



# PUBLIC HEALTH DATA BRIEF

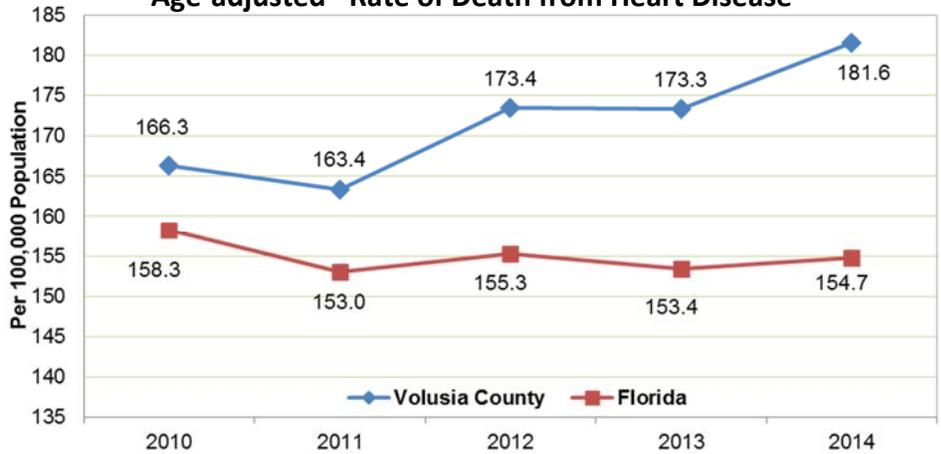


## HEART DISEASE IN VOLUSIA COUNTY

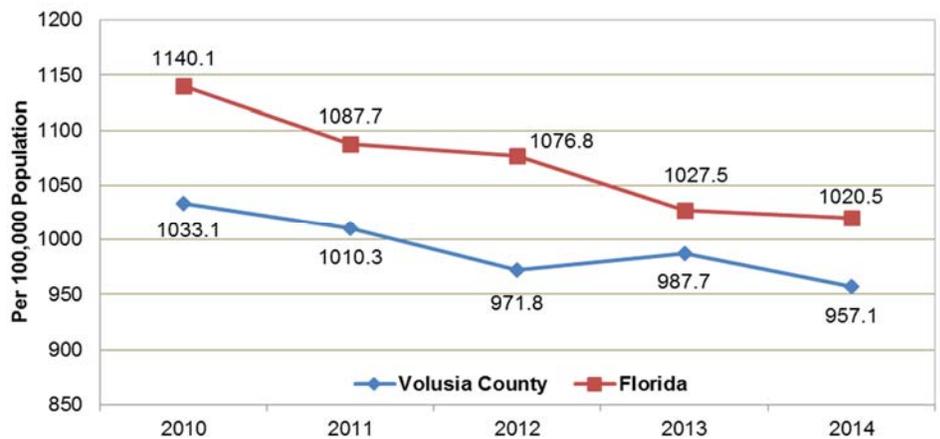
The Centers for Disease Control and Prevention refer to heart disease as an abnormal function of the heart or blood vessels. Heart disease can cause increased risk for heart attack, heart failure, sudden death, stroke and cardiac rhythm problems. It can result in decreased quality of life and decreased life expectancy. The causes of heart disease range from structural defects to infection, inflammation, genetics, and the environment. Heart disease is the leading cause of death in the United States, accounting for 610,000 deaths every year. Heart disease is also the leading cause of death in Florida and Volusia County. Volusia County has seen a 9.2% increase in the heart disease death rate from 2010 to 2014. Florida had stable rates with a 2.3% decrease during the same period. Volusia County consistently had a higher age-adjusted rate of deaths from heart disease than Florida. Most recently, in 2014, Volusia County's heart disease rate (181.6) was 17.4% higher than the Florida rate (154.7).

- Volusia County and Florida have downward trends for hospitalizations with heart disease
- Volusia County had a 7.4% decrease in the rate of hospitalizations with heart disease from 2010 (1033.1) to 2014 (957.1)
- Volusia County's hospitalizations with heart disease rate (957.1) was 6.2% lower than Florida (1020.5) in 2014
- Volusia County and Florida have upward trends for rates of Emergency Department visits with heart disease
- Volusia County had a 19.1% increase in the rate of ED visits with heart disease from 2010 (580.2) to 2014 (691.0)
- Over the five year period, Volusia County (611.3) averaged 19.4% more emergency department visits with heart disease than Florida (512.0)

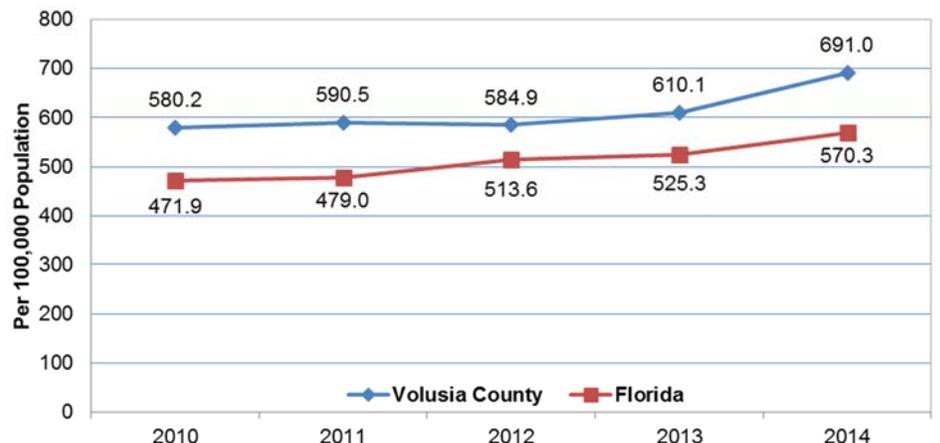
Age-adjusted\* Rate of Death from Heart Disease



Age-adjusted\* Rate of Hospitalization with Heart Disease

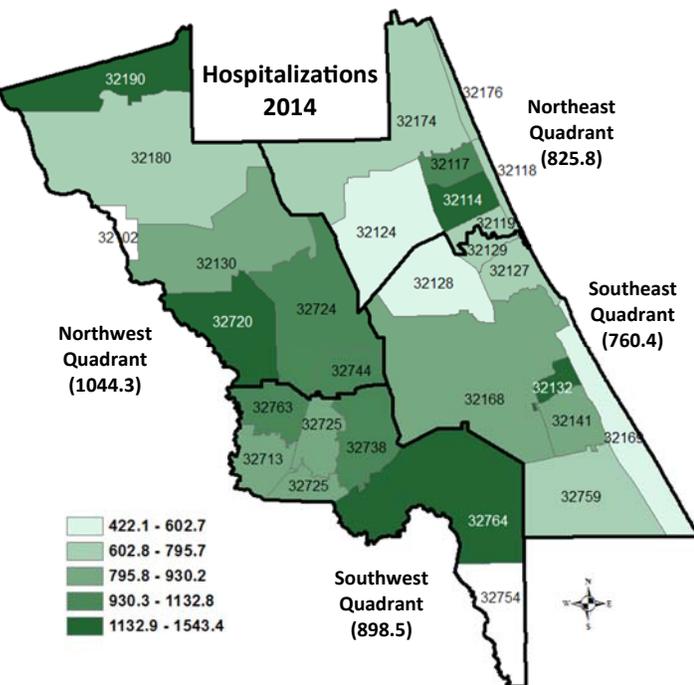
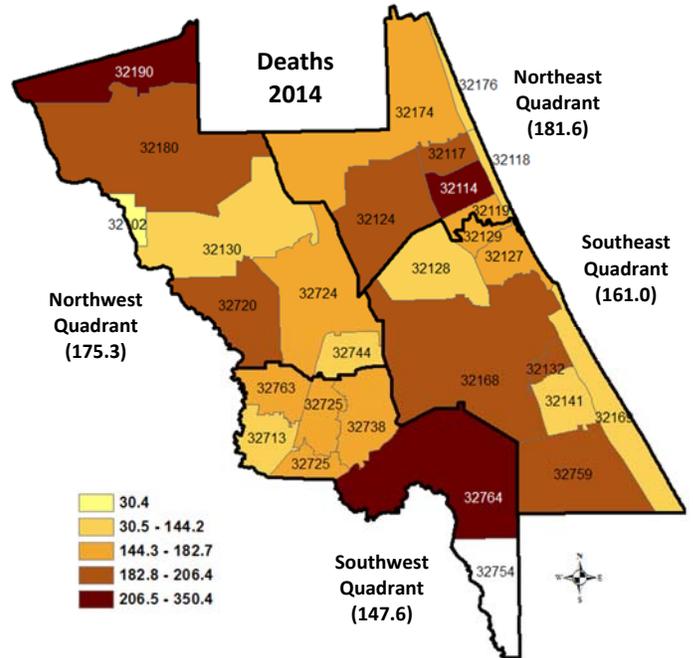


Age-adjusted\* Rate of Emergency Department Visits with Heart Disease

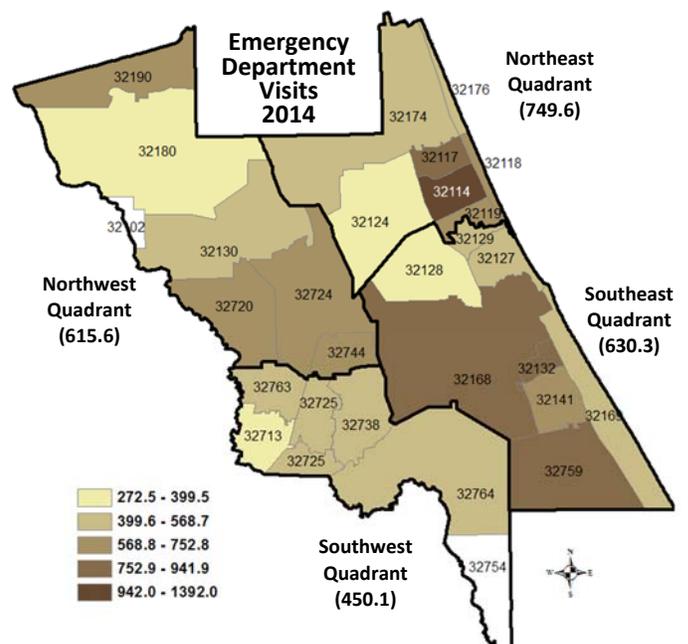


## Age-adjusted\* Rate of Heart Disease for Emergency Department (ED) Visits, Hospitalizations, and Deaths in Volusia County, 2014

- The Northeast quadrant (181.6) had the highest age-adjusted death rate (AADR) for heart disease in Volusia County in 2014
- The Southwest quadrant (147.6) had the lowest AADR for heart disease in Volusia County in 2014
- Eleven out of 28 (39.2%) Volusia County ZIP codes had a lower AADR of heart disease than Florida (154.7)
- ZIP code 32764 (350.4) had the highest AADR for heart disease in Volusia County in 2014
- ZIP code 32102 (30.4) had the lowest AADR for heart disease in Volusia County in 2014

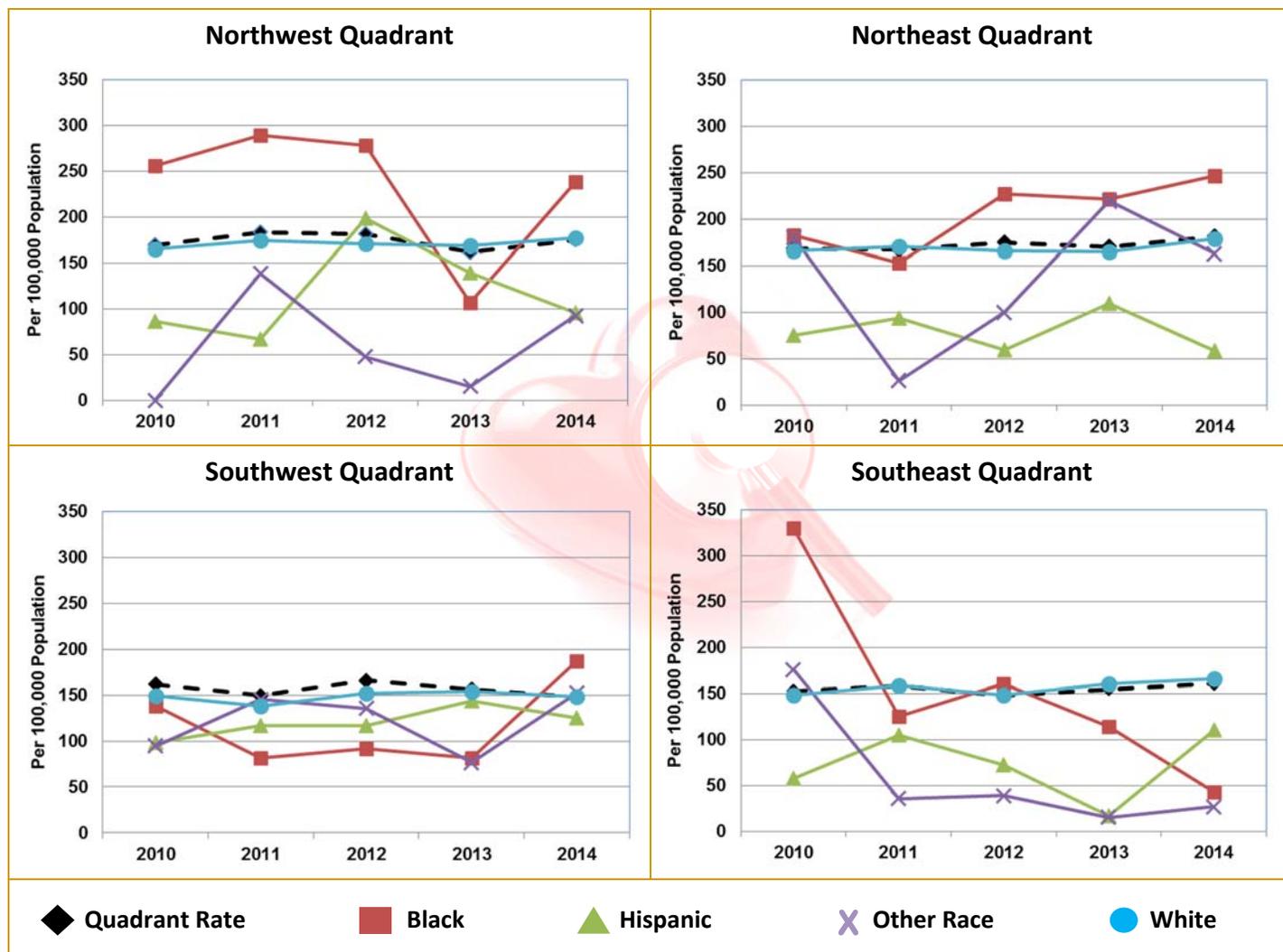


- The Northwest (1044.3) and Southeast (760.4) quadrants had the highest and lowest, respectively, age-adjusted rates of hospitalizations for heart disease in Volusia County in 2014
- Twenty-two out of 28 (78.6%) Volusia County ZIP codes had a lower age-adjusted hospitalization rate of heart disease than Florida (1020.5)
- ZIP code 32190 had the highest age-adjusted rate of hospitalizations for heart disease in Volusia County
- ZIP code 32124 (422.1) had the lowest age-adjusted rate of hospitalizations for heart disease in Volusia County in 2014



- The Northeast (749.6) and Southwest quadrants (450.1) had the highest and lowest, respectively, age-adjusted rates of ED visits for heart disease in Volusia County in 2014
- Sixteen out of 28 (57.1%) Volusia County ZIP codes had a higher age-adjusted rate of ED visits with heart disease than Florida (570.3)
- ZIP code 32114 (1392.0) had the highest age-adjusted rate of ED visits for heart disease in Volusia County in 2014
- ZIP code 32124 (272.5) had the lowest age-adjusted rate of ED visits for heart disease in Volusia County in 2014

## Age-adjusted\* Death Rate (AADR) of Heart Disease by Quadrant and Race in Volusia County, 2014



- The Northwest quadrant, from 2010 to 2014, had a 3.4% increase in the age-adjusted death rate (AADR) of heart disease
- Blacks in the Northwest quadrant had the largest decrease (6.9%) in the AADR of heart disease from 2010 to 2014
- Hispanics in the Northwest quadrant (10.9%) had the largest increase in the AADR of heart disease from 2010 to 2014

- The Southwest quadrant, from 2010 to 2014, had an 8.8% decrease in the AADR of heart disease
- Whites in the Southwest quadrant (0.4%) had the largest and only decrease in the AADR of heart disease from 2010 to 2014
- Other races in the Southwest quadrant (61.1%) had the largest increase in the AADR of heart disease from 2010 to 2014

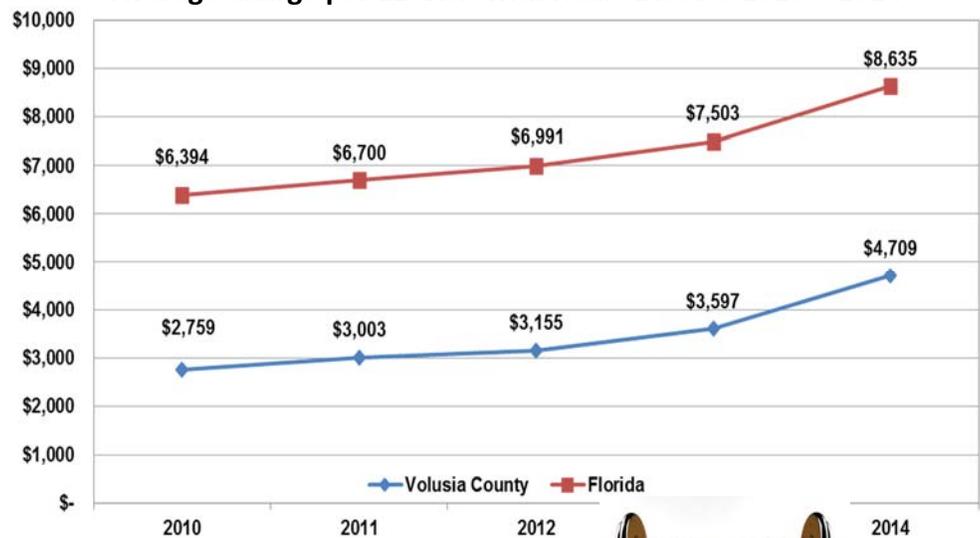
- The Northeast quadrant had a 7.6% increase in the AADR of heart disease from 2010 to 2014
- Hispanics in the Northeast quadrant (22.2%) had the largest decrease in the AADR of heart disease from 2010 to 2014
- Blacks in the Northeast quadrant (35.5%) had the largest increase in the AADR of heart disease from 2010 to 2014

- The Southeast quadrant had a 5.3% increase in the age-adjusted death rate (AADR) of heart disease from 2010 to 2014
- Blacks in the Southeast quadrant (87.0%) had the largest decrease in the AADR of heart disease from 2010 to 2014
- Hispanics in the Southeast quadrant (92.2%) had the largest increase in the AADR of heart disease from 2010 to 2014

## Charges for Emergency Department (ED) Visits with Heart Disease, 2010 – 2014

- Volusia County’s average charge per ED visit with heart disease rose by 70.7% from 2010 (\$2,759) to (\$4,709) in 2014
- Volusia County’s increase (71%) in the average charge per ED visit from 2010 to 2014 was twice the size of Florida’s (35%) for the same period
- Volusia County’s average charge per ED visit with heart disease (\$4,709) was 45.6% lower than Florida (\$8,635) in 2014

Average Charge per ED Visit with Heart Disease 2010 – 2014



### Average Charge per Emergency Department (ED) Visit with Heart Disease in Volusia County, 2014

2014	Volusia County	Quadrants			
		Northwest	Northeast	Southwest	Southeast
ED visits	4,532	658	1,651	919	1,240
Total charges	\$21,341,736	\$3,097,042	\$7,186,385	\$5,541,124	\$5,199,484
Average charge per visit	\$4,709	\$4,707	\$4,353	\$6,030	\$4,193
% of population 65 & older	22.9%	21.3%	22.2%	21.1%	27.4%
% of ED visits 65 & older	49.6%	48.9%	45.7	47.3%	56.6%

- The average charges per ED visit with heart disease in Volusia County (\$4,709) and the four quadrants were lower than the average for Florida (\$8,635)
- In 2014, the Southwest quadrant had the highest average charge (\$6,030) per ED visit with heart disease, nearly 22% (\$1,323.00) higher than the next closest quadrant (Northwest, \$4,707)
- The Southeast quadrant (\$4,193) had the lowest average charge per ED visit with heart disease being 3.7% lower than the next closest quadrant
- The Southeast quadrant had the greatest percentage of persons aged 65 and older and the greatest percentage of heart disease related ED visits by persons aged 65 and older

**NOTE: Age-Adjusting\***

The frequency with which health events occur is almost always related to age. For example, mortality rates tend to increase after 40 years of age. The age-adjusted rate is a summary measure that eliminates the effect of the underlying age distribution of the population, allowing for comparisons between populations regardless of their age structure. Visit [www.floridacharts.com](http://www.floridacharts.com) for more information.

**Data Sources:**

Florida Community Health Assessment Resource Tool Set (CHARTS); Florida Department of Health, Bureau of Vital Statistics, 2010 – 2014; Agency for Health Care Administration’s Hospital and ED datasets, 2010-2014; Centers for Disease Control and prevention 2015.

For more information or to share your ideas, contact the Florida Department of Health in Volusia County Office of Informatics & Assessment at 386 274-0605 or visit [www.VolusiaHealth.com](http://www.VolusiaHealth.com)

