Macon County 2015 Community Health Assessment

12/1/2015

Macon County
Public Health

MACON COUNTY COMMUNITY HEALTH ASSESSMENT

ACKNOWLEDGEMENTS

This document was developed by Macon County Public Health, in partnership with Angel Medical Center and Highlands-Cashiers Hospital as part of a local community health (needs) assessment process. We would like to thank and acknowledge several agencies and individuals for their contributions and support in conducting this health assessment:

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WNCHEALTHYIMPACT

TABLE OF CONTENTS

Macon County 2015 CHA Executive Summary 5
- Purpose and Process 5
- Data Summary 5
  - Community 5
  - Health Outcomes 5
- Health Priorities 6
  - Health Priority 1 7
  - Health Priority 2 7
  - Health Priority 3 7
- Next Steps 7

Chapter 1 – Community Health Assessment Process 8
- Purpose 8
  - Definition of Community 8
- WNC Healthy Impact 8
- Data Collection 8
  - Core Dataset Collection 8
  - Additional Community-Level Data 9
  - Health Resources Inventory 9
- Community Input & Engagement 10
- At-Risk & Vulnerable Populations 10

Chapter 2 –Macon County 11
- Location and Geography 11
- History 11
- Population 11

Chapter 3 – A Healthy Macon County 13
- Elements of a Healthy Community 13
- Community Assets 14

Chapter 4 – Social & Economic Factors 15

Income 15
Employment 15
Education 15
Community Safety 16
Housing 18
Family & Social Support 19
Chapter 5 – Health Data Findings Summary 20
Mortality 20
Health Status & Behaviors 20
Clinical Care & Access 25
At Risk Populations 26
Chapter 6 – Physical Environment 27
Air & Water Quality 27
Access to Healthy Food & Places 28
Chapter 7- Health Resources 29
Health Resources 29
Process 29
Findings 29
Chapter 8 – Identification of Health Priorities 30
Health Issue Identification 30
Process 30
Identified Issues 30
Priority Health Issue Identification 31
Process 31
Identified Priorities 31
Priority Issue #1 32
Data Highlights 32
Health Indicators 33
Specific Populations At-Risk 34
Health Resources available/needed 35

Priority Issue #2 35
Data Highlights 35
Health Indicators 35
Specific Populations At-Risk 36
Health Resources available/needed 37
Priority Issue #3 38
Data Highlights 38
Health Indicators 38
Specific Populations At-Risk 40
Health Resources available/needed 40
Chapter 9 - Next Steps 42
Sharing Findings 42
Collaborative Action Planning 42
Works Cited 43
Appendices 46
Appendix A - Data Collection Methods & Limitations 47
Secondary Data from Regional Core 47
Secondary Data Methodology 47
Data limitations 50
WNC Healthy Impact Survey (Primary Data) 50
Survey Methodology 50
Benchmark Data 52
Survey Administration 53
Information Gaps 55
Listening Sessions 55

MACON COUNTY 2015 CHA EXECUTIVE SUMMARY

Purpose and Process

The fundamental purpose of Macon County's Community Health Assessment has been to empower community agencies and members by helping them gain an understanding of the health concerns and health care systems of Macon County. This purpose was supported by widespread community participation in identifying, collecting, analyzing and disseminating information on community assets, strengths, resources and needs. During the 2015 year, Macon County Public Health, MountainWise of Macon County, WNC Healthy Impact, Angel Medical Center and Highlands-Cashiers Hospital have facilitated the development of this comprehensive community health assessment by engaging multiple organization and community members; by outlining the need for certain decisions, funding requests and interventions; and finally, by creating a positive environment for discussion and change.

Data Summary

Community

With a population of approximately 34,000 people, Macon County is just over two hours from many major Southeastern metro areas including Atlanta, GA, Knoxville, TN, along with Greenville & Spartanburg, SC. The county seat is Franklin. Of the 519 square miles in Macon County, almost half (46.1%) are federal lands that lie within Nantahala Forest and are administered by the US Forest Service. The county's largest natural water supply is the Cullasaja River. Macon County boasts a number of breathtaking waterfalls that delight county residents and visitors alike.

Health Outcomes

The MountainWise of Macon County Community Health Assessment collected a variety of community perspectives from a series of focus groups, and also interviews with informed community leaders. Concerns and issues raised from these diverse community voices provide context for the research and statistical analysis. The input provides important perspective on a variety of issues that will influence Macon County life and health over the next several years. We took from those focus groups and series that the community has a strong sense of pride and loyalty. Organizations and community members alike are truly invested in the wellbeing of the community and cite strong partnerships between agencies and the community. "When organizations come up with a need, they (the community) respond. Our Cold for a Cause event was huge; we raised over 17,000 pounds of food and 25-30,000 coats. Organizations really get behind supporting each other and that is something to be really proud of." "Macon County is well connected, well intentioned, and active...typically you can find a lot of support, volunteering, showing up for things." "The small town attitude is that we work together for the benefit of our citizens...Churches provide breakfast, meals and school supplies to the schools in their communities. That's ongoing throughout the school year and that's from other community organizations as well."

In addition to strong partnerships and a commitment to taking care of the community, Macon County has a lot to offer in terms of quality of life. "We have great opportunities for exercising. We have great trails." The Economic Development Main Street Program is also doing a lot to provide more entertainment and dining opportunities and more initiatives to support small businesses in downtown Franklin.

Geographic limitations and lack of funding were cited as major challenges for the county. "Sometimes it's more challenging to reach different populations and to make sure you have a voice with people that make decisions at a larger level. When you're so far west, that can be especially challenging. There are a lot of things we can do completely within our community, but almost all of the people that come to the table most likely have state and federal level driving the parameters for which you can provide services." Also, "geography as it compares to or relates to larger towns with more opportunity for entertainment and dining and travel," especially in relation to recruiting a qualified workforce and small businesses.
Employment and poverty levels were also noted as area of concerns. "Opportunities for our residents to earn a living is the most important because that drives a lot of the other things that are possible. We have a 19.6% poverty rate, which is higher than a few years ago, primarily due to the downturn of the economy." In 2015, the NC Department of Commerce, designated Macon County as one of the 40 most economically distressed counties in the state (Tier 1) based on unemployment rates, median household income, growth in population, and adjusted property tax. Lack of opportunity for all citizens and young folks who might choose to live here that would like to live here but have no economic opportunity.

Macon County has one of the largest senior populations in the state, "we have a high Medicare population compared to the state average and they tend to use more medical services and they tend to use more specialty services. Adequate access for our over 65 group, or for that matter all of those with chronic diseases is a challenge." Transportation to improve access to services is another challenge. "Our transit system is great, but people that aren't on routes can't get to routes and it can be troublesome." "Transportation is a huge issue for working people...we have Macon Transit which I understand they have limited hours, at the same time for a lot of people, you can't find jobs that fit into the time frames that they're available.

Health Priorities

The Macon County community has been working collaboratively with MountainWise of Macon County and WNC Healthy Impact to collect statistical data, to listen to community perspectives and to evaluate ongoing programs and available resources. We have used this information to identify health priorities for our community. We intend for these priorities to create dialog and action focused activities that would lead to positive change among community members and agencies. Macon County's top health priorities (in no particular order) are:

Health Priority 1: Reduce the incidence of preventable chronic diseases related specifically to cardiovascular disease/heart disease to those that reside in the community.
Health Priority 2: Promote the reporting and appropriate resource referrals for domestic violence incidents and reduce the incidence of domestic violence in the community.
Health Priority 3: Promote economic development opportunities that result in healthier lifestyle choices for individuals in the community.

Next Steps

Results of the 2015 MountainWise of Macon County Community Health Assessment will be widely disseminated throughout Macon County. Plans include newspaper and media press releases, web postings and presentations to hospital, health and other concerned boards.

We recognize that each hospital located in Macon County will use the document as a resource to prepare their individual organization's Executive Summary and to plan for future community benefit contributions to their respective service areas. We anticipate these results will also be used for strategic planning purposes for our local hospitals, health department, as well as many other health and human service agencies in the county.

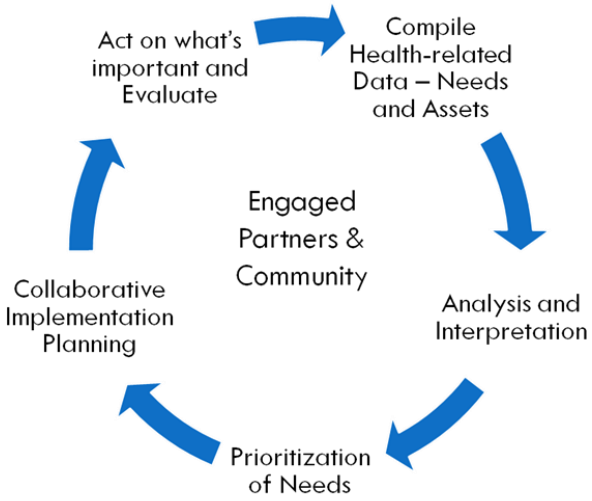
MountainWise of Macon County will use the assessment results to move forward with the development of a comprehensive action plan for each of the top health priorities. Using information generated, MountainWise of Macon County task forces will choose, design and conduct interventions to address the identified priority areas. To prevent duplication and to build existing services, the task forces will identify resources, policies, environmental measures and programs already focused on the identified priority. The task forces will then set intervention objectives and develop an action plan. This action plan will include strategies, a timetable and a work plan for completing the tasks. Task may include recruiting volunteers, publicizing and conduction activities, evaluating activities and informing the community about the results.

CHAPTER 1 – COMMUNITY HEALTH ASSESSMENT PROCESS

Purpose

Community health assessment (CHA) is an important part of improving and promoting the health of county residents. **Community-health assessment is a key step in the ongoing community health improvement process**.

A community health assessment (CHA), which is both a process and a product, investigates and describes the current health indicators and status of the community, what has changed, and what still needs to change to reach a community's desired health-related results.



Definition of Community

Community is defined as "county" for the purposes of the North Carolina Community Health Assessment Process. *[Insert]* county is included in *[insert hospital(s) name's]* community for the purposes of community health improvement, and as such they were key partner in this local level assessment.

WNC Healthy Impact

WNC Healthy Impact is a partnership between hospitals and health departments in Western North Carolina to improve community health. As part of a larger, and continuous, community health improvement process, these partners are collaborating to conduct community health (needs) assessments across Western North Carolina www.WNCHealthyImpact.com. Our county and partner hospitals are involved in this regional/local vision and collaboration. Participating counties include: Buncombe, Cherokee, Clay, Graham, Haywood, Henderson, Jackson, Macon, Madison, McDowell, Mitchell, Polk, Rutherford, Swain, Transylvania and Yancey.

Data Collection

The set of data reviewed for our community health assessment process is comprehensive, though not all of it is presented in this document. Within this community health assessment product we share a general overview of health and influencing factors then focus more on priority health issues identified through this collaborative process. Our assessment also highlights some of our community strengths and resources available to help address our most pressing issues.

Core Dataset Collection

The data reviewed as part of our community's health assessment came from the WNC Healthy Impact regional core set of data and additional local data compiled and reviewed by our local CHA team. WNC Healthy Impact's core regional dataset includes secondary (existing) and

primary (newly collected) data compiled to reflect a comprehensive look at health. The following data set elements and collection are supported by WNC Healthy Impact data consulting team, a survey vendor, and partner data needs and input:

- A comprehensive set of publically available secondary data metrics with our county compared to the sixteen county WNC region as "peer"
- Set of maps accessed from Community Commons and NC Center for Health Statistics
- Telephone survey of a random sample of adults in the county

See Appendix A for details on the regional data collection methodology.

Additional Community-Level Data

In February 2015, Macon County Public Health convened a Community Health Needs Assessment (CHNA) steering committee comprised of various community stakeholders to help guide local data collection efforts. Based on feedback from the CHNA group, it was determined that concerns and issues raised from community leaders and vulnerable populations would be essential to provide context for the research and statistical analysis. In order to hear these diverse community perspectives, the CHNA Committee determined Listening Sessions and Key Informant Interviews were the best method to collect local primary data.

Key Informant Interviews Conducted:	**Listening Sessions Conducted:**
• Shaina Adkins (Executive Director, CareNET) • Andrea Anderson (Executive Director, REACH) • Chris Baldwin (Superintendent, Macon County Schools) • Jim Bross (CEO, Angel Medical Center) • Jim Bruckner (Health Director, Macon County Public Health) • Kevin Corbin (County Commissioner and Business Owner) • Jerry Hermanson (Executive Director, Community Care Clinic Highlands) • Sheila Jenkins (Director, Macon County Senior Services) • Jane Kimsey (Director, Macon County Social Services) • Chuck Sutton (Director, Macon Program for Progress)	• Low Income (Franklin) • Low Income (Highlands) • Latino • Senior Citizens • Those affected with Mental Illness • Caregivers • Youth (Franklin) • Youth (Nantahala)

Health Resources Inventory

An inventory of available resources of our community was conducted through reviewing a subset of existing resources currently listed in the 2-1-1 database for our county as well as working with partners to fill in additional information. Where gaps were identified, we partnered with 2-1-1 to fill in or update this information when applicable. See Chapter 7 for more details related to this process.

Community Input & Engagement

Including input from the community is an important element of the community health assessment process. Our county included community input and engagement in a number of ways:

- Partnership on conducting the health assessment process
- Through primary data collection efforts (survey and key informant interviews)
- In the identification and prioritization of health issues

In addition, community engagement is an ongoing focus for our community and partners as we move forward to the collaborative action planning phase of the community health improvement process. Partners and stakeholders with current efforts or interest related to priority health issues will continue to be engaged. We also plan to work together with our partners to help assure programs and strategies in our community are developed and implemented with community members and partners.

At-Risk & Vulnerable Populations

Throughout our community health assessment process and product, our team was focused on understanding general health status and related factors for the entire population of our county as well as the groups particularly at risk for health disparities or adverse health outcomes. In particular, for the purposes of the overall community health assessment, we aimed to understand variability in health outcomes and access of medically underserved, low-income, minority, and others experiencing health disparities.

CHAPTER 2 – MACON COUNTY

Location and Geography

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 residing across 519 square miles, most of them mountainous and sparsely inhabited.

Macon County is the home of the Nantahala River. The Nantahala is one of the most popular whitewater rafting destinations in the nation.

"People in general tend to be plugged into things like hiking and outdoor activities because of the area."
-Kevin Corbin, Macon County Commissioner

History

Macon County was formed in 1828 from the western part of Haywood County. It was named for Nathaniel Macon, who represented North Carolina in the United States House of Representatives from 1791 to 1915. In 1839 the western part of Macon County became Cherokee County. In 1851 parts of Macon County and Haywood County were combined to form Jackson County. The Macon County seat is Franklin, with a population of around 4,000. Franklin is also the location of Macon County Public health, Angel Medical Center and most of the county's physicians, dentists and other professionals.

Franklin is home to most of Macon County's industry and non-service employment. In the past Macon County boasted prominent manufacturing, but in recent years most of those have closed and/or relocated out of state. A software development business, small manufacturing and a floor finishing business provide most of the county's employment opportunities.

Highlands is the county's second largest community. At 4,118 feet above sea level, Highlands is known for its ability to attract tourists and vacation/secondary home owners. Highlands is home to a small, yet modern, hospital and medical/dental staff.

Population

According to data from the 2010 US Census, the total population of Macon County is 33,922. In Macon County, as region-wide and statewide, there is a slightly higher proportion of females than males. Macon County has a median age several years "older" than the regional mean and the state average median age. This, and the projected growth over the next two decades of the population over the age of 65, fit with the regional characteristic of a significantly large population of senior citizens and the issues that accompany that characteristic.

General Population Characteristics
2010 US Census

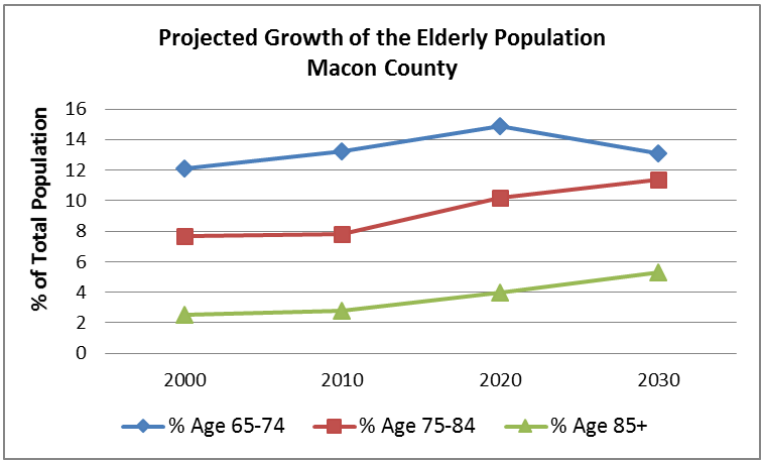
County	Total Population (2010)	% Males	% Females	Median Age*	% Under 5 Years Old	% 5-19 Years Old	% 20 - 64 Years Old	% 65 Years and Older
Macon	33,922	48.6	51.4	47.8	5.2	16.4	54.7	23.8
WNC (Regional) Total	759,727	48.5	51.5	44.7	n/a	n/a	n/a	n/a
State Total	9,535,483	48.7	51.3	37.4	6.6	20.2	60.2	12.9

Macon County has significantly lower proportions of all minority racial groups than the WNC region and NC as a whole. However, the county is home to a higher proportion of ethnic Hispanics or Latinos than the WNC average.

Population Distribution by Race/Ethnicity
2010 US Census

County	Total Population (2010)	White	Black or African American	American Indian, Alaskan Native	Asian	Native Hawaiian, Other Pacific Islander	Some Other Race	Two or More Races	Hispanic or Latino (of any race)
		%	%	%	%	%	%	%	%
Macon	33,922	93.8	1.3	0.5	0.6	0.0	2.7	1.1	6.6
WNC (Regional) Total	759,727	89.3	4.2	1.5	0.7	0.1	2.5	1.8	5.4
State Total	9,535,483	68.5	21.5	1.3	2.2	0.1	4.3	2.2	8.4

The population in each major age group age 65 and older in Macon County is projected to increase between 2010 and 2030. The proportion of the population age 85 and older will approximately double in that period; the population age 75-84 will increase by 46%. By 2030 projections estimate that there will be more than 10,250 persons age 65+ in Macon County.



CHAPTER 3 – A HEALTHY MACON COUNTY

Elements of a Healthy Community

When key informants were asked to describe what elements they felt contributed to a health community in our county, they reported:

- **Chronic Disease:** "Rural counties tend to have a higher incidence of smoking and obesity rates which contribute to heart disease and high blood pressure which are major killers and increase medical costs." A number of respondents mentioned chronic diseases (including diabetes, heart conditions, hypertension, high cholesterol, hyperlipidemia, cancer) as an area of concern for Macon County. The Caregivers Group, Macon Middle School Group, Nantahala School, both Low Income Groups, Senior Citizens, Latino and multiple key informant interviews stated this as a concern.
  "As good as we are about having a handful of small, for profit, proprietary fitness centers, there is at times a gap at low cost or no cost public education on health and wellness. I know the health department does a good bit of that with nutrition, diabetes and other counseling. But when you really think about health and wellness education it's for those that are healthy and are not in a chronic disease situation. I think general education and engaging those partners, like the hospitals and the public health departments, county government etc. and really together creating a countywide agenda on health and wellness, prevention."
- **Improved Communication/Coordination of Existing Resources:** A theme that was consistent throughout Interviews and Listening Session is that while there are multiple services available in the community, citizens aren't always aware of what exists. "It's more than just making resources available, it's educating the public about awareness of resources and how to access them. Also then have to educate providers about resources and how to connect the public to those resources. And then once people are referred to resources, how to navigate them once they're in the system." Every Listening Session and Key Informant interview stated this an area to work on to improve health in Macon County.
- **Economic Development/Quality of Life:** Many respondents mentioned various economic development and quality of life improvements that would make Macon County a healthier place to live. "As a county and a region we need to concentrate on good clean small businesses and diversify our economy." While there is work to be done, Macon County has great assets to attract business and a qualified workforce. "The Greenway was full yesterday. The greenways have been a great benefit for families. You see a lot of people with strollers and bikes, the fun things they can do, the playground." Caregivers, Macon Middle, Low Income, Latino, Senior Citizens and a number of Key Informant Interviews stated this would improve health in Macon County.
- **Substance Abuse/Tobacco Use:** Substance abuse (including tobacco use) was mentioned as an area of concern for Macon County. "I think there's been notably an increase in drug use, especially things like methamphetamines. A lot of meth labs have been busted, a lot of local people have gotten into the drug scene, I think more than in the past, and that increases crime. We've seen a lot of break-ins to second homes and

things of that nature." Prescription drugs were also mentioned. "It's not just the illegal drugs. Still something you can get with a prescription. For whatever reason we have a higher rate in our rural areas and it's gotten worse. When you talk to other counties in the eastern part of the state they're not seeing the same thing as we are as the growth in drug addicted babies." "The NICU at Mission has seen a 400% increase in drug addicted babies in a one year period." These concerns were raised in multiple key informant interviews, both youth groups, and the Mental Health Listening Session.

- **Mental/Behavioral Health:** Mental/behavioral health concerns were a consistent theme throughout the Listening Sessions and the Key Informant Interviews. As one respondent stated, "Every community I've lived in or worked in have had a problem with mental health services. It's endemic." Multiple groups (Mental Health, Latino, Both Low Income and All of the Key Informant Interviews) cited this theme as a priority area to improve health in Macon County.
- **Improved Access to Physician Care (Including Primary & Specialty Care):** A number of groups including the Low Income Groups, the Latino, Senior Citizens, Mental Health, Youth Group and Key Informant Interviews cited Improved Access to Physician Care as a concern for the county. "That just continues to be the big challenge in terms of access, not having enough providers, not having enough Primary Care. I think we have enough of almost everything else. But there are some sub-specialty services we're still recruiting for, but when it really comes down to the most acute need, we do lack the number of primary care physicians and providers we need in this community."

During our collaborative action planning efforts and next steps, we will further explore these concepts and the results our community has in mind.

Community Assets

We also asked key informants to share some of the assets or "gems" they thought were important in our community. They shared the following information and ideas:
The community has a strong sense of pride and loyalty. Organizations and community members alike are truly invested in the wellbeing of the community and cite strong partnerships between agencies and the community. "When organizations come up with a need, they (the community) responds. Our Cold for a Cause event was huge back in January; we raised over 17,000 pounds of food and 25-30,000 coats. Organizations really get behind supporting each other and that is something to be really proud of." "Macon County is well connected, well intentioned, and active...typically you can find a lot of support, volunteering, showing up for things." "The small town attitude is that we work together for the benefit of our citizens...Churches provide breakfasts and meals and school supplies to the schools in their communities. That's ongoing throughout the school year and that's from other community organizations as well."
In addition to strong partnerships and a commitment to taking care of the community, Macon County has a lot to offer in terms of quality of life. "We have great opportunities for exercising. We have great trails." The Economic Development Main Street Program is also doing a lot to provide more entertainment and dining opportunities and more initiatives to support small businesses in downtown Franklin.

CHAPTER 4 – SOCIAL & ECONOMIC FACTORS

Income

All people in a housing unit sharing living arrangements can be referred to as a "Household." Those living in a household may or may not be related. A "Family" is a householder and people living in household related by birth, marriage or adoption. Keep in mind that all families are also households, but not all households are families. In Macon County, the 2009-2013 Median Household Income was $37,892. That amount is down $723 since 2006-2010, 4995 below the Western North Carolina average and $8,442 below the North Carolina average. During the 2009-2013 time period the Median Family income was $45,633, down $1,069 since 2006-2009. Income provides economic resources that shape choices about housing, education, child care, food, medical care, and more. Wealth, the accumulation of savings and assets, helps cushion and protect us in times of economic distress. As income and wealth increase or decrease, so does health.

Employment

As of 2013, the three employment sectors in Macon County with the largest proportions of workers were the Retail Trade, Health Care and Social Assistance and Accommodation and Food Service. Employment provides income and, often, benefits that can support healthy lifestyle choices. Unemployment and under employment limit these choices, and negatively affect both quality of life and health overall. The economic condition of a community and an individual's level of educational attainment both play important roles in shaping employment opportunities. During the time period, Macon County's Retail Trade provided 16.94% to the workforce ($459 average weekly wage per employee). Health Care and Social Assistance provided 15.39% ($673 average weekly wage per employee) and Accommodation and Food Service 12.10% ($322 average weekly wage per employee). Note the gap in average weekly wages between the Health Care and Social Assistance sector and the Retail Trade and Accommodation and Food Service sectors. Note also that persons working in the Retail Trade and Accommodation and Food Service sectors tend to lack employment benefits such as health insurance and retirement programs; many in this sector work part-time, sometimes at multiple jobs. This is a sector whose relative poverty leaves them vulnerable to emotional stress and poor health outcomes. The region-wide largest employment sector was Health Care and Social Assistance (18.37%) at an average weekly wage of $655 per employee. Statewide the largest employment sector also was Health Care and Social Assistance (14.48%) at an average weekly wage of $859.

Education

Compared to the WNC Region Average, Macon County has two (2) percent lower percentage of persons in the population over age 25 having a high school diploma or equivalent (2009-2013 estimate); three (3) percent lower percentage of person in the population over age 25 having a Bachelor's degree or higher (2009-2013 estimate); five (5) percent higher overall High School graduation rate (for 4-year cohort of 9th graders entering school SY 2010-2011 and graduation in SY 2013-2014 or earlier). Better educated individuals live longer, healthier lives than those

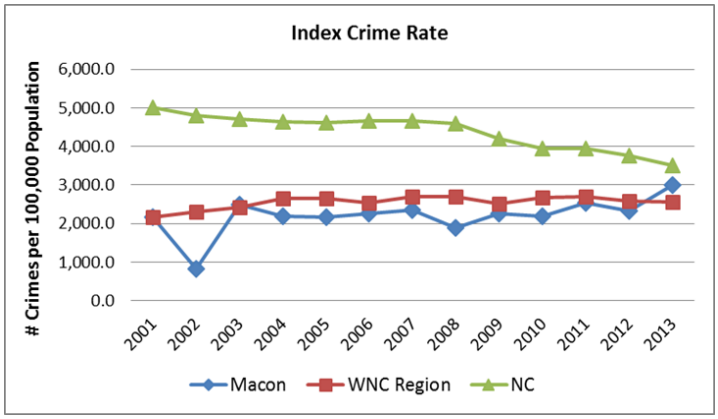
with less education, and their children are more likely to thrive. This is true even when factors like income are taken into account.

Community Safety

Injuries through accidents or violence are the third leading cause of death in the United States, and the leading cause for those between the ages of one and 44 [1]. Accidents and violence affect health and quality of life in the short and long-term, for those directly and indirectly affected.

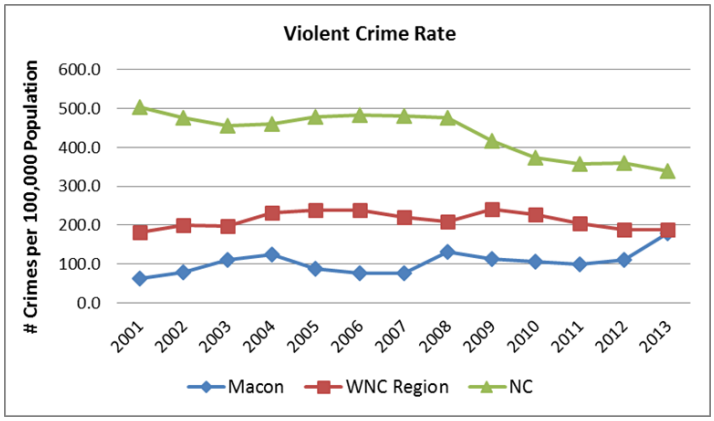
Index crime is the sum of all violent crime and property crime. The index crime in Macon County was lowest among comparators throughout most of the period cited, but in the latest period exceeded the regional rate.

Index Crime Rate Trend



Violent crime includes murder, forcible rape, robbery, and aggravated assault. The violent crime rate in Macon County was lowest among comparators except for the most recent period, when the county rate matched the average WNC rate.

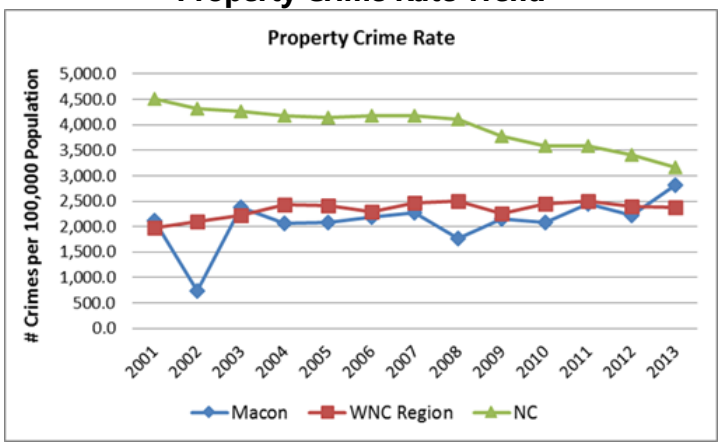
Violent Crime Rate Trend



Property crime includes burglary, arson, and motor vehicle theft. The property crime rate in Macon County was consistently lower than the comparable NC average but quite variable

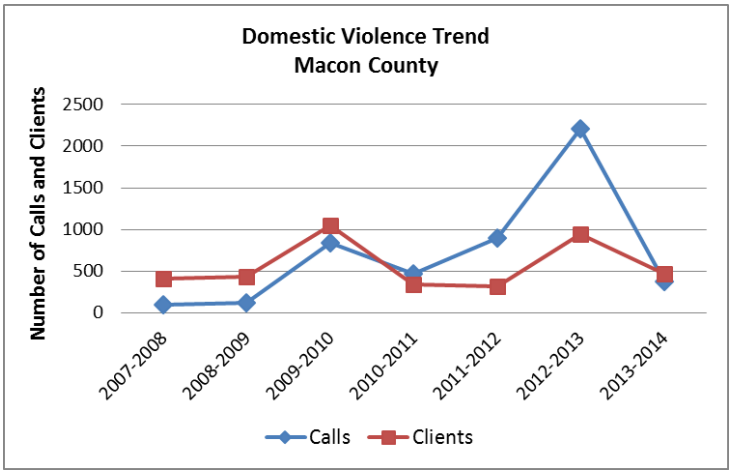
compared to the WNC average. In the most recent period, the local rate surpassed the regional rate.

Property Crime Rate Trend



In FY 2013-2014, 94 persons in Macon County were identified as victims of sexual assault. The single most frequently reported specific type of sexual assault in Macon County during the period was child sexual offense (21%). Regionally, the most frequently reported type was adult survivor of child sexual assault (23%); statewide the most frequently reported type was child sexual offense (26%). State-wide and region-wide the most commonly reported offender was a relative. In Macon County the most common offender was a boy- or girl-friend.
The number of calls in Macon County dealing with domestic violence increased from a low of 95 in 2007-2008 to a high of 2,209 in 2012-2013. The number of clients who were victims of domestic violence peaked at 1.052 in 2009-2010.

Domestic Violence



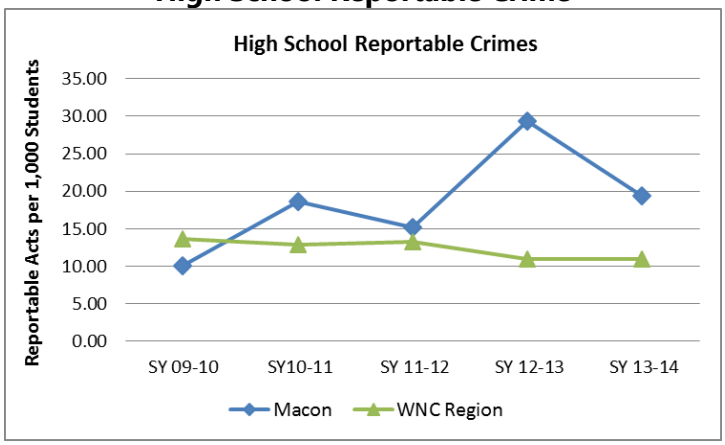
Substantiated reports of child abuse in Macon County varied greatly between 2006 and 2010, but average approximately 40 per year. Between 2006 and 2012 there were no child abuse homicides in the county.

Substantiated Child Abuse Reports and Child Abuse Homicides

County	Reports Substantiated**					Child Abuse Homicides***						
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010	2011	2012
Macon	29	52	46	50	24	0	0	0	0	0	0	0
WNC (Regional) Total	2,273	1,958	1,754	1,449	1,512	4	1	2	1	0	4	2
State Total	20,340	14,966	12,429	11,252	11,300	34	25	33	17	19	24	28

While the regional high school crime rate appeared relatively stable over the period cited, the rate of reportable crimes in Macon County Schools was erratic, due likely to relatively small numbers of events.

High School Reportable Crime

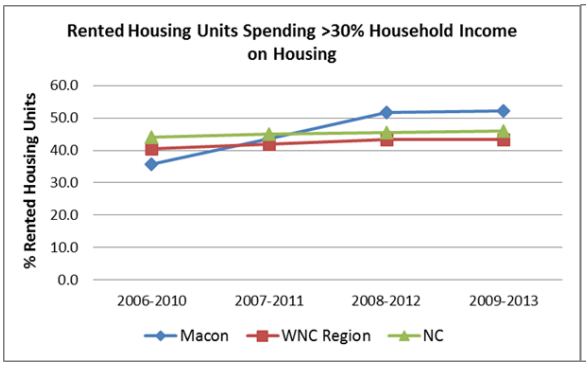


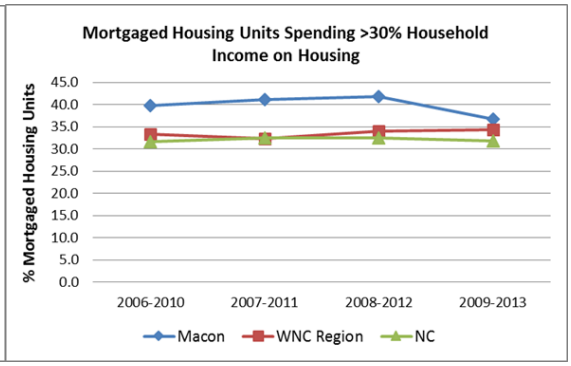
It is apparent that the recent increase in index crime in the county is composed of increases in both violent crime and property crime. Note that the period of increase in crime corresponds to the onset and ongoing nature of the economic recession. It is not unusual to see a spike in crime in times of economic stress and uncertainty.

Housing

One measure of economic burden in a community is the percent of housing units spending more than 30% of household income on housing. The housing options and transit systems that shape our communities' built environment affect where we live and how we get from place to place. The choices we make about housing and transportation, and the opportunities underlying these choices, also affect our health.

In Macon County in at least 2008-2012 and 2009-2013, larger proportions of both renters and mortgage holders spent greater than 30% of household income on housing than the Western North Carolina or North Carolina average. The proportion of Macon County renters spending above the 30% threshold increased 46% between 2006-2009 and 2009-2013.





Family & Social Support

People with greater social support, less isolation, and greater interpersonal trust live longer and healthier lives than those who are socially isolated. Neighborhoods richer in social capital provide residents with greater access to support and resources than those with less social capital.

The proportion of Macon County categorized as "rural" decreased by one (1) percent between 2000 and 2010. Still, a higher proportion of Macon County is "rural" than is Western North Carolina or North Carolina as a whole.

Urban/Rural Population

County	2000 Census		2010 Census	
	% Urban	% Rural	% Urban	% Rural
Macon County	18.8	81.2	20.0	80.0
WNC Region	41.6	58.4	46.8	53.2
NC	46.7	53.3	66.1	33.9

CHAPTER 5 – HEALTH DATA FINDINGS SUMMARY

Mortality

People in Macon County have lower mortality than the population statewide for eight of the thirteen leading causes of death for which there are stable county rates. Exceptions include CLRD, unintentional non-motor vehicle injuries, Alzheimer's disease, suicide and liver disease.

Leading Causes of Death

Age-Adjusted Rates (2009-2013)	Macon No. of Deaths	Macon Mortality Rate	Rate Difference from NC
1. Diseases of the Heart	483	167.6	-1.4%
2. Cancer	463	162.8	-6.1%
3. Chronic Lower Respiratory Disease	154	49.8	+8.0%
4. All Other Unintentional Injuries	88	41.8	+42.7%
5. Cerebrovascular Disease	114	38.6	-11.7%
6. Alzheimer's Disease	90	29.4	+1.7%
7. Suicide	34	20.0	+63.9%
8. Diabetes Mellitus	56	18.8	-13.4%
9. Chronic Liver Disease and Cirrhosis	36	16.6	+74.7%
10. Pneumonia and Influenza	42	15.6	-12.8%
11. Nephritis, Nephrotic Syndrome, Nephrosis	42	13.7	-22.2%
12. Unintentional Motor Vehicle Injuries	22	12.6	-8.0%
13. Septicemia	21	8.4	-39.1%
14. Homicide	5	2.8	-51.7%
15. AIDS	1	0.6	-79.3%

For persons born in 2011-2013, life expectancy among comparator jurisdictions is longest overall and among women, white persons, and African Americans in the state as a whole. Life expectancy for men is the same in Macon County and NC as a whole.

Life Expectancy at Birth for Persons Born in in 2011-2013

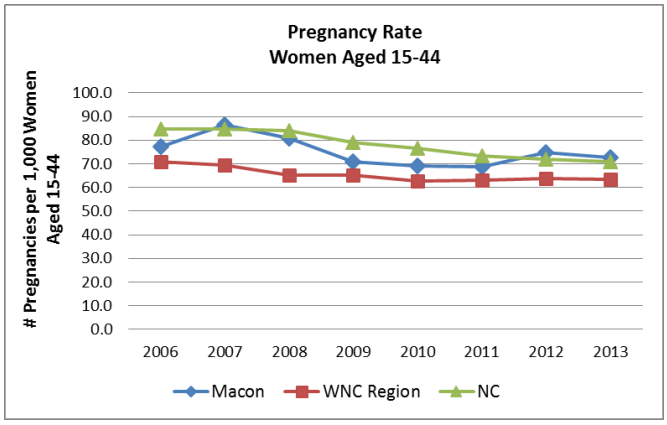
County	Overall	Sex		Race	
		Male	Female	White	African-American
Macon	78.0	75.7	80.3	77.8	n/a
WNC (Regional) Arithmetic Mean	77.7	75.3	80.2	77.9	75.2
State Total	78.2	75.7	80.6	78.8	75.9

Stable, racially and ethnically stratified mortality rates for Macon County are not available.

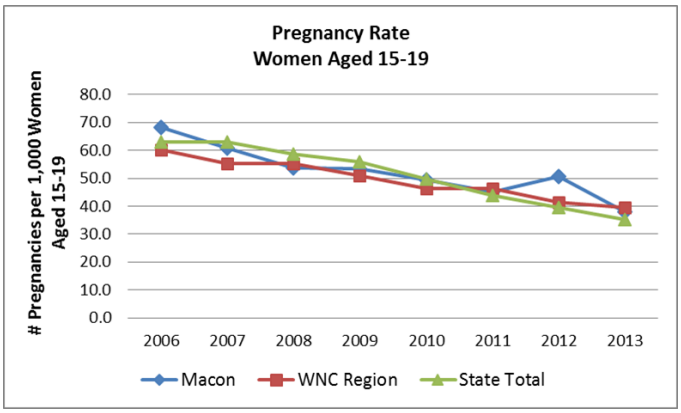
Health Status & Behaviors

According to *America's Health Rankings (2013)*, North Carolina ranked 35th overall out of 50 (where one (1) is the "best"). According to *County Health Rankings (2014)* for North Carolina, Macon County ranked 19th overall among the 100 North Carolina counties (where one (1) is the "best"). Macon County ranked 20th in length of life and 13th for quality of life. Macon County

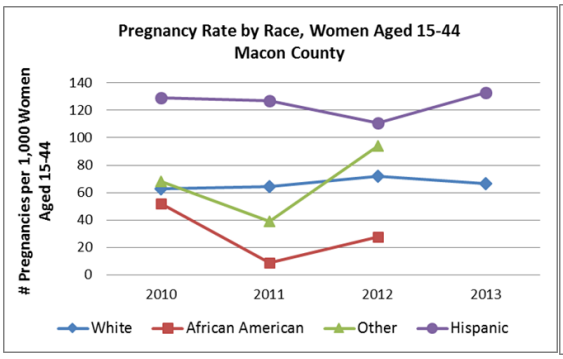
health factor rankings out of 100 (where one (1) is the "best") is 8th for health behaviors, 51st for clinical care, 60th for social and economic factors and 73rd for physical environment.
The total pregnancy rates in Western North Carolina and North Carolina have fallen overall since 2007, but appear to have stabilized recently. The total pregnancy rate in Macon County was more variable, first falling and then rising briefly before falling again.

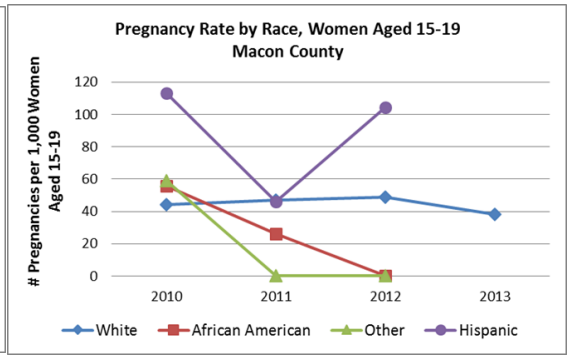


The teen pregnancy rates in Macon County, Western North Carolina and North Carolina have fallen significantly since 2007, and appear to be falling still in all three jurisdictions, despite a brief increase in Macon County in 2012.



Among Macon County women age 15-44 the highest pregnancy rates appear to occur among Hispanics. Among teens age 15-19, the highest pregnancy rates in the county appear to occur most frequently among Hispanics, and the next most frequently among whites. Note that racially stratified rates among both age groups were unstable over the period cited.





The percentage of Macon County women who smoked during pregnancy increased significantly overall between 2008 and 2013, while comparable percentages for the region and state did not change significantly over the same period. Among comparators, Macon County had the highest percentage of pregnant women who smoked in 2011, 2012 and 2013.

County	Percent of Births to Mothers Who Smoked While Pregnant					
	2008	2009	2010	2011	2012	2013
Macon County	15.7	15.5	n/a	**21.5**	**19.7**	**20.1**
WNC Region	**20.3**	**19.1**	n/a	20.1	19.2	19.4
State of NC	10.4	11.0	n/a	10.9	10.6	10.3

The percentage of those in all three jurisdictions who received early prenatal care decreased significantly after 2010. Macon County had higher percentages of early prenatal care than its comparators in every period cited except 2011.

County	Percent of Pregnancies Receiving Prenatal Care in 1st Trimester					
	2008	2009	2010	2011	2012	2013
Macon County	**85.1**	**86.8**	n/a	74.6	**76.6**	**78.8**
WNC Region	84.5	84.0	n/a	**75.6**	76.5	75.5
State of NC	82.0	83.3	n/a	71.2	71.3	70.3

The number of pregnancies per 1,000 Macon County women in the 15-44 age group that ended in abortion fell overall from 5.8 in 2006 to 4.0 in 2013. The number of pregnancies per 1,000 Macon County women in the 15-19 (teens) age group that ended in abortion was below threshold from 2006 through 2013, so all related abortion rates were unstable or suppressed.

Macon County mortality rates have decreased over time for two of four major site-specific cancers: prostate cancer and colorectal cancer; mortality rates for lung cancer and breast cancer increased. Incidence rates have increased for lung cancer and breast cancer. One of these site-specific cancers – breast cancer – is a subject for periodic community screening efforts. Increased surveillance efforts may have contributed to the increase in incidence. Lung cancer, on the other hand, is not a cancer usually subject to routine screening. While there are many possible "contributors" to increased lung cancer incidence in Macon County, including smoking,

air pollution, and radon, it is not possible for the CHA process to establish any cause and effect relationships.

Site-Specific Cancer Trends
Macon County
Incidence: 1999-2003 to 2008-2012
Mortality: 2002-2006 to 2009-2013

Cancer Site	Parameter	Overall Trend Direction
Lung Cancer	Incidence Mortality	▲ ▲
Prostate Cancer	Incidence Mortality	n/c ▼
Breast Cancer	Incidence Mortality	▲ ▲
Colorectal Cancer	Incidence Mortality	▼ ▼

According to data, people in Macon County have lower mortality than the population statewide for eight of the thirteen leading causes of death for which there are stable county rates. Exceptions include CLRD, unintentional non-motor vehicle injuries, Alzheimer's disease, suicide and liver disease.

Leading Causes of Death: Overall

Age-Adjusted Rates (2009-2013)	Macon No. of Deaths	Macon Mortality Rate	Rate Difference from NC
1. Diseases of the Heart	483	167.6	-1.4%
2. Cancer	463	162.8	-6.1%
3. Chronic Lower Respiratory Disease	154	49.8	+8.0%
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13. Septicemia	21	8.4	-39.1%
14. Homicide	5	2.8	-51.7%
15. AIDS	1	0.6	-79.3%

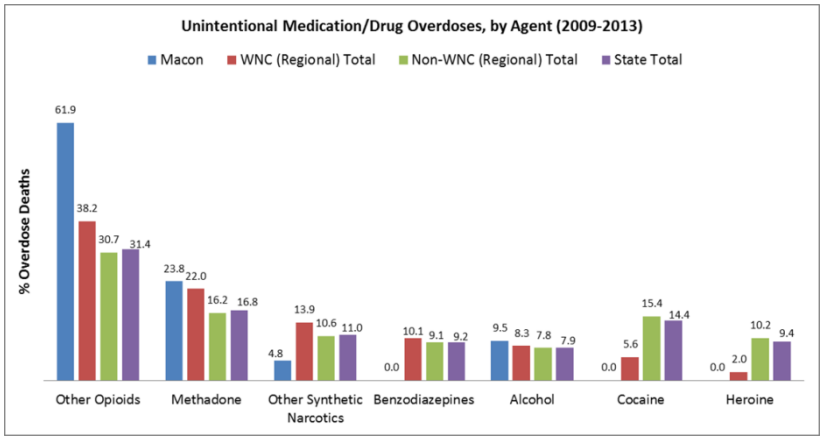
From 2001 through 2013, 22 Macon County residents died as a result of an unintentional fall. Of the 22 fall-related death, 17 (77%) occurred in the population 65 and older. Of the 22 fall-related death, 9 (21%) occurred in the population 85 and older.

In the period 2009-2013, 26 Macon County residents died as a result of unintentional poisoning, with a corresponding age-adjusted mortality rate of 11.6 deaths per 100,000 population, lower than the Western North Carolina rate but higher than the North Carolina rate. Of the 26

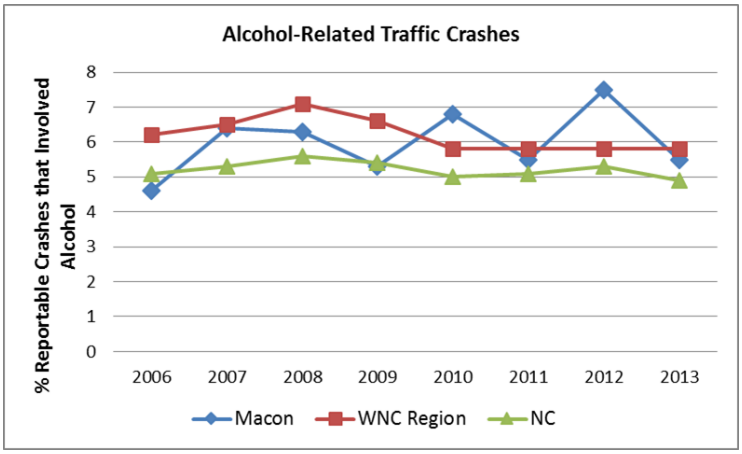
unintentional poisoning deaths in the county in that period, 21 (81%) were due to medication or drug overdoses, with a corresponding mortality rate of 9.4, lower than the average North Carolina rate and significantly lower than the Western North Carolina rate.

County	Unintentional Poisoning Deaths for Select Locations and Percent that are Medication/Drug Overdoses (2009-2013)*			Rate of Unintentional Medication/Drug Overdose Deaths (2009-2013)**	
	#	Rate per 100,000 NC Residents	% that are Medication/Drug Overdoses	#	Rate per 100,000 NC Residents
Macon	26	11.6	80.8	21	9.4
WNC (Regional) Total	560	14.8	90.0	506	13.3
Non-WNC (Regional) Total	4,749	10.7	91.0	4320	9.7
State Total	5,309	11.0	90.9	4826	10.0

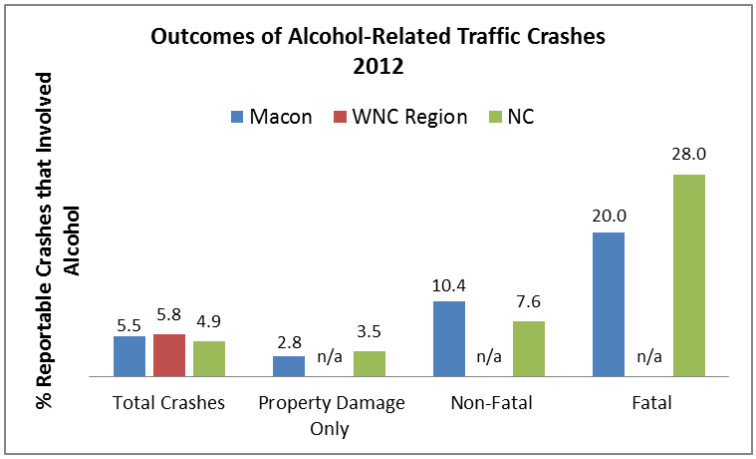
Methadone is a synthetic opioid usually associated with treatment for drug abuse. "Other opioids" could include: hydrocodone (e.g., Vicodin), oxycodone (e.g., OxyContin, Percocet), morphine (e.g., Kadian, Avinza), codeine, and related drugs. Benzodiazepines could include anti-anxiety medications, sleeping pills, anti-seizure drugs, muscle relaxers (e.g., Xanax, Klonopin, Valium, Rohypnol, Ativan, among many others). Other synthetic narcotics could include: bath salts, synthetic marijuana, incense, air fresheners, things known as "designer drugs". "Other Opiods" caused the highest proportion of drug overdose deaths (61.9%) in Macon County in the period 2009-2013.



Over the period 2006 through 2013, an annual average of 6.0% of all traffic crashes in Macon County were alcohol-related. The highest average proportion among comparator jurisdictions (6.2%) occurred in the Western North Carolina region.



In 2012, 20.0% of all fatal traffic crashes in Macon County were alcohol-related.



Between 2006 and 2013, the number of Macon County residents served by the Area Mental Health Program decreased overall from 1,626 to 1,206 (down 26%). Over the same 8-year period the number of Macon County residents served in State Psychiatric Hospitals decreased from 33 to 4 (down 88%); a total of 202 Macon County residents were served in the NC State Alcohol and Drug Abuse Treatment Centers (ADATCs), with the number varying considerably but averaging 25 persons annually.

Clinical Care & Access

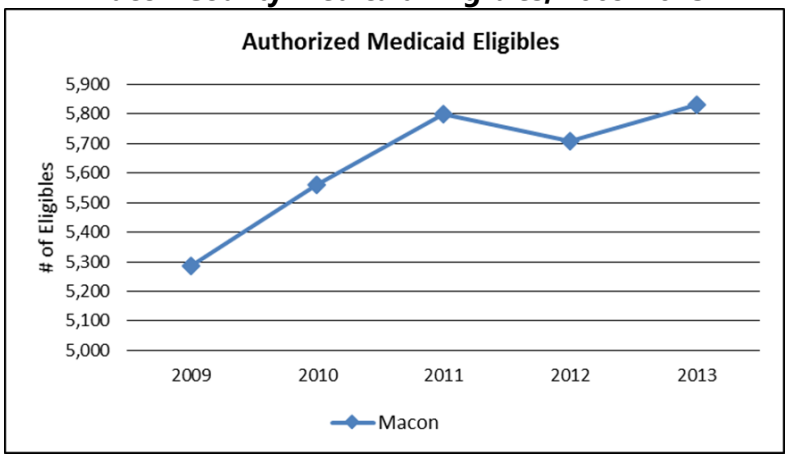
The percent uninsured adults age 18-64 in Western North Carolina and North Carolina increased between 2009 and 2010, but has decreased since. In Macon County the percent uninsured in 2013 was 20% higher than in 2009. Macon County had the highest percent uninsured among comparators in both age groups in every year cited. The age group 0-18 has a significantly lower percentage of uninsured than the adult age group, due at least partly to their inclusion in NC Health Choice.

Percent of Population Without Health Insurance, by Age Group

County	2009		2010		2011		2012		2013	
	0-18	18-64	0-18	18-64	0-18	18-64	0-18	18-64	0-18	18-64
Macon County	**10.3**	**25.2**	**12.3**	**29.1**	**11.0**	**28.8**	**10.9**	**30.7**	**11.1**	**30.2**
WNC Region	9.9	24.2	9.7	26.0	9.1	25.2	9.3	25.4	8.6	25.0
State of NC	8.7	21.9	8.3	23.5	7.9	23.0	7.9	23.4	6.9	22.5

The Total number of people in Macon County eligible for Medicaid increased steadily between 2009 and 2011 before decreasing briefly and rising again by 2013.

Macon County Medicaid-Eligibles, 2009-2013



In 2012 Macon County had the highest ratio of active primary care physicians and pharmacists among the comparators. The ratio of active registered nurses in Macon County was the lowest among the comparators. The Western North Carolina region had the lowest ratio among all comparators in all provider categories except registered nurses.

Number of Active Health Professionals per 10,000 Population

County	2012				
	Physicians	Primary Care Physicians	Dentists	Registered Nurses	Pharmacists
Macon	20.30	**8.53**	4.41	66.21	**12.74**
WNC (Regional) Arithmetic Mean	14.29	6.84	3.61	76.94	7.97
State Ratio	22.31	7.58	4.51	**99.56**	10.06
National Ratio (date)	**23.0** (2011)	8.1 (2011)	**5.3** (2012)	91.6 (2012)	9.1 (2012)

At Risk Populations

Stable, racially and ethnically stratified mortality rates for Macon County were not available.

CHAPTER 6 – PHYSICAL ENVIRONMENT

Air & Water Quality

Clean air and safe water are prerequisites for health. Poor air or water quality can be particularly detrimental to vulnerable populations such as the very young, the elderly, and those with chronic health conditions.

In 2014, the Air Quality Index (AQI) summary shows that Macon County has 233 days with "good" air quality and 10 days with "moderate" air quality. Ozone was present at the level of "pollutant" on all 243 monitored days. Scientific evidence indicates that ground-level ozone not only affects people with impaired respiratory systems (such as asthmatics), but healthy adults and children as well. Exposure to ozone for 6 to 7 hours, even at relatively low concentrations, significantly reduces lung function and induces respiratory inflammation in normal, healthy people during periods of moderate exercise. It can be accompanied by symptoms such as chest pain, coughing, nausea, and pulmonary congestion. Recent studies provide evidence of an association between elevated ozone levels and increases in hospital admissions for respiratory problems in several U.S. cities (EPA).

Macon County ranked 71st among the 86 NC counties reporting TRI releases in 2013. TRI releases of 1,633 pounds were reported for Macon County in 2013. One manufacturing facility in the county was responsible for all of the TRI chemical/chemical compounds released in Macon County in 2013. The TRI chemicals released by Caterpillar Precision Seals in 2013 were chromium and nickel. For comparison, New Hanover county had the highest level or releases in the state with 5.2 million pounds.

Western North Carolina has the highest radon levels in the state. The arithmetic mean indoor radon level for the 16 counties of the Western North Carolina regions is 4.1 pCi/L, 3.2 times the average national indoor radon level of 1.3 pCi/L. In Macon County, the current average indoor radon level is 2.3 pCi/L, 44% lower than the regional mean, but 1.6 times the average national level. Radon is the number one cause of lung cancer among non-smokers, according to EPA estimates. Overall, radon is the second leading cause of lung cancer. People who smoke have an even higher risk of lung cancer from radon exposure than people who don't smoke.

Radon is not produced as a commercial product. Radon is a naturally occurring radioactive gas and comes from the natural breakdown (radioactive decay) of uranium. It is usually found in igneous rock and soil, but in some cases, well water may also be a source of radon. The primary routes of potential human exposure to radon are inhalation and ingestion. Radon in the ground, groundwater, or building materials enters working and living spaces and disintegrates into its decay products. Although high concentrations of radon in groundwater may contribute to radon exposure through ingestion, the inhalation of radon released from water is usually more important.

As of 2014, Macon County community water systems included municipalities, subdivisions and mobile home parks. Community water systems in Macon County serve an estimated 20, 361 people, or 60% of the 2010 county population. The fraction of the Macon County population served by a community water system is 9% higher than the average for the Western North Carolina region and North Carolina as a whole. It is assumed that populations not connected to a community water system likely get their drinking water from a well, directly from a body of surface water, or use bottled water.

There are present (2015) 14 permits issued in Macon County that allow municipal, domestic or commercial facilities to discharge products of water/wastewater treatment and manufacturing into waterways. Of those 14 permits: two (2) are large, municipal wastewater treatment facilities, one (1) is a water treatment plant and eleven (11) are domestic wastewater producers.

Access to Healthy Food & Places

According to the US Department of Agriculture (USDA) Economic Research Service's Your Food Environment Atlas, there were a total of 49 farmers' markets in the 16 Western North Carolina counties in 2009. This number was reported to have grown by 5, to a total of 54, in 2011, an increase of 10%. According to this source, in Macon County there were two farmers' markets in both 2009 and 2011.

According to the same source, there were a total of 158 grocery stores in the 16 Western North Carolina counties in 2007. This number was reported to have shrunken by 4, to a total of 154, in 2009, a decrease of 2%. In Macon County the number of grocery stores rose from seven to eight over the same period.

There are a total of 81 recreation and fitness facilities in the 16 Western North Carolina counties in 2007. This number was reported to have dropped by 26, to a total of 55, in 2009, a decrease of 32%. In Macon County the number of recreational and fitness facilities fell from five in 2007 to two in 2009.

CHAPTER 7- HEALTH RESOURCES

Health Resources

Process

During the Community Health Assessment process our MountainWise of Macon County group reviewed 2-1-1 datasets that were provided by WNC Healthy Impact. The CHA team reviewed the information and reported back gaps and updates to 2-1-1 so that the community tool continues to serve as the updated resource list accessible via phone and web 24/7.

Findings

Macon County is a participating member of the NC 2-1-1 system. By dialing 2-1-1 (or 888-892-1162) Macon County residents may be connected to a trained staff person who can link them with community health and human services resources. In addition, local residents may visit www.NC211.org to obtain access to a searchable point-in-time summary list of the resources available in their community. The list for Macon County may be reached directly by searching and clicking the link on www.NC211.org. In addition, a list of the Macon County Referral Resources may be found on the Macon County website at www.maconnc.org.

CHAPTER 8 – IDENTIFICATION OF HEALTH PRIORITIES

Health Issue Identification

Process

To identify the significant health issues in our community, our key partners reviewed data and discussed the facts and circumstances of our community. We used the following criteria to identify significant health issues:

- County data deviates notably from the region, state or benchmark
- Significant disparities exist
- Data reflects a concerning trend related to burden, scope or severity
- Surfaced as a priority community concern

Identified Issues

The following health issues were surfaced through the above process:

- ***Chronic Disease***: This included heart disease, diabetes, cerebrovascular disease (i.e. stroke), cancer and chronic lower respiratory disease.

- ***Obesity***: This included obesity rates of children ages 0-5, 6-12 & 13-18; as well as, ages 19 & up.

- ***Teen pregnancy***: Those teens that became pregnancy while under the age of 19 in the county.

- ***Substance Abuse***: This included those considered to display "enabling" drug use behaviors and drug use prevention efforts.

- ***Intimate Partner Violence***: This included sexual assault and domestic violence.

- ***Tobacco***: This included tobacco use during pregnancy and tobacco policies (tobacco-free places).

- ***Social Determinants of Health***: This included economic development and affordable housing.

- ***Access to Care***: This concern was centered on access to Health Care Professionals.

- ***Mental Health***: This included access to mental health services and recognizing and responding to suicide risk.

- ***Cross-Cutting Issues***: This concern was centered on communication of resources (i.e. "how" and "where" to get help).

Priority Health Issue Identification

Process

MountainWise of Macon County opted to use methods and process tools developed by WNC Healthy Impact, Prioritization Workgroup. The methods and process tools were both adapted from *Rating/Ranking Key Health Issues (Health Resources in Action)* and the *Hanlon Method for Prioritizing Health Problems (NACCHO)*.

During our group process, the following criteria were used to select priority health issues of focus for our community over the next three years:

- Relevant – *"How important is this issue?"*
    - *Size of the problem*
    - *Severity of the problem (cost to treat, lives lost, etc.)*
    - *Urgency to solve problem; community concern*
    - *Focus on equity*
    - *Linked to other important issues*
- Impactful – *"What will we get out of addressing this issue?"*
    - *Availability of solutions/proven strategies*
    - *Builds on or enhances current work*
    - *Significant consequences of not addressing issue now*
- Feasible – *"Can we adequately address this issue?"*
    - *Availability of resources (staff, community partners, time, money equipment) to address the issue*
    - *Political capacity/will*
    - *Community/social acceptability*
    - *Appropriate socio-culturally*
    - *Ethical*
    - *Can identify easy, short-term wins*

Identified Priorities

The following priority health issues are the final community-wide priorities for our county that were selected through the process described above:

- Cardiovascular disease, also referred to as heart disease, was selected due to being the leading cause of mortality in Macon County. MountainWise of Macon County will work to reduce the incidence of preventable chronic diseases related specifically to heart disease to those that reside in the community.

- Domestic Violence was selected due to the increase in reported cases of domestic violence and sexual assault in the county. Promote the reporting and appropriate resource referrals for domestic violence incidents and reduce the incidence of domestic violence in the community.

- Economic Development was selected due to the increased concern and data related to community safety, education, employment, family & social support and income. Promote economic development opportunities that result in healthier lifestyle choices for individuals in the community.

PRIORITY ISSUE #1

Heart disease has not been a stand-alone specific priority in prior Community Health Assessments in Macon County. Heart Disease presented as the leading cause of overall death in Macon County for the 2009-2013 time period and thus was selected as a priority area.

Data Highlights

According to data, people in Macon County have lower mortality than the population statewide for eight of the thirteen leading causes of death for which there are stable county rates. Exceptions include CLRD, unintentional non-motor vehicle injuries, Alzheimer's disease, suicide and liver disease.

Leading Causes of Death: Overall

Age-Adjusted Rates (2009-2013)	Macon No. of Deaths	Macon Mortality Rate	Rate Difference from NC
1. Diseases of the Heart	483	167.6	-1.4%
2. Cancer	463	162.8	-6.1%
3. Chronic Lower Respiratory Disease	154	49.8	+8.0%
4. All Other Unintentional Injuries	88	41.8	+42.7%
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6. Alzheimer's Disease	90	29.4	+1.7%
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14. Homicide	5	2.8	-51.7%
15. AIDS	1	0.6	-79.3%

While it was an improvement for there to be a -1.45% rate difference from North Carolina, Macon County's overall number of deaths associated with diseases of the heart were 483 (mortality rate of 167.6), making it the number one over all leading cause of death.

Health Indicators

Leading Causes of Death: Gender Comparison

Macon County Rank by Descending Overall Age-Adjusted Rate (2009-2013)	Rate Among Males	Rate Among Females	% Male Rate Difference from Females
1. Diseases of the Heart	221.6	120.7	+83.6%
2. Cancer	198.0	133.4	+48.4%
3. Chronic Lower Respiratory Disease	61.0	41.4	+47.3%
4. All Other Unintentional Injuries	56.8	29.5	+92.5%
5. Cerebrovascular Disease	47.0	32.5	+44.6%
6. Alzheimer's Disease	18.7	35.6	-47.5%
7. Suicide	27.7	n/a	n/a
8. Diabetes Mellitus	21.9	17.0	+28.8%
9. Chronic Liver Disease and Cirrhosis	22.1	n/a	n/a
10. Pneumonia and Influenza	n/a	14.9	n/a
11. Nephritis, Nephrotic Syndrome, Nephrosis	21.3	n/a	n/a
12. Unintentional Motor Vehicle Injuries	n/a	n/a	n/a
13. Septicemia	n/a	n/a	n/a
14. Homicide	n/a	n/a	n/a
15. AIDS	n/a	n/a	n/a

According to the data obtained from the *NC State Center for Health Statistics,* it is important to note how poorly males in Macon County fare compared to females in terms of mortality due to six of the seven leading causes of death for which there were stable mortality rates for both males and females; the number one leading cause being heart disease. This is not a new observation, and neither is it unique to WNC; it is a long-standing and wide-spread problem that remains unsolved.

It is also worth noting that heart disease is one of the three leading cause of death by age for the groups 40-64, 65-84 and 85+.

Understanding the Issue

Macon County has a median age several years "older" than the regional mean and the state average median age. This, and the projected growth over the next two decades of the population over the age of 65, fit with the regional characteristic of a significantly large population of senior citizens and the issues that accompany that characteristic. Most cardiovascular disease affects older adults. In the United States 11% of people between 20 and 40 have cardiovascular disease, while 37% between 40 and 60, 71% of people between 60 and 80, and 85% of people over 80 have cardiovascular disease.

General Population Characteristics
2010 US Census

County	Total Population (2010)	% Males	% Females	Median Age*	% Under 5 Years Old	% 5-19 Years Old	% 20 - 64 Years Old	% 65 Years and Older
Macon	33,922	48.6	51.4	47.8	5.2	16.4	54.7	23.8
WNC (Regional) Total	759,727	48.5	51.5	44.7	n/a	n/a	n/a	n/a
State Total	9,535,483	48.7	51.3	37.4	6.6	20.2	60.2	12.9

It is estimated that 90% of cardiovascular disease is preventable. Prevention of atherosclerosis is by decreasing risk factors through: healthy eating, exercise, avoidance of tobacco smoke and limiting alcohol intake. Treating high blood pressure and diabetes is also beneficial.

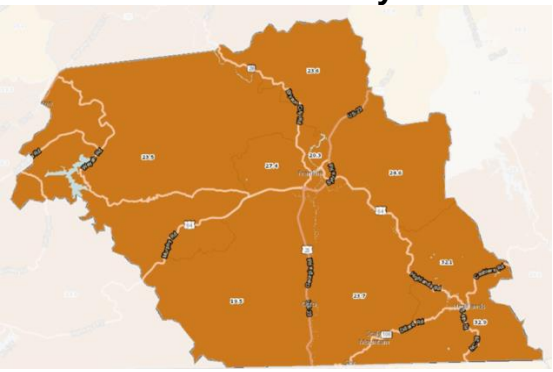
Specific Populations At-Risk

Age is by far the most important risk factor in developing cardiovascular or heart diseases, with approximately a tripling of risk with each decade of life. Coronary fatty streaks can begin to form in adolescence. It is estimated that 82 percent of people who die of coronary heart disease are 65 and older. At the same time, the risk of stroke doubles every decade after age 55.

Multiple explanations have been proposed to explain why age increases the risk of cardiovascular/heart diseases. One of them is related to serum cholesterol level. In most populations, the serum total cholesterol level increases as age increases. In men, this increase levels off around age 45 to 50 years. In women, the increase continues sharply until age 60 to 65 years.

Aging is also associated with changes in the mechanical and structural properties of the vascular wall, which leads to the loss of arterial elasticity and reduced arterial compliance and may subsequently lead to coronary artery disease.

Percent of the Population of Older Adults (Age 65+)
in Macon County



Population Age 65+, Percent by Tract, US Census 2010
- Over 19.1%
- 16.1 - 19.0%
- 13.1 - 16.0%
- Under 13.1%
- No Data or Data Suppressed

Source: US Census 2010
Geographic Unit: Census tract
Map produced with Community Commons

The percentage of the population of Older Adults (age 65+) in Macon County is over 19.1% for the entire area.

Health Resources available/needed

As we move forward in addressing the heart disease priority, increasing availability to health education services and access to awareness initiatives will be incorporated into the interventions that MountainWise of Macon County plans. Cardiovascular/heart disease subcommittee chair, Paula Alter, will strive to increase health education activities that are recommended as a key component for future projects. There are many health providers and advocates within the community and within MountainWise of Macon County that will provide areas of resources/interest.

Listening Session and Key Informant Interviews indicated a need to create a county wide agenda on health and wellness to help prevent chronic diseases such as cardiovascular/heart disease by lowering obesity rates because it is a common risk factor that leads to cardiovascular/heart disease.

PRIORITY ISSUE #2

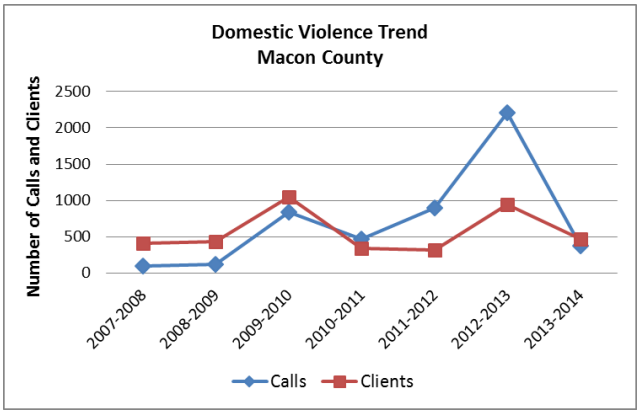
Domestic Violence has not been a priority in prior Community Health Assessment initiatives in Macon County. Domestic Violence report rates have escalated significantly in recent years which prompted the MountainWise of Macon County group to select it was a priority area of interest. Domestic violence (also domestic abuse, spousal abuse, intimate partner violence, battering, or family violence) is a pattern of behavior which involves violence or other abuse by one person against another in a domestic setting, such as in marriage or cohabitation. Intimate partner violence (IPV) is violence by a spouse or partner in an intimate relationship against the other spouse or partner. Domestic violence can take place in heterosexual and same-sex family relationships, and can involve violence against children in the family or, in some U.S. states, violence against a roommate.

Data Highlights

Health Indicators

The number of calls in Macon County dealing with domestic violence increased from a low of 95 in 2007-2008 to a high of 2,209 in 2012-2013. The number of clients who were victims of

domestic violence peaked at 1,052 in 2009-2010. The domestic violence shelter serving Macon county was full 349 days in the FY 2013-2014.



Understanding the Issue

REACH, a dual agency that was established to "provide intervention, prevention, and coordinated community response to Domestic Violence and Sexual Assault in Macon and Jackson Counties," provided the following domestic violence data for July 1, 2014 to June 30,2015:

Macon County

Calls: 352
Domestic Violence (In Person): 445
Service Contacts: 15,956
Sexual Assault (In Person): 152
Shelter: 73 (92 Duo)
Nights: 1664
Meals: 4992
911 Domestic Disturbance Calls: 787

Specific Populations At-Risk

It should also be noted that sexual assault must be included in discussions about domestic violence. Sexual assault is any involuntary sexual act in which a person is coerced or physically forced to engage against their will, or any non-consensual sexual touching of a person. Sexual assault is a form of sexual violence, and it includes rape (such as forced vaginal, anal or oral penetration or drug facilitated sexual assault), groping, forced kissing, child sexual abuse, or the torture of the person in a sexual manner.

In Macon County FY 2013-2014, 94 persons were identified as victims of sexual assault. The single most frequently specific type of sexual assault during the period was child sexual offense (21%). The Macon County REACH agency also provided the following sexual assault data for July 1, 2014 to June 30, 2015:

Macon County
Calls: 352
Domestic Violence (In Person): 445
Service Contacts: 15,956
Sexual Assault (In Person): 152
Shelter: 73 (92 Duo)
Nights: 1664
Meals: 4992
911 Domestic Disturbance Calls: 787

Health Resources available/needed

Prevention and intervention includes ways to prevent domestic violence by offering safe shelter, crisis intervention, advocacy, education and prevention programs. Community screening for domestic violence can be more systematic in cases of animal abuse, healthcare settings, emergency departments, behavioral health settings and court systems. Tools are being developed to facilitate domestic violence screening such as mobile apps.

In addressing the domestic violence priority, increasing availability to health education services and access to awareness initiatives will be incorporated into the interventions that MountainWise of Macon County plans. Domestic Violence subcommittee chair, Jennifer Turner-Lynn, will strive to increase health education activities that are recommended as a key component for future projects. There are many health providers and advocates within the community and within MountainWise of Macon County that will provide areas of resources/interest.

REACH has recently received an Economic Rural Strategies Grant to assist

in addressing the domestic violence and sexual assault prevention and response efforts in Macon County. Combining MountainWise of Macon County efforts with this group will ensure non-duplication of efforts and streamlined approaches at making a difference in the community.

PRIORITY ISSUE #3

Economic development is a policy intervention endeavor with aims of economic and social well-being of people. Economic development has not been a specific priority to prior Community Health Assessments. In addition to increasing private incomes, economic growth also generates additional resources that can be used to improve social services (such as healthcare, safe drinking water, etc.). The relationship between human development and economic development can be explained in three ways. First, increase in average income leads to improvement in health and nutrition (known as Capability Expansion through Economic Growth). Second, it has been proposed that social outcomes can only be improved by reducing income poverty (known as Capability Expansion through Poverty Reduction). Lastly, social outcomes can also be improved with essential services such as education, healthcare, and clean drinking water (known as Capability Expansion through Social Services).

Data Highlights

Health Indicators

In Macon County, the 2009-2013 Median Household Income was $37,892. That is amount is down $723 since 2006-2010, 4995 below the Western North Carolina average and $8,442 below the North Carolina average. During the 2009-2013 time period the Median Family income was $45,633, down $1,069 since 2006-2009. Income provides economic resources that shape choices about housing, education, child care, food, medical care, and more. Wealth, the accumulation of savings and assets, helps cushion and protect us in times of economic distress. As income and wealth increase or decrease, so does health.

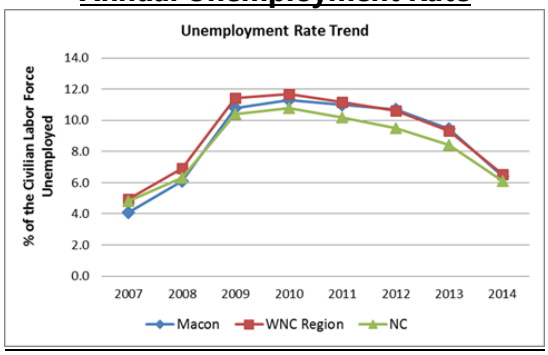
As of 2013, the three employment sectors in Macon County with the largest proportions of workers were the Retail Trade, Health Care and Social Assistance and Accommodation and Food Service. Employment provides income and, often, benefits that can support healthy lifestyle choices. Unemployment and under employment limit these choices, and negatively affect both quality of life and health overall. The economic condition of a community and an individual's level of educational attainment both play important roles in shaping employment opportunities. During the time period, Macon County's Retail Trade provided 16.94% to the workforce ($459 average weekly wage per employee). Health Care and Social Assistance provided 15.39% ($673

average weekly wage per employee) and Accommodation and Food Service 12.10% ($322 average weekly wage per employee). Note the gap in average weekly wages between the Health Care and Social Assistance sector and the Retail Trade and Accommodation and Food Service sectors. Note also that persons working in the Retail Trade and Accommodation and Food Service sectors tend to lack employment benefits such as health insurance and retirement programs; many in this sector work part-time, sometimes at multiple jobs. This is a sector whose relative poverty leaves them vulnerable to emotional stress and poor health outcomes.

Understanding the Issue

The definition of "unemployed" is an estimate of persons having no employment during the week that includes the 12th of the month but were available for work, had made specific efforts to find employment during the four weeks prior, were waiting to be recalled to a job from which they had been laid off, or were waiting to report to a new job within 30 days.

Annual Unemployment Rate



Data from the chart does not reflect the segment of the unemployed population that has given up on finding employment.

It is also worthy to note that the poverty rate in Macon County and its comparator jurisdictions increased in a period that included several years of falling unemployment.

Estimated Poverty Rate

County	Percent Total Population Below 100% Poverty Level			
	2006-2010	2007-2011	2008-2012	2009-2013
Macon County	**16.9**	**18.3**	**19.6**	**21.3**
WNC Region	15.7	16.1	16.9	18.0
State of NC	15.5	16.1	16.8	17.5

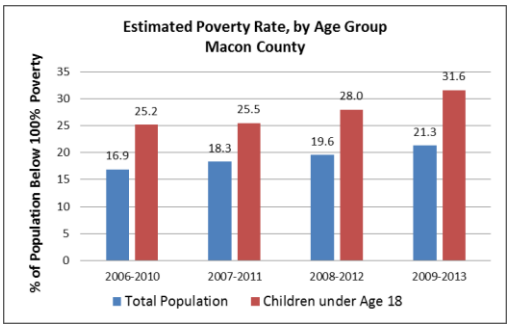
In Macon County, the percent uninsured in 2013 was 20% higher than in 2009. The economic availability of employment with benefits such as insurance could be considered part of the reason why rates of uninsured continue to rise.

Percent of Population Without Health Insurance, by Age Group

County	2009		2010		2011		2012		2013	
	0-18	18-64	0-18	18-64	0-18	18-64	0-18	18-64	0-18	18-64
Macon County	**10.3**	**25.2**	**12.3**	**29.1**	**11.0**	**28.8**	**10.9**	**30.7**	**11.1**	**30.2**
WNC Region	9.9	24.2	9.7	26.0	9.1	25.2	9.3	25.4	8.6	25.0
State of NC	8.7	21.9	8.3	23.5	7.9	23.0	7.9	23.4	6.9	22.5

Specific Populations At-Risk

In Macon County as in much of North Carolina, children suffer significantly and disproportionately from poverty. In Macon County the estimated poverty rate among children under age 18 ranged from between 39% to 49% higher than the overall rate throughout the period cited.



In the 5-year period cited from 2009-2013, an estimated 296 Macon County grandparents living with their minor-aged grandchildren also were financially responsible for them. Among the households with minor-age children, 66% were headed by a married couple. An additional 27% were headed by a female single parent, and 7% were headed by a male single parent. This is yet another population in need of employment and benefits.

Minor-Age Children Living with Grandparents and in Single-Parent Households, 2009-2013

County	# Grandparents Living with Own Grandchildren (<18 Years)	Grandparent Responsible for Grandchildren (under 18 years)*		# Total Households	Family Household Headed by Married Couple (with children under 18 years)		Family Household Headed by Male (with children under 18 years)		Family Household Headed by Female (with children under 18 years)	
		Est. #	%		Est. #	%**	Est. #	%**	Est. #	%**
Macon	522	296	56.7	15,340	2,060	13.4	218	1.4	855	5.6
WNC (Regional) Total	15,007	8,142	54.3	316,799	49,395	15.6	6,133	1.9	17,711	5.6
State Total	206,632	100,422	48.6	3,715,565	706,106	19.0	84,199	2.3	293,665	7.9

Health Resources available/needed

Macon County's economic development is related to its human development, which encompasses, among other things, health and education. These factors are, however, closely related to economic growth so that development and growth often go together.

As we MountainWise of Macon County begins addressing the economic development priority, increasing availability to health education services and access to awareness initiatives will be incorporated into the intervention plans. Economic development subcommittee chair, Shaina

Adtkin, will strive to increase health education activities that are recommended as a key components for all plans. There are many health providers and advocates within the community and within MountainWise of Macon County that will provide areas of resources/interest.

Listening session and key informant interviews indicated a need to focus on good, clean small businesses and diversifying of the community.

CHAPTER 9 - NEXT STEPS

Sharing Findings

Results of the 2015 MountainWise of Macon County Community Health Assessment will be widely disseminated throughout Macon County. Plans include newspaper and media press releases, web postings and presentations to hospital, health and other concerned boards.

We recognize that each hospital located in Macon County will use the document as s resource to prepare their individual organization's Executive Summary and to plan for future community benefit contributions to their respective service areas. We anticipate these results will also be used for strategic planning purposes for our local hospitals, health department, as well as many other health and human service agencies in the county.

MountainWise of Macon County will use the assessment results to move forward with the development of a comprehensive action plan for each of the top health priorities. Using information generated, MountainWise of Macon County task forces will choose, design and conduct interventions to address the identified priority areas. To prevent duplication and to build existing services, the task forces will identify resources, policies, environmental measures and programs already focused on the identified priority. The task forces will then set intervention objectives and develop an action plan. This action plan will include strategies, a timetable and a work plan for completing the tasks. Task may include recruiting volunteers, publicizing and conduction activities, evaluating activities and informing the community about the results.

Collaborative Action Planning

Collaborative action planning with hospitals and other community partners will result in the creation of a community-wide plan that outlines what will be aligned, supported and/or implemented to address the priority health issues identified through this assessment process.

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APPENDICES

Appendix A – Data Collection Methods & Limitations

Appendix B – Secondary Data Profile

Appendix C – County Maps

Appendix D – Survey Findings

- WNC Healthy Impact Survey Instrument
- Community Health Survey Results

Appendix E – Key-Informant Survey Findings

APPENDIX A - DATA COLLECTION METHODS & LIMITATIONS

Secondary Data from Regional Core

Secondary Data Methodology

In order to learn about the specific factors affecting the health and quality of life of residents of WNC, the WNC Healthy Impact data workgroup and consulting team identified and tapped numerous secondary data sources accessible in the public domain. For data on the demographic, economic and social characteristics of the region sources included: the US Census Bureau; Log Into North Carolina (LINC); NC Office of State Budget and Management; NC Department of Commerce; Employment Security Commission of NC; NC Department of Public Instruction; NC Department of Justice; NC Division of Medical Assistance; and the Cecil B. Sheps Center for Health Services Research. The WNC Healthy Impact consultant team made every effort to obtain the most current data available *at the time the report was prepared*. It was not possible to continually update the data past a certain date; in most cases that end-point was August 2015.

The principal source of secondary health data for this report was the NC State Center for Health Statistics (NC SCHS), including its County Health Data Books, Behavioral Risk Factor Surveillance System, Vital Statistics unit, and Cancer Registry. Other health data sources included: NC Division of Public Health (DPH) Epidemiology Section; NC Division of Mental Health, Developmental Disabilities and Substance Abuse Services; National Center for Health Statistics; NC DPH Nutrition Services Branch; UNC Highway Safety Research Center; and NC DETECT. Because in any CHA it is instructive to relate local data to similar data in other jurisdictions, throughout this report representative county data is compared to like data describing the 16-county region and the state of NC as a whole. The WNC regional comparison is used as "peer" for the purposes of this assessment. Where appropriate and available, trend data has been used to show changes in indicators over time.

Environmental data was gathered from sources including: US Environmental Protection Agency; US Department of Agriculture, and NC Radon Program.

It is important to note that this report contains data retrieved **directly** from sources in the public domain. In some cases the data is very current; in other cases, while it may be the most current available, it may be several years old. Note also that the names of organizations, facilities, geographic places, etc. presented in the tables and graphs in this report are quoted exactly as they appear in the source data. In some cases these names may **not** be those in current or local usage; nevertheless they are used so readers may track a particular piece of information directly back to the source.

Data Definitions
Reports of this type customarily employ a range of technical terms, some of which may be unfamiliar to many readers. Health data, which composes a large proportion of the information included in this report, employs a series of very specific terms which are important to interpreting the significance of the data. While these technical health data terms are defined in the report at the appropriate time, there are some data caveats that should be applied from the onset.

Error
First, readers should note that there is some error associated with every health data source. Surveillance systems for communicable diseases and cancer diagnoses, for instance, rely on reports submitted by health care facilities across the state and are likely to miss a small number of cases, and mortality statistics are dependent on the primary cause of death listed on death certificates without consideration of co-occurring conditions.

Age-adjusting
Secondly, since much of the information included in this report relies on *mortality* data, it is important to recognize that many factors can affect the risk of death, including race, gender, occupation, education and income. The most significant factor is age, because an individual's risk of death inevitably increases with age. As a population ages, its collective risk of death increases; therefore, an older population will automatically have a higher overall death rate just because of its age distribution. At any one time some communities have higher proportions of "young" people, and other communities have a higher proportion of "old" people. In order to compare mortality data from one community with the same kind of data from another, it is necessary first to control for differences in the age composition of the communities being compared. This is accomplished by *age-adjusting* the data. Age-adjustment is a statistical manipulation usually performed by the professionals responsible for collecting and cataloging health data, such as the staff of the NC State Center for Health Statistics (NC SCHS). It is not necessary to understand the nuances of age-adjustment to use this report. Suffice it to know that age-adjusted data are preferred for comparing most health data from one population or community to another and have been used in this report whenever available.

Rates
Thirdly, it is most useful to use *rates* of occurrence to compare data. A rate converts a raw count of events (deaths, births, disease or accident occurrences, etc.) in a target population to a ratio representing the number of same events in a standard population, which removes the variability associated with the size of the sample. Each rate has its own standard denominator that must be specified (e.g., 1,000 women, 100,000 persons, 10,000 people in a particular age group, etc.) for that rate.

While rates help make data comparable, it should be noted that small numbers of events tend to yield rates that are highly unstable, since a small change in the raw count may translate to a large change in rate. To overcome rate instability, another convention typically used in the presentation of health statistics is *data aggregation*, which involves combining like data gathered

over a multi-year period, usually three or five years. The practice of presenting data that are aggregated avoids the instability typically associated with using highly variable year-by-year data, especially for measures consisting of relatively few cases or events. The calculation is performed by dividing the sum number of cases or deaths in a population due to a particular cause over a period of years by the sum of the population size for each of the years in the same period. Health data for multiple years or multiple aggregate periods is included in this report wherever possible. Sometimes, however, even aggregating data is not sufficient, so the NC SCHS recommends that rates based on fewer than 20 events—whether covering an aggregate period or not—be considered *unstable*. In fact, in some of its data sets the NC SCHS no longer calculates rates based on fewer than 20 events. To be sure that unstable data do not become the basis for local decision-making, this report will highlight and discuss primarily rates based on 20 or more events in a five-year aggregate period, or 10 or more events in a single year. Where exceptions occur, the text will highlight the potential instability of the rate being discussed.

Regional arithmetic mean

Fourthly, sometimes in order to develop a representative regional composite figure from 16 separate county measures the consultants calculated a *regional arithmetic mean* by summing the available individual county measures and dividing by the number of counties providing those measures. It must be noted that when regional arithmetic means are calculated from *rates* the mean is not the same as a true average rate but rather an approximation of it. This is because most rates used in this report are age adjusted, and the regional mean cannot be properly age-adjusted.

Describing difference and change

Fifthly, in describing differences in data of the same type from two populations or locations, or changes over time in the same kind of data from one population or location—both of which appear frequently in this report—it is useful to apply the concept of *percent* difference or change. While it is always possible to describe difference or change by the simple subtraction of a smaller number from a larger number, the result often is inadequate for describing and understanding the *scope* or *significance* of the difference or change. Converting the amount of difference or change to a percent takes into account the relative size of the numbers that are changing in a way that simple subtraction does not, and makes it easier to grasp the meaning of the change. For example, there may be a rate of for a type of event (e.g., death) that is one number one year and another number five years later. Suppose the earlier figure is 12.0 and the latter figure is 18.0. The simple mathematical difference between these rates is 6.0. Suppose also there is another set of rates that are 212.0 in one year and 218.0 five years later. The simple mathematical difference between these rates also is 6.0. But are these same simple numerical differences really of the same significance in both instances? In the first example, converting the 6 point difference to a percent yields a relative change factor of 50%; that is, the smaller number increased by half, a large fraction. In the second example, converting the 6 point difference to a percent yields a relative change factor of 2.8%; that is, the smaller number increased by a relatively small fraction. In these examples the application of percent makes it very clear that the difference in the first example is of far greater degree than the difference in the second example. This document uses percentage almost exclusively to describe and highlight degrees

of difference and change, both positive (e.g., increase, larger than, etc.) and negative (e.g., decrease, smaller than, etc.)

Data limitations

Some data that is used in this report may have inherent limitations, due to the sample size, its geographic focus, or its being out-of-date, for example, but it is used nevertheless because there is no better alternative. Whenever this kind of data is used, it will be accompanied by a warning about its limitations.

WNC Healthy Impact Survey (Primary Data)

Survey Methodology

Survey Instrument

To supplement the secondary core dataset, meet additional stakeholder data needs, and hear from community members about their concerns and priorities, a community survey, *2015 WNC Healthy Impact Survey* (a.k.a. 2015 PRC Community Health Survey), was developed and implemented in 16 counties across western North Carolina. The survey instrument was developed by WNC Healthy Impact's data workgroup, consulting team, and local partners, with assistance from Professional Research Consultants, Inc. (PRC). Many of the questions are derived from the Centers for Disease Control and Prevention (CDC) Behavioral Risk Factor Surveillance System (BRFSS), as well as other public health surveys; other questions were developed specifically for WNC Healthy Impact to address particular issues of interest to communities in western North Carolina. Each county was given the opportunity to include three additional questions of particular interest to their county, which were asked of their county's residents.

Professional Research Consultants, Inc.

The geographic area for the regional survey effort included 16 counties: Buncombe, Cherokee, Clay, Graham, Haywood, Henderson, Jackson, Macon, Madison, McDowell, Mitchell, Polk, Rutherford, Swain, Transylvania and Yancey counties.

Sample Approach & Design

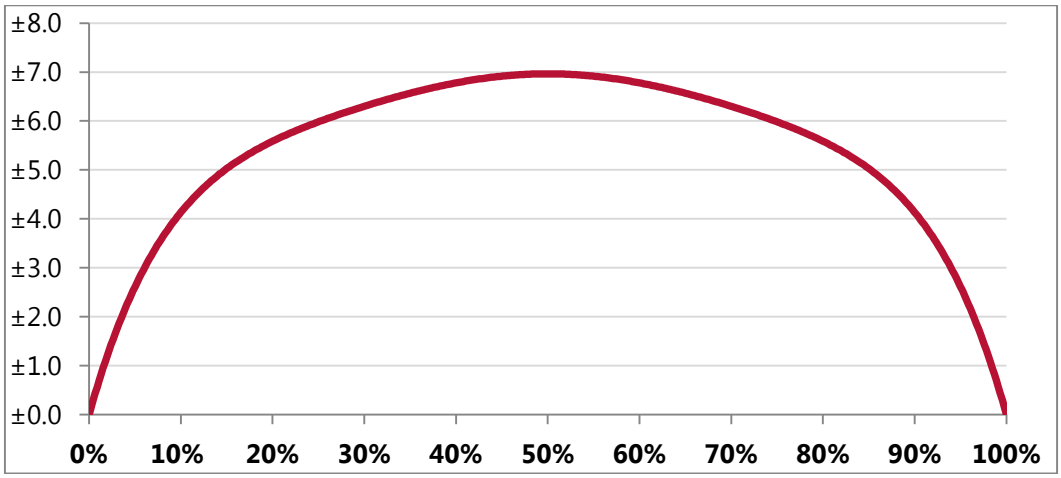
To ensure the best representation of the population surveyed, a telephone interview methodology (one that incorporates both landline and cell phone interviews) was employed. The primary advantages of telephone interviewing are timeliness, efficiency and random-selection capabilities.

The sample design used for this regional effort consisted of a stratified random sample of 3,300 individuals age 18 and older in Western North Carolina, with 200 from our county. All administration of the surveys, data collection and data analysis was conducted by Professional Research Consultants, Inc. (PRC). The interviews were conducted in either English or Spanish, as preferred by respondents.

Sampling Error

For our county-level findings, the maximum error rate at the 95% confidence level is ±6.9%).

Expected Error Ranges for a Sample of 200 Respondents at the 95 Percent Level of Confidence



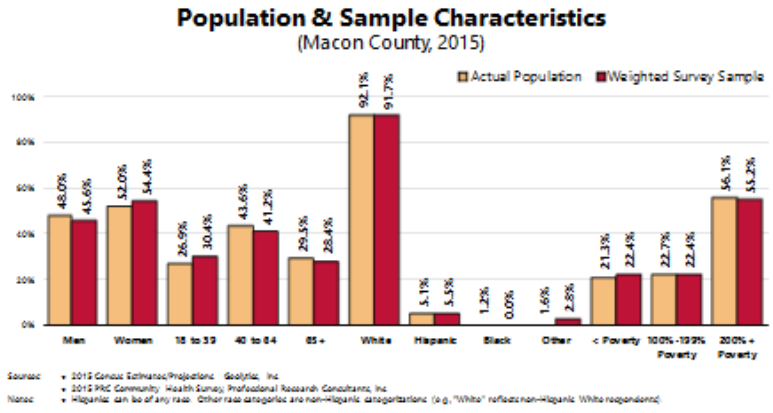
Note:
- The "response rate" (the percentage of a population giving a particular response) determines the error rate associated with that response. A "95 percent level of confidence" indicates that responses would fall within the expected error range on 95 out of 100 trials.

Examples:
- If 10% of the sample of 200 respondents answered a certain question with a "yes," it can be asserted that between 5.8% and 14.2% (10% ± 4.2%) of the total population would offer this response.
- If 50% of respondents said "yes," one could be certain with a 95 percent level of confidence that between 43.1% and 56.9% (50% ± 6.9%) of the total population would respond "yes" if asked this question.

Sample Characteristics

To accurately represent the population studied, PRC worked to minimize bias through application of a proven telephone methodology and random-selection techniques. And, while this random sampling of the population produces a highly representative sample, it is a common and preferred practice to apply post-stratification weights to the raw data to improve this representativeness even further. Specifically, once the raw data are gathered, respondents are examined by key demographic characteristics (namely gender, age, race, ethnicity, and poverty status) and a statistical application package applies weighting variables that produce a sample which more closely matches the population for these characteristics. Thus, while the integrity of each individual's responses is maintained, one respondent's responses may contribute to the whole the same weight as, for example, 1.1 respondents. Another respondent, whose demographic characteristics may have been slightly oversampled, may contribute the same weight as 0.9 respondents. In order to determine WNC regional estimates, county responses were weighted in proportion to the actual population distribution so as to appropriately represent Western North Carolina as a whole.

The following chart outlines the characteristics of the survey sample for our county by key demographic variables, compared to actual population characteristics revealed in census data. Note that the sample consisted solely of area residents age 18 and older.



Poverty descriptions and segmentation used in this report are based on administrative poverty thresholds determined by the US Department of Health & Human Services. These guidelines define poverty status by household income level and number of persons in the household *(e.g., the 2015 guidelines place the poverty threshold for a family of four at $23,050 annual household income or lower)*. In sample segmentation: "very low income" refers to community members living in a household with defined poverty status; "low income" refers to households with incomes just above the poverty level, earning up to twice the poverty threshold; and "mid/high income" refers to those households living on incomes which are twice or more the federal poverty level.

The sample design and the quality control procedures used in the data collection ensure that the sample is representative. Thus, the findings may be generalized to the total population of community members in the defined area with a high degree of confidence.

Benchmark Data

North Carolina Risk Factor Data

Statewide risk factor data are provided where available as an additional benchmark against which to compare local survey findings; these data are reported in the most recent *BRFSS (Behavioral Risk Factor Surveillance System) Prevalence and Trend Data* published by the Centers for Disease Control and Prevention and the US Department of Health & Human Services.

Nationwide Risk Factor Data

Nationwide risk factor data, which are also provided in comparison charts where available, are taken from the *2013 PRC National Health Survey*; the methodological approach for the national

study is identical to that employed in this assessment, and these data may be generalized to the US population with a high degree of confidence.

Healthy People 2020

Healthy People provides science-based, 10-year national objectives for improving the health of all Americans. The Healthy People initiative is grounded in the principle that setting national objectives and monitoring progress can motivate action. For three decades, Healthy People has established benchmarks and monitored progress over time in order to:

- Encourage collaborations across sectors.
- Guide individuals toward making informed health decisions.
- Measure the impact of prevention activities.

Healthy People 2020 is the product of an extensive stakeholder feedback process that is unparalleled in government and health. It integrates input from public health and prevention experts, a wide range of federal, state and local government officials, a consortium of more than 2,000 organizations, and perhaps most importantly, the public. More than 8,000 comments were considered in drafting a comprehensive set of Healthy People 2020 objectives.

Survey Administration

With more than 700 full- and part-time interviewers who work exclusively with healthcare and health assessment projects, PRC uses a state-of-the-art, automated CATI interviewing system that assures consistency in the research process. Furthermore, PRC maintains the resources to conduct all aspects of this project in-house from its headquarters in Omaha, Nebraska, assuring the highest level of quality control.

Interviewing Protocols and Quality Assurance

PRC's methods and survey administration comply with current research methods and industry standards. To maximize the reliability of research results and to minimize bias, PRC follows a number of clearly defined quality control protocols. PRC uses a telephone methodology for its community interviews, in which the respondent completes the questionnaire with a trained interviewer, not through an automated touch-tone process.

Before going into the field in the latter half of February, PRC piloted 30 interviews across the region with the finalized survey instrument. After this phase, PRC corrected any process errors that were found, and discussed with the consulting team any substantive issues that needed to be resolved before full implementation.

PRC employs the latest CATI (computer-aided telephone interviewing) system technology in its interviewing facilities. The CATI system automatically generates the daily sample for data collection, retaining each telephone number until the Rules of Replacement are met. Replacement means that no further attempts are made to connect to a particular number, and

that a replacement number is drawn from the sample. To retain the randomness of the sample, telephone numbers drawn for the sample are not discarded and replaced except under very specific conditions.

Interviewing for this study took place primarily during evening and weekend hours (Eastern Time: Monday-Friday 5pm-9pm; Saturday 10am-4pm; Sunday 2pm-9pm). Some daytime weekday attempts were also made to accommodate those for whom these times might be more convenient. Up to five call attempts were made on different days and at different times to reach telephone numbers for which there is no answer. Systematic, unobtrusive electronic monitoring is conducted regularly by supervisors throughout the data collection phase of the project.

Cell Phones

Cell phone numbers were integrated into the sampling frame developed for the interviewing system for this project. Special protocols were followed if a cell phone number was drawn for the sample to ensure that the respondent lives in the area targeted and that (s)he is in a safe place to talk (e.g., not while driving). Using this dual-mode approach yielded a sample comprised of 6% cell phone numbers and 94% landline numbers. While this proportion is lower than actual cell phone penetration, it is sufficient in supplementing demographic segments that might otherwise be undersampled in a landline-only model, without greatly increasing the cost of administration.

Minimizing Potential Error

In any survey, there exists some degree of potential error. This may be characterized as sampling error (because the survey results are not based on a complete census of all potential respondents within the population) or non-sampling error (e.g., question wording, question sequencing, or through errors in data processing). Throughout the research effort, Professional Research Consultants makes every effort to minimize both sampling and non-sampling errors in order to assure the accuracy and generalizability of the results reported.

Noncoverage Error. One way to minimize any effects of underrepresentation of persons without telephones is through poststratification. In poststratification, the survey findings are weighted to key demographic characteristics, including gender, age, race/ethnicity and income (see above for more detailed description).

Sampling Error. Sampling error occurs because estimates are based on only a sample of the population rather than on the entire population. Generating a random sample that is representative and of adequate size can help minimize sampling error. Sampling error, in this instance, is further minimized through the strict application of administration protocols. Poststratification, as mentioned above, is another means of minimizing sampling error.

Measurement Error. Measurement error occurs when responses to questions are unduly influenced by one or more factors. These may include question wording or order, or the interviewer's tone of voice or objectivity. Using a tested survey instrument minimizes errors associated with the questionnaire. Thorough and specific interviews also reduce possible errors.

The automated CATI system is designed to lessen the risk of human error in the coding and data entry of responses.

Information Gaps

While this assessment is quite comprehensive, it cannot measure all possible aspects of health in the community, nor can it adequately represent all possible populations of interest. It must be recognized that these information gaps might in some ways limit the ability to assess all of the community's health needs.

For example, certain population groups (such as the homeless, institutionalized persons, or those who only speak a language other than English or Spanish) are not represented in the survey data. Other population groups (for example, pregnant women, lesbian/gay/bisexual/transgender residents, undocumented residents, and members of certain racial/ethnic or immigrant groups) might not be identifiable or might not be represented in numbers sufficient for independent analyses.

In terms of content, this assessment was designed to provide a comprehensive and broad picture of the health of the overall community. However, there are certainly a great number of medical conditions that are not specifically addressed.

Listening Sessions

The MountainWise of Macon County Comprehensive Health Assessment collected a variety of community perspectives from a series of focus groups, and also lengthy interviews with informed community leaders. Concerns and issues raised from these diverse community voices provide context for the research and statistical analysis. Their input proved important perspective on a variety of issues that will influence Macon County life and health over the next few years. The following sections serve to summarize the input gathered from the focus groups and community leaders.

Mental/Behavioral Health

Mental/behavioral health concerns were a consistent theme throughout the Listening Sessions and the Key Informant Interviews. As one respondent stated, "Every community I've lived in or worked in have had a problem with mental health services. It's endemic." Multiple groups (Mental Health, Latino, Both Low Income and All of the Key Informant Interviews) cited this theme as a priority area to improve health in Macon County.

Opportunities

- The new mental health crisis facility being built at Mission in Asheville. It has resources available immediately after initial intake such as an on-site counselor.
- The possibility of Angel becoming a "pilot" site to begin providing tele-psychiatry.
- Community agency/provider collaboration because of existing mental health task force
- Behavioral health counseling services at Community Care Clinic Highlands

- Special appropriations/ special initiatives aimed at improving emergency services for behavioral health/ emergency response services.
- County has one of the most involved mental health tasks forces in the state. Have county representation on the regional mental health (LME) board
- A legislative delegation from the County Commissioners association and secretary for human services is coming to Macon County to talk about mental health in the region.
- Provider based continuum of service for children and adults to identify gaps and introduce new programs
- Youth Villages provides in home services and transitional living
- The western counties were the first to develop a Children's Services Continuum. An MOA was developed with our service providers to be sure that appropriate services were provided for our children. Other counties in the other part of the 16 region modeled after the 7 western county model.

Challenges

- "Mental Health services are fraught with challenges because traditionally there hasn't been a lot of insurance coverage. It's different now with the Affordable Care Act but it used to be that insurance companies would write policies that had very limited coverage and people with severe mental health problems tend not to work. They don't have money, they don't have coverage. We've got a statewide system that keeps changing every few years. First they had a regional coordinating organization they they contracted out with other groups for actual patient care. Then that changed, and they provided everything, and that changed again. It's an expensive mode of treatment but it's also very difficult to manage the cost. What insurance companies have done traditionally, when they find a service they can't manage with clear objective standards they just limit the coverage. Mental health is one of those they always limited, physical therapy, chiropractic services, they couldn't really say when a person needed more or less. There was no test you could run to say when they're better. When those are the type of illnesses, mental health is one of them, it becomes a very expensive proposition that it's hard to manage."
- Difficulty getting prescriptions. "If you're not linked to a primary care doc, if you go to an Urgent Care center, some insurances won't pay for the prescription. Some of the insurance won't pay for that since you're supposed to be getting that from your primary care. Cause they don't see that as an urgent care type of service. You've having to pay private pay. And this was specifically with a behavioral health medication could not get their insurance to pay for it since it wasn't an Urgent Care need."
- Lack of funding. "Our school system has been impacted a great deal by this loss of funding because young folks that would normally be served by mental health institutes now only serve those students for up to 90 days. And then after those 90 days those students come to our school systems. We're ill equipped to serve their mental health needs and that puts a strain on what we're trying to do for our other students as well as it underserves that student that has a mental health problem."
- "Young folks need to be have more long term and more focused interventions that would require them to be outside the school system and possibly outside the home

longer than 90 days… another thing is teen suicides in the past 5-6 years. Ones too many and has a huge impact on schools and all of us."

- The new mental health crisis facility being built at Mission in Asheville. It's not local and has limited slots.
- Appalachian Community Services (The Balsam Center) is not located in Macon County. The perception is that they deal more with teenagers and substance abuse than adult mental health.
- Stigma related to facility placement. For example, when Balsam Center was looking for site placement, some from the community had "not in my backyard" reaction from having a facility close by. "Not those kind of people loose in my neighborhood."
- Jail inmates must be pre-diagnosed to receive mental health treatment
- Prevention education is available in school but there's not enough presenters to teach program
- Need more connection to involve diverse groups, especially the Hispanic community
- Appalachian/Smoky Mountain Center does not have bilingual counselors
- State regulations stymie local efforts
- It's hard to get doctors to refer to mental health services at CCCH because they're not used to having services other than acute episodes.

Existing Resources

- County/sheriff's dept. contracts with private organization G4S for transportation. Staff is trained in mental health de-escalation for involuntary commitment.
- Weekly support group in women's detention center, includes exit packets
- Strong National Alliance on Mental Illness (NAMI) groups
- Availability of mental health 1st aid workshop
- Nationally approved program "In Our Own Voice" is required mental health education in all 9th grade classes in Macon County. "We have to work in prevention. We have to teach our kids in school how to deal with stress, how to deal with emotions….It has to be continuous practice."
- Smoky Mountain Center funding a walk in center- Appalachian Community Service
- Mobile crisis team access
- Mental Health training for law enforcement
- Highlands Center provides sliding scale services (3 offices, 4 clinicians) trying to expand and provide more educational activities
- NAMI has billboards and radio slots aimed at reducing stigma toward mental illness
- Youth Mental Health First Aid- free training in Charlotte
- Smoky Mountain Center is working on community education events
- Meridian Behavioral Health (Peer to peer therapy, classes, clinicians)
- Jackson Macon Psychological Services

Potential Strategies

- Better facilities for mental health and substance abuse treatment and recovery (23 hour crisis center for hospital diversion, half-way house, dual diagnosis center to address

mental health and substance abuse, homeless shelter, children's mental health facilities, more beds in hospitals, mental health court, longterm hospice beds etc.)

- More Mental Health and Substance abuse caregivers-More physicians who specialize in psychiatry, pain management and primary care, more physicians/clinicians who can prescribe and manage prescriptions, more robust community services for families or individuals dealing with mental illness (including children)
- Increased coordination between caregivers to better understand services received
- Focused Education and advocacy about mental health/mental illness- decrease stigma around mental illness and substance abuse, educate community, schools, physicians. Make the connection that mental illness happens close to home (neighbor, family, friend etc.)
- Connect Hispanic Community with NAMI and other existing mental health services in the community
- More use of Peer Support Specialists in jail, ER
- Require crisis intervention team training for School Resource Officer
- More diversion programs (such as VETS with mental health issues and special criminal docket)
- Treatment for those on involuntary commitment in ER to be started quickly, before being transported.
- Less stigma and less labeling ex. Alcoholic vs. person who has challenges with alcohol
- Improve ways of supporting those needing to get out of abusive relationships.
- Increase awareness of mental health and addiction issues
- Increase awareness of existing resources
- More services for children
- Encourage more providers to get dual training in behavior and mental health
- More resources for homeless people after hospitals release
- More Peer Run facilities that bridge from jail to community (halfway house)
- More services for the Latino Community, including spanish born counselors
- Education/workshops to better understand the Latino culture
- Education in relation to cultural differences in spanish speaking community related to mental health.
- Better integration of Latino and American cultures
- Trauma healing programs
- Compassion is needed to improve mental health. If a service cannot be provided, compassion is needed to provide support. "The compassion needed to improve a service is important...we need to incorporate that element into service."
- Provide support groups, look to churches as potential partners
- Partner with region other counties to share bilingual counselors
- Spanish speaking peer counseling and support groups
- Funding for arts and music activities in schools and less focus on competitive sports
- Include Latino representation on the Healthy Carolinians mental health group

Improved Access to Physician Care (Including Primary Care and Specialty Care)
A number of groups including the Low Income Groups, the Latino, Senior Citizens, Mental Health, Youth Group and Key Informant Interviews cited Improved Access to Physician Care as a concern for the county. "That just continues to be the big challenge in terms of access, not having enough providers, not having enough Primary Care. I think we have enough of almost everything else. But there are some sub-specialty services we're still recruiting for, but when it really comes down to the most acute need, we do lack the number of primary care physicians and providers we need in this community."

Opportunities

- New regional partnership between Angel and Mission Health System. "We are now with Mission Hospital. That gives us easier access to specialty type services and medical services that are needed, that's been a plus"
- The use of telemedicine for specialty and emergency services
- The Macon County Care Transition Team to reduce hospital readmittance
- "Medical Home" Primary Care initiative at Angel Medical; including the addition of adding providers (physicians, mid-level providers, technicians etc.)
- "That's probably the most important method we have right now is trying to recruit and retain primary physicians and mid-levels to make sure folks can find that care in a setting other then ED and urgent care, again with or without the means to pay"
- Angel houses a helicopter to transport patients quickly to Asheville for emergency transport

Challenges

- Disparity of health care among income levels
- "It's a regional problem, we don't have access to specialists in the western counties because we don't have the populations to support it"
- Cost of healthcare
- Local job market and the economy make care unaffordable
- Emergency care is inconsistent
- Doctors are not taking new patients
- Pay in Macon isn't enough to retain or recruit doctor
- Insurance system limits choice of providers
- Providing adequate access to care for senior citizens and for those with chronic diseases
- "Right now with the Community Care Clinic only open one day a week, it's hard for a patient that needs to be seen…they may end up going to the Emergency Room"
- "Our medical community is very small. We don't have a viable system for specialists to volunteer their services. Most of them will make a payment arrangement for uninsured patients but when their services are very expensive, it's very difficult for clients to pay for that."
- "There's a gap in understanding health needs and risks, not getting a regular check-up, and not seeing a doctor when you have a symptom"
- "Acute episodic stuff is difficult to get kids in, it takes a long time, so people usually use urgent care"

- "Difficulty from traveling from rural parts of our county to seek medical assistance. I think that prevents or limits the number of screenings that our older population is able to be able to take part in"
- "People are having to drive to other counties and bigger cities to receive care, which is costing them a lot of money and makes it hard to get the care they need in an affordable, efficient manner"
- "Attitudes of hospitals can be off-putting, people are looked down upon, judgmental of clients"
- "Attitude of dental clinic can also turn people away from health care systems, the providers can be judgmental of clients because they think they won't take care of their teeth after the clinic
- "Attitudes among health care providers are not very compassionate and understanding of peoples backgrounds, different poverty levels, and the issues the higher need population face on a daily basis"
- "...I'm afraid, I'm 83 years old and I say you know, hey, I don't have medical care close to me. What do I do?"
- "People can't get appointments. They're way out there, and you can't just call and get in in a few days, it takes a while. It takes days to get appointments or even to get into urgent care because they aren't able to get into see their own doctor. That is not feasible for fixed income people because urgent care co-pay is more than a physician's co-pay"
- "Lack of access to care and that is not limited to just low income. There's lack of access even with people with good insurance and lots of money, you still have to wait a month to get in to see a doctor and longer to see a specialist you have no choice in some instances unless you wish to drive a long way and that's a problem"
- Lack of transportation

Existing Resources

- Community Care Clinics in Highlands and Franklin, opportunity for walk-in appointments when they are open, but only open one day a week.
- Medication Assistance Program
- ETSU and WCU both have rural focus programs for medical students
- Mission is a host of UNC Medical School. The affiliation with Angel may bring medical students to rural areas, including Macon County
- Molar Roller dental clinic & Blue Ridge Dental Clinic
- In regards to Mission." We do have the value added expertise with their specialization trying to help us remotely. To back fill or provide any type of temporary staffing when needed. How they're redesigning, aligning, and organizing to maximize resources locally with theirs also"
- School nurses
- Medication assistance program at Community Care Clinic in Highlands
- "The hospital owned practices have a proactive program that if you qualify for their charity care program than their employed physicians will see the patients for free"

- "We have a great new cancer center, Cancer Infusion. If we hadn't had Mission we couldn't have done that. This is preventing people from having to travel and keeping them away from their homes for a lengthier period of time"
- The Macon County Public Health Department
- A broad-based primary and secondary acute health system
- Two Hospitals in a relatively rural county. "For a critical access system, we have more services of a broader nature, so both primary, secondary, and specialty services then many hospitals and medical communities of our size."
- Veterans Administration clinic

Potential Strategies

- Increasing hours of the Community Care Clinics and recruiting more providers to volunteer time through education/awareness efforts
- Partnership between the Community Care Clinics and the hospitals to incentivize providers volunteering their time to the clinics.
- Financial incentives for healthcare providers to stay
- Capitalize on free marketing through radio spots and press releases to get more people and physicians aware of free clinics
- Work with the hospitals to ensure they know of clinic services in their emergency rooms
- More effective screening for chronic diseases in lower income areas where people don't have access to doctors.
- "The more we can educate and communicate with professionals and families on how to access what services exist, and then when we can't, when there's nothing out there, come together to create it, and find a way to mobilize. The Crisis Mobilization team, that came from an outcry from a lack of resources"

Chronic Disease

"Rural counties tend to have a higher incidence of smoking and obesity rates which contribute to heart disease and high blood pressure which are major killers and increase medical costs." A number of respondents mentioned chronic diseases (including diabetes, heart conditions, hypertension, high cholesterol, hyperlipidemia, cancer) as an area of concern for Macon County. The Caregivers Group, Macon Middle School Group, Nantahala School, both Low Income Groups, Senior Citizens, Latino and multiple key informant interviews stated this as a concern. "As good as we are about having a handful of small, for profit, proprietary fitness centers, there is at times a gap at low cost or no cost public education on health and wellness. I know the health department does a good bit of that with nutrition, diabetes and other counseling. But when you really think about health and wellness education it's for those that are healthy and are not in a chronic disease situation. I think general education and engaging those partners, like the hospitals and the public health departments, county government etc. and really together creating a countywide agenda on health and wellness, prevention."

Opportunities

- EBT at farmer's market

- Make health resources and healthy environments more accessible and affordable for those with disabilities to ensure health equity – "If these were fixed, you would be able to meet other people and get out and then you would have support. My son wouldn't feel like he's the only one out here with these challenges and he wouldn't have to say cooped up in front of his video games."
- Cancer awareness and Screenings
- Diabetes prevention programs and screenings
- Community Care Clinics track diabetes outcomes through state association of free clinics (Measuring blood pressure, A1C levels in comparison to national standards)
- Community Care Clinics expand collaboration with pantries to provide nutritionists to put food boxes together for people with chronic disease and provide health screenings for high blood pressure and diabetes
- CareNet community outreach includes education, cooking classes, healthy food boxes, nutritional workshops etc.
- A lot of farms and a new CSA program

Challenges

- Changes in the healthcare system
- Less people using the Breast and Cervical Cancer Control Program (BCCCP) because of insurance status and no longer qualify
- "We have some of the highest rates of diabetes in the state. It's been a challenge coming up with a county or a region wide initiative to address this."
- Population health management focused on secondary and tertiary prevention as opposed to primary prevention
- Lack of public health prevention funding- "A perfect example in the Affordable Care Act, there was money that was appropriated called Prevention and Public Health dollars. That two years in, were eliminated in the federal budget in the ACA, it was $420,000 for the 8 county region that just went away overnight. Because someone thought that population health management was going to take care of all preventive services. We're going to pay later in the next generation."
- Getting people more active
- Lack of sidewalks
- Diabetes and high blood pressure tend to not have symptoms until they've already done damage
- "Screenings in Cashiers and Highlands showed the number of undiagnosed diabetics is sky high, it was 30%...we also found high percentage of hypertensives"
- Greenway is not handicap accessible- "I like going to the greenway, problem is it's not all paved, there's sections that aren't paved, they're gravel and my son can't use those parts of the trail and it'd be nice to take him and be able to walk the whole thing with him" "I try to get out there at least every day or every other day to walk"
- Other Public spaces such as pools and playgrounds are not handicap accessible (bathrooms, ramps, etc.)
- Gyms and pools may not be affordable for all
- Having healthier food choices at school

- School cafeterias sell unhealthy foods
- Restaurants to do offer healthy choices
- Many people cannot afford healthy foods, grocery bills have increased 100% in two years
- People aren't getting enough fruits and vegetables
- Senior center does not have enough healthy options
- Lack of education on nutrition, exercise and tobacco use- "The most important thing is to educate people on nutrition and getting them moving, and smoking cessation,
- High rate of cancer in Macon County
- Diabetes and high blood pressure are significant problems and often go undiagnosed until significant damage has already been done
- Developing better health education efforts to target low income individuals
- Busy modern lifestyles create a barrier to healthy eating and exercise
- Providing diabetes management programs in Spanish
- Having adequate access to care for people with chronic disease
- Integration/cooperation of health agencies
- Gathering community support to holistically address chronic disease
- Mountain people are more active than urban dwellers due to geographical factors, but are still obese
- Lack of public transportation options

Existing Resources

- New Cancer Center
- Supportive and collaborative community
- Healthier items in school cafeteria
- Fitness facilities
- Franklin Pool
- Highlands track
- Greenway
- Outdoor clubs that promote activity
- Worksite Wellness Initiatives-Drake's fitness facility, Police Department physical activity policy, non-profit worksite wellness initiatives, etc.
- Hiking trails
- Macon County is a "Mecca" of outdoor activities
- FBLA colon cancer awareness concert
- FBLA does fund raising activities that are often health based
- Lions Club does health screenings
- Diabetes management programs at Community Care Clinic, Highlands (managing medications, lifestyle changes, healthy eating etc.)
- Diabetes education and medical nutrition therapy (Macon County Public Health)
- Variety of health education classes throughout the community

Potential Strategies

- Better communication of preventative health services. "Preventative health is the best guard against disease long term."

- Better system of screening people for chronic disease, especially in lower income areas that don't have access to doctors
- Better labeling of foods and education of how to read labels
- Incentivize healthy foods through discounts, recipes, and meal deals
- Stores to offer "Healthy Meal deals" at a discount
- Sell healthier food in school cafeteria
- Offer more healthy foods in local restaurants
- Offer more food programs for needy families
- Offer more nutrition education (in schools and community) - develop resources in English and Spanish
- Healthier lunch options and special diet programs at senior center
- Open a permanent location for a farmers market
- Encourage family meal time
- Nutrition Education at food pantries
- Offer more sports and recreational activities in schools
- Free or discounted gym memberships "a lot of people would like to go to the gym and be healthier but they can't afford it"
- Employers offer fitness incentives
- Finish paving greenway
- Make public spaces for physical activity handicap accessible (sidewalks, bathrooms, parking, etc.)
- Increase community awareness of the need for accessible infrastructure.
- Hold community fundraisers to build handicap accessible infrastructure
- Open school gym after hours/ offer free physical activities at schools
- Lower admission cost to Franklin pool
- Promote being active outdoors
- Open a YMCA
- Have advocates in community and schools

Improved Communication/Coordination of Existing Resources

A theme that was consistent throughout Interviews and Listening Session is that while there are multiple services available in the community, citizens aren't always aware of what exists. "It's more than just making resources available, it's educating the public about awareness of resources and how to access them. Also then have to educate providers about resources and how to connect the public to those resources. And then once people are referred to resources, how to navigate them once they're in the system." Every Listening Session and Key Informant interview stated this an area to work on to improve health in Macon County.

<u>Opportunities</u>

- Increase awareness of 211 resources
- Changes in the national healthcare system that require better coordination of existing resources and improved referral systems between providers

- "Being small is a strength because the same people are in the meetings over and over so we hear everything from different angles. Being isolated more we've had to depend on ourselves and come up with solutions"
- Agencies already work together for referrals
- Numerous agencies cite assessment/evaluation efforts to determine how people find out about existing services and gaps in service
- Community Health Assessment addresses existing resources

Challenges

- People are not informed about the Affordable Care Act and there's mistrust about the system
- "In more rural, mountain communities, people are less likely to seek out a lot of these services being offered."
- Lack of awareness about existing issues and resources
- Many agencies are maxed out on funds for advertising, improving communications, etc. and many have full enrollment in programs so cannot expand as needed
- Vision and push to improve with people being resistant to change
- Loss of state funding from various organizations and agencies
- Lack of Trust- "There's a group working on this but we're not highly informed on their process and we've heard a lot of mixed messages about their effort and mission. It's hard for us in good faith to make referrals to an agency that we don't yet feel comfortable with because all too often we know what that means, we've had that experience. We need more coordinated effort and transparency"
- Geographic limitations
- Challenging to reach different, more isolated populations and to make sure you have a voice with people that make decisions at a larger level
- People don't want to be educated for fear they can't afford the services they need
- Agencies working in silos

Existing Resources

- Smoky Mountain Center is working on community education events
- Local government is dedicated to transparency (Board of health agendas and minutes posted by law online)
- Health education classes for senior citizens, newsletter about senior services sent out monthly and put in newspaper and on Senior Services Website
    - transportation, language, and handicap accommodations available for those who need them
- DSS Medicaid enrollment program does media announcements, PSA's, website, and are referred by many agencies.
- Multiple agencies cite the availability of Spanish interpreter, telecommunications service for deaf and hard of hearing clients, and sign language
- School system provides outreach through partnership with Lions Club, health fairs, SHAC, etc. Facilitate Connect Ed calls to student homes, and advertisements in local paper
- School nurses- students feel more comfortable talking with school nurses than teachers

- School Health Advisory Council
- REACH provides outreach and community engagement efforts and referral services for clients
- "I feel like education is coming forefront for folks that are receiving those benefits. I think it's our responsibility to further that or share that information to our folks that come in"
- Multiple organizations communicate through television, newspaper, radio, internet and social media. Organizations cite continued evaluation and improvement to communication strategies.

Potential Strategies

- Improve connectivity among available resources (senior services, health department, home health, primary care hospitals, etc.)
- Have ACA navigator come to agencies to work one on one with clients
- Better branding and targeted messaging of resources
- Ensure social and active events are easily accessible, well-advertised and affordable
- More activities downtown to encourage community interaction and more information about upcoming events and resources
- More education for healthcare providers in regards to the low income population
- Have classes at schools that educate youth to raise awareness about resources. Include more awareness of children's activities and awareness of the towns and communities outside Franklin.
- Involve youth in initiatives
- Have one designated "Community Resource" county staff member that is knowledgeable of resources and can coordinate agencies and resources
- Updates on health issues and what strategies community is doing to address these issues- awareness on the radio, school assemblies, and/or service announcements
- Increased communications about support groups- larger support network
- Community education about considering disability services and infrastructure
- Begin with a public awareness forum and let those with disabilities and public in general voice their concerns regarding accessibility with public places
- Improve identification of at risk people (socially isolated etc.) and connect with resources
    - Ex. At risk person connect with geriatric case manager
- Make sure people are using the available resources
- Better advertising of events at senior center
- Non-traditional partnerships to increase communications and existing resources

Economic Development/Quality of Life

Many respondents mentioned various economic development and quality of life improvements that would make Macon County a healthier place to live. "As a county and a region we need to concentrate on good clean small businesses and diversify our economy." While there is work to be done, Macon County has great assets to attract business and a qualified workforce. "The Greenway was full yesterday. The greenways been a great benefit for families. You see a lot of people with strollers and bikes, the fun things they can do, the playground." Caregivers, Macon

Middle, Low Income, Latino, Senior Citizens and a number of Key Informant Interviews stated this would improve health in Macon County.

Opportunities

- Strong partnerships and a commitment to taking care of the community
- Beautiful environment with access to trails and greenways
- The Economic Development Main Street Program is a doing a lot to provide more entertainment and dining opportunities and more initiatives to support small businesses in downtown Franklin.
- The Economic Development Coordinator has been successful at recruiting new businesses
- "As a county and a region we need to concentrate on good clean small businesses and diversify our economy."

Challenges

- New designation as a Tier 1 county (economically depressed)
- Agency funding cuts
- Higher unemployment rates
- Lack of assistance for mid-income families. "By the time we pay for stuff he (son with disabilities) needs, we're below the thresholds. We don't qualify for any assistance though because of what we make"(caregivers)
- Job loss due to funding cuts and Caterpillar closing
- Lack of handicap accessible infrastructure including parking, sidewalks, ramps, bathrooms, etc
- Lack of handicap accessible
- Transportation "Doesn't run long enough and doesn't run early enough", "If you don't have accessibility to transportation you can't get anywhere to access these resources anyway"
- Franklin High School is not fully handicap accessible
- Lack of housing for homeless population
- Lack of diversity
- Lack of land use planning and controlled growth
- No consistent rental housing standards
- Isolation
- Lack of opportunity for all citizens and young folks who might choose to live here that would like to live here but have no economic opportunity.
- Making sure efforts are in Nantahala and Highlands, not just Franklin

Existing Resources

- New facility being built for a 24 hours domestic violence crisis center (fully ADA compliant)
- Strong network of Food pantries
- Backpack feeding programs
- All HUD facilities have some handicap accessible options

- HUD has Spanish speaking staff
- Newer Macon County schools are handicapped accessible

Potential Solutions

- Improve accessibility of main street
- Finish paving greenway
- Improve parking infrastructure
- More activities downtown and social events to reduce isolation
- Less dispersing of business outside of downtown to limit transportation dependence
- More town and business support for festivals
- Affordable housing designed for people with disabilities
- Opportunities for community engagement with local policy makers
- Assess and enhance existing public places
- Beautify highways and public places
- Public education efforts to understand cultural and immigration issues
- Work with OSHA to educate workplaces on how repetitive movements can cause injury and other worksite safety issues
- Consistency with agencies for housing applications
- More adult day care
- More affordable childcare
- A continuum of service of assisted living with just the basics for a couple to live in an apartment and then a step up (Multi Unit Housing with Services)
- "A job pool that includes established businesses that present opportunities for families who haven't had experience in these (new) markets land a job…The employer doesn't have to put them on their payroll, its actually funded (grants, town/county funds) would help regenerate some of the folks that are unemployed at this time. It would get them in the job market and it's no cost for these businesses. It's almost like an internship of sorts where you may take a chance of me coming to work at say the health department, and I have interest but I've never worked there. The job force right now says that if I don't have experience I'm not going to be looked at…A lot of folks that come through want to work they just don't know where to start or where to go. Usually, employment commissions are the first step, but often I hear nothing pans out or they stop the process. We have the Workforce Investment act; we just need to get more businesses involved in it."

Substance Abuse/Tobacco Use

Substance abuse (including tobacco use) was mentioned as an area of concern for Macon County. "I think there's been notably an increase in drug use, especially things like methamphetamines. A lot of meth labs have been busted, a lot of local people have gotten into the drug scene, I think more than in the past, and that increases crime. We've seen a lot of break-ins to second homes and things of that nature." Prescription drugs was also mentioned. "It's not just the illegal drugs. Still something you can get with a prescription. For whatever reason we have a higher rate in our rural areas and it's gotten worse. When you talk to other counties in the eastern part of the state they're not seeing the same thing as we are as the

growth in drug addicted babies." "The NICU at Mission has seen a 400% increase in drug addicted babies in a one year period." These concerns were raised in multiple key informant interviews, both youth groups, and the Mental Health Listening Session.

Opportunities

- Teen Institute prevention programming, including the Project Venture Program for 6th grade
- Countywide tobacco policy restricting use of tobacco on government grounds
- "I'm finding that a lot of times things do exist, people just don't know about them. Or even the professionals don't know. Nurse Family Partnership is a perfect example. The OBGYN's didn't know all the details about how to make referrals to those. We can't intervene if someone's pregnant. We cannot intervene with child protection until a child is born. So you have the nurse family partnership who can't take a referral after 20 weeks, they have to be pre-natal. The nurse family partnership is a great resource to link a pregnant mother whose using drugs to try to prevent her, help her to maintain throughout that pregnancy and then to deliver to have positive outcomes and help her deliver and help the baby to have a positive start."
- The Crisis Mobilization Team, that came from an outcry from a lack of resources.

Challenges

- Tobacco is banned in school but enforcement needs to be strengthened
- Funding cuts for substance abuse efforts
- A need for consistent, accurate and reliable data
- "We've seen a huge increase on the drug addicted babies. Moms on methadone and babies needing to be on Methadone for that period of de-escalation or weening. More children in the NICU and then coming out that need home health services in our area. The NICU at Mission has seen a 400% increase in drug addicted babies in a one year period. And it's primarely prescription drugs primarily when we say drug addicted. We deal more with Mission direct because of the specialized care. The babies may have been born here but they're sent to the NICU at Mission. That has been an incredible challenge of getting the appropriate services for those children. Sometimes we need specialized medical needs foster homes for children that need medical methadone treatment or one on one care."

Existing Resources

- DARE Program in 5th grade

Potential Strategies

- Stop selling tobacco in drug stores
- Remove ashtrays from school stairs
- More cameras in schools to enforce tobacco ban
- Promote cancer awareness
- Random drug tests
- Motivation to get away from drugs and stay healthy

- "Offer programs that could help inform kids about the effects of drugs and prevention programs"
- So providing counseling, providing prevention, providing appropriate incentives for students and youth to learn about that at an earlier age
- Rehabilitation programs rather than jail time
- "I think they should do the DARE program more than just in fifth grade"
- Complete PRIDE survey. Commitment from agency or county to gather this information on an annual basis.
- Drug Testing in Mothers- Implementing testing the umbilical cord rather than the Miconian (urine) testing locally for accurate and immediate results.
- Building the capacity locally for foster homes for medically fragile children
- A mentoring family especially for someone that doesn't have a support system