

# HEALTH RISK FACTORS



In McGinnis and Foege's 1993 study, tobacco use, poor nutrition and insufficient physical activity were dubbed the leading 'actual' causes of death, because they are underlying factors in almost half of all deaths in the United States.<sup>1</sup> A 2004 follow-up study by Mokdad, Marks, Stroup and Gerberding found that alcohol use also should be included in the 'actual' cause of deaths. Subsequently, the Centers for Disease Control and Prevention now use these health risk factors in their annual *Health Report*.<sup>2</sup> In this section, we present the four health risk factors, or 'actual' causes of death: tobacco use, overweight and obesity, exercise and diet and alcohol use.

## OVERVIEW

The Centers for Disease Control and Prevention’s (CDC) 2011 *Health Report* identified seven significant health risk factors: alcohol consumption, cigarette smoking and tobacco use, elevated cholesterol and diet, high blood pressure, illicit drug use, physical activity and inactivity, and overweight and obesity.<sup>2</sup> In this Health Status Report, four health risk factors, or ‘actual’ causes of death, will be addressed: tobacco use, overweight and obesity, exercise and diet, and alcohol use.

Although it is not an indicator of actual causes of death, prescription drug misuse will be mentioned at the end of this section. Prescription drug misuse is particularly important in Florida because of its growing number of deaths.

The major source of information and data about adult Floridians’ risk behaviors is the Behavioral Risk Factor Surveillance System (BRFSS), which collects annual data about tobacco use, diet, exercise and alcohol from Floridians over age 18. For those under 18, the Florida Youth Tobacco Survey (FYTS) and Youth Risk Behavior Survey (YRBS) reflects health-related behaviors of current middle and high school students.



## 'ACTUAL' CAUSES OF DEATH

**Tobacco use, poor nutrition and insufficient physical activity are underlying factors in nearly 40% of all deaths in the United States.**

In McGinnis and Foege's 1993 study, tobacco use, poor nutrition and insufficient physical activity were dubbed the leading 'actual' causes of death, because they are underlying factors in almost half of all deaths in the United States.<sup>1</sup>

Chronic diseases develop over an extended period of time, often after prolonged exposure to one or more risk behaviors, particularly tobacco use, poor nutrition and insufficient physical activity. In 2004, Mokdad, Marks, Stroup and Gerberding published an updated version of the McGinnis and Foege study and found that these behaviors, plus alcohol consumption, continue to account for nearly 40% of all deaths, with physical activity and diet quickly overtaking tobacco as the leading cause of death.<sup>3</sup> This section is composed of discussions about these 'actual' causes of death in Florida.

- In 2004, alcohol consumption was added to the list of 'actual' causes of death.

## TOBACCO USE

In 2010:

- 17.1% of Florida adults were current smokers.
- Florida ranked 24<sup>th</sup> nationally in percentage of current smokers.

*Tobacco use in Florida has declined over time, but greater progress is still possible.*

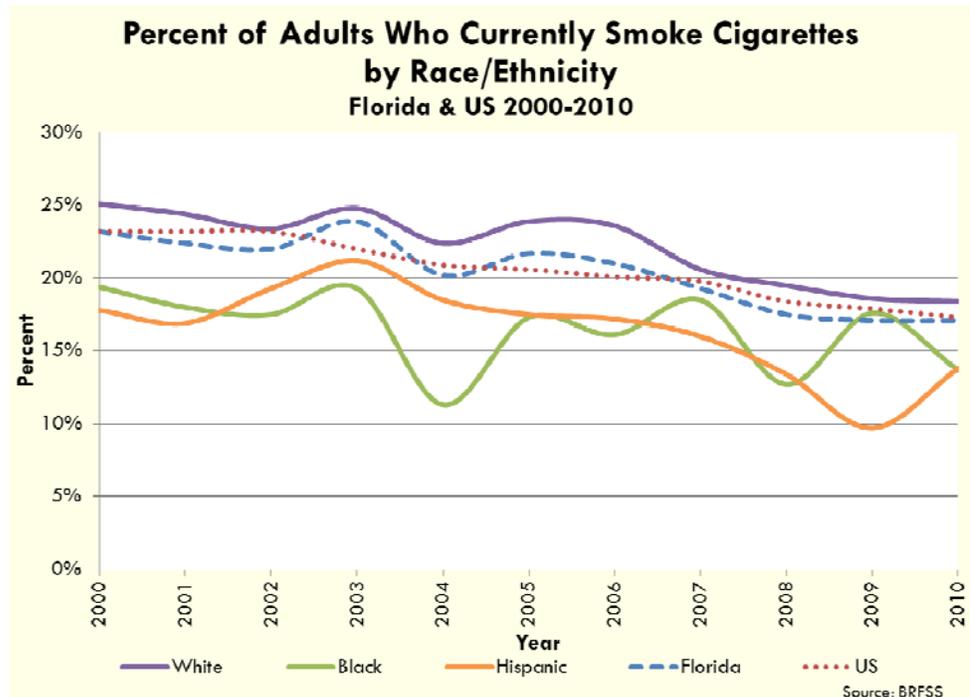
**In the U.S., more deaths are caused each year by tobacco use than all deaths from HIV, illegal drug use, alcohol use, motor vehicle injuries, suicides and murders combined.<sup>4</sup>**

Smoking increases the risk of coronary heart disease and stroke by a factor of two to four and of dying from chronic obstructive lung diseases by a factor of 12.<sup>5</sup>

In 2010, Florida ranked 24<sup>th</sup> nationally in percentage of current smokers. Tobacco use in Florida has declined over time, but greater progress is still possible through cessation, reducing second-hand smoke exposure and youth tobacco prevention activities.

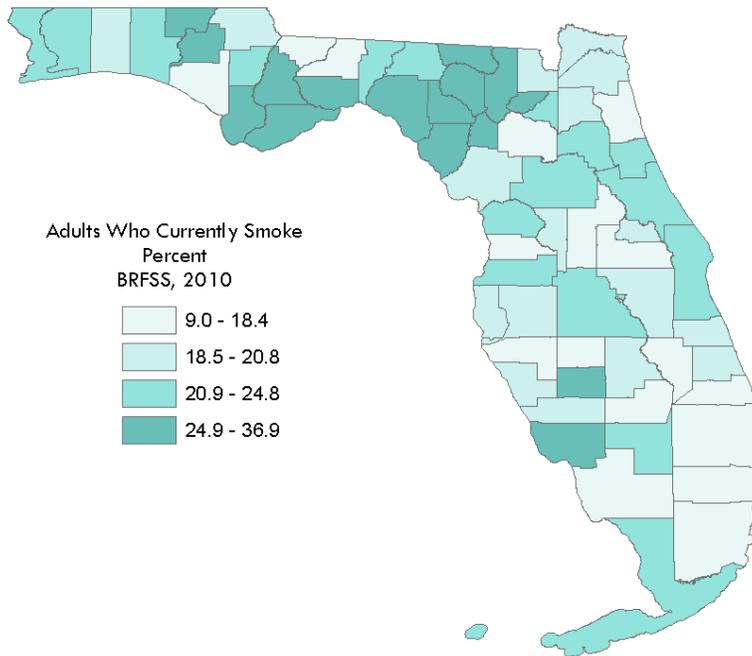
### ADULTS WHO SMOKE

According to the 2010 BRFSS, 17.1% of Florida adults are current smokers, who have smoked 100 or more cigarettes in their lifetime and are still smokers. White Floridians have the highest smoking rates. The prevalence of current smoking decreased from 22% of adults in 1998 to 17.1% in the most recent survey, with comparable declines in all groups except blacks, whose rates have fluctuated widely from year to year.



HEALTH RISK FACTORS

TOBACCO USE



Source: Florida Behavioral Risk Factor Survey

- Dixie County had the highest percent of adult residents who smoked in 2010, with 36.9% of BRFSS respondents, and Palm Beach County had the lowest percent of adult residents who smoked in 2010 with 9.0% of BRFSS respondents.

**ADULTS WHO CURRENTLY SMOKE BY COUNTY**  
(PERCENT; QUARTILE; 2010)

Alachua	14.4	1	Flagler	21.6	3	Lake	14.7	1	Pinellas	19.3	2
Baker	20.5	2	Franklin	31.6	4	Lee	25.5	4	Polk	21.2	3
Bay	15.8	1	Gadsden	16.5	1	Leon	13.1	1	Putnam	23.6	3
Bradford	24.8	3	Gilchrist	26.7	4	Levy	18.9	2	Santa Rosa	22.0	3
Brevard	21.3	3	Glades	15.2	1	Liberty	26.9	4	Sarasota	18.8	2
Broward	13.7	1	Gulf	29.5	4	Madison	21.9	3	Seminole	20.8	2
Calhoun	23.0	3	Hamilton	33.1	4	Manatee	17.4	1	St. Johns	11.9	1
Charlotte	20.7	2	Hardee	15.3	1	Marion	23.1	3	St. Lucie	19.4	2
Citrus	21.1	3	Hendry	21.6	3	Martin	13.6	1	Sumter	19.1	2
Clay	20.8	2	Hernando	17.9	1	Monroe	21.1	3	Suwannee	28.5	4
Collier	16.7	1	Highlands	19.8	2	Nassau	19.3	2	Taylor	32.0	4
Columbia	27.9	4	Hillsborough	19.7	2	Okaloosa	19.2	2	Union	29.9	4
Miami-Dade	10.6	1	Holmes	26.0	4	Okeechobee	18.4	1	Volusia	23.3	3
DeSoto	26.1	4	Indian River	19.0	2	Orange	13.3	1	Wakulla	26.5	4
Dixie	36.9	4	Jackson	20.2	2	Osceola	18.5	2	Walton	24.3	3
Duval	18.6	2	Jefferson	22.9	3	Palm Beach	9.0	1	Washington	29.3	4
Escambia	22.6	3	Lafayette	30.7	4	Pasco	21.0	3			

TOBACCO USE

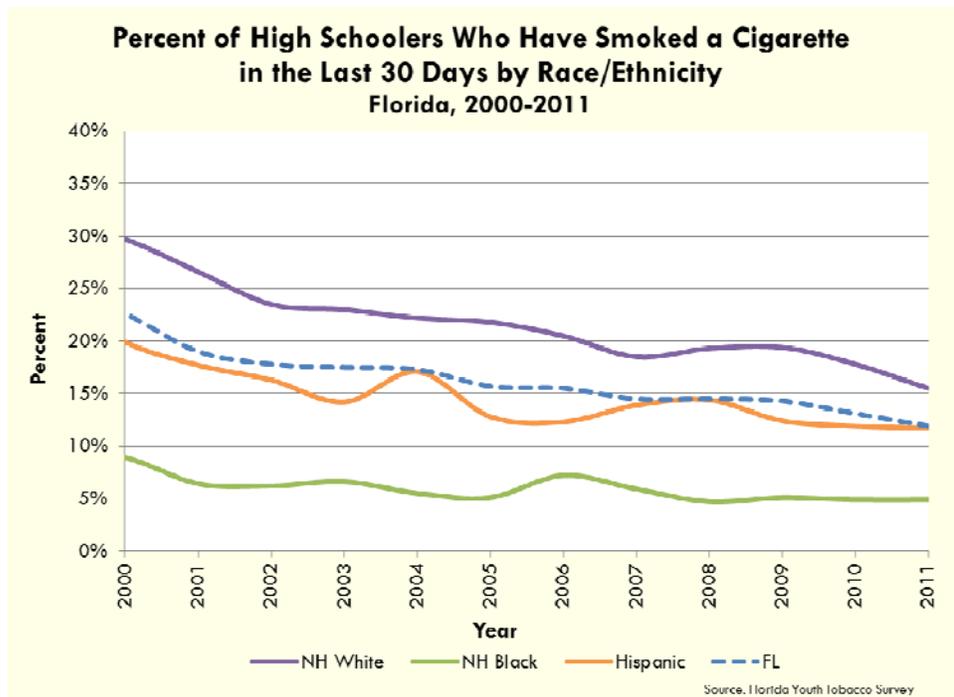
**ADOLESCENTS WHO SMOKE**

In 2011:

- Nearly 12% of Florida high school students had smoked a cigarette in the previous month.
- 3.5% of middle school students had smoked.

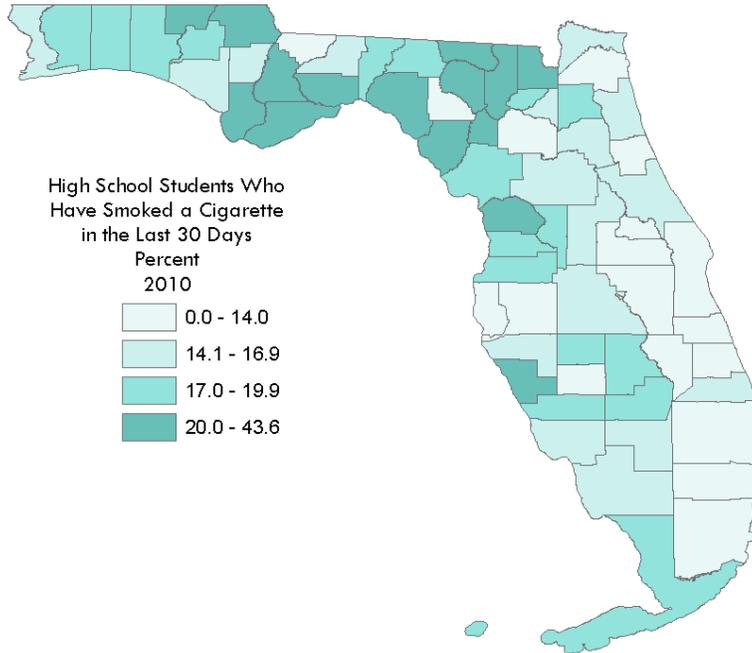
In 2011, 11.9% of high school students smoked a cigarette at least once during the past 30 days. Since 1998, the prevalence of smoking has decreased by 56.6% among high school students. Non-Hispanic white students have consistently had the highest prevalence of current cigarette use.

*Since 1998, the prevalence of smoking among Florida's high-schoolers has declined over 50%.*

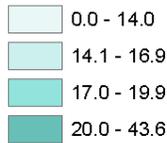


HEALTH RISK FACTORS

TOBACCO USE



High School Students Who Have Smoked a Cigarette in the Last 30 Days  
Percent  
2010



Source: Florida Youth Tobacco Survey

- Liberty County had the highest percent of high school students who had smoked a cigarette in the last 30 days with a rate of 43.6%.
- Broward County had the lowest percent of high school students who had smoked a cigarette in the last 30 days in 2010.

**HIGH SCHOOL STUDENTS WHO HAVE SMOKED A CIGARETTE IN THE LAST 30 DAYS BY COUNTY**  
(PERCENT; QUARTILE; 2010)  
(1=LOWEST AND 4=HIGHEST)

Alachua	10.9	1	Flagler	13.9	1	Lake	16.5	2	Pinellas	11.9	1
Baker	24.0	4	Franklin	31.3	4	Lee	15.1	2	Polk	16.5	2
Bay	15.9	2	Gadsden	9.1	1	Leon	15.7	2	Putnam	16.9	2
Bradford	15.9	2	Gilchrist	26.2	4	Levy	19.6	3	Santa Rosa	17.4	3
Brevard	14.0	1	Glades	18.9	3	Liberty	43.6	4	Sarasota	23.8	4
Broward	8.0	1	Gulf	24.5	4	Madison	19.1	3	Seminole	11.4	1
Calhoun	16.8	2	Hamilton	22.8	4	Manatee	15.0	2	St. Johns	15.7	2
Charlotte	19.5	3	Hardee	19.9	3	Marion	15.5	2	St. Lucie	13.6	1
Citrus	23.1	4	Hendry	15.4	2	Martin	16.1	2	Sumter	19.1	3
Clay	19.4	3	Hernando	19.4	3	Monroe	19.8	3	Suwannee	20.7	4
Collier	14.3	2	Highlands	19.0	3	Nassau	15.4	2	Taylor	23.5	4
Columbia	21.0	4	Hillsborough	12.9	1	Okaloosa	17.5	3	Union	18.9	3
Miami-Dade	8.7	1	Holmes	22.1	4	Okeechobee	*		Volusia	16.0	2
DeSoto	13.9	1	Indian River	14.0	1	Orange	11.2	1	Wakulla	23.0	4
Dixie	26.3	4	Jackson	20.9	4	Osceola	9.5	1	Walton	19.9	3
Duval	13.2	1	Jefferson	17.4	3	Palm Beach	13.0	1	Washington	19.4	3
Escambia	14.8	2	Lafayette	12.0	1	Pasco	17.0	3			

\*Okeechobee County did not participate in the 2010 Florida Youth Tobacco Survey

## OVERWEIGHT AND OBESITY

- In 2010, Florida ranked 45th nationally in its proportion of the population that were overweight and 24th in the proportion that were obese.

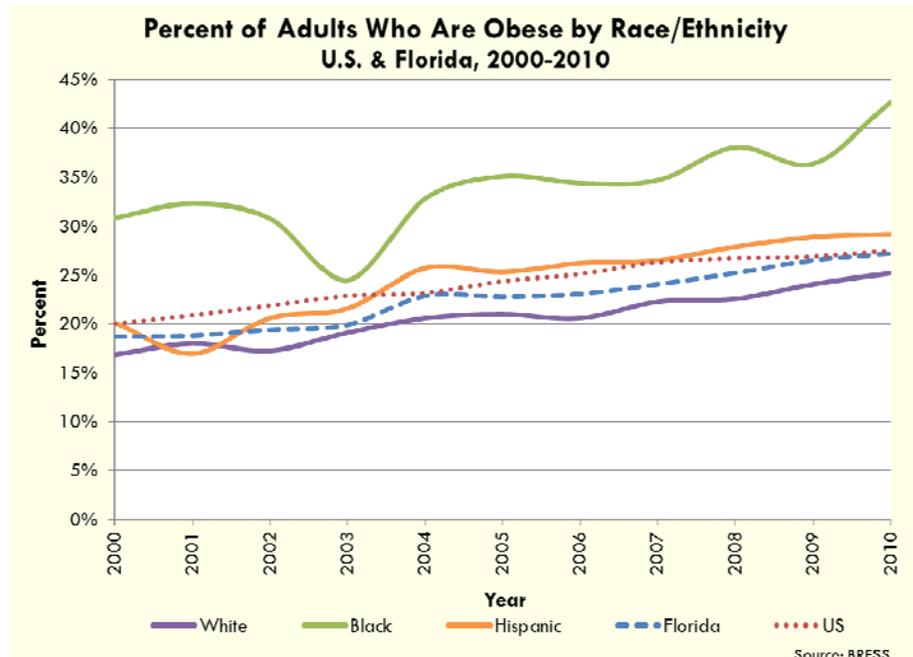
*Obesity has become recognized as a national health threat and a major public health challenge.*

**Declines in tobacco use among American adults and adolescents have stalled while rates of obesity continue to skyrocket.**

### ADULT OBESITY

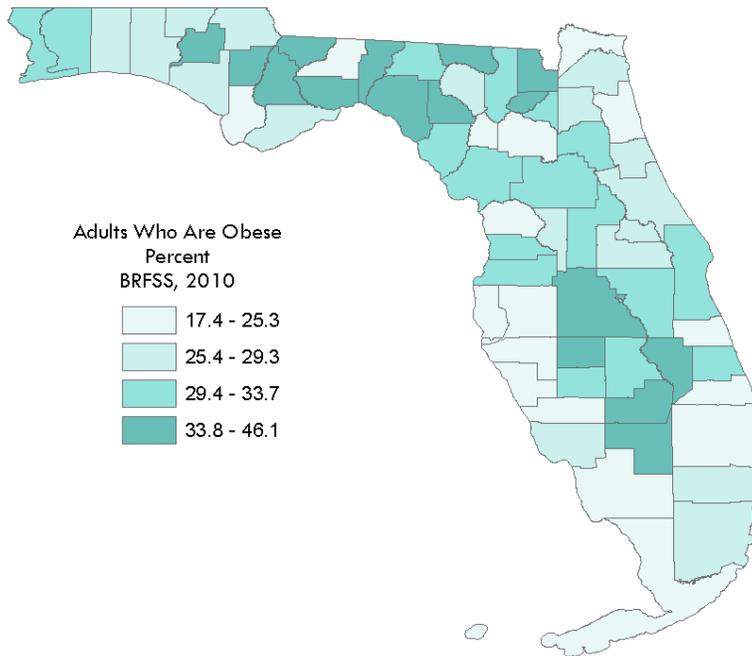
Over the past decade, obesity has become recognized as a national health threat and a major public health challenge. Obese adults are at increased risk for serious health conditions including coronary heart disease, hypertension, stroke, type 2 diabetes, and certain types of cancer. Adult obesity is also associated with reduced quality of life, social stigmatization, and discrimination. The United States leads all other industrialized countries in the rate of adult obesity<sup>6</sup>, increasing the risk for related health care problems and increased costs in years to come. In a 2012 study conducted by Cawley and Meyerhoefer, they cite \$190.2 billion as the estimated annual cost of obesity-related illness<sup>7</sup>, with 21% of annual medical spending on obesity-related illness, and 27% of the increases in U.S. medical costs associated with obesity-related diseases.<sup>8</sup> Consequently, the U.S. Surgeon General has called for strong public health action to prevent and decrease overweight and obesity.

In 2010, Florida ranked 45th nationally in its proportion of population that were overweight and 24th in the proportion who were obese. Among Florida's black population, 42.7% were obese in 2010, compared to 25.2% among whites and 29.2% among Hispanics.



HEALTH RISK FACTORS

OVERWEIGHT AND OBESITY



Adults Who Are Obese  
Percent  
BRFSS, 2010

- 17.4 - 25.3
- 25.4 - 29.3
- 29.4 - 33.7
- 33.8 - 46.1

Source: Florida Behavioral Risk Factor Survey

- Hardee County had the highest percent of obese adult residents in 2010, with 46.1% of BRFSS respondents, and Monroe County had the lowest percent of obese adult residents in 2010 with 17.4% of BRFSS respondents.

**ADULTS WHO ARE OBESE BY COUNTY**  
(PERCENT; QUARTILE; 2010)  
(1=LOWEST AND 4=HIGHEST)

Alachua	21.6	1	Flagler	29.3	2	Lake	29.8	3	Pinellas	24.0	1
Baker	36.0	4	Franklin	27.0	2	Lee	27.3	2	Polk	37.7	4
Bay	28.2	2	Gadsden	36.6	4	Leon	21.7	1	Putnam	31.3	3
Bradford	30.4	3	Gilchrist	24.7	1	Levy	32.1	3	Santa Rosa	29.8	3
Brevard	30.7	3	Glades	39.6	4	Liberty	40.1	4	Sarasota	20.8	1
Broward	28.0	2	Gulf	23.2	1	Madison	32.8	3	Seminole	26.4	2
Calhoun	34.7	4	Hamilton	44.8	4	Manatee	22.5	1	St. Johns	22.0	1
Charlotte	21.7	1	Hardee	46.1	4	Marion	33.7	3	St. Lucie	31.4	3
Citrus	23.4	1	Hendry	38.0	4	Martin	21.1	1	Sumter	27.2	2
Clay	25.9	2	Hernando	29.8	3	Monroe	17.4	1	Suwannee	27.4	2
Collier	22.4	1	Highlands	30.3	3	Nassau	23.8	1	Taylor	40.2	4
Columbia	30.9	3	Hillsborough	25.3	1	Okaloosa	28.8	2	Union	42.0	4
Miami-Dade	29.3	3	Holmes	28.2	2	Okeechobee	38.1	4	Volusia	26.8	2
DeSoto	33.4	3	Indian River	24.1	1	Orange	27.8	2	Wakulla	37.5	4
Dixie	32.8	3	Jackson	29.2	2	Osceola	31.9	3	Walton	28.6	2
Duval	28.4	2	Jefferson	36.3	4	Palm Beach	19.4	1	Washington	35.0	4
Escambia	29.7	3	Lafayette	41.7	4	Pasco	30.6	3			

OVERWEIGHT AND OBESITY

ADOLESCENT OVERWEIGHT AND OBESITY

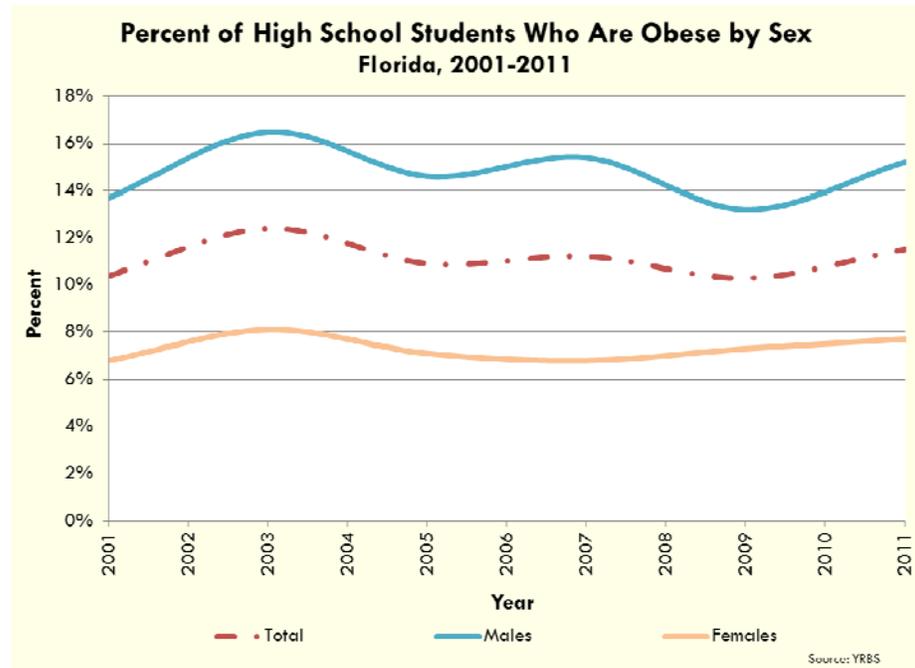
- Males consistently have had a higher prevalence of obesity than females.
- Non-Hispanic blacks have a higher prevalence of obesity than non-Hispanic whites.
- More than 10% of adolescents are obese in Florida.

*A higher proportion of male adolescents are obese than are female adolescents.*

In 2011, approximately 92,500 high school students (13.6%) were overweight. The percentage was comparable for males and females. An additional 78,200 students (11.5%) were obese. Males have consistently had a higher prevalence of obesity than females. Neither obesity nor overweight prevalence changed from 2001 to 2011.

Non-Hispanic white students consistently had the lowest prevalence of obesity and non-Hispanic black students consistently had the highest prevalence of obesity among racial and ethnic groups from 2001 to 2011. None of the racial/ethnic groups showed any change in prevalence of overweight or obesity from 2001-2009. More than 10% of high school students were obese in 2011.

The prevalence of overweight among high school students increased significantly from 14.5% to 26.6% in 2011. More than one-fourth of high school students were obese in 2011.

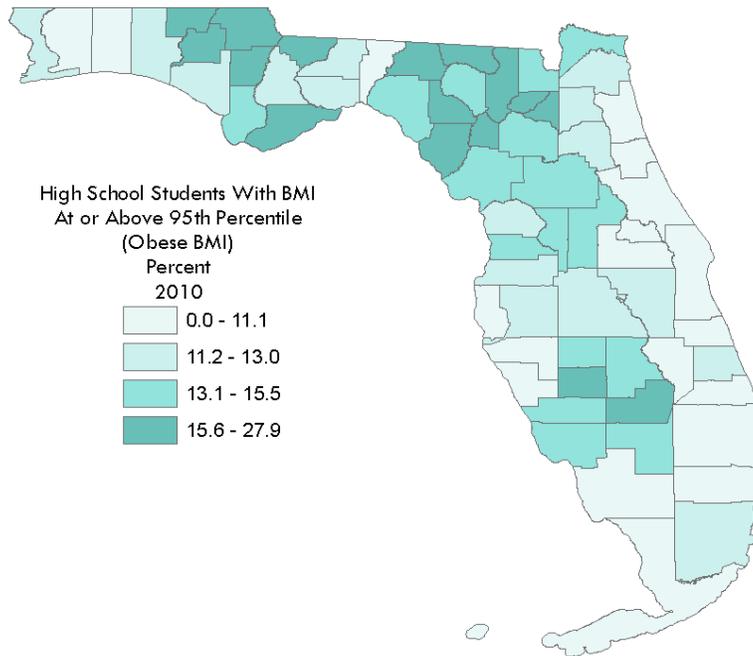


Note:

The definition of overweight and obese among adolescents: Overweight is body mass index at or greater than the 85th percentile and less than the 95th percentile, and obese is body mass index at or greater than 95th percentile in weight distribution among students of the same age and gender.

HEALTH RISK FACTORS

OVERWEIGHT AND OBESITY



High School Students With BMI At or Above 95th Percentile (Obese BMI) Percent 2010

- 0.0 - 11.1
- 11.2 - 13.0
- 13.1 - 15.5
- 15.6 - 27.9

Source: Florida Youth Risk Behavior Survey

- Franklin County had the highest percent of high school students who were obese at 27.9%, and Santa Rosa County had the lowest percent at 7.1%.

**HIGH SCHOOL STUDENTS WHO ARE AT OR ABOVE 95TH PERCENTILE BY COUNTY**  
(PERCENT; QUARTILE; 2010)  
(1=LOWEST AND 4=HIGHEST)

Alachua	13.9	3	Flagler	10.6	1	Lake	13.5	3	Pinellas	10.2	1
Baker	14.3	3	Franklin	27.9	4	Lee	14.8	3	Polk	11.7	2
Bay	11.5	2	Gadsden	16.5	4	Leon	11.3	2	Putnam	12.6	2
Bradford	17.5	4	Gilchrist	16.9	4	Levy	14.1	3	Santa Rosa	7.1	1
Brevard	11.1	1	Glades	15.7	4	Liberty	11.2	2	Sarasota	7.9	1
Broward	10.1	1	Gulf	13.2	3	Madison	21.0	4	Seminole	8.4	1
Calhoun	19.2	4	Hamilton	20.4	4	Manatee	9.5	1	St. Johns	8.8	1
Charlotte	13.4	3	Hardee	15.0	3	Marion	13.6	3	St. Lucie	11.4	2
Citrus	12.6	2	Hendry	14.2	3	Martin	11.1	1	Sumter	13.3	3
Clay	12.1	2	Hernando	14.4	3	Monroe	10.0	1	Suwannee	15.4	3
Collier	9.0	1	Highlands	15.5	3	Nassau	13.6	3	Taylor	13.3	3
Columbia	16.5	4	Hillsborough	11.7	2	Okaloosa	11.1	1	Union	16.4	4
Miami-Dade	12.4	2	Holmes	17.1	4	Okeechobee	*		Volusia	10.5	1
DeSoto	18.4	4	Indian River	10.6	1	Orange	10.5	1	Wakulla	11.3	2
Dixie	20.3	4	Jackson	15.8	4	Osceola	12.2	2	Walton	11.2	2
Duval	13.0	2	Jefferson	10.8	1	Palm Beach	9.0	1	Washington	18.9	4
Escambia	12.2	2	Lafayette	18.8	4	Pasco	11.4	2			

\*Okeechobee County did not participate in the 2010 Florida Youth Risk Behavior Survey

## DIET AND EXERCISE

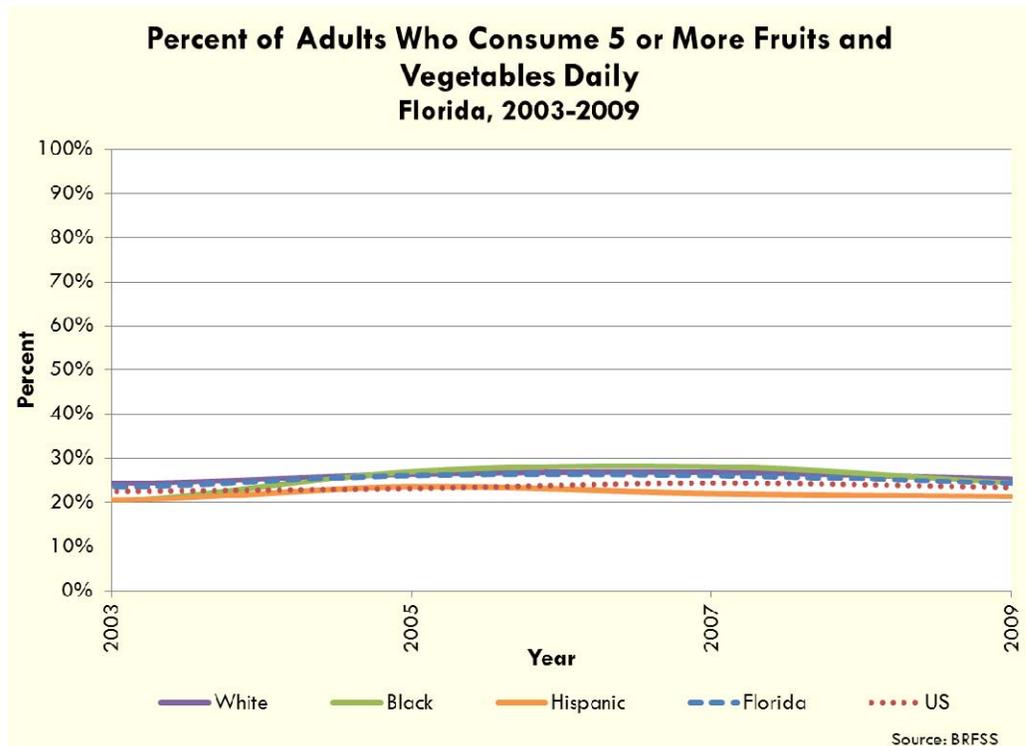
### ADULTS

#### FRUIT AND VEGETABLE CONSUMPTION

Eating a healthy diet is one of the two major recommended strategies for maintaining healthy weight. This has typically been measured by tracking the consumption of fruits and vegetables. In 2009, only one-quarter of adult Floridians met the dietary goal of five fruits and vegetables daily. Hispanics have historically had the lowest rate of adequate fruit and vegetable consumption. Since 2005, blacks and whites have had similar levels of consumption.

- Hispanics have historically had the lowest rate of adequate fruit and vegetable consumption.
- In 2009, only one-fourth of adult Floridians consume adequate fruits and vegetables.

*The two major contributors to overweight and obesity are diet – typically measured by fruit and vegetable consumption and exercise.*



\*Federal dietary recommendations changed in 2010 therefore 2009 is the most recent year for which data is available.

DIET AND EXERCISE

**ADOLESCENTS**

**FRUIT AND VEGETABLE CONSUMPTION**

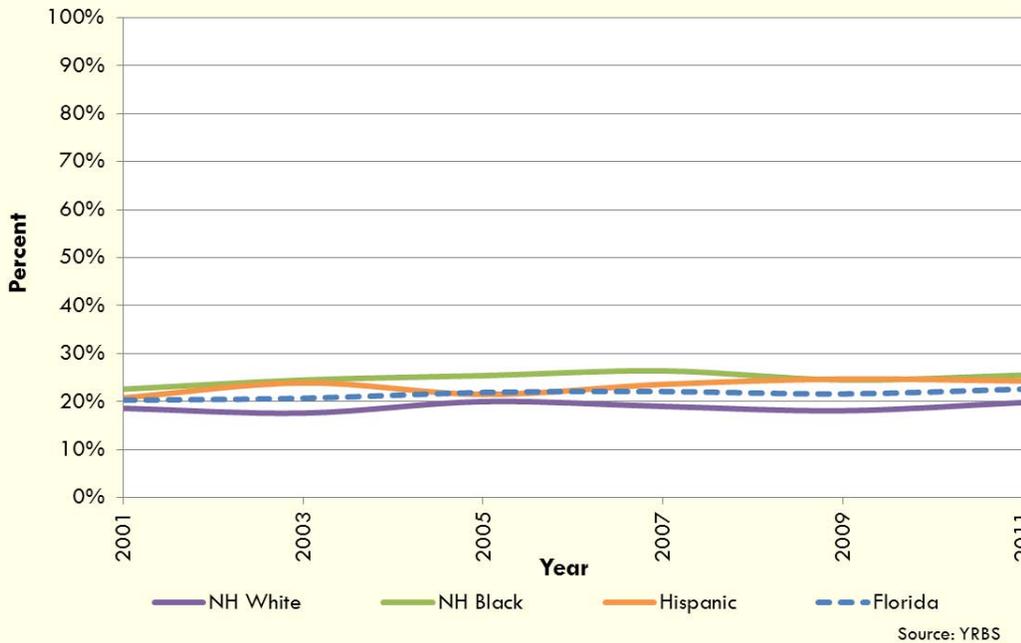
In 2011, approximately 171,500 students (22.6%) ate fruits and vegetables five or more times per day during the past seven days. This prevalence increased by 11.3% from 2001 to 2011. Males consistently did better than females.

Non-Hispanic white students (19.8%) had a lower prevalence of this behavior than Hispanic (24.3%) and non-Hispanic black students (25.5%). From 2001 to 2009, non-Hispanic white students consistently had the lowest prevalence of consuming five or more servings of fruits and vegetables daily, although the difference was not always noteworthy. This prevalence increased by 16.8% among Hispanic students during this time period.

- In 2011, Fewer than one-fourth of students ate adequate fruits and vegetables.

*Non-Hispanic white students are the least likely to consume adequate fruits and vegetables.*

**Percent of High Schoolers Who Consume 5 or More Fruits and Vegetables Daily  
Florida, 2001-2011**



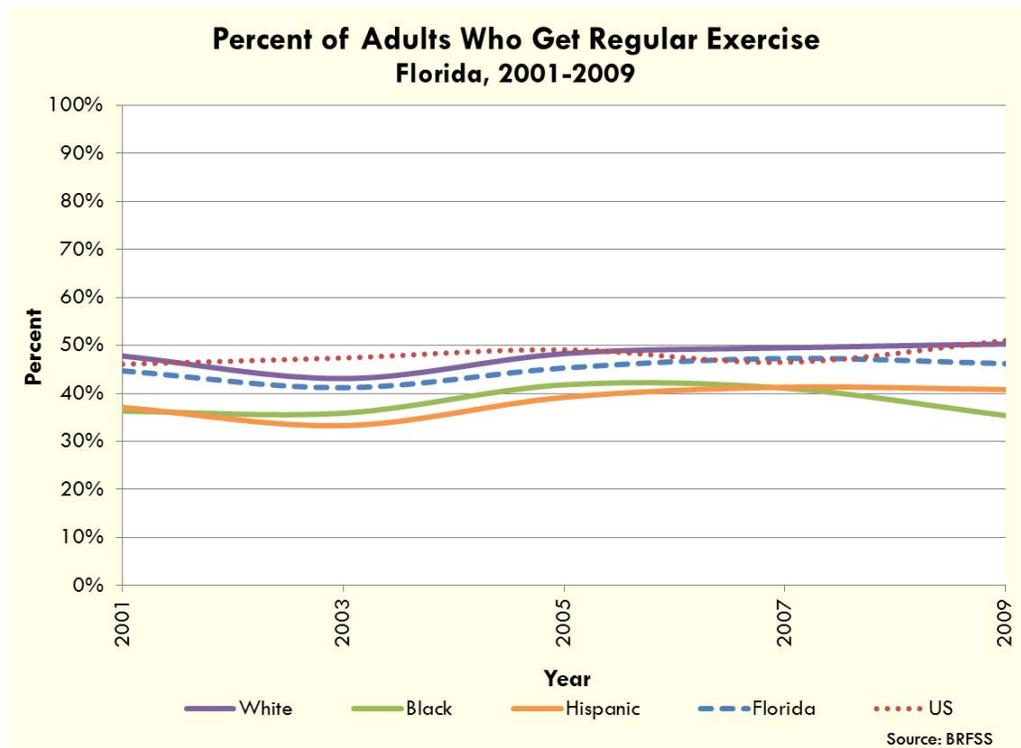
DIET AND EXERCISE

- Fewer than half of adult Floridians get adequate exercise.

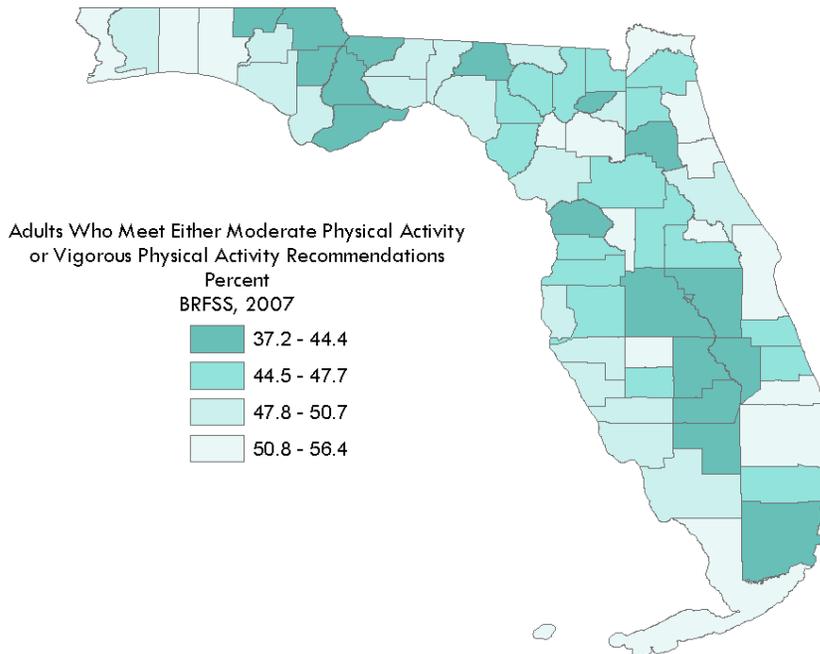
**ADULTS**  
**EXERCISE**

Regular physical activity not only helps people avoid being overweight, but reduces the risk for other adverse health conditions such as coronary heart disease, stroke, high blood pressure, high cholesterol or triglycerides, type 2 diabetes and more.<sup>9</sup> Regular physical exercise for adults is defined as at least 30 minutes of moderate physical activity 5 or more days per week, or vigorous physical activity for at least 20 minutes three or more days per week. In 2009, Florida ranked 34th among states in physical activity. Fewer than half of Floridians got adequate exercise, with the black and Hispanic population less likely to engage in regular, moderate physical activity than whites.

*Adults should get at least 30 minutes of moderate physical activity, at least five days a week.*



DIET AND EXERCISE



Source: Florida Behavioral Risk Factor Survey

- Seminole County had the highest percent of adult residents who exercised regularly in 2010, with 77.0% of BRFSS respondents, and Levy County had the lowest percent of adult residents who exercised regularly in 2010 with 42.8% of BRFSS respondents.

**ADULTS WHO MEET MODERATE OR VIGOROUS PHYSICAL ACTIVITY RECOMMENDATIONS BY COUNTY**

(PERCENT; QUARTILE; 2007)  
(1=LOWEST AND 4=HIGHEST)

Alachua	50.9	1	Flagler	43.0	4	Lake	48.0	2	Pinellas	49.0	2
Baker	46.2	3	Franklin	40.8	4	Lee	50.7	2	Polk	42.0	4
Bay	48.2	2	Gadsden	55.9	1	Leon	48.4	2	Putnam	44.3	4
Bradford	49.8	2	Gilchrist	38.1	4	Levy	40.3	4	Santa Rosa	54.0	1
Brevard	50.8	1	Glades	49.9	2	Liberty	42.7	4	Sarasota	51.4	1
Broward	46.3	3	Gulf	49.2	2	Madison	49.3	2	Seminole	45.9	3
Calhoun	44.3	4	Hamilton	51.0	1	Manatee	47.1	3	St. Johns	49.1	2
Charlotte	49.2	2	Hardee	37.2	4	Marion	56.4	1	St. Lucie	48.8	2
Citrus	43.2	4	Hendry	46.8	3	Martin	41.9	4	Sumter	52.7	1
Clay	45.7	3	Hernando	44.4	4	Monroe	54.0	1	Suwannee	44.5	3
Collier	50.6	2	Highlands	47.7	3	Nassau	51.6	1	Taylor	50.2	2
Columbia	45.3	3	Hillsborough	43.2	4	Okaloosa	55.8	1	Union	42.6	4
Miami-Dade	45.0	3	Holmes	47.2	3	Okeechobee	39.0	4	Volusia	48.2	2
DeSoto	46.8	3	Indian River	40.0	4	Orange	46.7	3	Wakulla	50.7	2
Dixie	46.1	3	Jackson	49.2	2	Osceola	42.0	4	Walton	54.9	1
Duval	52.2	1	Jefferson	45.7	3	Palm Beach	52.4	1	Washington	50.0	2
Escambia	53.0	1	Lafayette	45.0	3	Pasco	45.8	3			

DIET AND EXERCISE

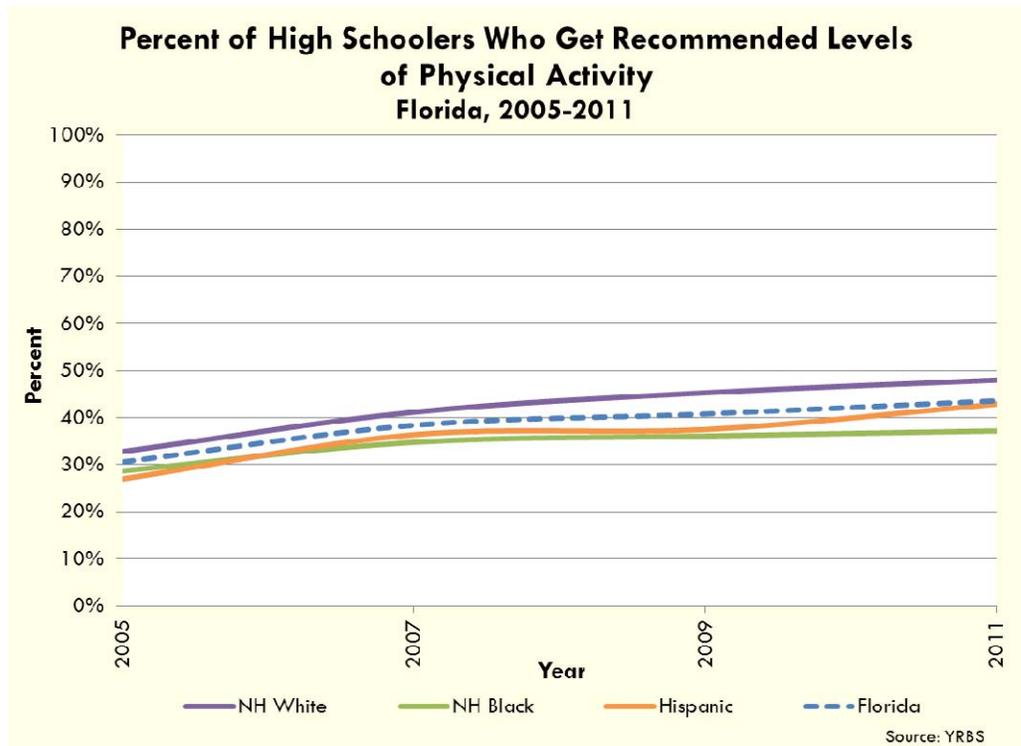
**ADOLESCENTS**  
**EXERCISE**

- Approximately 43.6% of high school students were physically active.

In 2011, approximately 330,700 students (43.6%) met the current recommendation for being physically active for a total of 60 minutes per day on five or more of the past seven days. This prevalence increased by 42.5% from 2005 to 2011. Males had a higher prevalence of adequate exercise than females.

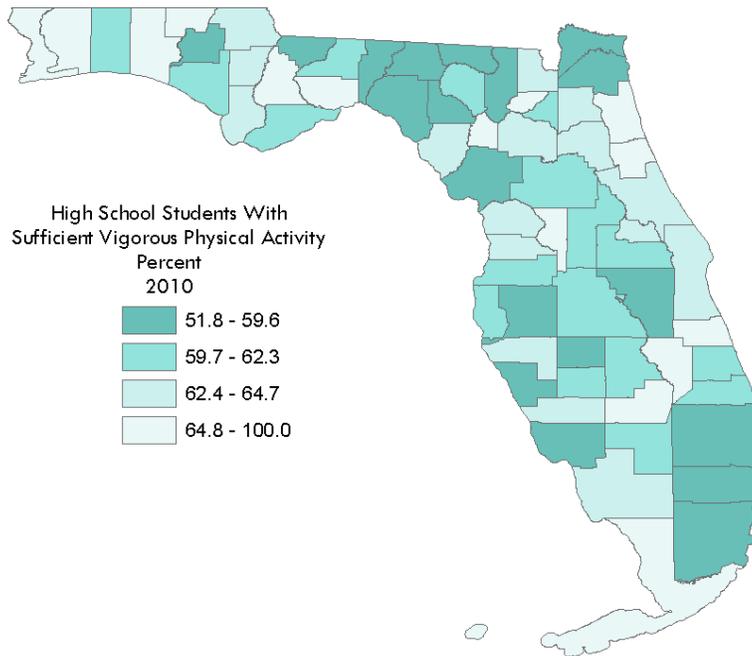
Non-Hispanic whites have had a higher prevalence of recommended levels of exercise than both non-Hispanic blacks and Hispanics in Florida from 2005 to 2009.

*Adolescents should get at least one hour of physical activity, at least five days a week.*



HEALTH RISK FACTORS

DIET AND EXERCISE



High School Students With Sufficient Vigorous Physical Activity Percent 2010

- 51.8 - 59.6
- 59.7 - 62.3
- 62.4 - 64.7
- 64.8 - 100.0

Source: Florida Youth Risk Behavior Survey

- Liberty County had the highest percent of high school students who got sufficient vigorous physical activity with 78.5% in 2010.
- Washington County had the lowest percent of high school students who got sufficient vigorous physical activity with 51.8% in 2010.

**HIGH SCHOOL STUDENTS WITH SUFFICIENT VIGOROUS PHYSICAL ACTIVITY BY COUNTY**  
(PERCENT; QUARTILE; 2010)  
(1=LOWEST AND 4=HIGHEST)

Alachua	64.6	2	Flagler	69.5	1	Lake	60.2	3	Pinellas	60.3	3
Baker	64.7	2	Franklin	60.5	3	Lee	58.3	4	Polk	60.9	3
Bay	62.3	3	Gadsden	55.5	4	Leon	62.0	3	Putnam	63.9	2
Bradford	60.8	3	Gilchrist	69.5	1	Levy	59.6	4	Santa Rosa	67.4	1
Brevard	63.5	2	Glades	66.3	1	Liberty	78.5	1	Sarasota	58.5	4
Broward	57.8	4	Gulf	64.5	2	Madison	55.9	4	Seminole	62.8	2
Calhoun	62.7	2	Hamilton	59.3	4	Manatee	64.1	2	St. Johns	68.2	1
Charlotte	64.0	2	Hardee	58.1	4	Marion	60.9	3	St. Lucie	60.7	3
Citrus	62.5	2	Hendry	60.0	3	Martin	61.9	3	Sumter	66.2	1
Clay	64.0	2	Hernando	62.6	2	Monroe	65.2	1	Suwannee	61.3	3
Collier	64.5	2	Highlands	61.5	3	Nassau	59.6	4	Taylor	55.8	4
Columbia	54.7	4	Hillsborough	59.0	4	Okaloosa	62.3	3	Union	65.5	1
Miami-Dade	58.4	4	Holmes	66.3	1	Okeechobee	*		Volusia	62.7	2
DeSoto	61.0	3	Indian River	66.5	1	Orange	62.1	3	Wakulla	65.7	1
Dixie	62.9	2	Jackson	64.2	2	Osceola	58.1	4	Walton	64.9	1
Duval	59.3	4	Jefferson	56.4	4	Palm Beach	59.6	4	Washington	51.8	4
Escambia	64.9	1	Lafayette	56.5	4	Pasco	60.8	3			

\*Okeechobee County did not participate in the 2010 Florida Youth Risk Behavior Survey

# ALCOHOL USE

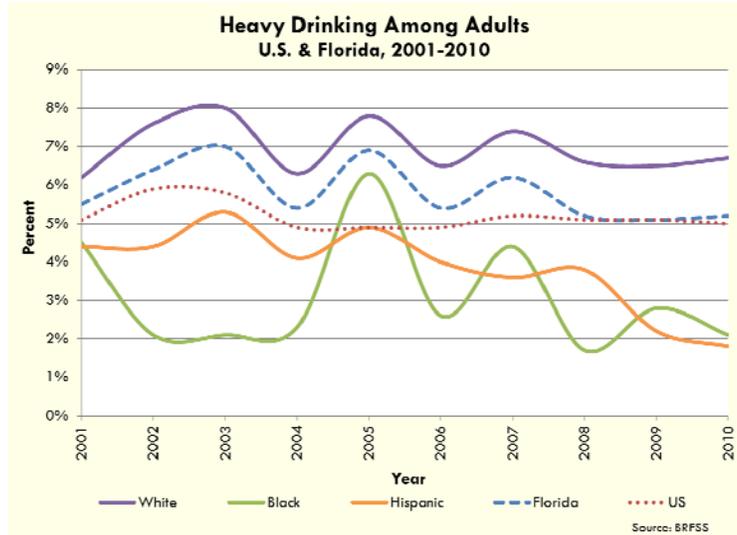
## ADULTS

- Alcohol use patterns among adult Floridians differ across racial and ethnic groups, with heaviest use and abuse by whites.
- Whites have consistently had higher rates of binge drinking than both blacks and Hispanics in Florida.

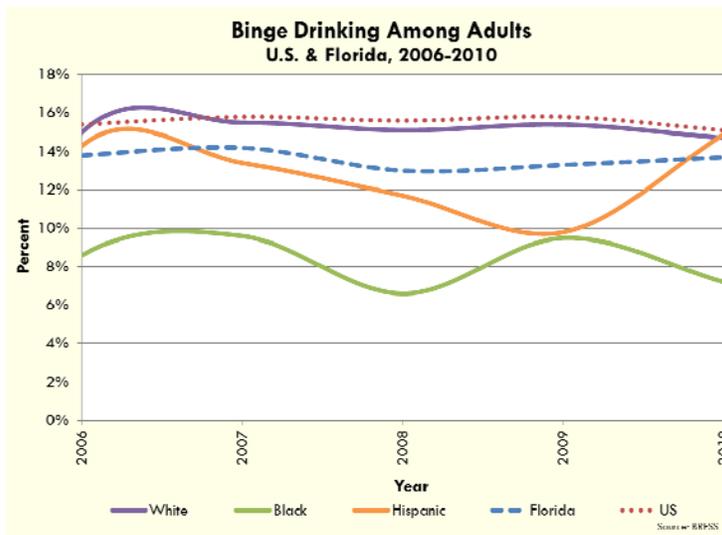
The BRFSS reports two different categories for alcohol use: heavy drinking and binge drinking.

Heavy drinking is defined as adult males having more than two drinks per day and adult women having more than one drink per day.

Alcohol use patterns among adult Floridians differ across racial and ethnic groups, with heaviest use and abuse by whites. In general, Hispanics report more current alcohol use than blacks, but patterns of heavy drinking are comparable for the two groups.



Binge drinking is defined as men consuming five or more drinks, and women consuming four or more drinks in two hours.

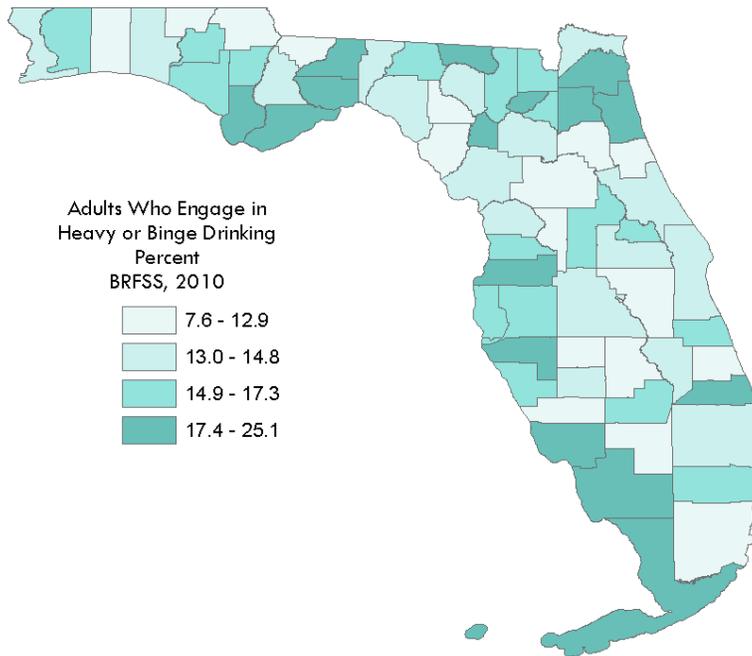


Binge drinking patterns between 2006-2010 among Hispanics and blacks have been erratic. However, whites have consistently had higher rates than both groups. Florida's total binge drinking rates have been slightly less than the U.S.

Note:

In the BRFSS, heavy drinking is defined as adult males having more than 2 drinks per day and adult women having more than one drink per day. Binge drinking means men consuming 5 or more drinks and women consuming 4 or more drinks in about 2 hours.

ALCOHOL USE



Source: Florida Behavioral Risk Factor Survey

- St. Johns County had the highest percent of adult residents who engaged in heavy or binge drinking in 2010, with 25.1% of BRFSS respondents, and Jackson County had the lowest percent of adult residents who engaged in heavy or binge drinking in 2010 with 7.6% of BRFSS respondents.

**ADULTS WHO ENGAGE IN HEAVY OR BINGE DRINKING BY COUNTY**  
(PERCENT; QUARTILE; 2010)  
(1=LOWEST AND 4=HIGHEST)

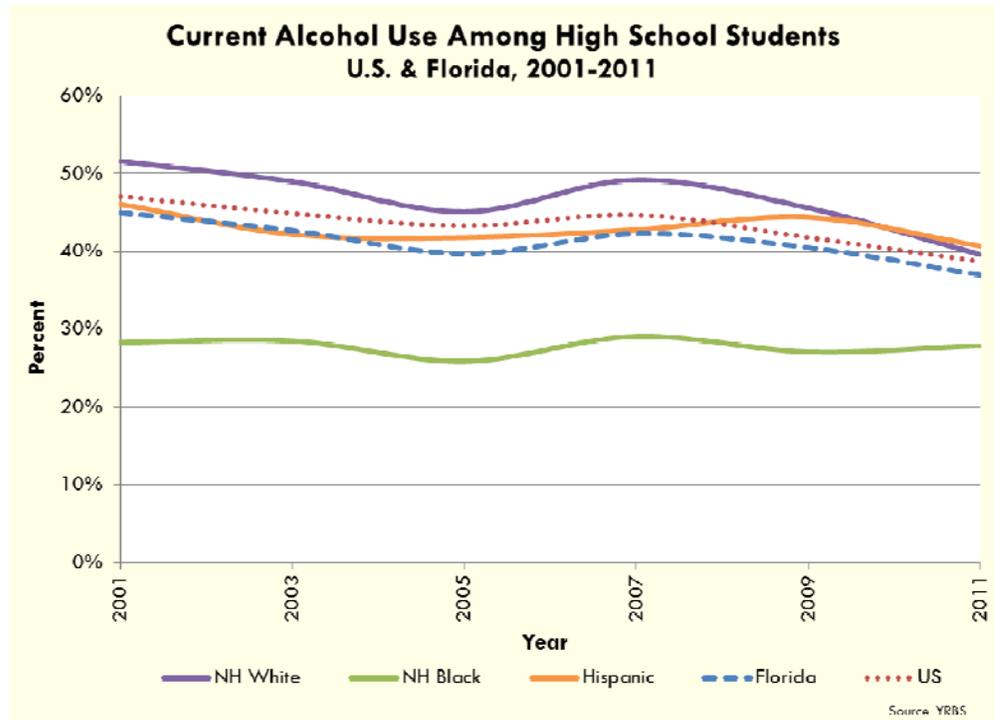
Alachua	13.5	2	Flagler	12.7	1	Lake	15.9	3	Pinellas	16.4	3
Baker	16.5	3	Franklin	17.6	4	Lee	18.2	4	Polk	13.9	2
Bay	15.6	3	Gadsden	12.9	1	Leon	17.4	4	Putnam	9.7	1
Bradford	16.4	3	Gilchrist	20.1	4	Levy	14.8	2	Santa Rosa	16.4	3
Brevard	14.5	2	Glades	16.6	3	Liberty	14.7	2	Sarasota	16.4	3
Broward	16.1	3	Gulf	19.6	4	Madison	15.0	3	Seminole	15.4	3
Calhoun	17.3	3	Hamilton	19.3	4	Manatee	19.4	4	St. Johns	21.5	4
Charlotte	12.3	1	Hardee	10.0	1	Marion	11.5	1	St. Lucie	11.3	1
Citrus	13.3	2	Hendry	12.5	1	Martin	17.7	4	Sumter	7.8	1
Clay	17.6	4	Hernando	14.9	3	Monroe	25.1	4	Suwannee	14.4	2
Collier	19.2	4	Highlands	12.6	1	Nassau	14.6	2	Taylor	14.4	2
Columbia	15.6	3	Hillsborough	16.0	3	Okaloosa	12.0	1	Union	17.8	4
Miami-Dade	11.0	1	Holmes	9.9	1	Okeechobee	13.7	2	Volusia	14.1	2
DeSoto	14.5	2	Indian River	16.5	3	Orange	14.2	2	Wakulla	17.7	4
Dixie	10.9	1	Jackson	7.6	1	Osceola	10.5	1	Walton	13.5	2
Duval	17.6	4	Jefferson	13.2	2	Palm Beach	14.8	2	Washington	15.4	3
Escambia	14.8	2	Lafayette	12.3	1	Pasco	20.0	4			

ALCOHOL USE

**ADOLESCENTS**  
**CURRENT ALCOHOL USE**

- Alcohol use among high school students has declined in all racial/ethnic groups.

The prevalence of alcohol use among high school students, defined as having had at least one alcoholic drink within the past 30 days, is nearly the same in Florida as it is in the U.S. overall. Florida YRBS data from 2001 -2011 shows that non-Hispanic white students and Hispanic students are more likely to use alcohol and to engage in binge drinking than non-Hispanic blacks. Trend data also shows that alcohol use among high school students has declined in all racial/ethnic groups.

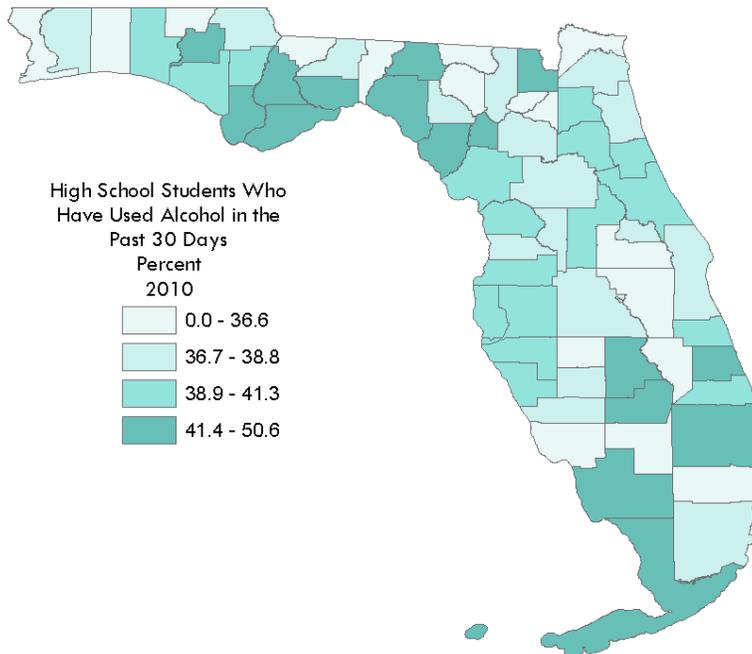


Note:

The Youth Risk Behavior Survey defines 'current alcohol use' as having had a least one drink of alcohol during the past 30 days, and 'binge drinking' as having had 5 or more drinks within a few hours.

HEALTH RISK FACTORS

ALCOHOL USE



High School Students Who Have Used Alcohol in the Past 30 Days  
Percent  
2010

- 0.0 - 36.6
- 36.7 - 38.8
- 38.9 - 41.3
- 41.4 - 50.6

Source: Florida Youth Risk Behavior Survey

- Franklin County had the highest percent of high school students who have used alcohol in the past 30 days with 50.6% in 2010.
- Jefferson County had the lowest percent of high school students who have used alcohol in the past 30 days with 19.4% in 2010.

**HIGH SCHOOL STUDENTS WHO HAVE USED ALCOHOL IN THE PAST 30 DAYS BY COUNTY**  
(PERCENT; QUARTILE; 2010)  
(1=LOWEST AND 4=HIGHEST)

Alachua	37.3	2	Flagler	39.7	3	Lake	39.2	3	Pinellas	39.6	3
Baker	42.1	4	Franklin	50.6	4	Lee	34.9	1	Polk	38.8	2
Bay	40.7	3	Gadsden	29.7	1	Leon	36.7	2	Putnam	40.1	3
Bradford	32.1	1	Gilchrist	41.5	4	Levy	39.6	3	Santa Rosa	38.2	2
Brevard	36.9	2	Glades	47.4	4	Liberty	42.4	4	Sarasota	40.9	3
Broward	34.1	1	Gulf	46.0	4	Madison	42.7	4	Seminole	37.2	2
Calhoun	41.1	3	Hamilton	31.2	1	Manatee	39.4	3	St. Johns	38.2	2
Charlotte	36.7	2	Hardee	34.8	1	Marion	36.9	2	St. Lucie	44.3	4
Citrus	41.3	3	Hendry	33.3	1	Martin	39.7	3	Sumter	37.7	2
Clay	41.3	3	Hernando	38.1	2	Monroe	47.4	4	Suwannee	36.6	1
Collier	41.7	4	Highlands	41.7	4	Nassau	36.3	1	Taylor	41.8	4
Columbia	38.7	2	Hillsborough	41.2	3	Okaloosa	34.8	1	Union	28.8	1
Miami-Dade	37.1	2	Holmes	32.8	1	Okeechobee	*		Volusia	39.8	3
DeSoto	38.8	2	Indian River	41.3	3	Orange	35.8	1	Wakulla	45.4	4
Dixie	46.1	4	Jackson	38.6	2	Osceola	31.9	1	Walton	41.3	3
Duval	36.7	2	Jefferson	19.4	1	Palm Beach	41.8	4	Washington	41.8	4
Escambia	36.4	1	Lafayette	38.7	2	Pasco	39.3	3			

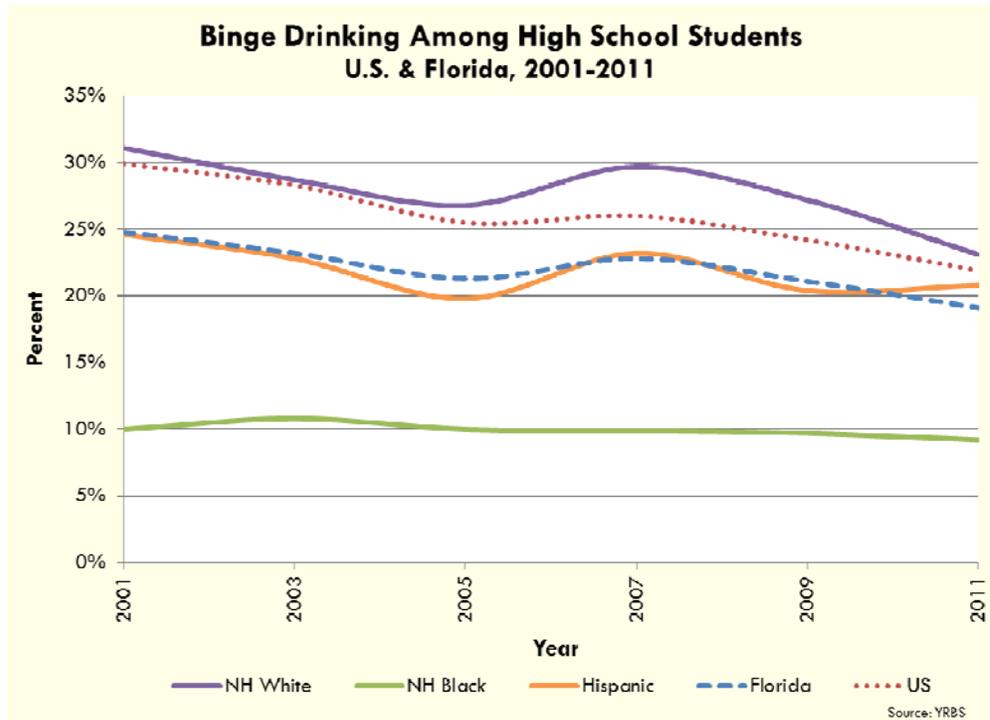
\*Okeechobee County did not participate in the 2010 Florida Youth Risk Behavior Survey

ALCOHOL USE

**ADOLESCENTS**  
**BINGE DRINKING**

- High school binge drinking in Florida is below the overall U.S. average.
- Non-Hispanic white students are more likely to binge drink than non-Hispanic blacks or Hispanics.

Binge drinking among Florida’s high school students is lower than the overall U.S. average. Much like current alcohol use among high school students, the Florida YRBS data from 2001-2011 shows that non-Hispanic white students are more likely to binge drink than non-Hispanic blacks, with Hispanics not far behind. Trend data also shows a decline for all racial/ethnic categories except Hispanics, which increased between 2009 and 2011.

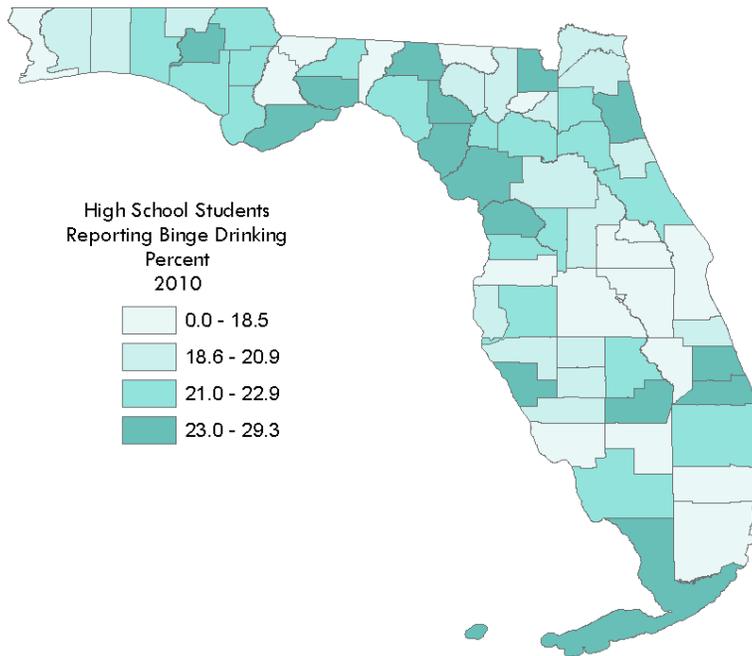


Note:

The Youth Risk Behavior Survey defines 'current alcohol use' as having had a least one drink of alcohol during the past 30 days, and 'binge drinking' as having had 5 or more drinks within a few hours.

HEALTH RISK FACTORS

ALCOHOL USE



High School Students Reporting Binge Drinking Percent 2010

- 0.0 - 18.5
- 18.6 - 20.9
- 21.0 - 22.9
- 23.0 - 29.3

Source: Florida Youth Risk Behavior Survey

- Franklin County had the highest percent of high school students who reported binge drinking with 29.3% in 2010.
- Jefferson County had the lowest percent of high school students who reported binge drinking with 12.7% in 2010.

**HIGH SCHOOL STUDENTS REPORTING BINGE DRINKING BY COUNTY**  
(PERCENT; QUARTILE; 2010)  
(1=LOWEST AND 4=HIGHEST)

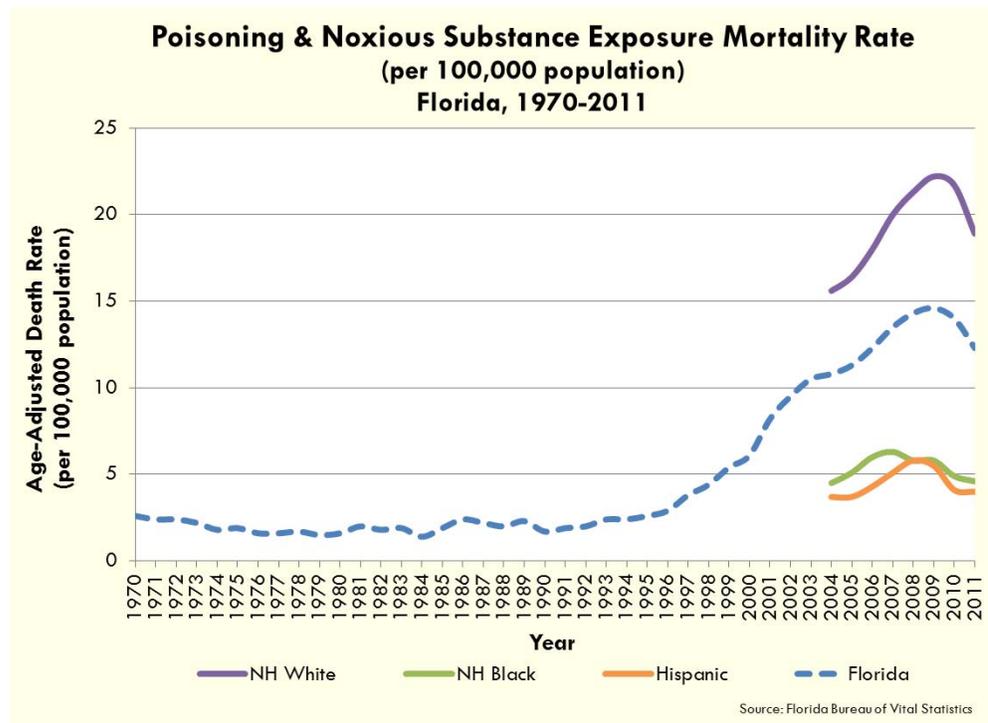
Alachua	21.5	3	Flagler	20.6	2	Lake	18.7	2	Pinellas	20.0	2
Baker	25.7	4	Franklin	29.3	4	Lee	17.0	1	Polk	18.3	1
Bay	22.2	3	Gadsden	14.6	1	Leon	21.9	3	Putnam	21.3	3
Bradford	18.6	2	Gilchrist	21.8	3	Levy	24.6	4	Santa Rosa	20.2	2
Brevard	18.0	1	Glades	26.8	4	Liberty	18.3	1	Sarasota	23.2	4
Broward	16.8	1	Gulf	22.3	3	Madison	23.7	4	Seminole	16.8	1
Calhoun	21.1	3	Hamilton	14.0	1	Manatee	20.9	2	St. Johns	23.0	4
Charlotte	20.0	2	Hardee	19.6	2	Marion	18.8	2	St. Lucie	25.9	4
Citrus	23.3	4	Hendry	15.8	1	Martin	23.3	4	Sumter	21.2	3
Clay	22.9	3	Hernando	21.5	3	Monroe	27.7	4	Suwannee	20.0	2
Collier	22.9	3	Highlands	22.6	3	Nassau	20.3	2	Taylor	22.5	3
Columbia	19.2	2	Hillsborough	22.4	3	Okaloosa	19.6	2	Union	17.2	1
Miami-Dade	18.4	1	Holmes	20.2	2	Okeechobee	*		Volusia	21.4	3
DeSoto	20.4	2	Indian River	20.6	2	Orange	17.9	1	Wakulla	25.2	4
Dixie	24.5	4	Jackson	21.0	3	Osceola	15.6	1	Walton	22.9	3
Duval	19.4	2	Jefferson	12.7	1	Palm Beach	21.0	3	Washington	26.3	4
Escambia	17.8	1	Lafayette	25.6	4	Pasco	18.5	1			

\*Okeechobee County did not participate in the 2010 Florida Youth Risk Behavior Survey

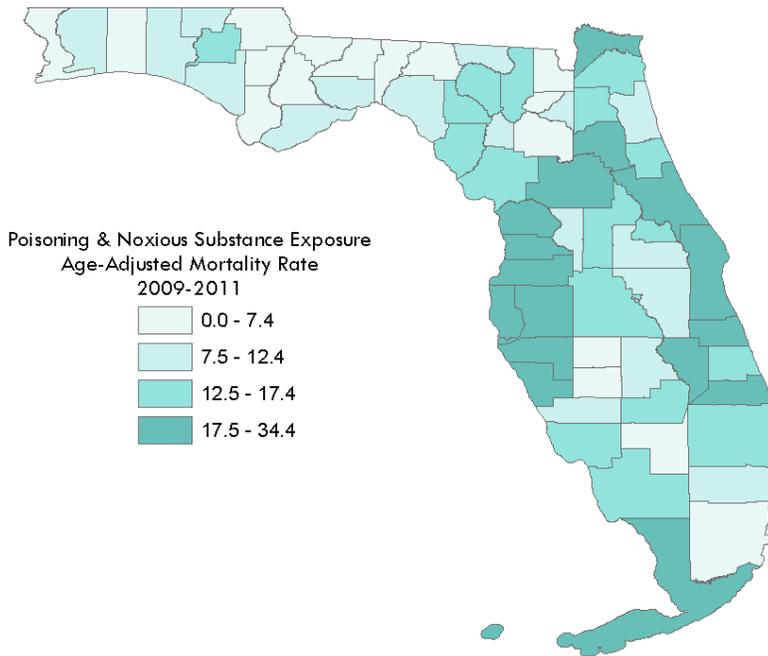
## PRESCRIPTION DRUG MISUSE

- Unintentional poisonings have now surpassed motor vehicle crashes as the leading cause of unintentional injury death among Floridians.

Florida has experienced a substantial rise in unintentional poisoning deaths over the past two decades—the overwhelming majority of which can be attributed to the misuse of prescription and illegal drugs. The number of unintentional poisonings, officially classified as ‘deaths from poisonings and noxious substance exposure’, rose from 954 deaths in 2000 to 2,288 deaths in 2011, or a rate of 2.6 per 100,000 population in 2000 to 12.3 per 100,000 in 2011. Consequently, unintentional poisonings have now surpassed motor vehicle crashes as the leading cause of unintentional injury death among Floridians.



PRESCRIPTION DRUG MISUSE



Poisoning & Noxious Substance Exposure  
Age-Adjusted Mortality Rate  
2009-2011

- 0.0 - 7.4
- 7.5 - 12.4
- 12.5 - 17.4
- 17.5 - 34.4

Source: Florida Bureau of Vital Statistics

- Liberty County had no deaths from poisoning and noxious substance exposure from 2009-2011.
- Pasco County had the highest 3-year mortality rate from poisoning and noxious substance exposure at 34.4 per 100,000 population.

**POISONING & NOXIOUS SUBSTANCE EXPOSURE MORTALITY RATE BY COUNTY**  
(AGE-ADJUSTED RATE PER 100,000 POPULATION; QUARTILE; 2009-2011)  
(1=LOWEST AND 4=HIGHEST)

Alachua	6.7	1	Flagler	14.2	3	Lake	14.1	3	Pinellas	25.8	4
Baker	6.5	1	Franklin	9.8	2	Lee	15.7	3	Polk	14.9	3
Bay	9.8	2	Gadsden	4.1	1	Leon	3.7	1	Putnam	21.4	4
Bradford	10.8	2	Gilchrist	8.6	2	Levy	12.6	3	Santa Rosa	8.8	2
Brevard	23.5	4	Glades	15.5	3	Liberty	0.0	1	Sarasota	22.1	4
Broward	11.5	2	Gulf	3.7	1	Madison	3.5	1	Seminole	13.0	3
Calhoun	7.3	1	Hamilton	11.7	2	Manatee	22.0	4	St. Johns	8.8	2
Charlotte	7.7	2	Hardee	3.9	1	Marion	18.1	4	St. Lucie	17.1	3
Citrus	23.4	4	Hendry	7.1	1	Martin	19.2	4	Sumter	8.9	2
Clay	13.7	3	Hernando	29.9	4	Monroe	17.6	4	Suwannee	17.4	3
Collier	13.6	3	Highlands	12.4	2	Nassau	19.0	4	Taylor	10.2	2
Columbia	14.6	3	Hillsborough	18.8	4	Okaloosa	7.4	1	Union	3.7	1
Miami-Dade	3.8	1	Holmes	8.4	2	Okeechobee	23.3	4	Volusia	20.0	4
DeSoto	3.9	1	Indian River	20.4	4	Orange	10.0	2	Wakulla	7.8	2
Dixie	16.2	3	Jackson	6.0	1	Osceola	8.4	2	Walton	10.0	2
Duval	13.5	3	Jefferson	4.1	1	Palm Beach	15.7	3	Washington	12.6	3
Escambia	7.4	1	Lafayette	14.9	3	Pasco	34.4	4			

# END NOTES

- 1 McGinnis JM and Foege WH. (1993). Actual Causes of Death in the United States. *Journal of the American Medical Association*. 270(18):2207-12.
- 2 Centers for Disease Control and Prevention. (2012). Health, United States, 2011. (<http://www.cdc.gov/nchs/hus/healthrisk.htm>)
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- 4 Centers for Disease Control and Prevention. (2008). Annual Smoking-Attributable Mortality, Years of Potential Life Lost, and Productivity Losses—United States, 2000–2004. *Morbidity and Mortality Weekly Report*. 57(45):1 226–8. (<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5745a3.htm>)
- 5 Centers for Disease Control and Prevention. (2012). Health Effects of Cigarette Smoking. ([http://www.cdc.gov/tobacco/data\\_statistics/fact\\_sheets/health\\_effects/effects\\_cig\\_smoking/](http://www.cdc.gov/tobacco/data_statistics/fact_sheets/health_effects/effects_cig_smoking/))
- 6 Organisation for Economic Co-Operation and Development. (2010). Obesity and the Economics of Prevention: Fit not Fat— United States Key Facts. (<http://www.oecd.org/health/healthpoliciesanddata/obesityandtheeconomicsofpreventionfitnotfat-unitedstateskeyfacts.htm>)
- 7 Cawley J and Meyerhoefer C. (2012). The Medical Care Costs of Obesity: An Instrumental Variables Approach. *Journal of Health Economics*. 31(1): 219-230. (<http://www.sciencedirect.com/science/article/pii/S0167629611001366>)
- 8 Trust for America’s Health. (2012). F as in Fat: How Obesity Threatens America's Future 2011. (<http://healthyamericans.org/report/88/>)
- 9 Centers for Disease Control and Prevention. (2008). 2008 Physical Activity Guidelines for Americans: Fact Sheet for Health Professionals on Physical Activity Guidelines for Adults. ([http://www.cdc.gov/nccdphp/dnpa/physical/pdf/PA\\_Fact\\_Sheet\\_Adults.pdf](http://www.cdc.gov/nccdphp/dnpa/physical/pdf/PA_Fact_Sheet_Adults.pdf))