Overweight and Obesity in Volusia County

The National Institute of Health’s Obesity Education Initiative report describes obesity as a complex chronic disease that is a combination of social, behavioral, cultural, physiological, metabolic and genetic factors.1 Being overweight is defined as having a body mass index (BMI) of 25 to 29.9 and obesity as a BMI of 30 or greater. BMI for adults is calculated from your weight and height. BMI for children is calculated as an age and gender specific percentile rather than the adult’s age categories. Overweight children are defined as a BMI at or above the 85th percentile and lower than the 95th percentile of children of the same age and sex. Obese occurs at or above the 95th percentile of children of the same age and gender.2

In 1990, the Centers for Disease Control and Prevention reported that not one U.S. state had an obesity rate greater than 14 percent of the population. Fifty states, in 2010, had rates greater than 14 percent and 12 states reported an obesity rate greater than 30 percent.3 Recent trends indicate adult obesity is a more urgent issue than childhood obesity in Volusia County. The percent of overweight adults is 77 percent greater than the Healthy People 2020 target and 51 percent greater than the U.S. obesity rate. Volusia County child and adolescent obesity rates are below the rates for Florida and the U.S., and lower than the Healthy People 2020 recommended targets.

Dr. John Armstrong, State Surgeon General and Secretary for the Florida Department of Health (FDOH), identifies healthiest weight as the number one public health goal for Florida’s future. On our current trend, by 2030, almost 60 percent of Floridians will be obese and six out of ten children born today will be obese by the time they complete high school. The FDOH launched the Healthiest Weight initiative, a public-private collaboration, in January 2013 to help Florida’s children and adults make informed choices about healthy eating and active living.

This Healthy Volusia report explores the incidence and outcomes of obesity from infancy through adulthood. The report card and summary illustrate the health status of Volusia County residents and behaviors contributing to overweight/obesity. Articles by local health professionals address factors influencing weight at all ages. These topics include the role breastfeeding plays in healthy weight children, factors impacting child and adult obesity, obesity-related hospitalizations and the geographic distribution and cost of obesity.

Understanding our weight status and the factors contributing to it are key in making healthier decisions about our diets and levels of physical activity. Knowledge provides us with the power to change from unhealthy habits to healthy choices that can yield extraordinary results—a healthy Volusia County.
## Report Card

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Reduce the percentage of adults who are obese</td>
<td>22.7&lt;sup&gt;4&lt;/sup&gt;</td>
<td>26.4&lt;sup&gt;4&lt;/sup&gt;</td>
<td>33.9&lt;sup&gt;6&lt;/sup&gt; (2010)</td>
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<td>Reduce the percentage of children and adolescents who are considered obese</td>
<td>9.8&lt;sup&gt;9&lt;/sup&gt; (2012)</td>
<td>11.1&lt;sup&gt;9&lt;/sup&gt; (2012)</td>
<td>17.9&lt;sup&gt;6&lt;/sup&gt; (2010)</td>
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<td>Reduce the percentage of adults who are obese or overweight</td>
<td>54.0&lt;sup&gt;4&lt;/sup&gt;</td>
<td>59.5&lt;sup&gt;4&lt;/sup&gt;</td>
<td>35.7&lt;sup&gt;6&lt;/sup&gt;</td>
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<td>Reduce the diabetes death rate per 100,000 population</td>
<td>27.6&lt;sup&gt;7&lt;/sup&gt;</td>
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<td>Decrease the percentage of adults diagnosed with diabetes</td>
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<td>11.1&lt;sup&gt;4&lt;/sup&gt;</td>
<td>11.3&lt;sup&gt;6&lt;/sup&gt;</td>
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<td>Reduce the percentage of adults with high total blood cholesterol levels</td>
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<td>40.1&lt;sup&gt;4&lt;/sup&gt;</td>
<td>15.0&lt;sup&gt;6&lt;/sup&gt; (2010)</td>
<td>13.5</td>
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<tr>
<td>Reduce stroke deaths per 100,000 population</td>
<td>33.6&lt;sup&gt;8&lt;/sup&gt;</td>
<td>31.3&lt;sup&gt;8&lt;/sup&gt;</td>
<td>39.1&lt;sup&gt;6&lt;/sup&gt;</td>
<td>33.8</td>
</tr>
<tr>
<td>Reduce coronary heart disease deaths per 100,000 population</td>
<td>104.9&lt;sup&gt;7&lt;/sup&gt;</td>
<td>100.0&lt;sup&gt;7&lt;/sup&gt;</td>
<td>113.6&lt;sup&gt;6&lt;/sup&gt; (2010)</td>
<td>108.8</td>
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<td>Increase the percentage of adults who engage in at least moderate physical activity</td>
<td>43.0&lt;sup&gt;4&lt;/sup&gt;</td>
<td>65.5&lt;sup&gt;10&lt;/sup&gt;</td>
<td>43.5&lt;sup&gt;6&lt;/sup&gt;</td>
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<tr>
<td>Increase the percentage of adolescents who engage in at least moderate physical activity</td>
<td>32.2&lt;sup&gt;7&lt;/sup&gt; (2012)</td>
<td>37.3&lt;sup&gt;7&lt;/sup&gt;</td>
<td>18.4&lt;sup&gt;6&lt;/sup&gt;</td>
<td>20.2</td>
</tr>
<tr>
<td>Increase the percentage of adults who consume at least two or more servings of fruit per day</td>
<td>17.1&lt;sup&gt;10&lt;/sup&gt; (2013)</td>
<td>36.2&lt;sup&gt;10&lt;/sup&gt; (2007)</td>
<td>32.9&lt;sup&gt;4&lt;/sup&gt; (2007)</td>
<td>Data Not Available</td>
</tr>
<tr>
<td>Increase the percentage of adults who consume at least three or more servings of vegetables per day</td>
<td>15.1&lt;sup&gt;10&lt;/sup&gt; (2013)</td>
<td>29.1&lt;sup&gt;10&lt;/sup&gt; (2007)</td>
<td>27.4&lt;sup&gt;4&lt;/sup&gt; (2007)</td>
<td>Data Not Available</td>
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</tbody>
</table>

**NOTE:** The references for the Report Card data are listed below. All data are 2013 unless otherwise indicated. The year in parentheses is the year of that specific indicator value. All data are the most recently available data.

**SOURCES:**

7. Florida Community Health Assessment Resource Tool Set (FL CHARTS), [www.floridacharts.com](http://www.floridacharts.com).
Report Card Summary

by Kevin Murphy, MSEPM, DOH-Volusia

The prevalence of obesity has increased dramatically since 1990 among adults in the United States, bringing with it many of the health risks associated with being overweight and obese\(^3\). There have been no significant changes in the number of obese youth or adults between fiscal years 2003-2004 and 2011-2012. In recent times, more than one-third or approximately 78.6 million American adults are obese\(^11\). The prevalence of obesity remains high and thus it is important to continue surveillance and monitor progress utilizing the Healthy People 2020 (HP2020) recommended targets. HP2020 had two main goals:

- To promote health while reducing chronic disease associated with diet and weight, and
- To improve health, fitness and quality of life through daily physical activity.

Local data indicates that Volusia County residents (54.0%) have a lower percentage of adults being overweight or obese than Florida (59.5%), but are 51% greater than the national percentage (35.7%). In Volusia County 9.8% of the children and adolescents described themselves as obese (1.3% lower than 11.1% for Florida). Nationally, obese children and adolescents encompass 17.9% of the population, above the HP2020 target of 16.1%.

The percentage of Volusia County residents who have high total blood cholesterol levels, stroke deaths and coronary heart disease deaths (38.7%, 33.6%, 104.9%, respectively) are higher than for Florida residents (40.1%, 31.3%, 100.0%, respectively). Volusia County adults exceeded the HP2020 targets for high total blood cholesterol levels and stroke deaths, 13.5% and 33.85 respectively.

In 2013, 43.0% of adults and in 2007 (most recent data available), 32.2% of adolescents in Volusia County reported engaging in at least moderate physical activity. Volusia County adults in 2013 reported being less physically active than Florida adults (65.0%), U.S. adults (43.5%) and the HP2020 target (47.9%) as well.

More adolescents in Volusia County reported being moderately physically active than the national percentage (18.4%) and the HP2020 target (20.2%) however, statewide, a greater percentage of youth (37.3%) reported being moderately physically active.

Adults in Volusia County (17.1%) had a lower percentage of people consuming two or more fruits per day than both the Florida (36.2%) and the U.S. (32.9%) percentages. Similarly, Volusia County (15.1%) had a smaller percentage of adults who had consumed at least 3 or more servings of vegetables daily than the nation and was lower than the Florida percentage of 29.1%.

For more information, visit www.HealthiestWeightFlorida.com
The gift of breastfeeding is considered the most universal and natural facet of motherhood. Breastfeeding affords mother and child the opportunity to bond and also provides the infant with immediate and future health benefits. The United States Breastfeeding Committee (USBC) reminds us that obesity prevention begins at the earliest moments of life when parents make infant feeding decisions. Mothers who breastfeed their children have a better weight status than mothers who use artificial baby milk, and the duration of breastfeeding lowers the odds of a child being overweight\textsuperscript{12}.

Obesity is considered a serious health problem facing both children and adults today. The Centers for Disease Control and Prevention (CDC) Vitalsigns report (August 2011) noted that childhood obesity is an epidemic in the U.S. The chance of becoming overweight decreases every month a baby is breastfed. Most babies in the U.S. start out breastfeeding, but within the first week, half have already been given formula, and by 9 months only 31% of babies continue to be breastfed. In a meta-analysis of studies examining exclusive breastfeeding, the CDC reported that exclusive breastfeeding seems to have a stronger protective effect than breastfeeding combined with formula feeding\textsuperscript{13}. Breastfeeding from birth can help prevent childhood obesity, and the data suggests it appears to have a greater influence on preventing childhood obesity as the duration of breastfeeding increases.

**Breastfeeding Rates** The 2007-2013 CDC U.S. Breastfeeding Report Cards show a continuous rise in the percentage of infants who ever breastfed with a slight decrease in 2013 to 78.8 percent, see Figure 1\textsuperscript{14}. The recommended target set by Healthy People 2020 is 81.9\% for ever breastfed infants. Similarly, Florida WIC infants ever breastfed show a consistent increase through 2013. Ever breastfed WIC infants in Volusia County recorded the greatest percentage increase from 63\% in December 2004 to 78.8\% by December 2013, a 25.1\% increase over the 10 year period.

![Figure 1](image)

The percentage of Volusia County WIC children overweight and/or obese decreased during the same 10 year period as the percentage of WIC infants ever breastfed increased. Figure 2 displays the data by weight category.\textsuperscript{15}

**Recommendation for Prevention** The Florida Women, Infants and Children Program is a national public health nutrition program that provides breastfeeding support to participants. The Volusia County WIC Program receives annual federal funding to expand their breastfeeding peer counseling model call Loving Support© through a peer
Breastfeeding: An Early Step to Obesity Prevention  (continued)

counseling program. Loving Support promotes breastfeeding to pregnant women along with support to breastfeeding mothers. It promotes breastfeeding as a vital health activity and supports increasing breastfeeding duration rates.

The USBC health reminder to the public, health care professionals and educators is that obesity prevention begins at the earliest moments of life when parents make infant feeding decision. The American Academy of Pediatrics recommends exclusively breastfeeding without supplementation as the ideal nutrition for the first six months and continued breastfeeding for at least the first year of life. Parents will require support in all areas of their lives to make the healthy choices necessary to reduce and prevent childhood obesity.

Call to Action  In 2011, Kathleen Sebelius, Secretary of the Department of Health and Human Services, in her Call to Action, urged all Americans to be support of breastfeeding mothers and families in their community and to extend their support so that these mothers receive the health care, assistance and encouragement they deserve.16

The 2011 CDC report indicates that about 95% of hospitals lack policies that fully support breastfeeding moms. Hospitals can also support both mothers and babies through the implementation of The Baby-Friendly Hospital Initiative. The Baby-Friendly Hospital Initiative is a global program sponsored by the World Health Organization (WHO) and the United Nations Children’s Fund (UNICEF) to encourage and recognize hospitals and birthing centers that offer an optimal level of care for lactation based on the WHO/UNICEF Ten Steps to Successful Breastfeeding for Hospitals. The Baby-Friendly Hospital Initiative has produced increased breastfeeding rates by providing support to mothers and encouraging breastfeeding duration. To learn more about how hospitals can support breastfeeding moms visit: www.babyfriendlyusa.org/eng/10steps.html.

Childhood obesity often leads to adult obesity and, ostensibly, the associated obesity-related health problems. One of the many health benefits to breastfeeding is its contribution to the prevention of childhood obesity. The decision to breastfeed is a mother’s personal decision with important implications for her baby’s health as well as her own. Breastfeeding is a health investment for infant, mother and our community. It has serious implications for the health of Americans, and support should be given to begin a healthy lifestyle at birth and prevent obesity through optimal breastfeeding of our nation’s children.

Sources:
When I grew up in New York City in the 1960’s there were a few heavy children in each class. I was a skinny kid and hyper. My mother spent most of her time telling me to sit still or go outside and play. We did not have “snack foods” in our house. My sister and I were not allowed to eat between meals and we were not allowed to serve ourselves. We had dinner every night, but I only dis...
An examination of the Volusia County data in terms of new cohorts is more reassuring: the prevalence of BMI > 95% is decreasing (see Figure 3). Whereas in 2007, the incidence of obesity in first graders was 16.1%, it now has decreased to 10.9%. This is a trend we are seeing across the U.S.; parents and schools are more aware of what children are eating and how much exercise they are getting.

In my own practice, I cannot say that the incidence of obesity is decreasing, but I can see that families are more aware and open to suggestions. Ten years ago, most families were resistant to the idea that their children were too heavy. They were proud that they were able to afford televisions for their bedrooms, and that were able to let their children eat as much as they wanted and whenever they wanted. They did not think exercise was that important and they accepted their child’s complaints that it was too hot or too cold outside to play.

We live in an obesogenic society and until there are a preponderance of pressures pushing us toward consuming less calories and exerting ourselves more, many families will be unable to make lasting changes. We are heavily dependent on processed foods. Many families are concerned about how much high fructose corn syrup and gluten is in the foods their children consume, but they often don’t know what else to give them. In a society where both parents work, there is often not enough time to prepare a family meal from scratch every night, especially if children have after school activities. Practice and competition nights are often capped off by fast food in the car on the way home.

As a practicing pediatrician my perspective is from one patient and one family at a time. The families who have been successful with controlling their children’s’ weight gain have been willing to make deep and lasting changes: they have removed the TV from their children’s’ bedrooms and are willing to stop snacking after dinner. Many families already limit their children’s’ drinks to either water or milk. The message to avoid or limit soda and juice is being accepted.

The data suggest that Florida is following the nationwide trend to lower BMI’s in younger children. I am hopeful that this trend will continue as our society asks for opportunities for outdoor play and more healthful food selections in schools and in supermarkets.

For more information on healthy living and physical activity, visit:
www.HealthyVolusia.org — a public-private partnership designed to bring the community together to improve the health of Volusia County
www.HealthiestFloridaWeight.com — public-private collaboration bringing together state agencies, not for profit organizations, businesses and entire communities to promote healthy eating & active living in Florida
www.LetsMove.gov — America’s move to raise a healthier generation of kids
Www.CDC.gov/physicalactivity/strategies/meandfamily.html — physical activity can improve your overall health and fitness, and reduce your risk for many chronic diseases
Adult Obesity: A Modern Epidemic
by Swain Strickland, MPH, Director, Community Health, DOH-Volusia

The exact science of obesity is complex, but the general consensus is that “obesity results from an energy imbalance: too many calories in, too few calories burned” 17. There are some physical activity and nutrition indicators that may account for this energy imbalance in Volusia County.

Volusia County residents, on average, do not engage in much physical activity. Table 1 indicates that about one-fourth of Volusia County residents in 2013 were completely sedentary and almost two-thirds of Volusia County residents are inactive at work in 2007. Slightly more than half of residents met the activity recommendations for moderate or vigorous physical activity recommendations. These indicators are evidence for not enough calories expended and support the need for worksite wellness programs to get adults moving.

<table>
<thead>
<tr>
<th>Contributing Factors</th>
<th>Volusia 2002</th>
<th>Volusia 2007</th>
<th>Volusia 2013</th>
</tr>
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<tr>
<td>Adults who are inactive at work</td>
<td>57.9</td>
<td>59.2</td>
<td>N/A</td>
</tr>
<tr>
<td>Adults who are sedentary</td>
<td>25.5</td>
<td>21.9</td>
<td>25.2</td>
</tr>
<tr>
<td>Adults who consume at least five servings of fruits and vegetables a day</td>
<td>27.6</td>
<td>27.9</td>
<td>17.4</td>
</tr>
<tr>
<td>Adults who consumed three or more servings of vegetables per day</td>
<td>30.0</td>
<td>27.4</td>
<td>15.1</td>
</tr>
<tr>
<td>Adults who consumed two or more servings of fruit per day</td>
<td>34.7</td>
<td>37.2</td>
<td>17.1</td>
</tr>
<tr>
<td>Adults who meet moderate physical activity recommendations</td>
<td>38.1</td>
<td>38.1</td>
<td>54.9</td>
</tr>
<tr>
<td>Adults who meet vigorous physical activity recommendations</td>
<td>24.7</td>
<td>25.8</td>
<td></td>
</tr>
</tbody>
</table>

Data Source: Behavior Risk Factors Surveillance Survey, Centers for Disease Control and Prevention, 2002-2013

Likewise, a majority of Volusia County residents are not consuming healthy diets and the data are trending down. Less than a third of residents consumed three or more vegetables per day in 2002, and in 2013 that number was nearly cut in half. Volusia County residents eat more fruit than vegetables. 17.1% of Volusia County residents ate two or more servings of fruit per day in 2013. Caloric intake is likely the most important part of the calorie balance equation because of the calorically dense foods available. A half-hour brisk walk burns the equivalent amount of calories consumed in one 12 ounce soda. It is more realistic for an adult to avoid a dessert or extra helping of food than to run 5 miles to balance the calorie equation. Calories in and calories out, however, are not the only known contributing causes to obesity. There are many more behaviors associated with obesity: prenatal influences (smoking, weight gain, sugar levels), postnatal influences (weight gain, length of breastfeeding, infant sleep), genetics, TV viewing, sleep, environment (food availability and location), amongst many more.

Costs The costs of obesity are astounding from a statewide and national perspective. The estimated annual costs of obesity-related illness nation-wide are $190.2 billion18. Obesity-related illnesses account for one-fifth of all medical spending. The epidemic’s impact is such that if obesity rates were to remain at the 2010 level the projected savings for medical expenditures would be $549.5 billion over the next two decades19. Reducing average BMI by 5 percent by 2030 could significantly reduce U.S. health care costs. Florida would save 2.1 percent in obesity-related health costs20.

Obesity is also having an impact on employers. A study in the American Journal of Health Promotion finds that a morbidly obese
employee, on average, costs employers over $4,000 more per year than an employee who is of normal weight\(^{21}\). One study found that if the cities with the highest obesity rates lowered their obesity rates to the national average, the combined communities would save a $500 million in healthcare costs\(^{22}\).

**Local Costs**  Volusia County hospitalization data reveal the county and sub-county cost of Type II diabetes to the Volusia County tax paying community. Table 2 illustrates the charges incurred by patients with diagnoses of both Type II diabetes and obesity compared to patients diagnosed with only Type II diabetes. In total, patients with Type II diabetes and who were obese accrued $102,649,333.00 in charges. On average, in 2012, obese Type II diabetes patients cost $3,747.62 more per visit than non-obese Type II diabetes patients. The difference in cost was significantly higher in the southeast quadrant, more than double any other quadrant.

<table>
<thead>
<tr>
<th></th>
<th>Northwest Quadrant</th>
<th>Northeast Quadrant</th>
<th>Southwest Quadrant</th>
<th>Southeast Quadrant</th>
<th>Volusia County</th>
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<tr>
<td>Type II Diabetes</td>
<td>$ 40,503.24</td>
<td>$ 39,076.65</td>
<td>$ 43,655.11</td>
<td>$ 39,334.36</td>
<td>$ 40,535.96</td>
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<td>Type II Diabetes with Obesity</td>
<td>$ 42,817.30</td>
<td>$ 41,900.51</td>
<td>$ 46,279.38</td>
<td>$ 46,324.54</td>
<td>$ 44,283.58</td>
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<td>Difference in Cost</td>
<td>$ 2,314.06</td>
<td>$ 2,823.86</td>
<td>$ 2,624.27</td>
<td>$ 6,990.18</td>
<td>$ 3,747.62</td>
</tr>
</tbody>
</table>

Data Source: Florida Agency for Health Care Administration, Hospital Dataset, 2012

**Public Health Focus**  The health and economic impact of the obesity epidemic is significant and without a doubt the greatest public health threat of this generation. The community of Volusia County has responded in turn. The three hospital networks located in Volusia County, the Florida Department of Health in Volusia County and other organizations have completed Community Health Assessments that have identified obesity as a major issue. These assessments have spawned health improvement plans and partnerships to halt the obesity epidemic. The Healthy Volusia partnership are targeting both obesity prevention in youth and healthy lifestyles in adults.

Additionally, the Fun Coast Worksite Wellness Council was formed in 2013 to provide resources to businesses to improve the health of their employees. Many more organizations are responding to this crisis with creativity and zeal. There is hope that obesity will become this generation’s greatest victory rather than it’s greatest threat.

For more information on obesity and local activities addressing obesity, please visit www.healthyvolusia.org.

**Sources:**


Age-adjusted Rate of Chronic Disease Hospitalizations with a Diagnosis of Obesity, Volusia County, 2012

The age-adjusted rate of Stroke Hospitalizations with a diagnosis of Obesity for Volusia County was 37.5 per 100,000 persons in 2012

Map Data Source: Florida Agency for Health Care Administration, Hospital Dataset, 2012
Age-adjusted Rate of Chronic Disease Hospitalizations with a Diagnosis of Obesity, Volusia County, 2012 (continued)

The three Volusia County maps on page 10 present chronic diseases with a secondary diagnosis of obesity in 2012. The Centers for Disease Control and Prevention have identified type II diabetes, strokes and certain cancers (prostate, endometrial, colon, and breast) as the three leading obesity related chronic diseases. The maps reveal a pattern of higher rates of chronic disease with obesity related hospitalizations in the southwestern portion of the county as indicated by the darker brown colors.

The age-adjusted rates of cancer hospitalizations with a diagnosis of obesity are most prominent in zip codes 32738 (24.2), 32764 (19.8), 32725 (16.0) and 32744 (15.7). They had significantly higher rates than the rest of the county. Zip code 32132 (22.3) stood out in the southeast quadrant with a higher rate as well.

Presented in Figure 5 are the age-adjusted rates of Type II diabetes hospitalizations with a diagnosis of obesity for Volusia County in 2012. Again, the southwestern portion of the county have higher rates than the rest of the county. Zip codes 32854 (731.4), 32763 (622.4), and 32720 (613.4) each held the first, third, and fourth highest rates of diabetes hospitalizations comorbid with obesity respectively. Zip code 32114 (633.8), in the northeast quadrant, had the second highest rate in the county.

Figure 6 displays the age-adjusted rates of stroke hospitalizations with a diagnosis of obesity for Volusia County in 2012. Once more, the southwest quadrant had higher rates of chronic disease hospitalizations with obesity. Zip codes 32132 (88.7), 32725 (87.1), 32738 (69.5) and 32763 (66.0) all had higher rates for stroke hospitalizations with additional diagnosis for obesity than all other zip codes in the county.

The graph in Figure 7 explores the age-adjusted rates of diabetes hospitalizations with obesity diagnoses by race and geography in an effort to identify health inequities. West Volusia had the highest rates of diabetes hospitalizations with an obesity diagnosis. The rates for the southwest and northwest quadrants were more than 150 points higher than either of the eastern quadrants. More specifically, eight of the top ten zip codes with the highest rates are located in west Volusia.

At the sub-county level, Black residents had higher rates of diabetes hospitalizations with a diagnosis of obesity than White and Other races residents in each quadrant except the southwest quadrant. Other races (1156.4) was 83.6% higher than Black (629.9) and 114.5% higher than White (539.0) within the same quadrant. County-wide, Black residents had rates 27.5% higher than Other races and more than double the rate of hospitalizations for White residents with a diagnosis of obesity in 2012.

Source: Florida Agency for Health Care Administration, Hospital Dataset, 2012
Healthy Volusia Report Key Points

- Breastfeeding is correlated with healthier weight status for both mother and child. Infants who are breastfed have a reduced risk of being an overweight child; and as the duration of breastfeeding increases, the odds of a child being overweight decrease.

- Volusia County children enjoy a healthier weight status than adults. This is aligned with the national trend of lower BMIs in younger children.

- Obesity costs Volusia County tax payers 9.3% more on average in additional hospitalization charges for obese Type II diabetics than non-obese Type II diabetics both of whom have government insurance.

- The southwest quadrant of Volusia County has the highest rate of hospitalizations with obesity as a diagnosis. The same holds true for obesity-related chronic illnesses, such as stroke, Type II diabetes and cancer. It also has the greatest percentage of Hispanics in the county.

- Volusia County adults are at greater risk for obesity-related chronic diseases. The percent of overweight or obese adults is 77 percent greater than the Healthy People 2020 target and 51 percent greater than the U.S. obesity rate.

Florida Department of Health in Volusia County
Office of Informatics and Assessment
386 274-0605
www.volusiahealth.com

Age-adjusted Hospitalization Rate with Obesity as any Diagnosis, Volusia County, 2012

Volusia County’s age-adjusted rate of hospitalizations per 100,000 persons with any diagnosis of obesity was 887.9 in 2012. There were pockets in the northwest and southwest quadrants with higher rates than the county and the eastern quadrants. Eight of the top 10 zip codes (80%) and the three zip codes (32725, 32190 and 32744) with the highest hospitalization rates with an obesity diagnosis were located in west Volusia County.

Zip codes 32725, 32190 and 32744 also had Hispanic populations of 31.8%, 26.6% and 8.5%, respectively. Spanish-speaking persons comprised 20.2% of the population in the northwest and southwest quadrants but only 11.5% of the county population in 2012.

Countywide, Hispanics accounted for 8.0% (471) of hospitalizations with any diagnosis of obesity in 2012; 72.2% (340) of those patients indicated they lived in the southwest quadrant of Volusia County.