

Center for Health Statistics Study

# Health: Place Matters

## Purpose of Study

People's health is influenced by where they live. Where we live is made up of many physical, social and cultural factors. The relation of these factors to health can be seen with almost every health issue that our community faces. This report focuses on how the place where we live is so important to our health.

The physical environment can be safe and healthy. In fact, many of the health benefits that we take for granted in our society are related to improvements in the physical environment that occurred in the

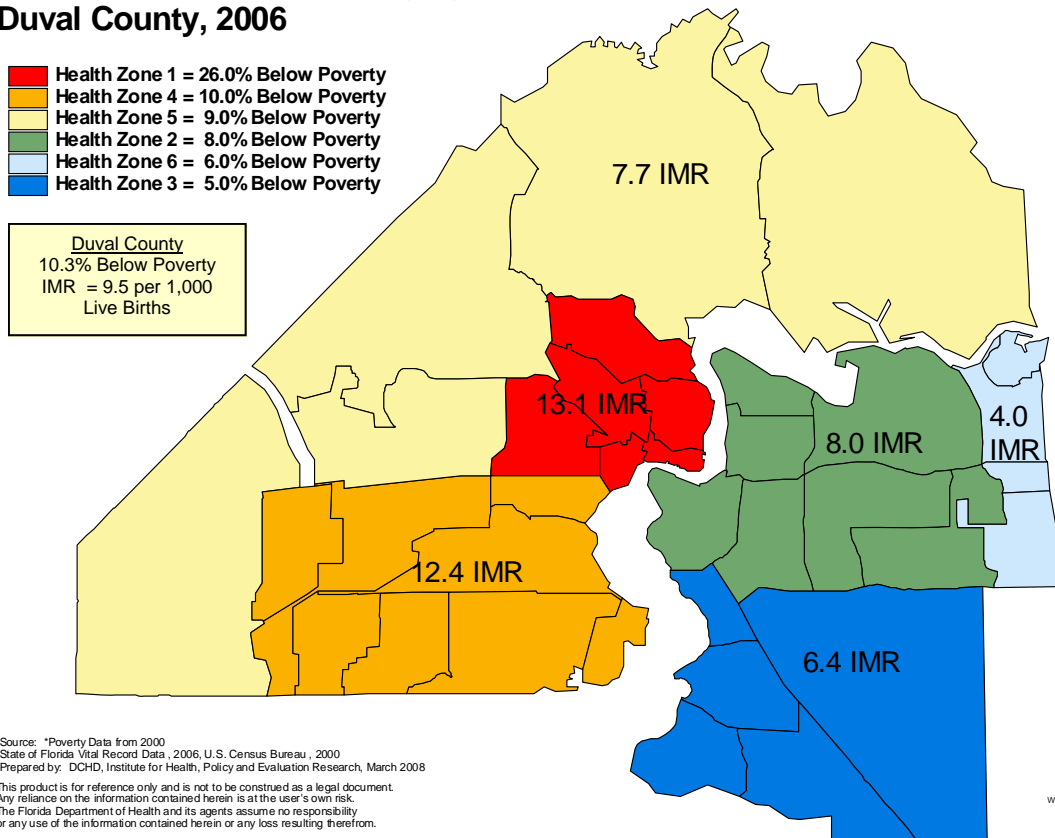
last 150 years. But many of the improvements in physical health are not shared by all parts of our community. Clearly, some neighborhoods are less safe than others. Some neighborhoods are more exposed to various toxins than others. And some neighborhoods do not enjoy the environmental infrastructure associated with modern technology.

Social and cultural factors such as stress, low economic status, and limited access to health care, can play a significant part in health outcomes. These factors interact with one another  
*(continued on page 2)*

### This Issue:

Purpose of Study	<b>1</b>
Demographic Profile of Duval County and	<b>2</b>
Socioeconomic Profile of Duval County	<b>4</b>
Health Profile of Duval County	<b>6</b>
Emergency Room Visits and Hospitalizations	<b>11</b>
Environmental Profile of Duval County	<b>13</b>
PBS Series—Unnatural Causes	<b>15</b>

**Figure 1 Poverty\* and Infant Mortality by Health Zone, Duval County, 2006**



## Purpose

to create higher death and disease burdens for the people who live in places where these factors are prevalent. Although there is not a single factor that can be identified as the cause of specific health problems, the geographic distribution of disease clearly shows how these factors accumulate to create major health disparities and inequities for groups of people living in some places.

Although this report focuses on geographic location, it is not intended to convey that the cause of the health disparities and inequities

are due to physical location. The report shows how multiple social, physical and cultural barriers to health and well being tend to be concentrated in certain parts of the city. These parts of the city repeatedly show up as concentrated areas of major health issues. Since these factors are complex and interactive, simple solutions are not likely. Comprehensive solutions that address the multiple, complex and interactive factors which contribute to health problems will be required.

This report shows the extent of health and its relation to where we live, by examining the relationship of a wide range of health issues to

place of residence. This report uses a variety of data sources such as vital statistics, hospital and emergency room, environmental health data, and census bureau data to assess socioeconomic status, possible contaminants in the physical environment and morbidity and mortality. Health zone data is presented using Geographic Information System (GIS) mapping. GIS is useful in analyzing health as it incorporates data that describe population characteristics, socioeconomic conditions, and the landscape, and analyzes the spatial relationship of these factors.

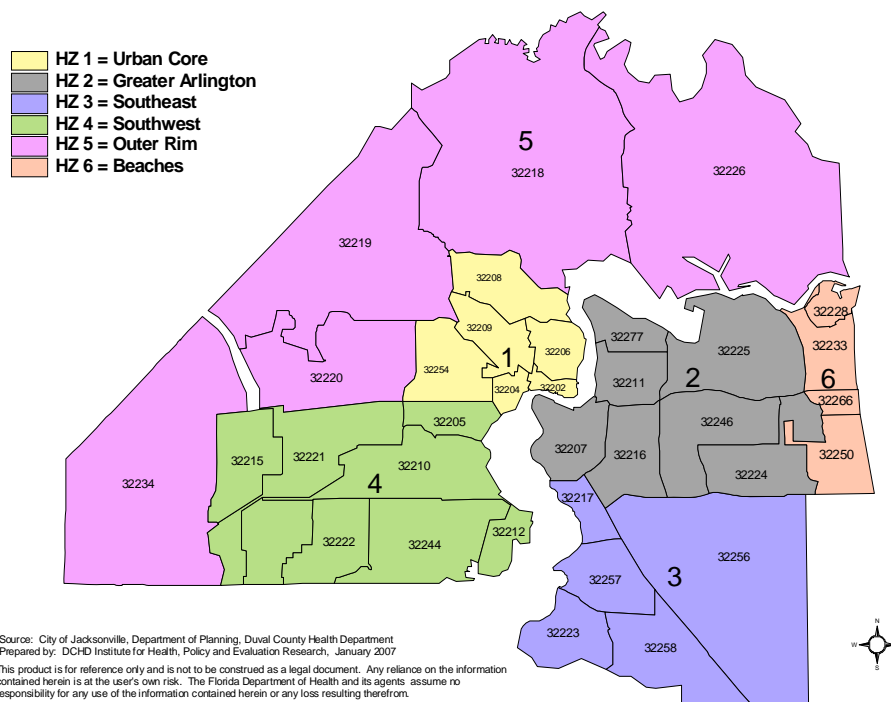
## Demographic Profile of Duval County and Intra-City Comparison

Duval County is located on the northeast coast of Florida. It is a very large (over 800 square miles) and diverse area, boasting an estimated population of over 900,000. Of this total population, 64.4% are white, 31.3% are black and 4.1% are other races. In addition, 6.1% of the population are Hispanic. Approximately 49% are male and 51% are female. Duval County was divided into six health zones made up of zip codes. The zones

(continued on page 3)

Figure 2

Duval County Health Zones, 2007



Source: City of Jacksonville, Department of Planning, Duval County Health Department  
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## Demographic Profile of Duval County (continued from page 2)

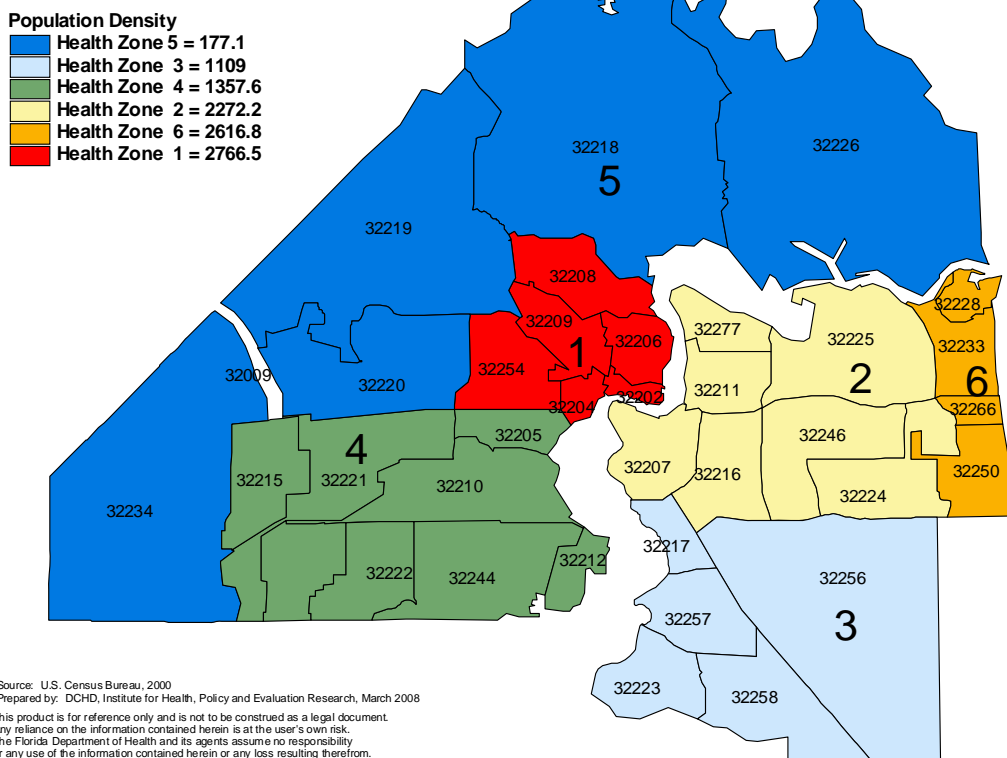
were created to increase statistical reliability of zip code data, for more focused program planning, for more practical surveillance of health indicators, and to ensure confidentiality of data. These zones are based on Duval County Public Schools, Jacksonville Sheriff’s Office, and Community Planning Action Council’s existing geographic boundaries. In addition, zones were also based on geographical locations/barriers (river, ocean) and similar demographics (i.e. rural, urban). The health zones are made up of zip codes. Duval County is unique in that it comprises urban, suburban and rural areas (see Figure 4 for Population Density Per Square Mile). Health Zone 1 is considered to be the most urban area with a population density of 2766.5 people per square mile while Health Zone 5 is considered to be the most rural area with a population density of 177.1 people per square mile.

Figure 3

Health Zone Population (2006)	
Health Zone 1	128,613
Health Zone 2	267,857
Health Zone 3	141,047
Health Zone 4	176,881
Health Zone 5	82,006
Health Zone 6	67,763

Figure 4

### Population Density Per Square Mile, by Health Zone, Duval County, 2000



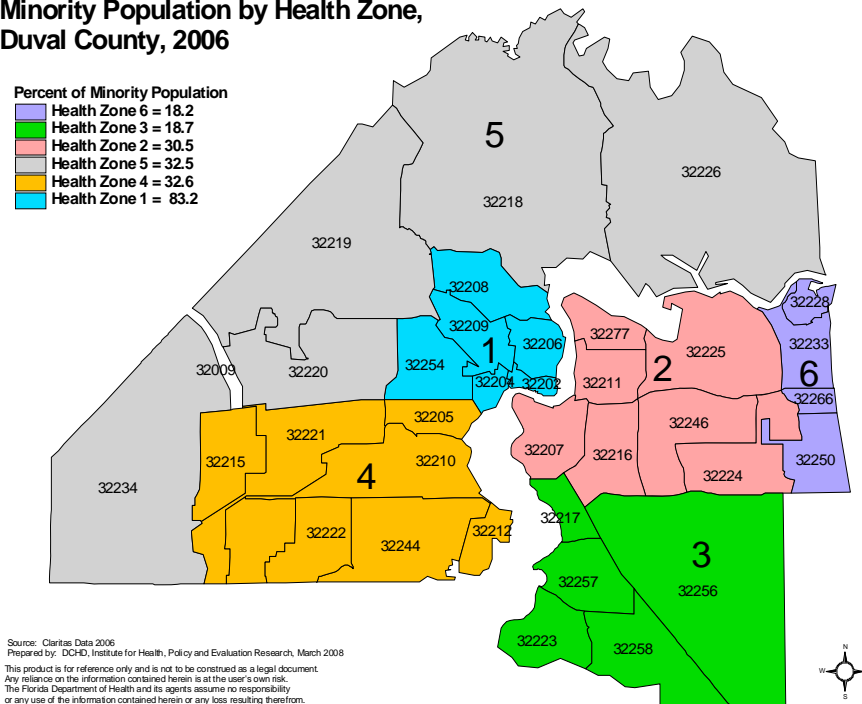
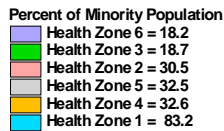
Source: U.S. Census Bureau, 2000  
 Prepared by: DCHD, Institute for Health, Policy and Evaluation Research, March 2008  
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## Demographic Profile of Duval County (continued from page 3)

Figure 5

Minority Population by Health Zone, Duval County, 2006



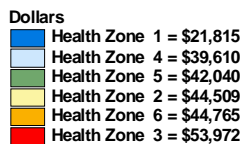
Source: Claritas Data 2006  
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- ⇒ Racial and ethnic minority populations are defined as American Indian and Alaska Native, Asian, black or African American, Hispanic or Latino, and Native Hawaiian and Other Pacific Islander.
- ⇒ Racial disparities in Duval County are numerous, specifically in terms of health and socioeconomic status.
- ⇒ Health Zone 1 contains the largest number of minority residents in all of Duval County boasting a population of 107,001, which is 83% of the Health Zone 1 population. In fact, 41% of all blacks in Duval County live in this zone.
- ⇒ Health Zone 4 has the next highest minority population with 32.6%.
- ⇒ Health Zone 3 and 6 have the lowest percent of minorities.

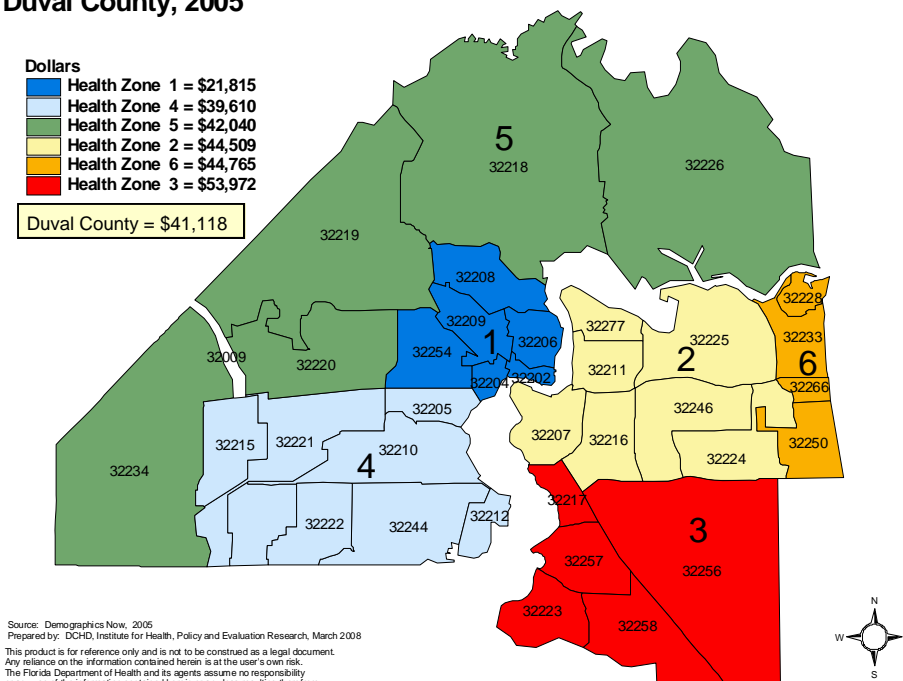
## Socioeconomic Profile of Duval County

Figure 6

Average Household Income by Health Zone, Duval County, 2005



Duval County = \$41,118



Source: Demographics Now, 2005  
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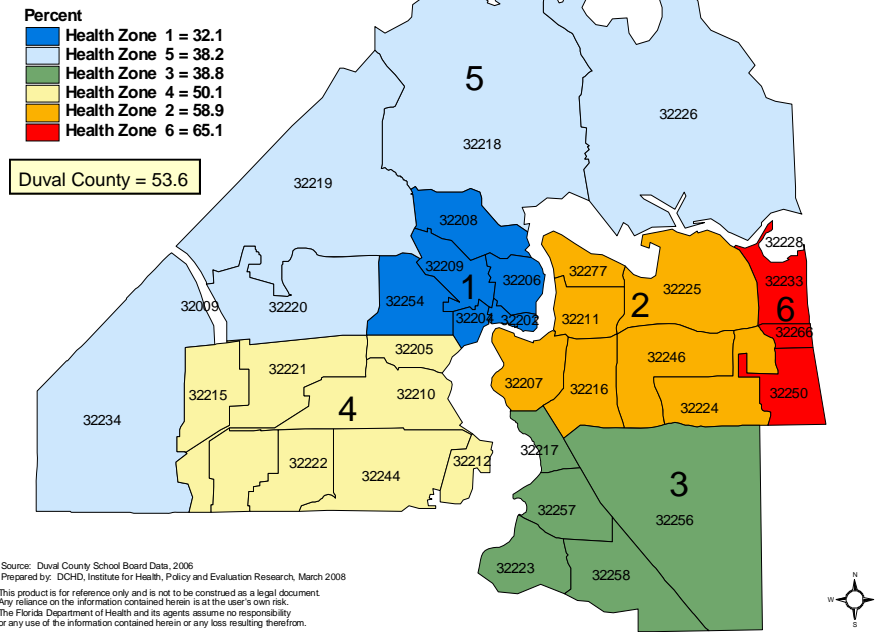
- ⇒ The government's report, *Opportunity for All: Tackling Poverty and Social Exclusion*, identified poor health as one of the major problems associated with low income.<sup>1</sup>
- ⇒ Census data show that zip codes in Health Zone 1 have the lowest average household income with \$21,815. Health Zone 1 also has the highest poverty level with 26% of the population living below the poverty level (see Figure 1).
- ⇒ The Health Zone with the second lowest income, Health Zone 4, is still 81.6% higher than Health Zone 1.
- ⇒ Health Zone 3 has the highest average household income with \$53,972 and lowest poverty at rate 5%.

Sources: <sup>1</sup> *Opportunity for All: Tackling Poverty and Social Exclusion*, Department of Social Security, 1999.

# Socioeconomic Profile of Duval County (continued from page 4)

**Figure 7**  
**Percent of Population with Greater than High School Education by Health Zone, Duval County, 2000**

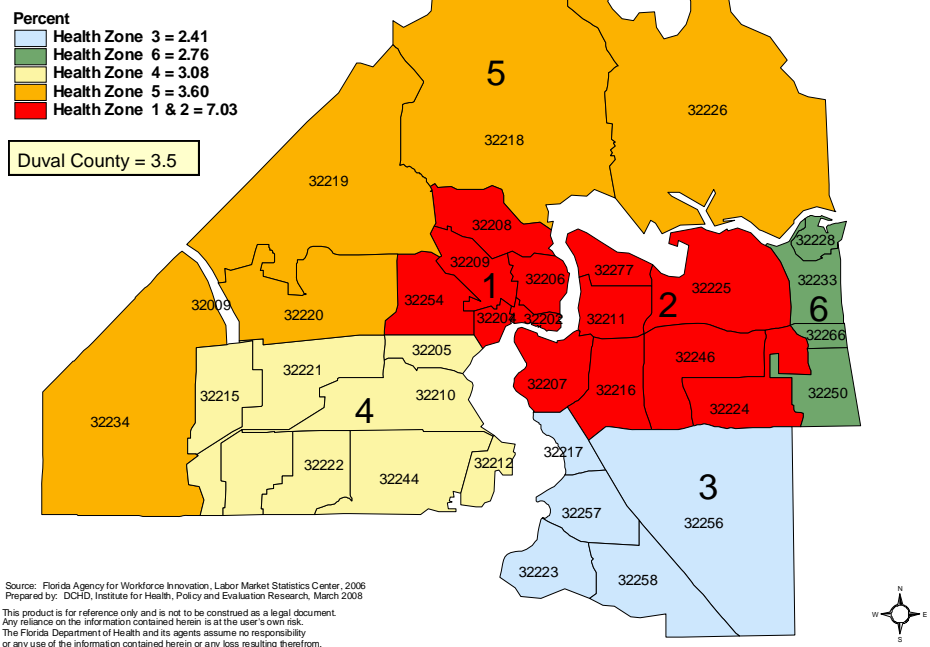
- ⇒ Better educated people have fewer health problems, tend to live longer and have less disease than those with lower education levels.<sup>1</sup>
- ⇒ The mechanisms by which education influences health are complex and are likely to include (but are not limited to) interrelationships between demographic and family background indicators, effects of poor health in childhood, greater resources associated with higher levels of education, a learned appreciation for the importance of good health behaviors, and one's social networks.<sup>1</sup>
- ⇒ Health Zone 1 has the lowest level of education with 32.1% having more than a high school graduation, compared to 65.1% in Health Zone 6.



Source: <sup>1</sup>David M. Cutler, Policy Brief #9: Education and Health, National Poverty Center, 2007

- ⇒ Unemployment is linked to both physical and mental health problems, such as unmanaged or untreated disease, depression, alcohol abuse, and stress. In addition, unemployment limits access to health care due to high out of pocket expenses from lack of health insurance.<sup>1</sup>
- ⇒ The unemployment rate is highest in Health Zones 1 and 2 at 7.03%. This is 100.9% higher than the overall unemployment rate in Duval County, 3.5%.
- ⇒ The lowest unemployment rate in Duval County is in Health Zone 3, with 2.41%.

**Figure 8**  
**Unemployment Rate by Health Zone, Duval County, 2006**



Source: <sup>1</sup>Dooley, et.al. Annu Rev Public Health. 1996;17:449-65.

Source: Florida Agency for Workforce Innovation, Labor Market Statistics Center, 2006  
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# Health Profile of Duval County

- ⇒ Heart disease is the leading cause of death in the U.S. with nearly 700,000 people succumbing to the disease annually.<sup>1</sup>
- ⇒ The heart disease mortality rate has been declining in Duval County over the past 20 years, yet it is still higher than the state rate, 187.4 and 171.4 age-adjusted rate per 100,000, respectively.<sup>2</sup>
- ⇒ Of all 6 Health Zones, Zone 1 has the highest mortality rate from heart disease. The rate in Zone 1 is 64.7% higher than the rate in the Zone with the lowest rate of all, Zone 6.
- ⇒ The Health Zone with the second highest rate is Zone 5 with a rate of 200.9 per 100,000 residents.

Sources: <sup>1</sup>Centers for Disease Control and Prevention. Heart Disease Facts and Statistics. <http://www.cdc.gov/heartdisease/facts.htm>

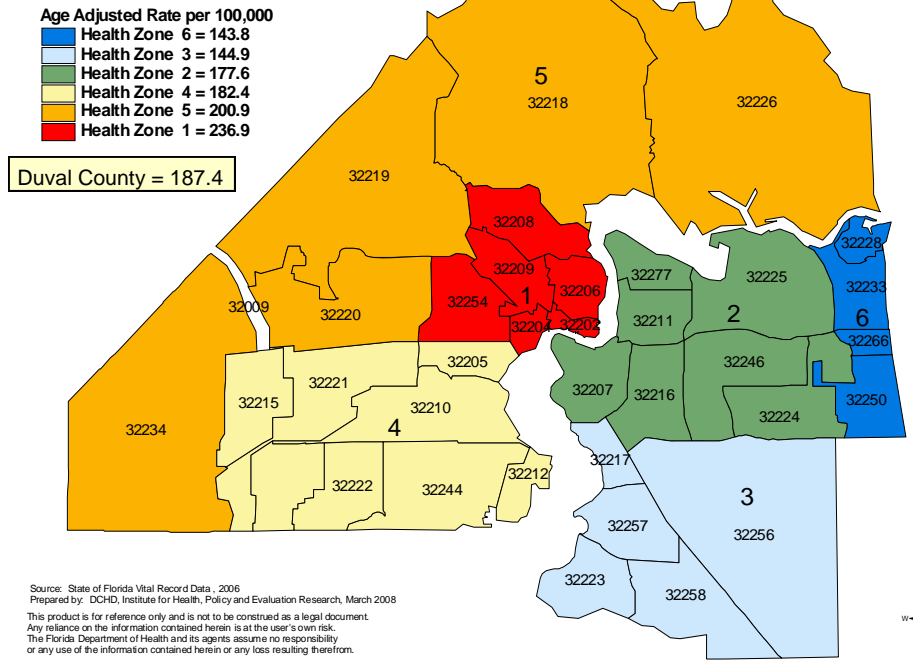
<sup>2</sup>Florida Department of Health. Office of Vital Statistics.

- ⇒ Cancer is the second leading cause of death in the U.S.<sup>1</sup> The term “cancer” encompasses over 200 different diseases.<sup>2</sup>
- ⇒ Lung and bronchial, prostate, and breast cancer are the top 3 causes of cancer death.<sup>3</sup>
- ⇒ According to the National Cancer Institute, the age-adjusted mortality rate for cancer of all sites is 192.7 per 100,000 men and women yearly. The rate was based on deaths from 2000-2004 in the U.S.
- ⇒ The mortality rate for cancer in Duval County is very similar to the national rate at 192.9 but nearly 17% higher than Florida’s rate.
- ⇒ Health Zone 5 has the highest cancer mortality rate with 224.9 per 100,000 residents followed by Health Zone 1 with 213.5 deaths per 100,000.

Sources: <sup>1</sup> CDC. National Center for Health Statistics. Deaths-Leading Causes.; <sup>2</sup> CDC. Agency for Toxic Substances and Disease Registry. Cancer Fact Sheet; <sup>3</sup> CDC. United States Cancer Statistics.

Figure 9

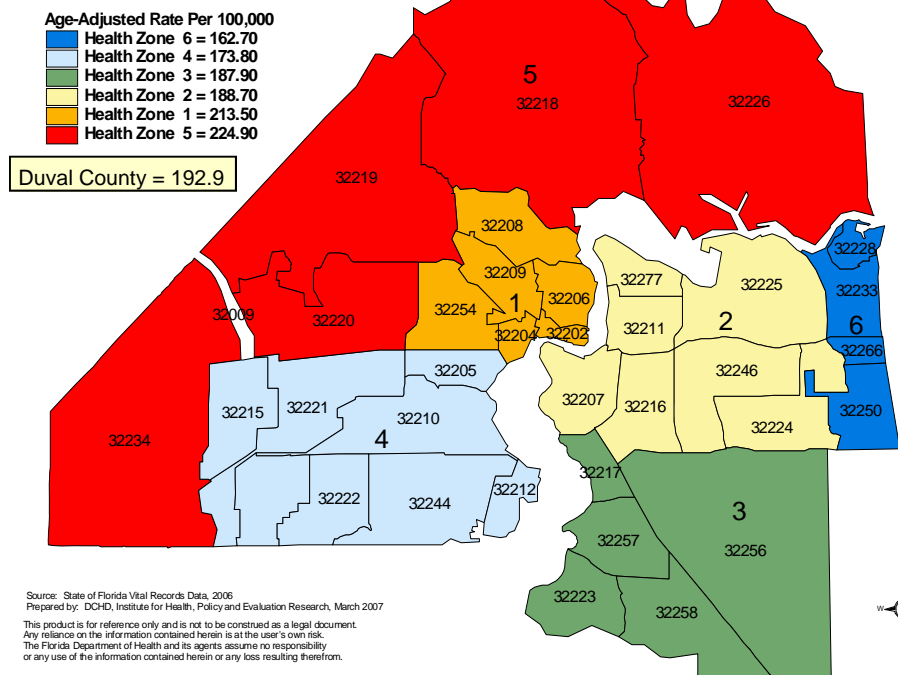
Heart Disease Mortality by Health Zone, Duval County, 2006



Source: State of Florida Vital Record Data, 2006  
 Prepared by: DCHD, Institute for Health, Policy and Evaluation Research, March 2008  
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Figure 10

Cancer Mortality by Health Zone, Duval County, 2006

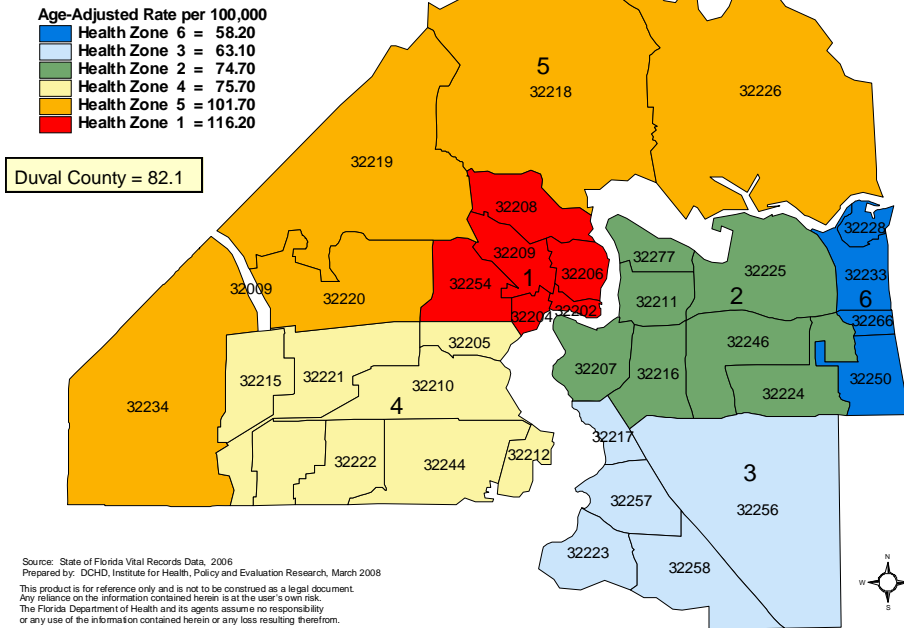


Source: State of Florida Vital Records Data, 2006  
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# Health Profile of Duval County (continued from page

Figure 11

## Diabetes Mortality by Health Zone, Duval County, 2006



Source: State of Florida Vital Records Data, 2006  
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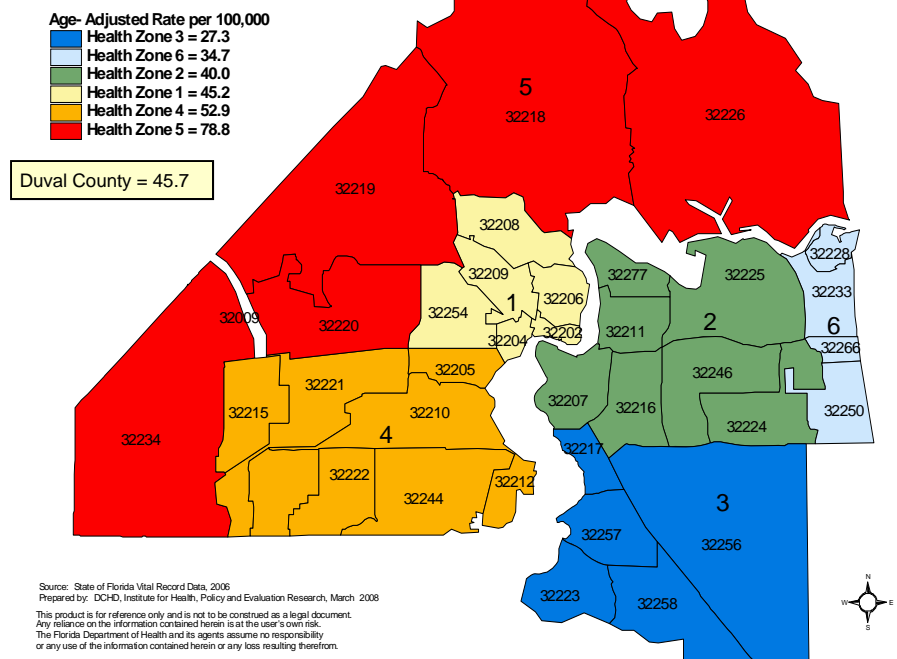
- ⇒ Diabetes is a group of diseases characterized by high levels of blood sugar. It is a primary cause of cardiovascular disease, kidney disease, blindness, and lower extremity amputations.<sup>1</sup>
- ⇒ Over 20 million Americans have diabetes and nearly 30% of those people are unaware that they have it.<sup>1</sup>
- ⇒ In Duval County, residents in Health Zone 1 have the highest rate of mortality due to diabetes related conditions. The rate is 116.2 per 100,000 residents, approximately twice as many deaths as in Health Zone 6.
- ⇒ Health Zone 5 has the second highest rate of diabetes related mortality followed by Health Zones 4, 2, and 3.
- ⇒ Health Zone 6 has the lowest death rate due to diabetes with a rate of 58.2 per 100,000 which is half of the rate in Health Zone 1.

Sources: <sup>1</sup>CDC. National Diabetes Fact Sheet United States, 2005.

- ⇒ Unintentional injuries (accidents) are the fifth leading cause of death in the U.S. Unintentional injury deaths include deaths from drowning, motor vehicle crashes, fires and burns, falls, etc.<sup>1</sup>
- ⇒ Nationally, the rate of mortality for unintentional injuries is 37.7 per 100,000 population.<sup>1</sup>
- ⇒ Four out of six health zones have a rate higher than the national rate.
- ⇒ Deaths from unintentional injuries have been on the rise over the past 10 years locally and statewide. The rate in Duval County is 45.7 per 100,000 and Florida's rate is 45.0 per 100,000.<sup>2</sup>
- ⇒ Health Zone 5 has the highest mortality rate from unintentional injuries at 78.8 per 100,000. Health Zone 4 has the second highest rate at 52.9 per 100,000.

Figure 12

## Unintentional Deaths by Health Zone, Duval County, 2006



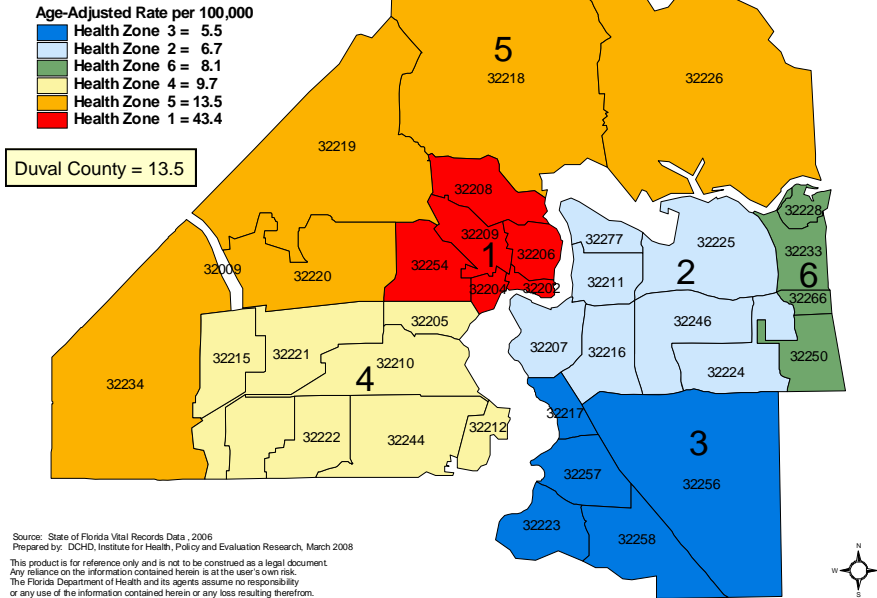
Sources: <sup>1</sup>CDC. National Center for Health Statistics. Deaths-Leading Causes;<sup>2</sup> Florida Department of Health. Office of Vital Statistics

Source: State of Florida Vital Record Data, 2006  
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# Health Profile of Duval County (continued from page 7)

Figure 13

## Homicide Deaths by Health Zone, Duval County, 2006



⇒ Intentional injuries refer to those resulting from purposeful human action, whether directed at oneself or others.<sup>1</sup> Intentional injuries include self inflicted (suicide or suicide attempt) and interpersonal acts of violence intended to cause harm (homicide or attempted homicide\*).

⇒ Some of the major risk factors for intentional injuries include: access to firearms, history of violence, alcohol and drug use, mental illness, such as depression, and poverty.<sup>1</sup>

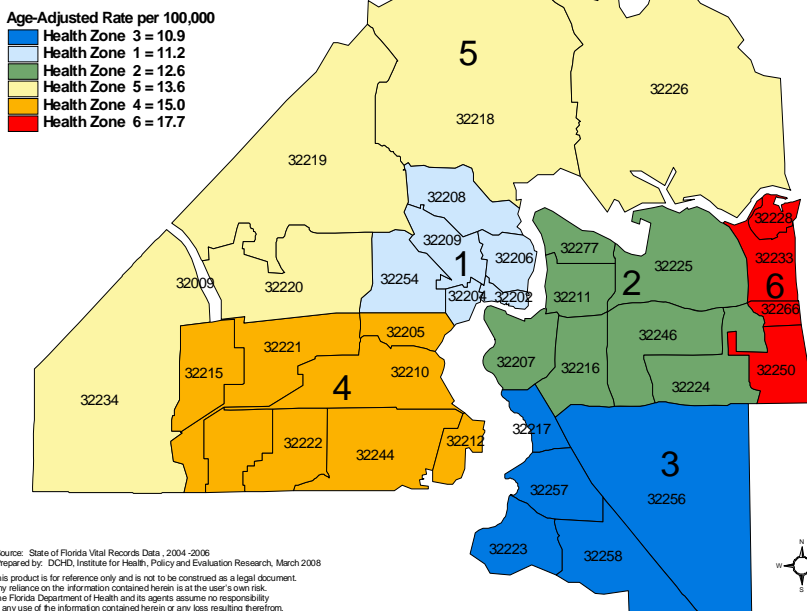
⇒ Health Zone 1 has the highest rate in Duval County with 43.4 per 100,000 population. This is 221.5% higher than the second highest rate which is in Health Zone 5. These rates reflect the residence of the homicide victim. In addition, a majority of the homicides occurred in Health Zone 1 as well.

⇒ Almost three-quarters (73.7%) of all homicides were in the black population.

⇒ On the contrary, suicide deaths are highest in Health Zone 6, one of the highest income and education zones in Duval County. Suicides are typically more prevalent among whites. Following this trend, 90% of all suicide deaths in Duval County were among whites.

Figure 14

## Suicide Deaths by Health Zone, Duval County, 2004-2006



Source:<sup>1</sup>Maine Center for Disease Control and Prevention, Injury Prevention Program. <http://maine.gov/dhhs/bohdcfh/inj/intentional.html>

\*The Federal Bureau of Investigation, defines homicide as different from murder. Homicide is the killing of another human while murder requires the intent to kill another person. Homicide is not always a crime, i.e. as is the case with self defense, while murder is always a crime. Data in this report reflects all homicide cases.

## Health Profile of Duval County (continued from page 8)

- ⇒ Some groups of people are more affected by HIV/AIDS and STDs than others. Differences may occur by gender, race, sexual orientation, education and income.<sup>1</sup>
- ⇒ HIV/AIDS and STDs disproportionately affect men who have sex with men and those who are black or Hispanic.<sup>1</sup>
- ⇒ There were about 950 new cases of HIV from 2004-2006 in Duval County. The age-adjusted death rate for HIV/AIDS deaths in 2006 for Duval County was 11.8 per 100,000.
- ⇒ Health Zone 1 has the highest age-adjusted death rate with 42.4 deaths per 100,000. This is 420.9% higher than the second highest Zone, 5, with 8.14 per 100,000.
- ⇒ Individuals who are infected with STDs are 2 to 5 times more likely than uninfected individuals to acquire HIV infection if they are exposed to the virus through sexual contact. STDs can also lead to Pelvic Inflammatory Disease, which can result in fatal tubal pregnancy and infertility, especially if left untreated.<sup>2</sup>
- ⇒ STDs can be transmitted during pregnancy and be significantly more serious, even life threatening, for a woman and her baby if the woman becomes infected with an STD while pregnant.<sup>2</sup>
- ⇒ The STD rate in Duval County is staggering, with 3,937 per 100,000 population ages 15-24 being infected. Health Zone 1 is significantly higher than all other health zones with a rate of 8,633 per 100,000, 131.6% higher than the next highest health zone. Health Zone 3 has the lowest rate of STDs, 48.4% lower than the overall rate of Duval County.

Sources:<sup>1</sup> Centers for Disease Control and Prevention, <http://www.cdc.gov/hiv/default.htm>;

<sup>2</sup>Centers for Disease Control and Prevention, <http://www.cdc.gov/std/default.htm>

Figure 15

HIV/AIDS Deaths by Health Zone, Duval County, 2000 - 2006

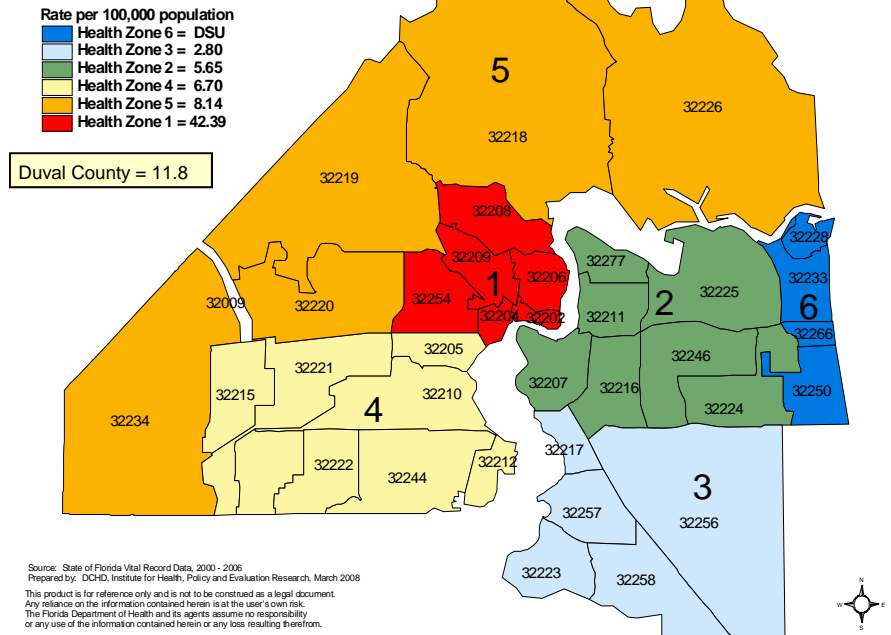
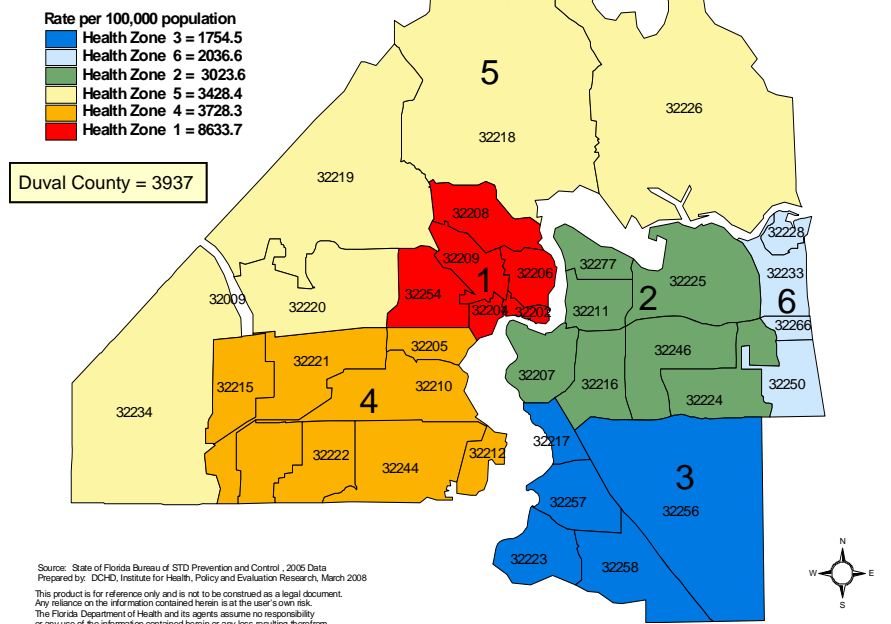


Figure 16

STD Rate Ages 15-24 by Health Zone, Duval County, 2005



# Health Profile of Duval County (continued from page 9)

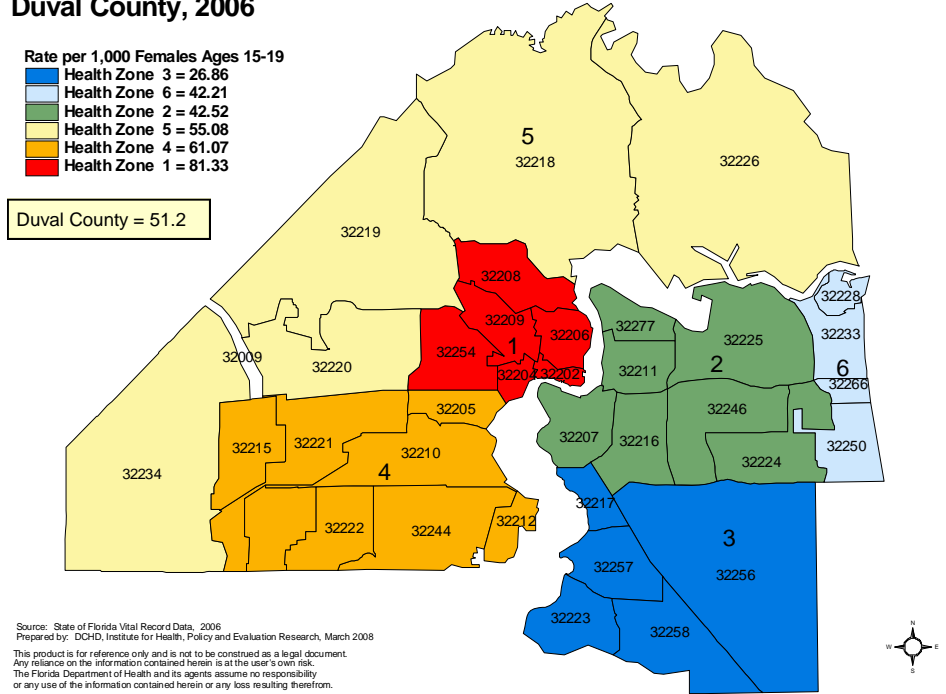
⇒ Teenage pregnancy is associated with lower annual incomes, lower education, and increased delinquent behaviors. In addition, children born to teenage mothers are less likely to receive proper nutrition and health care, are at greater risk for abuse and neglect, and girls are more likely to become teenage mothers themselves.<sup>1</sup>

⇒ The teenage pregnancy rate in Duval County has decreased substantially overall since 1997, although increased slightly in 2006 to 51.2 per 1,000 female population ages 15-19 years.

⇒ Health Zone 1 has the highest rate with 81.33 per 1,000 followed by Health Zone 4 with 61.07 per 1,000. Health Zone 3 has the lowest rate of teen pregnancies with 26.86 per 1,000 female population 15-19 years.

Figure 17

Teen Birth Rate Ages 15 - 19 by Health Zone, Duval County, 2006

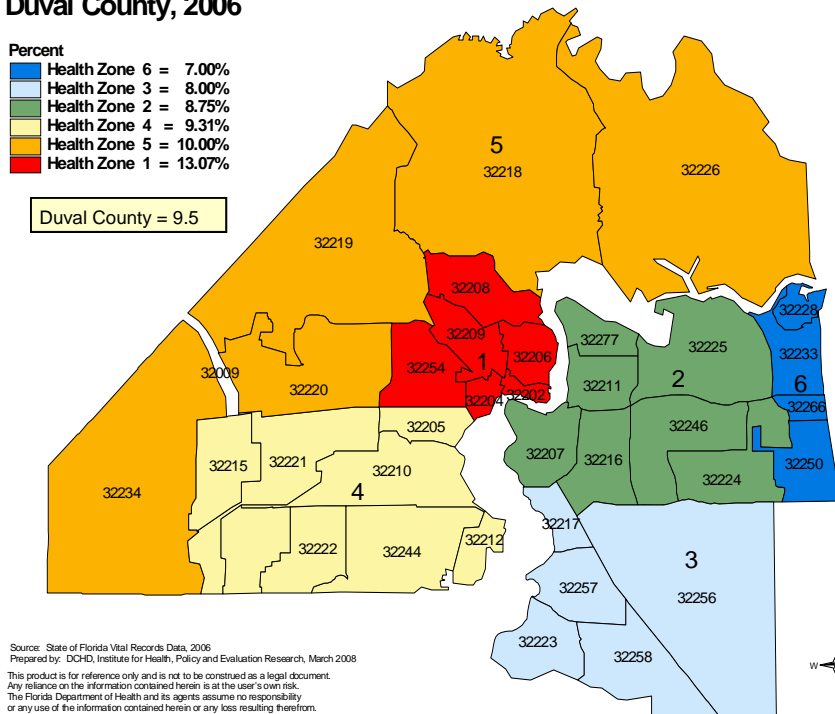


Source: <sup>1</sup>Overview, Health Risks to the Baby and other consequences of teenage pregnancy. [www.womenshealthcentral.com](http://www.womenshealthcentral.com). Original Date of Publication: 01 Nov 2000

Source: State of Florida Vital Record Data, 2006  
 Prepared by: DCHD, Institute for Health, Policy and Evaluation Research, March 2008  
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Figure 18

Low Birth Weight by Health Zone, Duval County, 2006



Source: State of Florida Vital Records Data, 2006  
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⇒ Low Birth Weight (LBW) is defined as babies weighing less than 2500 grams, or 5.8lbs. The LBW infant remains at much higher risk of mortality than infants with normal weight at birth.<sup>1</sup>

⇒ According to the March of Dimes, some of the major causes LBW are: premature delivery, multiple births, birth defects, using cigarettes, alcohol or illegal substances during pregnancy, inadequate maternal weight gain, and socioeconomic factors such as low income and education. In addition, young mothers and black mothers are at increased risk for delivering LBW babies.<sup>1</sup>

⇒ Health Zone 1 has the highest percent of LBW babies with 13.07%, followed by Health Zone 5 with 10.0%.

⇒ Similarly, Health Zone 1 also has the highest rate of infant mortality with 13.1 per 1,000 live births (see Figure 1).

⇒ Health Zone 6 has the lowest percent of LBW and infant mortality rates.

Source: <sup>1</sup>[http://www.marchofdimes.com/professionals/14332\\_1153.asp](http://www.marchofdimes.com/professionals/14332_1153.asp)

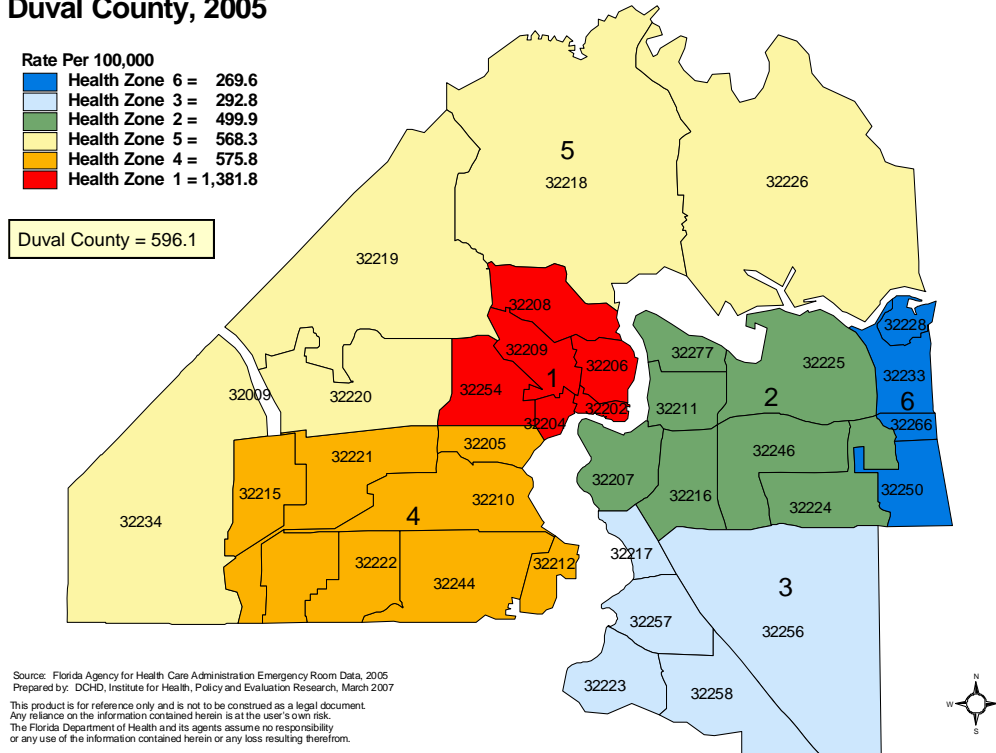
## Emergency Room Visits and Hospitalizations by Health Zone

In 2005, there were 305,985 visits to an emergency room (ER) in Duval County. Health Zone 1 had the highest rate of visits to the ER with a rate of 615.5 visits per 1,000 residents. Health Zone 5 had the second highest rate at 387.1 per 1,000 which was 37.1% lower than Health Zone 1. Health Zone 3 had the lowest rate of visits to the ER at 219.5 per 1,000 population. Similarly, hospitalization rates varied considerably between health zones. Health Zone 1 had the highest hospitalization rate at 184.0 per 1,000 residents. Health Zone 5 had the second highest hospitalization rate at 146.6 followed by Health Zones 4, 2, and 3. Health Zone 6 had the lowest hospitalization rate and differed by 45.8% with the highest rate, Health Zone 1.

Some of the difference between health zones regarding hospitalization rates and emergency room visit rates can be attributed to Ambulatory Care Sensitive Conditions (ACSCs). ACSCs are medical problems that are potentially preventable and if properly managed and treated do not require hospitalization. Accesses to care limitations are often associated with ACSCs. Some examples of these conditions are: asthma, diabetes, pneumonia, and hypertension. Health Zone 1 had 17,989 ER visits and 5,879 hospitalizations due to ACSC conditions which was the highest of the health zones for both categories. Similarly, there were 16,059 ER visits and 5,554 hospitalizations of Health Zone 2 residents for ACSCs. Health Zone 6 had the least number of ER visits and hospitalizations due to the conditions. However, Zone 6 still contributed to 62,680 ER visits and 22,307 hospitalizations due to Ambulatory Care Sensitive Conditions in the entire county.

Figure 19

### Asthma Related Emergency Room Visits by Health Zone, Duval County, 2005



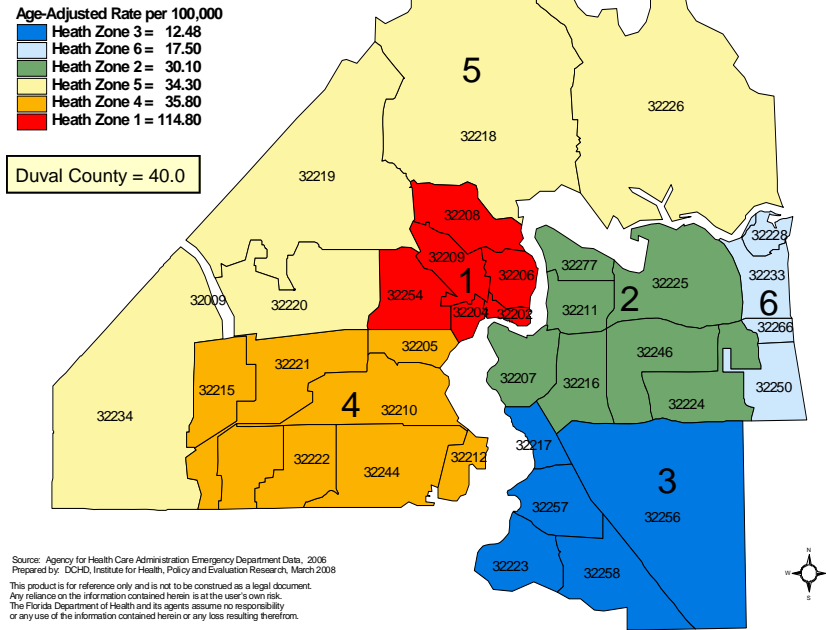
- ⇒ The rate of asthma related emergency room visits in Duval County is 596.1 per 100,000 residents.
- ⇒ Health Zone 1 has the highest rate of asthma emergency room visits with a rate of 1381.8 per 100,000 residents. The rate is 131.8% higher than the overall county rate.
- ⇒ Health Zone 4 has the second highest rate even though it is 58% lower than the rate for Health Zone 1. The rate for Health Zone 4 is followed by the rates for Health Zones 5, 2, and 3.
- ⇒ Health Zone 6 has the lowest rate of asthma related emergency room visits with a rate of 269.6 per 100,000.

Source: Florida Agency for Health Care Administration Emergency Room Data, 2005  
 Prepared by: DCHD, Institute for Health, Policy and Evaluation Research, March 2007  
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## Emergency Room Visits and Hospitalizations by Health Zone

Figure 20

### Emergency Room Visits - Uncontrolled Diabetes by Health Zone, Duval County, 2005

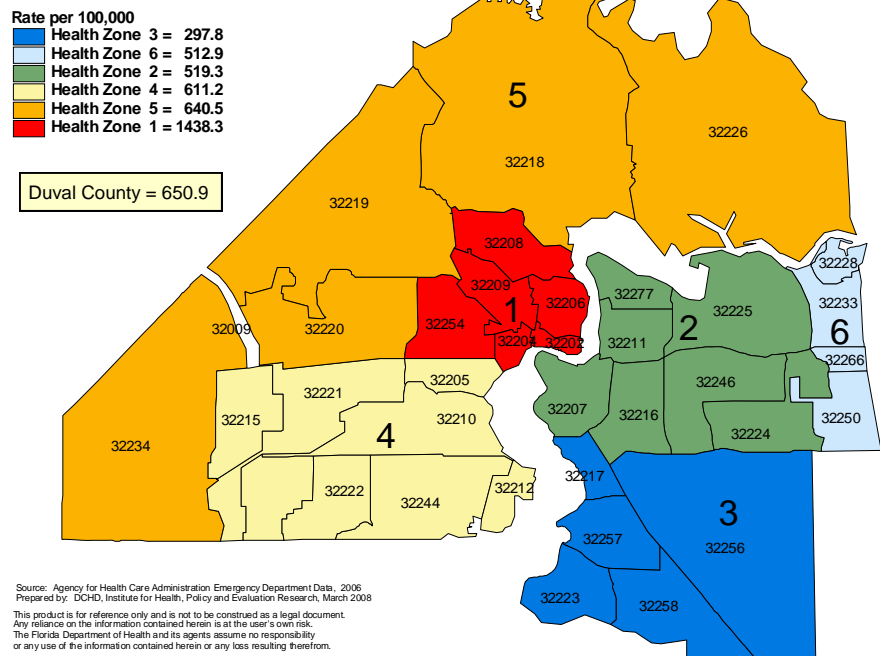


- ⇒ Patients with diabetes can work with their health care provider to lessen the incidence of complications due to their condition. This can be accomplished through control of their blood glucose level, blood pressure, and blood lipids.
- ⇒ The majority of people with diabetes can control their blood glucose level by exercising, eating healthy and taking medication. Those who cannot control their blood glucose level and subsequently have uncontrolled diabetes often end up in the emergency room or are hospitalized.<sup>1</sup>
- ⇒ Residents of Health Zone 1 have the highest rate of ER visits due to uncontrolled diabetes. The rate, 114.8 per 100,000, is 220.7% higher than the second highest rate of 35.8 for Health Zone 4.
- ⇒ Health Zone 3 has the lowest rate of ER visits due to uncontrolled diabetes. Health Zone 1's rate is over 9 times the rate of Health Zone 3.

Sources: <sup>1</sup>CDC. National Diabetes Fact Sheet United States, 2005.

Figure 21

### Emergency Room Visits - Intentional Injuries by Health Zone, Duval County 2005



- ⇒ Intentional injuries are injuries which result from things like violent acts. The ER rates provided are strictly a combination of homicide and suicide.
- ⇒ ER visits from violent injuries are primarily due to fights and brawls, followed by gun assaults.
- ⇒ Health Zone 1 has the highest rate of ER visits due to intentional injuries at 1438.3 per 100,000 population. Health Zone 5 has the second highest rate at 640.5 which is 55.4% less than the rate for Health Zone 1.
- ⇒ Health Zone 3 has the lowest rate at 297.8 which is 79.3% lower than the rate for Health Zone 1, the highest rate.

## Environmental Profile

The physical environment is everything that surrounds us including the air we breath, the water we drink and use and the food we consume. It also includes the chemicals, radiation, microbes, and physical forces with which we come into contact. Our interactions with the environment are complex and are not always healthy. Contaminants in our environment can lead to illness, disability and even death.<sup>1</sup>

Lead poisoning is the leading environmentally induced illness in children. At greatest risk are children under the age of six because they are undergoing rapid neurological and physical development.<sup>2</sup> Contaminants are more likely to cause chronic health effects - effects that occur long after repeated exposure to small amounts of a chemical. Examples include cancer, liver and kidney damage, disorders of the nervous system, damage to the immune system, and birth defects. Even low levels of exposure to lead can result in IQ deficits, learning disabilities, behavioral problems, stunted or slowed growth, and impaired hearing. At increasingly high levels of exposure, a child may suffer kidney damage, become mentally retarded, fall into a coma, and even die from lead poisoning.<sup>3</sup> Although many sources of lead can affect certain individuals and communities, the primary source of childhood lead exposure in the United States is lead paint in older, deteriorating housing.<sup>4</sup> A large majority of homes testing positive for lead are located in the urban core of Duval County (see Figure 22).

Waste products from incineration are another source of exposure to lead and many other toxic substances. The City of Jacksonville operated a

number of municipal solid waste incinerators from the 1890s to the early 1970s. Disposal of ash material generated by burning solid waste at city-operated incinerators occurred on city and private property in Jacksonville's Northside and Southside neighborhoods. At that time, ash disposal was not considered a threat to the health of the people who lived at these sites. There are 8 identified ash sites in Jacksonville. Four sites are overseen by the State of Florida Department of Environmental Protection (FDEP) and the other four sites are overseen by the Federal Environmental Protection Agency (EPA). The Agency for Toxic Substances and Disease Registry (ATSDR) considers the unique susceptibility of children in the evaluation of all hazardous waste sites. Children may have higher levels of exposure since they are more likely to inhale and ingest contaminated soil. Infants and toddlers are also more susceptible to the adverse effects of

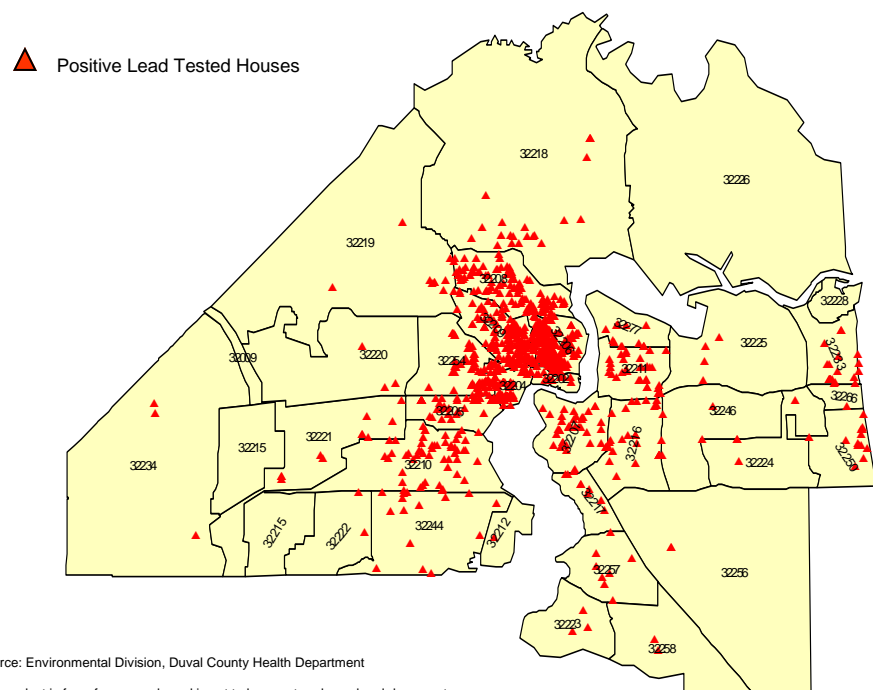
some contaminants which must be considered when assessing exposure to environmental contaminants. Since children are particularly susceptible to the deleterious effects of lead, a major contaminant at the ash sites, recommendations were provided at these sites to ensure that children are protected from exposure.<sup>5</sup> Seven out of the eight ash sites are located in the urban core of Duval County (see Figure 23).

In addition to air-borne toxins, we can also be exposed to toxic contaminants in drinking water. The United States is fortunate to have one of the best supplies of drinking water in the world. Although tap water that meets federal and state standards is generally safe to drink, threats to drinking water quality in the United States still exist. Outbreaks of drinking water-associated illness and water restrictions during droughts demonstrate that we cannot take our drinking wa-

(continued on page 14)

Figure 22

### Positive Lead Tested Houses by Zip Code, Duval, 2006



Source: Environmental Division, Duval County Health Department

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## Environmental Profile (continued from page 15)

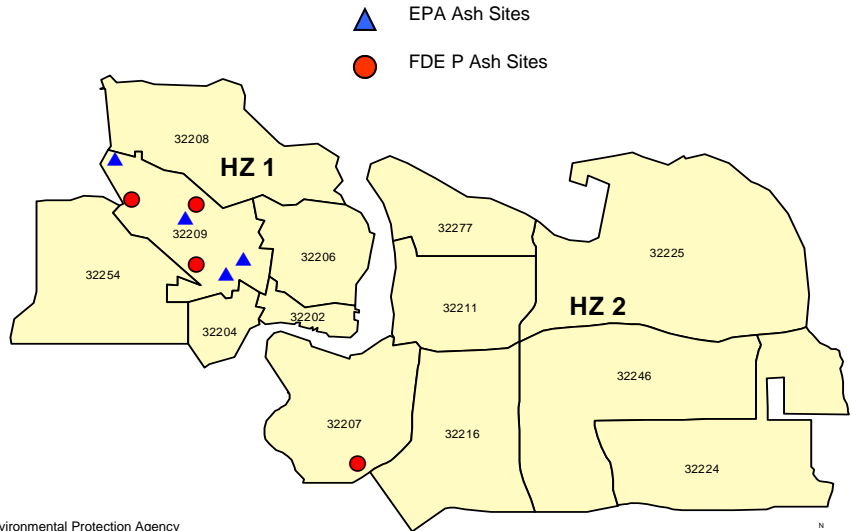
ter for granted.<sup>6</sup> As methods for better detection of impurities at very low water concentrations improve, water supplies once considered pure are found to have contaminants. The levels of contaminants in drinking water are seldom high enough to cause acute (immediate) health effects. Examples of acute health effects are nausea, lung irritation, skin rash, vomiting, dizziness, and even death.<sup>7</sup> Even when drinking water is considered safe, it can still be contaminated through lead based solder in the plumbing of homes with older copper piping. Contaminated water wells are dispersed throughout Duval County, however, there are notable concentrations of contaminated wells in the north part of the urban core, the southeast part of the outer rim, western part of greater Arlington, and the mid-southwest area (see Figure 24).

**Sources:**

<sup>1</sup>National Center for Environmental Health, Centers for Disease Control and Prevention, <http://www.cdc.gov/nceh/information/about.htm>; <sup>2</sup> Department of Labor, OSHA, <http://www.osha.gov/SLTC/lead/index.html>; <sup>3</sup> National Safety Council, <http://www.nsc.org/aboutus.htm>; <sup>4</sup> CDC <http://www.cdc.gov/nceh/lead/publications/Primary%20Prevention%20Document.pdf>; <sup>5</sup>Agency for Toxic Substances, Health Consultation, Forest Street Incinerator, Jacksonville, Duval County, Florida [http://www.atsdr.cdc.gov/HAC/PHA/foreststreet/for\\_p1.html](http://www.atsdr.cdc.gov/HAC/PHA/foreststreet/for_p1.html) <sup>6</sup>Centers for Disease Control and Prevention, Parasites, <http://www.cdc.gov/ncidod/dpd/healthywater/index.htm>; <sup>7</sup>North Carolina Cooperative Extension Service, Publication Number: HE-393, <http://www.bae.ncsu.edu/programs/extension/publicat/wqwm/he393.html>

**Figure 23**

### FDEP and EPA Ash Sites by Zip Code, Duval County, 2006

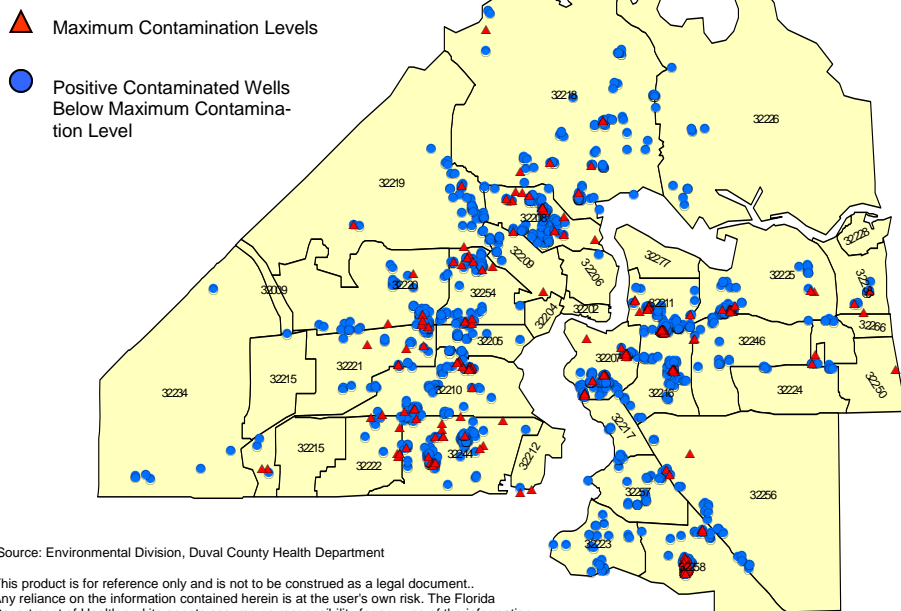


EPA = Environmental Protection Agency  
 FDEP = Florida Department of Environmental Protection  
 Source: Environmental Division, Duval County Health Department

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**Figure 24**

### Contaminated Water Wells by Zip Code, Duval County, 2006



Source: Environmental Division, Duval County Health Department

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## PBS Series—Unnatural Causes

The PBS television series, *Unnatural Causes* will be airing 4 evenings this spring to bring to light the issue of “unnatural causes” of health problems. Of course health care services, personal health behaviors and our genes all play a role in our health, but there is another piece to this puzzle. The wages and benefits we are paid, the neighborhoods we live in, the schools we attend, our access to resources and even our tax policies are health issues every bit as critical as diet, smoking and exercise. The choices we make depend on the choices we have.

*Unnatural Causes* was produced to draw attention to the root causes of health and illness and to help reframe the debate about health in America. Economic and racial inequality are not abstract concepts, in fact they hospitalize and kill even more people than cigarettes. The unequal distribution of social conditions - and their health consequences – are not natural or inevitable. They are the result of choices that we as a community, as states, and as a nation have made, and can make differently. Other nations already have, and they live longer, healthier lives as a result.

One episode of *Unnatural Causes* looks deeper at the issues raised in this report, *place*. It illustrates, through personal stories, how where we live, work and play can affect our health. This episode will highlight two cities in the United States that show how the statement “Place Matters” rings true. This report brings to light the same issues right here in Jacksonville. Health and social conditions are in fact patterned by the neighborhoods in which we live. But why is your street address such a good predictor of your health? How can your surrounding built and social environment get inside your body like smog and toxic waste? The PBS television series helps to answer some of these questions, and perhaps raise even more questions.

The Duval County Health Department’s public awareness campaign is part of a larger nation-wide engagement campaign in association with leading public health, policy and community-based organizations. This report and the television series are tools to help groups educate, organize and advocate for policies that promote well-being for everyone. Please contact DCHD to become engaged in this campaign by calling 253-2520 or visit [www.unnaturalcauses.org](http://www.unnaturalcauses.org).

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