

2007 Madison Community Health Assessment Report

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MADISON COUNTY COMMUNITY HEALTH ASSESSMENT OVERVIEW

I. The Team and the Assessment Process

The staff of the Madison County Health Department and members of the Madison Community Health Consortium (the local certified Healthy Carolinians Partnership) participated in the 2007 community health assessment process for the county. (See *Appendix A* for a listing of team members). The Western Regional consultant for the Office of Healthy Carolinians, Health Education, was also invited to assessment planning meetings. This guidance allowed team members to “think outside of the box” in an attempt to make the community health assessment a success and to elicit community input that was beneficial. The team gained insight into community data collection activities that could be helpful and reviewed the strengths and weaknesses of prior data collection efforts. A committee was appointed to develop a community health assessment questionnaire/survey to be completed by at least two percent of the population or 400 Madison County residents.

The Survey Committee met with the Healthy Carolinians’ consultant to review examples of community health surveys and information regarding the methodology for survey development. Members shared ideas about health topics of interest and a set of questions was developed. Many noted concerns about developing a long questionnaire but also wanted to cover a variety of topics since the assessment is performed once every four years. The result was a nine page questionnaire or survey. (See *Appendix B*).

Due to the length of the survey, the assessment team was concerned about the likelihood that it would be completed fully by each respondent and the need for an incentive when the survey was returned. Pocket calculators with the personalized logo “Your Health Counts!-Madison County Health Department” were given to everyone completing the survey. A distribution plan was established by the team.

A variety of community sites and events were selected for collection of survey responses. Surveys were kept at the main desk of the health department and clients were asked to complete them. They were taken to all county agencies for staff to complete. The Madison County Board of Health and the Madison County Health Department staff responded, too. Surveys were distributed to special groups, such as church Sunday School classes and an Hispanic Vacation Bible School program.

I. The Team and the Assessment Process (cont)

Team members collected responses of individuals entering local grocery stores and at a community-wide “Safe Summer Kick-Off” sponsored by the Madison County Sheriff’s Department. County meal sites and a community center were visited. Special assistance was provided to elderly clients to help complete the survey. Over an eight week period, a total of 616 questionnaires were completed representing 3% of the population!

The Center for Assessment and Research Alliances (CARA) located at Mars Hill College compiled the responses. Findings were cross-tabulated to reflect the impact household income had on survey responses. Committee members met with an independent consultant of CARA to discuss the findings. After reviewing the data, additional information was requested, resulting in two other cross-tabulations of survey responses: age and level of education. *(See Appendix H for the 2007 Madison County Community Health Assessment Survey Data).*

Additional county health data information was collected from community health resources as recommended by the Community Health Assessment Standards and Instructions. *(A listing of all references may be found in Appendix C).* Committee members compiled the information and reviewed a wide variety of quantitative data, highlighting areas of significance. This data was placed into seven categories:

- Access to Care Concerns
- Child Health
- Education Concerns
- Changing County Demographics
- Chronic Disease
- Mental Health
- Poverty Issues

Next, the survey response data was assigned to one or more of the above categories. For example, the ability to afford medications was placed under poverty issues along with access to care concerns. Findings were placed on separate display charts and committee members were asked to rank each category in order of importance (#1 most important to #7 least important). Consortium members not present were given an information sheet with the categories and asked to rank them in order of importance also. *(See Appendix D).*

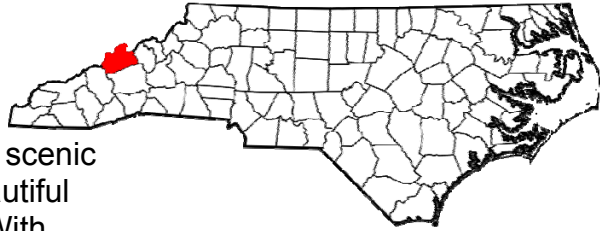
Finally, this qualitative and quantitative data was compiled and a brief summary of the findings, “Report to the Community” was developed. *(See Appendix E).* This report was mailed to all box holders in Madison County, over ten thousand deliveries. An article for the local newspaper was written that explained the findings in greater detail than

I. The Team and the Assessment Process (cont)

the mass mailing. With each media format, an invitation was given to residents encouraging their participation in the establishment of future action plans. Carolyn Moser, Health Director, presented the findings of the community health assessment at the December 10, 2007 Madison County Commissioner meeting and to the annual Community Christmas Celebration that includes the Chamber of Commerce, county businesses, public and private enterprises, and non-profit agencies.

II. A Picture of the Community

Geographic Information



Madison County offers 288,800 scenic acres (452 square miles) of beautiful mountains and fertile valleys. With whitewater rafting, snow skiing, the Appalachian Trail, scenic byways and a hot natural mineral spring, Madison County is rich in outdoor recreational opportunities. Nearly 73% of the county is forest land and nearly 25% of the county acreage is managed by the U.S. Forest Service. Madison, ranking 53 in size among North Carolina's 100 counties, is located 15 miles north of Asheville on the North Carolina/Tennessee border of the Smoky Mountains of Appalachia. The terrain is steep to gently rolling, with elevations ranging from 1,280 feet to 5,516 feet, the lowest running along the French Broad River into Tennessee. The diverse topography of Madison County, with several peaks over 5,000 feet in elevation and the low French Broad River Valley, provides for spectacular scenic visits. More than 15,000 acres of the county are located in the Pisgah National Forest.

The Appalachian Trail runs along much of the northern border of the county. In addition to the natural beauty, Madison County is defined by its rural nature. There are a little more than 20,000 residents and no McDonalds in the county. Approximately 79% of the roads throughout the county are paved at this time. Nine miles of Interstate 26 follows the eastern side of the county into Tennessee. This was the first stretch of interstate in North Carolina to be designated a scenic byway.

<i>Driving Times From</i>	
<i>Asheville, N.C.</i>	<i>20 minutes</i>
<i>Charlotte, N.C.</i>	<i>3 hours</i>
<i>Raleigh, N.C.</i>	<i>4.5 hours</i>
<i>Knoxville, Tenn.</i>	<i>1.5 hours</i>
<i>Johnson City, Tenn.</i>	<i>1 hour</i>
<i>Columbia, S.C.</i>	<i>3 hours</i>

II. A Picture of the Community (cont)

Geographic Information

There are three municipalities located in the county: Mars Hill, population 1,764; Marshall, the county seat, population 840; and Hot Springs, population 635. Mars Hill is home to Mars Hill College which is one of the few colleges in the nation to have a competitive clogging team that offers scholarships. Due to the presence of the college, residents of the town and county enjoy a variety of cultural, intellectual, and entertainment offerings than would usually be found in a town of its size.

The county seat of Marshall is experiencing a revitalization effort that has led to extensive renovations of old buildings and a greater appreciation for the uniqueness of its architecture. The Madison County Arts Council sponsors many programs and events throughout the year. Buildings that housed Marshall Elementary and Marshall High School, public schools that were erected on an island in the French Broad River, have been renovated for artists, their studios and galleries.

Hot Springs is the smallest town in the county. It is located in the Pisgah National Forest where the Appalachian Trail intersects with the French Broad River. Outdoor recreation is abundant in the area with activities such as rafting, kayaking, and backpacking. In addition, Hot Springs boasts the Hot Springs Resort and Spa which is known for its natural, mineral-rich springs and offers private tubs for soaking.

Madison County has a single public school system that is comprised of four elementary schools, one middle school and one high school, both of which are located in Marshall. There are approximately 2500 students in the school system. Mars Hill College, a private, liberal arts college, was founded in 1856 and is the oldest college in western North Carolina. The college has reorganized into three schools: Education and Leadership; Business and Community Service; and Arts and Science. The Madison Campus of Asheville-Buncombe Technical Community College, located in Marshall, offers training in tailored trade and technical classes, and industrial training.

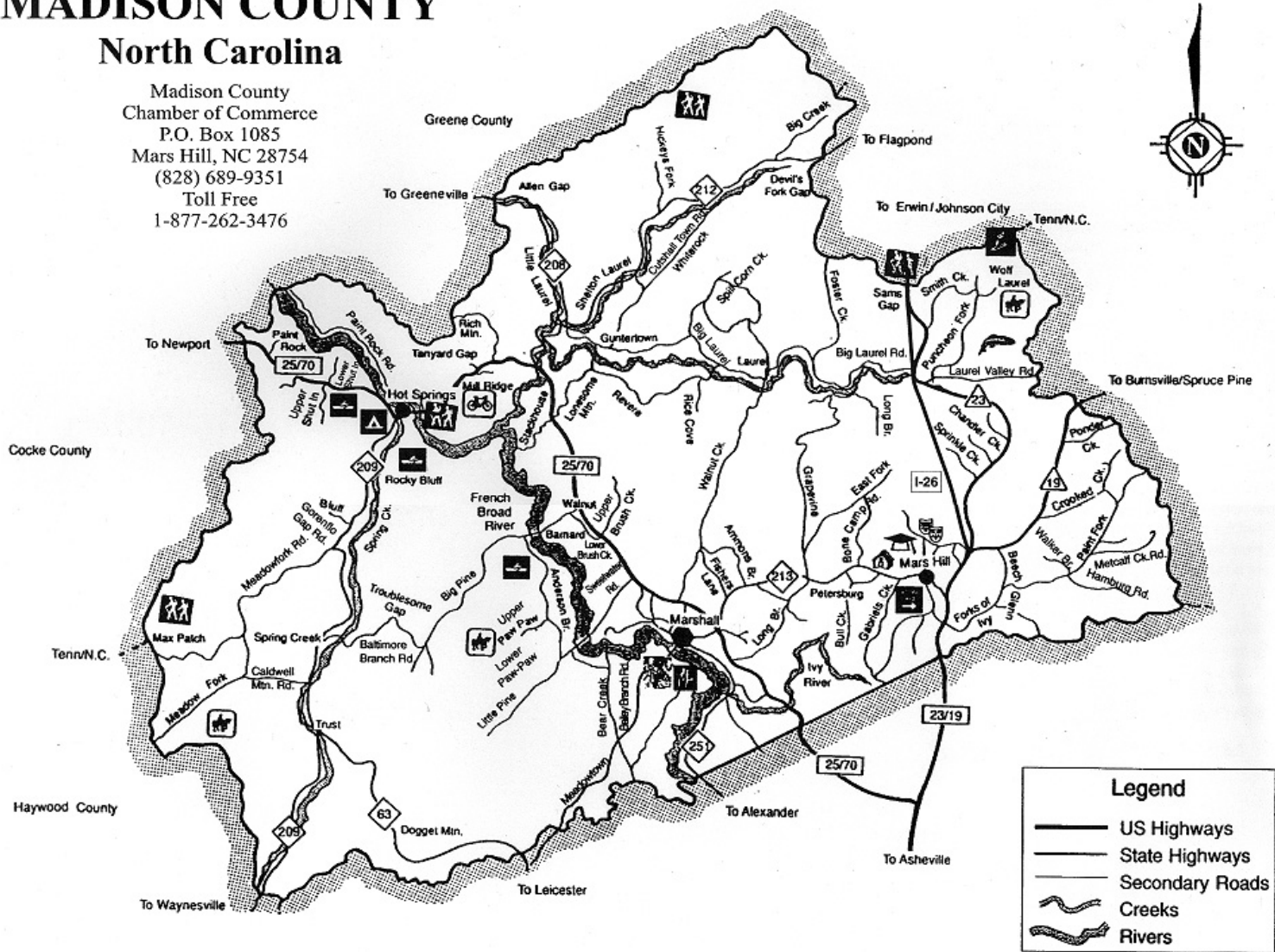
See page 5 for a map of Madison County.

See page 6 for Madison County Geographic Statistics.

MADISON COUNTY

North Carolina

Madison County
Chamber of Commerce
P.O. Box 1085
Mars Hill, NC 28754
(828) 689-9351
Toll Free
1-877-262-3476



II. A Picture of the Community (cont)

Historical Information

In 1783 the newly formed Government of the United States of America opened the land west of the Blue Ridge Mountains. Most of the land was granted to veterans of the Revolutionary War. One of the first known settlers to Madison County was Samuel Davidson in 1784. He was soon killed by the Cherokee Indians. A number of the early settlers were from Scotland and chose this place because it was more like their homeland. Many of their ways and customs still thrive in these beautiful mountains.

At first, they followed the Indian trails and the many streams that line the hollows. Later, they moved along the wagon road from Virginia and Tennessee over Sams Gap and along the old gravel stagecoach road by the French Broad River, known as the Buncombe Turnpike.

The Buncombe Turnpike was completed along the French Broad River through Hot Springs (called Warm Springs at the time) in 1828, connecting Tennessee and Kentucky to the east coast. It was the superhighway of the South at the time. Madison County is home to some of the finest fiddlers and “pickers” and is known for its traditional mountain music. It is also a center for hand made arts and crafts and is rich in historical sites. Many of the sites are located along the former Drovers Trail, the primary route from Tennessee farms to South Carolina markets. Farmers drove thousands of horses, cattle, hogs, and other livestock to markets in Charleston and Augusta on the Turnpike and stopped in Hot Springs to take the waters along the way until the railroad first appeared in 1882.

The advent of the railroad ended this trade, but built up Hot Springs as a resort for the wealthy seeking cool mountain air and restoration in the mineral baths. Recognizing the potential for tourism, James Patton of Asheville bought the springs in 1831 and by 1837 had built the 350-room Warm Springs Hotel with thirteen tall columns commemorating the first colonies. Because of its size and grandeur, it was called Patton’s White House. Its dining room could seat 600 people. In the hotel’s ballroom, the second largest in the state, Frank Johnson, son of President Andrew Johnson, met his bride, Bessie Rumbough, daughter of the hotel owner. In 1884, the hotel burned.

Rebuilt in 1886, the Mountain Park Hotel was one of the most elegant resorts in the country during its heyday. It consisted of the 200-room hotel, a barn and stables, a spring house, and a bath house of sixteen marble pools, surrounded by landscaped lawns with croquet and tennis courts. The Mountain Park Hotel established the first organized golf club in the Southeast with a nine-hole course. This hotel burned in 1920, never to be rebuilt.

II. A Picture of the Community (cont)

Historical Information

The railroad also opened up the county to logging companies, and several communities such as Runion and Stackhouse, had flourished during the days of the lumber mills. These communities are now long gone. (See page 9 for a map of the Communities in Madison County).

The large area of land that is now Madison County was a part of Rutherford and Burke counties. Buncombe was carved off partly from these counties in 1792 and covered what is now eleven counties. These counties were sliced off from Buncombe a few at a time. Between 1792 and 1851, Madison was a part of Buncombe County.

Madison County was formed in 1851 and was named for President James Madison. The county seat of Marshall (originally called Lapland) was named for U.S. Chief Justice John Marshall. Mars Hill College was founded in 1856 and is the oldest college in Western North Carolina on its original site. The college's name (which became the town's name) comes from "Mars' hill" mentioned in the Bible, in Acts 17:22. On this site, Paul preached to the Athenians about Jesus and the resurrection.

Some of the pioneer families of Madison County include: Absolem Buckner; Garrett Ramsey; David and Rachel Davis; Thomas Ramsey; Colston Hagan; and James Marion Payne. These mountain people were proud people, free and self-sufficient. Their word was their bond and they disliked government handouts. They cultivated a strong sense of family and the importance of a hard day's work. These attributes have carried over to the present. A couple of mountain sayings include: "Beware of the man whose overalls show more wear on the seat than the front"; and "A man's never so tired he can't lift a hand to wave 'hello'".

When the railroad lost ground to automobile transportation, Madison County settled back into isolation from the forces developing the rest of the United States. The state found it too expensive to build roads in the mountains until the early 1960s, when road building in Appalachia received greater priority. Recently, major road improvements were made along several routes, including improvements on Highway 25-70 and the upgrading of U.S. Highway 23 to Interstate I-26.

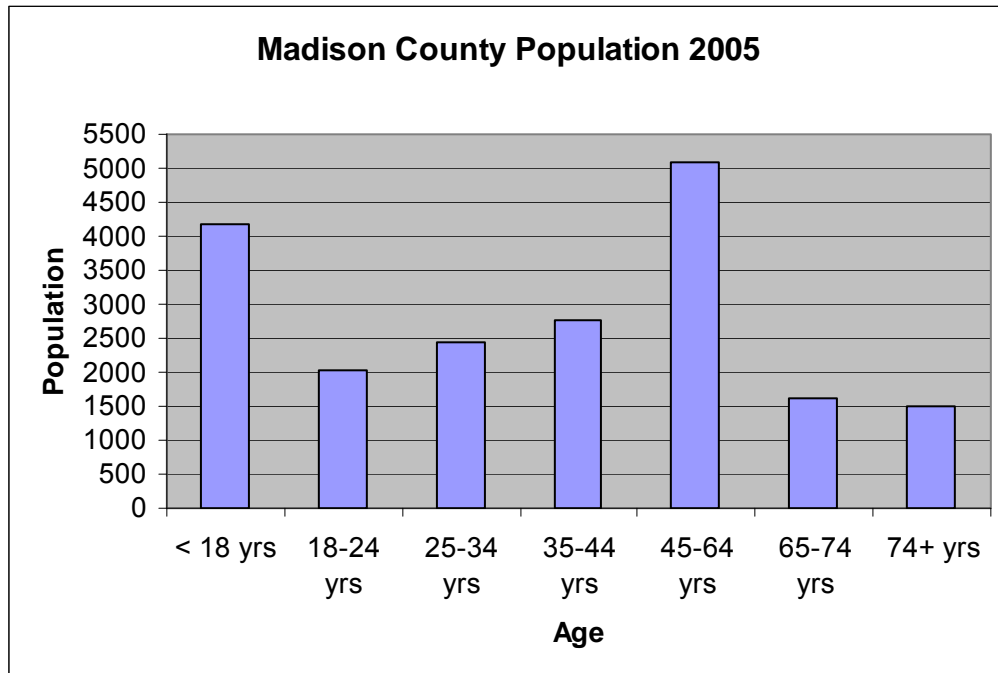
As Madison County changes, it is important to preserve the mountain traditions, culture and environment. This can be a challenge as young people move away from this rural county and non-natives relocate here instead. Fortunately, many individuals recognize the need and work hard to promote our strong mountain values and culture.

II. A Picture of the Community (cont)

Demographic Information

As of 2006, there are 20,355 people living in Madison County. There are more than 8000 households and 5,592 families residing in the county. Twenty-eight percent of these households have children under the age of 18 years living in them. The average household size is 2.34 and the average family size is 2.81. The five year birth rate for Madison County is 10.7 compared to the North Carolina rate of 14.1. According to the North Carolina Rural Economic Development Center, Madison County experienced a growth of 15.8% in the population from 1990-2000. The county is predominantly Caucasian (97.6%) while small percentages of the population are Black, American Indian, Hispanic and Asian. Males comprise 49% of the population while females total 51%.

Below, *Graph #1, Madison County Population 2005*, describes the age breakdown of the county's population.

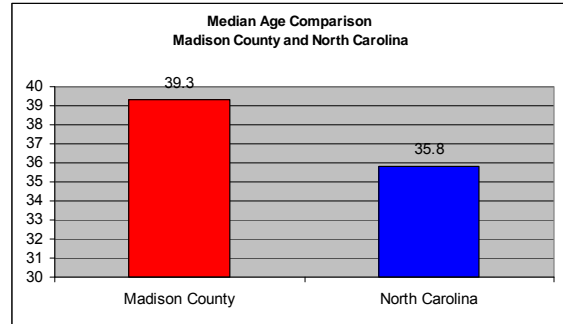


North Carolina County Health Data Book (2007)

II. A Picture of the Community (cont)

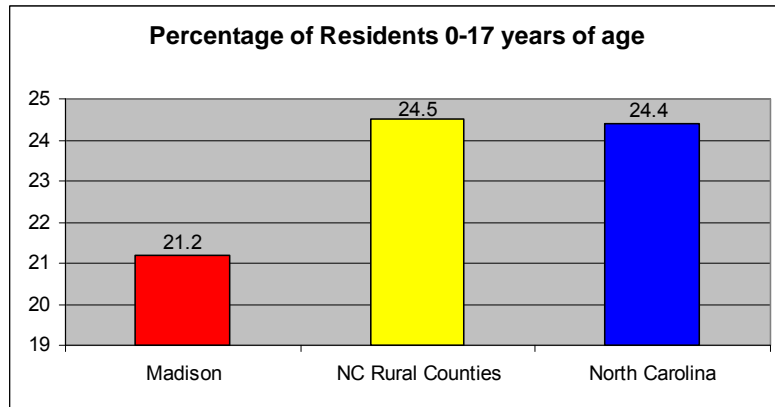
Demographic Information (cont)

Residents ages 45-64 years of age comprise the greatest percentage of the population, 25%. The median age for Madison County is 39.3 years. For North Carolina, the median age is 35.8 years. (Graph #2, Median Age Comparison).



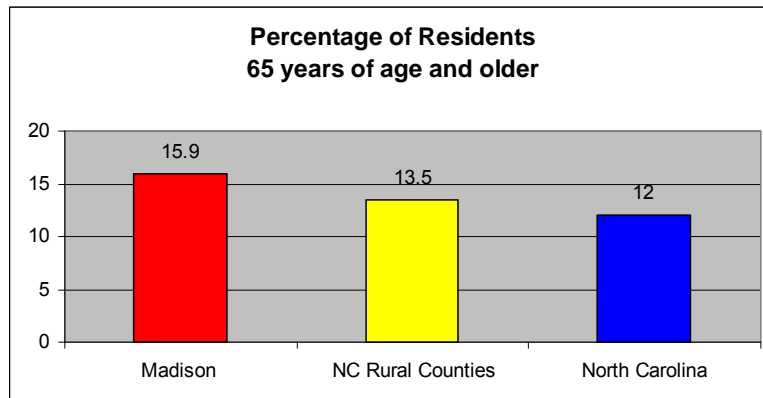
North Carolina County Health Data Book (2007)

The percentage of residents 0-17 years of age is less than the percentage for other rural counties and the state of North Carolina. (Graph #3, Comparison for 0-17 years of age).



North Carolina County Health Data Book (2007)

Madison County also has a large percentage of residents 65 years of age and older compared to other rural counties and the state of North Carolina. (Graph #4, Comparison for 65 years and older).



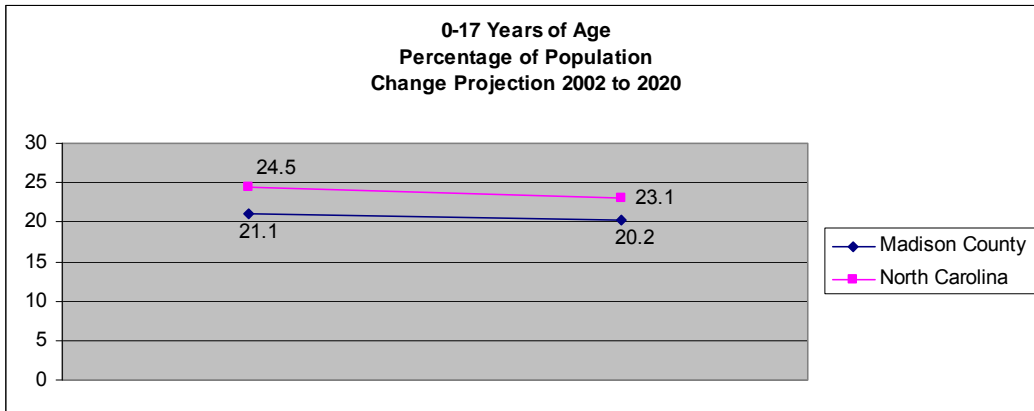
North Carolina County Health Data Book (2007)

II. A Picture of the Community (cont)

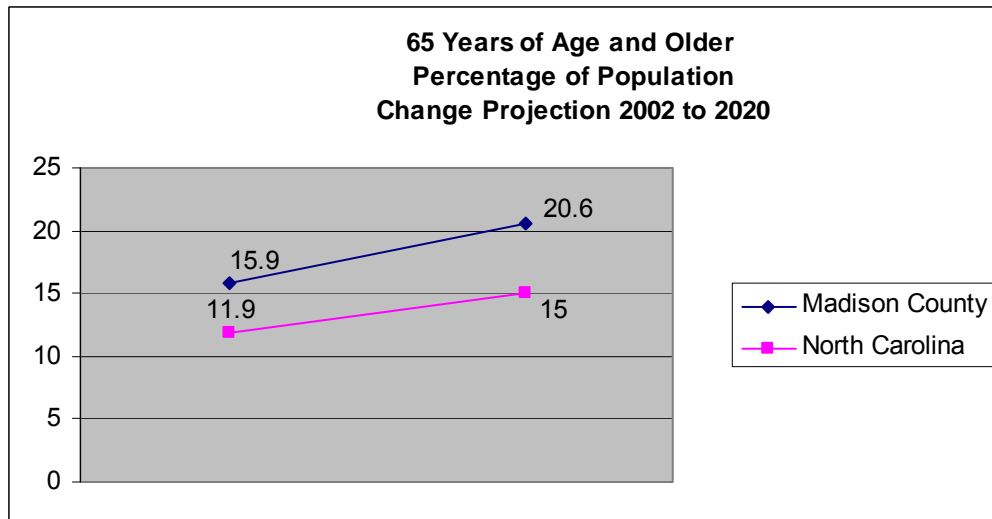
Demographic Information (cont)

Nearly 32% of Madison County residents 65 years of age and older are living alone. Special consideration of this age group is necessary as data from the North Carolina Division on Aging notes that nearly 24% of this age group has at least one disability while nearly 26% of this age group has two or more disabilities.

Trend data (*Graph # 5, Population Projection, 65 and older, 2002-2020*) through the year 2020 reflects continued growth in the elderly population with a decline in the 0-17 year old group. (*Graph #6, Population Projection, 0-17 years, 2002-2020*).



North Carolina Division on Aging (2000)

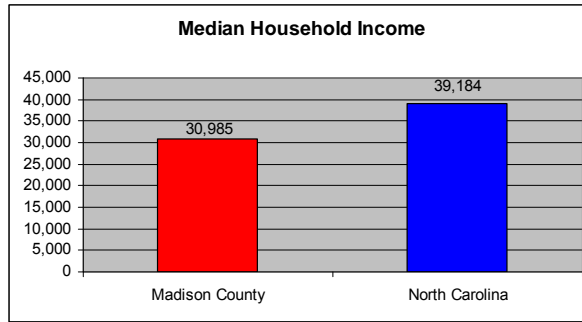


North Carolina Division on Aging (2000)

II. A Picture of the Community (cont)

Social, Economic, and Political Information

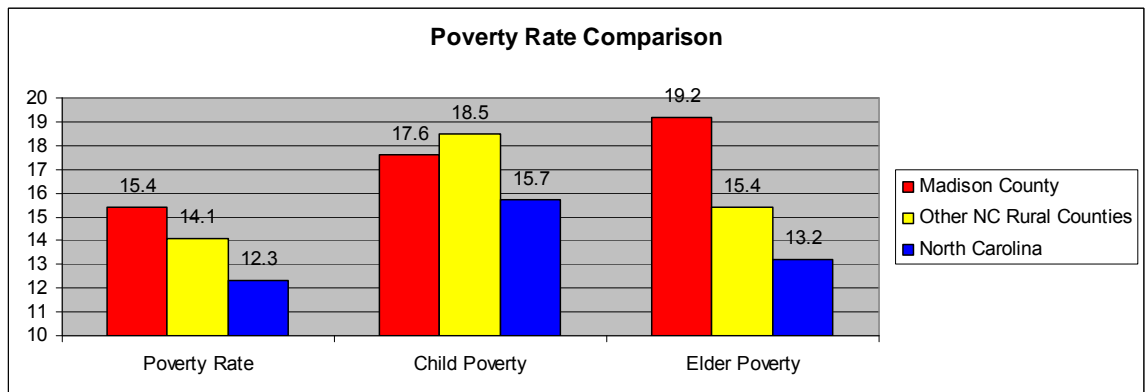
In 2000, the per capita income level was \$16,076 and the median household income was \$30,985. (See Graph #7, Median Household Income).



North Carolina Rural Development Center

Poverty issues are a concern for this rural, mountainous county. The percentage of people with incomes below the poverty level in Madison County was 15.4%. Thirty-nine percent of all community health assessment respondents expressed concern about low income and poverty. More than 51% of children attending school receive free or reduced meals. This is higher than the state percentage. The percentage of residents receiving food stamps is 9.8%.

The poverty rate for the elderly population is higher as compared to other rural counties and the state. Over 60% of Madison County residents over 55 years of age have incomes less than 200% of poverty. In Graph #8, Poverty Rate Comparison, the overall poverty rates, child poverty rates, and elderly poverty rates are compared between Madison County, other rural counties, and the state of North Carolina.



North Carolina Rural Development Center

II. A Picture of the Community (cont)

Social, Economic, and Political Information (cont)

Agriculture is the traditional backbone of the economy in the county and reflects the heritage of the small family enterprise. There are at least 1500 small family farms in Madison County. Agriculture brings 18.6 million dollars of income a year to residents.

Madison County has long been a county of many family farms where burley tobacco has been the major crop. The number of tobacco farms has dropped significantly from 3,255 farms in 1993 to 225 farms at present. Madison County is the number one producer of burley tobacco in the state of North Carolina. However, reliance on tobacco production has decreased as local farmers explore new alternatives to farming in Madison County.

Total agricultural receipts in 2002 according to the North Carolina Rural Economic Development Center indicated county earnings totaled more than twelve million dollars. Madison County is one of the most diverse agricultural counties in the state. The chief agricultural products include mushrooms, beef cattle and goat meat. The Christmas tree industry ranks tenth in the state. Of the 970 farms in the county, there are approximately 200 different types of entrepreneur farms located within the county boundaries. This includes: organic vegetables, berry farms, nursery ornamentals, horses, sheep, trout farms, llama and chicken farms. In an effort to market the new farms in the county, the North Carolina Cooperative Extension Service has developed the Madison County Agri-Business Center. A web site that includes information about the products, location of farms and contact information has been developed to promote exposure of these farming entrepreneurs and encourage residents to “buy local”.

The service industry provides most of the jobs in Madison County, especially as a result of the tourism industry. Madison County experienced the fifteenth largest growth in tourism for the state from 2005 to 2006. Tourism grew 10.4% compared to the state percentage of 8.3% during this time period. Manufacturing employs 11.6% of the population while production employs 21.3%. Another 21% of the population works in sales. The percentage of professional employment is nearly 28%. Government jobs comprise 10% of the county work force.

Unfortunately, many people must travel out of the county for employment. The unemployment rate for the county was 3.8 in 2007 compared to the state rate of 5.0. Since the opening of the I-26 corridor, a Scenic Highway, through Madison County, there is much speculation about the potential for economic growth within the county. (See *Appendix F for Directory of Madison County Businesses*).

II. A Picture of the Community (cont)

Social, Economic, and Political Information (cont)



The natural beauty of Madison County is one of its greatest assets. Madison County is called the “Jewel of the Blue Ridge”. There is a great deal of importance placed on protecting the environment. According to the community health assessment survey, illegal dumping and pollution of air, water, and land were two of the top ten concerns for all respondents. Air pollution is kept to a minimum as there are no major factories or industries emitting hazardous pollutants. Madison County ranks 59 out of 100 for hazardous air pollutants. Aside from air pollutants traveling from adjoining counties, the major air pollutant in the county is from diesel emissions.

The percentage of surface waters with impaired or threatened uses is 7.2% in Madison County. Percentages across the state range from 80% impairment to 6.6% impairment. Water quality impacts river activities such as rafting and kayaking that are promoted. Straight-piping elimination remains a concern for the county. Household surveys to address this issue have taken place previously to identify problem communities. Identifying the violation presents problems for low income residents who must make necessary corrections. There is minimal financial assistance available for those in need.

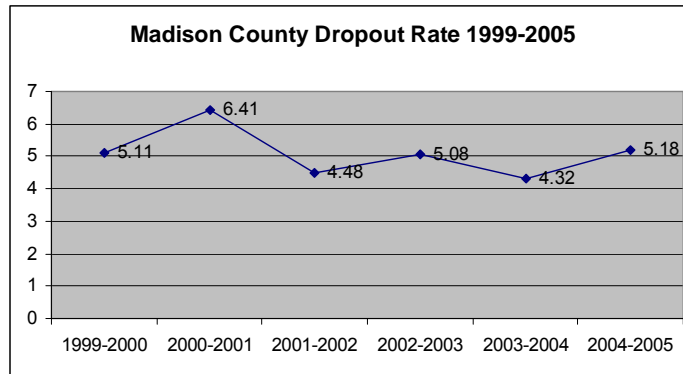
Madison County can boast not only about a beautiful environment, but also about a safe environment. Crime in the county is kept to a minimum. The crime rate for the county is 12.0 compared to the state rate of 44.8 in 2007. From 2002-2006, there were four murders and seven rape charges. Approximately 80% of the convictions are for burglary or larceny. With the new Interstate 26 system crossing the county into Tennessee, the potential for more criminal activities has been expressed. While there were 100 more convictions in 2006 compared to 2002, it is unclear if the interstate has attributed to the increase.

Substandard housing is a long standing concern in the county. Approximately 100 households belonging to elderly residents have incomplete plumbing. Inadequate or affordable housing was found to be a concern from 21% of those responding to the community health assessment. Although the county and each municipality offer low-income housing, these resources are limited at best.

II. A Picture of the Community (cont)

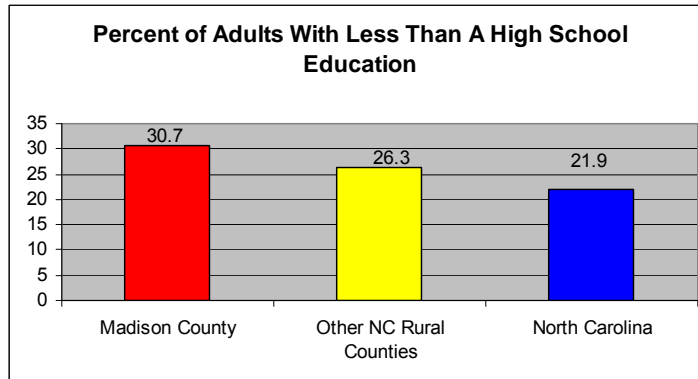
Social, Economic, and Political Information (cont)

The Madison County Public School System has more than 2,600 students enrolled in Kindergarten through 12th grade. In addition, the school system manages two Birth-Kindergarten child care centers and houses six Head Start classrooms in the school settings. In 2005, there were 271 preschool children enrolled in regulated child care centers. The majority of funding for the school system is from state dollars. Local funding is less per student than the state average. Although the four year high school completion rate 65.4% is higher than the state, 61.9%, there is plenty of room for improvement. The value of a high school education is not always appreciated. Nearly 90% of the community health assessment survey respondents who earned less than \$20,000 per year did not believe dropping out of school was a concern. Trend data shows the drop out rate for Madison County has remained fairly stable since 1999-2000. The current drop out rate is 5.18 compared to the state rate of 4.74. (See Graph #9 for drop out trends in Madison County).



North Carolina Department of Public Instruction (2006)

The percentage of residents with less than a high school education is higher compared not only to the state of North Carolina, but also to other rural counties. (See Graph #10, *Percent with Less than High School Education*).



North Carolina Rural Economic Development Center (2007)

II. A Picture of the Community (cont)

Social, Economic, and Political Information (cont)

With over 12,000 registered voters in the county, 62% are registered democrat while 38% are registered republican. The voting rate for the county is 66.3%, higher than the state percentage of 63.2%. The Madison County Board of Commissioners is the elected governing board authorized by the state of North Carolina to exercise and discharge legislative responsibilities within the county. This is a five member board served by a county manager that is appointed. In addition, each of the three municipalities is governed by a mayor and a three or five member board of alder persons.

There is a wide range of civic groups, such as the Rotary Club and the Lion's Club that are active in the county. Local community centers provide opportunities for neighbors to convene for meals and activities. The local fire departments receive much volunteer support from auxiliary groups in the community. There are at least 117 churches in the county with 61 Baptist affiliations. *(See Appendix G for a listing of Madison County Churches)*. Volunteer opportunities are numerous across the county.

III. Health Information

There is no hospital located in Madison County. The Madison County Health Department offers health services that include family planning, prenatal care, WIC, immunizations, child health, dental fluoride varnish for children, health promotion, health education and community outreach, Health Check and Health Choice, employee health services, and jail health services. Grant funds have been obtained to establish a dental clinic for children and adults located within the health department.

There is one private non-profit medical practice, the Hot Springs Health Program, with four offices located throughout the county. They provide primary health care by a staff of family medicine, internal medicine, and pediatric physicians. They also manage a home health and hospice program along with an in-home rehabilitation program for Madison County residents.

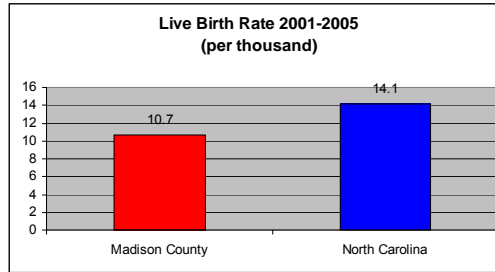
The Madison County Emergency Medical Services offers ambulance transportation from all points in the county. Emergency medical helicopter transport is available from Missions Hospitals Systems located in Asheville, North Carolina. The hospital system also manages the county's emergency medical services.

There are two dental offices in the county. Many residents must travel outside the county for dental care. The new dental clinic at the health department is expected to increase access to care for low income individuals. Mental health services are limited in Madison County. Outpatient, acute care is available through one agency. Inpatient mental health services involve residents traveling to area counties and across the state for treatment. Mars Hill Baptist Church offers pastoral counseling one day per week for community members and college students.

Optical and chiropractic services are also available as well as the addition of an office providing Chinese medicine located on the Mars Hill College campus. Two fitness centers are located in Mars Hill only. Walking trails can be found across the county and the public school system allows the general public to utilize outside tracks at the schools. The county has two licensed nursing home facilities and several rest homes and group homes for handicapped individuals. Therapeutic massage is popular with professional therapists located throughout the county.

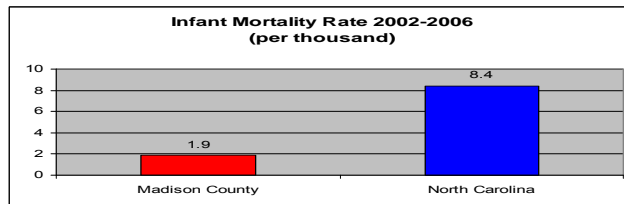
III. Health Information (cont)

Due to the small population of the county, many of the vital statistics must be assessed by three- or five-year rates in order to obtain a true picture of the population's health status. The overall five-year live birth rate for Madison County, 2001-2005, was 10.7 according to the North Carolina Center for Health Statistics. This is lower than the state rate of 14.1. This rate helps to demonstrate population trends are moving more toward a higher adult population for Madison County. (See Graph #11, *Live Birth Rates*).



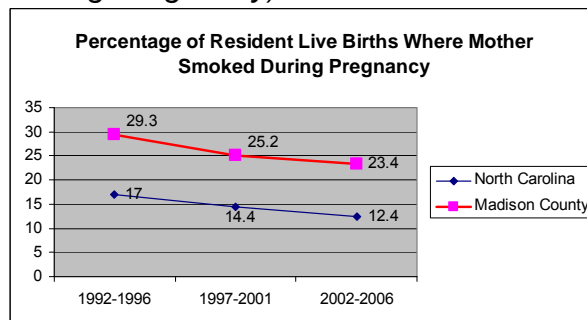
North Carolina Center for State Statistics (2007)

The five-year rate, 1.9, for infant mortality is shown below as compared to the state rate, 8.4, from 2002-2006. (See Graph #12, *Infant Mortality Rates*).



North Carolina Center for State Statistics (2007)

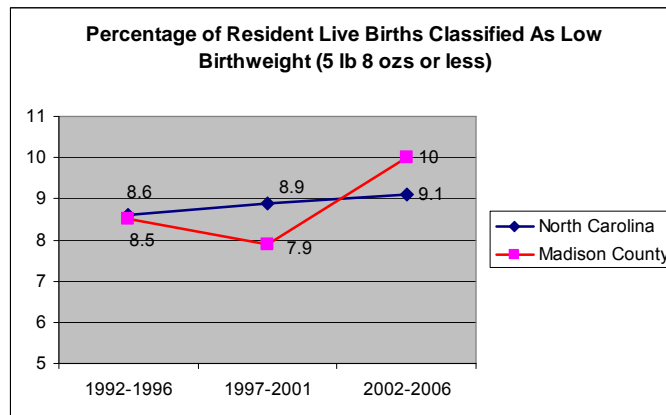
Few women deliver their baby without seeking prenatal care. Over 93% of pregnant women receive prenatal care beginning in the first trimester. Aside from health department prenatal services, women must travel outside the county for their care and for delivery. However, the greatest concern among the prenatal population in Madison County is percentage of women who smoke during pregnancy. This is nearly double the state percentage for women smoking during pregnancy. (See Graph #13, *Mothers Smoking During Pregnancy*).



North Carolina Center for State Statistics (2007)

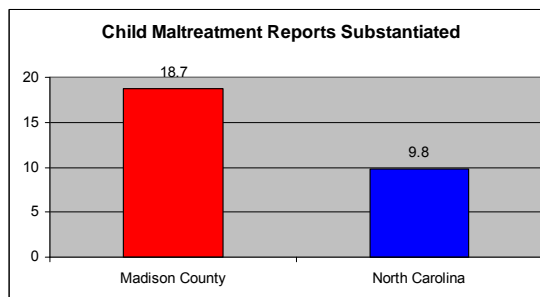
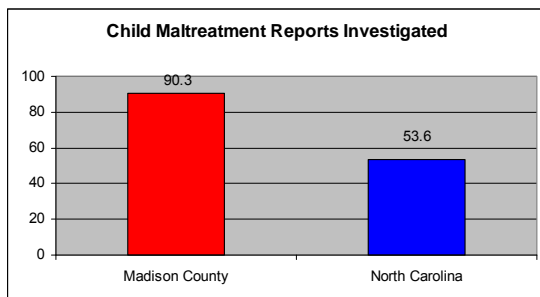
III. Health Information (cont)

Although there are many reasons that contribute to low-birth weight infants, smoking during pregnancy is a major contributing factor. Trends reflect a higher than state rate for the percentage of live births in Madison County that are classified as low birth weight. (See Graph #14, *Births Classified as Low Birth Weight*).



North Carolina Center for State Statistics (2007)

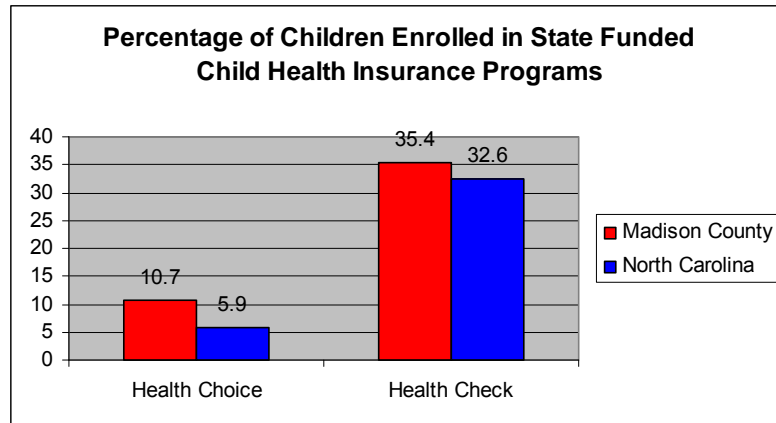
There were five child deaths for ages 0-17 years from 2002-2006. Each death had a different cause, showing no special trends. Child health concerns are directed more toward their maltreatment. Findings from the 2003 Community Health Assessment for Madison County indicated a high rate of children in the custody of the Department of Social Services. Rates of child maltreatment for cases that are investigated are nearly twice the rates for the state of North Carolina. And unfortunately, the rates for substantiated child maltreatment is double the state rates. (See Graph #15, *Child Maltreatment Reports Investigated* and Graph #16, *Child Maltreatment Reports Substantiated*). Clearly, the community is aware of how to report suspicions of child maltreatment. According to survey respondents of the community health assessment, 20% expressed concerns about child abuse and neglect. However, the resources for preventive measures are limited, along with the need for additional foster homes within the county.



North Carolina Children's Index (2006)

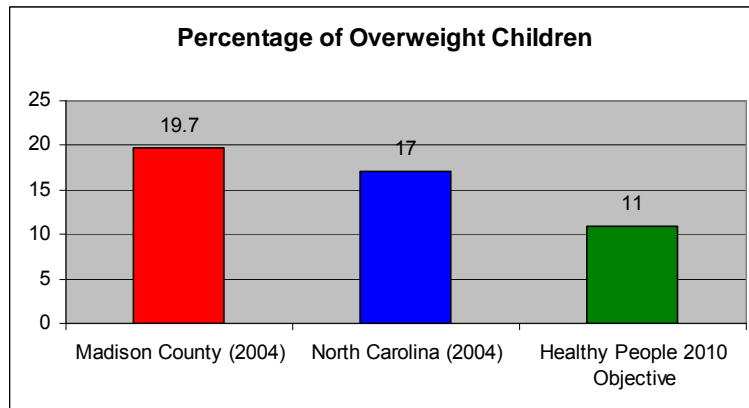
III. Health Information (cont)

According to the 2006 North Carolina Children’s Index, the percentages of children in Madison County receiving North Carolina Health Choice or Health Check are greater than the state percentages. (See Graph # 17, Child Health Insurance). The positive aspect is that more children have some form of health insurance coverage. The negative aspect is that more children are living in poverty, 21.6%, than the state percentage of 19.1%. Also, in 2000, there were nearly 400 children living in the county with no health insurance.



North Carolina Children’s Index (2006)

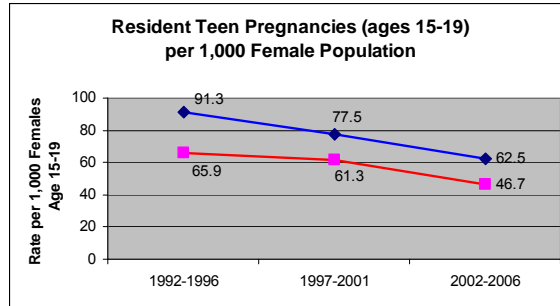
Childhood obesity is a serious health concern according to state data. The percentage of Madison County children who are overweight is greater than the state percentage. Objectives for Healthy People 2010 project measures that will be not be met at this time but provide a challenge to the community to address this issue in the coming years. (See Graph # 18, Child Overweight). Community health assessment survey respondents noted obesity/overweight as a top ten concern, for the entire population.



North Carolina Children’s Index (2006)

III. Health Information (cont)

Teen pregnancy rates for ages 15-19 years have consistently been lower than state rates for many years. (See Graph #19, *Teen Pregnancy Rates*).

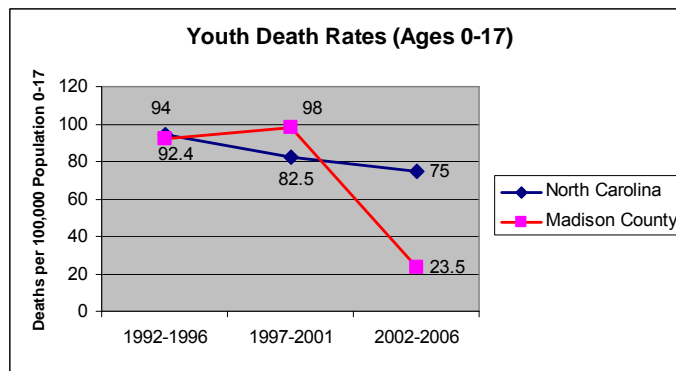


North Carolina Center for State Statistics (2007)

Despite low teen pregnancy rates, preventive health programs for the teenage population are minimal at best. Social and emotional well being is as important as the physical well being in youth. Prevention of high risk behaviors needs to be addressed early in a child's life. However, mental health resources in the county are limited with a primary focus placed on acute care instead of prevention.

Youth death rates for 2002-2006 have declined and are lower than the state rates. (See Graph #20, *Youth Death Rates*). During this same time frame, the five leading causes of death for Madison County children 0-19 years of age were:

1. Motor Vehicle Accidents
2. SIDS
3. Birth Defects
4. Illness
5. Suicide.



North Carolina Center for State Statistics (2007)

III. Health Information (cont)

The ten leading causes of death for all ages, the death rate for Madison County and the death rate for North Carolina (2002-2006) are listed below:

Rank	Cause of Death	Madison County Rate	N.C. Rate
1	Diseases of the Heart	265.9	209.0
2	Cancer-All Sites	263.9	193.0
3	Cerebrovascular Disease	81.4	57.8
4	Chronic Lower Respiratory Disease	58.5	45.1
5	Alzheimer's Disease	54.6	25.6
6	Septicemia	42.7	14.4
7	Pneumonia and Influenza	40.7	21.2
8	Other Unintentional Injuries	33.7	26.4
9	Motor Vehicle Injuries	21.8	19.3
10	Nephritis, Nephritic Syndrome, Nephrosis	18.9	17.4

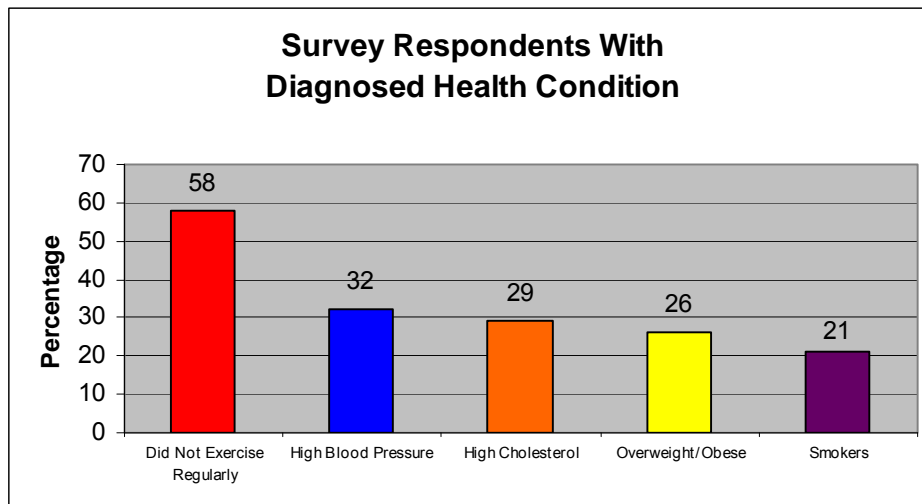
N.C. DHHS State Center for Health Statistics

The five major sites for all cancer deaths from 2002-2006 were:

Rank	Cancer Site	Madison County Rate	N.C. Rate
1	Trachea, Bronchus, and Lung	68.3	59.8
2	Female Breast	32.8	25.7
3	Prostate	25.9	29.1
4	Pancreas	15.6	11.0
5	Colon, Rectum, and Anus	10.5	18.2

N.C. DHHS State Center for Health Statistics

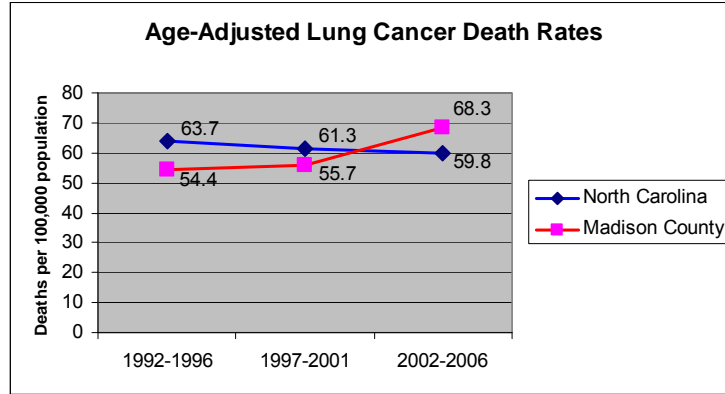
In Part II of the Community Health Assessment Survey for Madison County, respondents were asked about their personal health. Response findings in *Graph #21, Health Concerns Identified by a Health Professional*. These health behaviors can directly impact the leading causes of death listed above.



Madison County Community Health Assessment Data (2007)

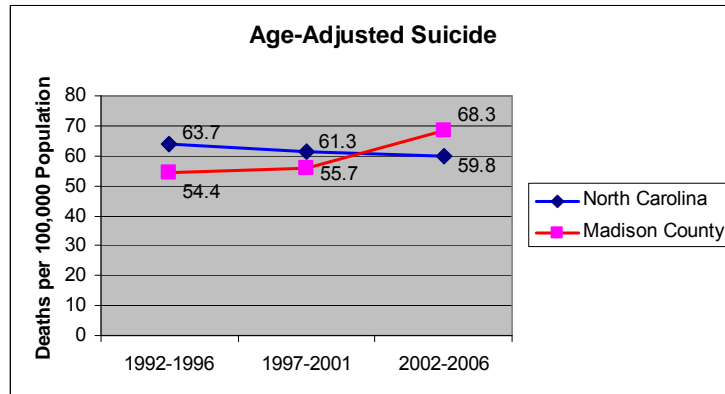
III. Health Information (cont)

Lung cancer death rates for 2002-2006 were higher than the state rates. (See Graph #22, Lung Cancer Death Rates). Tobacco appears to be a major contributor to these death rates. As noted earlier, the percentage of mothers smoking during pregnancy is nearly twice the state rate. Smoking cessation activities such as the “Five A’s” and “Tobacco Free Schools” are in place. However, more preventive measures must be taken.



N.C. DHHS State Center for Health Statistics

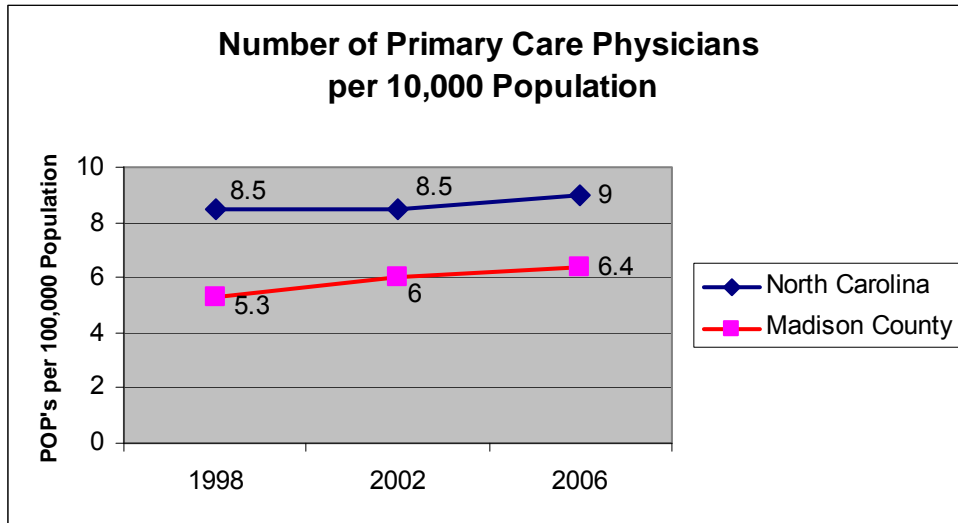
Another leading cause of death is intentional self-harm or suicide. Rates for Madison County are higher than the state rates. (See Graph #23, Suicide Rates). Suicide is one of the top five causes of death for ages 20-39 years and for 40-65 years. Suicide was the 11th ranking cause of death in North Carolina from 2000-2004. Mental health concerns were noted by community health assessment respondents. Nineteen percent of those earning less than \$20,000 report they had been told they had depression. In addition, 35% of respondents expressed concerns about drug abuse and 22% expressed concern about alcohol abuse in the county. There is a critical need for additional mental health services in the county.



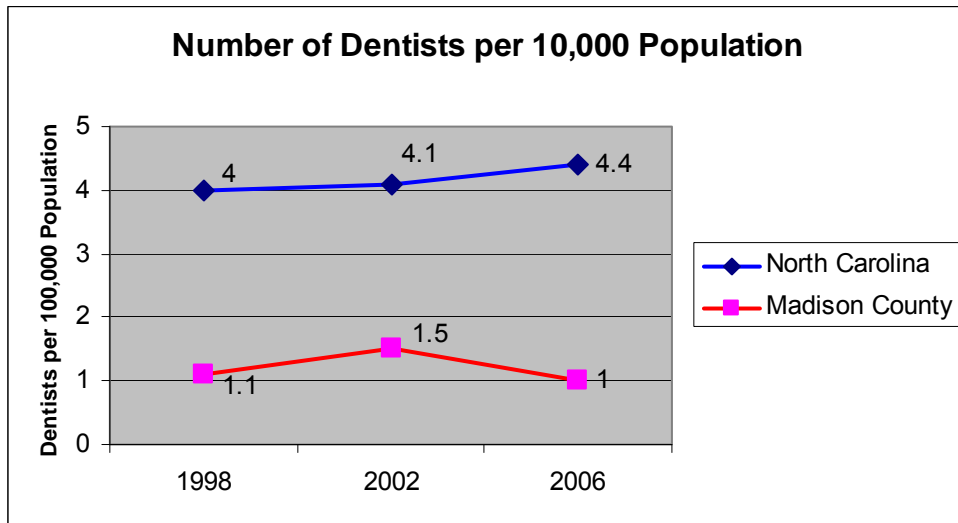
N.C. DHHS State Center for Health Statistics

III. Health Information (cont)

State data and community health survey findings verify that “access to care” issues are in abundance for Madison County residents. The ratio of physicians per population and the ratio of dentists per population reflect the need for providers in the county. (See Graph #24, Number of Primary Care Physicians, and See Graph # 25, Number of Dentists).



N.C. DHHS State Center for Health Statistics (2006)

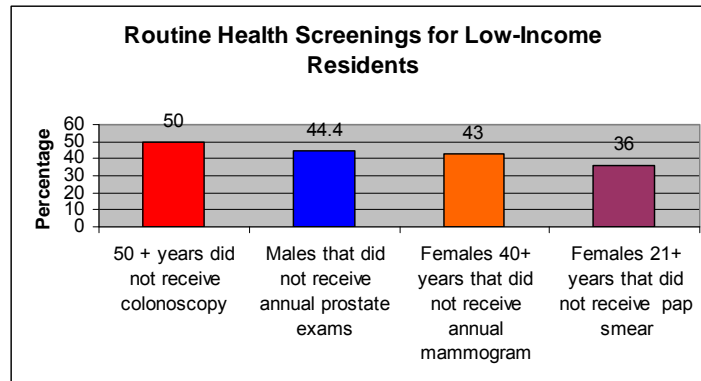


N.C. DHHS State Center for Health Statistics (2006)

Nearly 42% of county residents 55 years of age and older do not have a car. Thirty-five percent of Medicaid-eligible persons are not enrolled. The percentage of uninsured in the county is 17.7%. Poverty contributes to the many barriers to health care as well. To miss a day from work means one less day of pay. Preventive health care is not a priority for residents just trying to “get by”.

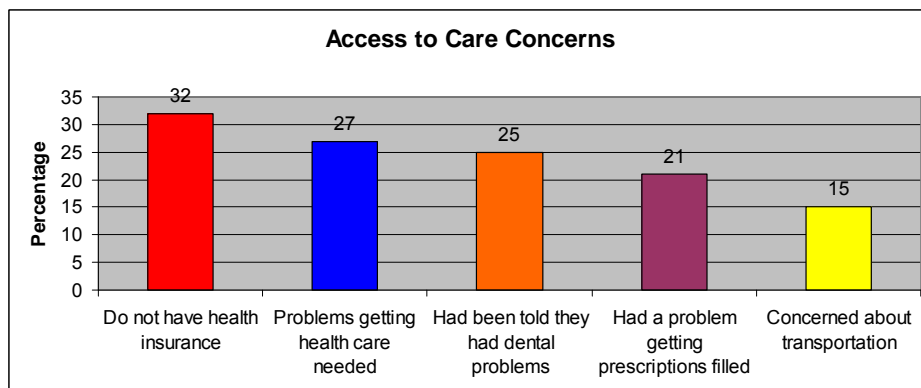
III. Health Information (cont)

Graph #26, Routine Health Screenings for Low-Income Residents, demonstrates the impact of low-income on receiving routine preventive health screenings. According to survey respondents earning less than \$20,000 per year, annual preventive health screenings such as mammograms, pap smears, prostate exams, and colonoscopies are not routinely accessed. Simple preventive screenings could greatly influence the county's death rates for all cancers, in particular.



Madison County Community Health Assessment Data (2007)

Survey results revealed how poverty impacted access to care. *Graph #27, Access to Care Concerns*, once again describes those respondents earning less than \$20,000 per year and the limited access to services.



Madison County Community Health Assessment Data (2007)

Lastly, the community health assessment survey revealed that 31% of respondents were concerned about the lack of health insurance or inadequate health insurance. But the most telling issue for the entire 2007 Madison County Community Health Assessment survey was that:

46% of respondents expressed concern about the affordability of health care!

IV. Community Concerns/Priorities

After an in-depth review of county data and responses to the Community Health Assessment Survey, community concerns were placed into seven categories. Listed below is a summary of the community concerns/priorities with some important data to consider as Community Health Action Plans are developed.

Child Health Issues

- √ More than one-fourth of pregnant mothers smoke which is nearly twice the state average.
- √ There is a higher percentage of overweight children 0-17 years of age compared to the state.
- √ Rates for reporting child maltreatment and substantiating child maltreatment are double the state rates. Twenty percent of survey respondents expressed concern about child abuse and neglect.
- √ Over half of children in school receive free or reduced meals.
- √ The percentage of children living in poverty is higher than the state percentage.

Mental Health Concerns

- √ Suicide is one of the top five causes of death in children 0-19 years of age.
- √ Suicide is one of the top five causes of death in adults 20-64 years of age.
- √ The rate for alcohol related crashes in Madison County is slightly higher than the state rate.
- √ Nineteen percent of survey respondents who earn <\$20,000 income have been told they have depression.
- √ Thirty-five percent of survey respondents expressed concern about drug abuse in the community while 22% expressed concern about alcohol abuse in the community.

IV. Community Concerns/Priorities (cont)

Changing Demographics

- √ Nearly 16% of the population in Madison County in 2000 was 65 years of age and older; in North Carolina 12%.
- √ Over 31% of those individuals age 65 and older live alone.
- √ The five-year birth rate for Madison County is 10.7 which is less than the state rate of 14.1.
- √ The percentage of the population 0-17 years of age is less than the state percentage for that age group.
- √ The median age in Madison County is 39.3 years compared to the state median age of 35.8 years.

Poverty Issues

- √ In 2000, the median household income was \$30,985 compared to the state \$39,184.
- √ Per capita income in 2000 was \$16,076; for the state \$20,307.
- √ The Madison County rate of poverty is 15.4% compared to the state rate of 12.3%.
- √ The poverty rate for elderly living in the county is 19.2% compared to the state rate of 13.2%.
- √ Nearly 42% of people over 55 years of age do not have a car.
- √ Nearly 18% of the population is uninsured in the county.
- √ Thirty-nine percent of survey respondents expressed concerns about low income/poverty.
- √ Twenty-one percent of survey respondents expressed concerns about inadequate/affordable housing.

IV. Community Concerns/Priorities (cont)

Education Concerns

- √ In 2000, 28.5% of adults 45-64 years of age did not have a high school diploma.
- √ Between 1990-2000, 30.7% of the Madison County populations had less than a high school education.
- √ The current high school graduation rate is 73.7% for the county.
- √ Forty percent of survey respondents earning <\$20,000 income have less than twelve years of education.
- √ Of survey respondents earning <\$20,000 income, 90% did not identify dropping out of school as a great concern.

Chronic Disease

- √ The top five causes of death for all ages are heart disease, cancer, cerebrovascular disease, Alzheimer's, and chronic lower respiratory disease.
- √ The rates for lung/bronchus cancer is higher than the state rate.
- √ In 2000, one-fourth of those 65 years of age and older were living with two or more disabilities.
- √ Over 40% of survey respondents earning <\$20,000 income did not have annual prostate exams, pap smears, or annual mammograms.
- √ Thirty-two percent of survey respondents reported they had high blood pressure.
- √ Twenty-six percent of survey respondents reported they were overweight/obese.
- √ Twenty-nine percent of survey respondents reported they had high cholesterol levels.
- √ Fifty-eight percent of survey respondents reported they did not exercise regularly.

IV. Community Concerns/Priorities (cont)

Access to Care Concerns

- √ There are 7.4 physicians per population compared to the state rate of 20.6 physicians per population.
- √ The ratio of dentists is 1:7500 compared to the state ratio of 1:2302.
- √ Nearly 18% of the population is uninsured.
- √ Thirty-two percent of survey respondents earning <\$20,000 income do not have health insurance.
- √ Twenty-seven percent of survey respondents earning <\$20,000 income had trouble getting health care they needed.
- √ Twenty percent of survey respondents earning <\$20,000 income had a problem getting prescriptions filled.
- √ Thirty-one percent of all survey respondents expressed concern about the lack or/or inadequate health insurance.
- √ Twenty-six percent of those surveyed expressed concerns about the lack of dental providers.
- √ For all survey respondents, 46% expressed concern about the affordability of health care services.

IV. Community Concerns/Priorities (cont)

Community health assessment survey findings were cross-tabulated for income and for age. The major health concerns identified by age groups are as follows:

< 18 years

Dropping out of School
Unemployment
Obesity/Overweight
Neglect/Abuse of Children
Alcohol Abuse
Affordability of Health Services
Availability of Healthy Food Choices
Drug Abuse

18-24 years

Affordability of Health Services
Neglect/Abuse of Children
Low Income/Poverty
Lack of/Inadequate Health Insurance
Unsafe, poorly maintained roads
Unemployment
Obesity/Overweight
Drug Abuse

25-34 years

Affordability of Health Services
Lack of Recreational Facilities
Low Income/Poverty
Drug Abuse
Lack of/Inadequate Health Insurance
Child Care
Unemployment
Availability of Healthy Food Choices

35-44 years

Low Income/Poverty
Affordability of Health Services
Lack of Recreational Facilities
Drug Abuse
Lack of/Inadequate Health Insurance
Child Care
Unemployment
Availability of Healthy Food Choices

45-64 years

Affordability of Health Services
Drug Abuse
Low Income/Poverty
Lack of/Inadequate Health Insurance
Unemployment
Obesity/Overweight
Illegal Dumping
Pollution of air, water, and land

65-74 years

Affordability of Health Services
Drug Abuse
Low Income/Poverty
Unemployment
Pollution of air, water, and land
Animal Control
Contaminated Streams
Illegal Dumping

>74 years

Affordability of Health Services
Low Income/Poverty
Lack of/Inadequate Health Insurance
Obesity/Overweight
Alcohol Abuse
Drug Abuse
Animal Control
Illegal Dumping

V. Community Health Action Plan

Community health action plans will be developed to address the identified health priorities. The Madison Community Health Consortium will focus on reviewing the action plans from the 2003 Community Health Assessment for those health concerns that are similar to the present findings, such as mental health.

The Madison Community Health Consortium is seeking recertification as a Healthy Carolinians' partnership in 2008. As part of the process, the consortium will be meeting to formulate community health action plans based on the findings of this report.