



Macon County  
Public Health



---

# 2011 Comprehensive Community Health Assessment & Recommendations

---

Prepared By:

Healthy Carolinians of Macon County's  
Community Health Assessment Team &  
Macon County Public Health

In Association With:



## Introduction

Healthy Carolinians of Macon County (HCMC) is more than an organization. It is in reality a movement, the result of like-minded, civic leaders and volunteers who understand that the greatness of any community is ultimately dependent on the health of citizens and their shared quality of living.

During 2011, HCMC worked with community partners to complete a Comprehensive Community Health Assessment. This report is the result of a broad based effort to measure and evaluate health status, health statistics and the incidence rates of disease, illness and accidents.

The assessment also focused on factors that influence future health, such as health and wellness habits, experiences accessing care and attitudes that influence healthy behavior.

Specifically the Comprehensive Community Health Assessment included the following components:

- A collection and review of key health statistics, comparing Macon County results with peer counties and North Carolina results. In addition, trends in Macon County results were reviewed.
- A quantitative research study of 401 Macon County adults, selected at random, and interviewed using a comprehensive health questionnaire.
- A series of eight community focus groups. These discussion groups consisted of Macon residents representing important community perspectives, such as senior citizens, students, the Latino community, Highlands residents and business.
- Interviews with selected community leaders with perspectives on health.

Assessment results were also compared to a previous HCMC assessment completed in 2007. Where it is meaningful, positive and negative changes between 2007 and 2011 are highlighted in this report.

Based on the research results, HCMC leaders and volunteers set priorities they hope to promote and pursue over the next few years.

The Comprehensive Community Health Assessment is more than a report. It is intended as a resource that community organizations, leaders and planners can use to inform and influence their own decisions and priorities.

Inquiries about this report or Healthy Carolinians of Macon County should be directed to Dawn Wilde, Community Health Promotion Supervisor, at [dwilde@maconnc.org](mailto:dwilde@maconnc.org).

## About Healthy Carolinians of Macon County

Healthy Carolinians of Macon County is a state-certified, public-private health partnership of more than 100 members and 50 partnering organizations. Those participating in HCMC represent a broad coalition of public health, hospitals, physicians, human service organizations, city and county governments, schools, civic groups, business and community volunteers.

HCMC is recognized as a leader in health advocacy and programming in North Carolina. Since its last assessment four years ago, HCMC has been instrumental in the opening of a primary care clinic in Franklin serving low-income and uninsured residents. HCMC has also promoted access to dental care, anti-smoking and increased fitness initiatives, and access to mental health services. The group was recognized in 2004 with the William G. Anlyan Award as the most distinguished partnership in the state.

Leaders of HCMC who participated in this assessment are:

Donna Alexander	Jeff King
Becky Barr	Eileen Lipham
Ronnie Beale	Teresa Mallonee
Wes Bintz	Barbara McRae
Rhonda Blanton	Barry Patterson
Teresa Breedlove	Christopher Phillips
Dan Brigman	Stan Polanski
Jim Bruckner	Mike Poore
Elena Carlson	Derek Roland
Kevin Corbin	Yvonne Smith
Dorothy Crawford	Sheila Southard
Ava Emory	Lucretia Stargell
Mike Grubermann	Roberta Swank
Timothy Hayes	Sallie Tallent
Lisa Hilliard	Jennifer Turner-Lynn
Tim Hubbs	Jimmy Villiard
Tammy Keezer	Martin Wadewitz, Chair
Jane Kimsey	Dawn Wilde

## **Community Health Priorities 2012 to 2015**

Based on analysis of health statistics and research findings detailed in this report, the leadership of HCMC discussed and identified the three community priorities for the next four years.

These are not HCMC priorities alone. They are community priorities recommended to the entire community for consideration and action. It is hoped many community leaders and organizations will explore opportunities to work together and achieve the following for the benefit of Macon County.

### *HCMC Priorities:*

1. Reduce the incidence of preventable chronic diseases related to obesity, particularly diabetes and heart disease.
2. Promote recruitment and retention of additional primary care physicians and dental practitioners serving Macon County residents.
3. Reduce the incidence and mortality rates of breast, colon, and lung cancer through prevention and early intervention efforts.

There are certainly other health issues and concerns that merit community attention, and these three priorities are not meant to be exclusive. The current assessment points to other areas of concern that merit attention in the county, but do not rank as primary concerns for 2012 to 2015. These secondary priorities include:

- End-of-Life Issues
- Access for Uninsured
- Suicide/Mental Health
- Smoking
- Youth and Family

Increased health education efforts were also identified as one of the top health needs in the community. The Community Needs Assessment subcommittee of Healthy Carolinians discussed naming health education as a priority area; however, decided that the need for increased health education efforts was a means to an end, rather than a health priority in itself.

As we move forward in addressing the selected priorities, increasing availability to health education services and access to awareness initiatives will be incorporated into the interventions planned for all priority areas. Sub-committee chairs will be

made aware that increased health education activities were recommended as a key component for future projects.

Many health providers and advocates within the community and within HCMC will continue to make progress in a variety of areas of interest: senior services, mental health care, family and children's issues, environmental concerns, transportation safety and more.

## **Macon County Overview**

Macon County is a diverse mixture of mountain living, small city hustle, rural landscapes and high tech potential. According to 2009 census estimates the county has 32,600 residents living across 519 square miles, most of them mountainous and sparsely inhabited.

Macon County has a median age of 47.5, which is 11 years older than the median for the United States or North Carolina. Almost one quarter of Macon County residents (23.5%) are over age 65.

Median family income in the county is \$47,243, based on 2009 census estimates. Approximately 10% of families and 13.5% of individuals live on income below the poverty level. Unemployment in Macon County in 2011 is estimated at 10%.

The Macon County seat is Franklin, with a population of 4,000. Franklin is also the location of the county health department, Angel Medical Center and most of the county's physicians, dentists and related health professionals.

Franklin is also home to most of Macon County's industry and non-service employment. Macon County boasts prominent manufacturing and software development businesses, and also has a technologically advanced high-speed fiber optic network that could be a magnet for future business development and job growth.

Resting at 4,118 feet of elevation is Highlands, the county's second largest community. Highlands has a year-round population of just over 1,000, but it swells to 10 times that number from spring to fall, as the community attracts tourists, retirees, golfers and outdoor enthusiasts. Highlands is older (median age 58.9) and wealthier (average family income of \$77,986) than other areas of Macon County. There is a small, but modern hospital in Highlands, and a small medical and dental staff.

Another Macon community that attracts seasonal crowds is Nantahala, a picturesque area that surrounds a mountain lake and river. The year-round residents of Nantahala number less than 300. They are separated from the rest of the county by mountains and winding roads. A drive from Nantahala to Franklin can take almost an hour, making it difficult for Nantahala residents to access health services within Macon County.

The remainder of Macon's population is spread across rural communities and unincorporated areas. The largest of these are Brendletown, Cowee and Cartoogechaye.

## **Community Perspectives**

The HCMC Comprehensive Health Assessment collected a variety of community perspectives from a series of eight focus groups, and also lengthy interviews with eight informed community leaders.

Participants in the focus groups included the following:

- Representatives of the business community
- Senior citizens
- Representatives of the Latino community
- High school students (three groups)
- Residents of Highlands
- Medical community leaders

Those interviewed were:

- Dan Brigman, Superintendent, Macon County Schools
- Jim Bruckner, Director, Macon County Health Department
- Elena Carlson, Hispanics for Hispanics
- Commissioner Ron Haven
- Dr. Kit Helm, M.D.
- Jerry Hermanson, Highlands & Franklin Volunteer Clinics
- Leslie Mason, Nantahala School Counselor
- Johnny Mira-Knippel, Businessman and Hospital Board Member

Concerns and issues raised from these diverse community voices provide context for the research and statistical analysis. Their input provides important perspective on a variety of issues that will influence Macon County life and health over the next few years.

### *Economic Issues*

Community leaders interviewed as part of the community health assessment were highly focused on the national, regional and local economy and its affects on community living, including community health. With 10% of the population out of work and business slowing down, increasing numbers of families do not have health insurance or cannot afford some essential health services.

Those in the business community express concern about the future cost of providing health insurance benefits for those who continue to work. Health premiums continue to rise, and employers are uncertain about the impact of federally mandated health insurance reform.

Those responsible for administering public services, such as government, schools and health services, expressed concern about future funding. Declining tax revenues and lower support from state and federal budgets will force local service providers to make tough choices and prioritize expenditures carefully.

In the case of health and human services, the recession could encourage new partnerships and creative solutions between entities that historically work independently. For example, public health and private health care services and hospitals might find it advantageous to work more collaboratively to improve population health and manage demand for services.

### Indigent Health Care

The economic recession has prompted increased use of free health services provided by volunteer health clinics in Highlands and Franklin. Leaders of an established clinic in Highlands helped open a new clinic in Franklin in 2010, and both clinics are busy during their part-time hours. In fact the Highlands clinic grew in utilization despite opening the new clinic in Franklin.

Both clinics operate one evening per week using volunteer physicians and nurse practitioners. Despite the limited hours, the clinics manage to serve about 200 patients a month. The Franklin clinic had 1,093 patient visits in its first year, while the Highlands clinic had 943 visits. Thirty percent of the patients in Highlands continue to come from the Franklin area.

The clinic in Franklin has start-up funding and ongoing administrative support from the clinic in Highlands. This support will end in 2012, however, and the Franklin clinic will have to become self-supporting, securing its own gifts and grants to keep the doors open.

A problem that is made more serious by the expansion of free primary care in Macon County is limited access to diagnostic services and specialty care. There is no formal process for securing specialty referrals for those without insurance or ability to pay. According to those who volunteer in the free clinics, specialty care appointments are especially difficult to obtain for cardiology, orthopedics, urology and obstetrics/gynecology.

There is also difficulty accessing and paying for specialty diagnostics in physician offices or at the hospital. Hospitals and physicians cannot give these services away, at least not in unlimited amounts. Angel Medical Center has a charity care program and provides services to patients on a sliding scale. Yet even the sliding scale is unaffordable for many patients.

The Highlands Hospital provides free diagnostic services to patients from the Highlands volunteer clinic.

### Access to Physician Care

Community leaders interviewed said they would like to see an emphasis on physician recruitment and retention. A key issue in recruiting and retaining physicians in a rural community is quality of life. A physician might be interested in Franklin, but there must also be opportunities for the spouse and appropriate educational and cultural opportunities for children. Not every medical family is attracted to the small town lifestyle. The community lost three primary care physicians in 2010-2011, primarily for lifestyle reasons.

Angel Medical Center in Franklin, a critical access community hospital, has an affiliation with Memorial Mission Health System in Asheville. The relationship has led to the expansion of some important specialty services available in Macon County, at least on a part-time basis.

There is now expanded cardiology coverage and orthopedic services available at Angel. However, many Macon residents continue to access specialty care in Jackson County (Sylva), where there is a larger specialty physician community. Some also access specialty care in Asheville.

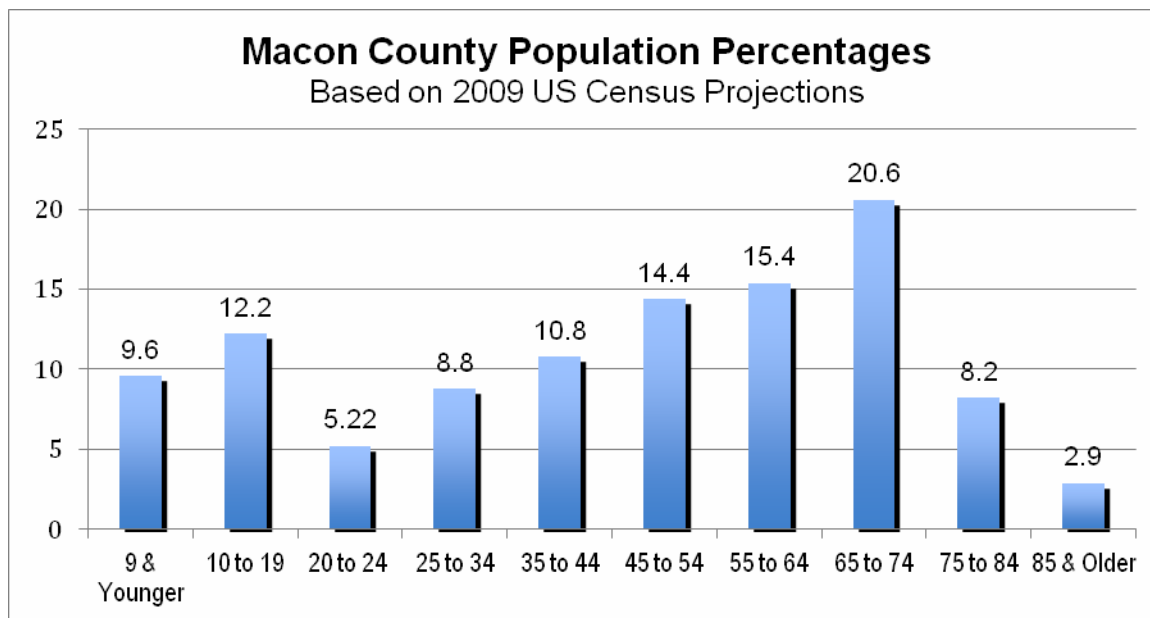
Seniors in the community see the need for increased access to specialty services. They are usually able to access what they need, but would prefer to have more services closer to home, such as dialysis services.

### Aging Population

Macon County is perceived as a good place to retire and grow old. Seniors are happy and feel they have adequate support services, such as transportation services, to live independently. They have confidence in their local doctors and hospitals.

There is an active senior center, and safe places to walk and exercise, though seniors would like to have more. They would like to see more opportunities for safe recreation spread out across the county, and that seems to be happening. A new community center is being developed out of a closing school in Cowee.

Although current seniors seem happy with their circumstances in Macon County, those responsible for health care and health planning are concerned. The percentage of consumers over age 75 could double over the next 10 years. The chart below shows the rising age wave for Macon County.



Source: U.S. Census Bureau

Anticipating and preparing for future needs of an aging population should be an important community planning priority, if not in the next three years, then over the next decade. As the decade progresses, the age wave could mean an increased need for transportation, senior services, assisted living, in-home care, skilled nursing and geriatric medicine, as well as hospital and specialty care.

Those in the medical arena also see a need for increased emphasis on end-of-life planning and end-of-life care, such as hospice care.

### Obesity

Those with their eye on the health of the community worry about a growing culture of obesity, especially among children and young adults. The problem is exacerbated by poor dietary choices, a lack of exercise and perhaps a lack of understanding of weight gain and life changes that lead to better health.

There is a need for increased emphasis on exercise and eating smart. Among children, pediatricians and schools are important factors in the educational effort. Parents should be a part of the effort as well, although many parents also suffer from too much weight. Among older adults, physicians and employers (who bear increased health care costs) should be part of the solution.

Youth also recognize there is an obesity problem. Teenagers participating in focus groups said they would like to see a greater emphasis on exercise at school, recreation opportunities in the community, and also changes in their school lunches.

There is a movement in the Latino community to promote gardening, and to increase appreciation for natural foods over processed foods. Those in focus groups and interviews report those in the Latino culture grew up unfamiliar with fruits and vegetables that grow well in the south, so they do not have a taste for them. Community leaders hope that gardens, where Latinos can grow vegetables they like, will not only help address dietary problems, but also help feed families who are struggling economically.

### Families & Youth Issues

There is concern in Macon County about the conditions of family life, at least some families' lives. Split families, absent parents, parents living with grandparents or living without a home at all are national problems that also exist in Macon County.

The economy is a factor. Homelessness is up, and the pressures of no job and too little income are influencing family security and serenity. Pressures at home influence the educational performance of children. Among the youth participating in the three student focus groups, economic pressures were a recurring theme.

The teenage students participating in focus groups expressed concern over high-risk behavior that occurs among many youth, particularly sexual behavior and alcohol use. They would like to see effective approaches to education and reducing risky behaviors. Students say that traditional educational efforts, especially in the area of sex education, have not been effective.

Education and prevention programs have been effective reducing teen smoking, however, according to health professionals interviewed.

Youth would like to see expanded options for recreation after class and for safe and attractive places to just hang out. Some older residents appreciate this need as well, and would like to see more after-school and educational options for kids.

There are unique youth and family issues in the Latino community related to parental authority and language skills. In some Spanish speaking families those with the best language skills are the children and teenagers. The teens will use this advantage to get what they want from parents, perhaps by deliberately misleading them when interpreting information, such as a letter from school. In extreme circumstances some youth blackmail their parents, telling them they will turn them in as illegals or as child abusers if they do not let the children have their way.

### Mental Health

Access to mental health services, especially for those without insurance or adequate resources to pay for care, has been a long-standing problem in Macon

County, as it has been across the rest of the state. One health professional interviewed called the current problem “appalling” and “profoundly frustrating.”

Frustration is an appropriate term to describe the attitudes toward mental health access in North Carolina. The needs are significant, but the resources are very limited, and mostly out of county.

HCMC has been part of a task force meeting to explore options to improve mental health services, but solutions are difficult. Limited state funding and restrictions on benefits, even among the insured, restrain access to mental health care.

### Cultural Issues

The Hispanic community in Macon County has changed over the past few years. The economic recession and the resulting loss of jobs in the construction industry have prompted many Hispanic residents to move elsewhere. There remains a sizeable Hispanic population in place, however, and these are permanent residents in the community.

A common theme among Hispanic residents today is a struggle to assimilate. They now have roots in Macon County. They are bringing up children here. They are settling in to a way of life that is far different than their home countries.

Bilingual communications and also education to learn English make assimilation easier. As noted above, second generation Hispanic youth often have command of English and may be American citizens. This turns the tables on the generational norm, as the young begin to have authority over parents and grandparents.

Many in the county live here without documentation. In North Carolina, as in other states across the country, there is renewed emphasis on laws that make it easier for police to stop and detain illegal immigrants, and process them for deportation. Increased concern over this happening is prompting some in Macon County to live in fear, which produces unhealthy consequences.

For example, parents sometimes choose to keep their children out of school if they see a police car near the school entrance. Some do not go out of the home because they fear police checkpoints. Even those who are here legally, or who are U.S. citizens fear being stopped by authorities and arrested.

Therefore, older Hispanics become increasingly isolated from the community, which further retards assimilation.

Hispanic leaders interviewed and participating in the focus group see the need for continual cultural assimilation and increase proficiency in English. The current climate of fear makes assimilation more difficult, however, for adults and children

### **Community Health Statistics and Observations**

Integral to the comprehensive health assessment is collection, review and comparison of key health statistics from Macon County. Public health departments, hospitals and other health providers from across the state compile and report data on an annual basis. Evaluation of this data provides leaders in Macon County the opportunity assess their own health status, and also to compare local experiences with peer counties, as well as the state overall.

A subcommittee of HCMC leadership reviewed 22 key health statistics for Macon County and compared findings with state averages and with the following peer counties: Ashe, Haywood, Jackson, Polk and Transylvania. The source of the data was primarily the North Carolina State Center for Health Statistics, augmented with local Macon County data and findings from the Youth Risk Behavior Surveillance System (YRBSS).

Findings from the analysis are summarized on the following page in a chart (Figure 1) that summarizes key findings. The summary reveals there are areas where Macon County has both more favorable and less favorable findings when compared to the state and peer counties. For example:

*Areas where Macon County statistics are significantly worse than North Carolina state findings:*

- Suicides
- Injury from accidents, other than motor vehicles
- Women who smoke during pregnancy

*Areas where Macon County statistics are significantly better than North Carolina state findings:*

- Homicides
- Death from injuries motor vehicle accidents
- Trachea, bronchus and lung cancer
- Infant mortality
- Breast cancer
- Prostate cancer
- Obesity

Health Indicator	Macon County	North Carolina	% Difference	Ashe County	% Difference	Haywood County	% Difference	Polk County	% Difference	Transylvania County	% Difference	Jackson County	% Difference
Write what health indicator or outcome you are looking at	2004-2008	2004-2008 Death Rate	% Diff= [(County rate - NC rate)/ NC rate ] X 100%	Enter your first peer county's rates or percents in this column	% Diff= [(Your County rate -Peer County 1 rate)/Peer County 1 rate ] X 100%	Enter your second peer county's rates or percents in this column	% Diff= [(Your County rate -Peer County 2 rate)/Peer County 2 rate ] X 100%	Enter your third peer county's rates or percents in this column	% Diff= [(Your County rate -Peer County 3 rate)/Peer County 3 rate ] X 100%	Enter your fourth peer county's rates or percents in this column	% Diff= [(Your County rate -Peer County 4 rate)/Peer County 4 rate ] X 100%	Enter your neighboring county's rates or percents in this column	% Diff= [(Your County rate - Neighbor County 1 rate)/Neighbor County 1 rate ] X 100%
<b>CAUSE OF DEATH:</b>													
Suicide	20	11.9	68.1%	28.3	-29.3%	17.8	12.4%	25.5	-21.6%	16.7	19.8%	18.1	10.5%
Homicide	3.6	7.2	-50.0%	4.9	-26.5%	2.3	56.5%	6	-40.0%	4.1	-12.2%	3.9	-7.7%
Unintentional MV Injury	14.3	18.6	-23.1%	21.7	-34.1%	21.9	-34.7%	17.5	-18.3%	16.1	-11.2%	17.4	-17.8%
All Other Unintentional Injury	52	28.4	83.1%	31.3	66.1%	38.1	36.5%	39.9	30.3%	37.1	40.2%	37.4	39.0%
Diabetes	22.1	25.2	-12.3%	17.7	24.9%	18.4	20.1%	18.7	18.2%	17.9	23.5%	26.5	-16.6%
Total Cancer	180.1	192.5	-6.4%	169.4	6.3%	185.3	-2.8%	183.1	-1.6%	155.4	15.0%	174.3	3.3%
Trachea, Bronchus, Lung Cancer	49.9	59.1	-15.6%	47.7	4.6%	62.7	-20.4%	49.3	1.2%	42.5	17.4%	54.7	-8.8%
Colon, Rectum, Anus Cancer	18.1	17.3	4.6%	17.1	5.8%	14	29.3%	19.4	-6.7%	8.9	103.4%	17.6	2.8%
Stroke	46.4	54.4	-14.7%	50.2	-7.6%	47.3	-1.9%	50.5	-8.1%	48.3	-3.9%	35.9	29.2%
Heart Disease	190.5	202.2	-5.8%	197.7	-3.6%	202.6	-6.0%	178.9	6.5%	156.3	21.9%	190.1	0.2%
Infant Mortality	6.5	8.4	-22.6%	5.1	27.5%	7.3	-11.0%	14	-53.6%	8.9	-27.0%	7.1	-8.5%
<b>INCIDENCE:</b>													
Prostate Cancer Incidence	81.4	151.9	-46.4%	149.6	-45.6%	155.1	-47.5%	104.2	-21.9%	128.5	-36.7%	141.6	-42.5%
Breast Cancer Incidence	121.5	148.4	-18.1%	106.2	14.4%	159.1	-23.6%	135.1	-10.1%	145.7	-16.6%	108	12.5%
<b>PERCENTAGE:</b>													
1st Tri Prenatal Care %	85.5	82.1	4.1%	89.2	-4.1%	89.3	-4.3%	81.8	4.5%	93.5	-8.6%	90.9	-5.9%
Mother Smoked %	18.8	11.5	63.5%	21.4	-12.1%	23.5	-20.0%	13.3	41.4%	18.9	-0.5%	19.3	-2.6%
Low Birthweight %	7.7	9.1	-15.4%	8.1	-4.9%	10.1	-23.8%	9.7	-20.6%	7.4	4.1%	6.6	16.7%
Obesity 2-4 %	9.5	15.4	-38.3%	16.2	-41.4%	14.3	-38.3%	15.4	-38.3%	13.3	-28.6%	15	-36.7%
Obesity 5-11 %	15.3	25.7	-40.5%	27	-43.3%	20.5	-25.4%	20	-23.5%	0		26.9	-43.1%
<b>RATE:</b>													
Teen Pregnancies	61.4	61.7	-0.5%	65	-5.5%	56.6	8.5%	41.9	46.5%	52.8	16.3%	38.8	58.2%
<b>NUMBER:</b>													
Primary Care Physicians	9.6	9	6.7%	5.7	68.4%	8.1	18.5%	6.3	52.4%	10.3	-6.8%	11.1	-13.5%
Dentists	4.7	4.3	9.3%	2.3	104.3%	4.6	2.2%	3.2	46.9%	3.5	34.3%	3.8	23.7%

Macon County's rate is significantly worse	
Macon County's rate is significantly better	
No significant statistical difference	

Figure 1

The dates used for analysis in Figure 1 are 2004 to 2008. In some cases more recent findings and community observations raise the importance of some health issues, even if Macon County performs historically better compared to peers.

Comparisons to peer counties can be more meaningful for some analyses. Peer counties are close to Macon either geographically or demographically.

*Areas where Macon County statistics are significantly worse than two or more peer counties:*

- Injury from accidents, other than motor vehicles
- Diabetes
- Colon, rectal and anus cancer
- Teen pregnancy
- Availability of primary care physicians
- Availability of dentists

*Areas where Macon County statistics are significantly better than two or more peer counties:*

- Suicides
- Injury from motor vehicle accidents
- Infant mortality
- Prostate cancer
- Low birth-weight babies
- Obesity

Simply identifying those issues where our community's numbers are better or worse than peer county numbers does not tell the entire story. Some findings can be influenced by one-time or short-term events. For example, a flooding tragedy at Peeks Creek in Macon County killed five in one day in 2004. Further, just being better than an average, does not diminish the importance of driving the incidence of health threats and disease even lower if possible.

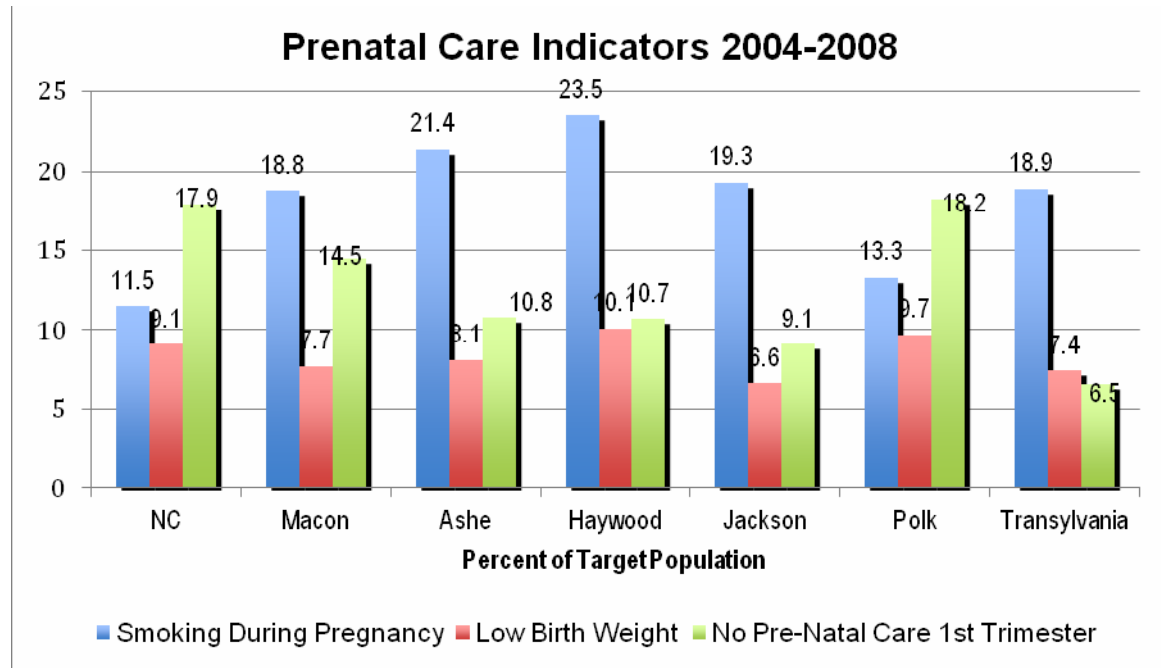
Analysis from HCMC focused on some areas of particular interest and importance, as follows.

### Smoking during Pregnancy

Data show that the rate of smoking during pregnancy declined from 2004 to 2008, but it is still 63.5% higher than North Carolina averages. Smoking during pregnancy could be contributing to low weight and birth, and also infant mortality. Macon experiences in these areas are better than some peer counties and worse than others, but it is still a concern that could be prevented with increased awareness and education.

The prenatal indicators chart shows that while Macon County is not significantly different than peer counties when it comes to percentages of women smoking during pregnancy, low birth-weight babies, and women reporting no prenatal care

during the first trimester, the local rates are still of concern, especially when compared to overall state findings.



Source: North Carolina Center for Health Statistics

Teen pregnancies in Macon County were 61.4 per 1,000 in 2004-2008, equal to the overall state rate of pregnancy and similar to Ashe, Haywood and Transylvania Counties. The five year rate for neighboring Jackson County was 38.8 per 1,000; however, 37% lower than the Macon County rate.

The 2004-2008 rate is substantially lower than rates seen in 1994-1998, however, when teen pregnancies reached 89.5 per thousand. So that is something to celebrate.

### Heart Disease

Heart disease remains one of the leading causes of death nationwide and in Macon County. Yet there are positive trends.

Deaths from heart disease in Macon County trended downward from 1994 to 2008, falling from 258.9 per thousand of population to 190.5. This is a decline of 26.4%.

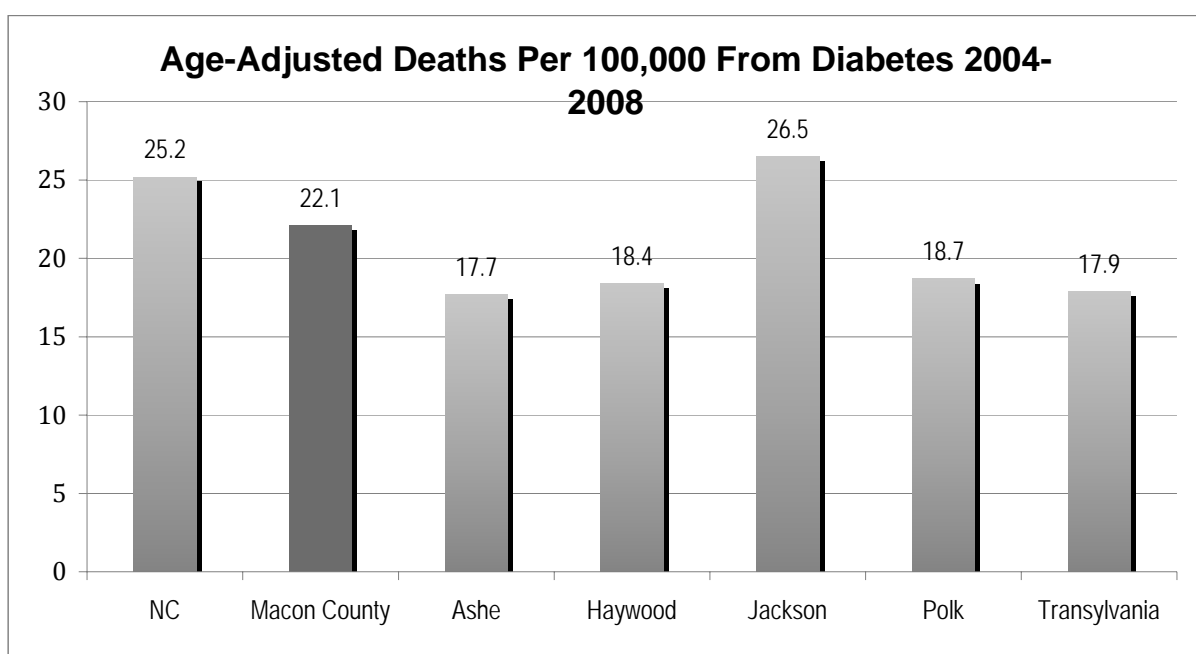
Deaths from heart disease are down statewide and in every peer county. The falling death rate from heart disease is an encouraging indicator of improved heart care, better treatment and more effective prevention strategies.

## Diabetes

In the area of death from diabetes, Macon County trends worse than most peer counties. The rate of death from diabetes in Macon County has changed very little since 1994 to 1998, when it was 24.8 per 100,000 of population. The rate from 2004 to 2008 was not much better at 22.1 per 100,000.

Diabetes affects both children and adults, and can result in shorter lives, medical complications and higher health care costs. Other research conducted in this assessment corroborates a significant, ongoing problem with diabetes care.

The chart below shows only nearby Jackson County with a higher rate of death from diabetes compared to Macon County.



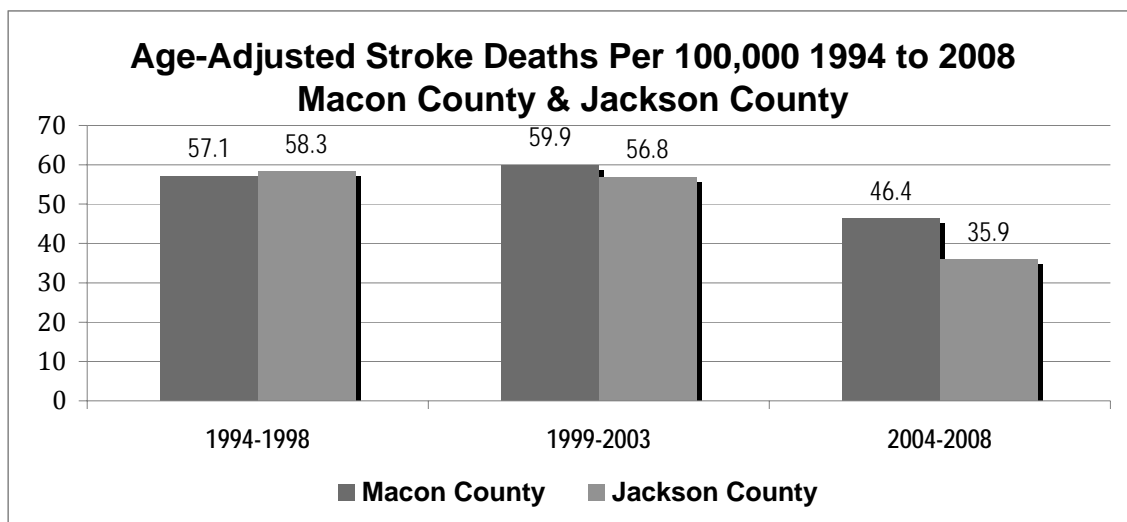
Source: North Carolina Center for Health Statistics

## Stroke

Deaths from stroke were 46.4 per 100,000 of population in Macon County from during 2004 to 2008, down significantly from 1994 to 2003. Further, the rate of death from stroke in Macon was less than the statewide average.

The death rate from stroke in Macon approximated most peer counties, but there was a meaningful difference between Macon County and Jackson County. The chart below compares death rates in the two counties over time. At one time the rates of stroke death in the two counties were virtually the same, but from 2004 to 2008 significant differences emerged.

Such differences between the counties could reflect a variety of factors, including treatment and diagnosis patterns, the availability of medical specialists, awareness and prevention strategies or other factors. This is may warrant further study.



Source: North Carolina Center for Health Statistics

### Cancer

Incidence rates for common cancers do not appear to be extraordinary in Macon County. For breast, colon and lung cancer, incidence rates in appear similar to peer counties. In rates for prostate cancer, Macon County has an incidence rate far lower than all peer counties.

**Figure 2**

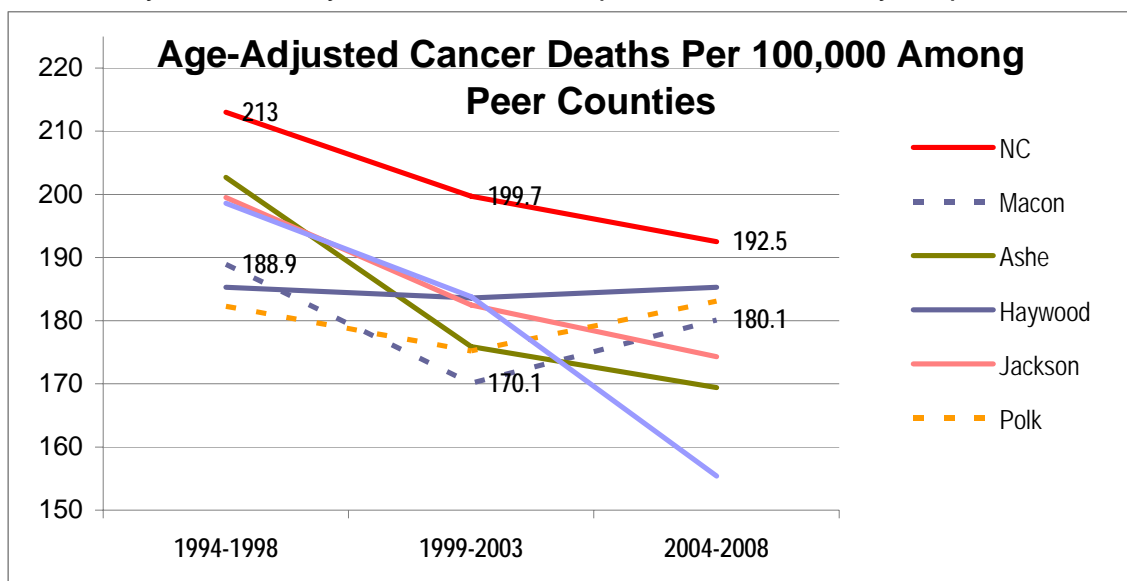
	Age-Adjusted Cancer Deaths Per 100,000	Colon, Rectum & Anus	Trachea, Bronchus, & Lung	Breast	Prostate
North Carolina	192.5	17.3	59.1	148.4	151.9
<b>Macon County</b>	<b>180.1</b>	<b>18.1</b>	<b>49.9</b>	<b>121.5</b>	<b>81.4</b>
Ashe	169.4	17.1	47.7	106.2	149.6
Haywood	185.3	14.0	62.7	159.1	155.1
Jackson	174.3	17.6	54.7	108.0	141.6
Polk	183.1	19.4	49.3	135.1	104.2
Transylvania	198.6	8.9	42.5	145.7	128.5

Source: North Carolina Center for Health Statistics

Figure 2 compares rates of death from cancer and incidence rates for major cancers for the state, for Macon County and for all peer counties for the 2004 to 2008 time period.

Although death rates from all types of cancer are not significantly different in Macon County from peer counties, and they are lower than the rate of death statewide, there is an interesting trend that merits notice. While cancer deaths are trending down statewide, and in most peer counties, they are trending up in Macon County.

The chart below shows the rates of death from cancer for all areas from 1994-1998 to 2004-2008. The death rate per 100,000 for Macon County went from 188.9 in 1994 to 1998, down to 170.1 the following four years, then up to 180.1 for 2004 to 2008. Only Polk County showed a similar pattern over the 15-year period.



Source: North Carolina Center for Health Statistics

### Accidents, Homicides & Suicides

Accidental or unintentional deaths are tracked in two categories, those related to motor vehicle accidents and those related to other causes. In the case of motor vehicle accidents, the rate of death per 100,000 is lower in Macon County than the state of any peer county.

Other unintentional deaths can include a variety of non-vehicle causes, such as falls, drowning, firearms discharge, forces of nature, exposure and accidental poisoning. In this wide-ranging area, Macon's rate of death is far higher than the state and all peer counties, at least for the 2004 to 2008 period. As noted earlier, the 2004 to 2008 rate of death includes the Peeks Creek incident where five residents drowned following Hurricane Ivan. Accidental death rates from earlier periods show Macon County as in line with peer counties.

The homicide rate for Macon County for 2004-2008 is one half of the state rate and not significantly different that peer counties.

The suicide rate is higher than the state and higher than most peer counties, though not dramatically so. An analysis of suicide rates over the 2004 to 2008 period shows two-thirds of suicides were among males. Most of the 35 recorded suicides were among adults age 25 to 64. As can be seen in the table below, meaningful patterns of suicide are difficult to discern.

Year	Total by Year	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	Total by sex, by year
2008	5					1M	1M		1M		3M
					1F	1F					2F
2007	9		1M	1M			3M				5M
							2F	1F	1F		4F
2006	6	1M	1M			1M	1M				4M
					1F		1F				2F
2005	7		1M			1M	1M				3M
				1F	1F	2F					4F
2004	8			2M	1M	1M			1M	1M	6M
					1F		1F				2F
	<b>Total by age, by sex</b>	1M	3M	3M	1M	4M	6M		2M	1M	<b>21 Males</b>
				1F	4F	3F	4F	1F	1F		<b>14 Females</b>

Source: North Carolina Center for Health Statistics

The suicide rate for Macon County is trending upward, going from 14.7 per 100,000 to 20 per 100,000 between the 1999-2003 measurement period and 2004-2008. While it is difficult to show cause, this is a period of great change in the availability of public mental health services in the western North Carolina region.

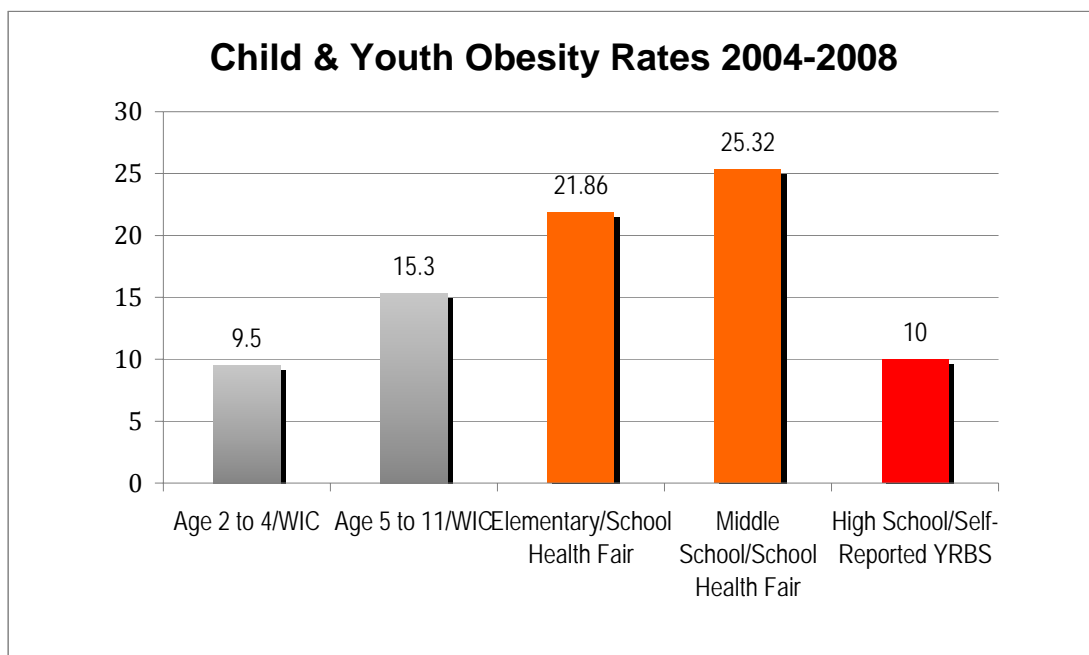
Of course the overall numbers of suicide deaths remain small compared to the overall population, but this is still an area of community concern.

#### Childhood Obesity

While rates of childhood obesity are lower in Macon County than peer counties, this is still perceived as a significant and growing problem that needs community attention. Other research in this assessment shows that obesity rates are quite high among adults, and the patterns of eating and inactivity that contribute to the problem start early in life.

The chart below shows obesity rates for children growing substantially through the middle school years. Some of the data measures obesity rates for children

receiving benefits in the WIC program. Rates for elementary and middle school age children come from health assessments conducted at schools by the Macon County public health. The high school rate is self-reported from the Youth Risk Behavior Surveillance System, which could account for the dramatically different result.



Research among adults conducted by HCMC indicates the adult obesity rate is over 35%.

### Primary Care Physicians & Dentists

The availability of primary care physicians in Macon County is a moving target. Analysis of physicians in the county from 2004 to 2008 shows there were 9.6 per 10,000 population, about equal with the ratio statewide.

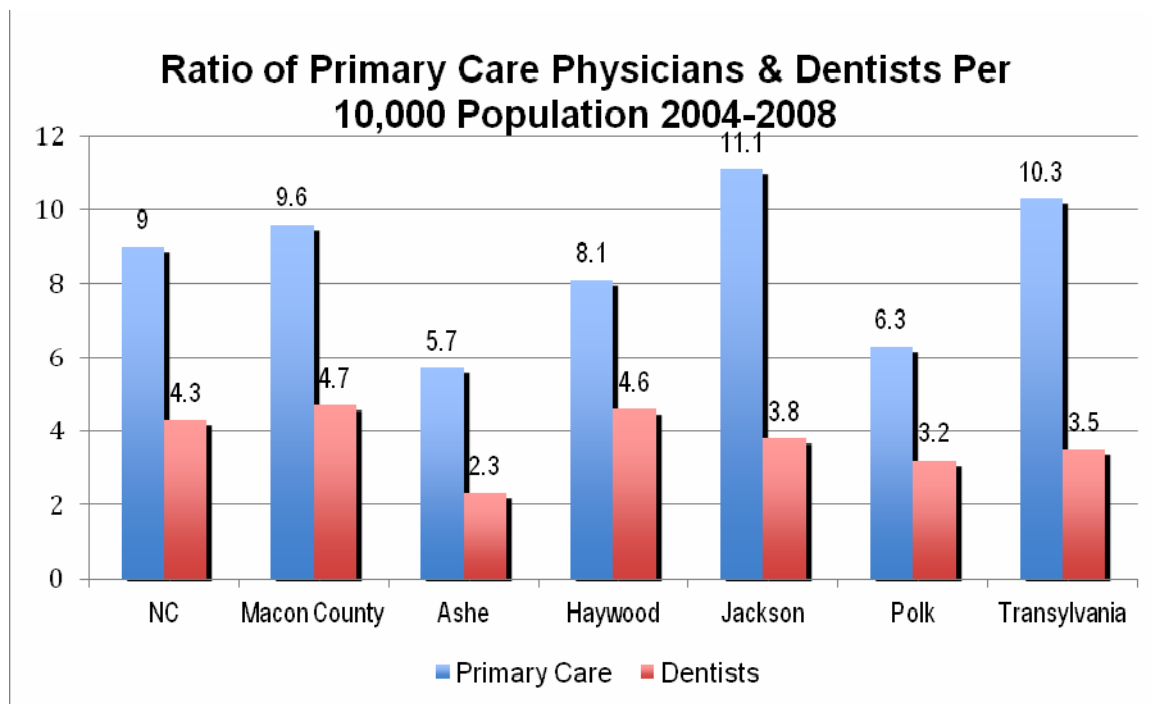
Physicians come and go, however, and Macon County has lost several primary care doctors in recent years, and others are nearing retirement. This makes recruitment and retention of physicians a high priority.

The availability of physicians is one area where peer county analysis may be inadequate. The physician to population ratio for Ashe County is 5.7 per 10,000 population, for example, but Ashe County has major interstate access to physicians in larger cities like Hickory and Winston-Salem. The same is true for Haywood and Polk County. There are no interstate highways connecting Macon County to a major metropolitan area.

Many Macon residents seek medical care in Jackson County, and the ratio of primary care physicians to population there is somewhat higher at 11.1.

Macon County boasts a higher concentration of dentists, however, higher than the state or any peer county.

The table below shows the ratios of primary care physicians and dentists in Macon County and in comparison areas for 2004-2008.



Source: North Carolina Center for Health Statistics

### Community Research Report

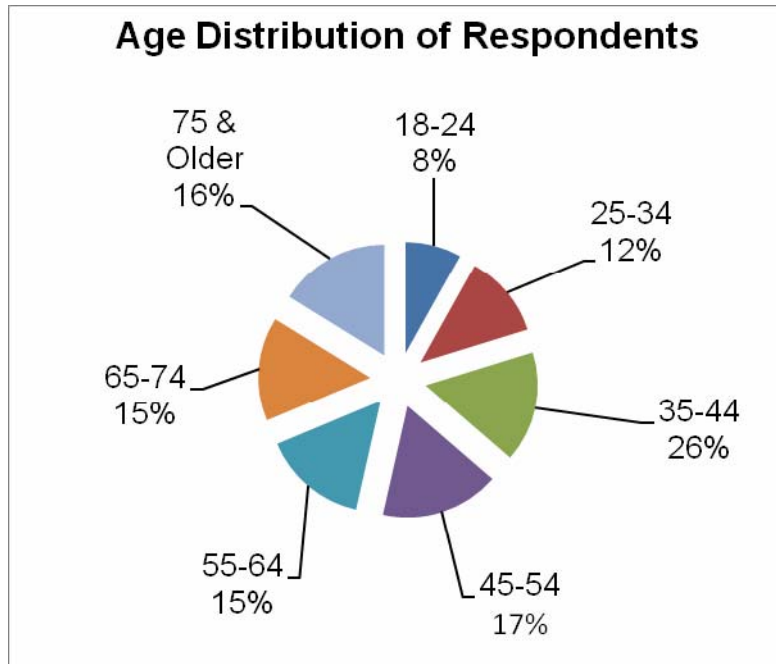
As part of the Comprehensive Community Health Assessment, a telephone survey of 401 randomly selected Macon County adults was completed in January and February 2011 using telephone polling. Interviewers used a lengthy survey instrument, with the average interview time running approximately 15 minutes.

A sample size of 401 yields a margin of error of slightly better than +/- 4.86 at the 95% confidence level.

The profile of respondents was similar to a study conducted in 2007:

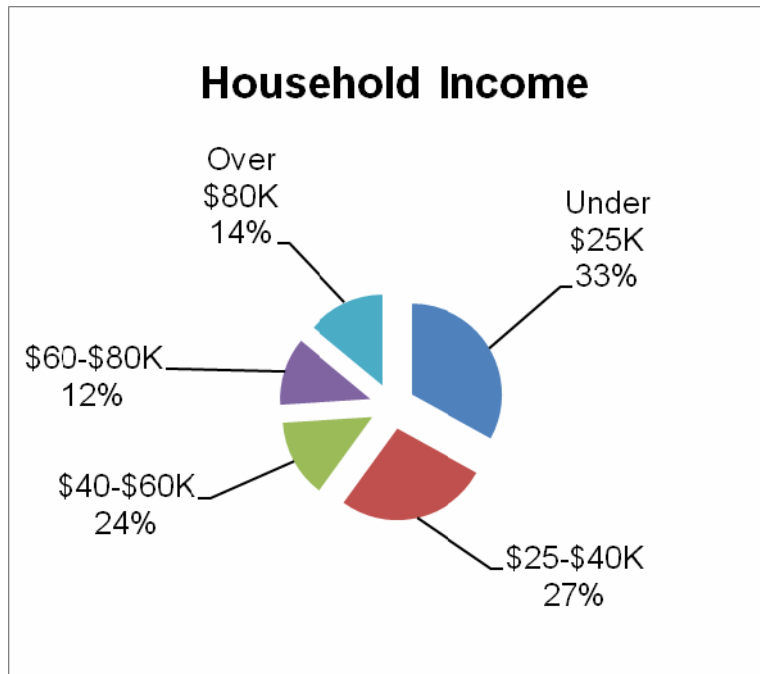
- 66% of respondents were women
- 66% were from Franklin
- 8% were from Highlands and 6% from Nantahala
- 20% were from rural areas
- 44% were employed
- 50% have lived in Macon County more than 20 years

Researchers worked hard and used quotas to get a representative sample of ages in the study. Younger consumers are difficult to reach in telephone studies, but 20% of the sample was under age 35.



Source: HCMC Community Health Survey, 2011

The research sample also included a good distribution of income ranges; half earn no more than \$40,000, which seems in line with community demographics. The median household income in Macon County was estimated in 2009 at \$47,243.



Source: HCMC Community Health Survey, 2011

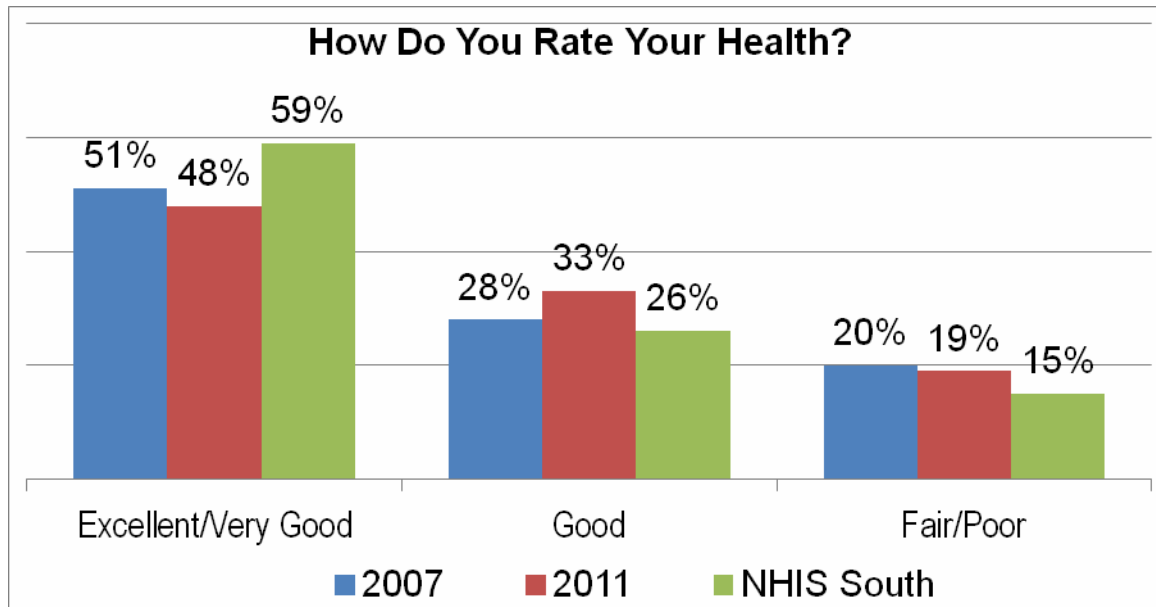
Given the high level of unemployment, it is not surprising that the research found 22% who are uninsured. In the 2007 research, only 17% were uninsured. One third of those polled (33%) get insurance through employers, 10% buy commercial insurance themselves, 30% are insured through Medicare, and 5% are insured through Medicaid or other government programs.

### Health Status

Participants in the study were asked to rate their health status. Just under half of Macon Countians rate their health status as excellent or very good, which is down slightly from the 2007 assessment and significantly lower than responses from the National Health Information Survey for the southeastern U.S.

Further, about one in five Macon adults describes their health as fair or poor.

The data are indicative of a possible trend seen throughout the study, that health status might be degrading somewhat. Perhaps driven by concerns about the economy, less access to insurance and medical care, or the aging population, this measure is lower than previous observations.



Source: HCMC Community Health Survey, 2011

There does seem to be a connection between economic factors and assessments of personal health. For example, from the research:

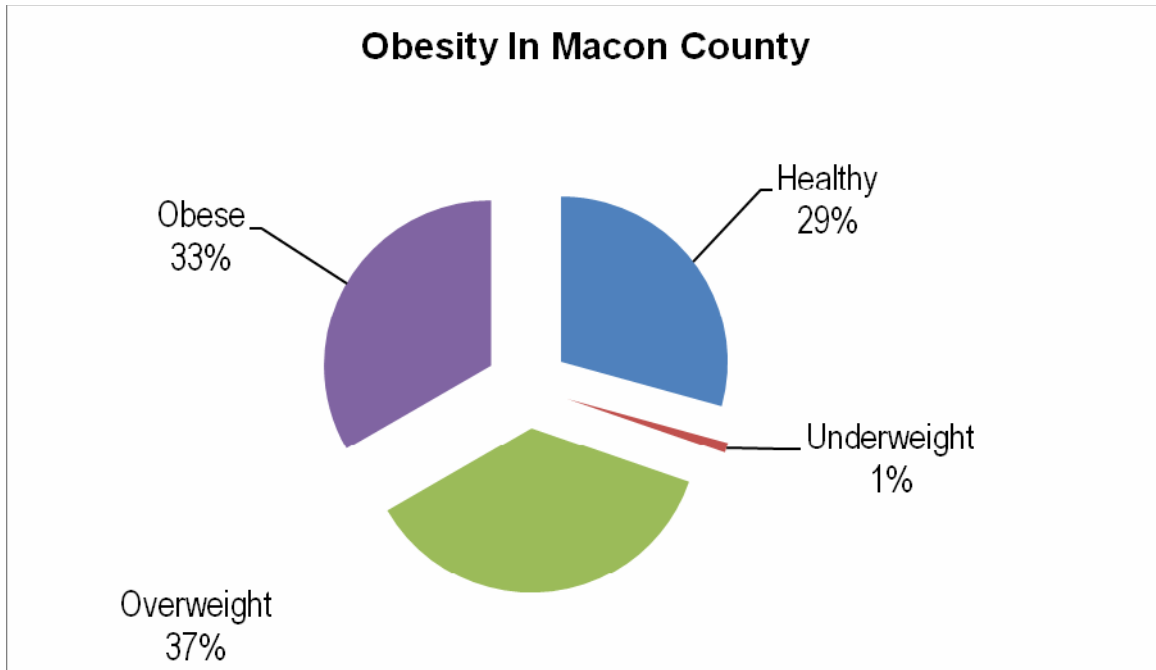
- 28% of those without health insurance said their health was worse today than a year ago. Overall, only 10% of Macon adults said their health was worse.
- 19% of those who are unemployed said their health was worse.
- Those without a job are four times more likely to report feeling nervous or depressed than those who are working.

Those without insurance are also more likely to postpone medical or dental care, and are more likely miss out on tests and treatments such as mammograms, pap smears or colonoscopies.

## Health Risk Factors

### Obesity

As observed in interviews and focus groups, Macon County has a weight problem. Fully 70% of those in the research are overweight or obese. Weight and obesity levels were computed using BMI scores. Participants were asked for their height and weight and BMIs were computed using current scales for men and women.



Source: HCMC Community Health Survey, 2011

While those who are overweight and obese might report their health as good, very good or excellent, there is evidence in the research that obesity contributes to diminished health and quality of life.

### Cholesterol

Overall, 61% of those surveyed do not know their cholesterol levels. Interestingly, 30% of those in Macon County (about the same percentage with a healthy BMI) report their cholesterol levels are in the healthy range of less than 200 for combined HDL/LDL cholesterol. Only 9% know their cholesterol is above 200.

Those who don't have health insurance are far less likely to know their cholesterol levels (81%). Among those who report their health is fair to poor, 70% do not know their blood cholesterol levels.

### Hypertension

Among all Macon adults in the survey, 43% report a doctor or health professional has told them they have hypertension or high blood pressure. Among those who are obese, the hypertension rate rises to 56%.

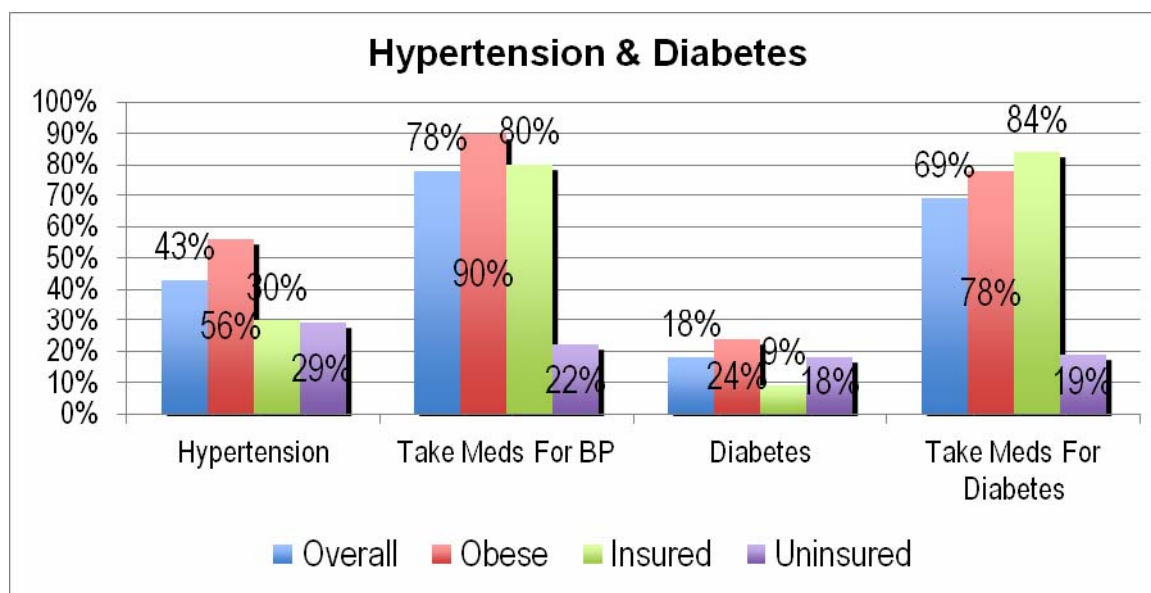
Most adults with hypertension take medications to control their blood pressure (78%). Those who do not take medication are likely to be uninsured. Only 22% of

those who are uninsured with high blood pressure report they are taking medication. This compares to 80% among those with some type of insurance.

### Diabetes

As evidenced in Macon County's review of health statistics, the rate of diabetes is high. Those in the survey were asked if they have ever been told by a doctor or health professional that they have diabetes.

The chart below shows 18% of adults reporting they have diabetes. The rate rises to 24% among those who are obese. Too much weight is often a contributing factor to Type II diabetes.



Source: HCMC Community Health Survey, 2011

Once again the data reveal a barrier to care for those without insurance. While 84% those with diabetes and insurance take meds or treatment for their disease, only 19% of those without insurance do. Women's Health Indicators

Most women in Macon County appear to be getting essential health services at their appropriate stage of life. For example:

- 93% of women over 40 have had a mammogram.
- 54% of over-40 women have had a mammogram in the past year.
- 99% of adult women have had a pap smear, and 43% have had one in the past year.

- 78% of those ages 55 to 74 have had a bone density scan to test for osteoporosis.

The vast majority of women (93%) know how to perform a self-exam of the breast and 60% say they do it regularly.

In the 2007 study there were indications that women over 50 were obtaining colonoscopies at a lower level than men. If that was true, the problem has been corrected as 72% of women over 50 now report having a colonoscopy, a higher rate than men.

The insurance and income factor does influence access to women's health services. Even though most women seem to be getting basic services, the rate of women over 40 without insurance who have had a mammogram in the past year is only 11%, compared to 54% overall. For pap smears, 23% of those without insurance have had one in the past year, compared with 43% overall. And among women over 50 without insurance, 43% have had a bone density scan, compared to 78% overall.

### Men's Health Indicators

Among men over 50 in Macon County, 82% report having both a colonoscopy and a PSA exam. Among men 65 to 74, 91% have had a PSA to screen for prostate cancer.

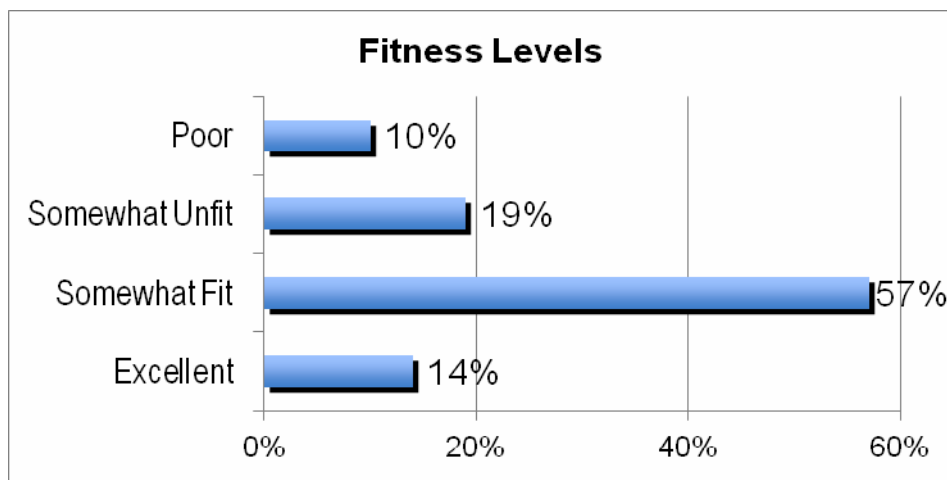
While lack of insurance and income influences male access to health screenings and diagnostic services, another significant influence may be marital status. For example, among unmarried men over 50, only 63% have had a PSA test.

### **Health & Wellness Habits**

As part of the research Macon County adults were asked about behaviors that contribute to health, such as exercise, smoking and going to the doctor.

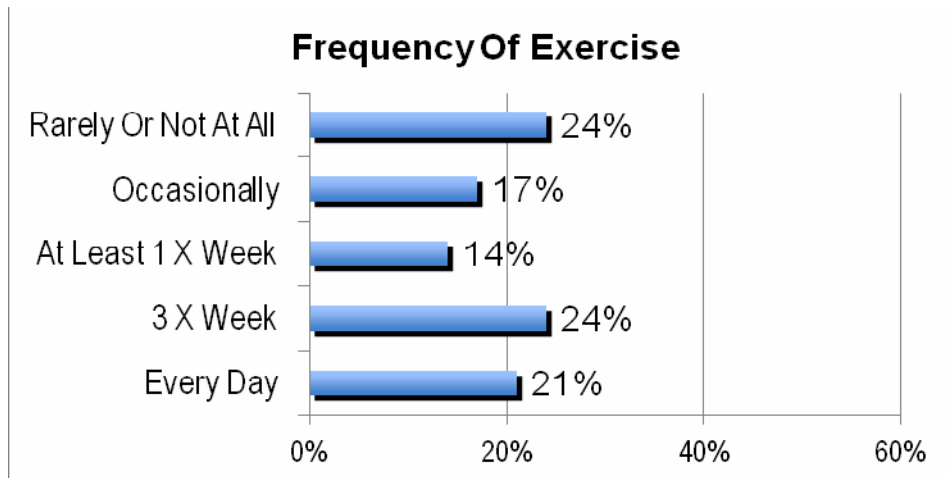
### Fitness & Exercise

Macon adults were asked to self-assess their levels of fitness. As can be seen in the chart below, most adults see themselves as somewhat fit, even though their exercise habits do not necessarily support that claim. One half of those who are obese, for example, consider their fitness levels as excellent or somewhat fit.



Source: HCMC Community Health Survey, 2011

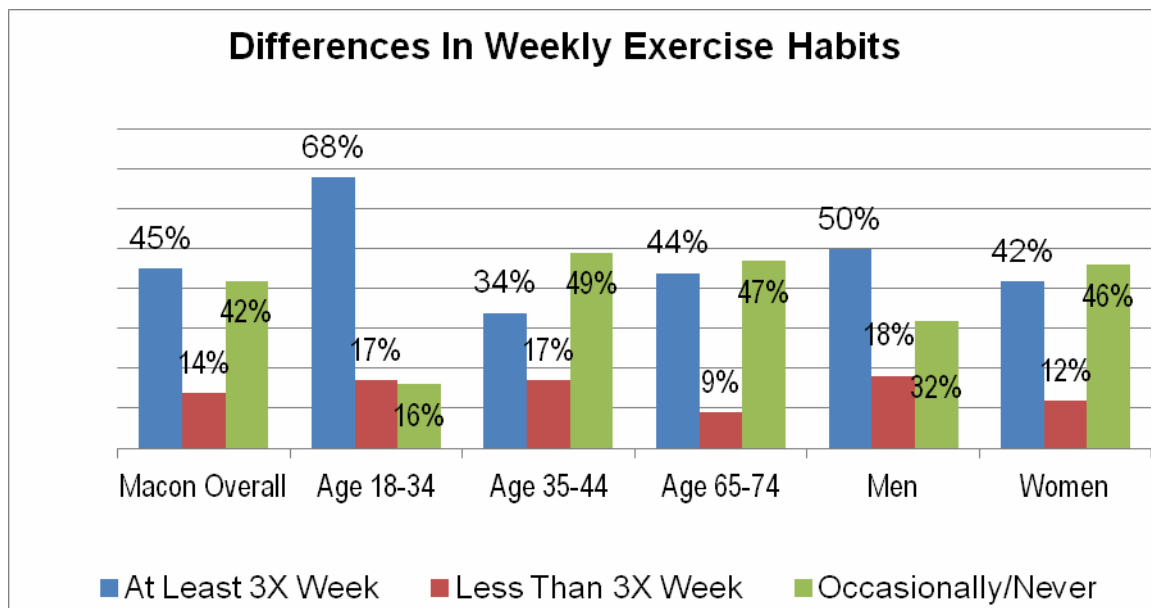
When asked how often they exercise, 41% respond rarely or only occasionally. However, about the same percentage (45%) exercise at least three times a



Source: HCMC Community Health Survey, 2011

week, if not every day. Those most likely to exercise are younger adults, age 18 to 34, but those between 65 and 74 also exercise regularly at higher levels. In fact, those 65 to 74 are five times more likely to describe their level of fitness as excellent than those under age 35.

Middle age (35 to 55) is when exercise habits are most likely to decline. As seen in the chart below, the percentage of adults who exercise occasionally or never almost triples from the 18 to 34 group to the 35 to 44 group. If there is a target age at which to promote exercise education, the over 30 crowd is it.



Source: HCMC Community Health Survey, 2011

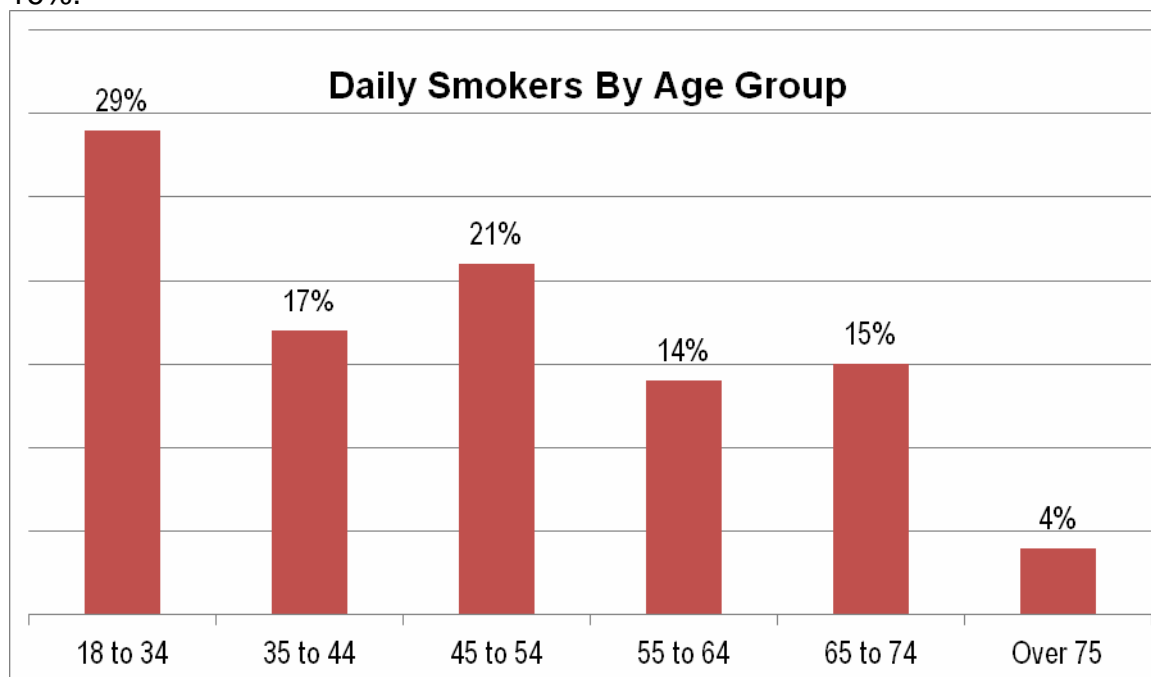
Income and education levels are indicators of exercise habits. The least likely to exercise in Macon County are low-income, middle aged women.

While the overall exercise rates among women are not that different from men, women are far more likely to describe themselves as unfit, 36% to 15%.

### Tobacco Use

Regular smokers in Macon County, those who smoke every day, make up 17% of the adult population, which is equal to results for the southeast published from the National Health Information Survey (see chart below). The rate of smoking among adults over all seems to be declining, although a worrisome number of younger adults continue to light up regularly. An additional 3.5% smoke some of the time.

Men are somewhat more likely to smoke than women, 19% to 16%.



Source: HCMC Community Health Survey, 2011

Educational levels and income correlate very closely with cigarette smoking. Only 3% of those with college degrees or advanced degrees smoke regularly, while 27% of those with high school or less education do. Cigarettes are expensive, yet 32% of those at the lowest income levels smoke every day.

Adults in households with children under 18 report smoking at virtually the same levels as the overall population.

One half of Macon adult smokers have tried to quit in the past year.

Reported use of other tobacco products is very low. Only 3% of all adults report using other tobacco products, which is approximately half of the rate observed in 2007.

### Alcohol Use

Just over half of all adults (52%) have consumed alcohol in the past year. The rate rises to 64% among adults 18 to 34.

Participants in the study were asked about binge drinking, which was defined as consuming more than five alcoholic beverages in a single day. The profile of those most likely to binge drink is similar to the smoking profile. Among those 18 to 34, 32% have consumed 5 or more drinks in a day during the past year. Among those earning less than \$25,000 a year, 40% have consumed 5 or more drinks in a day.

### **Access to Care**

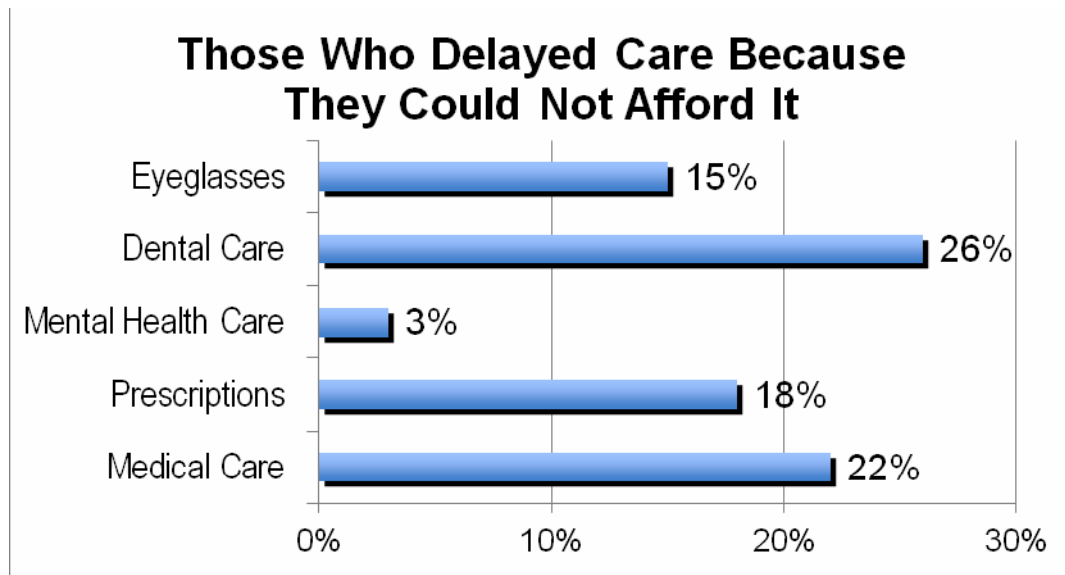
Complementary to good health practices is a consistent relationship with physicians, dentists and the health care system. The research explored access to basic health services.

### Medical & Dental Care

The research shows that most Macon County residents have access to care. Compared to 2007, more are accessing care in Franklin than in 2007, perhaps a reflection of more physicians in the area and also the availability of a new free clinic. In the 2011 study, 83% of respondents saw a doctor in Franklin in the past year, compared to 76% in 2007. However, 33% of county residents do report going to doctors in Jackson County for some reason.

Fewer people report accessing care in the past year; however, than in 2007, 83% to 90%. This is perhaps indicative of economic constraints, such as loss of insurance. The chart below seems to support that conclusion. Over one in five Macon adults (22%) delayed medical care over the past year because they could not afford it.

The vast majority of Macon adults (81%) go to a doctor's office when they do access care. However, 7% report they go to a clinic or the health department and 7% report they go to "some other place." Reported use of the health department or a clinic rises to 16% among those without insurance.

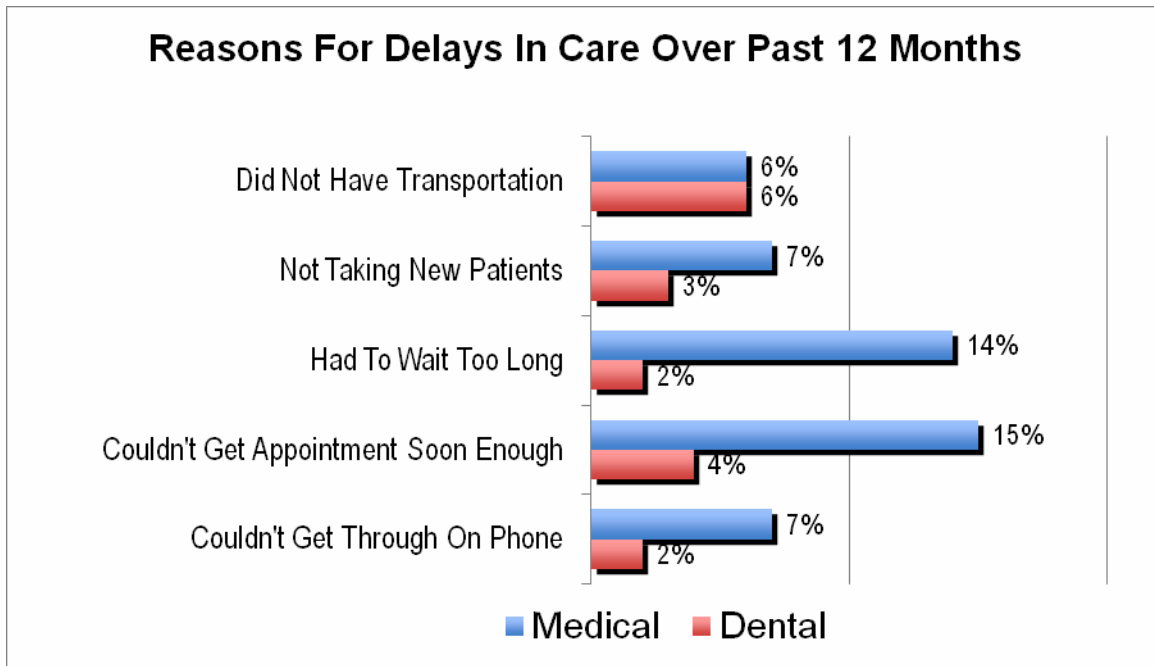


Source: HCMC Community Health Survey, 2011

Residents also delayed access to other services because they could not afford it. Those most likely to report they delayed care are no surprise, lower income and those without insurance.

For example, one in four Macon adults (26%) delayed dental care in the past year for financial reasons. Accessing dental care continues to be an issue for low income adults. According to the research, 43% of those earning less than \$25,000 per year have not seen a dentist in the past two to five years or longer.

There are other factors that discourage access to care, though they appear to be less acute. The chart below shows that getting an appointment is the most frequently cited reason adults delay physician care. These findings are indicative of some level of office crowding or physician under-supply, though not severe.



Source: HCMC Community Health Survey, 2011

### Access to Care for Children

Happily children in Macon County have access to necessary physician and dental care. According to the study, parents report that 96% of children saw a physician or medical professional in the past year, and 77% saw one in the past six months. Further, 88% of parents report their child's doctor is a pediatrician.

There are some small, but perhaps important, gaps in the support system for children that could be related to economic issues. In 2007, zero parents reported they delayed care for their children because they could not afford it. Further, virtually all children were covered by some type of insurance. In the 2011 study, 3% of parents reported they delayed medical care for children for economic reasons, and 7% said their children are not covered by any type of health insurance.

In addition, 5% said they delayed getting a prescription for their children because they could not afford it, and 6% delayed taking a child to the dentist.

Access to dental care for children is getting better, however. For example:

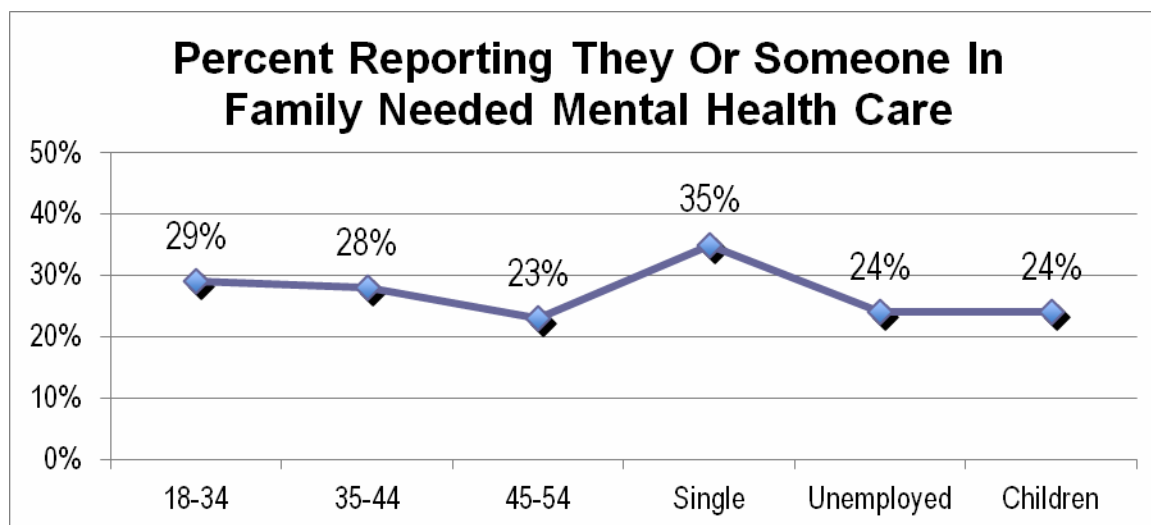
- 88% of parents with children report taking their child to the dentist in the past year.
- 73% have taken a child to the dentist in the past six months.

- Low income parents report virtually the same access to dental care for their children as upper income parents.

All these findings are improved over 2007 research.

### Access to Mental Health Services

As noted earlier in this report, access to mental health is a chronic problem in Macon and other North Carolina counties. HCMC and mental health professionals in the county have explored solutions to the problem, but access issues remain.



Source: HCMC Community Health Survey, 2011

Overall, 20% of Macon adults report they or someone in their family have needed mental health care in the past. The need is higher among some groups, however, as shown in the graph above. The need for mental health services is most pronounced among the young, single and divorced, those with children in the home and also the unemployed.

While the problem getting to mental health care is at its core a financial issue, it is also a supply and access issue. Among those who said they had trouble accessing mental health services, 53% said it was because the services they needed were not available locally. Only 14% cited lack of insurance.

Compared to the overall population, those needing mental health services are relatively small. Yet there is a consistent and persistent population of people who struggle with mental health issues that can become serious over time.

According to the research, 5% to 10% struggle with feelings of depression, anxiety and even hopelessness.

Men are about four times more likely than women to report they feel anxious or hopeless. In fact, 11% of the men interviewed said they feel anxious, and 10% said they feel hopeless almost all the time.

Feelings of depression or anxiety are significantly higher among lower income adults, but other factors such as health status, obesity, employment or church attendance show little differences.

## Family Issues

The survey explored a number of family issues, questions asked mostly of parents  
Source: HCMC Community Health Survey, 2011; Age Adjusted

with children in the home, starting with questions about safety and security.

### Safety & Security

<b>Within the past 30 days have you felt . . .</b>	<b>All/Most of the Time</b>	<b>Some of the Time</b>	<b>A Little</b>	<b>Not At All</b>
So sad nothing could cheer you up?	10%	12%	12%	67%
Nervous?	8%	19%	19%	55%
Hopeless?	5%	7%	5%	82%
Worthless?	2%	10%	5%	84%
<i>How much did it interfere with your life or activities?</i>	12%	9%	16%	63%

Small percentages report concerns related to violence in and around the home and the safety of children. For example:

- 4% overall reported some act of violence in their homes within the past year.
- The rate of violence in the home rises to 16% among 18 to 34 year olds and 10% among those with children under 18 in the home.
- 15% of those with children worry about violence at school, and also when they go out of the home to play.
- 11% of parents say their child has been hit or abused by a bully.
- 9% of adults overall say they worry about violence in their neighborhoods.

- 15% of adults, overall, and 20% of women say they worry about violence in Macon County shopping areas.

Few people in the survey, only six to be precise said they were aware of any gang activity in their neighborhoods. These were all in Franklin-area neighborhoods.

### Youth Risky Behavior

Most parents believe their children are well-counseled to make wise choices when it comes to potentially risky behavior. Only 8% said they worry their children might be using alcohol or drugs. Only 6% worry their children are using tobacco.

About three-quarters of parents say they have talked with their children about what they as parents expect related to risky behaviors:

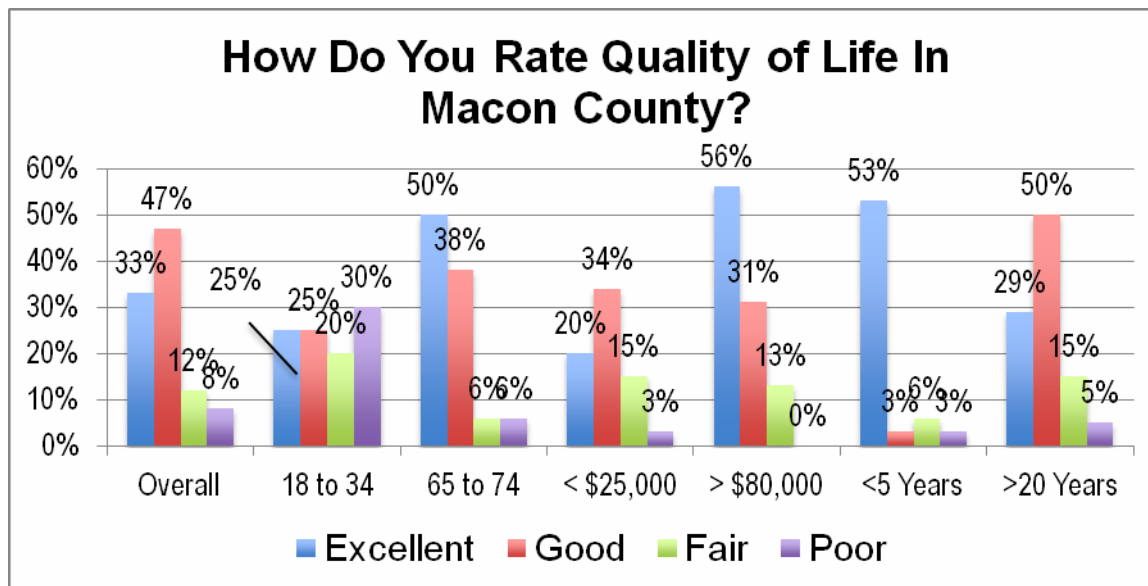
- 79% say they have talked to their children about their expectations related to drugs and alcohol.
- 72% say they have talked to their children about expectations related to sexual behavior

### **Quality of Life**

While health status, access to care and wholesome habits are most often viewed as indicators of health, a positive and optimistic outlook is also important. The survey measured some key community attitudes and experiences that are indicators of a robust outlook on life in the county.

Participants were asked to rate the quality of life in the Macon County. Most view it as excellent or very good, but there are some interesting variations.

In the table below you can see that those with the most income, and those who are newer to the area, are most likely to rate quality of life as excellent.



Source: HCMC Community Health Survey, 2011

Conversely, those at the lower end of the economic scale, younger adults and those who have lived in the area over 20 years are less enthusiastic about quality of life.

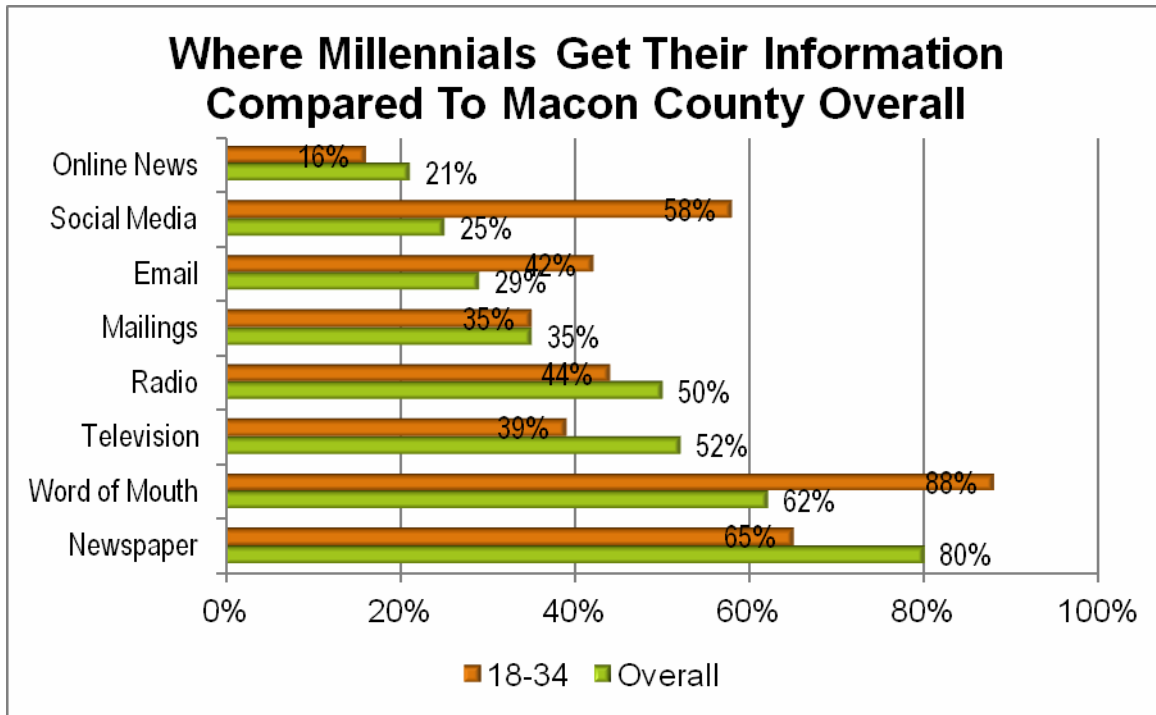
Those with children in the home tend to view quality of life about the same as those without children.

### Community Connections

Feeling connected and plugged into community life is a factor that influences both health and happiness. Among Macon County adults:

- 40% said they have served as a volunteer in the community in the past year.
- 25% were active in a club, civic organization, and hobby group or sports team.
- 58% have donated money to a non-church organization in the community.
- 49% attend a church or place of worship regularly, and an additional 12% attend occasionally.
- 83% voted in the November 2010 election.
- 81% read a local newspaper.

While most Macon adults get information from a traditional local newspaper, an analysis of responses by age shows younger adults are increasingly turning to other sources of information. The chart below shows the information-consumption habits of those 18 to 34, the so-called “Millennials.”



Source: HCMC Community Health Survey, 2011

The chart suggests that community connections will continue to exist as younger citizens age, but they will look and work differently. Traditional media are less important and personal connections and social media are more important.

### Transportation

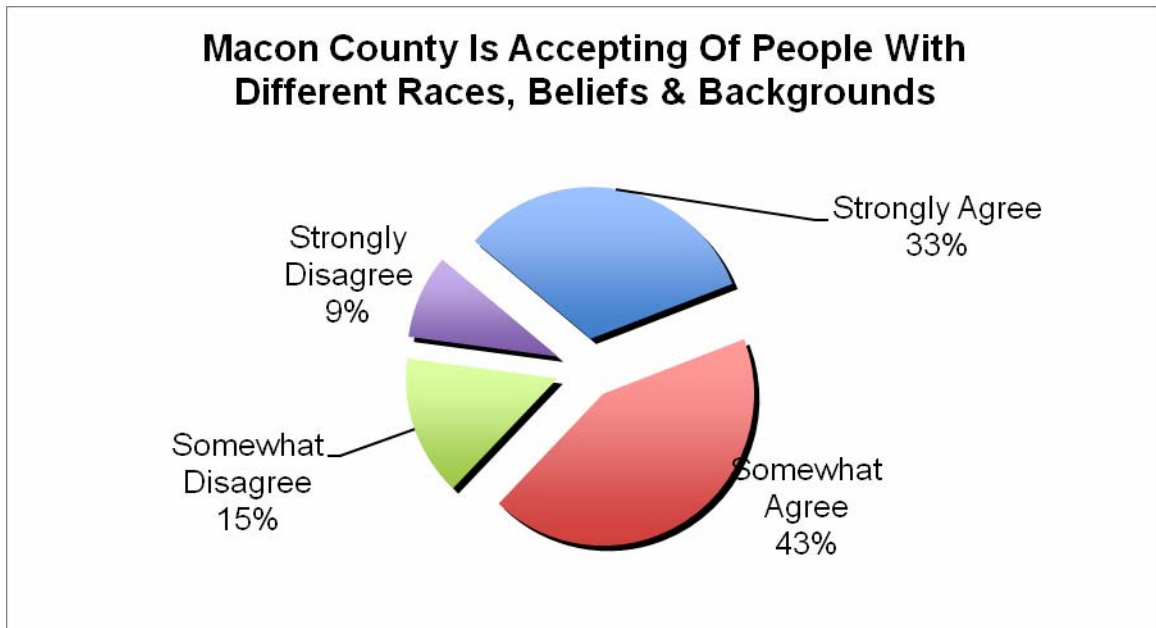
The vast majority of adults in Macon County feel they can get where they want to go. In fact, even among those over age 75, 96% feel they have adequate transportation.

The group most likely to feel they lack adequate transportation is age 18 to 34. Only 67% of this group believes they have adequate transportation. Because younger consumers are often near the bottom of income ranges, their lack of transportation may be related mostly to economics.

It should be noted that in the Hispanic focus group, difficulty with transportation was also an issue. Families may have one car only, and it is used to go to work. This may be the same scenario affecting young, non-Hispanic respondents as well.

### Diversity

Participants were asked about their level of agreement with the statement that "Macon County is a diverse community that is accepting of all persons regardless of race, religion or lifestyle." One third said they strongly agree with that statement, while 24% disagreed with the statement, at least somewhat.



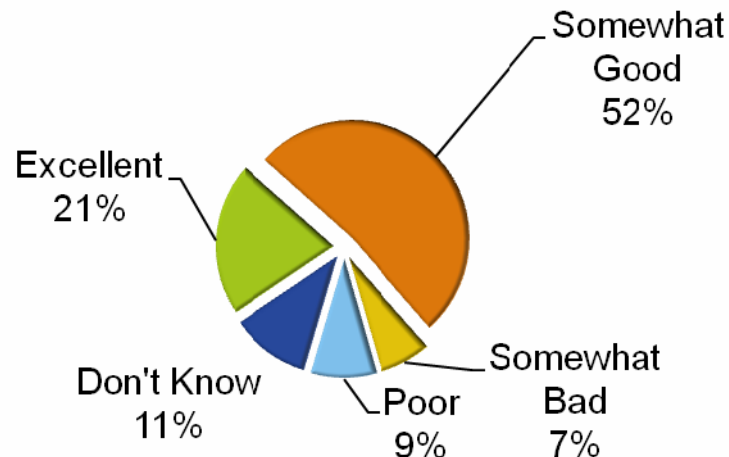
Source: HCMC Community Health Survey, 2011

#### Confidence in Community Leaders and Institutions

Macon adults were asked to agree or disagree with a series of statements about community institutions. The results show a consistent pattern. About one-quarter of adults are very positive, about half are somewhat positive, and about one in five are negative.

For example, Macon adults were asked to rate the performance of Macon schools in preparing children for the future.

### What Kind of Job are the Schools Doing To Prepare Children for the Future?

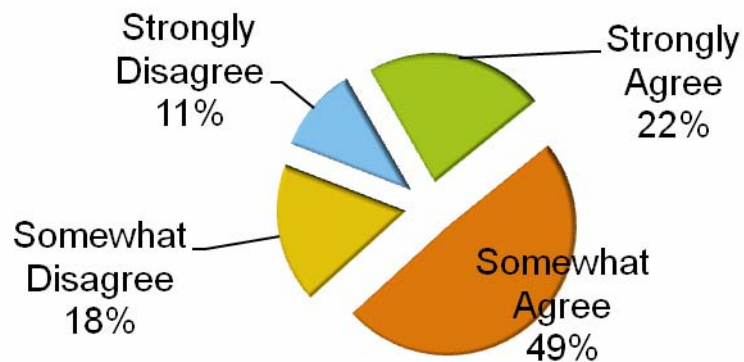


Source: HCMC Community Health Survey, 2011

Those with children in the home are somewhat less likely to respond to the school question with an excellent rating (18% compared to 21%), but their negative responses are about the same as the community overall. Almost none of those with children provided a "Don't Know" response, however, which led to 66% of parents providing a somewhat good rating.

Participants were also asked to agree or disagree with a statement about community leaders. The statement was, "Our county leaders are working to make our community a better place."

### County Leaders are Working to Make Community a Better Place



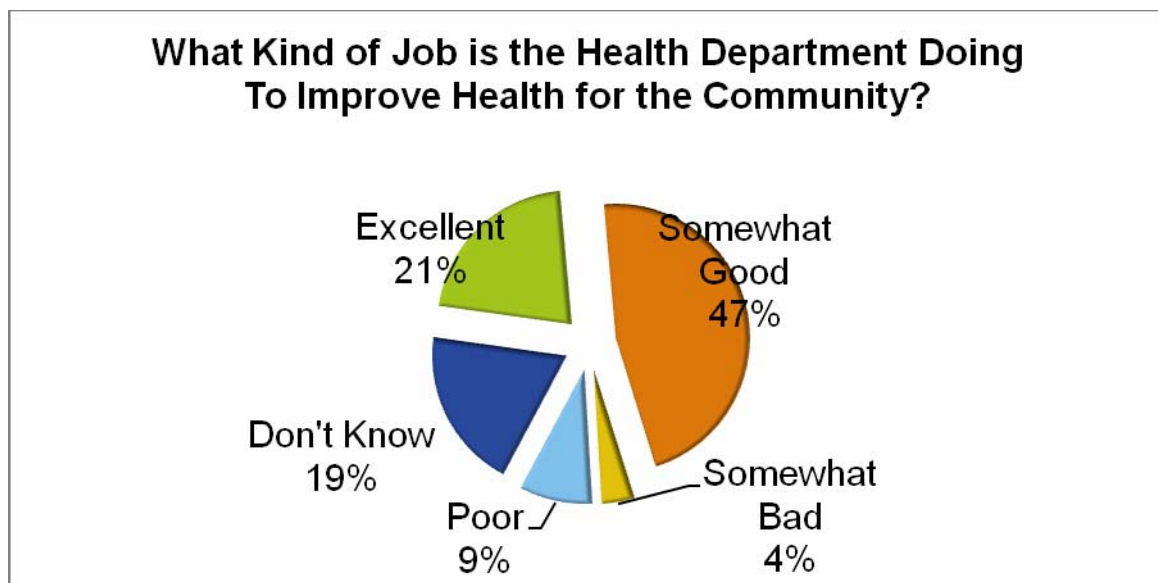
Source: HCMC Community Health Survey, 2011

Predictably it is those at the lowest income levels who are the most pessimistic about community leaders (18% strongly disagree). This is the same group that is most likely to rate quality of life fair or poor. Conversely, those who are employed are also more positive (29% strongly agree community leaders are doing a good job).

Among those employed, 55% said they were “very confident” their jobs were secure, at least for the next year. Another 34% said they were “somewhat confident.” Five percent of working Macon County adults said they were “not at all confident” their jobs were secure.

Among the employed, 89% say they are happy with their jobs. Most (79%) say they are getting the hours they need, and 99% feel they are adequately prepared to perform their jobs.

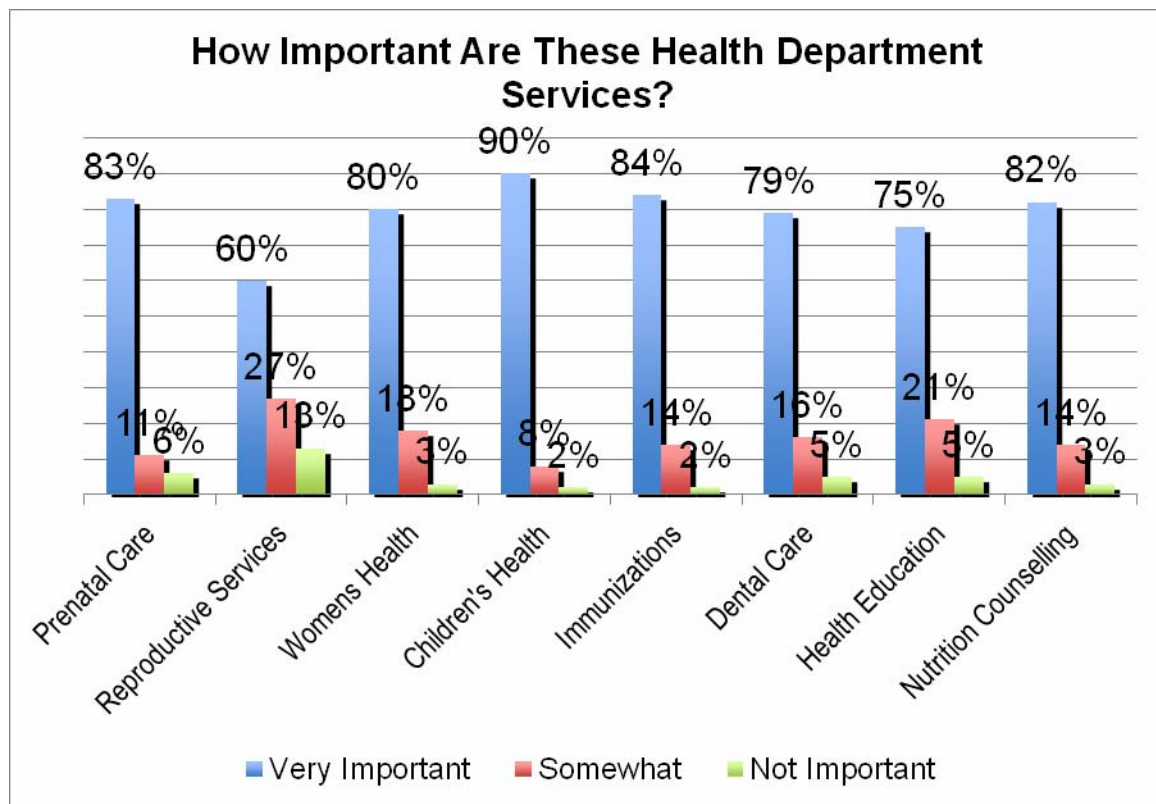
A sizeable percentage of respondents (44%) said they have used the services of the Macon County Health Department in some manner within the past two years. Participants were also asked to rate the performance of the health department, and the results strike a familiar profile as the ratings of other community services. However, it should be noted a higher percentage of Don’t Know responses occur for the health department.



Source: HCMC Community Health Survey, 2011

When asked for ways to improve the health department, most do not know how to respond. In fact, 41% responded “Don’t Know” to this question. Those who did respond offered non-specific ideas such as “offer more services.”

Those who are familiar with the health department rate almost all of its services as very important. Only reproductive services elicit a somewhat lower rating, which can be seen on the following chart.

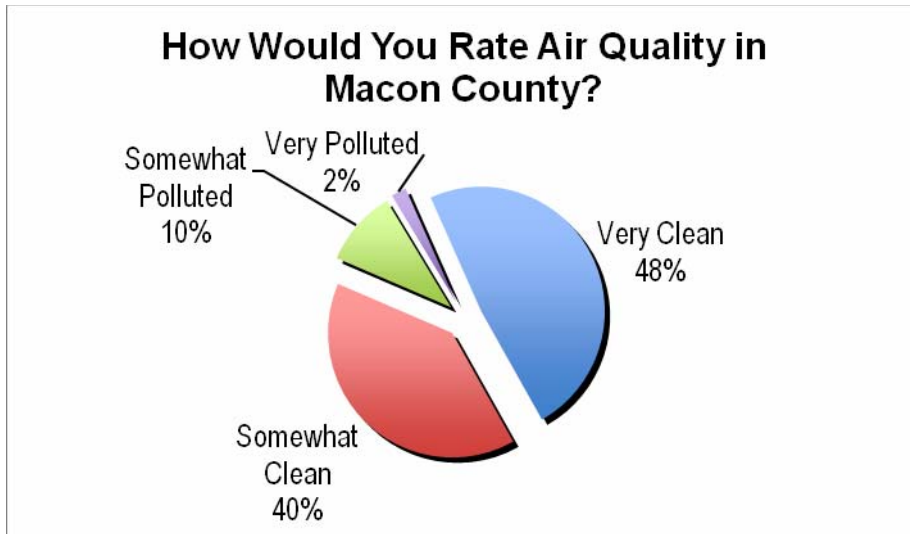


Source: HCMC Community Health Survey, 2011

### Air and Water

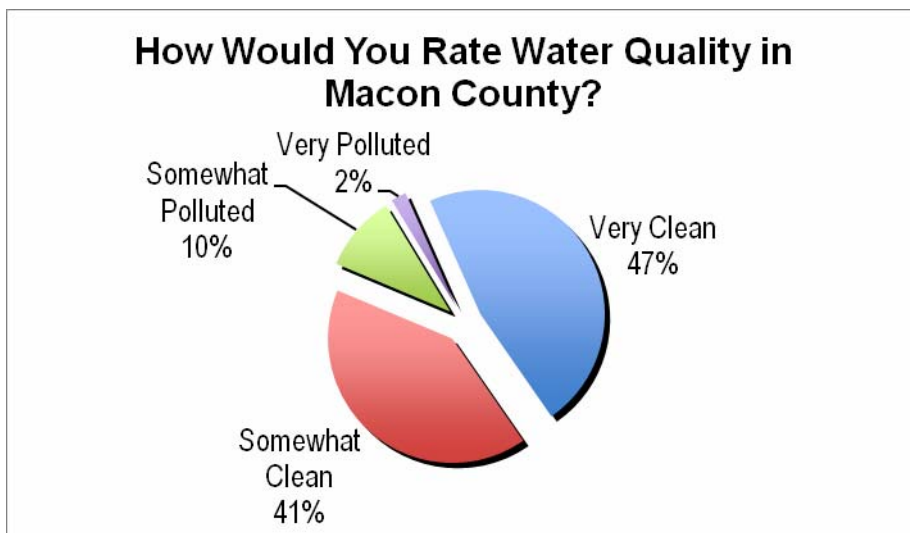
Most in Macon County feel their air and water are clean, or at least clean enough. About half of respondents said they feel air and water are very clean.

Twelve percent of county adults said air and water were not clean or were polluted.



Source: HCMC Community Health Survey, 2011

Rural residents and residents of Highlands are more likely to rate their air and water as very clean. Most responding that air and water are polluted or somewhat polluted live in Franklin.



Source: HCMC Community Health Survey, 2011

### Military Service

The survey asked about past military service. Among respondents:

- 11% of respondents served in the military
- However, 29% of men served, compared to 1% of women
- Military service is highest among those age 65 to 74 at 21%; lowest is 18 to 34 at 3%
- Those serving declines to 8% among 45 to 64 year olds.
- Of those who served, 99% served more that six months

- 75% of those who served did so in wartime

## **Conclusion**

There are hundreds of pages of data tables produced by this research. Those interested in further evaluation for community planning support may inquire about additional data from:

Healthy Carolinians of Macon County  
Macon County Public Health  
1830 Lakeshore Drive  
Franklin, NC 28734  
828-349-2475