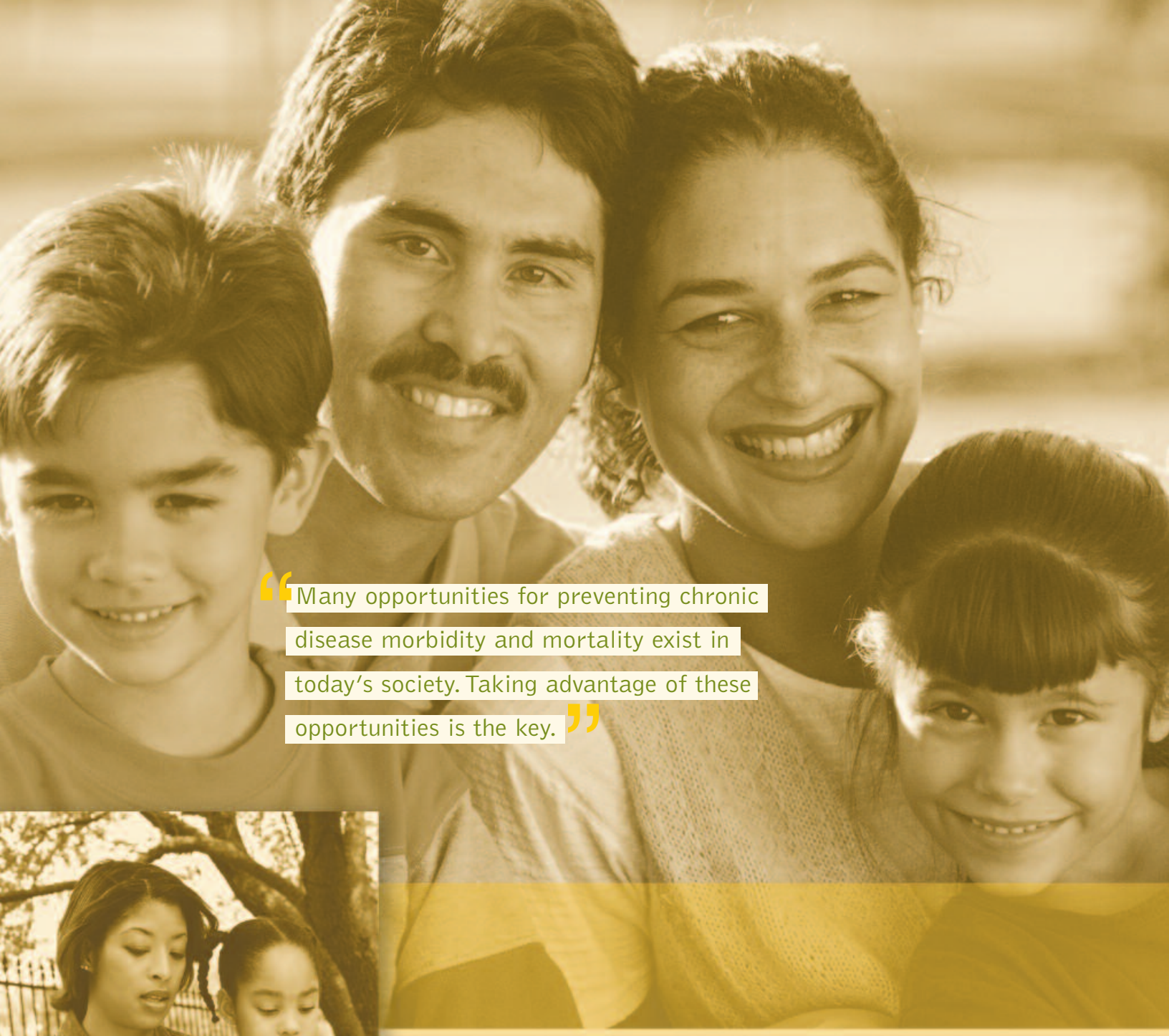

"Many opportunities for preventing chronic disease morbidity and mortality exist in today's society. Taking advantage of these opportunities is the key."

Florida Chronic Disease Report

2002

Florida Department of Health

Bureau of Chronic Disease Prevention and Health Promotion

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Letter from the Secretary

Dear Colleague:

I am pleased to present the 2002 Florida Chronic Disease Report. This report presents data about the leading causes of chronic disease death in Florida and the associated risk factors. In addition to presenting current data, the report also presents an historical perspective.

In Florida in 2002, chronic diseases accounted for 71% of all deaths. Cardiovascular disease alone accounted for 38% of all deaths. Another 23% of all deaths were due to malignant neoplasms. One of the key messages is prevention. Many opportunities exist in today's society for preventing chronic disease morbidity and mortality:

- Eliminate tobacco use
- Achieve and maintain an ideal body weight
- Increase physical activity level
- Eat a nutritious, balanced diet
- Consume alcohol in moderation
- Know your status – asymptomatic conditions increase the risk of morbidity and mortality due to chronic diseases

This report is a project of the Bureau of Chronic Disease Prevention and Health Promotion. It is our hope that these data will be used to create a healthier Florida for ourselves, our children, and future generations.

John O. Agwunobi, M.D., M.B.A., M.P.H.

Secretary, Department of Health

Executive Summary

Morbidity and Mortality

In Florida in 2002, chronic diseases accounted for 71% of all deaths. Cardiovascular disease alone accounted for 38% of all deaths. Another 23% of all deaths were due to malignant neoplasms.

During the last half of the twentieth century, cardiovascular disease age-adjusted mortality rates declined. During the 1990s and into 2002, age-adjusted mortality rates for cardiovascular disease continued to decline; however, the economic impact increased as hospital discharges increased, and costs per day increased. In addition, the benefit from decreased mortality rates was unevenly distributed among the geographic regions of Florida.

Cancer age-adjusted mortality rates increased between 1950 and 1990, but decreased between 1990 and 2002. As with cardiovascular disease, hospital costs related to cancer increased. Age-adjusted cancer mortality rates vary greatly by sex and race/ethnicity. Mortality rates due to lung and colorectal cancer are higher among men compared to women, and lung cancer mortality rates are higher among non-Hispanic blacks and non-Hispanic whites compared to Hispanics. Prostate cancer mortality rates are higher among non-Hispanic black men compared to non-Hispanic white and Hispanic men, and breast cancer mortality rates are lowest among Hispanic women.

Diabetes age-adjusted death rates declined between 1950 and 1980, but have been increasing since that point. Diabetes mortality rates are higher among males compared to females, and among non-Hispanic blacks compared to Hispanics and non-Hispanic whites. Hospitalization rates for diabetes increased in the 1990s and into 2002, and were highest among non-Hispanic blacks.

Chronic liver disease/cirrhosis age-adjusted mortality rates peaked in 1970, declined between 1970 and 1990, and were unchanged between 1990 and 2002. Deaths due to chronic liver disease/cirrhosis in the 1990s and into the twenty-first century were primarily among men, non-Hispanic whites, and non-Hispanic blacks. Chronic liver disease/cirrhosis mortality rates were stable among men during the 1990s and into the twenty-first century, while rates declined among women. Hospital discharge rates were far higher among males than females, and during the last half of the 1990s and into the twenty-first century, higher among Hispanics.

CLRD age-adjusted mortality rates increased markedly between 1950 and 2000. Between 1990 and 2002 alone, CLRD mortality rates increased over 22%. The largest increase in CLRD mortality rates was observed among women; however, rates among men remained above those observed among women. CLRD mortality rates were also higher among non-Hispanic whites compared to non-Hispanic blacks and Hispanics. Hospital costs for CLRD doubled in the 1990s and into the twenty-first century.

Prevention

Many opportunities for preventing chronic disease morbidity and mortality exist in today's society:

1) Eliminate Tobacco Use

Eliminating the use of tobacco would greatly decrease the risk of cancer (lung, oral, esophageal, and laryngeal), cardiovascular disease (coronary heart disease and stroke), and CLRD (emphysema, chronic bronchitis, and chronic airway obstruction). Four decades ago (1964), the U.S. Surgeon General issued a report linking cigarette smoking with lung cancer. Still, in Florida in 2002, 22.0% of adults, 17.8% of public high school students, and 9.2% of public middle school students currently smoked cigarettes.

2) Achieve and Maintain an Ideal Body Weight

After tobacco use, poor nutrition and physical inactivity, together, are the second leading cause of death prior to reaching life expectancy. Overweight and obesity result from the combination of physical inactivity and overnutrition. Overweight and obesity increase the risk of developing cardiovascular disease and diabetes. In Florida, the prevalence of overweight (including obesity) among adults increased by 35% between 1987 and 2002, reaching a prevalence of 57.0%. The prevalence of obesity nearly doubled during this same time resulting in nearly one in five (19.4%) adults being obese.

3) Increase Physical Activity Level

Regular physical activity reduces the risk of dying from cardiovascular disease and developing diabetes or hypertension, and also aids in weight control and maintaining healthy bones, muscles, and joints. In 2002, 27.9% of Florida adults were considered sedentary (participated in no leisure-time physical activities), and only 21.4% participated in regular, vigorous exercise.

4) Eat a Nutritious, Balanced Diet

Among Americans who do not smoke cigarettes, unhealthy diet and exercise patterns are the major cause of death and disability. A nutritious, balanced diet aids in preventing overweight and obesity, hypertension, and elevated serum cholesterol. In Florida in 2002, over three-fourths of all adults did not eat the recommended two servings of fruits and three servings of vegetables per day.

5) Consume Alcohol in Moderation

Chronic and excessive alcohol use affects every organ of the body. Years of alcohol abuse can result in liver disease, gallstones, acute pancreatitis, degenerative changes of the heart and skeletal muscle, and reproductive disorders. Alcohol consumption is also a major risk factor for hypertension and contributes to diabetes and neurologic disorders. In Florida in 2002, 13.7% of adults were chronic drinkers (average of one or more alcoholic drinks per day for women and two or more for men). Alcohol use is not just an adult issue. Nationwide, 32% of high school students report having their first alcoholic drink prior to reaching 13 years of age. Males and non-Hispanic whites are more likely to be chronic and binge drinkers (having five or more drinks on one occasion) compared to their counterparts.

6) Know Your Status

Asymptomatic conditions increase the risk of morbidity and mortality due to chronic diseases. For example, hypertension and elevated serum cholesterol contribute substantially to the risk of developing cardiovascular disease. Having regular medical exams and screenings for hypertension and elevated serum cholesterol increases the chances of early detection and treatment. Regular screening exams are also important in the early detection and treatment of many cancers.

Although there have been many medical advances made in the last half of the twentieth century for treatment of the chronic diseases described in this monograph, prevention remains the most effective avenue to decrease the burden of chronic disease.

CHAPTER 1

Introduction

The twentieth century experienced a change in the major causes of death from infectious disease agents to chronic diseases. In 1900, the leading causes of death in the United States were pneumonia and influenza, tuberculosis, and gastrointestinal diseases such as gastritis, enteritis, and colitis. In the 1990s and into the twenty-first century, heart disease, cancer, and cerebrovascular disease (stroke) accounted for nearly two-thirds of all deaths.

Likewise, the primary emphasis of public health prevention and intervention has begun to shift from communicable disease investigations and preventive measures to understanding the role of behavioral and environmental risk factors in the development of chronic diseases. Additionally, public health has incorporated efforts to minimize these risks, thus attempting to prevent death prior to reaching life expectancy and attempting to prevent disability due to chronic diseases within the population.

Whereas most communicable diseases have defined causes, courses of illness, and remedies, chronic diseases are generally characterized by unknown or complex etiologies, long latency periods, and long courses of illness. In addition, chronic diseases do not typically resolve spontaneously, and a complete cure is a rarity.

Specific etiologies of many chronic diseases remain unknown. However, epidemiologists have identified a number of risk factors that are associated with chronic diseases. Some of the identified risk factors are environmental, such as pollution and exposure to environmental tobacco smoke (ETS). Others are genetic. Most, however, are behavioral. For example, poor diet, physical inactivity, obesity, and tobacco use are risk factors for cardiovascular disease, diabetes, cancer, and musculoskeletal diseases, such as osteoarthritis. Reducing just one of these behaviors in the population can reduce the risk of many chronic diseases.

Chronic disease control and prevention can be a very arduous task. First, some chronic disease categories may be composed of many diseases with different etiologies and risk factors. For example, both "cancer" and "arthritis" are general terms for more than a hundred separate, but related, diseases. In addition, although many risk factors are modifiable, there are many genetic and physiological factors that increase the risk of developing chronic diseases that are not modifiable. And, lastly, chronic diseases typically involve long latency periods and long disease duration which cause slow changes in disease trends. Therefore, intervention and prevention efforts must be implemented relentlessly and with a long-term perspective.

This report focuses on the chronic diseases that were the leading causes of death from 1990 to 2002 in Florida. The findings and recommendations are based on the analysis of data from numerous sources. The data sources, analysis methods, disease definitions, and other technical information are discussed in Chapter 2. Chapter 3 discusses risk behavior data obtained from the U.S. and Florida Behavioral Risk Factor Surveillance System (BRFSS). Risk behaviors (e.g., tobacco use, overweight and obesity, and physical inactivity) and medical screening utilization (e.g., mammography) are discussed, as well as biological markers such as hypertension and elevated serum cholesterol. Chapter 4 includes data for the leading causes of death in 2002 and a historical perspective of chronic disease in Florida since 1950. Chapter 5 contains Florida mortality and hospital discharge data from 1990 to 2002, showing trends within the decade and rates stratified by sex and race/ethnicity for chronic diseases that are among the leading causes of death. This chapter also contains cancer incidence data for the same time span.

CHAPTER 2

Background and Methods

Surveillance, as with communicable disease, is a fundamental part of chronic disease prevention and control. Surveillance is necessary to identify populations who are at risk for developing chronic disease, to evaluate the effectiveness of interventions, to identify emerging chronic diseases, and to track secular trends. Surveillance is the on-going, systematic collection, analysis, and interpretation of health data that are essential to the planning, implementation, and evaluation of public health practices. Surveillance also includes dissemination of information in a timely manner to the appropriate audiences, and the application of surveillance findings to disease prevention and health promotion programs.

Data analyzed for this report were from a number of sources including vital statistics data, census data, health survey data, and hospital discharge data. Point estimates and frequencies were determined using SAS version 8.2 (Statistical Analysis System). Confidence intervals and regression analyses for BRFSS and Florida Youth Tobacco Survey data (described below) were calculated using SUDAAN version 7.5 (Software for the Statistical Analysis of Correlated Data).

U.S. Census Data

These data are estimates of the resident population of the counties in Florida by age, sex (male, female), and race/ethnicity (white; black; American Indian, Eskimo and Aleutian; Asian and Pacific Islander; and Hispanic origin) for July 1 of each year from 1990 through 1999 and 2001 through 2002. The estimates were determined by the U.S. Census Bureau. A census is done every ten years in which an attempt is made to count every person in the U.S.; therefore, the population numbers for 2000 represent the census count instead of estimates.

The county estimates included in these data are developed in a two-step procedure. First, a set of state estimates by age, sex, and race/ethnicity (with the same categories as given above) is developed using a cohort-component technique. The county detail estimates are produced in the second step using a ratio method. The ratio method is a mathematical technique for adjusting data to sum to a pre-determined total. It consists of multiplying each element of the data by the ratio formed by dividing the desired total by the sum of the data. When there are multiple totals to which to adjust the data, as with county estimates, the data are partitioned into groups that correspond to the desired totals, then ratios are constructed and applied for each group using the same method as in the single-total situation. The state detail estimates, along with the estimates of the total population of counties, serve as the control totals for the county detail estimates.

Race/ethnicity groups were developed based on the race/ethnicity contained in the file. The populations were grouped into non-Hispanic white, non-Hispanic black, and Hispanic (white or black). These race/ethnicity categories were used for the analyses in this report unless stated otherwise.

Mortality Data

Data on mortality were compiled and tabulated by the Florida Department of Health, Bureau of Vital Statistics. Age-adjusted death rates for 1990-2002 were calculated using the year 2000 standard million population (U.S. population).

Hospital Discharge Data

Hospital discharge rates and charges were compiled using an administrative database of all Florida hospital discharges

(with the exception of government hospitals). This database is managed by the Florida Agency for Health Care Administration (AHCA). These data represent all hospital discharges; therefore, a single resident may have multiple discharges.

Risk Factors

The prevalences of behavioral risk factors and use of preventive services were estimated using data from the Florida Behavioral Risk Factor Surveillance System (BRFSS). The BRFSS is a telephone survey that is conducted throughout the year by the Florida Department of Health in cooperation with the Centers for Disease Control and Prevention. It collects health information from randomly selected, non-institutionalized Florida adults aged 18 years and older.

The prevalences of youth tobacco use were estimated from the Florida Youth Tobacco Survey (FYTS). The FYTS is a survey of Florida public middle (grades 6–8) and high (grades 9–12) school students in classrooms and schools that were randomly selected using a two-stage cluster design. The FYTS is conducted by the Florida Department of Health in cooperation with the Florida Department of Education and was administered annually from 1998 to 2002.

Disease Coding

Hospital discharge and mortality data are coded to indicate the primary diagnosis for hospitalization or the underlying cause of death, respectively. The coding system used is the International Classification of Diseases, Ninth Revision (ICD-9) for years prior to 1999 and ICD-10 (Tenth Revision) for 1999 and later. The ICD codes in Table 2-1 below were used for compiling data for this report.

TABLE 2-1. ICD-9 and ICD-10 codes for selected chronic diseases.

Disease	ICD-9 Codes	ICD-10 Codes
Cardiovascular Disease	390-459	I00-I78
Cerebrovascular Disease (Stroke)	430-438	I60-I69
Coronary Heart Disease	410-414, 429.2	I20-I25
Chronic Lower Respiratory Disease (CLRD, formerly Chronic Obstructive Pulmonary Disease)	490-496	J40-J47
Diabetes Mellitus	250	E10-E14
Chronic Liver Disease and Cirrhosis	571	K70, K73-K74
Breast Cancer (Female)	174	C50
Colorectal Cancer	153-154.1	C18-C21
Prostatic (Prostate) Cancer	185	C61
Lung Cancer	162	C33-C34

Disease Definitions

The following definitions describe the chronic diseases included in this report.

Cardiovascular Disease

Cardiovascular disease refers to numerous and varied diseases of the heart and blood vessels. Cardiovascular disease includes coronary heart disease and stroke, which are discussed in this report, plus hypertension and rheumatic heart disease.

Coronary Heart Disease

Coronary heart disease is also known as coronary artery disease or ischemic heart disease. Coronary heart disease results from decreased circulation to the heart muscle, most frequently the result of narrowing of the coronary arteries by atherosclerosis (deposits of lipid-containing plaque along the walls of the artery).

Stroke or Cerebrovascular Disease

Stroke or cerebrovascular disease is a group of diseases that affect the arteries of the central nervous system and result from a clogged or ruptured artery. The loss of blood flow to the nerve tissue in the affected part of the brain causes tissue death within minutes and often results in neurologic deficits.

Cancer

Cancer is a group of diseases characterized by uncontrolled growth and spread of abnormal cells (neoplasms). Abnormal tissue enlargement – tumors – may be benign or malignant. Malignant tumors (often referred to as "cancers") contain abnormal genetic material, grow rapidly, are often invasive, and spread throughout the body (known as metastasizing). Benign tumors grow slowly and are not typically associated with mortality. The cancer diseases described in this report, which are the leading causes of cancer death, are lung cancer, colorectal cancer, breast cancer in women, and prostate cancer.

Lung Cancer

Lung cancer includes malignant neoplasms of the lung, trachea, and bronchus.

Colorectal Cancer

Colorectal cancer includes malignant neoplasms of the colon, rectum, and anus.

Breast Cancer

Breast cancer includes malignant neoplasms of the breast and surrounding tissue. Breast cancer in men is extremely rare; therefore, this report describes breast cancer in women.

Prostate Cancer

Prostate cancer includes malignant neoplasms of the prostate gland. The prostate gland is part of the male reproductive system.

Diabetes Mellitus

Diabetes mellitus – commonly called diabetes – is a group of diseases in which the tissues that utilize glucose – muscle, fat and liver – are unable to obtain adequate amounts of insulin due to underproduction by the pancreas or impaired glucose uptake by the tissue cells. Insulin is the hormone, produced by pancreatic beta cells, that binds to receptors on the surface of tissue cells and allows glucose to enter the cells.

There are four main types of diabetes. Type 1 diabetes was previously called insulin-dependent diabetes mellitus (IDDM) or juvenile-onset diabetes. Type 1 diabetes develops when the body's immune system destroys pancreatic beta cells, the only cells in the body that make the hormone insulin that regulates blood glucose. This form of diabetes typically affects children and young adults who need several insulin injections a day or an insulin pump to survive. Type 1 diabetes accounts for 5% to 10% of all diagnosed cases of diabetes.

Type 2 diabetes was previously called non-insulin-dependent diabetes mellitus (NIDDM) or adult-onset diabetes. Type 2 diabetes accounts for about 90% to 95% of all diagnosed cases of diabetes. This type usually begins as insulin resistance, a disorder in which the cells do not use insulin properly. As the need for insulin rises, the pancreas gradually loses its ability to produce insulin. Type 2 diabetes is associated with older age, obesity, family history of diabetes, prior history of gestational diabetes, impaired glucose tolerance, physical inactivity, and race/ethnicity. African Americans, Hispanic/Latino Americans, American Indians, and some Asian Americans and Pacific Islanders are at particularly high risk for this type of diabetes. Type 2 diabetes is increasingly being diagnosed in children and adolescents, especially those who are overweight.

Gestational diabetes is a form of glucose intolerance that is diagnosed in some women during pregnancy. Gestational diabetes occurs more frequently among African Americans, Hispanic/Latino Americans, and American Indians. It is also more common among obese women and women with a family history of diabetes. During pregnancy, gestational diabetes requires treatment to normalize maternal blood glucose levels to avoid complications in the infant. After pregnancy, 5% to 10% of women with gestational diabetes are found to have type 2 diabetes. Women who have had gestational diabetes have a 20% to 50% chance of developing diabetes 5-10 years after the pregnancy.

Other specific types of diabetes result from specific genetic conditions (such as maturity-onset diabetes of youth), surgery, drugs, malnutrition, infections, and other illnesses. Such types of diabetes account for 1% to 5% of all diagnosed cases of diabetes.

Chronic Lower Respiratory Disease (CLRD), formerly known as Chronic Obstructive Pulmonary Disease

CLRD is a group of diseases which include chronic bronchitis, emphysema, and chronic airway obstruction. This group of diseases does not include asthma. CLRD is characterized by nonspecific changes in the lung bronchi and surface tissue that lead to chronic lung function impairment. Unlike asthma, the impairment in lung function for those with CLRD is largely irreversible and progressive.

Chronic Liver Disease and Cirrhosis

Chronic liver disease and cirrhosis is a group of diseases that result in chronic impaired function of the liver. The liver has a variety of functions, including bile secretion, blood formation, and carbohydrate, fat, protein, mineral, and vitamin metabolism. Chronic liver disease includes alcoholic liver disease and cirrhosis.

Florida Demographics

Despite a recent slowing in the rate of growth in the number of its new residents, Florida remains one of the fastest growing states in the nation. During the 1980s, the number of people in the state increased by 3.2 million, second only to California. This represents nearly a 33% increase in population over that decade, and as a result, Florida surpassed Ohio, Illinois, and Pennsylvania to become the fourth largest state. Rapid population growth in Florida is not unusual. Florida has been one of the top four states in population growth rates in every decade since the 1920s.

According to the 2000 census, the total state population as of April 1, 2000 was 15,982,378, an increase of 3,044,452 over the 1990 census count. This means that during the decade of the 1990s, Florida experienced a population growth of 23.5%, compared to a 13.2% growth rate for the U.S. Slower growth is expected during the first decade of the twenty-first century, with Florida's population growing to 17,942,330 by April 1, 2010 (a 15.6% increase over 2000).

Between 1990 and 2000, there were substantial increases in the percent of the population in race/ethnic groups other than non-Hispanic white. Table 2-2 in the appendix shows the percent of the population represented by non-Hispanic whites, non-Hispanic blacks, Hispanics, and those of any other race/ethnicity between 1990 and 2000, by county and for the state as a whole.

The most notable changes in population were the increase in Hispanics and those of other race/ethnicity groups. For the state as a whole, the Hispanic population increased by 38% and the percent of other race/ethnicity groups more than doubled between the two latest census counts. Non-Hispanic blacks increased by 8% and non-Hispanic whites decreased by 11%.

In 2000, the composition of the Florida population varied by county. Non-Hispanic whites comprised a low of 20.7% of the population in Miami-Dade County to a high of 93.0% of the population in Citrus County. Non-Hispanic blacks comprised a low of 2% of the population in Pasco County to a high of 56.8% of the population in Gadsden County. Hispanics comprised a low of 1.5% of the population in Nassau County to a high of 57.3% of the population in Miami-Dade County.

The burden of chronic disease tends to vary by personal factors, such as race/ethnicity, sex, and age. It is important to track population trends when evaluating the prevalence and impact of diseases over time and throughout the state.

CHAPTER 3

Chronic Disease Risk Factors

This chapter presents data describing the occurrence of risk factors that are associated with the development of chronic diseases and conditions. Risk factors are aspects or exposures that, on the basis of epidemiologic evidence, are known to be associated with health-related conditions. Risk factor aspects and exposures include personal behavior, lifestyle, environmental exposures, and genetic characteristics. Modifiable risk factors are those that are changeable, such as tobacco use, poor nutrition, and physical inactivity. Non-modifiable risk factors are those that cannot be changed, such as gender, race/ethnicity, and genetic predisposition to diseases or conditions. Some risk factors are potentially modifiable, such as education level and income.

Individuals may exhibit one or more risk factors associated with developing a chronic disease or condition. Reducing the number of risk factors exhibited reduces the risk of developing associated chronic diseases or conditions.

The most notable modifiable risk factors are behavioral in nature. Tobacco use (which is both a behavioral risk factor and an environmental risk factor), physical inactivity, and poor nutrition are associated with a number of chronic illnesses, including coronary heart disease, stroke, and diabetes. Other modifiable behavioral risk factors discussed in this chapter are overweight and obesity (by-products of poor nutrition and physical inactivity) and alcohol use.

The utilization of screening tests, such as mammography, pap smear, blood pressure, and serum cholesterol checks are also discussed as modifiable risk behaviors. Although utilization of these screening tests does not prevent chronic illnesses, it does greatly increase the likelihood of early detection and treatment, which increases the chances of long-term survival and, sometimes, a cure.

Tobacco Use

Tobacco use is the leading preventable cause of premature death. Use of tobacco increases the risk of cancers (lung, oral, esophageal, laryngeal), cardiovascular disease (coronary heart disease, stroke), and chronic lower respiratory disease (emphysema, chronic bronchitis, chronic airway obstruction). Although cigarette smoking has decreased greatly in the U.S. since the mid-1960s, the downward trend has flattened in the 1990s and into the twenty-first century among people of both sexes and from all race/ethnicity groups. Between 1995 and 1999, cigarette smoking caused more than 440,000 deaths each year, or about 20% of the total U.S. annual mortality. Of these annual deaths, approximately 148,000 resulted from cardiovascular disease; 156,000 from cancers; 98,000 from respiratory diseases; and 3,000 from environmental tobacco smoke (ETS)-induced lung cancer. In addition, it has been estimated that approximately 35,000 ischemic heart disease deaths in the U.S. are caused by ETS. Among U.S. adults in 2000, current cigarette smoking was reported by 24.1% of non-Hispanic whites, 18.6% of Hispanics, and 23.2% of non-Hispanic blacks.

Among Florida adults, current cigarette use declined between 1986 and 1993 from 28.8% to 21.4% (see Figure 3-1). Since 1993, however, current smoking among adults has remained stable. In 2002, 23.3% of non-Hispanic white, 17.5% of non-Hispanic black and 19.3% of Hispanic adults currently smoked cigarettes. Another 30.1%, 10.8%, and 17.7%, respectively, were former smokers and 46.6%, 71.7%, and 63.0%, respectively, never smoked cigarettes.

Tobacco use is not limited to adults. In 1998, the first administration of the Florida Youth Tobacco Survey, 18.5% of Florida public middle and 27.4% of Florida public high school students currently smoked cigarettes. In 2002, the prevalence of current cigarette use dropped to 9.2% among middle and 17.8% among high school students.

Figure 3-1. Percent of Florida adults who are current cigarette smokers, by year, Florida BRFSS, 1986-2002

Among Florida middle school students (grades 6-8) in 1998, current smoking prevalence was 22.0% among non-Hispanic whites, 9.5% among non-Hispanic blacks, and 16.8% among Hispanics. In 2002, these rates declined to 11.4%, 4.3%, and 8.2%, respectively. Among Florida high school students (grades 9-12), current smoking prevalence in 1998 was 34.8% among non-Hispanic whites, 9.8% among non-Hispanic blacks, and 24.8% among Hispanics. These rates were 23.5%, 6.2%, and 16.3%, respectively, in 2002.

In Florida in 2002, there were a total of 160,946 deaths among those aged 35 years and older. Of these deaths, 31,442 or 18.9% were attributable to smoking. The smoking-attributable mortality rate varied by county, from a low of 230.73 deaths per 100,000 population in Miami-Dade County to a high of 521.36 deaths per 100,000 population in Citrus County (see Table 3-1 in appendix).

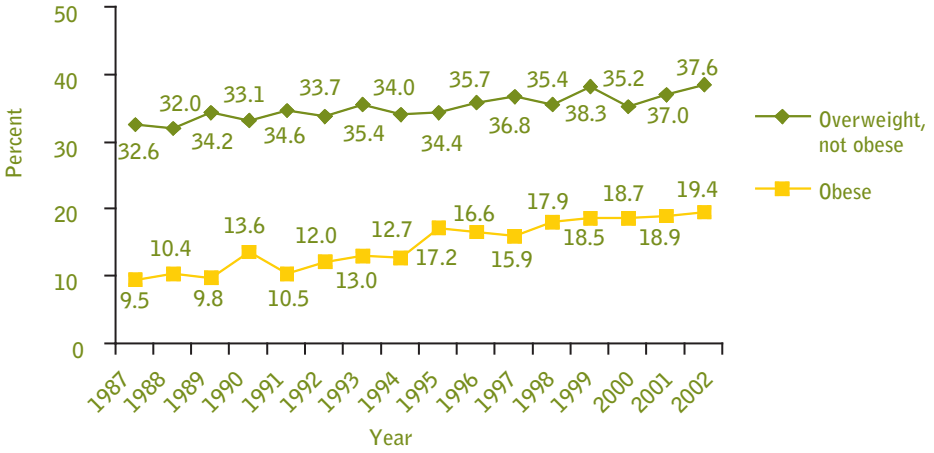
County-level smoking prevalence data for adults are available for 2002 (see Table 3-2 in appendix). Prevalence of current smoking ranged from a low of 16.4% in Leon County to a high of 35.5% in Glades County.

Overweight and Obesity

Overweight and obesity are functions of two other chronic disease risk behaviors – overnutrition and physical inactivity (caloric intake and caloric expenditure). Overweight and obesity are determined using body mass index (BMI) cut-points. A person with a BMI of 25 to 29.9 is considered overweight and a BMI of 30 or more is considered obese. In the U.S. between 1977–1978 and 1994–1998, daily caloric intake increased among male adults from 2,239 kcal (kilocalories) to 2,455 kcal. Among women, daily caloric intake increased from 1,534 kcal to 1,646 kcal. Additionally, 60% of adults do not participate in the recommended amount of regular physical activity and 25% of adults are considered sedentary.

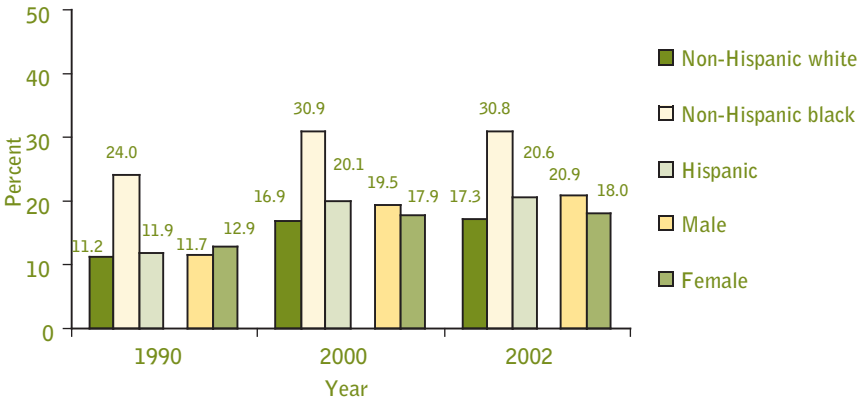
In the U.S., obesity among adults increased more than 75% between 1991 and 2002, from 12.6% to 22.1%. In Florida, the prevalence of obesity more than doubled from 9.5% in 1987 to 19.4% in 2002 (see Figure 3-2), and the prevalence of overweight (including obesity) increased by 35.4% between 1987 and 2002, from 42.1% to 57.0%.

FIGURE 3-2. Percent of Florida adults who are overweight and percent who are obese, by year, Florida BRFSS, 1987-2002



The prevalence of obesity in Florida varies by race/ethnicity and sex (see Figure 3-3). Throughout the 1990s and into the twenty-first century, the prevalence of obesity was higher among non-Hispanic blacks compared to non-Hispanic whites and Hispanics. Among non-Hispanic blacks, the prevalence of obesity increased 28% between 1990 and 2002, from 24.0% to 30.8%.

Figure 3-3. Percent of Florida adults who are overweight and obese, by race/ethnicity and sex, Florida BRFSS, 1990, 2000, and 2002



Among non-Hispanic whites and Hispanics, the prevalence of obesity increased by 54% and 73%, respectively, during the same time period. Obesity increased by 79% among males and by over one-third among women between 1990 and 2002, resulting in the prevalence of male obesity surpassing the prevalence observed among females.

County-level overweight and obesity prevalence data are available for 2002 (see Tables 3-3 and 3-4 in appendix). The prevalence of overweight ranged from a low of 47.7% in Dixie County to a high of 71.6% in Liberty County. The prevalence of obesity ranged from a low of 15.2% in Martin County to a high of 38.9% in Liberty County.

Multi-variable logistic regression analysis of 1990-2000 BRFSS data shows that, accounting for all variables in the model, those who were obese were more likely to be non-Hispanic black, had incomes less than $15,000 per year, had a high school education or less, tended to be older, and were less likely to participate in regular, vigorous physical activities (see Table 3-5 in appendix). Non-Hispanic blacks were 79% more likely than their non-Hispanic white counterparts to be obese. Those who earned less than $15,000 per year were 18% more likely to be obese than those who earned $50,000 or more per year. Those with less than four years of college were 21-56% more likely to be obese than those with four or more years of college. After 29 years of age, adults were one-third to 2.2 times more likely to be obese compared to those who were 29 years of age or younger. Lastly, those who did not participate in regular, vigorous exercise were 22-94% more likely to be obese compared to those who participated in these activities.

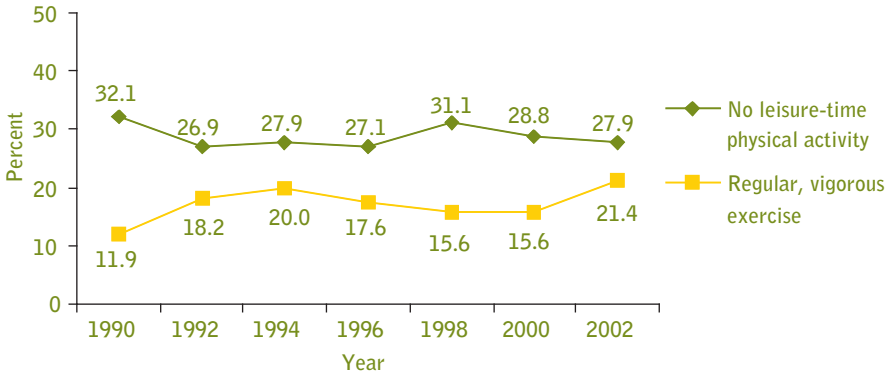
Physical Inactivity

Regular physical activity improves health by reducing the risk of dying prior to reaching average life expectancy, dying from heart disease, developing diabetes, developing high blood pressure, and developing colon cancer. Regular physical activity also reduces feelings of depression and anxiety, aids in weight control, helps maintain healthy bones, muscles and joints, and aids older adults in becoming stronger, thus, preventing injuries. Nationwide, more than 60% of adults do not achieve the recommended amount of regular physical activity. In fact, 25% of all U.S. adults are not active at all.

Nationally, inactivity increases with age and is more common among women than men, as well as among those with lower income and less education compared to their counterparts with higher income and more education. Nearly half of adolescents aged 12–21 are not vigorously active on a regular basis and physical activity declines dramatically with age during adolescence. In 2001, 52.0% of female and 44.4% of male U.S. high school students reported not participating in physical education classes in school.

In Florida, between 1990 and 2002, approximately 28–30% of adults did not participate in any leisure-time physical activities. In addition, for a majority of 1990–2002, less than one in five adults participated in regular, vigorous exercise (see Figure 3-4).

FIGURE 3-4. Percent of Florida adults who engage in no leisure-time physical activity and percent who participate in regular, vigorous exercise, by year, Florida BRFSS, 1990-2002



County-level data on the prevalence of no leisure-time physical activity, moderate activity, and vigorous activity are available for 2002 (see Tables 3-6, 3-7 and 3-8 in appendix).

The likelihood of being physically inactive was higher among non-Hispanic blacks and Hispanics compared to non-

Hispanic whites, and higher among women compared to men. The likelihood of a sedentary lifestyle increases with decreasing income and education, and with increasing age (see Table 3-9 in appendix).

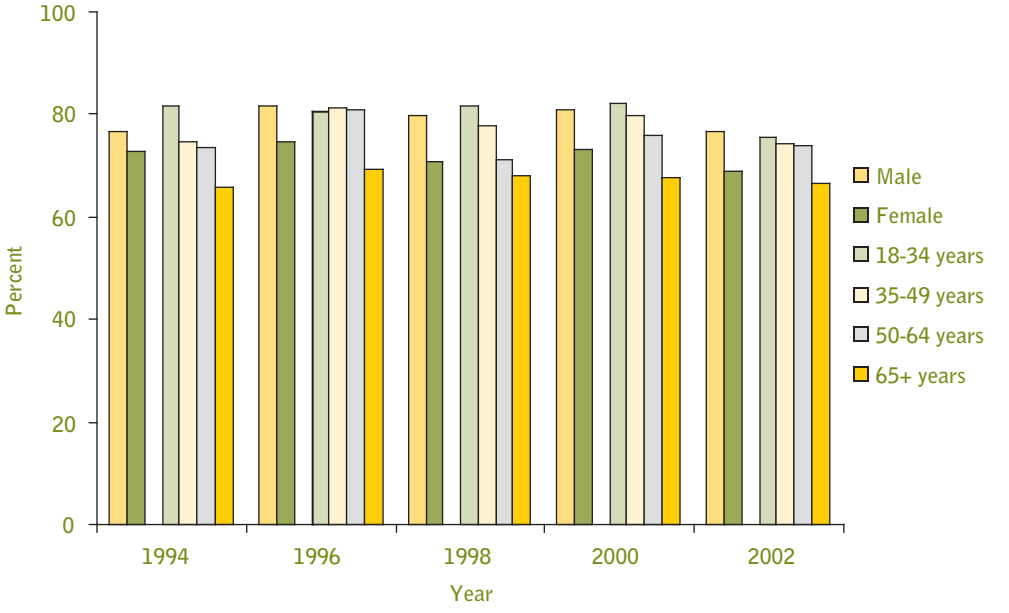
Diet and Nutrition

Among the large majority of Americans who do not smoke, unhealthy diet and exercise patterns are the major cause of death and disability. Diets rich in fruits, vegetables, and whole grains are associated with a reduced risk of cancer, cardiovascular disease, overweight and obesity, diabetes, and death prior to reaching life expectancy.

Poor nutrition touches all ages. Among U.S. adults in 2002, 76.4% of Hispanics, 77.5% of blacks, and 76.7% of whites reported eating fewer than five servings of fruits and vegetables per day. Among U.S. high school students in 2001, 79.8% of whites, 75.5% of blacks, and 76.8% of Hispanics reported eating fewer than five servings of fruits and vegetables per day.

In Florida, more than three-fourths of all adults did not eat the recommended number of servings of fruits and vegetables (at least five) per day. Fruit and vegetable consumption was first measured by the BRFSS in 1994. Men have a higher prevalence of inadequate fruit and vegetable consumption compared to women, and adequate vegetable consumption increases with increasing age (see Figure 3-5). County-level data are available for 2002 (see Table 3-10 in the appendix).

FIGURE 3-5: Percent of Florida adults who did not consume the recommended number of servings of fruits and vegetables, by year, sex, and age group, Florida BRFSS, 1994-2002



Alcohol Use

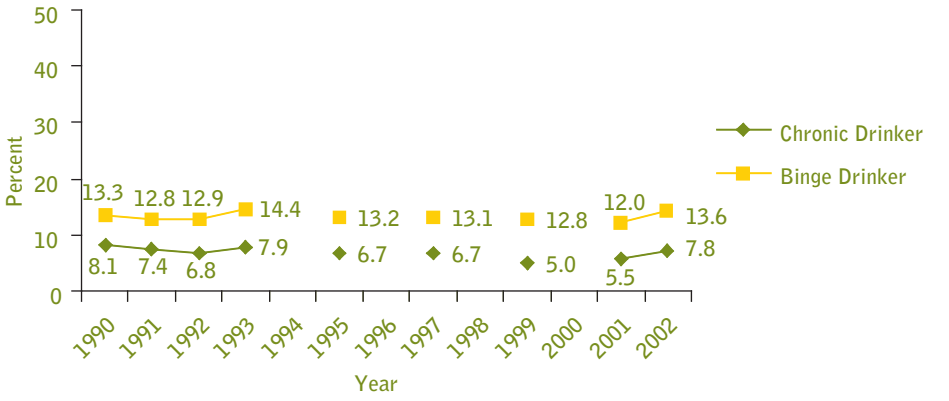
Excessive alcohol use accounts for approximately 5% of the total deaths each year in the U.S., making it the fourth leading cause of death after heart disease, cancer, and stroke. Mortality from all causes is markedly elevated in alcoholics. Alcohol affects every organ of the body, most critically the brain. After years of heavy use, an alcoholic may suffer nutritional deficiency, repeated episodes of trauma, liver failure, and lesions on the brain due to the toxic effect of alcohol and its metabolites. Alcohol abuse can lead to a variety of chronic health problems, such as liver disease, gallstones, acute pan-

creatitis, degenerative changes of the heart and skeletal muscle, and reproductive disorders. Also, alcohol consumption is a major risk factor for high blood pressure, contributes to diabetes and neurologic disorders, and is associated with increased risk of cancer of the liver, esophagus, nasopharynx, and larynx.

Alcohol use is not just an adult issue. Nationwide, 32.0% of high school students report having their first alcoholic drink before the age of 13 years. Among high school students, males are significantly more likely than females to drink alcohol prior to 13 years of age.

Overall, per capita alcohol consumption has been decreasing since the 1980s. Two levels of alcohol consumption were examined in Florida using data from the 1990-2002 BRFSS (see Figure 3-6). The first level, chronic drinking, is defined as an average of one alcoholic drink among women and two alcoholic drinks among men on most days during the past 30 days. The second level, binge drinking, is defined as five or more alcoholic drinks on one occasion in the past 30 days.

FIGURE 3-6. Percent of Florida adults who are chronic drinkers and percent who are binge drinkers, by year, Florida BRFSS, 1990-2002



In the 1990s and into the twenty-first century, about 13% of Florida adults reported binge drinking and about 7% were chronic drinkers. No significant changes in the prevalence of binge drinking or in the prevalence of chronic drinking were observed during this period. County-level data on chronic and binge drinking are available for 2002 (see Tables 3-11 and 3-12 in appendix).

Men are more likely than women, and non-Hispanic whites are more likely than Hispanics or non-Hispanic blacks, to be chronic drinkers. The likelihood of being a chronic drinker increases with decreasing education and is less likely among those aged 45 years and older compared to those 18-29 years of age. Income is not associated with the odds of being a chronic drinker (see Table 3-13 in appendix).

Binge drinking is more likely to occur in men compared to women and in non-Hispanic whites compared to Hispanics and non-Hispanic blacks. The likelihood of being a binge drinker decreases with increasing age and is more likely among those with less than four or more years of college. Those who make $35,000-49,999 per year are slightly less likely to binge drink than those who make $50,000 or more per year (see Table 3-14 in appendix).

Other Risk Factors

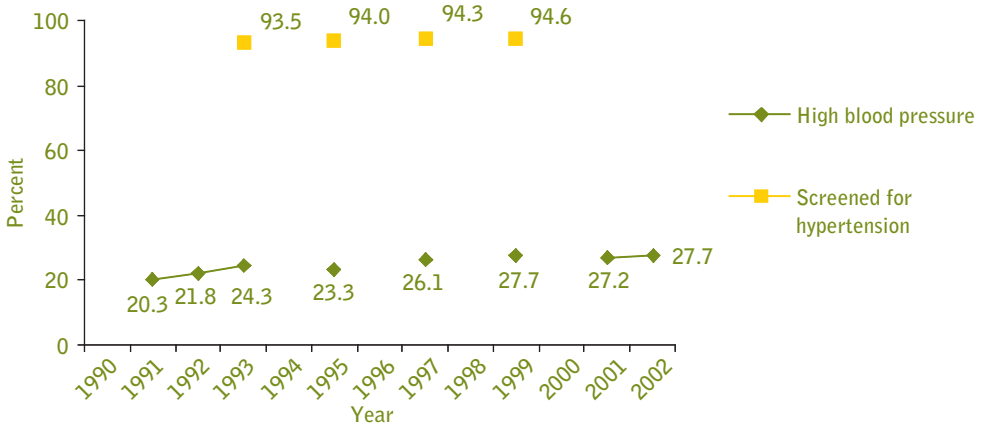
Hypertension

High blood pressure contributes substantially to the risks of coronary heart disease, stroke, and other complications of advanced atherosclerosis, such as damage to the heart, brain, kidneys, and other organs. Since the 1970s, the prevalence

of high blood pressure has decreased among U.S. adults, varying between 21.0% (1971-74) and 14.0% (1988-91).

In Florida in the 1990s and into the twenty-first century, more than 20% of adults who have been screened reported being told by a doctor that they have high blood pressure (physician-diagnosed hypertension) (see Figure 3-7). The prevalence of screened adults who have physician-diagnosed hypertension increased significantly between 1991 and 2002, from 20.3% to 27.7%. County-level data are available for prevalence of high blood pressure for 2002 (see Table 3-15 in appendix).

FIGURE 3-7. Percent of Florida adults who have been told they have high blood pressure among those who have been screened and those who were screened for hypertension in the past two years, by year, past two years, by year, Florida BRFSS, 1990-2002



Among Florida adults who have been screened, non-Hispanic blacks are 84% more likely to have physician-diagnosed hypertension than their non-Hispanic white counterparts (see Table 3-16 in appendix). Men and women are equally likely, to have physician-diagnosed hypertension. Increasing age is strongly associated with physician-diagnosed hypertension. Adults 65 years and older are 9.2 times more likely, and adults 45-64 years of age are 6.1 times more likely, to have physician-diagnosed hypertension than their counterparts 18-29 years of age. In addition, obese adults are 3 times more likely than non-obese adults to have physician-diagnosed hypertension.

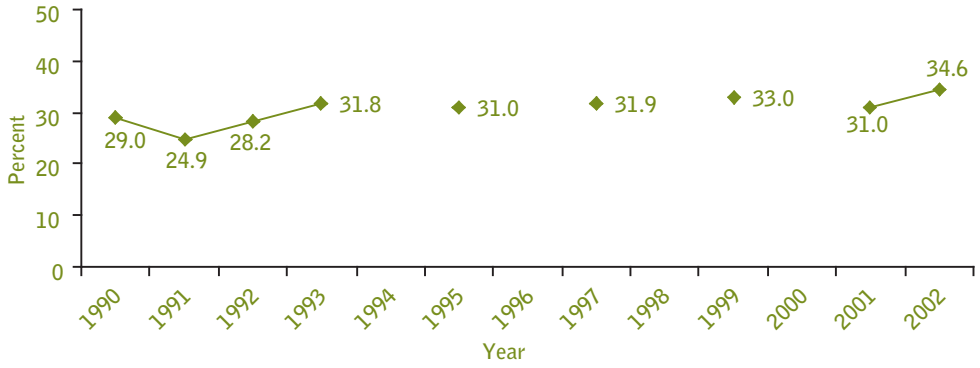
High Serum Cholesterol

The risk of coronary heart disease increases as the level of serum cholesterol increases. The public health burden from elevated blood cholesterol results from both the health and economic consequences of cardiovascular disease. High blood cholesterol is thought to account for approximately 30% of coronary heart disease and up to 20% of strokes in the U.S. Data from the National Health and Nutrition Examination Surveys indicate that the mean cholesterol level of U.S. adults has been declining since 1980. The most important modifiable risk factor for high blood cholesterol is dietary fat intake.

Among Florida adults from 1990-2002 who have had their cholesterol tested, about 30% were told they have high serum cholesterol. The prevalence of elevated serum cholesterol among those who have been tested decreased significantly between 1990 and 1991. Between 1991 and 2002, the prevalence of those with elevated serum cholesterol increased from 24.9% to 34.6%, an increase of more than one-third (see Figure 3-8). County-level data are available for the prevalence of elevated serum cholesterol for 2002 (see Table 3-17 in appendix).

Women were 20% more likely than men to have elevated serum cholesterol. The likelihood of having elevated serum cholesterol did not vary by race/ethnicity, education level, income, or activity level. The prevalence of elevated serum cholesterol increased with increasing age, and those that were obese were 37% more likely than those who were not obese to report elevated serum cholesterol levels (see Table 3-18 in appendix).

FIGURE 3-8. Percent of Florida adults who have been told they have elevated serum cholesterol among those who have had their cholesterol tested, by year, Florida BRFSS, 1990-2002

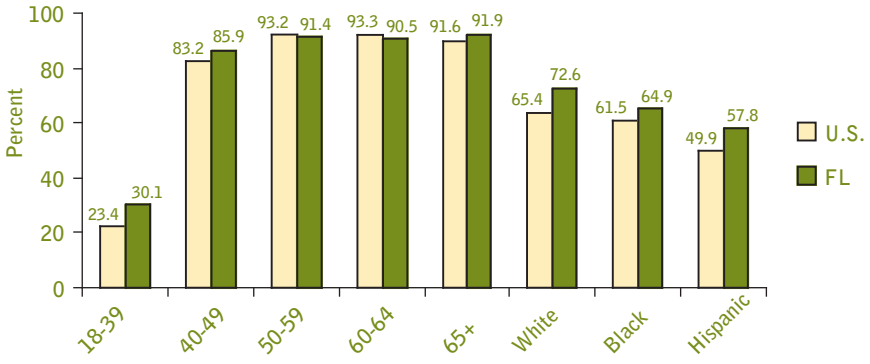


Use of Preventive Services

Use of preventive services and measures can substantially influence the impact of chronic diseases. The American Cancer Society (ACS) recommends that women have a mammogram annually beginning at age 40 and have a pap smear annually beginning at age 18, and that men and women have a sigmoidoscopy every five years and a fecal occult blood test (FOBT) annually beginning at age 50.

Among women age 18 and older in the U.S. and in Florida in 2002, greater than 90% have had a pap smear and the distribution is uniform across race/ethnicity groups: white, black, and Hispanic. Mammography, however, is not uniformly distributed across race/ethnicity groups. Figure 3-9 shows the prevalence of having a mammogram among U.S. and Florida women age 18 and older in 2002. As expected, the prevalence of having a mammogram is significantly lower among women age 18-39 years because of national screening recommendations. However, the prevalence of ever having a mammogram is significantly lower among Hispanic women compared to white and black women in both the U.S. and Florida.

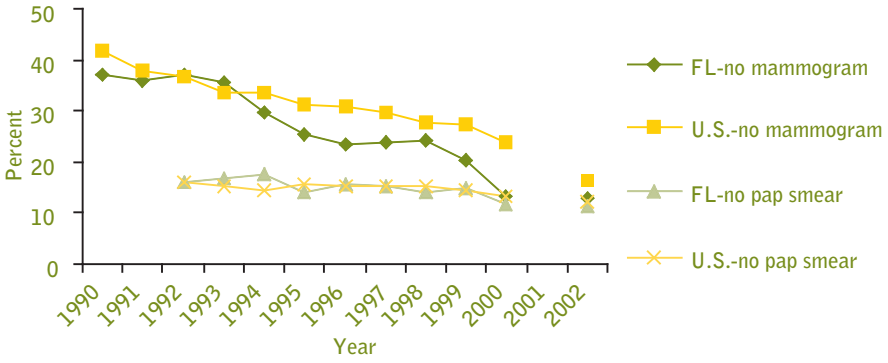
FIGURE 3-9. Percent of Florida and U.S. women age 18 years and older who have ever had a mammogram, by age and race/ethnicity, BRFSS, 2002



Among Florida women age 40 and older, 37.2% did not have a mammogram within the past two years in 1990. In 2002, this percent had declined by 65% to 12.8%. During the last half of the 1990s and into the twenty-first century, the prevalence of women age 40 and older who did not have a mammogram in the past two years was below the preva-

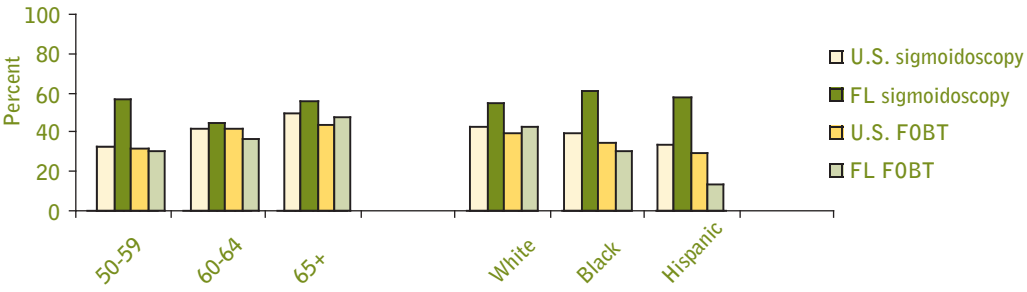
lence observed for the U.S. Since 1992, about 15% of women age 18 years and older did not have a pap smear in the past three years and this percentage did not change significantly through the years (see Figure 3-10). County-level BRFSS data are available on the percent of women over 40-years-old who have not had a mammogram in the past two years and the percent of women over 18-years-old who have not had a pap smear in the past three years (see Tables 3-19 and 3-20 in appendix).

FIGURE 3-10. Percent of Florida and U.S. women age 40 and older who have not had a mammogram in the past two years and women age 18 and older who have not had a pap smear in the past three years, by year, BRFSS, 1990-2002



Compared to mammography and pap smears, the use of sigmoidoscopy and FOBT is much lower. Figure 3-11 shows the prevalence of sigmoidoscopy and FOBT use by age group. Florida has a much higher use of sigmoidoscopy than does the U.S. In Florida, approximately 60% of adults aged 50 years and older have had a sigmoidoscopy. Approximately 50% of adults aged 50 years and older have had a FOBT.

FIGURE 3-11. Percent of Florida and U.S. adults age 50 and older who have ever had a sigmoidoscopy and percent who have ever had a FOBT, by age and race/ethnicity, BRFSS, 2002



Utilization of sigmoidoscopy and FOBT also varies by race/ethnicity. The prevalence of ever having a FOBT is significantly lower among blacks and Hispanics age 50 and older compared to whites. County-level data on the percent of persons age 50 and older who have had a sigmoidoscopy or a FOBT are available for 2002 (see Tables 3-21 and 3-22 in appendix).

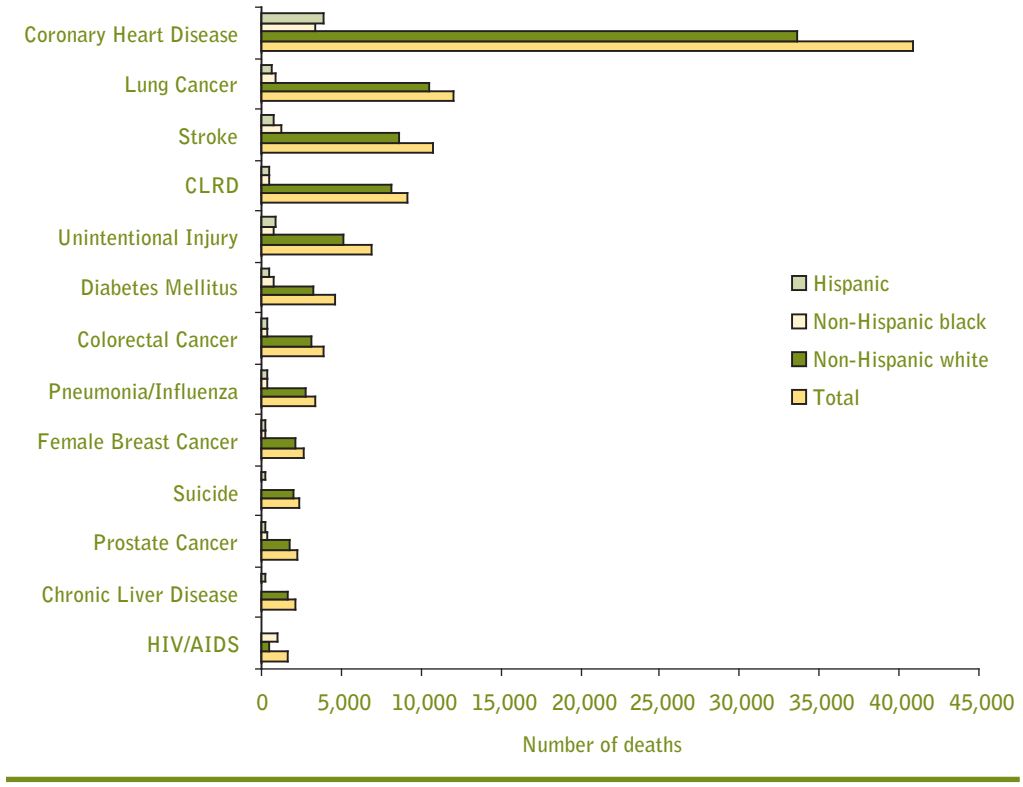
CHAPTER 4

The Leading Causes of Death

Among Floridians in 2002, the ten leading causes of death, in order, were coronary heart disease, cancer, stroke, CLRD, unintentional injuries, diabetes mellitus, pneumonia/influenza, suicide, chronic liver disease/cirrhosis, and HIV/AIDS. Of these ten causes of death, six are chronic diseases – coronary heart disease, cancer, stroke, CLRD, diabetes mellitus, and chronic liver disease/cirrhosis.

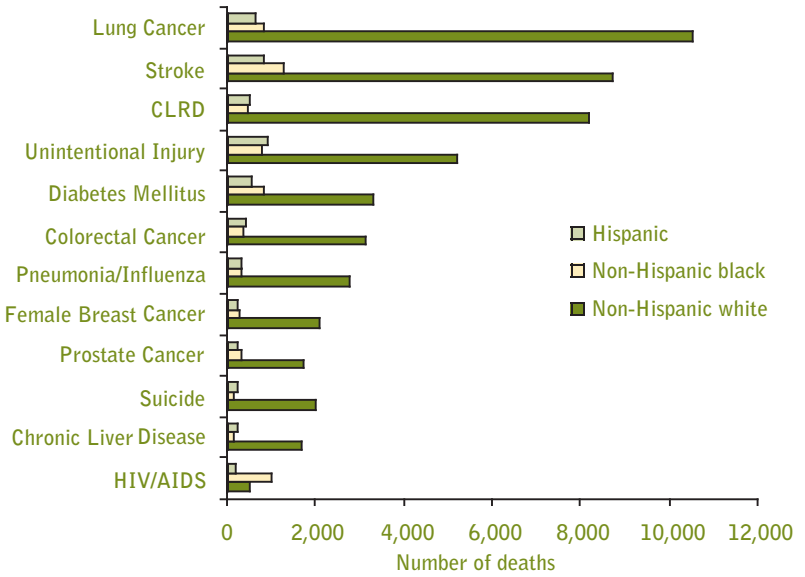
Figure 4-1 shows the number of deaths due to the leading causes of death, in order, from the highest to the lowest number of deaths, for the total population and by race/ethnicity (non-Hispanic white, non-Hispanic black, and Hispanic). The broad category "cancer" is shown as the four leading causes of cancer-related deaths – lung, colorectal, breast (women), and prostate (men).

FIGURE 4-1. The leading causes of death, by race/ethnicity, Florida Vital Statistics, 2002



The order of the leading causes of deaths varies by race/ethnicity. For all three race/ethnicity groups, coronary heart disease is the leading cause of death. Figure 4-2 shows more clearly the variation in the leading causes of death between the race/ethnicity groups. In Figure 4-2, coronary heart disease deaths and the bars representing the "total" population have been removed. Among non-Hispanic whites, the leading causes of death hierarchy almost mirrors that of the total population. The only exception is that suicide deaths were slightly more than prostate deaths.

FIGURE 4-2. Leading causes of death other than coronary heart disease, by race/ethnicity groups only, Florida Vital Statistics, 2002



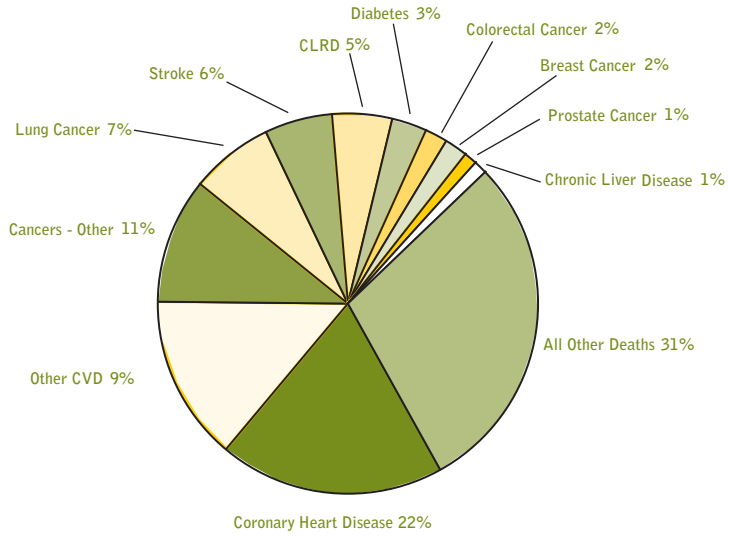
Among non-Hispanic blacks, after coronary heart disease, the leading causes of death in order are stroke, HIV/AIDS, lung cancer, diabetes mellitus, unintentional injury, CLRD, colorectal cancer, pneumonia/influenza, prostate cancer, female breast cancer, chronic liver disease and cirrhosis, and suicide. Among Hispanics, coronary heart disease is followed by unintentional injury, stroke, lung cancer, diabetes mellitus, CLRD, colorectal cancer, pneumonia and influenza, chronic liver disease and cirrhosis, female breast cancer, suicide, prostate cancer, and HIV/AIDS.

By examining the leading causes of death, statewide and local programs can determine that, after coronary heart disease, different intervention/prevention activities and messages are needed for various race/ethnicity groups to prevent deaths prior to reaching life expectancy and to improve health within these communities. For example, to address the second leading cause of death by race/ethnicity group, programs would address lung cancer among non-Hispanic whites, stroke among non-Hispanic blacks and unintentional injury among the Hispanic population. One notable point is that HIV/AIDS is the tenth leading cause of death among non-Hispanic whites and Hispanics, but is the third leading cause of death among non-Hispanic blacks.

Mortality Due to Chronic Diseases, Florida 2002

Overall in 2002, approximately, 69% of all deaths were due to the chronic diseases shown in Figure 4-3. Cardiovascular disease (coronary heart disease, stroke, and other cardiovascular disease) accounted for an astounding 37% of all deaths. Approximately one in five people died of coronary heart disease alone.

FIGURE 4-3. The percent of selected chronic disease-related deaths as a percent of all deaths, Florida Vital Statistics, 2002



All cancers combined accounted for approximately 23% of all deaths. Individually, lung cancer (7% of all deaths) by far had the greatest mortality impact compared to female breast cancer (2%), colorectal cancer (2%) and prostate cancer (1%). Both stroke and CLRD caused nearly as many deaths as lung cancer in 2002, accounting for 6% and 5% of all deaths, respectively.

Historical Trends in Chronic Disease Mortality in Florida

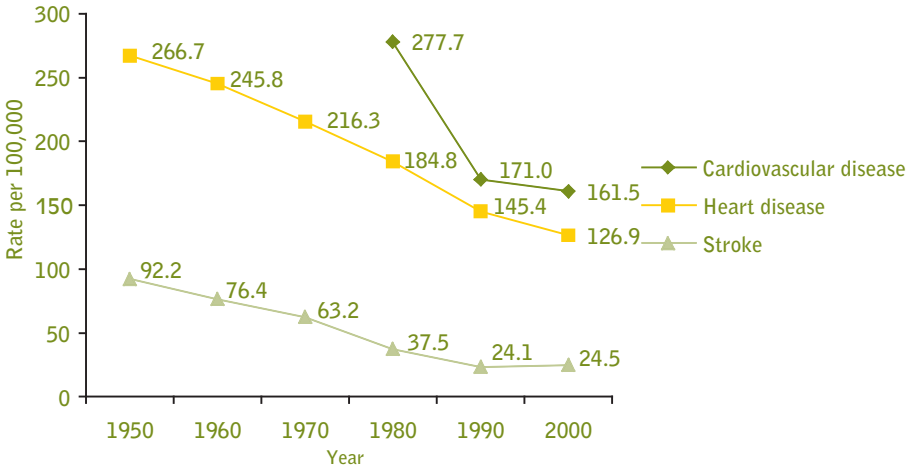
To assess trends in chronic disease mortality, age-adjusted rates were calculated for the leading causes of death related to chronic diseases for 1950, 1960, 1970, 1980, 1990, and 2000. Rates are age-adjusted to allow comparisons over time. When comparing rates between points in time or geographic locations, by age-adjusting the rates, mortality is compared to a standard population, in this case the 1940 standard million, so that rates are comparable.

Cardiovascular Disease

Figure 4-4 shows the age-adjusted mortality rates for heart disease and stroke for each decade from 1950 to 2000 and cardiovascular disease from 1980 to 2000. Heart disease encompasses coronary heart disease plus non-ischemic heart diseases.

Mortality rates due to heart disease and stroke have decreased greatly since 1950. Stroke death rates fell 73% and heart disease rates fell 52% since 1950. The cardiovascular disease mortality rate in 2000 was 42% lower than the rate observed in 1980. Because heart disease and stroke rates have steadily decreased since 1950, it is reasonable to assume that cardiovascular disease rates, in general, have been decreasing since 1950.

FIGURE 4-4. Age-adjusted[1] mortality rates for heart disease and stroke, 1950-2000, and cardiovascular disease, 1980-2000[2], by decade, Florida Vital Statistics



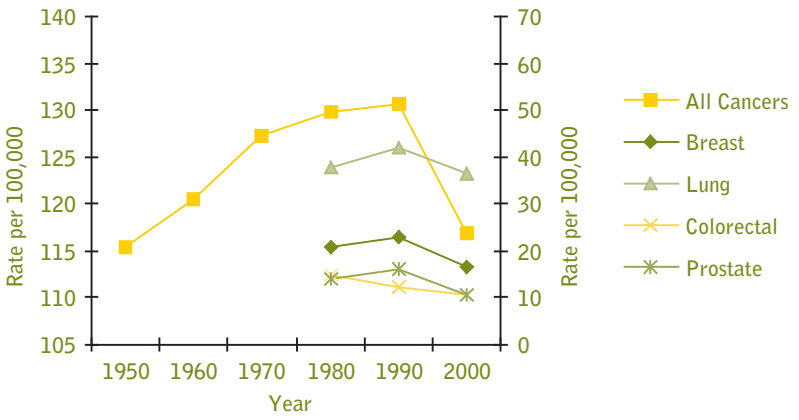
1. Age-adjusted to the 1940 standard million
2. Historical data for all cardiovascular disease from 1950-1970 not available for age-adjustment

The declines observed in cardiovascular disease death rates are most likely due to advances in medical care and treatment, as well as changes in lifestyle, such as smoking cessation. However, trends in other cardiovascular disease risk factors, such as obesity and physical inactivity, are increasing in the adult population and may counter the advances made in prior decades (see Chapter 3).

Cancer

Cancer mortality rates increased from 1950 to 1990, finally turning downward between 1990 and 2000 (see Figure 4-5). Plotted on the secondary axis in Figure 4-5 are the age-adjusted mortality rates for lung, breast, prostate, and colorectal cancers. Between 1980 and 2000, the rate of colorectal cancer death decreased each decade, from 14.7 per 100,000 in 1980 to 12.5 per 100,000 in 1990 and 10.9 per 100,000 in 2000. Lung, breast, and prostate cancer showed some fluctuation, but no distinctive trend during this time period.

FIGURE 4-5. Age-adjusted[1] mortality rates for malignant neoplasm (cancer) overall from 1950-2000, and breast, lung, prostate, and colorectal cancer from 1980-2000, by decade, Florida Vital Statistics

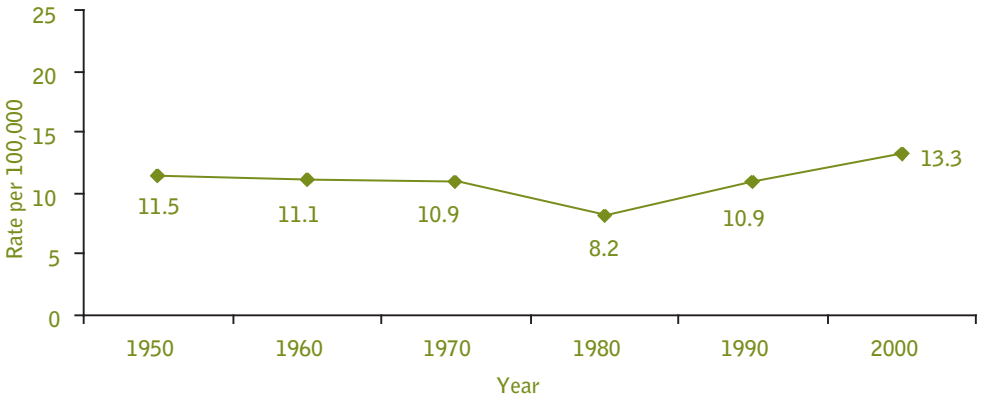


1. Age-adjusted to the 1940 standard million
2. Breast, lung, prostate, and colorectal cancer plotted against the secondary axis

Diabetes

The prevalence of diabetes has been increasing in the population since the 1950s. Despite this increase, the age-adjusted death rate for diabetes decreased between 1950 and 1980 (see Figure 4-6). During this time, tremendous advances in disease management and drug therapy occurred, lowering the diabetes mortality rate.

FIGURE 4-6. Age-adjusted(1) mortality rates for diabetes, by decade, Florida Vital Statistics, 1950-2000



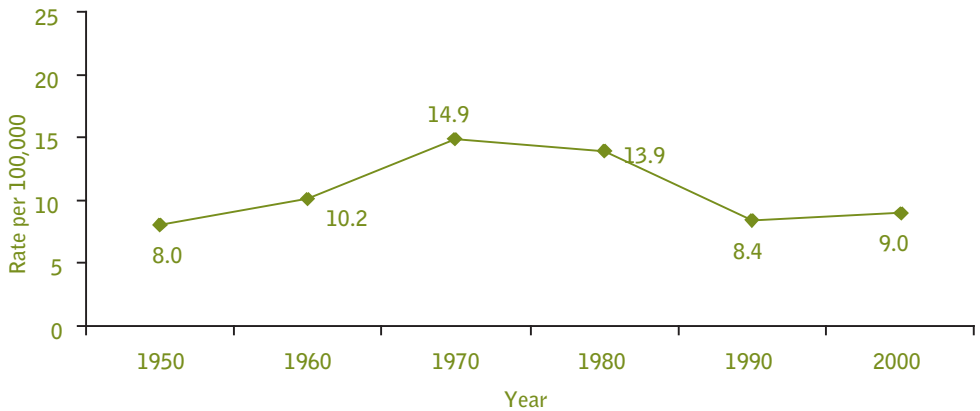
1. Age-adjusted to the 1940 standard million

Between 1980 and 2000, the age-adjusted diabetes mortality rate increased from 8.2 per 100,000 population to 13.3 per 100,000 population, going beyond the rate observed in 1950. The increase in mortality rates for diabetes is due, in part, to the increase in diabetes diagnosis, increased awareness of diabetes as an underlying cause of death, and changes in physician death certificate completion practices.

Chronic Liver Disease

Between 1950 and 1970, the peak of chronic liver disease as a cause of death, chronic liver disease mortality rates increased 86%. After 1970, these rates declined to rates near those observed in 1950 (see Figure 4-7).

FIGURE 4-7. Age-adjusted(1) mortality rates for chronic liver disease, by decade, Florida Vital Statistics, 1950-2000



1. Age-adjusted to the 1940 standard million

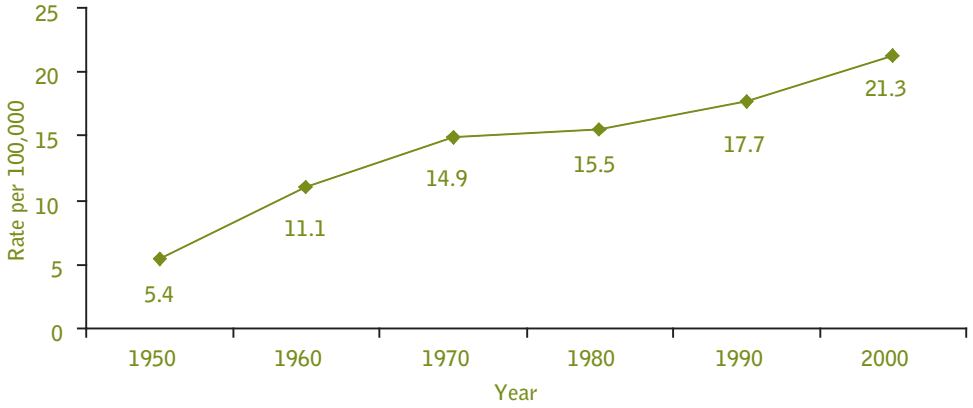
Chronic liver disease develops slowly and is primarily caused by long-term alcohol abuse and/or mismanaged or untreated hepatitis. The surge of chronic liver disease between 1950 and 1970 was primarily due to exposure to risk factors in the prior decades. From 1980 to 1990, better management and treatment of chronic liver disease contributed to the decline in mortality. However, between 1990 and 2000, the rate of death due to chronic liver disease and cirrhosis increased slightly from 8.4 to 9.0 deaths per 100,000 population.

CLRD (COPD)

Overall, between 1950 and 2000, there was a dramatic four-fold increase in CLRD mortality rates as shown in Figure 4-8. CLRD is the only chronic disease, as a leading cause of death, whose mortality rates have consistently increased since 1950.

In 1950, CLRD accounted for 5.4 deaths per 100,000 population. By 2000, the age-adjusted death rate rose to 21.3 deaths per 100,000 population, surpassing deaths due to breast, prostate, and colorectal cancer, diabetes, and chronic liver disease, and nearing the age-adjusted death rate due to stroke. Increased environmental pollutants (including environmental tobacco smoke) have driven this increase. In addition, tobacco use has contributed to this increase.

FIGURE 4-8. Age-adjusted(1) mortality rates for CLRD by decade, Florida Vital Statistics, 1950-2000



1. Age-adjusted to the 1940 standard million

CHAPTER 5

The Burden of Chronic Disease, 1990-2002

This chapter describes the burden of chronic disease in Florida between 1990 and 2002 in terms of mortality rates, hospital discharge rates, and cost of hospitalizations due to chronic diseases. The focus will remain on the leading causes of chronic disease mortality, namely cardiovascular disease (primarily coronary heart disease and stroke), cancer (primarily lung, breast, prostate, and colorectal), diabetes mellitus, chronic liver disease, and CLRD. The rates used in this chapter are age-adjusted to the 2000 standard population and, therefore, cannot be compared to the historical trends presented in Chapter 4 of this report.

As the burden of chronic disease varies by gender and race/ethnicity, these data are presented, where possible, by male and female gender and by three race/ethnicity groups–non-Hispanic white, non-Hispanic black, and Hispanic. All of the rates are age-adjusted to compensate for differences in the population age group composition between both genders and the three race/ethnicity groups.

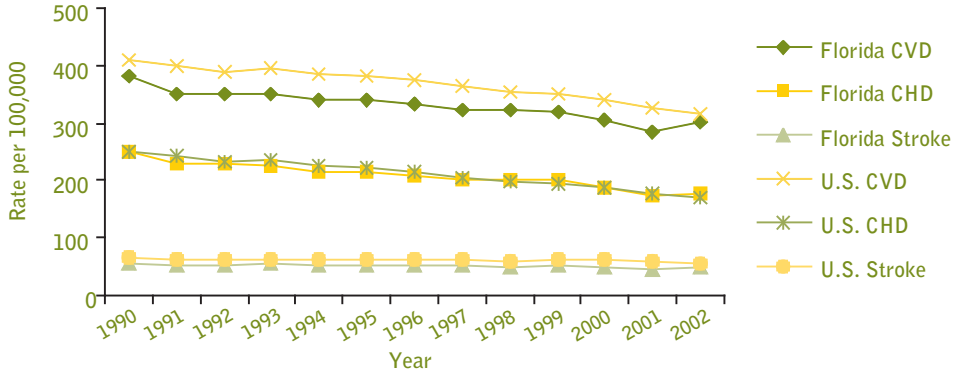
Hospital charges are expressed in constant dollars (C$) adjusted to the 2002 dollar value, using the annual consumer price index (CPI) for non-seasonally adjusted hospital and related services. This index is published by the U.S. Bureau of Labor Statistics. Conversion to constant dollars adjusts historic dollar values to 2002 dollar values, thus adjusting for inflation and showing the true relationship between hospital charges from various years.

Cardiovascular Disease Mortality

Cardiovascular disease is very costly to society, both financially and in terms of loss of human life. Each year in the 1990s and into the twenty-first century had about two million hospital days, billions in hospital charges, and over 1,700 per 100,000 years of potential life lost under 75 years of age.

Throughout the 1990s and into the twenty-first century, Florida's age-adjusted cardiovascular disease mortality rates have been lower than national rates. Both nationally and in Florida, rates have declined over the past decade (see Figure 5-1).

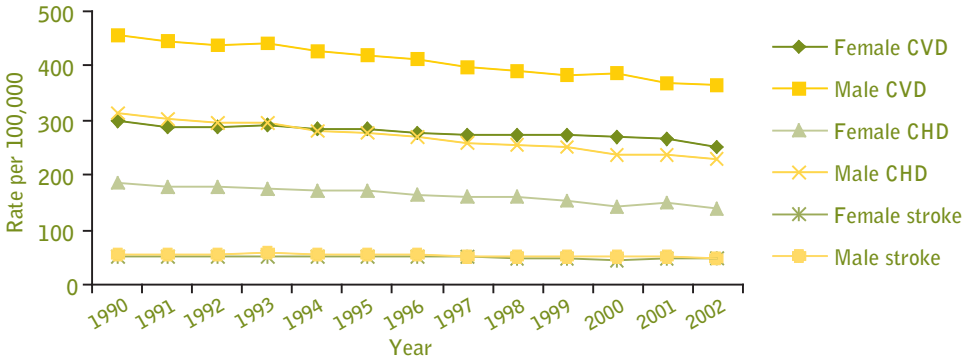
FIGURE 5-1. Age-adjusted[1] mortality rates for cardiovascular disease (CVD), coronary heart disease (CHD), and cerebrovascular disease (stroke), by year, Florida Vital Statistics, CDC WONDER, National Vital Statistics Reports, 1990-2002



1. Age-adjusted to the 2000 standard million

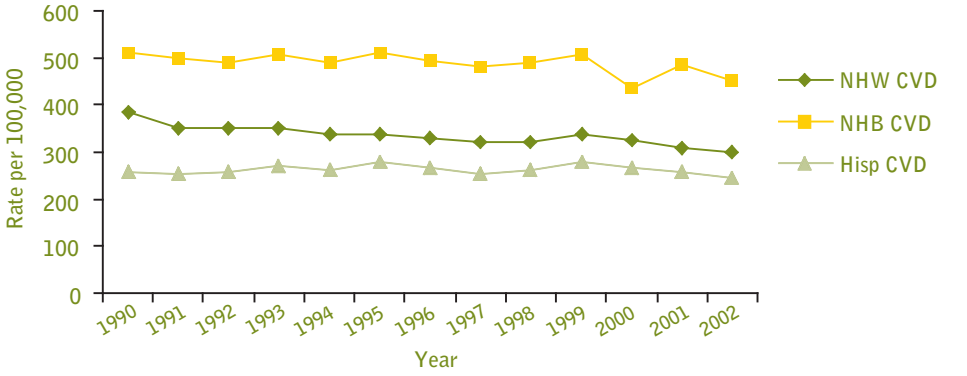
In Florida, cardiovascular disease age-adjusted mortality rates have decreased by 21% between 1990 and 2002. Mortality rates vary markedly by sex and race/ethnicity (see Figures 5-2 through 5-5). Rates among males are about 1.5 times the rates observed among females. Non-Hispanic blacks have substantially higher cardiovascular disease mortality rates compared to non-Hispanic whites and Hispanics.

FIGURE 5-2. Age-adjusted[1] mortality rates for cardiovascular disease (CVD), coronary heart disease (CHD), and cerebrovascular disease (stroke), by year and sex, Florida Vital Statistics, CDC WONDER, 1990-2002



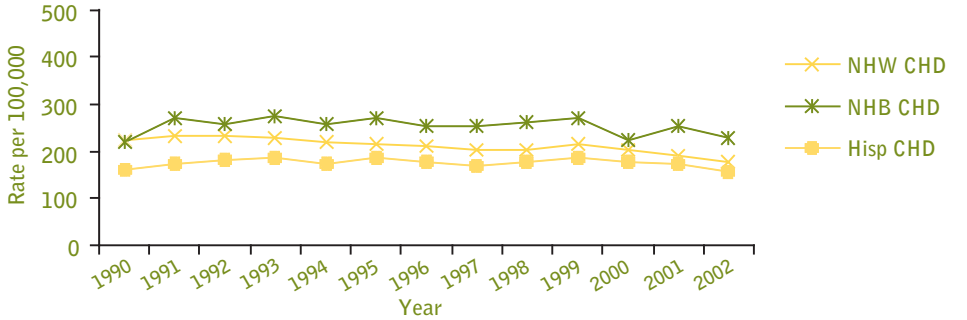
1. Age-adjusted to the 2000 standard million

FIGURE 5-3. Age-adjusted[1] mortality rates for cardiovascular disease (CVD), by year and race/ethnicity[2], Florida Vital Statistics, 1990-2002



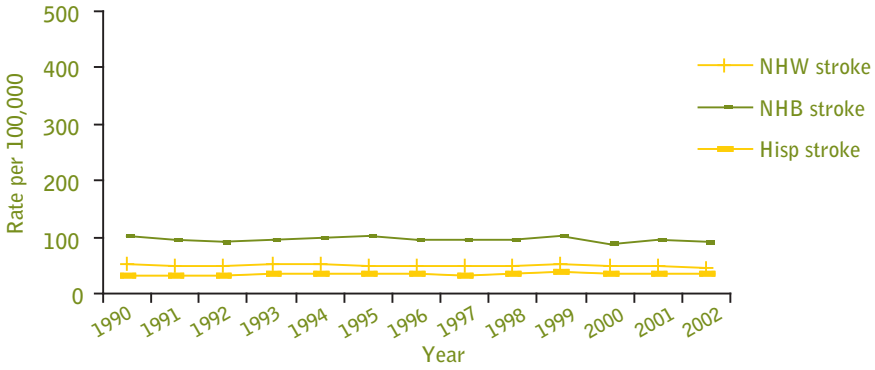
1. Age-adjusted to the 2000 standard million
2. NHW=non-Hispanic white; NHB=non-Hispanic black; Hisp=Hispanic

FIGURE 5-4. Age-adjusted[1] mortality rates for coronary heart disease (CHD), by year and race/ethnicity[2], Florida Vital Statistics, 1990-2002



1. Age-adjusted to the 2000 standard million
2. NHW=non-Hispanic white; NHB=non-Hispanic black; Hisp=Hispanic

FIGURE 5-5. Age-adjusted[1] mortality rates for cerebrovascular disease (stroke), by year and race/ethnicity[2], Florida Vital Statistics, 1990-2002



1. Age-adjusted to the 2000 standard million
2. NHW=non-Hispanic white; NHB=non-Hispanic black; Hisp=Hispanic

Much of the decline observed in overall cardiovascular rates is driven by decreases among males and non-Hispanic whites. Age-adjusted mortality rates decreased by 20% among males and by 16% among females between 1990 and 2002. Among non-Hispanic whites, rates dropped 22%, whereas rates among non-Hispanic blacks dropped 12% and rates among Hispanics did not vary more than 5% in comparing 2002 to 1990.

Coronary Heart Disease and Stroke Mortality

Approximately 60% of all cardiovascular disease deaths are due to coronary heart disease. Another 15% of cardiovascular disease deaths are due to stroke. Both coronary heart disease and stroke have causes that stem from modifiable risk factors, such as tobacco use, poor nutrition, and physical inactivity. Reducing these risk factors in the population would have a great impact on the morbidity and mortality due to cardiovascular disease. Chronic disease risk factors are discussed in more detail in Chapter 3 of this report.

Age-adjusted coronary heart disease death rates also vary by sex and race/ethnicity. Among men, deaths due to coronary heart disease alone are at about the same rates as overall cardiovascular disease deaths among women. Coronary heart disease death rates were at their highest for men and women in 1990. Between 1990 and 2002, death rates declined among women by 26%, from 185.4 deaths to 137.0 deaths per 100,000 population. Among men, coronary heart disease mortality rates dropped by 27%, from 315.0 deaths to 230.9 deaths per 100,000 population, from 1990 to 2002.

In 1990, age-adjusted coronary heart disease death rates among non-Hispanic whites were 28-30% higher than rates among Hispanics. By 2002, this gap narrowed to 13%, driven by a 19% decline in the age-adjusted death rate among non-Hispanic whites. Rates among Hispanics and non-Hispanic blacks did not change significantly in the twelve-year span.

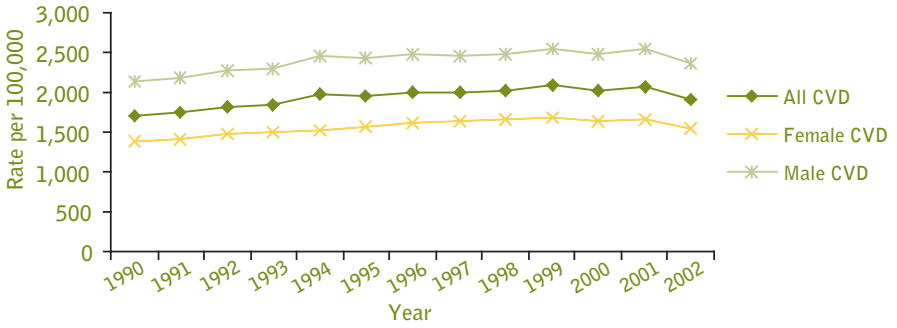
Age-adjusted stroke rates among men, women, and all race/ethnicity categories remained stable during the 1990s and into the twenty-first century. Men and women had virtually identical age-adjusted death rates averaging about 50 deaths per 100,000 population. Rates were highest among non-Hispanic blacks (about 92 deaths per 100,000 population), followed by non-Hispanic whites (about 46 deaths per 100,000 population) and Hispanics (about 35 deaths per 100,000 population).

Cardiovascular Disease Hospital Discharge Data

Of the chronic diseases examined for this report, age-adjusted hospital discharge rates due to cardiovascular disease are vastly higher than the rates for the remaining chronic diseases.

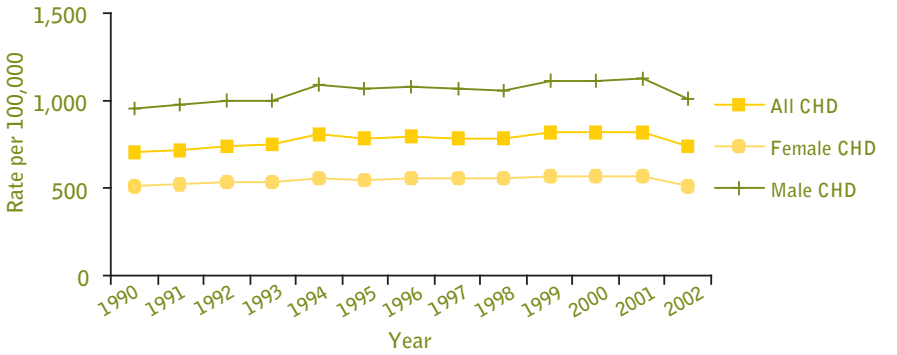
About 40% of cardiovascular disease hospitalizations are due to coronary heart disease and about 14% are due to stroke. Although cardiovascular age-adjusted death rates decreased, age-adjusted hospital discharge rates for cardiovascular disease, coronary heart disease, and stroke increased between 1990 and 1999 (see Figures 5-6, 5-7, and 5-8). Most recently, since 1999, these rates have been decreasing.

FIGURE 5-6. Age-adjusted[1] hospital discharge rates for cardiovascular disease (CVD), by year and sex, Florida Agency for Health Care Administration Hospital Discharge Data, 1990-2002



1. Age-adjusted to the 2000 standard milliion

FIGURE 5-7. Age-adjusted[1] hospital discharge rates for coronary heart disease (CHD), by year and sex, Florida Agency for Health Care Administration Hospital Discharge Data, 1990-2002

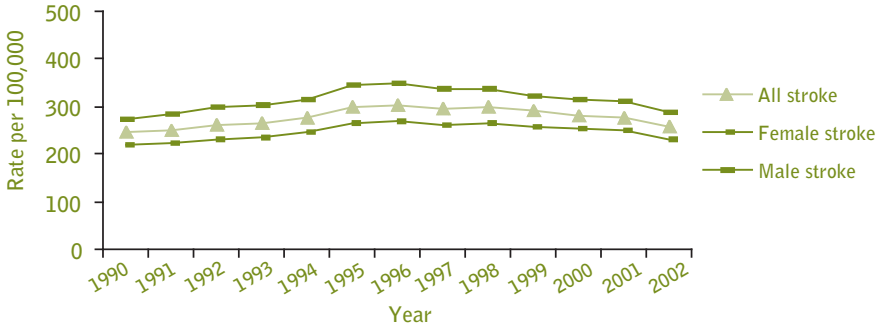


1. Age-adjusted to the 2000 standard milliion

Consistent with mortality rates, age-adjusted hospital discharge rates were higher among men compared to women for cardiovascular disease overall, stroke, and coronary heart disease.

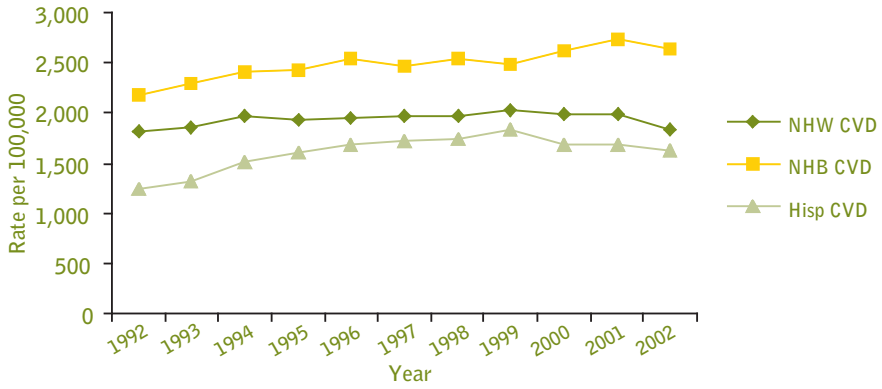
Overall, age-adjusted cardiovascular disease hospital discharge rates increased through 1999 for all race/ethnicity groups examined. From 1999 through 2002, rates decreased for non-Hispanic whites and Hispanics, but continued to increase for non-Hispanic blacks (see Figures 5-9, 5-10, 5-11). Age-adjusted cardiovascular disease hospital discharge rates among non-Hispanic blacks were higher than those observed for either non-Hispanic whites or Hispanics. Throughout the 1990s and into the twenty-first century, the gap observed between Hispanic and non-Hispanic white rates narrowed. This narrowing was due to a sharp increase in the age-adjusted hospital discharge rates among Hispanics. Much of the increase observed among Hispanics was most likely due to increased reporting of Hispanic ethnicity.

FIGURE 5-8. Age-adjusted(1) hospital discharge rates for cerebrovascular disease (stroke), by year and sex, Florida Agency for Health Care Administration Hospital Discharge Data, 1990-2002



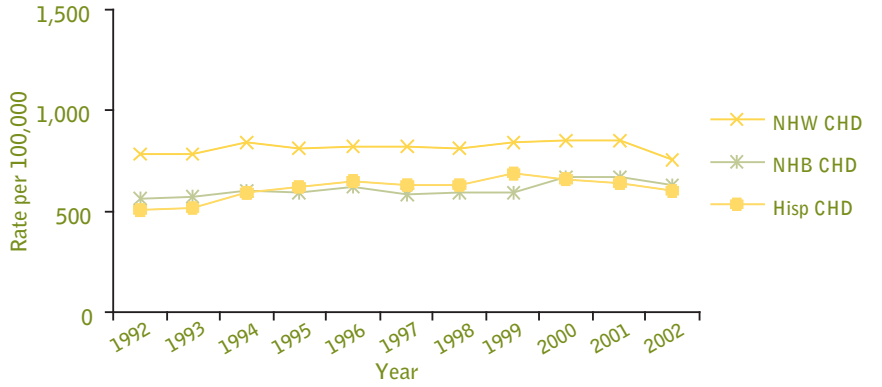
1. Age-adjusted to the 2000 standard milliion

FIGURE 5-9. Age-adjusted(1) hospital discharge rates for cardiovascular disease (CVD), by year and race/ethnicity(2), Florida Agency for Health Care Administration Hospital Discharge Data, 1992-2002



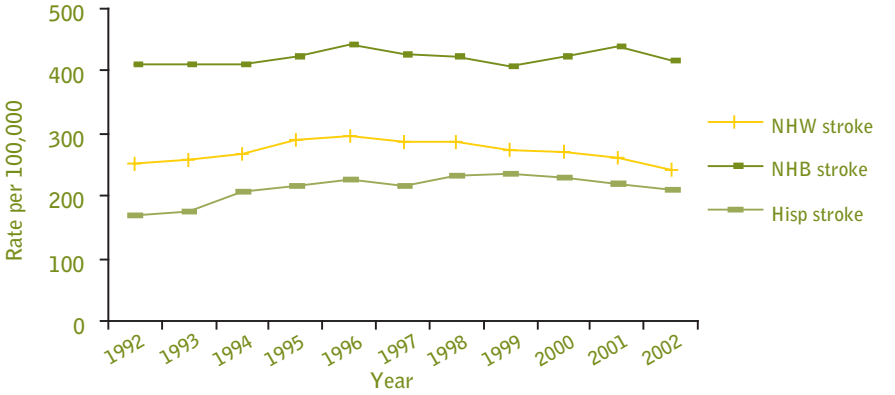
1. Age-adjusted to the 2000 standard million
2. Race/ethnicity information not available in data prior to 1992. NHW=non-Hispanic white; NHB=non-Hispanic black; Hisp=Hispanic

FIGURE 5-10. Age-adjusted(1) hospital discharge rates for coronary heart disease (CHD), by year and race/ethnicity(2), Florida Agency for Health Care Administration Hospital Discharge Data, 1992-2002



1. Age-adjusted to the 2000 standard million
2. Race/ethnicity information not available in data prior to 1992. NHW=non-Hispanic white; NHB=non-Hispanic black; Hisp=Hispanic

FIGURE 5-11. Age-adjusted[1] hospital discharge rates for cerebrovascular disease (stroke), by year and race/ethnicity[2], Florida Agency for Health Care Administration Hospital Discharge Data, 1992-2002

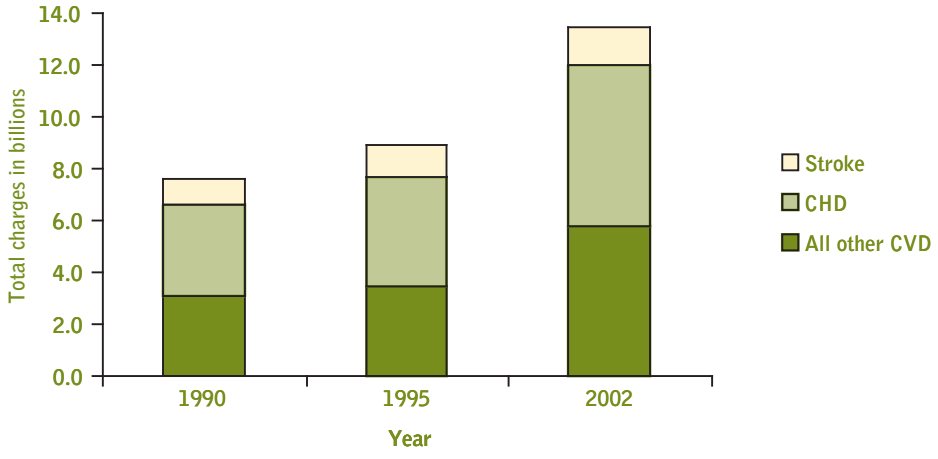


1. Age-adjusted to the 2000 standard million
2. Race/ethnicity information not available in data prior to 1992. NHW=non-Hispanic white; NHB=non-Hispanic black; Hisp=Hispanic

Age-adjusted coronary heart disease rates decreased slightly among non-Hispanic whites and increased among non-Hispanic blacks and Hispanics. Again, most of the steep slope of the line representing Hispanic rates is probably attributable to increased reporting of Hispanic ethnicity. Age-adjusted stroke hospital discharge rates were mostly stable among non-Hispanic whites and non-Hispanic blacks, and increased among Hispanics for the time period examined. Non-Hispanic whites had the highest age-adjusted hospital discharge rates for coronary heart disease followed by non-Hispanic blacks and Hispanics. For stroke, non-Hispanic blacks had the highest rates followed by non-Hispanic whites. Hispanics had the lowest rates.

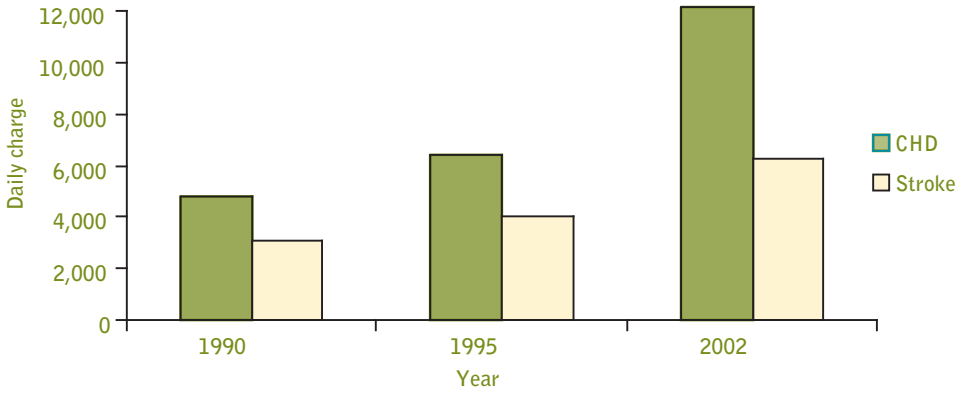
The economic impact of cardiovascular disease is tremendous. Between 1990 and 2002, hospitalization charges due to cardiovascular disease increased 78%, from about $7.6 billion (C$) to $12.9 billion (see Figure 5-12). While the average length of stay at the hospital decreased from seven days in 1990 to five days in 2002, the average charge per day increased from $4,082 (C$) to $8,798, a more than two-fold increase. Coronary heart disease accounts for about half, and stroke accounts for about 11%, of all cardiovascular disease hospital charges.

FIGURE 5-12. Florida hospitalization charges (in 2002 constant dollars) for all cardiovascular disease, coronary heart disease and stroke, Florida Agency for Health Care Administration Hospital Discharge Data, 1990, 1995, and 2002



Daily hospitalization charges are quite different when comparing coronary heart disease to stroke (see Figure 5-13). Average daily hospitalization charges were nearly 60% higher for coronary heart disease than for stroke throughout the 1990s. Coronary heart disease charges increased from $4,834 (C$) per day in 1990 to $12,186 per day in 2002. Comparatively, stroke charges increased from $3,068 (C$) per day to $6,331 per day during the same time span.

FIGURE 5-13. Florida average daily hospitalization charges (in 2002 constant dollars) for coronary heart disease and stroke, Florida Agency for Health Care Administration Hospital Discharge Data, 1990, 1995, and 2002

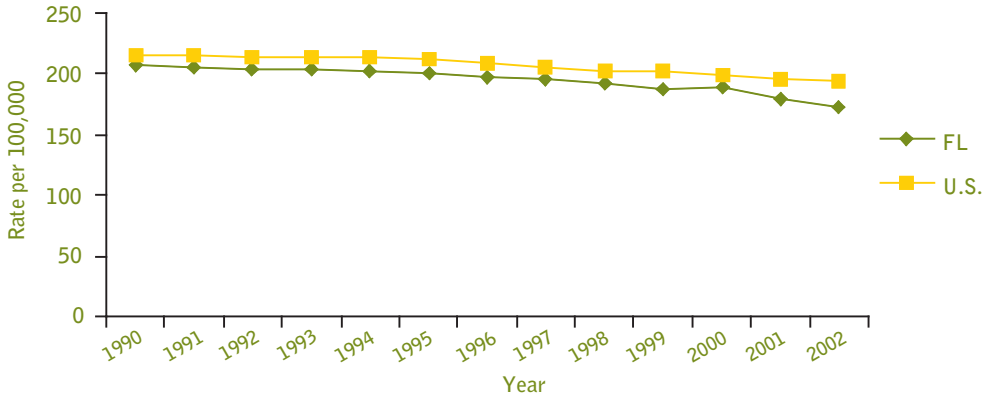


Cancer Mortality

Cancer is the second leading cause of death in the U.S. and in Florida. More than one million new cases are diagnosed and over half a million people die in the U.S. as a result of cancer each year. In Florida in 2001, there were over 92,000 new cases of cancer reported. The leading causes of cancer death and leading sites of cancer incidence in men and women were lung, breast, colorectal, and prostate.

Age-adjusted cancer mortality rates have slowly decreased – about 17% in Florida and 9% in the U.S. – between 1990 and 2002 (see Figure 5-14). Mortality rates in Florida were similar to those observed for the U.S. as a whole.

FIGURE 5-14. Age-adjusted(1) mortality rates for cancer, by year, Florida Vital Statistics, CDC WONDER, National Vital Statistics Report(2), 1990-2002

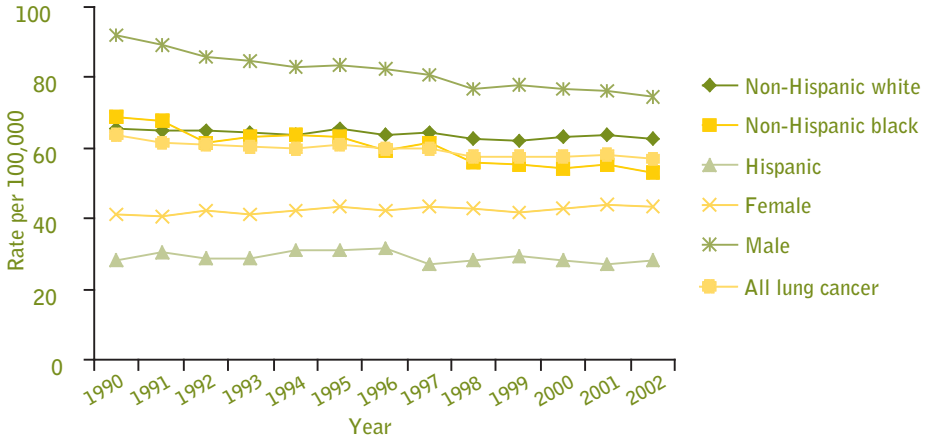


1. Age-adjusted to the 2000 standard million
2. U.S. mortality data for 2002 are preliminary

Data for individual cancers that are the leading causes of mortality show that the age-adjusted mortality rates for lung cancer are about three times higher than for breast, prostate, and colorectal cancer. Florida mortality rates for prostate cancer were very similar to rates for the U.S. in the 1990s. Mortality rates for breast and colorectal cancer in Florida were slightly below rates for the U.S. for most years during the 1990s. For lung cancer, however, Florida mortality rates are slightly above the rates for the U.S. for a number of years during the 1990s and into the twenty-first century, especially early in the 1990s.

Age-adjusted lung cancer mortality rates varied greatly by sex and race/ethnicity. Figure 5-15 shows that age-adjusted mortality rates among men were nearly twice the rates observed for women throughout the 1990s and into the twenty-first century. This gap, however, narrowed during the decade due to a 19% decline in age-adjusted lung cancer mortality rates among men. Rates did not change for Hispanics, but did decrease by 23% among non-Hispanic blacks and by 4% among non-Hispanic whites.

FIGURE 5-15. Age-adjusted[1] mortality rates for lung cancer, by year, sex and race/ethnicity, Florida Vital Statistics, 1990-2002



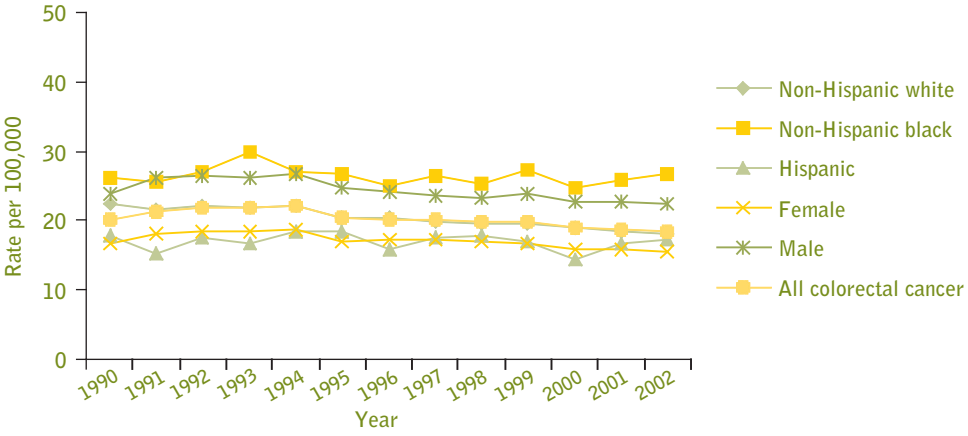
1. Age-adjusted to the 2000 standard million

Figure 5-16 shows the age-adjusted mortality rates for colorectal cancer by sex and race/ethnicity. Overall, age-adjusted colorectal cancer mortality rates were stable from 1990-1994, and then began to decline slowly. The slow decline in the latter 1990s was driven by declines among non-Hispanic whites. Colorectal cancer death rates were consistently about 40% higher among men compared to women. Hispanics had the lowest mortality rates compared to non-Hispanic whites and non-Hispanic blacks.

Breast cancer is predominantly a disease among women. A very small number of men are diagnosed with breast cancer each year, but this number does not significantly change the overall breast cancer incidence or mortality rates. Figure 5-17 shows the age-adjusted breast cancer mortality rates by year and race/ethnicity. Overall, breast cancer mortality rates have decreased by 38% between 1990 and 2002. Rates among non-Hispanic white women were typically higher than rates among Hispanic women and lower than rates among non-Hispanic black women. Between 1990 and 2002, Hispanic women had the lowest age-adjusted mortality rates.

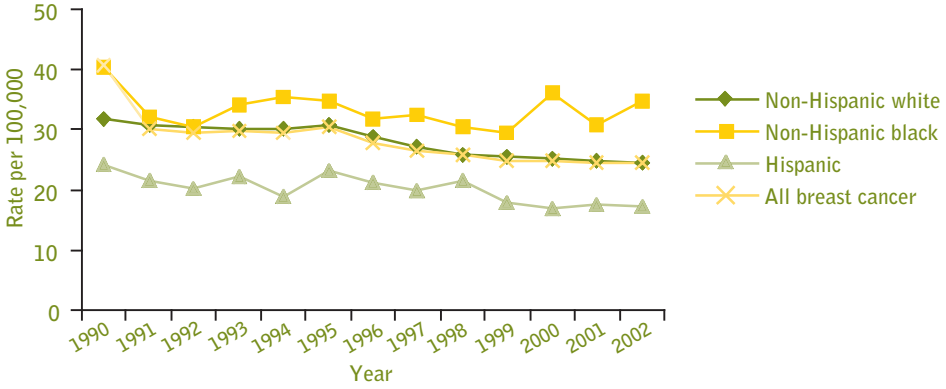
Prostate cancer age-adjusted mortality rates decreased by 32% between 1990 and 2002 (see Figure 5-18). Mortality rates among non-Hispanic black men were more than double the rates among non-Hispanic white men and Hispanic men. Rates among non-Hispanic white men, non-Hispanic black men, and Hispanic men dropped 30%, 18%, and 23%, respectively, during the decade.

FIGURE 5-16. Age-adjusted[1] mortality rates for colorectal cancer, by year, sex, and race/ethnicity, Florida Vital Statistics, 1990-2002



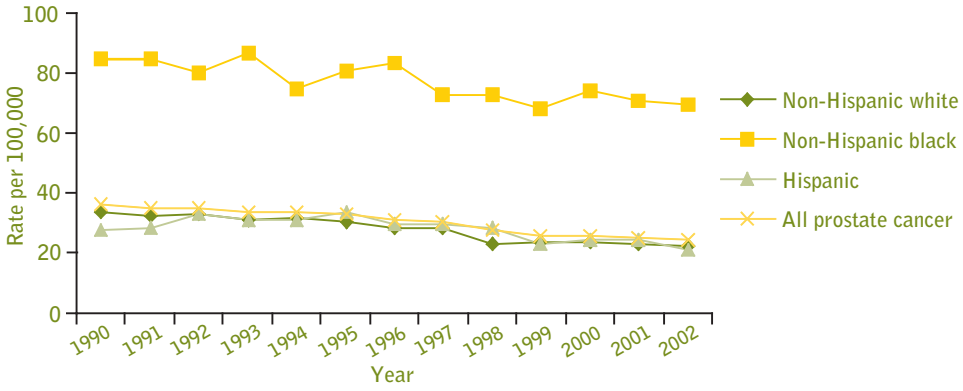
1. Age-adjusted to the 2000 standard million

FIGURE 5-17. Age-adjusted[1] mortality rates for breast cancer, by year and race/ethnicity, Florida Vital Statistics, 1990-2002



1. Age-adjusted to the 2000 standard million

FIGURE 5-18. Age-adjusted[1] mortality rates for prostate cancer, by year and race/ethnicity, Florida Vital Statistics, 1990-2002



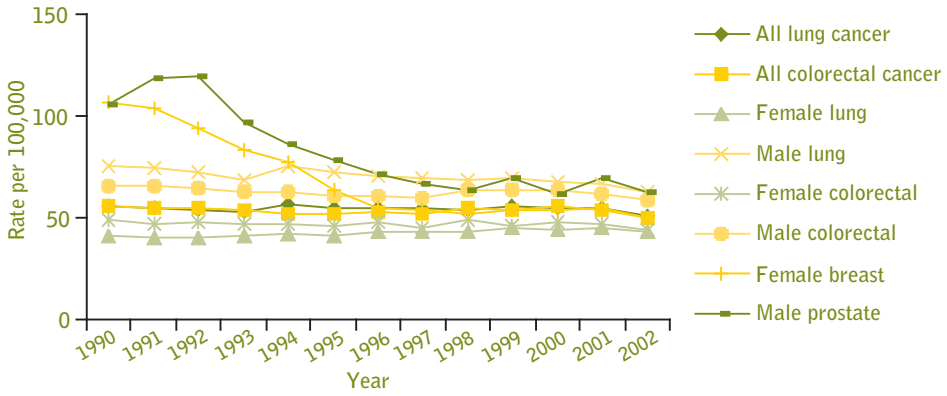
1. Age-adjusted to the 2000 standard million

Cancer Hospital Discharge Data

As a group, the myriad of diseases that comprise "cancer" are not only the second leading cause of death – second only to cardiovascular disease – but are also the second leading cause of hospitalization – again, second to cardiovascular disease. Unlike cardiovascular disease, cancer-related hospitalization days decreased substantially, from approximately 761,000 in 1990 to approximately 581,000 in 2002. The price tag for cancer-related hospitalizations increased during the same time period from $2.5 billion (C$) to $2.8 billion. The average charge per day for cancer-related hospitalizations increased between 1990 and 2002, from $3,534 (C$) per day to $5,925 per day.

Figure 5-19 shows age-adjusted hospital discharge rates for lung, colorectal, breast, and prostate cancer by year and sex (where applicable). Overall, the hospital discharge rates for lung and colorectal cancer were stable and similar between 1990 and 2002. Men had higher hospital discharge rates for lung and colorectal cancer compared to women. Hospital discharge rates for both breast and prostate cancer decreased between 1990 and 2002.

FIGURE 5-19. Age-adjusted[1] hospital discharge rates for lung cancer (lung), breast cancer (breast), prostate cancer (prostate) and colorectal cancer (colorectal), by year and sex (where applicable), Florida Agency for Health Care Administration Hospital Discharge Data, 1990-2002



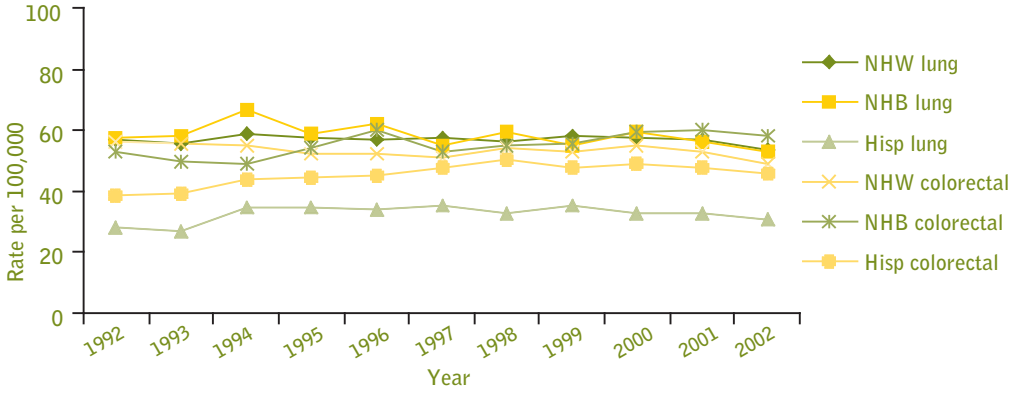
1. Age-adjusted to the 2000 standard million

Lung and colorectal cancer hospital discharge rates for non-Hispanic whites were similar to rates for non-Hispanic blacks, but higher than the rates for Hispanics (see Figure 5-20). Whereas lung and colorectal cancer hospital discharge rates were mostly stable among non-Hispanic whites and non-Hispanic blacks, these rates increased among Hispanics between 1992 and 2002.

Overall, hospital discharge rates decreased among women and men for breast and prostate cancer, respectively (see Figure 5-21). Breast and prostate cancer discharge rate declines were steeper among non-Hispanic white and non-Hispanic black women and men compared to Hispanic women and men. Non-Hispanic white women had higher discharge rates compared to Hispanic and non-Hispanic black women for breast cancer. Non-Hispanic black men had higher discharge rates compared to Hispanic and non-Hispanic white men for prostate cancer.

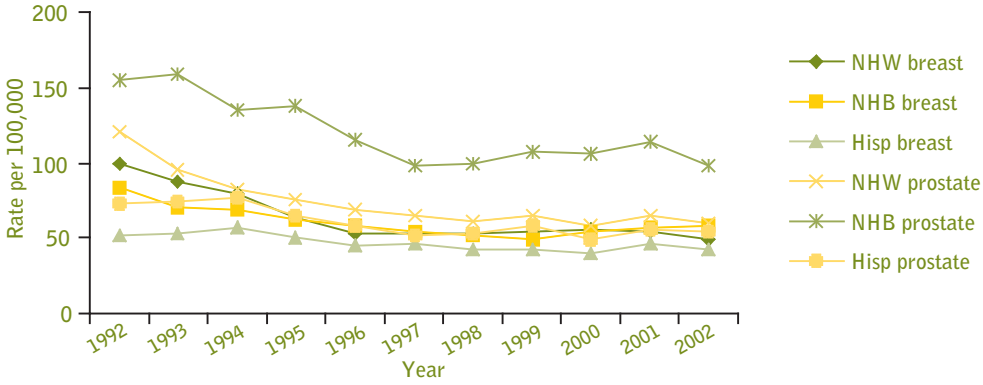
The average charge per day for hospital cancer treatment increased substantially during the 1990s and into the twenty-first century (see Figure 5-22). Lung cancer daily charges jumped from $3,387 (C$) in 1990 to $4,921 in 2002. Daily hospital charges for colorectal, breast, and prostate cancers followed suit. Breast cancer, by far, had the highest daily hospital charges, followed by prostate cancer; however, prostate cancer had the largest percent increase with daily hospital rates in 2002 being 2.6 times those observed in 1990.

FIGURE 5-20. Age-adjusted[1] hospital discharge rates for lung and colorectal cancer, by year and race/ethnicity[2], Florida Agency for Health Care Administration Hospital Discharge Data, 1992-2002



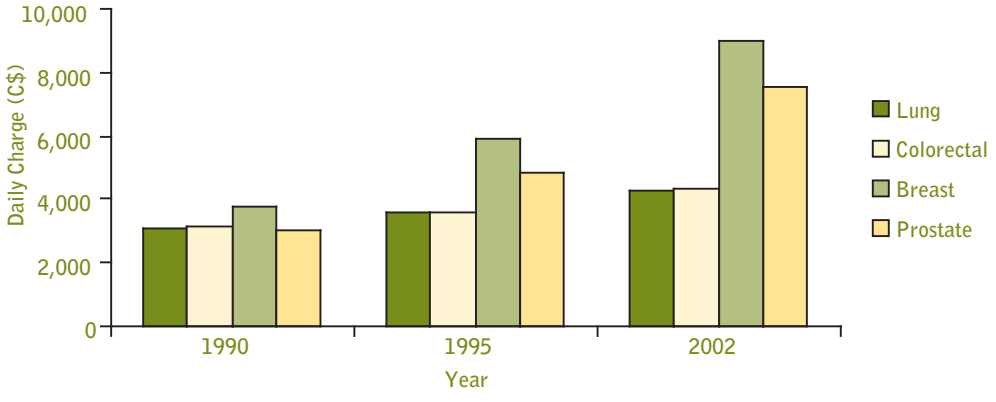
1. Age-adjusted to the 2000 standard million
2. Race/ethnicity information not available in data prior to 1992. NHW=non-Hispanic White; NHB=non-Hispanic Black; Hisp=Hispanic

FIGURE 5-21. Age-adjusted[1] hospital discharge rates for breast and prostate cancer, by year and race/ethnicity[2], Florida Agency for Health Care Administration Hospital Discharge Data, 1992-2002



1. Age-adjusted to the 2000 standard million
2. Race/ethnicity information not available in data prior to 1992. NHW=non-Hispanic White; NHB=non-Hispanic Black; Hisp=Hispanic

FIGURE 5-22. Florida average daily hospitalization charges (in 2002 constant dollars) for lung, colorectal, breast, and prostate cancer, Florida Agency for Health Care Administration Hospital Discharge Data, 1990, 1995, and 2002

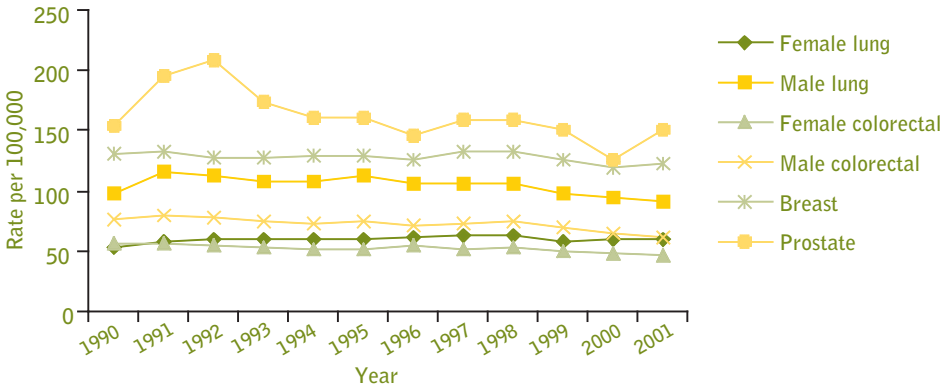


Cancer Incidence and Years of Potential Life Lost

Cancer incidence data are collected by the Florida Cancer Data System (FCDS). Overall, no clear trends were observed for age-adjusted cancer incidence rates between 1990 and 2001. The incidence rates for all cancers were higher among men compared to women. Age-adjusted cancer incidence rates in the 1990s were approximately 400 cases per 100,000 population among women and approximately 550 cases per 100,000 population among men.

Figure 5-23 shows age-adjusted incidence rates for lung, colorectal, breast, and prostate cancer between 1990 and 2001, by year and sex (if applicable). Incidence rates for lung and colorectal cancer were higher among men compared to women and prostate cancer incidence was higher than breast cancer incidence.

FIGURE 5-23. Age-adjusted[1] incidence rates for lung cancer (lung), breast cancer (breast), prostate cancer (prostate), and colorectal cancer (colorectal), by year and sex (where applicable), Florida Cancer Data System, 1990-2001



1. Age-adjusted to the 2000 standard million

In 2002, cancer was responsible for 275,816 years of potential life lost (YPLL) prior to age 75. Lung cancer was the biggest contributor to YPLL, accounting for more than 77,500 years. Breast cancer accounted for more than 26,000 YPLL among women and prostate cancer accounted for approximately 4,700 YPLL. Colorectal cancer accounted for about 23,000 YPLL.

Diabetes Mellitus Mortality

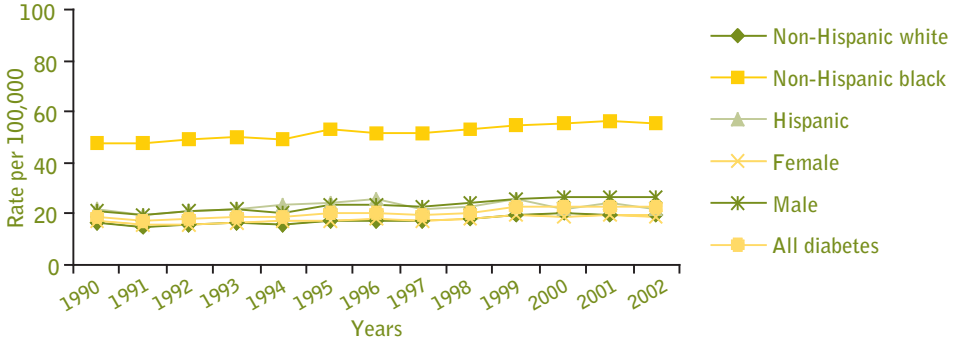
Assessing the true burden of diabetes on society in terms of morbidity and mortality is difficult for a number of reasons. First, the Centers for Disease Control and Prevention (CDC) has estimated that approximately one-third of diabetes cases are undiagnosed. Second, people tend to die of the complications of diabetes rather than diabetes itself, and, therefore, diabetes is under-reported as an underlying or contributing cause of death. Lastly, diabetes can lead to a host of complications, such as heart disease, renal failure, blindness, and inadequate circulation-related infection, injury, and amputation. The CDC estimates that over 60% of those with diabetes have high blood pressure and 60% to 70% have mild to severe neuropathy. Because of these complications, disability affects 20% to 50% of the population with diabetes.

Despite the complications and limitations of diabetes data, diabetes has been a leading cause of death for a number of decades. In Florida in 2002, diabetes was the sixth leading cause of death. Florida's age-adjusted mortality rate with diabetes as the underlying cause of death for those age 35 and older has increased from 26.2 deaths per 100,000 population in 1979 to 47.0 deaths per 100,000 population in 2002 – a 79% increase.

A formal surveillance system for reporting diabetes cases does not exist in Florida. Diabetes prevalence estimates are determined from data collected by the Behavioral Risk Factor Surveillance System (BRFSS). Prevalence estimates determined from these data are based on self-reported cases. The BRFSS data show that diabetes prevalence among those aged 45 years and older has increased from 8.5% (95% confidence interval 7.7, 9.3) in 1994 and 1996 (data combined) to 12.4% (95% confidence interval 11.0, 13.8) in 2002 – a 62% increase.

Overall, age-adjusted diabetes deaths among all age groups increased between 1990 and 2002 by 19%, from 19.0 deaths per 100,000 population to 22.3 deaths per 100,000 population (see Figure 5-24). Diabetes mortality rates were substantially higher among men compared to women and among non-Hispanic blacks compared to Hispanics and non-Hispanic whites. Mortality rates were 25% to 45% higher among men compared to women. Non-Hispanic black diabetes mortality rates were nearly three times as high as non-Hispanic white mortality rates and over twice as high as mortality rates among Hispanics.

FIGURE 5-24. Age-adjusted[1] mortality rates for diabetes, by year, sex, and race/ethnicity, Florida Vital Statistics, 1990-2002



1. Age-adjusted to the 2000 standard million

Diabetes Mellitus Hospital Discharge Data

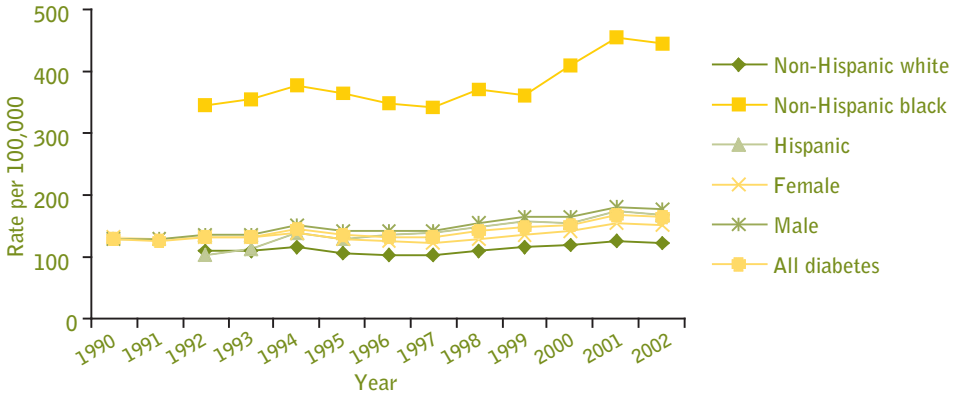
Considering the myriad physical complications resulting from diabetes, it is not surprising that, of the leading causes of death, the diabetes age-adjusted hospital discharge rates are only surpassed by coronary heart disease, stroke, and CLRD. Overall, diabetes age-adjusted hospital discharge rates have increased by 27%, from 129.2 discharges per 100,000 population in 1990 to 163.6 discharges per 100,000 population in 2002. These discharges had diabetes listed as the primary diagnosis for hospital admission; i.e., hospital admissions with diabetes as a contributing factor were not included.

Figure 5-25 shows diabetes age-adjusted hospital discharge data by sex and race/ethnicity for 1990-2002. As with mortality data, the most striking feature of the graph is the large gap between non-Hispanic black diabetes discharge rates and rates for Hispanics and non-Hispanic whites. Diabetes hospital discharge rates for non-Hispanic blacks are over three times the rates observed among non-Hispanic whites. Another striking feature is the substantial increase in diabetes hospital discharge rates among Hispanics. It is unclear how much of the increase in Hispanic rates is attributable to increased reporting of Hispanic ethnicity in hospital records. Lastly, men and women had very similar rates between 1990 and 1992. However, from 1993 through 2002, men had higher diabetes hospital discharge rates than women.

As with other chronic diseases, the charges for hospital care for people with diabetes, have increased substantially between 1990 and 2002. In 1990, there were about 142,000 hospital days attributable to diabetes, with charges of

more than $342 million (C$). The price tag increased to about $344 million (C$) for 126,000 hospital days in 1995 and to $604 million for nearly 162,000 hospital days in 2002.

FIGURE 5-25. Age-adjusted[1] hospital discharge rates with diabetes listed as the primary diagnosis code, by year, sex, and race/ethnicity[2], Florida Agency for Health Care Administration Hospital Discharge Data, 1990-2002

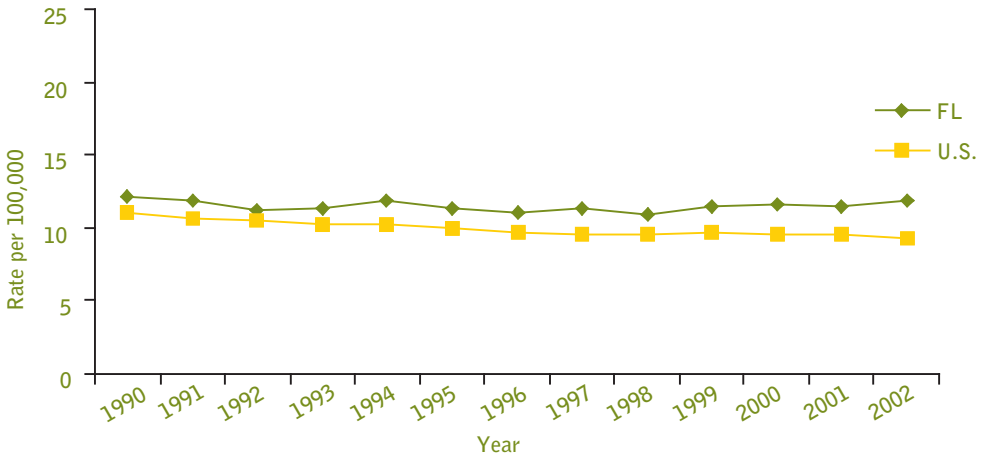


1. Age-adjusted to the 2000 standard million
2. Race/ethnicity not available in data prior to 1992

Chronic Liver Disease/Cirrhosis Mortality

Age-adjusted chronic liver disease/cirrhosis mortality rates declined in Florida between 1970 and 1990. During the 1990s and into 2002, however, chronic liver disease/cirrhosis mortality rates have been mostly flat. Florida chronic liver disease/cirrhosis rates were slightly above those observed for the U.S. throughout the 1990s and into 2002. Whereas Florida rates were flat, age-adjusted chronic liver disease/cirrhosis rates for the U.S. slowly and steadily declined, from 11.1 deaths per 100,000 population in 1990 to 9.3 deaths per 100,000 population in 2002 (see Figure 5-26).

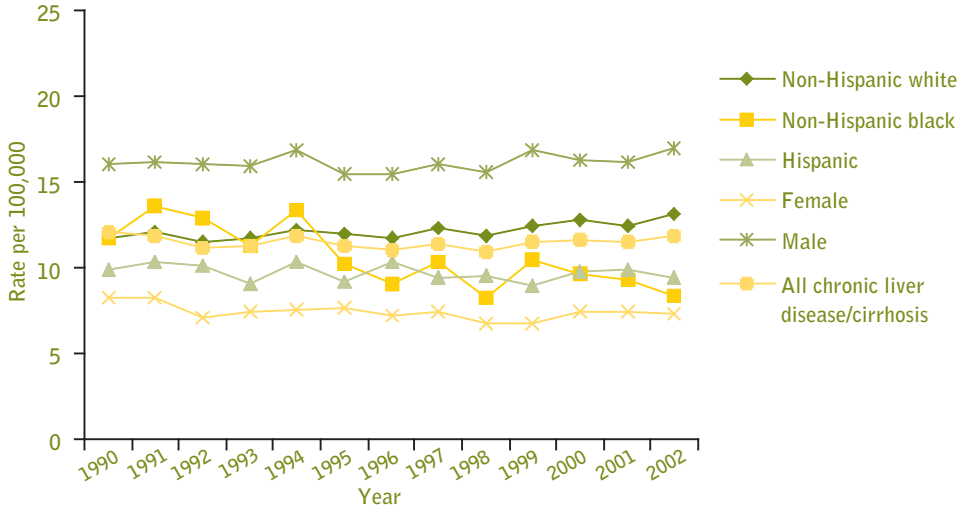
FIGURE 5-26. Age-adjusted[1] mortality rates for chronic liver disease/cirrhosis by year, Florida Vital Statistics, CDC WONDER, and National Vital Statistics Reports[2] , 1990-2002



1. Age-adjusted to the 2000 standard million
2. U.S. mortality data for 2002 are preliminary

Chronic liver disease/cirrhosis death rates in Florida appear to be driven primarily by men. Throughout the 1990s and into 2002, age-adjusted chronic liver disease/cirrhosis mortality rates among men were two to two and a half times the rates observed for women (see Figure 5-27). Furthermore, rates among men were stable, while rates among women declined by 11% between 1990 and 2002.

FIGURE 5-27. Age-adjusted[1] mortality rates for chronic liver disease/cirrhosis, by year, sex, and race/ethnicity, Florida Vital Statistics, 1990-2002



1. Age-adjusted to the 2000 standard million

Age-adjusted chronic liver disease/cirrhosis mortality rates among non-Hispanic whites were consistently above the rates observed among Hispanics. Rates among non-Hispanic blacks were similar to rates observed among non-Hispanic whites for the first half of the 1990s. After 1994, mortality rates among non-Hispanic blacks dropped below rates observed among non-Hispanic whites.

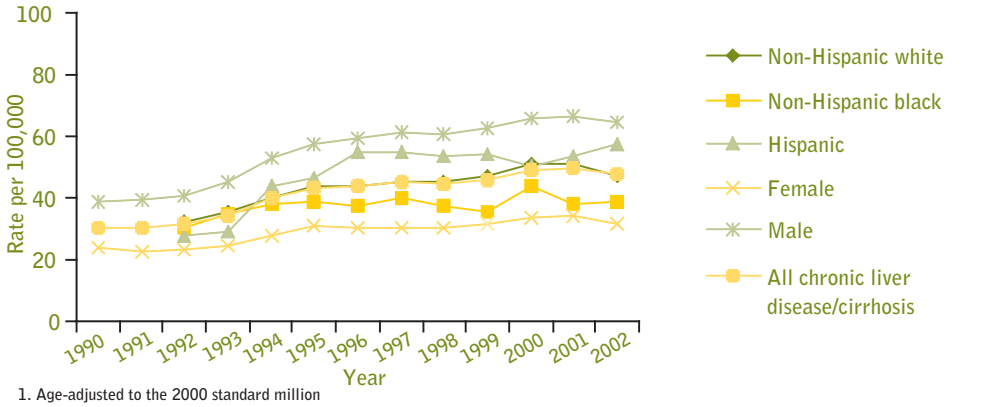
Chronic Liver Disease/Cirrhosis Hospital Discharge Data

In Florida in the 1990s and into 2002, fewer than 50 per 100,000 people per year were discharged from a hospital due to chronic liver disease/cirrhosis. The hospital discharge rate for chronic liver disease/cirrhosis is lower than the rates for the other chronic diseases examined for this report. However, discharge rates are on the rise.

As with mortality rates, age-adjusted chronic liver disease/cirrhosis hospital discharge rates are substantially higher among men compared to women (see Figure 5-28). Since 1994, chronic liver disease/cirrhosis hospital discharge rates were lowest among non-Hispanic blacks compared to their non-Hispanic white and Hispanic counterparts. Chronic liver disease/cirrhosis rates rose dramatically among Hispanics from 1993 to 1996. A portion of the dramatic increase among Hispanics was most likely due to increased reporting of Hispanic ethnicity in hospital data.

The number of hospital days attributable to chronic liver disease/cirrhosis was approximately 38,000 in 1990 and increased to 54,000 in 2002. As with other health care costs, however, the price tag increased from $118 million ($C) in 1990 to $254 million in 2002. Per day charges increased from $3,270 ($C) per day in 1990 to $4,887 per day in 2002.

FIGURE 5-28. Age-adjusted[1] hospital discharge rates for chronic liver disease/cirrhosis, by year, sex, and race/ethnicity[2], Florida Agency for Health Care Administration Hospital Discharge Data, 1990-2002,



1. Age-adjusted to the 2000 standard million
2. Race/ethnicity not available in data prior to 1992

Chronic Lower Respiratory Disease (CLRD) Mortality

CLRD, formerly known as chronic obstructive pulmonary disease, is a group of diseases that are clinically and pathologically difficult to differentiate from each other and include chronic bronchitis, emphysema, and chronic airway obstruction. Unlike asthma, CLRD impairment is progressive, largely irreversible, and occurs in older individuals who typically suffer from a host of chronic diseases that contribute to overall disability.

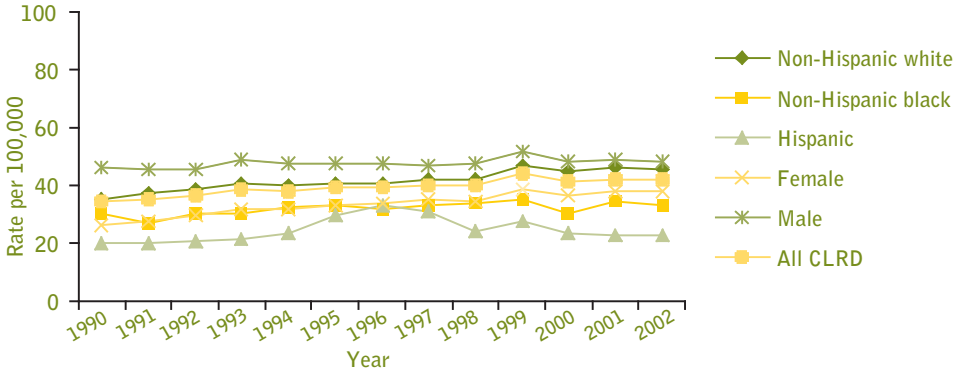
CLRD is thought to be caused by exposure to environmental agents, including air pollution, dust, chemicals, and most notably, tobacco smoke. Cigarette smokers are about 10 times more likely to develop CLRD than non-smokers. Children exposed to environmental tobacco smoke (via smoking parents) are two to four times more likely to suffer from wheezing, coughing, and airway hyper-responsiveness. Data from the 1998-2000 Florida Youth Tobacco Surveys show that greater than 90% of middle and high school current smokers were also exposed to environmental tobacco smoke in a room or car during the seven days prior to the survey. More disturbingly, greater than 60% of non-smoking students were also exposed to environmental tobacco smoke in a room or car during the seven days prior to the survey. Elimination of tobacco use is the single most important preventive activity to reduce CLRD morbidity and mortality.

As noted in the previous chapter, age-adjusted CLRD mortality rates in Florida increased markedly between 1950 and 1990. Throughout the 1990s and into 2002, Florida had CLRD mortality rates similar to those observed for the U.S. Figure 5-29 shows the age-adjusted CLRD mortality rates for each year between 1990 and 2002, overall, and by sex and race/ethnicity.

CLRD death rates increased approximately 20%, from 34.7 deaths per 100,000 population in 1990 to 41.9 deaths per 100,000 population in 2002. Marked increases in age-adjusted mortality rates were observed among non-Hispanic whites and women. Rates among non-Hispanic blacks, Hispanics, and men were relatively flat.

The greatest increase in mortality rates was observed among women. Rates among women increased 45%, from 26.0 deaths per 100,000 population in 1990 to 37.6 deaths per 100,000 population in 2002, narrowing the gap between male and female mortality rates. Rates among Hispanics were lower than those of non-Hispanic blacks, with the exception of a three-year period from 1995 to 1997.

FIGURE 5-29. Age-adjusted[1] mortality rates for CLRD, by year, sex, and race/ethnicity, Florida Vital Statistics, 1990-2002

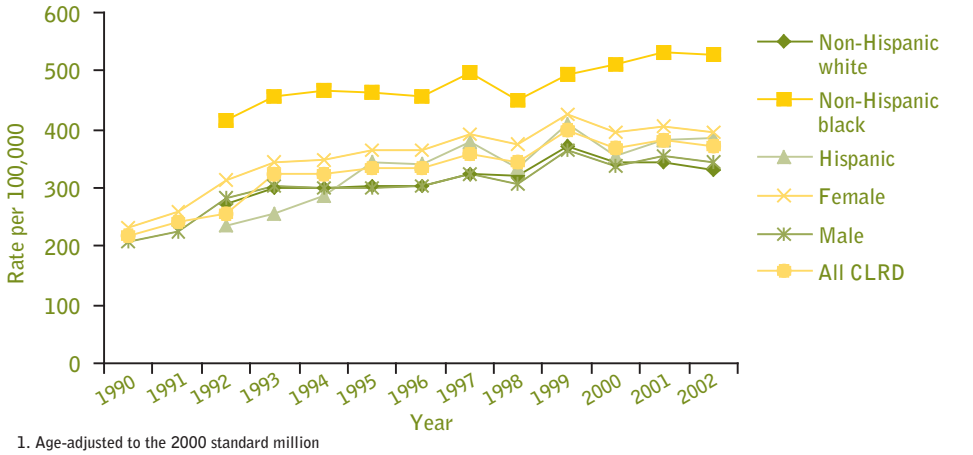


1. Age-adjusted to the 2000 standard million

CLRD Hospital Discharge Data

Overall, age-adjusted CLRD hospital discharge rates increased by 70% between 1990 and 2002 (see Figure 5-30). Discharge rates increased among men and women and all race/ethnicity groups. Rates among women were slightly higher than rates observed among men.

FIGURE 5-30. Age-adjusted[1] hospital discharge rates for CLRD, by year, sex, and race/ethnicity[2], Florida Agency for Health Care Administration Hospital Discharge Data, 1990-2002



1. Age-adjusted to the 2000 standard million
2. Race/ethnicity not available in data prior to 1992

Between 1992 and 2002, discharge rates were higher among non-Hispanic blacks compared to non-Hispanic whites. Rates increased among non-Hispanic whites by 21% and by 26% among non-Hispanic blacks. Hispanic rates were lower than their non-Hispanic white and black counterparts in 1992; however, Hispanic rates increased by 64% between 1992 and 2002, making Hispanic rates higher than non-Hispanic white rates by 2002.

The number of hospital days and hospital charges both increased greatly for CLRD from 1990-2002. Hospital days increased by 68%, from a total of about 196,000 days in 1990 to about 329,000 days in 2002. The average charge per hospital day increased from $2,633 (C$) per day in 1990 to $3,536 per day in 2002. Total hospital charges for CLRD doubled from $508 million (C$) in 1990 to $1.1 billion in 2002.

APPENDIX I
Glossary

Adjustment A summarizing procedure for a statistical measure in which the effects of differences in composition of the populations being compared have been minimized by statistical methods.

Age-specific rate A rate for a specified age group. The numerator and denominator refer to same age group.

Age standardization A procedure for adjusting rates designed to minimize the effects of differences in age composition when comparing rates for different populations.

Association (correlation) Statistical dependence between two or more events, characteristics, or other variables. An association is present if the probability of occurrence of an event or characteristic, or the quantity of a variable, depends upon the occurrence of one or more other events, the presence of one or more other characteristics, or the quantity of one or more other variables. The association between two variables is described as positive when the occurrence of higher values of a variable is associated with the occurrence of higher values of another variable. In a negative association, the occurrence of higher values of one variable is associated with lower values of the other variable.

Behavioral risk factor A characteristic or behavior that is associated with increased probability of a specified outcome.

Body mass index (BMI) Weight in kilograms divided by the square of height in meters. This measure correlates closely with body density and skinfold thickness, and is an indicator of excess weight for height.

Census A complete count of a population.

Classification of diseases Arrangement of diseases into groups having common characteristics. Useful in efforts to achieve standardization and comparability.

Confidence interval (CI) The computed interval with a given probability that the true value of a variable is contained within the interval.

Confidence limits The upper and lower boundaries of the confidence interval.

Cohort component technique (method) A method of population projection that takes the population distributed by age and sex at a base date, and carries it forward in time on the basis of separate allowances for fertility, mortality, and migration.

Correlation The degree to which variables change together.

Data A collection of items of information.

Database An organized set of data or collection of files that can be used for a specified purpose.

Epidemiology The study of the distribution and determinants of health-related states or events in specified populations and the application of this study to control of health problems.

Ethnic group A social group characterized by a distinctive social and cultural tradition, maintained within the group from generation to generation, a common history and origin, and a sense of identification with the group.

Etiology The science of causes, causality; in common usage, cause.

Factor An event, characteristic, or other definable entity that brings about a change in a health condition or other defined outcome.

Health A state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity.

Health behavior The combination of knowledge, practices, and attitudes that together contribute to motivate the actions we take regarding health.

Incidence The number of new events in a defined population within a specified period of time.

Incidence rate The rate at which new events occur in a population.

International Classification of Diseases (ICD) The classification of specific conditions and groups of conditions determined by an internationally representative group of experts who advise the World Health Organization, which publishes the complete list in periodic revisions.

Latency Delay between exposure to a disease-causing agent and the appearance of manifestations of the disease.

Life expectancy The average number of years an individual of a given age is expected to live, if current mortality rates continue to apply.

Lifestyle The set of habits and customs that is influenced, modified, encouraged, or constrained by the lifelong process of socialization.

Mortality rate (death rate) An estimate of the proportion of a population that dies during a specified period.

Multivariable (multivariate) analysis A set of techniques used when the variation in several variables has to be studied simultaneously.

Odds The ratio of the probability of occurrence of an event to that of non-occurrence, or the ratio of the probability that something is so to the probability that it is not so.

Odds ratio The likelihood or odds of having a particular disease or event if a certain factor is present.

Population based Pertaining to a general population defined by geopolitical boundaries.

Premature death A death that occurs before a person achieves life expectancy.

Prevalence The number of events in a given population at a designated time.

Prevalence rate The total number of all individuals who have an attribute or disease at a particular time, divided by the population at risk of having the attribute or disease at this point in time or midway through the period.

Race Persons who are relatively homogeneous with respect to biological inheritance.

Regression analysis Given data on a dependent variable, and one or more independent variables, regression analysis involves finding the best mathematical model to describe the dependent variable as a function of the independent variables, or to predict the dependent variable from the independent variables.

Risk The probability that an event will occur.

Risk factor An aspect of personal behavior or lifestyle, an environmental exposure, or an inherited characteristic, which, on the basis of epidemiologic evidence, is known to be associated with health-related conditions.

Screening The presumptive identification of unrecognized disease or defect by the application of tests, examinations, or other procedures that can be applied rapidly.

Secular Gradual changes in the frequency of a disease over long time periods.

Standard population A population in which the age and sex composition is known precisely.

Statistical significance Statistical methods allow an estimate to be made of the probability of the observed or greater degree of association between independent and dependent variables under the null hypothesis. From this estimate, in a sample of given size, the statistical significance of a result can be stated. Usually the level of statistical significance is stated by the p value.

Stratification The process of, or result of, separating a sample into several subsamples according to specified criteria such as age groups, sex, race/ethnicity, etc.

Surveillance Continuous analysis, interpretation, and feedback of systematically collected data, generally using methods distinguished by their practicality, uniformity, and rapidity, rather than by accuracy or completeness.

Trend A long-term movement in an ordered series. An essential feature is that the movement, while possibly irregular in the short term, shows movement consistently in the same direction over a long term.

Underlying cause of death The disease or injury that initiated the chain of events leading directly to death, or the circumstances of the accident or violence that produced the fatal injury.

Vital statistic Systematically tabulated information concerning births, marriages, divorces, separations, and deaths based on registrations of these vital events.

Years of potential life lost (YPLL) The number of years of life lost for a specified cause of death before a specified age, usually age 75. It is calculated by subtracting the age at death from the specified age (e.g. 75 years) for each decedent being studied, and then adding all of these differences for a total YPLL.

APPENDIX II

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APPENDIX III
Tables

Table 2-2: Percent of population represented by non-Hispanic whites, non-Hispanic blacks, Hispanics and those of any other race/ethnicity, by county and statewide, Florida, U.S. Census Bureau, 1990 and 2000

	Percent (%) Non-Hispanic White		Percent (%) Non-Hispanic Black		Percent (%) Hispanic		Percent (%) Other Race/Ethnicity	
County	1990	2000	1990	2000	1990	2000	1990	2000
Alachua	74.6	69.7	19.0	19.1	3.8	5.7	2.7	5.5
Baker	83.5	82.6	14.9	13.8	1.1	1.9	0.6	1.6
Bay	85.0	82.8	10.8	10.5	1.8	2.4	2.4	4.3
Bradford	77.2	75.0	20.2	20.6	1.8	2.4	0.8	2.1
Brevard	87.4	83.7	7.8	8.2	3.1	4.6	1.6	3.5
Broward	74.7	58.0	15.0	20.0	8.8	16.7	1.5	5.2
Calhoun	82.5	77.6	15.1	15.6	1.1	3.8	1.3	3.0
Charlotte	93.2	90.4	3.5	4.2	2.5	3.3	0.8	2.0
Citrus	95.1	93.0	2.3	2.3	1.8	2.7	0.7	2.0
Clay	90.3	84.9	5.2	6.6	2.6	4.3	1.9	4.2
Collier	81.8	73.8	3.8	4.4	13.8	19.6	0.6	2.2
Columbia	79.6	78.0	18.1	16.8	1.4	2.7	0.8	2.4
Desoto	74.2	61.2	15.5	12.5	9.6	24.9	0.7	1.4
Dixie	90.0	87.7	8.7	8.9	0.9	1.8	0.4	1.6
Duval	71.0	63.5	24.3	27.5	2.6	4.1	2.1	4.8
Escambia	75.2	70.9	20.1	21.2	1.9	2.7	2.8	5.2
Flagler	86.5	83.6	8.0	8.6	4.4	5.1	1.1	2.7
Franklin	86.1	79.8	12.4	15.9	0.7	2.4	0.7	1.8
Gadsden	39.6	35.9	57.8	56.8	2.3	6.2	0.4	1.1
Gilchrist	89.6	88.7	8.3	6.9	1.5	2.8	0.5	1.6
Glades	74.3	68.6	12.1	10.5	7.9	15.1	5.7	5.9
Gulf	79.8	78.7	18.8	16.8	0.7	2.0	0.7	2.4
Hamilton	58.1	55.0	38.7	37.3	2.6	6.4	0.6	1.3
Hardee	70.6	54.6	5.2	8.0	23.6	35.7	0.5	1.7
Hendry	58.8	43.9	16.3	14.5	22.5	39.6	2.4	2.0
Hernando	92.6	89.2	3.8	3.9	3.0	5.0	0.6	1.8
Highlands	84.1	76.5	9.9	9.1	5.2	12.1	0.8	2.4
Hillsborough	72.5	63.3	12.9	14.4	13.0	18.0	1.6	4.2
Holmes	92.7	88.9	4.8	6.4	1.1	1.9	1.4	2.8
Indian River	87.9	83.4	8.4	8.1	3.0	6.5	0.6	1.9
Jackson	70.9	68.6	26.0	26.2	2.4	2.9	0.7	2.2
Jefferson	55.2	58.3	43.3	38.0	1.1	2.2	0.4	1.4
Lafayette	81.8	75.3	13.8	14.1	4.0	9.1	0.5	1.5
Lake	87.4	84.2	9.1	8.2	2.9	5.6	0.6	2.0

Table 2-2: (Continued)

	Percent (%) Non-Hispanic White		Percent (%) Non-Hispanic Black		Percent (%) Hispanic		Percent (%) Other Race/Ethnicity	
County	1990	2000	1990	2000	1990	2000	1990	2000
Lee	88.2	82.0	6.5	6.4	4.6	9.5	0.7	2.1
Leon	71.8	64.1	24.2	28.8	2.5	3.5	1.6	3.6
Levy	84.9	83.2	12.4	10.8	1.9	3.9	0.8	2.1
Liberty	80.2	74.5	17.3	18.2	1.9	4.5	0.5	2.8
Madison	56.8	55.4	41.6	39.9	1.2	3.2	0.4	1.5
Manatee	87.1	80.6	7.6	8.0	4.5	9.3	0.8	2.1
Marion	83.5	80.4	12.7	11.3	3.0	6.0	0.8	2.2
Martin	88.7	85.8	5.9	5.1	4.8	7.5	0.6	1.6
Miami-Dade	30.0	20.7	19.1	19.0	49.5	57.3	1.4	3.0
Monroe	81.4	77.2	5.0	4.5	12.4	15.8	1.1	2.5
Nassau	88.0	89.0	10.3	7.7	1.1	1.5	0.6	1.8
Okaloosa	84.9	81.0	9.0	8.9	3.1	4.3	3.0	5.8
Okeechobee	80.7	71.6	6.4	7.8	11.9	18.6	0.9	2.0
Orange	73.1	57.5	14.9	17.5	9.7	18.8	2.3	6.2
Osceola	81.0	59.6	5.1	6.4	12.1	29.4	1.8	4.6
Palm Beach	79.0	70.6	12.1	13.5	7.8	12.4	1.1	3.5
Pasco	93.9	89.9	1.9	2.0	3.4	5.7	0.8	2.4
Pinellas	88.5	82.8	7.7	8.8	2.4	4.6	1.4	3.8
Polk	81.7	74.7	13.3	13.3	4.2	9.5	0.8	2.5
Putnam	78.4	75.4	18.4	16.9	2.6	5.9	0.5	1.8
Saint Johns	88.2	89.0	8.7	6.2	2.3	2.6	0.8	2.1
Saint Lucie	78.9	74.1	16.3	15.1	4.0	8.2	0.9	2.6
Santa Rosa	92.5	89.1	4.0	4.2	1.5	2.5	2.0	4.2
Sarasota	92.9	89.8	4.3	4.1	2.2	4.3	0.7	1.8
Seminole	83.2	75.2	8.4	9.2	6.6	11.2	1.9	4.4
Sumter	80.8	78.4	16.2	13.5	2.4	6.3	0.7	1.9
Suwannee	83.1	81.1	14.7	12.0	1.6	4.9	0.6	2.0
Taylor	79.8	77.0	18.1	18.9	1.0	1.5	1.1	2.6
Union	73.1	71.9	22.8	22.6	3.2	3.6	0.9	2.0
Volusia	86.0	81.9	9.0	9.1	4.0	6.6	1.0	2.4
Wakulla	85.6	84.8	12.9	11.3	0.6	1.9	0.9	1.9
Walton	90.4	87.2	6.8	6.9	0.9	2.2	1.9	3.7
Washington	82.3	80.5	14.6	13.5	1.0	2.3	2.1	3.8
STATE	73.1	65.4	13.2	14.2	12.2	16.8	1.4	3.6

Table 3-1: Smoking-attributable mortality rates, by county, Florida Department of Health, Bureau of Epidemiology, 2002

County	Death Rate per 100,000 Population	County	Death Rate per 100,000 Population
Alachua	277.71	Manatee	381.68
Baker	318.95	Marion	460.43
Bay	350.40	Martin	362.04
Bradford	373.39	Miami-Dade	230.73
Brevard	380.53	Monroe	255.58
Broward	309.43	Nassau	320.97
Calhoun	314.29	Okaloosa	285.83
Charlotte	443.72	Okeechobee	463.43
Citrus	521.36	Orange	259.08
Clay	298.75	Osceola	253.73
Collier	251.97	Palm Beach	332.16
Columbia	373.25	Pasco	456.52
Desoto	312.23	Pinellas	379.86
Dixie	434.43	Polk	394.88
Duval	304.76	Putnam	407.08
Escambia	358.39	Saint Johns	282.21
Flagler	302.91	Saint Lucie	362.73
Franklin	276.33	Santa Rosa	273.18
Gadsden	346.80	Sarasota	366.20
Gilchrist	386.25	Seminole	260.70
Glades	416.80	Sumter	351.40
Gulf	303.51	Suwannee	467.95
Hamilton	339.46	Taylor	378.76
Hardee	268.40	Union	422.98
Hendry	381.85	Volusia	434.04
Hernando	517.84	Wakulla	301.00
Highlands	458.38	Walton	335.81
Hillsborough	300.97	Washington	376.09
Holmes	467.97	STATE	330.60
Indian River	396.43		
Jackson	362.53		
Jefferson	235.82		
Lafayette	471.96		
Lake	375.01		
Lee	368.86		
Leon	250.45		
Levy	357.23		
Liberty	302.86		
Madison	328.78		

Table 3-2: Percent of adults (18+) who are current smokers, by county, Florida BRFSS, 2002

County	Percent (%)	95% Confidence Interval
Alachua	18.8	14.7, 23.0
Baker	29.2	24.2, 34.2
Bay	29.4	24.4, 34.4
Bradford	22.7	16.9, 28.5
Brevard	26.7	19.0, 34.4
Broward	17.7	14.0, 21.5
Calhoun	32.7	24.6, 40.8
Charlotte	18.3	14.4, 22.2
Citrus	26.8	22.4, 31.3
Clay	23.2	19.0, 27.5
Collier	19.4	14.7, 24.1
Columbia	29.6	24.7, 34.6
Desoto	23.6	14.2, 33.1
Dixie	27.4	18.0, 36.8
Duval	23.0	15.0, 31.0
Escambia	26.3	21.7, 30.9
Flagler	20.3	16.4, 24.3
Franklin	25.6	20.1, 31.1
Gadsden	17.2	13.4, 21.0
Gilchrist	27.0	14.1, 39.9
Glades	35.5	12.8, 58.2
Gulf	23.8	17.9, 29.7
Hamilton	17.3	10.8, 23.7
Hardee	20.7	16.4, 24.9
Hendry	32.9	19.9, 46.0
Hernando	22.3	18.4, 26.2
Highlands	18.9	15.0, 22.9
Hillsborough	22.8	18.4, 27.3
Holmes	25.6	20.8, 30.3
Indian River	18.9	14.6, 23.2
Jackson	21.8	16.7, 26.9
Jefferson	18.6	14.5, 22.7
Lafayette	19.5	12.0, 26.9
Lake	23.1	18.7, 27.6
Lee	22.2	18.1, 26.4
Leon	16.4	12.8, 20.1
Levy	27.8	23.2, 32.4
Liberty	26.7	20.4, 32.9
Madison	20.8	16.4, 25.2
Manatee	24.2	19.0, 29.5
Marion	26.6	22.0, 31.1
Martin	24.5	17.2, 31.8
Miami-Dade	18.8	14.9, 22.8
Monroe	29.2	24.0, 34.5
Nassau	19.5	15.1, 23.9
Okaloosa	24.7	20.6, 28.9
Okeechobee	28.2	23.5, 32.9
Orange	21.4	17.3, 25.5
Osceola	26.1	21.1, 31.0
Palm Beach	22.2	16.8, 27.6
Pasco	26.0	21.5, 30.6
Pinellas	23.4	19.3, 27.6
Polk	28.8	24.3, 33.4
Putnam	27.5	22.9, 32.1
Saint Johns	22.2	17.6, 26.7
Saint Lucie	28.1	23.4, 32.8
Santa Rosa	28.6	22.8, 34.4
Sarasota	19.6	15.4, 23.7
Seminole	19.5	15.1, 23.9
Sumter	21.9	17.6, 26.2
Suwannee	23.8	19.5, 28.2
Taylor	31.2	26.1, 36.4
Union	29.3	23.5, 35.0
Volusia	22.7	18.5, 27.0
Wakulla	31.7	24.7, 38.7
Walton	31.5	26.2, 36.8
Washington	29.6	24.5, 34.6

Table 3-3: Percent of adults (18+) who are overweight (including obese), by county, Florida BRFSS, 2002

County	Percent (%)	95% Confidence Interval
Alachua	50.3	44.3, 56.3
Baker	56.4	49.9, 63.0
Bay	58.7	52.9, 64.5
Bradford	61.7	54.4, 68.9
Brevard	55.5	48.6, 62.4
Broward	56.2	51.3, 61.0
Calhoun	66.2	58.0, 74.3
Charlotte	57.1	52.1, 62.2
Citrus	58.5	53.6, 63.3
Clay	61.5	56.1, 66.9
Collier	49.0	43.2, 54.8
Columbia	64.4	59.0, 69.8
Desoto	58.5	47.2, 69.8
Dixie	47.7	35.4, 60.1
Duval	56.8	46.1, 67.4
Escambia	57.4	52.3, 62.6
Flagler	56.5	51.3, 61.6
Franklin	56.3	48.2, 64.3
Gadsden	64.7	58.9, 70.6
Gilchrist	57.4	43.7, 71.2
Glades	64.6	46.8, 82.3
Gulf	63.6	57.5, 69.7
Hamilton	64.0	49.5, 78.6
Hardee	71.0	66.2, 75.6
Hendry	66.7	58.7, 74.6
Hernando	63.8	59.2, 68.3
Highlands	58.8	53.5, 64.0
Hillsborough	58.5	52.0, 65.0
Holmes	67.1	61.7, 72.4
Indian River	59.9	53.3, 66.4
Jackson	59.1	49.2, 69.0
Jefferson	65.8	59.5, 72.0
Lafayette	69.8	56.5, 83.1
Lake	57.1	51.8, 62.4
Lee	56.2	51.4, 61.1
Leon	53.1	48.1, 58.2
Levy	65.3	59.9, 70.7
Liberty	71.6	65.1, 78.2
Madison	71.2	66.8, 75.7
Manatee	66.3	59.9, 72.7
Marion	55.3	50.2, 60.4
Martin	51.7	45.1, 58.3
Miami-Dade	56.7	50.6, 62.8
Monroe	54.2	48.8, 59.6
Nassau	64.3	57.2, 71.5
Okaloosa	59.9	55.1, 64.8
Okeechobee	61.5	56.3, 66.7
Orange	55.0	50.0, 60.0
Osceola	58.5	51.3, 65.6
Palm Beach	57.9	52.2, 63.5
Pasco	63.7	58.9, 68.6
Pinellas	57.2	52.4, 62.1
Polk	62.5	57.8, 67.2
Putnam	61.0	56.0, 66.0
Saint Johns	50.1	44.6, 55.6
Saint Lucie	56.8	51.6, 62.0
Santa Rosa	55.8	50.2, 61.4
Sarasota	56.5	51.0, 62.1
Seminole	54.5	49.3, 59.6
Sumter	62.4	57.1, 67.8
Suwannee	66.0	61.1, 71.0
Taylor	66.2	61.3, 71.1
Union	65.3	58.5, 72.1
Volusia	56.8	51.9, 61.7
Wakulla	59.0	52.2, 65.8
Walton	59.6	54.0, 65.2
Washington	64.9	59.8, 70.1

Table 3-4: Percent of adults (18+) who are obese, by county, Florida BRFSS, 2002

County	Percent (%)	95% Confidence Interval
Alachua	16.8	13.0, 20.6
Baker	25.5	20.8, 30.2
Bay	24.6	19.8, 29.4
Bradford	30.7	23.8, 37.6
Brevard	19.0	14.7, 23.4
Broward	22.1	18.0, 26.1
Calhoun	34.0	23.0, 45.0
Charlotte	21.8	17.5, 26.1
Citrus	26.5	22.1, 30.8
Clay	25.8	20.0, 31.6
Collier	18.3	14.5, 22.1
Columbia	25.3	20.6, 29.9
Desoto	25.9	14.7, 37.0
Dixie	26.5	17.7, 35.3
Duval	23.9	18.1, 29.7
Escambia	25.0	20.6, 29.3
Flagler	18.1	14.4, 21.8
Franklin	25.6	20.2, 30.9
Gadsden	33.0	26.2, 39.8
Gilchrist	21.3	13.8, 28.8
Glades	35.3	12.6, 57.9
Gulf	33.5	26.8, 40.3
Hamilton	26.6	13.5, 39.8
Hardee	36.8	31.7, 41.8
Hendry	36.9	24.3, 49.5
Hernando	26.3	22.0, 30.6
Highlands	24.7	19.3, 30.1
Hillsborough	24.3	19.7, 28.9
Holmes	33.2	26.9, 39.6
Indian River	26.4	17.4, 35.5
Jackson	28.1	22.2, 34.0
Jefferson	33.9	28.7, 39.2
Lafayette	25.8	15.9, 35.8
Lake	24.2	19.8, 28.6
Lee	18.1	14.4, 21.8
Leon	20.5	16.5, 24.5
Levy	31.7	26.7, 36.6
Liberty	38.9	27.8, 50.1
Madison	34.1	29.3, 38.9
Manatee	21.8	16.8, 26.7
Marion	23.1	18.9, 27.2
Martin	15.2	11.5, 18.8
Miami-Dade	19.9	16.0, 23.9
Monroe	20.1	15.9, 24.3
Nassau	26.9	20.8, 33.1
Okaloosa	21.1	17.0, 25.1
Okeechobee	30.1	24.9, 35.3
Orange	25.7	21.3, 30.1
Osceola	23.6	19.0, 28.2
Palm Beach	19.0	14.9, 23.1
Pasco	31.7	26.8, 36.7
Pinellas	20.6	16.6, 24.5
Polk	27.0	22.7, 31.3
Putnam	30.8	25.8, 35.9
Saint Johns	16.4	12.6, 20.1
Saint Lucie	21.9	17.8, 26.0
Santa Rosa	21.0	16.9, 25.1
Sarasota	16.9	13.1, 20.7
Seminole	22.7	18.3, 27.0
Sumter	25.1	20.5, 29.7
Suwannee	29.2	24.6, 33.7
Taylor	30.4	25.7, 35.2
Union	30.2	24.4, 36.0
Volusia	22.1	17.9, 26.2
Wakulla	28.1	23.2, 33.0
Walton	23.4	19.0, 27.8
Washington	32.2	27.4, 37.0

Table 3-5: The likelihood (odds ratio) of being obese accounting for all variables shown, Florida BRFSS, 1990-2000

Variable	Category	Likelihood (odds ratio) of being obese	95% Confidence Interval
Race/ethnicity	Non-Hispanic white	Referent	-- --
	Non-Hispanic black	1.79	1.57, 2.04
	Hispanic	1.08	0.95, 1.24
	Other	0.78	0.55, 1.10
Sex	Male	Referent	-- --
	Female	0.92	0.84, 1.00
Income	Less than $15,000	1.18	1.02, 1.37
	$15,000-24,999	1.15	1.00, 1.32
	$25,000-34,999	0.98	0.85, 1.13
	$35,000-49,999	1.04	0.90, 1.20
	$50,000 or more	Referent	-- --
Education	Less than high school	1.56	1.33, 1.83
	High school graduate	1.22	1.07, 1.38
	1-3 years of college	1.21	1.06, 1.38
	4+ years of college	Referent	-- --
Age	18-29 years	Referent	-- --
	30-44 years	1.66	1.43, 1.93
	45-64 years	2.15	1.85, 2.50
	65 years or older	1.33	1.13, 1.56
Physical Activity	Sedentary	1.94	1.67, 2.25
	Irregular	1.53	1.31, 1.78
	Regular, not vigorous	1.22	1.04, 1.42
	Regular, vigorous	Referent	-- --

Table 3-6: Percent of adults (18+) who have no leisure-time physical activity, by county, Florida BRFSS, 2002

County	Percent (%)	95% Confidence Interval
Alachua	16.9	13.2, 20.6
Baker	34.5	27.7, 41.3
Bay	28.1	22.6, 33.6
Bradford	32.5	25.7, 39.3
Brevard	20.5	16.1, 24.8
Broward	26.1	21.7, 30.4
Calhoun	41.5	31.2, 51.7
Charlotte	23.3	19.1, 27.5
Citrus	28.7	24.3, 33.0
Clay	26.1	20.9, 31.3
Collier	24.0	19.0, 29.0
Columbia	32.4	27.3, 37.4
Desoto	38.5	27.2, 49.9
Dixie	24.4	17.5, 31.3
Duval	22.5	17.0, 28.1
Escambia	24.8	20.5, 29.0
Flagler	25.2	20.2, 30.1
Franklin	31.8	25.1, 38.6
Gadsden	38.1	31.5, 44.8
Gilchrist	28.0	18.2, 37.8
Glades	24.5	13.3, 35.8
Gulf	30.5	24.1, 36.8
Hamilton	45.9	29.9, 61.9
Hardee	40.2	35.0, 45.3
Hendry	33.9	25.7, 42.1
Hernando	27.3	23.2, 31.5
Highlands	33.6	27.9, 39.2
Hillsborough	27.4	20.6, 34.2
Holmes	32.5	27.2, 37.8
Indian River	20.7	16.1, 25.3
Jackson	33.7	27.0, 40.3
Jefferson	32.8	27.4, 38.1
Lafayette	26.1	16.3, 35.8
Lake	27.6	22.9, 32.2
Lee	23.2	19.0, 27.3
Leon	17.8	14.0, 21.7
Levy	34.0	29.1, 38.9
Liberty	36.9	25.5, 48.3
Madison	35.5	30.7, 40.3
Manatee	25.5	20.1, 30.9
Marion	25.0	20.7, 29.3
Martin	19.3	15.1, 23.5
Miami-Dade	33.5	27.8, 39.2
Monroe	23.2	18.0, 28.4
Nassau	25.2	19.8, 30.5
Okaloosa	20.8	16.9, 24.6
Okeechobee	37.3	31.8, 42.7
Orange	30.6	25.9, 35.2
Osceola	32.3	24.9, 39.7
Palm Beach	23.0	18.6, 27.3
Pasco	25.1	20.6, 29.6
Pinellas	21.2	17.5, 25.0
Polk	31.5	27.0, 36.1
Putnam	33.3	28.3, 38.2
Saint Johns	18.0	14.2, 21.9
Saint Lucie	29.9	24.6, 35.1
Santa Rosa	25.4	19.7, 31.1
Sarasota	20.6	16.5, 24.6
Seminole	22.8	18.4, 27.3
Sumter	26.4	21.5, 31.3
Suwannee	35.0	30.1, 39.9
Taylor	36.8	31.3, 42.3
Union	36.5	30.4, 42.6
Volusia	25.5	21.2, 29.8
Wakulla	32.2	25.3, 39.2
Walton	32.5	27.1, 38.0
Washington	32.4	27.3, 37.6

Table 3-7: Percent of adults (18+) who participate in moderate physical activity, by county, Florida BRFSS, 2002

County	Percent (%)	95% Confidence Interval
Alachua	34.6	29.3, 39.9
Baker	31.6	26.3, 36.9
Bay	32.5	27.4, 37.6
Bradford	30.8	23.4, 38.2
Brevard	34.4	28.8, 39.9
Broward	32.7	28.2, 37.3
Calhoun	44.3	34.0, 54.5
Charlotte	41.8	36.6, 46.9
Citrus	36.4	31.6, 41.1
Clay	32.4	27.4, 37.5
Collier	37.1	31.1, 43.1
Columbia	33.4	27.8, 39.0
Desoto	29.6	20.0, 39.2
Dixie	40.4	27.8, 52.9
Duval	35.2	23.6, 46.7
Escambia	34.8	29.8, 39.9
Flagler	36.4	31.5, 41.3
Franklin	33.8	27.4, 40.1
Gadsden	26.9	21.6, 32.2
Gilchrist	50.4	37.1, 63.7
Glades	42.4	21.1, 63.8
Gulf	30.2	24.5, 35.8
Hamilton	38.5	20.9, 56.1
Hardee	27.5	22.9, 32.1
Hendry	39.8	27.3, 52.3
Hernando	31.3	26.9, 35.7
Highlands	39.3	34.2, 44.4
Hillsborough	32.3	27.0, 37.6
Holmes	34.6	29.0, 40.1
Indian River	41.5	33.4, 49.7
Jackson	37.4	27.0, 47.6
Jefferson	31.2	26.0, 36.3
Lafayette	42.7	23.8, 61.5
Lake	36.3	31.1, 41.5
Lee	40.9	36.2, 45.7
Leon	35.7	30.9, 40.5
Levy	37.1	32.0, 42.2
Liberty	29.5	22.7, 36.3
Madison	29.0	24.3, 33.7
Manatee	39.4	29.9, 48.9
Marion	34.5	29.6, 39.3
Martin	36.3	30.2, 42.4
Miami-Dade	27.6	22.7, 32.6
Monroe	38.5	33.3, 43.8
Nassau	37.9	30.4, 45.4
Okaloosa	33.6	28.9, 38.2
Okeechobee	32.4	27.6, 37.2
Orange	30.8	26.1, 35.4
Osceola	32.7	25.1, 40.3
Palm Beach	26.5	22.0, 31.1
Pasco	31.8	26.9, 36.7
Pinellas	33.6	29.0, 38.3
Polk	34.6	30.0, 39.3
Putnam	33.8	28.8, 38.8
Saint Johns	41.6	36.0, 47.2
Saint Lucie	32.2	27.0, 37.5
Santa Rosa	32.2	27.4, 37.0
Sarasota	34.9	29.7, 40.0
Seminole	33.6	28.8, 38.4
Sumter	37.1	32.0, 42.3
Suwannee	32.6	27.9, 37.2
Taylor	38.7	33.2, 44.2
Union	33.1	26.9, 39.2
Volusia	35.5	30.8, 40.3
Wakulla	33.4	28.0, 38.7
Walton	37.2	31.8, 42.6
Washington	33.6	28.9, 38.4

Table 3-8: Percent of adults (18+) who participate in vigorous physical activity, by county, Florida BRFSS, 2002

County	Percent (%)	95% Confidence Interval
Alachua	27.3	22.4, 32.2
Baker	18.2	14.1, 22.3
Bay	24.5	19.9, 29.2
Bradford	20.1	14.2, 26.1
Brevard	24.2	19.4, 29.1
Broward	25.8	21.5, 30.1
Calhoun	20.3	14.1, 26.4
Charlotte	20.0	15.8, 24.2
Citrus	20.1	16.0, 24.1
Clay	27.5	21.5, 33.5
Collier	24.2	19.8, 28.6
Columbia	20.8	15.9, 25.7
Desoto	24.2	14.0, 34.5
Dixie	36.4	22.4, 50.5
Duval	29.7	17.6, 41.9
Escambia	26.4	21.6, 31.3
Flagler	20.8	16.5, 25.1
Franklin	21.7	15.8, 27.6
Gadsden	14.5	10.8, 18.2
Gilchrist	32.2	17.5, 46.9
Glades	38.3	14.4, 62.2
Gulf	21.0	15.2, 26.8
Hamilton	11.8	7.1, 16.6
Hardee	18.3	13.9, 22.7
Hendry	27.9	13.2, 42.6
Hernando	16.6	13.1, 20.2
Highlands	20.8	16.5, 25.2
Hillsborough	24.5	19.8, 29.1
Holmes	19.9	15.2, 24.6
Indian River	25.5	16.1, 34.9
Jackson	17.2	12.6, 21.8
Jefferson	19.8	15.6, 24.0
Lafayette	18.2	10.4, 26.0
Lake	19.0	14.7, 23.3
Lee	26.8	22.4, 31.2
Leon	29.9	25.2, 34.6
Levy	19.2	15.0, 23.4
Liberty	16.8	11.9, 21.7
Madison	19.3	14.9, 23.8
Manatee	28.6	17.9, 39.3
Marion	18.5	14.5, 22.5
Martin	20.4	15.1, 25.7
Miami-Dade	22.1	17.6, 26.7
Monroe	26.8	22.2, 31.5
Nassau	21.2	16.5, 25.9
Okaloosa	31.2	26.4, 35.9
Okeechobee	19.7	15.4, 24.1
Orange	19.9	15.9, 23.8
Osceola	19.6	15.0, 24.2
Palm Beach	23.2	18.4, 27.9
Pasco	19.7	15.6, 23.9
Pinellas	26.2	21.9, 30.6
Polk	24.6	20.2, 29.0
Putnam	18.0	14.0, 22.0
Saint Johns	28.4	23.0, 33.8
Saint Lucie	21.3	17.0, 25.5
Santa Rosa	23.9	19.6, 28.2
Sarasota	23.3	18.6, 28.0
Seminole	25.5	20.8, 30.1
Sumter	21.8	17.2, 26.5
Suwannee	17.4	13.5, 21.4
Taylor	19.3	15.3, 23.3
Union	18.9	13.8, 24.1
Volusia	23.8	19.5, 28.1
Wakulla	21.8	17.4, 26.2
Walton	24.1	19.2, 29.1
Washington	21.0	16.8, 25.2

Table 3-9: The likelihood (odds ratio) of being physically inactive accounting for all variables shown, Florida BRFSS, 1990-2000

Variable	Category	Likelihood (odds ratio) of being physically inactive	95% Confidence Interval
Race/ethnicity	Non-Hispanic white	Referent	-- --
	Non-Hispanic black	1.48	1.31, 1.66
	Hispanic	2.18	1.97, 2.41
	Other	1.29	1.01, 1.66
Sex	Male	Referent	-- --
	Female	1.18	1.10, 1.27
Income	Less than $15,000	2.10	1.79, 2.27
	$15,000-24,999	1.62	1.44, 1.81
	$25,000-34,999	1.38	1.22, 1.55
	$35,000-49,999	1.25	1.10, 1.41
	$50,000 or more	Referent	-- --
Education	Less than high school	2.89	2.55, 3.28
	High school graduate	1.84	1.66, 2.04
	1-3 years of college	1.27	1.14, 1.41
	4+ years of college	Referent	-- --
Age	18-29 years	Referent	-- --
	30-44 years	1.47	1.32, 1.65
	45-64 years	1.80	1.61, 2.01
	65 years or older	1.64	1.46, 1.84

Table 3-10: Percent of adults (18+) consuming at least five fruits and vegetables per day, by county, Florida BRFSS, 2002

County	Percent (%)	95% Confidence Interval
Alachua	25.6	21.0, 30.2
Baker	17.6	13.6, 21.6
Bay	25.8	20.9, 30.6
Bradford	18.0	13.4, 22.6
Brevard	23.0	18.6, 27.5
Broward	25.9	21.7, 30.2
Calhoun	25.3	13.3, 37.4
Charlotte	28.9	24.3, 33.6
Citrus	26.6	22.3, 30.9
Clay	27.8	21.9, 33.6
Collier	24.9	20.5, 29.2
Columbia	21.8	17.6, 26.0
Desoto	24.5	14.7, 34.2
Dixie	29.1	16.4, 41.8
Duval	21.6	16.1, 27.2
Escambia	23.7	19.4, 28.0
Flagler	26.7	22.3, 31.1
Franklin	19.2	14.9, 23.5
Gadsden	21.6	16.5, 26.8
Gilchrist	33.0	20.1, 46.0
Glades	24.2	7.8, 40.7
Gulf	21.6	17.3, 25.9
Hamilton	27.2	8.9, 45.4
Hardee	18.8	14.8, 22.8
Hendry	19.3	14.1, 24.5
Hernando	25.8	21.6, 30.0
Highlands	29.7	25.1, 34.3
Hillsborough	22.8	18.3, 27.2
Holmes	22.8	16.3, 29.4
Indian River	28.8	23.3, 34.2
Jackson	20.6	15.7, 25.5
Jefferson	22.8	18.4, 27.3
Lafayette	16.5	9.2, 23.7
Lake	30.5	25.4, 35.6
Lee	25.7	21.4, 29.9
Leon	24.4	20.2, 28.6
Levy	23.5	19.0, 28.0
Liberty	17.6	12.8, 22.4
Madison	20.8	16.5, 25.1
Manatee	33.7	23.6, 43.9
Marion	21.3	17.3, 25.3
Martin	29.7	24.1, 35.3
Miami-Dade	23.4	17.3, 29.5
Monroe	23.5	19.0, 27.9
Nassau	22.4	17.5, 27.3
Okaloosa	23.8	19.7, 27.9
Okeechobee	21.7	17.4, 26.0
Orange	23.6	19.5, 27.8
Osceola	21.3	16.9, 25.6
Palm Beach	27.8	23.1, 32.4
Pasco	22.5	18.4, 26.6
Pinellas	28.8	24.4, 33.2
Polk	22.0	18.0, 26.0
Putnam	22.6	18.3, 26.8
Saint Johns	28.0	23.4, 32.6
Saint Lucie	24.7	20.5, 29.0
Santa Rosa	20.8	16.8, 24.8
Sarasota	25.2	20.7, 29.6
Seminole	20.7	16.8, 24.6
Sumter	25.8	21.1, 30.4
Suwannee	25.3	20.7, 29.9
Taylor	21.8	17.0, 26.5
Union	17.7	13.2, 22.2
Volusia	26.3	21.9, 30.8
Wakulla	22.7	18.2, 27.2
Walton	25.7	20.8, 30.6
Washington	19.9	16.0, 23.9

Table 3-11: Percent of adults (18+) who are chronic drinkers, by county, Florida BRFSS, 2002

County	Percent (%)	95% Confidence Interval
Alachua	8.5	5.6, 11.5
Baker	7.0	4.3, 9.7
Bay	7.5	4.7, 10.3
Bradford	7.1	1.6, 12.6
Brevard	11.3	2.9, 19.8
Broward	6.8	4.1, 9.5
Calhoun	5.4	2.8, 7.9
Charlotte	10.5	7.0, 14.0
Citrus	9.3	6.6, 12.0
Clay	7.0	4.4, 9.5
Collier	12.3	9.0, 15.5
Columbia	7.9	4.9, 10.8
Desoto	14.1	4.2, 24.0
Dixie	7.0	4.2, 9.7
Duval	6.4	3.9, 9.0
Escambia	7.8	5.0, 10.7
Flagler	12.2	8.4, 15.9
Franklin	11.9	8.2, 15.6
Gadsden	4.7	2.5, 7.0
Gilchrist	11.9	0.0, 25.5
Glades	5.6	2.3, 9.0
Gulf	7.0	4.2, 9.9
Hamilton	3.7	1.4, 6.0
Hardee	6.1	3.3, 8.8
Hendry	16.3	0.0, 32.9
Hernando	5.9	3.9, 7.9
Highlands	5.3	3.3, 7.3
Hillsborough	5.2	3.0, 7.4
Holmes	5.7	3.0, 8.3
Indian River	9.1	6.2, 12.1
Jackson	4.6	2.3, 6.8
Jefferson	6.8	4.2, 9.4
Lafayette	4.6	1.4, 7.8
Lake	8.7	5.5, 11.9
Lee	11.5	8.3, 14.7
Leon	5.8	3.5, 8.1
Levy	6.3	3.8, 8.7
Liberty	7.5	4.3, 10.7
Madison	5.8	3.5, 8.2
Manatee	8.0	5.3, 10.6
Marion	7.5	4.3, 10.6
Martin	9.5	6.4, 12.6
Miami-Dade	5.1	2.7, 7.4
Monroe	15.7	11.9, 19.5
Nassau	6.1	3.7, 8.4
Okaloosa	5.8	3.5, 8.1
Okeechobee	4.4	2.4, 6.4
Orange	7.5	4.8, 10.1
Osceola	4.6	2.3, 6.9
Palm Beach	9.0	6.1, 11.8
Pasco	11.3	8.1, 14.5
Pinellas	9.7	6.6, 12.8
Polk	6.8	4.5, 9.1
Putnam	8.5	4.7, 12.3
Saint Johns	14.2	10.6, 17.7
Saint Lucie	8.1	5.4, 10.7
Santa Rosa	7.0	4.6, 9.4
Sarasota	11.3	8.2, 14.4
Seminole	10.2	6.9, 13.4
Sumter	6.8	4.4, 9.2
Suwannee	4.4	2.3, 6.5
Taylor	4.8	2.8, 6.8
Union	5.5	2.5, 8.5
Volusia	10.7	7.5, 13.9
Wakulla	8.8	5.9, 11.6
Walton	10.2	6.7, 13.6
Washington	4.5	2.6, 6.4

Table 3-12: Percent of adults (18+) who are binge drinkers, by county, Florida BRFSS, 2002

County	Percent (%)	95% Confidence Interval
Alachua	24.3	17.8, 30.8
Baker	11.6	8.2, 15.0
Bay	11.9	8.5, 15.3
Bradford	13.5	7.5, 19.5
Brevard	16.3	8.1, 24.6
Broward	12.6	9.2, 16.0
Calhoun	9.9	6.4, 13.4
Charlotte	14.2	10.2, 18.3
Citrus	12.2	9.1, 15.3
Clay	12.3	8.9, 15.8
Collier	13.0	9.6, 16.4
Columbia	13.2	9.1, 17.3
Desoto	10.3	5.4, 15.3
Dixie	13.3	6.4, 20.3
Duval	9.8	6.5, 13.1
Escambia	16.1	11.7, 20.6
Flagler	13.8	9.6, 18.1
Franklin	13.3	9.3, 17.4
Gadsden	8.5	5.4, 11.6
Gilchrist	16.3	2.8, 29.8
Glades	6.7	3.1, 10.3
Gulf	9.6	6.2, 13.0
Hamilton	8.8	4.7, 12.9
Hardee	7.9	4.8, 11.0
Hendry	14.4	8.3, 20.6
Hernando	8.2	5.5, 11.0
Highlands	8.8	5.9, 11.8
Hillsborough	13.7	10.1, 17.4
Holmes	11.7	7.7, 15.7
Indian River	12.1	8.5, 15.6
Jackson	8.7	5.4, 12.1
Jefferson	15.9	9.6, 22.1
Lafayette	14.4	2.3, 26.6
Lake	10.1	6.6, 13.6
Lee	13.3	10.0, 16.7
Leon	15.3	11.5, 19.1
Levy	11.5	8.0, 15.0
Liberty	13.2	8.9, 17.6
Madison	8.2	4.7, 11.8
Manatee	13.5	9.3, 17.6
Marion	11.6	8.0, 15.2
Martin	9.0	5.9, 12.1
Miami-Dade	13.7	9.6, 17.7
Monroe	22.0	17.5, 26.6
Nassau	10.5	7.4, 13.6
Okaloosa	12.4	9.1, 15.8
Okeechobee	9.0	6.0, 11.9
Orange	16.9	13.1, 20.7
Osceola	10.2	7.0, 13.4
Palm Beach	13.0	9.4, 16.6
Pasco	16.5	12.4, 20.7
Pinellas	14.5	10.8, 18.2
Polk	10.2	7.0, 13.4
Putnam	15.3	10.9, 19.7
Saint Johns	15.5	11.5, 19.6
Saint Lucie	11.5	8.1, 14.8
Santa Rosa	12.7	9.4, 16.0
Sarasota	9.6	6.5, 12.6
Seminole	16.6	12.2, 21.0
Sumter	9.6	6.0, 13.3
Suwannee	8.4	5.6, 11.2
Taylor	9.9	6.8, 13.0
Union	13.0	8.8, 17.1
Volusia	14.7	11.0, 18.4
Wakulla	12.9	9.4, 16.3
Walton	12.3	8.6, 16.0
Washington	7.8	5.1, 10.5

Table 3-13: The likelihood (odds ratio) of chronic drinking accounting for all variables shown, Florida BRFSS, 1990-2000

Variable	Category	Likelihood (odds ratio) of chronic drinking	95% Confidence Interval
Race/ethnicity	Non-Hispanic white	Referent	-- --
	Non-Hispanic black	0.49	0.37, 0.64
	Hispanic	0.38	0.29, 0.49
	Other	0.53	0.29, 0.95
Sex	Male	Referent	-- --
	Female	0.83	0.73, 0.94
Income	Less than $15,000	1.10	0.87, 1.35
	$15,000-24,999	1.09	0.88, 1.33
	$25,000-34,999	0.99	0.81, 1.21
	$35,000-49,999	1.05	0.85, 1.29
	$50,000 or more	Referent	-- --
Education	Less than high school	1.44	1.13, 1.84
	High school graduate	1.33	1.10, 1.61
	1-3 years of college	1.27	1.07, 1.52
	4+ years of college	Referent	-- --
Age	18-29 years	Referent	-- --
	30-44 years	0.90	0.74, 1.08
	45-64 years	0.80	0.66, 0.98
	65 years or older	0.63	0.51, 0.77

Table 3-14: The likelihood (odds ratio) of binge drinking accounting for all variables shown, Florida BRFSS, 1990-2000

Variable	Category	Likelihood (odds ratio) of binge drinking	95% Confidence Interval
Race/ethnicity	Non-Hispanic white	Referent	-- --
	Non-Hispanic black	0.43	0.33, 0.56
	Hispanic	0.62	0.50, 0.76
	Other	0.41	0.27, 0.64
Sex	Male	Referent	-- --
	Female	0.26	0.23, 0.30
Income	Less than $15,000	0.83	0.65, 1.07
	$15,000-24,999	0.83	0.68, 1.02
	$25,000-34,999	0.85	0.70, 1.03
	$35,000-49,999	0.81	0.67, 0.98
	$50,000 or more	Referent	-- --
Education	Less than high school	1.36	1.06, 1.35
	High school graduate	1.20	1.01, 1.43
	1-3 years of college	1.20	1.01, 1.41
	4+ years of college	Referent	-- --
Age	18-29 years	Referent	-- --
	30-44 years	0.63	0.54, 0.74
	45-64 years	0.33	0.27, 0.39
	65 years or older	0.07	0.06, 0.10

Table 3-15: Percent of adults (18+) who have been told by a doctor that they have high blood pressure, by county, Florida BRFSS, 2002

County	Percent (%)	95% Confidence Interval
Alachua	19.6	15.2, 23.9
Baker	31.7	24.7, 38.6
Bay	28.1	22.8, 33.5
Bradford	38.2	30.8, 45.7
Brevard	34.4	27.1, 41.7
Broward	26.8	22.5, 31.0
Calhoun	28.6	22.3, 35.0
Charlotte	38.2	33.3, 43.1
Citrus	35.2	30.6, 39.8
Clay	25.4	20.9, 30.0
Collier	25.4	21.1, 29.7
Columbia	32.0	26.6, 37.4
Desoto	39.7	28.4, 51.0
Dixie	26.0	14.9, 37.2
Duval	26.1	20.0, 32.2
Escambia	28.2	23.7, 32.6
Flagler	31.4	26.8, 35.9
Franklin	26.7	21.5, 31.9
Gadsden	41.3	34.6, 48.0
Gilchrist	21.3	13.7, 28.9
Glades	45.3	24.7, 65.8
Gulf	39.4	33.0, 45.8
Hamilton	33.8	20.0, 47.5
Hardee	28.7	24.1, 33.3
Hendry	28.8	15.3, 42.3
Hernando	35.8	31.2, 40.4
Highlands	32.2	27.5, 36.9
Hillsborough	25.1	20.5, 29.7
Holmes	36.8	30.4, 43.1
Indian River	35.0	29.0, 41.0
Jackson	40.8	31.0, 50.5
Jefferson	31.2	26.3, 36.2
Lafayette	29.1	18.0, 40.1
Lake	27.6	23.0, 32.2
Lee	30.8	26.4, 35.2
Leon	19.1	15.4, 22.9
Levy	34.8	29.8, 39.7
Liberty	26.6	20.5, 32.7
Madison	36.4	31.5, 41.2
Manatee	36.8	27.2, 46.5
Marion	31.8	27.3, 36.4
Martin	30.1	25.0, 35.1
Miami-Dade	23.6	19.4, 27.8
Monroe	24.0	19.1, 28.9
Nassau	29.4	22.2, 36.6
Okaloosa	25.6	21.5, 29.8
Okeechobee	33.7	28.5, 38.9
Orange	21.8	17.8, 25.8
Osceola	26.0	21.1, 30.8
Palm Beach	26.8	22.4, 31.1
Pasco	33.0	28.2, 37.8
Pinellas	31.3	26.8, 35.8
Polk	33.8	29.2, 38.3
Putnam	30.9	26.4, 35.5
Saint Johns	28.7	23.5, 34.0
Saint Lucie	32.7	27.6, 37.9
Santa Rosa	23.0	18.9, 27.2
Sarasota	30.4	25.6, 35.2
Seminole	19.5	15.7, 23.3
Sumter	33.1	28.2, 38.0
Suwannee	32.0	27.5, 36.6
Taylor	29.7	25.1, 34.3
Union	34.3	28.1, 40.6
Volusia	28.6	24.2, 33.0
Wakulla	26.5	21.9, 31.1
Walton	31.2	26.0, 36.4
Washington	37.5	32.4, 42.6

Table 3-16: The likelihood (odds ratio) of having physician-diagnosed hypertension accounting for all variables shown, Florida BRFSS, 1990-2000

Variable	Category	Likelihood (odds ratio) of having physician-diagnosed hypertension	95% Confidence Interval
Race/ethnicity	Non-Hispanic white	Referent	-- --
	Non-Hispanic black	1.84	1.33, 2.53
	Hispanic	0.81	0.59, 1.12
	Other	0.88	0.36, 2.16
Sex	Male	Referent	-- --
	Female	1.11	0.93, 1.33
Income	Less than $15,000	1.27	0.98, 1.65
	$15,000-24,999	1.25	0.96, 1.64
	$25,000-34,999	0.99	0.73, 1.35
	$35,000-49,999	1.98	0.70, 1.35
	$50,000 or more	Referent	-- --
Education	Less than high school	1.47	1.09, 1.99
	High school graduate	1.16	0.89, 1.51
	1-3 years of college	1.31	1.00, 1.71
	4+ years of college	Referent	-- --
Age	18-29 years	Referent	-- --
	30-44 years	1.69	1.16, 2.46
	45-64 years	6.07	4.30, 8.58
	65 years or older	9.19	6.48, 13.03
Activity level	Sedentary	1.07	0.82, 1.40
	Irregular	1.31	1.00, 1.72
	Regular/not vigorous	1.34	1.03, 1.76
	Regular/vigorous	Referent	-- --
Obese		3.00	2.36, 3.81

Table 3-17: Percent of adults (18+) who have been told by a doctor that they have high cholesterol, by county, Florida BRFSS, 2002

County	Percent (%)	95% Confidence Interval
Alachua	28.9	23.6, 34.1
Baker	34.3	26.0, 42.5
Bay	34.2	28.3, 40.1
Bradford	31.1	24.6, 37.6
Brevard	38.0	31.7, 44.4
Broward	34.4	29.4, 39.4
Calhoun	40.1	29.5, 50.7
Charlotte	46.5	41.2, 51.8
Citrus	39.3	34.2, 44.4
Clay	32.3	26.3, 38.3
Collier	31.4	26.2, 36.6
Columbia	37.6	31.5, 43.7
Desoto	47.9	35.6, 60.2
Dixie	33.2	19.6, 46.9
Duval	29.6	21.8, 37.4
Escambia	35.2	29.9, 40.6
Flagler	37.2	32.1, 42.3
Franklin	39.6	32.9, 46.4
Gadsden	38.0	30.3, 45.6
Gilchrist	34.9	22.3, 47.5
Glades	31.9	17.1, 46.6
Gulf	41.3	34.0, 48.6
Hamilton	38.3	17.6, 59.0
Hardee	36.0	30.7, 41.2
Hendry	43.7	28.5, 59.0
Hernando	40.9	35.8, 45.9
Highlands	38.8	33.4, 44.3
Hillsborough	36.9	31.6, 42.2
Holmes	39.5	33.6, 45.5
Indian River	37.6	30.6, 44.7
Jackson	43.5	32.2, 54.7
Jefferson	29.8	24.5, 35.1
Lafayette	36.8	30.0, 43.6
Lake	39.6	34.0, 45.2
Lee	36.0	31.0, 40.9
Leon	28.7	23.7, 33.7
Levy	40.1	34.2, 46.0
Liberty	38.8	29.0, 48.5
Madison	41.2	35.6, 46.8
Manatee	43.8	33.3, 54.3
Marion	36.5	31.3, 41.7
Martin	29.8	24.4, 35.1
Miami-Dade	33.6	27.2, 40.1
Monroe	29.4	23.5, 35.3
Nassau	39.2	32.1, 46.2
Okaloosa	28.2	23.6, 32.9
Okeechobee	34.5	29.2, 39.8
Orange	27.4	22.6, 32.3
Osceola	35.2	28.8, 41.6
Palm Beach	39.7	33.8, 45.6
Pasco	42.6	37.2, 48.0
Pinellas	36.0	30.9, 41.0
Polk	36.2	31.2, 41.3
Putnam	35.8	30.5, 41.2
Saint Johns	30.0	25.2, 34.8
Saint Lucie	34.3	29.2, 39.5
Santa Rosa	30.9	26.1, 35.8
Sarasota	37.8	32.1, 43.5
Seminole	26.7	22.1, 31.2
Sumter	43.8	38.1, 49.5
Suwannee	34.4	29.5, 39.3
Taylor	39.7	33.9, 45.4
Union	31.5	25.0, 37.9
Volusia	40.4	35.2, 45.6
Wakulla	39.1	31.3, 46.9
Walton	35.9	30.0, 41.7
Washington	33.3	28.0, 38.5

Table 3-18: The likelihood (odds ratio) of having physician-diagnosed high serum cholesterol accounting for all variables shown, Florida BRFSS, 1990-2000

Variable	Category	Likelihood (odds ratio) of having physician-diagnosed high serum cholesterol	95% Confidence Interval
Race/ethnicity	Non-Hispanic white	Referent	-- --
	Non-Hispanic black	1.01	0.75, 1.35
	Hispanic	0.89	0.68, 1.15
	Other	0.70	0.32, 1.50
Sex	Male	Referent	-- --
	Female	1.20	1.03, 1.40
Income	Less than $15,000	0.94	0.75, 1.18
	$15,000-24,999	1.01	0.81, 1.27
	$25,000-34,999	0.94	0.74, 1.19
	$35,000-49,999	0.91	0.71, 1.16
	$50,000 or more	Referent	-- --
Education	Less than high school	0.97	0.75, 1.18
	High school graduate	1.11	0.90, 1.36
	1-3 years of college	1.10	0.89, 1.35
	4+ years of college	Referent	-- --
Age	18-29 years	Referent	-- --
	30-44 years	1.53	1.13, 2.09
	45-64 years	3.48	2.56, 4.73
	65 years or older	3.58	2.65, 4.83
Activity level	Sedentary	0.96	0.77, 1.19
	Irregular	1.02	0.81, 1.29
	Regular/not vigorous	0.94	0.76, 1.17
	Regular/vigorous	Referent	-- --
Obese		1.37	1.10, 1.71

Table 3-19: Percent of women (40+) who have not had a mammogram in past two years, by county, Florida BRFSS, 2002

County	Percent (%)	95% Confidence Interval
Alachua	10.8	5.6, 16.0
Baker	23.8	5.5, 42.2
Bay	23.8	10.4, 37.3
Bradford	10.8	5.3, 16.3
Brevard	18.6	1.7, 36.9
Broward	15.0	9.3, 20.6
Calhoun	16.8	10.2, 23.4
Charlotte	14.9	9.4, 20.4
Citrus	15.3	10.4, 20.3
Clay	10.1	5.7, 14.5
Collier	9.2	5.2, 13.1
Columbia	14.2	5.6, 22.6
Desoto	14.4	3.8, 25.1
Dixie	13.0	4.8, 21.1
Duval	11.6	4.7, 18.5
Escambia	15.8	10.0, 21.6
Flagler	9.0	5.2, 12.8
Franklin	21.9	13.7, 30.2
Gadsden	10.2	5.6, 14.9
Gilchrist	14.0	6.5, 21.5
Glades	13.3	7.4, 19.3
Gulf	11.1	5.8, 16.4
Hamilton	14.1	3.0, 25.2
Hardee	13.6	8.8, 18.5
Hendry	22.3	14.3, 30.3
Hernando	13.4	8.8, 17.9
Highlands	17.8	12.4, 23.1
Hillsborough	16.0	10.0, 22.0
Holmes	17.2	11.2, 23.2
Indian River	14.9	9.8, 20.1
Jackson	13.6	8.5, 18.7
Jefferson	15.6	9.3, 22.0
Lafayette	12.1	6.5, 17.7
Lake	19.0	13.3, 24.6
Lee	9.3	5.2, 13.4
Leon	10.2	4.9, 15.5
Levy	14.4	8.7, 20.1
Liberty	9.3	3.6, 15.0
Madison	14.2	9.4, 19.1
Manatee	12.2	5.6, 18.8
Marion	17.2	11.4, 23.1
Martin	20.6	5.2, 35.9
Miami-Dade	6.8	2.9, 10.8
Monroe	12.4	7.5, 17.3
Nassau	24.2	10.6, 37.8
Okaloosa	8.5	4.4, 12.6
Okeechobee	18.6	12.2, 25.0
Orange	24.6	17.2, 32.0
Osceola	15.8	9.9, 21.6
Palm Beach	11.4	6.8, 15.9
Pasco	16.5	11.1, 21.9
Pinellas	14.1	8.4, 19.8
Polk	9.1	4.6, 13.5
Putnam	20.8	14.8, 26.9
Saint Johns	7.3	3.8, 10.8
Saint Lucie	13.4	8.4, 18.4
Santa Rosa	12.1	6.5, 17.8
Sarasota	11.9	7.2, 16.6
Seminole	15.4	9.1, 21.7
Sumter	15.2	9.7, 20.7
Suwannee	14.7	9.9, 19.5
Taylor	18.6	12.5, 24.6
Union	26.1	16.4, 35.8
Volusia	13.6	8.3, 18.9
Wakulla	10.4	5.6, 15.3
Walton	18.5	11.6, 25.3
Washington	20.1	13.5, 26.7

Table 3-20: Percent of women who have not had a pap smear in past three years, by county, Florida BRFSS, 2002

County	Percent (%)	95% Confidence Interval
Alachua	6.2	3.5, 9.0
Baker	7.2	4.2, 10.2
Bay	14.0	9.3, 18.8
Bradford	9.0	4.8, 13.3
Brevard	18.1	2.6, 33.6
Broward	8.3	5.0, 11.5
Calhoun	10.6	5.4, 15.8
Charlotte	22.2	16.8, 27.6
Citrus	18.0	13.1, 23.0
Clay	7.8	4.4, 11.3
Collier	8.8	2.2, 15.5
Columbia	11.1	6.4, 15.7
Desoto	11.3	5.8, 16.8
Dixie	23.5	1.8, 45.3
Duval	7.9	4.1, 11.8
Escambia	11.3	7.3, 15.3
Flagler	14.5	10.0, 19.0
Franklin	14.0	8.4, 19.7
Gadsden	7.3	3.6, 11.0
Gilchrist	14.6	7.1, 22.2
Glades	13.4	7.8, 19.0
Gulf	14.6	9.6, 19.5
Hamilton	15.2	6.3, 24.0
Hardee	12.4	8.3, 16.4
Hendry	14.3	9.7, 18.8
Hernando	17.3	12.8, 21.9
Highlands	19.6	14.6, 24.6
Hillsborough	11.0	6.7, 15.3
Holmes	18.4	12.9, 23.9
Indian River	15.0	10.7, 19.3
Jackson	15.9	9.7, 22.0
Jefferson	8.3	4.2, 12.3
Lafayette	9.8	6.2, 13.3
Lake	16.3	11.6, 21.0
Lee	14.8	10.3, 19.3
Leon	5.2	2.5, 7.9
Levy	15.1	10.2, 20.1
Liberty	8.6	4.4, 12.8
Madison	9.9	6.6, 13.2
Manatee	12.1	6.8, 17.3
Marion	15.0	10.5, 19.6
Martin	15.2	9.7, 20.6
Miami-Dade	4.0	1.6, 6.5
Monroe	12.6	8.2, 17.0
Nassau	8.2	4.8, 11.5
Okaloosa	7.5	4.2, 10.8
Okeechobee	16.9	12.1, 21.8
Orange	10.4	6.5, 14.3
Osceola	7.7	4.2, 11.2
Palm Beach	10.2	6.4, 14.0
Pasco	17.1	12.3, 21.9
Pinellas	15.0	10.3, 19.8
Polk	17.6	12.6, 22.6
Putnam	17.6	12.6, 22.6
Saint Johns	6.5	3.7, 9.3
Saint Lucie	11.9	7.9, 15.9
Santa Rosa	6.8	3.6, 10.1
Sarasota	9.8	6.2, 13.4
Seminole	4.3	1.8, 6.8
Sumter	17.7	12.2, 23.3
Suwannee	16.7	11.7, 21.8
Taylor	12.3	8.1, 16.5
Union	12.4	7.4, 17.4
Volusia	11.0	7.2, 14.7
Wakulla	9.9	5.8, 14.1
Walton	19.6	13.8, 25.5
Washington	15.5	10.9, 20.1

Table 3-21: Percent of adults aged 50 years and older who have ever had a sigmoidoscopy, by county, Florida BRFSS, 2002

County	Percent (%)	95% Confidence Interval
Alachua	52.9	43.2, 62.6
Baker	60.4	49.2, 71.6
Bay	52.7	44.0, 61.5
Bradford	48.1	36.2, 60.0
Brevard	56.0	49.4, 62.6
Broward	54.7	47.4, 62.0
Calhoun	45.4	36.3, 54.4
Charlotte	60.4	54.5, 66.2
Citrus	58.0	52.1, 63.9
Clay	52.2	42.1, 62.4
Collier	64.5	57.5, 71.6
Columbia	55.8	47.8, 63.9
Desoto	50.5	35.4, 65.7
Dixie	53.8	32.5, 75.0
Duval	52.4	44.7, 60.2
Escambia	59.0	51.8, 66.2
Flagler	62.6	57.0, 68.1
Franklin	49.4	41.4, 57.3
Gadsden	50.5	40.0, 61.1
Gilchrist	48.7	30.3, 67.2
Glades	46.8	36.6, 57.0
Gulf	51.5	44.0, 58.9
Hamilton	58.3	41.8, 74.7
Hardee	46.2	39.3, 53.1
Hendry	42.2	35.1, 49.4
Hernando	58.0	52.2, 63.9
Highlands	47.6	41.0, 54.3
Hillsborough	50.1	42.4, 57.9
Holmes	44.0	36.6, 51.3
Indian River	51.4	45.2, 57.6
Jackson	53.3	37.7, 68.8
Jefferson	50.6	43.1, 58.1
Lafayette	40.1	31.7, 48.4
Lake	51.4	44.8, 58.1
Lee	54.5	48.4, 60.6
Leon	67.1	58.8, 75.3
Levy	48.7	41.8, 55.6
Liberty	54.6	47.4, 61.7
Madison	47.9	41.1, 54.7
Manatee	55.3	42.1, 68.5
Marion	50.9	44.4, 57.3
Martin	56.4	49.9, 62.9
Miami-Dade	38.9	30.3, 47.4
Monroe	43.9	36.2, 51.6
Nassau	51.8	43.3, 60.2
Okaloosa	59.9	52.7, 67.0
Okeechobee	44.8	37.5, 52.1
Orange	53.1	44.3, 61.9
Osceola	52.6	44.9, 60.3
Palm Beach	55.3	47.1, 63.5
Pasco	50.1	43.1, 57.1
Pinellas	61.2	54.4, 68.0
Polk	51.1	44.3, 57.9
Putnam	42.8	36.1, 49.5
Saint Johns	64.8	58.2, 71.3
Saint Lucie	53.1	46.7, 59.6
Santa Rosa	60.3	52.9, 67.7
Sarasota	56.7	49.4, 64.0
Seminole	55.5	47.6, 63.3
Sumter	58.1	52.0, 64.3
Suwannee	48.4	41.2, 55.6
Taylor	47.7	40.9, 54.6
Union	48.0	38.2, 57.7
Volusia	49.2	42.6, 55.7
Wakulla	54.4	46.3, 62.6
Walton	48.3	41.0, 55.6
Washington	47.1	39.6, 54.6

Table 3-22: Percent of adults aged 50 years and older who have ever had a fecal occult blood test, by county, Florida BRFSS, 2002

County	Percent (%)	95% Confidence Interval
Alachua	6.2	3.5, 9.0
Baker	7.2	4.2, 10.2
Bay	14.0	9.3, 18.8
Bradford	9.0	4.8, 13.3
Brevard	18.1	2.6, 33.6
Broward	8.3	5.0, 11.5
Calhoun	10.6	5.4, 15.8
Charlotte	22.2	16.8, 27.6
Citrus	18.0	13.1, 23.0
Clay	7.8	4.4, 11.3
Collier	8.8	2.2, 15.5
Columbia	11.1	6.4, 15.7
Desoto	11.3	5.8, 16.8
Dixie	23.5	1.8, 45.3
Duval	7.9	4.1, 11.8
Escambia	11.3	7.3, 15.3
Flagler	14.5	10.0, 19.0
Franklin	14.0	8.4, 19.7
Gadsden	7.3	3.6, 11.0
Gilchrist	14.6	7.1, 22.2
Glades	13.4	7.8, 19.0
Gulf	14.6	9.6, 19.5
Hamilton	15.2	6.3, 24.0
Hardee	12.4	8.3, 16.4
Hendry	14.3	9.7, 18.8
Hernando	17.3	12.8, 21.9
Highlands	19.6	14.6, 24.6
Hillsborough	11.0	6.7, 15.3
Holmes	18.4	12.9, 23.9
Indian River	15.0	10.7, 19.3
Jackson	15.9	9.7, 22.0
Jefferson	8.3	4.2, 12.3
Lafayette	9.8	6.2, 13.3
Lake	16.3	11.6, 21.0
Lee	14.8	10.3, 19.3
Leon	5.2	2.5, 7.9
Levy	15.1	10.2, 20.1
Liberty	55.2	48.1, 62.2
Madison	45.0	38.3, 51.7
Manatee	58.1	45.5, 70.6
Marion	49.7	43.2, 56.1
Martin	48.5	42.1, 54.9
Miami-Dade	28.3	20.9, 35.7
Monroe	46.6	38.5, 54.6
Nassau	44.3	35.8, 52.8
Okaloosa	39.2	32.2, 46.2
Okeechobee	31.0	24.6, 37.4
Orange	46.8	38.1, 55.4
Osceola	38.8	31.5, 46.2
Palm Beach	49.9	42.0, 57.9
Pasco	51.1	44.3, 58.0
Pinellas	54.2	47.3, 61.2
Polk	38.4	31.9, 45.0
Putnam	43.5	36.8, 50.2
Saint Johns	50.0	43.2, 56.9
Saint Lucie	46.5	40.0, 53.0
Santa Rosa	43.5	36.0, 51.1
Sarasota	49.5	41.8, 57.1
Seminole	49.4	41.4, 57.3
Sumter	53.9	47.8, 59.9
Suwannee	50.7	43.5, 58.0
Taylor	42.8	36.0, 49.5
Union	40.6	31.0, 50.1
Volusia	40.1	33.8, 46.3
Wakulla	56.3	48.5, 64.1
Walton	31.8	24.8, 38.8
Washington	34.9	27.2, 42.6

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