

# Buncombe County Community Health Assessment

2015



# BUNCOMBE COUNTY COMMUNITY HEALTH ASSESSMENT

## ACKNOWLEDGEMENTS

Buncombe County Health & Human Services developed this document in partnership with Mission Hospital, Care Partners and Mountain Area Health Education Center (MAHEC) as part of a local community health (needs) assessment process. We would like to thank and acknowledge several agencies and individuals for their contributions and support in conducting this community health assessment (CHA):

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In addition, Mission Hospital provided financial support of the community health improvement process (CHIP) as well as leadership on the CHIP Advisory. Buncombe County Health & Human Services (BCHHS) contracts with Mountain Area Health Education Center (MAHEC) to provide staffing support for the CHIP work groups. MAHEC leadership is also represented on the CHIP Advisory.

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## **BUNCOMBE COUNTY 2015 CHA EXECUTIVE SUMMARY**

### **Purpose and Process**

The Buncombe County Community Health Assessment (CHA) process included a Data Team working under the guidance and leadership of the Community Health Improvement Process (CHIP) Advisory. The CHIP Advisory serves under the Buncombe County Health & Human Services (BCHHS) Director and Board. The Data Team reviewed data from many sources to identify areas where Buncombe County data worsened as compared to our past performance, showed Buncombe County lagging behind regional or state data or was compelling and represented significant impacts on the health of the community. Data reviewed included:

- WNC Healthy Impact Secondary Data Workbook
- WNC Healthy Impact Primary Survey of County Residents
- Locally available data, surveys and focus groups

### **Data Summary**

#### **Community History & Demographics**

Buncombe County encompasses 660 square miles along the Blue Ridge Mountains with six distinct municipalities: Asheville, Biltmore Forest, Black Mountain, Montreat, Weaverville and Woodfin. It is located in the Blue Ridge Mountains at the confluence of the Swannanoa and the French Broad Rivers. Asheville is the county seat of Buncombe County. It is the largest city in Western North Carolina and the 11th largest city in North Carolina with a population of 83,393 (2010 Census).

The land where Asheville now exists used to be within the boundaries of the Cherokee Nation and was established in 1793 on a plateau where two old Native American trails crossed. In 1890, George Vanderbilt began building Biltmore House, the largest private home in America. During this era, 1890-1910, Buncombe County's cool, crisp mountain air made the area a popular location for tuberculosis sanatoriums. The area also became one of America's best-known tourist centers. Asheville prospered in the decades of the 1910s and 1920s and at one point was the third largest city in the state, behind Charlotte and Wilmington.

Buncombe County has a total population of 238,318 (2010 Census) with a median age of 40.6. Buncombe has significantly lower proportions of African Americans, American Indians, Asians and Hispanics than NC as a whole but slightly higher proportions of African Americans and Hispanics than the Western North Carolina (WNC) region. A double-digit rate of growth in Buncombe County is expected to continue for the next two decades, at nearly twice the rate of growth of WNC and surpassing the pace of growth for NC as a whole.

#### **Health Outcomes**

Length of life and quality of life are the measures used to look at our health outcomes. We examined mortality (or death) data to find out how long people live. In 2015, Buncombe County has a combined total of 6,737 years of *potential life lost* for every 100,000 residents. While this is lower than the NC average, it is worse than the best performing communities across the country. Quality of life refers to an individual's or group's perceived physical and mental health over time. Self-reported number of physically and mentally healthy days

per month is one of the most frequently used measures to understand health-related quality of life. Buncombe County had few residents rate their physical health as “poor” or “fair” (14%) as compared to NC (18%). However, more Buncombe County residents reported a greater number of poor mental health days compared the state average.

### **Populations at risk**

Buncombe County chose to focus on the following vulnerable populations based on available data:

- Aging population;
- Those impacted by health disparities;
- Those impacted by adverse childhood experiences including domestic violence and child abuse and neglect; and
- Homeless population subgroups (specifically veterans & those impacted by mental illness and domestic violence)

### **Process Used to Identify the Health Priorities**

BCHHS completed the CHA in partnership with Mission Hospital, Mountain Area Health Education Center (MAHEC) and WNC Healthy Impact. The Data Team received feedback and approval on 7- the process used to collect and analyze the data from the CHIP Advisory Board. The CHIP Advisory Board is a group of 30+ community leaders whose mission is to: *provide leadership and support to improve the community's health through collective action.*

The Data Team presented the data to the CHIP Advisory, highlighting the top ten health issues that worsened or showed Buncombe County lagging behind our regional and/or state partners. The CHIP Advisory used the following criteria to select priority health issues of focus for our community over the next three years: 1) relevance: *how important is it?*; 2) impact: *what will we get out of addressing this issue?*; and 3) feasibility: *can we adequately address this issue?* Members of the CHIP Advisory voted on each of the ten priorities after considering its relevance, impact and feasibility. The Advisory Board then identified those experiencing health disparities and those dealing with adverse childhood experiences as populations at greatest risk for the identified health concerns.

When working to improve large, complex health issues in Buncombe County, we first identify the population level results we hope to improve. Next, we outline the programs and services that by working together can help us achieve the results we seek. Buncombe County CHIP Advisory selected the following results to frame the quality of life conditions that would improve when we impact our health priorities.

The following results have been defined based on the priority health issues identified:

#### **1. All ages have the opportunity to eat healthy, be active and better manage disease.**

- Obesity Prevention & Improved Management of Chronic Diseases - with 50% of adults and 33% of children either overweight or obese, it is essential to continue to make the healthy choice the easy choice. Diabetes mortality rate has continued to worsen for the past 8 years. There is a huge health disparity seen in diabetes mortality in NC. As a result, a number of efforts are underway to increase active transportation, access to affordable healthy foods, and new partnerships with clinical partners to build links between

clinical care and community supports. In addition, there is a great deal of work happening to improve diabetes care and linkages with community partners.

**2. All children have safe, stable and nurturing relationships and environments to ensure they reach their full potential.**

- Intimate Partner Violence – Five of the eight Buncombe County homicides in 2013 were a result of intimate partner violence (IPV), and there was a drastic increase in calls to the IPV hotline. With a new Comprehensive Domestic Violence Plan and the anticipated opening of the Family Justice Center, Buncombe County has many collaborative efforts underway to address this challenging issue.
- Substance Abuse Prevention – Hospitals continue to see spikes in heroin-related visits and overdoses; neonatal withdrawal syndrome continues to grow and over half the homeless population has a substance use disorder or mental health illness. With the new Comprehensive Care Center, Buncombe County is poised to improve the care and treatment of those with mental illness and substance abuse issues.
- Infant Mortality – Buncombe County saw an increase number of infants who died in their first year of life. This is a key community health indicator to help monitor improvements in women’s health, health equity and poverty. Many important community initiatives are moving forward such as the Success Equation (poverty reduction); Community Centered Health Home (clinical-community connections to improve health); The Safety Coalition (violence reduction); the Community Service Navigators (coordination and linkages to care); and the Minority Health Equity Project to improve chronic disease management (health equity).

## Next Steps

Initial presentations of the CHA results have been made to BCHHS Executive Leadership Team and Mission Hospital Executive Management Team. The CHA report will be posted on both BCHHS, Mission Hospital and WNC Healthy Impact websites. Collaborative action planning with community partners will result in the creation of a community-wide plan that outlines the programs, services or strategies that will be aligned, supported and/or implemented in order to address the four priority health issues identified through this assessment process.

The next step for Buncombe County CHIP process is to identify work teams to focus on the results that they identified: *All children have safe, stable and nurturing relationships and environments to ensure they reach their full potential* (priorities focused on infant mortality, substance abuse and intimate partner violence) and *All ages have the opportunity to eat healthy, be active and better manage disease* (priority focused on obesity and chronic disease prevention).

Next, the CHIP Advisory will convene community teams of experts in these areas to review available data, outline what efforts are currently underway, identify the key partners and determine any other needs that should be considered as we address the priority health issues. The Community Health Improvement Team, under the direction of the CHIP Advisory, will lead the work to address these complex health concerns by developing a roadmap that outlines our next steps, considering best practice and evidence-based methods and actively engaging our partners.

# CHAPTER 1 – COMMUNITY HEALTH

## ASSESSMENT PROCESS

### Purpose

A Community Health Assessment (CHA) identifies key health concerns across the entire community. **It is one step in the ongoing community health improvement process.**

A CHA investigates and describes the current health data that impacts the health status of the community. It looks at what has changed and what still needs to change to reach our community's desired health-related results.

### Definition of Community

Community is defined as "county" for the purposes of the North Carolina Community Health Assessment Process. Buncombe County is included in *Mission Hospital's* community for the purposes of community health improvement, and as such, they were a key partner in this local-level assessment.

### WNC Healthy Impact

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

### Data Collection

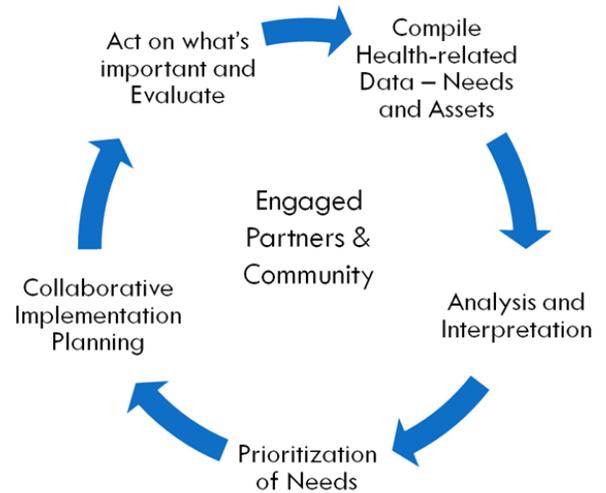
The set of data reviewed for our CHA process is comprehensive, though not all of it is presented in this document. Within this CHA, we share an overview of health and influencing factors, and then focus more on priority health issues identified through this collaborative process. Our assessment also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

### Core Dataset Collection

Some of the data reviewed as part of our community's health assessment came from the WNC Healthy Impact regional core set of data. WNC Healthy Impact's core regional dataset includes secondary (existing) and primary (newly collected) data, compiled to reflect a comprehensive look at health. The WNC Healthy Impact data consulting team provided the following data elements and collection:

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

See [Appendix A](#) for details on the regional data collection methodology.



## Community Input & Engagement

Including input from the community is an important element of the community health assessment process. The following primary data (collected directly from community members via surveys or focus groups) was reviewed. You will note icons for each data type. The same icons appear throughout this document as each data type is referenced.



Results from Primary Survey of 300 Buncombe County residents done by Professional Research Consultants, Inc. (PRC) as part of the WNC Healthy Impact Partnership. The same survey was done of 200 residents of partnering counties for comparison.



Electronic survey of 43 local community leaders across Buncombe County who have leadership roles in community health, businesses, social service, mental health and healthcare organizations. This survey was also done by PRC and so was done in many other western NC counties.



Locally compiled electronic surveys collected from 60 community health partners currently working within agencies in Buncombe County to understand what they see as their clients' greatest health concerns and challenges.



Survey data from 400 older adults completed through The Area Council on Aging, Aging Planning Consortium to gather information on healthy lifestyles.



Women and Children's Safety Coalition's Intimate Partner Violence Victim Focus Group results that gathered input from women experiencing intimate partner violence to help improve the system.



Survey data from residents of a local public housing community asking about their biggest health concerns and challenges.



Responses from pregnant and parenting women in our community who were asked, "What are the main issues impacting your health and pregnancy?" as part of the Community Centered Health Home Project through MAHEC. In addition, results from the Photovoice Project conducted by Positive Parenting Program and Buncombe Partnership for Children that captured the voice of pregnant and parenting women through their photos and stories to better understand the challenges and needs facing these women.

In addition to the WNC Healthy Impact's Core Data Set, Buncombe County CHIP Data Team reviewed many additional secondary (already existing) data sources including:

- Smoky Mountain Local Management Entities 2015 Provider Capacity, Community Needs Assessment and Gap Analysis for 2013-2014,
- The Homelessness Count,
- Department of Social Services Regional Data Report,
- MAHEC's Community Centered Health Home Epidemiology Report,
- NC Center for Health Statistics Data on Adverse Childhood Experiences in NC.

The CHIP Data Team (made up of representatives from BCHHS, Mission Hospital, MAHEC and NC Center for Health & Wellness) reviewed and prioritized key data concerns identified that were also community concerns voiced in the surveys and focus groups. Results of the data review were shared with the CHIP Advisory, which

provides leadership for our CHIP. The Advisory Board's 30+ community leaders prioritized the health concerns and recommended the top four health priorities. Partners and stakeholders will come together around the priorities to gather input on what is currently happening, gaps and additional opportunities to better address the issues.

### **Health Resources Inventory**

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

### **At-Risk & Vulnerable Populations**

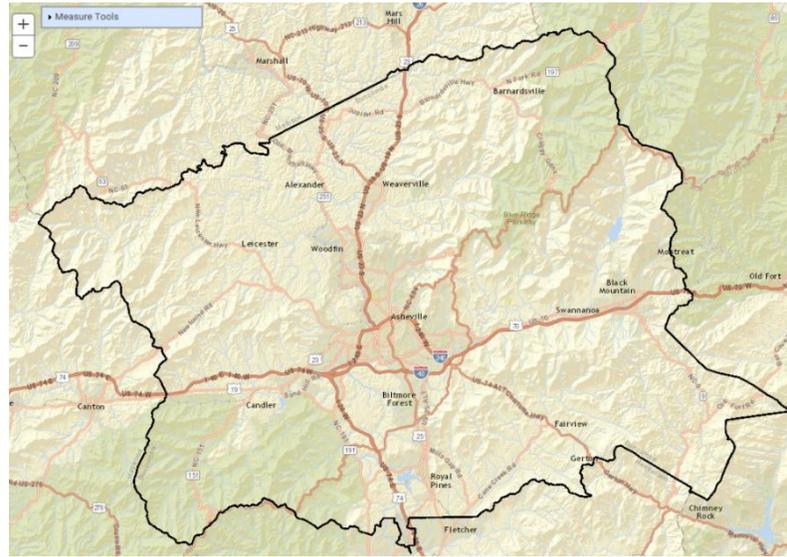
Throughout our CHA process and product, our team was focused on understanding general health status and related factors for the entire population of our county as well as the groups particularly at risk for health disparities or adverse health outcomes. In particular, for the purposes of the overall community health assessment, we aimed to understand where there are disparities in our health outcomes and access to care of medically underserved, low-income and minority populations. Buncombe County chose to focus on the following vulnerable populations based on available data:

- Aging population and the significant growth trend in this population
- Racial and ethnic minorities experiencing differences in health outcomes
- Those impacted by adverse childhood experiences including domestic violence and child abuse and neglect
- Homeless population subgroups (specifically veterans, those impacted by mental illness and domestic violence)

## CHAPTER 2 – BUNCOMBE COUNTY

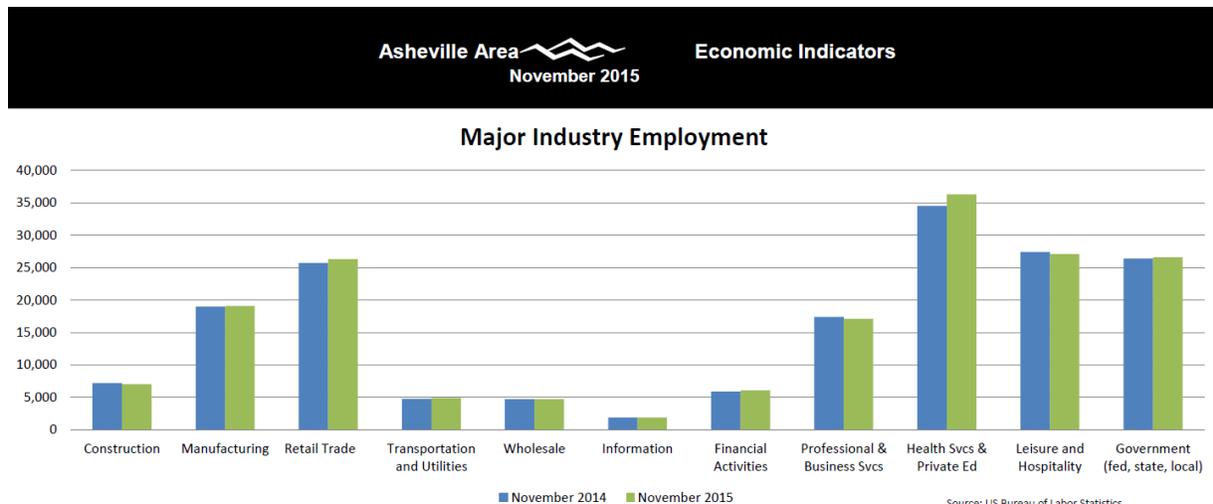
### Location and Geography

Initially referred to as the “State of Buncombe” due to its vastness, Buncombe County was established in 1791 by the North Carolina House of Commons. It is located in the southwestern portion of North Carolina. Already an established crossroads for the region at the turn of the Twentieth Century, Buncombe County has undergone tremendous development and transformation since its inception. Buncombe County has a total land and water area of 660 square miles. Buncombe County is made up of a variety of tightly knit unincorporated communities as well as six distinct municipalities: City of Asheville, Town of Biltmore Forest, Town of Black Mountain, Town of Montreat, Town of Weaverville and Town of Woodfin. The county is located in the Blue Ridge Mountains at the confluence of the Swannanoa and the French Broad Rivers. The French Broad River is the 3<sup>rd</sup> oldest river in the world and one of the few rivers to flow from south to north. The river enters the county at its border with Henderson County to the south and flows north into Madison County. The source of the Swannanoa River, which joins the French Broad River in Asheville, is in northeast Buncombe County near Mount Mitchell. The amount of Buncombe County land categorized as “rural” decreased by 17% between 2000 and 2010. Interstate 40 runs east/west and future I-26 runs north/south through Buncombe County.



**Asheville** is the county seat of Buncombe County. It is the largest city in Western North Carolina, and the 11th largest city in North Carolina. Originally, Asheville was named Morristown and known in Thomas Wolfe’s novel *Look Homeward Angel* as Altamont. Thomas Wolfe was born and raised in Asheville. The city's population was 83,393 according to the 2010 United States census. It is the principal city in the four-county Asheville metropolitan area, with a population of 424,858 in 2010. Asheville is home to the United States National Climatic Data Center (NCDC), the world's largest active archive of weather data. Asheville is also home to the Biltmore House, the largest private residence in North America. Most recently, readers of Conde Nast Traveler

voted Asheville #3 among “The Best Small Cities in America.” The leading major industry employment types include health services, retail, leisure and hospitality, government and manufacturing.



## History

The land where Asheville now exists used to be within the boundaries of the Cherokee Nation. Asheville began as a town in 1784 and Buncombe County was officially formed in 1792. Buncombe County was named in honor of Col. Edward Buncombe, a Revolutionary War hero from Tyrell County. The county seat, named "Morristown" in 1793, was established on a plateau where two old Indian trails crossed. In 1797, it was renamed "Asheville" after North Carolina Governor Samuel Ashe.

The Buncombe Turnpike was completed in 1827 connecting Tennessee and Kentucky to South Carolina. The turnpike ran along the French Broad River in the northern part of the county and through the heart of the county in the south. The turnpike caused an economic revolution to the region. Economic prosperity in 1850 was based on the drover trade; driving hogs, cattle, sheep and turkeys from the West to markets in South Carolina. Yet, the years following the Civil War were a time of economic and social hardship for the County. Economic salvation for Buncombe County arrived in 1880 when the first train pulled into Asheville.

In 1890, George Vanderbilt began building Biltmore House, the largest private home in America. The artisans and others he brought to build his estate brought changes in views about forestry, agriculture and handicrafts. During this era, 1890-1910, Buncombe County's cool, crisp mountain air made the area a popular location for tuberculosis sanatoriums. The area also became one of America's best-known tourist centers. Asheville prospered in the decades of the 1910s and 1920s and at one point was the third largest city in the state, behind Charlotte and Wilmington.

## Population

Buncombe County has a total population of 238,318 (2010 Census) with a median age of 40.6 which is 4.1 years "younger" than the western North Carolina (WNC) region but 3.2 years "older" than the NC average. Buncombe has significantly lower proportions of African Americans, American Indians, Asians and Hispanics than NC as a whole but slightly higher proportions of African Americans and Hispanics than WNC region.

County	Total Population (2010)	White	Black or African American	American Indian, Alaskan Native	Asian	Native Hawaiian, Other Pacific Islander	Some Other Race	Two or More Races	Hispanic or Latino (of any race)
		%	%	%	%	%	%	%	%
Buncombe	238,318	87.4	6.4	0.4	1.0	0.1	2.6	2.1	6.0
WNC (Regional) Total	759,727	89.3	4.2	1.5	0.7	0.1	2.5	1.8	5.4
State Total	9,535,483	68.5	21.5	1.3	2.2	0.1	4.3	2.2	8.4

County	Total Population (2010)	% Males	% Females	Median Age*	% Under 5 Years Old	% 5-19 Years Old	% 20 - 64 Years Old	% 65 Years and Older
Buncombe	238,318	48.2	51.8	40.6	5.7	17.3	61.1	16.0
WNC (Regional) Total	759,727	48.5	51.5	44.7	n/a	n/a	n/a	n/a
State Total	9,535,483	48.7	51.3	37.4	6.6	20.2	60.2	12.9

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A double-digit rate of growth in Buncombe County is expected to continue for the next two decades, at nearly twice the rate of growth of WNC and surpassing the pace of growth for NC as a whole. The proportion of the population in each major age group 65 and older in Buncombe County will increase between 2010 and 2030. The population in the county age 65-74 is expected to grow by 44% between 2010 and 2013. The population ages 75-84 will grow by 63% and the population over the age of 85 will grow by 21% over the same period. By 2030, projections estimate there will be more than 70,500 persons age 65+ in Buncombe County. The portion of Buncombe County’s population categorized as “rural” decreased by 17% from 2000 (29.2%) to 2010 (24.1%). (NC Office of Budget and Management; US Census Bureau)

Percent Population Growth			
Decade	Buncombe County	WNC Region	State of NC
2000-2010	13.4	13.0	15.6
2010-2020	13.4	6.7	10.7
2020-2030	11.3	6.1	9.5

In the 5-year period from 2009-2013, an estimated 1,916 Buncombe County grandparents living with their minor-aged grandchildren also were financially responsible for them. Over the same period, there were an estimated 100,838 households in Buncombe County, 23,662 of them with children under 18 years of age. Among the households with minor-age children, a married couple headed 66%. A female single parent headed an additional 26%, and 8% were headed by a male single parent. (US Census Bureau)

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

County	# Grandparents Living with Own Grandchildren (<18 Years)	Grandparent Responsible for Grandchildren (under 18 years)*		# Total Households	Family Household Headed by Married Couple (with children under 18 years)		Family Household Headed by Male (with children under 18 years)		Family Household Headed by Female (with children under 18 years)	
		Est. #	%		Est. #	%**	Est. #	%**	Est. #	%**
Buncombe	4,183	1,916	45.8	100,838	15,565	15.4	2,015	2.0	6,082	6.0
WNC (Regional) Total	15,007	8,142	54.3	316,799	49,395	15.6	6,133	1.9	17,711	5.6
State Total	206,632	100,422	48.6	3,715,565	706,106	19.0	84,199	2.3	293,665	7.9

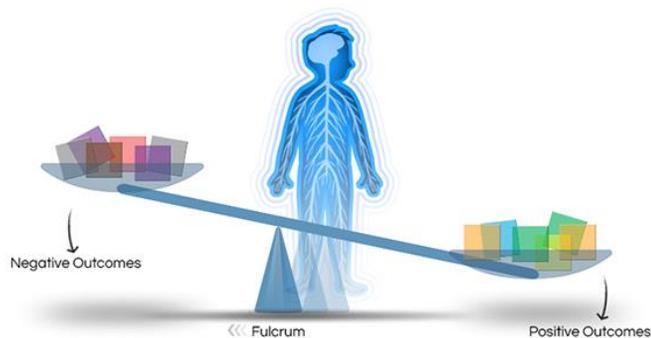
By 2009-2013 estimates, Buncombe County was home to higher proportions of veterans under the age of 54 and lower proportions of veterans age 55 and older than the WNC region overall. Of the estimated 100,838 households in Buncombe County in the 2009-2013 period, 1,936 (2%) were categorized as having limited skill in speaking English. (US Census Bureau, 2015)

## CHAPTER 3 – A HEALTHY BUNCOMBE COUNTY

### Elements of a Healthy Community

The foundation of health begins in our homes, schools, jobs and neighborhoods. The World Health Organization defines health as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.” How long we live and how healthy we feel while we are alive are influenced by our health behaviors, social and economic factors, clinical care and the physical environment. (County Health Rankings and Roadmap)

We build resilience when communities have adequate public structures in place that support community members to assure they have the resources they need. If we can strengthen the positive factors and reduce the negative ones, we will build our communities’ capacity to be resilient, which will lead to improved health outcomes in the long run. By looking at identified community strengths and social issues that determine our health, we see how important it is to work with our partners in economic development, housing, education and childcare to continue to strengthen our vital public structures and resource grid.



Strong organizational leadership must be balanced with listening to the stories of our residents to understand where the resource grid may be patchy. In order to improve the flow of resources so they are more equitable, it is essential to strengthen positive and limit negative factors that impact our ability to lead healthy, productive lives in a safe and nurturing community. The CHA Data Team heard these concerns (or negative factors) from residents:



Reviewed results from Primary Survey of 300 Buncombe County residents done by PRC as part of the WNC Healthy Impact Partnership. The same survey was done of 200 residents of partnering counties for comparison.



Residents of a public housing community in Buncombe County (n=25) were asked about their greatest health concerns: 47% said diabetes, 24% said cancer, and 19% said mental health. When asked “what were the social issues that most contributed to your health concerns?” 32% of residents said unemployment, 24% said income, 16% said access to child care, and 16% said family/social support. (Henderson R, 2015)



With such a focus on reducing violence in our community, Mission Hospital and MAHEC partnered to survey 27 women about their experiences with intimate partner violence (IPV). Key themes were: professionals need to recognize the signs and need to refer to services; people experiencing IPV need a better idea where to go for help; there is a lack of knowledge of victims’ rights and the rights of the abuser to make decisions; professionals should use trauma-informed interviewing so they don’t re-traumatize victims; the county should cultivate faith-based help; and victims need more help keeping their children safe. As the community prepares to open the new Family Justice Center, the voices of

these women will continue to be heard to improve the care and support provided and work to prevent violence from happening in the first place. (Wright ME, 2015)



As part of the Community Centered Health Home pilot being coordinated by a community collaboration led by Mountain Area Health Education Center (MAHEC), pregnant women in our community were asked, "Who is helping you have a healthy pregnancy and a healthy baby?" Respondents' top three answers were family, church and then partner. When asked, "What gets in the way of you being as healthy as you want during pregnancy?" respondents' top three concerns were money/finances, conflicts with people and work.



Key informants were surveyed across the region by PRC to identify the opinions and themes of key leaders working in health and healthcare. When key informants (n=43) were asked to describe what elements they felt contributed to a health community in our county, they reported:

- Accessible & affordable health care
- Access to affordable and healthy food
- Physical activity & access to safe, green spaces
- Affordable housing
- A sense of belonging to the community



Community partners and professionals working in health services were also surveyed to get the perspective of those working and living in this community. Community members (n=60) thought that mental health & substance abuse, maternal & infant health, and physical activity & nutrition were the top three health concerns facing our community. When asked what were the issues within their environment that are the most important contributors to health problems in Buncombe County, community members said housing (70%); access to healthy/affordable food (28%) and transportation (17%). When asked what social factors had the most impact, survey respondents said employment (45%), income (45%), family & social support (31%), and access to early care & education (32%).

*Buncombe County's greatest asset is its culture of creativity and innovation. This leads not only to a vibrant community, but also to a government and public service sector that is more equipped to make needed changes for the public good. This positive culture helps to encourage the election of leaders who support and embrace change and who are willing to implement new programming and structures to help the citizens of the county. - Community/Business Leader*

These stories from our community providers give us additional understanding of the perspectives and underlying issues impacting our health. During our collaborative action planning efforts and next steps, we will further explore these concepts and the results our community has in mind.

## Community Assets

As a 2014 Robert Wood Johnson Foundation [Culture of Health Prize recipient](#), Buncombe County has been recognized as a community that is committed to improving health for everyone. Being in a community that seeks practical and common sense approaches to our communities' problems has led to the development of a new Comprehensive Care Center, a Family Justice Center and Child Advocacy Center. These amazing new public structures are results of strong collaborative leadership that shows how our collective problem solving has created innovative solutions to improve the health and well-being of this community.

The CHA Data Team also reviewed surveys that outlined what residents thought were the strengths of our local community.



From the PRC Primary Survey of 300 residents, more residents of Buncombe County ranked their health status as good to excellent as compared to regional and state comparisons.



We asked key informants to share some of the assets or “gems” they thought were important in our community. They shared the following information and ideas:

- A strong, vibrant community and ‘can do’ attitude
- The mountains and natural environment and the ‘emerging gem’ of greenways are tremendous asset to our community
- The caring, creative, friendly, helpful and optimistic people



From the partner survey, community members identified the top social supports that impact our health: employment/income, housing, transportation, education, safety and childcare.

## CHAPTER 4 – SOCIAL & ECONOMIC FACTORS

Social and economic factors have the greatest impact on our health. Where we live has more impact on our health than our genes. For all of us to succeed, we must all have access to safe communities, lifelong learning opportunities, chances to earn a living wage, access to affordable healthy foods and a sense of connection.

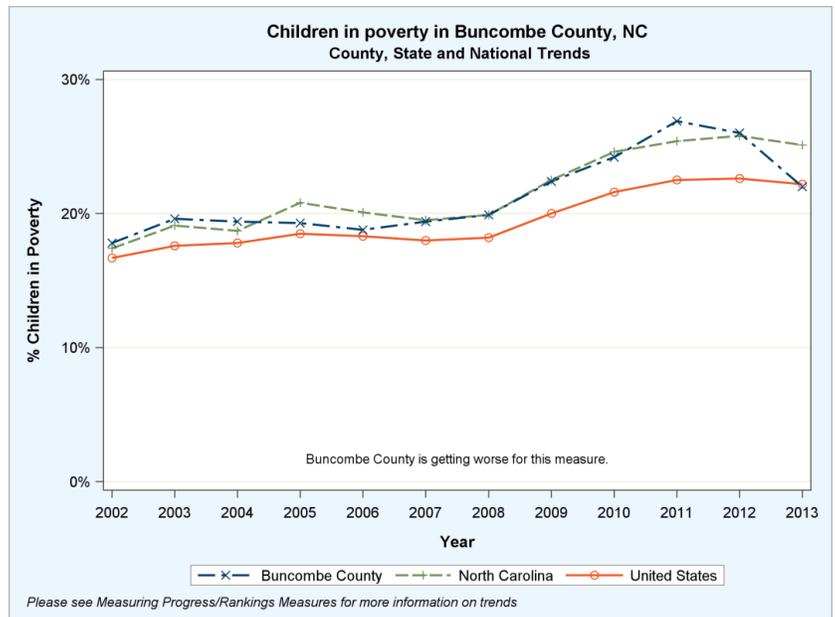
### Income

Income has a huge impact on overall health, with adults in the highest income brackets living, on average, more than six years longer than those with the lowest income. Poverty causes ongoing stress and challenges that can cause cumulative physical and mental health damage. Children living in poverty are sicker than are higher income children, and those with the lowest incomes are more impacted by chronic illnesses. (Braveman P, 2011) In Buncombe County, WNC and NC, the total poverty rate increased in each period cited.

County, Region & State	Percent Total Population Below 100% Poverty Level			
	2006-2010	2007-2011	2008-2012	2009-2013
Buncombe County	14.7	15.6	16.8	17.1
WNC Region	15.7	16.1	16.9	18.0
State of NC	15.5	16.1	16.8	17.5

The median household income (includes all people in a housing unit sharing living arrangements) in Buncombe County 2009-2013 was \$44,713 (better than WNC at \$38,887 but worse than NC at \$46,334). The median family income (people living in household related by birth, marriage or adoption) for the same time period was \$56,616 (above WNC by \$8,065 and below NC by \$312). (US Census Bureau, 2015)

Income impacts the number of children living in poverty. When we look at **children in poverty**, 22% of Buncombe children are living in poverty (compared to 25% of NC). While this is an improvement over last year (26% in 2014), we are still trending worse since 2002. This means nearly 1 in every 4 children in our community are living in poverty. (County Health Rankings and Roadmap)



### Employment

With the majority of our waking hours spent at work, benefits of being compensated for our work with a living wage and working in a safe environment have huge impacts on our health. Income, health insurance, paid sick leave and worksite wellness programs are some of the benefits afforded higher wage earners that support healthy choices. (An J, 2011)

As of 2013, the three employment sectors in Buncombe County with the largest proportions of workers (and average weekly wages) were:

- Health Care and Social Assistance: 20.38% of workforce (\$976)
- Retail Trade: 13.52% of workforce (\$464)
- Accommodation and Food Service: 13.49% of workforce (\$331)

Notice the difference in average weekly wages between the health and retail industries. Comparatively, region-wide in 2013 the largest employment sector was Health Care and Social Assistance (18.37%) at an average weekly wage of \$655 per employee. Statewide the largest employment sector was also Health Care and Social Assistance (14.48%) at an average weekly wage of \$859. (NC Employment Security Commission, 2013)

Buncombe County's unemployment rate (4.6% of the civilian labor force unemployed in 2014) was significantly lower than the region (6.5) and NC (6.1). It has continued to trend down since 2010 when it peaked at 8.6%. This does NOT reflect the segment of the population that has given up on finding employment. (NC Department of Commerce, 2014)

## Education

Research clearly links more education to better employment options, increased social supports and higher incomes, which all lead to healthier opportunities. On average, college graduates live nine more years than those who do not complete high school. (Virginia Commonwealth University, 2014) Parental education is linked to children's health and educational attainment. Children whose mothers graduated from college are twice as likely to live past their first birthday. Stress and poor health early in life, common among those whose parents have lower levels of education, are linked to decreased cognitive development, increased tobacco and drug use and a higher risk of cardiovascular disease, diabetes, depression and other conditions. (Egarter S B. P.-N., 2011)

Buncombe County Schools' overall cohort graduation rate (percent of ninth graders who graduated from high school four years later) was 85.1% in 2014-15 up from 83.2 % for the 2013-14 school year. Asheville City Schools' overall cohort graduation rate was 86.5% for 2014-2015. The state of North Carolina posted a rate of 85.4% in 2014-15. The national cohort rate for the 2014-15 school year shows an 81% cohort graduation rate.

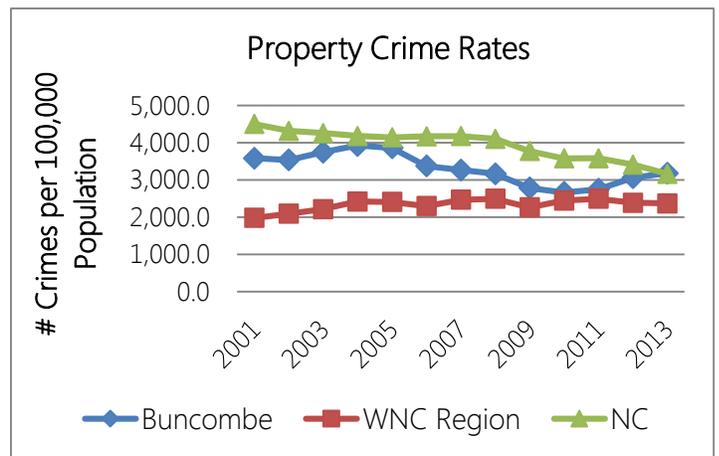
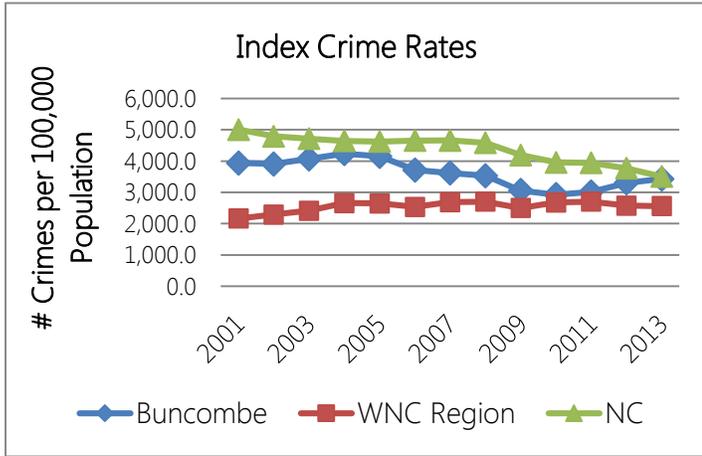
## Community Safety

Community safety includes violent acts as well as unintentional injuries. Children raised in unsafe neighborhoods can have behaviors that are more aggressive, have increased use of alcohol and tobacco, suffer post-traumatic stress disorder and have higher rates of sexual risk-taking than their peers in safer communities. Unsafe neighborhoods can cause chronic stress, higher rates of low birthweight babies and pre-term births. (Egarter S B. C.-K., 2011)

Index crime is the sum of all violent & property crime. The index crime rate in Buncombe County was lower than the NC average but higher than the WNC average in every year cited. Property crime includes burglary, larceny, arson and motor vehicle theft.

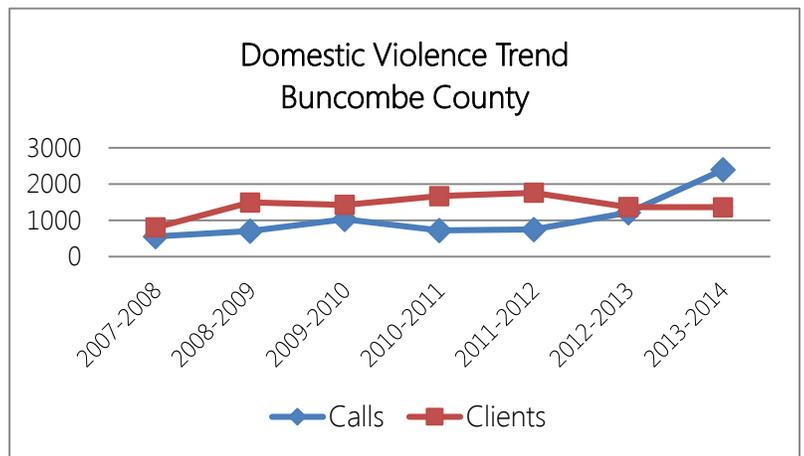
2015 Buncombe County Community Health Assessment

The property crime rate in Buncombe County was lower than the NC average but higher than the WNC average in every year cited except 2013, when the county rate exceeded both the WNC & NC rates. See graphs below. (NC Department of Justice)



The number of calls in Buncombe County dealing with domestic violence increased from a low of 566 in 2007-2008 to a high of 2,395 in 2013-2014. The number of residents reporting domestic violence peaked at 1,760 in 2011-2012.

The Domestic Violence shelter serving Buncombe County was full 237 days in 2013-2014. In 2013-2014, 329 persons in Buncombe County were identified as victims of sexual assault. Locally, the most frequently reported specific type of sexual assault was adult rape (22%). Regionally, the most frequently reported type was adult survivor of child sexual assault (23%). Statewide, the most frequent reported type was child sexual offense (26%). (NC Dept. of Administration, Council for Women)



Cases in which it was found that children were abused or neglected in Buncombe County – after an increase in SFY 2012 – decreased substantially and has remained relatively even over the last three years. The number of children investigated has declined slightly over the last four years, going down to 2.7% in SFY 2015 from 3.0% of all children investigated in SFY 2012. (UNC Management Assistance, pulled 2/15/2016) Between 2008 & 2012, there were four child abuse homicides in the county, representing 44% of all child abuse homicides in WNC region. (Annie E. Casey Foundation KIDS COUNTY Data Center; WNC Healthy Impact , 2015 )

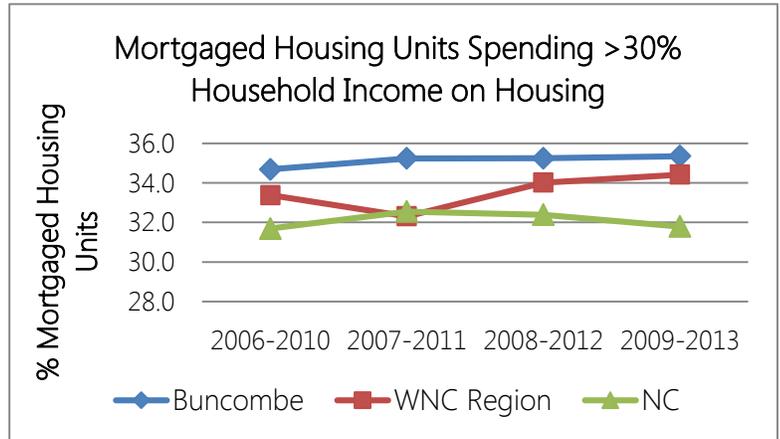
Child Abuse and Neglect

	Children Investigated					Children Who Were Abused or Neglected					Child Abuse Homicides				
	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2008	2009	2010	2011	2012
Buncombe	3450	3994	3796	3696	3404	839	1031	735	675	686	0	0	0	4	0
WNC Region	5531	6145	5534	5372	5413	996	1200	909	994	949	2	1	0	4	2
North Carolina	131638	134530	130234	130589	128002	25981	26287	22979	23945	23084	33	17	19	24	28

## Housing

Housing structures can protect and provide a healthy environment, or they can be unhealthy and unsafe. Lead and radon exposure, contributing to asthma symptoms and being in unsafe locations are examples of how housing impacts our health.

One measure of economic burden in a community is the percent of people spending more than 30% of household income on housing. In Buncombe County & WNC, there is a lower proportion of renters but higher proportions of mortgage holders spending > 30% of household income on housing than the NC average. (US Census Bureau)

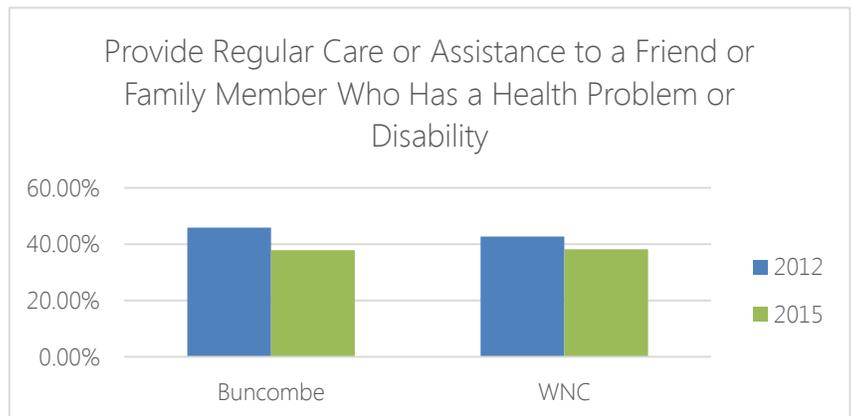


## Family & Social Support

Relationships with family, friends and neighbors help facilitate cohesion, support healthy behaviors and choices and build trust. Socially isolated individuals are more vulnerable to the negative effects of stress, unhealthy behaviors such as overeating and smoking, obesity and cardiovascular disease. These behaviors are coping mechanisms to help us deal with stress. (Egerter S B. P., 2011) Neighborhoods with low social capital that do not facilitate cooperation for mutual benefit and trust, are more prone to violence, often have limited community resources and are at increased risk for social isolation. (Kawachi IK, 1999)



We know from the CHA survey of 300 residents that 37.8% of Buncombe residents provide regular care or assistance to a friend or family member who has a health problem or disability. While that is down from our last survey in 2012, it is consistent with the regional trend. (WNC Healthy Impact PRC Community Health Survey Results)



Source: PRC Community Healthy Surveys, Professional Research Consultants, Inc.

Note: Asked of all respondents

We know from the Buncombe County Aging Plan that the focus of health and wellness for the aging population targets mental illness, obesity and health disparities. We know that social isolation, limited activity and poor nutrition are key issues that impact the health of older adults.

## CHAPTER 5 – HEALTH DATA FINDINGS

### SUMMARY

The Robert Wood Johnson Foundation, in collaboration with University of Wisconsin Population Health Institute, supports *The County Health Rankings* for the counties in all 50 states. Counties in each state are ranked according to health outcomes and the multiple health factors that determine a county's health. Annually, each county receives a summary rank for its health outcomes and health factors and for four different specific types of health factors: health behaviors, clinical care, social and economic factors and the physical environment. For more information about the data, go to [www.countyhealthrankings.org](http://www.countyhealthrankings.org).

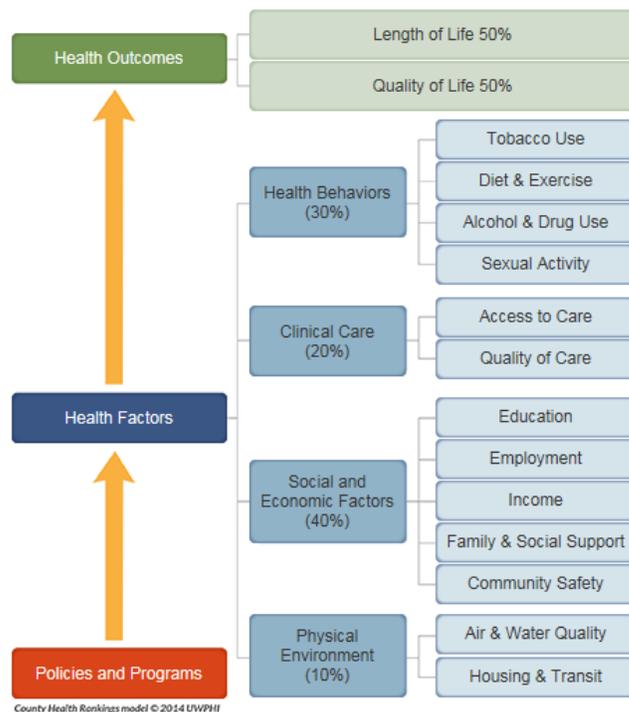
### Health Outcomes

#### Length of Life (Mortality)

Length of life and quality of life are the measures that determine our health outcomes. We examine mortality (or death) data to find out how long people live. More specifically, we measure what are known as premature deaths (deaths before age 75). Years of potential life lost (YPLL) is the measure of premature death, based on all deaths occurring before the age of 75. In 2015, Buncombe County has a combined total of 6,737 years of life lost for every 100,000 residents. While this is less than the NC average, it is more than the best performing communities across the country.

#### Quality of Life (Morbidity)

Quality of life refers to how healthy people feel and their ability to function. Specifically, we report on the measures of their health-related quality of life (their overall health, physical health and mental health) and we look at birth outcomes (in this case, babies born with a low birthweight). Self-reported number of physically and mentally healthy days per month is one of the most frequently used measures to understand health-related quality of life.



County Health Ranking 2015 Leading Causes of Death	Buncombe	NC	Top US Performers	Buncombe Rank (of 100)
<b>Health Outcomes</b>				<b>14</b>
<b>Length of Life (Mortality)</b>				<b>16</b>
Premature death	6737	7212	5200	
<b>Quality of Life (Morbidity)</b>				<b>17</b>
Poor or fair health	14%	18.0%	10%	
Poor physical health days	3.3	3.6	2.5	
Poor mental health days	3.8	3.4	2.3	
Low birth weight	8.3%	9.1%	5.9%	

Buncombe County 2009-2013 Age-Adjusted Death Rates/100,000 by rates & race	Overall		African Americans		White	
	Rank	Rate	Rank	Rate	Rank	Rate
Leading Cause of Death						
Cancer	1	163.2	1	260.4	1	162.6
Diseases of the Heart	2	154.8	2	230.4	2	153.5
Chronic Lower Respiratory Diseases	3	49.3	6	25.9	3	51.6
Cerebrovascular disease	4	39.1	3	57.7	4	38.2
All Other Unintentional Injuries	5	31.5	5	27.3	5	29.8
Alzheimer's disease	6	29.2		N/A	6	27.2
Suicide	7	16.8		N/A	7	18.5
Pneumonia and Influenza	8	15.1		N/A	8	15.2
Nephritis, Nephrotic Syndrome, and Nephrosis	9	15.1		N/A	9	13.6
Diabetes Mellitus	10	13.3	4	35.4	10	12.2
Unintentional Motor Vehicle Injuries	11	12.7		N/A		12.2
Chronic Liver Disease and Cirrhosis	12	10.2		N/A		10.4
Septicemia	13	7.2		N/A		7.2
Homicide	14	4.3		N/A		3.7
Acquired Immune Deficiency Syndrome	15	1.6		N/A		N/A
All Causes		740.5		995.25		746.7

Source: NC State Center for Health Statistics, County Health Data Book interpreted in WNC Healthy Impact Data Workbook. Note: 2009 – 2013 rates are used to stabilize the numbers by averaging a five-year period. N/A is listed where rates have been suppressed due to small numbers. The data are age-adjusted deaths rates and ranked by rates of cause of death, except where N/A is listed.

**Life Expectancy**

The leading causes of death in Buncombe County have decreased (or stabilized) over time for all leading causes of death except suicide and chronic liver disease/cirrhosis. For persons born in 2011-2013, life expectancy in Buncombe County is longest overall among women, men and then white persons in Buncombe County. According to these data, people in Buncombe County have lower mortality than the population statewide for ten of the fifteen leading causes of death. The only causes of death for which mortality rates are higher in Buncombe County than in NC are chronic lower respiratory disease, unintentional non-motor vehicle injuries, Alzheimer’s disease, suicide and liver disease. Yet in Buncombe County, African American life expectancy is shorter than the region and the state. (NC State Center for Health Statistics; WNC Healthy Impact , 2015 )

Life Expectancy for Persons Born in 2011-2013	Overall	Sex		Race	
		Male	Female	White	African-American
Buncombe	79.2	76.6	81.7	79.5	74.4
WNC Arithmetic Mean	77.7	75.3	80.2	77.9	75.2
State Total	78.2	75.7	80.6	78.8	75.9

**Health Disparities**

Looking at the leading causes of death by race, we see the significant differences between African Americans as compared to Whites in almost every leading cause of death. The racial disparities in Buncombe County are the higher mortality rates among African Americans for kidney disease and diabetes. (NC State Center for Health Statistics; WNC Healthy Impact , 2015 )

Buncombe County Rank by Descending Overall Age-Adjusted Leading Causes of Death Rate (2009-2013)	Rate Among non-Hispanic Whites	Rate Among non-Hispanic Blacks	Difference in Black & White Rates
1. Total Cancer	162.6	260.4	+60.1%
2. Diseases of the Heart	153.5	230.4	+50.1%
3. Chronic Lower Respiratory Disease	51.6	25.9	-49.8%
4. Cerebrovascular Disease	38.8	54.7	+41.0%
5. All Other Unintentional Injuries	32.8	27.3	-16.7%
9. Nephritis, Nephrotic Syndrome, Nephrosis	13.6	46.8	3.4 times greater
10. Diabetes Mellitus	12.2	35.4	2.9 times greater

**Adverse Childhood Experiences**

[Adverse Childhood Experiences](#) (ACEs) are specific types of adversity that occur in childhood. The ACE Study found a stunning link between multiple stressful events in childhood and health problems. Trauma changes the developing brain. Stress impacts our immune system, heart health, even the expression of our genes. These early impacts of adversity can lead to poor school performance, substance abuse, violence, mental illness and chronic disease. Research shows that protective factors, such as the presence of a nurturing adult—can cushion the impact of adversity. [https://www.youtube.com/watch?feature=player\\_embedded&v=v3A\\_HexLxDY](https://www.youtube.com/watch?feature=player_embedded&v=v3A_HexLxDY)

In 2012, 10,383 NC adults responded to the ACE module included in the Behavior Risk Factor Surveillance System (BRFSS) telephone survey completed annually. NC results showed over half (57.6%) of respondents reported at least one ACE and one in five respondents (22%) reported more than three. Buncombe County had 363 respondents to the ACE module. Areas where Buncombe ranked worse than NC include:

- Those who lived with anyone who was depressed, mentally ill or suicidal
- Those who lived with anyone who was a problem drinker or alcoholic
- Those who used illegal street drugs or who abused prescription medications
- Those where a parent or adult in the home swore, insulted or put them down as a child
- Those where a parent or adult in their home hit, beat, kicked or physically hurt them as a child
- Those who said a person at least 5 years older than them tried to make them touch them sexually
- Those who said they experienced sexual abuse

- **Resiliency** happens when communities have adequate public structures in place to assure we have a safe, stable and nurturing community. These are the foundations or building blocks all communities need. In addition, everyone needs community resources to support their wellbeing. How our resources work together can be thought of as a grid. If this resource grid is patchy and not available to everyone equally, we have fewer opportunities to thrive. By adding resources and supports, we are increasing the positive (or protective) factors and helping to reduce the negative stressors. Buncombe County has identified those populations with high ACE scores as priority populations to target. To learn more about what Buncombe County is doing around adverse childhood experiences and resilience, go to [www.buncombeaces.org](http://www.buncombeaces.org).

**Health Status & Behaviors**

**NC ranked 31<sup>st</sup> in the 2015 America’s Health Rankings rising from 37<sup>th</sup> the previous year.**

Each year for 26 years, America’s Health Rankings™, a project of United Health Foundation, has tracked the health of the nation and provided a comprehensive perspective on how the nation—and each state—measures up. (America’s Health Rankings: United Health Foundation, n.d.) America’s Health Rankings are based on several kinds of measures, including socioeconomic and behavioral factors and standards of care that underlay health and well-being as well as morbidity, mortality, and other health conditions. Together, these measures help calculate an overall rank. NC ranked 31<sup>st</sup> in the 2015 rankings, rising from 37<sup>th</sup> the previous year (where 1=“best”). The report states NC’s strengths were low prevalence of excessive drinking and high immunization coverage among children; some of the challenges were large disparities in health status by educational level, low per capita public health funding and a high infant mortality rate.

In the **County Health Rankings**, health factors include health behaviors, clinical care, and social, economic and physical environment issues that impact our health. Buncombe County ranks 11<sup>th</sup> in health behaviors and 6<sup>th</sup> overall health factors out of all 100 NC counties. The additional health factors rankings that make up the overall health factors ranking include clinical care (ranked 5<sup>th</sup>), social & economic factors (ranked 10<sup>th</sup>) and physical environment (ranked 39<sup>th</sup>). The data for these is in later chapters. Health factors indicate how healthy we will be in the future since these are issues that impact the rate and severity of illness.

County Health Rankings 2015	Buncombe Value	NC Value	Top US Performers	Buncombe Rank
Health Factors				6
Health Behaviors				11
Adult smoking	20%	20%	14%	
Adult obesity	24%	29%	25%	
Food environment index	6.9	6.6	8.4	
Physical Inactivity	22%	25%	20%	
Access to exercise opportunities	90%	76%	92%	
Excessive drinking	14%	13%	10%	
Alcohol-impaired driving deaths	22%	33%	14%	
Sexually transmitted infections	315	591	138	
Teen birth rate	37	42	20	

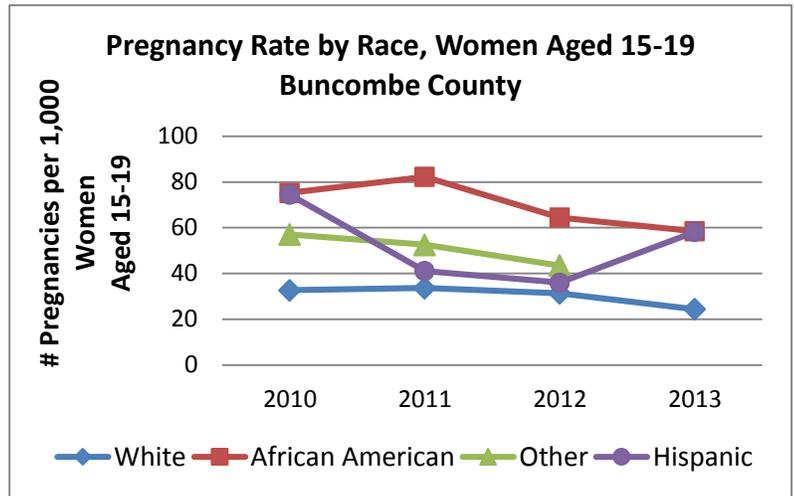
**Maternal & Infant Health**

The total **pregnancy rate** in Buncombe, WNC and NC has fallen overall since 2006 but appears to have stabilized recently. The teen pregnancy rates in Buncombe County, WNC and NC have fallen significantly since 2006. Among Buncombe County women age 15-44, the highest pregnancy rates occur among Hispanics.

Among teens age 15-19, the highest pregnancy rates occur most frequently among African Americans. (WNC Healthy Impact , 2015 )

Generally, health factors that impact pregnancy outcomes are more favorable for Buncombe County than Western NC or NC. They include:

- Lower rates of tobacco use during pregnancy is lowest
- Lower prevalence of overweight and obesity among pregnant women



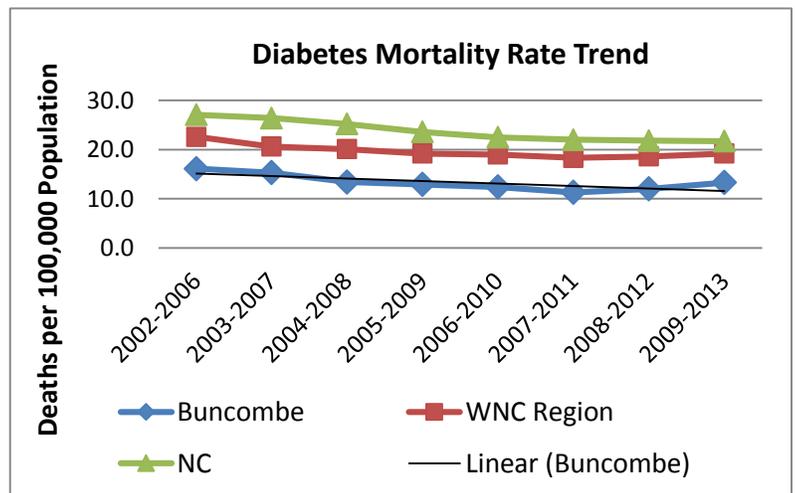
Source: NC Center for Health Statistics interpreted in WNC Data Workbook

**Breastfeeding** is an important influence on infant health. Over 80% of mothers are breastfeeding at discharge after birth in Buncombe County, slightly more than within NC. However, there are differences by race/ethnicity. This percentage is lowest for African-American mothers (65%) and highest for Hispanic women (87%).

Between 2009 and 2013, there were 81 infant deaths in Buncombe County for an **infant mortality** rate of 6.2 deaths per 1000 live births. The overall infant mortality rate in Buncombe fell after 2002-2006 before stabilizing and then rising again in 2009-2013. Infant mortality rates for African-American babies are more than twice as high as rates for White and Hispanic babies. This trend is consistent across WNC and NC. While the infant mortality rate in Buncombe County has decreased over the past decade, there was an unusually large increase in neonatal mortality (birth to <28 days) among White neonates that increased both the 1-year and 5-year neonatal mortality rates. The elevated rate for Whites is still below the rate for African-American neonates. (WNC Healthy Impact , 2015 )

**Chronic Disease**

The leading causes of death in Buncombe County are cancer, diseases of the heart and chronic lower respiratory disease, with the worst of the racial disparities in Buncombe County being the higher mortality rates among African Americans for kidney disease and diabetes. While Buncombe County mortality rates have decreased over time for each of the four major site-specific cancers, incidence rates have increased for lung cancer, prostate cancer and breast cancer.



The prevalence of self-reported **adult diabetes** among Buncombe County adults was 7.9% in the 2005-2011 period as compared to 9.0% in WNC. This represents a 7% increase in adult diabetes in Buncombe County since the 2012 community health assessment. (NC State Center for Health Statistics; WNC Healthy Impact , 2015 ; WNC Healthy Impact PRC Community Health Survey Results)

### **Injury & Violence**

In Buncombe County, from 2011-2013, 165 residents died as a result of an **unintentional fall**. Of these, 148, or 90%, occurred in the population age 65 and older and 61% occurred in the population age 85 and older. In 2015, 32.2% of Buncombe County residents age 65 and older stated they had fallen in the past year. This is up from 22.3% in 2012. (NC Division of Public Health, Chronic Disease Section, Injury and Violence Prevention Branch; WNC Healthy Impact , 2015 ; WNC Healthy Impact PRC Community Health Survey Results)

In the period 2009-2013, 103 Buncombe County residents died as a result of **unintentional poisoning**, with a corresponding age-adjusted mortality rate of 8.6 deaths per 100,000 population, which is lower than the WNC or NC average rates. Of the 103 unintentional poisoning deaths in the county in that period, 90 (87%) were due to medication or drug overdoses, with a corresponding mortality rate of 7.5, which is lower than both the WNC and NC rates. (NC Division of Public Health, Chronic Disease Section, Injury and Violence Prevention Branch; WNC Healthy Impact , 2015 )

In 2013, Buncombe County experienced 8 **homicides**, with 5 of them due to **domestic violence**. Local data showed a spike in the number of calls to the domestic violence hotline from 566 in 2007-2008 to 2,395 in 2013-2014. There were 1,363 victims reporting domestic violence in 2013-2014 yet the shelter was full for 237 days during that same year, indicating our capacity may not have been able to meet our needs. Starting in 2014, when victims call the hotline, they complete a danger assessment. Of the 195 assessed, 108 (55%) were evaluated as being in "extremely dangerous" situations, which means these victims were at significant risk of being killed by their perpetrator.



From the Key Informant Survey, 22% of community leaders said that injury & violence was a major problem in our community.



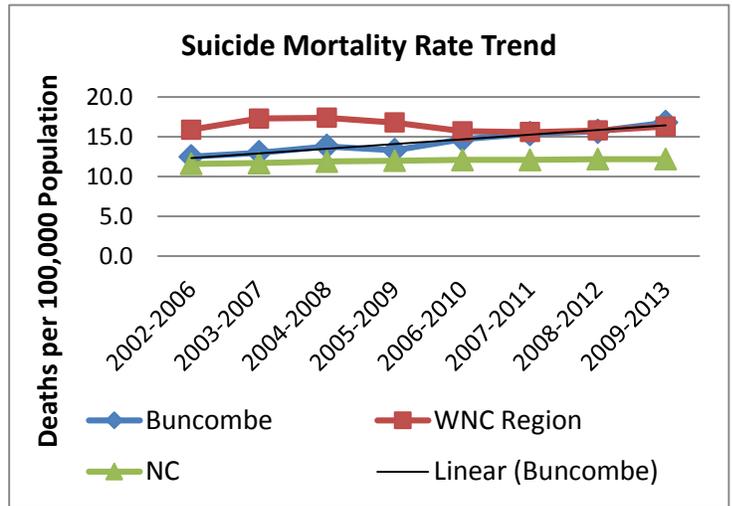
Of the community partners surveyed, 18% said that injury and violence was the most significant health issue facing our community.

### **Mental Health & Substance Abuse**

In Buncombe County in 2015, 11.5% of residents reported having more than 7 days of poor mental health in the past month compared to 14.2% in 2012. Yet, in 2015, 77.5% of residents surveyed reported "always" or "usually" get needed social/emotional support compared to 82.8% in 2012 (worse than WNC 2015 result of 79.3%). (WNC Healthy Impact PRC Community Health Survey Results)

**Unintentional medication/drug overdose deaths** in Buncombe for 2009-2013 were 7.5 per 100,000 NC residents, which was below both WNC (13.3/100,000) and NC (10/100,000). Heroin-involved overdose deaths nearly doubled in the US between 2011 and 2013. Buncombe County has also seen significant increases in heroin overdoses since 2012.

Buncombe County's age-adjusted **suicide rate** was 16.8 per 100,000 population during the 2009-2013 period. The Buncombe rate continues to trend up and now is higher than the WNC and NC rates. (NC State Center for Health Statistics; WNC Healthy Impact , 2015 )



The total **homelessness count** in Buncombe County for 2015 was 562 people. The report noted that 31% of the homeless population has a serious mental illness; 27% have a substance use disorder and 19% are victims of domestic violence. (J, 2015)

Smoky Mountain Local Management Entity (Smoky) manages care for eligible individuals facing challenges with mental illness, substance use and/or intellectual/developmental disabilities for 23 western NC counties. Smoky completed a capacity study in 2015 that identified key needs impacting their clients include transportation, shortage of psychiatrists, shortage of providers and qualified staff in rural areas, lack of stakeholder knowledge regarding accessing services, lack of respite and day services and increased emergency department wait times and shortage of crisis services availability.



Of note, our Key informants ranked mental health as the leading health issues facing Buncombe County along with physical activity and nutrition, substance abuse and diabetes.

**Oral Health**

Only 59% of eligible children ages 1-5 years enrolled in Medicaid actually received **dental services** in the past year. Buncombe County's utilization was actually higher than both the region and NC. (NC State Center for Health Statistics; WNC Healthy Impact , 2015 )



Of the 300 community members surveyed, 63.8% said they had visited a dentist or dental clinic in the past year (63.7% in WNC and 64.9% in NC).

**Clinical Care & Access**

Access to affordable, quality health care is essential to our health. It is critical to have services that can be accessed easily, the ability to pay for services and to receive services that meet your healthcare needs. According to the County Health Rankings, Buncombe residents have higher access than most across NC.

County Health Rankings 2015	Buncombe Value	NC Value	Top US Performers	Buncombe Rank
<b>Clinical Care</b>				<b>5</b>
Uninsured	20%	19%	11%	
Primary Care Physicians	786:1	1448:1	1045:1	
Dentists	1493:1	1970:1	1377:1	
Mental Health Providers	216:1	472:1	386:1	
Preventable Hospital Stays	40	57	41	
Diabetic Monitoring	92%	89%	90%	
Mammography Screening	70.6%	68.2%	70.7%	

**Health Insurance**

The percent of **uninsured adults** age 18-64 in Buncombe County, WNC and NC all increased between 2009 and 2010 but has decreased since. Of the residents surveyed in Buncombe County, 19.2% of adults age 18-64 stated they did not have healthcare insurance coverage compared to 19.6% in WNC and 15.1% in NC. (WNC Healthy Impact PRC Community Health Survey Results)

Percent of Population *Without* Health Insurance, by Age Group

	2009		2010		2011		2012		2013	
	0-18	18-64	0-18	18-64	0-18	18-64	0-18	18-64	0-18	18-64
Buncombe County	8.1	21.8	8.5	25.0	8.5	24.0	7.9	24.6	6.8	24.4
WNC Region	9.9	24.2	9.7	26.0	9.1	25.2	9.3	25.4	8.6	25.0
State of NC	8.7	21.9	8.3	23.5	7.9	23.0	7.9	23.4	6.9	22.5

Source: US Census Bureau referenced in the WNC Healthy Impact Data Workbook

**Key Informant Survey Data on Self-Reported Access to Care**



Our key informants said access to care was a “moderate” problem with half of respondents feeling that mental health care was the most difficult to access and 37.5% feeling that primary care was the most difficult to access.

**Telephone Survey Data on Access to Care**



From the survey data of 300 residents in Buncombe County:

- 11.5% were unable to get the needed care at some point in the past year compared to 9.1% in WNC;
- 31.6% stated their healthcare providers helped connect them with a community resource to educate about their health care condition compared to 29.3% in WNC; and
- 72.6% have visited a physician for a checkup in the past year compared to 71.1% in WNC and 73.2% in NC. (WNC Healthy Impact PRC Community Health Survey Results)

**At-Risk Populations**

Vulnerable populations are at greatest risk for poor health outcomes. They may be at-risk due to engaging in behaviors that could lead to increased risk of health concerns, or they may be more susceptible to risk factors that lead to poor health outcomes. Those that are more susceptible to poor health outcomes are usually low-income, uninsured and/or minority populations. Populations at greatest risk in Buncombe County have been defined as those experiencing health disparities, trauma and/or significant adversity.

## CHAPTER 6 – PHYSICAL ENVIRONMENT

Clean air, safe water, safe/affordable housing and effective multi-modal public transportation systems shape our communities' built environment and impact our ability to make healthy choices. The County Health Rankings defines physical environment as another measure of the health factors that impact our health. Buncombe County ranks 39<sup>th</sup> out of 100 counties in this section, making this section our lowest ranking.

County Health Rankings 2015	Buncombe Value	NC Value	Top US Performers	Buncombe Rank
Physical Environment				39
Air pollution	13.1	12.3	9.5	
Drinking water violations	0%	4%	0%	
Severe housing problems	15%	16%	9%	
Driving alone to work	80%	81%	71%	
Long commute - driving alone	18-21%	30%	15%	

### Air Quality

The County Health Rankings look at air pollution-particulate matter that is the average daily measure of fine particulate matter in micrograms per cubic meter in a county. Buncombe's air pollution exceeded the region and the NC levels.

**Air quality** was measured for 181 days in 2014 as part of the Air Quality Index (AQI). The AQI showed Buncombe County having 158 days with "good" air quality and 23 days with "moderate" air quality. Ozone was present in 33 of the 181 monitored days. Buncombe County's results were consistent with the rest of western North Carolina. (US Environmental Protection Agency, 2014) (WNC Healthy Impact , 2015 )

Buncombe County ranked 9<sup>th</sup> highest among the 86 NC counties included in the **toxic release inventory** (TRI) with 2.009 million pounds of releases reported for Buncombe County. New Hanover County had the highest level of releases in the state: 5.2 million pounds. In 2013, Duke Energy's Asheville Steam Electric Plant in Arden was responsible for the largest volumes of six of the seven TRI chemicals/chemical compounds released in the Buncombe County. In that year, the Arden facility released 1.8 million pounds of TRI chemicals, 89% of the total TRI releases in Buncombe County. (US Environmental Protection Agency TRI Explorer Release Reports, n.d.) (WNC Healthy Impact , 2015 )

Western North Carolina has the highest **radon** levels in the state. The arithmetic mean indoor radon level for the 16 counties of the WNC region is 4.1 pCi/L, 3.2 times the average national indoor radon level of 1.3 pCi/L. In Buncombe County, the current average indoor radon level is 3.5 pCi/L, 18% lower than the regional mean, but **2.7 times the average national level**.

### Water

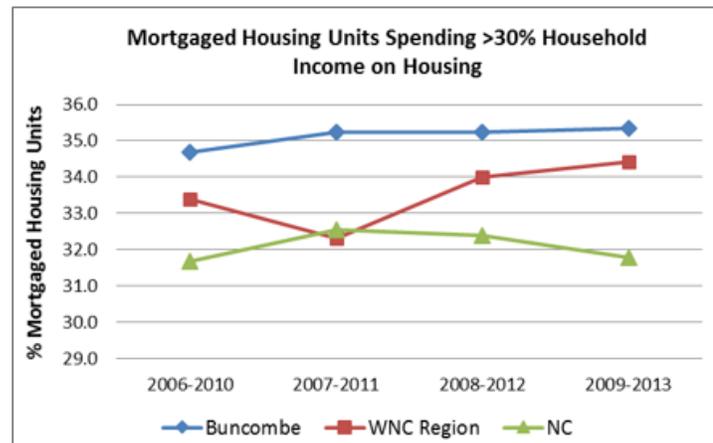
The County Health Rankings monitor drinking water violations and estimate the percent of the population getting drinking water from public water systems with at least one health-based violation. Buncombe County's system had no violations. Buncombe County Community Water Systems include municipalities, subdivisions and mobile home parks. Community water systems in Buncombe County serve an estimated 153,551 people, or

64% of the 2010 county population. The fraction of the Buncombe County population served by a community water system is 17% higher than the average for the WNC region and NC as a whole. (US Environmental Protection Agency, 2014) (WNC Healthy Impact , 2015 )

## Access to Healthy Food & Places

Where we live, learn, work and play matters, and access to healthy food, safe and affordable housing and transportation can have a significant impact on health. Safe and affordable housing is essential for our health. Lead, allergens from mold and dust, poor ventilation and indoor air quality are all elements that can impact our health. Housing also represents the single largest monthly expenditure for many. Quality housing that is affordable, safe and healthy is essential.

One measure of the economic burden in a community is the percent of housing units spending more than 30% of their income on housing. In Buncombe County and WNC a higher percentage of mortgage holders are spending >30% of their household income on housing which is greater than the NC average. For those renting, the percentage of Buncombe County residents spending >30% of income on housing is less than NC but greater than the region. (US Census Bureau; WNC Healthy Impact , 2015 )



Seventy percent (70%) of households earning less than \$15,000 annually are cost-burdened (paying more than 30% of their income for rent), as are 65% of households earning \$15,000-\$25,000 annually. The median one bedroom rent in 2008 in Buncombe County was \$673, it is now \$836. Households earning less than 50% of median income makes up half of the current 3,500 unit housing supply for those earning 120% of median income or less. The need for seniors is projected to be double. There are no vacancies among the 3,362 affordable (Tax Credit and government-subsidized) rental units in the city according to the Asheville Housing Authority.

Transportation systems include buses, cars, bikes, sidewalks, streets, bike paths and highways. This complex system connects people to each other and the places they live, work, learn and play. Without sidewalks, neighborhoods can be disconnected from grocery stores, parks, and other infrastructure that are needed to make healthy choices easier.

Bicycle and Pedestrian counts have been standardized since they began in 2009 and have been steadily rising. The 2015 pedestrian count showed 4,423 pedestrians during a 2-hour period at 17 intersections in Asheville. Unfortunately, Buncombe County was among the 12 NC counties with the highest bicycle crash rate in NC between 2008 and 2012. Asheville was among the 10 NC cities with the highest number of pedestrian crashes during this same period. (NC Department of Transportation Division of Bicycle & Pedestrian Transportation)

A 2013 report by the Food Research and Action Center ranks the Asheville Metropolitan Statistical Area as the ninth hungriest city in the nation, with more than 1 in 5 (21.8%) of residents experiencing "food hardship." Over half of students within Buncombe County public schools were enrolled in the free and reduced lunch program during the 2009-2010 school year.

## CHAPTER 7- HEALTH RESOURCES

### Health Resources Inventory Process

WNC Healthy Impact provided 2-1-1 datasets that the Buncombe CHA Data Team reviewed to assure an updated resource list was accessible via phone and web 24/7. The community partner survey also asked about available health resources to better understand what services were the most difficult to access.

In addition, BCHHS developed a resource guide for often-requested services, offering a printed copy to some community members requesting it. The ACE Collaborative revised this resource guide to include resources for those experiencing adverse childhood experiences. This [resource guide](http://www.buncombeaces.org) is available on the [www.buncombeaces.org](http://www.buncombeaces.org) website.

### Findings



In the survey of community health partners, we asked them to rank the most difficult services to access. Mental health services were seen as the most difficult to access (52.8%), then chronic disease care (38.5%) and dental care (36.7%). All of these services were well represented in the 2-1-1 Database and the information was accurate.



In the PRC Key Informant Survey, community leaders outlined health related guides they use, which included:

- 2-1-1
- ACA Marketplace
- Asheville and Buncombe County Greenway Maps
- Blue Cross Blue Shield Foundation of NC
- Buncombe County Bike Map
- Buncombe County Community Health Assessment
- Buncombe County Greenways and Trails Plan HIA
- buncombeaces.org
- Community Health Assessment
- Food Finder
- North Carolina Association of Free Clinics
- Pediatric Care Collaborative
- Senior Resource Directory by NC Bar Association

### Resource Gaps



From the PRC Key Informant Survey, community leaders identified affordable housing as the number one issue that must be addressed to improve the quality of life in Buncombe County.

## CHAPTER 8 – IDENTIFICATION OF HEALTH PRIORITIES

### Health Issue Identification

#### Process

To identify the significant health issues in our community, the Buncombe CHA Data Team partners reviewed data and discussed the facts and circumstances of our community. The Data Team included representatives from Buncombe County HHS, Mission, Mountain Area Health Education Center and NC Center for Health and Wellness. The Data Team used the following criteria to identify significant health issues:

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

The team also assessed if there was data missing and worked to secure additional local data to gather more information about health concerns. The Data Team worked to collect local data and needs assessments that other local organizations have done to understand what information others already had collected. Data Team met monthly with the CHIP Advisory & Mission Leadership to share information about the process and get feedback.

#### Identified Issues

The following health issues surfaced through the above process:

1. Adverse Childhood Experiences
2. Infant Deaths (current priority)
3. Obesity & Related Chronic Disease (current priority)
4. Diabetes (current strategy)
5. Falls in the Aging
6. Intimate Partner Violence
7. Substance Abuse
8. Suicide
9. Sexually Transmitted Diseases
10. Advanced Directives

### Priority Health Issue Identification

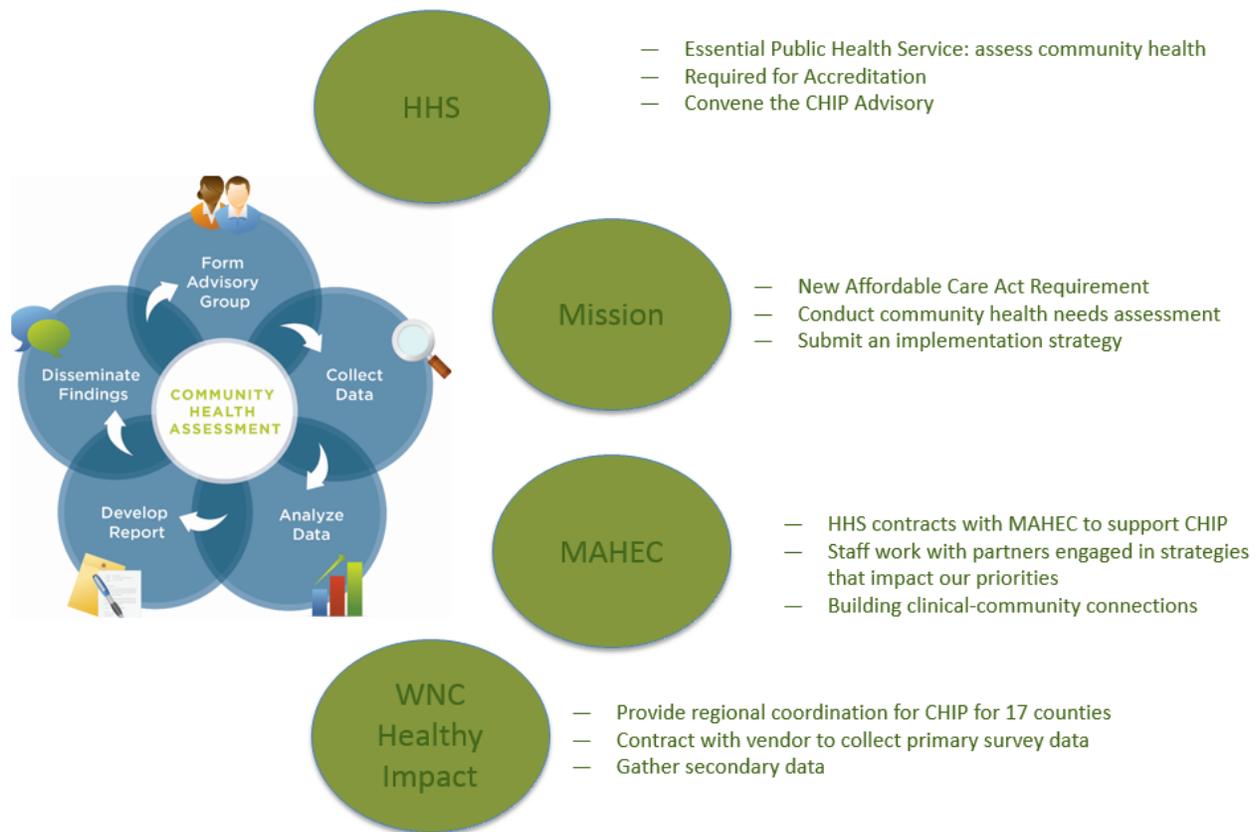
#### Process

Buncombe County completed the CHA in partnership with Mission Hospital, Mountain Area Health Education Center and WNC Healthy Impact. The CHA Data Team received feedback and approval on the process used to collect and analyze the data from the CHIP Advisory Board. The CHIP Advisory Board is a group of 30+ community leaders whose mission is: *to provide leadership and support to improve the community's health through collective action*. The role of the Advisory is to:

- Drive the CHIP in Buncombe County, focusing on the priorities identified in the CHA
- Utilize data and information available through the CHA to provide guidance for the Work Teams and oversee the implementation and evaluation of the CHIP
- Advocate for systems, policy and environmental change
- Serve in an advisory capacity to submit recommendations to the Buncombe County HHS Board

In addition, the CHA, as part of the community health improvement process, is driven by several backbone organizations in partnership as described below.

## Community Health Assessment Partners



During our group process, the following criteria were modified from the Health Resources in Action Ranking Key Health Issues tool and used to select priority health issues of focus for our community over the next three years:

- **Relevance:** *How important is the issue?* Looked at size, severity, urgency, disparity & linkage with other issues;
- **Impact:** *What will we get out of addressing this issue?* Looked at availability of solutions & proven strategies; identified opportunities to build on current momentum; and identified significant consequences of not addressing the issue now.
- **Feasible:** *Can we adequately address this issue?* Identified if there were resources to address the issue; community will; socially, culturally and ethically appropriate and could we see opportunities to be successful.

Members of the CHIP Advisory voted on each of the ten priorities after looking at the relevance, impact and feasibility. At the end of the meeting, the scores were tallied and the results were shared. The Advisory Board then selected the groups at greatest risk were those experiencing health disparities and those dealing with adverse childhood experiences.

**Identified Priorities**

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

- **Obesity & Chronic Disease Prevention** - With 50% of adults and 33% of children either overweight or obese, it is essential to continue to make the healthy choice the easy choice. Diabetes mortality rates have worsened for the past 8 years. There is a huge health disparity seen in diabetes mortality in NC. There is a great deal of momentum around active transportation, access to affordable healthy foods, and new partnerships with clinical partners to build links between clinical care and community supports. In addition, there is a great deal of work happening to improve diabetes care and linkages with community partners.
- **Intimate Partner Violence** – Five homicides in 2013 were a result of intimate partner violence (IPV), and we have seen a drastic increase in IPV calls to hotline. With a new Comprehensive Domestic Violence Plan and the anticipated opening of the Family Justice Center, Buncombe County has many collaborative efforts underway to address this challenging issue.
- **Substance Abuse Prevention** – Hospitals continue to see spikes in heroin-related visits and overdoses, neonatal abstinence syndrome continues to grow and over half the homeless population has a substance use disorder or mental health illness. The new Comprehensive Care Center will provide improved access to services for those experiencing mental health and substance abuse concerns.
- **Infant Mortality** – Buncombe County saw increase in number of infants who died in their first year of life. This is a key community health indicator to help monitor improvements in women’s health, health equity, and poverty. Many important community initiatives are moving forward such as the Success Equation (poverty reduction); Community Centered Health Home (women’s health); Women and Children’s Safety Coalition (domestic & sexual abuse reduction); and Minority Health Project to Improve Chronic Disease Management (health equity).

Buncombe County CHIP Advisory selected the following quality of life conditions that will improve as a result of collective action that impacts our health priorities. The **results** are:



**All ages have the opportunity to eat healthy, be active and better manage disease**



**All children have safe, stable & nurturing relationships & environments to ensure they reach their full potential**

## **PRIORITY ISSUE #1 OBESITY & CHRONIC DISEASE PREVENTION**



The environments where we live, learn, work, and play affect how likely we are to get enough physical activity and have access to healthy food, which, along with personal choices and genetic factors, shape our health and our risk of being overweight and obese. Buncombe County has been working on obesity as part of our CHIP for the past six years. Since it impacts over 30 chronic health conditions and is responsible for a quarter of all health care costs, it is one of the biggest risk factors impacting our health.

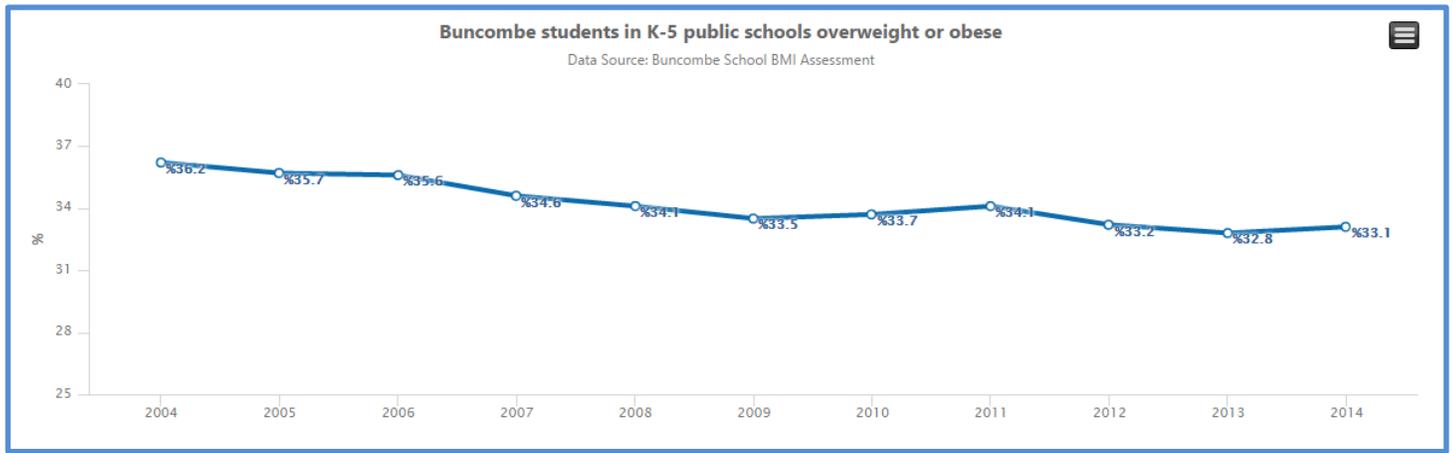
Overweight and obesity is a very complex issue to address, given the many factors that influence eating behavior and physical activity, not to mention genetic factors associated with unhealthy weight. Research strongly links the social and built environment to unhealthy weight, and, while it may seem counterintuitive, food insecurity is strongly associated with obesity. Over the past few years, Buncombe County has had the unwelcome distinction of being on the nation's top ten list of most food-insecure communities, and several low-income communities do not have any retail outlets for healthy food. This high degree of food insecurity is in stark contrast to the growing local food movement and increasing support for area farmers. School, local government and community organizations are working to provide healthy food and economic resources for those who are food insecure, to increase access to healthy foods in low-resource communities and increase access to local and healthier choices in our schools and throughout the community, through initiatives such as farm to school programs, farmer support initiatives and our many tailgate and farmer's markets.

While Buncombe County has abundant natural resources and many facilities and programs to promote physical activity, more than a third of adults fail to get the recommended level of physical activity. Barriers to physical activity for children include the distraction of digital devices, unsafe (or perceived unsafe) neighborhoods, decreasing recess and PE time in schools, and more car-centric communities that prevent children from actively walking or biking to school or to visit friends. The good news is that Buncombe County is making progress in improving community infrastructure and programs such as Watch for Me NC and the Bicycle Friendly and Pedestrian Friendly Cities initiatives to make it safer for walking and biking, and schools are beginning to support Safe Routes to Schools programs.

### **Data Highlights**

#### **Health Indicators**

- 23.5% of Buncombe adults are obese (better than regional average of 27.7%) (WNC Healthy Impact , 2015 )
- 33.1% of Buncombe County students in K-5 public schools are overweight or obese (Buncombe County School Nurse Program, 2015)



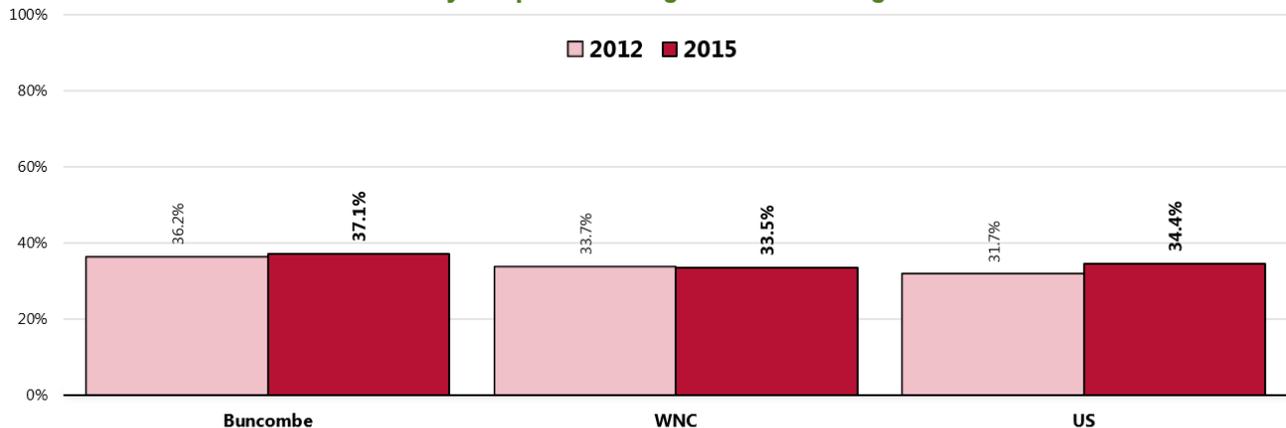
The survey of Buncombe County residents showed:

- 28.9% of Buncombe residents said it was somewhat difficult or very difficult to access fresh produce at an affordable price (up from 20.9% in 2012) which is worse than WNC (26.6%) or US (24.4%);
- 16.4% of Buncombe residents stated they have no leisure time for physical activity in the past month, which is better than the WNC (19.2%), and NC (26.6%);
- 55.7% of Buncombe residents stated they meet the physical activity recommendations, WNC 53.5% and US 50.3%;
- 34.5% Buncombe residents stated they get moderate physical activity, WNC 35.7% and US 30.6%; and
- 94.3% of Buncombe residents believe it is important that community organizations make physical activity spaces available for public use after hours (WNC 94.1%).

## Healthy Weight

(Percent of Adults With a Body Mass Index Between 18.5 and 24.9; Buncombe County)

**Healthy People 2020 Target = 33.9% or Higher**



Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 137]  
 • PRC National Health Surveys, Professional Research Consultants, Inc.  
 Notes: • Based on reported heights and weights, asked of all respondents.  
 • US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective NWS-8]  
 • The definition of healthy weight is having a body mass index (BMI), a ratio of weight to height (kilograms divided by meters squared), between 18.5 and 24.9.

## **Understanding the Issue**

Overweight and obesity is a challenging public health issue. And while the "obesity epidemic" is a term frequently seen in the press, the health concern is not weight in and of itself, but rather the long list of chronic disease and disabilities associated with unhealthy weight. Overweight is associated with chronic disease conditions, including coronary heart disease, type 2 diabetes, cancer, hypertension, stroke, liver disease, sleep apnea, respiratory problems, osteoarthritis, gynecological problems and poor health status. Increasingly, these chronic health conditions once almost entirely associated with adults are being seen in children. Early onset of chronic disease means many children experience the debilitating side effects of these diseases at a much earlier age, leading to decreased life expectancy and quality of life. Overweight children are far more likely to become overweight adults.

While Buncombe County is less overweight than the region and the state, the majority (62.6%) of our adult population still has a BMI of greater than 25. Of those adults who are overweight, almost half have a BMI of greater than 30, pushing them into the obese category. The percentage of the population that is overweight or obese increases with age. Although these rates do meet the Healthy People 2020 goal of adult obesity rates less than 30.6%, we are still far from meeting the Healthy People 2020 goals for both elevated cholesterol and high blood pressure.

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Buncombe County CHIP will be targeting two of the Healthy People 2020 objectives to *Increase the percentage of high school students who are neither overweight nor obese and Decrease the percentage of adults with diabetes.*

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Outside of the home, children spend more time in schools than anywhere else. And schools, in the way they touch so many facets of a child's life, have a unique opportunity to address healthy behaviors and prevention of childhood obesity. Strategies that have been shown to be effective include:

- Increasing access and availability of healthy foods and beverages. This broad approach can include making changes to what is served in school nutrition programs and guidelines that limit the availability of nutrient poor foods in celebrations, rewards, and in fundraisers.
- Nutrition education programs in the school present as direct nutrition education or integrated into academics as a vehicle to introduce concepts related to curriculum in areas such as math, science, social studies or literature.
- Programs that introduce students to a variety of fruits and vegetables and help connect students to where their food comes from, such as school gardens and farm to school programs.
- Limiting the exposure students have to marketing of unhealthy foods and beverages and/or shifting marketing to favor healthier choices.

- Policies and practices that increase opportunities for physical activity and quality physical education as well as promoting active transportation by making it safe, accessible and fun to walk or bike to school.
- Schools can also provide information about student health through strategies such as annual BMI assessment that can be used to help educators and policy makers make decisions to support student and community health.
- School health can also use annual screenings to identify students at greatest risk for health conditions associated with overweight and help connect students and families with clinical resources and information on healthy behaviors.

Obesity was seen as a leading concern in our surveys of leaders in health and healthcare (key stakeholder survey) and community partners.



53% of Key Informants said nutrition, physical activity and weight were a “major problem” in our community. Many responses linked this to increased concerns with chronic disease.



29% of Community Partners say that nutrition, physical activity and weight were the biggest health problems facing our community.

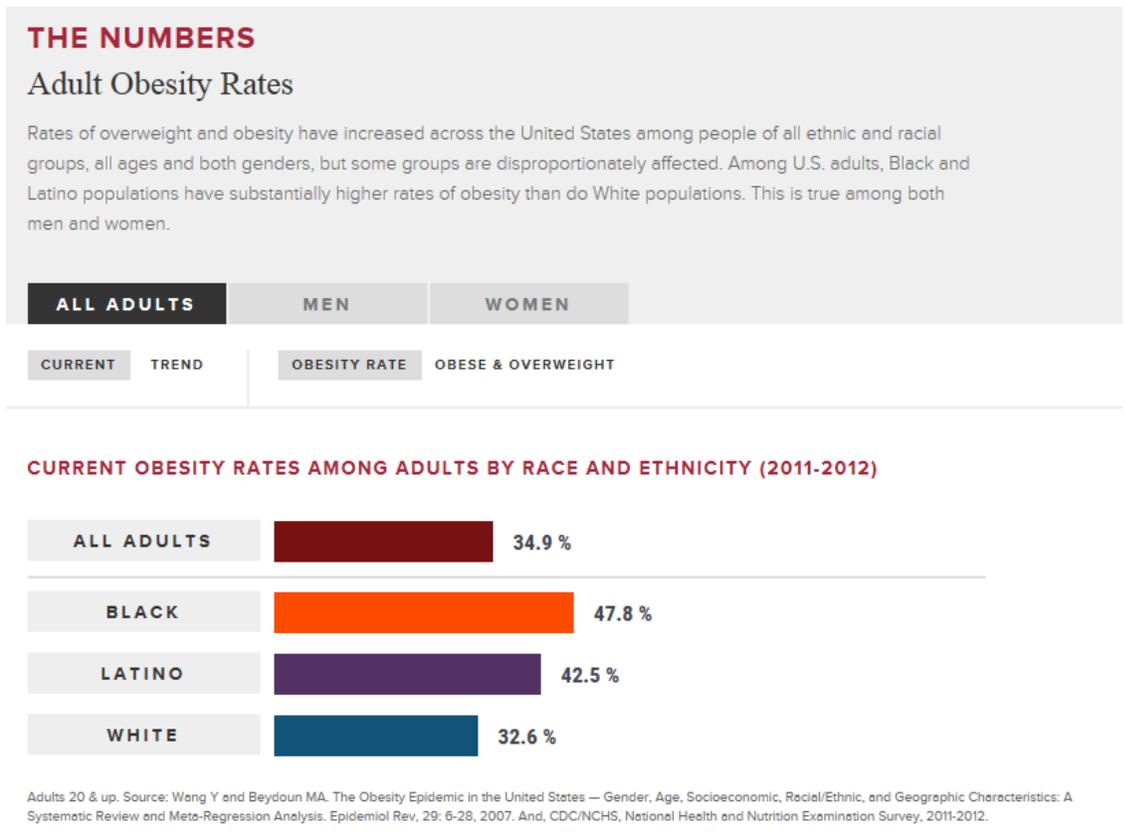
### **Specific Populations At-Risk**

Obesity and chronic disease were identified as impacting Black and Latino populations at a much higher rate than the White population. In addition, Buncombe County has prioritized minorities and those impacted by trauma and/or

adversity as key populations at risk. These populations will be prioritized when considering strategies to implement through our CHIP.

### **Health Resources available/needed**

Buncombe County has developed strong new partnerships with clinical partners focused on improving obesity prevention. Specifically, clinical partners are looking at working with



minorities to improve chronic disease self-management. In addition, clinical partners were educated on the Healthy Living Opportunities map and have been using it in their clinical practices to share opportunities for physical activity with their clients.

Many organizations are working on various aspects of this issue and several community plans exist to outline strategies, including:

- Asheville Buncombe Food Policy Council - Food Master Plan
- City of Asheville - Food Action Plan
- Buncombe County Government - Sustainability Plan

Impacting obesity and chronic disease prevention are large issues that require multi-year and multi-level interventions. Unhealthy food intake and insufficient exercise have huge economic impacts on both individuals and communities. Current estimates for obesity-related health care costs in the US range from \$147 billion to nearly \$210 billion annually, and productivity losses due to job absenteeism cost an additional \$4 billion each year. (County Health Rankings and Roadmap)

Increasing opportunities for exercise and access to healthy foods in neighborhoods, schools and workplaces can help children and adults eat healthy meals and reach recommended daily physical activity levels. By continuing to work collectively on this issue, Buncombe County hopes to continue to see our residents get healthier.

Partners include: Asheville Buncombe Community Christian Ministries , Asheville Buncombe Food Policy Council (and member organizations) , Asheville Buncombe Institute for Parity Achievement , Asheville Buncombe Youth Soccer Association, Arc of Buncombe County , Asheville Greenworks , ASAP (Appalachian Sustainable Agriculture Project) , Asheville City Schools , Asheville Area Bike & Pedestrian Task Force , Blue Ridge Bicycle Club , Buncombe Bike Ed Network , Bountiful Cities Project , Buncombe County Cooperative Extension , Buncombe County Parks, Greenways and Recreation, Buncombe County Schools Child Nutrition , Buncombe County Health and Human Services WIC Nutrition and the Office of Minority Health Equity Grant, MAHEC School Health, CarePartners Health Services, City of Asheville Parks & Recreation and Transportation, Community Care of WNC, FEAST/ Slow Food Asheville , Healthy Buncombe Eat Smart Move More Coalition, Innovative Approaches, Land of Sky Regional Council , MANNA Foodbank , Mission Health Community Investments, Health Education and Children's Hospital Weight Management, North Carolina Center for Health and Wellness, Rainbow in My Tummy, Smart Start – Shape NC , Town of Black Mountain Greenways Health Initiative , Mountain True , WNC Pediatric Care Collaborative, WNC Trips for Kids, Youth Empowered Solutions (YES!) , YMCA of Western North Carolina, and the YWCA of Asheville.

The Buncombe County  
**HEALTHY LIVING MAP**

You Can Find...

Nearby places to **walk, play, garden** or **shop for local food**.  
Visit the online map that makes it easier to eat smart and move more in **BUNCOMBE COUNTY**.

SCAN THIS >  OR VISIT:

[healthylivingmap.buncombecounty.org](http://healthylivingmap.buncombecounty.org)

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BUNCOMBE COUNTY  
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Current Strategies include:

- ⊕ **R** **Healthy Living** All ages have opportunity to eat healthy foods 
  - ⊕ **P** **Healthy Living** Community groups produce and/or provide food to those in need 
  - ⊕ **P** **Healthy Living** Economic support to those who are food insecure. 
  - ⊕ **P** **Healthy Living** Urban Agriculture Programs and Gardens in low-resource communities 
  - ⊕ **P** **Healthy Living** Increase production and demand for local food. 
  - ⊕ **P** **Healthy Living** Provide affordable retail food outlets in low-resource neighborhoods. 
  - ⊕ **P** **Healthy Living** School Nutritional Literacy & Farms to School Programs 
  - ⊕ **P** **Healthy Living** Worksite policy and environmental support for healthy food access 
  - ⊕ **P** **Healthy Living** Outreach and education for breastfeeding 
  
- ⊕ **R** **Healthy Living** All ages have opportunity to be physically active
  - ⊕ **P** **Healthy Living** Complete Streets Policies and Practices 
  - ⊕ **P** **Healthy Living** Safe Routes to School environments and policies supports 
  - ⊕ **P** **Healthy Living** Community Education and Support for Safe Active Transportation 
  - ⊕ **P** **Healthy Living** Worksite/organizational environments and policies that support active transportation 
  
- ⊕ **R** All ages have the opportunity to prevent or better manage disease
  - ⊕ **P** **Healthy Living** Best Care for Child Obesity (3 years and older) 
  - ⊕ **P** **Healthy Living** Best Care for Pediatric ADHD 
  - ⊕ **P** **Healthy Living** Best Care for Children with Asthma 
  - ⊕ **P** **Healthy Living** Community Diabetes Program Referral - Pilot 

## PRIORITY ISSUE #2 INFANT MORTALITY



Infant mortality is also a common way to measure the general health of a community. It has been called the “canary in the coal mine” since it is a strong predictor of the overall health of a community. Locally and statewide, with African American babies dying at twice the rate as White babies, the infant mortality rate is also a strong predictor of health equity in a community.

The number of infants that die as compared to 1000 live births is known as the infant mortality rate. The number of infant deaths is generally so small that we usually look at this data as a five year aggregate, which makes the data more stable. The five-year

aggregate looks at the total of the last five years of data. When we look at the five year data, we see that the infant mortality rate increased from 5.3 from 2008-2012 to 6.2 from 2009-2013. The spike in deaths in the five year aggregate from 2009-2013 occurred in our White population. This represents 81 infants who died before their first birthday in Buncombe County. (NC State Center for Health Statistics; WNC Healthy Impact , 2015 )

### Data Highlights

#### Health Indicators

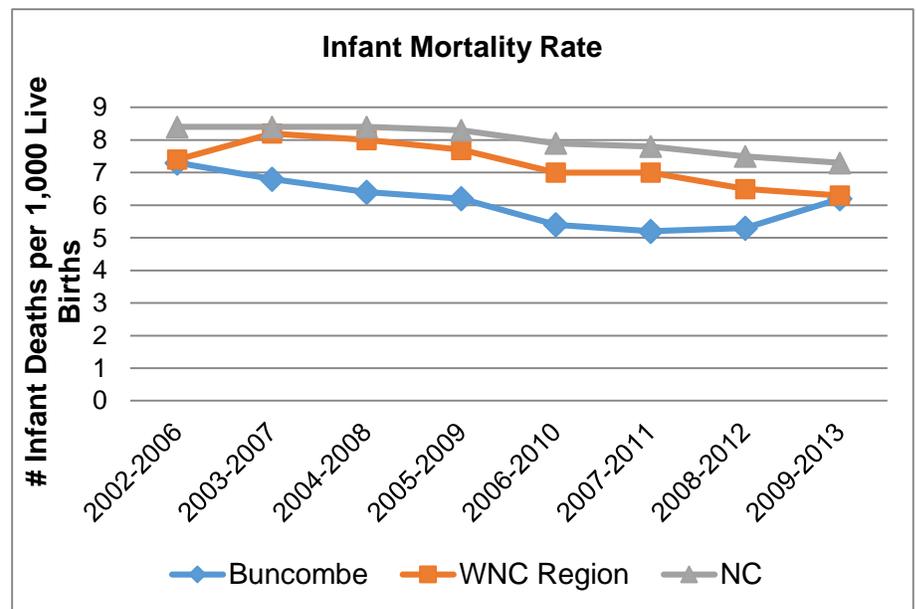
- 6.2 infant deaths/1000 live births (NC State Center for Health Statistics; WNC Healthy Impact , 2015 )

#### Understanding the Issue

This one data point is essential in monitoring the health of our community overall. Impacting infant mortality usually involves improving the health of women before and

during pregnancy and targeting efforts to reduce poverty. And while a small increase in the five year rate may seem insignificant, it represented a doubling of the infant deaths in Buncombe County in 2013.

Infant mortality is most often caused by babies who are born too early (prematurity) and/or at a low birth weight. Most often, babies born early have a low birth weight simply because they have not had adequate time to develop. The primary risk factors that cause or influence prematurity and birth weight relate to the health of the pregnant mother. These factors will not necessarily cause prematurity and low birth weights, but they *significantly increase the risk* of having these complications in pregnancy, thus increasing the risk of infant mortality. They include:



- Chronic health conditions: If the mother has high blood pressure, diabetes or gestational diabetes, or heart, lung, or kidney problems, her health should be closely monitored by her doctor.
- Infections: Especially if related to the mother's reproductive organs, like the uterus, maternal infections may cause early labor and premature birth.
- Placenta problems: The placenta is the organ that develops in the early stages of pregnancy to provide the baby with nutrients and oxygen. If the placenta does not develop correctly, or something is interfering with blood flow to the baby, fetal growth may be limited.
- Weight: Mothers who are underweight, overweight, or obese and those mothers who do not gain a proper amount of weight during pregnancy are at risk of limiting the growth of their babies.
- Smoking, alcohol and substance abuse: Women who smoke are twice as likely to give birth to babies with a low birth weight as women who do not smoke. Smoking, alcohol, and substance abuse not only increase the risk of prematurity and low birth weight, but also the risk of birth defects.

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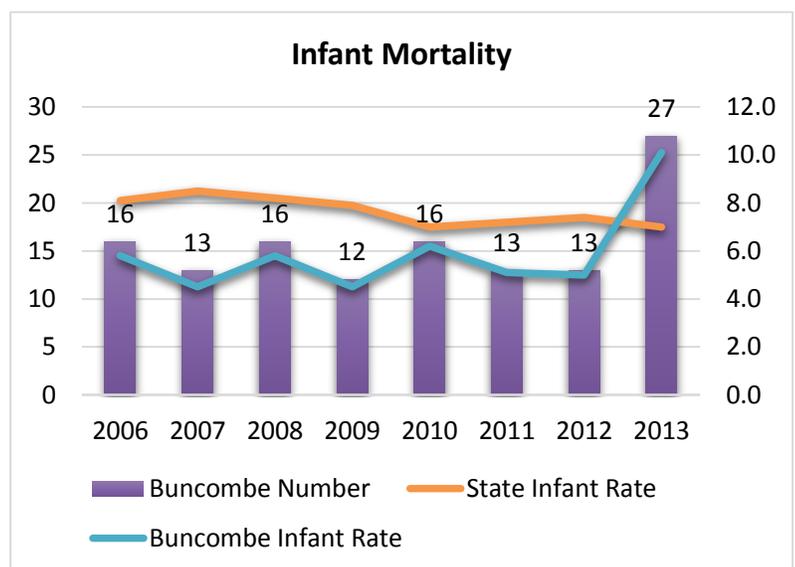
Buncombe County will be targeting one of the Healthy People 2020 objectives to *“Reduce the infant mortality racial disparity between whites and African Americans”*

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An increased risk of low birth weights and prematurity means an increased risk of infant mortality. Note, these risk factors are primarily focused on the mother's health before and during pregnancy. Adequate preconception and prenatal care can lead to healthy women with healthy pregnancies.

However, there are also social issues that have an impact on infant mortality. These social and economic conditions may not be *directly* related to health, but they have a huge impact on an individual's or population's ability to be healthy. Poverty, unemployment, and low education levels of mothers and parents increase the risk of infant mortality. In addition, risks are further impacted by race and ethnicity as well as age. African Americans have 2.4 times the risk of infant mortality when

compared to the white population in Buncombe County in 2011. Extreme maternal age during pregnancy, including those women under 17 and over 35 years old, also increases the risk.

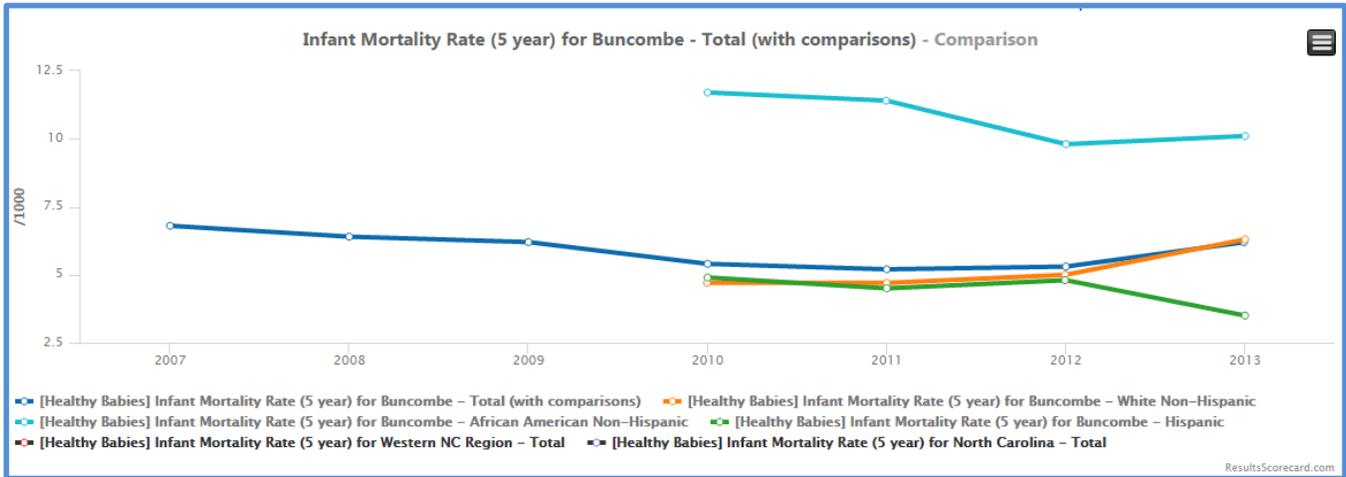


In Buncombe County in 2013, 27 babies died before their first birthday. That is an entire classroom of students who will never attend school. The previous year there were *only 13 infant deaths*. Prenatal and preconception health of women in Buncombe is the key factor impacting the infant mortality rate. While it is important to look

cautiously at such small numbers, infant mortality is an area to continue to monitor and address in Buncombe County.

**Specific Populations At-Risk**

The graph below shows the racial breakdown of the infant mortality rate with African Americans (10.1/1000 5-year aggregate from 2009-2013) having almost twice the rate of infant deaths as white infants (6.2/1000 5-year aggregate) during same period. Yet the spike in infant deaths in 2013 was seen in the white infant population.



Of the key informants surveyed for the CHA, 30% felt that infant mortality was a “major problem”. Many of those surveyed link this issue with substance abuse, adversity and economic hardship.

And 27% of community partners felt that maternal and infant health was the most important health concern.

**Health Resources Available/Needed**

The National Strategy to Improve Infant Mortality for the Health Resources and Services Administration (HRSA) developed this graphic to show the environmental, maternal and pregnancy risk associated with infant deaths.

Since poverty is one of the biggest drivers impacting infant mortality, the Success Equation Action Plan serves as the strategy to eliminate childhood poverty. In 2010, Children First/Communities in Schools launched a listening project to document the experience of families facing poverty in Buncombe County. The issues raised by the listening session were shared at a



community summit that developed an action plan. The Success Equation Action Plan includes emphasis in the three key focus areas identified from interviews and at the summit: early childhood development, child and family supports and family economic stability.

**Pregnancy medical homes** are based on the successful implementation of the primary care medical home model. Coordinated by Community Care of Western North Carolina (CCWNC), maternity care providers within CCWNC's network form a team with physician champions and nurse coordinators to focus on providing adequate, accessible care aimed at improving pregnancy outcomes and preventing preterm births. Providers are supported by CCWNC. Case management models used in Buncombe County reinforce this requirement by encouraging women to attend all postpartum visits. Three major, but separate, models of case management are used to serve specific populations in Buncombe County. Other home-visiting programs in Buncombe County use similar, effective methods and all are focused on improving birth, motherhood, and early childhood outcomes. **OB Care Managers (OBCM)** serve all pregnant women receiving Medicaid in NC to improve birth outcomes. CCWNC provides OBCM in Buncombe County through a contract with BCHHS. Since the OBCM team assures care for all pregnant women, they are the first line of care for pregnant women living in poverty in our community. When more intensive care coordination is needed, the OBCM refer those women who qualify to Nurse Family Partnership (NFP).

**Nurse-Family Partnership (NFP)** is an evidence-based community health program that partners registered nurses with low-income, first-time mothers. Home visits begin during pregnancy and continue through the child's second birthday. The goals of the program are to provide the care and support necessary for a healthy pregnancy, ensure the resources and ability to provide care for the family and teach financial management. During home visits, nurses offer knowledge and provide support for women and families to create a better life for themselves and their children by answering questions about pregnancy and parenting, coaching on healthy pregnancies and childhood development, and empowering women to set goals and pursue their dreams. NFP was established in Buncombe County in October of 2009.

**Project NAF (Nurturing Asheville and Area Families)** is guided by the North Carolina Division of Public Health's Healthy Beginnings program that promotes reproductive life planning, healthy lifestyles for women before, during, and after pregnancy, as well as responsible parenting practices. In Asheville, Project NAF strives to help all minority babies be healthy for their first year of life and beyond. Using culturally sensitive materials and individualized services, the program works to empower African American women while they are pregnant and throughout the first year of their new baby's life.

**MotherLove** is a YWCA program for pregnant and parenting teens that aims to empower and encourage young parents to stay in school, access higher education and vocational training, develop the skills and knowledge needed to become strong parents, and delay another teen pregnancy. MotherLove provides one-on-one case management, home visits and group meetings to 30 pregnant and parenting teens. An additional 70 parenting teens are served once a month in lunch meetings at Buncombe County and Asheville City Schools. Case management and home visits aim to help teens with build healthy, safe homes while accessing prenatal and reproductive care and other community services, setting academic goals, managing finances and enhancing parenting skills. In group settings, teens receive pregnancy prevention education and links to

community services, in addition to having the opportunity to share stories or seek advice from each other in an atmosphere of inclusion, acceptance, and support.

MAHEC OB/GYN is one of 3 primary care sites across NC awarded the **Community Centered Health Home** Planning and Capacity Building grant from the Blue Cross Blue Shield (BCBS) Foundation of North Carolina. This grant extends for an 18-month period and has total budget of \$125,000. The Community Centered Health Home (CCHH) is a model produced by the National Prevention Institute. It recognizes that factors outside the health care system affect patient health and encourages health care professionals to actively participate with community partners in improving those factors to improve population health. BCBS describes the CCHH as focusing on increasing the capacity of North Carolina communities to better understand and act on community and social determinants of health with the goal of reducing health disparities and improving the health of our state. The local CCHH project has chosen pregnant women and women of childbearing age as their target population. Currently the CCHH Team has 12 community organizations representing MAHEC, Buncombe County Health and Human Services, Children First/Communities in Schools, Western North Carolina Community Health Services, Pisgah Legal Services, Project NAF w/ Mt. Zion Community Development, YWCA, WIC, N.C. Center for Health and Wellness, Smoky Mountain LME and Community Care of Western North Carolina.

Current strategies include those listed in the table below.

Program/Strategies	Time Period	Actual Value	Target Value	Current Trend	Baseline %Change
<ul style="list-style-type: none"> <li> <span>P</span> <span>Healthy Babies</span> Preconception Health Campaign Training: Consumers and Providers                     </li> <li> <span>P</span> <span>Healthy Babies</span> Preconception Health Campaign Training: Community Ambassadors                     </li> <li> <span>P</span> <span>Safe Community</span> Adverse Childhood Experiences (ACE) screening and Community Resiliency Model (CRM) referral &amp; support                     </li> <li> <span>P</span> <span>Healthy Babies</span> Interconception Care: Case Management Between Pregnancies                     </li> <li> <span>P</span> <span>Healthy Babies</span> Interconception Care: Integration into Well-Child Visits                     </li> <li> <span>P</span> <span>Healthy Babies</span> Safer Sex Education and Pregnancy Prevention for At-Risk Teens                     </li> <li> <span>P</span> <span>Healthy Babies</span> Advocacy for teen friendly pregnancy prevention services (YEAH Group: Youth Empowerment and Leadership in Health)                     </li> <li> <span>P</span> <span>Healthy Babies</span> Expedited birth control protocol in health clinics                     </li> <li> <span>P</span> <span>Healthy Babies</span> Integrated Targeted HIV/STD Testing Services (ITTS)                     </li> <li> <span>P</span> <span>Healthy Babies</span> Social Marketing to encourage and support breastfeeding                     </li> <li> <span>P</span> <span>Healthy Living</span> Outreach and education for breastfeeding                     </li> </ul>					

Current partners include: Asheville City Schools; Buncombe County Child Protection Team & Child Fatality Prevention Team; Buncombe County Health and Human Services (BCHHS); BCHHS/MAHEC School Health (School Nurses) Program; Buncombe County Prenatal Safety Net- MAHEC; Buncombe County Schools; Children First/Communities in Schools; Community Care of Western North Carolina (CCWNC) OB Case Management; Community Service Navigators; Eliada Home; Family Planning and STD Clinics; Goodwill; Grandfather Home; Guardian Ad Litem; BCHHS NFP; Mount Zion Community Development Project NAF (Nurturing Asheville and Area Families) & Project EMPOWER (Education Means Power); Mountain Area Health Education Center (MAHEC) Family Health; MAHEC Obstetrics & Gynecology; Pisgah Legal Services; Planned Parenthood; Western North Carolina AIDS Project; Western North Carolina Community Health Services (WNCCHS); YWCA-MotherLove Program; and Youth Educators and Advocates for Health (YEAH).

## PRIORITY ISSUE #3 INTIMATE PARTNER VIOLENCE



This represents a new community health priority and there is a great deal of momentum around this issue. In FY 2013-14 2,395 calls were made to a domestic violence hotline in Buncombe County. (NC Department of Administration, 2013-2014) According to statistics from the State Bureau of Investigation, there were 59 rapes reported in Buncombe County in 2014. (NC Department of Public Safety, 2014) This translates to 23.6 rapes per 100,000 people.

With eight domestic violence homicides in 2013, Buncombe County tied with Wake County – a jurisdiction nearly four times in size

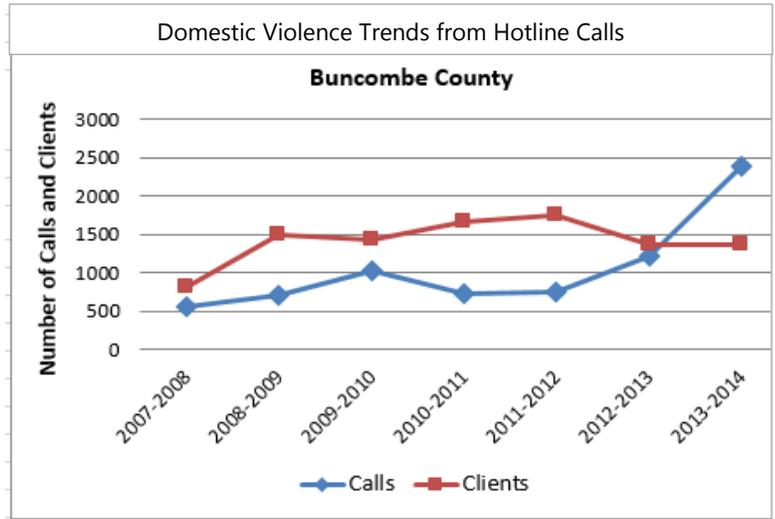
– for the second highest number of domestic violence homicides in North Carolina. This significant jump sparked a conversation among governmental agencies, community advocates and leaders, healthcare providers, and victim service agencies in Buncombe County. Partners recognized the need to address domestic violence in a coordinated way, and as new strategies were developed and implemented, the focus broadened to include sexual assault as part of a larger strategy to make Buncombe County a safer place. Community partners have committed to sharing the message that “Domestic and sexual violence will not be tolerated in our community.” With leadership provided by the County Commissioners with input from community stakeholders, a Coordinated Community Response plan was developed and work immediately began to implement new strategies to address these issues in Buncombe County.

### Data Highlights

- # clients reporting DV was 1,363 in 2013-2014 (NC Department of Administration, 2013-2014) and shelter was full 237 days during that year (NC Department of Administration, 2013-2014)
- 19% of homeless adult population were victims of IPV (Buncombe County Homelessness Count 2015 , 2015)
- 5 of the 8 domestic violence homicides in 2013 were linked to intimate partner violence (NC Attorney General)
- Danger Assessments gathered by Helpmate showed 55% of those assessed were in extreme danger
- African American women are more likely to be victimized by an intimate partner than are white women and they are more likely to be killed by an intimate partner than white women (US Department of Justice, n.d.)

**Health Indicators**

- A new lethality assessment was implemented in 2015 with 195 victims completing (55% showed the women were in extreme danger (at risk for homicide); 17.9% showed they were in severe danger and 19.5% showed increased danger.
- Shelter was full 237 days during 2013-2014



**Understanding the Issue**



The Safety Coalition, a community group organized around preventing domestic and sexual violence and child abuse, recently released preliminary results of a focus group of victims of intimate partner violence regarding their experience in accessing services in Buncombe County. Themes that emerged were:

- Professionals need to recognize the signs, need to ask and then refer to services.
- Victims need a better idea where to go, lack of knowledge of victims' & perpetrator rights make decision making hard.
- Providers need to use trauma informed interviewing.
- Community needs checklist of signs of abuse and what to anticipate in the system
- Faith-based leaders need education to support members who disclose domestic violence.
- Community must address lack of shelter space and bullying at the shelters.
- Victims need long-term support. (Wright ME, 2015)

Demographic	Parameter	Percentage (N = 27)
Age	18-24	19 %
	25-35	33 %
	36+	48 %
Gender	Female	100 %
	Male	0 %
	Transgender	0 %
Race/Ethnicity	White/Caucasian	59 %
	Black/African American	22 %
	Italian	4 %
	Hispanic or Latina	7 %

**Specific Populations At-Risk**

African American women are more likely to be victimized by an intimate partner and are more likely to be killed by an intimate partner than are white women.



Of the key informants surveyed, 22% said injury and violence were the most significant health issues facing our community.

**Health Resources available/needed**

The first component of the coordinated community response was to launch a public education campaign, eNOugh, in which leaders of the community alongside law enforcement officials and victims service organizations delivered a consistent message that domestic violence will not be tolerated in Buncombe County. Next, multiple evidence-based models were adopted to arm victim service providers and law enforcement with

tools to identify high danger victims and increase arrests and prosecution of domestic violence offenders. In August 2014, community service providers were trained on Dr. Jaqueline Campbell's Danger Assessment. Since that time, the Danger Assessment has been used in the community to identify victims who are at high risk for lethality. Law enforcement agencies in Buncombe County incorporate the Maryland Lethality Assessment Protocol into their response to domestic violence calls. This model identifies high-risk domestic violence victims and connects them directly with service providers. Buncombe County's coordinated community response also includes a Focused Deterrence Program, modeled after the successful High Point program and designed to reduce the number of domestic violence crimes involving repeat offenders. This program enhances the focus law enforcement places on domestic violence crimes and is currently being implemented in the community.

In late 2014, planning began for a Family Justice Center. A best-practice model within the domestic violence field, the goals of the Family Justice Center are to reduce domestic and sexual violence within Buncombe County and provide a seamless resource for victims who must navigate the criminal justice system and the social service community. Research has demonstrated the Family Justice Center model not only provides a supportive experience for victims, it also increases efficiency in service provision, reduces victim recantation, increases prosecution of offenders, and ultimately reduces crime. In addition, the Family Justice Center will be a springboard upon which new interventions can be incorporated into the coordinated community response.

The Family Justice Center model is particularly compelling to partners because it builds upon current services while filling the most pressing gaps. Most specifically, a Family Justice Center will co-locate services so that victims of domestic and sexual violence no longer have to navigate a fragmented system to get the help they need. Partners expect that by creating a victim-centered process Buncombe County will see a decrease in dismissal rates for domestic violence cases and an increase in grant rates for permanent protection orders. In addition, the efficiency in service provision offered by the Family Justice Center model will increase non-profit partners' ability to expand services. For example, with the move to the Family Justice Center, Helpmate will be able to increase shelter capacity in its current building by at least 50 percent.

Finally, as new strategies are implemented, attention is also being given to prevention. With the leadership of Our VOICE, the victim service provider for sexual assault, a community needs assessment has been completed to help determine how best to prevent domestic and sexual violence before it starts. Partners in the coordinated response will use this information to develop a prevention strategy for Buncombe County's coordinated response to domestic and sexual violence.

By aligning the community health assessment priorities with the current momentum, the CHIP Advisory hopes to increase awareness among partners of the extensive work happening around intimate partner violence, support increased awareness within the healthcare sector and build on the exceptional work happening in this community to further reduce intimate partner violence.

## PRIORITY ISSUE #4 SUBSTANCE ABUSE



Substance abuse represents a new community health priority for Buncombe County. With continuing increases of heroin and prescription opioid abuse, neonatal withdrawal syndrome in newborns and unintentional medication deaths, substance abuse has been cited as a significant public health crisis facing many communities including our own. The increase in heroin overdoses has been attributed to widespread prescription opioid exposure, increasing rates of opioid addition and increases in heroin supply. The CDC found that heroin death rate in the 28 states studied,

including NC, doubled between 2010 and 2012. "Reducing inappropriate opioid prescribing remains a crucial public health strategy to address both prescription opioid and heroin overdoses," said CDC Director Tom Frieden, M.D., M.P.H. "Addressing prescription opioid abuse by changing prescribing is likely to prevent heroin use in the long term." (Centers for Diseases Control and Prevention, 2014)

### Data Highlights

#### Health Indicators

The vast majority of unintentional poisoning deaths are drug or medication-related. In particular, opioid analgesic deaths involving medications such as methadone, oxycodone, and hydrocodone have increased significantly in North Carolina.

County	Unintentional Medication and Drug Poisoning Deaths	Deaths per 10,000	All Unintentional Rx Opioid Poisoning Deaths	Deaths per 10,000	All Unintentional Opiate Poisoning Deaths	Deaths per 10,000	All Unintentional Heroin Poisoning Deaths	Deaths per 10,000
Buncombe	10	0.40	5	0.20	7	0.28	5	0.20
Haywood	16	2.69	8	1.35	8	1.35	8	1.35
Henderson	22	1.98	15	1.35	17	1.53	15	1.35
McDowell	3	0.67	2	0.44	2	0.44	2	0.44
Madison	1	0.47	0	0.00	1	0.47	0	0.00
<b>Total Catchment</b>	<b>144</b>	<b>34.46</b>	<b>92</b>	<b>20.18</b>	<b>100</b>	<b>21.52</b>	<b>92</b>	<b>20.18</b>
State	992	9.26	536	5.00	699	6.52	536	5.00

The above data reflects the number of unintentional overdose deaths in some of the counties in the Smoky catchment during 2013.

- The 5-year aggregate unintentional medication/drug overdose death rate in NC was 7.5 per 100,000 NC residents for 2009-2013 (compared to 13.5 for WNC and 10.0 for NC).
- Nationally we are seeing a trend in opioid use during pregnancy that can result in drug withdrawal syndrome in newborns. The National Institute on Drug Abuse states there was a 5-fold increase in

babies born in drug withdrawal between 2000 and 2012. That means, every 25 minutes, a baby is born suffering from opioid withdrawal.

### **Understanding the Issue**



Of the key informants surveyed, 50% said substance abuse is a “major problem” in our community. Most also thought there were not enough resources to meet the need.

In reviewing Smoky Mountain LMEs 2015 Gap Analysis, needs and gaps perceived by the community included:

- Transportation issues, particularly in the rural communities where there is minimal or no public transit
- Shortage of psychiatrists
- Shortage of providers and qualified staff in the rural areas of the catchment
- Lack of stakeholder knowledge regarding accessing service
- Lengthy wait times for appointments to receive screenings, assessments and services
- Lack of respite and day services across disability groups
- Increased Emergency Department (ED) wait times and shortage of crisis services available

*ACE Spotlight*  
*Male children with an ACE score of 6 or more have a 4600% increased likelihood of becoming an IV drug user.*  
*Those with an ACE score of 4 or more are 500% more likely to be an alcoholic.*

### **Specific Populations At-Risk**

A large percent of our homeless population are adults with a substance use disorder (27%).

### **Health Resources Available/Needed**

A Comprehensive Care Center is being developed in Buncombe County to improve access to care for the uninsured and underinsured. This project will bring many providers under one roof to better serve the communities’ mental health, substance abuse and developmental disabilities needs. Comprehensive Care Centers (CCCs) are intended as the cornerstone of the outpatient system of recovery-oriented care for individuals seeking treatment through Smoky Mountain LME/MCO’s provider network. This model has been described as a reinvented community mental health center adapted to the environment of North Carolina today.

Service fragmentation associated with multiple changes in providers, sites, and service delivery has caused uncertainty in some communities about where to go for what service. This can cause some people to delay treatment or avoid it altogether. Or, care may be delivered in the wrong setting, such as an emergency department. It is essential to create a “big front door” to treatment using “walk in” and “open access” strategies, and to ensure continuity of care at a single agency. Having the service continuum “under one roof” improves ease of access to clinically appropriate care and member outcomes. Smoky Mountain Center’s model is designed to avoid isolated delivery of enhanced services outside of a full continuum of care.

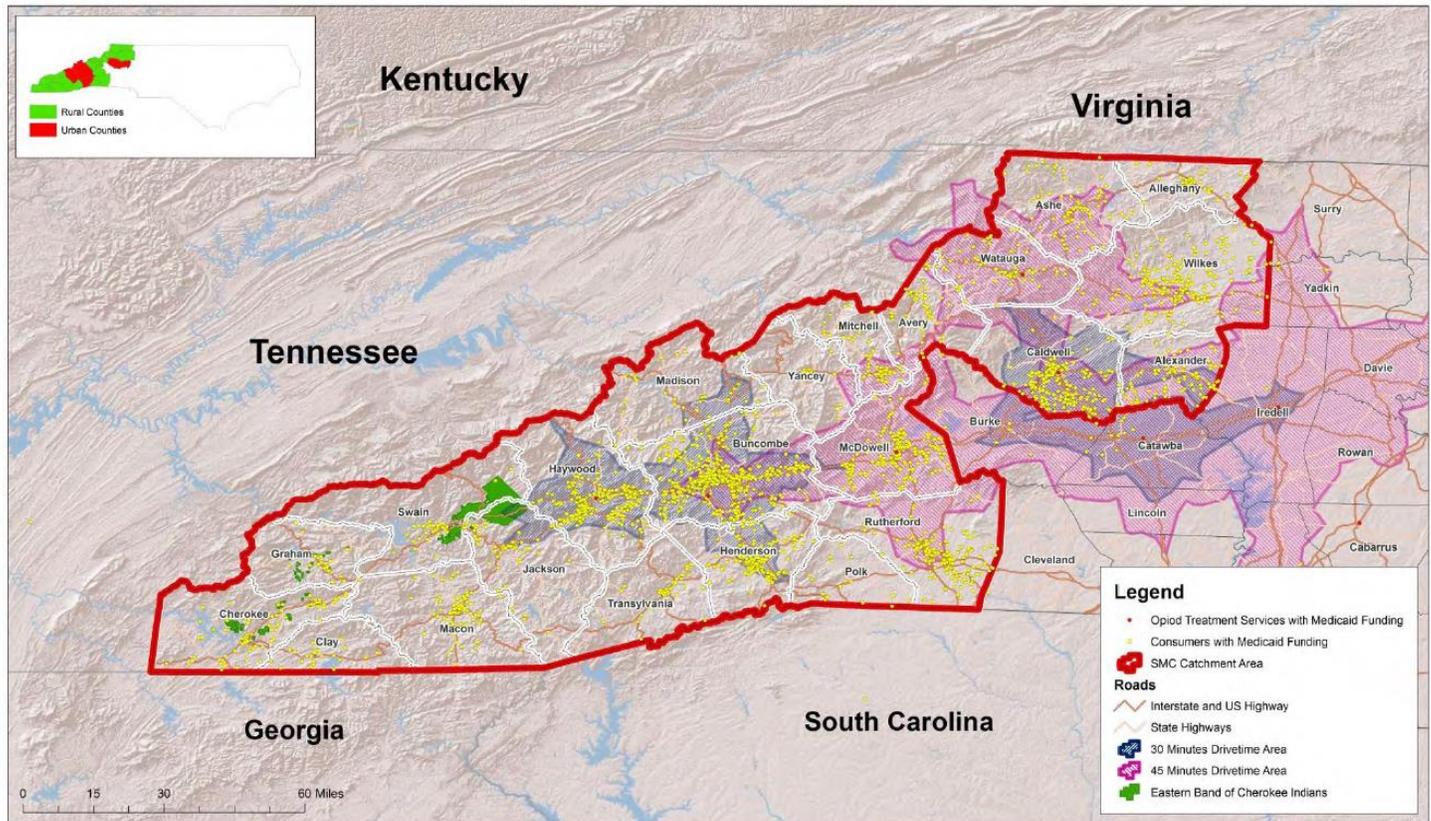
Smoky continues to work on developing and enhancing a recovery-oriented substance use continuum of care that includes the following services, supports and special programs:

- Outpatient and intensive outpatient treatment, detoxification, opioid treatment and suboxone treatment services;

## 2015 Buncombe County Community Health Assessment

- Specialized outpatient programs are available in Buncombe County for women including women who are pregnant or have dependent children; anyone within the Smoky network can access these programs;
- Smoky is contracted with and provides financial support for 4 residential substance abuse programs in our region including programs for men, women, including pregnant women, and adolescents; and
- Smoky is working toward contracting with all maternal/perinatal residential substance abuse programs across the state.

### Smoky Mountain LME/MCO Opioid Treatment Medicaid Funding SFY14



**Project 1300** is a partnership with Smoky Mountain LME, MAHEC, Mission, Buncombe County and Community Care of WNC that links mental health and substance abuse adult clients at Mission Hospital who have no insurance or identified primary care provider with a primary care medical home. This project works to address the acute, medically complex homeless population and link them with needed medical, dental and behavioral health services and homelessness resources.

### Smoky Mountain LME 2015 Priorities

Based on the results of provider and stakeholder surveys and Smoky's knowledge and expertise, Smoky has identified the following priorities for the coming year:

1. Expand existing programs and develop new initiatives designed to increase integrated, whole person care for members with MH/IDD/SU needs and co-occurring medical conditions, with a focus on partnership opportunities with healthcare systems and primary care practices.

2. Continue to develop and enhance the Comprehensive Care Center model to improve access to care for the un- and under- insured, and further the adoption and use of evidence-based practices within the CCCs in order to support models that promote greater quality of care and positive outcomes for members and families.
3. Reduce inappropriate Emergency Department admissions and inpatient lengths of stay through expansion or enhancement of crisis centers in the Western and Northern regions, contingent upon availability of funding.
4. Improve access to culturally competent, trauma-informed clinicians and prescribers:
  - a. Support mechanisms to assist Network Providers with recruitment and retention of professional staff necessary to maintain a full continuum of needed services.
  - b. Support Mountain Area Health Education Center (MAHEC) in its recruitment of psychiatrists and prescribers into the catchment area.
  - c. Expand the use of telemedicine where appropriate and in accordance with DMA policy.
  - d. Identify and contract with bilingual practitioners in counties where Hispanic population exceeds 5%.
5. Improve the Child and Mental Health System of Care and reduce out-of-home placements for children and adolescents, particularly those with co-occurring conditions.
6. In collaboration with local government and other community stakeholders, research and implement pilot projects designed to address transportation, crisis and access issues specific to rural, mountainous areas within the catchment area.

Additional resources include **Addiction, Recovery and Prevention (ARP)**, who provides a continuum of prevention, substance use disorder treatment and mental health programs for those in the recovery process. ARP facilitates The **Partnership for Substance Free Youth in Buncombe County** which is a coalition of K-12 schools, private businesses, non-profit organizations and government agencies in Buncombe County and greater Asheville area that is committed to keeping children away from alcohol and drugs.

There are three prescription drug drop boxes in Buncombe County. They are located in the lobby of the Buncombe County Sheriff's Office at 339 New Leicester Hwy, the lobby of the County Courthouse at 60 Court Plaza, and in the lobby of the Asheville Police Department at 100 Court Plaza.

**Success Overcoming Addiction through Recovery (SOAR) Court** serves to protect children from abuse and neglect through partnerships to help parents and caretakers overcome substance abuse issues and promote safety, well-being and permanence.

## CHAPTER 9 - NEXT STEPS

### Sharing Findings

Community Health Assessment findings were initially shared with the Community Health Improvement Process (CHIP) Advisory and voted on by community health leaders and key partners at the CHIP Advisory Board meeting in October 2015. Once the priorities were determined, data findings and preliminary results were shared with leadership from Buncombe County HHS, Mission Hospital, and MAHEC in December 2015 and January 2016.

The Community Health Assessment will be placed on the websites of Buncombe County HHS, Mission Health and MAHEC. A press release will be sent announcing the new priorities. Presentations sharing the CHA results will be offered and provided to community groups upon request.

### Focusing on Results

Buncombe County is embracing a results-focus that seeks to identify the condition of well-being for children, adults, families and / or communities we hope to improve. By first focusing on population accountability, we determine what target (population) we will impact, what quality of life is desired (result) and if we are doing better (indicator). Then we develop an explanation of the data, or the "story behind the curve" and identify our partners who have a role to play in "turning the curve." This group identifies "what works," or what programs have shown evidence of effectiveness.

### Collaborative Action Planning

Collaborative action planning with hospitals and other community partners will result in the creation of a community-wide community health improvement plan that outlines what will be aligned, supported and/or implemented to address the priority health issues identified through this assessment process. The next step for Buncombe County Community Health Improvement Process is to identify work teams to focus on the results identified: *All children have safe, stable and nurturing relationships and environments to ensure they reach their full potential* and *All ages have the opportunity to eat healthy, be active and better manage disease*. The first result is new and comes from the CDC "Essentials for Childhood: Steps to Create Safe, Stable, Nurturing Relationships and Environments" publication. By using a framework based in leading research in the field, the Community Health Improvement Process will have a good roadmap to outline best practice and evidence based methods. The second result is a continuation from our last CHIP cycle.

The next step is to have "Talk to Action" conversations with community experts around the two results outlined to ask them what we want to see and how we get there.

1. All children have safe, stable nurturing relationships and environments to ensure they reach their full potential.  
Initial Community Indicators: infant mortality rate; % domestic violence calls that rank extremely dangerous; % infants born in withdrawal from narcotics; child maltreatment rate; and % children living in poverty.
2. All ages have the opportunity to eat healthy, be active and better manage disease.  
Initial Community Indicators: child & adult body mass index; % households who are food insecure; % population with diabetes; % population reporting fair or poor health

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## **APPENDICES**

**Appendix A –Data Collection Methods & Limitations**

**Appendix B –Secondary Data Profile for Buncombe County**

**Appendix C – County Maps**

**Appendix D –Survey Results of Residents in Buncombe County**

## Appendix A - Secondary Data from Regional Core Data Set

### Data Collection Methods & Limitations

#### **Secondary Data Methodology**

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

The principal source of secondary health data for this report was the NC State Center for Health Statistics (NC SCHS), including its County Health Data Books, Behavioral Risk Factor Surveillance System, Vital Statistics unit, and Cancer Registry. Other health data sources included: NC Division of Public Health (DPH) Epidemiology Section; NC Division of Mental Health, Developmental Disabilities and Substance Abuse Services; National Center for Health Statistics; NC DPH Nutrition Services Branch; UNC Highway Safety Research Center; and NC DETECT.

Because in any CHA it is instructive to relate local data to similar data in other jurisdictions, throughout this report representative county data is compared to like data describing the 16-county region and the state of NC as a whole. The WNC regional comparison is used as "peer" for the purposes of this assessment. Where appropriate and available, trend data has been used to show changes in indicators over time.

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

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

#### **Data Definitions**

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

#### **Error**

First, readers should note that there is some error associated with every health data source. Surveillance systems for communicable diseases and cancer diagnoses, for instance, rely on reports submitted by health

care facilities across the state and are likely to miss a small number of cases, and mortality statistics are dependent on the primary cause of death listed on death certificates without consideration of co-occurring conditions.

### **Age-adjusting**

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

### **Rates**

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

While rates help make data comparable, it should be noted that small numbers of events tend to yield rates that are highly unstable, since a small change in the raw count may translate to a large change in rate. To overcome rate instability, another convention typically used in the presentation of health statistics is *data aggregation*, which involves combining like data gathered over a multi-year period, usually three or five years. The practice of presenting data that are aggregated avoids the instability typically associated with using highly variable year-by-year data, especially for measures consisting of relatively few cases or events. The calculation is performed by dividing the sum number of cases or deaths in a population due to a particular cause over a period of years by the sum of the population size for each of the years in the same period. Health data for multiple years or multiple aggregate periods is included in this report wherever possible. Sometimes, however, even aggregating data is not sufficient, so the NC SCHS recommends that rates based on fewer than 20 events—whether covering an aggregate period or not—be considered *unstable*. In fact, in some of its data sets the NC SCHS no longer calculates rates based on fewer than 20 events. To be sure that unstable data do not become the basis for local decision-making, this report will highlight and discuss primarily rates based on 20 or more events in a five-year aggregate period, or 10 or more events in a single year. Where exceptions occur, the text will highlight the potential instability of the rate being discussed.

### **Regional arithmetic mean**

Fourthly, sometimes in order to develop a representative regional composite figure from 16 separate county measures, the consultants calculated a *regional arithmetic mean* by summing the available individual county measures and dividing by the number of counties providing those measures. It must be noted that when regional arithmetic means are calculated from *rates*, the mean is not the same as a true average rate but rather

an approximation of it. This is because most rates used in this report are age adjusted, and the regional mean cannot be properly age-adjusted.

### ***Describing difference and change***

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

### **Data limitations**

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

### **Gaps in Available Information**

One area where there are gaps in data include specific maternal risk factors associated with infant deaths. The CHA Data Team is working with the Child Fatality Prevention Team to gather additional data on maternal and infant risk that may help us better track the risk factors associated with infant deaths. This will allow more targeted prevention efforts.

## **WNC Healthy Impact Survey (Primary Data)**

### **Survey Methodology**

#### ***Survey Instrument***

To supplement the secondary core dataset, meet additional stakeholder data needs, and hear from community members about their concerns and priorities, a community survey, *2015 WNC Healthy Impact Survey* (a.k.a. 2015 PRC Community Health Survey), was developed and implemented in 16 counties across western North Carolina. WNC Healthy Impact's data workgroup, consulting team, and local partners, with assistance from Professional Research Consultants, Inc. (PRC), developed the survey instrument. Many of the questions are derived from the Centers for Disease Control and Prevention (CDC) Behavioral Risk Factor Surveillance System

(BRFSS), as well as other public health surveys; other questions were developed specifically for WNC Healthy Impact to address particular issues of interest to communities in western North Carolina. Each county was given the opportunity to include three additional questions of particular interest to their county, which were asked of their county's residents.

**Professional Research Consultants, Inc.**



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

**Sample Approach & Design**

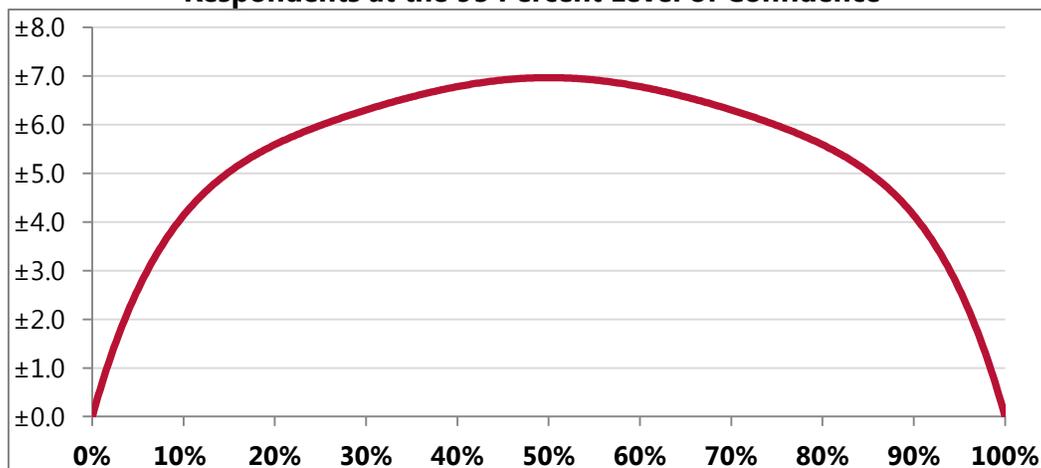
To ensure the best representation of the population surveyed, a telephone interview methodology (one that incorporates both landline and cell phone interviews) was employed. The primary advantages of telephone interviewing are timeliness, efficiency and random-selection capabilities.

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

**Sampling Error**

For our county-level findings, the maximum error rate at the 95% confidence level is  $\pm 6.9\%$ .

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



Note:

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

Examples:

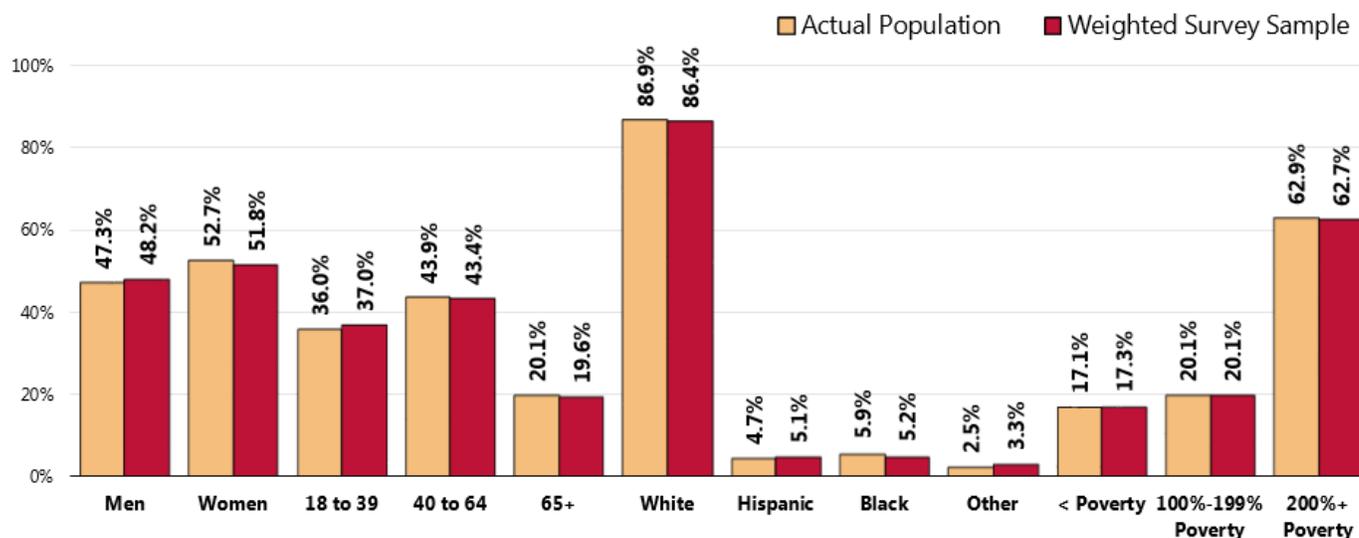
- If 10% of the sample of 200 respondents answered a certain question with a "yes," it can be asserted that between 5.8% and 14.2% ( $10\% \pm 4.2\%$ ) of the total population would offer this response.
- If 50% of respondents said "yes," one could be certain with a 95 percent level of confidence that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

**Sample Characteristics**

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

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

**Population & Sample Characteristics**  
(Buncombe County, 2015)



Sources: • 2015 Census Estimates/Projections. Geolytics, Inc.  
 • 2015 PRC Community Health Survey, Professional Research Consultants, Inc.  
 Notes: • Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., “White” reflects non-Hispanic White respondents).

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

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

## **Benchmark Data**

### ***North Carolina Risk Factor Data***

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

### ***Nationwide Risk Factor Data***

Nationwide risk factor data, which are also provided in comparison charts where available, are taken from the *2013 PRC National Health Survey*; the methodological approach for the national study is identical to that employed in this assessment, and these data may be generalized to the US population with a high degree of confidence.

### ***Healthy People 2020***

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

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



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

## **Survey Administration**

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

### ***Interviewing Protocols and Quality Assurance***

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

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

PRC employs the latest CATI (computer-aided telephone interviewing) system technology in its interviewing facilities. The CATI system automatically generates the daily sample for data collection, retaining each telephone number until the Rules of Replacement are met. Replacement means that no further attempts are made to connect to a particular number, and that a replacement number is drawn from the sample. To retain the randomness of the sample, telephone numbers drawn for the sample are not discarded and replaced except under very specific conditions.

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

### ***Cell Phones***

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

### ***Minimizing Potential Error***

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

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

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

**Measurement Error.** Measurement error occurs when responses to questions are unduly influenced by one or more factors. These may include question wording or order, or the interviewer's tone of voice or objectivity. Using a tested survey instrument minimizes errors associated with the questionnaire. Thorough and specific interviews also reduce possible errors. The automated CATI system is designed to lessen the risk of human error in the coding and data entry of responses.

**Information Gaps**

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

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

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

**2015**  
***Buncombe County***  
***Community Health***  
***Assessment***

***Summary of Secondary Data***

**August 25, 2015**

***Purpose of the***  
***Community Health Assessment***

- Describe the health status of the community.
- Create a report that will serve as a resource for the Buncombe County Health Department, local hospitals, and other community organizations.
- Provide direction for the planning of disease prevention and health promotion services and activities.

## ***Contributing Viewpoints***

<b>Secondary Data</b>	<b>Citizen and Stakeholder Opinion</b>
-Demographic -Socioeconomic -Health -Environmental	-Community health survey

## ***We Take Special Notice When...***

- Buncombe County statistics deviate from North Carolina or regional statistics, or some other “norm”.
- Trend data show significant changes over time.
- There are significant age, gender, or racial disparities.

## ***Definitions and Symbols***

- **Arrows**
  - Arrow up (▲) indicates an increase.
  - Arrow down (▼) indicates a decrease.
- **Color**
  - **Red** indicates a “worse than” or negative difference
  - **Green** indicates a “better than” or positive difference
  - **Blue** indicates a likely unstable rate or difference based on a small number of events; figures in blue should be used with caution.
- **Bold Type**
  - Indicates the higher value of a pair, or the highest value among several.

## ***Data Caveats***

- Data citations presented among these slides are basic and rudimentary. Complete citations are available in the associated WNC Healthy Impact Data Workbook from which this data was derived.
- Most secondary data in this presentation originated from authoritative sources in the public domain (e.g., US Census Bureau, US EPA, NC State Center for Health Statistics).
- All secondary data was mined at a point in time in the past, and may not represent present conditions. Numbers, entity names, program titles, etc. that appear in the data may no longer be current.

# Demographic Data

## General Population Characteristics

- The Buncombe County population has a slightly higher proportion of females than males.
- The median age of the Buncombe County population (40.6 years) is 4.1 years “younger” than WNC regional average but 3.2 years “older” than the NC average.
- Buncombe County has lower proportions of “younger persons” and higher proportions of the “older persons” than NC as a whole.

**General Population Characteristics  
2010 US Census**

County	Total Population (2010)	% Males	% Females	Median Age*	% Under 5 Years Old	% 5-19 Years Old	% 20 - 64 Years Old	% 65 Years and Older
Buncombe	238,318	48.2	51.8	40.6	5.7	17.3	61.1	16.0
WNC (Regional) Total	759,727	48.5	51.5	44.7	n/a	n/a	n/a	n/a
State Total	9,535,483	48.7	51.3	37.4	6.6	20.2	60.2	12.9

Source: US Census Bureau

## **Minority Populations**

- Buncombe County has significantly lower proportions of African Americans, American Indians, Asians and Hispanics than NC as a whole, but slightly higher proportions of African Americans and Hispanics than the WNC Region.

**Population Distribution by Race/Ethnicity  
2010 US Census**

County	Total Population (2010)	White	Black or African American	American Indian, Alaskan Native	Asian	Native Hawaiian, Other Pacific Islander	Some Other Race	Two or More Races	Hispanic or Latino (of any race)
		%	%	%	%	%	%	%	%
Buncombe	238,318	87.4	6.4	0.4	1.0	0.1	2.6	2.1	6.0
WNC (Regional) Total	759,727	89.3	4.2	1.5	0.7	0.1	2.5	1.8	5.4
State Total	9,535,483	68.5	21.5	1.3	2.2	0.1	4.3	2.2	8.4

Source: US Census Bureau

## **Population Growth**

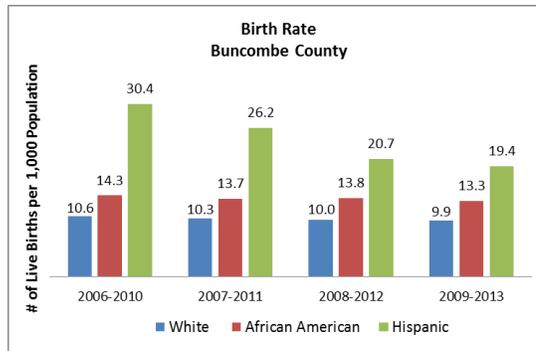
- A double-digit rate of growth in Buncombe County is expected to continue for the next two decades, at nearly twice the pace of growth in WNC and surpassing the pace of growth for NC as a whole.

Percent Population Growth			
Decade	Buncombe County	WNC Region	State of NC
<b>2000-2010</b>	13.4	13.0	<b>15.6</b>
<b>2010-2020</b>	<b>13.4</b>	6.7	10.7
<b>2020-2030</b>	<b>11.3</b>	6.1	9.5

Sources: US Census Bureau and NC Office of State Budget and Management

## Birth Rate

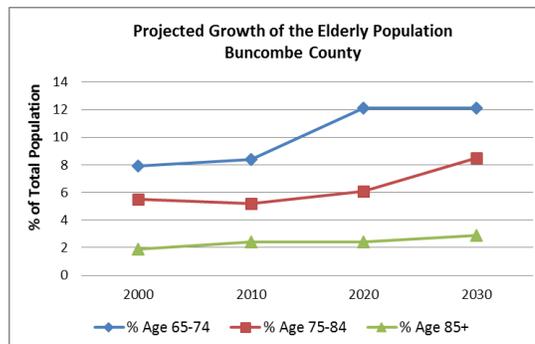
- The birth rate among Hispanics in Buncombe County has been significantly higher than the comparable rate among other racial groups, but birth rates in all population groups in the county appear to be falling.



Source: NC State Center for Health Statistics

## Growth of the Elderly Population

- The proportion of the population in each major age group age 65 and older in Buncombe County will increase between 2010 and 2030.
- The population in the county age 65-74 will grow by 44% between 2010 and 2013; the population ages 75-84 will grow by 63%, and the population over the age of 85 will grow by 21% over the same period
- By 2030 projections estimate there will be more than 70,500 persons age 65+ in Buncombe County.



Sources: US Census Bureau and NC State Office of Budget and Management

## Family Composition

- In the 5-year period from 2009-2013, an estimated 1,916 Buncombe County grandparents living with their minor-aged grandchildren also were financially responsible for them.
- Over the same period there were an estimated 100,838 households in Buncombe County, 23,662 of them with children under 18 years of age.
- *Among the households with minor-age children, 66% were headed by a married couple. An additional 26% were headed by a female single parent, and 8% were headed by a male single parent.*

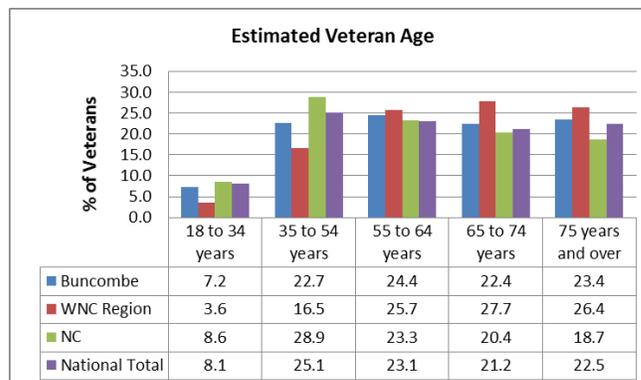
### Minor-Age Children Living with Grandparents and in Single-Parent Households, 2009-2013

County	# Grandparents Living with Own Grandchildren (<18 Years)	Grandparent Responsible for Grandchildren (under 18 years)*		# Total Households	Family Household Headed by Married Couple (with children under 18 years)		Family Household Headed by Male (with children under 18 years)		Family Household Headed by Female (with children under 18 years)	
		Est. #	%		Est. #	%**	Est. #	%**	Est. #	%**
Buncombe	4,183	1,916	45.8	100,838	15,565	15.4	2,015	2.0	6,082	6.0
WNC (Regional) Total	15,007	8,142	54.3	316,799	49,395	15.6	6,133	1.9	17,711	5.6
State Total	206,632	100,422	48.6	3,715,565	706,106	19.0	84,199	2.3	293,665	7.9

Source: US Census Bureau

## Military Veterans

- By 2009-2013 estimates, Buncombe County was home to higher proportions of veterans under the age of 54 and lower proportions of veterans age 55 and older than the WNC region overall.



Source: US Census Bureau

## ***Foreign-Born Population***

- Of the estimated 16,285 foreign-born residents of Buncombe County in the 2009-2013 period, the largest proportion (40.6%) entered the US between 2000 and 2009.
- Of the 6,615 foreign-born residents settling in Buncombe County in that decade, 5,790 (88%) were not US citizens when they arrived.
- Of the estimated 100,838 households in Buncombe County in the 2009-2013 period, 1,936 (2%) were categorized as having limited skill in speaking English.

Source: US Census Bureau

## ***Urban-Rural Population***

- The proportion of Buncombe County categorized as “rural” decreased by 17% between 2000 and 2010. More of Buncombe County is “urban” than is WNC or NC as a whole.

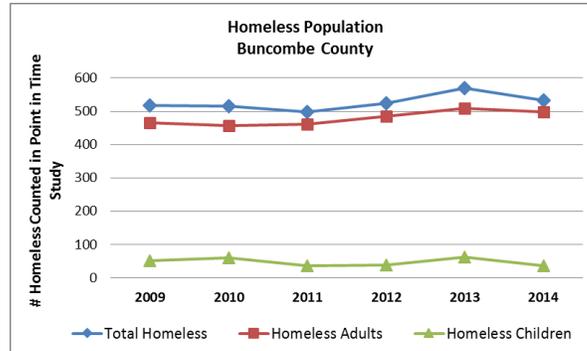
**Urban/Rural Population**

County	2000 Census		2010 Census	
	% Urban	% Rural	% Urban	% Rural
<b>Buncombe County</b>	70.8	29.2	75.9	24.1
<b>WNC Region</b>	41.6	58.4	46.8	53.2
<b>NC</b>	46.7	53.3	66.1	33.9

Source: US Census Bureau

## Homeless Population

- According to an annual point-in-time census of the homeless population Buncombe County, the total number of homeless persons peaked in 2013 but otherwise was nearly the same from 2009 through 2014. Most of the county’s homeless were adults.
- From 2009 through 2014, approximately 13% of the total homeless population was deemed “chronically homeless”.
- From 2010 through 2014, 46% of all homeless adults in Buncombe County were military veterans.



Source: NC Coalition to End Homelessness

## Educational Attainment

- Compared to the **WNC Region average**, Buncombe County has:
  - **18% lower** percentage of persons in the population over age 25 having only a high school diploma or equivalent (2009-2013 Estimate)
  - **59% higher** percentage of persons in the population over age 25 having a Bachelor’s degree or higher (2009-2013 Estimate)
  - **1% lower** overall HS graduation rate in Buncombe County Schools and **3% higher** overall graduation rate in Asheville City Schools (for 4-year cohort of 9<sup>th</sup> graders entering school in SY 2010-2011 and graduating in SY2013-2014 or earlier)

Sources: US Census Bureau and Public Schools of North Carolina

## ***Socioeconomic Data***

### ***Income***

#### **In Buncombe County:**

- 2009-2013 Median Household Income = \$44,713
  - ▲ \$523 since 2006-2010
  - \$5,826 **above** WNC average
  - \$1,621 **below** NC average
- 2009-2013 Median Family Income = \$56,616
  - ▲ \$1,635 since 2006-2010
  - \$8,065 **above** WNC average
  - \$312 **below** NC average

**Household:** all people in a housing unit sharing living arrangements; may or may not be related

**Family:** householder and people living in household related by birth, marriage or adoption.

*All families are also households; not all households are families.*

Source: US Census Bureau

## **Employment**

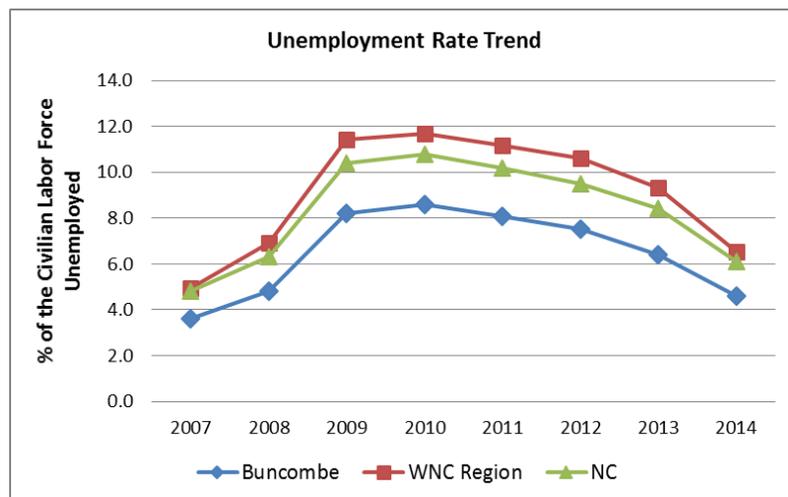
- As of 2013, the three employment sectors in Buncombe County with the largest proportions of workers (and average weekly wages) were:
  - Health Care and Social Assistance: 20.38% of workforce (\$976)
  - Retail Trade: 13.52% of workforce (\$464)
  - Accommodation and Food Service: 13.49% of workforce (\$331)

*Region-wide in 2013 the largest employment sector was Health Care and Social Assistance (18.37%) at an average weekly wage of \$655 per employee. Statewide the largest employment sector also was Health Care and Social Assistance (14.48%) at an average weekly wage of \$859.*

Source: NC Employment Security Commission

## **Annual Unemployment Rate**

- Throughout the period cited the unemployment rate in Buncombe County was significantly lower than the comparable rates for WNC and NC.



Source: NC Department of Commerce

## Poverty

- In Buncombe County, WNC and NC the total poverty rate increased in each period cited.
- The total poverty rate in Buncombe County was lower than the comparable regional rate in each period cited.
- The total poverty rate in Buncombe County was lower than or equal to the NC rate in each period cited.

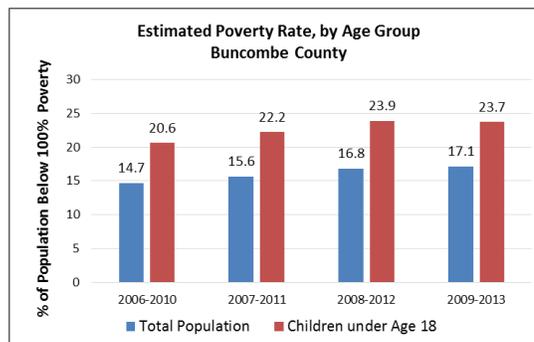
Estimated Poverty Rate

County	Percent Total Population Below 100% Poverty Level			
	2006-2010	2007-2011	2008-2012	2009-2013
Buncombe County	14.7	15.6	16.8	17.1
WNC Region	15.7	16.1	16.9	18.0
State of NC	15.5	16.1	16.8	17.5

Source: US Census Bureau

## Poverty and Age

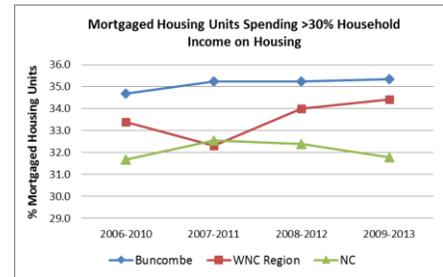
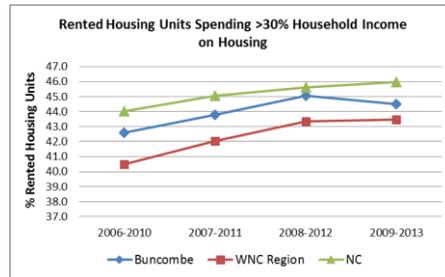
- In Buncombe County, as elsewhere, children suffer disproportionately from poverty.
- In Buncombe County in each period cited the estimated poverty rate among children under age 18 was from 39% to 42% higher than the overall poverty rate.



Source: US Census Bureau

## Housing Cost

- One measure of economic burden in a community is the percent of housing units spending more than 30% of household income on housing.
- In Buncombe County and WNC lower proportions of renters but higher proportions of mortgage holders spend >30% of household income on housing than the NC average.

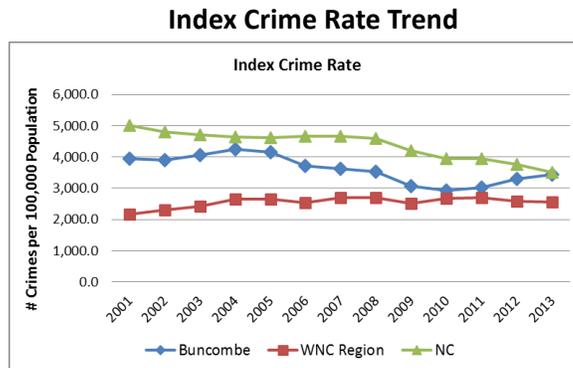


Source: US Census Bureau

## Crime and Safety

### Index Crime

- Index crime is the sum of all violent and property crime. The index crime rate in Buncombe County was lower than the comparable NC average but higher than the WNC average in every year cited.



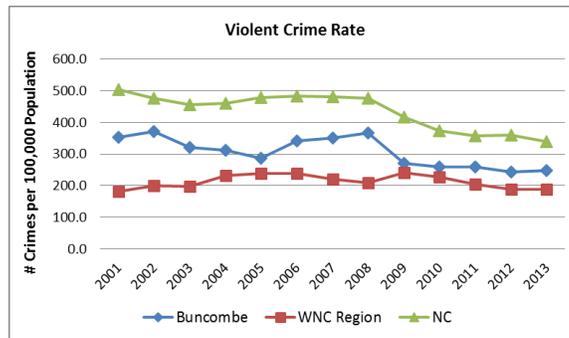
Source: NC Department of Justice

## **Crime and Safety**

### **Violent Crime**

- Violent crime includes murder, forcible rape, robbery, and aggravated assault. The violent crime rate in Buncombe County was lower than the comparable NC average but higher than the WNC average in every year cited.

**Violent Crime Rate Trend**



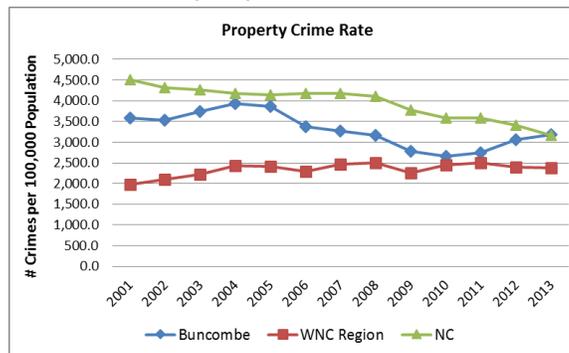
Source: NC Department of Justice

## **Crime and Safety**

### **Property Crime**

- Property crime includes burglary, larceny, arson, and motor vehicle theft. The property crime rate in Buncombe County was lower than the NC average but higher than the WNC average in every year cited except 2013, when the county rate exceeded both the WNC and NC rates.

**Property Crime Rate Trend**



Source: NC Department of Justice

## **Crime and Safety**

### **Sexual Assault**

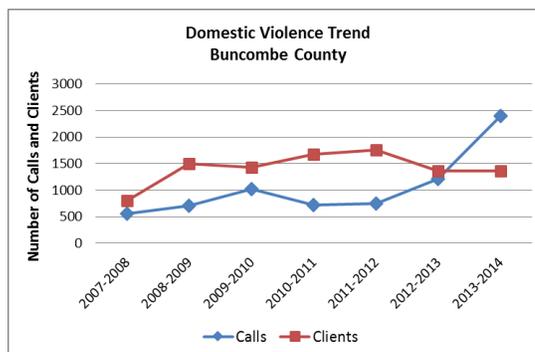
- In FY2013-2014, 329 persons in Buncombe County were identified as victims of sexual assault.
- The most frequently reported specific type of sexual assault in Buncombe County during the period was adult rape (22%). Regionally, the most frequently reported type was adult survivor of child sexual assault (23%); statewide the most frequently reported type was child sexual offense (26%).
- State-wide and region-wide the most commonly reported offender was a relative. In Buncombe County the most common offender was “Unknown”.

Source: NC Department of Administration, Council for Women

## **Crime and Safety**

### **Domestic Violence**

- The number of calls in Buncombe County dealing with domestic violence increased from a low of 566 in 2007-2008 to a high of 2,395 in 2013-2014. The number of clients reporting domestic violence peaked at 1,760 in 2011-2012.
- The domestic violence shelter serving Buncombe County was full on 237 days in FY2013-2014.



Source: NC Department of Administration, Council for Women

## **Crime and Safety**

### **Child Abuse**

- Substantiated reports of child abuse in Buncombe County have decreased significantly since 2006.
- Between 2006 and 2012 there was a total of 5 child abuse homicides in the county, representing 36% of all child abuse homicides in the WNC Region.

**Substantiated Child Abuse Reports and Child Abuse Homicides**

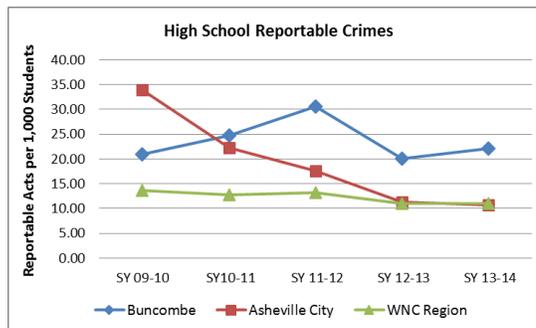
County	Reports Substantiated**					Child Abuse Homicides***						
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010	2011	2012
Buncombe	526	492	477	306	266	1	0	0	0	0	4	0
WNC (Regional) Total	2,273	1,958	1,754	1,449	1,512	4	1	2	1	0	4	2
State Total	20,340	14,966	12,429	11,252	11,300	34	25	33	17	19	24	28

Source: Annie E. Casey Foundation KIDS COUNT Data Center

## **Juvenile Crime**

### **High School Reportable Crime**

- While the regional high school crime rate appeared relatively stable over the period cited, the rate of reportable crimes in Buncombe County Schools was erratic, and the rate in Asheville City Schools decreased dramatically.



Source: Public Schools of North Carolina

## ***Health Resources***

### ***Health Insurance***

- The percent of uninsured adults age 18-64 in Buncombe County, WNC and NC all increased between 2009 and 2010 but have decreased since.
- Throughout the period cited the highest percentages of uninsured in both age groups were noted at the regional level.

**Percent of Population *Without* Health Insurance, by Age Group**

County	2009		2010		2011		2012		2013	
	0-18	18-64	0-18	18-64	0-18	18-64	0-18	18-64	0-18	18-64
<b>Buncombe County</b>	8.1	21.8	8.5	25.0	8.5	24.0	7.9	24.6	6.8	24.4
<b>WNC Region</b>	<b>9.9</b>	<b>24.2</b>	<b>9.7</b>	<b>26.0</b>	<b>9.1</b>	<b>25.2</b>	<b>9.3</b>	<b>25.4</b>	<b>8.6</b>	<b>25.0</b>
<b>State of NC</b>	8.7	21.9	8.3	23.5	7.9	23.0	7.9	23.4	6.9	22.5

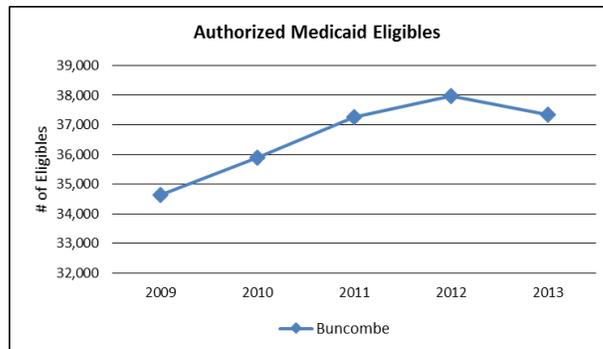
- The age group 0-18 has a significantly lower percentage of uninsured than the adult age group, due at least partly to their inclusion in NC Health Choice.

Source: US Census Bureau

## Medicaid Eligibility

- The total number of people in Buncombe County eligible for Medicaid increased annually from 2009 through 2012 but decreased slightly in 2013.

**Buncombe County Medicaid-Eligibles, 2009-2013**



Source: NC Division of Medical Assistance

## Health Care Practitioners

- In 2012, among the jurisdictions cited Buncombe County had the highest ratio of active health professionals in all five provider categories.
- The WNC region had the lowest ratio among all jurisdictions in all provider categories.

**Number of Active Health Professionals per 10,000 Population**

County	2012				
	Physicians	Primary Care Physicians*	Dentists	Registered Nurses	Pharmacists
Buncombe	36.25	12.10	6.35	179.44	14.58
WNC (Regional) Arithmetic Mean	14.29	6.84	3.61	76.94	7.97
State Total	22.31	7.58	4.51	99.56	10.06
National Ratio (date)	23.0 (2011)	8.1 (2011)	5.3 (2012)	91.6 (2012)	9.1 (2012)

Sources: Cecil G. Sheps Center for Health Services Research, US Census Bureau, and US Bureau of Labor Statistics

## ***Health Statistics***

### ***Health Rankings***

- According to *America's Health Rankings* (2013)
  - NC ranked 35<sup>th</sup> overall out of 50 (where 1 is “best”)
- According to *County Health Rankings* (2014) for NC, Buncombe County was ranked 18<sup>th</sup> overall among the 100 NC counties.
  - Buncombe County ***health outcomes*** rankings out of 100 (where 1 is best):
    - 18<sup>th</sup> in length of life
    - 18<sup>th</sup> for quality of life
  - Buncombe County ***health factors*** rankings out of 100 (where 1 is best):
    - 10<sup>th</sup> for health behaviors
    - 4<sup>th</sup> for clinical care
    - 12<sup>th</sup> for social and economic factors
    - 47<sup>th</sup> for physical environment

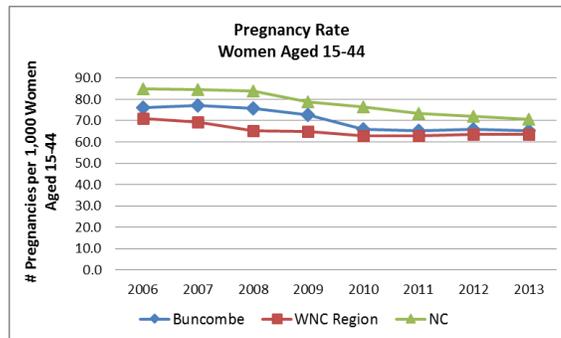
Sources: America's Health Rankings and County Health Rankings and Roadmaps websites

# ***Maternal and Infant Health***

## ***Pregnancy Rate***

### **Pregnancies per 1,000 Women Age 15-44**

- The total pregnancy rates in Buncombe County, WNC and NC have fallen overall since 2006, but appear to have stabilized recently.

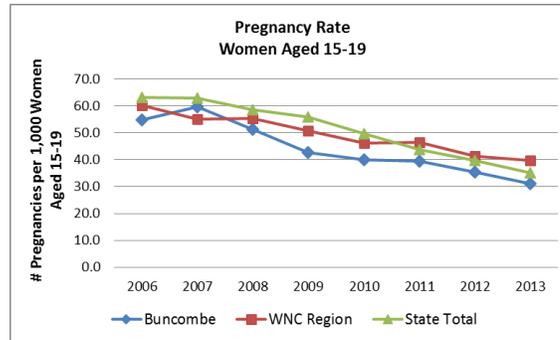


Source: NC State Center for Health Statistics

## Pregnancy Rate

### Pregnancies per 1,000 women Age 15-19 (Teens)

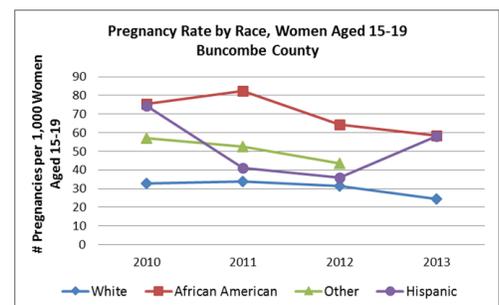
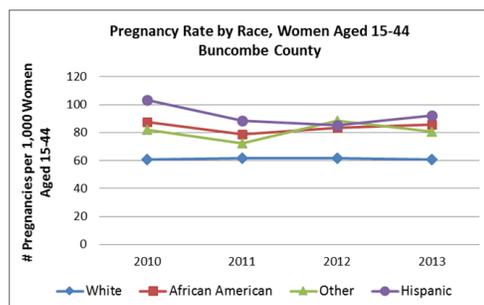
- The teen pregnancy rates in Buncombe County, WNC and NC have fallen significantly since 2006, and appear to be falling still.



Source: NC State Center for Health Statistics

## Pregnancy Rate By Race/Ethnicity

- Among Buncombe County women age 15-44 the highest pregnancy rates appear to occur usually among Hispanics; among teens age 15-19 the highest pregnancy rates in the county appear to occur most frequently among African Americans. Note that pregnancies among American Indians were reported for the first time in 2013 and do not appear on the graphs below.



Source: NC State Center for Health Statistics

## ***Pregnancy Risk Factors***

### ***Smoking During Pregnancy***

- The percentage of Buncombe County women who smoked during pregnancy decreased significantly between 2008 and 2013, while comparable percentages for the region and the state did not change significantly over the same period.

County	Percent of Births to Mothers Who Smoked While Pregnant					
	2008	2009	2010	2011	2012	2013
<b>Buncombe County</b>	10.2	10.1	n/a	4.1	2.8	3.4
<b>WNC Region</b>	<b>20.3</b>	<b>19.1</b>	n/a	<b>20.1</b>	<b>19.2</b>	<b>19.4</b>
<b>State of NC</b>	10.4	11.0	n/a	10.9	10.6	10.3

Source: NC State Center for Health Statistics, Vital Statistics Volume I

## ***Pregnancy Risk Factors***

### ***Prenatal Care***

- The percentage of women in all three jurisdictions who received early prenatal care decreased significantly after 2010.
- Buncombe County had higher percentages of early prenatal care than its comparators in 2008, 2009 and 2013.

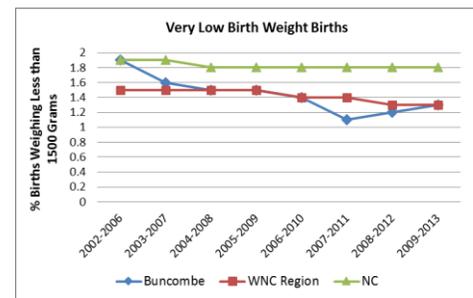
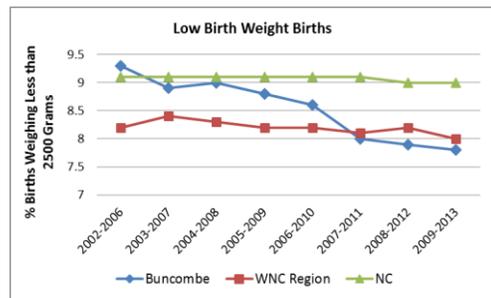
County	Percent of Pregnancies Receiving Prenatal Care in 1 <sup>st</sup> Trimester					
	2008	2009	2010	2011	2012	2013
<b>Buncombe County</b>	<b>96.5</b>	<b>96.6</b>	n/a	72.9	71.9	<b>78.0</b>
<b>WNC Region</b>	84.5	84.0	n/a	<b>75.6</b>	<b>76.5</b>	75.5
<b>State of NC</b>	82.0	83.3	n/a	71.2	71.3	70.3

Source: NC State Center for Health Statistics, Baby Book

## Pregnancy Outcomes

### Low Birth Weight Births

- The percentages of Buncombe County women experiencing low birth-weight (<5.5 lbs.) and very-low birth-weight (<3.3 lbs.) births have decreased since 2002-2006.
- The highest percentages in both weight categories occurred at the state level.



Source: NC State Center for Health Statistics

## Pregnancy Outcomes

### Low Birth Weight Births by Race

- In the period cited a higher percentage of low birth weight births (<5.5 lbs.) occurred among black non-Hispanic women than among white non-Hispanic women in all jurisdictions cited. The lowest percentages of low birth weight births occurred among Hispanic women.

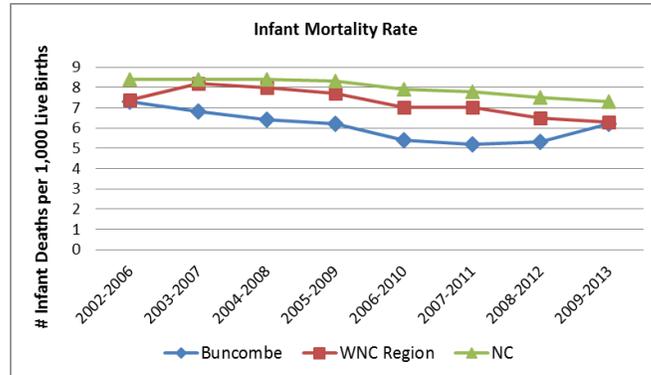
**Percent of Pregnancies Resulting in Low Birth Weight Birth, Women 15-44  
2009-2013**

County	Non-Hispanic			Hispanic
	White	Black	Other	
Buncombe County	7.3	15.3	8.3	6.3
WNC Region	8.4	8.8	12.2	5.0
State of NC	7.6	14.1	9.3	6.5

Source: NC State Center for Health Statistics

## ***Pregnancy Outcomes Infant Mortality***

- The overall infant mortality rate in Buncombe County fell after 2002-2006 before stabilizing and then rising again in 2009-2013. Except for the most recent period reported, infant mortality was lower in Buncombe County than in either WNC or NC.



Source: NC State Center for Health Statistics

## ***Pregnancy Outcomes Infant Mortality by Race***

- Although there are significant minority populations in Buncombe County, except for whites all racially and ethnically stratified infant mortality rates were unstable between 2002-2006 and 2008-2012.

Source: NC State Center for Health Statistics

## ***Abortion***

- **Women Age 15-44**
  - The percentage of pregnancies per 1,000 Buncombe County women in this age group that ended in abortion fell overall from 13.5 in 2006 to 9.3 in 2013.
- **Women Age 15-19 (Teens)**
  - The percentage of pregnancies per 1,000 Buncombe County women in this age group that ended in abortion fell overall from 12.0 in 2006 to 6.7 in 2013.

Source: NC State Center for Health Statistics

## ***Mortality***

## Life Expectancy

- For persons born in 2011-2013, life expectancies among comparator jurisdictions are longest overall and among men, women, and white persons in Buncombe County. Life expectancy for African Americans is longest in NC.

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

County	Overall	Sex		Race	
		Male	Female	White	African-American
Buncombe	79.2	76.6	81.7	79.5	74.4
WNC (Regional) Arithmetic Mean	77.7	75.3	80.2	77.9	75.2
State Total	78.2	75.7	80.6	78.8	75.9

Source: NC State Center for Health Statistics

## Leading Causes of Death: Overall

Age-Adjusted Rates (2009-2013)	Buncombe No. of Deaths	Buncombe Mortality Rate	Rate Difference from NC
1. Total Cancer	2,579	163.2	-5.8%
2. Diseases of the Heart	2,512	154.8	-8.9%
3. Chronic Lower Respiratory Disease	784	49.3	+6.9%
4. Cerebrovascular Disease	645	39.1	-10.5%
5. All Other Unintentional Injuries	463	31.5	+7.5%
6. Alzheimer's Disease	502	29.2	+1.0%
7. Suicide	221	16.8	+37.7%
8. Pneumonia and Influenza	248	15.1	-15.6%
9. Nephritis, Nephrotic Syndrome, Nephrosis	247	15.1	-14.2%
10. Diabetes Mellitus	212	13.3	-38.7%
11. Unintentional Motor Vehicle Injuries	158	12.7	-7.3%
12. Chronic Liver Disease and Cirrhosis	154	10.2	+7.4%
13. Septicemia	110	7.2	-45.9%
14. Homicide	49	4.3	-25.9%
15. AIDS	22	1.6	-44.8%

Source: NC State Center for Health Statistics

## Leading Causes of Death: Gender Comparison

Buncombe County Rank by Descending Overall Age-Adjusted Rate (2009-2013)	Rate Among Males	Rate Among Females	% Male Rate Difference from Females
1. Total Cancer	200.8	137.8	<b>+45.7%</b>
2. Diseases of the Heart	201.4	119.7	<b>+68.3%</b>
3. Chronic Lower Respiratory Disease	50.6	49.2	<b>+2.8%</b>
4. Cerebrovascular Disease	39.1	38.3	<b>+2.1%</b>
5. All Other Unintentional Injuries	40.2	23.6	<b>+70.3%</b>
6. Alzheimer's Disease	22.1	33.5	<b>-34.0%</b>
7. Suicide	26.2	8.6	<b>3.0X</b>
8. Pneumonia and Influenza	18.5	13.0	<b>+42.3%</b>
9. Nephritis, Nephrotic Syndrome, Nephrosis	18.5	13.3	<b>+39.1%</b>
10. Diabetes Mellitus	16.8	10.1	<b>+66.3%</b>
11. Unintentional Motor Vehicle Injuries	17.8	8.2	<b>2.2X</b>
12. Chronic Liver Disease and Cirrhosis	15.1	5.6	<b>2.7X</b>
13. Septicemia	8.3	6.4	<b>+29.7%</b>
14. Homicide	5.4	n/a	<b>n/a</b>
15. AIDS	n/a	n/a	<b>n/a</b>

Source: Sheila Pfaender, Public Health Consultant; based on data from NC State Center for Health Statistics

## Leading Causes of Death: Race Comparison

Buncombe County Rank by Descending Overall Age-Adjusted Rate (2009-2013)	Rate Among non-Hispanic Whites	Rate Among non-Hispanic Blacks	% Black Rate Difference from White Rate
1. Total Cancer	162.6	260.4	<b>+60.1%</b>
2. Diseases of the Heart	153.5	230.4	<b>+50.1%</b>
3. Chronic Lower Respiratory Disease	51.6	25.9	<b>-49.8%</b>
4. Cerebrovascular Disease	38.8	54.7	<b>+41.0%</b>
5. All Other Unintentional Injuries	32.8	27.3	<b>-16.7%</b>
6. Alzheimer's Disease	29.8	n/a	<b>n/a</b>
7. Suicide	18.5	n/a	<b>n/a</b>
8. Pneumonia and Influenza	15.2	n/a	<b>n/a</b>
9. Nephritis, Nephrotic Syndrome, Nephrosis	13.6	46.8	<b>3.4X</b>
10. Diabetes Mellitus	12.2	35.4	<b>2.9X</b>
11. Unintentional Motor Vehicle Injuries	12.2	n/a	<b>n/a</b>
12. Chronic Liver Disease and Cirrhosis	10.4	n/a	<b>n/a</b>
13. Septicemia	7.2	n/a	<b>n/a</b>
14. Homicide	3.7	n/a	<b>n/a</b>
15. AIDS	n/a	n/a	<b>n/a</b>

Source: NC State Center for Health Statistics

## ***Leading Causes of Death: Time Comparison***

Buncombe County Rank by Descending Overall Age-Adjusted Rate (2009-2013)	Rank 2006-2010	Rank Change 2006-2010 to 2009-2013	% Rate Change 2006-2010 to 2009-2013
1. Total Cancer	1	n/c	<b>-7.4%</b>
2. Diseases of the Heart	2	n/c	<b>-9.7%</b>
3. Chronic Lower Respiratory Disease	3	n/c	<b>-6.8%</b>
4. Cerebrovascular Disease	4	n/c	<b>-12.9%</b>
5. All Other Unintentional Injuries	6	+1	<b>+10.5%</b>
6. Alzheimer's Disease	5	-1	<b>-7.0%</b>
7. Suicide	9	+2	<b>+14.3%</b>
8. Pneumonia and Influenza	8	n/c	<b>-5.0%</b>
9. Nephritis, Nephrotic Syndrome, Nephrosis	7	-2	<b>-13.7%</b>
10. Diabetes Mellitus	11	+1	<b>+7.3%</b>
11. Unintentional Motor Vehicle Injuries	10	-1	<b>-0.8%</b>
12. Chronic Liver Disease and Cirrhosis	12	n/c	<b>-8.9%</b>
13. Septicemia	13	n/c	<b>-7.7%</b>
14. Homicide	14	n/c	<b>+10.3%</b>
15. AIDS	15	n/c	<b>-30.4%</b>

Source: Sheila Pfaender, Public Health Consultant; based on data from NC State Center for Health Statistics

## ***Leading Causes of Death – By Age***

Age Group	Rank	Cause of Death in Buncombe County (2009-2013)
00-19	1	Conditions originating in the perinatal period
	2	Motor vehicle injuries
	3	Congenital anomalies (birth defects)
20-39	1	All other unintentional injuries
	2	Suicide
	3	Motor vehicle injuries
40-64	1	Cancer (all sites)
	2	Diseases of the heart
	3	Chronic lower respiratory disease
65-84	1	Cancer (all sites)
	2	Diseases of the heart
	3	Chronic lower respiratory disease
85+	1	Diseases of the heart
	2	Cancer (all sites)
	3	Alzheimer's disease

Source: NC State Center for Health Statistics

## ***Mortality Trends, 2002-2006 to 2009-2013***

Leading Cause of Death in Buncombe County	Overall Trend Direction
1. Total Cancer	▼
2. Diseases of the Heart	▼
3. Chronic Lower Respiratory Disease	▼
4. Cerebrovascular Disease	▼
5. All Other Unintentional Injuries	n/c
6. Alzheimer's Disease	▼
7. Suicide	▲
8. Pneumonia and Influenza	▼
9. Nephritis, Nephrotic Syndrome, Nephrosis	▼
10. Diabetes Mellitus	▼
11. Unintentional Motor Vehicle Injuries	n/c
12. Chronic Liver Disease and Cirrhosis	▲
13. Septicemia	▼
14. Homicide	▼
15. AIDS	▼

Source: Sheila Pfaender, Public Health Consultant; based on data from NC State Center for Health Statistics

## ***Site-Specific Cancer Trends Buncombe County***

***Incidence: 1999-2003 to 2008-2012***

***Mortality: 2002-2006 to 2009-2013***

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

Source: Sheila Pfaender, Public Health Consultant; based on data from NC State Center for Health Statistics

## ***Injury Mortality Unintentional Falls***

- From 2011 through 2013, 165 Buncombe County residents died as a result of an unintentional fall.
- Of the 165 fall-related deaths, 148 (90%) occurred in the population age 65 and older.
- Of the 165 fall-related deaths, 101 (61%) occurred in the population age 85 and older.

Source: NC State Center for Health Statistics

## ***Injury Mortality Unintentional Poisoning***

- In the period 2009-2013, 103 Buncombe County residents died as a result of unintentional poisoning, with a corresponding age-adjusted mortality rate of 8.6 deaths per 100,000 population, lower than the WNC or NC average rates.
- Of the 103 unintentional poisoning deaths in the county in that period, 90 (87%) were due to medication or drug overdoses, with a corresponding mortality rate of 7.5, lower than the average WNC or NC rates.

County	Unintentional Poisoning Deaths for Select Locations and Percent that are Medication/Drug Overdoses (2009-2013)*			Rate of Unintentional Medication/Drug Overdose Deaths (2009-2013)**	
	#	Rate per 100,000 NC Residents	% that are Medication/Drug Overdoses	#	Rate per 100,000 NC Residents
Buncombe	103	8.6	87.4	90	7.5
WNC (Regional) Total	560	14.8	90.0	506	13.3
Non-WNC (Regional) Total	4,749	10.7	91.0	4320	9.7
State Total	5,309	11.0	90.9	4826	10.0

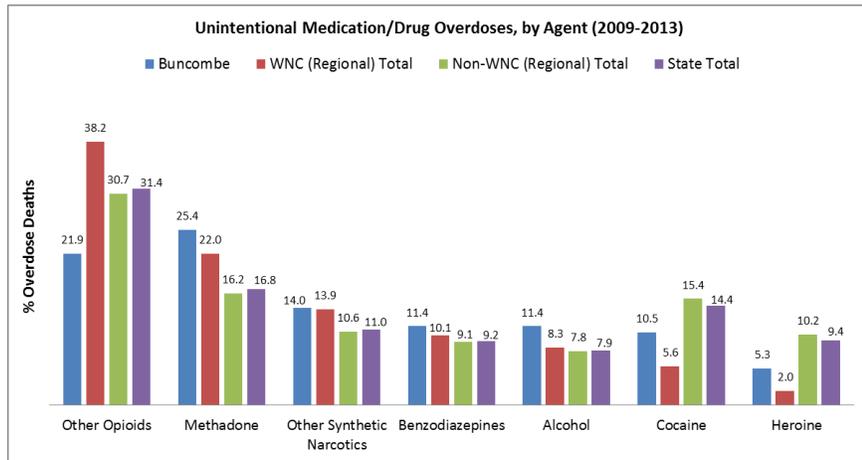
- \* Codes Used: cdeath1 = X40-X49
- \*\* Codes Used: cdeath1 = X40-X44

Sources: NC State Center for Health Statistics and NC DPH, Chronic Disease and Injury Section, Injury and Violence Prevention Branch

## ***Injury Mortality***

### ***Unintentional Medication/Drug Overdoses***

- Methadone caused the highest proportion of drug overdose deaths (25.4%) in Buncombe County in the period 2009-2013.

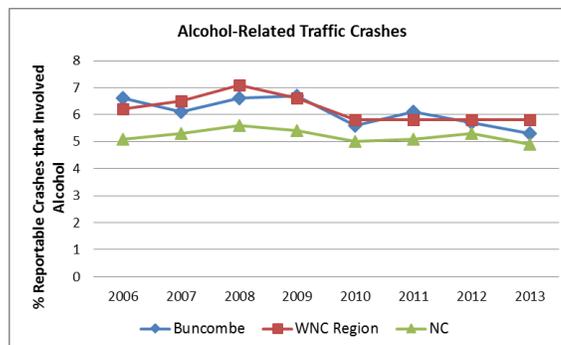


Source: NC DPH, Chronic Disease and Injury Section, Injury and Violence Prevention Branch

## ***Vehicular Injury***

### ***Alcohol-Related Motor Vehicle Crashes***

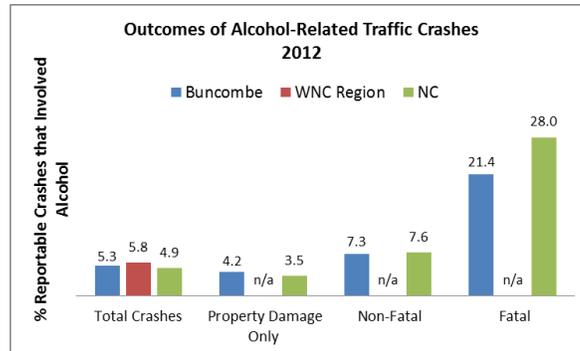
- Over the period 2006 through 2013 an annual average of 6.1% of all traffic crashes in Buncombe County were alcohol-related. Region-wide the comparable figure was 6.2%.



Source: NC Highway Safety Research Center

## ***Vehicular Injury Mortality*** ***Alcohol-Related Motor Vehicle Crashes***

- In 2012, 21.4% of all *fatal* traffic crashes in Buncombe County were alcohol-related.

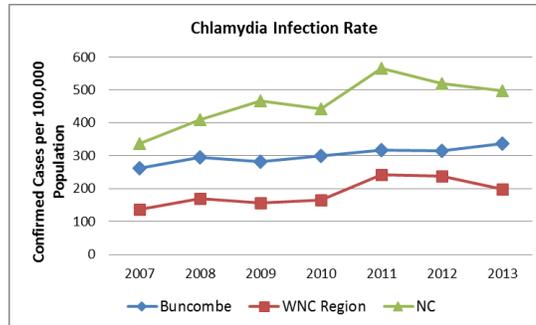


Source: NC Highway Safety Research Center

## ***Morbidity***

## ***Sexually Transmitted Infections*** ***Chlamydia***

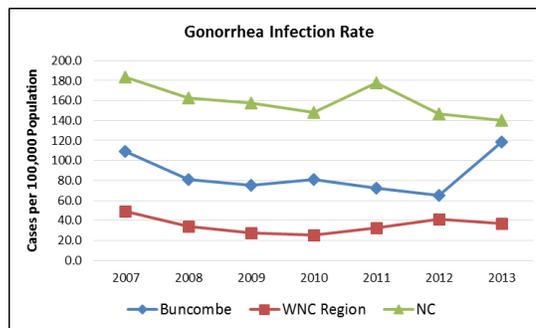
- The chlamydia infection rate in Buncombe County, which has risen lately, was higher than the regional rate but lower than the NC rate throughout the period cited.



Source: NC DPH, Communicable Disease Branch, Epidemiology Section

## ***Sexually Transmitted Infections*** ***Gonorrhea***

- The gonorrhea infection rate in Buncombe County, which has risen sharply lately, was higher than the regional rate but lower than the NC rate throughout the period cited.



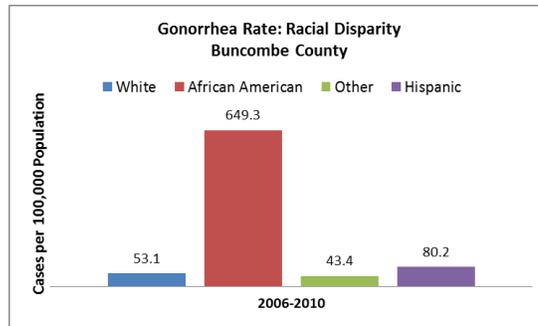
Source: NC DPH, Communicable Disease Branch, Epidemiology Section

## Sexually Transmitted Infections

### Gonorrhea

#### by Race

- In the period 2006-2010, the gonorrhea infection rate among African Americans in Buncombe County was 11 times the combined average rate (58.9) for the other racial groups shown.

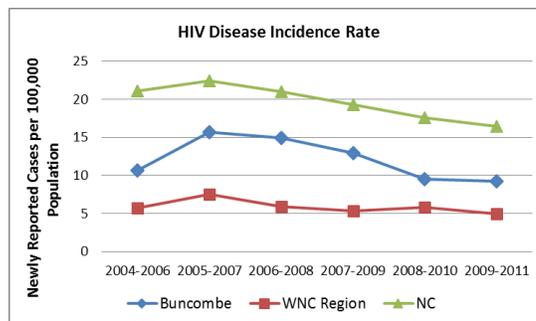


Source: NC DPH, Communicable Disease Branch, Epidemiology Section

## Sexually Transmitted Infections

### HIV

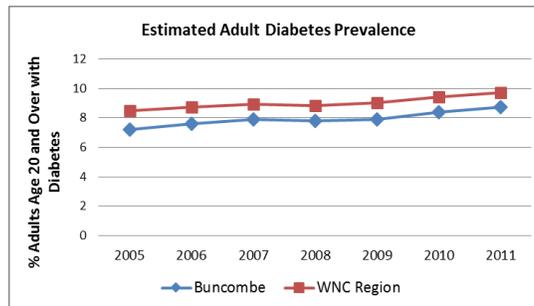
- The HIV incidence rate has been decreasing statewide and in Buncombe County since 2005-2007. The rate in the WNC region has remained lowest, and changed little over the period cited.



Source: NC DPH, Communicable Disease Branch, Epidemiology Section

## Adult Diabetes

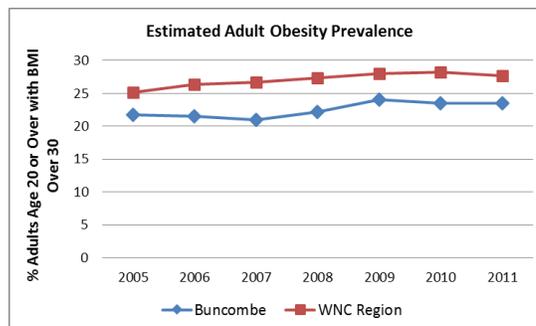
- The average prevalence of self-reported among Buncombe County adults with diabetes was 7.9% in the period from 2005 - 2011.
- Over the same period the WNC average was 9.0%.
- Prevalence of self-reported adult diabetes has been rising over time in both jurisdictions.



Source: Centers for Disease Control and Prevention, via BRFSS

## Adult Obesity

- The average self-reported prevalence of Buncombe County adults considered “obese” on the basis of height and weight (BMI > 30) was 22.5% in the period from 2005 - 2011.
- Over the same period the WNC average was 27.1%.



Source: Centers for Disease Control and Prevention, via BRFSS

## **Child Obesity** **Ages 2-4**

- There is limited data on the prevalence of childhood obesity in Buncombe County.
- The NC-NPASS data presented below and in the next two slides covers only children seen in health department WIC and child health clinics and certain other facilities and programs.
- According to NC-NPASS data for 2010, 16.9% of the participating children in Buncombe County age 2-4 were deemed “overweight”, and an additional 14.0% were deemed obese”.

### **Prevalence of Underweight, Healthy Weight, Overweight and Obese Children** **Ages 2-4, 2010**

County	Total	Under weight		Healthy Weight		Overweight		Obese	
		<5th Percentile		≥5th to <85th Percentile		≥85th to <95th Percentile		≥95th Percentile	
	#	#	%	#	%	#	%	#	%
Buncombe	1,534	61	4.0	999	65.1	259	16.9	215	14.0
WNC (Regional) Total	6,814	316	-	4,410	-	1,139	-	949	-
WNC (Regional) Arithmetic Mean	426	20	4.8	276	64.5	71	17.2	59	13.6
State Total	105,410	4,935	4.7	66,975	63.5	17,022	16.1	16,478	15.6

Source: NC NPASS

## **Child Obesity** **Ages 5-11**

- According to NC-NPASS data for 2010, 19.0% of the participating children in Buncombe County age 5-11 were deemed “overweight”, and an additional 25.8% were deemed “obese”.

### **Prevalence of Underweight, Healthy Weight, Overweight and Obese Children** **Ages 5-11, 2010**

County	Total	Underweight		Healthy Weight		Overweight		Obese	
		<5th Percentile		≥5th to <85th Percentile		≥85th to <95th Percentile		≥95th Percentile	
	#	#	%	#	%	#	%	#	%
Buncombe	714	10	1.4	384	53.8	136	19.0	184	25.8
WNC (Regional) Total	1,243	26	-	721	-	208	-	288	-
WNC (Regional) Arithmetic Mean	78	2	2.9	45	63.4	13	14.3	18	19.4
State Total	12,633	353	2.8	6,859	54.3	2,157	17.1	3,264	25.8

Source: NC NPASS

## **Child Obesity Ages 12-18**

- According to NC-NPASS data for 2010, 17.7% of the participating children in Buncombe County age 12-18 were deemed “overweight”, and an additional 26.7% were deemed “obese”.

### **Prevalence of Underweight, Healthy Weight, Overweight and Obese Children Ages 12-18, 2010**

County	Total	Underweight		Healthy Weight		Overweight		Obese	
		<5th Percentile		≥5th to <85th Percentile		≥85th to <95th Percentile		≥95th Percentile	
		#	%	#	%	#	%	#	%
Buncombe	903	8	0.9	494	54.7	160	17.7	241	26.7
WNC (Regional) Total	1,348	13	-	729	-	245	-	361	-
WNC (Regional) Arithmetic Mean	84	1	1.0	46	56.3	15	19.0	23	23.8
State Total	6,854	133	1.9	3,560	51.9	1,241	18.1	1,920	28.0

Source: NC NPASS

## **Mental Health**

- Between 2006 and 2013, the number of Buncombe County residents served by the **Area Mental Health Program** *increased* from 8,337 to 10,784 (▲ 29%).
- Over the same 8-year period the number of Buncombe County residents served in **State Psychiatric Hospitals** *decreased* from 644 to 8 (▼ 99%).
- During the same 8-year period from 2006 through 2013, a total of **3,254** Buncombe County residents were served in **NC State Alcohol and Drug Abuse Treatment Centers (ADATCs)**, with the number varying considerably but averaging **407** persons annually.

Source: NC Office of State Budget and Management, State Data Center, Log Into North Carolina (LINC)

## ***Inpatient Hospital Utilization***

- In 2012 the highest proportions of hospital discharges in Buncombe County were for:
  - Cardiovascular and circulatory diseases : 14%
    - Heart disease: 10%
    - Cerebrovascular disease: 2%
  - “Other” diagnoses (including mental disorders): 13%
  - Pregnancy and childbirth: 12%
  - Digestive system diseases: 10%
  - Respiratory diseases: 10%
    - Pneumonia and influenza: 3%
    - COPD (excluding asthma): 2%
    - Asthma: 0.9%

Source: NC State Center for Health Statistics

## ***Ambulatory Care Sensitive Condition Hospital Discharge Rates, 2013 (AHRQ PQI Definitions; Discharges per 100,000 Population)***

Diagnosis	Buncombe	NC
All specified PQI (Prevention Quality Indicator) conditions	1,246.7	1,438.5
All chronic conditions	720.8	906.0
Diabetes: short-term complications	83.9	94.4
Diabetes: long-term complications	93.9	113.0
Diabetes: uncontrolled	7.5	13.7
Diabetes: amputations	8.5	19.1
COPD/Asthma: ages 40+	357.4	413.5
Asthma: ages 18-39	31.1	40.1
Hypertension	27.1	54.9
Heart failure	259.2	339.6
Angina	3.5	9.7
Pneumonia	266.2	267.5
Urinary tract infection	161.7	155.0
Dehydration	97.9	109.9
Appendix perforation/abscess	470.6	433.2
Acute care discharges	525.9	532.5

Source: NC State Center for Health Statistics (Special Report)

## ***Environment***

### ***Air Quality***

- **Air Quality Index (AQI) Summary, Buncombe County, 2014**

- **AQI Measurements (181 days)**

- 158 days with “good” air quality
- 23 days with “moderate” air quality
- Ozone (O<sub>3</sub>) was present at the level of “pollutant” on 33 of 181 monitored days.
- Small particulate matter (PM<sub>2.5</sub>) was present at the level of “pollutant” on 148 of 181 monitored days.

Source: US Environmental Protection Agency Air Quality Index Reports

## ***Air Quality***

- **Toxic Release Inventory (TRI), Buncombe County, 2013**

- **TRI Releases**

- Buncombe County ranked 9<sup>th</sup> highest among the 86 NC counties reporting TRI releases.
- 2.009 million pounds of TRI releases were reported for Buncombe County. (For comparison, New Hanover County had the highest level of releases in the state: 5.2 million pounds.)
- One power generating facility (Duke Energy's Asheville Steam Electric Plant in Arden) was responsible for the largest volumes of six of the seven TRI chemicals/ chemical compounds released in the highest amounts in Buncombe County in 2013.
- In 2013 the Duke Energy Arden facility released 1.8 million pounds of TRI chemicals, 89% of the total TRI releases in Buncombe County that year.

Source: US Environmental Protection Agency TRI Explorer Release Reports

## ***Air Quality***

- **Radon**

- Western North Carolina has the highest radon levels in the state.
- The arithmetic mean indoor radon level for the 16 counties of the WNC region is 4.1 pCi/L, **3.2 times** the average national indoor radon level of 1.3 pCi/L.
- In Buncombe County, the current average indoor radon level is 3.5 pCi/L, **18% lower** than the regional mean, but **2.7 times** the average national level.

Source: North Carolina Radon Information

## ***Water Quality***

### **• Buncombe County Drinking Water Systems February, 2014**

#### **– Community Water Systems**

- Include municipalities, subdivisions and mobile home parks
- Community water systems in Buncombe County serve an estimated 153,551 people, or 64% of the 2010 county population.
- The fraction of the Buncombe County population served by a community water system is 17% **higher** than the average for the WNC region and NC as a whole.

Sources: US Census Bureau and US Environmental Protection Agency Safe Drinking Water Information System (SDWIS)

## ***Water Quality***

### **• National Pollutant Discharge Elimination System (NPDES) Permits in Buncombe County (2015)**

- There are at present 36 permits issued in Buncombe County that allow municipal, domestic, or commercial facilities to discharge products of water/wastewater treatment and manufacturing into waterways.
  - 4 are water treatment plants
  - 2 are industrial/commercial enterprises
  - 1 is a groundwater remediation facility
  - 1 is a municipal water reclamation facility
  - 28 are domestic wastewater producers

Sources: NC DENR, Division of Water Resources

## ***Solid Waste***

- **Solid Waste Disposal Rates**

- 2013-14 Per-Capita Disposal Rate

- Buncombe County = 0.95 tons (▲ 6% since 1991-1992)
    - NC = 0.93 tons (▼ 13% since 1991-1992)

- **Landfill Capacity**

- Buncombe County’s municipal solid waste and construction and demolition waste are landfilled at the county Solid Waste Management Facility.
  - At current disposal rates, the municipal solid waste landfill unit has approximately 27 years of remaining capacity; the construction and demolition landfill unit has 52 years of remaining capacity.

Source: NC DENR, Division of Waste Management, Solid Waste Management Annual Reports

## ***Rabies***

- The most common animal host for rabies in Buncombe County is raccoons, the same as for the WNC region and NC as a whole.
- Rabies cases in Buncombe County accounted for 19% of all cases in the WNC region over the period cited.

**Animal Rabies Cases, 2010 through 2014**

County	Number of Cases					Total	Most Common Host
	2010	2011	2012	2013	2014		
Buncombe	4	5	1	4	1	15	Raccoon (8/15)
WNC (Regional) Total	14	20	19	17	8	78	Raccoon (40/78)
State Total	397	429	431	380	352	1,989	Raccoon (1010/1989)

Source: NC Division of Public Health, Epidemiology Section, Communicable Disease Branch, Rabies Facts and Figures

# Buncombe County Maps

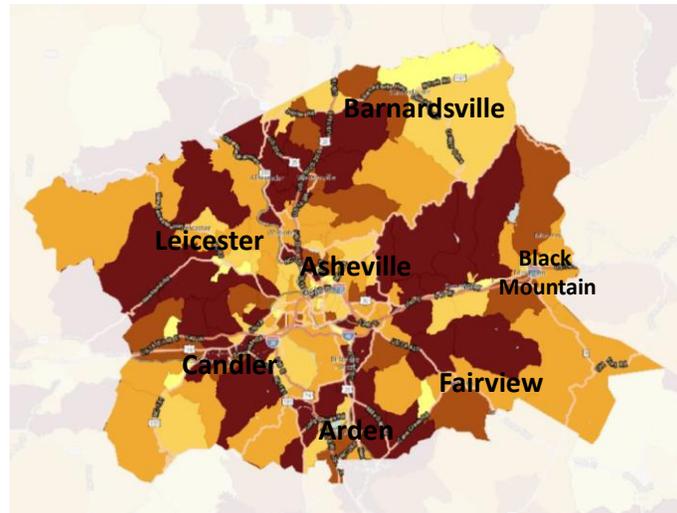
Community Health Assessment

2015

## Maps are one piece of the data puzzle

- Maps can be misleading and are best used to highlight which communities to investigate further.
  - Reliability of data decreases as it is cut into smaller and smaller pieces. Therefore, maps of census tract data have greater margins of error than county statistics.
- Maps should be supported by talking with community members or service providers specific to the community of interest to learn more about the community's needs and opportunities.

## Total Population of Buncombe County



Total Population, Total by Block Group, US Census 2010

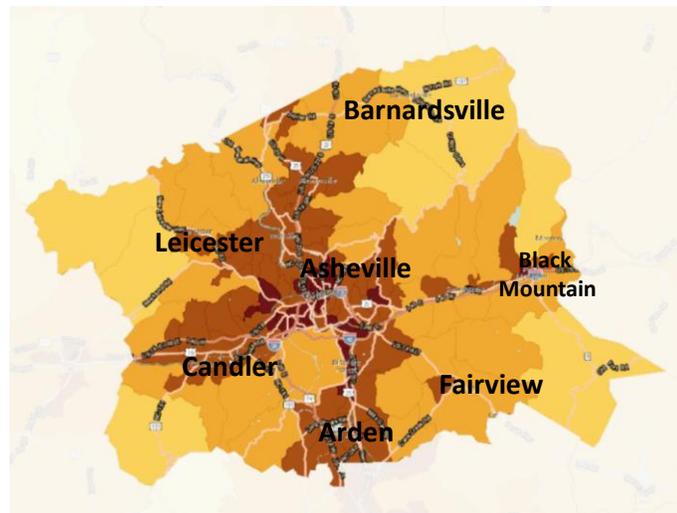
- Over 2,000
- 1,601 - 2,000
- 1,201 - 1,600
- 801 - 1,200
- Under 801

Source: US Census 2010

Geographic Unit: Block Group

Map produced with Community Commons

## Population Density of Buncombe County



Total Population, Density (Persons per Sq Mile) by Block Group, US Census 2010

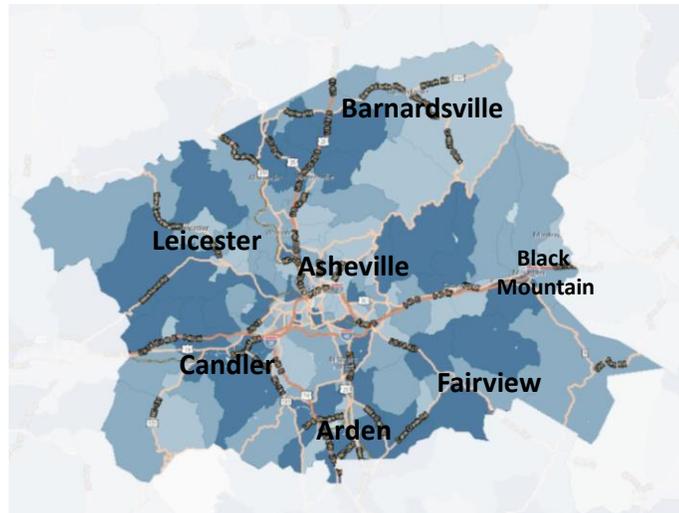
- Over 2,000
- 400.1 - 2000
- 100.1 - 400.0
- 20.1 - 100.0
- Under 20.1

Source: US Census 2010

Geographic Unit: Block Group

Map produced with Community Commons

### Population of Children (Age 0-17) in Buncombe County



Population Age 0-17, Total by Block Group,  
US Census 2010

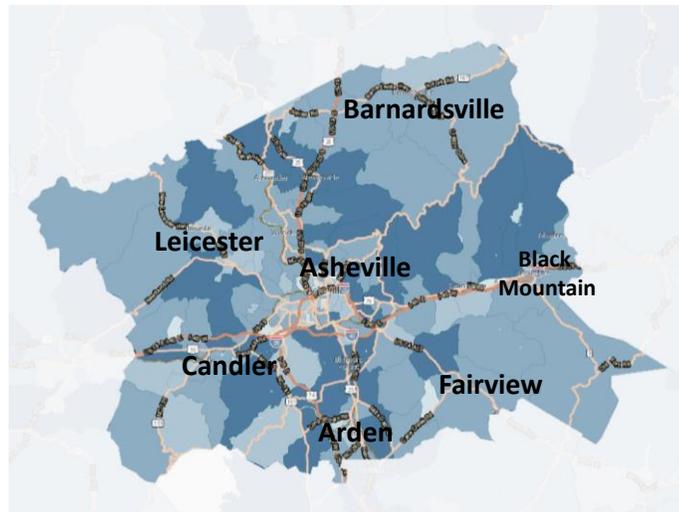
- Over 400
- 251 - 400
- 101 - 250
- Under 101
- No Population or No Data

Source: US Census 2010

Geographic Unit: Block Group

Map produced with Community Commons

### Population of Older Adults (Age 65+) in Buncombe County



Population Age 65+, Total by Block Group,  
US Census 2010

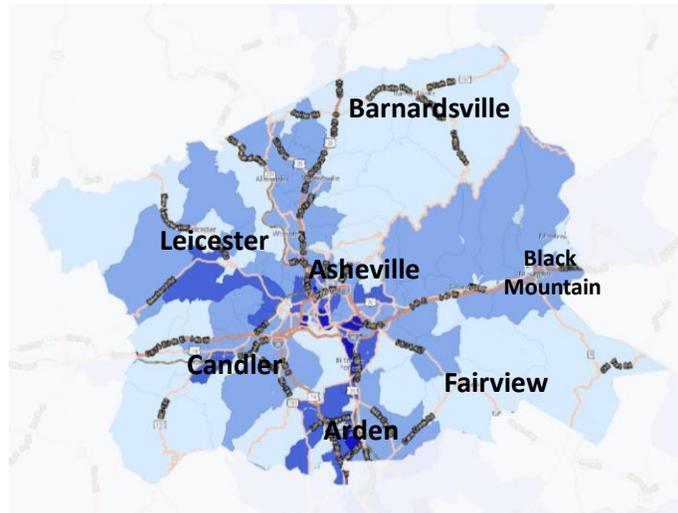
- Over 320
- 161 - 320
- 81 - 160
- Under 81
- No Population or No Data

Source: US Census 2010

Geographic Unit: Block Group

Map produced with Community Commons

### Population of Ethnic and Racial Minorities in Buncombe County



Population, All Minority, Total by Block Group, US Census 2010

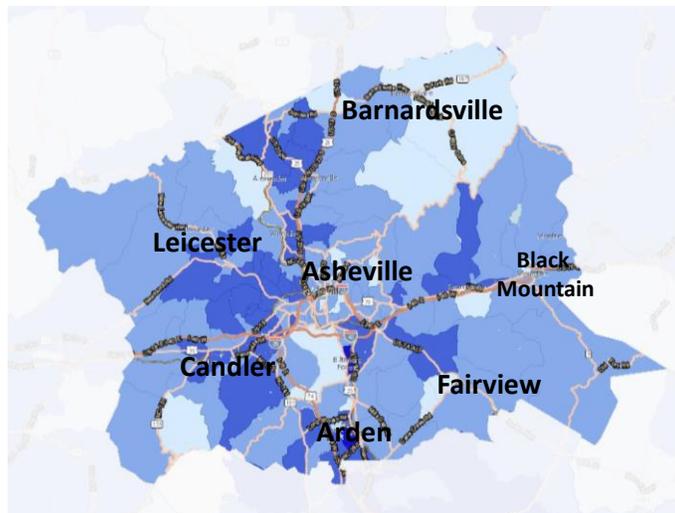
- Over 600
- 301 - 600
- 101 - 300
- Under 101
- No Population or No Data

Source: US Census 2010

Geographic Unit: Block Group

Map produced with Community Commons

### Population of Hispanics and Latinos in Buncombe County



Population, Hispanic or Latino, Total by Block Group, US Census 2010

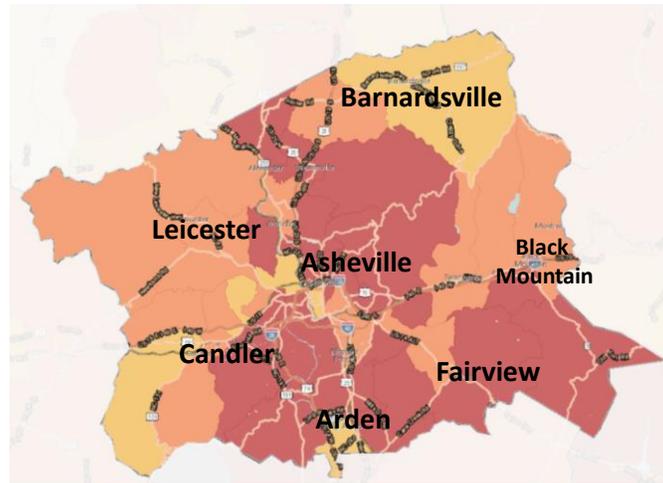
- Over 500
- 101 - 500
- 21 - 100
- Under 21
- No Population or No Data

Source: US Census 2010

Geographic Unit: Block Group

Map produced with Community Commons

### Percent of the Population (25+) with a High School Diploma or Higher Education Level in Buncombe County



Population with a High School Diploma or Higher, Percent by Tract, ACS 2009-13

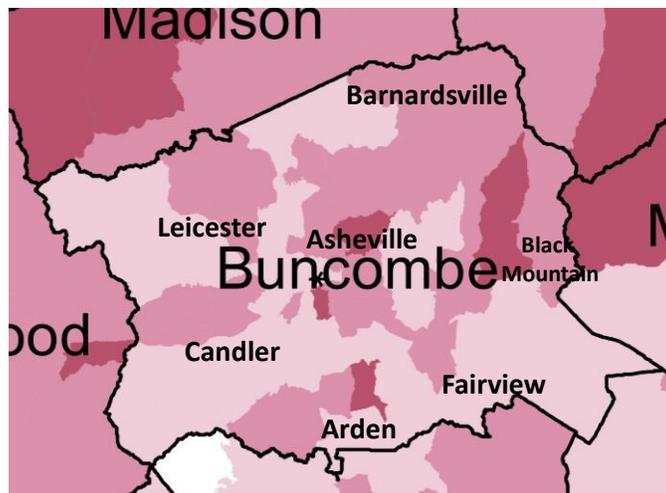
- Over 89.0%
- 82.1 - 89.0%
- 75.1 - 82.0%
- Under 75.1%
- No Data or Data Suppressed

Source: American Community Survey 2009-13

Geographic Unit: Census tract

Map produced with Community Commons

### Buncombe County Heart Disease Mortality Rates 2009-2013



Rate per 100,000 Population

- 60.9 - 200.6
- 200.7 - 283.2
- 283.3 - 426.1
- 426.2 - 699.8
- County Boundary

Source: NC State Center for Health Statistics 2009-13

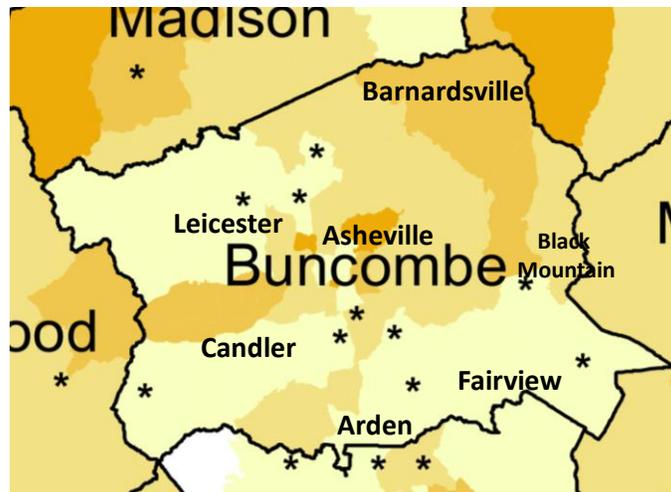
Geographic Unit: Census tract

Map produced by the NC State Center for Health Statistics

Rates are not age adjusted.

\*Rates based on numbers less than 10 are unstable and should be interpreted with caution.

## Buncombe County Chronic Lower Respiratory Diseases Mortality Rates 2009-2013



### Rate per 100,000 Population

- 9.9 - 57.5
- 57.6 - 86.7
- 86.8 - 121.1
- 121.2 - 222.9

County Boundary

Source: NC State Center for Health Statistics 2009-13

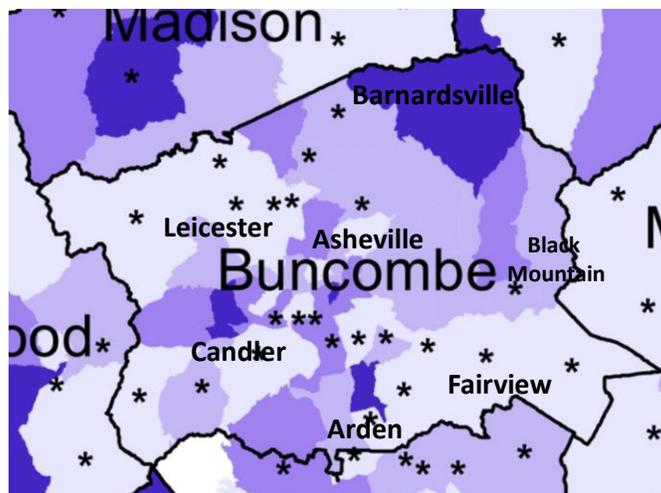
Geographic Unit: Census tract

Map produced by the NC State Center for Health Statistics

Rates are not age adjusted.

\*Rates based on numbers less than 10 are unstable and should be interpreted with caution.

## Buncombe County Other Unintentional Injuries Mortality Rates 2009-2013



### Rates per 100,000 Population

- 5.9 - 30.1
- 30.2 - 45.9
- 46.0 - 65.9
- 66.0 - 126.9

County Boundary

Source: NC State Center for Health Statistics 2009-13

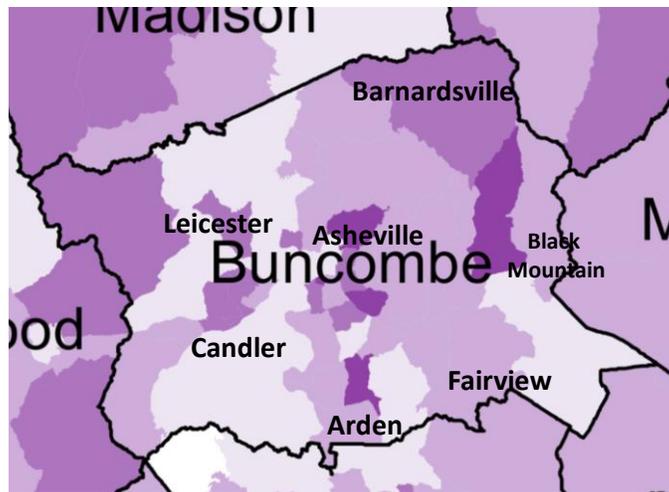
Geographic Unit: Census tract

Map produced by the NC State Center for Health Statistics

Rates are not age adjusted. Does not include motor vehicle mortality rates.

\*Rates based on numbers less than 10 are unstable and should be interpreted with caution.

### Buncombe County All Cancers Mortality Rates 2009-2013



**Rate per 100,000 Population**

- 71.7 - 192.1
- 192.2 - 250.6
- 250.7 - 316.8
- 316.9 - 501.2

County Boundary

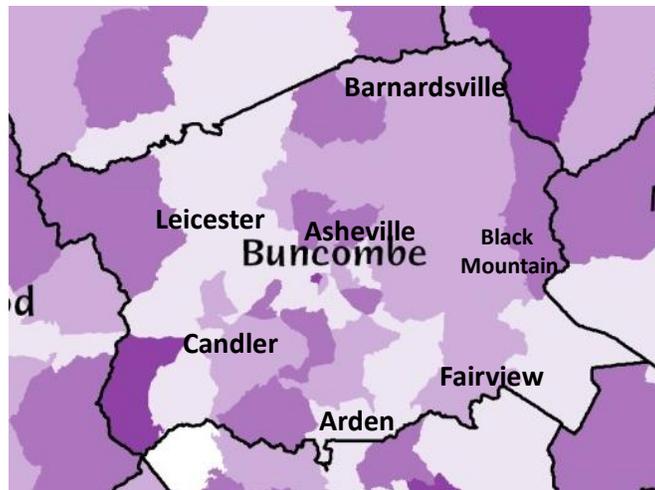
Source: NC State Center for Health Statistics 2009-13

Geographic Unit: Census tract

Map produced by the NC State Center for Health Statistics

Rates are not age adjusted.

### Buncombe County All Cancer Incidence Rates 2008-2012



**Rate Per 100,000 Population**

- 218.8 - 613.4
- 613.5 - 892.8
- 892.9 - 1269.2
- 1269.3 - 2277.5

None

County Boundary

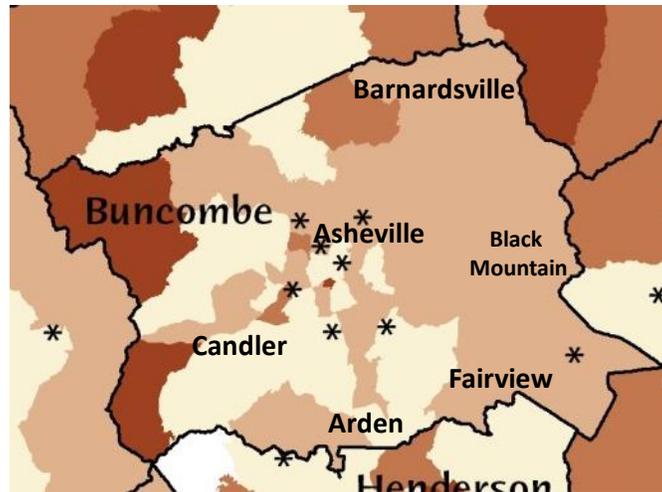
Source: NC State Center for Health Statistics 2008-2012

Geographic Unit: Census tract

Map produced by the NC State Center for Health Statistics

Rates are not age adjusted. Rates may change as information is updated. Data collected 02/2015.

## Buncombe County Lung and Bronchus Cancer Incidence Rates 2008-2012



### Rate per 100,000 Population

- 32.5 - 76.4
- 76.5 - 121.5
- 121.6 - 200.9
- 201.0 - 450.2

- None
- County Boundary

Source: NC State Center for Health Statistics 2008-2012

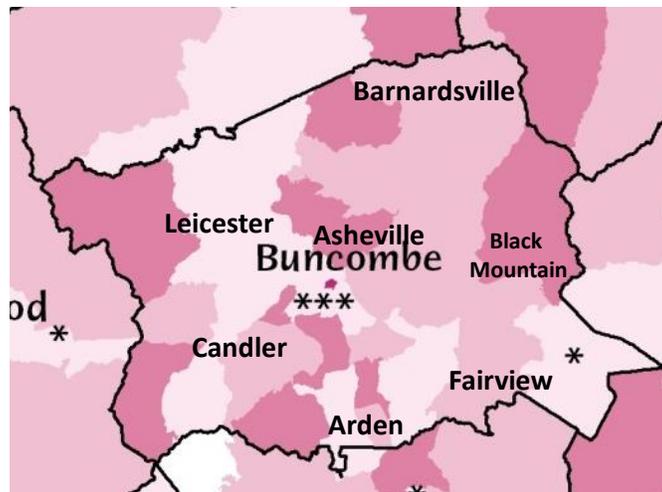
Geographic Unit: Census tract

Map produced by the NC State Center for Health Statistics

Rates are not age adjusted. Rates may change as information is updated. Data collected 02/2015.

\*Rates based on numbers less than 10 are unstable and should be interpreted with caution.

## Buncombe County Breast Cancer Incidence Rates 2008-2012



### Rate per 100,000 Female Population

- 44.2 - 181.4
- 181.5 - 298.0
- 298.1 - 535.1
- 535.2 - 949.7

- None
- County Boundary

Source: NC State Center for Health Statistics 2008-2012

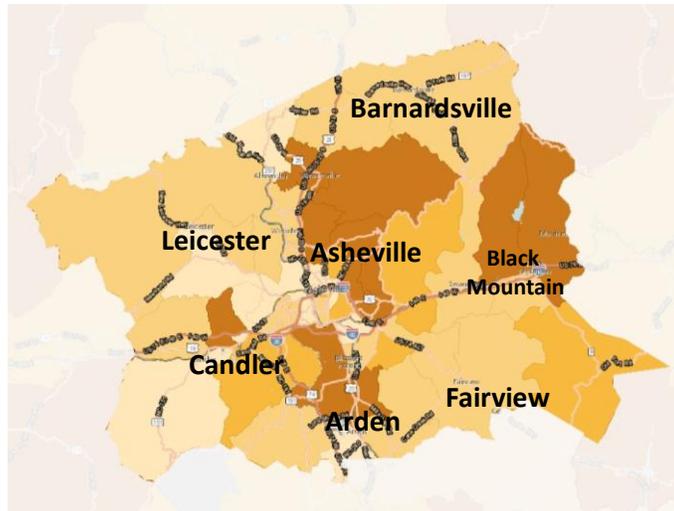
Geographic Unit: Census tract

Map produced by the NC State Center for Health Statistics

Rates are not age adjusted. Rates may change as information is updated. Data collected 02/2015.

\*Rates based on numbers less than 10 are unstable and should be interpreted with caution.

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



Population Age 65+, Percent by Tract, US Census 2010

- Over 19.1%
- 16.1 - 19.0%
- 13.1 - 16.0%
- Under 13.1%
- No Data or Data Suppressed

Source: US Census 2010

Geographic Unit: Census tract

Map produced with Community Commons

## Appendix D – Primary Survey Findings from Buncombe County Residents

**2015 PRC Community Health Needs Assessment**  
*A Data-Driven Approach to Identifying Community Health Needs*

Buncombe County  
**Community Health Findings**

Professional Research Consultants, Inc.

Prepared for WNC Healthy Impact

By Professional Research Consultants, Inc.



2015 PRC Community Health Needs Assessment

**Western North Carolina Counties**



Professional Research Consultants, Inc. 2

## Methodology

- Telephone survey methodology
  - Allows for high participation and random selection
  - These are critical to achieving a sample representative of county and regional populations by gender, age, race/ ethnicity, income
  - Landline (94%) and cell phone (6%)
  - English and Spanish

## Methodology

- 3,300 telephone surveys throughout WNC
  - Adults 18+
  - Gathered data for each of 16 counties
  - Weights were added to enhance representativeness of data at county and regional levels

## Methodology

- Full WNC sample allows for drill-down by:
  - County
  - Age
  - Gender
  - Race/ ethnicity (White, Black, Hispanic, Native American)
  - Income (3 levels based on poverty status)
  - Other categories, based on question responses
- Individual county samples allow for drill-down by
  - Gender
  - Income (2 levels based on poverty status)
  - Other categories, based on question responses

## Survey Instrument

- Based largely on national survey models
  - When possible, question wording from public surveys (e.g., CDC BRFSS)
- 75 questions asked of all counties
  - Each county added three county-specific questions
  - Approximately 15-minute interviews
  - Questions determined by WNC stakeholder input

## Minimizing bias

- Potential bias
  - Noncoverage error - *Underrepresentation of people without phones*
  - Sampling error - *Estimates based on only a sample*
  - Measurement error - *Responses to questions may not be completely accurate due to question wording, interviewer's tone, etc.*
- Strategies to minimize bias
  - Random selection
  - Strict adherence to administration protocols
  - Use of a tested survey instrument
  - Automated CATI system (lessens risk of human error in data entry)

## Keep in mind

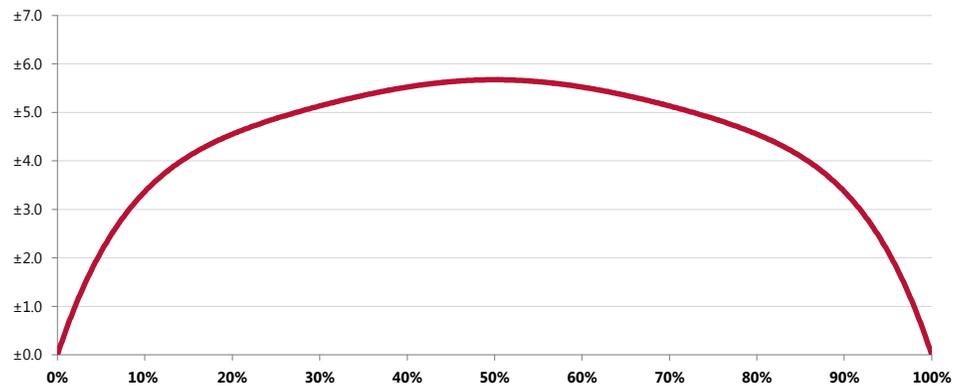
- Sampling levels allow for good local confidence intervals, but you should still keep in mind that error rates are larger at the county level than for WNC as a region
  - Results for WNC regional data have maximum error rate of  $\pm 1.7\%$  at the 95% confidence level
  - Results for Buncombe County had maximum error rate of  $\pm 5.6\%$  at the 95% confidence level
- PRC indicates in regional report when differences – between county and regional results, different demographic groups, and 2012 to 2015 – are statistically significant

## Keep in mind

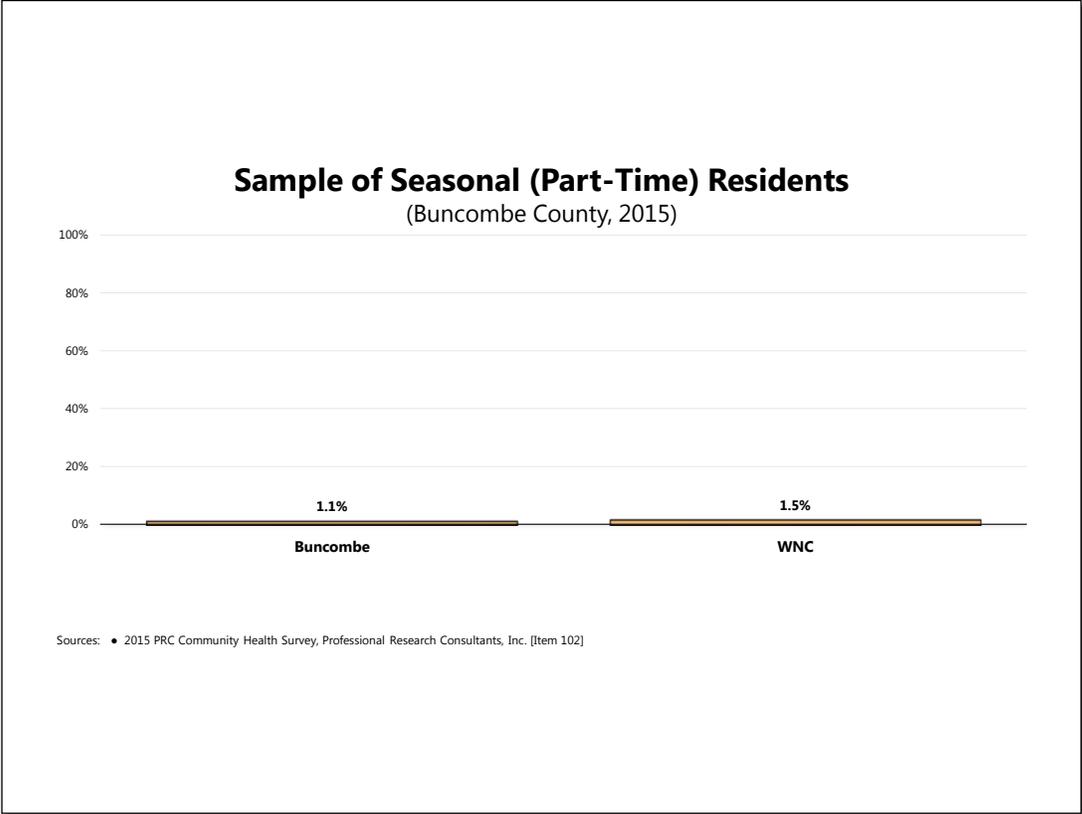
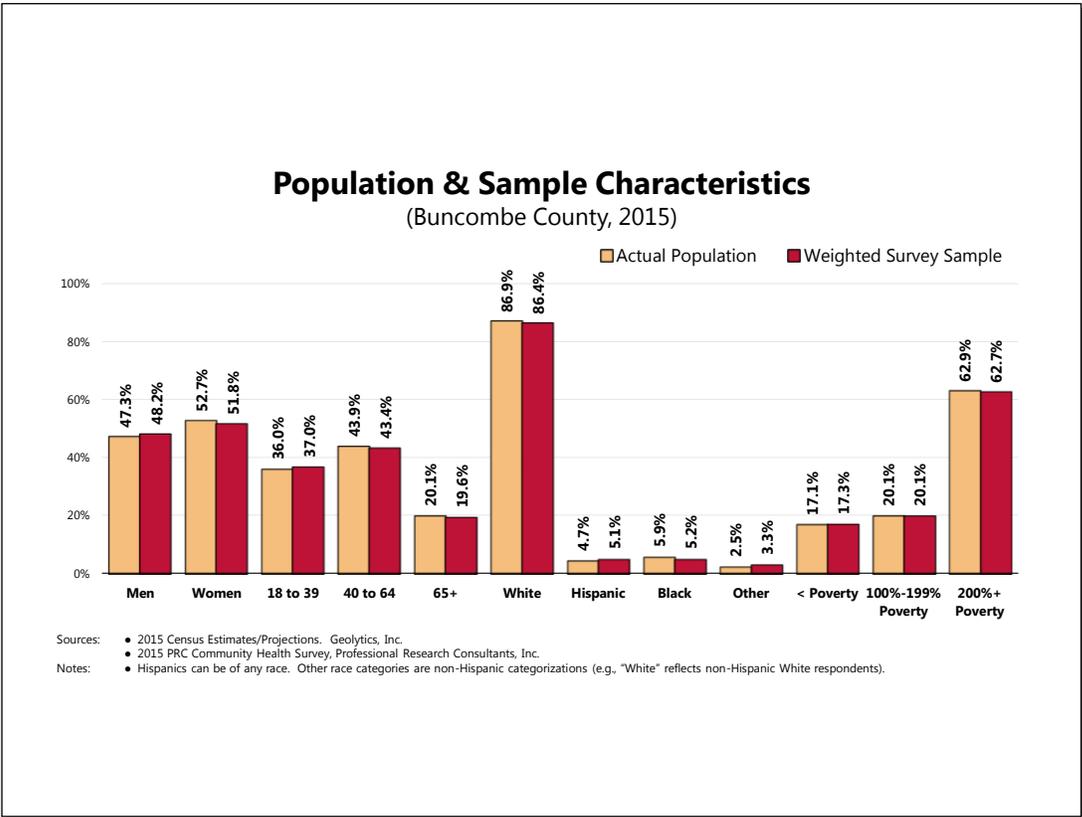
For more detailed information on methods, see:

- PRC's Primary Data Collection: Research Approach & Methods document (2015)
- **County-specific CH(N)A Templates**

### Expected Error Ranges for a Sample of 300 Respondents at the 95 Percent Level of Confidence



- Note:
- The "response rate" (the percentage of a population giving a particular response) determines the error rate associated with that response. A "95 percent level of confidence" indicates that responses would fall within the expected error range on 95 out of 100 trials.
- Examples:
- If 10% of the sample of 300 respondents answered a certain question with a "yes," it can be asserted that between 6.6% and 13.4% (10% ± 3.4%) of the total population would offer this response.
  - If 50% of respondents said "yes," one could be certain with a 95 percent level of confidence that between 44.4% and 55.6% (50% ± 5.6%) of the total population would respond "yes" if asked this question.



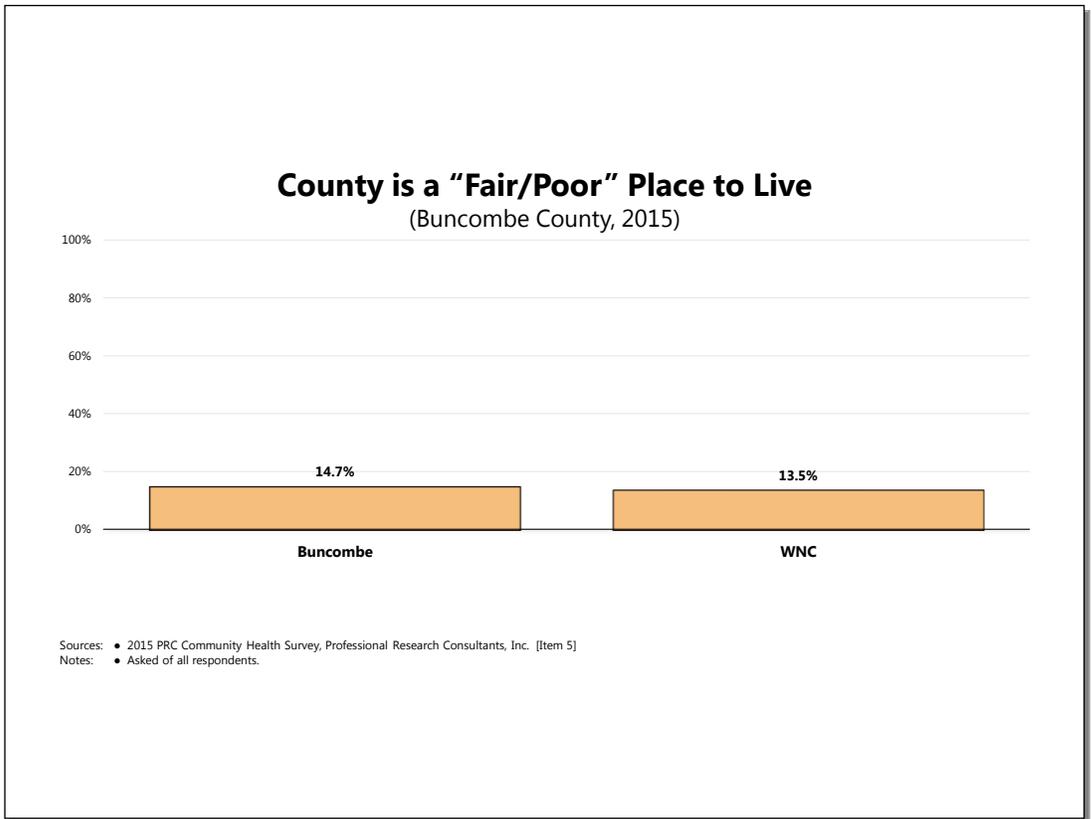
2015 PRC Community Health Needs Assessment

# QUALITY OF LIFE



COMMUNITY HEALTH

Professional Research Consultants, Inc. 13



### Top Three County Issues Perceived as in Most Need of Improvement (Buncombe County, 2015)

	Buncombe	WNC
Economy/Unemployment	✓	✓
Nothing	✓	✓
Road Maintenance/Safety	✓	✓

Sources: • 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 6]  
Notes: • Asked of all respondents.

## SELF-REPORTED HEALTH STATUS



COMMUNITY HEALTH

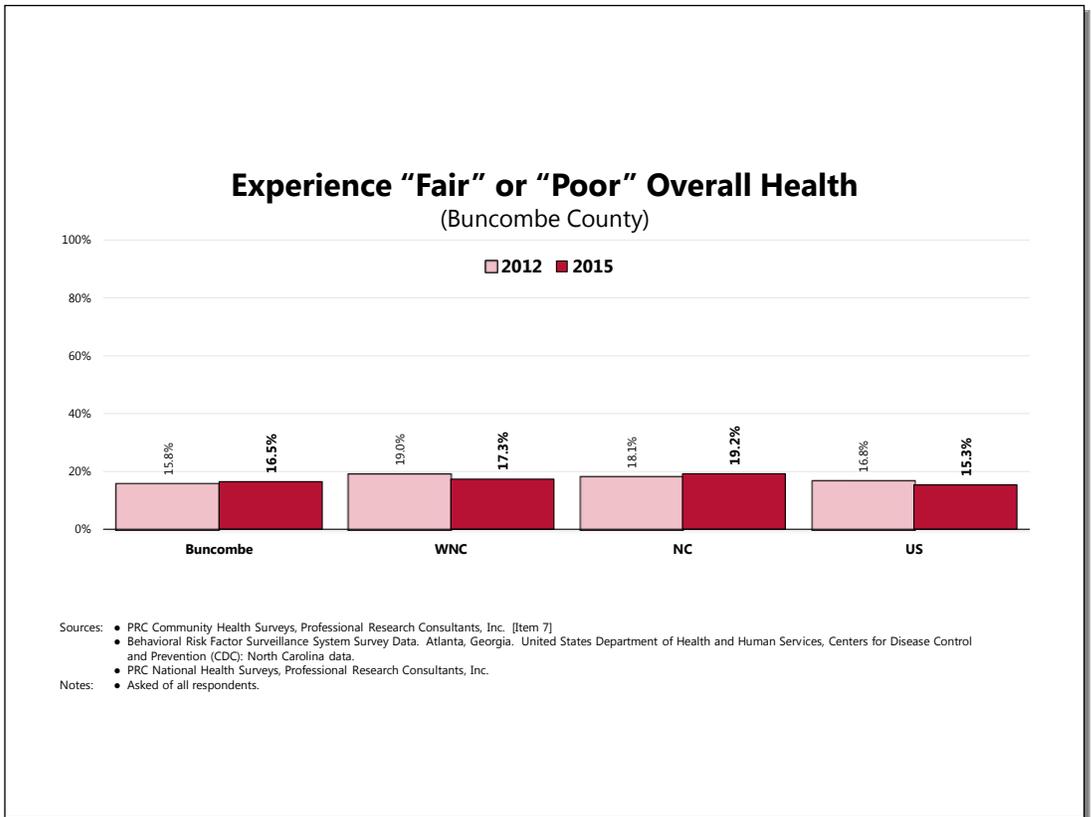
2015 PRC Community Health Needs Assessment

# Overall Health

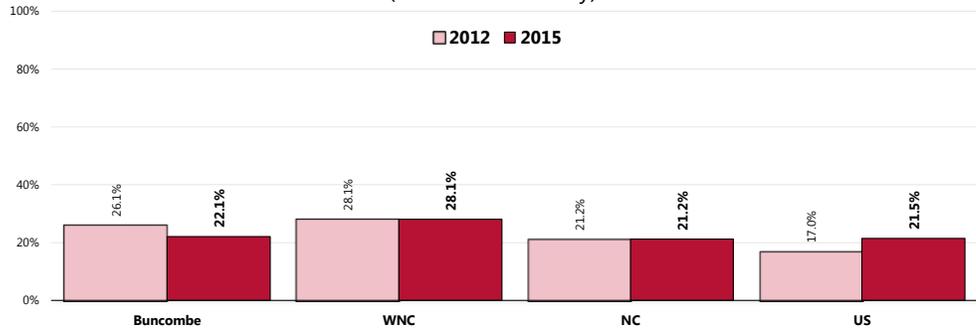


COMMUNITY HEALTH

Professional Research Consultants, Inc. 17



### Limited in Activities in Some Way Due to a Physical, Mental, or Emotional Problem (Buncombe County)



Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 86]  
 • Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC); North Carolina data.  
 • PRC National Health Surveys, Professional Research Consultants, Inc.

Notes: • Asked of all respondents.

### Type of Problem That Limits Activities (Among Those Reporting Activity Limitations; Buncombe County, 2015)



Sources: • 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 87]  
 Notes: • Asked of those respondents reporting activity limitations.

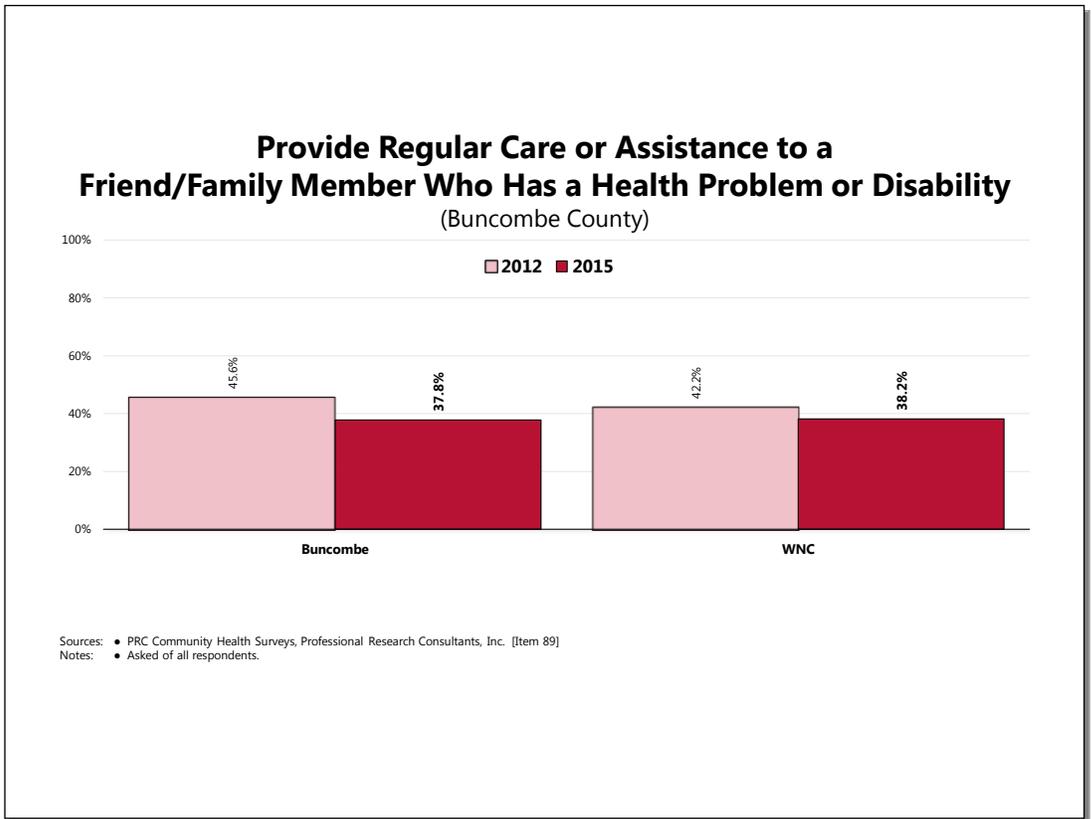
2015 PRC Community Health Needs Assessment

# Caregiving



COMMUNITY HEALTH

Professional Research Consultants, Inc. 21



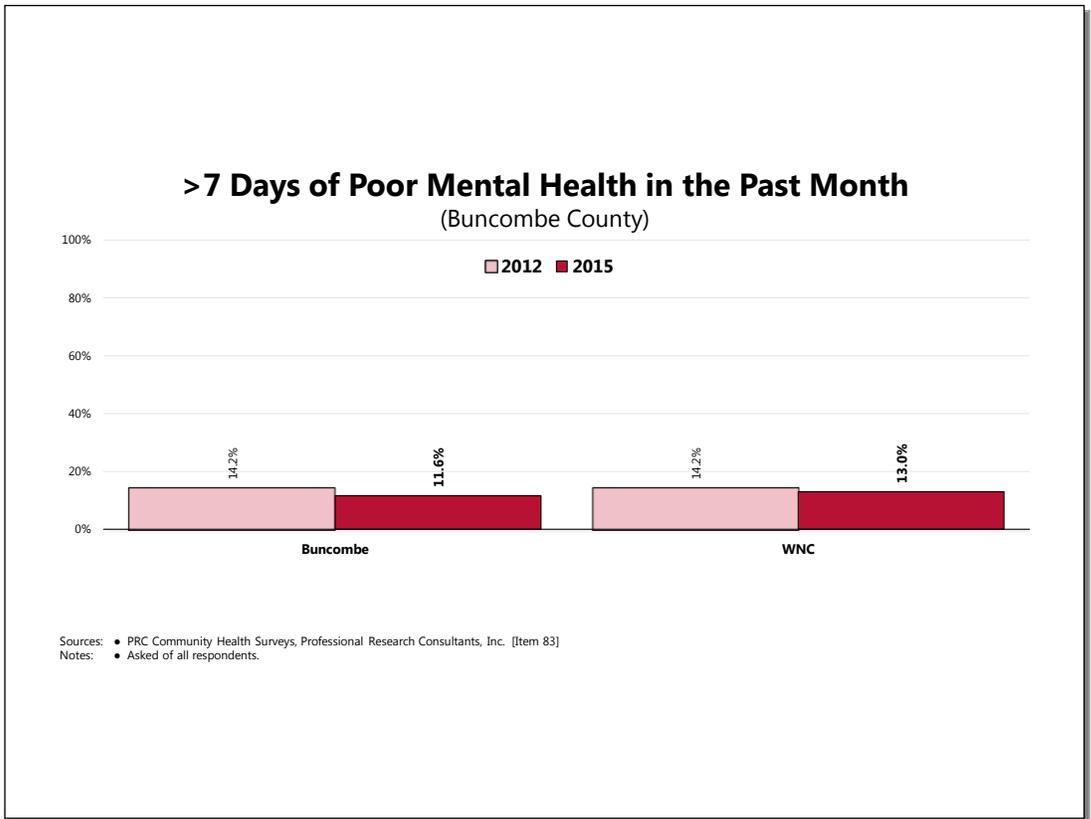
2015 PRC Community Health Needs Assessment

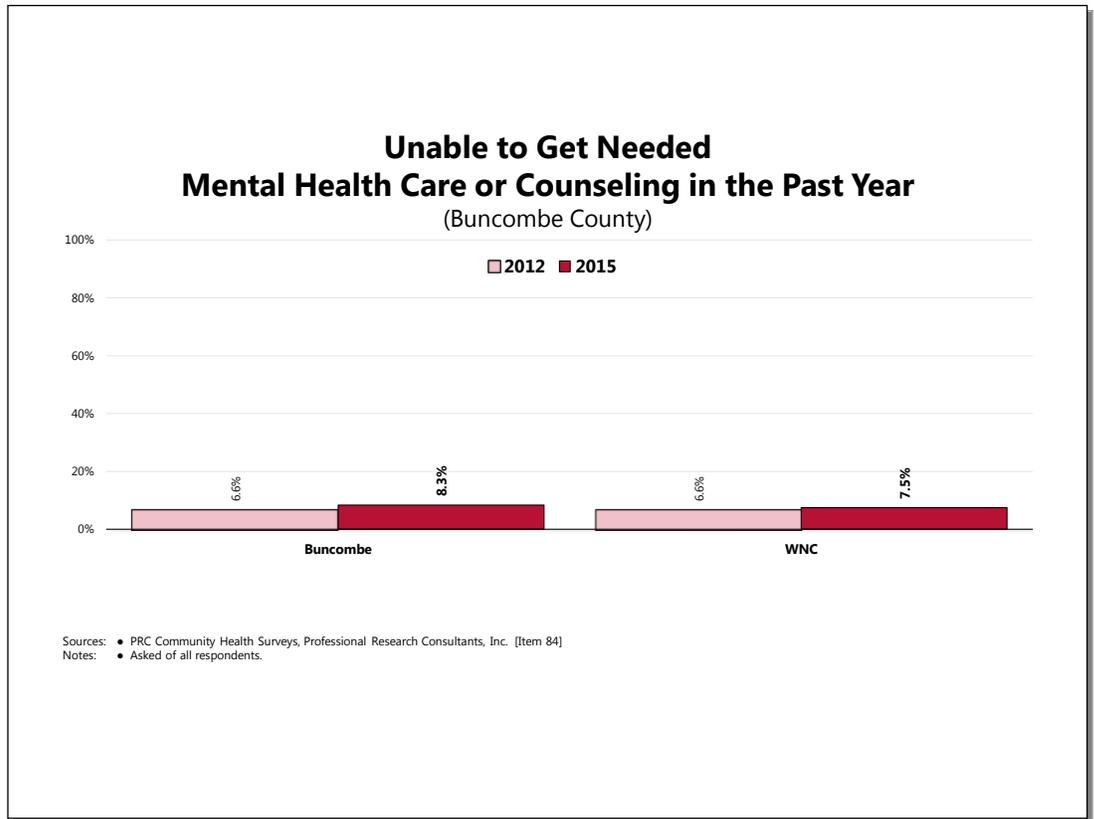
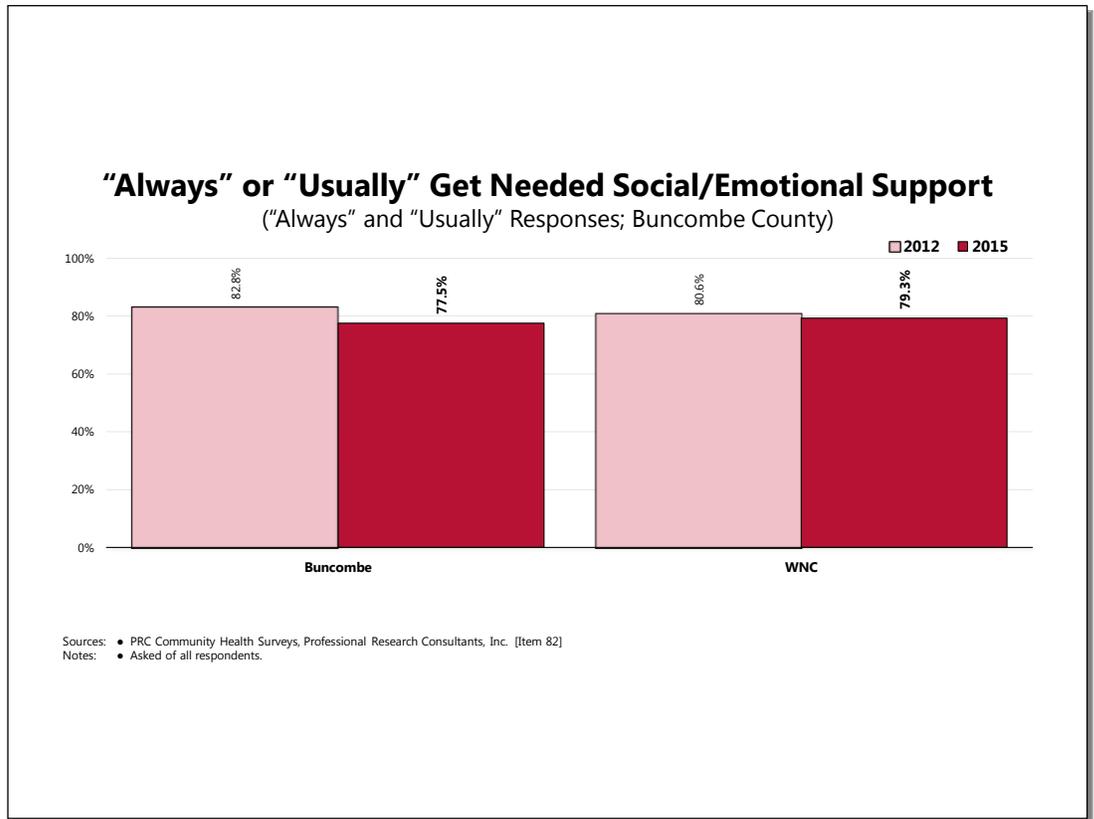
# Mental Health & Mental Disorders

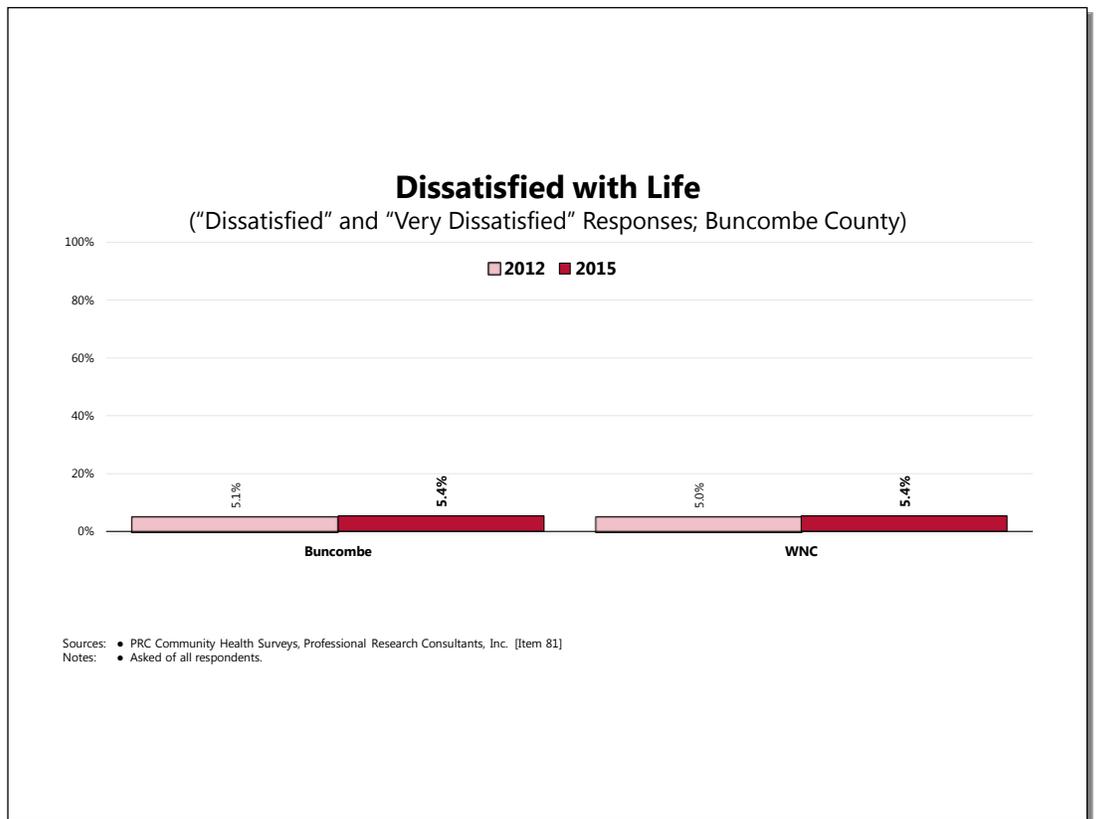


COMMUNITY HEALTH

Professional Research Consultants, Inc. 23







2015 PRC Community Health Needs Assessment

# CHRONIC CONDITIONS & INJURY

COMMUNITY HEALTH

Professional Research Consultants, Inc. 28

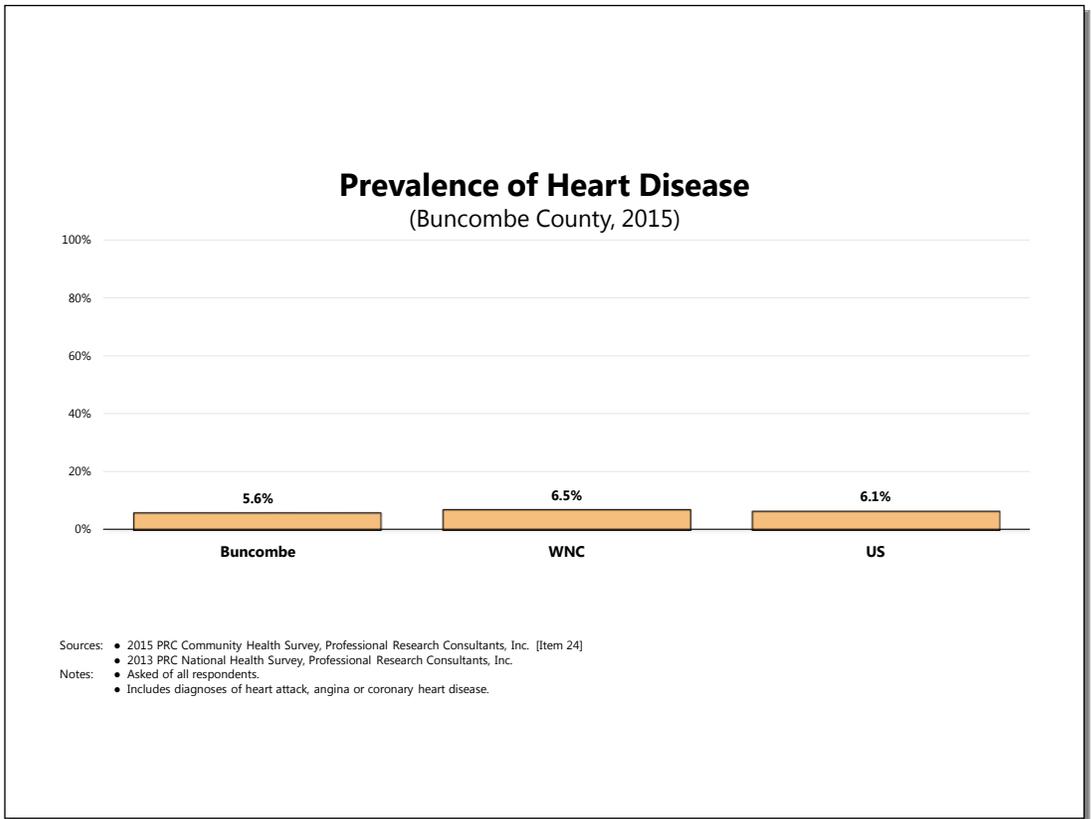
2015 PRC Community Health Needs Assessment

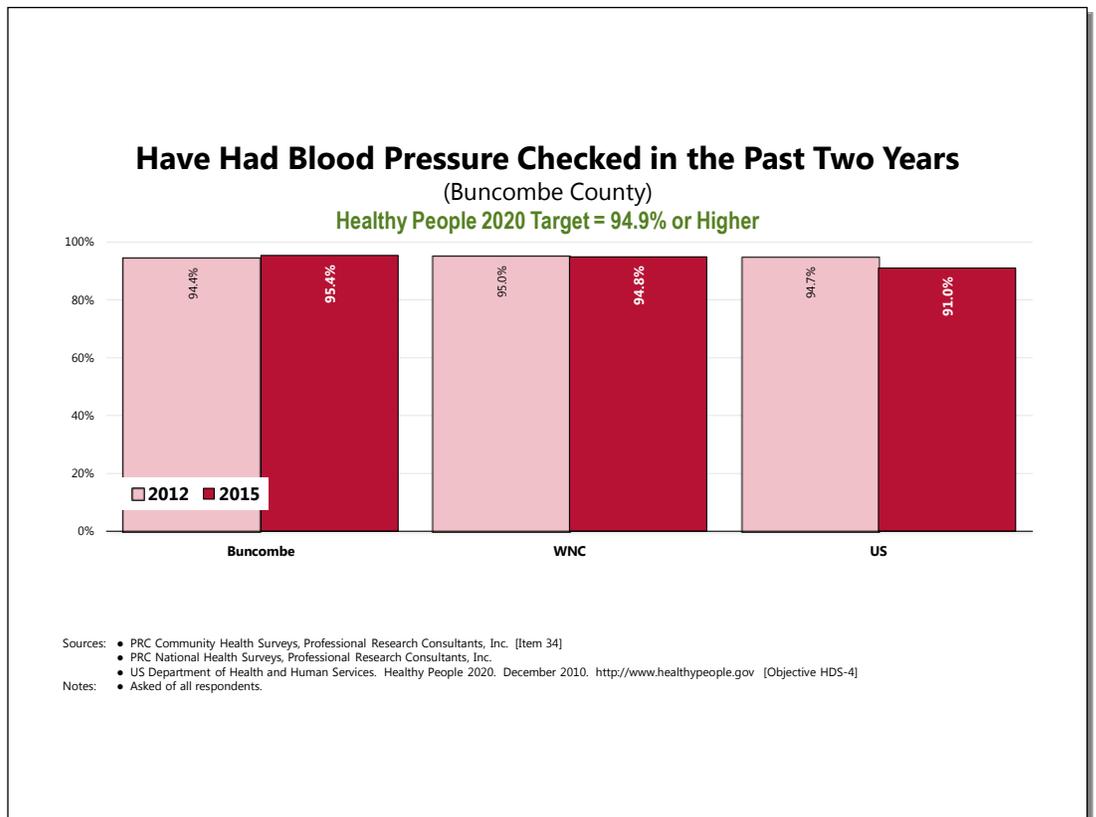
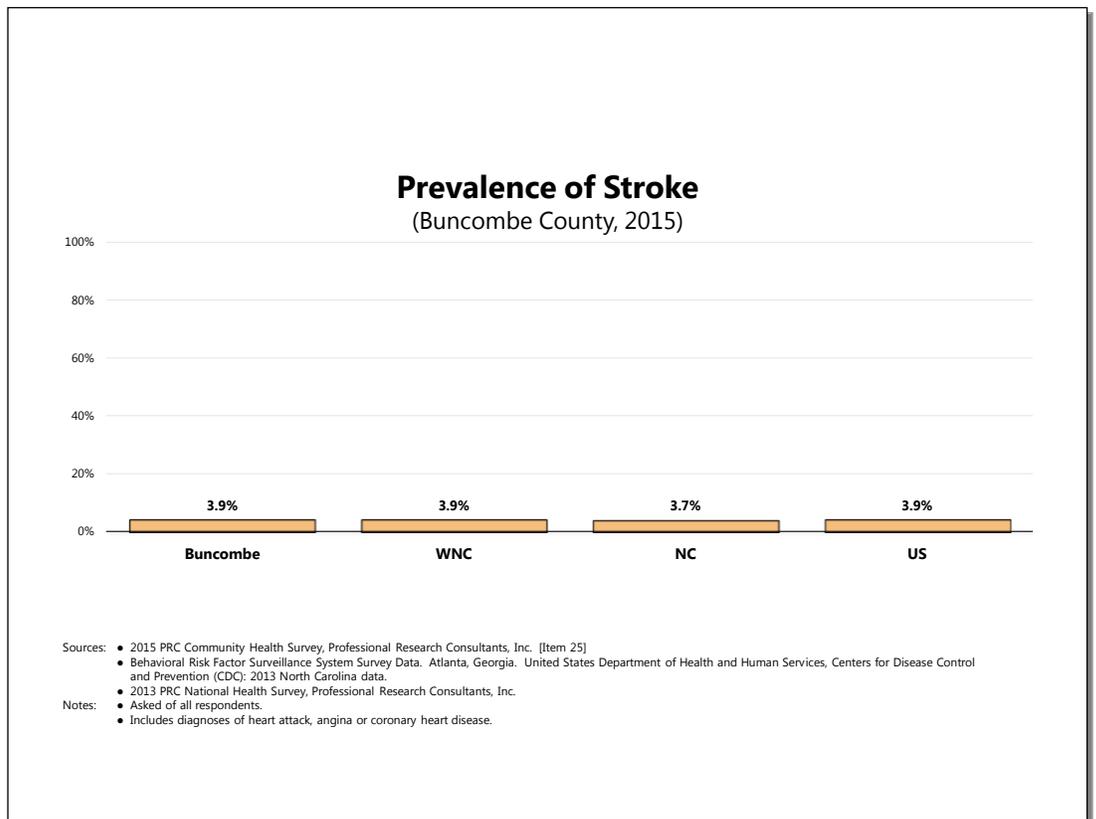
# Cardiovascular Risk

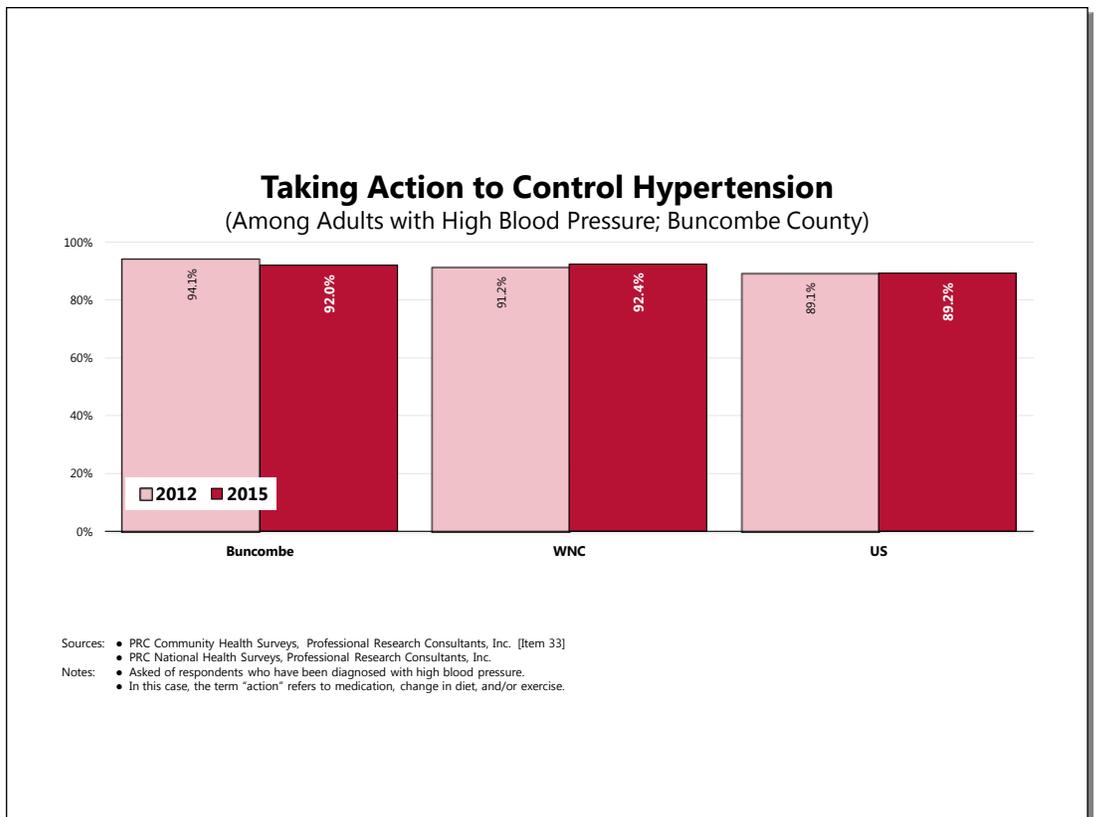
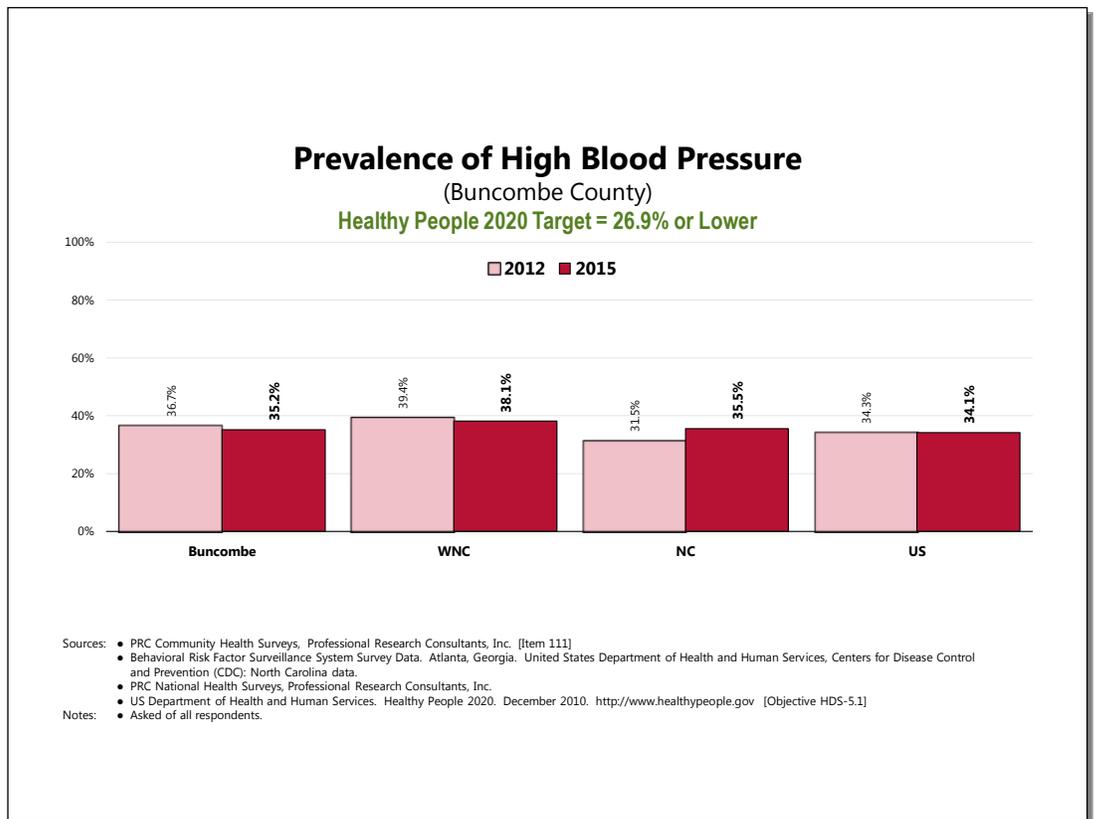


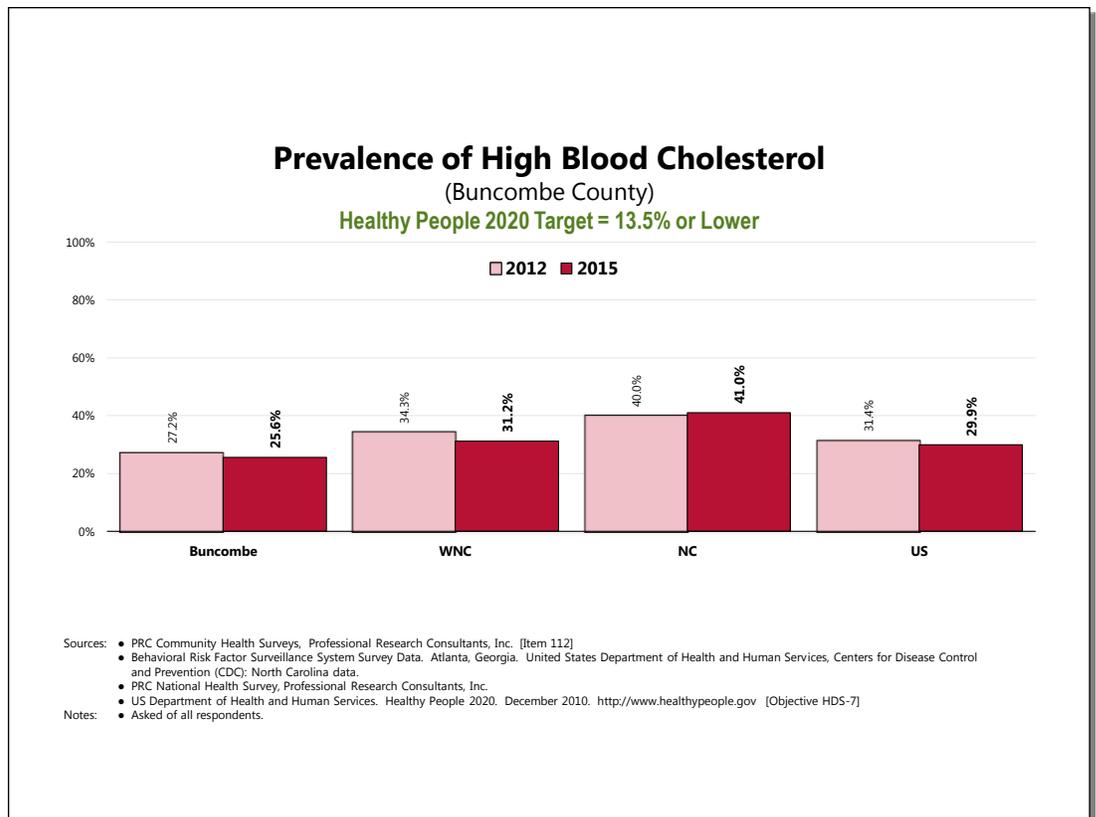
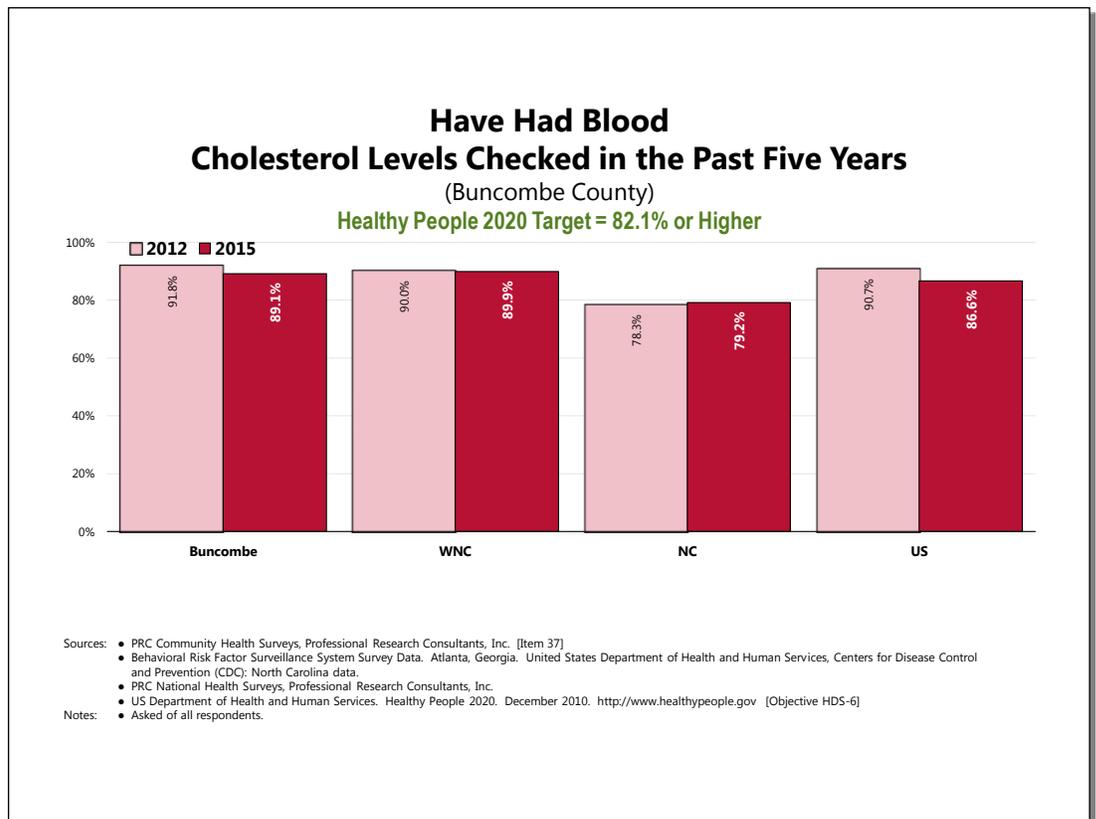
COMMUNITY HEALTH

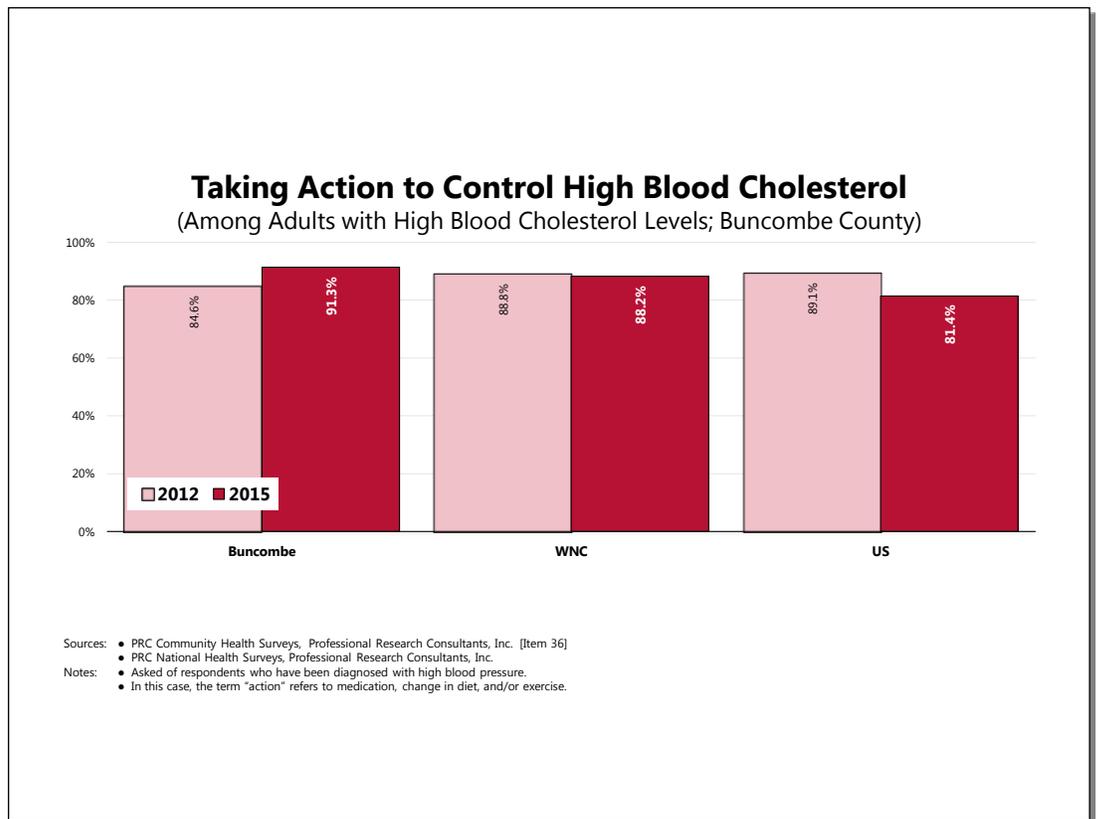
Professional Research Consultants, Inc. 29











2015 PRC Community Health Needs Assessment

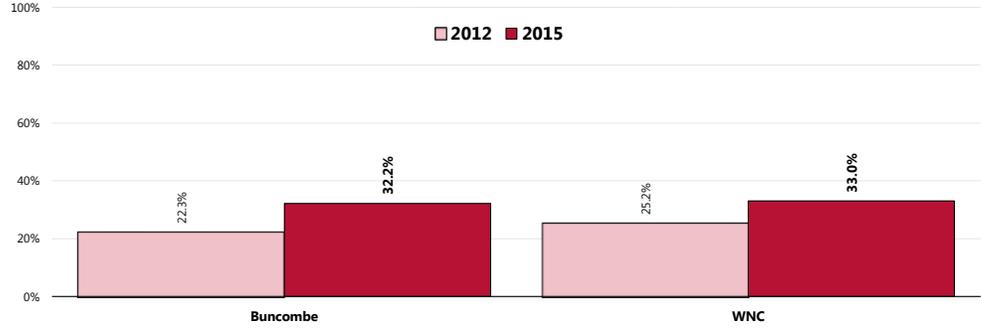
# Falls

COMMUNITY HEALTH

Professional Research Consultants, Inc. 38



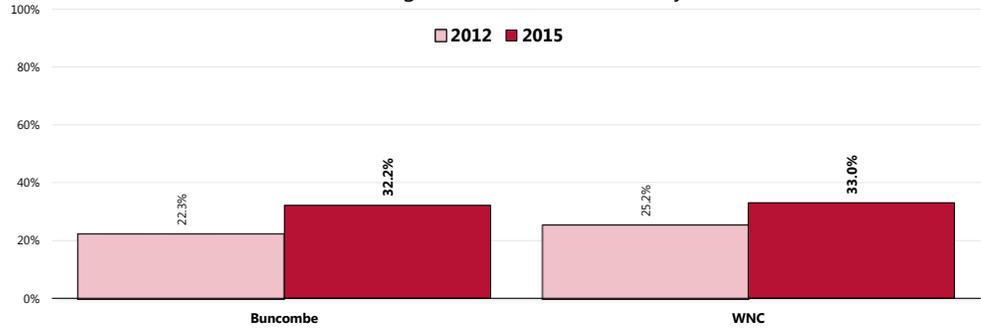
### Have Fallen in the Past Year (Seniors Age 65+; Buncombe County)



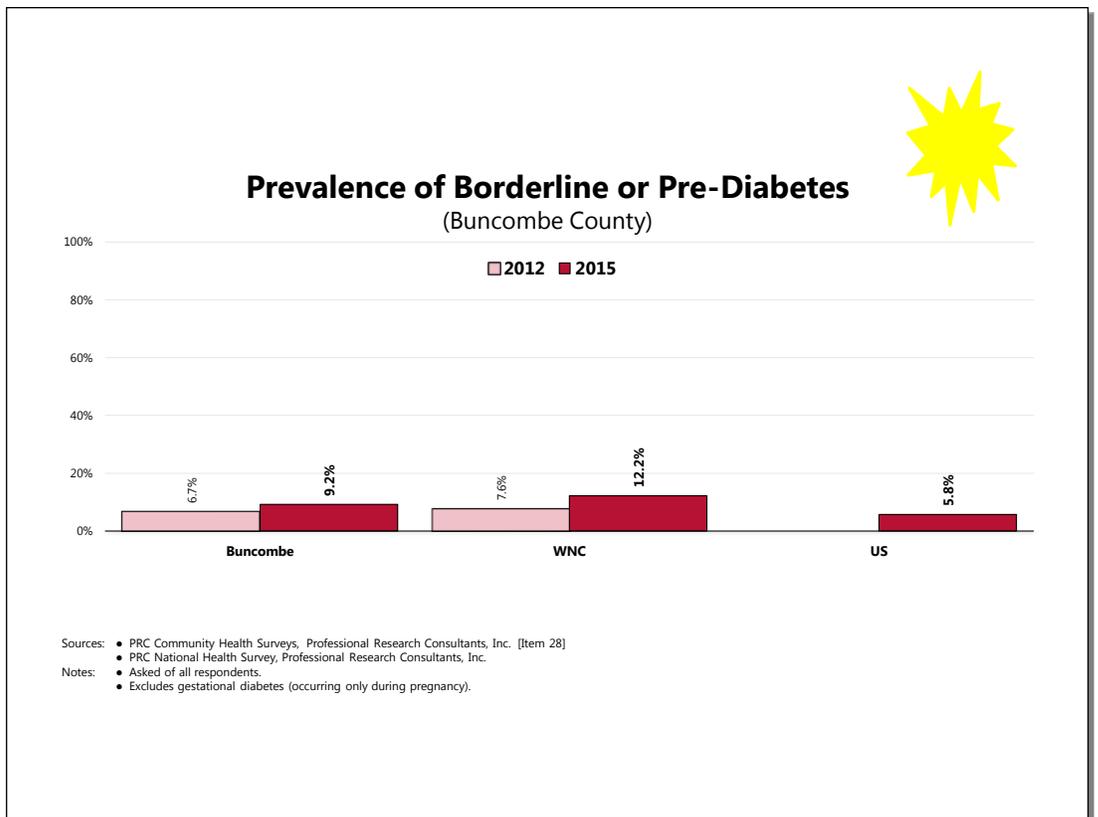
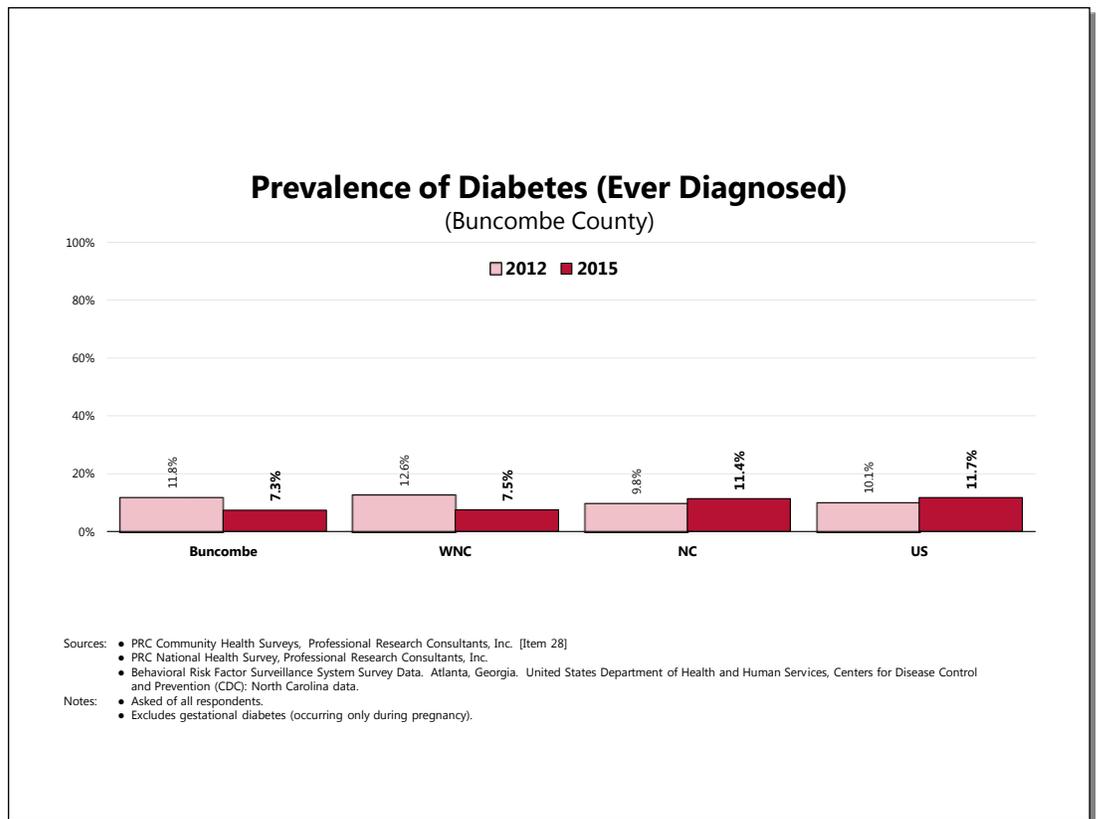
Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 88]  
Notes: • Asked of those respondents age 65+.  
• Percentages outlined in red reflect sample sizes deemed unreliable (n<50).

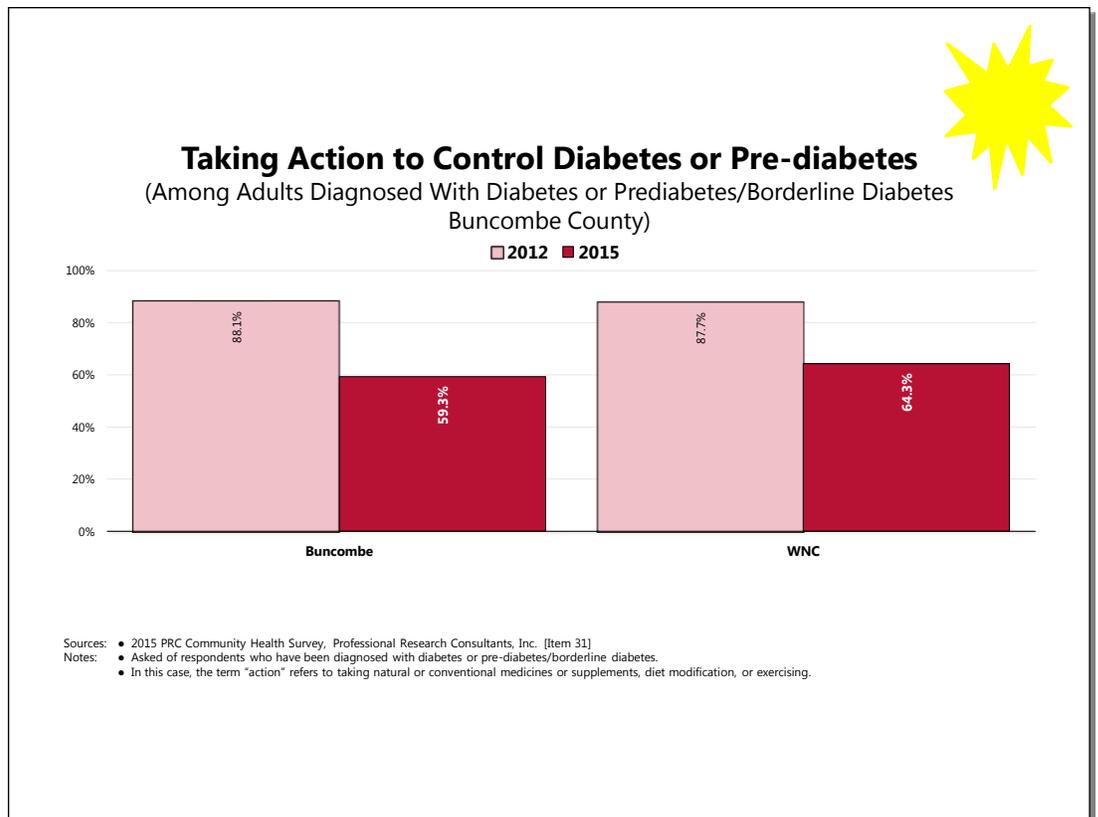
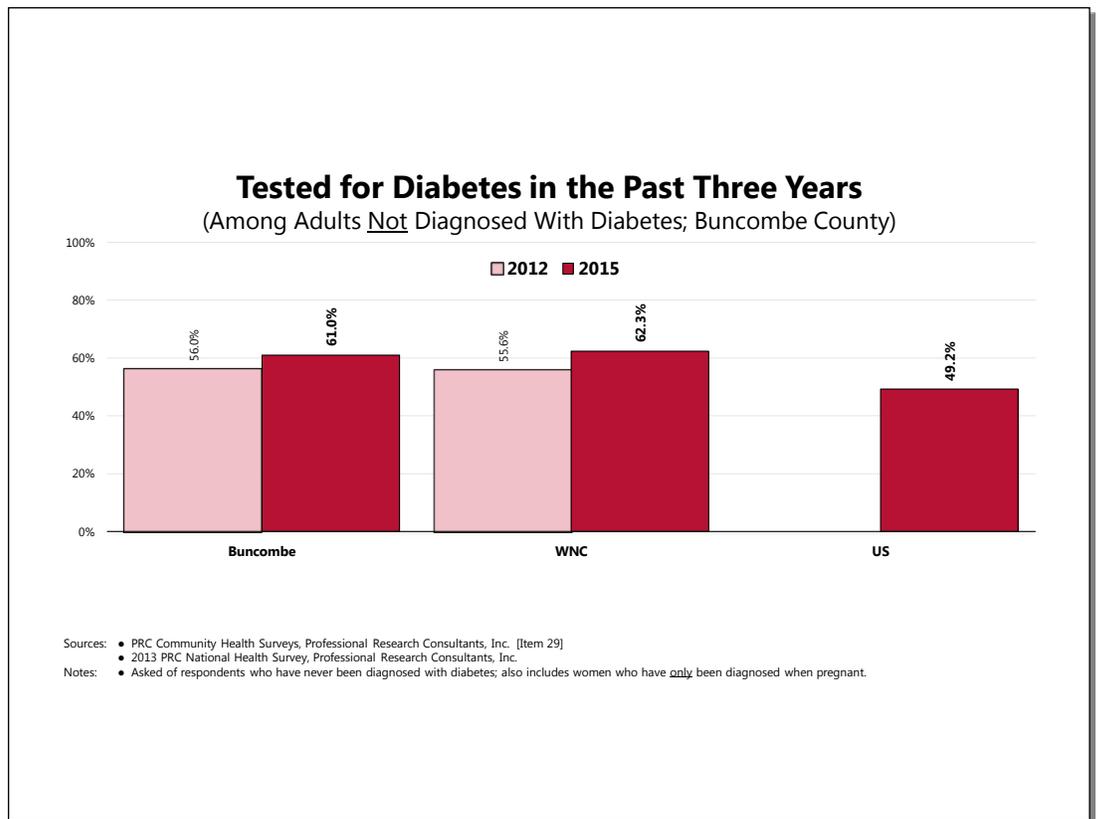


### Have Fallen in the Past Year (Seniors Age 65+; Buncombe County)



Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 88]  
Notes: • Asked of those respondents age 65+.  
• Percentages outlined in red reflect sample sizes deemed unreliable (n<50).





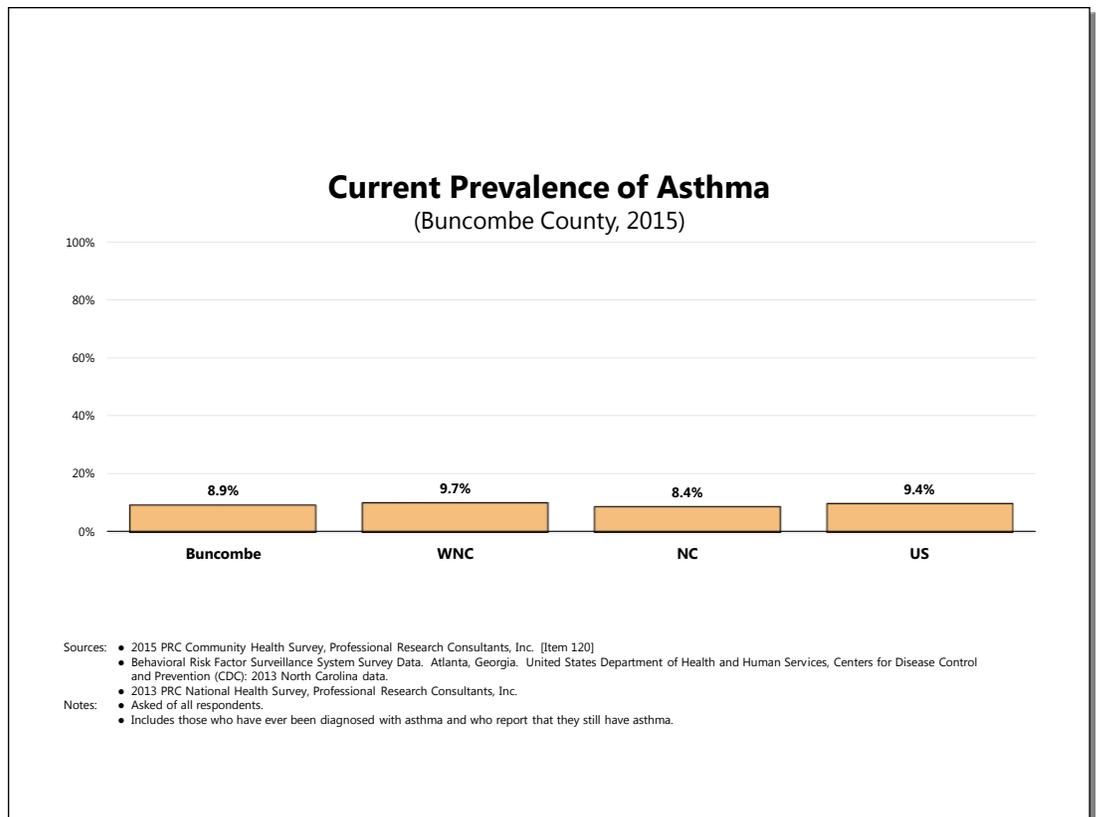
2015 PRC Community Health Needs Assessment

# Respiratory Conditions



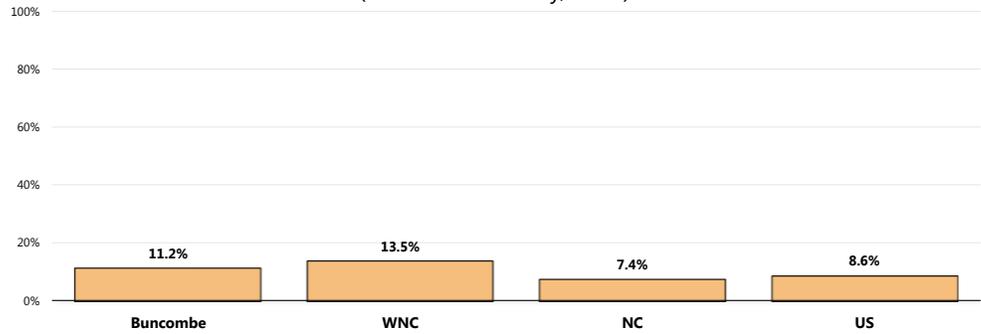
COMMUNITY HEALTH

Professional Research Consultants, Inc. 45





### Prevalence of Chronic Obstructive Pulmonary Disease (COPD) (Buncombe County, 2015)



Sources: • 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 23]  
• Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC); 2013 North Carolina data.  
• 2013 PRC National Health Survey, Professional Research Consultants, Inc.  
Notes: • Asked of all respondents.  
• Includes those have ever suffered from or been diagnosed with COPD or chronic obstructive pulmonary disease, including bronchitis or emphysema.



## MODIFIABLE HEALTH RISKS



COMMUNITY HEALTH

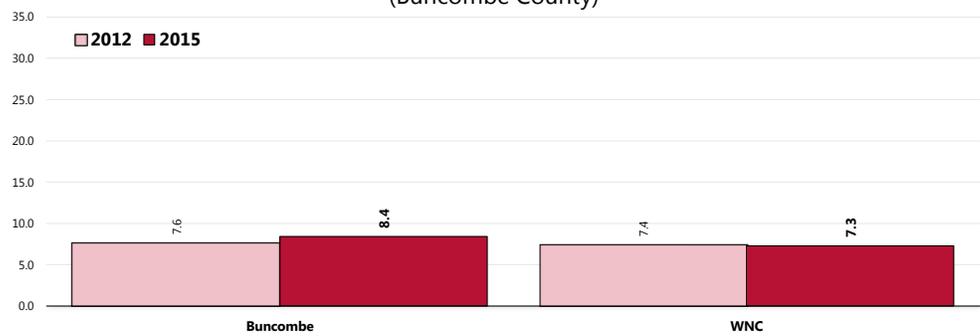
# Nutrition



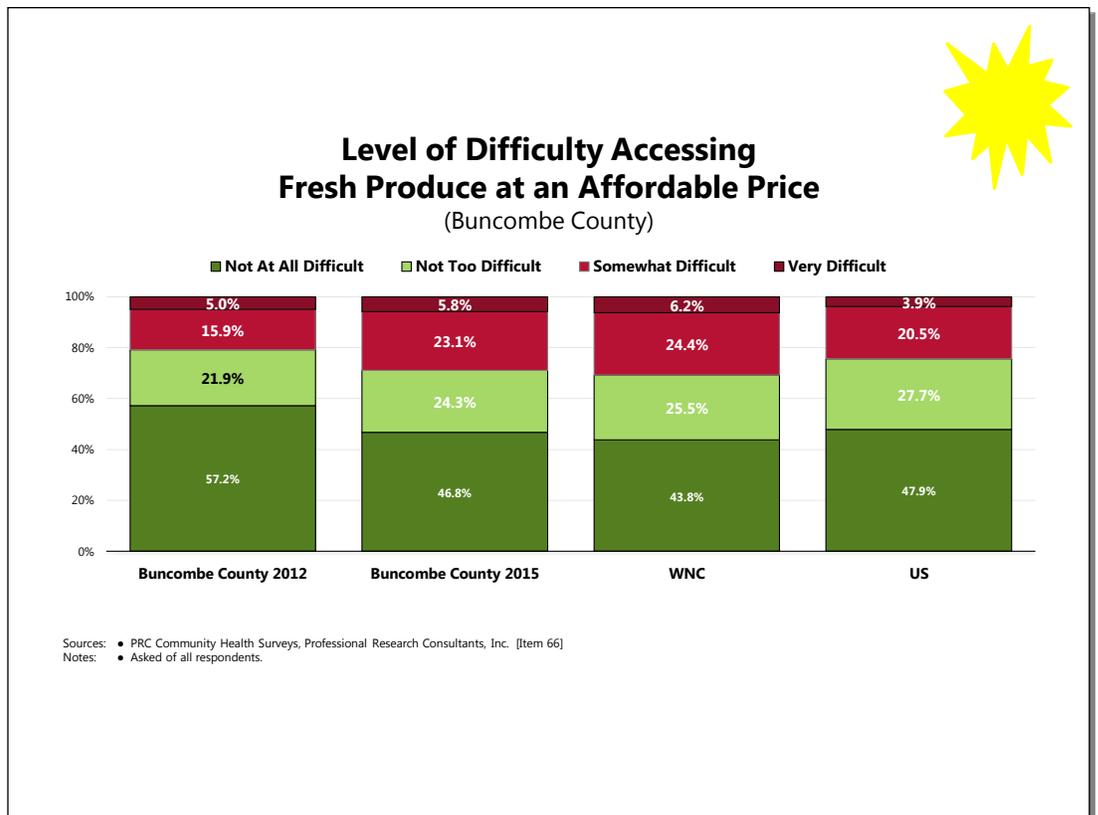
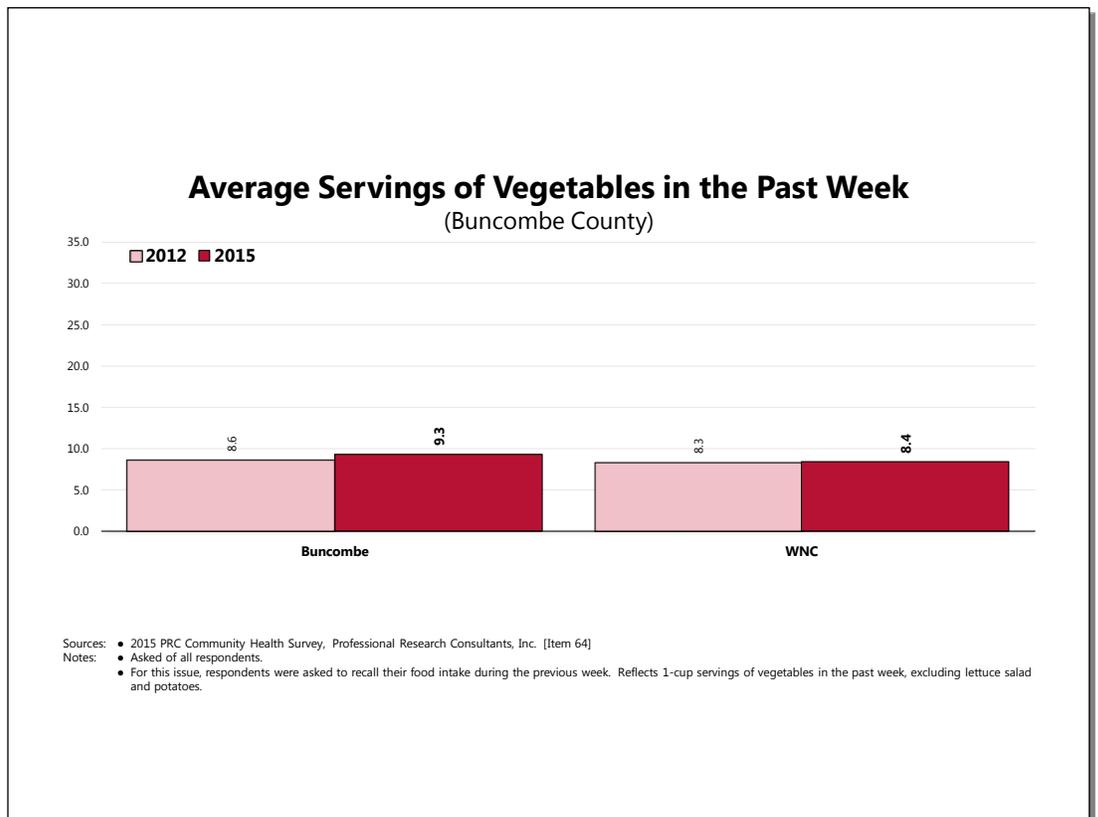
Professional Research Consultants, Inc.

49

## Average Servings of Fruits in the Past Week (Buncombe County)



Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 63]  
Notes: • Asked of all respondents.  
• For this issue, respondents were asked to recall their food intake during the previous week. Reflects 1-cup servings of fruits in the past week.

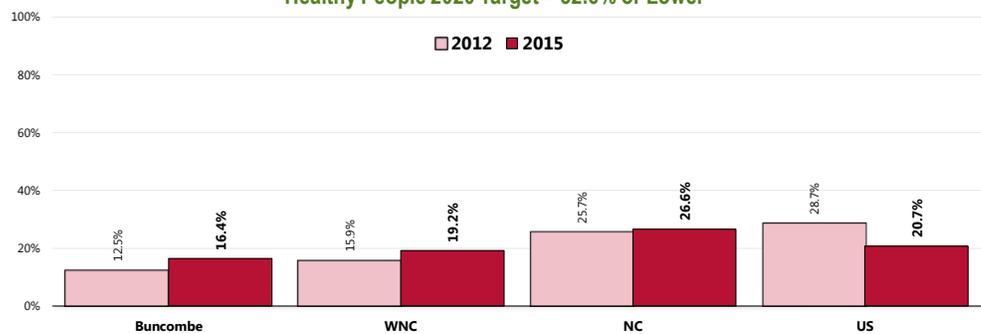


# Physical Activity & Fitness



## No Leisure-Time Physical Activity in the Past Month (Buncombe County)

Healthy People 2020 Target = 32.6% or Lower

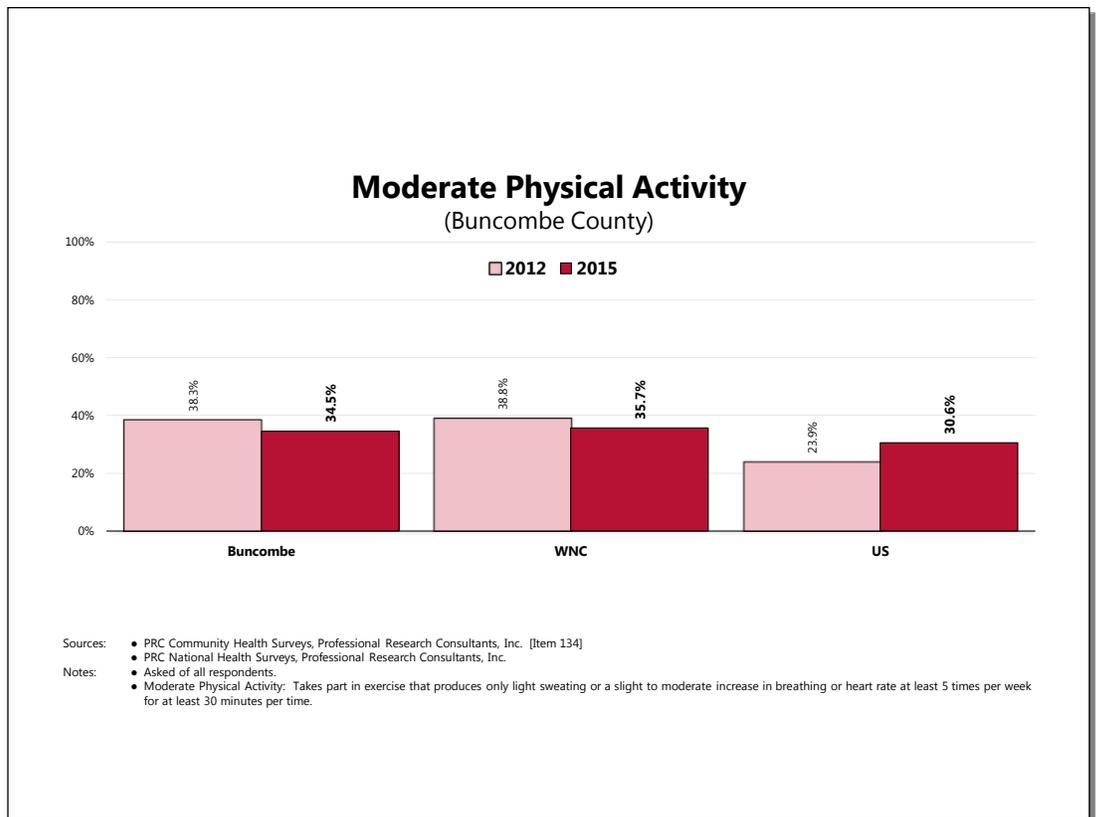
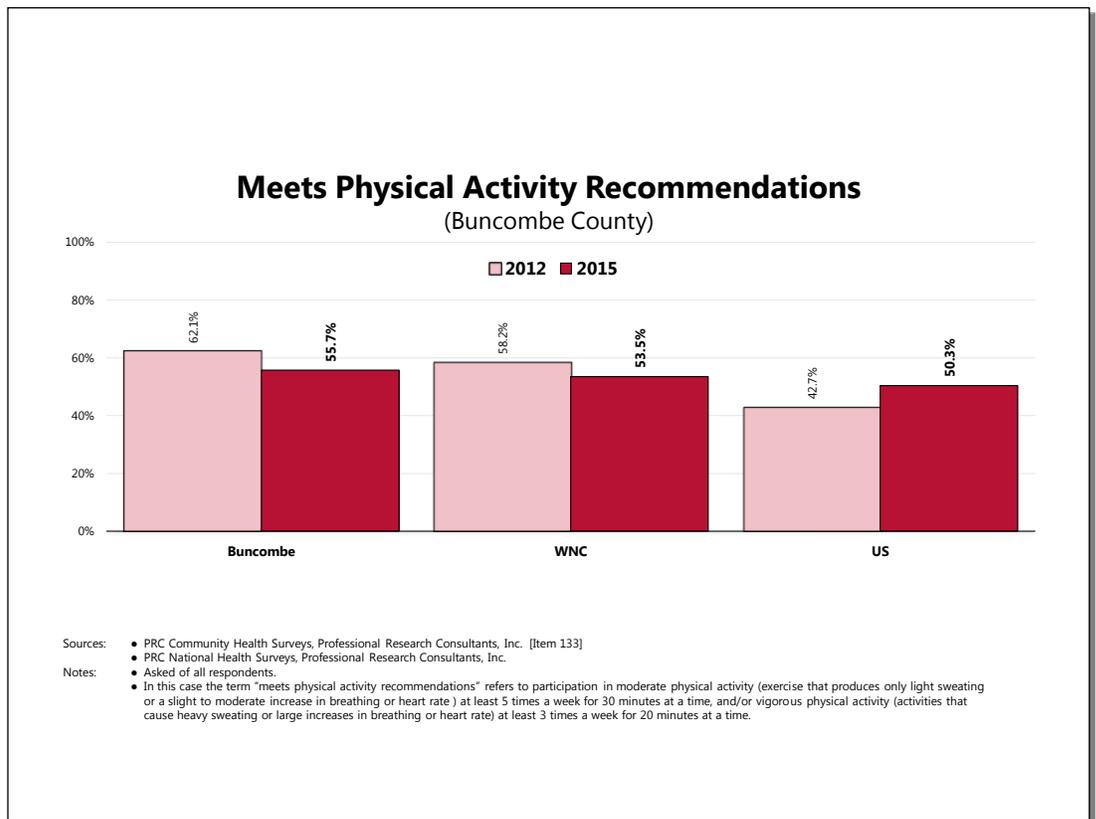


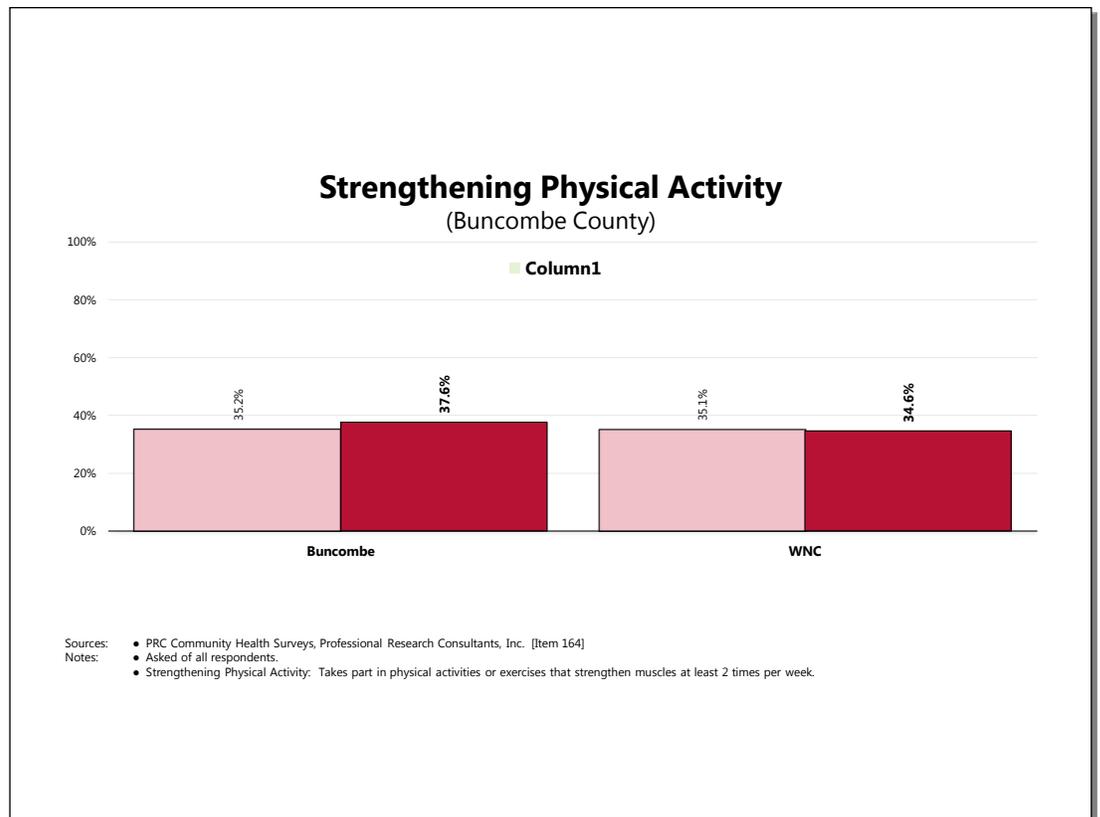
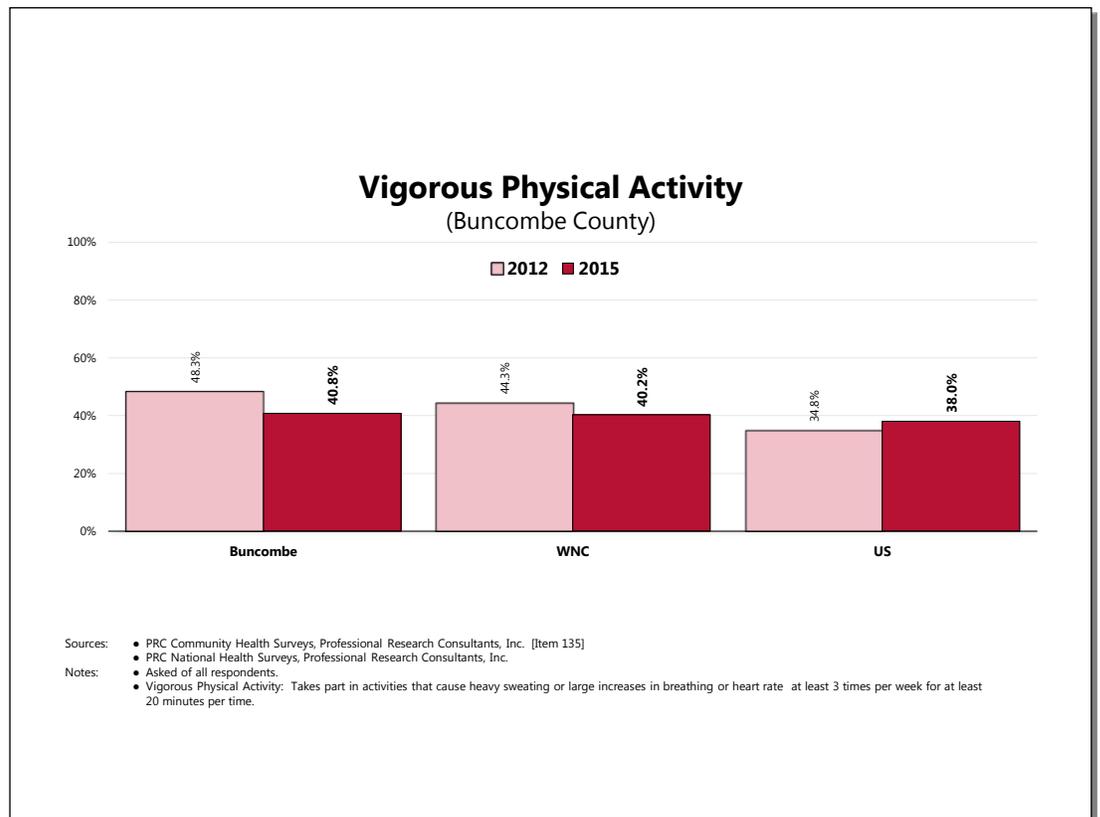
Sources:

- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 73]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC); North Carolina data.
- PRC National Health Surveys, Professional Research Consultants, Inc.
- US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective PA-1]

Notes:

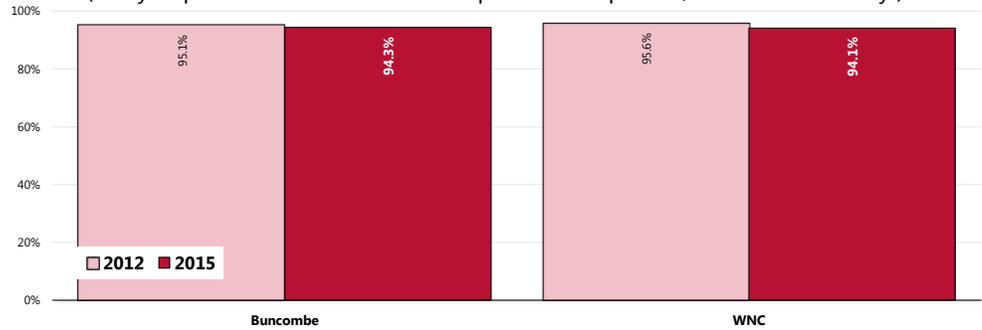
- Asked of all respondents.







### Believe It Is Important That Community Organizations Make Physical Activity Spaces Available for Public Use After Hours (“Very Important” and “Somewhat Important” Responses; Buncombe County)

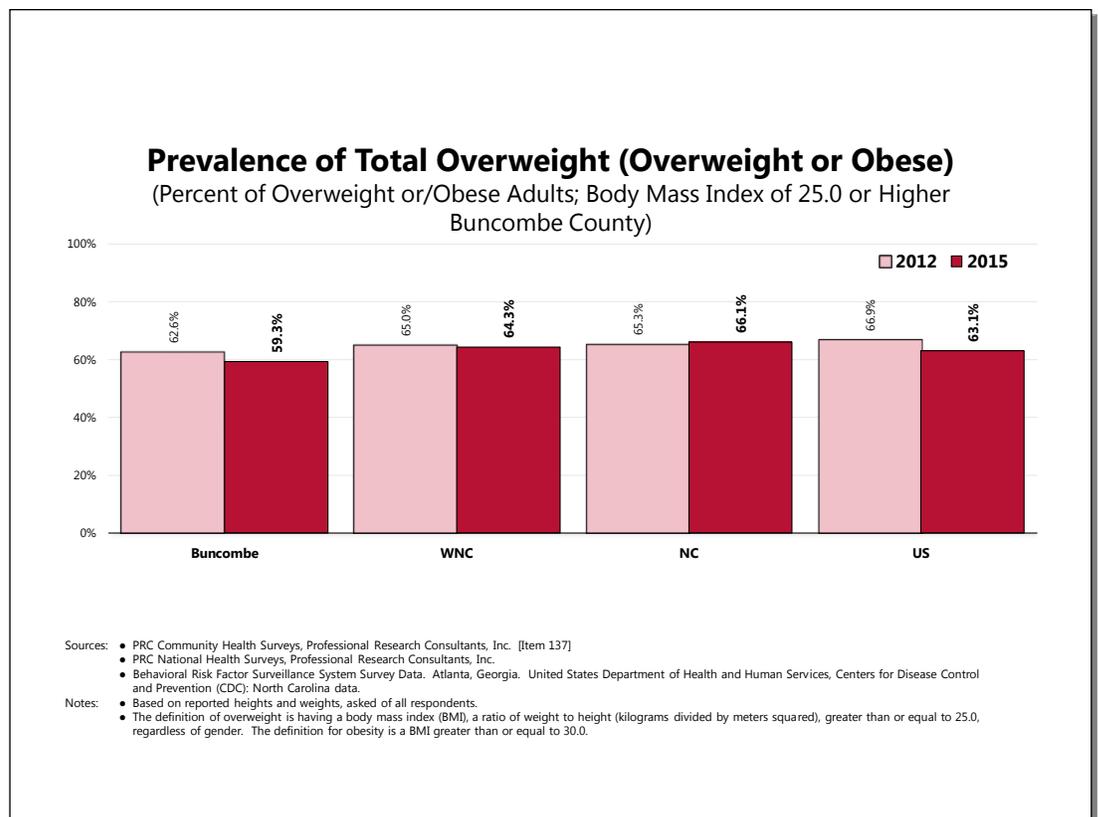
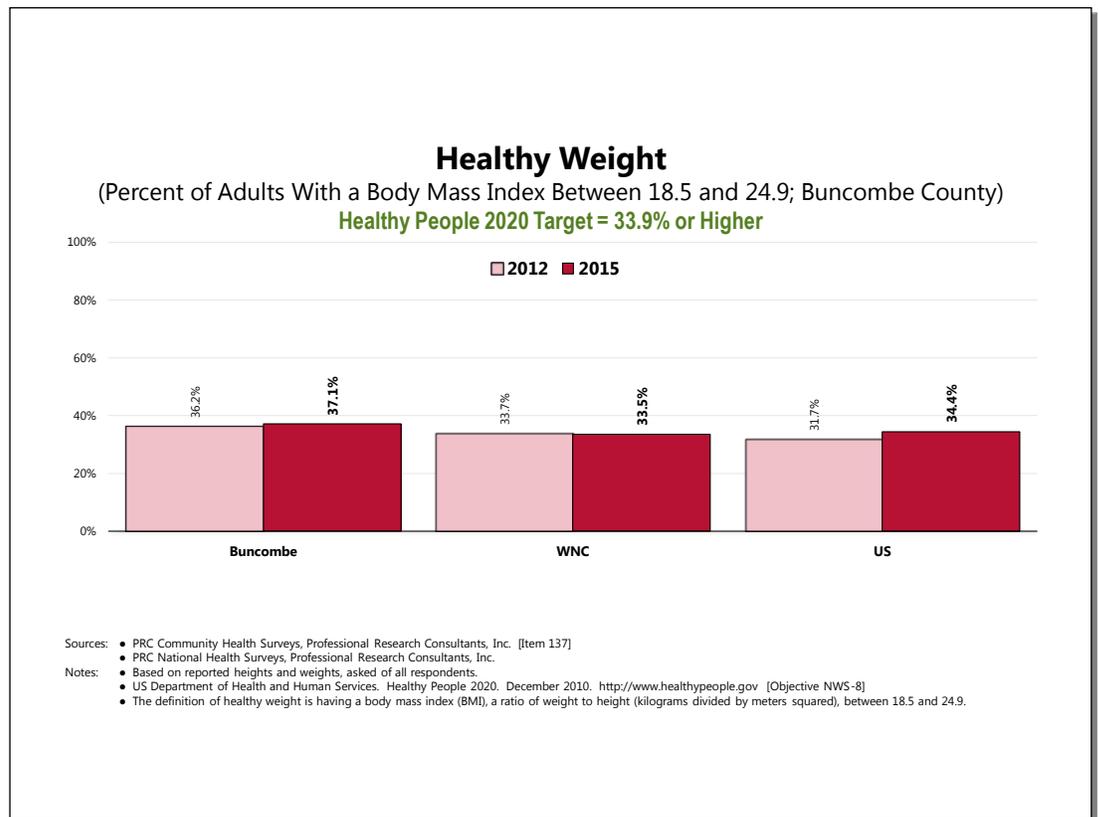


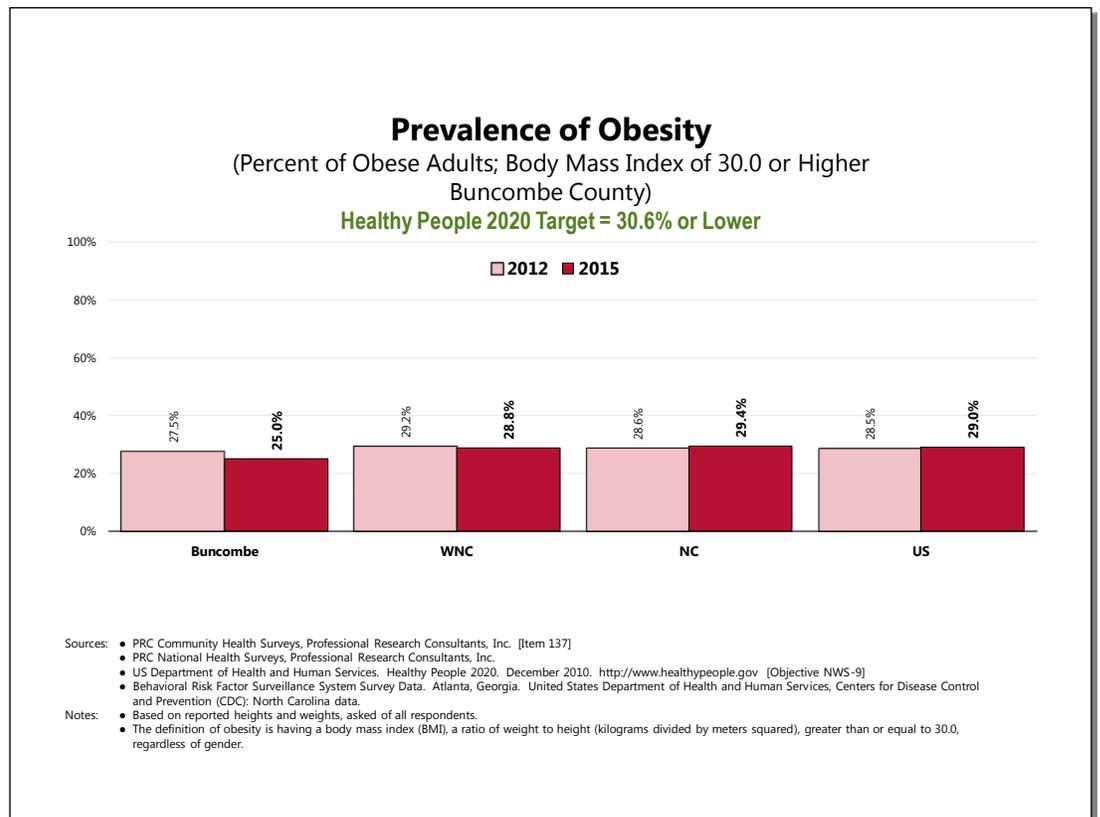
Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 77]  
Notes: • Asked of all respondents.

## Body Weight



COMMUNITY HEALTH





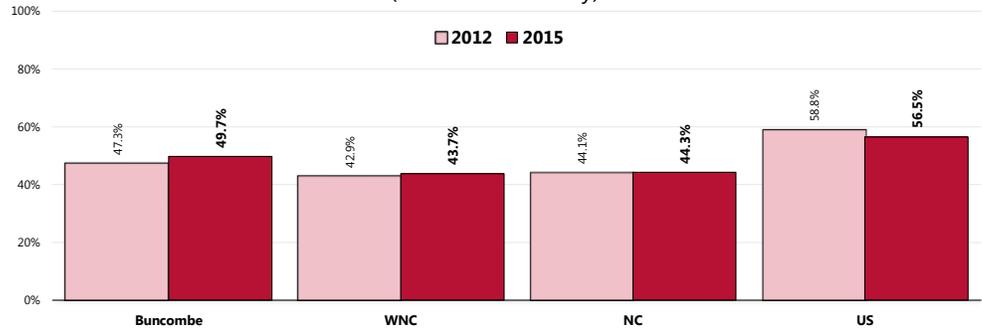
## Substance Abuse



COMMUNITY HEALTH



### Current Drinkers (Buncombe County)

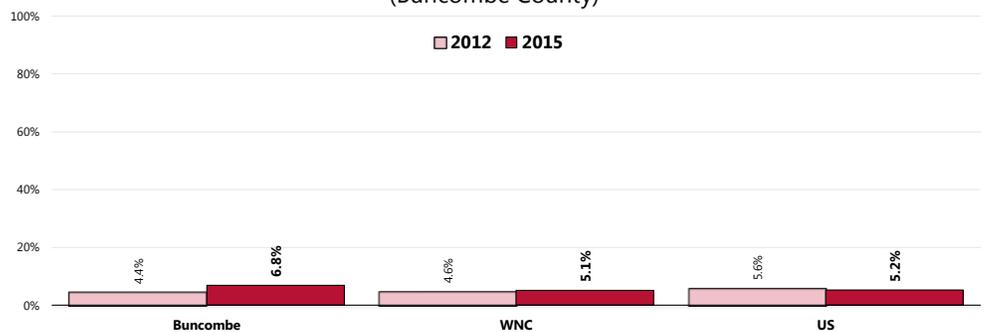


Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 146]  
 • Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC): North Carolina data.  
 • PRC National Health Surveys, Professional Research Consultants, Inc.

Notes: • Asked of all respondents.  
 • Current drinkers had at least one alcoholic drink in the past month.

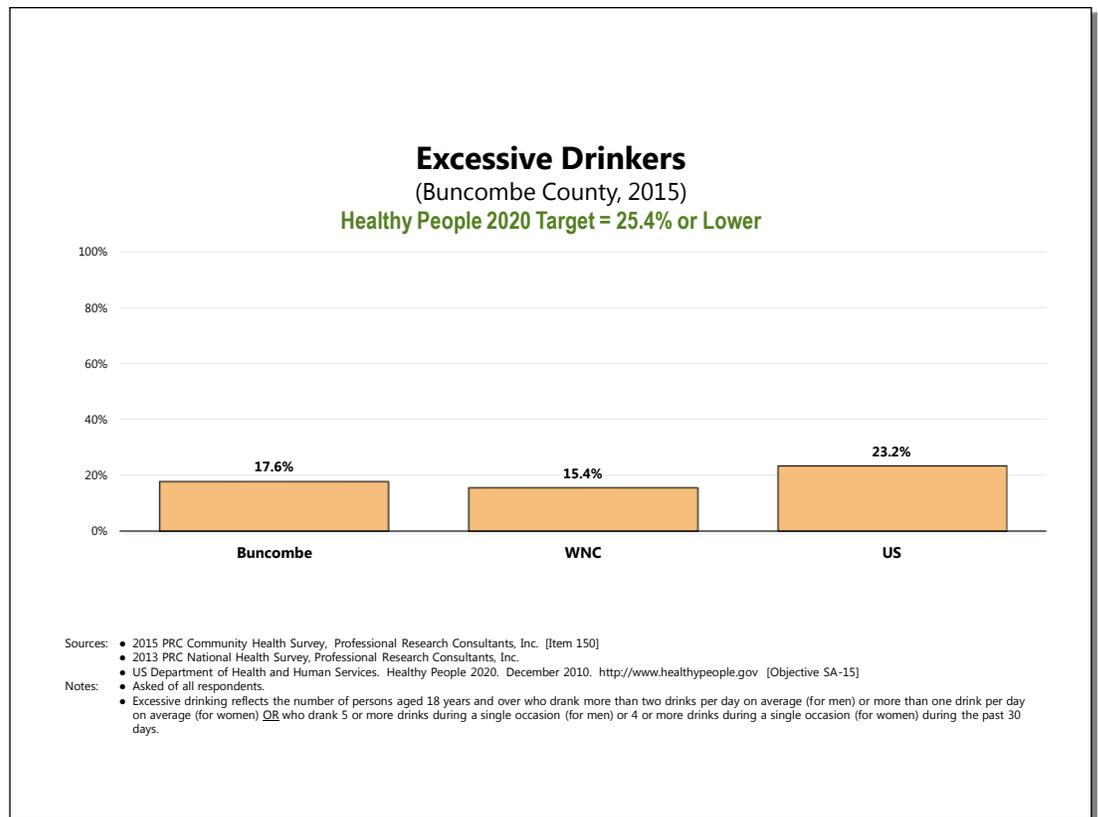
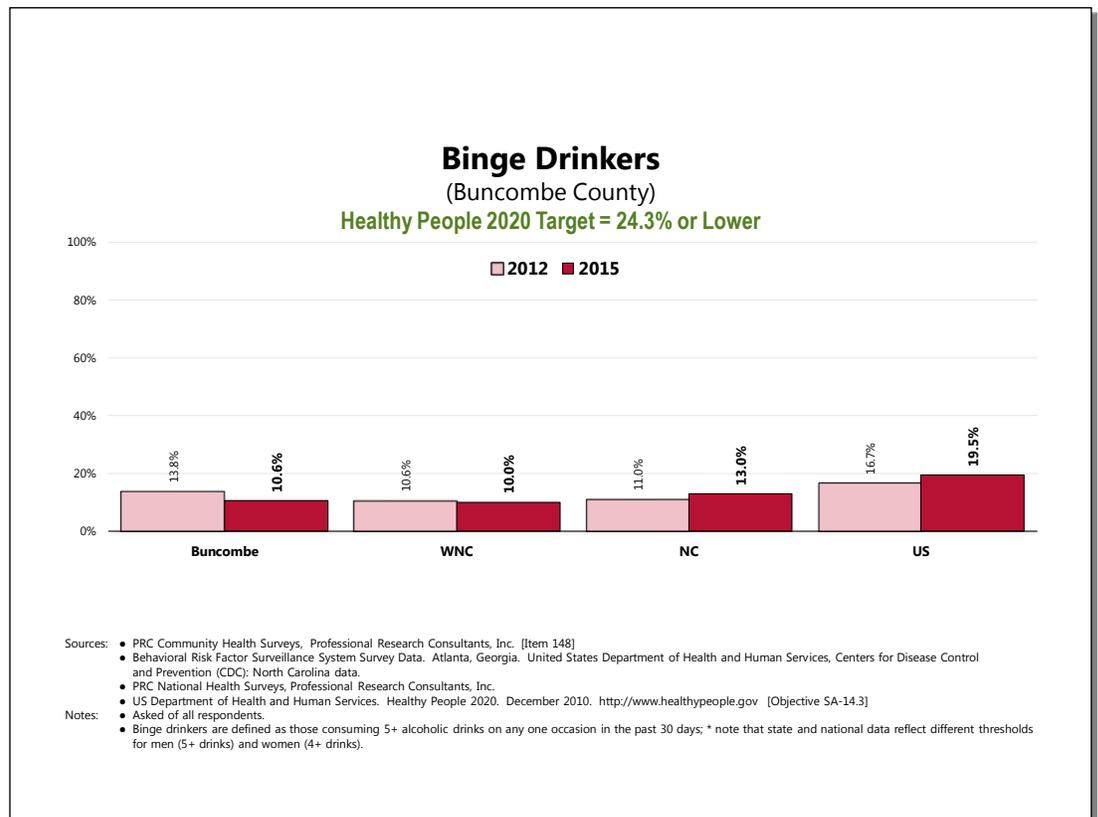


### Chronic Drinkers (Buncombe County)



Sources: • PRC Community Health Survey, Professional Research Consultants, Inc. [Item 147]  
 • PRC National Health Surveys, Professional Research Consultants, Inc.

Notes: • Asked of all respondents.  
 • Chronic drinkers are defined as having 60+ alcoholic drinks in the past month.

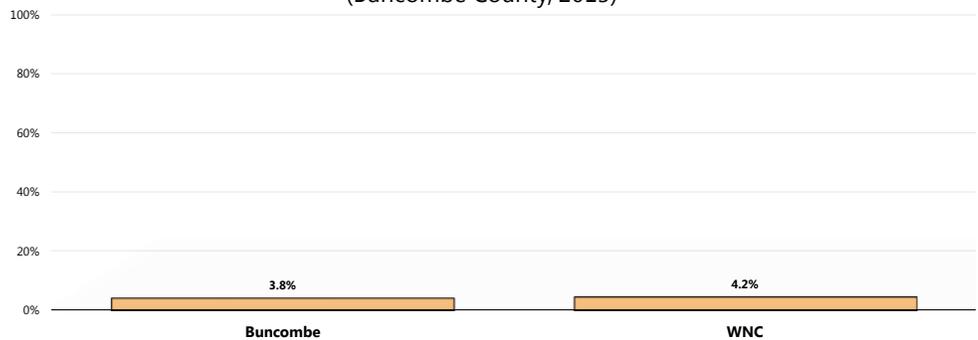


### Have Taken a Prescription Drug in the Past Month That Was Not Prescribed (Buncombe County, 2015)



Sources: • 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 58]  
Notes: • Asked of all respondents.  
• Includes reported use of a prescription drug not prescribed to the respondent.

### Have Ever Shared a Prescription Medication With Someone Else (Buncombe County, 2015)



Sources: • 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 59]  
Notes: • Asked of all respondents.

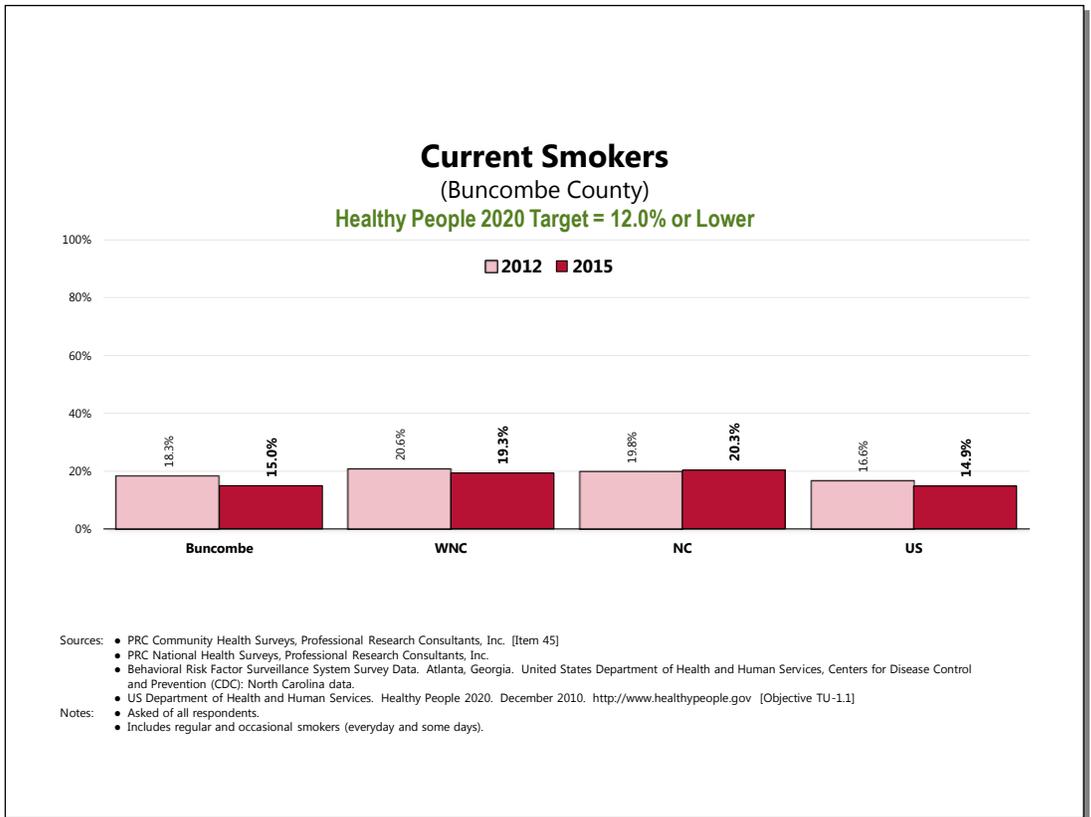
2015 PRC Community Health Needs Assessment

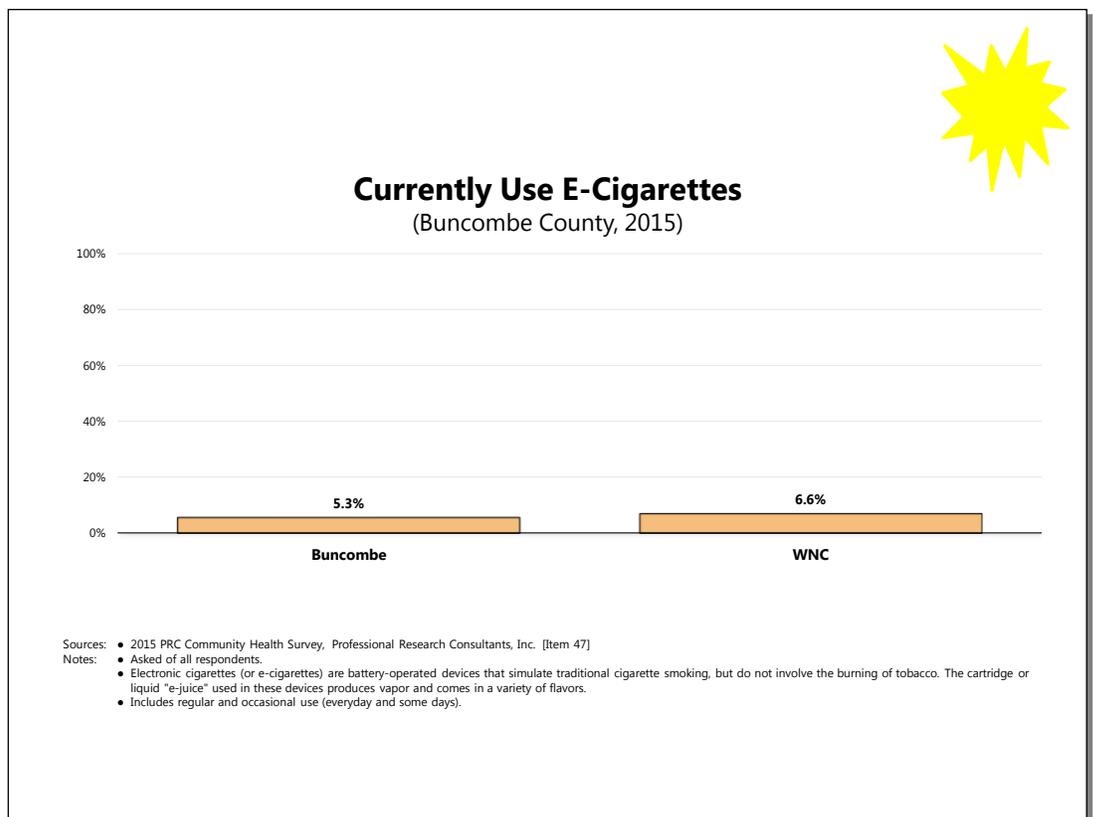
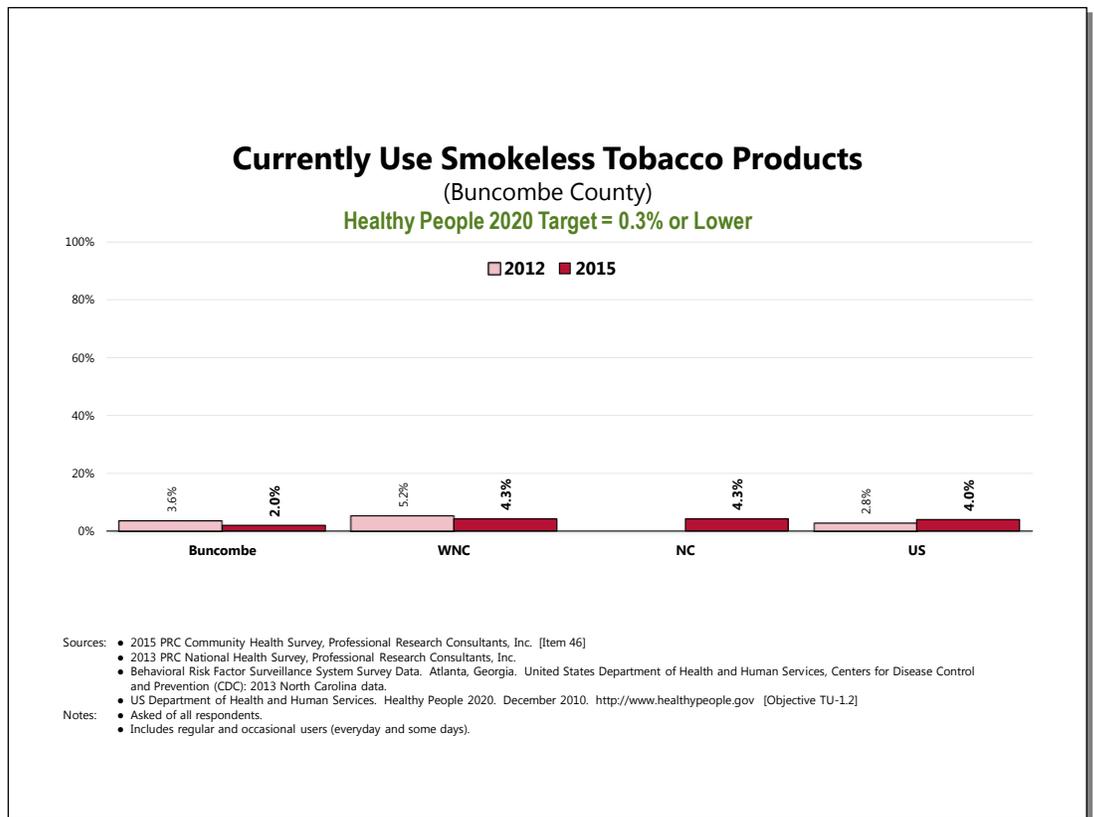
# Tobacco Use



COMMUNITY HEALTH

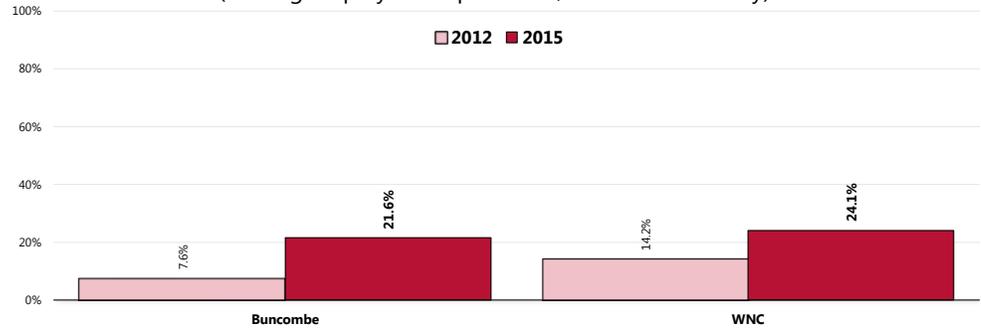
Professional Research Consultants, Inc. 71







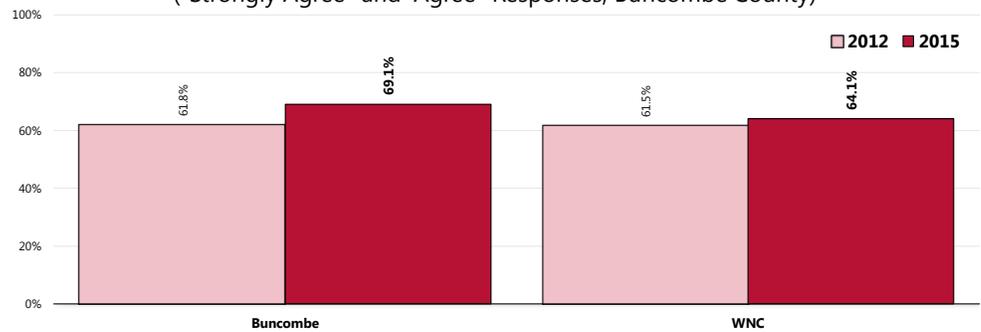
### Have Breathed Someone Else's Cigarette Smoke at Work in the Past Week (Among Employed Respondents; Buncombe County)



Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 49]  
Notes: • Asked of employed respondents.



### Believe It Is Important That Public Walking/Biking Trails Are 100% Tobacco-Free (“Strongly Agree” and “Agree” Responses; Buncombe County)



Sources: • 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 50]  
Notes: • Asked of all respondents.  
• Includes “very important” and “somewhat important” responses.

2015 PRC Community Health Needs Assessment

# ACCESS TO HEALTHCARE SERVICES



COMMUNITY HEALTH

Professional Research Consultants, Inc. 77

2015 PRC Community Health Needs Assessment

# Health Insurance Coverage



COMMUNITY HEALTH

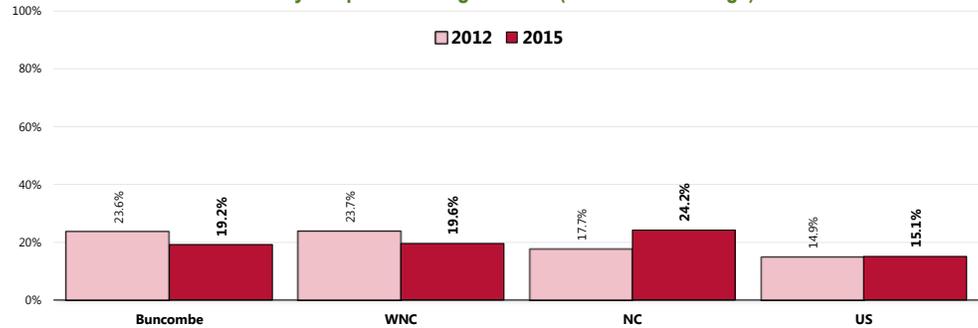
Professional Research Consultants, Inc. 78



### Lack of Healthcare Insurance Coverage

(Among Adults Age 18-64; Buncombe County)

Healthy People 2020 Target = 0.0% (Universal Coverage)



Sources:

- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 165]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC); North Carolina data.
- PRC National Health Surveys, Professional Research Consultants, Inc.
- US Department of Health and Human Services. Healthy People 2020. December 2010. <http://www.healthypeople.gov> [Objective AHS-1]

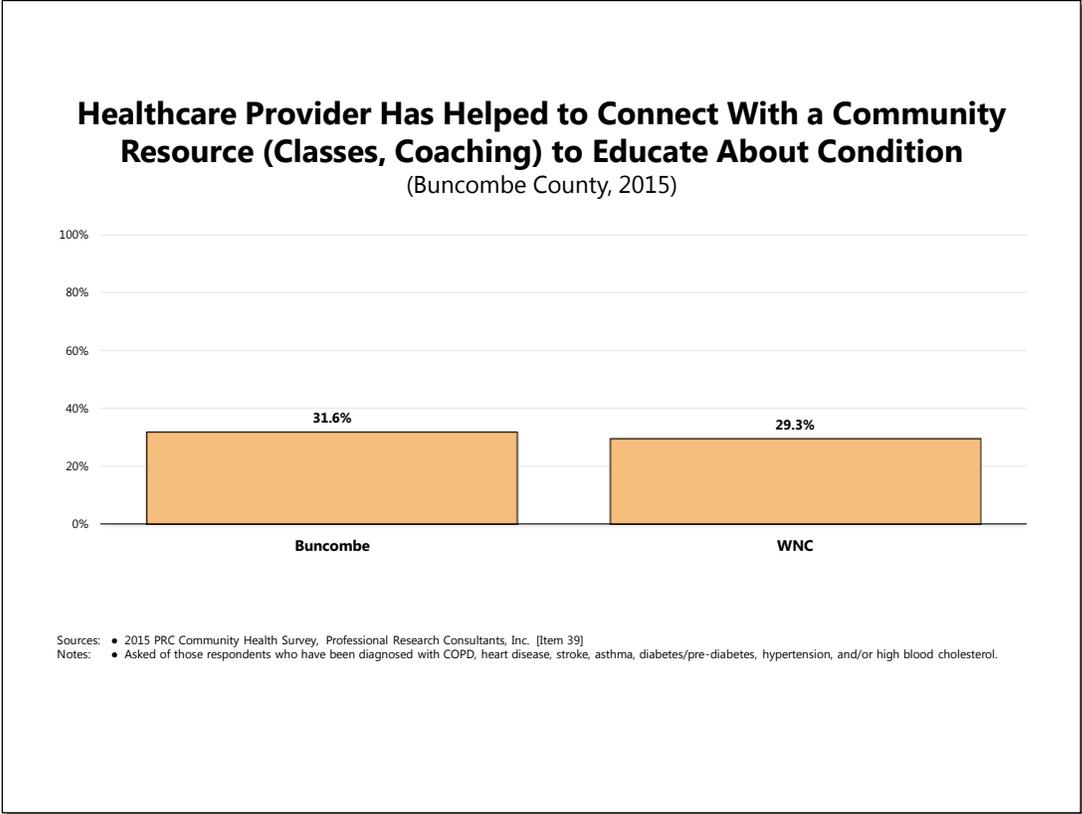
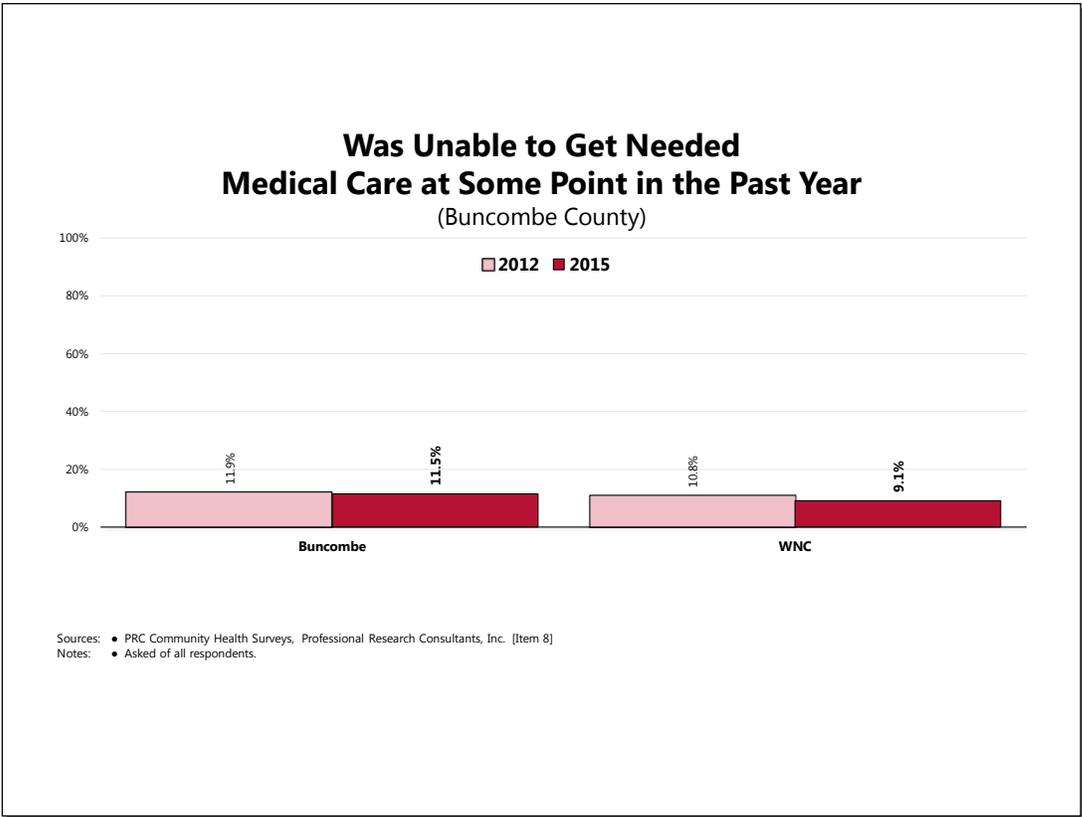
Notes:

- Reflects adults under the age of 65.
- Includes any type of insurance, such as traditional health insurance, prepaid plans such as HMOs, or government-sponsored coverage (e.g., Medicare, Medicaid, Indian Health Services, etc.).

## Difficulties Accessing Healthcare Services



COMMUNITY HEALTH



2015 PRC Community Health Needs Assessment

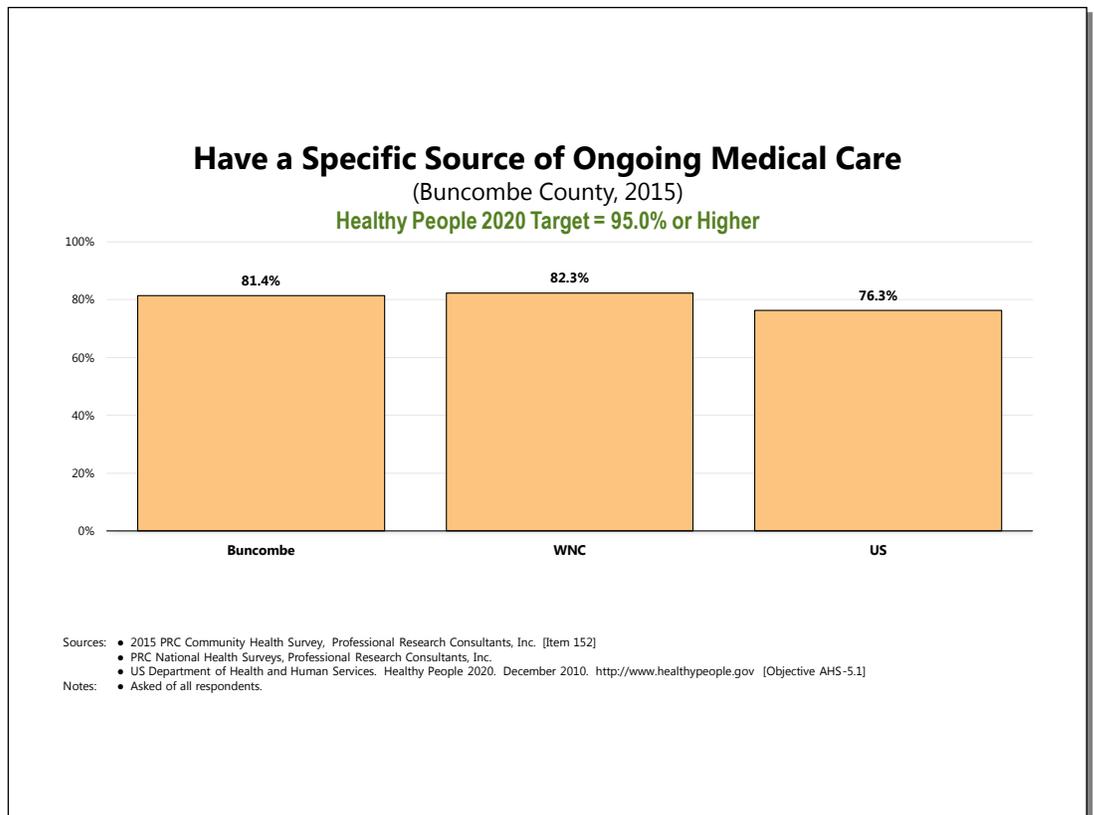
# Primary Care Services

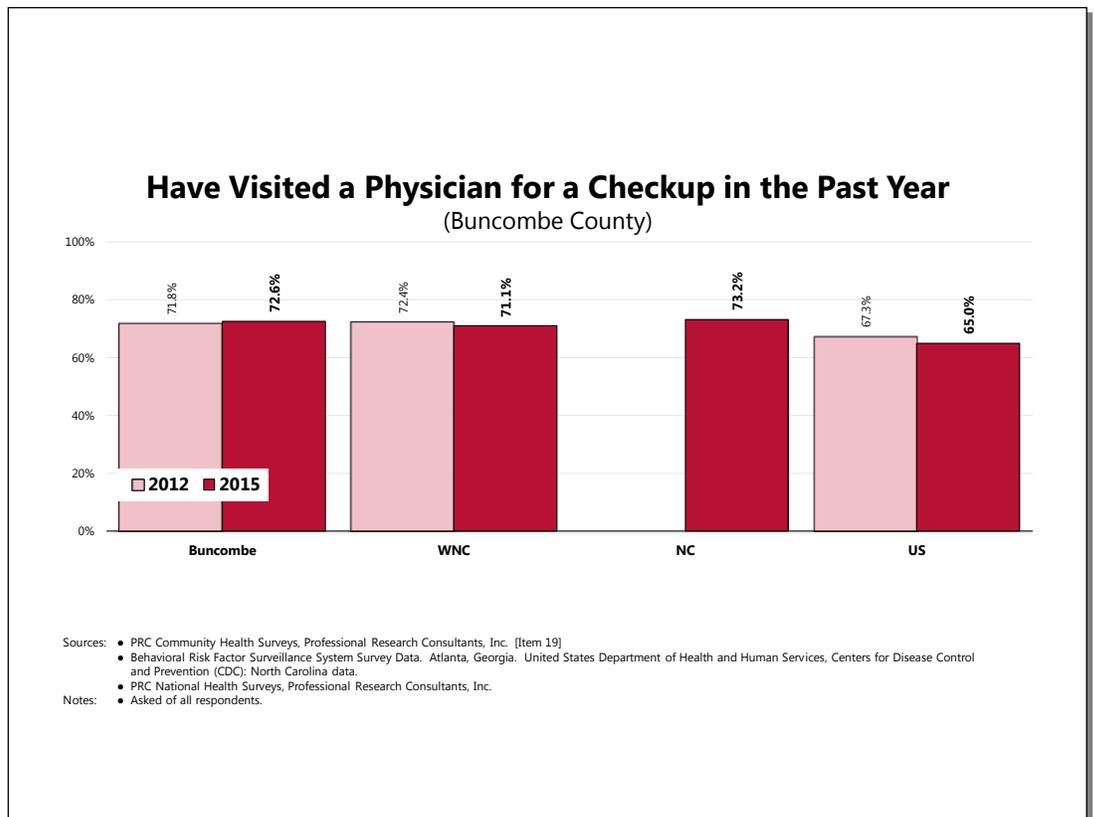


COMMUNITY HEALTH

Professional Research Consultants, Inc.

83



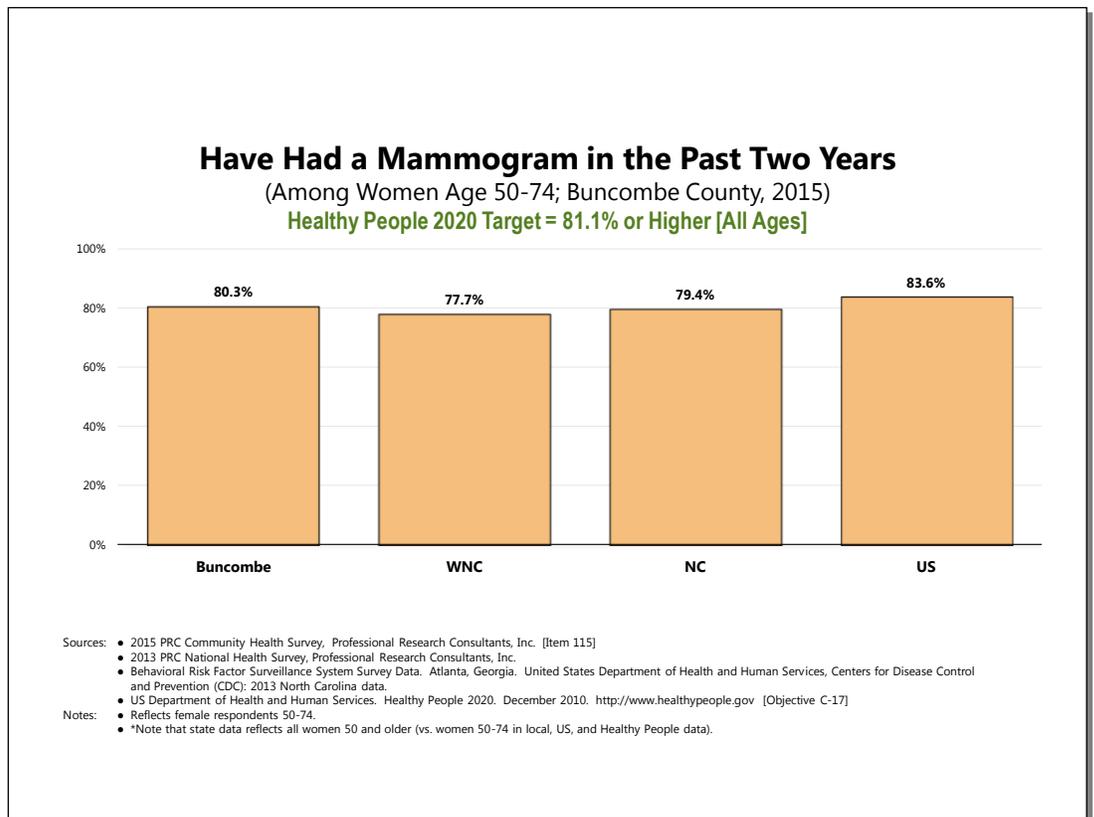


2015 PRC Community Health Needs Assessment

# Preventive Screenings

COMMUNITY HEALTH

Professional Research Consultants, Inc. 86

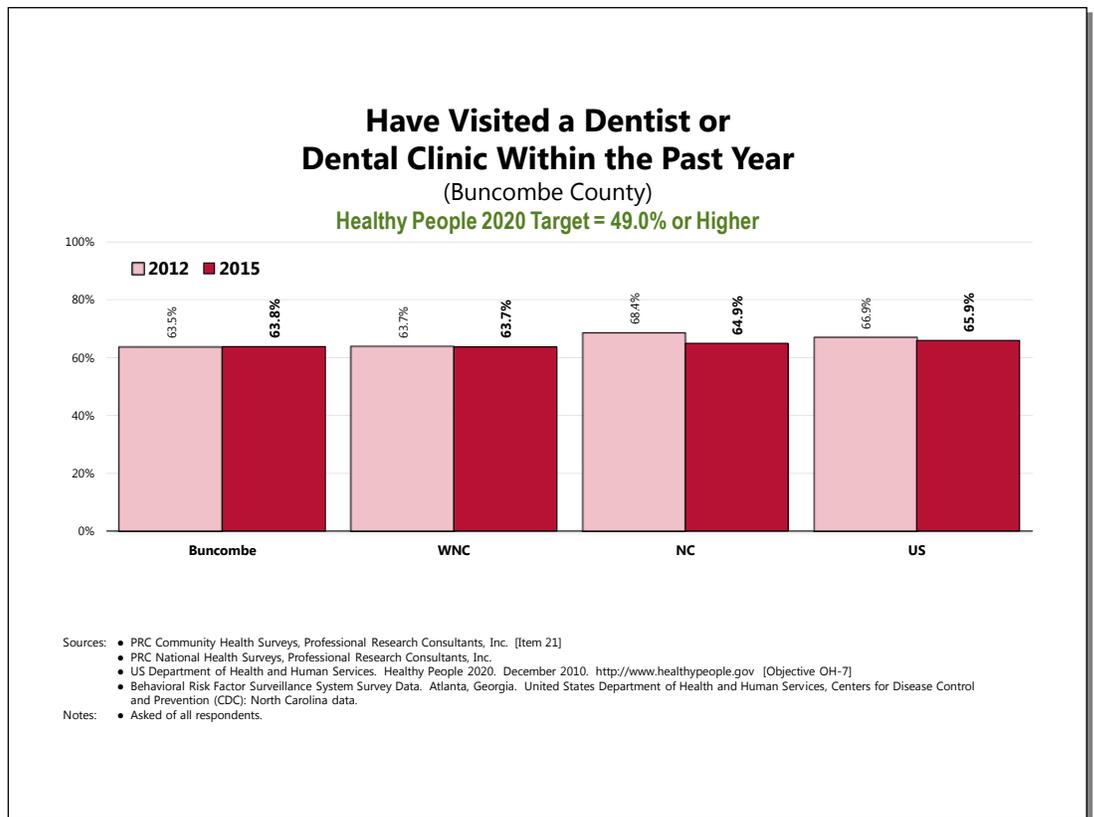


2015 PRC Community Health Needs Assessment

# Oral Health

COMMUNITY HEALTH

Professional Research Consultants, Inc. 88

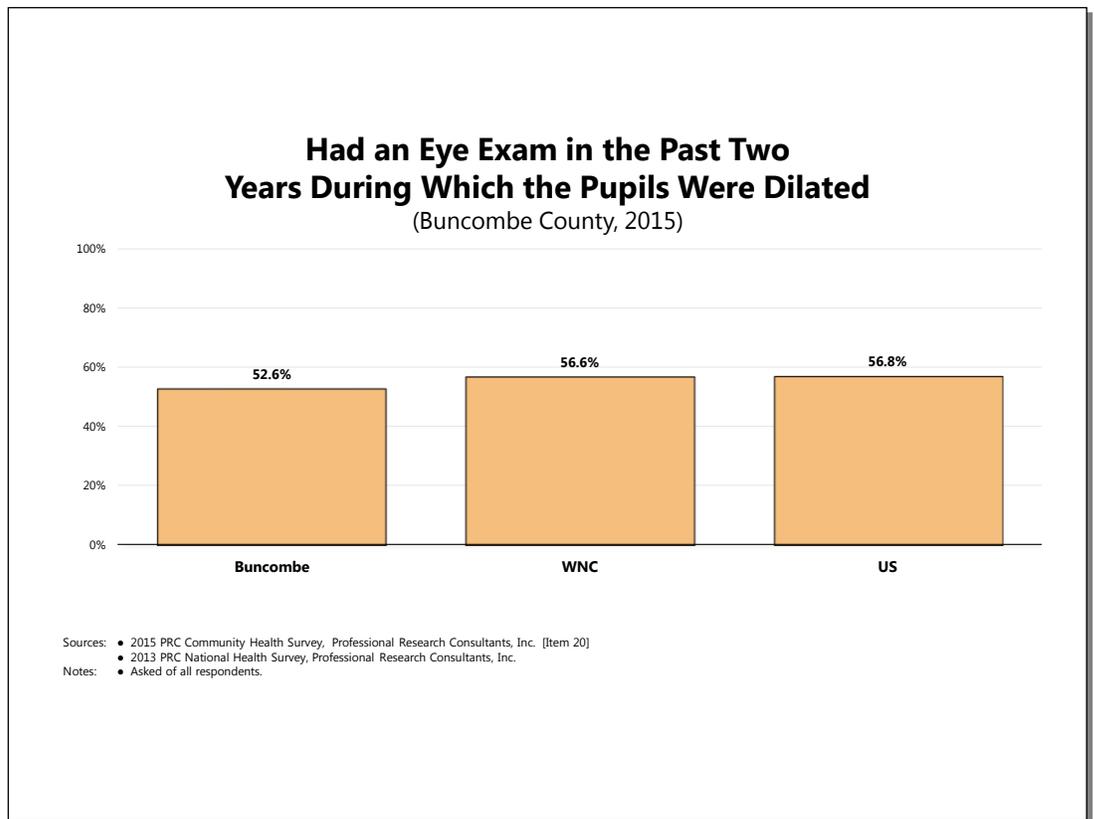


2015 PRC Community Health Needs Assessment

# Vision Care

COMMUNITY HEALTH

Professional Research Consultants, Inc. 90



2015 PRC Community Health Needs Assessment

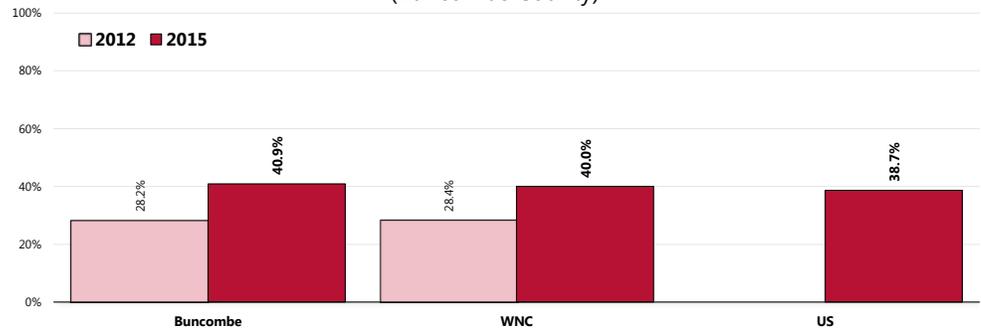
## Health Education & Outreach

COMMUNITY HEALTH

Professional Research Consultants, Inc. 92

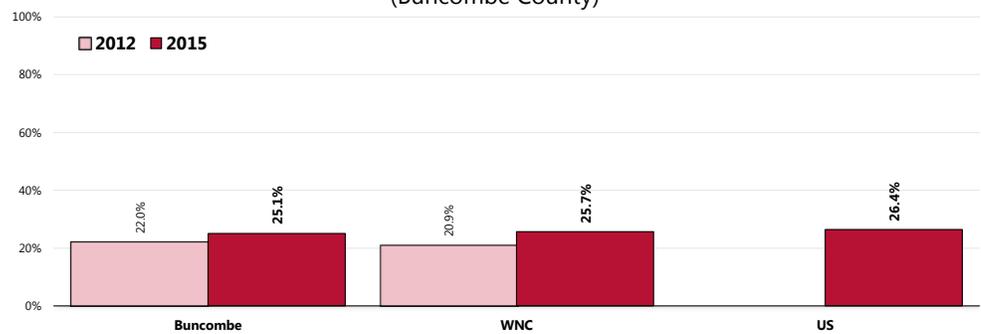


### Rely on Physicians for Most Healthcare Information (Buncombe County)



Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 90]  
 • 2013 PRC National Health Survey, Professional Research Consultants, Inc.  
 Notes: • Asked of all respondents.

### Rely on the Internet for Most Healthcare Information (Buncombe County)



Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 90]  
 • 2013 PRC National Health Survey, Professional Research Consultants, Inc.  
 Notes: • Asked of all respondents.

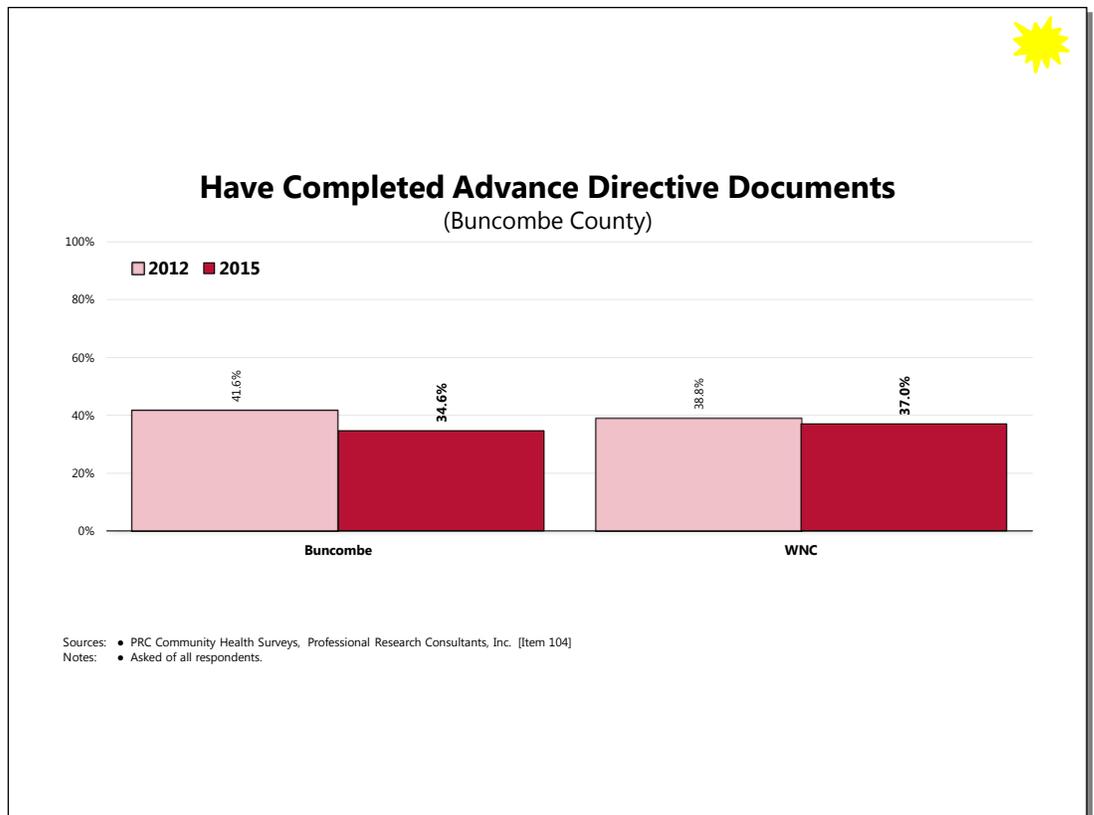
2015 PRC Community Health Needs Assessment

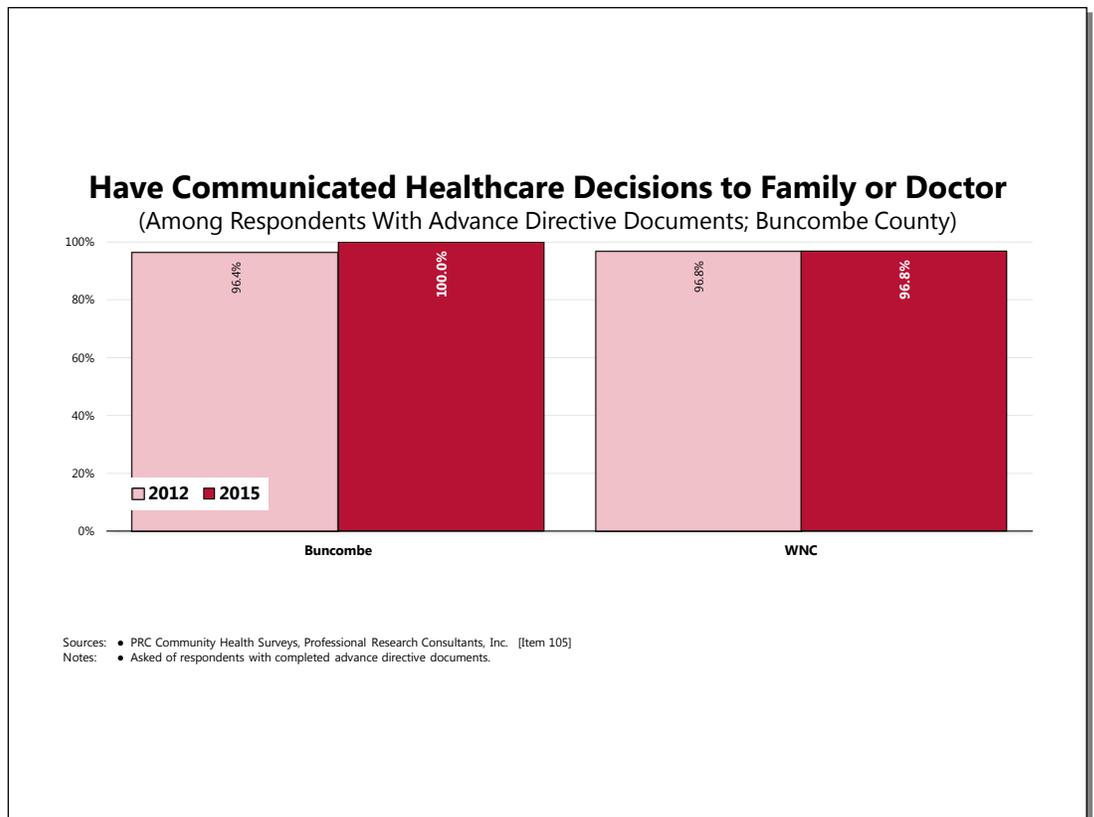
# Advanced Directives



COMMUNITY HEALTH

Professional Research Consultants, Inc. 95





2015 PRC Community Health Needs Assessment

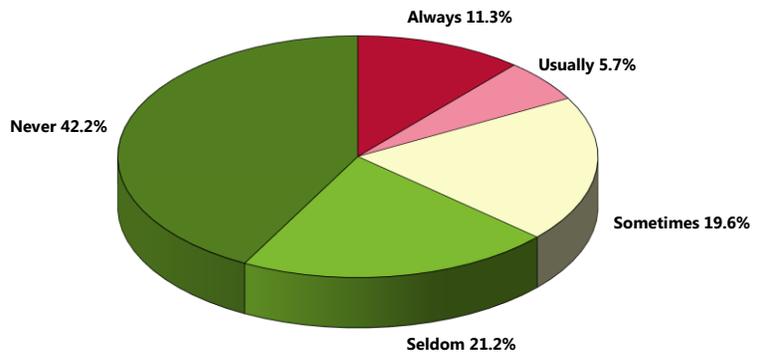
# COUNTY-SPECIFIC QUESTIONS

COMMUNITY HEALTH

Professional Research Consultants, Inc. 98

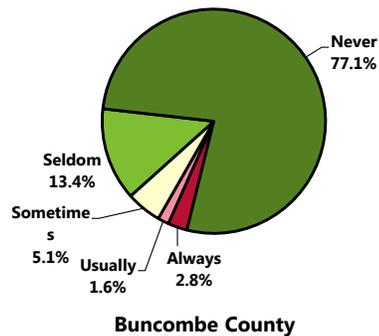


### Frequency of Worry or Stress Over Having Enough Money to Pay Rent or Mortgage in the Past Year (Buncombe County, 2015)



Sources: • 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 71]  
Notes: • Asked of all respondents.

### Frequency of Having Trouble Finding Transportation to Places Would Like to Go (Buncombe County, 2015)

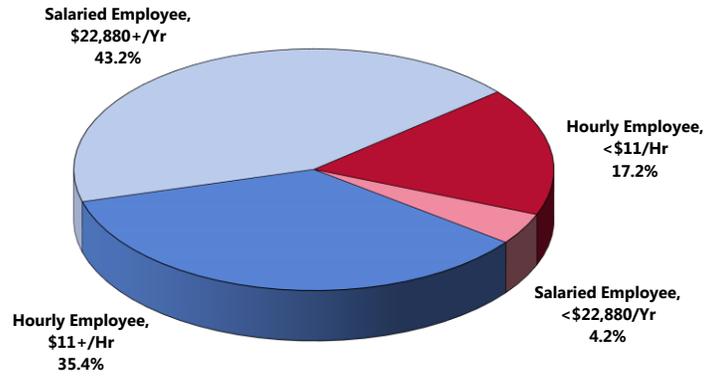


Sources: • PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 72]  
Notes: • Asked of all respondents.



### Wages

(Among Employed Respondents; Buncombe County, 2015)



Sources: • 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 107]  
Notes: • Asked of all respondents.