

Gaston County Community Assessment December 2008

**Prepared by:
The Gaston County Health Department
in collaboration with the
Gaston Community Health Care Commission**

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Section One: Introduction

In 2008, the Gaston County Health Department conducted a Community Health Assessment with the Gaston Community Healthcare Commission, Gaston County's Healthy Carolinians Taskforce. This assessment is part of the Healthy Carolinians recertification process and is conducted under the guidance of the Office of Healthy Carolinians/Health Education and the State Center for Health Statistics of the North Carolina Department of Health and Human Services. This document presents the assessment process, results, and Gaston County's leading health priorities.

In 2004, the Gaston Community Healthcare Commission convened a group of community agencies to conduct a Quality of Life Survey. In 2008 the Healthcare Commission re-convened this Quality of Life Survey Workgroup, composed of representatives from the Gaston Community Healthcare Commission, Gaston Together/Gaston 2012, The Gaston Regional Chamber, the Gaston County Cooperative Extension, the Gaston County Schools, the Gaston County Health Department, Pathways (mental health, developmental disabilities, and substance abuse authority), and the United Way of Gaston County.

The Workgroup developed the Quality of Life Survey, from which this Community Assessment was derived. Its goals were to develop a survey that would be comprehensive in scope, limited to essential questions, and easy to complete. To this end, it started by using questions and data collection methods from the 2004 Quality of Life Survey. Through several meetings and a review of changes proposed by health and human services agencies, the Workgroup:

- Eliminated several questions from the 2004 survey. For example, the group dropped questions on planning residential growth, enforcing land use ordinances, and soda and snack foods in schools because residential growth is extensively planned, land use ordinances are widely enforced, and the sale of soda and snack foods is now restricted in county schools.
- Re-worded questions from the 2004 survey to clarify their meaning and make them easier to understand. For example, *help small business initiatives* was changed to *encourage small business development*, and *conserve natural resources* was expanded to three questions: (1) *protect open space*, (2) *protect water quality*, and (3) *protect air quality*.
- Added questions to probe emerging community concerns, for example: *our community needs to do more to: make locally grown fruits and vegetables more available*; and *our community needs to do more to: encourage residents to work on county issues*.

The final product was the seven-page *Gaston County Quality of Life Survey, 2008* which asked questions on community development needs, youth issues, and community health issues, and respondent demographics (see Appendix). The majority of questions from the 2004 and 2008 survey are the same, which enabled us to compare data. The survey was converted into a scannable form by Gaston College, which scanned all paper surveys.

The Gaston County Health Department (GCHD) collaborated with the workgroup to conduct the survey with: (1) community leaders, (2) community residents, (3) high school juniors, and (4)

persons with poor health status and low income; the first three groups were surveyed in 2004 and the fourth is a new group. It also adopted new methodologies for collecting data using Survey Monkey and handheld computers for a door-to-door survey.

Community Leaders were surveyed using SurveyMonkey.com, which enabled: (1) staff to compose and distribute surveys via email; (2) respondents to complete surveys on their personal computers and submit their responses by email; and, (3) staff to use Survey Monkey to tabulate the results online. The Gaston Chamber provided Survey Monkey at no charge and sent the survey to 890 Chamber members and participants in Gaston Together programs; United Way agencies emailed the survey to some 40 persons on their Boards of Directors. Of 930 total recipients, 268 community leaders completed surveys for a response rate of 28.8%.

Community Residents were mailed paper surveys. GCHD mailed 3,999 surveys, seeking a response rate of 15%, which would yield a confidence interval of $\pm 4\%$ at the 95% confidence level. The Gaston County Tax Department used these parameters to generate mailing labels by randomly selecting homeowner addresses in each Gaston County municipality and in the county's unincorporated areas (see Table 1). Surveys were mailed, with cover letters signed by the mayors of each of Gaston County's 12 municipalities, along with Self-Addressed Stamped Envelopes; returned surveys were scanned by Gaston College. A total of 663 surveys were completed for a response rate of 16.6%, giving a final confidence interval of $\pm 3.8\%$.

Table 1

Size of Survey Sample by Municipality, Gaston County, 2007			
Place	Population	Percent of Population	Surveys Sent
Belmont	8990	4.5	180
Bessemer City	5386	2.7	108
Cherryville	5533	2.8	111
Cramerton	3046	1.5	61
Dallas	3434	1.7	69
Dellview	4	0.0	0
Gastonia	69904	35.1	1,402
High Shoals	762	0.4	15
Kings Mountain	1045	0.5	21
Lowell	2705	1.4	54
McAdenville	641	0.3	13
Mt. Holly	9804	4.9	196
Ranlo	2222	1.1	45
Spencer Mountain	63	0.0	1
Stanley	3133	1.6	63
Municipal Subtotal	116,672	58.5	2340
Unincorporated Areas	82,725	41.5	1660
Total	199,397	100.0	3999

High School Juniors completed given paper surveys to complete in school. Five hundred and seventy-one surveys were completed and returned, which were scanned by Gaston College.

Persons with Poor Health Status and Low Income were surveyed using a Rapid Needs Assessment (RNA). Through this process, GCHD staff administered the survey on handheld computers in neighborhoods known to have residents with poor health status and low income.

GCHD identified these neighborhoods with CATCH (Comprehensive Assessment for Tracking Community Health) – a new state system that provides birth, death, and hospital discharge data by census tract. GCHD used CATCH to identify the 11 census tracts with the highest death rates from the following preventable diseases: (1) acute cerebrovascular disease, (2) acute myocardial infarction, (3) cancer of bronchus and lung, (4) cancer of colon, (5) chronic obstructive pulmonary disease, (6) coronary atherosclerosis, (7) diabetes mellitus with complications, (8) diabetes mellitus without complication, (9) hypertension with complications, and (10) melanoma of the skin. Within these census tracts, it used census data (2000) to select the ten block groups with the greatest percentage of residents living below the poverty level.

Ten, two-person teams of GCHD staff administered the survey in these neighborhoods (Figure 1). They used handheld computers to: (1) display maps showing randomly selected houses where they were assigned to administer the survey; (2) collect respondent's answers to the Quality of Life Survey; and, (3) download data to laptop computers for tabulation. The Guilford County Health Department provided the handheld computers and trained GCHD staff to use them. GCHD staff administered 178 of 210 targeted surveys; they were unable to reach their goal because many individuals were not home or chose not to participate in the survey.

The combination of CATCH and RNA enabled GCHD to: (1) survey individuals who are most likely to need health services; (2) identify neighborhoods whose residents have low income and poor health; (3) administer the survey to a statistically valid sample of individuals in each neighborhood; (4) administer the survey directly to persons who often have limited literacy skills; and, (5) quickly gather and process survey findings. At the same time, surveyors reported several target neighborhoods had housing developments with higher-value homes than we anticipated, reflecting new construction since the 2000 Census.

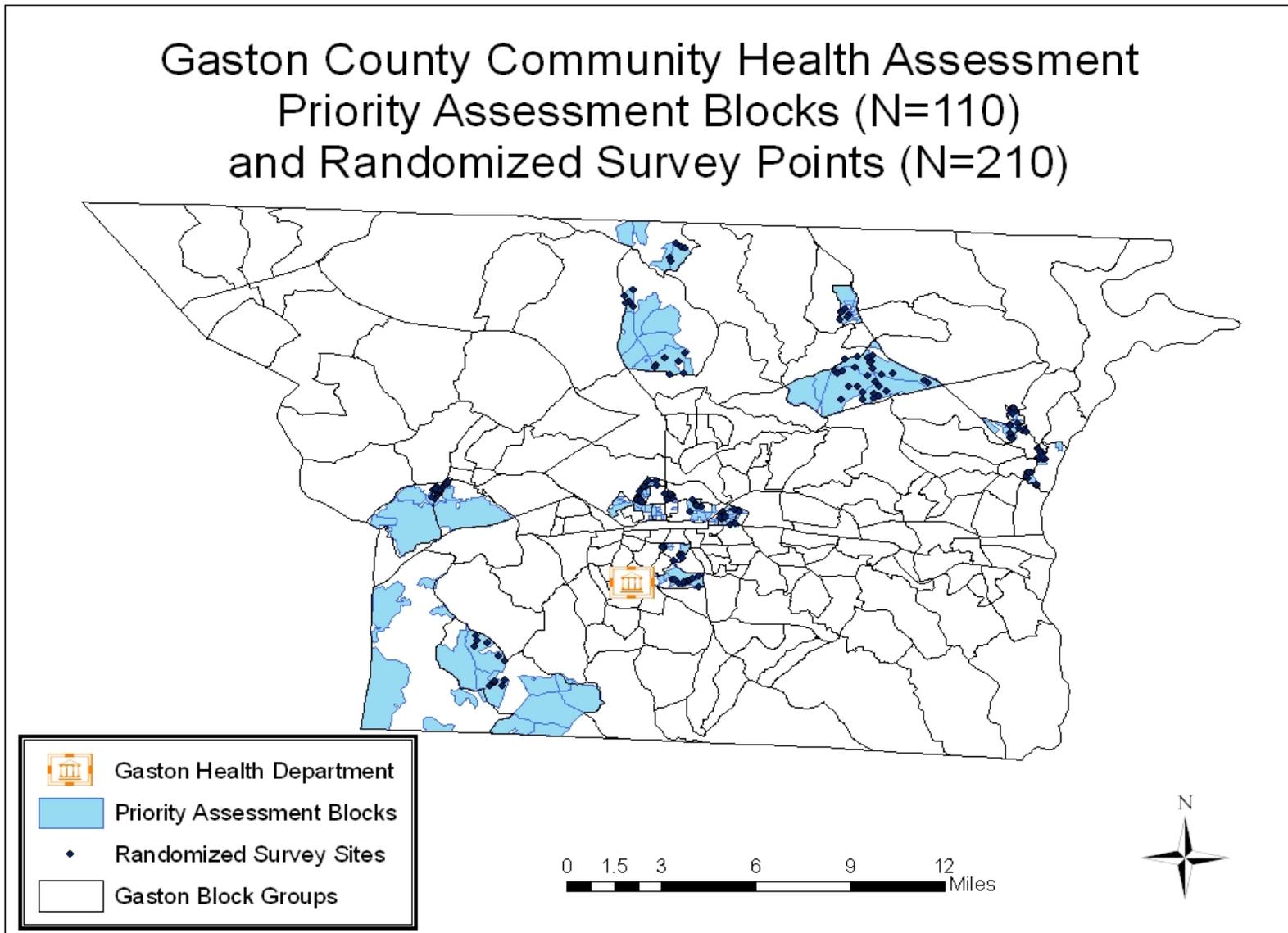
Summary

GCHD secured a grant from the Carrie E. and Lena V. Glenn Foundation to support the survey, conducted each survey, retained a consultant to tabulate and analyze the data, and coordinated activities with the Gaston Chamber and Gaston College.

As of November 29, 2008, 1,678 surveys have been returned, tabulated, and analyzed: 178 from residents in and low income communities with poor health status, 266 from community leaders, 663 from the community-at-large, and 571 from high school juniors. The survey results and data from the NC State Center for Health Statistics were presented to the Executive Committee of the Gaston Community Healthcare Commission, which selected four priorities.

The Gaston Community Healthcare Commission will conduct focus groups with community members, community leaders, and high school juniors to secure their recommendations for strategies to address these priority issues. The Recertification Committee of the Gaston Community Healthcare Commission will also use this information to develop its Community Health Action Plan.

Figure 1



Section Two: A Picture of Gaston County

Gaston County, located in the south-central Piedmont of North Carolina (Figure 2), neighbors Mecklenburg County (Charlotte) to the east, Lincoln County to the north, and Cleveland County to the west. In the mid- to-late 1800s, textiles became Gaston County's dominant industry, with many families living and working in mill villages. Over the past three decades, however, tens of thousands of textile workers have lost jobs to automation, and mills that have closed and relocated outside the U.S. Today, many of these individuals are unemployed and face a bleak employment outlook because of their limited job skills and literacy.

Figure 2 Gaston County, North Carolina



Figure 3 shows the location of the 15 municipalities in Gaston County. In 2007, approximately 59% of the population lived in the county's 14 municipalities (excluding Dellview) and 41.3% in unincorporated areas, or areas outside those municipalities (Table 2). Between the 2000 and 2007, the US Census show modest growth in the three largest municipalities: 7.2% in the City of Gastonia, 5.9% in the City of Belmont, and 3.4% in the City of Mount Holly; at the same time, the population of the county's unincorporated grew by 2.0%.

Figure 3 Municipalities in Gaston County

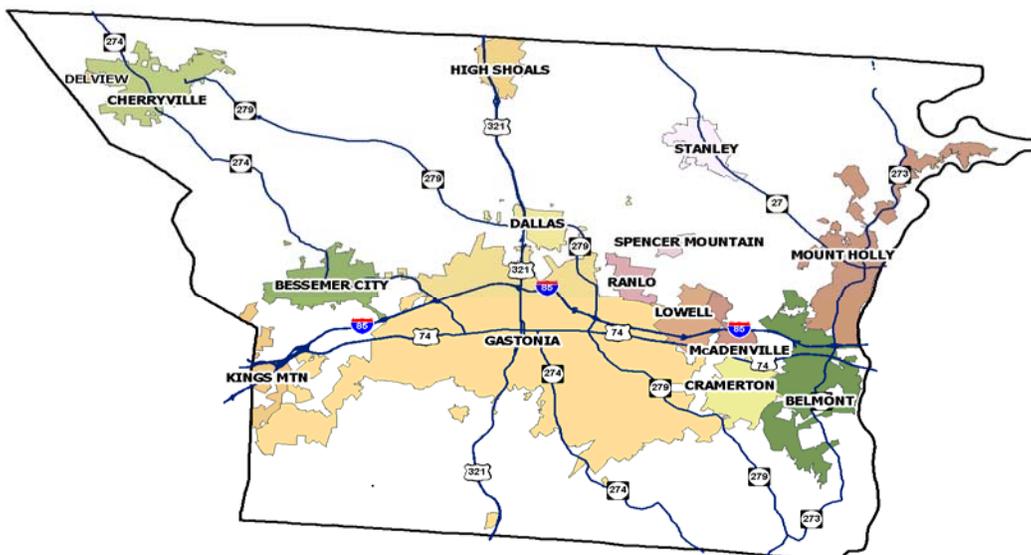


Table 2

Population Estimates by Gaston County Municipalities and North Carolina, 2000 and 2007			
Geographic Area	Census 2000	Population Estimate July 1, 2007	Percent Growth
North Carolina	8,049,313	9,061,032	12.6
Gaston County	190,365	202,535	6.4
City of Belmont	8,705	9,218	5.9
City of Bessemer City	5,119	5,508	7.6
City of Cherryville	5,361	5,538	3.3
Town of Cramerton	2,976	3,096	4.0
Town of Dallas	3,402	3,727	9.6
City of Gastonia	66,277	71,059	7.2
Town of High Shoals	729	786	7.8
City of Kings Mountain (Gaston County)	590	978	65.8
City of Lowell	2,662	2,737	2.8
Town of McAdenville	619	656	6.0
City of Mount Holly	9,618	9,947	3.4
Town of Ranlo	2,198	2,304	4.8
Town of Spencer Mountain	51	65	27.5
Town of Stanley	3,053	3,289	7.7
Unincorporated Areas	81,981	83,627	2.0

Source: US Census Bureau, 2007 Population Estimates, Table GCT-T1.

*Percent growth of population between Census 2000 and the estimated population on July 1, 2007.

The most recent population estimates (2007) show Gaston County has a population of 202,535, making it the eighth most populous of North Carolina's 100 counties. The County population is 48.1% male, 51.9% female; and 26.6% of its residents are ages birth to 19, 34.3% are ages 20-44, 26.2% are ages 45-64, and 12.8% are over age 65 (Table 3).

Table 3

Population by Age and Gender, Gaston County, 2007				
Age Range	Males	Females	Total	
			Number	Percent
0-19	27,941	26,016	53,957	26.6%
20-44	33,396	36,137	69,533	34.3%
45-64	25,683	27,442	53,125	26.2%
65+	10,420	15,500	25,920	12.8%
Total	97,440 (48.1%)	105,095 (51.9%)	202,535	100.0%

Source: US Census Bureau, 2007 Population Estimates, Table B01001

The percentage of Gaston County residents, by age and gender, is similar to those for North Carolina (Table 4), as is the median age, which is 37.4 for Gaston and 36.8 for the state.

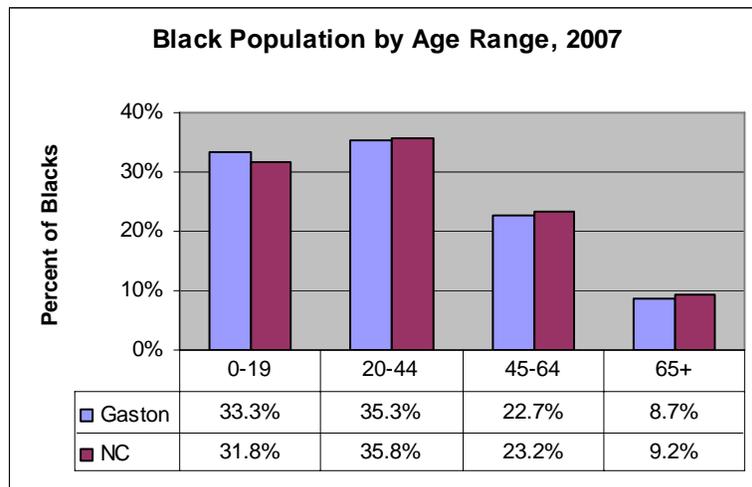
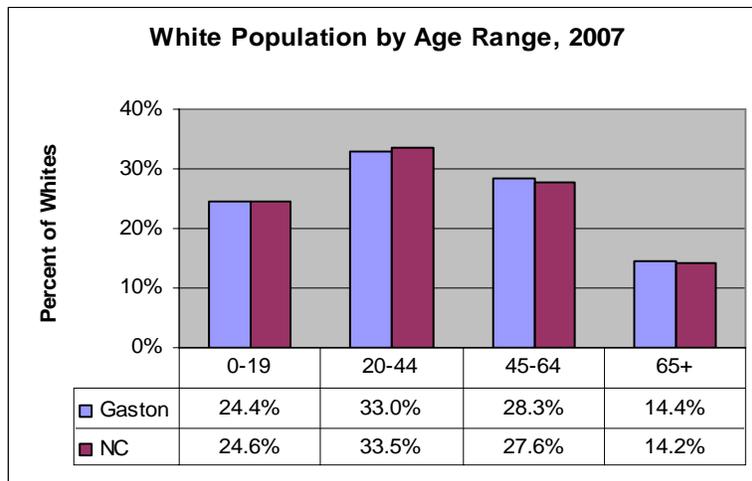
Table 4

Population by Age and Gender, North Carolina, 2007				
Age Range	Males	Females	Total	
			Number	Percent
0-19	1,271,440	1,211,299	2,482,739	27.4%
20-44	1,588,589	1,575,834	3,164,423	34.9%
45-64	1,109,472	1,201,362	2,310,834	25.5%
65+	455,902	647,134	1,103,036	12.2%
Total	4425403 (48.8%)	4635629 (51.2%)	9,061,032	100.0%

Source: US Census Bureau, 2007 Population Estimates, Table B01001

2006 Census estimates also show 80.6% of county residents are white and of the 19.4% that are minorities, 14.8% are Black or African American and 5.2% are Latinos. Between 2000 and 2006, they show the county’s Latino population increased 80.2%, from 5,719 to 10,306, growing from 3.0% to 5.2% of the population. While the majority of whites in Gaston County are between the ages of 20-44, minorities tend to be younger (Figures 4 and 5), with 68.6% of minorities in Gaston County under age 44 compared to 58.4% of whites.

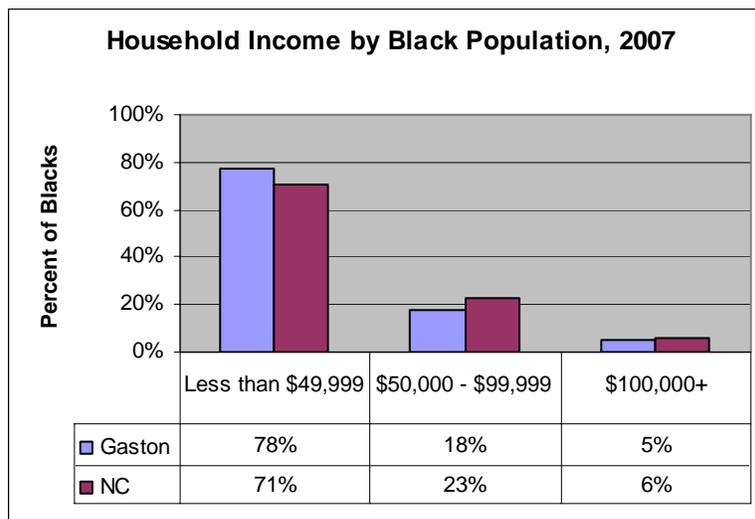
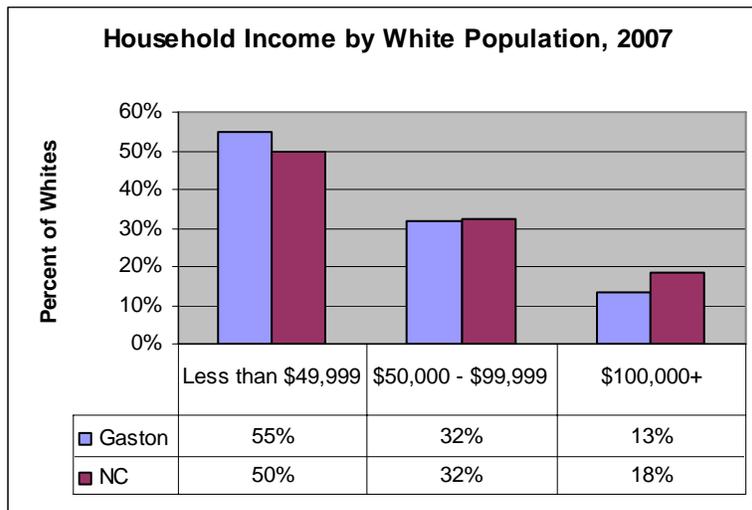
Figures 4 and 5



In 2007, the county's median household income of \$41,259 was lower than \$44,670 for the state (Census, 2007). Estimates of Gaston County families below the poverty level are: 12.2% of all families; 19.1% of all families with related children under age 18; and, 44.4% of all families with mothers, but no husbands present, with related children under age 18 (Census 2007). In October 2008, Gaston County had an unemployment rate of 5.00, in contrast to the statewide rate of 3.00.

As described in Figures 6 and 7, a larger percentage of Blacks in Gaston County (77.6%) have incomes below \$49,000 than Whites (55.0%), and a smaller percentage of both groups have incomes over \$100,000 than do their counterparts in North Carolina (Census, 2007).

Figures 6 and 7



In 2007, Gaston County lagged North Carolina for educational measures: 77.5% of county residents over age 25 were high school graduates or higher, compared with 83.0% for the state; in the same cohort, 16.7% had a bachelor's degree or higher, compared with 25.6% for the state (Table 3). At the same time, 72.3% of students in the Gaston County Schools graduated within four years of entering ninth grade, in comparison to 69.7% for the state (2008). The Gaston

County Schools is the seventh largest school district in the state; in 2008 it had an enrollment of 32,444 students in its 53 schools: 30 elementary schools; one intermediate school; 11 middle schools; nine high schools; one special needs school; and one alternative school.

Gaston County has one four-year college (Belmont Abbey College), a two-year community college (Gaston College), and there are a host of public and private colleges and universities in the Charlotte region.

Table 3

Educational Attainment, Population Over 25, North Carolina and Gaston County, 2006				
Category	Gaston County		North Carolina	
	Number	Percent	Number	Percent
Less than 9th grade	11,121	8.1	365,783	6.1
9th to 12th grade, no diploma	19,921	14.5	647,904	10.9
High school graduate (includes equivalency)	41,695	30.2	1,766,873	29.6
Some college, no degree	29,441	21.4	1,160,685	19.5
Associate's degree	12,679	9.2	491,574	8.2
Bachelor's degree	16,437	11.9	1,015,979	17.0
Graduate or professional degree	6,556	4.8	511,109	8.6
Total Population, 25 and Over	137,850	100.0	5,959,907	102.0
Percent high school graduate or higher	77.5%		83.0%	
Percent bachelor's degree or higher	16.7%		25.6%	

Source: U.S. Census Bureau, 2006 American Community Survey

Among county residents over age 16 (Table 4), the five leading industries of employment are: (1) educational services, health care, and social assistance; (2) manufacturing; (3) retail trade; (4) construction; and, (5) transportation and warehousing and utilities. This ranking reflects a significant shift from the days when textile manufacturing was the leading industry. The Gaston County Economic Development Commission states Gaston permanently lost more than 17,000 jobs in the past decade – mostly textile related – more than any other county in the state.

Table 4
Industry of Employment, Civilians over age 16, Gaston County, 2007

Industry	Number	Percent
Employed civilians age 16 and older	93,047	100.0
Educational services, health care, and social assistance	18,669	20.1
Manufacturing	18,129	19.5
Retail trade	10,500	11.3
Construction	7,626	8.2
Transportation and warehousing, and utilities	6,510	7.0
Professional, scientific, and management, and administrative and waste management services	6,555	7.0
Finance and insurance, and real estate and rental and leasing	5,782	6.2
Arts, entertainment, and recreation, and accommodation, and food services	5,808	6.2
Other services, except public administration	5,099	5.5
Wholesale trade	4,075	4.4
Public administration	2,541	2.7
Information	1,657	1.8

Source: U.S. Census Bureau, 2007 American Community Survey

Section Three: Health Data from the State Center for Health Statistics

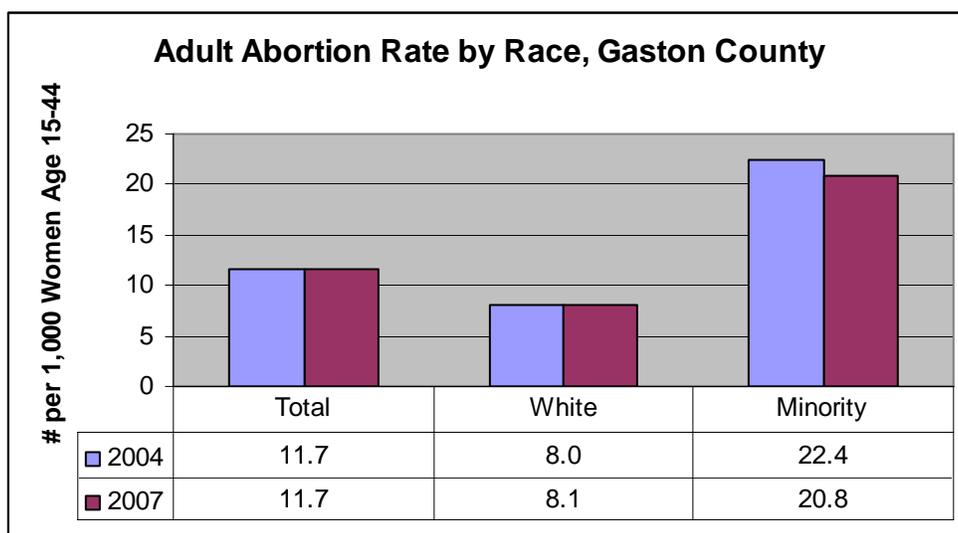
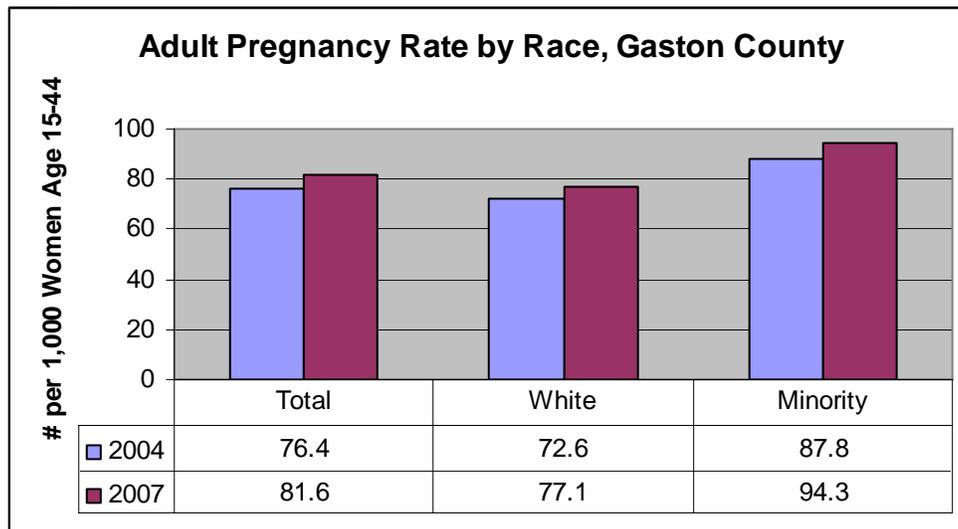
The following key health indicators are from the NC State Center for Health Statistics (<http://www.schs.state.nc.us>).

Pregnancies/Live Birth Data

From 2003-2007, Gaston County residents had 13,262 live births and a live birth rate of 13.6 per 1,000 population. The live birth rate in North Carolina during this period was 14.2.

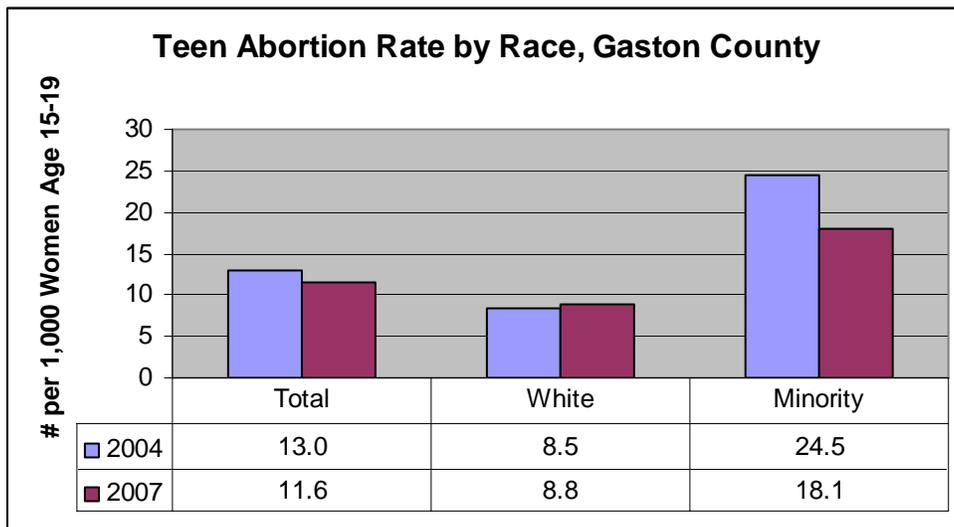
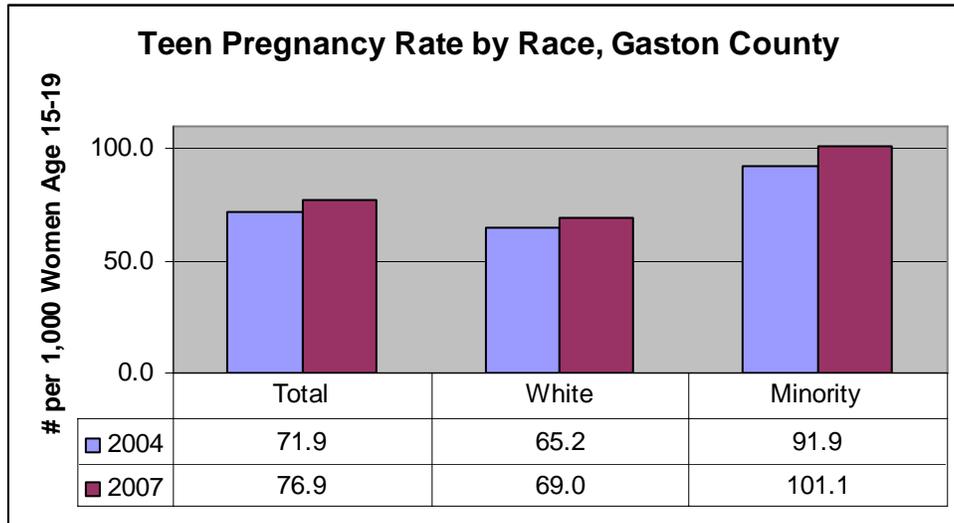
In 2007, women in Gaston County, ages 15-44, had 3,348 pregnancies, 2,851 live births, and 481 abortions. In 2007, minority adults had a higher pregnancy rate than whites (94.3 vs. 77.1), and the county had higher pregnancy rates for total, white, and minority women when compared with 2004. In 2007, the minority abortion rate was more than twice that for whites (20.8 per vs. 8.1) in spite of the rate dropping between 2004 and 2007 (Figures 8 and 9).

Figures 8 and 9



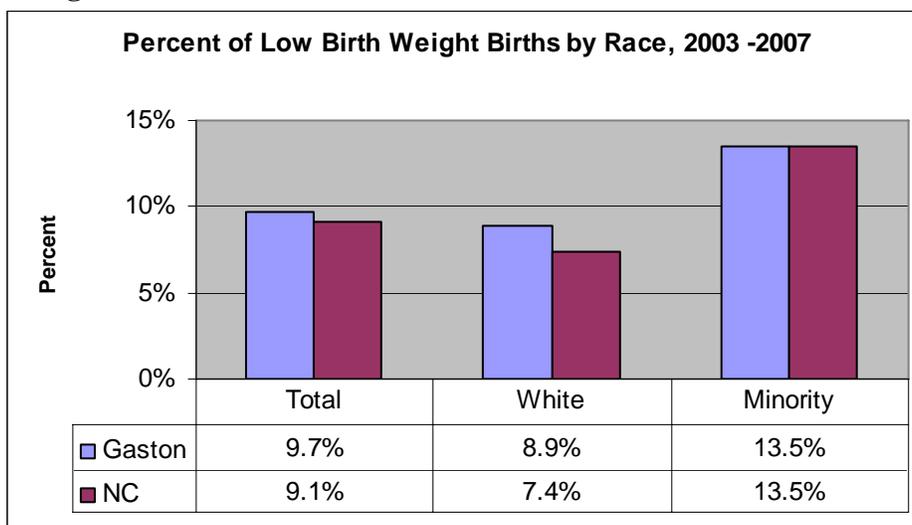
In 2007, there were 519 total teenage pregnancies (15-19 years old) in Gaston County. Between 2004 and 2007, pregnancy rates for the county's total, white, and minority teenagers increased (Figure 10). In the same period, teen abortion rates dropped for total and minority teens and increased slightly for white teens (Figure 11).

Figures 10 and 11



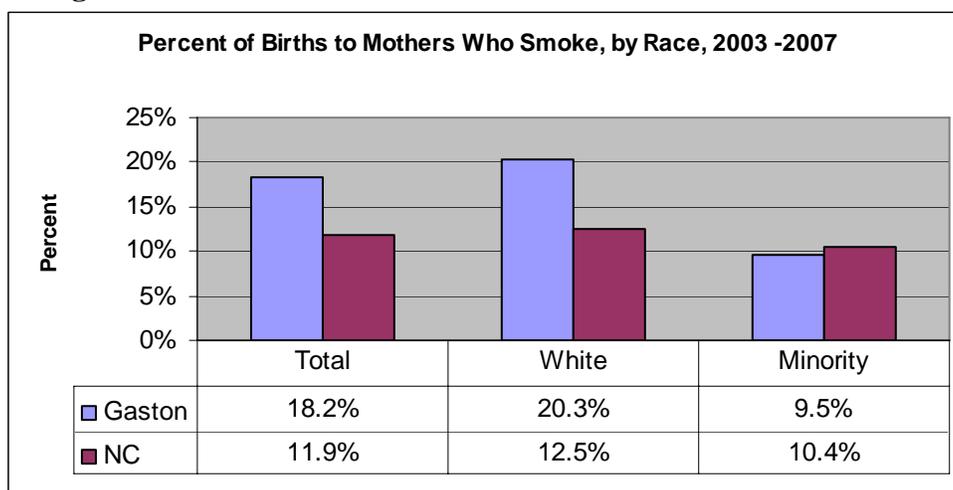
From 2003 - 2007, 1,292 (9.7%) of babies born to Gaston County residents had low birth weights (less than 2,500 grams). While slightly higher than the rate for North Carolina, Gaston County's rate of low birth weight minority babies was 39% higher than white babies – 13.5 vs. 9.7 (Figure 12). The Healthy Carolinians 2010 Objective for low birth weight births is 7%.

Figure 12



Between 2003-2007, 18.2% of births in Gaston County were to mothers who smoked while pregnant, while 11.9% of pregnant women in North Carolina smoked (Figure 13). The rate of Gaston County mothers who smoked during pregnancy was substantially higher among whites (20.3) when compared to minorities (9.5).

Figure 13

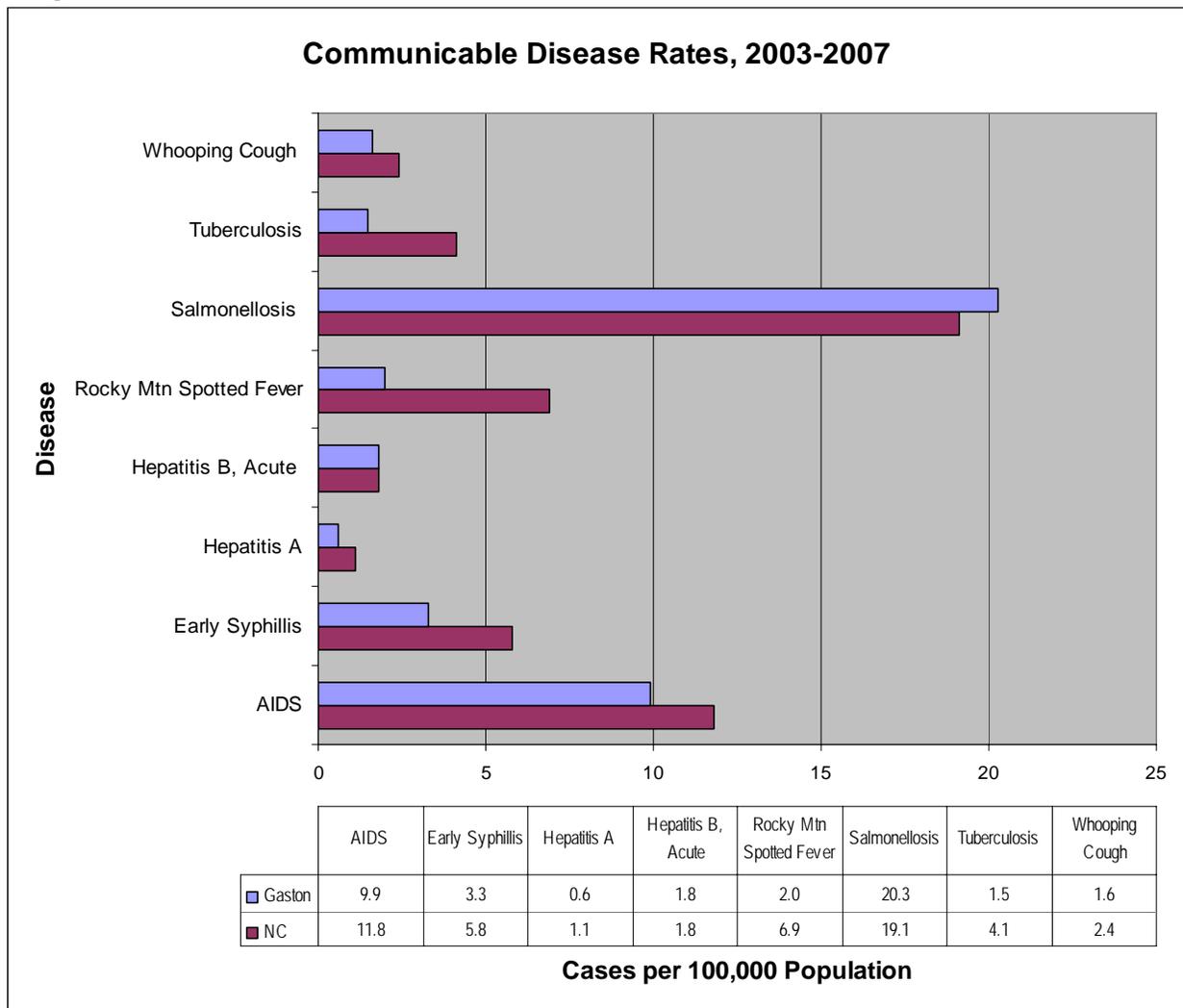


Morbidity Data

Chlamydia (345.0 cases/100,000 population) and gonorrhea (182.0 cases/100,000 population) were the most common reportable communicable disease in Gaston County in 2007. Compared with 2006, this represents a slight decrease in Chlamydia (343.1/100,000 population) and a significant decrease in gonorrhea (260.5/100,000 population).

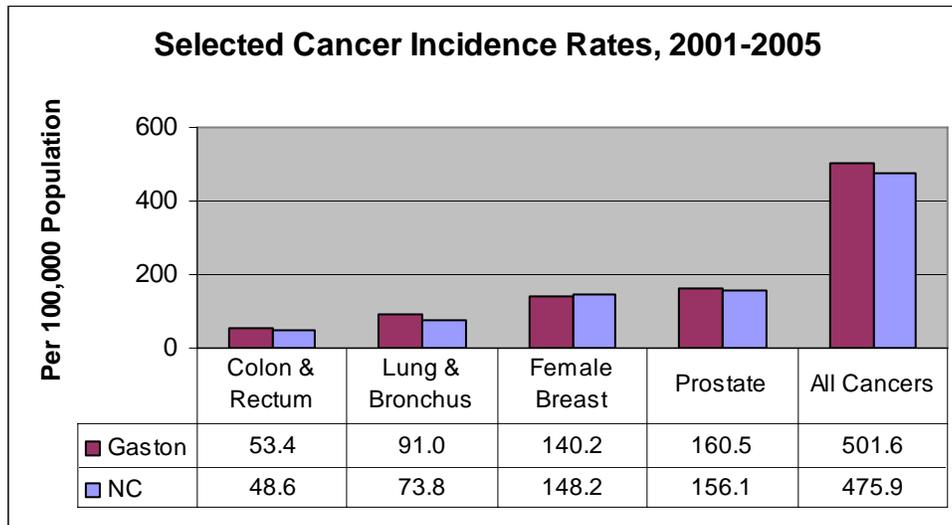
The incidence rates of eight other reportable communicable diseases in Gaston County are shown in Figure 14; of the listed diseases, Salmonellosis was the only condition for which Gaston County had a higher rate than the state of North Carolina.

Figure 14



Morbidity data for the period 2001-2005, age-adjusted to the 2000 census (Figure 15), shows Gaston County had higher rates than North Carolina for all cancers, specifically cancer of the colon/rectum, lung/bronchus, and prostate. Gaston County’s rate of cancer of the lung and bronchus exceeded the state rate by 23.3 percent. While Gaston has more current smokers than the state (24.8% vs. 22.9%) and more residents who smoke everyday (20.2% vs. 17.6%) these numbers would not explain this significant difference in mortality (BRFSS, 2007); a potential explanation would be Gaston County residents have smoked for more years than their state counterparts, however there is no data to test this hypothesis.

Figure 15



Mortality Data

The five leading causes of death in Gaston County from 2002-2006 were:

1. Heart Disease: 2,399 deaths
2. All Cancers: 2,118 deaths
3. Chronic lower respiratory disease: 614 deaths
4. Stroke: 541 deaths
5. Unintentional injury: 350 deaths

A comparison of death rates in Gaston County and North Carolina, by cause, is shown in Figure 16. Death rates in Gaston County were at least 15% higher than state rates, for the following diseases: (1) chronic liver disease and cirrhosis; (2) pneumonia and influenza; (3) unintended injuries; (4) suicide; (5) AIDS; (6) chronic lower respiratory diseases; and, (7) cancer of the trachea, bronchus, and lung. While the county has a lower rate of AIDS cases than the state, it has a higher AIDS death rate than the state; this may be due, in part, to the in-migration to Gaston County of persons living with AIDS to receive high quality care at Gaston Family Health Services and the House of Mercy.

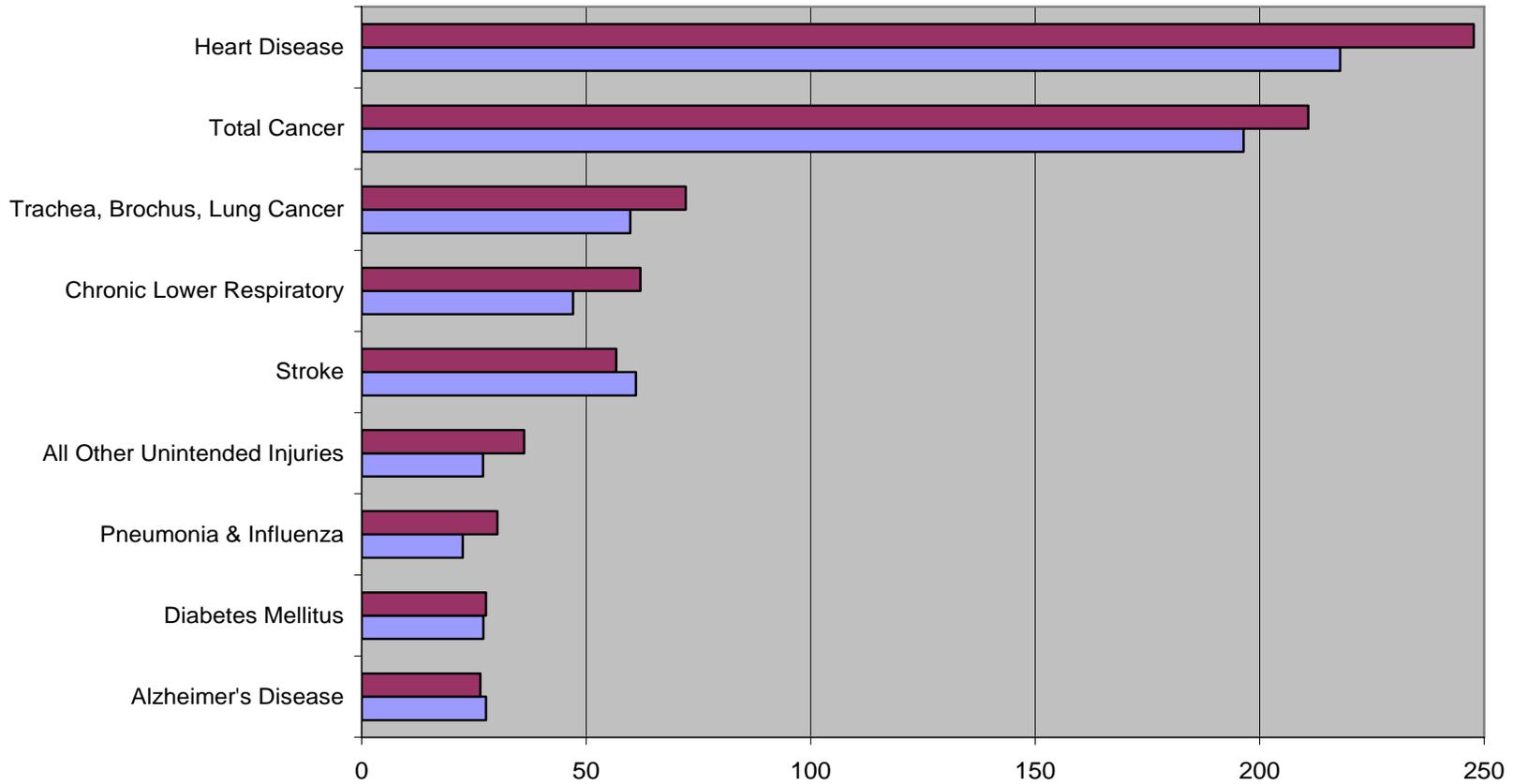
The five leading causes of death for men and women in Gaston County (2003 – 2007) were:

Table 5

Men	Women
1. Heart Disease	1. Heart Disease
2. Cancer	2. Cancer
3. Chronic Lower Respiratory Diseases	3. Chronic Lower Respiratory Diseases
4. Unintentional Injuries	4. Stroke
5. Stroke	5. Alzheimer’s Disease

Figure 16

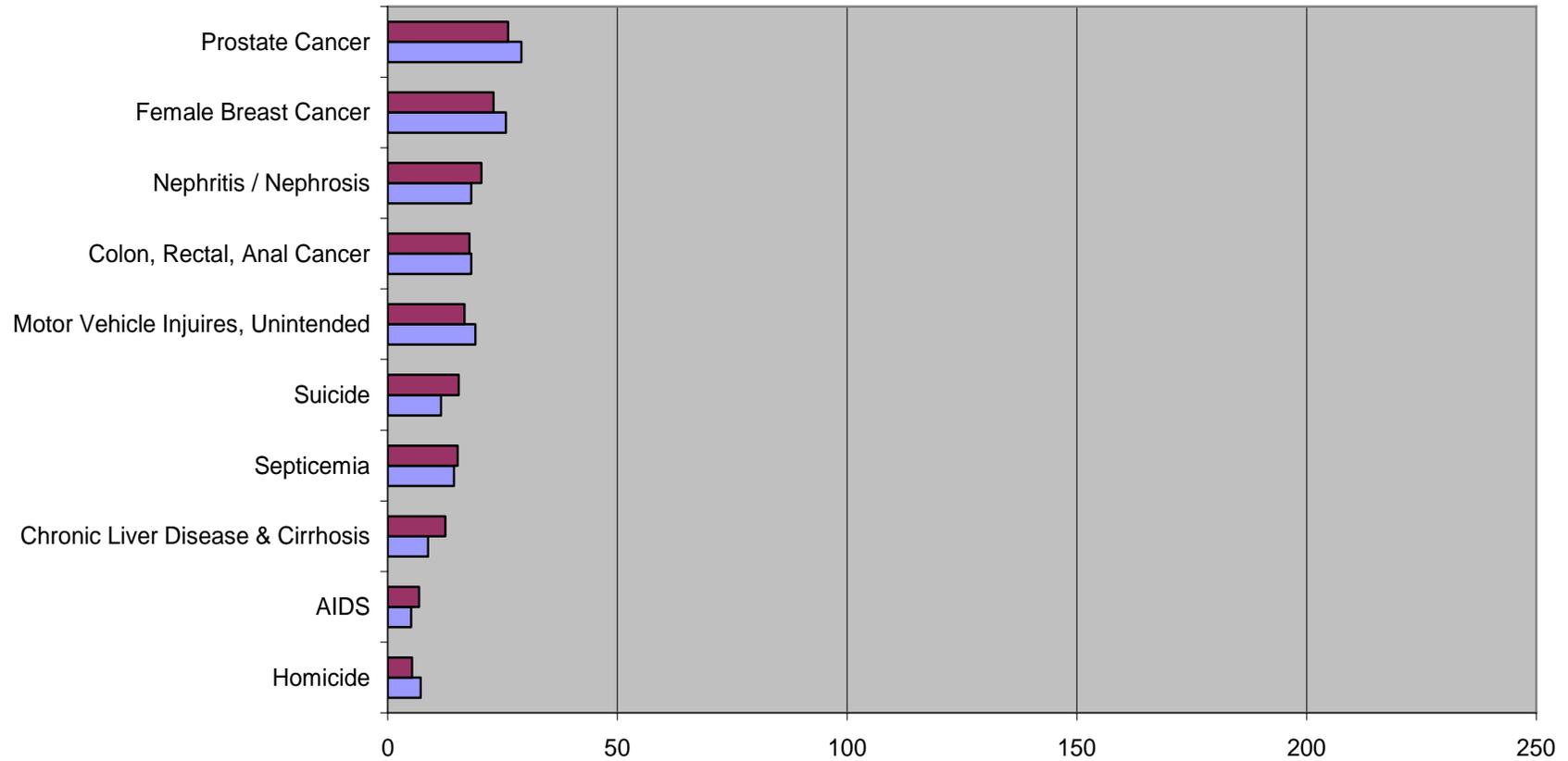
Age-Adjusted Death Rates for Selected Causes, 2002-2006



	Alzheimer's Disease	Diabetes Mellitus	Pneumonia & Influenza	All Other Unintended Injuries	Stroke	Chronic Lower Respiratory	Trachea, Brochus, Lung Cancer	Total Cancer	Heart Disease
■ Gaston	26.4	27.7	30.2	36.2	56.7	62.1	72.2	210.8	247.7
■ NC	27.7	27.1	22.5	27.0	61.1	47.1	59.8	196.4	217.9

Rate per 100,000

Age-Adjusted Death Rates for Selected Causes, 2002-2006 (Continued)



	Homicide	AIDS	Chronic Liver Disease & Cirrhosis	Septicemia	Suicide	Motor Vehicle Injuries, Unintended	Colon, Rectal, Anal Cancer	Nephritis / Nephrosis	Female Breast Cancer	Prostate Cancer
■ Gaston	5.3	6.8	12.5	15.2	15.5	16.7	17.8	20.4	23.0	26.2
■ NC	7.2	5.1	8.8	14.4	11.6	19.1	18.2	18.2	25.7	29.1

Rate per 100,000

Gaston County's five leading causes of death for whites and minorities (2003 – 2007) were:

Table 6

Leading Causes of Death for Gaston County Whites and Minorities, 2003-2007	
Whites	Minorities
1. Heart Disease	1. Heart Disease
2. Cancer	2. Cancer
3. Chronic Lower Respiratory Diseases	3. Stroke
4. Stroke	4. Diabetes Mellitus
5. Other Unintentional Injuries	5. HIV
	5. Nephritis, Nephrotic Syndrome, & Nephrosis

Gaston County's five leading causes of death, by age group (2003 – 2007) were:

Tables 7 – 9

Leading Cause of Death, Up to One Year of Age	
Rank and Cause of Death	Deaths
1. Short Gestation – Low Birth Weight	30
2. Congenital Anomalies (birth defects)	26
3. Sudden Infant Death Syndrome	13
4. Maternal Complications of Pregnancy	6
4. Bacterial Sepsis	6

Leading Cause of Death, One to Four Years of Age	
Rank and Cause of Death	Deaths
1. Motor Vehicle Injuries	2
2. Other Unintentional Injuries	2
3. In-situ / Benign Neoplasms	1
3. Heart Disease	1
3. Stroke	1
3. Congenital Anomalies (birth defects)	1
3. Homicide	1

Leading Cause of Death, 5 to 14 Years of Age	
Rank and Cause of Death	Deaths
1. Motor Vehicle Injuries	3
2. Cancer	2
2. Pneumonia & Influenza	2
2. Congenital Anomalies (birth defects)	2
2. Suicide	2

Tables 10 - 13

Leading Cause of Death, 15 – 24 Years of Age	
Rank and Cause of Death	Deaths
1. Motor Vehicle Injuries	43
2. Other Unintentional Injuries	26
3. Suicide	15
4. Homicide	11
5. Cancer	6

Leading Cause of Death, 25 – 44 Years of Age	
Rank and Cause of Death	Deaths
1. Other Unintentional Injuries	112
2. Cancer	84
3. Heart Disease	80
4. Motor Vehicle Injuries	75
5. Suicide	65

Leading Cause of Death, 45 – 64 Years of Age	
Rank and Cause of Death	Deaths
1. Cancer	652
2. Heart Disease	477
3. Chronic Lower Respiratory Diseases	128
4. Other Unintentional Injuries	102
5. Diabetes mellitus	80

Leading Cause of Death, Age 65 and Older	
Rank and Cause of Death	Deaths
1. Heart Disease	1,833
2. Cancer	1,386
3. Chronic Lower Respiratory Diseases	480
4. Stroke	412
5. Pneumonia & influenza	256

Tables 7-13 illustrate the significant increase in deaths due to risky behaviors – driving, injuries, and violence – beginning with the age 15-24 cohort. In the age 25-44 cohort, cancer and heart disease become more prominent, and may have their etiology in such unhealthy behaviors as smoking, poor nutrition, and lack of exercise. Starting with the age 45-64 cohort, most causes of death can be attributed to the combination of biology and the noted unhealthy lifestyles – for example, cancer, heart disease, chronic lower respiratory disease, diabetes, and stroke.

Several tables list *Other Unintentional Injuries* as a cause of death, which describes deaths due to unintentional non-motor vehicle injuries, for example bicycle injuries, accidental poisoning, and drowning.

The greatest number of cancer deaths were due to cancer of the: (1) trachea, bronchus, and lung; (2) prostate; (3) female breast; and, (4) colon, rectum, anus. Table 14 illustrates greater death

rates among white males for cancer of the trachea, bronchus, and lung and greater death rates among minority males for prostate cancer.

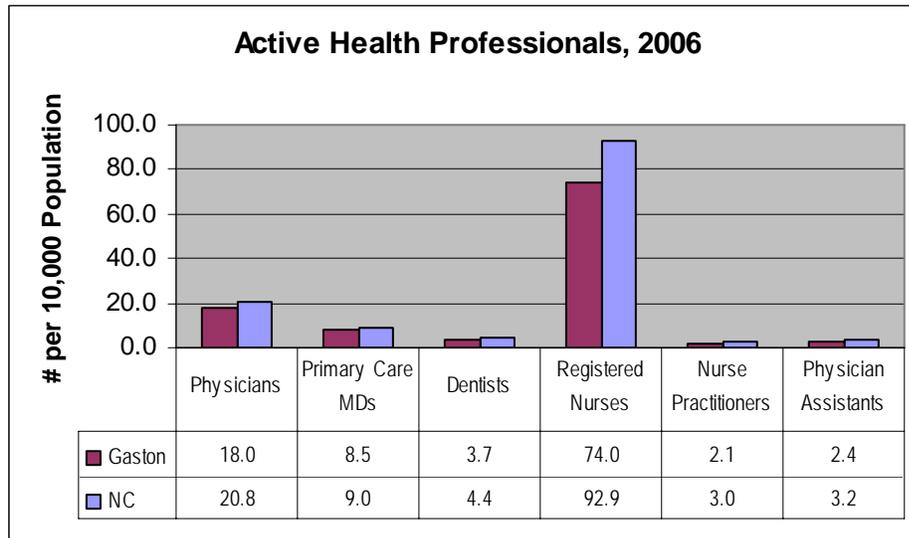
Table 14

Race and Sex-Specific Age-Adjusted Death Rates for Leading Cancer Sites, Gaston County, 2003-2007				
Causes of Death	White		Minority	
	Males	Females	Males	Females
Cancer of the colon, rectum, & anus	23.0	14.4	22.3	17.0
Cancer of the trachea, bronchus, & lung	100.2	54.0	84.3	31.9
Cancer of the female breast	--	22.7	--	21.0
Cancer of the prostate	21.3	--	55.1	--

Health Resources Data

According to the University of North Carolina’s Sheps Center for Health Services Research, Gaston County has a lower rate of active physicians, primary care physicians, dentists, registered nurses, nurse practitioners, and physician assistants than the state (Figure 17); the county lags the state by 23 percent in its number of active registered nurses.

Figure 17



At the same time, Gaston County has a strong infrastructure of health care resources. The Gaston County Health Department, a North Carolina accredited health department, offers disease prevention, disease treatment, health promotion, and environmental services. Its clinics provide family planning, prenatal care, limited gynecology, well and sick pediatric care, immunizations, and diagnoses and treatments for sexually transmitted diseases. It also provides nutrition services, including WIC, and health education programs to prevent teen pregnancy, stop the spread of HIV/AIDS, improve health resources in pre-schools, and promote smoking cessation, physical activity, and good nutritional practices. Its environmental programs include food and lodging inspections, and it manages well water and septic system installations and repairs.

Gaston Memorial Hospital, the county's sole hospital, is a not-for-profit facility with 435 licensed beds. Its hospital and ancillary services include the: Birthplace, CaroMont Cancer Center, CaroMont Heart Center, Emergency Services, Imaging Services, Neurosciences, Advanced Spine Care, Psychiatric Services, Rehabilitation and Sports Medicine, Sleep Center, Special Care Units, Surgical Services, and the CaroMont Wound and Diabetes Center.

There are 311 physicians on Active Staff at Gaston Memorial Hospital: 120 are primary care physicians who work in 48 practices – family physicians, internists, pediatricians, and obstetricians/gynecologists; another 211 physicians are specialists employed in 52 practices.

Gaston Family Health Services, Inc. is Gaston County's sole Federally Qualified Community Health Center. With the exception of prenatal and pediatric care, it provides a full-range of primary care services, and such additional programs as behavioral health services, a pharmacy, the Gaston Diabetes Center, and two dental clinics. With the county health department, it is developing a primary health center in Highland, the community with Gaston County's poorest health status. It also operates Community Health Partners, Gaston County's Medicaid Managed Care agency and Health Net Gaston, a system through which local physicians will provide complimentary medical care to uninsured adults.

The Gaston Community Healthcare Commission, the county's Healthy Carolinian Task Force, is a leader in the area of health promotion and disease prevention. It is composed of seven workgroups: the Gaston County Fitness and Nutrition Council, the Adolescent Sexual Health Task Force, and Cancer Initiative, Workplace Wellness, Community Wellness (mental health focus), Parish Nursing, and Safe Kids workgroups. In its support of regular physical activity, the Commission advocates for greenways and the Carolina Thread Trail. Gaston County features the 2.7 mile Catawba-Avon Creek Greenway in Gastonia, the Riverside Greenway in Cramerton, and the Highland Rail Trail, which is under construction in Gastonia. In addition, each municipality in the county has parks and recreation programs.

Behavioral Risk Factor Surveillance System

The Behavioral Risk Factor Surveillance System (BRFSS) is a random telephone survey of state residents, 18 and older, in households with telephones. Through BRFSS the North Carolina Division of Public Health collects data on a variety of health behaviors related to the leading causes of death and disability. Using BRFSS data, the following graphs provide insights into community needs, behavioral trends, and community resources for Gaston County.

Figure 18 describes the percentage of residents in Gaston County and North Carolina who report having been diagnosed with leading causes of death. Except for coronary heart disease, Gaston County has a higher percentage of reported diagnoses for the cited disease when compared to North Carolina residents; the county's reported incidence of kidney disease is 130.1% greater than the state's, which is disproportional to the county's incidence of death from nephritis and nephrosis, this difference may be not as great as it appears, due to a small sample size, and will be the subject of further inquiry.

Figure 18

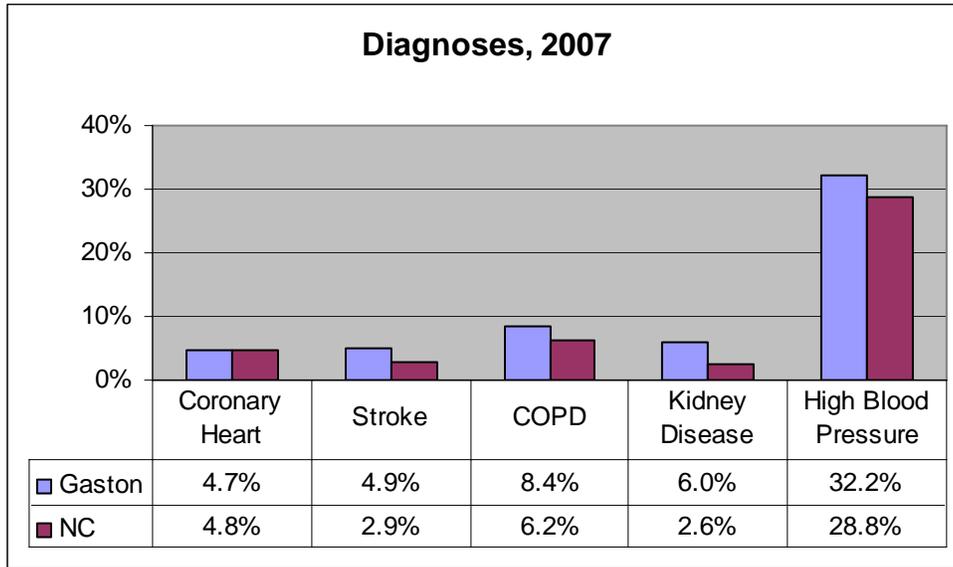


Figure 19 shows a slight drop in the percentage of Gaston County residents, younger than 65, with health insurance coverage, between 2004 and 2007; in the same period, the state experienced a greater decrease in insured individuals. On the other hand, the percentage of Gaston County residents younger than 65 and insured and employed for wages, increased between 2004 and 2007 (Figure 20).

Figure 19

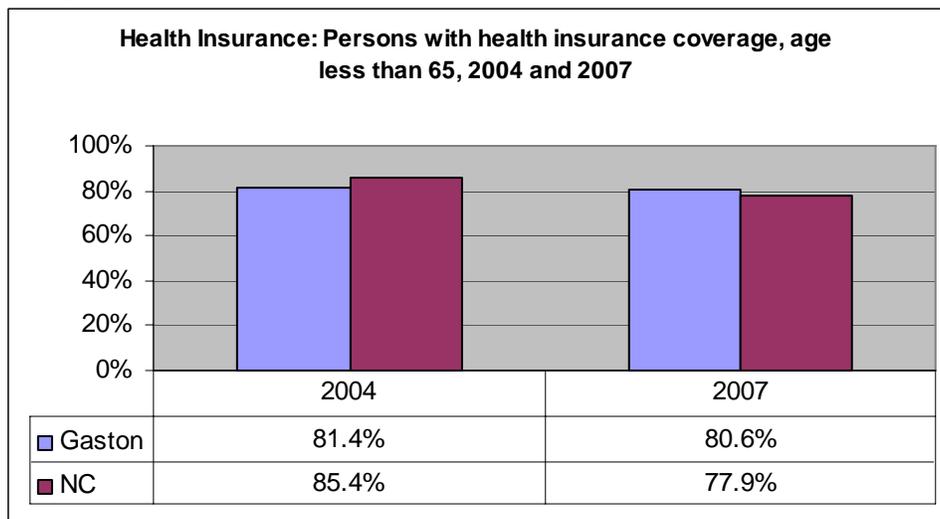
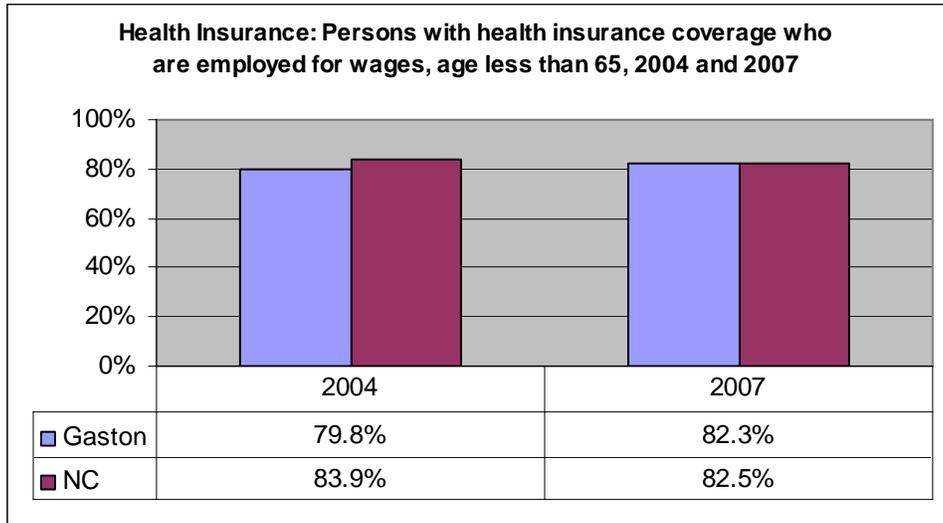
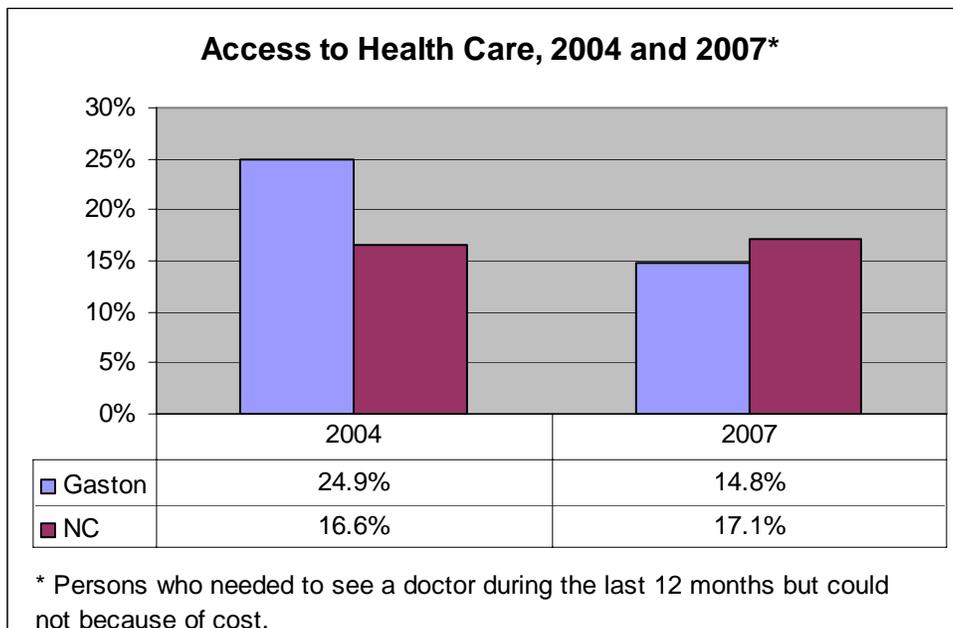


Figure 20



Between 2004 and 2007, Gaston County experienced more than a 10% drop in the number of persons who could not secure needed health care in the preceding twelve months because of cost. This improvement stands in contrast to the slight increase in North Carolina residents who were unable to secure medical care because of cost (Figure 21).

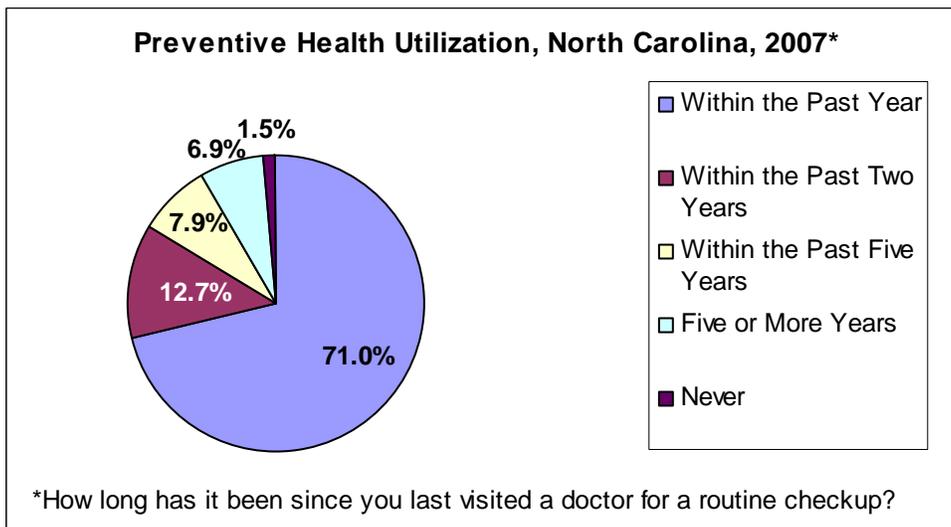
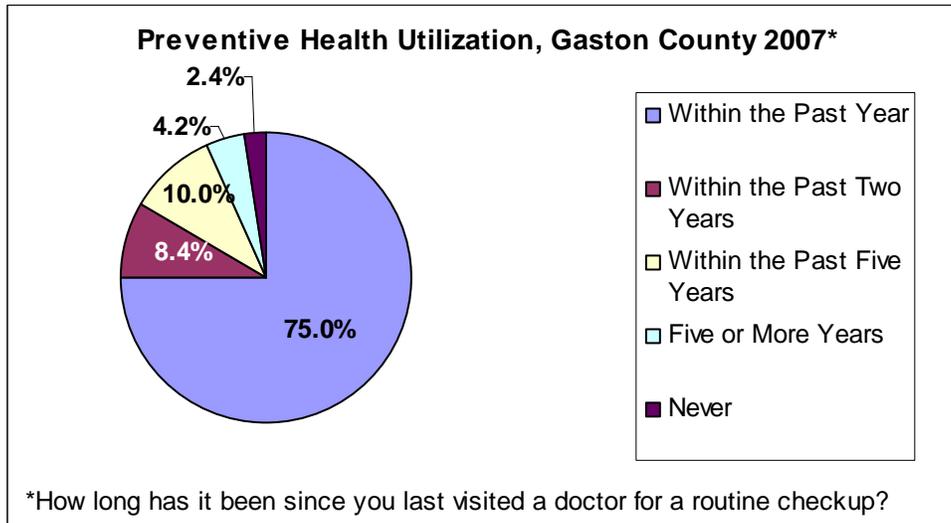
Figure 21



A long-term measure of health care access is found in responses to the question: *About how long has it been since you last visited a doctor for a routine checkup?* Gaston County residents had greater access to health care than the state, with 76% versus 71% of state residents stating they had received routine checkups within the past year (Figures 22 and 23).

Improved measures for access to health care and preventive health utilization may be due to the increased supply of health resources in Gaston County: new physicians and medical practices, expanded hours at Gaston Family Health Services, new urgent care centers, and a three to four percent increase in Emergency Department volume at Gaston Memorial Hospital.

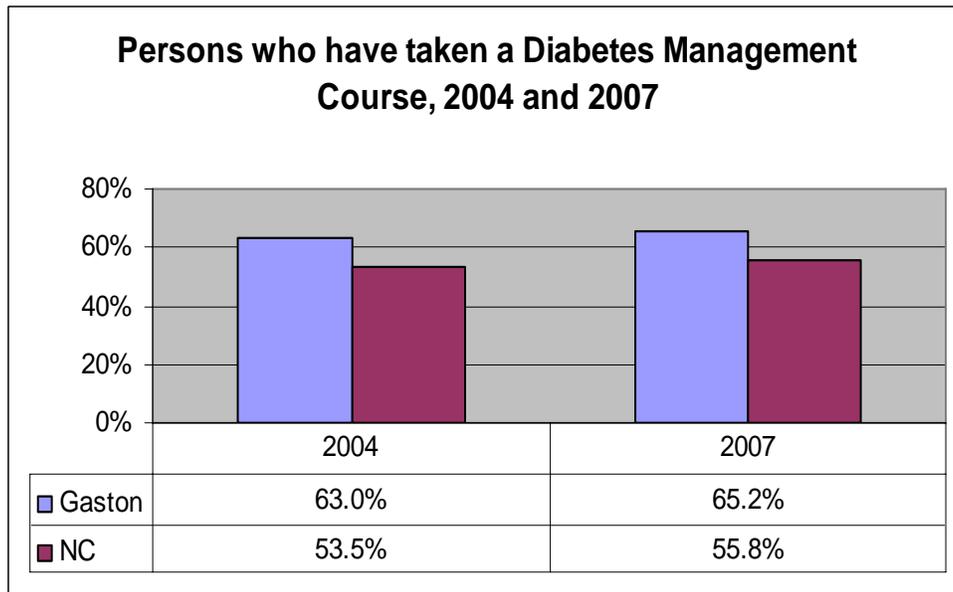
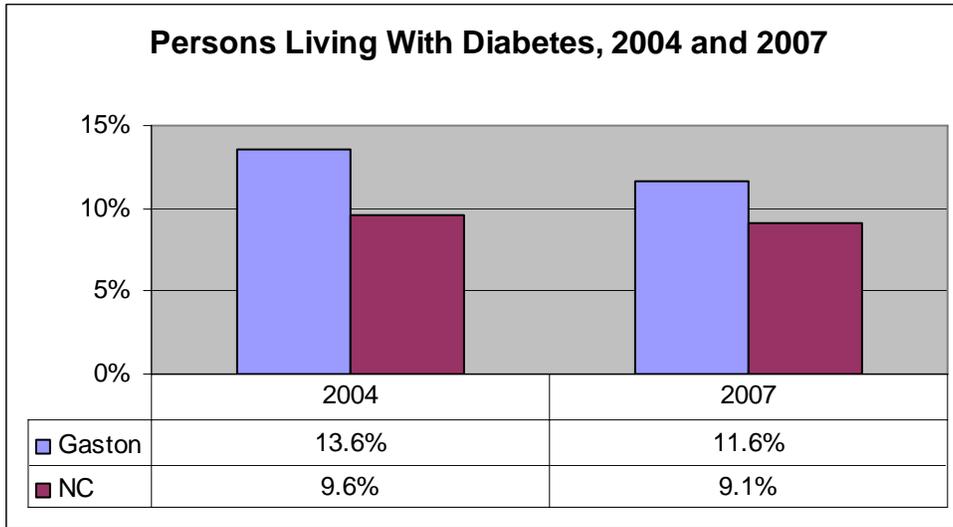
Figures 22 and 23



The following graphs present data on the incidence of disease, and disease-related behaviors, that are leading causes of illness, physical limitations, and death in Gaston County. For example, Figure 24 shows Gaston County and the state of North Carolina have experienced a slight decrease in the incidence of diabetes between 2004 and 2007. At the same time, there has been a slight increase in the number of Gaston County residents living with diabetes who have taken a diabetes management course (Figure 25).

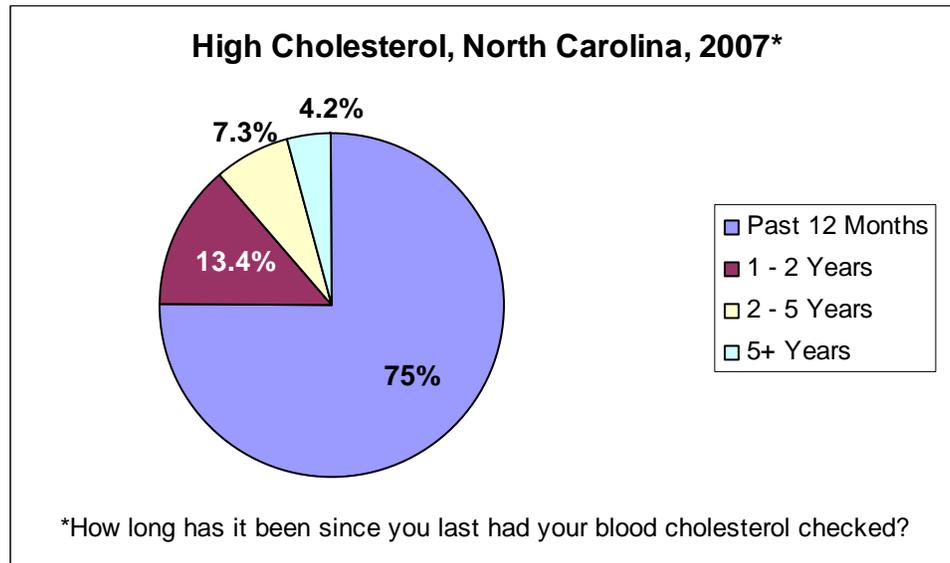
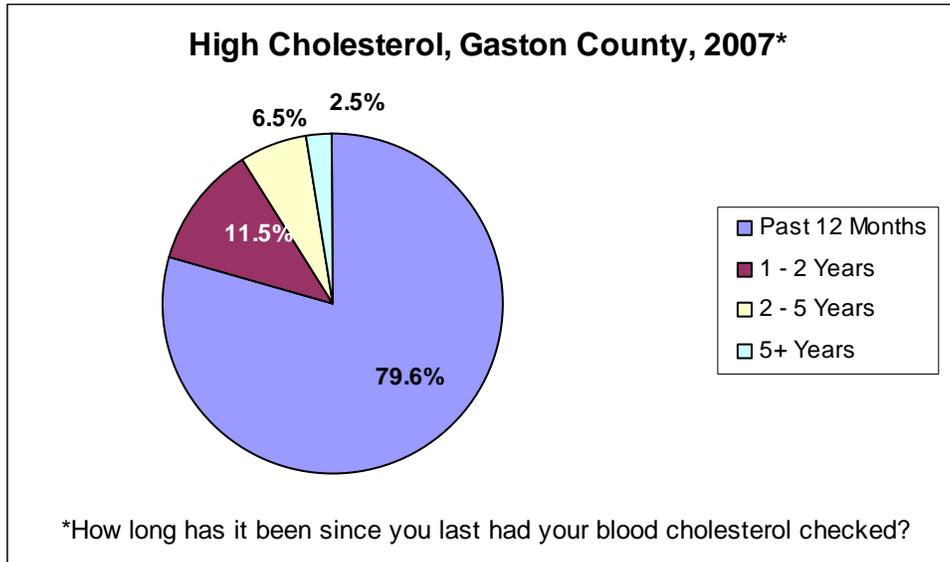
While this is a healthy trend, nearly 35% of individuals living with diabetes have not received comprehensive diabetes education which – by teaching about physical activity, nutrition, and self-care – can help them avoid disease complications and reduce their need for medications.

Figures 24 and 25



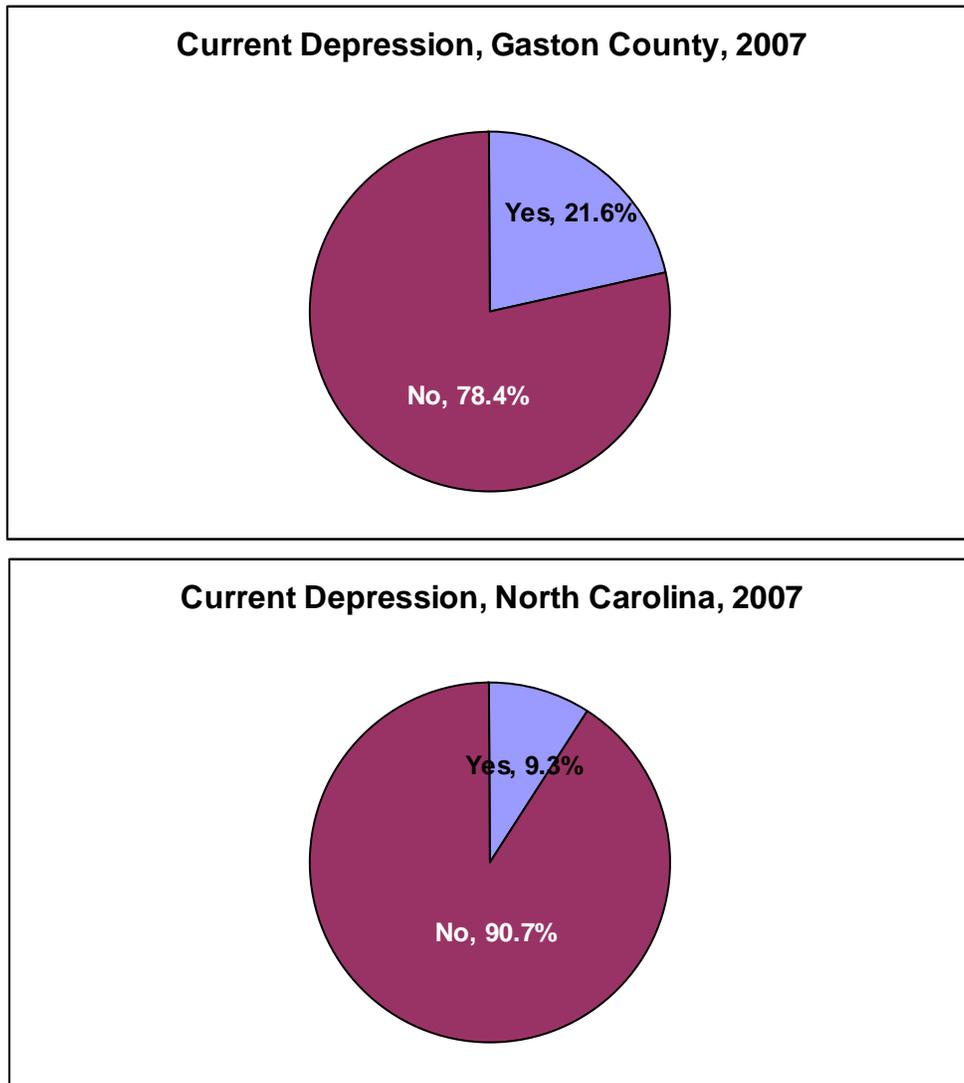
High cholesterol is a leading risk factor for heart disease and stroke. Figures 26 and 27 show more Gaston County residents were tested for cholesterol in the past 12 months (79.6%) than state residents (75.0%). Because cholesterol testing is typically conducted during clinical visits, this data supports the previously cited percentage of persons who have been to the doctor for routine checkups.

Figures 26 and 27



Depression is a key measure of mental and emotional health associated with the ability of individuals to achieve life satisfaction and self sufficiency. BRFSS data (2007) shows Gaston County's reported incidence of current depression is 13.6% higher than North Carolina (Figures 28 and 29).

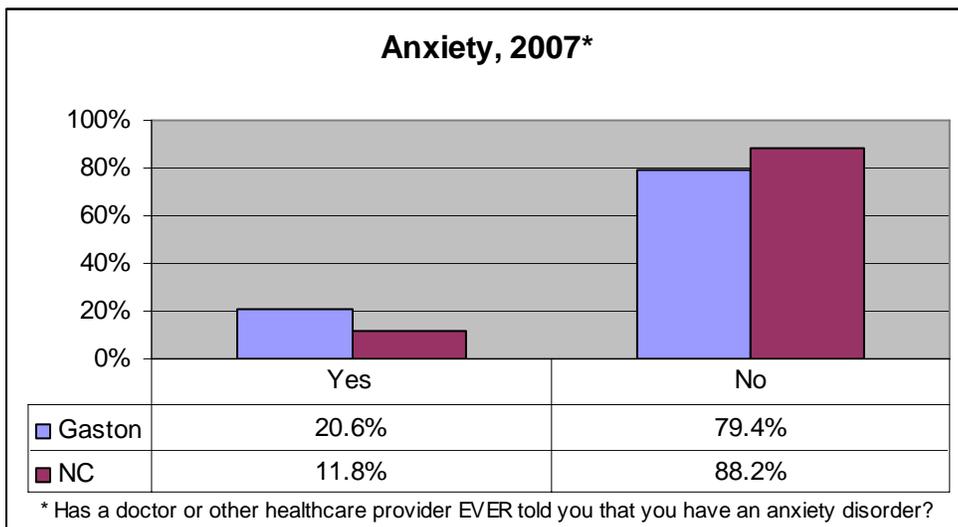
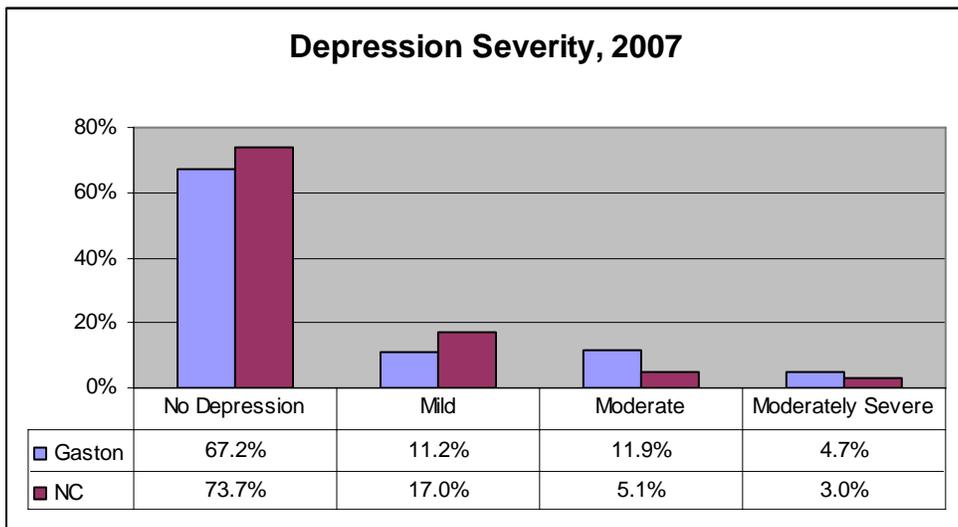
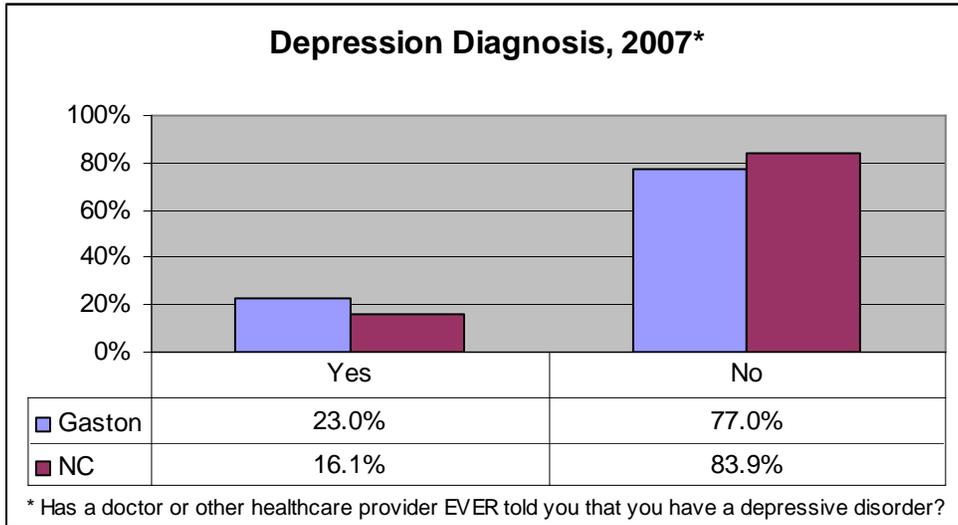
Figures 28 and 29



Twenty-three percent of Gaston County residents have ever been told by a healthcare provider they were depressed – for dysthymia, minor depression, depression, or major depression – in comparison to 16.1% of North Carolinians (Figure 30). In 2007, more Gaston County residents had more moderate and moderately severe depression than statewide residents (Figure 31).

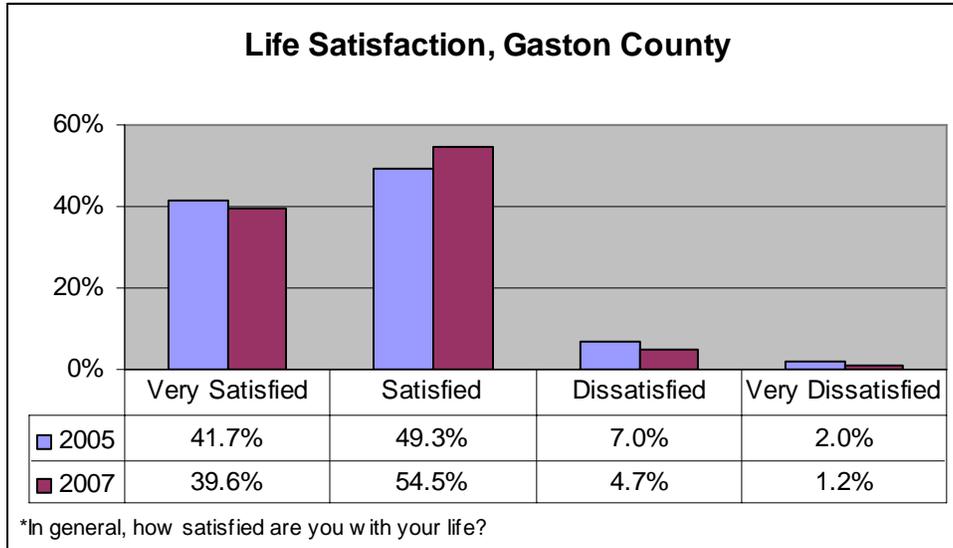
Similarly, 20.6% of survey respondents in Gaston County have ever been told by a health care provider they had an anxiety disorder, versus 11.8% in North Carolina; anxiety is defined as an acute stress disorder, anxiety, generalized anxiety disorder, obsessive-compulsive disorder, panic attacks, panic disorder, phobia, post-traumatic stress disorder, or social anxiety disorder (Figure 32).

Figures 30 - 32



Life satisfaction, another measure of mental health status (Figure 33), shows the percentage of Dissatisfied and Very Dissatisfied Gaston County residents both decreased between 2005 and 2007.

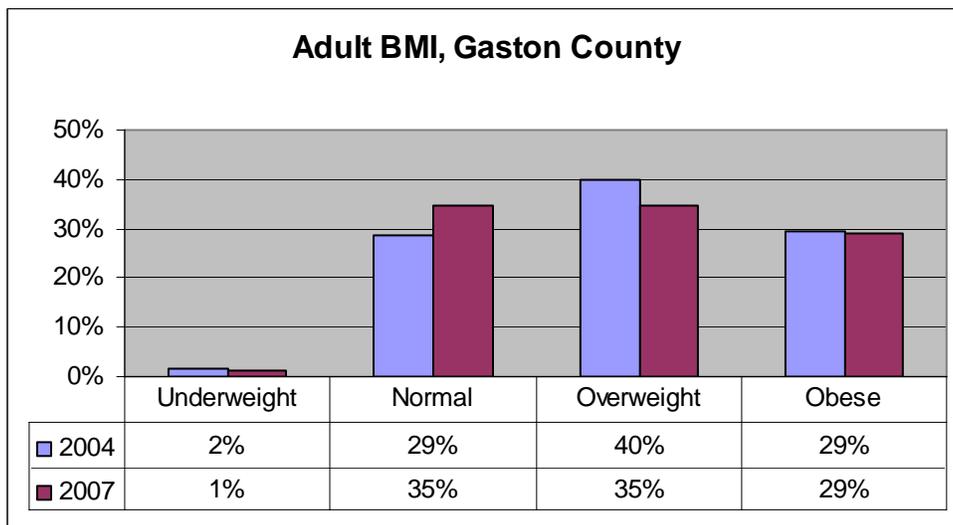
Figure 33



Body Mass Index (BMI), a measure of an individual's height relative to their weight, is computed based on the individual's gender and is used to determine if individuals have healthy or unhealthy weights. BMI data is significant because an individual's height-weight ratio is strongly associated with the onset of heart disease, stroke, diabetes, and some cancers.

Between 2004 and 2007 (Figure 34), there was a six percent increase in the number of Gaston County adults who had healthy BMI's, a four percent decrease in persons who were overweight, and the percentage of obese county residents remained the same.

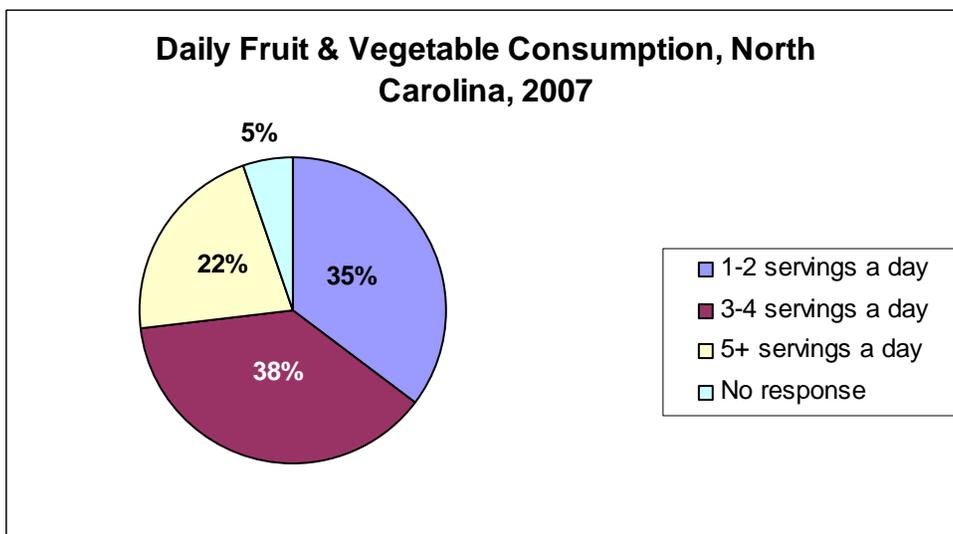
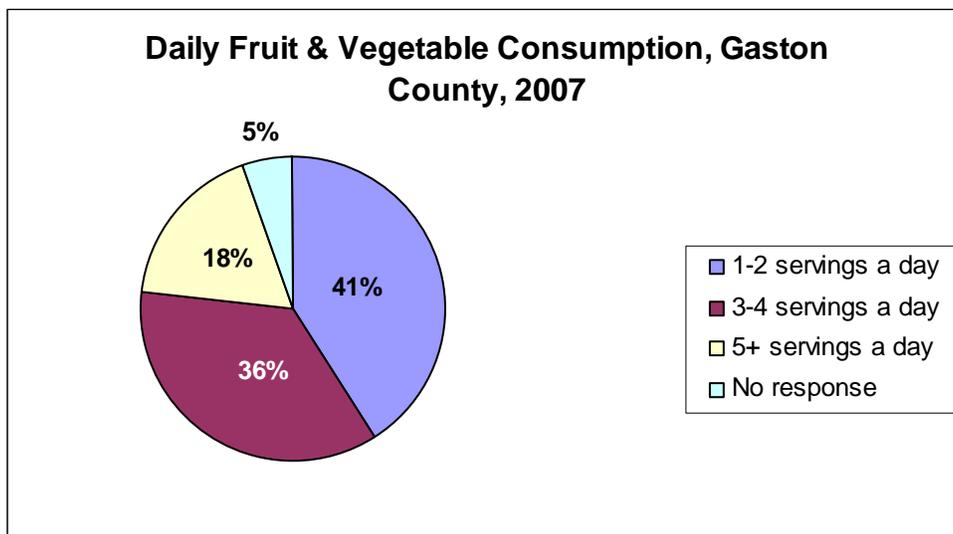
Figure 34



The safest way to achieve and sustain a healthy BMI is to eat sufficient portions of healthy foods and engage in regular physical activity. In 2007, fewer Gaston County residents consumed the recommended five daily servings of fruits and vegetables (18%), than did state residents (22%). Among health departments and health districts, BRFSS (2005) found the percentage of Gaston County residents was: 12th highest for overweight and obesity; 7th lowest for consuming five or more servings of fruit and vegetables daily, and 14th lowest for meeting daily physical activity recommendations.

Gaston County has considerable work to do to increase daily fruit and vegetable consumption among the 41% of residents who eat from one to three servings a day and the 36% who eat from three to five servings a day (Figures 35 and 36).

Figures 35 and 36

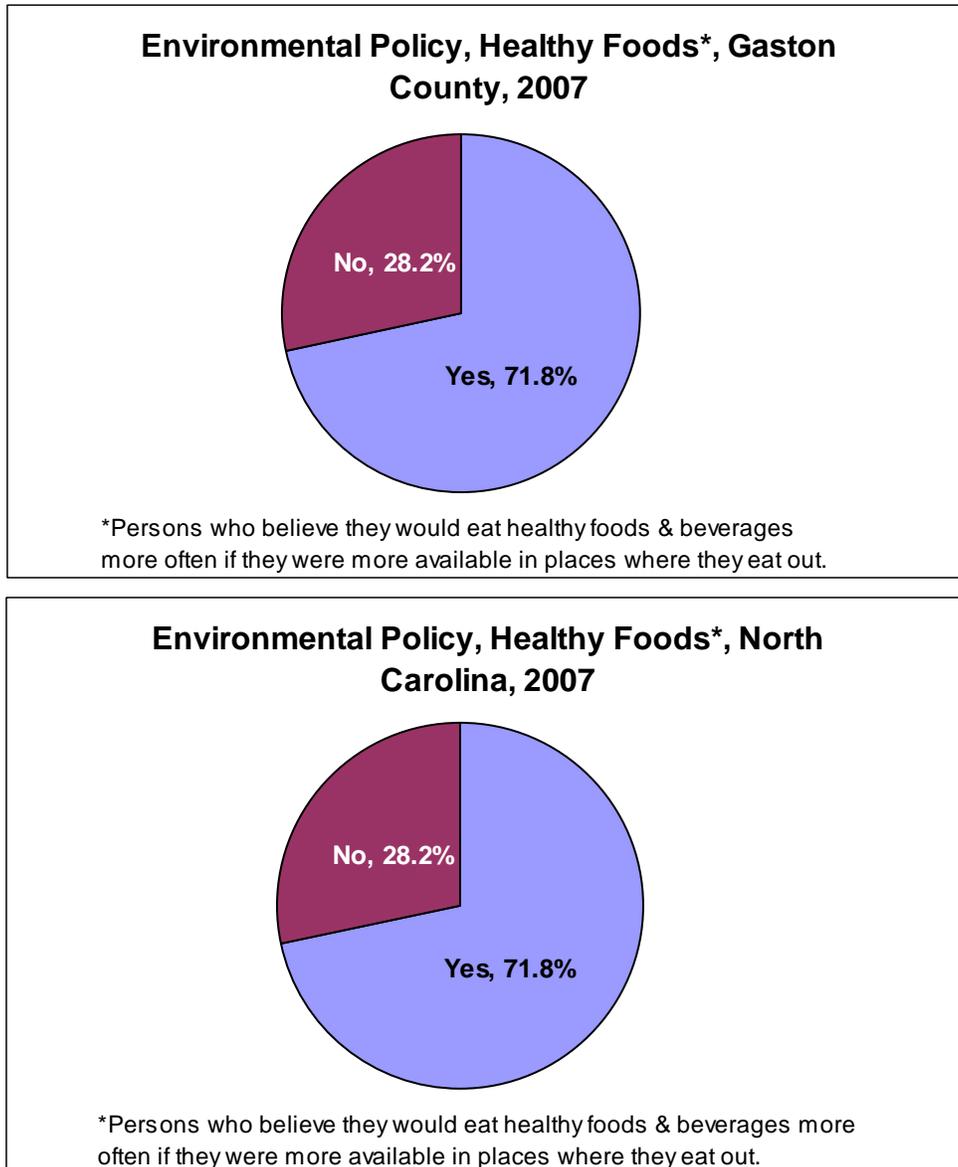


Data from the 2007 NC-NPASS survey of individuals who receive WIC and child health services at health departments and services at school-based health centers, shows 17.1% of

Gaston County youth, ages 2 -18 are overweight, in comparison to 17.3% for the state; 15.3% of these youth are at risk for being overweight, in comparison to 16% for North Carolina.

While individuals have considerable control over their eating habits, the environment in which they live and consume foods and beverages also has a strong influence. More than 71% of county (Figure 37) and state residents (Figure 38) would choose healthy foods if available when they dine outside their homes at restaurants, houses of worship, and the homes of others.

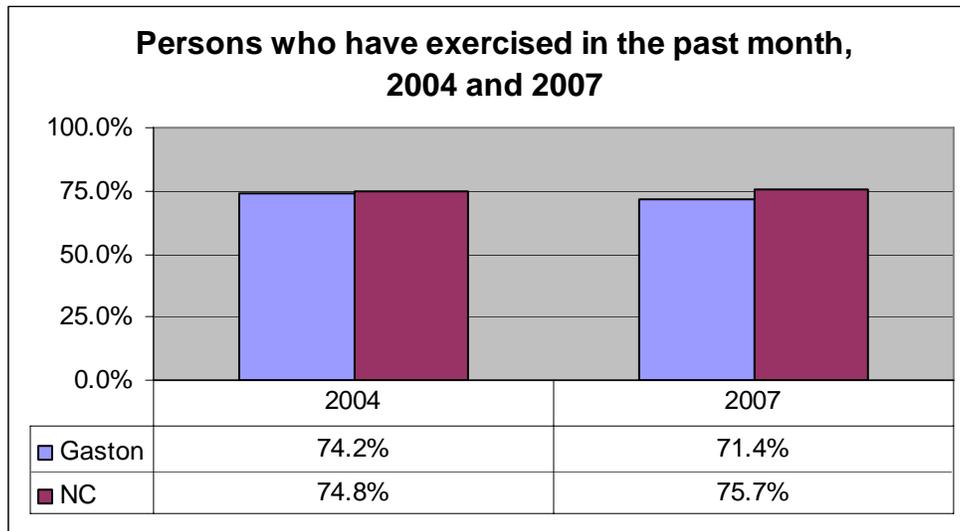
Figure 33 and 34



Physical activity, or movement that increases heart rate and includes lifting and stretching, is another important factor in achieving and maintaining a healthy weight. It can be obtained through intentional exercise and daily activities, such as walking to the library, cleaning the house, raking the lawn, and washing the car.

Figure 39 shows a slight decrease in the percentage of Gaston County residents who report having exercised in the past month; in the same period, a slightly larger number of North Carolina residents engaged in exercise. Exercise describes intentional physical exertion for developing and maintaining good physical fitness; it includes running, competitive athletics, hiking, and swimming. While it differs from physical activity, both pursuits are important to achieving and sustaining good physical and emotional wellbeing.

Figure 39



In 2007, 41.5% of Gaston County residents met recommendations for physical activity, in contrast to 44% of state residents (Figures 40 and 41). In fulfilling these recommendations, survey participants report having engaged in moderate physical activity for 30 minutes or more for five days a week, or vigorous activity for 20 minutes a day for three or more days a week.

Figure 40

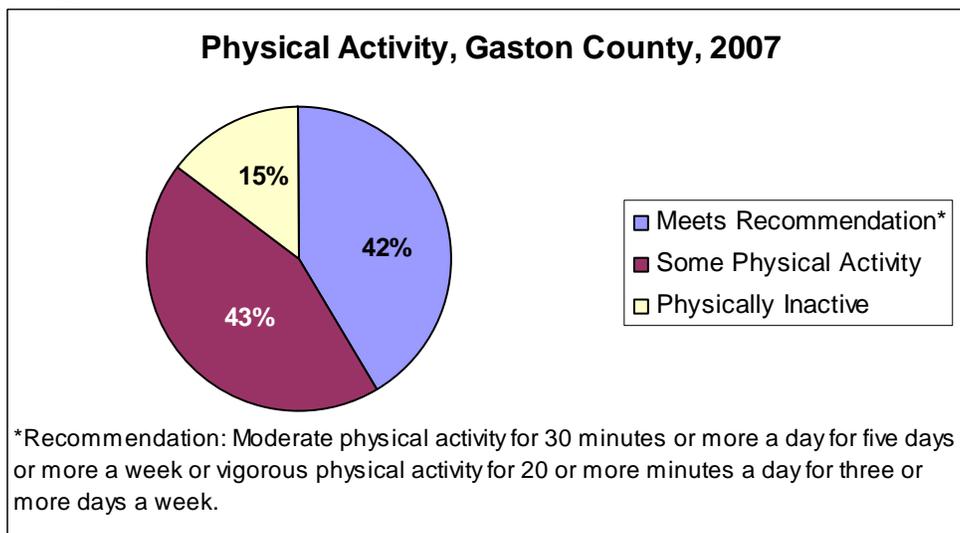
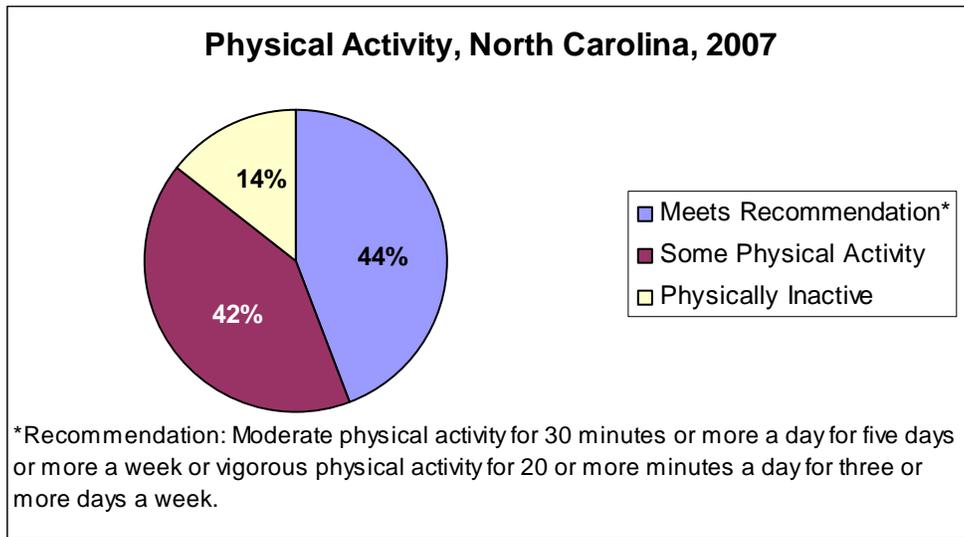


Figure 41



Physical activity can be encouraged by building greenways, sidewalks, and linear street grids, instead of cul-de-sacs, so residents can walk and ride bicycles, rather than ride cars, to stores, libraries, and schools. Nearly the same percentage of Gaston County (57.7%) and North Carolina residents (59.5%), believe they would engage in more physical activity if their communities had more accessible sidewalks or trails for walking or bicycling (Figures 42 and 43).

Figure 42

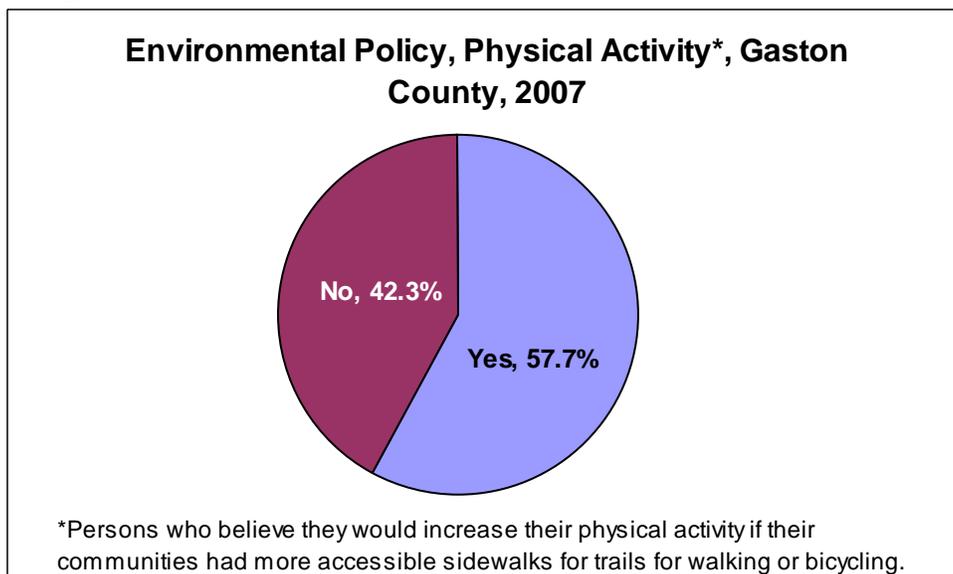
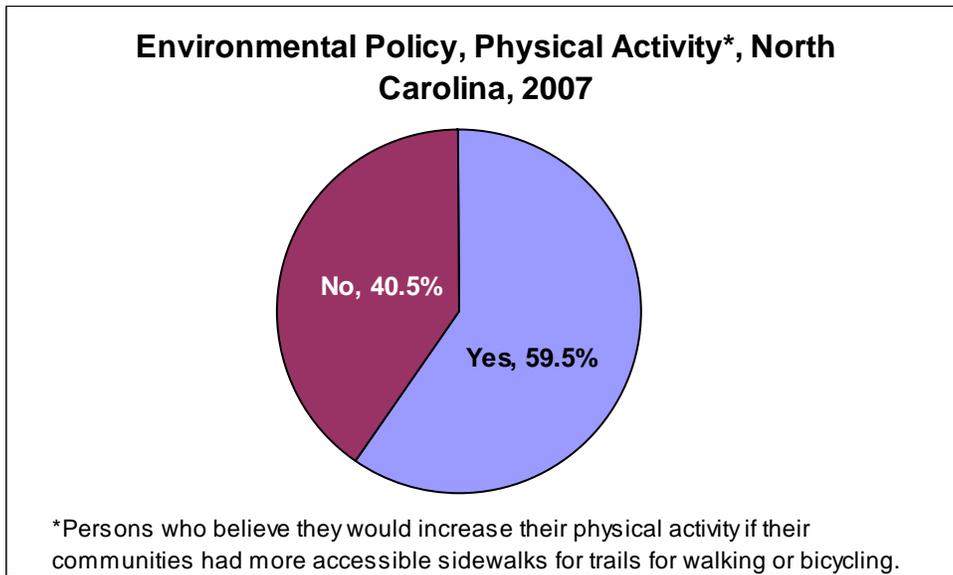
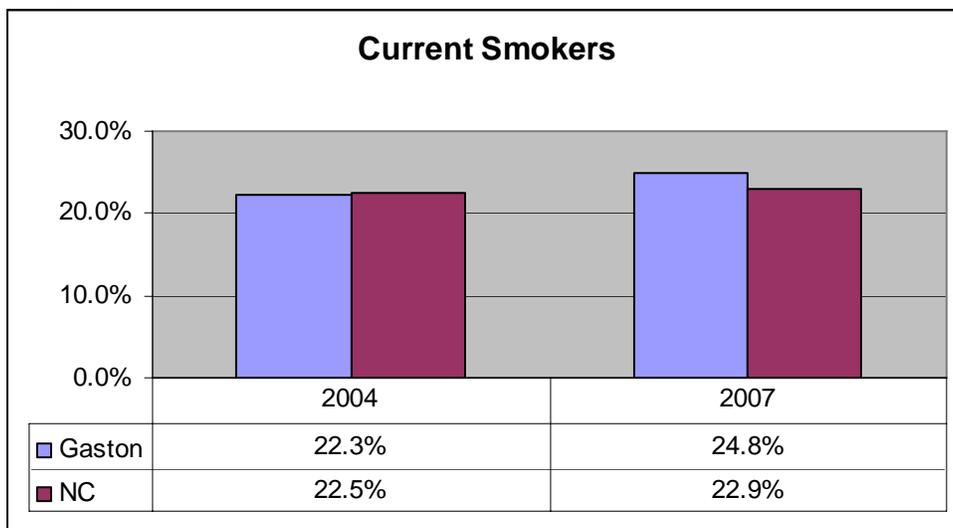


Figure 43

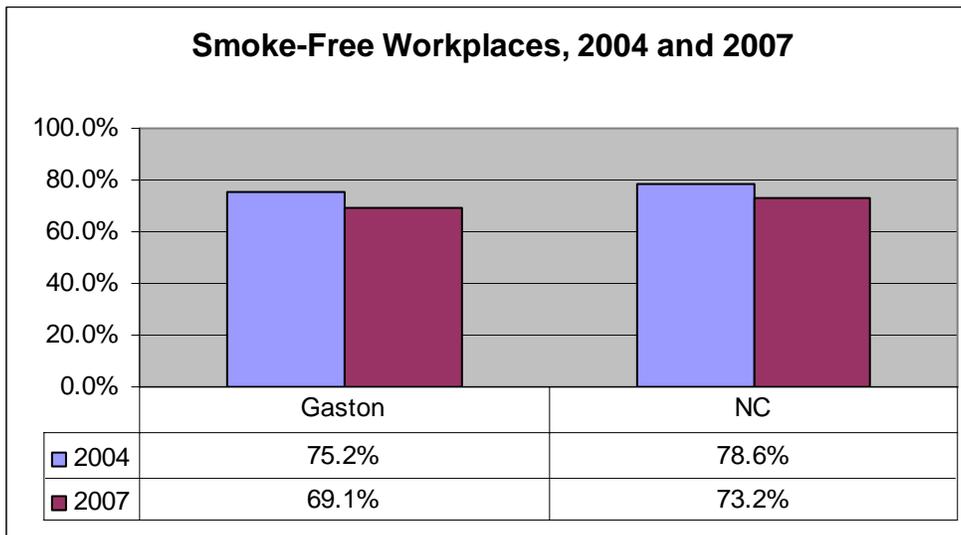
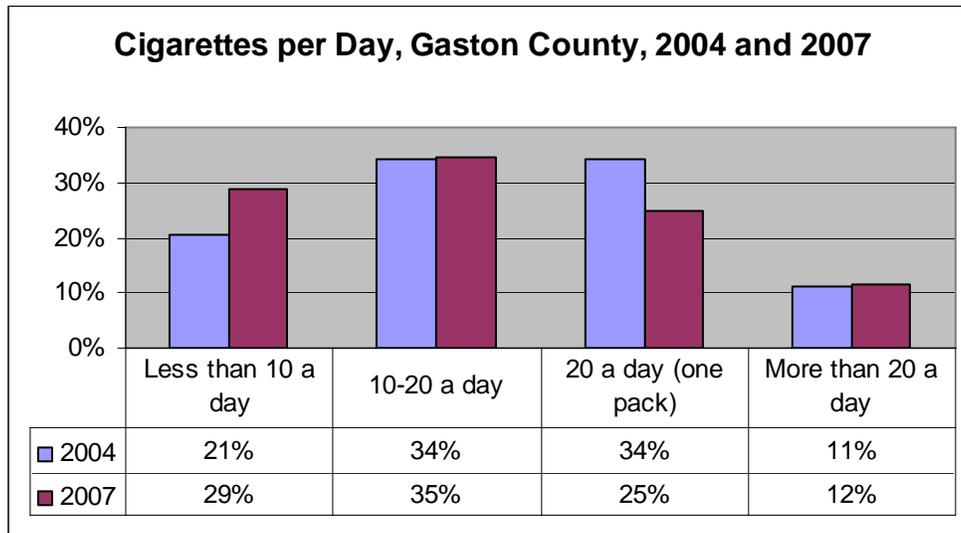


Another significant health risk is cigarette smoking, which increases the likelihood of respiratory diseases, heart disease, cancer, and stroke. The percentage of current smokers in Gaston County increased by 2.5% between 2004 and 2007; at the same time it increased by 0.4% for North Carolina (Figure 44). among Gaston County residents who smoked daily or occasionally, the percentage who smoked a pack of cigarettes a day decreased by nine percent, while the number who smoked less than ten cigarettes a day increased by eight percent (Figure 45). These changes occurred at the same time six percent fewer county residents (2007) reported being employed in smoke-free workplaces, than in 2004 (Figure 46). Over the same period, there was a similar drop in reported smoke-free workplaces in North Carolina.

Figure 44



Figures 45 and 46

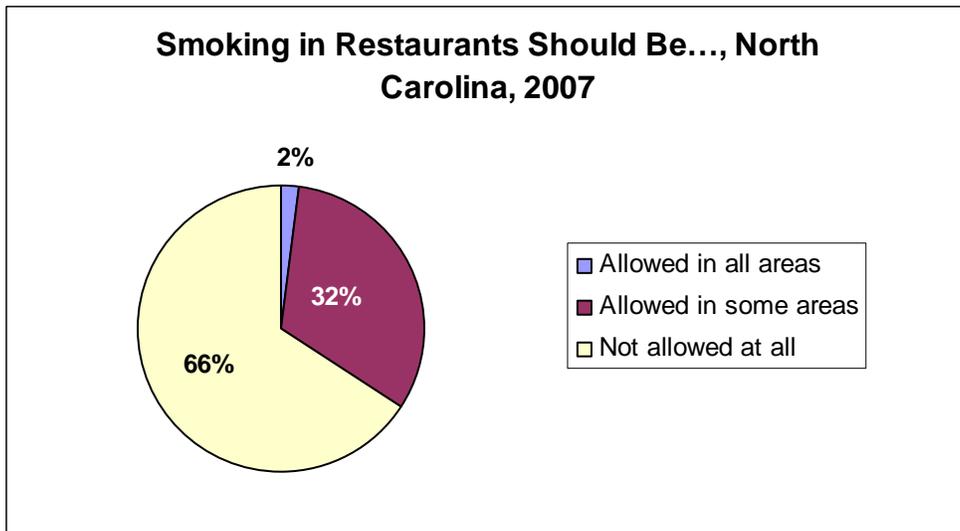
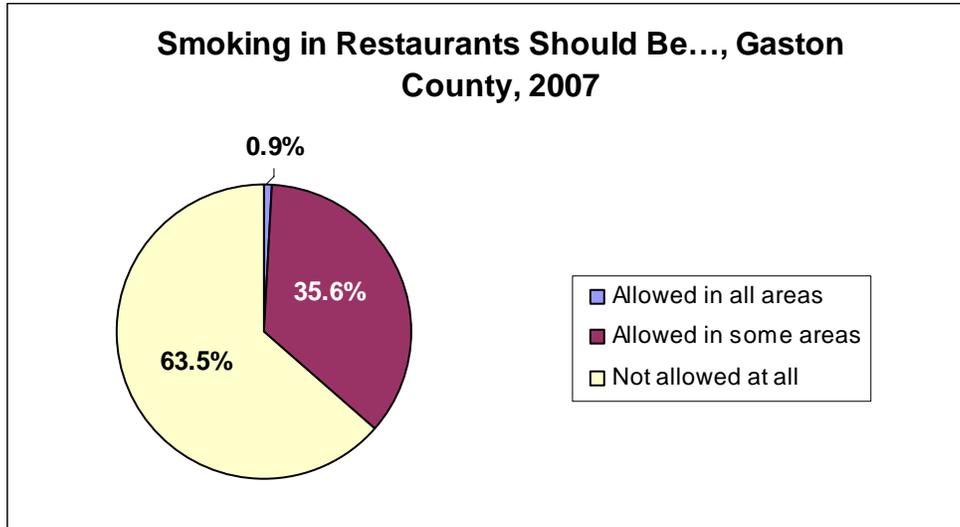


The use of cigarettes in public settings has been increasingly restricted because of the documented harmful effects of second-hand smoke to non-smokers. Second-hand smoke is tobacco smoke that is exhaled by smokers (mainstream smoke) and smoke that is produced by a burning tobacco product (sidestream smoke). The movement to limit passive exposure to secondhand smoke is driven by its content of upwards of 4,000 chemicals compounds, including many that are poisonous or can cause cancer.

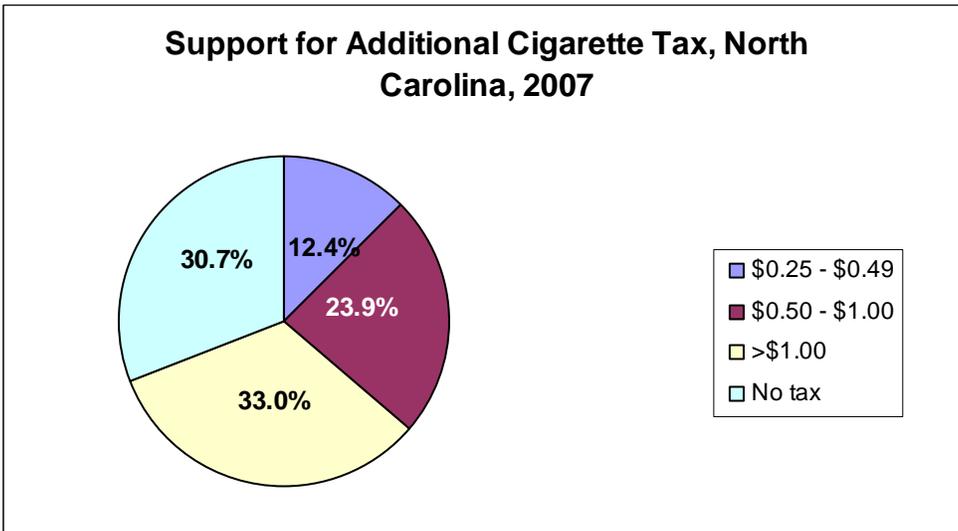
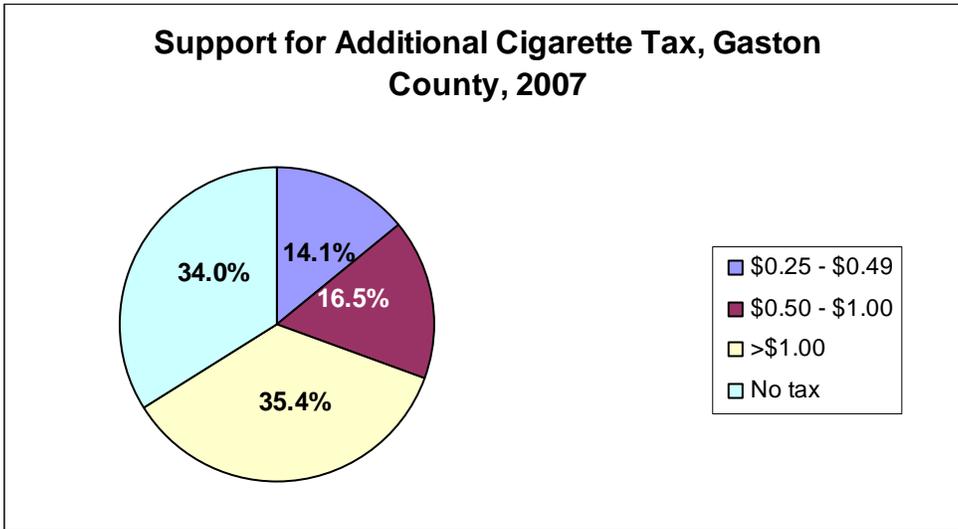
In 2007, 63% of Gaston County residents stated their preference for prohibiting smoking in restaurants, in comparison to 66% of state residents (Figures 47 and 48). A related measure of intent to limit the use of tobacco products is the number of individuals who support additional taxes on tobacco products. Nationwide, increased tobacco taxes have lead to decreased use of tobacco products, particularly among youth. Where the national average is a tax of \$1.18 per pack of cigarettes, it is currently \$0.35 in North Carolina. In 2007, Gaston County residents expressed strongly divergent opinions as 35% stated their support for a tobacco tax greater than

one dollar and 34% support no tobacco tax; BRFSS respondents across the state expressed similar priorities, with 33% supporting a tobacco tax greater than a dollar and 33% supporting no tobacco tax (Figures 49 and 50).

Figures 47 and 48



Figures 49 and 50



Section Four: Environmental Health Assessment

Environmental health describes quality of life factors that are determined by physical, chemical, biological, social, and psychological factors in the natural environment. Key dimensions of Gaston County's environmental health are air quality, water quality, lead hazards, and the built environment. This is the first Community Health Assessment in which Gaston County is addressing these issues.

Air Quality

Air quality is affected by vehicle traffic, industry, and geography – both inside and outside the county. We determine the quality of our outdoor air with the Air Quality Index (AQI) which measures concentrations of ozone, particulates, carbon monoxide, nitrogen dioxide, and sulfur dioxide. While counties in our region are successfully reducing levels of many air pollutants, concentrations of ozone and particulate matter are still significant problems.

Ozone- There are beneficial and harmful types of ozone. Good ozone occurs naturally in the earth's upper atmosphere – six to 30 miles above the earth's surface – where it forms a protective layer that shields us from the sun's harmful ultraviolet rays. Manmade chemicals can destroy this ozone, which lead the U.S. to phase out the production and use of ozone-depleting substances.

Bad ozone is a harmful air pollutant and a major component of smog. It is found near the ground and is formed when chemicals – emitted from automobiles, refineries, power plants, industrial boilers, chemical plants, dry cleaners, and facilities that use solvents and paints – react in the presence of sunlight. Typically, it is formed in the atmosphere when ultraviolet radiation and high temperatures cause chemical reactions among volatile organic compounds and nitrogen oxides. These ozone levels are typically highest during warmer times of the day and year.

This form of ozone contributes to asthma, lung infections, cell inflammation, and shortness of breath. Our growing population and the increasing number of vehicle miles traveled on our roads are key contributors to these ozone levels in Gaston County and our region. Because ozone levels have consistently been 15% above federal compliance levels over the last 20 years, the U.S. Environmental Protection Agency (EPA) designated the area around Mecklenburg County, including Gaston County, as an ozone “non-attainment” area in April 2004.

Particle pollution, or "particulate matter," is a mixture of liquid droplets and such solids as dust, dirt, soot, and smoke. Some solids are emitted directly into the air by factories, power plants, construction activity, fires, and vehicles while others are formed when pollutants react in the atmosphere. Particulate matter is categorized based on size: particles with diameters less than 10 micrometers – smaller than the width of a human hair – can enter the lungs and cause serious health problems.

The Air Quality Index (AQI) is a daily report of air quality that describes how clean or polluted our air is, and describes health problems we may experience a few hours or days after breathing polluted air.

The AQI employs a scale that runs from 0 to 300: the higher the AQI value, the greater the concentration of air pollution and the greater the threat to health. An AQI value of 100 generally corresponds to the national air quality standard for a pollutant; typically, AQI values below 100 are satisfactory but when above 100, air quality is unhealthy – initially for sensitive people, then for everyone as AQI values get higher.

Table 15 describes the numerical values and corresponding “colors” used to convey AQI. In Gaston County, this information is disseminated through radio, television, newspapers, over the Internet, through email alerts, and via road-side signs.

Table 15

Definition of Air Quality Index (AQI) Categories		
AQI	Numerical Value	Description
Green	0 – 50	Good air quality. No health risks are expected. Enjoy outdoor activities!
Yellow	51 – 100	Moderate air quality. Air quality is okay, but unusually sensitive people may be affected, especially when the AQI nears 100.
Orange	101 – 150	Air quality is unhealthy for sensitive groups: children, active adults, and those with heart or respiratory disease, including asthma, should limit outdoor activity.
Red	151 – 200	Unhealthy air quality. Everyone should avoid prolonged outdoor activity.
Purple	201 – 300	Very Unhealthy air quality. Everyone should avoid outdoor activity.

Source: www.airnow.gov

AQI for ozone is tracked from April through September, as ozone forms most easily on warm days. Table 16 presents these measures for the past five years, for the Charlotte Region; the sole purple day in 2007 represents the only occurrence of this rating since 2003.

Table 16

AQI Measures for Ozone in Charlotte Region by Year, 2003 – 2007					
Air Quality Index	Number of Days				
	2003	2004	2005	2006	2007
Green	95	100	130	131	104
Yellow	49	48	67	66	85
Orange	7	4	16	17	23
Red	2	1	1	0	1
Purple	0	0	0	0	1
Total Days	153	153	214	214	214

Source: North Carolina Department of Environment and Natural Resources, Division of Air Quality

In 2007, the number of unhealthy air quality days – or non-green days – increased during the months with higher temperatures: June, July, August, and September (Table 17). Of these months, the greatest danger was posed during August when there were 19 Code Yellow, nine Code Orange, one Code Red, and one Code Purple days.

Table 17

Air Quality Index Measures for Ozone, April – October, 2007							
Air Quality Index	Number of Days						
	April	May	June	July	August	Sept.	Oct.
Green	26	15	8	12	1	13	29
Yellow	4	10	17	19	19	14	2
Orange	0	6	5	0	9	3	0
Red	0	0	0	0	1	0	0
Purple	0	0	0	0	1	0	0
Total Days	30	31	30	31	31	30	31

Source: North Carolina Department of Environment and Natural Resources, Division of Air Quality

Contributing to the growing number of unhealthy air quality days is the increasing number of vehicle miles traveled in our region. In 2004 and 2006, Gaston had the second largest number of vehicle miles driven among North Carolina counties in the Charlotte region (Table 18).

Table 18

Vehicle Miles Traveled*, Charlotte Region, 2004 and 2006			
County	2004	2006	Change
Cabarrus	4,031.91	4,291.66	259.75
Gaston	5,410.68	5,484.90	74.22
Lincoln	1,556.33	1,706.87	150.54
Mecklenburg	19,337.90	21,550.33	2212.43
Rowan	3,518.57	3,705.52	186.95
Union	3,277.12	3,547.01	269.89
Total	37,132.51	40,286.29	3153.78

* Numbers represent thousands of miles traveled

Source: North Carolina Department of Transportation

Two groups working to address the air quality of the 15-county Charlotte Region, which includes Gaston County and counties in North and South Carolina, are the Carolinas Clean Air Coalition (CCAC) and the Sustainable Environment for Quality of Life (SEQL) project. CCAC is a community collaboration that works to restore clean and safe air through coalition building, public policy advocacy, and community outreach. The SEQL project serves the same region, and with funding from the EPA, engages elected officials, staffs from local governments, business and industry groups, economic development groups, and environmental stakeholders to address environmental issues.

In Gaston County, the Quality of Natural Resources Commission (QNRC) successfully advocated for a policy that prohibits Gaston County employees from unnecessarily idling county vehicles. In partnership with the Gaston Regional Chamber it is conducting Clean Air Works, to encourage local businesses and industries to reduce air pollution; program activities include promoting carpooling for employees, conducting energy audits, and making improvements to increase the efficient use of energy. In addition, it is collaborating with the Centralina Council of Governments on ozone abatement initiatives, for example encouraging parents to turn their cars off when they wait to pick up their children at school.

Water Quality

Surface water describes fresh flowing water (rivers, streams and creeks) and fresh standing waters (lakes, ponds and reservoirs). Flowing waters in Gaston County are part of the Catawba Watershed and include the Upper Catawba River and the South Fork of the Catawba River. These waters are consumed by humans, used in industry, a source of food, used for recreation and transportation, and are sites for disposed byproducts of manufacturing and sewage treatment.

According to data from the EPA and state of North Carolina (1998), only 4% of the county's surface water are impaired or threatened, making it among the "cleanest/best counties" in the US. Of affected rivers, streams, and creeks, the leading pollutants and stressors are: pathogens (31%), sediments (22%), mercury (9%), and metals (3%) (Source: www.scorecard.org/env-releases/water/cwa-county.tcl?fips_county_code=37025).

Pathogens, such as bacteria, viruses and protozoa, can enter water through inadequately treated sewage, storm water drains, septic systems, runoff from livestock pens, and sewage from boats. Regulatory agencies usually measure indicator bacteria, because it is impossible to test waters for all disease-causing organisms. The presence of indicator bacteria like *E. coli*, suggests the possible presence of untreated sewage and other dangerous organisms.

Sedimentation occurs when soil particles enter water from eroding land or agricultural production. Because of the high clay content of North Carolina soil, most rivers naturally have a high sediment load after a rainfall. Sedimentation is considered a pollutant when it exceeds this natural level, as it can clog and abrade fish gills, suffocate fish eggs and aquatic insect larvae, or reduce water clarity and interfere with recreational activities. Nutrients and chemicals that attach to sediment particles on land may enter waters, where pollutants can detach and become soluble. (Source: www.scorecard.org/envreleases/def/cwa_cause_class_def.html)

These problems are mainly caused by non-point sources, or when rainfall or snowmelt picks up chemicals, biological agents and sediments and carries them to surface and ground waters. These pollutants include agricultural and residential fertilizers, herbicides and insecticides; oil, grease, and toxic chemicals from urban run-off and energy production; sediment from construction sites, crop and forest lands; and, bacteria and nutrients from livestock, pet wastes and faulty septic systems. (Source: www.scorecard.org/envreleases/def/cwa_source_class_def.html)

All of Gaston county's lakes, reservoirs and ponds contain metal pollutants (Source: www.scorecard.org/env-releases/water/cwa-county.tcl?fips_county_code=37071#report).

Daily, more than 20 million gallons of water are pumped from surface water supplies for use in Gaston County. These bodies of water include Long Creek, Indian Creek, the Catawba River, the South Fork of the Catawba, and Lake Wylie. More than one million analyses are conducted annually to assure these waters are safe for human use.

The QNRC is working on a Regional Stormwater Partnership, with the Centralina Council of Governments, to educate Gaston County residents on how to keep pollutants out of stormwater, for example by not overusing herbicides and pesticides on their lawns, picking up pet waste, and not dumping household chemicals down storm drains.

Well and Septic Systems are widely found in Gaston County, where some 40,000 wells supply water to households and businesses. Of these wells, 165 are community water systems that serve multiple dwellings. The Gaston County Health Department (GCHD) is responsible for approving the location of wells and issuing required well permits, per state standards.

Gaston County has had less than its average amount of rainfall over the past several years, and over the past ten years, the level of Gaston County's groundwater, or the water drawn by wells, has dropped approximately two and one-half feet. In spite of these circumstances, well users have had a steady supply of water, because local wells are drilled an average of 120 feet, which is sufficient to draw needed water from bedrock.

In 2007, environmental health specialists from the GCHD: sampled water from 369 wells, conducted 662 tests for bacteria and inorganic chemicals, issued 179 well construction permits, conducted 269 new well inspections, and made 934 well-related field calls.

GCHD environmental health specialists also ensure septic systems are built and working properly. Staff examines soil, topography, landscape position, soil wetness, soil depth, and barriers to assure septic systems are properly located. They also issue permits to developers to install, construct, and operate new septic systems. Staff also investigates complaints about sewage odor and on-site septic system problems and, as necessary, issue notices of violation.

In 2007, staff in the GCHD On-Site Wastewater Program: made 3,454 site visits, issued 340 permits for new septic systems, issued 276 operating permits for new systems, issued 356 septic expansion/repair permits, issued 183 operating permits to expand/repair septic systems, provided 324 verifications for homeowners to obtain building permits for room additions, investigated 239 complaints; issued 18 notices of violation; and, made one court appearance due to a violation.

The previously cited QNRC is actively monitoring and testing water at 17 sites to determine the status of impaired and unrated streams. QNRC staff submits this information to the NC Department of Environment, Health, and Natural Resources for action by state government.

Food and Lodging

GCHD Food and Lodging staff issue permits to and monitor area eating establishments, including restaurants, school cafeterias, mobile food units, pushcarts, and businesses that sell food that must be stored, cooked, served or held at special temperatures. The program also permits and inspects hotels and other temporary lodging facilities, child care centers, nursing homes, tattoo artists, meat markets, and public swimming pools. Staff also works with contractors and owners of restaurants that are under construction to ensure floor plans, equipment, construction materials, lighting and plumbing meet public health regulations.

In 2007, these staff conducted quarterly inspections of 630 restaurant and food vendors; made 2,362 pre-opening and construction visits; issued 275 new restaurant, transitional, or temporary food service permits; investigated 167 complaints; made 4,593 consulting visits; and, made 1,169 special event visits and inspections. Gaston was the largest county in the state to achieve a 100% inspection rate of restaurants and food vendors.

Lead Testing

GCHD administers the Childhood Lead Poisoning Prevention Program, which provides blood lead testing and medical case management to children under age six who have elevated blood lead levels. The target population is children who reside in homes built before 1978, which was the last year the use of lead-based paints was allowed in the US. In 2007, 777 Gaston County residents were tested for blood lead levels: four had elevated blood lead levels and one had confirmed lead poisoning; “elevated” is defined as 10 micrograms or greater of lead in the blood and “confirmed” is defined as 20 micrograms of lead per deciliter, or greater, on two consecutive tests within a six month period.

The Built Environment

In addition to the natural environment, community health is influenced by exposure to toxins in man-made environments, or the built environment.

A prime example is second-hand tobacco smoke in restaurants. To reduce diner’s exposure to mainstream and sidestream smoke in restaurants, GCHD, the American Cancer Society, and Cancer Services, launched Smoke-Free Gaston to encourage restaurant owners/managers to voluntarily prohibit smoking in their facilities. Since 2007, the program has grown from 154 to 183 participating restaurants; the program distributes a brochure listing smoke-free restaurants, listing these establishments in newspaper advertisements, and gives stickers to diners to affix to their bills thanking managers for their smoke-free restaurants or encouraging them to become smoke-free. Second-hand smoke emits more than 4,000 chemical compounds, of which many are poisonous or cause cancer.

The Gaston County Schools have adopted smoke-free campuses. This policy reinforces classroom lessons on good health practices, prevents exposure to second-hand smoke, and helps build a community standard that assertively discourages youth and adults from engaging in our nation’s leading cause of preventable death and disability.

Fitness and nutrition programs also encourage businesses, governments, and organizations to make policy and environmental changes to promote healthy practices. Such policies would include offering fitness breaks, selling healthy foods in vending machines, and requiring healthy food options at pot luck dinners in houses of worship. Environmental changes include building and expanding greenways and sidewalks, establishing farmer’s markets to sell locally grown produce, and encouraging the opening of full-service grocery stores in neighborhoods with limited access to fresh and healthy foods.

Member agencies of the Gaston County Fitness and Nutrition Council, a group of the Gaston Community Healthcare Commission, engage in these activities. By offering individually-oriented fitness and nutrition programs and promoting policy and environmental changes, it provides individuals and communities with options for adopting healthy lifestyles. Gaston County’s most visible “built environment” program in support of improved fitness promotes activity to initiate and expand greenways; the Avon-Catawba Greenway in Gastonia is being expanded, and the Highland Rail Trail is under construction and is being planned to reach to extend from the City of Gastonia to the Town of Dallas. These resources enable individuals to engage in regular physical activity – walking, running, cycling, roller skating – and create new community understandings about the importance of physical wellbeing.

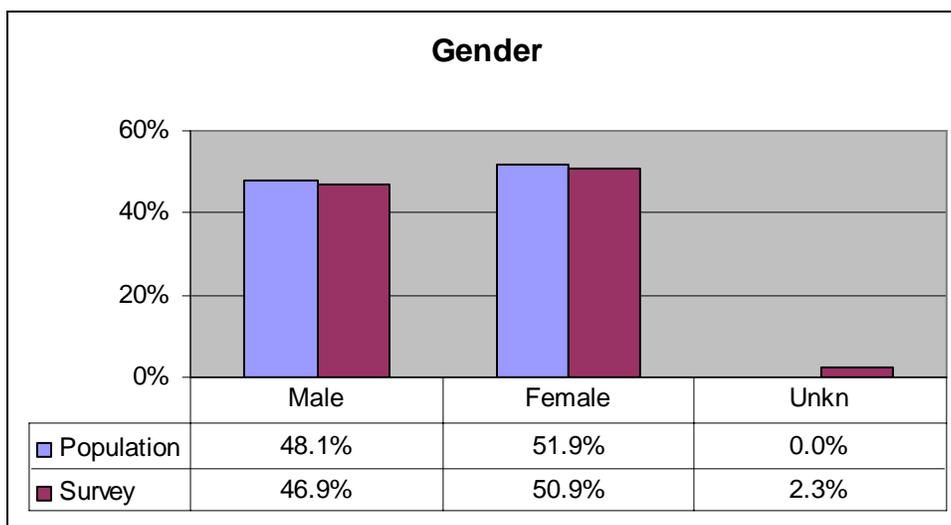
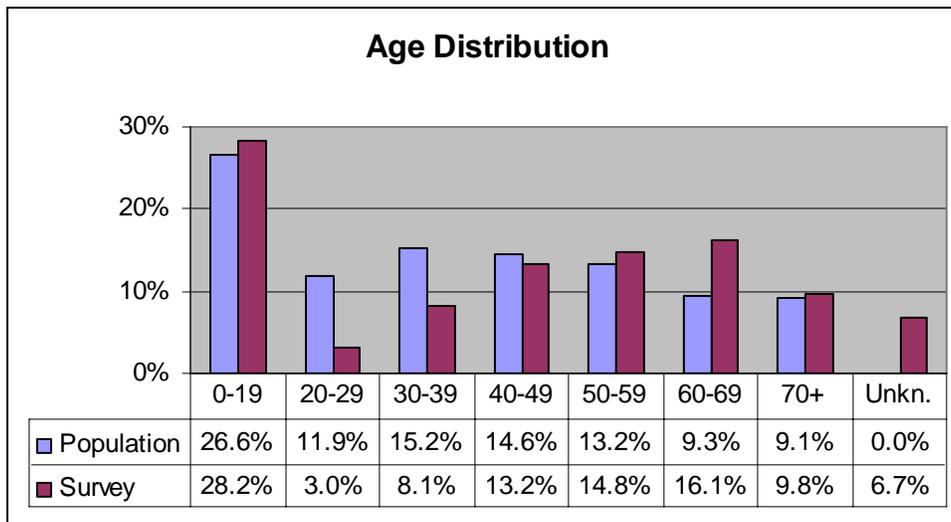
Section Five: Quality of Life Survey Data

Population surveyed

Sixty-five percent of adults who completed the survey have lived in Gaston County for 20 or more years.

GCHD employed several methods to distribute the Quality of Life Survey and to assure its responses adequately represented the demographics of county residents. Figure 51 presents the percentage of survey respondents by age: respondents approximated the distribution of county residents in the categories of young and middle-aged persons, and individuals over 70; the survey under-represented county residents in the 20-29, and 30-39 age groups and over-represented person ages 60-69. When assessed by gender, the percentage of male and female respondents were each within a few percentage points of a perfect match (Figure 52).

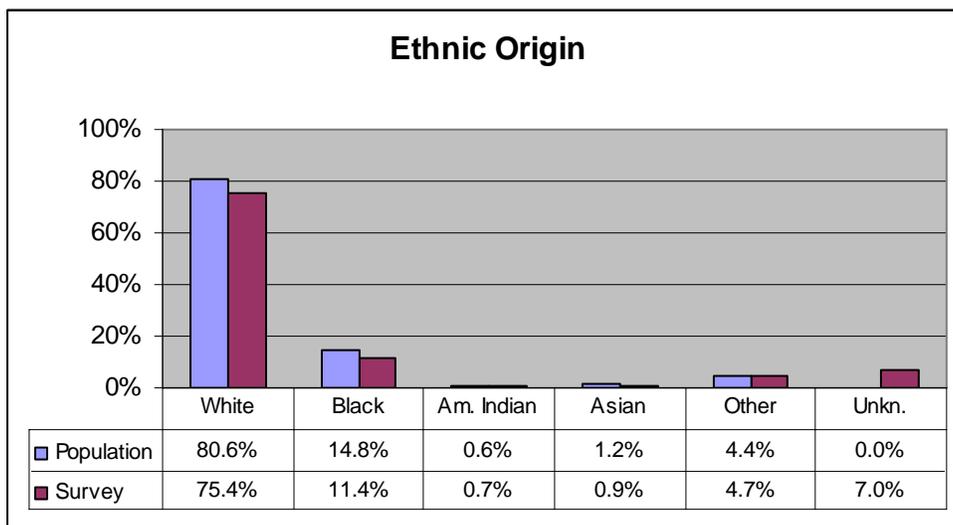
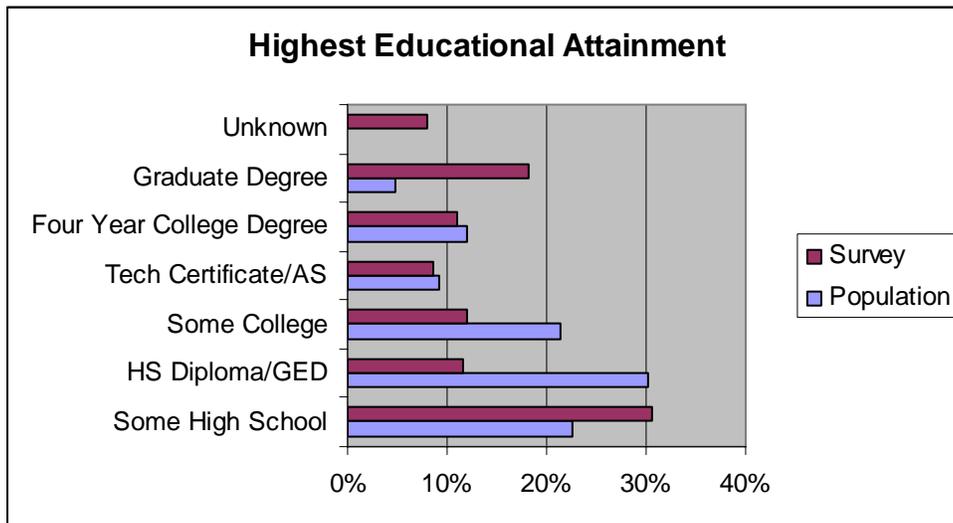
Figures 51 and 52



The percentage of respondents with four-year college degrees, and technical certificates and associates degrees came closest to the percentage of county residents who hold these diplomas. On the other hand, the survey over-represented individuals with graduate degrees and with some high school – which is likely due to the number of community leaders and high school juniors who completed the survey. Under-represented groups were composed of individuals with some college and those who earned a high school diploma or a GED (Figure 53).

The representation of survey respondents by ethnic origin (Figure 54) was within several percentage points of the county population; the greatest spread was 5.4% for white respondents.

Figures 53 and 54



Survey Findings

GCHD used two methods to set priorities with survey data. The first computed the percentage of individuals who checked *Agree* or *Strongly Agree* in response to survey questions. Table 19 lists priorities, by respondent group, for the 20 Community Health Issues.

Table 19

Ranking of Health Issues – Percentage Method*					
The following is a problem in Gaston County ...	Leaders (n=266)	Community (n=663)	Poor Health/ Low Income (n=178)	HS Juniors (n=571)	Total (n=1678)
Overweight & obesity	95.0%	87.1%	91.6%	79.0%	86.3%
Alcohol and substance abuse	89.5%	83.7%	83.1%	75.0%	81.7%
Teen pregnancy	83.1%	76.0%	86.5%	78.8%	79.2%
Motor vehicle accidents	69.4%	73.1%	80.3%	79.2%	75.3%
Lack of health care for uninsured	83.3%	73.5%	N/A	69.8%	74.0%
High blood pressure	80.8%	69.1%	85.4%	66.7%	72.1%
Mental illness, including depression	73.2%	65.3%	83.1%	71.8%	70.7%
Diabetes	78.9%	65.4%	83.1%	68.7%	70.7%
Cancer	71.6%	67.0%	76.4%	65.8%	68.4%
Learning & developmental problems	69.4%	66.2%	77.0%	67.1%	68.2%
Heart disease	80.2%	67.1%	80.3%	58.5%	68.0%
Dental problems	66.8%	59.7%	80.9%	67.3%	65.7%
STDs & HIV	58.5%	56.1%	76.4%	66.8%	62.3%
Physical disabilities	51.6%	54.1%	70.2%	65.0%	59.0%
Stroke	63.1%	54.2%	72.5%	58.1%	59.0%
Vision & sight problems	47.8%	50.2%	70.8%	66.5%	57.4%
Lung disease	52.7%	49.4%	70.8%	55.5%	54.3%
Asthma	53.9%	41.5%	63.5%	58.1%	51.4%
Kidney disease	43.9%	43.5%	61.2%	51.3%	48.1%
Infant death	43.4%	39.4%	50.0%	51.2%	45.1%

*The total percentage of survey respondents who said they Agree and Strongly Agree the listed issues are community health problems.

Because “Lack of health care for the uninsured,” was added to the survey after the Rapid Needs Assessment, N/A (not appropriate) appears for this issue under the column labeled Poor Health/ Low Income. Another change made after the conduct of the RNA, was to ask respondents to identify Priority One, Priority Two, and Priority Three from statements in the community development, youth issues, and community health sections of the survey. This data is available from surveys completed by community leaders, the community-at-large, and high school juniors. Table 20 presents the tabulation of health issues using this approach, or the Priority Method.

Table 20

Ranking of Health Issues – Priority Method*				
Health Issue	Leaders (n=266)	Community (n=663)	HS Juniors (n=571)	Total (n=1678)
Alcohol & substance abuse	14.7%	16.6%	13.2%	15.1%
Overweight & obesity	19.3%	14.5%	8.8%	13.6%
Teen Pregnancy	8.8%	8.8%	15.2%	10.9%
Lack of health care for uninsured	13.5%	11.6%	3.5%	9.3%
Cancer	5.5%	6.8%	9.3%	7.4%
Motor vehicle accidents	2.7%	5.8%	8.2%	6.0%
Diabetes	7.7%	5.3%	4.1%	5.4%
Mental illness, including depression	5.9%	5.4%	4.4%	5.2%
Heart disease	6.7%	5.8%	1.1%	4.4%
STD & HIV	1.7%	2.8%	7.7%	4.2%
Learning & developmental problems	4.1%	4.1%	2.3%	3.5%
High blood pressure	3.2%	3.3%	2.6%	3.0%
Dental problems	2.4%	2.1%	2.5%	2.3%
Infant death	0.8%	1.8%	3.9%	2.3%
Asthma	0.8%	1.0%	4.4%	2.1%
Stroke	0.8%	1.1%	1.6%	1.2%
Lung disease	0.8%	0.5%	2.3%	1.2%
Other	0.0%	1.5%	0.8%	1.0%
Physical disabilities	0.6%	0.6%	1.6%	1.0%
Kidney disease	0.0%	0.3%	1.3%	0.6%
Vision	0.0%	0.4%	1.2%	0.6%

*The percentage of respondents who cited these problems as their first, second, or third priorities.

Table 21, which compares the results of the two priority ranking methods, shows a total of eight issues were cited by both approaches. Of the two methods, the priority method is more reliable as it reflects intentional priority selections.

Table 21

Ranked Health Issues, Determined by the Percentage and Priority Setting Methods		
Ranking	Percentage Method	Priority Method
1	Overweight & obesity	Alcohol & substance abuse
2	Alcohol and substance abuse	Overweight & obesity
3	Teen pregnancy	Teen Pregnancy
4	Motor vehicle accidents	Lack of health care for uninsured
5	Lack of health care for uninsured	Cancer
6	High blood pressure	Motor vehicle accidents
7	Mental illness, including depression	Diabetes
8	Diabetes	Mental illness, including depression
9	Learning & developmental problems	Heart disease
10	Cancer	STD & HIV

In 2004, the ten leading community health problems determined by the Quality of Life Survey were: (1) obesity; (2) alcohol and substance abuse; (3) high blood pressure; (4) heart disease; (5) diabetes; (6) sexually transmitted diseases and HIV/AIDS; (7) cancer; (8) mental health problems; (9) stroke; and, (10) learning and developmental problems. When compared to Table 21, all but stroke were listed as leading community health problems in 2008, reflecting the continuing challenge in preventing and treating these conditions.

The Youth Issues section of the survey asked questions on academic, job, and health issues. Using the percentage method (Table 22), four health issues were rated as priorities by more than 90% of all respondents: (1) Stop physical, sexual, emotional abuse of youth by their families, (2) Reduce the risk of HIV/AIDS and sexually transmitted diseases among youth, (3) Reduce the use of drugs and alcohol by youth, and (4) Reduce teenage pregnancy. Among high school juniors, the top four priorities were: (1) Reduce the risk of HIV/AIDS and sexually transmitted diseases among youth, (2) Stop physical, sexual, emotional abuse of youth by their families, (3) Identify and help depressed youth, and (4) Reduce teenage pregnancy.

In comparison, the 2004 Quality of Life Survey found the leading youth health issues were: (1) Use of drugs and alcohol; (2) Peer pressure to be sexually active; (3) Risk of HIV/AIDS; and, (4) teenage pregnancy and out-of-wedlock births. While 2004 and 2008 results are consistent, two new questions (2008) received strong responses: Conduct physical activity programs for youth, and Help youth avoid tobacco and stop using tobacco products; these likely reflect the presence of community and school-based smoking prevention and physical activity programs.

Table 22

Ranking of Youth Health Issues – Percentage Method*					
Our community needs to do more to ...	Leaders (n=266)	Community (n=663)	Poor Health/ Low Income (n=178)	HS Juniors (n=571)	Total (n=1678)
Stop physical, sexual, emotional abuse of youth by their families	95.4%	92.6%	93.3%	87.0%	91.3%
Reduce the risk of HIV/AIDS & sexually transmitted diseases among youth	93.9%	91.7%	92.7%	87.3%	90.7%
Reduce the use of drugs & alcohol by youth	97.7%	95.8%	93.8%	77.7%	90.0%
Reduce teenage pregnancy	96.5%	92.7%	92.1%	82.7%	90.0%
Identify and help depressed youth	92.3%	91.8%	91.6%	85.6%	89.8%
Conduct physical activity programs for youth	93.1%	91.0%	92.7%	80.9%	88.2%
Help youth avoid tobacco and stop using tobacco products	93.8%	94.5%	88.8%	75.2%	87.4%
Reduce youth peer pressure to be sexually active	94.6%	90.7%	90.4%	66.5%	83.4%
Improve the body image of youth and prevent eating disorders	87.7%	82.5%	88.2%	76.7%	82.1%

*The total percentage of survey respondents who said they Agree and Strongly Agree the listed issues are community health problems.

The Youth Issues section of the survey was comprised of 27 statements; Table 23 presents the percentage of survey respondents who ranked the nine health issues, in this section, as their first, second, or third priority.

Table 23

Ranking of Youth Health Issues – Priority Method*				
Health Issue	Leaders (n=266)	Community (n=663)	HS Juniors (n=571)	Total (n=1678)
Stop physical, sexual, emotional abuse of youth by their families	3.7%	5.9%	7.6%	6.0%
Reduce teenage pregnancy	2.6%	4.6%	8.7%	5.5%
Reduce the risk of HIV/AIDS & sexually transmitted diseases among youth	1.5%	4.2%	7.7%	4.8%
Reduce the use of drugs & alcohol by youth	4.4%	5.0%	4.2%	4.6%
Reduce youth peer pressure to be sexually active	1.8%	4.3%	3.8%	3.6%
Conduct physical activity programs for youth	3.1%	3.1%	4.0%	3.4%
Help youth avoid tobacco and stop using tobacco products	1.9%	3.9%	3.0%	3.2%
Identify and help depressed youth	0.7%	2.4%	4.4%	2.7%
Improve the body image of youth and prevent eating disorders	1.0%	1.4%	3.9%	2.2%

*The percentage of respondents who cited these problems as their first, second, or third priorities.

Table 24

Ranked Youth Health Issues, Determined by the Percentage and Priority Setting Methods		
Ranking	Percentage Method	Priority Method
1	Stop physical, sexual, emotional abuse of youth by their families	Stop physical, sexual, emotional abuse of youth by their families
2	Reduce the risk of HIV/AIDS and STDs among youth	Reduce teenage pregnancy
3	Reduce the use of drugs and alcohol by youth	Reduce the risk of HIV/AIDS and STDs among youth
4	Reduce teenage pregnancy	Reduce the use of drugs and alcohol by youth
5	Identify and help depressed youth	Reduce youth peer pressure to be sexually active
6	Conduct physical activity programs for youth	Conduct physical activity programs for youth
7	Help youth avoid tobacco and stop using tobacco products	Help youth avoid tobacco and stop using tobacco products
8	Reduce youth peer pressure to be sexually active	Identify and help depressed youth
9	Improve the body image of youth and prevent eating disorders	Improve the body image of youth and prevent eating disorders

Table 24 compares the two priority ranking methods for the nine health issues from the Youth Issues section. Notably, “Stop physical, sexual, emotional abuse of youth by their families,” was the highest ranked priority by each method.

The survey also asked questions about respondents’ health insurance. A review of total responses (Table 25) shows 79.7% of respondents reported having adequate health insurance while 7.1% said they were uninsured. Questions about specific insurance coverage found, among all respondents, 58.5% had private insurance, 32.3% had Medicare or Medicaid, and 11.3% had another form of insurance. Poor health / low income respondents – who completed the Rapid Needs Assessment – were not asked if they had “another kind of insurance,” but were the largest group that reported not having health insurance (10.1%), followed by high school juniors (9.3%).

Table 25

Health Insurance Status					
Statement	Leaders (n=266)	Community (n=663)	Poor Health/ Low Income (n=178)	HS Juniors (n=571)	Total (n=1678)
I have health insurance and it is adequate	85.5%	73.9%	77.8%	86.4%	79.7%
I have private health insurance	88.7%	66.6%	54.5%	36.3%	58.5%
I have Medicare/Medicaid	12.0%	31.6%	46.6%	38.1%	32.3%
I have some other kind of insurance	N/A	11.9%	N/A	10.7%	11.3%
I am uninsured	1.5%	6.6%	10.1%	9.3%	7.1%

Table 26 presents responses to the question, “Are you and your family able to get this service?” Options for answering the 18 scenarios were *Yes*, *No*, and *Not Applicable I don’t use this service*. When reviewing this data, it is important to note the percentage of respondents who do not use listed services. The following are the most significant survey findings:

- 60.7% of Community respondents reported they could obtain health care for families;
- 8.0% of Poor health/low income respondents, constituted the largest group who reported they could not obtain health care for infants and children;
- High school juniors were the largest group (10%) who reported they could not secure health care for pregnant women;
- Community (9.9%) and Poor health/low income (9.8%) respondents reported they had the greatest difficulty securing health care for the elderly;
- 11.6% of High school juniors and 10.3% of Poor health/low income respondents reported they were least able to obtain cancer treatment and prevention services;
- 20.0% of Poor health/low income respondents reported they were least able to secure dental care, and 20.3% of community respondents reported they do not use dental care;
- High school juniors (11.6%) and Community members (10.3%) reported they were least able to obtain mental health care;
- High school juniors (11.5%) and Poor health/low income respondents (9.9%) reported they were least able to obtain care for developmental disabilities;

- High school juniors (13.0%) and of Poor health/low income respondents (10.5%) reported they could not obtain drug and alcohol treatment;
- High school juniors (10.9%) and Poor health/low income respondents (10.5%) reported they could not secure services for physical disabilities;
- 82.2% of all survey respondents reported they can obtain hospital services and 78.8% reported they can obtain emergency department services;
- 11.6% of Poor health/low income respondents reported they cannot obtain services from the Gaston County Health Department;
- 15.2% of Poor health/low income respondents reported they cannot obtain care from Gaston Family Health Services;
- 7.4% of Poor health/low income respondents reported they cannot obtain pharmacy services;
- 12.6% of Poor health/low income respondents cannot obtain hospice care;
- A high of 14.9% of Poor health/low income respondents reported they do not have access to spiritual care for health problems, followed by 14.6% of high school juniors; and,
- 44.3% of Poor health/low income respondents and 35.2% of Community members reported they cannot secure health education programs.

Table 26

Access to Health Resources: Are you and your family able to get this service?						
Service	Responses	Leaders (n=266)	Community (n=663)	Poor Health/ Low Income (n=178)	HS Juniors (n=571)	Total (n=1678)
Health care for families	Yes	82.2%	60.7%	80.7%	84.0%	73.8%
	No	0.00%	9.7%	8.5%	7.6%	7.3%
	Not applicable, I don't use	17.8%	29.6%	10.8%	8.3%	19.0%
Health care for infants & children	Yes	40.9%	35.3%	43.4%	73.0%	48.5%
	No	1.2%	6.6%	8.0%	7.7%	6.1%
	Not applicable, I don't use	57.9%	58.1%	48.6%	19.4%	45.4%
Health care for pregnant women	Yes	29.5%	25.4%	38.3%	59.0%	37.6%
	No	1.2%	5.6%	5.1%	10.0%	6.1%
	Not applicable, I don't use	69.4%	69.0%	56.6%	31.1%	56.3%
Health care for the elderly	Yes	36.3%	37.2%	59.5%	63.7%	47.5%
	No	1.5%	9.9%	9.8%	8.2%	7.9%
	Not applicable, I don't use	62.2%	53.0%	30.6%	28.1%	44.6%
Cancer treatment & prevention	Yes	51.5%	37.0%	48.6%	58.9%	47.5%
	No	1.5%	9.6%	10.3%	11.6%	8.9%
	Not applicable, I don't use	46.9%	53.3%	41.1%	29.5%	43.7%
Dental care	Yes	86.4%	63.9%	73.7%	87.3%	75.8%
	No	3.9%	15.8%	20.0%	6.9%	11.6%
	Not applicable, I don't use	9.7%	20.3%	6.3%	5.9%	12.6%
Care for mental health	Yes	46.9%	34.3%	53.1%	58.2%	45.7%
	No	3.1%	10.3%	9.7%	11.6%	9.4%
	Not applicable, I don't use	50.0%	55.4%	37.1%	30.3%	44.9%
Care for developmental disabilities	Yes	22.7%	18.3%	41.3%	51.7%	31.6%
	No	1.9%	8.4%	9.9%	11.5%	8.4%
	Not applicable, I don't use	75.4%	73.3%	48.8%	36.8%	60.0%
Drug and alcohol treatment	Yes	22.5%	19.0%	40.1%	48.8%	30.8%
	No	3.1%	7.4%	10.5%	13.0%	8.7%
	Not applicable, I don't use	74.4%	73.6%	49.4%	38.1%	60.5%

Access to Health Resources: Are you and your family able to get this service?						
Service	Responses	Leaders (n=266)	Community (n=663)	Poor Health/ Low Income (n=178)	HS Juniors (n=571)	Total (n=1678)
Services for physical disabilities	Yes	24.1%	21.0%	45.9%	54.23%	34.4
	No	1.6%	7.7%	10.5%	10.9%	7.9%
	Not applicable, I don't use	74.3%	71.3%	43.6%	34.9%	57.7%
Hospital Services	Yes	89.5%	77.2%	87.4%	83.0%	82.2%
	No	1.6%	5.4%	6.3%	7.6%	5.5%
	Not applicable, I don't use	9.0%	17.4%	6.3%	9.4%	12.3%
Emergency Department Services	Yes	86.1%	73.6%	84.6%	79.2%	78.8%
	No	2.3%	5.1%	8.6%	8.5%	6.0%
	Not applicable, I don't use	11.6%	21.3%	6.9%	12.3%	15.2%
The Gaston County Health Department	Yes	35.4%	28.5%	58.4%	77.0%	47.5%
	No	1.54%	7.7%	11.6%	8.8%	7.4%
	Not applicable, I don't use	63.1%	63.8%	30.1%	14.2%	45.1%
Gaston Family Health Services	Yes	23.1%	20.7%	42.1%	76.7%	40.1%
	No	2.4%	7.5%	15.2%	8.0%	7.7%
	Not applicable, I don't use	74.5%	71.8%	42.7%	15.3%	52.3%
Pharmacy Services	Yes	88.4%	75.2%	88.6%	85.1%	82.0%
	No	1.2%	6.6%	7.4%	7.5%	6.0%
	Not applicable, I don't use	10.4%	18.1%	4.0%	7.5%	12.0%
Hospice care	Yes	31.9%	25.1%	42.0%	55.2%	37.1%
	No	1.2%	4.4%	12.6%	10.3%	6.6%
	Not applicable, I don't use	66.9%	70.4%	45.4%	34.5%	56.4%
Spiritual care for health problems	Yes	55.3%	39.9%	49.1%	48.8%	46.3%
	No	2.0%	7.7%	14.9%	14.6%	9.5%
	Not applicable, I don't use	42.8%	52.4%	36.0%	36.6%	44.2%
Health education programs	Yes	65.2%	35.2%	44.2%	60.7%	48.9%
	No	1.6%	8.6%	15.5%	11.3%	9.0%
	Not applicable, I don't use	33.2%	56.3%	40.2%	28.0%	42.1%

Note: Figures that do not total 100% are due to the rounding of numbers.

For many of the listed resources, high school juniors had the largest percentage of “Yes” responses. While some of their responses are counterintuitive – for example the 55.2%, who responded Yes to being able to obtain hospice care – it is important to remember the survey asked “Are you and your family able to get this service?” As a result, it is possible that answers from high school juniors reflect their personal experiences and those of their friends, members of their extended families, and family friends. GCHD will probe this phenomenon in the focus group it will conduct with this cohort.

Table 27 defines why survey respondents are unable to secure health services. The greatest cited reason is the inability to pay for care (12.9%), with community members (15.2%) citing this reason most frequently. This Rapid Needs Assessment addressed this issue with a different question: “Are you and your family able to get this service - Transportation to health care providers;” 50.3% of respondents said yes, 16.8% said no, and 33% stated “I don’t use this service.”

Table 27

Barriers to Access: Reasons why you and your family are not able to get health services?				
Reason	Leaders (n=266)	Community (n=663)	HS Juniors (n=571)	Total (n=1678)
Lack of transportation	0.0%	2.5%	8.8%	4.4%
Lack of health insurance	5.6%	12.4%	10.4%	10.5%
Inability to pay for care	3.4%	15.2%	14.8%	12.9%

Table 28 presents responses to the question, “Where do you usually go when you are sick or need health care?” The most common response (83.9%) was “my personal doctor,” followed by a pharmacy (43.9%), and the Emergency Department (38.9%). The 2004 Gaston County Quality of Life Survey cited the same three leading responses: personal doctor (85.9%), pharmacy (26.0%), and the hospital emergency room (27.7%).

Table 28

Sick Care Resources: Where do you usually go when you are sick or need health care?					
Health Care Resource	Leaders (n=266)	Community (n=663)	Poor Health/ Low Income (n=178)	HS Juniors (n=571)	Total (n=1678)
My personal doctor	95.5%	92.3%	80.9%	69.8%	83.9%
Emergency Department	28.6%	39.5%	49.4%	39.7%	38.9%
An Urgent Care Center	29.3%	30.0%	27.0%	30.4%	29.7%
Gaston County Health Department	6.0%	4.4%	17.4%	17.1%	10.4%
Gaston Family Health Services	3.8%	3.4%	13.5%	13.5%	8.0%
A pharmacy	44.0%	46.2%	55.6%	37.6%	43.9%
A chiropractor	16.2%	15.0%	11.2%	9.8%	13.0%
An alternative medicine provider	6.0%	6.1%	8.4%	6.3%	6.4%
The Internet	16.5%	17.8%	19.7%	18.6%	18.1%
I don't seek care when I am sick	3.0%	3.2%	3.9%	10.9%	5.9%

The survey also asked who respondents to list all resources they “trust for accurate health information and health advice” (Table 29). The top five responses were: (1) my personal doctor/medical provider (84.1%); (2) my pharmacist (43.5%); (3) medical reference books (26.6%); (4) my family and friends (25.4%); and, (5) the Internet (22.8%). Poor health/low income respondents had lower levels of trust in their personal doctors/medical providers; a high level of trust in Gaston Family Health Services; and the highest trust in the Gaston County Health Department, pharmacists, their children’s school nurses, government agencies, family and friends, magazines and newspapers, and medical reference books.

In 2004, the top five responses to this question, were: (1) my physician (80.8%); (2) my pharmacist (45.6%); (3) federal government agencies (24.6%); (4) the Gaston County Health Department (20.8%); and (5) magazines and newspapers (19.7%). A comparison of responses between 2004 and 2008, shows continuing trust in physicians/medical providers and pharmacists; growing trust of medical reference books, family and friends, and the Internet; and, declining trust of federal government agencies, the health department, and newspapers and magazines.

Table 29

Who do you trust for accurate health information and health advice?					
Resources	Leaders (n=266)	Community (n=663)	Poor Health/ Low Income (n=178)	HS Juniors (n=571)	Total (n=1678)
My Personal Doctor	95.1%	92.1%	82.6%	70.0%	84.1%
GFHS	9.0%	6.8%	21.9%	22.1%	14.0%
GCHD	17.3%	6.2%	33.2%	22.9%	16.5%
Radio/TV	3.4%	4.2%	13.5	9.5%	6.9%
My Pharmacist	50.0%	48.6%	59.6%	29.7%	43.5%
My child’s school nurse	3.4%	2.5%	16.3%	10.4%	6.8%
Government agencies	9.4%	4.5%	26.4%	10.4%	9.6%
My family and friends	15.0%	16.4%	50.0%	32.8%	25.4%
Magazines/Newspapers	9.4%	8.9%	24.2%	9.3%	10.8%
The Internet	29.7%	23.2%	24.7%	18.6%	22.8%
Medical reference books	31.6%	26.4%	44.4%	19.0%	26.6%

The Quality of Life Survey also addressed natural and built environments. Table 30 shows 66.6% of all respondents support improved water quality and 72.9% support improved air quality; community leaders had the greatest percentage of affirmative responses for both topics.

A majority of all respondents also support improving the built environment: (1) walking trails and bike paths (77.4%); (2) sidewalks (81.7%); (3) parks and recreation facilities (80.3%); and (4) the promotion and sales of locally grown fruits and vegetables (75.6%). Community leaders were the strongest supporters of items 1 - 3, while persons with low health/low income most strongly supported promoting and selling locally grown fruits and vegetables (Table 31). Collectively, these four issues suggest our county seeks to engage in more physical activity and eat healthier and lower cost foods.

Table 30

Environment: Air & Water Quality					
Our community needs to do more to improve ...	Leaders (n=266)	Community (n=663)	Poor Health/ Low Income (n=178)	HS Juniors (n=571)	Total (n=1678)
Water quality	69.2%	65.3%	62.2%	68.2%	66.6%
Air quality	79.2%	71.5%	65.9%	73.7%	72.9%

Table 31

Environment: Physical Activity and Nutrition					
Our community needs to do more to improve ...	Leaders (n=266)	Community (n=663)	Poor Health/ Low Income (n=178)	HS Juniors (n=571)	Total (n=1678)
Walking trails and bike paths	90.9%	76.3%	75.0%	73.2%	77.4%
Sidewalks	87.7%	80.0%	80.1%	81.3%	81.7%
Parks and recreation facilities	88.6%	78.5%	71.2%	81.4%	80.3%
Promotion and sales of locally grown fruits and vegetables	75.1%	81.6%	83.6%	63.2%	74.6%

Section Six: Health Priorities

The Executive Committee of the Gaston Community Healthcare Commission reviewed the preceding demographic, public health, and Quality of Life Survey data and selected the following five priorities:

1. Obesity, including unhealthy eating and lack of physical activity;
2. Cardiovascular disease and high blood pressure;
3. Teenage pregnancy, including HIV/STDs and peer pressure to be sexually active;
4. Mental health problems, including alcohol and drug abuse, depression, and suicide and the lack of access to mental health services for diagnosing and treating these conditions; and,
5. Cancer, including screening, diagnosing, and treating cancer among uninsured county residents.

Priorities one through four are the same, or refinements of, priorities set by this group in 2004, reflecting Gaston County's ongoing work in addressing these issues. Priority five was added because of the county's high morbidity and mortality rates and its ranking of cancer as the fifth highest priority by community leaders, the community-at-large, and high school juniors.

The following presents supporting data for each priority. Following this text is a series of maps that present the distribution of deaths, by Gaston County census tracts, from conditions linked to each priority. This information will help the Gaston Community Healthcare Commission target geographic areas where it will conduct community prevention and treatment programs.

Obesity, including unhealthy eating and lack of physical activity. Obesity was ranked as a significant health problem by the Quality of Life Survey. Among all groups, 86.3% of respondents Agreed or Strongly Agreed it was a problem, ranking it the highest community health problem. The priority ranking of problems – by community leaders, the community-at-large, and students – listed obesity as the county's second most significant community health problem (13.6%). In addition, 64% of county residents had BMI scores that were overweight or obese (BRFSS, 2007); 58.5% did not meet recommendations for physical activity (BRFSS, 2007), and only 18% of county residents consumed five or more servings of fruit and vegetables daily (BRFSS, 2007). See Figure 46 for the distribution of deaths caused by obesity-related conditions in Gaston County.

Cardiovascular disease and high blood pressure. In Gaston County, heart disease is the leading cause of death among men, women, whites, and minorities ... and is among the five leading causes of death for age groups 25 - 44, 45 - 64, and 65 and older. High blood pressure was the most common diagnosis and coronary heart disease was the fifth most common diagnosis among county residents in 2007 (BRFSS). The Quality of Life Survey found 72.1% of county residents Agreed or Strongly Agreed that high blood pressure is a significant community health problem, ranking it sixth highest among all listed health issues. See Figure 47 for the distribution of deaths due to cardiovascular disease in Gaston County.

Teenage pregnancy, including HIV/STDs and peer pressure to be sexually active. In 2007, the rate of teen pregnancy in Gaston County (76.9) exceeded the state rate (63.0). Among Quality of Life Survey participants, 79.2 Agreed or Strongly Agreed teenage pregnancies are a community health problem. Collectively, 10.9% of community leaders, the community-at-large, and high school juniors listed teenage pregnancy among their top three priority health issues, giving it an overall ranking as the third highest problem in the county. See Figure 48 for the distribution of teen birth rates in Gaston County.

Mental health problems, including alcohol and drug abuse, depression, and suicide and the lack of access to mental health services for treating these conditions. Quality of Life Survey participants ranked alcohol and substance abuse as the second (81.7%) and mental illness, including depression, as the seventh (70.7%) most significant community health problem in Gaston County. Collectively, community leaders, the community-at-large, and high school juniors, ranked alcohol and substance abuse as the county's top priority (15.0%). The Executive Committee also noted the relationship between alcohol and drug abuse and the high incidence of motor vehicle accidents; 75.3% of Quality of Life Survey participants Agreed or Strongly Agreed (fourth highest ranking) motor vehicle accidents is a community health problem and 6.0% listed it as a priority health issue, ranking it as sixth highest among all community health problems. BRFSS data found the incidence of self-reported "current depression" in Gaston County was 132% higher than statewide reports (2007). Because mental health data by the patient's census tract of residence is not available, we were limited to mapping one aspect of this broad issue – death rates from suicide – which is presented on Figure 49.

Cancer, including screening, diagnosing, and treating cancer among uninsured county residents. For the period 2003 - 2007, Cancer was the second leading cause of death in Gaston County for men, women, whites, and minorities; it is also among the top five causes of death starting with age group five to fourteen ... through age 65 and older. Deaths from cancer are most frequently due to cancer of the: (1) trachea, bronchus, and lung; (2) prostate; (3) female breast; and, (4) the colon, rectum, and anus. Gaston County's total age-adjusted death rate due to cancer (210.8) is greater than the state rate (196.4). Quality of Life Survey respondents ranked cancer as the county's fifth highest priority health issue (7.3%), and 68.4% of respondents Agreed or Strongly Agreed it was a community health problem. This priority also addresses the need for clinical services for uninsured county residents; among Quality of Life Survey respondents who ranked their top three priorities, 9.3% cited "lack of health care for uninsured persons" as the fourth highest priority and 74.0% of respondents (ranked fifth) Agreed or Strongly agreed this was a significant community problem. See Figure 50 for the distribution of death rates from cancer in Gaston County.

Figure 46

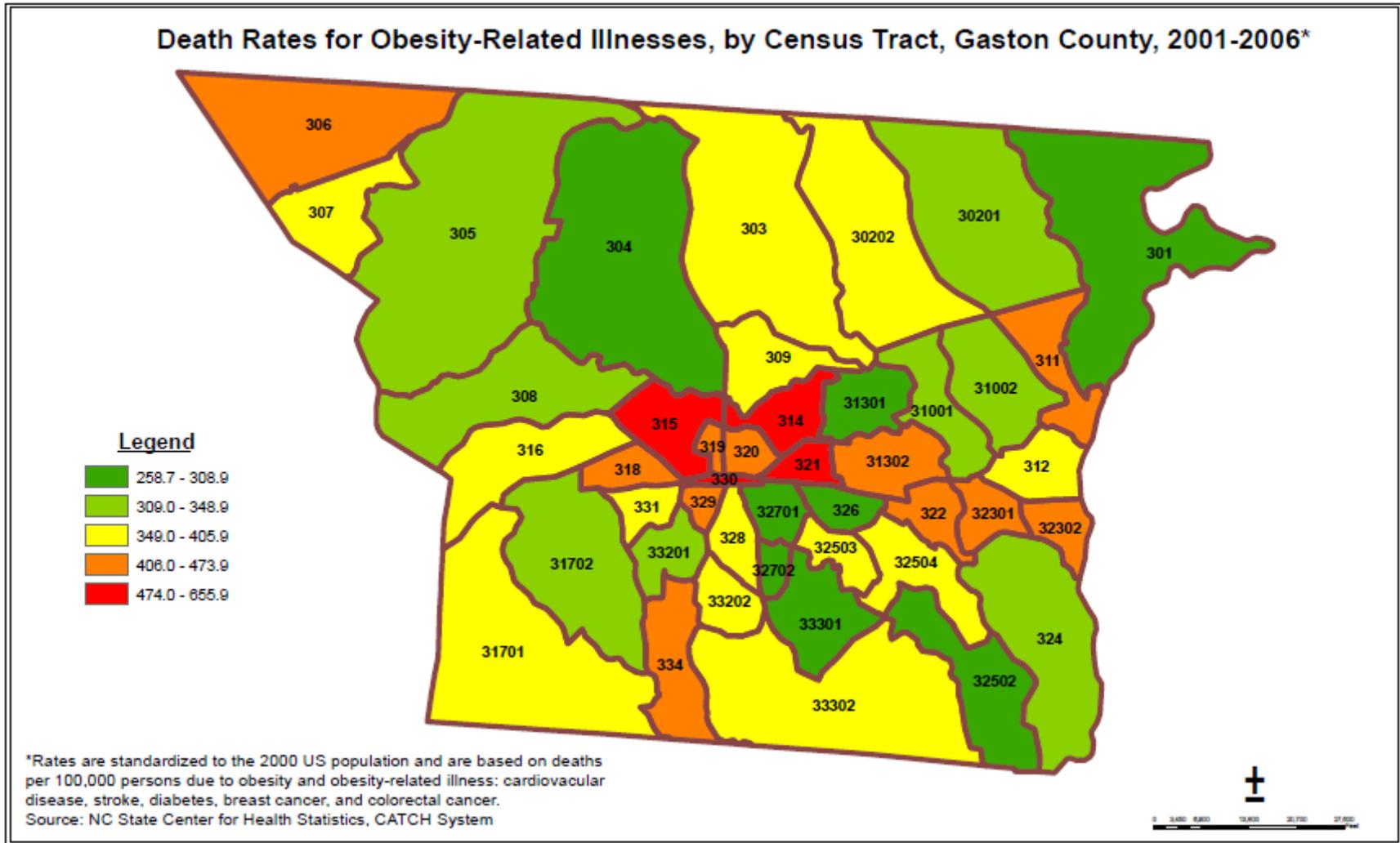


Figure 47

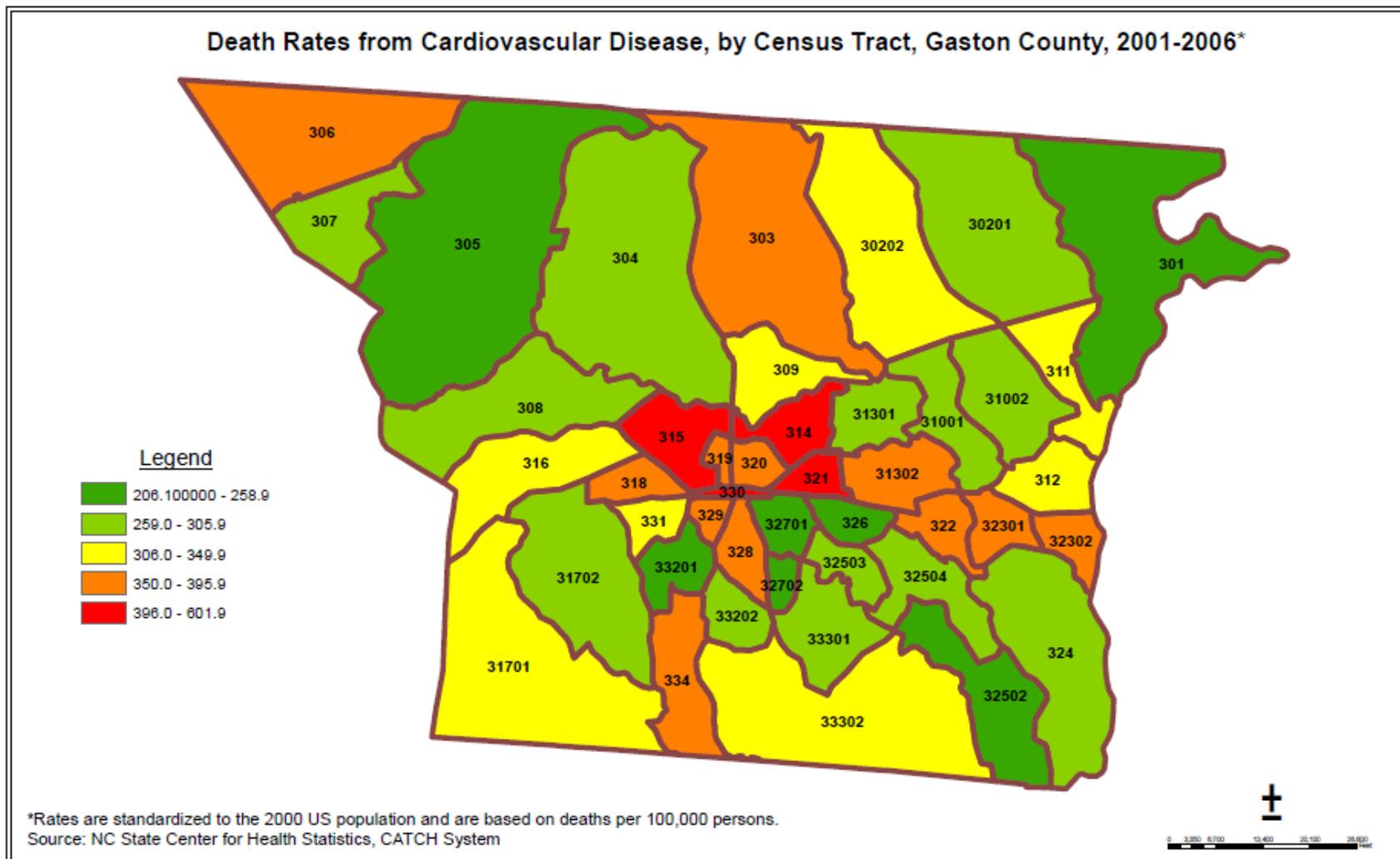


Figure 48

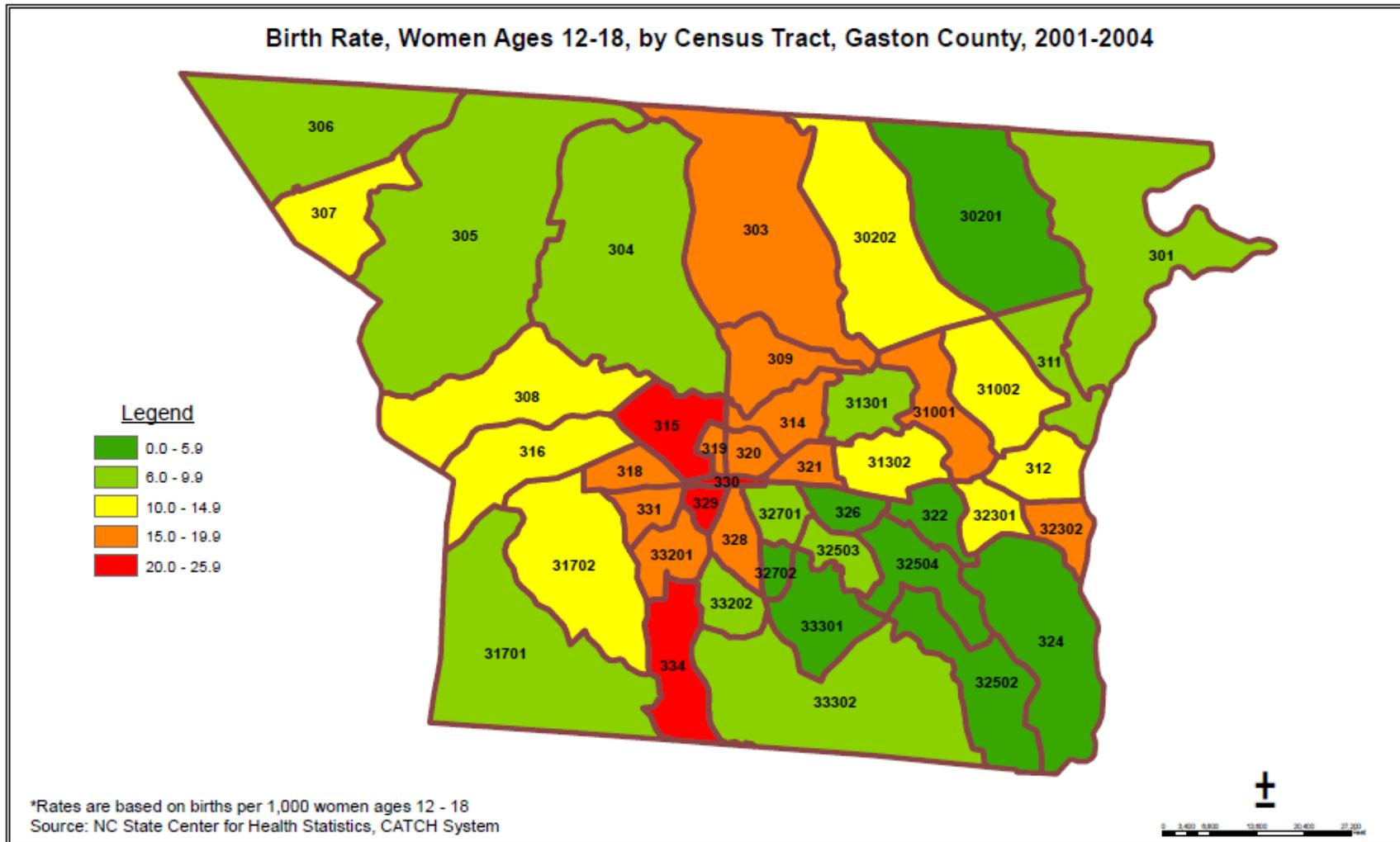


Figure 49

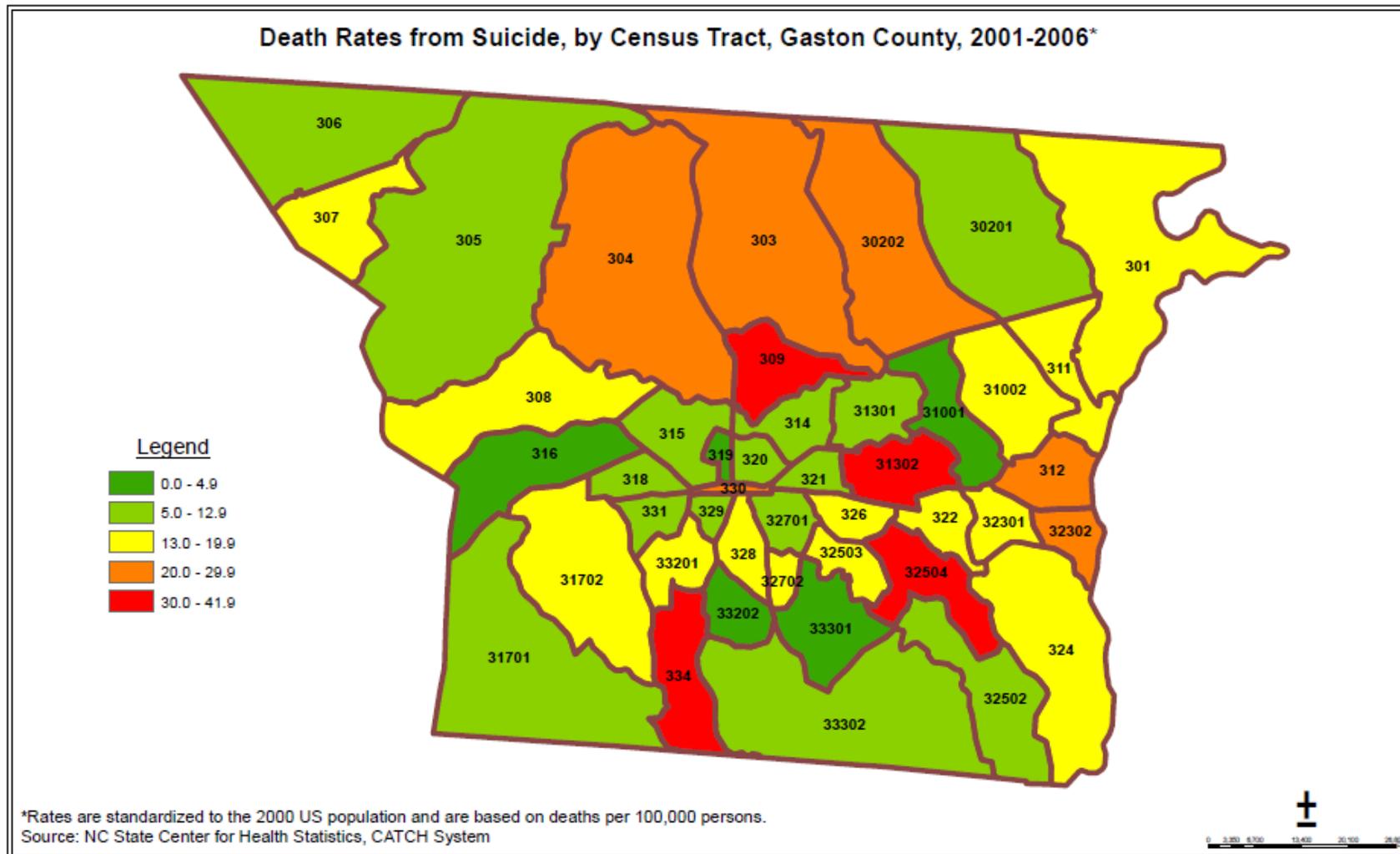
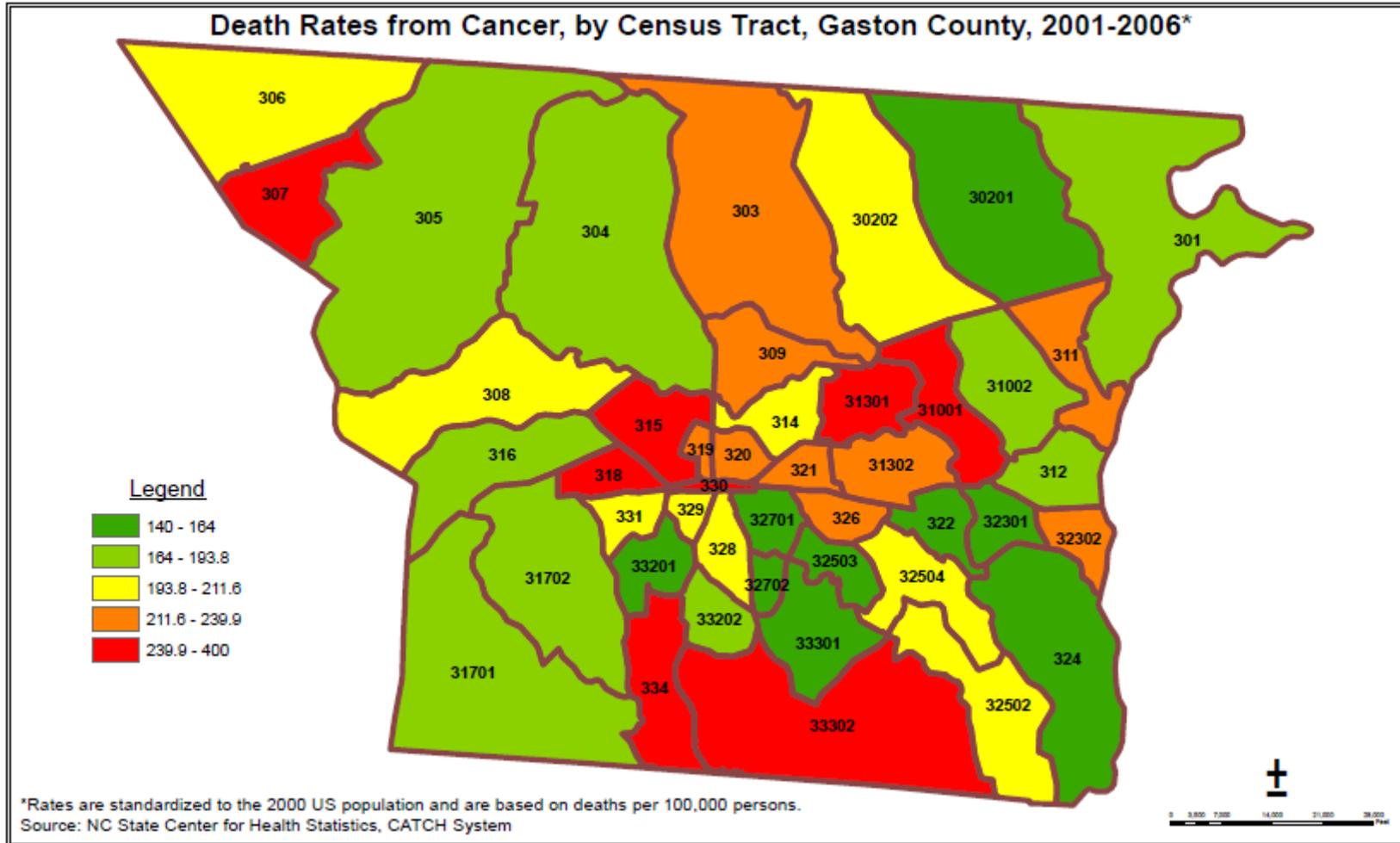


Figure 50



Section Seven: Next Steps

With the completion of this Community Health Assessment, Gaston County will use the information collected to conduct programs that will improve community health.

Gaston Community Healthcare Commission

The Healthcare Commission will develop interventions to address its list of priority health issues, by:

1. Conducting focus groups with community members, community leaders, and high school juniors to answer questions that have arisen from the conduct of this assessment (see below);
2. Conducting additional analyses of data from the Quality of Life Survey;
3. Using the previously presented maps to identify geographic areas where the largest numbers of individuals are most affected by priority health problems; and,
4. Integrating this data to develop interventions that will prevent and treat these five priority areas.

Healthcare Commission workgroups will develop work plans for each of these priorities and will, over the next four years, implement these plans in collaboration with community organizations and groups.

Gaston County Board of Health

The Board of Health will adopt new goals for the period 2009-2012. To achieve this, the Board will:

1. Review the progress it has made on its current three-year goals;
2. Review data from the Community Health Assessment;
3. Review findings from the focus groups;
4. Review its collective responses on the Quality of Life Survey;
5. Select priorities using a nominal group process;
6. Use mapped data from the CATCH System to identify geographic areas where the largest numbers of individuals are most affected by the problems they select; and,
7. Integrate this data to develop targeted interventions that will prevent and treat their priority health problems.

The Board of Health's current priorities are to prevent teen pregnancy, to prevent cardiovascular disease through physical activity, and to prevent tobacco use. The Board of Health will use its unique community status, and the staff resources of the Gaston County Health Department to advocate for and implement its priorities and programs; if they are similar to those of the Healthcare Commission, the two groups will collaborate achieve their mutual interests.

Answering New Questions

In conducting a Community Health Assessment, a considerable number of questions will be answered, and many new questions will arise. To deepen and broaden our understanding of community health needs, GCHD will continue to seek answers to these questions. Notably, it will use CATCH to analyze and map data, discuss persistent and new questions with

community and health care leaders, and will work with the Healthcare Commission to engage the community in discussions and deliberations about health care needs. Among the questions we will ask are: (1) why are 11.6% of poor health/low income respondents not able to secure GCHD services; (2) why does Gaston County have such a high incidence rate for cancer of the lung and bronchus and all cancers, when compared with the state; (3) why does Gaston County have such a high rate of diagnosed kidney disease; (4) why does Gaston County have such a high rate of women who smoke when pregnant.

Using the Quality of Life Survey

GCHD will continue to analyze data from the Quality of Life Survey to provide the Gaston Community Healthcare Commission, community agencies, and local governments with information for strategic planning, program planning, and grant applications. The survey design will enable health department staff to analyze data by a number of variables, including the gender, age, residence, insurance status, education, and occupation of survey respondents.

To promote community use of the Community Health Assessment, GCHD and the Gaston Community Healthcare Commission will post the report on their websites, place copies at all county library branches, and will develop and distribute a brochure summarizing assessment findings and how community members can obtain more detailed data.

Appendix

Gaston County Quality of Life Survey, 2008

This survey was written by a group of community agencies - including the Gaston County United Way, Gaston Regional Chamber, Gaston Together/Gaston 2012, the Gaston County Schools, and the Gaston County Health Department - that want your opinions about the quality of life in Gaston County. Please fill in all bubbles completely using either pencil or pen. Please take 10-15 minutes to complete this survey and help us to better understand our community's needs. Thank you!

1. Community Development. Please describe how much you agree or disagree with the following statements

Our community needs to do more to improve...	Strongly Disagree	Disagree	Agree	Strongly Agree	Don't Know
1. Water quality	<input type="radio"/>				
2. Air quality	<input type="radio"/>				
3. Open space	<input type="radio"/>				
4. Conservation of historic buildings and sites	<input type="radio"/>				
5. Walking trails and bike paths	<input type="radio"/>				
6. Sidewalks	<input type="radio"/>				
7. Parks and recreation facilities	<input type="radio"/>				
8. Cultural and arts events	<input type="radio"/>				
9. Opportunities for people to meet and make friends	<input type="radio"/>				
10. Its appearance	<input type="radio"/>				
11. Law enforcement	<input type="radio"/>				
12. Animal control	<input type="radio"/>				
13. Planning for community growth	<input type="radio"/>				
14. Promotion and sales of locally grown fruits and vegetables	<input type="radio"/>				
15. How we encourage residents to work on county issues	<input type="radio"/>				
16. Our roads	<input type="radio"/>				
17. Public transportation	<input type="radio"/>				
18. How we promote local colleges	<input type="radio"/>				
19. How we promote local vocational schools	<input type="radio"/>				
20. Local economic development activities	<input type="radio"/>				
21. Small business development	<input type="radio"/>				
22. Recruitment of manufacturing employers	<input type="radio"/>				
23. Recruitment of high-tech employers	<input type="radio"/>				
24. Our promotion of tourism	<input type="radio"/>				
25. Affordable housing	<input type="radio"/>				
26. The quality of K-12 education	<input type="radio"/>				
27. How we strengthen family relationships	<input type="radio"/>				
28. Child care for working parents	<input type="radio"/>				
29. Services for the elderly	<input type="radio"/>				
30. Personal and family safety	<input type="radio"/>				
31. Attendance at churches, synagogues, mosques, and other houses of worship	<input type="radio"/>				
32. Other (Please specify) _____					

Please tell us your top three Community Development priorities from the topics you just rated by entering the number of those statements below. For example if "Our roads" is your top priority, you would enter 16 next to Priority One.

- 33. Priority One _____
- 34. Priority Two _____
- 35. Priority Three _____

36. What do you like most about living in Gaston County? (Please write your answer here): _____

2. How do you prefer to get information about your community? Mark all that apply.

- 1. Printed materials, such as flyers and brochures
- 2. Through seminars, workshops, and classes
- 3. Through your house of worship
- 4. Newspapers
- 5. The Internet
- 6. Television
- 7. Radio
- 8. Other (Please specify) _____

3. Youth Issues. Please describe how much you agree or disagree with the following statements about youth issues.

Our community needs to do more to...	Strongly Disagree	Disagree	Agree	Strongly Agree	Don't Know
1. Promote student success in school	<input type="checkbox"/>				
2. Build good student-teacher relationships	<input type="checkbox"/>				
3. Get mentors for students	<input type="checkbox"/>				
4. Help parents stay involved with their children	<input type="checkbox"/>				
5. Stop youth gangs and gang violence	<input type="checkbox"/>				
6. Teach money management skills to youth, such as shopping and saving	<input type="checkbox"/>				
7. Expose children to arts	<input type="checkbox"/>				
8. Increase our high school graduation rate	<input type="checkbox"/>				
9. Help high school students plan their careers	<input type="checkbox"/>				
10. Encourage parents to support ongoing education for their children	<input type="checkbox"/>				
11. Stop crime against youth	<input type="checkbox"/>				
12. Provide access to area colleges	<input type="checkbox"/>				
13. Support after-school and out-of-school programs	<input type="checkbox"/>				
14. Provide job training for youth	<input type="checkbox"/>				
15. Create job opportunities for teens	<input type="checkbox"/>				
16. Assure student safety in school	<input type="checkbox"/>				
17. Stop crime committed by youth	<input type="checkbox"/>				
18. Reduce the use of drugs and alcohol by youth	<input type="checkbox"/>				
19. Help youth avoid tobacco and stop using tobacco products	<input type="checkbox"/>				

	Strongly Disagree	Disagree	Agree	Strongly Agree	Don't Know
20. Improve the body image of youth and prevent eating disorders	<input type="radio"/>				
21. Reduce youth peer pressure to be sexually active	<input type="radio"/>				
22. Stop bullying and teasing among youth	<input type="radio"/>				
23. Reduce the risk of HIV/AIDS and sexually transmitted diseases among youth	<input type="radio"/>				
24. Identify and help depressed youth	<input type="radio"/>				
25. Reduce teenage pregnancy	<input type="radio"/>				
26. Stop physical, sexual, emotional abuse of youth by their families	<input type="radio"/>				
27. Conduct physical activity programs for youth	<input type="radio"/>				
28. Other (Please specify) _____					

Please tell us your top three Youth Issue priorities by entering the number of those statements from the list above

29. Priority One _____

30. Priority Two _____

31. Priority Three _____

4. Community Health. Please describe how much you agree or disagree with the following statements about community health.

The following health issues are a problem in Gaston County:	Strongly Disagree	Disagree	Agree	Strongly Agree	Don't Know
1. Alcohol and substance abuse	<input type="radio"/>				
2. Asthma	<input type="radio"/>				
3. Cancer	<input type="radio"/>				
4. Dental problems	<input type="radio"/>				
5. Diabetes	<input type="radio"/>				
6. Heart disease	<input type="radio"/>				
7. High blood pressure	<input type="radio"/>				
8. Infant death	<input type="radio"/>				
9. Learning and developmental problems	<input type="radio"/>				
10. Lung disease	<input type="radio"/>				
11. Kidney disease	<input type="radio"/>				
12. Mental illness, including depression	<input type="radio"/>				
13. Motor vehicle accidents	<input type="radio"/>				
14. Overweight and obesity	<input type="radio"/>				
15. Physical disabilities	<input type="radio"/>				
16. Sexually Transmitted Diseases and HIV/AIDS	<input type="radio"/>				
17. Stroke	<input type="radio"/>				
18. Teen pregnancy	<input type="radio"/>				
19. Vision and sight problems	<input type="radio"/>				
20. Lack of health care for uninsured persons	<input type="radio"/>				
21. Other (Please specify) _____					

Please tell us your top three Health Issue priorities by entering the number of those statements from the list on the previous page

22. Priority One _____

23. Priority Two _____

24. Priority Three _____

5. What type of health insurance do you have? Is it adequate?	Yes	Is it Adequate?	
		Yes	No
1. Private insurance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Medicare/Medicaid	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Other (Please specify)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. I don't have health insurance.....	<input type="radio"/>		

6. Health Services and Resources. Are you and your family able to get this service?	Yes		No	Not applicable I don't use this service
	Yes	No		
1. Health care for families	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Health care for infants and children.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Health care for pregnant women.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Health care for the elderly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Cancer prevention and treatment services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Mental care	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Care for depression, anxiety, and mental health.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Care for developmental disabilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Drug and alcohol treatment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Services for physical disabilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Hospital services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Emergency department services.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. The Gaston County Health Department.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Gaston Family Health Services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Pharmacy services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Hospice care	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Spiritual care for health problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Health education programs.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please check all the reasons why you and your family are not able to get these services:

- 1. Lack of transportation.....
- 2. Lack of health insurance
- 3. Inability to pay for care
- 4. Other (Please specify) _____

7. Where do you usually go when you are sick or need health care? Mark all that apply.

- 1. My personal doctor/medical provider.....
- 2. A hospital emergency department.....
- 3. An urgent care center.....
- 4. The Gaston County Health Department.....
- 5. Gaston Family Health Services.....
- 6. A pharmacy.....
- 7. A Chiropractor.....
- 8. An alternative medicine provider.....
- 9. The Internet.....
- 10. I don't seek care when I am sick.....
- 11. Other (Please specify) _____

8. Who do you trust for accurate health information and health advice? Mark all that apply.

- 1. My personal doctor/medical provider.....
- 2. Gaston Family Health Services.....
- 3. The Gaston County Health Department.....
- 4. Radio/TV.....
- 5. My pharmacist.....
- 6. My child's school nurse.....
- 7. Government agencies.....
- 8. My family and friends.....
- 9. Magazines and newspapers.....
- 10. The Internet.....
- 11. Medical reference books.....
- 12. Other (Please specify) _____

9. How many years have you lived in Gaston County?

- 1. Less than 5 years
- 2. 6-10 years
- 3. 11-15 years
- 4. 20 years
- 5. More than 20 years

10. In which community do you live?

1. Belmont <input type="checkbox"/>	9. Kings Mountain <input type="checkbox"/>
2. Bessemer City <input type="checkbox"/>	10. Lowell <input type="checkbox"/>
3. Cherryville <input type="checkbox"/>	11. McAdenville <input type="checkbox"/>
4. Cramerton <input type="checkbox"/>	12. Mount Holly <input type="checkbox"/>
5. Dallas <input type="checkbox"/>	13. Randle <input type="checkbox"/>
6. Delview <input type="checkbox"/>	14. Spencer Mountain <input type="checkbox"/>
7. Gastonia <input type="checkbox"/>	15. Stanley <input type="checkbox"/>
8. High Shoals <input type="checkbox"/>	16. Other (Please specify) _____ <input type="checkbox"/>

11. What is your zip code?

- | | | | |
|-------|--------------------------|-------------|--------------------------|
| 28008 | <input type="checkbox"/> | 28056 | <input type="checkbox"/> |
| 28012 | <input type="checkbox"/> | 28080 | <input type="checkbox"/> |
| 28016 | <input type="checkbox"/> | 28086 | <input type="checkbox"/> |
| 28021 | <input type="checkbox"/> | 28092 | <input type="checkbox"/> |
| 28032 | <input type="checkbox"/> | 28088 | <input type="checkbox"/> |
| 28033 | <input type="checkbox"/> | 28101 | <input type="checkbox"/> |
| 28034 | <input type="checkbox"/> | 28120 | <input type="checkbox"/> |
| 28052 | <input type="checkbox"/> | 28164 | <input type="checkbox"/> |
| 28054 | <input type="checkbox"/> | Other _____ | |

12. What is your age?

- 1. Less than 19
- 2. 20-29
- 3. 30-39
- 4. 40-49
- 5. 50-59
- 6. 60-69
- 7. Over 70

13. What is your gender?

- 1. Male
- 2. Female

14. What is the total income of the people living in your household? Mark only one response.

- | | |
|--|--|
| 1. Less than \$20,000 <input type="checkbox"/> | 6. \$75,000 to \$124,999 <input type="checkbox"/> |
| 2. \$20,000 to \$29,999 <input type="checkbox"/> | 7. \$125,000 to \$199,999 <input type="checkbox"/> |
| 3. \$30,000 to \$39,999 <input type="checkbox"/> | 8. Over \$200,000 <input type="checkbox"/> |
| 4. \$40,000 to \$49,999 <input type="checkbox"/> | 9. No answer <input type="checkbox"/> |
| 5. \$50,000 to \$74,999 <input type="checkbox"/> | |

15. What is the highest level of education you have completed? Mark only one response.

- 1. Some High School
- 2. High School Diploma/GED
- 3. Some College
- 4. Technical Certificate or Associate Degree
- 5. Four-year college degree (BA,BS).....
- 6. Graduate degree
- 7. Professional School (Dentistry, Law, Medicine, Optometry, Podiatry, etc)

16. What is your primary job field? Mark only one response.

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- 1. Agriculture (for example: farmer or rancher)
- 2. Business (for example: attorney, clerical, office worker)
- 3. Construction
- 4. Education
- 5. Government (federal, state, county, city employees)
- 6. Health care
- 7. Industry (for example: factories, textiles, manufacturing)
- 8. Sales and Service (for example, restaurants, retail, and automotive)
- 9. Retired
- 10. Other _____

17. What is your ethnic origin? Mark only one response.

- 1. White/Not Hispanic
- 2. Black (African American)/Not Hispanic
- 3. Hispanic (Latino)
- 4. American Indian
- 5. Asian/Pacific Islander
- 6. Multiracial
- 7. Other _____

18. What is your current marital status: Mark only one response.

- 1. Never married
- 2. Married
- 3. Separated
- 4. Divorced
- 5. Widowed

19. How many adults over age 18 live in your household? Mark only one response.

- 1. One
- 2. Two
- 3. Three
- 4. Four
- 5. More than four

20. How many children, under age 18 live in your household? Mark only one response.

- 1. None
- 2. 1-3
- 3. 4-6
- 4. 7-10

□

21. Which high school is closest to your home?	Page 8
1. Ashbrook High School	<input type="radio"/>
2. Bessemer City High School	<input type="radio"/>
3. Cherryville High School	<input type="radio"/>
4. East Gaston High School	<input type="radio"/>
5. Forestview High School	<input type="radio"/>
6. Highland School of Technology	<input type="radio"/>
7. Hunter Huss High School	<input type="radio"/>
8. North Gaston High School	<input type="radio"/>
9. Southpoint High School	<input type="radio"/>

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