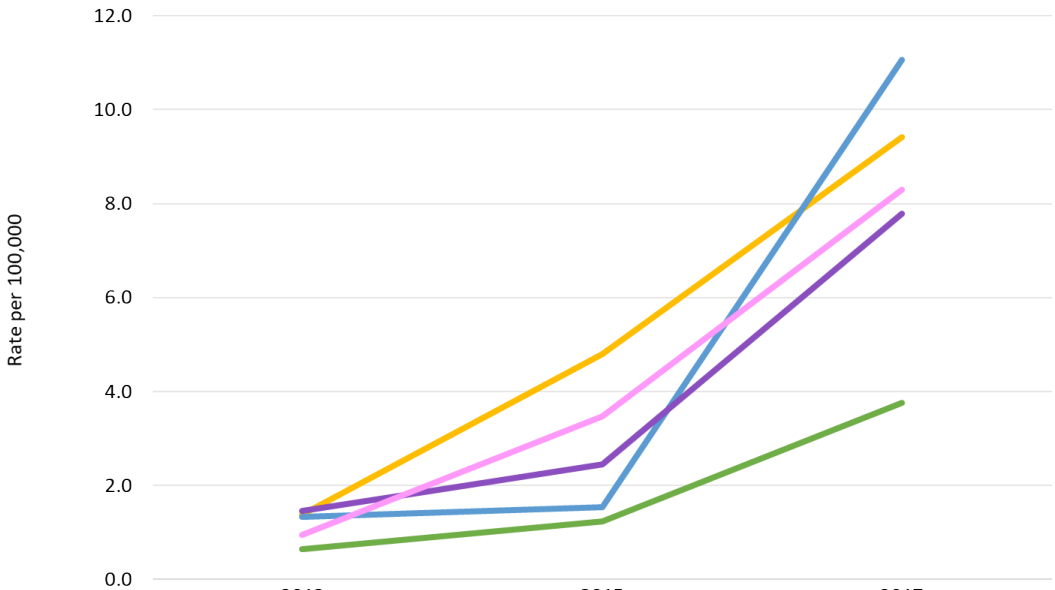
CHART 7.72: HEROIN-RELATED DEATHS (2013-2017)



	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

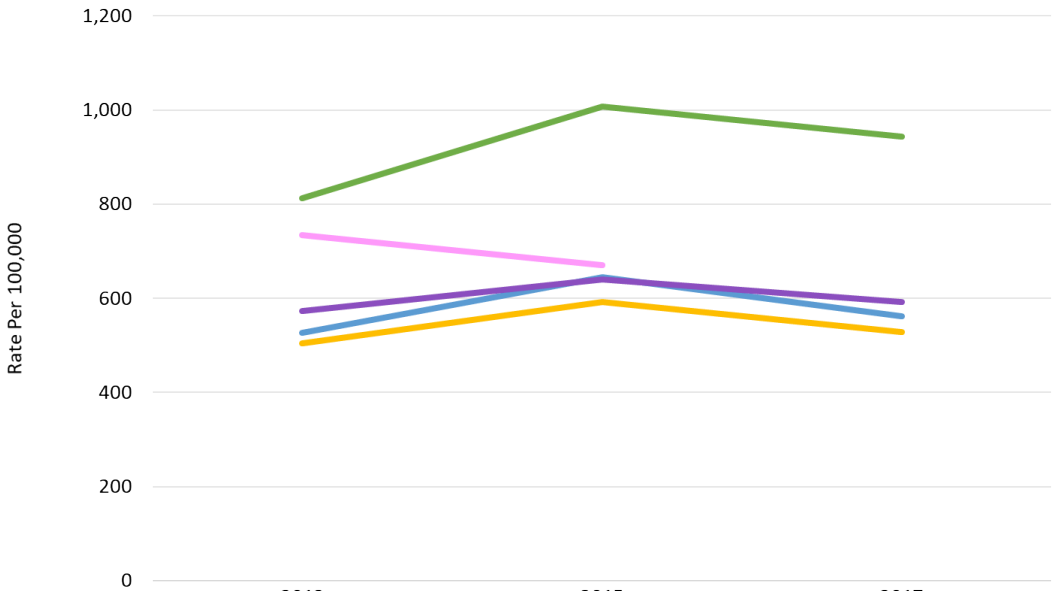
CHART 7.73: FENTANYL-RELATED DEATHS (2013-2017)



	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

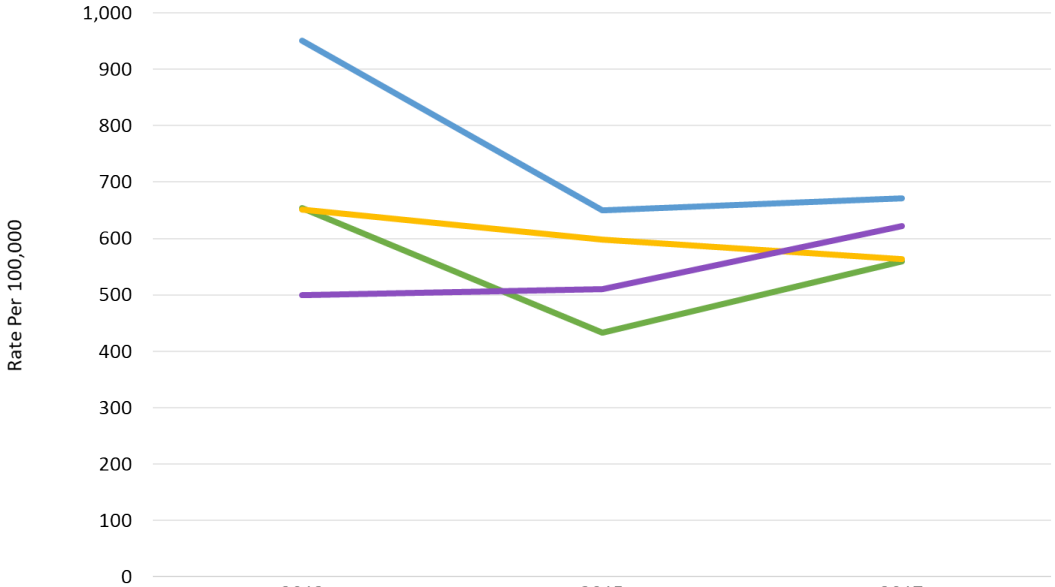
CHART 7.74: RATE OF CONTROLLED PRESCRIPTIONS OF OPIOIDS (2013-2017)



	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)



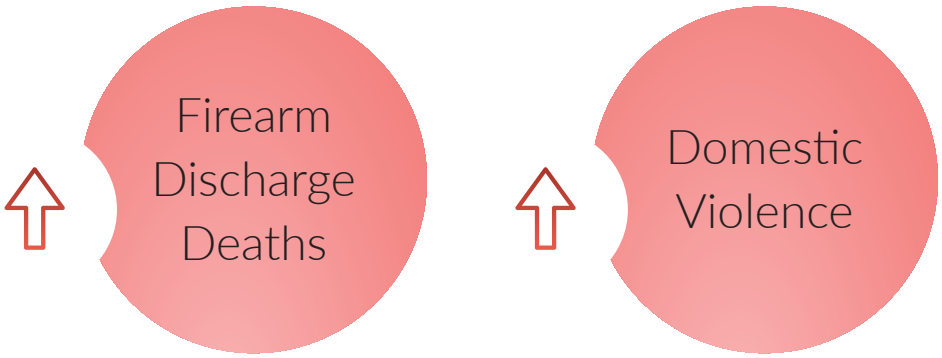
	2013	2015	2017
LAKE	654.1	433.1	558.9
ORANGE	651.9	598.7	563.5
OSCEOLA	950.2	649.6	671.5
SEMINOLE	499.9	509.8	621.7

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

Injury Related To Behavioral Risk Factors at a Glance

The key indicators related to injury related to behavioral risk factors that have changed since the last assessment are identified in Figure 7.26. Red means that the indicator has worsened in at least three of the regional counties, yellow means that some counties are increasing and some are decreasing or rates have remained roughly equivalent, and green means that rates have improved in at least three of the regional counties since the last CHNA data was available.

FIGURE 7.26: INJURY-RELATED INDICATORS



Source: Strategy Solutions, Inc.

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. While the above colored icons illustrate observed trends from the data reported in the 2016 CHNA, this section is designed to highlight relevant information on each indicator and provide a narrative interpretation of the data included in the charts/tables that follow.

ALCOHOL-RELATED MOTOR VEHICLE CRASHES (2014-2016)

The percentage of motor vehicle crashes that were alcohol-related decreased in the four-county region between 2014 and 2016. Lake County's rate was consistently higher than the other counties during this time frame, decreasing from 1.85 percent to 1.47 percent and it remained higher than the state rate which decreased from 1.64 percent to 1.32 percent. Seminole County's rate decreased from 1.81 percent to 1.23 percent . Osceola County's rate decreased from 1.45 percent to 1.09 percent. Orange County's rate decreased from 1.25 percent to 1.12 percent. (See Chart 7.76)

DRUG-RELATED MOTOR VEHICLE CRASHES (2014-2016)

Drug-related motor vehicle crashes have decreased in two of the four regional counties in the past few years, while the state has seen an increase. Lake County decreased from 0.3 percent in 2014 to 0.12 percent in 2016 and Osceola County decreased from 0.2 percent in 2014 to 0.09 percent in 2016. Orange County's rate increased from 0.06 percent to 0.11 percent between 2014 and 2016 and Seminole County's rate increased from 0.11 percent in 2014 to 0.14 percent in 2016. In 2016, the four-county region had rates lower than the state (0.16 percent). (See Chart 7.77)

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

When looking at the four-county region, the combined drug and alcohol-related motor vehicle crash percentage in Lake County has been consistently higher than other counties, but decreased from 0.27 percent in 2014 to 0.14 percent in 2016. The state has remained relatively consistent around 0.09 percent over the same time period. Orange County's rate increased from 0.05 percent to 0.09 percent, while Osceola County's rate decreased from 0.07 percent to 0.05 percent in the same timeframe. Seminole County's rate also increased slightly from 0.06 percent in 2014 to 0.08 percent in 2016. (See Chart 7.78)

ALCOHOL-RELATED INJURIES (2014-2016)

Alcohol-related injuries as a percentage of all injuries decreased across the state between 2014 (1.50 percent) and 2016 (1.24 percent). All of the four-county region's rates were lower than the state rate during this time frame. Lake County's rate was consistently the highest although it decreased from 1.44 percent in 2014 to 1.11 percent in 2016. Seminole County's rate decreased the most from 1.26 percent in to 0.73 percent in 2016, while Orange County's rate decreased slightly from 0.97 percent to 0.95 percent. Osceola County's rate decreased from 0.98 percent in 2014 to 0.60 percent in 2015 and although increased to 0.78 percent in 2016, it was still an overall decrease. (See Chart 7.79)

DRUG-RELATED INJURIES (2014-2016)

Drug-related injuries as a percentage of all injuries fluctuated throughout the region between 2014 and 2016 although the state rate remained relatively consistent at 0.21 percent. Lake County had the highest rate in the region for 2014 (0.26 percent) and 2016 (0.23 percent). Seminole County had the lowest rate in both 2014 (0.02 percent) and 2016 (0.11 percent), although the rate spiked in 2015 to 0.21 percent. Orange County's rate increased from 0.09 percent to 0.13 percent during this time period, while Osceola County's rate dropped from 0.13 percent in 2014 to zero percent in 2015 then rose again to 0.17 percent in 2016. (See Chart 7.80)

DRUG AND ALCOHOL-RELATED INJURIES (2014-2016)

The rate of drug and alcohol-related injuries as a percentage of all injuries increased in some counties and decreased in others between 2014 and 2016. Lake County consistently had the highest rate in the four-county region, although the rate decreased from 0.30 percent in 2014 to 0.12 percent in 2016. This is higher than the state rate (0.10 percent). Orange County's rate increased from 0.02 percent to 0.07 percent as has Seminole County's rate from zero percent to 0.07 percent. Osceola County's rate decreased from 0.10 percent in 2014 to zero 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 the four-county region between 2004 and 2017, with all counties and the state seeing a net increase over a 14 year period. Lake County's rate increased from 9.1 to 17.7, Orange County's rate increased from 8.4 to 10.8, Osceola County's rate has increased from 7.4 to 10, while Seminole County's rate increased from 7.1 to 9.1. Florida's rate increased from 10.5 in 2004 to 12.5 in 2017. (See Chart 7.82)

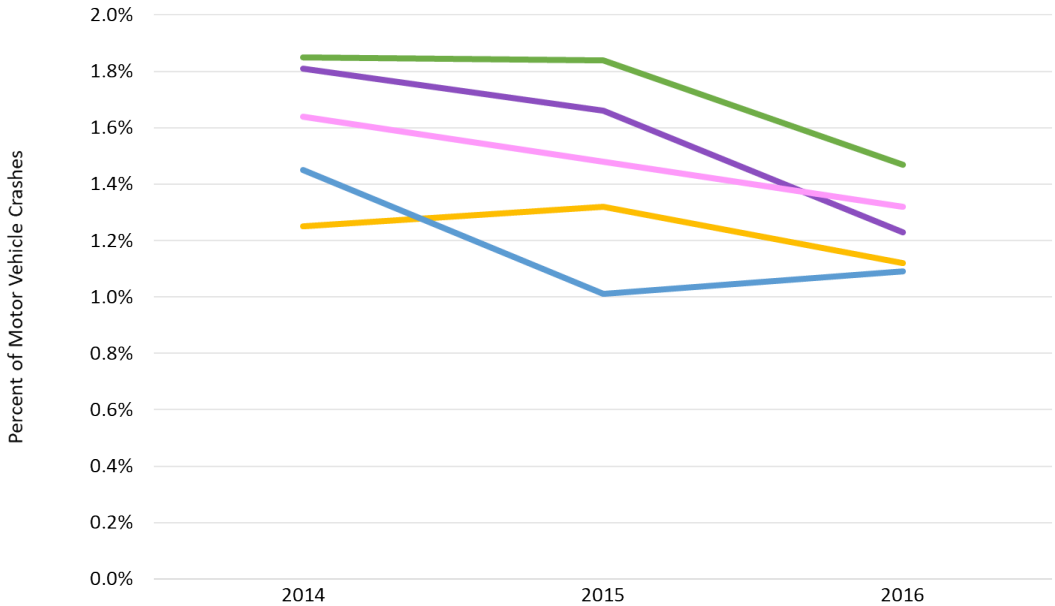
DOMESTIC VIOLENCE (2013-2017)

The domestic violence rate per 100,000 in Osceola County was the highest in the four-county region in 2013 (822.9) the rate dropped to 574.9 in 2017. The Orange County rate was 698.6 in 2013 and 636.3 in 2017. Seminole's rate decreased slightly from 561.9 in 2013 to 550 in 2017 as did Lake County's from 520.9 to 514. The state rate decreased from 560.9 to 522.3 during this time period. (See Chart 7.83)

Injuries Related to Behavioral Risk Factors: Key Findings

For the four-county region, there is a very small percentage of injuries related to behavioral risk factors. Alcohol and drug-related motor vehicle crashes, as well as drug and alcohol-related injuries, have been decreasing in Lake and Osceola counties, while increasing in Orange and Seminole counties. The firearms discharge death rate has been increasing throughout the region, while domestic violence rates have been decreasing.

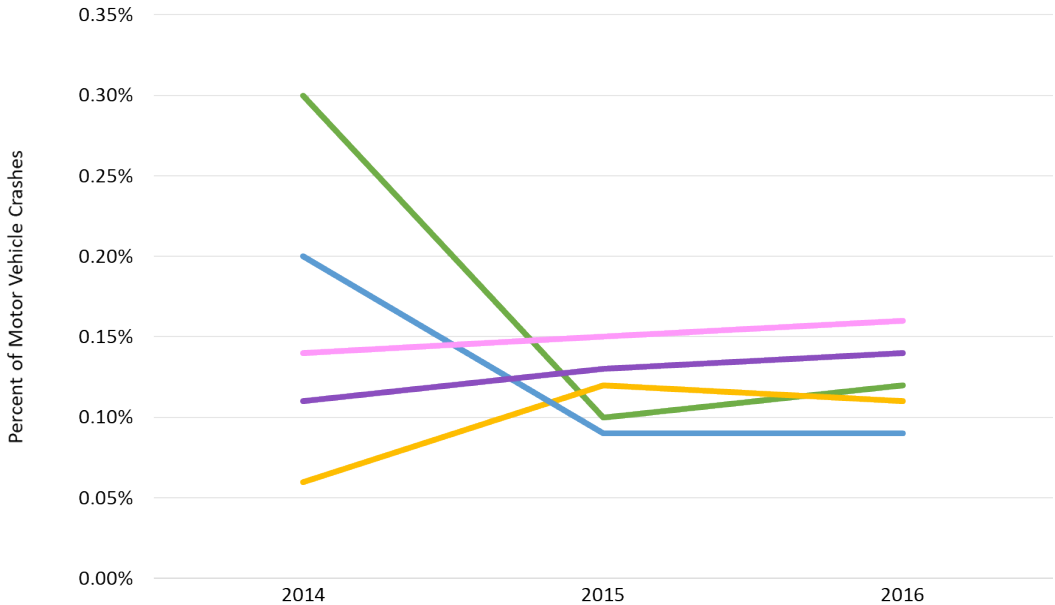
CHART 7.76: ALCOHOL-RELATED MOTOR VEHICLE CRASHES (2014-2016)



	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

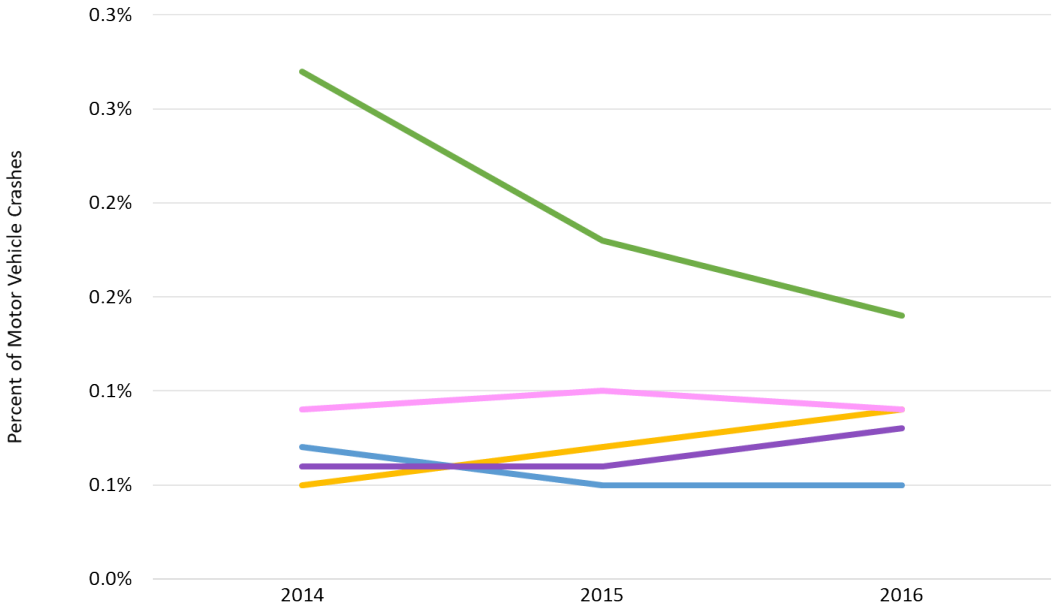
CHART 7.77: DRUG-RELATED MOTOR VEHICLE CRASHES (2014-2016)



	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

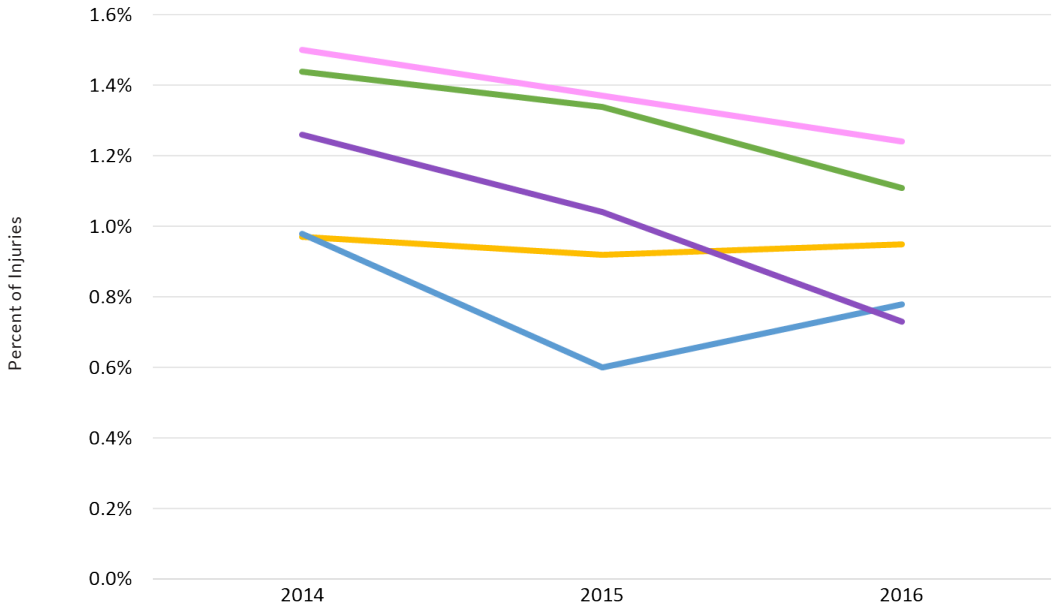
CHART 7.78: DRUG AND ALCOHOL-RELATED MOTOR VEHICLE CRASHES (2014-2016)



	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

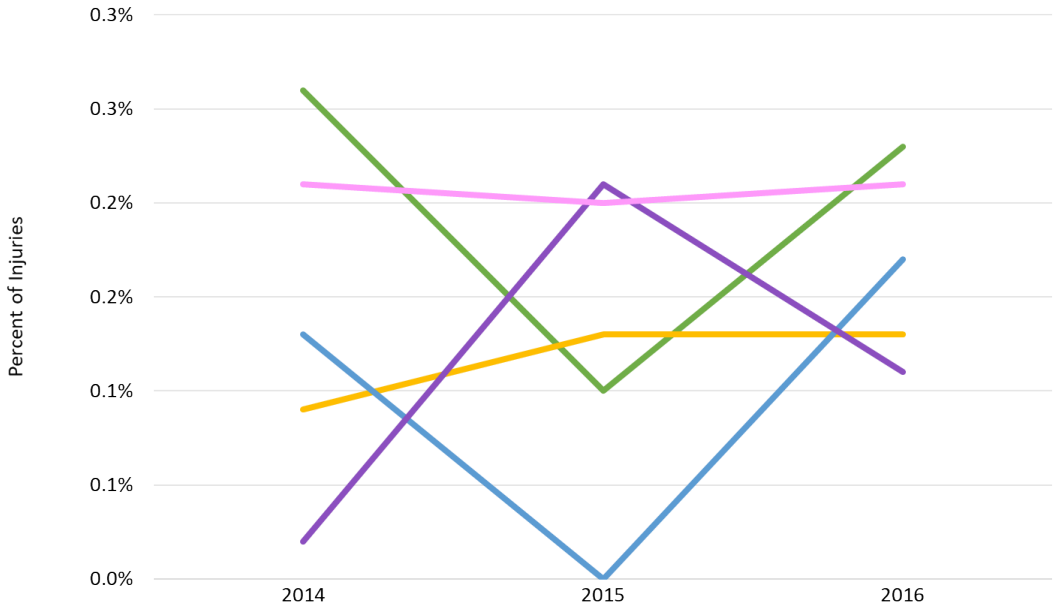
CHART 7.79: ALCOHOL-RELATED INJURIES (2014-2016)



	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

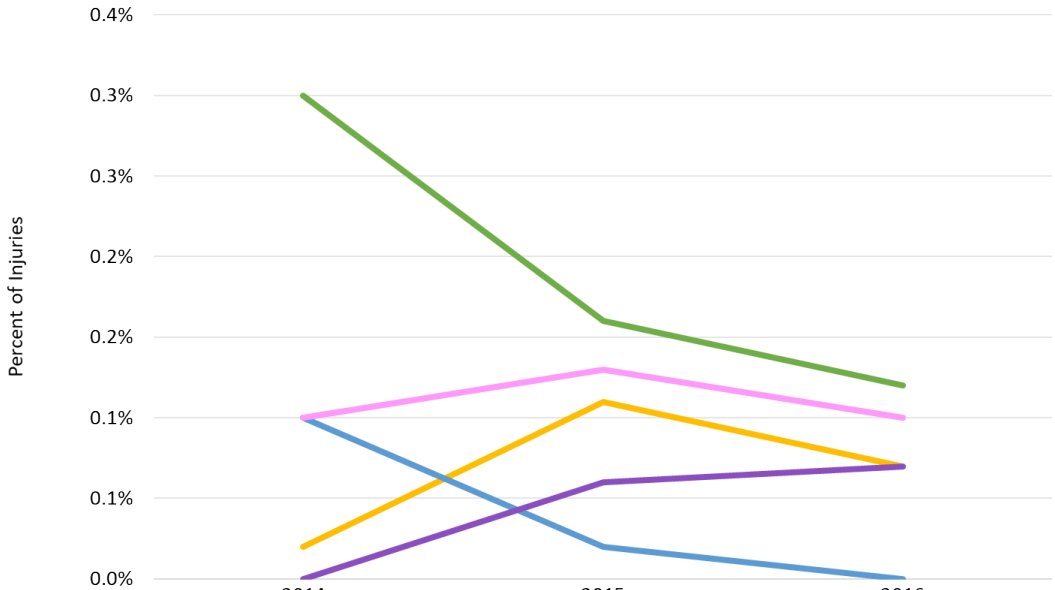
CHART 7.80: DRUG-RELATED INJURIES (2014-2016)



	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

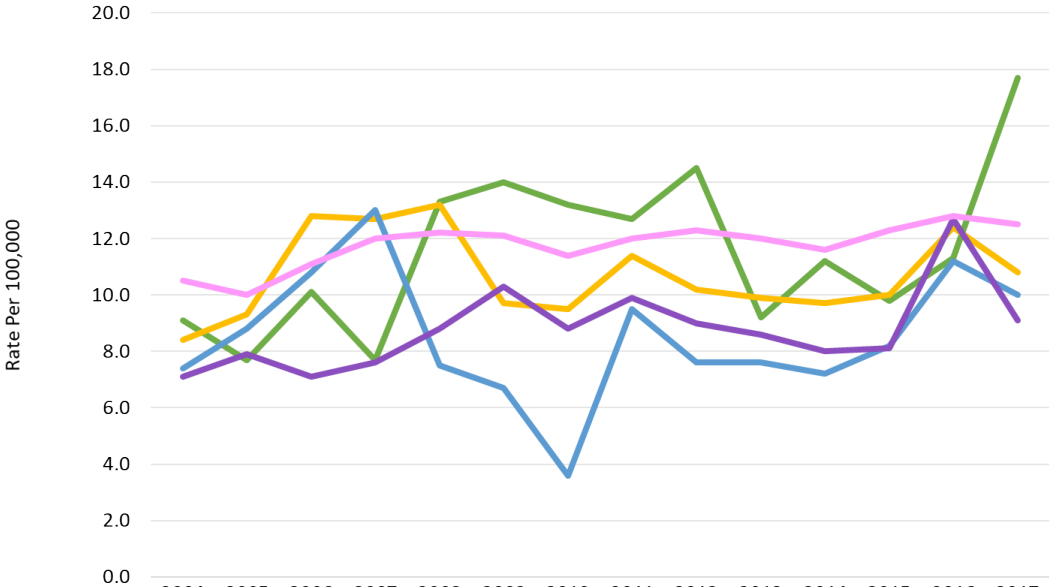
CHART 7.81: DRUG AND ALCOHOL-RELATED INJURIES (2014-2016)



	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

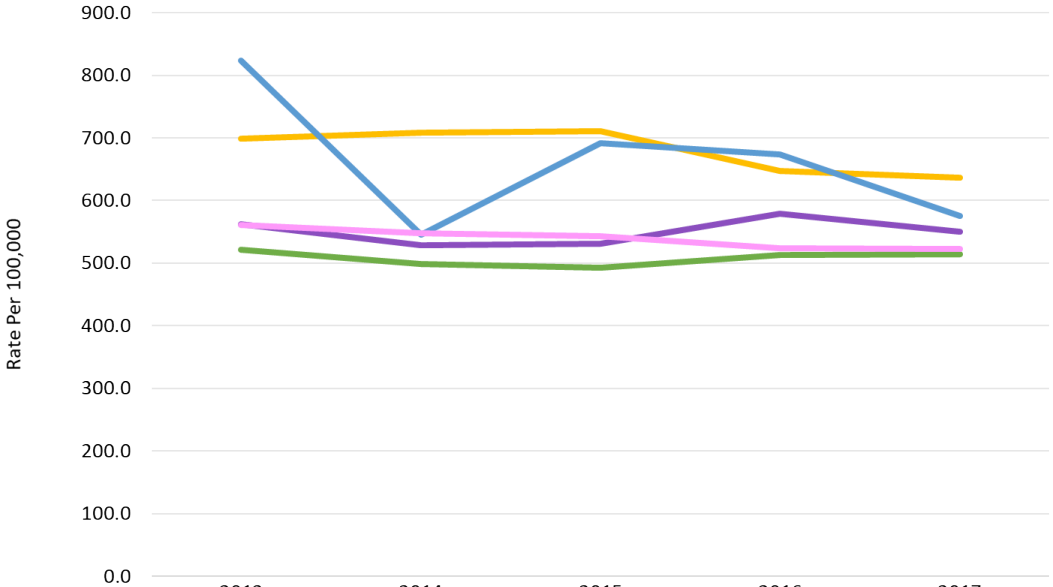
CHART 7.82: FIREARMS DISCHARGE, AGE-ADJUSTED DEATH RATE (2004-2017)



	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 Department of Health, Bureau of Vital Statistics

CHART 7.83: DOMESTIC VIOLENCE (2013-2017)



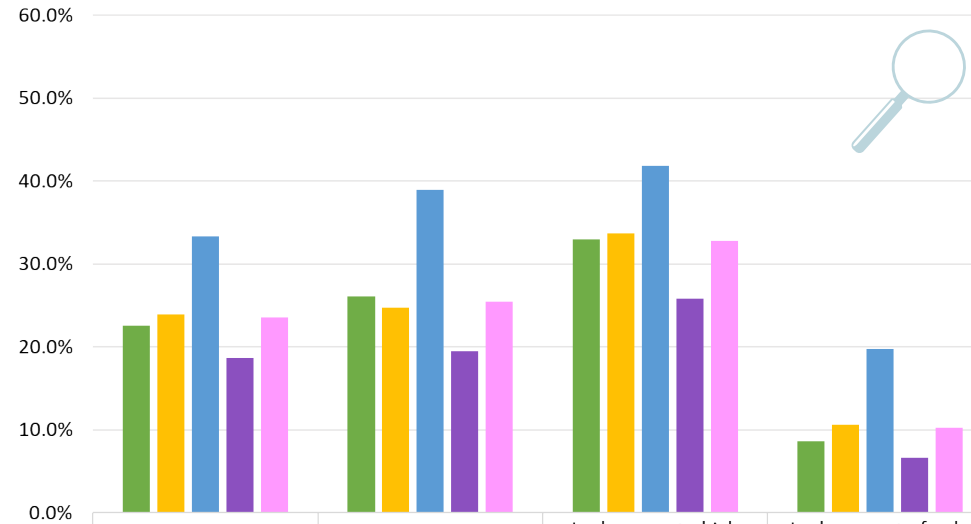
	2013	2014	2015	2016	2017
LAKE	520.9	499.1	492.8	513.3	514.0
ORANGE	698.6	708.4	710.7	647.4	636.3
OSCEOLA	822.9	545.4	691.5	674.0	574.9
SEMINOLE	561.9	529.2	530.6	579.4	550.0
FLORIDA	560.9	547.9	543.4	524.3	522.3

Source: FLHealthCHARTS: Florida Department of Law Enforcement

Built Environment: What the Community is Saying

Figure 7.27 outlines the experience of community survey respondents related to the built environment. Approximately one in four respondents from the region indicated that they lack recreational opportunities (23.6 percent) and safe roads and sidewalks (25.5 percent). A slightly higher percentage indicated that they lack access to high quality, affordable, healthy food (32.8 percent). About one in ten respondents indicated that they lack access to fresh, available, safe drinking water (10.3 percent). The percentages were higher in Osceola County for all of these indicators and lower in Seminole County.

FIGURE 7.27: 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%

Community survey respondents in Osceola County were more likely to report they lack access to recreational opportunities, safe roads/sidewalks, high quality, affordable healthy food and fresh, available drinking water compared to other survey respondents.

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

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

- Food access/insecurity/nutrition
  - People do not have access to healthy, unprocessed food
  - Food pantries do not have fresh fruits and vegetables and are not open every day
  - Food insecurity/food deserts are a problem
  - Fast food is cheaper to purchase
  - Poor diets/not eating well
- Neighborhoods
  - Walkability of neighborhoods – many are not safe, which can lead to isolation
  - Safe neighborhoods/lack of safe places to play/walk/bike
  - Many populations and neighborhoods lack the built environment that is necessary for a truly healthy community
- Physical activity
  - Access to physical activity is more of a luxury for many people
- Environment
  - Poor environmental conditions: water and air quality
  - Lack of clean water
  - Stressed infrastructure due to increased population
  - Transportation issues

Barriers for residents identified by participants in the primary research included:

- Population is increasing but infrastructure is not keeping up with the rapid growth
- High cost of housing, especially quality housing
- Low wages
- In Orange County, the Bithlo community continues to suffer from a lack of a quality clean water supply and other basic infrastructure needs
- Zoning
- Transportation
- Social norms
- Cultural norms
- Cost

Needed services identified in the primary research included:

- Transportation
  - More transit options to connect within and to other cities
  - Transportation improvement, most notably with roads, but should include public transportation access points
- Environment
  - Better protection of environment (air, water, land)
  - Access to clean water
  - Less congestion
- Recreation
  - Green space identified for parks and recreation
  - More accessibility for bicyclists and pedestrians-need safe routes
  - Safe places for recreation that are easy to get to, especially for youth
- Food/nutrition
  - Community gardens/local food production system
  - Affordable fresh fruits and vegetables/fresh food in food pantries
  - Nutrition education/education on what types of foods are healthy
  - Access to dieticians
  - Healthy cooking demonstrations/funding for meal programs

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. This section is designed to highlight relevant information on each indicator and provide a narrative interpretation of the data included in the charts/tables that follow.

POPULATION LIVING WITHIN ½ MILE OF A PARK (2016)

In 2016, the percentage of the population living within ½ mile of a park in Lake County was 21.9, in Orange County was 29.6, in Osceola County was 26.3 percent and in Seminole County was 40.6 percent. The state was 43.2. (See Figure 7.28)

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 the largest number of recreation and fitness facilities (247), while Osceola County had the fewest with 27. Lake County had a total of 49 recreation and fitness facilities and Seminole County had 85. (See Table 7.17)

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 ½ 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, 93 percent of residents in Orange County have access to exercise opportunities, the highest in the four-county region, followed by Seminole County where 91 percent have access to exercise. The majority (82 percent) of Lake County residents also have access to exercise;76 percent in Osceola County have access. The rate for Florida is 88 percent. (See Figure 7.29)

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. The handful of food desert census tracts in Osceola County are in the same areas as those tracts with high proportions of SNAP recipients as well. Seminole County had three food desert census tracts near Sanford, Altamonte Springs and Oviedo. Lake County has 11 census tracts that are designated food deserts. Seminole County had the fewest food desert census tracts in the four-county region. (See Figures 7.30-7.33)

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.

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

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 ½ 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: zero (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.

For the four-county region, Osceola County had the highest percentage of healthy food retailers in the region (70 percent), while Lake County had the second highest (66.7 percent). Lake County also had the highest percentage of areas where there are no healthy food retailers (20 percent) within the four-county region. Orange County had the highest percentage of less healthy food retailers (44.2 percent). Seminole County has very few no healthy food retailers reported in the area (10.8 percent). There is no state data available as healthy food retailers information is only reported at the county level. (See Table 7.18)

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 percent of a given population. The USDA considers the highest expenditures as the first quintile (80 percent to 100 percent).

Lake County has three areas that have the highest expenditure level on fruits and vegetables, with the majority of the county in the 3rd and 4th quintile. Orange County has a few more areas that are in the 1st quintile of expenditures as well as several in the 2nd quintile. Osceola County only has one area designated in the 1st quintile and one in the 2nd. However, in Seminole County, almost half of the county is in the 1st and 2nd quintiles with most of the remainder in the 3rd quintile. There is no state data available as highest expenditure level on fruits and vegetables is only reported at the county level. (See Figures 7.34-7.37)

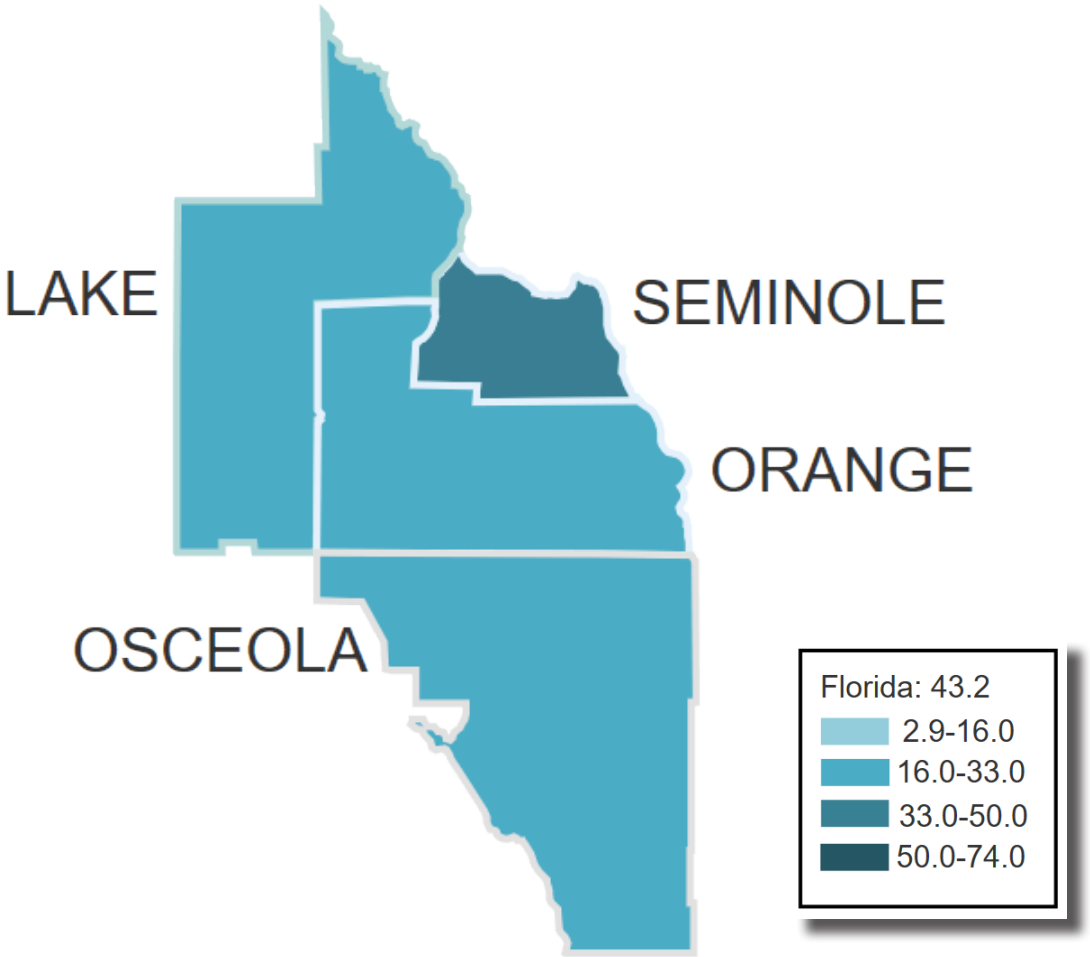
Built Environment: Key Findings

There is room for improvement in the percentage of the regional population with park access, with all of the counties having less than 50 percent access. Orange County had the largest number of recreation and fitness facilities (247), while Osceola County had the fewest with 27. Lake County had a total of 49 recreation and fitness facilities and Seminole County had 85. Most residents have access to exercise opportunities (93 percent in Orange County, 91 percent in Seminole County, 82 percent in Lake County and 76 percent in Osceola County).

Every county in the region has food deserts and opportunities for improvement in the modified food environment index, by fostering increased access to healthy foods as well as fruit and vegetable expenditures.

Between one-quarter and one-third of community survey respondents indicated that they lack access to recreational opportunities, safe roads/sidewalks and high quality, affordable, healthy food. Participants in the primary research frequently commented on the built environment and the subsequent impact on health. There is recognition among regional residents that many people don't have access to healthy, unprocessed foods and, as a result, have unhealthy eating habits and lifestyles. Needed services include increased access to fresh fruits and vegetables, and information and education about how to incorporate these foods into every day eating and living. Participants also noted that there is a need for increased access to opportunities for safe recreation activities, better transit, and clean water.

FIGURE 7.28: POPULATION LIVING WITHIN ½ MILE OF A PARK (2016)



Source: FLHealthCHARTS, Florida Department of Public Health

TABLE 7.17: 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				41
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

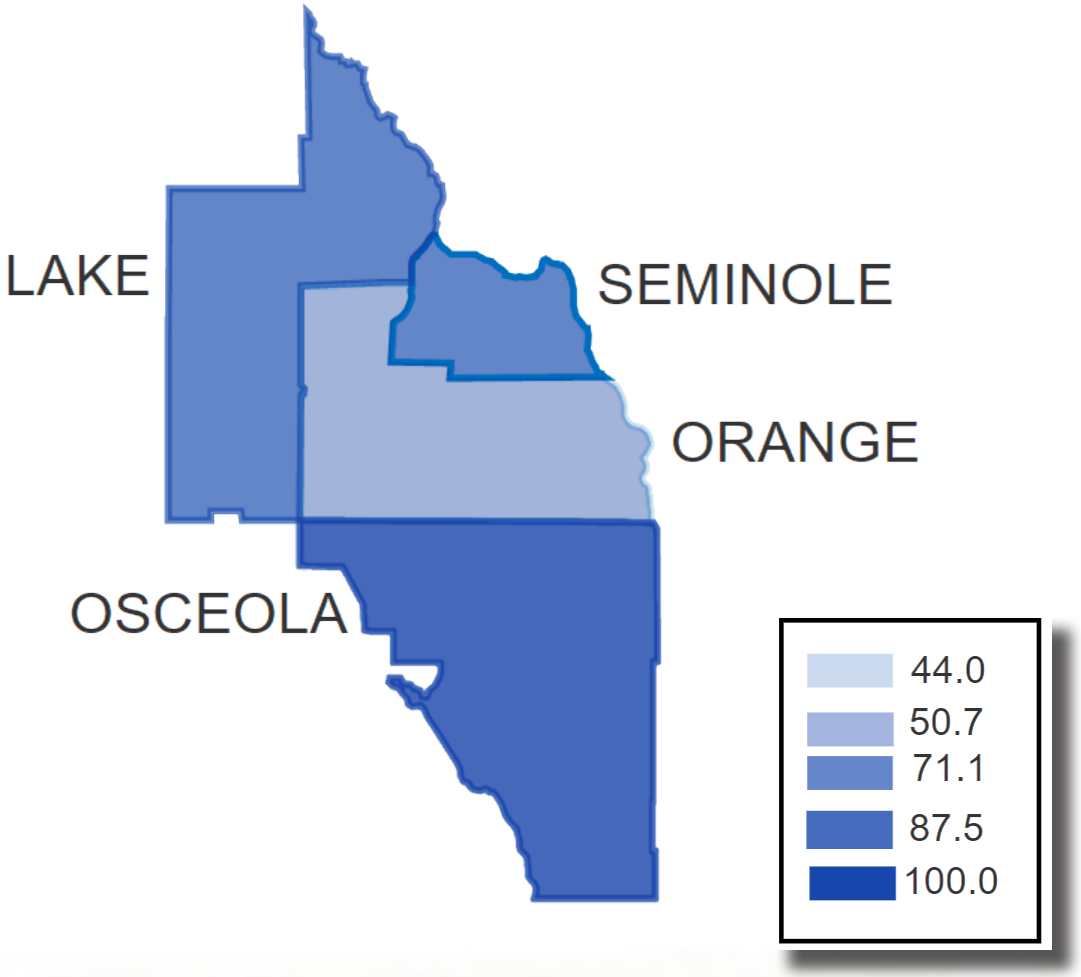
TABLE 7.17: RECREATION AND FITNESS FACILITIES (2016), CONTINUED

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

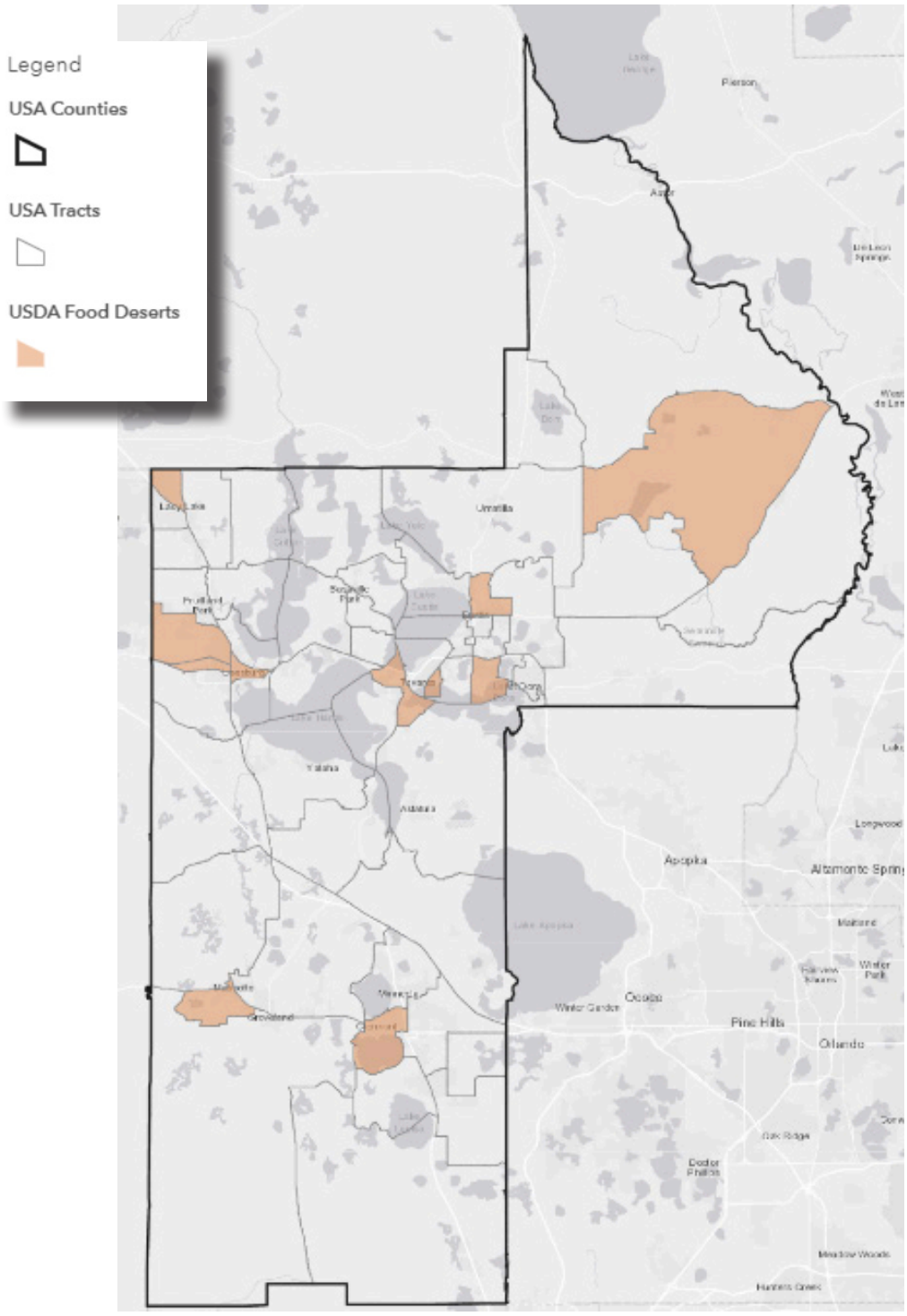
Data Source: US Census Bureau, County Business Patterns. Source Geography: ZCTA

FIGURE 7.29: PERCENTAGE OF THE POPULATION WITH ACCESS TO EXERCISE (2018)



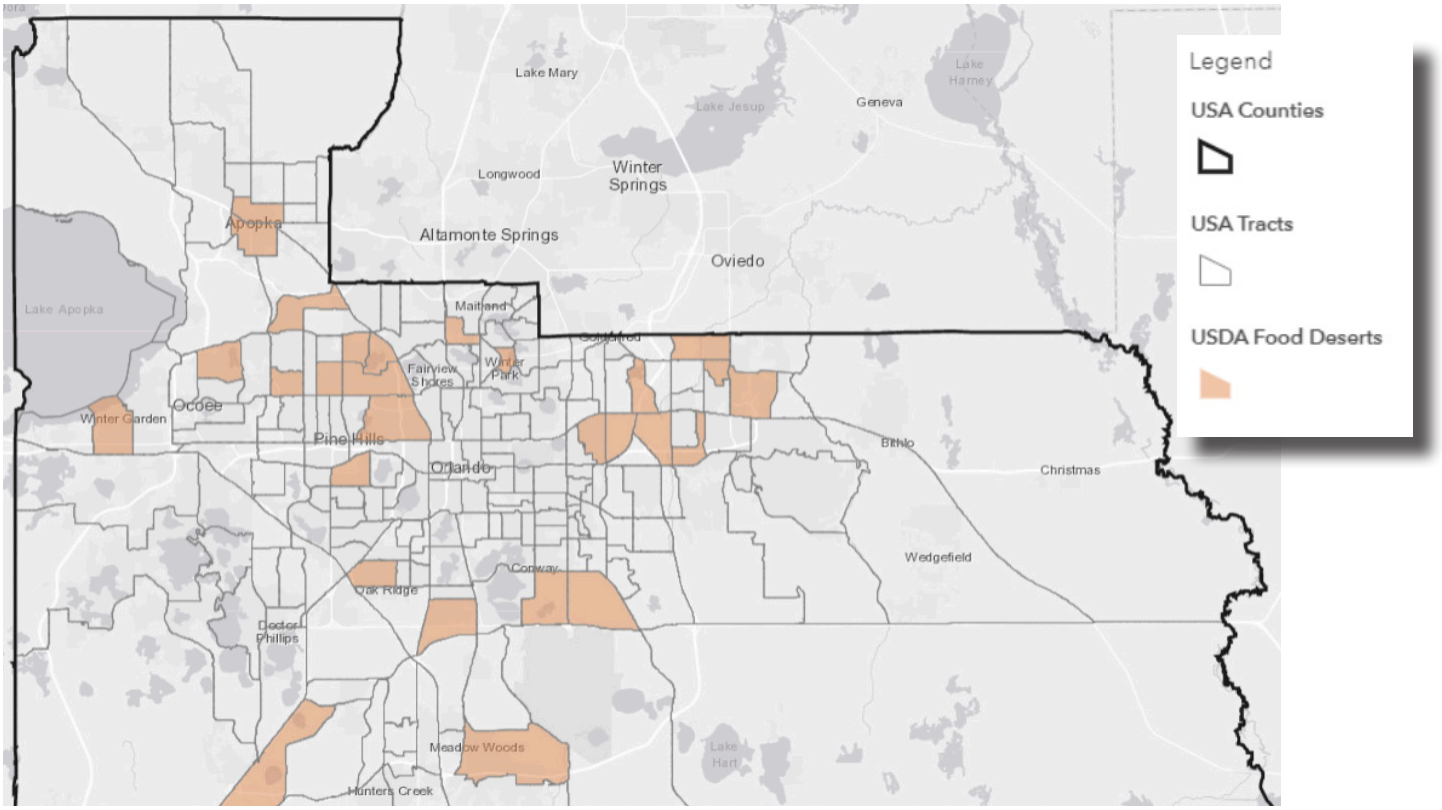
Source: County Health Rankings and Roadmaps

FIGURE 7.30: LAKE COUNTY FOOD DESERTS (2014)



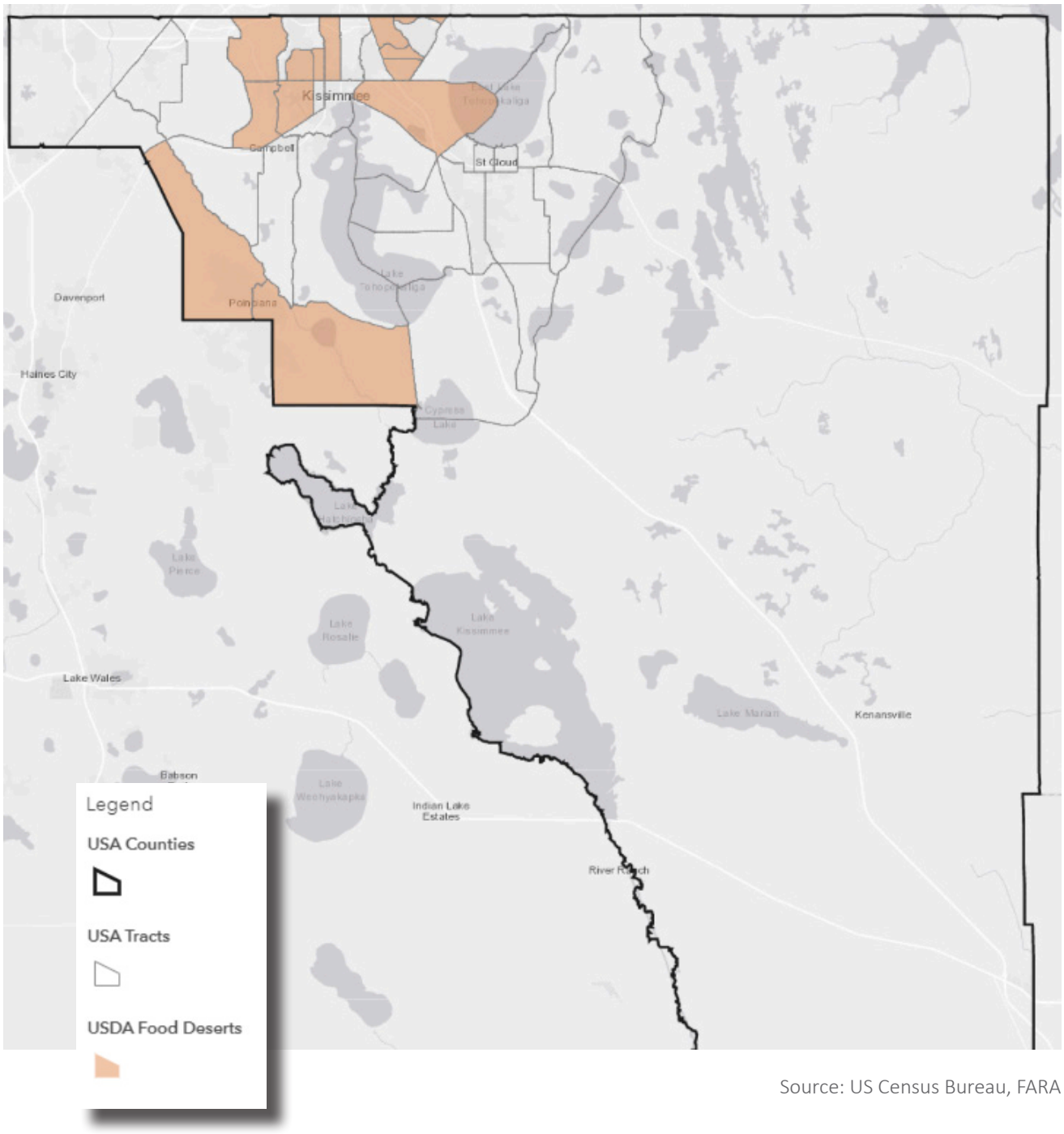
Source: US Census Bureau, FARA

FIGURE 7.31: ORANGE COUNTY FOOD DESERTS (2014)



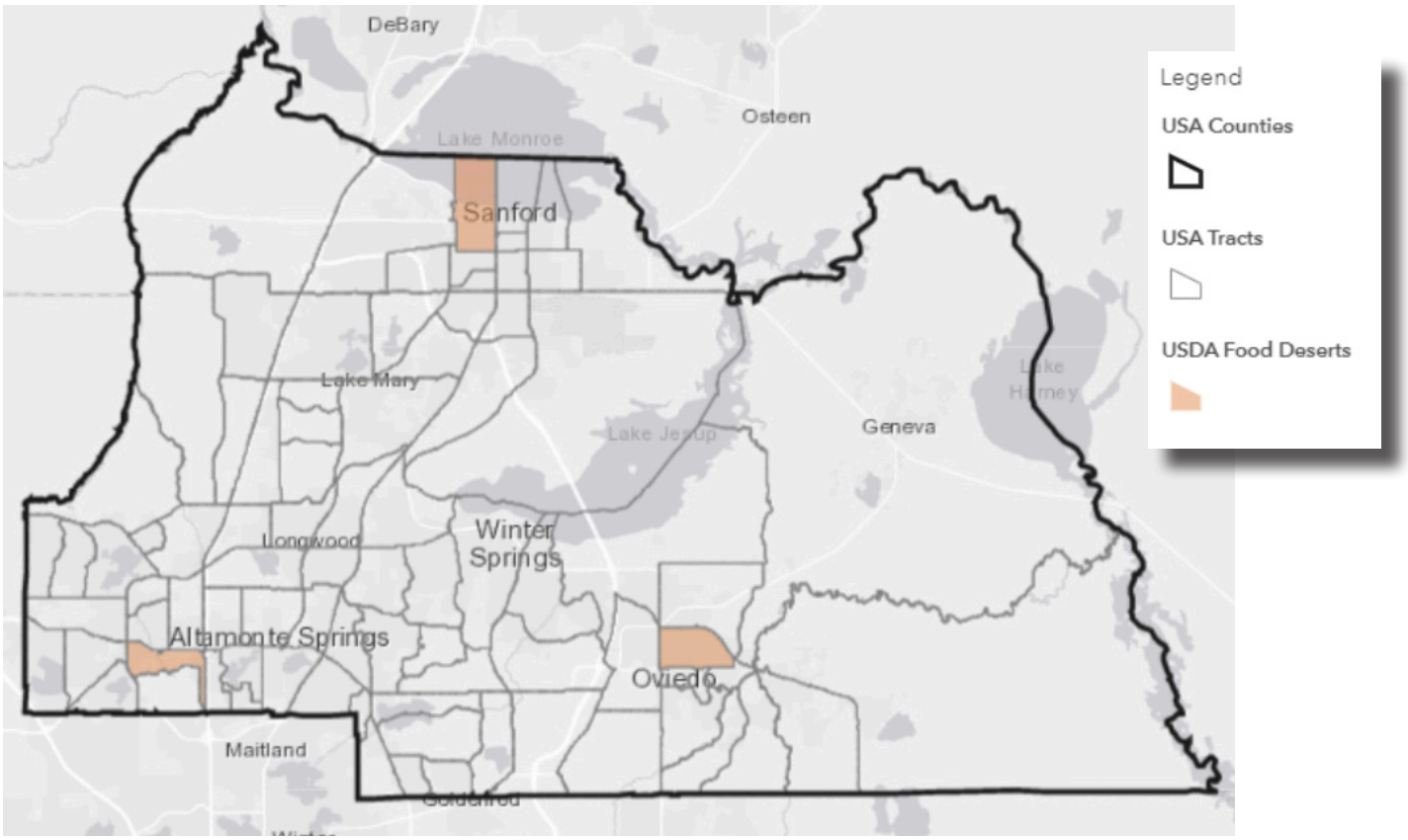
Source: US Census Bureau, FARA

FIGURE 7.32: OSCEOLA COUNTY FOOD DESERTS (2014)



Source: US Census Bureau, FARA

FIGURE 7.33: SEMINOLE COUNTY FOOD DESERTS (2014)



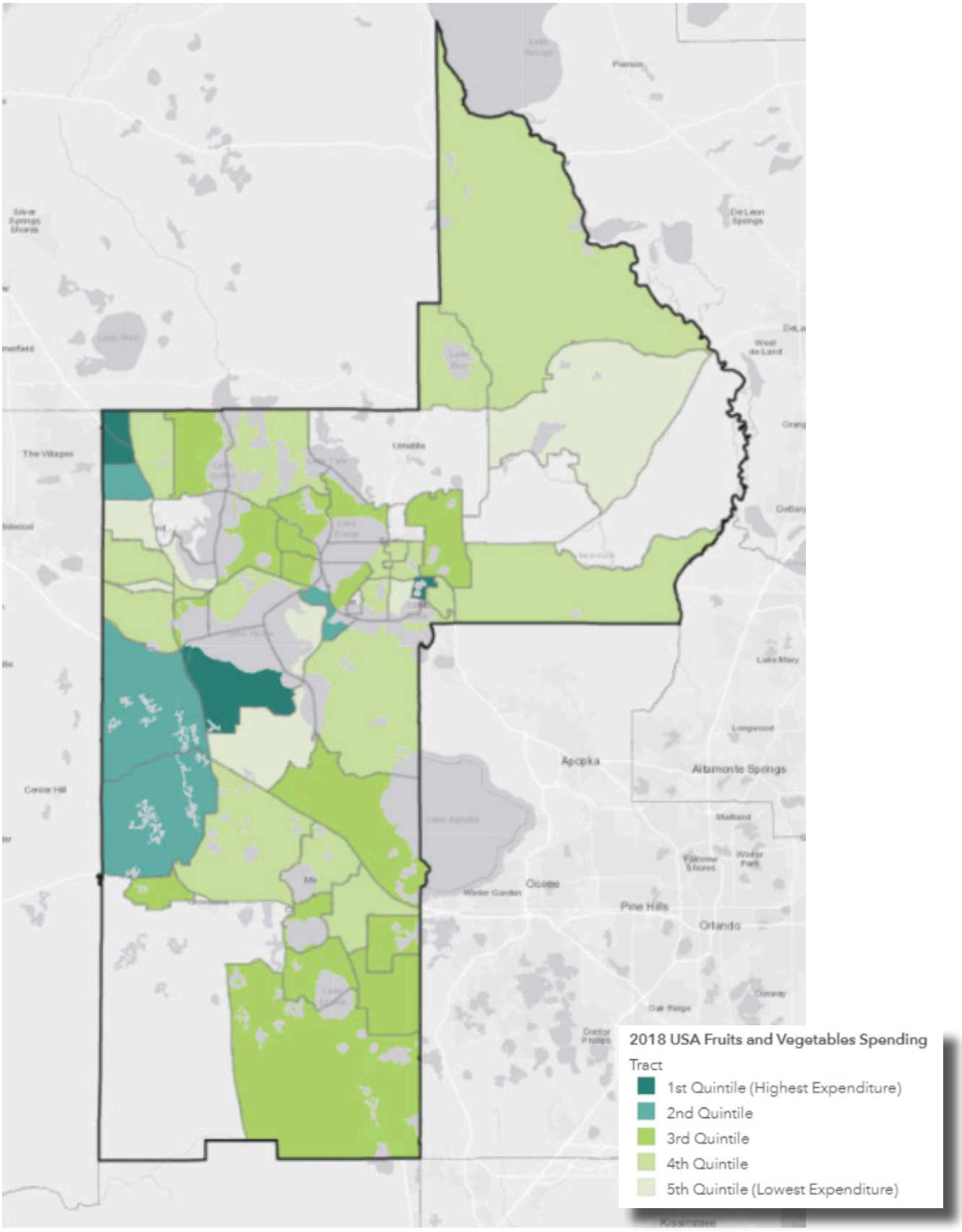
Source: US Census Bureau, FARA

TABLE 7.18: 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	

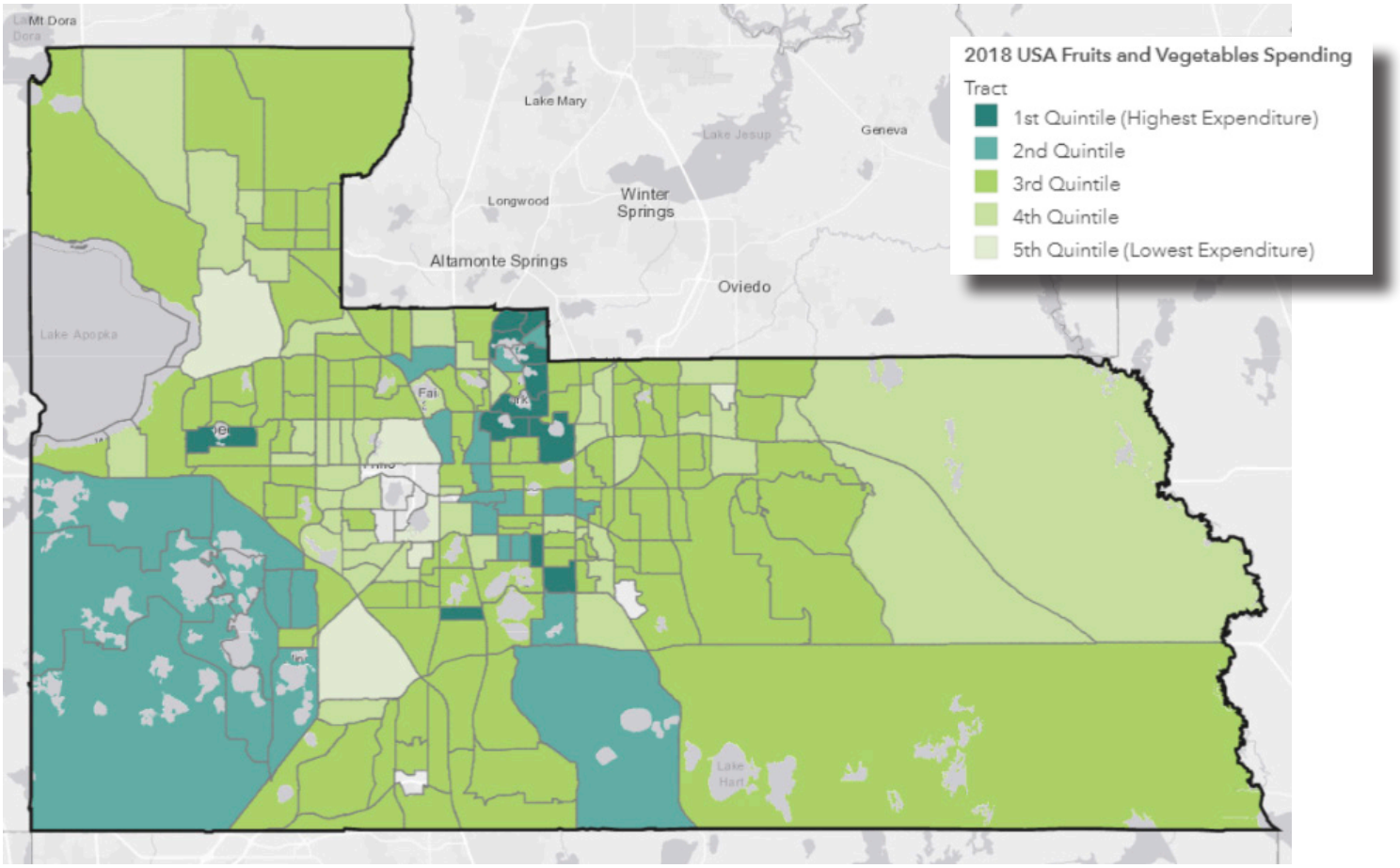
Source: Centers for Disease Control

FIGURE 7.34: FRUIT AND VEGETABLE EXPENDITURES, LAKE COUNTY (2016)



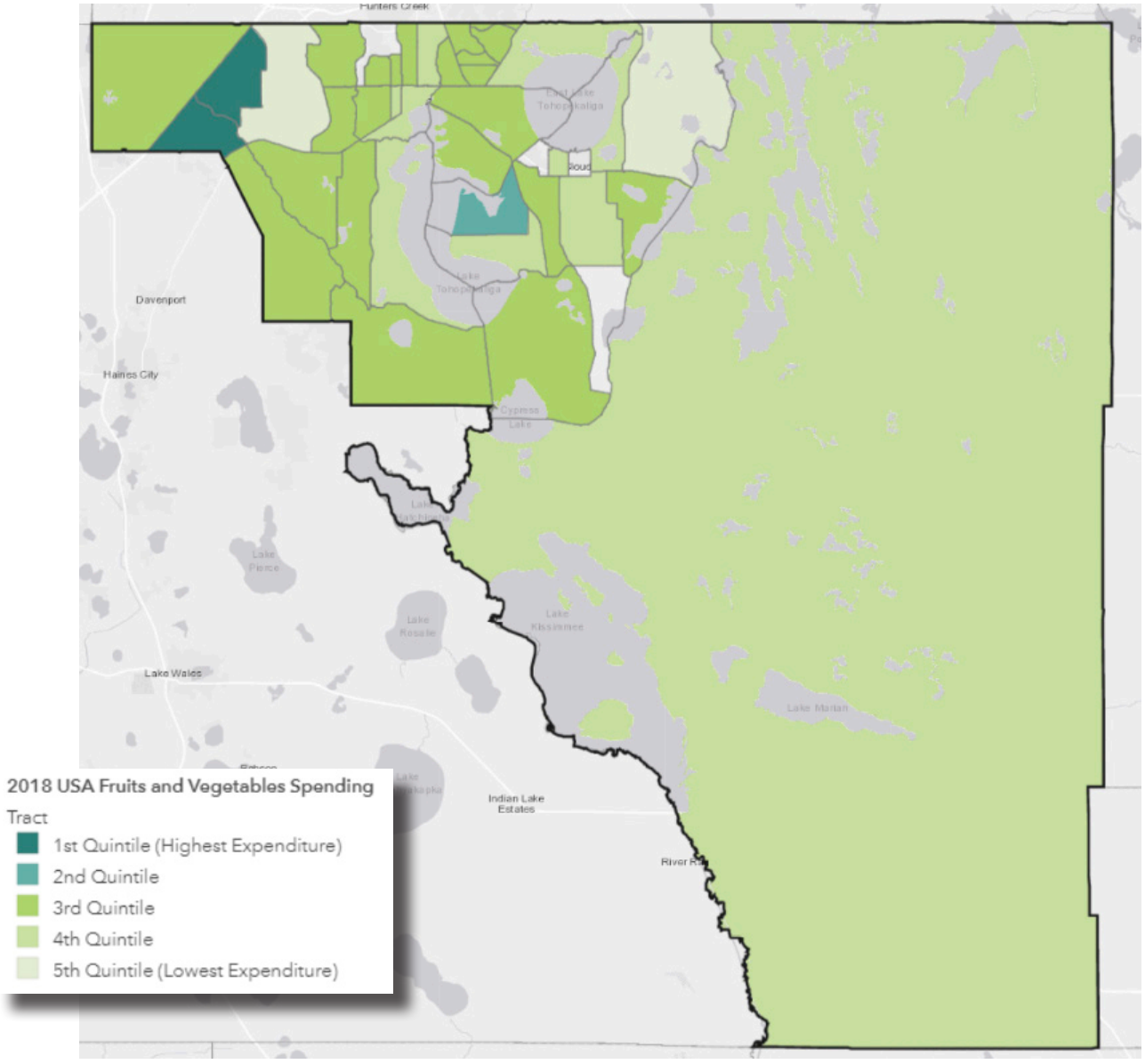
Source: United States Department of Agriculture, Economic Research Service

FIGURE 7.35: FRUIT AND VEGETABLE EXPENDITURES, ORANGE COUNTY (2016)



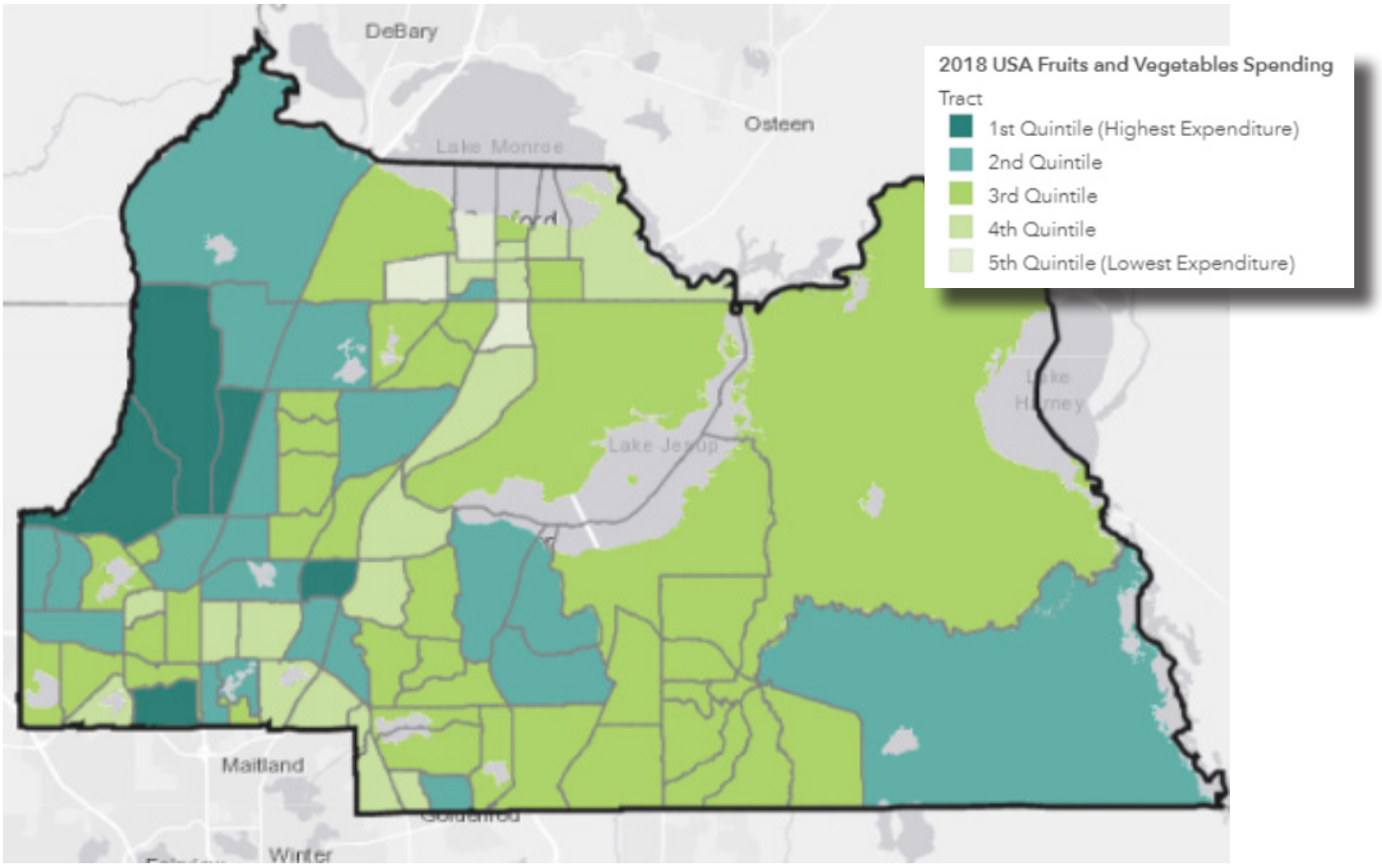
Source: United States Department of Agriculture, Economic Research Service

FIGURE 7.36: FRUIT AND VEGETABLE EXPENDITURES, OSCEOLA COUNTY (2016)



Source: United States Department of Agriculture, Economic Research Service

FIGURE 7.37: FRUIT AND VEGETABLE EXPENDITURES, SEMINOLE COUNTY (2016)



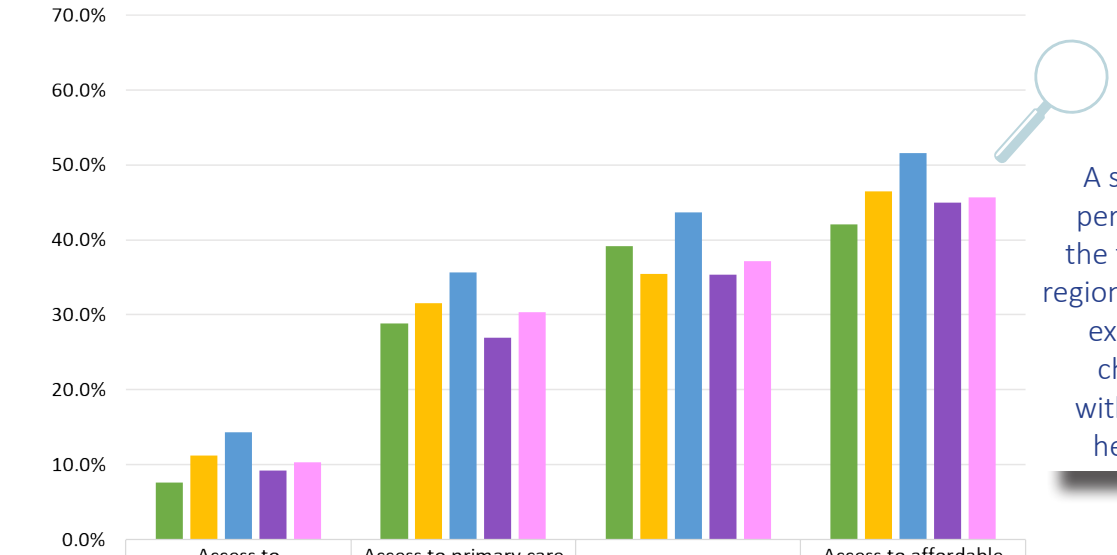
Source: United States Department of Agriculture, Economic Research Service

Healthcare Access: What the Community is Saying

Figure 7.38 illustrates the experience of community survey respondents related to barriers to access. Approximately, one in 10 respondents has experienced difficulty with transportation. About a third of the respondents indicated that they experienced difficulty with access to primary care physicians. Over a third of respondents indicated that they have had difficulty with access to specialists.

Almost half of the respondents indicated that they have experienced challenges with access to affordable health care. Those who live in Osceola County are slightly more likely to have experienced these barriers, while those who live in Seminole County are slightly less likely to have experienced them.

FIGURE 7.38: BARRIERS TO ACCESS, COMMUNITY SURVEY 2019



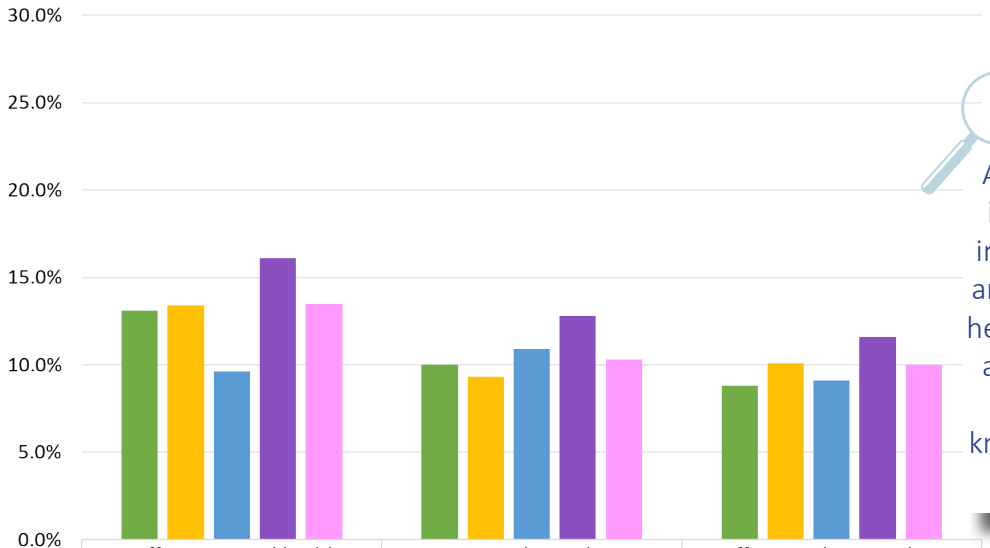
	Access to transportation	Access to primary care providers	Access to specialists	Access to affordable health care
LAKE	7.6%	28.8%	39.2%	42.1%
ORANGE	11.2%	31.6%	35.5%	46.5%
OSCEOLA	14.3%	35.7%	43.7%	51.6%
SEMINOLE	9.2%	26.9%	35.4%	45.0%
OVERALL	10.3%	30.4%	37.2%	45.7%

A substantial percentage of the four-county region's population experiences challenges with access to healthcare.

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

Figure 7.39 illustrates the percentages of community survey respondents who indicated that the community does not have sufficient access to mental health services.

FIGURE 7.39: 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%

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

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

Participants in the primary research identified the following as needs and issues related to healthcare access:

- Affordability/insurance/cost
  - Many cannot afford care and/or come in when it is too late
  - Percentage of the population who is uninsured/underinsured
  - Accessing health care is daunting if you do not have health insurance
  - Care is limited by insurance
  - Impact of the lack of Medicaid expansion
  - There are a lot of people who do not have health insurance
  - Necessity of travel to find a provider who accepts your insurance
  - Access to affordable healthcare is a big challenge/cost of copays and deductibles are preventing people from getting the care they need/people cannot afford their medication
- Issues with accessing care
- High utilization of emergency department
- Care is not coordinated (including medications)
- People are not going for routine medical care
- This is a medically underserved area

Barriers to accessing health care identified by primary research participants included:

- Transportation
- Culture/language
  - Language
  - Cultural norms
  - Social isolation
  - Immigrants are afraid to seek services due to lack of proper documentation and fear of deportation
  - Lack of acceptance for people of color and others viewed as culturally different
  - Fear of deportation if you are an immigrant, whether you are here legally or not
- Awareness/knowledge
  - Process to apply for services is difficult
  - Lack of knowledge of what is available
  - Do not understand the importance of routine health care
  - Fear of what they will hear
  - Those with chronic conditions find it hard to find good care
  - Seniors do not want to leave their home
- Health literacy
- Affordability/insurance/cost
  - Regulatory issues prevent access
  - Limited number of providers accepting certain insurance
  - System is difficult to navigate
  - Cost of care (including prescriptions)
  - Limited enrollment periods
  - Lack of doctors who take their insurance when they are insured
- Difficult to access specialty services if a referral is needed
- Time to get appointments/availability of appointments

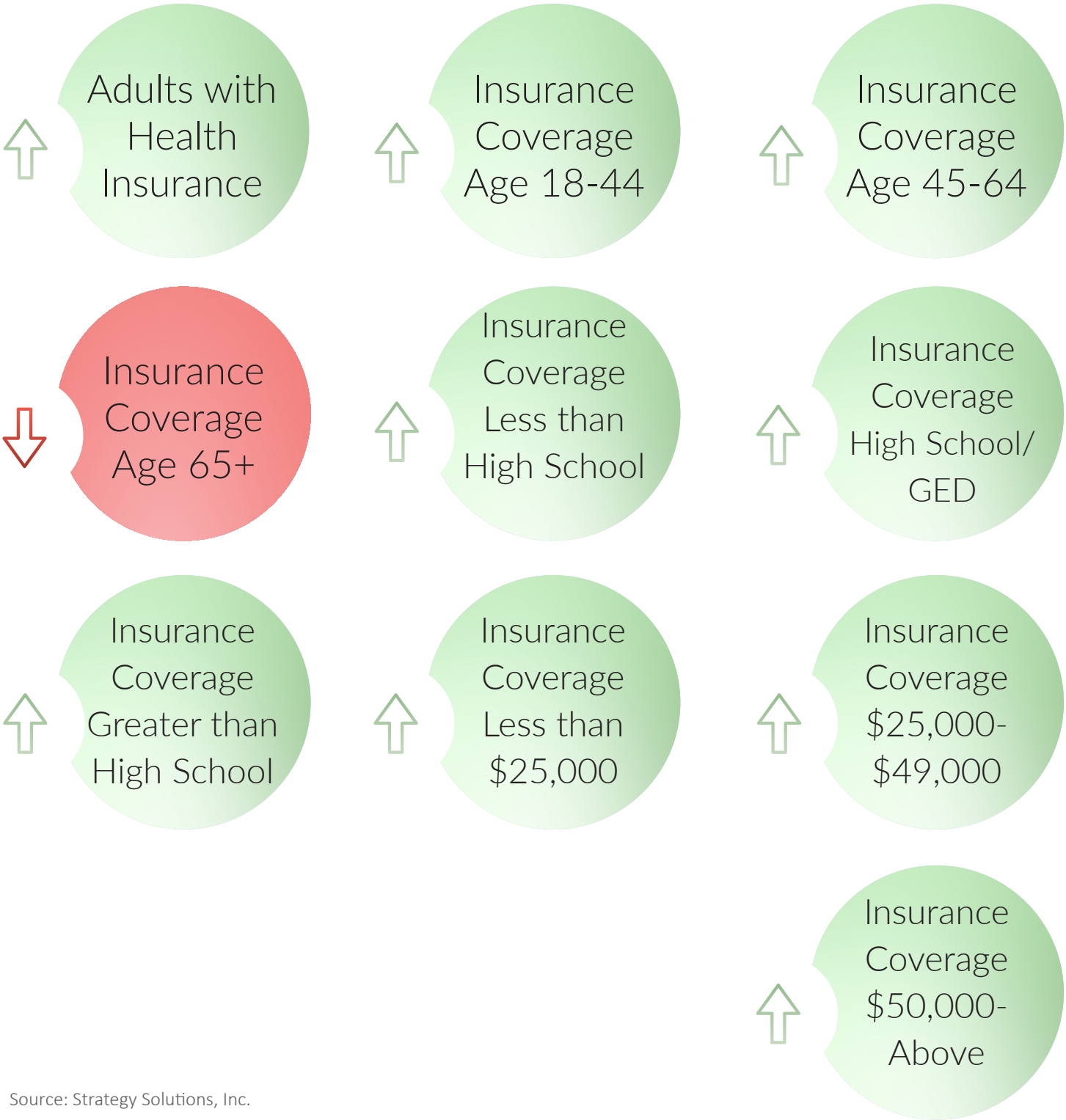
Needed services identified by primary research participants included:

- Education
  - Education on what services are available and to whom
  - Education on importance of primary care
- Providers
  - More primary care providers
  - More bilingual providers
- Services
  - More accessible care for seniors
  - More access to specialty care locally
  - More access to care for LGBTQ adults and youth
  - More services for those with disabilities
  - More affordable sliding scales; still out of reach for a lot of people
  - Services for immigrants, including those who are undocumented
  - More free clinics
  - Mobile clinics
  - Telehealth
- Transportation

Healthcare Access at a Glance

The key indicators related to healthcare access that have changed since the last assessment are identified in Figure 7.40. Red means that the indicator has worsened in at least three of the regional counties, yellow means that some counties are increasing and some are decreasing or rates have remained roughly equivalent, and green means that rates have improved in at least three of the regional counties since the last CHNA data was available.

FIGURE 7.40 HEALTHCARE ACCESS INDICATORS



Source: Strategy Solutions, Inc.

Healthcare 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 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 the four-county region fluctuated between 70 percent and 90 percent between 2007 and 2016. The rates increased in 2010 in three of the four regional counties, then decreased in 2013 and increased again in 2016 in the four-county region. In 2016, Seminole County had the highest percentage in the four-county region at 87.2 percent for 2016, while Osceola had the lowest regional rate at 77.1 percent in 2016. The percentage of adults with health insurance in Lake County (83.5 percent) was comparable to the state (83.7 percent), while Orange County had a lower percentage (79.7 percent). (See Chart 7.84)

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

Between 60 percent and 80 percent of adults age 18-44 in the four-county region report that they had health insurance between 2007 and 2013, although the rate decreased in 2013 in all four counties in the four-county region and increased in 2016 in three of the four counties. Osceola County had the lowest percentage of adults age 18-44 with health insurance in the region in 2016 (67 percent). Lake County was the only county in the four-county region that saw a decline in the percentage of adults in this age group with health insurance between 2013 (69.4 percent) and 2016 (67.5 percent).

The percentage of adults age 45-64 that have health insurance is slightly higher than adults age 18-44 and slightly lower than those age 65 and older. Osceola County (79.3 percent in 2016) consistently has lower percentages than other regional counties for adults in this age group with health insurance.

The percentage of adults age 65 and older with insurance is consistently higher than other age groups. The percentage of 65 and older with health insurance was highest in Seminole County between 2007 and 2016 (close to 100 percent), while the percentage in Orange County was lowest in 2010 (97.3 percent), 2013 (96.2 percent) and 2016 (94.7 percent). Seminole County's rate (99.7 percent) is also higher than the state (98.1 percent) in 2016. Lake County is closest to the state for all years, while Osceola County has steadily decreased since 2010. (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. For the four-county region, between 2007 and 2016, the rate increased in Lake County from 52 percent to 63.4 percent while Orange County's rate decreased from 75 percent to 54.9 percent during the same time period. Osceola County's rate decreased slightly from 66.4 percent to 64.6 percent. Seminole County's rate was not available for this time period. The state rate increased from 60.8 percent in 2007 to 64.7 percent in 2016. (See Chart 7.88)

Those with a high school/GED education have higher rates of health insurance coverage than those without a high school education. The rates for three of the counties in the four-county region have increased between 2013 and 2016 except for Lake County, which decreased from 80.9 percent to 77.6 percent. Seminole County had the highest rate in 2016 (84.9 percent), while Osceola County had the lowest (71.4 percent) of the counties in the four-county region. Only Seminole County was above the state rate (80.6 percent) for 2016. The percentage in Lake County has been decreasing since 2010 (89 percent) to 2016 (77.6 percent). (See Chart 7.89)

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, in 2016 all counties in the four-county region (Lake: 89.2 percent, Orange: 85.6 percent, Osceola: 81.4 percent, and Seminole: 88.7 percent) were lower than the state average (89.9 percent). (See Chart 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 rates of insurance coverage than any other income group with the percentage covered increasing as income increases. Seminole County saw an increase in the percentage of adults in this income bracket that had health insurance in 2016 (77.3 percent from 66.5 percent in 2007). Orange County saw an increase in 2016 (65.3 percent from 62.8 percent in 2007). Those that have annual incomes of $50K and over have the highest insurance rates of all income groups. (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 the four-county region that could not see a doctor due to cost in the past year has increased in all counties between 2007 and 2013, although the rates decreased slightly in 2016. In 2016, Osceola County had a higher percentage of adults that could not see a doctor due to cost (23.8 percent) compared to the state and other counties in the four-county region. All other county percentages in the four-county region (Lake: 17.1 percent, Orange: 20.3 percent, Seminole: 17.9 percent) were above the state (16.6 percent) in 2016 as was the Osceola rate. (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 higher incomes. This trend (that those with lower incomes are more likely not to see the doctor due to cost) is similar for all counties in the four-county region. In 2016 the counties in the four-county region were all above the state (27.7 percent) for this income bracket (Lake: 32.7 percent, Orange: 32.4 percent, Osceola: 37.5 percent, Seminole: 31.9 percent).
(See Chart 7.95)

Healthcare Access: Key Findings

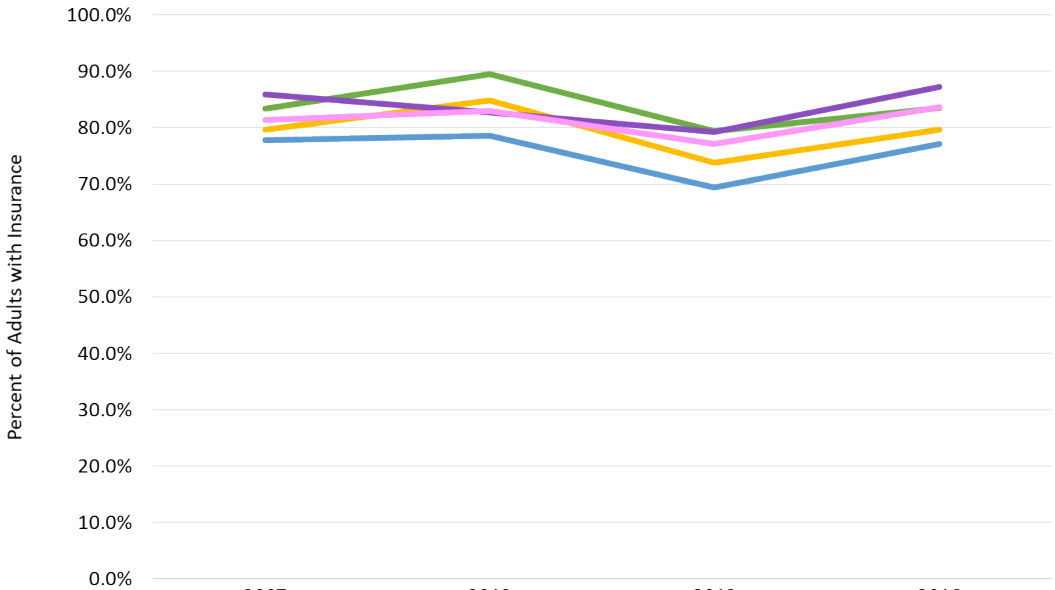
The percentage of Central Florida residents with health insurance has remained relatively steady over the past few years. Residents age 18-44 were less likely to have insurance coverage than older residents and those age 65 and older have the highest rate of insurance coverage in all counties in the four-county region. Those with less than a high school education were more likely not to have insurance than residents with higher education levels. Those with higher annual incomes were also more likely to have insurance coverage than those with lower annual incomes.

The percentage of adults who could not see a doctor due to cost has increased in the four-county region between 2007 and 2016, although the rates in all counties decreased between 2013 and 2016. Close to one in four residents have experienced this barrier in the past year. Income factors greatly in the ability of residents to see a doctor due to the associated cost. Those with household annual incomes under $25K were over three times more likely to not see a doctor due to cost compared to those with higher incomes.

Access to care is an important regional issue as community survey respondents highlighted challenges with receiving preventative care. Common themes across all of the primary research feedback included challenges with health literacy, provider hours of operation, fear, and lack of trust of providers which prevents people from seeking care. Transportation and language also become barriers to access to some extent within all the counties in the four-county region.

Community survey and other primary research participants described the needs and issues that become barriers to care including lack of insurance, cost, culture and language, lack of knowledge of the importance of preventative care and difficulty finding a provider.

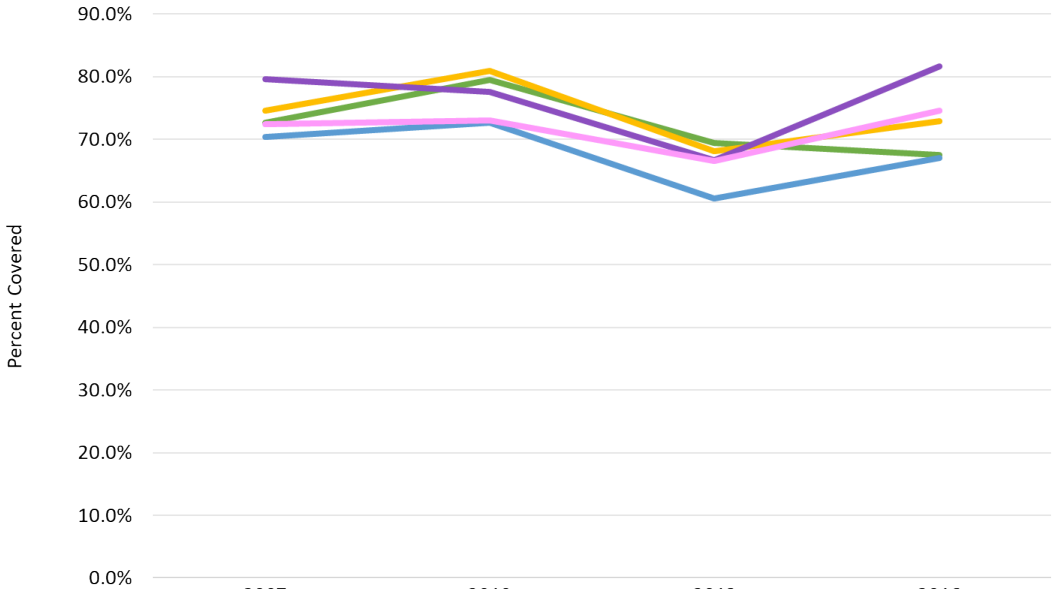
CHART 7.84: ADULTS WITH ANY TYPE OF HEALTH CARE INSURANCE COVERAGE (2007-2016)



	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

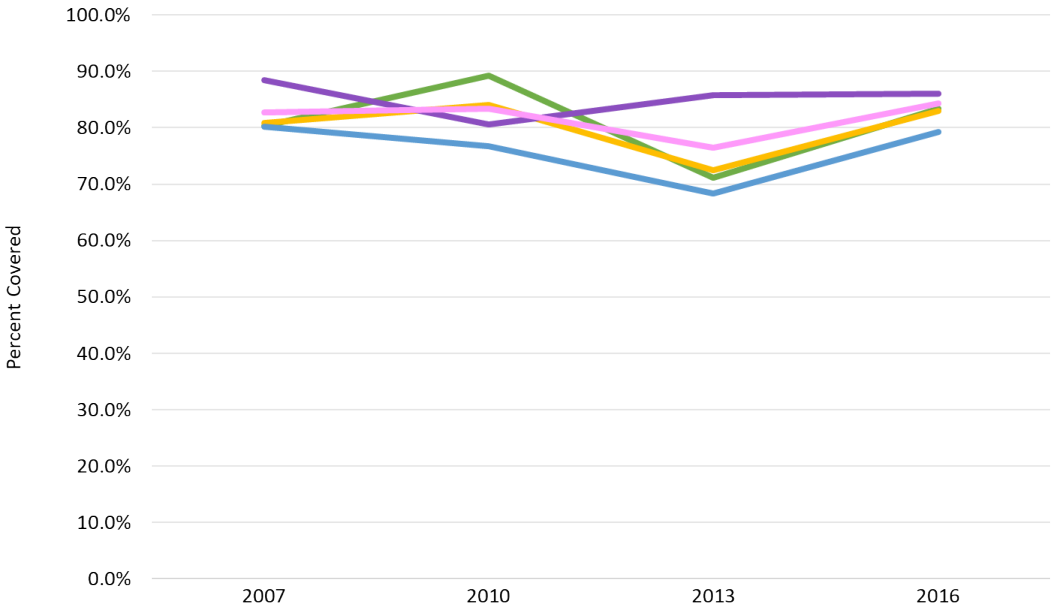
CHART 7.85: ADULTS WITH ANY TYPE OF HEALTH CARE INSURANCE COVERAGE, BY AGE, 18-44 (2007-2016)



	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

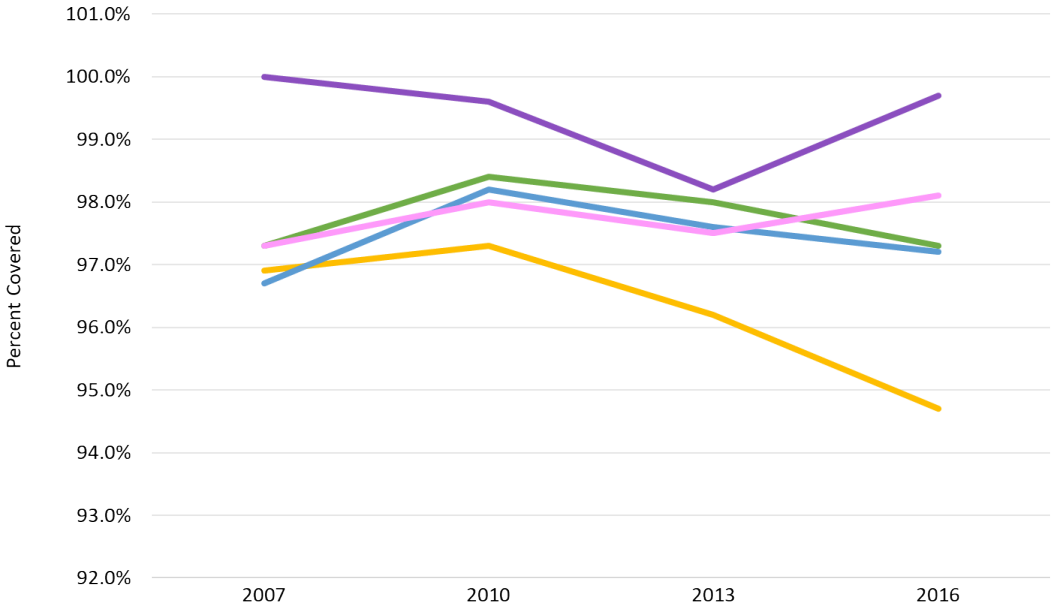
CHART 7.86: ADULTS WITH ANY TYPE OF HEALTH CARE INSURANCE COVERAGE, BY AGE, 45-64 (2007-2016)



	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

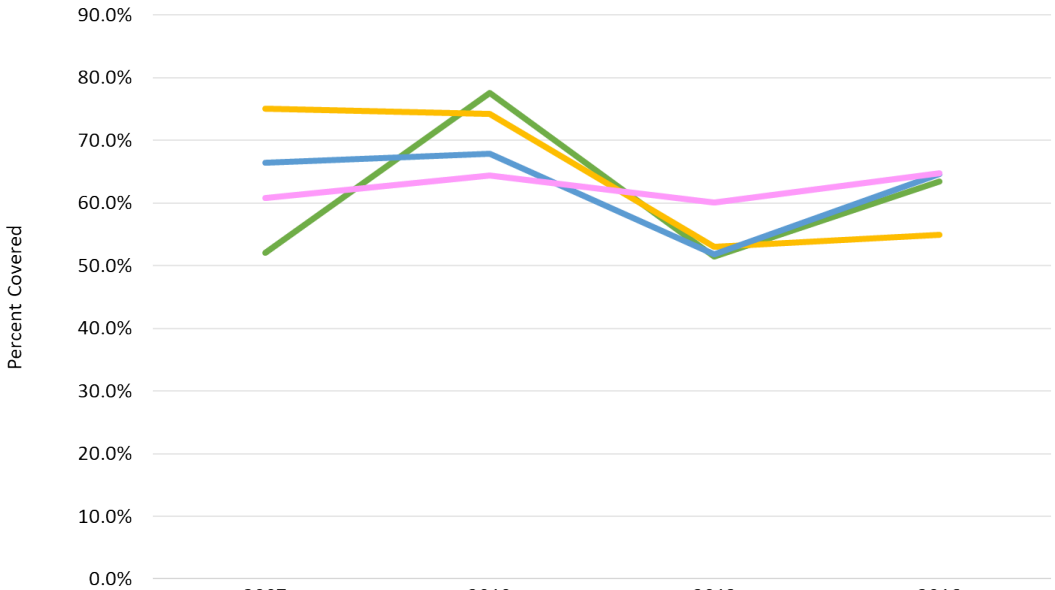
CHART 7.87: ADULTS WITH ANY TYPE OF HEALTH CARE INSURANCE COVERAGE, BY AGE, 65 & OLDER (2007-2016)



	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

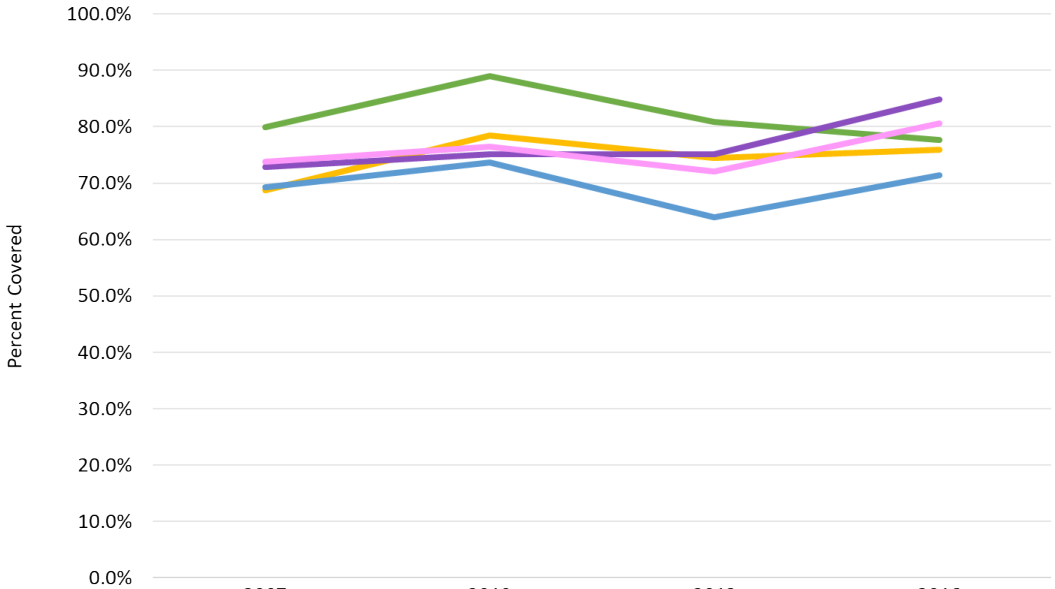
CHART 7.88: ADULTS WITH ANY TYPE OF HEALTH CARE INSURANCE COVERAGE, BY EDUCATION < HIGH SCHOOL (2007-2016)



	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

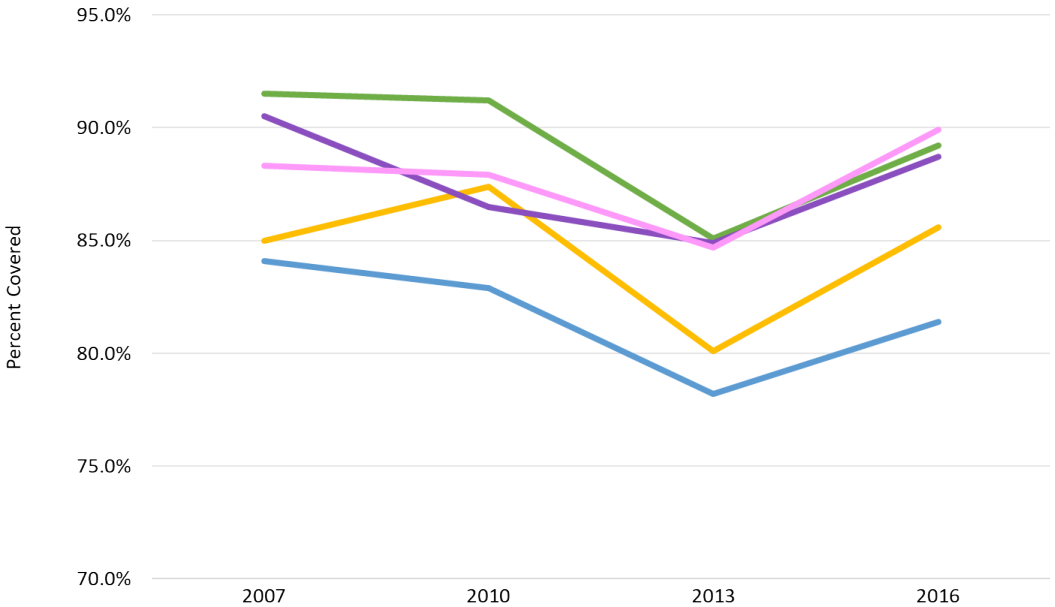
CHART 7.89: ADULTS WITH ANY TYPE OF HEALTH CARE INSURANCE COVERAGE, BY EDUCATION-HIGH SCHOOL/ GED (2007-2016)



	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

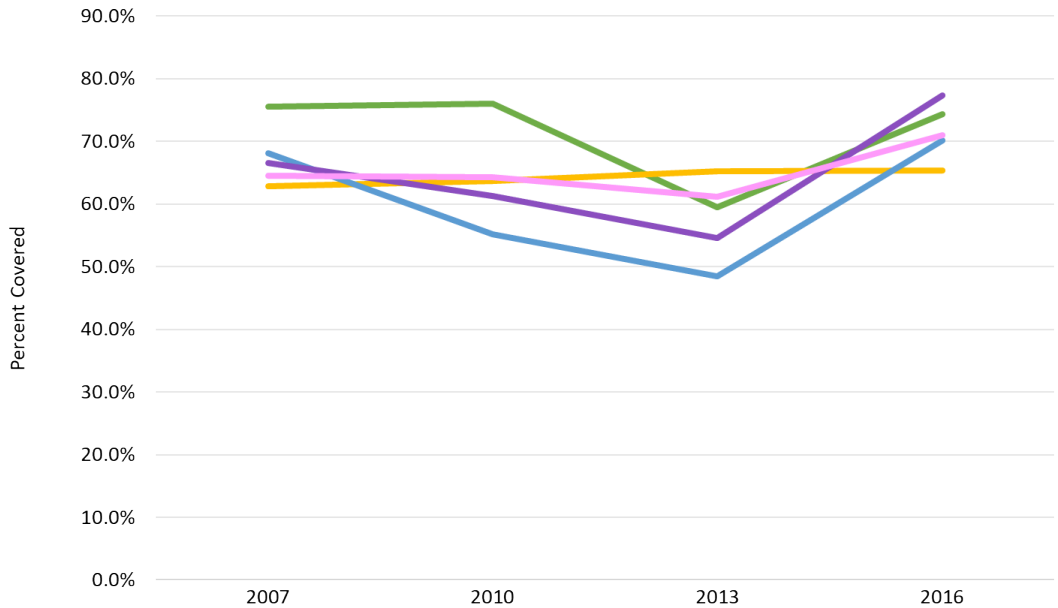
CHART 7.90: ADULTS WITH ANY TYPE OF HEALTH CARE INSURANCE COVERAGE, BY EDUCATION > HIGH SCHOOL (2007-2016)



	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

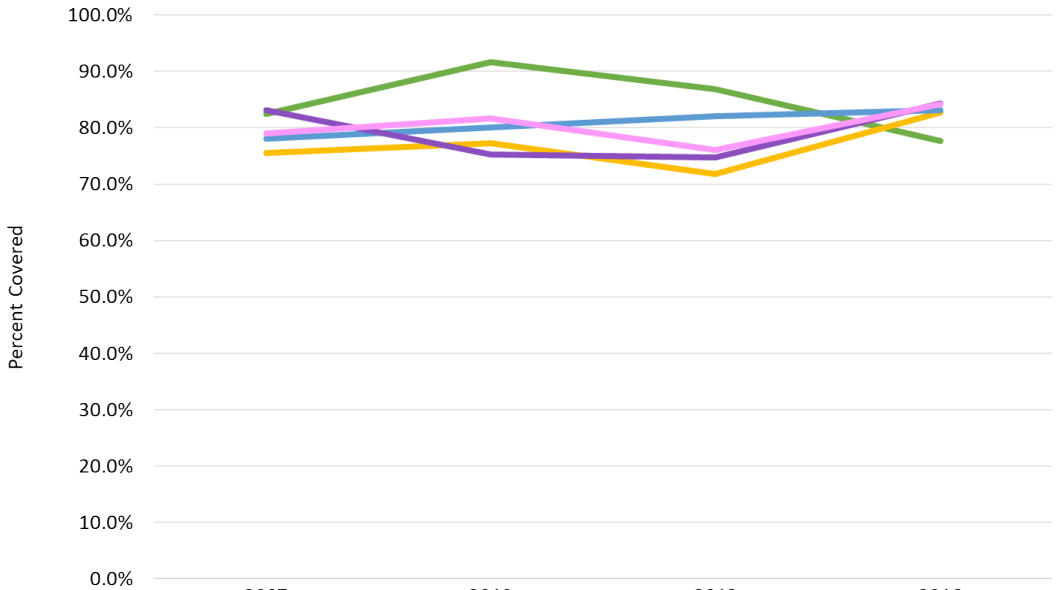
CHART 7.91: ADULTS WITH ANY TYPE OF HEALTH CARE INSURANCE COVERAGE, BY ANNUAL INCOME <$25K (2007-2016)



	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

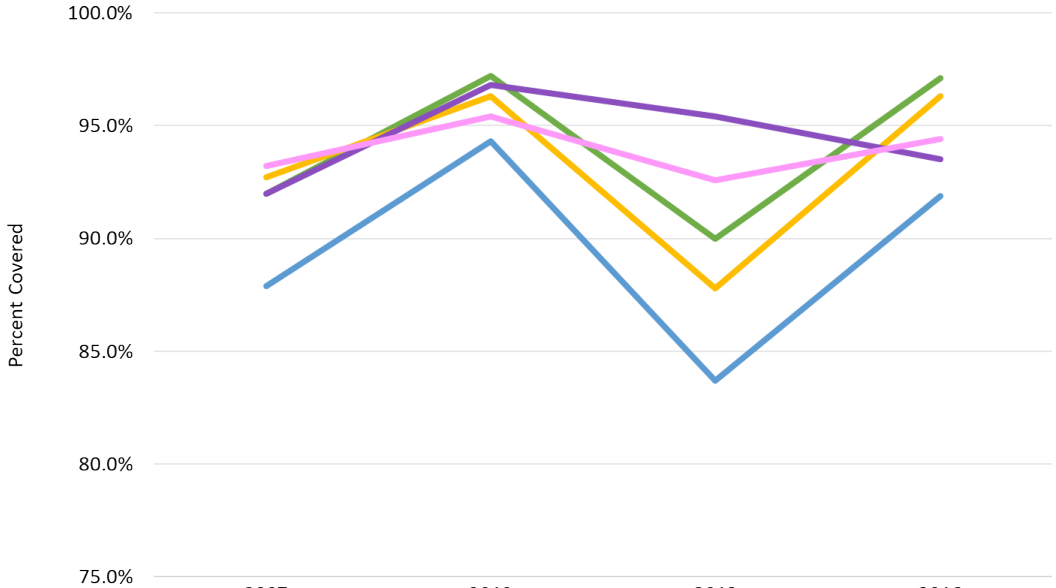
CHART 7.92: ADULTS WITH ANY TYPE OF HEALTH CARE INSURANCE COVERAGE, BY ANNUAL INCOME $25K-$49K (2007-2016)



	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

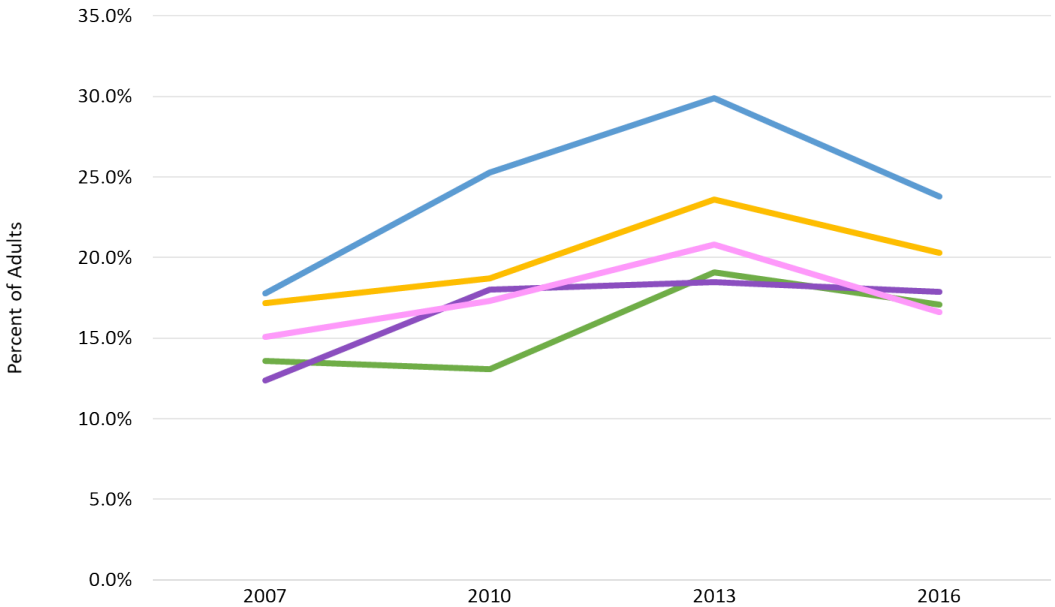
CHART 7.93: ADULTS WITH ANY TYPE OF HEALTH CARE INSURANCE COVERAGE, BY ANNUAL INCOME $50K+ (2007-2016)



	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

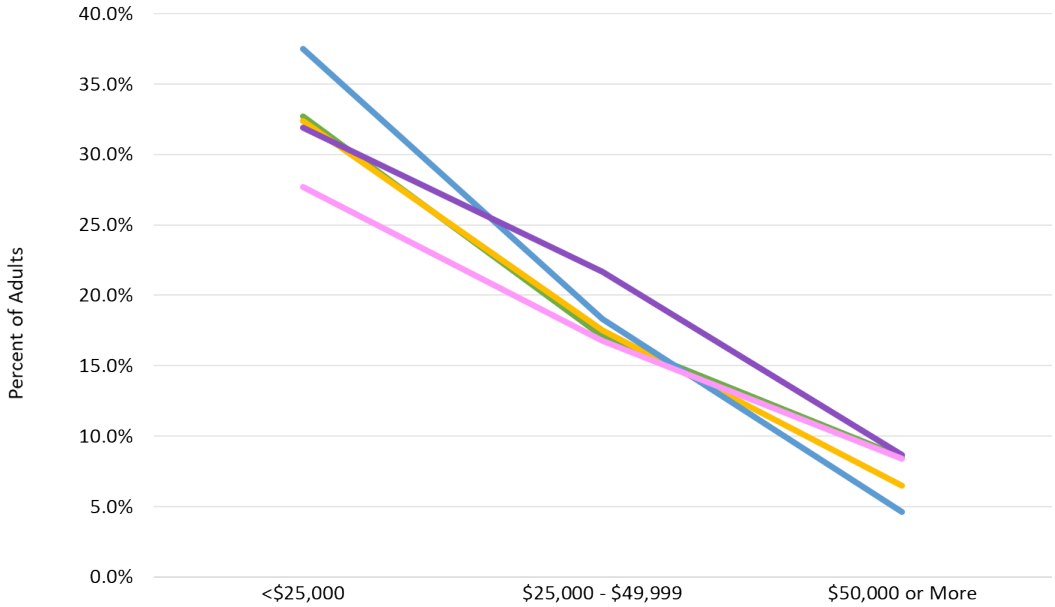
CHART 7.94: ADULTS WHO COULD NOT SEE A DOCTOR IN THE PAST YEAR DUE TO COST (2007-2016)



	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

Healthcare 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 7.19)

ADVENTHEALTH

AdventHealth operates nearly 50 hospitals and hundreds of care centers in nearly a dozen 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.

Additional 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 healthcare. 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 healthcare system is one of Florida's most comprehensive private, not-for-profit healthcare 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 healthcare 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 is 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. Over the past three years the rate of physicians increased in Orange and Lake counties and decreased in Osceola and Seminole. In 2017/2018 Seminole County had the lowest rate, with only 91.5 physicians per 100,000 residents. 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). The rate in Lake County was 227.5 while the rate in Osceola County was 143.2. (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. Lake County increased from 747 in fiscal year 2013/2014 to 759 in fiscal year 2017/2018. Osceola County increased from 462 to 486 between fiscal years 2013/2014 and 2017/2018 while Seminole County decreased from 757 in fiscal year 2013/2014 to 418 in fiscal year 2017/2018. (See Table 7.20)

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. All other counties had rates in 2017/2018 (Lake: 39.6, Osceola: 18.3, Seminole: 19) that were lower than the state rate (55.8). Seminole County also had a large drop in dentists per 100,000 population between 2015/2016 (55.8) and 2016/2017 (17.1). (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, while the other three counties declined: Lake from 152 to 132, Osceola from 89 to 62 and Seminole from 248 to 87 over the five-year period. The state increased from 10,396 to 11,475. (See Table 7.21)

RATIO OF MENTAL HEALTH PROVIDERS TO POPULATION (2015-2018)

In 2018, Lake County (1,285:1) had the fewest mental health providers relative to the population, while Orange County (507:1) had the most. Across the region and at the state level, the ratio of providers to residents has improved over the past few years. Orange (507:1) and Seminole (675:1) counties have a ratio that is more positive than the state level (703:1), compared to 769:1 in Osceola County. (See Table 7.22)

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 7.23)

TRANSPLANT SERVICES (2019)

The only hospital (AdventHealth Orlando) in the region for transplants is included in the Collaborative. (See Table 7.24)

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. There are 814 total licensed hospital beds in Lake County (11.1 percent), 1,027 beds (14 percent) in Osceola County and 944 beds (12.9 percent) in Seminole County. (See Chart 7.98 and Table 7.19)

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. There are 717 acute-care beds (12 percent) in Lake County, 882 acute-care beds (14.8 percent) in Osceola County and 781 acute-care beds (13 percent) in Seminole County. (See Chart 7.99 and Table 7.19)

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). The 126 NICU III beds in Orange County are at AdventHealth Orlando and Orlando Health Winnie Palmer. There are also 10 NICU II beds in Osceola County, located at AdventHealth Celebration and 10 NICU III beds located at AdventHealth Altamonte Springs in Seminole County. (See Table 7.25)

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). The remaining beds are associated with hospitals outside the Collaborative membership. (See Table 7.26)

TOTAL LICENSED ADULT PSYCHIATRIC BEDS (2019)

There is a total of 521 licensed adult psychiatric beds in the four-county region in 2019. Lake has 62 (12 percent of the total beds), Orange has 322 (61.8 percent of the total beds), Osceola has 75 (14.4 percent of the total beds) and Seminole has 62 (11.9 percent of the total beds). Of those, 149 beds in Orange County and 62 beds in Seminole County are affiliated with Collaborative member hospitals. (See Chart 7.100 and Tables 7.19 and 7.27)

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. Osceola County has 90 total beds and Seminole County has 137 total beds and Lake County has 113 total beds. (See Table 7.27)

TOTAL ADULT SUBSTANCE ABUSE BEDS (2019)

The four-county region has a total of 45 licensed substance abuse beds. All of the beds in Lake (five), Orange (16), and Osceola (14) counties are affiliated with providers outside of the Collaborative membership. Orlando Health South Seminole has 10 adult substance abuse beds, which is all of the substance abuse beds in Seminole County. (See Table 7.28)

Health Care Providers and Facilities: Key Findings

Access to mental health services was noted often across all data collection sources as a community concern. While the provider to population ratio has improved in recent years, primary research participants still noted it as an area needing improvement.

The four-county region has a wide variety of specialty services including NICU, psychiatric beds and trauma centers. Overuse of the emergency department remains a concern expressed through the primary research as residents continue to utilize it for non-emergency issues, straining resources. Resources and services appear to be clustered in Orange and Seminole counties. Residents in Lake and Osceola counties have to travel to access these services when they are not offered closer to home.

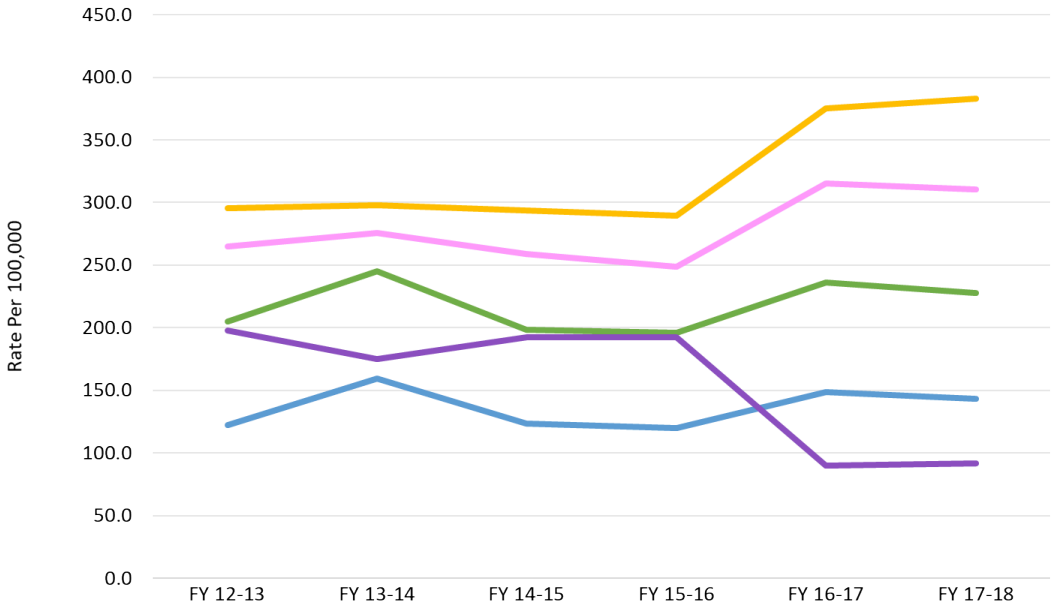
				LICENSED BEDS																
							NICU		Psychiatric			Substance Abuse				Non CON Regulated Services				
ID#	AHCA#	Facility Name	City	Total Beds	Acute Care Beds	LTC Hosp. Beds	Level II	Level III	Adult	Child/ Adol	IRTF	Adult	Child/ Adol	SNU	Rehab	Burn Units	Level II Adult Cardio	Level I Adult Cardio	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 publically 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

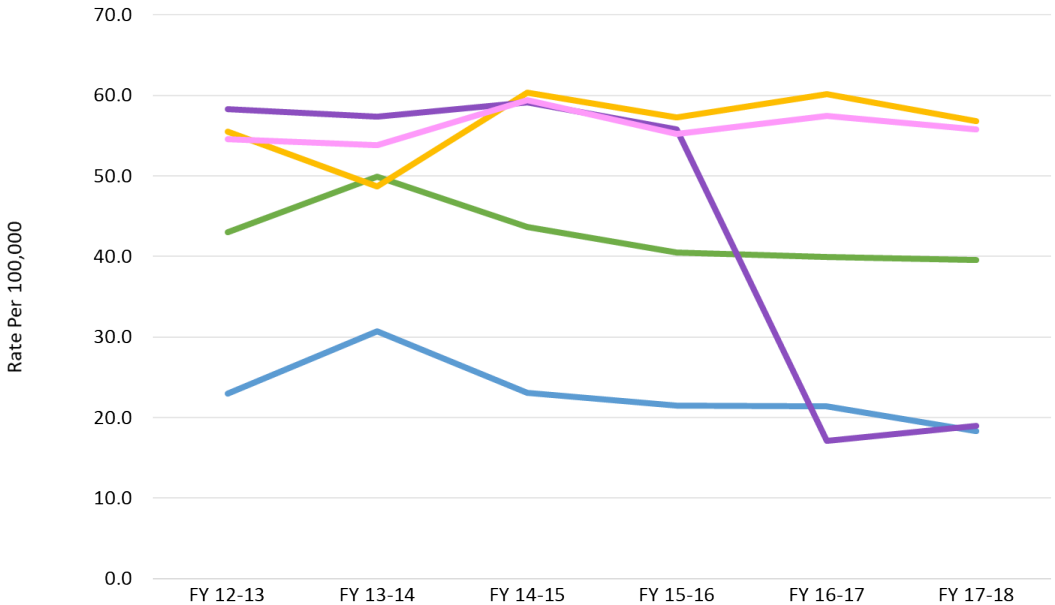
Source: FLHealthCHARTS: Florida Department of Health, Division of Medical Quality Assurance

TABLE 7.20: 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: Florida Department of Health, 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: Florida Department of Health, Division of Medical Quality Assurance

TABLE 7.21: 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: Florida Department of Health, Division of Medical Quality Assurance

TABLE 7.22: 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 7.23: 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 7.24: 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 (AHCA)

CHART 7.98: TOTAL LICENSED HOSPITAL BEDS (2019)

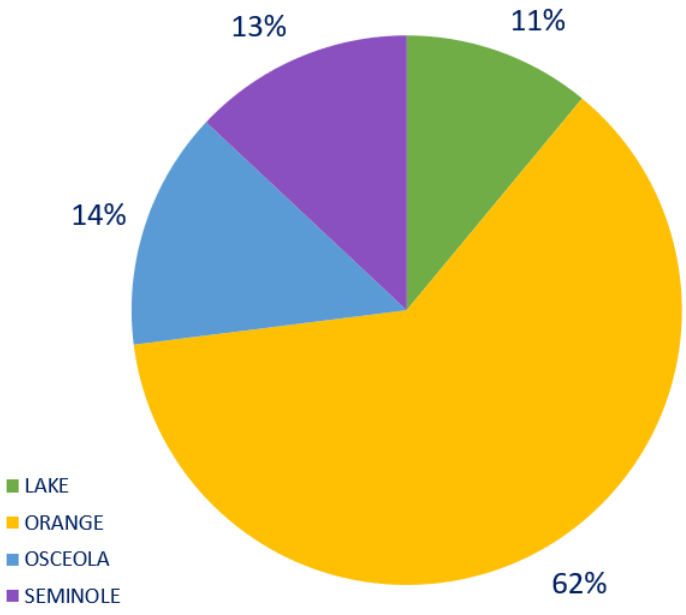
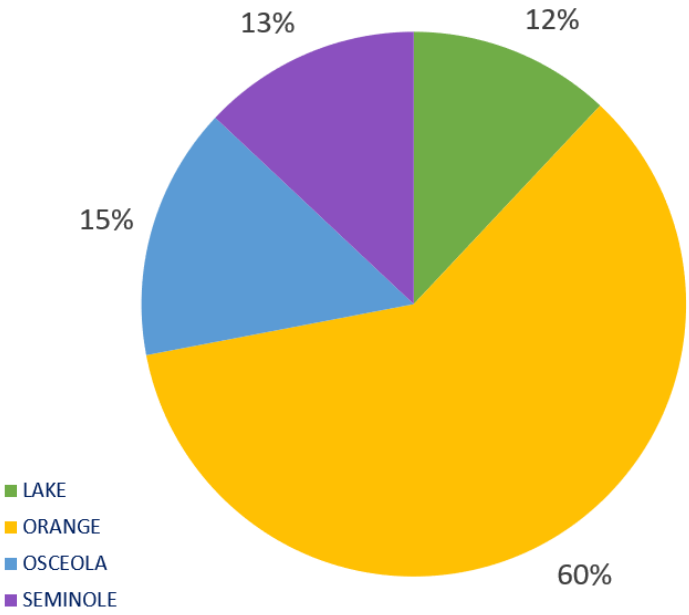


CHART 7.99: TOTAL LICENSED ACUTE CARE BEDS (2019)



Source: Florida Agency For Healthcare Administration (AHCA)

TABLE 7.25: TOTAL NICU II AND NICU III BEDS (2019)

County	NICU II	NICU III
Orange	130 beds	126 beds
	• AdventHealth Winter Park	• AdventHealth Orlando
	• AdventHealth Orlando • Orlando Health Winnie Palmer Hospital for Women & Babies	• Orlando Health Winnie Palmer Hospital for Women & Babies
Osceola	10 beds	
	• AdventHealth Celebration	
Seminole		10 beds
		• AdventHealth Altamonte Springs

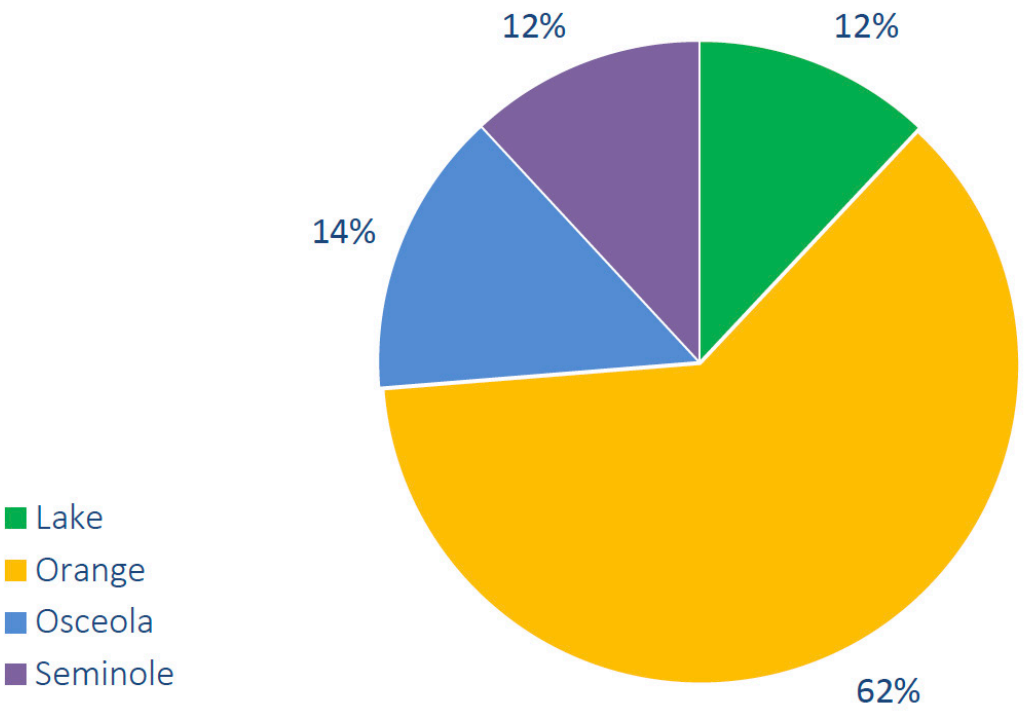
Source: Florida Agency For Healthcare Administration (AHCA)

TABLE 7.26: 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 (AHCA)

CHART 7.100: TOTAL LICENSED ADULT PSYCHIATRIC BEDS (2019)



Source: Florida Agency For Healthcare Administration (AHCA)

TABLE 7.27: 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 (AHCA)

TABLE 7.28: 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 (AHCA)

‘The majority of citizens have a fairly good lifestyle and access to health/community resources.’

-Key Informant Survey Respondent

CHAPTER EIGHT

Health Disparities

Lake Tohopekaliga
Kissimmee, FL

Osceola County

Health Disparities (differences in health outcomes between groups that reflect social inequalities) related to access, preventative care and food access exist within and across the four-county region. 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 not possible to address them.

Preventative Care Disparities

MAMMOGRAM AGES 40 AND OLDER BY RACE/ETHNICITY (2007-2016)

The available data for women ages 40 and older who have received mammograms is complete for White women in the four-county region from 2007 to 2016 but is limited for Black and Hispanic women. The gaps in the available data do not allow a comprehensive snapshot for direct comparison between populations or over time. The percentage of White women ages 40 and over who have received mammograms has decreased in the four-county region and the state from 2007 to 2016. The decrease has been highest in Lake (69.6 percent to 56.1 percent) and Osceola (53.1 percent to 40.8 percent) counties. Seminole County also had a large decrease during this time (62.7 percent to 51.9 percent), while the state (65.4 percent to 60.9 percent) and Orange County (61 percent to 59.1 percent) decreased the least.

Black women have seen a decrease at the state level from 70.2 percent in 2007 to 61.7 percent in 2016, which is almost double the percentage of decline seen for White women during the same time period. The only additional data available is in Orange County from 2007 (64.4 percent) and 2010 (48 percent) when the decrease in the rate for Black women was more than double that of White women.

The percentage of Hispanic women ages 40 and older receiving mammograms decreased at the state level from 2007 (63.2 percent) to 2016 (60.7 percent), making it the smallest decrease at the state level in all groups. In Orange County, there was a decrease during this time from 71.1 percent to 59.5 percent. Hispanic women in Osceola County were the only group to see an increase in this time (54.7 percent in 2007 to 63.3 percent in 2016) based upon available data. (See Charts 8.1-8.3)

PAP TEST AGES 18 AND OLDER BY RACE/ETHNICITY (2007-2016)

There has been a decline for all groups across the state in the number of women ages 18 and older who have received a Pap test in the past year from 2007 to 2016. This comparison can be made across groups on the state level as there is complete data; however there are gaps in the data by county depending on the racial or ethnic group. 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. 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.

The percentage of White women receiving Pap tests fell across all counties from 2007 to 2016, most sharply in Lake County decreasing by almost half (68.2 percent to 37.6 percent). In Seminole County the percentage fell from 65.3 percent to 40 percent from 2007 to 2016, the second largest decrease, followed by Osceola from 58.4 percent to 38.6 percent and Orange from 65.2 percent to 53.7 percent.

The only county level data available for Black women is in Orange County from 2007 to 2016 where the percentage decreased from 69 percent to 39.4 percent. For Hispanic women, there is data for Orange and Osceola counties for 2007 to 2016 where the percentages decreased from 72.4 percent to 56.1 percent and 67 percent to 61.5 percent respectively. In 2016, Hispanic women in Osceola County had the highest percentage of women receiving Pap tests across all groups for which data was available. (See Charts 8.4-8.6)

SIGMOIDOSCOPY/COLONOSCOPY AGES 50 AND OLDER BY RACE/ETHNICITY (2007-2016)

The data available for adults ages 50 and older who received a sigmoidoscopy/colonoscopy from 2007 to 2016 by race and ethnicity is limited. Complete data is available for White adults, but not for Black and Hispanic adults, with the exception of percentages at the state level. 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 Hispanic adults increased from 39 percent to 49.6 percent.

Orange County was the only county where the percentage of White adults who received a sigmoidoscopy/colonoscopy increased (from 45.3 percent in 2007 to 57.7 percent in 2016). Percentages in all other counties decreased in the same time frame; Lake had the largest decrease from 58.5 percent to 52.5 percent. In Osceola County the percentage decreased from 55 percent to 54.3 percent, and in Seminole County from 56.7 percent to 56.1 percent from 2007 to 2016.

County level data was only available in Orange for Black adults, where the percentage decreased from 52.6 percent in 2007 to 41.5 percent in 2016. Complete data was available for Hispanic adults in Orange and Osceola counties for the full date range but only for 2016 in Seminole County (70.6 percent). In Orange County the percentage for Hispanic adults decreased from 45 percent to 37.7 percent and increased in Osceola County from 30.5 percent to 50.8 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 White adults but is limited for Black and Hispanic adults at the county level. 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.

All percentages for White adults across the four-county region decreased from 2007 to 2016. The largest decrease was in Seminole County from 24.4 percent to 10.5 percent, followed closely in Orange County from 20 percent to 6.6 percent. In Lake County the numbers decreased from 23.4 percent to 15.5 percent and in Osceola County from 19.2 percent to 14.9 percent.

Only Orange County had data available for Black adults, in 2007 the percentage was 13.2 which increased to 14.5 percent in 2016. Complete data was only available for Hispanic adults at the county level in Osceola, where percentages increased from 9.1 percent to 29.8 percent from 2007 to 2016. (See Charts 8.10-8.12)

PSA TEST ADULT AGES 50 YEARS AND OLDER BY RACE/ETHNICITY (2007-2016)

There has been a decline across all groups at the state level for adult men 50 and older receiving a PSA (Prostate Specific Antigen) 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. Only data at the state level is complete in this date range for all groups.

For White men in all counties, there was a decrease from 2007 to 2016, although all counties reported higher percentages in 2010 than in 2007 or 2016. The largest decline was in Osceola County where in 2007 62.3 percent reported receiving a PSA test; in 2016 this number was 47.4 percent. The next largest decrease was in Orange County from 64 percent to 54.7 percent, followed by Seminole (60.4 percent to 56.6 percent) and Lake counties (61 percent to 57.9 percent) for the same years.

There is no data available on the county level for Black men who received a PSA test from 2007 to 2016. The available data for Hispanic men is incomplete and does not provide enough information for comparison. (See Charts 8.13-8.15)

Chronic Condition Disparities

ADULTS WITH DIABETES BY RACE/ETHNICITY (2002-2016)

The data available for adults diagnosed with diabetes is only complete at the state level and in Orange County for the years 2002 to 2016 for all groups. All groups have seen an increase at the state level from 2002 and 2016; the percentage of White adults increased the least from eight 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. For all groups in Orange County the numbers fluctuated; percentages for White adults rose from 6.5 percent in 2002 to 8.8 percent in 2016, Hispanic adults had the sharpest increase from 2.8 percent to 10.6 percent, and Black adults were the only group to see a decrease during this time from 17.1 percent to 10.9 percent.

Percentages for White adults in Lake and Seminole counties followed a trend similar to Orange County, fluctuating from 2002 and 2016, with a peak before decreasing. The percentage in Lake County increased from 10.1 percent in 2002 to 16.2 in 2013, then decreased in 2016 to 11.1 percent. Seminole County increased from 6.2 percent in 2002 to 11.8 percent in 2010, before decreasing to 10.7 percent in 2013 and 2016. Osceola County increased from 7.6 percent in 2002 to 17 percent in 2016.

Data for Black adults diagnosed with diabetes is sporadic by county. Data is only available for Lake County in 2016 when the percentages of Black adults diagnosed was 18.5 percent. Osceola County had data available from 2007 to 2016; during this time frame there was a large decrease from a peak in 2010 (30.1 percent) to 2016 (3.6 percent). The percentages in Seminole County fluctuated from 2002 to 2016 (there was no data available in 2010) from a low of 3.6 percent (2002) to a high in 2007 (12.5 percent) before decreasing to 9.4 percent in 2016.

Data for Hispanic adults diagnosed with diabetes from 2002 to 2016 is incomplete with the exception of Orange and Osceola counties. In Osceola, the percentage fluctuated from a low of 2.3 percent (2002) to a high of 18.4 percent (2013) before decreasing to 14.7 percent (2016). The data from Lake County does not include 2010; 3.4 percent in 2002 was the low before spiking to a high of 18 percent in 2013 followed by a slight fall to 14.5 percent in 2016. Seminole County's data is from 2007 (10.4 percent) to 2016 (18.6 percent). There was a large decrease from 2010 (19.5 percent) to 2013 (4.1 percent) before increasing in 2016. (See Charts 8.16-8.18)

HYPERTENSION (HIGH BLOOD PRESSURE) BY RACE/ETHNICITY (2002-2013)

There has been an increase across all 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 in Black adults from 32.2 percent in 2002 to 33.7 percent in 2013, Hispanic adults increased from 21.1 percent to 28.3 percent during this time. Orange County is the only county that has complete data for all groups across the four-county region for the entire time. The percentages for White and Black adults in Orange County fluctuated, the low for White adults was in 2002 (20 percent) before a spike in 2010 (34.9 percent) followed by a decline in 2013 (31.8 percent). This trend was similar for Black adults with the low in 2007 (37.5 percent), the spike in 2010 (45.5 percent) and the decline in 2013 (26.5 percent). The trend for Hispanic adults has steadily increased from 15.6 percent (2002) to almost double (30.2 percent) in 2013.

Across the remaining three counties, percentages for White adults that have been told they have high blood pressure followed a trend similar to Orange County; a low followed by a spike in 2010 before a decrease in 2013. In Lake County the low was in 2002 (26.3 percent) with a rise to 44.7 percent in 2010, and a decline to 42.5 percent in 2013. In Seminole County the low was in 2002 (20 percent), the peak was in 2010 (39.9 percent) and the decline was in 2013 (31.6 percent). In Osceola County the low was in 2007 (25.2 percent) with a high of 34.5 percent in 2010 and a decrease to 33.4 percent in 2013.

The data for Black adults varies significantly across the remaining three counties; there is no data for Lake and incomplete data for Osceola and Seminole counties over these years. The data for Osceola County starts in 2007 (30.7 percent), peaks in 2010 (42.8 percent) and declines over half in 2013 (15.8 percent). In Seminole County the only data available is in 2007 (45.7 percent) and 2013 (52 percent).

HYPERTENSION (HIGH BLOOD PRESSURE) BY RACE/ETHNICITY (2002-2013) CONTINUED

Percentages for Hispanic adults have increased overall from 2002 to 2013 across Lake, Osceola and Seminole counties; although there is data missing in Lake from 2010. In Lake County there was an increase from 20.5 percent (2002) to 27.7 percent (2013); percentages in Osceola rose from 24.7 percent (2002) to 35.5 percent (2013). Seminole County had the largest increase, more than doubling from 14 percent (2002) to 35.5 percent (2013) over the same time span. (See Charts 8.19 – 8.21)

STROKE BY RACE/ETHNICITY (2007-2016)

The only complete available data for adults in all groups who have been told they had a stroke is at the state level and in Osceola County for the date range provided, all of which have increased. At the state level the percentage for White adults has increased from 3.5 percent (2007) to 4.2 percent (2016), for Black adults the rise has been 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 Osceola County from 2007 to 2016 there has been fluctuation for all groups, all with an overall increase. This has been most notable for Black adults from 1.2 percent in 2007 to 10.7 percent in 2010 with a drop to 1.4 percent in 2016. Percentages for White adults rose from 3.7 percent in 2007 to 4.8 percent in 2016, while the increase was more than double for Hispanic adults 1.5 percent in 2007 to 3.1 percent in 2016.

There has been an overall increase from 2007 to 2016 in the percentages of White adults who have been told they had a stroke in Lake, Orange and Seminole counties. In Lake County, there was a rise from 4.1 percent in 2007 to 6.4 percent in 2016, Orange County had a similar increase of about half from 2.5 percent to 3.7 percent in the same years. Percentages increased the least in this time span in Seminole County from 2.2 percent to 2.6 percent.

There is no data available for Black adults in Lake County from 2007 and 2016, and there are gaps in the data for Orange and Seminole counties. The data for Orange County starts in 2010 (5.8 percent) and decreases in 2016 (5.3 percent). The available data for Seminole County shows a decrease from 2013 (1.3 percent) to 2016 (one percent). There are gaps in data for Hispanic adults during this time, although there is an overall decrease shown in the remaining three counties from what is available. In Lake County the percentage fell from 1.4 in 2007 to zero in 2016; in this same time numbers in Orange declined from 1.6 percent to 1.2 percent. The largest decrease was in Seminole County from 1.5 percent in 2007 to 0.4 percent in 2016. (See Charts 8.22 – 8.24)

CORONARY HEART DISEASE BY RACE/ETHNICITY (2012-2017)

At the state level and in two counties of the four-county region, there has been a decrease in age adjusted death rates per 100,000 from coronary heart disease across all groups. 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. In Orange and Osceola counties rates decreased in all groups from 2012 and 2017. Orange County's White adult rates declined the most from 106.8 to 87.7, Black adult rates decreased from 98.8 to 85.6 and Hispanic adult rates decreased the least from 80.3 to 70.6.

The largest decrease in all groups in Osceola County was in Black adult rates from 94.5 (2012) to 70.4 (2017); this was followed by a decrease in White adult rates from 150.8 to 132 and Hispanic adult rates from 127 to 111.9 during the same years.

Rates in Lake and Seminole counties varied across groups. In Lake County rates declined for both Black adults (114.2 to 90.5) and Hispanic adults (73.4 to 52.7) and rose for White adults (98.7 to 99.7) from 2007 and 2017. In Seminole County rates decreased for White adults (91.5 to 76.3) and rose for both Black adults (80.2 to 94) and Hispanic adults (44.9 to 48.8) during the same years. (See Charts 8.25-8.27)

COLORECTAL CANCER BY RACE/ETHNICITY (2012-2016)

Seminole County and the state were the only two areas with a decline in age adjusted colorectal cancer incidences across all groups. Both White and Hispanic adult rates at the state level decreased by 0.6 percent, 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. Black adult rates decreased the most in Seminole County from 55.9 in 2012 to 34.4 in 2016, followed by Hispanic (31 to 25.5) and White adult rates (33.7 to 30.3) over the same time span.

The White adult rates for colorectal cancer incidences decreased in two of the remaining counties, Lake and Orange, and increased in Osceola from 2012 to 2016. In Lake County the rates declined the most from 49.6 in 2012 to 40.4 in 2016, followed by Orange from 43.1 to 36.8 for the same time span. In Osceola the rate increased from 37.7 to 44.2 from 2012 and 2016.

For the remaining counties and groups there was an almost consistent increase in rate from 2012 and 2016; the exception to this is the rate for Black adults in Orange County which decreased from 53.8 to 32.3. In Lake County the rate increased for Black adults from 27.9 to 33.9 and Hispanic adults from 27.7 and 31.8. The rate for Black adults increased the most in Osceola County from 22 to 28, followed closely by the Hispanic adult rate that rose from 26.8 to 31.8. The Hispanic adult rate in Orange County grew from 30.8 to 33.4 over the same 2012 to 2016 time span. (See Chart 8.28-8.30)

FEMALE BREAST CANCER BY RACE/ETHNICITY (2012-2016)

The rates for female breast cancer incidence in the state and Osceola County consistently rose for all groups from 2012 and 2016. Rates for the state across all groups increased the least, for White adults there was a rise from 117.4 to 119.7, for Black adults from 109.7 to 114.9 and Hispanic adult rates increased from 88.2 to 92 during this time. In Osceola County, the rate for Black adults rose the most from 91.3 in 2012 to 137.6 in 2016, an increase of almost 50 percent; this was followed by an increase in the White adult rate from 91.7 to 121.9. The Hispanic adult rate rose the least from 81.8 to 101.8 during this time.

From 2012 to 2016 in Lake (138.7 to 132.6) and Orange (122.3 to 114.9) counties the incidence rate declined for White adults, although it did increase in Seminole from 110.3 to 113.7 during the same time. The Black adult breast cancer incidence rate decreased during this time across the remaining three counties, most significantly in Lake County (129.3 to 101.3), followed by a decrease in Seminole from 101.5 to 91.7 and Orange (97.7 to 96.7). The Hispanic adult incidence rate increased in the remaining three counties during this time. The increase was most significant in Lake County increasing by over a third from 62.9 to 96.8. This increase was followed by Seminole County where the rate almost doubled from 43.2 to 75.2; the smallest increase was in Orange County from 74.9 to 88.5. (See Charts 8.31-8.33)

LUNG CANCER BY RACE/ETHNICITY (2012-2016)

Across data from the state and the four-county region, the only trend in all groups was a decrease in the rate of lung cancer incidences in Lake County. From 2012 to 2016, White adult rates declined from 85.8 to 65.2; the most significant decrease was the Black adult rate which dropped from 86.8 to 37.8, and Hispanic adult rates fell from 47.1 to 31.5. Incidence rates for White adults decreased in the state (65.3 to 59.1) and two counties, Orange (66 to 55) and Osceola (70.2 to 63.3) from 2012 to 2016. The rate in Seminole County increased from 47.3 to 48.3 during this time.

Incidence rates for Black adults decreased across the state and increased in the remaining three counties. At the state level rates dropped from 51.7 to 43.9 from 2012 to 2016. During the same time rates rose slightly in Orange (39.5 to 39.6), Osceola (21.6 to 25.4) and Seminole (42.4 to 44) counties. Hispanic adult rates followed the same trend as the Black adult rates from 2012 to 2016, declining at the state level (35.6 to 35.0) and increasing a small amount in the counties: Orange (25.4 to 27.1), Osceola (33.5 to 37.5) and Seminole (18.5 to 24.5). (See Charts 8.34-8.36)

ADULTS WITH ASTHMA BY RACE/ETHNICITY (2007-2016)

The data for adults who currently have asthma is only complete for all groups at the state level and in Orange and Osceola counties. Percentages in Orange County rose for all groups from 2007 to 2016, for White adults the most (3.5 percent to 6.8 percent), followed by Black adults (7 percent to 10.2 percent) and the smallest increase was for Hispanic adults (4.4 percent to 4.9 percent). All other complete data varied across groups.

Percentages for White adults increased in Osceola County (7.6 percent to 8.7 percent) and at the state level (6.4 percent to 6.9 percent) from 2007 to 2016. During this same time, there was no increase in Lake County (5.5 percent) and a decline in Seminole (7.2 percent to 4.9 percent). The data for Black adults is incomplete; in Lake County only 2016 percentages are available (7.4 percent) and in Seminole there is no data for 2010, although there was an increase from 2007 (1.3 percent) to 2016 (13.6 percent). There is complete data in Osceola for this time, and there was a slight decrease from 4.3 percent to 3.3 percent. Data for Hispanic adults from 2007 to 2016 is complete with the exception of Lake County in 2010. During this time the percentages decreased from 2.7 percent to 1.8 percent. From 2007 to 2016 percentages declined in Osceola County from 8.4 percent to 7.6 percent and increased in Seminole (4.8 percent to 5.7 percent) and at the state level (4.8 percent to 5.9 percent). (See Charts 8.37-8.39)

Leading Causes of Death Disparities

When looking at the leading causes of death disparities, the Florida Department of Health classifies Hispanics as White Hispanics and Black Hispanics. The Black/Other category includes all Non-Hispanic Blacks.

LAKE COUNTY (2017)

In 2017, the leading causes of death for White and Black/Other groups were heart diseases (227, 207.2) and cancer (221.5, 171.6). The third leading cause of death for Whites was unintentional injury (69.4) and cerebrovascular disease for Blacks/Others (63.9).

The leading causes of death for White and Black Hispanic groups were cancer (89.3, 46.1) and heart diseases (82.7, 32.9) followed by unintentional injury (33.2, 15.3). The rates for heart diseases and cancer were more than double for White and Black/Other groups when compared to White and Black Hispanic groups. Across all causes rates were substantially lower for Hispanics than other groups. (See Table 8.1)

ORANGE COUNTY (2017)

Heart diseases (White: 290.6, Black/Other: 182.9, White Hispanic: 114.4, Black Hispanic: 44.9) and cancer (White: 262.1, Black/Other: 165.4, White Hispanic: 110, Black Hispanic: 41.6) were the leading causes of death reported in Orange County for all groups. Cerebrovascular diseases were the third cause for Black/Other (53.5) and White Hispanic (31.4) groups. The third cause for Black Hispanics was unintentional injury (12.6) and chronic lower respiratory disease (67) for Whites. (See Table 8.2)

OSCEOLA COUNTY (2017)

The top two leading causes of death in Osceola County were heart diseases (White: 313.2, Black/Other: 147.2, White Hispanic: 126.9, Black Hispanic: 40.8) and cancer (White: 245.3, Black/Other: 110.1, White Hispanic: 104.8, Black Hispanic: 26.5) for all the groups for which data is available. Chronic lower respiratory disease was the third cause for White adults (70.6) and cerebrovascular diseases were third for the remainder of the groups (Black/Other: 42.2, White Hispanic: 31.9, Black Hispanic: 12.4). In the data reported for Osceola County the rates for White adults were the highest for all causes of death listed across all groups and lowest for Black/Hispanic adults. (See Table 8.3)

SEMINOLE COUNTY (2017)

Heart diseases and cancer were the top two leading causes of death for White adults (247.2, 231.8), Black/Other adults (201.6, 183.7), and White Hispanic adults (106.9, 104.2) in Seminole County. Black Hispanic adults had cancer as the leading cause of death (61.4) followed by heart diseases (45.1). Cerebrovascular diseases were the third leading cause for Black/Other adults (59.9), White Hispanic adults (32.2) and Black Hispanic adults (19.3), while chronic lower respiratory disease was third for White adults (56.9).
(See Table 8.4)

Birth Characteristics Disparities

INFANT MORTALITY BY RACE/ETHNICITY (2012-2017)

Infant mortality rates for all groups fluctuated from 2012 to 2017. Rates for White babies in Lake County increased from 4.5 to 5 during this time, with a peak in 2014 to 7.8. In Seminole County, there was an increase to 5.4 (2017) from 5 (2012). Rates declined in the remaining counties (Orange: 5.2 to 3.8, Osceola: 4.1 to 3.7) and the state (4.6 to 4.4).

Black infant mortality rates declined in Lake County from 13.5 in 2012 to 10.2 in 2017, with a significant jump in 2015 to 23.8. In Seminole County the rates dropped from 17.1 (2012) to 7.9 (2017). In the state (10.7 to 10.8) and the remaining counties Orange (11.6 to 15.5) and Osceola (4.6 to 7) rates increased. Osceola County rates peaked in 2013 to 19.7.

Infant mortality rates increased for Hispanic babies in the state and all counties with the exception of Osceola, where they dropped from 6 in 2012 to 4.7 in 2017. The highest county increase was in Lake from 3.6 to 10.7, followed by Seminole from 4.7 to 6.1 and Orange 5.1 to 5.5 during this time. The state rate rose from 4.4 (2012) to 5.2 (2017). (See Charts 8.40-8.42)

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

The percentages of births with self pay for delivery increased for all groups in Orange County from 2004 to 2017 (Whites: 4.8 percent to 10 percent, Blacks: 2.7 percent to 8 percent, Hispanics: 7.1 percent to 14.4 percent). At the state level percentages decreased during this same time period for all groups (Whites: 8.3 percent to 6.4 percent, Blacks: 4.9 percent to 4.8 percent, Hispanics: 16.6 percent to 10 percent).

For White women the percentages decreased in all the remaining counties from 2004 to 2017; Lake dropped from 8.8 percent to 4.9 percent, Osceola from 5.7 percent to 5.1 percent and Seminole declined from 4.1 percent to 3.1 percent. In Lake County the percentage of births to Black women increased from 3.1 percent in 2004 to 3.3 percent in 2017; during this same time span numbers declined in Osceola (8.2 percent to 3.5 percent) and Seminole (2.3 percent to 2 percent) counties. The percentage of births to Hispanic women dropped in all the remaining counties from 2004 and 2017, the decrease was most significant in Lake from 27.1 percent to 12.1 percent, followed by Seminole (7.9 percent to 3.9 percent) and Osceola (6.3 percent to 5.1 percent). (See Charts 8.43-8.45)

BIRTHS TO MOTHERS WITH LESS THAN HIGH SCHOOL EDUCATION BY RACE/ETHNICITY (2004-2017)

The number of births to mothers with less than a high school education has decreased throughout the four-county region and the state for all groups from 2004 to 2017. Lake County decreased the most for all groups (Whites: 23.6 percent to 10.6 percent, Blacks: 29.1 percent to 12.3 percent, Hispanics: 48.9 percent to 14.8 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).

The percentages for White mothers declined in the remaining counties from 2004 to 2017 from largest decrease to smallest in the following order: Osceola (18.9 percent to 8.6 percent), Orange (16.9 percent to 9.6 percent) and Seminole (10.7 percent to 5.9 percent). Seminole County had the largest drop in the percentage of births to Black mothers (22.8 percent to 7.1 percent) of the remaining counties, followed by Osceola (16.7 percent to 8.6 percent) and Orange (24.3 percent to 16.5 percent) over the years. Births to Hispanic mothers declined in Orange County almost by half from 26.7 percent to 13.6 percent and by over half in Osceola from 21.8 percent to 9.4 percent. In Seminole County the percentage decreased from 21.4 percent to 11.2 percent from 2004 to 2017. (See Charts 8.46-8.48)

BIRTHS TO UNWED MOTHERS BY RACE/ETHNICITY (2004-2017)

The percentages of births to unwed mothers increased in all groups in Lake and Osceola counties. The largest percentage increase in Lake County was for Black mothers (66.4 percent to 74.7 percent), followed by White mothers (34.9 percent to 42.7 percent) and Hispanic mothers (43.8 percent to 48.3 percent) from 2004 to 2017. In Osceola County White mothers had the largest rise from 42.3 percent to 50.1 percent, Hispanic mothers had an increase from 49.4 percent to 55.4 percent and percentages for Black mothers rose from 53.1 percent to 55.7 percent during this time.

Births to unwed White mothers increased in Orange (34.8 percent to 40 percent) and Seminole (26.8 percent to 34.2 percent) counties, as well as the state (34.6 percent to 41.9 percent) from 2004 to 2017. The percentage of births to unwed Black mothers decreased throughout the remaining counties; in Orange from 65.8 percent to 62.2 percent and in Seminole from 67.9 percent to 65.8 percent during the same time span. At the state level there was a decrease from 67.7 percent to 67.6 percent for births to unwed Black mothers. Births to unwed Hispanic mothers increased at the state level (43 percent to 50.5 percent) as well as in both of the remaining counties Orange (47.2 percent to 50.8 percent) and Seminole (39.8 percent to 48.3 percent) from 2004 to 2017. (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 groups in all counties and the state from 2004 to 2017. Births to White women who were obese increased in the counties in ascending order from Lake (21.2 percent to 27.8 percent), to Osceola (19.2 percent to 25.9 percent), then Orange (14.8 percent to 22 percent) and Seminole (15.1 percent to 23 percent) from 2004 to 2017. The state levels rose from 16.8 percent to 22.9 percent in the same time span.

The percentage of births to Black women who were obese during pregnancy rose the most from 2004 to 2017 in Orange County (23 percent to 34.9 percent), then Osceola County (23.8 percent to 33.9 percent), followed by Lake County (29.2 percent to 37.3 percent) and Seminole County (28.3 percent to 34.7 percent). During this time span the state numbers increased from 27.5 percent to 34.6 percent. Births to Hispanic women who were obese during pregnancy from 2004 to 2017 increased the most in Seminole County (16.3 percent to 26 percent), then Osceola County (17 percent to 26 percent), Lake County (21.8 percent to 30.3 percent) and Orange County (16.4 percent to 23.9 percent). During the same time span percentages rose at the state level from 16 percent to 23.4 percent. (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 across all counties and the state from 2004 to 2017 with the exception of Hispanic mothers in Seminole County where numbers increased (11.2 percent to 13 percent). 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.

Percentages for repeat births to White mothers in the four-county region decreased the most in Osceola County (18.9 percent to 11 percent) from 2004 to 2017. In Lake County percentages fell from 19.1 percent to 12.6 percent during this time. The smallest decreases in the region were in Orange (18 percent to 15.2 percent) and Seminole (12.8 percent to 11.9 percent) counties.

Repeat births for Black mothers from 2004 to 2017 decreased the most in Lake County (41.2 percent to 20.9 percent) in the four-county region followed by a decline in Osceola County from 19.4 percent to zero percent. In Seminole County the percentages fell from 19.7 percent to 9.8 percent and from 23.6 percent to 18.6 percent in Orange from 2004 to 2017.

The largest decrease across the four-county region for all groups was in Lake County for Hispanic mothers where percentages decreased almost two thirds (31.4 percent to 10.8 percent) from 2004 to 2017. In Osceola County percentages fell for Hispanic mothers from 21.4 percent to 13.1 percent and in Orange from 20.5 percent to 15 percent during this same time. (See Charts 8.55-8.57)

PRETERM BIRTH RATE <37 WEEKS BY RACE/ETHNICITY (2004-2017)

The percentages for preterm births decreased for all groups at the state level and in both Orange and Osceola counties from 2004 to 2017. 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). In Orange County, preterm births for White mothers decreased the most (11.2 percent to 9.2 percent) while percentages for Black mothers (14.5 percent to 13.7 percent) and Hispanic mothers (10.8 percent and 10.1 percent) both had an almost equivalent decline. Percentages for Black mothers decreased the most in Osceola County (11.8 percent to 10.7 percent) from 2004 to 2017. Hispanic mothers (9.3 percent to 8.8 percent) and White mothers (9.1 percent to 8.9 percent) had a similar decrease during this same time in Osceola County.

Preterm births for White mothers decreased in the remaining two counties from 2004 to 2017, in Seminole County from 12.2 percent to 8.7 percent and in Lake County from 10.3 percent to 8.9 percent. There was an increase in the percentage of preterm births for Black mothers from 2004 to 2017 in Lake (12.6 percent to 16.1 percent) and Seminole (12.9 percent to 15.3 percent) counties. Preterm births to Hispanic mothers decreased in Lake (9.3 percent to 8.3 percent) and Seminole (10.5 percent to 8.6 percent) counties. (See Charts 8.58-8.60)

LOW BIRTH WEIGHT (<2500 GRAMS) BY RACE/ETHNICITY (2004-2017)

Percentages for low birth weights varied across all counties and all groups from 2004 to 2017. In Lake (7.2 percent to 6.4 percent), Orange (7.5 percent to 7.2 percent) and Seminole (7.6 percent to 6.8 percent) counties the percentage of low birth weight babies to White mothers all decreased. Osceola County was the only county where there was an increase in the percentage of low birth weight babies to White mothers; at the state level there was no change from 2004 to 2017.

Low birth weight babies born to Black mothers increased in two counties (Lake: 9.8 percent to 15.5 percent and Seminole: 11.6 percent to 13.6 percent) and the state (13.1 percent to 13.8 percent) from 2004 to 2017. The percentages decreased in Orange (13.1 percent to 12.9 percent) and Osceola (11.8 percent to 11.4 percent) counties over this same time in this group. Lake County (7.1 percent to 5.7 percent) was the only area in the four-county region or the state where the percentage of low birth weight babies decreased to Hispanic mothers from 2004 to 2017. The largest increase was in Seminole County (6 percent to 8.3 percent), followed by Osceola County (6.8 percent to 7.7 percent). The percentages in Orange County (7.9 percent to 8.3 percent) and the state (7 percent to 7.3 percent) increased the least for low birth weight babies born to Hispanic mothers from 2004 to 2017. (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 the four-county region and the state for all groups. Across all groups in the four-county region the increase was highest in Osceola County, then Lake County followed by Seminole and Orange counties. The percentage of Medicaid births covered for White mothers increased in Osceola County from 36 percent to 60.7 percent, in Lake from 35.1 percent to 47.9 percent and in Orange from 31.9 percent to 41 percent from 2004 to 2017. There was a similar increase in Seminole (26.1 percent to 37.3) and the state (32.2 percent to 43.8 percent) during the same years. Births to Black mothers covered by Medicaid increased in Osceola County from 38.9 percent to 60.1 percent and in Lake from 55.5 percent to 71.8 percent from 2014 to 2017. In Orange County, the percentages increased for Black mothers from 52.5 percent to 62.6 percent, while Seminole County (56.1 percent to 69.6 percent) and the state (53.7 percent to 68.4 percent) had the closest percentage of increase over the same time.

The largest increase across all groups from 2004 to 2017 was for Medicaid births to Hispanic mothers (42.2 percent to 67.8 percent) in Osceola County. In Lake County the percentage rose from 38.4 percent to 55.5 percent and in Orange from 46.2 percent to 52.5 percent. As with other groups, there was a similar increase in the percentage of births in Seminole (42.8 percent to 56.9 percent) and at the state level (37.6 percent to 52.2 percent). (See Charts 6.64-6.66)

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 only complete available data for adults in all groups who had poor mental health 14 or more days of the past 30 by race/ethnicity is at the state level and in Orange and Osceola counties. All groups in Orange (White adults: five percent to 13.7 percent; Black adults: 6.1 percent to 10.8 percent; Hispanic adults: 9.6 percent to 11.7 percent) reported an increase between 2007 to 2016.

The percentage of White adults with 14 or more poor mental health days in the past 30 days increased in Lake (8.2 percent to 13.4 percent) and Osceola (12.3 percent to 13.4 percent) counties from 2007 to 2016. During the same time span there was no change in Seminole County and an increase in the state from 9.1 percent to 12.2 percent.

Complete data is not available from 2007 to 2016 for Black adults; 2016 is the only year that has available data for Lake County (2.6 percent). There was a decrease in the percentages for Osceola County (eight percent to seven percent) and the state (12.8 percent to 10.8 percent) from 2007 to 2016. Data for 2010 is missing for Seminole County, however there was a decrease from 2007 (12.4 percent) to 2016 (two percent).

The majority of the data is available for Hispanic adults, with the exception of 2010 in Lake County. For Hispanic adults there was an increase in Orange (9.6 percent to 11.7 percent) and Osceola (13.7 percent to 19.6 percent) counties from 2007 to 2016. During the same time span there was a decline in the percentage of Hispanic adults who had 14 or more poor mental health days in the past 30 in the state (10.2 percent to 9.9 percent), as well as Lake (13.2 percent to nine percent) and Seminole (12.5 percent to 8.5 percent) counties. (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 across all counties and the state from 2007 to 2016. This increase was the highest in Lake County (6.7 percent to 21.8 percent), then Osceola (12.6 percent to 23.2 percent) and Orange (7.7 percent to 14.8 percent) counties. The smallest increase was in Seminole County (13.3 percent to 17.1 percent) and at the state level (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 varied across the counties and the state from 2007 to 2016. Percentages in both Lake (13.6 percent to 13.2 percent) and Seminole (11.2 percent to 7.3 percent) counties decreased. The largest increase in the remaining counties was in Osceola (11.6 percent to 19.3 percent), then Orange (10.1 percent to 13.8 percent). The smallest increase in this income range was at the state level from 11.3 percent to 11.9 percent from 2007 to 2017.

There were variances across all counties and the state for adults who had an income above $50K in the percentage of poor mental health days. There were increases in Lake (6.6 percent to 7.1 percent) and Orange County (5.5 percent to 8.8 percent), as well as the state (5.7 percent to 7.6 percent) from 2007 to 2016. Osceola (9.1 percent to 2.7 percent) and Seminole (5.6 percent to 2.6 percent) counties both decreased in percentage of adults experiencing more than 14 poor mental health days in the last 30 from 2007 to 2016. (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 data for adults from 2007 to 2016 with poor mental health 14 or more days of the past 30 by education is complete, with the exception of adults with less than a high school education in Seminole County. The percentages for adults in the remaining counties varied; both in Lake (9.9 percent to 24.7 percent) and Orange (7.7 percent to 12.7 percent) counties there was an increase from 2007 to 2016. Percentages decreased in Osceola County (17.5 percent to 14.1 percent) and the state (15.8 to 15.3) for adults with 14 or more poor mental health days.

Percentages for adults with a high school education or GED increased in all counties and the state with the exception of Seminole County where there was a decline (11.2 percent to 7.4 percent) from 2007 to 2016. The largest increase in the counties was in Osceola County (11.6 percent to 21.9 percent), then Lake (11.5 percent to 14.6 percent) and Orange (6.7 percent to 12.3 percent). The smallest increase was at the state level for all reported data from 2007 to 2016.

Adults reporting poor mental health 14 or more days in the past 30 with more than a high school education followed a similar trend to those with a high school education or equivalent. There was an increase in all areas with the exception of Seminole County where there was a decrease from 7.2 percent to 6.1 percent from 2007 to 2016. The remaining counties increased from 2007 to 2016 (Lake: 6.7 percent to 9.9 percent; Orange: 6.9 percent to 11.7 percent; Osceola: 10.7 percent to 14.7 percent), as did the state from 2007 to 2016 (8.2 percent to 10.1 percent). (See Charts 8.73-8.75)

Healthcare Access Disparities

INSURANCE COVERAGE BY RACE/ETHNICITY (2007-2016)

The data for insurance coverage by race and ethnicity is not complete for all groups from 2007 to 2016 and cannot be used for direct comparison. The only complete data set available is for White adults for 2007 to 2016. The percentage of White adults with insurance coverage increased in all areas with the exception of Lake County where there was a decrease from 88.9 percent to 87.3 percent from 2007 to 2016. There was an increase in the remaining counties (Orange: 87.2 percent to 89.2 percent; Osceola: 83.1 percent to 84.5 percent; Seminole: 86.9 percent to 92.4 percent) and the state (87.8 percent to 89.5 percent).

Data for Black adults is not available in Lake County with the exception of 2016 (54.7 percent). Percentages in the remaining counties in the four-county region decreased for Black adults from 2007 to 2016 (Orange: 83.3 percent to 82.2 percent; Osceola: 80.4 percent to 64.4 percent; Seminole: 82.8 percent to 72.4 percent), only the state level increased during this time span from 77.2 percent to 81 percent.

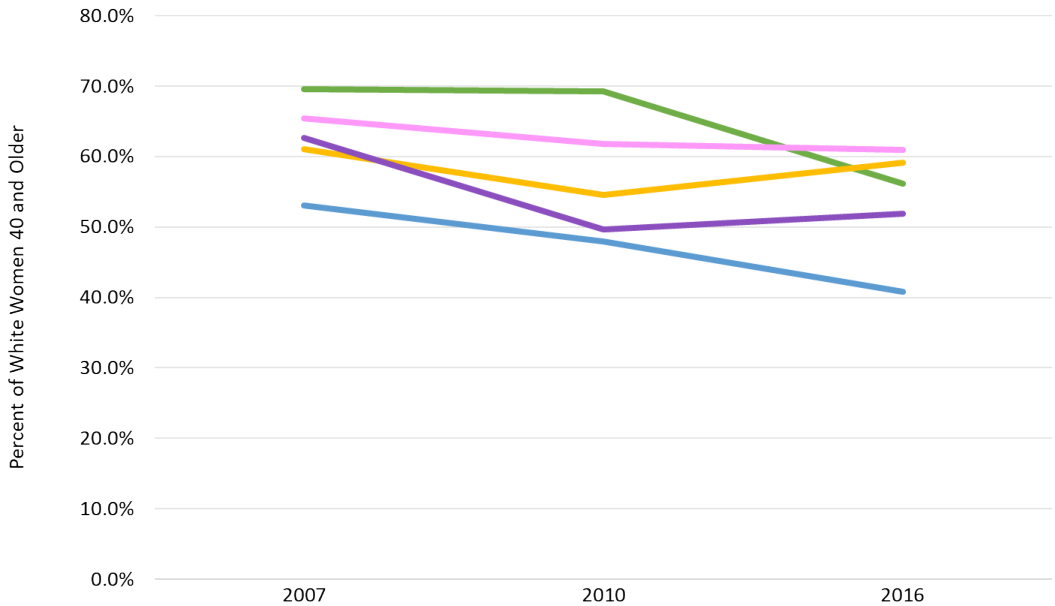
INSURANCE COVERAGE BY RACE/ETHNICITY (2007-2016) CONTINUED

The majority of data is available for insurance coverage for Hispanic adults, the exception to this is in Lake County in the year 2010. Percentages varied across the remaining counties and the state from 2007 to 2016. In Lake (61.6 percent to 74.8 percent), Orange (56.1 percent to 67.9 percent), and Osceola (64.7 percent to 73.7 percent) counties there was an increase, while in Seminole there was a decrease (82.7 percent to 74.1 percent) from 2007 to 2016. At the state levels percentages increased (61.4 percent to 71.1 percent) during this time. (See Charts 8.76-8.78)

Health Disparities: Key Findings

Limited data was available for minority populations across the four-county region. Given the limited data it was difficult to identify racial and other disparities as not enough data was available to fully understand where disparities exist. Based on data that was available there are differences in preventative screenings and health conditions among racial and ethnic groups, which vary over time and across the four-county region. Data reported in this summary is based on indicators where data was available for two or more counties in the four-county region, where data was available for all racial and ethnic groups as well as for multiple years.

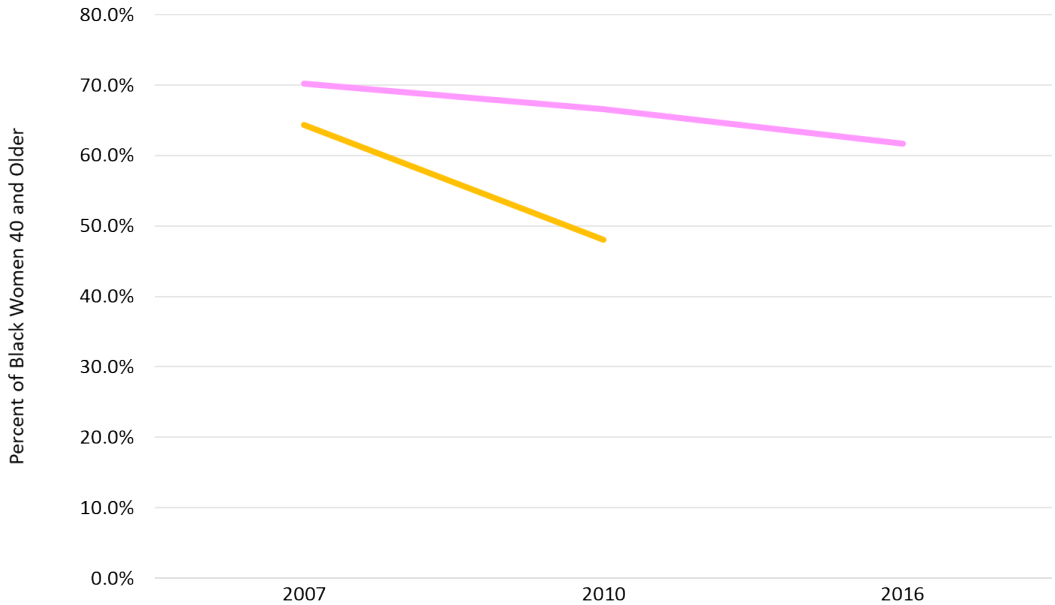
CHART 8.1: PERCENT OF WHITE WOMEN AGES 40 AND OLDER WHO RECEIVED MAMMOGRAMS (2007-2016)



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

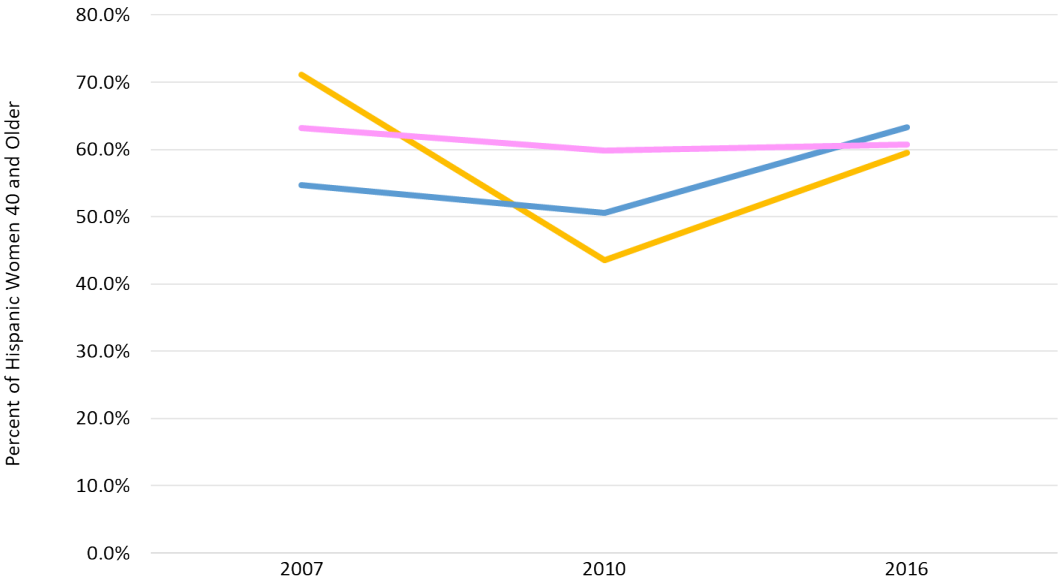
CHART 8.2: PERCENT OF BLACK WOMEN AGES 40 AND OLDER WHO RECEIVED MAMMOGRAMS (2007-2016)



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

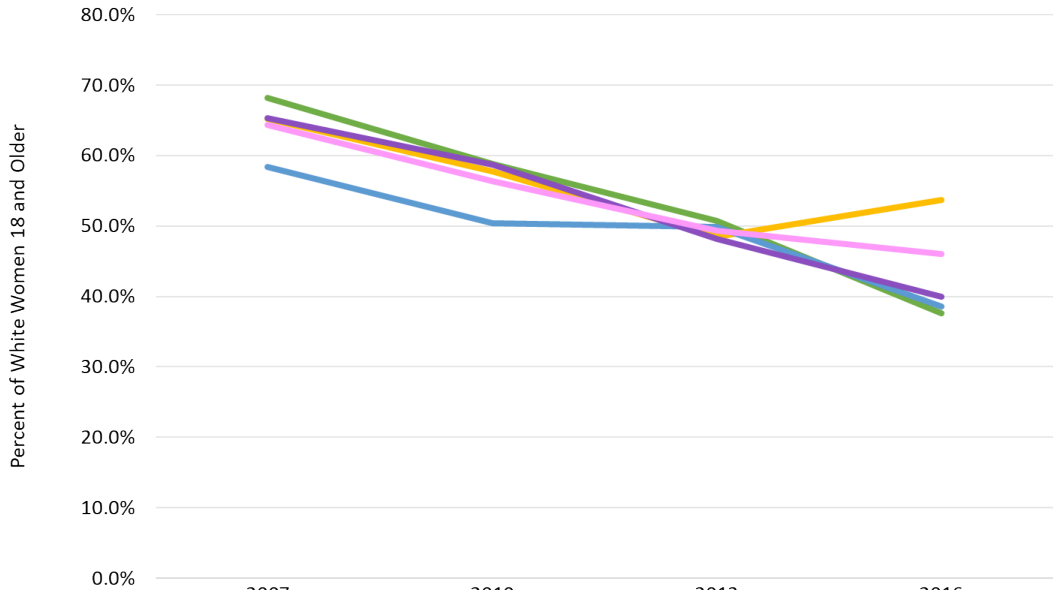
CHART 8.3: PERCENT OF HISPANIC WOMEN AGES 40 AND OLDER WHO RECEIVED MAMMOGRAMS (2007-2016)



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

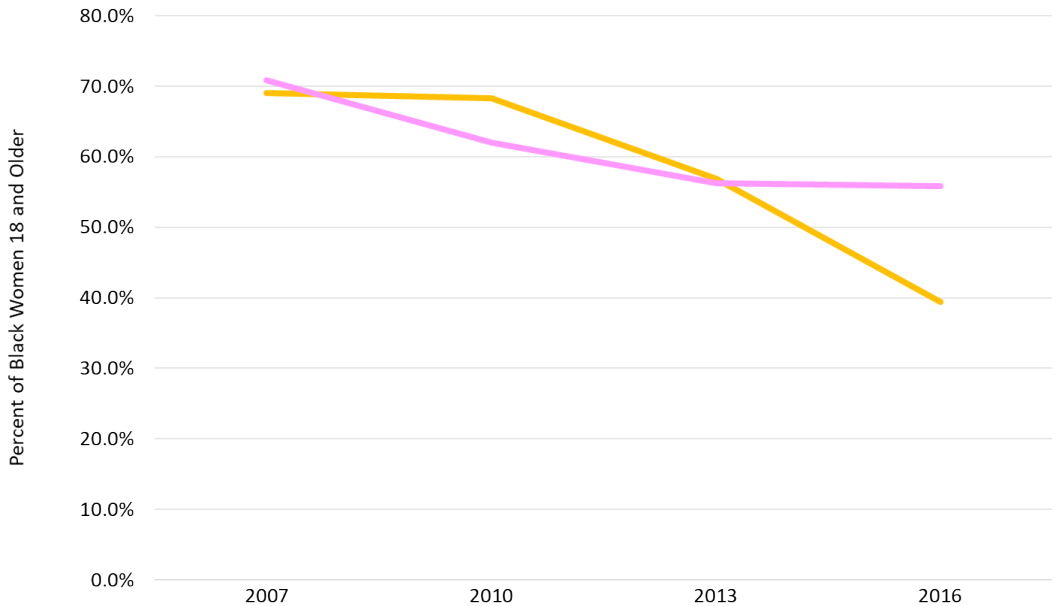
CHART 8.4: WHITE WOMEN AGES 18 YEARS AND OLDER WHO RECEIVED PAP TEST IN PAST YEAR (2007-2016)



	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

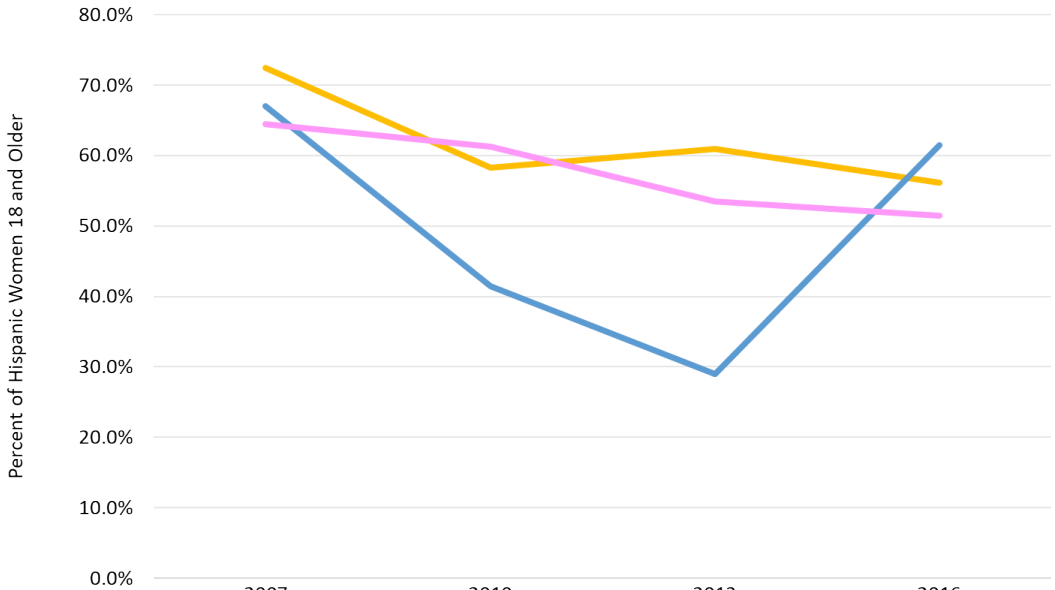
CHART 8.5: BLACK WOMEN AGES 18 YEARS AND OLDER WHO RECEIVED PAP TEST IN PAST YEAR (2007-2016)



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

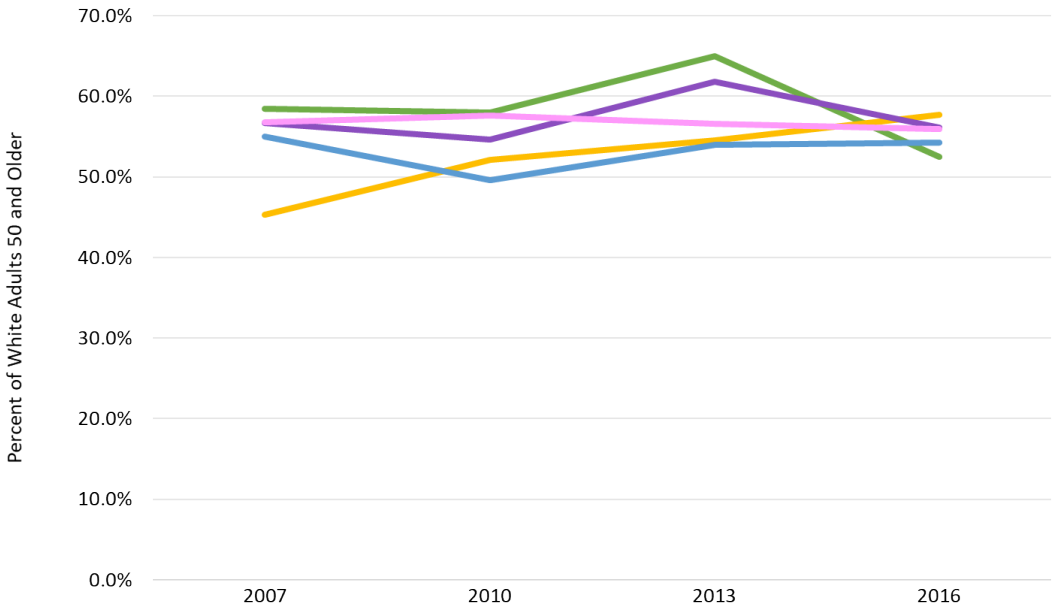
CHART 8.6: HISPANIC WOMEN AGES 18 YEARS AND OLDER WHO RECEIVED PAP TEST IN PAST YEAR (2007-2016)



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

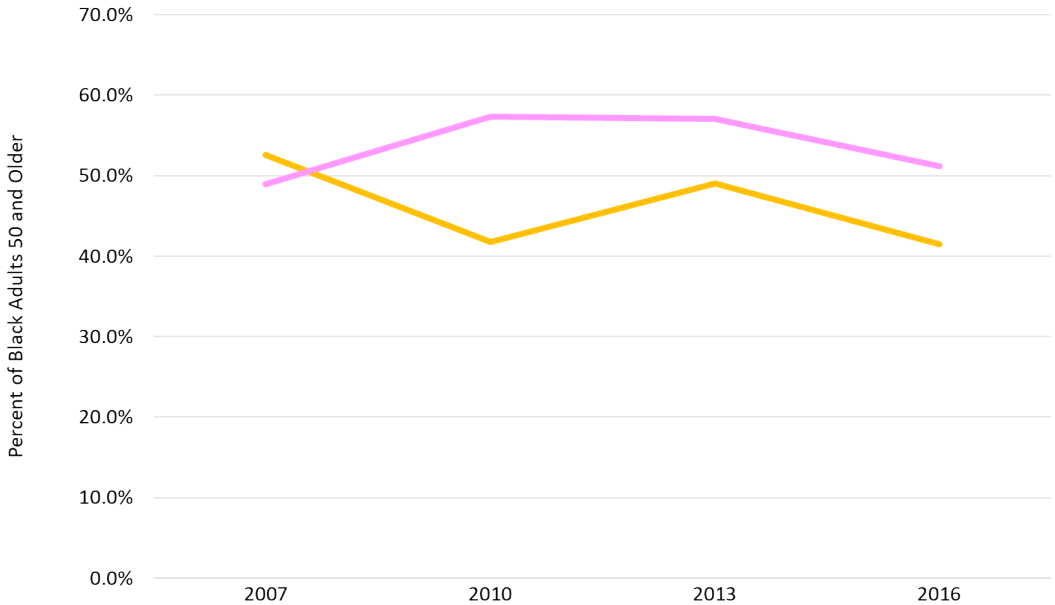
CHART 8.7: WHITE ADULTS AGES 50 AND OLDER WHO RECEIVED SIGMOIDOSCOPY OR COLONOSCOPY (2007-2016)



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

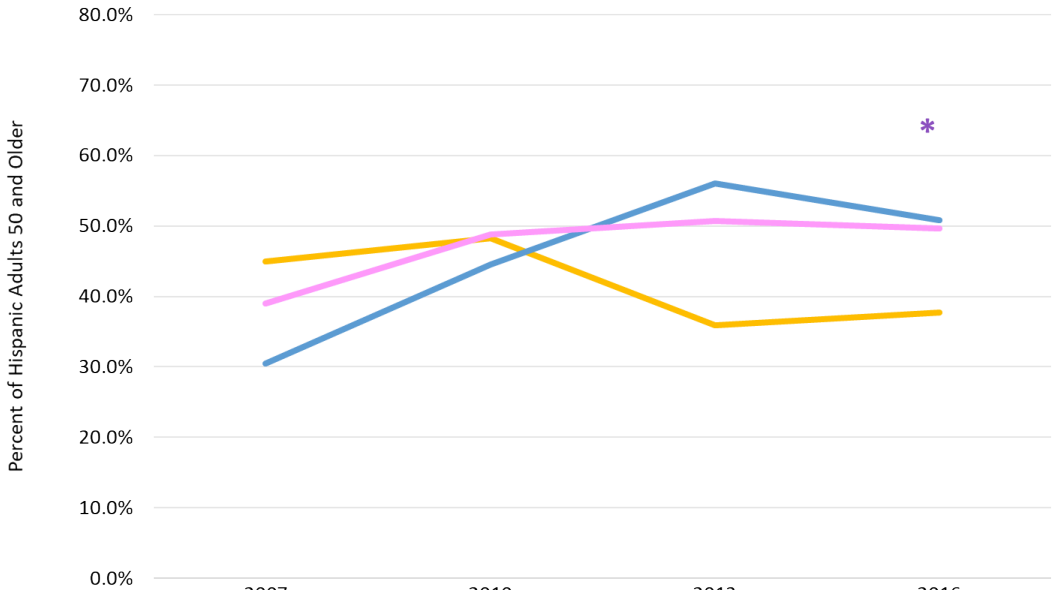
CHART 8.8: BLACK ADULTS AGES 50 AND OLDER WHO RECEIVED SIGMOIDOSCOPY OR COLONOSCOPY (2007-2016)



	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

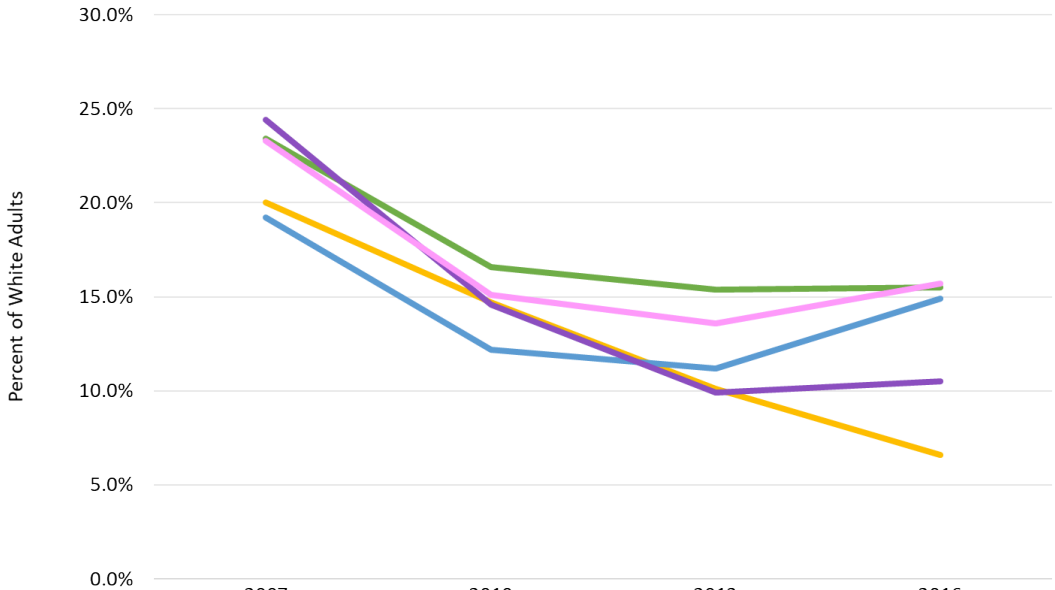
CHART 8.9: HISPANIC ADULTS AGES 50 AND OLDER WHO RECEIVED SIGMOIDOSCOPY OR COLONOSCOPY (2007-2016)



	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

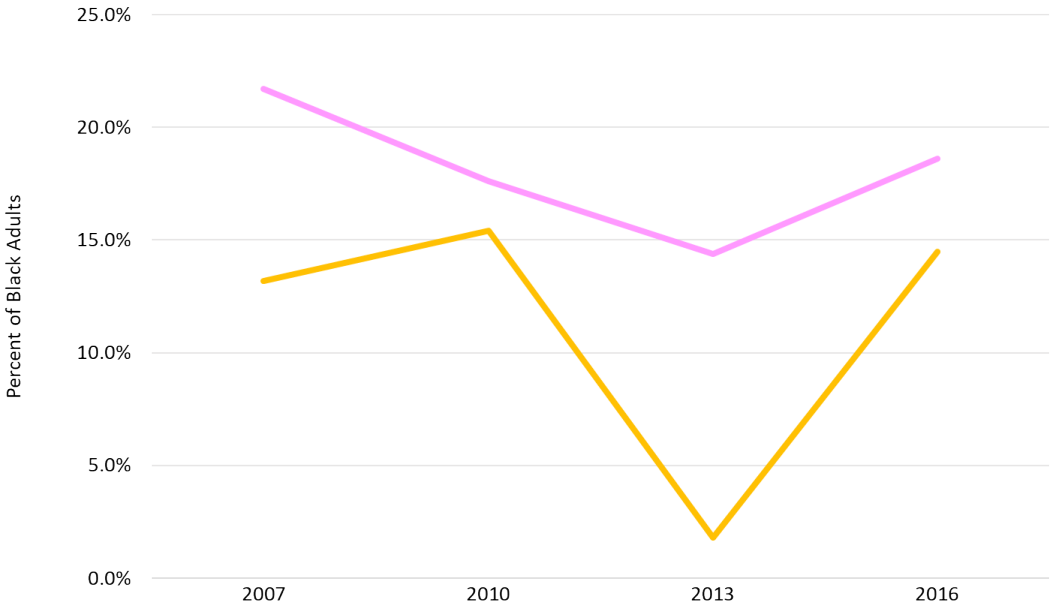
CHART 8.10: WHITE ADULTS AGES 50 AND OLDER WHO RECEIVED A BLOOD STOOL TEST IN THE PAST YEAR (2007-2016)



	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

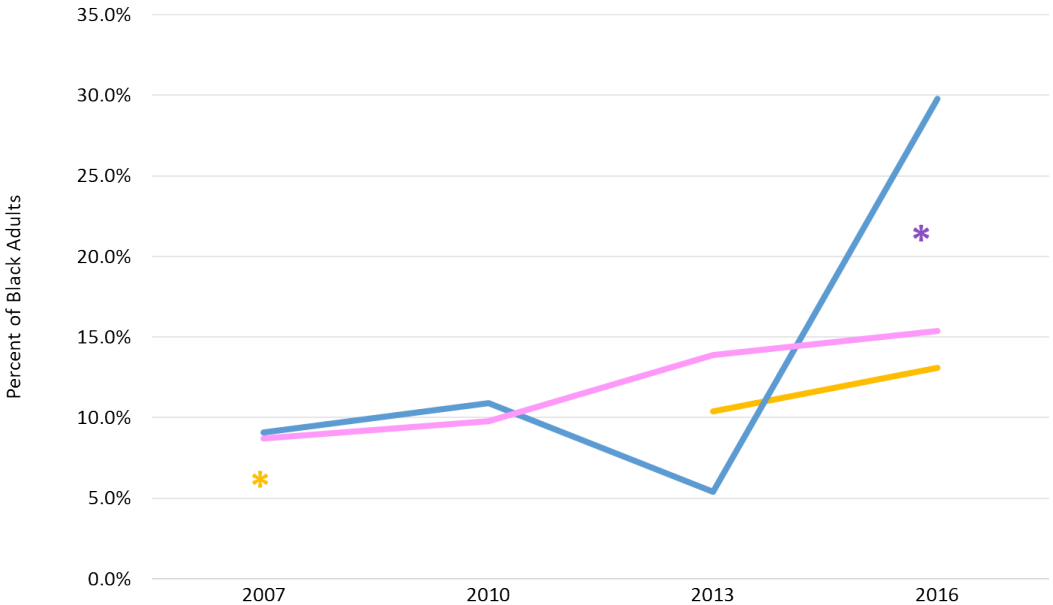
CHART 8.11: BLACK ADULTS AGES 50 AND OLDER WHO RECEIVED A BLOOD STOOL TEST IN THE PAST YEAR (2007-2016)



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

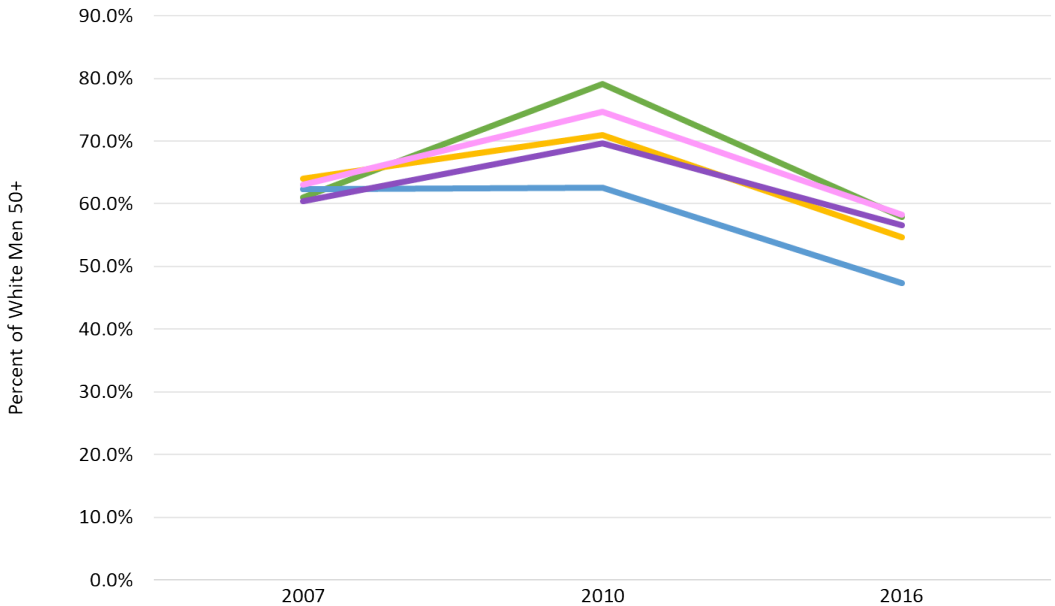
CHART 8.12: HISPANIC ADULTS AGES 50 AND OLDER WHO RECEIVED A BLOOD STOOL TEST IN THE PAST YEAR (2007-2016)



	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

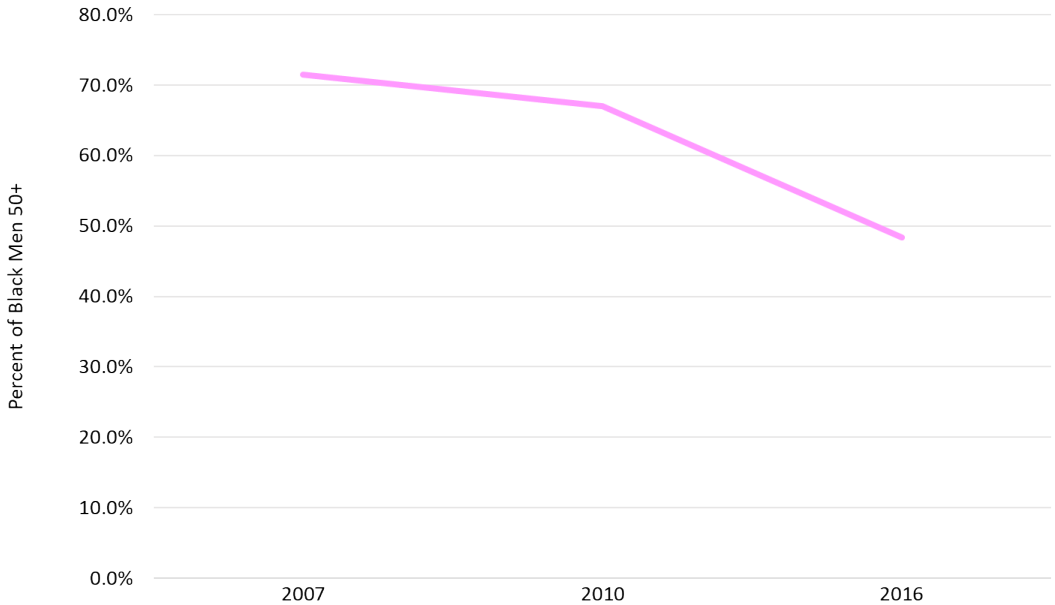
CHART 8.13: WHITE MEN AGES 50 AND OLDER WHO RECEIVED A PSA TEST IN THE PAST TWO YEARS (2007-2016)



	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

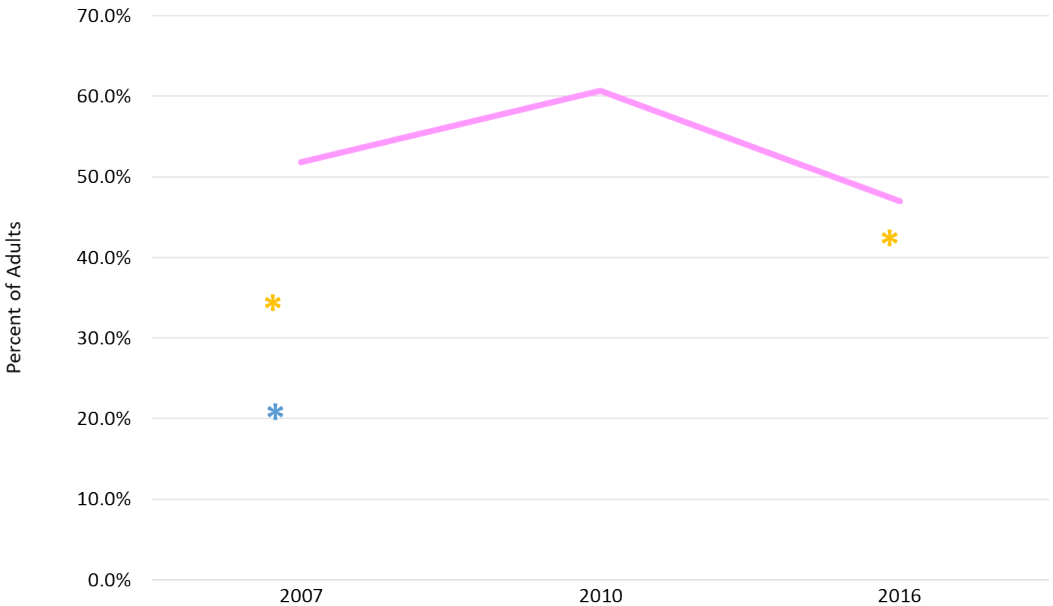
CHART 8.14: BLACK MEN AGES 50 AND OLDER WHO RECEIVED A PSA TEST IN THE PAST TWO YEARS (2007-2016)



	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

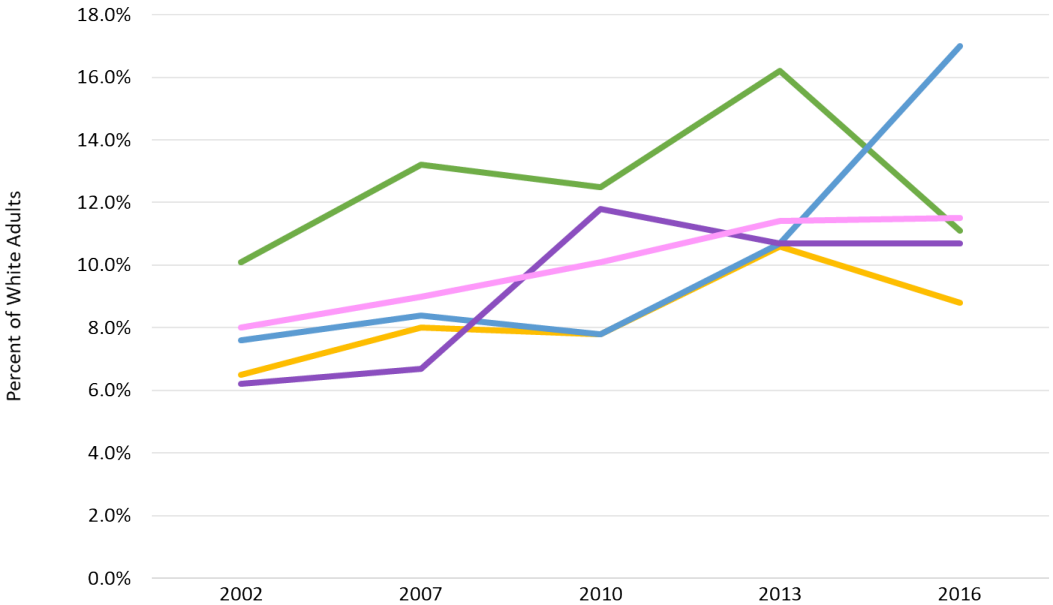
CHART 8.15: HISPANIC MEN AGES 50 AND OLDER WHO RECEIVED A PSA TEST IN THE PAST TWO YEARS (2007-2016)



	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

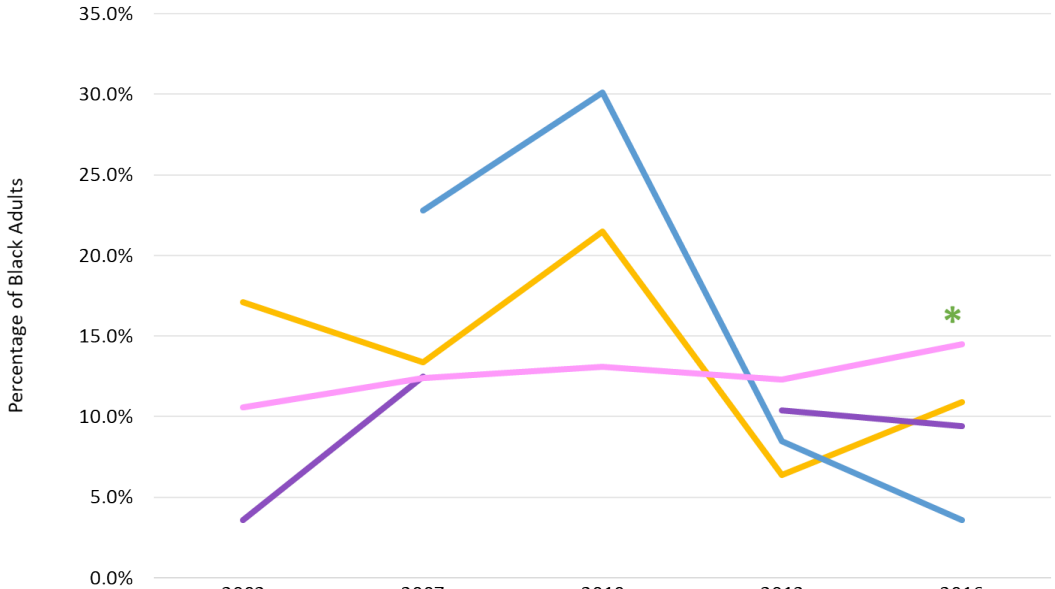
CHART 8.16: WHITE ADULTS WITH DIAGNOSED DIABETES (2002-2016)



	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

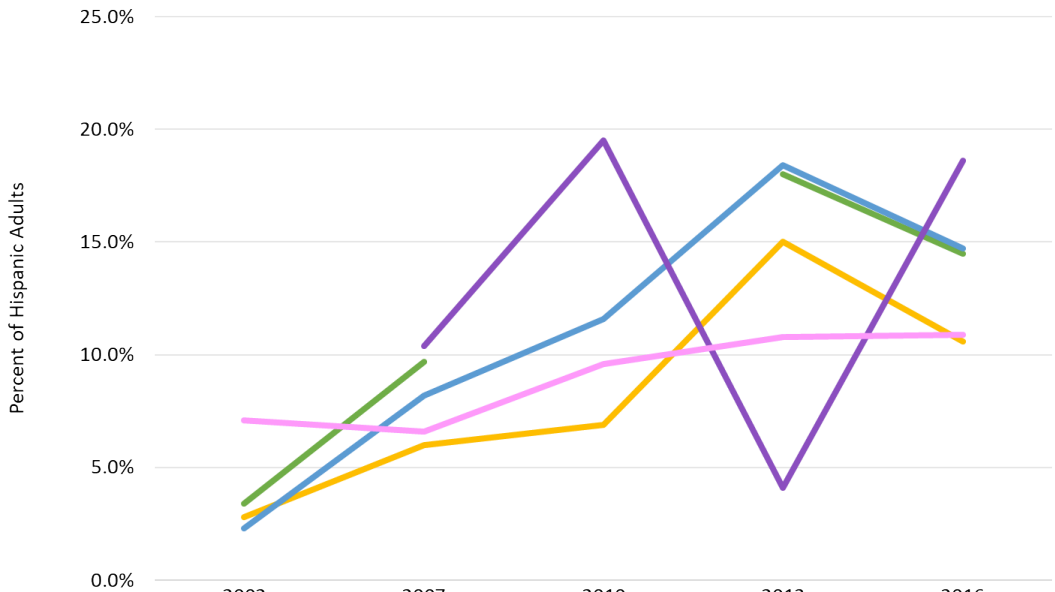
CHART 8.17: BLACK ADULTS WITH DIAGNOSED DIABETES (2002-2016)



	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

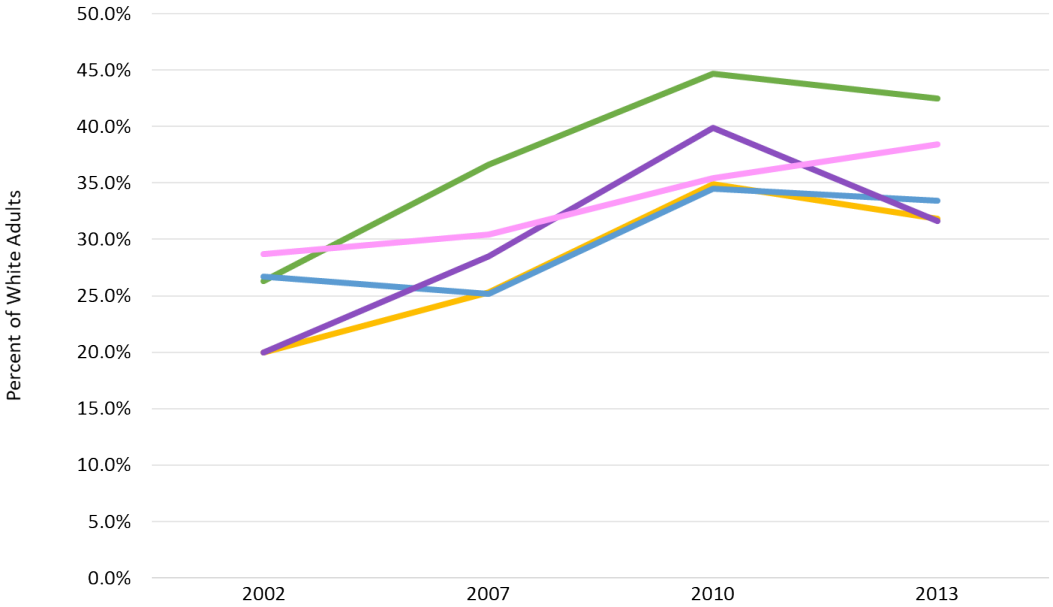
CHART 8.18: HISPANIC ADULTS WITH DIAGNOSED DIABETES (2002-2016)



	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

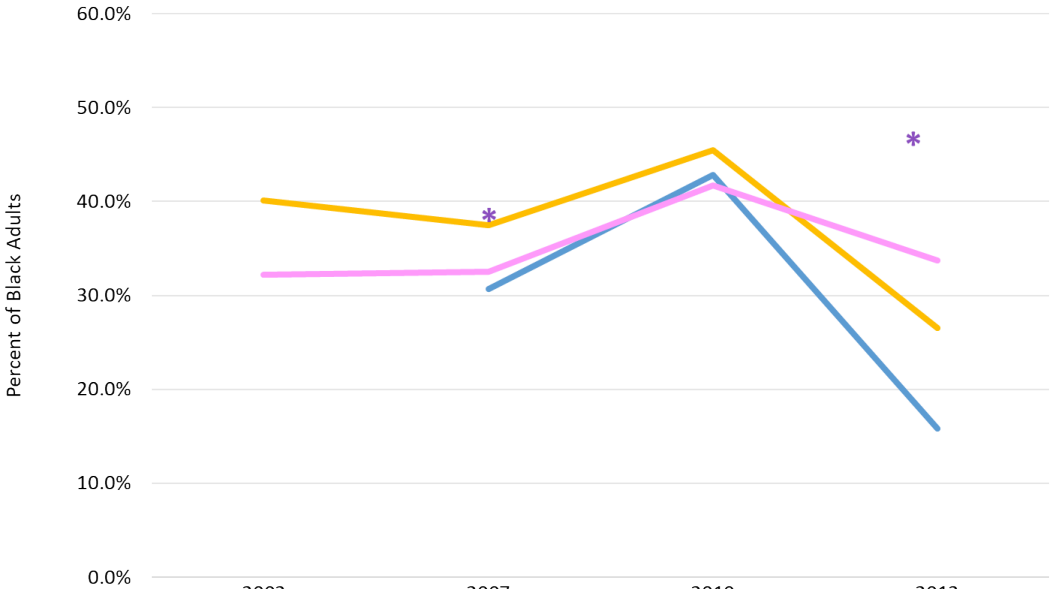
CHART 8.19: WHITE ADULTS WHO HAVE BEEN TOLD THEY HAVE HYPERTENSION (2002-2013)



	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

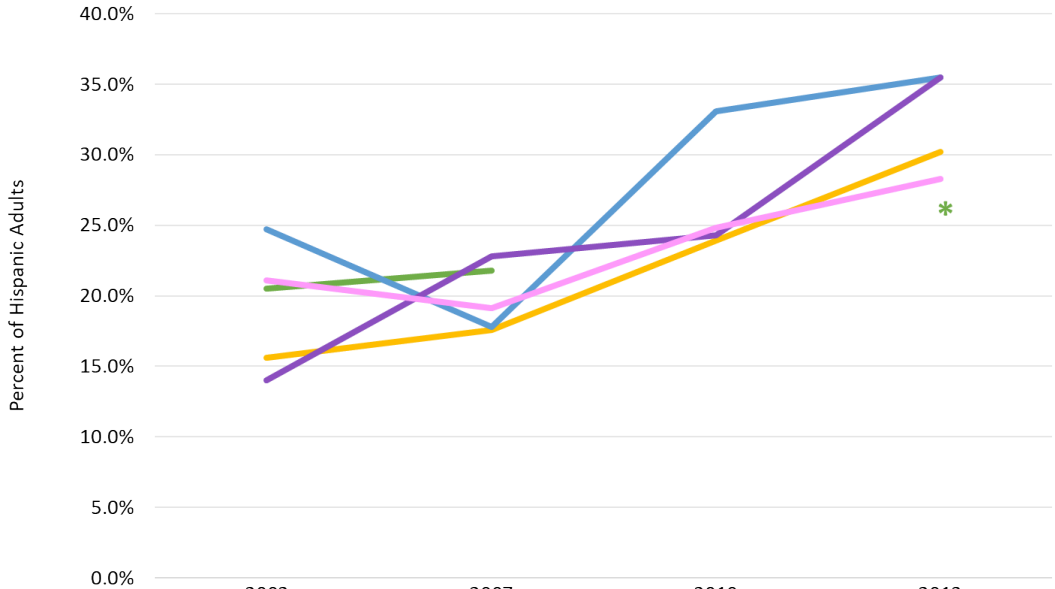
CHART 8.20: BLACK ADULTS WHO HAVE BEEN TOLD THEY HAVE HAVE HYPERTENSION (2002-2013)



	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

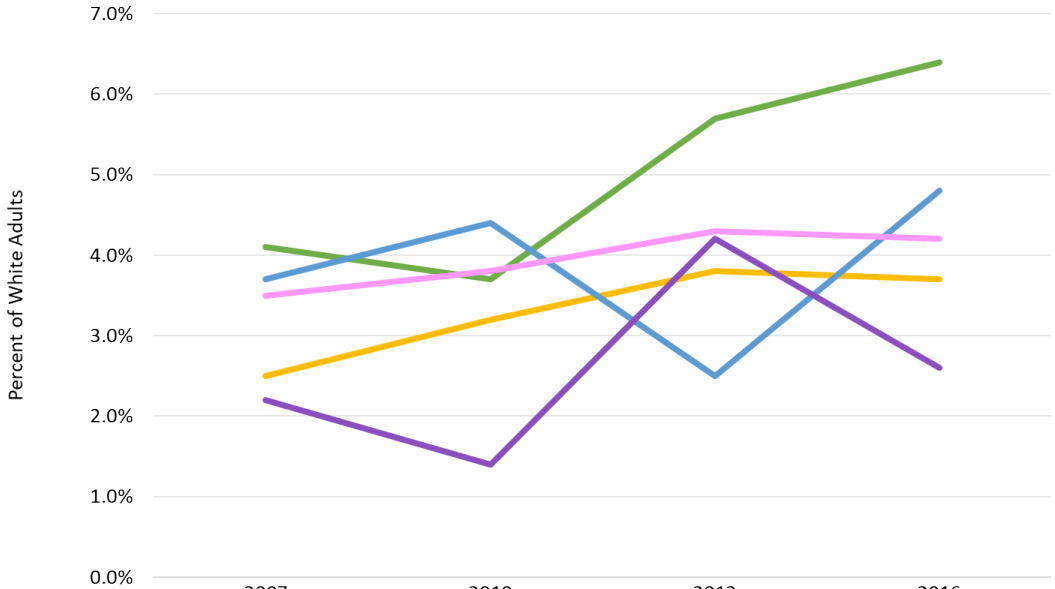
CHART 8.21: HISPANIC ADULTS WHO HAVE BEEN TOLD THEY HAVE HYPERTENSION (2002-2013)



	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

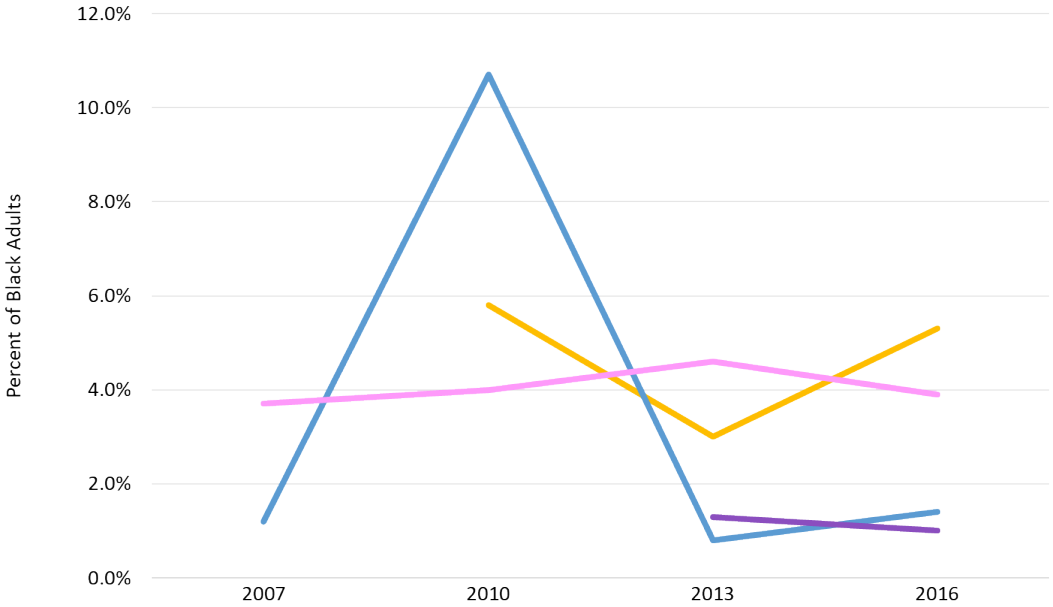
CHART 8.22: WHITE ADULTS WHO HAVE BEEN TOLD THEY HAD A STROKE (2007-2016)



	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

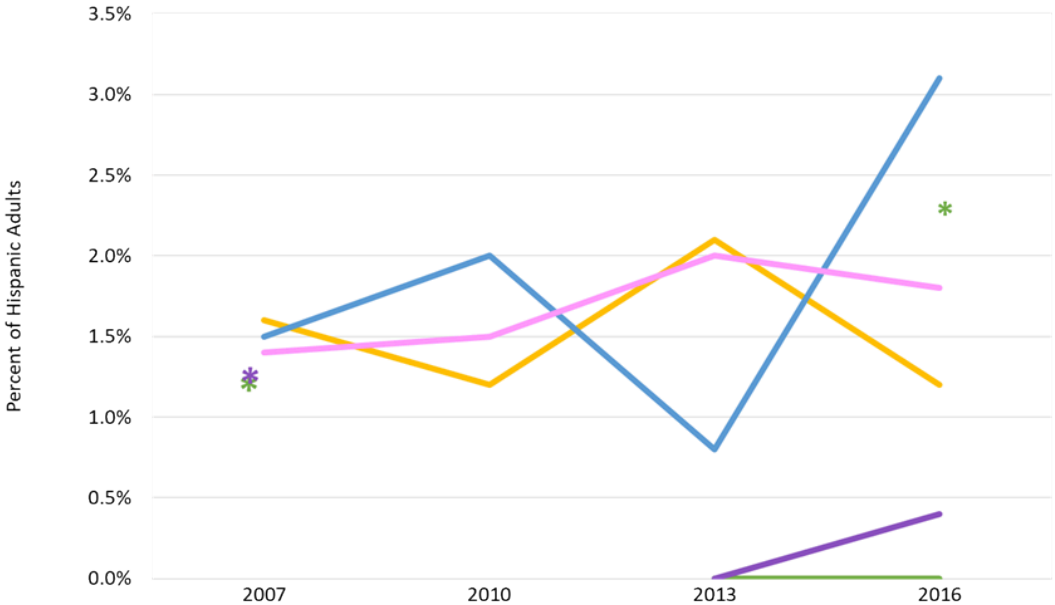
CHART 8.23: BLACK ADULTS WHO HAVE BEEN TOLD THEY HAD A STROKE (2007-2016)



	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

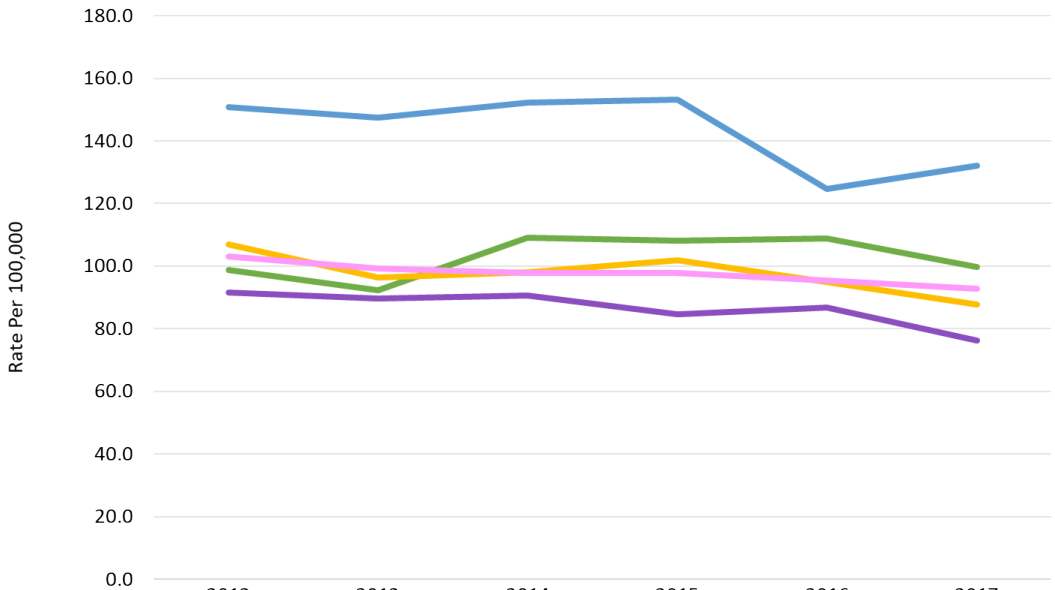
CHART 8.24: HISPANIC ADULTS WHO HAVE BEEN TOLD THEY HAD A STROKE (2007-2016)



	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

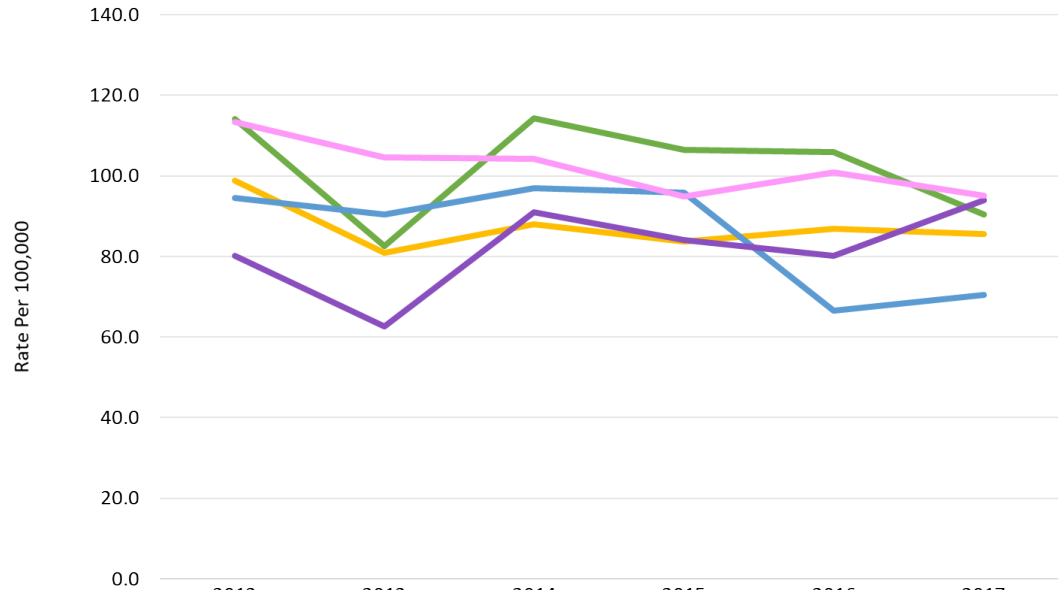
CHART 8.25: WHITE AGE-ADJUSTED DEATH RATE FOR CORONARY HEART DISEASE (2012-2017)



	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, Bureau of Vital Statistics

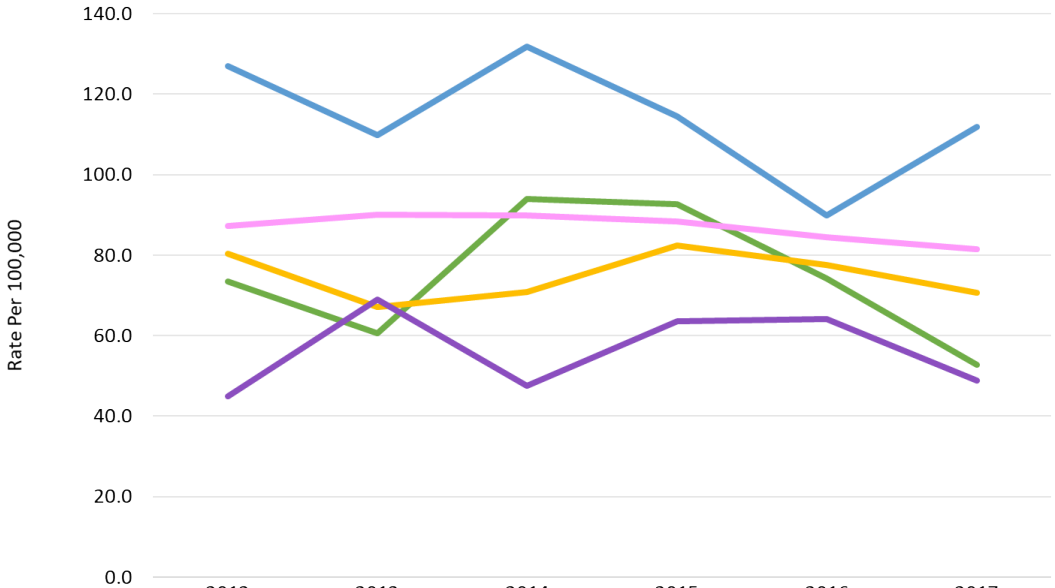
CHART 8.26: BLACK AGE-ADJUSTED DEATH RATE FOR CORONARY HEART DISEASE (2012-2017)



	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, Bureau of Vital Statistics

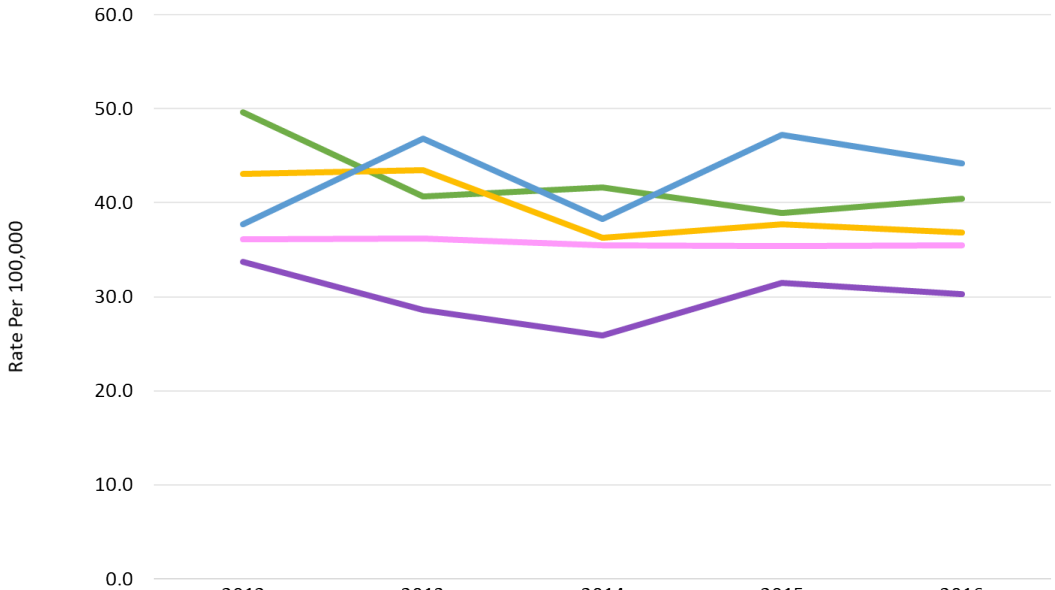
CHART 8.27: HISPANIC AGE-ADJUSTED DEATH RATE FOR CORONARY HEART DISEASE (2012-2017)



	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, Bureau of Vital Statistics

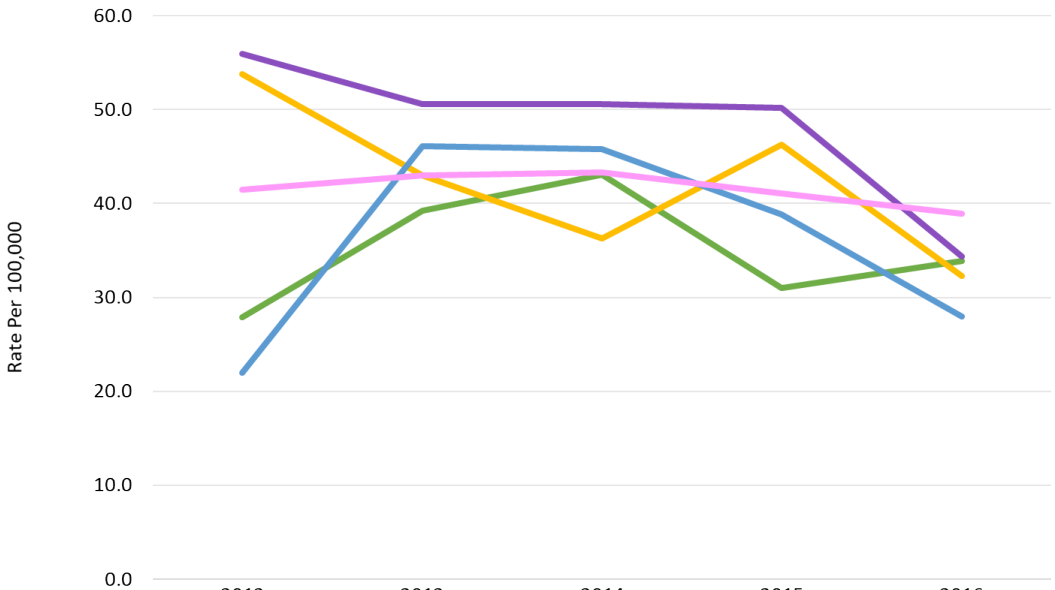
CHART 8.28: WHITE AGE-ADJUSTED COLORECTAL CANCER INCIDENCE (2012-2016)



	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

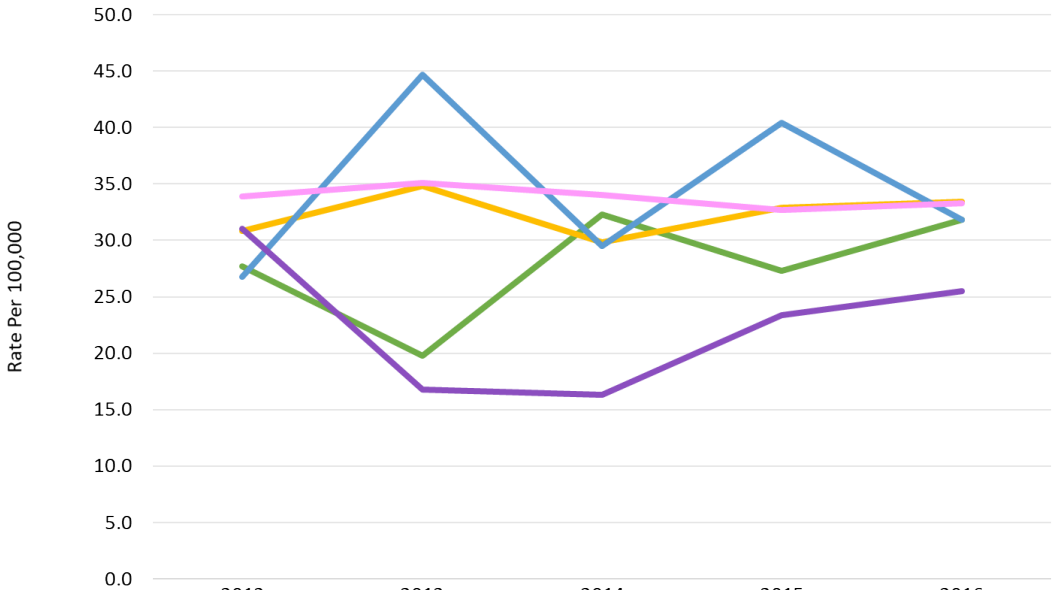
CHART 8.29: BLACK AGE-ADJUSTED COLORECTAL CANCER INCIDENCE (2012-2016)



	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

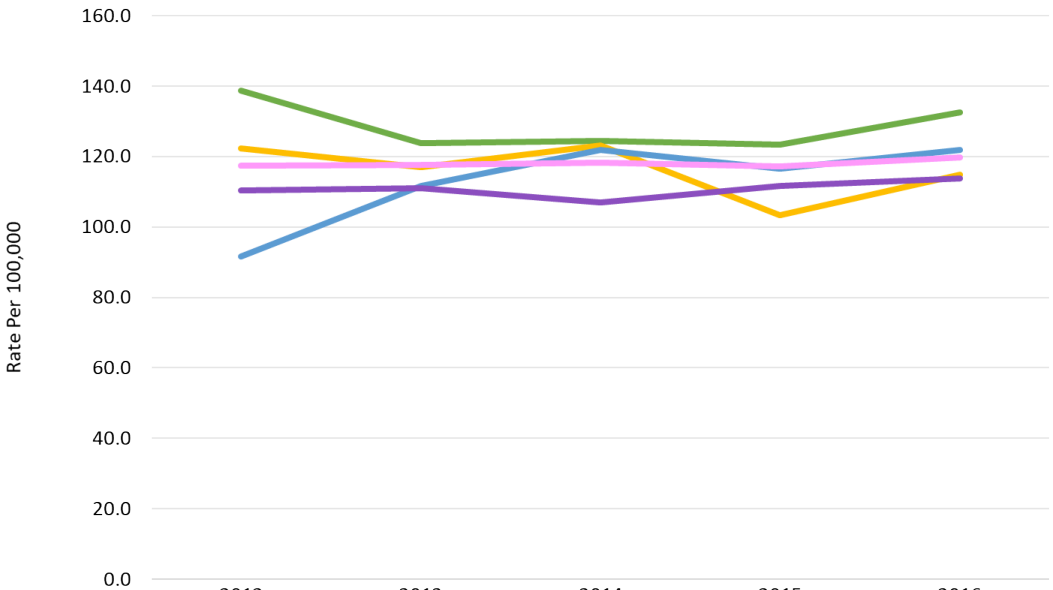
CHART 8.30: HISPANIC AGE-ADJUSTED COLORECTAL CANCER INCIDENCE (2012-2016)



	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

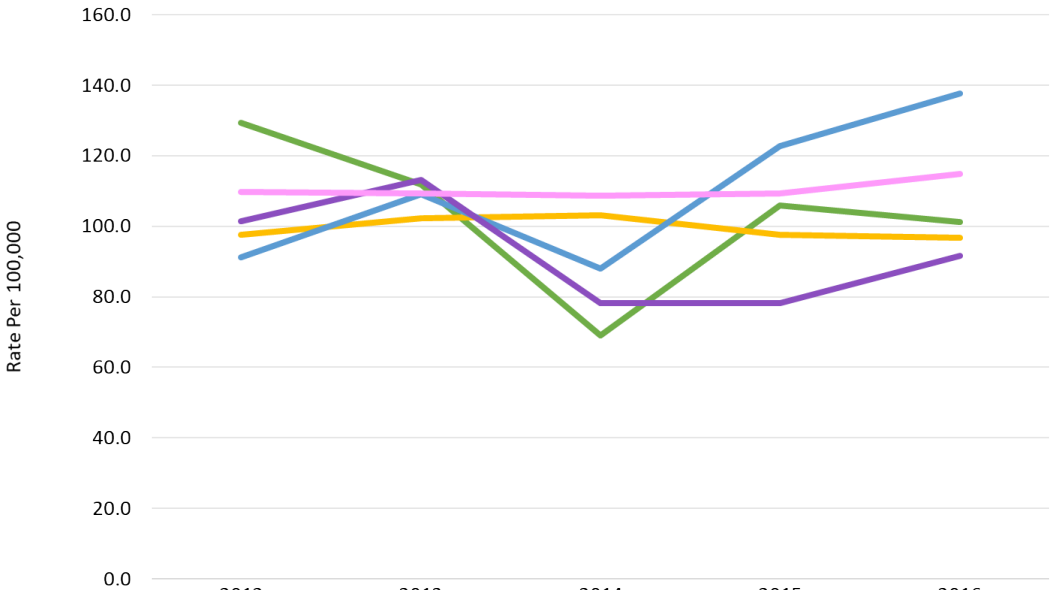
CHART 8.31: WHITE FEMALE BREAST CANCER INCIDENCE (2012-2016)



	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

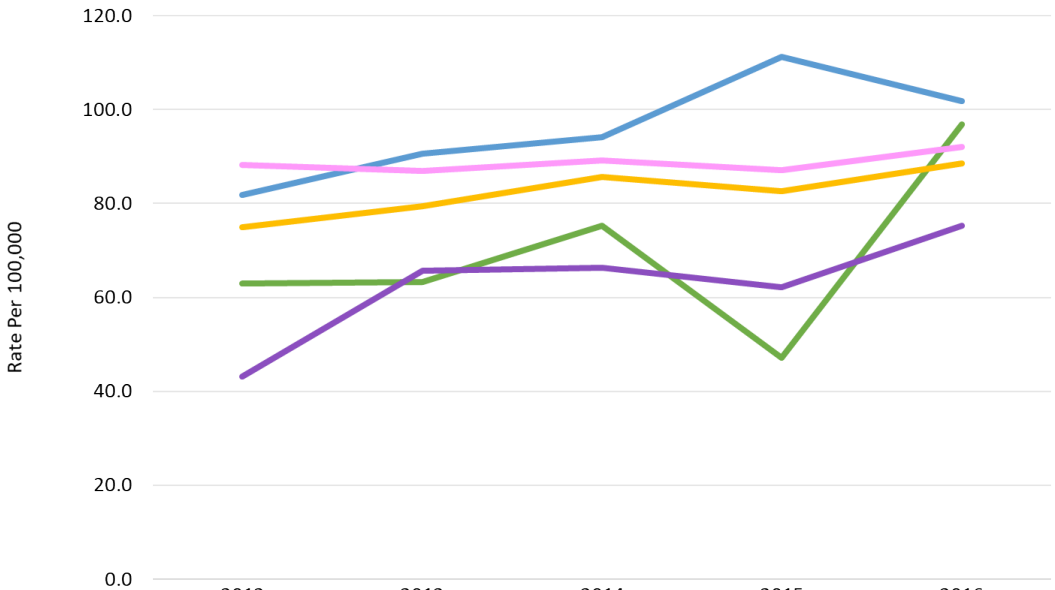
CHART 8.32: BLACK FEMALE BREAST CANCER INCIDENCE (2012-2016)



	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

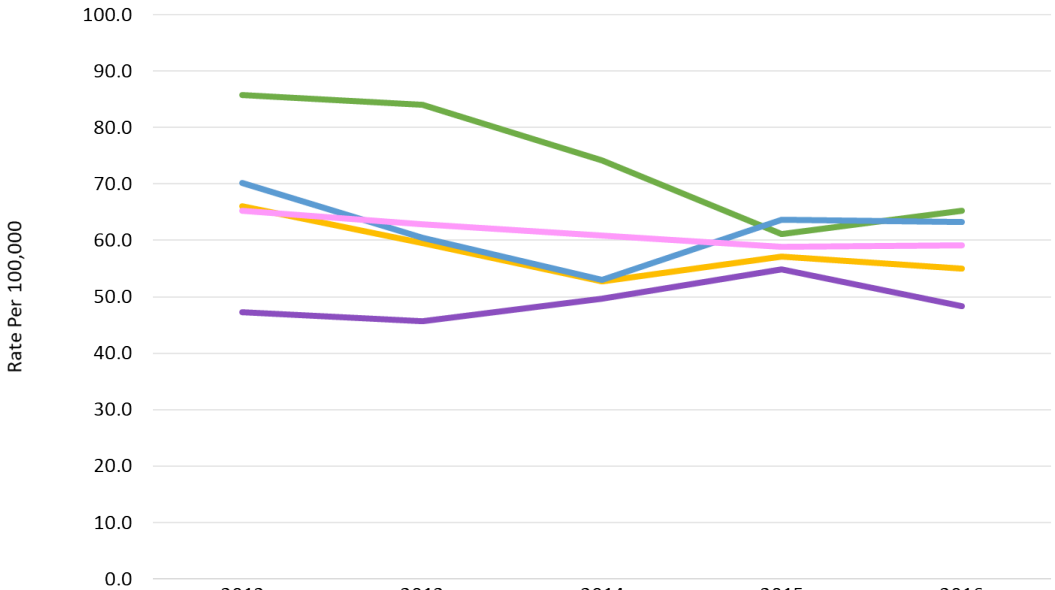
CHART 8.33: HISPANIC FEMALE BREAST CANCER INCIDENCE (2012-2016)



	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

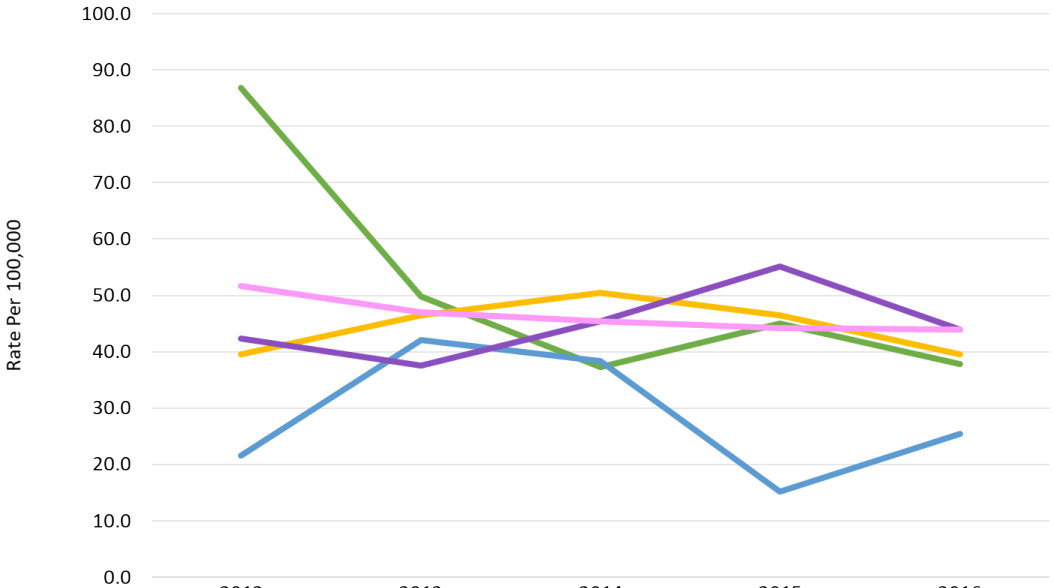
CHART 8.34: WHITE LUNG CANCER INCIDENCE (2012-2016)



	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

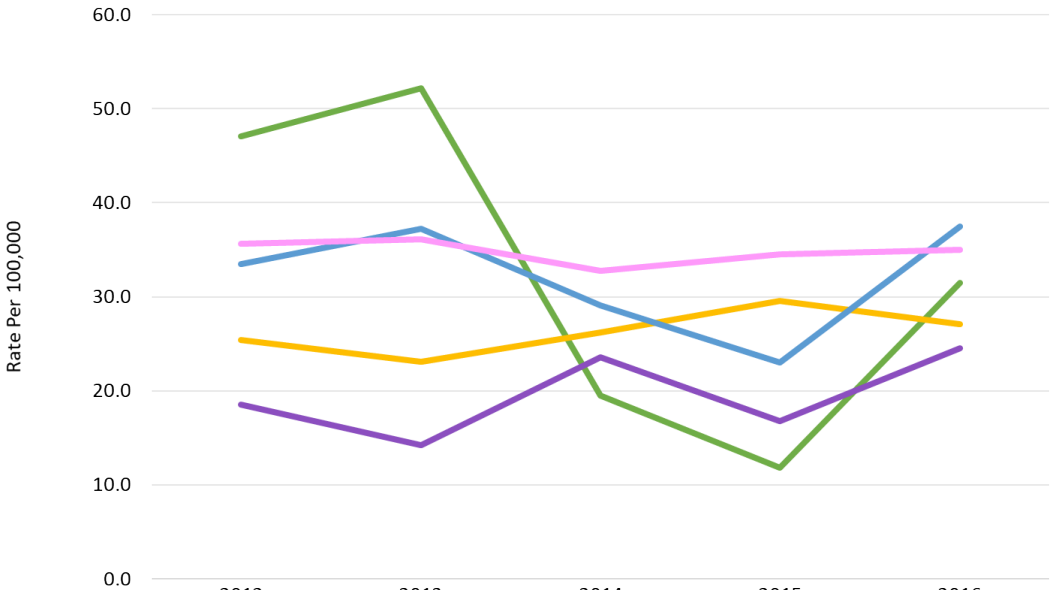
CHART 8.35: BLACK LUNG CANCER INCIDENCE (2012-2016)



	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

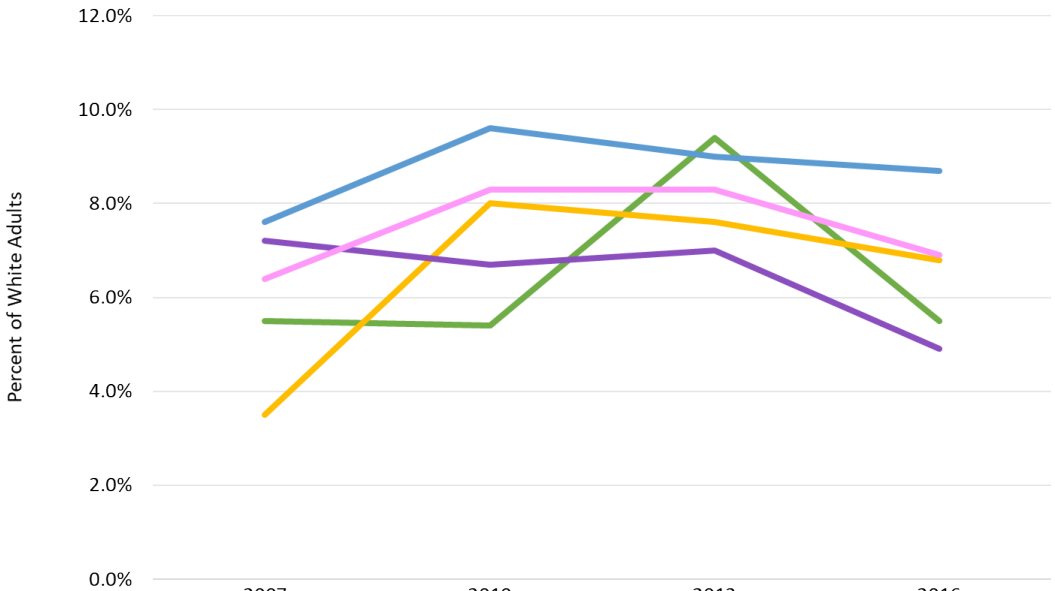
CHART 8.36: HISPANIC LUNG CANCER INCIDENCE (2012-2016)



	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

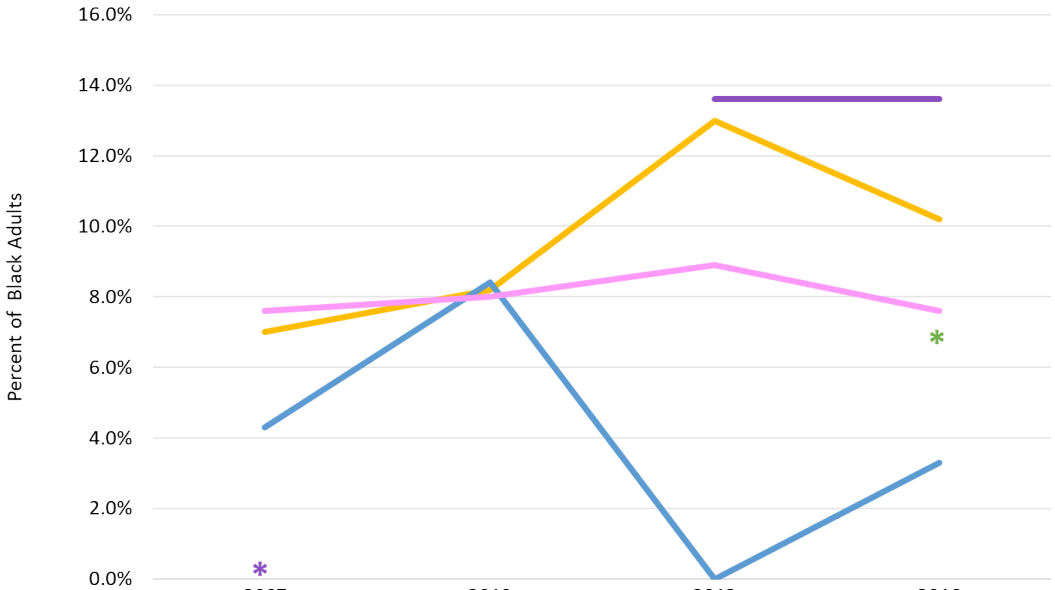
CHART 8.37: WHITE ADULTS CURRENTLY WITH ASTHMA (2007-2016)



	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

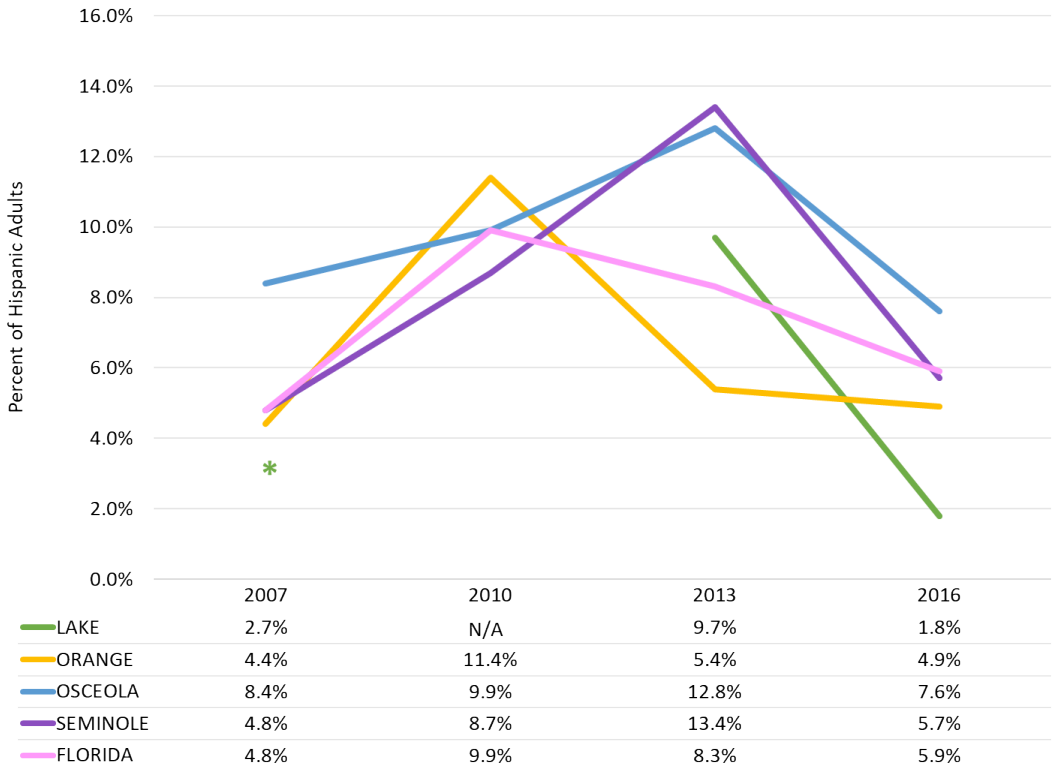
CHART 8.38: BLACK ADULTS CURRENTLY WITH ASTHMA (2007-2016)



	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, LAKE COUNTY (2017)

Highest rates for each condition are highlighted in red.

	White	Black/ Other	White Hispanic	Black Hispanic
Heart diseases	227.0	207.2	82.7	32.9
Cancer	221.5	171.6	89.3	46.1
Cerebrovascular diseases	47.5	63.9	25.7	11.3
Chronic lower respiratory disease	47.4	25.6	12.2	7.3
Unintentional injury	69.4	43.0	33.2	15.3
Diabetes mellitus	22.5	45.5	21.7	9.8

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

TABLE 8.2: 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

TABLE 8.3: LEADING CAUSES OF DEATH BY RACE/ETHNICITY PER 100,000, OSCEOLA COUNTY (2017)

	White	Black/ Other	White Hispanic	Black Hispanic
Heart diseases	313.2	147.2	126.9	40.8
Cancer	245.3	110.1	104.8	26.5
Cerebrovascular diseases	54.5	42.2	31.9	12.4
Unintentional injury	65.9	28.6	29.2	6.7
Chronic lower respiratory disease	70.6	16.3	17.5	3.1
Diabetes mellitus	29.3	28.2	18.6	5.3

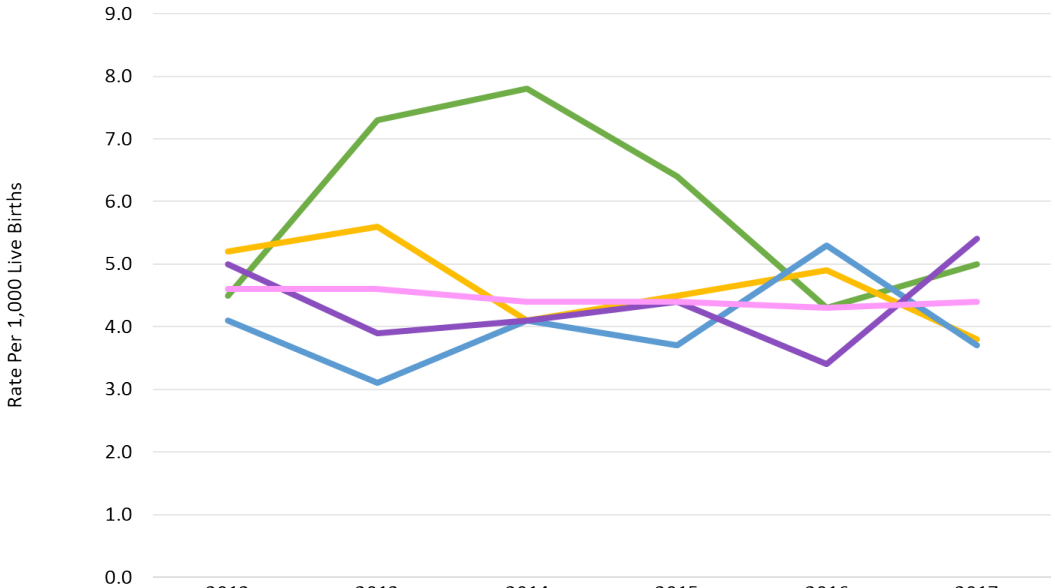
Source: FLHealthCHARTS: Florida Department of Health, Bureau of Vital Statistics

TABLE 8.4: LEADING CAUSES OF DEATH BY RACE/ETHNICITY PER 100,000, SEMINOLE COUNTY (2017)

	White	Black/ Other	White Hispanic	Black Hispanic
Heart diseases	247.2	201.6	106.9	45.1
Cancer	231.8	183.7	104.2	61.4
Cerebrovascular diseases	52.1	59.9	32.2	19.3
Chronic lower respiratory disease	56.9	27.6	15.1	4.9
Unintentional injury	49.5	31.1	23.6	14.5
Diabetes mellitus	23.8	44.5	19.5	10.5

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

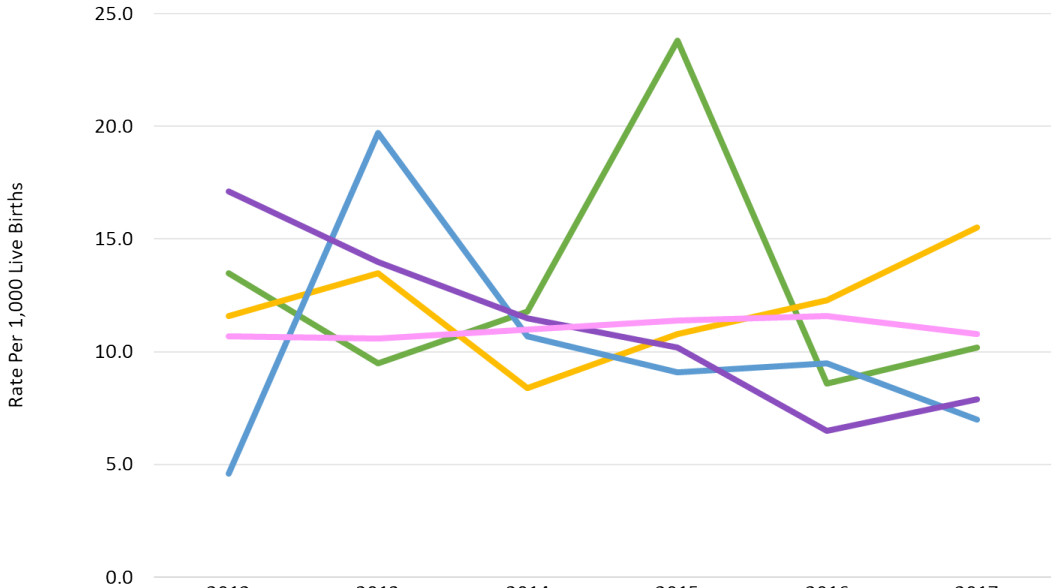
CHART 8.40: WHITE INFANT MORTALITY RATE (2012-2017)



	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

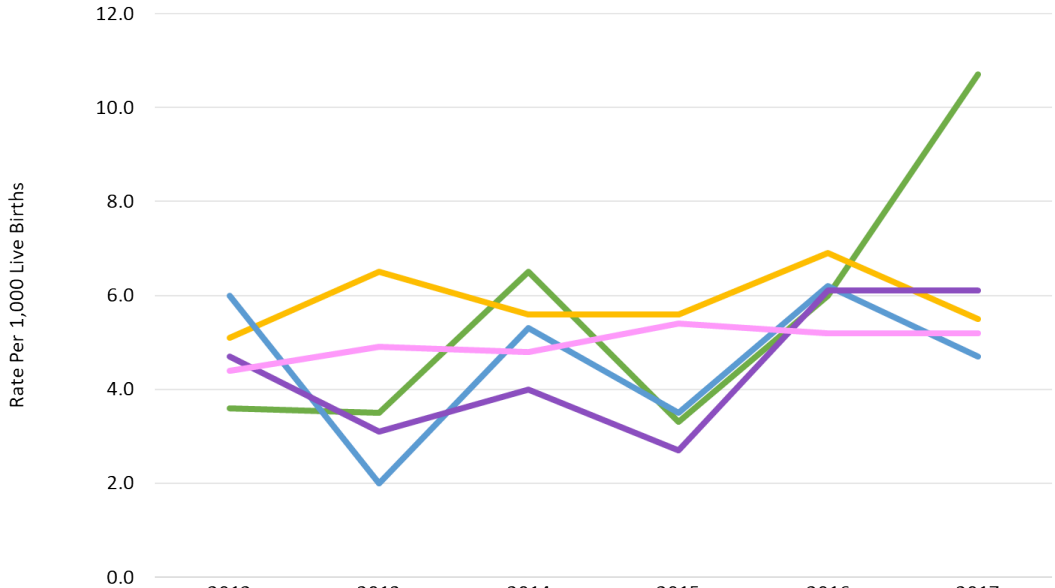
CHART 8.41: BLACK INFANT MORTALITY RATE (2012-2017)



	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

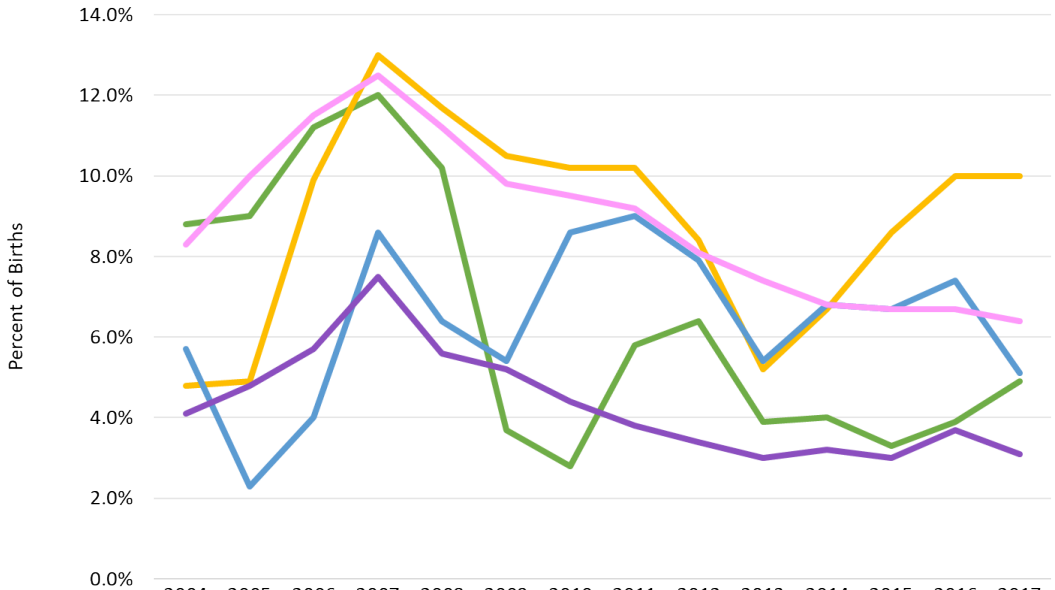
CHART 8.42: HISPANIC INFANT MORTALITY RATE (2012-2017)



	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, Bureau of Vital Statistics

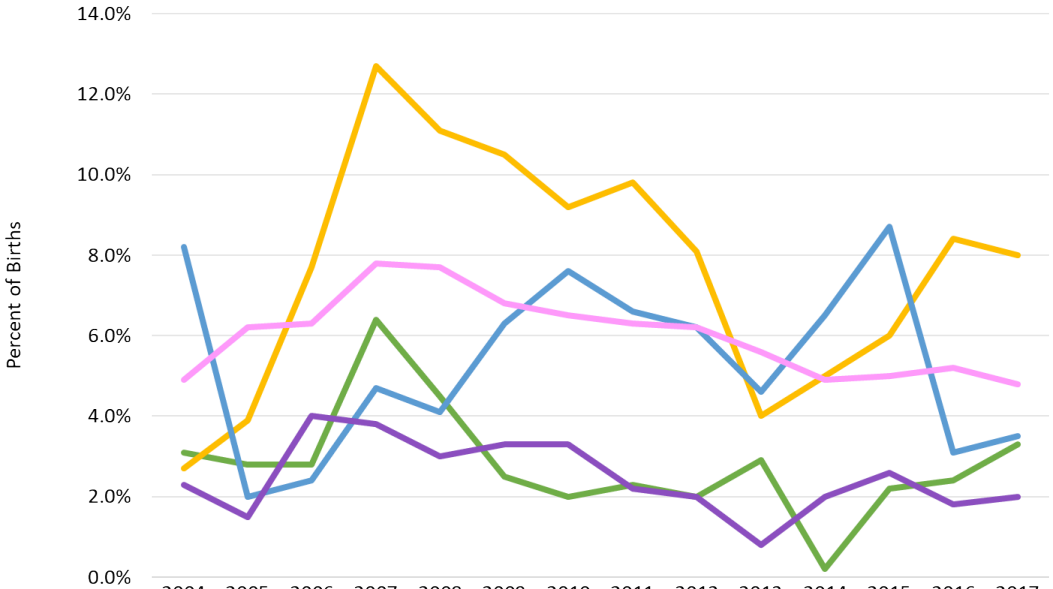
CHART 8.43: BIRTHS TO WHITE WOMEN WITH SELF-PAY FOR DELIVERY PAYMENT SOURCE (2004-2017)



	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, Bureau of Vital Statistics

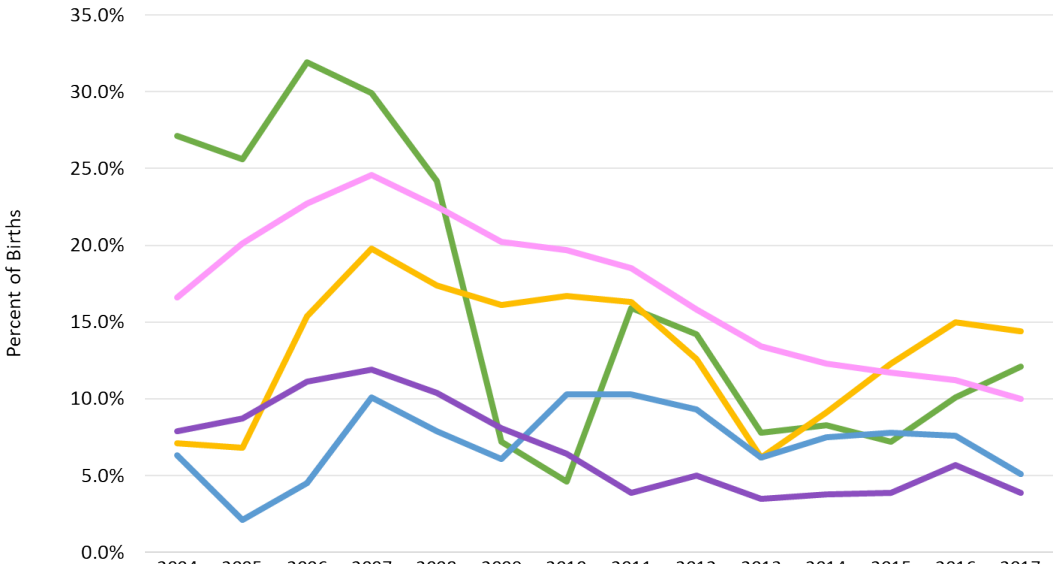
CHART 8.44: BIRTHS TO BLACK WOMEN WITH SELF-PAY FOR DELIVERY PAYMENT SOURCE (2004-2017)



	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, Bureau of Vital Statistics

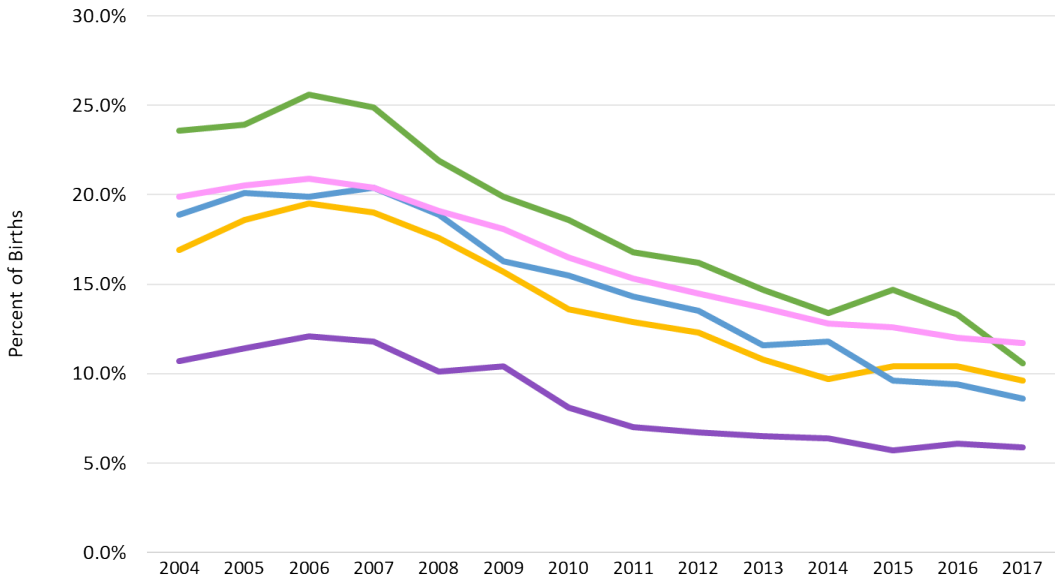
CHART 8.45: BIRTHS TO HISPANIC WOMEN WITH SELF-PAY FOR DELIVERY PAYMENT SOURCE (2004-2017)



	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, Bureau of Vital Statistics

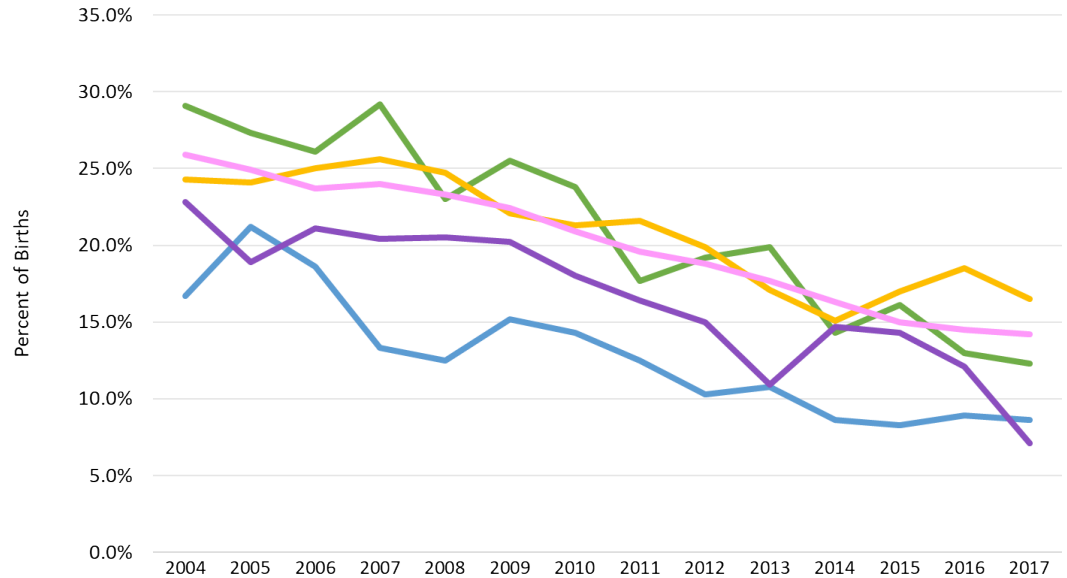
CHART 8.46: WHITE MOTHERS WITH LESS THAN A HIGH SCHOOL EDUCATION (2004-2017)



	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, Bureau of Vital Statistics

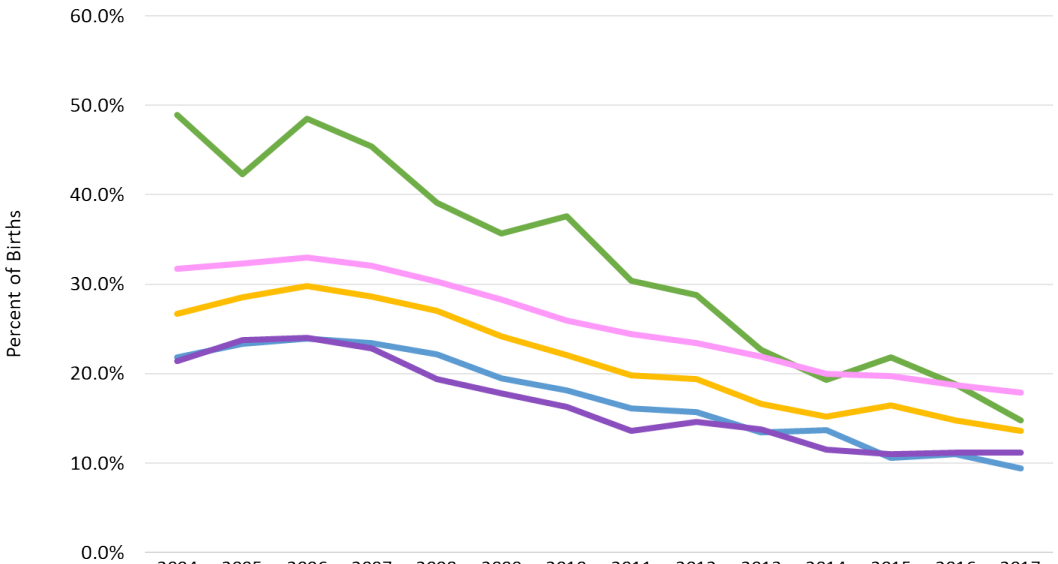
CHART 8.47: BLACK MOTHERS WITH LESS THAN A HIGH SCHOOL EDUCATION (2004-2017)



	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, Bureau of Vital Statistics

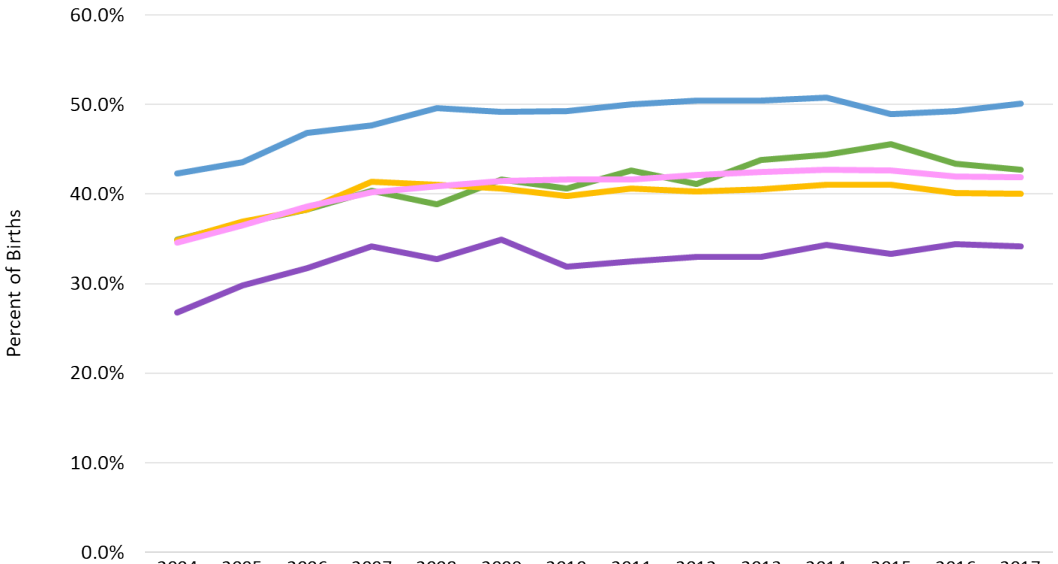
CHART 8.48: HISPANIC MOTHERS WITH LESS THAN A HIGH SCHOOL EDUCATION (2004-2017)



	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, Bureau of Vital Statistics

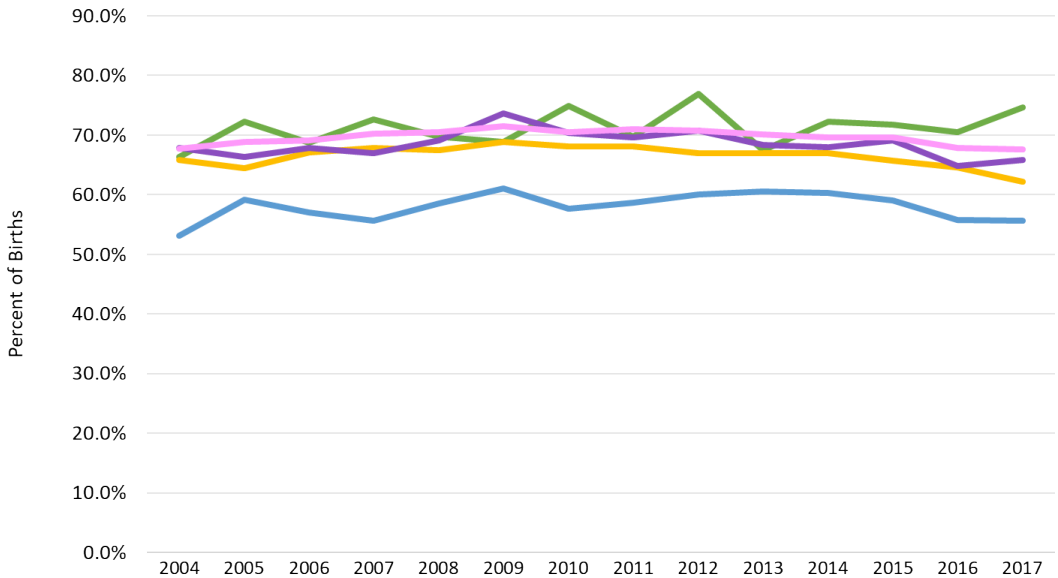
CHART 8.49: BIRTHS TO UNWED WHITE MOTHERS (2004-2017)



	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, Bureau of Vital Statistics

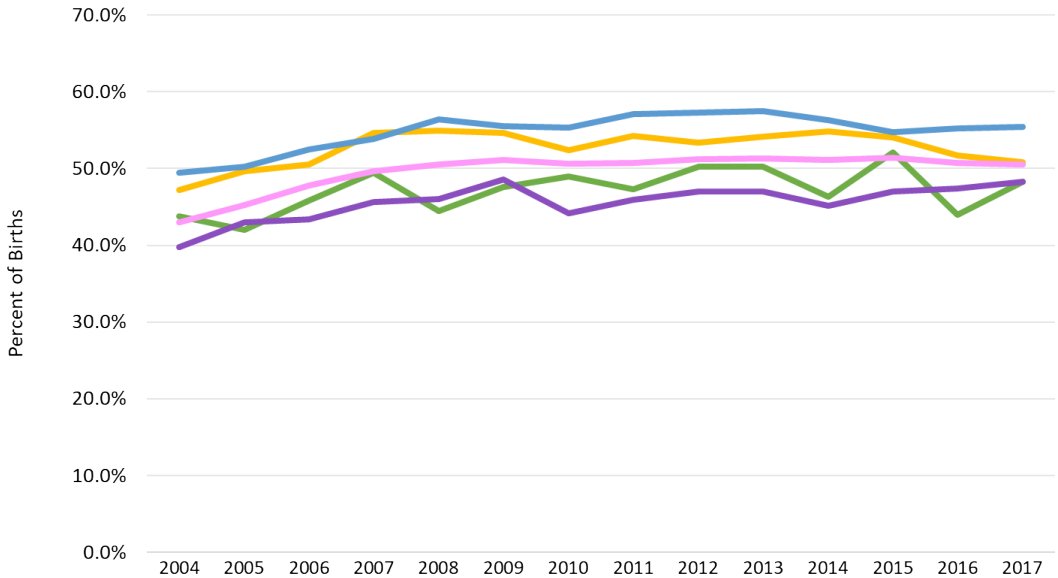
CHART 8.50: BIRTHS TO UNWED BLACK MOTHERS (2004-2017)



	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, Bureau of Vital Statistics

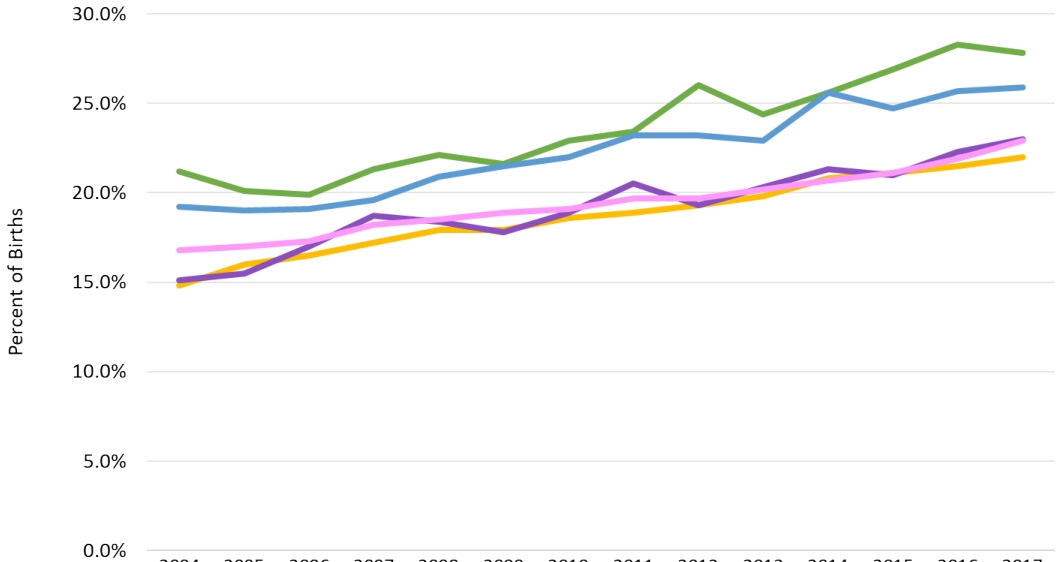
CHART 8.51: BIRTHS TO UNWED HISPANIC MOTHERS (2004-2017)



	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, Bureau of Vital Statistics

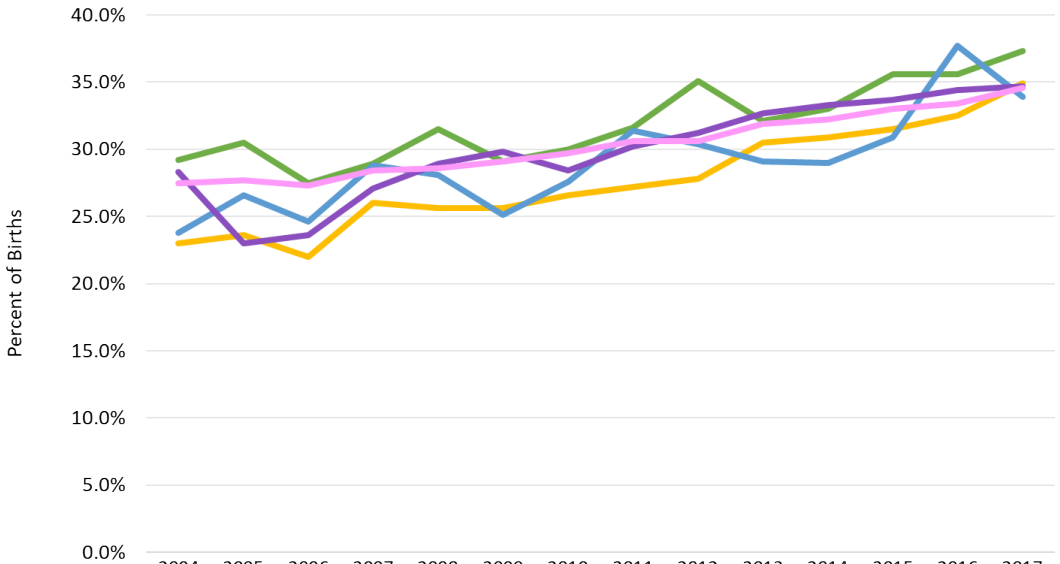
CHART 8.52: BIRTHS TO WHITE WOMEN WHO WERE OBESE DURING PREGNANCY (2004-2017)



	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, Bureau of Vital Statistics

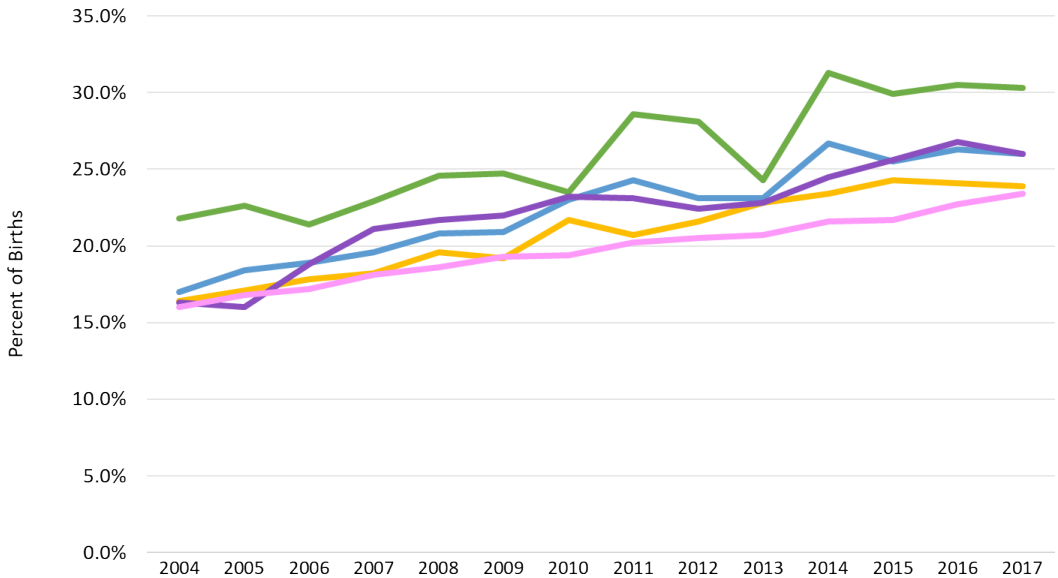
CHART 8.53: BIRTHS TO BLACK WOMEN WHO WERE OBESE DURING PREGNANCY (2004-2017)



	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, Bureau of Vital Statistics

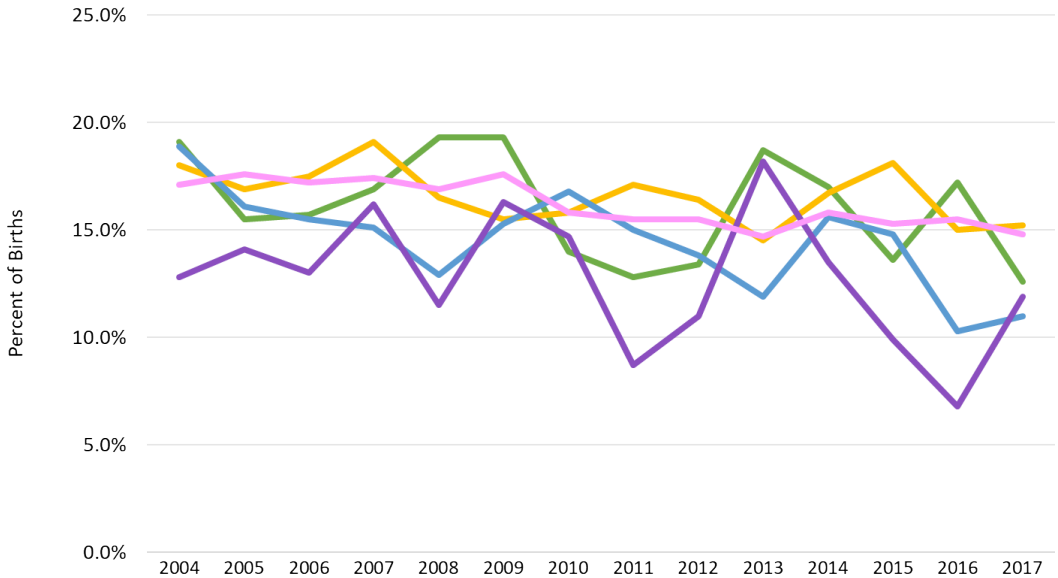
CHART 8.54: BIRTHS TO HISPANIC WOMEN WHO WERE OBESE DURING PREGNANCY (2004-2017)



	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, Bureau of Vital Statistics

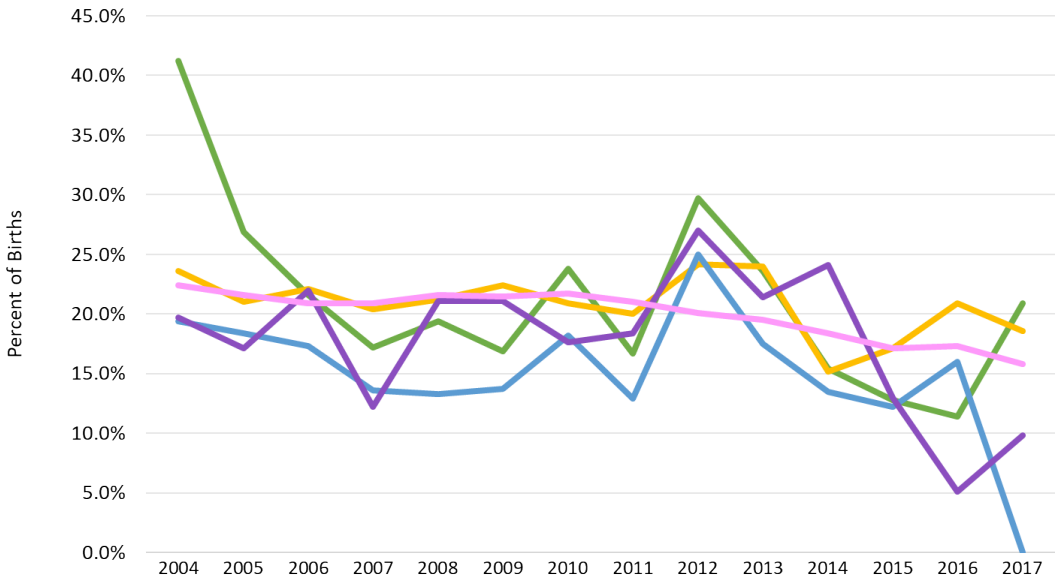
CHART 8.55: REPEAT BIRTHS TO WHITE MOTHERS AGES 15-19 (2004-2017)



	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, Bureau of Vital Statistics

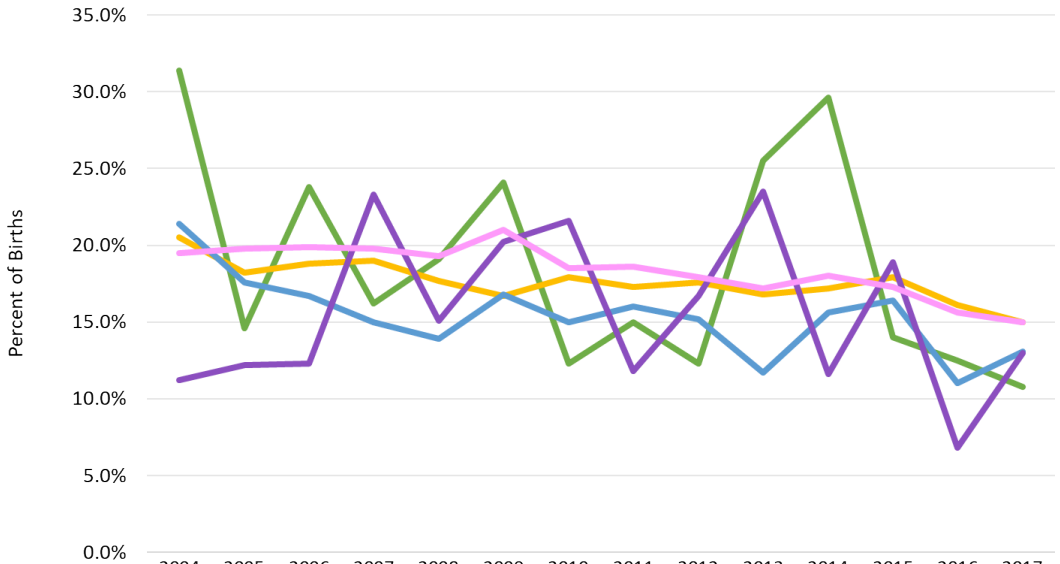
CHART 8.56: REPEAT BIRTHS TO BLACK MOTHERS AGES 15-19 (2004-2017)



	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, Bureau of Vital Statistics

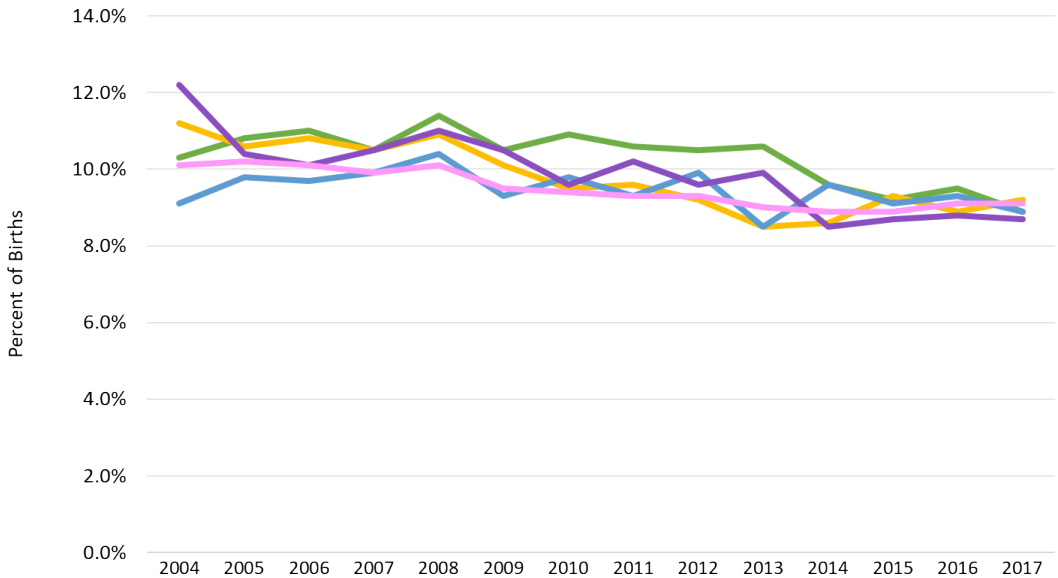
CHART 8.57: REPEAT BIRTHS TO HISPANIC MOTHERS AGES 15-19 (2004-2017)



	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, Bureau of Vital Statistics

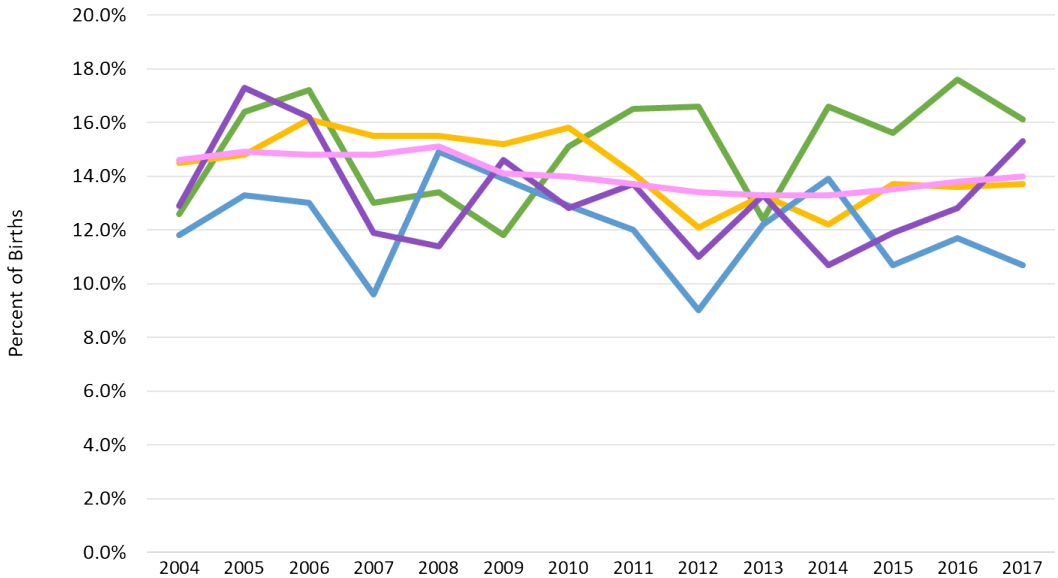
CHART 8.58: WHITE PRETERM BIRTH RATE <37 WEEKS (2004-2007)



	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, Bureau of Vital Statistics

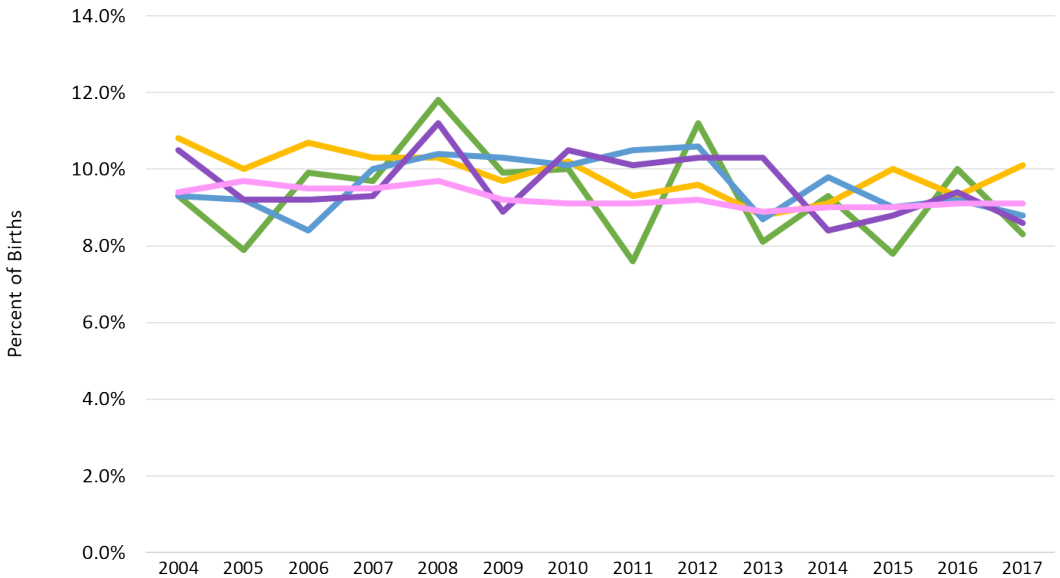
CHART 8.59: BLACK PRETERM BIRTH RATE <37 WEEKS (2004-2017)



	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, Bureau of Vital Statistics

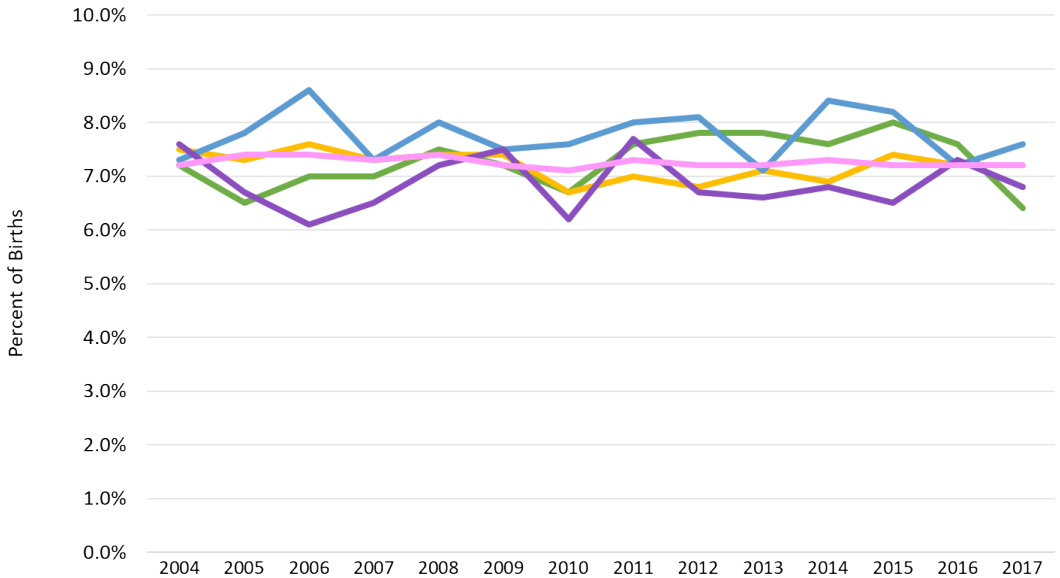
CHART 8.60: HISPANIC PRETERM BIRTH RATE <37 WEEKS (2004-2017)



	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, Bureau of Vital Statistics

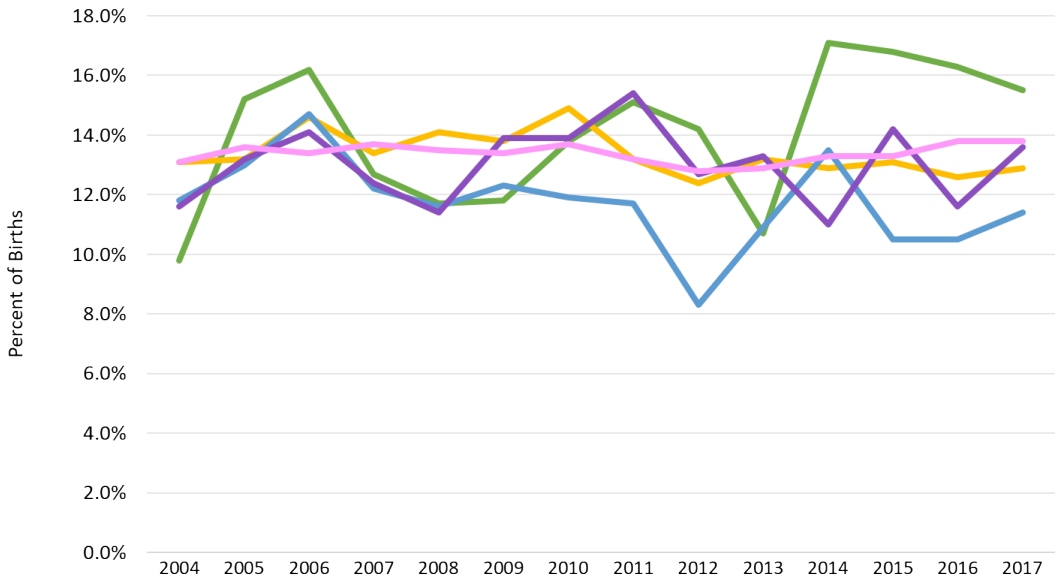
CHART 8.61: WHITE LOW BIRTH WEIGHT BIRTHS <2500 GRAMS (2004-2017)



	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, Bureau of Vital Statistics

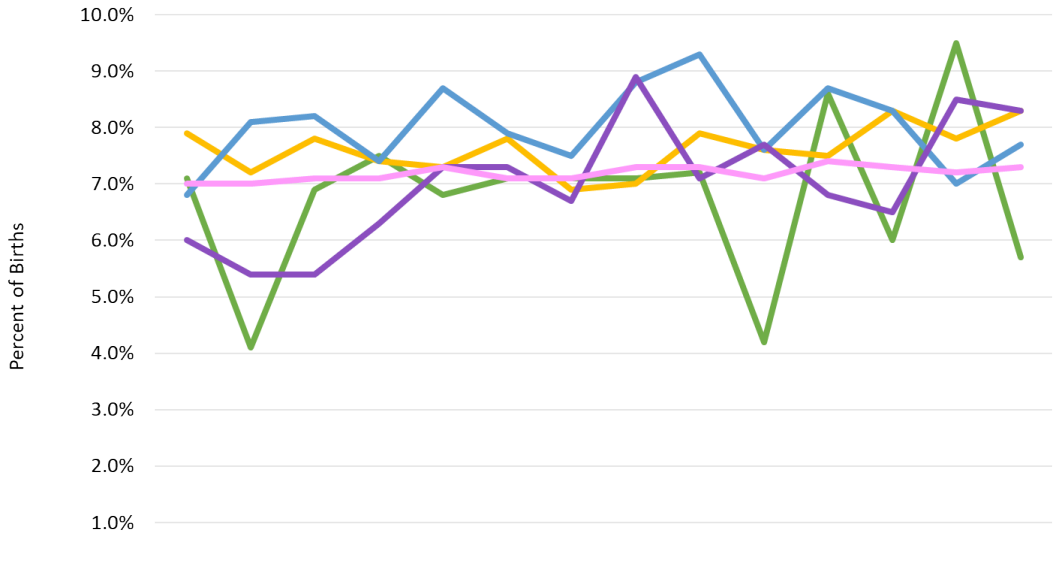
CHART 8.62: BLACK LOW BIRTH WEIGHT BIRTHS <2500 GRAMS (2004-2017)



	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, Bureau of Vital Statistics

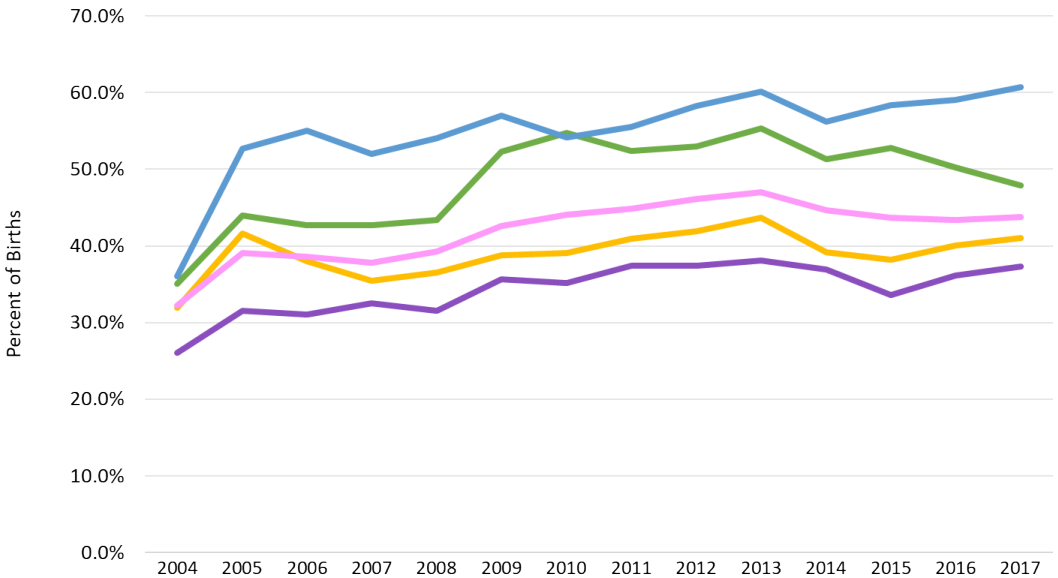
CHART 8.63: HISPANIC LOW BIRTH WEIGHT BIRTHS <2500 GRAMS (2004-2017)



	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, Bureau of Vital Statistics

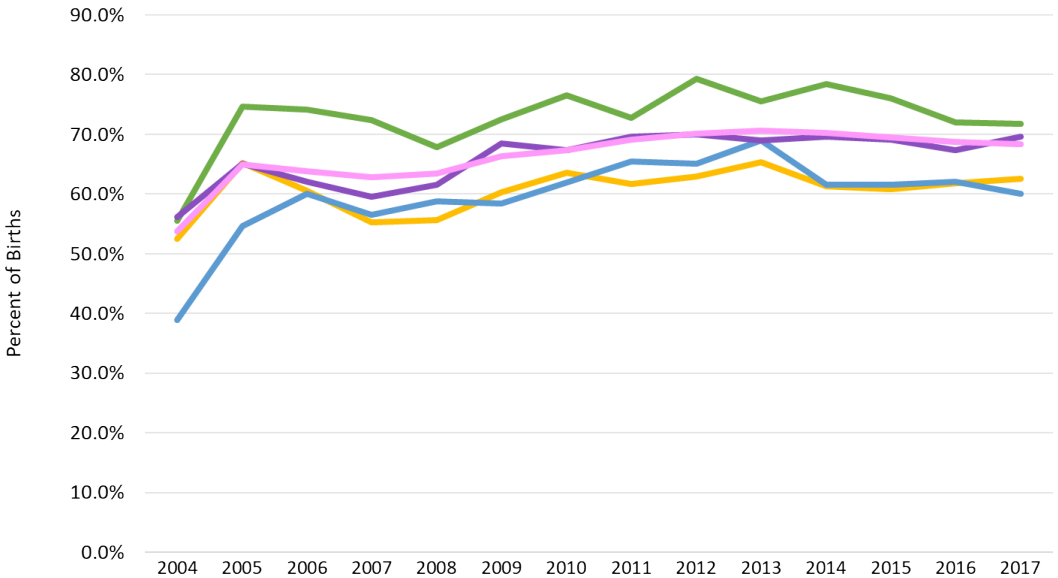
CHART 8.64: WHITE BIRTHS COVERED BY MEDICAID (2004-2017)



	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, Bureau of Vital Statistics

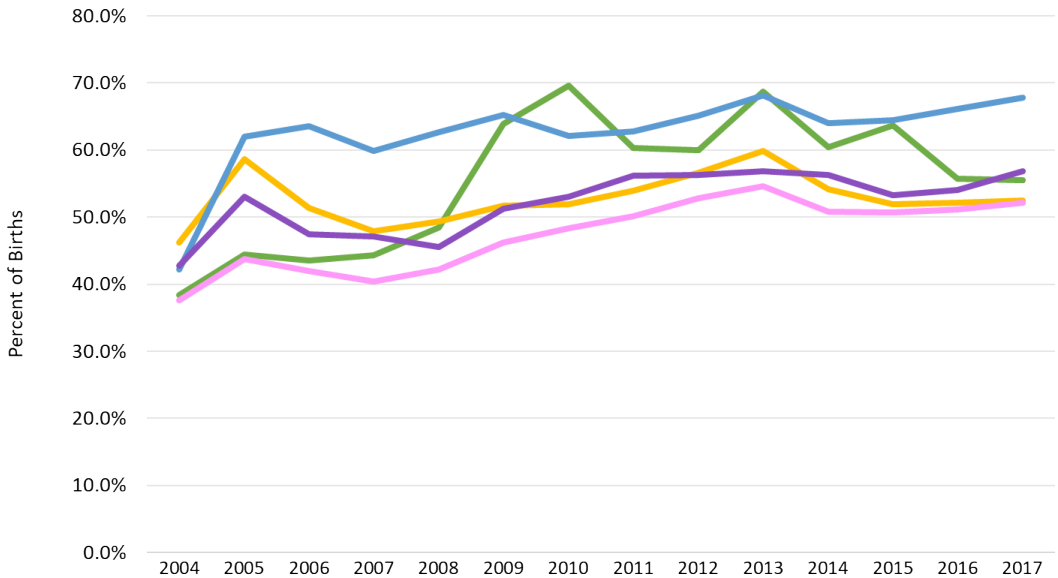
CHART 8.65: BLACK BIRTHS COVERED BY MEDICAID (2004-2017)



	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, Bureau of Vital Statistics

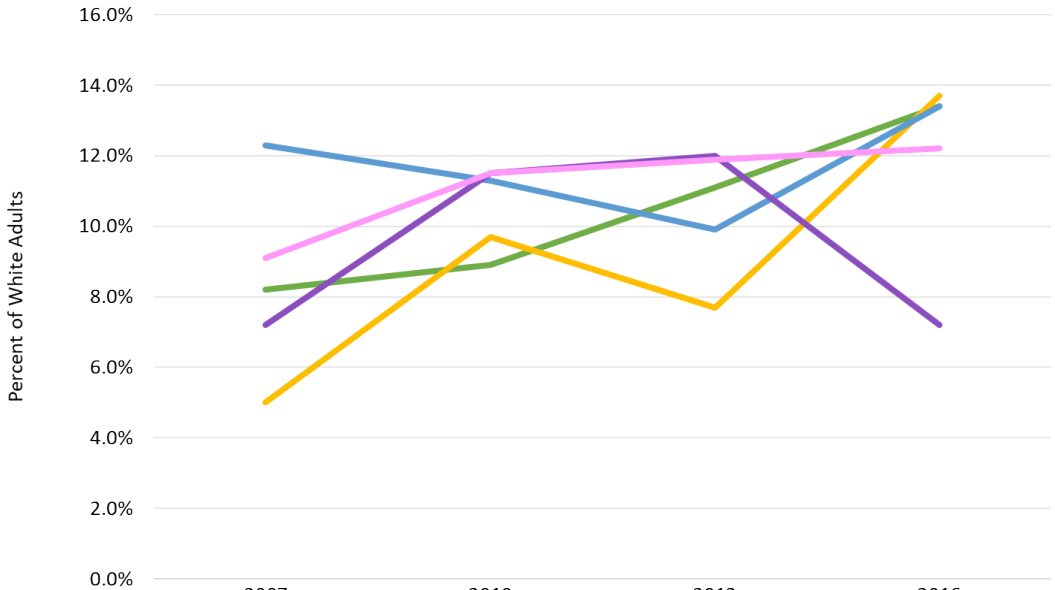
CHART 8.66: HISPANIC BIRTHS COVERED BY MEDICAID (2004-2017)



	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, Bureau of Vital Statistics

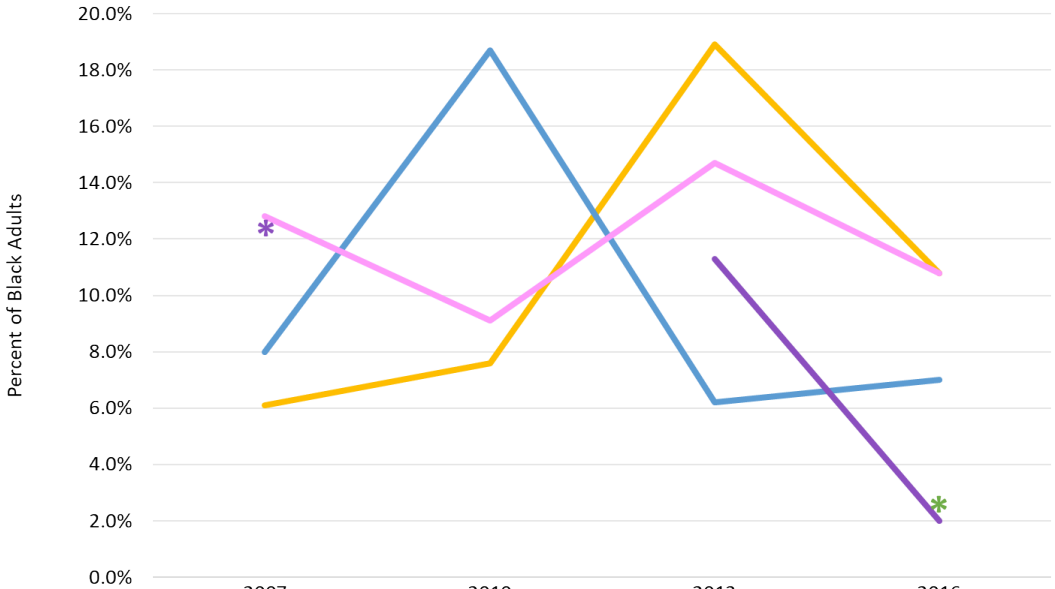
CHART 8.67: WHITE ADULTS WHO HAD POOR MENTAL HEALTH 14 OR MORE OF THE PAST 30 DAYS (2007-2016)



	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

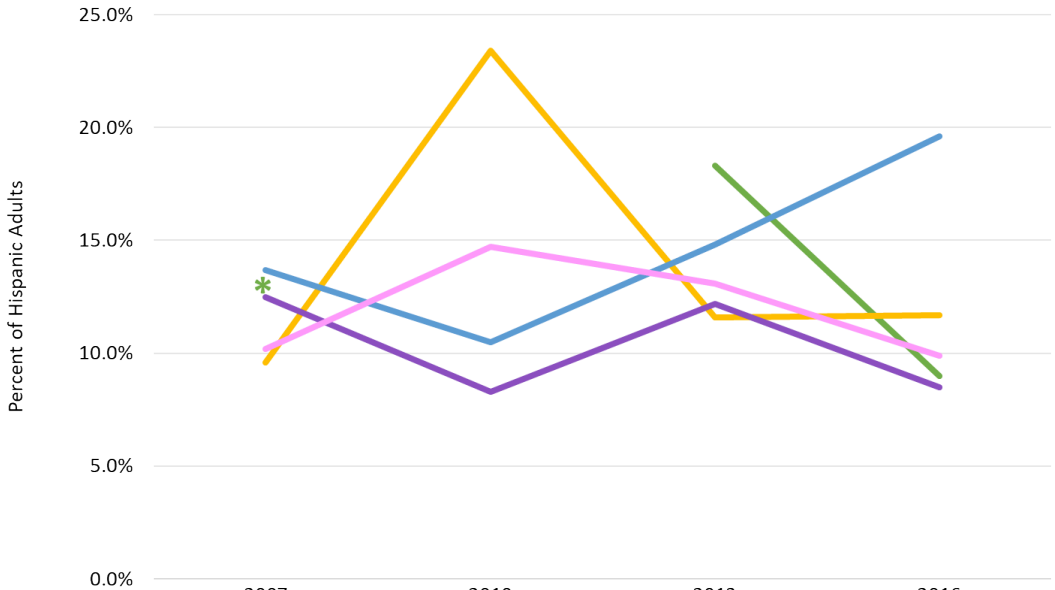
CHART 8.68: BLACK ADULTS WHO HAD POOR MENTAL HEALTH 14 OR MORE OF THE PAST 30 DAYS (2007-2016)



	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

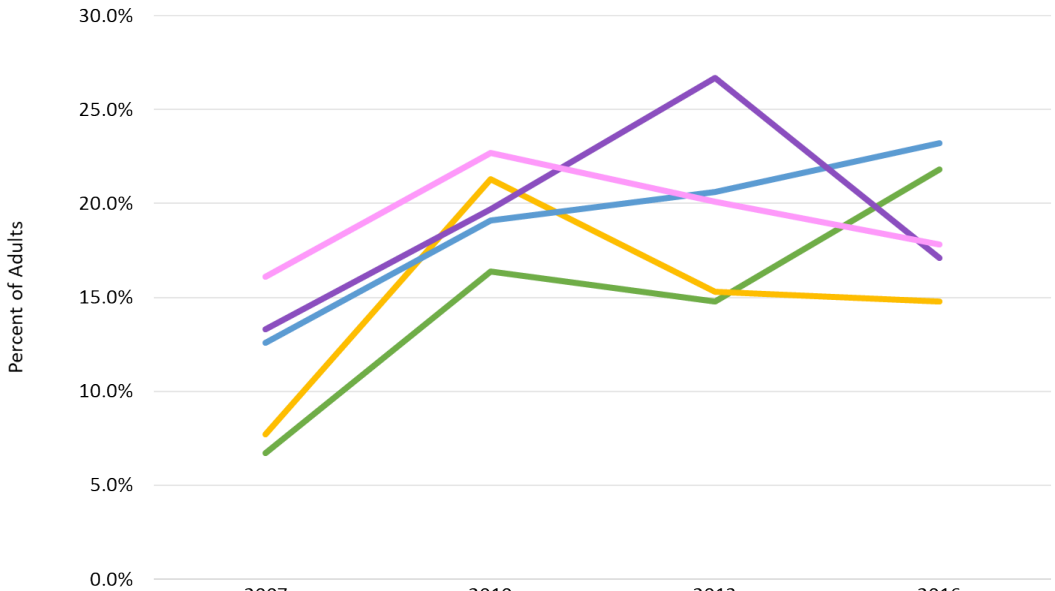
CHART 8.69: HISPANIC ADULTS WHO HAD POOR MENTAL HEALTH 14 OR MORE OF THE PAST 30 DAYS (2007-2016)



	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

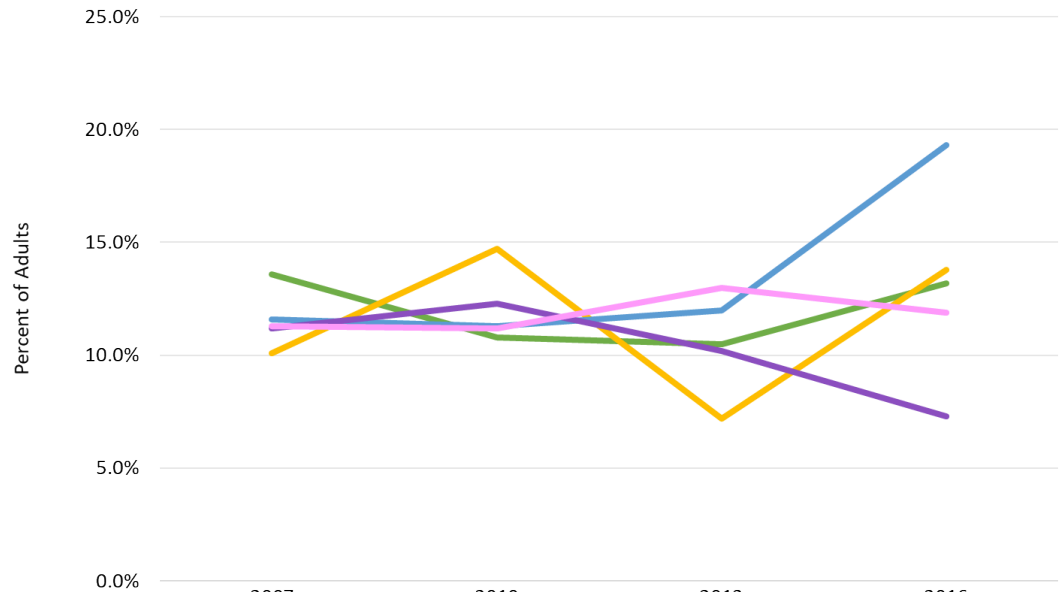
CHART 8.70: POOR MENTAL HEALTH, INCOME <$25K (2007-2016)



	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

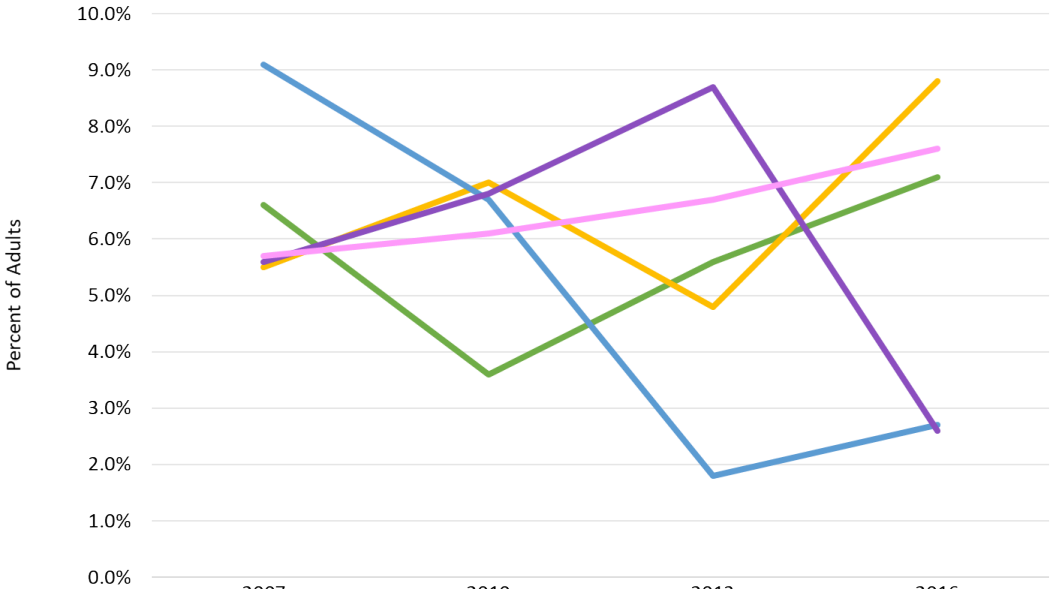
CHART 8.71: POOR MENTAL HEALTH, INCOME $25K-$49K (2007-2016)



	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

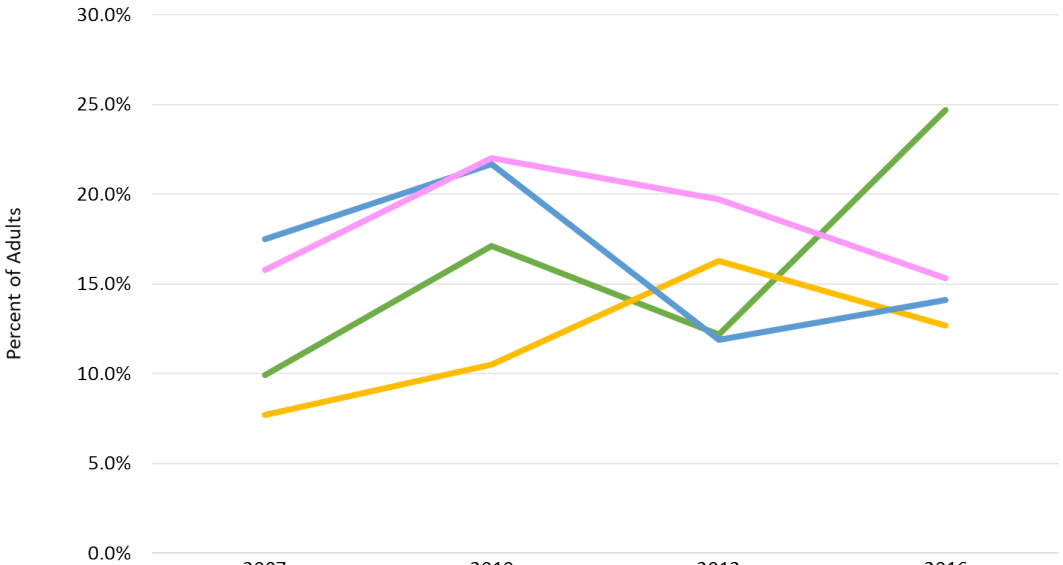
CHART 8.72: POOR MENTAL HEALTH, INCOME $50K+ (2007-2016)



	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

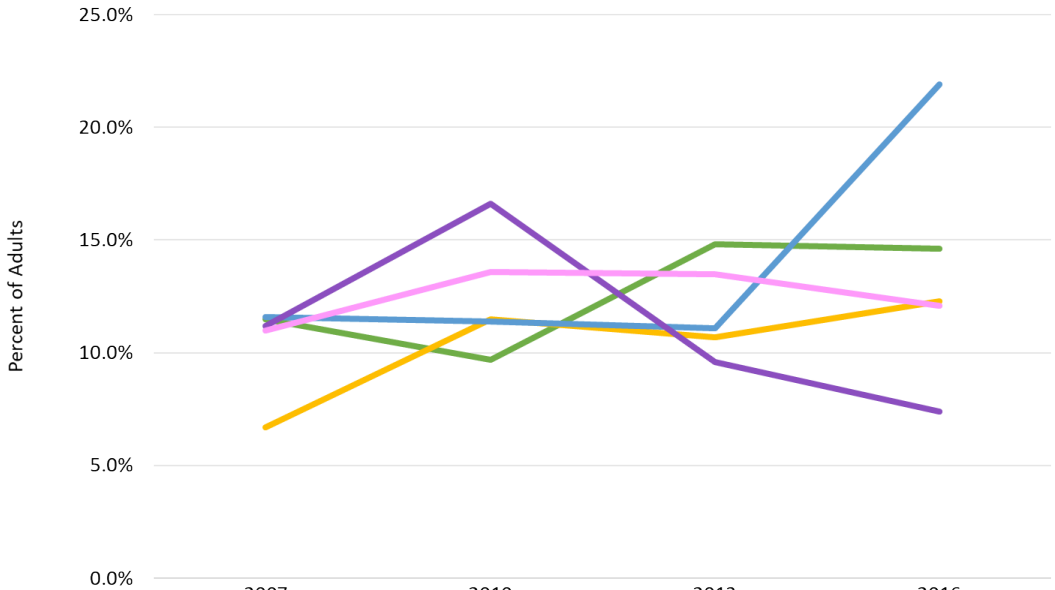
CHART 8.73: POOR MENTAL HEALTH, EDUCATION <HIGH SCHOOL (2007-2016)



	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

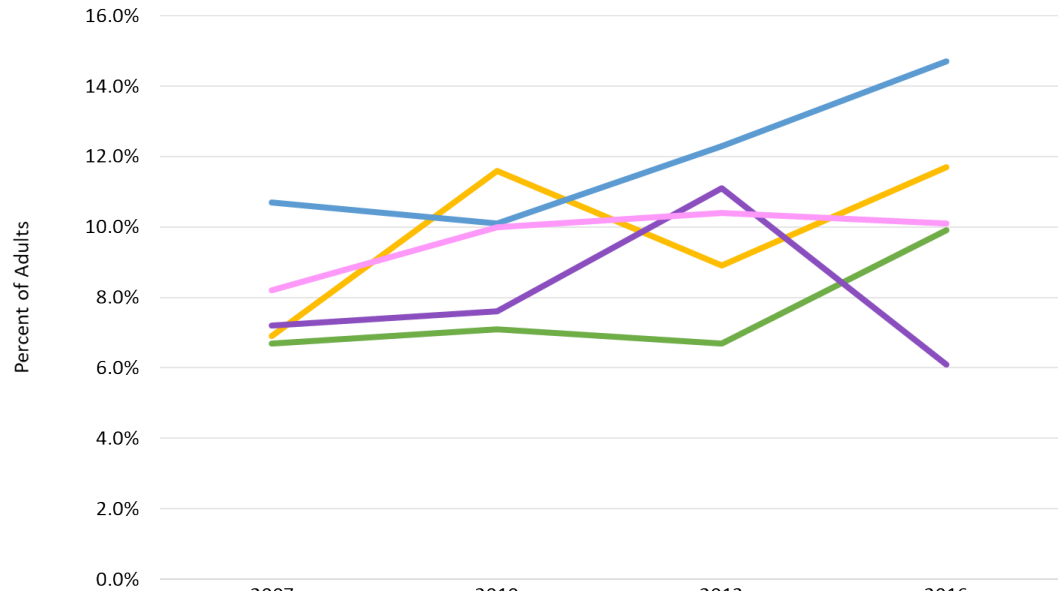
CHART 8.74: POOR MENTAL HEALTH, EDUCATION HIGH SCHOOL-GED (2007-2016)



	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

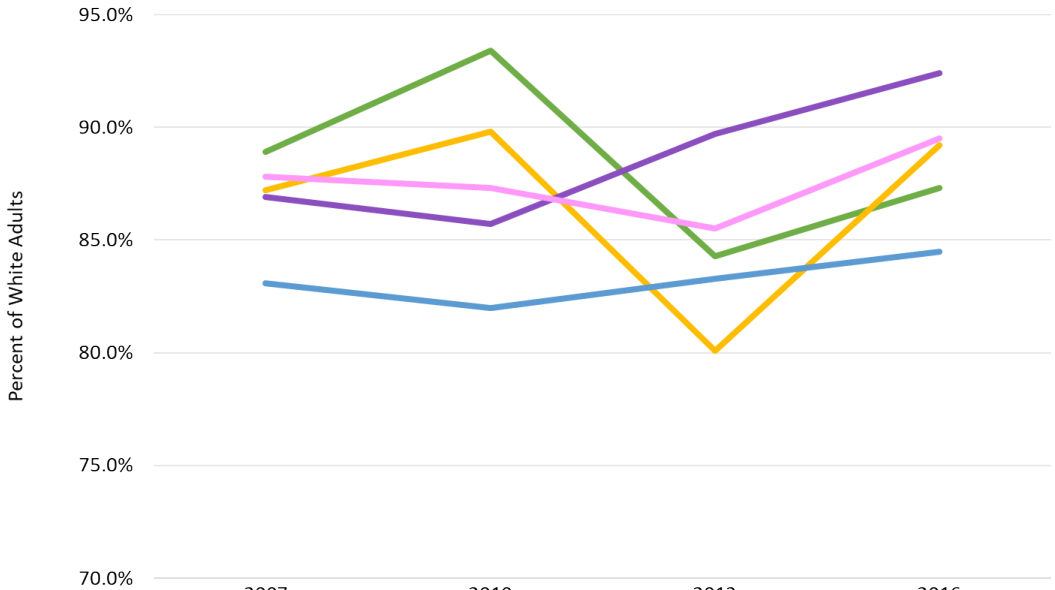
CHART 8.75: POOR MENTAL HEALTH, EDUCATION >HIGH SCHOOL (2007-2016)



	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

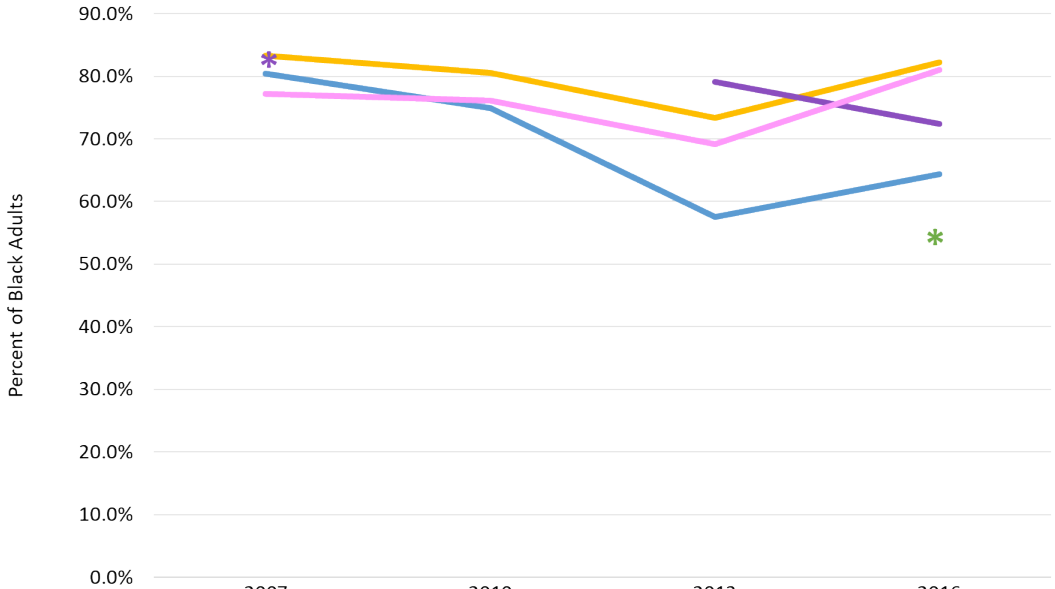
CHART 8.76: WHITE INSURANCE COVERAGE (2007-2016)



	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

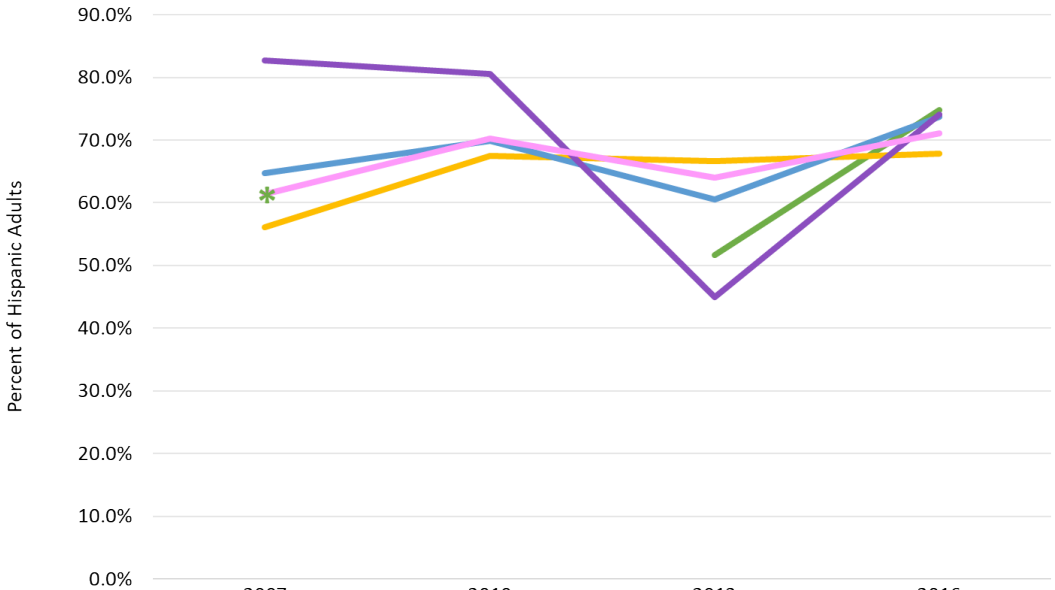
CHART 8.77: BLACK INSURANCE COVERAGE (2007-2016)



	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


Health Insurance

‘Osceola County has a broad range of outdoor activity for the community to utilize.’

-Key Informant Survey Respondent

CHAPTER NINE

Hot Spotting Summary

Lake Louisa Sate Park
Clermont, FL

Lake County

Hospital Utilization: Hot Spotting

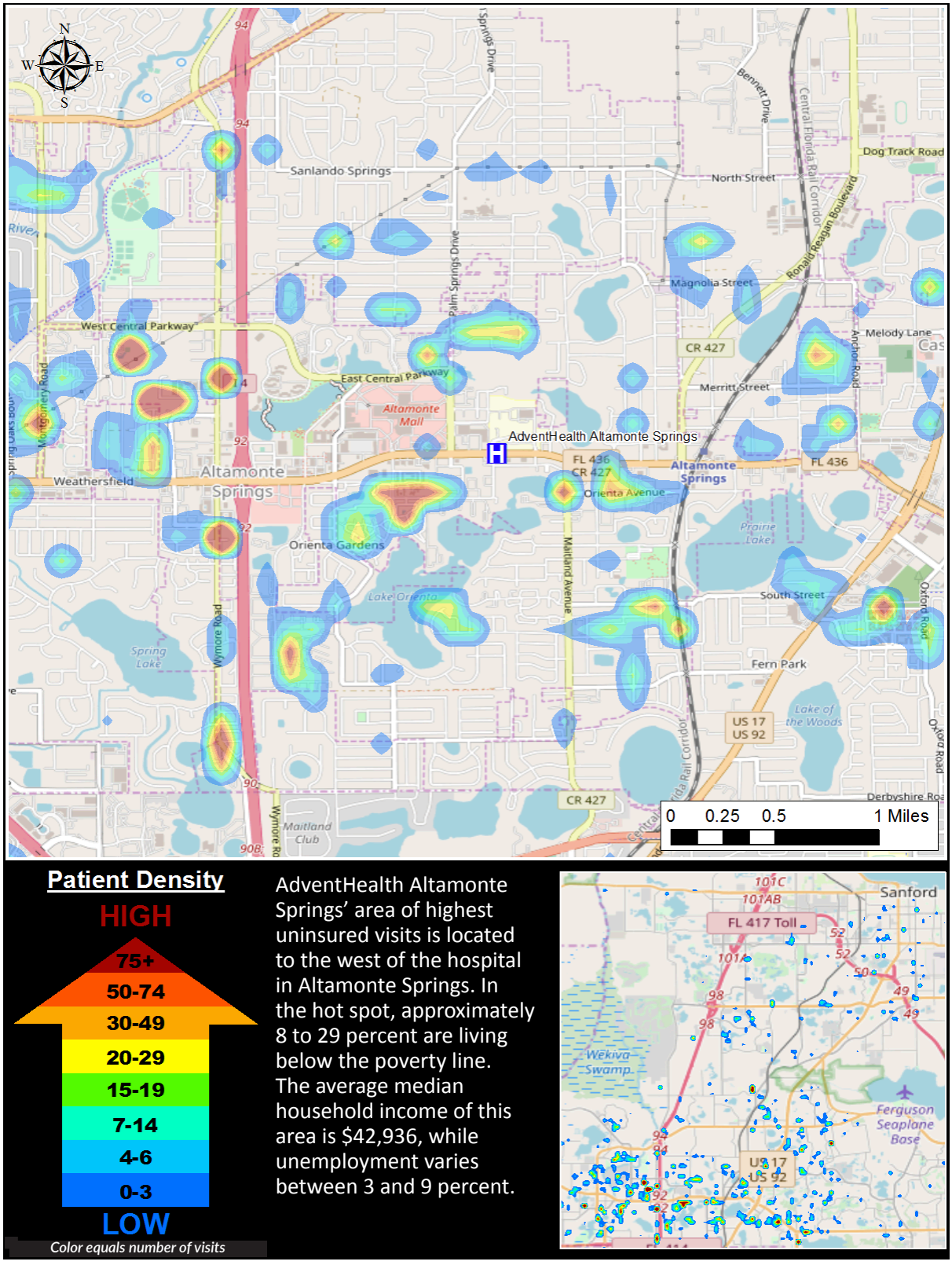
Hot spotting is a geographical analysis of uninsured visits to a hospital. These geographic areas were created from the addresses of uninsured visits and converted to census tracts for the purpose of generating the hot spot maps. The hot spotting analysis generates a color-coded map that illustrates the geographic areas within a census tract where there is high utilization among the uninsured. These indicators guide and support strategic program deployment to meet the needs of those who experience the most barriers to care. By addressing these needs in the community, it is possible to decrease needs and increase access. Please note that the patient density color bar on each hospital inpatient and outpatient map shows the number of visits that correspond to each hot spot color, with red indicating the highest patient density and blue the lowest.

Inpatient and outpatient (emergency department/triage) data for uninsured patients from each Collaborative member hospital for fiscal years 2016, 2017 and 2018 were included in the 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 healthcare utilizations and the socioeconomic conditions in which people live. It is important to note that all data was received from the hospitals; therefore certain inconsistencies between the hospital systems may appear due to certain indicators within the tables being unique to that hospital or hospital system.

ADVENTHEALTH HOSPITAL HOT SPOTTING

Figure 9.1 illustrates the uninsured inpatient hot spot analysis for AdventHealth Altamonte Springs.

FIGURE 9.1: ADVENTHEALTH ALTAMONTE SPRINGS UNINSURED INPATIENT HOT SPOT ANALYSIS



Tables 9.1 through 9.6 outline the uninsured inpatient specific hot spot analysis for AdventHealth Altamonte Springs. 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). 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 five percent; approximately 15 percent of the population is living below the federal poverty level. The average annual median household income is $42,936. Table 9.6 displays the census tracts, what zip code(s) they are in and the economic conditions for the hot spot. The 458 uninsured inpatient visits from within the hot spot cost the hospital more than $18.9 million and accounted for 18.2 percent of all uninsured inpatient visits between 2016 and 2018 (Table 9.1). More than half (64.7 percent) of uninsured inpatient visits were made by White patients. Additionally, patients aged 40-49 accounted for 26.9 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 5.2 percent and with a total cost of more than $1.7 million between 2016 and 2018. Essential (primary) hypertension was the most frequent secondary diagnosis from uninsured inpatient visits within this hot spot at 5.2 percent and with a total cost of more than $700,000 for the same time period. Due to low numbers and/or to protect patient privacy, data was not reported for the primary diagnosis with the highest average cost per uninsured inpatient visit. 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 ALTAMONTE SPRINGS UNINSURED INPATIENT VISIT COMPARISON (2016-2018)

Criteria*	Data Snapshot
Total uninsured inpatient visits	2,510
Total uninsured inpatient visits in hot spot	458
Total uninsured inpatient cost	$103,736,366
Total uninsured inpatient cost in hot spot	$18,922,818
Percent of uninsured inpatient visits in hot spot	18.2%
Total homeless uninsured inpatient visits	192
Homeless as a percentage of all uninsured inpatient visits	7.6%
Total cost for uninsured inpatient homeless visits	$7,036,282

*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 Inpatient Data

TABLE 9.2: ADVENTHEALTH ALTAMONTE SPRINGS 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	24	$1,704,305	5.2%	$71,012.72
J45.901 Unspecified asthma with (acute) exacerbation	17	$392,288	3.7%	$23,076
R07.89 Other chest pain	15	$434,217	3.3%	$28,948
E11.65 Type 2 diabetes mellitus with hyperglycemia	9	$164,092	2.0%	$18,232
F10.239 Alcohol dependence with withdrawal, unspecified	9	$272,475	2.0%	$30,275

Source: AdventHealth Altamonte Springs Uninsured Inpatient Data

TABLE 9.3: ADVENTHEALTH ALTAMONTE SPRINGS TOP 5 MOST FREQUENT UNINSURED INPATIENT SECONDARY DIAGNOSIS CODES AND COSTS (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	24	$715,840	5.2%	$29,827
E87.1 Hyperosmolality and hypernatremia	16	$520,288	3.5%	$32,518
F17.210 Nicotine dependence, cigarettes, uncomplicated	10	$391,001	2.2%	$ 39,100
Z68.41 Body mass index (BMI) 40.0-44.9, adult	9	$297,847	2.0%	$33,094
N39.0 Urinary tract infection, site not specified	9	$320,227	2.0%	$35,581
N17.9 Acute kidney failure, unspecified	9	$246,815	2.0%	$ 27,424
J18.9 Pneumonia, unspecified organism	9	$406,110	2.0%	$45,123

*Top 7 listed due to multiple diagnoses with same number of total visits.
Source: AdventHealth Altamonte Springs Uninsured Inpatient Data

TABLE 9.4: ADVENTHEALTH ALTAMONTE SPRINGS 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	24	$ 1,704,305	5.2%	$71,013
I21.09 ST elevation (STEMI) myocardial infarction involving other coronary artery of anterior wall*		$615,214		
R07.89 Other chest pain	15	$434,217	3.3%	$28,948
I63.9 Cerebral infarction, unspecified*		$400,625		
J45.901 Unspecified asthma with (acute) exacerbation	17	$392,288	3.7%	$23,076

*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 Altamonte Springs Uninsured Inpatient Data

TABLE 9.5: ADVENTHEALTH ALTAMONTE SPRINGS UNINSURED INPATIENT VISITS BY RACE, ETHNICITY AND AGE (2016-2018)

Race	Number	%	Ethnic Group	Number	%	Age	Number	%
American Indian or Alaskan Native	1	0.3%	Hispanic or Latino	102	22.3%	0-18	12	2.5%
Asian	4	0.9%	Multiple	0	0.0%	19-29	80	17.5%
Black or African American	106	23.2%	Non-Hispanic or non-Latino	351	76.6%	30-39	94	20.5%
Multiple	2	0.5%	Unknown	5	1.1%	40-49	123	26.9%
Native Hawaiian or Pacific Islander	0	0.0%				50-59	108	23.6%
Other	46	10.0%				60-69	41	9.0%
Unknown	1	0.4%				70-79	0	0.0%
White	296	64.7%				80+	0	0.0%

Source: AdventHealth Altamonte Springs Uninsured Inpatient Data

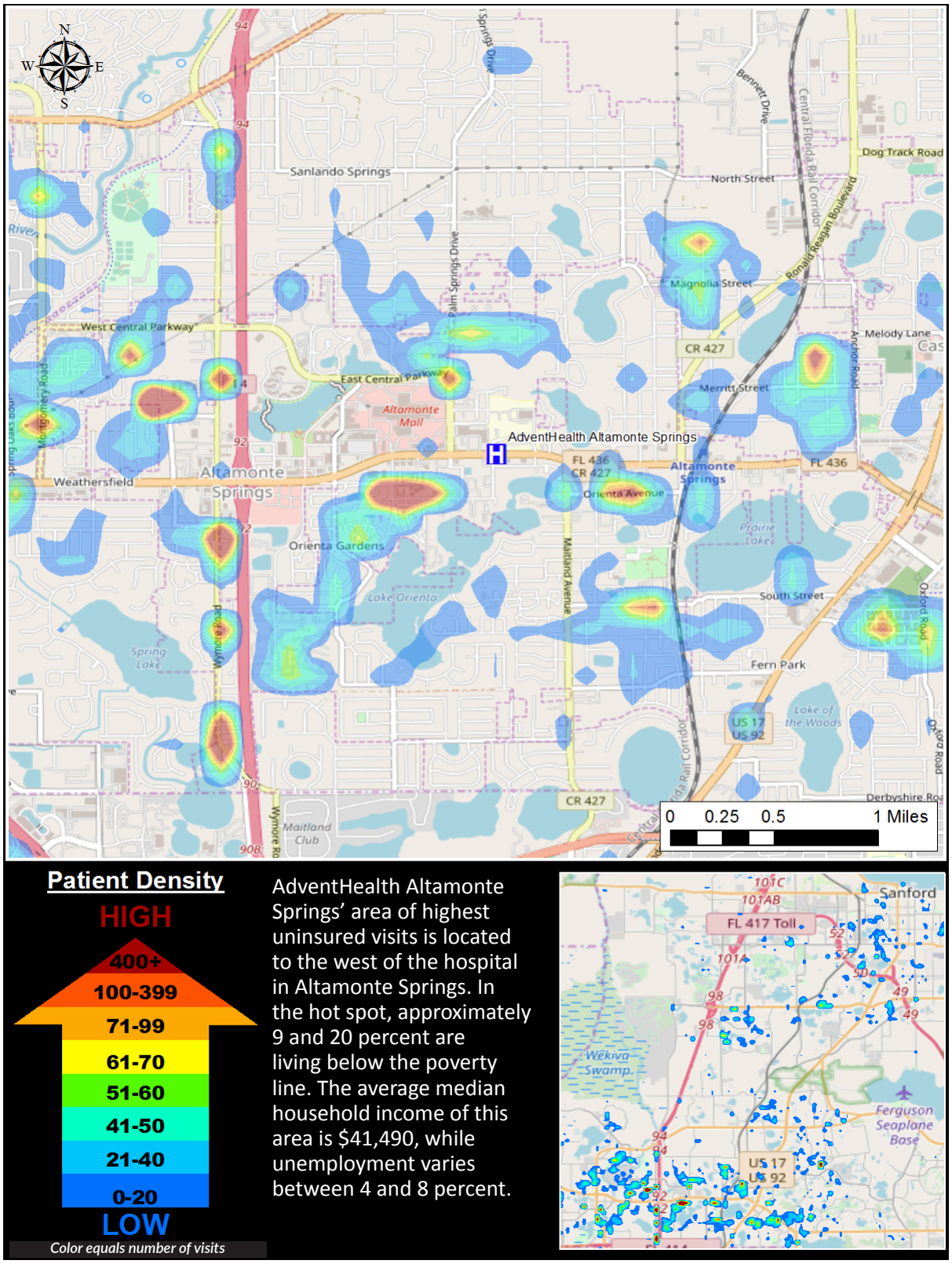
TABLE 9.6: ADVENTHEALTH ALTAMONTE SPRINGS ECONOMIC CHARACTERISTICS OF TOP 5 CENSUS TRACTS (2012-2019)

Census Tract	Census Tract within Zip Code(s)	% Unemployed	Median HH Income	% Below Poverty
12-117-21608	32701	4.0%	$42,942	19.8%
12-117-21705	32714	6.0%	$41,142	8.0%
12-117-22005	32707	4.0%	$50,765	9.2%
12-117-22001	32750	9.0%	$30,055	28.9%
12-117-21806	32714	3.0%	$49,777	7.3%
Average		5.2%	$42,936	14.6%

Source: ProximityOne
Source: U.S. Census Bureau

Figure 9.2 illustrates the uninsured outpatient hot spot analysis for AdventHealth Altamonte Springs.

FIGURE 9.2: ADVENTHEALTH ALTAMONTE SPRINGS UNINSURED OUTPATIENT HOT SPOT ANALYSIS



Tables 9.7 through 9.12 outline the uninsured outpatient specific hot spot analysis for AdventHealth Altamonte Springs. 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). 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 five percent; approximately 17 percent of the population is living below the federal poverty level. The average annual median household income is $41,490. Table 9.12 displays the census tracts, what zip code(s) they are in and the economic conditions for the hot spot. The 4,283 uninsured outpatient visits from within the hot spot cost more than $19.6 million and accounted for 17.5 percent of all uninsured outpatient visits between 2016 and 2018 (Table 9.7). More than half (58.5 percent) of uninsured outpatient visits were made by White 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 3.2 percent and with a total cost of more than $1 million between 2016 and 2018. Essential (primary) hypertension was the most frequent secondary diagnosis from uninsured outpatient visits within this hot spot at 2.9 percent and with a total cost of more than $800,000 for the same time period. The primary diagnosis with the highest total cost from uninsured outpatient visits was chest pain, unspecified, at more than $1.6 million. The primary diagnosis with the highest average cost per uninsured outpatient visit was other chest pain with an average cost of $13,734.

TABLE 9.7: ADVENTHEALTH ALTAMONTE SPRINGS UNINSURED OUTPATIENT VISIT COMPARISON (2016-2018)

Criteria*	Data Snapshot
Total uninsured outpatient visits	24,433
Total uninsured outpatient visits in hot spot	4,283
Total uninsured outpatient cost	$119,489,286
Total uninsured outpatient cost in hot spot	$ 19,645,320
Percent of uninsured outpatient visits in hot spot	17.5%
Total homeless uninsured outpatient visits	767
Percent of uninsured outpatient homeless visits	3.1%
Total cost for uninsured outpatient homeless visits	$3,964,967

*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 ALTAMONTE SPRINGS 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	136	$ 1,062,044	3.2%	$7,809
R07.9 Chest pain, unspecified	131	$ 1,664,251	3.1%	$12,704
N39.0 Urinary tract infection, site not specified	117	$567,854	2.7%	$4,853
J20.9 Acute bronchitis, unspecified	97	$227,000	2.3%	$2,340
J06.9 Acute upper respiratory infection, unspecified	95	$224,380	2.2%	$2,362

Source: AdventHealth Altamonte Springs Uninsured Outpatient Data

TABLE 9.9: ADVENTHEALTH ALTAMONTE SPRINGS TOP 5 MOST FREQUENT UNINSURED OUTPATIENT SECONDARY DIAGNOSIS CODES AND COSTS (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	123	$854,585	2.9%	$6,948
R11.2 Nausea with vomiting, unspecified	71	$622,742	1.7%	$8,771
R10.9 Unspecified abdominal pain	65	$599,193	1.5%	$9,218
X58.XXXA Exposure to other specified factors, initial encounter	60	$118,472	1.4%	$1,975
Z72.0 Tobacco use	52	$206,014	1.2%	$3,962

Source: AdventHealth Altamonte Springs Uninsured Outpatient Data

TABLE 9.10: ADVENTHEALTH ALTAMONTE SPRINGS 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	131	$ 1,664,251	3.1%	$12,704
R10.9 Unspecified abdominal pain	136	$ 1,062,044	3.2%	$7,809
R07.89 Other chest pain	57	$782,863	1.3%	$13,734
R51 Headache	93	$608,991	2.2%	$6,548
N39.0 Urinary tract infection, site not specified	117	$567,854	2.7%	$4,853

Source: AdventHealth Altamonte Springs Uninsured Outpatient Data

TABLE 9.11: ADVENTHEALTH ALTAMONTE SPRINGS UNINSURED OUTPATIENT VISITS BY RACE, ETHNICITY AND AGE (2016-2018)

Race	Number	%	Ethnic Group	Number	%	Age	Number	%
American Indian or Alaskan Native	7	0.3%	Hispanic or Latino	1,320	30.8%	0-18	310	7.2%
Asian	12	0.4%	Multiple	0	0.0%	19-29	1,549	36.2%
Black or African American	1,132	26.5%	Non-Hispanic or non-Latino	2,908	67.9%	30-39	993	23.2%
Multiple	31	0.8%	Unknown	55	1.3%	40-49	678	15.8%
Native Hawaiian or Pacific Islander	0	0.0%				50-59	566	13.2%
Other	571	13.3%				60-69	148	3.5%
Unknown	10	0.2%				70-79	31	0.7%
White	2,505	58.5%				80+	8	0.2%

Source: AdventHealth Altamonte Springs Uninsured Outpatient Data

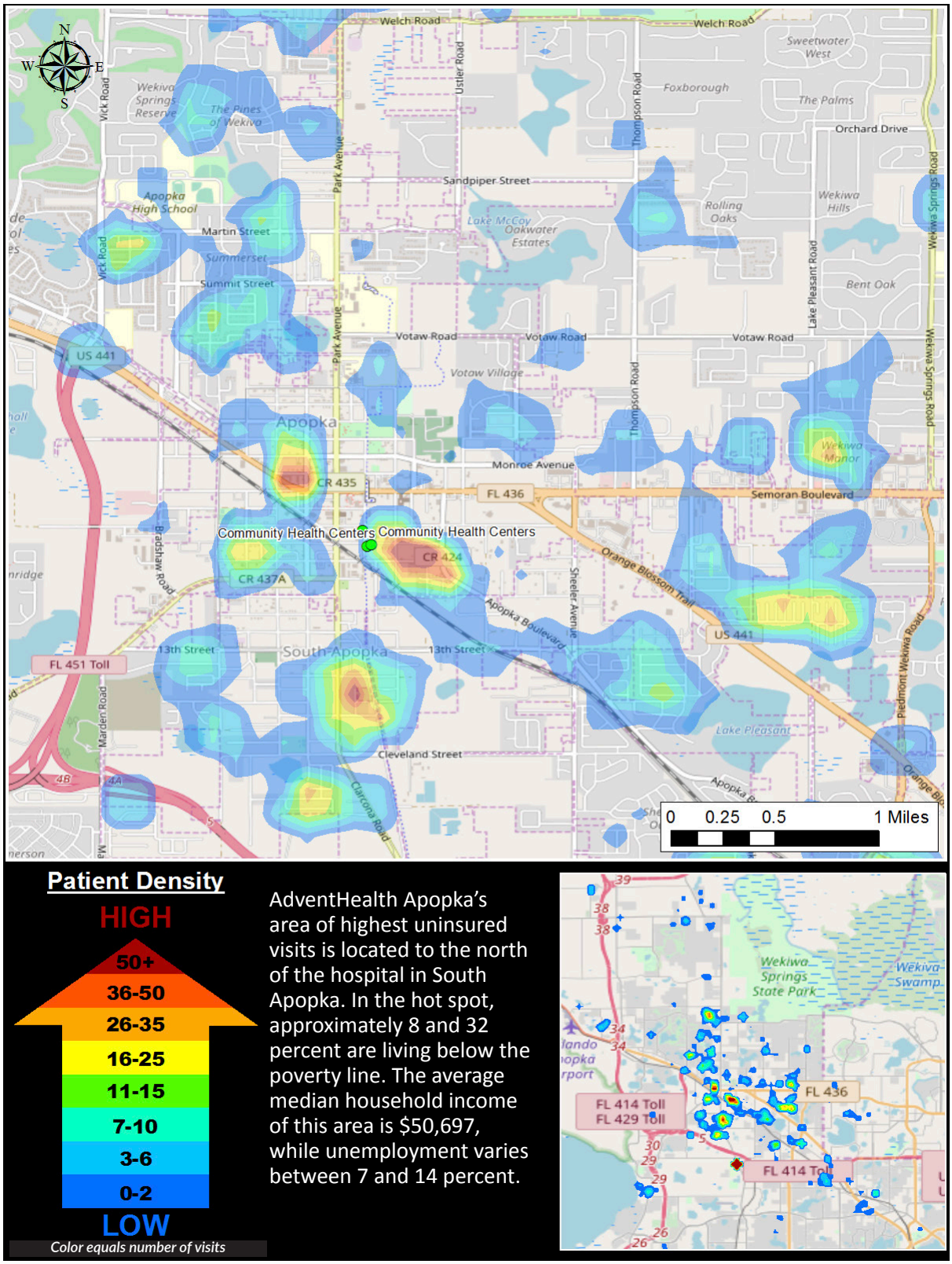
TABLE 9.12: ADVENTHEALTH ALTAMONTE SPRINGS ECONOMIC CHARACTERISTICS OF TOP 5 CENSUS TRACTS (2012-2019)

Census Tract	Census Tract within Zip Code(s)	% Unemployed	Median HH Income	% Below Poverty
12-117-21608	32701	4.0%	$42,942	19.8%
12-117-22005	32707	4.0%	$50,765	9.2%
12-117-20903	32773	8.0%	$44,261	19.4%
12-117-21902	32701	5.0%	$20,626	19.3%
12-117-20600	32771	5.0%	$48,856	18.3%
Average		5.2%	$41,490	17.2%

Source: ProximityOne
Source: U.S. Census Bureau

Figure 9.3 illustrates the uninsured inpatient hot spot analysis for AdventHealth Apopka.

FIGURE 9.3: ADVENTHEALTH APOPKA UNINSURED INPATIENT HOT SPOT ANALYSIS



Tables 9.13 through 9.18 outline the uninsured inpatient specific hot spot analysis for AdventHealth Apopka. The analysis includes all uninsured inpatient visits (Table 9.13) and focuses on those visits within the hot spot for fiscal years 2016 through 2018 (Tables 9.14 through 9.17). 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 10 percent; approximately 21 percent of the population is living below the federal poverty level. The average annual median household income is $50,697. Table 9.18 displays the census tracts, what zip code(s) they are in and the economic conditions for the hot spot. The 349 uninsured inpatient visits from within the hot spot cost more than $13.3 million and accounted for 37.8 percent of all uninsured inpatient visits between 2016 and 2018 (Table 9.13). More than half (63.6 percent) of uninsured inpatient visits were made by White patients. Additionally, patients aged 40-49 accounted for 27.5 percent of uninsured inpatient visits.

Sepsis, unspecified organism, was the most frequent primary diagnosis code and had the highest total and average costs from uninsured inpatient visits within this hot spot at 8.3 percent with a total cost of more than $2.4 million and an average cost of $84,363 per visit between 2016 and 2018. Acute kidney failure, unspecified, was the most frequent secondary diagnosis from uninsured inpatient visits within this hot spot at 5.7 percent and with a total cost of more than $700,000 for the same time period.

TABLE 9.13: ADVENTHEALTH APOPKA UNINSURED INPATIENT VISIT COMPARISON (2016-2018)

Criteria*	Data Snapshot
Total uninsured inpatient visits	924
Total uninsured inpatient visits in hot spot	349
Total uninsured inpatient cost	$34,560,381
Total uninsured inpatient cost in hot spot	$13,334,508
Percent of uninsured inpatient visits in hot spot	37.8%
Total homeless uninsured inpatient visits	65
Homeless visits as a percent of all uninsured inpatient visits	7.0%
Total cost for uninsured inpatient homeless visits	$2,845,088

*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 Apopka Uninsured Inpatient Data

TABLE 9.14: ADVENTHEALTH APOPKA 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	$2,446,513	8.3%	$84,363
J44.1 Chronic obstructive pulmonary disease with (acute) exacerbation	12	$300,938	3.4%	$25,078
J45.901 Unspecified asthma with (acute) exacerbation	10	$410,565	2.9%	$41,056
J18.9 Pneumonia, unspecified organism	9	$529,249	2.6%	$58,805
N17.9 Acute kidney failure, unspecified	8	$180,522	2.3%	$22,565

Source: AdventHealth Apopka Uninsured Inpatient Data

TABLE 9.15: ADVENTHEALTH APOPKA TOP 5 MOST FREQUENT UNINSURED INPATIENT SECONDARY DIAGNOSIS CODES AND COSTS (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	20	$711,824	5.7%	$35,591
E87.1 Hypo-osmolality and hyponatremia	14	$366,764	4.0%	$26,197
I10 Essential (primary) hypertension	14	$428,034	4.0%	$30,574
J18.9 Pneumonia, unspecified organism	12	$545,798	3.4%	$45,483
F11.20 Opioid dependence	8	$172,447	2.3%	$21,556
J96.01 Acute respiratory failure with hypoxia	8	$1,471,673	2.3%	$183,959

*Top 6 listed due to multiple diagnoses with same number of total visits.
Source: AdventHealth Apopka Uninsured Inpatient Data

TABLE 9.16: ADVENTHEALTH APOPKA 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	$2,446,513	8.3%	$84,363
J18.9 Pneumonia, unspecified organism	9	$529,249	2.6%	$58,805
J45.901 Unspecified asthma with (acute) exacerbation	10	$410,565	2.9%	$41,056
J44.1 Chronic obstructive pulmonary disease with (acute) exacerbation	12	$300,938	3.4%	$25,078
K85.90 Acute pancreatitis without necrosis or infection, unspecified	5	$265,322	1.4%	$53,064

Source: AdventHealth Apopka Uninsured Inpatient Data

TABLE 9.17: ADVENTHEALTH APOPKA 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	83	23.8%	0-18	4	1.1%
Asian	3	1.0%	Multiple	1	0.3%	19-29	42	12.1%
Black or African American	83	23.9%	Non-Hispanic or non-Latino	265	75.9%	30-39	79	22.6%
Multiple	4	1.2%	Unknown	0	0.0%	40-49	96	27.5%
Native Hawaiian or Pacific Islander	0	0.0%				50-59	76	21.8%
Other	34	9.8%				60-69	45	12.9%
Unknown	1	0.5%				70-79	5	1.4%
White	222	63.6%				80+	2	0.6%

Source: AdventHealth Apopka Uninsured Inpatient Data

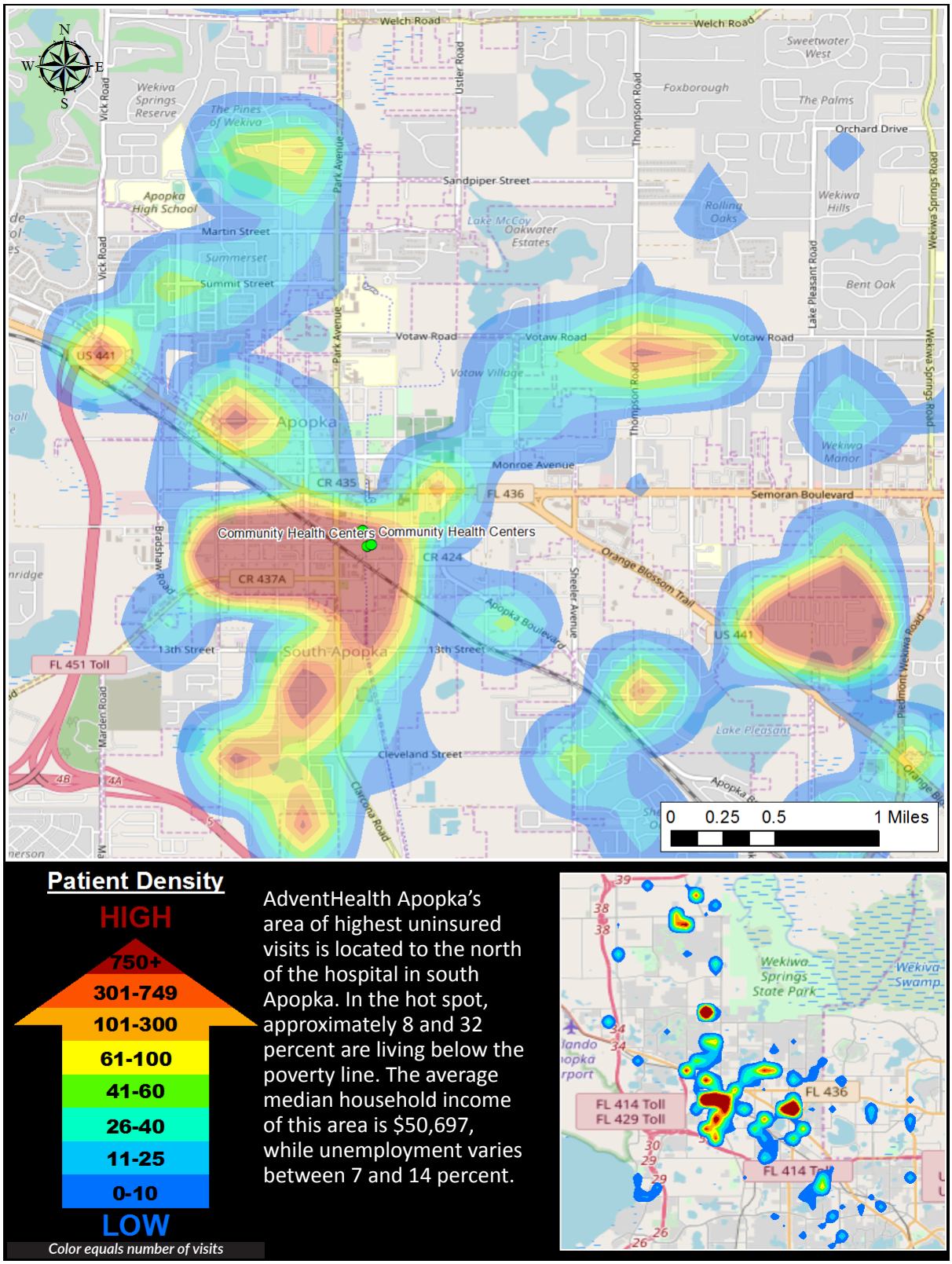
TABLE 9.18: ADVENTHEALTH APOPKA ECONOMIC CHARACTERISTICS OF TOP 5 CENSUS TRACTS (2012-2019)

Census Tract	Census Tract within Zip Code(s)	% Unemployed	Median HH Income	% Below Poverty
12-095-17600	32703, 32712	13.5%	$33,288	26.0%
12-095-17802	32703, 32712	6.7%	$68,514	7.8%
12-095-17501	32703, 32818, 34761	11.6%	$59,268	21.3%
12-095-17804	32712, 32776	8.8%	$57,000	15.4%
12-095-17503	32703	10.1%	$35,417	32.1%
Average		10.1%	$50,697	20.5%

Source: ProximityOne
Source: U.S. Census Bureau

Figure 9.4 illustrates the uninsured outpatient hot spot analysis for AdventHealth Apopka.

FIGURE 9.4: ADVENTHEALTH APOPKA UNINSURED OUTPATIENT HOT SPOT ANALYSIS



Tables 9.19 through 9.24 outline the uninsured outpatient specific hot spot analysis for AdventHealth Apopka. The analysis includes all uninsured outpatient patient visits (Table 9.19) and focuses on those visits within the hot spot for fiscal years 2016 through 2018 (Tables 9.20 through 9.23). 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 10 percent; approximately 21 percent of the population is living below the federal poverty level. The average annual median household income is $50,697. Table 9.24 displays the census tracts, what zip code(s) they are in and the economic conditions for the hot spot. The 6,433 uninsured outpatient visits from within the hot spot cost more than $25.7 million and accounted for 42.7 percent of all uninsured outpatient visits between 2016 and 2018 (Table 9.19). More than half (54.9 percent) of uninsured outpatient visits were made by White patients. Additionally, patients aged 19-29 accounted for 31.8 percent of uninsured outpatient visits.

Urinary tract infection, site not specified, was the most frequent primary diagnosis code from uninsured outpatient visits within this hot spot at 2.9 percent and with a total cost of more than $800,000 between 2016 and 2018. Essential (primary) hypertension was the most frequent secondary diagnosis from uninsured outpatient visits within this hot spot at three percent and with a total cost of more than $800,000 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 $1.9 million and an average cost of $12,214.

TABLE 9.19: ADVENTHEALTH APOPKA UNINSURED OUTPATIENT VISIT COMPARISON (2016-2018)

Criteria*	Data Snapshot
Total uninsured outpatient visits	15,064
Total uninsured outpatient visits in hot spot	6,433
Total uninsured outpatient cost	$60,509,241
Total uninsured outpatient cost in hot spot	$25,767,325
Percent of uninsured outpatient visits in hot spot	42.7%
Total homeless uninsured outpatient visits	666
Homeless visits as a percent of all uninsured outpatient visits	4.4%
Total cost for uninsured outpatient homeless visits	$3,150,212

*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 Apopka Uninsured Outpatient Data

TABLE 9.20: ADVENTHEALTH APOPKA 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
N39.0 Urinary tract infection, site not specified	186	$803,408	2.9%	$4,319
R10.9 Unspecified abdominal pain	166	$1,351,681	2.6%	$8,143
R07.9 Chest pain, unspecified	159	$1,942,096	2.5%	$12,214
J06.9 Acute upper respiratory infection, unspecified	144	$272,059	2.2%	$1,889
R51 Headache	132	$692,437	2.1%	$5,246

Source: AdventHealth Apopka Uninsured Outpatient Data

TABLE 9.21: ADVENTHEALTH APOPKA TOP 5 MOST FREQUENT UNINSURED OUTPATIENT SECONDARY DIAGNOSIS CODES AND COSTS (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	192	$878,989	3.0%	$4,578
X58.XXXA Exposure to other specified factors, initial encounter	110	$223,942	1.7%	$2,036
Z72.0 Tobacco use	98	$250,343	1.5%	$2,555
N39.0 Urinary tract infection, site not specified	82	$404,824	1.3%	$4,937
R10.9 Unspecified abdominal pain	74	$649,672	1.2%	$8,779

Source: AdventHealth Apopka Uninsured Outpatient Data

TABLE 9.22: ADVENTHEALTH APOPKA 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	159	$ 1,942,096	2.5%	$12,214
R10.9 Unspecified abdominal pain	166	$ 1,351,681	2.6%	$8,143
R07.89 Other chest pain	76	$823,446	1.2%	$10,835
N39.0 Urinary tract infection, site not specified	186	$803,408	2.9%	$4,319
R51 Headache	132	$692,437	2.1%	$5,246

Source: AdventHealth Apopka Uninsured Outpatient Data

TABLE 9.23: ADVENTHEALTH APOPKA 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	2,113	32.8%	0-18	598	9.4%
Asian	22	0.4%	Multiple	4	0.1%	19-29	2,046	31.8%
Black or African American	1,965	30.6%	Non-Hispanic or non-Latino	4,295	66.8%	30-39	1,597	24.8%
Multiple	61	1.0%	Unknown	19	0.3%	40-49	1,161	18.0%
Native Hawaiian or Pacific Islander	0	0.0%				50-59	737	11.5%
Other	819	12.7%				60-69	228	3.5%
Unknown	14	0.3%				70-79	57	0.9%
White	3,534	54.9%				80+	9	0.1%

Source: AdventHealth Apopka Uninsured Outpatient Data

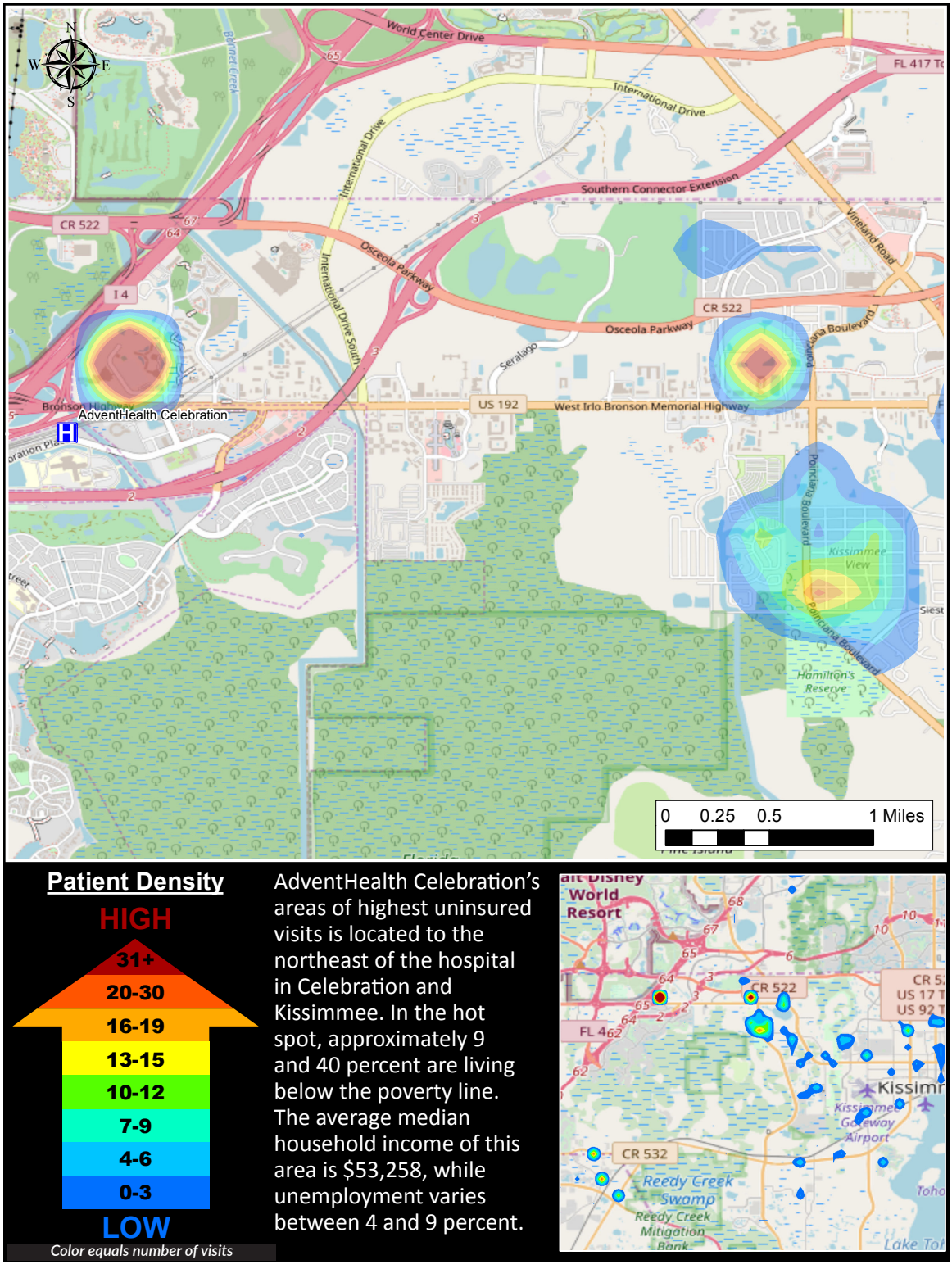
TABLE 9.24: ADVENTHEALTH APOPKA ECONOMIC CHARACTERISTICS OF TOP 5 CENSUS TRACTS (2012-2019)

Census Tract	Census Tract within Zip Code(s)	% Unemployed	Median HH Income	% Below Poverty
12-095-17501	32703, 32818	11.6%	$59,268	21.3%
12-095-17802	32703, 32712	6.7%	$68,514	7.8%
12-095-17804	32712, 32776	8.8%	$57,000	15.4%
12-095-17600	32703, 32712	13.5%	$33,288	26.0%
12-095-17503	32703	10.1%	$35,417	32.1%
Average		10.1%	$50,697	20.5%

Source: ProximityOne
Source: U.S. Census Bureau

Figure 9.5 illustrates the uninsured inpatient hot spot analysis for AdventHealth Celebration.

FIGURE 9.5: ADVENTHEALTH CELEBRATION UNINSURED INPATIENT HOT SPOT ANALYSIS



AdventHealth Celebration's areas of highest uninsured visits is located to the northeast of the hospital in Celebration and Kissimmee. In the hot spot, approximately 9 and 40 percent are living below the poverty line. The average median household income of this area is $53,258, while unemployment varies between 4 and 9 percent.

Tables 9.25 through 9.30 outline the uninsured inpatient specific hot spot analysis for AdventHealth Celebration. The analysis includes all uninsured inpatient visits (Table 9.25) and focuses on those visits within the hot spot for fiscal years 2016 through 2018 (Tables 9.26 through 9.29). 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 six percent; approximately 21 percent of the population is living below the federal poverty level. The average annual median household income is $53,258. Table 9.30 displays the census tracts, what zip code(s) they are in and the economic conditions for the hot spot. The 452 uninsured inpatient visits from within the hot spot cost more than $17.5 million and accounted for 49.1 percent of all uninsured inpatient visits between 2016 and 2018 (Table 9.25). More than three-fourths (77.2 percent) of uninsured inpatient visits were made by White patients. Additionally, patients aged 40-49 accounted for 27.2 percent of uninsured outpatient visits.

Sepsis, unspecified organism, was the most frequent primary diagnosis code and had the highest total and average costs from uninsured inpatient visits within this hot spot at 5.5 percent with a total cost of more than $1.8 million and an average cost of $72,323. Essential (primary) hypertension was the most frequent secondary diagnosis from uninsured inpatient visits at 8.4 percent with a total cost of more than $1.3 million. 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 9.25: ADVENTHEALTH CELEBRATION UNINSURED INPATIENT VISIT COMPARISON (2016-2018)

Criteria*	Data Snapshot
Total uninsured inpatient visits	920
Total uninsured inpatient visits in hot spot	452
Total uninsured inpatient cost	$36,193,224
Total uninsured inpatient cost in hot spot	$17,561,826
Percent of uninsured inpatient visits in hot spot	49.1%
Total homeless uninsured inpatient visits	116
Homeless visits as a percent of all uninsured inpatient visits	12.6%
Total cost for uninsured inpatient homeless visits	$3,589,922

*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 Celebration Uninsured Inpatient Data

TABLE 9.26: ADVENTHEALTH CELEBRATION 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	25	$1,808,065	5.5%	$72,323
Z38.00 Single liveborn infant, delivered vaginally	19	$93,644	4.2%	$4,929
K35.80 Unspecified acute appendicitis	12	$512,162	2.7%	$42,680
J44.1 Chronic obstructive pulmonary disease with (acute) exacerbation	11	$417,398	2.4%	$37,945
F10.229 Alcohol dependence with intoxication, unspecified	10	$201,717	2.2%	$20,172

Source: AdventHealth Celebration Uninsured Inpatient Data

TABLE 9.27: ADVENTHEALTH CELEBRATION TOP 5 MOST FREQUENT UNINSURED INPATIENT SECONDARY DIAGNOSIS CODES AND COSTS (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	38	$1,365,101	8.4%	$35,924
E87.1 Hypo-osmolality and hyponatremia	36	$1,306,867	8.0%	$36,302
N17.9 Acute kidney failure, unspecified	26	$1,337,526	5.8%	$51,443
N39.0 Urinary tract infection, site not specified	20	$986,719	4.4%	$49,336
Z37.0 Single Live Birth	19	$420,157	4.2%	$22,114

Source: AdventHealth Celebration Uninsured Inpatient Data

TABLE 9.28: ADVENTHEALTH CELEBRATION 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	25	$1,808,065	5.5%	$72,323
K35.80 Unspecified acute appendicitis	12	$512,162	2.7%	$42,680
J44.1 Chronic obstructive pulmonary disease with (acute) exacerbation	11	$417,398	2.4%	$37,945
I13.0 Hypertensive heart and chronic kidney disease with heart failure and stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease*		$331,687		
I21.4 Non-ST elevation myocardial infarction (NSTEMI)*		$316,453		

*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 Celebration Uninsured Inpatient Data

TABLE 9.29: ADVENTHEALTH CELEBRATION 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	197	34.7%	0-18	28	6.3%
Asian	6	1.3%	Multiple	0	0.0%	19-29	75	16.6%
Black or African American	25	5.5%	Non-Hispanic or non-Latino	292	64.6%	30-39	101	22.3%
Multiple	12	2.7%	Unknown	3	0.7%	40-49	123	27.2%
Native Hawaiian or Pacific Islander	0	0.0%				50-59	103	22.8%
Other	55	12.2%				60-69	16	3.5%
Unknown	5	1.1%				70-79	4	0.9%
White	349	77.2%				80+	2	0.4%

Source: AdventHealth Celebration Uninsured Inpatient Data

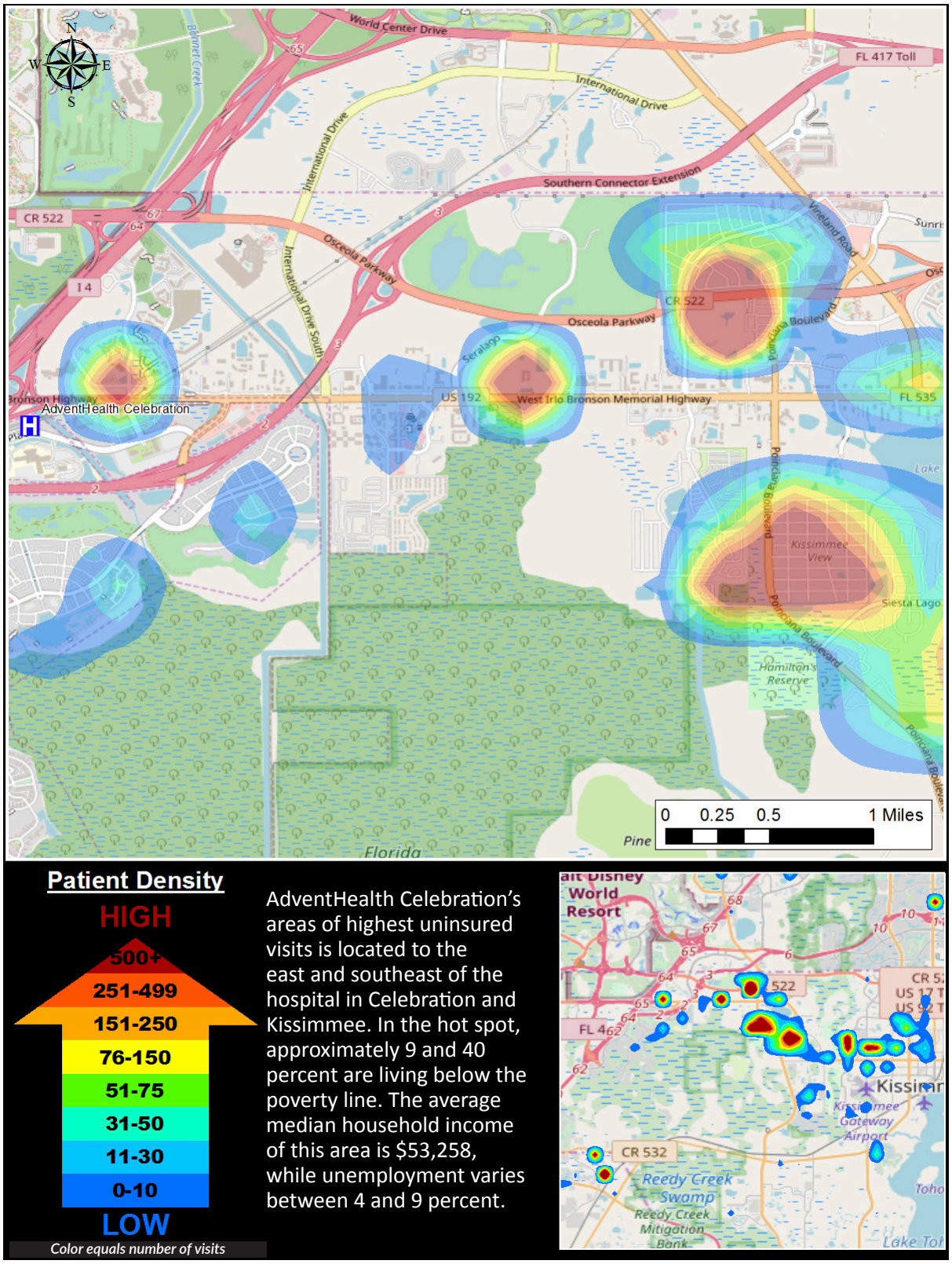
TABLE 9.30: ADVENTHEALTH CELEBRATION ECONOMIC CHARACTERISTICS OF TOP 5 CENSUS TRACTS (2012-2019)

Census Tract	Census Tract within Zip Code(s)	% Unemployed	Median HH Income	% Below Poverty
12-097-40902	34746	9.3%	$41,266	39.9%
12-097-40802	34747	4.0%	$56,732	17.3%
12-097-40804	33848, 33896, 34746	5.8%	$44,075	20.1%
12-097-40803	34747	4.8%	$76,512	8.8%
12-097-41002	33848, 33896, 34746, 34758	4.2%	$47,705	16.4%
Average		5.6%	$53,258	20.5%

Source: ProximityOne
Source: U.S. Census Bureau

Figure 9.6 illustrates the uninsured outpatient hot spot analysis for AdventHealth Celebration.

FIGURE 9.6: ADVENTHEALTH CELEBRATION UNINSURED OUTPATIENT HOT SPOT ANALYSIS



Tables 9.31 through 9.36 outline the uninsured outpatient specific hot spot analysis for AdventHealth Celebration. The analysis includes all uninsured outpatient visits (Table 9.31) and focuses on those visits within the hot spot for fiscal years 2016 through 2018 (Tables 9.32 through 9.35). 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 six percent; approximately 21 percent of the population is living below the federal poverty level. The average annual median household income is $53,258. Table 9.36 displays the census tracts, what zip code(s) they are in and the economic conditions for the hot spot. The 4,765 uninsured outpatient visits from within the hot spot cost more than $20.6 million and accounted for 49.9 percent of all uninsured outpatient visits between 2016 and 2018 (Table 9.31). Almost three-fourths (72.7 percent) of uninsured outpatient visits were made by White patients. Additionally, patients aged 19-29 accounted for 30.3 percent of uninsured outpatient visits.

Chest pain, unspecified, was the most frequent primary diagnosis code and had the highest total and average costs from uninsured outpatient visits within this hot spot at three percent and with a total cost of more than $1.8 million and an average cost of $13,373 between 2016 and 2018. Essential (primary) hypertension was the most frequent secondary diagnosis from uninsured outpatient visits within this hot spot at 3.2 percent and with a total cost of more than $900,000 for the same time period.

TABLE 9.31: ADVENTHEALTH CELEBRATION UNINSURED OUTPATIENT VISIT COMPARISON (2016-2018)

Criteria*	Data Snapshot
Total uninsured outpatient visits	9,556
Total uninsured outpatient visits in hot spot	4,765
Total uninsured outpatient cost	$43,546,635
Total uninsured outpatient cost in hot spot	$20,651,064
Percent of uninsured outpatient visits in hot spot	49.9%
Total homeless uninsured outpatient visits	981
Homeless visits as a percent of all uninsured outpatient visits	10.3%
Total cost for uninsured outpatient homeless visits	$4,083,310

*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 Celebration Uninsured Outpatient Data

TABLE 9.32: ADVENTHEALTH CELEBRATION 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
R07.9 Chest pain, unspecified	141	$1,885,533	3.0%	$13,373
R10.9 Unspecified abdominal pain	114	$917,001	2.4%	$8,044
N39.0 Urinary tract infection, site not specified	104	$583,286	2.2%	$5,609
Z12.31 Encounter for screening mammogram for malignant neoplasm of breast	103	$46,762	2.2%	$454
R51 Headache	96	$653,835	2.0%	$6,811

Source: AdventHealth Celebration Uninsured Outpatient Data

TABLE 9.33: ADVENTHEALTH CELEBRATION TOP 5 MOST FREQUENT UNINSURED OUTPATIENT SECONDARY DIAGNOSIS CODES AND COSTS (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	154	$934,670	3.2%	$6,069
R10.9 Unspecified abdominal pain	74	$667,847	1.6%	$9,025
R50.9 Fever, unspecified	66	$212,461	1.4%	$3,219
R11.2 Nausea with vomiting, unspecified	64	$458,724	1.3%	$7,168
X58.XXXA Exposure to other specified factors, initial encounter	60	$117,106	1.3%	$1,952

Source: AdventHealth Celebration Uninsured Outpatient Data

TABLE 9.34: ADVENTHEALTH CELEBRATION 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	141	$1,885,533	3.0%	$13,373
R10.9 Unspecified abdominal pain	114	$917,001	2.4%	$8,044
R07.89 Other chest pain	76	$847,721	1.6%	$11,154
R51 Headache	96	$653,835	2.0%	$6,811
N39.0 Urinary tract infection, site not specified	104	$583,286	2.2%	$5,609

Source: AdventHealth Celebration Uninsured Outpatient Data

TABLE 9.35: ADVENTHEALTH CELEBRATION UNINSURED OUTPATIENT VISITS BY RACE, ETHNICITY AND AGE (2016-2018)

Race	Number	%	Ethnic Group	Number	%	Age	Number	%
American Indian or Alaskan Native	7	0.2%	Hispanic or Latino	2,177	45.7%	0-18	509	10.7%
Asian	73	1.6%	Multiple	1	0.0%	19-29	1,446	30.3%
Black or African American	484	10.2%	Non-Hispanic or non-Latino	2,521	52.9%	30-39	955	20.0%
Multiple	79	1.7%	Unknown	66	1.4%	40-49	913	19.2%
Native Hawaiian or Pacific Islander	0	0.0%				50-59	650	13.6%
Other	610	12.8%				60-69	176	3.7%
Unknown	31	0.8%				70-79	79	1.7%
White	3,466	72.7%				80+	37	0.8%

Source: AdventHealth Celebration Uninsured Outpatient Data

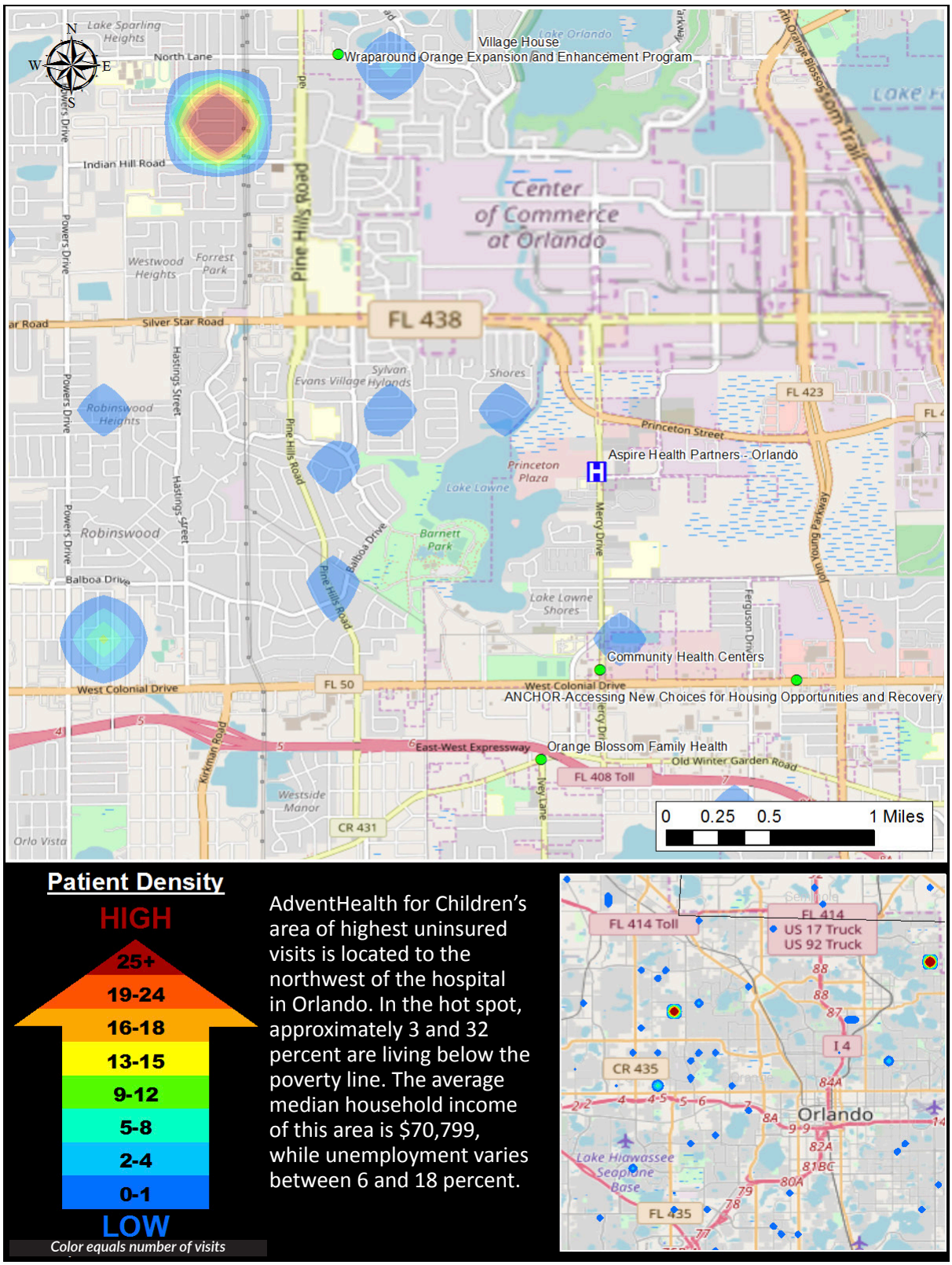
TABLE 9.36: ADVENTHEALTH CELEBRATION ECONOMIC CHARACTERISTICS OF TOP 5 CENSUS TRACTS (2012-2019)

Census Tract	Census Tract within Zip Code(s)	% Unemployed	Median HH Income	% Below Poverty
12-097-40902	34746	9.3%	$41,266	39.9%
12-097-40802	34747	4.0%	$56,732	17.3%
12-097-40804	33848, 33896, 34746	5.8%	$44,075	20.1%
12-097-40803	34747	4.8%	$76,512	8.8%
12-097-41002	33848, 33896, 34746, 34758	4.2%	$47,705	16.4%
Average		5.6%	$53,258	20.5%

Source: ProximityOne
Source: U.S. Census Bureau

Figure 9.7 illustrates the uninsured inpatient hot spot analysis for AdventHealth for Children.

FIGURE 9.7: ADVENTHEALTH FOR CHILDREN UNINSURED INPATIENT HOT SPOT ANALYSIS



Tables 9.37 through 9.42 outline the uninsured inpatient specific hot spot analysis for AdventHealth for Children. The analysis includes all uninsured inpatient visits (Table 9.37) and focuses on those visits within the hot spot for fiscal years 2016 through 2018 (Tables 9.38 through 9.41). In the top six census tracts (the hot spot) from which the most frequent uninsured inpatient visits are generated, the average unemployment rate is about nine percent; approximately 17 percent of the population is living below the federal poverty level. The average annual median household income is $70,799. Table 9.42 displays the census tracts, what zip code(s) they are in and the economic conditions for the hot spot. The 37 uninsured inpatient visits from within the hot spot cost more than $2.3 million and accounted for 12.8 percent of all uninsured inpatient visits between 2016 and 2018 (Table 9.37). More than three-fourths (78.4 percent) of uninsured inpatient visits were made by White patients. Additionally, patients aged 5-9 accounted for 32.4 percent of uninsured inpatient visits.

Encounter for antineoplastic chemotherapy was the most frequent primary diagnosis code and total cost from uninsured inpatient visits within this hot spot at 18.9 percent and with a total cost of more than $800,000 between 2016 and 2018. Due to low numbers and/or to protect patient privacy, data was not reported for the most frequent secondary diagnosis and the primary diagnosis with the highest average cost per uninsured inpatient visit. 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 9.37: ADVENTHEALTH FOR CHILDREN UNINSURED INPATIENT VISIT COMPARISON (2016-2018)

Criteria*	Data Snapshot
Total uninsured inpatient visits	288
Total uninsured inpatient visits in hot spot	37
Total uninsured inpatient cost	$11,863,716
Total uninsured inpatient cost in hot spot	$2,346,995
Percent of uninsured inpatient visits in hot spot	12.8%
Total homeless uninsured inpatient visits	3
Homeless visits as a percent of all uninsured inpatient visits	1.0%
Total cost for uninsured inpatient homeless visits	$64,984

*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 for Children Uninsured Inpatient Data

TABLE 9.38: ADVENTHEALTH FOR CHILDREN 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
Z51.11 Encounter for antineoplastic chemotherapy	7	$846,555	18.9%	$120,936
Z38.00 Single liveborn infant, delivered vaginally*		$24,567		
C91.02 Acute lymphoblastic leukemia, in relapse*		$550,495		
Z38.01 Single liveborn infant, delivered by cesarean*		$81,792		

*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.
**Top 4 listed due to all other diagnosis having total visits of one.
Source: AdventHealth for Children Uninsured Inpatient Data

TABLE 9.39: ADVENTHEALTH FOR CHILDREN TOP 5 MOST FREQUENT UNINSURED INPATIENT SECONDARY DIAGNOSIS CODES AND COSTS (2016-2018)

Top 5** Secondary Diagnosis Codes	Total Visits	Total Cost	% of all Visits in Hot Spot	Avg. Cost per Visit
C41.2 Malignant neoplasm of vertebral column*		$88,560		
C91.02 Acute lymphoblastic leukemia, in relapse*		$841,224		
P70.4 Other neonatal hypoglycemia*		$25,784		
C91.00 Acute lymphoblastic leukemia not having achieved remission*		$69,597		
E87.1 Hypo-osmolality and hyponatremia*		$73,894		
J98.5 Diseases of mediastinum, not elsewhere classified*		$148,725		

*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.
**Top 6 listed due to multiple diagnoses with same number of total visits.
Source: AdventHealth for Children Uninsured Inpatient Data

TABLE 9.40: ADVENTHEALTH FOR CHILDREN 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
Z51.11 Encounter for antineoplastic chemotherapy	7	$846,555	18.9%	$120,936
C91.02 Acute lymphoblastic leukemia, in relapse*		$550,495		
D70.8 Other neutropenia*		$151,063		
N31.9 Neuromuscular dysfunction of bladder, unspecified*		$101,823		
A41.9 Sepsis, unspecified organism*		$96,940		

*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 for Children Uninsured Inpatient Data

TABLE 9.41: ADVENTHEALTH FOR CHILDREN 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	29	78.4%	0-4	10	27.0%
Asian	0	0.0%	Multiple	0	0.0%	5-9	12	32.5%
Black or African American	3	8.1%	Non-Hispanic or non-Latino	8	21.6%	10-14	10	27.0%
Multiple	0	0.0%	Unknown	0	0.0%	15+	5	13.5%
Native Hawaiian or Pacific Islander	0	0.0%						
Other	5	13.5%						
Unknown	0	0.0%						
White	29	78.4%						

Source: AdventHealth for Children Uninsured Inpatient Data

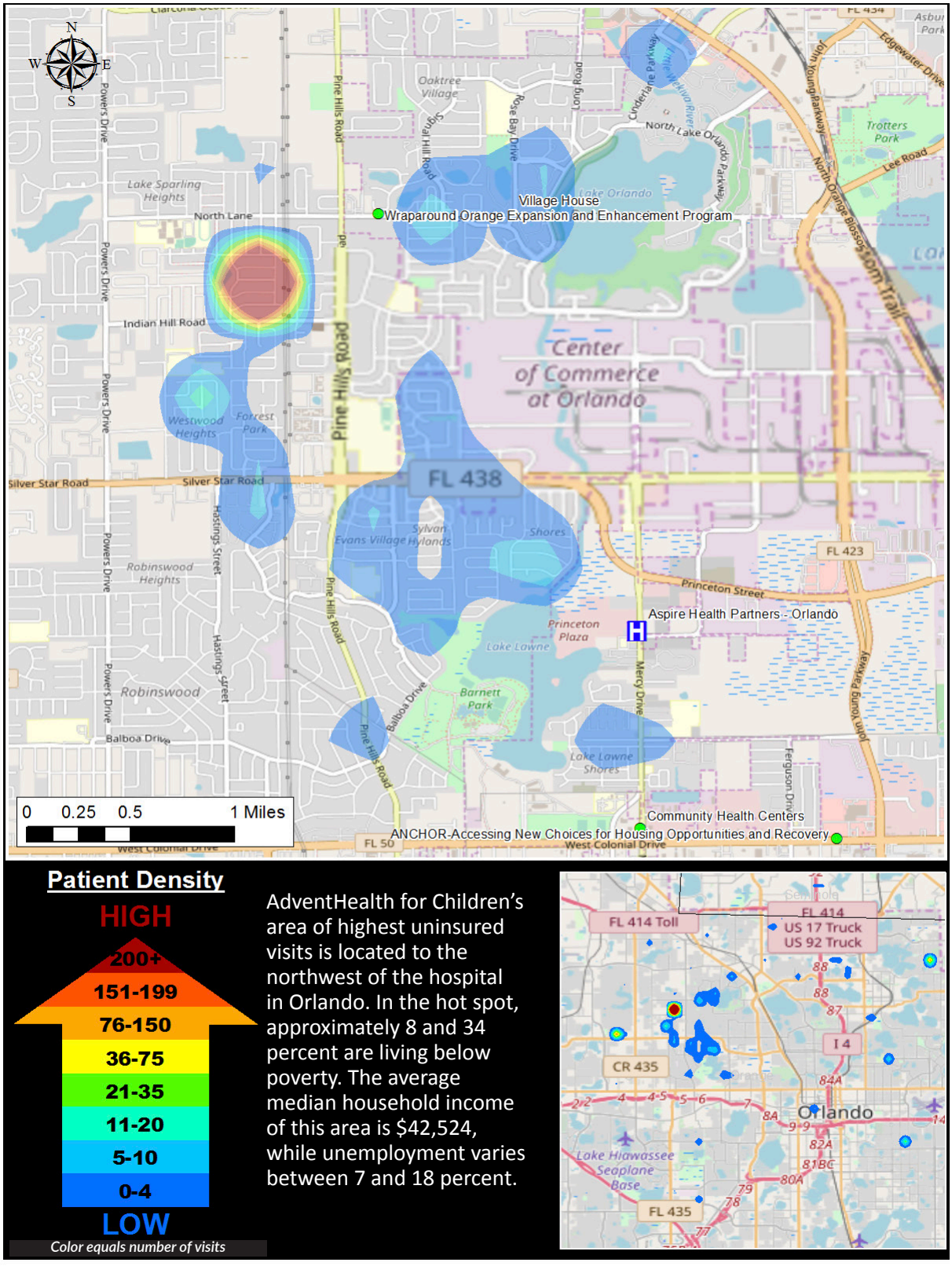
TABLE 9.42: ADVENTHEALTH FOR CHILDREN ECONOMIC CHARACTERISTICS OF TOP 5 CENSUS TRACTS (2012-2019)

Census Tract*	Census Tract within Zip Code(s)	% Unemployed	Median HH Income	% Below Poverty
12-095-015802	32789	5.5%	$171,250	2.7%
12-095-017802	32712	6.7%	$68,514	7.8%
12-095-014805	32818, 32835	7.8%	$40,891	16.7%
12-095-016730	32828	5.6%	$72,227	10.9%
12-095-012307	32808	17.8%	$35,644	28.9%
12-095-016712	32807, 32817	9.8%	$36,269	32.1%
Average		8.9%	$70,799	16.5%

*Top 6 listed due to multiple census tracts with same number of total visits.
Source: ProximityOne
Source: U.S. Census Bureau

Figure 9.8 illustrates the uninsured outpatient hot spot analysis for AdventHealth for Children.

FIGURE 9.8: ADVENTHEALTH FOR CHILDREN UNINSURED OUTPATIENT HOT SPOT ANALYSIS



Tables 9.43 through 9.48 outline the uninsured outpatient specific hot spot analysis for AdventHealth for Children. The analysis includes all uninsured outpatient visits (Table 9.43) and focuses on those visits within the hot spot for fiscal years 2016 through 2018 (Tables 9.44 through 9.47). In the top five census tracts (the hot spot) from which the most frequent uninsured outpatient visits are generated, the average unemployment rate is 14 percent; approximately 24 percent of the population is living below the federal poverty level. The average annual median household income is $42,524. Table 9.48 displays the census tracts, what zip code(s) they are in and the economic conditions for the hot spot. The 507 uninsured outpatient visits from within the hot spot cost more than $1.5 million and accounted for 13.9 percent of all uninsured outpatient visits between 2016 and 2018 (Table 9.43). More than half (54.5 percent) of uninsured outpatient visits were made by Black or African American patients. Additionally, patients aged 15 and over accounted for 29.4 percent of uninsured outpatient visits.

Malignant neoplasm of connective and soft tissue, unspecified, had the highest total cost from uninsured outpatient visits within this hot spot with a total cost of more than $200,000 between 2016 and 2018. Due to low numbers and/or to protect patient privacy, data was not reported for the most frequent primary diagnosis, the most frequent secondary diagnosis and it's associated cost and the primary diagnosis with the highest average cost per uninsured outpatient visit. 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 9.43: ADVENTHEALTH FOR CHILDREN UNINSURED OUTPATIENT VISIT COMPARISON (2016-2018)

Criteria*	Data Snapshot
Total uninsured outpatient visits	3,658
Total uninsured outpatient visits in hot spot	507
Total uninsured outpatient cost	$13,695,275
Total uninsured outpatient cost in hot spot	$1,521,884
Percent of uninsured outpatient visits in hot spot	13.9%
Total homeless uninsured outpatient visits	56
Homeless visits as a percent of all uninsured outpatient visits	1.5%
Total cost for uninsured outpatient homeless visits	$416,084

*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 for Children Uninsured Outpatient Data

TABLE 9.44: ADVENTHEALTH FOR CHILDREN 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
C49.9 Malignant neoplasm of connective and soft tissue, unspecified*		$283,938		
J06.9 Acute upper respiratory infection, unspecified	37	$55,812	7.3%	$1,508
J11.1 Influenza due to unidentified influenza virus with other respiratory manifestations	17	$36,256	3.4%	$2,133
D70.9 Neutropenia, unspecified*		$81,378		
N39.0 Urinary tract infection, site not specified	14	$38,714	2.8%	$2,765

*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 for Children Uninsured Outpatient Data

TABLE 9.45: ADVENTHEALTH FOR CHILDREN TOP 5 MOST FREQUENT UNINSURED OUTPATIENT SECONDARY DIAGNOSIS CODES AND COSTS (2016-2018)

Top 5** Secondary Diagnosis Codes	Total Visits	Total Cost	% of all Visits in Hot Spot	Avg. Cost per Visit
D69.59 Other secondary thrombocytopenia*		$81,225		
R50.9 Fever, unspecified	15	$26,152	3.0%	$1,743
B34.9 Viral infection, unspecified	11	$14,262	2.2%	$1,297
R05 Cough	9	$15,303	1.8%	$1,700
C49.9 Malignant neoplasm of connective and soft tissue, unspecified*		$91,188		
D64.81 Anemia due to antineoplastic chemotherapy	6	$23,746	1.2%	$3,958
J06.9 Acute upper respiratory infection, unspecified	6	$21,743	1.2%	$3,624
R10.9 Unspecified abdominal pain	6	$22,234	1.2%	$3,706

*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.
**Top 8 listed due to multiple diagnoses with same number of total visits.
Source: AdventHealth for Children Uninsured Outpatient Data

TABLE 9.46: ADVENTHEALTH FOR CHILDREN 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
C49.9 Malignant neoplasm of connective and soft tissue, unspecified*		$283,938		
D70.9 Neutropenia, unspecified*		$81,378		
K35.80 Unspecified acute appendicitis		$73,719		
J06.9 Acute upper respiratory infection, unspecified	37	$55,812	7.3%	$1,508
Z51.11 Encounter for antineoplastic chemotherapy*		$45,553		

*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 for Children Uninsured Outpatient Data

TABLE 9.47: ADVENTHEALTH FOR CHILDREN UNINSURED OUTPATIENT 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	145	28.6%	0-4	147	29.0%
Asian	1	0.3%	Multiple	0	0.0%	5-9	122	24.1%
Black or African American	276	54.5%	Non-Hispanic or non-Latino	355	70.0%	10-14	89	17.5%
Multiple	2	0.5%	Unknown	7	1.4%	15+	149	29.4%
Native Hawaiian or Pacific Islander	0	0.0%						
Other	121	24.0%						
Unknown	5	1.1%						
White	99	19.6%						

Source: AdventHealth for Children Uninsured Outpatient Data

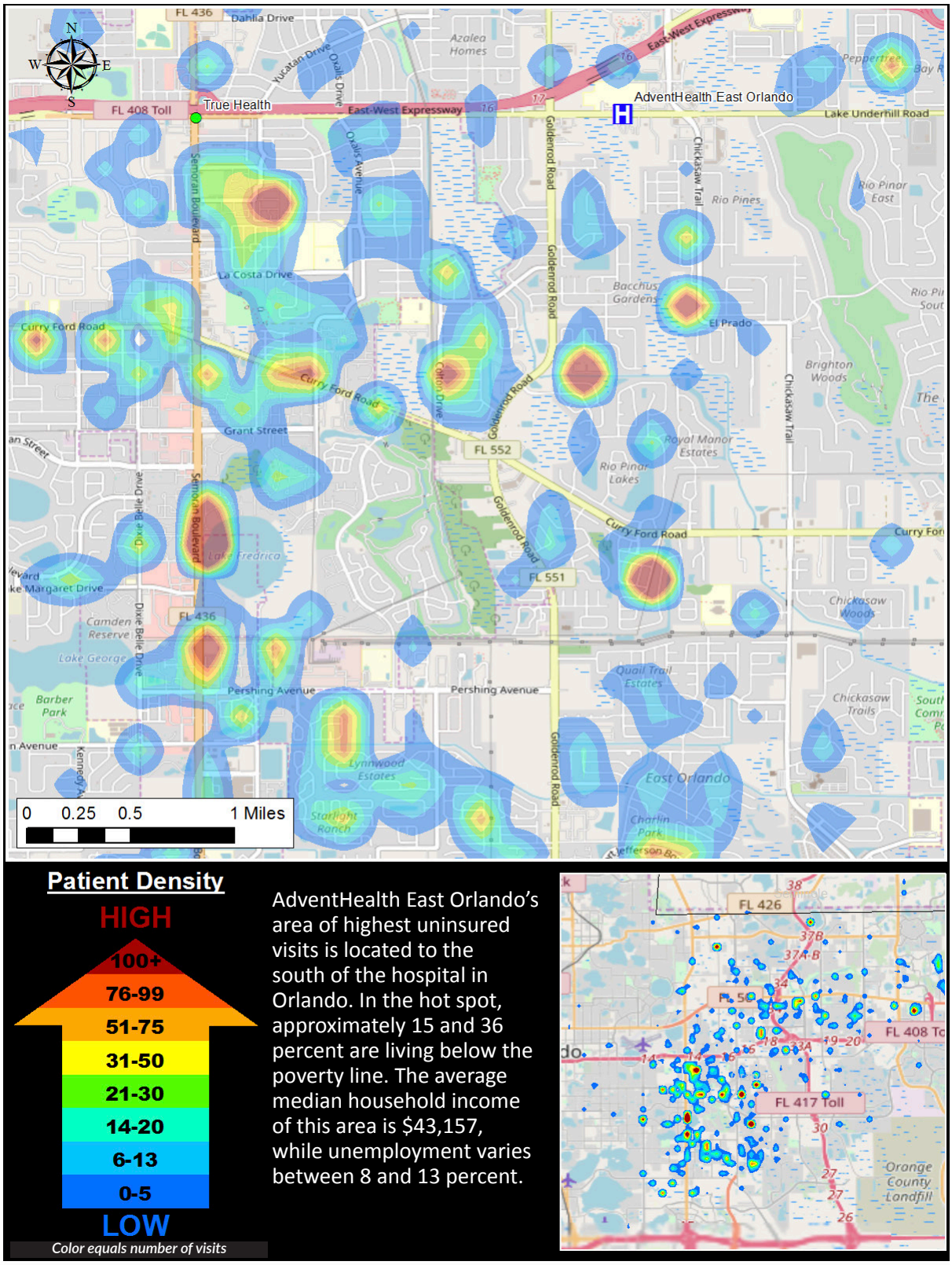
TABLE 9.48: ADVENTHEALTH FOR CHILDREN ECONOMIC CHARACTERISTICS OF TOP 5 CENSUS TRACTS (2012-2019)

Census Tract	Census Tract within Zip Code(s)	% Unemployed	Median HH Income	% Below Poverty
12-095-012307	32808	17.8%	$35,644	28.9%
12-095-012000	32808	17.1%	$28,912	34.4%
12-095-012401	32808, 32810	13.5%	$35,628	27.5%
12-095-015106	32810	15.2%	$43,924	19.9%
12-095-017802	32703, 32712	6.7%	$68,514	7.8%
Average		14.0%	$42,524	23.7%

Source: ProximityOne
Source: U.S. Census Bureau

Figure 9.9 illustrates the uninsured inpatient hot spot analysis for AdventHealth East Orlando.

FIGURE 9.9: ADVENTHEALTH EAST ORLANDO UNINSURED INPATIENT HOT SPOT ANALYSIS



Tables 9.49 through 9.54 outline the uninsured inpatient specific hot spot analysis for AdventHealth East Orlando. The analysis includes all uninsured inpatient visits (Table 9.49) and focuses on those visits within the hot spot for fiscal years 2016 through 2018 (Tables 9.50 through 9.53). 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 10 percent; approximately 24 percent of the population is living below the federal poverty level. The average annual median household income is $43,157. Table 9.54 displays the census tracts, what zip code(s) they are in and the economic conditions for the hot spot. The 566 uninsured inpatient visits from within the hot spot cost more than $22.8 million and accounted for 16.1 percent of all uninsured inpatient visits between 2016 and 2018 (Table 9.49). Almost three-fourths (73.5 percent) of uninsured inpatient visits were made by White patients. Additionally, patients aged 50-59 accounted for 27.2 percent of uninsured inpatient visits.

Sepsis, unspecified organism, was the most frequent primary diagnosis code and had the highest total and average costs from uninsured inpatient visits within this hot spot at 7.8 percent and with a total cost of more than $2.5 million and an average cost of $57,342 between 2016 and 2018. Essential (primary) hypertension was the most frequent secondary diagnosis from uninsured inpatient visits within this hot spot at 7.1 percent and with a total cost of more than $1 million for the same time period.

TABLE 9.49: ADVENTHEALTH EAST ORLANDO UNINSURED INPATIENT VISIT COMPARISON (2016-2018)

Criteria*	Data Snapshot
Total uninsured inpatient visits	3,520
Total uninsured inpatient visits in hot spot	566
Total uninsured inpatient cost	$140,802,351
Total uninsured inpatient cost in hot spot	$22,896,488
Percent of uninsured inpatient visits in hot spot	16.1%
Total homeless uninsured inpatient visits	355
Homeless visits as a percent of all uninsured inpatient visits	10.1%
Total cost for uninsured inpatient homeless visits	$11,986,497

*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 East Orlando Uninsured Inpatient Data

TABLE 9.50: ADVENTHEALTH EAST 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	44	$2,523,031	7.8%	$57,342
J45.901 Unspecified asthma with (acute) exacerbation	19	$460,770	3.4%	$24,251
F10.239 Alcohol dependence with withdrawal, unspecified	14	$350,898	2.5%	$25,064
J44.1 Chronic obstructive pulmonary disease with (acute) exacerbation	14	$470,452	2.5%	$33,604
R07.89 Other chest pain	13	$385,820	2.3%	$29,678

Source: AdventHealth East Orlando Uninsured Inpatient Data

TABLE 9.51: ADVENTHEALTH EAST ORLANDO TOP 5 MOST FREQUENT UNINSURED INPATIENT SECONDARY DIAGNOSIS CODES AND COSTS (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	40	$1,072,961	7.1%	$26,824
N17.9 Acute kidney failure, unspecified	26	$803,949	4.6%	$30,921
N39.0 Urinary tract infection, site not specified	20	$654,150	3.5%	$32,707
J18.9 Pneumonia, unspecified organism	19	$1,228,595	3.4%	$64,663
E87.1 Hypo-osmolality and hyponatremia	10	$433,707	1.8%	$43,371

Source: AdventHealth East Orlando Uninsured Inpatient Data

TABLE 9.52: ADVENTHEALTH EAST 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	44	$2,523,031	7.8%	$57,342
J44.1 Chronic obstructive pulmonary disease with (acute) exacerbation	14	$470,452	2.5%	$33,604
K35.80 Unspecified acute appendicitis	10	$463,820	1.8%	$46,382
J45.901 Unspecified asthma with (acute) exacerbation	19	$460,770	3.4%	$24,251
K80.00 Calculus of gallbladder with acute cholecystitis without obstruction	9	$418,001	1.6%	$46,445

Source: AdventHealth East Orlando Uninsured Inpatient Data

TABLE 9.53: ADVENTHEALTH EAST 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	270	47.7%	0-18	3	0.5%
Asian	3	0.6%	Multiple	0	0.0%	19-29	93	16.4%
Black or African American	48	8.6%	Non-Hispanic or non-Latino	296	52.3%	30-39	113	20.0%
Multiple	8	1.5%	Unknown	0	0.0%	40-49	136	24.0%
Native Hawaiian or Pacific Islander	0	0.0%				50-59	154	27.3%
Other	89	15.8%				60-69	59	10.4%
Unknown	0	0.0%				70-79	3	0.5%
White	416	73.5%				80+	5	0.9%

Source: AdventHealth East Orlando Uninsured Inpatient Data

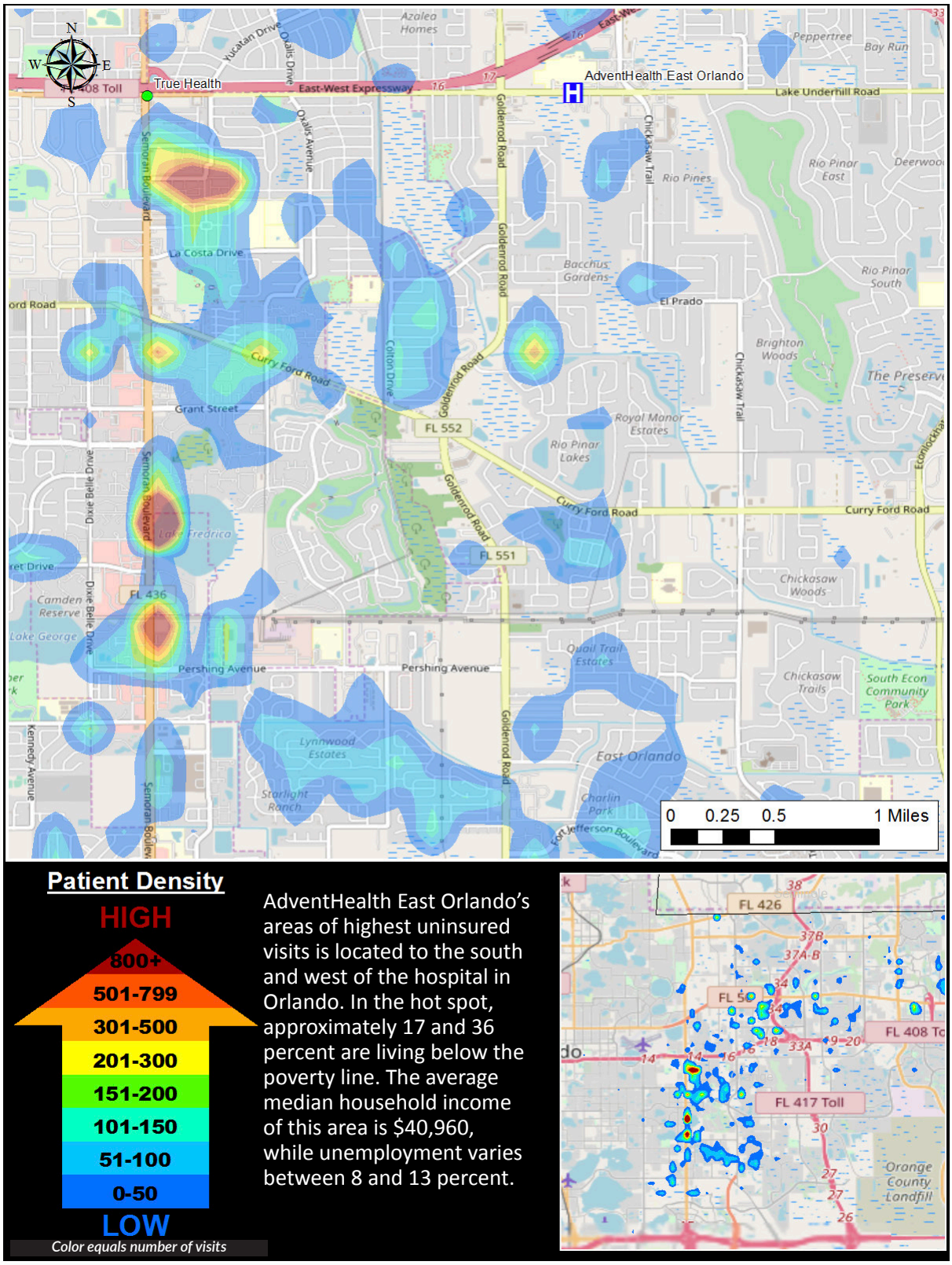
TABLE 9.54: ADVENTHEALTH EAST ORLANDO ECONOMIC CHARACTERISTICS OF TOP 5 CENSUS TRACTS (2012-2019)

Census Tract	Census Tract within Zip Code(s)	% Unemployed	Median HH Income	% Below Poverty
12-095-16712	32807, 32817, 32825	9.8%	$36,269	32.1%
12-095-13511	32822	12.9%	$29,538	36.3%
12-095-16713	32817, 32825	10.6%	$38,543	19.6%
12-095-16729	32826, 32828	9.2%	$60,333	16.8%
12-095-16602	32820, 32833	8.0%	$51,104	14.6%
Average		10.1%	$43,157	23.9%

Source: ProximityOne
Source: U.S. Census Bureau

Figure 9.10 illustrates the uninsured outpatient hot spot analysis for AdventHealth East Orlando.

FIGURE 9.10: ADVENTHEALTH EAST ORLANDO UNINSURED OUTPATIENT HOT SPOT ANALYSIS



Tables 9.55 through 9.60 outline the uninsured outpatient specific hot spot analysis for AdventHealth East Orlando. The analysis includes all uninsured outpatient visits (Table 9.55) and focuses on those visits within the hot spot for fiscal years 2016 through 2018 (Tables 9.56 through 9.59). 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 10 percent; approximately 27 percent of the population is living below the federal poverty level. The average annual median household income is $40,960. Table 9.60 displays the census tracts, what zip code(s) they are in and the economic conditions for the hot spot. The 7,749 uninsured outpatient visits from within the hot spot cost more than $34.9 million and accounted for 17.2 percent of all uninsured outpatient visits between 2016 and 2018 (Table 9.55). More than half (64.8 percent) of uninsured outpatient visits were made by White patients. Additionally, patients aged 19-29 accounted for 35.5 percent of uninsured outpatient visits.

Chest pain, unspecified, was the most frequent primary diagnosis code and had the highest total and average costs from uninsured outpatient visits within this hot spot at 3.4 percent and with a total cost of more than $3.2 million and an average cost of $12,263 between 2016 and 2018. Essential (primary) hypertension was the most frequent secondary diagnosis from uninsured outpatient visits within this hot spot at 3.3 percent and with a total cost of more than $1.8 million for the same time period.

TABLE 9.55: ADVENTHEALTH EAST ORLANDO UNINSURED OUTPATIENT VISIT COMPARISON (2016-2018)

Criteria*	Data Snapshot
Total uninsured outpatient visits	45,093
Total uninsured outpatient visits in hot spot	7,749
Total uninsured outpatient cost	$205,676,412
Total uninsured outpatient cost in hot spot	$34,911,696
Percent of uninsured outpatient visits in hot spot	17.2%
Total homeless uninsured outpatient visits	1929
Homeless visits as a percent of all uninsured outpatient visits	4.3%
Total cost for uninsured outpatient homeless visits	$11,957,107

*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 East Orlando Uninsured Outpatient Data

TABLE 9.56: ADVENTHEALTH EAST 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
R07.9 Chest pain, unspecified	266	$3,262,079	3.4%	$12,263
R10.9 Unspecified abdominal pain	227	$1,753,989	2.9%	$7,727
N39.0 Urinary tract infection, site not specified	190	$1,003,377	2.5%	$5,281
R51 Headache	179	$910,954	2.3%	$5,089
M54.5 Low back pain	158	$482,268	2.0%	$3,052

Source: AdventHealth East Orlando Uninsured Outpatient Data

TABLE 9.57: ADVENTHEALTH EAST ORLANDO TOP 5 MOST FREQUENT UNINSURED OUTPATIENT SECONDARY DIAGNOSIS CODES AND COSTS (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	254	$1,835,158	3.3%	$7,225
R19.7 Diarrhea, unspecified	113	$535,868	1.5%	$4,742
X58.XXXA Exposure to other specified factors, initial encounter	109	$200,037	1.4%	$1,835
R10.9 Unspecified abdominal pain	106	$932,587	1.4%	$8,798
R11.2 Nausea with vomiting, unspecified	103	$635,238	1.3%	$6,167

Source: AdventHealth East Orlando Uninsured Outpatient Data

TABLE 9.58: ADVENTHEALTH EAST ORLAND 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	266	$3,262,079	3.4%	$12,263
R10.9 Unspecified abdominal pain	227	$1,753,989	2.9%	$7,727
R07.89 Other chest pain	152	$1,639,442	2.0%	$10,786
N39.0 Urinary tract infection, site not specified	190	$1,003,377	2.5%	$5,281
R51 Headache	179	$910,954	2.3%	$5,089

Source: AdventHealth East Orlando Uninsured Outpatient Data

TABLE 9.59: ADVENTHEALTH EAST ORLANDO UNINSURED OUTPATIENT VISITS BY RACE, ETHNICITY AND AGE (2016-2018)

Race	Number	%	Ethnic Group	Number	%	Age	Number	%
American Indian or Alaskan Native	19	0.2%	Hispanic or Latino	5,070	65.4%	0-18	598	7.7%
Asian	37	0.5%	Multiple	2	0.0%	19-29	2,753	35.5%
Black or African American	904	11.8%	Non-Hispanic or non-Latino	2,632	34.0%	30-39	1,845	23.8%
Multiple	63	0.8%	Unknown	45	0.6%	40-49	1,365	17.6%
Native Hawaiian or Pacific Islander	8	0.1%				50-59	901	11.7%
Other	1,643	21.2%				60-69	243	3.1%
Unknown	38	0.6%				70-79	38	0.5%
White	5,019	64.8%				80+	6	0.1%

Source: AdventHealth East Orlando Uninsured Outpatient Data

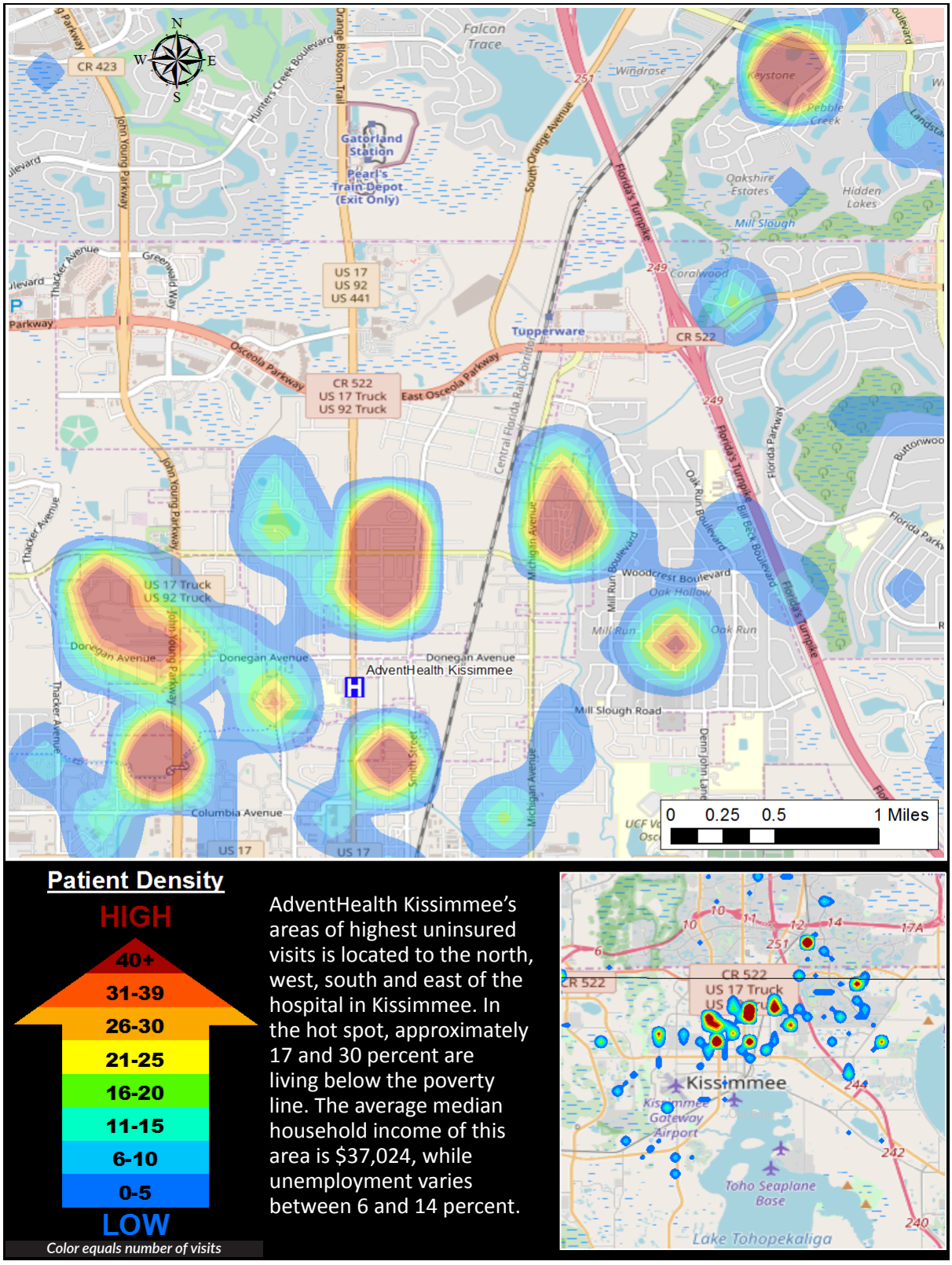
TABLE 9.60: ADVENTHEALTH EAST ORLANDO ECONOMIC CHARACTERISTICS OF TOP 5 CENSUS TRACTS (2012-2019)

Census Tract	Census Tract within Zip Code(s)	% Unemployed	Median HH Income	% Below Poverty
12-095-16712	32807, 32817, 32825	9.8%	$36,269	32.1%
12-095-16729	32826, 32828	9.2%	$60,333	16.8%
12-095-16508	32826	8.4%	$40,116	28.7%
12-095-16713	32817, 32825	10.6%	$38,543	19.6%
12-095-13511	32822	12.9%	$29,538	36.3%
Average		10.2%	$40,960	26.7%

Source: ProximityOne
Source: U.S. Census Bureau

Figure 9.11 illustrates the uninsured inpatient hot spot analysis for AdventHealth Kissimmee.

FIGURE 9.11: ADVENTHEALTH KISSIMMEE UNINSURED INPATIENT HOT SPOT ANALYSIS



Tables 9.61 through 9.66 outline the uninsured inpatient specific hot spot analysis for AdventHealth Kissimmee. The analysis includes all uninsured inpatient visits (Table 9.61) and focuses on those visits within the hot spot for fiscal years 2016 through 2018 (Tables 9.62 through 9.65). 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 nine percent; approximately 24 percent of the population is living below the federal poverty level. The average annual median household income is $37,024. Table 9.66 displays the census tracts, what zip code(s) they are in and the economic conditions for the hot spot. The 579 uninsured inpatient visits from within the hot spot cost more than $24.1 million and accounted for 39.2 percent of all uninsured inpatient visits between 2016 and 2018 (Table 9.61). More than half (53.4 percent) of uninsured inpatient visits were made by White patients. Additionally, patients aged 40-49 accounted for 30.2 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 8.1 percent and with a total cost of more than $2.3 million between 2016 and 2018. Acute kidney failure was the most frequent secondary diagnosis from uninsured inpatient visits within this hot spot at five percent and with a total cost of more than $1.1 million for the same time period. The primary diagnosis with the highest average cost per uninsured inpatient visit was other pulmonary embolism without acute cor pulmonale, with an average cost of $105,968. 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 9.61: ADVENTHEALTH KISSIMMEE UNINSURED INPATIENT VISIT COMPARISON (2016-2018)

Criteria*	Data Snapshot
Total uninsured inpatient visits	1477
Total uninsured inpatient visits in hot spot	579
Total uninsured inpatient cost	$62,103,901
Total uninsured inpatient cost in hot spot	$24,185,778
Percent of uninsured inpatient visits in hot spot	39.2%
Total homeless uninsured inpatient visits	126
Homeless visits as a percent of all uninsured inpatient visits	8.5%
Total cost for uninsured inpatient homeless visits	$5,652,395

*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 Kissimmee Uninsured Inpatient Data

TABLE 9.62: ADVENTHEALTH KISSIMMEE 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	47	$2,340,560	8.1%	$49,799
J44.1 Chronic obstructive pulmonary disease with (acute) exacerbation	19	$753,933	3.3%	$39,681
F10.239 Alcohol dependence with withdrawal, unspecified	12	$233,184	2.1%	$19,432
J45.901 Unspecified asthma with (acute) exacerbation	12	$232,789	2.1%	$19,399
K52.9 Noninfective gastroenteritis and colitis, unspecified	12	$328,942	2.1%	$27,412
N13.2 Hydronephrosis with renal and ureteral calculous obstruction	12	$348,924	2.1%	$29,077

*Top 6 listed due to multiple diagnoses with same number of total visits.
Source: AdventHealth Kissimmee Uninsured Inpatient Data

TABLE 9.63: ADVENTHEALTH KISSIMMEE TOP 5 MOST FREQUENT UNINSURED INPATIENT SECONDARY DIAGNOSIS CODES AND COSTS (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	29	$1,191,429	5.0%	$41,084
E87.1 Hypo-osmolality and hyponatremia	27	$963,378	4.7%	$35,681
I10 Essential (primary) hypertension	25	$762,185	4.3%	$30,487
N39.0 Urinary tract infection, site not specified	21	$802,554	3.6%	$38,217
J18.9 Pneumonia, unspecified organism	17	$1,059,320	2.9%	$62,313

Source: AdventHealth Kissimmee Uninsured Inpatient Data

TABLE 9.64: ADVENTHEALTH KISSIMMEE 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	47	$2,340,560	8.1%	$49,799
J44.1 Chronic obstructive pulmonary disease with (acute) exacerbation	19	$753,933	3.3%	$39,681
D69.3 Immune thrombocytopenic purpura*		$677,436		
I33.0 Acute and subacute infective endocarditis*		$657,427		
I26.99 Other pulmonary embolism without acute cor pulmonale	5	$529,841	0.9%	$105,968

*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 Kissimmee Uninsured Inpatient Data

TABLE 9.65: ADVENTHEALTH KISSIMMEE UNINSURED INPATIENT VISITS BY RACE, ETHNICITY AND AGE (2016-2018)

Race	Number	%	Ethnic Group	Number	%	Age	Number	%
American Indian or Alaskan Native	11	1.9%	Hispanic or Latino	315	54.3%	0-18	3	0.5%
Asian	6	1.1%	Multiple	0	0.0%	19-29	66	11.4%
Black or African American	96	16.6%	Non-Hispanic or non-Latino	244	42.1%	30-39	126	21.8%
Multiple	16	2.9%	Unknown	20	3.5%	40-49	175	30.2%
Native Hawaiian or Pacific Islander	0	0.0%				50-59	145	25.1%
Other	123	21.2%				60-69	55	9.5%
Unknown	16	2.9%				70-79	6	1.0%
White	309	53.4%				80+	3	0.5%

Source: AdventHealth Kissimmee Uninsured Inpatient Data

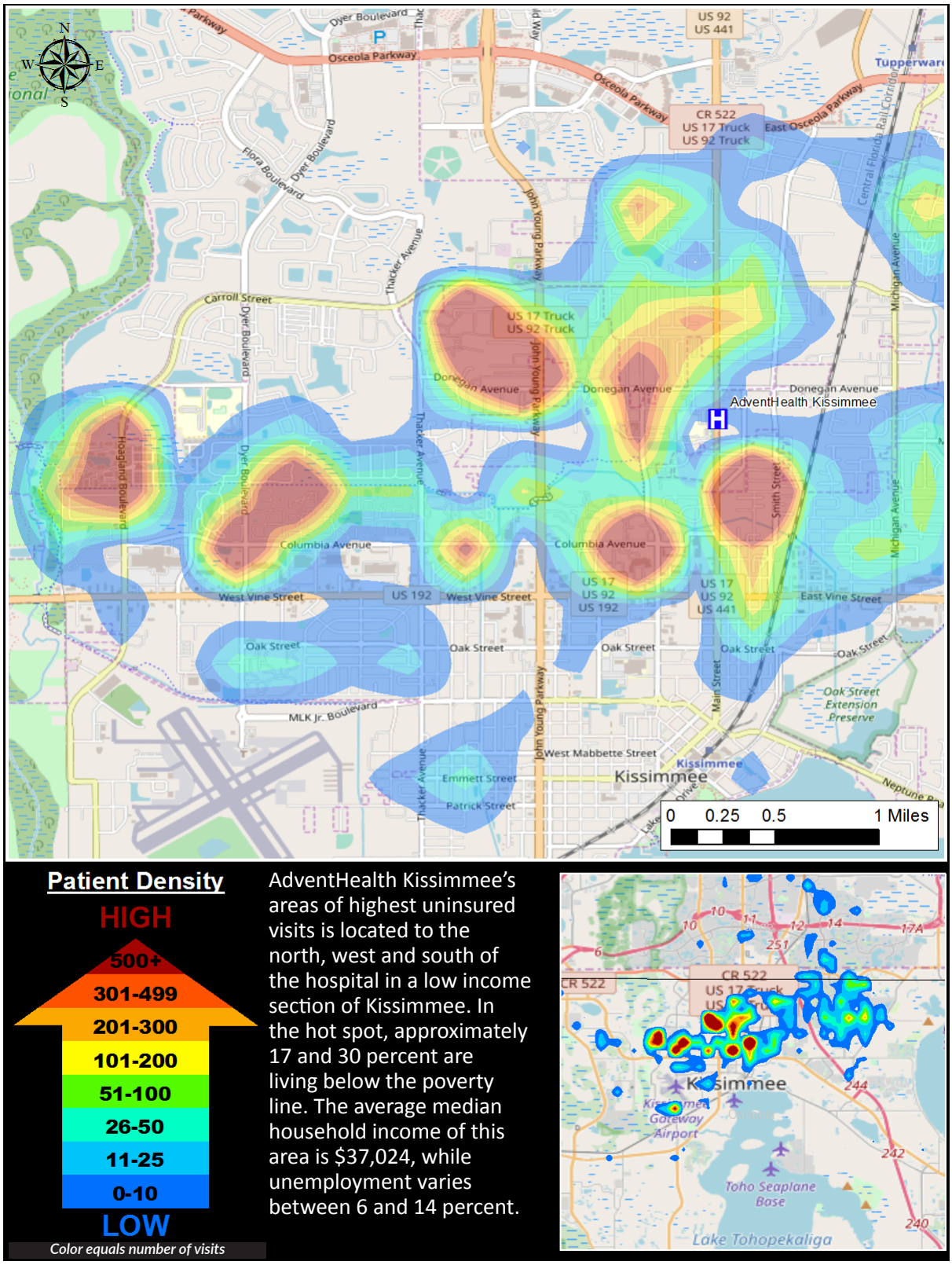
TABLE 9.66: ADVENTHEALTH KISSIMMEE ECONOMIC CHARACTERISTICS OF TOP 5 CENSUS TRACTS (2012-2019)

Census Tract	Census Tract within Zip Code(s)	% Unemployed	Median HH Income	% Below Poverty
12-09-742300	34744	13.5%	$38,056	18.6%
12-097-42200	34741, 34744	9.6%	$33,400	28.5%
12-097-42900	34744	6.1%	$43,750	17.4%
12-097-41900	34741	6.5%	$29,898	29.8%
12-097-42602	34743, 34744	10.3%	$40,018	26.4%
Average		9.2%	$37,024	24.1%

Source: ProximityOne | Source: U.S. Census Bureau

Figure 9.12 illustrates the uninsured outpatient hot spot analysis for AdventHealth Kissimmee.

FIGURE 9.12: ADVENTHEALTH KISSIMMEE UNINSURED OUTPATIENT HOT SPOT ANALYSIS



Tables 9.67 through 9.72 outline the uninsured outpatient specific hot spot analysis for AdventHealth Kissimmee. The analysis includes all uninsured outpatient visits (Table 9.67) and focuses on those visits within the hot spot for fiscal years 2016 through 2018 (Tables 9.68 through 9.71). 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 nine percent; approximately 24 percent of the population is living below the federal poverty level. The average annual median household income is $37,024. Table 9.72 displays the census tracts, what zip code(s) they are in and the economic conditions for the hot spot. The 6,805 uninsured outpatient visits from within the hot spot cost more than $35.6 million and accounted for 38.6 percent of all uninsured outpatient visits between 2016 and 2018 (Table 9.67). More than half (51.7 percent) of uninsured outpatient visits were made by White patients. Additionally, patients aged 19-29 accounted for 30.2 percent of uninsured outpatient visits.

Chest pain, unspecified, was the most frequent primary diagnosis code and had the highest total and average costs from uninsured outpatient visits within this hot spot at 3.8 percent and with a total cost of more than $4.1 million and an average cost of $16,294 between 2016 and 2018. Essential (primary) hypertension was the most frequent secondary diagnosis from uninsured outpatient visits within this hot spot at 3.4 percent and with a total cost of more than $1.9 million for the same time period.

TABLE 9.67: ADVENTHEALTH KISSIMMEE UNINSURED OUTPATIENT VISIT COMPARISON (2016-2018)

Criteria*	Data Snapshot
Total uninsured outpatient visits	17,609
Total uninsured outpatient visits in hot spot	6,805
Total uninsured outpatient cost	$92,295,636
Total uninsured outpatient cost in hot spot	$35,605,315
Percent of uninsured outpatient visits in hot spot	38.6%
Total homeless uninsured outpatient visits	556
Homeless visits as a percent of all uninsured outpatient visits	3.2%
Total cost for uninsured outpatient homeless visits	$3,130,301

*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 Kissimmee Uninsured Outpatient Data

TABLE 9.68: ADVENTHEALTH KISSIMMEE 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
R07.9 Chest pain, unspecified	256	$4,171,364	3.8%	$16,294
N39.0 Urinary tract infection, site not specified	219	$1,271,997	3.2%	$5,808
R51 Headache	183	$1,147,204	2.7%	$6,269
R10.9 Unspecified abdominal pain	171	$1,358,707	2.5%	$7,946
J02.9 Acute pharyngitis, unspecified	163	$322,007	2.4%	$1,976

Source: AdventHealth Kissimmee Uninsured Outpatient Data

TABLE 9.69: ADVENTHEALTH KISSIMMEE TOP 5 MOST FREQUENT UNINSURED OUTPATIENT SECONDARY DIAGNOSIS CODES AND COSTS (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	231	$1,973,853	3.4%	$8,545
R11.2 Nausea with vomiting, unspecified	118	$815,623	1.7%	$6,912
R51 Headache	110	$782,056	1.6%	$7,110
N39.0 Urinary tract infection, site not specified	108	$838,825	1.6%	$7,767
R10.9 Unspecified abdominal pain	107	$911,742	1.6%	$8,521

Source: AdventHealth Kissimmee Uninsured Outpatient Data

TABLE 9.70: ADVENTHEALTH KISSIMMEE 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	256	$4,171,364	3.8%	$16,294
R07.89 Other chest pain	116	$1,725,876	1.7%	$14,878
R10.9 Unspecified abdominal pain	171	$1,358,707	2.5%	$7,946
N39.0 Urinary tract infection, site not specified	219	$1,271,997	3.2%	$5,808
R51 Headache	183	$1,147,204	2.7%	$6,269

Source: AdventHealth Kissimmee Uninsured Outpatient Data

TABLE 9.71: ADVENTHEALTH KISSIMMEE UNINSURED OUTPATIENT VISITS BY RACE, ETHNICITY AND AGE (2016-2018)

Race	Number	%	Ethnic Group	Number	%	Age	Number	%
American Indian or Alaskan Native	49	0.7%	Hispanic or Latino	4,680	68.8%	0-18	512	7.5%
Asian	36	0.5%	Multiple	0	0.0%	19-29	2,057	30.2%
Black or African American	1,116	16.5%	Non-Hispanic or non-Latino	1,976	29.0%	30-39	1,501	22.1%
Multiple	97	1.5%	Unknown	149	2.2%	40-49	1,448	21.2%
Native Hawaiian or Pacific Islander	34	0.5%				50-59	974	14.3%
Other	1,729	25.5%				60-69	270	4.0%
Unknown	199	3.0%				70-79	24	0.4%
White	3,519	51.8%				80+	19	0.3%

Source: AdventHealth Kissimmee Uninsured Outpatient Data

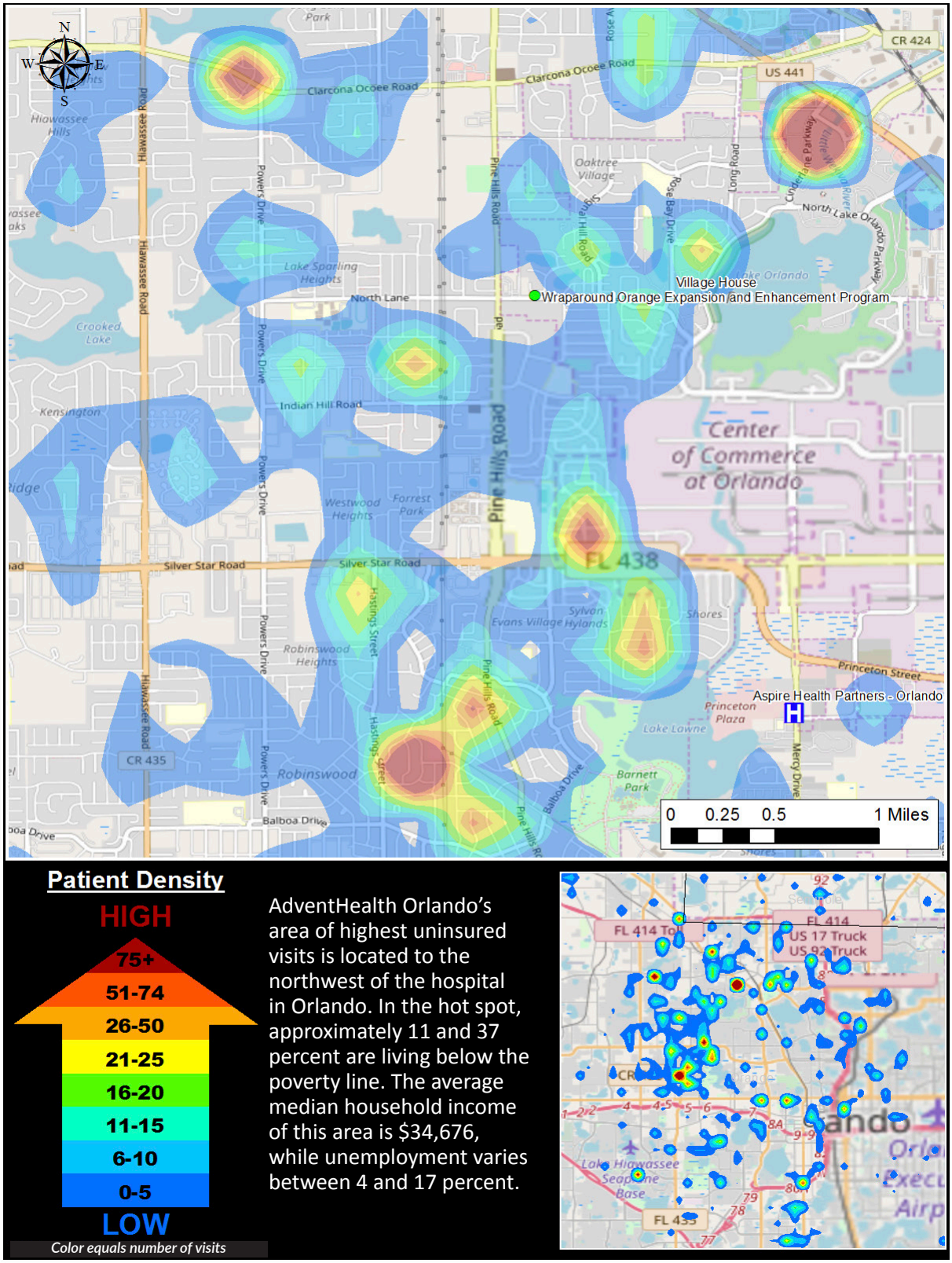
TABLE 9.72: ADVENTHEALTH KISSIMMEE ECONOMIC CHARACTERISTICS OF TOP 5 CENSUS TRACTS (2012-2019)

Census Tract	Census Tract within Zip Code(s)	% Unemployed	Median HH Income	% Below Poverty
12-097-42200	34741, 34744	9.6%	$33,400	28.5%
12-097-42300	34744	13.5%	$38,056	18.6%
12-097-41900	34741	6.5%	$29,898	29.8%
12-097-42900	34744	6.1%	$43,750	17.4%
12-097-42602	34743, 34744	10.3%	$40,018	26.4%
Average		9.2%	$37,024	24.1%

Source: ProximityOne
Source: U.S. Census Bureau

Figure 9.13 illustrates the uninsured inpatient hot spot analysis for AdventHealth Orlando.

FIGURE 9.13: ADVENTHEALTH ORLANDO UNINSURED INPATIENT HOT SPOT ANALYSIS



Tables 9.73 through 9.78 outline the uninsured inpatient specific hot spot analysis for AdventHealth Orlando. The analysis includes all uninsured inpatient visits (Table 9.73) and focuses on those visits within the hot spot for fiscal years 2016 through 2018 (Tables 9.74 through 9.77). 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. Table 9.78 displays the census tracts, what zip code(s) they are in and the economic conditions for the hot spot. 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 9.73). 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 9.73: 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 9.74: 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 9.75: ADVENTHEALTH ORLANDO TOP 5 MOST FREQUENT UNINSURED INPATIENT SECONDARY DIAGNOSIS CODES AND COSTS (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 9.76: 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 9.77: 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

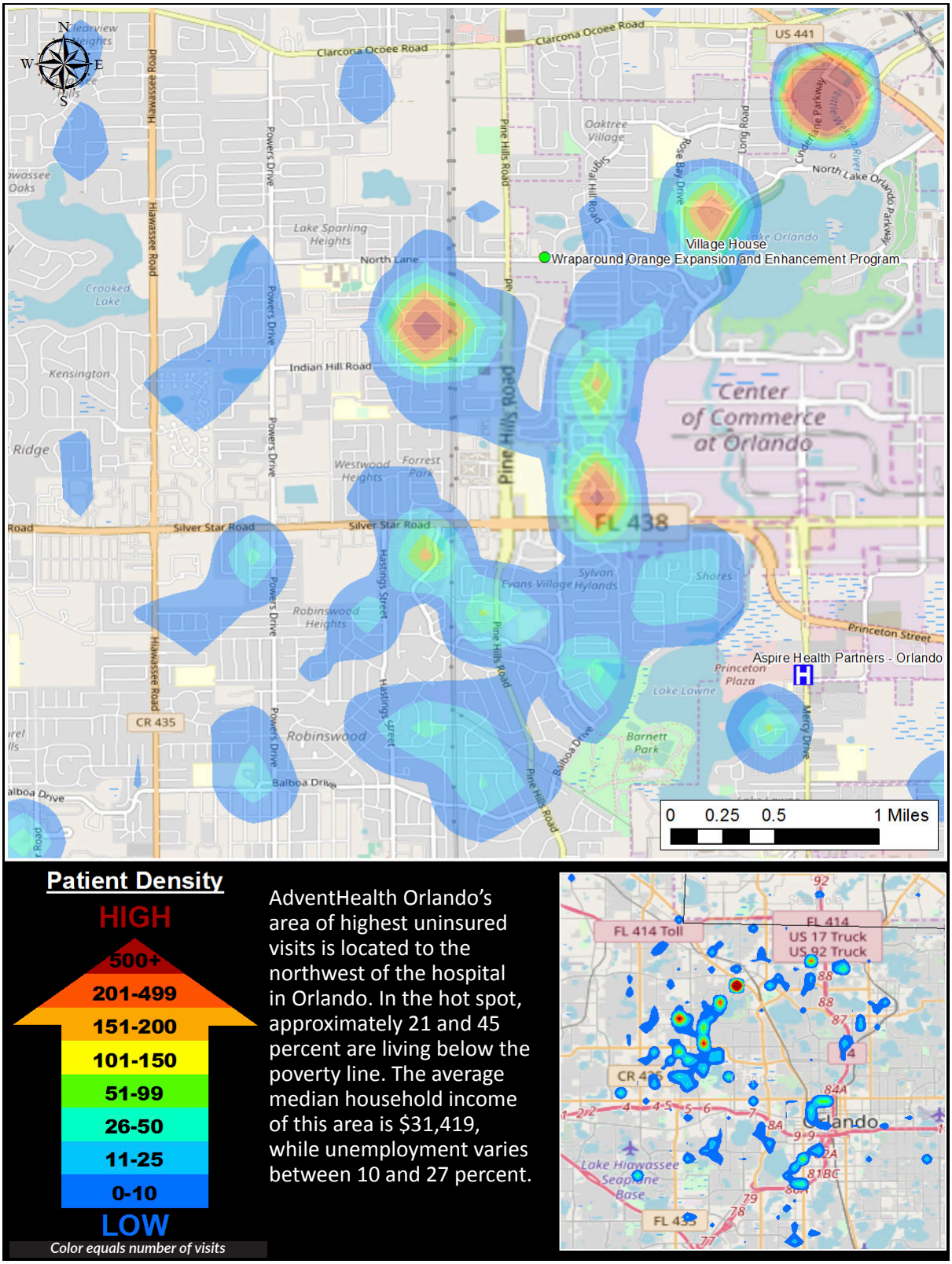
TABLE 9.78: ADVENTHEALTH ORLANDO ECONOMIC CHARACTERISTICS OF TOP 5 CENSUS TRACTS (2012-2019)

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 9.14 illustrates the uninsured outpatient hot spot analysis for AdventHealth Orlando.

FIGURE 9.14: ADVENTHEALTH ORLANDO UNINSURED OUTPATIENT HOT SPOT ANALYSIS



Tables 9.79 through 9.84 outline the uninsured outpatient specific hot spot analysis for AdventHealth Orlando. The analysis includes all uninsured outpatient visits (Table 9.79) and focuses on those visits within the hot spot for fiscal years 2016 through 2018 (Tables 9.80 through 9.83). 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. Table 9.84 displays the census tracts, what zip code(s) they are in and the economic conditions for the hot spot. 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 9.79). 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 three 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 9.79: 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 Orlando Uninsured Outpatient Data

TABLE 9.80: 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 9.81: ADVENTHEALTH ORLANDO TOP 5 MOST FREQUENT UNINSURED OUTPATIENT SECONDARY DIAGNOSIS CODES AND COSTS (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 9.82: 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 9.83: 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

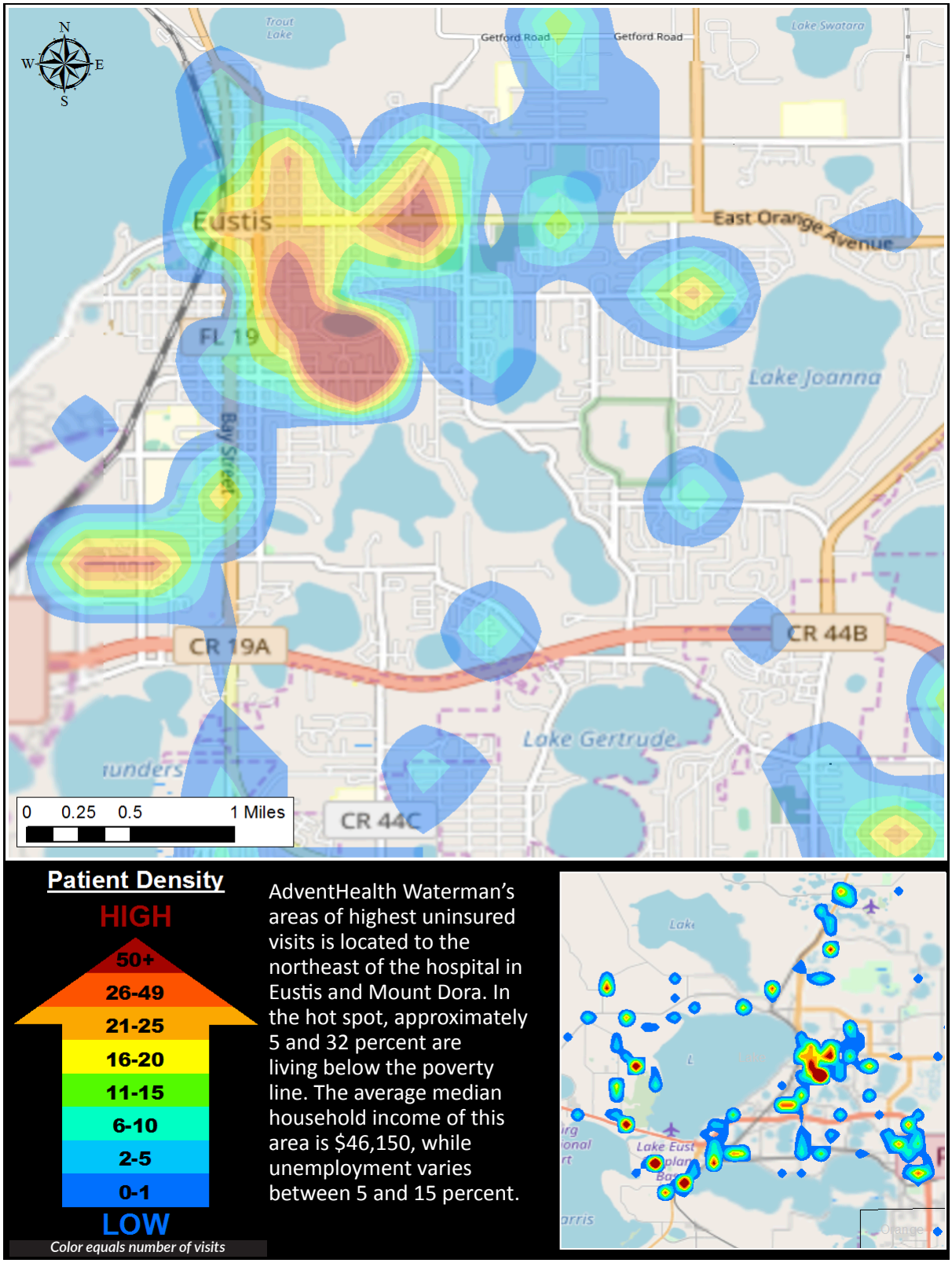
TABLE 9.84: ADVENTHEALTH ORLANDO ECONOMIC CHARACTERISTICS OF TOP 5 CENSUS TRACTS (2012-2019)

Census Tract	Census Tract within Zip Code(s)	% Unemployed	Median HH Income	% Below Poverty
12-095-12000	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

Figure 9.15 illustrates the uninsured inpatient hot spot analysis for AdventHealth Waterman.

FIGURE 9.15: ADVENTHEALTH WATERMAN UNINSURED INPATIENT HOT SPOT ANALYSIS



Tables 9.85 through 9.90 outline the uninsured inpatient specific hot spot analysis for AdventHealth Waterman. The analysis includes all uninsured inpatient visits (Table 9.85) and focuses on those visits within the hot spot for fiscal years 2016 through 2018 (Tables 9.86 through 9.89). 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 nine percent; approximately 19 percent of the population is living below the federal poverty level. The average annual median household income is $46,150. Table 9.90 displays the census tracts, what zip code(s) they are in and the economic conditions for the hot spot. The 354 uninsured inpatient visits from within the hot spot cost more than $13 million and accounted for 12.1 percent of all uninsured inpatient visits between 2016 and 2018 (Table 9.85). Almost three-fourths (74.1 percent) of uninsured inpatient visits were made by White patients. Additionally, patients aged 50-59 accounted for 27.1 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 4.5 percent and with a total cost of more than $600,000 between 2016 and 2018. Acidosis and essential (primary) hypertension were the most frequent secondary diagnoses from uninsured inpatient visits within this hot spot at 3.4 percent each and with a total cost of more than $300,000 and $290,347, respectively, 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 $102,048. 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 9.85: ADVENTHEALTH WATERMAN UNINSURED INPATIENT VISIT COMPARISON (2016-2018)

Criteria*	Data Snapshot
Total uninsured inpatient visits	2,917
Total uninsured inpatient visits in hot spot	354
Total uninsured inpatient cost	$99,300,718
Total uninsured inpatient cost in hot spot	$13,081,885
Percent of uninsured inpatient visits in hot spot	12.1%
Total homeless uninsured inpatient visits	22
Homeless visits as a percent of all uninsured inpatient visits	0.8%
Total cost for uninsured inpatient homeless visits	$761,076

*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 Waterman Uninsured Inpatient Data

TABLE 9.86: ADVENTHEALTH WATERMAN 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	16	$685,361	4.5%	$42,835
R07.89 Other chest pain	15	$391,346	4.2%	$26,090
K80.00 Calculus of gallbladder with acute cholecystitis without obstruction	7	$317,241	2.0%	$45,320
N17.9 Acute kidney failure, unspecified	7	$95,832	2.0%	$13,690
I21.4 Non-ST elevation (NSTEMI) myocardial infarction	6	$612,290	1.7%	$102,048
I25.110 Atherosclerotic heart disease of native coronary artery with unstable angina pectoris	6	$466,610	1.7%	$77,768
L03.113 Cellulitis of right upper limb	6	$138,440	1.7%	$23,073

*Top 7 listed due to multiple diagnoses with same number of total visits.
Source: AdventHealth Waterman Uninsured Inpatient Data

TABLE 9.87: ADVENTHEALTH WATERMAN TOP 5 MOST FREQUENT UNINSURED INPATIENT SECONDARY DIAGNOSIS CODES AND COSTS (2016-2018)

Top 5* Secondary Diagnosis Codes	Total Visits	Total Cost	% of all Visits in Hot Spot	Avg. Cost per Visit
E87.2 Acidosis	12	$312,652	3.4%	$26,054
I10 Essential (primary) hypertension	12	$290,347	3.4%	$24,196
E87.1 Hypo-osmolality and hyponatremia	11	$238,651	3.1%	$21,696
N39.0 Urinary tract infection, site not specified	10	$237,985	2.8%	$23,799
F17.210 Nicotine dependence, cigarettes, uncomplicated	7	$116,830	2.0%	$16,690
J18.9 Pneumonia, unspecified organism	7	$233,333	2.0%	$33,333

*Top 6 listed due to multiple diagnoses with same number of total visits.
Source: AdventHealth Waterman Uninsured Inpatient Data

TABLE 9.88: ADVENTHEALTH WATERMAN 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	16	$685,361	4.5%	$42,835
I33.0 Acute and subacute infective endocarditis*		$646,267		
I21.4 Non-ST elevation (NSTEMI) myocardial infarction	6	$612,290	1.7%	$102,048
I25.110 Atherosclerotic heart disease of native coronary artery with unstable angina pectoris	6	$466,610	1.7%	$77,768
R07.89 Other chest pain	15	$391,346	4.2%	$26,090

*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 Waterman Uninsured Inpatient Data

TABLE 9.89: ADVENTHEALTH WATERMAN 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			0-18	10	2.8%
Asian	1	0.3%	Multiple			19-29	52	14.7%
Black or African American	65	18.4%	Non-Hispanic or non-Latino			30-39	83	23.4%
Multiple	0	0.0%	Unknown			40-49	89	25.1%
Native Hawaiian or Pacific Islander	0	0.0%				50-59	96	27.2%
Other	24	6.8%				60-69	22	6.2%
Unknown	1	0.4%				70-79	0	0.0%
White	262	74.1%				80+	2	0.6%

*Due to individual hospitals conducting their own data pulls, no ethnic group data from AdventHealth Waterman is available.
Source: AdventHealth Waterman Uninsured Inpatient Data

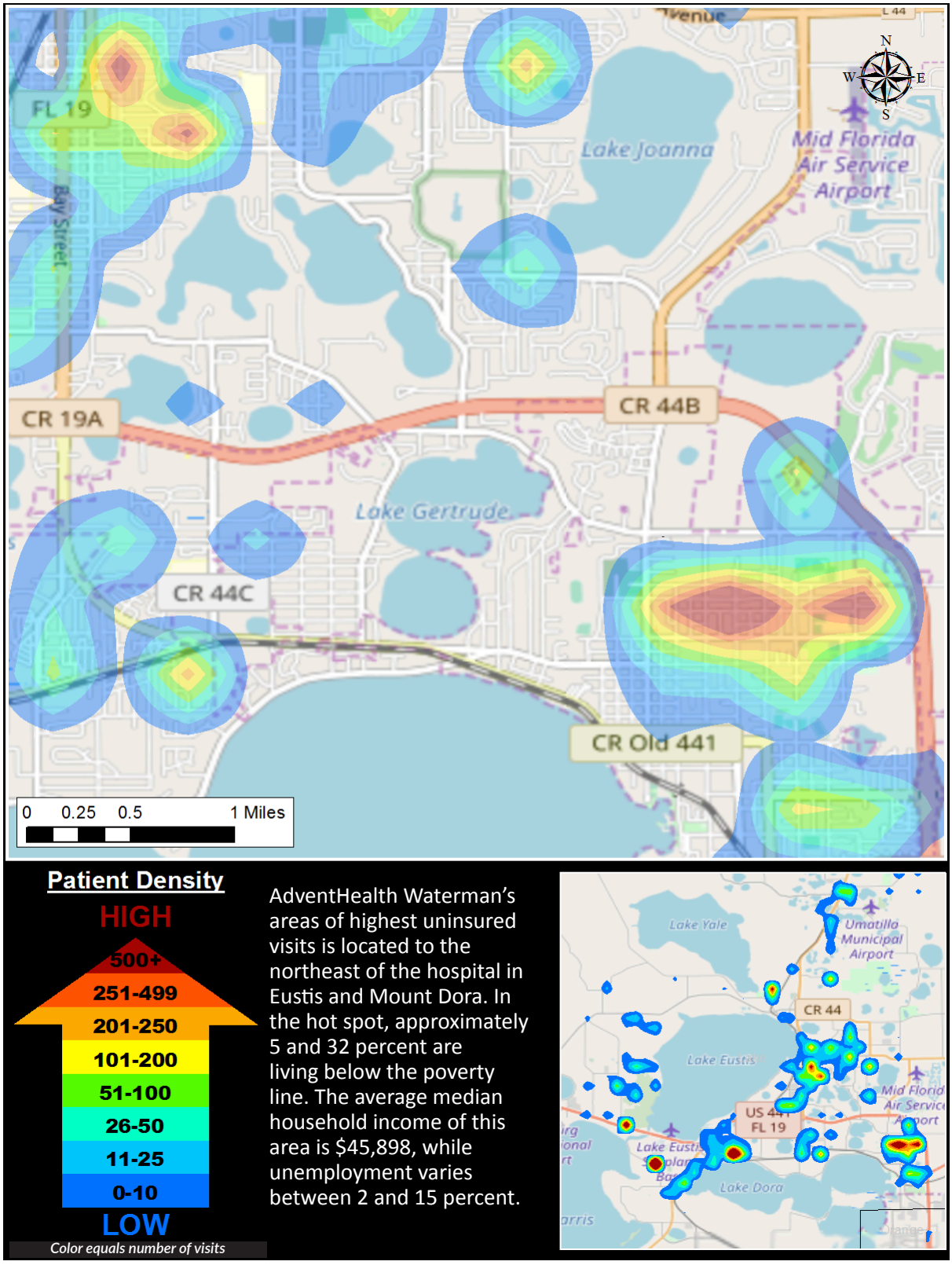
TABLE 9.90: ADVENTHEALTH WATERMAN ECONOMIC CHARACTERISTICS OF TOP 5 CENSUS TRACTS (2012-2019)

Census Tract	Census Tract within Zip Code(s)	% Unemployed	Median HH Income	% Below Poverty
12-069-030902	32732, 32757, 32776	4.7%	$70,122	4.7%
12-069-030105	32702, 32726, 32736, 32784	7.0%	$46,900	13.6%
12-069-030204	32726	8.6%	$38,693	26.6%
12-069-030206	32726, 32736	14.8%	$30,395	31.9%
12-069-030914	32757	9.7%	$44,638	17.4%
Average		8.9%	$46,150	18.8%

Source: ProximityOne | Source: U.S. Census Bureau

Figure 9.16 illustrates the uninsured outpatient hot spot analysis for AdventHealth Waterman.

FIGURE 9.16: ADVENTHEALTH WATERMAN UNINSURED OUTPATIENT HOT SPOT ANALYSIS



Tables 9.91 through 9.96 outline the uninsured outpatient specific hot spot analysis for AdventHealth Waterman. The analysis includes all uninsured outpatient visits (Table 9.91) and focuses on those visits within the hot spot for fiscal years 2016 through 2018 (Tables 9.92 through 9.95). 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 eight percent; approximately 18 percent of the population is living below the federal poverty level. The average annual median household income is $45,898. Table 9.96 displays the census tracts, what zip code(s) they are in and the economic conditions for the hot spot. The 3,649 uninsured outpatient visits from within the hot spot cost more than $14.9 million and accounted for 13.5 percent of all uninsured outpatient visits between 2016 and 2018 (Table 9.91). More than half (62.7 percent) of uninsured outpatient visits were made by White patients. Additionally, patients aged 19-29 accounted for 33.3 percent of uninsured outpatient visits.

Urinary tract infection, site not specified, was the most frequent primary diagnosis code and had the highest total cost from uninsured outpatient visits within this hot spot at 2.8 percent and with a total cost of more than $600,000 between 2016 and 2018. Essential (primary) hypertension was the most frequent secondary diagnosis from uninsured outpatient visits within this hot spot at 3.4 percent and with a total cost of more than $300,000 for the same time period. The primary diagnosis with the highest average cost per uninsured outpatient visit was unspecified abdominal pain with an average cost of $7,492.

TABLE 9.91: ADVENTHEALTH WATERMAN UNINSURED OUTPATIENT VISIT COMPARISON (2016-2018)

Criteria*	Data Snapshot
Total uninsured outpatient visits	26,975
Total uninsured outpatient visits in hot spot	3,649
Total uninsured outpatient cost	$112,724,859
Total uninsured outpatient cost in hot spot	$14,955,204
Percent of uninsured outpatient visits in hot spot	13.5%
Total homeless uninsured outpatient visits	364
Homeless visits as a percent of all uninsured outpatient visits	1.3%
Total cost for uninsured outpatient homeless visits	$1,160,520

*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 Waterman Uninsured Outpatient Data

TABLE 9.92: ADVENTHEALTH WATERMAN 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
N39.0 Urinary tract infection, site not specified	101	$613,548	2.8%	$6,075
J06.9 Acute upper respiratory infection, unspecified	82	$182,921	2.2%	$2,231
J40 Bronchitis, not specified as acute or chronic	69	$220,534	1.9%	$3,196
K08.89 Other specified disorders of teeth and supporting structures	64	$50,136	1.8%	$783
K04.7 Periapical abscess without sinus	63	$64,321	1.7%	$1,021
R07.89 Other chest pain	63	$396,679	1.7%	$6,296

*Top 6 listed due to multiple diagnoses with same number of total visits.
Source: AdventHealth Waterman Uninsured Outpatient Data

TABLE 9.93: ADVENTHEALTH WATERMAN TOP 5 MOST FREQUENT UNINSURED OUTPATIENT SECONDARY DIAGNOSIS CODES AND COSTS (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	123	$398,550	3.4%	$3,240
Z72.0 Tobacco use	108	$300,741	3.0%	$2,785
F17.200 Nicotine dependence, unspecified, uncomplicated	71	$200,136	1.9%	$2,819
R11.2 Nausea with vomiting, unspecified	66	$425,802	1.8%	$6,452
K02.9 Dental caries, unspecified	63	$96,183	1.7%	$1,527

Source: AdventHealth Waterman Uninsured Outpatient Data

TABLE 9.94: ADVENTHEALTH WATERMAN 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
N39.0 Urinary tract infection, site not specified	101	$613,548	2.8%	$6,075
R10.9 Unspecified abdominal pain	59	$442,050	1.6%	$7,492
R07.89 Other chest pain	63	$396,679	1.7%	$6,296
F10.129 Alcohol abuse with intoxication, unspecified	41	$288,825	1.1%	$7,045
R51 Headache	54	$242,311	1.5%	$4,487

Source: AdventHealth Waterman Uninsured Outpatient Data

TABLE 9.95: ADVENTHEALTH WATERMAN 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			0-18	309	8.5%
Asian	8	0.2%	Multiple			19-29	1,215	33.3%
Black or African American	832	22.8%	Non-Hispanic or non-Latino			30-39	971	26.6%
Multiple	25	0.7%	Unknown			40-49	640	17.6%
Native Hawaiian or Pacific Islander						50-59	392	10.7%
Other	480	13.3%				60-69	110	3.0%
Unknown	7	0.2%				70-79	8	0.2%
White	2,289	62.7%				80+	4	0.1%

*Due to individual hospitals conducting their own data pulls, no ethnic group data from AdventHealth Waterman is available.
Source: AdventHealth Waterman Uninsured Outpatient Data

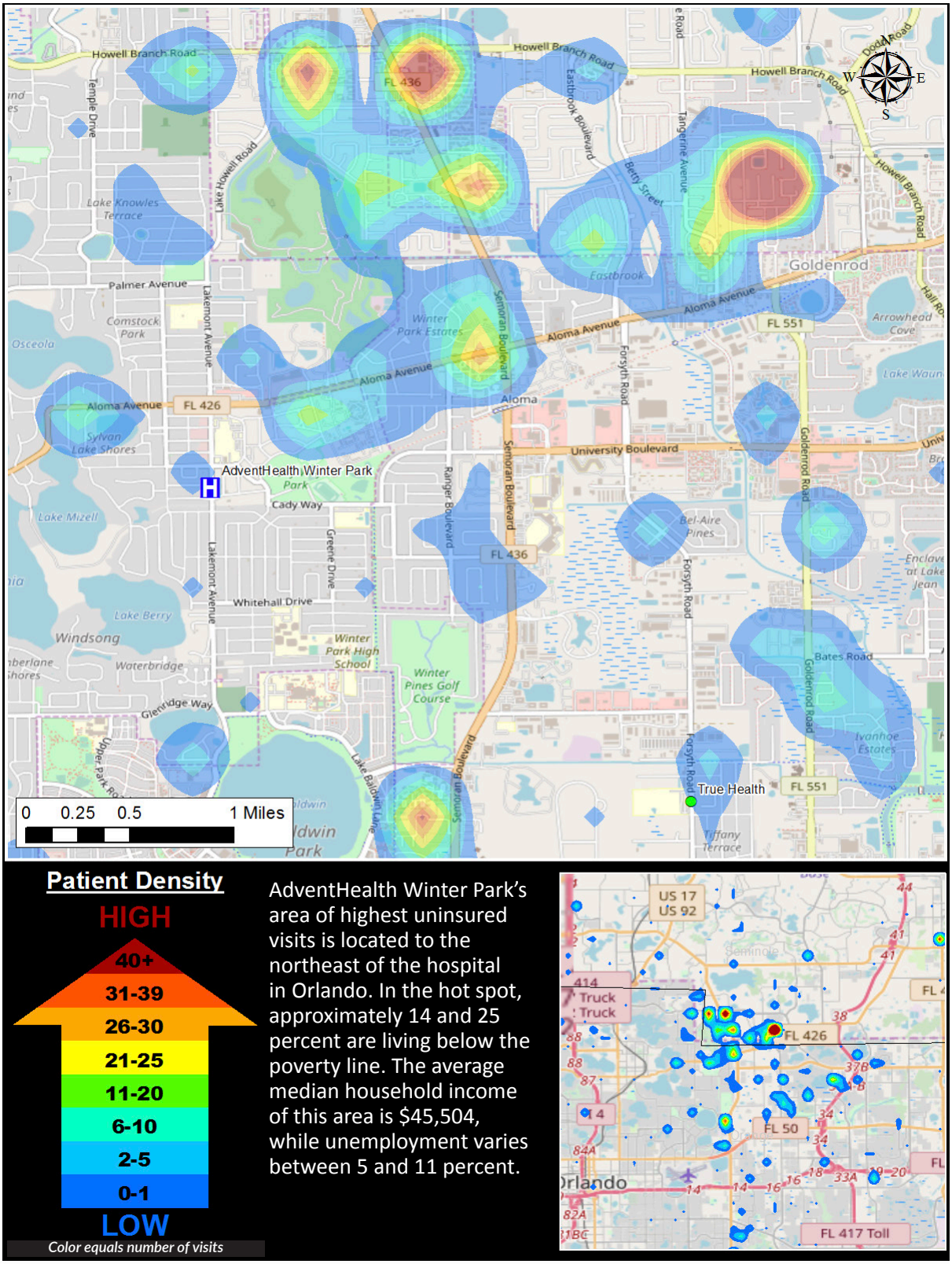
TABLE 9.96: ADVENTHEALTH WATERMAN ECONOMIC CHARACTERISTICS OF TOP 5 CENSUS TRACTS (2012-2019)

Census Tract	Census Tract within Zip Code(s)	% Unemployed	Median HH Income	% Below Poverty
12-069-030206	32726, 32736	14.8%	$30,395	31.9%
12-069-030105	32702, 32726, 32736, 32784	7.0%	$46,900	13.6%
12-069-030902	32736, 32757, 32776	4.7%	$70,122	4.7%
12-069-030912	32757	2.4%	$43,380	14.8%
12-069-030204	32726	8.6%	$38,693	26.6%
Average		7.5%	$45,898	18.3%

Source: ProximityOne
Source: U.S. Census Bureau

Figure 9.17 illustrates the uninsured inpatient hot spot analysis for AdventHealth Winter Park.

FIGURE 9.17: ADVENTHEALTH WINTER PARK UNINSURED INPATIENT HOT SPOT ANALYSIS



Tables 9.97 through 9.102 outline the uninsured inpatient specific hot spot analysis for AdventHealth Winter Park. The analysis includes all uninsured inpatient visits (Table 9.97) and focuses on those visits within the hot spot for fiscal years 2016 through 2018 (Tables 9.98 through 9.101). 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 seven percent; approximately 18 percent of the population is living below the federal poverty level. The average annual median household income is $45,504. Table 9.102 displays the census tracts, what zip code(s) they are in and the economic conditions for the hot spot. The 209 uninsured inpatient visits from within the hot spot cost more than $7.7 million and accounted for 19.2 percent of all uninsured inpatient visits between 2016 and 2018 (Table 9.97). Almost three-fourths (68.9 percent) of uninsured inpatient visits were made by White patients. Additionally, patients aged 30-39 accounted for 24.9 percent of uninsured inpatient visits.

Sepsis, unspecified organism, was the most frequent primary diagnosis code and had the highest total and average costs from uninsured inpatient visits within this hot spot at 11 percent and with a total cost of more than $900,000 and an average cost of $42,063 between 2016 and 2018. Essential (primary) hypertension was the most frequent secondary diagnosis from uninsured inpatient visits within this hot spot at 5.3 percent and with a total cost of more than $200,000 for the same time period. 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 9.97: ADVENTHEALTH WINTER PARK UNINSURED INPATIENT VISIT COMPARISON (2016-2018)

Criteria*	Data Snapshot
Total uninsured inpatient visits	1,087
Total uninsured inpatient visits in hot spot	209
Total uninsured inpatient cost	$40,916,179
Total uninsured inpatient cost in hot spot	$7,710,060
Percent of uninsured inpatient visits in hot spot	19.2%
Total homeless uninsured inpatient visits	23
Homeless visits as a percent of all uninsured inpatient visits	2.1%
Total cost for uninsured inpatient homeless visits	$900,807

*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 Winter Park Uninsured Inpatient Data

TABLE 9.98: ADVENTHEALTH WINTER PARK 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	23	$967,458	11.0%	$42,063
Z38.00 Single liveborn infant, delivered vaginally	9	$31,933	4.3%	$3,548
F10.239 Alcohol dependence with withdrawal, unspecified	7	$253,494	3.3%	$36,213
E10.65 Type 1 diabetes mellitus with hyperglycemia	6	$102,485	2.9%	$17,081
E10.10 Type 1 diabetes mellitus with ketoacidosis without coma	5	$70,784	2.4%	$14,157
J45.901 Unspecified asthma with (acute) exacerbation	5	$134,457	2.4%	$26,891

*Top 6 listed due to multiple diagnoses with same number of total visits.
Source: AdventHealth Winter Park Uninsured Inpatient Data

TABLE 9.99: ADVENTHEALTH WINTER PARK TOP 5 MOST FREQUENT UNINSURED INPATIENT SECONDARY DIAGNOSIS CODES AND COSTS (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	11	$257,203	5.3%	$23,382
E87.1 Hypo-osmolality and hyponatremia	8	$283,197	3.8%	$35,400
J96.01 Acute respiratory failure with hypoxia	5	$514,965	2.4%	$102,993
L03.116 Cellulitis of left lower limb	5	$167,967	2.4%	$33,593
N17.9 Acute kidney failure, unspecified	5	$148,586	2.4%	$29,717

Source: AdventHealth Winter Park Uninsured Inpatient Data

TABLE 9.100: ADVENTHEALTH WINTER PARK 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	23	$967,458	11.0%	$42,063
A40.8 Other streptococcal sepsis*		$315,976		
F10.239 Alcohol dependence with withdrawal, unspecified	7	$253,494	3.3%	$36,213
K70.31 Alcoholic cirrhosis of liver with ascites*		$201,611		
K80.00 Calculus of gallbladder with acute cholecystitis without obstruction*		$185,068		

*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 Winter Park Uninsured Inpatient Data

TABLE 9.101: ADVENTHEALTH WINTER PARK UNINSURED INPATIENT VISITS BY RACE, ETHNICITY AND AGE (2016-2018)

Race	Number	%	Ethnic Group	Number	%	Age	Number	%
American Indian or Alaskan Native	1	0.6%	Hispanic or Latino	59	28.2%	0-18	12	5.7%
Asian	4	1.9%	Multiple	0	0.0%	19-29	38	18.2%
Black or African American	20	9.7%	Non-Hispanic or non-Latino	147	70.4%	30-39	52	24.9%
Multiple	1	0.6%	Unknown	3	1.4%	40-49	43	20.6%
Native Hawaiian or Pacific Islander	0	0.0%				50-59	41	19.6%
Other	35	16.8%				60-69	22	10.5%
Unknown	3	1.5%				70-79	0	0.0%
White	144	68.9%				80+	1	0.5%

Source: AdventHealth Winter Park Uninsured Inpatient Data

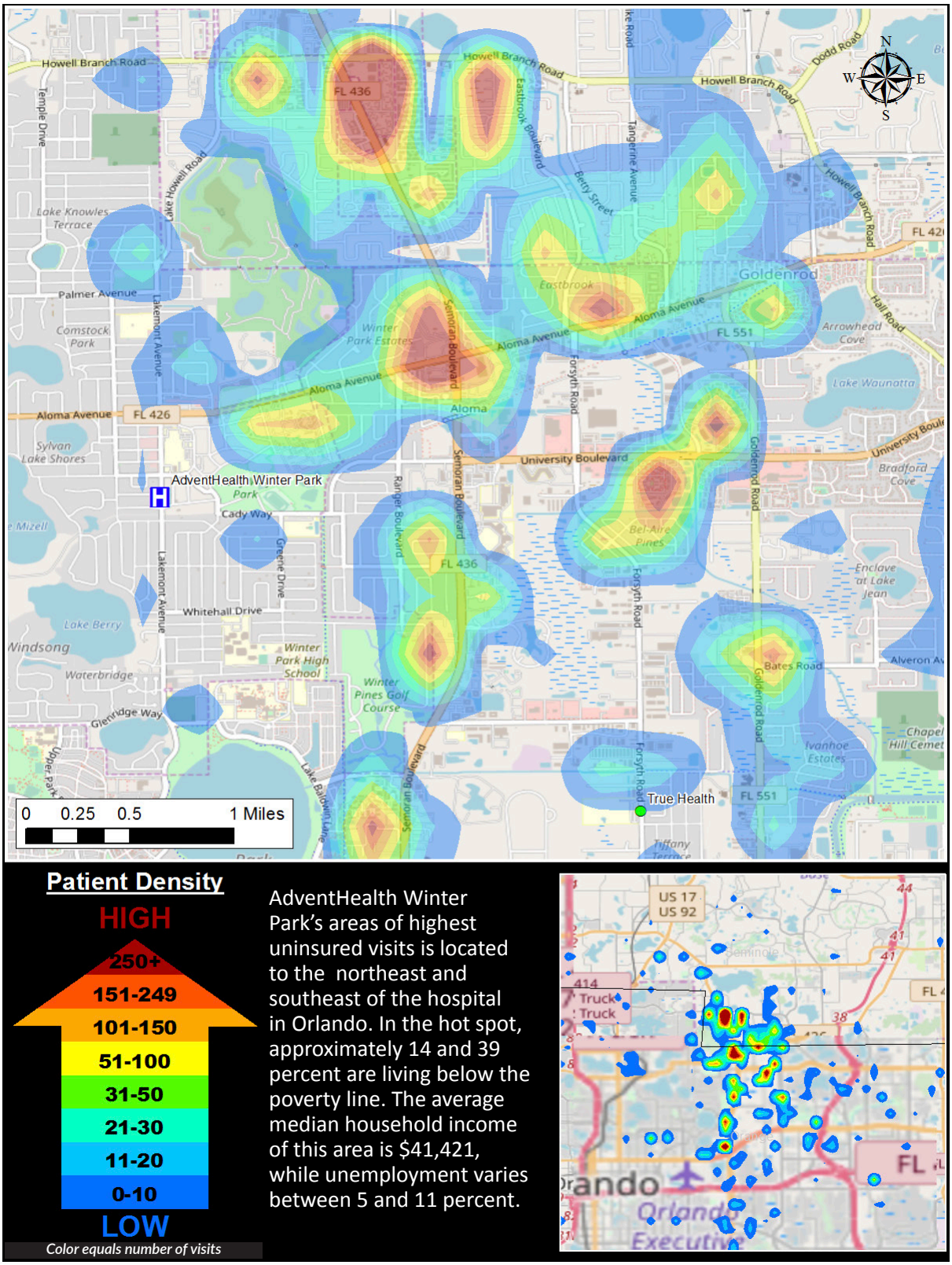
TABLE 9.102: ADVENTHEALTH WINTER PARK ECONOMIC CHARACTERISTICS OF TOP 5 CENSUS TRACTS (2012-2019)

Census Tract	Census Tract within Zip Code(s)	% Unemployed	Median HH Income	% Below Poverty
12-095-16200	32789, 32792	5.6%	$48,183	15.5%
12-095-18200	32789, 32803, 32807, 32814	7.6%	$65,459	14.3%
12-095-16301	32792	4.8%	$39,944	16.0%
12-095-16410	32792, 32807, 32817	5.7%	$44,101	20.8%
12-095-16302	32792	10.8%	$29,832	24.7%
Average		6.9%	$45,504	18.3%

Source: ProximityOne
Source: U.S. Census Bureau

Figure 9.18 illustrates the uninsured outpatient hot spot analysis for AdventHealth Winter Park.

FIGURE 9.18: ADVENTHEALTH WINTER PARK UNINSURED OUTPATIENT HOT SPOT ANALYSIS



Tables 9.103 through 9.108 outline the uninsured outpatient specific hot spot analysis for AdventHealth Winter Park. The analysis includes all uninsured outpatient visits (Table 9.103) and focuses on those visits within the hot spot for fiscal years 2016 through 2018 (Tables 9.104 through 9.107). 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 seven percent; approximately 23 percent of the population is living below the federal poverty level. The average annual median household income is $41,421. Table 9.108 displays the census tracts, what zip code(s) they are in and the economic conditions for the hot spot. The 2,063 uninsured outpatient visits from within the hot spot cost more than $10 million and accounted for 24.2 percent of all uninsured outpatient visits between 2016 and 2018 (Table 9.103). More than half (62.7 percent) of uninsured outpatient visits were made by White patients. Additionally, patients aged 19-29 accounted for 38.1 percent of uninsured outpatient visits.

Unspecified abdominal pain was the most frequent primary diagnosis code from uninsured outpatient visits within this hot spot at 3.1 percent and with a total cost of more than $500,000 between 2016 and 2018. Essential (primary) hypertension was the most frequent secondary diagnosis from uninsured outpatient visits within this hot spot at 2.8 percent and with a total cost of more than $500,000 for the same time period. The primary diagnosis with the highest total cost from uninsured outpatient visits was chest pain, unspecified, at 2.9% and with a total cost of more than $800,000. The primary diagnosis with the highest average cost per uninsured outpatient visit was other chest pain with an average cost of $14,421.

TABLE 9.103: ADVENTHEALTH WINTER PARK UNINSURED OUTPATIENT VISIT COMPARISON (2016-2018)

Criteria*	Data Snapshot
Total uninsured outpatient visits	8,514
Total uninsured outpatient visits in hot spot	2,063
Total uninsured outpatient cost	$43,768,451
Total uninsured outpatient cost in hot spot	$10,057,182
Percent of uninsured outpatient visits in hot spot	24.2%
Total homeless uninsured outpatient visits	456
Homeless visits as a percent of all uninsured outpatient visits	5.4%
Total cost for uninsured outpatient homeless visits	$2,371,661

*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 Winter Park Uninsured Outpatient Data

TABLE 9.104: ADVENTHEALTH WINTER PARK 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	63	$571,337	3.1%	$9,069
R07.9 Chest pain, unspecified	60	$832,345	2.9%	$13,872
J06.9 Acute upper respiratory infection, unspecified	44	$121,447	2.1%	$2,760
N39.0 Urinary tract infection, site not specified	44	$246,202	2.1%	$5,595
Z12.31 Encounter for screening mammogram for malignant neoplasm of breast	36	$16,879	1.7%	$469

Source: AdventHealth Winter Park Uninsured Outpatient Data

TABLE 9.105: ADVENTHEALTH WINTER PARK TOP 5 MOST FREQUENT UNINSURED OUTPATIENT SECONDARY DIAGNOSIS CODES AND COSTS (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	57	$506,785	2.8%	$8,891
R10.9 Unspecified abdominal pain	36	$414,485	1.7%	$11,513
X58.XXXA Exposure to other specified factors, initial encounter	24	$52,599	1.2%	$2,192
R06.02 Shortness of breath	23	$343,514	1.1%	$14,935
R05 Cough	20	$119,057	1.0%	$5,953

Source: AdventHealth Winter Park Uninsured Outpatient Data

TABLE 9.106: ADVENTHEALTH WINTER PARK 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	60	$832,345	2.9%	$13,872
R10.9 Unspecified abdominal pain	63	$571,337	3.1%	$9,069
R07.89 Other chest pain	25	$360,521	1.2%	$14,421
N39.0 Urinary tract infection, site not specified	44	$246,202	2.1%	$5,595
R51 Headache	28	$183,063	1.4%	$6,538

Source: AdventHealth Winter Park Uninsured Outpatient Data

TABLE 9.107: ADVENTHEALTH WINTER PARK UNINSURED OUTPATIENT 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	786	38.1%	0-18	164	7.9%
Asian	28	1.5%	Multiple	1	0.0%	19-29	785	38.2%
Black or African American	377	18.3%	Non-Hispanic or non-Latino	1,261	61.2%	30-39	449	21.8%
Multiple	25	1.3%	Unknown	15	0.7%	40-49	326	15.8%
Native Hawaiian or Pacific Islander	3	0.1%				50-59	238	11.5%
Other	322	15.7%				60-69	85	4.1%
Unknown	6	0.4%				70-79	9	0.4%
White	1,293	62.7%				80+	7	0.3%

Source: AdventHealth Winter Park Uninsured Outpatient Data

TABLE 9.108: ADVENTHEALTH WINTER PARK ECONOMIC CHARACTERISTICS OF TOP 5 CENSUS TRACTS (2012-2019)

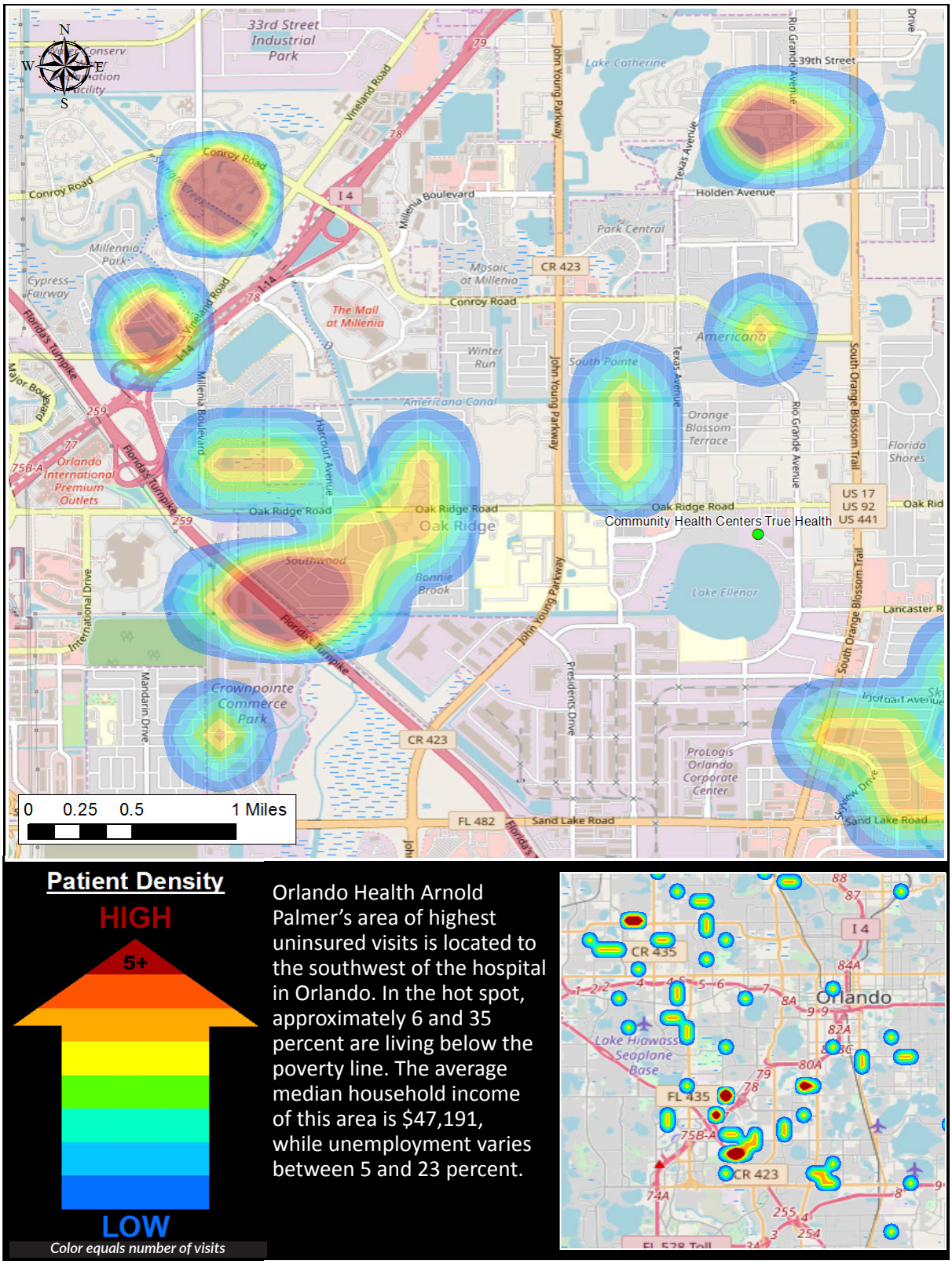
Census Tract	Census Tract within Zip Code(s)	% Unemployed	Median HH Income	% Below Poverty
12-095-18200	32789, 32803, 32807, 32814	7.6%	$65,459	14.3%
12-095-16410	32792, 32807, 32817	5.7%	$44,101	20.8%
12-095-16302	32792	10.8%	$29,832	24.7%
12-095-16407	32792, 32807	7.3%	$27,770	38.5%
12-095-16301	32792	4.8%	$39,944	16.0%
Average		7.2%	$41,421	22.8%

Source: ProximityOne
Source: U.S. Census Bureau

ORLANDO HEALTH HOSPITAL HOT SPOTTING

Figure 9.19 illustrates the uninsured inpatient hot spot analysis for Orlando Health Arnold Palmer Hospital for Children (Orlando Health Arnold Palmer).

FIGURE 9.19: ORLANDO HEALTH ARNOLD PALMER UNINSURED INPATIENT HOT SPOT ANALYSIS



Tables 9.109 through 9.113 outline the uninsured inpatient specific hot spot analysis for Orlando Health Arnold Palmer. The analysis includes all uninsured inpatient visits (Table 9.109) and focuses on those visits within the hot spot for fiscal years 2016 through 2018 (Tables 9.110 through 9.112). In the top eight census tracts (the hot spot) from which the most frequent uninsured inpatient visits are generated, the average unemployment rate is about 12 percent; approximately 20 percent of the population is living below the federal poverty level. The average annual median household income is $47,191. Table 9.113 displays the census tracts, what zip code(s) they are in and the economic conditions for the hot spot. The 30 uninsured inpatient visits from within the hotspot cost more than $600,000 and accounted for 19.6 percent of all uninsured inpatient visits between 2016 and 2018 (Table 9.109). Almost three fourths (66.7 percent) of uninsured inpatient visits were made by uninsured patients who consider their race to be Other. Additionally, patients aged 0-5 accounted for 46.7 percent of uninsured inpatient visits.

Tubulo-interstitial nephritis, not specified as acute or chronic, had the highest total cost from uninsured inpatient visits within this hot spot at a total cost of more than $78,000 between 2016 and 2018. Due to low numbers and/or to protect patient privacy, data was not reported for the most frequent primary diagnosis, the most frequent secondary diagnosis and it's associated cost and the primary diagnosis with the highest average cost per uninsured inpatient visit. 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 9.109: ORLANDO HEALTH ARNOLD PALMER UNINSURED INPATIENT VISIT COMPARISON (2016-2018)

Criteria*	Data Snapshot
Total uninsured inpatient visits	153
Total uninsured inpatient visits in hot spot	30
Total uninsured inpatient cost	$4,394,970
Total uninsured inpatient cost in hot spot	$649,581
Percent of uninsured inpatient visits in hot spot	19.6%
Total homeless uninsured inpatient visits	13
Homeless visits as a percent of all uninsured inpatient visits	8.5%
Total cost for uninsured inpatient homeless visits	$213,470

*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: Orlando Health Arnold Palmer Uninsured Inpatient Data

TABLE 9.110: ORLANDO HEALTH ARNOLD PALMER 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
N12 Tubulo-interstitial nephritis, not specified as acute or chronic*		$78,382		
P59.9 Neonatal jaundice, unspecified*		$18,649		

*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.
**Top 2 listed due to all other diagnosis having total visits of one.
Source: Orlando Health Arnold Palmer Uninsured Inpatient Data

TABLE 9.111: ORLANDO HEALTH ARNOLD PALMER 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
N12 Tubulo-interstitial nephritis, not specified as acute or chronic*		$78,382		
A15.0 Tuberculosis of lung*		$66,603		
S42.452A Displaced fracture of lateral condyle of left humerus, initial encounter for closed fracture*		$49,442		
Q37.9 Unspecified cleft palate with unilateral cleft lip*		$47,644		
K35.2 Acute appendicitis with generalized peritonitis*		$46,741		

*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: Orlando Health Arnold Palmer Uninsured Inpatient Data

TABLE 9.112: ORLANDO HEALTH ARNOLD PALMER 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	15	50.0%	0-5	14	46.7%
Asian	0	0.0%	Non-Hispanic or non-Latino	11	36.7%	6-10	5	16.6%
Black or African American	2	6.7%	Unknown or not given	4	13.3%	11-15	3	10.0%
Caucasian	5	16.7%				16-18	8	26.7%
East Indian	0	0.0%				Over 18	0	0.0%
Hispanic	2	6.7%						
Native Hawaiian or Pacific Islander	0	0.0%						
Oriental	0	0.0%						
Other	20	66.6%						
Unknown	1	3.3%						

Source: Orlando Health Arnold Palmer Uninsured Inpatient Data

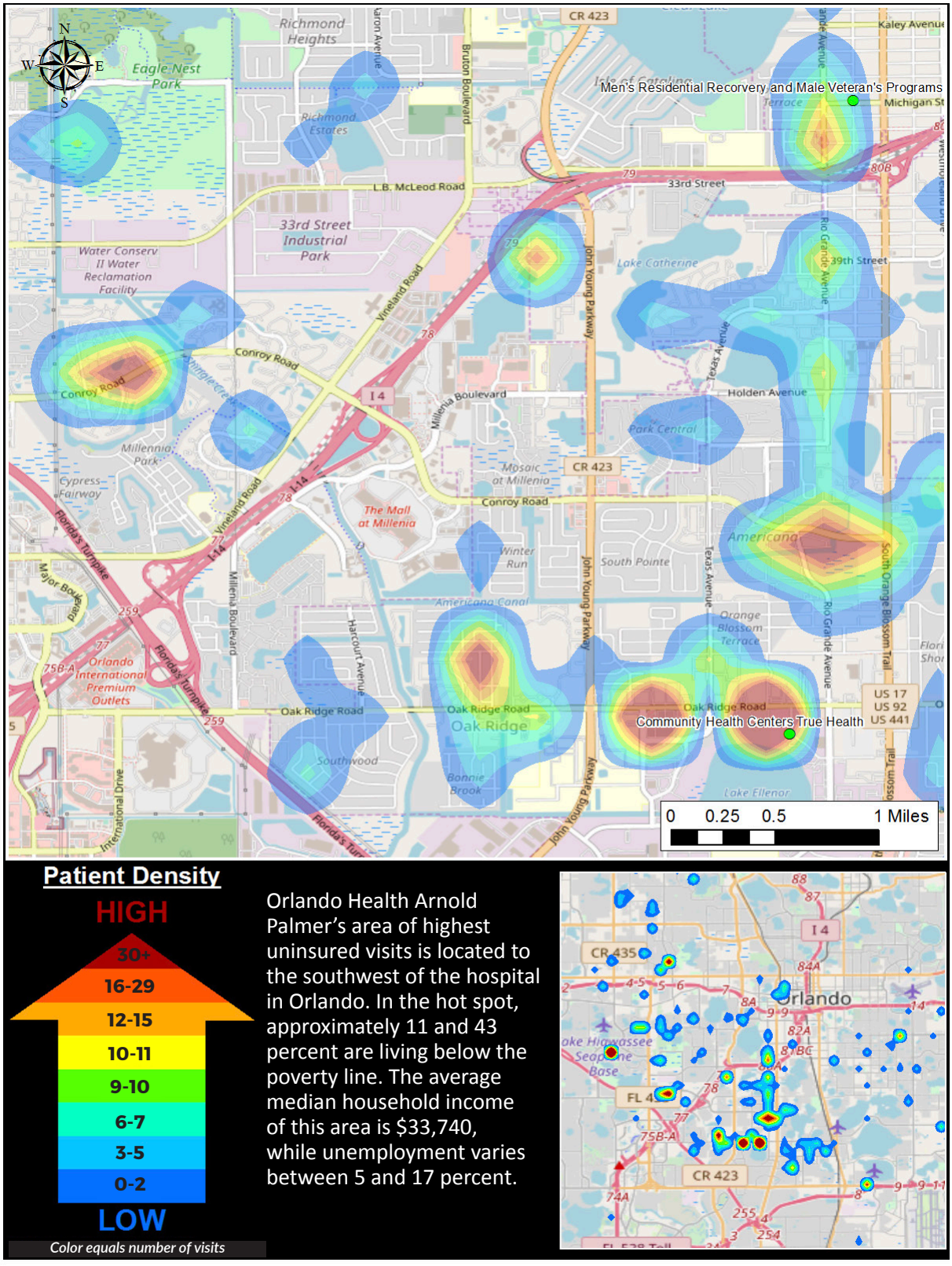
TABLE 9.113: ORLANDO HEALTH ARNOLD PALMER ECONOMIC CHARACTERISTICS OF TOP 5 CENSUS TRACTS (2012-2019)

Census Tract*	Census Tract within Zip Code(s)	% Unemployed	Median HH Income	% Below Poverty
12-095-16902	32809	10.9%	$31,596	35.1%
12-095-14607	32811	22.6%	$37,500	15.2%
12-095-16730	32828	5.6%	$72,227	10.9%
12-069-31309	34715	7.1%	$58,824	7.3%
12-095-12307	32808	17.8%	$35,644	28.9%
12-095-14200	32809	13.5%	$34,734	29.5%
12-095-16732	32825, 32829	12.5%	$72,760	6.3%
12-095-16903	32809, 32839	5.2%	$34,239	24.4%
Average		11.9%	$47,191	19.7%

*Top 8 listed due to multiple census tracts with same number of total visits.
Source: ProximityOne
Source: U.S. Census Bureau

Figure 9.20 illustrates the uninsured outpatient hot spot analysis for Orlando Health Arnold Palmer.

FIGURE 9.20: ORLANDO HEALTH ARNOLD PALMER UNINSURED OUTPATIENT HOT SPOT ANALYSIS



Tables 9.114 through 9.119 outline the uninsured outpatient specific hot spot analysis for Orlando Health Arnold Palmer. The analysis includes all uninsured outpatient visits (Table 9.114) and focuses on those visits within the hot spot for fiscal years 2016 through 2018 (Tables 9.115 through 9.118). 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 11 percent; approximately 29 percent of the population is living below the federal poverty level. The average annual median household income is $33,740. Table 9.119 displays the census tracts, what zip code(s) they are in and the economic conditions for the hot spot. The 697 uninsured outpatient visits from within the hot spot cost more than $1.2 million and accounted for 15.5 percent of all uninsured outpatient visits between 2016 and 2018 (Table 9.114). More than half (55.1 percent) of uninsured outpatient visits were made by patients who consider their race as Other. Additionally, patients aged 0-5 accounted for 48.2 percent of uninsured outpatient visits.

Fever, unspecified, was the most frequent primary diagnosis code from uninsured outpatient visits within this hot spot at 7.7 percent and with a total cost from at more than $61,000 between 2016 and 2018. Cough was the most frequent secondary diagnosis from uninsured outpatient visits within this hot spot at 3.4 percent and with a total cost of more than $26,000 for the same time period. The primary diagnosis with the highest total cost per uninsured outpatient visit was acute upper respiratory infection, unspecified, with a total cost of more than $62,000. The primary diagnosis with the highest average cost per uninsured outpatient visit was headache with an average cost of $3,549.

TABLE 9.114: ORLANDO HEALTH ARNOLD PALMER UNINSURED OUTPATIENT VISIT COMPARISON (2016-2018)

Criteria*	Data Snapshot
Total uninsured outpatient visits	4,498
Total uninsured outpatient visits in hot spot	697
Total uninsured outpatient cost	$7,908,917
Total uninsured outpatient cost in hot spot	$1,224,365
Percent of uninsured outpatient visits in hot spot	15.5%
Total homeless uninsured outpatient visits	99
Homeless visits as a percent of all uninsured outpatient visits	2.2%
Total cost for uninsured outpatient homeless visits	$184,362

*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: Orlando Health Arnold Palmer Uninsured Outpatient Data

TABLE 9.115: ORLANDO HEALTH ARNOLD PALMER 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
R50.9 Fever, unspecified	54	$61,186	7.7%	$1,133
J06.9 Acute upper respiratory infection, unspecified	45	$62,373	6.5%	$1,386
B34.9 Viral infection, unspecified	24	$25,956	3.4%	$1,082
R05 Cough	24	$44,092	3.4%	$1,837
R11.10 Vomiting, unspecified	23	$25,494	3.3%	$1,108

Source: Orlando Health Arnold Palmer Uninsured Outpatient Data

TABLE 9.116: ORLANDO HEALTH ARNOLD PALMER TOP 5 MOST FREQUENT UNINSURED OUTPATIENT SECONDARY DIAGNOSIS CODES AND COSTS (2016-2018)

Top 5 Secondary Diagnosis Codes	Total Visits	Total Cost	% of all Visits in Hot Spot	Avg. Cost per Visit
R05 Cough	24	$26,912	3.4%	$1,121
R11.10 Vomiting, unspecified	23	$32,144	3.3%	$1,398
R50.9 Fever, unspecified	23	$35,346	3.3%	$1,537
R19.7 Diarrhea, unspecified	14	$13,810	2.0%	$986
X58.XXXA Exposure to other specified factors, initial encounter	11	$19,491	1.6%	$1,772

Source: Orlando Health Arnold Palmer Uninsured Outpatient Data

TABLE 9.117: ORLANDO HEALTH ARNOLD PALMER 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
J06.9 Acute upper respiratory infection, unspecified	45	$62,373	6.5%	$1,386
R50.9 Fever, unspecified	54	$61,186	7.7%	$1,133
R05 Cough	24	$44,092	3.4%	$1,837
R51 Headache	12	$42,585	1.7%	$3,549
R10.9 Unspecified abdominal pain	13	$37,583	1.9%	$2,891

Source: Orlando Health Arnold Palmer Uninsured Outpatient Data

TABLE 9.118: ORLANDO HEALTH ARNOLD PALMER UNINSURED OUTPATIENT 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	347	49.8%	0-5	336	48.2%
Asian	5	0.7%	Non-Hispanic or non-Latino	277	39.7%	6-10	180	25.8%
Black or African American	237	34.0%	Unknown or not given	75	10.5%	11-15	120	17.3%
Caucasian	41	6.0%				16-18	54	7.7%
East Indian	10	1.4%				Over 18	7	1.0%
Hispanic	10	1.4%						
Native Hawaiian or Pacific Islander	0	0.0%						
Oriental	3	0.4%						
Other	384	55.1%						
Unknown	7	1.0%						

Source: Orlando Health Arnold Palmer Uninsured Outpatient Data

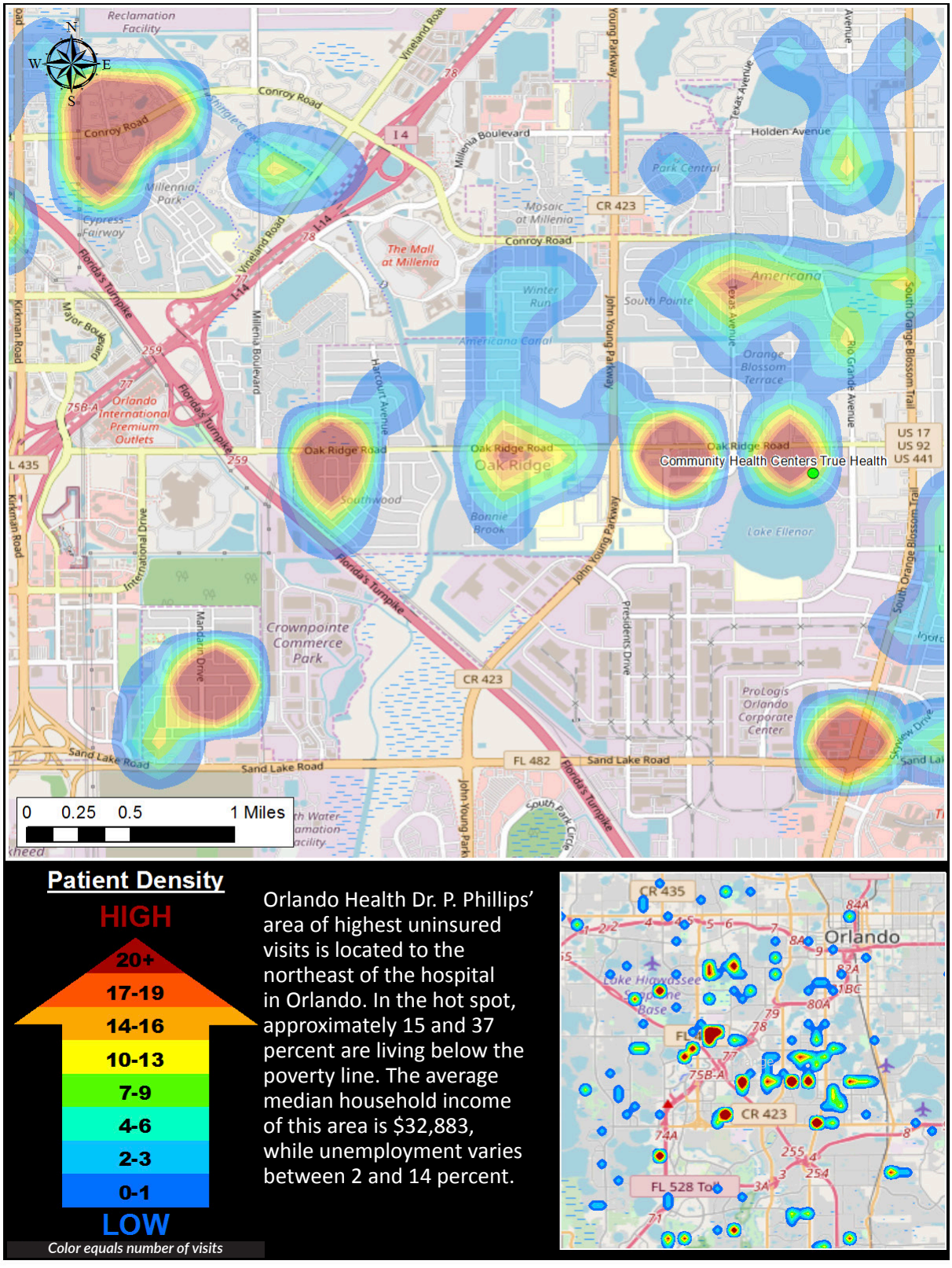
TABLE 9.119: ORLANDO HEALTH ARNOLD PALMER ECONOMIC CHARACTERISTICS OF TOP 5 CENSUS TRACTS (2012-2019)

Census Tract	Census Tract within Zip Code(s)	% Unemployed	Median HH Income	% Below Poverty
12-095-16903	32809, 32839	5.2%	$34,239	24.4%
12-095-14200	32809	13.5%	$34,734	29.5%
12-095-16907	32809, 32839	7.3%	$27,000	37.2%
12-095-14704	32811, 32835	10.1%	$48,083	10.7%
12-095-14601	32811	17.4%	$24,642	42.6%
Average		10.7%	$33,740	28.9%

Source: ProximityOne
Source: U.S. Census Bureau

Figure 9.21 illustrates the uninsured inpatient hot spot analysis for Orlando Health Dr. P. Phillips Hospital (Orlando Health Dr. P. Phillips).

FIGURE 9.21: ORLANDO HEALTH DR. P. PHILLIPS UNINSURED INPATIENT HOT SPOT ANALYSIS



Tables 9.120 through 9.125 outline the uninsured inpatient specific hot spot analysis for Orlando Health Dr. P. Phillips. The analysis includes all uninsured inpatient visits (Table 9.120) and focuses on those visits within the hot spot for fiscal years 2016 through 2018 (Tables 9.121 through 9.124) In the top six census tracts (the hot spot) from which the most frequent uninsured inpatient visits are generated, the average unemployment rate is about eight percent; approximately 27 percent of the population is living below the federal poverty level. The average annual median household income is $32,883. Table 9.125 displays the census tracts, what zip code(s) they are in and the economic conditions for the hot spot. The 339 uninsured inpatient visits from within the hot spot cost more than $17.2 million and accounted for 23.9 percent of all uninsured inpatient visits between 2016 to 2018 (Table 9.120). More than half (51 percent) of uninsured inpatient visits were made by patients who consider their race Other. Additionally, patients aged 40-49 accounted for 24.8 percent of uninsured inpatient visits.

Sepsis, unspecified organism, was the most frequent primary diagnosis code and had the highest total and average costs from uninsured inpatient visits within this hot spot at 7.7 percent and with a total cost of more than $2.4 million and an average cost of $92,747 between 2016 and 2018. Hypo-osmolality and hyponatremia was the most frequent secondary diagnosis from uninsured inpatient visits within this hot spot at 5.3 percent and with a total cost of more than $700,000 for the same time period. 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 9.120: ORLANDO HEALTH DR. P. PHILLIPS UNINSURED INPATIENT VISIT COMPARISON (2016-2018)

Criteria*	Data Snapshot
Total uninsured inpatient visits	1,418
Total uninsured inpatient visits in hot spot	339
Total uninsured inpatient cost	$72,297,158
Total uninsured inpatient cost in hot spot	$17,297,895
Percent of uninsured inpatient visits in hot spot	23.9%
Total homeless uninsured inpatient visits	53
Homeless visits as a percent of all uninsured inpatient visits	3.7%
Total cost for uninsured inpatient homeless visits	$3,203,472

*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: Orlando Health Dr. P. Phillips Uninsured Inpatient Data

TABLE 9.121: ORLANDO HEALTH DR. P. PHILLIPS 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	26	$2,411,427	7.7%	$92,747
J18.9 Pneumonia, unspecified organism	8	$375,693	2.4%	$46,962
K52.9 Noninfective gastroenteritis and colitis, unspecified	8	$309,960	2.4%	$38,745
K57.32 Diverticulitis of large intestine without perforation or abscess without bleeding	8	$225,576	2.4%	$28,197
K35.80 Unspecified acute appendicitis	7	$428,595	2.1%	$61,228

Source: Orlando Health Dr. P. Phillips Uninsured Inpatient Data

TABLE 9.122: ORLANDO HEALTH DR. P. PHILLIPS TOP 5 MOST FREQUENT UNINSURED INPATIENT SECONDARY DIAGNOSIS CODES AND COSTS (2016-2018)

Top 5* Secondary Diagnosis Codes	Total Visits	Total Cost	% of all Visits in Hot Spot	Avg. Cost per Visit
E87.1 Hypo-osmolality and hyponatremia	18	$706,558	5.3%	$39,253
N17.9 Acute kidney failure, unspecified	15	$521,371	4.4%	$34,758
N39.0 Urinary tract infection, site not specified	12	$562,343	3.5%	$46,862
J18.9 Pneumonia, unspecified organism	8	$400,445	2.4%	$50,056
I10 Essential (primary) hypertension	7	$280,536	2.1%	$40,077
J96.01 Acute respiratory failure with hypoxia	7	$512,493	2.1%	$73,213
Z68.41 Body mass index (BMI) 40.0-44.9, adult	7	$258,664	2.1%	$36,952

*Top 7 listed due to multiple diagnoses with same number of total visits.
Source: Orlando Health Dr. P. Phillips Uninsured Inpatient Data

TABLE 9.123: ORLANDO HEALTH DR. P. PHILLIPS 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	26	$2,411,427	7.7%	$92,747
K35.80 Unspecified acute appendicitis	7	$428,595	2.1%	$61,228
J18.9 Pneumonia, unspecified organism	8	$375,693	2.4%	$46,962
K80.00 Calculus of gallbladder with acute cholecystitis without obstruction	6	$338,107	1.8%	$56,351
I21.4 Non-ST elevation (NSTEMI), myocardial infarction*		$316,227		

*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: Orlando Health Dr. P. Phillips Uninsured Inpatient Data

TABLE 9.124: ORLANDO HEALTH DR. P. PHILLIPS 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	147	43.4%	0-18	1	0.3%
Asian	0	0.0%	Non-Hispanic or non-Latino	169	49.8%	19-29	58	17.1%
Black or African American	102	30.1%	Unknown or not given	23	6.8%	30-39	79	23.3%
Caucasian	58	17.1%				40-49	84	24.8%
East Indian	2	0.6%				50-59	72	21.2%
Hispanic	3	0.9%				60-69	32	9.4%
Native Hawaiian or Pacific Islander	0	0.0%				70-79	7	2.1%
Oriental	0	0.0%				80+	6	1.8%
Other	173	51.0%						
Unknown	1	0.3%						

Source: Orlando Health Dr. P. Phillips Uninsured Inpatient Data

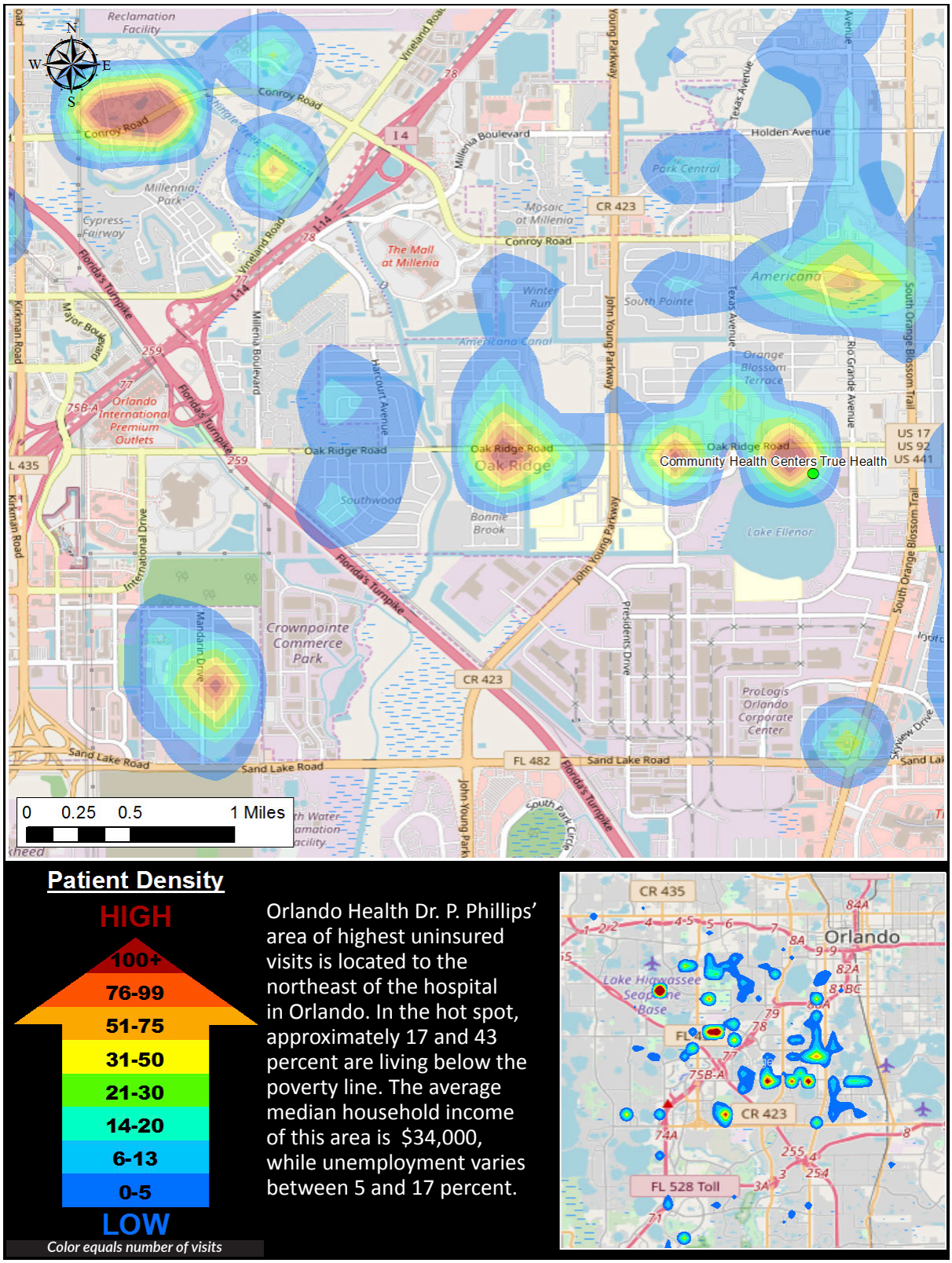
TABLE 9.125: ORLANDO HEALTH DR. P. PHILLIPS ECONOMIC CHARACTERISTICS OF TOP 5 CENSUS TRACTS (2012-2019)

Census Tract*	Census Tract within Zip Code(s)	% Unemployed	Median HH Income	% Below Poverty
12-095-014200	32809	13.5%	$34,734	29.5%
12-095-014606	32805, 32811	7.9%	$32,229	19.0%
12-095-014607	32811	2.3%	$37,500	15.2%
12-095-016902	32809	10.9%	$31,596	35.1%
12-095-016903	32809, 32839	5.2%	$34,239	24.4%
12-095-016907	32809, 32839	7.3%	$27,000	37.2%
Average		7.9%	$32,883	26.7%

*Top 6 listed due to multiple census tracts with same number of total visits.
Source: ProximityOne
Source: U.S. Census Bureau

Figure 9.22 illustrates the uninsured outpatient hot spot analysis for Orlando Health Dr. P. Phillips.

FIGURE 9.22: ORLANDO HEALTH DR. P. PHILLIPS UNINSURED OUTPATIENT HOT SPOT ANALYSIS



Tables 9.126 through 9.131 outline the uninsured outpatient specific hot spot analysis for Orlando Health Dr. P. Phillips. The analysis includes all uninsured outpatient visits (Table 9.126) and focuses on those visits within the hot spot for fiscal years 2016 through 2018 (Tables 9.127 through 9.130). 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 11 percent; approximately 27 percent of the population is living below the federal poverty level. The average annual median household income is $34,000. Table 9.131 displays the census tracts, what zip code(s) they are in and the economic conditions for the hot spot. The 5,807 uninsured outpatient visits from within the hot spot cost more than $19.8 million and accounted for 23.3 percent of all uninsured outpatient visits between 2016 and 2018 (Table 9.126). Just under half (45.2 percent) of uninsured outpatient visits were made by patients who consider their race Other. Additionally, patients aged 19-29 accounted for 38.5 percent of uninsured outpatient visits.

Urinary tract infection, site not specified, was the most frequent primary diagnosis code from uninsured outpatient visits within this hot spot at 3.1 percent and with a total cost of more than $700,000 between 2016 and 2018. Essential (primary) hypertension was the most frequent secondary diagnosis from uninsured outpatient visits within this hot spot at 4.1 percent and with a total cost of more than $700,000 for the same time period. The primary diagnosis with the highest total and average costs per uninsured outpatient visit was unspecified abdominal pain with a total cost of more than $800,000 and an average cost of $6,841.

TABLE 9.126: ORLANDO HEALTH DR. P. PHILLIPS UNINSURED OUTPATIENT VISIT COMPARISON (2016-2018)

Criteria*	Data Snapshot
Total uninsured outpatient visits	24,926
Total uninsured outpatient visits in hot spot	5,807
Total uninsured outpatient cost	$87,835,462
Total uninsured outpatient cost in hot spot	$19,866,706
Percent of uninsured outpatient visits in hot spot	23.3%
Total homeless uninsured outpatient visits	831
Homeless visits as a percent of all uninsured outpatient visits	3.3%
Total cost for uninsured outpatient homeless visits	$3,384,840

*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: Orlando Health Dr. P. Phillips Uninsured Outpatient Data

TABLE 9.127: ORLANDO HEALTH DR. P. PHILLIPS 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
N39.0 Urinary tract infection, site not specified	178	$762,084	3.1%	$4,281
R51 Headache	167	$844,742	2.9%	$5,058
J02.9 Acute pharyngitis, unspecified	166	$291,554	2.9%	$1,756
M54.5 Low back pain	124	$371,480	2.1%	$2,996
R10.9 Unspecified abdominal pain	124	$848,293	2.1%	$6,841

Source: Orlando Health Dr. P. Phillips Uninsured Outpatient Data

TABLE 9.128: ORLANDO HEALTH DR. P. PHILLIPS TOP 5 MOST FREQUENT UNINSURED OUTPATIENT SECONDARY DIAGNOSIS CODES AND COSTS (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	238	$764,517	4.1%	$3,212
F17.210 Nicotine dependence, cigarettes, uncomplicated	204	$619,915	3.5%	$3,039
R51 Headache	78	$375,526	1.3%	$4,814
X58.XXXA Exposure to other specified factors, initial encounter	67	$128,977	1.2%	$1,925
R19.7 Diarrhea, unspecified	66	$337,843	1.1%	$5,119
R50.9 Fever, unspecified	66	$210,852	1.1%	$3,195

*Top 6 listed due to multiple diagnoses with same number of total visits.
Source: Orlando Health Dr. P. Phillips Uninsured Outpatient Data

TABLE 9.129: ORLANDO HEALTH DR. P. PHILLIPS 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
R10.9 Unspecified abdominal pain	124	$848,293	2.1%	$6,841
R51 Headache	167	$844,742	2.9%	$5,058
N39.0 Urinary tract infection, site not specified	178	$762,084	3.1%	$4,281
R10.13 Epigastric pain	61	$410,698	1.1%	$6,733
R07.89 Other chest pain	86	$385,880	1.5%	$4,487

Source: Orlando Health Dr. P. Phillips Uninsured Outpatient Data

TABLE 9.130: ORLANDO HEALTH DR. P. PHILLIPS UNINSURED OUTPATIENT VISITS BY RACE, ETHNICITY AND AGE (2016-2018)

Race	Number	%	Ethnic Group	Number	%	Age	Number	%
American Indian or Alaskan Native	1	0.0%	Hispanic or Latino	1,984	34.2%	0-18	406	7.0%
Asian	22	0.4%	Non-Hispanic or non-Latino	2,790	48.0%	19-29	2,235	38.5%
Black or African American	2,358	40.6%	Unknown or not given	1,033	17.8%	30-39	1,472	25.3%
Caucasian	680	11.7%				40-49	985	17.0%
East Indian	25	0.4%				50-59	512	8.8%
Hispanic	15	0.3%				60-69	163	2.8%
Native Hawaiian or Pacific Islander	0	0.0%				70-79	24	0.4%
Oriental	8	0.1%				80+	10	0.2%
Other	2,625	45.2%						
Unknown	73	1.3%						

Source: Orlando Health Dr. P. Phillips Uninsured Outpatient Data

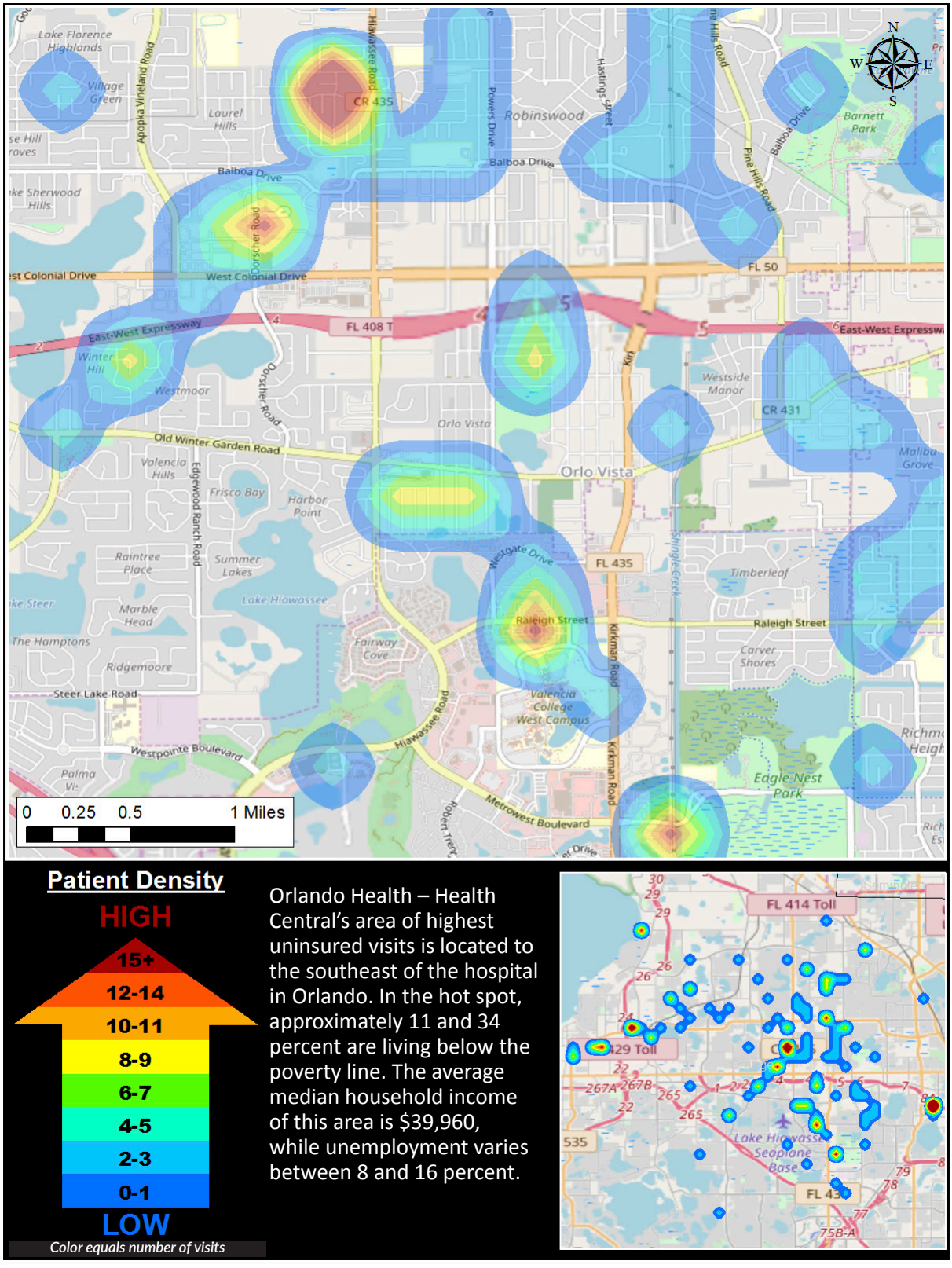
TABLE 9.131: ORLANDO HEALTH DR. P. PHILLIPS ECONOMIC CHARACTERISTICS OF TOP 5 CENSUS TRACTS (2012-2019)

Census Tract	Census Tract within Zip Code(s)	% Unemployed	Median HH Income	% Below Poverty
12-095-014200	32809	13.5%	$34,734	29.5%
12-095-014601	32811	17.4%	$24,642	42.6%
12-095-014606	32805, 32811	7.9%	$32,229	19.0%
12-095-016903	32809, 32839	5.2%	$34,239	24.4%
12-095-017001	32819	8.5%	$44,157	17.3%
Average		10.5%	$34,000	26.6%

Source: ProximityOne
Source: U.S. Census Bureau

Figure 9.23 illustrates the uninsured inpatient hot spot analysis for Orlando Health – Health Central Hospital (Orlando Health – Health Central).

FIGURE 9.23: ORLANDO HEALTH – HEALTH CENTRAL UNINSURED INPATIENT HOT SPOT ANALYSIS



Tables 9.132 through 9.137 outline the uninsured inpatient specific hot spot analysis for Orlando Health – Health Central. The analysis includes all uninsured inpatient visits (Table 9.132) and focuses on those visits within the hot spot for fiscal years 2016 through 2018 (Tables 9.133 through 9.136). In the top six census tracts (the hot spot) from which the most frequent uninsured inpatient visits are generated, the average unemployment rate is about 10 percent; approximately 20 percent of the population is living below the federal poverty level. The average annual median household income is $39,960. Table 9.137 displays the census tracts, what zip code(s) they are in and the economic conditions for the hot spot. The 180 uninsured inpatient visits from within the hot spot cost more than $5.6 million and accounted for 14 percent of all uninsured inpatient visits between 2016 and 2018 (Table 9.132). More than half (58.9 percent) of uninsured inpatient visits were made by Black or African American patients. Additionally, patients aged 30-39 accounted for 22.2 percent of uninsured inpatient visits.

Single liveborn infant, delivered vaginally, was the most frequent primary diagnosis code from uninsured inpatient visits within this hot spot at 6.1 percent and with a total cost of more than $74,000 between 2016 and 2018. Essential (primary) hypertension was the most frequent secondary diagnosis from uninsured inpatient visits within this hot spot at five percent and with a total cost of more than $700,000 for the same time period. The primary diagnosis with the highest total and average costs per visit was pneumonia, unspecified organism, with a total cost of more than $600,000 and an average cost of $125,138. 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 9.132: ORLANDO HEALTH – HEALTH CENTRAL UNINSURED INPATIENT VISIT COMPARISON (2016-2018)

Criteria*	Data Snapshot
Total uninsured inpatient visits	1243
Total uninsured inpatient visits in hot spot	180
Total uninsured inpatient cost	$36,322,890
Total uninsured inpatient cost in hot spot	$5,669,011
Percent of uninsured inpatient visits in hot spot	14.0%
Total homeless uninsured inpatient visits	78
Homeless visits as a percent of all uninsured inpatient visits	6.3%
Total cost for uninsured inpatient homeless visits	$2,969,681

*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: Orlando Health – Health Central Uninsured Inpatient Data

TABLE 9.133: ORLANDO HEALTH – HEALTH CENTRAL 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
Z38.00 Single liveborn infant, delivered vaginally	11	$74,695	6.1%	$6,790
J45.901 Unspecified asthma with (acute) exacerbation	6	$134,740	3.3%	$22,457
I21.4 Non-ST elevation (NSTEMI) myocardial infarction	5	$431,566	2.8%	$86,313
J18.9 Pneumonia, unspecified organism	5	$625,690	2.8%	$125,138
J44.1 Chronic obstructive pulmonary disease with (acute) exacerbation	5	$111,005	2.8%	$22,201
N13.2 Hydronephrosis with renal and ureteral calculous obstruction	5	$214,417	2.8%	$42,883
R07.89 Other chest pain	5	$203,634	2.8%	$40,727

*Top 7 listed due to multiple diagnoses with same number of total visits.
Source: Orlando Health – Health Central Uninsured Inpatient Data

TABLE 9.134: ORLANDO HEALTH – HEALTH CENTRAL TOP 5 MOST FREQUENT UNINSURED INPATIENT SECONDARY DIAGNOSIS CODES AND COSTS (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	9	$789,641	5.0%	$87,738
N17.9 Acute kidney failure, unspecified	9	$260,271	5.0%	$28,919
N39.0 Urinary tract infection, site not specified	5	$125,247	2.8%	$25,049
E11.65 Type 2 diabetes mellitus with hyperglycemia (combination)*		$77,836		
E11.9 Type 2 diabetes mellitus without complications*		$78,943		
J18.9 Pneumonia, unspecified organism*		$290,385		
P59.9 Neonatal jaundice, unspecified*		$22,390		

*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.
**Top 7 listed due to multiple diagnoses with same number of total visits.
Source: Orlando Health – Health Central Uninsured Inpatient Data

TABLE 9.135: ORLANDO HEALTH – HEALTH CENTRAL 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
J18.9 Pneumonia, unspecified organism	5	$625,690	2.8%	$125,138
I21.4 Non-ST elevation (NSTEMI) myocardial infarction	5	$431,567	2.8%	$86,313
N13.2 Hydronephrosis with renal and ureteral calculous obstruction	5	$214,418	2.8%	$42,884
R07.89 Other chest pain	5	$203,634	2.8%	$40,727
L03.115 Cellulitis of right lower limb*		$191,970		

*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: Orlando Health – Health Central Uninsured Inpatient Data

TABLE 9.136: ORLANDO HEALTH – HEALTH CENTRAL 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	39	21.7%	0-18	14	7.8%
Asian	2	1.1%	Non-Hispanic or non-Latino	136	75.5%	19-29	34	18.9%
Black or African American	106	58.9%	Unknown or not given	5	2.8%	30-39	40	22.2%
Caucasian	55	30.6%				40-49	30	16.7%
East Indian	0	0.0%				50-59	34	18.9%
Hispanic	1	0.6%				60-69	19	10.6%
Native Hawaiian or Pacific Islander	0	0.0%				70-79	7	3.8%
Oriental	0	0.0%				80+	2	1.1%
Other	16	8.8%						
Unknown	0	0.0%						

Source: Orlando Health – Health Central Uninsured Inpatient Data

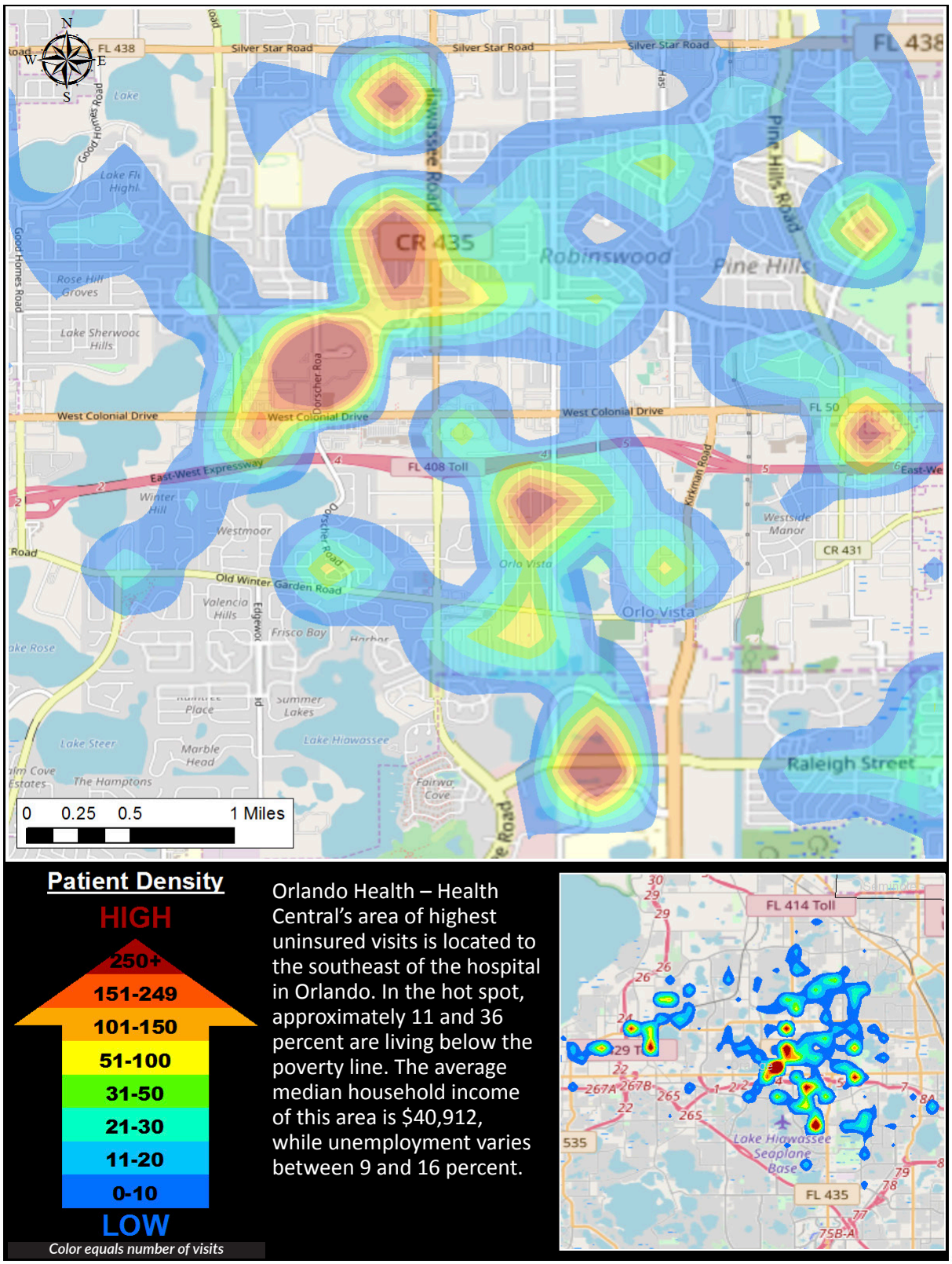
TABLE 9.137: ORLANDO HEALTH – HEALTH CENTRAL ECONOMIC CHARACTERISTICS OF TOP 5 CENSUS TRACTS (2012-2019)

Census Tract*	Census Tract within Zip Code(s)	% Unemployed	Median HH Income	% Below Poverty
12-095-14704	32811, 32835	10.1%	$48,083	10.7%
12-095-14609	32811	7.5%	$41,272	15.1%
12-095-14805	32818, 32835	7.8%	$40,891	16.7%
12-095-14904	32818	16.3%	$35,423	25.8%
12-095-14908	32818	9.3%	$43,841	16.3%
12-095-15001	34761	7.5%	$30,250	33.5%
Average		9.8%	$39,960	19.7%

*Top 6 listed due to multiple census tracts with same number of total visits.
Source: ProximityOne
Source: U.S. Census Bureau

Figure 9.24 illustrates the uninsured outpatient hot spot analysis for Orlando Health – Health Central.

FIGURE 9.24: ORLANDO HEALTH – HEALTH CENTRAL UNINSURED OUTPATIENT HOT SPOT ANALYSIS



Tables 9.138 through 9.143 outline the uninsured outpatient specific hot spot analysis for Orlando Health – Health Central. The analysis includes all uninsured outpatient visits (Table 9.138) and focuses on those visits within the hot spot for fiscal years 2016 through 2018 (Tables 9.139 through 9.142). 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 11 percent; approximately 18 percent of the population is living below the federal poverty level. The average annual median household income is $40,912. Table 9.143 displays the census tracts, what zip code(s) they are in and the economic conditions for the hot spot. The 3,492 uninsured outpatient visits from within the hot spot cost more than $14 million and accounted for 13.7 percent of all uninsured outpatient visits between 2016 and 2018 (Table 9.138). More than half (57.8 percent) of uninsured outpatient visits were made by Black or African American patients. Additionally, patients aged 19-29 accounted for 27.9 percent of uninsured outpatient visits.

End stage renal disease was the most frequent primary diagnosis code and had the highest total cost from uninsured outpatient visits within this hot spot at 18.5 percent and with a total cost of more than $1.7 million between 2016 and 2018. Dependence on renal dialysis was the most frequent secondary diagnosis from uninsured outpatient visits within this hot spot at 13.1 percent and with a total cost of more than $1.2 million for the same time period. The primary diagnosis with the highest average cost per uninsured outpatient visit was other chest pain with an average cost of $12,945.

TABLE 9.138: ORLANDO HEALTH – HEALTH CENTRAL UNINSURED OUTPATIENT VISIT COMPARISON (2016-2018)

Criteria*	Data Snapshot
Total uninsured outpatient visits	25,495
Total uninsured outpatient visits in hot spot	3,492
Total uninsured outpatient cost	$106,371,388
Total uninsured outpatient cost in hot spot	$14,026,680
Percent of uninsured outpatient visits in hot spot	13.7%
Total homeless uninsured outpatient visits	694
Homeless visits as a percent of all uninsured outpatient visits	2.7%
Total cost for uninsured outpatient homeless visits	$3,324,641

*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: Orlando Health – Health Central Uninsured Outpatient Data

TABLE 9.139: ORLANDO HEALTH – HEALTH CENTRAL 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
N18.6 End stage renal disease	646	$1,786,307	18.5%	$2,765
R07.89 Other chest pain	90	$1,165,056	2.6%	$12,945
M54.5 Low back pain	71	$278,465	2.0%	$3,922
N39.0 Urinary tract infection, site not specified	68	$314,438	1.9%	$4,624
J06.9 Acute upper respiratory infection, unspecified	58	$146,203	1.7%	$2,521
R51 Headache	58	$273,501	1.7%	$4,716

*Top 6 listed due to multiple diagnoses with the same number of total visits.
Source: Orlando Health – Health Central Uninsured Outpatient Data

TABLE 9.140: ORLANDO HEALTH – HEALTH CENTRAL TOP 5 MOST FREQUENT UNINSURED OUTPATIENT SECONDARY DIAGNOSIS CODES AND COSTS (2016-2018)

Top 5* Secondary Diagnosis Codes	Total Visits	Total Cost	% of all Visits in Hot Spot	Avg. Cost per Visit
Z99.2 Dependence on renal dialysis	458	$1,281,054	13.1%	$2,797
D63.1 Anemia in chronic kidney disease	183	$503,603	5.2%	$2,752
I10 Essential (primary) hypertension	177	$944,875	5.1%	$5,338
F17.210 Nicotine dependence, cigarettes, uncomplicated	65	$243,305	1.9%	$3,743
R51 Headache	40	$250,455	1.1%	$6,261
X58.XXXA Exposure to other specified factors, initial encounter	40	$105,254	1.1%	$2,631

*Top 6 listed due to multiple diagnoses with the same number of total visits.
Source: Orlando Health – Health Central Uninsured Outpatient Data

TABLE 9.141: ORLANDO HEALTH – HEALTH CENTRAL 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
N18.6 End stage renal disease	646	$1,786,308	18.5%	$2,765
R07.89 Other chest pain	90	$1,165,057	2.6%	$12,945
R07.9 Chest pain, unspecified	41	$321,106	1.2%	$7,832
N39.0 Urinary tract infection, site not specified	68	$314,438	1.9%	$4,624
M54.5 Low back pain	71	$278,466	2.0%	$3,922

Source: Orlando Health – Health Central Uninsured Outpatient Data

TABLE 9.142: ORLANDO HEALTH – HEALTH CENTRAL UNINSURED OUTPATIENT 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	827	23.6%	0-18	216	6.2%
Asian	4	0.1%	Non-Hispanic or non-Latino	2,642	75.7%	19-29	976	27.9%
Black or African American	2,019	57.8%	Unknown or not given	23	0.7%	30-39	699	20.0%
Caucasian	1,244	35.6%				40-49	866	24.8%
East Indian	0	0.0%				50-59	563	16.1%
Hispanic	10	0.3%				60-69	122	3.5%
Native Hawaiian or Pacific Islander	0	0.0%				70-79	27	0.8%
Oriental	0	0.0%				80+	23	0.7%
Other	215	6.2%						
Unknown	0	0.0%						

Source: Orlando Health – Health Central Uninsured Outpatient Data

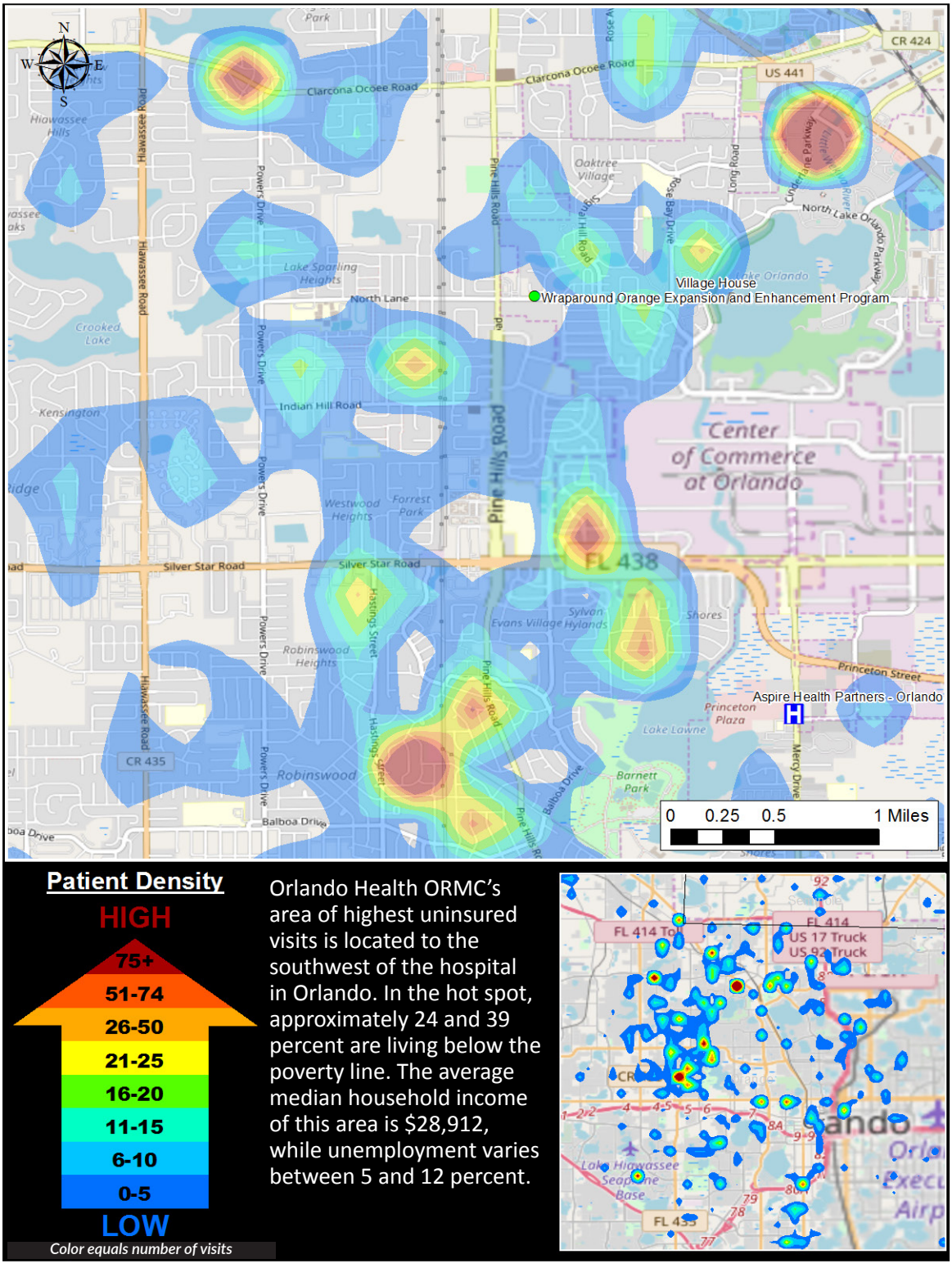
TABLE 9.143: ORLANDO HEALTH – HEALTH CENTRAL ECONOMIC CHARACTERISTICS OF TOP 5 CENSUS TRACTS (2012-2019)

Census Tract	Census Tract within Zip Code(s)	% Unemployed	Median HH Income	% Below Poverty
12-095-14502	32839	10.6%	$23,984	35.7%
12-095-14904	32818	16.3%	$35,423	25.8%
12-095-17300	34787	9.0%	$36,301	20.9%
12-095-14704	32811, 32835	10.1%	$48,083	10.7%
12-095-14908	32818	9.3%	$43,841	16.3%
Average		11.2%	$40,912	18.4%

Source: ProximityOne
Source: U.S. Census Bureau

Figure 9.25 illustrates the uninsured inpatient hot spot analysis for Orlando Health Orlando Regional Medical Center (Orlando Health ORMC).

FIGURE 9.25: ORLANDO HEALTH ORMC UNINSURED INPATIENT HOT SPOT ANALYSIS



Tables 9.144 through 9.149 outline the uninsured inpatient specific hot spot analysis for Orlando Health ORMC. The analysis includes all uninsured inpatient visits (Table 9.144) and focuses on those visits within the hot spot for fiscal years 2016 through 2018 (Tables 9.145 through 9.148). 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 10 percent; approximately 32 percent of the population is living below the federal poverty level. The average annual median household income is $28,912. Table 9.149 displays the census tracts, what zip code(s) they are in and the economic conditions for the hot spot. The 371 uninsured inpatient visits from within the hot spot cost more than $32.2 million and accounted for 13.3 percent of all uninsured inpatient visits between 2016 and 2018 (Table 9.144). More than half (53.1 percent) of uninsured inpatient visits were made by Black or African American patients. Additionally, patients aged 50-59 accounted for 28 percent of uninsured inpatient visits.

Sepsis, unspecified organism, was the most frequent primary diagnosis code from uninsured inpatient visits within this hot spot at 3.8 percent and with a total cost of more than $1.5 million between 2016 and 2018. Hypo-osmolality and hyponatremia 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 $1 million for the same time period. The primary diagnosis with the highest total cost per uninsured inpatient visit was osteomyelitis of vertebra, thoracic region, with a total cost of more than $2.5 million per uninsured inpatient visit. 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 9.144: ORLANDO HEALTH ORMC UNINSURED INPATIENT VISIT COMPARISON (2016-2018)

Criteria*	Data Snapshot
Total uninsured inpatient visits	2,786
Total uninsured inpatient visits in hot spot	371
Total uninsured inpatient cost	$236,253,745
Total uninsured inpatient cost in hot spot	$32,276,769
Percent of uninsured inpatient visits in hot spot	13.3%
Total homeless uninsured inpatient visits	467
Homeless visits as a percent of all uninsured inpatient visits	16.8%
Total cost for uninsured inpatient homeless visits	$31,984,005

*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: Orlando Health ORMC Uninsured Inpatient Data

TABLE 9.145: ORLANDO HEALTH ORMC 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	14	$1,555,915	3.8%	$111,136
I11.0 Hypertensive heart disease with heart failure	11	$602,146	3.0%	$54,741
B20 Human immunodeficiency virus (HIV) disease*		$752,020		
R07.89 Other chest pain	7	$422,574	1.9%	$60,368
D57.00 Hb-SS disease with crisis, unspecified*		$361,122		

* 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: Orlando Health ORMC Uninsured Inpatient Data

TABLE 9.146: ORLANDO HEALTH ORMC TOP 5 MOST FREQUENT UNINSURED INPATIENT SECONDARY DIAGNOSIS CODES AND COSTS (2016-2018)

Top 5** Secondary Diagnosis Codes	Total Visits	Total Cost	% of all Visits in Hot Spot	Avg. Cost per Visit
E87.1 Hypo-osmolality and hyponatremia	20	$1,029,348	5.4%	$51,467
N17.9 Acute kidney failure, unspecified	18	$1,020,526	4.9%	$56,696
J96.01 Acute respiratory failure with hypoxia	13	$4,337,815	3.5%	$333,678
B20 Human immunodeficiency virus (HIV) disease*		$1,001,331		
D62 Acute posthemorrhagic anemia	6	$293,314	1.6%	$48,886
F17.210 Nicotine dependence, cigarettes, uncomplicated	6	$210,972	1.6%	$35,162
I10 Essential (primary) hypertension	6	$335,327	1.6%	$55,888
J18.9 Pneumonia, unspecified organism	6	$300,070	1.6%	$50,012

* 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.
**Top 8 listed due to multiple diagnoses with same number of total visits.
Source: Orlando Health ORMC Uninsured Inpatient Data

TABLE 9.147: ORLANDO HEALTH ORMC 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
M46.24 Osteomyelitis of vertebra, thoracic region*		$2,581,795		
A41.9 Sepsis, unspecified organism	14	$1,555,915	3.8%	$111,137
S06.5X9A Traumatic subdural hemorrhage with loss of consciousness of unspecific duration, initial encounter*		$999,356		
S27.2XXA Traumatic hemopneumothorax, initial encounter*		$767,413		
B20 Human immunodeficiency virus (HIV) disease*		$752,020		

*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: Orlando Health ORMC Uninsured Inpatient Data

TABLE 9.148: ORLANDO HEALTH ORMC 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	69	18.6%	0-18	3	0.8%
Asian	0	0.0%	Non-Hispanic or non-Latino	273	73.6%	19-29	62	16.7%
Black or African American	197	53.1%	Unknown or not given	29	7.8%	30-39	71	19.1%
Caucasian	89	24.0%				40-49	83	22.4%
East Indian	0	0.0%				50-59	104	28.1%
Hispanic	0	0.0%				60-69	40	10.8%
Native Hawaiian or Pacific Islander	0	0.0%				70-79	3	0.8%
Oriental	0	0.0%				80+	5	1.3%
Other	82	22.1%						
Unknown	3	0.8%						

Source: Orlando Health ORMC Uninsured Inpatient Data

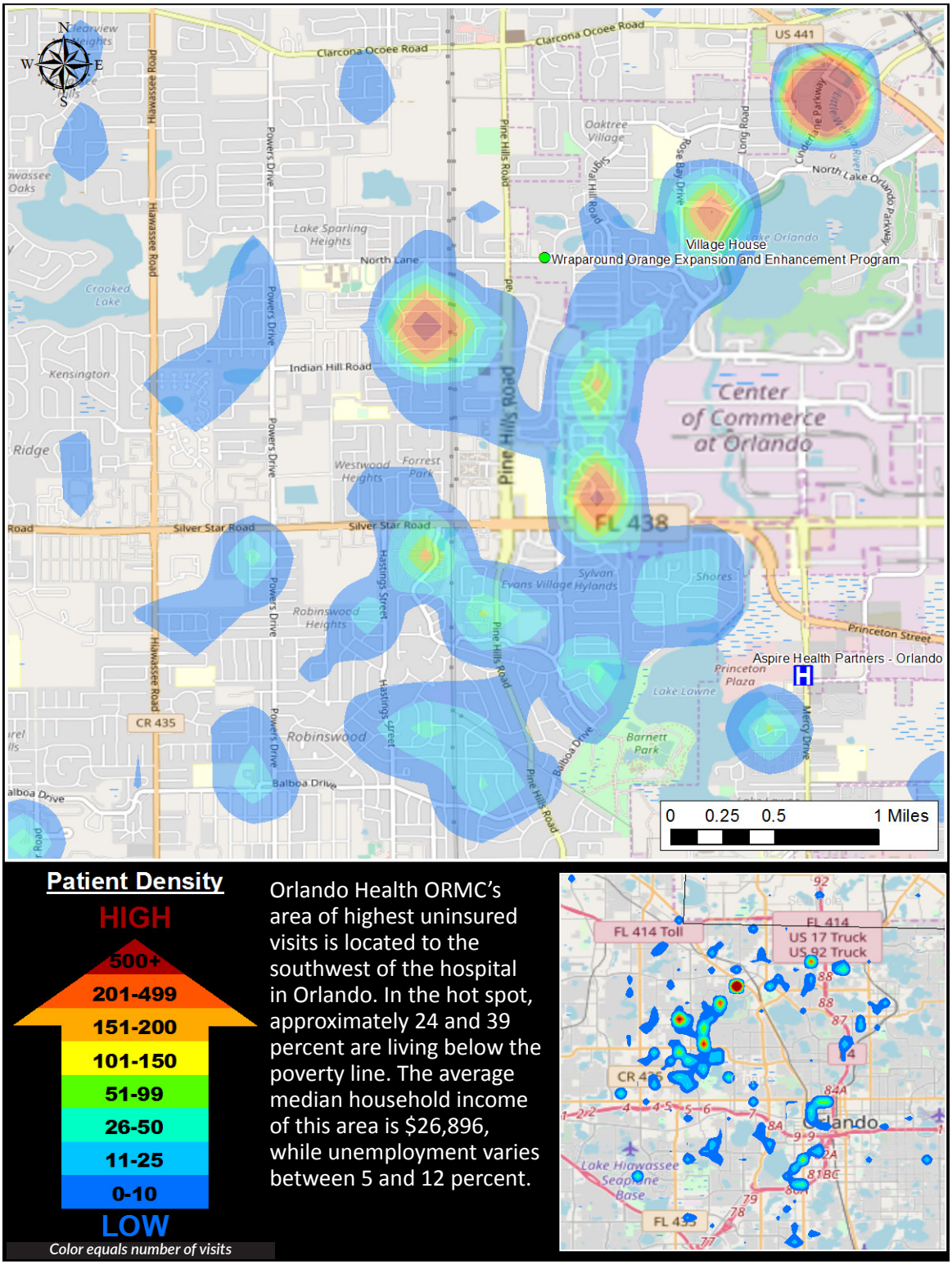
TABLE 9.149: ORLANDO HEALTH ORMC ECONOMIC CHARACTERISTICS OF TOP 5 CENSUS TRACTS (2012-2019)

Census Tract	Census Tract within Zip Code(s)	% Unemployed	Median HH Income	% Below Poverty
12-095-011600	32805	12.4%	$22,955	39.1%
12-095-016903	32809, 32839	5.2%	$34,239	24.4%
12-095-016907	32809, 32839	7.3%	$27,000	37.2%
12-095-018300	32804, 32805, 32808, 32811	11.1%	$34,063	24.0%
12-095-018500	32805, 32806	11.9%	$26,301	34.6%
Average		9.6%	$28,912	31.9%

Source: ProximityOne
Source: U.S. Census Bureau

Figure 9.26 illustrates the uninsured outpatient hot spot analysis for Orlando Health ORMC.

FIGURE 9.26: ORLANDO HEALTH ORMC UNINSURED OUTPATIENT HOT SPOT ANALYSIS



Tables 9.150 through 9.155 outline the uninsured outpatient specific hot spot analysis for Orlando Health ORMC. The analysis includes all uninsured outpatient visits (Table 9.150) and focuses on those visits within the hot spot for fiscal years 2016 through 2018 (Tables 9.151 through 9.154). 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 10 percent; approximately 34 percent of the population is living below the federal poverty level. The average annual median household income is $26,896. Table 9.155 displays the census tracts, what zip code(s) they are in and the economic conditions for the hot spot. The 5,872 uninsured outpatient visits from within the hot spot cost more than $20.9 million and accounted for 18.6 percent of all uninsured outpatient visits between 2016 and 2018 (Table 9.150). More than half (55.7 percent) of uninsured outpatient visits were made by Black or African American patients. Additionally, patients aged 19-29 accounted for 34.5 percent of uninsured outpatient visits.

Low back pain was the most frequent primary diagnosis code from uninsured outpatient visits within this hot spot at 3.2 percent and with a total cost of more than $500,000 between 2016 and 2018. Nicotine dependence, cigarettes, uncomplicated, was the most frequent secondary diagnosis from uninsured outpatient visits within this hot spot at 6.3 percent and with a total cost of more than $1 million for the same time period. The primary diagnosis with the highest total and average costs per uninsured outpatient visit was unspecified abdominal pain with a total cost of more than $800,000 and an average cost of $5,751.

TABLE 9.150: ORLANDO HEALTH ORMC UNINSURED OUTPATIENT VISIT COMPARISON (2016-2018)

Criteria*	Data Snapshot
Total uninsured outpatient visits	31,587
Total uninsured outpatient visits in hot spot	5,872
Total uninsured outpatient cost	$118,192,071
Total uninsured outpatient cost in hot spot	$20,931,905
Percent of uninsured outpatient visits in hot spot	18.6%
Total homeless uninsured outpatient visits	3,944
Homeless visits as a percent of all uninsured outpatient visits	12.5%
Total cost for uninsured outpatient homeless visits	$17,085,797

*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: Orlando Health ORMC Uninsured Outpatient Data

TABLE 9.151: ORLANDO HEALTH ORMC 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
M54.5 Low back pain	188	$566,186	3.2%	$3,012
R51 Headache	186	$841,829	3.2%	$4,526
R10.9 Unspecified abdominal pain	156	$897,100	2.7%	$5,751
R07.9 Chest pain, unspecified	135	$631,274	2.3%	$4,676
J06.9 Acute upper respiratory infection, unspecified	117	$237,415	2.0%	$2,029

Source: Orlando Health ORMC Uninsured Outpatient Data

TABLE 9.152: ORLANDO HEALTH ORMC TOP 5 MOST FREQUENT UNINSURED OUTPATIENT SECONDARY DIAGNOSIS CODES AND COSTS (2016-2018)

Top 5 Secondary Diagnosis Codes	Total Visits	Total Cost	% of all Visits in Hot Spot	Avg. Cost per Visit
F17.210 Nicotine dependence, cigarettes, uncomplicated	369	$1,088,480	6.3%	$2,950
I10 Essential (primary) hypertension	304	$1,155,040	5.2%	$3,799
Z72.0 Tobacco use	112	$366,376	1.9%	$3,271
R11.2 Nausea with vomiting, unspecified	83	$516,362	1.4%	$6,221
G89.29 Other chronic pain	80	$221,327	1.4%	$2,767

Source: Orlando Health ORMC Uninsured Outpatient Data

TABLE 9.153: ORLANDO HEALTH ORMC 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
R10.9 Unspecified abdominal pain	156	$897,100	2.7%	$5,751
R51 Headache	186	$841,829	3.2%	$4,526
R07.9 Chest pain, unspecified	135	$631,274	2.3%	$4,676
M54.5 Low back pain	188	$566,186	3.2%	$3,012
R07.89 Other chest pain	109	$487,459	1.9%	$4,472

Source: Orlando Health ORMC Uninsured Outpatient Data

TABLE 9.154: ORLANDO HEALTH ORMC UNINSURED OUTPATIENT VISITS BY RACE, ETHNICITY AND AGE (2016-2018)

Race	Number	%	Ethnic Group	Number	%	Age	Number	%
American Indian or Alaskan Native	2	0.0%	Hispanic or Latino	1,271	21.6%	0-18	91	1.5%
Asian	5	0.1%	Non-Hispanic or non-Latino	3,681	62.7%	19-29	2,024	34.5%
Black or African American	3,272	55.7%	Unknown or not given	920	15.7%	30-39	1,553	26.4%
Caucasian	914	15.6%				40-49	1,246	21.3%
East Indian	12	0.2%				50-59	759	12.9%
Hispanic	27	0.5%				60-69	174	3.0%
Native Hawaiian or Pacific Islander	0	0.0%				70-79	19	0.3%
Oriental	8	0.1%				80+	6	0.1%
Other	1,548	26.4%						
Unknown	84	1.4%						

Source: Orlando Health ORMC Uninsured Outpatient Data

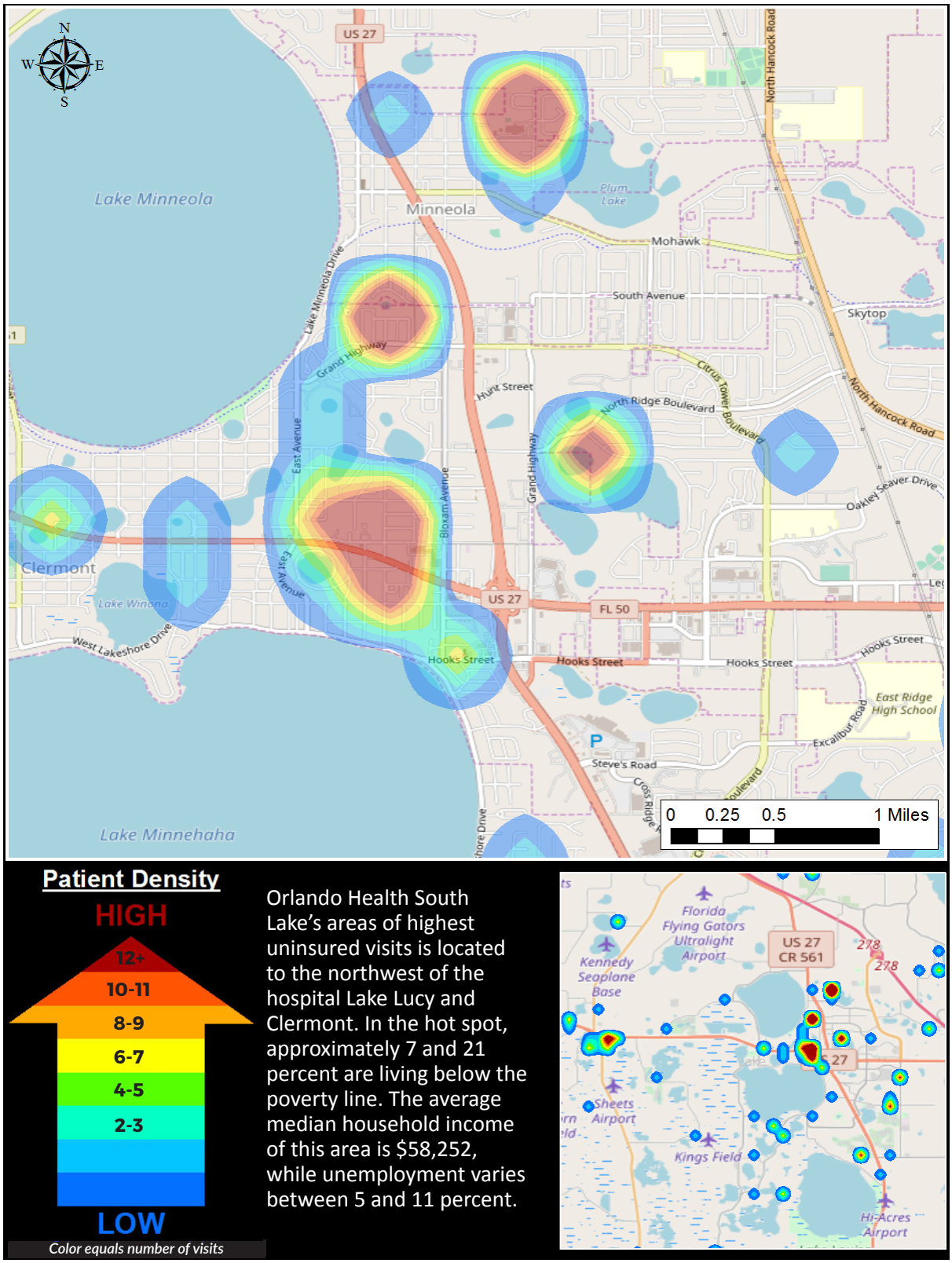
TABLE 9.155: ORLANDO HEALTH ORMC ECONOMIC CHARACTERISTICS OF TOP 5 CENSUS TRACTS (2012-2019)

Census Tract	Census Tract within Zip Code(s)	% Unemployed	Median HH Income	% Below Poverty
12-095-011600	32805	12.4%	$22,955	39.1%
12-095-014502	32839	10.6%	$23,984	35.7%
12-095-016903	32809, 32839	5.2%	$34,239	24.4%
12-095-016907	32809, 32839	7.3%	$27,000	37.2%
12-095-018500	32805, 32806	11.9%	$26,301	34.6%
Average		9.5%	$26,896	34.2%

Source: ProximityOne
Source: U.S. Census Bureau

Figure 9.27 illustrates the uninsured inpatient hot spot analysis for Orlando Health South Lake Hospital (Orlando Health South Lake).

FIGURE 9.27: ORLANDO HEALTH SOUTH LAKE UNINSURED INPATIENT HOT SPOT ANALYSIS



Tables 9.156 through 9.161 outline the uninsured inpatient specific hot spot analysis for Orlando Health South Lake. The analysis includes all uninsured inpatient visits (Table 9.156) and focuses on those visits within the hot spot for fiscal years 2016 through 2018 (Tables 9.157 through 9.160). 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 seven percent; approximately 12 percent of the population is living below the federal poverty level. The average annual median household income is $58,252. Table 9.161 displays the census tracts, what zip code(s) they are in and the economic conditions for the hot spot. The 551 uninsured inpatient visits from within the hot spot cost more than $23.6 million and accounted for 66 percent of all uninsured inpatient visits between 2016 and 2018 (Table 9.156). More than half (55.9 percent) of uninsured inpatient visits were made by Caucasian patients. Additionally, patients aged 40-49 accounted for 24 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 6.4 percent and with a total cost of more than $1.7 million between 2016 and 2018. Acute kidney failure, unspecified, was the most frequent secondary diagnosis from uninsured inpatient visits within this hot spot at 3.3 percent and with a total cost of more than $800,000 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 $112,168. 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 9.156: ORLANDO HEALTH SOUTH LAKE UNINSURED INPATIENT VISIT COMPARISON (2016-2018)

Criteria*	Data Snapshot
Total uninsured inpatient visits	835
Total uninsured inpatient visits in hot spot	551
Total uninsured inpatient cost	$37,278,006
Total uninsured inpatient cost in hot spot	$23,651,206
Percent of uninsured inpatient visits in hot spot	66.0%
Total homeless uninsured inpatient visits	19
Homeless visits as a percent of all uninsured inpatient visits	2.3%
Total cost for uninsured inpatient homeless visits	$969,361

*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: Orlando Health South Lake Uninsured Inpatient Data

TABLE 9.157: ORLANDO HEALTH SOUTH LAKE 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	35	$1,749,956	6.4%	$49,998
Z38.00 Single liveborn infant, delivered vaginally	26	$125,172	4.7%	$4,814
R07.89 Other chest pain	14	$538,560	2.5%	$38,469
Z38.01 Single liveborn infant, delivered by cesarean	14	$128,004	2.5%	$9,143
I21.4 Non-ST elevation (NSTEMI) myocardial infarction	13	$1,458,183	2.4%	$112,168
J44.1 Chronic obstructive pulmonary disease with (acute) exacerbation	13	$535,253	2.4%	$41,173

*Top 6 listed due to multiple diagnoses with same number of total visits.
Source: Orlando Health South Lake Uninsured Inpatient Data

TABLE 9.158: ORLANDO HEALTH SOUTH LAKE TOP 5 MOST FREQUENT UNINSURED INPATIENT SECONDARY DIAGNOSIS CODES AND COSTS (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	18	$876,544	3.3%	$48,697
E87.1 Hypo-osmolality and hyponatremia	16	$617,641	2.9%	$38,603
I10 Essential (primary) hypertension	16	$623,762	2.9%	$38,985
F17.210 Nicotine dependence, cigarettes, uncomplicated	10	$307,704	1.8%	$30,770
E87.6 Hypokalemia	8	$183,269	1.5%	$22,909
J96.01 Acute respiratory failure with hypoxia	8	$486,344	1.5%	$60,793
N17.0 Acute kidney failure with tubular necrosis	8	$601,342	1.5%	$75,168

*Top 7 listed due to multiple diagnoses with same number of total visits.
Source: Orlando Health South Lake Uninsured Inpatient Data

TABLE 9.159: ORLANDO HEALTH SOUTH LAKE 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	35	$1,749,956	6.4%	$49,999
I21.4 Non-ST elevation (NSTEMI) myocardial infarction	13	$1,458,183	2.4%	$112,168
I21.19 ST elevation (STEMI) myocardial infarction involving other coronary artery of inferior wall*		$679,988		
R07.89 Other chest pain	14	$538,560	2.5%	$38,469
J44.1 Chronic obstructive pulmonary disease with (acute) exacerbation	13	$535,253	2.4%	$41,173

*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: Orlando Health South Lake Uninsured Inpatient Data

TABLE 9.160: ORLANDO HEALTH SOUTH LAKE 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	92	16.7%	0-18	43	7.8%
Asian	15	2.7%	Non-Hispanic or non-Latino	418	75.9%	19-29	71	12.8%
Black or African American	88	16.0%	Unknown or not given	41	7.4%	30-39	109	19.8%
Caucasian	308	55.9%				40-49	132	24.0%
East Indian	15	2.7%				50-59	129	23.4%
Hispanic	2	0.4%				60-69	54	9.8%
Native Hawaiian or Pacific Islander	1	0.2%				70-79	6	1.1%
Oriental	2	0.4%				80+	7	1.3%
Other	117	21.2%						
Unknown	3	0.5%						

Source: Orlando Health South Lake Uninsured Inpatient Data

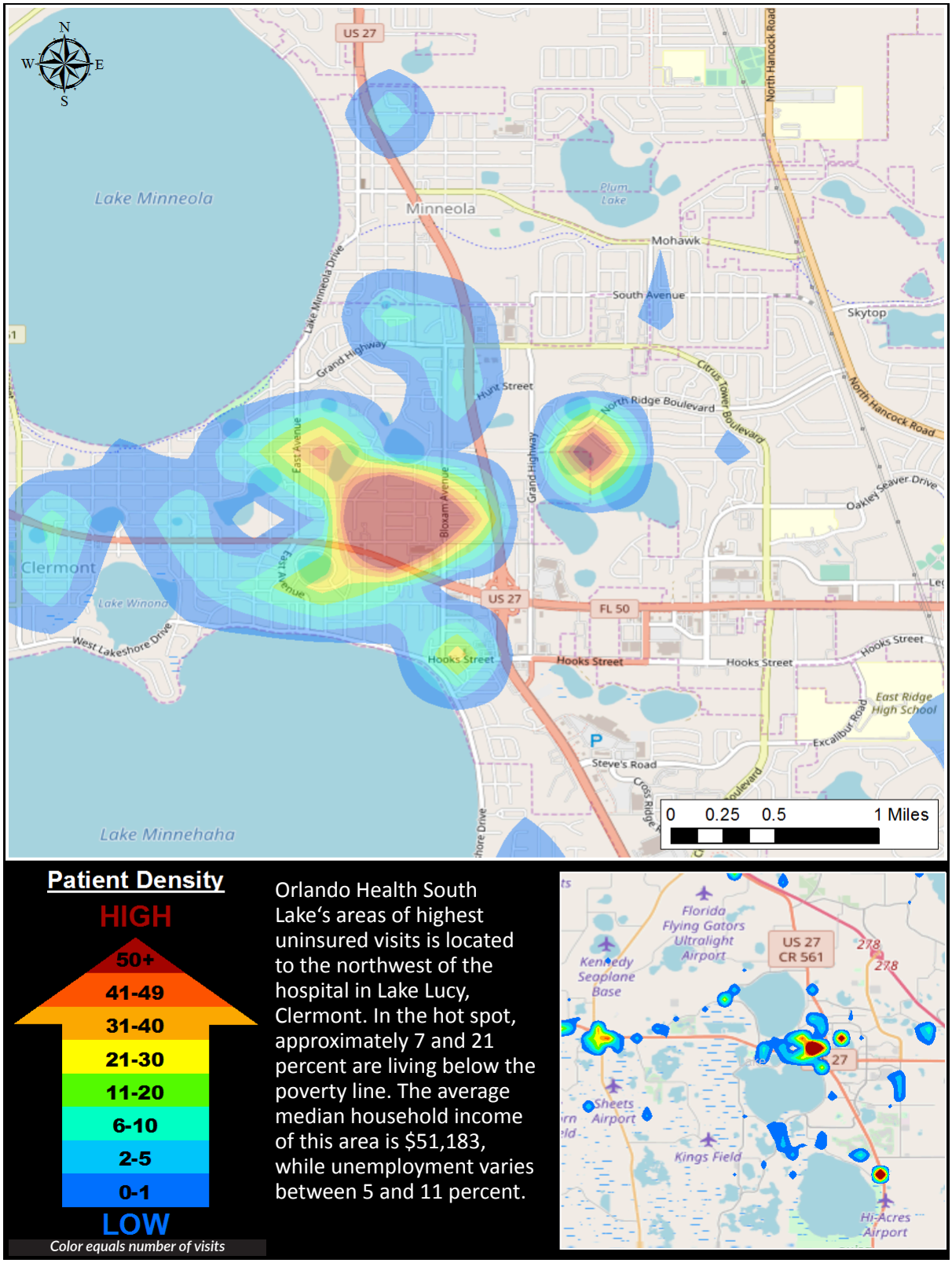
TABLE 9.161: ORLANDO HEALTH SOUTH LAKE ECONOMIC CHARACTERISTICS OF TOP 5 CENSUS TRACTS (2012-2019)

Census Tract	Census Tract within Zip Code(s)	% Unemployed	Median HH Income	% Below Poverty
12-069-031204	34711, 34715, 34736, 34748	11.0%	$56,718	11.1%
12-069-031305	34711	5.4%	$40,901	20.6%
12-069-031307	34711, 34715, 34787	7.1%	$57,265	9.5%
12-069-031309	34711, 34715	7.1%	$58,824	7.3%
12-069-031310	34711	6.3%	$77,551	9.5%
Average		7.4%	$58,252	11.6%

Source: ProximityOne
Source: U.S. Census Bureau

Figure 9.28 illustrates the uninsured outpatient hot spot analysis for Orlando Health South Lake.

FIGURE 9.28: ORLANDO HEALTH SOUTH LAKE UNINSURED OUTPATIENT HOT SPOT ANALYSIS



Tables 9.162 through 9.167 outline the uninsured outpatient specific hot spot analysis for Orlando Health South Lake. The analysis includes all uninsured outpatient visits (Table 9.162) and focuses on those visits within the hot spot for fiscal years 2016 through 2018 (Tables 9.163 through 9.166). 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 seven percent; approximately 13 percent of the population is living below the federal poverty level. The average annual median household income is $51,183. Table 9.167 displays the census tracts, what zip code(s) they are in and the economic conditions for the hot spot. The 7,104 uninsured outpatient visits from within the hot spot cost more than $26.5 million and accounted for 64.2 percent of all uninsured outpatient visits between 2016 and 2018 (Table 9.162). More than half (52.1 percent) of uninsured outpatient visits were made by Caucasian patients. Additionally, patients aged 19-29 accounted for 32.3 percent of uninsured outpatient visits.

Urinary tract infection, site not specified, was the most frequent primary diagnosis code from uninsured outpatient visits within this hot spot at 2.7 percent and with a total cost of more than $900,000 between 2016 and 2018. Nicotine dependence, cigarettes, uncomplicated, was the most frequent secondary diagnosis from uninsured outpatient visits within this hot spot at 2.3 percent and with a total cost of more than $400,000 for the same time period. The primary diagnosis with the highest total and average costs per uninsured outpatient visit was unspecified abdominal pain with a total cost of more than $1 million and an average cost of $7,792.

TABLE 9.162: ORLANDO HEALTH SOUTH LAKE UNINSURED OUTPATIENT VISIT COMPARISON (2016-2018)

Criteria*	Data Snapshot
Total uninsured outpatient visits	11,063
Total uninsured outpatient visits in hot spot	7,104
Total uninsured outpatient cost	$41,582,510
Total uninsured outpatient cost in hot spot	$26,545,842
Percent of uninsured outpatient visits in hot spot	64.2%
Total homeless uninsured outpatient visits	154
Homeless visits as a percent of all uninsured outpatient visits	1%
Total cost for uninsured outpatient homeless visits	$688,975

*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: Orlando Health South Lake Uninsured Outpatient Data

TABLE 9.163: ORLANDO HEALTH SOUTH LAKE 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
N39.0 Urinary tract infection, site not specified	195	$936,515	2.7%	$4,803
R51 Headache	180	$860,588	2.5%	$4,781
M54.5 Low back pain	169	$567,141	2.4%	$3,356
J06.9 Acute upper respiratory infection, unspecified	167	$320,146	2.4%	$1,917
J02.9 Acute pharyngitis, unspecified	153	$294,464	2.2%	$1,925

Source: Orlando Health South Lake Uninsured Outpatient Data

TABLE 9.164: ORLANDO HEALTH SOUTH LAKE TOP 5 MOST FREQUENT UNINSURED OUTPATIENT SECONDARY DIAGNOSIS CODES AND COSTS (2016-2018)

Top 5 Secondary Diagnosis Codes	Total Visits	Total Cost	% of all Visits in Hot Spot	Avg. Cost per Visit
F17.210 Nicotine dependence, cigarettes, uncomplicated	163	$410,407	2.3%	$2,518
I10 Essential (primary) hypertension	135	$478,240	1.9%	$3,543
R51 Headache	128	$686,738	1.8%	$5,365
R10.9 Unspecified abdominal pain	120	$971,886	1.7%	$8,099
R50.9 Fever, unspecified	112	$354,010	1.6%	$3,161

Source: Orlando Health South Lake Uninsured Outpatient Data

TABLE 9.165: ORLANDO HEALTH SOUTH LAKE 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
R10.9 Unspecified abdominal pain	133	$1,036,295	1.9%	$7,792
N39.0 Urinary tract infection, site not specific	195	$936,515	2.7%	$4,803
R51 Headache	180	$860,588	2.5%	$4,781
R11.10 Vomiting, unspecified	2126	$601,666	29.9%	$283
M54.5 Low back pain	169	$567,141	2.4%	$3,356

Source: Orlando Health South Lake Uninsured Outpatient Data

TABLE 9.166: ORLANDO HEALTH SOUTH LAKE UNINSURED OUTPATIENT 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	1,509	21.2%	0-18	744	10.5%
Asian	25	0.4%	Non-Hispanic or non-Latino	4,701	66.2%	19-29	2,297	32.3%
Black or African American	1,371	19.3%	Unknown or not given	894	12.6%	30-39	1,643	23.1%
Caucasian	3,703	52.1%				40-49	1,297	18.3%
East Indian	134	1.9%				50-59	860	12.1%
Hispanic	53	0.7%				60-69	228	3.2%
Native Hawaiian or Pacific Islander	0	0.0%				70-79	23	0.3%
Oriental	1	0.0%				80+	12	0.2%
Other	1,810	25.5%						
Unknown	6	0.1%						

Source: Orlando Health South Lake Uninsured Outpatient Data

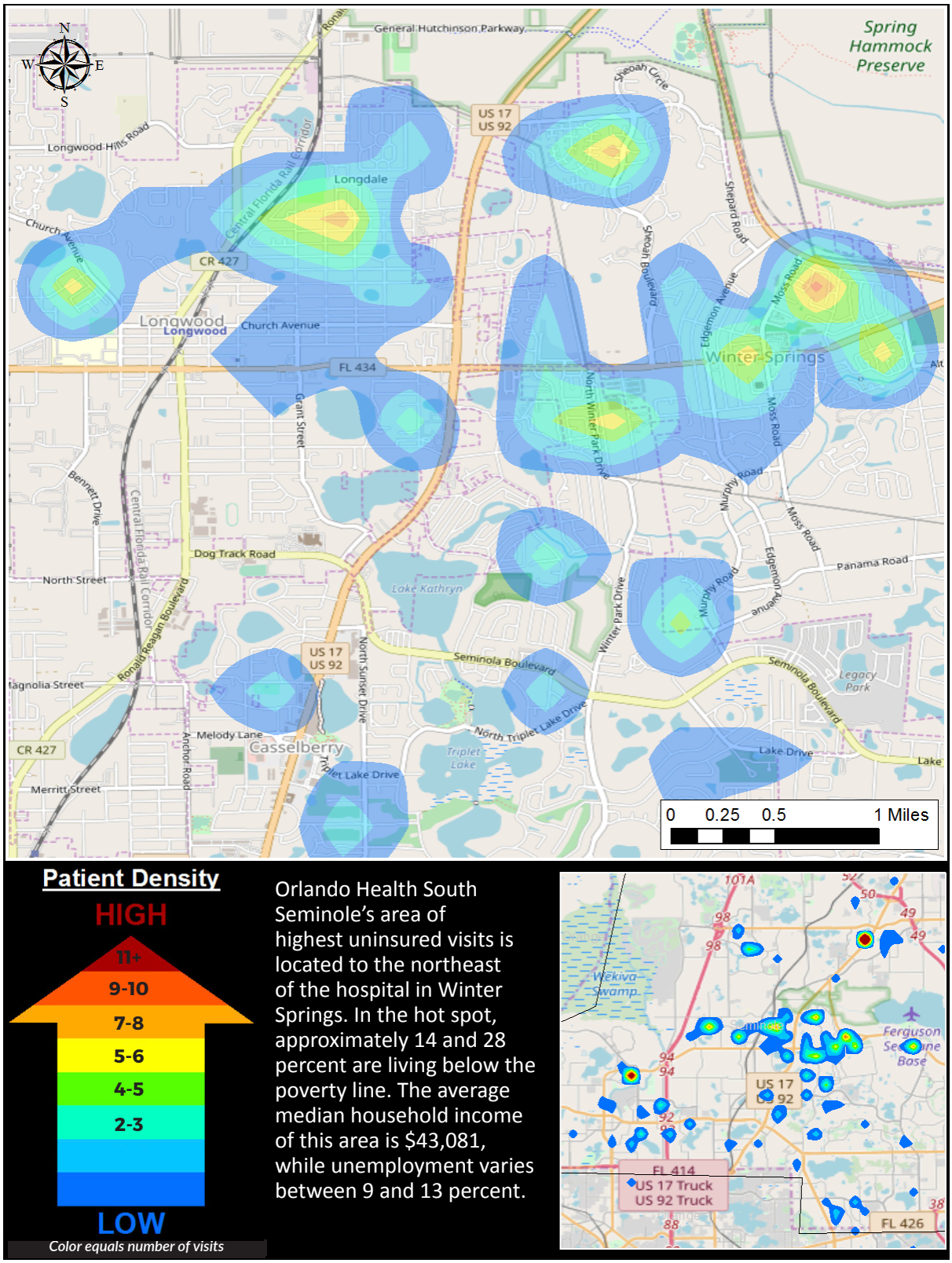
TABLE 9.167: ORLANDO HEALTH SOUTH LAKE ECONOMIC CHARACTERISTICS OF TOP 5 CENSUS TRACTS (2012-2019)

Census Tract	Census Tract within Zip Code(s)	% Unemployed	Median HH Income	% Below Poverty
12-069-031202	34711, 34714, 34736	6.3%	$42,208	14.0%
12-069-031204	34711, 34715, 34736, 34748	11.0%	$56,718	11.1%
12-069-031305	34711	5.4%	$40,901	20.6%
12-069-031307	34711, 34715, 34787	7.1%	$57,265	9.5%
12-069-031309	34711, 34715	7.1%	$58,824	7.3%
Average		7.4%	$51,183	12.5%

Source: ProximityOne
Source: U.S. Census Bureau

Figure 9.29 illustrates the uninsured inpatient hot spot analysis for Orlando Health South Seminole Hospital (Orlando Health South Seminole).

FIGURE 9.29: ORLANDO HEALTH SOUTH SEMINOLE UNINSURED INPATIENT HOT SPOT ANALYSIS



Tables 9.168 through 9.173 outline the uninsured inpatient specific hot spot analysis for Orlando Health South Seminole. The analysis includes all uninsured inpatient visits (Table 9.168) and focuses on those visits within the hot spot for fiscal years 2016 through 2018 (Tables 9.169 through 9.172). 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 11 percent; approximately 19 percent of the population is living below the federal poverty level. The average annual median household income is $43,081. Table 9.173 displays the census tracts, what zip code(s) they are in and the economic conditions for the hot spot. The 362 uninsured inpatient visits from within the hot spot cost more than $12.5 million and accounted for 27.2 percent of all uninsured inpatient visits between 2016 and 2018 (Table 9.168). Over three fourths (76.5 percent) of uninsured inpatient visits were made by Caucasian patients. Additionally, patients aged 40-49 accounted for 26.5 percent of uninsured inpatient visits.

Major depressive disorder, recurrent severe without psychotic features, was the most frequent primary diagnosis code and had the highest total cost from uninsured inpatient visits within this hot spot at 10.5 percent and with a total cost of more than $700,000 between 2016 and 2018. Suicidal ideations was the most frequent secondary diagnosis from uninsured inpatient visits within this hot spot at 14.9 percent and with a total cost of more than $1 million for the same time period. The primary diagnosis with the highest average cost per uninsured inpatient visit was hypertensive heart disease with heart failure, with an average cost of $81,799. 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 9.168: ORLANDO HEALTH SOUTH SEMINOLE UNINSURED INPATIENT VISIT COMPARISON (2016-2018)

Criteria*	Data Snapshot
Total uninsured inpatient visits	1,330
Total uninsured inpatient visits in hot spot	362
Total uninsured inpatient cost	$40,598,472
Total uninsured inpatient cost in hot spot	$12,520,646
Percent of uninsured inpatient visits in hot spot	27.2%
Total homeless uninsured inpatient visits	632
Homeless visits as a percent of all uninsured inpatient visits	47.5%
Total cost for uninsured inpatient homeless visits	$15,343,053

*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: Orlando Health South Seminole Uninsured Inpatient Data

TABLE 9.169: ORLANDO HEALTH SOUTH SEMINOLE 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
F33.2 Major depressive disorder, recurrent severe without psychotic features	38	$746,693	10.5%	$19,649
F32.9 Major depressive disorder, single episode, unspecified	27	$386,406	7.5%	$14,311
F33.1 Major depressive disorder, recurrent, moderate	16	$309,854	4.4%	$19,366
F31.9 Bipolar disorder, unspecified	13	$324,186	3.6%	$24,937
R07.89 Other chest pain	12	$419,539	3.3%	$34,962

Source: Orlando Health South Seminole Uninsured Inpatient Data

TABLE 9.170: ORLANDO HEALTH SOUTH SEMINOLE TOP 5 MOST FREQUENT UNINSURED INPATIENT SECONDARY DIAGNOSIS CODES AND COSTS (2016-2018)

Top 5 Secondary Diagnosis Codes	Total Visits	Total Cost	% of all Visits in Hot Spot	Avg. Cost per Visit
R45.851 Suicidal ideations	54	$1,034,731	14.9%	$19,162
F10.239 Alcohol dependence with withdrawal, unspecified	14	$369,003	3.9%	$26,357
E87.1 Hypo-osmolality and hyponatremia	11	$574,597	3.0%	$52,236
F10.230 Alcohol dependence with withdrawal, uncomplicated	9	$233,911	2.5%	$25,990
F11.20 Opioid dependence, uncomplicated	9	$205,183	2.5%	$22,798

Source: Orlando Health South Seminole Uninsured Inpatient Data

TABLE 9.171: ORLANDO HEALTH SOUTH SEMINOLE 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
F33.2 Major depressive disorder, recurrent severe without psychotic features	38	$746,693	10.5%	$19,650
E11.69 Type 2 diabetes mellitus with other specific complication*		$454,153		
R07.89 Other chest pain	12	$419,539	3.3%	$34,962
I11.0 Hypertensive heart disease with heart failure	5	$408,995	1.4%	$81,799
J44.1 Chronic obstructive pulmonary disease with (acute) exacerbation	10	$403,440	2.8%	$40,344

*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: Orlando Health South Seminole Uninsured Inpatient Data

TABLE 9.172: ORLANDO HEALTH SOUTH SEMINOLE 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	54	14.9%	0-18	5	1.4%
Asian	2	0.6%	Non-Hispanic or non-Latino	267	73.8%	19-29	72	19.8%
Black or African American	17	4.6%	Unknown or not given	41	11.3%	30-39	71	19.6%
Caucasian	277	76.5%				40-49	96	26.5%
East Indian	0	0.0%				50-59	89	24.6%
Hispanic	1	0.3%				60-69	25	6.9%
Native Hawaiian or Pacific Islander	0	0.0%				70-79	2	0.6%
Oriental	1	0.3%				80+	2	0.6%
Other	64	17.7%						
Unknown	0	0.0%						

Source: Orlando Health South Seminole Uninsured Inpatient Data

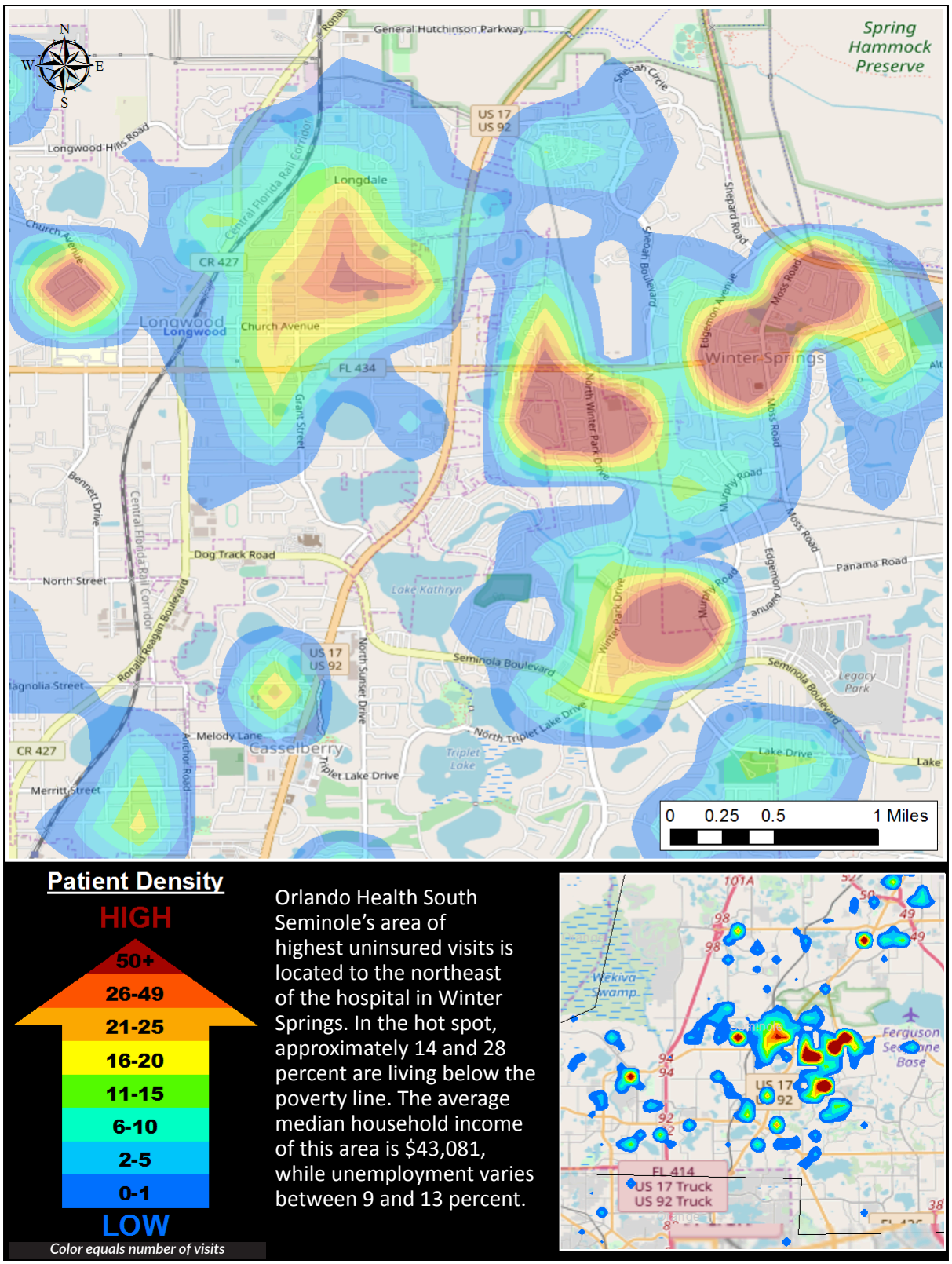
TABLE 9.173: ORLANDO HEALTH SOUTH SEMINOLE ECONOMIC CHARACTERISTICS OF TOP 5 CENSUS TRACTS (2012-2019)

Census Tract	Census Tract within Zip Code(s)	% Unemployed	Median HH Income	% Below Poverty
12-117-021502	32746, 32750	9.4%	$52,616	18.2%
12-117-021401	32708, 32750	10.7%	$43,728	14.4%
12-117-022101	32707, 32708, 32750	9.8%	$30,245	18.4%
12-117-021404	32707, 32808	12.2%	$51,029	14.6%
12-117-020903	32750, 32773	12.7%	$37,786	28.1%
Average		10.9%	$43,081	18.7%

Source: ProximityOne
Source: U.S. Census Bureau

Figure 9.30 illustrates the uninsured outpatient hot spot analysis for Orlando Health South Seminole.

FIGURE 9.30: ORLANDO HEALTH SOUTH SEMINOLE UNINSURED OUTPATIENT HOT SPOT ANALYSIS



Tables 9.174 through 9.179 outline the uninsured outpatient specific hot spot analysis for Orlando Health South Seminole. The analysis includes all uninsured outpatient visits (Table 9.174) and focuses on those visits within the hot spot for fiscal years 2016 through 2018 (Tables 9.175 through 9.178) 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 11 percent; approximately 19 percent of the population is living below the federal poverty level. The average annual median household income is $43,081. Table 9.179 displays the census tracts, what zip code(s) they are in and the economic conditions for the hot spot. The 3,582 uninsured outpatient visits from within the hot spot cost more than $13.1 million and accounted for 38.9 percent of all uninsured outpatient visits between 2016 and 2018 (Table 9.174). More than half (62.1 percent) of uninsured outpatient visits were made by Caucasian patients. Additionally, patients aged 19-29 accounted for 34.3 percent of uninsured outpatient visits.

Acute upper respiratory infection, unspecified, was the most frequent primary diagnosis code from uninsured outpatient visits within this hot spot at 3.3 percent and with a total cost of more than $300,000 between 2016 and 2018. Nicotine dependence, cigarettes, uncomplicated, was the most frequent secondary diagnosis from uninsured outpatient visits within this hot spot at 8.4 percent and with a total cost of more than $800,000 for the same time period. The primary diagnosis with the highest total and average costs per uninsured outpatient visit was unspecified abdominal pain with a total cost of more than $500,000 and an average cost of $7,392.

TABLE 9.174: ORLANDO HEALTH SOUTH SEMINOLE UNINSURED OUTPATIENT VISIT COMPARISON (2016-2018)

Criteria*	Data Snapshot
Total uninsured outpatient visits	9,216
Total uninsured outpatient visits in hot spot	3,582
Total uninsured outpatient cost	$34,038,667
Total uninsured outpatient cost in hot spot	$13,156,465
Percent of uninsured outpatient visits in hot spot	38.9%
Total homeless uninsured outpatient visits	434
Homeless visits as a percent of all uninsured outpatient visits	4.7%
Total cost for uninsured outpatient homeless visits	$1,766,265

*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: Orlando Health South Seminole Uninsured Outpatient Data

TABLE 9.175: ORLANDO HEALTH SOUTH SEMINOLE 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
J06.9 Acute upper respiratory infection, unspecified	119	$305,295	3.3%	$2,566
R10.9 Unspecified abdominal pain	77	$569,151	2.1%	$7,392
N39.0 Urinary tract infection, site not specified	67	$412,983	1.9%	$6,164
R51 Headache	67	$325,384	1.9%	$4,856
K08.89 Other specified disorders of teeth and supporting structures	65	$93,114	1.8%	$1,433

Source: Orlando Health South Seminole Uninsured Outpatient Data

TABLE 9.176: ORLANDO HEALTH SOUTH SEMINOLE TOP 5 MOST FREQUENT UNINSURED OUTPATIENT SECONDARY DIAGNOSIS CODES AND COSTS (2016-2018)

Top 5 Secondary Diagnosis Codes	Total Visits	Total Cost	% of all Visits in Hot Spot	Avg. Cost per Visit
F17.210 Nicotine dependence, cigarettes, uncomplicated	302	$879,166	8.4%	$2,911
I10 Essential (primary) hypertension	135	$450,208	3.8%	$3,335
Z72.0 Tobacco use	72	$208,215	2.0%	$2,892
R11.2 Nausea with vomiting, unspecified	57	$309,633	1.6%	$5,432
R19.7 Diarrhea, unspecified	42	$184,868	1.2%	$4,402

Source: Orlando Health South Seminole Uninsured Outpatient Data

TABLE 9.177: ORLANDO HEALTH SOUTH SEMINOLE 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
R10.9 Unspecified abdominal pain	77	$569,151	2.1%	$7,392
N39.0 Urinary tract infection, site not specified	67	$412,983	1.9%	$6,164
R51 Headache	67	$325,384	1.9%	$4,856
J06.9 Acute upper respiratory infection, unspecified	119	$305,295	3.3%	$2,566
R10.13 Epigastric pain	47	$269,745	1.3%	$5,739

Source: Orlando Health South Seminole Uninsured Outpatient Data

TABLE 9.178: ORLANDO HEALTH SOUTH SEMINOLE UNINSURED OUTPATIENT 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	718	20.0%	0-18	244	6.8%
Asian	6	0.2%	Non-Hispanic or non-Latino	2,186	61.0%	19-29	1,228	34.3%
Black or African American	395	11.0%	Unknown or not given	678	19.0%	30-39	888	24.8%
Caucasian	2,224	62.1%				40-49	655	18.3%
East Indian	12	0.3%				50-59	438	12.2%
Hispanic	15	0.4%				60-69	119	3.3%
Native Hawaiian or Pacific Islander	0	0.0%				70-79	9	0.3%
Oriental	6	0.2%				80+	1	0.0%
Other	920	25.7%						
Unknown	4	0.1%						

Source: Orlando Health South Seminole Uninsured Outpatient Data

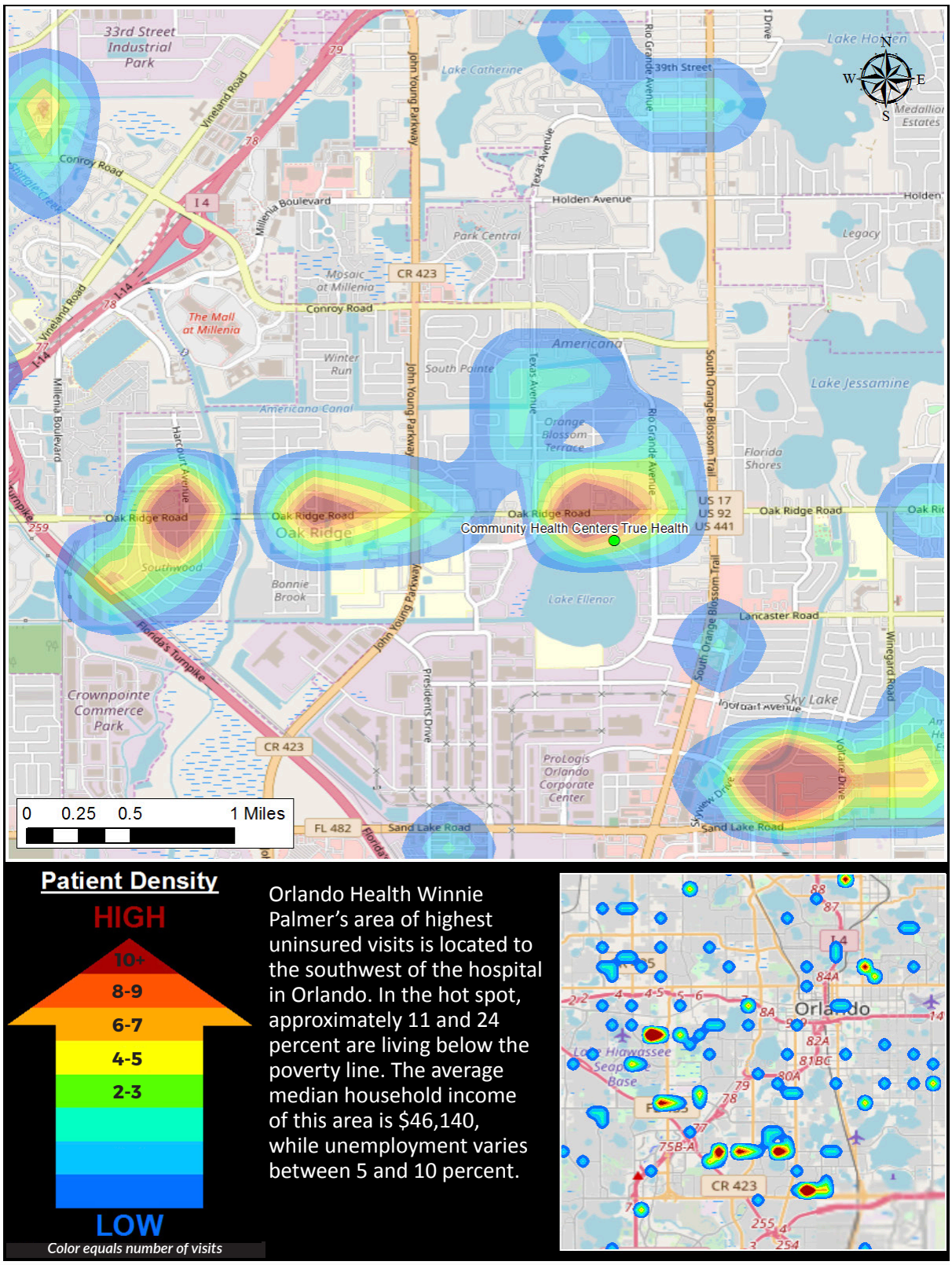
TABLE 9.179: ORLANDO HEALTH SOUTH SEMINOLE ECONOMIC CHARACTERISTICS OF TOP 5 CENSUS TRACTS (2012-2019)

Census Tract	Census Tract within Zip Code(s)	% Unemployed	Median HH Income	% Below Poverty
12-117-022101	32707, 32708, 32750	9.8%	$30,245	18.4%
12-117-021502	32746, 32750	9.4%	$52,616	18.2%
12-11-7021401	32708, 32750	10.7%	$43,728	14.4%
12-117-020903	32750, 32773	12.7%	$37,786	28.1%
12-117-021404	32707, 32808	12.2%	$51,029	14.6%
Average		10.9%	$43,081	18.7%

Source: ProximityOne
Source: U.S. Census Bureau

Figure 9.31 illustrates the uninsured inpatient hot spot analysis for Orlando Health Winnie Palmer Hospital for Women & Babies (Orlando Health Winnie Palmer).

FIGURE 9.31: ORLANDO HEALTH WINNIE PALMER UNINSURED INPATIENT HOT SPOT ANALYSIS



Tables 9.180 through 9.185 outline the uninsured inpatient specific hot spot analysis for Orlando Health Winnie Palmer. The analysis includes all uninsured inpatient visits (Table 9.180) and focuses on those visits within the hot spot for fiscal years 2016 through 2018 (Tables 9.181 through 9.184). 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 eight percent; approximately 16 percent of the population is living below the federal poverty level. The average annual median household income is $46,140. Table 9.185 displays the census tracts, what zip code(s) they are in and the economic conditions for the hot spot. The 159 uninsured inpatient visits from within the hot spot cost more than $3.1 million and accounted for 12.8 percent of all uninsured inpatient visits between 2016 and 2018 (Table 9.180). More than half (56.6 percent) of uninsured inpatient visits were made by patients who consider their race to be Other. Additionally, patients aged 0-18 accounted for 58.5 percent of uninsured inpatient visits.

Single liveborn infant, delivered vaginally, was the most frequent primary diagnosis code from uninsured inpatient visits within this hot spot at 33.3 percent and with a total cost of more than $300,000 between 2016 and 2018. Encounter for immunization was the most frequent secondary diagnosis from uninsured inpatient visits within this hot spot at 10.1 percent and with a total cost of more than $85,000 for the same time period. The primary diagnosis with the highest total cost per uninsured inpatient visit was maternal care for scar from previous cesarean delivery at a total cost of more than $300,000. The primary diagnosis with the highest average cost per uninsured inpatient visit was maternal care for low transverse scar from previous cesarean delivery with an average cost of $47,444. 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 9.180: ORLANDO HEALTH WINNIE PALMER UNINSURED INPATIENT VISIT COMPARISON (2016-2018)

Criteria*	Data Snapshot
Total uninsured inpatient visits	1,239
Total uninsured inpatient visits in hot spot	159
Total uninsured inpatient cost	$22,966,142
Total uninsured inpatient cost in hot spot	$3,198,452
Percent of uninsured inpatient visits in hot spot	12.8%
Total homeless uninsured inpatient visits	13
Homeless visits as a percent of all uninsured inpatient visits	1.0%
Total cost for uninsured inpatient homeless visits	$482,632

*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: Orlando Health Winnie Palmer Uninsured Inpatient Data

TABLE 9.181: ORLANDO HEALTH WINNIE PALMER 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
Z38.00 Single liveborn infant, delivered vaginally	53	$343,649	33.3%	$6,483
Z38.01 Single liveborn infant, delivered by cesarean	34	$287,838	21.4%	$8,466
O34.21 Maternal care for scar from previous cesarean delivery	8	$351,948	5.0%	$43,994
O34.211 Maternal care for low transverse scar from previous cesarean delivery	7	$332,108	4.4%	$47,444
O48.0 Post-term pregnancy	7	$222,128	4.4%	$31,733

Source: Orlando Health Winnie Palmer Uninsured Inpatient Data

TABLE 9.182: ORLANDO HEALTH WINNIE PALMER TOP 5 MOST FREQUENT UNINSURED INPATIENT SECONDARY DIAGNOSIS CODES AND COSTS (2016-2018)

Top 5** Secondary Diagnosis Codes	Total Visits	Total Cost	% of all Visits in Hot Spot	Avg. Cost per Visit
Z23 Encounter for immunization	16	$85,810	10.1%	$5,363
Z37.0 Single live birth	10	$315,073	6.3%	$31,507
P59.9 Neonatal jaundice, unspecified	9	$54,686	5.7%	$6,076
Q82.8 Other specified congenital malformations of skin	6	$38,068	3.8%	$6,345
D62 Acute post hemorrhagic anemia*		$150,915		
O41.1230 Chorioamnionitis, third trimester, not applicable or unspecified*		$141,431		
P02.7 Newborn affected by chorioamnionitis*		$22,735		
Z3A.39 39 weeks gestation of pregnancy*		$178,684		

*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.
**Top 8 listed due to multiple diagnoses with same number of total visits.
Source: Orlando Health Winnie Palmer Uninsured Inpatient Data

TABLE 9.183: ORLANDO HEALTH WINNIE PALMER 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
O34.21 Maternal care for scar from previous cesarean delivery	8	$351,948	5.0%	$43,994
O34.211 Maternal care for low transverse scar from previous cesarean delivery	7	$332,108	4.4%	$47,444
O48.0 Post-term pregnancy	7	$222,128	4.4%	$31,733
Z38.00 Single liveborn infant, delivered vaginally	53	$343,649	33.3%	$6,484
Z38.01 Single liveborn infant, delivered by cesarean	34	$287,838	21.4%	$8,466

Source: Orlando Health Winnie Palmer Uninsured Inpatient Data

TABLE 9.184: ORLANDO HEALTH WINNIE PALMER 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	93	58.5%	0-18	93	58.5%
Asian	5	3.1%	Non-Hispanic or non-Latino	61	38.5%	19-29	29	18.2%
Black or African American	31	19.6%	Unknown or not given	5	3.1%	30-39	34	21.4%
Caucasian	26	16.4%				40-49	3	1.9%
East Indian	1	0.6%				50-59	0	0.0%
Hispanic	0	0.0%				60-69	0	0.0%
Native Hawaiian or Pacific Islander	0	0.0%				70-79	0	0.0%
Oriental	5	3.1%				80+	0	0.0%
Other	90	56.6%						
Unknown	1	0.6%						

Source: Orlando Health Winnie Palmer Uninsured Inpatient Data

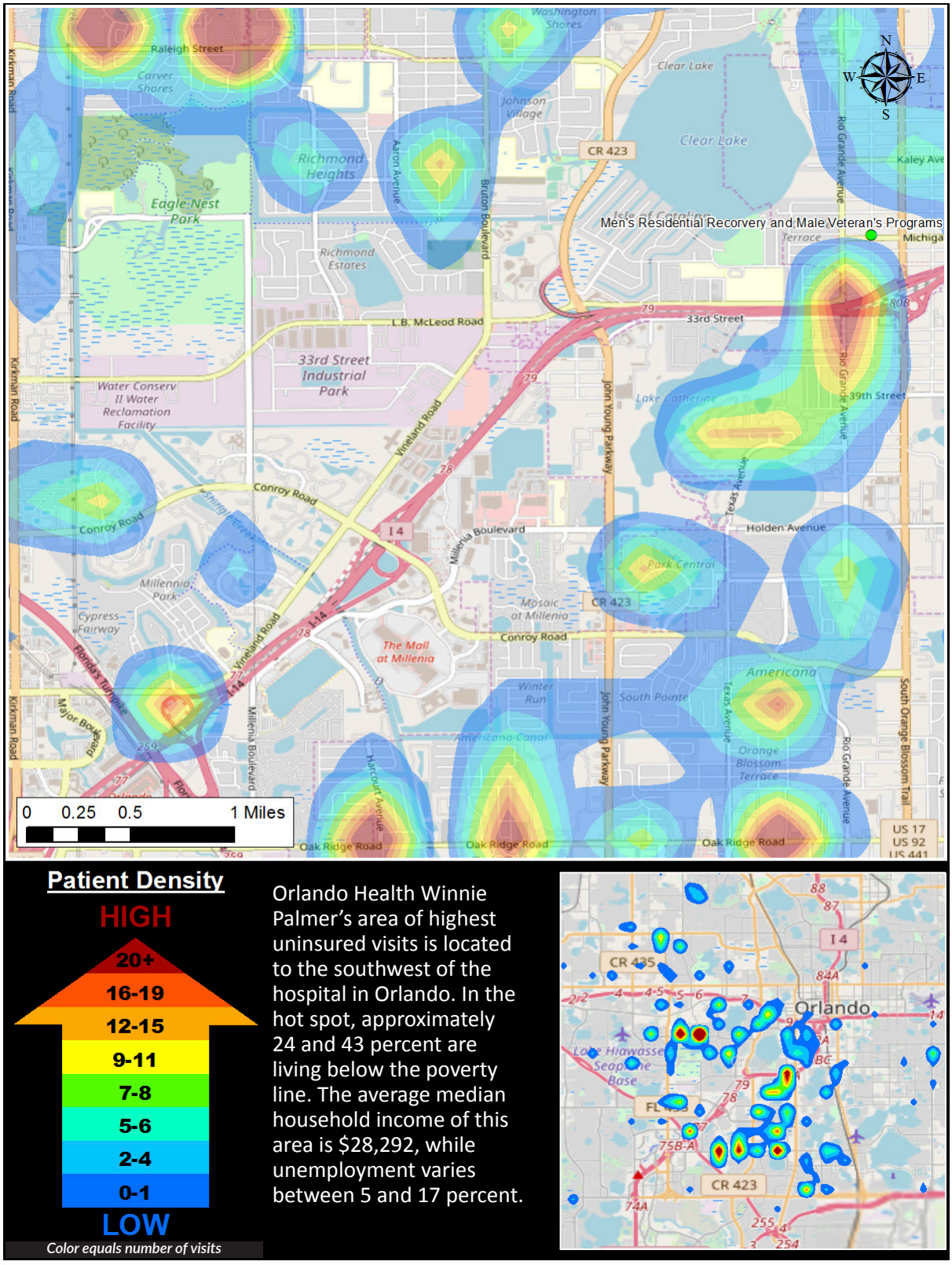
TABLE 9.185: ORLANDO HEALTH WINNIE PALMER ECONOMIC CHARACTERISTICS OF TOP 5 CENSUS TRACTS (2012-2019)

Census Tract	Census Tract within Zip Code(s)	% Unemployed	Median HH Income	% Below Poverty
12-095-016903	32809, 32839	5.2%	$34,239	24.4%
12-095-014704	32809	10.1%	$48,083	10.7%
12-095-017103	32811	5.7%	$63,038	11.2%
12-095-016806	32839	9.8%	$53,113	15.6%
12-095-014606	32809, 32839	7.9%	$32,229	19.0%
Average		7.7%	$46,140	16.2%

Source: ProximityOne
Source: U.S. Census Bureau

Figure 9.32 illustrates the uninsured outpatient hot spot analysis for Orlando Health Winnie Palmer.

FIGURE 9.32: ORLANDO HEALTH WINNIE PALMER UNINSURED OUTPATIENT HOT SPOT ANALYSIS



Tables 9.186 through 9.191 outline the uninsured outpatient specific hot spot analysis for Orlando Health Winnie Palmer. The analysis includes all uninsured outpatient visits (Table 9.186) and focuses on those visits within the hot spot for fiscal years 2016 through 2018 (Tables 9.187 through 9.190). 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 10 percent; approximately 35 percent of the population is living below the federal poverty level. The average annual median household income is $28,292. Table 9.191 displays the census tracts, what zip code(s) they are in and the economic conditions for the hot spot. The 566 uninsured outpatient visits from within the hot spot cost more than $1.8 million and accounted for 17 percent of all uninsured outpatient visits between 2016 and 2018 (Table 9.186). More than half (53.7 percent) of uninsured outpatient visits were made by Black or African American patients. Additionally, patients aged 19-29 accounted for 59.5 percent of uninsured outpatient visits.

Threatened abortion was the most frequent primary diagnosis code and had the highest total cost from uninsured outpatient visits within this hot spot at 9.2 percent and with a total cost of more than $180,000 between 2016 and 2018. Less than eight weeks of gestation of pregnancy was the most frequent secondary diagnosis from uninsured outpatient visits within this hot spot at 7.4 percent and with a total cost of more than $100,000 for the same time period. The primary diagnosis with the highest average cost per uninsured outpatient visit was other specified pregnancy-related conditions, third trimester, with an average cost of $3,758.

TABLE 9.186: ORLANDO HEALTH WINNIE PALMER UNINSURED OUTPATIENT VISIT COMPARISON (2016-2018)

Criteria*	Data Snapshot
Total uninsured outpatient visits	3,323
Total uninsured outpatient visits in hot spot	566
Total uninsured outpatient cost	$10,972,908
Total uninsured outpatient cost in hot spot	$1,804,469
Percent of uninsured outpatient visits in hot spot	17.0%
Total homeless uninsured outpatient visits	44
Homeless visits as a percent of all uninsured outpatient visits	1.3%
Total cost for uninsured outpatient homeless visits	$148,808

*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: Orlando Health Winnie Palmer Uninsured Outpatient Data

TABLE 9.187: ORLANDO HEALTH WINNIE PALMER 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
O20.0 Threatened abortion	52	$185,199	9.2%	$3,562
O99.89 Other specified diseases and condition complicating pregnancy, childbirth and the puerperium	51	$152,693	9.0%	$2,994
O03.9 Complete or unspecified spontaneous abortion without complication	21	$67,731	3.7%	$3,225
O21.9 Vomiting of pregnancy, unspecified	17	$57,989	3.0%	$3,411
N76.0 Acute vaginitis	15	$28,035	2.7%	$1,869
O26.893 Other specified pregnancy related conditions, third trimester	15	$56,377	2.7%	$3,758
O47.1 False labor at or after 37 completed weeks of gestation	15	$46,666	2.7%	$3,111

*Top 7 listed due to multiple diagnoses with same number of total visits.
Source: Orlando Health Winnie Palmer Uninsured Outpatient Data

TABLE 9.188: ORLANDO HEALTH WINNIE PALMER TOP 5 MOST FREQUENT UNINSURED OUTPATIENT SECONDARY DIAGNOSIS CODES AND COSTS (2016-2018)

Top 5 Secondary Diagnosis Codes	Total Visits	Total Cost	% of all Visits in Hot Spot	Avg. Cost per Visit
Z3A.01 Less than 8 weeks of gestation of pregnancy	42	$153,136	7.4%	$3,646
R10.2 Pelvic and perineal pain	31	$107,002	5.5%	$3,452
R10.9 Unspecified abdominal pain	20	$75,107	3.5%	$3,755
Z3A.40 40 weeks of gestation of pregnancy	14	$40,287	2.5%	$2,878
Z3A.00 Weeks of gestation of pregnancy not specified	12	$44,458	2.1%	$3,705

Source: Orlando Health Winnie Palmer Uninsured Outpatient Data

TABLE 9.189: ORLANDO HEALTH WINNIE PALMER 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
O20.0 Threatened abortion	52	$185,199	9.2%	$3,562
O99.89 Other specified diseases and condition complicating pregnancy, childbirth and the puerperium	51	$152,693	9.0%	$2,994
O03.9 Complete or unspecified spontaneous abortion without complication	21	$67,731	3.7%	$3,225
O21.9 Vomiting of pregnancy, unspecified	17	$57,989	3.0%	$3,411
O26.893 Other specified pregnancy related conditions, third trimester	15	$56,377	2.7%	$3,758

Source: Orlando Health Winnie Palmer Uninsured Outpatient Data

TABLE 9.190: ORLANDO HEALTH WINNIE PALMER UNINSURED OUTPATIENT 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	196	34.6%	0-18	17	3.0%
Asian	0	0.0%	Non-Hispanic or non-Latino	318	56.2%	19-29	337	59.5%
Black or African American	304	53.7%	Unknown or not given	52	9.2%	30-39	166	29.3%
Caucasian	38	6.6%				40-49	35	6.2%
East Indian	2	0.4%				50-59	10	1.8%
Hispanic	0	0.0%				60-69	1	0.2%
Native Hawaiian or Pacific Islander	0	0.0%				70-79	0	0.0%
Oriental	0	0.0%				80+	0	0.0%
Other	216	38.2%						
Unknown	6	1.1%						

Source: Orlando Health Winnie Palmer Uninsured Outpatient Data

TABLE 9.191: ORLANDO HEALTH WINNIE PALMER ECONOMIC CHARACTERISTICS OF TOP 5 CENSUS TRACTS (2012-2019)

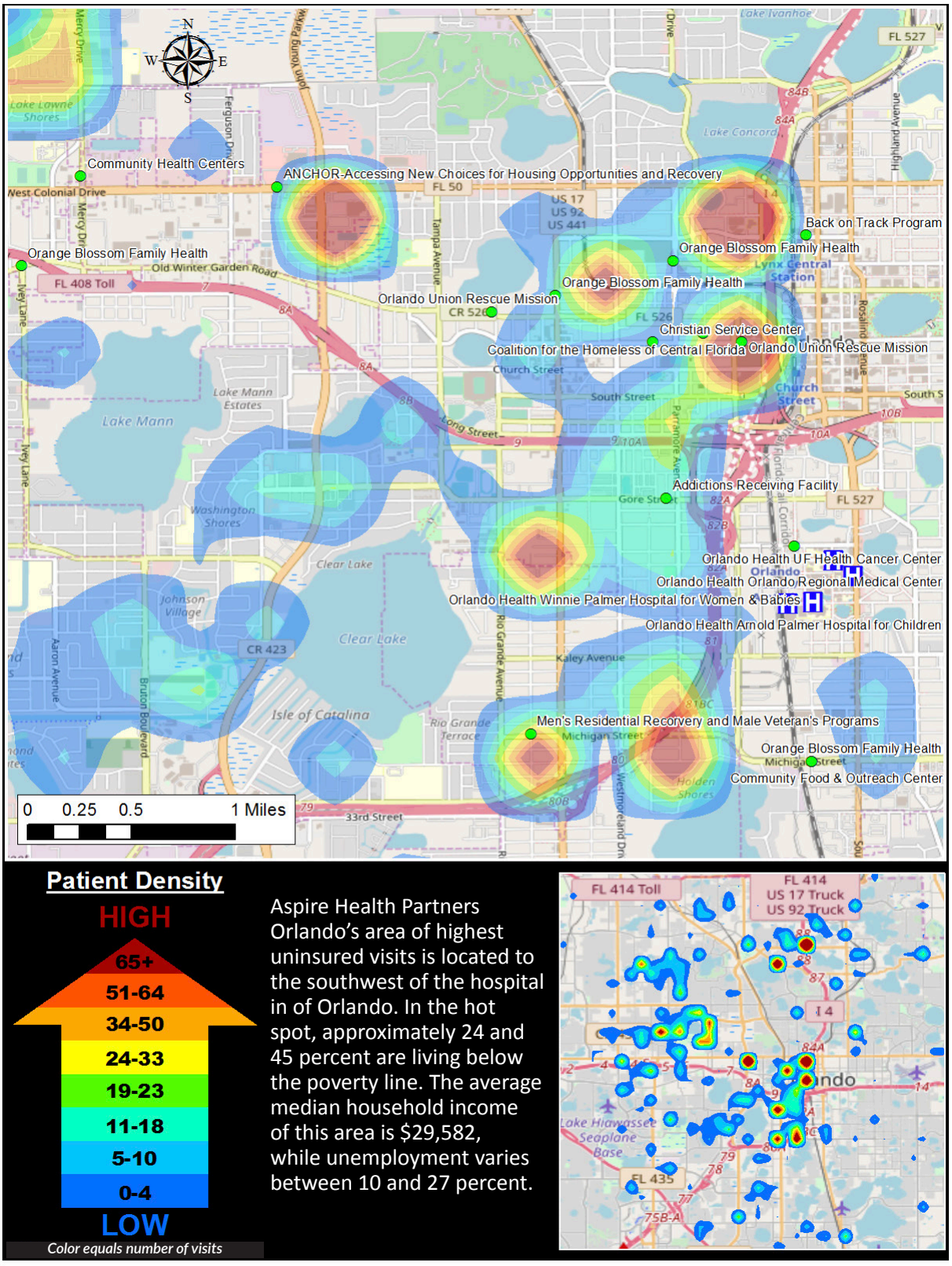
Census Tract	Census Tract within Zip Code(s)	% Unemployed	Median HH Income	% Below Poverty
12-09-5016903	32809, 32839	5.2%	$34,239	24.4%
12-095-016902	32809	10.9%	$31,596	35.1%
12-095-014601	32811	17.4%	$24,642	42.6%
12-095-014502	32839	10.6%	$23,984	35.7%
12-095-016907	32809, 32839	7.3%	$27,000	37.2%
Average		10.3%	$28,292	35.0%

Source: ProximityOne
Source: U.S. Census Bureau

ASPIRE HEALTH PARTNERS HOT SPOTTING

Figure 9.33 illustrates the uninsured inpatient hot spot analysis for Aspire Health Partners Orlando.

FIGURE 9.33: ASPIRE HEALTH PARTNERS ORLANDO UNINSURED INPATIENT HOT SPOT ANALYSIS



Tables 9.192 through 9.197 outline the uninsured inpatient specific hot spot analysis, for Aspire Health Partners Orlando. The analysis includes all uninsured inpatient visits (Table 9.192) and focuses on those visits within the hot spot for fiscal years 2016 through 2018 (Tables 9.193 through 9.196). 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 15 percent; approximately 35 percent of the population is living below the federal poverty level. The average annual median household income is $29,582. Table 9.197 displays the census tracts, what zip code(s) they are in and the economic conditions for the hot spot. The 1,462 uninsured inpatient visits from within the hot spot cost more than $7.8 million and accounted for 9.7 percent of all uninsured inpatient visits between 2016 and 2018 (Table 9.192). More than half (58.3 percent) of uninsured inpatient visits were made by Black or African American patients. Additionally, patients aged 50-59 accounted for 23 percent of uninsured inpatient visits.

Schizophrenia, unspecified, was the most frequent primary diagnosis code and had the highest total and average costs from uninsured inpatient visits within this hot spot at 13.3 percent and with a total cost of more than $1.5 million and an average cost of $8,227 between 2016 and 2018. Alcohol dependence, uncomplicated, was the most frequent secondary diagnosis from uninsured inpatient visits within this hot spot at 4.5 percent and with a total cost of more than $400,000 for the same time period.

TABLE 9.192: ASPIRE HEALTH PARTNERS ORLANDO UNINSURED INPATIENT VISIT COMPARISON (2016-2018)

Criteria*	Data Snapshot
Total uninsured inpatient visits	15,099
Total uninsured inpatient visits in hot spot	1,462
Total uninsured inpatient cost	$86,127,341
Total uninsured inpatient cost in hot spot	$7,895,089
Percent of uninsured inpatient visits in hot spot	9.7%
Total homeless uninsured inpatient visits	8,001
Homeless visits as a percent of all uninsured inpatient visits	53.0%
Total cost for uninsured inpatient homeless visits	$49,474,986

*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: Aspire Health Partners Orlando Uninsured Inpatient Data

TABLE 9.193: ASPIRE HEALTH PARTNERS 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
F20.0 Schizophrenia, unspecified	194	$1,596,032	13.3%	$8,227
F32.9 Major depressive disorder, single episode, unspecified	162	$617,761	11.1%	$3,813
F31.9 Bipolar disorder, unspecified	139	$609,609	9.5%	$4,386
F25.0 Schizoaffective disorder, bipolar type	128	$669,882	8.8%	$5,233
F29 Unspecified psychosis not due to a substance or known physiological condition	80	$460,149	5.5%	$5,752

Source: Aspire Health Partners Orlando Uninsured Inpatient Data

TABLE 9.194: ASPIRE HEALTH PARTNERS ORLANDO TOP 5 MOST FREQUENT UNINSURED INPATIENT SECONDARY DIAGNOSIS CODES AND COSTS (2016-2018)

Top 5 Secondary Diagnosis Codes	Total Visits	Total Cost	% of all Visits in Hot Spot	Avg. Cost per Visit
F10.20 Alcohol dependence, uncomplicated	66	$436,261	4.5%	$6,610
F14.10 Cocaine abuse, uncomplicated	62	$361,601	4.2%	$5,832
F14.20 Cocaine dependence, uncomplicated	52	$365,811	3.6%	$7,035
F12.10 Cannabis abuse, uncomplicated	47	$252,440	3.2%	$5,371
F19.10 Other psychoactive substance abuse, uncomplicated	25	$92,200	1.7%	$3,688

Source: Aspire Health Partners Orlando Uninsured Inpatient Data

TABLE 9.195: ASPIRE HEALTH PARTNERS 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
F20.9 Schizophrenia, unspecified	194	$1,596,032	13.3%	$8,227
F25.0 Schizoaffective disorder, bipolar type	128	$669,882	13.3%	$5,233
F32.9 Major depressive disorder, single episode, unspecified	162	$617,761	13.3%	$3,813
F31.9 Bipolar disorder, unspecified	139	$609,609	13.3%	$4,386
F29 Unspecified psychosis not due to a substance or known physiological condition	81	$510,299	13.3%	$6,300

Source: Aspire Health Orlando Uninsured Inpatient Data

TABLE 9.196: ASPIRE HEALTH PARTNERS ORLANDO UNINSURED INPATIENT VISITS BY RACE, ETHNICITY AND AGE (2016-2018)

Race	Number	%	Ethnic Group	Number	%	Age	Number	%
American Indian	2	0.1%	Haitian	26	1.8%	0-18	120	8.2%
Asian	0	0.0%	Mexican	0	0.0%	19-29	334	22.8%
Black or African American	852	58.2%	None of the Above	831	56.8%	30-39	302	20.8%
Multi-Racial	70	4.8%	Other Hispanic	127	8.7%	40-49	259	17.7%
Native Hawaiian/ Other Pacific Islander	1	0.1%	Puerto Rican	47	3.2%	50-59	336	23.0%
Other	74	5.1%	Spanish / Latino	35	2.4%	60-69	103	7.0%
White/Caucasian	463	31.7%	Unknown	396	27.1%	70-79	8	0.5%
						80+	0	0.0%

Source: Aspire Health Partners Orlando Uninsured Inpatient Data

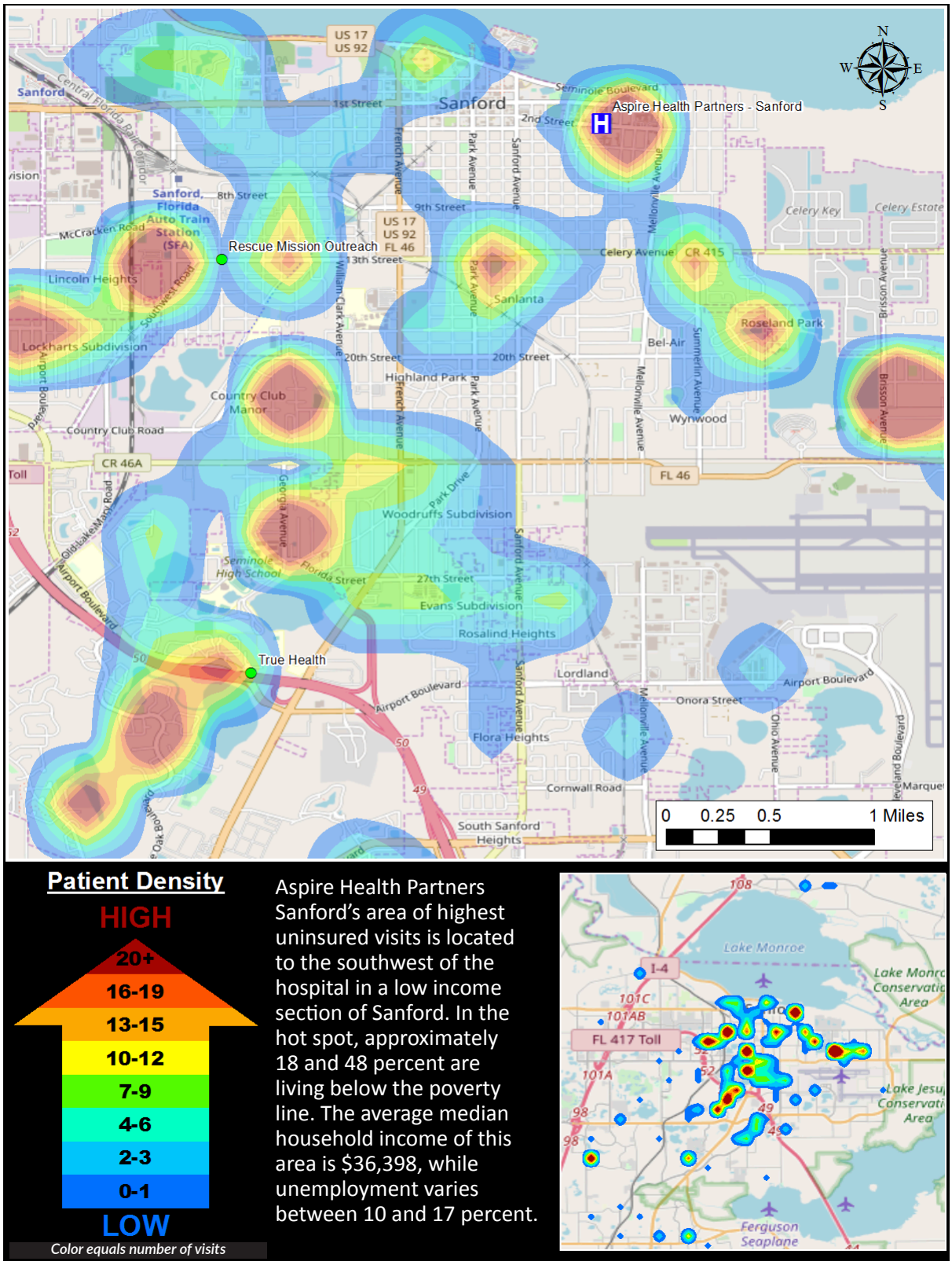
TABLE 9.197: ASPIRE HEALTH PARTNERS ORLANDO ECONOMIC CHARACTERISTICS OF TOP 5 CENSUS TRACTS (2012-2019)

Census Tract	Census Tract within Zip Code(s)	% Unemployed	Median HH Income	% Below Poverty
12-095-18300	32804, 32805, 32808, 32811	11.1%	$34,063	24.0%
12-095-18900	32801, 32804	9.7%	$40,412	32.4%
12-095-11600	32805	12.4%	$22,955	39.1%
12-095-12000	32808	17.1%	$28,912	34.4%
12-095-18700	32804, 32808	26.8%	$21,568	45.0%
Average		15.4%	$29,582	35.0%

Source: ProximityOne
Source: U.S. Census Bureau

Figure 9.34 illustrates the uninsured inpatient hot spot analysis for Aspire Health Partners Sanford.

FIGURE 9.34: ASPIRE HEALTH PARTNERS SANFORD UNINSURED INPATIENT HOT SPOT ANALYSIS



Tables 9.198 through 9.203 outline the uninsured inpatient specific hot spot analysis, for Aspire Health Partners Sanford. The analysis includes all uninsured inpatient visits (Table 9.198) and focuses on those visits within the hot spot for fiscal years 2016 through 2018 (Tables 9.199 through 9.202). 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 12 percent; approximately 27 percent of the population is living below the federal poverty level. The average annual median household income is $36,398. Table 9.203 displays the census tracts, what zip code(s) they are in and the economic conditions for the hot spot. The 279 uninsured inpatient visits from within the hot spot cost more than $5.2 million and accounted for 23.3 percent of all uninsured inpatient visits between 2016 and 2018 (Table 9.198). More than half (51.3 percent) of uninsured inpatient visits were made by Black or African American patients. Additionally, patients aged 19-29 accounted for 29.7 percent of uninsured inpatient visits.

Schizophrenia, unspecified, was the most frequent primary diagnosis code and had the highest total and average costs from uninsured inpatient visits within this hot spot at 26.5 percent and with a total cost of more than $3.3 million and an average cost of $45,129 between 2016 and 2018. Cocaine dependence, uncomplicated, was the most frequent secondary diagnosis from uninsured inpatient visits within this hot spot at 8.2 percent and with a total cost of more than $500,000 for the same time period.

TABLE 9.198: ASPIRE HEALTH PARTNERS SANFORD UNINSURED INPATIENT VISIT COMPARISON (2016-2018)

Criteria*	Data Snapshot
Total uninsured inpatient visits	1,196
Total uninsured inpatient visits in hot spot	279
Total uninsured inpatient cost	$17,850,520
Total uninsured inpatient cost in hot spot	$5,265,894
Percent of uninsured inpatient visits in hot spot	23.3%
Total homeless uninsured inpatient visits	640
Homeless visits as a percent of all uninsured inpatient visits	54%
Total cost for uninsured inpatient homeless visits	$4,951,717

*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: Aspire Health Partners Sanford Uninsured Inpatient Data

TABLE 9.199: ASPIRE HEALTH PARTNERS SANFORD 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
F20.9 Schizophrenia, unspecified	74	$3,339,533	26.5%	$45,129
F25.0 Schizoaffective disorder, bipolar type	44	$587,400	15.8%	$13,350
F32.9 Major depressive disorder, single episode, unspecified	22	$95,355	7.9%	$4,334
F31.9 Bipolar disorder, unspecified	17	$528,092	6.1%	$31,064
F43.21 Adjustment disorder with depressed mood	9	$20,300	3.2%	$2,256

Source: Aspire Health Partners Sanford Uninsured Inpatient Data

TABLE 9.200: ASPIRE HEALTH PARTNERS SANFORD TOP 5 MOST FREQUENT UNINSURED INPATIENT SECONDARY DIAGNOSIS CODES AND COSTS (2016-2018)

Top 5 Secondary Diagnosis Codes	Total Visits	Total Cost	% of all Visits in Hot Spot	Avg. Cost per Visit
F14.20 Cocaine dependence, uncomplicated	23	$568,370	8.2%	$24,712
F10.20 Alcohol dependence, uncomplicated	22	$143,600	7.9%	$6,527
F12.20 Cannabis dependence, uncomplicated	17	$174,300	6.1%	$10,253
F12.10 Cannabis abuse, uncomplicated	14	$94,300	5.0%	$6,736
F10.10 Alcohol abuse, uncomplicated	13	$68,800	4.7%	$5,292

Source: Aspire Health Partners Sanford Uninsured Inpatient Data

TABLE 9.201: ASPIRE HEALTH PARTNERS SANFORD 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
F20.9 Schizophrenia, unspecified	74	$3,339,533	26.5%	$45,129
F25.0 Schizoaffective disorder, bipolar type	44	$587,400	15.8%	$13,350
F31.9 Bipolar disorder, unspecified	17	$528,092	6.1%	$31,064
F29 Unspecified psychosis not due to a substance or known physiological condition	8	$152,200	2.9%	$19,025
F32.9 Major depressive disorder, single episode, unspecified	22	$95,355	7.9%	$4,334

Source: Aspire Health Partners Sanford Uninsured Inpatient Data

TABLE 9.202: ASPIRE HEALTH PARTNERS SANFORD UNINSURED INPATIENT VISITS BY RACE, ETHNICITY AND AGE (2016-2018)

Race	Number	%	Ethnic Group	Number	%	Age	Number	%
American Indian	1	0.4%	Haitian	0	0.0%	0-18	8	2.9%
Asian	1	0.4%	Mexican	1	0.4%	19-29	83	29.7%
Black or African American	143	51.3%	None of the Above	231	82.8%	30-39	81	29.0%
Multi-Racial	29	10.3%	Other Hispanic	14	5.0%	40-49	47	16.8%
Native Hawaiian/ Other Pacific Islander	0	0.0%	Puerto Rican	19	6.8%	50-59	32	11.5%
Other	4	1.4%	Spanish / Latino	0	0.0%	60-69	20	7.2%
White/Caucasian	0	36.2%	Unknown	14	5.0%	70-79	7	2.5%
						80+	1	0.4%

Source: Aspire Health Partners Sanford Uninsured Inpatient Data

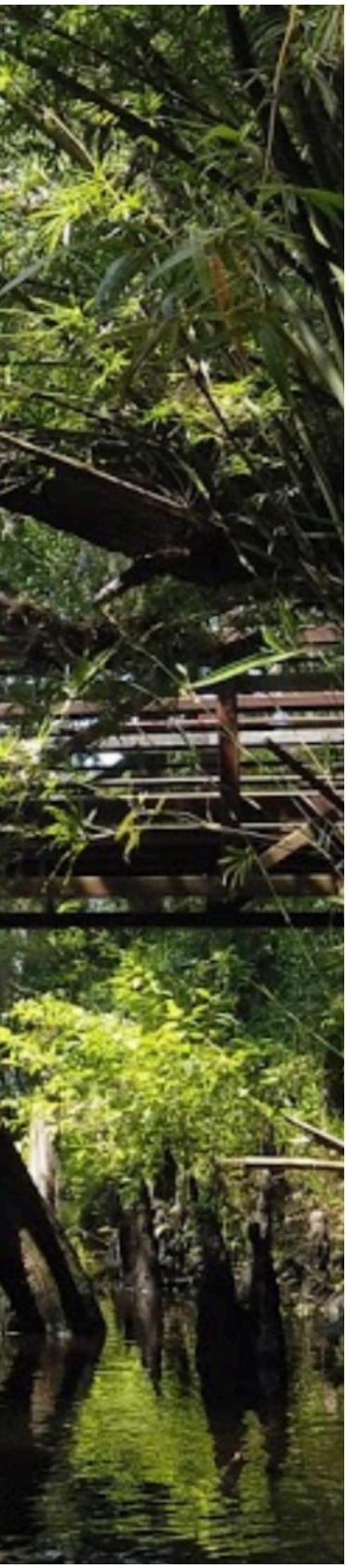
TABLE 9.203: ASPIRE HEALTH PARTNERS SANFORD ECONOMIC CHARACTERISTICS OF TOP 5 CENSUS TRACTS (2012-2019)

Census Tract	Census Tract within Zip Code(s)	% Unemployed	Median HH Income	% Below Poverty
12-117-21100	32771	10.6%	$34,962	22.0%
12-117-20202	32771	12.4%	$39,628	17.5%
12-117-20903	32750, 32771	12.7%	$37,786	28.1%
12-117-20500	32771	16.6%	$22,668	48.2%
12-117-20807	32746, 32773	9.6%	$46,944	16.8%
Average		12.4%	$36,398	26.5%

Source: ProximityOne
Source: U.S. Census Bureau

‘Osceola County has a broad range of outdoor activity for the community to utilize.’

-Key Informant Survey Respondent



CHAPTER TEN

Regional Needs Assessment Summary

Shingle Creek Regional Park
Kissimmee, FL

Osceola County

REGIONAL NEEDS ASSESSMENT SUMMARY BASED ON DATA PRESENTED IN REPORT

In general, the health and overall well-being of residents in the four-county region varies by county. As evidenced by the secondary data compiled in this report, residents of Seminole County continue to have the best overall outcomes when compared to the other counties in the four-county region, with the most encouraging county health rankings and positive student indicators (including graduation rates and low violence). The county has had improvements in several indicators related to chronic conditions, hospitalizations, birth characteristics, mental health, behavioral risk and access. Seminole County also has the highest median household income.

When looking at the secondary data, Seminole County has shown improvement in many areas. The county consistently had the lowest rate per 100,000 of preventable hospitalizations for those under the age of 65 from congestive heart failure when compared to the other counties in the four-county region. The prevalence of lung cancer has decreased as has the percentage of adults who currently have asthma. The percentage of births to mothers with less than a high school education has decreased. The percentage of adults who have ever been told they have a depressive disorder has decreased as has the number of children receiving mental health treatment services. Smoking has decreased in adults and middle and school students. Binge drinking among middle and high school students has decreased. The percentage of adults with health care insurance has increased. However, there are numerous areas for improvement related to immunizations and preventative screenings. There has been an increase in obesity, diabetes, breast cancer, hospitalizations for non-fatal unintentional injuries, unintentional poisonings and infant mortality. There has been a decrease in the percentage of mothers receiving first trimester prenatal care. In recent years the county has had an increase in the suicide rate for children ages 12-18 as well as those ages 19-21. The percentage of adults who binge drink has increased as have heroin and fentanyl-related deaths.

Orange County presents an interesting mix of encouraging indicators and room for improvement as evidenced by the secondary data compiled in this report. There is an encouraging trend for population growth and median household income. Improvement has also been shown with a decrease in poverty rates and unemployment. High school graduation rates have increased. Diabetes, hypertension and some asthma and cancer rates are down. Birth characteristics and mental health indicators have improved slightly. Although there are several areas with improving trends there are areas for improvement. Breast cancer incidence and high school asthma continue to increase. Orange County has had the highest rate of new HIV and new AIDS cases reported when compared to the counties in the four-county region and the state. In 2017, the infant death rate per 1,000 live births as well as the percentage of births to uninsured mothers was highest in Orange County compared to the other counties in the four-county region as well as the state. Heroin use among middle school students has been increasing since 2014 at a rate much higher than the other counties in the four-county region and the state.

Osceola County has shown encouraging trends as population growth and median household income have increased; poverty has decreased slightly. Osceola County is also the most diverse of the four-county region with a high percentage of residents speaking a language other than English at home. High school graduation rates are up, while the number of homeless students is down. Birth characteristics have improved in recent years and the infant death rate per 1,000 live births is the lowest in the four-county region and below the state rate. There has been an increase in the percentage of women who received a pap test in the past year as well as the percentage of adults who have received a blood stool test in the past year. Osceola County often has the highest rates of various conditions (as shown in the secondary data) in the four-county region. A few areas where Osceola County is higher compared to the four-county region and state, with room for improvement, include: diabetes, heart disease mortality, colorectal cancer prevalence, asthma, cardiovascular disease mortality, infectious disease mortality, births to unwed mothers, births covered by Medicaid, sedentary adults and drug arrests.

Secondary data indicates that Lake County is the least populated county in the four-county region and is the third largest by area. In 2016, Lake County had the highest influenza and pneumonia vaccination rates in the four-county region. In 2017, Lake County was also the lowest in the four-county region for new HIV and AIDS cases reported. Lake County also had the lowest asthma hospitalizations for children ages 12-18. However, Lake County's challenges include hypertension prevalence (although highest in the four-county region the percentage is decreasing), high cholesterol, stroke, breast and lung cancer incidence. Lake County currently has the lowest high school graduation rates in the four-county region.

When looking at the secondary data for the four-county region improvements have been seen in the past few years across the four-county region. There has been an increase in the percentage of adults age 65 and older who have received the influenza vaccination as well as women receiving a mammogram and adults who have had a blood stool test. Diabetes and asthma hospitalizations have decreased as has the prevalence of asthma, colorectal cancer and lung cancer. Unintentional fall deaths have also decreased. When looking at birth characteristics the percentage of births to mothers with less than a high school education, unwed mothers and repeat births to mothers ages 15-19 have decreased. Several mental health and quality of life indicators have seen improvement including adults with depressive disorder, children receiving mental health services, children with an emotional/behavioral disability, children experiencing sexual or physical abuse. There has been a decrease in smoking and binge drinking among middle and high school students. While much has been done to improve the health of the community there are continued opportunities. There has been a decrease in the percentage of kindergartners receiving immunizations as well as adults over the age of 65 who are receiving the pneumonia vaccination. Adults receiving preventive screenings including Pap test, PSA test and sigmoidoscopy or colonoscopy have also decreased. The rate for new HIV cases reported has continued to increase. Obesity among adults and middle school students has increased as have diabetes and asthma hospitalizations for children ages 12-18. The breast cancer rate has also increased. When looking at maternal indicators the percentage of births to uninsured mothers and obese mothers has increased. There has also been a decrease in the percentage of mothers receiving prenatal care in the first trimester. Students and adults lack physical activity and the percentage of adults who binge drink has increased. There has been an increase in both firearm discharge deaths as well as domestic violence deaths.

Affordability of care is a common theme across the four-county region throughout all primary and secondary data. This includes the affordability of doctor visits, prescriptions, hospital visits and insurance. As reported in the primary data, many residents have skipped doctor visits due to cost, especially at lower income levels. The cost of care and challenge of scheduling appointments may also contribute to the decreasing levels of preventative care, immunizations and early detection of health issues. Almost half of community survey respondents indicate they wait to see a doctor until they are sick. The primary research participants commented that when preventative care is not feasible or accessible, people wait to seek medical care until they are in an emergency situation.

Another factor discussed widely in the primary research is the limited access to mental health services. Providers and stakeholders agree that too many residents are utilizing the emergency department to address under-treated and untreated mental illness. The need for mental health services is another theme that was consistent across the four-county region with nearly all data collection sources.

Substance use is also a concern separate from the general umbrella of mental and behavioral health that was frequently noted by primary research participants. Providers and some residents are concerned about heroin and other opioids in the community, a concern that is prominent on the national stage.

Primary research participants discussed the connection between mental health, substance use and homelessness. Homelessness is a major concern identified across the four-county region. Primary research participants discussed the link between mental health and substance use issues that make it difficult to secure stable housing. Primary research participants also commented that they believe homelessness exacerbates substance use and mental health conditions. These participants added that untreated mental illness and substance use make it difficult to maintain gainful employment and stable housing. Another major contributor to the issue of homelessness that primary research participants commented on is a lack of affordable housing. When looking at the secondary data there are high levels of cost burden among renters and primary data sources continue to lament the cost of housing.

While the percentage of population living in poverty has decreased in recent years in the four-county region, overall it is higher than it was in 2000. Just under half of households in the four-county region are cost burdened with between 16.7 percent and 25.1 percent severely cost burdened. Between 24.1 percent and 32.5 percent of renters are spending 50 percent or more of their income on rent. Over half of renter households are cost burdened with between 27.9 percent and 32.7 percent severely cost burdened.

Community survey respondents indicated that cost has impacted their ability to access care, housing and healthful foods. Stakeholders identified individuals living in poverty among the top populations experiencing barriers accessing health care. Stakeholders also identified individuals living in poverty among the populations facing barriers to care. Stakeholders also talked about difficulty accessing transportation and other services due to limited income. Focus group participants talked about the challenges those living in poverty experience noting that a high number of the population works minimum wage jobs. Focus group participants talked about the stress that poverty can place on an individual, an example provided was that people often have to choose between filling a prescription or feeding their family.

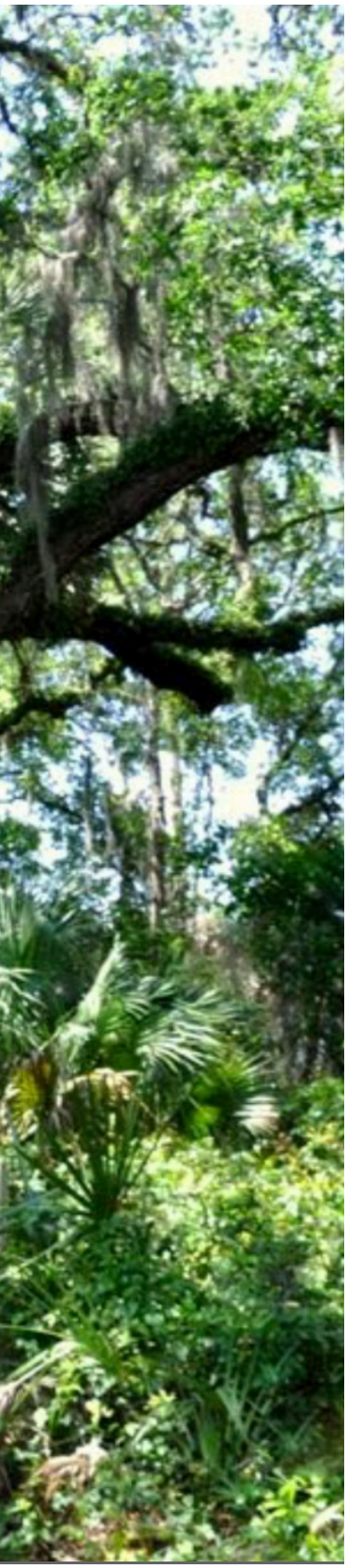
There are numerous food deserts in the four-county region, and many of them overlap with census tracts where a high proportion of residents receive public food assistance. Primary research participants note that in the absence of nearby supermarkets and other fresh food providers, residents turn to fast food and convenience stores. They went on to comment that these establishments often offer calorie-dense, low-nutrient foods. According to the World Health Organization, a diet primarily composed of these foods contributes to the three chronic diseases most often mentioned in all data collection sources used for this CHNA: obesity, diabetes and heart disease. Residents and community stakeholders who participated in the primary research have concerns about access to quality and nutritious foods and had much discussion about the affordability of healthy foods.

As evidenced by the secondary data, when paired with limited recreation/fitness and park opportunities, as well as built environment issues such as walkability and bike-friendly infrastructure, residents are more likely to have a sedentary lifestyle. Research has shown that this sedentary lifestyle can lead to chronic diseases such as obesity, diabetes, and cardiovascular disease. These chronic diseases appear to consistently and disproportionately affect minority populations. Specifically, when looking at the secondary data, diabetes is an issue in the Black and Hispanic communities, particularly in Lake, Orange and Seminole counties. Black adults in Seminole County are also more likely to have high blood pressure as are Hispanic adults in Osceola and Seminole counties. The rate for strokes is highest among the White communities especially in Lake County. Residents and community stakeholders who participated in the primary research have concerns about access to quality and nutritious foods and had much discussion about the affordability of healthy foods.

Finally, there are serious concerns about infant mortality in minority populations, particularly among Black residents which are observed in the secondary data as well as reported by primary research participants. When looking at the secondary data, the four-county region and state rates are near the Healthy People 2020 target, Black residents have infant mortality rates about 50 percent higher than White and Hispanic rates. In Lake County, the Hispanic infant mortality rate tripled between 2012 and 2017. Additionally, the rate of births to uninsured Hispanic women tends to be higher than the White and Black rate. The births to unwed Black mothers have been consistently higher than White and Hispanic rates over the past 14 years.

‘The awareness we have had in the last few years has been key for people to be informed and act upon it. Now if you know about food and transportation as a health care provider, you can link to other services.’

- Stakeholder Interview Respondent



CHAPTER ELEVEN

Needs Assessment Summary By County

Lake Griffin State Park
Fruitland Park, FL

Lake County

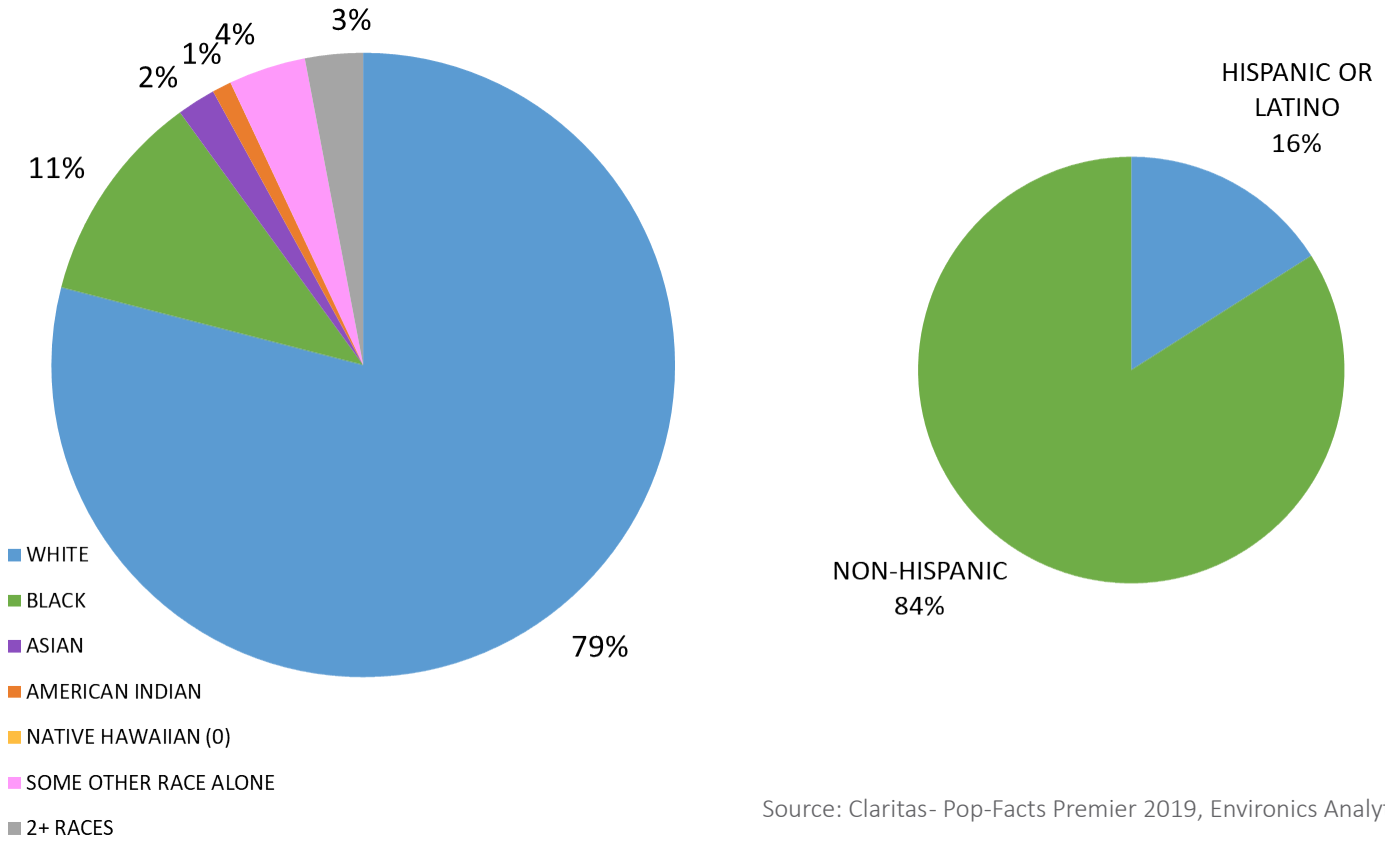
The county assessment summaries that follow include basic demographic information for each county in the four-county region, as well as high-level overviews of the four assessment components of the MAPP (Mobilizing Action Through Planning and Partnerships) model: community health status, community themes and strengths, local public health systems and forces of change. For each county in the four-county region, there is also a list of themes selected by the Collaborative based on a prioritization exercise each participated in. Dozens of themes were generated based on the identified needs that emerged from the data. The Collaborative completed a prioritization exercise using OptionFinder, an audience response polling system, to rate the identified needs. These prioritized needs will be used by members of the Collaborative in their individual implementation strategies.

LAKE COUNTY

The majority of residents in Lake County are White (79 percent) and 11 percent of residents are Black. The other races account for 10 percent or less of the county population. Less than one in five residents (16 percent) are Hispanic or Latino. (See chart 11.1)

Age is relatively equally distributed in the county, with residents age 0-14 years accounting for the largest percentage (16 percent) followed by residents age 65-74 (15 percent). There are slightly more female residents (52 percent) than male residents (48 percent). (See charts 11.2-11.3)

CHART 11.1: LAKE COUNTY POPULATION BY RACE/ETHNICITY 2019



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

CHART 11.2: LAKE COUNTY POPULATION BY AGE

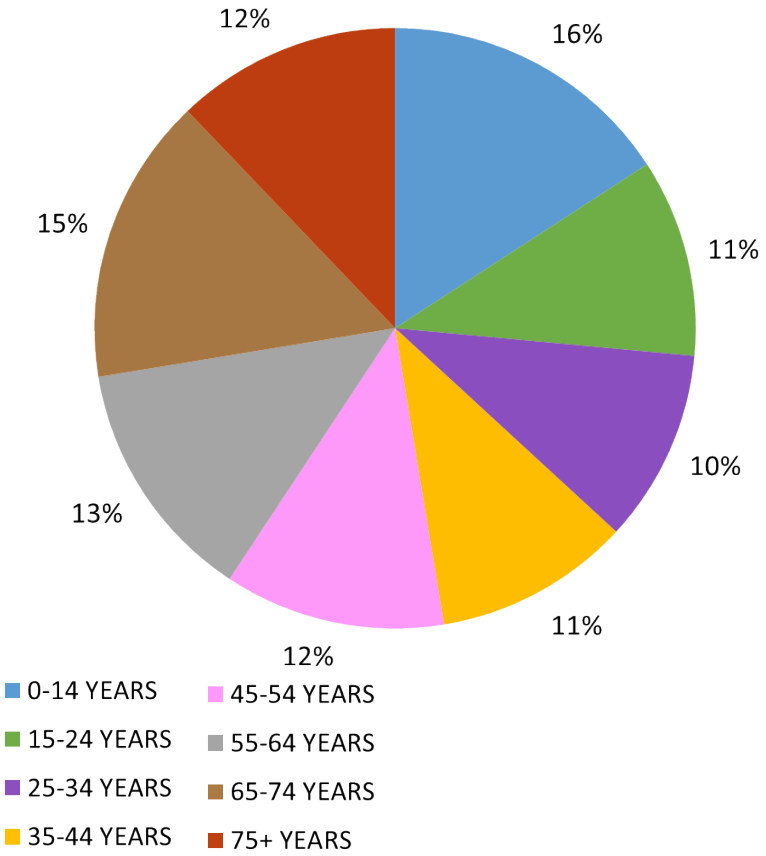
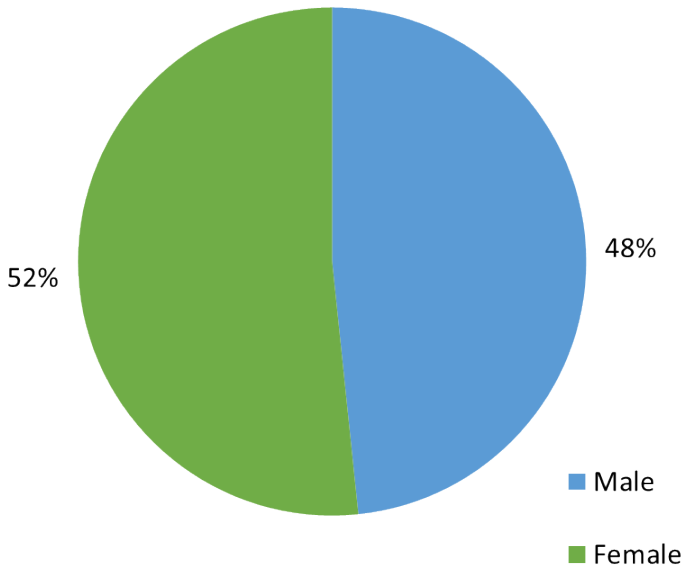


CHART 11.3: LAKE COUNTY POPULATION BY GENDER



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

COMMUNITY THEMES ASSESSMENT

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 in need of improvement:

- Need for and access to mental health services
  - Address stigma
- Prevalence of opioids/substance use
- Access to affordable health care
  - Poor access to pharmacies and cost of medications
  - Inappropriate use of emergency department
  - Better transportation
  - Lack of dental care
  - Lack of adequate geriatric services
  - Insurance affordability issues: uninsured/underinsured
- Food insecurity including access to quality/nutritious foods
- Living in poverty
  - Prevalence of stress
  - Lack of family support
  - Need for affordable housing
  - Residents receive low wages
  - Employment opportunities/lack of jobs
- Chronic conditions of concern
  - Overweight/obesity
  - Diabetes
  - Obesity
  - Heart disease
  - High cholesterol
  - Asthma
  - Cancer

Community Themes Assessment, Continued:

- Built Environment
  - Poor water quality and supply
  - Need for better transportation
- Inactivity
  - Need more and better bike-and pedestrian-friendly infrastructure
- Injury
  - Injury prevention for children and older adults

COMMUNITY STRENGTHS ASSESSMENT

The strengths were compiled using secondary data for this CHNA from indicators that have improved since the last CHNA:

- Community Characteristics
  - Population increased
  - Median household income increased
  - Poverty decreased
  - Unemployment decreased
- Communicable Diseases
  - Influenza vaccinations in adults increased
  - Pneumonia vaccinations in adults increased
- Preventative Care
  - Blood stool tests
- Chronic Conditions
  - High school obesity decreased
  - Adults with diabetes decreased
  - Congestive heart failure hospitalizations under age 65 decreased
  - Lung cancer incidence decreased
  - Adults with asthma decreased
  - Middle school students with asthma decreased
  - Heart diseasee age adjusted decreased
  - Colorectal cancer incidence decreased
- Injury
  - Motor vehicle crashes decreased
  - Unintentional drowning deaths decreased
  - Unintentional falls deaths decreased
- Birth Characteristics
  - Infant deaths decreased
  - Births to unwed mothers decreased
  - Preterm births decreased
  - Repeat births to mothers age 15-19 decreased
  - Low birthweight babies decreased
  - Births to mothers with less than a high school education decreased
- Quality of Life/Mental Health
  - Adults with depressive disorder decreased
  - Children ages 5-11 years old experiencing sexual violence or sexual abuse decreased
  - Children experiencing abuse decreased
- Behavioral Risk Factors
  - Binge drinking middle school and high school decreased
  - Heroin use middle school and high school decreased
  - High school smokers quitting increased
- Built Environment
  - 82 percent of residents have access to exercise opportunities
- Access to Quality Health Care
  - Could not see a doctor due to costs decreased
  - Insurance coverage ages 45-64 increased
  - Insurance coverage individuals with less than a high school education increased
  - Insurance coverage incomes under $25K increased
  - Licensed physician rate increase

COMMUNITY HEALTH STATUS ASSESSMENT

The following key findings were identified using the secondary data gathered for this CHNA from indicators that offer opportunities for improvement:

- Affordability of healthcare
  - Couldn't see doctor due to cost
  - Access to quality, nutritious foods
  - Ratio of mental health providers
  - Insurance coverage age 18-44 and 65+
- Chronic conditions
  - Breast cancer
  - Diabetes hospitalizations ages 5-11 and 12-18
  - High school asthma and asthma hospitalizations 12-18
- Maternal and child health
  - Births to uninsured women
  - Births to women who were obese during pregnancy
  - Births to mothers with first trimester care
- Preventative
  - Childhood immunizations, kindergarten
- Injury
  - Unintentional poisoning
  - Hospitalizations unintentional falls
  - Domestic violence
- Quality of life/mental health
  - Suicide rates 12-18 and 19-21
- Preventative care
  - Mammograms
  - Pap tests
  - PSA tests
  - Colonoscopy/sigmoidoscopy
- Behavioral risk factors
  - Current and middle school smokers/adults quitting
  - Firearm deaths
- Inactivity
  - Sedentary adults
  - Middle school and high school students without sufficient vigorous physical activity

FORCES OF CHANGE ASSESSMENT

The Forces of Change Assessment focuses on identifying forces such as legislation, technology and other impending changes that affect the context in which the community and its public health system operate. The Assessment answers the questions: "What is occurring or might occur that affects the health of our community or the local public health system?" and "What specific threats or opportunities are generated by these occurrences?" The Forces of Change Assessment is one of the steps in the Mobilizing for Action through Planning and Partnerships (MAPP) process that the Florida Department of Health in Lake County follows.

MAPP is a community-driven strategic planning process for improving community health. Based on the Forces of Change Assessment the following key findings were identified using data from the primary and secondary research. Prioritization exercises conducted for this CHNA by leaders representing Lake County resulted in these top priorities:

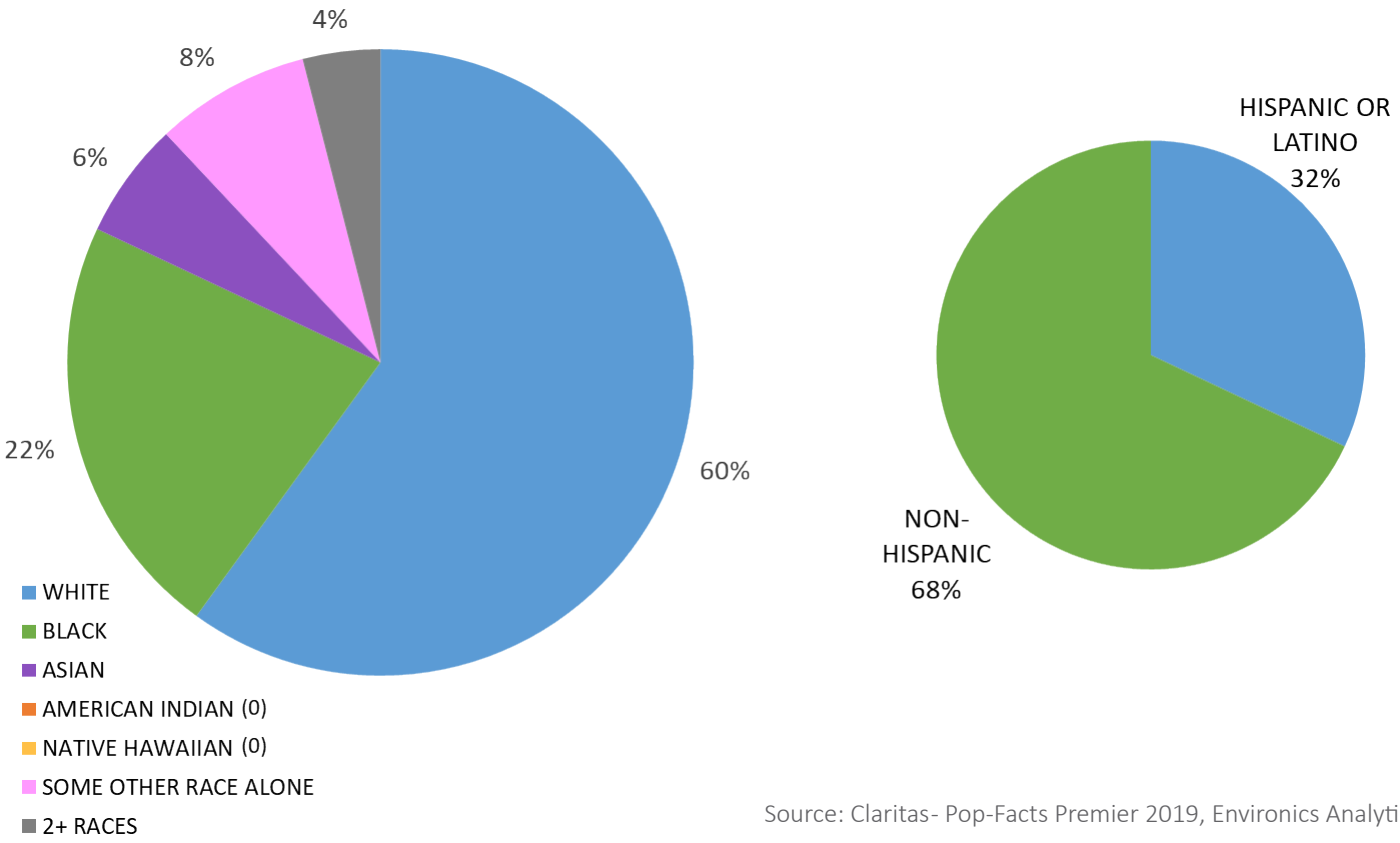
1. Prevention: general preventative care (screenings, well visits, etc.)
2. Chronic disease: diabetes (children and adults)
3. Chronic disease: obesity
4. Birth characteristics: infant mortality
5. Chronic disease: childhood obesity
6. Leading cause of death: cancer
7. Leading cause of death: cardiovascular disease
8. Economic conditions: employment and livable wage
9. Access to health care: cost of care, insurance, medications
10. Communicable disease: childhood immunizations

ORANGE COUNTY

Just under two-thirds of residents in Orange County are White (60 percent) and 22 percent are Black. Approximately one-third of the residents (32 percent) are Hispanic or Latino. (See chart 11.4)

The population is slightly skewed towards younger residents, with 18 percent of residents age 0-14. Very few residents (five percent) are age 75 and older. There are slightly more female residents (51 percent) than male residents (49 percent). (See charts 11.5-11.6)

CHART 11.4: ORANGE COUNTY POPULATION BY RACE/ETHNICITY (2019)



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

CHART 11.5: ORANGE COUNTY POPULATION BY AGE

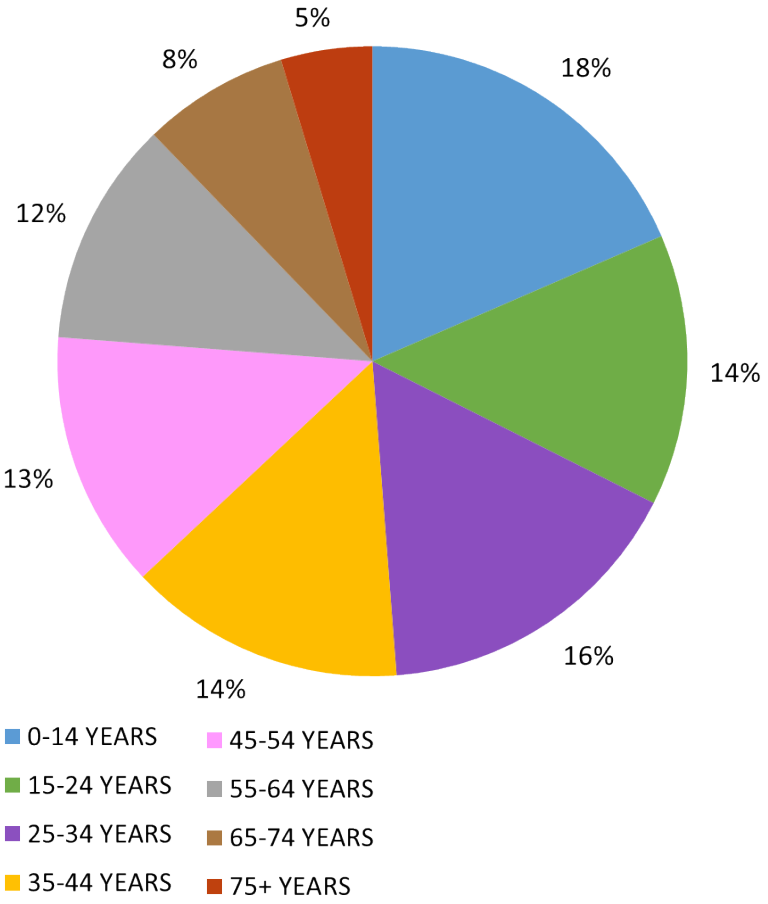
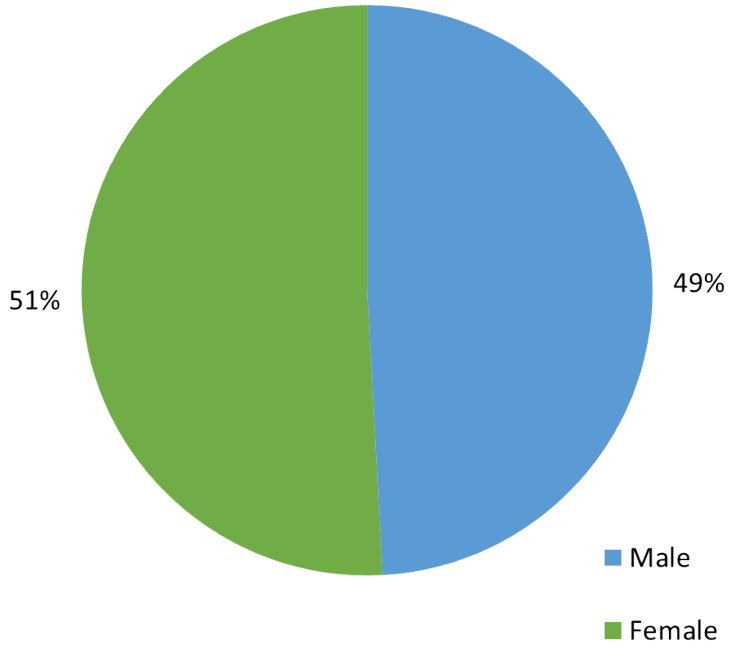


CHART 11.6: ORANGE COUNTY POPULATION BY GENDER



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

COMMUNITY THEMES ASSESSMENT

The following key findings were compiled using data from the community surveys, stakeholder interviews, focus groups, key informant survey and intercept surveys conducted for this CHNA as areas in need of improvement:

- Need for and access to mental health services
- Access to affordable healthcare
  - 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 of concern
  - 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

Community Themes Assessment, Continued:

- 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 ASSESSMENT

The strengths were compiled using secondary data for this CHNA from indicators that have improved since the last CHNA:

- Community Characteristics
  - Population increased
  - Median household income increased
  - Poverty decreased
  - Unemployment decreased
- School and Student Characteristics
  - Number of homeless students decreased
  - High school graduation rates increased
  - Gang activity decreased
- Communicable Diseases
  - Rates of influenza vaccinations ages 65+ increased
  - New AIDS cases decreased
- Preventative Care
  - Mammograms for women ages 40+ increased
  - Blood Stool tests for adults ages 50+ increased
- Chronic Conditions
  - Adults with diabetes decreased
  - Adults with congestive heart failure hospitalizations decreased
  - Colorectal cancer incidences decreased
  - Lung cancer incidences decreased
  - Adults with asthma decreased
  - Asthma hospitalizations for children ages 1-4 and 5-11 decreased
  - Diabetes hospitalizations for children ages 5-11 and 12-18 decreased
  - Adults ever told had a stroke decreased
  - Breast cancer incidences decreased
  - Middle and high school students with asthma decreased
- Injury
  - Unintentional drowning deaths decreased
- Quality of Life/Mental Health
  - Children ages 5-11 years old experiencing sexual violence or sexual abuse decreased
  - Students in grades K-12 with an emotional or behavioral disability decreased
  - Suicide rate for youth ages 12-18 decreased
  - Child abuse decreased
  - Adults with depressive disorder decreased
- Behavioral Risk Factors
  - Adult smoking decreased
  - Adults who quit smoking at least once increased
  - Heroin deaths decreased
  - Domestic violence decreased
  - Heroin use among high school students decreased
  - Middle school students who smoke decreased
  - Binge drinking among adults, middle and high school students decreased

Community Strengths Assessment, Continued:

- Birth Characteristics
  - Births to repeat mothers decreased
  - Births to unwed mothers decreased
  - Births to mothers with less than a high school education decreased
- Built Environment
  - 93 percent of residents have access to exercise opportunities
- Access to Quality Health Care
  - Insurance coverage for adults, ages 18-24 and ages 45-64 increased
  - Insurance coverage less than a high school education increased
  - Licensed physician rate increased
  - Insurance coverage has increased for adults with incomes less than $25,000, $25,000-49,000 and $50,000 and over
  - Adults who could not see a doctor due to cost decreased

COMMUNITY HEALTH STATUS ASSESSMENT

The following key findings were identified using the secondary data gathered for this CHNA from indicators that offer opportunities for improvement:

- Need for and access to mental health services
  - Depressive disorder, adults ages 45-64
- Affordability of healthcare
  - Couldn't see doctor due to cost
- Access to quality, nutritious foods
- Poverty
  - Income inequality
  - Cost burden of households
  - Homeowner cost burden
  - Homelessness
- Chronic conditions
  - Heart disease
  - Adults, middle and high school students who are obese
  - Heart disease age adjusted death rate
- Preventative care
  - Pap tests
  - PSA tests
- Maternal and child health
  - Infant mortality
  - Births to uninsured women
  - Births to women who were obese during pregnancy
  - Births to mothers less than high school education
  - Repeat births to mothers ages 15-19
  - Mothers receiving first trimester prenatal care
  - Pre-term births
  - Low birthweight babies
  - Births covered by Medicaid
- Inactivity
  - Sedentary adults
  - Middle school students without sufficient vigorous physical activity
  - High school students without sufficient vigorous physical activity
- Communicable Disease
  - Two year olds and Kindergarten immunizations
  - Pneumonia vaccinations for adults ages 65 and older
  - New HIV cases

Community Health Status Assessment, Continued:

- Behavior risks
  - Heroin use in middle school students
  - Insurance coverage ages 65 and older
  - Adults who report binge drinking
  - Firearms deaths
- Healthcare providers and facilities
  - Licensed dentists
  - Licensed mental health providers
- Quality of life mental health
  - Suicide rate ages 19-21
- Injury
  - Motor vehicle crash deaths
  - Unintentional falls death
  - Unintentional poisonings

FORCES OF CHANGE ASSESSMENT

The Forces of Change Assessment focuses on identifying forces such as legislation, technology and other impending changes that affect the context in which the community and its public health system operate. The Assessment answers the questions: "What is occurring or might occur that affects the health of our community or the local public health system?" and "What specific threats or opportunities are generated by these occurrences?" The Forces of Change Assessment is one of the steps in the Mobilizing for Action through Planning and Partnerships (MAPP) process that the Florida Department of Health in Orange County follows.

MAPP is a community-driven strategic planning process for improving community health. Based on the Forces of Change Assessment the following key findings were identified using data from the primary and secondary research. Prioritization exercises conducted for this CHNA by leaders representing Orange County resulted in these top priorities:

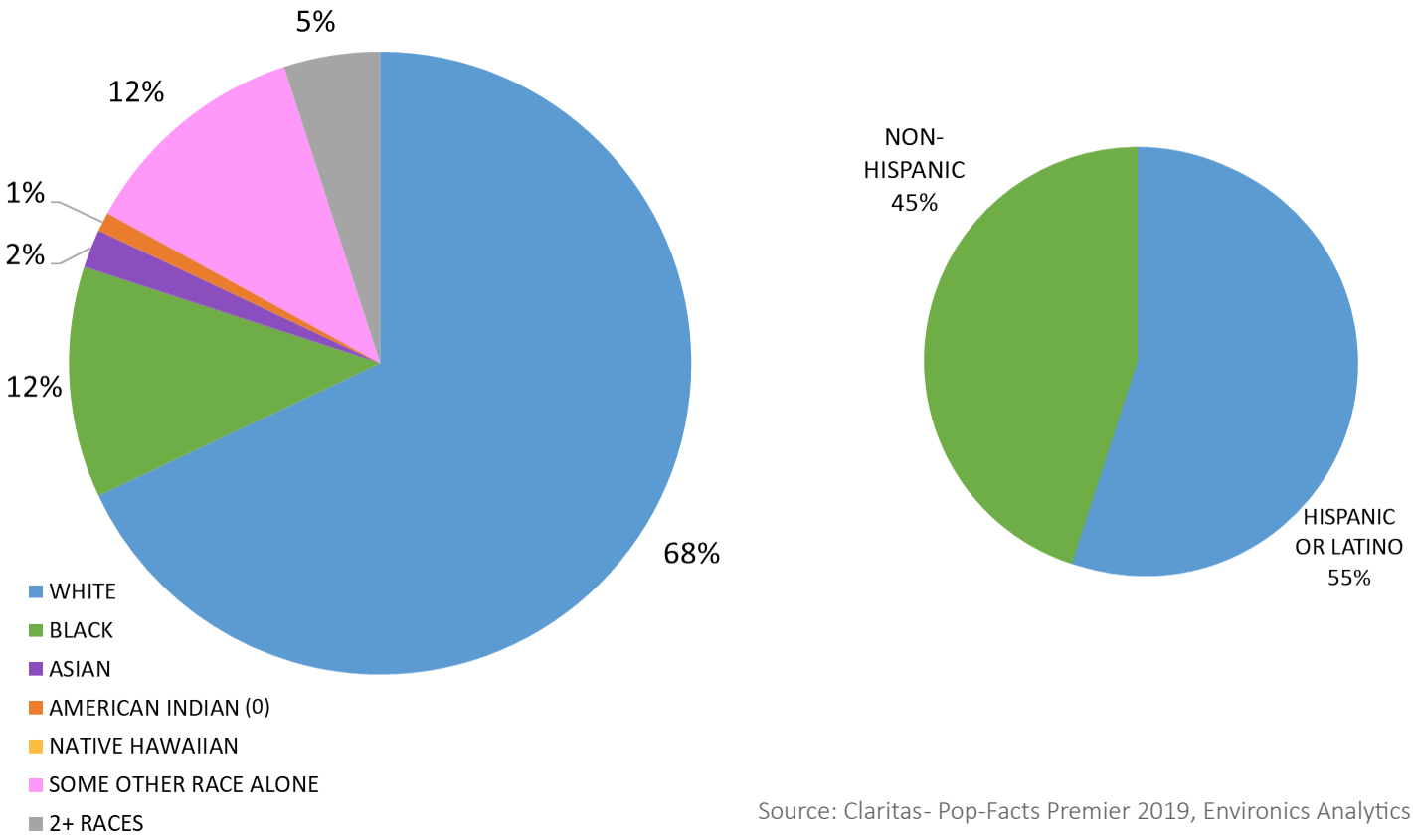
1. Prevention: chronic disease screenings
2. Communicable disease: HIV/AIDS
3. Prevention: general preventative and wellness screenings (i.e. mammogram, PSA)
4. Chronic disease: diabetes (children and adults)
5. Communicable disease: child and adult immunizations
6. Chronic disease: childhood obesity
7. Leading cause of death: cancer
8. Communicable disease: hepatitis
9. Prevention: risk reduction and health education
10. Chronic disease: obesity

OSCEOLA COUNTY

Almost three-quarters of residents in Osceola County are White (68 percent) and 12 percent are Black. The remaining races account for less than 20 percent of the population. More than half of the residents are Hispanic or Latino (55 percent). (See chart 11.7)

One in five residents (20 percent) are age 0-14. The population is younger with almost half of the residents under the age of 35 (48 percent). There are slightly more female residents (51 percent) than male residents (49 percent). (See charts 11.8-11.9)

CHART 11.7: OSCEOLA COUNTY POPULATION BY RACE/ETHNICITY (2019)



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

CHART 11.8: OSCEOLA COUNTY POPULATION BY AGE

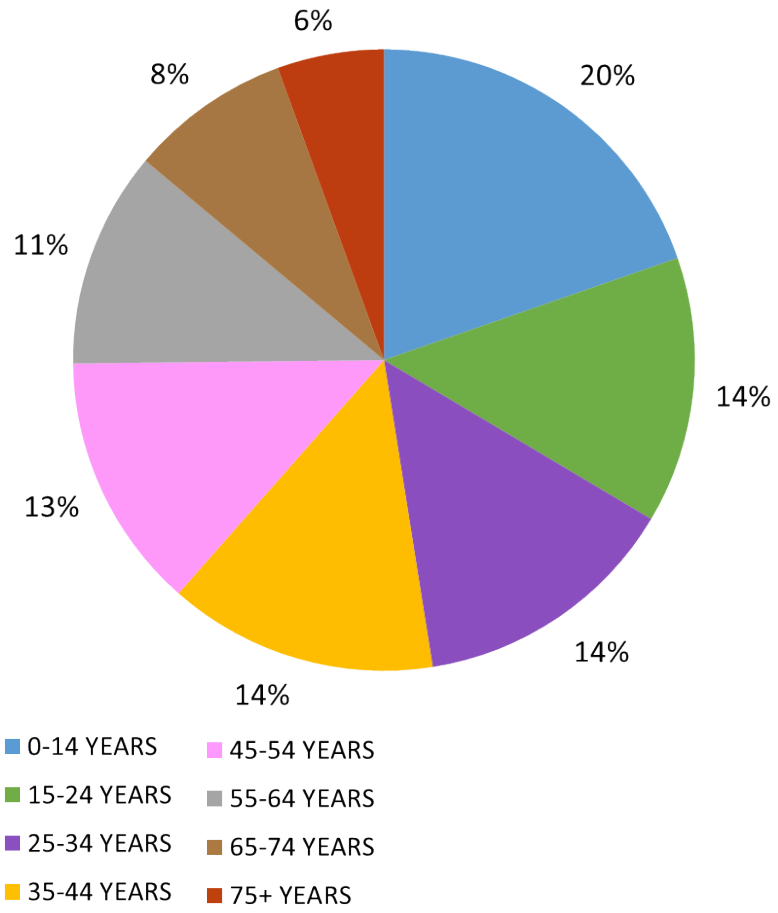
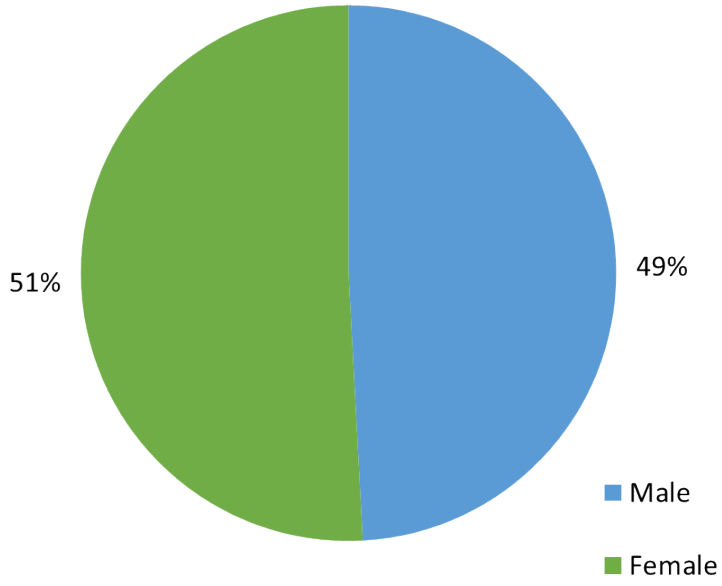


CHART 11.9: OSCEOLA COUNTY POPULATION BY GENDER



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

COMMUNITY THEMES ASSESSMENT

The following key findings were compiled using data from the community surveys, stakeholder interviews, focus groups, key informant survey and intercept surveys conducted for this CHNA as areas in need of improvement:

- Access to affordable health care services
  - Inappropriate use of emergency department
  - Services for seniors
  - Lack of Medicaid expansion
  - Language
  - Culture
- Need for and access to mental health services
- Living in poverty or receiving low wages
  - Homelessness and need for affordable housing
  - Lack of family support
  - Lack of employment opportunities/lack of jobs
- Food insecurity including access to quality, nutritious foods
- Prevalence of substance use
- Lack of transportation
- Inactivity
  - Need more and better bike-and pedestrian-friendly infrastructure

Community Themes Assessment, Continued:

- Chronic conditions
  - Diabetes
  - Obesity
  - Heart disease
  - Cardiovascular disease
  - High cholesterol
- Sexually transmitted infections
- HIV

COMMUNITY STRENGTHS ASSESSMENT

The strengths were compiled using secondary data for this CHNA from indicators that have improved since the previous CHNA:

- Community Characteristics
  - Population increased
  - Median household income increased
  - Poverty decreased
  - Unemployment decreased
- School and Student Characteristics
  - Number of homeless students decreased
  - High school graduation rates increased
- Communicable Diseases
  - Immunization rates for two year olds increased
  - Rates of influenza vaccinations ages 65+ increased
  - Births to uninsured mothers, mothers with less than a high school education and unwed mothers decreased
  - Repeat births to mothers ages 15-19 decreased
  - Pre-term births decreased
- Preventative Care
  - Pap tests for women ages 18+ increased
  - Mammograms for women ages 40+ increased
  - Blood stool tests for adults ages 50+ increased
- Chronic Conditions
  - High school obesity decreased
  - Hospitalizations for congestive heart failure decreased
  - Hospitalizations for youth ages 12-18 years with diabetes decreased
  - Lung cancer incidences increased
  - Adults with asthma decreased
  - Asthma hospitalizations for children ages 1-4 decreased
  - Asthma hospitalizations for children ages 5-11 decreased
- Injury
  - Motor vehicle crash deaths decreased
- Birth Characteristics
  - Infant mortality decreased
  - Low birth weight births decreased
- Behavioral Risk Factors
  - Adult smoking decreased
  - Middle school binge drinking decreased
- Built Environment
  - 76 percent of residents have access to exercise opportunities
- Access to Quality Health Care
  - Insurance coverage less than high school education increased
  - Insurance coverage high school degree or GED increased
  - Insurance coverage incomes under $25K
  - Insurance coverage household income level of $25K-$49K
  - Insurance coverage ages 45-64

COMMUNITY HEALTH STATUS ASSESSMENT

The following key findings were identified using the secondary data gathered for this CHNA from indicators that offer opportunities for improvement:

- Need for and access to mental health services
  - Depressive disorder, adults ages 45-64
  - Depressive disorder, income <$25k
- Food insecurity including access to quality, nutritious foods
- Poverty
  - Cost burden of households
  - Homeowner cost burden
- Chronic conditions
  - Colorectal cancer incidence
  - Breast cancer incidence
  - Diabetes
  - Obesity
- Preventative
  - PSA test
  - Colonoscopy/sigmoidoscopy
- Maternal and child health
  - Births to mothers who were obese during pregnancy
- HIV
- Inactivity
  - Sedentary adults
  - Middle school students without sufficient vigorous physical activity
  - High school students without sufficient vigorous physical activity

FORCES OF CHANGE ASSESSMENT

The Forces of Change Assessment focuses on identifying forces such as legislation, technology and other impending changes that affect the context in which the community and its public health system operate. This answers the questions: “What is occurring or might occur that affects the health of our community or the local public health system?” and “What specific threats or opportunities are generated by these occurrences?” The Forces of Change Assessment is one of the steps in the Mobilizing for Action through Planning and Partnerships (MAPP) process that the Florida Department of Health in Osceola County follows.

MAPP is a community-driven strategic planning process for improving community health. Based on the Forces of Change Assessment the following key findings were identified using data from the primary and secondary research. Prioritization exercises conducted for this CHNA by leaders representing Osceola County resulted in these top priorities:

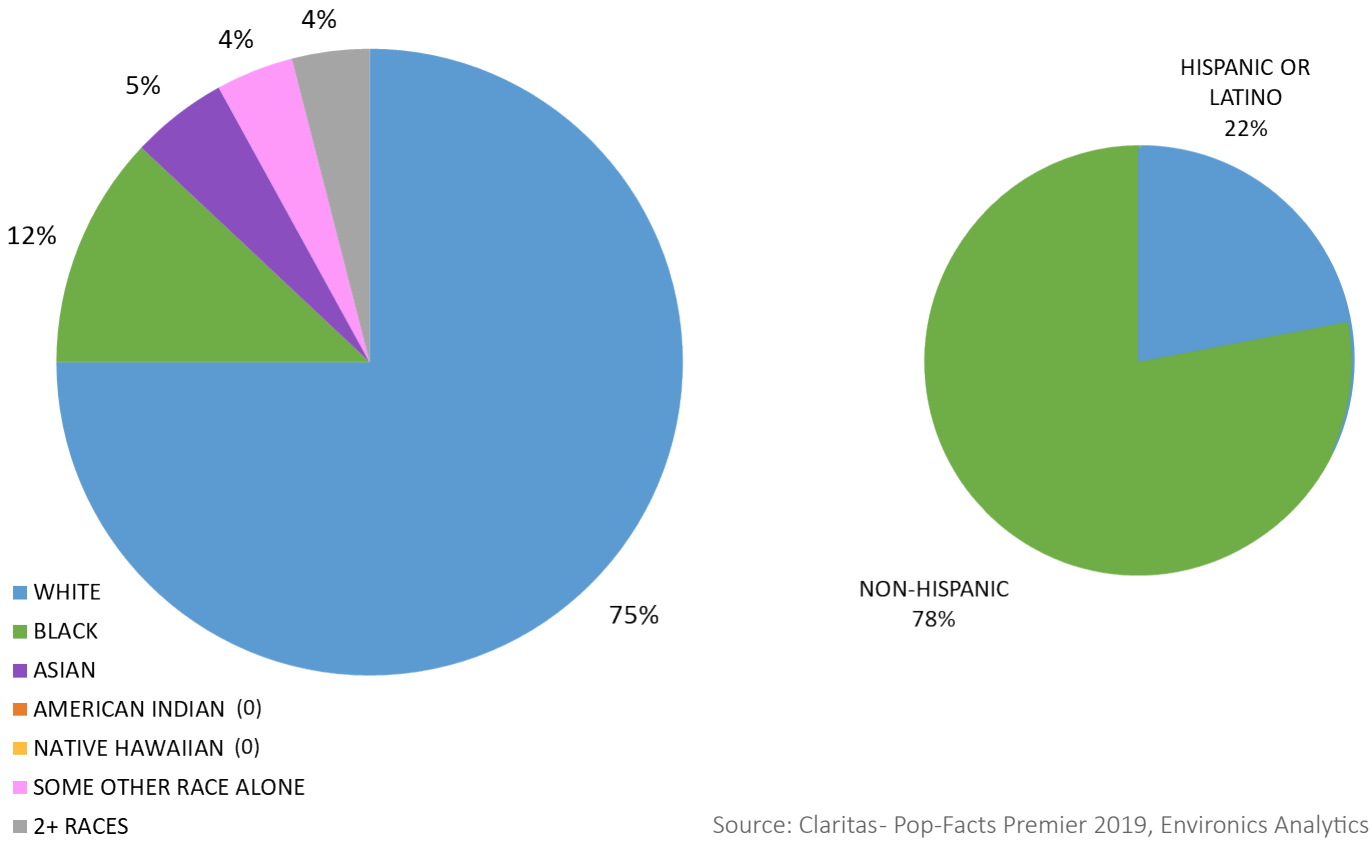
1. Economic conditions: housing, homeless
2. Economic conditions: employment, livable wage
3. Economic conditions: crime, violence
4. Communicable disease: childhood immunizations
5. Student and school: social media risk behaviors
6. Communicable disease: HIV/AIDS
7. Prevention: general preventative care (screenings, well visits, etc.)
8. Chronic disease: obesity
9. Chronic disease: childhood obesity
10. Chronic disease: diabetes (children and adults)

SEMINOLE COUNTY

Three-quarters of Seminole County residents are White (75 percent) and 12 percent are Black. Just over one in five residents (22 percent) are Hispanic or Latino. (See chart 11.10)

Age is distributed relatively evenly in the county with the highest percentage of residents ages 0-14 (17 percent), with the lowest percentage of residents age 75 and older (seven percent). There are slightly more female residents (52 percent) than male residents (48 percent). (See charts 11.11-11.12)

CHART 11.10: SEMINOLE COUNTY POPULATION BY RACE/ETHNICITY (2019)



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

CHART 11.11: SEMINOLE COUNTY POPULATION BY AGE

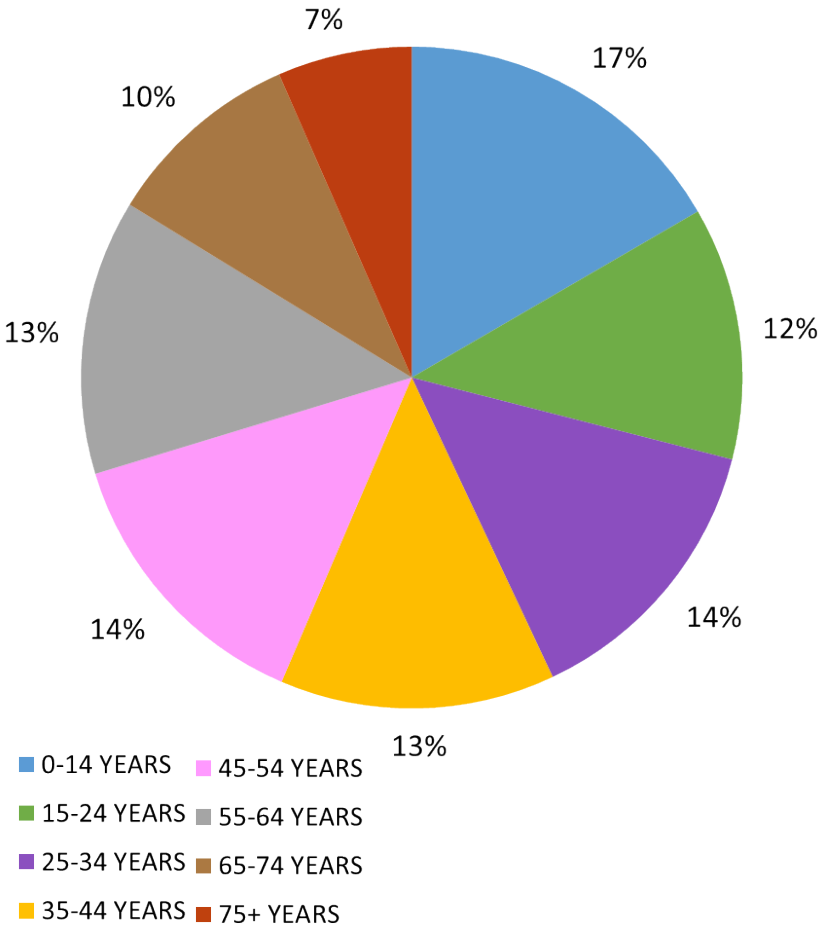
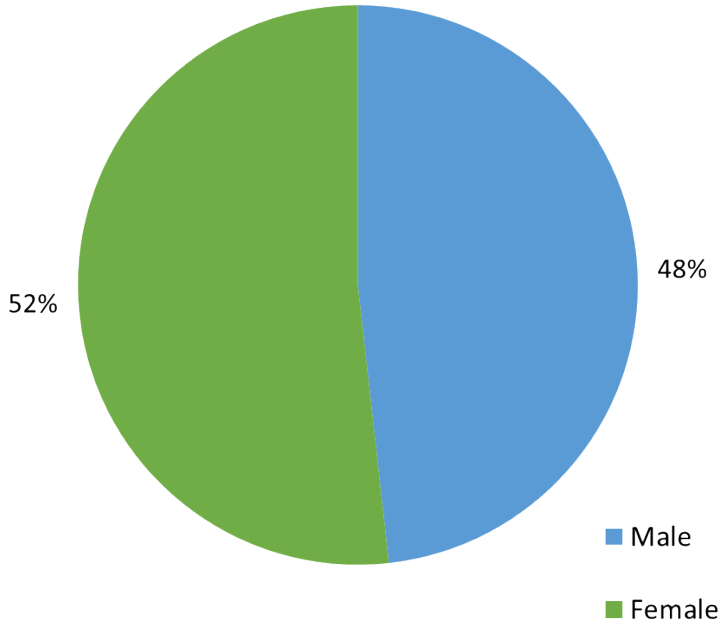


CHART 11.12: SEMINOLE COUNTY POPULATION BY GENDER



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

COMMUNITY THEMES ASSESSMENT

The following key findings were compiled using data from the community surveys, stakeholder interviews, focus groups, key informant survey and intercept surveys conducted for this CHNA:

- Chronic conditions
  - Obesity and overweight
  - Cancer
  - Hypertension/high blood pressure
  - Cardiovascular diseases
  - Diabetes
- Access to affordable healthcare
  - Availability of specialty medical care
  - Inappropriate use of the emergency department
  - Uninsured
  - Health literacy
  - Navigating the health care system
  - Dental hygiene/dental care
- Need for and access to mental health services
- Lack of exercise/physical health
  - Inactivity due to physical pain or poor emotional health
  - Need more and better bike-and pedestrian-friendly infrastructure
- High prevalence of substance use
- Food insecurity including access to quality, nutritious foods
- Poverty/low wages
  - Need more affordable housing
- Transportation

COMMUNITY STRENGTHS ASSESSMENT

The strengths were compiled using secondary data for this CHNA from indicators that have improved since the previous CHNA:

- Community Characteristics
  - Population increased
  - Median household income increased
  - Poverty decreased
  - Unemployment decreased
- School and Student Characteristics
  - Number of homeless students decreased
- Preventative Care
  - Mammograms for women ages 40+ increased
  - Blood stool tests for adults ages 50+ increased
- Chronic Conditions
  - Colorectal cancer incidences decreased
  - Adults with asthma decreased
  - Asthma hospitalizations for children ages 1-4 and 5-11 decreased
  - Adults who have been told they had a stroke decreased
  - Heart disease age-adjusted death rates decreased
  - Congestive heart failure hospitalizations decreased
- Birth Characteristics
  - Births to unwed mothers decreased
  - Births to mothers with less than high school education, repeat births to mothers ages 15-19 and births to mothers decreased
- Quality of Life/Mental Health
  - Adults with depressive disorder decreased
  - Ratio of mental health providers increased
  - Children receiving mental health treatment services increased
  - Children experiencing sexual violence and child abuse decreased
- Behavioral Risk Factors
  - High school binge drinking decreased
  - Middle and high school students smoking decreased
  - Middle and high school students binge drinking decreased
- Inactivity
  - Middle school students without sufficient physical activity decreased
- Built Environment
  - 91 percent of residents have access to exercise opportunities
- Access to Quality Health Care
  - Insurance coverage ages 18-44 increased
  - Insurance coverage high school degree or GED increased
  - Insurance coverage household income level of less than $25k and $25K-$49K increased
  - Rate of adults who could not see a doctor due to cost decreased
  - Insurance coverage education beyond high school increased
- Communicable Diseases
  - Immunization rates for two year olds increased
  - Influenza vaccinations for adults ages 65 and older increased
- Injury
  - Unintentional fall deaths decreased

COMMUNITY HEALTH STATUS ASSESSMENT

The following key findings were identified using the secondary data gathered for this CHNA from indicators that offer opportunities for improvement:

- Affordability of healthcare
  - Could not see doctor due to cost
  - Rates of physician and dentist
  - Insurance coverage decreased for adults with an income $50K+
- Access to quality, nutritious foods
- Inactivity
  - Sedentary adults

Community Health Assessment, Continued:

- Chronic conditions
  - Adult diabetes
  - Adult, middle school and high school obesity
  - Lung cancer incidence
  - Breast cancer incidence
  - Diabetes hospitalizations ages 12-18 decreased
- Poverty
  - Income inequality
  - Homelessness
- Communicable diseases
  - Pneumonia vaccinations for adults ages 65 and older decreased
  - HIV/AIDS cases increased
- Preventative care
  - Pap tests
  - Sigmoidoscopy/colonoscopy
  - PSA test
- Birth characteristics
  - Infant mortality
  - Births to mothers who were obese
  - Preterm births and low birthweight births
- Injury
  - Motor vehicle crash deaths
  - Hospitalization for non-fatal unintentional falls
  - Unintentional poisoning
  - Domestic violence
- Behavioral risk factors
  - Adults who are current smokers
  - Adult current smokers who quit smoking at least once in the past year
  - Fentanyl-related deaths
  - Binge drinking adults
  - Firearms discharge

FORCES OF CHANGE ASSESSMENT

The Forces of Change Assessment focuses on identifying forces such as legislation, technology and other impending changes that affect the context in which the community and its public health system operate. This answers the questions: "What is occurring or might occur that affects the health of our community or the local public health system?" and "What specific threats or opportunities are generated by these occurrences?" The Forces of Change Assessment is one of the steps in the Mobilizing for Action through Planning and Partnerships (MAPP) process that the Florida Department of Health in Seminole County follows.

MAPP is a community-driven strategic planning process for improving community health. Based on the Forces of Change Assessment the following key findings were identified using data from the primary and secondary research. Prioritization exercises conducted for this CHNA by leaders representing Seminole County resulted in these top priorities:

1. Access to quality care: access to healthcare (undocumented and in general)
2. Communicable diseases: childhood immunizations
3. Communicable diseases: sexually transmitted infections
4. Communicable diseases: HIV/AIDS
5. Access to quality care: access to affordable healthcare
6. Prevention: screenings
7. Physical activity/nutrition: promoting wellness through health education
8. Physical activity/nutrition: access to healthy food
9. Mental health: access to mental health services
10. Prevention: prevention initiatives for substance use (start at a young age)
11. Mental health: suicide prevention (targeting youth)

> You need a roof over your head that you can count on, otherwise the level of stress you deal with every day is enormous and you then don't have enough money to buy health foods for yourself and family-all this erodes a person's health and you don't have access to proper healthcare and therefore can't provide for your family, living in poverty.

Stakeholder Interview Participant