

Health

2008 STATE OF CHATTANOOGA REGION REPORT

Ione Farrar
December 2008

the **Ochs Center**
for metropolitan studies

December 2008

Dear Reader:

Our fifth report in the series for the 2008 State of Chattanooga Region Report is on Health.

In this report – and subsequent reports on Housing and the Economy – Ochs Center staff rely on a combination of administrative data (usually collected by government agencies) and survey data (from an April 2008 telephone survey of one thousand Hamilton County residents) to describe current conditions in the Chattanooga region. As we did two years ago, we will provide information at the subregion level and also provide comparisons between our region and other midsize regions across the county.

For those of you who have read or used the State of Chattanooga Region Report, I wanted to again highlight a series of changes this year – which were the result of feedback on the 2006 report.

By releasing a series of reports instead of a single, 360 page volume, we hope to better highlight key findings in each of the different topic areas that we cover.

Because – in most cases – we have data from prior years, we will be able to provide trend analysis: in other words, we will be able to speak to changes in conditions, as well as current conditions.


We will do a better job discussing the region, not just Hamilton County and Chattanooga. Each of the reports will begin with a description of conditions in the six county metropolitan statistical area (Hamilton, Marion and Sequatchie counties in Tennessee and Catoosa, Dade and Walker counties in Georgia).

Finally, we will make access to information about specific subregions much more accessible.

While we have made some changes, the goal of the State of Chattanooga Region Report remains the same – to provide information to the community that helps elected officials, policymakers, civic leaders and the public make better decisions about our community's future.

Please let us know what you think. If you have comments or questions, feel free to email me at deichenthal@ochscenter.org.

Sincerely,



David Eichenthal
President and CEO

EXECUTIVE SUMMARY

Hamilton County is the center for health care in the region. Seven of nine community hospitals in the Metro-Area and 72% of the region's primary care physicians are located in Hamilton County. Moreover, 44% of the 56,345 admissions to Hamilton County hospitals in 2006 included non-Hamilton County residents.

Sixty-two percent of Hamilton County adult residents say they are in excellent or very good health, a greater percentage than the nation-wide median (54%). Yet, age-adjusted death rates in Hamilton County exceed national rates by 13.7% overall and by anywhere from 6.8% to 46.3% for heart disease, cancer, stroke, and chronic lower respiratory disease. Infant mortality rates in Hamilton County exceed national rates by 63.7%. Among benchmark counties, Hamilton County had the highest overall mortality rate, and exceeded all other counties in deaths from heart disease, cancer, and Alzheimer's disease.

The Alzheimer's disease death rate in Hamilton County is more than double the national rate. Age-adjusted death rates for Alzheimer's disease were 49 per 100,000 in Hamilton County in 2006, versus a national rate of 22.9 in 2005. Compared to benchmark counties, deaths from Alzheimer's disease were more than double the benchmark average and exceeded each of the other counties by anywhere from 70% to almost four times. (Benchmark county data is not age-adjusted.) In addition, while Alzheimer's disease is seventh leading cause of death nation-wide, it is the fourth leading cause in Hamilton County. Since death from Alzheimer's disease is widely considered to be underreported, it is unclear the extent to which higher mortality rates are due to better reporting or to an increased prevalence of Alzheimer's disease.

Between 2004 and 2006, uninsured admissions to Hamilton County hospitals nearly doubled. Over the same time period, overall admissions declined by 3.2% and TennCare patient volume decreased 21.2%. Among Hamilton County emergency departments, overall patient volume increased 3.6%, but the number of uninsured visits increased by 47%. The rise in uninsured patient volume may be attributed, at least in part, to 2005 changes in the TennCare program, when coverage for individuals in the uninsured and uninsurable expansion groups was eliminated, affecting 170,000 individuals state-wide.

Hamilton County hospitals have absorbed the costs of providing care to these increased numbers of uninsured patients. The amount of charity care provided by local hospitals nearly doubled, from \$33.9 million in 2004 to \$66.5 million in 2006. As a percentage of gross patient charges, charity care increased from 1.4% to 2.3%.¹

¹ Charity care here is defined as total charity plus medically indigent.

Health disparities between African Americans and Whites in Hamilton County continue. African American adults were more than twice as likely as Whites to be uninsured (33% versus 15%). Death rates among African Americans in Hamilton County were significantly higher than among whites, especially for deaths due to diabetes (more than double), stroke (52% higher) and heart disease (45% higher). And African American babies were three and a half times more likely to die before their first birthday than White babies (23.7 versus 6.7 deaths per 1,000 births).

Of nine county subregions, the Downtown/South Chattanooga and Brainerd/East Ridge and East Chattanooga subregions had the worst health outcomes. These subregions had among the highest rates of reported fair or poor health, no health insurance, smoking, obesity, sexually transmitted diseases, and overall mortality.

HEALTH CARE AND QUALITY OF LIFE IN THE CHATTANOOGA REGION

Over the past several years, our nation's concept of health has evolved from a focus primarily on avoidance or treatment of disease to the pursuit of wellness, involving a range of quality of life factors.

The health indicators selected for this report include measurements on behaviors that affect health. For example, indicators addressing health behaviors include tobacco use, obesity, alcohol use, and incidence of sexually transmitted diseases. Other indicators address access to care -- health care coverage, hospital capacity, and hospital use. In addition, the report presents mortality data for the leading causes of death in Hamilton County.

Percentage Rating "Very Important" In Determining Their Quality of Life

IMPORTANCE TO QUALITY OF LIFE	VERY IMPORTANT 2008	VERY IMPORTANT 2006
Safety from crime	90.1	87.3
Quality health care and hospitals	88.5	85.9
Quality schools	82.9	78.7
Clean air	82.7	77.5
Availability of jobs that pay a living wage	80.5	76.9
Clean streets and neighborhoods	79.5	76.4
Affordability of housing	74.1	71.5
A place where people of all backgrounds are welcome	71.6	66.3
A strong sense of community	64.4	63.2
A strong religious community	62.6	57.6
Parks and other recreational opportunities	61	56.4
Short commuting time	51.8	46.5
Arts and cultural opportunities	45.9	37.9

Source: Ochs Center survey of 1,000 Hamilton County Residents – 2006 and 2008

According to the Ochs Center 2008 countywide survey, 88% of Hamilton County residents stated that "quality health care and hospitals" was very important to their quality of life in the Chattanooga area – among thirteen factors, it ranked second overall. In the 2006 countywide survey, 86% of residents rated this factor very important to quality of life.

HEALTH IN THE METRO REGION

Hamilton County is a Regional Health Care Center

Chattanooga and Hamilton County are at the center of a six county metropolitan area. The six-county Metro Area has nine community hospitals with a total of 1,546 staffed beds, or 3.1 beds per 1000 residents.² With seven of the nine community hospitals and 82.3% of primary care physicians, Hamilton County serves as a regional health care center for the Metro Area and surrounding counties. Only Catoosa County, with one regional hospital, has more hospital beds per 1000 residents (4.5) than Hamilton County (3.9).

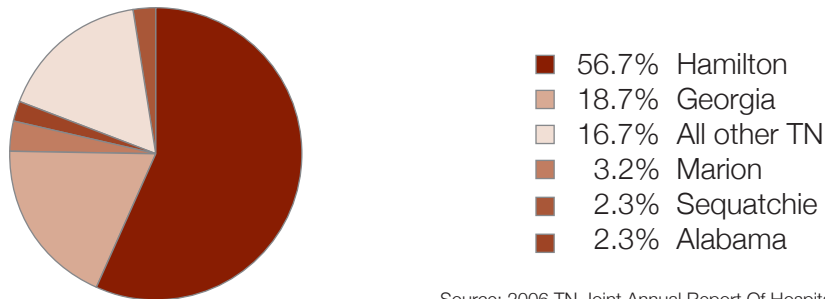
Hamilton County hospital admissions data demonstrates the county's role as a regional health care center. Of the 56,345 hospital admissions to Hamilton County hospitals in 2006, 56.3% were Hamilton County residents.³ Nearly one in five patients lived in Georgia; close to 17% lived in Tennessee counties outside of the MSA; 3.2% lived in Marion County; 2.3% lived in Sequatchie County and 2.3% lived in Alabama.

² Community hospitals include non-federal general medical and surgical short term hospitals.

³ Reflects admissions from all 13 Hamilton County hospitals, including community hospitals and psychiatric, chemical dependency, physical rehabilitation and long-term care hospitals.

⁴ Primary care physicians include general practice, family practice, internal medicine, pediatrics and OB/GYN

2006 Hamilton County Hospital Admissions by Patient Residence



Source: 2006 TN Joint Annual Report Of Hospitals

Metro-Area Health Care

A total of 536 primary care physicians practice in the region, or one primary care physician for every 927 residents.⁴ With 441 primary care physicians, Hamilton County has one primary care physician for every 710 residents. The ratio is much lower in the other Metro-Area counties, ranging from one per 1,160 residents in Dade County to one per 6,176 residents in Sequatchie County.

Metro-Area Hospital Beds and Primary Care Physicians

	NUMBER HOSPITAL BEDS	HOSPITAL BEDS PER 1000 RESIDENTS	NUMBER PRIMARY CARE PHYSICIANS	POPULATION PER PRIMARY CARE PHYSICIAN
Metro Area (6-County total)	1,546	3.1	536	927
Hamilton	1,234	3.9	441	710
Marion	31	1.1	16	1,778
Sequatchie	0	0	2	6,176
Catoosa	281	4.5	45	1,378
Dade	0	0	14	1,160
Walker	0	0	18	3,589

Sources: American Hospital Association, TN Department of Health, GA Board for Physician Workforce

Government Sponsored Health Insurance: All Residents

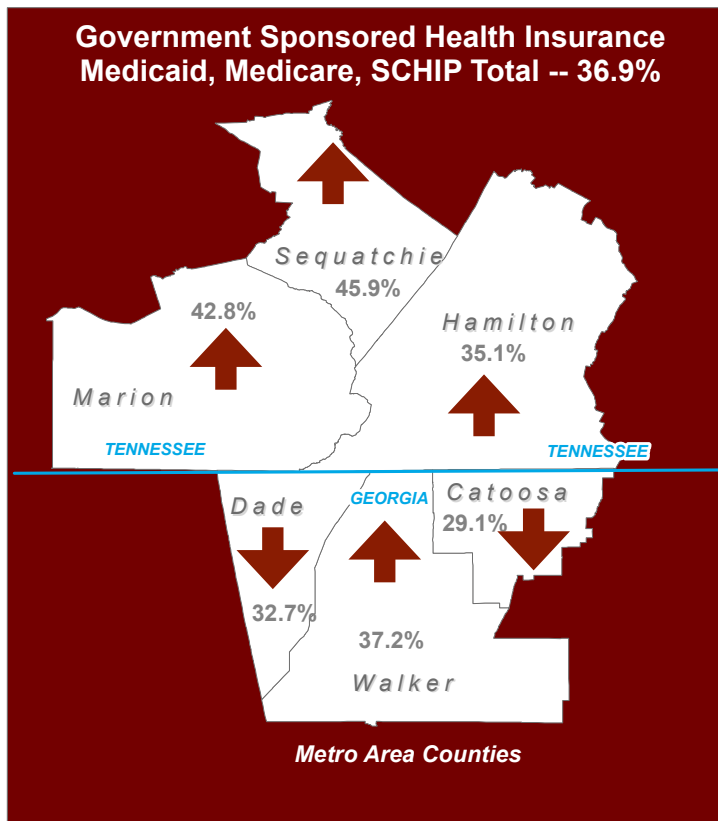
Overall, 36.9% of Metro-Area residents of all ages are covered by one of three government-sponsored health insurance programs, Medicaid (18.4%), Medicare (17.1%), or State Children’s Health Insurance Program (SCHIP) (1.4%).⁵ On the county level, coverage ranges from 29.1% of Catoosa County residents to nearly half of Sequatchie County residents.

⁵ The Georgia SCHIP program, known as PeachCare for Kids, began enrolling children in 1999. The Tennessee SCHIP program, CoverKids, began enrolling children in April 2007 as part of CoverTN.

Enrollment in Government Sponsored Health Insurance as a Percentage of Total Population

	Medicaid	Medicare	SCHIP	Total
Metro Area (6-County total)	18.4%	17.1%	1.4%	36.9%
Hamilton	17.6%	17.2%	0.3%	35.1%
Marion	23.7%	18.9%	0.2%	42.8%
Sequatchie	25.8%	19.2%	0.9%	45.9%
Catoosa	12.1%	14.6%	2.4%	29.1%
Dade	14.1%	16.2%	2.4%	32.7%
Walker	17.2%	17.8%	2.2%	37.2%

Sources: TN Department of Health, GA Department of Community Health, Centers for Medicaid and Medicare Services



Health Risks: Adult Residents

According to the most recently available survey data, an average of 15% of Metro-Area adults have no health care coverage, a figure which ranges from 13% in Hamilton County to 16% in Marion and Sequatchie Counties.⁶

Just over one in four (26%) of Metro-Area adults smoke, with a range of 23% in Marion and Sequatchie Counties to 29% in the three Georgia metro counties.

Approximately 28% of Metro-Area adults are obese, according to self-reported weight and height. Obesity rates ranged from 22% among Hamilton County adults to 35% of adults in Marion and Sequatchie Counties

Approximately 31% of Metro-Area adults do not engage in leisure time physical activity: the percentage of adults with no leisure time activity ranged from 28% in Hamilton County to 35% in Marion and Sequatchie Counties.

Health Characteristics Adult Residents (based on survey data)

	NO HEALTH INSURANCE (%)	SMOKE CIGARETTES (%)	OBESE BMI>30.0 (%)	PHYSICAL INACTIVITY (%)
Metro Area (6-County average)	15%	26%	28%	31%
Hamilton TN	13%	25%	22%	28%
Marion TN	16%	23%	35%	33%
Sequatchie TN	16%	23%	35%	33%
Catoosa GA	15%	29%	26%	30%
Dade GA	15%	29%	26%	30%
Walker GA	15%	29%	26%	30%

Sources: 2008 Ochs Center survey of 1,000 Hamilton County residents, GA Department of Community Health, TN Department of Health

⁶ Survey data from counties outside of Hamilton County are reported by state health district. Marion and Sequatchie Counties in Tennessee are part of the six county Southeast Tennessee Health District and data are from the TN 2007 Behavioral Risk Factor Surveillance Survey (BRFSS). Catoosa, Dade and Walker Counties in Georgia are part of the 10 county Northwest Georgia District and data represent 2000-2004 BRFSS survey results. Hamilton County data for health insurance, smoking, and obesity from the 2008 Ochs Center survey of 1,000 Hamilton County residents. Physical inactivity data is from the 2007 Hamilton County BRFSS.

Health Outcomes

The average age-adjusted mortality rate of the six Metro-Area counties was 921.1 deaths per 100,000 residents.⁷ County-level age-adjusted mortality rates ranged from 823.6 per 100,000 residents in Catoosa County to 1035.8 per 100,000 residents in Marion County.

Hamilton County has the highest rate of sexually transmitted diseases (STD) of the six counties, with a rate of 712.7 diagnoses per 100,000 residents, 3.5 times the six-county average of 203.9 per 100,000 residents. Of the 1,772 cases of chlamydia and gonorrhea diagnosed in the Metro-Area in 2006, 88.9% were to Hamilton County residents.

Rates per 100,000 Residents

	Deaths (age-adjusted, 2006)	Sexually Transmitted Disease Diagnoses ⁸ (2006)
Metro Area (6-County total)	921.1	203.9
Hamilton	861.8	712.7
Marion	1035.8	175.8
Sequatchie	981.6	95.8
Catoosa	823.4	61.3
Dade	887.6	86.2
Walker	936	91.3

Sources: TN Department of Health, GA Department of Community Health

⁷According to the CDC's National Center for Health Statistics, "Age-adjustment is used to compare risks of two or more populations at one point in time or one population at two or more points in time. Age-adjusted rates are computed by the direct method by applying age-specific rates in a population of interest to a standardized age distribution, in order to eliminate differences in observed rates that result from age differences in population composition. Age-adjusted rates should be viewed as relative indexes rather than actual measures of risk."

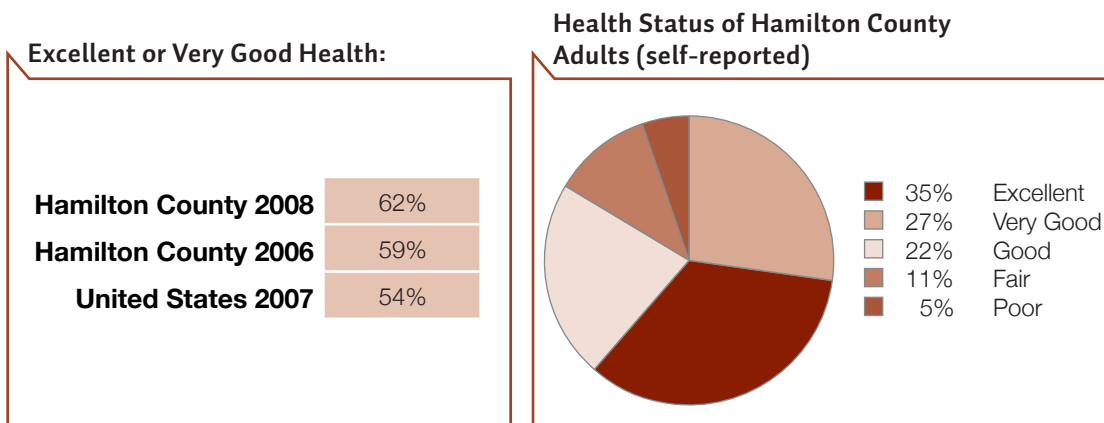
⁸Chlamydia, gonorrhea

HEALTH IN HAMILTON COUNTY

Self-reported health status is one measure of overall health. In the 2008 survey of 1,000 residents, 62% indicated that their health was excellent or very good, as compared to 59% in 2006. Centers for Disease Control data for 2007 found that 54% of adults nation-wide indicated they were in excellent or very good health.⁹

Analysis of reported health status of subgroups show significant differences based on income, age, and education. Individuals in households with annual income of \$50,000 or more were much more likely to rate their health and excellent or very good. Similarly, reported excellent or very good health increased with education levels – from 50% among those with no more than a high school education to 77% of college graduates. Reported excellent or very good health decreased with age – from 77% of 18 to 34 year olds to 45% of those ages 65 and older.

⁹ 2007 Behavioral Risk Factor Surveillance Survey. Nationwide data include 50 states and Washington D.C. In addition, 30% of adults nationwide indicated they were in good health, while 15% were in fair or poor health.



Sources: 2006 and 2008 Ochs Survey of 1,000 Hamilton County Residents, Centers for Disease Control

Self Reported Health Status By Demographics

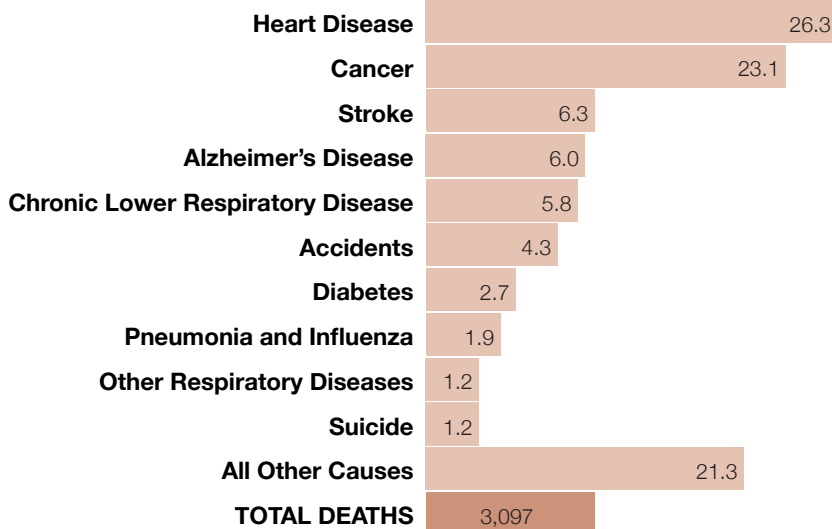
		Excellent/Very good	Good	Fair/Poor
Residence	Inside City	59%	25%	17%
	Outside City	67%	18%	15%
Gender	Men	64%	22%	14%
	Women	60%	22%	18%
Age	18-34	77%	17%	6%
	35-44	65%	23%	12%
	45-64	59%	22%	19%
	65+	45%	28%	27%
Race	White	63%	22%	15%
	African American	65%	14%	22%
Education	High School or Less	50%	27%	24%
	Some College	59%	25%	16%
	College Graduate	77%	16%	7%
Income	Less than \$50,000	50%	29%	21%
	\$50,000 +	80%	13%	7%

Source: 2008 Ochs Center survey of 1,000 Hamilton County residents

Mortality

Five major diseases – heart disease, cancer, stroke, Alzheimer’s disease, and chronic lower respiratory disease (CLRD)¹⁰ -- caused two-thirds (67.5%) of deaths in Hamilton County in 2006. Heart disease and cancer alone accounted for half of all deaths.

Leading Causes of Death in Hamilton County 2006



Source: TN Department of Health

The leading causes of death are similar to the national population for 2005 (the most recently available national data) with the exception of Alzheimer’s disease, which ranked as the seventh leading cause in the nation in 2005, as compared to the fourth leading cause in Hamilton County in 2006.

Hamilton County mortality rates are higher than national rates. In 2005, the most recent year for comparable county and national data, age-adjusted death rates in Hamilton County exceeded national rates by 13.7% overall and by anywhere from 6.8% to 46.3% for heart disease, cancer, stroke, and chronic lower respiratory disease.

Deaths from Alzheimer’s disease, however, are more than double the national rate. The Alzheimer’s Association reports that the disease is widely underreported as a cause of death.¹¹ It is unclear the extent to which higher mortality rates in Hamilton County are due to better reporting among area physicians or increases in the actual prevalence of Alzheimer’s disease.

Age-Adjusted Death Rates

	Hamilton County (2006)	United States (2005)	% Difference
All Causes	907.9	798.8	13.7%
Heart Disease	225.5	211.1	6.8%
Cancer	206.8	193.8	12.5%
Stroke	52.7	46.6	13.1%
Alzheimer's Disease	49.0	22.9	113.9%
CLRD	63.2	43.2	46.3%

Source: Tennessee Department of Health, National Center for Health Statistics

¹⁰ CLRD include emphysema, chronic bronchitis and bronchiectasis. The majority of CLRD is caused by smoking.

¹¹ 2008 Alzheimer’s Disease Facts and Figures, Alzheimer’s Association

Mortality Trends in Hamilton County

Trend data for Hamilton County indicate that deaths from all causes declined 12.1% between 2000 and 2006. Among the leading causes of death, the steepest declines were from deaths caused by influenza and pneumonia (down 39.1%), stroke (down 28.1%), and heart disease (down 21%). Deaths attributed to Alzheimer's disease increased by 84.5%, while accidental deaths increased 9.8%.

Mortality Trends in Hamilton County: Age-Adjusted Death Rates 2000-2006

	2000	2001	2002	2003	2004	2005	2006	% Change 2000- 2006
All Causes	967.5	946.3	941.5	923.2	921.8	907.9	850.2	- 12.1%
Heart Disease	277.7	261.7	245.4	234.0	233.5	225.5	219.5	- 21.0%
Cancer	212.9	214.8	215.2	206.8	204.5	206.8	195.0	- 8.4%
Stroke	72.8	62.9	71.0	66.0	70.7	52.7	52.4	- 28.1%
Alzheimer's Disease	26.5	33.9	31.5	36.6	44.2	63.2	49.0	+ 84.5%
CLRD	54.0	62.8	61.5	58.9	64.7	63.2	49.6	- 8.2%
Accidents	37.2	34.2	31.3	37.8	41.6	39.3	40.8	+ 9.8%
Diabetes	23.3	33.4	31.0	26.8	30.1	25.6	23.3	- 0.1%
Influenza and Pneumonia	26.1	23.6	19.4	18.3	17.1	15.1	15.9	- 39.1%

Source: Tennessee Department of Health

Differences by Race

There are some marked differences in the death rates of African Americans and Whites in Hamilton County – deaths from all causes were 30% higher among African Americans than Whites. The table below details the ten leading causes of death for Whites and African Americans (using 2004-2006 average age-adjusted rates).

Among the notable differences, death rates from:

- Diabetes among African Americans is over twice that among Whites
- Stroke among African Americans is 52% higher than among Whites
- Heart disease among African Americans is 45% higher than among Whites
- Cancer among African Americans is 17% higher than among Whites

In addition, assault and HIV/AIDS were among the ten leading causes of death for African Americans but not for Whites.

Whites were 31% more likely to die from chronic lower respiratory diseases than African Americans. Two of the ten leading causes of death for Whites – suicide and other respiratory diseases—were not among the top ten for African Americans.

**Leading Causes of Death by Race : Age-Adjusted
Rates per 100,000 Population, Hamilton County 2004-2006**

Cause	Total	White	African American
All Causes	893.3	853.6	1107.89
Heart Disease	226.2	213.0	308.1
Cancer	202.1	197.6	231.2
CLRD	59.1	62.2	42.9
Stroke	58.6	53.6	81.7
Alzheimer's Disease	52.1	52.5	51.9
Accidents	40.6	41.1	38.1
Diabetes	26.3	22.4	47.6
Influenza and Pneumonia	16.0	16.13	15.89
Other Respiratory Diseases	11.2	11.5	*
Suicide	10.9	12.8	*
Assault (Homicide)	*	*	17.3
HIV/AIDS	*	*	16.9

Source: Tennessee Department of Health*Not among 10 leading causes for that group.

¹² Recent Trends in Infant Mortality in the United States, Centers for Disease Control. National Center for Health Statistics. www.cdc.gov/nchs/data/databrief/db09.htm.

¹³ Tennessee's Racial Disparity in Infant Mortality: Special Report 2006, Tennessee Department of Health

¹⁴ According to preliminary data from the National Center for Health Statistics (NCHS), the national infant mortality rate declined 6.7 in 2006, not significantly different than the rate of 6.9 in 2005.

¹⁵ National Center for Health Statistics

Infant Mortality

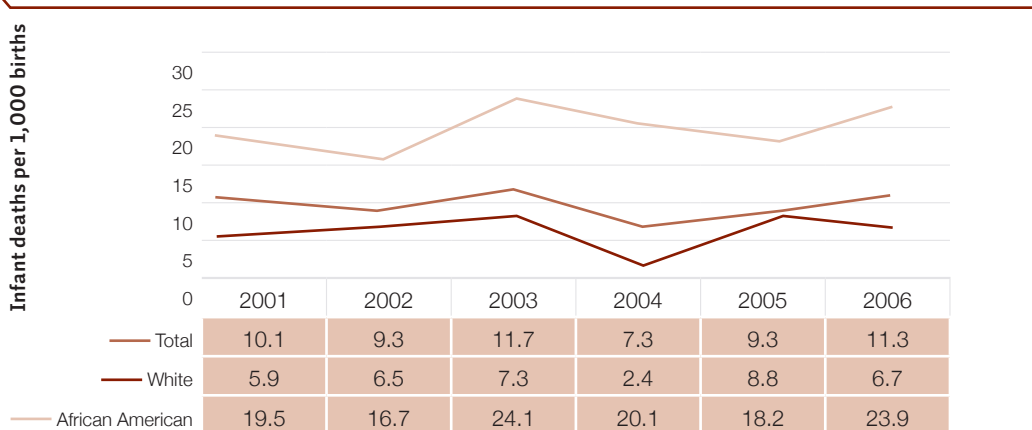
Infant mortality is a traditional indicator of the health and well being of a community and "is associated with a variety of factors including maternal health, quality and access to medical care, socioeconomic conditions and public health practices."¹² The leading causes of infant mortality are congenital abnormalities, fatal conditions arising from pre-term/low birth weight, sudden infant death syndrome and accidents.¹³

Between 2001 and 2006, a total of 237 babies died before their first birthday, or 9.8 deaths for every 1000 live births.

In 2005, the most recently available year for national data, 6.9 of every 1000 babies born in the United States did not live until their first birthday, compared to 9.3 of every 1000 babies born in Hamilton County. However, infant mortality rates in Hamilton County increased to 11.3 per 1000 births in 2006.¹⁴

Infant mortality is significantly higher among African Americans than Whites. African American babies born in Hamilton County in 2006 were three and a half times more likely to die before their first birthdays than White Babies (23.9 versus 6.7 deaths per 1,000 births). The CDC reports similar racial disparities nationwide: infant mortality rates in 2004 were 13.8 per 1000 births for African Americans and 5.7 per 1000 births for Whites.¹⁵

Hamilton County Infant Mortality Rates 2001-2006



Source: Tennessee Department of Health

Health Conditions and Risk Factors in Hamilton County

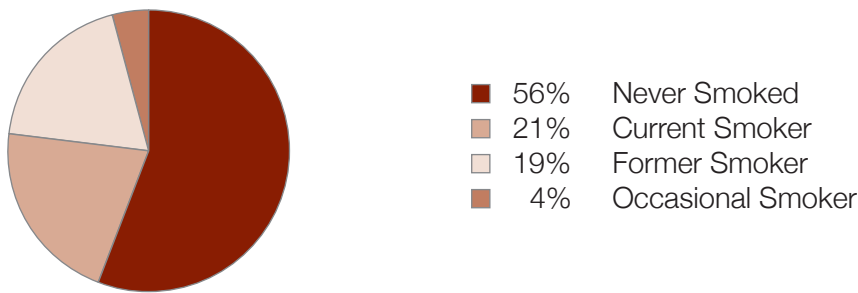
Unhealthy behaviors and lifestyles contribute to half of all premature deaths.¹⁶ Some of these behaviors include smoking, being overweight and/or obese and alcohol abuse. Smoking and obesity are major contributors to four of the five leading causes of death in Hamilton County – heart disease, cancer, stroke and chronic lower respiratory diseases.

Cigarette Smoking

According to the Centers for Disease Control, cigarette smoking is responsible for nearly 20% of deaths each year in the United States: in Hamilton County, that would translate into 620 smoking related deaths in 2006. Smoking contributes to more deaths in the United States than AIDS, illegal drug use, alcohol abuse, motor vehicle injuries, suicides, and murder combined.¹⁷

In the 2008 countywide survey, 21% of Hamilton County respondents indicated that they are current smokers and another 4% say that they occasionally smoke. An additional 19% indicated they were former smokers, while 56% indicated that they had never smoked. By comparison, findings from the 2006 countywide survey indicated that 19% of respondents were current smokers, 6% were occasional smokers, 19% were former smokers, and 56% had never smoked, differences within the margins of error.

Smoking Habits: Hamilton County Adults



Source: 2008 Ochs Center Survey of 1,000 Hamilton County Residents

Adults who Smoke Cigarettes

Hamilton County 2008	United States 2007 ¹⁸
Current 21%	Everyday 15%
Occasional 47%	Some days 5%

Sources: Hamilton County 2007 BRFSS and National 2007 BRFSS

Analysis of the smoking habits of Hamilton County subgroups show significant differences based on residence, sex, age, race, income and education.

¹⁶ U.S. Department of Health and Human Services

¹⁷ Centers for Disease Control. (CDC) Smoking and Tobacco Use Fact Sheet: Health Effects of Cigarette Smoking, January 2008.

¹⁸ CDC 2007, national Behavioral Risk Factor Surveillance Survey (BRFSS) national medians.

- Males were more likely to smoke than females.
- Respondents under age 55 were more likely to smoke than older respondents: respondents between the ages of 45 to 54 were over twice as likely to smoke as those ages 65 and older.
- African Americans were more likely to smoke than Whites.
- Individuals with less than \$50,000 household income were more than twice as likely to smoke as individuals with \$50,000 or more household income.
- Individuals with a high school education or less were over twice as likely to smoke as those with more education.

Percent of Hamilton County Adults who Currently/Ocasionally Smoke Cigarettes by Demographics

BY SEX	
Male	26%
Female	16%

BY RACE	
White	19%
African American	29%

BY AGE	
18-34	26%
35-44	24%
45-54	28%
55-64	18%
65+	12%

BY EDUCATION	
High School or Less	34%
Some College	16%
College Graduate	12%

BY HOUSEHOLD INCOME	
Less than \$50,000	28%
\$50,000 or more	13%

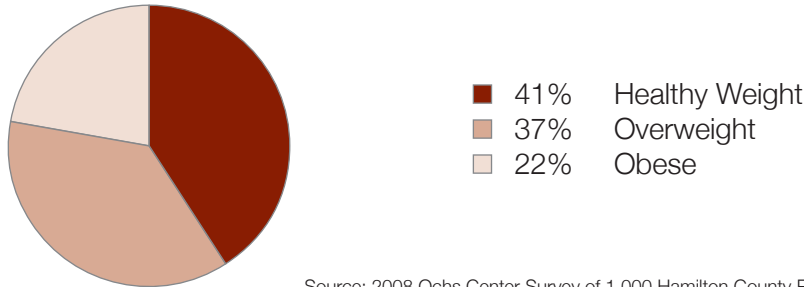
Sources: 2008 Ochs Center survey of 1,000 Hamilton County residents

OVERWEIGHT AND OBESITY

The CDC reports that the incidence of obesity among adults increased 63.5% between 1995 and 2007.¹⁹ Obesity is related to a number of poor health outcomes, including type 2 diabetes, heart disease, hypertension, high cholesterol levels, stroke, cancer, osteoarthritis, some cancers, and gallbladder disease.²⁰

In the 2008 countywide survey, 58% of respondents were either overweight or obese, based on their reported height and weight.²¹

Weight Category: Hamilton County Adults



Source: 2008 Ochs Center Survey of 1,000 Hamilton County Residents

Overweight or Obese Adults

	Hamilton County 2007 ²²	United States 2007 ²³
Overweight	37%	37%
Obese	21%	26%

Source: 2008 Ochs Center survey of 1,000 Hamilton County residents

- The rates of overweight and obesity were high in all demographic subgroups, exceeding 50% of all gender, race, age, education, and income groups analyzed.
- Men (67%) were more likely to be overweight or obese than women (50%).
- Rates of obesity and overweight increased with age, but declined for senior citizens.
- African American (69%) were more likely to be overweight or obese than Whites (56%).
- There was little difference, however, based on income.

¹⁹ Centers for Disease Control, Behavioral Risk Factor Surveillance System. National data are based on 50 states and Washington DC.

²⁰ www.cdc.gov/nccdphp/dnpa/obesity/index.htm

²¹ The 2006 survey did not include questions about height and weight.

²² Overweight and obesity are determined by calculating body mass index, a measure of body weight relative to height. To compute BMI: [weight/height (inches squared)]. BMI describes body weight relative to height and is strongly correlated with total body fat content in adults. Overweight is defined as a body mass index (BMI) between 25 and 29.9. Obesity is defined as a BMI of 30 or greater. According to the guidelines, a BMI of 30 is about 30 pound overweight and is equivalent to 221 pounds in a 6 foot person and to 186 to someone who is 5'6". The BMI numbers apply to both men and women. Some very muscular people may have a high BMI without health risks.

²³ Centers for Disease Control

Percent of Hamilton County Adults who are Overweight or Obese by Demographics

BY SEX	Overweight (BMI_{25<30})	Obese (BMI 30+)	Total Overweight or Obese
Male	44%	23%	67%
Female	30%	20%	50%

BY RACE	Overweight (BMI_{25<30})	Obese (BMI 30+)	Total Overweight or Obese
White	36%	20%	56%
African American	42%	27%	69%

BY AGE	Overweight (BMI_{25<30})	Obese (BMI 30+)	Total Overweight or Obese
18-34	34%	18%	52%
35-44	36%	19%	55%
45-54	44%	24%	72%
55-64	44%	29%	73%
65+	34%	21%	55%

BY EDUCATION	Overweight (BMI_{25<30})	Obese (BMI 30+)	Total Overweight or Obese
High School or Less	33%	24%	68%
Some College	38%	28%	66%
College Graduate	40%	15%	55%

BY HOUSEHOLD INCOME	Overweight (BMI_{25<30})	Obese (BMI 30+)	Total Overweight or Obese
Less than \$50,000	36%	24%	60%
\$50,000 or more	41%	21%	62%

Source: 2008 Ochs Center survey of 1,000 Hamilton County residents

ALCOHOL USE

According to the 2007 Hamilton County Behavioral Risk Factor Surveillance Survey, 42% of Hamilton County adults consume alcoholic beverages at least once a month (current drinkers). Nine percent of Hamilton County adults are binge drinkers, defined as having five or more drinks on one occasion (males) or four or more drinks on one or more occasion (females) on at least one occasion over the past month.²⁴

Overall, Hamilton County adults are less likely to drink any alcohol or to binge drink than adults nationwide. There were too few respondents identified as binge drinkers in the Hamilton County BRFSS to provide subgroup analysis.

²⁴ The Tennessee Department of Health conducted the Hamilton County BRFSS on behalf of the Hamilton County Health Department. A survey included a total of 700 adult respondents. For more information, go to <http://health.hamiltontn.org/CHS/CommunityAssessmentPlanning.aspx>.

Adult Alcohol Use: Hamilton County and United States

	Hamilton County 2007	United States 2007
Current Drinker	42%	55%
Binge Drinker	9%	16%

Sources: Hamilton County 2007 BRFSS and National 2007 BRFSS

REPORTED SEXUALLY TRANSMITTED DISEASES AND HIV/AIDS CASES

Diagnoses of most illnesses or conditions are not formally or consistently reported to any governing bodies, making it difficult to reliably determine incidence. However, many diseases and conditions are classified as “reportable” because of their affect on public health. Diagnoses of reportable illnesses are closely monitored by public health officials. Examples of reportable illnesses include food borne illnesses, hepatitis, tuberculosis, rabies, sexually transmitted diseases, HIV/AIDS, etc.

Communicable diseases such as chlamydia, gonorrhea and HIV/AIDS are among the most frequently diagnosed reportable conditions and their diagnosis rates provide some indication of the extent of unprotected sex in a community.

Chlamydia and Gonorrhea

Chlamydia and gonorrhea produce few symptoms and often go undetected, which, in turn, allows infected people to unknowingly spread the disease. But, left untreated, STDs may lead to long-term health problems. Untreated chlamydia and gonorrhea in women can lead to pelvic inflammatory disease, infertility, and cervical cancer.

Infection rates for chlamydia and gonorrhea in Hamilton County are significantly higher than national rates. Hamilton County reported 253.8 new cases of gonorrhea per 100,000 residents in 2007, 2.1 times the national rate of 120.9 in 2006 (the most recent year available). The chlamydia infection rate in Hamilton County in 2007 was 610.5 per 100,000, 1.8 times the national rate in 2006 of 347.8.

**Sexually Transmitted Disease Rates Hamilton County and U.S.
Diagnoses per 100,000 Population**

	Hamilton County 2007	United States 2006
Chlamydia	610.5	347.8
Gonorrhea	253.8	120.9

Sources: Tennessee Department of Health and National Center for Health Statistics

²⁵ CDC, Trends in Reportable Sexually Transmitted Diseases in the United States, 2006.

A total of 1,917 cases of chlamydia were reported among Hamilton County residents in 2007. The rate of infection among females was 2.7 times the male rate (875.8 versus 324.6 per 100,000 residents). Among African Americans, the rate was almost eight times the rate for Whites (1,380.1 versus 175.2 per 100,000).

In total, 797 cases of Gonorrhea were reported among Hamilton County residents in 2007. The infection rate among males was slightly higher than among females than males (268.6 versus 238.3 per 100,000). The infection rate among African Americans was over 21 times the rate of Whites (851.2 versus 40.4 per 100,000).

	Chlamydia		Gonorrhea	
	# Cases	Rate per 100,000	# Cases	Rate per 100,000
Total	1917	610.5	797	253.8
Sex				
Male	489	324.6	359	238.3
Female	1428	875.8	438	268.6
Race				
White	425	175.2	98	40.4
African American	895	1,380.1	552	851.2

Source: Tennessee Department of Health

Racial disparities in the incidence sexually transmitted diseases exist throughout the nation. According to the Centers for Disease Control, some of the disparities may result from reporting bias: racial minorities are more likely to seek treatment in a public health clinic, which may more completely report these diagnoses. However, the CDC indicates that "this reporting bias does not fully explain these differences. Other contributing factors include limited access to quality health care, poverty, and higher prevalence of disease in these populations."²⁵

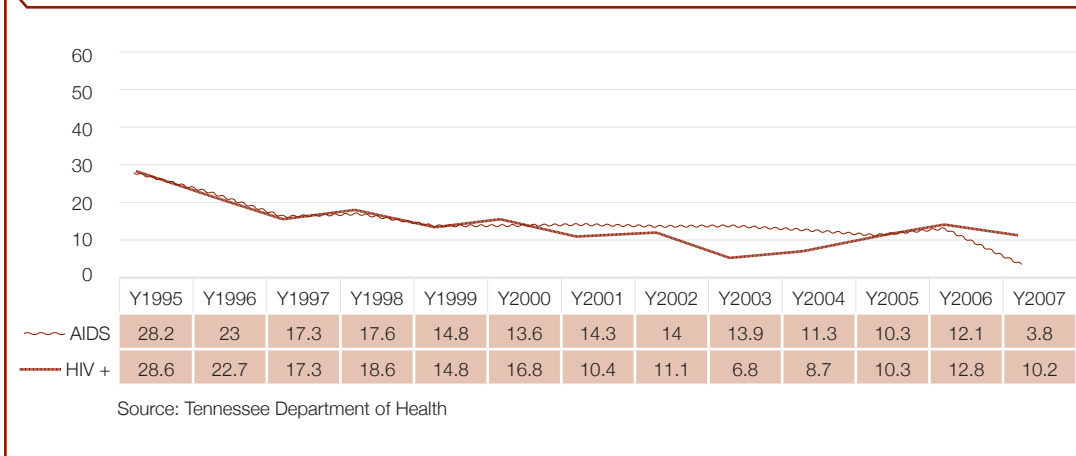
HIV/AIDS

In 2007, 966 Hamilton County residents (307.6 per 100,000) were living with an HIV or AIDS diagnosis.

The rates of new diagnoses for HIV and AIDS have declined since their peak in 1995 – HIV by 64.3% and AIDS by 86.5%. In Hamilton County, 12 cases of AIDS, or 3.8 per 100,000 residents, were diagnosed for every 100,000 residents, a rate that is significantly lower than the national rate of 12.7.²⁶

²⁶ CDC, Cases of HIV Infection and AIDS in the United States and Dependent Areas, 2006.

New Cases of HIV and AIDS: Hamilton County (Diagnoses per 100,000)



Mental Health

According to the 2007 Hamilton County BRFSS, 8% of Hamilton County adults experience frequent mental distress, defined as having fourteen or more mentally unhealthy days within the past month. By comparison, 11% of adults in Tennessee and 10% of adults nation-wide experience frequent mental distress.

Frequent Mental Distress – 2007

Hamilton County Adults	8%
Tennessee Adults	11%
Nationwide Adults	10%

Source: National, State, and Hamilton County 2007 BRFSS

ACCESS TO HEALTH CARE

Health Care Coverage

The following section includes data from the 2006 and 2008 Ochs Center surveys of 1,000 Hamilton County residents. The data refer to the respondents' individual circumstances and refer only to adult county residents.

Based on 2008 countywide survey responses, 18% of Hamilton County adults were uninsured for at least some time during the last twelve months. By comparison, the 2006 countywide survey found that 20% of all adults were uninsured at some time during the prior twelve months, a difference that is within margins of error.

Health Insurance Coverage Status - Hamilton County Adults

	2006	2008
Insured:		
Continuous over 12 months	80%	82%
Uninsured:		
No coverage during 12 months	9%	10%
Current coverage, but not continuous over 12 months	8%	6%
Not covered currently, but had coverage during 12 months	3%	2%
Total uninsured	20%	18%

Sources: 2006 and 2008 Countywide Survey

The 2008 survey found significant differences in insurance coverage by residence, race, age, sex, income, and education.

- African Americans (33%) were twice as likely to be uninsured as Whites (15%).
- The percentage of uninsured respondents decreased with age: nearly one in three 18 to 34 year olds lacked health insurance.
- Males were more likely to be uninsured than females
- Respondents with less than \$50,000 in household income were four times as likely to be uninsured than those with \$50,000 or more household income.
- The percentage of uninsured respondents decreased as education levels increased.

Percent of Adults with No Health Care Coverage* Hamilton County Adults 2008

BY SEX

Male	22%
Female	15%

BY RACE

White	15%
African American	33%

BY AGE

18-34	32%
35-44	21%
45-54	19%
55-64	12%
65+	7%

BY EDUCATION

High School or Less	24%
Some College	14%
College Graduate	16%

BY HOUSEHOLD INCOME

Less than \$50,000	29%
\$50,000 or more	7%

* A respondents is categorized as "no health care coverage" if they lacked health insurance coverage at any point in the prior year.
Sources: 2006 and 2008 Ochs Center survey of 1,000 Hamilton County Residents

While there was no significant difference in the overall percentage of respondents without health insurance from 2006 to 2008, there were some differences based on educational attainment and income. Among those with some college education, the percentage of uninsured respondents decreased from 25% in 2006 to 14% in 2008; however, among those with a college education, the percentage of uninsured respondent increased from 10% to 16%. Among those with less than \$50,000 in household income, the percentage of uninsured respondents decreased from 35% to 29%. There were no notable differences in health insurance coverage from 2006 to 2008 among respondents with high school or less education or among respondents with \$50,000 or more in household income.

Source of Health Insurance Coverage -- Adults

Among countywide survey respondents with health insurance at the time of the survey, the overwhelming majority had employer-sponsored coverage (53%) or Medicare (24%). An additional 10% purchased their own coverage, 6% had TennCare, and 7% had some other form of health insurance.

Source of Health Insurance Coverage: Hamilton County Adults

Employer	53%
Medicare	24%
Purchased Plan	10%
TennCare	6%
Other	7%

Source: 2008 Ochs Centry Survey
of 1,000 Residents

Reasons for Lack of Coverage -- Adults

Of the countywide survey respondents who lacked health insurance at some point during the preceding year, cost was the most frequently given reason for lack of coverage (27%).

Reason for Lack of Health Insurance -- Hamilton County Adults

Could not afford premium	27%
Employer does not offer/stopped coverage	19%
Lost TennCare/medical assistance eligibility	16%
Changed employers - waiting period	11%
Other	17%

Source: 2008 Ochs Centry Survey
of 1,000 Hamilton County Residents

Medicare, TennCare and CoverTN Enrollment

Over one-third of all Hamilton County residents receive health care coverage from one of three federal and/or state sponsored programs: Medicare, TennCare or Cover Tennessee.

In 2007, the most recently available year of county-level data, 53,744 Hamilton County residents – 17.1% of the population were enrolled in Medicare. Medicare enrollees include 44,168 – 14.5% of the population – who were eligible based on age (65 and older) and 9,576 – 3% of the population – who were eligible due to disability.

As of March 2008, 55,209 Hamilton County residents – 17.6% of the population – were enrolled in TennCare.

In April 2007, the State began enrolling individuals into Cover Tennessee, a program for uninsured Tennessee residents that is separate from TennCare. As of June 2008, 1,740 Hamilton County residents (0.3%) were enrolled in one of three Cover Tennessee programs: CoverKids provides coverage for uninsured children; CoverTN provides affordable basic health coverage for the working uninsured, splitting the premium between the insured, the employer, and the State; Access Tennessee provides coverage to high risk individuals with pre-existing medical conditions.

Enrollment in Government Sponsored Health Care Plan: All Hamilton County Residents

	Enrollment	% Population
Medicare	53,744	17.1%
TennCare (March 2008)	55,209	17.6%
Cover Tennessee:		
CoverKids	1,002	0.3%
CoverTN	604	0.2%
Access Tennessee	134	0.04%
TOTAL	110,693	35.3%

Sources: Bureau of TennCare, Cover Tennessee, and Centers for Medicaid and Medicare Services

TennCare Enrollment Declines

In 2005, the State eliminated TennCare coverage for individuals in the uninsured and uninsurable expansion groups, affecting 170,000 people state-wide. Since 2004, the number of Hamilton County residents with TennCare coverage dropped by 17.6%, from 62,117 to 55,209. As a percentage of the total population, TennCare enrollment declined by 2.4 percentage points – from 20% to 17.6%.

TennCare Enrollment Hamilton County

	Total Enrollment	% of Population
December 2004	62,117	20.0%
December 2005	55,549	17.7%
December 2006	54,320	17.4%
December 2007	54,757	17.4%
March 2008	55,209	17.6%

Sources: Bureau of TennCare and TN Department of Health

Hospitals in Hamilton County

Thirteen hospitals are located in Hamilton County, including seven general medical and surgical (community) hospitals, three chemical dependency/psychiatric hospitals, two physical rehabilitation hospitals and one acute long-term care hospital.²⁷ In total, these hospitals provide 1,744 licensed hospital beds, or 5.6 per 1,000 Hamilton County residents. Among the non-federal general medical and surgical hospitals, there are 1,234 staffed hospital beds, or 3.9 per 1,000 residents.

²⁷ In October 2008, the Moccasin Bend Mental Health Institute announced the closing of its long-term care facility, known as the Winston Building, and transfer of its patients to the facility's main building. The hospital is now a 150 bed facility.

Staffed Hospital Beds in Hamilton County 2006

	Staffed Beds
General Medical and Surgical	
Erlanger Medical Center	475
Memorial Healthcare System	322
Parkridge Medical Center	185
Parkridge East Hospital	108
Erlanger North Hospital	33
Memorial North Park Hospital	82
Women's East Pavilion	29
Total staffed general medical and surgical beds	1,234
Staffed beds per 1,000	3.9
Psychiatric/Chemical Dependency	
Moccasin Bend Mental Health Institute	172
Parkridge Valley	104
FHC Cumberland Hall	64
Physical Rehabilitation	
Siskin Hospital for Physical Rehabilitation	80
HealthSouth Chattanooga Rehabilitation Hospital	46
Acute Long-term Care	
Kindred Hospital - Chattanooga	49
Total Staffed Beds – All Hospital Types	1,744
Staffed beds per 1,000	5.6

Source: 2006 TN Joint Annual Report of Hospitals

Payer Source for Hospital Visits

Three-year hospital utilization data reflect the 2005 changes to the TennCare program. Data from the Tennessee Joint Annual Report of Hospitals indicate that while overall inpatient admissions to Hamilton County hospitals declined 3.2% between 2004 and 2006, uninsured admissions nearly doubled. At the same time, TennCare patient volume decreased 21.2%.

Among Hamilton County emergency departments, overall patient volume increased by 3.6% and TennCare/Medicaid patient volume decreased by 12.6%, but the number of uninsured visits increased by 47%.

²⁸ Charity care here is defined as total charity plus medically indigent.

Hospital Utilization by Payer: Hamilton County Hospitals

INPATIENT ADMISSIONS	2004	2005	2006	2004-2006 %Change
Private Coverage	21,709	20,372	21,337	- 1.7%
TennCare/Medicaid	17,027	15,338	13,413	- 21.2%
Medicare	32,298	31,964	32,330	+ 0.1%
Uninsured	1,944	2,074	3,855	+ 98.3%
All Other	2,033	2,528	1,693	- 16.7%
Total	75,011	72,276	72,628	-3.2%

EMERGENCY DEPARTMENT VISITS	2004	2005	2006	2004-2006 %Change
Private Coverage	70,534	71,571	72,308	+ 2.5%
TennCare/Medicaid	60,807	60,395	53,168	- 12.6%
Medicare	44,512	47,199	45,560	+ 2.4%
Uninsured	24,797	27,179	36,446	+ 47.0%
All Other	11,063	13,053	11,900	+ 7.6%
Total	211,713	219,397	219,382	+ 3.6%

Sources: Joint Annual Report of Hospitals, TN Department of Health 2004,2005,2006

Hamilton County hospitals have absorbed the costs of providing care to the increased numbers of uninsured patients. The value of charity care provided by local hospitals nearly doubled, from \$33.9 million in 2004 to \$66.5 million in 2006. As a percentage of gross patient charges, charity care increased from 1.4% to 2.3%.²⁸

Hospital Utilization by Payer: Hamilton County Hospitals

	2004	2005	2006	2004-2006 % Change
Total Hospital Charges	\$2,505,654,210	\$2,716,151,116	\$2,923,127,702	+ 16.7%
Total Charity	\$23,065,240	\$45,888,970	\$50,384,087	+ 118.4%
Total Medically Indigent	\$10,897,725	\$10,258,514	\$16,141,344	+ 48.1%
Total Charity + Medically Indigent	\$33,962,965	\$56,147,484	\$66,525,431	+ 95.9%
Charity Care as a % of Total Charges	1.4%	2.1%	2.3%	--

Sources: Joint Annual Report of Hospitals, TN Department of Health 2004,2005,2006

COMPARING HAMILTON COUNTY TO BENCHMARK COUNTIES

Comparable health data addressing mortality, communicable disease and hospital facilities were obtained for the thirteen other benchmark jurisdictions at the county level.

Mortality Rates

Most departments of health in states with benchmark counties do not provide age-adjusted mortality rates. Therefore, mortality data for benchmark counties are reported using crude death rates and have not been adjusted for differences in age composition.

Among benchmark counties, Hamilton County had the highest overall mortality rate, with 989.7 deaths for every 100,000 residents in 2006, 26.4% higher than the 14-county average. By cause of death, Hamilton County mortality rates were higher than the fourteen county average for all of the leading causes of death and exceeded all other counties for deaths from heart disease, cancer, and Alzheimer's disease. Washtenaw County, Michigan reported the lowest mortality rates overall as well as for each of the five leading causes of death.

- Deaths from heart disease, at 260.5 per 100,000, were 40% higher than the benchmark average and highest of the benchmark counties.
- Deaths from cancer, at 228.8 per 100,000, were 25.6% higher than the benchmark average and highest of the benchmark counties.
- Deaths from stroke, at 62 per 100,000, was 28.9% higher than the benchmark average and second highest of the benchmark counties.
- Deaths from chronic lower respiratory disease, at 57.2 per 100,000, were 34.9% higher than the benchmark average and third highest of the benchmark counties.
- Deaths from Alzheimer's disease, at 59.1 per 100,000, were 113% higher than the benchmark average and highest of the benchmark counties.

Mortality Rates Benchmark Jurisdictions (Not Age-Adjusted)

	Total Deaths per 100,000	Heart Disease Deaths per 100,000	Cancer Deaths per 100,000	Stroke Deaths per 100,000	Alzheimer Deaths per 100,000	CLRD Deaths per 100,000
Average	783.0	186.0	182.2	48.1	27.7	42.4
Hamilton TN	(1) 989.7	(1) 260.5	(1) 228.8	(2) 62.0	(1) 59.1	(3) 57.2
Lehigh PA	927.4	233.7	222.3	48.0	34.0	40.2
Lane OR*	911.8	185.4	224.5	(1) 70.6	34.7	60.4
Winnebago IL*	890.5	235.2	217.0	54.5	na	44.9
Forsyth NC	849.7	166.7	202.5	59.6	24.4	51.2
Marion OR*	788.6	165.2	179.6	60.0	29.1	43.8
Madison AL	772.2	183.0	167.6	41.7	25.0	38.1
Richland SC*	771.1	185.2	169.1	44.8	28.4	30.1
Washoe NV*	765.8	200.4	171.1	37.7	13.9	(1) 67.0
Allen IN	751.5	184.8	173.0	43.8	29.4	39.7
Cumberland NC	700.2	158.2	158.8	37.5	13.0	33.1
Ingham MI	684.4	183.8	162.2	40.1	27.4	28.4
Ada ID	619.4	134.5	138.7	42.3	29.2	37.6
Washtenaw MI	(14) 540.0	(14) 127.6	(14) 136.0	(14) 30.8	(13) 12.5	(14) 22.4

Sources: State departments of health

*2005 statistics. All other data represent 2006 statistics

* Numbers in parenthesis denote rank of County around 14 Benchmark Counties

The five leading causes of death in Hamilton County accounted for two-thirds of all deaths, with two causes, heart disease and cancer accounting for half of all deaths. Heart disease and cancer account for between 43% and 51% of all deaths in the benchmark counties.

Leading Causes of Death as a Percentage of All Deaths

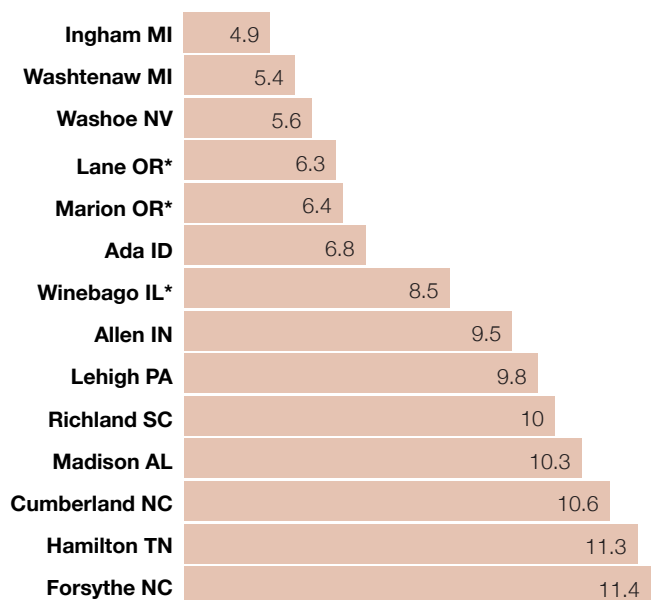
	Total Deaths	% Heart Disease	% Cancer	% Stroke	% Alzheimer	% CLRD
Hamilton TN	3,097	26.3%	23.1%	6.3%	6.0%	5.7%
Lehigh PA	3,112	25.2%	24.0%	5.2%	3.7%	4.3%
Lane OR*	3,050	20.3%	24.6%	7.7%	3.8%	6.6%
Washo NV*	2,985	26.2%	22.3%	4.9%	1.8%	8.7%
Forsyth NC	2,824	19.6%	23.8%	7.0%	2.9%	6.0%
Richland SC*	2,636	24.0%	21.9%	5.8%	3.7%	3.9%
Allen IN	2,610	24.6%	23.0%	5.8%	3.9%	5.3%
Winnebago IL*	2,597	26.4%	24.4%	6.1%	na	5.0%
Marion OR*	2,411	20.9%	22.7%	7.6%	3.7%	5.6%
Madison AL	2,350	23.7%	21.7%	5.4%	3.2%	4.9%
Ada ID	2,224	21.7%	22.4%	6.8%	4.7%	6.1%
Cumberland NC	2,094	22.6%	22.7%	5.3%	1.9%	4.7%
Ingham MI	1,895	26.9%	23.7%	5.9%	4.0%	4.2%
Washtenaw MI	1,858	25.2%	23.6%	5.7%	2.3%	4.1%

*2005 statistics. All other data represent 2006 statistics
Sources: State Departments of Health

Infant Mortality

With 11.3 deaths per 1,000 births in 2006, the Hamilton County infant mortality rate was the second highest of the benchmark counties. Forsythe County North Carolina was only marginally higher at 11.4 deaths per 1,000 births. Infant mortality rates in Hamilton County were more than double the rates in Ingham County, Michigan (4.9 per 1,000 births), Washtenaw County Michigan (5.4 per 1,000 births), and Washoe County, Nevada (5.6).

Infant Deaths per 1,000 Births



Source: State Departments of Health *2005 Statistics. All other data represent 2006 statistics

Communicable Diseases

Compared to the fourteen-county averages for 2006, Hamilton County reported higher incidences of new diagnoses for chlamydia, gonorrhea, HIV and AIDS. In terms of new diagnoses, Hamilton County ranked fifth for chlamydia, eighth for gonorrhea, sixth for HIV, and eighth for AIDS. Richland County, South Carolina reported the highest incidences of gonorrhea, HIV, and AIDS diagnoses, while Cumberland County, North Carolina reported the highest incidence of chlamydia diagnoses. Ada County, Idaho and both Lane and Marion Counties in Oregon reported among the lowest incidences for diagnoses of all these diseases.

2006 Communicable Diseases Benchmark Jurisdictions

	Chlamydia Diagnoses per 100,000	Gonorrhea Diagnoses per 100,000	HIV Diagnosis per 100,000	AIDS Diagnosis per 100,000
14 County Average	455.1	171.3	12.7	9.1
Cumberland NC	(1) 859.7	294.9	19.4	18.7
Richland SC	815.6	(1) 382.8	(1) 41.6	(1) 39.1
Ingham MI	647.9	225	6.9	5.1
Forsyth NC	554.8	239.5	19	8.4
Hamilton TN	(4) 503.3	(7) 210	(9) 12.8	(11) 12.1
Winnebago IL	495.5	267.6	6.08	4.05
Allen IN	332.6	214.3	10.2	5.3
Madison AL	322.6	214.3	10.2	5.3
Washoe NV	322.6	59.8	6.8	5.5
Washtenaw MI	318.6	93.6	8.1	4.1
Lehigh PA	313.5	84.0	17.0	14.9
Ada ID	303.6	(14) 27.0	15.3	(14) 0.0
Lane OR	295.4	38.8	(14) 1.8	2.7
Marion OR	(14) 286.2	46.6	2.6	2.2

Sources: State Departments of Health

Health Care Providers and Facilities

As a proportion of its population, Hamilton County has more primary care physicians, dentists and hospital beds than 14-county benchmark averages. Hamilton County ranked second for number of primary care physicians per 100,000 residents, first for number of dentists per 100,000 residents and fourth for number of hospital beds per 1,000 residents.

Availability of Professional Healthcare in Benchmark Counties

	Primary Care Physicians per 100,000	Dentists per 100,000	Staffed Hospital Beds per 1,000
14 County Average	98.6	49.9	3.2
Forsyth NC	(1) 148.8	45.1	(1) 5.4
Hamilton TN	(2) 129.0	(1) 59.2	(4) 3.9
Richland SC	127.0	56.8	3.9
Ingham MI	105.9	58.9	3.2
Lehigh PA	100.8	49.9	4.4
Winnebago IL	98.4	54.7	2.8
Ada ID	98.3	48.2	2.6
Madison AL	95.2	46.6	2.8
Lane OR	91.9	51.3	(14) 1.5
Washoe NV	87.7	(14) 42.8	2.5
Cumberland NC	83.4	45.0	1.9
Allen IN	71.5	44.5	3.8
Washtenaw MI	71.5	44.5	4.6
Marion OR	(14) 71.1	50.8	1.7

Source: Community Health Status Report, Department of Health and Human Services, 2008. 2006 American Hospital Guide to the Health Care field. Hospital beds include general medical and surgical hospitals only. All data for 2005.

HEALTH IN SUBREGIONS OF HAMILTON COUNTY

In order to provide subregion level geographic data, health statistics were organized into the nine Hamilton County regions used for the Ochs Center survey of 1,000 Hamilton County residents.²⁹ This section includes subregion level data from the survey as well as health statistics from the Tennessee Department of Health. Readers should be cautious when evaluating subregional differences for survey data due to relatively large margins of error within subregions.

There were significant geographic differences in the health indicators by subregion.

The Brainerd/East Ridge, East Chattanooga and Downtown/South Chattanooga subregions generally had the worst health outcomes overall, scoring above the county average for most health indicators.

- Mortality rates, expressed as the numbers of deaths per 100,000 residents, were highest in Downtown/South Chattanooga (1267.4) Brainerd/East Ridge (1076.9), and Red Bank/North Chattanooga (1010.6).³⁰
- Nearly 30% of Downtown/South Chattanooga residents indicated they were in fair or poor health, while 22% of East Chattanooga and 18% of Brainerd/East Ridge residents reported fair or poor health.
- The highest concentrations of uninsured adults were in the Downtown/South Chattanooga (32%), Brainerd/East Ridge (29%), North Hamilton (23%) and East Chattanooga (20%) subregions.
- The Brainerd/East Ridge subregion had the highest smoking rates (36%), while East Hamilton had the lowest rates (17%). Smoking rates in the other seven regions ranged from 23% to 30%.
- Over one fourth of residents in the East Chattanooga, Downtown/South Chattanooga, Red Bank/North Chattanooga subregions were obese, according to self-reported weight and height.

²⁹ County subregions are based on zip code and are detailed at the end of this report.

³⁰ Although subregion populations are significantly lower than 100,000, subpopulation rates are expressed at this level to stay consistent with the rest of this report.

Hamilton County Subregion Health Indicators

County Subregion	2006 Mortality Rate per 100,000 residents	% Fair/Poor Health	% Uninsured	% Smoke	% Obese
Countywide	985.0	16%	18%	25%	21%
Brainerd/East Ridge	1076.9	18%	29%	36%	18%
East Chattanooga	971.5	22%	20%	30%	30%
Downtown/S. Chattanooga	1267.4	29%	32%	28%	29%
Hixson	814.5	13%	10%	28%	19%
East Brainerd	989.5	9%	10%	21%	11%
North Hamilton	781.1	16%	23%	28%	23%
East Hamilton	776.6	12%	16%	17%	15%
Red Bank/North Chattanooga	1010.6	12%	16%	25%	27%
Signal/Lookout Mountain/Lookout Valley	964.5	13%	6%	23%	22%

* A respondent is categorized as uninsured if they lacked health insurance coverage at any point in the prior year
Sources: 2008 Ochs Center survey of 1,000 Hamilton County residents and TN Department of Health

Communicable disease data suggest high levels of risky sexual behavior among subresidents of the Downtown/South Chattanooga, East Chattanooga, and Brainerd/East Ridge subregions. These three regions had the highest rates for Chlamydia and gonorrhea infection, and for people living with HIV or AIDS. Combined, these three subregions account for 72.1% of chlamydia diagnoses, 82.4% of gonorrhea diagnoses and 62.6% of people living with HIV or AIDS in Hamilton County.

Communicable Diseases by Hamilton County Subregions

	Rates per 100,000 Residents			As a Percentage of All Cases		
	2007 Chlamydia Infections	2007 Gonorrhea Infections	2007 Living with HIV/AIDS	% 2007 Chlamydia Diagnoses	% 2007 Gonorrhea Diagnoses	% 2007 Living with HIV/AIDS
Countywide	610.5	253.8	307.6	100.0%	100.0%	100.0%
Brainerd/East Ridge	821.3	341.6	743.1	17.1%	17.1%	18.3%
Downtown/S. Chattanooga	1628.7	786.4	118.3	34.9%	40.5%	30.2%
East Brainerd	421.3	127.4	85.0	9.3%	6.8%	9.4%
East Chattanooga	1268.0	647.7	461.5	20.2%	25.0%	14.1%
East Hamilton	181.1	26.2	374.2	4.1%	1.4%	3.2%
Hixson	225.8	64.5	113.7	4.6%	3.1%	4.6%
North Hamilton	137.0	29.2	463.6	2.6%	1.3%	4.0%
Red Bank/N. Chattanooga	305.9	101.1	222.9	6.1%	4.8%	14.2%
Signal/Lookout Mountain/Lookout Valley	93.9	0.0	73.8	1.1%	0.0%	2.0%

Source: TN Department of Health

Health Index

A Health Index score was computed for each subregion, with higher scores indicating better overall performance. Subregions were ranked from worst performing (1) to best performing (9) on eight indicators. The Health Index Score represents a subregions' sum of rankings for the eight indicators, with a possible Health Index Score ranging from 8 (worst ranking on all indicators) to 72 (best ranking on all indicators).

Based on Health Index scores, Downtown/South Chattanooga (16), East Chattanooga (21) and Brainerd/East Ridge (22) were the three lowest scoring subregions overall. Subregions with mid-range Health Index scores included Red Bank/North Chattanooga (37), North Hamilton (39), Hixson (46) and East Brainerd (49). The East Hamilton (55) and Signal/Lookout Mountain/Lookout Valley (56) subregions had the highest Health Index scores.

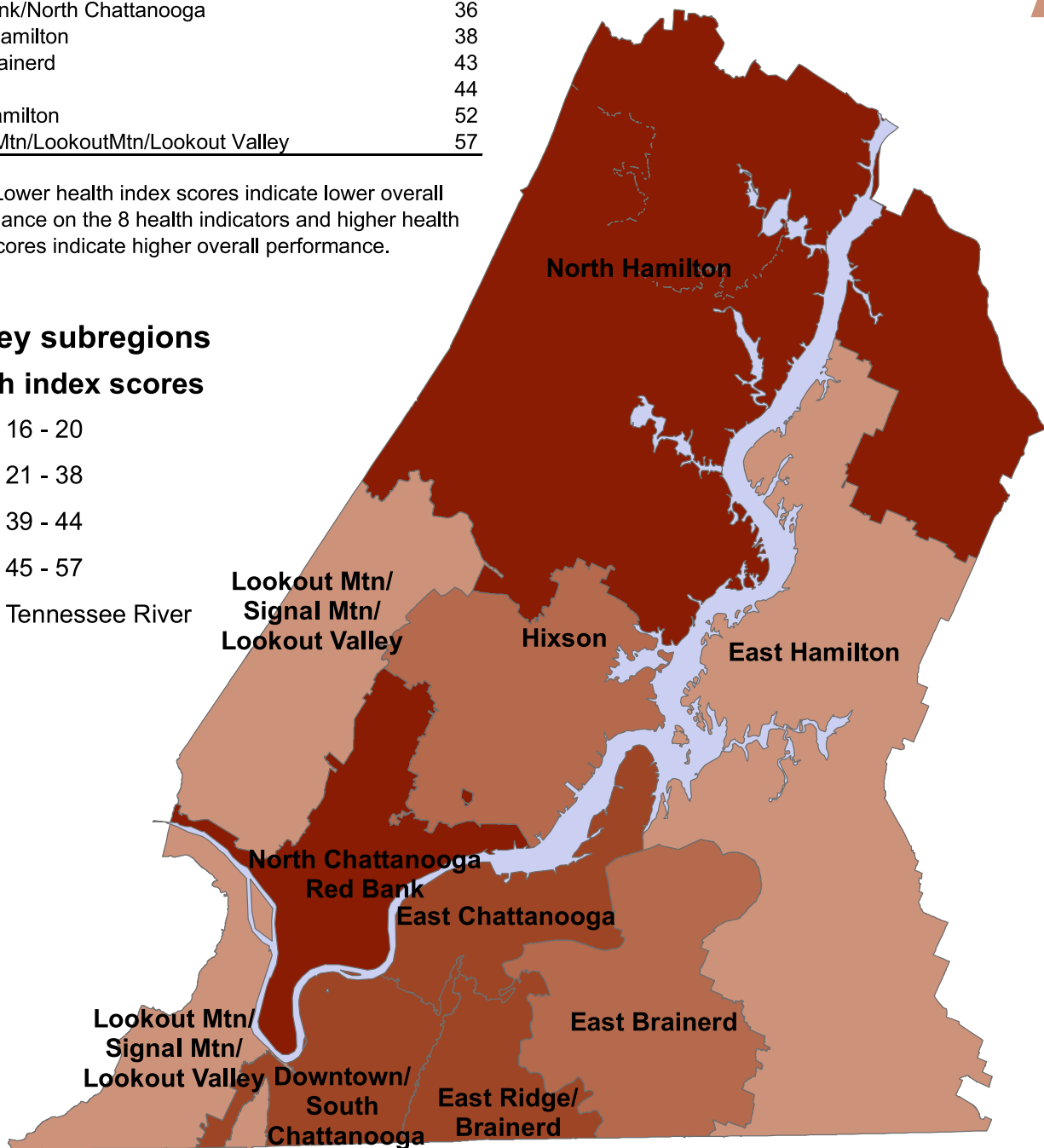
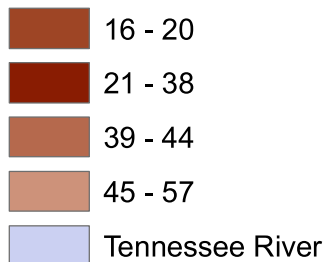
Health Index by Hamilton County Subregion

Survey subregion	Health index*
Downtown/South Chattanooga	16
East Chattanooga	19
Brainerd/East Ridge	20
Red Bank/North Chattanooga	36
North Hamilton	38
East Brainerd	43
Hixson	44
East Hamilton	52
Signal Mtn/LookoutMtn/Lookout Valley	57

*Note: Lower health index scores indicate lower overall performance on the 8 health indicators and higher health index scores indicate higher overall performance.

Survey subregions

Health index scores



A health index score was computed for each subregion, with higher scores indicating better overall performance. Subregions were ranked from worst performing (1) to best performing (9) on eight indicators. The Health Index Score represents a subregions' sum of rankings for the eight indicators, with a possible Health Index Score ranging from 8 (worst ranking on all indicators) to 72 (best ranking on all indicators).

Health index indicators include

1. %Fair/poor health (Ochs Center Survey 2008)	5. Chlamydia infection rate per 100,000 (2007)
2. %No continuous health insurance (Ochs Center Survey 2008)	6. Gonorrhea infection rate per 100,000 (2007)
3. %Current smoker (Ochs Center Survey 2008)	7. Living with HIV/AIDS rate per 100,000 (2007)
4. %Obese (Ochs Center Survey 2008)	8. Mortality rate per 100,000 (2006)

Description of County Subregions Used for this Report

County Subregion	Zip Code	Post Office Area
North Hamilton	37338	Graysville
	37373	Sale Creek
	37379	Soddy Daisy
	37308	Birchwood
	37336	Georgetown
Hixson	37343	Hixson
North Chattanooga/Red Bank	37415	Red Bank
	37405	North Chattanooga
	37351	Lupton City
Lookout Mountain/Signal Mountain / Lookout Valley	37377	Signal Mountain
	37419	Tiftonia
	37350	Lookout Mountain
Downtown/South Chattanooga	37409	St. Elmo
	37402	Downtown
	37403	Erlanger-UTC
	37408	South Broad
	37410	Alton Park
	37407	East Lake
	37404	Highland Park
	37412	East Ridge
East Ridge/Brainerd	37411	Brainerd
	37406	East Chattanooga
East Chattanooga	37416	Highway 58
	37421	East Brainerd
East Brainerd	37363	Ooltewah
	37341	Harrison
	37302	Apison
	37353	McDonald

The OCHS Center for Metropolitan Studies

P.O. BOX 4029

CHATTANOOGA TN 37405

www.ochscenter.org

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