2014-15

Community Health Report
Ashe County



Appalachian District Health Department

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2014-15

Ashe County Community Health Needs Assessment

Ashe Memorial Hospital

Preface

Ashe Memorial Hospital (AMH) in collaboration with the Appalachian District Health Department (ADHD) and Ashe Health Alliance agencies conducted a community health needs assessment during 2014 and 2015. The details and related analysis and findings of this mixed methods (quantitative and qualitative) comprehensive community health needs assessment is described fully in the following document. All Community Health Needs Assessment (CHNA) requirements by a Not-for-Profit hospital such as AMH are summarized in this preface and/ or described in detail in the full report that follows this preface. Those requirements include: a CHNA was conducted and included a broad interest of involvement with those agencies involved being listed, defined the community, its demographics, the process used for collection, identified community health needs as identified by available data and community input, primary and chronic diseases were identified by low income and marginalized groups, a systematic process was used to identify needs to address in an implementation plan by appropriate community agency input, and as other issues were raised by the AHA broad member base those were also addressed, AMH reviewed and adopted an implementation plan from information received by the AHA and the specific service needs of the hospital. In addition to posting the plan on the AMH website focus groups were held to determine appropriateness of the actions outlined in the implementation plan and will be an ongoing process throughout the implementation plan.

Ashe Memorial Hospital is a critical access hospital located in Jefferson, NC and the only hospital in Ashe County. 90% of its patients are from Ashe County with 10% from outside the county. It is a large tourist and summer retirement area. The age of the patients range across the lifespan with the following breakdown of ages: 12% 0-18 years of age; 48% 18 – 64 years of age; and 39% 65+ years of age. The gender breakdown of patients seen at AMH is 62% female and 38% male.

The AMH Board of Trustees provided guidance for the CHNA process and findings through dialogue at several updates with the latest being on September 2, 2015 when the draft implementation plan was reviewed. The board voted to support the Ashe Health Alliance implementation plan and the AMH coordinator role dedicated to the Ashe Health Alliance (AHA).

"The Planning Committee recommends the adoption of the following implementation strategies:

Chronic Disease - Continue the programs and outreach that are now in place and focus the next year on the expansion, of cancer treatment and support by developing a collaboration with the Seby Center, Forsyth, and our employed Oncologist, to provide comprehensive cancer treatment; implementing Chemotherapy services, sentinel node biopsy capability; and expanding technology and support for colon cancer detection.

Behavioral Health - Continue to work with NC Steps to provide a higher quality of care for patients coming to the hospital and especially to the ED for commitment or other issues.

AHA Support - Continue to support the staffing, operations and logistical support for the expansion of the AHA in garnering community strength to address issues and reduce barriers to access.

Ashe Memorial Hospital's focus is:

- Chronic Disease
- Cancer
- Expansion of Technology
- Behavioral Health – Emergency Department
- Support expansion of the Ashe Health Alliance

A motion was made and duly seconded to approve the 2015 Community Health Needs Assessment AMH implementation strategies." (Board of Trustee Meeting Minutes, September 18, 2015)

The AMH coordinator assigned to the AHA serves as co-chair along with the ADHD representative. The AHA is fortunate to have as an active member an AMH board of trustee member.

The AHA ensured broad community interests by engaging agencies within Ashe County and the surrounding area. This involvement allowed for key stakeholders to provide guidance and input in creating a healthy county. These key stakeholders were critical in making the CHNA a successful and dynamic activity. Specific agencies involved in the CHNA data collection, analysis and designing the proposed implementation plan included:

- Appalachian District Health Department
- Appalachian State University Representatives from College of Healthcare Sciences
- Appalachian State University Representatives from College of Psychology
- Department of Social Services
- Ashe County Free Clinic
- Mountain Family Care Center
- Private Behavioral Health Counselors
- Ashe Partnership for Children
- Ashe County School System
- Western Youth Network
- NC Access Care
- Daymark Behavioral Health Treatment Center
- Blue Ridge Women in Agriculture
- Appalachian Sustainable Agriculture Program
- Ashe County Extension Agency
- Smoky Mountain Treatment Center
- West Jefferson Office of Planning
- Faith Based Community Representatives
- Second Harvest Food Bank
- Community members
- Ashe County Library
- Ashe Memorial Hospital Board of Trustee member
- Ashe County Chamber of Commerce

The community survey was conducted through electronic and/or paper versions reaching 97% of the targeted goal of 500 surveys. Demographics of those that responded can be found in the full report. The survey responses were combined with the health data available online through the North Carolina Department of Health Services. It was determined that 60% of deaths are related to chronic diseases with heart disease and cancer being top of the list. The three primary risk factors supported by the data, research and community opinion included poor nutrition, decreased physical activity and tobacco use.

The Ashe Health Alliance after reviewing the health data, community survey responses, assessing the gaps and assets of health related services determined a 3 prong implementation approach to systemically address the identified issues and gaps.

First, it was decided to improve the network and support of each Ashe Health Alliance agency and their initiatives to improve the health of Ashe County. By supporting planned activities and programs instead of "reinventing the wheel" or adding additional services and programs would avoid ineffectiveness or duplicate efforts. Through a network team, a resource website will be created for first the AHA members but after tested will be available for all medical providers and residence of Ashe County.

Second, a chronic disease campaign will be conducted over the next 2 years with one chronic disease topic offered via a county-wide blitz approach. Each chronic disease topic will be offered over a four-month period in multiple locations and venues. Topics will include: Heart Health, Diabetes, Respiratory Health and Disease, Behavioral/ Mental/ Brain Health, Suicide and Substance Abuse, Cancer Prevention and Treatment, Activity and Nutrition for Health. Each topic will be developed as appropriate for Ashe County by a topic team of subject matter experts and disseminated across the county via brochures and speakers at events, businesses and county offices. When possible information from key agencies such as The American Cancer Society and the American Hearth Association will be used to ensure evidenced base information. Already existing programs from area agencies for specific topics will be used and supported.

Third, over the next two years a comprehensive behavioral health plan will be developed by key stakeholders tapping into the available resources and identifying additional resources that are needed to be brought into the county.

To summarize, the 3-prong approach for the CHNA implementation plans includes:

1. Create social media and web-based resources to improve linkages among members of the AHA. This would allow leveraging activities and work already underway or planned that fits with the work of the Alliance. Create appropriate linkages to resources for the general public as well as medical providers.
2. Design and implement a Comprehensive Community Awareness/ Education/ Prevention and Disease Detection Campaign to transform the health of Ashe County.
3. Create a long-term sustainable strategy to address the behavioral health/ Substance abuse and Suicide Prevention.

To validate the CHNA findings and the implementation plans community listening sessions have been held and will continue to be held throughout the implementation phase. The ADHD coordinated with Appalachian State University Psychology undergraduate students to conduct interviews based on the findings of the CHNA analysis. The AHA will continue to glean information from ongoing evaluation efforts via community listening sessions to alter or improve approaches as needed throughout the implementation process.

Ashe Memorial Hospital is grateful to the ADHD and all AHA member agencies for making the CHNA effort a collaborative, strong and meaningful effort for improving the health of the residents of Ashe County. Detail information regarding the CHNA process and findings can be found in the detailed report that follows.

In addition to supporting the work of the Ashe Health Alliance, AMH is dedicated to improving medical services and access to care in Ashe County through the addition of services in the following areas:

1. Addition of a cancer unit with chemotherapy available
2. Recruitment of additional providers
3. Addition of behavioral health staff and services
4. Expansion and update of the emergency department
5. Ongoing outreach for disease detection and access to care

Acknowledgments

This report is a result of a collaborative effort of Ashe County. We acknowledge individuals and to organizations who helped play an integral role in the development and implementation of community health assessment plans. See Appendix A for a detailed list of individuals.

Appalachian District Board of Health

Ashe Health Alliance

Ashe Memorial Hospital

Western Youth Network

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Executive Summary

The status of health in Ashe County is one of community importance since health affects the community in so many ways. There are many strengths in the county, as pointed out by community members responding to the community opinion survey such as beauty of the rural community offered by natural resources, willingness of so many residents to care for others, and community connectedness through collaboration and social support offered through friends, neighbors, and faith communities.

Community collaboration led to the development of a comprehensive plan including five main elements in two key phases. The first phase of the process described in this report include the collection and analysis community input through an opinion survey, community leader input, and community secondary data review. During this phase, the Ashe Health Alliance adopted a community input survey that was distributed broadly in two ways: electronically by email, website posting, and social media, and through traditional hard copy formats in various community locations including the health department and WIC clinic, county library, Ashe Memorial Hospital, and many others. Appalachian District Board of Health members also provided input about the questions included and distribution points for a community leadership survey disseminated only in electronic formats for initial data collection. In addition, Ashe Health Alliance members took efforts to disseminate hard copies and/or electronic links to the survey from the period of mid-November-January 31, 2015. The initial goal of responses for the community opinion survey disseminated in the county was 500, and the goal was achieved at about 97% with 488 responses overall. The community leadership survey had lower response, with 28 overall, but this has been reviewed as an initial step towards collecting leadership input that will be broadened in the second phase of data collection.

The group utilized community convenience sampling methods for the community input due to resources available. At the November, 2015 meeting, the Ashe Health Alliance members adopted a timeline for completing the assessment. In addition, they reviewed and approved a radio public service announcement to run on local station, WKSK 580AM to promote the survey. Paper copies were distributed to members at this meeting, and members worked diligently to ensure a broad representation was included. At the January, 2015 meeting, Ashe Health Alliance members reviewed preliminary results from the community opinion survey and approved an extension to the end of January, 2015 to get closer to the response goal of 500 or more. Winter weather posed challenges in continuing efforts for the next phase of data review planned for February, 2015, and but the group continued to work diligently to meet established deadlines by the NC Division of Public Health for filing the community health report. Ashe Health Alliance members received a powerpoint presentation to guide the selection of community health priorities. The priority selection criteria was outlined (as is described in health priorities section) and members used 3 stickers to vote for their top priorities. Data review included socioeconomic data like population numbers and growth trends, race/ethnic profile of the community, and a review of leading causes of death and illness in the county using trends.

Similarities between secondary data and community opinions

Overall, the analysis of community data along with community opinions indicate that, for many areas, the community members who participated in the survey highlighted key areas of concern that mirrored that in the community statistics from secondary sources. The community opinion data reflects those that participated in the survey seem in-tune with the concerns related to substance abuse, chronic disease, and behavioral health needs. In addition, those responding also seem aware of the importance of caring for the aging population in the community.

Chronic diseases claiming most lives and causing the most illness call for preventive measures.

The leading cause of death in the county is heart disease, followed by a close second in cancer, with most cancer deaths attributed to lung cancer. If all leading causes of death for the county are combined, over 60% are due to preventable chronic disease. This is important since we know that 3 primary risk factors: poor nutrition, lack of physical activity, and tobacco use are linked to them. We also know that from review of the mortality statistics, chronic diseases often affect some groups more than others. For example, we know that though heart disease is a leading cause of death overall, more men die from heart disease every year when compared to women.

Community members who participated in the survey pointed out the connection between poor eating habits, being overweight, lack of exercise, and tobacco use as impactful aspects of overall community health problems. In addition, most supported the notion of providing indoor and outdoor recreational and active living opportunities in the community, along with tobacco free environments like workplaces, parks, and other public venues beyond indoor areas of restaurants and bars.

Tobacco use is the leading cause of preventable death in the US and is a major risk factor linked to the majority of deaths in the county.

Tobacco use is a well-known risk factor for many community health problems that are noted within the secondary data like low and very low birthweight due to a higher percentage of women who smoked during pregnancy, a high number of people who have died from chronic lower respiratory disease/chronic obstructive pulmonary disease (CLRD/COPD), and that lung cancer and heart disease are leading causes of morbidity and mortality in the community. It is important to remember the demographic who responded to the survey when reviewing this analysis, but this majority support somewhat mirrors that of other statewide policy efforts that have had support, even among some former or current tobacco users. Along with traditional forms of tobacco use, another trend that is emerging in the community is electronic nicotine delivery systems (ENDS), which may be better known as e-cigarettes or some other form. There is much that is unknown about the potential harms that may come as a result of the use of ENDS, but the Office on Smoking and Health of the Centers for Disease Control and Prevention note:

"Smoking is by far the leading cause of preventable death in the U.S., causing nearly 500,000 premature deaths each year, including 42,000 deaths caused by secondhand smoke exposure (DHHS, 2014). ***In North Carolina, 24.6% of young adults aged 18-30 are current cigarette smokers*** *(DHHS, 2014).* ***If smoking persists at the current rate, the 2014 Surgeon General's report projects that 5.6 million of today's American children will die prematurely from a smoking-related illness, including 180,000 North Carolina youth aged 0-17*** *(DHHS, 2014, p.694). "* –Tim McAffee, MD, MPH, Director, Office of Smoking and Health, Centers for Disease Control and Prevention, US DHHS.

Tobacco prevention and control tools are available for healthcare providers, workplaces, and public policy makers at local, state, and national levels. ***Local governments do have authority to adopt and enforce tobacco free policies in public places that can protect those most vulnerable from exposure and further efforts to reduce the illness and deaths related with diseases linked to tobacco use.***

Alcohol, Tobacco and Prescription drugs

Community members recognize alcohol, tobacco, and other drug use as one of the major health problems and one of the major risky behaviors that impact health in the county. The importance of substance abuse review is not only the potential harmful effects of misuse or abuse of substances, but also because alcohol and other drugs can be linked to other health problems that we are among the leading causes of death: all other unintentional injuries, suicide, and unintentional motor-vehicle injury deaths. In close review of these causes, we see that some trends have increased, including that of all other unintentional injuries, which is now the 4th leading cause of death. Suicide deaths show a decreasing trend. Tobacco and alcohol are important substances to consider along with prescription drugs since each is linked to injury-related or chronic disease-related deaths that are among the leading causes of mortality for the county.

According to the data detailed in the Substance Abuse section, we note that community members pointed out their top 3 substance abuse concerns as methamphetamine use (80%), prescription drug misuse or abuse (60%), alcohol use (46%), and tobacco use (43%). Ranked slightly lower, were driving after using drugs or alcohol (25%) and marijuana use (25%).

Prescription drug misuse is a key factor to review when looking at deaths due to all other unintentional injuries since many are due to unintentional poisoning. Efforts have begun to address this concern with the Project Lazarus program, but continued efforts are likely needed to continue to adopt a community wide model that addresses prescription overdose, response to overdose using Naloxone rescue kits by emergency responders or family members of individuals believed to be at-risk, as well as other methods like prescription lockboxes, drop box locations, and community-wide awareness. Operation Medicine Cabinet or Medicine Take back days often coordinated by law enforcement and community partners offer great exposure in the community to safely dispose of medicines.

Alcohol use also warrants additional review since it is linked to 7% of all crashes compared to 4.9% in NC and 5.5% in Macon County. In NC, 28% of all fatal crashes were related to alcohol in 2013, and 0% were alcohol related in Ashe County for 2012 and 2013, but in prior years, it ranged from 25% to 67% (UNC HSRC, 2013). Simple, yet comprehensive approaches can also be applied to addressing alcohol use, especially that among underage users, which community members who participated in the survey believe that most access alcohol from peers or siblings (51%), while others equally believe access is gained from alcohol left accessible (23%), or accessing it at parties (23%), and fewer believed access came from home with parents that approve (16%).

Substance abuse is an important component when considering community behavioral health needs and gaps as well as unintentional injury deaths. All other unintentional injury deaths ranks 4th among the leading causes of death for the county, and *represents nearly double the number* of deaths in the county in comparison to suicide.

Additionally, alcohol and other substances may increase risk of depression, which may increase risk for suicide. The data reviewed for the most recent period available, 2003-2007 from the NC Office of Chief Medical Examiner, shows that of the suicide deaths of 15 year olds or older county residents, 40% had some alcohol present at the time, and of those, nearly a third had a blood alcohol content (BAC) above the legal limit of 0.08g/dL. In addition, handguns were the most often reported means of suicide during the same time period with at least 10% more suicides by means of handguns when compared to NC and Macon County during this data period (NC SCHS, NC OCME).

Behavioral health and suicide

Behavioral health is a broad area including substance abuse described above, but may also encompass community needs for behavioral healthcare supports like counseling and other therapies. Overall, suicide continues to be among the leading causes of death, tying 7th place with diabetes and septicemia (NC SCHS, 2014). The suicide rate viewed over five-year aggregate trends from 2001—2005 to 2009-2013 indicates a decreasing trend to a rate of death of 18.2 per 100,000 (NC SCHS, 2014). Though this is higher than NC overall with a rate of 12.2 per 100,000, Ashe has a lower suicide rate compared to 20 per 100,000 in Macon County (NC SCHS, 2014). *Over the period of 2008-2012, there were 28 Ashe County residents who died by suicide: 18 were male and 10 were female (NC SCHS, 2013).*

It is important to understand factors that may influence or give context important in understanding and addressing this community health concern. We know from the community opinion survey, most respondents (74%) recognize that suicide is a problem in the county, while another 14% don't know if a problem exists. Most often, if someone was made aware a person had extreme sadness or were contemplating suicide, they would refer them to a doctor, health department, or other clinic or a pastor or another church member. Consideration for community health improvement

should include a greater understanding about whether or not the healthcare and faith community are prepared and equipped with tools they need should someone refer a person near or in crisis to them for help. In addition, further efforts to understand potential behavioral health needs of youth should be explored through use of other tools like the Youth Risk Behavior Survey, so youth needs can be assessed since suicide among youth and young adults has become a national problem.

Aging population trends and projected needs of the elderly

Some community members (28%) recognized the needs of aging problems by noting it among the top 3 health problems that have the greatest impact on the community. There were many needs identified for older adults in the community, but among them, transportation and medication assistance programs were identified as most important by survey participants, 67% and 70%, respectively. Ashe County has a higher median age of 45.5 years compared to 37.6 years in NC and high percentage of older adults in the county, with 15.5% age 55-64 and another 23% who are age 65 and older (NC LINC, 2013). Altogether, that is nearly 40% of the population age 55 or older. This is an area that should be further assessed to ensure a broad sector of community members understand what is already planned or what needs further support to implement or sustain initiatives for this population group.

Special populations in the community

Community members at the greatest risk for health problems are described briefly in this report. Notably, those who are youngest, oldest, and without healthcare coverage are important groups, as are those who do not speak English as a first language. Ashe County homes that speak a language other than English at home are 4.6% compared to 7% in Macon County and 10.9% in NC overall (US Census Bureau, 2013).

Socioeconomic factors that have impacts on the community

Economy impacts health, as is evidence through unemployment rates, poverty, and household income levels well below that of NC. Economic development efforts aimed at growing employment are an important component to supporting long term health in the community. Though the unemployment rate for the county is decreasing, it is 7.6% compared to 6.6% in Macon County and 6.3% in NC (NC Department of Commerce, 2014)

If I could change one thing to support health in my community

Community members participating in the community opinion survey were asked what they would change if they could impact one thing to improve health in the community. Major themes emerging from those write-in responses were around addressing healthcare coverage and affordability (73),improving physical activity options including indoor and outdoor recreation opportunities (56), increase and/or improve medical care services (49, of which 10 are specifically related to mental health services available), increase healthy food options and/or nutrition behaviors (35), furthering education, with most specifically about education for preventive health efforts (27), and addressing substance abuse concerns (23, of which most were about tobacco control/prevention followed by youth prevention efforts related to substance use).

Health priorities selected

Health priorities were selected by the Ashe Health Alliance in February, 2015 as described in methods section. These priorities are not all-inclusive, but highlight priority areas this group will be working to better understand and develop community improvement efforts to improve upon them. However, other key areas highlighted in this report will be reviewed as well to make sure all groups working to support health have the ability to also engage.

Substance Use and Abuse

Drugs, alcohol, and tobacco; including misuse or abuse of prescription drugs and use of e-cigarettes or other devices for nicotine delivery

Physical activity and nutrition

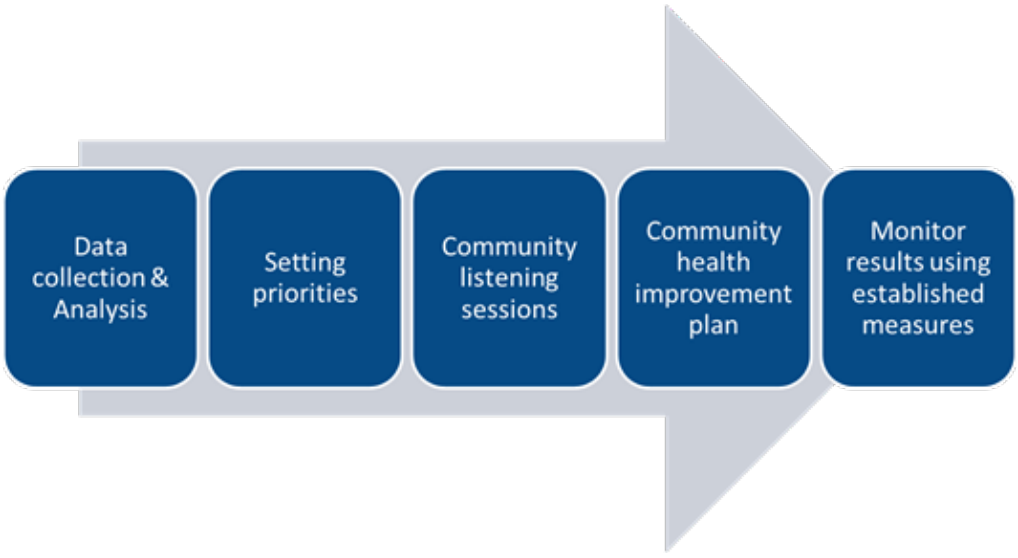
Access to physical activity or recreation, accessing healthy foods, and making healthy choices for eating healthy and making physical activity easier for all

Chronic Disease Management and Awareness

Obesity, Heart disease, chronic lower respiratory disease/COPD, stroke, cancer, diabetes, and hypertension

Next steps for community health improvement planning

The group's next steps in addressing important health priorities are briefly described below in the graphic. Since each priority requires both the use of evidence-based interventions (where they exist) and community context, and because some sectors of the population were not adequately heard during the community opinion survey process, the next steps will be conducting 4 to 5 community listening sessions in community locations selected by the coalition. At each listening session, community members will learn some about their community's health, but most of the time will be spent on gathering input from community members about solutions or reactions to proposed solutions using evidence based strategies. This process will take place in the spring of 2015. Results from community listening sessions will lead the group towards the development of a comprehensive community health improvement plan that will be used for the next two to three years to implement and measure results. This report is planned to be released during a community-wide forum, date to be determined, during the summer, 2015.



Introduction & Background

Community health assessment is an important part of understanding what the main health problems are in Ashe County. In addition, a review of statistics along with community health opinions help provide context to the leading health problems.

A core function of public health service is assessment. Assessment helps identify the leading causes of death and illness while also providing other important information like community resources that support health and what populations must have special consideration in supporting the public's health.

In 2002, the NC Division of Public Health and the NC Local Health Director's Association led an effort to adopt a mandatory system for local health department accreditation. Since that time, it is now required that every local health department in NC complete a self-assessment and independent peer review process by the NC Local Health Department Accreditation Board of 41 benchmarks and 148 activities that help the local health department assess its own capacity in meeting the 10 essential services and 3 core functions of public health. The community health assessment is a key component of assuring the local health department is monitoring, identifying, and taking action on the most recent community health assessment (NC LHDA Board, UNC Gillings School of Global Public Health, 2002). Prior to this time, Appalachian District Health Department had been completing community health needs assessments, and this new requirement led to further enhancements in the process.

Later, in 2010, the Patient Protection and Affordable Care Act was adopted into law requiring non-profit hospitals to file community health needs assessments along with evidence of addressing community needs through filing a Form 990 Schedule H to the IRS with supporting documentation (NC Hospital Association, 2015).

Locally, both Appalachian District Health Department and Ashe Memorial Hospital determined a collaborative community health needs assessment process would lead to greater benefit and efficiency to the community. To better align to meet both needs, Appalachian District Health Department and Ashe Memorial Hospital adopted a 3-year cycle for community health needs assessments. The first process linking the two organizations occurred in 2011. Since this time, the NC Division of Public Health allowed greater flexibility to file the community health needs assessment, which has led to the new cycle of publishing this community health report in March, 2015. Following this year, the next cycle of community health report will be published again by March, 2018.

The cross-sector health coalition, Ashe Health Alliance, agreed to advise and implement the community health report efforts. The group had a broad sector of community agency representatives along with community member volunteers who collectively provide a broad-base of community knowledge important in understand what community health issues exist, why they may exist, and how to utilize the data to move towards action.

The group participated through regular meetings, email correspondence, and by reviewing survey instruments, disseminating community health opinion surveys, and reviewing health report data and opinions. In February, 2015, the group took the next step towards community health improvement by selecting three key priorities for further analysis and community health improvement plan development.

Process & Methods

The Ashe Health Alliance and workgroup members determined three overall themes in conducting the community health needs assessment.



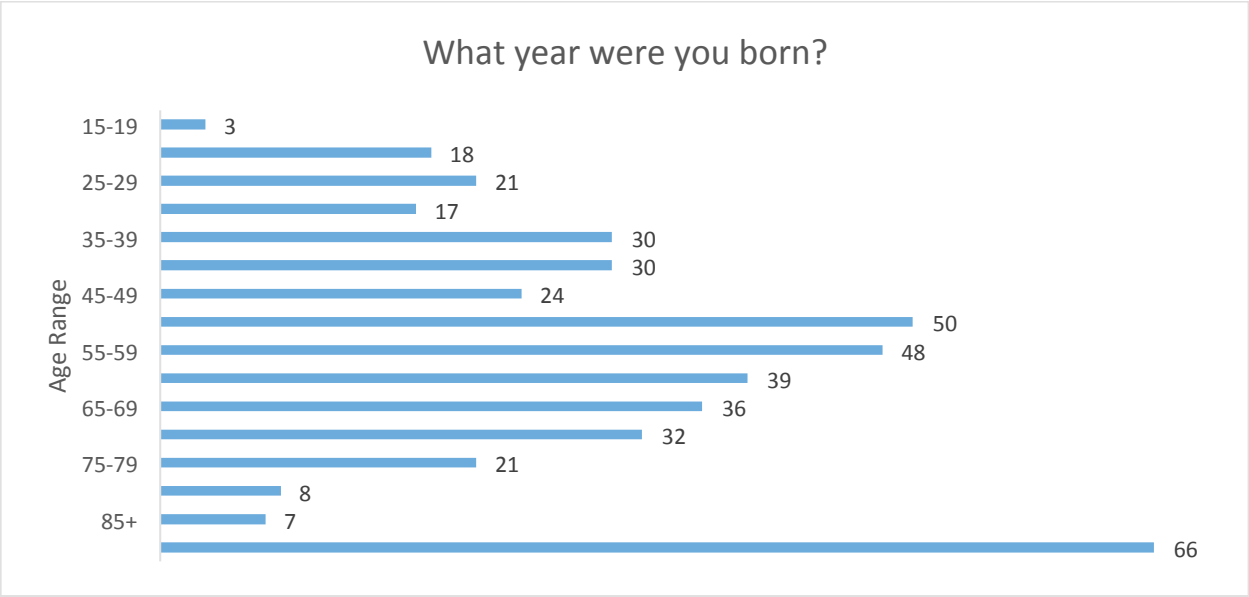
On November 7, 2014, the Ashe Health Alliance met in Jefferson, NC to review the timeline, key components, and actions for the community health needs assessment. Prior to this meeting, some committee members, including staff from Ashe Memorial Hospital, provided feedback to the Appalachian District Health Department staff in the development of the community opinion survey.

Methods used for this report include:

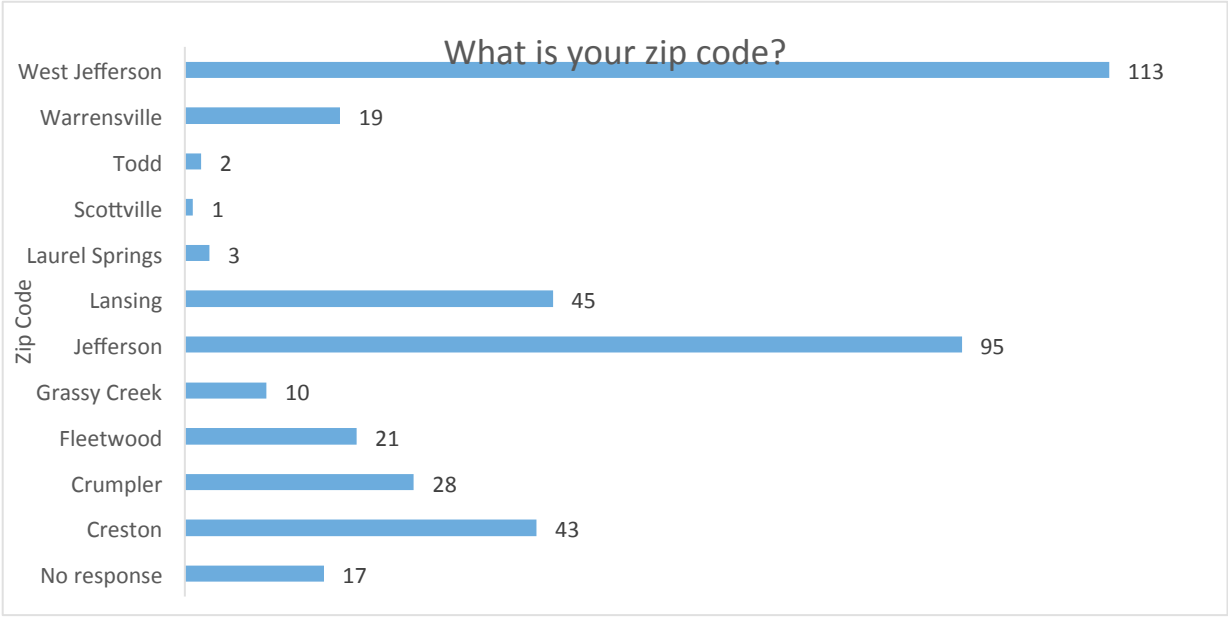
Community health opinion survey –see Appendix B to review the community health opinion survey instrument used. This survey was developed to mirror questions that identified community strengths, important health problems, and health behaviors of community residents. Questions were modeled after the National Association of City and County Health Officials and past survey instruments used. A total of 600 English and 100 Spanish survey instruments were printed and distributed in multiple community venues with the support of Ashe Health Alliance members. Locations for distribution included the Ashe County Library, Ashe Memorial Hospital, Ashe County Health Department and WIC clinic, Ashe Partnership for Children, and many community locations through special volunteer efforts. In addition, an electronic version of the survey instrument was developed using Survey Monkey, a survey subscription service held by the Appalachian District Health Department. The survey instrument link was emailed to Ashe Health Alliance members in November, 2014 and all were asked to distribute and post the link accordingly. In addition, the local media highlighted the community health assessment process and asked for input by completing the survey electronically or at a community location.

The data collection goal of 500 surveys was established by the Ashe Health Alliance at the November 7, 2014 meeting. However, with both electronic and paper copy distribution, promotion, and links available, the survey respondents totaled 488 people or over 97% of the established goal. Community health opinion surveys using a convenience-

sampling methodology are most feasible with limited time and financial resources. However, they do provide some insights in community opinions, but always should be interpreted with caution. To address the full understanding and limitations of use of this data, the information below compares the community demographics to those that responded to the survey.



Survey respondents overall were similar to the ages within the community since Ashe County has a higher percentage of residents age 50 years and older (US Census Bureau, 2013). Hispanic or Latino groups were underrepresented in the survey collection, which could be due to using surveys to elicit feedback when other methods like community listening sessions planned, may prove more useful to gain insights from this group. Townships were represented fairly well across the distribution area given the population number within those townships. The strong representation is due to some members' efforts to distribute the surveys broadly.



Community health leadership survey –see Appendix B to review the community health leadership survey instruments and data. This survey was intended to complement the community health opinions and understand how community leaders see community health problems and strengths. The Appalachian District Board of Health provided feedback on distribution of this survey. Unlike the community opinion survey, this survey was only distributed electronically using Survey Monkey, and further results may be warranted to get a full picture of community health leader input. Given the time constraints to meet the report submission deadlines, this may be an avenue the coalition will explore with community listening sessions planned next.

Secondary Data –see Appendix C to review the data book. This is an important part of the overall report since much of the described condition of the community utilizes data collected from trusted sources such as the US Census Bureau and the NC State Center for Health Statistics. This data provides us with information about the demographic profile of the community, population growth trends, and trend analyses of key issues like income and poverty, health behaviors, and leading causes of illness and death.

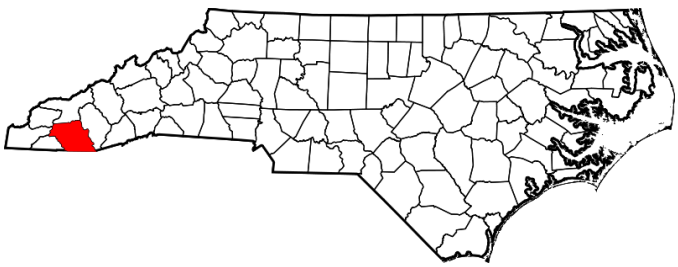
Included in this report are comparisons between the county, a peer county, and the state of NC overall. We use these comparisons to better understand how this county's statistics differ from a similar county or the state. Some data is reported in rates per a certain number in the population (e.g., 100,000) while other is reported as a percent. New cases of a disease are often reported as a rate while health behaviors and prevalence of a disease existing in the population is reported as a percentage.

Special attention is warranted when the county statistics a different from the peer county or NC overall, when the trend overtime is showing significant change, or there are disparities between statistics by age, gender, race or ethnicity (Pfaender, 2015).

Special caution is warranted when the county statistics include a rate below 20. Rates can be more sensitive to spikes in the data on particular years and therefore, higher rates one year may level out if tracked using a trend analysis of the measure overtime. This is especially important due to the small size of the county population. When rates were unstable because of small numbers, they may not be reported here. In addition, number of cases is used in some places to provide greater context for the meaning of a rate or percent.

About the peer county –Macon County, NC

The NC Division of Public Health has grouped communities into peer subgroups in order to assist counties in drawing comparisons of statistics at the county level. Ashe County is included in Group M along with Cherokee, Beaufort, and Macon County. Population size and age distribution, population density, and percentage of people in poverty are utilized to group these counties (NC DPH, 2014).



Community Health Opinions

The community health opinion survey provides important information to utilize in planning community health improvement. Community member opinions often offer confirmation that community problems are noticed, or they may provide insight that an existing problem is not noticed.

While community opinions provide insights, they do not replace hard data that comes from reliable sources. In addition, the community opinion survey results referenced in this report must be interpreted with caution. The results of this survey cannot be generalized to that of the whole community since convenience sampling methods were used rather than random sampling techniques.

Overall, there were 488 responses to the survey, and 97% were white, non-Hispanic-Latino people who speak English as a first language. While this is close to the community demographics, it does not include sufficient sampling from those who do not speak English or are Hispanic-Latino origin since approximately 5% of the population is estimated to be Hispanic or Latino (US Census Bureau, 2010).

In addition, the survey respondents were fairly evenly distributed across educational levels, with slightly more often educated beyond high school, with 23% who had at least a bachelor's degree and another 17% with a graduate-level education beyond. Income levels were represented across the income spectrum provided, with nearly half of all respondents earning $24,999 or less annually. However, 30% respondents reported income levels of $50,000 or more annually. It is often more common that individuals with higher education and income levels may be more likely to take a survey, so this distribution was done well for a convenience sampling method. The survey methods did include promotion and a drawing for a prize that was intended to incentivize those less likely to participate to do so. In addition, surveys were in the community for over 8 weeks in multiple locations.

To address the underrepresentation in the community, the community listening sessions will target zipcodes, age groups, and those who do not speak English as a first language to gain additional information needed for a full understanding in addressing community health priorities.

Some key highlights from the survey are incorporated throughout this report, but in addition, these are additional points:

The top 3 most important community health problems that have the greatest impact on the community

Alcohol or drug use 64%, Cancers 43%, Mental health problems 30%, Aging problems 28%, and Heart disease/stroke 23% were the top choices.

The 3 most risky behaviors that have great impacts on health in the community

Alcohol or drug use 81%, Being overweight 50%, Poor eating habits 43%, Lack of exercise 29%, and tobacco use 30% were the top choices.

The top 3 environmental health concerns in the community

Meth labs 68%, Radon 24%, Drinking water 36%, Mold 27%, Secondhand smoke 26%, and Food Safety (restaurant inspections) 21% were the top choices.

Ashe County, NC

Ashe County, NC sits in the northwestern corner of North Carolina bordering Tennessee, Watauga, Wilkes, and Alleghany County in NC. Ashe County sits in the Blue Ridge Mountains with a vast array of outdoor recreation and cultural attractions. The two largest townships are West Jefferson and Jefferson, NC, located in the heart of the county.

Communities in Ashe County include

Zipcode	Township	Population	% County Pop	Median Age
28631	Grassy Creek	637	2.3%	47.9
28643	Lansing	3521	13%	45.9
28615	Creston	1876	6.9%	48.3
28684	Todd	2141	7.9%	44.9
28640	Jefferson	4719	17.4%	46.2
28694	West Jefferson	7744	28.5%	45.2
28626	Fleetwood	2714	10.0%	41.1
28617	Crumpler	2261	8.3%	42.6
28693	Warrensville	1700	6.3%	46
28672	Scottville	35	0.1%	49.3
28644	Laurel Springs	1494	5.5%	48.9

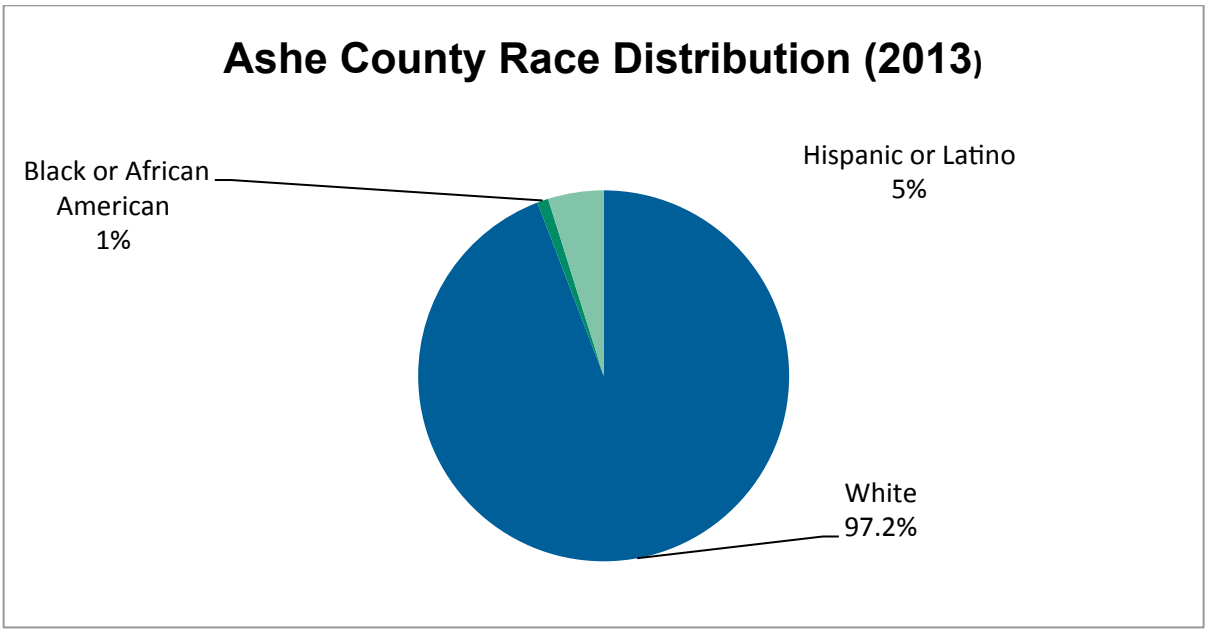


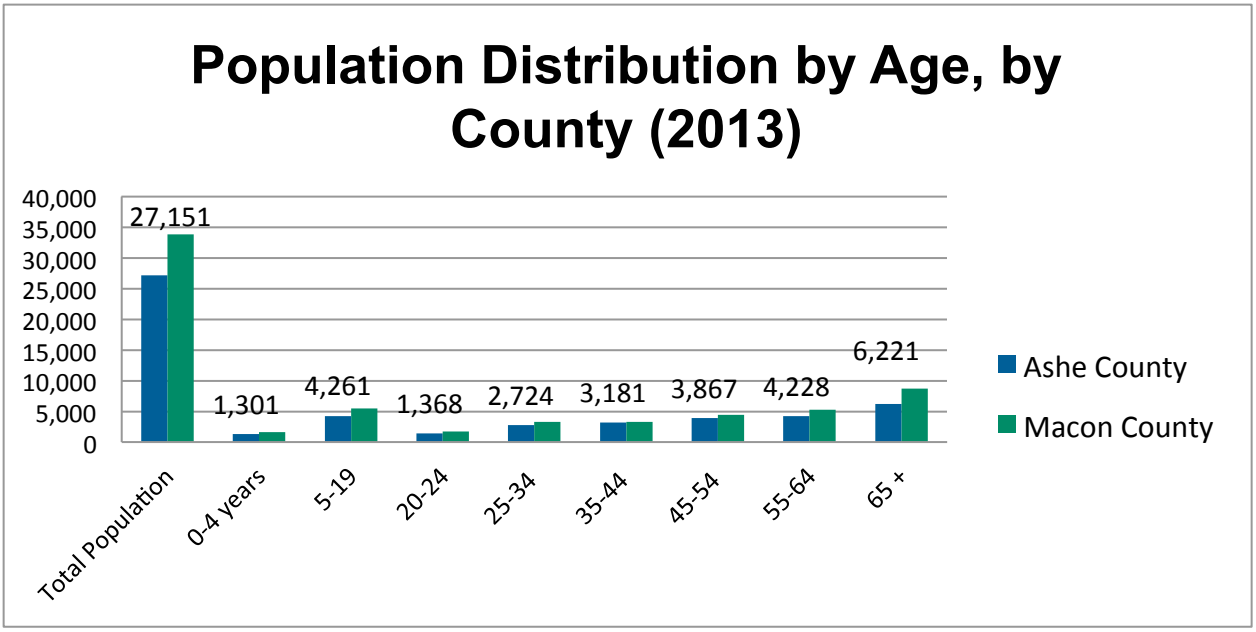
County Demographics

Overall, the Ashe County population is 27,151 (2013 estimate) with even distribution of males and females in the population. The median age for the county is 45.5 years compared to 37.6 years for NC overall (US Census Bureau, 2013). This data points out that the county has a population about 7.9 years "older" than NC.

The population is expected to grow to 28,933 in 2020 and up to 30,548 in 2030 (NC Office of State Budget and Management, 2014).

The majority of residents in the county, or 97.2%, identify themselves as White compared to that of NC at 69.7% White. In Ashe County there is a much lower percentage of African American residents when compared to NC. Overall, the county has a slightly lower percentage of Hispanic or Latino persons at 5% compared to 8.5% in NC and 9.3% in neighboring Alleghany County (US Census Bureau, 2013). This difference could be influenced by the agriculture history of the county since it is a large producer of NC Christmas trees and may employ some residents in that industry.





Nearly 40% of Ashe County residents are age 55 or older (US Census, 2013)

Community members participating in the survey were asked to choose what is needed to support older adults in the county, and they chose, in rank order:

Medication Assistance Programs 70%

Transportation 67%

Home delivered meal programs 57%

Assistance for buying food 53%

Long term care 51%

Recreation and activity opportunities 43%

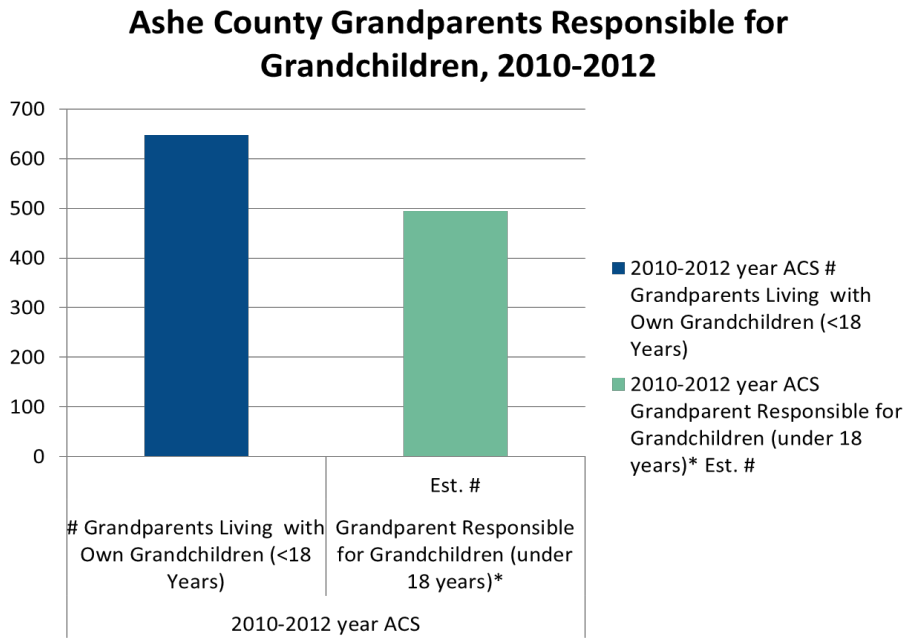
Meal programs offered at the senior center 36%

Abuse prevention programs 31%

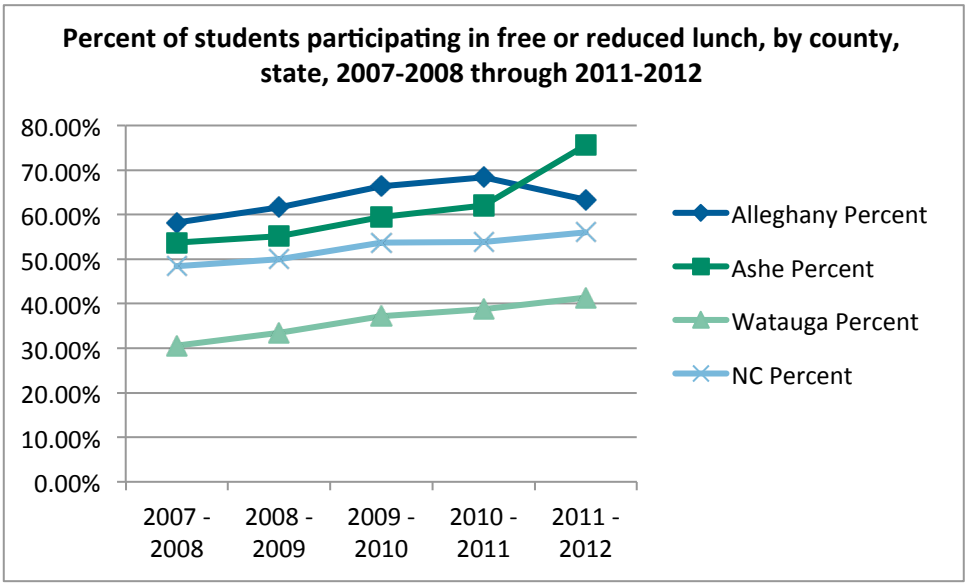
Retirement neighborhoods 30%

Children and Families

One important demographic trend to monitor closely is that of grandparents caring for or living with their grandchildren. For 2010-2012, 76.5% of the estimated 647 Ashe County grandparents living with their minor grandchildren were *also* responsible for their care (NC was 49%).

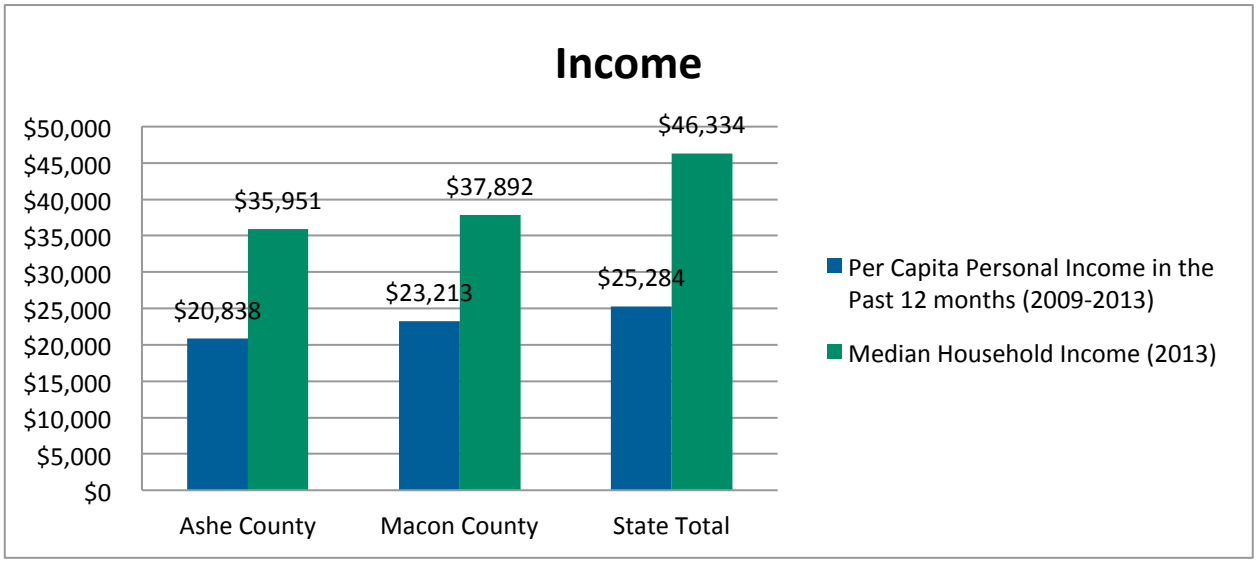


Free and reduced meals are subsidized for families at or below 130% of the Federal Poverty Guidelines and require application submission to the local school nutrition office. Ashe County children participating in the free or reduced meal program has increased from 53.7% in the 2007-2008 school year to 75.6% of students in 2011-2012. Though this shows a high level of need nearly 20% above that of NC overall, the positive is that many families are getting enrolled in this service. This does not include charter school data. (NC DPI, 2012).

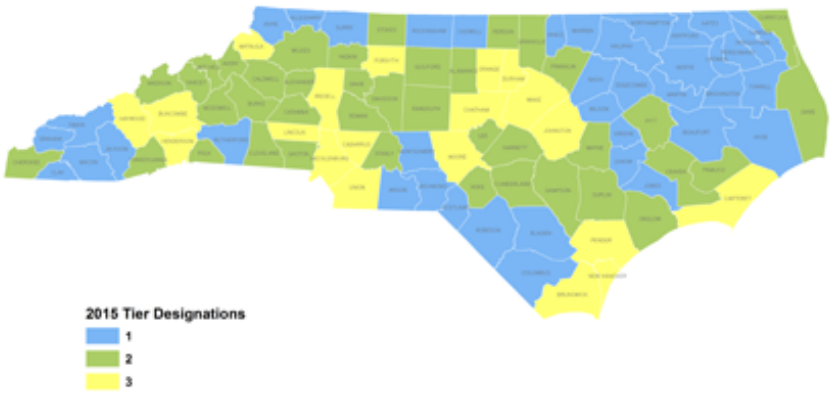


Income and economy

According to the NC Department of Commerce, Ashe County is considerably below the NC average with $4,446 less for per capita personal income and $10,383 less median household income (2009-2013).

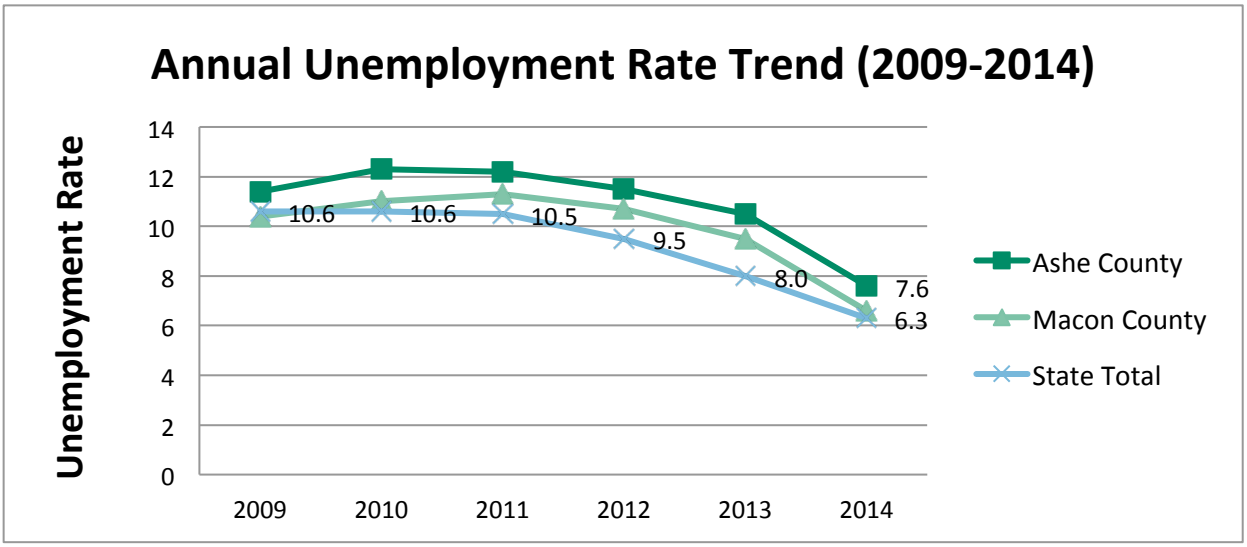


The NC Department of Commerce has announced the 2015 Economic Tier designations. **Ashe County has dropped from a Tier 2 to a Tier 1 county based on this report (2015).** Economic tiers are calculated using average unemployment rate, median household income, percentage growth in the population, and adjusted property tax base per capita. (image courtesy NC Department of Commerce, 2015).



Ashe County is now a designated Tier 1 county.

Unemployment

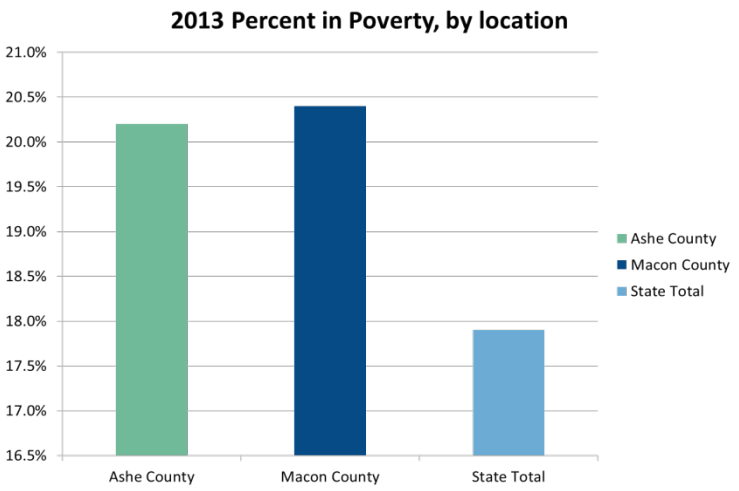


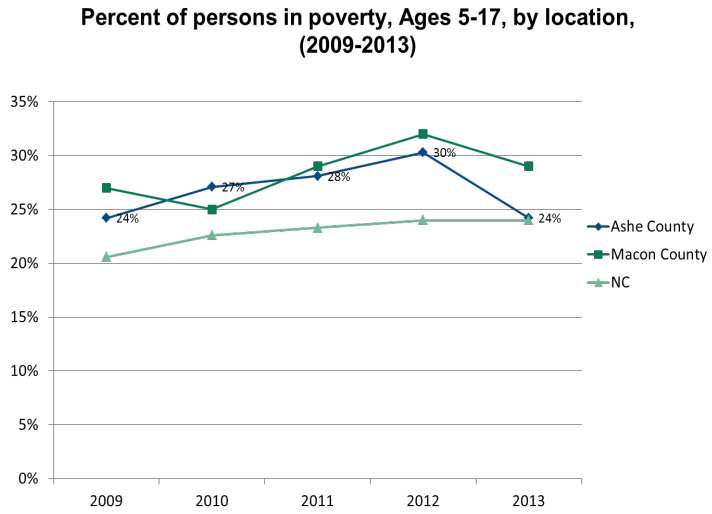
Ashe County remains with the decreasing trend of annual unemployment rate along with NC, but still is higher at 7.6% compared to 6.3% in NC (NC Department of Commerce). The largest employers are noted in the Appendix C Secondary Data book report, and included is a listing of the top 25 employers which is also listed below. Among the top 10, is Gates Rubber Company, which implemented considerable layoffs that have impacted county residents that may not be reflected in most recent available data.

Ashe			
Rank	**Employer**	**Industry**	**No. Employed**
1	American Emergency Vehicles	Manufacturing	250-499
2	County of Ashe	Public Administation	250-499
3	Ashe Co Board of Education	Education & Health Services	250-499
4	Ashe Memorial Hospital Inc	Education & Health Services	250-499
5	Wal-Mart Associates INC	Trade, Transportation & Utilities	100-249
6	Ashe Services of Aging Inc	Education & Health Services	100-249
7	James R Vannoy & Son Construction	Construction	100-249
8	General Electric Corp	Manufacturing	100-249
9	Gates Rubber Company*	Manufacturing	100-249*
10	United Chemi-Con Inc	Manufacturing	100-249
11	Skyline Telephone Membership Corp	Information	100-249
12	Suncrest Health Management	Professional & Buisness Services	100-249
13	Lowes Home Centers Inc	Trade, Transportation & Utilities	50-99
14	Leviton Manufactoring Co Inc	Manufacturing	50-99
15	Shatley Srpings Inn Llc	Leisure & Hospitality	50-99
16	Ingles Markets Inc	Trade, Transportation & Utilities	50-99
17	Mcdonald's Restaurants	Leisure & Hospitality	50-99
18	Af Bank	Financial Activities	50-99
19	Dr Pepper Bottling Co	Manufacturing	50-99
20	Wilkes Community College	Education & Health Services	50-99
21	J L Golf Management Llc	Leisure & Hospitality	50-99
22	Ks Brewing Tap Room and Rest	Leisure & Hospitality	50-99
23	The Hastings Co	Leisure & Hospitality	50-99
24	Mcfarland Co Inc	Information	50-99
25	NC Dept of Transportation	Public Administation	50-99

Poverty

The total percent of people living in poverty in Ashe County is much higher than that in NC overall from 2013 (US Census Bureau ACS, 2014). Overall, 20.2% people in Ashe County are living in poverty compared to 17.9% in NC. Since 2007-2011, the overall percent of children age 5-17 in poverty has decreased from 30% to 24% from 2009-2013. This indicates that while poverty has increased in NC, it has decreased slightly in Ashe County. This should be monitored, however, since the Gates Rubber Company layoffs may not be reflected in this data.





Poverty is more prevalent among children and minority populations.

When observing poverty rates, we look closely at ages affected and similar to other areas, children age 18 and under in Ashe County are disproportionately affected by poverty, at approximately 33.2% (US Census Bureau, 2013).

Housing is an important consideration when we consider the public's health. Housing costs that rise above the recommended 30% of household expenses put a strain on the overall home budget, which may affect health.

County	Total Housing Units**	Persons Per Household**	Median Gross Rent**	Owner-Occupied Housing Unit Rate**	Renter-occupied housing units Rate*
Ashe County	17,346	2.26	$644	76.9%	23.1%
Macon County	25,217	2018	$739	74.0%	26.0%
State Total	4,394,261	2.53	$776	66.4%	33.6%

Food insecurity & hunger

Ashe County has 4,410 people who are food insecure, and of these, 1,560 are children.

Feeding America Map the Meal Gap reports an estimated 29.9% of children in Ashe County are food insecure, compared to 26.7% in NC and 21.6% in the U.S. overall (2014). Among those participating in local food programs, nearly 70% also participated in SNAP (Supplemental Nutrition Assistance Program), another 43% were potentially income eligible, and another 57% were not income eligible. Among school aged children (5-18), 479 also participated in free or reduced-price lunch programs.

Average cost per meal

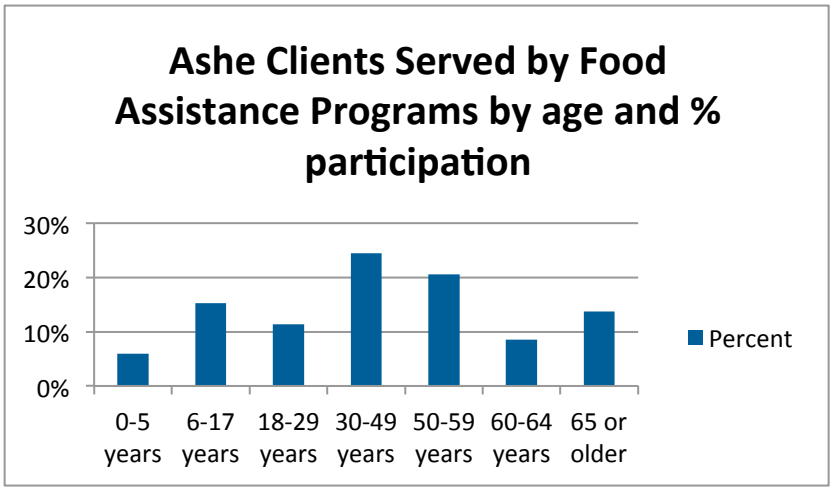
$2.82 per meal in Ashe County

$2.69 per meal in NC

$2.74 per meal in US

26.1% of clients served in local food pantry programs had worked in the past month, and over 40% had worked in the past year. 301 participants had lived in 2+ locations in the past year and nearly 20% had experienced foreclosure or eviction in the past five years (Feeding America, 2014)

The gap between food assistance programs is often met by charitable programs. An estimated 21% of adults and 16% of children rely on food assistance programs operated through charitable sources like food pantries and faith-based outreach efforts (Feeding America, 2014).



Source: Feeding America, *Hunger in America* (2014), Food Bank Report for Second Harvest Food Bank of Northwest North Carolina: Ashe County Minimum Density Data Tables. August, 2014.

Trading health for food

The report data above from Feeding America (2014) certainly indicate a food insecurity problem for many county residents. While hunger is a big concern, so is overall nutrition status since it may have a direct impact on preventing or managing chronic health problems like high blood pressure, diabetes, and obesity.

Ashe County neighbors traded *other needs* for food

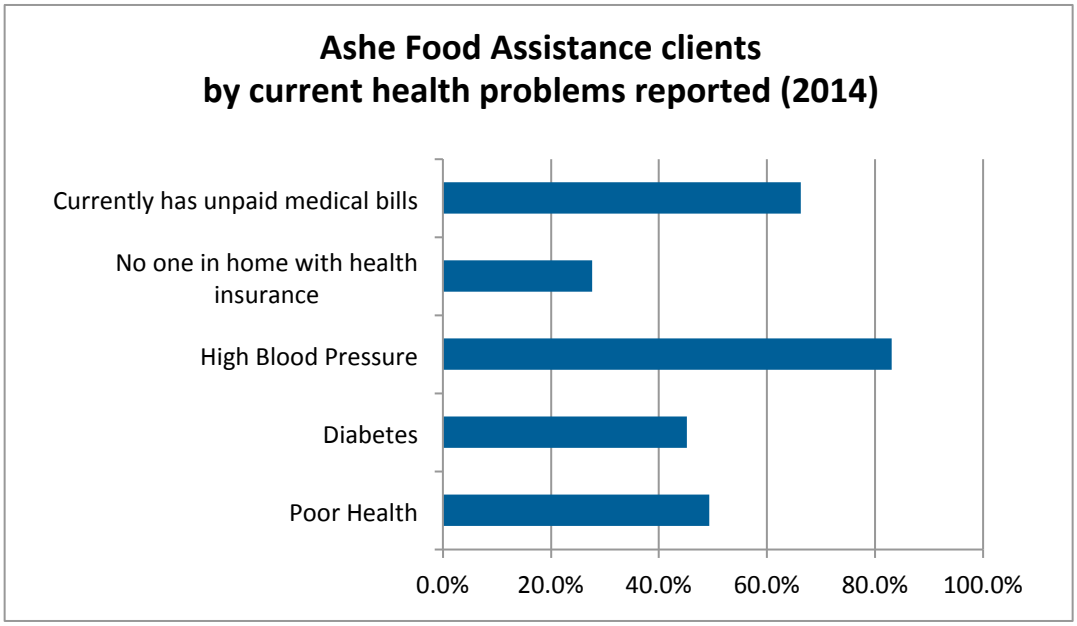
72% had traded *medicine or medical care,* and 40% of those made this choice *every month*

71% had traded *utilities,* and 35% of those made this choice *every month*

61.5% had traded *housing* and 31% of those made this choice *every month*

78.7% had traded *transportation* and 48% of those made this choice *every month*

16.5% had traded *education*



96.3% of Ashe County food program participants have purchased inexpensive, unhealthy food as a strategy for combatting food insecurity and hunger (Feeding America, 2014). This increases risks of developing obesity and preventable diseases or further complicating existing conditions noted.

Source: Feeding America, *Hunger in America* (2014), Food Bank Report for Second Harvest Food Bank of Northwest North Carolina: Ashe County Minimum Density Data Tables. August 2014.

Education

Education is a critical component across the lifespan. In Ashe County, there are 15 child care centers in the county as of January, 2015 (NC DHHS, NC Division of Child Development, 2015).

Ashe County Schools enrollment for SY 2012-13:

School Enrollment data for SY 2012-2013

School	Enrolled
Westwood Elementary	622
Mountain View Elementary	595
Blue Ridge Elementary	515
Ashe Middle School	504
Ashe County High School	931
Total ACS enrollment	3167

According to the US Census Bureau and NC Department of Public Instruction data, compared to the NC average, Ashe County had:

- 3.1% lower percentage of resident high school graduates (2012-2013) and 4.3% lower than in Macon County
- 7.3% lower percentage of college graduates (2012-2013) and 1% lower than in Macon County
- 28-point higher average SAT score (2012-2013) and has been consistently higher than Macon and NC since 2008
- Among 3rd graders on end of grade tests, 43.9% were at or above grade level in Reading compared to 45.2% in NC, and 43% were at or above grade level for Math, compared to 46.8% in NC
- Among 8th graders on end of grade tests, 48% were at or above grade level in Reading compared to 41% in NC, and 47.8% were at or above grade level for Math, compared to 34.2%
- Overall, Ashe County Schools End-of-Grade Tests show a higher percentage of students at or above grade level for Reading and Math when compared to NC (2012-2013)

The Ashe Four-Year Cohort graduation rate for 9th graders entering 2009-2010 and graduating in 2012-13 or earlier is 86.6% compared to 88.2% in Macon County and 83.9% in NC overall (NC DPI, 2014). This is obviously an important measure to continue monitoring, but Ashe is *above* NC in this measure. Similar to NC overall, a higher percentage of females graduate when compared to their male peers, but the gap between them is smaller in Ashe when comparing to NC overall (NC Public Schools, 2014).

Crime and safety

Of the 14,028 registered sex offenders in NC as of February, 2015, 32 lived in Ashe County. Fifteen clandestine methamphetamine lab busts have taken place in Ashe County between 2009 and 2013.

According to the NC Department of Juvenile Justice and Delinquency Prevention:

- The 2013 annual *rate* of complaints of **undisciplined** youth (ages 6-17) in Ashe County was 1.4, compared to the NC rate of 1.66.

  Undisciplined *refers to disobedience beyond disciplinary control of parent/guardian (e.g., truancy, vagrancy, running away from home for more than 24 hours).*

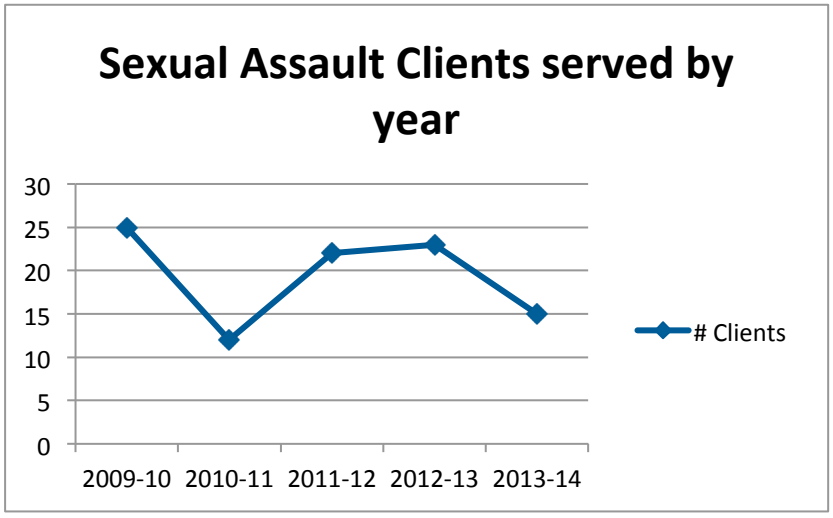
- Over the same period the average annual *rate* of complaints of **delinquent** youth in the county was 20.2, compared to the average NC rate of 22.9.

  Delinquency *refers to acts committed by youths that would be crimes if committed by an adult.*

- 12 Ashe County youth were sent to secure detention in 2013

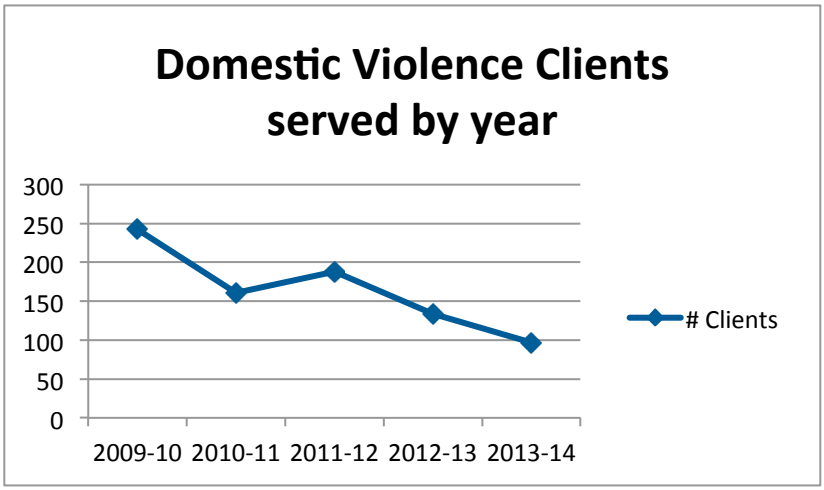
Sexual Assault

According to the NC Domestic Violence Commission, the number of clients served for sexual assault claims has decreased since In Ashe County in 2013-14, there were 25 calls about sexual assault, and of the 15 clients served, 53% were women between ages of 41-60 years and 33% were women between the ages of 26-40years.



Domestic Violence

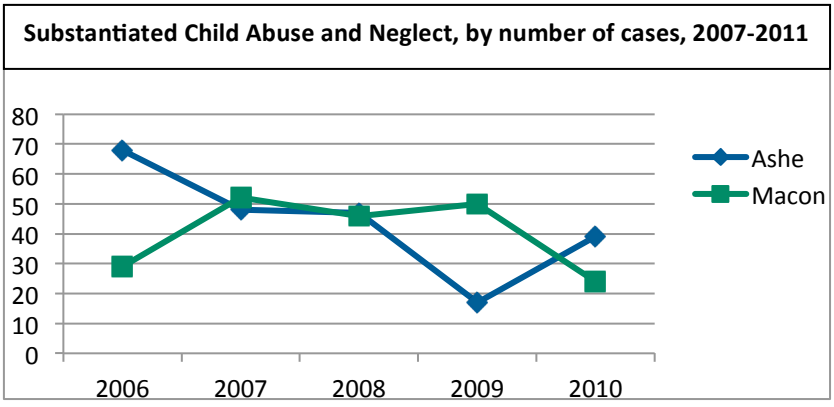
According to the state Domestic Violence Commission, the number of clients served domestic violence claims in Ashe County has decreased annually since FY2011-2012. The number of calls in FY2013-14 was 152, and the number of clients served was 97.



The domestic violence shelter operated by ASHE (A Safe Home for Everyone) and the Ashe Partnership for Children available to Ashe County residents was full on 106 days during FY 2012-2013 and 75 days in FY2013-2014.

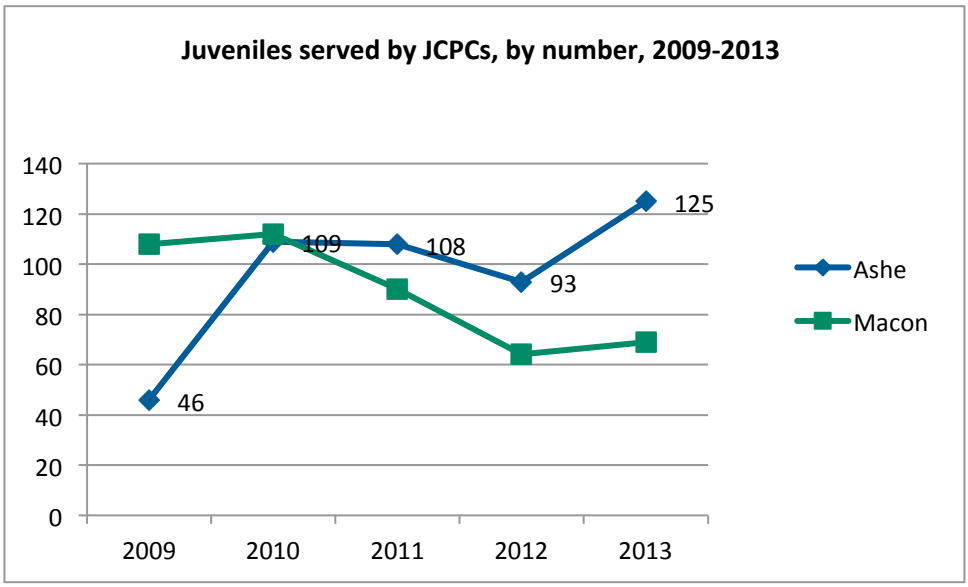
Child Abuse & Neglect

The trend data over time indicate the total number of substantiated findings of child abuse and neglect has increased between 2009 from 17 cases to 39 cases in 2010 (Duncan, Kum, Flair, & Stewart, et. al., 2014, UNC Jordan Institute for Families). A "substantiated" report of child abuse, neglect, or exploitation indicates that the investigation supports a conclusion that the subject child(ren) was/were abused, neglected, or exploited. In 2012-13, 73 of the 153 investigated cases were recommended to receive services, and similar outcomes were in the following year 2013-14, in which 79 of the 176 investigated cases were recommended services. According to NC LINC using the same data source noted above, the unduplicated substantiated cases of child abuse and neglect was 8 in 2010 and decreased to 4 as of 2014. Additional data should be reviewed to understand current trend directions.



Juveniles served by JCPCs

A key area worth careful review and further monitoring is that of juveniles served by Juvenile Crime Prevention Council rate. Ashe County ranks 79 out of 100 counties for the highest number of juveniles served by JCPCs. The trend has increased sharply in recent years with a rate of 54.4 per 1,000 youth compared to 26.3 per 1,000 in NC. In 2013, there were 125 youth served (NC Child).



Healthcare resources

According to the American Community Survey (2009-2013 estimates), of the 26,927 residents included in the civilian noninstitutionalized population, 18.1% had no health insurance coverage. In addition, among approximately 16,000 adults age 18-64, 74.1% were employed and had health insurance with only 5% being from a public insurance. Another important fact worth noting among this age group of working adults is the estimated 25.9% who were uninsured despite being employed. Among those unemployed, an estimated 1323 residents, 55.9% were uninsured and 44.1% had health insurance with half of those being private and another half being publicly insured (US Census Bureau, 2014).

The age group 0-18 years tends to have a lower percentage of uninsured than the 19-64 year age group, due partly at least to NC Health Choice. According to the 2010-11 data, Ashe County had a total 19.7% uninsured compared to 18.9% in NC (NCIOM, 2013). Keep in mind that neither the more recent figures noted above or in the below data from NCIOM include the most recent activity involved in the Affordable Care Act health insurance enrollment data.

Percent of Population without Health Insurance, by Age Group

NC Institute of Medicine County level estimates, 2010-11 (last updated March, 2013)

County	Age Category	Data Type	2011
Ashe	Children (0-18)	Number	<500
		Percent	**7.60%**
	Adults (19-64)	Number	3,000
		Percent	**19.70%**
	Total (0-64)	Number	4,000
		Percent	**16.70%**

According to the 2015 Plan selections by zip code report for states participating in the federal health insurance marketplace, the table below shows that over 1500 Ashe County residents in the reported townships who selected a plan or were automatically re-enrolled for the 2015 coverage year as of January 16, 2015. Keep in mind, in order to protect privacy, this report does not contain data for zip codes that had 50 or fewer enrollees (US DHHS, 2015).

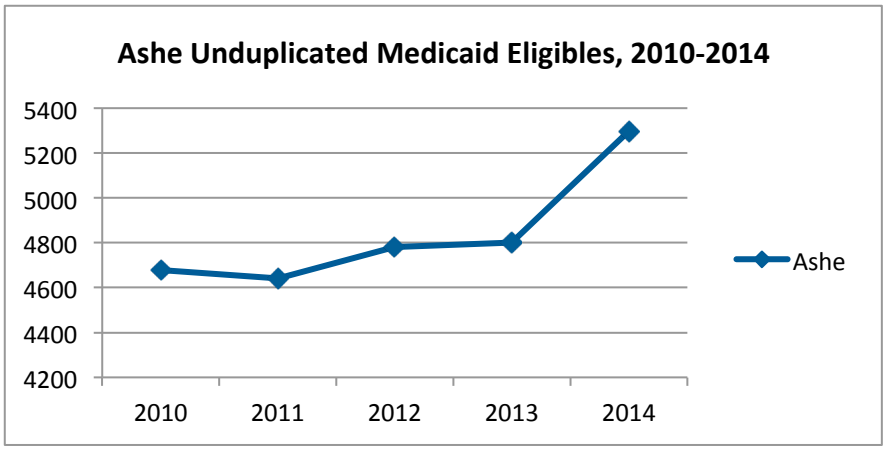
Lansing	28643	193
Creston	28615	101
Todd	28684	144
Jefferson	28640	172
West Jefferson	28694	509
Fleetwood	28626	176
Crumpler	28617	101
Warrensville	28693	85
Laurel Springs	28644	89
TOTAL		1570

The 2015 Plan Selections by Zip Code Report (see table left) indicates 1570 Ashe County residents selected a plan or were automatically re-enrolled for the 2015 coverage year as of January 16, 2015.

The NC Institute of Medicine estimates nearly 500,000 individuals in NC will remain uninsured without Medicaid expansion in the state, with most being working adults under the age of 65 years. Read more about the potential implications for expanding health coverage in NC in the NC Institute of Medicine report located at http://www.nciom.org/publications/?impactaca.

Healthcare resources

According to the NC Division of Medical Assistance and NC LINC, the *total* number eligible for Medicaid in Ashe County has been on an upward trend since 2010. This data would include any person who receives a Medicaid ID card authorizing Medicaid coverage for any portion of the state fiscal year, and it is based on the eligible person's last county of residence.



Healthcare Practitioners

According to the UNC Sheps Center, 2012 ratios of active health professionals per 10,000 population were lower in Ashe County than NC for:

- **MDs:** 9.1 (NC = **22.3**)
- **Primary Care MDs:** 5.8 (NC = **7.6)**
- **Registered Nurses:** 47.9 (NC=**99.6**)
- **Dentists:** 2.2 (NC = **4.5**)
- **Psychologists: 1.8** (NC = 2.2)
- **Physical Therapists:** 3.3 (NC=**5.5**)
- **Occupational Therapists:** 0.7 (NC=**2.8**)
- **Respiratory Therapists:** 3.7 (NC=**4.3**)
- **Physician Assistants:** 1.1 (NC=**4.1**)

There were 18 mid-level practitioners in Ashe County in 2012 (NC LINC), and the ratio of nurse practitioners was 5.5 per 10,000 compared to 4.3 in NC overall. In school year 2012-13 the ratio of school nurses to students in Ashe public schools was 1:792, compared to 1: 854 in Macon County and 1:1,177 at the state level (the maximum recommended ratio is 1:750).

Common medical specialties not represented in Ashe County in 2012 were: certified nurse midwifery, podiatry, and psychology. It is also important to know that physicians or other healthcare professionals may be "active" because they are maintaining their medical licensure, but may not be actively providing medical care. The above data should be taken in context with the health care services available in the community.

Since the latest data available in 2012, there have been some new specialty healthcare providers recruited to the area.

Health Rankings

According to America's Health Rankings, NC ranked 35th overall out of 50 states where 1 is "best." This is important when considering the fact that County Health Rankings since all are compared to the 100 counties within NC. These are two data sources so we must remember that fact, however, it does provide some context when considering rankings levels within NC. The other important consideration is that County Health Rankings is a data warehouse that uses other data sources to compile into the health outcomes and health behaviors models. The data used in the ranking may be older than what is available in this report or through other data sources available in NC like the NC State Center for Health Statistics.

According to County Health Rankings in 2014, Ashe County was ranked among the 100 NC counties (where 1 is "best"):

41st in Health Outcomes and 53rd in Health Factors, with the following contributing to the overall rankings

- 31st in length of life
- 62nd in quality of life
- 22nd in health behaviors (and included here, the county ranked 63rd in tobacco use)
- 83rd in clinical care
- 69th in social and economic factors
- 42nd in physical environment

The message of County Health Rankings is that where we live matters to our health. The factors that influence our health are far greater than access to medical care, though this is also a part of the overall ranking (County Health Rankings, 2015).



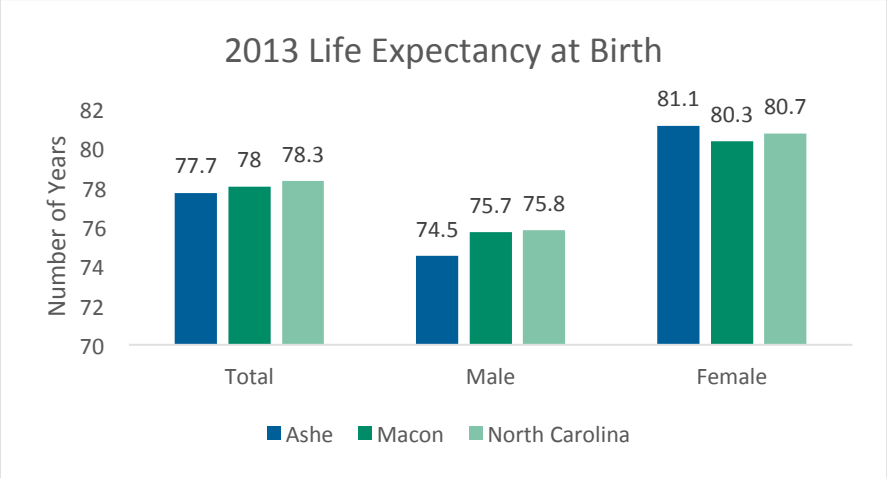
QUICK FACT

Did you know that the Northwest Regional Housing Authority has adopted smokefree policies for all properties since 2014?

In doing so, they have responded to feedback from tenants and protected many families from breathing secondhand smoke. This effort occurred as part of the Northwest Community Transformation

Environmental health

Our environment does impact our health. This is clearly important when considering how long we live. Socioeconomic factors like income and education are linked to health outcomes overtime. The graph below shows the difference in life expectancy by county and NC overall (NC SCHS, 2014). Notably, there is major disparity between male and female life expectancy in all 3 locations. Addressing the issues that may negatively impact health, or conversely, addressing assets in the environment that may add value to health is an important concept when reviewing the environmental health data.



Rabies

Rabies is an environmental hazard that calls for action by communities to do more in ensuring pets are vaccinated against this deadly disease. Overall, in NC, 380 of 4,314 mammals tested for rabies were positive in 2013 (NC State Laboratory of Public Health, 2014). The highest percentage of mammals positive for rabies by those tested were skunks at 63.2%, foxes at 47.7%, and raccoons at 42.6%. There were 1.8% of cats and 0.6% of dogs tested were positive, and 2.2% of bats tested were positive. In addition, in 2002-2013, the NC State Laboratory for Public Health (2014) reports a trend in seasonality of rabies positive bats in the state with an upward trend in spring and summer months in NC, a peak in August, and decreasing trend in fall and winter months.

The trend in rabies cases in Ashe County has fallen since the recent peak in 2009 (NC Division of Public Health, 2008-2014). The best protection against rabies is vaccinating pets and using caution to avoid interacting with wildlife that may be more likely to have rabies.

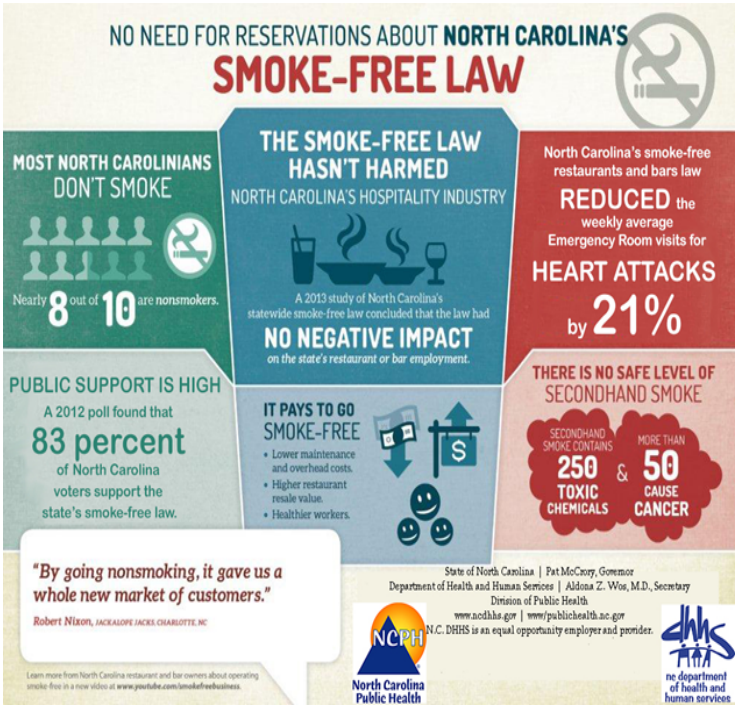
	2008	2009	2010	2011	2012	2013	2014
Ashe County	2	4	1	3	2	2	3

Environmental health

Air & Water Quality

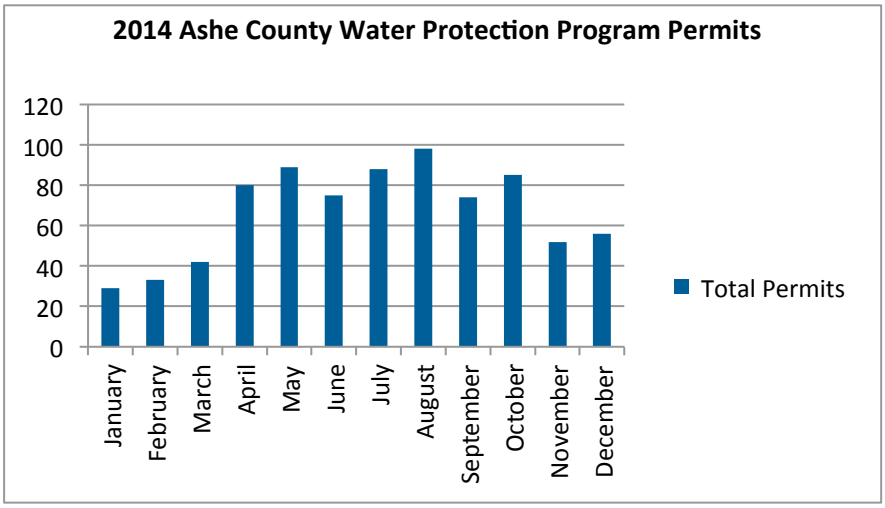
Air quality in the county is somewhat challenging to measure because data is quite limited from the EPA. What we do know is in considering indoor air quality, secondhand smoke is a major pollutant raising particulate matter in the air that increases risk of health effects.

In January, 2015, NC celebrated the 5th anniversary of the smokefree restaurants and bars law. This law has protected millions of North Carolinians from the dangers of secondhand smoke and contrary to what some may have thought, has not shown a negative impact on businesses. Local governments also have the authority to adopt tobacco free policies to protect people in their communities. The Northwest Tobacco Prevention coalition, a part of Appalachian District Health Department, is a resource for communities, policymakers, and business leaders in understanding best practices in adopting tobacco free policies.



Water protection

In 2014, a total of 801 permits were issued in Ashe County (Appalachian District Environmental Health, 2015). This includes water protection applications, improvement permits, authorization to construct permits, operational permits, compliance notifications, well construction permits issued, and well grouts.



Toxic release information and environmental epidemiology

According to the Goodguide pollution information site, Ashe County ranks among cleaner counties in comparison with others across the nation (2002). We monitor toxic release for understanding potential effects on human health but also overall environmental impact issues such as ozone.

Overall, Ashe County has much lower toxic releases, in pounds, compared to NC and other county averages (US EPA, 2002). This source is clear to point out that releases of recognized carcinogens to air has decreased 81% from 1988 to 2002 (NC counties with the highest release were New Hanover, Beaufort, Columbus, Person, Haywood, Bladen, Buncombe, Catawba, Bertie, and Stokes (TRI release reports, geography state report, 2002). More information about toxic releases in NC can be found on the fact sheet located: http://epi.publichealth.nc.gov/oee/docs/ToxicSubstanceReleases_2010_2012.pdf.

The Ore Knob Mine National Priorities List ("Superfund") site is located in Ashe County and a fact sheet about the Environmental Protection Agency's involvement in securing and studying this 1950s Mine and Mill Area can be found here: http://epi.publichealth.nc.gov/oee/hace/docs/OreKnobSummarySheet.pdf. Naturally occurring asbestos boulders were also identified near the Elk Ridge Development entrance in Todd, NC. Learn more about naturally occurring asbestos at the NC Division of Public Health website: http://epi.publichealth.nc.gov/oee/a_z/noa.html.

In addition, there is a statewide fish consumption advisory for mercury which may especially affect children under 15, women 15-44, or women who are pregnant or nursing. It can be found here: http://epi.publichealth.nc.gov/oee/fish/advisories.html.

Childhood Elevated Blood Lead Levels

Childhood blood lead levels remain low in the county. According to the most recent data, 60.4% of children age 1-2 were tested for elevated blood lead levels, and of those, 0.3% were positive, the first since 2006 (NC Blood Lead Surveillance data, 2010).

Access to healthy foods and recreation

Access to healthy foods at grocery stores, convenience stores, and farmer's markets is important to ensure all people can have the ability to buy fresh foods that are more nutrient dense like fresh fruits and vegetables, 1% fat or less milk, and whole grains. In addition, accessible indoor and outdoor recreation opportunities like parks and indoor recreation opportunities offer community members ability to engage in physical activity. School walking tracks also provide a wonderful community shared resource since schools and community members can benefit from having them. Smart growth, mixed use development along with sidewalks, crosswalks, and shared lanes, markings, and signage also help support physical activity in the community.

Maternal and Child Health

The pregnancy rate from 2009-2013 for females age 15-44 per 1,000 women is 62.9 for Ashe County compared to 70.8 in NC (NC SCHS, 2014). Among those, most were born to white, non-Hispanic women at 61 per 1,000 women, and of the 1327 births overall, 8% were to Hispanic mothers. Among teen women age 15-19, 86% of the 168 births were born to white non-Hispanic mothers. The Ashe County teen birth rate is 51.8 compared to 47.3 per 1,000 in Macon County and 44.9 per 1,000 in NC. Overall, there were 71,721 teen pregnancies in NC from 2009-2013 (NC SCHS, 2014). Though the Ashe County teen birth rate is above both the peer county and NC overall, the trend of teen births per year has decreased from 45 in 2009 to 26 in 2013, which indicates positive outcomes in preventing teen births.

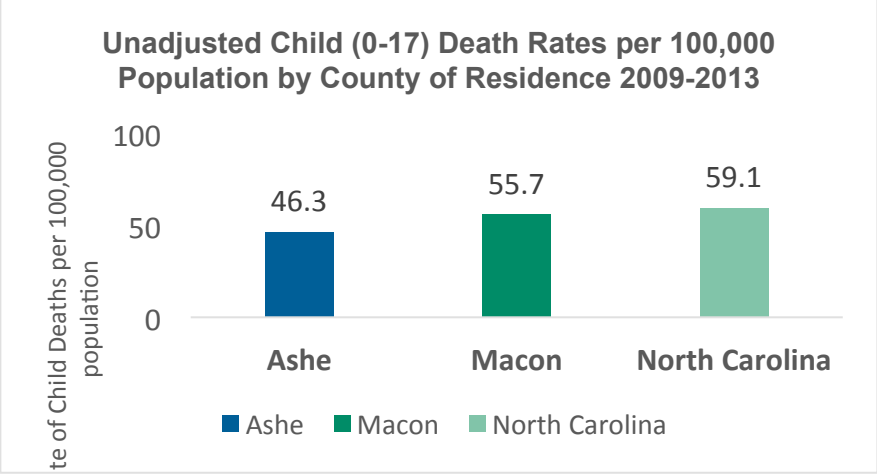
Pregnancy risk factors are important to review as well. Early prenatal care and postpartum care is important for healthy moms and babies. Ashe County only had 4.7% of births to mothers with very late or no prenatal care compared to 5.2% in Macon County in 2012 (NC SCHS). **According to the NC State Center for Health Statistics from 2011-2013, there were 20.7% of births in Ashe County in which the mother smoked during pregnancy compared to 10.6% in NC (2014).** That's double the state percentage, and about the same as Macon County with 20.4% during the same time period (NC SCHS, 2014).

Pregnancy outcomes

We look at pregnancy outcomes to understand risk factors related to infant health and to target prevention efforts of infant illness and mortality. For the period of 2009-2013, Ashe County had 111 low birth weight births (<5.5 pounds at birth) which is close to Macon County that had 115. There were 19 very low birth weight births compared to an equal amount in Macon County (<3.3 pounds). There were 37.9% of deliveries by caesarian section in Ashe County compared to 28% in Macon County and 30.9% in NC.

The infant mortality rate is very low, with 6 infant deaths during 2009-2013 compared to 11 in Macon County during the same time period (NC SCHS, 2014). No year during that time period had more than 3 infant deaths.

The unadjusted child death rate per 100,000 for children age 0-17 is 46.3 per 100,000 for Ashe County compared to 55.7 per 100,000 in Macon County and 59.1 per 100,000 in NC (NC SCHS, 2014). The Ashe County rate represents 12 child deaths during the time period of 2009-2013.



Leading causes of death

The leading causes of death remain largely due to chronic diseases. Ashe County deaths are mostly due to heart disease and cancer, with analysis of 2009-2013 indicating cancer is now ahead of heart disease just as in NC in the county. When reviewing 2013 data alone, more deaths occurred due to heart disease. Note the difference between Ashe County and NC in the chart below. Even though chronic diseases are much in line with the rank order of leading causes of death statewide, some are lower in Ashe when comparing to the state rate, and many are higher.

In addition, there are some causes of death worth noting because they are much higher than the state rate, including chronic lower respiratory diseases, all other unintentional injuries, diabetes, and suicide (NC SCHS, 2014).

Age Adjusted Leading Causes of Death (2009-2013, NC SCHS)

1	Cancer	170.8 *358 deaths*	173.3
2	Heart disease	164.4 *349 deaths*	170
3	Chronic Lower Respiratory Diseases (COPD)	60.8 *131 deaths*	46.1
4	All Other Unintentional Injuries	39.4 *59 deaths*	29.3
5	Pneumonia/Influenza	20.6 *42 deaths*	17.9
6	Alzheimer's Disease	36.7 *41 deaths*	28.9
7	Diabetes Mellitus	19.2 *38 deaths*	21.7
8	Suicide	18.2 *25 deaths*	12.2
8	Chronic Liver Disease & Cirrhosis	13.4 *25 deaths*	9.5
9	Nephritis, Nephrotic Syndrome, & Nephrosis	11.1 *24 deaths*	17.6

Age groups and causes of death

By understanding which age groups are most affected by which cause of death, we can better target prevention efforts. You can see the chart below that demonstrates that both suicide and other unintentional injuries are affecting multiple age groups, and both are affecting 40-64 year olds the most. Among those middle-aged, cancer and heart disease are also leading causes, but so are other unintentional injuries. It's important to note that Alzheimer's Disease and Pneumonia/Influenza are affecting those 65-84 years, which is what we would expect.

2009-2013 Unadjusted Leading Cause of Death by Age Group (NC SCHS 2014)

00-19 YEARS	**1**	**Conditions originating in the perinatal period**	4	14.0
	2	**Other Unintentional injuries**	3	10.5
	3	**Motor vehicle injuries**	2	7.0
		Suicide	2	7.0
20-39 YEARS	**1**	**Motor vehicle injuries**	8	27.9
	2	**Suicide**	7	24.4
		Other Unintentional injuries	7	24.4
	4	**Cancer - All Sites**	5	17.4
40-64 YEARS	**1**	**Cancer - All Sites**	96	192.2
	2	**Diseases of the heart**	60	120.1
	3	**Other Unintentional injuries**	26	52.0
	4	**Chronic lower respiratory diseases**	23	46.0
	5	**Chronic liver disease & cirrhosis**	15	30.0
	6	**Suicide**	13	26.0
65-84 YEARS	**1**	**Cancer - All Sites**	212	836.8
	2	**Diseases of the heart**	159	627.6
	3	**Chronic lower respiratory diseases**	80	315.8
	4	**Cerebrovascular disease**	48	189.5
	5	**Diabetes mellitus**	19	75.0
	6	**Parkinson's disease**	16	63.2
		Pneumonia & influenza	16	63.2
	8	**Other Unintentional injuries**	13	51.3
	9	**Nephritis, nephrotic syndrome, & nephrosis**	12	47.4
	10	**Alzheimer's disease**	11	43.4
		TOTAL DEATHS --- ALL CAUSES	735	2901.1

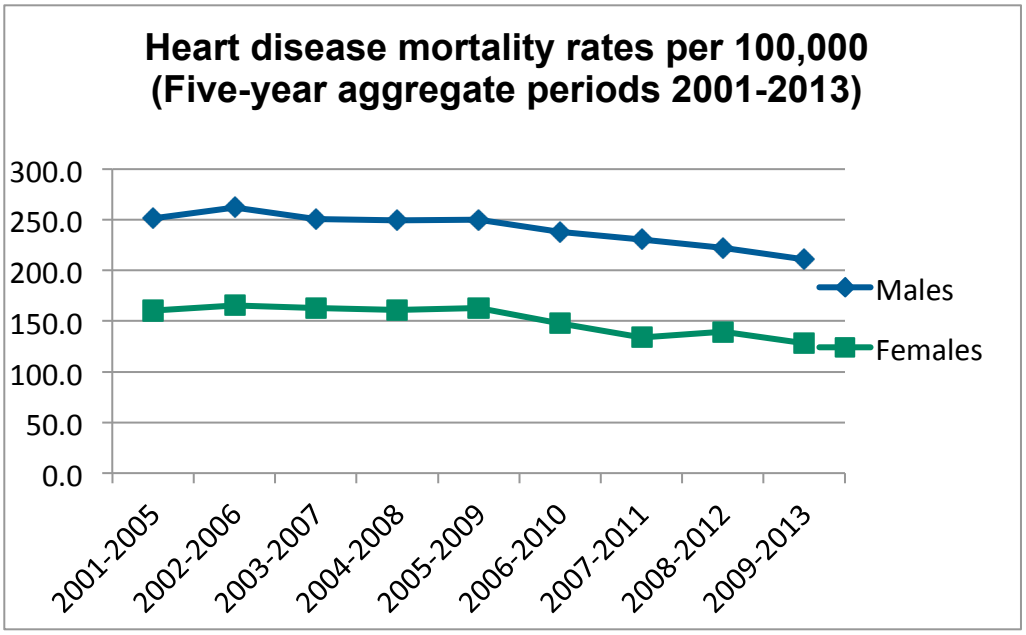
Mortality Trends

The table below depicts the leading causes of death currently to those in the last community health report in 2011 Note that heart disease and cancer deaths have decreased, but heart disease has decreased at a greater rate, and therefore, cancer is now the leading cause of death for the county. Chronic lower respiratory disease remains the 3rd leading cause and all other unintentional injury deaths have increased while suicide deaths have decreased (NCSCHS).

2011 Rank	Cause of Death	Rate per 100,000 2005-09	2015 Rank	Cause of Death	Change since last community health report	Rate per 100,000 2009-2013
1	Heart disease	198.4	1	Cancer	Rate ↓ Rank ↑	170.8
2	Total Cancer	175.9	2	Heart disease	Rate ↓ Rank ↓	164.4
3	Chronic Lower Respiratory Disease	58.9	3	Chronic Lower Respiratory Disease	Rate ↑ Rank =	60.8
4	Cerebrovascular Disease (Stroke)	51.1	4	All Other Unintentional Injuries	Rate ↑ Rank ↑	39.4
5	All Other Unintentional injuries	35.8	5	Pneumonia/Influenza	Rate ↑ Rank ↑	20.6
6	Diabetes	20.4	6	Alzheimer's Disease	Rate ↑ Rank ↑	36.7
7	Suicide	25.6	7	Diabetes Mellitus	Rate ↓ Rank ↓	19.2
8	Pneumonia & Influenza	15.7	8	Suicide	Rate ↓ Rank↓	18.2
9	Unintentional Motor Vehicle Injuries	21.5	8	Chronic Liver Disease & Cirrhosis	Rate ↑ Rank ↑	13.4
10	Alzheimer's Disease	14.1	9	Kidney disease (nephritis, nephrosis, nephrotic syndrome)	Rate ↑ Rank ↑	11.1

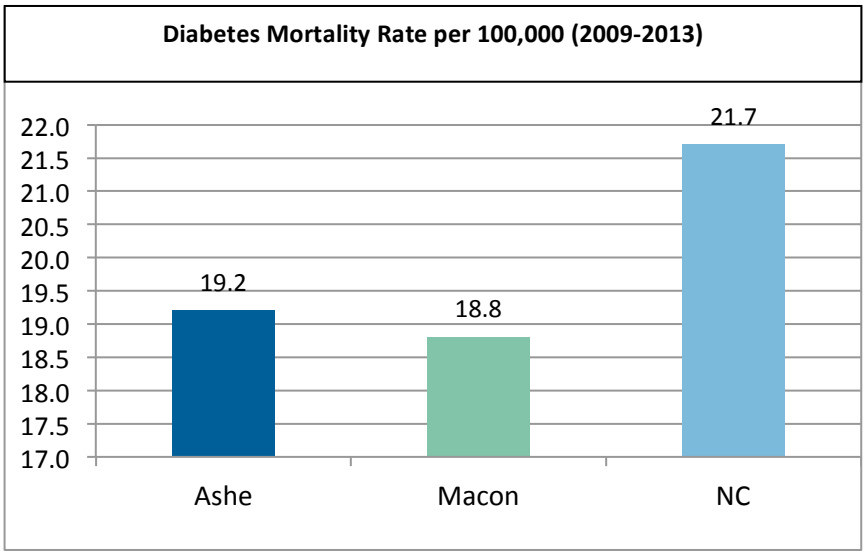
Gender differences in death rates

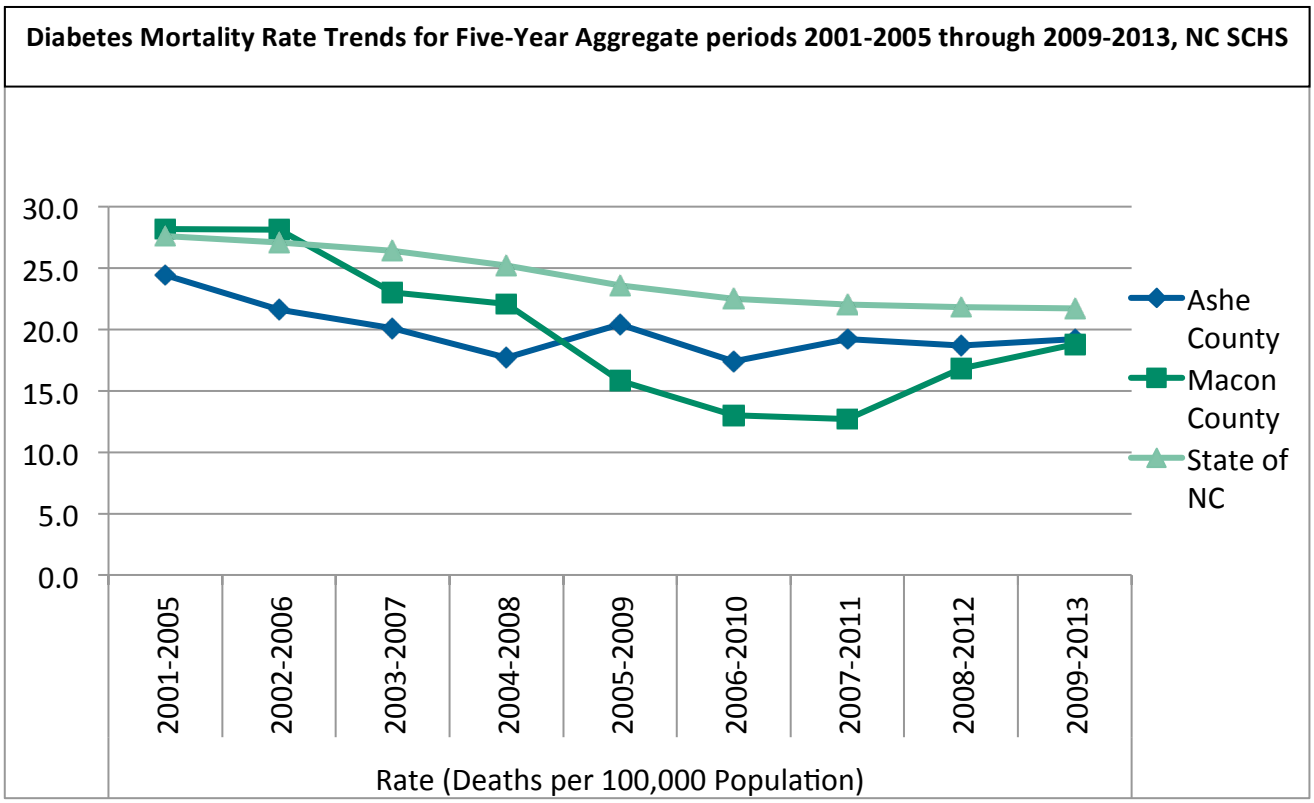
We take special notice when certain conditions disproportionately affect some groups more than others. This is true for gender differences. In Ashe County, we can see that heart disease mortality rates is much higher for males than females, which is not unlike trends statewide (NC SCHS, 2014). The trend over time indicates that the gap is not as wide between males and females with male deaths due to heart disease at 210.7 per 100,000 compared to female deaths 127.8 per 100,000. There does not seem to be much change in this gap over time since 2001-2005 through 2009-2013 (NC SCHS, 2014).



Adult Diabetes

The diabetes mortality rate per 100,000 among adults is slightly higher in Ashe County than in Macon County, but lower than NC (NC SCHS, 2014). The graph at the bottom of the page demonstrates long term trends showing the diabetes mortality rate is about level to what it has been since 2007-2011 time period (NC SCHS, 2012).





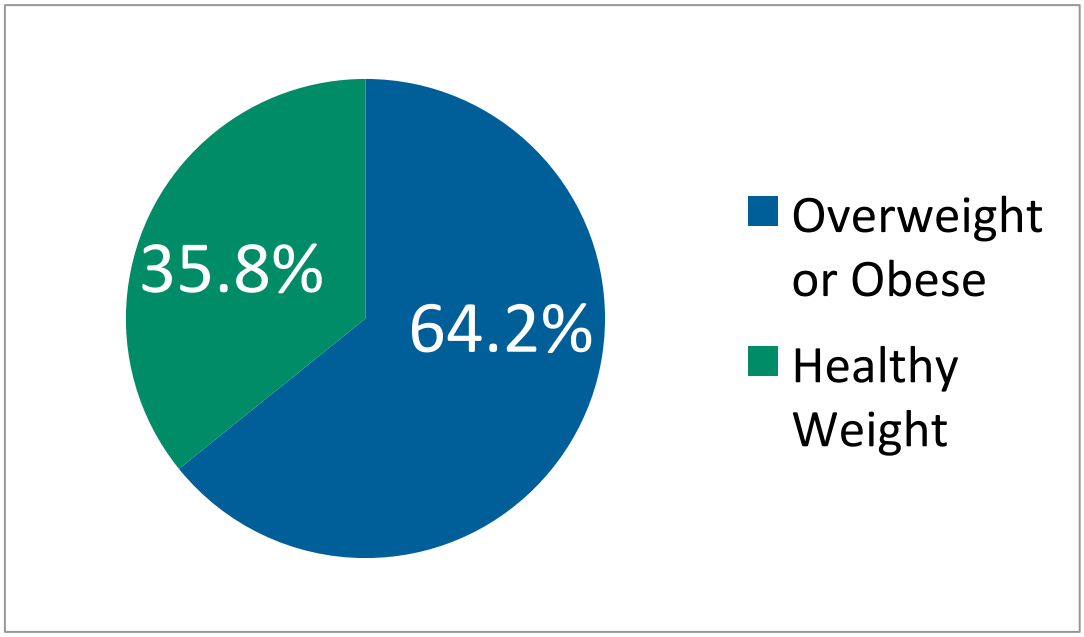
Obesity

Obesity is a known risk factor for many chronic diseases. More than a third, 35.7%, of US adults are overweight or obese (CDC, 2012). Obesity is linked to heart disease, stroke, diabetes, and cancer and an estimated $147 billion in annual healthcare costs in the US, or an additional $1,429 in medical costs in comparison to those of normal weight (CDC, 2013).

Obesity is measured through body mass index, or a calculation of weight relative to height. A body mass index between 25-29.9 kg/m^2 is considered overweight while a BMI of 30.0 or above is obese.

The prevalence of adults who are overweight or obese has increased slightly since 2012 to the most current data that demonstrates over 64% of adults are either overweight or obese *(Note due to a change in statistical methods data for 2011 is not comparable with data for previous years).*

Percent of Western NC Adults who are either overweight or obese, 2013 BRFSS

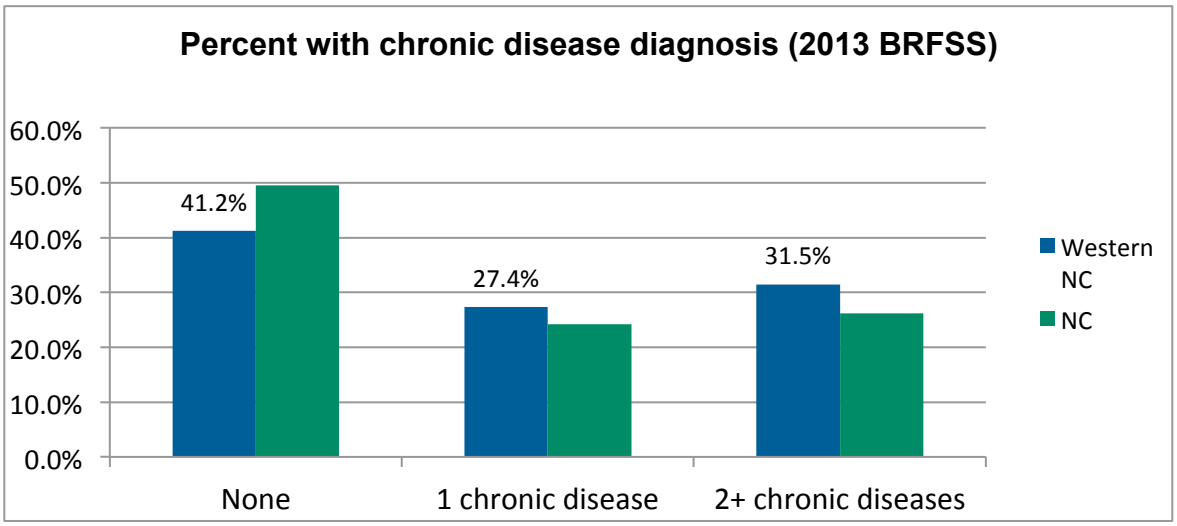


Obesity in childhood can lead to pre-diabetes or other chronic health conditions and associated with years of potential life loss later. According to the 2007-2012 NC NPASS sample of children from Ashe County, 14% were considered overweight and another 13.6% who are obese. Obesity as a 2-4 year old sets a child on a path for increased risk of long term obesity. Combined, this means that nearly a third of this preschool age children group is either overweight or obese (2013, NC NPASS). One point of information about this data is that it is collected among children participating in the WIC program and may not accurately reflect the obesity prevalence among all children in the county, but is one of the best measures we have available.

Prevalent chronic diseases

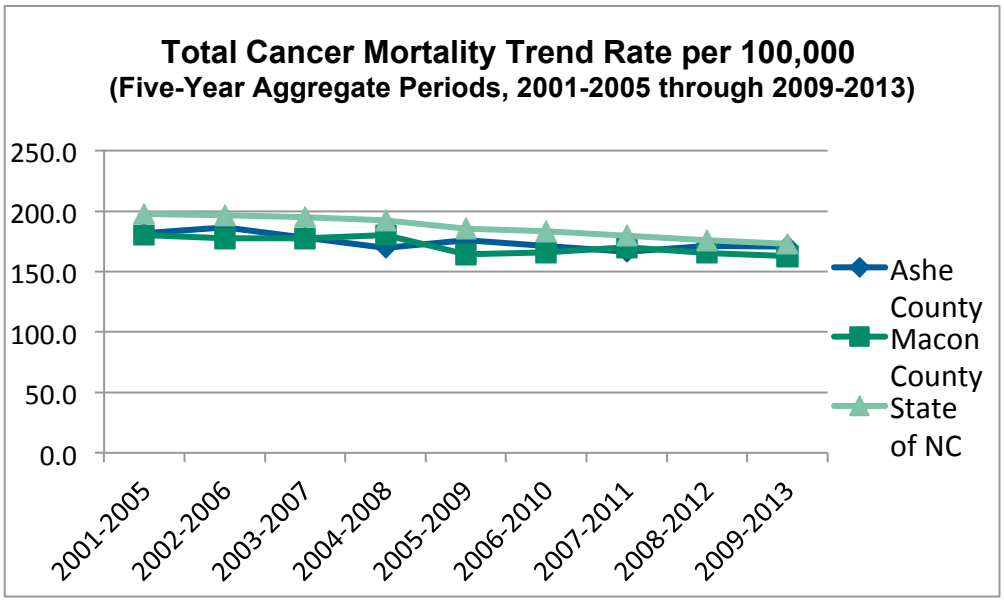
Multiple Chronic Diseases

According to the Behavioral Risk Factor Surveillance System (2013), we see that over half of Western NC adults are living with at least one chronic disease, and of those 31.5% have two or more chronic diseases. This is likely not surprising given the leading causes of death for the county, but it does emphasize the importance of acknowledging the burden of these diseases when planning public health improvements.



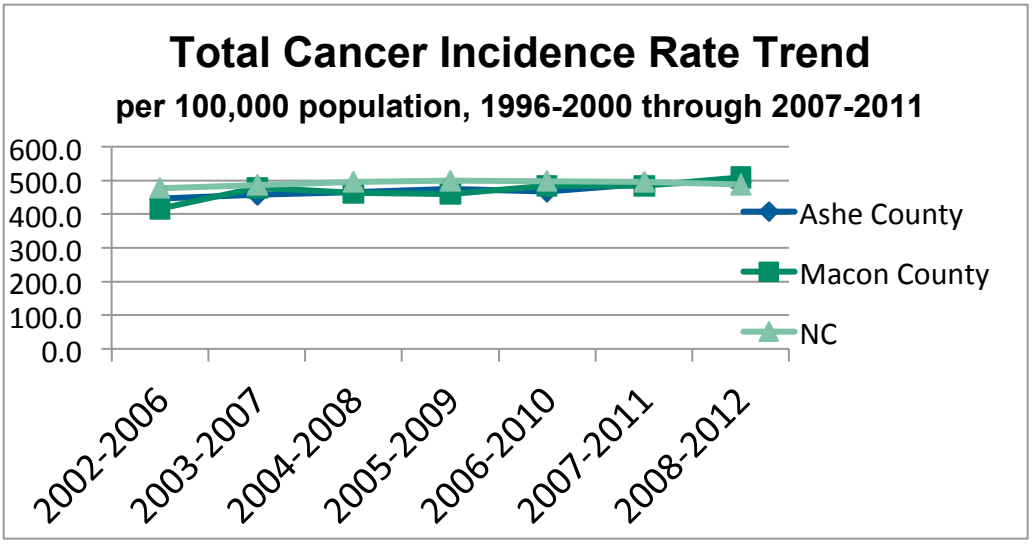
Cancer

Cancer is now the leading cause of death in Ashe County according to the 2009-2013 NC SCHS mortality data and the greatest percentage of these deaths are attributable to lung cancer. The long term trend shows that cancer death rates have remained relatively unchanged since the first five-year period noted in 2001-2005 (NC SCHS, 2014).



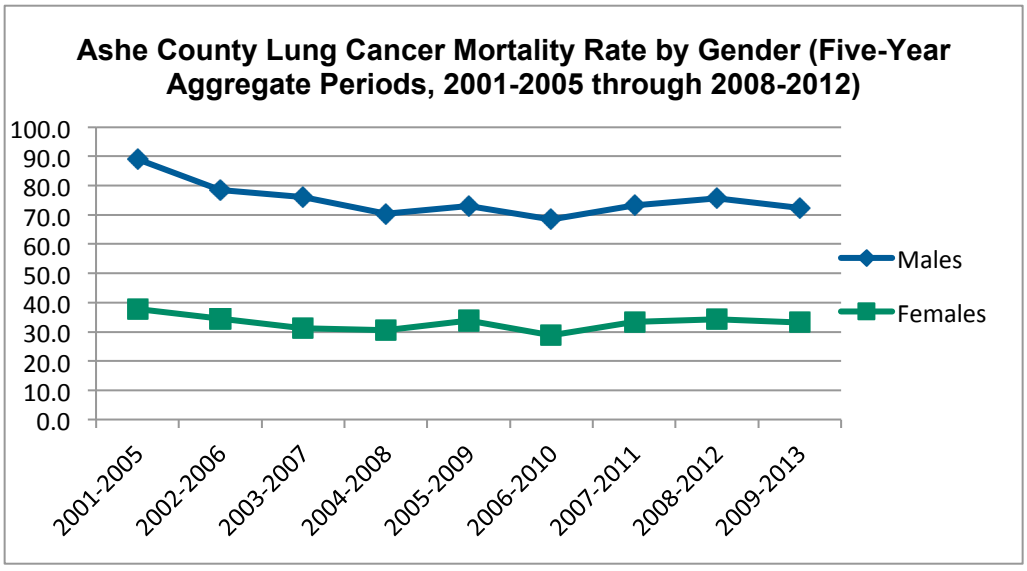
Cancer Incidence

The total cancer incidence rate trend below demonstrates that the rate of new cases has changed very little since the first five-year aggregate period of 2002-2006, but has shown a slight increase since the 2006-2010 data (NC SCHS, 2013). An important consideration for this data may also include increased awareness for early screening and detection programs through healthcare providers or community outreach efforts.



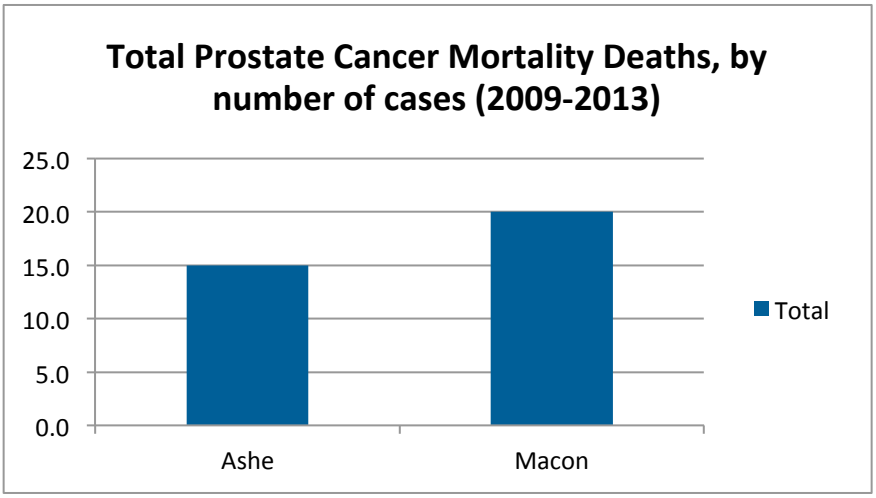
Lung Cancer

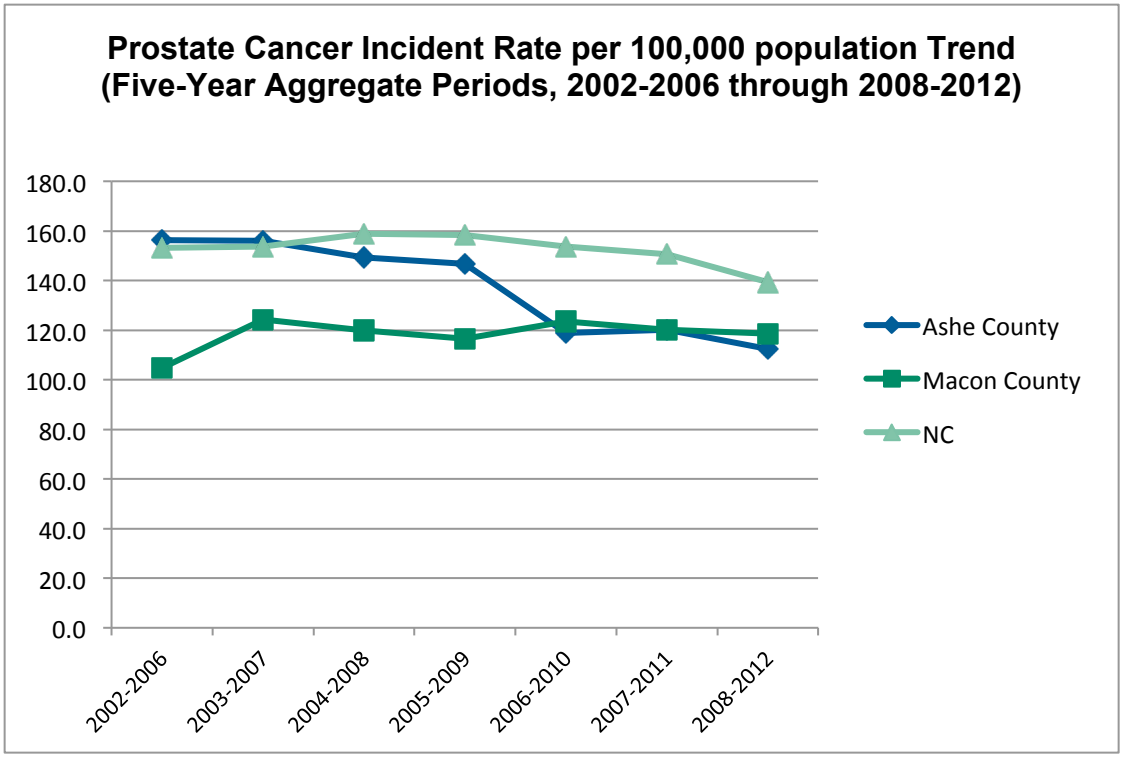
Lung cancer mortality has shown slight decrease since the first five-year aggregate period, but still represents the majority of cancer deaths overall. As of 2008-2012, the Ashe County lung cancer mortality rate is 51.6 per 100,000 which equal to that of NC overall, compared to 55.7 per 100,000 in Macon County (NC SCHS, 2015). It's also important to note that the lung cancer incidence rate has decreased slightly in recent years. Tobacco use is the leading primary risk factor linked to lung cancer risk.



Prostate Cancer

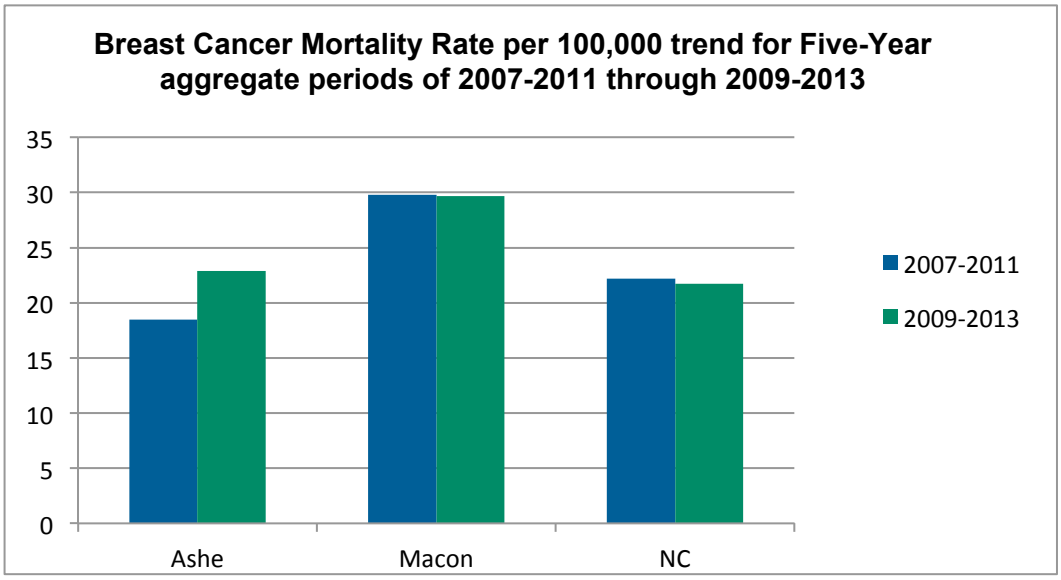
During the most recent time period of 2009-2013, there were a total of 15 deaths due to prostate cancer in Ashe County, compared to 20 in Macon County. In the bottom graph, the trend of new cases of prostate cancer indicate a decrease since the 2002-2006 five-year aggregate period (NC SCHS).

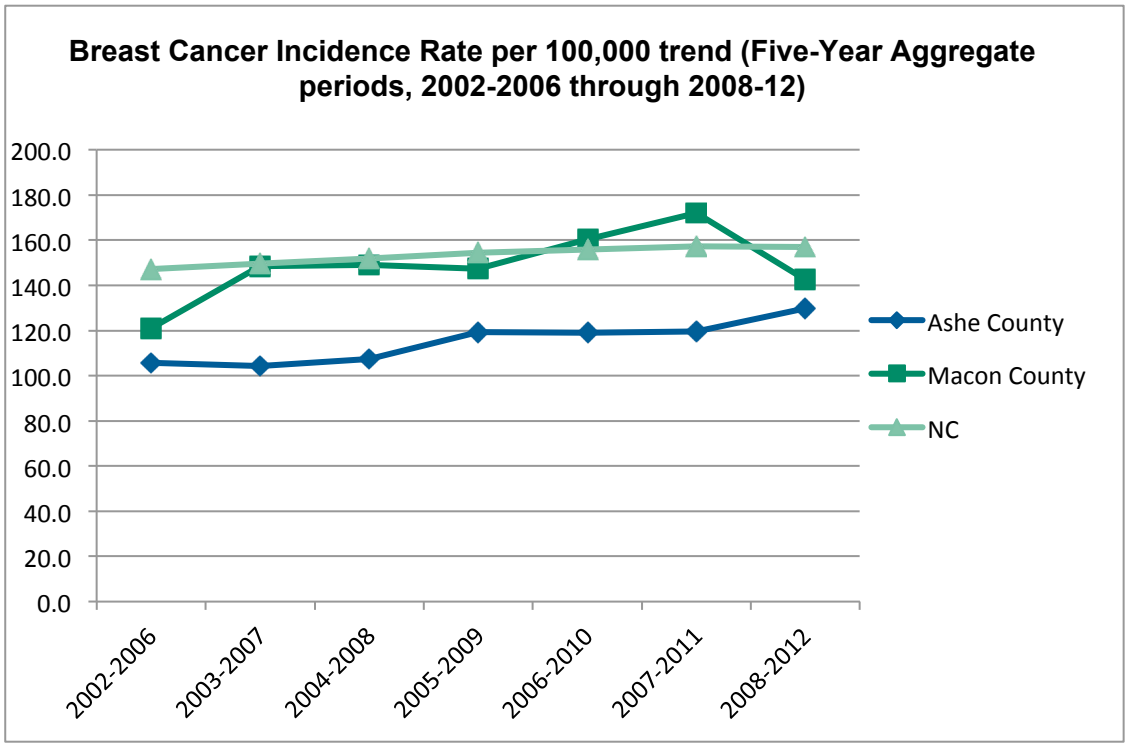




Breast Cancer

During the 2009-2013 five-year period in Ashe County, the breast cancer mortality rate was 22.9 per 100,000 compared to 29.7 in Macon County and 21.7 in NC during the same time period. In Ashe County, there were 25 deaths attributed to breast cancer during this time period and 6,361 deaths in NC overall (NC SCHS, 2015).

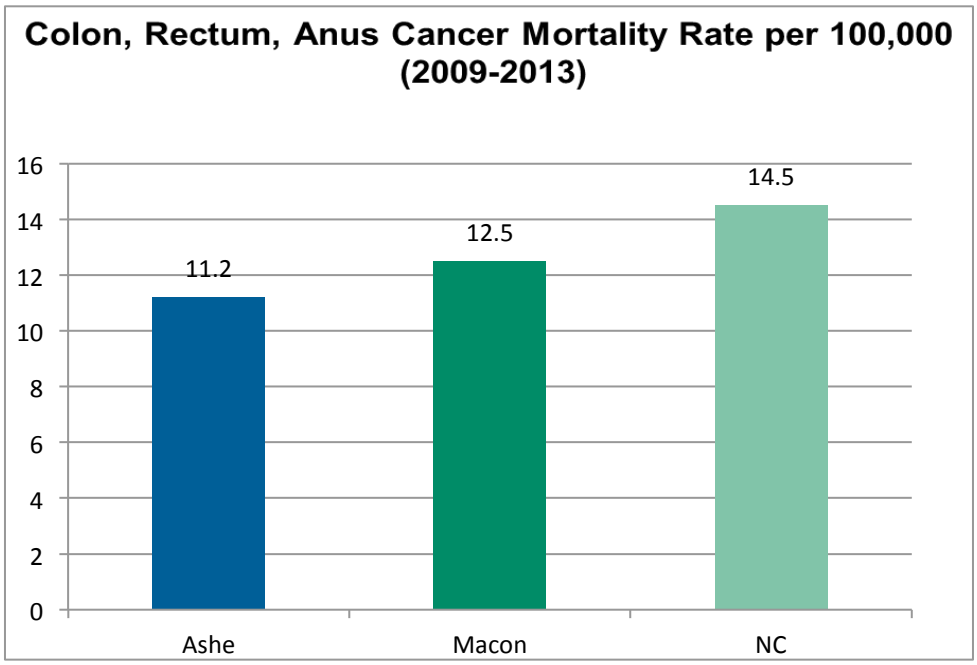


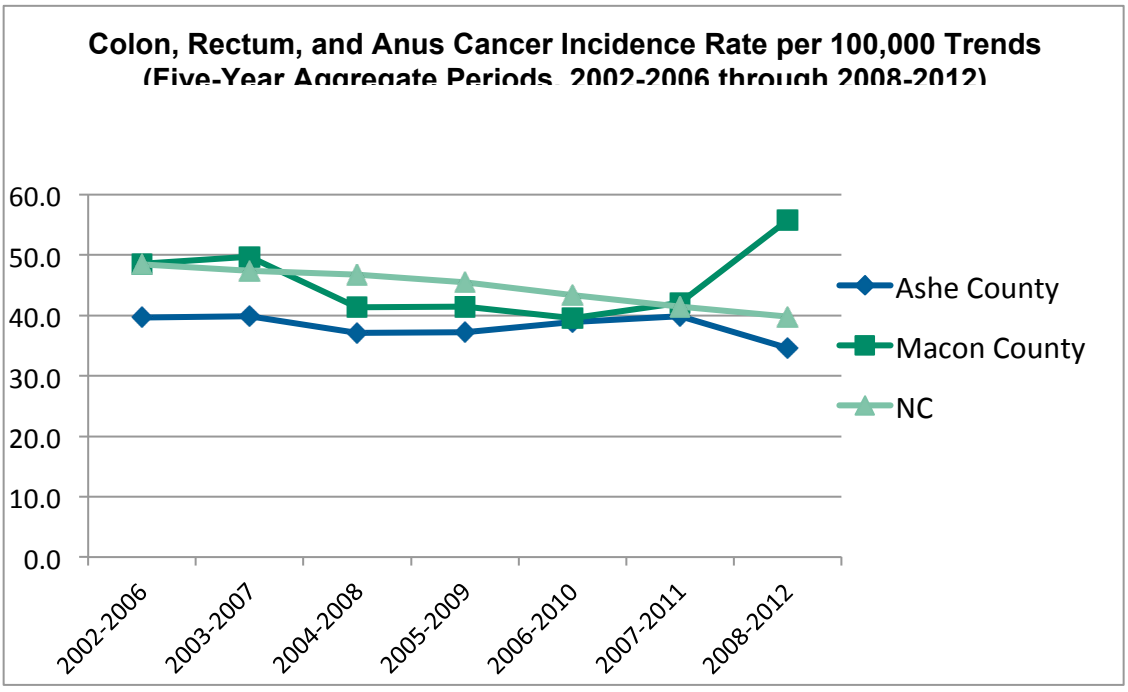


According to the trend above, the rate of new cases per 100,000 in Ashe County has *increased* over the latest five-year aggregate period of 2008-2012.

Colorectal Cancer

The colorectal cancer mortality rate in Ashe County is 11.2 per 100,000 compared to 12.5 in Macon County and 14.5 in NC of 41.5 (2009-2013, NC SCHS). In addition the bottom trend graph shows a slight decrease in the rate of new cases of colorectal cancer in the latest period reported (2009-2013, NC SCHS). This will be important measure to monitor along with mortality rates to ensure incidence rates are not dropping due to low participation in screening.



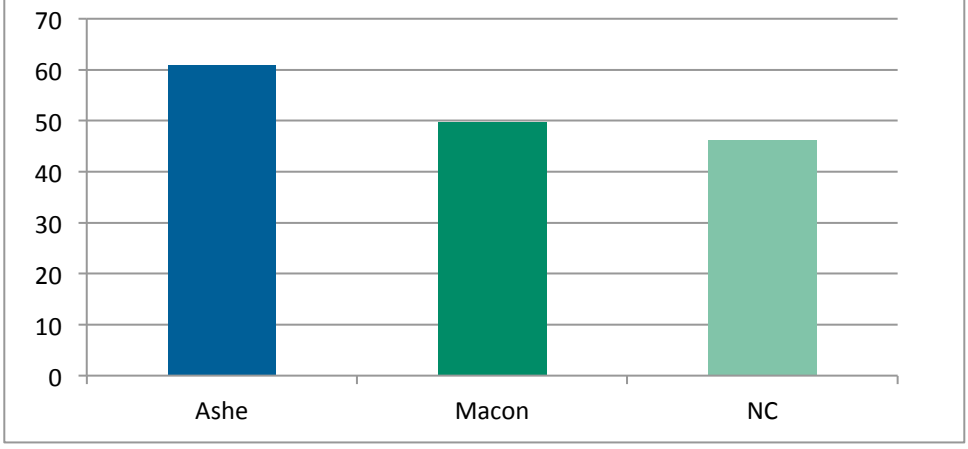


Additional prevalent chronic diseases

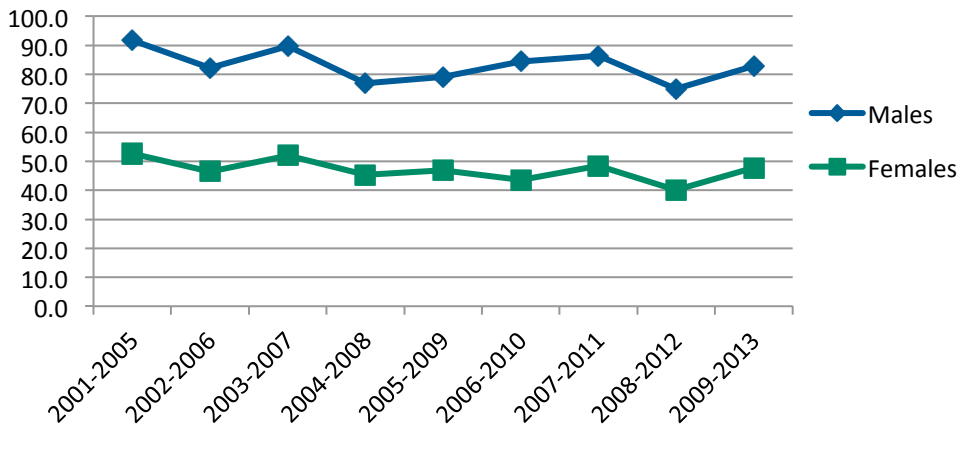
Chronic Lower Respiratory Disease/COPD

Chronic lower respiratory disease or COPD is among the top causes of death in Ashe County. According to the NC State Center for Health Statistics (2014) the mortality rate for 2009-2013 is 60.8 per 100,000 compared to 46.1 in NC and 49.8 in Macon County. There were 31 deaths due to this disease during this time period in the county, and over 23,000 in NC. Clearly, this is an area that indicates the importance of aiming for tobacco prevention and support for current smokers who want to quit since tobacco use is a leading risk factor.

Chronic Lower Respiratory Disease Mortality Rate per 100,000 (2009-2013, NC SCHS)



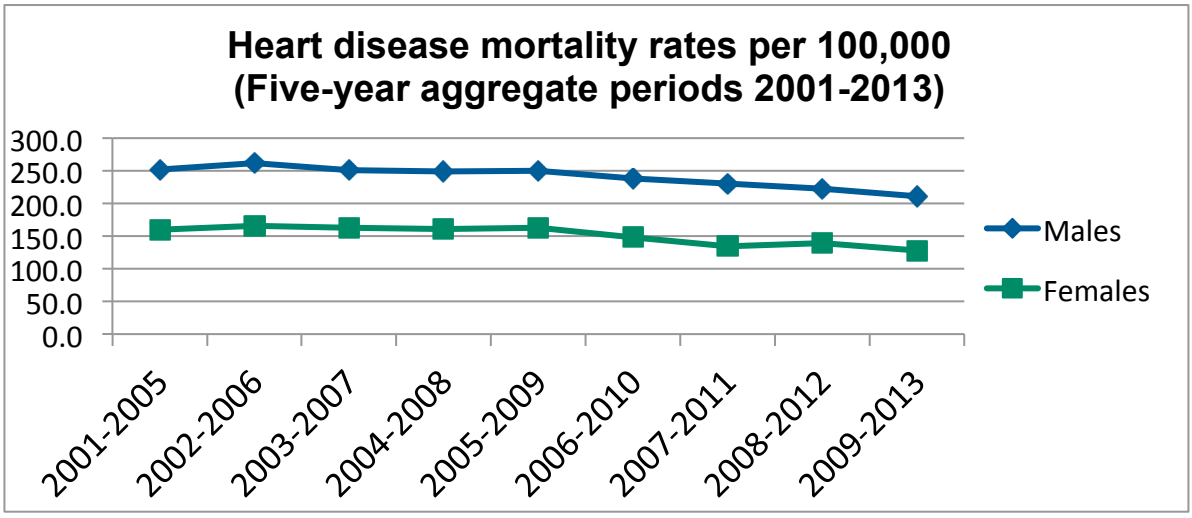
Chronic Lower Respiratory Disease Mortality Rate per 100,000 for five-year aggregate periods, 2001-2005 to 2009-2013



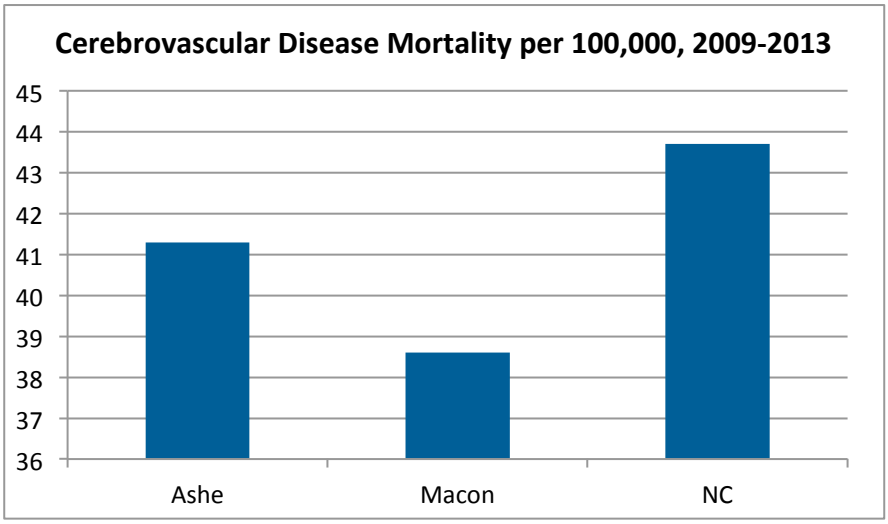
More males than females are affected by chronic lower respiratory disease mortality.

Heart disease and Stroke

Heart disease is now the second leading cause of death in Ashe County, with slightly more deaths attributed to cancer than heart disease. This is a change from the previous community health needs assessment ranking heart disease in first place. Overall, there were 349 deaths were attributed to heart disease from 2009-2013, with 182 among males and 167 among females. The rate of mortality for heart disease in Ashe County is 167.4 per 100,000, compared to a nearly equal rate in Macon County of 167.6 and is slightly less than NC overall which is 170 per 100,000 (NC SCHS, 2015).



According to the 2009-2013 data from the NC SCHS, the stroke mortality rate is slightly higher than that of Macon County, and slightly lower than NC. Early action is important during a stroke event, and many risk factors that increase risk for heart disease also increase risk for stroke like tobacco use, poor nutrition, physical inactivity, high blood pressure, and high cholesterol.



Leading Risk Factors

Chronic diseases such as heart disease, cancer, stroke, and diabetes have become the leading causes of death and disability in the United States. Our area is similar in the majority of death and much of healthcare costs can be linked back to chronic disease.

3-4-50

Three behaviors: poor nutrition, lack of physical activity, and tobacco use contribute to 4 major chronic diseases that cause over 50% of deaths worldwide. These behaviors not only rob us years of life, but life in our years costing us quality of life and major expense in healthcare.



Nutrition

- Make healthy food available for all
- Support policies and practices that provide access to healthier foods
- Educate and support individuals and families in learning and practicing healthy eating behavior



Physical Activity

- Create safe places to be active
- Encourage active transportation
- Increase active living opportunities for adults and youth



Tobacco

- Support youth tobacco prevention efforts
- Promote and enforce policies and laws that protect the public from harmful secondhand smoke
- Provide support to those who want to quit
- Monitor and educate the public about emerging tobacco products

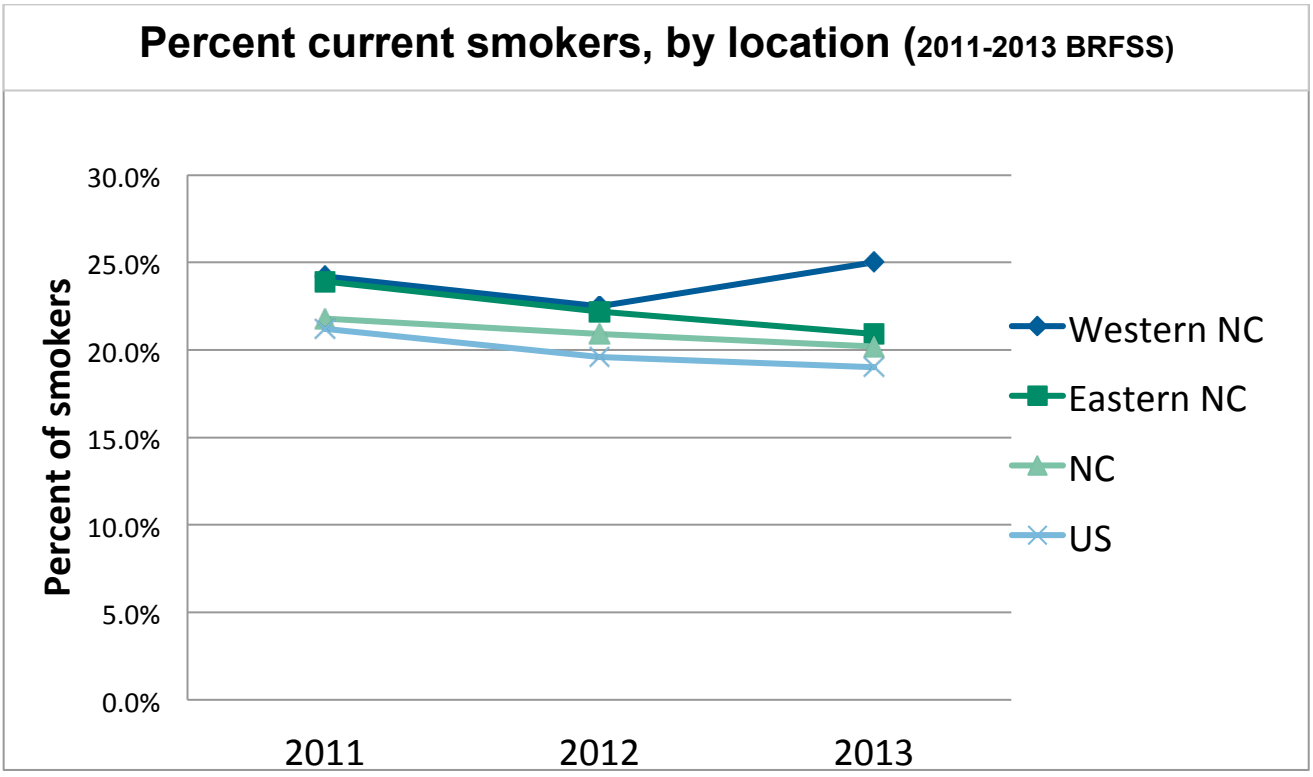
Tobacco Use

Tobacco use remains the single leading cause of preventable death and disability in the United States (CDC, 2013). In 2011, the current percentage of adults who smoked was 21.8%, ranking 29th among the states (CDC, 2013). In addition, 5.2% of adults reported use of smokeless tobacco (snuff, dip, chewing) in 2011 ranking 36th among the states (CDC, 2013).

QuitNow NC is a resource that provides free counseling to individuals who want to quit using tobacco. It is promoted in various methods through partnerships with local healthcare providers who can refer patients who are interested that can receive a call from a trained quit-coach. During 2009-2010 year, 55% of smokers in NC made an attempt to quit (CDC, 2012).

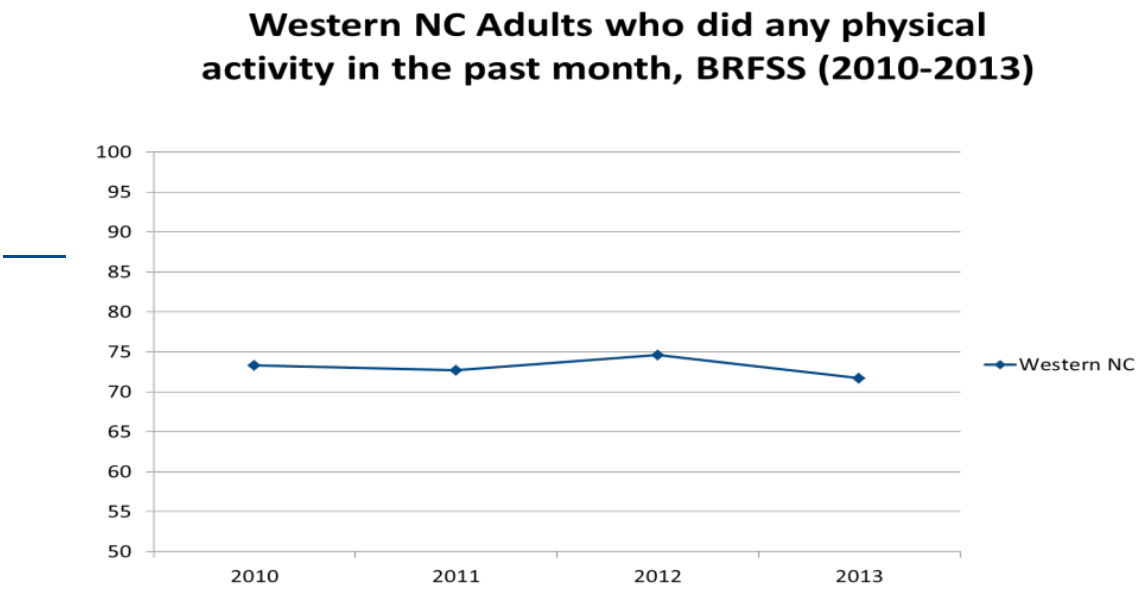
In NC, the percent of youth grades 9-12 engaging in smoking was 17.7% in 2011 putting NC at a rank of 26 among other states in the US. Smokeless tobacco use was 11% setting a rank of 28th among other states (CDC, 2013).

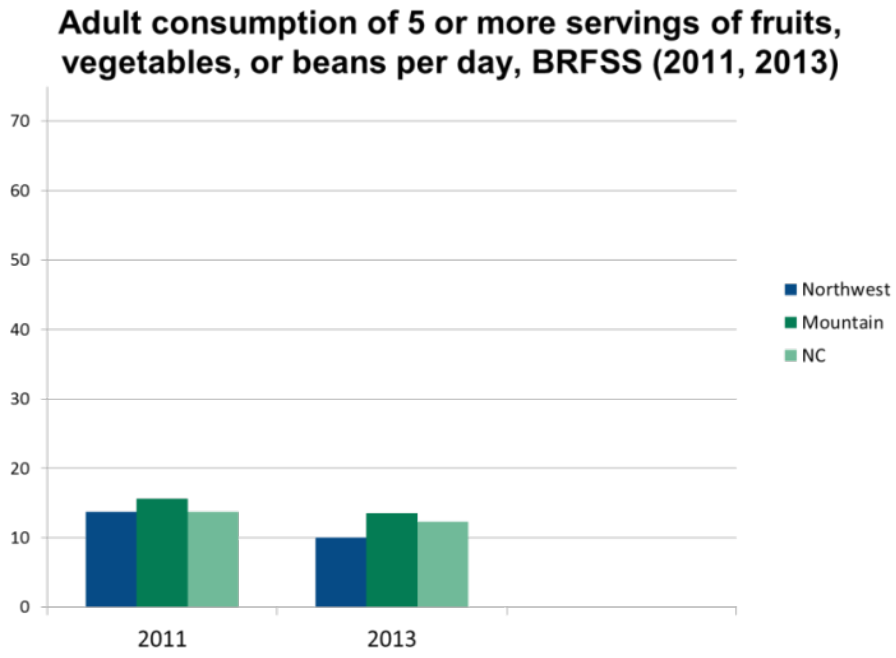
One of the most powerful tools to encourage adults and youth to quit smoking or avoid starting is to raise the amount of cigarette excise tax. As of June 30, 2012, the NC rate of 0.45/pack of cigarettes puts NC ranking 45th among the states with the national median being $1.339/pack (CDC, 2013). The community opinion survey showed that 59% would support at least a $1 excise tax increase, while 20% would not and another 21% had not determined whether they would support this type of policy change or not. In addition, there was broad support of tobacco free policies in multiple public places, including outdoor areas of restaurants, parks, and workplaces.



Physical Activity & Nutrition

Along with tobacco use, physical activity and nutrition are key health behaviors that may increase risk of many chronic diseases. The Behavioral Risk Factor Surveillance System, a random telephone survey coordinated by CDC and the NC State Center for Health Statistics, provides important health behavior data like physical activity and nutrition. Data is reported regionally for Western NC.





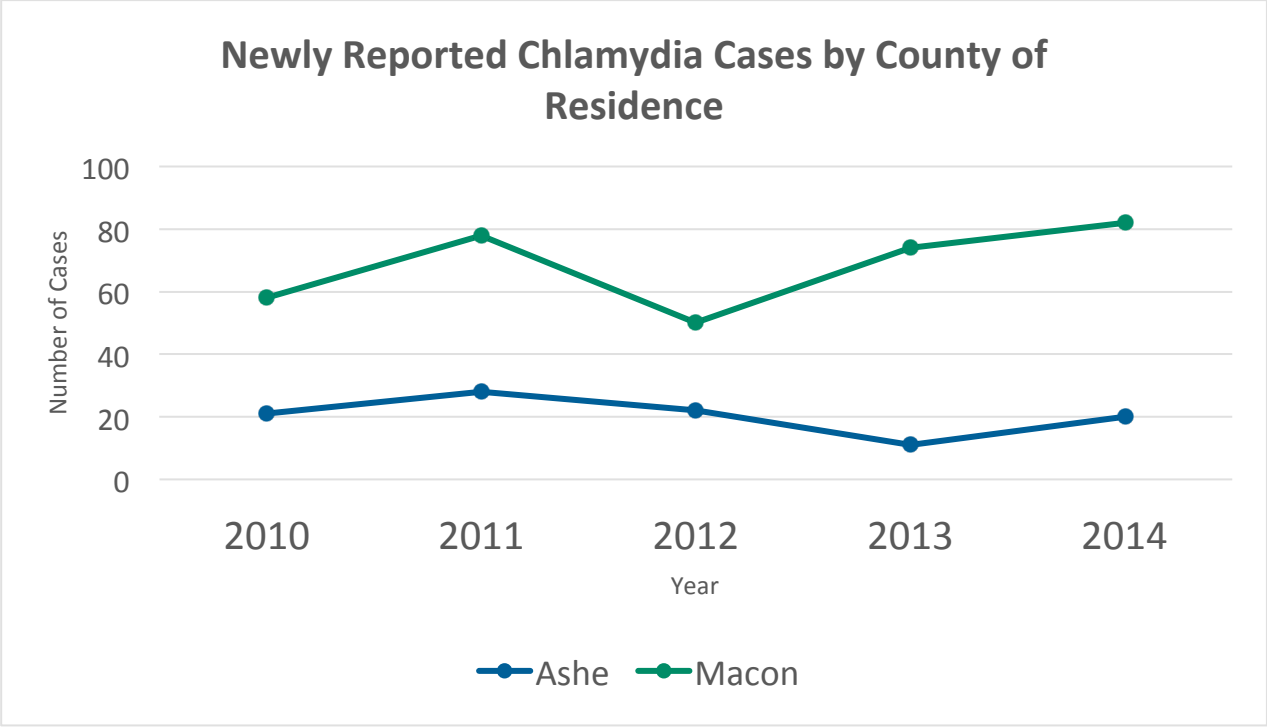
Nutritional quality often is evaluated by consumption of fruits and vegetables and the BRFSS results below indicate that consumption of fruits and vegetables is well below recommended amounts, and is headed in the ***wrong*** direction, with fewer people meeting the recommendation in 2013 when compared to 2011 (NC SCHS, 2014). Community opinion survey results indicate that some community members are aware of the importance of nutrition ranking poor eating habits among the most risky behaviors and most buy their fresh fruits and vegetables at the grocery store or county Farmer's Market, and would like to see more in community convenience stores.

Communicable disease

In the past year, there has been discussion about the global outbreak of Ebola Virus Disease and the potential for its spread to North Carolina. There were no cases of Ebola Virus Disease reported in Ashe County during the past year, but public health, healthcare, and emergency response staff remained vigilant instituting screening practices to inquire about travel outside the United States among other methods to be able to identify any potential case early. In addition, advanced planning between Emergency Medical Services, local, and regional hospitals occurred to have plans in place for potential cases. Public health staff activated the epidemiology team and partnered in the efforts to ensure plans were reviewed, updated, and training occurred to protect any healthcare workers that may be exposed. These efforts strengthened local partnerships further and has led to more plans for coordinating communication response efforts in the coming years for any future public health emergency that may arise.

Sexually Transmitted Infections

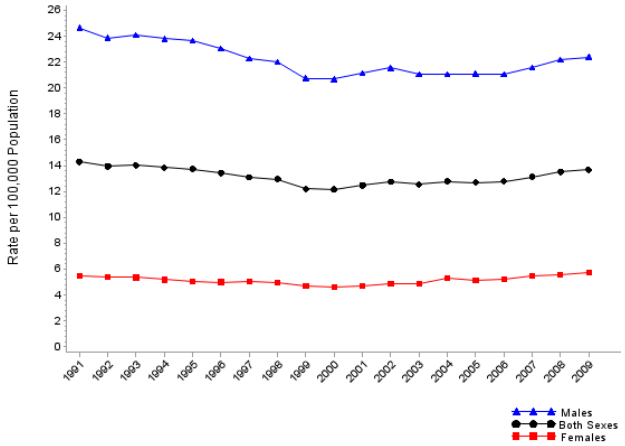
Ashe County has had a history of lower rates of sexually transmitted infections compared to NC overall. The past years have continued this trend. The graph below details new Chlamydia infections that have occurred over time, in 2014 there were 20 cases in Ashe County compared to 82 in Macon County. Since 2010, there have been no new cases of Syphillis or AIDS, three cases of HIV and only seven cases of gonorrhea (NC HIV/STD Surveillance Report, 2011-2014).



Behavioral health

Behavioral health is a broad category of health that includes considerations of substance abuse, mood disorders, and mental illness. It has become more important over the past year as the national trend of deaths by suicide have increased from 2000-2009 as demonstrated in the graph below (CDC, 2015). Note the US overall higher prevalence among males compared to females, which is also true in Ashe County.

Trends in Suicide Rates Among Persons ages 10 years and older, by sex, United States, 1991-2009 (CDC)



We know there are risk factors place a person at higher risk for suicide mortality, including depression, social isolation, substance abuse or family history of suicide or child maltreatment (CDC, 2015). In 2012, the Behavioral Risk Factor Surveillance System data demonstrated 25% of adults in Western NC reported depression, anxiety, or trouble with emotions during the past 30 days (NC SCHS, 2013). Some of the challenge in addressing the public health burden of behavioral health needs is stigma. On a positive note, the most recent BRFSS data (2013) indicates that, in general, people believe that most people are "generally caring and sympathetic to mental illness" and that "treatment can help people with mental illness lead normal lives" (NC SCHS, 2014).

Suicide is the 9th overall cause of death according to the most recent data from the NC SCHS (2009-2013).

For 0-19 year olds, it is the 2nd leading cause of death with 2 deaths during this time period, among 20-39 year olds it is the 3rd leading cause of death with 7 deaths during this time period, and the 6th leading cause of death for 40-64 year olds with 13 deaths (NC SCHS, 2015). This data is based on county of residence.

Community opinion survey participants reported concerns about mental health in the community and ***73% noted that suicide is a community health problem***. They also noted that the place they would refer a person who "needed counseling or support for emotional pain and/or feelings of hopelessness, anxiety, nerves, loneliness, or sadness" would most often be a doctor, health department, or clinic (37%), a pastor or church member (17%), Other counselor or therapist (14%), or Daymark Recovery Services (13%).

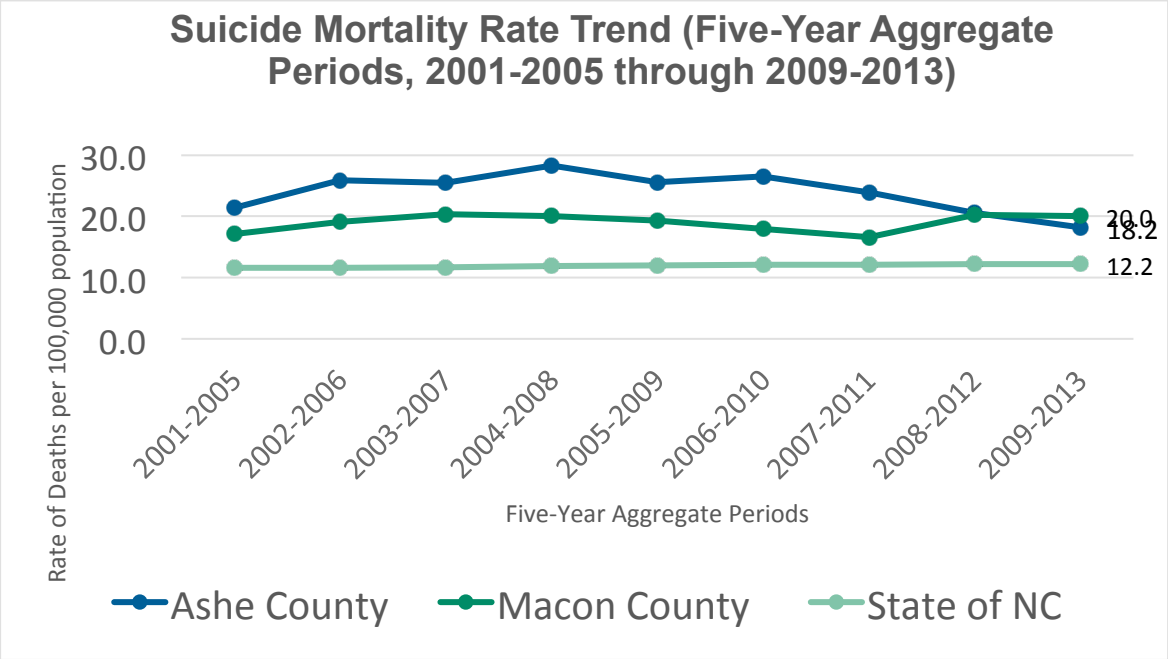
When asked about where they would refer someone who was "thinking about hurting themselves or ending their life", community members is mostly a doctor, the health department, or other clinic (19%), followed by a pastor or church member (17%), the Smoky Mountain LME Local Crisis Number (17%), Daymark Recovery Services Crisis Line (13%), or another counselor or therapist (7%).

This tells us the importance that both healthcare providers and pastors or churches are equipped to handle potential requests for support for someone who may have a behavioral health problem or even be planning suicide. In addition, though there was a small percentage of respondents that were unsure where to send someone who may be planning suicide, it is worth considering whether the community is broadly aware of crisis intervention services and whether these specific groups are prepared to address behavioral health challenges of community members.

Suicide

The trend of suicide mortality rate has been decreasing since the 2006-2010 time period. According to the NC State Center for Health Statistics (2014), there were 25 deaths attributed to suicide during 2009-2013 time period (17 males and 8 females), and the current mortality rate is 18.2 per 100,000 for the county, compared to 20 per 100,000 in Macon County and 12.2 per 100,000 for NC overall. These deaths are reported by county of residence.

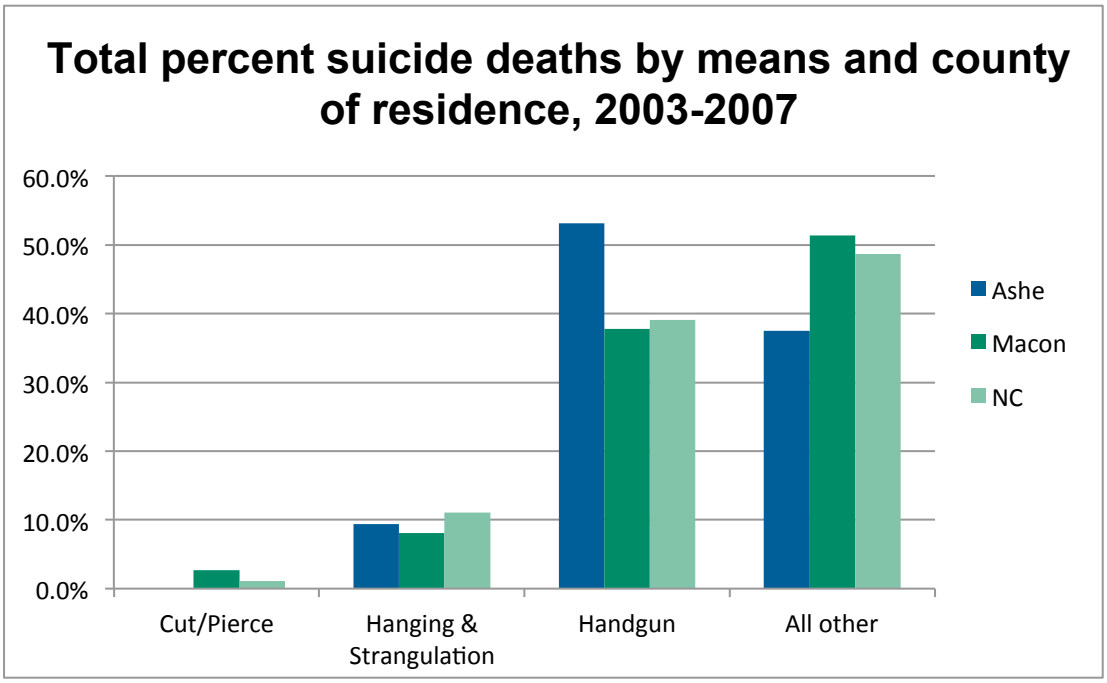
According to the NC Office of Chief Medical Examiner data for 2003-07, of the suicides that occurred in the county during that time frame, 40% had a blood alcohol present and 26% of those had a BAC level over the legal limit of 0.08. (Note: this only includes deaths for age 15 or older who were tested for alcohol presence).



Suicide by means

The data below shows the most current data available from the NC Office of Chief Medical Examiner which may provide insights that could be helpful for suicide prevention efforts. Note that this data shows that handguns are the most often used means of suicide, followed by a much lower percent by "all other" means which include 2 deaths due to poisoning, and 2 additional with prescriptions present at the time of suicide.

Another point to remember is most suicide deaths have been males, at least some older data from 2003-2007 indicate that of the deaths tested for substances present, over 40% had alcohol present, and 26% of those had alcohol levels over the legal blood alcohol content limit of 0.08 mg/dL.



Substance Abuse

Substance abuse is an issue worth further exploration since poisoning deaths, tobacco use, and alcohol related crashes all are influencing health outcomes for the county. Substance abuse may include alcohol use, tobacco use, or other drugs, including prescription drugs. We also know that substance abuse history increases risk of suicide (CDC, 2015).

The community opinion survey results also indicate that people are aware of substance abuse problems that may exist in the county. Drugs and alcohol was as the top concern with 64% of survey participants ranking it the leading health problem in the county and 75% believe that underage drinking is a problem in the county. Over 46% said that teens likely access alcohol through their peers or older siblings, and an additional 32% said that alcohol is accessed at home by permission given by parents or unsupervised (unlocked) alcohol being left in the home.

Community members ranked the top 3 substance abuse problems in the county and methamphetamines were ranked the top concern at 80%, followed by abuse or misuse of prescription drugs as the highest substance abuse problem at 59%, alcohol 46%, tobacco 43%, driving after using alcohol or other drugs 25%, and marijuana 25%.

The leading substance abuse concerns ranked by community opinion survey responses

Rank	Substance	Percent selected by survey respondents
1	Methamphetamine	80%
2	Prescription Drug Misuse/Abuse	59%
3	Alcohol	46%
4	Tobacco	43%
5	Driving After Using Alcohol or Drugs	25%
6	Marijuana	25%

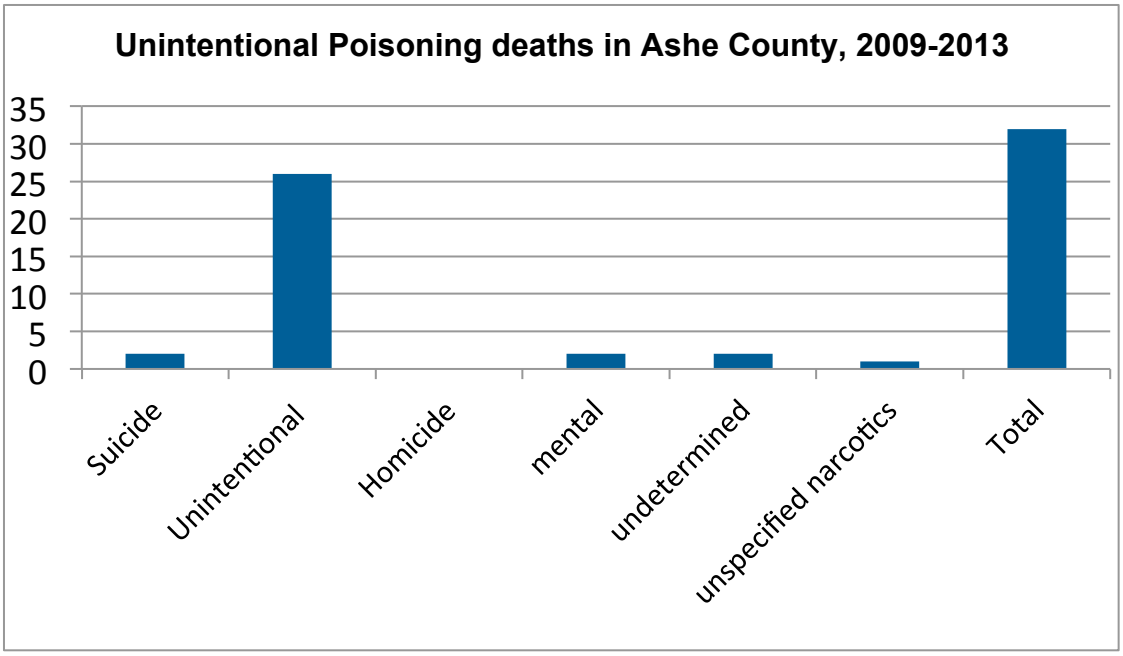
Note: There is less than 4% difference between the 3rd and 4th concern, and less than 1% difference in the ranking between the 5th and 6th concern

Emerging substances such as electronic nicotine delivery systems (ENDS) are also important to consider since they may be misleading as they have been marketed as water "vapor" or non-addictive substance. Currently, there is no FDA regulation that provides consistency in the products sold, and much is unknown about the potential harmful effects that may occur. Most survey respondents reported never using an electronic nicotine device 82%, while 8% reported current use of electronic nicotine devices, 10% reported using tobacco currently, 6% reporting desire to quit using tobacco, and 27% reported having quit tobacco product use.

Unintentional injuries

Unintentional injury deaths can be motor-vehicle or non-motor vehicle related. Overall, Ashe rates were higher than the state and peer county in unintentional motor-vehicle injuries with a rate of 18 per 100,000 (representing 24 deaths) compared to 12.6 in Macon and 13.7 in NC (2009-2013, NC SCHS).

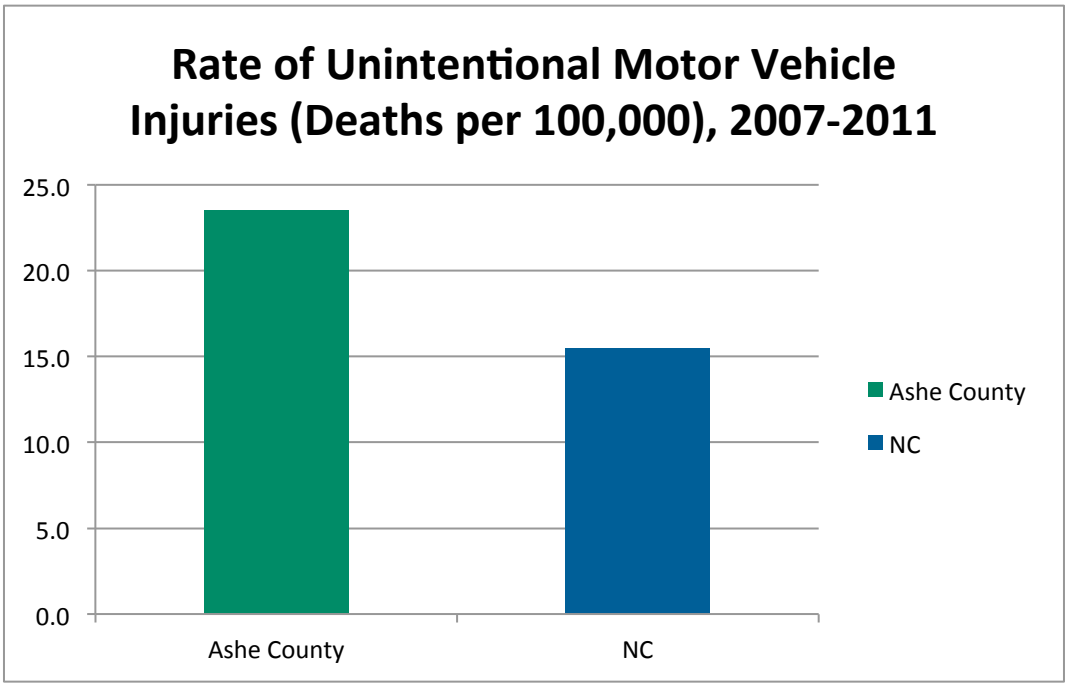
Among all other unintentional injuries, the rate of death in Ashe County was 36.1 per 100,000, representing 59 deaths, compared to a rate of 41.8 in Macon County and 29.3 in NC overall. So, Ashe is below the peer county, but well above the state rate during this time period of 2009-2013. Additionally, we know from review of the NC SCHS Poisoning deaths report (2015) that we have a total of 32 deaths due to poisoning during this time period of 2009-2013, and of those, most were unintentional and related to narcotics. In review of the leading causes of death by age group, we can glean the age group most affected by all other unintentional injuries, which include unintentional poisoning and other injuries, are those 40-64 years old.



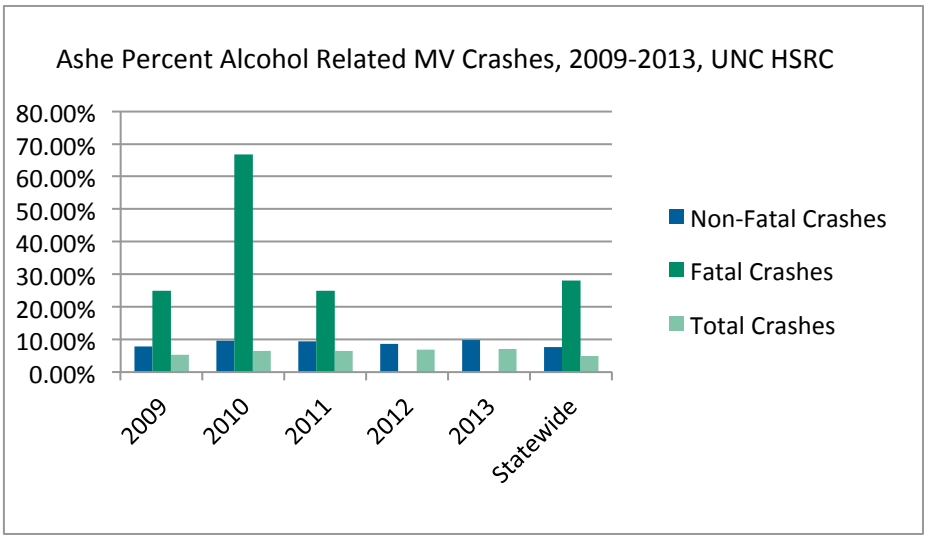
Unintentional motor vehicle injuries

Overall, Ashe has a higher mortality rate for unintentional motor vehicle injuries with 18.2 per 100,000 compared to 12.6 in Macon County and 13.2 in NC (NC SCHS, 2014).

During 2009-2013, there were 24 deaths attributed to this cause. While this is not among the top 10 leading causes of death overall, it is the leading cause of death for 20-39 year olds, and the third leading cause of death among 0-19 year olds (NC SCHS, 2014).



Alcohol-Related Motor Vehicle Crashes



Alcohol-related crashes are also an important consideration and the graph depicts these crashes in Ashe County, which total 30 for each year from 2009 and 2011-13, with the highest number occurring in 2010 when there were 36 (UNC Highway Safety Research Center, NC Alcohol Facts 2006-2012).

Trends show an *increase* in percentage of crashes due to alcohol, from 5.3% in 2009 to 7% in 2013. Statewide, the percentage of alcohol-related crashes was lower at 4.9% and Macon County 5.5% (2013, UNC HSRC).

Community assets that support health

There are many community assets that support health. The health of the economy and education system is an important part of having a healthier population, and the reverse is also true.

Below are some assets in *Ashe County* that help support health, though this list is not exhaustive. For more information about community assets that support health, see **Appendix D: Community Health Resources.**

Access to recreation and parks

Parks and recreation are not only important for promoting physical activity for all ages, they are also good for improving quality of life and can be used as economic tools to attract business sectors. Recreation plans that are updated routinely are important for garnering additional resources through grants or other opportunities that can also boost tourism like fishing, biking, or hiking.

Access to healthy foods

Healthy foods are an important asset that not everyone has easy access to or can afford. Providing multiple locations where more healthy foods are available through farmer's markets, community stores that sell healthy foods, community produce box programs, and restaurants that feature healthy menu items all support the easy access of healthy foods. So are healthy foods and beverages available at faith, work, schools, and childcare settings. Supporting locally grown or produced products means shortening the food supply chain and increasing economic wealth for community residents, another key ingredient for healthy living. Policies like farmland preservation and Farmer's Market land use protection provides important policy to support these efforts.

Access to indoor recreation opportunities

Due to the seasonal climate in the NC Mountains, indoor recreation opportunities are particularly important. Providing safe places for indoor physical activity is an important component of providing support for healthy behaviors like walking or taking an exercise class, which can offer additional social support. These types of opportunities should include low cost and free options for community members who would otherwise be unable to afford them.

Active transportation options

Rural communities are dispersed sparsely and often transportation options are limited to cars alone. However, communities can adopt street designs that make downtown areas more attractive and safer for physical activity to both boost physical activity, but also boost economic development. Active living plans that incorporate greenways, bikeways, and sidewalks or multi-use paths offer interconnection opportunities that make it possible to move for function rather than only health reasons.

Smart growth and complete streets

Smart growth incorporates a set of principles of design and growth that is managed and supports the culture the community would like to maintain over time. Most often this is a design principle incorporated into Comprehensive plans of Counties and Municipalities. Complete streets policies allow for street design plans and maintenance efforts to incorporate needs of all users, not just cars. Complete streets support active transportation.

Clean water, air, sanitation, and safe food in permitted establishments

Public health permitting supports maintenance critical to maintaining sanitation and safe food, clean water, and air. Public health staff support the clean water, smoke-free air in restaurants and bars, and safe food handling in a variety of establishments that serve those most vulnerable including preschool and school aged children and hospital patients.

Healthcare coverage and services

Providing healthcare coverage is often synonymous with having a primary healthcare provider. A practitioner knowing about your healthcare needs and being able to coordinate those needs with other specialists or supportive therapies means that care is coordinated, costs are often reduced, and better healthcare outcomes are achieved.

Access to the local hospital means special healthcare needs that are urgent or require special inpatient care can be provided without the strain of travel to another community. In addition, hospitals and hospital systems are often among the largest employers in the county, which provide important economic benefit to the community.

Services that meet the needs of special groups in the population

Special services that meet the needs of special groups that require consideration include special social services like those offered at the Department of Social Services, but they may also include innovative partnerships that address complex healthcare or developmental delay issues. They may also be groups aimed at addressing poverty and homelessness or organizations that serve the community members who are food insecure. Finally, this may include ensuring that services available to the general public include special considerations for those who do not speak English as a first language.

Faith community resources

Faith community resources can be very important in communities, and may help address important health needs including social support or respite services for caregivers. Faith communities often have programs that support substance abuse like AA or they may have services that seek to engage special populations like youth. These services are important for the community connectedness and social support mechanisms can help provide important fabric to initiate and support health promotion programs.

Non-profit organizations, volunteer groups and civic organizations

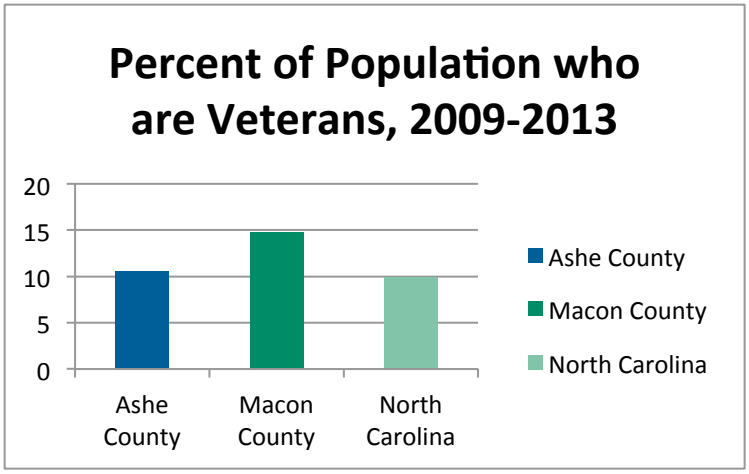
Non-profit organizations are an important part of addressing community needs, supporting prevention efforts, and serving community members by providing services that may otherwise be unavailable. Volunteer groups and civic organizations engaged in community efforts are important in acknowledging and promoting important community concerns and also can be helpful in addressing important priorities. First responders are volunteers and offer quick response to neighbors in need during emergencies before EMS arrives. These organizations, such as volunteer fire departments, along with county and municipal public safety, are important for community safety and social support.

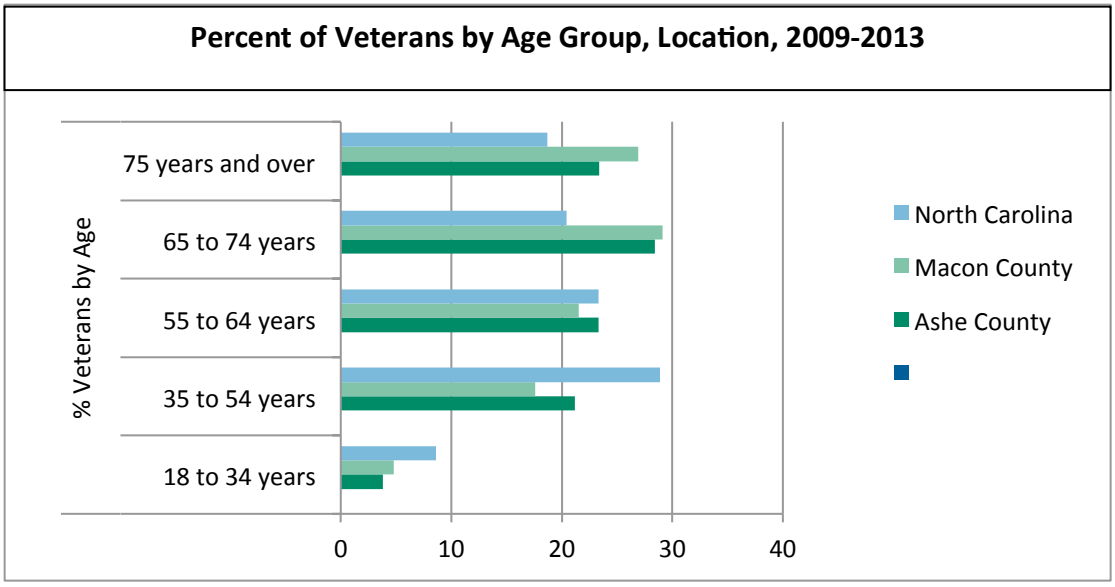
Special populations to remember

Special considerations are warranted for specific groups in the population to ensure that they have been considered when policy and health planning decisions are made. A special population may be such because of their socioeconomic status, age, gender, or first language.

Veterans

Our service men and women are considered a special population by the Centers for Disease Control and Prevention. Recent news has shed light on the national concern of the challenges that military service veterans and their families face. Overall, Ashe has a lower overall percentage of veterans compared to the peer county, and is slightly above that for NC overall. Veteran ages are mostly distributed between middle-aged to elderly population, but about 15% are younger ages (US Census Bureau, 2013).





Children

Children are an important population to remember since they may be disproportionately affected by health or social problems beyond their control. In addition, considering developmental needs of children during public health emergencies or natural disasters that may require emergency response is important in developing preparedness plans.

Elderly

The elderly population is an important group to consider not only because of age, but there may be mobility and transportation challenges that come with age which is more frequent in older adults when compared to others. Older adults have needs such as in home care or special nursing care, may have food insecurity challenges, and may have challenges in transportation which may be needed to access important resources such as medical appointments or congregate meals important for social support.

People with developmental disabilities or special healthcare needs

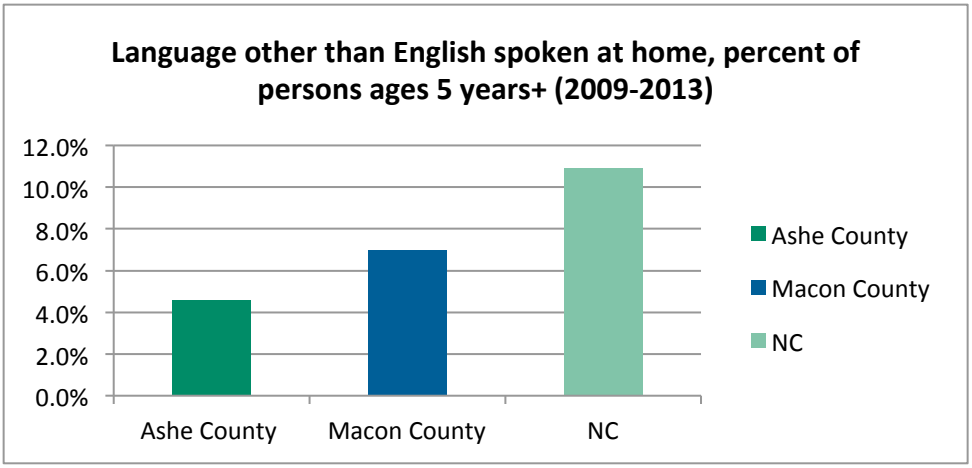
People with special healthcare needs or developmental disabilities are important groups that require additional planning for emergency response, but also for health programming and services that may be available in the community. This group may include those with developmental disabilities or other needs such as blindness, deafness, or autism disorders, among others. Transportation may be a challenge for these individuals, especially given the specialty healthcare and other complementary health services like physical therapy that is often needed by people in this group.

People without health insurance

Considering people without health insurance is important since lack of health insurance may be linked to lack of affordability of healthcare services. In addition, individuals without health insurance may not have a primary medical home, which may result in more simple, acute care needs that could be addressed or prevented in a primary healthcare setting being seen in a more urgent, costly setting such as the hospital emergency department. This group may also have challenges in adhering to medical advice since prescription medications or diabetic supplies may be very costly without health coverage. Currently, there are some services in the community designed to help meet this need including the Ashe Medication Assistance program operated by Ashe Memorial Hospital and the Healthnet program offering primary healthcare to people without health insurance at three locations in the county: Ashe County Health Department, Ashe County Free Medical Clinic, and the Mountain Family Care Center operated by Ashe Memorial Hospital for a much reduced cost.

People who speak a language other than English at home

People who speak another first language other than English are a population important consideration. The data from the US Census in 2010 indicate that most of those in Ashe County who do not speak English as a first language are Hispanic or Latino. The graph below demonstrates the a lower percentage of individuals who speak another language at home compared to that in Macon County and NC overall.



People living in a geographically isolated location

Ashe County is a rural county, and with this comes more sparse location of the population in the county. While living in a more geographically isolated location does not necessarily equal poorer health, it does call for special attention. In particular, during public health emergencies, natural disasters, or urgent medical needs requiring emergency response, these individuals must have special consideration since their location may increase the risk of poor communication and reduced access to needed services. This is particularly important when also considering the impact of sparse location and transportation needs to stay healthy like shopping for healthy foods, going to safe places to be physically active, or accessing medical or social services located in town.

People who are food insecure

According to Feeding America Map the Meal Gap **4,410 people in Ashe County were living in food insecure households in 2012, and the rate of food insecurity was 16.3%, compared to 18.6% in NC overall.** Food insecurity is a concern not only because of hunger, but also nutritional quality since higher calorie foods are often less nutritious and can put people at increased risk for obesity.

Among children in Ashe County, 29.9% or 1,530 are living in food insecure households (Feeding America Map the Meal Gap, 2014). This is above the NC percentage of children in food insecure households which is 26.7%.

Of those who are food insecure, 28% are ineligible for federal food assistance and must rely on charitable programs offered by non-profit organizations and faith communities.

People who are homeless

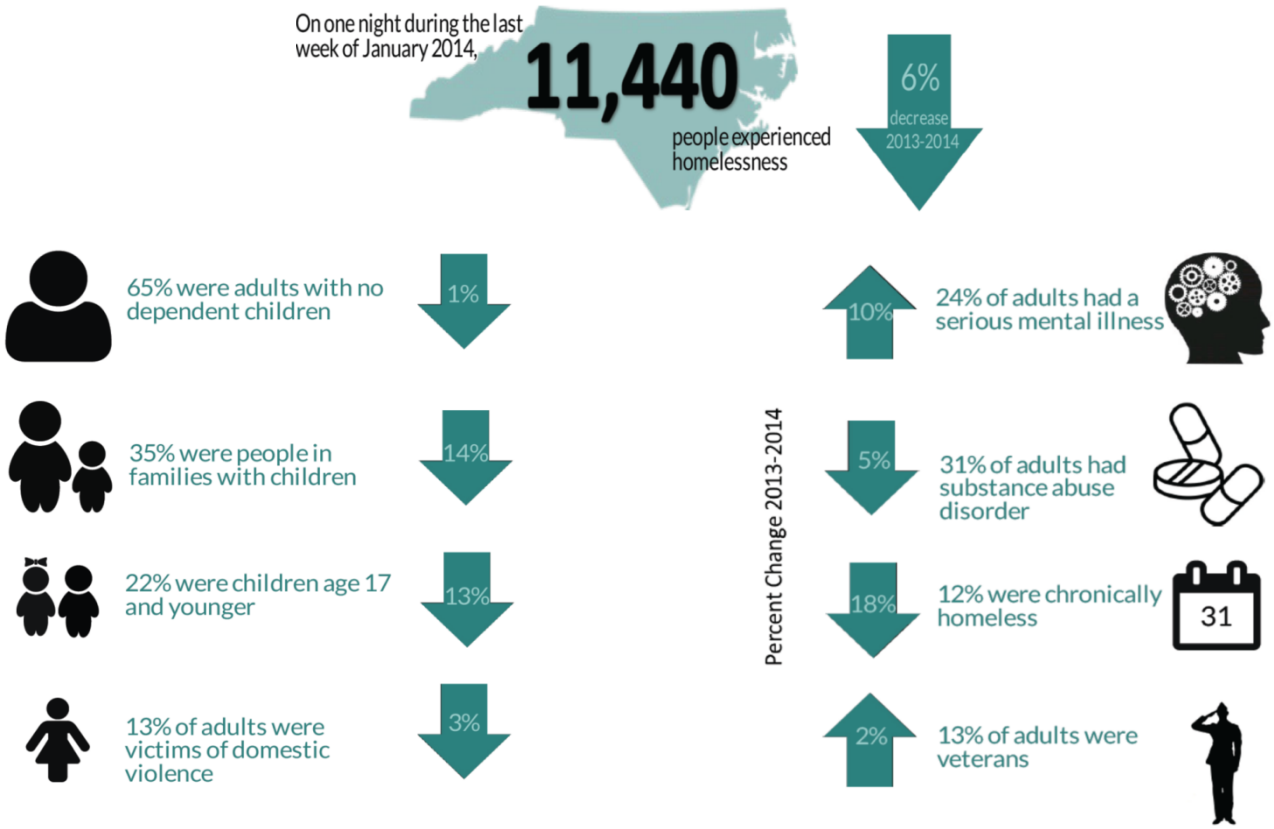
Homeless populations are important when considering those most vulnerable. The infographic below is from the NC Coalition to End Homelessness with data from January 2014. Overall, the Northwest Region has the highest incidence of homelessness, 41 per 10,000 people. The estimated homeless population for the region is 854 people. The Hospitality House of Boone is a regional facility offering emergency, transitional, and permanent housing assistance for individuals and families. In addition, three meals a day and laundry facilities are also available for individuals and families beyond those offered shelter. Learn more about the Hospitality House at www.hospitalityhouseofboone.org

As of 2012, 169 students enrolled at Ashe County Schools were homeless (NC Homeless Education Program, The SERVE Center at UNC-G, Feb 2012).

Homelessness in Ashe County

According to the Ashe County Coalition for the Homeless, the 2014 point-in-time calculation report shows that **Ashe County has 133 people who are homeless, and of those 98.4% were unsheltered and over 20% of those unsheltered were children age 17 and younger.** Two homeless were veterans and one adult and one child were in emergency shelter.

2014 NC Facts about Homelessness (NC Coalition to End Homelessness, 2014)



Priority health concerns

Reviewing community health needs is only part of the importance of conducting community health needs assessments. The graphic below indicates the overarching goals of this community to lead efforts around solving community health problems through cross-sector engagement and strong community input and collaboration.

The Ashe Health Alliance was the steering group involved in consulting on the survey design, distribution, and analysis. In addition, this group participated in reviewing the community health data in two ways. First, group members participated in distributing and promoting the surveys in paper and electronic formats that provided greater response. During the February, 2015 meeting in which the group reviewed the results of the community health opinion survey and were presented a powerpoint presentation detailing the secondary data results created by Appalachian District Health Department.

Each member received a survey monkey link outlining key implications to use when choosing the Top 3 health issues:

✓ **This health issue is a problem for many people living in the County.**

✓ **This is an issue that could be changed with more resources and/or action steps to address it by collaborative groups in this community.**

✓ **If action is not taken to prevent or address this health issue, it could be more damaging to County residents long-term.**

✓ **This is a complex issue that is best solved through working together.**

✓ **I am personally and/or professionally interested in working towards addressing this health issue.**

Ashe Health Alliance members used sticker votes to choose their top 3 priority health concerns to improve:

- ✓ Chronic Disease Prevention, Management, & Awareness
- ✓ Physical Activity & Nutrition
- ✓ Substance Use/Abuse

The fourth ranked choice was mental/behavioral health which is not surprising given the group's interest in addressing this important public health problem.

Next steps for the coalition

Each priority among the list was provided a brief description so group members could understand the intention behind the priority chosen.

Chronic Disease Management and Awareness

Obesity, Heart disease, chronic lower respiratory disease/COPD, stroke, cancer, diabetes, and hypertension

Physical activity and nutrition

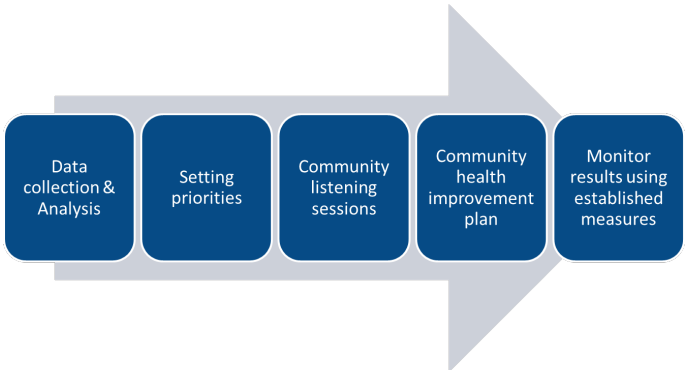
Access to physical activity or recreation, accessing healthy foods, and making healthy choices for eating healthy and making physical activity easier for all

Substance Use and Abuse

Drugs, alcohol, and tobacco; including misuse or abuse of prescription drugs and use of e-cigarettes or other devices for nicotine delivery

Next steps for community health improvement planning

The group's next steps in addressing important health priorities are briefly described below in the graphic. Since each priority requires both the use of evidence-based interventions (where they exist) and community context, and because some sectors of the population were not adequately heard during the community opinion survey process, the next steps will be conducting 2 to 4 community listening sessions in community locations selected by the coalition. At each listening session, community members will learn some about their community's health, but most of the time will be spent on gathering input from community members about solutions or reactions to proposed solutions using evidence based strategies. This process will take place in the Spring of 2015. Results from community listening sessions will lead the group towards the development of a comprehensive community health improvement plan that will be used for the next two to three years to implement and measure results. This report is planned to be released during a community-wide forum, date to be determined, during the summer, 2015.



A Healthy NC in 2020

Local public health efforts are linked up to state and national efforts working toward the same goals over time. Appalachian District Health Department builds upon Healthy People 2020 national strategies and Healthy NC 2020 for statewide strategies. Learn more about Healthy NC 2020 http://publichealth.nc.gov/hnc2020/foesummary.htm

In addition, the Healthy NC 2020 plan will serve as a guide for future development of action plans to lead community health improvement for the county. There are objectives to utilize as a guide for local objectives.

Using evidence to inform the work moving forward will be important as will ensuring that approaches used fit the community needs and cultural context. Community partnerships are critical to this important work since improving the health of the public involves multiple stakeholders in public, private, non-profit, and community based members.



References & Appendices

For a complete list of references, please see the secondary data book appendix referenced below.

Appendix A: Acknowledgments & community partners list

Appendix B: Community opinion survey databook, including the survey instruments

Appendix C: Secondary databook with references

Appendix D: Community Resource Guide

Promoting safe & healthy living, preventing disease, & protecting the environment



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Sparta, NC 28675
(336) 372-5641 Clinic
(336) 372-5644 Nutrition & WIC Services
(336) 372-8813 Business Office
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(336) 246-9449 Clinic
(336) 246-2013 Nutrition & WIC Services
(336) 246-3356 Environmental Health Office
www.apphealth.com



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