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# COMMUNITY HEALTH NEEDS ASSESSMENT





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## ABOUT THE CENTRAL FLORIDA COMMUNITY BENEFIT COLLABORATION

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 meeting 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, nine designated teaching hospitals and the University of Central Florida, College of Medicine. Even with the current economic challenges and healthcare's changing landscape, these organizations and individuals remain committed to serving Central Florida.

With the passing of the Patient Protection and Affordable Care Act (PPACA) of 2010, not-for-profit hospitals are required to conduct a Community Health Needs Assessment (CHNA) every three years. A 501(c)(3) organization, as defined by the IRS, is a not-for-profit entity that reinvests economic value back into the communities it serves. In contrast, for-profit entities return earnings to shareholders. Not-for-profit hospitals must also develop measurable Implementation Strategies (i.e., a Community Health Plan, or CHP) to address the needs defined by the assessment. In addition, the hospitals must provide annual updates on these strategies in their IRS Form 990. Given the new requirements, in the first quarter of 2012, Florida Hospital, Orlando Health, and Lakeside Behavioral Healthcare partnered to prepare this joint community health needs assessment.

In Florida, all 67 county health departments are also required to conduct a community health needs assessment. The purpose of the required assessment is to determine public health priorities for the next three to five years. As a best practice for health assessment and planning, most county health departments use Mobilizing for Action through Planning and Partnership (MAPP), which was developed by the National Association for City and County Health Officials (NACCHO), as the framework for their assessment. Many national and state public health organizations including NACCHO and the Florida Department of Health use MAPP. As a result, Orange, Osceola, and Seminole Counties used MAPP for their assessments.

Together, Florida Hospital, Orlando Health, Lakeside Behavioral Healthcare, and the Florida Department of Health in Orange County formed the Central Florida Community Benefit Collaboration ("the collaboration"). This was the first ever multi-hospital, public health department joint community health needs assessment. Although the Florida Department of Health in Osceola and Seminole Counties did not join the collaboration, they share the collaboration's mission of improving the health and well-being of Central Floridians. As a result, the Osceola and Seminole County Health Departments actively participated as key stakeholders in this assessment. In addition, Osceola and Seminole Counties continue to work with the collaboration to serve the community.



With this report and the county MAPP assessments complete, the collaboration and community partners remain committed to improving the health and well-being of our community.

Currently, the collaboration and community partners are working to create and implement effective and successful community health improvement plans. By pooling resources and steering away from duplicative or competing efforts that can strain resources, the collaboration and its partners are helping to build a healthier community. While results do not happen overnight, the collaboration is committed to improving health, wellness, and quality of life in Central Florida.

The not-for-profit hospitals and organizations represented in the collaboration include:

#### **Orlando Health**

- Arnold Palmer Medical Center
  - Arnold Palmer Hospital for Children
  - Winnie Palmer Hospital for Women & Babies
- Dr. P. Phillips Hospital
- Health Central Hospital
- Orlando Regional Medical Center
  - MD Anderson Cancer Center Orlando
- South Seminole Hospital

#### **Florida Hospital**

- Florida Hospital Altamonte
- Florida Hospital Apopka
- Florida Hospital Celebration Health
- Florida Hospital East Orlando
- Florida Hospital Kissimmee
- Florida Hospital Orlando
  - Florida Hospital for Children
- Winter Park Memorial Hospital

#### **Lakeside Behavioral Healthcare**

- Kennedy Plaza
- Lakeside Place Apartments
- Princeton Plaza
- Residential Plaza

#### **Florida Department of Health**

- Orange County



## EXECUTIVE SUMMARY

### Hospital Community Benefit

The mission of not-for-profit healthcare organizations is to improve the health of the communities they serve. In support of this mission, not-for-profit hospitals provide extensive community benefit programs and services designed to effectively and efficiently improve health in the broader community as well as meet the needs of underserved populations.

Not-for-profit hospitals report their community benefit activities each year in IRS Form 990, Schedule H. The IRS and court system consider an investment to qualify as a Community Benefit if:

- 1) It pays for relief of poverty, research, education, health promotion, or religious purposes;
- 2) It benefits a class of people who are broad enough to be considered a community; and
- 3) Its benefit does not inure to private profit or advantage.

Specifically, community benefit activities include:<sup>1</sup>

- 1) Charity care on a cost basis
- 2) Medicaid shortfalls on a cost basis
- 3) Medicare shortfalls above the national average of loss on a cost basis
- 4) Clinical or non-clinical programs that meet at least one of the following criteria:<sup>2</sup>
  - a) Generates a low or negative margin
  - b) Responds to needs of special populations, such as minorities, frail elderly, poor persons with disabilities, chronically mentally ill, and other disenfranchised persons
  - c) Supplies services or programs that would likely be discontinued (or would need to be provided by another not-for-profit or government provider) if the decision were made on a purely financial basis
  - d) Responds to public health needs
  - e) Involves education or research that improves overall community health
- 5) Education of health professionals
- 6) Subsidized (negative margin) health services such as Emergency Departments, NICUs and Trauma Centers
- 7) Non-funded clinical and community health research
- 8) Community-building activities and community improvements such as housing initiatives
- 9) Economic development
- 10) Costs of internal community benefit operations

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<sup>1</sup> Internal Revenue Service, 2012 <http://www.irs.gov/uac/About-Schedule-H-Form-990>

<sup>2</sup> Catholic Health Association, page 120.

## Community Health Needs Assessment Process

The health of a community is determined by the physical, mental, environmental, spiritual, social well-being, and subjective quality of life of community residents. This community health needs assessment serves as a baseline of health status of three counties representing the Orlando-Kissimmee-Sanford Metropolitan Statistical Area (MSA) in Central Florida. The counties include Orange, Osceola, and Seminole.

As previously mentioned, Florida Hospital, Orlando Health, and Lakeside Behavioral Health worked with local health departments and other partners on this needs assessment. They contracted with The Health Council of East Central Florida, Inc.<sup>3</sup> (Health Council) to use an assessment tool developed by the Healthy Communities Institute.

The Health Council aided in data collection for this assessment and assisted with its preparation. Over 100 health indicators were collected and analyzed for this report. The health indicators were categorized and ranked using the Assessment Protocol for Excellence in Public Health (APEXPH) modified Hanlon Method. This method considered three criteria: the magnitude of the problem, as measured in terms of the percent of the population with the health problem; the severity of the problem in terms of mortality, morbidity, hospitalizations, economic loss or community impact; and the predicated effectiveness of the intervention in preventing the health problem. These data along with the information provided by the key stakeholders representing the community were used to identify the top health priorities in each county.

Data sources included:

- Over 70 stakeholder interviews with people representing the broad interests of the community (Orange, Osceola, and Seminole Counties) – 2013
- The Health Department MAPP assessments – 2012
- The Florida Department of Health State Health Improvement Plan (2012-2015)
- The 2012 National Prevention Strategy
- Healthy People 2020

## Healthy Measures

In collaboration with Healthy Communities Institute (HCI), the Health Council oversaw the development of a data and decision support information system designed specifically for the Central Florida region. This customizable online Healthy Community Network Dashboard is known as Healthy Measures for East Central Florida (Healthy Measures) and served as the source for demographic, economic, educational, public safety, environmental, and transportation data. Healthy Measures provides health indicator tracking, best practice sharing, and community development information to help improve the health and environmental sustainability of communities in Central Florida. In addition, the Florida Department of Health State Health Improvement Plan (2012-2015), the 2012 National Prevention Strategy, and Healthy People 2020 were used to frame the community health needs assessment.

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<sup>3</sup> The Health Council of East Central Florida, Inc. is a private, not-for-profit healthcare planning agency providing research, education and program support to improve healthcare delivery and outcomes. The East Central Florida District VII encompasses Brevard, Orange, Osceola and Seminole County. <http://hcecf.territoinfosys.net/secure/LearnAboutUs/History/tabid/74/Default.aspx>

## Underserved Populations

This community health needs assessment process included the broad community as well as underserved populations.

The assessment highlights health disparities in the tri-county region.

- Health disparities are defined by the Centers for Disease Control and Prevention as “a particular type of health difference that is closely linked with social, economic, and environmental disadvantage.”
- Health disparities adversely affect groups of people who have systematically experienced greater obstacles to health based on their: racial or ethnic group; religion; socioeconomic status; gender; age; mental health; cognitive, sensory, or physical disability; sexual orientation or gender identity; geographic location; or other characteristics historically linked to discrimination or exclusion. For example in Orange County, black/African-American, Hispanic/Latino families, and the elderly are more than three times more likely to live in poverty than their white neighbors.
- When considering health disparities, it is important to consider social determinants of health. Social determinants of health are described by the World Health Organization as the “conditions in which people are born, grow, live, work, and age.”

Many measures of health within the tri-county region fail to meet Healthy People 2020 objectives. Furthermore, many indicators in the tri-county area fall short of state and national levels. This supports the conclusion that, on many levels, the health of Central Floridians is worse than that of their neighbors. Findings like these demonstrate the need for improved collaborative efforts designed to affect the social determinants of health.

## Setting the Priorities

A comprehensive analysis of health indicators provides an increased understanding of the community’s health problems. Prioritizing health issues ensures that resources allocated to address community health needs are used effectively and efficiently in an effort to achieve optimal outcomes. To accomplish the task of prioritizing health needs, the Assessment Protocol for Excellence in Public Health (APEXPH) modified Hanlon Method was used to categorize and rank health indicators to identify key needs in the community. This method considered three criteria: the magnitude of the problem, as measured in terms of the percent of the population with the health problem; the severity of the problem in terms of mortality, morbidity, hospitalizations, economic loss or community impact; and the predicted effectiveness of the intervention in preventing the health problem.

In addition to the above-mentioned criteria, health indicator rates were compared to national benchmark targets (where available) to define the gap between the current and potential health of the community. Indicator rates were also trended to highlight improvement or decline from the previous time measurement. Finally, a six-step process was utilized to solidify priorities in each county and each step is described in detail on page 119. The top five indicators identified by the assessment for each county are described in the table below.

### Key Findings Top Five Indicators

ORANGE COUNTY	OSCEOLA COUNTY	SEMINOLE COUNTY
1. Diabetes	1. Heart Disease	1. Obesity
2. Heart Disease	2. Obesity	2. Diabetes
3. Obesity	3. Cancer	3. Cancer
4. Maternal and Child Health	4. Diabetes	4. Heart Disease
5. Cancer	5. Asthma	5. Substance Abuse

Details on these priorities and other identified needs begin on Page 20 of this document.

### **Building on the Needs Assessment**

The overarching goal of the healthcare system is to provide every resident with the opportunity to attain optimal health outcomes. In support of this goal, this community health needs assessment helps: increase understanding regarding the health of Central Floridians; build capacity through partnership development and collaboration; and strengthen the role of the healthcare organizations as they work side by side within Central Florida to address community health needs.

Moving forward, Florida Hospital and Orlando Health will supplement the findings in the assessment with their campus-specific utilization data and input from their respective local advisory boards and other committees. This assessment and the supplemental findings will be approved by each entity's hospital board. Afterwards, the hospitals and the collaboration will develop targeted community health plans (implementation strategies) based on national community benefit standards that address the findings in this needs assessment. The collaboration consists of leaders from Florida Hospital, Orlando Health, Lakeside Behavioral Healthcare, and the Florida Department of Health in Orange County. The collaboration represents those who share the mission of improving health, wellness, and quality of life in Central Florida.

This community health needs assessment report and related documents will be made publicly available on each hospital's organizational website and through Healthy Measures. In addition, a printed copy will be available for viewing at each hospital facility.







III.

## OVERVIEW OF KEY FINDINGS

## OVERVIEW OF KEY FINDINGS: COMMUNITY PROFILE

### Demographics

In 2012, approximately 1.8 million persons lived in Orange, Osceola, and Seminole Counties. Of those 1.8 million residents, 1.2 million resided in Orange County, 430,000 resided in Seminole County, and 230,000 resided in Osceola County. A vast majority of residents self-identify as non-Hispanic white. Over 50% of residents are between the ages of 25 and 64. Approximately 50% are male and 50% are female.

### Economics

The unemployment rates in Orange and Osceola Counties are higher than national averages at 8.7 and 9.5% respectively. Seminole County has an unemployment rate equal to the national average at 8.2%. These rates of unemployment correlate with other social and economic issues present in the tri-county region. Housing affordability remains a challenge four years post the economic downturn. Poverty rates for children, families, and the elderly were as much as three times higher among blacks/African-Americans and Hispanics/Latinos than among whites. According to the U.S. Census, 36.5% of Orange County children, 37.1% of Osceola County children, and 29.6% of Seminole County children were living in single-parent households between 2006 and 2010.

### Education

Eighty percent of high school students in Orange and Osceola Counties and 93% of Seminole County students graduated within four years of enrollment. The graduation rate for Hispanic/Latino and black/African-American students was slightly lower in all three counties. Just over a third of persons in Orange and Seminole Counties have earned a bachelor's degree or higher; however, less than 20% of Osceola County residents have earned a bachelor's degree or higher. When stratified by population group, whites were more likely to have a degree beyond high school than blacks/African-Americans and Hispanics/Latinos in all three counties.

### Public Safety

Although the violent crime rates in the tri-county region decreased in 2010, Orange and Osceola Counties remain above the national average. The Florida Department of Children and Families reported that child abuse rates increased across the three counties to a rate of 12 cases/1,000 persons in Orange County, 16.5 cases/1,000 persons in Osceola County, and 7.2 cases/1,000 persons in Seminole County. Orange and Seminole Counties are in the top 50<sup>th</sup> percentile for child abuse for children aged 5-11; Osceola County is between the 50<sup>th</sup> and 25<sup>th</sup> percentiles for this measure. The age-adjusted death rate due to motor vehicle collisions decreased in all three counties between 2009 and 2010. All three counties are below the Healthy People 2020 target of 12.4/100,000 persons.

### Environment

In the tri-county region, the annual ozone air quality index for 2008-2010 was 2 (Grade B). This was an improvement from 2006-2008. Like many counties in the nation, Orange, Osceola, and Seminole Counties have too many fast food restaurants and too few grocery stores. This is often cited as barriers to maintaining a healthy lifestyle. There are 0.08 recreation and fitness facilities per 1,000 persons in Orange County, 0.03 in Osceola County, and 0.13 in Seminole County. Public transportation and carpooling are not widely used to reduce traffic congestion, fuel consumption, and air pollution in the tri-county region.

### **Mortality**

Cancer and heart disease are the leading causes of death in all three counties; cancers of the lung and prostate account for the greatest number of cancer deaths annually.

### **Years Potential Life Lost (YPLL)**

The leading cause of premature death in the tri-county region is major cardiovascular disease. Other major contributors to years of potential life lost in Orange, Osceola, and Seminole Counties are as follows: motor vehicle collisions; suicide; stroke; breast cancer; diabetes; and human immunodeficiency virus / acquired immunodeficiency syndrome (HIV/AIDS).

### **Morbidity**

Diabetes is the most prevalent chronic disease in the tri-county region affecting almost 200,000 residents. Asthma, Chlamydia, as well as prostate and breast cancers are among the top five leading causes of illness.

### **Health Screenings**

The percentage of women seeking preventive health screenings (Pap test and mammogram) has decreased in the past three years. Screening rates for PSA (prostate specific antigen blood test) and colon cancer increased during the same time period. Early detection increases cure rate and survivorship.

### **Maternal and Child Health**

The infant mortality rate for the general population increased and has not met the Healthy People 2020 target in any of the three counties. Among black/African-American families in Orange and Seminole Counties, the rate is more than double that of the target. In Osceola County, the rate is triple the target for blacks/African-Americans. In Orange County, preterm births have remained stable among blacks/African-Americans, but increased in the general population. In Osceola County, preterm births have remained stable in the general population, decreased among blacks/African-Americans, but increased in the Hispanic/Latino population. In Seminole County, the percentage of preterm births is decreasing among all population groups. Rates for prenatal care and teen births are improving, but have not met Healthy People 2020 goals for any population group in Orange and Osceola Counties, and the black/African-American population in Seminole County. Reducing the rate of low birth weight babies remains a challenge for the black/African-American population in all three counties and the Hispanic/Latino population in Osceola County.

### **Health Risk Behaviors**

Fruit and vegetable consumption are increasing among all population groups in Orange and Seminole Counties and among Hispanic/Latino residents in Osceola County. Among blacks/African-Americans and whites in Osceola County, fruit and vegetable consumption have remained stable. Rates for smoking, binge drinking, and sedentary lifestyles have remained stable or decreased over the past three years in Orange and Seminole Counties. In Osceola County, rates for smoking and leading a sedentary lifestyle have increased for the Hispanic/Latino population. Marijuana use among teens is three times higher than the Healthy People 2020 target in the tri-county region. Binge drinking is more than twice the target rate for high school students in Seminole and Orange Counties and almost twice the rate for Osceola County teens.



### **Health Risk Factors**

The percentage of adults who are obese increased overall in the tri-county region during the past three years, except white adults living in Seminole County for which the trend is slightly decreasing. No less than 26% of residents in any of the three counties are obese. The prevalence of high blood pressure among all population groups have increased in all three counties. In Orange County, obesity among teens remained stable, but the prevalence of teen asthma has increased. In Osceola County, obesity among teens decreased, but the prevalence of teen asthma has increased. In Seminole County, obesity and asthma rates for teens have increased.

### **Healthcare Factors**

Lack of health insurance coverage for adults and children is the major barrier to accessing healthcare services in the community. Adults with any type of health insurance ranged from 84.8% in Orange County to 78.6% in Osceola County. This is below the Healthy People 2020 target of 100%.

### **Key Stakeholder Input**

Key stakeholders for this assessment included individuals with special knowledge of or interest in public health (i.e., health departments); individuals/organizations serving or representing the interests of medically underserved, low-income, and minority populations; persons who represent the broad interests of tri-county residents served by the hospitals; and individuals representing large employers and employee interests. For more details regarding the key stakeholders, please refer to Appendix D.

A total of 72 stakeholders representing 44 organizations were interviewed and completed a questionnaire aimed at identifying health barriers, assets, resources, and needs within the tri-county region. A lack of health literacy was cited as one of the major barriers to attaining improved community health. Regardless of health insurance status, residents are not able to navigate the healthcare system. The Central Florida community was cited as lacking a centralized navigation and eligibility portal to direct people to appropriate, timely and affordable health resources.

When asked to describe barriers to health and healthcare in the tri-county region, key stakeholders cited the following: limited resources in the fields of mental health, substance abuse, and dental care; the availability of healthcare resources to the growing population; transportation to and from appointments; and disability status. Stakeholders identified that integration of services is needed to improve the effectiveness and efficiency of the fragmented system of care in the tri-county region. Stakeholders also asserted that service organizations tend to operate in silos which results in a duplication of some services and does not maximize appropriate utilization. A need for community-wide collaboration for attaining better health outcomes for all residents was identified. The stakeholder responses can be found beginning on page 22, and the questionnaire is located in Appendix C.





IV.

## INTRODUCTION: COMMUNITY HEALTH NEEDS ASSESSMENT PROCESS

## INTRODUCTION: COMMUNITY HEALTH NEEDS ASSESSMENT PROCESS

In 2010, the Patient Protection and Affordable Care Act (PPACA) imposed new requirements on not-for-profit healthcare organizations relating to their community benefit processes and tax exemption. Under PPACA, section 501(r) was added to the Internal Revenue Service Code and requires not-for-profit 501(c)(3) healthcare organizations to satisfy four requirements in order to remain tax-exempt.<sup>4</sup> The requirements are:

- Conduct a community health needs assessment every three years and adopt an implementation strategy;
- Establish written financial assistance and emergency medical care policies;
- Limit amounts charged for emergency or other medically necessary care provided to individuals eligible for assistance under the healthcare organization's financial assistance policy; and
- Make reasonable efforts to determine whether an individual is eligible for assistance under the financial assistance policy before employing extraordinary collection actions against the individual.

While the federal requirements mandating a community health needs assessment are new, healthcare organizations have a long tradition of engaging in assessment activities in support of their mission. In recent years, the area of community benefit has grown and become more specialized. As a result, the process for conducting a community health needs assessment has evolved and is more formalized. Currently, a community health needs assessment is a systematic process involving the community; CHNAs identify and analyze community health needs and assets in order to prioritize, plan, and act upon unmet health needs. Through collaboration with community partners, this community-driven process has the potential to enhance program effectiveness, leverage limited resources, and strengthen the public health system. It serves as the foundation for identifying those in greatest need and participating in strategic plans in order to improve community health.

Hospital organizations that are (or seek to be) recognized as tax-exempt are required to conduct a CHNA that takes into account input from persons who represent the broad interests of the community served by the hospital facility, including underserved populations and those with special knowledge of or expertise in public health. Additionally, the CHNA must be made widely available to the public.

This CHNA provides a comprehensive analysis of health indicators that identify key community needs for each county served by Florida Hospital, Orlando Health, and Lakeside Behavioral Healthcare. The objectives of the CHNA are to:

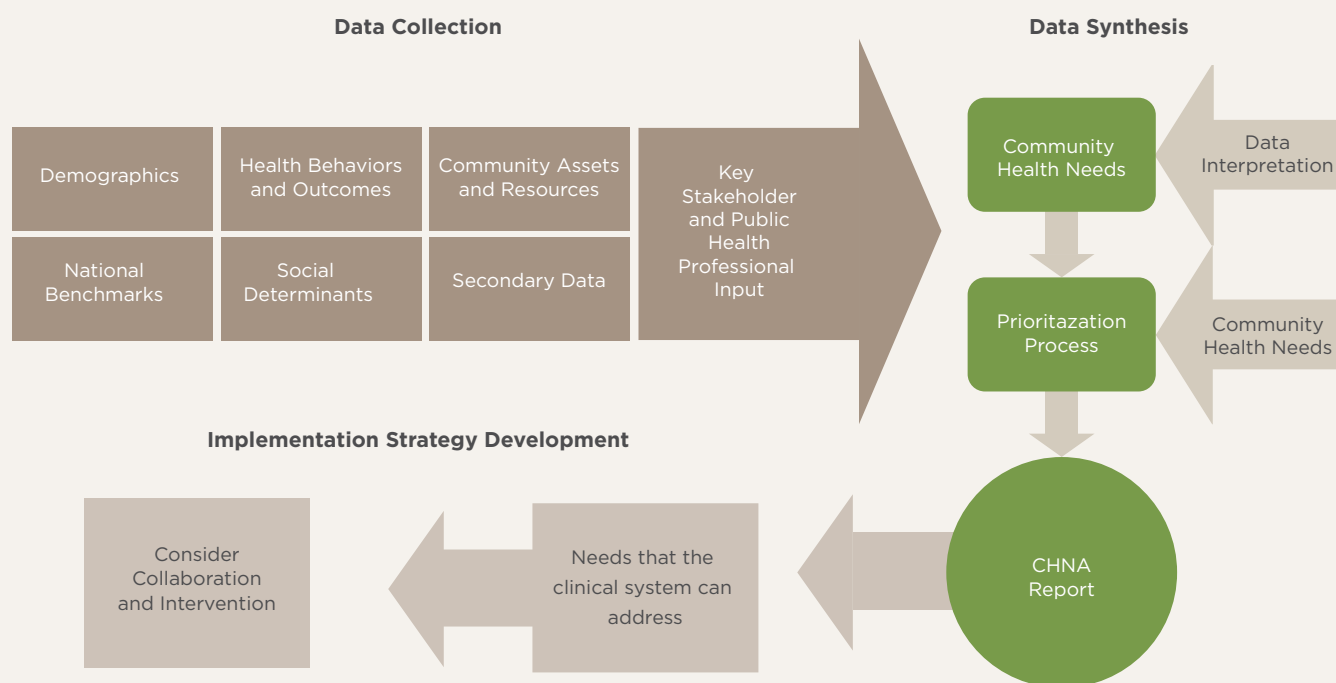
- Increase the understanding of the community's health problems;
- Build capacity through partnership development and collaboration; and
- Strengthen the role of each hospital as they work within the region to address community health needs.

The overarching goal of the healthcare system is to provide all residents with the opportunity to attain optimal health outcomes. **Figure 1** is a visual representation of the process employed in creating this report.

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<sup>4</sup> Internal Revenue Service. (2012). New Requirements for 501(c)(3) Hospitals under the Affordable Care Act. [http://www.irs.gov/Charities-&-Non-Profits/Charitable-Organizations/New-Requirements-for-501\(c\)\(3\)-Hospitals-Under-the-Affordable-Care-Act](http://www.irs.gov/Charities-&-Non-Profits/Charitable-Organizations/New-Requirements-for-501(c)(3)-Hospitals-Under-the-Affordable-Care-Act)

**Figure 1.**







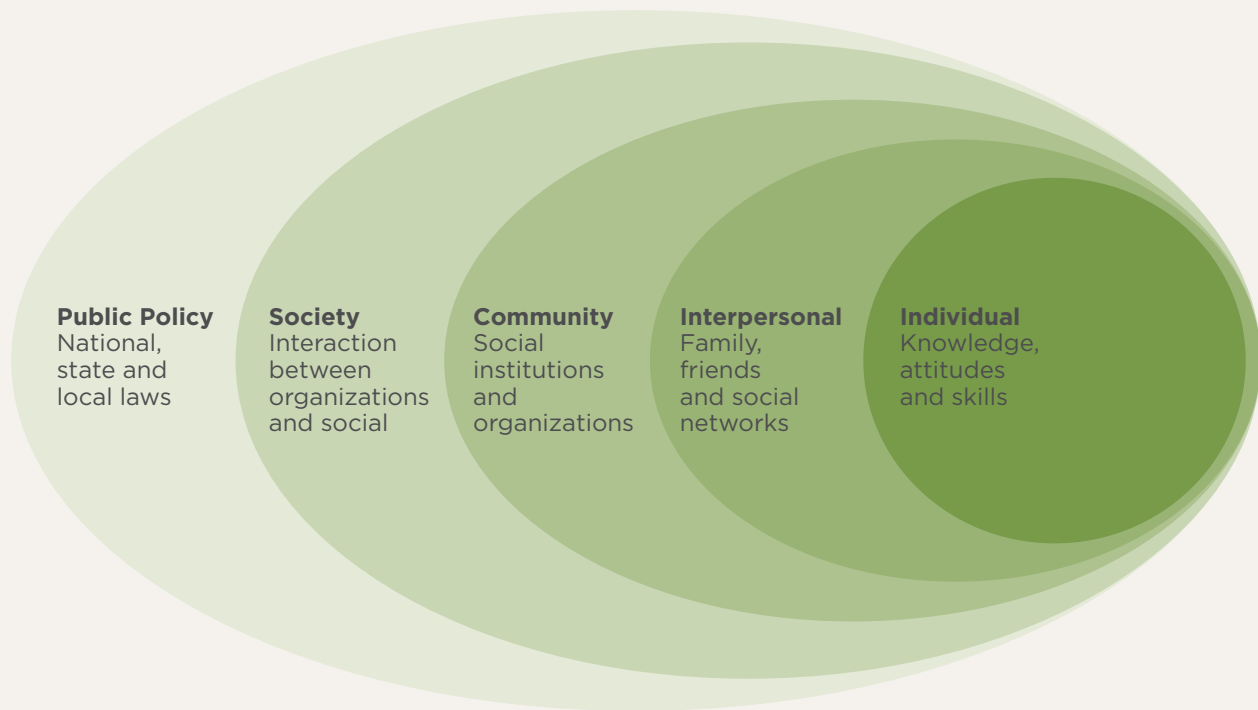
V.

**SOCIAL-ECOLOGICAL MODEL OF HEALTH**



## SOCIAL-ECOLOGICAL MODEL OF HEALTH

**Figure 2.**



**The Social-Ecological Model (SEM)** is a public health framework used to holistically describe five social levels of influence that explain the complex interaction between individuals and the social context in which they live and work. This community health needs assessment report serves as the foundation for improving health, wellness, and quality of life in Central Florida. In order for the collaboration and community partners to identify communities in need of public health services and strategically plan health interventions, it is first necessary to understand the elements that influence health and well-being.

Health and well-being is shaped not only by behavior choices of individuals, but also by complex factors that influence those choices. The Social-Ecological Model of Health provides a framework to help understand the various factors and behaviors that affect health and wellness. With this model, we can closely examine a specific health problem in a particular setting or context. For example, the model can help identify factors that contribute to heart disease in specific populations. With this knowledge, effective heart disease interventions can be developed for a specific population with the greatest impact in mind.

Human behavior is difficult to change and is nearly impossible to modify without understanding the environment in which one lives. In order to increase behavior that supports health and wellness, efforts need to focus on behavior choices and factors that influence those choices. The SEM helps identify factors that influence behavior by considering the complex interplay between individual, interpersonal, community, society, and public policy factors. It shows how the changes and interactions between these five levels over the course of one's life greatly affect health and wellness. Through utilizing the SEM, the likelihood is increased of developing sustainable interventions with the broadest impact on health and wellness. Each level is described in more detail on the following page.

### **Individual**

This first level identifies biological and personal history factors that influence health and wellness. This is the foundational level; however, the model recognizes that many external forces influence health and wellness. Factors that influence the individual include:

- Knowledge, attitudes, behaviors, perceived barriers, motivation
- Skills, abilities, disabilities or injuries
- Age
- Sex and gender identity
- Ethnic background
- Level of education
- Socioeconomic status
- Employment status
- Self-efficacy

### **Interpersonal**

The second level considers the first level of external forces by examining the impact of close relationships. An individual's social circle influences their behavior, how they perceive the world, and their range of experiences. Influential relationships in the interpersonal level include those with:

- Family members (parents, siblings, spouse or partners)
- Friends
- Peers and co-workers

### **Community**

The third level of the SEM focuses on social institutions and organizations. Often times these entities operate under a common set of rules and policies that guide or influence behavior. Examples of social institutions and organizations that influence behavior include:

- Workplace
- Church
- School

## Society

The fourth level explores the relationships among organizations, institutions, and social networks within a community. Keep in mind, community can be defined in many ways (i.e., by geographic location or membership in a particular group). Common examples of “community” include: my neighborhood; the Hispanic/Latino community; or the University of Central Florida Alumni. This level is important not only because many social norms and standards are generated via communities, but also because it is an important level for setting the public agenda and developing partnerships. Factors to consider when examining the community level include:

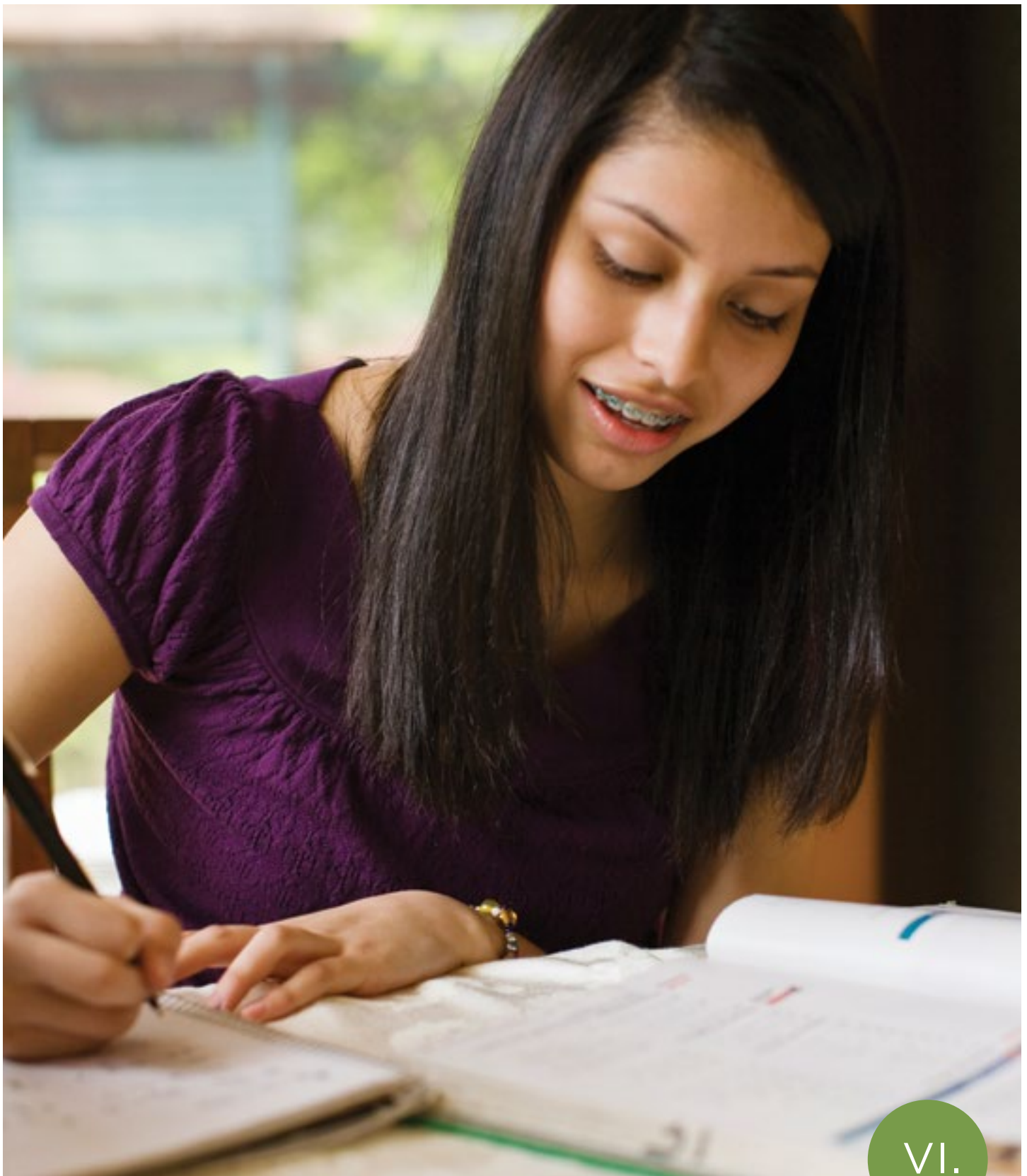
- Location in the community
- Built environment
- Neighborhood associations
- Community leaders
- Businesses

## Public Policy

The fifth and broadest level of the SEM has the potential to influence all the other levels. Health and wellness can be addressed through federal, state, and local laws. Health can also be impacted through informal policies and rules found in places such as schools and places of business. Examples of public policies that influence health include, but are not limited to:

- Health policies
- Educational policies
- Environmental policies
- Transportation policies
- Urban Planning policies
- Occupational policies





VI.

**DATA COLLECTION METHODS**



## DATA COLLECTION METHODS

### **Primary Research: Persons Representing the Community's Interests**

Conducting interviews is a powerful method for collecting community data. Interviews facilitated by an unbiased moderator can uncover information that people may be reluctant to share in a more public setting. These data reveal the thoughts and perceptions of key stakeholders and provide an understanding of the pressing issues facing the community. The Health Council of East Central Florida, Inc. (Health Council) conducted the stakeholder interviews.

The Health Council is a private, not-for-profit healthcare planning agency, which provides research, education, and programs in support of improving healthcare delivery and outcomes. Health Council board members are appointed by the Board of County Commissioners within each district and are selected to represent the three main participants in the delivery of healthcare services: consumers, providers, and purchasers. Health Council staff worked together with representatives from the hospitals to ensure the stakeholder list was inclusive and representative of the community. The Montana State Library Community Stakeholder template was used as a guide to identify key informants by county. As defined by the Prevention Institute, basic elements of community development are factors that influence an individual's ability to lead a healthy, productive life. These elements were used to develop the foundation for the interview questions and can be found below:

**Equitable Opportunities:** racial justice, jobs, and education

**Place:** parks and open space, transportation, housing, air, water, and safety

**People:** social networks and willingness to act for the common good

**Healthcare Services:** preventive, treatment, access, cultural competency, and emergency response

All interviews were conducted between June 2012 and August 2012 and were the primary method for obtaining the opinions of key stakeholders. The board members from three organizations were interviewed in a small group setting. The stakeholders represented broad populations including the elderly, medically underserved, minority groups, and low-income populations. Please see Appendix D for a stakeholder list.

A very small number of stakeholders sent in completed surveys due to lack of availability for a phone interview. A total of 72 stakeholders were interviewed in the tri-county area to: share their views on community health as it pertains to various groups within the population; describe services in place to address health needs; and identify gaps and opportunities where services could be offered to improve the current system of care. The overall findings from the stakeholder interviews mirrored the health needs identified by the secondary data. The information that follows is a summary of the comments received on the prevalent issues and trends as they relate to community health. In support of authenticity and trustworthiness, stakeholder comments were not altered or edited. The comments were recorded as they were heard by the Health Council. It should be noted that the survey format used in Osceola County was slightly different yielding four main questions versus the five questions summarized for Orange and Seminole. Both survey formats gathered comparable data.

## ORANGE COUNTY

### *1. Considering the overall look at what it takes to have a healthy community, what do you view as the major issues facing:*

#### **Children**

Access to health and dental care were cited as major issues for children. The eligibility process to enroll children in Medicaid and KidCare is complicated and confusing for parents. Additionally, there are a limited number of providers serving underinsured and uninsured children. Health education is also needed for children and their parents. This includes basic health, oral hygiene, and the importance of good nutrition and physical activity. Services are needed to support parents dealing with their own substance abuse issues.



#### **Adults**

Access to preventive care was cited as one of the major issues for adults. This is further complicated by an overall lack of education on the importance of maintaining a healthy lifestyle, unwillingness to take responsibility for their health, increased dependency on prescription medications, and the prevalence of intergenerational poverty. When adults do access health services, they encounter long wait times and limited staff available for assistance. Working parents struggle to achieve an adequate work/life balance.



#### **Employees**

Connecting to and navigating through the system of care is a major issue for employees. Employees faced with a larger share of the responsibility and costs associated with employer-sponsored health insurance are ill prepared for effectively managing newly diagnosed chronic health conditions. Employees struggle to achieve an adequate work/life balance while simultaneously trying to manage the demands of children and elderly parents.



#### **Uninsured**

Affordable and accessible healthcare is a major issue for the uninsured population in Orange County. There are a limited number of providers to serve this population, resulting in long wait times when care is sought. Primary care options must be expanded to avoid inappropriate emergency room utilization.

#### **Adults over 65**

Transportation and uncertainty regarding future Medicare coverage were cited as the major issues for aging adults. The elderly living on a fixed-income are unable to afford the medications needed to manage their chronic health conditions. Support services for chronic disease management, home care, and custodial care are also limited.



**Individuals with mental health and substance abuse issues**

There are not enough mental health and substance abuse providers to meet the growing demand for services. Additionally, there is a lack of social and emotional support services to ensure treatment compliance. Legal issues regarding child custody create additional stress for single parents in recovery. Current insurance reimbursement based on the classification of some mental health and substance abuse issues precludes coverage for these services.

**Individuals requiring dental services**

Lack of knowledge and access to providers are the major barriers for attaining good oral healthcare. Parents are not knowledgeable on the importance of good oral hygiene and preventive dental care. There are a limited number of providers to serve low-income and uninsured individuals. Access to dental care for disabled and wheelchair bound people is extremely challenging.

**Individuals with cancer**

Treatment and specialty care is costly, especially for those without health insurance. In some cases, Medicare/Medicaid will pay for the treatment, but not the prohibitive cost of the diagnostic testing.

**Other**

Stakeholders cited a lack of well woman checks, lack of fully complete immunization cycles, access to medications in general, and access to outpatient medications for mental health as additional barriers within the community.

## *2. Who in our community is doing a good job of promoting health?*

- Primary Care Access Network (PCAN)
- American Cancer Society (ACS)
- American Heart Association
- American Lung Association
- Hospitals
- Employers
- YMCA
- Rosen Resorts
- Faith Community
- Winter Park Health Foundation
- Florida Health Care Coalition (FHCC)
- School-based health centers
- Dental Care Access Network
- County mental health and substance abuse programs
- Senior Resource Alliance
- Nemours 5-2-1-Almost None social marketing
- Nemours Healthy Habits for Life
- Florida Hospital Healthy 100
- Heart of Florida United Way
- Orange County Health and Family Services
- Orange County Health Department

### *3. Who in our community does not promote good health?*

- Individual schools that do not comply with new school menu mandates
- Bars that allow smoking
- Shortage of providers for legitimate pain management drive people to low quality providers
- Failure to expand Medicaid

### *4. Are there gaps where you would like to see services offered in your community?*

- Adult dental
- Secondary providers/specialty care
- Private sector needs to be more involved
- Getting diagnostics is a big problem
- Older adults who lost health insurance due to unemployment but do not yet qualify for Medicare
- Lack of health literacy for everyone
- Overall prevention and wellness
- Lack of mental health and substance abuse providers and services
- Immigration status prevents access to health services
- Access to healthy foods

### *5. If you were in charge of improving the health in our community, what would you do first?*

- Improve chronic disease management
- Provide secondary care to the uninsured
- Promote health prevention
- Integrate mental health into the primary care setting
- Move from reimbursement for “heads in beds” and volume to value-based care for prevention
- Prohibit pharmacy salespeople from giving providers incentive to use costly drugs
- Ensure each provider has access to a patient’s complete medical history with all other providers
- Engage all stakeholders in developing the safety-net structure to serve the community
- Work with employers to develop provider partnerships to enhance healthcare benefits
- Having a child would be presumptive eligibility criteria for free care
- Get doctors to write prescriptions for wellness activities before prescription for medication
- Develop a centralized clearing house to electronically verify social service eligibility
- Develop a community-wide health navigation portal for all healthcare resources
- Make annual dental visits accessible



## OSCEOLA COUNTY

### *1. Considering this overall look at what it takes to have a healthy community, what do you view as the major issues facing:*

#### **Children**

Obesity was cited as the greatest health problem facing children. The prevalence of diabetes among school-aged children continues to increase yearly. This creates additional challenges for school staff as they try to meet the medication and nutritional needs of diabetic students. Cultural competency education is needed to raise awareness of the health implications associated with obesity.

With over 2,000 students living in hotels, homelessness is a challenge for Osceola residents. The current situation places stress on support programs already struggling to meet the growing demand for services.

Children in Osceola lack access to medical, dental, and mental health services. Although KidCare and Medicaid are available, not all parents apply, partly due to social stigma. There is also growing need for adolescent residential substance abuse programs.

#### **Adults**

Adults in Osceola have limited options for dental and mental healthcare. Currently there is no inpatient detoxification program available in the county. The emergency room is used as the primary source to treat oral health events. Extractions are performed to ease the pain not to treat the condition. Lack of funding limits the expansion of services that are required to meet the community needs.

Chronic diseases and obesity disproportionately affect minority populations. Education is needed to promote the health benefits of proper nutrition and physical activity.

The growing number of homeless residents creates additional challenges for social support networks. The lack of public transportation further impedes access to limited resources throughout the community.

#### **Employees**

Lack of affordable health insurance was cited as the most challenging issue for employed residents in Osceola. Even if employees are offered insurance, the proportion they must pay is beyond their means. Most adults are too proud to ask for help and forego seeking care. Local government has been downsized which further restricts availability of social services.



**Individuals without health insurance and individuals over age 65**

Individuals without health insurance tend to use the emergency room as a source for primary care. More affordable options are needed as federal assistance programs serving this population have been reduced. Medicaid expansion was cited as the solution to address the healthcare needs of the uninsured.

**Individuals with mental health and substance abuse issues**

Mental health services available in the county have reached capacity and are unable to adequately serve the needs of the community. With only one mental health facility, lack of transportation is a barrier to accessing services. Funding for resources has been cut to the point where allocations for Osceola are now below those of neighboring counties on a per capita basis. Education and awareness are needed to promote the understanding of mental health and develop the best ways to address those with needs.

**Individuals requiring dental services**

As dental services for adults are very limited, most oral health events are seen at the emergency department. Patients do not seek care until they have a major dental problem. Osceola County has received federal funding for a Federally Qualified Health Center with a dental care component.

**Individuals with cancer**

Cancer treatment, support services, and hospice are available within the county, although some residents must seek care in surrounding counties. The high prevalence of chronic disease further complicates care options for those also diagnosed with cancer. As funding cuts have resulted in reduction of support services, stakeholders cited collaboration among hospital administrators to help address the cancer needs in the community.

## *2. What services are you aware of that are in place to address these health issues?*

- Senior Center
- Hospice
- First Baptist for food pantry
- Health Department
- Health Care Center for the Homeless in Orlando (Mobile unit goes to the schools to serve children on free/reduced lunch)
- Florida Vision Quest
- Glazier Foundation
- Park Place
- Hospitals
- Council on Aging
- St. Thomas Aquinas
- UCF Extension Services—need additional funding to build capacity
- Churches and local groups
- The Health Leadership Council is working on strategies to address chronic disease
- Great collaboration among all organizations... able to bring people together
- Community Vision

*3. Are there gaps where you would like to see services offered in your community?*

- Empty motel could be used for low-income housing
- Empty facilities go unused—need to repurpose
- Need vision for community to plan resolution
- Fund medical RV unit to serve rural parts of the county
- Fund Catholic Church to use acquired bus to expand healthcare access
- Lack of dental and mental healthcare
- Need education to promote health awareness
- Funding to expand healthcare and social services resources
- Health Department funding for pharmaceuticals
- Greater private sector charitable support
- High rate of homelessness, especially among children

*4. Finally, what opportunities do you see to make a significant improvement in these issues that you have helped identify?*

- Community Vision: has been successful — needs more recognition; can get the job done
- Council on Aging
- Public awareness
- Outreach
- Coordination of silos
- Reduce duplication of effort by having all money go through one agency
- Develop community calendar
- Grant to bring resources into the county
- Strong collaboration
- Hopefulness of partners sets tone for Osceola
- Greater private sector charitable support
- Dedicated funding to healthcare services
- Promote personal responsibility
- ER Diversion Program... connecting patients to primary care
- Ensure all organizations are at the table

## SEMINOLE COUNTY

### *1. Considering the overall look at what it takes to have a healthy community, what do you view as the major issues facing:*

#### **Children**

The economy continues to impact children's health as parents struggle to find jobs and affordable healthcare coverage. This is further exacerbated by a limited number of pediatric medical staff to serve the community. The poor and homeless are most affected by the lack of healthcare access. Care is sacrificed due to the high cost of health insurance.

The prevalence of single-parent families puts children at higher risk for adverse health conditions and poverty. Although KidCare insurance is available for low-income families, the application process is challenging and parents do not grasp the importance of timely payments to maintain uninterrupted coverage.

Parental education is needed to instill responsibility for the care of their children and to stay drug-free. Parents also need basic education regarding the importance of preventive medical and dental care for their children, especially dental care for those of preschool age. Many children have already developed dental damage before school age.

Culturally competent social networks are needed to support improvement in community health for children. Obesity, bullying, and peer pressure were highlighted as some of the negative forces hindering children from reaching their full potential. Additionally, educational opportunities were cited as inferior with college education being particularly expensive.

#### **Adults**

Although healthcare services are offered at Federally Qualified Health Centers, the cost of care based on a sliding fee scale is often beyond the payment abilities of the adults seeking care. Improvements need to be made to shorten the time between receiving approval for disability and actually receiving coverage. Adults seeking care at a local clinic, after waiting hours to be seen, too often learn that the treatment they require is not within their financial means. Options for free care, outside of that delivered by the hospital emergency room, do not exist. Adults with diabetes are particularly challenged with finding test strips.

The poor economy has put additional pressure on the family as members cope with job loss, lack of employment opportunities, adult children moving back home, housing foreclosures, and loss of healthcare coverage. This is further complicated by the lack of networking support for families experiencing health and economic issues. Adult education is needed to promote the importance of preventive care, healthy lifestyle behaviors including abstinence from smoking and drugs, personal responsibility, and sound ethics and morals. Additionally, services for adults need to be broadly marketed.





**Employees**

Employees need to be motivated, honest, and reliable to maintain job stability in an economy with few employment opportunities. Proficiency in English is viewed as an attribute by employers. Affordable health insurance is sought by many employees to ensure access to needed healthcare services. Employees are experiencing difficulties with securing health insurance that does not use their entire paycheck or require high deductibles for very little medical coverage.

**Uninsured**

The number of individuals without health insurance is an ongoing problem in Seminole County. Free or affordable care options are needed to support the uninsured population and avoid costly emergency room utilization. The development of services, programs, and social networks should be equitable for all.

**Adults over 65**

Although most adults 65 years and older have Medicare, transportation is a major barrier preventing elders from accessing care. Understanding how Medicare works, particularly Parts C and D, is challenging for this population. Age limits need to be adjusted to expand opportunities to receive local, state and federal assistance. Current treatment options need to be strengthened to support the growing elderly population. There is a lack of residential care options for those requiring dementia or Alzheimer's care that do not have family support. Additionally, there is a need for more caregivers to keep older adults living at home.

**Individuals with mental health and substance abuse issues**

Florida is ranked 50<sup>th</sup> in the nation for receiving public support dollars. This lack of funding greatly impacts the provision and availability of mental health and substance abuse services. The lag time between when treatment ends and coverage for reduced cost medication begins, is too long for newly released patients. Many fall off their medications during this critical time. In Seminole County, collaboration is needed to develop a culturally competent and equal opportunity social network to more thoroughly support residents with mental health and substance abuse issues.

**Individuals requiring dental services**

Dental services for adults without insurance are limited in the county. Funding is needed to extend the services already offered at affordable rates and/or options for sliding fee scale for payment. The lack of preventive treatment leads to extractions that are dentally problematic and self-esteem degrading. Additionally, there are very few providers who offer reduced payment or voluntary services.

### **Individuals with cancer**

Cancer patients see a variety of doctors and receive services from several different providers. Even with insurance, patients are challenged to meet the high deductibles year after year. Payment plans offered through the provider's office helps to reduce monthly costs. However, these minimum payments required to continue treatment multiply rapidly and eventually become cost prohibitive. This situation is further complicated by the fact that many patients are unable to work during treatment.

### *2. Who in our community is doing a good job of promoting health?*

- Transportation services
- Safety and emergency response
- Hospitals
- Certain employers
- Disney
- Individuals
- Media
- Good management
- Wellness programs
- All concerned people
- Clinics
- Central Florida Family Health Center
- Health agencies
- Regional Planning Council
- Seminole County Department of Health
- Seminole Behavioral Healthcare
- Local hospitals

### *3. Who in our community does not promote good health?*

- Everyone with the exception of transportation, safety and emergency response
- Restaurants
- Poverty
- Drugs
- Individuals who do not understand the importance of preventive care
- Fast food establishments, many workplace situations, companies, some schools

*4. Are there gaps where you would like to see services offered in your community?*

- Comprehensive effort by all agencies to market their services through partnerships
- Schools restaurants
- Public transportation
- Parks
- Increase pediatric and geriatric care
- Bus services are very limited or unavailable in certain geographical areas
- Health assessment in school with referral to appropriate agencies
- Access to free or reduced medical care—preventive as well as treatment
- More dollars to cover the cost of prescriptions from time of writing to approval for reduced fee coverage
- Need more mobile units for dental and medical services. The Sharing Center lot is available everyday
- Coordination and collaboration on healthcare delivery and specialty care
- Public/private system integration for all residents
- Specific services needed—elderly residential and walk-ins with all specialties available
- Substance abuse intensive after-care

*5. If you were in charge of improving the health in our community, what would you do first?*

- Comprehensive effort by all agencies to market their services through partnerships
- Bring region together to create power team of community health players, business leaders, health service providers, educators to develop common goals and program delivery
- Information of available services must be transmitted as a public health service
- Focus on educating population regarding basic health issues—magnifying programs already in place
- Conduct a door-to-door health survey
- Offer care to poor and homeless families
- Provide children with meals and supplies (clothing) at school
- Hospitals should encourage their physicians to provide some free coverage—seen to reduce ER utilization
- Partner with local hospital to improve the discharge process. Newly discharged patients arrive at The Sharing Center in need of medicine, lab work, and equipment. Hospitals could provide discharged patient needs faster and cheaper than The Sharing Center.
- Conduct an inventory of health with providers to identify community gaps and cost
- Comprehensive school-based medicine

## ORGANIZATION AFFILIATION OF KEY STAKEHOLDERS

Boys and Girls Club  
Catholic Charities of Central Florida  
Central Florida Family Health Center, Inc.  
Center for Multicultural Wellness and Prevention  
Children's Home Society  
Community Foundation of Central Florida  
Community Health Centers, Inc.  
Community Vision  
Dental Care Access Foundation  
Early Learning Coalition of Orange County  
Florida Blue  
Florida Healthcare Coalition, Inc.  
Florida Hospital  
Good Samaritan Society  
Grace Medical Home  
Harvest Time International  
Health Care Center for the Homeless  
Health Central Hospital  
Health Council of East Central Florida  
Heart of Florida United Way  
Hispanic Health Initiatives  
Kids House of Seminole, Inc.  
Kissimmee/Osceola Chamber of Commerce  
Lakeside Behavioral Healthcare  
Orange County Emergency Medical Services and Fire Rescue  
Orange County Government, Health Services Department  
Orange County Health Department  
Orange County Public Schools  
Orlando Health  
Osceola County Board of Commissioners



Osceola County Council on Aging  
Osceola County Emergency Medical Services and Fire Rescue  
Osceola County Government  
Osceola County Health Department  
Osceola County Healthy Start  
Osceola County Human Services  
Osceola County Public Schools  
Osceola Regional Medical Center  
Pathways to Care, Inc.  
Pathways to Home  
Park Place Behavioral Healthcare  
ROCK Board  
Second Harvest Food Bank  
Seminole Behavioral Healthcare  
Seminole County Health Department  
Seminole County Port Authority  
Seminole County School Board  
Shepherd's Hope  
St. Cloud Regional Medical Center  
Winter Park Health Foundation  
United Healthcare  
Universal Orlando  
University of Central Florida, Department of Health Management and Informatics  
Valencia Community College

## SECONDARY RESEARCH

The data for the Community Health Needs Assessment (CHNA) were gathered using the Healthy Measures for East Central Florida online Health Community Network (HCN) tool. This customizable web-based community dashboard, designed by Healthy Communities Institute (HCI), delivers access to high-quality data and decision support. The HCN provides health indicator tracking, best practice sharing, and community development to help improve the health and environmental sustainability of communities in East Central Florida.

Using Healthy Measures for East Central Florida, the Health Council collected secondary data by county to define the demographic composition of the community and determine the overall health status of its residents. Secondary data, as opposed to primary data, is information that has been collected and compiled by someone other than the user. For the purpose of this assessment, the primary data were directly gathered from key stakeholders. Secondary data were collected and compiled by agencies such as the U.S. Census Bureau and accessed by the individuals who compiled this report; a comprehensive list of secondary data sources are listed at the conclusion of this section. This CHNA includes county-level indicators for mortality, morbidity, years potential life lost, access to care issues, behavioral risk factors, health screenings, maternal and child health, and health conditions. Over 100 indicators were collected and analyzed for this report. Data were provided by race/ethnicity and age when available. Zip code level data were provided for preterm and low birth weight infants. When applicable, Healthy People 2020 targets were included to provide a national benchmark for community health. Grades and recommendations from the U.S. Preventive Services Task Force (USPSTF) to assess the merits of preventive measures, including screening tests and counseling were also included where appropriate. Grades and recommendations are defined in Appendix C.

The health indicators traditionally used to evaluate community health status present some limitations when applied to assessing the health of children and adolescents. Survey data can be added to provide a more comprehensive assessment. Additional data were collected from Florida Community Health Assessment Resource Tool Set (CHARTS) and the Florida Youth Substance Abuse Survey to supplement health status data on East Central Florida youth.

Indicators for the social determinants of health were also gathered from Healthy Measures. These define the community conditions in which people are born, live, work, and play. A review of these indicators can help identify inequities that can affect health status.

The data sources used for the CHNA included: Florida Risk Factor Surveillance System (BRFSS); U.S. Census Bureau, U.S. Census American Community Survey; Florida Department of Health, Office of Planning, Evaluation & Data Analysis; County Health Rankings; Florida Department of Health, Bureau of Vital Statistics; University of Miami (FL) Medical School; Florida Cancer Data System, Bureau of Epidemiology; Florida Youth Tobacco Survey; Florida Youth Substance Abuse Survey; U.S. Bureau of Labor Statistics; U.S. Department of Agriculture – Food Environment Atlas; Florida Department of Education; National Center for Educational Statistics; American Lung Association; AIRNow; U.S. Environmental Protection Agency; Florida Department of Law Enforcement; Florida Department of Children and Families; Florida Department Of Health, Bureau of STD Prevention and Control; Florida Department of Highway Safety and Motor Vehicles; Florida Department of Juvenile Justice; Claritas; and Healthy People 2020.



## DEFINITION OF THE COMMUNITY SERVED BY THE HOSPITAL

## A DEFINITION OF THE COMMUNITY SERVED BY THE HOSPITAL

Orange, Osceola, and Seminole Counties are located in the heart of Central Florida; these three counties are comprised of the Orlando-Kissimmee-Sanford Metropolitan Statistical Area (MSA). The tri-county region is approximately 150 miles from the Florida/Georgia border, in an area surrounded by numerous citrus groves and close to 1,200 lakes.

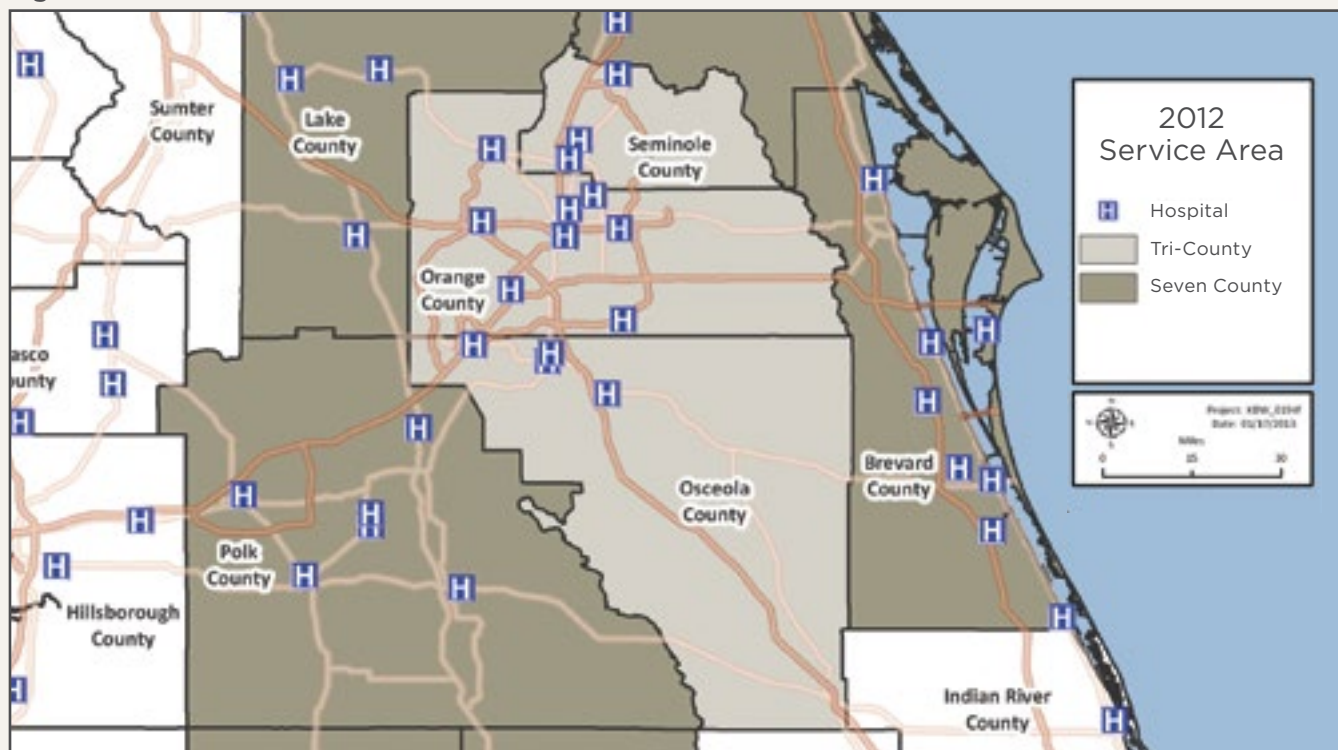
In 2012, approximately 1.8 million persons lived in Orange, Osceola, and Seminole Counties. Of those 1.8 million residents, 1.2 million resided in Orange County, 430,000 resided in Seminole County, and 230,000 resided in Osceola County. A vast majority of residents self-identify as non-Hispanic white. Over 50% of residents are between the ages of 25 and 64. Approximately 50% are male and 50% are female.

Orlando, the seat of Orange County, is one of the top five tourist destinations in America, which attracts over 51 million tourists annually. In recent years, Orlando has become a center for digital media and biomedicine industries. Although Orange County, at 1,004 square miles, is second in geographic size to Osceola County, it has the largest population in the tri-county area.

Osceola County is a 1,506 square mile area that serves as the south/central boundary of the Central Florida region and the Greater Metropolitan Area. The City of Kissimmee, the county seat, is 18 miles due south of Orlando. Osceola's only other incorporated city, St. Cloud, is 9 miles east of Kissimmee and approximately 45 miles west of the City of Melbourne on the Atlantic coast. Osceola County also includes the unincorporated communities of Poinciana and Buenaventura Lakes.

The smallest of the three counties, Seminole County, is 309.2 square miles and sits between Orange County to the south and Volusia County to the north. It is the second smallest county in the State of Florida (out of 67), but has the tenth largest population. The information on the following pages depicts demographic information for the tri-county region. The map below depicts the service area for the tri-county region.

**Figure 3**







VIII.

## DEMOGRAPHIC PROFILE OF THE TRI-COUNTY REGION

# DEMOGRAPHIC PROFILE OF THE TRI-COUNTY REGION

## Population by age

Figure 4

### ORANGE COUNTY

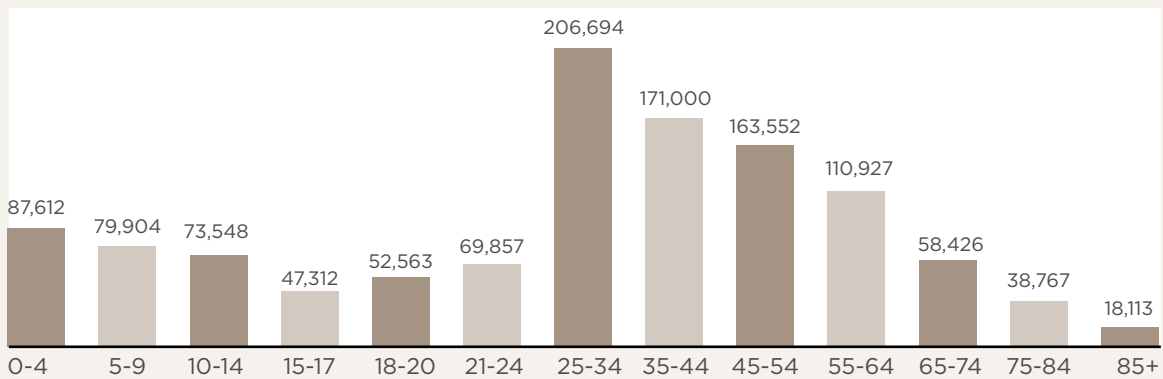


Figure 5

### OSCEOLA COUNTY

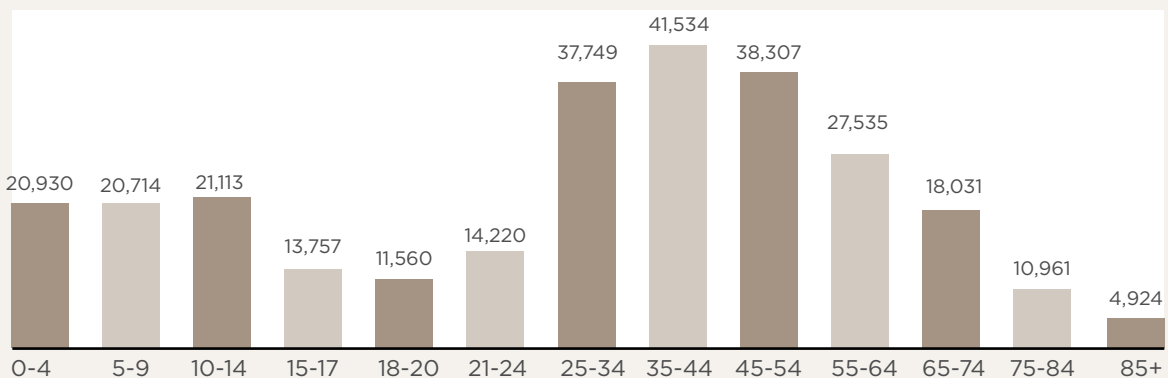
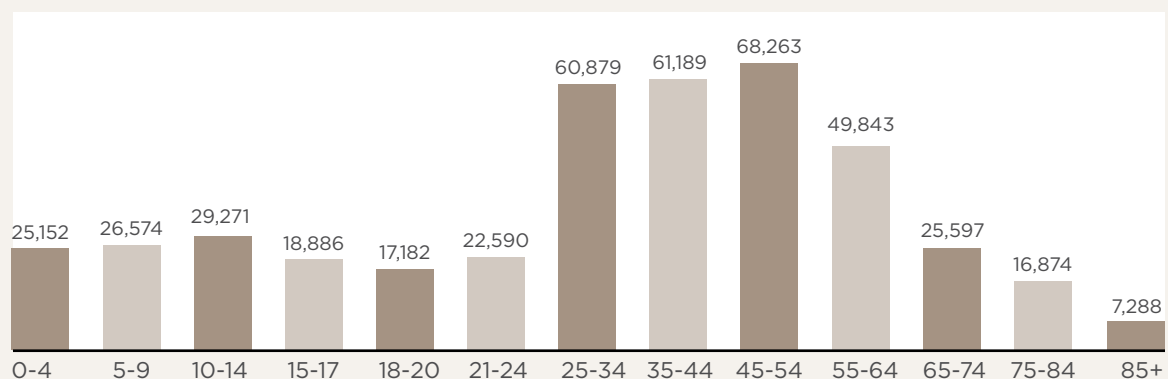


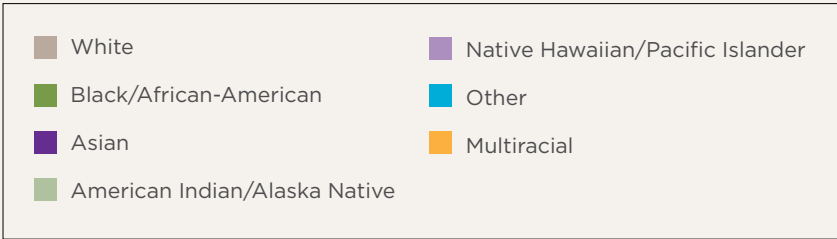
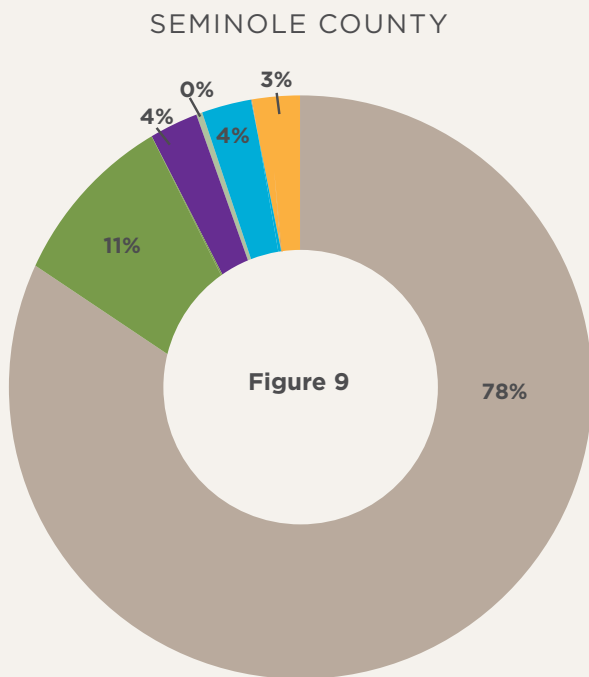
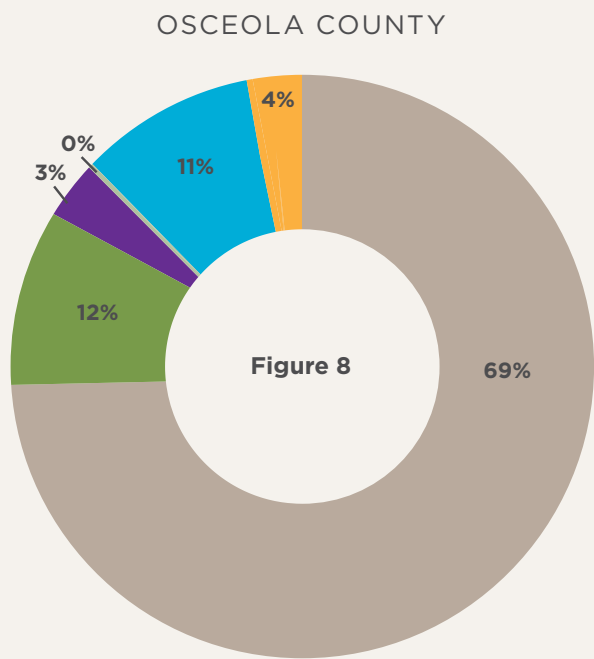
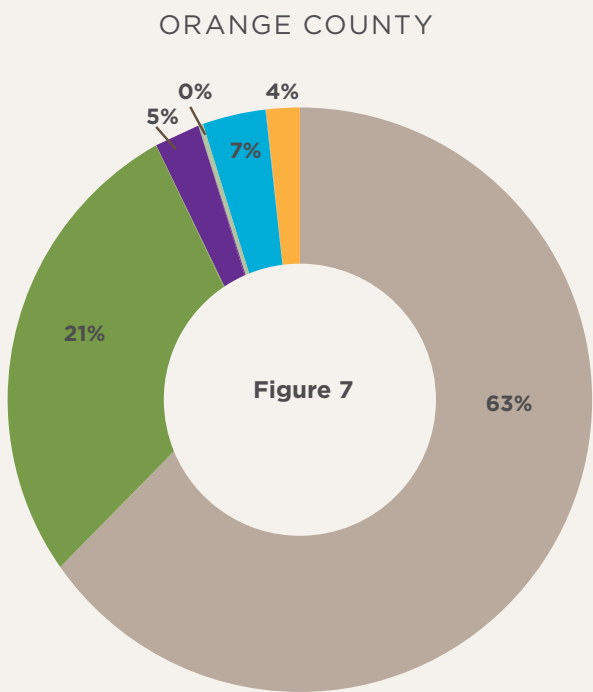
Figure 6

### SEMINOLE COUNTY



DEMOGRAPHIC PROFILE OF THE TRI-COUNTY REGION

Population by race



# DEMOGRAPHIC PROFILE OF THE TRI-COUNTY REGION

## Population by sex

### ORANGE COUNTY

♂ Males: 49.8% (586,704)

♀ Females: 50.2% (591,671)

### OSCEOLA COUNTY

♂ Males: 49.0% (137,433)

♀ Females: 51.0% (142,668)

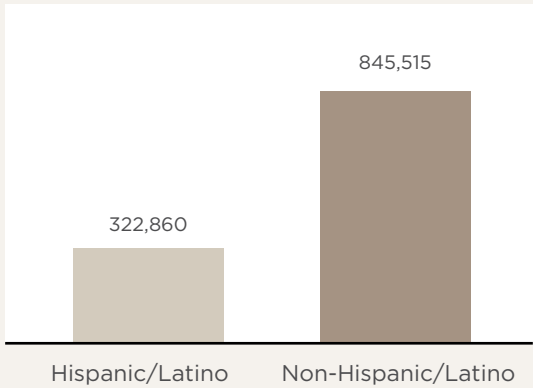
### SEMINOLE COUNTY

♂ Males: 49.2% (211,476)

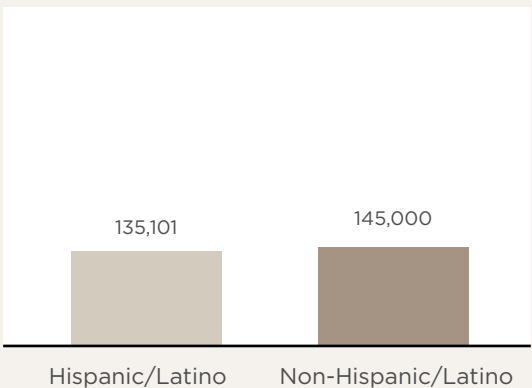
♀ Females: 50.8% (218,112)

## Population by ethnicity

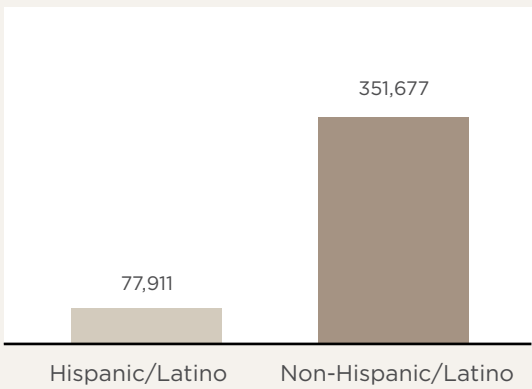
**Figure 10** ORANGE COUNTY



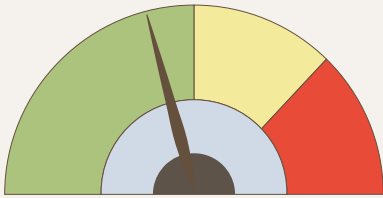
**Figure 11** OSCEOLA COUNTY



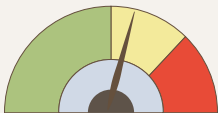
**Figure 12** SEMINOLE COUNTY



## PROFILE OF THE ORANGE COUNTY POPULATION

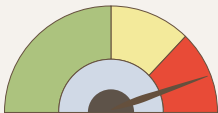


The Healthy Measures community dashboard provides a colored gauge for visual representation of how the community is doing in comparison to other communities. The three-colored dial represents the distribution of values from Orange County ordered from those doing the best to those doing the worst. From that distribution, the green represents the top 50<sup>th</sup> percentile, the yellow represents the 25<sup>th</sup>-50<sup>th</sup> percentile, and the red represents the “worst” quartile. A gauge has been provided for each indicator used in defining the community served.

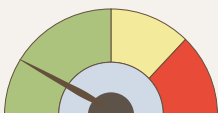


### The Economy of Orange County

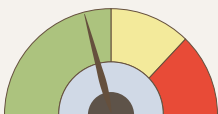
A key economic indicator is the unemployment rate. A high rate of unemployment affects healthcare access, creates mental stress, and places a strain on societal support systems as more unemployed persons qualify for benefits. According to the U.S. Bureau of Labor Statistics, 8.7% of Orange County residents, aged 16 years and older, were unemployed as of February 2012. Orange County is in the 25<sup>th</sup>-50<sup>th</sup> percentile for this indicator when compared to other U.S. counties.



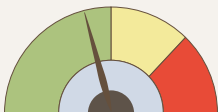
Housing affordability is defined as renters who are using 30% or more of their household income to pay for rent. This can create a financial hardship, especially for lower income renters as they may not have enough money for food, transportation, or medical expenses. In Orange County, 59.4% of households are spending a high percentage of their income on rent. Residents are in the bottom 25<sup>th</sup> percentile for this indicator when compared to other counties in the United States.



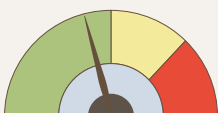
Areas with higher median household incomes are likely to have more educated residents and lower unemployment. According to the U.S. Census American Community Survey, the median household income (HHI) for Orange residents fell from \$50,352 in 2005-2009 to \$50,138 in 2006-2010. Median HHI was higher for white non-Hispanics at \$59,916. Among the black/African American population, median HHI was \$37,210 and \$40,964 for Hispanics/Latinos. Orange County median household income is in the top 50<sup>th</sup> percentile when compared to other counties in the United States.



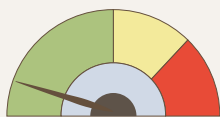
Measures for Orange County children living below poverty (17.2%), families living below poverty (10.0%), and people 65 and older living below poverty (9.4%) all fall within the top 50<sup>th</sup> percentile when compared to other U.S. counties.



According to the U.S. Census American Community Survey, the percentage of Orange County children and families living below poverty increased in 2006-2010 from percentages reported in the previous three-year estimate. Poverty rates among black/African-American and Hispanic/Latino children, families, and elderly were more than three times higher than rates for whites.

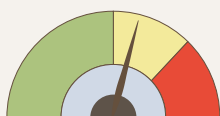




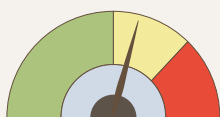


### Transportation in Orange County

Public transportation reduces fuel consumption, minimizes air pollution, and relieves traffic congestion. Only 2.5% of workers aged 16 years and over commute to work using public transportation. This is below the national health target to increase the proportion of workers who take public transportation to work to 5.5%.

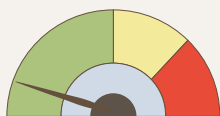


In addition to using public transportation, carpooling to work can also reduce the negative effects related to vehicular traffic. The American Community Survey reported 79.8% of Orange workers 16 years and older drive alone to work. When compared to other counties in the nation, Orange County is in the 25<sup>th</sup>-50<sup>th</sup> percentile for this indicator.

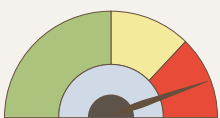


### Education in Orange County

The Florida Department of Education reported 80.3% of Orange County high school students graduated (2009-2010) within four years of their first ninth grade enrollment. This is below the Healthy People 2020 target at 82.4%. Graduation rates for black/African-American, 69.4%, and Hispanic/Latino, 78.0%, students were also below the target. Individuals who finish high school are more likely to attain the basic skills required to function in an increasingly complicated job market and society. Orange County ranked in the 25<sup>th</sup>-50<sup>th</sup> percentile when compared to other U.S. counties.

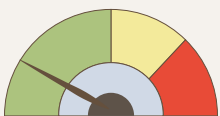


Having a bachelor's degree opens up career opportunities in a variety of fields and is often the prerequisite to a higher paying job. In Orange County, 30.3% of residents have earned a bachelor's degree or higher. The rate in the white population was higher at 37.4%. The percentages among the black/African-American population, at 19.1%, and among Hispanics/Latinos, at 20.7%, were below the county rate. Orange County is in the top 50<sup>th</sup> percentile nationally for people 25 years and older with a bachelor's degree.

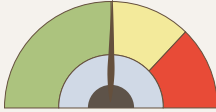


### Public Safety in Orange County

According to the Florida Department of Law Enforcement, violence negatively affects communities by reducing productivity, decreasing property values, and disrupting social services. Although the violent crime rate in 2010, at 748.1/100,000 population decreased from the rate in 2009, it still remains above the national rate, at 429.4/100,000 population. The rate for Orange is in the bottom 25<sup>th</sup> percentile when compared to other counties in the United States.

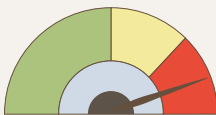


The age-adjusted death rate due to motor vehicle collisions decreased in Orange County from 11.2/100,000 population in 2009 to 10.8/100,000 population in 2010. This is below the Healthy People 2020 target of 12.4/100,000 population. Death rates due to motor vehicle collisions were highest among males (16.8/100,000) and blacks/African-Americans (12.3/100,000). Increased use of safety belts and reduction of driving while impaired are two of the most effective means to reduce the risk of serious injury and death from motor vehicle crashes.



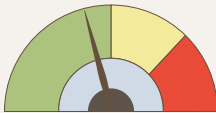
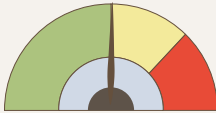
### Air Quality in Orange County

According to the U.S. Environmental Protection Agency, exposure to air pollution is associated with numerous effects on human health. High-risk groups such as the elderly, infants, pregnant women, and sufferers from chronic heart and lung diseases are more susceptible to air pollution. The American Lung Association assigns grades (A-F) to counties (A=1; B=2; C=3; D=4; F=5) based on the average annual number of days that the ozone level exceeded the U.S. standard during the three year measuring period. In Orange County, the annual ozone air quality index for 2008-2010 was 2 (Grade B). This was an improvement from 2006-2008 when the ozone index was 5 (Grade F).

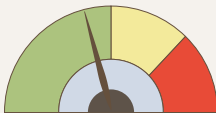


### The Built Environment in Orange County

Too many fast food restaurants and too few grocery stores are often cited as barriers to maintaining a healthy lifestyle. Orange County is in the bottom 25<sup>th</sup> percentile nationally for fast food restaurants (0.79/1,000) and the 25<sup>th</sup>-50<sup>th</sup> percentile for grocery stores (0.13/1,000). According to the U.S. Department of Agriculture, the rates for both indicators have remained stable since 2007.

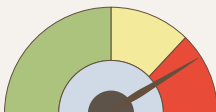


Engaging in an active lifestyle can reduce the risk of many serious conditions including obesity, heart disease, diabetes, and high blood pressure. There are 0.08 recreation and fitness facilities per 1,000 residents in Orange County. When compared to counties within the U.S., Orange is in the top 50<sup>th</sup> percentile for this indicator.

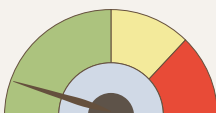


### The Social Environment in Orange County

All types of abuse and neglect have long lasting effects throughout life: damaging a child's sense of self; ability to have healthy relationships; and ability to function at home, at work, and at school. Orange County is in the top 50<sup>th</sup> percentile for child abuse in children aged 5-11 years. The Florida Department of Children and Families reported the child abuse rate increased from 10.7 cases/1,000 children in 2009, to 12.0 cases/1,000 children in 2010.

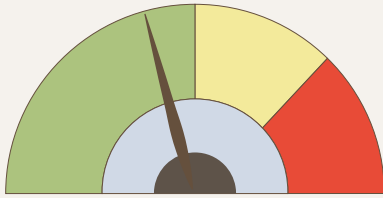


Adults and children in single-parent households are at a higher risk for adverse emotional and behavioral health effects, as well as poverty when compared to families with both parents present. According to the U.S. Census, 36.5% of Orange children were living in single-parent households in 2006-2010. Orange County is in the bottom 25<sup>th</sup> percentile for this indicator when compared to other counties in the nation.



The percentage of voter turnout is an indicator used to measure citizens' involvement and interest in who represents them in the political system. Of those registered in Orange County, 77.1% of residents voted in the 2008 presidential election. This was up from 73.5% in 2004. Orange County is in the top 50<sup>th</sup> percentile for voter turnout when compared to other counties in the U.S.

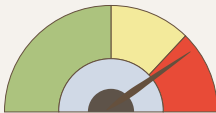
## PROFILE OF THE OSCEOLA COUNTY POPULATION



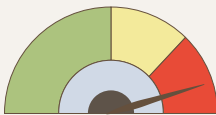
The Healthy Measures community dashboard provides a colored gauge for visual representation of how the community is doing in comparison to other communities. The three-colored dial represents the distribution of values from Osceola County ordered from those doing the best to those doing the worst. From that distribution, the green represents the top 50<sup>th</sup> percentile, the yellow represents the 25<sup>th</sup>-50<sup>th</sup> percentile, and the red represents the “worst” quartile. A gauge has been provided for each indicator used in defining the community served.

### The Economy of Osceola County

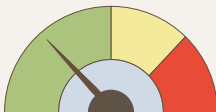
A key economic indicator is the unemployment rate. A high rate of unemployment affects healthcare access, creates mental stress, and places a strain on societal support systems as more unemployed persons qualify for benefits. According to the U.S. Bureau of Labor Statistics, 9.5% of Osceola County residents, aged 16 years and older, were unemployed as of August 2012. Osceola County is in the bottom 25<sup>th</sup> percentile for this indicator when compared to other U.S. counties.



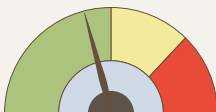
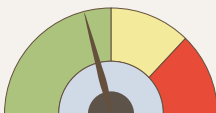
Housing affordability is defined as renters who are using 30% or more of their household income to pay for rent. This can create a financial hardship, especially for lower income renters as they may not have enough money for food, transportation, or medical expenses. In Osceola County, 63.0% of households are spending a high percentage of their income on rent. Residents are in the bottom 25<sup>th</sup> percentile for this indicator when compared to other counties in the United States.



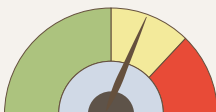
Areas with higher median household incomes are likely to have more educated residents and lower unemployment. According to the U.S. Census American Community Survey, the median household income (HHI) for Osceola residents at \$46,328 has remained relatively stable from 2005-2010. Median HHI was higher for white non-Hispanics at \$53,839. Among the black/African American population, median HHI was \$41,725 and \$39,309 for Hispanics/Latinos. Osceola County median household income is in the top 50<sup>th</sup> percentile when compared to other counties in the United States.

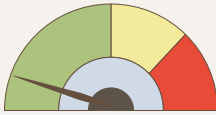


Measures for Osceola County children living below poverty (18.6%), and people 65 and older living below poverty (9.9%) fell within the top 50<sup>th</sup> percentile when compared to other U.S. counties. Families living below poverty (10.7%) were in the 25<sup>th</sup>-50<sup>th</sup> percentile.



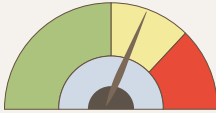
According to the U.S. Census American Community Survey, the percentage of Osceola County children and elders living below poverty decreased in 2006-2010 from percentages reported in the previous three-year estimate. The poverty rate for families has remained stable. Poverty rates among black/African-American and Hispanic/Latino children, families, and elderly were higher than rates for whites.



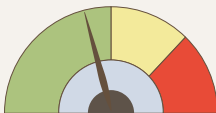


### Transportation in Osceola County

Public transportation reduces fuel consumption, minimizes air pollution, and relieves traffic congestion. Only 1.4% of workers aged 16 years and over commute to work using public transportation. This is below the national health target to increase the proportion of workers who take public transportation to work to 5.5%.

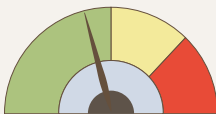


In addition to using public transportation, carpooling to work can also reduce the negative effects related to vehicular traffic. The American Community Survey reported 80.4% of Osceola workers 16 years and older drive alone to work. When compared to other counties in the nation, Osceola County is in the 25<sup>th</sup>-50<sup>th</sup> percentile for this indicator.

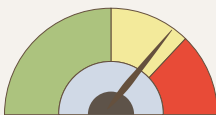


### Education in Osceola County

The Florida Department of Education reported 82.7% of Osceola County high school students graduated (2010-2011) within four years of their first ninth grade enrollment. This is just above the Healthy People 2020 target at 82.4%. Graduation rates for black/African-American (81.9%) and Hispanic/Latino (76.9%) students were below the target. Individuals who finish high school are more likely to attain the basic skills required to function in an increasingly complicated job market and society. Osceola County ranked in the top 50<sup>th</sup> percentile when compared to other U.S. counties.

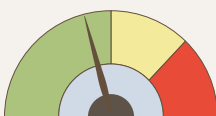


Having a bachelor's degree opens up career opportunities in a variety of fields and is often the prerequisite to a higher paying job. In Osceola County, 18.3% of residents have earned a bachelor's degree or higher. The rate in the white population was higher at 21.8%. The percentages among the black/African-American population, at 15.9%, and among Hispanics/Latinos, at 13.7%, were below the county rate. Osceola County is in the top 50<sup>th</sup> percentile nationally for people 25 years and older with a bachelor's degree.

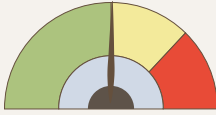


### Public Safety in Osceola County

According to the Florida Department of Law Enforcement, violence negatively affects communities by reducing productivity, decreasing property values, and disrupting social services. Although the violent crime rate in 2011, at 581.7/100,000 population decreased from the rate in 2009, it still remains above the national rate, at 429.4/100,000 population. The rate for Osceola is in the 25<sup>th</sup>-50<sup>th</sup> percentile when compared to other counties in the United States.

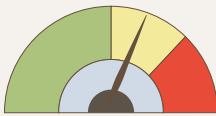


The age-adjusted death rate due to motor vehicle collisions decreased in Osceola County from 13.1/100,000 population in 2009 to 12.2/100,000 population in 2011. This is below the Healthy People 2020 target of 12.4/100,000 population. Death rates due to motor vehicle collisions were highest among males (21.6/100,000) and blacks/African-Americans (16.3/100,000). Increased use of safety belts and reduction of driving while impaired are two of the most effective means to reduce the risk of serious injury and death from motor vehicle crashes.



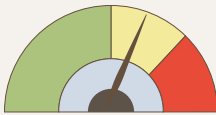
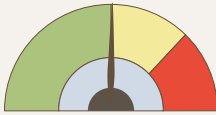
### Air Quality in Osceola County

According to the U.S. Environmental Protection Agency, exposure to air pollution is associated with numerous effects on human health. High-risk groups such as the elderly, infants, pregnant women, and sufferers from chronic heart and lung diseases are more susceptible to air pollution. The American Lung Association assigns grades (A-F) to counties (A=1; B=2; C=3; D=4; F=5) based on the average annual number of days that the ozone level exceeded the U.S. standard during the three year measuring period. In Osceola County, the annual ozone air quality index for 2008-2010 was 2 (Grade B). This was an improvement from 2006-2008 when the ozone index was 3 (Grade C).

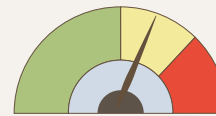


### The Built Environment in Osceola County

Too many fast food restaurants and too few grocery stores are often cited as barriers to maintaining a healthy lifestyle. Osceola County is in the 25<sup>th</sup>-50<sup>th</sup> percentile nationally for fast food restaurants (0.59/1,000) and the 50<sup>th</sup> percentile for grocery stores (0.21/1,000). According to the U.S. Department of Agriculture, the rates for both indicators have decreased since 2007.

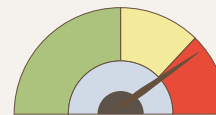


Engaging in an active lifestyle can reduce the risk of many serious conditions including obesity, heart disease, diabetes, and high blood pressure. There are 0.03 recreation and fitness facilities per 1,000 persons in Osceola County. When compared to counties within the U.S., Osceola is in the 25<sup>th</sup>-50<sup>th</sup> percentile for this indicator.

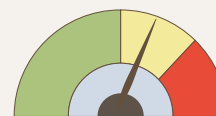


### The Social Environment in Osceola County

All types of abuse and neglect have long lasting effects throughout life: damaging a child's sense of self; ability to have healthy relationships; and ability to function at home, at work, and at school. Osceola County is in the 25<sup>th</sup>-50<sup>th</sup> percentile for child abuse in children aged 5-11 years. The Florida Department of Children and Families reported the child abuse rate increased from 12.2 cases/1,000 children in 2009, to 16.5 cases/1,000 children in 2011.



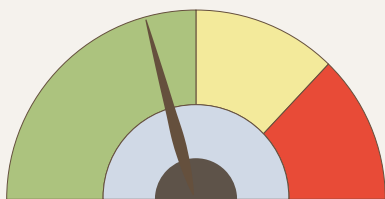
Adults and children in single-parent households are at a higher risk for adverse emotional and behavioral health effects, as well as poverty when compared to families with both parents present. According to the U.S. Census, 37.1% of Osceola children were living in single-parent households in 2006-2010. Osceola County is in the bottom 25<sup>th</sup> percentile for this indicator when compared to other counties in the nation.



The percentage of voter turnout is an indicator used to measure citizens' involvement and interest in who represents them in the political system. Of those registered to vote in Osceola County, 73.9% voted in the 2008 presidential election. This was up from 63.5% in 2004. Osceola County is in the 25<sup>th</sup>-50<sup>th</sup> percentile for voter turnout when compared to other counties in the U.S.



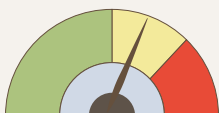
## PROFILE OF THE SEMINOLE COUNTY POPULATION



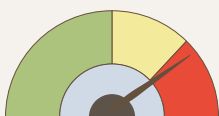
The Healthy Measures community dashboard provides a colored gauge for visual representation of how the community is doing in comparison to other communities. The three-colored dial represents the distribution of values from Seminole County ordered from those doing the best to those doing the worst. From that distribution, the green represents the top 50<sup>th</sup> percentile, the yellow represents the 25<sup>th</sup>-50<sup>th</sup> percentile, and the red represents the “worst” quartile. A gauge has been provided for each indicator used in defining the community served.

### The Economy of Seminole County

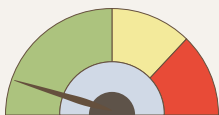
A key economic indicator is the unemployment rate. A high rate of unemployment affects healthcare access, creates mental stress, and places a strain on societal support systems as more unemployed persons qualify for benefits. According to the U.S. Bureau of Labor Statistics, 8.2% of Seminole County civilians, aged 16 years and older, were unemployed as of June 2012. Seminole County is in the 25<sup>th</sup>-50<sup>th</sup> percentile for this indicator when compared to other U.S. counties.



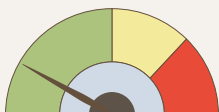
Housing affordability is defined as renters who are using 30% or more of their household income to pay for rent. This can create a financial hardship, especially for lower income renters as they may not have enough money for food, transportation, or medical expenses. In Seminole County, 52.1% of households are spending a high percentage of their income on rent. Residents are in the bottom 25<sup>th</sup> percentile for this indicator when compared to other counties in the United States.



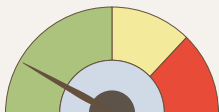
Areas with higher median household incomes are likely to have more educated residents and lower unemployment. According to the U.S. Census American Community Survey, the median household income (HHI) for Seminole residents increased from \$58,313 in 2005-2009 to \$58,971 in 2006-2010. Median HHI was higher for white non-Hispanics at \$64,482.



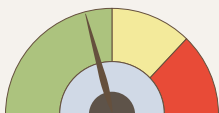
Among the black/African American population, median HHI was \$38,678 and \$45,669 for Hispanics/Latinos. Seminole County median household income is in the top 50<sup>th</sup> percentile when compared to other counties in the United States.

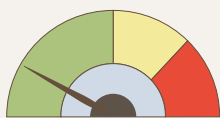


Measures for Seminole County children living below poverty (11.2%), families living below poverty (6.6%), and people 65 and older living below poverty (8.8%) all fall within the top 50<sup>th</sup> percentile when compared to other U.S. counties.



According to the U.S. Census American Community Survey, the percentage of Seminole County children and families living below poverty increased in 2006-2010 from percentages reported in the previous three-year estimate. Poverty rates among black/African-American and Hispanic/Latino children, families, and elderly were 2-3 times higher than rates for whites.

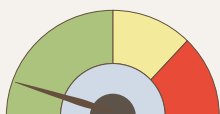
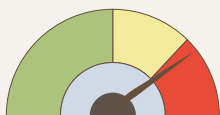




### Transportation in Seminole County

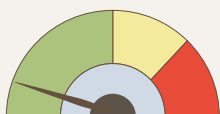
Public transportation reduces fuel consumption, minimizes air pollution, and relieves traffic congestion. Only 0.5% of workers aged 16 years and over commute to work using public transportation. This is below the national health target to increase the proportion of workers who take public transportation to work to 5.5%. Even though Seminole County's numbers are better than half of U.S. counties, they are still well below the Healthy People 2020 Goal.

In addition to using public transportation, carpooling to work can also reduce the negative effects related to vehicular traffic. The American Community Survey reported 83.1% of Seminole workers 16 years and older drive alone to work. When compared to other counties in the nation, Seminole County is in the bottom 25<sup>th</sup> percentile for this indicator.

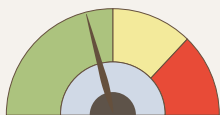


### Education in Seminole County

The Florida Department of Education reported 93.4% of Seminole County high school students graduated (2009-2010) within four years of their first ninth grade enrollment. This is above the Healthy People 2020 target at 82.4%. Graduation rates for black/African-American (83.6%) and Hispanic/Latino (88.7) students were also above the target. Individuals who finish high school are more likely to attain the basic skills required to function in an increasingly complicated job market and society. Seminole County ranked in the top 50<sup>th</sup> percentile when compared to other U.S. counties.

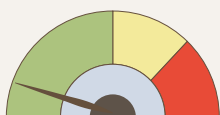


Having a bachelor's degree opens up career opportunities in a variety of fields and is often the prerequisite to a higher paying job. In Seminole County, 33.6% of residents have earned a bachelor's degree or higher. The rate in the white population was higher at 35.3%. The percentages among the black/African-American population, at 22.5%, and Hispanics/Latinos, at 26.1%, were below the county rate. Seminole County is in the top 50<sup>th</sup> percentile nationally for people 25 years and older with a bachelor's degree.

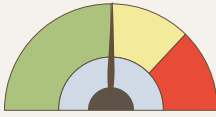


### Public Safety in Seminole County

According to the Florida Department of Law Enforcement, violence negatively affects communities by reducing productivity, decreasing property values, and disrupting social services. The violent crime rate in 2011, at 365.3/100,000 population, decreased from the rate in 2010 and is below the national rate, at 429.4/100,000 population. The rate for Seminole is in the top 50<sup>th</sup> percentile when compared to other counties in the United States.

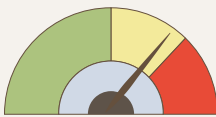


The age-adjusted death rate due to motor vehicle collisions decreased in Seminole County from 8.1/100,000 population in 2009 to 7.1/100,000 population in 2010. This is below the Healthy People 2020 target of 12.4/100,000 population. Death rates due to motor vehicle collisions were highest among males (9.8/100,000) and blacks/African-American (7.7/100,000). Increased use of safety belts and reduction of driving while impaired are two of the most effective means to reduce the risk of serious injury and death from motor vehicle crashes.



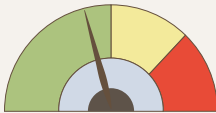
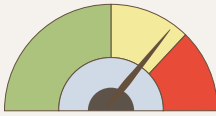
### Air Quality in Seminole County

According to the U.S. Environmental Protection Agency, exposure to air pollution is associated with numerous effects on human health. High-risk groups such as the elderly, infants, pregnant women, and sufferers from chronic heart and lung diseases are more susceptible to air pollution. The American Lung Association assigns grades (A-F) to counties (A=1; B=2; C=3; D=4; F=5) based on the average annual number of days that the ozone level exceeded the U.S. standard during the three year measuring period. In Seminole County, the annual ozone air quality index for 2008-2010 was 2 (Grade B). This was an improvement from 2006-2008 when the ozone index was 4 (Grade D).

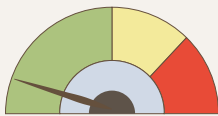


### The Built Environment in Seminole County

Too many fast food restaurants and too few grocery stores are often cited as barriers to maintaining a healthy lifestyle. Seminole County is in the 25<sup>th</sup>-50<sup>th</sup> percentile nationally for fast food restaurants (0.68/1,000) and the 25<sup>th</sup>-50<sup>th</sup> percentile for grocery stores (0.17/1,000). According to the U.S. Department of Agriculture, the rates for both indicators have remained stable since 2007.

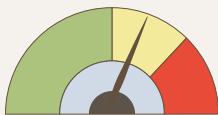


Engaging in an active lifestyle can reduce the risk of many serious conditions including obesity, heart disease, diabetes, and high blood pressure. There are 0.13 recreation and fitness facilities per 1,000 populations in Seminole County. When compared to counties within the U.S., Seminole is in the top 50<sup>th</sup> percentile for this indicator.

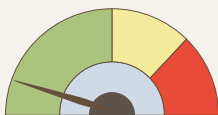


### The Social Environment in Seminole County

All types of abuse and neglect have long lasting effects throughout life: damaging a child's sense of self; ability to have healthy relationships; and ability to function at home, at work, and at school. Seminole County is in the top 50<sup>th</sup> percentile for child abuse in children aged 5-11 years. The Florida Department of Children and Families reported the child abuse rate increased from 5.9 cases/1,000 children in 2009, to 7.2 cases/1,000 children in 2010.



Adults and children in single-parent households are at a higher risk for adverse emotional and behavioral health effects, as well as poverty when compared to families with both parents present. According to the U.S. Census, 29.6% of Seminole children were living in single-parent households in 2006-2010. Seminole County is in the 25<sup>th</sup>-50<sup>th</sup> percentile for this indicator when compared to other counties in the nation.



The percentage of voter turnout is an indicator used to measure citizens' involvement and interest in who represents them in the political system. Of those registered to vote in Seminole County, 79.8% voted in the 2008 presidential election. This was up from 77.4% in 2004. Seminole County is in the top 50<sup>th</sup> percentile for voter turnout when compared to other counties in the U.S.



XII.

HEALTHCARE FACILITIES AND PROVIDERS

## HEALTHCARE FACILITIES AND PROVIDERS

The tri-county area is served by: two not-for-profit hospital systems, Orlando Health and Adventist Health System; three for-profit acute care hospitals; four mental health hospitals, including one that is not-for-profit; and two long-term care hospitals. Additionally, a Level One Trauma Center is located within the tri-county region. Reviewing the number of facilities, programs, and professionals within a geographic area helps to focus on the availability of healthcare and its quality.

**Table 1. Hospitals**

Hospital Type	Tri-County	Florida
Acute Care Hospitals	16	217
Hospital Licensed Beds	5,309	50,311
Long Term Care Hospitals	2	24
Rehabilitation Hospitals (Freestanding)	0	18
Mental Health Hospitals (Freestanding)	4	31
Teaching Hospitals	9	21

Source: Agency for Health Care Administration

**Central Florida Behavioral Hospital** is a private, state-of-the-art psychiatric center that offers a full continuum of care including both inpatient treatment and partial hospitalization. Behavioral health and substance abuse programs are available to patients of all ages.

**Central Florida Regional Hospital** is a for-profit hospital with 208 acute care beds, 18 skilled nursing unit beds and an emergency department. Programs include Level II adult cardiovascular services and a primary stroke center. Special services include adult open-heart surgery.

**Florida Hospital** is one of the largest not-for-profit, faith-based healthcare systems in North America. Comprised of 7 hospitals serving Central Floridians in the tri-county area with 2,409 beds, annually, Florida Hospital treats more patients than any other hospital system in the U.S. Below is a description of the hospitals serving the tri-county area:

**Florida Hospital Orlando**, located in Orange County, is the flagship of the Adventist Health System and is the largest campus in the tri-county area with 1,177 acute care beds; Florida Hospital Orlando also serves as a major tertiary facility for much of the Southeast. Special services include adult and pediatric bone marrow transplant programs and adult open-heart surgery, as well as organ programs for adult and pediatric kidney transplants and adult liver and pancreas transplants. Provided by Florida Hospital, TransLife is the area's only federally designated organ procurement program and only one of five such programs in the State of Florida.

Florida Hospital Orlando is also home to nationally recognized institutes for: cancer; diabetes; translational research; cardiology; orthopedics; neuroscience; and digestive health. The Cancer Institute at Florida hospital Orlando treats more cancer patients than any other hospital in Florida. Florida Hospital is also a teaching hospital home to residency programs in family medicine, allopathic and osteopathic tracks; pediatrics; emergency medicine; neuromuskuloskeletal medicine; general surgery; podiatric medicine and surgery; and internal medicine. In addition, fellowships include geriatric medicine; colon and rectal surgery; GYN/oncology; and advanced upper gastrointestinal (GI) and hepato-pancreato-biliary (HPB) surgery.



**Florida Hospital Altamonte** is an acute care hospital with 341 beds, making it the largest and most comprehensive hospital in Seminole County. This campus also houses a comprehensive spine and orthopedic institute; complete gastroenterology and digestive health services; an obstetrics and gynecology service line; the county's only comprehensive cancer institute with a dedicated multi-disciplinary cancer program; and Florida Hospital Altamonte is also part of a nationally recognized cardiac institute offering an array of cardiac diagnostic services and treatments.

**Florida Hospital Apopka** is a 50-bed acute care hospital located in Orange County. From 24-hour cardiology services and critical care units to specialized emergency care and advanced diagnostic imaging, Florida Hospital Apopka provides a multitude of inpatient and outpatient services such as imaging, rehabilitation, sleep studies, and a comprehensive aging assessment center.

**Florida Hospital Celebration Health** is a 174-bed comprehensive acute care hospital serving the residents of Osceola, Orange, Polk, and Lake Counties, as well as patients from around the world. Established in 1997, Florida Hospital Celebration was designed as the cornerstone of health in the Disney-planned community of Celebration, Florida. This campus serves as a showcase of innovation and excellence in healthcare. Florida Hospital Celebration Health is home to the Nicholson Center for Surgical Advancement and is a worldwide leader in global robotics including minimally invasive and bariatric surgery.

**Florida Hospital East Orlando** is a 265-bed acute care community hospital that serves residents of East Orange County. Florida Hospital East Orlando has nationally recognized institutes in cardiovascular and digestive health services. It is also a teaching hospital with residencies in Family Medicine, Podiatry, and Emergency Medicine.

**Florida Hospital Kissimmee**, located in Osceola County, is an 82-bed acute care community hospital and offers comprehensive inpatient and outpatient services in a full range of specialties to Osceola County residents including medical and surgical services, comprehensive cancer treatment.

**Winter Park Memorial Hospital** is a 320-bed acute care facility offering comprehensive inpatient, outpatient, and emergency services. Winter Park Memorial is home to the Dr. P. Phillips Baby Place, and part of nationally recognized institutes in orthopedics, cancer, and digestive health. Winter Park Memorial is also a teaching hospital with a Family Practice residency program.

**La Amistad Residential Treatment Center** offers behavioral healthcare programs for children, adolescents and adults in both residential and partial hospitalization settings. Through a multidisciplinary and individualized approach, patients receive treatment for substance abuse as well as psychiatric issues.

**Lakeside Behavioral Healthcare** is a private, not-for-profit charitable organization that provides comprehensive community behavioral healthcare services to the Orange County community. Through various programs, children, adolescents, and adults receive services for mental health issues and substance use disorders. Lakeside Behavioral Healthcare provides these services on both an inpatient and outpatient basis. In addition, patients learn about available community resources.

**Nemours Children's Hospital** is a not-for-profit, pediatric acute care hospital with 88 beds located in Orange County. With its initial opening in the fall 2013, Nemours offers family-centered specialty care. Services provided by Nemours include rheumatology, interventional radiology, comprehensive physical and rehabilitation medicine.

**Orlando Health** is a not-for-profit, 2,295-bed healthcare system that includes six wholly owned hospitals, two partnership hospitals, and a skilled nursing facility. The Orlando Health Air Care Team's helicopter response and emergency trauma services are for the tri-county area and seven additional counties. Below is a description of the Orlando Health hospitals located within the tri-county area:

**Orlando Regional Medical Center (ORMC)** is located in Orange County and is Orlando Health's flagship medical center with 751 acute care beds, and 53 comprehensive medical rehabilitation beds. ORMC is also home to the only Level One Trauma Center in Central Florida; this state-verified center provides specialized care for critically injured or critically ill people within a 90-mile radius. ORMC specializes in: trauma; cardiovascular services; orthopedics; neurosciences; internal medicine; as well as minimally invasive bariatric surgery. ORMC also operates one of the state's regional burn and tissue rehabilitation centers.

As a teaching hospital, ORMC offers graduate medical education residencies in seven specialties: emergency medicine; internal medicine; obstetrics and gynecology; orthopedic surgery; pathology; pediatrics; and general surgery. In addition, 17 fellowship programs are provided. Some of these programs include colorectal surgery; medical critical care; and hematology/oncology.

**MD Anderson Cancer Center Orlando** is also housed at ORMC. MD Anderson – Orlando is the first and largest affiliate of the University of Texas MD Anderson Cancer Center located in Houston, Texas. MD Anderson – Orlando has 60 private inpatient beds and provides multidisciplinary services required to treat cancer patients from diagnosis through all phases of treatment and follow up.

**Arnold Palmer Medical Center** is comprised of Arnold Palmer Hospital for Children and Winnie Palmer Hospital for Women & Babies. Located in Orange County, Arnold Palmer Medical Center is the largest facility dedicated to women, babies, and children in the United States.

**Arnold Palmer Hospital for Children** is a 158-bed pediatric teaching hospital and is the first facility in Central Florida to provide emergency care exclusively for pediatric patients. Level One trauma care is provided to pediatric patients through Bert Martin's Champions for Children Emergency Department & Trauma Center. In addition, Arnold Palmer Hospital has received national recognition for its programs in orthopedics, gastroenterology, and cardiology and heart surgery. Arnold Palmer Hospital offers the most comprehensive heart care in Central Florida for infants, children, and teens with heart disease. Arnold Palmer Hospital provides an array of services such as: neuroscience, including a Level 4 Epilepsy Center; oncology/hematology; sports medicine; and surgical specialties.

**Winnie Palmer Hospital for Women & Babies** is a 285-bed teaching hospital dedicated to the needs of women and babies. Winnie Palmer Hospital is one of the largest birthing hospitals in the nation. Its Level III Neonatal Intensive Care Unit (NICU) is the fourth largest in the United States and has one of the highest survival rates in the country for low birth weight babies. Some of the specialized programs and services available for mothers and babies at Winnie Palmer Hospital include services for high-risk births; breastfeeding; obstetrics and gynecology; and childbirth and parenting classes.

**Dr. P. Phillips Hospital** is a full service, medical and surgical facility, with 237 beds and an emergency department located in Orange County. A fully accredited Chest Pain Center is located at Dr. P. Phillips Hospital along with signature services that include vascular surgery; neurosurgery; orthopedics; oncology care; and home health. EMS transport systems also recognize Dr. P. Phillips Hospital as a primary stroke center.

**South Seminole Hospital** is a full service, medical and surgical facility with 206 beds. Located in Seminole County, South Seminole Hospital provides cardiology care with an accredited Heart Failure program, oncology care, endoscopy, specialized women's services, and wound care. South Seminole Hospital is also home to Orlando Health Behavioral Healthcare, a psychiatric hospital. Treatment for mental and addictive disorders, such as major depressive disorders, as well as addictive behaviors stemming from drug and alcohol use is provided here. The facility has three adult units, a unit for adolescents and children, and a unit for adults requiring an intensive level of care.

**Health Central Hospital** is a 171-bed acute care hospital with an emergency department located in Orange County. Inpatient services offered at Health Central Hospital include cardiac care; diabetes education; occupational, physical and speech therapy; obstetrics and gynecology; orthopedic and spine care; endocrinology; and general surgery. For outpatient services, Health Central Hospital provides oncology care, wound care, digital mammography, and pulmonary and cardiac rehabilitation. A primary stroke center is also located at Health Central Hospital.

**Osceola Regional Medical Center** is a for-profit hospital in Osceola County with 247 acute care beds, 10 Level II neonatal intensive care unit beds, and an emergency department. Programs include Level II adult cardiovascular services and a primary stroke center. Specialty services include adult open-heart surgery.

**Select Specialty Hospital** concentrates in the treatment of the most critical and complex medical and surgical conditions. Programs are designed to move patients from the acute care setting toward achieving their highest level of wellness. Located in Orange County, Select Specialty has a total of 75 long-term beds; 35 at the North campus and 40 beds at the South campus facility.

**St. Cloud Regional Medical Center** is a for-profit hospital with 84 acute care beds and an emergency department. Located in Osceola County, St. Cloud Regional Medical Center offers a comprehensive medical support system for both inpatient and outpatient needs. Services include a critical care unit; respiratory therapy; pharmacy; rehabilitation services; wound care; laboratory services; orthopedics radiology; and surgery.

**University Behavioral Center** is a 112-bed residential psychiatric facility in Orange County. The facility provides care to children, adolescents and adults in Central Florida. Their 24-bed acute adult unit is planned to open in 2013.

The number of hospital beds indicates the number of people who may receive care in the hospital on an in-patient basis. According the Agency for Health Care Administration, there are over 5,000 licensed hospital beds in the tri-county area. Acute care is defined as the necessary treatment of a disease for only a short period of time in which a patient is treated for a brief, but severe episode of illness. The term is generally associated with care rendered in an emergency department, ambulatory care clinic, or other short-term stay facility. Orange County has the highest rate of acute care beds per 100,000 residents. The lowest rate of beds to population is found in Seminole County.

**Table 2. Hospital E.R. Visits - 2012**

County	Visits	% Admitted
Orange	450,039	23.8%
Osceola	190,430	16.1%
Seminole	124,069	26.4%
Tri-County Total	764,538	22.3%

Data Source: Florida Agency for Healthcare Administration

Appropriate utilization of the hospital emergency room ensures the most effective and efficient level of healthcare is provided. The 2012 ER admission rates for the tri-county area ranged between 15% -21% of all hospital visits. The rate has remained relatively stable over the past five years; however, the rate of admission was slightly higher in 2012 than 2011.

The rate of specialty beds, such as NICU or psychiatric, is highest in Orange County. Osceola has the lowest rate of beds per population, indicating that residents will have to travel outside the county to receive some specialty services.

**Table 3. Hospital Programs**

Programs (A)=Adult (P)=Pediatric	Tri-County	Florida
Open Heart - (A)	4	74
Open Heart - (P)	2	10
Kidney Transplant - (A)	1	7
Kidney Transplant - (P)	1	4
Heart - (A)	1	5
Heart - (P)	0	4
Liver Transplant - (A)	1	6
Liver Transplant - (P)	0	2
Bone Marrow Transplants - (A)	1	8
Bone Marrow Transplants - (P)	1	6
Lung - (A)	0	4
Lung - (P)	0	2
Pancreas Transplant - (A)	1	5
Hospice Programs	7	70

Source: Agency for Health Care Administration

A neonatal intensive care unit (NICU), also called a newborn intensive care unit, is a hospital unit specializing in the care of ill or premature newborn infants. The NICU provides a high level of intensive care. Almost all the NICU beds are in Orange County hospitals. Residents of Seminole and Osceola Counties must travel across county lines to receive this level of care for their infants.





XIII.

THE HEALTH NEEDS OF THE COMMUNITY



## THE HEALTH NEEDS OF THE COMMUNITY

Data for the CHNA were gathered using the Healthy Measures for East Central Florida online Health Community Network (HCN) tool. The CHNA included county-level indicators for chronic health conditions, morbidity and mortality, years of potential life lost, access to care issues, behavioral risk factors, health screenings, maternal and child health, substance abuse, mental health, and social determinants of health. Over 100 indicators were collected and analyzed for the tri-county report. Data were provided by race/ethnicity and age when available. Zip code level data were provided for preterm births and low birth weight.

Health indicator rankings were developed based on the following criteria: the percentage of the population with the health problem; the severity of the problem in terms of mortality, morbidity, hospitalizations, economic loss or community impact; and the predicted effectiveness of an intervention in preventing the health problem. Data sources for all health indicators can be found in Appendix F. The detailed explanation on the process used to prioritize health needs can be found beginning on page 119.

### **Chronic Disease**

Chronic Disease is described as a condition that is long lasting, recurrent, and not easily cured. Chronic diseases typically cannot be prevented by vaccination and are generally caused from lifestyle and/or genetic factors. Although chronic diseases are among the most common and costly health problems, many are easily prevented or controlled. In the United States, tobacco use, lack of physical activity and poor nutrition are major contributors to the leading chronic diseases. According to the Centers for Disease Control and Prevention (CDC), chronic diseases are the leading cause of death and disability in the United States.

### **Mortality**

Mortality is the public health term that refers to death and its related causes. The “rate of mortality” is the term for how researchers measure the impact of or quantify death. In the United States each year, chronic disease accounts for 70% of all deaths, or the mortality rate. The most common causes of mortality in the country are also the most common causes of mortality in the tri-county region: cancer and heart disease. These diseases will be discussed in more detail in the coming sections. The tables and charts in the following section describe mortality rates in Orange, Osceola, and Seminole Counties.

In Orange County, for every 100,000 persons residing in the county, 165 died of cancer in 2012. This provides a cancer-specific mortality rate of 165/100,000 (more specifically, 164.5) for the year 2012. The following three tables describe the top five causes of death for each of the three counties included in this report; these causes are in order by their mortality rate.

In addition to the mortality rate, also listed in the charts on the following page, and many other charts in this section, is the Healthy People 2020 goal set by the Department of Health and Human Services, and a trend icon. Trending is helpful to health professionals in that they indicate what direction a particular disease or disorder is moving in. For example, in Orange County, all mortality rates due to the causes listed are declining with the exception of unintentional injury. In order for something to be labeled a trend, at least 3 data points must be taken into account. For these specific tables, at least 10 years worth of data were taken into account when determining an accurate trend.

Notably, cancer surpassed heart disease as the leading cause of death in Orange and Seminole Counties in 2012. Nationally and in many other Florida Counties, including Osceola, heart disease is still the leading cause of death.

**Table 4. ORANGE COUNTY**

Cause of Death	Age- Adjusted Death Rate/100,000	Healthy People 2020 Target	Trend
Cancer	159.7	160.6	↓
Heart Disease	153.9	100.8	↓
Chronic Lower Respiratory Disease	37.8		↓
Cerebrovascular Disease	34.8	33.8	↓
Unintentional Injuries	34.6	36.0	↑

**Table 5. OSCEOLA COUNTY**

Cause of Death	Age- Adjusted Death Rate/100,000	Healthy People 2020 Target	Trend
Heart Disease	187.0	100.8	↑
Cancer	152.7	160.6	↓
Chronic Lower Respiratory Disease	37.5		=
Cerebrovascular Disease	36.8	33.8	↓
Unintentional Injuries	34.4	36.0	↑

**Table 6. SEMINOLE COUNTY**

Cause of Death	Age- Adjusted Death Rate/100,000	Healthy People 2020 Target	Trend
Cancer	160.4	160.6	↓
Heart Disease	138.3	100.8	↓
Chronic Lower Respiratory Disease	39.5		↓
Cerebrovascular Disease	31.0	33.8	↓
Unintentional Injuries	31.1	36.0	↓

Source: Florida CHARTS, 2012

## Cancer

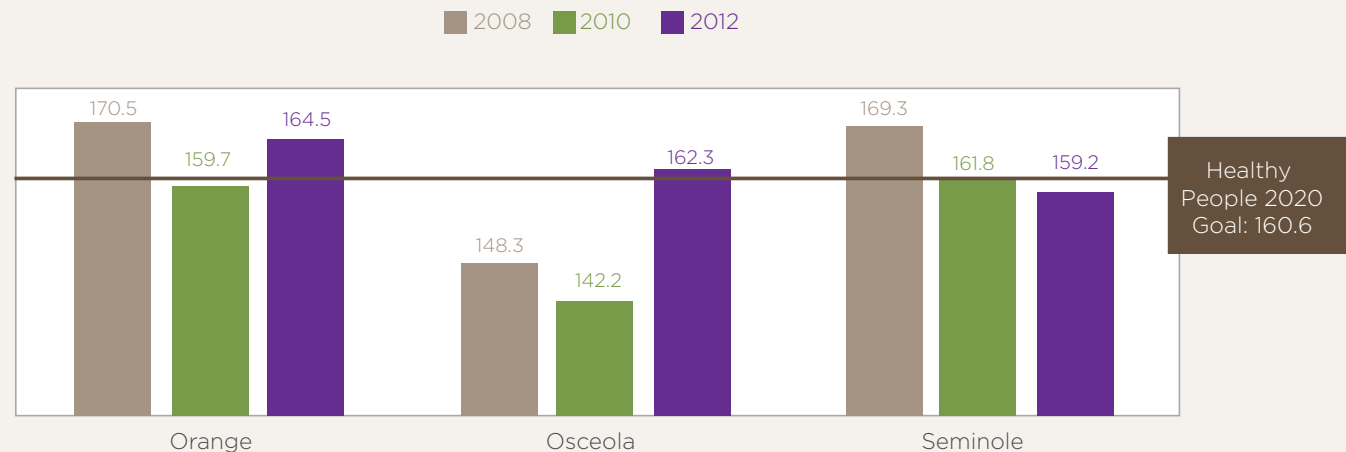
Cancer is a leading cause of death in the tri-county region and is the second leading cause of death in the nation. The National Cancer Institute (NCI) defines cancer as “a term used to describe diseases in which abnormal cells divide without control and are able to invade other tissues.” There are over 100 different types of cancer; however, lung, colon and rectal, breast, pancreatic and prostate cancer lead to the greatest number of annual deaths.

According to Healthy People 2020, many cancers could be prevented by reducing risk factors such as tobacco use, physical inactivity, poor nutrition, obesity, and exposure to ultraviolet light. In addition, screenings are an effective preventive measure for cervical, colorectal, and breast cancer. The age-adjusted death rates for cancer in 2012 are highest in Osceola and Orange Counties at 162.3/100,000 and 164.5 /100,000, respectively. This is higher than the Healthy People 2020 target of 160.6/100,000. The chart below describes the cancer trend in the tri-county region for the years 2008, 2010, and 2012.

**Table 7. Cancer**

County	2008	2010	2012	Healthy People 2020
Orange	170.5	159.7	164.5	160.6
Osceola	148.3	142.2	162.3	160.6
Seminole	169.3	161.8	159.2	160.6

**Chart 1. Age-Adjusted Death Rate for Cancer per 100,000**

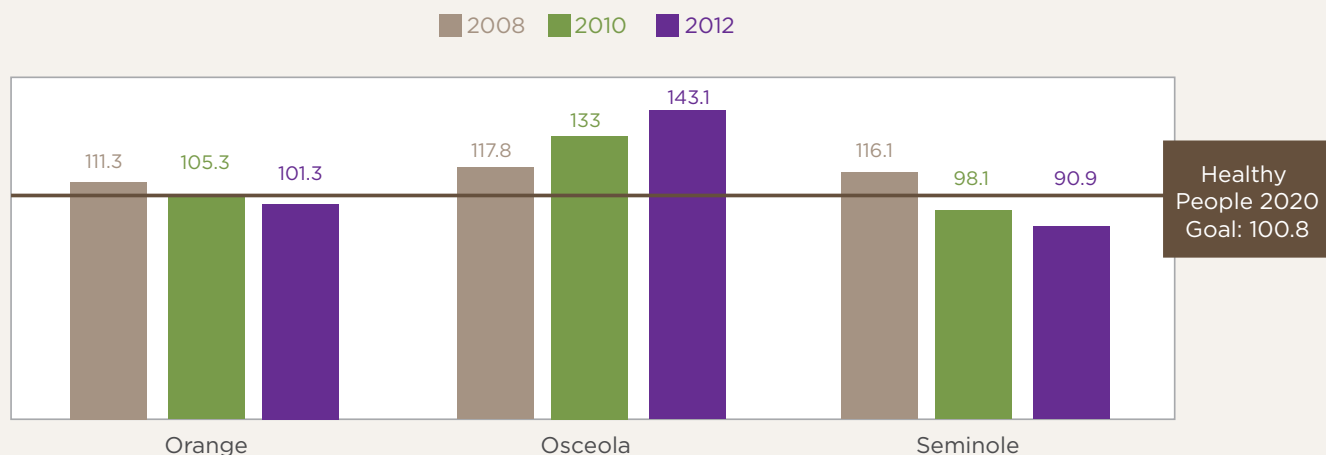


## Heart and Cerebrovascular Diseases

As previously mentioned, heart and cerebrovascular diseases are leading causes of death in the tri-county region and the country as a whole. Together, heart disease and cerebrovascular disease are the most costly health problems. According to a report from the American Heart Association, in 2010 more than \$500 billion in healthcare services and related expenses (i.e., medication, lost productivity) were attributed to heart disease and cerebrovascular disease.

While heart disease and cerebrovascular disease are serious health conditions facing the nation today, they are among the most preventable. Both chronic conditions are diseases of the circulatory system; leading modifiable (controllable) risk factors for heart and cerebrovascular diseases are: high blood pressure; high cholesterol; cigarette smoking; diabetes; physical inactivity; poor nutrition; and obesity. The most common adverse outcome of cerebrovascular disease is cerebrovascular accident, more commonly known as stroke. Over 5,000 residents of the tri-county region are hospitalized annually due to stroke. The tables on the following page give a five-year estimate (2008-2012) of heart disease and cerebrovascular disease mortality rates for the tri-county area and compares them to the Healthy People 2020 goal.

**Chart 2. Age-Adjusted Death Rate for Heart Disease per 100,000**



**Table 8. Heart Disease**

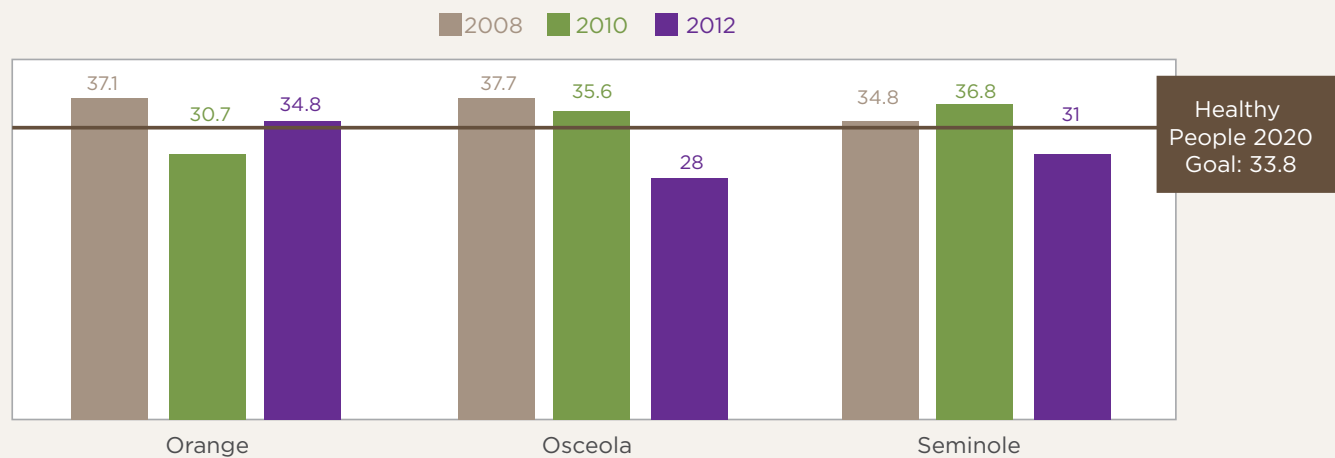
County	2008	2010	2012	Healthy People 2020
Orange	111.3	105.3	101.3	100.8
Osceola	117.8	133.0	143.1	100.8
Seminole	116.1	98.1	90.9	100.8

Among all residents, the age-adjusted death rate for heart disease was highest in Osceola County at 143.1/100,000. With a rate of 101.3, Orange County was also above the Healthy People 2020 target of 100.8.

Cerebrovascular disease was ranked as the fourth leading cause of death for residents living in Orange and Seminole Counties and the fifth leading cause for death in Osceola County. The Osceola and Seminole County rates were below the Healthy People 2020 target of 33.8/100,000.

**Table 9. Cerebrovascular Disease**

County	2008	2010	2012	Healthy People 2020
Orange	37.1	30.7	34.8	33.8
Osceola	37.7	35.6	28.0	33.8
Seminole	34.8	36.8	31.0	33.8

**Chart 3. Age-Adjusted Death Rate for Cerebrovascular Disease per 100,000**



### Unintentional Injuries

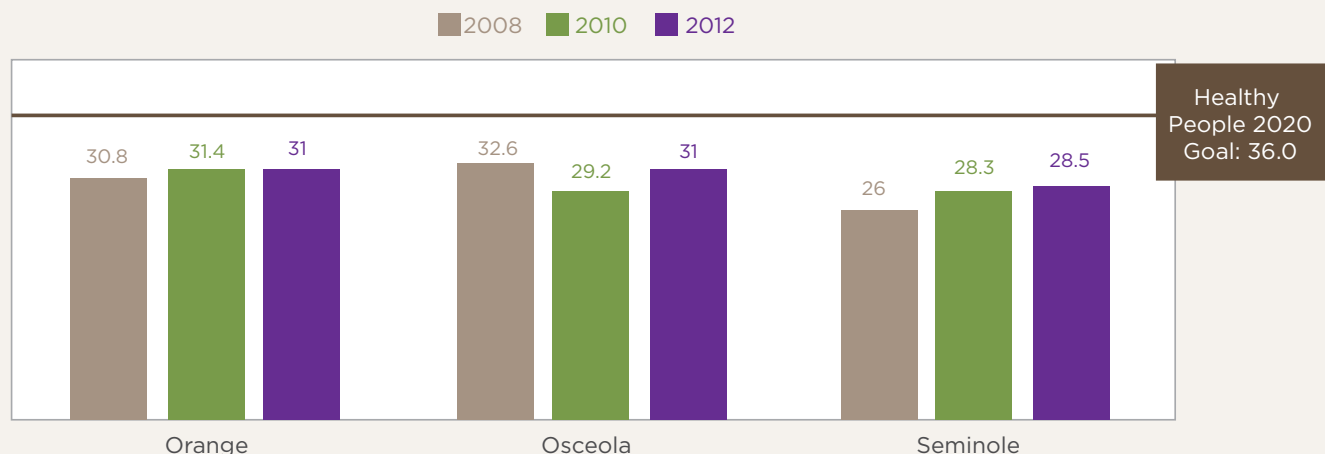
Unintentional injuries are a leading cause of death and disability for Americans of all ages, regardless of gender, race, or economic status. In 2012, unintentional injuries were the fourth leading cause of death overall in the State of Florida. Unintentional injuries include: poisonings; drowning; burns; suffocation; falls; certain firearm injuries; and motor vehicle accidents. Homicide, suicide, and intentional acts of violence resulting in injury are not included in the definition of unintentional injuries.

According to the U.S. Department of Health and Human Services, most events resulting in injury, disability, or even death are predictable and preventable. Unintentional injuries not only contribute to premature death and disability, but also poor mental health, high medical costs and lost productivity. The table and chart below describe the mortality rate due to unintentional injuries in the tri-county region.

**Table 10. Unintentional Injuries**

County	2008	2010	2012	Healthy People 2020
Orange	30.8	31.4	31	36.0
Osceola	32.6	29.2	31	36.0
Seminole	26	28.3	28.5	36.0

**Chart 4. Unintentional Injuries per 100,000**



# MORBIDITY

Morbidity is the public health term used to describe the occurrence of disease in a population. Morbidity is often used alongside the terms “incidence” and “prevalence.” Incidence describes the rate of new disease in a population. Prevalence describes the total number of persons with a disease in the population—including new disease. When two or more diseases exist within one individual, those diseases are said to be “co-morbid.” The “morbidity rate” is the term for how researchers measure the impact of, or quantify disease. The following section gives in more detail the most common morbidities in the tri-county region and at what rate they affect the population.

## High Blood Pressure

According to the Centers for Disease Control and Prevention, high blood pressure (hypertension) affects 1 out of 3 people in the nation making it one of the most common chronic morbidities in the country. One-third of individuals who have high blood pressure are not aware they have it. Often there are no symptoms or warning signs associated with high blood pressure and as a result, it is often referred to as the “silent killer.” The only way to detect high blood pressure is to get it checked.

High blood pressure is the number one modifiable risk factor for stroke (cerebrovascular accident) and also contributes to heart attacks, heart failure, kidney failure, and hardening of the arteries. Genetic, lifestyle, and social factors contribute to high blood pressure; nonetheless, hypertension is preventable in many cases and remains one of the most treatable chronic conditions. Maintaining a healthy lifestyle through diet and exercise while avoiding tobacco and limiting alcohol can help control blood pressure. The table below indicates the percentage of residents in the tri-county area who have been diagnosed with hypertension by a health professional.

Table 11. High Blood Pressure Prevalence

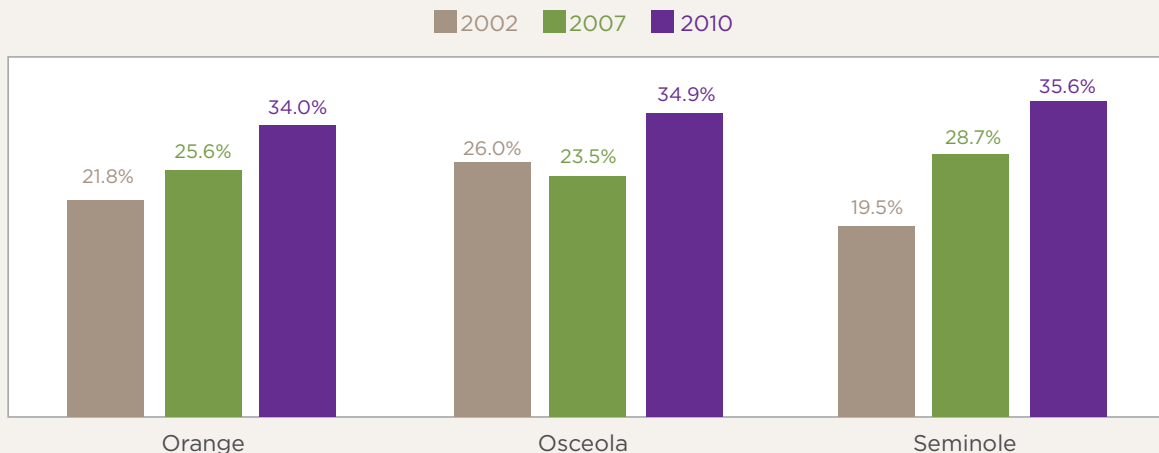
County	Percent	Healthy People 2020 Target	Trend
Orange	34.0%	26.9%	↑
Osceola	34.9%	26.9%	↑
Seminole	35.6%	26.9%	↑

Source: 2010 Behavioral Risk Factor Surveillance System (BRFSS) County Data Reports

In the tri-county area, the prevalence of high blood pressure is higher than the national rate. In addition, there is a noticeable upward trend in all three counties. Measurements over the past 10 years indicate that hypertension has been on an upward trajectory since the first survey in 2002. The chart on the following page shows this increase in all three counties more clearly.

**Chart 5.**

**High Blood Pressure Prevalence**



**High Cholesterol**

Cholesterol is a waxy, fat-like substance that is found in blood and is needed by the body. However, when there is too much cholesterol in the blood it can build up on the walls of the body's arteries. This buildup of fatty deposits in the blood is known as high blood cholesterol and makes it difficult for enough blood to flow through the arteries. As a result, the oxygen-rich blood the heart needs decreases and thus increasing the risk of heart disease that is the leading cause of death in the United States. High cholesterol is also a risk factor for stroke, the third leading cause of death in the nation. High cholesterol has no symptoms and the only way to detect it is through a blood test.

While high cholesterol can be inherited, it is often the result of unhealthy lifestyle choices. Therefore, it is preventable and treatable. In order to control cholesterol the following is recommended: eat a healthy diet; maintain a healthy weight; exercise regularly; do not use tobacco; and consult a physician to receive medical treatment when necessary. The following table describes the prevalence of high blood cholesterol in Orange, Osceola, and Seminole Counties.

**Table 12. High Cholesterol Prevalence**

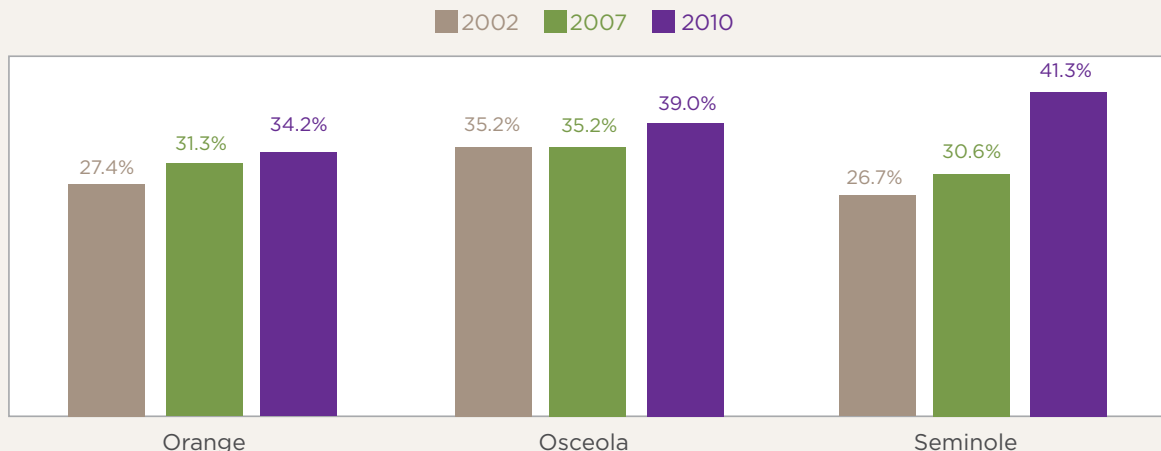
County	Percent	Healthy People 2020 Target	Trend
Orange	34.2%	13.5%	↑
Osceola	39.0%	13.5%	↑
Seminole	41.3%	13.5%	↑

Source: 2010 Behavioral Risk Factor Surveillance System (BRFSS) County Data Reports

The highest cholesterol rate in the tri-county area was among the adult population in Seminole County at 41.3%. Orange County adults had the lowest rate at 34.2%. Similar to hypertension, all counties have reported an increase in persons living with high cholesterol between 2002 and 2010. The following chart reflects the prevalence in 2002, 2007, and 2010.

**Chart 6.**

**High Cholesterol Prevalence**



**Overweight and Obesity**

According to the CDC, during the past 20 years, there has been a dramatic increase in obesity in the United States and rates remain high. Currently, 1 in 3 adults and 1 in 6 children and adolescents are obese. This is important because the percentage of overweight and obese adults is an indicator of the overall health and lifestyle of a community. A person is considered overweight if they have a body mass index (BMI) between 25 and 29.9, and obese if BMI is 30 or above. BMI is a measurement that indicates the ratio of weight in kilograms to height in meters. Although BMI is not a completely comprehensive measurement, it is an accurate proxy for waist circumference. Waist circumference is directly related to risk for metabolic conditions such as diabetes.

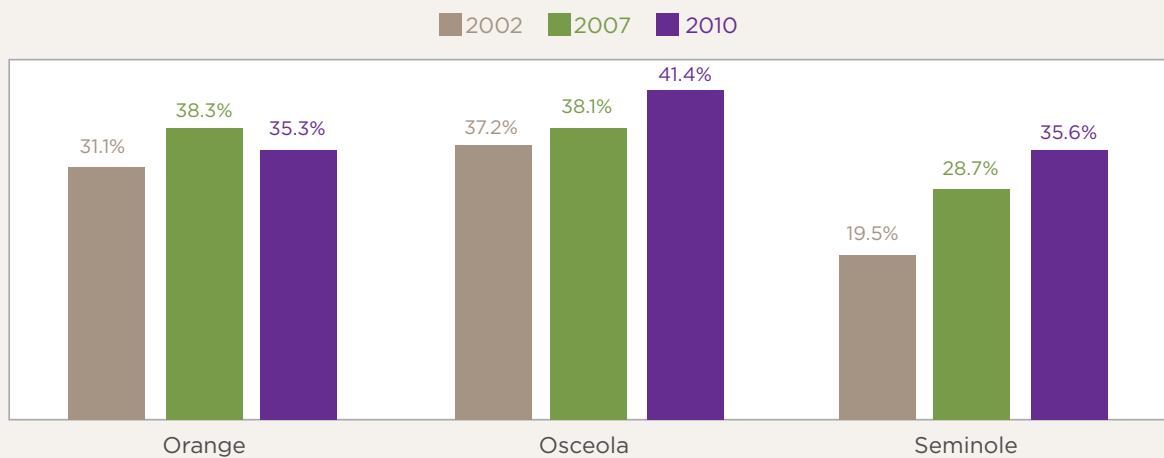
Having excess body fat is known to negatively affect quality of life and increases the risk for developing many health conditions such as heart disease, stroke, diabetes, and cancer. Additionally, being overweight or obese increases the risk of adverse health outcomes and has significant economic impacts. These impacts include a rise in healthcare spending over time and lost earnings and productivity due to illness. There are several factors that influence overweight and obesity such as individual behavior, the social and built environment, and genetic heritability. As a result, being overweight or obese is a complex health issue to address. Good nutrition, physical activity, and maintaining a healthy body weight can help to prevent overweight and obesity, and can promote overall health and well-being.

The following table and chart describe the percent of adults in the tri-county region who are overweight and the trend surrounding this chronic condition. Of note is the fact that more than 35% of residents in each county are overweight.

**Table 13. Adults who are Overweight**

County	Percent	Trend
Orange	35.5%	↓
Osceola	41.4%	↑
Seminole	38.4%	↑

Source: 2010 Behavioral Risk Factor Surveillance System (BRFSS) County Data Reports

**Chart 7.****Percent of Adults Who Are Overweight**

The following table describes the prevalence of obesity in the tri-county region. Although a slightly smaller number of adults fall into the category of obesity, being overweight puts one at great risk for eventually becoming obese. In all three counties, obesity is trending upward. If successful interventions are not implemented in the coming years, we can expect to see more obese Central Floridians.

**Table 14. Adults who are Obese**

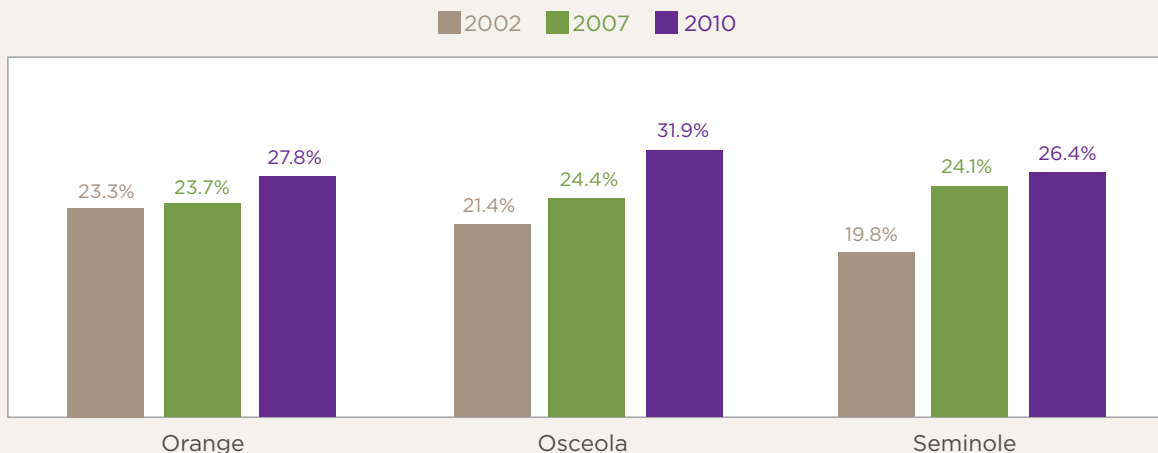
County	Percent	Healthy People 2020 Target	Trend
Orange	27.8%	30.5%	↑
Osceola	31.9%	30.5%	↑
Seminole	26.4%	30.5%	↑

Source: 2010 Behavioral Risk Factor Surveillance System (BRFSS) County Data Reports



**Chart 8.**

**Percent of Adults Who Are Obese**



## Diabetes

Diabetes occurs when the body cannot produce or respond appropriately to insulin. Insulin is a hormone the body needs to absorb and use glucose (sugar) as fuel for the body's cells. According to the CDC, diabetes is the seventh leading cause of death in the U.S. In 2010, 25.8 million Americans, or 8.3% of the population, had diabetes. Of those 25.8 million Americans, 7 million were undiagnosed. In addition, 79 million Americans are believed to have pre-diabetes.

The rate of diabetes is on the rise in many places including Orange and Seminole Counties. In Osceola County, the prevalence of diabetes has remained steady since 2007. This is important because diabetes can lead to the development of serious and disabling complications if not properly treated. Complications include heart disease and stroke, high blood pressure, blindness, kidney disease, and limb amputation. As the occurrence of diabetes rises, so do related costs. According to the American Diabetes Association, in 2012, \$245 billion was attributed to diagnosed diabetes in the U.S. (\$176 billion for direct medical costs and \$69 billion for lost productivity). In spite of these numbers, it is possible to prevent or delay diabetic complications through a healthy diet, physical activity, maintaining a healthy weight, glucose testing, and medication. The table and chart below describe the prevalence of diabetes in the tri-county region.

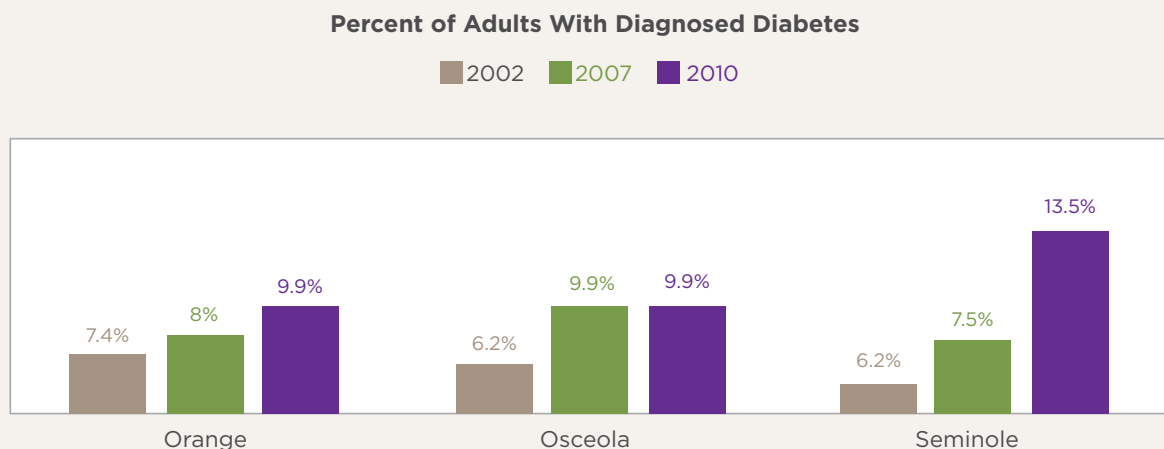
**Table 15. Percent of Adults with Diagnosed Diabetes**

County	Percent	Healthy People 2020 Target	Trend
Orange	9.9%	7.2%	↑
Osceola	9.9%	7.2%	=
Seminole	13.5%	7.2%	↑

Source: 2010 Behavioral Risk Factor Surveillance System (BRFSS) County Data Reports

In Seminole County, 13.5% of the population has been diagnosed with diabetes. This is higher than the percentage of residents living with the disease in Orange and Osceola Counties at 9.9%.

**Chart 9.**



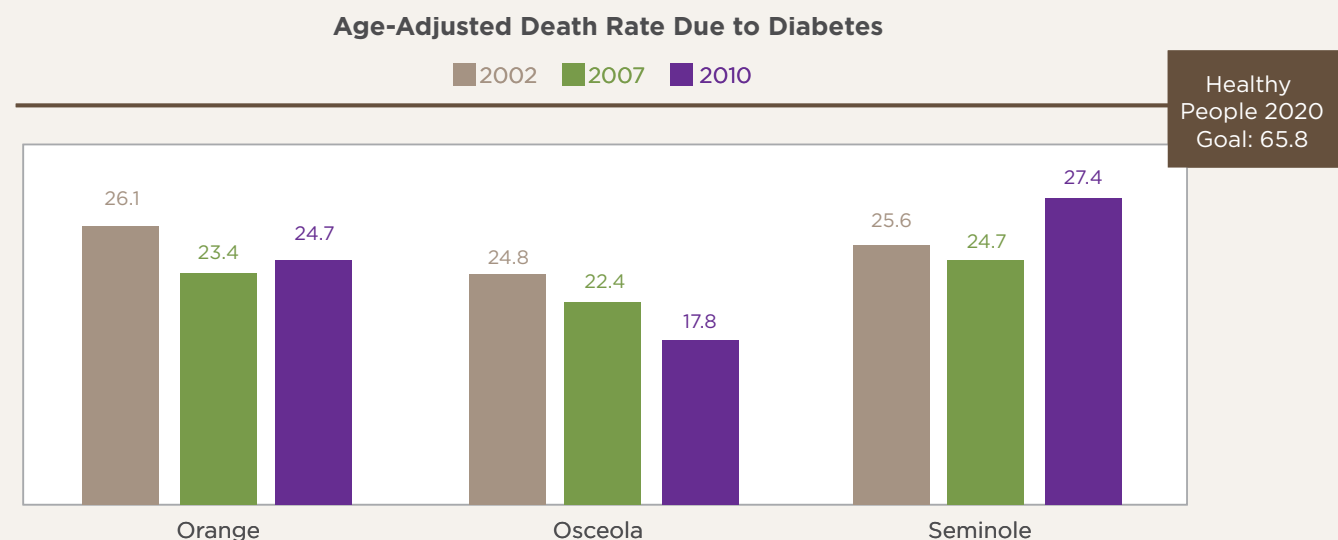
Hospitalizations related to diabetes have increased from 2007 to 2011 in all counties. The highest rate was in Osceola County at 3,273.4/100,000 and the lowest was in Seminole County at 2,176.3/100,000. For children, hospitalization rates for diabetes were higher among those aged 12-18 years in Orange County. Diabetes is also a leading cause of death in Orange, Osceola, and Seminole Counties; however, all three counties are already significantly below the Healthy People 2020 goal. Below is a description of the diabetes mortality rate in the tri-county region.

**Table 16. Age-adjusted Death Rate Due to Diabetes**

County	Rate	Healthy People 2020 Target	Trend
Orange	24.7	65.8%	↑
Osceola	17.8	65.8%	↓
Seminole	27.4	65.8%	↑

Source: Florida CHARTS 2012

**Chart 10.**



## Asthma

Asthma is a chronic inflammatory disorder that affects the airways in the lungs. Asthma causes tightness in the chest, coughing and wheezing. These symptoms are often brought on by exposure to inhaled allergens (i.e., dust, pollen, cigarette smoke, pollution, and animal dander) or by exertion and stress. Asthma is one of the most common long-term diseases of children; however, adults can also have asthma.

According to Healthy People 2020, more than 23 million people in the U.S. have asthma and its incidence is on the rise. Asthma presents both health and economic concerns for the United States. According to the CDC, asthma costs the U.S. \$56 billion each year. However, medication and avoiding triggers that can cause an asthma attack may help to control asthma symptoms. The table below describes the prevalence of asthma in adults in the tri-county area.

**Table 17. Adults who have Asthma**

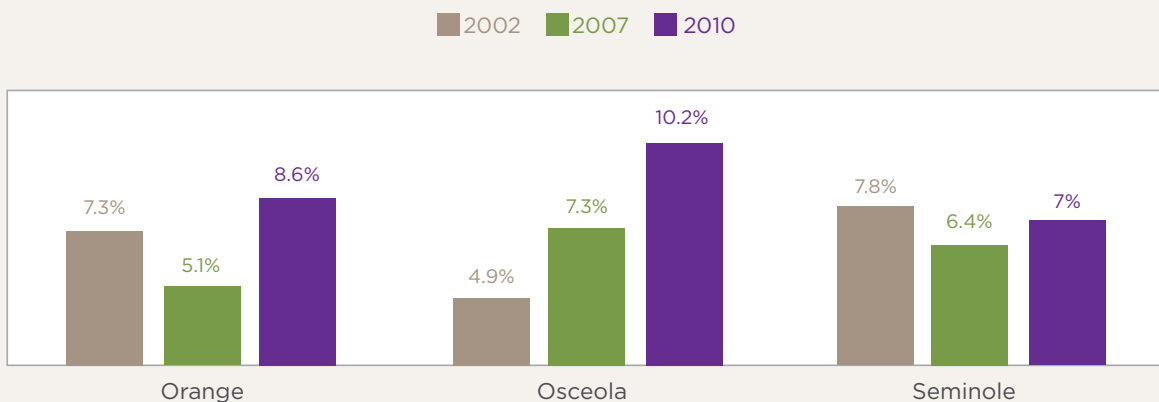
County	Percent	Trend
Orange	8.6%	↑
Osceola	10.2%	↑
Seminole	7.0%	↑

Source: 2010 Behavioral Risk Factor Surveillance System (BRFSS) County Data Reports

The percentage of adults diagnosed with asthma has increased in the tri-county area over the past three years. In Osceola, 10.2% of adults reported having asthma. This was an increase from 7.3% in 2007. A similar trend was observed in Orange County where the percent of adults with asthma rose from 5.1% in 2007 to 8.6% in 2010.

**Chart 11.**

**Percent of Adults With Have Asthma**



The percentage of students diagnosed with asthma ranged from 15.8% among middle school students in Orange County to 23.2% among high school students in Osceola County. Hospitalization rates for asthma increased from 2007 to 2011 in the tri-county area. The lowest rates were among Seminole County residents for adults and children. The tables below are a more succinct description of childhood asthma in Orange, Osceola, and Seminole Counties.

**Table 18. Hospitalizations from or with Asthma – Children**

Year	ORANGE	OSCEOLA	SEMINOLE
2009-2011	952.6	1,088.6	664.4
2007-2009	867.8	904.2	583.3

**Table 19. Hospitalization for Asthma – Children**

Age Group	ORANGE	OSCEOLA	SEMINOLE
Ages 1-5	730.6	936	455.7
Ages 5-11	437.1	495.3	255.7
Ages 12-18	311.9	329.6	309.9

Additional health indicator data for chronic disease is located in Appendix A.

## YEARS OF POTENTIAL LIFE LOST

Years of Potential Life Lost (YPLL)-75 is an estimate of premature mortality before the age of 75; this measure is calculated by subtracting age at death from 75. Using this measure, we would say that a person who died at the age of 2 lost 73 potential life years ( $75 - 2 = 73$ ). YPLL is different from absolute mortality in that it takes into account the age of the deceased at the time of passing. Persons over 75 years of age are not captured in this measure as the cutoff age is 75; therefore, a very high YPLL rate is used to indicate whether or not a population is experiencing an increase in preventable causes of death. For this reason, suicide and motor vehicle crashes are commonly among the top five causes for years of potential life lost. The table below describes the seven most common causes of premature death in the tri-county region and a visual representation of how YPLL changes from year to year.

**Table 20. Years Potential Life Lost**

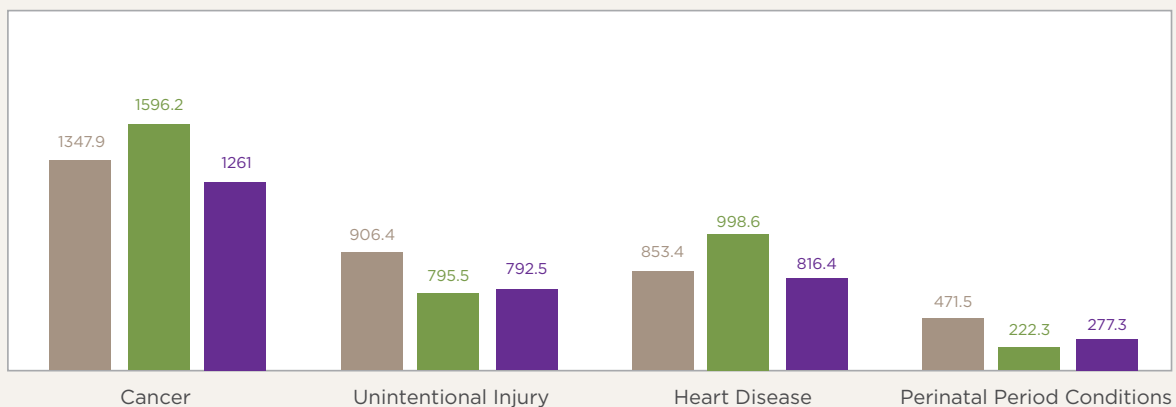
Indicator	ORANGE	OSCEOLA	SEMINOLE
Cancer	1357.9	1596.2	1261.0
Unintentional Injury	906.4	795.5	792.5
Heart Disease	853.4	998.6	816.4
Perinatal Period Conditions	471.5	222.3	277.3
Suicide	315.7	279.7	404.4
Homicide	308.6	138.7	211.9
Diabetes Mellitus	150.8	105.5	187.6
Human Immunodeficiency Virus (HIV)	133.7	48.1	53.1
Cerebrovascular Diseases	129.4	133.9	167.2
Chronic Liver Disease & Cirrhosis	121.3	165.2	168.5

Source: Florida Department of Health, Bureau of Vital Statistics

**Chart 12.**

### Years of Potential Life Lost

Orange Osceola Seminole



Additional health indicator data for YPLL is located in Appendix A.



## ACCESS TO CARE

Access to comprehensive, quality healthcare services is important for increasing the quality of a healthy life for everyone. Disparities in access to health services affect individuals and society. Limited access to healthcare affects people's ability to reach their full potential, negatively affecting their quality of life. One of the biggest barriers to accessing healthcare is lack of insurance coverage.

### Health Insurance Coverage for Adults

Adults with any type of health insurance ranged from 84.8% in Orange County to 78.6% in Osceola County. This is below the Healthy People 2020 target of 100%. Health insurance by age group was highest among adults, aged 65 years and older who are covered by Medicare. Adults aged 45-64 had slightly lower rates of insurance coverage. Younger adults, aged 18-44 had slightly lower rates of insurance for Orange, Osceola, and Seminole Counties at 80.9, 72.7, and 77.5%, respectively. Insurance coverage differed among adults based on education level. The percent of adults covered by health insurance was lowest among those with less than a high school education. Coverage was 74.2% in Orange County and 67.8% in Osceola County. Data was not available for Seminole County. The overall percent of adults covered by health insurance increased as income increased. Rates of coverage were highest among adults with incomes of \$50,000 or more. The percent of adults with health insurance in this category ranged from 94.3% in Osceola County to 96.8% in Seminole County. The aforementioned data are in a table below.

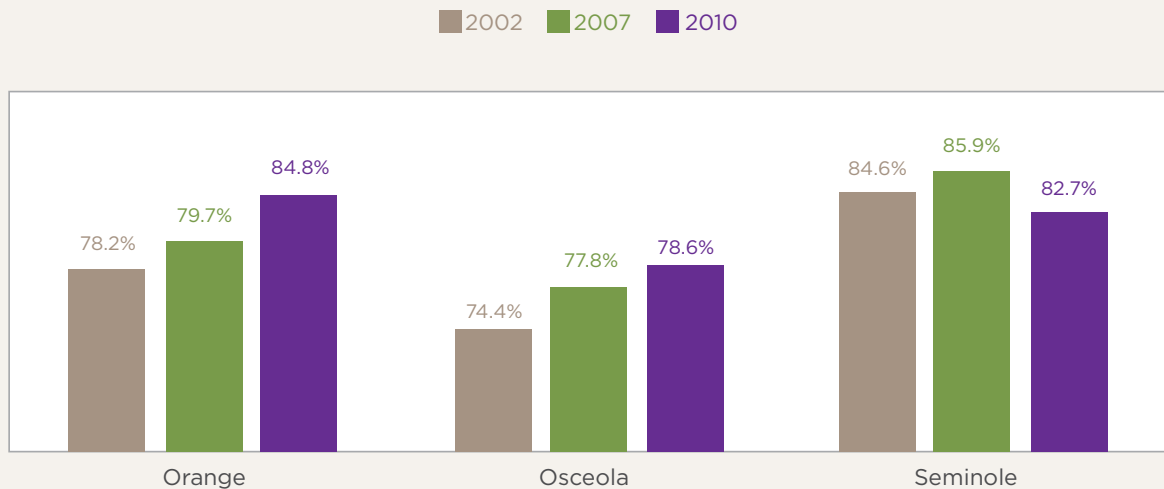
**Table 21. Insurance Coverage Estimates by Age, Education, and Income**

		ORANGE	OSCEOLA	SEMINOLE
<b>Age</b>	All	84.8%	78.6%	82.7%
	18-44 years	80.9%	72.7%	77.5%
	45-64 years	84.1%	76.7%	80.6%
	65 and older	97.3%	98.2%	99.6%
<b>Education</b>	< High School	74.2%	67.8%	n/a
	High School/GED	78.4%	73.7%	75.1%
	> High School	87.4%	82.9%	86.5%
<b>Income</b>	< \$25,000	63.6%	55.1%	61.3%
	\$25,000 - \$49,999	77.2%	80.0%	75.2%
	\$50,000 or more	96.3%	94.3%	96.8%

Source: Behavioral Risk Factor Surveillance System (BRFSS) County Data Reports

Chart 13.

### Percent of Adults with Health Insurance Coverage



### Health Insurance Coverage for Children

Florida KidCare is the state's health insurance program for uninsured children. The 1998 Florida Legislature created the Florida KidCare Program, which provides healthcare coverage to children in families with incomes up to 200% of the federal poverty level. KidCare consists of four programs:

**MediKids** is a program that offers low-cost health insurance coverage for children aged 1-4 years. It is administered by the Agency for Health Care Administration.

**Florida Healthy Kids** provides healthcare coverage for children aged 5-18 years and is administered by the Florida Healthy Kids Corporation.

**Children's Medical Services Network** is a healthcare plan for children from birth through 18 years of age with special healthcare needs. The program is administered by the Department of Health for physical health services and the Department of Children and Family Services for behavioral health.

**Medicaid for Children** provides medical coverage for children from birth through 18 years of age who qualify for the program's low-income eligibility requirement. The Agency for Health Care Administration administers the Medicaid program and the Department of Children and Family Services determines eligibility for Medicaid.

According to the American Community Survey, Seminole County had the highest percentage of insured children at 89.6%. This was closely followed by Orange County with 87.7% of children having any type of health insurance coverage. In Osceola, 86.9% of children had health insurance. The Healthy People 2020 aim is to have 100% of children insured.

**Table 22. Florida KidCare Enrollment as of 2/1/2012**

	ORANGE	OSCEOLA	SEMINOLE
Healthy Kids	13,538	4,923	4,681
Medikids	1,926	650	681
CMS	1,241	528	432
Medicaid	123,373	41,102	28,525

Source: Agency for Health Care Administration

### Monthly Medicaid Enrollment

Medicaid makes it possible for low-income individuals and families to get the care they need to become or stay healthy. Monitoring monthly Medicaid enrollment provides an indication of the economic capacity of a population to obtain healthcare. Monthly Medicaid enrollment increased in all three counties during 2009-2011.

### Adults with a Usual Source of Healthcare

People without a regular source of healthcare may not receive proper medical services when needed. This can lead to missed diagnoses, untreated conditions, and adverse health outcomes. Delaying treatment until the condition is more advanced is generally more difficult and costly to treat. Adults with a usual source of healthcare in the tri-county area ranged from 76.3% in Osceola County to 83.3% in Seminole County.

### Dental Care Access

Oral health reflects and influences general health and well-being. Monitoring access to dental care by low-income individuals helps bring awareness of oral health disparities. In the tri-county area, the percent of low-income individuals with access to dental care has continually increased during the past four years. The percent of adults who did not visit a dentist due to cost is highest in Osceola County at 20.2%.

Additional health indicator data for access to care is located in Appendix A.

## CANCER SCREENINGS

As previously mentioned in the mortality section, cancer is a leading cause of death in the tri-county region. However, cancer screening can be effective in detecting certain types of cancer that could lead to successful treatment and a lower death rate; the cancers below denote the most common cancers with screening tests:

- Breast cancer (mammography)
- Cervical cancer (Pap tests)
- Colorectal cancer (fecal occult blood testing, sigmoidoscopy, or colonoscopy)

According to current research, it is critical to assess whether people understand and remember the information they receive about cancer screening. A recommendation from a healthcare provider is the most important reason patients cite for having cancer screening tests. For cancers with evidence-based screening tools, early detection must include the continuum of care from screening to appropriate follow-up of abnormal test results and referral to cancer treatment. The United States Preventive Services Task Force (USPSTF) recommendations offer guidance when selecting interventions aimed at reducing cancer deaths. Screening grades and recommendations are provided in the table below.

**Table 23. ORANGE COUNTY**

Health Screenings	Percent	Trend	Healthy People 2020 Target	US Preventive Services Task Force Grades/ Recommendations*
Women 40 years and older who received a mammogram in the past year	51.2%	↓	81.1%	B/Women 50-74 years
Women 18 years and older who received a Pap test in the past year	57.4%	↓	93.0%	A/Sexually active women with a cervix
Adults 50 years and older who received a sigmoidoscopy or colonoscopy in the past five years	49.8%	↑	70.5%	A/Adults 50-75 years
Adults 50 years and older who received a blood stool test in the past year	12.4%	↓	n/a	A/Adults 50-75 years
Men 50 years and older who received a PSA test in the past two years	69.1%	**	n/a	D/Men in the general public

Source: Behavioral Risk Factor Surveillance System (BRFSS) County Data Reports; the USPSTF Guides and Recommendations

\*Please see Appendix B \*\* Not enough data to establish a trend

**Table 24. OSCEOLA COUNTY**

Health Screenings	Percent	Trend	Healthy People 2020 Target	US Preventive Services Task Force Grades/ Recommendations*
Women 40 years and older who received a mammogram in the past year	48.6%	↓	81.1%	B/Women 50-74 years
Women 18 years and older who received a Pap test in the past year	50.3%	↓	93.0%	A/Sexually active women with a cervix
Adults 50 years and older who received a sigmoidoscopy or colonoscopy in the past five years	50.0%	↑	70.5%	A/Adults 50-75 years
Adults 50 years and older who received a blood stool test in the past year	11.7%	↓	n/a	A/Adults 50-75 years
Men 50 years and older who received a PSA test in the past two years	64.3%	**	n/a	D/Men in the general public

Source: Behavioral Risk Factor Surveillance System (BRFSS) County Data Reports; the USPSTF Guides and Recommendations

\*Please see Appendix B \*\* Not enough data to establish a trend

**Table 25. Seminole County**

Health Screenings	Percent	Trend	Healthy People 2020 Target	US Preventive Services Task Force Grades/ Recommendations*
Women 40 years and older who received a mammogram in the past year	50.5%	↓	81.1%	B/Women 50-74 years
Women 18 years and older who received a Pap test in the past year	56.3%	↓	93.0%	A/Sexually active women with a cervix
Adults 50 years and older who received a sigmoidoscopy or colonoscopy in the past five years	53.3%	↓	70.5%	A/Adults 50-75 years
Adults 50 years and older who received a blood stool test in the past year	15.5%	↓	n/a	A/Adults 50-75 years
Men 50 years and older who received a PSA test in the past two years	70.2%	**	n/a	D/Men in the general public

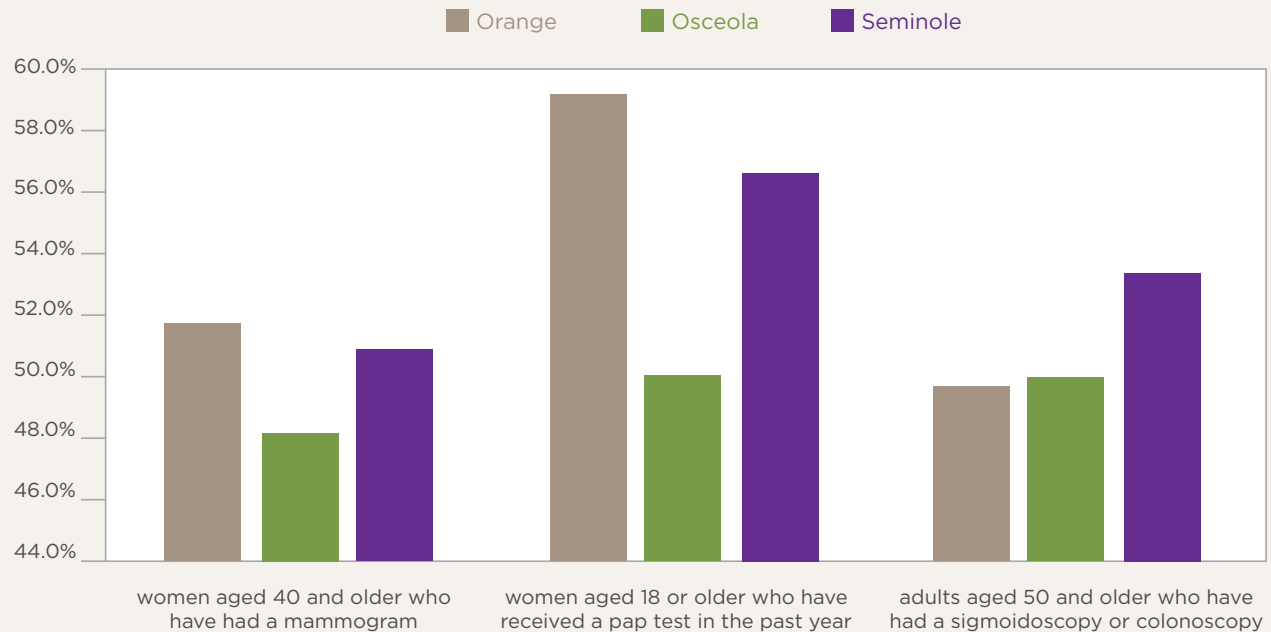
Source: Behavioral Risk Factor Surveillance System (BRFSS) County Data Reports; the USPSTF Guides and Recommendations

\*Please see Appendix B \*\* Not enough data to establish a trend



Cancer screening rates for all counties were well below the Healthy People 2020 targets for breast, cervical, and colon cancer screenings. Additionally, the percentage of people reporting having had a screening test in the past three years has decreased. This has negative implications for early detection and survival rates for cancer. The graph below compares screening rates among the three counties. Notably, there is a significant disparity for female screenings between Osceola County and the other two counties.

**Chart 14.**



Additional health indicator data for cancer screenings is located in Appendix A.

## ADULT IMMUNIZATIONS

### Influenza Vaccination

Influenza, more commonly called “the flu”, is a contagious disease caused by the influenza virus. It can lead to pneumonia and can be dangerous for people with heart or breathing conditions. Vaccination rates among adults 65 years and older decreased slightly from 2007 to 2010. Rates in the tri-county area ranged from 61.7% in Orange County to 56.0% in Osceola County.

### Pneumonia Vaccination

Pneumonia is the leading cause of vaccine-preventable death and illness in the United States. The pneumococcal vaccine is very effective at preventing severe disease, hospitalization, and death. In the tri-county area, vaccination rates ranged from 65.2% in Osceola County to 61.6% in Orange County. The rates increased in Osceola and Seminole Counties from 2007-2010. During the same time period, vaccination rates decreased among Orange County adults 65 years and older. The following tables and charts describe the percent of influenza and pneumonia vaccination in the tri-county region.

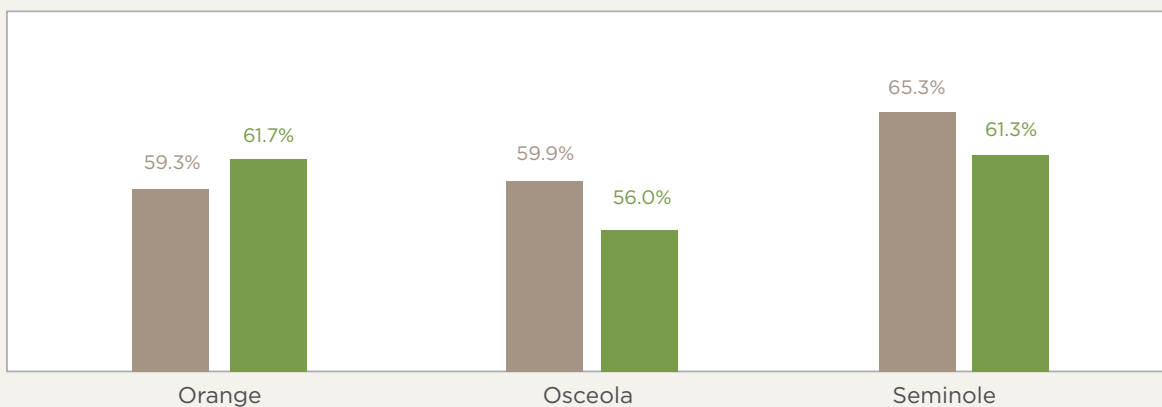
**Table 26. Influenza Vaccination Adults 65+**

Year	ORANGE	OSCEOLA	SEMINOLE
2007	59.3%	59.9%	65.3%
2010	61.7%	56.0%	61.3%

**Chart 15.**

**Influenza Vaccination Adults 65+**

■ 2007 ■ 2010



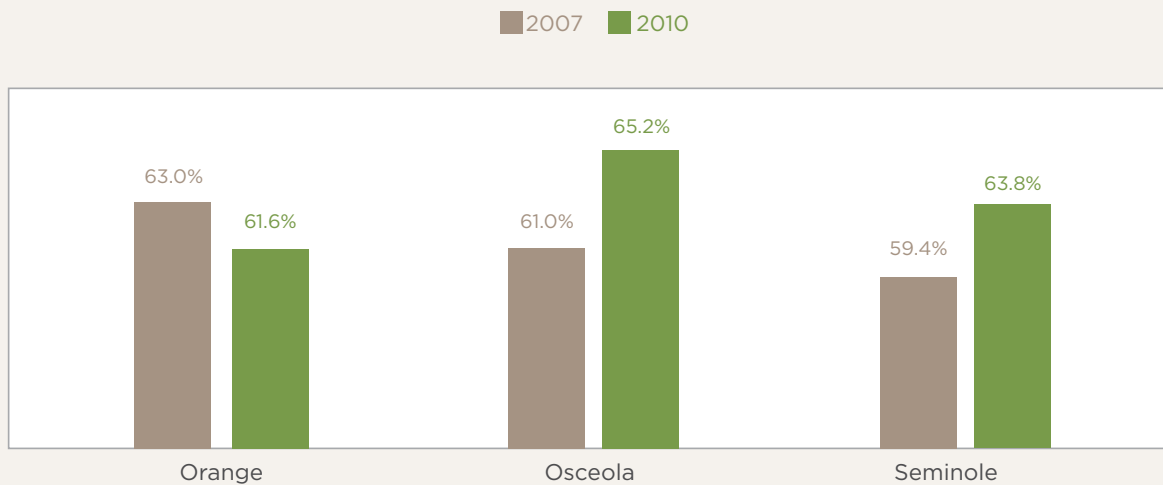
**Table 27. Pneumonia Vaccination Adults 65+**

Year	ORANGE	OSCEOLA	SEMINOLE
2007	63.0%	61.0%	59.4%
2010	61.6%	65.2%	63.8%

Source: Behavioral Risk Factor Surveillance System

**Chart 16.**

**Pneumonia Vaccinations Adults 65+**



Additional health indicator data for adult immunization is located in Appendix A.

## MATERNAL AND CHILD HEALTH

The well-being of mothers and children determine the health of the next generation and can help predict future public health issues for families, communities, and the healthcare system. According to Healthy People 2020, pregnancy can provide an opportunity to identify existing health risks in women and to prevent future health problems for women and their children. These health risks may include: hypertension; heart disease; diabetes; depression; genetic conditions; sexually transmitted diseases (STDs); tobacco use; alcohol abuse; inadequate nutrition; and obesity.

The risk of maternal and infant mortality and pregnancy-related complications can be reduced by increasing access to quality preconception (before pregnancy) and inter-conception (between pregnancies) care. Moreover, healthy birth outcomes and early identification and treatment of health conditions among infants can prevent death or disability and enable children to reach their full potential.

**Infant Mortality** is the death of a live-born baby during the first year of life. Orange and Seminole Counties were slightly above the Healthy People 2020 target of 6.0 deaths/1,000 live births with a rate of 6.9 and 6.8 respectively. Osceola had the lowest infant mortality rate at 4.4 deaths/1,000 live births. In order to describe the age of an infant at death, the following categories are also utilized:

- **Fetal Mortality** is the death of a fetus baby after 20 weeks of gestation. The rate of fetal deaths has met the Healthy People 2020 target of 5.6/1,000 live births in Seminole County. In Orange and Osceola Counties, the fetal death rate is 7.3 deaths/1,000 live births.
- **Neonatal Mortality** is the death of a live-born baby before the 28<sup>th</sup> day of life. The neonatal mortality rate was highest in Orange County at 5.1/1,000 live births and lowest in Osceola County at 3.1/1,000 live births.
- **Post-Neonatal Mortality** is the death of a live-born baby from the 28<sup>th</sup> day of life to the first birthday. The rate in Osceola County, 1.3/1,000 live births, was the lowest in the tri-county area and below the Healthy People 2020 target of 2.0/1,000 live births. The highest rate was in Seminole County at 2.3/1,000 live births.
- **Sudden Infant Death Syndrome (SIDS)** is the death of a live-born baby within the first year of life due to an unexplained cause not predicted by medical history. The SIDS rate in Osceola and Seminole Counties are statistically unreliable due to the fact that less than 5 children in each county reportedly died from SIDS. The rate in Orange County is 1 death per 1,000 live births.

### Birth Outcomes

- **Preterm Birth** is the birth of a live baby before reaching 37 weeks of gestation. These babies have lower chances of survival and higher chances of short and long-term health problems when compared to full term babies. The rates in the tri-county area are above the Healthy People 2020 target of 11.4% of live births. The highest rates were in Orange, at 16.6%, and Osceola, at 15.9%. Seminole County was slightly lower with a rate of 13.8%.
- **Low Birth Weight** is birth weight below 2,500 grams or 5.5 pounds. All three counties had comparable rates between 8.3 and 8.4% that exceed the Healthy People 2020 goal of 7.8%.
- **Very Low Birth Weight** is birth weight below 1,500 grams or 3.3 pounds. The rates in Osceola and Seminole Counties have met the Healthy People 2020 target of 1.4% of total births. The rate for Orange County was slightly higher at 1.8%.
- **Multiple Births** have increased chances of health complications for the mother and babies. The rates in the tri-county area had a very small range between 3.0 and 3.3% of births
- **Major Birth Defects** are conditions present at birth, which cause structural changes in one or more parts of the body. They can have a serious, adverse effect on health, development, or functional ability. Birth defect rates for the tri-county area can be found in Table 28.

The Healthy People 2020 targets for all mortality indicators have not been met. The rates for infant and neonatal mortality are moving in the wrong direction. Deaths due to SIDS should be interpreted with caution as the actual number of deaths is small. The percentage of mothers receiving early prenatal care continues to increase and has surpassed the Healthy People 2020 target. Improvement is still needed to address overweight status at conception and smoking during pregnancy.

With the exception of very low birth weight in Osceola County, the percentage of babies born preterm or at a very low weight exceeds the national target rates. Historical data indicates that the percentages for these indicators have decreased in the past three years. The percentage of babies born at low birth weight has remained stable over the same time period. Indicators for birth defects show that the rates have either decreased or remained stable over the past two reporting periods.

Preterm births and babies born with low birth weight are at increased risk for serious health problems as newborns, lasting disabilities, and even death. Preconception and early prenatal care can provide optimal birth outcomes for all mothers and babies. Preterm and low birth weight rates were mapped to provide additional information for targeting specific populations with interventions to improve birth outcomes. The zip codes in the dark brown zone indicate the highest rates for both indicators. The tan and beige zones denote the second and third highest rates respectively.

**Figure 13.**

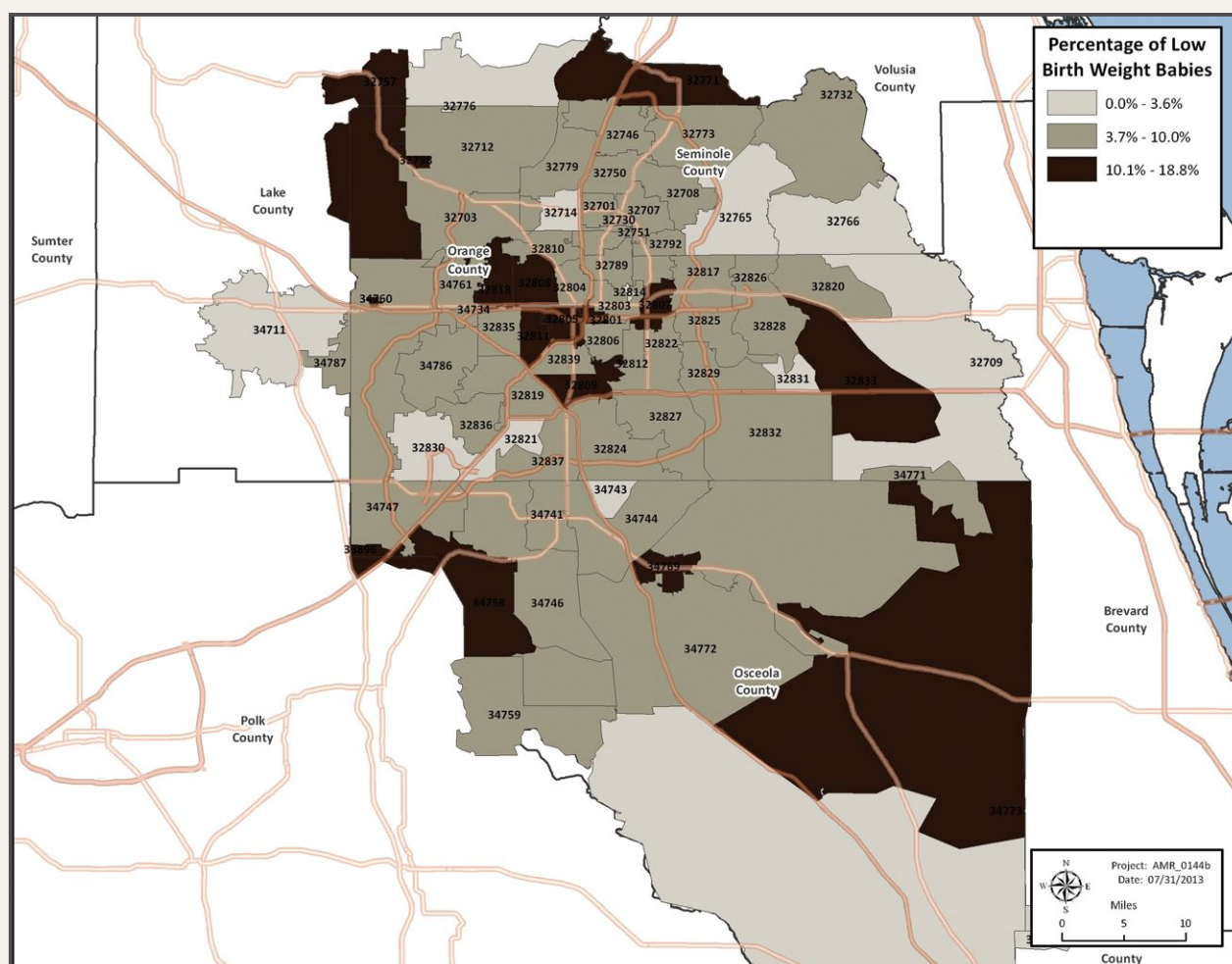
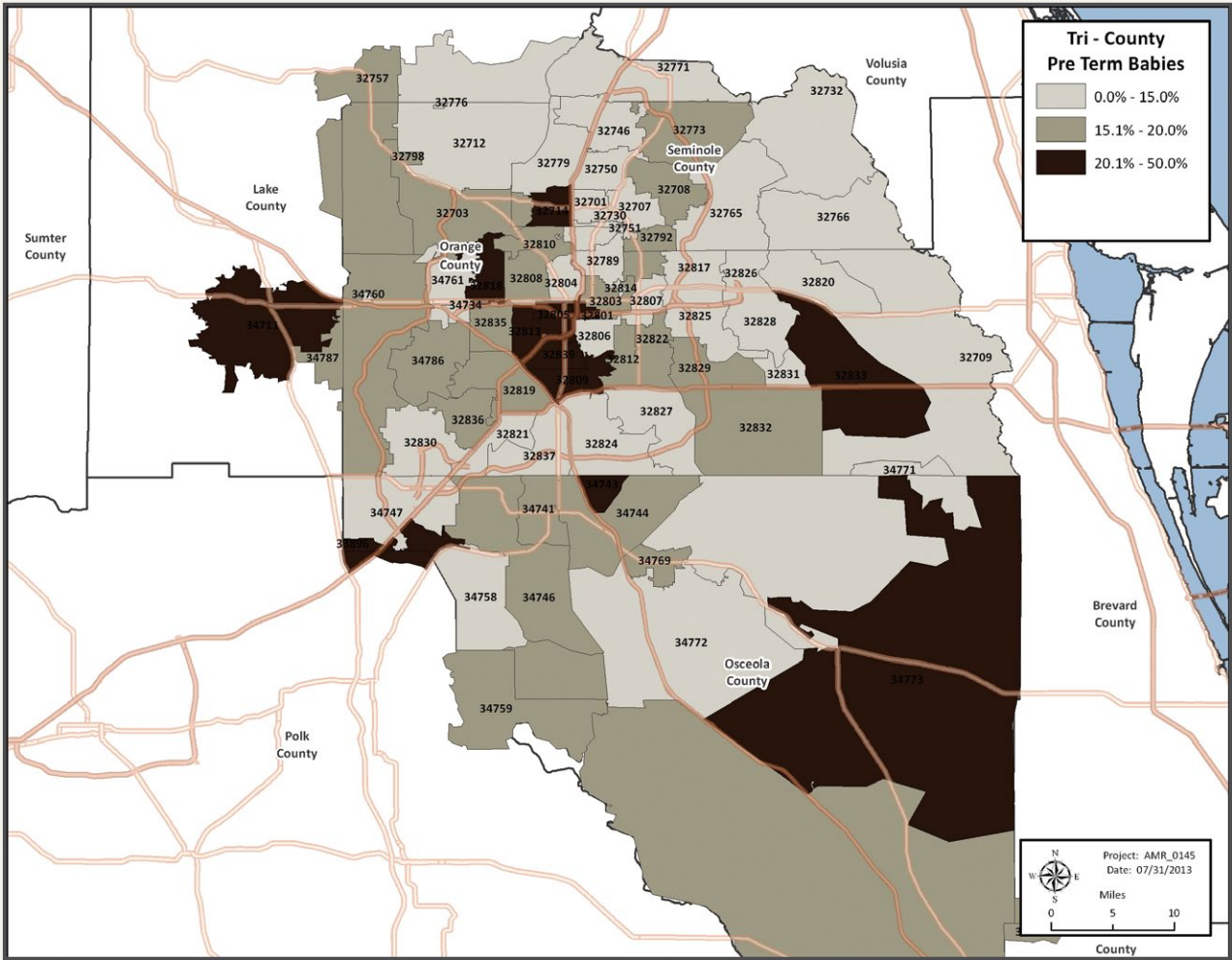




Figure 14.



**Table 28. Indicator****ORANGE****OSCEOLA****SEMINOLE****Healthy People  
2020 Target****Mortality (per 1,000)**

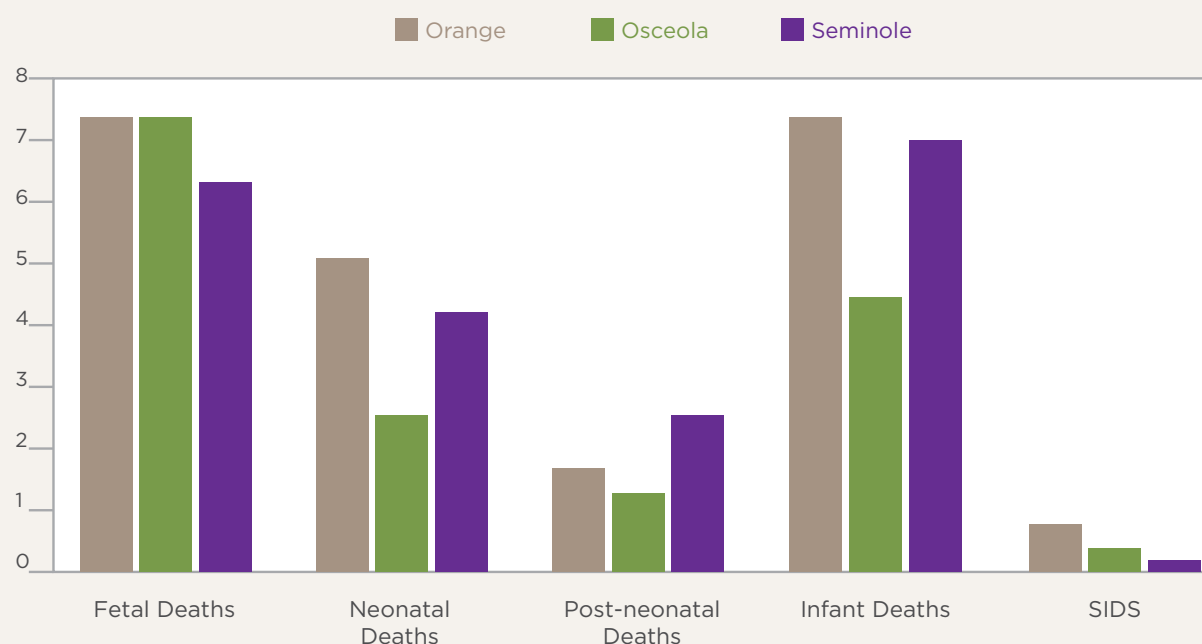
Fetal deaths	7.3	7.3	5.9	5.6
Neonatal deaths (< 28 days)	5.1	3.1	4.5	4.1
Post-Neonatal deaths (28-365 days)	1.8	1.3	2.3	2.0
Infant deaths (0-365 days)	6.9	4.4	6.8	6.0
Sudden Infant Death Syndrome (SIDS)	1.0	0.3	0.2	0.5

**Birth Outcomes**

Preterm births (<37 weeks)	16.6%	15.9%	13.8%	11.4%
Low birth weight (< 2500 grams)	8.4%	8.4%	8.3%	7.8%
Very low birth weight (< 1500 grams)	1.8%	1.3%	1.4%	1.4%
Multiple births (twins, triplets, or more)	3.0%	3.3%	3.3%	n/a

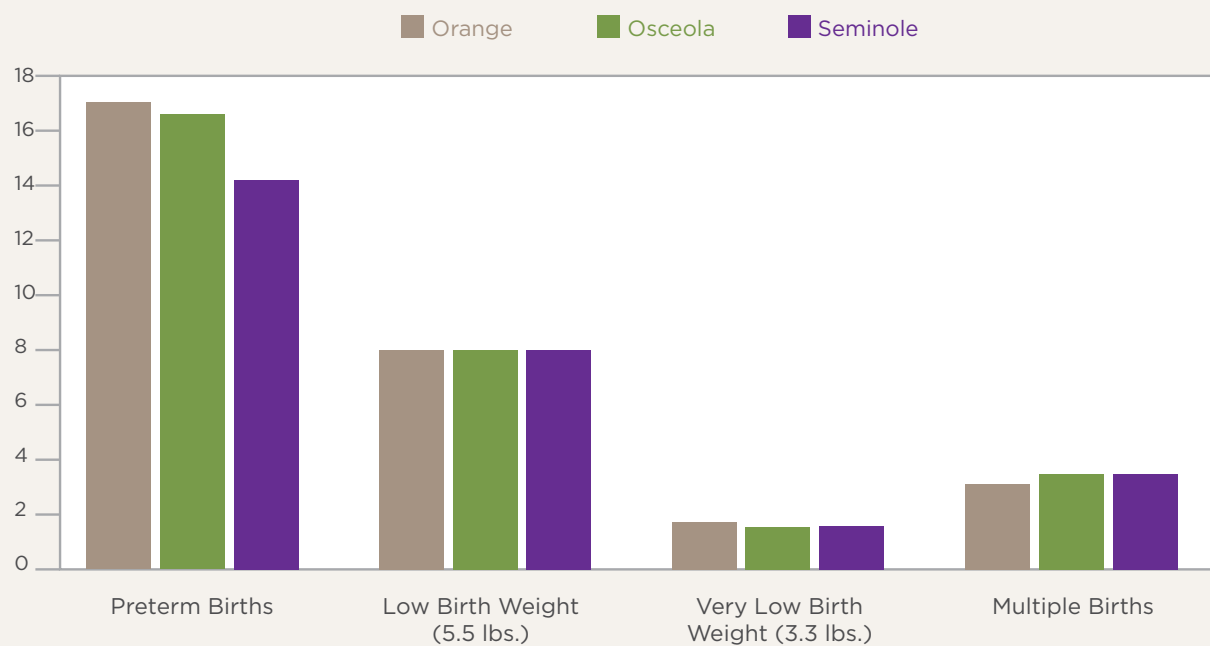
**Pregnancy**

Mothers who received 1st trimester prenatal care	82.9%	82.1%	84.1%	77.9%
Births to mothers who reported smoking during pregnancy	4.4%	5.5%	5.7%	1.4%
Births to mothers ages 15-19 years (per 1,000 females)	34.6	35.5	21.6	n/a
Births to overweight mothers at time pregnancy occurred	23.5%	26.0%	23.8%	n/a
Births to obese mothers at time pregnancy occurred	19.0%	22.0%	19.4%	n/a

**Chart 17.****Mortality Rate per 1,000**

**Chart 18.**

**Birth Outcomes - Percent of Total Births**



**Table 29. Birth Defects (per 10,000)**

Type	ORANGE	OSCEOLA	SEMINOLE
Birth defects (structural and genetic)	222.9	210.2	215.7
Congenital heart defects	74.0	55.6	70.9
Chromosomal abnormalities (Trisomy 13,18, & 21)	17.5	17.2	16.9

Additional health indicator data for maternal and child health is located in Appendix A.

# CHILD AND ADOLESCENT HEALTH

Addressing the positive development of children and adolescents facilitates the adoption of healthy behaviors and lifestyle habits. The population health goal is to ensure the future adult population is healthy and productive.

## Immunizations

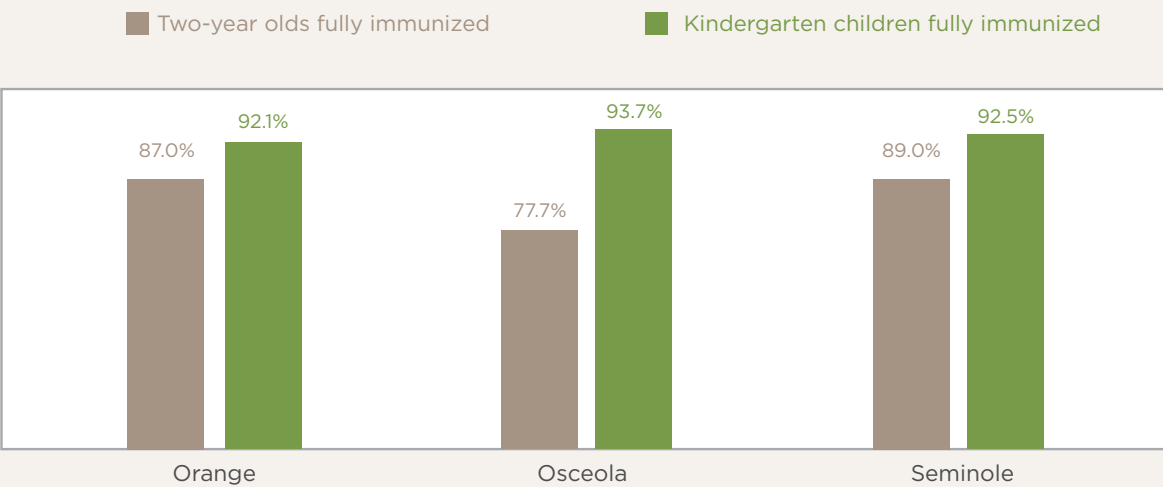
Vaccines/Immunizations help reduce the risk of infection by working with the body’s natural defenses to help it safely develop resistance to disease. However, in the U.S., people continue to suffer from vaccine-preventable diseases. Each year, 42,000 adults and 300 children in the U.S. die from diseases that could have been prevented by vaccination. According to Healthy People 2020, viral hepatitis, influenza, and tuberculosis (TB) remain among the leading causes of illness and death in the U.S. In addition to the risk of disability or premature death, diseases that can be prevented by vaccines are also very costly. Costs include physician visits, hospitalizations, and loss of productivity. Immunizations are very important; they not only help protect the vaccinated individual, but also the health of a community.

The Healthy People 2020 target is to have 80% of all children aged 19-35 months receive the recommended doses of childhood immunizations. In the tri-county area, the percent of kindergarten children who are fully immunized ranges from 92.1% in Orange County to 93.7% in Osceola.

Table 30.	Immunization	Immunization		
		ORANGE	OSCEOLA	SEMINOLE
	Two-year olds fully immunized	87.0%	77.7%	89.0%
	Kindergarten children fully immunized	92.1%	93.7%	92.5%

Chart 19.

Childhood Immunizations



### Mental Health Services

Mental health disorders are the leading cause of disability in the U.S. According to the U.S. Department of Health & Human Services, 60% of people with mental health conditions do not receive the care they need. The gap in services can be attributed to the shortage of funds and human resources. In 2011, almost 1,000 children in the tri-county region received mental health services.

### Overall Cancer Incidence

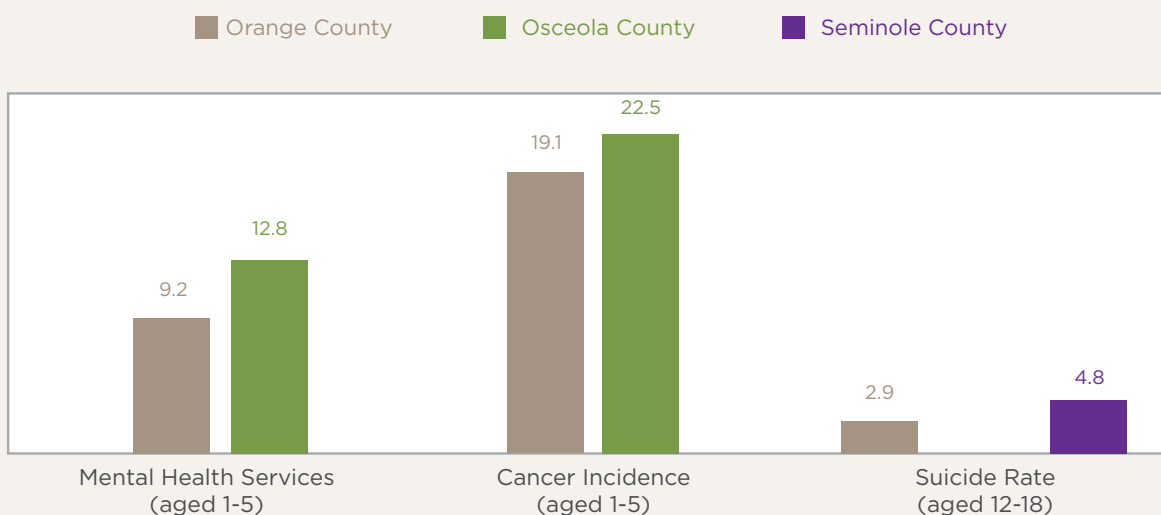
For children aged 1-5 years, the overall cancer incidence was highest in Osceola County at 22.5/100,000. In Orange County, the cancer incidence rate for children aged 1-5 was 19.1. In Seminole County, the number of cases is too low to determine a statistically reliable rate.

### Homicide and Suicide Deaths

In the entire tri-county region, fewer than 30 children under the age of 18 reportedly died as a result of homicide or suicide. Due to the relatively small number of cases, conclusions about the population of childhood homicide and suicide deaths should be treated with caution. Additionally, there are too few cases in Osceola County for the data to be considered statistically reliable.

**Chart 20.**

**Child and Adolescent Health Indicators**



### Child Passengers Injured/Killed in a Motor Vehicle Collision

Approximately 36 children aged 1-5 or 12-18 were killed in motor vehicle collisions in the tri county region in 2012; however, many more were injured. In order to give a more accurate description of how motor vehicle accidents affect passengers under 18, the table below describes the average rate of children and adolescents injured or killed in a motor vehicle accident per 100,000 accidents.

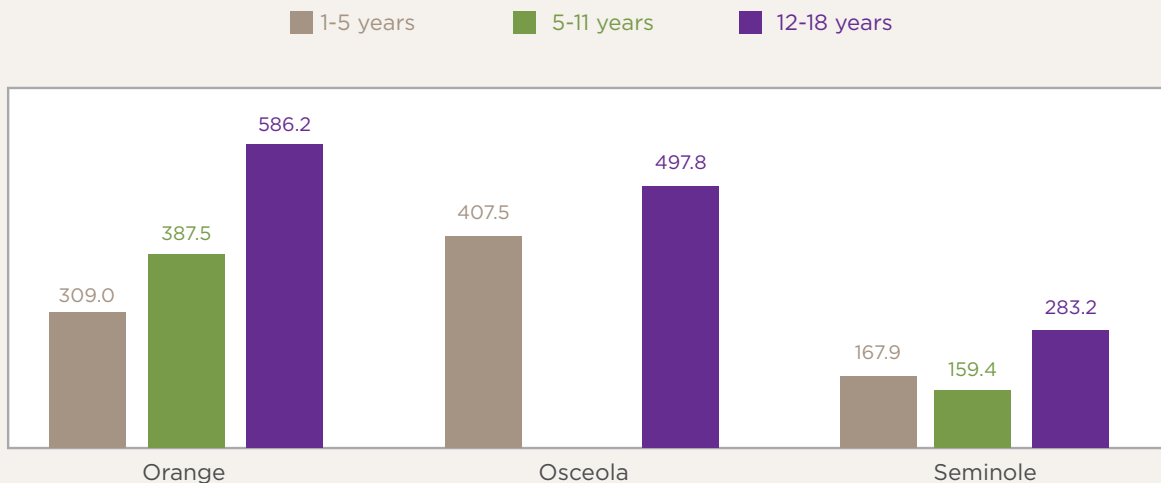
**Table 31. Child Passengers Injured/Killed in Motor Vehicle Crashes**

	ORANGE	OSCEOLA	SEMINOLE
Aged 1-5	309.0	407.5	167.9
Aged 5-11	387.5	-	159.4
Aged 12-18	586.2	497.8	283.2

\*All rates are per 100,000 unless otherwise stated \*Cells with a dash “-”denote data that are unavailable or statistically unreliable

**Chart 21.**

**Child Passengers Injured/Killed in Motor Vehicle Collisions**



**Other Unintentional Injury Deaths**

In the tri-county region, relatively few children under the age of 18 die as a result of unintentional injuries; this number contributes to approximately 0.7% of all deaths in Orange, Osceola, and Seminole Counties. As a result, the data on unintentional injuries in the tri-county region are to be treated with caution. The most common causes of unintentional injuries in the adolescent population are head injuries and motor vehicle collisions. The rate of unintentional injury deaths due to all other causes can be found in the table below. Note that the rates for Osceola County are too small to be considered statistically reliable.

**Table 32. Other Unintentional Injury Deaths per 100,000**

	ORANGE	OSCEOLA	SEMINOLE
5-11 years	4.7	-	-
12-18 years	8.7	-	24.8

\*All rates are per 100,000 unless otherwise stated \*Cells with a dash "--"denote data that are unavailable or statistically unreliable

**Non-fatal Head Injuries**

Hospitalization rates for non-fatal head injuries were highest in all three counties among children aged 19-21. For this age group, Orange and Osceola Counties had higher rates, at 82.4/100,000 events and 80.9/100,000 events respectively. Data for not-fatal head injuries for the tri-county region can be found in table 33.

**Table 33. Hospitalizations for Non-Fatal Head Injuries**

	ORANGE	OSCEOLA	SEMINOLE	Healthy People 2020 Target	Target Status
Aged 5-11	23.4	24.4	22.2	77.0/100,000	Met
Aged 12-18	44.4	53.3	42.8	77.0/100,000	Met
Aged 19-21	82.4	80.9	74.3	77.0/100,000	Not Met



### Self-inflicted Injuries

Hospitalization rates for self-inflicted injuries were all well below the Healthy People 2020 target of 112.8/100,000. Higher rates were among young adults aged 19-21 years, with the highest rate in Orange County at 87.1/100,000. For children aged 12-18 years, rates ranged from 34.8/100,000 in Orange County to 48.8 in Osceola County. Table 34 contains data for self-inflicted injury hospitalization rates.

<b>Table 34. Non-fatal hospitalizations for self-inflicted injuries</b>	<b>ORANGE</b>	<b>OSCEOLA</b>	<b>SEMINOLE</b>	<b>Healthy People 2020 Target</b>	<b>Target Status</b>
Aged 12-18	34.8	48.8	39.5	112.8/100,000	Met
Aged 19-21	87.1	60.7	62.9	112.8/100,000	Met

### Eating Disorders

Hospitalization rates for eating disorders were statistically unreliable for adolescents aged 19-21 in Osceola County due to the small number of children hospitalized. The rate was highest in Seminole County among children aged 12-18 years at 25.8/100,000. The table below contains the hospitalization rate due to eating disorders in the tri-county region.

<b>Table 35. Non-fatal hospitalizations for eating disorders</b>	<b>ORANGE</b>	<b>OSCEOLA</b>	<b>SEMINOLE</b>
Aged 12-18	15.2	13.6	25.8
Aged 19-21	9.9	-	21.0

\*All rates are per 100,000 unless otherwise stated \*Cells with a dash “-” denote data that are unavailable or statistically unreliable

### Other Non-fatal Unintentional Injuries

Non-fatal unintentional injuries other than motor vehicle accidents and head injuries contributed to a relatively large number of hospitalizations in the tri-county area. The highest rates for hospitalizations were among young adults, aged 19-21 years, in all three counties. Rates for younger children aged 5-11 years and 12-18 years ranges from 90.4/100,000 in Osceola County to 171.9/100,000 in Orange County.

<b>Table 36. Hospitalizations for other non-fatal unintentional injuries</b>	<b>ORANGE</b>	<b>OSCEOLA</b>	<b>SEMINOLE</b>	<b>Healthy People 2020 Target</b>	<b>Target Status</b>
Aged 5-11	154.7	90.4	127.9	555.8/100,000	Met
Aged 12-18	171.9	130.5	171.0	555.8/100,000	Met
Aged 19-21	214.8	187.7	196.4	555.8/100,000	Met

### Asthma

Asthma is one of the most common long-term diseases of children and can affect quality of life and academic performance. Orange and Seminole Counties do not have significantly different rates of asthma among middle and high school students. The latest data available for Osceola County students is from 2010 and can be found in the table below.

<b>Table 37. Percent of students who report having asthma (middle school)</b>	<b>ORANGE</b>	<b>OSCEOLA</b>	<b>SEMINOLE</b>
Middle School	20.9%	20.8%	19.2%
High School	20.1%	23.2%	20.3%

### Obesity

According to the Mayo Clinic, childhood obesity is a serious medical condition that affects children and adolescents. It occurs when a child is well above the normal weight for his or her age and height. Childhood obesity is particularly troubling because the extra pounds often start children on the path to health problems that were once confined to adults, such as diabetes, high blood pressure, and high cholesterol. Childhood obesity can also lead to poor self-esteem and depression. The following tables describe the percent of middle and high school children in the tri-county region who are obese. The latest data available for Osceola County students is from 2010 and can be found in the table below.

<b>Table 38. Teens who are Obese, BMI at or above the 95<sup>th</sup> percentile</b>			
<b>County</b>	<b>ORANGE</b>	<b>OSCEOLA</b>	<b>SEMINOLE</b>
Middle School	9.3%	10.7%	10.2%
High School	14.3%	12.2%	11.0%

Additional health indicator data for child and adolescent health is located in Appendix A.

## MENTAL HEALTH

Mental health is essential to personal well-being, family and interpersonal relationships, as well as the ability to contribute to community or society. Research shows that mental health and physical health are closely connected. Mental health plays a major role in people's ability to maintain good physical health. Mental illnesses, such as depression and anxiety, affect people's ability to participate in health-promoting behaviors. In turn, problems with physical health, such as chronic diseases, can have a serious impact on mental health and decrease a person's ability to participate in treatment and recovery.

### *General Health Assessment*

#### **Good to Excellent Health**

Over the past three years, more than 80% of the adults in the tri-county area reported their general health assessment to be good to excellent. Adults in Seminole County had the highest percentage of adults reporting "good to excellent" health status at 84.4%. Orange and Osceola County adults reported similar rates at 83.9% and 81.4%, respectively.

#### **Good Mental Health**

The percentage of adults reporting good mental health has decreased slightly in Orange and Seminole Counties over the past three years. In Orange County, the percentage of adults reporting good mental health fell from 93.1% in 2007 to 88.3% in 2010. In Seminole County, adults with good mental health fell from 91.5% to 89.1%. The percentage of adults in good mental health in Osceola County remained stable from 2007-2010.

#### **Average Number of Unhealthy Mental Days**

The average number of unhealthy mental days in the tri-county area was about 3.8 days. This was up from 2007 data when the average number of unhealthy days ranged from 2.2 in Orange County to 3.5 in Osceola County.

#### **"Very satisfied" or "Satisfied" with their lives**

Over 90% of adults in the tri-county area reported they were satisfied with their lives. Adults in Seminole, at 96.3%, were most satisfied with their lives.

#### **Always/Usually Receive Social and Emotional Support when Needed**

In Orange County, the percent of adults who reported receiving needed services increased over the past three years from 75.6% in 2007 to 79.9% in 2010. In Seminole County, the percent of adults who reported receiving needed support decreased from 85.9% in 2007 to 80.0% in 2010. The percent of adults receiving needed support in Osceola County remained stable from 2007-2010.

Additional health indicator data for mental health is located in Appendix A.

## SUBSTANCE ABUSE

According to Healthy People 2020, substance abuse refers to a set of related conditions associated with the consumption of mind- and behavior-altering substances that have negative behavioral and physical health outcomes. In the U.S., substance abuse is one of the most complex public health issues. Unlike most health concerns, substance abuse involves social, political, and legal systems while having a profound effect on individuals, families, and communities. In the U.S., substance abuse directly affects an estimated 25 million people each year while another 40 million people are indirectly impacted (i.e., families of abusers and those injured or killed by intoxicated drivers).

As stated by Healthy People 2020, the effects of substance abuse are cumulative, significantly contributing to costly social, physical, mental, and public health problems. These problems include teenage pregnancy, human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS), other sexually transmitted diseases, domestic violence, child abuse, motor vehicle crashes, physical fights, crime, homelessness, unemployment, homicide, and suicide.

The National Survey on Drug Use and Health conducted by the Substance Abuse and Mental Health Services Administration reported that some children are already abusing drugs at age 12 and 13. This early abuse often includes substances such as tobacco, alcohol, inhalants, marijuana, and prescription drugs. Adolescents who abuse substances often become adults who abuse substances; this prolonged substance abuse increases the risk of developing chronic illnesses that require lifelong monitoring and care. Outlined below is information related to substance use among students in the tri-county area. Data were collected from the 2010 Florida Youth Substance Abuse survey for information regarding alcohol, tobacco, and marijuana use among middle and high school students in the tri-county area. This is a collaborative effort between the Florida Departments of Health, Education, Children and Families, Juvenile Justice, and the Governor's Office of Drug Control. All surveys are administered to a statewide sample of students.

### Alcohol Use

- **Middle School Students** – The percent of Middle School students reporting alcohol use in the previous 30 days decreased in all counties during 2008-2010. The lowest percent of students reporting use of alcohol was in Orange County at 14.1%.
- **High School Students** – The percent of high school students reporting alcohol use in the previous 30 days remained stable in Orange and Seminole Counties at 35.8% and 38.2% over the past three years. Alcohol use among Osceola high school students decreased slightly in the same time period.

### Binge Drinking

- **Middle School Students** – Binge drinking among Orange County middle school students decreased slightly in the past two years. Among Middle School students in Osceola and Seminole Counties, the percent of students who reported binge drinking increased during 2008-2010. The highest percentage of binge drinking was among Osceola middle students at 7.3%.
- **High School Students** – Binge drinking among high school students decreased in all three counties during 2008-2010. The highest rate of binge drinking was among Seminole County students at 20.2%. Osceola students had the lowest percentage of binge drinkers at 15.6%. All county rates were well above the Healthy People 2020 target which aims to have no more than 8.5% of teens participating in binge drinking.

### Cigarettes

- **Middle School Students** – Cigarette use among Middle School students decreased in the tri-county area during 2008-2010. Smoking was highest among Seminole County students at 4.4% and lowest in Osceola County where 3.5% of Middle School students reported using cigarettes.
- **High School Students**– Smoking decreased among students in Orange and Seminole Counties over the past two years. In Osceola, the percent of high school students who reported using cigarettes increased from 8.7% in 2008 to 11.5% in 2010. Smoking rates for teens in all three counties were below the Healthy People 2020 target of 16.0%.

### Marijuana

- **Middle School Students** – Marijuana use among Middle School students has continually decreased in Orange and Osceola Counties during 2000-2010. In Seminole County, marijuana use among Middle School students has increased from 1.7% in 2000 to 7.6% in 2010.
- **High School Students** – Marijuana use increased among high school students in all three counties during 2008-2010. Rates for Orange, Osceola, and Seminole Counties were 17.9%, 15.0% and 19.3%, respectively. The percent of students using marijuana in Seminole County is more than triple the Healthy People 2020 target of 6.0%.

Additional health indicator data for substance abuse is located in Appendix A.

## BEHAVIORAL FACTORS

Risk behaviors are controllable factors that can negatively contribute to one's health or potential health. These factors include using tobacco products, misusing alcohol, substance abuse, exposure to sexually transmitted diseases, poor nutrition, and lack of adequate physical activity.

### **Tobacco Use**

Tobacco use is the leading cause of preventable death, disease, and disability in the nation. According to Healthy People 2020, using tobacco causes cancer, heart disease, lung cancer, premature birth, low birth weight, stillbirth, and infant mortality. Each year, 443,000 people die from tobacco-related illnesses. According to the CDC, for every person who dies from tobacco use, 20 more people suffer with at least one serious tobacco-related illness. Moreover, it is estimated that tobacco use costs the U.S. \$193 billion annually in direct medical expenses and lost productivity.

In the tri-county area, the lowest rate of current smokers is among adults living in Orange County at 13.3%. Seminole County has the highest rate of adult smokers at 20.7%. In Osceola, 18.5% of adults are current smokers. These percentages are above the Healthy People 2020 target of 12.0%.

The percent of teens who smoke in all three counties was below the Healthy People 2020 target of 16%. Osceola teens had the lowest percentage of teen smokers at 9.5%. In Orange and Seminole Counties, the percent of teens who smoke was very similar at 11.2% and 11.4%, respectively.

### **Binge Drinking**

Binge drinking or heavy drinking is defined as having five or more drinks in a row at least once in the past 30 days. For adults, binge drinking ranged from 10.5% in Osceola to 15.4% in Seminole County. The Healthy People 2020 target is to have no more than 25.3% of adults engage in heavy drinking.

The percent of teens that binge drink was almost double the Healthy People 2020 goal of 8.5% in all three counties. Orange County teens had the highest percent of binge drinkers at 17.9%. This was closely followed by Seminole County teens at 16.8% and Osceola County teens at 15.6%.

### **Substance Abuse**

As mentioned in the previous section, substance abuse has a major impact on individuals, families, and communities. Substance abuse is a significant behavioral risk factor for disease and a decreased quality of life including: teenage pregnancy; child abuse; motor vehicle accidents; homicide; and sexually transmitted disease. Health indicator data tied to substance abuse is included throughout the document. Additional health indicator data for substance abuse is also located in Appendix A

### **Sexual Activity and Sexually Transmitted Diseases**

From a medical perspective, being sexually active is engaging in any activity that could put one at risk for contracting a sexually transmitted disease (STD) or infection. This includes oral and anal sex. While STDs are largely preventable, untreated STDs can lead to serious long-term health consequences. This is especially true for adolescents and young women. In addition, infected individuals may not display symptoms. As a result, screening is an important tool for diagnosis and treatment.

Data on sexual activity for teens was gathered from the Youth Risk Behavioral Surveillance System (YRBSS). The YRBSS is a national school-based survey conducted by the CDC with support from state and local government. It is only administered to high school students. Among high school students, 41.5% reported being sexually active. Males had higher rates of sexual activity, at 45.5%, when compared to females at 38.1%.



**Chlamydia**

Chlamydia is the most frequently reported sexually transmitted disease in the United States. Rates of Chlamydia in the tri-county area increased from 2010 to 2012. The highest Chlamydia rate was among Orange County residents at 533.1/100,000. Seminole had the lowest rate at 341.1/100,000. Osceola County was in between at 407.1/100,000.

Human Immunodeficiency Virus (HIV) –Human Immunodeficiency Virus is a slowly replicating retrovirus that causes Acquired Immunodeficiency Syndrome (AIDS), a condition in humans in which progressive failure of the immune system allows life-threatening opportunistic infections and cancers to thrive. The incidence rate was highest among Orange County residents at 43.6/100,000 and lowest in Seminole County at 13.9/100,000. Rates decreased in Orange and Seminole Counties between 2009 and 2010. The rate of HIV incidence increased in Osceola County during the same time period.

**Poor Nutrition**

It is essential to eat a fresh and balanced diet to maintain a healthy lifestyle and prevent chronic disease. Eating fresh fruits and vegetables daily is one way to measure healthy eating. In the tri-county area, only 30% of adults consume five servings of fruits and vegetables daily. Seminole County had the highest percent of adults who reported healthy eating at 31.6%. The lowest rate was among adults in Osceola County at 25.6%. In Orange County, 30.5% of adults reported eating 5 servings of fruits and vegetables per day.

**Physical Activity**

A sedentary lifestyle increases the risk for obesity, heart disease, diabetes, colon cancer, and high blood pressure. The Healthy People 2020 target is to reduce the percentage of individuals who do not engage in leisure-time physical activity to 32.6%. The percent of adults who are sedentary has decreased in all three counties in the past five years. The highest percent of those not participating in leisure-time activities were among Osceola adults at 26.4% and the lowest percent was in Seminole County, where 19.1% of adults reported having a sedentary lifestyle. In the tri-county area, all population groups were below the Healthy People 2020 target.

Inactivity during childhood and adolescence increases the likelihood of being inactive as an adult. Sufficient physical activity is defined as participating in physical activity that makes you sweat or breathe hard for 20 minutes or more, on three or more days per week. The percent of teens without sufficient activity ranges from 41.9% in Osceola to 37.2% in Seminole. Although Seminole County has the lowest rate of inactive youth, the percent of teens who do not participate in vigorous activity weekly increased from 34.3% to 37.2% in the past two years.

## RISK AND PROTECTIVE FACTORS

As mentioned in the previous section, “behavioral factors” is the term given to attitudes, beliefs, and actions that lead to either positive or negative health outcomes. In a broad sense, behavioral factors can be further broken down into two groups: behavioral risk factors, and behavioral protective factors. Behavioral risk factors, such as smoking, are those that lead to negative health outcomes and increase the likelihood of illness and disease. Behavioral protective factors, such as exercise, are linked to positive health outcomes that decrease the likelihood of developing a chronic or infectious condition. Unlike genetic factors, behavioral factors are typically preventable and can be changed via individual, familial, or community efforts. The analysis of risk and protective factors is a powerful tool available for understanding what promotes or threatens health, and for helping design successful prevention programs. Risk and protective factors affect individuals on multiple levels of the Social-Ecological Model (SEM). Below describes examples of these factors on different levels of the SEM:

### Protective Factors

- Community rewards for pro-social involvement
  - Participation in a community garden
  - Organization of a Home Owners’ Association
  - The availability of a community park
- Family opportunities for pro-social involvement
  - Consistent family structure
  - Effective communication strategies
  - Home ownership
- School opportunities for pro-social involvement
  - School rewards for pro-social involvement
  - Low perception of academic stress
  - Supportive faculty, staff, and administration
- Peer and Individual
  - Religiosity
  - Feeling in control of one’s life
  - Civic engagement

### Risk Factors

- Community
  - Community disorganization
  - Transition and mobility
  - Laws and norms favorable to drug use
  - Perceived availability of drugs
  - Perceived availability of handguns

### **Risk Factors continued**

- Family
  - Poor family management
  - Family conflict
  - Parental attitudes favorable to alcohol, tobacco, and other drug use
- School
  - Poor academic performance
  - Lack of commitment to school
- Peer and Individual
  - Peer rewards for anti-social behavior
  - Favorable attitudes toward anti-social behavior
  - Favorable attitudes toward alcohol, tobacco, and other drug use
  - Low perceived risks of drug use
  - Early initiation of drug use

Risk and protective factors are assigned a score on a scale in order to properly measure outcomes, track changes, and compare counties to one another. A trend is a measurement over time and is most meaningful when trying to determine in which direction an indicator is moving. Because protective factors predict good outcomes, researchers like to see positive, or upward, trends. Seeing as risk factors predict poor health outcomes, researchers would like to see negative, or downward, trends relating to factors that fall into this category. Thus, the overall goal of a health program related to behavioral factors is to see high protective factor prevalence rates and low risk factor prevalence rates. “Prevalence rates” refer to the current state of a particular indicator. For example, the prevalence of healthy eating in a population reveals how many people currently report eating healthy.

Average protective factor prevalence rates for Orange County students were equal to or exceeded rates in Florida. Among Osceola County middle and high school students, rates were lower than state rates for all protective factors with the exception of school opportunities for pro-social involvement. In Seminole County, rates for middle school students were lower than Florida rates for family opportunities, school opportunities, and school rewards. Among high school students, prevalence rates exceeded Florida rates for all factors with the exception of family opportunities.

Protective factors are increasing for Orange County middle school students. For high school students in Orange County protective factor rates have increased, but so have risk factor rates. Among Osceola middle school students, trends started moving in the right direction starting in 2008. For high school students in Osceola County, 2008-2010 protective factor rates remained stable while risk factor rates increased. In Seminole County, protective factor rates for middle school students are decreasing while risk factor rates are increasing. The trends for both factor rates are moving in the right direction for Orange County high school students. Behaviors are influenced at the individual, peer, family, school, community, and societal levels of the Social-Ecological Model.

**Table 39. Protective Factor Prevalence Rates**

Domain	Scale	ORANGE COUNTY		FLORIDA	
		Middle School	High School	Middle School	High School
<b>Community</b>	Community rewards for pro-social involvement	52%	62%	50%	61%
<b>Family</b>	Family opportunities for pro-social involvement	58%	55%	55%	55%
	Family rewards for pro-social involvement	54%	54%	50%	53%
<b>School</b>	School opportunities for pro-social involvement	50%	65%	46%	60%
	School rewards for pro-social involvement	49%	60%	47%	59%
<b>Peer and Individual</b>	Religiosity	56%	61%	50%	60%

**Table 40. Risk Factor Prevalence Rates**

Domain	Scale	ORANGE COUNTY		FLORIDA	
		Middle School	High School	Middle School	High School
<b>Community</b>	Community disorganization	45%	49%	51%	50%
	Transitions and mobility	62%	68%	61%	63%
	Laws and norms favorable to drug use	37%	34%	44%	38%
	Perceived availability of drugs	45%	37%	48%	37%
	Perceived availability of hand guns	22%	37%	25%	38%
<b>Family</b>	Poor family management	44%	47%	48%	46%
	Family conflict	42%	38%	42%	37%
	Parental attitudes favorable toward alcohol, tobacco and other drug use	21%	37%	22%	38%
<b>School</b>	Poor academic performance	37%	49%	43%	46%
	Lack of commitment to school	51%	50%	54%	51%
<b>Peer and Individual</b>	Peer rewards for antisocial behavior	43%	43%	46%	47%
	Favorable attitudes toward antisocial behavior	46%	42%	47%	41%
	Favorable attitudes toward alcohol, tobacco and other drug use	34%	38%	41%	40%
	Low perceived risks of drug use	41%	48%	44%	49%
	Early initiation of drug use	30%	34%	35%	33%

**Table 41. Protective Factor Prevalence Rates**

Domain	Scale	OSCEOLA COUNTY		FLORIDA	
		Middle School	High School	Middle School	High School
<b>Community</b>	Community rewards for pro-social involvement	43%	54%	50%	61%
<b>Family</b>	Family opportunities for pro-social involvement	51%	54%	55%	55%
	Family rewards for pro-social involvement	45%	51%	50%	53%
<b>School</b>	School opportunities for pro-social involvement	48%	59%	46%	60%
	School rewards for pro-social involvement	45%	58%	47%	59%
<b>Peer and Individual</b>	Religiosity	48%	60%	50%	60%

**Table 42. Risk Factor Prevalence Rates**

Domain	Scale	OSCEOLA COUNTY		FLORIDA	
		Middle School	High School	Middle School	High School
<b>Community</b>	Community disorganization	58%	55%	51%	50%
	Transitions and mobility	69%	70%	61%	63%
	Laws and norms favorable to drug use	44%	33%	44%	38%
	Perceived availability of drugs	46%	33%	48%	37%
	Perceived availability of hand guns	28%	37%	25%	38%
<b>Family</b>	Poor family management	47%	45%	48%	46%
	Family conflict	47%	40%	42%	37%
	Parental attitudes favorable toward alcohol, tobacco and other drug use	21%	36%	22%	38%
<b>School</b>	Poor academic performance	44%	41%	43%	46%
	Lack of commitment to school	52%	48%	54%	51%
<b>Peer and Individual</b>	Peer rewards for antisocial behavior	41%	41%	46%	47%
	Favorable attitudes toward antisocial behavior	48%	37%	47%	41%
	Favorable attitudes toward alcohol, tobacco and other drug use	39%	39%	41%	40%
	Low perceived risks of drug use	42%	45%	44%	49%
	Early initiation of drug use	35%	29%	35%	33%

**Table 43. Protective Factor Prevalence Rates**

Domain	Scale	SEMINOLE COUNTY		FLORIDA	
		Middle School	High School	Middle School	High School
<b>Community</b>	Community rewards for pro-social involvement	53%	64%	50%	61%
<b>Family</b>	Family opportunities for pro-social involvement	54%	54%	55%	55%
	Family rewards for pro-social involvement	52%	54%	50%	53%
<b>School</b>	School opportunities for pro-social involvement	37%	61%	46%	60%
	School rewards for pro-social involvement	42%	65%	47%	59%
<b>Peer and Individual</b>	Religiosity	54%	64%	50%	60%

**Table 44. Risk Factor Prevalence Rates**

Domain	Scale	SEMINOLE COUNTY		FLORIDA	
		Middle School	High School	Middle School	High School
<b>Community</b>	Community disorganization	40%	43%	51%	50%
	Transitions and mobility	57%	62%	61%	63%
	Laws and norms favorable to drug use	40%	33%	44%	38%
	Perceived availability of drugs	52%	35%	48%	37%
	Perceived availability of hand guns	22%	34%	25%	38%
<b>Family</b>	Poor family management	47%	41%	48%	46%
	Family conflict	40%	37%	42%	37%
	Parental attitudes favorable toward alcohol, tobacco and other drug use	24%	39%	22%	38%
<b>School</b>	Poor academic performance	34%	42%	43%	46%
	Lack of commitment to school	55%	53%	54%	51%
<b>Peer and Individual</b>	Peer rewards for antisocial behavior	47%	52%	46%	47%
	Favorable attitudes toward antisocial behavior	49%	43%	47%	41%
	Favorable attitudes toward alcohol, tobacco and other drug use	39%	41%	41%	40%
	Low perceived risks of drug use	46%	49%	44%	49%
	Early initiation of drug use	30%	28%	35%	33%

Additional health indicator data for behavioral risk and protective factors is located in Appendix A.



## SOCIAL DETERMINANTS OF HEALTH AND HEALTH DISPARITIES

According to the Centers for Disease Control and Prevention, life expectancy and overall health have improved in recent years for most Americans. These improvements are attributed to an increased focus on preventive medicine and advances in medical technology. However, even with this progress, health disparities continue to occur. Healthy People 2020 define a health disparity as “a particular type of health difference that is closely linked with social, economic, and/or environmental disadvantage. Health disparities adversely affect groups of people who have systematically experienced greater obstacles to health based on their racial or ethnic group; religion; socioeconomic status; gender; age; mental health; a cognitive, sensory, or physical disability; sexual orientation or gender identity; geographic location; or other characteristics historically linked to discrimination or exclusion.” For example, babies born to women with little or no education have a greater infant mortality rate than babies born to mothers with higher education. This is an example of a health disparity linked to education. For many years, scientists and physicians alike thought that health disparities were the result of biological processes; however, it is now widely accepted and scientifically proven that health disparities are greatly shaped by the social and economic environment –a category now referred to as “social determinants of health.”

The World Health Organization describes social determinants of health as the “conditions in which people are born, grow, live, work, and age.” According to Healthy People 2020, the conditions in which people live explains a large part of why some Americans are healthier than others and why Americans, more generally, are not as healthy as they could be. Examples of social determinants of health outlined by Healthy People 2020 include, but are not limited to:

- Availability of resources to meet daily needs (e.g., safe housing and local food markets)
- Access to educational, economic, and job opportunities
- Access to healthcare services
- Quality of education and job training
- Availability of community-based resources in support of community living
- Transportation options
- Public safety
- Social support
- Social norms and attitudes (e.g., discrimination, racism, and distrust of government)
- Exposure to crime, violence and social disorder
- Socioeconomic conditions (e.g., concentrated poverty)
- Residential segregation
- Access to mass media and emerging technologies
- Culture
- Environmental pollutants

Traditionally, initiatives to improve health focused on individuals, the choices they make, and their behavior. However, scientists and researchers have expanded the way they describe health to include a more holistic approach to health outcomes which include social determinants.

Availability of health data by race, ethnicity, gender, age, and socioeconomic status for the tri-county area are limited; particularly county-level income data is sparse and health data is not available by insurance status. Little data exists on minority populations other than blacks/African-Americans, and Hispanics/Latinos. Almost no data exists for Pacific Islanders in the tri-county region due to the relatively small population. Small population size or limited data on a population are often issues; as a result, some values may be statistically unreliable and should be interpreted with caution. Irrespective of the amount of data available on certain variables, there are distinct differences in income, education, and employment by race and ethnicity. These data provide evidence that there is a need for improved collaborative efforts focused on affecting the social determinants of health.

## MINORITY HEALTH PROFILE OF THE POPULATION

### **Orange County:**

At last count, 21.7% of Orange County residents self-identify as “black”, and 27.5% identify as “Hispanic.” The median household income for a black person in Orange County is \$37,210 with 19.7% of blacks below 100% of the Federal Poverty Level (FPL) and 16% of Hispanics 100% below the FPL. This is in contrast to the statistical majority, or white residents of Orange County where 70% of residents self-identified as “white.” The median household income for a white family is \$55,041, and 10.9% of white persons are living below the poverty level. Median household income was not available for Hispanic residents.

Concerning education, 10.1% of white individuals aged 25 or older do not have a high school diploma; 19.6% of blacks/African-Americans and 29% of Hispanic/Latino residents aged 25 or older do not have a high school diploma. Unemployment rates in the civilian labor force are 7.9% for whites, 7.0% for Hispanics/Latinos, and 12.7% for blacks/African-Americans.

### **Osceola County:**

At last count, 12.8% of Osceola County residents self-identify as “black”, and 46.3% identify as “Hispanic.” The median household income for a black person in Osceola County is \$41,725 with 17.1% of blacks living below the FPL and 16% of Hispanics living below the FPL. This is in contrast to the statistical majority, or white residents of Osceola County where 80.8% of residents self-identified as “white”—whether Hispanic or non-Hispanic. The median household income for a white family is \$47,913, and 12.2% of white persons are living below the FPL.

Concerning education, 14.4% of white individuals aged 25 or older do not have a high school diploma; 20.1% of blacks/African-Americans and 29% of Hispanic/Latino residents aged 25 or older do not have a high school diploma. Unemployment rates in the civilian labor force are 9.1% for whites, 7.0% for Hispanics/Latinos, and 12.3% for blacks/African-Americans.

### **Seminole County:**

At last count, 11.7% of Seminole County residents self-identify as “black”, and 17.7% identify as “Hispanic.” The median household income for a black person in Seminole County is \$38,678 with 22.1% of blacks living below the poverty level and 12% of Hispanics living below the poverty level. This is in contrast to the statistical majority, or white residents of Orange County where 81.6% of residents self-identified as “white”. The median household income for a white family is \$61,835, and 8.4% of white persons are living below the poverty level.

Concerning education, 7.9% of white individuals aged 25 or older do not have a high school diploma; 17.7% of blacks/African-Americans and 21% of Hispanic/Latino residents aged 25 or older do not have a high school diploma. Unemployment rates in the civilian labor force are 6.9% for whites, 5.0% for Hispanics/Latinos, and 10.1% for blacks/African-Americans.

# CHRONIC DISEASE

As mentioned in the general “chronic disease” section of this assessment, chronic diseases are conditions that are long lasting, recurrent, and not easily cured. According to the Centers for Disease Control and Prevention (CDC), chronic diseases are the leading cause of death and disability in the United States. The following categories describe the most common chronic diseases in the tri-county region, stratified by race.

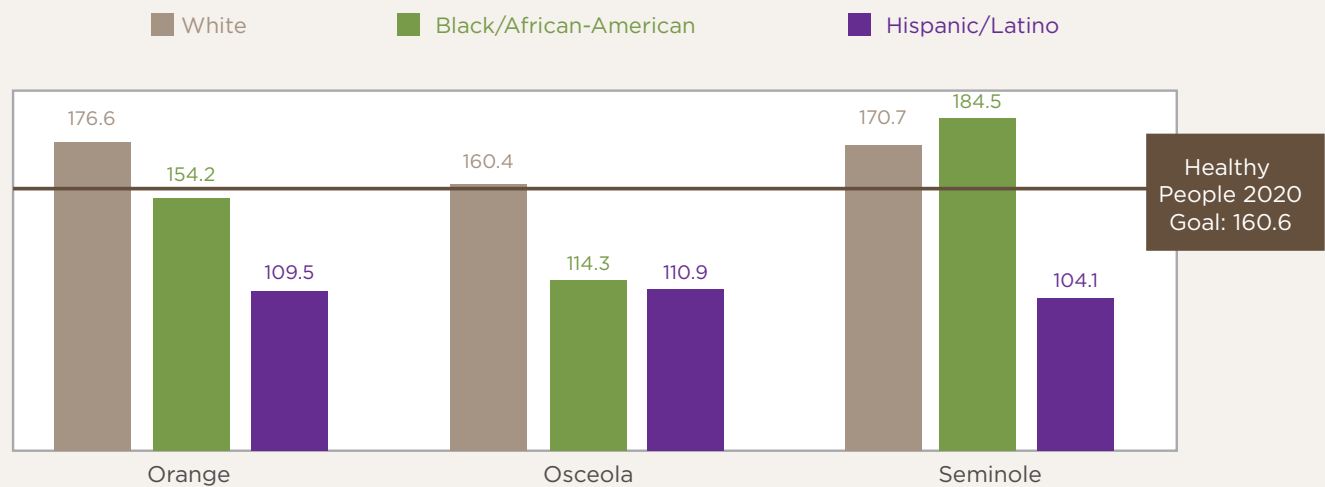
## Mortality

Cancer, heart disease, and stroke are the leading causes of death among blacks/African-Americans and Hispanics/Latinos living in the tri-county area. Death from these chronic diseases is preventable by reducing risk factors such as tobacco use, physical inactivity, poor nutrition, and obesity.

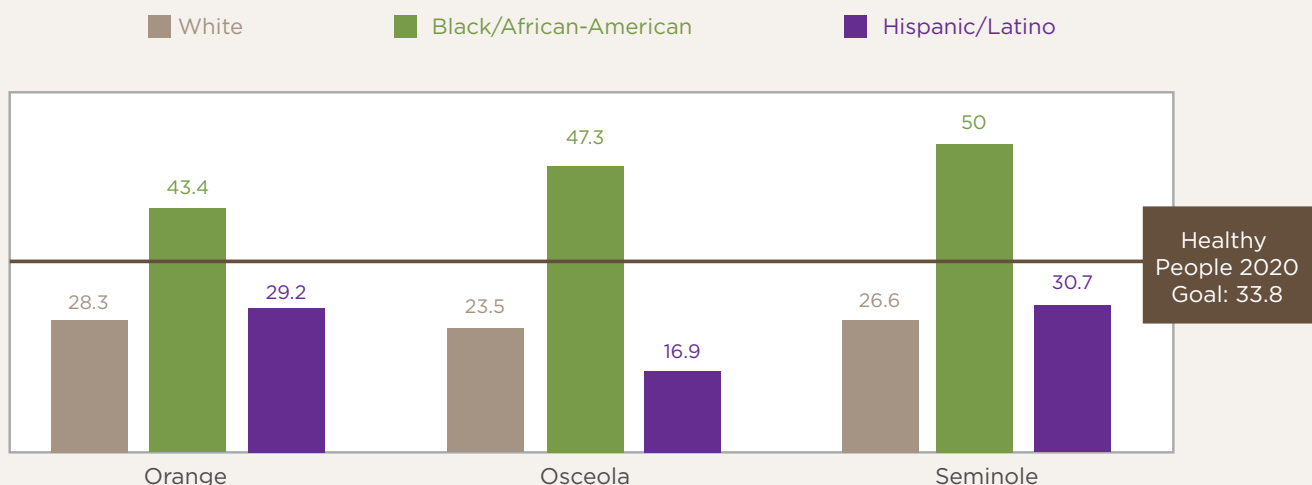
## Cancer and Coronary Heart Disease Deaths

The rates of cancer and coronary heart disease deaths by race/ethnicity are highest among the white population in Orange and Osceola Counties, and highest among the black/African-American population in Seminole County. The charts below contain the race-specific rates of cancer and coronary heart disease in the tri-county region.

Chart 22. Age-Adjusted Death Rate for Cancer per 100,000



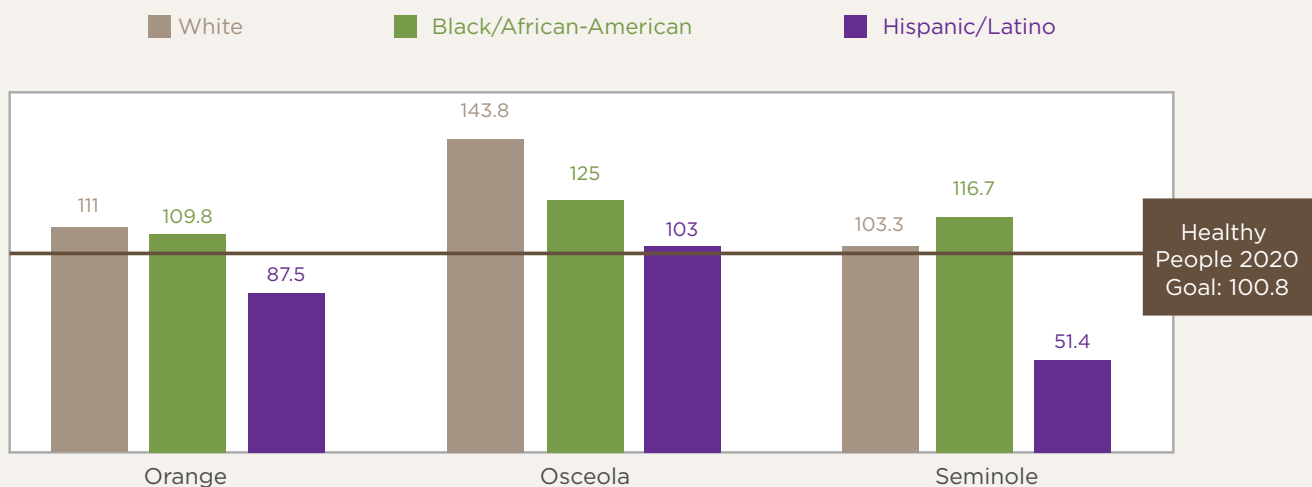
**Chart 23. Age-Adjusted Death Rate for Cerebrovascular Disease**



### Cerebrovascular Disease Deaths

Blacks/African-Americans experience disproportionately higher rates of death from stroke than whites or Hispanics/Latinos in the tri-county area. The chart below is a visual representation of this difference.

**Chart 24. Age-Adjusted Death Rate for Coronary Heart Disease**

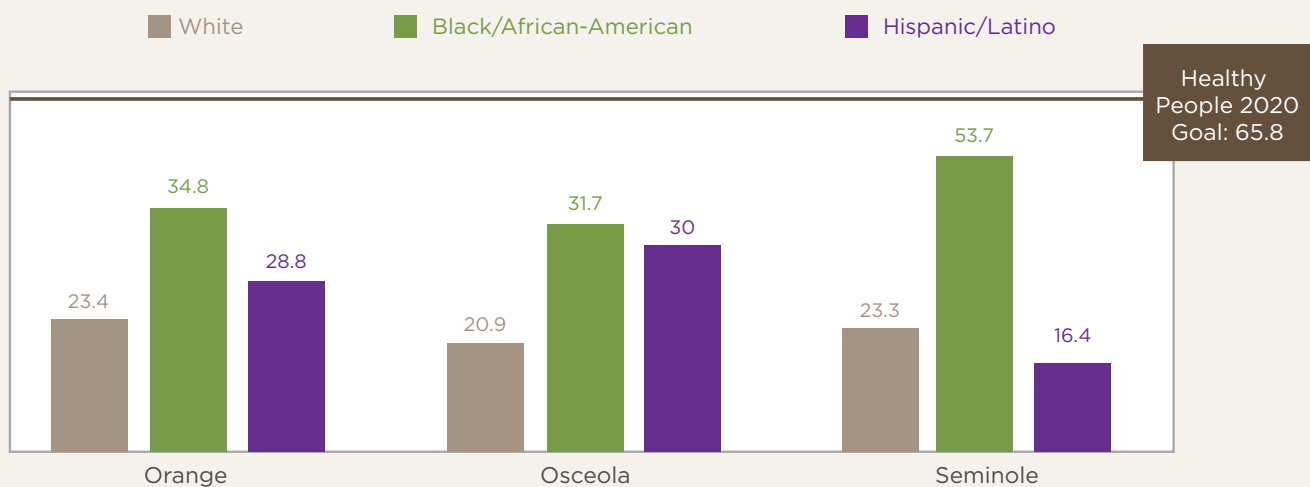


## Diabetes Deaths

In addition to cancer, heart disease, and stroke, diabetes in the tri-county area is also socially determined to a degree. The age-adjusted death rate for diabetes is below the Healthy People 2020 target of 65.8/100,000 in all counties, for all population groups; however, diabetes deaths increased annually in the tri-county region. In Seminole County, diabetes ranks as the fifth leading cause of death for all residents. The highest death rates are among the black/African-American population in all counties; however, the greatest difference between racial/ethnic groups occurs in Seminole County where black/African-American diabetics are more than twice as likely to die from diabetes related complications.

Chart 25.

Age-Adjusted Death Rate for Diabetes

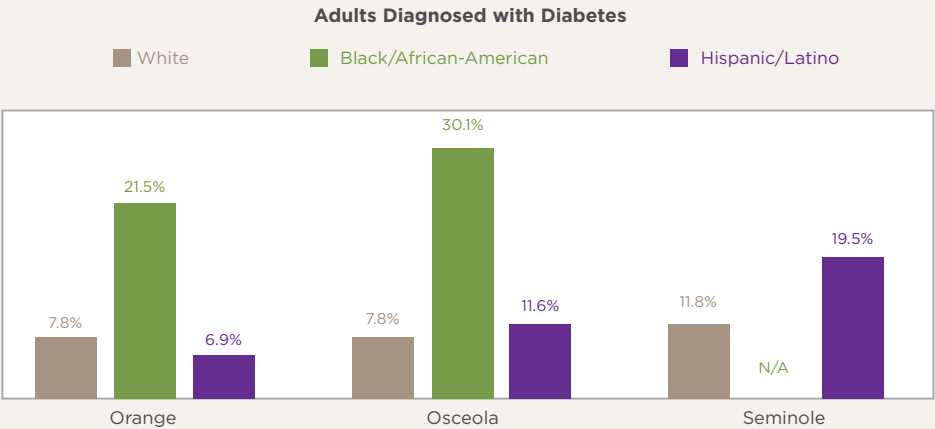


# MORTALITY

## Prevalence of Diabetes

Diabetes prevalence, or the number of those living with the disease, is also on the rise in all three counties. The percent of black/African-American persons living with diabetes in Orange and Osceola Counties is more than double that of their white or Hispanic/Latino counterparts. Rates were unavailable for the black/African-American population in Seminole County.

Chart 26.



## Asthma

Asthma is a chronic inflammatory disorder that affects the airways in the lungs. Asthma causes tightness in the chest, coughing and wheezing. Asthma affects people of every race, sex and age. However, disparities exist particularly for low-income persons and Hispanics/Latinos. There is no current asthma data for blacks/African-Americans in Seminole County. Notably, white adults in Seminole County experience an unusually high rate of asthma. The previously mentioned data are demonstrated in the charts below.

Chart 27.

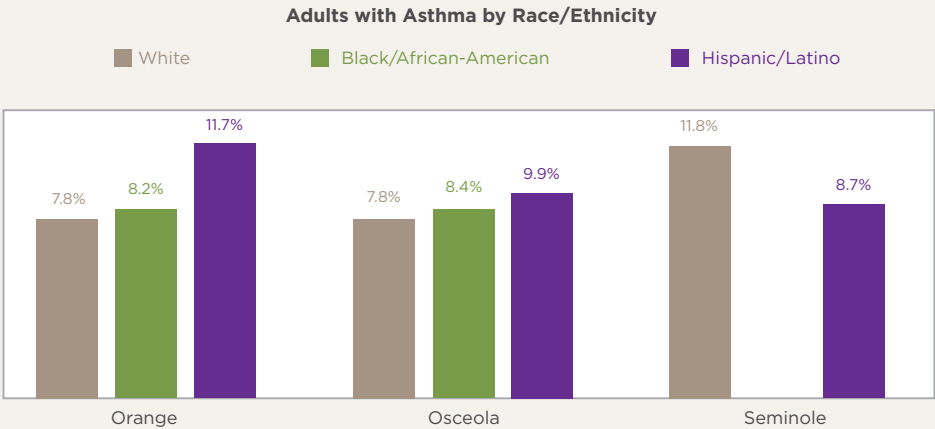
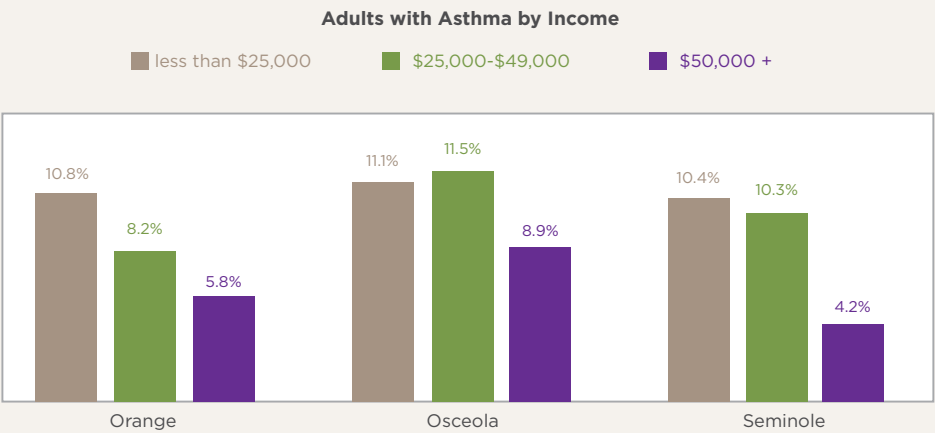


Chart 28.





## YEARS OF POTENTIAL LIFE LOST

As previously defined, YPLL is an estimate of premature mortality that is defined as the number of years of life lost among persons who die before a predetermined age. Seventy-five years of age was used in the calculation for the indicators below. Using this measure, we would say that a person who died at the age of 2 lost 73 potential life years. As such, disproportionately high YPLL rates in a county typically indicate that a high number of persons experienced premature death. For this reason, YPLL is a very useful measure when prioritizing resources to address public health needs and services. It is also helpful when trying to impact social determinants of health.

Suicide and motor vehicle crashes are commonly among the top five contributors to years of potential life lost. Although HIV is ranked as the ninth cause of death for the black/African-American population in Orange County, it is the second leading cause for premature death. The tables below show YPLL in detail for population groups in Orange, Osceola, and Seminole Counties.

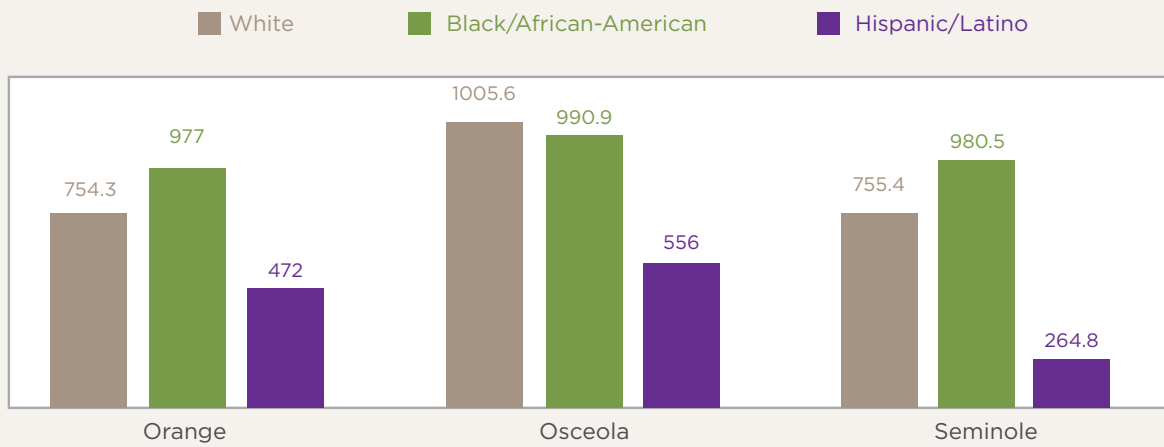
<b>Table 45.</b>	<b>Major Cardiovascular Disease</b>	<b>White</b>	<b>Black/African-American</b>	<b>Hispanic/Latino</b>
	Orange	754.3	977.0	472.0
	Osceola	1005.6	990.9	556.0
	Seminole	755.4	980.5	264.8

<b>Table 46.</b>	<b>Cerebrovascular Diseases (including Stroke)</b>	<b>White</b>	<b>Black/African-American</b>	<b>Hispanic/Latino</b>
	Orange	148.1	247.8	94.0
	Osceola	101.8	210.3	47.9
	Seminole	153.7	250.3	8.3

<b>Table 47.</b>	<b>HIV</b>	<b>White</b>	<b>Black/African-American</b>	<b>Hispanic/Latino</b>
	Orange	83.9	351.2	88.2
	Osceola	53.0	146.5	21.9
	Seminole	27.9	260.9	61.9

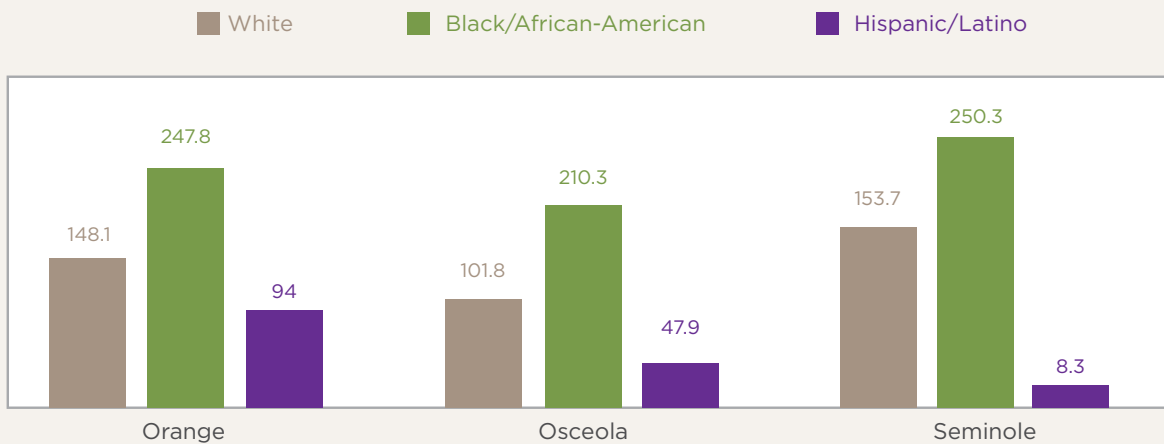
**Chart 29.**

**Major Cardiovascular Disease - Years Potential Life Lost**



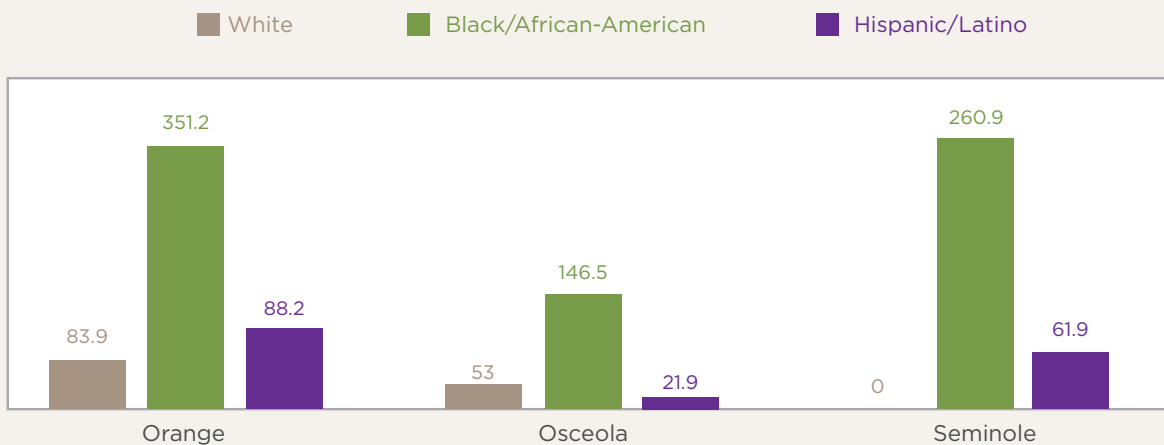
**Chart 30.**

**Cerebrovascular Disease - Years Potential Life Lost**



**Chart 31.**

**Human Immunodeficiency Virus (HIV) - Years Potential Life Lost**



## ACCESS TO CARE

According to Healthy People 2020, access to healthcare is a social determinant of health. With limited access comes the increased risk for health disparities. Individuals with limited access to healthcare are more susceptible to poor health outcomes and, as a result, their quality of life is negatively affected. One of the largest barriers to accessing health services is health insurance.

### Health Insurance Coverage for Adults

Insurance coverage in the tri-county area was higher in the white population when compared to black/African-American and Hispanic/Latino adults. The lowest rate of insurance coverage is among Hispanic/Latino adults in Osceola County at 58.2%. Insurance coverage also differed among adults based on education level. The percent of adults covered by health insurance is lowest among those with less than a high school education. Coverage was 74.2% in Orange County and 67.8% in Osceola County. Data was not available for Seminole County. The overall percent of adults covered by health insurance increased as income increased. Rates of coverage were highest among adults with incomes of \$50,000 or more. The percent of adults with health insurance in this category ranged from 94.3% in Osceola County to 96.8% in Seminole County.

**Table 48. Percent of Adults with Any Type of Health Insurance**

		ORANGE	OSCEOLA	SEMINOLE
<b>Race/ Ethnicity</b>	All	84.8%	78.6%	82.7%
	White	89.8%	82.0%	85.7%
	Black/African-American	80.5%	74.9%	-
	Hispanic/Latino	67.5%	69.9%	80.5%
<b>Education</b>	< High School	74.2%	67.8%	-
	High School/GED	78.4%	73.7%	75.1%
	> High School	87.4%	82.9%	86.5%
<b>Income</b>	< \$25,000	63.6%	55.1%	61.3%
	\$25,000 - \$49,999	77.2%	80.0%	75.2%
	\$50,000 or more	96.3%	94.3%	96.8%

Source: Behavioral Risk Factor Surveillance System (BRFSS) County Data Reports

### Dental Care Access

Oral health greatly influences health and is useful when measuring general well-being. Oral health disparities are identified by monitoring access to dental care by low-income individuals. In the tri-county area, the percent of low-income individuals with access to dental care has continually increased during the past four years.

The percent of adults who did not visit a dentist due to cost is highest in Osceola County at 20.2%. Among population groups, Hispanic/Latino adults in all three counties reported the highest percentages of not visiting a dentist due to cost. Rates ranged from 37.9% in Orange County to 27.5% in Seminole County. The rates were much lower for black/African-American and white adults in the tri-county area.

### Adults who believes that they would get better medical care if they belonged to a different racial or ethnic group

One interesting social determinant of health is social beliefs concerning the quality of care one will receive. This particular determinant is linked to help-seeking behaviors and the likelihood that one will follow advice gained in a clinical encounter. This measure also points to perceived disparities in the healthcare system.

Minorities consistently believe that they do not receive medical treatment at the same level as people of other races or ethnicities. As well as persons with limited education and persons in lower income brackets, rate their race or ethnicity as important to the quality of care they receive. The table below gives the results in detail.

**Table 49. Percent of Adults who think they would get better medical treatment if they belonged to a different racial or ethnic group**

		ORANGE	OSCEOLA	SEMINOLE
Race/ Ethnicity	White	6.6%	14.0%	6.4%
	Black/African-American	24.0%	37.4%	-
	Hispanic/Latino	17.6%	11.1%	17.0%
Education	< High School	32.3%	19.0%	-
	High School or College	10.7%	15.3%	9.9%
	4+ years of College	9.6%	13.3%	7.2%
Income	< \$25,000	25.6%	22.9%	8.8%
	\$25,000 - \$49,999	12.2%	23.8%	12.4%
	\$50,000 or more	5.2%	2.4%	6.0%

Source: Behavioral Risk Factor Surveillance System (BRFSS) County Data Reports

## CANCER SCREENINGS

Breast, cervical, prostate, and colorectal cancers in the tri-county region contribute to more than half of all cancer deaths in Central Florida. All of the previously mentioned cancers have effective screening tools and can aid in finding cancer early so that appropriate treatments can be employed. However, minority populations that we have data on in the tri-county area are less likely to be screened for cancer. This can contribute to the higher rates of cancer deaths found in non-white persons. Limited data are available by race and ethnicity for cancer screenings in the tri-county area.

**Table 50.**

Women 40 years and older who received a mammogram in the past year	White	Black/African-American	Hispanic/Latino
Orange	54.2%	48.0%	43.5%
Osceola	47.9%	n/a	50.6%
Seminole	49.6%	n/a	n/a

**Table 51.**

Women 18 years and older who received a Pap test in the past year	White	Black/African-American	Hispanic/Latino
Orange	57.8%	68.3%	58.3%
Osceola	50.4%	n/a	41.4%
Seminole	58.7%	n/a	n/a

**Table 52.**

Adults 50 years and older who received a sigmoidoscopy or colonoscopy in the past five years	White	Black/African-American	Hispanic/Latino
Orange	52.1%	41.8%	48.3%
Osceola	49.6%	n/a	44.5%
Seminole	54.6%	n/a	n/a

## MATERNAL AND CHILD HEALTH

Maternal and child health disparities are perhaps the most documented and widely published social determinants monitored in research today. As such, many steps have been taken to decrease the disparate birth outcomes. Due to the fact that maternal and child health disparities are hinged on social relationships, a few more categories are useful in describing the totality of how birth is socially determined.

Infant mortality and other birth outcomes will thus be listed by race/ethnicity, income, and education level; however, insurance status and marital status are two additional categories that will be considered in this section where data are available. The following tables and charts describe the most common measures used to describe how maternal and child health can be socially determined.



Table 53.

		ORANGE	OSCEOLA	SEMINOLE
<b>Infant Mortality Rate</b>	White	5.4	5.0	5.2
	Black/African-American	12.2	10.7	16.1
	Hispanic/Latino	6.8	6.5	7.4
<b>Preterm Birth Rate (&lt;37 weeks)</b>	White	13.4	13.8	12.6
	Black/African-American	20.2	16.8	17.2
	Hispanic/Latino	14.9	15.1	14.0
	Other	13.8	15.5	12.1
<b>Low Birth Weight Rate (&lt;2500 grams)</b>	White	6.9	7.9	6.9
	Black/African-American	13.5	10.5	14.0
	Hispanic/Latino	7.2	8.6	7.6
	Other	8.6	10.1	10.1
<b>Percent of Births Covered by Medicaid</b>	White	40.6%	56.0%	36.7%
	Black/African-American	62.8%	64.3%	69.0%
	Hispanic/Latino	54.1%	63.3%	55.2%
	Other	30.8%	40.3%	30.2%
<b>Percent of Births to Mothers with 1<sup>st</sup> Trimester Prenatal Care</b>	White	86.8	81.6	87.9
	Black/African-American	76.7	76.8	75.7
	Hispanic/Latino	83.7	80.5	84.5
	Other	86.9	78.6	84.4



Table 54.

		ORANGE	OSCEOLA	SEMINOLE
<b>Percent of Births to Mothers with less than a High School Education</b>	White	12.9%	14.4%	7.3%
	Black/African-American	20.8%	12.3%	16.4%
	Hispanic/Latino	20.3%	16.6%	14.7%
	Other	8.1%	8.6%	8.2%
<b>Percent of Births to Uninsured Women</b>	White	9.6%	8.5%	3.9%
	Black/African-American	9.0%	6.7%	2.5%
	Hispanic/Latino	15.2%	10.0%	5.1%
	Other	16.2%	13.5%	7.4%
<b>Percent of Births to Unwed Mothers</b>	White	40.3%	49.9%	32.5%
	Black/African-American	67.7%	58.8%	70.2%
	Hispanic/Latino	53.3%	56.6%	45.7%
	Other	25.7%	30.4%	23.9%
<b>Percent of Births to Mothers who were Obese at Conception</b>	White	18.4%	22.3%	19.2%
	Black/African-American	25.4%	28.6%	29.1%
	Hispanic/Latino	20.5%	23.1%	20.4%
	Other	11.5%	12.9%	11.0%
<b>Percent of Repeat Births to Mothers aged 15-19</b>	White	16.4%	15.3%	11.6%
	Black/African-American	21.5%	19.2%	20.4%
	Hispanic/Latino	17.6%	15.4%	16.7%
	Other	11.2%	8.3%	16.7%

# MENTAL HEALTH

Many social factors can contribute to mental health status. Availability of resources to meet daily needs (e.g., safe housing, food accessibility); access to educational, economic, and job opportunities; social support; and exposure to crime and violence all have an impact on one’s mental health. Minorities in the tri-county region have a slightly lower average household income, have lower rates of educational attainment, and are less likely to have health insurance coverage. These factors are considered social stressors that may contribute to higher levels of depression and anxiety in minority populations.

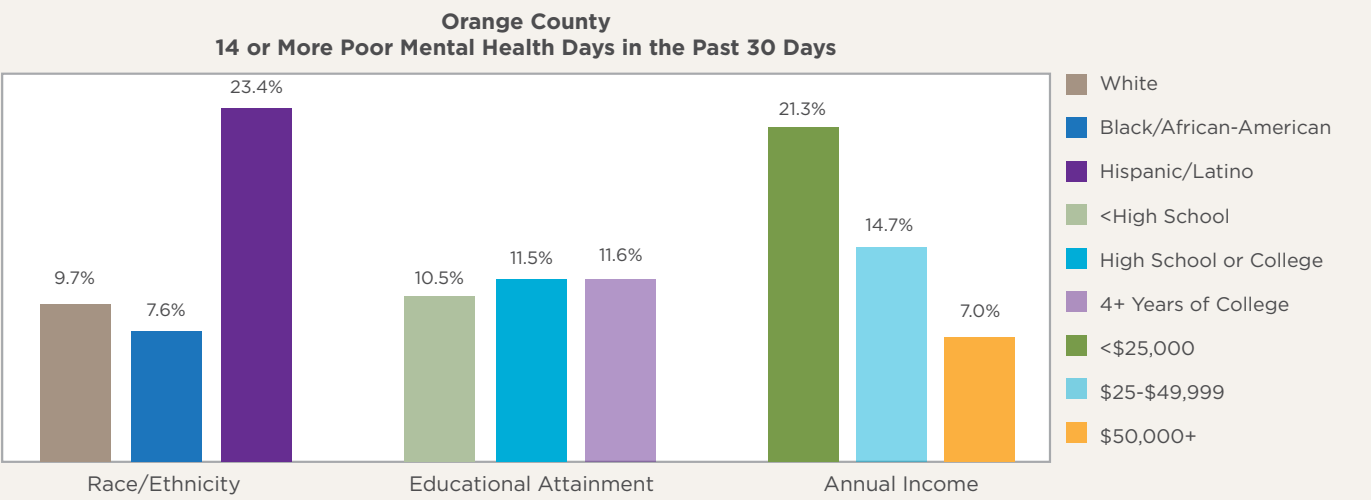
Additionally, mental illnesses, such as depression and anxiety, affect people’s ability to participate in health-promoting behaviors and often time educational and occupational activities. In turn, mental health can have serious physical health consequences and can decrease a person’s ability to participate in treatment and recovery.

There is evidence to show that minorities, particularly Hispanics/Latinos and those who have a household income below \$25,000 a year report significantly poorer mental health status.

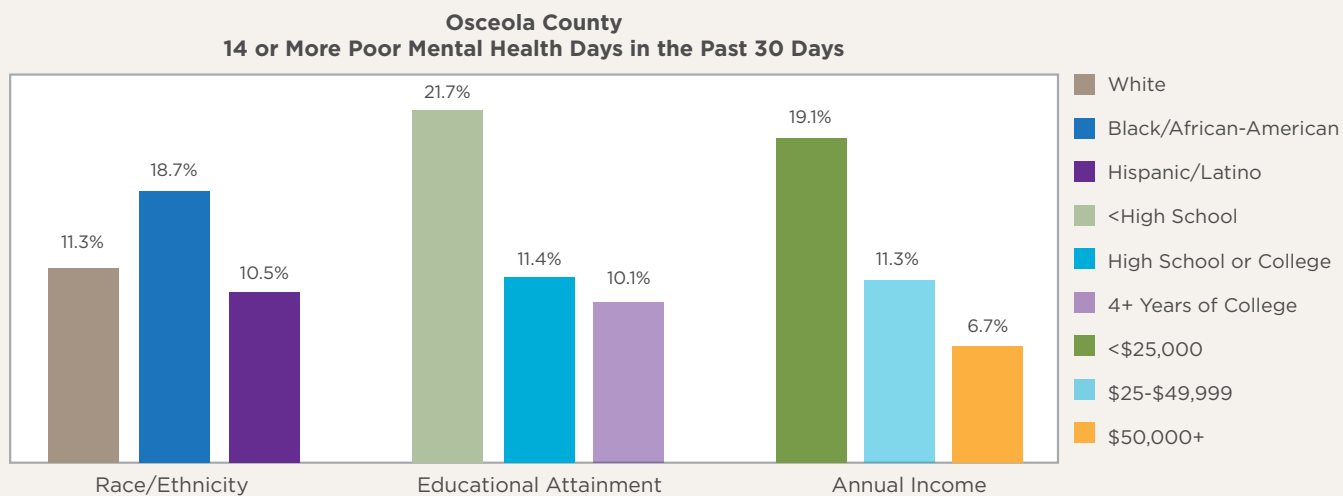
## Poor Mental Health

One subjective measure that is used to gauge mental health in the population is “poor mental health days.” This variable measures what percent of persons experienced 14 or more days that they would consider bad in the past 30 days. Data below is stratified by race, ethnicity, education level, and income. The chart below describes the results in detail.

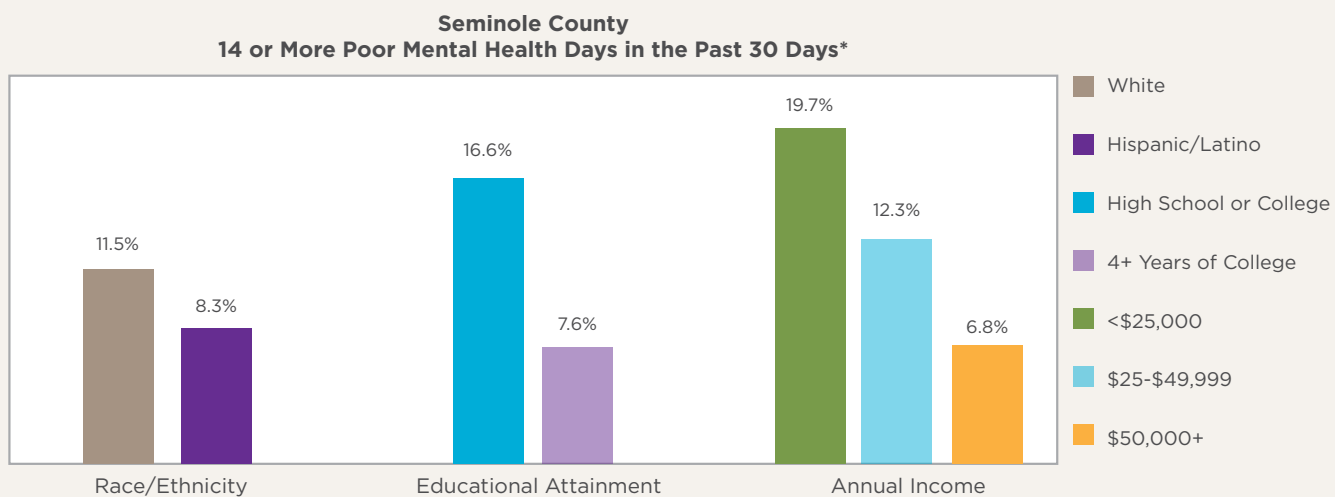
Chart 32.



**Chart 33.**



**Chart 34.**

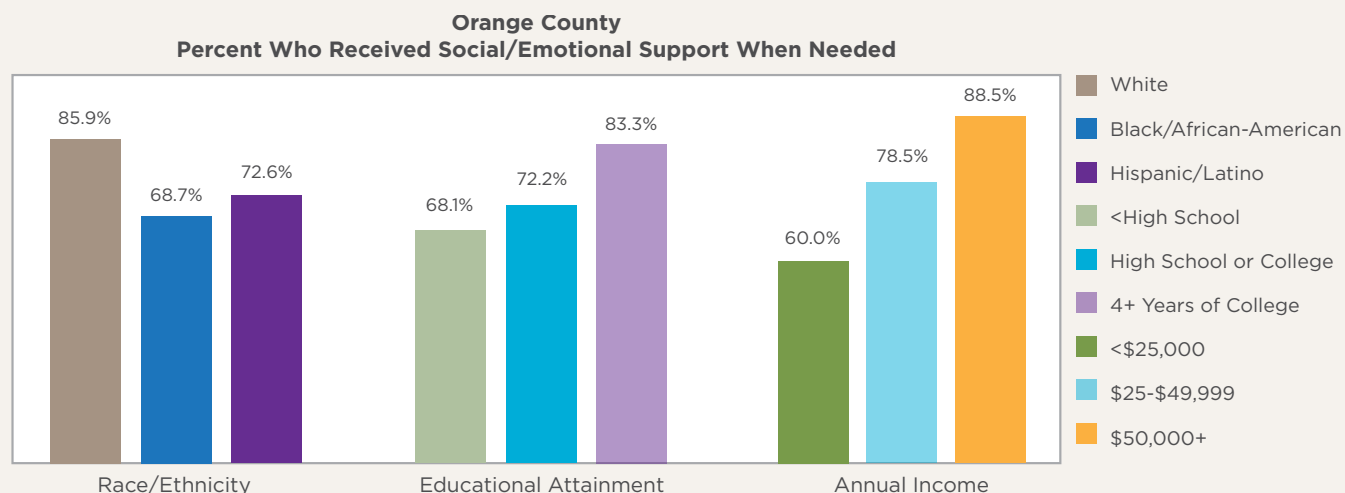


\*Data are not available for the Black/African-American population, or for individuals with less than a high school education

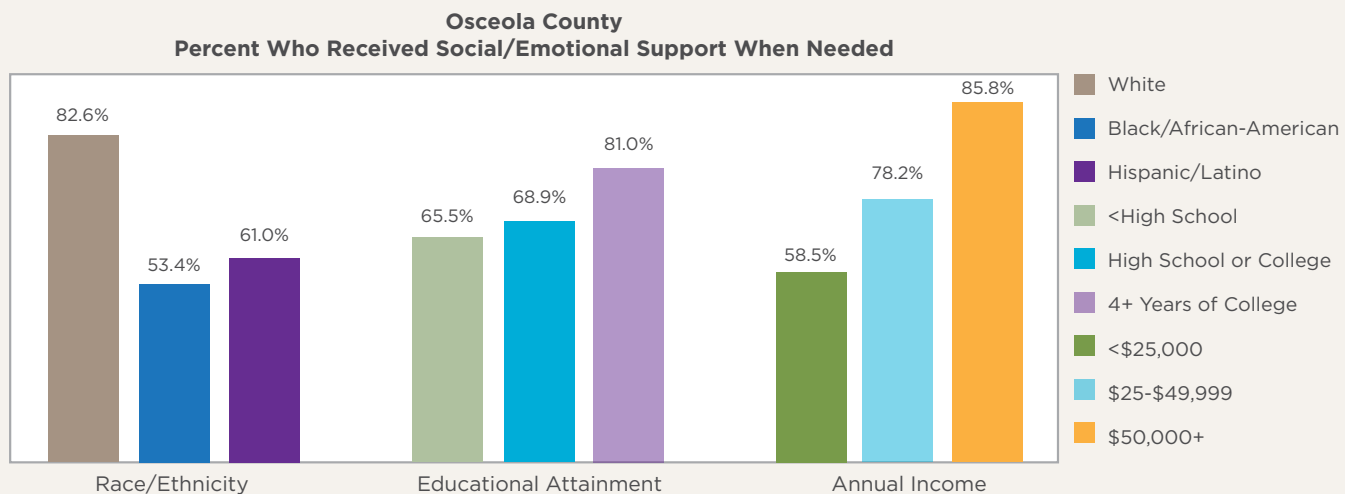
### Always/Usually Receive Social and Emotional Support when Needed

Emotional and social support is critical to maintaining good mental health. The percent of adults receiving needed support in Osceola County remained stable from 2007-2010. The lowest percent of adults who reported receiving needed support was among the black/African-American population in Osceola and Orange Counties at 53.4% and 68.7%, respectively. Only 61.0% of Hispanic/Latino adults in Osceola County reported receiving support when needed.

**Chart 35.**

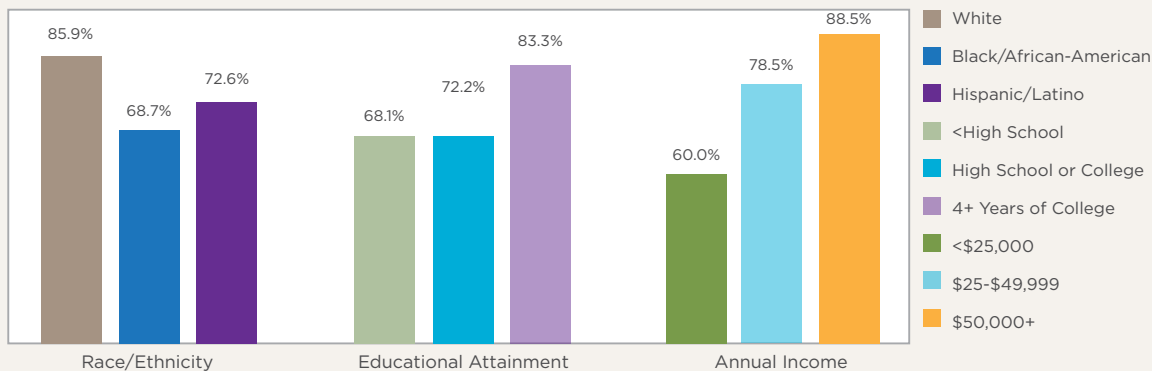


**Chart 36.**



**Chart 37.**

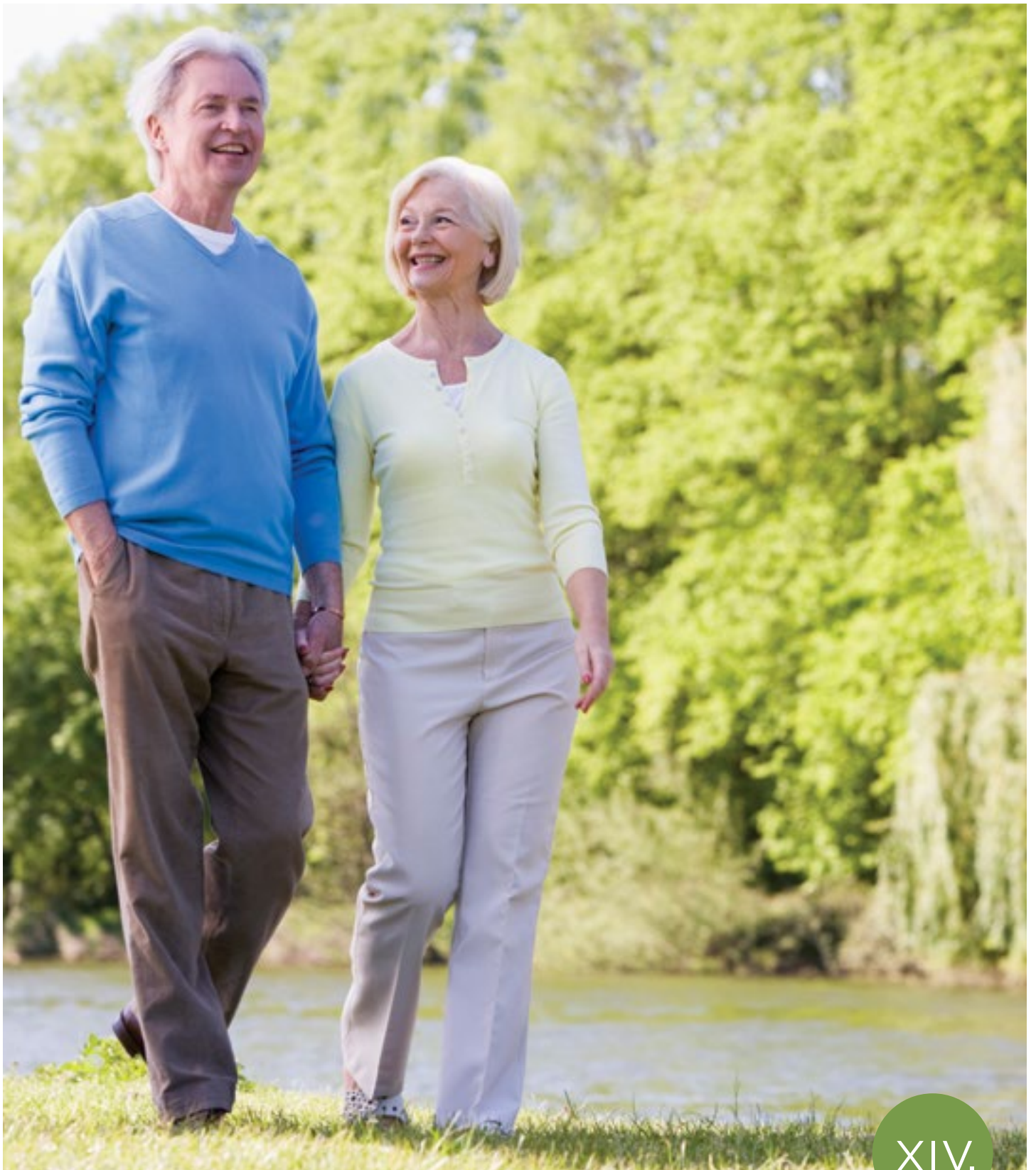
**Seminole County  
Percent Who Received Social/Emotional Support When Needed**



Additional health indicator data for social determinants is located in Appendix A.

## CONCLUSION

Based on the data presented in this needs assessment, reduced mortality and morbidity rates may be attained in all population groups by increasing participation in health screenings for early cancer detection and modifying risk behaviors that directly affect the health factors responsible for the growing prevalence of chronic diseases. Coordinated community planning is needed to ensure all residents have access to appropriate services when care is needed. Building strategic partnerships can leverage limited financial resources, improve program effectiveness, and strengthen the role of the hospital as they work within the region to address community health needs. A strengthened public health system can provide all residents with the opportunity to attain optimal health outcomes.



XIV.

**PRIORITIZATION OF HEALTH NEEDS**

## PRIORITIZATION OF HEALTH NEEDS

A comprehensive analysis of health indicators provides an increased understanding of the community's health problems. Prioritizing health issues ensures that resources allocated to address community health needs are used effectively and efficiently in an effort to achieve optimal outcomes. To accomplish the task of prioritizing health needs, the Assessment Protocol for Excellence in Public Health (APEXPH) modified Hanlon Method was used to categorize and rank health indicators to identify key needs in the community. This method considered three criteria: the magnitude of the problem, as measured in terms of the percent of the population with the health problem; the severity of the problem in terms of mortality, morbidity, hospitalizations, economic loss or community impact; and the predicted effectiveness of the intervention in preventing the health problem.

In addition to the above-mentioned criteria, health indicator rates were compared to national benchmark targets (where available) to define the gap between the current and potential health of the community. Indicator rates were also trended to highlight improvement or decline from the previous time measurement. The six-step process used for prioritizing health indicators is described as follows:

**Step 1:** Rates/percentages for over 100 health indicators were collected from the Healthy Measures HCN to develop a comprehensive community health profile for each county served by the hospital facility.

**Step 2:** The health indicators were grouped into the following categories: mortality, years of potential life lost, morbidity, maternal and child health, screenings, health behaviors, health conditions, and health factors. Health indicators for each group were ranked according to the size of the health problem, in terms of the rate/percent of the population with the health problem. The top five ranked health problems were identified for each category.

**Step 3:** The top ranked health indicator rates were compared to the Healthy People 2020 target goal (when available) to determine the status of goal attainment (met or not met). The difference between the current rate and the target rate was calculated to identify indicators furthest from meeting the nationally established goal.

**Step 4:** Trending of health indicators was included to identify emerging needs as well as highlight areas where the community is becoming healthier. A red arrow (↑) was used to indicate a trend going in the wrong direction, while a green arrow (↓) was used to indicate trends going in the right direction. The direction of trending arrows should be interpreted in the context of the health indicator. For example, mammography history, if there was a decrease in the percentage of women having a mammogram, a red arrow pointing down (↓) was used. Conversely, if the same indicator showed the percentage increasing, a green arrow pointing up (↑) was used.

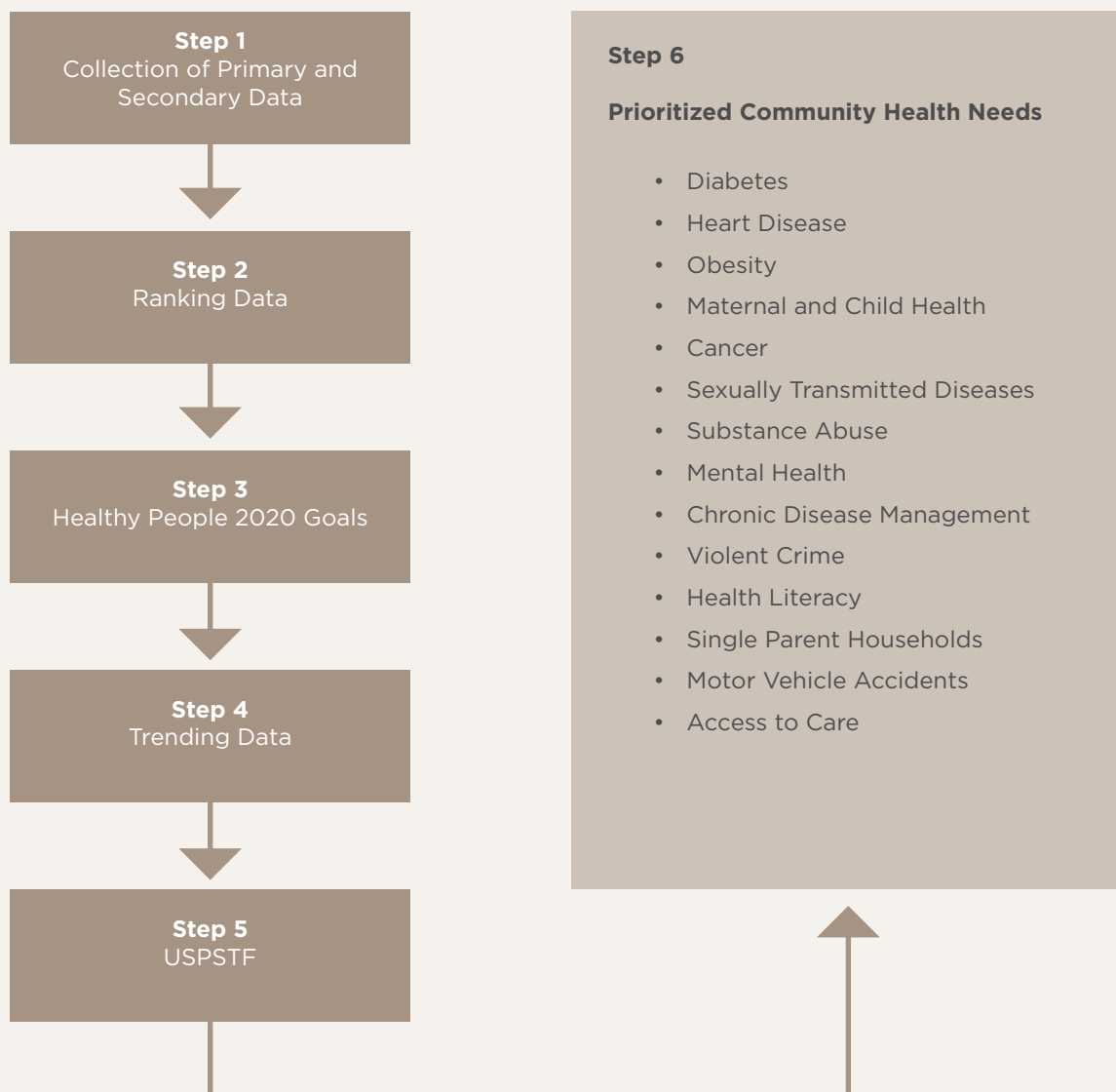
**Step 5:** Grades and recommendations from the U.S. Preventive Services Task Force (USPSTF) to assess the merits of preventive measures, including screening tests, counseling, immunizations, and preventive medications were included where appropriate. Grades and recommendations are defined in Appendix B.



## Step 6: Prioritized Community Health Needs and Key Stakeholder Findings

Figure 15

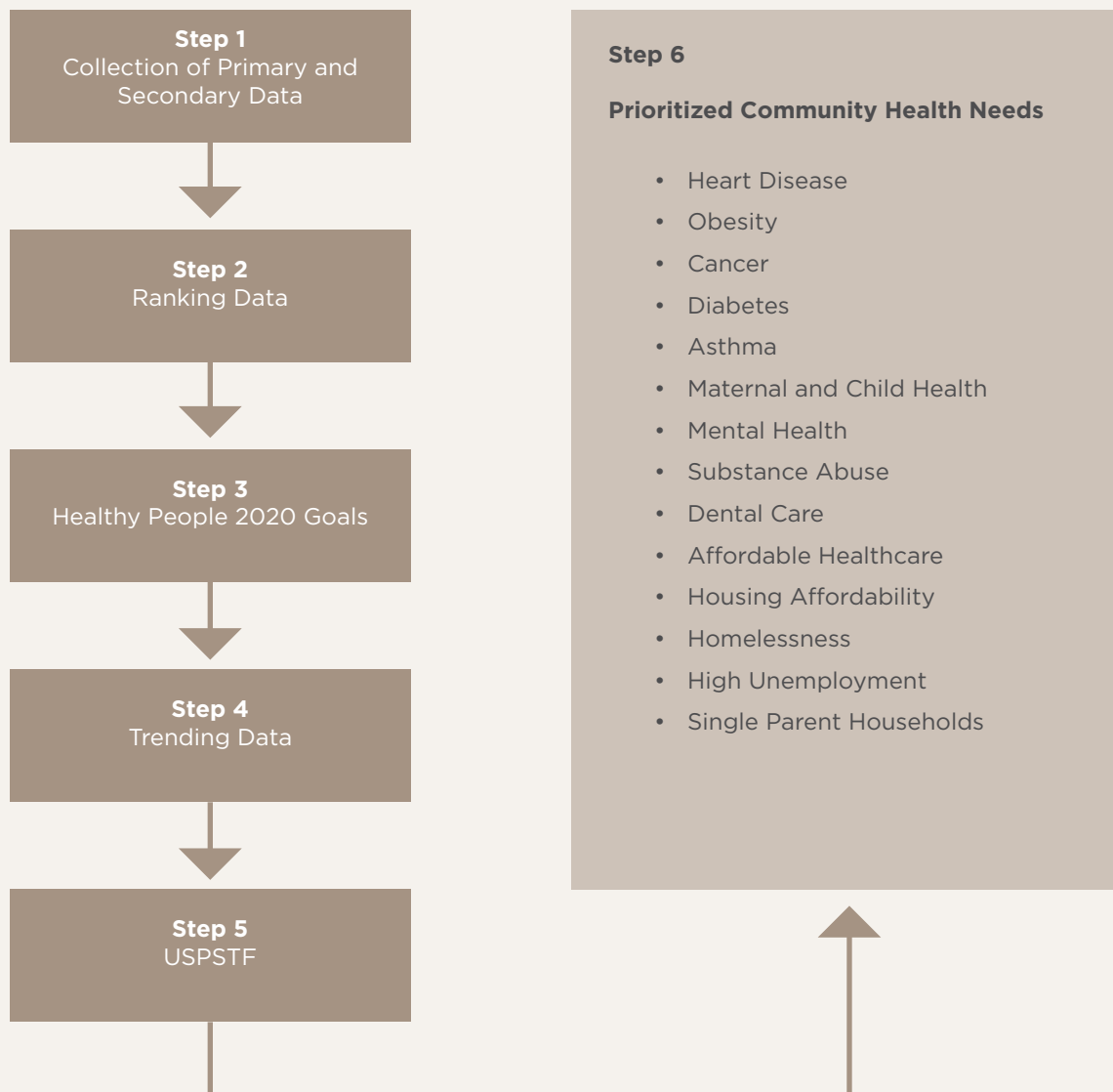
### ORANGE COUNTY



## Step 6: Prioritized Community Health Needs and Key Stakeholder Findings

Figure 16

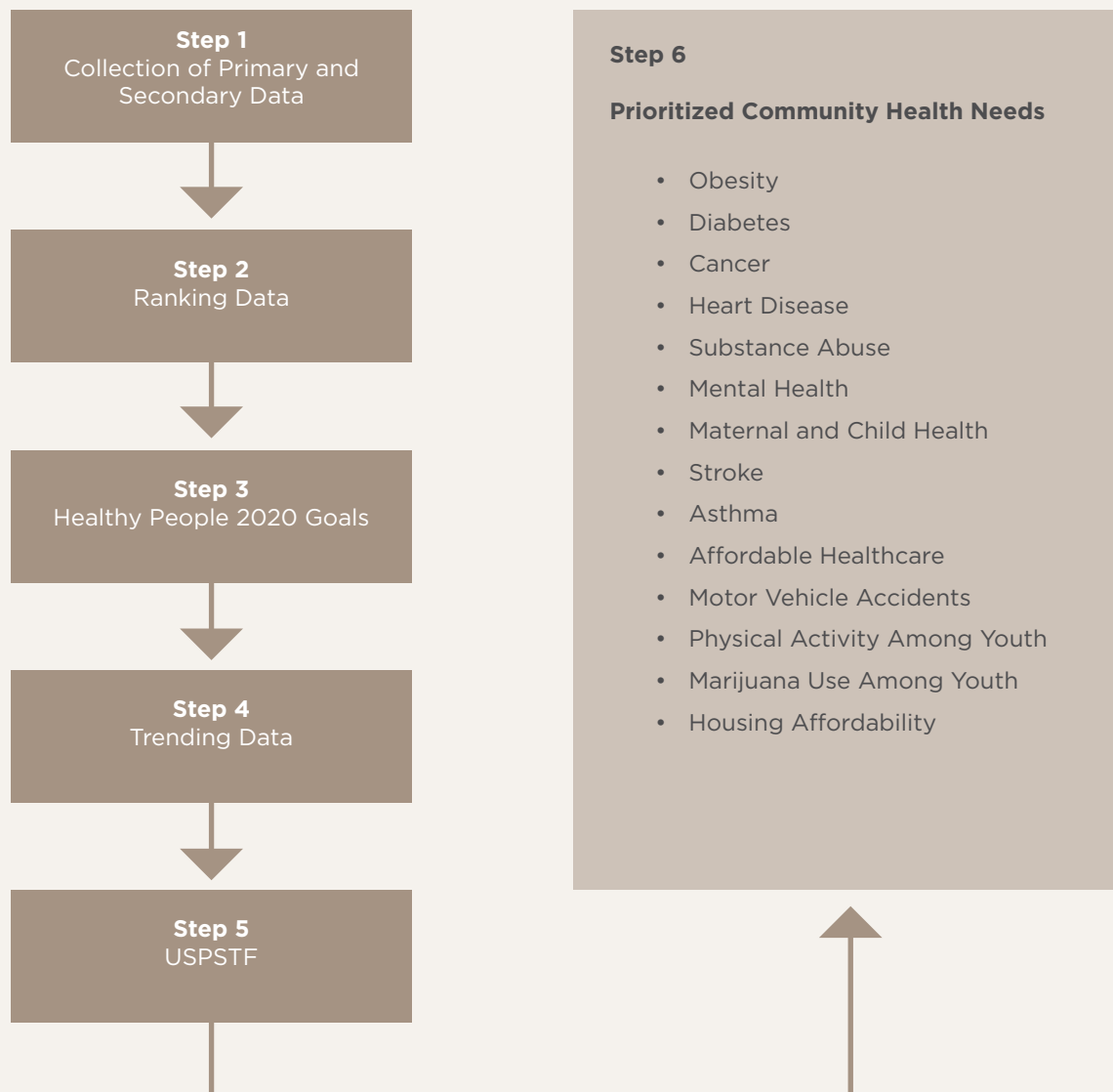
### OSCEOLA COUNTY



## Step 6: Prioritized Community Health Needs and Key Stakeholder Findings

Figure 17

### SEMINOLE COUNTY



**Figure 18**

ORANGE COUNTY Population 1,169,107 (July 2011 Census)	OSCEOLA COUNTY Population 276,163 (July 2011 Census)	SEMINOLE COUNTY Population 425,071 (July 2011 Census)
1. Diabetes	1. Heart Disease	1. Obesity
2. Heart Disease	2. Obesity	2. Diabetes
3. Obesity	3. Cancer	3. Cancer
4. Maternal and Child Health	4. Diabetes	4. Heart Disease
5. Cancer	5. Asthma	5. Substance Abuse
6. Sexually Transmitted Diseases	6. Maternal and Child Health	6. Mental Health
7. Substance Abuse	7. Mental Health	7. Maternal and Child Health
8. Mental Health	8. Substance Abuse	8. Stroke
9. Chronic Disease Management	9. Dental Care	9. Asthma
10. Violent Crime	10. Affordable Healthcare	10. Affordable Healthcare
11. Health Literacy	11. Housing Affordability	11. Motor Vehicle Accidents
12. Single Parent Households	12. Homelessness	12. Physical Activity Among Youth
13. Motor Vehicle Accidents	13. High Unemployment	13. Marijuana Use Among Youth
14. Access to Care	14. Single Parent Households	14. Housing Affordability



XV.

## INFORMATION GAPS AND LIMITATIONS OF THE ASSESSMENT

## INFORMATION GAPS AND LIMITATIONS OF THE ASSESSMENT

Limitations and inconsistencies in available data can make it challenging to provide a comprehensive community assessment. In local counties, there are sometimes gaps in data that do not provide answers to every question. The health indicators traditionally used to assess community health status presented some limitations when assessing the health of the low-income and uninsured populations. Currently, county-level health data is not available by income level or insurance status. Additionally, available health data for children, adolescents, minorities, and the elderly were also limited. Reliable zip-code level data are not available for any measures outside the realm of maternal and child health. Primary data collection is also an ongoing challenge for researchers.

Nonetheless, this Community Health Needs Assessment provides a generalizable analysis of the health needs in Orange, Osceola, and Seminole Counties in Florida. This assessment includes county-level indicators for mortality, morbidity, years potential life lost, access to care issues, behavioral risk factors, health screenings, maternal and child health, and social determinants of health. The social determinants of health presented in the previous section of this document describe the community in terms of economics, education, environment, public safety, and transportation. Key stakeholders were interviewed to share their perceptions and insights regarding the pressing health issues facing residents of the tri-county region. Data were provided by race/ethnicity and age when available. Zip code level data was provided for preterm and low birth weight infants. The completed CHNA contains all the information necessary for Florida Hospital, Orlando Health, and Lakeside Behavioral Healthcare to begin development of their implementation strategies in order to address community health needs as defined in this document.



XVI.

APPENDICES



## APPENDIX A • COMMUNITY DASHBOARD

### Access to Care

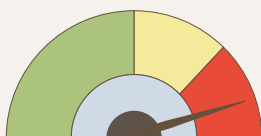
#### What is this Indicator?

This indicator shows the percentage of adults aged 18-64 years that have any type of health insurance coverage.

#### Why this is important:

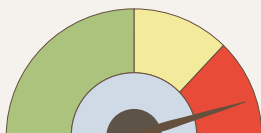
Medical costs in the United States are extremely high, so people without health insurance may not be able to afford medical treatment or prescription drugs. They are also less likely to get routine checkups and screenings, so if they do become ill they will not seek treatment until the condition is more advanced and therefore more difficult and costly to treat. Many small businesses are unable to offer health insurance to employees due to rising health insurance premiums.

**The Healthy People 2020 national health target is to increase the proportion of people with health insurance to 100%.\***



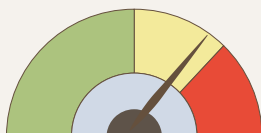
#### Adults with Health Insurance

Value:	71.0 percent
Measurement Period:	2011
Location:	Orange County, Florida
Comparison:	U.S. Counties
Categories:	Health / Access to Health Services



#### Adults with Health Insurance

Value:	67.3 percent
Measurement Period:	2011
Location:	Osceola County, Florida
Comparison:	U.S. Counties
Categories:	Health / Access to Health Services



#### Adults with Health Insurance

Value:	76.1 percent
Measurement Period:	2011
Location:	Seminole County, Florida
Comparison:	U.S. Counties
Categories:	Health / Access to Health Services

Red < 75.3  
Green >= 81.1  
In-between = Yellow  
Unit: Percent

\*Source: American Community Survey

# CANCER

## What is this Indicator?

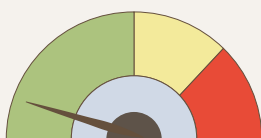
This indicator shows the age-adjusted death rate per 100,000 population due to cancer.

## Why this is important:

Cancer is the second leading cause of death in the United States. The National Cancer Institute (NCI) defines cancer as a term used to describe diseases in which abnormal cells divide without control and are able to invade other tissues. There are over 100 different types of cancer. According to the NCI, lung, colon and rectal, breast, pancreatic, and prostate cancer lead to the greatest number of annual deaths.

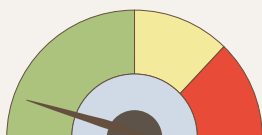
**The Healthy People 2020 target is to reduce the overall cancer death rate to 160.6 deaths per 100,000 population.**

Source: Florida Department of Health, Bureau of Vital Statistics



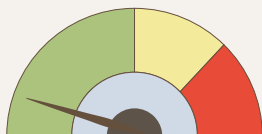
### Age-Adjusted Death Rate due to Cancer

Value:	159.7 deaths/100,000 population
Measurement Period:	2010-2012
Location:	Orange County, Florida
Comparison:	FL Counties
Categories:	Health / Cancer Health / Mortality Data



### Age-Adjusted Death Rate due to Cancer

Value:	152.7 deaths/100,000 population
Measurement Period:	2010-2012
Location:	Osceola County, Florida
Comparison:	FL Counties
Categories:	Health / Cancer Health / Mortality Data



### Age-Adjusted Death Rate due to Cancer

Value:	160.4 deaths/100,000 population
Measurement Period:	2010-2012
Location:	Seminole County, Florida
Comparison:	FL Counties
Categories:	Health / Cancer Health / Mortality Data

Red > 191.7  
Green <= 179.2  
In-between = Yellow  
Unit: deaths/100,000  
population

# DIABETES

## What is this Indicator?

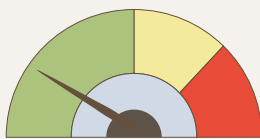
This indicator shows the percentage of adults who have ever been diagnosed with diabetes. Women who were diagnosed with diabetes only during the course of their pregnancy were not included in this count.

## Why this is important:

In 2007, diabetes was the seventh leading cause of death in the United States. In 2010, an estimated 25.8 million people or 8.3% of the population had diabetes. Diabetes disproportionately affects minority populations and the elderly and its incidence is likely to increase as minority populations grow and the U.S. population becomes older.

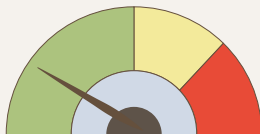
Diabetes can have a harmful effect on most of the organ systems in the human body; it is a frequent cause of end-stage renal disease, non-traumatic lower-extremity amputation, and a leading cause of blindness among working age adults. Persons with diabetes are also at increased risk for ischemic heart disease, neuropathy, and stroke. In economic terms, the direct medical expenditure attributable to diabetes in 2007 was estimated to be \$116 billion.

Source: Florida Behavioral Risk Factor Surveillance System



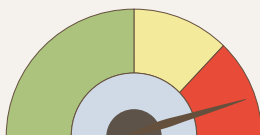
### Adults with Diabetes

Value:	9.9 percent
Measurement Period:	2010
Location:	Orange County, Florida
Comparison:	FL Counties
Categories:	Health / Diabetes



### Adults with Diabetes

Value:	9.9 percent
Measurement Period:	2010
Location:	Osceola County, Florida
Comparison:	FL Counties
Categories:	Health / Diabetes



### Adults with Diabetes

Value:	13.5 percent
Measurement Period:	2010
Location:	Seminole County, Florida
Comparison:	FL Counties
Categories:	Health / Diabetes

Red > 12.7  
Green <= 11.4  
In-between = Yellow  
Unit: percent

## EDUCATIONAL ATTAINMENT

### What is this Indicator?

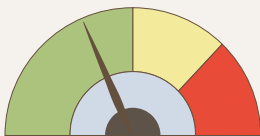
This indicator shows the percentage of students who graduate high school within four years of their first enrollment in 9th grade.

### Why this is important:

Individuals who do not finish high school are more likely than people who finish high school to lack the basic skills required to function in an increasingly complicated job market and society. Adults with limited education levels are more likely to be unemployed, on government assistance, or involved in crime.

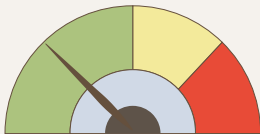
**The Healthy People 2020 national health target is to increase the proportion of students who graduate high school within four years of their first enrollment in 9th grade to 82.4%.**

Source: Florida Department of Education



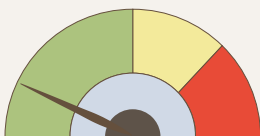
#### High School Graduation

Value:	73.9 percent
Measurement Period:	2011-2012
Location:	Orange County, Florida
Comparison:	FL Counties
Categories:	Education / Educational Attainment in Adult Population Education / Student Performance K-12



#### High School Graduation

Value:	77.5 percent
Measurement Period:	2011-2012
Location:	Osceola County, Florida
Comparison:	FL Counties
Categories:	Education / Educational Attainment in Adult Population Education / Student Performance K-12



#### High School Graduation

Value:	80.3 percent
Measurement Period:	2011-2012
Location:	Seminole County, Florida Florida
Comparison:	FL Counties
Categories:	Education / Educational Attainment in Adult Population Education / Student Performance K-12

Red < 66.3  
Green >= 72.6  
In-between = Yellow  
Unit: percent

# HEART DISEASE

## What is this Indicator?

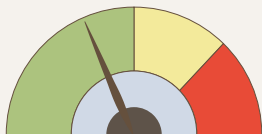
This indicator shows the age-adjusted death rate per 100,000 population due to coronary heart disease.

## Why this is important:

Coronary heart disease occurs when the coronary arteries become narrowed or clogged by fat and cholesterol deposits (plaques) and cannot supply enough blood to the heart. As the arteries narrow, or as the plaques rupture, the flow of blood to the heart can slow or stop, causing chest pain (angina), shortness of breath, a heart attack or other symptoms. Nationally, Coronary Heart Disease makes up the majority of heart disease deaths. In 2006, 425,425 Americans died of coronary heart disease. Heart disease is also very costly economically with projected costs in 2010 of \$316 billion on health care services, medications, and lost productivity.

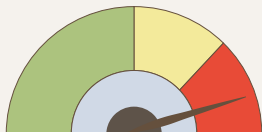
**The Healthy People 2020 national health target is to reduce the coronary heart disease death rate to 100.8 deaths per 100,000 population.**

Source: Florida Department of Health, Bureau of Vital Statistics



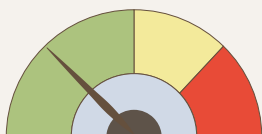
### Age-Adjusted Death Rate due to Heart Disease

Value:	102.6 deaths/100,000 population
Measurement Period:	2012
Location:	Orange County, Florida
Comparison:	FL Counties
Categories:	Health / Heart Disease & Stroke Health / Mortality Data



### Age-Adjusted Death Rate due to Heart Disease

Value:	143.1 deaths/100,000 population
Measurement Period:	2012
Location:	Osceola County, Florida
Comparison:	FL Counties
Categories:	Health / Heart Disease & Stroke Health / Mortality Data



### Age-Adjusted Death Rate due to Heart Disease

Value:	90.9 deaths/100,000 population
Measurement Period:	2012
Location:	Seminole County, Florida
Comparison:	FL Counties
Categories:	Health / Heart Disease & Stroke Health / Mortality Data

Red > 126.3  
Green <= 107.1  
In-between = Yellow  
Unit: deaths/100,000  
population

# INFANT MORTALITY

## What is this Indicator?

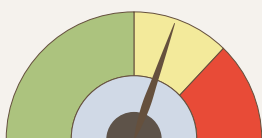
This indicator shows the mortality rate in deaths per 1,000 live births for infants within their first year of life.

## Why this is important:

Infant mortality rate continues to be one of the most widely used indicators of the overall health status of a community. The leading causes of death among infants are birth defects, pre-term delivery, low birth weight, Sudden Infant Death Syndrome (SIDS), and maternal complications during pregnancy.

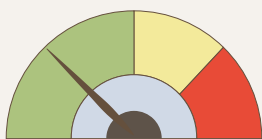
**The Healthy People 2020 national health target is to reduce the infant mortality rate to 6 deaths per 1,000 live births.**

Source: Florida Department of Health, Bureau of Vital Statistics



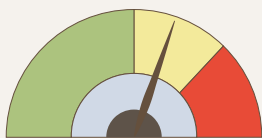
### Infant Mortality Rate

Value:	6.9 deaths/1,000 live births
Measurement Period:	2012
Location:	Orange County, Florida
Comparison:	FL Counties
Categories:	Health / Maternal, Fetal & Infant Health Health / Mortality Data



### Infant Mortality Rate

Value:	4.4 deaths/1,000 live births
Measurement Period:	2012
Location:	Osceola County, Florida
Comparison:	FL Counties
Categories:	Health / Maternal, Fetal & Infant Health Health / Mortality Data



### Infant Mortality Rate

Value:	6.8 deaths/1,000 live births
Measurement Period:	2012
Location:	Seminole County, Florida
Comparison:	FL Counties
Categories:	Health / Maternal, Fetal & Infant Health Health / Mortality Data

Red > 8.5  
Green <= 6.5  
In-between = Yellow  
Unit: deaths/1,000  
live births

# OBESITY

## What is this Indicator?

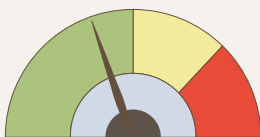
This indicator shows the percentage of adults aged 18 and older who are obese according to the Body Mass Index (BMI). The BMI is calculated by taking a person's weight and dividing it by their height squared in metric units ( $BMI = \text{Weight (Kg)} / [\text{Height (cm)}^2]$ ). A BMI  $\geq 30$  is considered obese.

## Why this is important:

The percentage of obese adults is an indicator of the overall health and lifestyle of a community. Obesity increases the risk of many diseases and health conditions including heart disease, Type 2 diabetes, cancer, hypertension, stroke, liver and gallbladder disease, respiratory problems, and osteoarthritis. Losing weight and maintaining a healthy weight help to prevent and control these diseases. Being obese also carries significant economic costs due to increased healthcare spending and lost earnings.

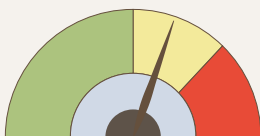
**The Healthy People 2020 national health target is to reduce the proportion of adults aged 20 and older who are obese to 30.6%.**

Source: Florida Behavioral Risk Factor Surveillance System



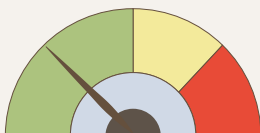
### Adults who are Obese

Value:	27.8 percent
Measurement Period:	2010
Location:	Orange County, Florida
Comparison:	FL Counties
Categories:	Health / Exercise, Nutrition, & Weight Health / Diabetes Health / Heart Disease & Stroke



### Adults who are Obese

Value:	31.9 percent
Measurement Period:	2010
Location:	Osceola County, Florida
Comparison:	FL Counties
Categories:	Health / Exercise, Nutrition, & Weight Health / Diabetes Health / Heart Disease & Stroke



### Adults who are Obese

Value:	26.4 percent
Measurement Period:	2010
Location:	Seminole County, Florida
Comparison:	FL Counties
Categories:	Health / Exercise, Nutrition, & Weight Health / Diabetes Health / Heart Disease & Stroke

Red > 33.7  
Green  $\leq$  29.3  
In-between = Yellow  
Unit: percent



# STROKE

## What is this Indicator?

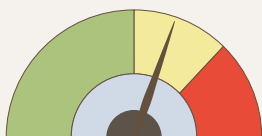
This indicator shows the age-adjusted death rate per 100,000 population due to cerebrovascular disease and stroke.

## Why this is important:

Cerebrovascular diseases rank third among the leading causes of death in the U.S. Cerebrovascular disease can cause a stroke. A stroke occurs when blood vessels carrying oxygen to the brain become blocked or burst, thereby cutting off the brain's supply of oxygen. Lack of oxygen causes brain cells to die which can lead to death or disability. Each year, approximately 795,000 people in the U.S. will suffer a new or recurrent stroke. Although people of all ages may have strokes, the risk more than doubles with each decade of life after age 55. The most important modifiable risk factors for stroke are high blood pressure, high cholesterol and diabetes mellitus.

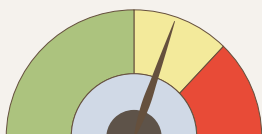
**The Healthy People 2020 national health target is to reduce the stroke death rate to 33.8 deaths per 100,000 population.**

Source: Florida Department of Health, Bureau of Vital Statistics



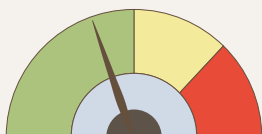
### Age-Adjusted Death Rate due to Cerebrovascular Disease (Stroke)

Value:	34.8 deaths/100,000 population
Measurement Period:	2012
Location:	Orange County, Florida
Comparison:	FL Counties
Categories:	Health / Heart Disease & Stroke Health / Mortality Data



### Age-Adjusted Death Rate due to Cerebrovascular Disease (Stroke)

Value:	36.8 deaths/100,000 population
Measurement Period:	2012
Location:	Osceola County, Florida
Comparison:	FL Counties
Categories:	Health / Heart Disease & Stroke Health / Mortality Data



### Age-Adjusted Death Rate due to Cerebrovascular Disease (Stroke)

Value:	31.0 deaths/100,000 population
Measurement Period:	2012
Location:	Seminole County, Florida
Comparison:	FL Counties
Categories:	Health / Heart Disease & Stroke Health / Mortality Data

Red > 39.5  
Green <= 34.0  
In-between = Yellow  
Unit: deaths/100,000  
population

## SUBSTANCE ABUSE

### What is this Indicator?

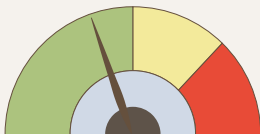
This indicator shows the percentage of adults who reported binge drinking at least once during the 30 days prior to the survey. Male binge drinking is defined as five or more drinks on one occasion, and female binge drinking is four or more drinks on one occasion.

### Why this is important:

Binge drinking is a common pattern of excessive alcohol use in the United States. Binge drinking can be dangerous and may result in vomiting, loss of sensory perception, and blackouts. The prevalence of binge drinking among men is twice that of women. In addition, it was found that binge drinkers are 14 times more likely to report alcohol-impaired driving than are non-binge drinkers. Alcohol abuse is associated with a variety of negative health and safety outcomes including alcohol-related traffic accidents and other injuries, employment problems, legal difficulties, financial loss, family disputes and other interpersonal problems.

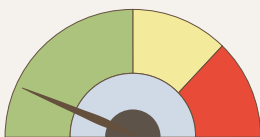
**The Healthy People 2020 national health target is to reduce the proportion of adults aged 18 years and older engaging in binge drinking during the past 30 days to 24.3%.**

Source: Florida Behavioral Risk Factor Surveillance System



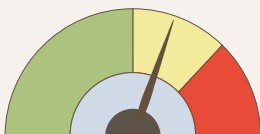
#### Adults who Binge Drink

Value:	14.2 percent
Measurement Period:	2010
Location:	Orange County, Florida
Comparison:	FL Counties
Categories:	Health / Substance Abuse



#### Adults who Binge Drink

Value:	10.5 percent
Measurement Period:	2010
Location:	Osceola County, Florida
Comparison:	FL Counties
Categories:	Health / Substance Abuse



#### Adults who Binge Drink

Value:	15.4 percent
Measurement Period:	2010
Location:	Seminole County, Florida
Comparison:	FL Counties
Categories:	Health / Substance Abuse

Red > 17.2  
Green ≤ 14.8  
In-between = Yellow  
Unit: percent

## SUBSTANCE ABUSE CONTINUED

### What is this Indicator?

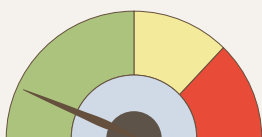
This indicator shows the percentage of adults who currently smoke cigarettes.

### Why this is important:

Tobacco is the agent most responsible for avoidable illness and death in America today. Tobacco use brings premature death to almost half a million Americans each year, and it contributes to profound disability and pain in many others. Approximately one-third of all tobacco users in this country will die prematurely because of their dependence on tobacco. Areas with a high smoking prevalence will also have greater exposure to secondhand smoke for non-smokers, which can cause or exacerbate a wide range of adverse health effects, including cancer, respiratory infections, and asthma.

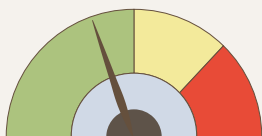
**The Healthy People 2020 national health target is to reduce the proportion of adults aged 18 years and older who smoke cigarettes to 12.0%.**

Source: Behavioral Risk Factor Surveillance System



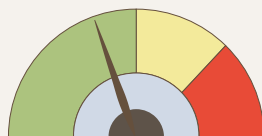
#### Adults who Smoke

Value:	13.3 percent
Measurement Period:	2010
Location:	Orange County, Florida
Comparison:	FL Counties
Categories:	Health / Substance Abuse



#### Adults who Smoke

Value:	18.5 percent
Measurement Period:	2010
Location:	Osceola County, Florida
Comparison:	FL Counties
Categories:	Health / Substance Abuse



#### Adults who Smoke

Value:	20.7 percent
Measurement Period:	2010
Location:	Seminole County, Florida
Comparison:	FL Counties
Categories:	Health / Substance Abuse

Red > 24.8  
Green <= 20.8  
In-between = Yellow  
Unit: percent

# SUICIDE

## What is this Indicator?

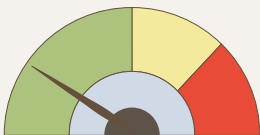
This indicator shows the age-adjusted death rate per 100,000 population due to suicide.

## Why this is important:

Suicide is a major, preventable public health problem. In 2007, suicide was the 11th leading cause of death in the United States. Based on 2007 age-adjusted death rates, men were nearly four times more likely to die of suicide than females, and white individuals were over two times more likely to die of suicide than were black or Hispanic individuals. Older Americans are disproportionately likely to die by suicide. An estimated eight to 25 attempted suicides occur for every suicide death.

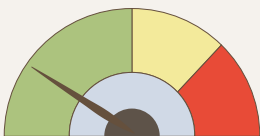
**The Healthy People 2020 national health target is to reduce the suicide rate to 10.2 deaths per 100,000 population.**

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



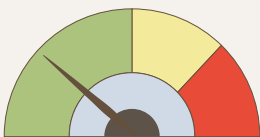
### Age-Adjusted Death Rate due to Suicide

Value:	11.4 deaths/100,000 population
Measurement Period:	2012
Location:	Orange County, Florida
Comparison:	FL Counties
Categories:	Health / Mental Health & Mental Disorders Health / Mortality Data



### Age-Adjusted Death Rate due to Suicide

Value:	10.8 deaths/100,000 population
Measurement Period:	2012
Location:	Osceola County, Florida
Comparison:	FL Counties
Categories:	Health / Mental Health & Mental Disorders Health / Mortality Data



### Age-Adjusted Death Rate due to Suicide

Value:	12.3 deaths/100,000 population
Measurement Period:	2012
Location:	Seminole County, Florida
Comparison:	FL Counties
Categories:	Health / Mental Health & Mental Disorders Health / Mortality Data

Red > 19.7  
Green <= 15.9  
In-between = Yellow  
Unit: deaths/100,000  
population

# UNINTENTIONAL INJURIES

## What is this Indicator?

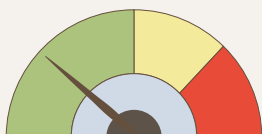
This indicator shows the age-adjusted death rate per 100,000 population due to unintentional injuries.

## Why this is important:

Unintentional injuries are a leading cause of death for Americans of all ages, regardless of gender, race, or economic status. In 2007, unintentional injuries were the fifth leading cause of death overall in the U.S. In 2007, 123,706 people in the United States died from unintentional injuries. Major categories of unintentional injuries include motor-vehicle collisions, poisonings, and falls.

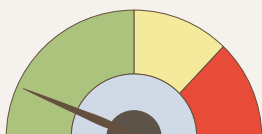
**The Healthy People 2020 national health target is to reduce the deaths caused by unintentional injuries to 36 deaths per 100,000 population.**

Source: Florida Department of Health, Bureau of Vital Statistics



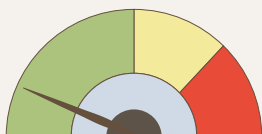
### Age-Adjusted Death Rate due to Unintentional Injuries

Value:	34.6 deaths/100,000 population
Measurement Period:	2012
Location:	County : Orange County, Florida
Comparison:	FL Counties
Categories:	Health / Prevention & Safety Health / Mortality Data



### Age-Adjusted Death Rate due to Unintentional Injuries

Value:	34.4 deaths/100,000 population
Measurement Period:	2012
Location:	Osceola County, Florida
Comparison:	FL Counties
Categories:	Health / Prevention & Safety Health / Mortality Data



### Age-Adjusted Death Rate due to Unintentional Injuries

Value:	31.1 deaths/100,000 population
Measurement Period:	2012
Location:	Seminole County, Florida
Comparison:	FL Counties
Categories:	Health / Prevention & Safety Health / Mortality Data

Red > 54.4  
Green <= 46.1  
In-between = Yellow  
Unit: deaths/100,000  
population

# VIOLENT CRIME RATE

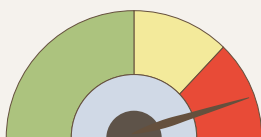
## What is this Indicator?

This indicator shows the total violent crime rate per 100,000 population.

## Why this is important:

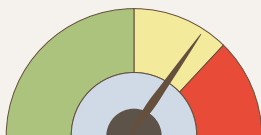
A violent crime is a crime in which the offender uses or threatens to use violent force upon the victim. Violent crimes include homicide, assault, rape, and robbery. Violence negatively affects communities by reducing productivity, decreasing property values, and disrupting social services. In the United States in 2009, an estimated 1,318,398 violent crimes occurred. This equates to an estimated 429.4 violent crimes per 100,000 population nationwide.

Source: Florida Department of Law Enforcement



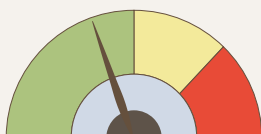
### Violent Crime Rate

Value:	690.4 crimes/100,000 population
Measurement Period:	2012
Location:	Orange County, Florida
Comparison:	FL Counties
Categories:	Public Safety / Crime & Crime Prevention



### Violent Crime Rate

Value:	519.1 crimes/100,000 population
Measurement Period:	2012
Location:	Osceola County, Florida
Comparison:	FL Counties
Categories:	Public Safety / Crime & Crime Prevention



### Violent Crime Rate

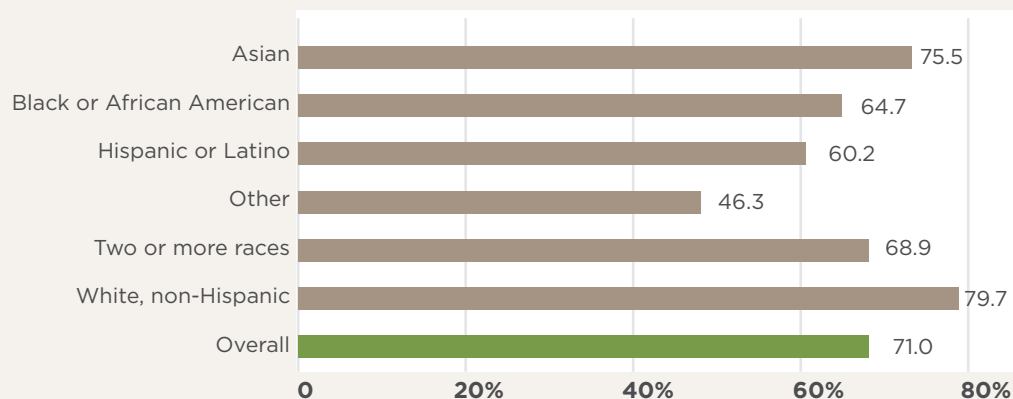
Value:	337.5 crimes/100,000 population
Measurement Period:	2012
Location:	Seminole County, Florida
Comparison:	FL Counties
Categories:	Public Safety / Crime & Crime Prevention

Red > 536.4  
Green <= 363.8  
In-between = Yellow  
Unit: crimes/100,000  
population

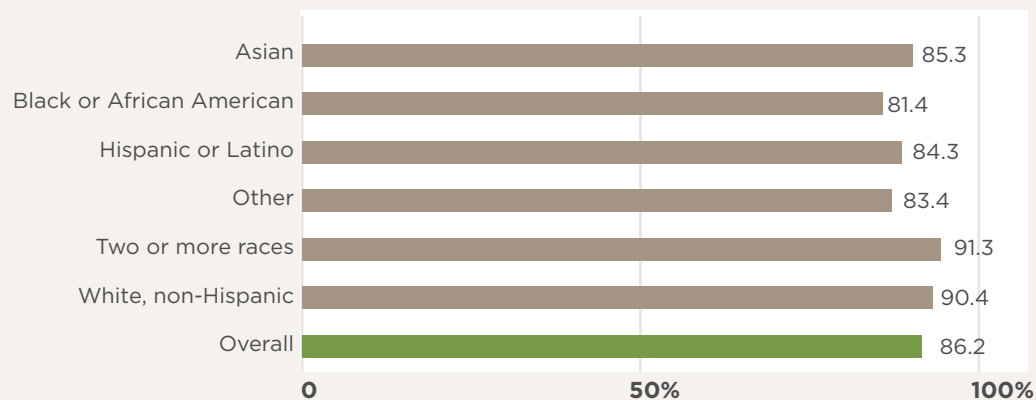
# DISPARITIES DASHBOARD

## Access to Care

Adults with Health Insurance by Race/Ethnicity

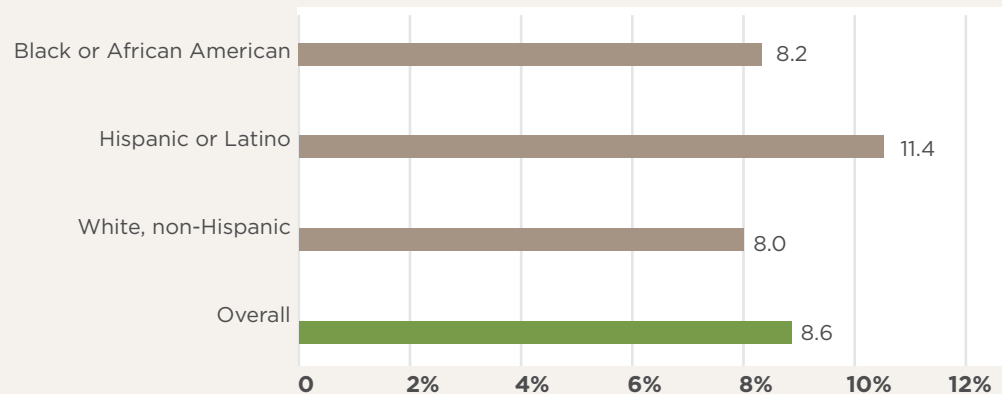


Children with Health Insurance by Race/Ethnicity



## Asthma

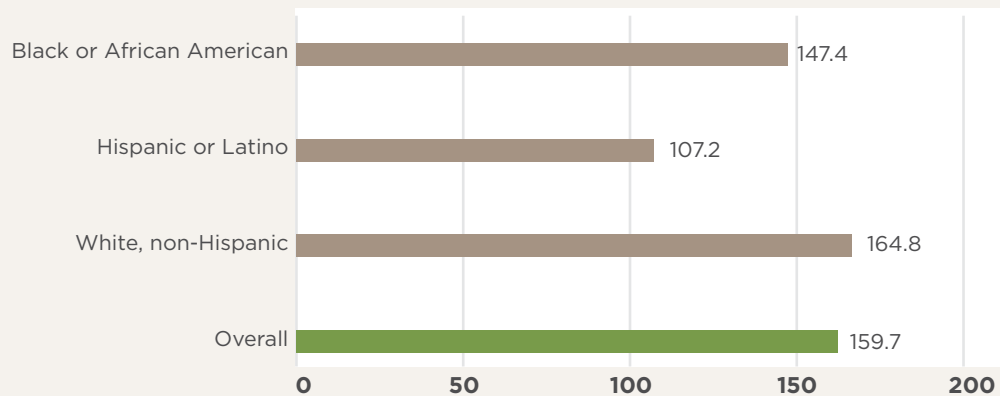
Adults with Asthma by Race/Ethnicity





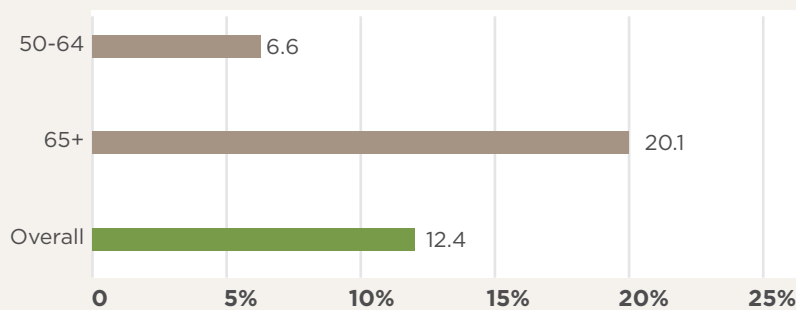
## Cancer Deaths

Age-Adjusted Death Rate due to Cancer by Race/Ethnicity (Deaths/100,000 Population)

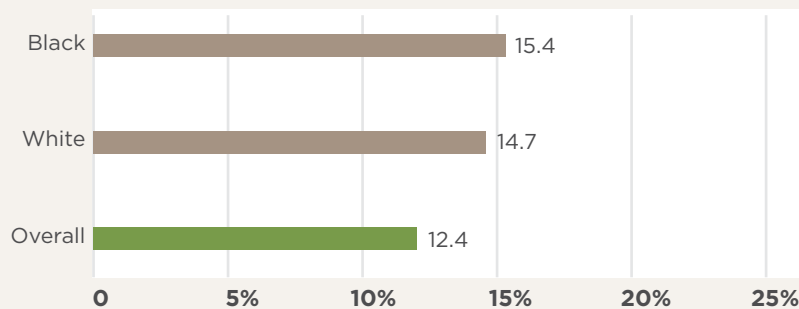


## Cancer Screening

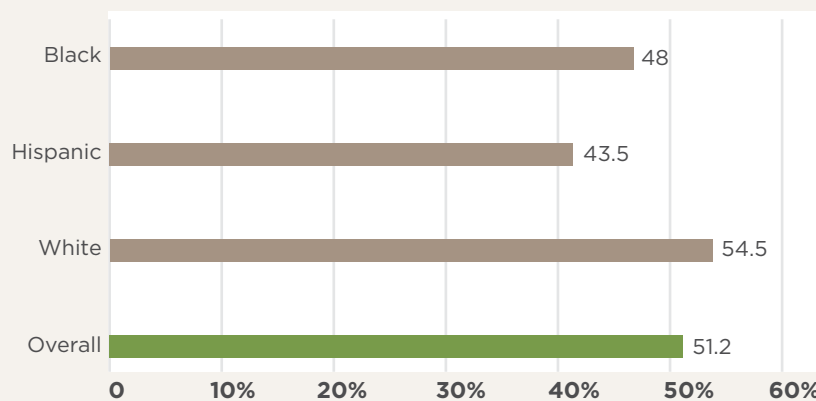
Colon Cancer Screening by Age



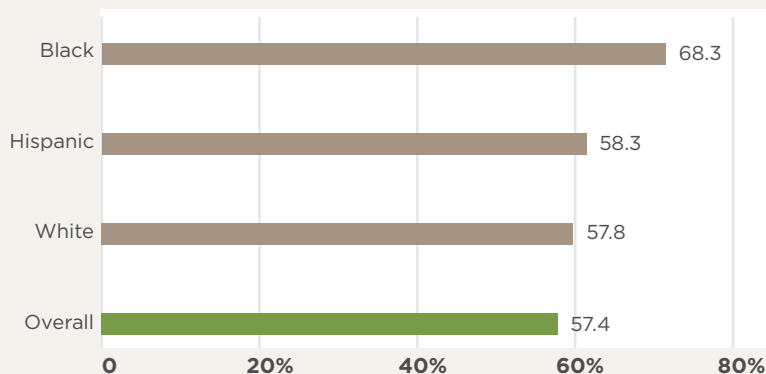
Colon Cancer Screening by Race/Ethnicity



Mammogram History by Race/Ethnicity

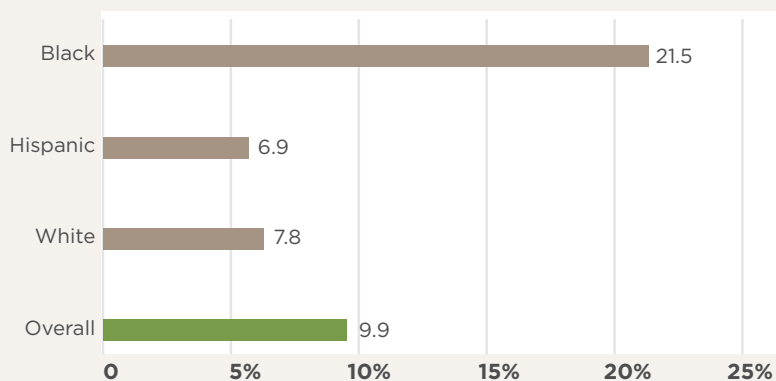


### Pap Test History by Race/Ethnicity

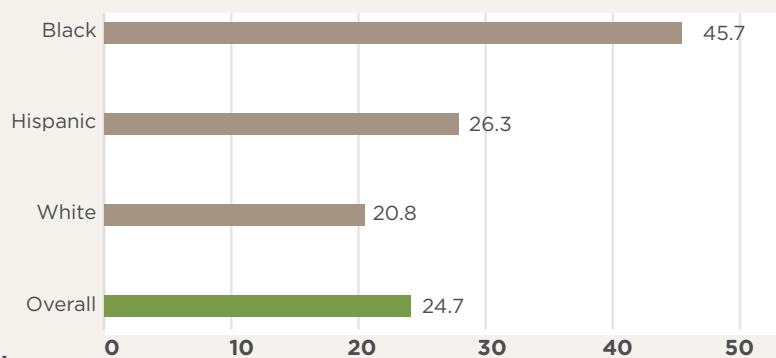


### Diabetes

#### Adults with Diabetes by Race/Ethnicity

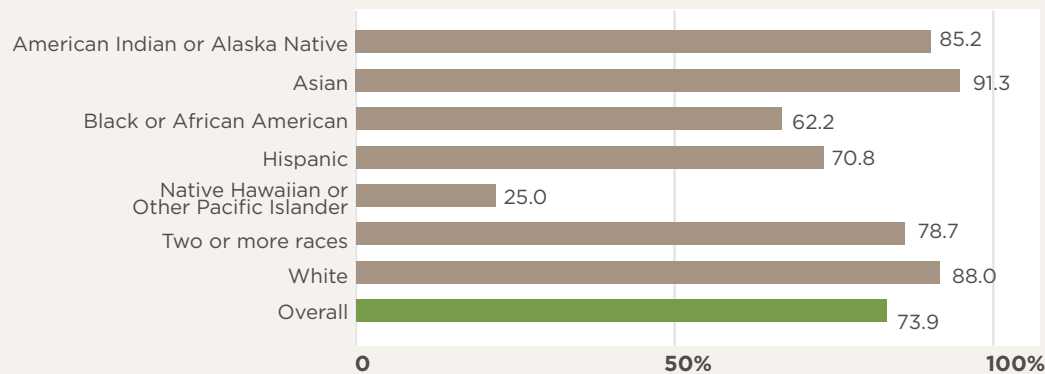


#### Age-Adjusted Death Rate due to Diabetes by Race/Ethnicity (Deaths/100,000 Population)

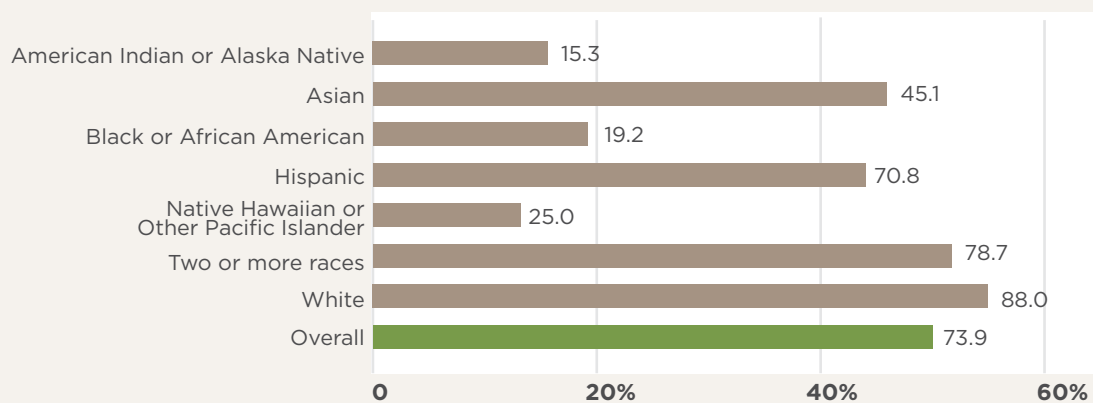


### Educational Attainment

#### High School Graduation by Race/Ethnicity

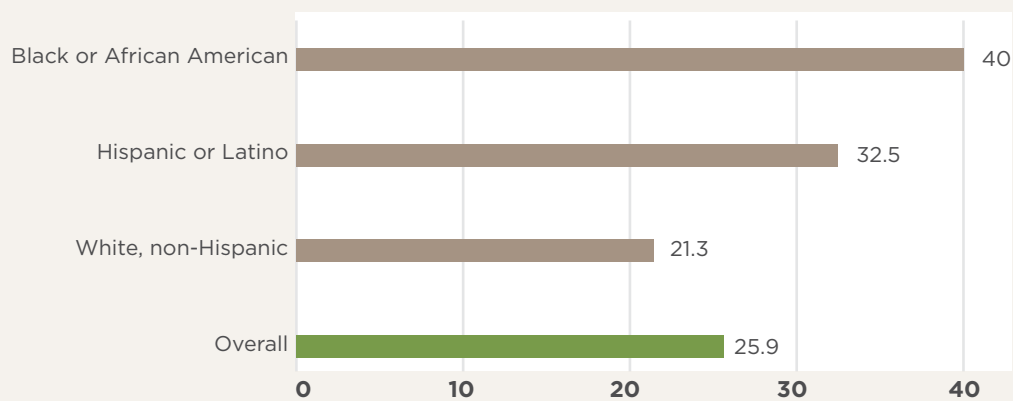


#### People 25+ with a Bachelor's Degree or Higher by Race/Ethnicity



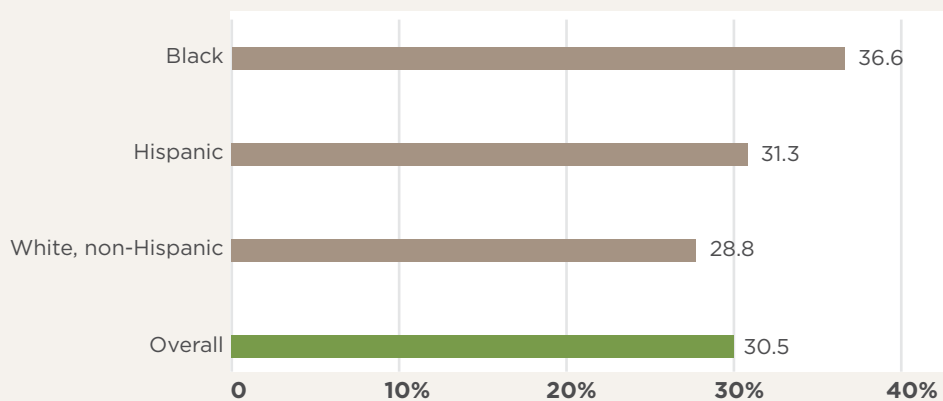
#### Family Planning

##### Teen Birth Rate by Race/Ethnicity (Live Births/1,000 Females Aged 15-19)



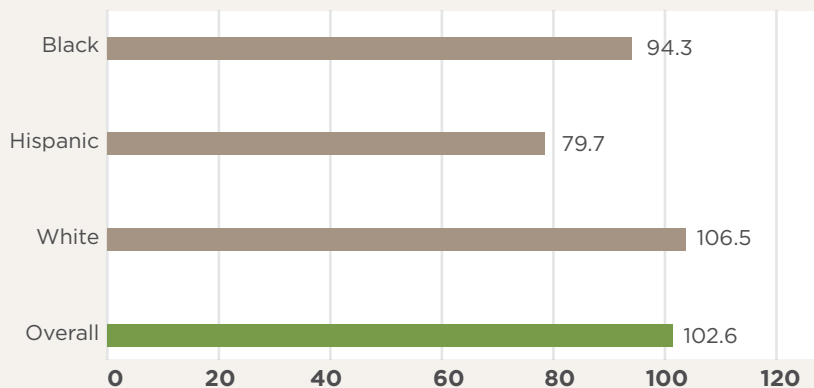
#### Fruit and Vegetable Consumption

##### Adult Fruit and Vegetable Consumption by Race/Ethnicity



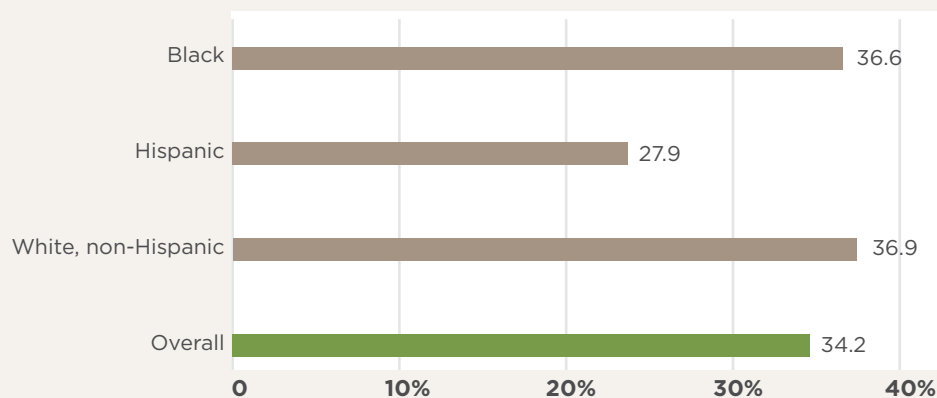
### Heart Disease

Age-Adjusted Death Rate due to Coronary Heart Disease by Race/Ethnicity (Deaths/100,000 Population)



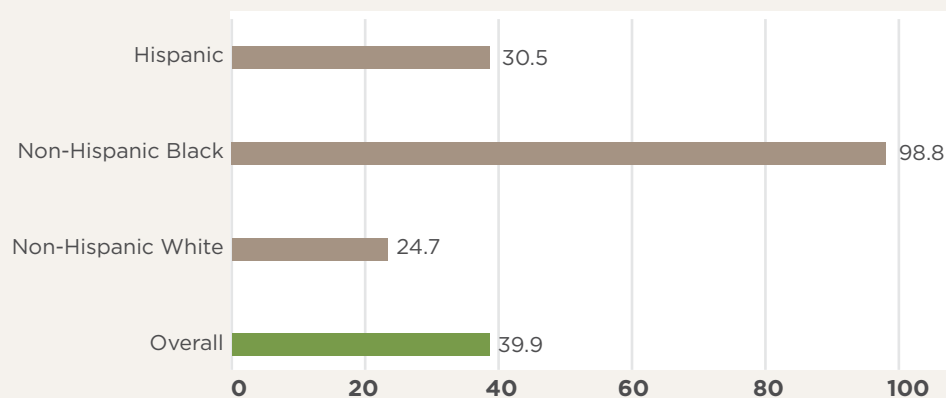
### High Cholesterol

High Cholesterol Prevalence by Race/Ethnicity



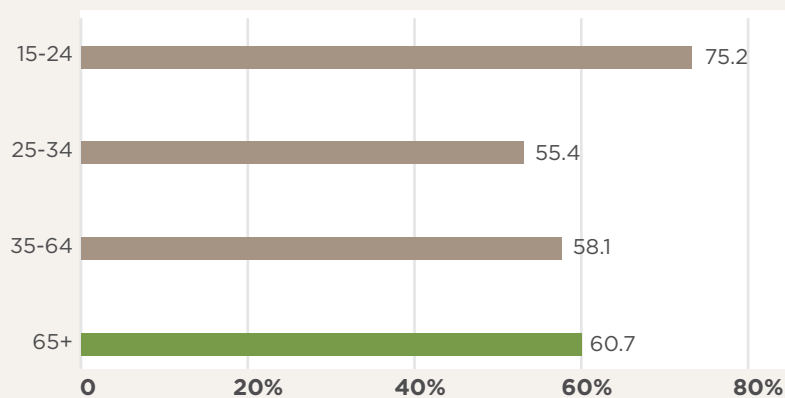
### HIV Incidence

HIV Incidence Rate by Race/Ethnicity (Cases/100,000 Population)



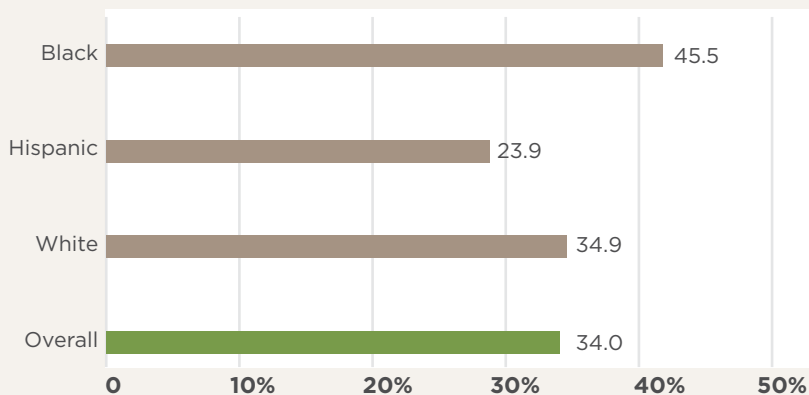
## Housing Affordability

Renters Spending 30% or More of Household Income on Rent by Age



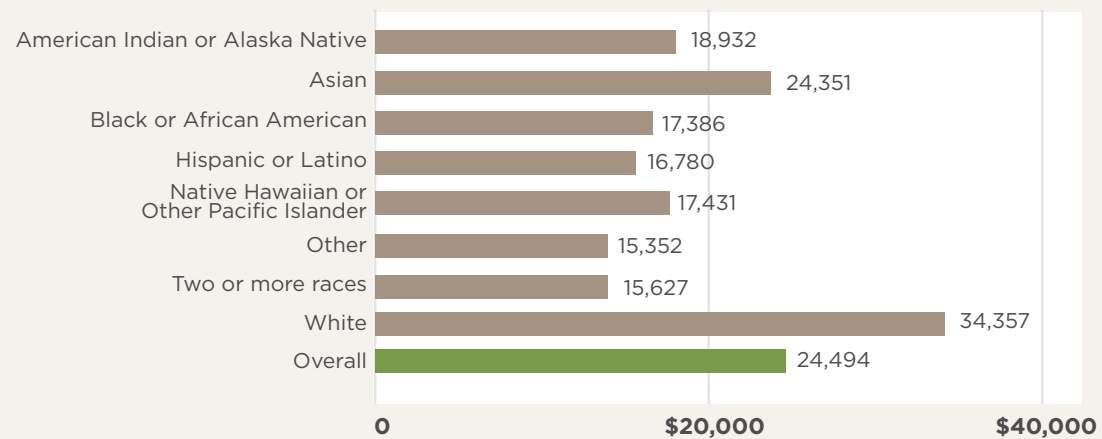
## Hypertension/High Blood Pressure

High Blood Pressure Prevalence by Race/Ethnicity



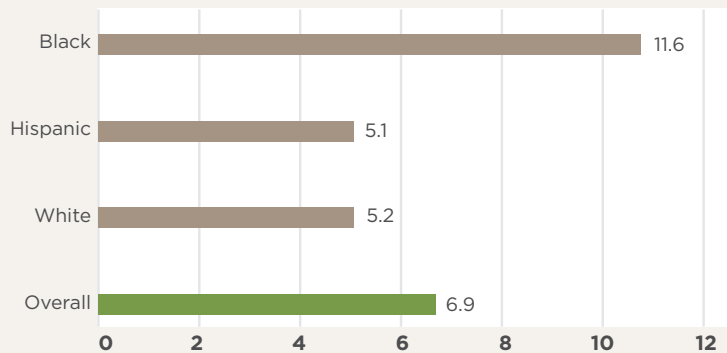
## Income

Per Capita Income by Race/Ethnicity



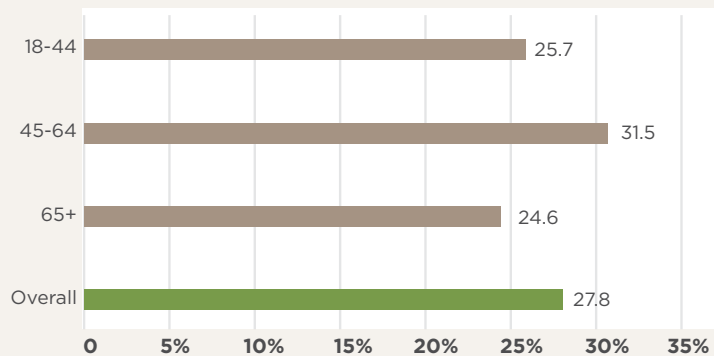
## Infant Mortality

Infant Mortality Rate by Race/Ethnicity (Deaths/1,000 Live Births)

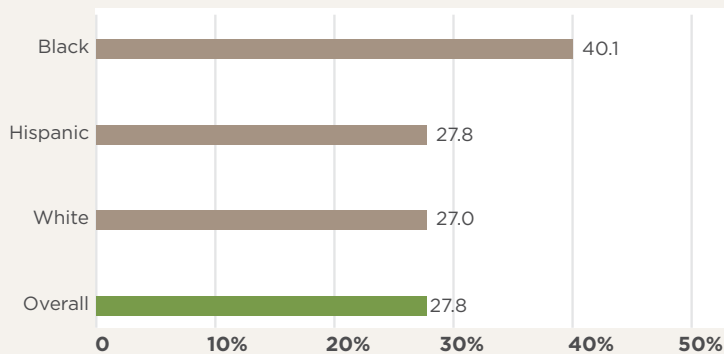


## Obesity

Adults who are Obese by Age

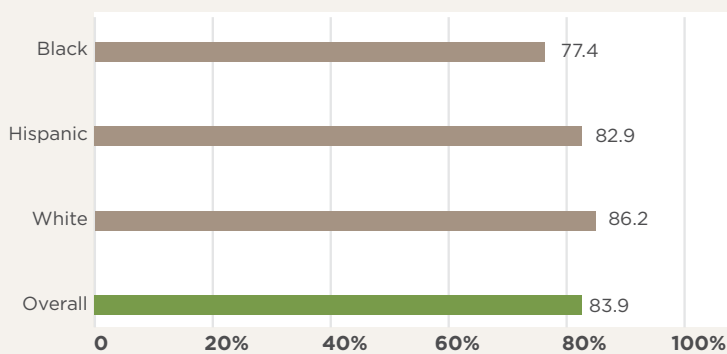


Adults who are Obese by Race/Ethnicity



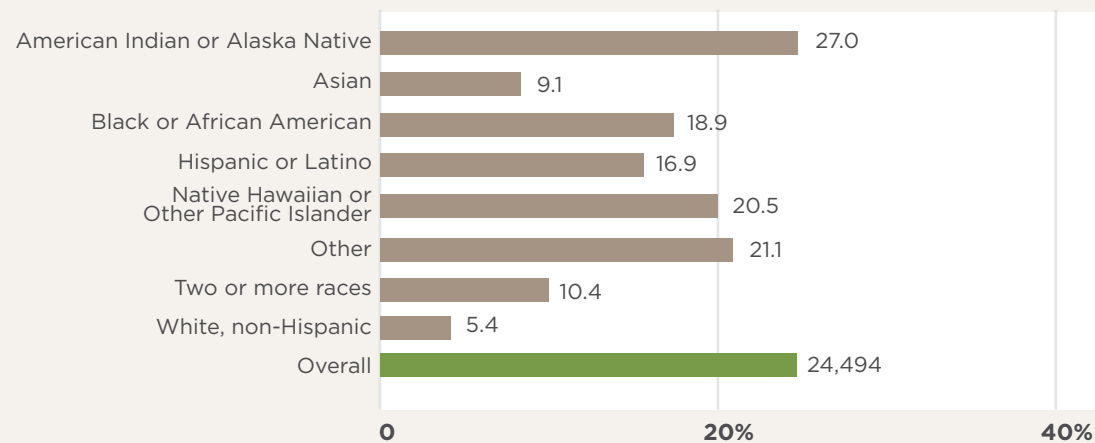
## Prenatal care

Mothers who Received Early Prenatal Care by Race/Ethnicity

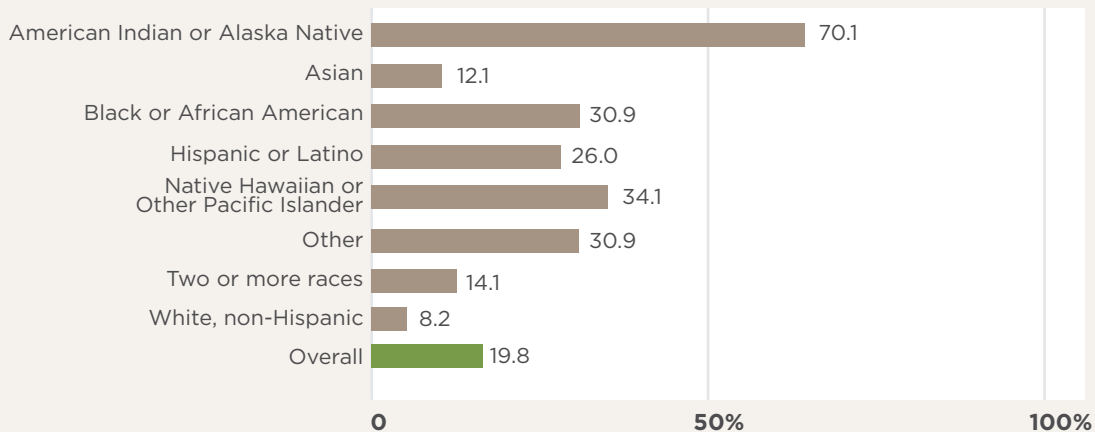


## Poverty

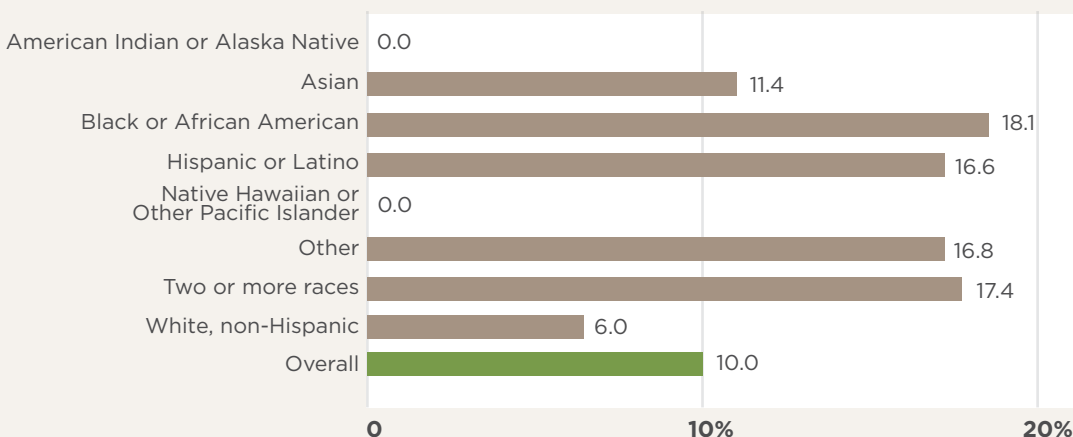
Families Living Below Poverty Level by Race/Ethnicity



Children Living Below Poverty Level by Race/Ethnicity

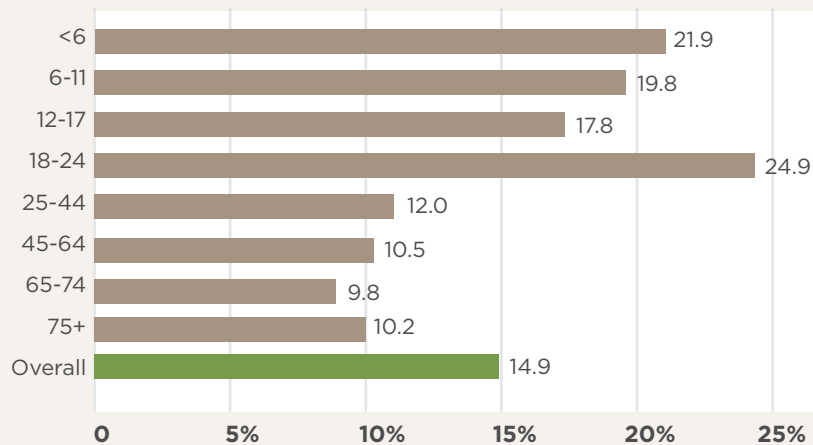


People 65+ Living Below Poverty Level by Race/Ethnicity



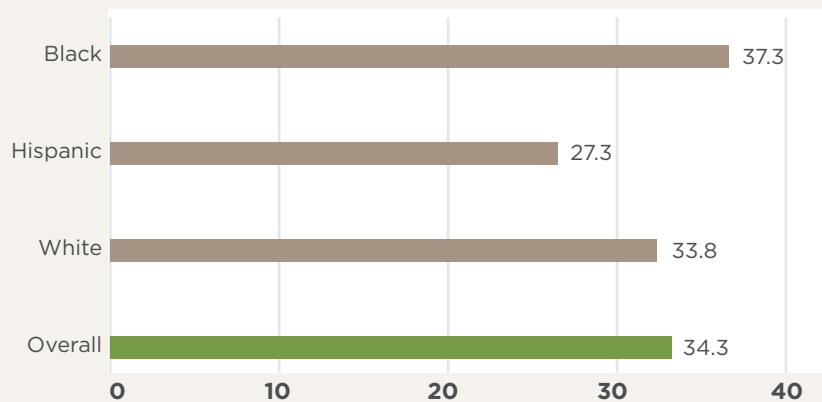


#### People Living Below Poverty Level by Age



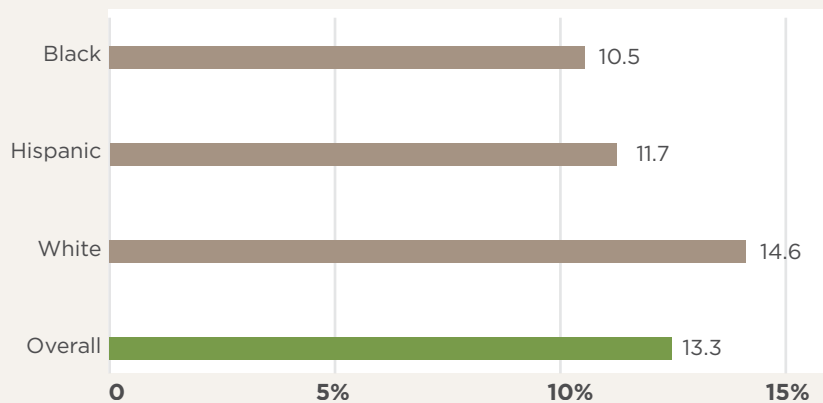
#### Stroke

Age-Adjusted Death Rate due to Cerebrovascular Disease (Stroke) by Race/Ethnicity  
(Deaths/100,000 Population)



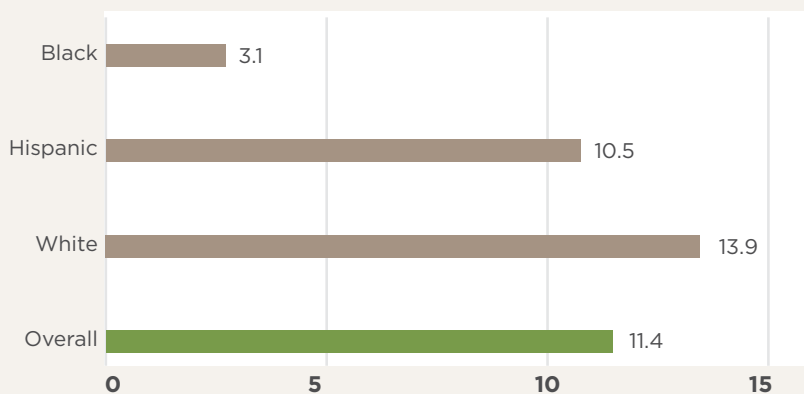
## Smoking

Adults who Smoke by Race/Ethnicity



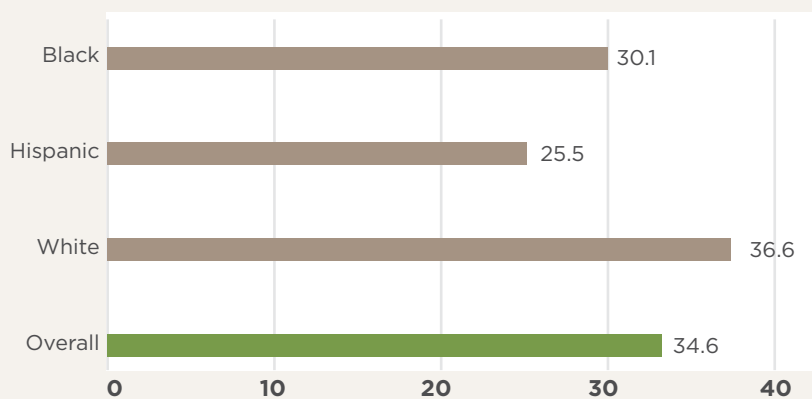
## Suicide

Age-Adjusted Death Rate due to Suicide by Race/Ethnicity (Deaths/100,000 Population)



## Unintentional Injuries

Age-Adjusted Death Rate due to Unintentional Injuries by Race/Ethnicity (Deaths/100,000 Population)



## APPENDIX B • THE U.S. PREVENTIVE TASK FORCE GRADES/RECOMMENDATIONS

### Grade Definitions After May 2007

#### What the Grades Mean and Suggestions for Practice

The USPSTF updated its definitions of the grades it assigns to recommendations and now includes “suggestions for practice” associated with each grade. The USPSTF has also defined levels regarding net benefit. These definitions apply to USPSTF recommendations voted on after May 2007.

GRADE	DEFINITION	SUGGESTIONS FOR PRACTICE
A	The USPSTF recommends the service. There is a high certainty that the net benefit is substantial.	Offer or provide this service.
B	The USPSTF recommends the service. There is a high certainty that the net benefit is moderate, or there is a moderate certainty that the net benefit is moderate to substantial.	Offer or provide this service.
C	<i>Note: The following statement is undergoing revision.</i> Clinicians may provide this service to selected patients depending on individual circumstances. However, for most individuals without signs or symptoms there is likely to be only a small benefit from this service.	Offer or provide this service only if other considerations support the offering or providing the service in an individual patient.
D	The USPSTF recommends against the service. There is moderate or high certainty that the service has no 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.

#### Levels of Certainty Regarding Net Benefit

LEVEL OF CERTAINTY*	DESCRIPTION
High	The available evidence usually includes consistent results from well-designed, well-conducted studies in representative primary care populations. These studies assess the effects of the preventive service on health outcomes. This conclusion is therefore unlikely to be strongly affected by the results of future studies.
Moderate	The available evidence is sufficient to determine the effects of the preventive service on health outcomes, but confidence of the estimate is constrained by such factors as: <ul style="list-style-type: none"> <li>• The number, size, or quality of individual studies.</li> <li>• Inconsistency of finding across individual studies.</li> <li>• Limited generalizability of findings to routine primary care practice.</li> <li>• Lack of coherence in the chain of evidence.</li> </ul> As more information becomes available, the magnitude or direction of the observed effect could change, and this change may be large enough to alter the conclusion.
Low	The available evidence is insufficient to assess effects on health outcomes. Evidence is insufficient because of: <ul style="list-style-type: none"> <li>• The limited number or size of studies.</li> <li>• Important flaws in study design or methods.</li> <li>• Inconsistency of findings across individual studies.</li> <li>• Gaps in the chain of evidence.</li> <li>• Findings not generalizable to routine primary care practice.</li> <li>• Lack of information on important health outcomes.</li> </ul> More information may allow estimation of effects on health outcomes.

\*The USPSTF defines certainty as “likelihood that the USPSTF assessment of the net benefit of a preventative service is correct.” The net benefit is defined as benefit minus harm of the preventive service as implemented in a general, primary care population. The USPSTF assigns a certainty level based on the nature of the overall evidence available to assess the net benefit of a preventive service.

## APPENDIX C • KEY STAKEHOLDER QUESTIONNAIRE

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Agency: \_\_\_\_\_ Title: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

How would you rate our community's overall health status? Choose one: *excellent, good, fair, poor or very poor*

How would you rate your own health status? Choose one: *excellent, good, fair, poor or very poor*

How would you rate our community's overall quality of life? Choose one: *excellent, good, fair, poor or very poor*

How would you rate your own quality of life? Choose one: *excellent, good, fair, poor or very poor*

### **Prevention Institute defines four basic elements of community health:**

Equitable opportunity including racial justice, jobs and education,

Place including parks and open space, transportation, housing, air, water and safety,

People including social networks and willingness to act for the common good, and

Health Care Services including preventive services, treatment services, access, cultural competency, and emergency response.

Considering this overall look at what it takes to have a healthy community, what do you view as the major issues facing:

Children? \_\_\_\_\_

Adults? \_\_\_\_\_

Employees? \_\_\_\_\_

Individuals without health insurance? \_\_\_\_\_

Individuals over age 65? \_\_\_\_\_

Individuals with mental health or substance abuse issues? \_\_\_\_\_

Individuals requiring dental services? \_\_\_\_\_

Individuals with cancer? \_\_\_\_\_

Now looking only at health care services (preventive, treatment, access, cultural competency, emergency response), what do you view as the major issues when it comes to:

Children? \_\_\_\_\_

Adults? \_\_\_\_\_

Employees? \_\_\_\_\_

Individuals without health insurance? \_\_\_\_\_

Individuals over age 65? \_\_\_\_\_

Individuals with mental health or substance abuse issues? \_\_\_\_\_

Individuals requiring dental services? \_\_\_\_\_

Individuals with cancer? \_\_\_\_\_

Who in our community does a good job of promoting health? \_\_\_\_\_

Who in our community does not promote good health? \_\_\_\_\_

Are there gaps where you would like to see services offered in your communities? \_\_\_\_\_

If you were in charge of improving health in our community, what would you do first? \_\_\_\_\_

## APPENDIX D • KEY STAKEHOLDER DESCRIPTION

Name	Formal Title	Affiliation	Geographic Area	Represents the Interests of	Demographics
Patria Alguila	Lead Community Health Worker	Hispanic Health Initiatives	Osceola County	Hispanic Population	Hispanic, Female
Jenny Barrett	Program Nurse	Children's Home Society of Florida, Inc.	Orange County	Abused, neglect or abandoned children	White, Female
Karen Beary <sup>1</sup>	Vice President	Catholic Charities of Central Florida	Osceola County	All populations	White, Female
Jim Berko	Chief Executive Officer	Seminole Behavioral Healthcare	Seminole County	Mental Health	White, Male
Berthenia Bobb	Retired	Home Health Aid	Seminole County	Underserved, uninsured, and special needs	Black, Female
Margaret Brennan <sup>1</sup>	Health Services Division Manager	Orange County Government	Orange County	Low-income populations	White, Female
Mark Brewer	Chief Executive Officer	Community Foundation of Central Florida	Central Florida	Public philanthropic grant making foundation for all populations	White, Male
Robert Brooks	Chief Executive Officer	St. Cloud Regional Medical Center	Osceola County	All populations	White, Male
Karen Broussard	Vice President	Second Harvest Food Bank	Central Florida	Population in need of food and groceries	White, Female
Lorenzo Brown	Chief Operating Officer	Florida Hospital Kissimmee	Osceola County	All populations	Black, Male
Bakari Burns <sup>1</sup>	Chief Executive Officer	Health Care Center for the Homeless*	Central Florida	Primary care and dental	Black, Male
Natalia Cabrero	Community Partnerships Manager	Florida Hospital	Osceola County	All populations	Hispanic, Female
Gary Cain	President	Boys & Girls Club	Seminole County	Children and youth	White, Male
Dorie Croissant	Assistant Director, Chief of Staff	Florida Hospital	Osceola County	Advocacy	White, Female
Rick Daigneault <sup>1</sup>	Health Services Administrator	Orange County Medical Clinic	Orange County	Low-income populations	White, Male
Cathryn DeCecco	Market Affairs Specialist	Florida Blue	Osceola County	Insurance Provider	White, Female
Dennis Dolgner	Retired	Seminole County Port Authority	Seminole County	Underserved, uninsured, and special needs	White, Male
Lainie Fox Ackerman <sup>1</sup>	Director, Community Benefit	Orlando Health	Orange County	Underinsured and uninsured	White, Female
Marie-Jose Francois, MD	President	Center for Multicultural Wellness and Prevention	Central Florida	Health disparities and underserved populations	Haitian, Female
Stephanie Garriss <sup>1</sup>	Executive Director	Grace Medical Home	Orange County	Low-income working and uninsured	White Female
Frances T. Garrow	Retired	Secretary	Seminole County	Community Member	White, Female

Name	Formal Title	Affiliation	Geographic Area	Represents the Interests of	Demographics
Kathy Gillette	Healthy Leadership Council Board	Osceola Regional Medical Center	Osceola County	Children	White, Female
Melodie Griffin	School Wellness Coordinator	United Health Care/ ROCK Board	Central Florida	Insurance Provider and Children	White, Female
Debra Groseclose	Executive Director	Pathways to Home	Seminole County	Homeless or precariously housed	White, Female
Pat Hafer-Plunkett	Senior Director of Risk Management	Orange County Public Schools	Orange County	Public school student population	White, Female
Steven Hale, MD	Senior Physician Director	Orange County Health Department	Orange County	Low-income/ underinsured	White, Male
Michael Harford	Vice Chair District 1 County Commissioner	Osceola County Government	Osceola County	All Populations	White, Male
Mike Horner	President	Kissimmee/Osceola Chamber of Commerce	Osceola County	All Populations	White, Male
Beverly Hougland	Chief Executive Officer	Osceola County Council on Aging	Osceola County	Seniors	White, Female
Warren Hougland	Community Services Director	Osceola County Council on Aging	Osceola County	Seniors	White, Male
Susan Jackson <sup>1</sup>	Senior Vice President	Health Central	Orange County	Underinsured and uninsured	White, Female
Mari Jones	Associate Administrator	St. Cloud Regional Medical Center	Osceola County	All populations	Black, Female
Belinda Jonson-Cornett	Administrator	Osceola County Health Department*	Osceola County	Public Health	Black, Female
Jerry Kassab <sup>1</sup>	President and Chief Executive Officer	Lakeside Behavioral Healthcare	Orange County	Mental Health	White, Male
Maureen Kersmarki <sup>1</sup>	PCAN <sup>1</sup> Board Chair and Director of Community Benefit and Public Policy	Adventist Health System	Orange County	Government, advocacy, uninsured, underinsured	White, Female
Julie Kestler <sup>1</sup>	Executive Director	Dental Care Access Foundation	Orange County	Dental Patients	White, Female
Amada Kraft, A.R.N.P.	District Supervisor of Health Services	Osceola Public Schools	Osceola County	Public school students k-12	White, Female
Aaron Liberman	Professor of Health Services Administration	University of Central Florida	Central Florida	Community Research	White, Male
Rick Mahan	CPA	Privately Owned Business	Seminole County	Businesses	White, Male
Celestia McCloud <sup>2</sup>	Human Services Director	Osceola County Human Services	Osceola County	All populations	Black, Female
Patti McWhirter <sup>2</sup>	Executive Director	Healthy Start of Osceola	Osceola County	Maternal and Child Health	White, Female
Josephine Mercado	Founder, Executive Director	Hispanic Health Initiatives	Central Florida	Hispanic population and the uninsured	Hispanic, Female

Name	Formal Title	Affiliation	Geographic Area	Represents the Interests of	Demographics
John Murphy	President	Harvest Time International	Seminole County	Low-income, distressed families, elderly and disabled	White, Male
Mike Napier	Administrator	Seminole County Health Department	Seminole County	Public Health	White, Male
Joan Nelson	Vice President of Community Investment	Heart of Florida United Way	Central Florida	Funder for critical health and humans services programs	White, Female
Verbelee Nielsen-Swanson <sup>1</sup>	Vice President of Community Impact	Florida Hospital	Orange County	Underinsured and uninsured	White, Female
Diane O'Dell	Vice President of Community Relations	Universal Orlando	Central Florida	Large employers, employees	White, Female
Ken Peach <sup>1</sup>	Executive Director	Health Council of East Central Florida, Inc.	Orange County	Underinsured and uninsured	White, Male
Kendra Presley-Van Houten	Executive Director	Kids House of Seminole, Inc.	Seminole County	Abused children	White, Female
John Quinones <sup>2</sup>	Commissioner for District 2	Osceola County Board of Commissioners	Osceola County	Osceola County Residents	Hispanic, Male
George Ralls, MD <sup>1</sup>	Medical Director	Orange County EMS and Fire Rescue	Orange County	Public Health	White, Male
Richard L. Rhodes	Retired	Probation Corrections Officer	Seminole County	Community Member	Black, Male
John Riordan <sup>1</sup>	Corporate Director of Development and Community Relations	Community Health Centers*	Orange County	Underinsured and uninsured	White, Male
Gary Robinson	Health Care Publishing	Privately Owned Business	Seminole County	Business	White, Male
Shannon Robinson <sup>1</sup>	Primary Care Access Network (PCAN) Board Member		Orange County	Underinsured and uninsured	White, Female
Dulce M. Rodriguez	Teacher	Seminole County School Board	Seminole County	Students k-12	Hispanic, Male
Angie Romagosa	President and Chief Executive Officer	The Christian Sharing Center	Seminole County	Homeless and At-risk	White, Female
Mary Beth Salisbury	Community Resources Manager	Osceola County Government	Osceola County	Residents of Osceola County	White, Female
Rebecca Sayago <sup>1</sup>	Director of Clinical Operations	Shepherd's Hope	Orange and Seminole	Uninsured and underinsured	White, Female
Sue Session	Retired	Homemaker	Seminole County	Community Member	White, Female
Jim Shanks	President and Chief Executive Officer	Park Place Behavioral Healthcare	Osceola County	Mental Health	White, Male



Name	Formal Title	Affiliation	Geographic Area	Represents the Interests of	Demographics
Kevin Sherin, MD <sup>1</sup>	Director	Orange County Health Department	Orange County	Public Health	White, Male
Sonia Silva	Retired	Nurse	Seminole County	Underserved, uninsured, and special needs	White, Female
Donna Sines	Executive Director	Community Vision	Osceola	All Populations	White, Female
Jon Slaff	Professor of Student Services	Valencia Community College	Central Florida	College students	White, Male
Leslie Smith, DO <sup>1</sup>	Chief Executive/Chief Medical Officer	Central Florida Family Health Center*	Orange County	Primary care, uninsured, dental, and obstetrics	White, Female
Barb Snell <sup>1</sup>	President and Chief Executive Officer	Community Health Centers, Inc.*	Orange County	Primary care, dental, and obstetrics	White, Female
Robert Sorenson	Healthy Leadership Council Board	Osceola County EMS & Fire Rescue	Osceola County	Osceola County Residents	White, Male
Karen van Caulil <sup>1</sup>	President	Florida Health Care Coalition	Central Florida	Large Public and Private Employers	White, Female
Jeff Villanueva <sup>2</sup>	Administrator	Florida Hospital	Osceola County	All populations	Hispanic, Male
Debbie Watson <sup>1</sup>	Vice President	Winter Park Health Foundation	Orange County	Children, seniors and community health	White, Female
George Weber	Food Services Director	Good Samaritan Society	Osceola County	Senior care services	White, Male
Karen Willis	Chief Executive Officer	Early Learning Coalition of Orange County	Orange County	Preschool aged children	White, Female

<sup>1</sup>Primary Care Access Network Board Member

<sup>2</sup>Health Leadership Council Board Member

\*Federally Qualified Health Center

## APPENDIX E • COMMUNITY ASSETS AND RESOURCES BY COUNTY

*In addition to the hospitals and healthcare systems in the tri-county area, the following organizations were identified as service providers dedicated to the health and well-being of Orange, Osceola, and Seminole County residents. The following list is not intended to be exhaustive, but rather representative of the organizations which make services available.*

### *Chronic Disease: Asthma*

	ORANGE COUNTY	OSCEOLA COUNTY	SEMINOLE COUNTY
American Lung Association	X	X	X
Center for Multicultural Wellness and Prevention	X	X	X
Central Florida Family Health Centers	X		X
Community Health Centers	X		
Grace Medical Home	X		
Health Care Center for the Homeless	X		
Hispanic Health Initiatives	X	X	X
Orange County Health Department	X		
Osceola County Health Department		X	
Primary Care Access Clinic (PCAN)	X		
Seminole County Health Department			X
Shepherd's Hope	X		X
United Way 2-1-1	X	X	X

## Chronic Disease: Cancer

	ORANGE COUNTY	OSCEOLA COUNTY	SEMINOLE COUNTY
100 Black Men of Orlando, Inc.	X		
American Cancer Society	X	X	X
American Heart Association	X	X	X
American Lung Association	X	X	X
Center for Change	X		
Center for Multicultural Wellness and Prevention	X	X	X
Central Florida Black Nurses Association of Florida	X	X	X
Compassionate Hands and Hearts	X	X	X
Concerned Citizens Combating Cancer	X	X	X
Debbie Turner Cancer Care and Resource Center	X		
Florida Breast Cancer Foundation	X	X	X
Hispanic Health Initiatives	X	X	X
Libby's Legacy		X	
Orange County Health Department	X		
Orlando Support	X	X	X
Osceola County Health Department		X	
Ovarian Cancer Alliance of Florida	X	X	X
Primary Care Access Network (PCAN)	X		
Seminole County Health Department			X
Sisters Network, Inc.	X	X	X
Susan G. Komen Central Florida Affiliate	X	X	X
The Center for Change			X
The Center Orlando	X	X	X
The Leukemia and Lymphoma Society	X	X	X
United Way 2-1-1	X	X	X
Women Playing for T.I.M.E. ®	X	X	X

## Chronic Disease: Diabetes

	Orange County	Osceola County	Seminole County
American Diabetes Association	X	X	X
American Heart Association	X	X	X
Center for Change	X		
Center for Multicultural Wellness and Prevention	X	X	X
Central Florida Diabetes Education Center			X
Central Florida Family Health Centers	X	X	X
Central Florida Partnership on Health Disparities	X	X	X
Central Florida Pharmacy Council	X	X	X
Central Florida YMCA	X	X	X
Community Health Centers	X		
Grace Medical Home	X		
Harvest Time International, Inc.	X	X	X
Health Care Center for the Homeless	X	X	X
Healthy Orange Collaborative	X		
Hebni Nutrition Consultants, Inc.	X	X	X
Hispanic Health Initiatives	X	X	X
Orange County Health Department	X		
Osceola County Health Department		X	
Primary Care Access Network (PCAN)	X		
Seminole County Health Department			X
Shepherd's Hope	X		X
The Orlando VA Medical Center	X	X	X
The Orlando VA Medical Center - Kissimmee Community Based Outpatient Clinic		X	
United Way 2-1-1	X	X	X

### Chronic Disease: Heart Disease

	ORANGE COUNTY	OSCEOLA COUNTY	SEMINOLE COUNTY
100 Black Men of Orlando, Inc.	X		
American Heart Association	X	X	X
Center for Change	X		
Center for Multicultural Wellness and Prevention	X	X	X
Central Florida Family Health Centers	X		X
Central Florida Partnership on Health Disparities	X	X	X
Central Florida YMCA	X	X	X
Community Health Centers	X		
Grace Medical Home	X		
Health Care Center for the Homeless	X	X	X
Healthy Orange Collaborative	X		
Healthy Seminole Collaborative			X
Hebni Nutrition Consultants, Inc.	X	X	
Hispanic Health Initiatives	X	X	X
Mended Hearts of Osceola		X	
Orange County Health Department	X		
Osceola County Health Department		X	
Primary Care Access Network (PCAN)	X		
Seminole County Health Department			X
Shepherd's Hope	X		X
The Orlando VA Medical Center	X	X	X
The Orlando VA Medical Center – Kissimmee Community Based Outpatient Clinic		X	
United Way 2-1-1	X	X	X

## Chronic Disease: Obesity

	ORANGE COUNTY	OSCEOLA COUNTY	SEMINOLE COUNTY
100 Black Men of Orlando, Inc.	X		
American Diabetes Association	X	X	X
American Heart Association	X	X	X
Boys and Girls Clubs of Central Florida	X	X	X
Center for Change	X		
Center for Multicultural Wellness and Prevention	X	X	X
Central Florida Family Health Centers	X		X
Central Florida YMCA	X	X	X
City of Orlando Parks and Recreation	X		
Community Health Centers	X		
Community Vision		X	
Fit Kids	X	X	X
Get Active Orlando	X		
Grace Medical Home	X		
Health Care Center for the Homeless	X	X	X
Healthy Central Florida	X		
Healthy 100 Kids	X	X	X
Healthy Kids Today	X		
Healthy Orange Collaborative	X		
Healthy Seminole Collaborative			X
Hebni Nutrition Consultants, Inc.	X	X	X
Hispanic Health Initiatives	X	X	X
Orange County Health Department	X		

### *Chronic Disease: Obesity, continued*

	ORANGE COUNTY	OSCEOLA COUNTY	SEMINOLE COUNTY
Orange County Parks and Recreation	X		
Orange County Public School System	X		
Osceola County Health Department		X	
Osceola County Parks and Recreation		X	
Osceola County School District Wellness Program		X	
Overeaters Anonymous	X	X	X
Primary Care Access Network (PCAN)	X		
Reduce Obesity in Central Florida Kids (ROCK)	X	X	X
Second Harvest Food Bank of Central Florida	X	X	X
Seminole County Health Department			X
Seminole County Parks and Recreation			X
Seminole County Public School System			X
Shepherd's Hope	X		X
The Collaborative Obesity Prevention Program	X		
The Harmony Institute		X	
The Orlando VA Medical Center	X	X	X
The Orlando VA Medical Center - Kissimmee Community Based Outpatient Clinic		X	
United Way 2-1-1	X	X	X
USA Dance	X		X
Winter Park Health Foundation	X		



## Chronic Disease: Stroke

	ORANGE COUNTY	OSCEOLA COUNTY	SEMINOLE COUNTY
100 Black Men of Orlando, Inc.	X		
American Heart Association	X	X	X
Center for Change	X		
Center for Multicultural Wellness and Prevention	X	X	X
Central Florida Family Health Centers	X		X
Central Florida Partnership on Health Disparities	X	X	X
Central Florida YMCA	X	X	X
Community Health Centers	X		
Grace Medical Home	X		
Health Care Center for the Homeless	X	X	X
Healthy Orange Collaborative	X		
Healthy Seminole Collaborative			X
Hebni Nutrition Consultants, Inc.	X	X	
Hispanic Health Initiatives	X	X	X
Mended Hearts of Osceola		X	
Orange County Health Department	X		
Osceola County Health Department		X	
Primary Care Access Network (PCAN)	X		
Seminole County Health Department			X
Shepherd's Hope	X		X
The Orlando VA Medical Center	X	X	X
The Orlando VA Medical Center – Kissimmee Community Based Outpatient Clinic		X	
United Way 2-1-1	X	X	X

## Healthcare: Services - Chronic Disease Management

	ORANGE COUNTY	OSCEOLA COUNTY	SEMINOLE COUNTY
American Cancer Society	X	X	X
American Diabetes Association	X	X	X
American Heart Association	X	X	X
American Lung Association	X	X	X
Center for Multicultural Wellness and Prevention	X	X	X
Central Florida Family Health Centers	X		X
Community Health Centers	X		
Grace Medical Home	X		
Health Care Center for the Homeless	X	X	X
Healthy Orange Collaborative	X		
Healthy Seminole Collaborative			X
Hispanic Health Initiatives	X	X	X
Orange County Health Department	X		
Osceola County Health Department		X	
Primary Care Access Network (PCAN)	X		
Seminole County Health Department			X
Shepherd's Hope	X		X
The National Kidney Foundation	X	X	X
United Way 2-1-1	X	X	X

## Healthcare: Services - Dental Care

	ORANGE COUNTY	OSCEOLA COUNTY	SEMINOLE COUNTY
100 Black Men of Orlando, Inc.	X		
Center for Multicultural Wellness and Prevention	X	X	X
Central Florida Family Medicine	X		X
Community Health Centers	X		X
Dental Care Access Foundation	X	X	X
Grace Medical Home	X		
Harvest Time International			X
Health Care Center for the Homeless	X	X	X
Orange County Health Department	X		
Osceola Christian Ministry Center		X	
Osceola County Health Department		X	
Primary Care Access Network (PCAN)	X		
Seminole County Health Department			X
Shepherd's Hope			X
The Orlando VA Medical Center	X	X	X
United Way 2-1-1	X	X	X

## Healthcare: Services - Health Literacy

	ORANGE COUNTY	OSCEOLA COUNTY	SEMINOLE COUNTY
100 Black Men of Orlando, Inc.	X		
Apopka Family Learning Center	X		
Boys and Girls Clubs of Central Florida	X	X	X
Center for Change	X		
Center for Multicultural Wellness and Prevention	X	X	X
Central Florida Community Health Centers	X		X
Central Florida Partnership on Health Disparities	X	X	X
Community Health Centers	X		
Community Vision		X	
Florida Nurses Association	X	X	X
Grace Medical Home	X		
Health Care Center for the Homeless	X	X	X
Healthy Orange Collaborative	X		
Healthy Seminole Collaborative			X
Hispanic Health Initiatives	X	X	X
Orange County Health Department	X		

*Healthcare: Services - Health Literacy, continued*

	ORANGE COUNTY	OSCEOLA COUNTY	SEMINOLE COUNTY
Orange County Public Libraries	X		
Orange County Public School System	X		
Osceola Council on Aging		X	
Osceola County Health Department		X	
Osceola County Public Libraries		X	
Osceola County School District		X	
Primary Care Access Network (PCAN)	X		
Seminole County Health Department			X
Seminole County Public Libraries			X
Seminole County Public School System			X
Senior Resource Alliance	X	X	X
Shepherd's Hope	X		X
United Way 2-1-1	X	X	X
Winter Park Health Foundation	X		

### Healthcare: Services - Mental Health

	ORANGE COUNTY	OSCEOLA COUNTY	SEMINOLE COUNTY
100 Black Men of Orlando, Inc.	X		
Central Florida Community Health Centers	X		
Central Florida Family Health Centers			X
Children's Home Society of Florida	X	X	X
Community Food & Outreach Center	X		
Community Health Centers	X		
Florida Department of Children and Families	X	X	X
Health Care Center for the Homeless	X	X	X
Impower	X	X	X
La Amistad Residential Treatment Center	X		
National Alliance on Mental Illness	X	X	X
Omega Alpha Nu Ministries Mental Health		X	
Orange County Health & Family Services	X		
Orlando Behavioral Healthcare	X	X	X
Park Place Behavioral Healthcare		X	
Pathways Drop-In Center, Inc.	X	X	X
Seminole Behavioral Healthcare			X

### Healthcare: Services - Mental Health, continued

	ORANGE COUNTY	OSCEOLA COUNTY	SEMINOLE COUNTY
Seminole Community Mental Health Center			X
The Center for Drug Free Living	X	X	X
The Center Orlando	X	X	X
The Chrysalis Center, Inc.	X		
The Grove Counseling Center	X	X	X
The Mental Association of Central Florida	X	X	X
The Orlando VA Medical Center	X	X	X
The Orlando VA Medical Center – Kissimmee Community Based Outpatient Clinic		X	
The Transition House		X	
United Way 2-1-1	X	X	X
University Behavioral Center	X		
Visionary Vanguard Group	X		
Wayne Densch Center	X	X	X
Wraparound Orange	X		

## Healthcare: Services - Substance Abuse

	Orange County	Osceola County	Seminole County
ALA TEEN	X	X	X
AL-ANON	X	X	X
Alcoholics Anonymous	X	X	X
Central Care Mission of Orlando, Inc.	X		
Community Food & Outreach Center	X		
Florida Alcohol and Drug Abuse Association	X	X	X
Florida Council for Community Mental Health	X	X	X
Florida Department of Children and Families	X	X	X
Fresh Start Ministries of Central Florida, Inc.	X	X	X
Health Care Center for the Homeless	X	X	X
House of Freedom, Inc.		X	
La Amistad Residential Treatment Center	X		
Multicultural Addiction Services	X		
Narcotics Anonymous	X	X	X
Orlando Behavioral Healthcare	X	X	X
Park Place Behavioral Healthcare		X	
Seminole Behavioral Healthcare			X
Specialized Treatment, Education and Prevention Services, Inc.	X		X
The Center for Drug Free Living	X	X	X
The Center Orlando	X	X	X
The Chrysalis Center, Inc.	X		
The Grove Counseling Center			X
The Turning Point	X	X	X
United Way 2-1-1	X	X	X
University Behavioral Health Center	X		



## Healthcare: Barriers - Access to Care

	ORANGE COUNTY	OSCEOLA COUNTY	SEMINOLE COUNTY
100 Black Men of Orlando, Inc.	X		
Center for Change	X		
Center for Multicultural Wellness and Prevention	X	X	X
Central Florida Community Health Centers	X		
Central Florida Family Health Centers			X
Central Florida Partnership on Health Disparities	X	X	X
Community Food & Outreach Center	X		
Community Health Centers	X		
Community Vision		X	
Florida Department of Children and Families	X	X	X
Florida Health Care Coalition	X	X	X
Grace Medical Home	X		
Harvest Time International, Inc.	X	X	X
Health Care Center for the Homeless	X	X	X
Healthy Orange Collaborative	X		
Healthy Seminole Collaborative			X
Hispanic Health Initiatives	X	X	X
Hope and Help Center of Central Florida	X	X	X
Orange County Health Department	X		
Osceola Christian Ministry Center		X	
Osceola Council on Aging		X	
Osceola County Health Department		X	

### *Healthcare: Barriers - Access to Care, continued*

	ORANGE COUNTY	OSCEOLA COUNTY	SEMINOLE COUNTY
Pathways to Care			X
Primary Care Access Network (PCAN)	X		
Seminole County Health Department			X
Shepherd's Hope	X		X
The Center for Drug Free Living	X	X	X
The Center Orlando	X	X	X
The Orlando VA Medical Center	X	X	X
The Orlando VA Medical Center – Kissimmee Community Based Outpatient Clinic		X	
The Sharing Center			X
United Way 2-1-1	X	X	X
University Behavioral Health Center	X		

### Healthcare: Barriers - Affordable Healthcare

	ORANGE COUNTY	OSCEOLA COUNTY	SEMINOLE COUNTY
100 Black Men of Orlando, Inc.	X		
Center for Change	X		
Center for Multicultural Wellness and Prevention	X	X	X
Central Florida Family Health Centers	X		X
Central Florida Partnership on Health Disparities	X	X	X
Community Food & Outreach Center	X		
Community Health Centers	X		
Community Vision		X	
Florida Department of Children and Families	X	X	X
Florida Health Care Coalition	X	X	X
Grace Medical Home	X		
Harvest Time International, Inc.	X	X	X
Health Care Center for the Homeless	X	X	X
Healthy Orange Collaborative	X		
Healthy Seminole Collaborative			X
Hispanic Health Initiatives	X	X	X
Hope and Help Center of Central Florida	X	X	X

### Healthcare: Barriers - Affordable Healthcare, continued

	ORANGE COUNTY	OSCEOLA COUNTY	SEMINOLE COUNTY
Orange County Health Department	X		
Osceola Christian Ministry Center		X	
Osceola Council on Aging		X	
Osceola County Health Department		X	
Pathways to Care	X	X	X
Primary Care Access Network (PCAN)	X		
Seminole County Health Department			X
Shepherd's Hope	X		X
The Center for Drug Free Living	X	X	X
The Center Orlando	X	X	X
The Orlando VA Medical Center	X	X	X
The Orlando VA Medical Center - Kissimmee Community Based Outpatient Clinic		X	
The Sharing Center			X
United Way 2-1-1	X	X	X
University Behavioral Center	X		

## Reproductive Health: Maternal and Child Health

	ORANGE COUNTY	OSCEOLA COUNTY	SEMINOLE COUNTY
Apopka Family Learning Center	X		
Beta Center	X	X	X
Boys and Girls Clubs of Central Florida	X	X	X
Center for Change	X		
Center for Multicultural Wellness and Prevention	X	X	X
Central Florida Family Health Centers	X	X	X
Central Florida Partnership on Health Disparities	X	X	X
Community Food and Outreach Center	X		
Community Health Centers	X		
Community Vision		X	
Conductive Education Center of Orlando	X		
Early Learning Coalition of Orange County	X		
Early Learning Coalition of Osceola County		X	
Early Learning Coalition of Seminole County			X
Florida Department of Children and Families	X	X	X
Florida Network of Children's Advocacy Centers	X	X	X
Grace Medical Home	X		

*Reproductive Health: Maternal and Child Health, continued*

	ORANGE COUNTY	OSCEOLA COUNTY	SEMINOLE COUNTY
Healthy Orange Collaborative	X		
Healthy Start Coalition of Orange County	X		
Healthy Start Coalition of Osceola County		X	
Healthy Start Coalition of Seminole County			X
Heart of Florida United Way	X	X	X
Kids House			X
Kinder Konsulting & Parents, Too	X		
Orange County Health Department	X		
Osceola County Health Department		X	
Planned Parenthood	X	X	X
Primary Care Access Network (PCAN)	X		
Sanford Crisis Pregnancy Center			X
Seminole County Health Department			X
The Chrysalis Center, Inc.	X		
United Way 2-1-1	X	X	X

## Reproductive Health: Sexually Transmitted Diseases

	ORANGE COUNTY	OSCEOLA COUNTY	SEMINOLE COUNTY
100 Black Men of Orlando, Inc.	X		
Apopka Family Learning Center	X		
Center for Change	X		
Center for Multicultural Wellness and Prevention	X	X	X
Central Florida Family Health Centers	X		X
Central Florida Haven of Hope Ministries, Inc.	X		
Central Florida Partnership on Health Disparities	X	X	X
Community Food and Outreach Center	X		
Community Health Centers	X		
Community Vision		X	
Grace Medical Home	X		
Health Care Center for the Homeless	X	X	X
Hope and Help Center of Central Florida	X	X	X
Miracle of Love	X	X	X
Multicultural Addiction Services, LLC	X		
Orange County Health Department	X		
Osceola County Health Department		X	
Planned Parenthood	X	X	X

*Reproductive Health: Sexually Transmitted Diseases, continued*

	ORANGE COUNTY	OSCEOLA COUNTY	SEMINOLE COUNTY
Seminole County Health Department			X
Shepherd's Hope	X		X
The Center for Drug Free Living	X	X	X
The Center Orlando	X	X	X
The Orlando VA Medical Center	X	X	X
The Place of Comfort	X	X	X
Turning Point	X	X	X
United Way 2-1-1	X	X	X



## Adolescent Health: Marijuana Use Among Youth

	ORANGE COUNTY	OSCEOLA COUNTY	SEMINOLE COUNTY
Boys and Girls Clubs of Central Florida	X	X	X
Community Food & Outreach Center	X		
Florida Department of Children and Families	X	X	X
La Amistad Residential Treatment Center	X		
Multicultural Addiction Services	X	X	X
Narcotics Anonymous	X	X	X
Orange County Public School System	X		
Orlando Behavioral Healthcare	X	X	X
Osceola County Public School System		X	
Seminole Behavioral Healthcare			X
Seminole County Public School System			X
Seminole Prevention Coalition			X
Specialized Treatment, Education and Prevention Services, Inc.	X		
The Center for Drug Free Living	X	X	X
The Chrysalis Center, Inc.	X	X	X
United Way 2-1-1	X	X	X
University Behavioral Center	X		

## Adolescent Health: Physical Activity Among Youth

	ORANGE COUNTY	OSCEOLA COUNTY	SEMINOLE COUNTY
100 Black Men of Orlando, Inc.	X		
American Diabetes Association	X	X	X
American Heart Association	X	X	X
Boys and Girls Clubs of Central Florida	X	X	X
Center for Change	X		
Center for Multicultural Wellness and Prevention	X	X	X
Central Florida Family Health Centers	X		X
Central Florida YMCA	X	X	X
City of Orlando Parks and Recreation	X		
Community Health Centers	X		
FIT Kids	X		
F.I.T. Sports			X
Get Active Orlando	X		
Healthy 100 Kids	X		
Healthy Central Florida	X		
Healthy Orange Collaborative	X		
Healthy Seminole Collaborative			X
Hebni Nutrition Consultants, Inc.	X	X	X

*Adolescent Health: Physical Activity Among Youth, continued*

	ORANGE COUNTY	OSCEOLA COUNTY	SEMINOLE COUNTY
Hispanic Health Initiatives	X	X	X
Jewish Community Center	X		
Orange County Health Department	X		
Orange County Parks and Recreation	X		
Orange County Public School System	X		
Osceola County Health Department		X	
Osceola County Parks and Recreation		X	
Osceola County School District Wellness Program		X	
Overeaters Anonymous	X	X	X
Primary Care Access Network (PCAN)	X		
Reduce Obesity in Central Florida Kids (ROCK)	X	X	X
Seminole County Health Department			X
Seminole County Parks and Recreation			X
Seminole County Public School System			X
The Collaborative Obesity Prevention Program	X		
The Harmony Institute		X	
United Way 2-1-1	X	X	X
Winter Park Health Foundation	X		
YMCA	X	X	X

### *Social Determinants of Health: Financial Barriers - Homelessness*

	ORANGE COUNTY	OSCEOLA COUNTY	SEMINOLE COUNTY
Beta Center	X	X	X
Center for Change	X		
Center for Multicultural Wellness and Prevention	X	X	X
Central Florida Commission on Homelessness	X		
Christian Service Center of Central Florida	X	X	X
Coalition for the Homeless of Central Florida	X		
Community Food & Outreach Center	X	X	X
Community Vision		X	
Families in Transition – Seminole County Public Schools			X
Florida Department of Children and Families	X	X	X
Goodwill	X	X	X
Health Care Center for the Homeless	X	X	X
Heart of Florida United Way	X	X	X
Helping Others Make the Effort		X	
Homeless Services Network of Central Florida	X	X	X
House of Freedom Inc.		X	
Interfaith Hospitality Network Orlando	X		
Orlando Union Rescue Mission Men's Division	X		
Osceola Christian Ministry Center		X	

*Social Determinants of Health: Financial Barriers - Homelessness, continued*

	ORANGE COUNTY	OSCEOLA COUNTY	SEMINOLE COUNTY
Osceola Council on Aging		X	
Osceola County Housing Agency Kissimmee		X	
Pathways to Home			X
Rescue Outreach Mission of Sanford			X
The Center for Affordable Housing, Inc.			X
The Center for Drug Free Living	X	X	X
The Orlando VA Medical Center	X	X	X
The Salvation Army	X	X	X
The Transition House		X	
United Way 2-1-1	X	X	X
Wayne Densch Center	X	X	X

*Social Determinants of Health: Financial Barriers  
- Housing Affordability*

	ORANGE COUNTY	OSCEOLA COUNTY	SEMINOLE COUNTY
Center for Change	X		
Center for Multicultural Wellness and Prevention	X	X	X
Central Florida Urban League	X	X	X
City of Orlando Housing and Community Development	X		
Community Food & Outreach Center	X	X	X
Community Vision		X	
Habitat for Humanity	X	X	X
Housing and Neighborhood Development Services of Central Florida (HANDS of Central Florida)	X	X	X
Housing for Persons Living with AIDS (HOPWA)		X	
Orange County Government	X		
Orange County Housing Finance Authority	X		
Osceola Council on Aging		X	
Osceola County Government		X	
Osceola County Housing Authority		X	
Pathways to Home			X
Rescue Outreach Mission of Sanford			X
Seminole County Government			X
Seminole County Housing Authority			X
The Center for Affordable Housing, Inc.			X
The Center for Drug Free Living	X	X	X
U.S. Department of Housing and Urban Development	X	X	X
United Way 2-1-1	X	X	X

*Social Determinants of Health: Criminal Justice -  
Motor Vehicle Accidents/Collisions*

	ORANGE COUNTY	OSCEOLA COUNTY	SEMINOLE COUNTY
Florida Department of Highway Safety and Motor Vehicles	X	X	X
Florida Safety Council, Inc.	X	X	X
Health Central Hospital	X		
Mothers Against Drunk Driving (MADD)	X	X	X
Orange County Public School System	X		
Osceola County Public School System		X	
Seminole County Public School System			X
United Way 2-1-1	X	X	X

*Social Determinants of Health: Financial Barriers  
- High Unemployment*

	ORANGE COUNTY	OSCEOLA COUNTY	SEMINOLE COUNTY
Center for Change	X		
Central Florida Employment Council	X	X	X
Central Florida Partnership	X	X	X
Central Florida Urban League	X	X	X
Chambers of Commerce	X	X	X
Choose Osceola - Osceola County Economic Development Department		X	
Coalition for the Homeless of Central Florida	X		
Community Food & Outreach Center	X	X	X
Community Vision		X	
Downtown Orlando Partnership	X		
Goodwill	X	X	X
Leadership Orlando	X		
Leadership Osceola		X	
Leadership Seminole			X
Metro Orlando Economic Development Commission	X		
Orlando Union Rescue Mission Men's Division	X		



*Social Determinants of Health: Financial Barriers  
- High Unemployment, continued*

	ORANGE COUNTY	OSCEOLA COUNTY	SEMINOLE COUNTY
Osceola Christian Ministry Center		X	
Osceola Council on Aging		X	
Rescue Outreach Mission of Sanford			X
Seminole County Economic Development			X
The Center for Drug Free Living - Women's Residential Seminole			X
The Orlando VA Medical Center	X	X	X
United Way 2-1-1	X	X	X
Urban League	X	X	X
Workforce Central Florida	X	X	X

*Social Determinants of Health: Criminal Justice -  
Violent Crime*

	ORANGE COUNTY	OSCEOLA COUNTY	SEMINOLE COUNTY
Central Florida Regional Hospital			X
Central Florida Urban League	X	X	X
Florida Department of Children and Families	X	X	X
Harbor House of Central Florida	X	X	X
Help Now Domestic Violence Shelter		X	
Orange County Government	X		
Orange County Sheriff's Office	X		
Osceola County Government		X	
Osceola County Sheriff's Office		X	
Police Departments	X	X	X
Seminole County Government			X
Seminole County Sheriff's Office			X
The Center for Drug Free Living	X	X	X
United Way 2-1-1	X	X	X
University Behavioral Center	X		

## APPENDIX F • DATA SOURCES

Indicator	Measurement Period	Source
Age Adjusted death rate		
Cancer	2010-2012	FLDOH, Bureau of Vital Statistics
Coronary Heart Disease	2012	FLDOH, Bureau of Vital Statistics
Lung Cancer	2010-2012	FLDOH, Bureau of Vital Statistics
Cerebrovascular Disease	2012	FLDOH, Bureau of Vital Statistics
Prostate Cancer	2010-2012	FLDOH, Bureau of Vital Statistics
Unintentional injuries	2012	FLDOH, Bureau of Vital Statistics
Diabetes	2012	FLDOH, Bureau of Vital Statistics
Morbidity		
Diabetes	2010	BRFSS
Asthma	2010	BRFSS
Teens with Asthma	2010	BRFSS
HIV Incidence	2012	FLDOH, Bureau of HIV/AIDS
Chlamydia Incidence	2012	FLDOH, Bureau of STD Prevention & Control
Health Risk Factors		
Fruit & Vegetable Consumption	2007	BRFSS
Adults obese	2010	BRFSS
Adults overweight	2010	BRFSS
Teens obese	2012	FLDOH, Bureau of Epidemiology
Adults sedentary	2007	BRFSS
Teens without PA	2012	FLDOH, Bureau of Epidemiology
Adults Binge drink	2010	BRFSS
Adults who smoke	2010	BRFSS
Teens binge drink	2010	Florida Youth Substance Abuse Survey
Teens smoke	2010	Florida Youth Substance Abuse Survey
Teens use alcohol	2010	Florida Youth Substance Abuse Survey
Teens marijuana	2010	Florida Youth Substance Abuse Survey
Low-income preschool children obese	2010-2012	USDA
High BP	2010	BRFSS
High Cholesterol	2010	BRFSS
Access		
Adults with usual source of care	2010	BRFSS
Adults with Health Insurance	2010	American Community Survey
Children with Health Insurance	2010	American Community Survey
Median Monthly Medicaid Enrollment	2010	FLDOH, Office of Planning, Evaluation & Data Analysis
Did not visit dentist due to cost	2007	BRFSS
MCH		
Fetal deaths	2012	FLDOH, Bureau of Vital Statistics
Neonatal deaths (< 28 days)	2012	FLDOH, Bureau of Vital Statistics
Post-Neonatal deaths (28-365 days)	2012	FLDOH, Bureau of Vital Statistics

Indicator	Measurement Period	Source
Infant deaths (0-365 days)	2012	FLDOH, Bureau of Vital Statistics
Sudden Infant Death Syndrome (SIDS)	2012	FLDOH, Bureau of Vital Statistics
Preterm births (<37 weeks)	2012	FLDOH, Bureau of Vital Statistics
Very low birth weight (< 1500 grams)	2012	FLDOH, Bureau of Vital Statistics
Low birth weight (< 2500 grams)	2012	FLDOH, Bureau of Vital Statistics
Multiple births (twins, triplets, or more)	2012	FLDOH, Bureau of Vital Statistics
Birth defects (structural and genetic)	2012	FLDOH, Bureau of Community Environmental Health
Congenital heart defects	2012	FLDOH, Bureau of Vital Statistics
Chromosomal abnormalities (Trisomy 13,18, & 21)	2012	FLDOH, Bureau of Vital Statistics
Mothers who received 1st trimester prenatal care	2010	BRFSS
Births to mothers who reported smoking during pregnancy	2010	BRFSS
Births to mothers ages 15-19 years (per 1,000 females)	2012	FLDOH, Bureau of Vital Statistics
Births to overweight mothers at time pregnancy occurred	2012	FLDOH, Bureau of Vital Statistics
Births to obese mothers at time pregnancy occurred	2012	FLDOH, Bureau of Vital Statistics
Cancer Screenings		
Women 40 years and older who received a mammogram in the past year	2010	BRFSS
Women 18 years and older who received a Pap test in the past year	2010	BRFSS
Adults 50 years and older who received a sigmoidoscopy or colonoscopy in the past five years	2010	BRFSS
Adults 50 years and older who received a blood stool test in the past year	2010	BRFSS
Men 50 years and older who received a PSA test in the past two years	2010	BRFSS
YPLL		
Major cardiovascular disease	2012	FLDOH, Bureau of Vital Statistics
Motor Vehicle Collision	2012	FLDOH, Bureau of Vital Statistics
Suicide	2012	FLDOH, Bureau of Vital Statistics
Stroke	2012	FLDOH, Bureau of Vital Statistics
HIV	2012	FLDOH, Bureau of Vital Statistics
Diabetes Mellitus	2012	FLDOH, Bureau of Vital Statistics
Breast Cancer	2012	FLDOH, Bureau of Vital Statistics
Child and Adolescent Health Indicators		
Hospitalizations per 100,000		
Asthma hospitalizations 1-5 years	2010-2012	Agency for Health Care Administration
Asthma hospitalizations 5-11 years	2010-2012	Agency for Health Care Administration
Asthma hospitalizations 12-18 years	2010-2012	Agency for Health Care Administration
Diabetes hospitalizations 12-18 years	2010-2012	Agency for Health Care Administration
Diabetes hospitalizations 5-11 years	2010-2012	Agency for Health Care Administration
Hospitalizations for all non-fatal unintentional injuries <1 year	2010-2012	Agency for Health Care Administration

Indicator	Measurement Period	Source
Hospitalizations for all non-fatal unintentional injuries 1-5 years	2010-2012	Agency for Health Care Administration
Hospitalizations for all non-fatal unintentional injuries 19-21 years	2010-2012	Agency for Health Care Administration
Hospitalizations for all non-fatal unintentional injuries 12-18 years	2010-2012	Agency for Health Care Administration
Hospitalizations for all non-fatal unintentional injuries 5-11 years	2010-2012	Agency for Health Care Administration
Hospital/ER treated non-fatal unintentional falls 1-5 years	2010-2012	Agency for Health Care Administration
Hospital/ER treated non-fatal unintentional falls < 1 year	2010-2012	Agency for Health Care Administration
Hospital/ER treated non-fatal unintentional poisonings 1-5 years	2010-2012	Agency for Health Care Administration
Hospital/ER treated non-fatal motor vehicle related injuries 1-5 years	2010-2012	Agency for Health Care Administration
Hospitalizations for non-fatal traumatic brain injuries <1 year	2010-2012	Agency for Health Care Administration
Hospitalizations for non-fatal traumatic brain injuries 1-5 years	2010-2012	Agency for Health Care Administration
Non-fatal hospitalizations for self-inflicted injuries 12-18 years	2010-2012	Agency for Health Care Administration
Non-fatal hospitalizations for self-inflicted injuries 19-21 years	2010-2012	Agency for Health Care Administration
Non-fatal hospitalizations for eating disorders 12-18 years	2010-2012	Agency for Health Care Administration
Child and Adolescent Health Indicators		
Homicide Deaths 19-21 years	2010-2012	FLDOH, Bureau of Vital Statistics
Homicide Deaths 12-18 years	2010-2012	FLDOH, Bureau of Vital Statistics
Suicide Deaths 19-21 years	2010-2012	FLDOH, Bureau of Vital Statistics
Suicide Deaths 12-18 years	2010-2012	FLDOH, Bureau of Vital Statistics
Child passengers injured/killed in motor vehicle crashes 12-18 yrs.	2010-2012	FLDOH, Bureau of Vital Statistics
Child passengers injured/killed in motor vehicle crashes 5-11 yrs.	2010-2012	FLDOH, Bureau of Vital Statistics
Child passengers injured/killed in motor vehicle crashes 1-5 yrs.	2010-2012	FLDOH, Bureau of Vital Statistics
Unintentional injury deaths 1-5 years	2010-2012	FLDOH, Bureau of Vital Statistics
Overall cancer incidence rate 1-5 years	2010-2012	FLDOH, Bureau of Vital Statistics
Children ages 1-5 receiving mental health services	2010-2012	Florida Department of Children and Families
WIC children 2 and older who are overweight or at risk of overweight	2010	Florida Department of Health
Percent of students who report having asthma (middle school)	2010	Florida Youth Tobacco Survey
Percent of students who report having asthma (high school)	2010	Florida Youth Tobacco Survey

Indicator	Measurement Period	Source
Mental Health		
Percentage of Adults with good mental health	2010	BRFSS
Percentage of Adults who always or usually receive the social and emotional support they need	2010	BRFSS
Percentage of Adults who had poor mental health on 14 or more of the past 30 days	2010	BRFSS
Average number of days where poor mental or physical health interfered with activities of daily living in the past 30 days	2010	BRFSS
Average number of unhealthy mental days in the past 30 days	2010	BRFSS
Past 30-day Trend Middle School		
Alcohol	2010	Florida Youth Substance Abuse Survey
Binge Drinking	2010	Florida Youth Substance Abuse Survey
Cigarettes	2010	Florida Youth Substance Abuse Survey
Marijuana or Hashish	2010	Florida Youth Substance Abuse Survey
Past 30-day Trend High School		
Alcohol	2010	Florida Youth Substance Abuse Survey
Binge Drinking	2010	Florida Youth Substance Abuse Survey
Cigarettes	2010	Florida Youth Substance Abuse Survey
Marijuana or Hashish	2010	Florida Youth Substance Abuse Survey