Chronic Diseases

Chronic diseases, such as diabetes, heart disease, stroke, and cancer, are currently the leading causes of both death and disability in the U.S. It is estimated that 70% of all deaths nationwide are due to chronic illnesses, and more than 90 million Americans currently live with chronic diseases. Although chronic diseases are some of the most prevalent and costly health problems in the U.S., they are also largely preventable. Healthy behaviors such as getting enough exercise, eating right, and avoiding tobacco can help to prevent many chronic diseases. Chronic disease mortality rates are presented as age-adjusted rates; prevalence of chronic diseases are presented as crude estimates.

Diabetes

Diabetes is a group of diseases that result from the body’s inability to produce or correctly use insulin, a hormone that regulates sugar metabolism. Type 2 diabetes is the most common form of diabetes, accounting for 90 to 95% of all diagnosed cases. Type 2 diabetes usually results from insulin resistance, a disorder in which the body does not properly use insulin, as well as problems with insulin production. Diabetes is associated with numerous serious health complications, such as cardiovascular disease, blindness, kidney failure, nervous system damage, and amputations. African-Americans, Hispanics, Native Americans, and Asian Americans are at higher risk for Type 2 diabetes than are non-Hispanic whites. Risk factors for Type 2 diabetes include obesity, physical inactivity, a history of gestational diabetes, and a family history of diabetes.

Diabetes Prevalence

An estimated 20.8 million people in the U.S., about 7% of the total population, had diabetes in 2005. Unfortunately, more than six million of these individuals, more than one-third, were undiagnosed. In Texas, approximately 1.3 million adults (age 18 or older) were diagnosed with diabetes in 2005. The prevalence of diabetes increases with age. While still rare, the prevalence of Type 2 diabetes in children and adolescents is reported to be increasing, especially among African-Americans, Native Americans, and Hispanics. Approximately 176,500 people age 20 or younger in the U.S. had diabetes in 2005.

Key Point: About 9% of South Texas adults have been diagnosed with diabetes, a higher percentage than in the rest of Texas and nation. South Texas Hispanics also had a higher prevalence than Hispanics in the rest of Texas.
Diabetes Prevalence in South Texas

An estimated 9% of adults who live in South Texas have been diagnosed with diabetes. The percentage of adults with diabetes in South Texas was higher than the percentage with diabetes in the rest of Texas, and was also higher than the nationwide BRFSS 2002-2005 diabetes estimate (nearly 8%). Hispanics in South Texas had a higher prevalence of diabetes than did Hispanics in the rest of Texas (Figure 7.1). Hispanics had a slightly higher, but not statistically significantly higher, prevalence of diabetes than non-Hispanic whites in South Texas (Figure 7.1).

Figure 7.1. Estimated percent of the adult population with diabetes by location and race/ethnicity, 2002-2005.
Source: Texas Behavioral Risk Factor Surveillance System Combined Year Dataset, Statewide BRFSS Survey, 2002-2005

Age patterns for diabetes prevalence in South Texas were the same as seen nationwide; the prevalence of diabetes in South Texas increased with age. For individuals 45 years old and older, the prevalence of diabetes was statistically significantly higher among Hispanics than among non-Hispanic whites. It was estimated that 31% of Hispanic adults ages 65 and older in South Texas were diagnosed with diabetes in 2002-2005 (Figure 7.2).
Overall, diabetes prevalence was higher in South Texas non-metropolitan counties (12.1%) than in metropolitan counties (8.7%). This difference was statistically significantly greater among Hispanics, but not among non-Hispanic whites (Figure 7.3).
Diabetes Mortality

Diabetes was the sixth-leading cause of death in both Texas and the nation in 2002-2004. This ranking was based on death certificates which listed diabetes as the underlying cause of death. Mortality from diabetes is believed to be underreported; it is listed as a contributing factor more often than it is listed as an underlying factor, and diabetes is often not listed at all on the death certificate.2,4

Diabetes Mortality in South Texas

The 1999-2003 age-adjusted diabetes mortality rate in South Texas (with diabetes reported either as an underlying or contributing cause of death), was 104.3 deaths per 100,000 persons. The diabetes mortality rate in South Texas was higher than the age-adjusted diabetes mortality rate in the rest of Texas (87.9/100,000). Hispanics had a higher diabetes mortality rate than non-Hispanic whites, both in South Texas and the rest of Texas. The age-adjusted mortality rate for Hispanics in South Texas (142.3/100,000) was slightly higher than that for Hispanics in the rest of Texas (133.4/100,000); this pattern was reversed for non-Hispanic whites (Figure 7.4).

Figure 7.4. Age-adjusted mortality rates for diabetes as an underlying or contributing cause, by location and race/ethnicity, 1999-2003. Source: Center for Health Statistics

As with diabetes prevalence, the diabetes mortality rate in South Texas increased with age, and diabetes mortality rates were higher for Hispanics than for non-Hispanic whites.
at the older age groups (age 45 and older). South Texas Hispanics ages 75 or older had a diabetes mortality rate of 1,246.7/100,000 (Figure 7.5).

Figure 7.5. South Texas age-adjusted mortality rates for diabetes as an underlying or contributing cause, by age group and race/ethnicity, 1999-2003.
Source: Center for Health Statistics

In South Texas, males had a higher diabetes mortality rate (114.9/100,000) than females (95.7/100,000). Residents of South Texas metropolitan counties had a slightly higher diabetes mortality rate (105.3/100,000) than did residents of non-metropolitan counties (98.8/100,000).

Bexar County and Webb County both had higher diabetes mortality rates than South Texas, whereas the Lower Rio Grande Valley region had a lower mortality rate than South Texas (Figure 7.6).
Figure 7.6. Age-adjusted mortality rates for diabetes as an underlying or contributing cause in selected South Texas locations, 1999-2003.
Source: Texas Health Data (http://soupfin.tdh.state.tx.us/birth.htm)

References


Cardiovascular Disease Mortality

Cardiovascular disease (CVD) is a general term given to any disease affecting the heart or blood vessels. CVD is the leading cause of death in the U.S. (Nabel, 2003). The American Heart Association estimated that 79.4 million Americans (one in three) had one or more forms of CVD in 2004. Approximately 36% of all deaths in the U.S. (871,500) were attributable to CVD that same year. Heart disease and cerebrovascular disease (stroke) are the two main causes of CVD death.

Heart Disease Mortality

Heart disease is the leading cause of death in the U.S., accounting for 28% of all deaths in 2003. It is the leading cause of death for both men and women, as well as for African-Americans, Hispanics, and whites. U.S. African-Americans have the highest age-adjusted heart disease death rate (300/100,000), followed by whites (228/100,000) and then Hispanics (173/100,000). Coronary heart disease, which can lead to heart attacks, is the most common form of heart disease in the U.S.; however, several other heart conditions also fall under the term heart disease.

The risk of heart disease, and subsequently heart disease mortality, increases with age. Approximately 83% of coronary heart disease deaths occur among persons 65 or older. Men have a greater risk of heart disease than women, especially at younger ages. The major risk factors for heart disease include high blood pressure, high blood cholesterol levels, cigarette smoking, and diabetes. About 75% of diabetics die of some form of heart or blood vessel disease. In addition, poor diet and physical inactivity have been linked to heart disease, probably because they are related to the major risk factors listed above. Similarly, obesity is an indirect risk factor for heart disease, because obesity is associated with high cholesterol, high blood pressure, and diabetes.

Heart Disease Mortality in South Texas

Overall, South Texas had a lower age-adjusted heart disease mortality rate (229.8/100,000) than did the rest of Texas (262.4/100,000). As shown in Figure 7.7, non-Hispanic whites in South Texas had a lower heart disease mortality rate than non-Hispanic whites in the rest of Texas, but the opposite was seen for Hispanics. South Texas Hispanics had a higher mortality rate than Hispanics in the rest of Texas. Unlike the rest of Texas and nationwide, where Hispanics die less frequently from heart disease than non-Hispanic whites, South Texas Hispanics and non-Hispanic whites had very similar rates.
Gender and age patterns for heart disease mortality in South Texas were the same as the nation. Interesting results were seen when looking at heart disease mortality rates in metropolitan and non-metropolitan counties. For all races combined, non-metropolitan counties in South Texas had a slightly higher heart disease mortality rate than the metropolitan counties (Figure 7.8). Hispanics in non-metropolitan counties also had a higher mortality rate (254.6/100,000) than did Hispanics in metropolitan counties (220/100,000), and this difference in rates was larger than for all races combined. However, the mortality rate among non-Hispanic whites was slightly lower, but not statistically significantly lower, in non-metropolitan counties than in metropolitan counties (Figure 7.8).

**Figure 7.7.** Heart disease mortality rates in South Texas and the rest of Texas by race/ethnicity, 1999-2003. Source: Texas Health Data ([http://soupfin.tdh.state.tx.us/death10.htm](http://soupfin.tdh.state.tx.us/death10.htm))
Bexar County’s average annual age-adjusted heart disease mortality rate (251.1/100,000) was slightly higher than the mortality rate for South Texas as a whole (225.7/100,000). The Lower Rio Grande Valley area’s rate (197.8/100,000) was slightly lower than all of South Texas (Figure 7.9). Webb County’s mortality rate was similar to South Texas’ rate.

**Figure 7.8.** Heart disease mortality rates in South Texas, by county designation and race/ethnicity, 1999-2003.

Source: Texas Health Data ([http://soupfin.tdh.state.tx.us/death10.htm](http://soupfin.tdh.state.tx.us/death10.htm))

**Figure 7.9.** Heart disease mortality rates in selected South Texas locations, 1999-2003.

Source: Texas Health Data ([http://soupfin.tdh.state.tx.us/death10.htm](http://soupfin.tdh.state.tx.us/death10.htm))
Cerebrovascular Disease Mortality

Cerebrovascular disease, more commonly known as stroke, is the third leading cause of death in the U.S. A stroke is characterized by neurological damage that occurs either when the brain’s blood supply is blocked or when a blood vessel in the brain bursts. About 500,000 new strokes occur each year in the U.S. Stokes not only cause more than 160,000 deaths in the U.S. each year, it also is the leading cause of long-term disability. Individuals who have had strokes can sustain major disabilities such as paralysis or speech problems. Almost 75% of all strokes occur among individuals aged 65 or older. Stroke incidence in men is greater than incidence in women at younger ages, but not at older ages.

Major risk factors for stroke include high blood pressure, heart disease, diabetes, and cigarette smoking. Diabetics have a stroke risk two to four times higher than individuals without diabetes. Smoking doubles the risk of cerebrovascular disease. Other risk factors for stroke include pregnancy and physical inactivity.

Cerebrovascular Disease Mortality in South Texas

Overall, South Texas had a lower annual age-adjusted cerebrovascular disease mortality rate (53.9/100,000) than did the rest of Texas (66.3/100,000) from 1999-2003. The non-Hispanic white population in South Texas also had a lower mortality rate than non-Hispanic whites in the rest of Texas. No difference in rates was seen in the Hispanic population with regards to location (South Texas vs. the rest of Texas). As with heart disease mortality, Hispanics and non-Hispanic whites in South Texas had very similar stroke mortality rates (Figure 7.10).

Figure 7.10. Stroke mortality rates in South Texas and the rest of Texas by race/ethnicity, 1999-2003.
Source: Texas Health Data (http://soupfin.tdh.state.tx.us/death10.htm)
The cerebrovascular mortality age trend in South Texas was similar to the age trend observed nationally. Even though stroke mortality rates in South Texas were very similar between males and females for all races combined, among Hispanics, males had a higher mortality rate than females, and among non-Hispanic whites, females had a higher mortality rate than males (Figure 7.11).

**Figure 7.11.** Stroke mortality rates in South Texas by sex and race/ethnicity, 1999-2003. Source: Texas Health Data (http://soupfin.tdh.state.tx.us/death10.htm)

As seen with heart disease mortality rates, Bexar County had a higher mortality rate (61/100,000) than did South Texas as a whole (53.9/100,000), and the Lower Rio Grande Valley region had a lower mortality rate (38.4/100,000) than all of South Texas.

**References**


Asthma

Asthma is a chronic disease of the respiratory system characterized by episodes of airway inflammation, usually in response to one or more triggers.\(^1\) If not properly managed, asthma can be life-threatening. While the overall prevalence of asthma has increased in the U.S. over the past two decades, it has stabilized in recent years.\(^1,2\) An estimated 20.5 million Americans, including 6.2 million children, had asthma in 2004.\(^1\) Asthma is the most common chronic disease among children and is the third-leading cause of hospitalization in children younger than age 15.\(^3\)

Nationally, asthma prevalence decreases with age. The highest prevalence of asthma in 2004 was seen in people ages 5-17 (almost 10%). Among adults, asthma prevalence is higher in women than in men. This trend is reversed for children, however; among those less than age 18, boys have a higher prevalence of asthma than girls. In 2004, prevalence of asthma in the U.S. was highest in African-Americans (9%), followed by non-Hispanic whites (almost 7%) and then Hispanics (5%).\(^1\)

Current Asthma in South Texas

Nearly 7% of adult South Texas residents were estimated to currently have asthma in 2002-2005. This percentage was similar to the estimates of current asthma in the rest of Texas (7%) and nationwide (8%). In South Texas, a slightly higher, but not significantly higher, percentage of non-Hispanic whites (almost 8%) currently have asthma than Hispanics (5%). The prevalence of current asthma was more than twice as high in females (9%) than in males (4%).

The current asthma prevalence age trends for Hispanic and non-Hispanic white adults differed. A slightly higher percentage of Hispanics were estimated to currently have
asthma in the youngest adult age group, 18-29. For all other older adult age groups, non-Hispanic whites had a higher prevalence of current asthma than Hispanics (Figure 7.12). There was no significant difference in asthma prevalence between Hispanics and non-Hispanic whites for any of the age groups, however.

Figure 7.12. Estimated prevalence of current asthma among South Texas adults by age group and race/ethnicity, 2002-2005.
Source: Texas Behavioral Risk Factor Surveillance System Combined Year Dataset, Statewide BRFSS Survey, 2002-2005

References


## Summary – Chronic Diseases

**Table 7.1.** Summary table of crude prevalence or age-adjusted mortality rates in South Texas, the rest of Texas, and nationwide* for each of the chronic disease indicators analyzed.

<table>
<thead>
<tr>
<th>Health Indicator</th>
<th>South Texas</th>
<th>Rest of Texas</th>
<th>Nationwide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes Prevalence, 2002-2005</td>
<td>9.1%</td>
<td>7.4%</td>
<td>7.5%</td>
</tr>
<tr>
<td>Diabetes Mortality, 1999-2003</td>
<td>104.3 per 100,000</td>
<td>87.9 per 100,000</td>
<td>----</td>
</tr>
<tr>
<td>Heart Disease Mortality, 1999-2003</td>
<td>229.8 per 100,000</td>
<td>262.4 per 100,000</td>
<td>----</td>
</tr>
<tr>
<td>Cerebrovascular Disease Mortality, 1999-2003</td>
<td>53.9 per 100,000</td>
<td>66.3 per 100,000</td>
<td>----</td>
</tr>
<tr>
<td>Asthma Prevalence, 2002-2005</td>
<td>6.5%</td>
<td>7.2%</td>
<td>7.8%</td>
</tr>
</tbody>
</table>

* Nationwide estimates were not available for all health indicators in the table. “----” signifies that no nationwide mortality rate could be found for the health indicator.