

Trends in Public Health

Health Behaviors in Duval County

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Chronic diseases—such as cardiovascular conditions (primarily heart disease and stroke), cancer, and diabetes—are among the most prevalent, costly, and preventable of all health problems and account for 7 out of every 10 deaths in the United States.¹ Chronic diseases are mostly preventable, but can be difficult to cure since the risk factors associated with developing chronic conditions are primarily linked to lifestyle behaviors. Health-damaging behaviors such as tobacco use, lack of physical activity and poor nutrition are major contributors to heart disease, diabetes, and cancer, our nation's leading killers.² In addition, the medical care costs of people with chronic diseases account for more than 75% of the nation's \$2 trillion annual medical care costs.¹

Chronic disease surveillance is a relatively new public health activity, providing critical insights into chronic disease morbidity, the underlying causes of these diseases and the status of chronic disease prevention including early diagnosis and treatment. The primary surveillance tool, the Behavioral Risk Factor Surveillance System (BRFSS), was established by the Centers for Disease Control and Prevention (CDC) in 1984 and is currently administered in all 50 states. The BRFSS is a state-based telephone survey administered to adults age 18 and over to assess various aspects of health related behavior including health risk behaviors, preventive health practices, and health care access primarily related to chronic disease and injury.³ In addition, the CDC, as well as some state health departments, collect county level data. The BRFSS is the primary data source for all adult behaviors related to health. States use BRFSS data primarily to identify emerging health problems, establish and track health objectives, evaluate programs, and develop and evaluate public health policy. The BRFSS includes a set of core questions, modules that rotate between odd and even years, and state and county added questions.³

The Florida Department of Health, (FDH) with technical assistance from the CDC, collected county level data in 2007, the first since the initial effort in 2002. The 2007 county-level survey was developed in collaboration with state and local representatives and was designed to meet the individual needs of the counties by offering options to increase sample size and to add questions. With input and funding from the Duval County Health Department in 2007, the FDH collected a sample of 1,815 in Duval County, yielding the largest local sample ever conducted in the state of Florida. Data from Duval County were weighted in order to remove bias in the sample. The data set is specifically weighted by density status, geographic region, number of residential telephone numbers, number of adults, age, gender, race/ethnicity, and health zone. The following are major findings on chronic disease morbidity,⁴ underlying behavioral causes of chronic disease,⁵ and the status of early diagnosis and treatment⁶ from analysis of the Duval County BRFSS data.

Chronic Disease Morbidity

Data detailing chronic disease morbidity in Duval County include the following highlights:

- More than 35.6% of adults had been diagnosed with high blood cholesterol at some point in their past.⁴
- 27.3% of adults have been diagnosed with hypertension with over 30% of blacks diagnosed compared to 27.1% of whites.⁴
- Adults who have been told by a health professional they had asthma was 13.2%, while 7.1% of adults reported they currently have asthma. The rate for females with asthma was 62.3% higher than for males and the rate for blacks was 29.6% higher than for whites. Data reveals the rate of adults diagnosed with asthma is highest in Health Zone 1 with 17.2%.⁴
- 9.2% of adults have been diagnosed with diabetes. Blacks were more likely to have been diagnosed with 10.1% compared to whites with 8.1% and males were more likely to have been diagnosed with diabetes than females, 9.7% vs. 8.8%. Adults diagnosed with diabetes also varies geographically with the highest rate reported in Health Zone 5, with 15.4%, followed closely by Health Zone 1 with 14.3%.⁴

- Poor health has been identified as one of the major problems associated with low income.⁷ Data reveals a significant difference between those with annual incomes less than \$25,000 and those who make \$50,000 or more across all selected morbidities, which includes arthritis, asthma, stroke, heart attack/coronary heart disease, high blood cholesterol and diabetes. High blood pressure was the only morbidity that wasn't significant.⁴

Behaviors: Actual Causes of Death

In the landmark article, *Actual Causes of Death in the United States*, by McGinnis and Foege (1993), the authors identify and describe major modifiable factors, mostly related to lifestyle and behavior, that contribute to death. The authors term these factors "actual causes of death."⁸ In a 2004 article, "Actual Causes of Death in the United States", 2000, Mokadad et al. identified and quantified the leading causes of mortality in the U.S. The top three causes were 1) tobacco, 2) poor diet and physical inactivity, and 3) alcohol consumption.⁹ These studies followed the 1979 Surgeon General's Report, *Healthy People*, calling for a second public health revolution focusing on behavior and lifestyle.¹⁰ This report analyzed the 10 leading causes of death, in 1976, and suggested that as much as half of U.S. mortality was due to unhealthy behavior or lifestyle; 20% to environmental factors; 20% to human biological/genetic factors; and 10% to inadequacies in health care.¹⁰ Behavior remains the dominant cause of premature death and disability, and reducing disease causing behaviors (primary prevention) continues to be a major public health challenge .

Data detailing behaviors in Duval County include the following highlights:

- 62.2% of Duval County adults are overweight or obese. Males are more likely to be overweight or obese than females with 66.3% and 58.4%, respectively. In addition, the obesity and overweight rate for blacks was 15% higher than for whites. Obesity and overweight rates were highest in Health Zone 5, with 69.5%, followed closely by Health Zone 4, with 68.1%.⁵
- The general recommendation for fruits and vegetables is to consume 5 a day.¹¹ Data results indicate that 23.9% of Duval County residents consume at least 5 fruits and vegetables per day compared to 26.2 and 24.4 in Florida and the U.S., respectively.⁵
- Adults need a minimum of 150 minutes of moderate intensity aerobic activity weekly (or 75 minutes of vigorous intensity aerobic activity).¹² In Duval County, 23.5% of all adults are sedentary compared to 25.4% of adults in the state and 22.6% in the U.S. Only 32% of Duval County residents met moderate physical activity recommendations. More whites performed moderate physical activity compared to blacks or Hispanics. Adults living in Health Zone 1 and 5 were the least likely to participate in some moderate activity compared to other health zones.⁵
- Cigarette smoking is the cause of death for close to 20% of all adults.¹³ Nearly 22% of Duval County residents currently smoke; more whites smoke (21.9%) in Duval County than blacks (19.9%) and more males smoke than females, 23.4% vs. 20%. Adult residents of Health Zone 1 smoke the most of the six zones followed by those in Health Zone 2 and Health Zone 4. In addition, 19.5% of nonsmoking adults in Duval County reported being exposed to secondhand smoke.⁵
- Too much alcohol use, in the form of "heavy drinking" or "binge drinking", is associated with a significantly higher risk of health issues.¹⁴ Nineteen percent of adults in Duval County engage in heavy or binge drinking. Whites are almost twice as likely to engage in heavy or binge drinking compared to blacks, 21.1% vs. 1.3%.⁵
- A significant difference exists between those with annual incomes less than \$25,000 and those who make \$50,000 or more; adults with lower incomes are more sedentary, don't get regular moderate physical activity, and are current smokers but engage in heavy drinking less than those with higher incomes.⁵

Early Diagnosis and Treatment

Early diagnosis followed by early treatment of diseases is critical for maintaining good quality of life, reducing premature death, and reducing healthcare cost. Although some chronic diseases can be prevented, particularly when there are known behavioral causes, others can only be controlled or effectively treated when caught early. Regardless of how preventable the diseases are, diagnosing and treating the disease early (secondary prevention) is critical for controlling the negative effects of chronic disease. Unfortunately, prevention, including screening and early diagnosis of disease, accounts for only 2% to 3% of health care expenditures while disease care is the dominant driver of health spending.¹⁵

Data detailing factors influencing early diagnosis and treatment in Duval County include the following highlights:

- “Cancer screening” is looking for cancer when a person is asymptomatic. It is beneficial to find cancer at an early stage before it is able to spread because it is easier to treat and outcomes may be improved.¹⁶ In Duval County, over 68% of women at least 40 years of age received a mammogram within a year of taking the BRFSS survey. More black women had received a mammogram (73.1%) than white women (66.3%) and the screenings increased as the respondent’s age increased. A Pap test is another type of cancer screening. It is used to detect unusual cells in a woman’s cervix. Seventy-three percent of women 18 years and older in Duval County received a Pap test in the previous year. Almost 81% of black women received a Pap test followed by 77.1% of Hispanic women and 71.0% of white women.⁶
- Colorectal cancer is second to lung cancer in the significant amount of deaths it causes.¹⁷ Two screening tools for colorectal cancer are colonoscopy and sigmoidoscopy. Nearly 57% of Duval County adults 50 years of age and older received a sigmoidoscopy or colonoscopy in the past 5 years.⁶
- Glucose control is a significant piece of secondary prevention for diabetes. According to the Centers for Disease Control, each 1% reduction in A1C blood tests results in a 40% reduction in the risk of developing microvascular complications due to diabetes. Similarly, eye and foot exams can reduce negative health outcomes significantly. Nine percent of adults in Duval County have been diagnosed with diabetes.¹⁸ Only 70.3% self-monitor their blood glucose at least once a day on average. More men than women self-monitor their levels (74.0 vs. 66.6%). Over 73% of blacks self-monitor their blood glucose compared to 68.1% of whites. Only 70.6% of diagnosed diabetics in Duval County had two A1C tests in the past year.⁶ Yet, the National Diabetes Education Program recommends 2 A1C tests each year for all diabetics.¹⁹ Nearly 78% of adults in Duval County with diagnosed diabetes had an annual foot exam and 81% of adults with diabetes had an annual eye exam. In Duval County, 60.4% of those with diabetes have ever had diabetes self-management education.⁶
- Health care access is critical for prevention and management of diseases but any people do not have coverage due to cost. In Duval County, 14.3% of adults have no health care insurance coverage and 19.2% do not have a personal doctor. White adults were more likely to have health care coverage and a personal care doctor than blacks, 90% and 81.3%, respectively. Adults living in Health Zone 1 are least likely to have health care coverage, with 21.9% without coverage, compared to all other health zones. Only 5.7% of adults living in Health Zone 6 do not have health care coverage. In addition 15.4% of adults did not see a doctor at least once in the past year due to cost and 19.8% did not see a dentist due to cost.⁶
- Thirty-five percent of Duval County residents received a flu shot in the past year. Adults in the high risk group received a flu shot with a 50.6% reporting rate. More men in the high risk group received a flu shot than women in the high risk group and more whites did so than blacks.⁶
- Data indicates almost 80% of Duval County residents surveyed have had their cholesterol checked in the past five years. Women were more likely to have their cholesterol checked than men, 81% vs. 77%, and whites were more likely to have their cholesterol checked compared to the black population, 81.6% vs. 76.0%.⁶
- HIV/AIDS incidence and mortality is a significant problem in Duval County. HIV/AIDS deaths in Duval County were 43.9% higher than for Florida. The number of new case of HIV in Duval County in 2007 was 30.7% higher than for Florida and had increased in Duval County by 16% from 2006 to 2007. Data indicates that females are more likely to have been tested for HIV than males and the percentage of blacks tested was 25.3% higher than for whites.⁶
- Data from the 2007 BRFSS reveals a significant difference in both income and education for women 18 years of age and older who had a clinical breast exam in the past year. Women with an annual income of less than \$25,000 and/or with less than a high school education are significantly less likely to have received a clinical breast exam in the past year than women whose income is greater than \$50,000 and women with 4 or more years of college. For adults who could not see a doctor due to medical costs, the rate for those with an annual income of less than \$25,000 was over 600 percent higher than those with an annual income of \$50,000 or more.⁶

Conclusion:

Chronic diseases continue to have a profound impact on our community in terms of premature death,

reduced quality of life and economic burdens that impact individuals and the community as a whole. Evidence is mounting that primary prevention through the promotion of healthy behaviors and lifestyles, improved education, and supporting community policies and practices, reduce the burden of chronic diseases.² Healthier behaviors in individuals requires individual change, health care system redesign, as well as community, employer and insurance payer support.²⁰ Where we cannot prevent the diseases, we are challenged to detect and treat the diseases as early as possible to reduce the impact on both individuals and the community. These strategies require collaboration of a broad range of community institutions with leadership from both the public health and medical sectors.

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