



# Chronic Disease in Texas

## A Surveillance Report Of Disease Indicators

Health Promotion Unit

Publication Number: E81-11194

February 2008

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The authors would like to give special thanks to the following organizations for their technical support:

Data management (mortality data Center) for Health Statistics  
Community assessment (BRFSS data) Center for Health Statistics  
Health care information collection (hospital discharge data) Center for Health Statistics

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# INTRODUCTION

This report was prepared by the Texas Department of State Health Services, Health Promotion Unit to monitor outcomes for certain chronic disease conditions and associated medical and behavioral risk factors. This report updates the previous *Chronic Disease in Texas: A Surveillance Report of Disease Indicators* published in 2006.

**Chronic disease conditions** are the major cause of illness, disability, and death in Texas as well as in the United States today. Despite broad public awareness of specific life-threatening diseases such as cancer and heart disease, most people are still not aware that, collectively, chronic disease conditions **account for 3 out of every 4 deaths** in Texas and the United States. Chronic diseases are defined by the federal Centers for Disease Control and Prevention as those diseases that are prolonged, do not resolve spontaneously, and for which a complete cure is rarely achieved. The Texas Department of State Health Services monitors diseases that: a) fit this broad definition of chronic diseases; b) that are preventable; and c) pose a significant burden in mortality, morbidity and cost. For this updated report, we chose to include the following chronic disease conditions: **ischemic heart disease, stroke, lung cancer, breast cancer, cervical cancer, colorectal cancer, asthma, arthritis and diabetes mellitus.**

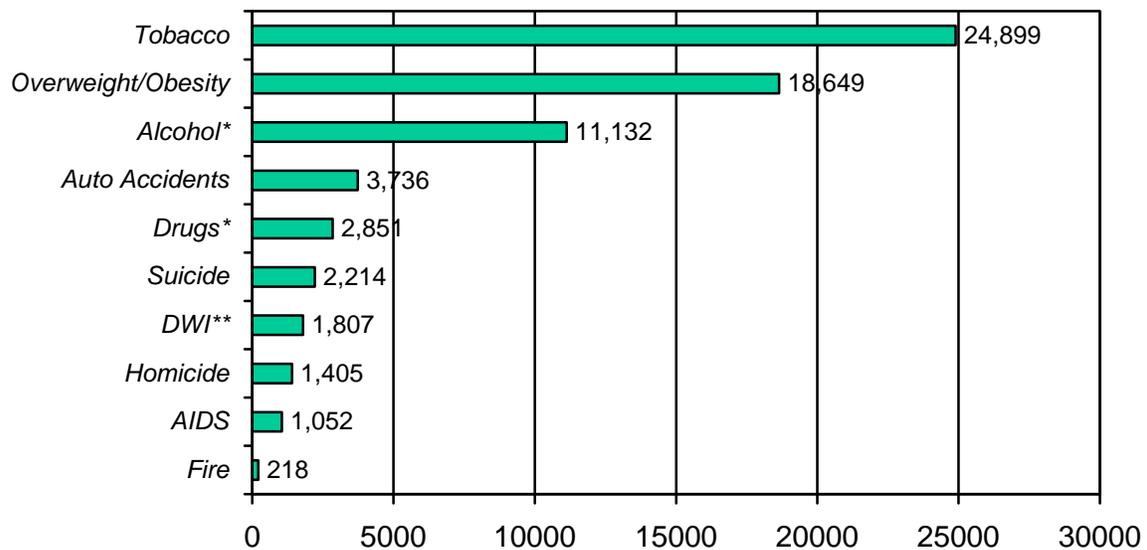
**Leading Causes of Death** Because of the changing nature of illness and death, Americans are no longer dying from the same diseases as they did in previous generations. Given the limits of prevailing medical and public health knowledge, Americans frequently died at young ages from infectious and parasitic diseases. In 1900, pneumonia and influenza, tuberculosis and gastritis, enteritis and colitis were the three leading causes of death, accounting for nearly one-third of all deaths. As sanitation, nutrition, and living conditions improved and medical technology advanced, deaths from infectious diseases declined steadily and children and young adults survived longer. As a result, deaths from chronic conditions have increased. Today, as we start the 21<sup>st</sup> century, heart disease, cancer and stroke are the three leading causes of death, accounting for almost two-thirds of all deaths.

**Preventable (Actual) Causes of Death** To a certain degree, the major chronic disease killers – cardiovascular disease, cancer, diabetes – are an extension of what individuals choose to do, or not to do, and the environment in which they live. For example, the figure on the opposite page shows that tobacco use is the most prevalent cause of premature death in Texas, accounting for more than 24,800 lost lives in 2001--more than alcohol, auto accidents, AIDS, drugs, suicides, homicides and fires **combined**. Tobacco use contributes substantially to deaths from cancer (especially cancers of the lung, esophagus, oral cavity, pancreas, kidney, and bladder), cardiovascular disease (ischemic heart disease, stroke and high blood pressure) and lung disease (chronic obstructive pulmonary disease). The content of this updated report provides information on preventable deaths, its risk factors, and trends over time.

# PREVENTABLE (ACTUAL) CAUSES OF DEATH

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## Actual Causes of Death, Texas 2001



Source: Vital Statistics, TDH; \* Texas Commission for Alcohol and Drug Abuse; \*\*Mother's Against Drunk Driving

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## STRATEGIES TO ADDRESS CHRONIC DISEASES IN TEXAS

- Epidemiology and Surveillance
- Health Education and Community Outreach
- Improve Provision of Clinical Preventive Services
- Community and Worksite Environmental Changes

# TDH Chronic Disease Surveillance System

## DATA SOURCES

- Mortality Data
- Hospital Discharge Data
- Behavioral Risk Factor Surveillance System
- Youth Risk Behavior Survey

### MORTALITY DATA

The death tabulations provided in this report are Texas resident data. There were two significant changes that occurred relating to mortality data starting in 1999. The coding system used for establishing cause of death has been changed from the 9<sup>TH</sup> Revision of the International Classification of Diseases (ICD 9) to the 10<sup>th</sup> Revision (ICD-10). All causes listed on a death certificate are categorized and coded according to this guide. Underlying cause of death is then determined through the use of a computer algorithm, Automated Classification of Medical Entities (ACME), developed by the National Center for Health Statistics. The second significant change was the use of the United States 2000 population as the standard for age adjustment, which replaces the 1940 US standard population.

### HOSPITAL DISCHARGE DATA

Hospital discharge data are a rich resource of information about the patterns of care, the public health burden and the costs associated with chronic disease morbidity. The Texas Health Care Information Collection (THCIC) is responsible for collecting hospital discharge data from all state licensed hospitals except those that are statutorily exempt from the reporting requirement. All reporting hospitals are required to submit discharged inpatient claims data on a quarterly basis, using the uniform bill (UB-92) format.

### BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM

Since behavioral risk factors play a prominent role in chronic disease, finding ways to help people adopt healthier behaviors may be the most promising point of intervention. Surveillance of behavioral risk factors can provide the basis for both launching and evaluating programs designed to reduce the prevalence of unhealthy behaviors. Data on behavioral risk factors are necessary for formulating intervention strategies, justifying resources to support these strategies, and proposing new policies or legislation. The BRFSS is an ongoing telephone survey of adult Texans aged 18 and older using a standard protocol and standard interviewing methods.

### YOUTH RISK BEHAVIOR SURVEY

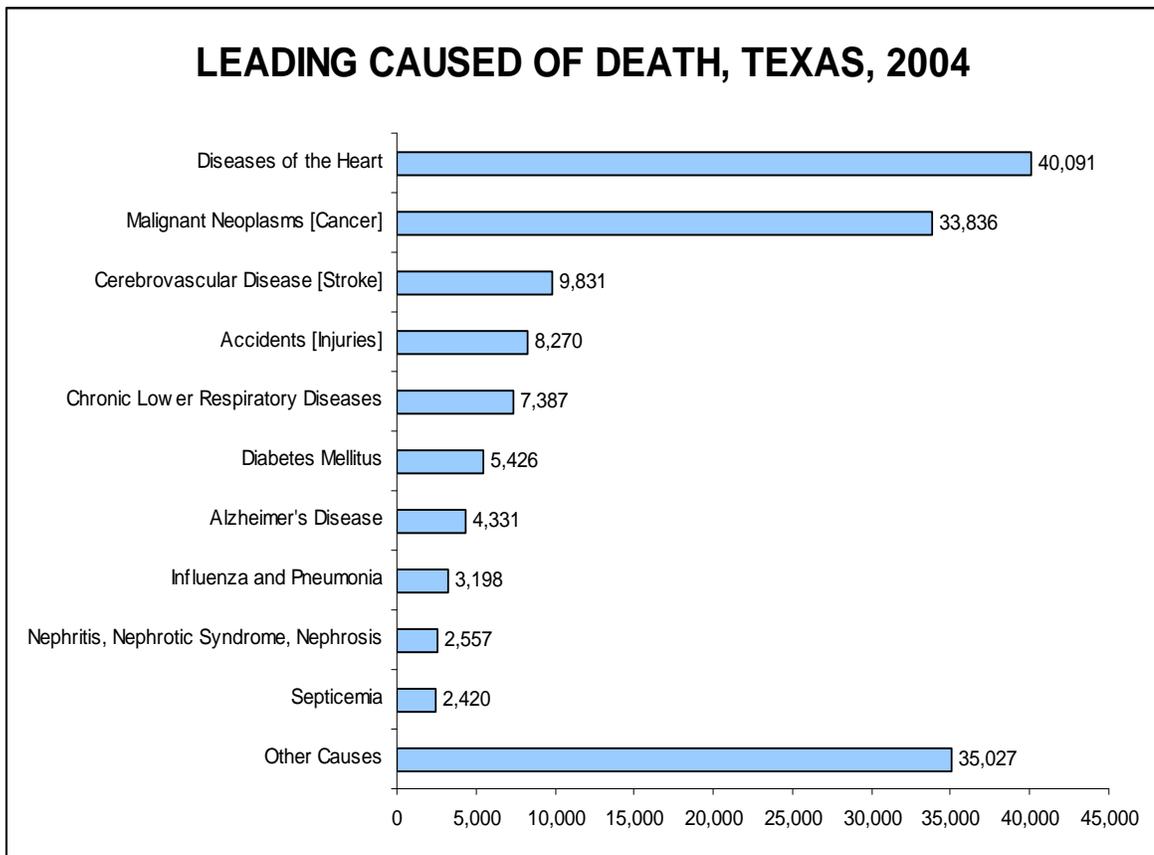
Data from the Youth Risk Behavior Survey (YRBS) provide a wealth of data for state and local health and education officials to implement programs to address the behaviors of young people, create awareness of the extent of risk behaviors among young people, promote state-level changes that support specific health education curricula and coordinated school health programs, and provide evidence-based data to support the need of health education.

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# MORTALITY DATA

# MORTALITY DATA – LEADING CAUSES OF DEATHS 2004

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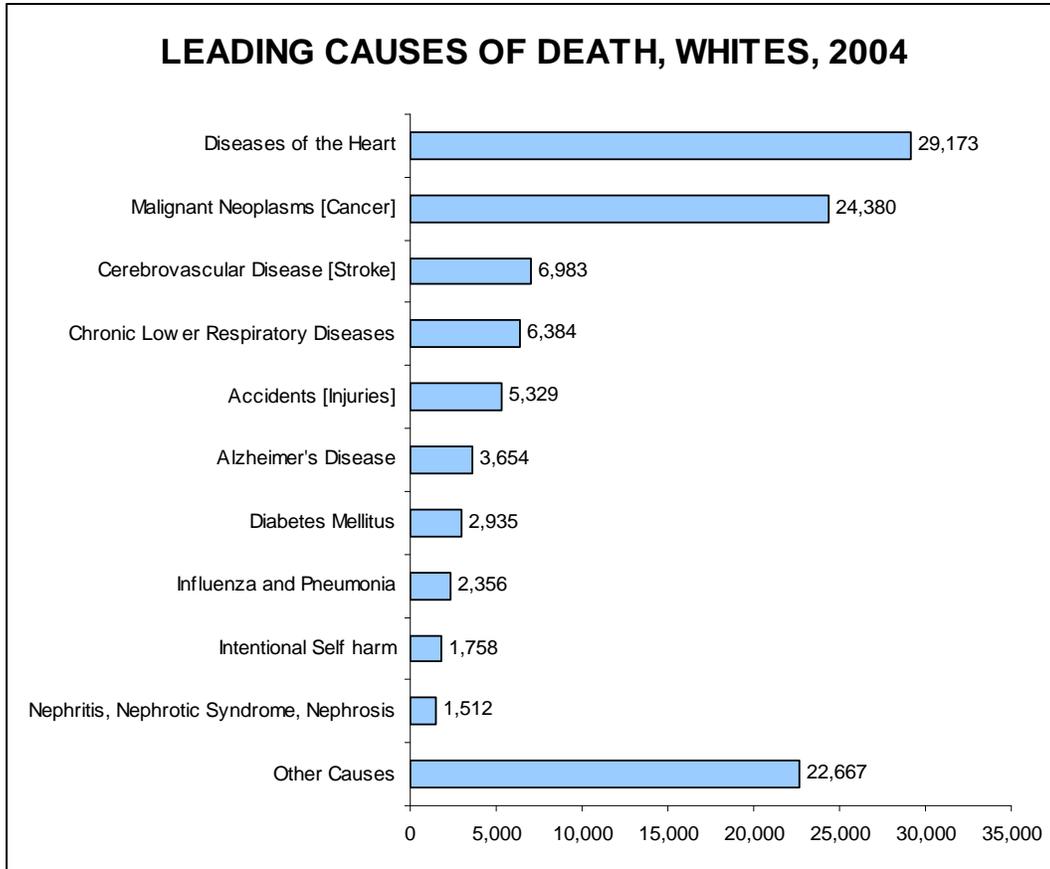
Data Source: Texas Vital Statistical Unit (VSU), Texas Department of State Health Services, 2004

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- A total of 152,374 Texas residents died in 2004. The leading cause of death, diseases of the heart, accounted for 26.3 percent of those deaths, while the second most common cause of death, malignant neoplasms, accounted for 22.2 percent. Cerebrovascular diseases, injuries, and chronic lower respiratory diseases ranked third, fourth and fifth respectively. Together, these five leading causes of death represented 66.2 percent of all deaths in 2004.

# MORTALITY DATA – LEADING CAUSES OF DEATHS AMONG WHITES, 2004

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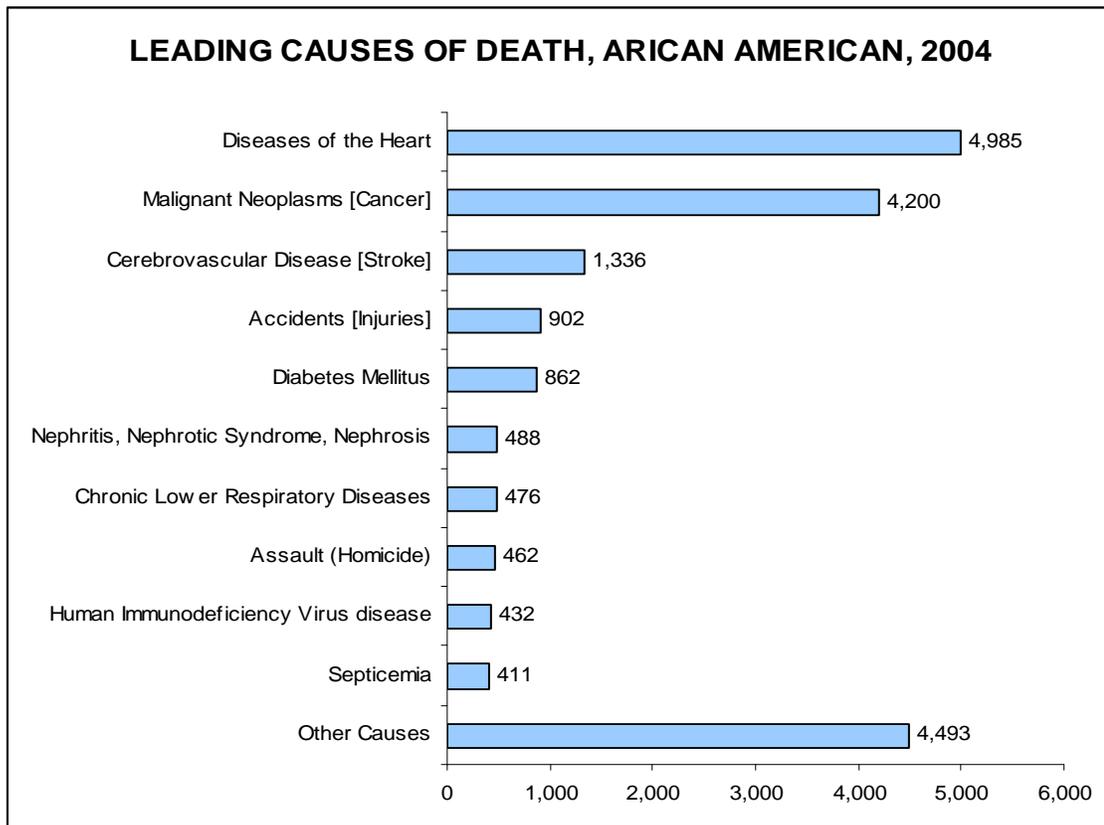


Data Source: Texas Vital Statistical Unit (VSU), Texas Department of State Health Services, 2004

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- A total of 107,131 White residents died in 2004. The leading cause of death, diseases of the heart, was responsible for 27.2 percent of these deaths while malignant neoplasms, the second most common cause of death, accounted for 22.8 percent. Cerebrovascular diseases ranked third and accounted for seven percent of all deaths among White residents in Texas. These top three leading causes of death accounted for over 67 percent of all death in White residents of Texas during 2004.
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## MORTALITY DATA – LEADING CAUSES OF DEATHS AMONG AFRICAN AMERICANS, 2004

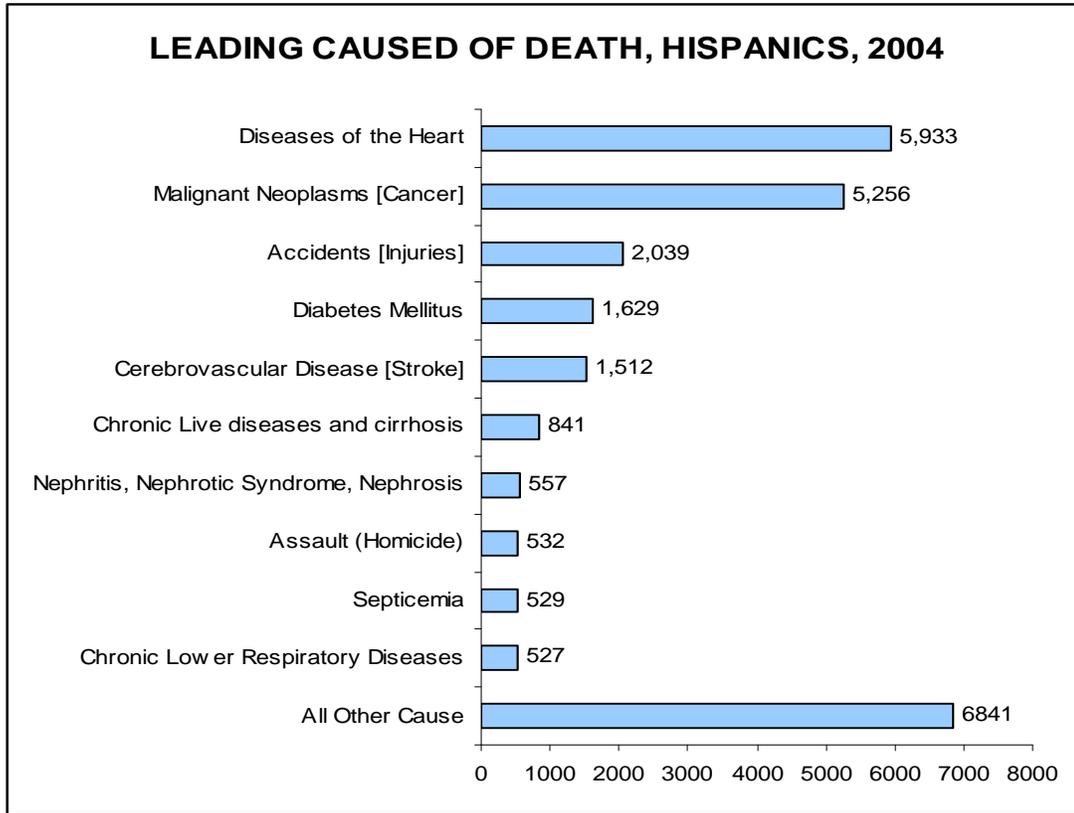


Data Source: Texas Vital Statistical Unit (VSU), Texas Department of State Health Services, 2004

- A total of 19,047 African American residents died in 2004. The leading cause of death, diseases of the heart, was responsible for 26.2 percent of these deaths while malignant neoplasms, the second most common cause of death, accounted for 22.1 percent. Cerebrovascular diseases ranked third and accounted for seven percent of all deaths among Texas African American residents. Accidents and diabetes were the fourth & fifth leading causes of death accounting for five percent each of all deaths among African American residents in Texas. Together, the five leading causes of death accounted for 64 percent of deaths among African Americans in Texas in 2004.

# MORTALITY DATA – LEADING CAUSES OF DEATHS AMONG HISPANICS, 2004

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Data Source: Texas Vital Statistical Unit (VSU), Texas Department of State Health Services, 2004

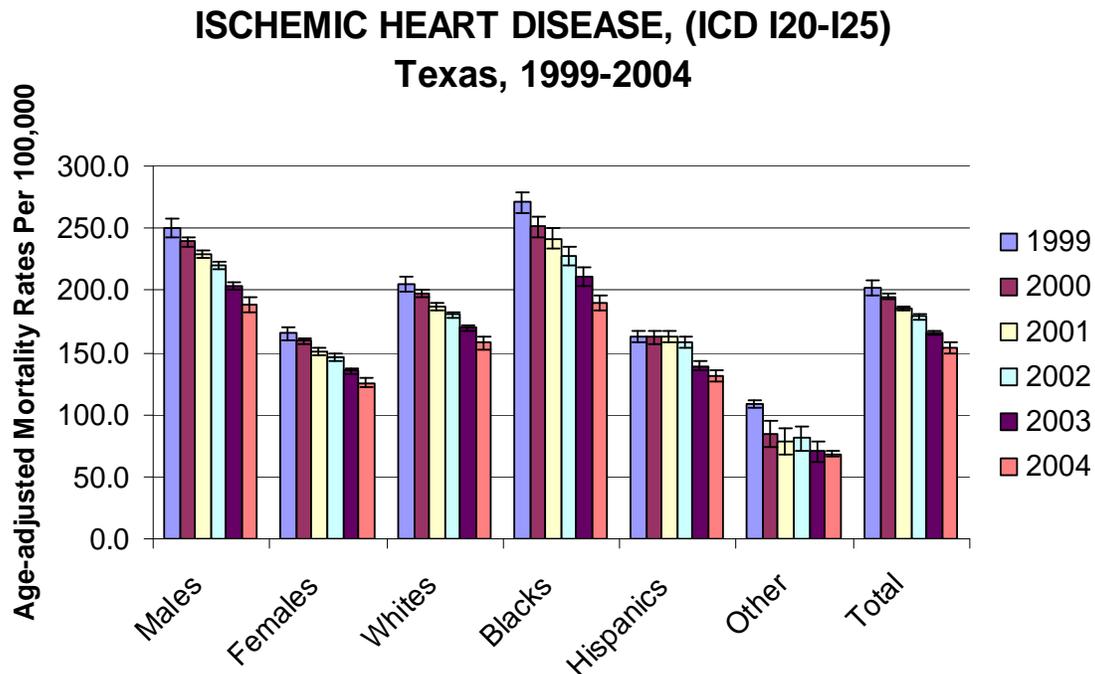
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■ There were a total of 26,196 deaths among Hispanics in Texas in 2004. The leading cause of death, diseases of the heart, was responsible for 23 percent of all deaths while malignant neoplasms (20 percent of all deaths) was the second most common cause of death among Hispanics. The third leading cause of deaths for Hispanics was deaths due to accidents, which accounted for eight percent of all deaths. Diabetes was the fourth leading cause of death (six percent of all deaths) and cerebrovascular diseases (six percent of all deaths) were the fifth leading cause of deaths. Together, these 5 leading causes of death represented 62 percent of all deaths among Hispanic residents in Texas in 2004.

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# **Selected Chronic Disease Conditions**

# MORTALITY DATA – ISCHEMIC HEART DISEASE

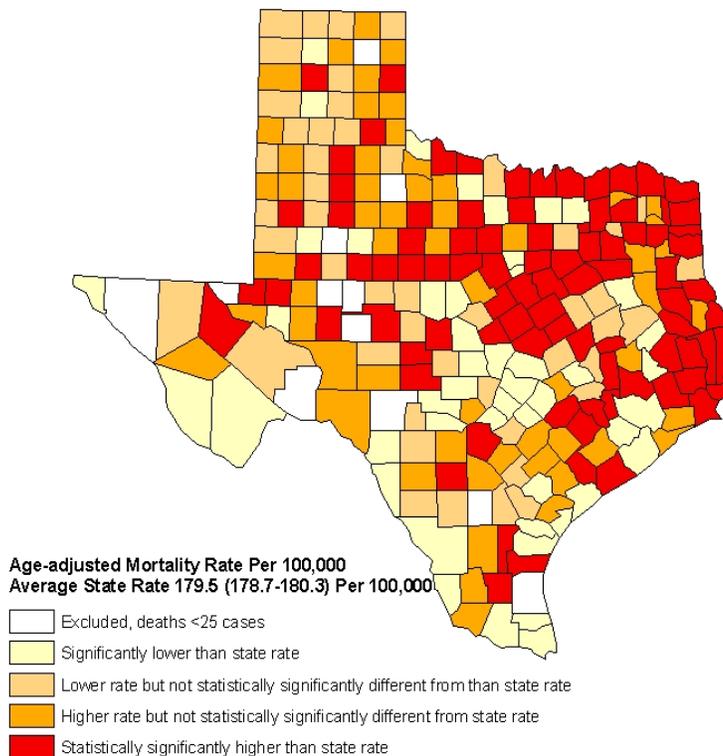


Data Source: Texas Vital Statistical Unit (VSU), Texas Department of State Health Services, 1999-2004

- The overall age-adjusted mortality rate (AAMR) for ischemic heart disease (IHD) declined from 202.4 per 100,000 in 1999 to 153.5 per 100,000 in 2004. The decrease was statistically significant. AAMR for males and females and for Whites and African Americans also showed significant decline during the same period. AAMR for Hispanics, however, stayed relatively level through 2002, and then showed a significant decline in 2003 and 2004.
- Texas males had a significantly higher risk of dying from IHD than females.
- Among the race/ethnicity groups, African Americans have a higher risk of dying from IHD than Whites, Hispanics and other races.

# MORTALITY DATA – ISCHEMIC HEART DISEASE

## 6-year Average Age-Adjusted Mortality Rates, Texas 1999-2004

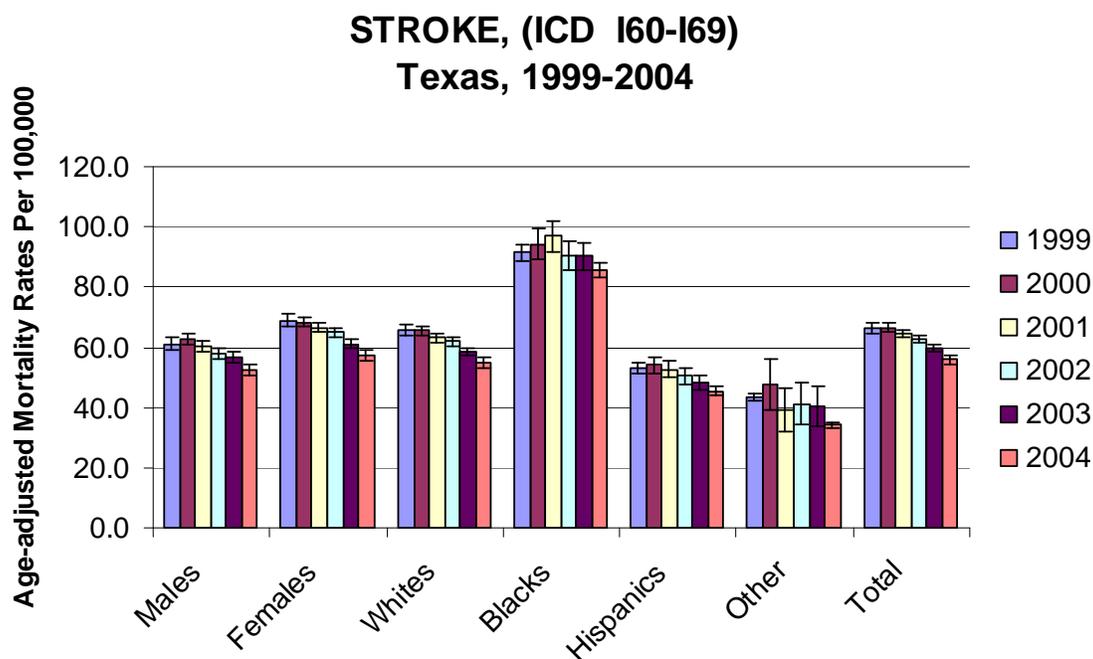


Data Source: Texas Vital Statistical Unit (VSU), Texas Department of State Health Services, 1999-2004

- The darkest color on the map represents Texas counties with the highest mortality rates for IHD while the lighter colors represent counties with lower mortality rates. County-specific mortality rates were age-adjusted and represent data for 1999-2004.
- **NOTE:** Although county rates provide a high degree of specificity, rates in counties with small populations and few deaths for a specific condition can be unstable. For each map, county-specific rates were ranked from highest to lowest and then categorized into quartiles.

## MORTALITY DATA – STROKE

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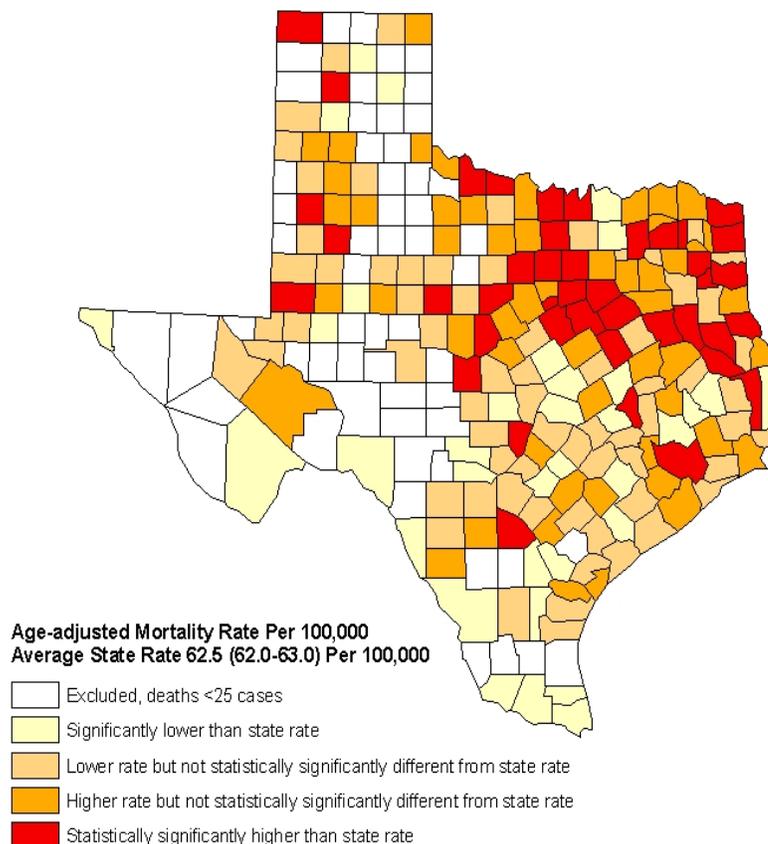
Data Source: Texas Vital Statistical Unit (VSU), Texas Department of State Health Services, 1999-2004

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- The overall age-adjusted mortality rate (AAMR) for stroke declined from 66.3 per 100,000 in 1999 to 55.9 per 100,000 in 2004. The decrease was statistically significant.
- Texas females had significantly higher risk of dying from stroke than males.
- Among the race/ethnicity groups, African Americans had significantly higher mortality rates compared to Whites and Hispanics and other races.

# MORTALITY DATA – STROKE

## 6-year Average Age-Adjusted Mortality Rates, Texas 1999-2004



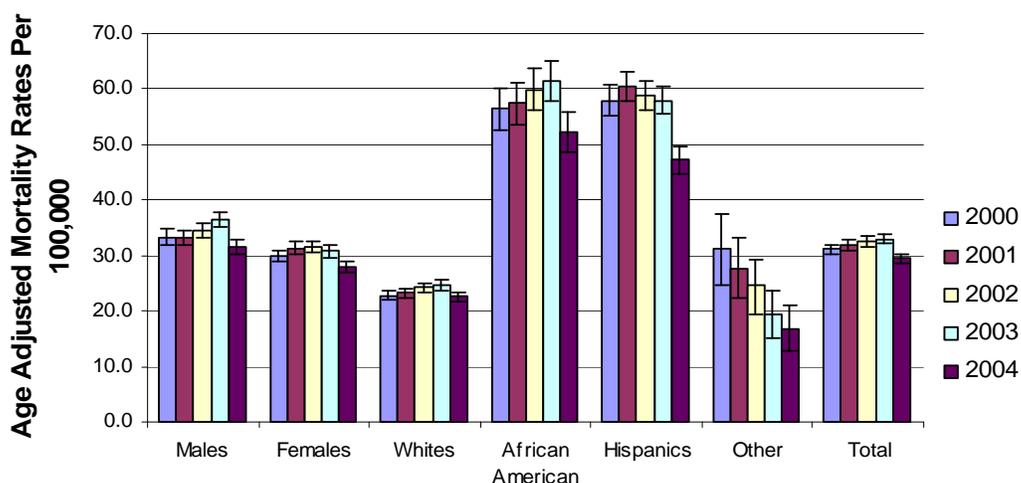
Data Source: Texas Vital Statistical Unit (VSU), Texas Department of State Health Services, 1999-2004

- The darkest color on the map represents Texas counties with the highest mortality rates for stroke while the lighter colors represent counties with lower mortality rates. County-specific mortality rates were age-adjusted and represent data for 1999-2004.
- **NOTE:** Although county rates provide a high degree of specificity, rates in counties with small populations and few deaths for a specific condition can be unstable. For each map, county specific rates were ranked from highest to lowest and then categorized into quartiles.

## MORTALITY DATA – DIABETES MELLITUS

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**Diabetes Mortality (ICD E10-E14)  
Texas, 2000-2004**



Data Source: Texas Vital Statistical Unit (VSU), Texas Department of State Health Services, 2000-2004

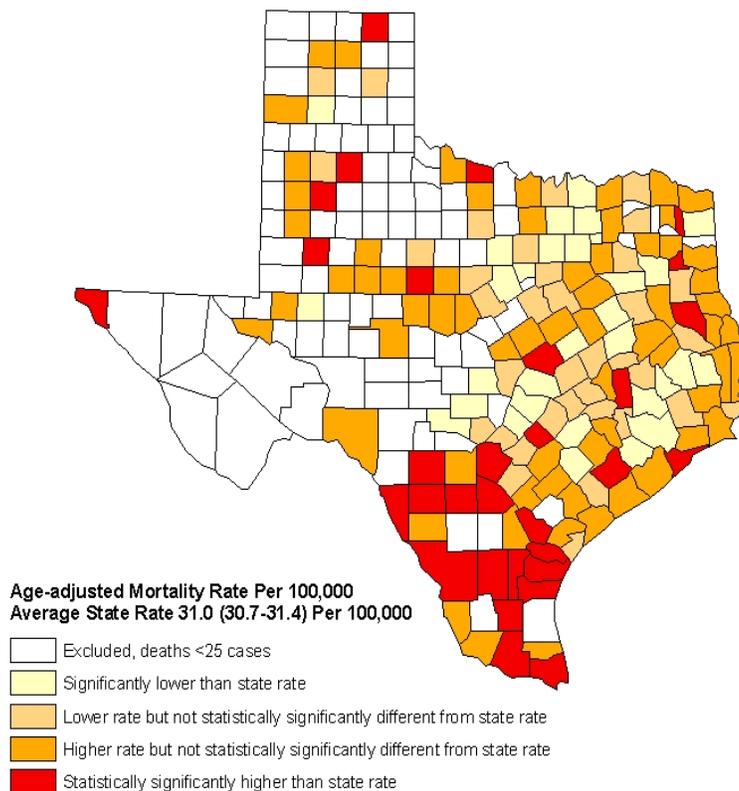
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- The overall age-adjusted mortality rate (AAMR) for diabetes mellitus increased slightly from 30.4 per 100,000 in 1999 to a peak of 32.1 per 100,000 in 2002, but decreased slightly to 29.5 per 100,000 in 2004.
- Texas males had significantly higher risk of dying from diabetes than females.
- Among the race/ethnicity groups, African Americans and Hispanics had significantly higher mortality rates due to diabetes compared to Whites and Other races.

# MORTALITY DATA – DIABETES

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## Diabetes Mortality (ICD E10-E14) 6-year Average Age-Adjusted Mortality Rates Per 100,000, Texas 1999-2004



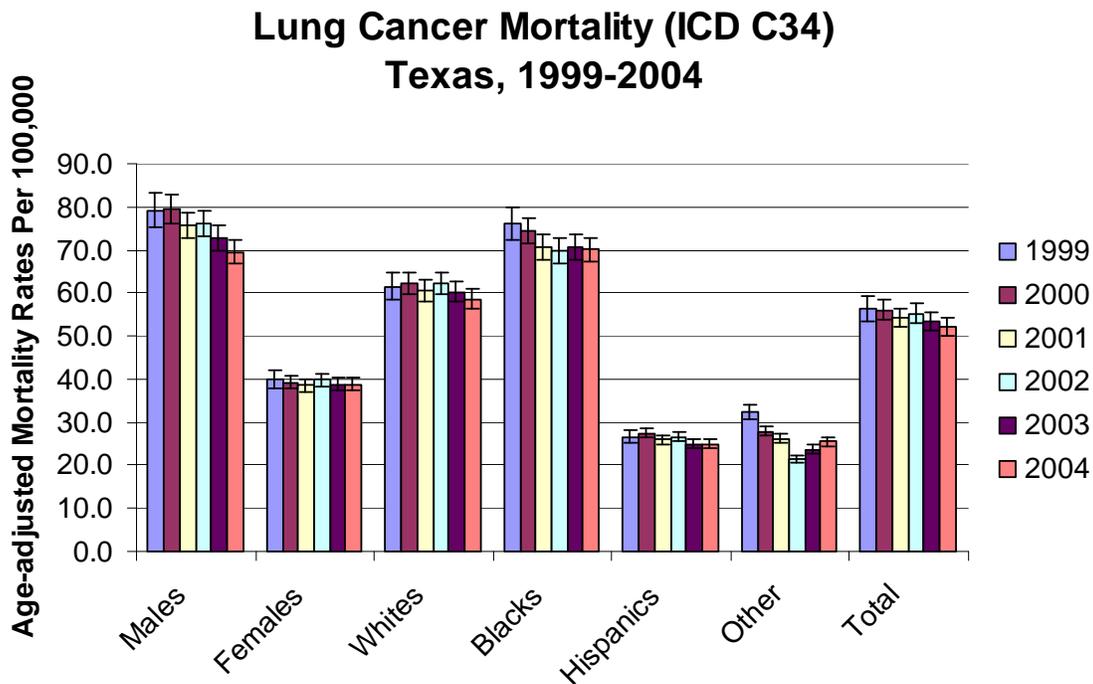
Data Source: Texas Vital Statistical Unit (VSU), Texas Department of State Health Services, 1999-2004

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- The darkest color in the map represents counties with the highest mortality rates for diabetes while the lighter colors represent counties with lower mortality rates. County-specific mortality rates were age-adjusted and represent data for 1999-2004.
- **NOTE:** Although county rates provide a high degree of specificity, rates in counties with small populations and few deaths for a specific condition can be unstable. For each map, county specific rates were ranked from highest to lowest and then categorized into quartiles.

## MORTALITY DATA – LUNG CANCER

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Data Source: Texas Vital Statistical Unit (VSU), Texas Department of State Health Services, 1999-2004

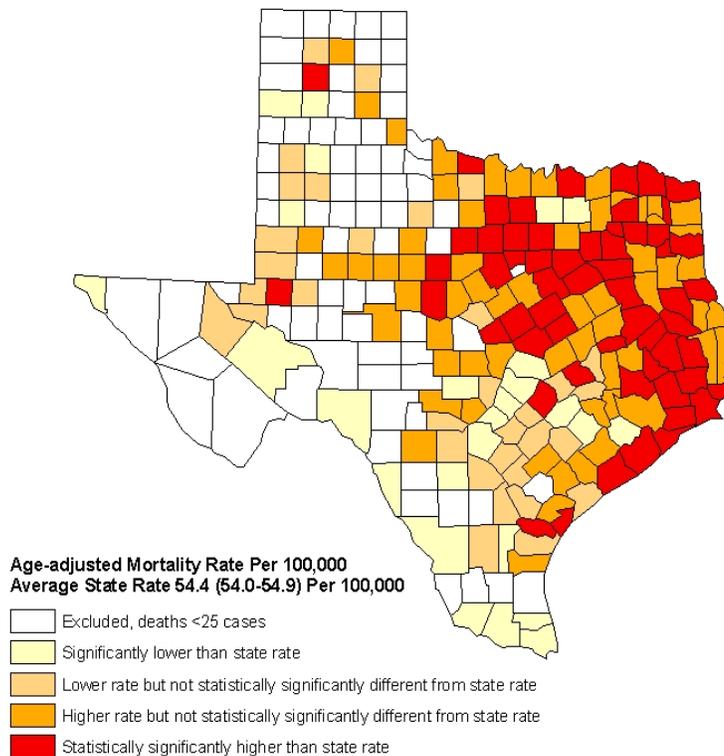
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- The overall age-adjusted mortality rate (AAMR) for lung cancer decreased slightly from 56.2 per 100,000 in 1999 to 52.1 per 100,000 in 2004. Decreases in mortality rates can be noted also among males, African Americans and Other races during the same study period, with the decrease in rates among males reaching statistical significance, but not for African Americans or Other races.
- Despite the decreases in mortality rates, Texas males had twice the rate of lung cancer mortality as females.
- Among the race/ethnicity groups, African Americans had the highest mortality rates of lung cancer while Hispanics and Other races had the lowest mortality rates.

# MORTALITY DATA – LUNG CANCER

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Lung Cancer (ICD-10 C34)  
6-year Average Age-Adjusted Mortality Rates Per 100,000, Texas 1999-2004



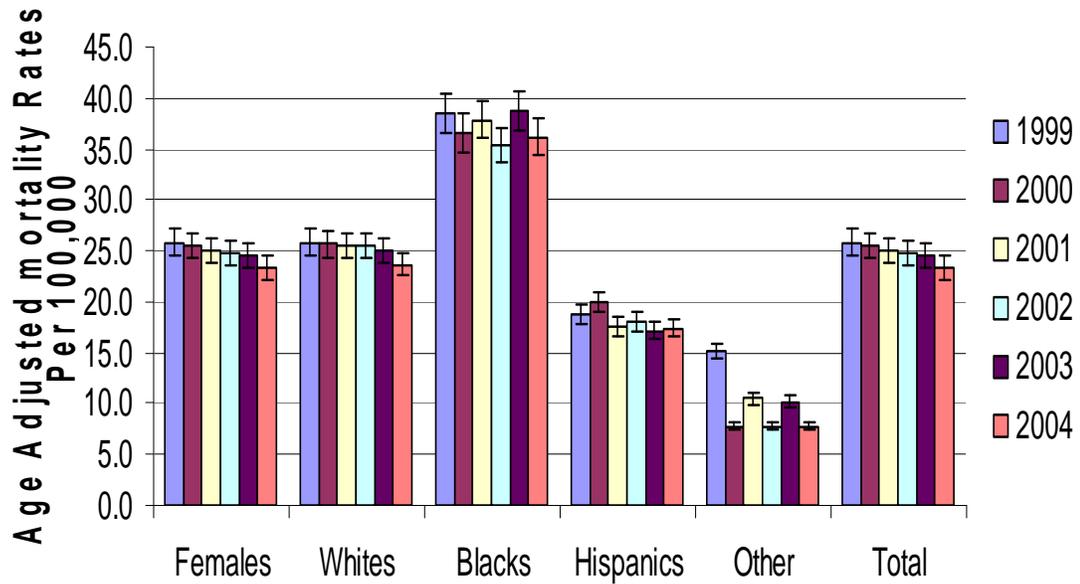
Data Source: Texas Vital Statistical Unit (VSU), Texas Department of State Health Services, 1990-2004

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- The darkest color in the map represents counties with the highest mortality rates for lung cancer while the lighter colors represent counties with lower mortality rates. County-specific mortality rates were age-adjusted and represent data for 1999-2004.
- **NOTE:** Although county rates provide a high degree of specificity, rates in counties with small populations and few deaths for a specific condition can be unstable. For each map, county specific rates were ranked from highest to lowest and then categorized into quartiles.

# MORTALITY DATA – FEMALE BREAST CANCER

Female Breast Cancer Mortality (ICD-10 C50)  
Texas, 1999-2004



Data Source: Texas Vital Statistical Unit (VSU), Texas Department of State Health Services, 1990-2004

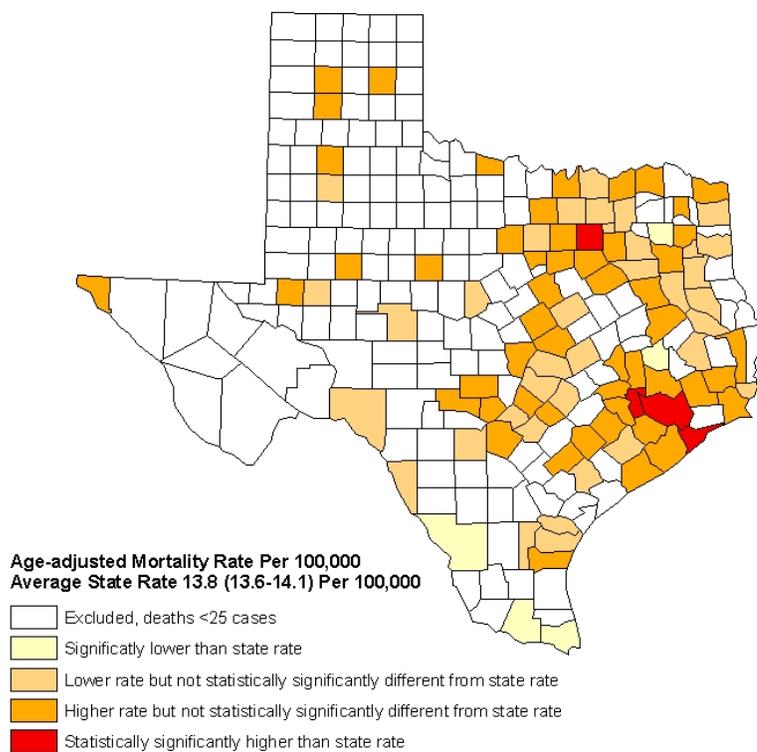
- The overall age-adjusted mortality rate (AAMR) for breast cancer showed a slight decrease from 25.8 per 100,000 in 1999 to 23.3 per 100,000 in 2004.
- Among the race/ethnicity groups, African Americans had significantly higher mortality rates compared to Whites, Hispanics and Other races.

# MORTALITY DATA – FEMALE BREAST CANCER

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Female Breast Cancer (ICD-10 C50)

6-year Average Mortality Rates per 100,000, Texas 1999-2004



Data Source: Texas Vital Statistical Unit (VSU), Texas Department of State Health Services, 1990-2004

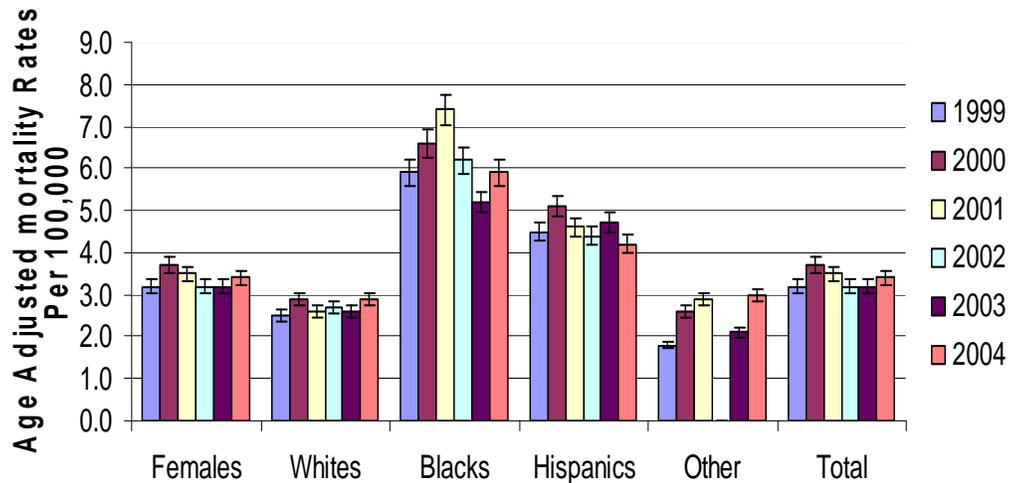
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- The darkest color in the map represents counties with the highest mortality rates for breast cancer while the lighter colors represent counties with lower mortality rates. County-specific mortality rates were age-adjusted and represent data for 1999-2004.
- **NOTE:** Although county rates provide a high degree of specificity, rates in counties with small populations and few deaths for a specific condition can be unstable. For each map, county specific rates were ranked from highest to lowest and then categorized into quartiles.

# MORTALITY DATA – CANCER OF THE CERVIX

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Female Cervic Cancer Mortality (ICD-10 C53)  
Texas, 1999-2004



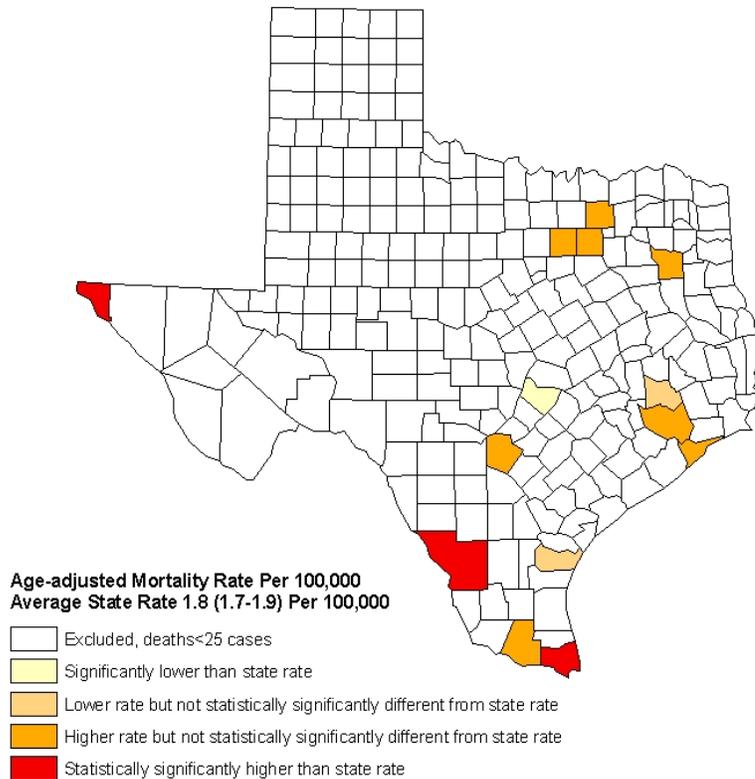
Data Source: Texas Vital Statistical Unit (VSU), Texas Department of State Health Services, 1999-2004

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- The overall age-adjusted mortality rate (AAMR) for cancer of the cervix remained level from 1999 to 2004.
- Among the race/ethnicity groups, African Americans and Hispanics had significantly higher mortality rates of cervical cancer compared to Whites.

# MORTALITY DATA – CERVICAL CANCER

Female Cervical Cancer (ICD-10 C53)  
6-year Average Age-Adjusted Mortality Rates Per 100,000, Texas 1999-2004



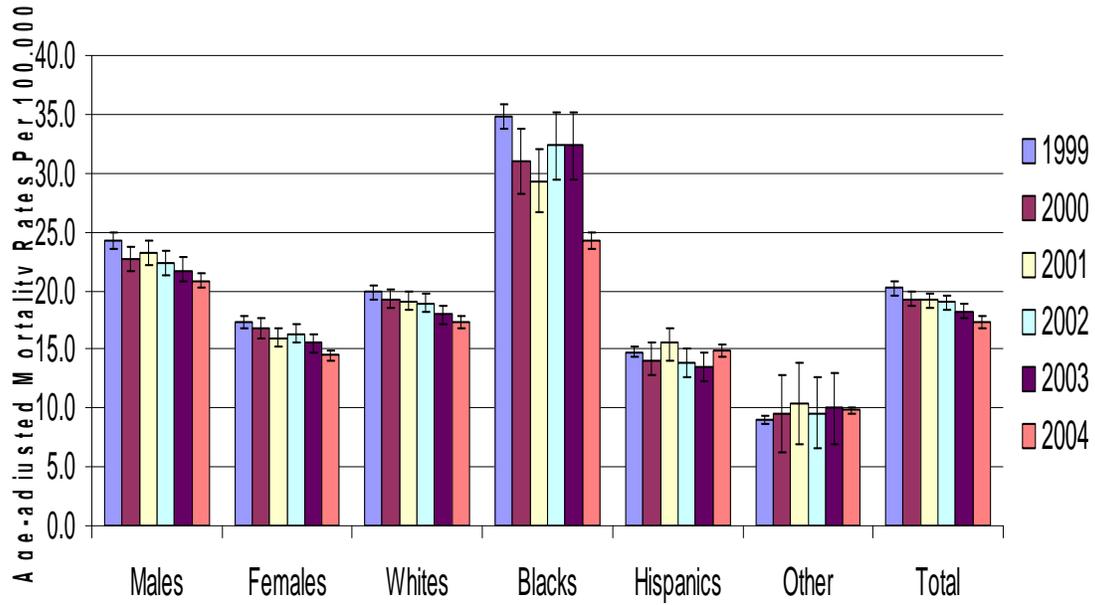
Data Source: Texas Vital Statistical Unit (VSU), Texas Department of State Health Services, 1990-2004

- The darkest color in the map represents counties with the highest mortality rates for cervical cancer while the lighter colors represent counties with lower mortality rates. County-specific mortality rates were age-adjusted and represent data for 1999-2004.
- **NOTE:** Although county rates provide a high degree of specificity, rates in counties with small populations and few deaths for a specific condition can be unstable. For each map, county specific rates were ranked from highest to lowest and then categorized into quartiles.

# MORTALITY DATA – COLORECTAL CANCER

## Colorectal Cancer Mortality (ICD 18-21)

Texas, 1999-2004



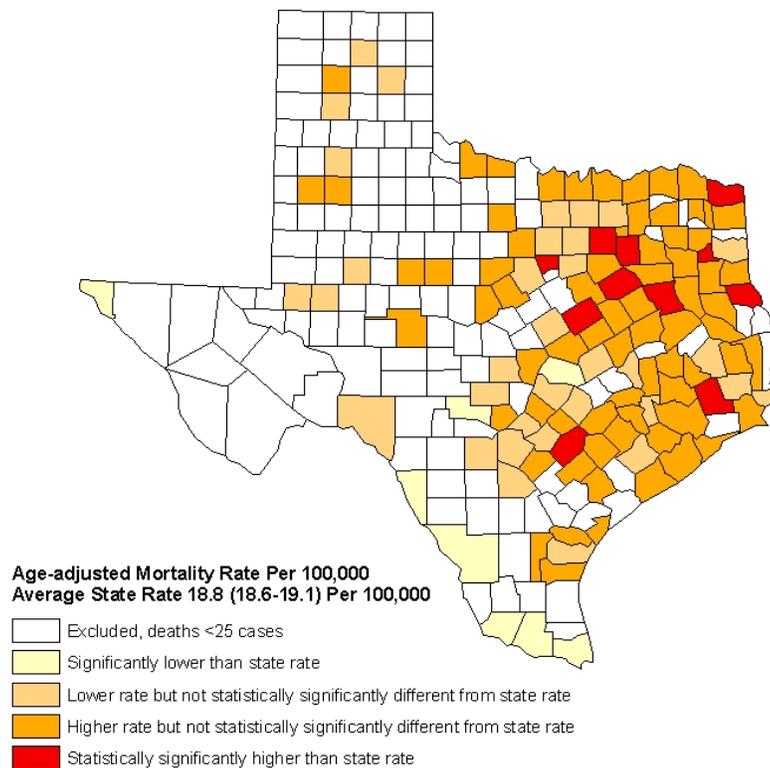
Data Source: Texas Vital Statistical Unit (VSU), Texas Department of State Health Services, 1999-2004

- The overall age-adjusted mortality rate (AAMR) for colorectal cancer decreased from 20.2 per 100,000 in 1999 to 17.3 per 100,000 in 2004.
- Texas males had significantly higher risk of dying from colorectal cancer than females.
- Among the race/ethnicity groups, African Americans have significantly higher mortality rates of the disease compared to Whites, Hispanics and Other races.

# MORTALITY DATA – COLORECTAL CANCER

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Colorectal Cancer (ICD-10 18-21)  
6-year Average Age-Adjusted Mortality Rates Per 100,000, Texas 1999-2004

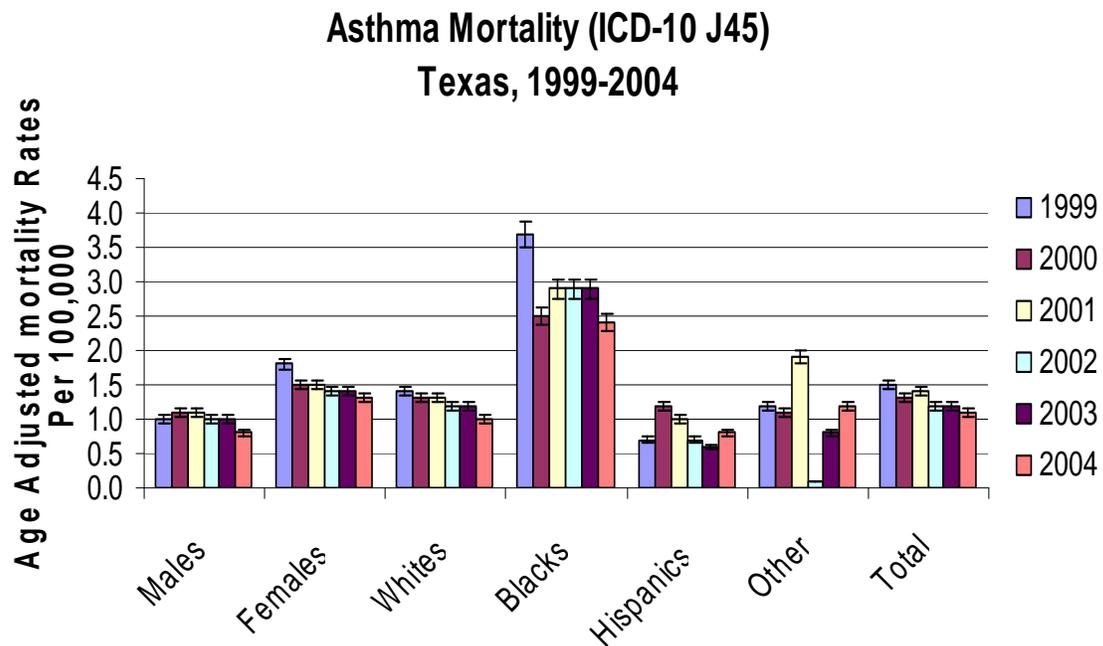


Data Source: Texas Vital Statistical Unit (VSU), Texas Department of State Health Services, 1990-2004

- 
- The darkest color in the map represents counties with the highest mortality rates for colorectal cancer while the lighter colors represent counties with lower mortality rates. County-specific mortality rates were age-adjusted and represent data for 1999-2004.
  - **NOTE:** Although county rates provide a high degree of specificity, rates in counties with small populations and few deaths for a specific condition can be unstable. For each map, county specific rates were ranked from highest to lowest and then categorized into quartiles.

## MORTALITY DATA – ASTHMA

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Data Source: Texas Vital Statistical Unit (VSU), Texas Department of State Health Services, 1990-2004

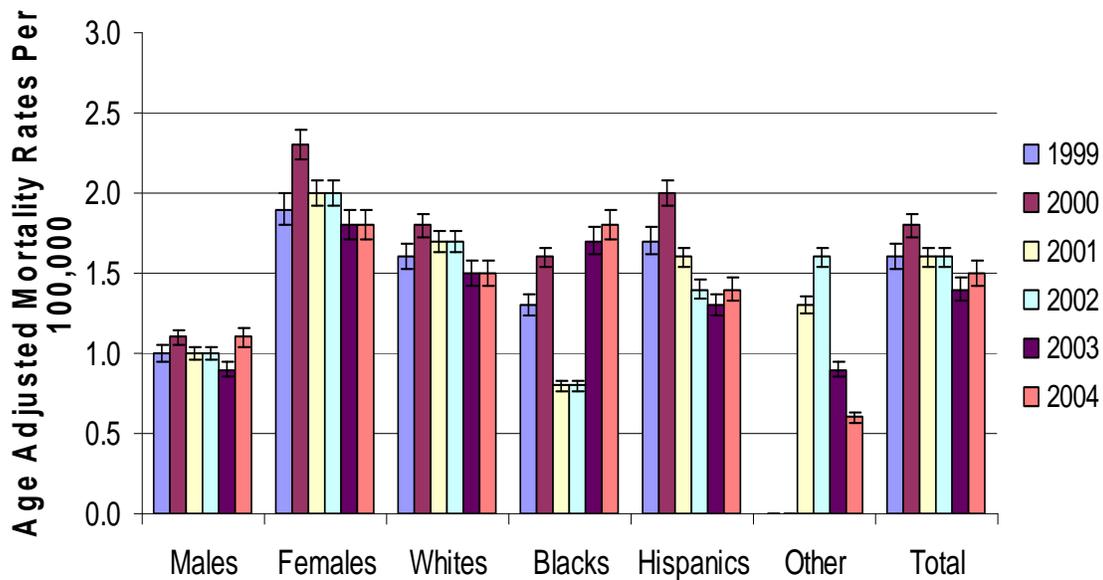
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- Overall there was a significant downward trend in the Texas age-adjusted asthma mortality rate from 1999 through 2004.
- Texas females had higher mortality rates from asthma than males, although these differences did not always achieve statistical significance.
- Among the race/ethnicity groups, African Americans had significantly higher mortality rates compared to Whites and Hispanics.

## MORTALITY DATA – ARTHRITIS

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Arthritis Mortality (ICD-10 M00-M25)  
Texas, 1999-2004



Data Source: Texas Vital Statistical Unit (VSU), Texas Department of State Health Services, 1999-2004

- 
- The overall age-adjusted mortality rate (AAMR) for arthritis stayed relatively stable from 1999 through 2004.
  - Texas females had significantly higher risk of dying from arthritis than males.
  - Among race/ethnicity groups, no consistent patterns were apparent in mortality rates.

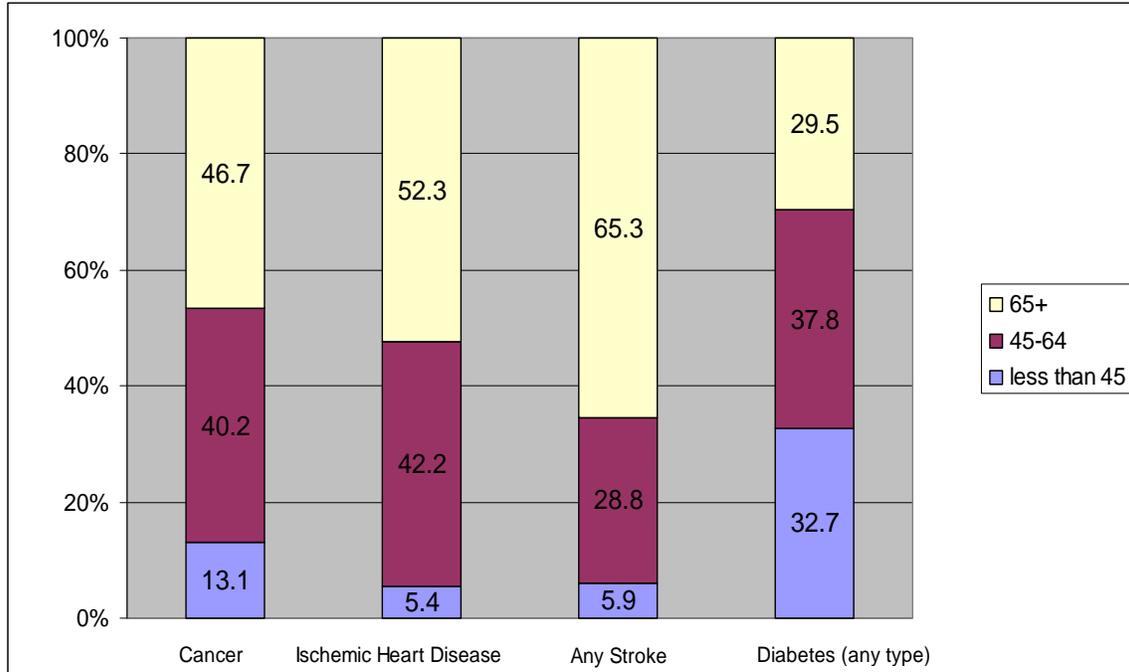
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# HOSPITAL DISCHARGE DATA

# HOSPITAL DISCHARGE DATA

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Percent Distribution of Hospital Discharges by Age



Data Source: Texas Health Care Information Collection (THCIC), Department of State Health Services, 2005

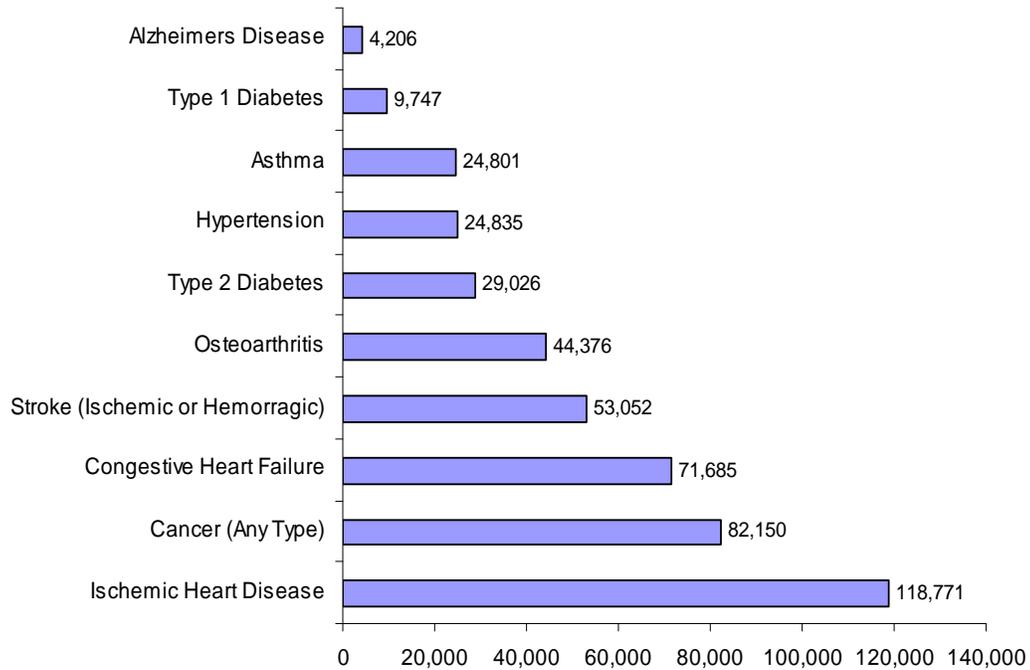
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- In 2005, patients aged 65 years of age and older accounted for the highest proportion of hospital discharges for cancer (47%), ischemic heart disease (52%) and stroke (65%). Discharges for diabetes-related diagnoses had a higher proportion of patients aged 45 to 64 years (38%) and aged less than 45 years (33%). Patients aged 65 years and older accounted for 30% of all diabetes-related hospital discharges.

# HOSPITAL DISCHARGE DATA

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**Number of Selected First-List Hospital Discharges--2005**



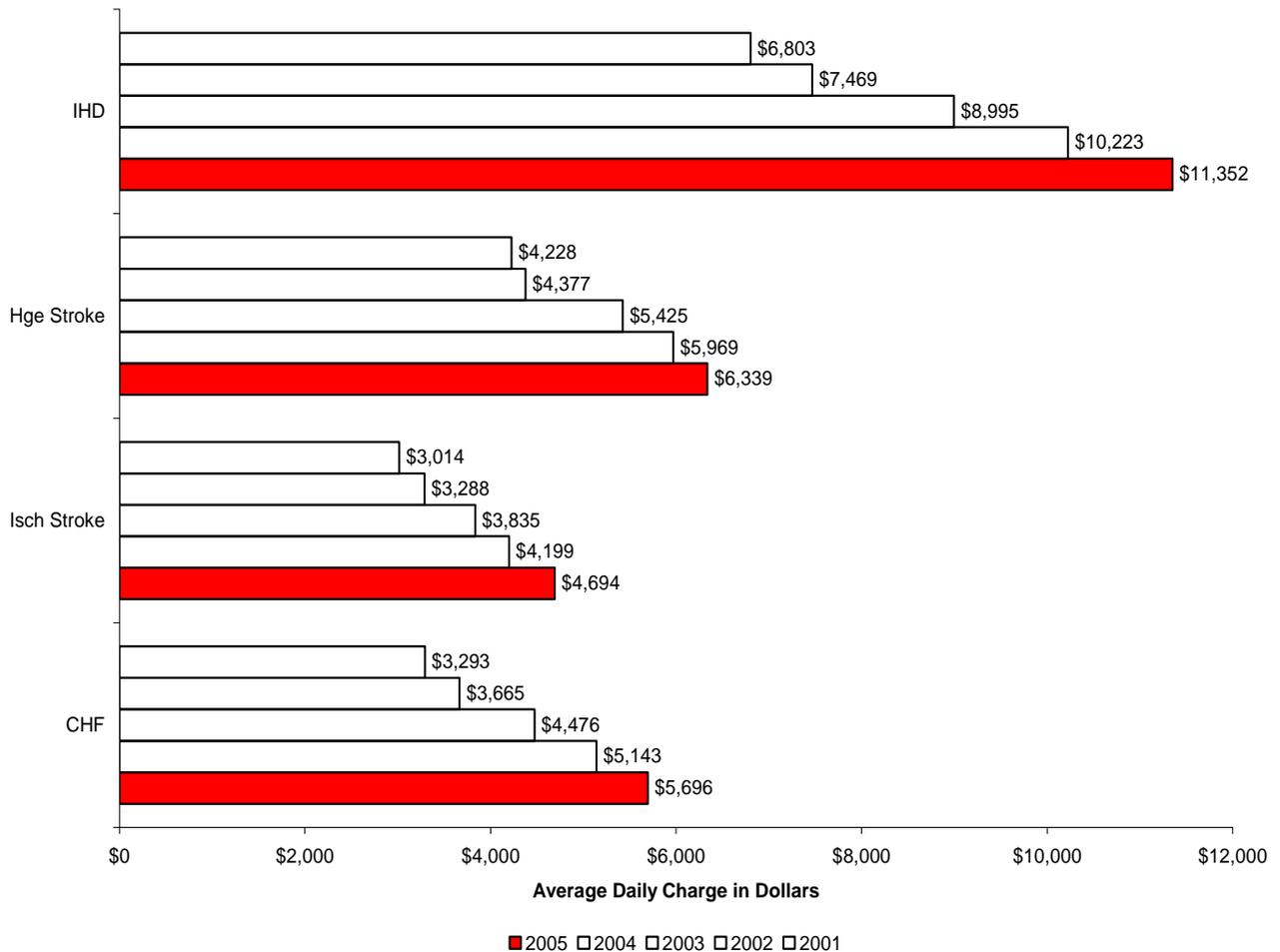
Data Source: Texas Health Care Information Collection (THCIC), Department of State Health Services, 2005

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- In 2005, ischemic heart disease had the highest number of discharges for chronic disease hospitalizations, followed by cancer, congestive heart failure and stroke.
- All cancers (which includes prostate cancer, cervical cancer, breast cancer, lung cancer and colorectal cancer) had the second highest number of discharges for chronic disease hospitalizations.

# HOSPITAL DISCHARGE DATA – ESTIMATED AVERAGE HOSPITAL CHARGE PER DAY

**Estimated Average Hospital Charges Per Day for Selected CVD  
Diagnoses  
Texas 2001-2005**

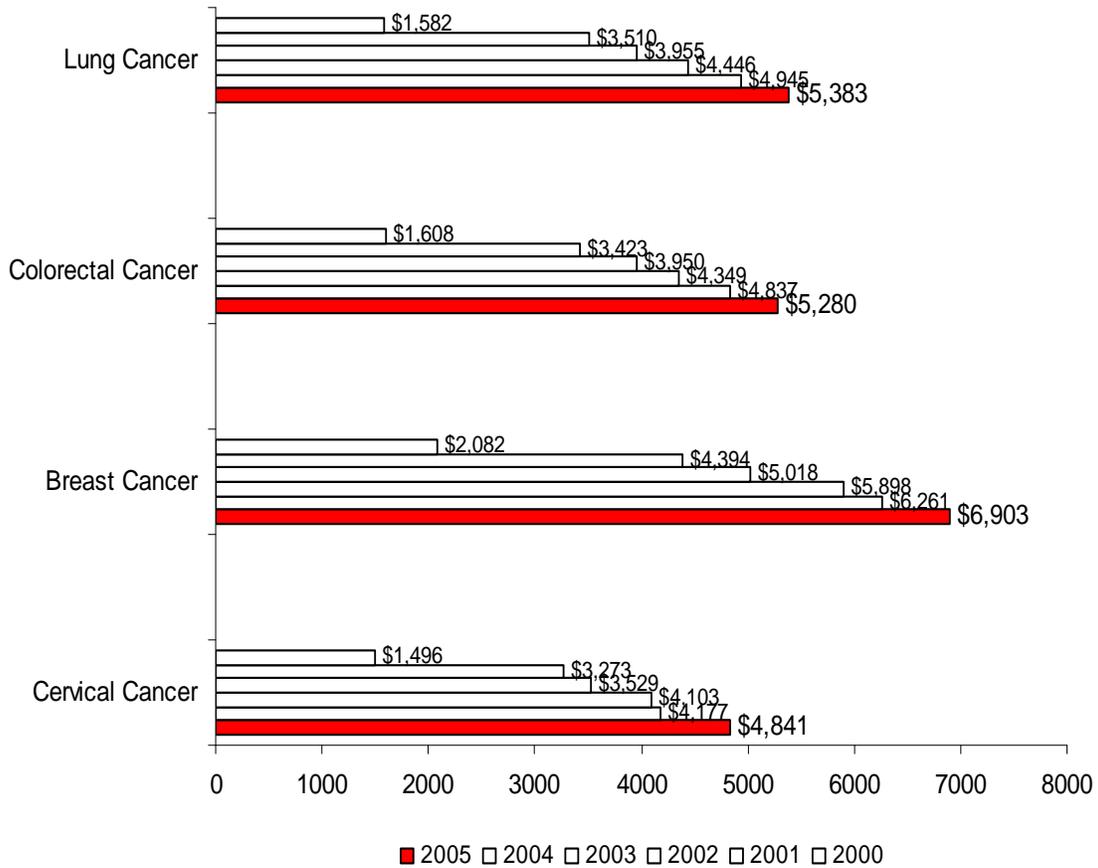


Data Source: Texas Health Care Information Collection (THCIC), Department of State Health Services, 2000-2005

- Estimated average hospital charges per day for selected CVD diagnoses have increased each year from 2000 to 2005. Among the specific CVD disease conditions, average hospital charges were highest for ischemic heart disease, followed by hemorrhagic stroke, congestive heart failure and ischemic stroke.

# HOSPITAL DISCHARGE DATA – ESTIMATED AVERAGE HOSPITAL CHARGE PER DAY

**Estimated Average Hospital Charges per Day for Selected  
Cancer Diagnoses, Texas 2000-2005**



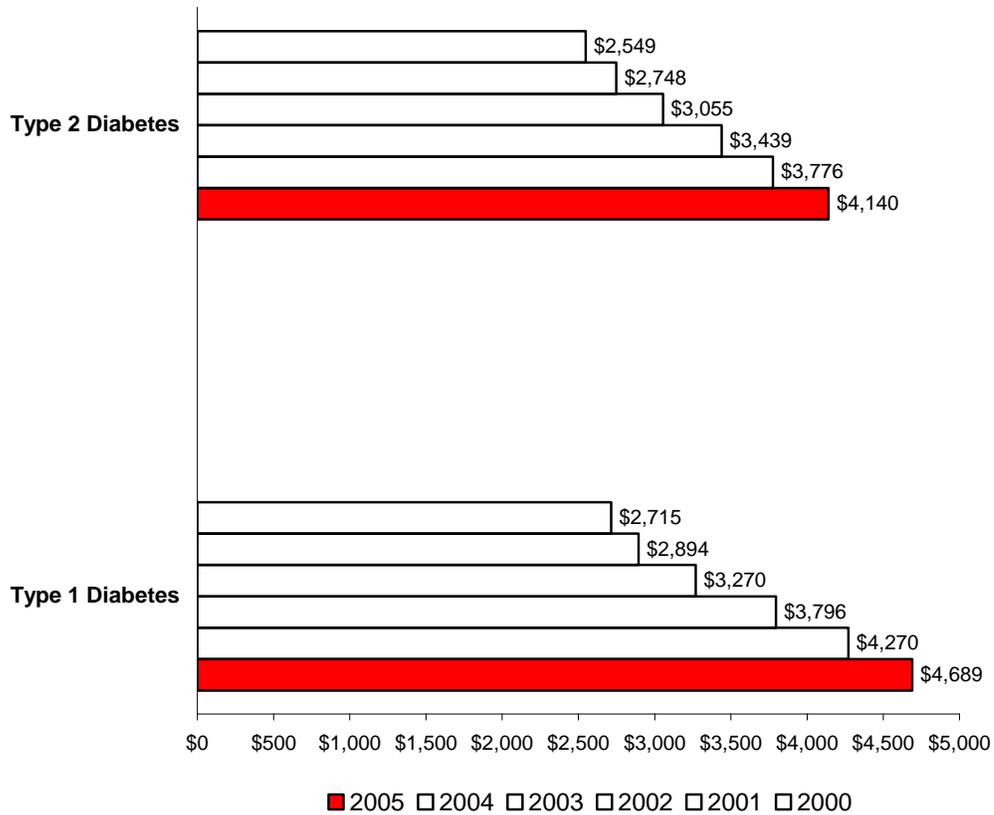
Data Source: Texas Health Care Information Collection (THCIC), Department of State Health Services, 2000-2005

- Estimated average hospital charges per day for selected cancer diagnoses have increased each year from 2000 to 2005. Among the specific cancer disease conditions, average hospital charges were highest for female breast cancer, followed by lung cancer, colorectal cancer and cervical cancer.

# HOSPITAL DISCHARGE DATA – ESTIMATED AVERAGE HOSPITAL CHARGE PER DAY

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Estimated Average Hospital Charges per Day for Diabetes

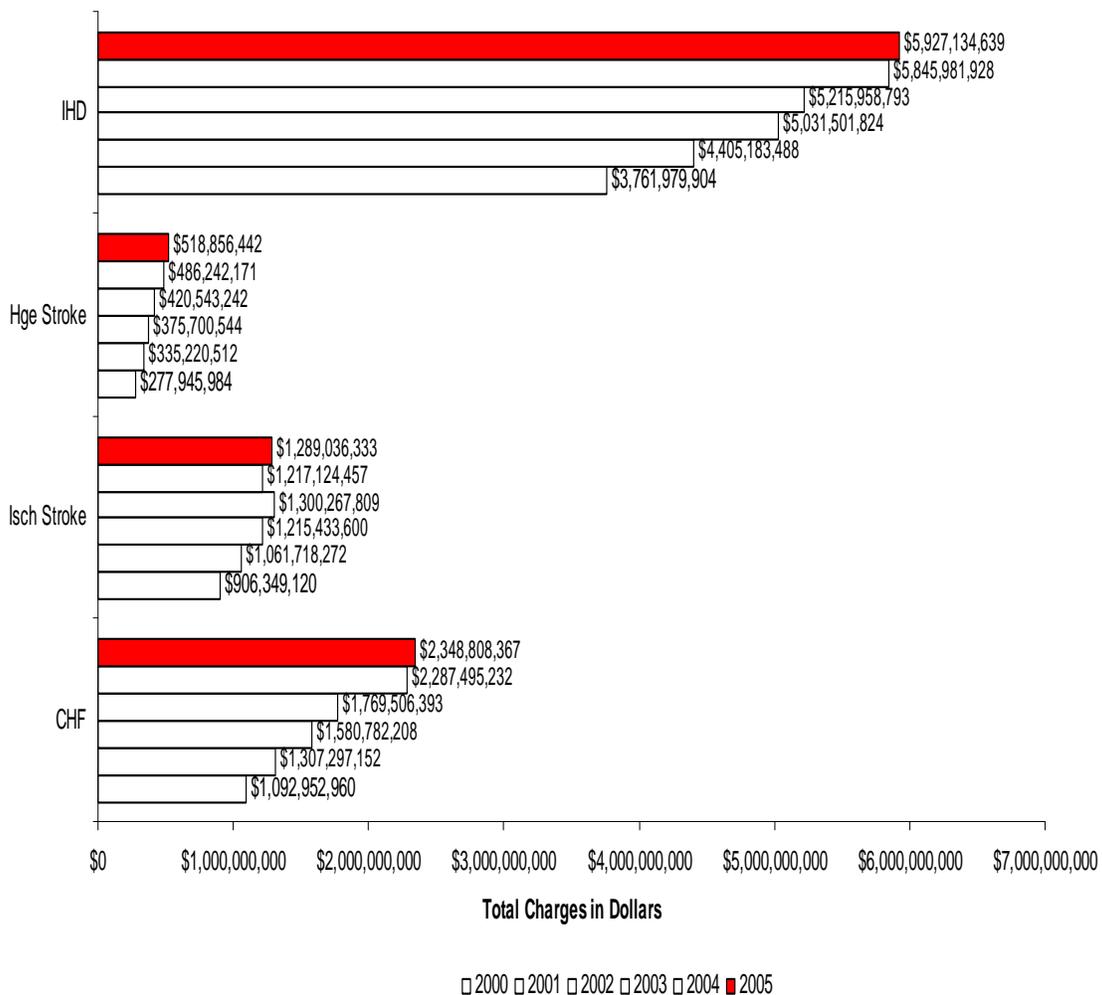


Data Source: Texas Health Care Information Collection (THCIC), Department of State Health Services, 2000-2005

- Estimated average hospital charges per day for specific types of diabetes mellitus have increased each year from 2000 to 2005. In 2005, the average hospital charge per day was highest for patients diagnosed with Type 1 diabetes.

# HOSPITAL DISCHARGE DATA – ESTIMATED TOTAL HOSPITAL CHARGES

**Total Hospital Charges for Selected CVD Diagnoses  
Texas 2000-2005**

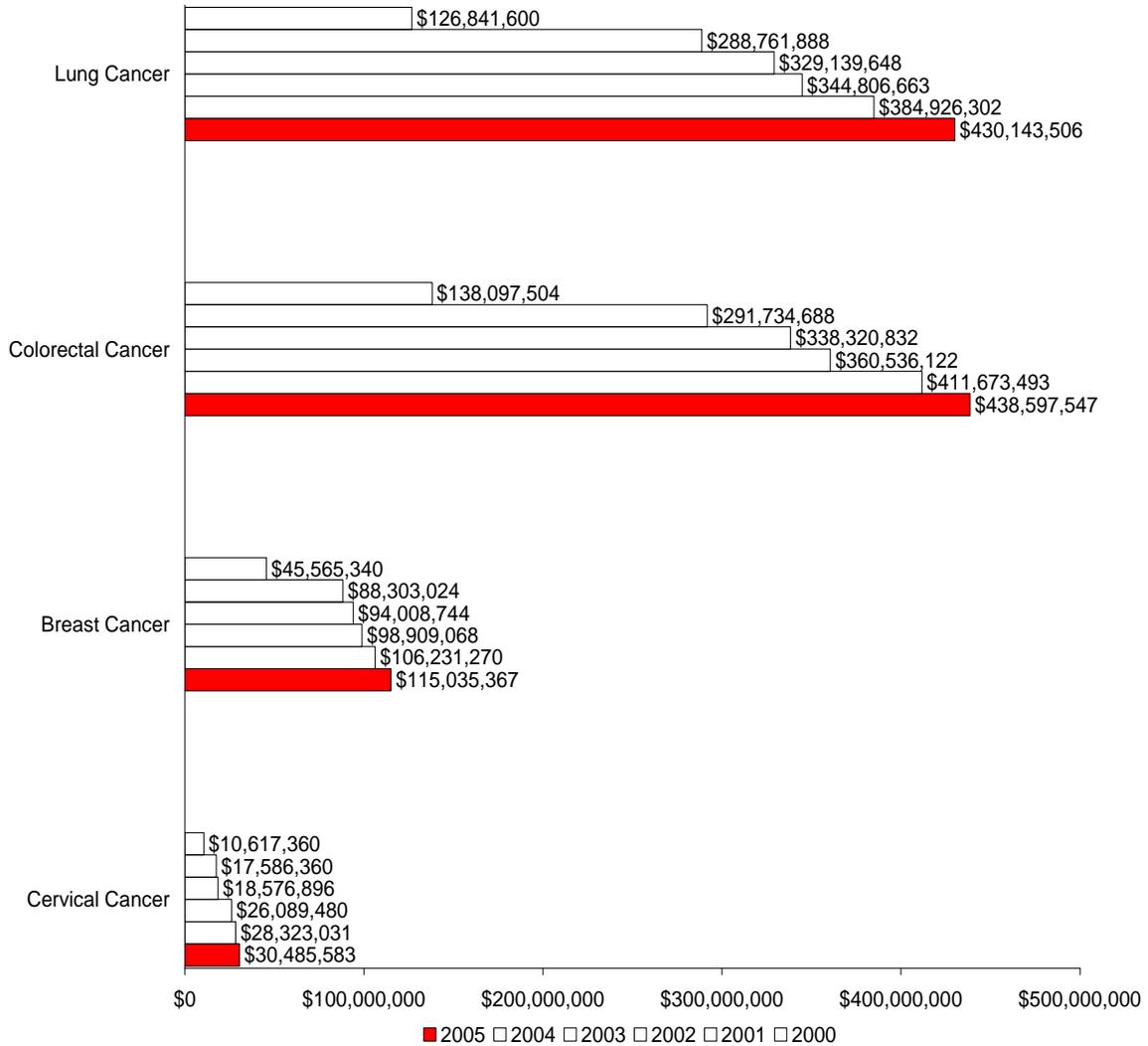


Data Source: Texas Health Care Information Collection (THCIC), Department of State Health Services, 2001-2005

- Total hospital charges for selected CVD diagnoses have increased each year from 2001 to 2005. Total hospital charges were highest for ischemic heart disease followed by congestive heart failure, ischemic stroke and hemorrhagic stroke.

# HOSPITAL DISCHARGE DATA – ESTIMATED TOTAL HOSPITAL CHARGES

Total Hospital Charges For Selected First List Cancer Diagnosis



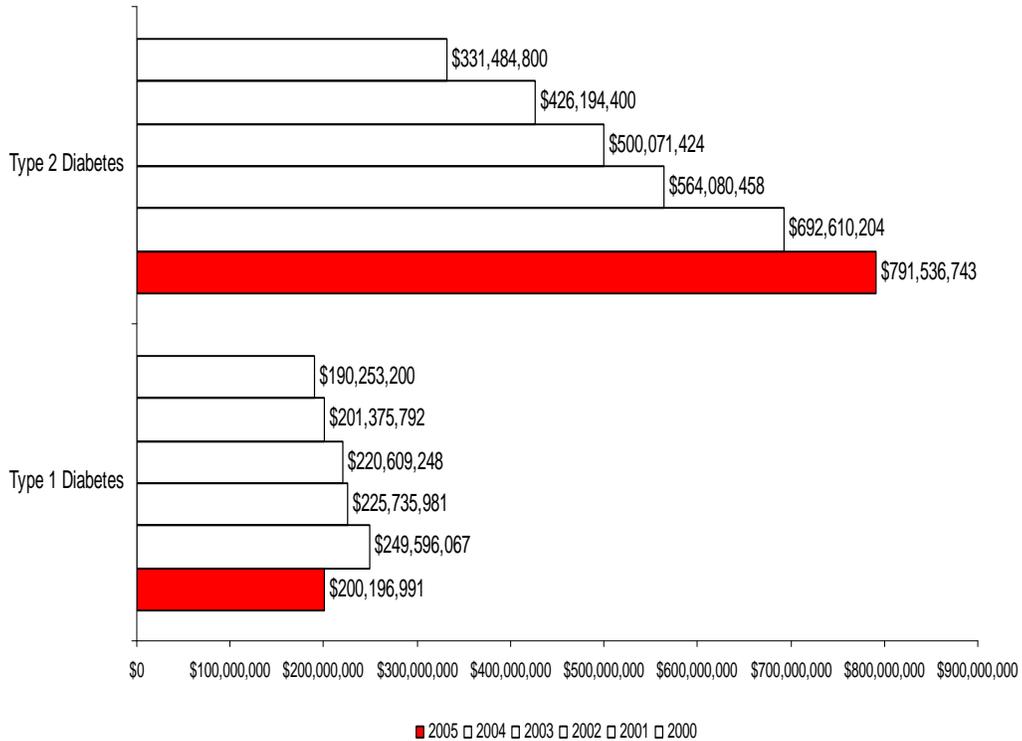
Data Source: Texas Health Care Information Collection (THCIC), Department of State Health Services, 2000-2005

- Total hospital charges for selected cancer types have increased each year from 2000 to 2005. In 2005, total hospital charges were highest for colorectal cancer, followed by lung cancer, breast cancer and cervical cancer.

# HOSPITAL DISCHARGE DATA – ESTIMATED TOTAL HOSPITAL CHARGES

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Total Hospital Charges for First Listed Diabetes Diagnosis



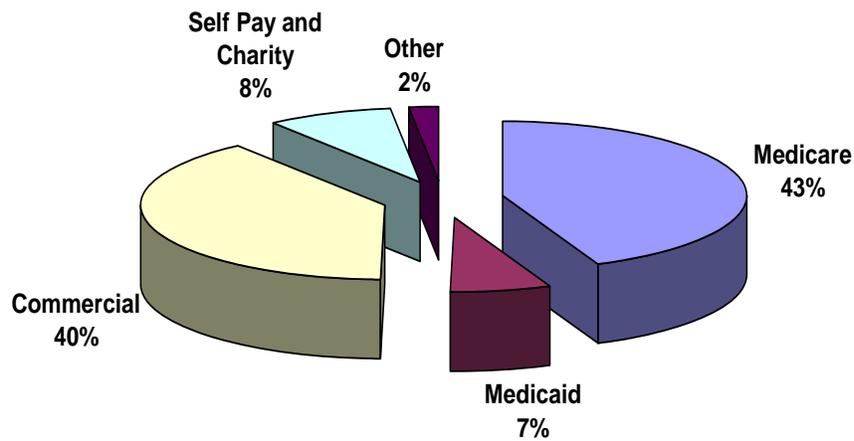
Data Source: Texas Health Care Information Collection (THCIC), Department of State Health Services, 2000-2005

- Total hospital charges for types of diabetes mellitus have increased each year from 2000 to 2005. In 2005, total hospital charges were highest for type 2 diabetes mellitus.

# HOSPITAL DISCHARGE DATA – SOURCE OF PAYMENT

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## Primary Payment for All Cancer--2005



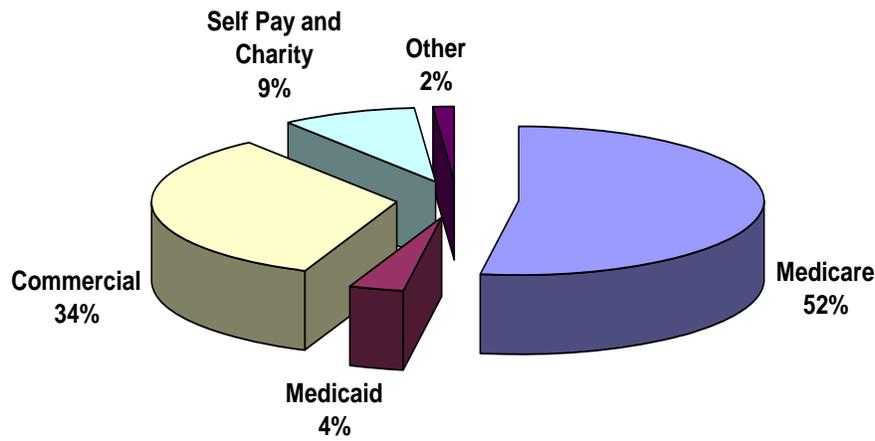
Data Source: Texas Health Care Information Collection (THCIC), Department of State Health Services, 2005

- 
- In 2005, primary payment for cancer-related hospital discharges included Medicare (43 percent), commercial (40 percent), Medicaid (7 percent), self-pay and Charity (8 percent) and other sources (e.g., Title V, worker's compensation, Other Federal Program, Other Non- Federal Program, Veteran Administration plan VA) (2 percent).

# HOSPITAL DISCHARGE DATA – SOURCE OF PAYMENT

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## Primary Payment for Ischemic Heart Disease--2005



Data Source: Texas Health Care Information Collection (THCIC), Department of State Health Services, 2005

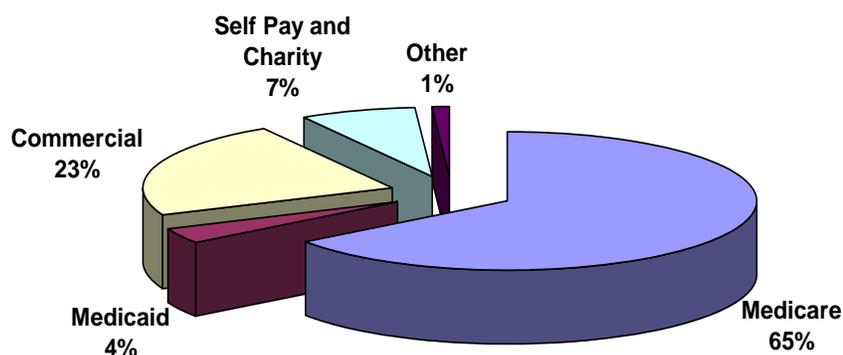
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- In 2005, primary payment for ischemic heart disease hospital discharges included Medicare (52 percent), commercial (34 percent), Medicaid (4 percent), self-pay and Charity (9 percent) and other sources (e.g., Title V, worker's compensation, Other Federal Program, Other Non- Federal Program, Veteran Administration plan VA) (2 percent).

# HOSPITAL DISCHARGE DATA – SOURCE OF PAYMENT

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## Primary Payment for Ischemic Stroke--2005



Data Source: Texas Health Care Information Collection (THCIC), Department of State Health Services, 2005

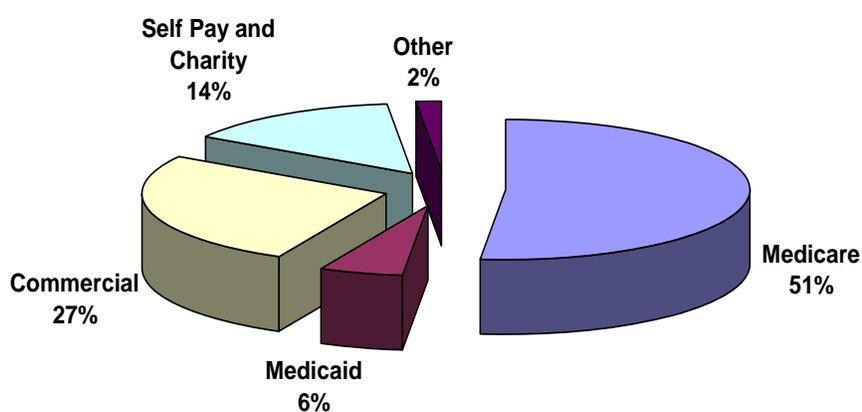
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- In 2005, primary payment for ischemic stroke hospital discharges included Medicare (65 percent), commercial (23 percent), Medicaid (4 percent), self-pay and Charity (7 percent) and other sources (e.g., Title V, worker's compensation, Other Federal Program, Other Non- Federal Program, Veteran Administration plan VA) (1 percent).

# HOSPITAL DISCHARGE DATA – SOURCE OF PAYMENT

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## Primary Payment for Hemorrhagic Stroke--2005



Data Source: Texas Health Care Information Collection (THCIC), Department of State Health Services, 2005

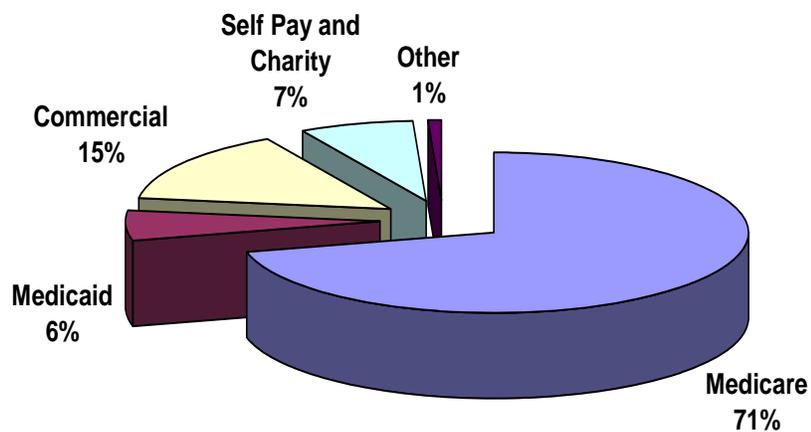
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- In 2005, primary payment for hemorrhagic stroke hospital discharges included Medicare (51 percent), commercial (27 percent), Medicaid (6 percent), self-pay and Charity (14 percent) and other sources (e.g., Title V, worker's compensation, Other Federal Program, Other Non- Federal Program, Veteran Administration plan VA) (2 percent).

# HOSPITAL DISCHARGE DATA – SOURCE OF PAYMENT

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## Primary Payment for Congestive Heart Failure--2005



Data Source: Texas Health Care Information Collection (THCIC), Department of State Health Services, 2005

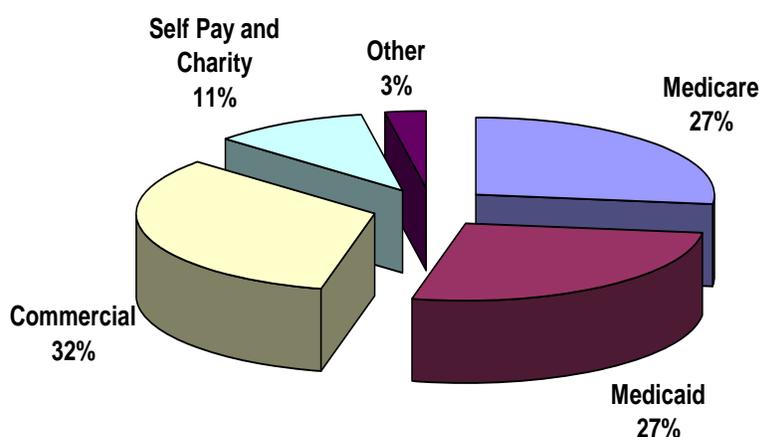
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- In 2005, primary payment for congestive heart failure hospital discharges included Medicare (71 percent), commercial (15 percent), Medicaid (6 percent), self-pay and Charity (7 percent) and other sources (e.g., Title V, worker's compensation, Other Federal Program, Other Non- Federal Program, Veteran Administration plan VA) (1 percent).

# HOSPITAL DISCHARGE DATA – SOURCE OF PAYMENT

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## Primary Payment for Asthma--2005



Data Source: Texas Health Care Information Collection (THCIC), Department of State Health Services, 2005

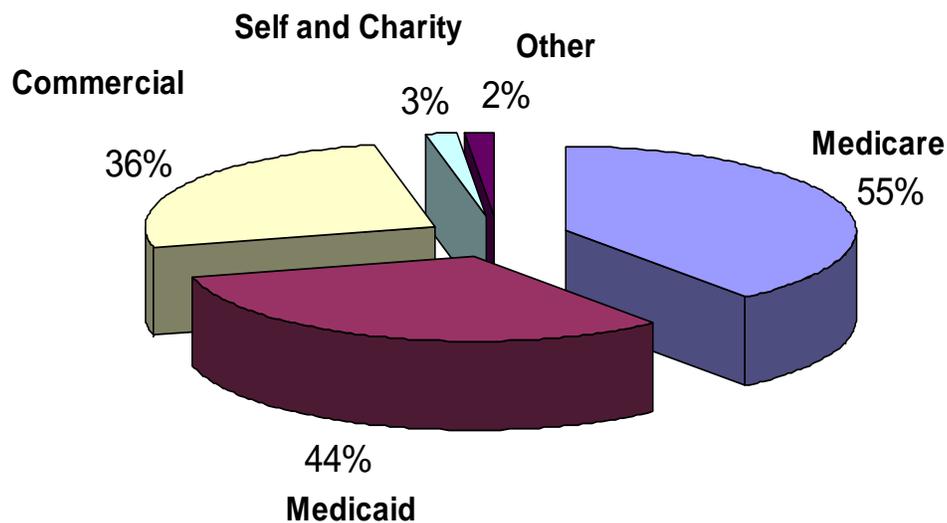
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- In 2005, primary payment for asthma hospital discharges included Medicare (27 percent), commercial (32 percent), Medicaid (27 percent), self-pay and Charity (11 percent) and other sources (e.g., Title V, worker's compensation, Other Federal Program, Other Non- Federal Program, Veteran Administration plan VA) (3 percent).

# HOSPITAL DISCHARGE DATA – SOURCE OF PAYMENT

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## Primary Payment for Arthritis ---2005



Data Source: Texas Health Care Information Collection (THCIC), Department of State Health Services, 2005

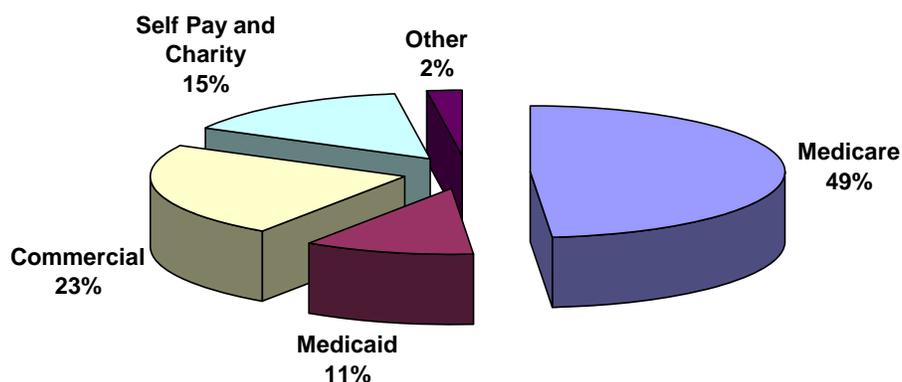
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- In 2005, primary payment for arthritis hospital discharges included Medicare (55 percent), commercial (36 percent), Medicaid (44 percent), self-pay and Charity (3 percent) and other sources (e.g., Title V, worker's compensation, Other Federal Program, Other Non- Federal Program, Veteran Administration plan VA) (2 percent).

# HOSPITAL DISCHARGE DATA – SOURCE OF PAYMENT

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## Primary Payment for Type 2 Diabetes --2005



Data Source: Texas Health Care Information Collection (THCIC), Department of State Health Services, 2005

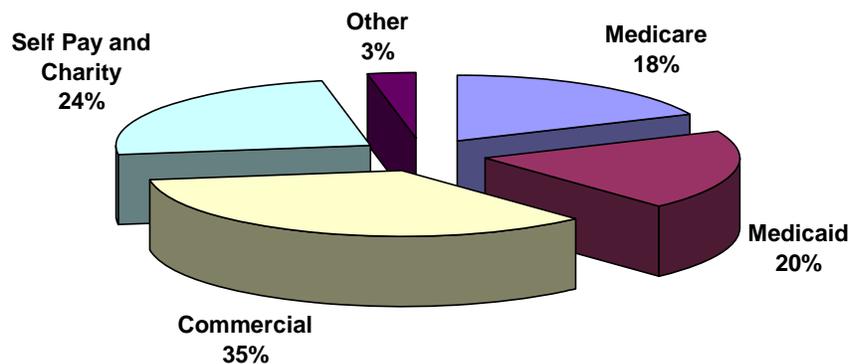
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- In 2005, primary payment for type 2 diabetes hospital discharges included Medicare (49 percent), commercial (23 percent), Medicaid (11 percent), self-pay and Charity (15 percent) and other sources (e.g., Title V, worker's compensation, Other Federal Program, Other Non- Federal Program, Veteran Administration plan VA) (1.5 percent).

# HOSPITAL DISCHARGE DATA – SOURCE OF PAYMENT

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## Primary Payment for Type I Diabetes --2005



Data Source: Texas Health Care Information Collection (THCIC), Department of State Health Services, 2005

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- In 2005, primary payment for type 1 diabetes hospital discharges included Medicare (18 percent), commercial (35 percent), Medicaid (20 percent), self-pay and Charity (24 percent) and other sources (e.g., Title V, worker's compensation, Other Federal Program, Other Non- Federal Program, Veteran Administration plan VA) (3 percent).

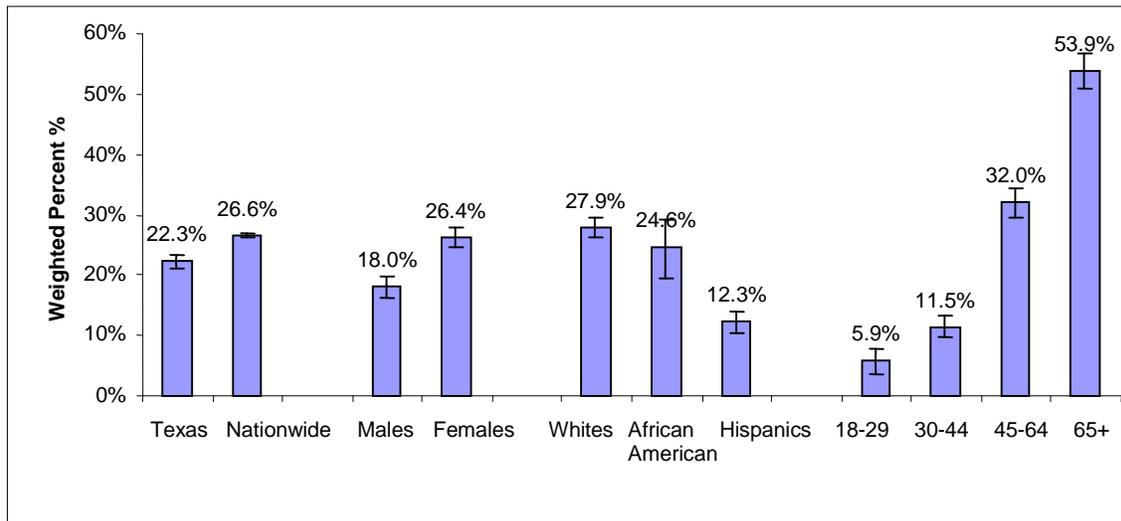
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# Behavioral Risk Factor Surveillance System

# BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM – Prevalence of Arthritis in 2005\*

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Prevalence of Arthritis 2005, Adults 18+



Data Source: Texas Behavioral Risk Factor Surveillance System, Texas Department of State Health Services, 2005

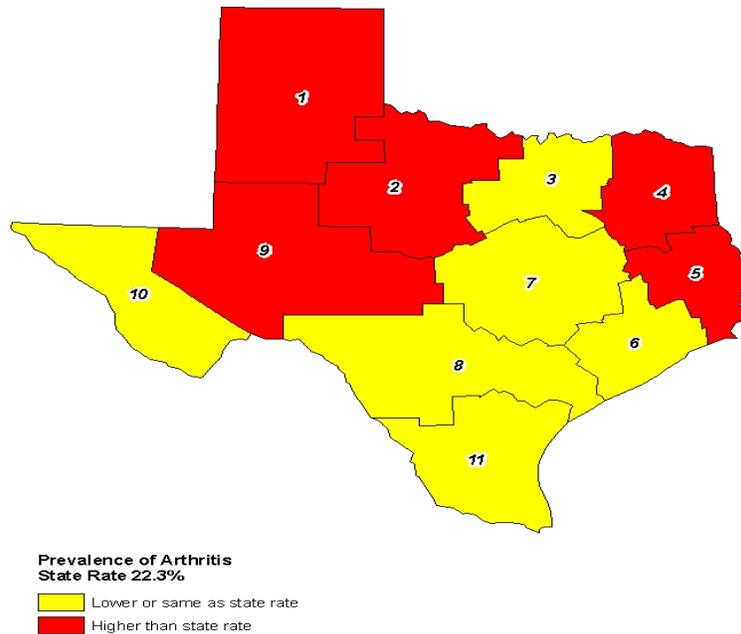
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- Texas had significantly lower rates of arthritis than the National Average.
- Females had significantly higher prevalence rates compared to males.
- Among the race/ethnic groups, Whites and African Americans had significantly higher prevalence rates than Hispanics.
- Arthritis prevalence increased significantly with increasing age.

# BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM – Prevalence of Arthritis in 2005\*

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Prevalence of Arthritis 2005, Adults 18+



Data Source: Texas Behavioral Risk Factor Surveillance System, Texas Department of State Health Services, 2005

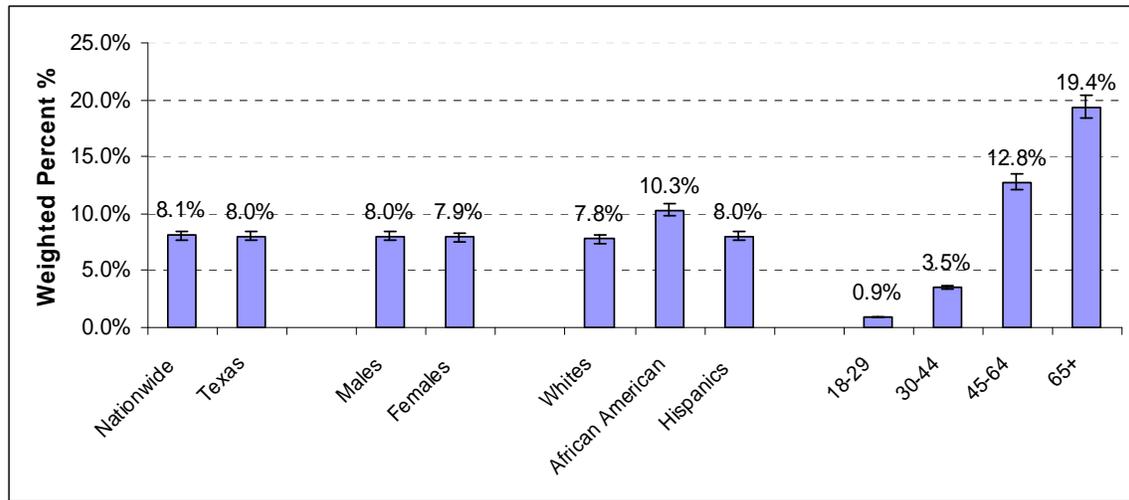
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- The prevalence of arthritis in Texas was 22.3%.
- Public Health Service Regions 1, 2, 4, 5 and 9 had higher arthritis prevalence rates than the state average.

# BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM – Prevalence of Asthma in 2006 \*

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Prevalence of Asthma 2006, Adults 18+



Data Source: Texas Behavioral Risk Factor Surveillance System, Texas Department of State Health Services, 2006

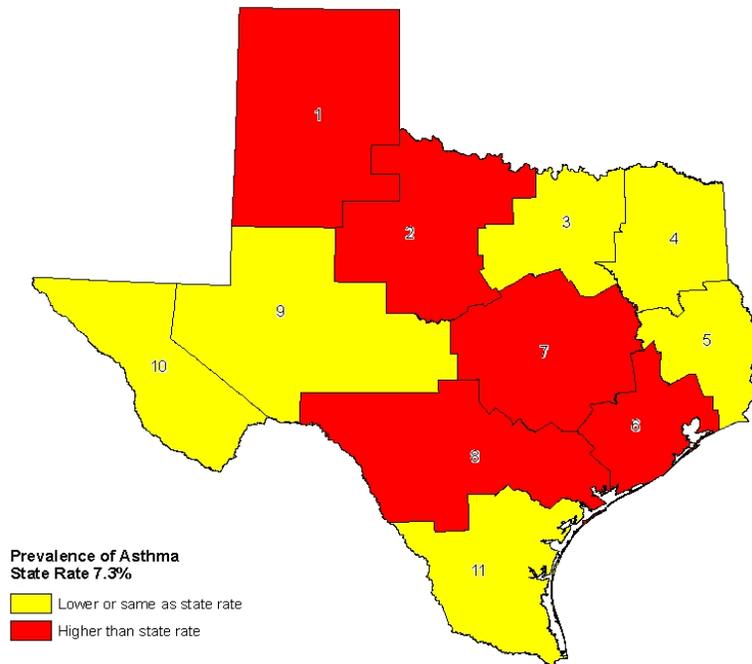
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- Texas had similar rates of asthma as the National Average.
- Females had similar prevalence rates compared to males.
- Among the race/ethnic groups, African Americans had significantly higher rates than Whites and Hispanics.
- Asthma prevalence increased with increasing age.

# BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM – Prevalence of Asthma in 2006 \*

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Prevalence of Asthma 2006, Adults 18+



Data Source: Texas Behavioral Risk Factor Surveillance System, Texas Department of State Health Services, 2006

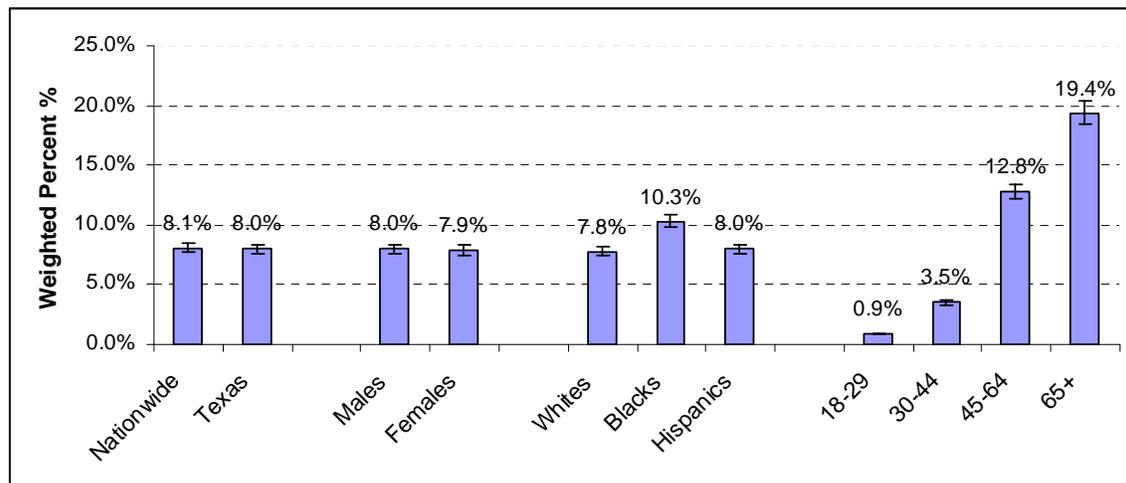
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- The prevalence of asthma in Texas was 7.3%.
- Public Health Service Region 1, 2, 6, 7, and 8 had higher prevalence rates than the state average.

# BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM – Prevalence of Diabetes in 2006 \*

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Prevalence of Diabetes 2006, Adults 18+



Data Source: Texas Behavioral Risk Factor Surveillance System, Texas Department of State Health Services, 2006

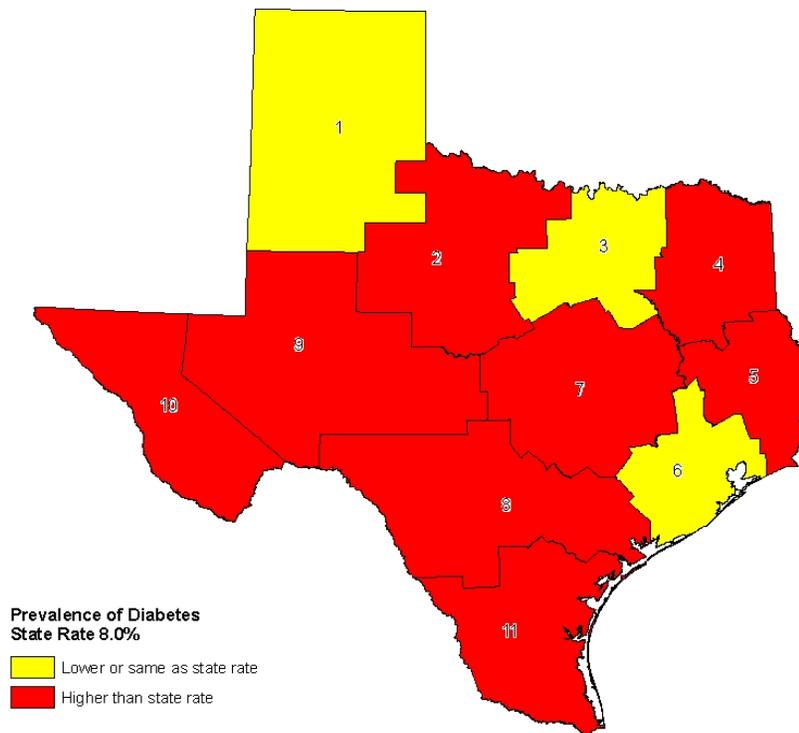
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- Texas prevalence rates of diabetes were similar to the National Average.
- Males had a similar prevalence rate as females.
- Among the race/ethnic groups, African Americans had significantly higher prevalence rates compared to whites and Hispanics.
- Diabetes prevalence increased with increasing age.

# BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM – Prevalence of Diabetes in 2006\*

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Prevalence of Diabetes 2006, Adults 18+



Data Source: Texas Behavioral Risk Factor Surveillance System, Texas Department of State Health Services, 2006

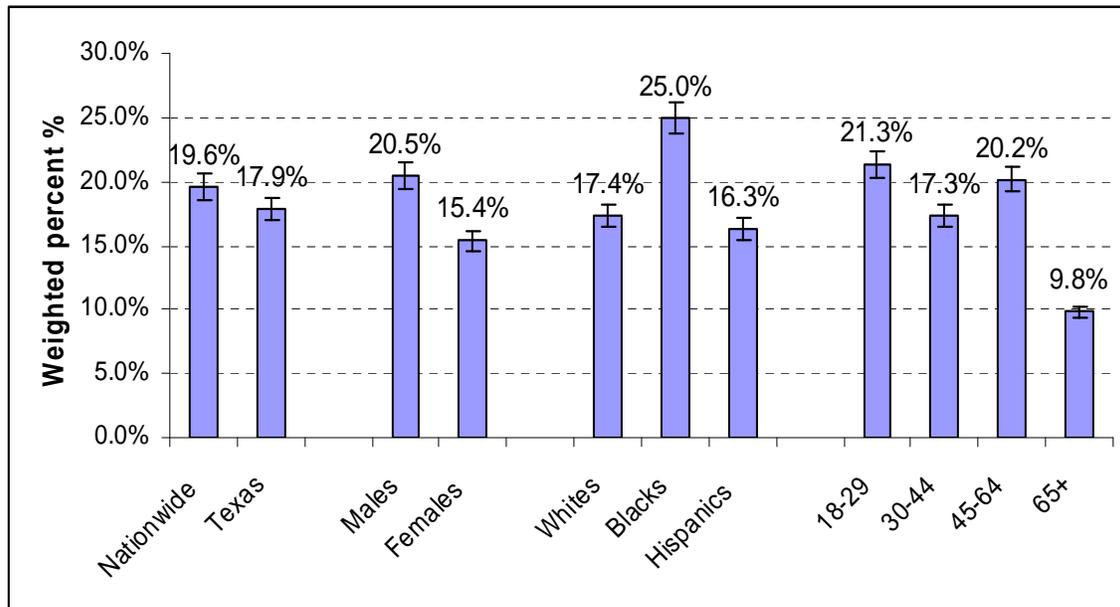
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- The prevalence of diabetes in Texas was 8.0%.
- Only Public Health Service Regions 1, 3, and 6 had lower diabetes prevalence rates than the state average. All other regions had a higher diabetes rate than the state average.

# BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM – Prevalence of Smoking in 2006 \*

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Prevalence of Smoking 2006, Adults 18+



Data Source: Texas Behavioral Risk Factor Surveillance System, Texas Department of State Health Services, 2006

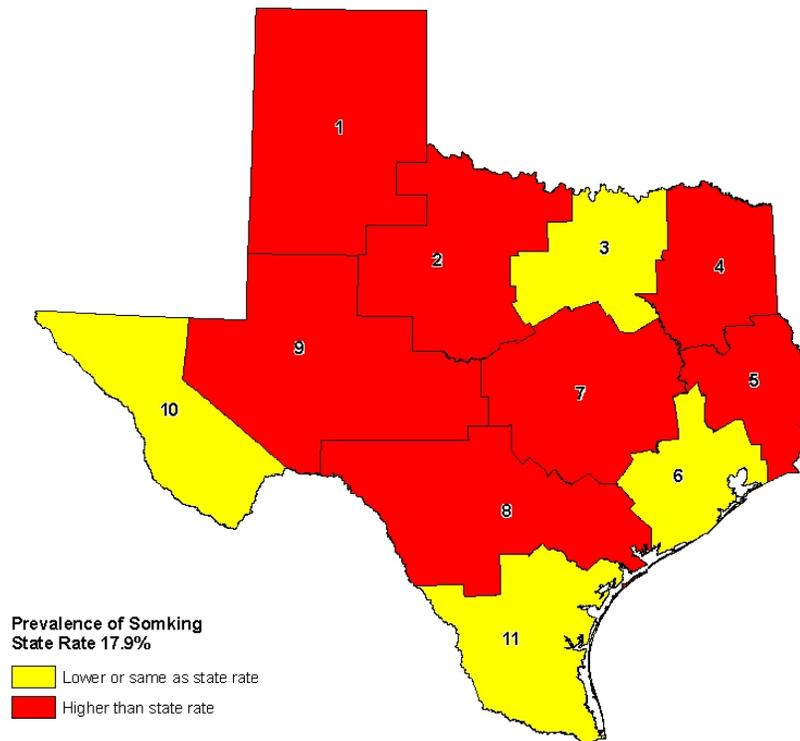
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- The Texas prevalence rate of cigarette smoking was lower than the National Average.
- Males had significantly higher prevalence rates compared to females.
- Among the race/ethnic groups, African Americans had significantly higher rates than Whites and Hispanics.
- Adults age 65+ had significantly lower rates than the other age groups.

# BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM – Prevalence of Smoking in 2006\*

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Prevalence of Smoking 2006, Adults 18+



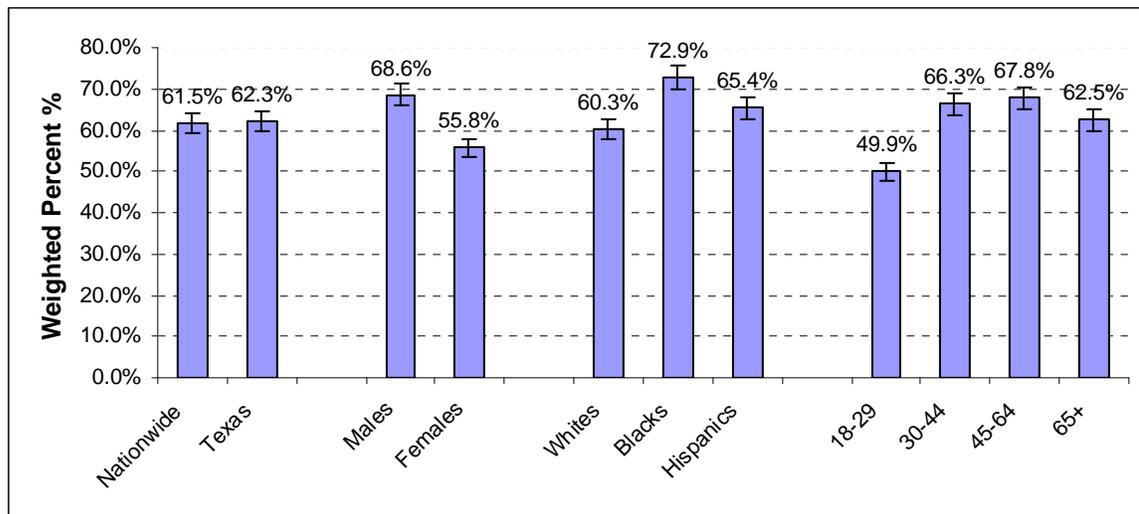
Data Source: Texas Behavioral Risk Factor Surveillance System, Texas Department of State Health Services, 2006

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- The prevalence of smoking in Texas was 17.9%.
- Public Health Service Regions 3, 6, 10, and 11 had lower smoking prevalence rates than the state average. All other regions had higher smoking rates than the state average.

# BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM – Prevalence of Overweight and Obesity 2006\*

Prevalence of Overweight and Obesity 2006, Adults 18+



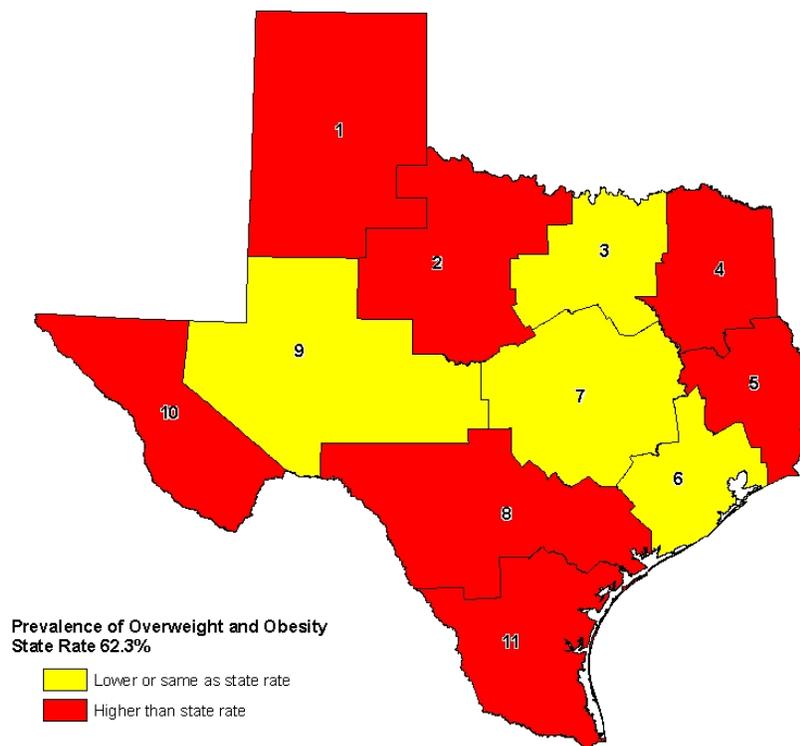
Data Source: Texas Behavioral Risk Factor Surveillance System, Texas Department of State Health Services, 2006

- Texas prevalence rates of overweight and obesity were similar to the National Average.
- Males had a significantly higher prevalence rate of overweight and obesity compared to females.
- Among the race/ethnic groups, African Americans and Hispanics had significantly higher prevalence of overweight and obesity compared to Whites.
- Persons age 18-29 had significantly lower rates of overweight and obesity compared to person's age 30+.

# BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM – Prevalence of Overweight and Obesity 2006\*

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Prevalence of Overweight and Obesity 2006, Adults 18+



Data Source: Texas Behavioral Risk Factor Surveillance System, Texas Department of State Health Services, 2006

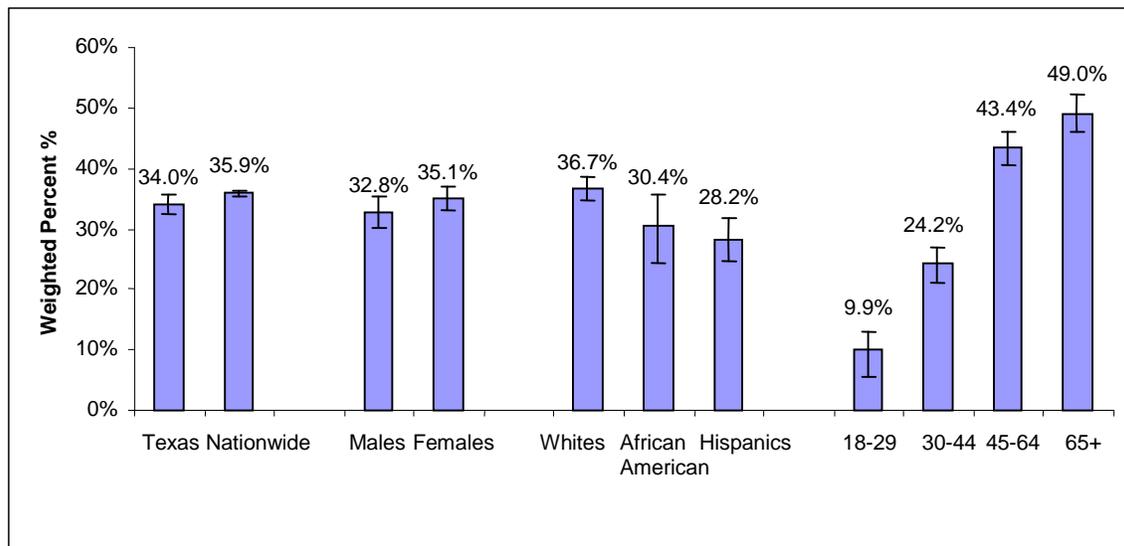
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- The prevalence of overweight and obesity in Texas was 62.3%.
- Public Health Service Regions 3, 6, 7, and 9 had lower overweight and obesity rates than the state average. All other regions had higher overweight and obesity rates than the state average.

# BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM – Prevalence of High Cholesterol in 2005 \*

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Prevalence of High Blood Cholesterol 2005, Adults 18+



Data Source: Texas Behavioral Risk Factor Surveillance System, Texas Department of State Health Services, 2005

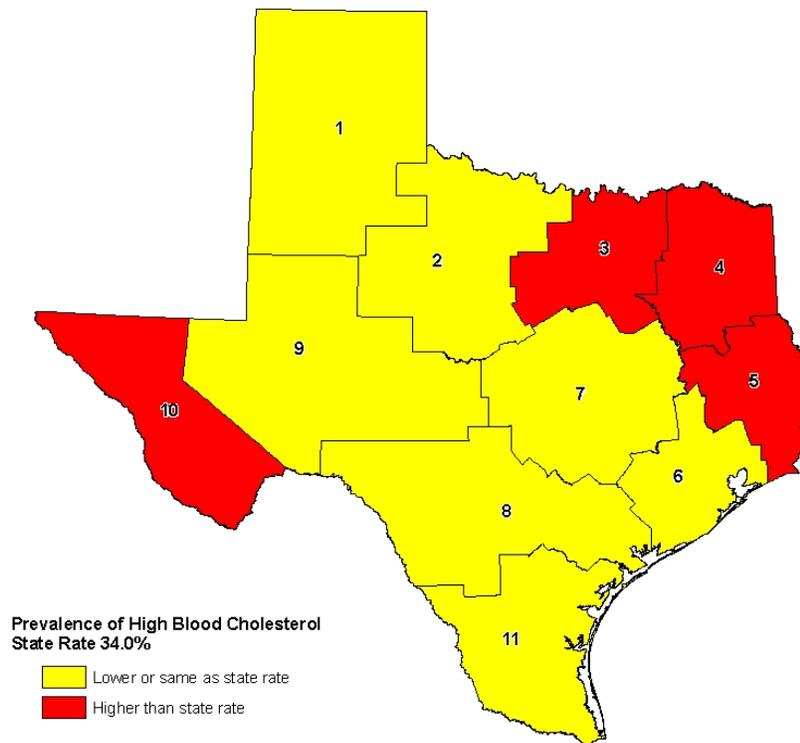
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- Texas prevalence rates of high blood cholesterol were similar to the National Average.
- Females and males had similar prevalence rates of high blood cholesterol.
- Among the race/ethnic groups, Whites had significantly higher prevalence rates of high blood cholesterol compared to Hispanics.
- High blood cholesterol increased with increasing age, although not all of the comparisons achieved statistical significance.

# BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM – Prevalence of High Cholesterol in 2005\*

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Prevalence of High Blood Cholesterol 2005, Adults 18+



Data Source: Texas Behavioral Risk Factor Surveillance System, Texas Department of State Health Services, 2005

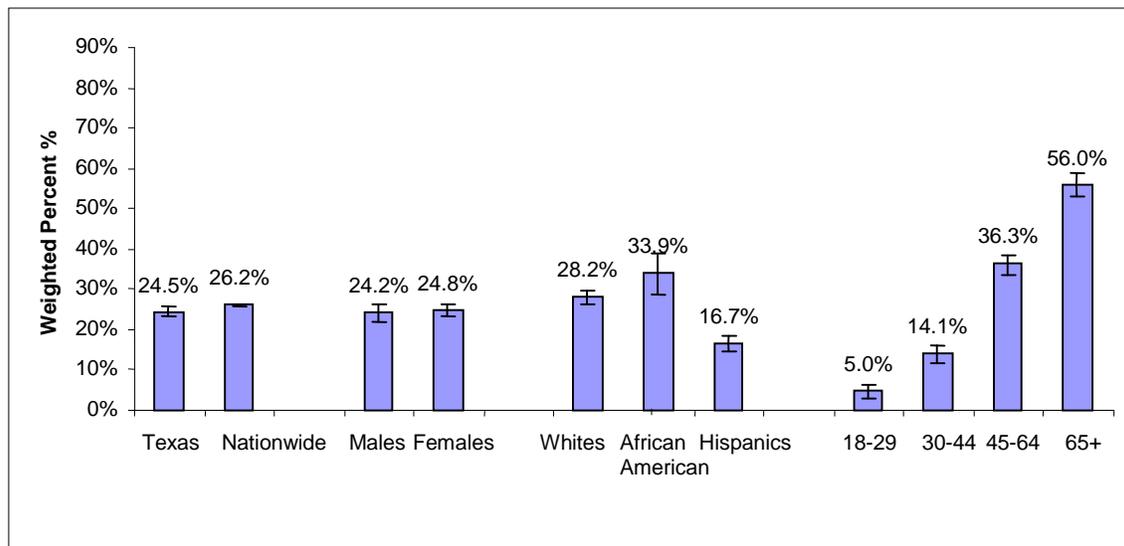
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- The prevalence of high blood cholesterol in Texas was 34.0%.
- Public Health Service Regions 3, 4, 5, and 10 had higher prevalence rates of high blood cholesterol than the state average.

# BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM – Prevalence of High Blood Pressure in 2005

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Prevalence of High Blood Pressure 2005, Adults 18+



Data Source: Texas Behavioral Risk Factor Surveillance System, Texas Department of State Health Services, 2005

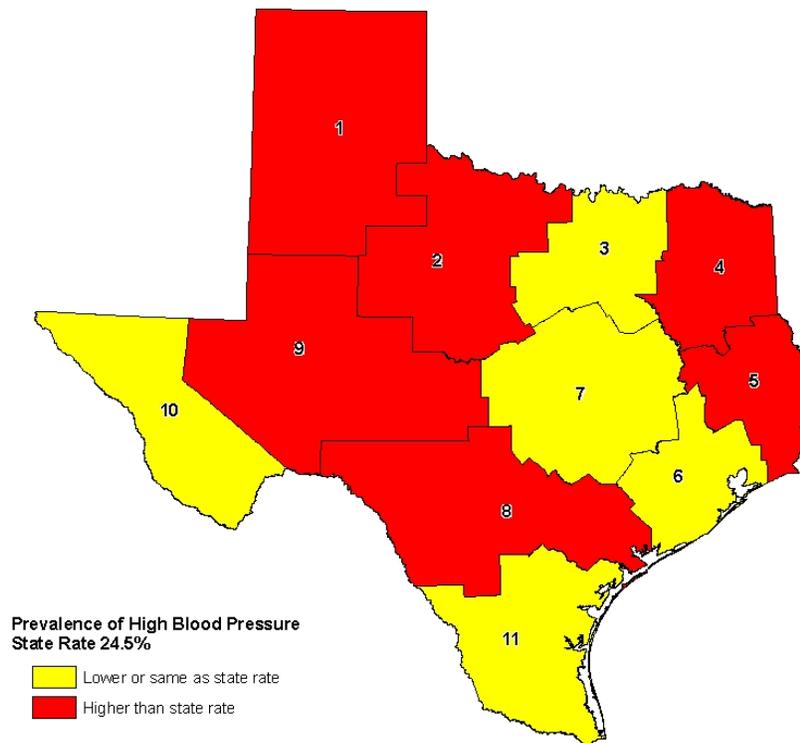
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- Texas prevalence rates of high blood pressure were similar to the National Average.
- Males had a similar prevalence rate of high blood pressure compared to females.
- Among the race/ethnic groups, Whites and African Americans had significantly higher prevalence rates of high blood pressure compared to Hispanics.
- High blood pressure prevalence increased significantly with increasing age.

# BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM – Prevalence of High Blood Pressure in 2005

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Prevalence of High Blood Pressure 2005, Adults 18+



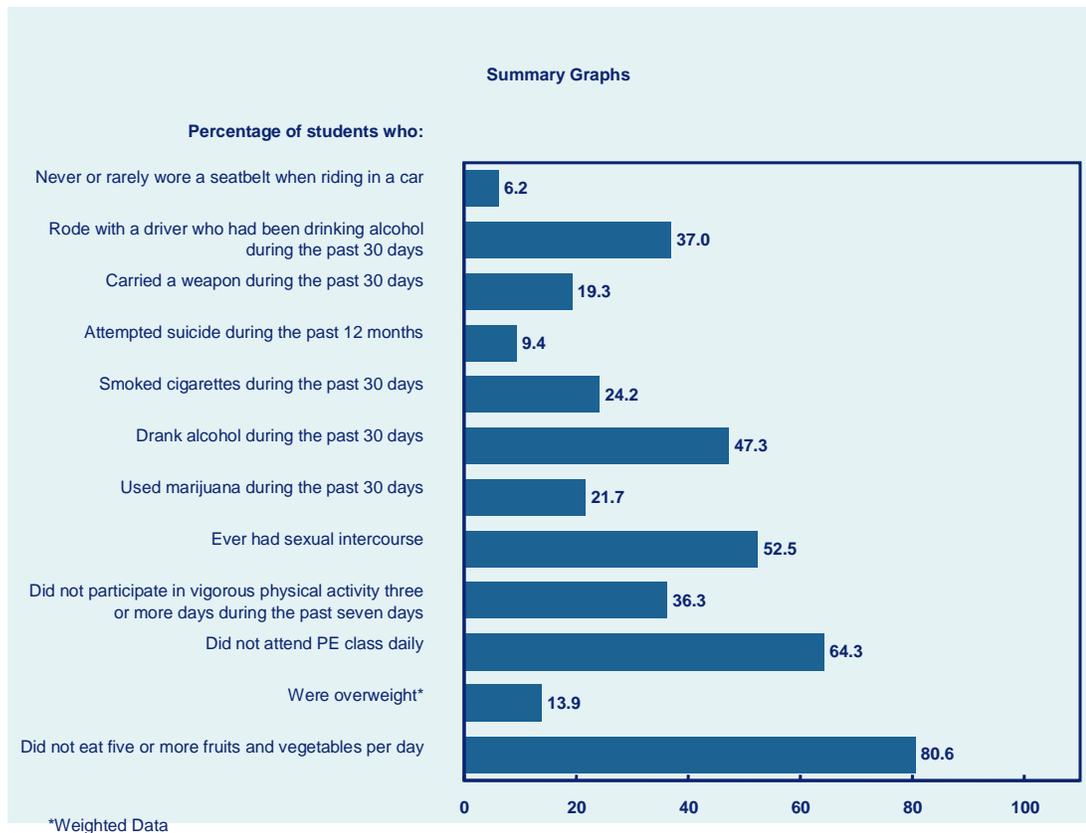
Data Source: Texas Behavioral Risk Factor Surveillance System, Texas Department of State Health Services, 2005

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- The prevalence of high blood pressure in Texas was 24.5%.
- Public Health Service Regions 1, 2, 4, 5, 8, and 9 had higher prevalence of high blood pressure than the state average.

# Youth Risk Behavior Survey

# YOUTH RISK BEHAVIOR SURVEILLANCE SYSTEM – Prevalence of Risky Behaviors Among Public High School Students— 2005 \*

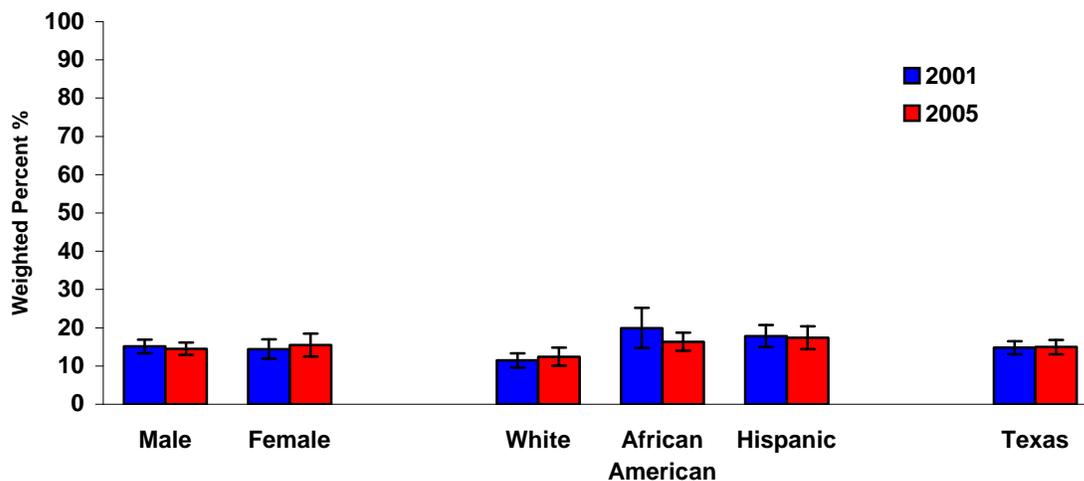


- The Texas Youth Risk Behavior Survey (YRBS) provides a wealth of data for state and local health and education officials to a) implement or modify programs to address the behaviors of young people; b) create awareness of the extent of risk behaviors among young people; c) promote state-level changes that support specific health education curricula and coordinated school health programs; and d) provide evidence-based data to support the need for health education. The YRBS was designed to focus the nation on behaviors among youth related to the leading causes of mortality and morbidity among both youth and adults and to assess how these risk behaviors change over time.

# YOUTH RISK BEHAVIOR SURVEILLANCE SYSTEM – Prevalence of Risky Behaviors Among Public High School Students -- At Risk for Becoming Overweight

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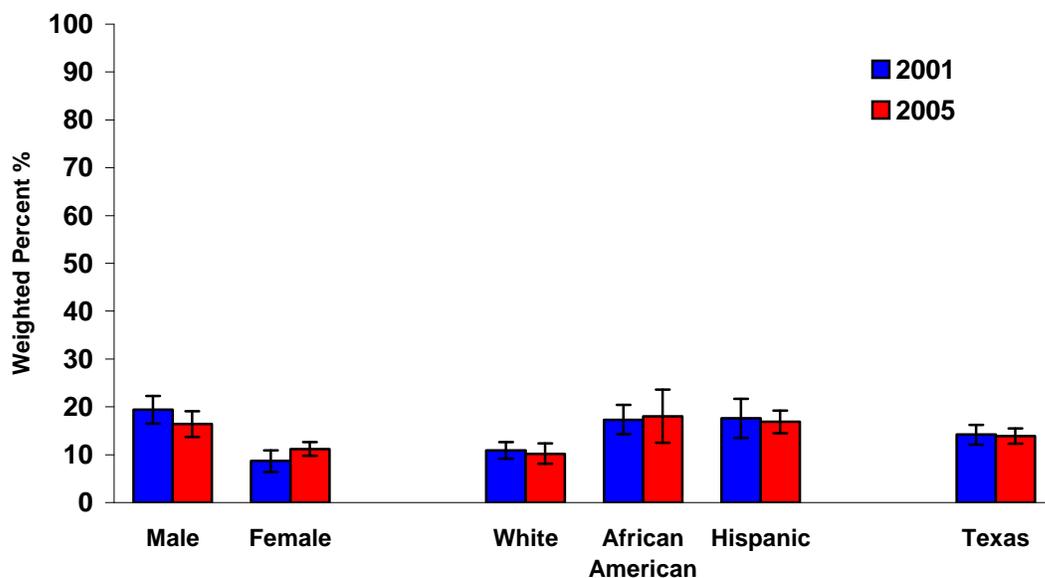
At Risk for Overweight



- 
- The percentage of students who were at risk for becoming overweight changed little from 2001 (**14.8%** 95% CI, 12.9%-16.5%) to 2005 (**15.7%** (95% CI, 14.8%-16.6%).
  - The proportion of students who were at risk for becoming overweight was greater among African American (16.3%) and Hispanic students (17.4%) than among White students (12.4%), although differences were not statistically significant. There were no differences among students by gender.

# YOUTH RISK BEHAVIOR SURVEILLANCE SYSTEM – Prevalence of Risky Behaviors Among Public High School Students – Overweight

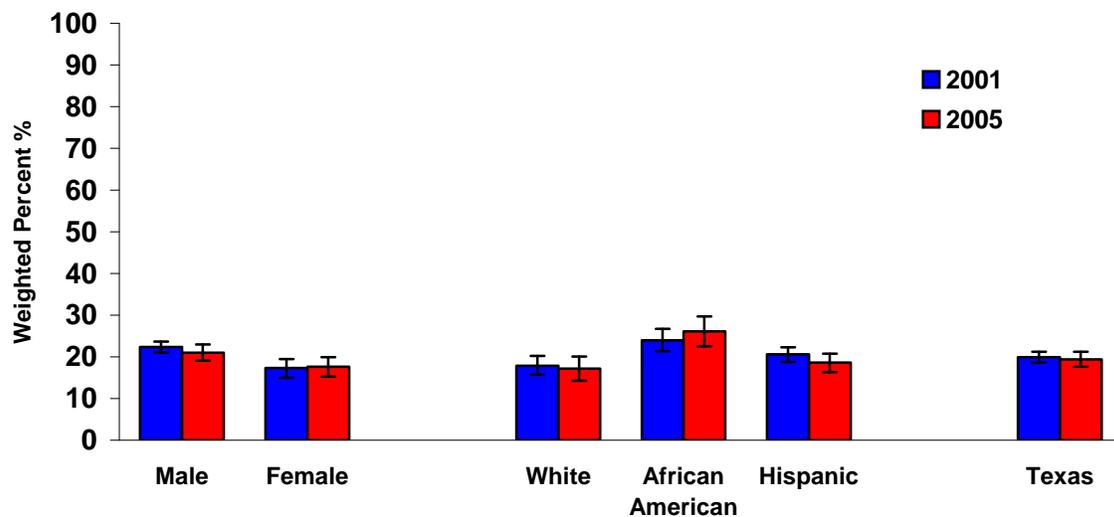
## Overweight



- The percentage of students who were overweight decreased from **14.2%** (95% CI, 12.1%-16.2%) in 2001 to **13.9%** (95% CI, 12.3%-15.5%) in 2005 (see Figure 2). The decline, however, was not statistically significant.
- Male students (16.4%) were significantly more likely than female students (11.2%) to be overweight. However, the percentage of male students who were overweight has decreased since 2001 (19.4%) while the percentage of female students has increased (8.6%).
- The proportion of students who were overweight was greater for African American (18.0%) and Hispanic students (16.9%) than White students (10.2%), although differences were not statistically significant.

# YOUTH RISK BEHAVIOR SURVEILLANCE SYSTEM – Prevalence of Risky Behaviors Among Public High School Students -- 5 or more Servings of Fruits and Vegetables

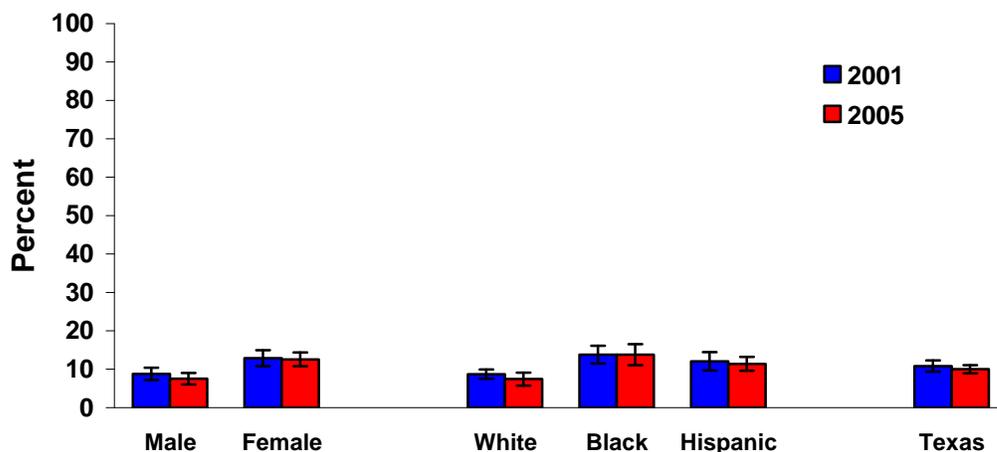
Ate 5 or More Servings of Fruits or Vegetables in Past 7 Days



- The percentage of students who reported that they ate five or more servings of fruits and vegetables per day during the past seven days changed little from 2001 (**19.9%** 95% CI, 18.6%-21.2%) to 2005 (**19.4%** 95% CI, 17.6%-21.2%).
- Male students were more likely to report that they ate five or more servings of fruits and vegetables per day during the past seven days than female students. The difference was not statistically significant, however.
- Overall, African American students were significantly more likely to report that they ate five or more servings of fruits and vegetables than White students and Hispanic students .

# YOUTH RISK BEHAVIOR SURVEILLANCE SYSTEM – Prevalence of Risky Behaviors Among Public High School Students -- Not Participated in vigorous or moderate physical activity

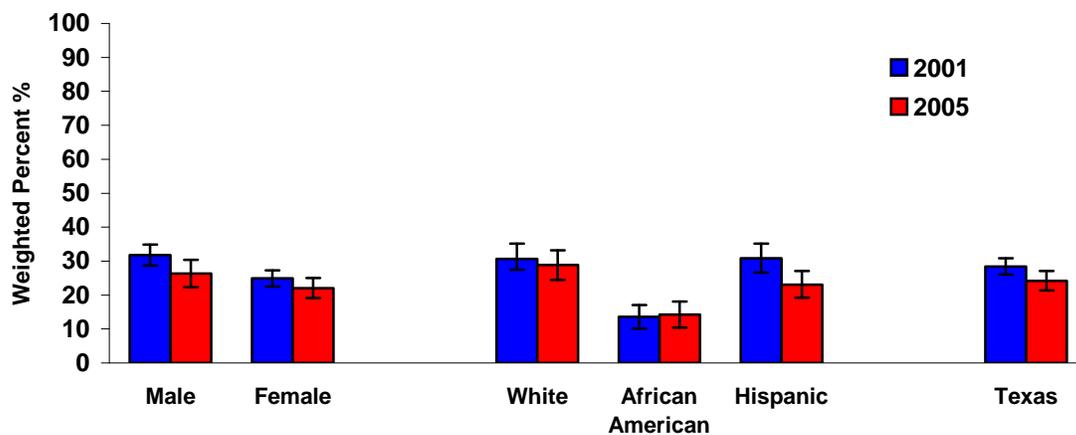
Percent of students who had not participated in vigorous or moderate physical activity during the past seven days



- The percentage of students who reported that they had not participated in any vigorous or moderate physical activity during the past seven days changed little from 2001 (**10.8%** 95% CI, 9.3%-12.3%) to 2005 (**10.0%** 95% CI, 8.9%-11.1%).
- Male students (7.5%) were less likely to report that they had not participated in any vigorous or moderate physical activity during the past seven days than female students (12.6%). The difference was statistically significant.
- Overall, African American students (13.8%) and Hispanic students (11.4%) were significantly more likely to report that they had not participated in any vigorous or moderate physical activity than White students (7.4%).

# YOUTH RISK BEHAVIOR SURVEILLANCE SYSTEM – Prevalence of Tobacco Use Among Public High School Students – 2001-2005

Percent of Students Who Smoked One or More Cigarettes in the Past 30 Days



- The prevalence of current cigarette use (i.e., smoked cigarettes on  $\geq 1$  of the 30 days preceding the survey) decreased from **28.4%** (95% CI, 26.0%-30.8%) in 2001 to **24.2%** (95% CI, 21.3%-27.1%) in 2005. The decrease, however, was not statistically significant.
- The prevalence of current cigarette use declined among both male and female students from 2001 to 2005. The decrease, however, was not statistically significant.
- Overall, African American students (14.2%) were less likely to report current cigarette use than Hispanic (23.1%) or White (28.9%) students.