

2007 State of the County Health Report

An Overview of Selected Health Indicators for Mecklenburg County Residents

Demographics
Birth Highlights
Leading Causes of Death
Behavioral Risk Factors
Youth Risk Behaviors
Sexually Transmitted
Infections
Health Disparities
Environmental Health
Highlights
Burden of Injury
Substance Abuse



**MECKLENBURG
HEALTHY CAROLINIANS**
A Healthy Community Begins with You



MECKLENBURG COUNTY: A HEALTHY PLACE to **LIVE, WORK and RECREATE**

Mecklenburg County 2007 State of the County Health Report

E. Winters Mabry, MD, Health Director
Prepared by
Mecklenburg County Health Department Epidemiology Program/Mecklenburg Healthy Carolinians,
November 2007



Contents

- Demographics
- Birth Highlights
- Leading Causes of Death
- Information from the Behavioral Risk Factor Surveillance System
- Information from the Youth Risk Behavior Survey
 - Sexually Transmitted Infections
 - Health Disparities
- Environmental Health Highlights
 - Burden of Injury
 - Substance Abuse

OVERVIEW

In North Carolina, the state requires each local health department to conduct a **community health assessment** (CHA) every four years for accreditation and as part of its consolidated contract with the state. CHA is also required for Healthy Carolinians community certification and re-certification. On the years between health assessments, health directors have agreed to submit an abbreviated **State of the County Health Report** (SOTCH Report). Unlike the full CHA report which has specific criteria, the SOTCH report may take on a variety of formats. In Mecklenburg County, this report consists of an overview of selected health indicators presented in tables and charts, available in hard copy and on the department website www.meckhealth.org. While the SOTCH report is intended as a quick overview of community health indicator data rather than a comprehensive review of the priority issues identified during CHA, information pertaining to each these health priorities may be found in this document.

In Mecklenburg County, the most recent previous SOTCH Report was issued in 2005 followed by a full Community Health Assessment Report for 2006 (extended into 2007). Listed below are the identified priorities and recommendations from the assessment process.

FINDINGS AND RECOMMENDATIONS FROM COMMUNITY HEALTH ASSESSMENT 2006-07

The Community Health Assessment of 2006-07 identified the following eight priority health concerns for Mecklenburg County.

1. *Chronic Disease Prevention through Healthy Choices*
2. *Access to Care*
3. *Environmental Health – Healthy Places Supporting Healthy Choices*
4. *Mental Health*
5. *Substance Abuse Prevention*
6. *Injury Prevention*
7. *Responsible Sexual Behavior, and*
8. *Maternal Child Health.*

Health Disparities was not listed individually but considered a part of every priority area.

Over 65 participants representing a variety of community agencies and groups made the following recommendations for addressing the four highest-ranked priority focus areas.

CHRONIC DISEASE PREVENTION

- Advocacy training to adopt laws and policies that support healthy choices (tobacco cessation, healthy eating and physical activity)
- Development of effective communications and social marketing strategies to promote positive health choices

ACCESS TO CARE

- Policy Change
 - Area healthcare collaborative
 - Address coverage of the underinsured or “higher income” uninsured
 - Use of extended providers (NP, PA, RDH)
 - Increase number of dental providers willing to see Medicaid/other low income clients
- Information Spread
 - How to navigate the systems: Education on what services are available and how to access them for BOTH patients and providers
 - Universal financial screening

ENVIRONMENTAL HEALTH

- Work places smoke free by 2008
- Increase awareness of environmental health, especially within the business community
- Create advocates in the business community (raise the profile and create change)
- Have worksites implement policies that promote health (more supportive work environment)

MENTAL HEALTH

- Community education: prevention and promotion of mental health
 - Public awareness of issues and services available
 - School curriculum, training for staff and strategic school plan to address mental health issues
 - Faith-based training
 - Reduce stigma
 - Parent training and education

- Community-based services
 - More community-based treatment options including school-based services
 - Increased access to medications
 - Integration of primary care and mental health
 - Crisis services, jail diversion
 - Transition management

The next full community health assessment for Mecklenburg County will be conducted in 2010. In Mecklenburg County, CHA is led by Mecklenburg Healthy Carolinians and the Mecklenburg County Health Department. For additional information on the SOTCH Report, Community Health Assessment, or Mecklenburg Healthy Carolinians, please call the Mecklenburg County Health Department at 704.336.2900.

Mecklenburg County Demographics

Demographic, Educational Attainment, Economic and Health Care Access Data

2006 ESTIMATED POPULATION¹: 827,445

Population By Age		Population ¹		Population by Race/Ethnicity	
	Number	%		Number	%
0-14	181,684	22.0%	White	497,185	60.1%
15-24	107,489	13.0%	African-American	248,706	30.1%
25-44	268,090	32.4%	Asian/Pacific Islander	32,578	3.9%
45-64	201,702	24.4%	American Indian/Alaskan Native	4,182	0.5%
65+	68,480	8.3%	Native Hawaiian or Pacific Islander	54	0.0%
			Other Race	32,697	4.0%
			More than One Race	12,043	1.5%
			Ethnicity		
			Hispanic ²	81,242	9.8%

Educational Attainment ¹		Education	
	%	Primary and Secondary Schools ³	# of schools
% less than 12th grade education	12.2%	Elementary Schools	95
% High School Diploma	22.3%	Middle Schools	32
% Some College or College Degree	65.5%	High Schools	31
		Alternative/Special	10
		Private ⁴	64
Institutions of Higher Education⁴		Public school drop out rate ³	17.5%
University of North Carolina-Charlotte		Per Pupil Expenditure ³	\$8,739
Queens University			
Johnson & Wales University			
Johnson C. Smith University			
King's College			
Montreat College			
Pfeiffer University			
Central Piedmont Community College			
Davidson College			

Five Largest Employers in Mecklenburg County ⁴		Economic	
Carolinas HealthCare System		Unemployment Rate ⁵	4.5%
Wachovia		Median Family Income ¹	\$64,185
Bank of America		% of All Persons Living In Poverty ¹	11.3%
Duke Energy		persons 18 years or older	10.1%
Charlotte Mecklenburg Schools		persons 65 years and older	8.9%
		Households speaking	
		English less than very well ¹	15.9%

Table continued on next page



Mecklenburg County Demographics, *cont.*

Health Care Access

Health Professionals and Hospital Data ⁶	#	Has Health Insurance ⁷	% of persons
<i># of doctors per 10,000 population</i>	26	<i>persons 18 years or older</i>	86.5%
<i># of dentists per 10,000 population</i>	6.4	<i>persons between 18 years and 65 years</i>	84.4%
<i># of hospital beds</i>	1,974	<i>persons who are employed for wages</i>	85.6%
		<i>children 17 years and younger⁸</i>	89.9%
		<i>does not have a personal doctor/no medical home⁷</i>	24.4%

References

¹American Community Survey 2006, US Census Bureau. Educational attainment is based on the county population 25 years and older. Last accessed 11/01/2007

²Hispanics are considered an ethnic group, not a race and are also counted in the appropriate racial category.

³Charlotte-Mecklenburg Schools, 2003-2004. The drop out rate is based on the August 2006 status of 2002-2003 ninth grade students. Last accessed 11/01/2007

⁴Charlotte Chamber of Commerce. Last Accessed 11/01/2007

⁵NC Employment Security Commission. Last Accessed 11/01/2007

⁶NC Health Professions Data System, Cecil G. Sheps Center for Health Services Research, University of North Carolina. Last Accessed 11/01/2007

⁷Behavioral Risk Factor Surveillance System (BRFSS) 2006

⁸Shep's Center, University of North Carolina-Chapel Hill, Current Population Surveys 2004. Last Accessed 10/01/2007

Birth Highlights

2005/2006 Statistics for Mecklenburg County Residents

2005

Total Births = 13,527
Live Birth Rate = 17.0 per 1,000

Racial Categories

White	8,795	65.0%
Other Races	4,732	35.0%
▶ Black or African American	4,071	86.0%
▶ Asian or Pacific Islander	612	12.9%
▶ American Indian	20	0.42%
▶ Other Non-White	29	0.61%

Hispanic/Latino and Country of Origin

Non-Hispanic	10,877	80.4%
Hispanic	2,634	19.5%
▶ Mexican	1,552	58.9%
▶ Central or South American	935	35.5%
▶ Puerto Rican	99	3.8%
▶ Cuban	26	0.99%
▶ Other Hispanic	22	0.84%
Unknown	16	0.12%

Age of Mother

40 plus	353	2.6%
30 - 39 years	5,715	42.2%
20 - 29 years	6,333	46.8%
Teens Under the Age of 20	1,126	8.3%
▶ Teens 10-14	33	2.9%
▶ Teens 15-17	403	35.8%
▶ Teens 18-19	690	61.3%

Birth Outcomes

Premature (<37 weeks)	1,580	11.7%
Very Premature (<32 weeks)	300	2.2%
Low Birth Weight (<=2500g)	1,163	8.6%
Very Low Birth Weight (<=1500g)	267	2.0%
First Trimester Prenatal Care	11,040	81.6%
C-section	2,557	18.9%

2006

Total Births = 14,344
Live Birth Rate = 17.3 per 1,000

Racial Categories

White	9,085	63.3%
Other Races	5,259	36.7%
▶ Black or African American	4,354	82.8%
▶ Asian or Pacific Islander	793	15.1%
▶ American Indian	24	0.46%
▶ Other Non-White	88	1.7%

Hispanic/Latino and Country of Origin

Non-Hispanic	11,275	78.6%
Hispanic	3,050	21.3%
▶ Mexican	1,753	57.5%
▶ Central or South American	1,121	36.8%
▶ Puerto Rican	95	3.1%
▶ Cuban	44	1.4%
▶ Other Hispanic	37	1.2%
Unknown	19	0.13%

Age of Mother

40 plus	400	2.8%
30 - 39 years	5,951	41.5%
20 - 29 years	6,691	46.6%
Teens Under the Age of 20	1,302	9.1%
▶ Teens 10-14	21	1.6%
▶ Teens 15-17	431	33.1%
▶ Teens 18-19	850	65.3%

Birth Outcomes

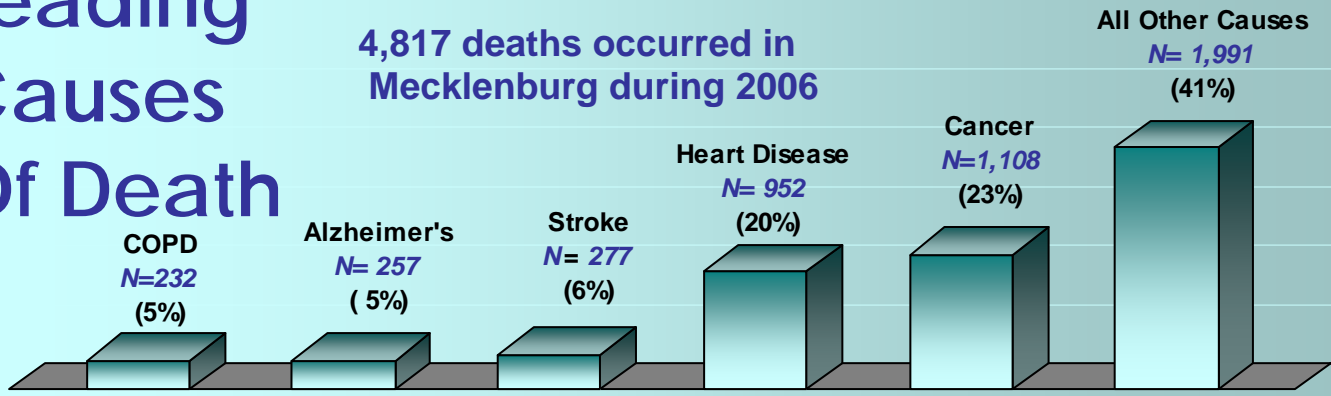
Premature (<37 weeks)	1,742	12.1%
Very Premature (<32 weeks)	258	1.8%
Low Birth Weight (<=2500g)	1,262	8.8%
Very Low Birth Weight (<=1500g)	228	1.6%
First Trimester Prenatal Care	11,396	79.4%
C-section	2,759	19.2%

Source: NC DHHS/State Center for Health Statistics

Prepared by Mecklenburg County Health Department, Epidemiology Program, November 2007

Leading Causes Of Death

4,817 deaths occurred in Mecklenburg during 2006



Top Ten Leading Causes of Death Mecklenburg, North Carolina, 2006 and the United States 2005*

	Meck	NC	USA
Cancer	1	1	2
Heart Disease	2	2	1
Stroke	3	3	3
Alzheimer's Disease	4	6	7
Chronic Obstructive Pulmonary Disease (COPD)	5	5	4
Unintentional Injury	6	4	5
Diabetes	7	7	6
Kidney Disease	8	9	9
Influenza and Pneumonia	9	8	8
HIV Disease	10	**	**

** not in Top Ten for NC or USA

*Mecklenburg ranks comparably with NC and the US with the following exceptions: for Alzheimer's and HIV Disease, Mecklenburg ranks higher than NC and the US. Mecklenburg ranks lower than the US for COPD; COPD refers to chronic diseases of the lower airway such as emphysema and chronic bronchitis. Data for the US is preliminary as of May 2, 2007.

Leading Causes of Death by Age Group 2006 Mecklenburg County

Infants	Ages 25 - 44
* Congenital Defects	* Unintentional Injury
* Prematurity and Immaturity	* Cancer
	* Homicide
Ages 1 -14	Ages 45 - 64
* Homicide	* Cancer
* Unintentional Injury	* Heart Disease
* Cancer	* Stroke
Ages 15 - 24	Ages 65+
* Unintentional Injury	* Cancer
* Homicide	* Heart Disease
* Suicide	* Alzheimer's

Homicide and motor vehicle crashes are the leading killers of adolescents and young adults, ages 15 -24, and Cancer is the leading cause of death for adults 45 years and older in Mecklenburg.

Leading Causes of Death by Gender 2006 Mecklenburg County

Males	Females
1) Cancer	1) Cancer
2) Heart Disease	2) Heart Disease
3) Unintentional Injury	3) Alzheimer's Disease
4) Stroke	4) Stroke
5) COPD	5) COPD
6) Alzheimer's Disease	6) Unintentional Injury

Women tend to live longer than men. Women die from Alzheimer's at higher rates than men. Men die from Unintentional Injuries at higher rates than women.

Leading Causes of Death by Race 2006 Mecklenburg County

Whites	Other Races
1) Cancer	1) Cancer
2) Heart Disease	2) Heart Disease
3) Alzheimer's Disease	3) Stroke
4) COPD	4) Unintentional Injury
5) Stroke	5) HIV Disease
6) Unintentional Injury	6) Diabetes

While the three leading causes of death are similar among all racial groups, people of other races often die at higher rates and younger ages than whites.

Behavior Risk Factor Surveillance System

2004 - 2006 Health Outcomes for Mecklenburg County

The Behavioral Risk Factor Surveillance System (BRFSS) is a random telephone survey of state residents aged 18 and older in households with telephones. BRFSS was initially developed in the early 1980s by the Centers for Disease Control and Prevention (CDC) in collaboration with state health departments and is currently conducted in all 50 states, the District of Columbia, and three United States territories.

Through BRFSS, information is collected in a routine, standardized manner on a variety of health behaviors and preventive health practices related to the leading causes of death and disability such as cardiovascular disease, cancer, diabetes, and injuries.

The following is an overview of BRFSS survey data for Mecklenburg County.

Behavioral Risk Factor Surveillance System (BRFSS) Mecklenburg, North Carolina and United States, 2004-2006									
	2004			2005			2006		
	Meck	NC	USA	Meck	NC	USA	Meck	NC	USA
Health Care Access									
Has Health Insurance	84%	83%	85%	82%	81%	86%	87%	82%	86%
Has Personal Doctor	81%	81%	N/A	77%	77%	N/A	76%	78%	N/A
Fair/Poor Health Status	12%	19%	15%	13%	19%	15%	13%	18%	15%
Behavioral Health Risks									
Smoking	18%	23%	21%	16%	23%	21%	18%	22%	20%
Overweight/Obesity ¹	59%	63%	60%	56%	63%	61%	57%	63%	62%
No Physical Activity	22%	25%	23%	21%	26%	24%	17%	24%	23%
Fruit & Veg (≥5/day) ²	N/A	N/A	N/A	24%	23%	23%	N/A	N/A	N/A
Chronic Conditions									
Arthritis ³	N/A	N/A	N/A	22%	27%	27%	N/A	N/A	N/A
Diabetes	7%	10%	7%	6%	9%	7%	6%	9%	8%
Asthma	7%	8%	8%	7%	7%	13%	5%	7%	13%
Cardiovascular Disease ⁴	N/A	N/A	N/A	8%	9%	N/A	8%	9%	N/A
High Blood Pressure ⁵	N/A	N/A	N/A	27%	29%	26%	N/A	N/A	N/A
High Cholesterol ⁵	N/A	N/A	N/A	33%	36%	36%	N/A	N/A	N/A

Source: NC DHHS/State Center for Health Statistics

¹ Overweight/Obesity-Body Mass Index (BMI)>25.0. BMI is computed as weight in kilograms divided by height in meters squared: (kg/m²).

² Data for Fruit and Vegetable was not collected for 2004 and 2006.

³ Diagnoses of arthritis includes arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia. Data was not collected for arthritis in 2004 and 2006.

⁴ History of any cardiovascular diseases includes heart attack, coronary heart disease or stroke. Data was not collected for cardiovascular disease in 2004.

⁵ Data for High Blood Pressure and High Cholesterol was not collected for 2004 and 2006.

Youth Risk Behavior Surveillance System

2005 Health Outcomes For Charlotte-Mecklenburg High Schools

The Youth Risk Behavior Survey (YRBS) was developed in 1990 by the Centers for Disease Control and Prevention (CDC) to monitor priority health risk behaviors that contribute markedly to the leading causes of death, disability, and social problems among youth and adults in the United States. The YRBS is administered at the middle and/or high school level by individual states, counties and/or cities in odd-numbered years to coincide with the national high school administration of the YRBS conducted by the CDC.

The survey measures behaviors such as: unintentional injuries and violence; tobacco, alcohol and other drug use; sexual behaviors that result in HIV infection, other sexually transmitted diseases, and unintended pregnancies; nutrition; and physical activity. The YRBS also measures self reported height and weight to allow calculation of body mass index.

In the spring of 2005, the Charlotte Mecklenburg High School YRBS was conducted by the Mecklenburg County Health Department in collaboration with the Charlotte Mecklenburg School District. The survey was administered in 18 public high schools and was completed by 1,755 students in randomly selected classes. The weighted survey results presented in this report accurately reflect gender, race/ethnicity, and grade level distribution of public high school students in the Charlotte-Mecklenburg School District.

The 2007 Charlotte Mecklenburg YRBS was conducted in middle as well as high schools. Results will be available in the spring of 2008.

Characteristics of Students Participating in the Charlotte Mecklenburg High School YRBS		
<i>Total Number of Students Surveyed 1,755</i>		
Gender	Number	Weighted Percentage
Male	890	50.9%
Female	859	49.1%
Race/Ethnicity		
Black	630	43.7%
Hispanic/Latino	202	8.2%
White	727	43.0%
All other races	108	2.9%
Multiple races	81	2.2%
Grade		
9th	564	33.9%
10th	544	25.4%
11th	370	21.0%
12th	268	19.5%
Ungraded or other grade	4	0.2%
Age Group		
≤ 15 years	728	40.6%
16-17 years	863	47.7%
≥ 18 years	163	11.7%

Youth Risk Behavior Surveillance System

2005 Health Outcomes For Charlotte-Mecklenburg High Schools

Physical Activity

	CMS	NC	US
Physically active for a total of 60 minutes or more per day on five or more of the past seven days	39%	46%	36%
Attended physical education (PE) classes on one or more days in an average week when they are in school	56%	50%	54%
Attended physical education (PE) classes daily when they are in school	4%	37%	33%
Watched three or more hours per day of TV on an average school day	41%	36%	37%

Weight Management and Nutrition

	CMS	NC	US
At risk for becoming overweight (at or above the 85th percentile but below the 95th percentile for body mass index, by age and sex)	15%	16%	16%
Are overweight (at or above the 95th percentile for body mass index, by age and sex)	11%	14%	13%
Described themselves as slightly or very overweight	26%	30%	32%
Are trying to lose weight	43%	45%	46%
Vomited or took laxatives to lose weight or to keep from gaining weight in the past 30 days	5%	6%	6%

Psychological Health

	CMS	NC	US
Felt so sad or hopeless almost every day for two weeks or more in a row that they stopped doing some usual activities in the past year	27%	27%	29%
Seriously considered attempting suicide in the past year	13%	16%	17%
Made a plan about how they would attempt suicide in the past year	13%	13%	13%
Attempted suicide one or more times in the past year	12%	13%	8%

Personal Safety

	CMS	NC	US
Never or rarely wore a seat belt as a passenger in the past 30 days	7%	8%	10%
Rode with a driver in a car or other vehicle who had been drinking alcohol in the past 30 days	25%	25%	29%
Drove a car or other vehicle when they had been drinking alcohol in the past 30 days	8%	9%	10%
Carried a weapon such as a gun, knife, club in the past 30 days	19%	22%	19%
Carried a weapon such as a gun, knife, club on school property in the past 30 days	5%	6%	7%
Was in a physical fight in the past year	31%	30%	36%
Was in a physical fight on school property in the past year	10%	12%	14%

Youth Risk Behavior Surveillance System

2005 Health Outcomes For Charlotte-Mecklenburg High Schools

Substance Abuse

	CMS	NC	US
Smoked cigarettes on one or more days in the past 30 days	20%	25%	23%
Had at least one drink of alcohol on one or more days in the past 30 days	39%	42%	43%
Had 5 or more drinks of alcohol in a row, that is, within a couple of hours, on one or more days (binge drinking) in the past 30 days	20%	23%	26%
Used marijuana one or more times in the past 30 days	23%	21%	20%

Sexual Behavior

	CMS	NC	US
Ever had sexual intercourse	51%	51%	47%
Had sexual intercourse with one or more people in the past 30 days	37%	37%	34%
Had sexual intercourse with four or more people during their lifetime	20%	17%	14%
Among those who had sexual intercourse, used a condom during last sexual intercourse	69%	63%	63%

Selected Health Outcomes

	CMS	NC	US
Current Asthma*	15%	N/A	N/A
Never or rarely wear sunscreen with an SPF of 15 or higher when they are outside for more than one hour on a sunny day	78%	N/A	N/A
Consider themselves to have a disability	13%	N/A	N/A
Have trouble learning, remembering, or concentrating because of some impairment or health problem	14%	N/A	N/A

*Had ever been told by a doctor or nurse that they had asthma and who have asthma but had not had an episode of asthma or an asthma attack during the past 12 months or who had an episode of asthma or an asthma attack during the past 12 months.

Sexually Transmitted Infections

2004/ 2006 Statistics for Mecklenburg County Residents

HIV disease refers to all people infected with the human immunodeficiency virus, regardless of an AIDS defining condition. AIDS cases are a subset of HIV disease.

Syphilis is a curable sexually transmitted infection caused by a bacterium called *Treponema pallidum*. The course of the disease is divided into four stages – primary, secondary, latent, and tertiary (late). Early syphilis includes primary, secondary and latent stages of the disease.

Chlamydia is a curable sexually transmitted infection, which is caused by a bacterium called *Chlamydia trachomatis*. It can cause serious problems in men and women as well as in newborn babies of infected mothers.

Gonorrhea is a curable sexually transmitted infection caused by a bacterium called *Neisseria gonorrhoeae*. These bacteria can infect the genital tract, the mouth, and the rectum.

The following table includes demographic information for sexually transmitted infections in Mecklenburg County.

Characteristics	HIV DISEASE				EARLY SYPHILIS				CHLAMYDIA				GONORRHEA			
	2004 (N 344)		2006 (N 390)		2004 (N 82)		2006 (N 194)		2004 (N 3186)		2006 (N 2836)		2004 (N 2019)		2006 (N 2072)	
	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
Race																
White	105	31%	79	20%	19	23%	34	18%	401	13%	459	16%	164	8%	196	10%
Black	228	66%	270	69%	62	76%	151	78%	2447	77%	2010	71%	1802	89%	1792	87%
Native Am.	0	0%	0	0%	0	0%	0	0%	2	<1%	2	<1%	0	0%	0	0%
Asian	1	<1%	1	<1%	0	0%	0	0%	45	1%	46	2%	11	1%	13	1%
Hispanic	10	3%	39	10%	1	1%	9	5%	289	9%	275	10%	42	2%	49	2%
Other	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Missing	0	0%	1	<1%	0	0%	0	0%	0	0%	44	2%	0	0%	22	1%
Age																
0 - 12	1	<1%	3	1%	0	0%	0	0%	9	<1%	7	<1%	3	<1%	1	<1%
13-19	11	3%	16	4%	5	6%	14	7%	1330	42%	1093	39%	571	28%	584	28%
20-29	69	20%	93	24%	22	27%	41	21%	1493	47%	1426	50%	967	48%	1009	49%
30-39	102	30%	133	34%	32	39%	71	37%	279	9%	260	9%	309	15%	326	16%
40-49	111	32%	96	25%	15	18%	49	25%	63	2%	40	1%	136	7%	115	6%
50+	50	15%	49	13%	8	10%	19	10%	12	<1%	10	<1%	33	2%	37	2%
Missing	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Gender																
Male	268	78%	271	70%	54	66%	130	67%	632	20%	658	23%	1110	55%	1178	57%
Female	76	22%	119	30%	28	34%	64	33%	2554	80%	2178	77%	909	45%	894	43%
Unknown	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%

Source: NC DHHS, HIV/STD Prevention and Care

Prepared by Mecklenburg County Health Department/Epidemiology, October 2007

Mecklenburg County Racial and Ethnic Differences in Health

While health disparities are readily demonstrated through data, the causes and means for prevention are not well understood. Research suggests issues of social inequality are involved and must be addressed before differences in health outcomes among racial and ethnic groups can be eliminated. Topics being studied include differences in access to health care, the effects of racism and segregation, and socioeconomic status (SES). The Centers for Disease Control and Prevention notes SES is “central to eliminating health disparities because it is closely tied to health and longevity. At all income levels, people with higher SES have better health than those at the level below them.” SES status includes income, education, occupation, and neighborhood and community characteristics.

Recognizing that the causes of health disparities are multifactorial and complex, Mecklenburg County Health Department strives to provide local leaders, elected officials, health professionals and the broader community with information to assist in the making of policy, programs, and choices which will result in good health for all.

HEALTH OUTCOME DIFFERENCES

When comparing Mecklenburg to North Carolina and the United States, most health indicators for the total county appear favorable. Rates for many causes of death have been decreasing during the past decade in both White and Other Race populations. The overall mortality rate has been falling for both groups since 1994. However, this decrease in rates has not always been accompanied by an elimination of differences between White and Other Race rates.

The overall death rate is higher for people of Other Races than Whites in every age group. In data from 2001-2005, the age-adjusted rate for All Causes of Death is 1.4 times greater for People of Other races than Whites. While both whites and minorities saw a decline in infant mortality from 1990 until 1995, this trend has not continued since then, and the gap between White and Other Races, while some years showing a decrease, remains wide. The 2006 Infant Mortality rate is 2.6 times greater for Other Races than Whites. (Figure 1)

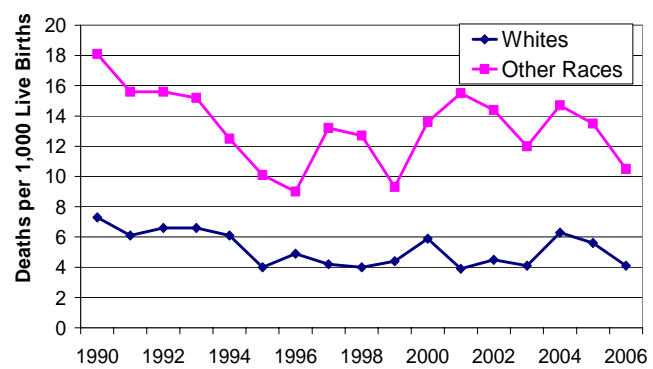
LEADING CAUSES OF DEATH

Leading causes of death for Mecklenburg County White and Other Race populations in 2006 are presented in a previous section of this report. Coronary heart disease, cancer, and stroke are leading causes of death for both Whites and Other Races, including African Americans, Asians, and Native Americans. However, people of Other Races may die at higher rates and younger ages. Unlike other groups, Hispanics in Mecklenburg County die at the highest rates from motor vehicle injury and homicide. This difference may be explained because rates for heart disease, cancer, and stroke increase with age, and the Hispanic population in Mecklenburg County is younger than the population as a whole. See Figure 2 for more information on disparities in leading causes of death.

HEALTH RISK BEHAVIORS

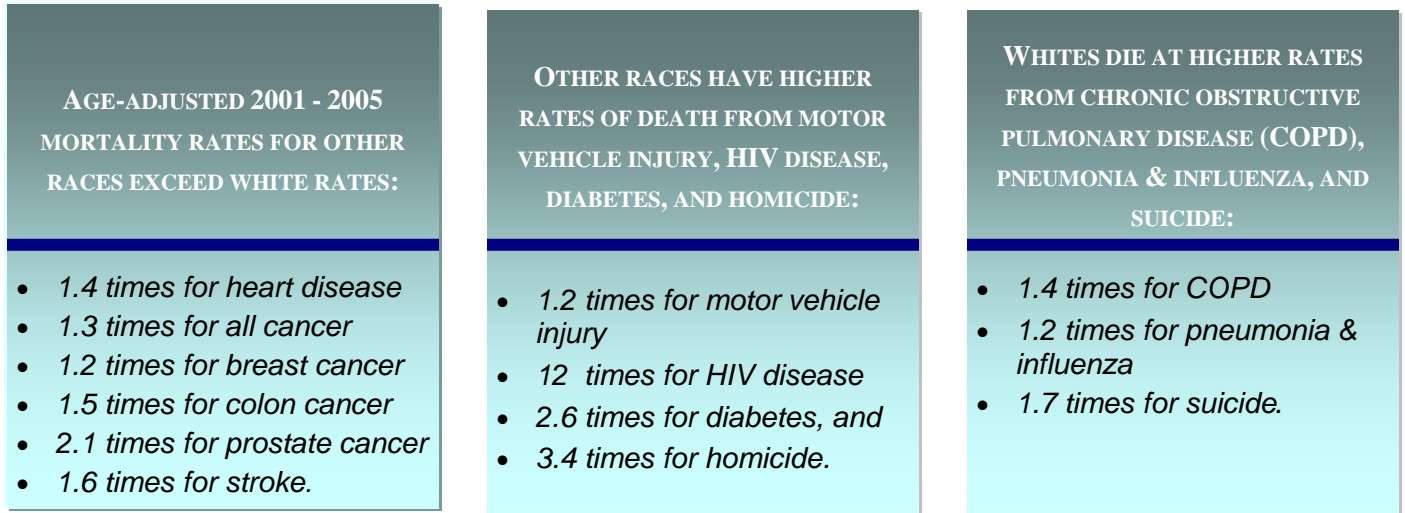
Unprotected sex is a health risk behavior. The high Other Race mortality rate seen with HIV disease stems from the disproportionate number of HIV disease cases experienced by the African American community. Of 390 cases of HIV disease reported in 2006, 270 (69%) were black. See the previous section on sexually transmitted diseases for more information.

Figure 1. Mecklenburg Infant Mortality Rates by Race Groups, 1990 through 2006



Racial and Ethnic Differences in Health, cont.

**Figure 2. Racial Disparities in Leading Causes of Death
Based upon 2001- 2005 Age Adjusted Mortality Rates**



Health Risk Behavior, cont.

Health behaviors contributing to the prevention of heart disease, some forms of cancer, stroke, and diabetes include not using tobacco products, maintaining a healthy weight, eating a diet rich in fruits and vegetables, and engaging in regular physical activity. Data from the 2006 Mecklenburg Behavioral Risk Factor Surveillance Survey (BRFSS) show people of Other Races are more likely to report smoking, not eating 5 or more servings of fruits & vegetables per day [2005], and being overweight/obese in comparison to Whites (Figure 3). The percent of persons reporting no physical activity in the past month is more than two times greater for people of Other Races in comparison to Whites (2.2 times).

When looking at BRFSS responses by household incomes less than \$50,000/yr and household income \$50,000 or above, a higher percentage of individuals with < \$50,000 than those with \$50,000+ reported being overweight/obese (1.2 times), eating less than 5 or more servings of fruits & vegetables per day (1.2 times) [2005], and no physical activity (3.1 times). The percent reporting current smoking was only slightly higher for household incomes <\$50,000.

Figure 3. Health Risk Factors from the 2006 Behavioral Risk Factor Surveillance System

	% Other Races	% White	Disparity Ratio	% Household Income <\$50,000	% Household Income \$50,000+	Disparity Ratio
Current Smoker	19.7	16.6	1.2	17.2	15.5	1.1
Overweight or Obese	64.2	52.7	1.2	65.9	55.1	1.2
No Exercise in Past Mo.	24.7	11.1	2.2	26.6	8.7	3.1
No 5+ Fruits & Veg Per Day [2005]	84.9	71	1.2	79.9	69.3	1.2

DATA SOURCES/INFORMATION

Data are from the Behavioral Risk Factor Surveillance System, NC DHHS/State Center for Health Statistics and prepared by the Mecklenburg County Health Department Epidemiology Program.

Environmental Health Highlights for Mecklenburg County

POLICIES SUPPORTING ENVIRONMENTAL HEALTH

TOBACCO

GO FOR ATMOSPHERE

"Go-For-Atmosphere" is a program to educate the community about options for smoke-free dining. The goal is to reduce citizen exposure to environmental tobacco smoke, also known as secondhand smoke, which is a known cause of cancer. There is no cost to restaurants to participate in this voluntary program. As of November 2007, about 63% of all restaurants are smoke-free in Mecklenburg County.

For more information visit www.goforatmosfera.com.

100% TOBACCO FREE SCHOOLS

Charlotte Mecklenburg School District went tobacco free in May 2003. Currently there are 350 signs stating the 100% Tobacco Free Schools policy on school grounds. The policy, which is referred to as the 'gold standard policy' reads as follows: "Smoking and use of other tobacco products shall be prohibited on all Board of Education property and in school owned vehicles, whether the property or vehicles are owned, leased, used or rented by the board of education. Any person or organization using school owned facilities pursuant to Policy KF shall agree to abide by this policy as a condition of agreement for the use of the facilities. Programs to help students and employees understand the dangers of using tobacco products will be provided by the school system. Board of Education property includes the physical premises of all school campuses and properties, bus stops, all vehicles under the control of the district, and all school sponsored curricular or extra-curricular activities, whether occurring on or away from a school campus."

For more information visit www.cms.k12.nc.us.

PROJECT ASSIST

Project ASSIST stands for the American Stop Smoking Intervention Study. The purpose of Project ASSIST is to prevent deaths and health problems attributable to tobacco use. In North Carolina, Project ASSIST is focusing on helping adolescents, pregnant women, and tobacco users who want to quit. Mecklenburg County Project ASSIST is a partnership of the American Cancer Society, the Department of Environment, Health, and Natural Resources, the National Cancer Institute, Mecklenburg County Health Department, and voluntary organizations.

For more information visit

<http://www.charmeck.org/Departments/Health+Department/Programs+and+Services/Core+Services/Health+Promotion/Project+Assist.htm>.

NUTRITION & PHYSICAL ACTIVITY

COLOR ME HEALTHY

Color Me Healthy is a fun and well-researched physical activity and nutrition curriculum for under-served 4 & 5 year old children. Through the use of color, music, imagination, and exploration of the senses, children learn that healthy food and physical activity are fun! Early childhood educators can participate in a 4-hour training

Environmental Health Highlights for Mecklenburg County

session and learn how to implement the program. Upon completion of the training, they receive a kit full of the materials they need to implement the program, plus they receive four continuing education credits. Color Me Healthy has trained 80 early childhood educators and 12 school health nurses from 26 day care centers and 12 elementary schools in 4 sessions to date.

For more information contact Priscilla Laula at plaula@carolinas.org.

FAMILIES EATING SMART AND MOVING MORE

Families Eating Smart and Moving More is a 4-part program that offers families *simple solutions* to help them eat smart and more. The four educational modules include: Eating Smart at Home, Eating Smart on the Run, Moving More, Everyday, Everywhere and Moving More, Watching Less. Numerous classes have been offered to educators, administrators and parents.

For more information contact Priscilla Laula at plaula@carolinas.org.

NUTRITION AND PHYSICAL ACTIVITY SELF-ASSESSMENT FOR CHILD CARE

NAP SACC (Nutrition and Physical Activity Self-Assessment for Child Care) is a program that assists childcare centers in assessing and setting goals to improve nutrition and physical activity practices. Through educational sessions for parents and teachers and problem-solving sessions with a health professional, centers have the opportunity to write into policy changes that will positively affect children's health. Twelve child care centers are currently working with the NAP SACC program to make changes in nutrition and physical activity programming for young children and their families.

For more information contact Priscilla Laula at plaula@carolinas.org.

MECKLENBURG COUNTY FRUIT & VEGETABLE COALITION

The Mecklenburg County Fruit & Vegetable Coalition was developed in 2005 by the Mecklenburg County Health Department to address the declining intake of fruits and vegetables. The goal of the Coalition is to increase consumption of fruits and vegetables to more than 5 servings a day by 25% of Mecklenburg County adults by 2010. The current active membership of the Coalition is 70 partners with about a third who are actively involved in projects sponsored by the group. Current activities include increasing the number of local farmer's markets and school gardens in the community.

For more information about the Coalition, please contact Allison Mignery, Mecklenburg County Health Department Nutritionist at 704-432-3468.

FIT TOGETHER

The **Fit Together** Initiative is a comprehensive statewide obesity prevention campaign funded by the North Carolina Health and Wellness Trust Fund and Blue Cross Blue Shield of North Carolina. It is unique its emphasis on both individual and community action to prevent obesity and connects individuals to local resources through the website www.FitTogetherNC.org. Grantees funded through the Initiative are working to: reduce barriers in children's homes / communities to healthy eating and physical activity, significantly increase the number of school and child care settings that promote healthy eating and physical activity, increase the number of neighborhoods that are designed to support safe play and healthy eating and increase the number of healthcare settings that participate in the prevention and treatment of obesity and childhood overweight in partnership with their communities to create integrated, comprehensive systems of care.

Environmental Health Highlights for Mecklenburg County

The Mecklenburg County Health Department is one of 21 grantees participating in the *Fit Together* obesity initiative. The Mecklenburg County Health Department has partnered with four local programs to address access to healthy foods and promotion healthy eating and physical activity in the school and childcare setting; the After-School Enrichment Program (ASEP) with the Council for Health and Fitness and the Winner's Circle Program targeting children in grades K-5 in the school system, the Body Works and Total Body Program targeting teens in the school system, and the YMCA targeting children in grades K-5 in the community.

For more information visit www.FitTogetherNC.org.

FIT CITY CHALLENGE

The Fit City Challenge is a community level initiative to encourage and empower program participants to increase their level of physical activity and fruit and vegetable consumption. Beyond promotional and awareness campaigns, the Fit City Challenge aims to provide the tools, the motivation and the mentoring for both the individual and the community to succeed in addressing the epidemic of overweight and obesity. At the core of the Fit City Challenge are the parallel goals of walking 5 miles per week and eating 5 fruits and vegetables each day, then recording progress in these areas through this dynamic and interactive web site.

The Fit City Challenge is the result of the work of the Mecklenburg County, NC Healthy Weight Task Force and its charge to identify best practices and galvanize the community in overcoming the factors that contribute to overweight and obesity, particularly in children and youth.

In 2007 Fit Together chose Mecklenburg County as a "Fit Community." The designation recognizes North Carolina communities that have excelled in promoting healthier lifestyles among their residents. Mecklenburg County will receive highway signs for entrances to the community, a Fit Community plaque, recognition on the Fit Together Web site, www.FitTogetherNC.org, and use of the Fit Community designation logo for all communications.

For more information visit www.fitcitychallenge.org.

FIT CITY FOR FIT FAMILIES

Fit City for Fit Families is a companion program to the Mecklenburg County Fit City Challenge to help stem the tide of the national obesity epidemic. Fit City for Fit Families combines individual and community action to reduce children's barriers to healthy eating and physical activity. The program builds individual knowledge and skill by providing web-access to credible nutrition and physical activity resources. The program also works with family-friendly businesses throughout Mecklenburg County to establish policies that create a societal norm for healthy eating options and physical activity opportunities. In this manner, Fit City for Fit Families strives to educate families on the importance of healthy eating and physical activity and build a community where healthy eating and physical activity practices can be sustained.

For more information please visit <http://www.fitcitychallenge.org>.

FIT CITY WORKSITE WELLNESS

Another companion program to Fit City Challenge is Fit City Worksite Wellness. Fit City Worksite Wellness has valuable tools to assist business owners, human resource administrators or employee advocates in creating a

Environmental Health Highlights for Mecklenburg County

healthier work environment. Fit City Worksite Wellness has many great ideas including: a list of healthy snack items for company vending machines, creative ways to incorporate physical activity into the workday, even if employees are stuck at their desks, and a complete self-assessment to determine how healthful the worksite really is and resources to help make improvements.

For more information please visit <http://www.fitcitychallenge.org/worksite>.

LEAD SCREENING

The Childhood Lead Poisoning Prevention Program in the county is administered by both the Public Health Pest Management & Environmental Services (PHPM) and Community-Based Services program of the Health Department. The purpose of the program is to promote childhood lead poisoning prevention, provide medical case management to children under 6 years of age who have elevated lead levels and apply State rules and regulations addressing childhood lead poisoning prevention.

Children, under the age of six years, who reside in target housing (pre-1978), should have their blood tested for lead at their pediatrician or other health care provider. The initial check is usually done with a simple finger-stick test. If there is an elevated blood lead level then a second test (venous) will be done. Confirmed blood lead levels of 10ug/dl or greater will trigger medical, nutritional, and environmental follow up from health professionals. Below are the lead testing results for Mecklenburg County for 2006.

For more information visit

www.charmeck.org/Departments/Health+Department/Environmental+Health/Pest+Management/Lead/Home.htm.

Year	Screened (<6 years)	Screened (1 & 2 yrs)	% Screened (1 & 2 yrs)	Confirmed ≥ 10 ug/dL	Confirmed ≥ 20 ug/dL
2006	9,564	7,520	28.4	10	0

FOOD INSPECTIONS

The Mecklenburg County Food and Facilities Sanitation Program (F&FS) is a component of the Environmental Health Division of the Mecklenburg County Health Department. The F&FS Program is a mandated program administered by the local Health Department pursuant to Chapter 130A of the General Statutes of North Carolina. Program employees are responsible for enforcing state statutes and rules, and local ordinances governing a number of different types of facilities. In FY06 over half of the required food inspections were completed (56%). The goal for 2015 is to have 100% of required inspections completed.

For more information please visit the F&FS program at

www.charmeck.org/Departments/Health+Department/Environmental+Health/Food+and+Facilities+Sanitation/Home.htm.

Environmental Health Highlights for Mecklenburg County

CARBON MONOXIDE

Cold weather in Mecklenburg County increases the likelihood of some residents taking extraordinary measures to keep warm. Fuel-burning appliances such as furnaces, gas ranges/stoves, gas clothes dryers and water heaters are all sources of carbon monoxide (CO). Fireplaces, charcoal grills, wood-burning stoves, kerosene heaters and vehicles, generators and other combustion engines running in an attached garage -- even when an outside door is open -- also produce CO. On January 1, 2004, an ordinance was passed requiring all dwelling units whether owned or leased, regardless of the source of energy used in the dwelling unit and regardless of whether the dwelling unit has an attached garage shall now contain at least one operable Carbon Monoxide Alarm.

For more information visit www.carbonmonoxide1.com.

ENVIRONMENTAL FACTORS

WATER QUALITY

Groundwater quality in Mecklenburg County is high quality source water for both domestic and industrial purposes. Occasionally there made be a need for treatment of water for taste or odor and there are some areas of the county where groundwater has been impacted by manmade contamination and is not fit for human consumption. There have been 213 contaminated wells identified in Mecklenburg County through the Mecklenburg Priority List (MPL).

In FY05, 171 wells were tested for coliform bacteria. Of the 171 wells, 24% were found to be positive. Since July 2005, 242 wells were tested and 23% were found to be positive. The long term goal is to have less than 5% of the wells test positive for bacteria.

For more information visit www.charmeck.org/Departments/GWS/home.htm.

AIR QUALITY

Affected by numerous factors such as vehicle traffic, industry, and geography, air quality is a regional issue as well as a county one. The quality of outdoor air is measured using the Air Quality Index (AQI). This index is based on concentrations of ozone, particulates, carbon monoxide, nitrogen dioxide and sulfur dioxide. While the region has been successful in curbing most of these pollutants, ozone concentrations and particulate matter remain major concerns. Rising population and the increase of vehicle miles traveled are key factors affecting the ozone level in the Charlotte Metro area. Because ozone levels had consistently remained at approximately 15% above federal compliance levels over the last 20 years, the EPA designated Mecklenburg County and surrounding areas an ozone "non-attainment" area in April 2004. Three ozone-monitoring sites span Mecklenburg County from southwest to northeast. These sites operate continuously from April 1 through October 31. The following table describes the numbers of days per year that the ozone levels have exceeded federal compliance levels.

Environmental Health Highlights for Mecklenburg County

Number of Days that Ozone Levels have Exceeded Federal Compliance Levels Mecklenburg County 2003-2007	
Year	Number of Days
2003	4
2004	4
2005	10
2006	9
2007	19

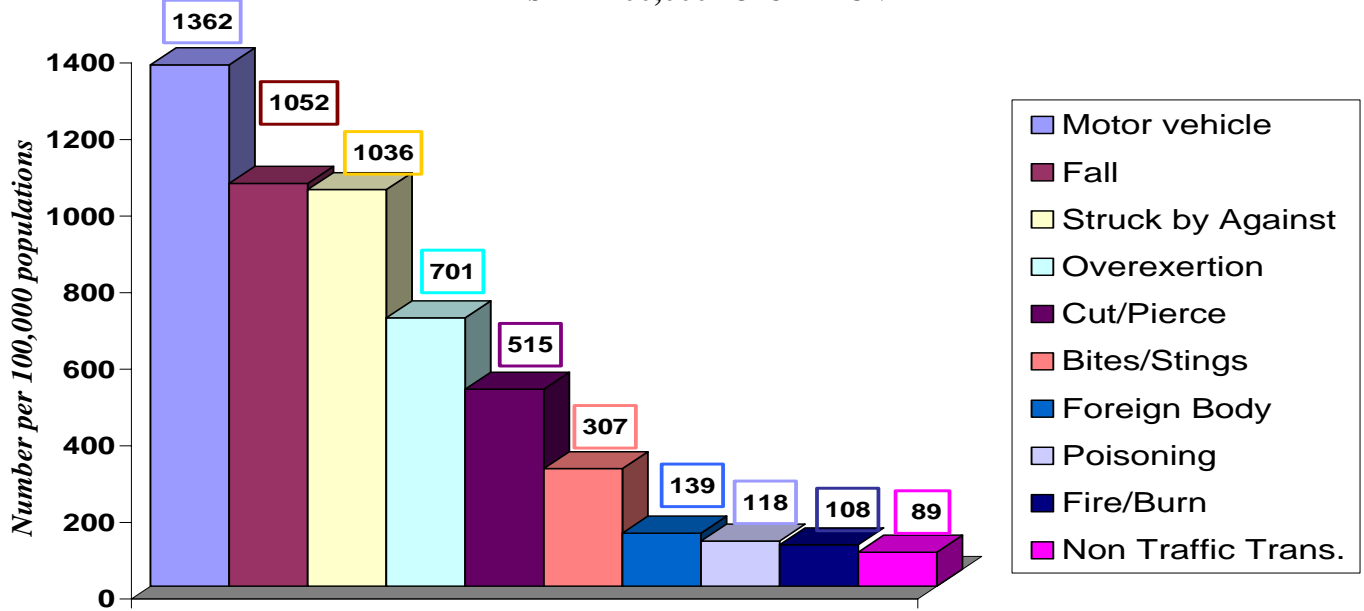
The Mecklenburg County Air Quality (MCAQ) program is responsible for assuring good air quality for the community through a combination of regulatory and non-regulatory programs. Two public awareness air quality programs "Spare the Air" and "Smokin and Chokin", better inform the community on air quality issues and actions. "Spare the Air" program seeks to educate individuals about the sources of air pollution; the health effects of air pollution and how these effects can be mitigated by modification of outdoor activities on ozone action days such as carpooling, vehicle maintenance, and energy conservation. "Smokin and Chokin" program allows residents to report cars with smoking tailpipes to MCAQ. From March 2006 through March 2007, 103 smoking vehicles were reported by Mecklenburg County residents.

Community collaborations have also been working to address air quality in the Charlotte region. The Carolinas Clean Air Coalition (CCAC) is one of the community collaborations serving a 15 county region in North and South Carolina. CCAC works to restore clean and safe air to the Charlotte region through coalition building, public policy advocacy and community outreach. The Sustainable Environment for Quality of Life (SEQL) project is also a collaboration serving the 15 county area in the Charlotte Region and is funded by the Environmental Protection Agency. SEQL involves elected officials, local government staffs, business and industry groups, economic development groups and environmental stakeholders working together to address environmental issues.

For more information please visit www.charmeck.org/Departments/LUESA/Air+Quality/Home.htm

Mecklenburg County Burden of Injury

2003 LEADING UNINTENTIONAL INJURY VISITS TO EMERGENCY DEPARTMENTS*
RATES PER 100,000 POPULATION



* The 2003 Emergency Department for Carolinas HealthCare System and Presbyterian Hospital was compiled through a special study conducted by the Dickson Institute for Health Studies. Results from the next study will be available in the spring of 2008

2006 LEADING CAUSES OF INJURY-RELATED DEATHS

Total Deaths due to Injury: 392

Unintentional Injury: 229

Intentional Injury: 163

Leading Causes of Deaths due to Unintentional Injury

- Motor Vehicle Injuries (47%)
- Accidental Poisonings (22%)
- Falls (11%)
- Suffocation/Airway Obstruction (7%)
- All Other Injuries (13%)

Leading Causes of Deaths due to Intentional Injury

- Homicides (50%)
- Suicides (50%)

Leading causes of Intentional Injury to Emergency Department (5%) of total

- Struck by against
- Cut/Pierce
- Firearm

Shifts seen from 2002-2003 data

- Increase in injury in all categories for those less than 1 years of age. Injuries resulting from falls increased 65% in this age group.
- Increase in motor vehicle injuries for 15-19 year olds
- Increase in struck by against and cut/pierce intentional injury

Race or Sex specific data:

- Higher proportion of females for motor vehicle occupant.
- Higher proportion of African American males in most categories.
- Greatest increase in Hispanic population is motor vehicle occupant.

Cost: In 2003, hospital charges for injury related visits totaled \$27,505,742. This does not include, cost of rehabilitation, disability, missed work days, loss of life, or other associated costs.

* Mortality data from the North Carolinas Center for Health Statistics

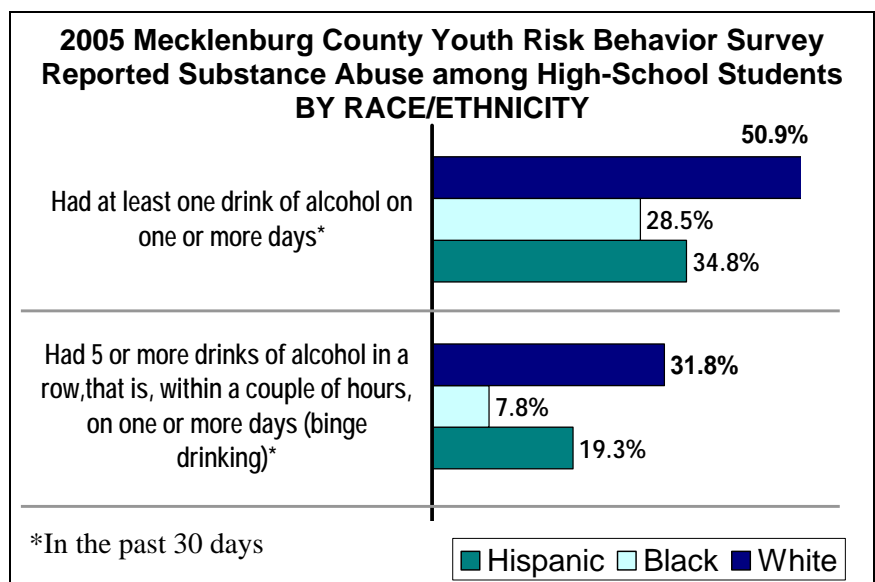
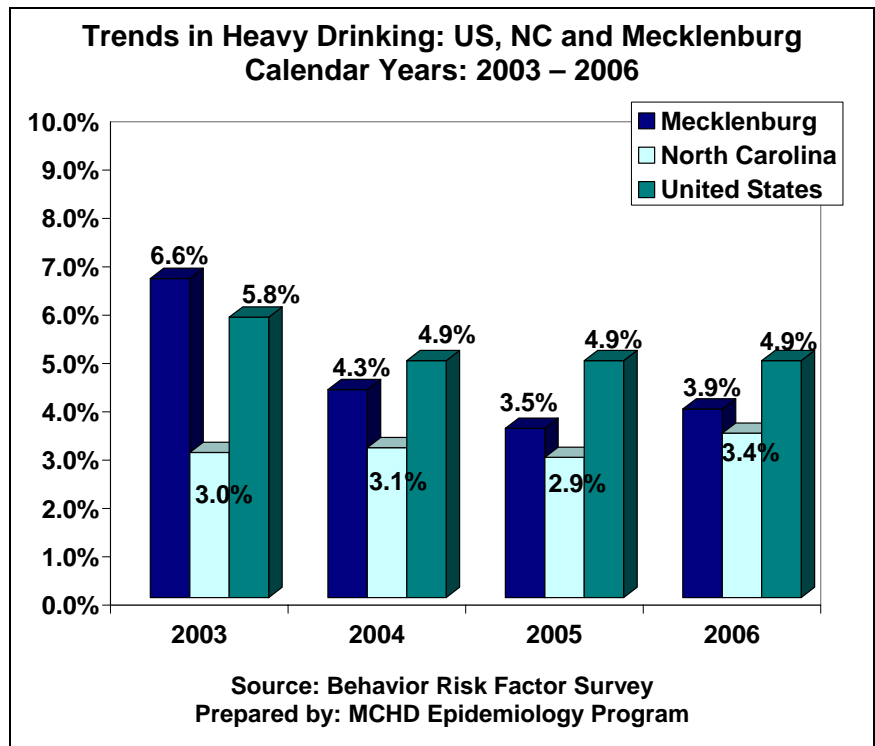
Substance Abuse Highlights for Mecklenburg County

Substance abuse and its related problems continue to be a major public health concern for the nation. According to the Centers for Disease and Control (CDC), excessive alcohol consumption is the third leading preventable cause of death in the United States. In a 2005 survey sponsored by the Substance Abuse and Mental Health Services Administration, 19.7 million Americans aged 12 or older used an illicit drug during the month prior to being interviewed. Illicit drugs include marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics used non-medically. The use of alcohol and other illicit drugs has been linked with increases in motor vehicle crashes, crime, health care costs and losses in productivity.

ALCOHOL CONSUMPTION

Heavy drinking is defined as having more than 2 drinks per day for men and having more than 1 drink per day for women. Binge drinking is defined as having five or more drinks of alcohol on one occasion.

- Among Mecklenburg County adults, reports of heavy drinking declined from 6.6% in 2003 to 3.9% in 2006.
- While reports of heavy drinking in adults are nearly equivalent among men and women, males are more than twice as likely to report binge drinking than are females (based upon 2002-2006 Behavior Risk Factor Surveillance System data on alcohol consumption).
- According to the 2005 Youth Risk Behavior Survey (YRBS), nearly 40% of Mecklenburg teens have had at least one drink of alcohol in the past thirty days.
- Nearly 20% of teens reported binge drinking in the month prior to being interviewed.
- While the proportion of teens admitting alcohol use remains high, rates have steadily declined in the county. According to the Charlotte Mecklenburg Drug Free Coalition, alcohol use among Mecklenburg teens dropped by 43% between 1995 and 2004.



Substance Abuse Highlights for Mecklenburg County

The following data and statistics are from the 2006 Substance Abuse Indicators Report. The Indicators Report, developed by the Charlotte Mecklenburg Drug Free Coalition, collects, documents, and illustrates factors that contribute to drug and alcohol problems in our community. The 2007 Substance Abuse Indicators Report will be released on January 18th, 2008. For more information on the Charlotte Mecklenburg Drug Free Coalition and additional statistics on substance abuse in Mecklenburg County, please visit: www.drugfreecharlotte.org.

ILLICIT DRUG USE AMONG YOUTH

- The lifetime use of most drugs increases as a student moves from Grade 6 to Grade 11.
- In 2005, over 40% of Mecklenburg teens reported using marijuana one or more times during their life.
- About 14% of teens have taken prescription drugs such as OxyContin, Percocet, Demerol, Adoral, Ritalin, or Zanax without a doctor's prescription one or more times during their life.

ALCOHOL RELATED INJURIES AND FATALITIES

- Over 27,000 crashes occur in Mecklenburg County each year. Approximately 4.4% of these crashes are alcohol-related.
- On average, 27% of fatal traffic crashes in the county are alcohol related.