Buncombe County

2010 Community Health Assessment

2010 Community Health Assessment Report

Presented by

Community Health Assessment Steering Committee

and Volunteer Teams

Under the joint leadership of

Buncombe County Department of Health and **Health Partners, a Healthy Carolinians Coalition**

December 2010

Acknowledgements

The Department of Health and Health Partners wish to thank all of the people and organizations that have made the 2010 Community Health Assessment report and process possible. Over 700 community residents and representatives from local organizations participated in the health assessment process in 2009-2010. Without them, the assessment would not be as meaningful.

We also wish to thank the Community Benefits Program of Mission Hospital and the Community Foundation of Western North Carolina for their support of the Community Health Assessment process.

In Our Dreams

In our dreams
We can imagine the world we want to live in
We can imagine an imperfect place
With perfect sunny days filled with joy and laughter
Of rainy days by the fire with hot chocolate and a good book
Of celebrations with friends and families that allow us to feel truly loved

For this world to exist
We must be healthy
We must have access to education
We must make a livable wage where our basic needs are met
We must be connected to our communities like in days of old
Where neighbors knew their neighbors
And the services we needed were local
So that we knew the farmer, the grocer, and the delivery people

For this world to exist
We must see our work as one of relationships
Relationships with people, resources, and networks
Relationships between our work and the land
Relationships where we honor this planet and honor ourselves
By living with discipline, compassion, and humility

In this dream
We are loved because we are loving
We are respected because we have come to respect ourselves as well as others
We are joyful because we seek joy, not immediate gratification, every day

In our dreams
We can imagine the world we want to live in
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With perfect sunny days filled with joy and laughter
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Kevin “Doc” Klein

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Executive Summary

How do we prevent disease, save lives, and save dollars? How do we make serious changes in our community so that all residents have the opportunity to make healthy choices? What will it mean to create a bold health vision that community partners can work towards instead of simply listing the problems we want to get rid of? The Buncombe County Community Health Assessment process of 2009-2010 has focused on answering these questions.

In the challenging times in which we find ourselves at the end of 2010, one stark fact about community health is clear: the health sector will simply not be able to accomplish overarching health improvement on its own. Now more than ever, public health and health care providers must develop innovative partnerships to achieve success. High school graduation, urban planning and design, and air and water quality likely have as much or greater impact on health than seeing a doctor when you are sick.

A diverse team of community leaders has worked together to chart a course for Buncombe's healthier future. The priorities outlined in this report focus on helping all of our people stay healthy. Gathering a wealth of information, reviewing data, and setting priorities are only the first steps. Now we begin the search for strategies that can push our community forward and reduce death and disease. Our health and well-being depend on it.

America leads the world in medical research and medical care, and for all we spend on health care, we should be the healthiest people on Earth. Yet on some of the most important indicators, like how long we live, we're not even in the top 25, behind countries like Bosnia and Jordan. It's time for America to lead again on health, and that means taking three steps.

The first is to ensure that everyone can afford to see a doctor when they're sick.

The second is to build preventive care, like screening for cancer and heart disease, into every health care plan and make it available to people who otherwise won't or can't go in for it. (Example: have available in malls and other public places, where it's easy to stop for a test.)

The third is to stop thinking of health as something we get at the doctor's office but instead as something that starts in our families, in our schools and workplaces, in our playgrounds and parks, and in the air we breathe and the water we drink.

The more you see the problem of health this way, the more opportunities you have to improve it. Scientists have found that the conditions in which we live and work have an enormous impact on our health, long before we ever see a doctor.

It's time we expand the way we think about health to include how to keep it, not just how to get it back.

Excerpt from Robert Wood Johnson Foundation:
A New Way to Talk about the Social Determinants of Health, 2010

Buncombe County's 2011-2014 Health Priorities

After examining the data that was generated during the Community Health Assessment (CHA) process and listening to input from community members, six priority areas have been chosen by community leaders. By focusing on these six areas during 2011-2015, Buncombe County residents and organizations will move forward toward our long-term goal of improving health.

1. **Promote Healthy Weights Through Healthy Living**
2. **Improve Women's Health During Childbearing Years**
3. **Improve Children's Health Outcomes through a focus on Family Support and Education**
4. **Increase Readiness of All Students to Learn & Succeed in School**
5. **Access to and Continuity of a Mental Health Home** → **Medical Home**
6. **Access to and Continuity of a Primary Care Home** → **Medical Home**

Each of these health priorities is also complemented by five guiding principles or "overarching themes" that will shape the development of specific strategies to address each of the priorities.

- **Equity / parity:** Focus on addressing racial, ethnic, income, and other disparities.
- **Access to resources:** Focus on strategies that enable access to various kinds of resources.
- **Prevention:** Focus on creating opportunities to help people stay well.
- **Assets-based approaches:** Build on existing strengths and assets.
- **Results, impact, and outcomes:** Seek to be strategic about which interventions or combination of interventions are more likely to achieve the most impact and create positive health outcomes.

In the remainder of this report, you will find detailed data and analysis, input from community members and much more. The priorities for the next four years have been identified. Now the strategic work begins. Your ideas, energy, and creativity are welcome.

Buncombe County Health Director
2010 Chair, Health Partners

Dr. Richard Oliver, DMV
Chair, Buncombe County Board of Health

Introduction

Strategic alignment to improve health

Buncombe County is a vibrant place to live and is well known for its rural beauty, small town charm of the many municipalities, and the splendor of downtown Asheville. Many leaders in Buncombe County are committed to improving health and wellbeing as a critical strategy for attracting new residents and businesses as well as improving the quality of life for current residents.

Throughout 2010, a team of 68 community leaders from Buncombe County came together to chart a course for making our community a healthy, vibrant, high-quality place to live, work, and play. Many of the leaders involved with the Community Health Assessment (CHA) process asked the fundamental question, **"What good is helping people live longer if they cannot lead high quality lives?"** By creating a community health vision to focus our effort, leaders now draw our attention to the issues that we care enough about to want to create improvements in our community.

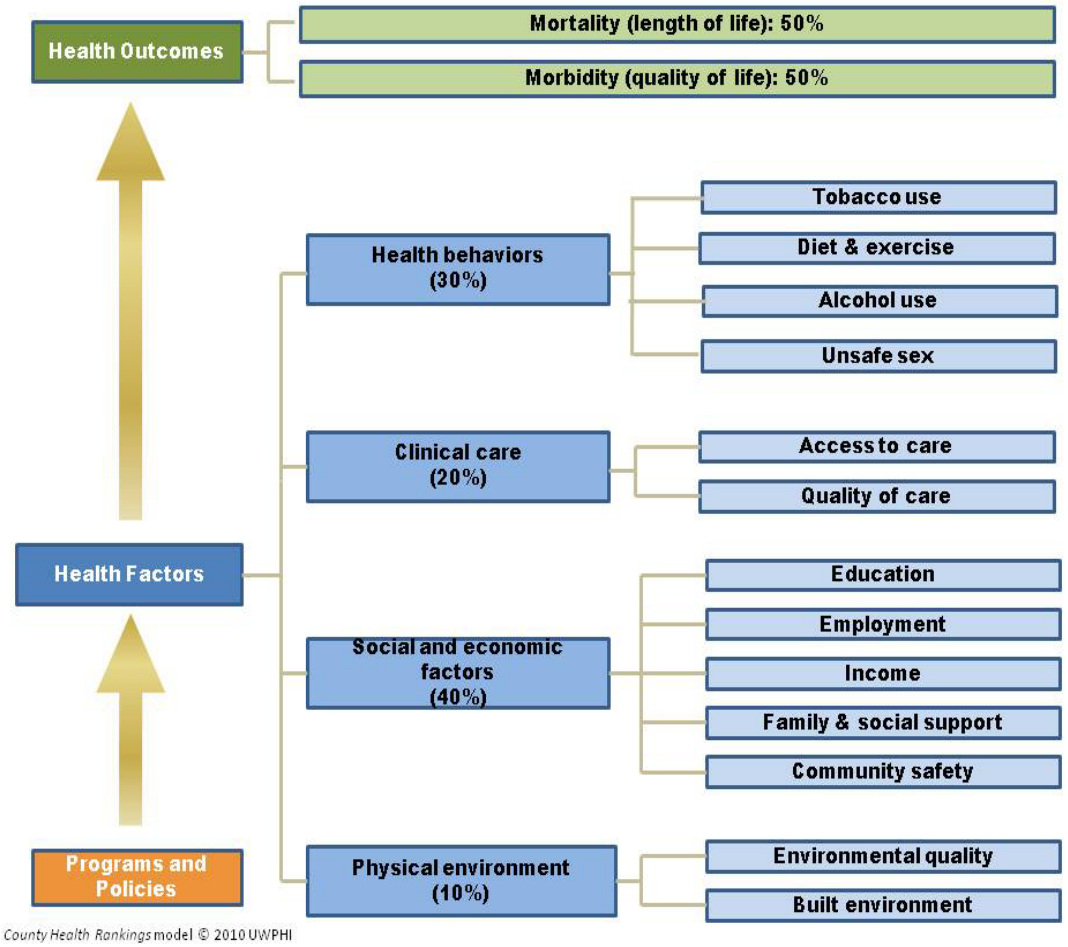
Creating the community health vision and priorities detailed here are not the work of any one organization or neighborhood group. Indeed, no one organization will ever be able to accomplish the goals outlined here. **What this vision and these priorities do is help us align in the same strategic directions**. These are the common goals we can work towards together to improve health. Each of the priorities is itself a puzzle with numerous pieces – many of them yet undefined. Where do your energy, passion, and commitment fit in these puzzles?

Reframing our understanding of health improvement

In the spring of 2010, a new health statistic posed a challenge for Buncombe County. A nationwide health ranking process called Mobilizing Action Toward Community Health (MATCH) indentified four categories of health factors that together impact rates of death and disease. The MATCH ranking specified measures in each category: health behaviors, clinical care, social and economic factors, and physical environment. Buncombe County was ranked as the 25th healthiest of the 100 counties in North Carolina based on over thirty health measures.

Here was our challenge: even though Buncombe County was ranked 3rd healthiest of the North Carolina counties on medical care availability and quality, our rates of death and disease still put us at only 25th healthiest overall. Ability to go to the doctor and receive high quality care is one critical piece of the puzzle of good health. However, the MATCH rankings made it clear that if Buncombe County wants to truly improve the health status of our residents, we will need to seriously address the other factors that contribute to good health – or the lack of it.

Mobilizing Action Toward Community Health - MATCH Framework



Community Health Assessment Process

In the summer of 2009, the Buncombe County Department of Health began to look seriously at our Community Health Assessment (CHA) process. A number of critical assumptions about how the data would be used and what data was most critical were tested. Early in 2009, over 200 community partners completed a brief survey that helped the Department of Health determine ways to make the 2010 Community Health Assessment even more useful to community members and partners. The goal was to create a process that could be used to inform the planning and strategic impact of not only the Department of Health but of various organizations throughout the community.

It became clear that collecting more data and information that primarily described the current health status of residents would not be particularly useful if it was not grounded in the community's vision for a healthier Buncombe County. With the aid of Uncharted Territories, a health systems analysis firm, the Department of Health undertook a more ambitious plan**. The prime objective for the 2009-2010 Community Health Assessment process was to have an on-going strategic alignment and action planning process for health improvement that engaged a diverse set of stakeholders in decision-making.**

This on-going process consists of the following four phases:

Phase One – Strategic Questions (2009 / early 2010)

The first step in this action learning process was to become clear about what health-related questions community leaders cared about. Creating a pathway to engage partners in an exploration of the critical strategic questions opened up the doors for the partners to have a higher degree of ownership and investment in the Community Health Assessment work. By using a *systems thinking perspective*, the CHA team began to see how the different components impacted our overall health. *Systems thinking* is a discipline that is new to many. Yet, as our health problems become so complex, it is necessary to use tools that help us understand all the parts and how they relate to the whole.

The initial inquiry into generating strategic questions began to help CHA leadership better understand where there were opportunities to create action and build momentum through this process. Leaders were asked what improvements they cared enough about to personally and/or organizationally commit energy and resources. For example, a principal of a school may want to know about why his/her students are absent so often. A minister may want to know who in her congregation is most likely to get diabetes or how to best help members who already have the disease to manage it well. A business leader may want to know who in his company is most likely to struggle with chronic disease and how he can most effectively reduce health insurance premiums. We found this challenging as many partners were not used to asking these types of questions. One partner indicated privately that "we have gotten quite used to the experts giving us the information and reacting to it in some form or fashion." These questions went far beyond the types of health information/data we typically gather through the CHA. As expected, much of this data was not readily or yet available.

The new Healthy Living Network is one such example that emerged through this process. Questions were identified using a systems thinking approach. Partners then identified areas of focus for improving their impact with a number of key health outcomes. For more details about the Healthy Living project, see page 111.

Phase Two – Collecting and Analyzing Data/Information

Phase Two involved a number of the traditional processes used in previous Community Health Assessments including surveys, listening sessions, key informant interviews, and data collection from a number of reliable sources such as MATCH County Ranking Report, the Behavioral Risk Factory Surveillance Survey, and the Census Bureau.

The strategic questions helped to focus the data collection wherever possible. It became clear, however, that our surveillance efforts would need to be expanded or refined greatly to collect some of the data necessary to address some of the new questions generated. Much of the data that partners wished to see is not yet available.

In addition, we found much of the data is presented in terms of what we wished to rid ourselves of versus what we wished to create. For example, we know that teenage pregnancies in some populations

are higher than others. This data steers us towards reducing what we do NOT want, in this case teenage pregnancies, versus helping us create what we DO want such teenage young women postponing pregnancy until later years. This is an area we hope to be able to address in years to come through our surveillance efforts. By focusing on an assets-based approach, health leaders are more likely to engage the community to create positive and meaningful changes.

The Community Health Assessment Steering Committee created a number of guiding principles to use when analyzing data and for future groups to use when creating action plans around the defined priorities. These guiding principles provide the context or frame for data analysis so that all decisions made would incorporate a strategic focus on the following principles:

- **Equity / Parity**
- **Access to resources**
- **Prevention**
- **Assets-based approaches**
- **Results, impact, and outcomes**

More details about these guiding principles are listed in this report on page 12.

Phase Three – Priorities, Vision, Goals, and Strategy

This Phase involves setting clear priorities and then working with Strategic Action Teams to develop clear vision, goals, and strategies for each particular priority area. This work will move at different paces over the course of the next three to four years. Six key priorities were identified by the Steering Committee. A pilot strategic action planning and implementation process began with the Healthy Weight priority in fall of 2009. For more information on action planning and activity for that priority, see the Strategic Innovation section beginning on page 111.

The Department of Health will work with community teams to further focus data needs using data that was generated as part of CHA as a starting point for each action team. The intention is for the Department of Health to continue to refine this data so that it is more useful in identifying which populations may benefit from a more targeted approach than others.

Phase Four – Action, Evaluation, and Learning

Focused efforts will be designed and targeted at some of the key high leverage points. A high leverage point is an area where a little effort is likely to yield large results. Sometimes these places are not always immediately obvious. The tough question each Strategic Action Team will wrestle with is ***"Will doing more of what we are currently doing improve our results or are new actions required to achieve the desired impact?"***

The key is to work with partners to make strategic decisions up front and then test our theories of action through evaluation efforts designed to answer the fundamental question ***"Is what we are doing working?"***

Evaluation is most effective if we can examine results and learn from them in order to refine our process and/or make mid-course corrections in strategy. Learning happens continually. To truly reflect on how to improve performance takes a disciplined approach and the collective wisdom of the partners involved in the work. We will therefore explore a number of evaluation efforts, including "learning histories," that capture more than just the events undertaken but also the learning that occurred along the way.

Timeline of activities

	Summer 2009	Fall / Winter 2009	Spring 2010	Summer 2010	Fall 2010	Winter 2010 and beyond
Activities:						
Early planning, community partner meetings	———					
Developing in-depth community health survey, creating sample methodology, interviewing randomly selected community residents		———				
Strategy team with focus on Healthy Living Opportunities (Obesity Prevention Action Planning)		———	———	———	———	→
Steering Committee, broad community input, analysis, looking for leverage points			———	———		
Healthy Living Network moving into action, creating tools to facilitate innovation			———	———	———	→
Data analysis including GIS mapping			———	———	———	→
Setting priorities					———	
Creating report, making assessment available to the public, posting on-line					———	———
Moving into action on priority health issues						→

Community Engagement & Leadership

The Buncombe County Department of Health and Health Partners, Buncombe County's Healthy Carolinians community health coalition, facilitated the assessment process throughout 2009 and 2010. We used an intentional strategy of engaging community members and leaders at every stage. Community members helped to decide what kinds of information to gather and from whom, participated in designing surveys and actually gathering data, reviewed primary and secondary data collected, and selected priorities. A team of community members and leaders also participated in an additional strategic innovation, the Healthy Living project (see page 111). In total, over 700 community residents participated in this community health assessment. Over one hundred and fifty community members and organizational partners helped guide this Community Health Assessment. An additional 228 residents offered between 20 and 40 minutes of their time to complete an in-person, in-depth Community Health Survey and another 401 county residents completed a short health opinions survey.

Early planning, Health Partners volunteers, And designing the Community Health Survey

The 2010 Buncombe County Community Health Assessment process kicked off with an initial session that was offered as part of the 2009 Health Partners annual meeting. A variety of community and organizational volunteers donated their time, opinions, and expertise for six months, from the spring to the fall of 2009. This team helped frame the overall focus on the process and created the survey instrument for the in-depth Community Health Survey.

The entire Health Partners – Healthy Carolinians coalition membership of 325 community volunteers and organizational representatives was invited to participate in the Community Health Assessment. Over 60 people volunteered on the early planning team in varying capacities. See a list of team members in Appendix A. Participation at most meetings was approximately 25-30 people.

Much of the very early planning and discussion focused on how to make the Community Health Assessment process as beneficial to the local community as possible. Volunteers also wanted to create the CHA itself to serve as a tool that could truly drive health improvement. The group, along with CHA staff, decided early on to frame the process and report around issues such as primary prevention, looking for ways to measure well-being, reducing disease, engaging residents in making healthy choices, and measuring health improvement so that our community would know what strides we were making as well as where we needed additional efforts. Team members also asked for a CHA report that they could more easily use. They offered suggestions such as making specific data pieces available on-line in numerous small chunks instead of simply offering one huge file of the full report. Based on this feedback, a downloadable fact sheet for each section of data will be posted on-line on the Department of Health website in early 2011.

Many members of this early planning team also participated in creating the survey tool for the Buncombe County Community Health Survey. For more information about the survey, see Appendix B. For a copy of the survey tool, see Appendix F.

Strategy Team

From fall 2009 to spring 2010, a smaller group invested significant time and energy learning a new process and applying it to one of the health issues that the early planning team felt sure would arise as one of Buncombe County's health priorities: obesity. This small group was able to test out a different way of long-term problem solving called health systems analysis. The Department of Health and Health Partners engaged Doc Klein, founder and CEO of Uncharted Territories, a national systems analysis consulting firm based in Asheville. Klein led the Strategy Team through a six month interactive process to identify all of the key pieces or systems that play a role in whether or not community members became overweight or obese. An organizational development grant was secured from the Community Foundation of Western North Carolina in late 2009 that enabled Klein to transition from a volunteer to a paid consultant.

Midway through the process, the group made an intentional decision to shift from ***organizing their efforts to react to the problem*** (obesity) to ***focusing their attention on creating the good health they were striving towards***. In addition, based on input from wellness coaches and nutritionists, the Strategy Team changed to a process that would strive to create a community where all residents could live a healthy life – and not to simply focus on weight. The effort was renamed the Healthy Living project. For a full description of the Healthy Living project, see the Strategic Innovation – Healthy Living project section of this report on page 111.

Community Health Assessment Steering Committee

A Steering Committee was created to review information, determine what additional data was needed in order to be strategic about creating well-being in the Buncombe community, and to set priorities for the Community Health Assessment. The Buncombe County Health Director (also current Board Chair of Health Partners) extended the invitation to participate in the CHA Steering Committee to over 200 community leaders. Invitees included, for example: leaders in the faith community, business community, non-profit community, schools and higher education, medical and health community, and local government and elected officials. Sixty-eight leaders joined the Steering Committee. Each of the four meetings in 2010 engaged about 20-30 participants.

Instead of creating a list of priorities that were problems to address, this CHA process has focused instead on identifying what pieces of a healthy community we want to CREATE. For this reason, the Steering Committee also identified a list of overarching themes – frames to be applied to each of the six priority health issues identified. The Steering Committee has requested that each of these themes be

addressed in the action planning to take place around each of the priority health issues. This will serve to focus the efforts of the future planning groups on equity, prevention, large-scale impact, and more. For more information about the overarching themes, see page 12.

See Appendix A, page121, for a list of Community Health Assessment 2010 Steering Committee members.

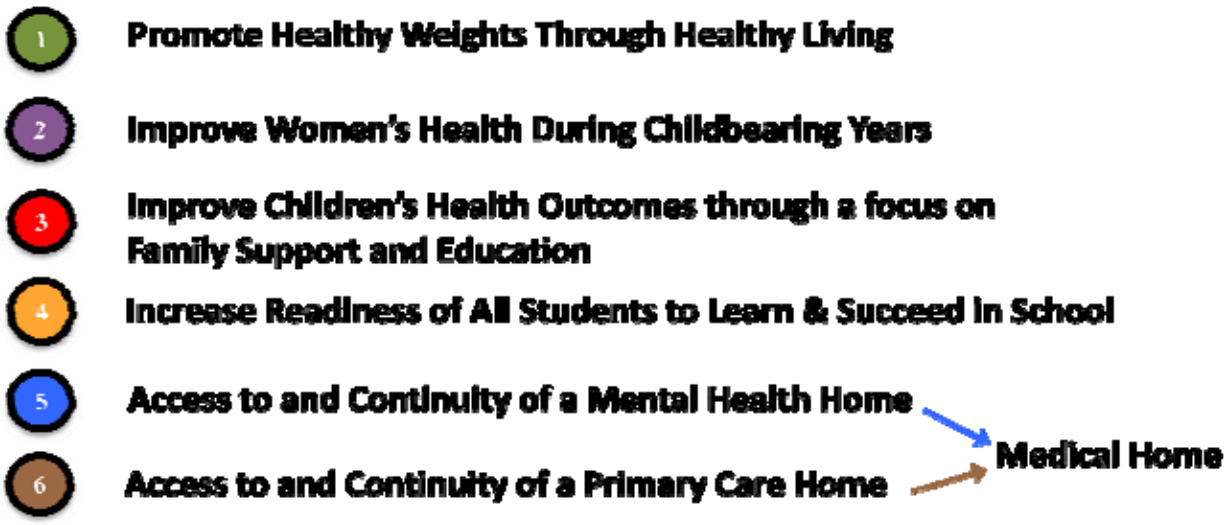
Listening Sessions and Community Health Opinion Survey

Once the Steering Committee had narrowed a list of potential priorities down to approximately 10-12 issues, staff created a survey to use for gathering broad public input. The intent was to engage many community residents in the process of narrowing the priorities down to a short list. Over 400 county residents completed the survey either on line or in person during listening sessions. For more details on the listening sessions and opinion survey, see Appendix C.

2010 – 2014 Health Priorities

The six priorities were chosen by a diverse group of community stakeholders who drew from data and information gathered during the Community Health Assessment to make their decisions. The priorities selected **do not** negate the importance of other areas of contribution. Yet, these priorities offer opportunities for dramatically improving health impact based on the data that was collected and analyzed. The Community Health Assessment – Steering Committee engaged 68 community leaders from throughout Buncombe County to review the evidence, listen to community members' input, and select priorities that will help us attain our community health vision.

The priorities are described in some detail. As community members enter into the next phase of Strategic Action Planning, each priority will become more focused as strategies are selected and outcomes are further defined.



Each of these health priorities is also complemented by five guiding principles or "overarching themes." These themes will shape the development of specific goals and strategies in 2011.

- **Equity / parity:** Focus on addressing racial, ethnic, income and other disparities. Equity is created by focusing extra attention and assistance for groups of people that have worse health outcomes or who face greater barriers to making choices that lead to good health.
- **Access to resources:** Focus on strategies that enable access to resources such as medical care, safety, healthy foods, and environmental supports for activity.
- **Prevention:** Focus on creating opportunities to help people stay well instead of focusing only on healing once they are sick or are in a health crisis.
- **Assets-based approaches:** Building on natural strengths of residents and organizations, developing community networks, linking into existing groups.
- **Results, impact, and outcomes:** Seek to be strategic about which interventions or combination of interventions are more likely to achieve the most impact and create positive health outcomes.

1 Promote Healthy Weights Through Healthy Living

Healthy Weight: A range of weight that is appropriate for an individual based on height, bone structure, and other body physiology.

Healthy Living: Behaviors that support healthy weights, emotional/physical well-being, productivity, and longevity. These include eating healthy foods, portion sizes, leisure and work levels of physical activity, managing stress, etc.

Data Insights: Among Buncombe County children, 28% of Kindergarteners are **overweight** (>85th percentile), increasing each year to 39% of 5th graders. ◆ 57% of Buncombe adults are either **overweight or obese**; and 1 out of 4 is obese. ◆ 80% of Buncombe non-white adults are either overweight or obese. ◆ 1 out of 10 adults reported **NO exercise** in past week, and 3 out of 10 adults earning <$50,000 reported NO exercise in past week. ◆ Slightly more than 25% of adults got exercise 1 or less times a week; and for Buncombe non-whites, 68% got exercise 1 or less times per week. ◆ 1 out of 4 adults ate ≤1 servings of vegetables per day, and 2 out of 3 non-white adults ate ≤1 servings of vegetables per day. ◆ **Improving healthy weight** (preventing obesity) was one of the top 5 health concerns people cared most about.

Potential Strategic Focus Areas: Improve networking and coordination of nutrition and physical activity initiatives and services; Increase access to opportunities to be active and eat well.

Potential Long-term Impacts: Increase number of adults reporting healthy weights (BMI); Increase number of children at healthy weights for their age, height, and bone structure; Increase number of adults and children entering and maintaining healthy weight category for at least two years; Increase the number of obese adults and children reaching a healthy weight; Increase the percent of Buncombe County adults and children who participate in recommended amounts of physical activity.

Note: some focus areas and potential impacts drawn from the NC's Eat Smart, Move More plan to prevent overweight and obesity. For the full plan, link here:

http://www.eatsmartmovemorenc.com/ESMMPlan/Texts/ESMMPlan_Desktop.pdf

2 Improve Women's Health During Childbearing Years

Woman's Health: The ability to nurture and care for the female body in ways that effectively optimizes well-being, prevents disease, and / or manages chronic conditions, especially among those in high risk categories.

Childbearing Years: Age 12 - 45 years.

Data Insights: 62% of females in Western NC reported **unintended pregnancy** compared to 61% in NC and 55% in US. ◆ 82% of WNC black females reported unintended pregnancy compared to 43% of WNC white females. By comparison, 64% of NC black females and 37.5% NC white females reported unintended pregnancies. ◆ Overall, since 2004, the rate of **teen pregnancies** has increased. Among teen pregnancies in 2008, 6 out 10 were non-white and 4 out of 10 were white. ◆ Among pregnancies that ended in abortion, 10 % occurred among Buncombe white females compared to 26% of Buncombe black females. ◆ The highest prevalence of **Chlamydia** in Buncombe occurs among teens ages 13 – 19. ◆ Nearly 7 out of 10 women (over age 18) get annual **women's health exams** and among Buncombe non-white females 62% get annual women's health exams (local health survey). ◆ Women's health issues were one of the top health issues that people listed in the Opinion Survey.

Potential Strategic Focus Areas: Improve the health of women of childbearing age through a collaborative focus on women's wellness; Improve the knowledge, attitudes, and behaviors of women and men related to preconception health; Increase the number of woman and girls of childbearing age who have the support and wisdom to care for themselves during the years before pregnancy as well as during pregnancy; Engage men and boys in healthy decision making regarding sexual activity and parenting; Develop support systems for parents of infants and toddlers; Focus on increasing thoughtful decisions about having children, especially in populations who have high rates of unintended pregnancies; Reduce risks associated with previous negative pregnancy outcomes; Assure that all women of childbearing age receive preconception healthcare services.

Potential Long-term Impacts: Increase number of pregnancies that are intended; Decrease premature births; Increase babies that are born at a healthy weight; Increase interval between pregnancies; Increase entry into prenatal care in first trimester; Decrease number of children living in poverty; Increase number of women and specifically mothers who do not smoke or use tobacco; Increase number of women living at a healthy weight and/or free from chronic or infectious disease.

Note: some focus areas and potential impacts drawn from the North Carolina Preconception Health Strategic Plan, 2008-2013. Read the full plan here:
http://www.nchealthystart.org/downloads2/preconception_health_strategic_plan.pdf

3 Improve Children's Health Outcomes through a focus on Family Support and Education

Children's Health Outcomes: Emotional and physical wellbeing, healthy weight, safety, stress, sleep, school readiness.

Family Support: Not only services offered to the family but their connection to a caring knowledgeable community.

Education: Knowledge, skills, and experiences.

Data Insights: Among Buncombe children, 28% of Kindergarteners are **overweight** (>85th percentile), increasing each year to 39% of 5th graders. ◆ Percent of **people living in poverty** continues to increase, staying above US percentages for last 4 years and in 2009 rising above NC percentage. Poverty among Hispanics was higher than among black and white residents in 2008 and 2009. ◆ 1 in 5 children in Buncombe live in poverty, higher than US average but slightly lower than NC. ◆ **High school dropout rates** for Asheville City Schools (4.8%) and Buncombe County Schools (4.65%) are slightly higher than NC (4.27%), although there is a slight downward trend during the past 5 years. ◆ Percent of residents with a **college degree** is higher among Buncombe County residents than both US and NC, although fewer than 1 in 3 Buncombe residents have a 4 year college degree or higher. ◆ Buncombe ranks the highest in NC for kindergarten children (3.81%) not **immunized** due to religious exemptions (compared to 0.68% of NC kindergarteners).

Potential Strategic Focus Areas: Increase support and education of mothers, fathers, and caregivers, especially focusing on early childhood development; Improve parenting and healthy living skills among families; Promote opportunities to make healthy choices for families; Increase the percent of children ever breastfed; Make positive health information easier to access and understand.

Potential Long-term Impacts: Increase percent of children at healthy weight; Increase parental engagement in creating and maintaining healthy and safe homes; Increase the percent of children who are fully immunized; Decrease number of missed school days per child per school year; Increase percent of families living above the poverty level.

4 Increase the Readiness of All Students to Learn & Succeed in School

Readiness: Students have the physical and emotional wellbeing necessary to learn at all grade levels in school

School: Pre-kindergarten through college (cradle to college)

Data insights: Among children age 0 – 5 who are enrolled in regulated children - 54% are enrolled in **"4 or 5 star"** care centers. ◆ **High school dropout rates** for Asheville City Schools (4.8%) and Buncombe County Schools (4.65%) are slightly higher than NC (4.27%), although there is a slight overall decrease during the past 5 years. ◆ Percent of residents with a c**ollege degree** is higher among Buncombe County residents than both US and NC, although fewer than 1 in 3 Buncombe residents have a 4 year college degree or higher.

Potential Strategic Focus Areas: Enhance families' and caregivers' ability to support the development of children from birth to kindergarten; Increase early childhood learning opportunities; Decrease absenteeism from school; Increase family support for educational success; Increase student motivation to learn; Improve opportunities for physical activity and nutrition during school day as a strategy to increase academic achievement; Increase the involvement of families, care givers, and the community in the academic success of all children; Strengthen the social and basic life skills that youth need for success

Potential Long-term Impacts: Increase kindergarten readiness; Increase appropriate promotion throughout grade levels; Increase percent of students performing at or above grade level; Increase high school graduation rate; Increase percent attending post-high school education.

Note: some focus areas and potential impacts drawn from the United Way of Asheville and Buncombe County's Investment Strategy for 2010-2011. Read more here: http://www.unitedwayabc.org/your_dollars/index.php

5 Access to and Continuity of a Mental Health Home

Mental Health Home: a mental health provider who works with patients and their primary care providers on an ongoing basis to provide optimal care.

Access: represents capacity, affordability, transportation, and proximity.

Continuity: represents consistent care over time.

Data Insights: 1 out of 3 local health survey respondents reported **depression** in past year. The percentage increases slightly among non-whites and those with lower income. The biggest disparity is among those with high school or less education (41% reported being depressed in the past year compared to 30%). ◆ Non-whites and Hispanics were twice as likely to report **wanting mental health care but not able to get it** compared to other subpopulations. Over 60% reported **lack of insurance** or cost as the main reason they did not get mental health care. ◆ **Suicide rates** for white adults are equal to the homicide rates among non-white adults in Buncombe. ◆ Access to mental health care or counseling is among the top priorities listed in the Health Opinion Survey.

Potential Strategic Focus Areas: Improving both the capacity and access to mental health services outside of the Emergency Departments; Educating families and caregivers on how to support those with mental illness; Addressing the root causes of depression and stress; Coordination of care among care-providers; Patient-centered care.

Potential Long-term Impacts: Reduce level of depression; Reduce level of stress; Increase capacity of the mental health care system; Increase level of insurance coverage for mental health care; Increase the percent of residents practicing positive mental health behaviors; Increase the level of social support for people with mental health challenges.

6 Access to and Continuity of a Primary Care Health Home

Primary Care Home: patients have a primary-care provider on an ongoing basis that works closely with their other providers to provide optimal care.

Access: represents capacity, affordability, transportation, and proximity.

Continuity: represents consistent care over time.

Data Insights: 17% of Buncombe adults have **NO health insurance**. The percentage is higher among young people, non-whites, and those with less education and income. 60% of Hispanics report no health insurance. The target NC insurance coverage rate is 14%. ◆ Among those with high school or less education, 4 in 10 report having **no personal doctor**. ◆ Nearly 1 in 5 reports **wanting medical care but not getting it** within past year. 70% of those reported the main reason as lack of insurance or cost. Among those not getting medical care, disparities exist among non-white, Hispanic, less education, and less income. The largest disparity is among those 18 – 44 years of age. ◆ Over twice as many Hispanic and non-white adults **wanted medication but did not get it** within past year, due mostly to lack of insurance or cost. ◆ **Making sure everyone has a doctor** to go to when they are sick was the #1 issue listed in the health opinion survey.

Potential Strategic Focus Areas: Improving both the capacity of and access to primary care services; Developing an effective referral system for primary care providers; Developing patient-centered care pilots that engage patient families, community, and other key stakeholders in the health of patients.

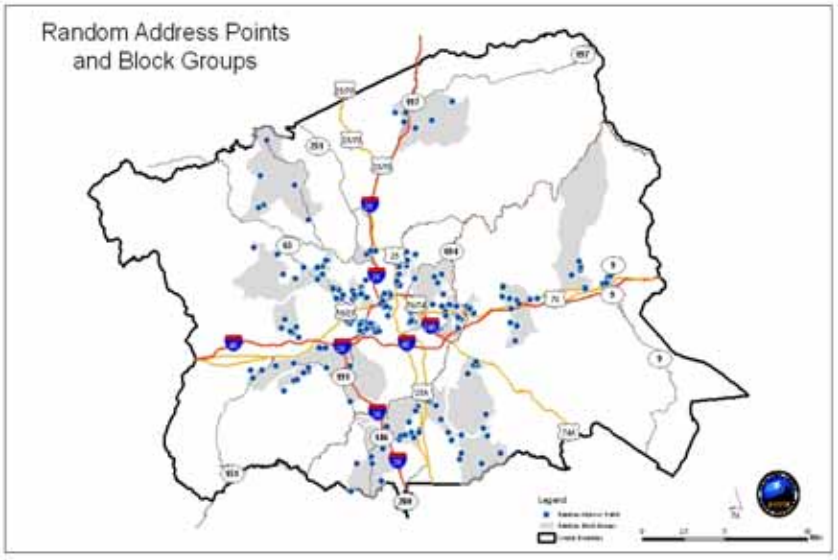
Potential Long-term Impacts: increase appropriate use of emergency rooms; Increase percent of residents with insurance coverage; Reduce prevalence of chronic diseases; Reduce costs associated with chronic diseases; Increase early detection of disease; Increase longevity for those with chronic diseases; Increase quality of life for residents (i.e. Number of Healthy Days per Month per 1000 People).

Data Sources

Local Health Survey – Primary Data

A 104 point questionnaire was developed with input from a team of volunteers and a broadly distributed online survey inviting input on questions to be included. Survey topics included health status, health care access, health insurance coverage, personal health behaviors, physical activity and nutrition behaviors, data to calculate BMI, a food label interpretation activity, preparedness and health communication preferences. Demographic information such as age, gender, race, ethnicity, income, and level of education was also assessed. Many of the questions included in the 2010 Survey were carried over from the 2000 and 2005 local surveys so that responses could be compared over time.

For detailed information about sampling method and specific technology used to conduct and analyze the survey results, please see Appendix B.



38 x 6 Double Cluster Random Selection: 6 points in 38 Census Block Groups

A total of 228 adults, ages 18 and over, from randomly selected households participated in the local health survey. Teams of two trained volunteers (college students and community partner volunteers) visited each household. One interviewed and the other entered responses into a handheld computer device at the time of the survey. The surveys took approximately 20 – 30 minutes to complete and a GPS point was collected at the location surveyed. Surveys were conducted on Fridays and Saturdays between 9:00 am – 6:00 pm on selected weeks in October and November 2009, and March, April, and May 2010.

As survey teams were finding households and conducting surveys, the Buncombe County Sherriff Department provided Sheriff Reserve Deputies who patrolled the neighborhoods where interviews were being conducted. All teams were issued walkie-talkies and regularly communicated with their assigned deputy. The deputies advised teams of safety issues, assisted with driving directions, and helped teams gain access to communities. A specific procedure was followed to select alternate households if someone wasn't home or was not willing to participate in the survey. Survey participants were offered small gift certificates and invited to enter a prize drawing as an incentive for their participation in the survey.

Listening Sessions & Opinion Surveys – Primary Data

The Steering Committee used a two-step process to select health priorities. The first step involved a review of local survey results and secondary data to identify a broad list of Health Concerns. This analysis process resulted in a list of 26 health concerns. Then an Opinion Survey was created which listed the concerns. Community members were then invited to rank these concerns in order of importance as well as list additional concerns they may have had that did not appear on the list.

Community members were invited to share their opinions in several ways: 1) Listening Sessions – 15 minute, small group sessions with a variety of key groups that were already convened (such as local Boards of Directors, groups of senior adults, ESL classes); 2) Email distribution of an on-line link to the survey (using Survey Monkey); and 3) Spanish interpreters to reach Spanish-speaking community members in health care settings. A total of 401 surveys were completed in October 2010. The results of the Opinion Survey were then shared with the Steering Committee. That way, Steering Committee members had the input about health concerns of over 400 community members when they decided on priorities.

MATCH - County Ranking Data – Secondary Data

The County Health Rankings are a key component of the Mobilizing Action Toward Community Health (MATCH) project, a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health institute. This past spring, states and counties received the first *County Health Ranking* data and state-level reports, equipping communities with information around which to mobilize their efforts. The MATCH data set includes county-level data on over 30 indicators that is now available for every county in America. Buncombe County used MATCH data as the "backbone" for organizing the quantitative and qualitative Community Health Assessment data.

Additional Secondary Data

A variety of data from reliable sources was gathered and reviewed during the assessment process. We gathered a majority of trend and comparison data from BRFSS (Behavior Risk Factor Surveillance System). BRFSS is a randomized telephone survey (landline only telephones) conducted annually at the county, state, and national level. Questions are standardized and comparable.

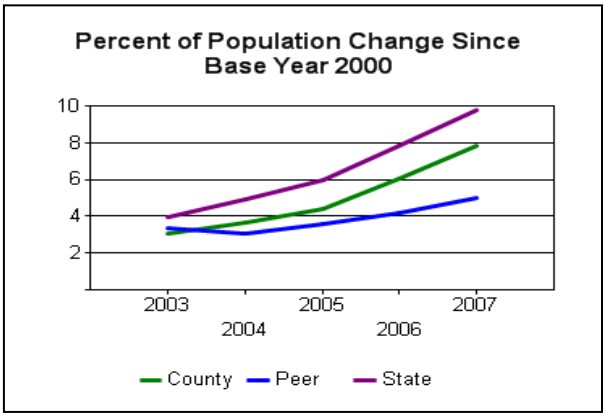
Additional data were available from American Community Survey – Census Bureau, Youth Risk Behavior Surveillance Survey (YRBS), and more sources found at the North Carolina State Center for Health Statistics (i.e. Vital statistics, Pregnancy Risk Assessment Monitoring System, NC CATCH – data warehouse).

Population Demographics

Buncombe County Demographic Data Census Quick Facts (2009 estimates)	Buncombe County	North Carolina
Population, 2009 estimate	231,452	9,380,884
Population, percent change, April 1, 2000 to July 1, 2009	12.2%	16.6%
Population estimates base (April 1) 2000	206,270	8,046,406
Persons under 5 years old, percent, 2009	6.1%	7.1%
Persons under 18 years old, percent, 2009	20.8%	24.3%
Persons 65 years old and over, percent, 2009	15.9%	12.7%
Female persons, percent, 2009	52.0%	51.1%
White persons, percent, 2009 (a)	90.0%	73.7%
Black persons, percent, 2009 (a)	7.1%	21.6%
American Indian and Alaska Native persons, percent, 2009 (a)	0.4%	1.3%
Asian persons, percent, 2009 (a)	1.1%	2.0%
Native Hawaiian and Other Pacific Islander, percent, 2009 (a)	0.1%	0.1%
Persons reporting two or more races, percent, 2009	1.2%	1.3%
Persons of Hispanic or Latino origin, percent, 2009 (b)	4.6%	7.7%
White persons not Hispanic, percent, 2009	85.6%	66.8%
Living in same house in 1995 and 2000, pct 5 yrs old & over	53.0%	53.0%
Foreign born persons, percent, 2000	3.9%	5.3%
Language other than English spoken at home, pct age 5+, 2000	5.9%	8.0%
Mean travel time to work (minutes), workers age 16+, 2000	21.1	24.0
Homeownership rate, 2000	70.3%	69.4%
Housing units in multi-unit structures, percent, 2000	15.5%	16.1%
Median value of owner-occupied housing units, 2000	$119,600	$108,300
Land area, 2000 (square miles)	655.99	48,710.88
Persons per square mile, 2000	314.5	165.2

Source: http://quickfacts.census.gov/qfd/states/37/37021.html

Buncombe County Population Change

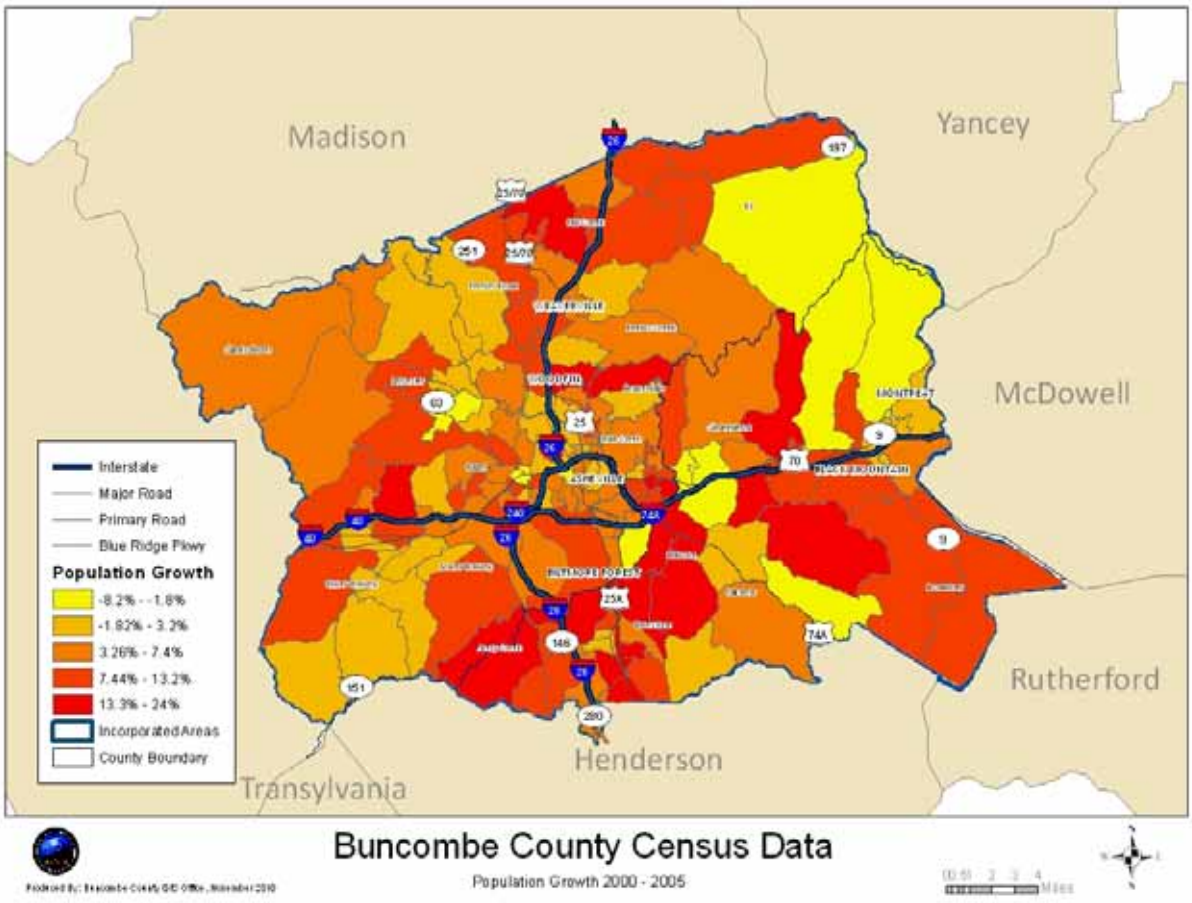


Population Change – Raw Values

Year	County	Peer Avg.	State
2003	213,353	126,989	8,411,092
2004	214,588	126,612	8,489,064
2005	216,059	127,330	8,570,234
2006	219,446	128,026	8,719,727
2007	223,155	129,033	8,877,950

Source: NC CATCH at http://www.ncpublichealthcatch.com

Spatial Analysis of Population Change – Buncombe County



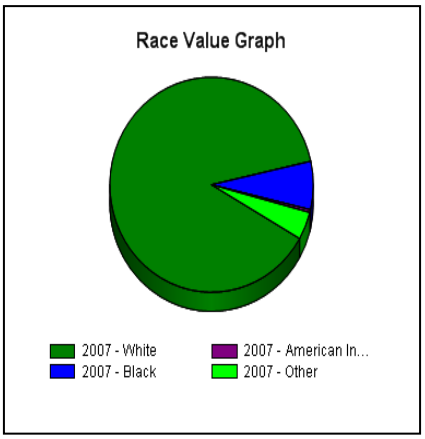
Spatial analysis uses color variations to represent the areas of the county with the greatest change in population. The areas in yellow experienced a decrease in population during 2000 - 2005, whereas the areas with bright red have experienced between 13.3% - 24% growth in population during the same period.

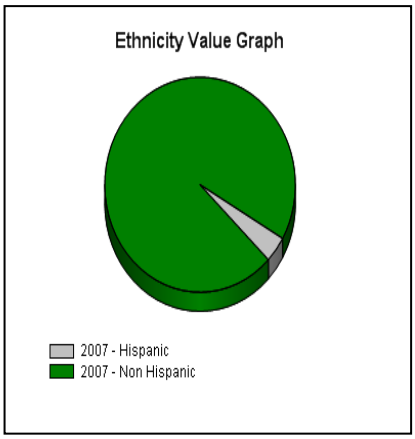
Source: Maps created by Buncombe County Information Technology Department, GIS Unit.

Using Census population estimates, it appears that Buncombe County's population has increased by nearly 10,000 people during 2003 to 2007, representing an increase of 4.9%, similar to an increase of 5.5% in North Carolina's population during the same period. By comparison, Peer county averages (Burke, Randolph and Davidson) indicate a very slight growth of 1.6% during 2003 – 2007.

Using Buncombe's 2009 population estimate of 231,452, it appears that the county's population increased by another 3.7% between 2007 and 2009. If similar growth continues, population estimates for 2010 could exceed 235,000.

Buncombe County Population Breakdown by Race and Ethnicity





	Number
White	196,747
Black	16,162
American Indian	965
Other	9,281

	Number
Hispanic	8,813
Non Hispanic	214,312

Buncombe County's 2007 population estimate is 223,155.

Percent population by Race:

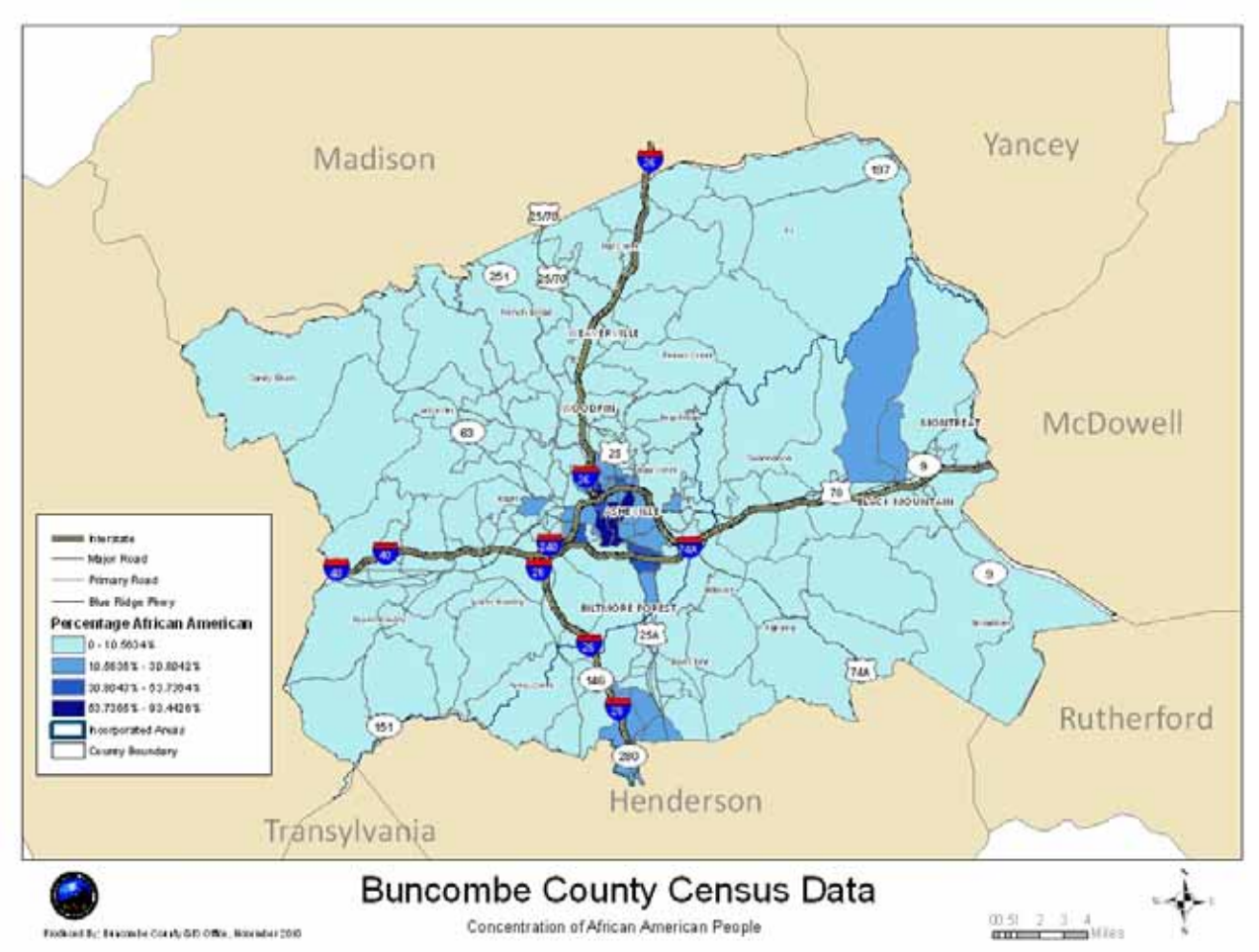
White = 88%

Black = 7%

Other = 5%

Estimated Hispanic population in 2007 is 3.9% and in 2009 is estimated to be 4.6%.

Spatial Analysis of Black population in Buncombe County by Census Block Group



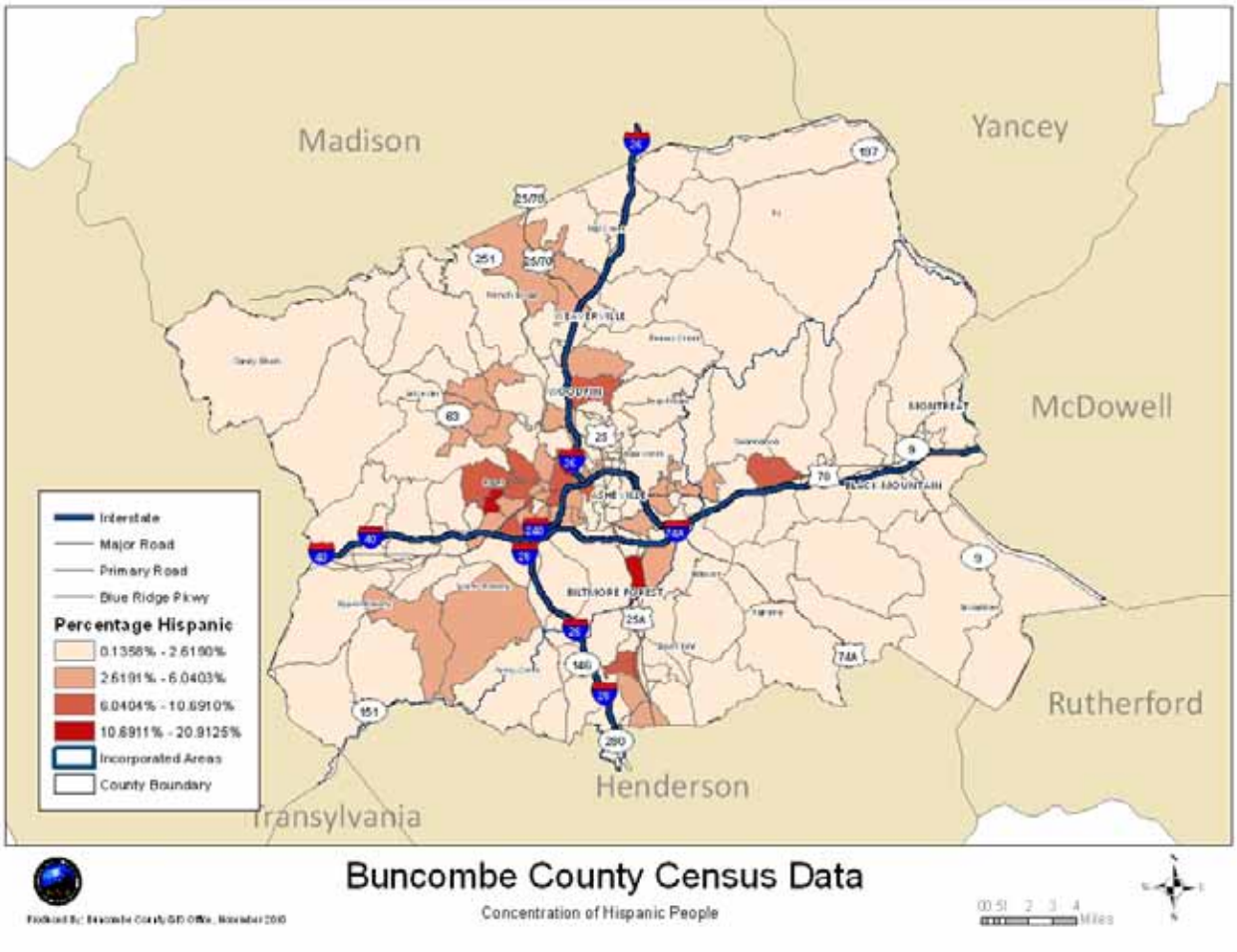
2000 – 2005 composition of Black population by Census Block Group:

Legend:
Aqua = 0 - 10.56%
Lt Blue = 10.56% - 30.80%
Med Blue = 30.80% - 53.73%
Dark Blue = 53.73% - 93.44%

Spatial analysis uses color variations to represent the percentage of Black population living in census block groups. The Medium and Dark Blue represent census block groups with higher percentages, with the greatest concentration of Black population living in more urban areas, mostly in the city of Asheville, NC.

Source: Maps created by Buncombe County Information Technology Department, GIS Unit.

Spatial Analysis of Hispanic population in Buncombe County by Census Block Group

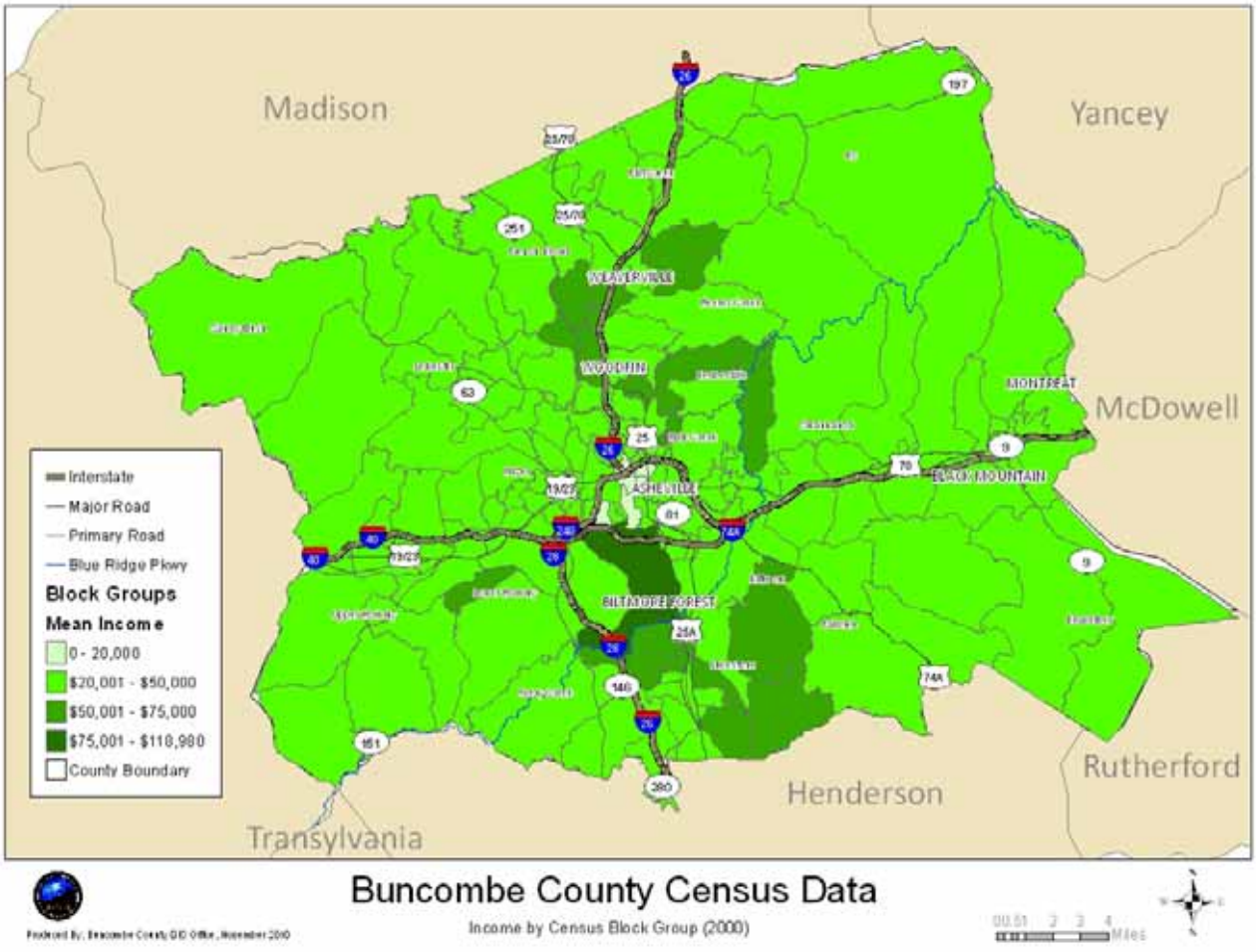


2000 – 2005 composition of Hispanic population by Census Block Group:

Spatial analysis uses color variations to represent the percentage of Hispanic population living in census block groups. The deeper the color becomes the higher the percent Hispanic population is, with the highest percent appearing in Red. In comparison to the Black population living in Buncombe, the spatial analysis indicates that Hispanic population lives in many census block groups throughout the county, primarily concentrated in West/Northwest areas of the county and within the city of Asheville, NC.

Source: Maps created by Buncombe County Information Technology Department, GIS Unit.

Spatial Analysis of Median Income in Buncombe County by Census Block Group



2000 – 2005 Median Income levels by Census Block Group:

Using median income per census block group is the best way to map income. The very lightest green indicates the census block groups with the lowest **median income levels,** primarily located in the most urban area of the county (Asheville). A majority of the block groups have median incomes that fall within $20,000 - $50,000.

Source: Maps created by Buncombe County Information Technology Department, GIS Unit.

Buncombe County Employment Data

Employment by type of Industry	% working population
Education services, health care and social assistance	25%
Retail Trade	13%
Arts, entertainment, recreation, food and accommodation services	12%
Manufacturing	12%
Professional, scientific, administration, waste management	10%
Financial, insurance, real estate, rental / leasing	5%
Source: American Community Survey (US Census, 2009 population estimates)	

Largest Employment Categories	% working population
Management, professional and related services	36%
Sales and office	25%
Service occupations	20%
Production and transport of goods	11%
Construction, extraction, maintenance and repair services	8%
Source: American Community Survey (US Census, 2009 population estimates)	

Employers and Occupations

Among the most common types of employee industries were educational services, health care and social assistance, 25%; Retail,13%; Leisure and hospitality, 12%; and Manufacturing, 12%.

Common types of occupations were Professional and business, 35%; Sales and office occupations, 25%; Service occupations, 20%; Production, transportation, and material moving, 11%; and Construction, maintenance, and repair occupations, 8%.

76% of the people employed were Private wage and salary workers; 16% were Federal, state, or local government workers; and 8% were Self-employed in own-not incorporated businesses.

Data and Analysis

This section of the report comprises graphs, charts, tables and written descriptions of various health indicators.

This section of the report begins with a Table of Comparison Data and Trends from local health surveys (1995, 2000, 2005 and 2010). Trends are indicated where comparable data over time is available.

Data is categorized according to those used by MATCH County Ranking Reports. Each section begins with data from the MATCH County Rankings, followed by additional, relevant data from the local health and opinion surveys, and regional, state and national sources.

MATCH County Ranking Categories:

Health Outcomes	**Health Factors**
Mortality (death)	Health Behaviors
Morbidity (disease)	Clinical Care and Access
	Social and Economic Conditions
	Physical Environment

Local Health Survey Data for Buncombe County

Comparison of Select Trends Over Time

Topic Area	Indicator (all data is listed in percent format)	2010	2005	2000	1995	Trend
Health Status	Perceived physical health status "fair" or "poor"	32.9	19.24	15.38	13.76	WORSE
Health Care Access & Utilization	Don't have a place regularly go for heath care	4.5	5.31	2.88	--	
	Main Reason don't have place to go is no insurance, can't afford	27.0	30.00	26.09	--	
	Needed health care but didn't get it (past year)	18.2	14.56	11.38	--	WORSE
	Main reason didn't get care is no insurance, can't afford	69.8	51.82	44.09	--	WORSE
	Routine check-up received in past year	75.0	77.05	65.88	69.00	
Health Care Affordability	No health insurance	17.5	14.67	13.75	8.63	WORSE
	Main reason don't have health insurance is too expensive	71.8	49.11	--	--	WORSE
Medication	Needed medication but didn't get it (past year)	12.00	9.88	6.38	--	WORSE
	Main reason didn't get medication is no insurance, can't afford	71.9	69.89	61.54	--	WORSE
Mental Health	Report feeling depressed for two or more weeks (past year)	30.00	26.99	21.88	20.63	WORSE
	Needed mental health counseling but didn't get it (past year)	10.00	5.63	4.70	--	WORSE
	Main reason didn't get mental health care is no insurance, can't afford	61.50	56.60	28.95		WORSE
	Main reason didn't get mental health care is embarrassed/nervousness about getting	11.50	13.21	7.8	--	
Dental Health	Visited dentist in past year	64.00	67.06	64.13	--	
	Needed dental care but didn't get it (past yr)	24.00	17.11	13.13	--	WORSE
Screenings & Preventive Care	Mammogram **in past two year** (2010)	*78.90	61.61	45.05	38.73	BETTER
	Men's digital rectal exam (within past 5 years)	61.50	--	--	--	
	Flu shot in past year	50.00	30.39	38.38	29.25	BETTER
	Had cholesterol checked (within past year)	65.3	76.74	63.63	56.13	BETTER
Health Behaviors	Currently smoke **every day** (excludes smoke on some days)	19.00	17.11	19.5	--	
	Live or work around a smoker	24.4	21.04	28.38	32.00	BETTER
	Drank 5+ drinks on one occasion (past mo.)	13.6	12.75	15.07	16.07	BETTER
	Adult BMI (overweight or obese)	57.50	--	--	--	
	Kindergarten BMI (combined overweight & obese)	28.2	--	--	--	
	Got no moderate exercise (past week)	11.2	--	--	--	

Sources: Randomized telephone surveys: 1995, 2000 and 2005; Randomized household survey: 2010; Children's weight status assessment data (ALL children in grades K – 5 in Buncombe County and Asheville City schools).

NOTE: Trends indicate general patterns and a classification of "worse" or "better" does not necessarily indicate statistical significance.

*Changed indicator to % women **ages 45+** who have mammogram in **past two years** due to changes in recommendations. Indicator for previous years asked about women over 40+ getting mammogram "in past year".

Health Outcomes

Mortality and Morbidity (Death and Disease)

MATCH County Ranking Data (Mobilizing Action Toward Community Health)

MATCH - 2010 Snapshot of Health Outcomes

MATCH - Buncombe County	Buncombe Value	NC Value	Target Value	
Health Outcomes NC County Rank: 25th Healthiest				
Mortality: NC County Rank: 25th Healthiest				
Premature death [1]	7,990	8,174	7,420	↓
Morbidity: NC County Rank: 30th Healthiest				
Poor or fair health [2]	17.0%	19.0%	15.0%	↓
Poor physical health days [3]	3.6	3.6	3.1	↓
Poor mental health days [4]	3.4	3.2	2.7	↓
Low birth weight [5]	9.1%	9.0%	7.7%	↓

Source URL: http://www.countyhealthrankings.org/north-carolina/buncombe

About the Target Value

The arrows help us know whether we should be higher or lower than the targeted value in order to improve health. For example, when looking at Adult Smoking, the Buncombe Value is higher than the Target Value. We need to decrease ↓ the percentage of adults who smoke in order to meet or exceed the Target Value.

About the Buncombe Value

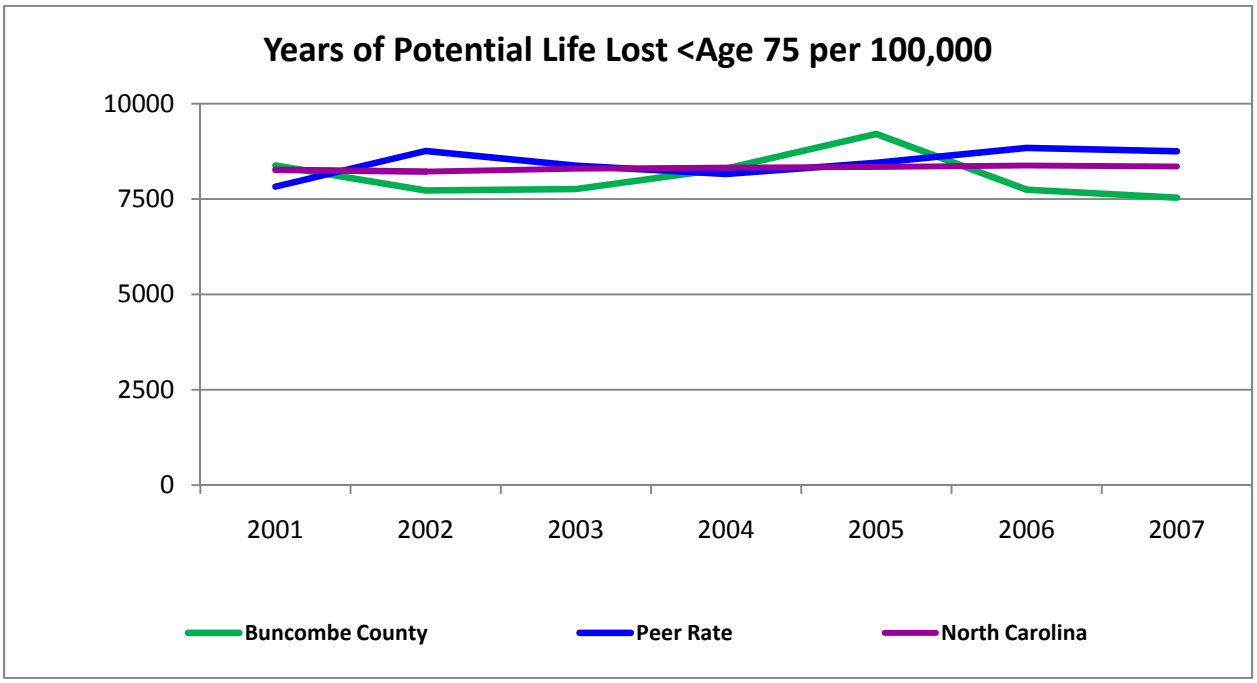
The Buncombe Value is calculated using multiple years of data to stabilize the data and offer a good "snapshot" of a particular health behavior. Health behaviors that are highlighted in **Red** are above ↑ the Target Value.

In this Section…

Find data from Local Health Survey and from other sources about health outcomes.

- **Mortality**
  - Premature death
  - Leading Causes of Death (by Race)
  - Death disparity ratios
  - Infant and Fetal Mortality
- **Morbidity**
  - Health Status
  - Low birth weight
  - Communicable Disease Report

Category Health Outcomes	**Mortality (how long people are living)**
Indicators	Years of Potential Life Lost; Death disparity ratio
Why is this important?	Premature death is a key measure of people dying too early. By knowing and comparing premature deaths, it helps our county focus on the deaths that can be prevented. We can target resources to high-risk areas and further investigate the causes of death. (MATCH – County Ranking Project)



Peer Counties: Burke, Davidson, Randolph

Source: NC CATCH

The concept behind Years of Potential Life Lost (YPLL) involves using the number of years of life (life-years) lost due to **premature death** to obtain a total sum of the life-years lost before age 75, for example. In contrast to crude death rates, YPLL **emphasizes the processes underlying premature mortality** in a population (MATCH). The YPLL measure allows you to focus not on how many people died, but **who died early**.

In 2007, Buncombe County had a combined total of over 7,500 years of life lost for every 100,000 residents. Those years include decades for each infant who died, many years of possibly productive work life for adults who died in middle-age, and numerous years for seniors who were then no longer able to donate their time, energy, and resources to improving our community.

Buncombe County Leading Causes of Death

2005-2009 Race-specific, age-adjusted death rates
Standard = Year 2000 Census US population, Rates per 100,000 population

Buncombe County 2005-2009 Age-Adjusted Death Rates (per 100,000), Ranked by rates and percent of deaths by race	**Overall**			**Minority**			**White**		
Leading Cause of Death	**Rank**	**Rate**	**% of deaths**	**Rank**	**Rate**	**% of deaths**	**Rank**	**Rate**	**% of deaths**
Diseases of the Heart	**1**	178.4	23.2%	**1**	251.7	24.7%	**2**	174.6	23.1%
Cancer	**2**	177.5	22.4%	**2**	228.3	22.2%	**1**	175.7	22.4%
Chronic lower respiratory diseases	**3**	53.0	6.8%	**4**	37.0	3.6%	**3**	54.3	7.1%
Cerebrovascular disease	**4**	45.5	6.0%	**3**	60.8	5.9%	**4**	44.8	6.0%
Alzheimer's disease	**5**	30.8	4.2%		N/A		**5**	31.7	4.4%
All other unintentional injuries(no MV injuries)	**6**	30.7	3.4%	**7**	N/A	2.2%	**6**	31.4	3.5%
Nephritis and kidney diseases	**7**	17.3	3.4%	**5**	49.4	4.8%	**8**	15.3	2.0%
Pneumonia and influenza	**8**	17.0	2.2%	**9**	N/A	1.9%	**7**	17.1	2.3%
Unintentional **Motor Vehicle** Injuries	**9**	13.6	1.3%		N/A		**10**	13.6	1.4%
Suicide	**10**	13.3	1.4%		N/A		**9**	13.8	1.4%
Diabetes Mellitus		12.9		**6**	31.2	3.1%		11.5	
Chronic liver disease and cirrhosis		10.9			N/A			10.7	
Septicemia		8.3			N/A			8.3	
Homicide		4.5		**10**	N/A	1.4%		3.4	
AIDS (Acquired Immune Deficiency Syndrome)		2.7		**8**	N/A	1.9%		N/A	
All other causes (that are not ranked)			26.8%			28.3%			26.4%

Source: NC State Center for Health Statistics, 2010 County Health Data Book

Note: 2005 – 2009 rates are used to stabilize the numbers by averaging a five year period of time. 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. Ranking by percent of deaths was applied to those with N/A. Listed also are percent of number of deaths (by race) for each of the causes of death that are ranked, as well as the total of "all other causes" not ranked.

Heart disease, cancer, chronic lower respiratory disease (COPD), and stroke are leading causes of death among both white and minority populations. Regardless of race, over 5 out of 10 deaths are attributable to these leading causes of death.

Kidney disease, Diabetes, AIDS, and Homicide are leading causes of death for minorities but for whites, only kidney disease appears among the ten leading causes of death. More whites die from Chronic Lower Respiratory Disease, Alzheimer's disease, Suicide, and Motor vehicle injuries than minorities.

Mortality

2004 - 2008 Age-adjusted Death Rate

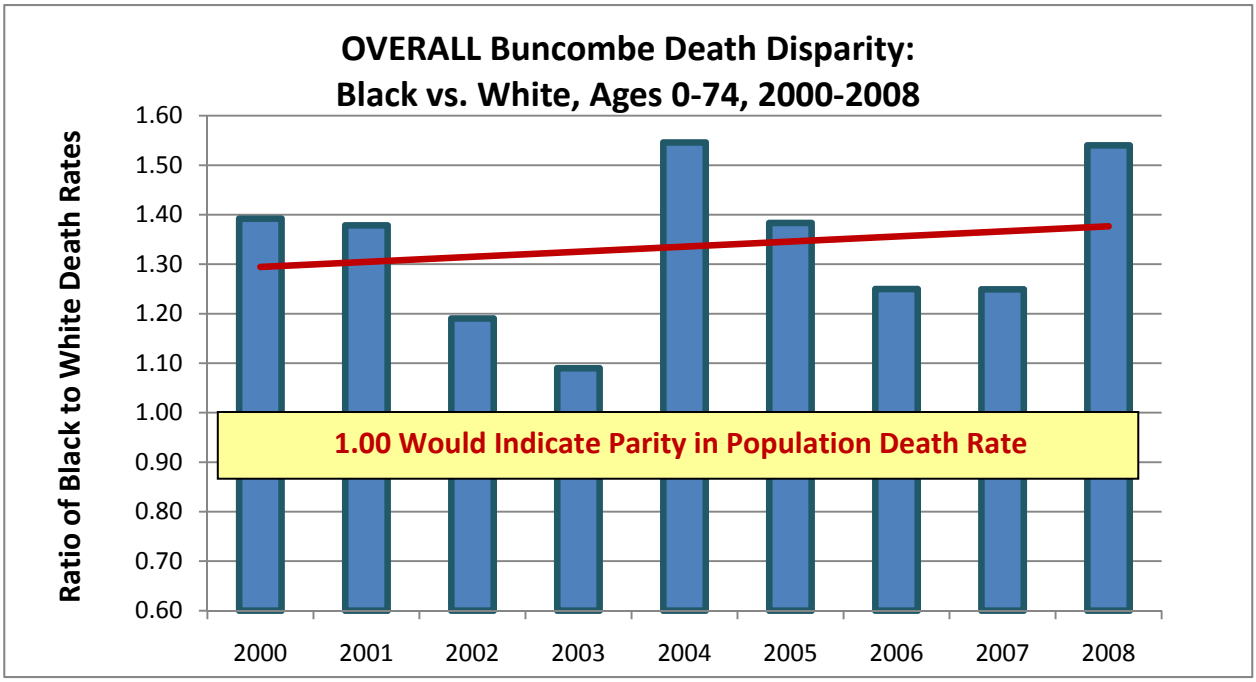
per 100,000 population

Selected Causes of Death	Buncombe	NC
Cardiovascular	187.2	202.2
Pneumonia & Influenza	18.9	20.3
Suicide	**13.8**	11.9
Unintentional Motor Vehicle	14	18.6

Source: 2008 Vital Statistics, Vol.2

Healthy People 2020 at the state, national, and local levels compares selected causes of preventable death. This helps communities monitor how well we are addressing those health challenges that contribute to these causes of death.

When comparing Buncombe County age adjusted death rates for 2004-2008, we find that more Buncombe residents die from suicide than do North Carolinians on average.



Source: 2008 Vital Statistics, Vol.2

Using population based death rates, we can compare cause of death of whites and blacks by developing a ratio. The ratio tells us if one race is more likely to die from a specific cause than another race. If there were parity between races, meaning if blacks and whites had equal chances of dying, then the **death ratio** would be 1.0.

When looking at **overall death rate** for African Americans and Whites for 2000 – 2008, we find a general trend upward over these 9 years. **This indicates a broadening racial gap in likelihood to die.** In 2008, an African American resident under age 75 was 54% more likely to die than was a White resident.

Mortality

Racial Disparities among causes of death

	Population-based death rate*		Disparity Ratio
Cause of Death (under age 75)	**Blacks**	**Whites**	**Black : White**
Alzheimer's disease	1.5	2.8	1 to 1.9
Cancer - breast	12.5	11.1	1.1 to 1
Cancer - colorectal	16.9	9.4	1.8 to 1
Cancer - lung	36	48.3	1 to 1.3
Cancer - pancreas	9.6	7.8	1.2 to 1
Cancer - pancreas	5.9	3.8	1.6 to 1
Cerebrovascular disease	24.3	15.6	1.6 to 1
Chronic lower respiratory disease	19.1	30.4	1 to 1.6
Diabetes	25.7	9.6	2.7 to 1
Heart disease	130.2	92.6	1.4 to 1
HIV disease	25.7	1.9	13.5 to 1
Homicide	22.8	3.7	6.2 to 1
Kidney disease	18.4	6.3	2.9 to 1
Suicide	5.2	15.1	1 to 2.9
Unintentional injuries (other than MV)	19.9	22.6	1 to 1.1
* Number of deaths per 100,000 persons in the specified population			

Source: NC State Center for Health Statistics, 2010 County Data Book

The data for cause of death includes the decedent's race and age at the time of death. Using county population estimates by age and race, we can estimate and compare population based death rates by cause of death and by race, for 2000-2008.

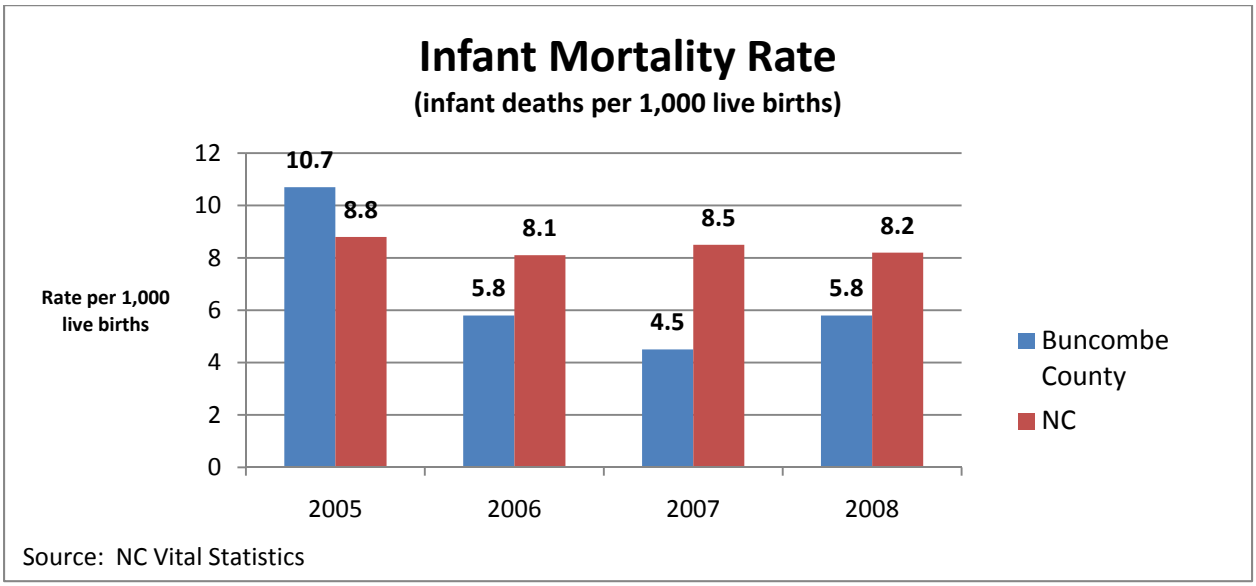
Higher rates among African Americans

- **HIV disease** caused 4.3% of African American deaths among those who died under age 75. **Blacks were 13.5 times more likely to die of HIV/AIDS than were whites.**
- The **homicide** death rate was more than 6 times higher for African Americans. Murder accounted for nearly 4% of deaths for Blacks under age 75, less than 1% for Whites.
- The **colorectal cancer** death rate was 80% higher for African Americans than Whites.
- **Kidney disease** and diabetes were each almost 3 times more likely to be the cause of death for African Americans than for Whites.

Higher rates among Whites

- Whites were almost 3 times more likely to die of **suicide** than were African Americans.
- More than 1 out of 10 deaths for whites under age 75 was due to **lung cancer**. Whites were one-third more likely to die of lung cancer than were African Americans.
- **Chronic lower respiratory disease** accounted for an additional 6.8% of deaths before age 75 for Whites. They were 60% more likely to die from chronic respiratory disease than were African Americans.

Category Health OUTCOMES	Infant mortality
Indicators	Infant mortality rates (number of deaths before age 1 per every 1,000 babies born alive)
Why is this important?	The infant mortality rate is commonly used as the one health indicator that best describes the overall status of community-wide health. Those infant deaths caused by prematurity (rather than birth defects or SIDS) are often linked to the overall health of the mother before she became pregnant or very early in pregnancy. Improving health of women BEFORE they become pregnant (called preconception health) is a key national strategy to reduce infant mortality and improve both women's and infant's health overall.



Source: NC Vital Statistics

Variations in the infant death rate are common in communities where a fairly small number of deaths might sway the rate up or down significantly from one year to the next. For example, Buncombe County regularly has less than 15 infant deaths a year. With this relatively small number, the premature birth and subsequent death of two sets of twins, for example, could significantly increase the infant mortality rate even though only two additional pregnancies may have been impacted.

For decades, North Carolina has struggled with one of the highest infant mortality rates in the United States. Over half of infant deaths in NC can be attributed to medical issues of the mother, many of which existed before the pregnancy (NC Preconception Health Strategic Plan).

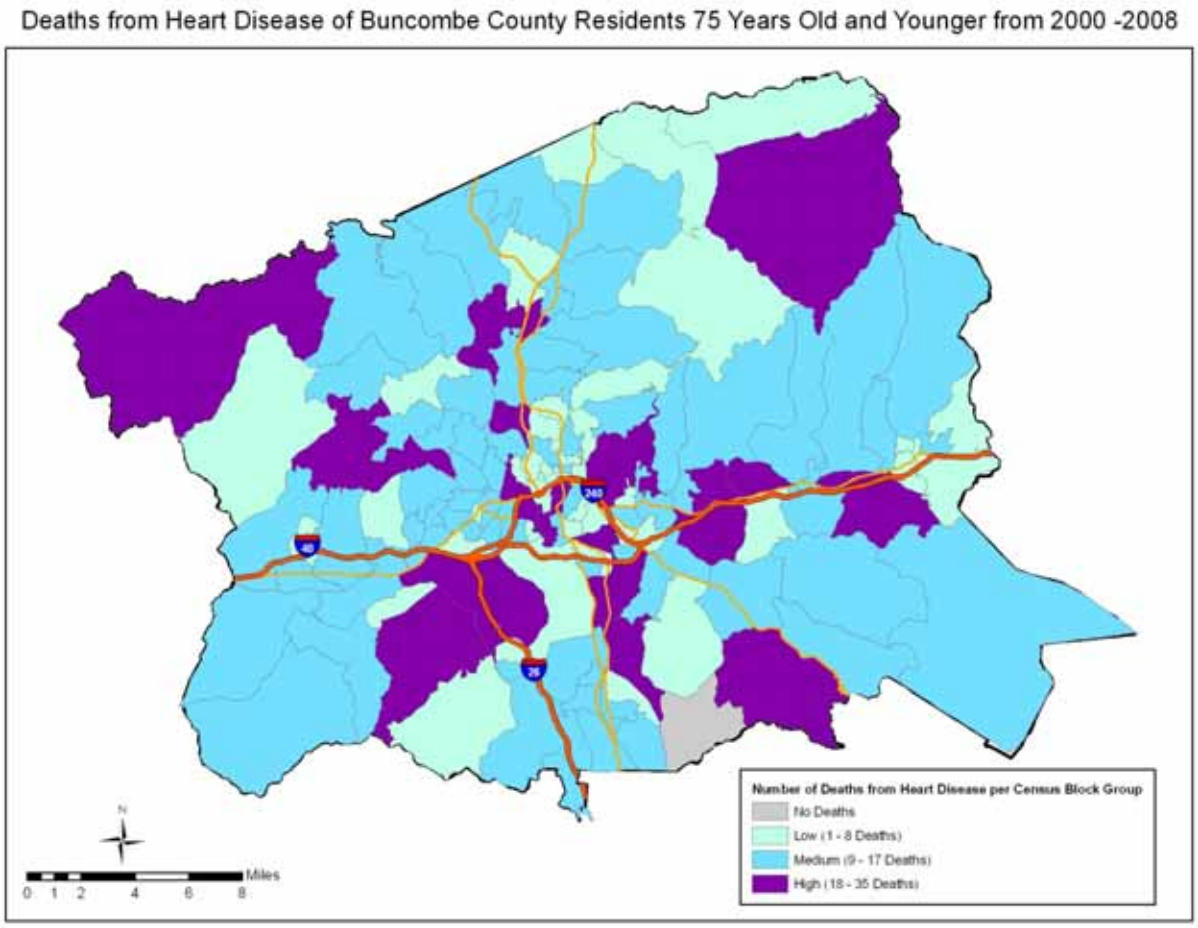
A significant racial disparity exists in Buncombe County Infant deaths. Black babies are almost twice as likely to die as are white babies. The 2004-2008 infant death rate for Buncombe County whites is 5.9 compared to 11.3 for blacks (NC Vital Statistics).

Mortality

The following maps indicate the raw number of Buncombe County resident under age 75 who died from specific causes of death according to where those residents lived. ***Focusing on deaths before age 75 allows us to use this data to target preventable deaths. All of us will die. The question for health advocates is which early deaths may have been prevented.***

Looking at deaths according to what area of the County residents had lived in provides information that can be used to target prevention services and focus the creation of additional opportunities for residents to make healthy choices. The following maps have been created from a compilation of all death certificates to Buncombe County residents from 2000-2008. Maps were generated by the Buncombe County Technology Department, GIS Unit.

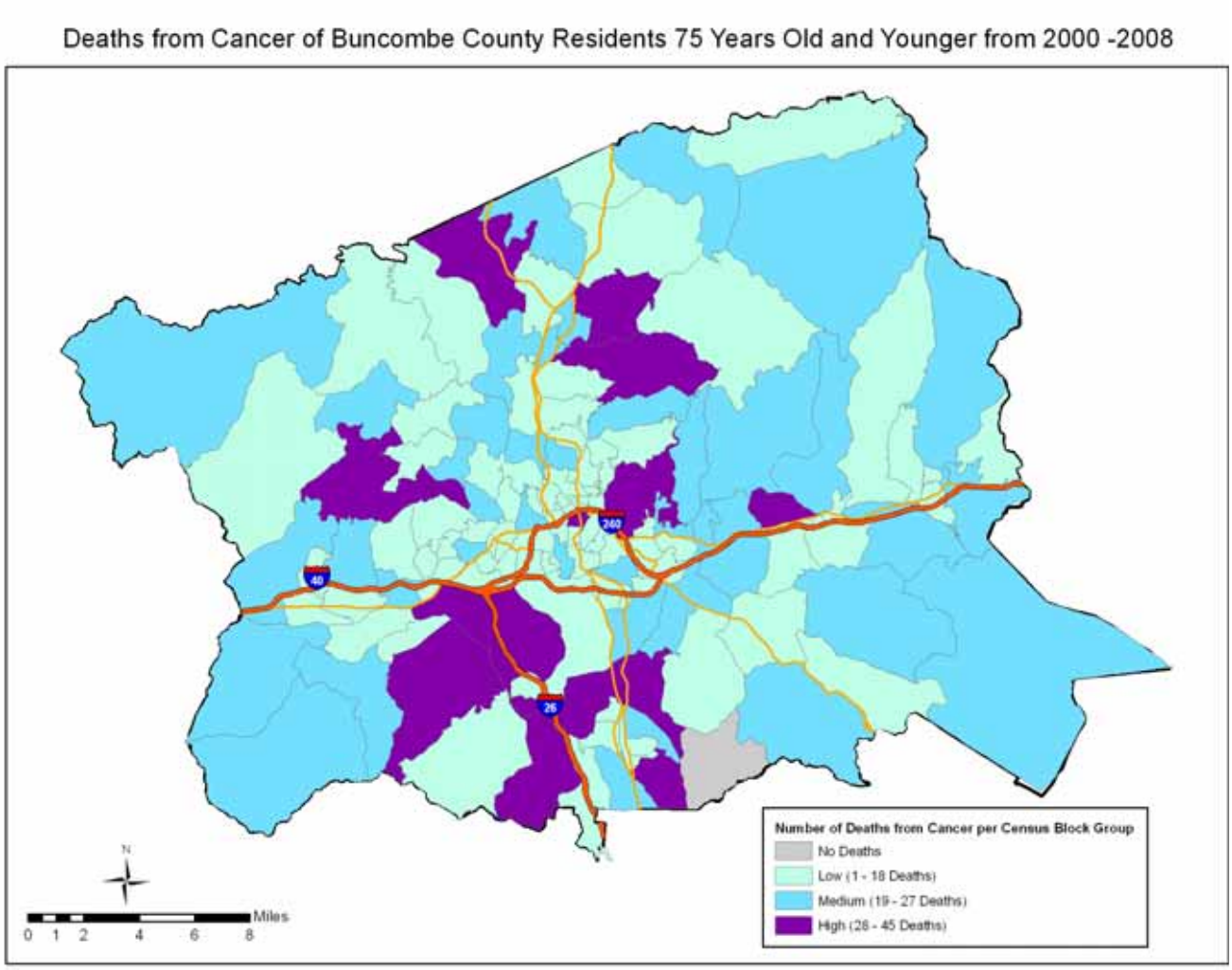
Heart Disease



Legend:		
Light Aqua = 1-8 deaths	Turquoise = 9-17 deaths	Purple = 18-35 deaths

Mortality

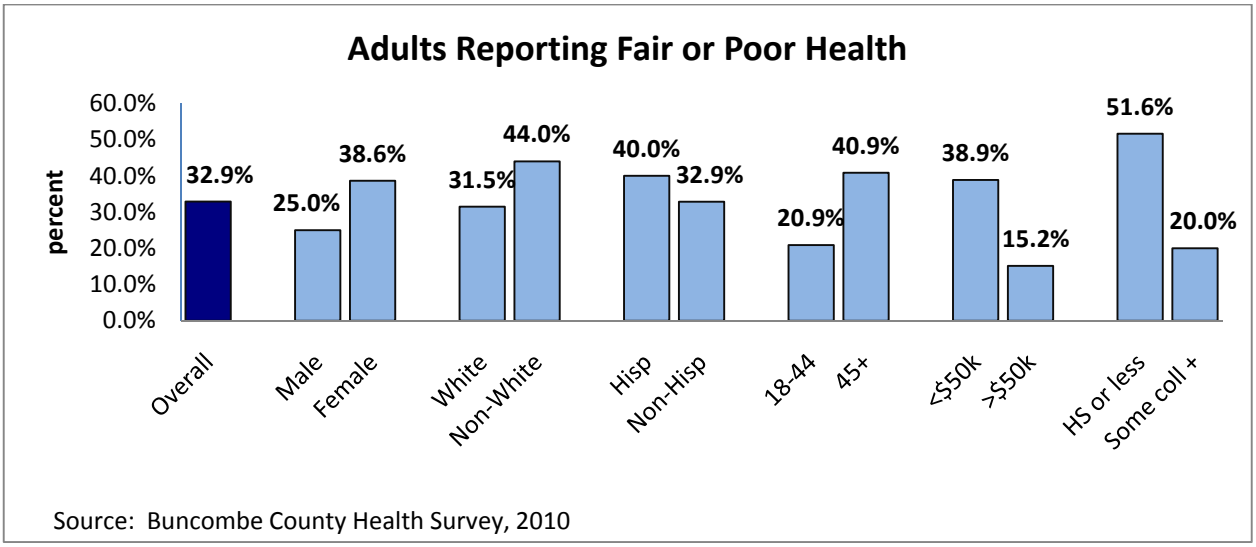
All Cancers



Legend:		
Light Aqua = 1-18 deaths	Turquoise = 19-27 deaths	Purple = 28-45 deaths

Category Health Outcomes	**Morbidity (disease)**
Indicators	Fair or poor health;
Why is this important?	Morbidity is the term that refers to **how healthy people feel while alive**. The morbidity focus area aims to capture the health-related quality of life within the community. The term "health-related quality of life" (HRQOL) has evolved to encompass the aspects of overall quality of life that are most clearly affected by either physical or mental health. Health-related quality of life is viewed in the *County Health Rankings* framework as an outcome of the health factors included in the *Rankings*. Understanding the HRQOL of the population helps communities identify unmet health needs, assess disparities among demographic and socioeconomic subpopulations, characterize the burden of disabilities and chronic diseases, and track population patterns and trends. [MATCH County Ranking Report]

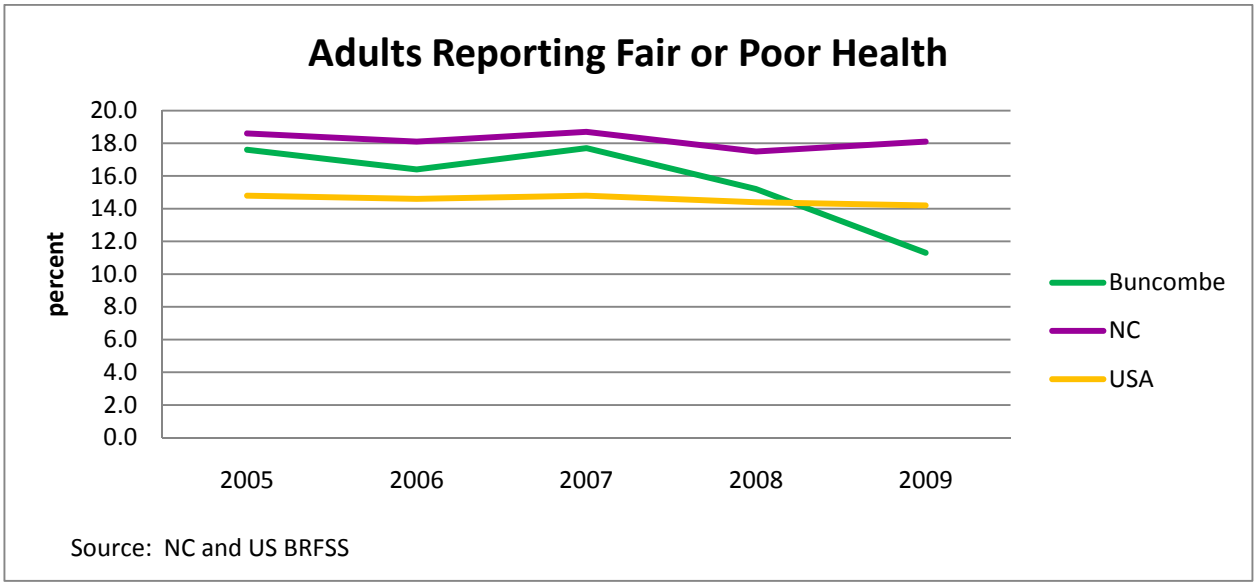
Local Health Survey



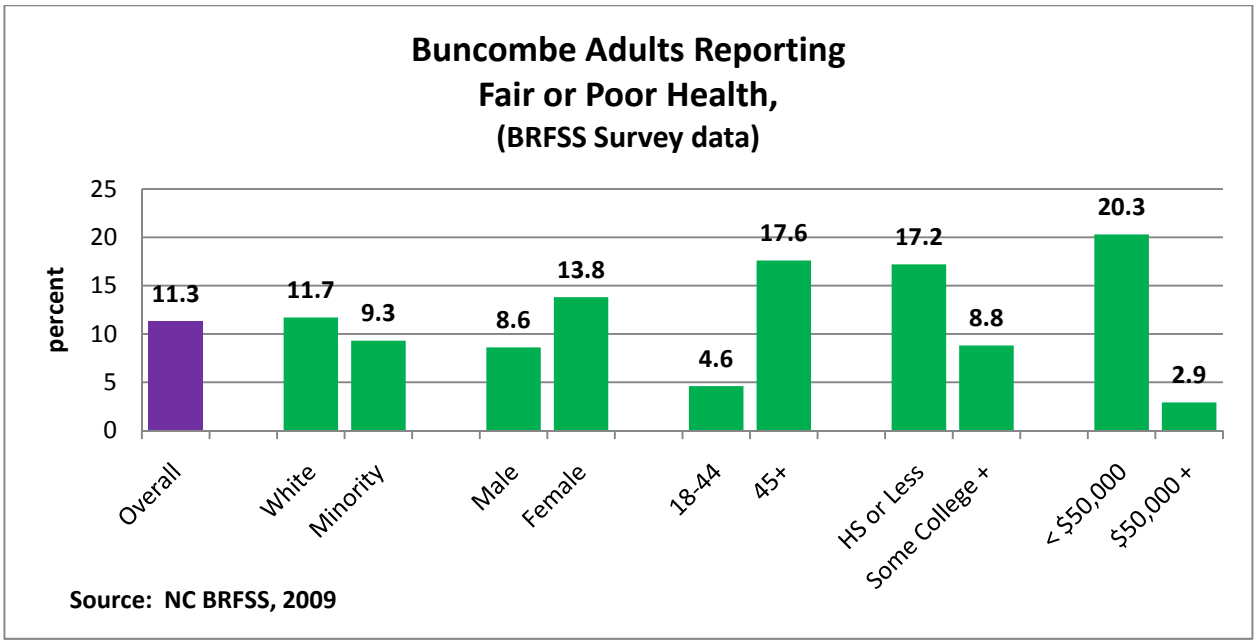
Source: Buncombe County Health Survey, 2010

Among local survey respondents, nearly 1 out of 3 described their health as "fair" or "poor". Over 50% of those with an education level of high school or less described their overall health as "fair" or "poor" compared with their counterparts with at least some college. Over 40% of non-whites and Hispanics reported "fair" or "poor" health compared with approximately one-third of their white and non-Hispanic counterparts. There were also noticeable differences in self-reported health by gender, income, and age (each reporting poorer health than their counterparts). The number reporting "fair" or "poor" has increased from previous years, as indicated by local survey data (13% in 1995, 19% in 2005).

Morbidity



Source: NC and US BRFSS

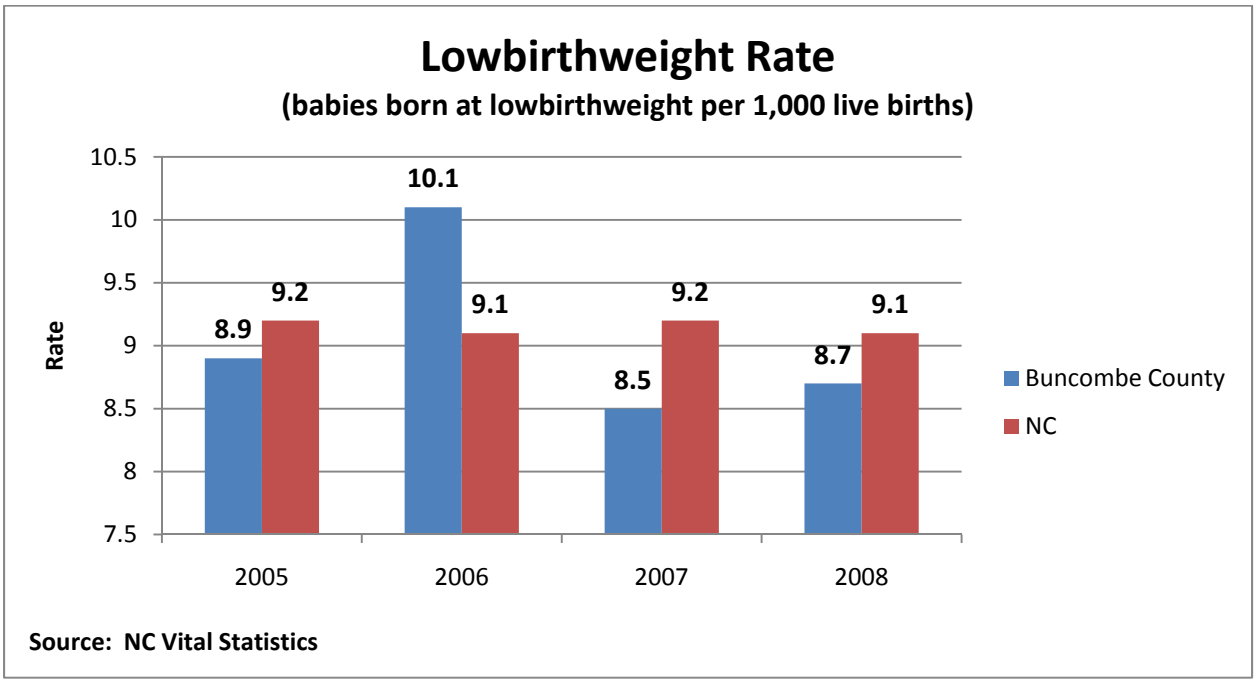


Source: NC BRFSS, 2009

NC and US BRFSS is a randomized telephone survey. It's important to note that cell phones are not included in this survey and therefore the survey responses do not represent the population who only use cell phones.

Of note: 11% of adults described their health as "fair" or "poor" in BRFSS, while 33% of local survey respondents reported "fair" or "poor" health. Some of the same disparities (by gender, age, education, and income) were observed. The primary advantage of using BRFSS data is that it allows us to compare county data to the same NC and US data over time. According to BRFSS, Buncombe County has a lower percentage of residents reporting "fair" or "poor" health status than NC or the US.

Morbidity



The percent of babies born too soon and / or too small in Buncombe County is generally better / lower than the percentage for North Carolina as a whole. As with infant deaths, Buncombe does have a racial disparity. The 2004-2008 low birth weight rate for whites was 8.4 and for blacks was 14.2 (NC Vital Statistics).

Many of the babies born too small are also born too soon. Major clinical medical advances in the care of these smallest of babies have dramatically increased their chances of survival in the past ten years. However, extremely premature and very low birth weight babies face high risk of death as well as serious complications such as blindness, cerebral palsy, and more. Premature birth is the leading cause of child death in North Carolina (NC Preconception Health Strategic Plan).

Morbidity

Sexually Transmitted and Communicable Disease Data

SEXUALLY TRANSMITTED DISEASES	OCT 2010	YTD 2010	OCT 2009	YTD 2009	EOY* 2009
AIDS	1	14	2	9	16
HIV Infection	18	58	6	45	63
Gonorrhea - Genito-Urinary (non-PID)	20	171	17	127	153
Chlamydia	104	668	45	533	588
Syphilis - Primary	1	3	0	8	9
Syphilis - Secondary	0	1	0	3	3
Syphilis - Early Latent	1	3	1	4	5
Syphilis - Latent, Unknown duration	1	1	0	6	7
Syphilis - Late Latent	0	2	0	2	2
Syphilis - Late-with symptoms	0	0	0	0	0
Syphilis - Neurosyphilis	0	0	0	2	2
Syphilis - Congenital	0	0	0	0	0
Pelvic Inflammatory Disease (PID)	0	2	0	0	0
COMMUNICABLE DISEASES					
Hepatitis A	0	1	0	0	0
Hepatitis B, Acute	0	0	0	2	2
Hepatitis B, Carrier	0	4	2	15	16
Hepatitis B, Perinatal	0	0	0	0	0
Hepatitis C, Acute	0	1	0	1	1
Lyme Disease	0	1	0	6	6
Rocky Mountain Spotted Fever	0	5	1	7	7
Influenza, Novel Virus	0	0	0	38	38
Tuberculosis	1	2	0	6	6
Whooping Cough (Pertussis)	6	36	1	8	10

Source: Buncombe County Department of Health, Monthly Morbidity Summary Report
October 2010 data is the latest available data at time of Report (12/1/2010)

Buncombe County Department of Health uses this monthly report to help monitor communicable disease trends, some of which represent normal patterns for Buncombe County but others indicate the possibility of an emerging public health issue or epidemic.

Year to date numbers when compared to this time last year, indicate there are several diseases that are elevated: Whooping Cough, Chlamydia, Gonorrhea, and AIDS/HIV infection.

Syphilis cases have been higher than normal for the past several years. However, the year to date data indicates that the epidemic may be waning.

Summary of Findings

What does the data tell us about mortality and morbidity?

Among Buncombe adults who participated in the local health survey:

- **1 out of 3** Buncombe Adults describe their health status as "fair" or "poor", an indicator of general wellness while alive.
- Those with an education of high school or less were the most likely to describe their health as "fair" or "poor" (51%).

Despite a high ranking in access to healthcare (Ranked 3rd healthiest in NC), our county morbidity indicators place Buncombe as 30th healthiest among NC counties.

Buncombe County's six year average for adults who describe their health status as "fair" or "poor" is 17%, above the target of 15%.

Heart disease, Cancer, Stroke, and Lung disease are the leading causes of death with over 50% of deaths attributable to these four causes.

Disparities between whites and blacks exist among leading causes of death:

- Whites are more likely to die from Suicide, Alzheimer's, Lung disease, and Unintentional injuries.
- Blacks are more likely to die from AIDS, Homicide, Kidney disease, and Diabetes.
- In 2008, an African American resident under the age of 75 was 54% more likely to die than a white resident.

We observe significant increases in the incidence of several communicable diseases when comparing year to date data: Gonorrhea, Chlamydia and Pertussis (Whooping Cough). Gonorrhea and Chlamydia are related to unprotected / unsafe sex and Pertussis outbreak is related to under-immunized children (Buncombe ranks #1 among all NC counties for the highest immunization exemptions for children in school).

There is a significant difference in low birth weight rates by race. The 2004-2008 low birth weight rate for whites was 8.4 and for blacks was 14.2, a 40% increase.

Where can I find more data about mortality and Morbidity?

BC Health Survey, 2010: http://www.buncombecounty.org
BC and NC BRFSS: http://www.schs.state.nc.us/SCHS/brfss/
US BRFSS: http://apps.nccd.cdc.gov/BRFSS/
NC State Center for Health Statistics: http://www.schs.state.nc.us/SCHS/data/vitalstats.cfm
NC CATCH (warehouse of data): http://www.schs.state.nc.us/SCHS/catch/
MATCH – County Health Rankings: http://www.countyhealthrankings.org/north-carolina

Health Factors | Health Behaviors

MATCH – County Ranking Data (Mobilizing Action Toward Community Health)

2010 Snapshot of Health Behaviors that Impact Health Outcomes

MATCH - Buncombe County	Buncombe Value	NC Value	Target Value*	
Health Behaviors NC County Rank: 6th Healthiest				
Adult smoking [6]	24%	23%	20%	↓
Adult obesity [7]	21%	29%	24%	↓
Binge drinking [8]	11%	11%	5%	↓
Motor vehicle crash death rate [9]	15	20	15	↓
Chlamydia rate [10]	268	346	89	↓
Teen birth rate [11]	46	51	39	↓

Notes: Motor vehicle crash death rate is per 100,000 (crude rate), 2000-2006; Chlamydia rate is per 100,000 (2005 data): Teen birth rate is per 1,000 female population, ages 15-19, 2000-2006

Source URL: http://www.countyhealthrankings.org/north-carolina/buncombe

About the Target Value

The arrows help us know whether we should be higher or lower than the targeted value in order to improve health. For example, when looking at Adult Smoking, the Buncombe Value is higher than the Target Value. We need to decrease ↓ the percentage of adults who smoke in order to meet or exceed the Target Value.

About the Buncombe Value

The Buncombe Value is calculated using multiple years of data to stabilize the data and offer a good "snapshot" of a particular health behavior. Health behaviors that are highlighted in **Red** are above ↑ the Target Value.

In this Section…

Find data from the Local Health Survey and from other sources about health behaviors that impact health outcomes.

- **Tobacco Use** (adults and teens)
- **Obesity** (adults and children)
- **Diet and Exercise**

- Risky Behaviors

Alcohol Use (adults and teens)

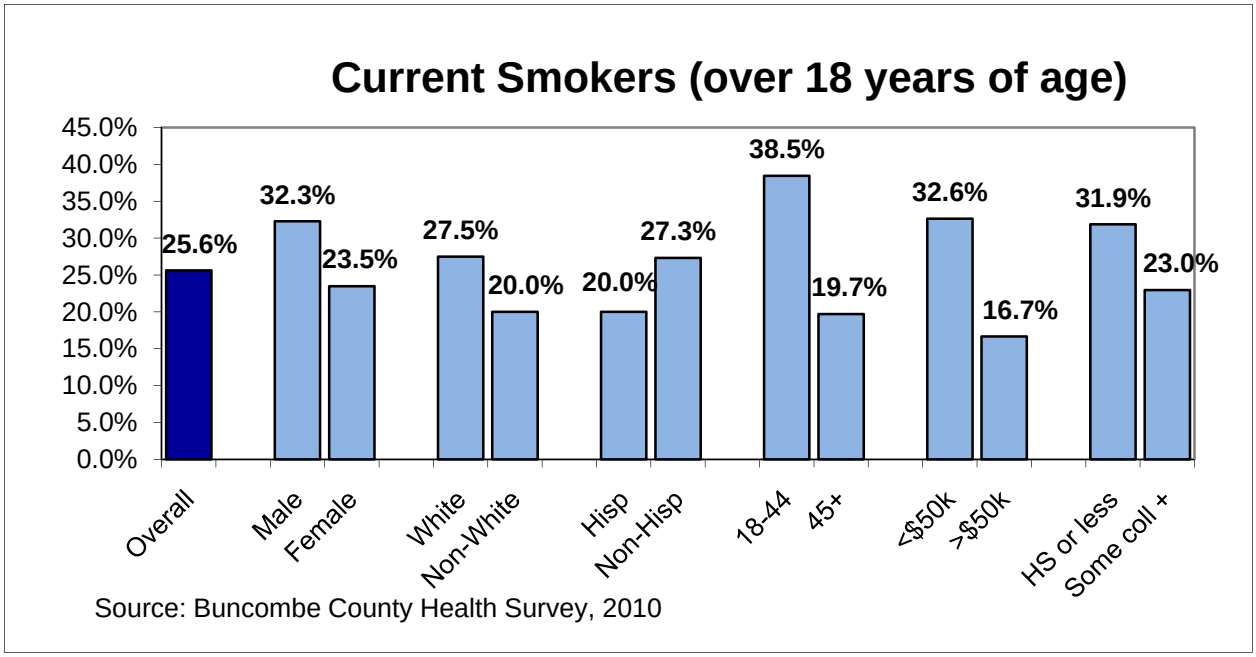
HIV and Chlamydia

Teen Births

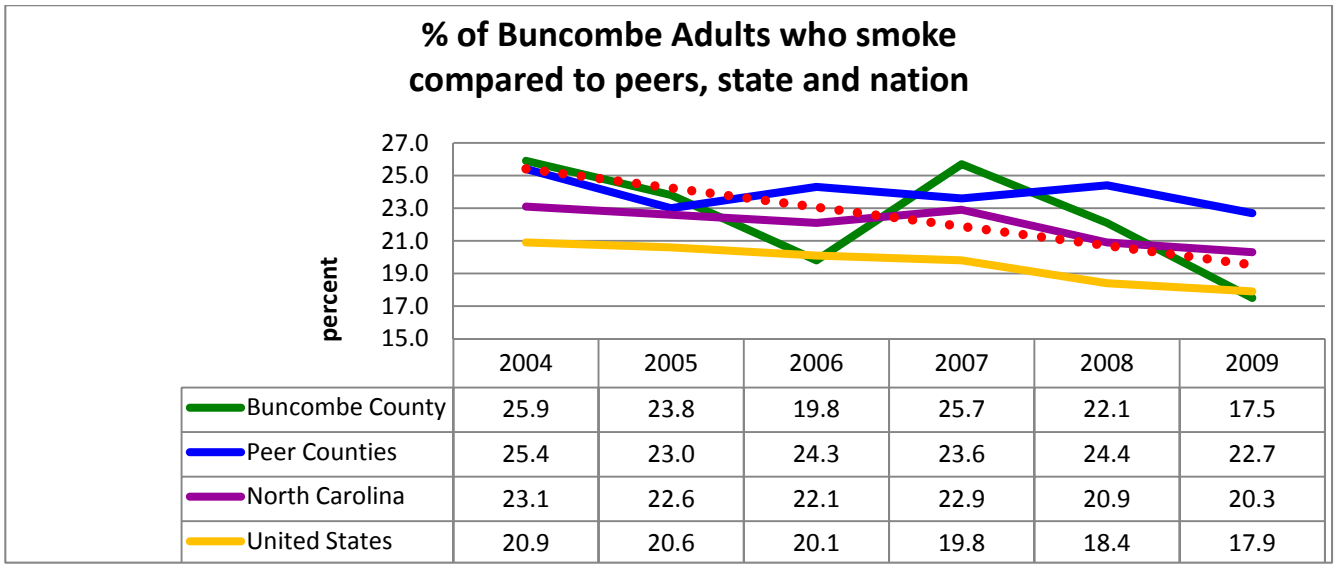
Unintended pregnancy (women of all ages)

Category Health Behavior	**Tobacco Use**
Indicators	Current Tobacco Use among adults, pregnant women, and youth
Why is this important?	Measuring the prevalence of tobacco use in the population can alert communities to potential adverse health outcomes in the future and can be valuable for assessing the need for cessation programs or the effectiveness of existing programs. The relationship between tobacco use and poor health affects is well documented. Cigarette smoking is the leading cause of preventable death and is identified as the cause of multiple diseases, cancers, adverse reproductive effects including fetal deaths and low birth weight, and other health problems. (MATCH County Ranking Report) Smoking during pregnancy can have a negative impact on the health of women, infants, and children by increasing the risk of complications during pregnancy, premature delivery, and low birth weight—some of the leading causes of infant mortality (DHHS, Women's Health Report, 2010)

Local Health Survey

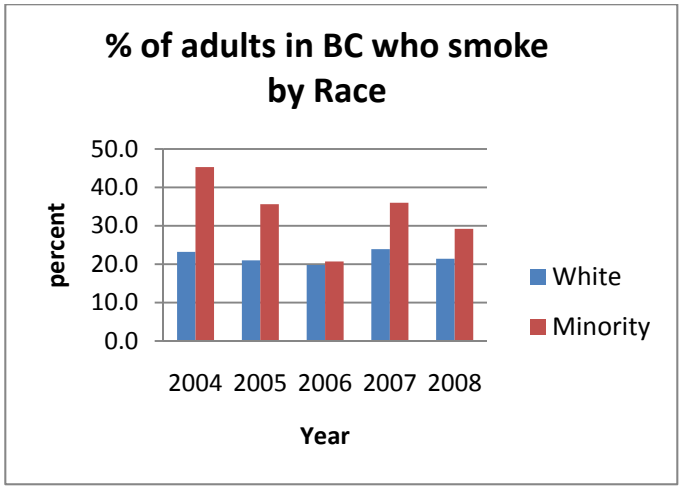


Overall, 1 out of every 4 adults in Buncombe smoke cigarettes. Of note, there are significant differences in patterns of residents who are current smokers. Younger and middle-age adults surveyed (age 18-44) were almost twice as likely to smoke as those over age 45. Those who earned less than $50,000 per year were almost twice as likely to smoke as those who had higher earnings. This reflects a nation-wide pattern in which adults with higher income and higher education are less likely to be current smokers.

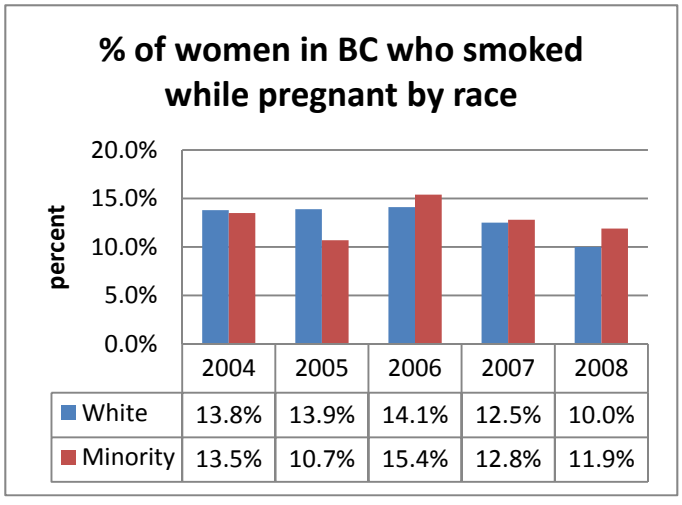


	2004	2005	2006	2007	2008	2009
Buncombe County	25.9	23.8	19.8	25.7	22.1	17.5
Peer Counties	25.4	23.0	24.3	23.6	24.4	22.7
North Carolina	23.1	22.6	22.1	22.9	20.9	20.3
United States	20.9	20.6	20.1	19.8	18.4	17.9

Peer Counties for Buncombe: Burke, Davidson, Randolph
Source: NC and US Behavior Risk Factor Surveillance Survey (BRFSS)



Source: NC BRFSS



	2004	2005	2006	2007	2008
White	13.8%	13.9%	14.1%	12.5%	10.0%
Minority	13.5%	10.7%	15.4%	12.8%	11.9%

Source: NC Vital Statistics

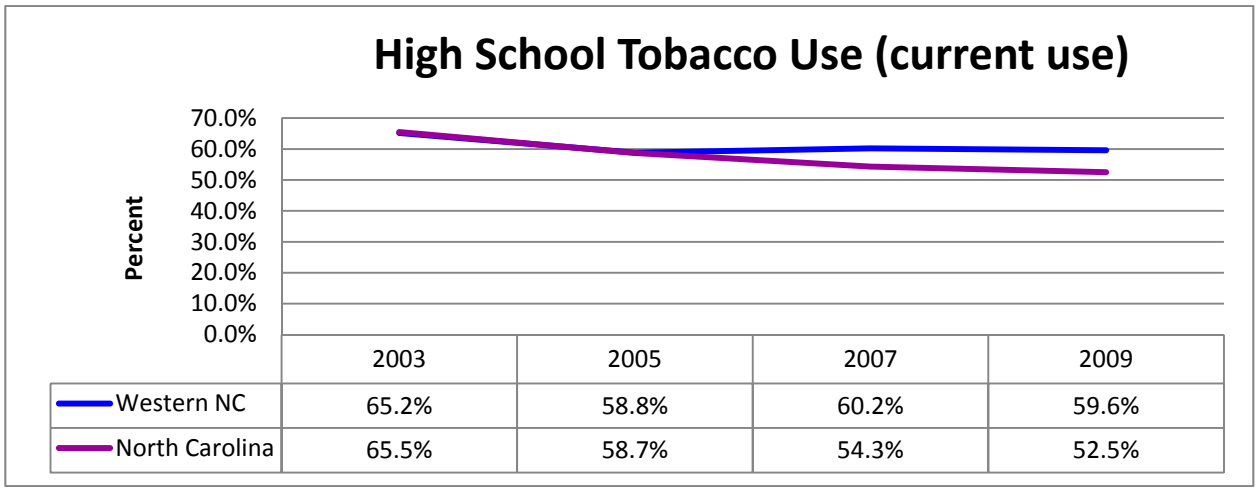
Smoking and other tobacco use is the leading cause of preventable death in the United States.

In Buncombe County, we have seen a steady decline in our percent of adults who smoke for the past three years. Buncombe percents are now slightly below the state average and the averages in other communities similar to ours.

Buncombe County minority residents are more likely to be smokers than are white residents. This is striking when you consider that nation-wide, it is white residents who are more likely to be smokers.

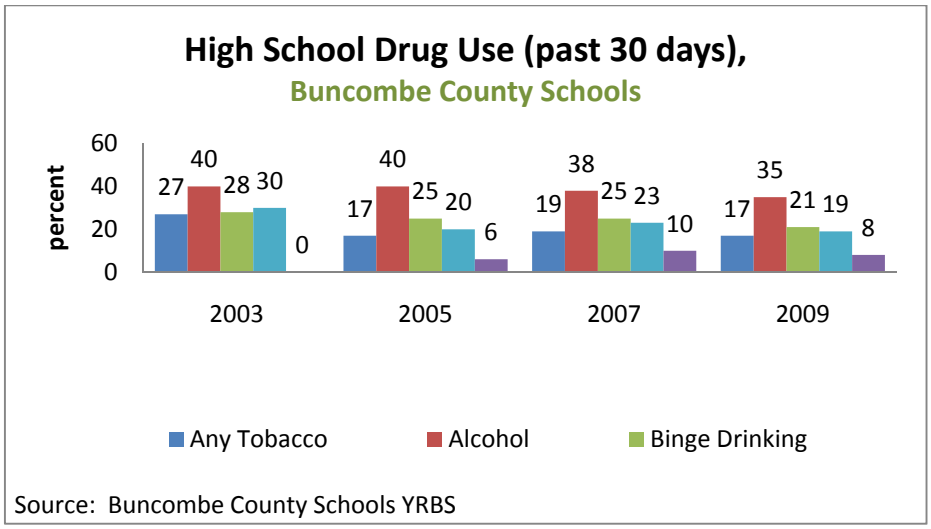
Over 10% of pregnant women in Buncombe County report being current smokers. This is almost exactly the same rate as pregnant women in state as a whole. This statistic is captured during the birth certificate completion process – after the baby has been born and the mother is less likely to lie to hide behavior that she most likely knows endangered her baby's health.

Pregnancy is a time period when many women smokers are highly motivated to quit smoking.

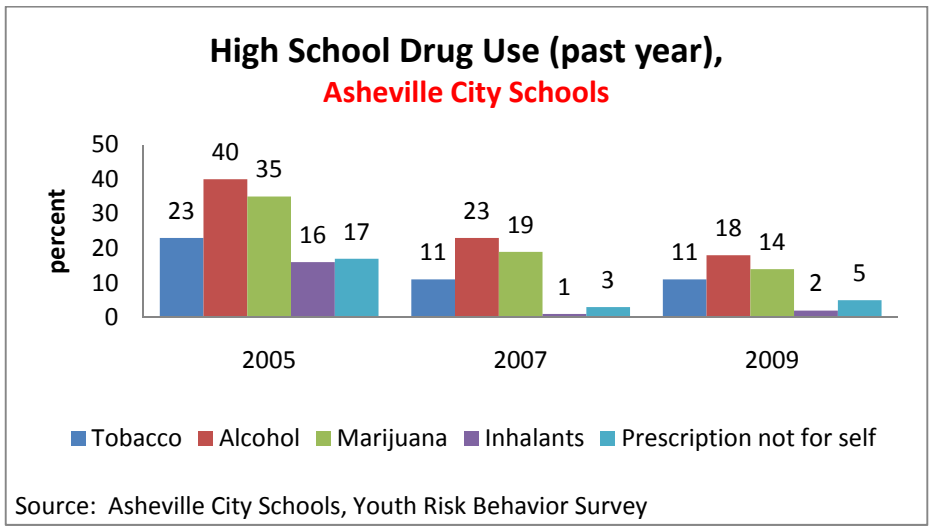


Includes use of any tobacco product (cigarettes, cigars, smokeless tobacco, pipes, or bidis)

Source: Western Region and NC data from NC Tobacco Prevention and Control Branch Survey on Tobacco Use



Source: Buncombe County Schools YRBS



Source: Asheville City Schools, Youth Risk Behavior Survey

While use of tobacco products by high school students has been declining statewide, **half of high school students in Western NC region reported current use of tobacco** (2009). Tobacco use for WNC is somewhat higher than NC, overall.

NOTE: The data for Buncombe County and Asheville City schools are from YRBS surveys rather than the NC Tobacco Prevention and Control Survey. Survey populations differ, as well as the questions. Data should not be compared by school systems. Important trends can be noted for each school system.

Summary of Findings

What does the data tell us?

Among Buncombe adults who participated in the local health survey:

- Overall, **1 out of 4 Buncombe adults currently smokes** cigarettes.
- Almost twice as many adults with lower income smoke than those with incomes above $50,000 (33% vs. 17%).
- Significantly more adults with an education level of high school or less smoke compared to those with some college or higher (32% vs. 23%).
- Among local health survey participants, more whites smoke than nonwhites (27% vs. 20%); however, this differs somewhat from the findings in NC BRFSS data, which is a telephone survey that only includes participants with a landline telephone (no cell phones were included). The difference may be due to local survey being randomized by households rather than landline telephones.

Among Buncombe adults who participated in NC BRFSS survey:

- Over past 5 years, adult smoking among county residents has trended downward.
- In 2009, the county tobacco use dipped to just below the US percentage rate, as well as state and peer county comparisons; although five years ago Buncombe's percentage was comparable to peer counties and above the state average. Because of fluctuations in data, a red-dotted trend line was used to indicate the overall, steady decline in Buncombe's percentage of smokers. See chart, page 47.

Buncombe County's *six year average* of adults who are current smokers is slightly above the North Carolina average (24% vs. 23%). Both county and the state are ABOVE the Target of 20%.

Youth Risk Behavior Survey (YRBS) is conducted every other year in both school systems (Asheville City and Buncombe County) with a representative sample of students. Although questions are standardized, each school system can select the survey questions. There are slight differences in the questions (past 30 days vs. past year). Western Region YRBS data indicates that **over half of students** currently use tobacco products.

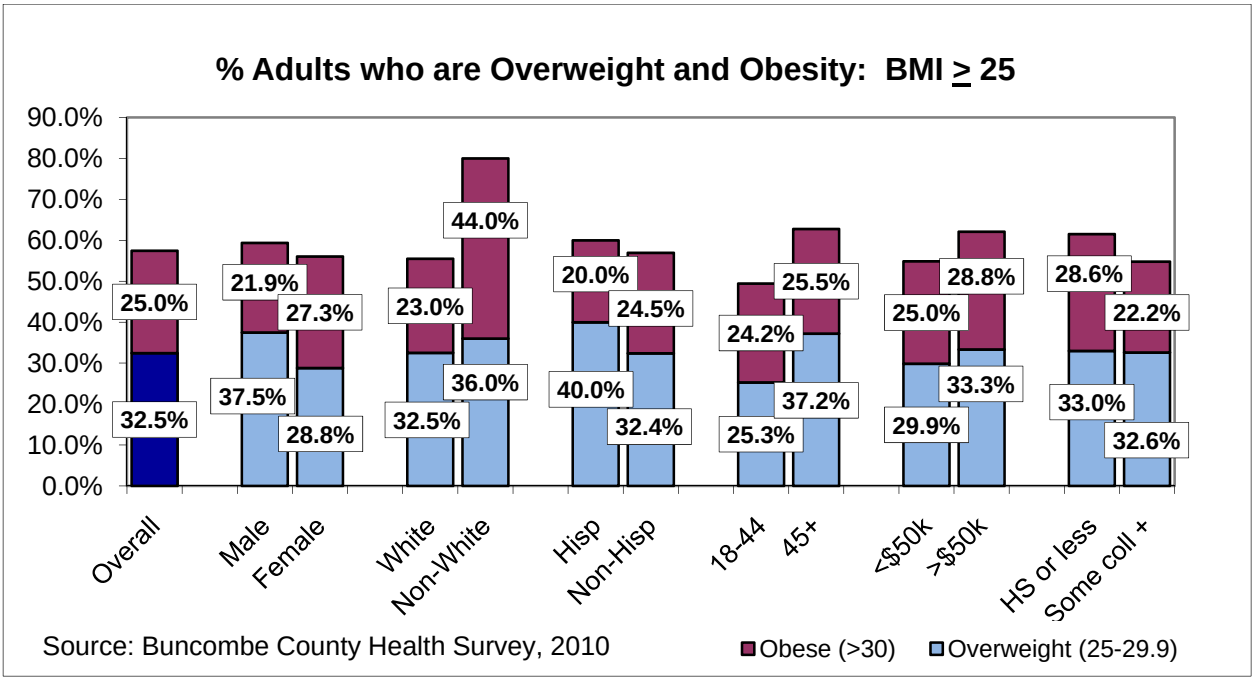
Data made available from the school systems indicates that local tobacco use is much less than Western Region data and has declined by 50% over the past six years, especially when comparing 2005 to 2009 data for Asheville City schools (22% to 11%). Buncombe County students have experienced a 37% decline in tobacco use (27% to 17%) during the same period, 2005 - 2009.

Where can I find more data about tobacco use?

BC Health Survey, 2010: http://www.buncombecounty.org
BC and NC BRFSS: http://www.schs.state.nc.us/SCHS/brfss/
US BRFSS: http://apps.nccd.cdc.gov/BRFSS/
Western Region and NC YRBS: http://www.nchealthyschools.org/data/yrbs/
US YRBS: http://www.cdc.gov/HealthyYouth/yrbs/index.htm
MATCH – County Health Rankings: http://www.countyhealthrankings.org/north-carolina

Category Health Behavior	Healthy Weight
Indicators	Adults and children – weight status
Why is this important?	Obesity rates continue to increase over the years across all age groups, sexes, educational, and income levels. In addition to genetics, unhealthy diet and lack of exercise are key contributors to rising obesity rates. Diet and exercise can be affected by interventions at the individual and community level. Obesity is measured because it can be addressed within communities by changing unhealthy environmental conditions that contribute to poor diet and exercise. Being overweight or obese increases the risk for a number of health conditions, such as heart disease, type 2 diabetes, cancer, high blood pressure, high cholesterol, stroke, infertility problems, and poor health status. Additionally, there are direct and indirect economic costs associated with obesity. In 1998, the U.S. spent 9.1% of total medical expenses on obesity- and overweight-associated medical costs. (MATCH County Ranking Report)

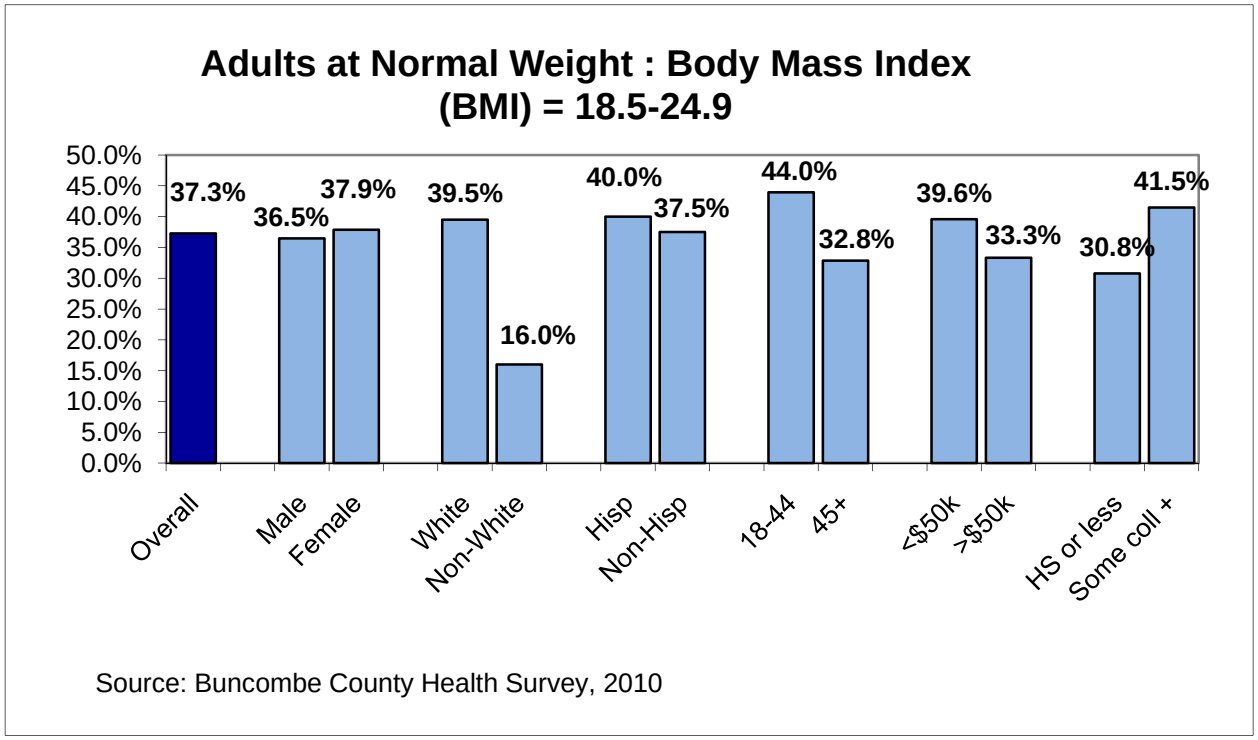
Local Health Survey



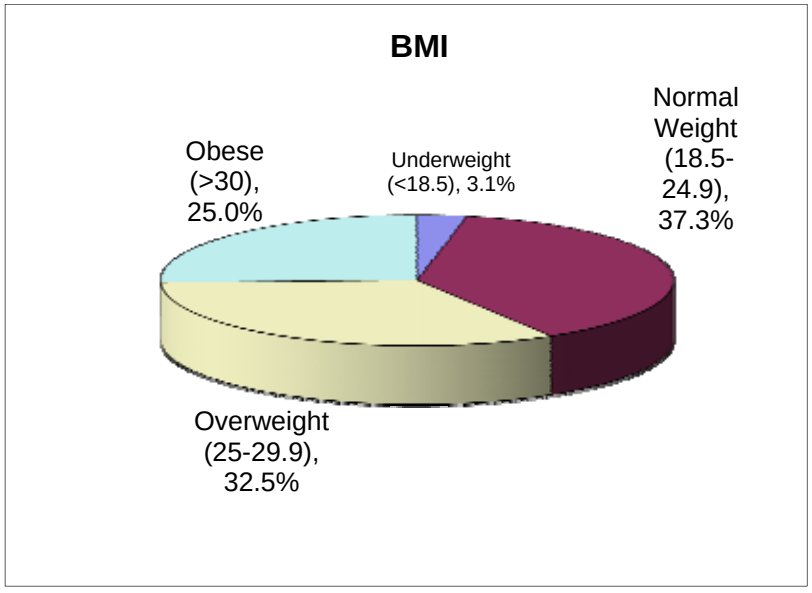
Using the reported height and weight gathered during the local health survey, a BMI (Body Mass Index) was calculated and weight status determined. Among all survey respondents, **over 57% are either overweight or obese.** When we look at data by race there is a notable disparity between white and non-white respondents. **8 out of 10 non-white are either overweight or obese.**

Healthy Weight

Local Health Survey



Source: Buncombe County Health Survey, 2010



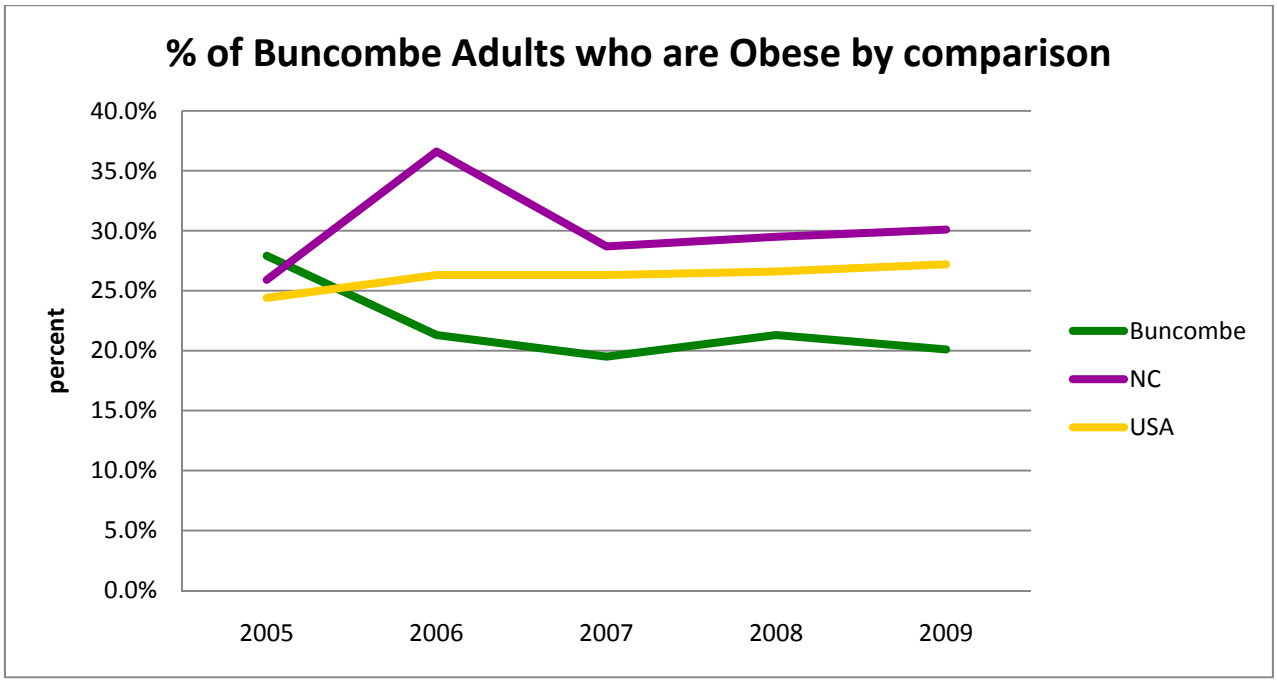
Health Opinion Survey Findings

Obesity, Nutrition and Physical Activity ranked in the top five health issues people are most concerned about.

Source: Buncombe County Health Survey, 2010

Among local survey respondents, we find that just over **1 in 3 people in Buncombe County are at normal weight**. When looking at the pie chart, we also notice that 3.1% are underweight, which can have health effects due to inadequate nutrition.

Healthy Weight

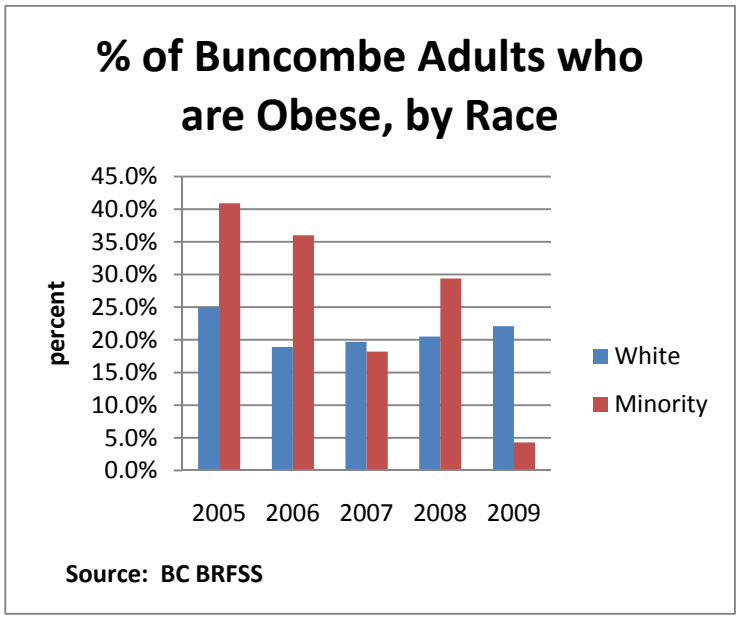


Source: NC and US Behavior Risk Factor Surveillance Survey

NC and US BRFSS is a randomized telephone survey. It's important to note that cell phones are not included in this survey and therefore the survey responses do not represent the population who only use cell phones.

BRFSS results indicate that the percent of Adults who are obese is approximately 20% versus 25% among those participating in the randomized local health survey.

BRFSS data allows us to compare county data to the same NC and US data.



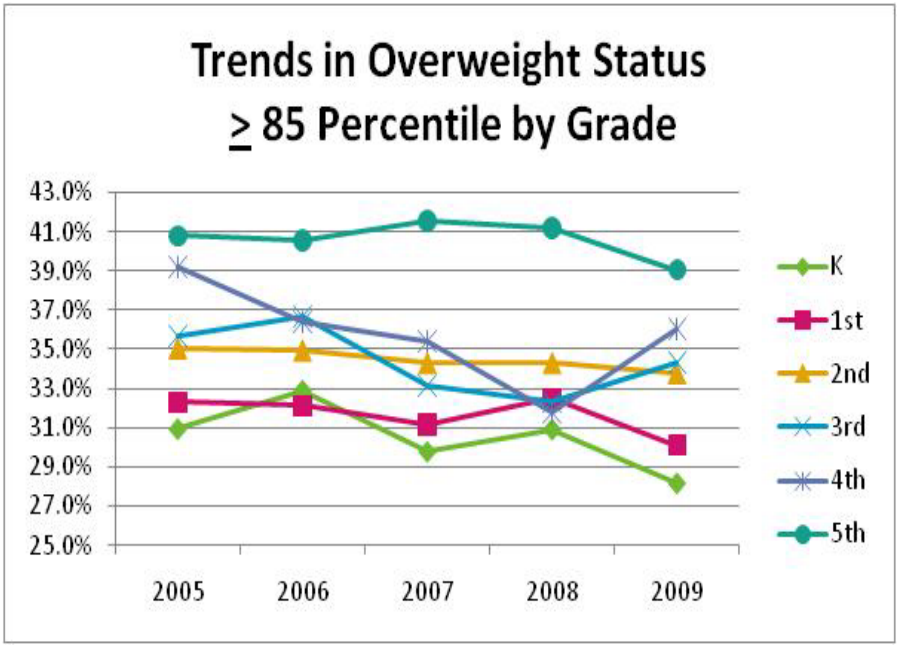
Source: BC BRFSS

Caution should be used when interpreting data from the Local Health Survey and BRFSS data by race, due to the small sample size. When looking at percent of adults who are obese by race, we see an overall downward trend among minorities. In 2009 there appears to be a sharp drop among minorities, which is likely due to small sample size. The local health survey does not show a similar comparison to whites or prevalence of obese weight status.

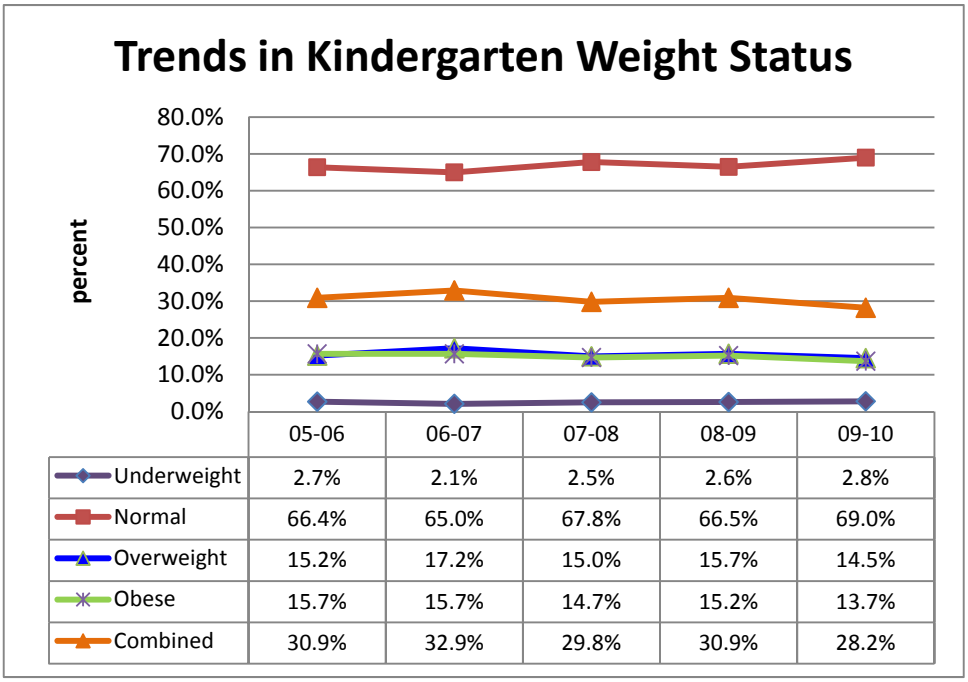
Healthy Weight

Health Opinion Survey Findings

People believe that Physical Activity & Nutrition should be a priority for schools in order to impact obesity among children.



Source: BMI Assessment for ALL K - 5 students, Buncombe Co. and Asheville City Schools



	05-06	06-07	07-08	08-09	09-10
Underweight	2.7%	2.1%	2.5%	2.6%	2.8%
Normal	66.4%	65.0%	67.8%	66.5%	69.0%
Overweight	15.2%	17.2%	15.0%	15.7%	14.5%
Obese	15.7%	15.7%	14.7%	15.2%	13.7%
Combined	30.9%	32.9%	29.8%	30.9%	28.2%

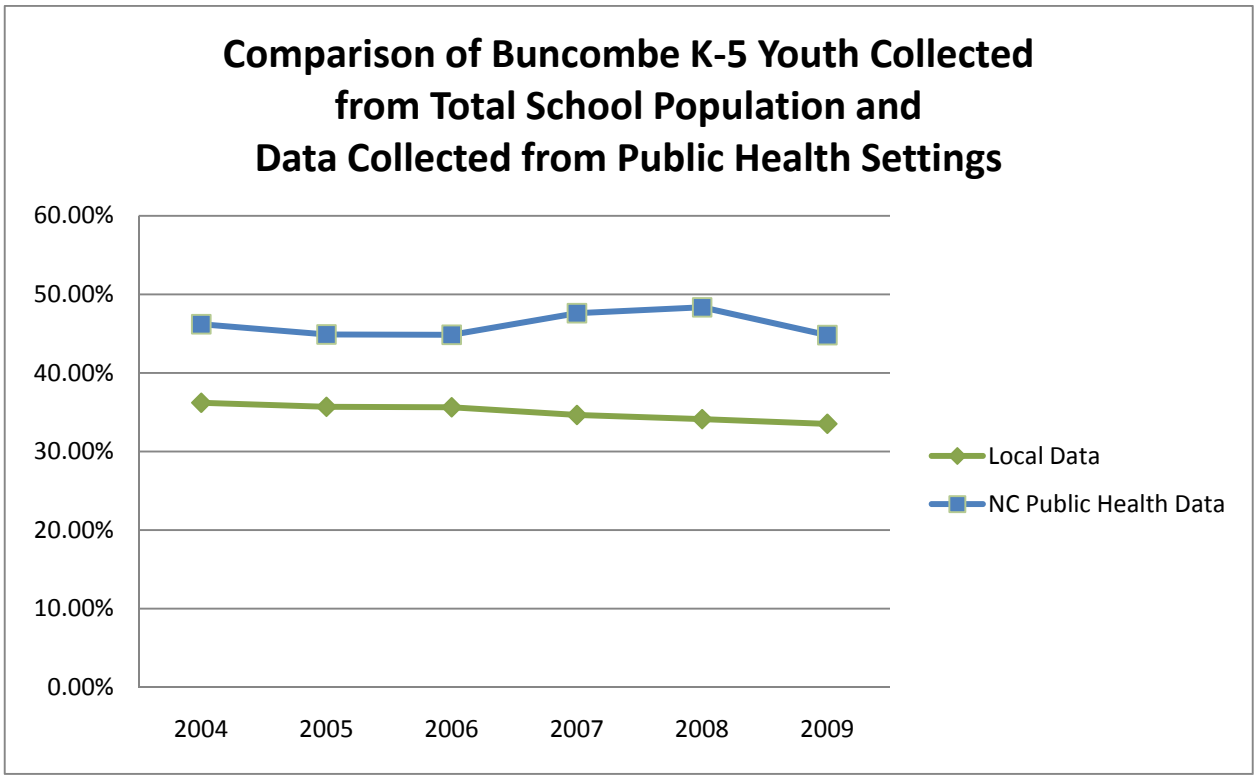
Health Opinion Survey Findings

Ranked #2: Initiatives should focus on children and youth for the greatest impact on obesity and Healthy weight.

Source: BMI Assessment for ALL K – 5 students in both school systems.

Weight status is reported differently for adults and children. For children and teens, the amount of body fat changes with age and can even change monthly. The amount of body fat differs between girls and boys. Because of these differences what is healthy is not based on the BMI number, but rather where that BMI number falls among children of the same age and gender. Children at the 85th percentile or above BMI-For-Age are considered overweight. Those at the 95th percentile or above are considered obese.

Healthy Weight



Source: North Carolina Nutrition and Physical Activity Surveillance System (NC-NPASS)

Local data on weight status among school-age children does not allow us to account for factors such as race, ethnicity, and socioeconomic status and regional differences that health experts tell us contribute significantly to childhood overweight. According to the Institute for Medicine of the National Academy of Sciences, "Hispanic, non-Hispanic black, and Native-American children are disproportionately affected. Mexican-American boys and non-Hispanic girls have the highest prevalence". Evidence also suggests that socioeconomic status appears to play a role though the influence is not seen across all ethnic groups, nor does the influence appear at the same ages.

North Carolina annually reports BMI-for-Age data by county. This data is collected from children seen in public health settings. Compared with local data collected from all school children ages 5-11, the prevalence of overweight and obesity among lower income children seen in public health settings would appear to be significant. These findings are consistent with research that correlates an increase in obesity among lower socio-economic populations. The increase in overweight noted in NC Public Health data in 2007 & 2008 could indicate increasing health disparity or be due to a smaller sample size.

Summary of Findings

What does the data tell us?

Among Buncombe adults who participated in the local health survey:

- 1 out of 3 Buncombe adults are at normal, healthy weight
- Over half (57%) are either overweight or obese
- 8 out of 10 non-whites were either overweight or obese
- For every person that is at normal weight we find nearly 2 who are at unhealthy weight

Among Buncombe adults who participated in NC BRFSS survey:

- Buncombe has a lower percentage of adults who are obese than either the state or the nation. (20% compared to 30% NC).
- Both US and NC rates have trended upward while Buncombe county has trended downward.
- We cautiously interpret a slight downward trend in obesity among minorities over the last five years.

Buncombe County's *six year average* for adults who are obese is below the North Carolina average (21% vs. 29%) and is also BELOW the Target of 24%.

Children in grades K - 5 in Buncombe County and Asheville City schools participate in a Body Mass Index (BMI) assessment each year. This local data indicate:

- 28% of Kindergarteners are overweight, increasing each year to 39% of 5th graders. We can see how the increase sets the continuous upward trend into adulthood.
- Over the past 5 years, there are slight decreases in percentage of overweight and obese children in all grades, especially among Kindergarten and 1st grades.

What do people care about?

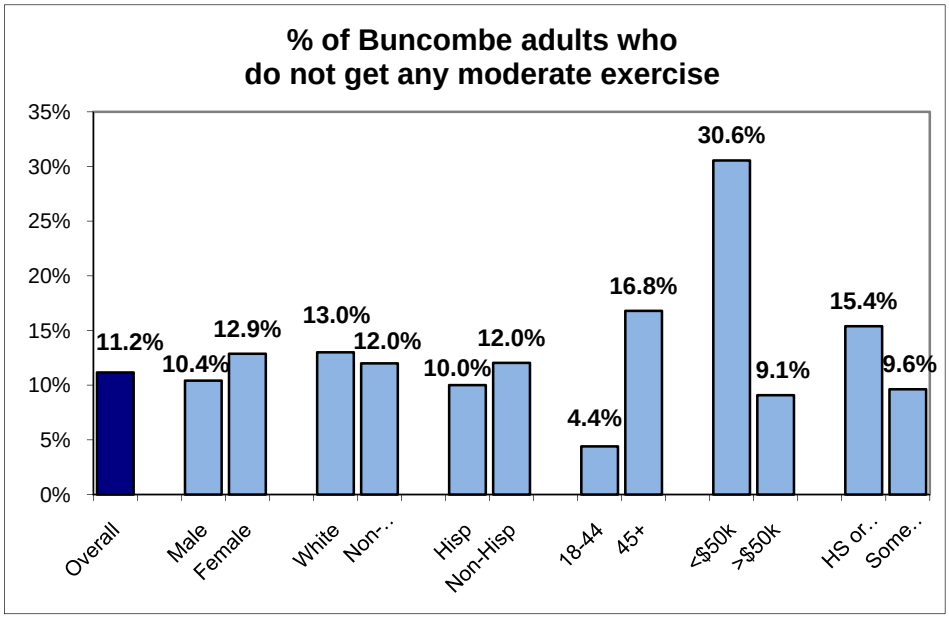
- Health opinion survey results indicate that many people are concerned about issues related to being overweight, diet, and exercise.
- In the top five health concerns – many people expressed a desire to focus on children where they hope to have the biggest impact on obesity by preventing the rise in obesity as children get older.
- Also in the top five health concerns – many people wish schools would make it a priority to improve nutrition and increase physical activity thus impacting thousands of children.

Where can I find more data about obesity?

BC Health Survey, 2010: http://www.buncombecounty.org
BC and NC BRFSS: http://www.schs.state.nc.us/SCHS/brfss/
US BRFSS: http://apps.nccd.cdc.gov/BRFSS/
NC State Center for Health Statistics: http://www.schs.state.nc.us/SCHS/data/databook
NC CATCH (warehouse of data): http://www.schs.state.nc.us/SCHS/catch/
MATCH – County Health Rankings: http://www.countyhealthrankings.org/north-carolina

Category Health Behavior	Diet and Exercise
Indicators	Diet and Exercise
Why is this important?	Obesity rates continue to increase over the years across all age groups, sexes, educational and income levels. In addition to genetics, unhealthy diet, and lack of exercise are key contributors to rising obesity rates. Diet and exercise can be affected by interventions at the individual and community level. (MATCH County Ranking Report) Community level interventions include "built environment" such as sidewalks to schools and in neighborhoods, making it easier to walk than ride a car; and increasing access to healthier foods such as fresh fruit and vegetable stands and gardens, convenience stores, and tailgate markets.

Local Health Survey



Health Opinion Survey Findings

Ranked #4:
Increasing opportunity to make healthy choices such as access to walking trails and healthy foods

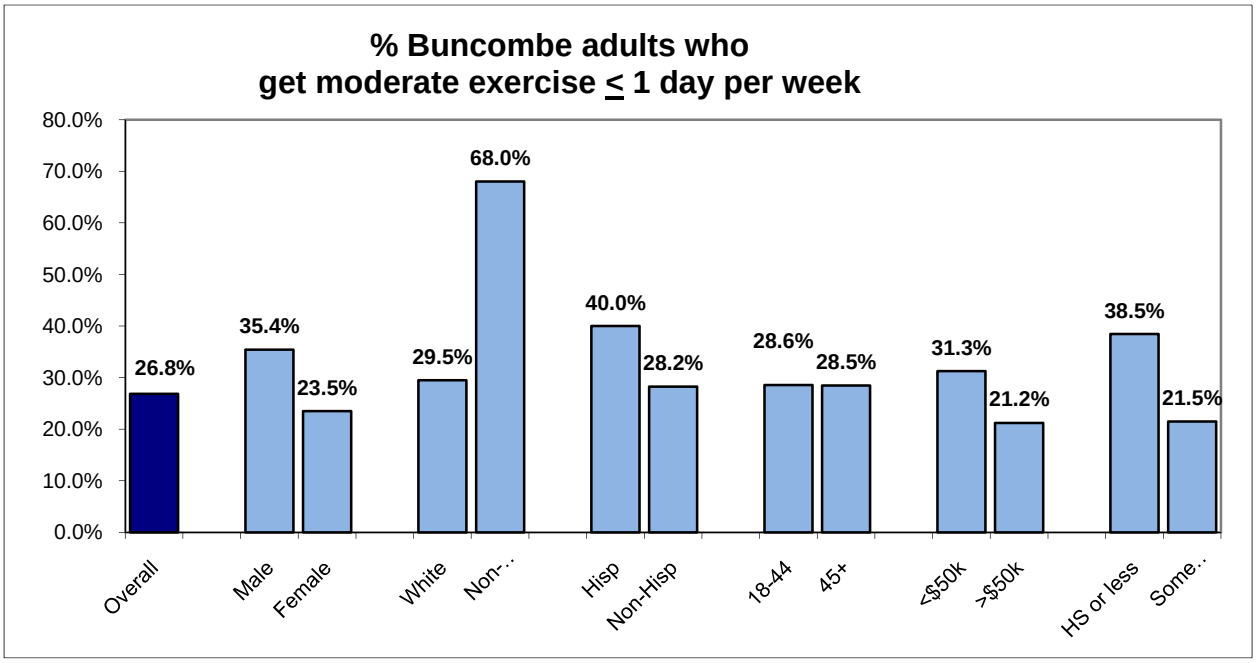
Buncombe County Health Survey, 2010

Among local survey respondents, 1 in 10 did not get any moderate exercise within a week. The biggest disparity is observed among income levels, with nearly 1 in 3 adults making less than $50,000 not getting any exercise. The residents most likely to get moderate exercise are those less than 45 years of age.

Health Opinion survey results indicated that many people would like to see more opportunities to walk on sidewalks and walking trails, and access healthy foods.

Diet and Exercise

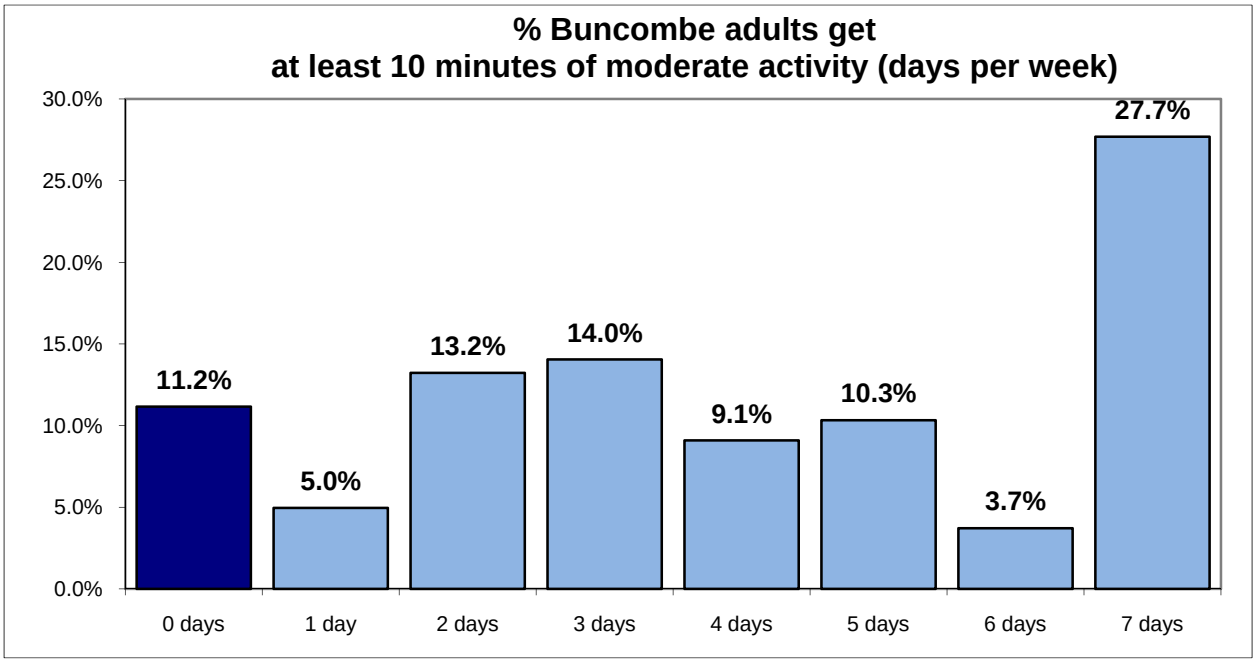
Local Health Survey



Health Opinion Survey Findings

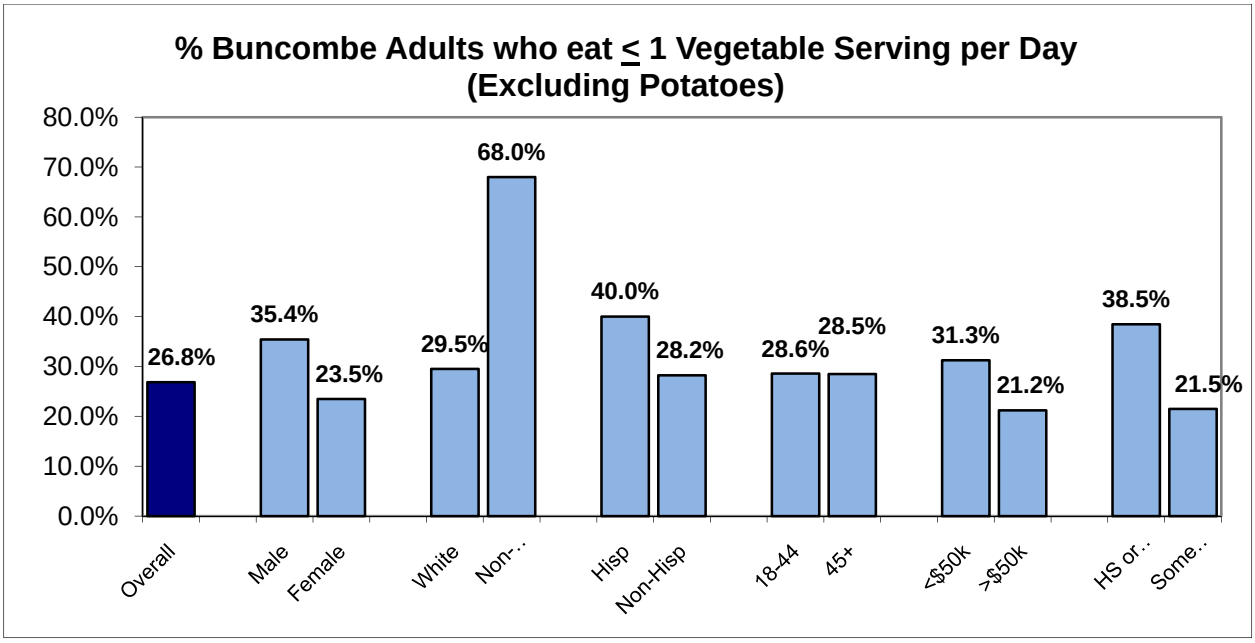
Ranked #5: Increasing physical activity for adults and children.

Local Health Survey



Diet and Exercise

Local Health Survey

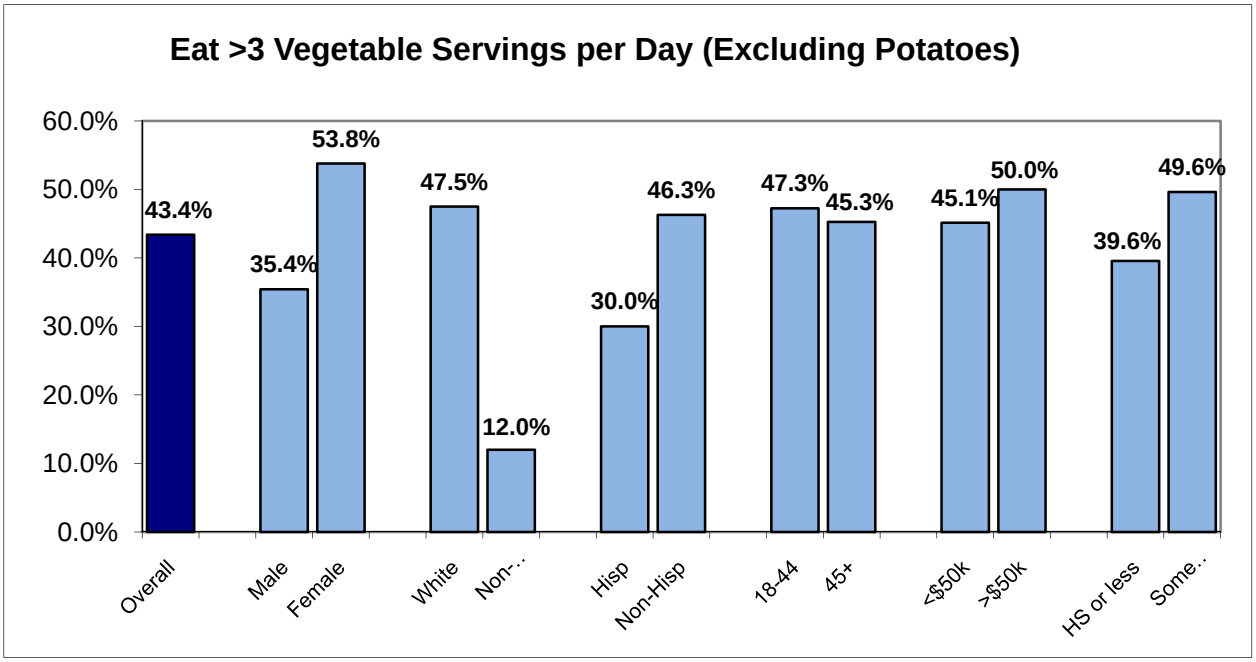


Buncombe County Health Survey, 2010

Health Opinion Survey Findings

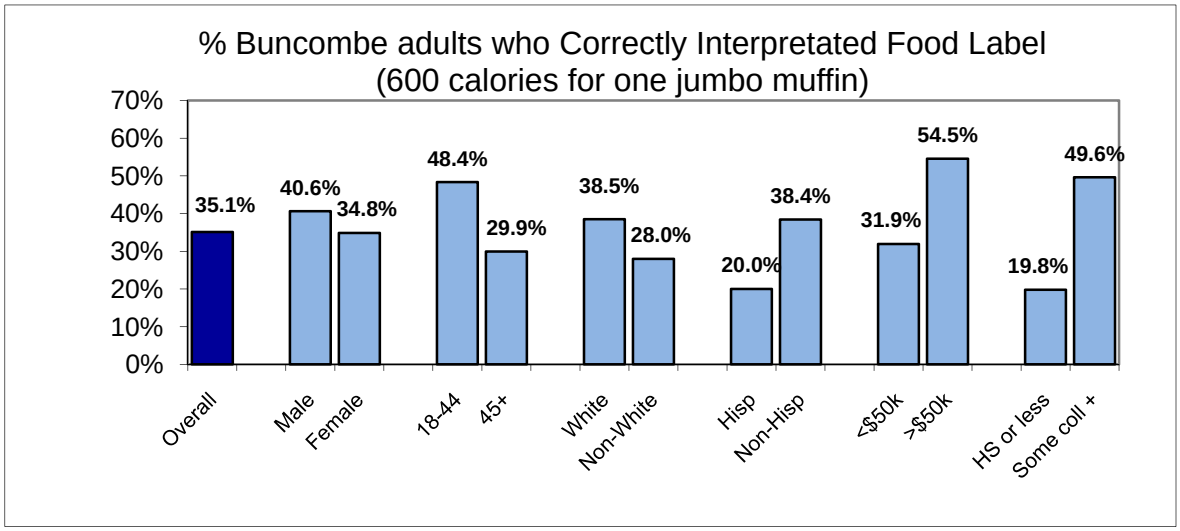
Ranked #3: Improve nutrition for adults and children.

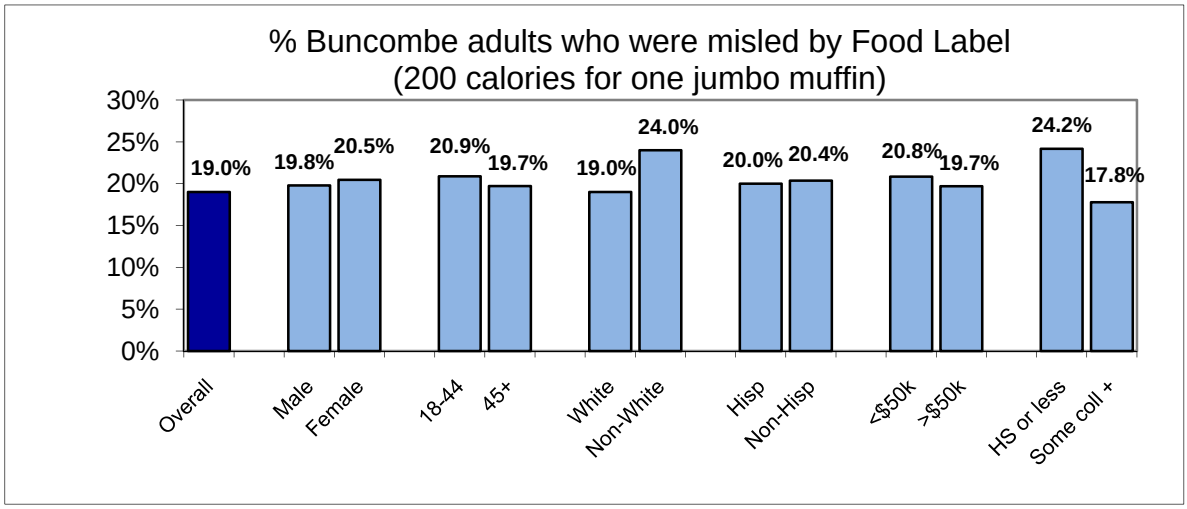
Local Health Survey



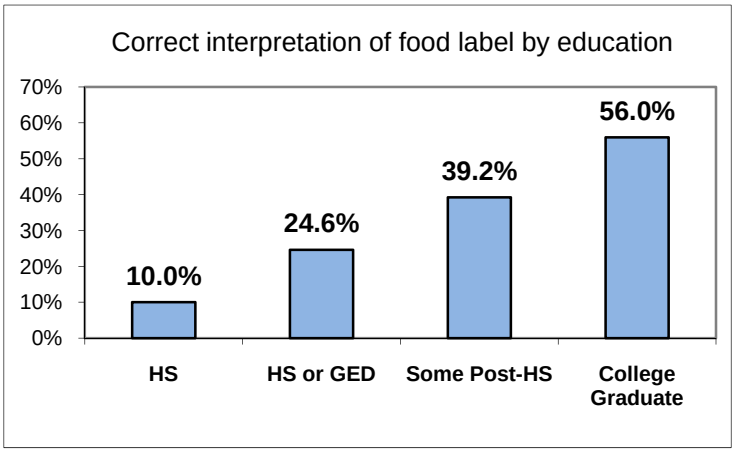
Diet and Exercise

Local Health Survey





The local health survey included an exercise interpreting a real food label seen on Jumbo Muffins. Only 35% got the correct answer; however, there is a correlation between education and getting the correct answer -- higher levels of education were more likely to correctly answer the question. Over half of those who graduated college correctly interpreted the food label. The math involved seemed to be the biggest barrier to selecting the correct answer.



Food labels are intended to help people make healthful decisions, yet they are often misleading and especially difficult for those with less education to interpret.

Summary of Findings

What does the data tell us?

Among Buncombe adults who participated in the local health survey:

- 1 in 10 reported they did not get any moderate exercise within a week.
- Nearly 1 in 3 adults making less than $50,000 reported not getting any moderate exercise within a week.
- Overall, 1 in 4 reported getting moderate exercise one or less times per week, and 2 out of 3 nonwhites reported exercising one or less times per week.
- Over 25% reported getting at least 10 minutes of exercise every day of the week.
- Overall, 25% reported eating one or less servings of vegetables per day, and 68% of non-whites reported eating one or less servings of vegetables per day.
- Just over 40% reported eating three or more servings of vegetables per day, and only 12% of non-whites reported the same.
- Correctly reading food labels is difficult, especially among those with less education. According to survey results, the higher the level of education, the more likely someone will read a food label correctly.

What do people care about?

Health opinion survey results indicate that many people are concerned about issues related to being overweight, diet, and exercise.

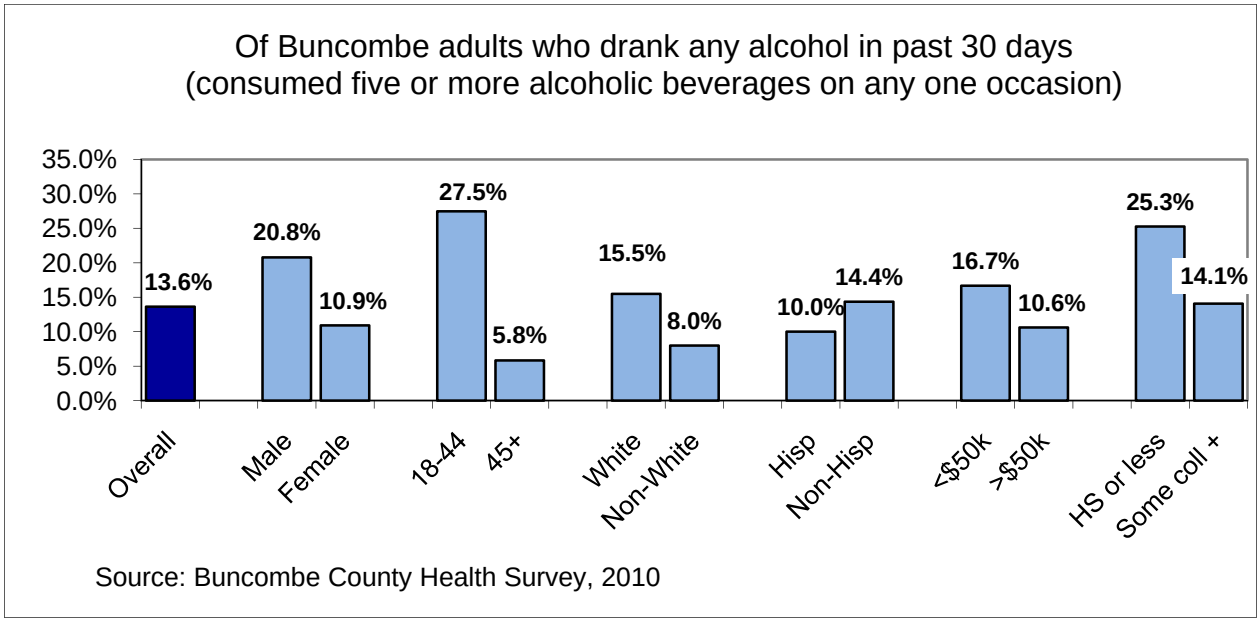
- Ranked #3 - Improving nutrition for adults and children.
- Ranked #4 - Increasing physical activity among adults and children.
- Rank #5 - Increasing opportunities to walk and get healthy food.

Where can I find more data about physical activity and nutrition?

BC Health Survey, 2010: http://www.buncombecounty.org
BC and NC BRFSS: http://www.schs.state.nc.us/SCHS/brfss/
US BRFSS: http://apps.nccd.cdc.gov/BRFSS/
NC CATCH (warehouse of data): http://www.schs.state.nc.us/SCHS/catch/
MATCH – County Health Rankings: http://www.countyhealthrankings.org/north-carolina

Category Health Behavior	**Alcohol use**
Indicators	Adult and Youth Alcohol Use
Why is this important?	We look at prevalence of excessive alcohol use in the population due to the adverse health outcomes with which it is associated. Binge drinking is an indicator frequently used to measure excessive alcohol use at the population level. Binge drinking is a risk factor for a number of adverse health outcomes. These include alcohol poisoning, hypertension, heart attacks, sexually transmitted infections, unintended pregnancy, fetal alcohol syndrome, sudden infant death syndrome, suicide, interpersonal violence, and motor vehicle crashes. Binge drinking has increased significantly since 1995; currently approximately 30% of drinkers report binge drinking. Additionally, there is a strong correlation between binge drinking and alcohol-impaired drivers. And alcohol-related motor vehicle crashes also make up a significant portion of alcohol-related deaths. (MATCH County Ranking Report)

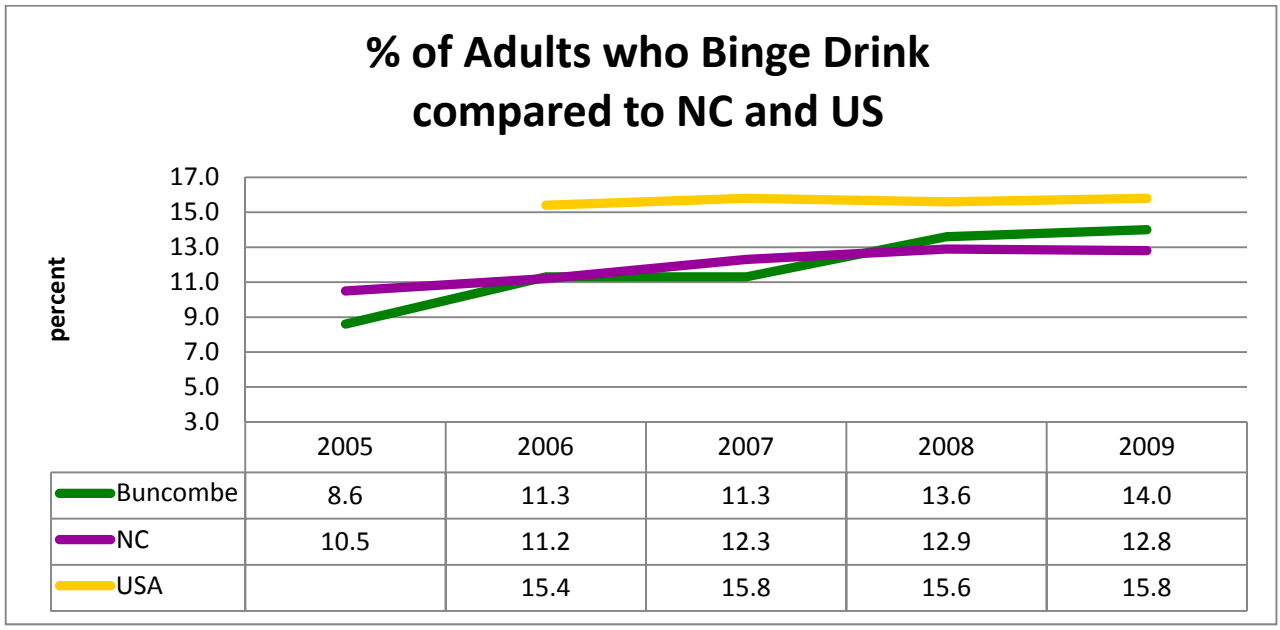
Local Health Survey



Overall, 14% of survey respondents report consuming five or more drinks on one occasion (considered Binge drinking), with nearly twice that among adults less than 44 years of age and those with less education.

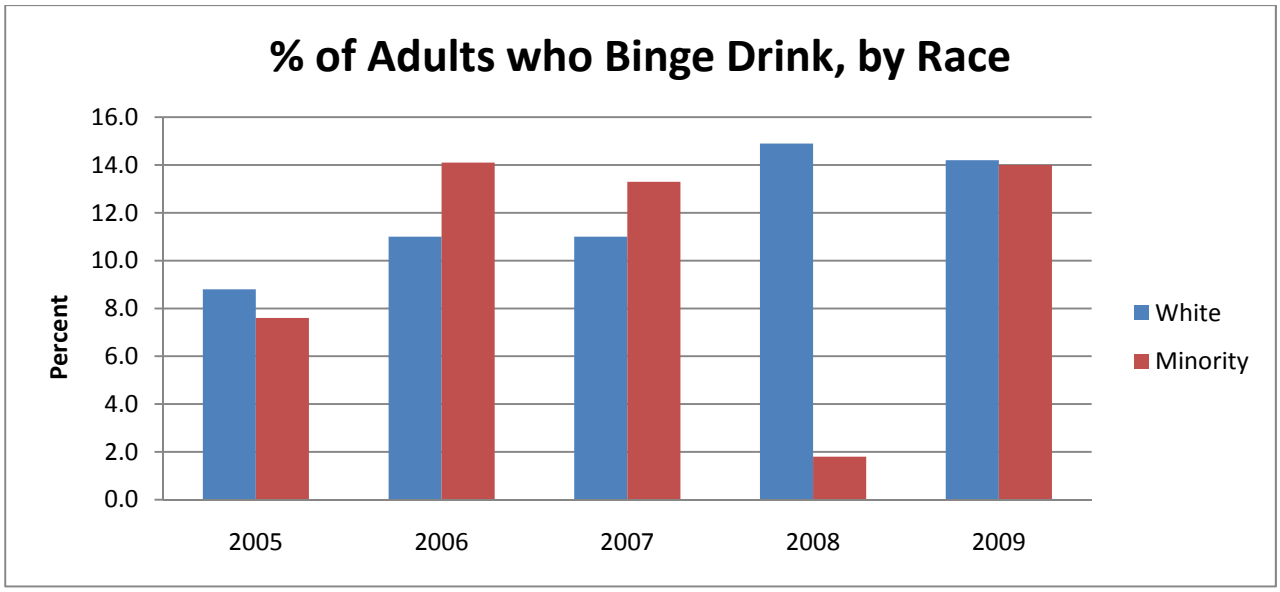
Reports of Binge drinking from previous local health surveys were higher in 1995 and 2000 (16% and 15% respectively), indicating a slight decrease in Binge drinking over the past 15 year.

Alcohol use



	2005	2006	2007	2008	2009
Buncombe	8.6	11.3	11.3	13.6	14.0
NC	10.5	11.2	12.3	12.9	12.8
USA		15.4	15.8	15.6	15.8

Source: NC and BC Behavior Risk Factor Surveillance Survey

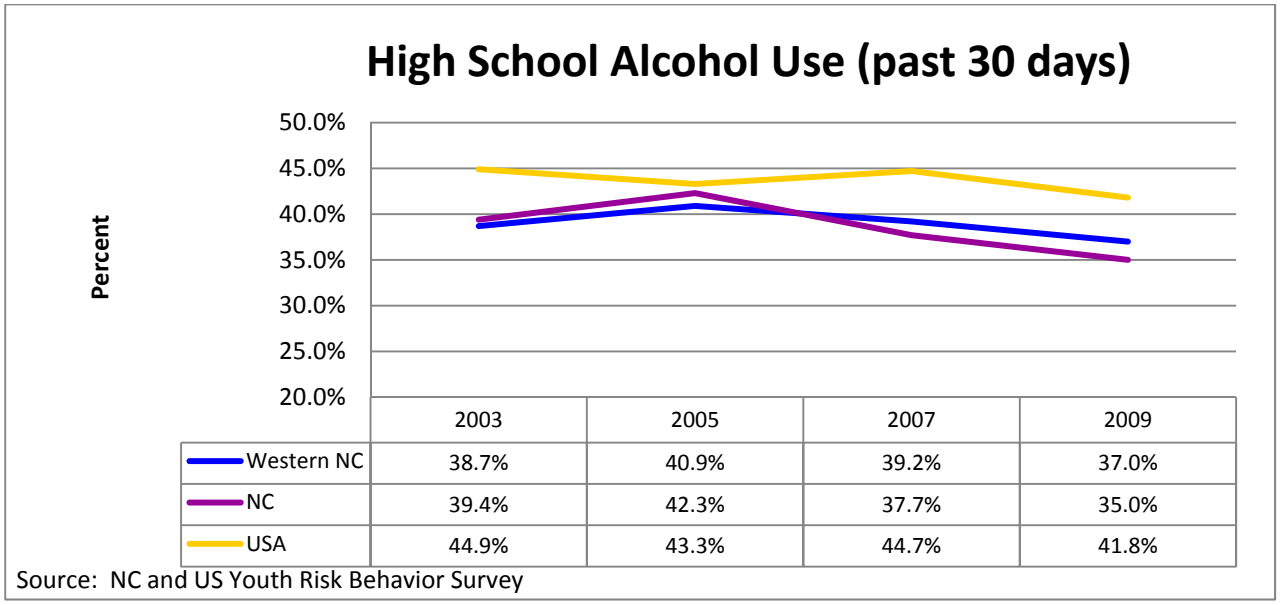


Source: NC and BC Behavior Risk Factor Surveillance Survey

When comparing the local health survey and 2009 BRFSS data for overall population note very similar results (13.6% and 14%). However, there are differences when comparing race, which may be due to smaller numbers in either survey sample.

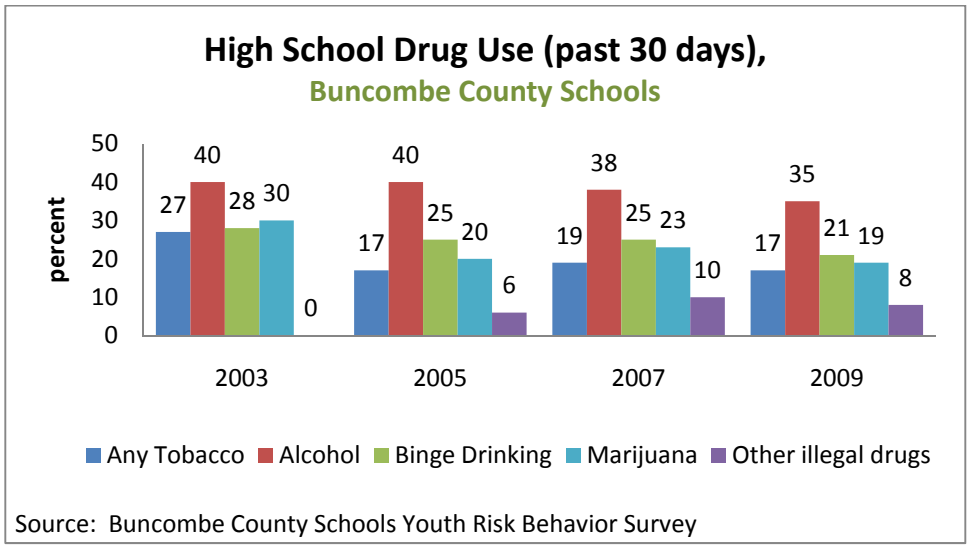
The BRFSS data by race indicates that Binge Drinking among minorities may have more than doubled over the past 5 years, although by 2009 rates of minorities are similar to whites. The 2008 data does not follow a similar trend, possibly due to small numbers; therefore, caution should be used when interpreting the data by race.

Alcohol use

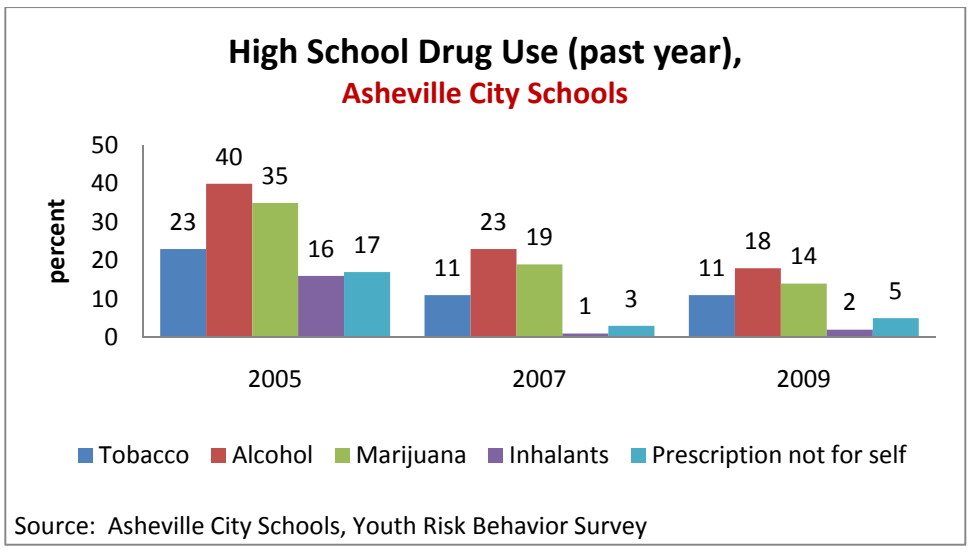


	2003	2005	2007	2009
Western NC	38.7%	40.9%	39.2%	37.0%
NC	39.4%	42.3%	37.7%	35.0%
USA	44.9%	43.3%	44.7%	41.8%

Source: NC and US Youth Risk Behavior Survey



Source: Buncombe County Schools Youth Risk Behavior Survey



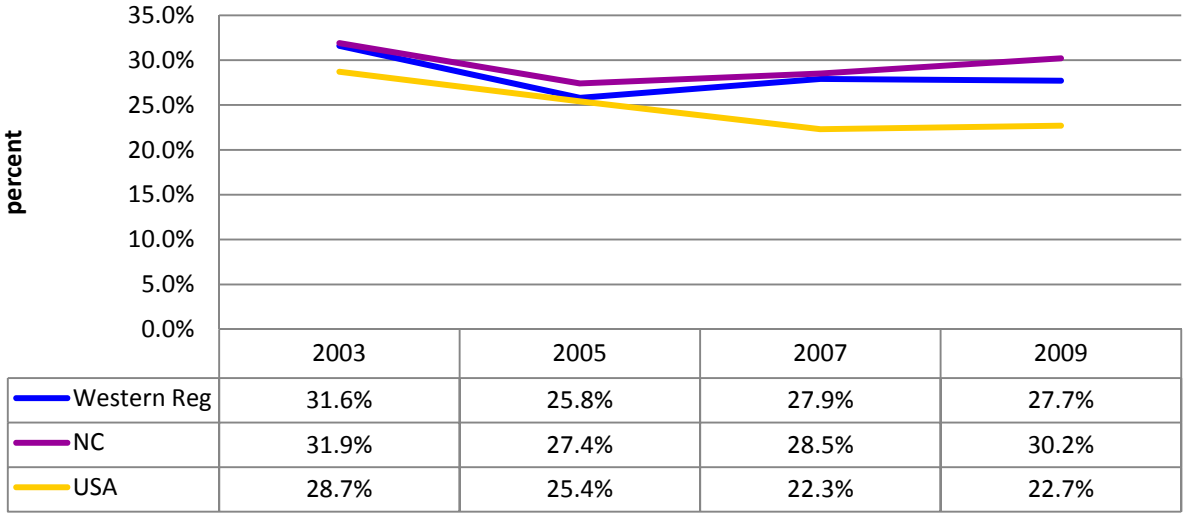
Source: Asheville City Schools, Youth Risk Behavior Survey

Alcohol use among high school students in Western NC is slightly above NC but below the average for US youth.

Youth Risk Behavior Survey is conducted in both school systems but with slight variations in the questions asked.

Average use of alcohol cannot be compared because of the variation in the question asked (past year vs. past 30 days). However, comparison can be made from year to year within each school system. It appears that alcohol use has declined since 2003 in both school systems and the region.

Category Health Behavior	**Illicit drug use among youth**
Indicators	Youth Illicit Drug Use
Why is this important?	Among youth, the use of alcohol and other drugs has been linked to unintentional injuries, physical fights, academic and occupational problems, and illegal behavior. Marijuana (21%-current use) is the most commonly used illicit drug among youth in the United States. Others include cocaine (3%-current), inhalants (12%-lifetime), ecstasy (7%-lifetime), methamphetamines (4%-lifetime), heroin (2%-lifetime), and hallucinogenic (8%-lifetime) drugs. [Center for Disease Control and Prevention] Drug use contributes directly and indirectly to the HIV epidemic and alcohol and drug use contribute markedly to infant morbidity and mortality. [Youth Risk Behavior Survey]



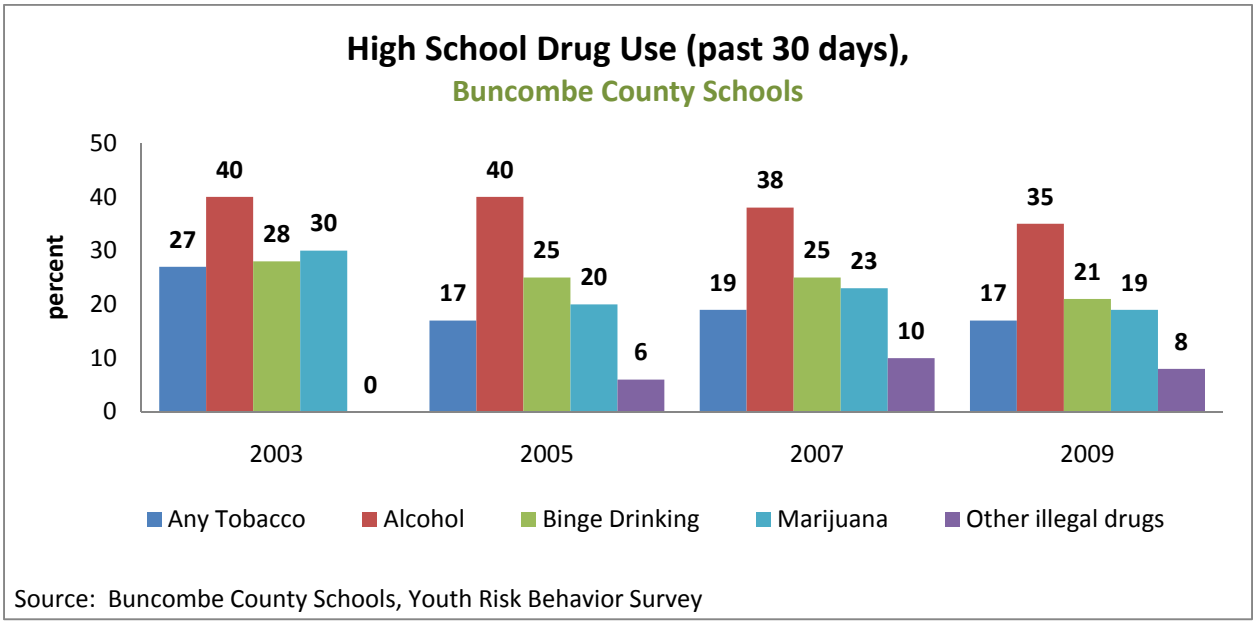
	2003	2005	2007	2009
Western Reg	31.6%	25.8%	27.9%	27.7%
NC	31.9%	27.4%	28.5%	30.2%
USA	28.7%	25.4%	22.3%	22.7%

Source: NC and US Youth Risk Behavior Survey

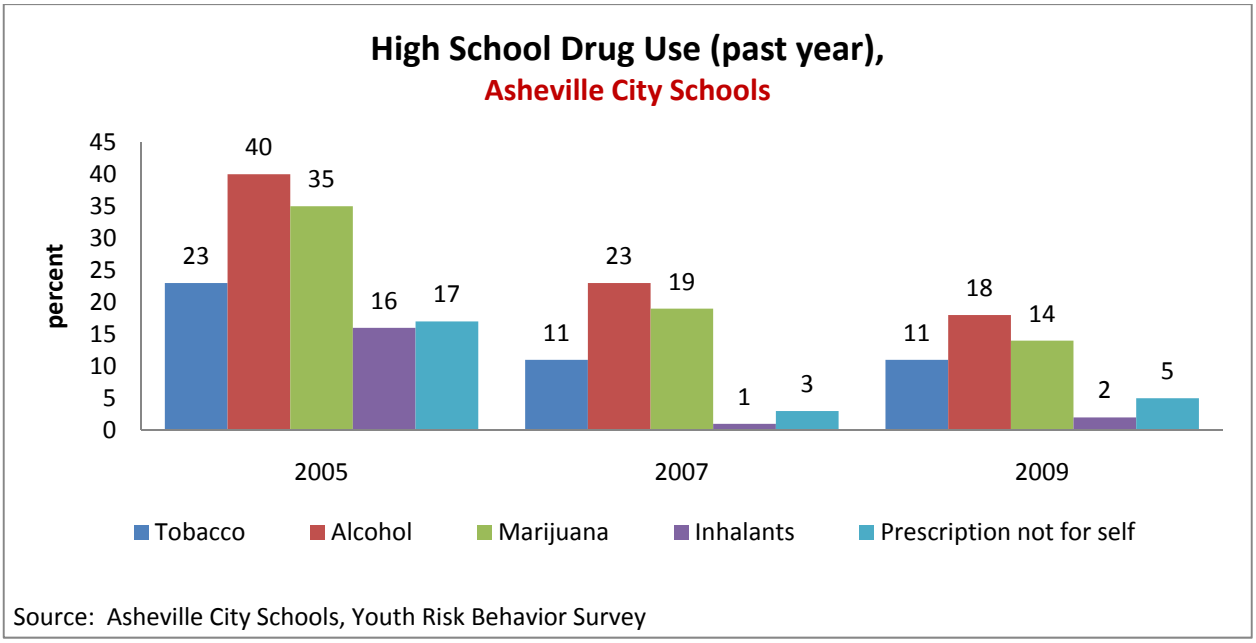
The YRBS data measures percentage of high school youth (in 9th to 12th grade) who have offered, sold, or been given an illicit drug by someone on school property (in the past 30 days). More than 1 in 4 high school students in Western NC report they were offered, sold, or had been given some type of illicit drug (other than marijuana or alcohol) in the past 30 days.

The YRBS data indicates that the average percent of students in both NC and Western region exposed to or using illicit drugs (all combined) is higher than US averages. Both the state and the region have increased slightly since 2005, while the US has trended downward.

Illicit drug use among youth



Source: Buncombe County Schools, Youth Risk Behavior Survey

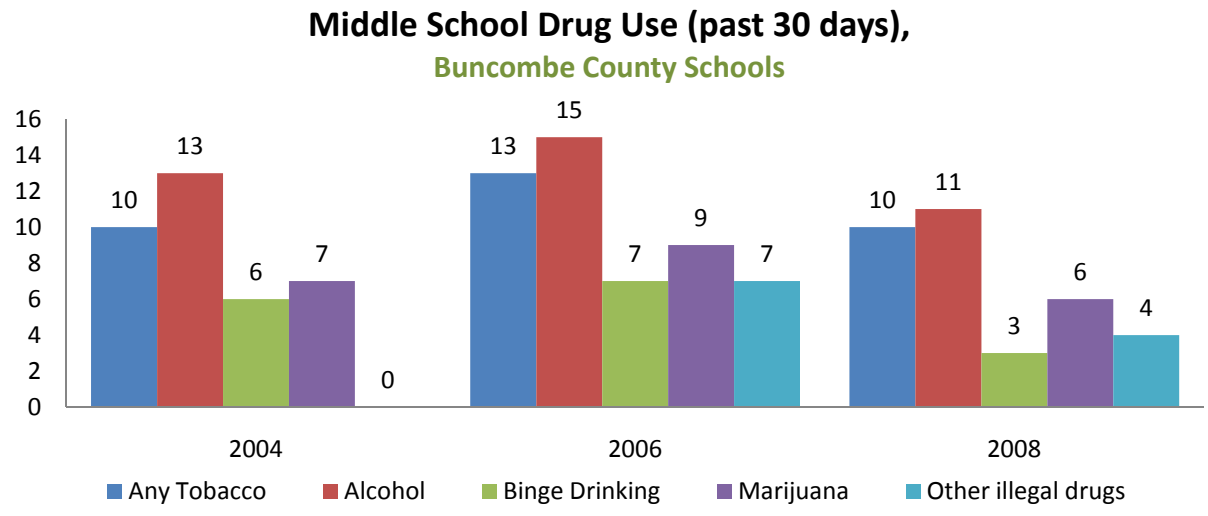


Source: Asheville City Schools, Youth Risk Behavior Survey

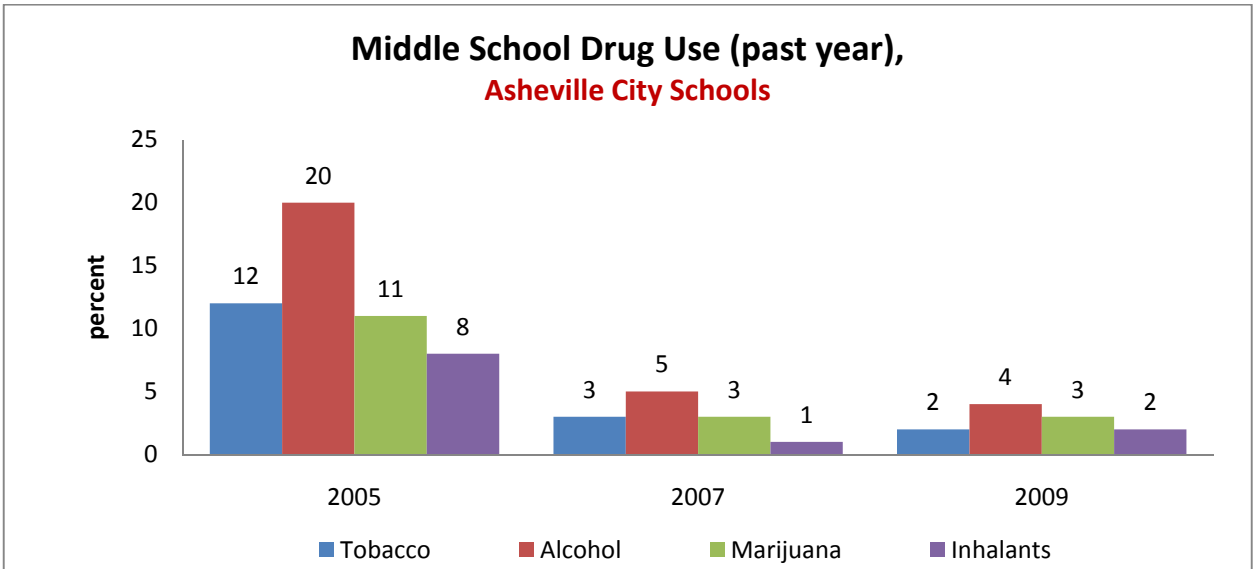
Youth Risk Behavior Survey is conducted in both school systems (grades 9 – 12) but with slight variations in the survey questions. The county schools measure "past 30 days", whereas the city school measure "past year". However, we can make important observations about trends in drug use. Tobacco has decreased or stayed the same in both sets of data. Also, alcohol and marijuana use have steadily decreased in both school systems but with greater decreases observed in the city schools.

It's notable that student use of "other illegal drugs", measured by the county schools, has experienced a slight overall increase since 2005 (note: was not measured in 2003). Prescription drug use, measured by city schools, has experienced a significant decrease since 2005.

Illicit drug use among youth



Source: Buncombe County Schools, YRBS



Source: Asheville City Schools, YRBS

Youth Risk Behavior Survey is conducted in both school systems (grades 6-8) but with slight variations in the survey questions. The county schools measure "past 30 days", whereas the city school measure "past year". However, we can note general trends in drug use in each set of data but without comparing one school to the other.

It appears that students reporting drug use in the city schools has decreased significantly since 2005, especially for use of alcohol. Drug use among county school students has experienced overall decreases since 2004; although, in 2008, 1 in 10 middle schools students reported use of alcohol and tobacco.

Summary of Findings

What does the data tell us about alcohol and drug use?

Among **Buncombe adults** who participated in the local health survey:

- 14% of adults report Binge Drinking during the past 30 days.
- There has been a slight decrease in Binge Drinking compared to local surveys in previous years (16% in 1995, 15% in 2000).

Buncombe County's six year average for adults reporting Binge Drinking is 11%, which is the same as North Carolina's average and ABOVE the Target of 5%.

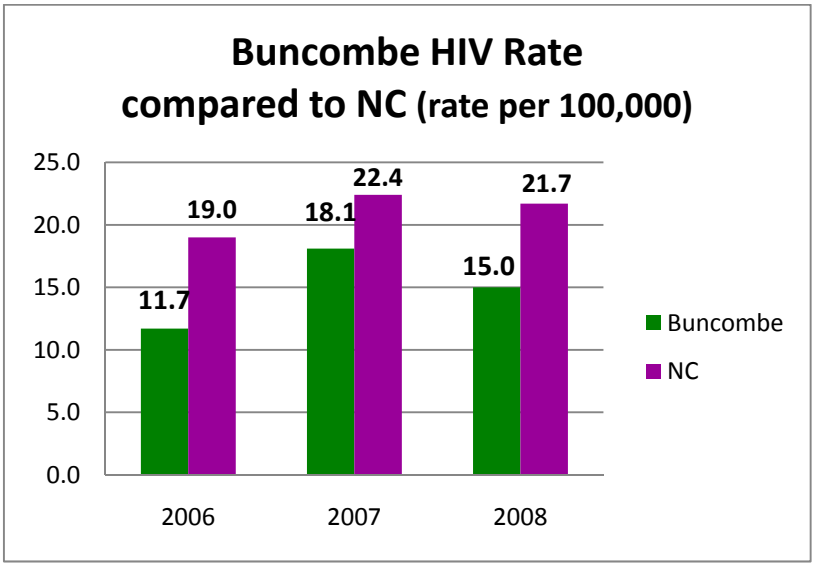
Among **high school and middle school students** who participated in Youth Risk Behavior Survey:

- Approximately 37% of high school students in the Western Region reported Binge Drinking, similar to the use reported by high school students in the county school system.
- In 2009, 35% of high school students within the county school system reported binge drinking, which is higher than the overall percent of adults who reported binge drinking, even when comparing to younger adults, ages 18 – 44 (27.5%).
- Since 2003, we observe declines in alcohol use among high school students in the western region and both school systems, with the largest decrease among students in the Asheville city school system, which experienced a decrease of 55% since 2005.
- Over 1 in 4 high school students in the western region were offered, sold, or given illicit drugs by someone on school property in 2009.
- Reported use of marijuana has decreased in both school systems among both middle and high school students since 2004.
- In 2008, 1 in 10 middle school students in the county school system reported either using alcohol or tobacco.
- We observe decreases in overall drug use in both Asheville City schools and Buncombe County schools, among middle and high school students.

Where can I find more data about alcohol and drug use?

BC Health Survey, 2010: http://www.buncombecounty.org
BC and NC BRFSS: http://www.schs.state.nc.us/SCHS/brfss/
US BRFSS: http://apps.nccd.cdc.gov/BRFSS/
Western Region and NC YRBS: http://www.nchealthyschools.org/data/yrbs/
US YRBS: http://www.cdc.gov/HealthyYouth/yrbs/index.htm
MATCH – County Health Rankings: http://www.countyhealthrankings.org/north-carolina

Category Health Behavior	**Unsafe Sex**
Indicators	Rates of Chlamydia and HIV, and Teen Births
Why is this important?	"Unsafe sex" is intended to reflect sexual behavior that increases the risk of such adverse outcomes as unintended pregnancy and transmission of sexually transmitted infections, including HIV. By monitoring teen births and rates of Chlamydia it provides a sense of the level of unsafe sex in our county compared to other counties in the state. Evidence suggests that teen pregnancy significantly increases risk of repeat pregnancy and risk of contracting sexually transmitted infections (STI). One review found that one third of pregnant teens were infected with at least one STI, some of which can be transmitted from mother to child. Teens can have lower weight gains and other health problems that can impact the health of the child. Furthermore, potential long-term outcomes of teen pregnancy are lower levels of educational attainment, higher rates of marital instability, and increased likelihood of single parenthood compared to older mothers. [MATCH County Ranking Report]



HIV Testing at the Buncombe County Department of Health

2006 **19 HIV positives**
4,275 HIV tests

2007 **41 HIV positives**
4,381 HIV tests

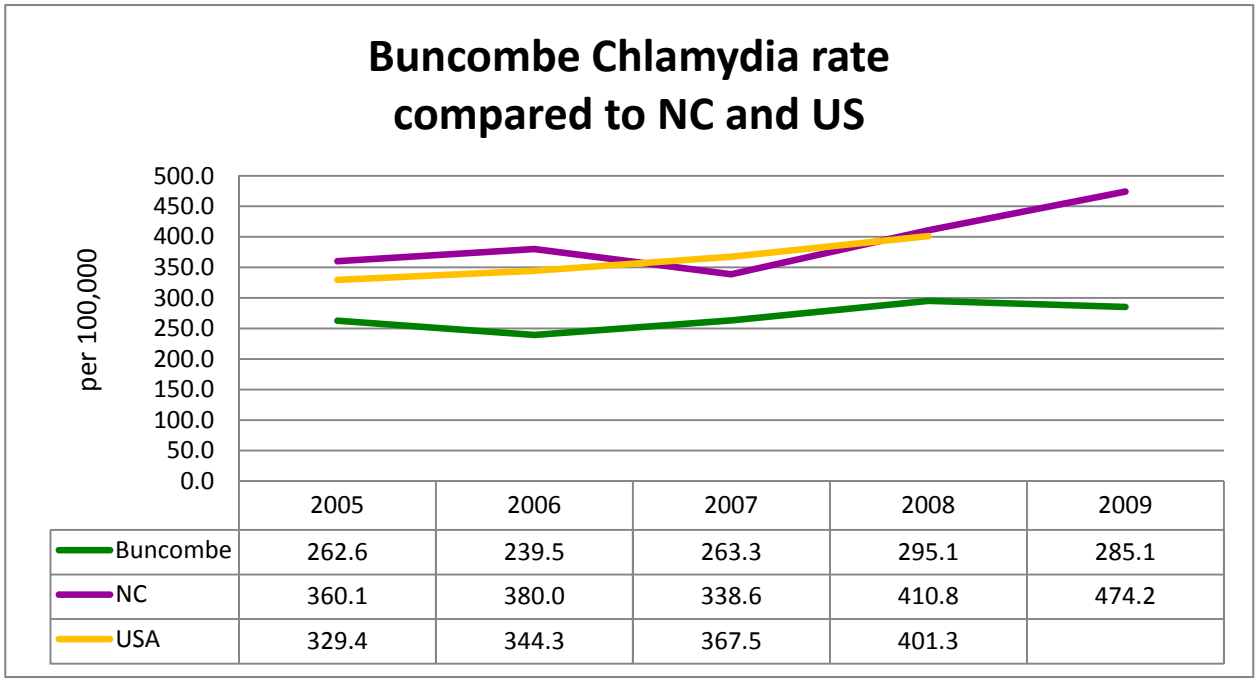
2008 **110 HIV positives**
4,947 HIV tests

Source: NC Epidemiology, State Center for Health Statistics: 2008 Epidemiology Profile Report

Between 2006 and 2008, Buncombe's HIV rate is between 20 – 40% less than North Carolina's HIV rate. During this same period the county rates have increased by 22%, compared to an increase of 12% in NC rates, which might also reflect increased awareness about testing. **CDC estimates that 1 in 5 people infected with HIV don't know.**

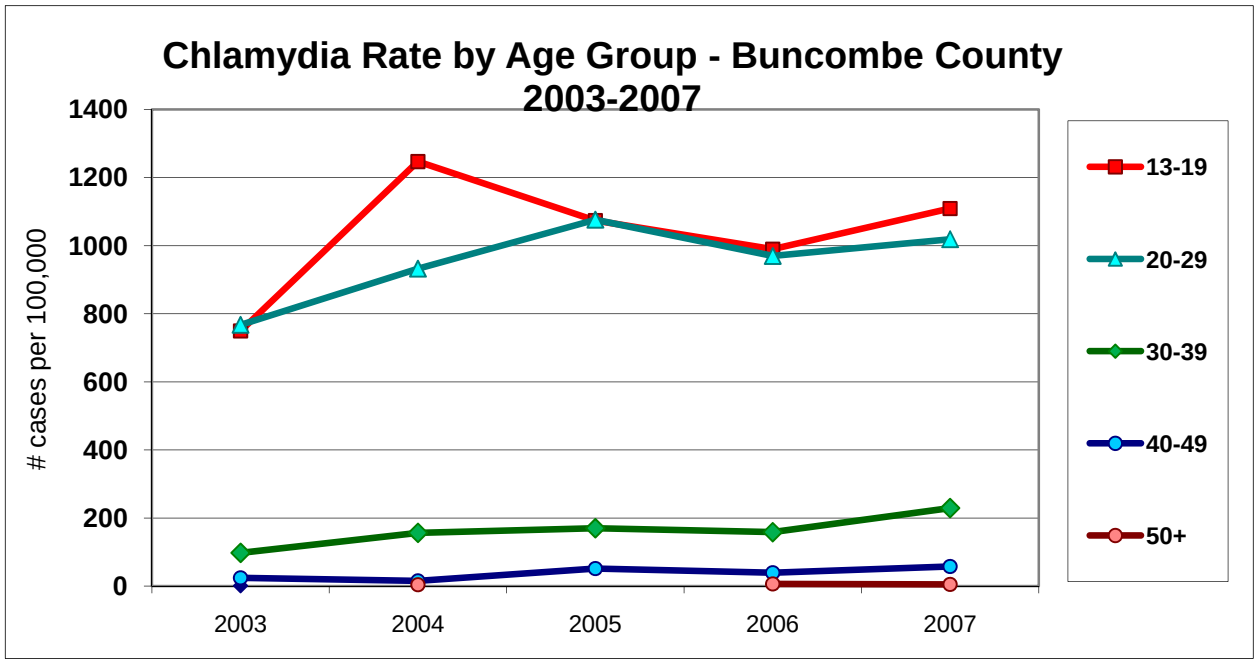
Among tests taken at BC Department of Health, less than 1% of HIV tests were positive in 2006 and 2007. However, in 2008, over 2% of tests were positive, which may be attributable to factors such as increased partner notification efforts, increased promotion about testing, or more people at risk for HIV getting tested. According to state reports, 454 people living with HIV and 194 with AIDS were reported as of Dec. 2009.

Unsafe Sex



	2005	2006	2007	2008	2009
Buncombe	262.6	239.5	263.3	295.1	285.1
NC	360.1	380.0	338.6	410.8	474.2
USA	329.4	344.3	367.5	401.3	

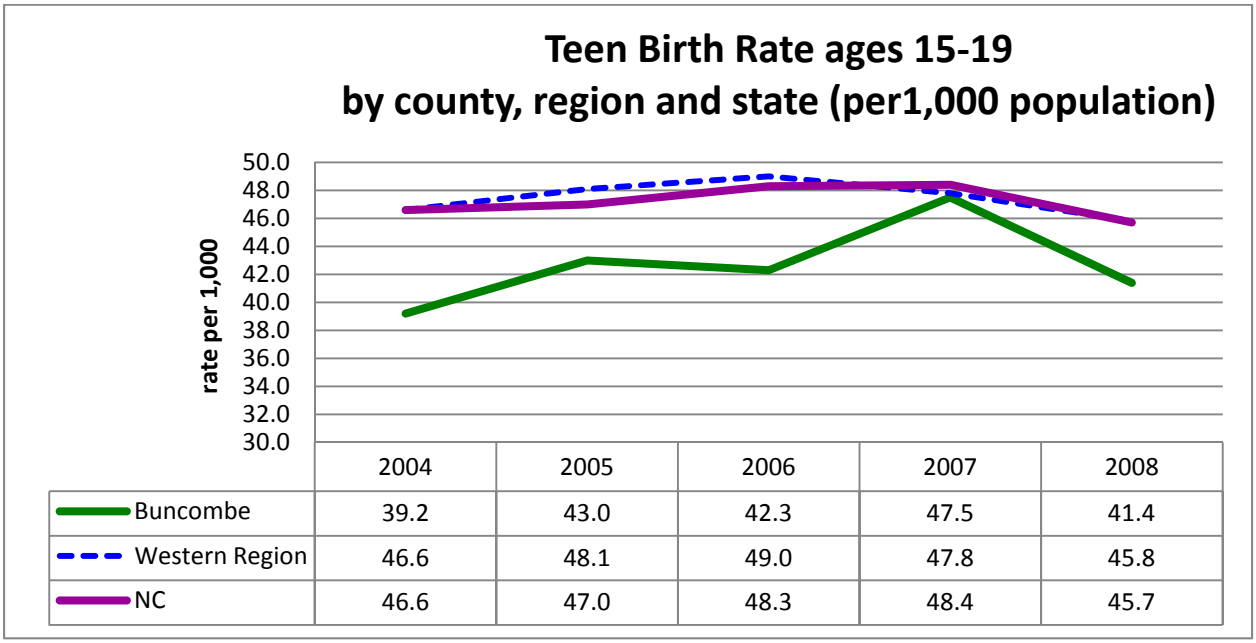
Source: N.C. Epidemiologic Profile for HIV/STD Prevention and Care Planning (12/09)



Source: N.C. Epidemiology, State Center for Health Statistics

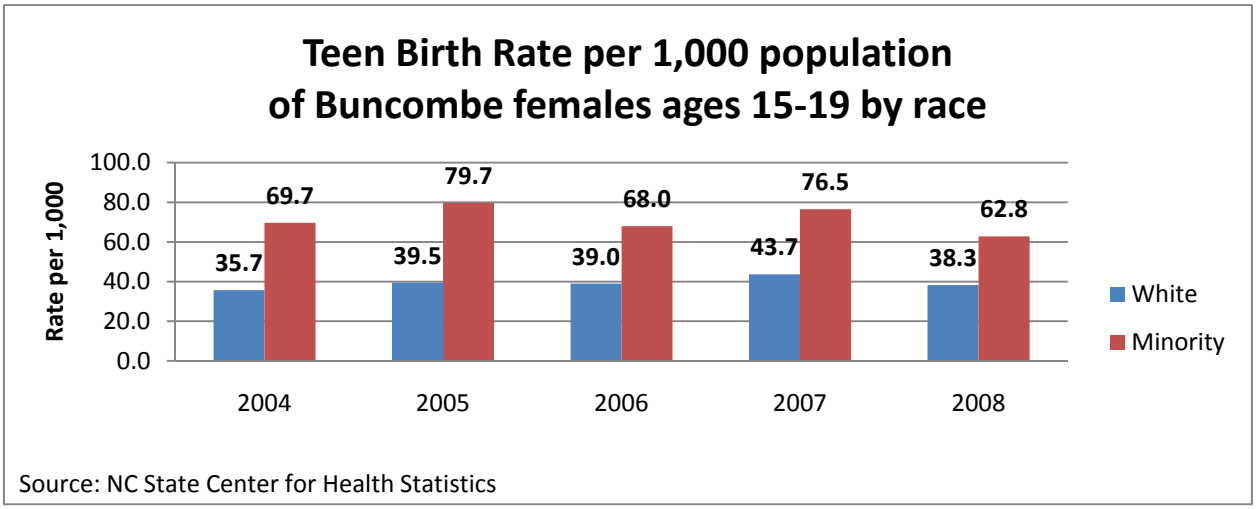
The overall Chlamydia rate in Buncombe has increased from 2005 – 2009, although rates are lower than both NC and US rates. Incidence of Chlamydia is at epidemic levels, especially among Buncombe teens ages 13 – 19, which have the highest proportion of disease compared to all other age groups. This indicates a level of unsafe sexual behavior among teens, placing them at risk for other sexually transmitted disease and unintended pregnancy.

Unsafe Sex



	2004	2005	2006	2007	2008
Buncombe	39.2	43.0	42.3	47.5	41.4
Western Region	46.6	48.1	49.0	47.8	45.8
NC	46.6	47.0	48.3	48.4	45.7

Source: NC State Center for Health Statistics



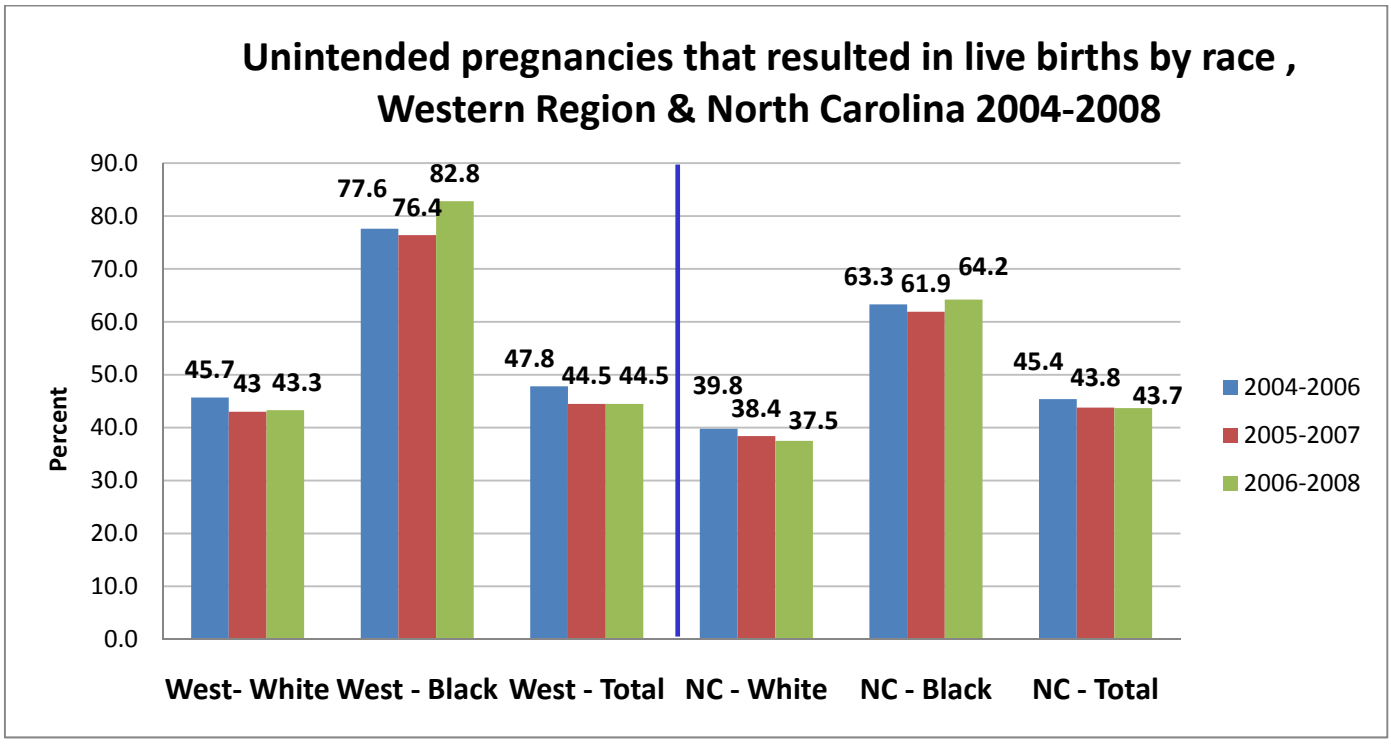
Source: NC State Center for Health Statistics

The Buncombe teen birth rate remains lower than the western region and NC rates. However, during 2004 – 2008 period of time, the Western region and NC teen birth rates have slightly declined, whereas the Buncombe County rates have risen by about 5%.

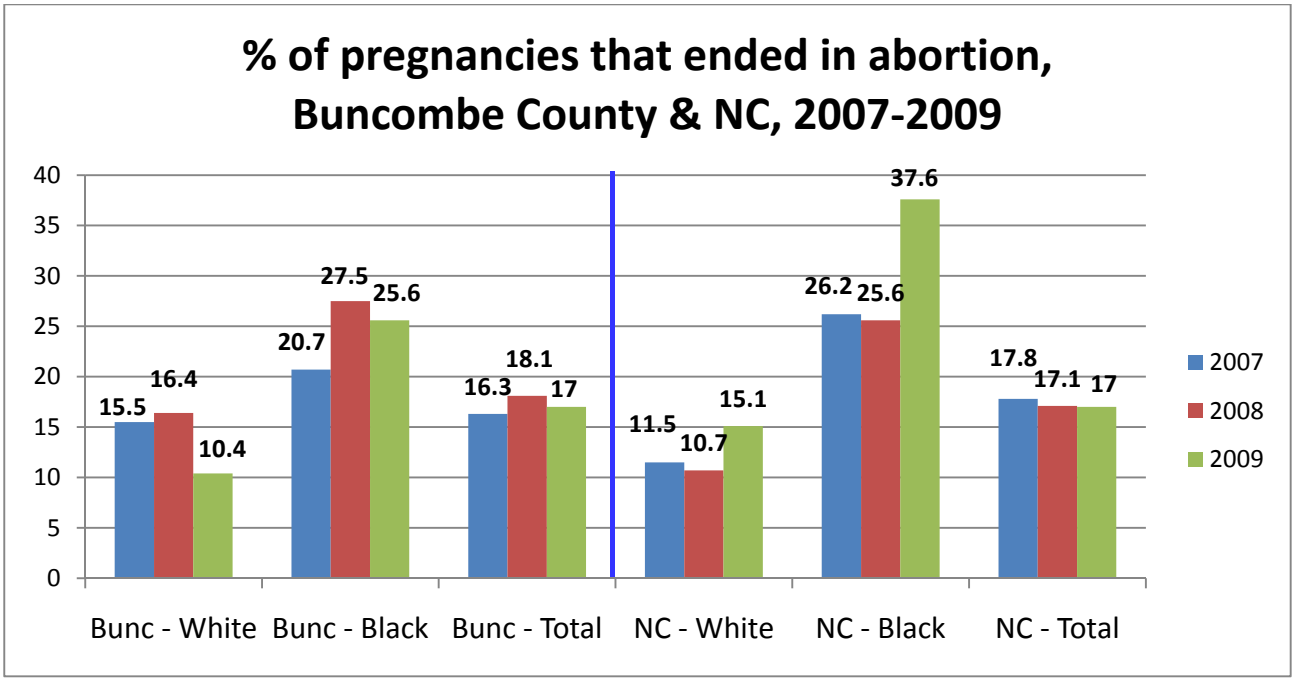
Disparities between white and minority teen birth rates are persistent. In 2008, minority teen birth rates are 40% greater than whites; although, the gap is less in 2008 than in the previous five years. It is notable that since 2004, the minority teen birth rate has decreased by 10% while the rate or their counterparts has increased by 7%.

Keep in mind that the **teen birth rate** is lower than the **teen pregnancy rate**. In 2009, 77% of teen pregnancies in BC resulted in live born infants and 23% resulted in abortions (NC Reported Pregnancies, State Center for Health Statistics). North Carolina's rate is similar.

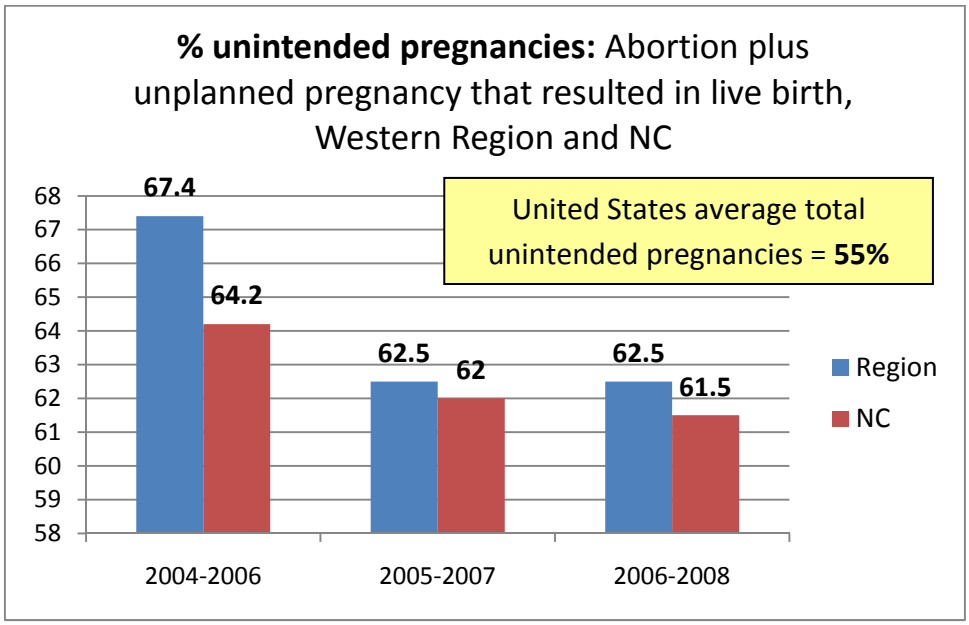
Category Health Behavior	Unintended Pregnancy
Indicators	Unintended pregnancies
Why is this important?	Unplanned pregnancy among teens and adults is at the root of a number of important public health and social challenges. Unplanned pregnancies are frequently resolved by abortion. Women experiencing an unplanned pregnancy are less likely to obtain prenatal care. Their babies are at increased risk of both low birth weight and of being born prematurely and are less likely to be breastfed. Children born from unplanned pregnancies also face a range of developmental risks. For example, these children report poorer physical and mental health compared to children born as the result of an intended pregnancy. In addition, the majority of children from an unplanned pregnancy are born to unmarried women. When compared to similar children who grow up with two parents, children in one-parent families are more likely to be poor, drop out of high school, have lower grade-point averages, lower college aspirations, and poorer school attendance records. Such data suggest that reducing unplanned pregnancy will increase the proportion of children born into circumstances that better support their growth and development. (National Campaign to Prevent Teen Pregnancy)



Source: Pregnancy Risk Assessment Monitoring System



Source: NC Reported Pregnancies, NC State Center for Health Statistics



Health Opinion Survey Findings

People believe that Family Planning, pregnancy and infant health are priority health issues.

Source: NC Vital Statistics and Pregnancy Risk Assessment Monitoring System

In 2006-2008, **more than 6 out of 10 pregnancies in Western NC were unintended**, a rate that is 12% higher than the national average of 55%. This includes pregnancies to women of all ages, races, married, and unmarried. With what we know about the link between helping women be healthy before they become pregnant and how this can improve infant and child health outcomes, we are missing a critical opportunity to reduce negative pregnancy outcomes as well as to reduce societal costs when unplanned pregnancies (especially among teens) are high.

Summary of Findings

What does the data tell us?

- Buncombe HIV rates remain lower than state HIV rates.
- HIV rates continue to increase for both county and state; although increases during 2006 to 2008 were greater for Buncombe (22%) than NC (12%).
- In 2007, Buncombe Chlamydia rates are lower than state and national rates, although rates continue to increase at all levels.
- Teens, ages 13 – 19, have the highest rates of Chlamydia infections in Buncombe County, compared to all age categories.
- Teen birth rate for Buncombe is lower than the state and national rates. However, during 2004 to 2008, Western NC and NC teen birth rates have shown slight declines, whereas Buncombe County rates have risen 5%.
- In 2008, minority teen birth rates were 40% greater than whites; although, the gap was less in 2008 than during the previous four years.
- Since 2004, the overall minority teen birth rate for Buncombe County has decreased by 10% while the white rate has increased by 7%.
- According to 2006-2008 regional data, more than 6 out of 10 pregnancies in Western NC were unintended, 12% higher than the national average of 55%.
- According to 2006-2008 Buncombe County data, over 8 out of 10 African Americans had unintended pregnancies resulting in live births (excludes abortions), which is nearly twice the percent of their white counterparts. Also 25% of African Americans had unintended pregnancies ending in abortion in 2009.

Buncombe County's *six year average* for the teen birth rate is below the North Carolina average (46% vs. 51%) but is ABOVE the Target of 39%.

What do people care about?

- Health Opinion survey results indicate that access to Family Planning was among the five most common health concerns that people listed.
- Encouraging healthy pregnancies and infant health was ranked among the top ten health concerns.

Where can I find more data about unsafe sex and unintended pregnancies?

BC Health Survey, 2010: http://www.buncombecounty.org
BC and NC BRFSS: http://www.schs.state.nc.us/SCHS/brfss/
US BRFSS: http://apps.nccd.cdc.gov/BRFSS/
PRAMS: http://www.schs.state.nc.us/SCHS/data/prams.cfm
MATCH – County Health Rankings: http://www.countyhealthrankings.org/north-carolina

Health Factors | Clinical Care Services

MATCH – County Ranking Data (Mobilizing Action Toward Community Health)

2010 Snapshot of Clinical Care Health Factors

MATCH - Buncombe County	Buncombe Value	NC Value	Target Value	
Clinical Care **NC County Rank: 3rd Healthiest**				
Uninsured adults [12]	18%	17%	14%	↓
Primary care provider rate [13]	206	115	154	↑
Preventable hospital stays rate [14]	49	73	55	↓
Diabetic screening [15]	88%	84%	88%	↑
Hospice use [16]	33%	28%	37%	↑

Sources URL: http://www.countyhealthrankings.org/north-carolina/buncombe

About the Target Value

The arrows help us know whether we should be higher or lower than the targeted value in order to improve health. For example, when looking at Adult Smoking, the Buncombe Value is higher than the Target Value. We need to decrease ↓ the percentage of adults who smoke in order to meet or exceed the Target Value.

About the Buncombe Value

The Buncombe Value is calculated using multiple years of data to stabilize the data and offer a good "snapshot" of a particular health behavior. Health behaviors that are highlighted in **Red** are above ↑ the Target Value.

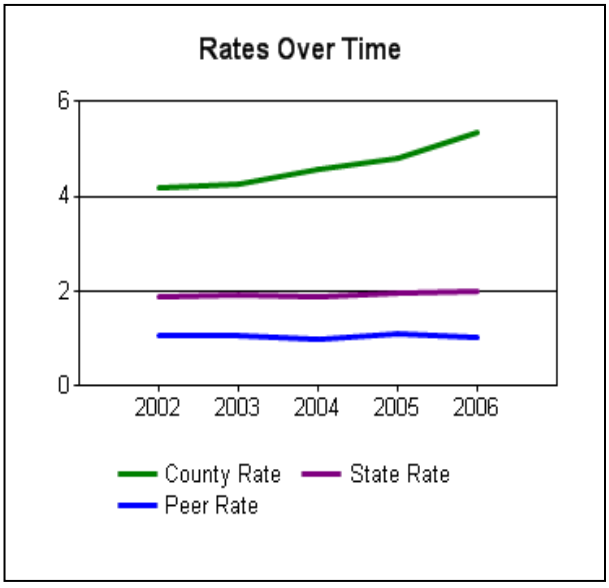
In this Section…

Find data from Local Health Survey, BRFSS and other resources about factors that impact health outcomes.

- **Health Care Access & Utilization**
- **Affordability and Health Insurance**
  - Medical care & medication
  - Mental health care
  - Dental care
- **Disease Management**
- **Early Identification of Disease**
- **Flu Vaccination**

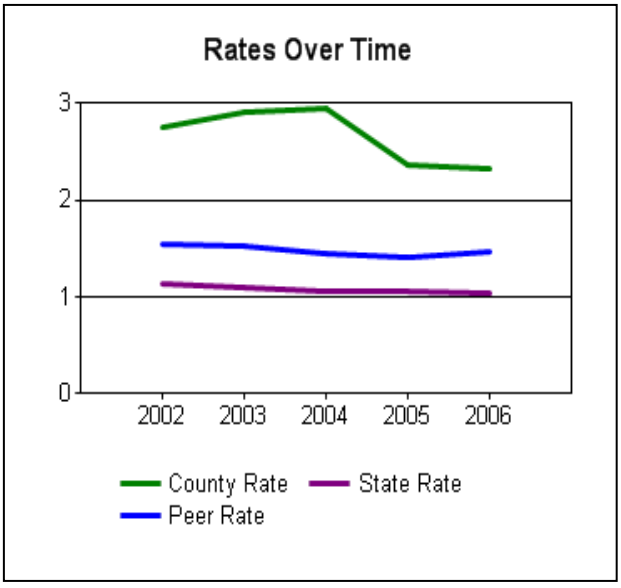
Category Clinical Care	Health Care Access & Utilization
Indicators	Primary and Mental health care provider rates, % of adults with no doctor, % adults getting routine health care
Why is this important?	Health insurance by itself does not ensure access. It is also necessary to have comprehensive coverage, providers that accept the individual's health insurance, relatively close proximity of providers to patients, and primary care providers in the community. Additional barriers include: lack of transportation to providers' offices, lack of knowledge about preventive care, long waits to get an appointment, low health literacy, and inability to pay the high-deductible of many insurance plans and/or co-pays for receiving treatment. Evidence shows that a higher density of primary care providers is associated with lower probability of hospitalization for ambulatory-care sensitive conditions. Therefore, a community can improve its potentially preventable hospitalization rates through increasing access to high quality primary health care providers. [MATCH County Ranking]

Psychologists per 10,000 Population



Source: NC CATCH

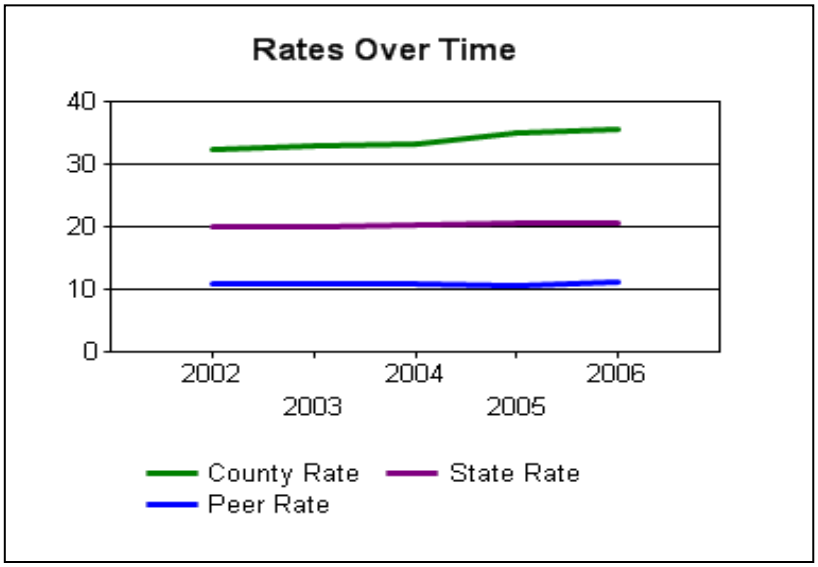
Psychological Associates per 10,000 Population



Source: NC CATCH

The number of psychologists, as well as psychological associates, remains above both the state and peer county rates (Randolph, Burke, and Davidson). Not shown are rates among the counties in Western NC, which are also below the rates in Buncombe.

Physicians per 10,000 Population

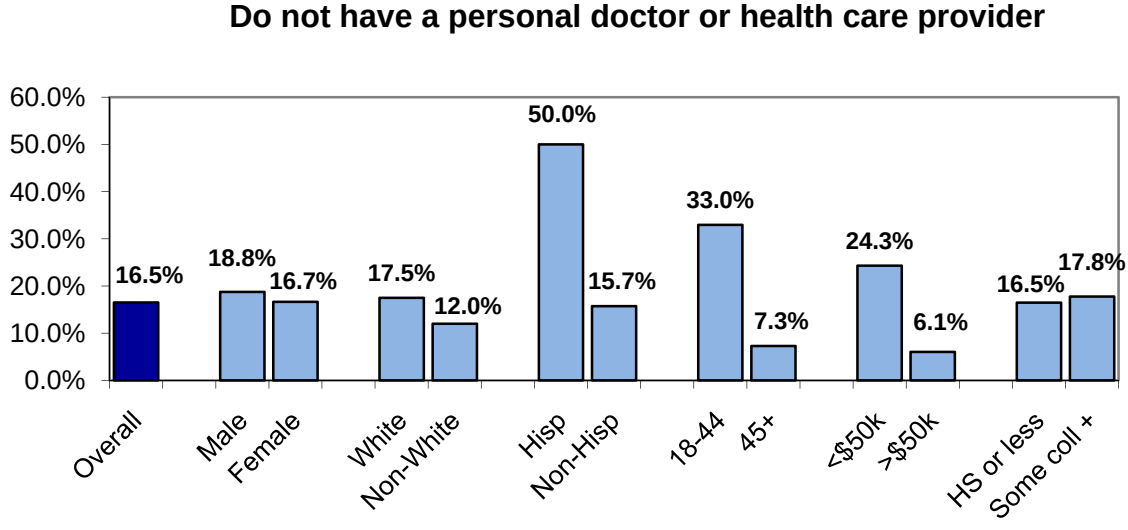


Source: NC CATCH

Health Opinion Survey Findings

Ranked #1: Making sure everyone has a doctor they can see when they are sick (Medical Care Home)

Local Health Survey

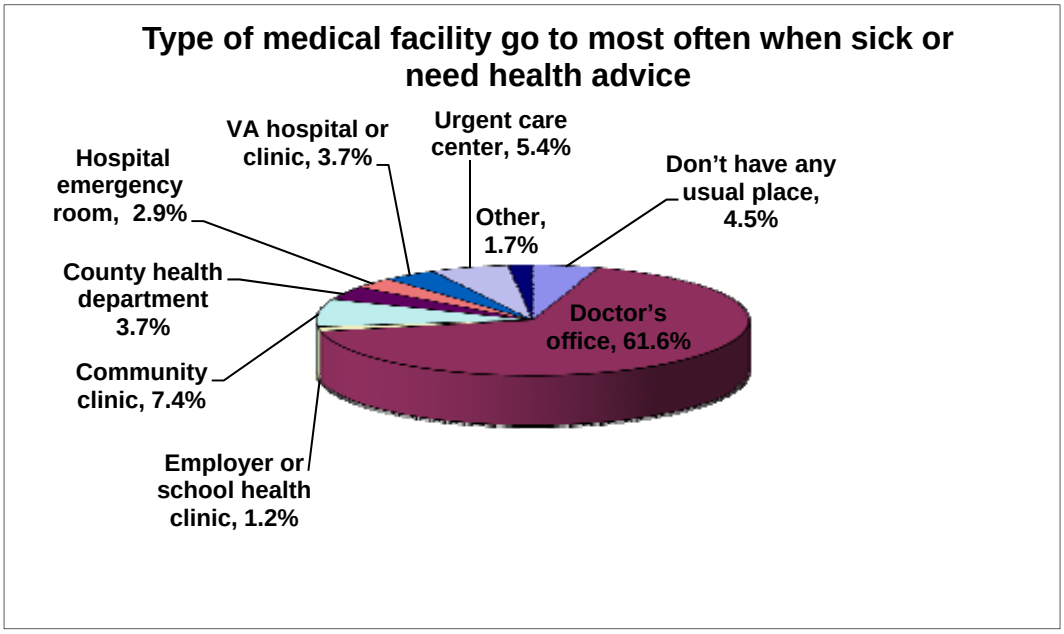


Source: Buncombe County Health Survey, 2010

Overall, 16.5% of those surveyed report not having a personal doctor, with higher percentages among those who are younger and those with less income. Fifty percent of Hispanics report not having a doctor or health care provider. Data indicates that Buncombe has more physicians than NC or counties that are similar (peer counties); yet there are still many people who don't have a regular doctor. On the pages that follow, there are more survey questions that offer results that support cost and lack of insurance as the biggest barriers to accessing medical care.

Health Care Access & Utilization

Local Health Survey



Source: Buncombe Local Health Survey, 2010

Among survey respondents, 62% of Buncombe adults report going to a doctor's office, and approximately 23% report going to some type of clinic or urgent care center. However, 4.5% report that they **don't have a place to go** when they are sick or need medical advice. Additionally, 2.9% report going to Hospital Emergency Room, which is not an appropriate or cost-effective use of that resource for someone who is sick or needing medical advice. Therefore, it could be interpreted that over 7% do not have a usual place to go when they are sick.

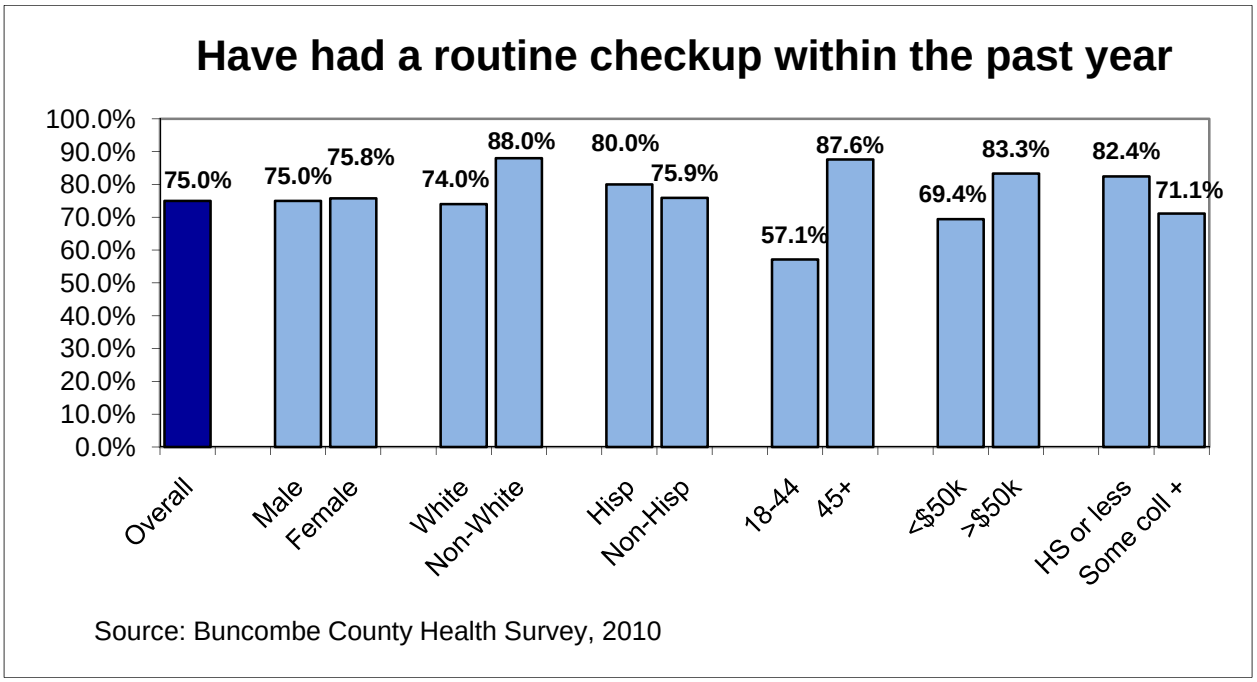
Assessing whether someone has a place to go to get health care has been included on each local health survey since 2000. In 2000, only 2.88% reported "don't have a place to go"; by 2005 the measure increased to 5.31%, compared to 2010 results of 4.5%, which indicate some improvement.

Over the years, our community has committed time and resources addressing this issue and has aligned community resources to improve access to medical care but there are barriers such as health insurance that continue to be a barrier that isn't easily resolved at the local level.

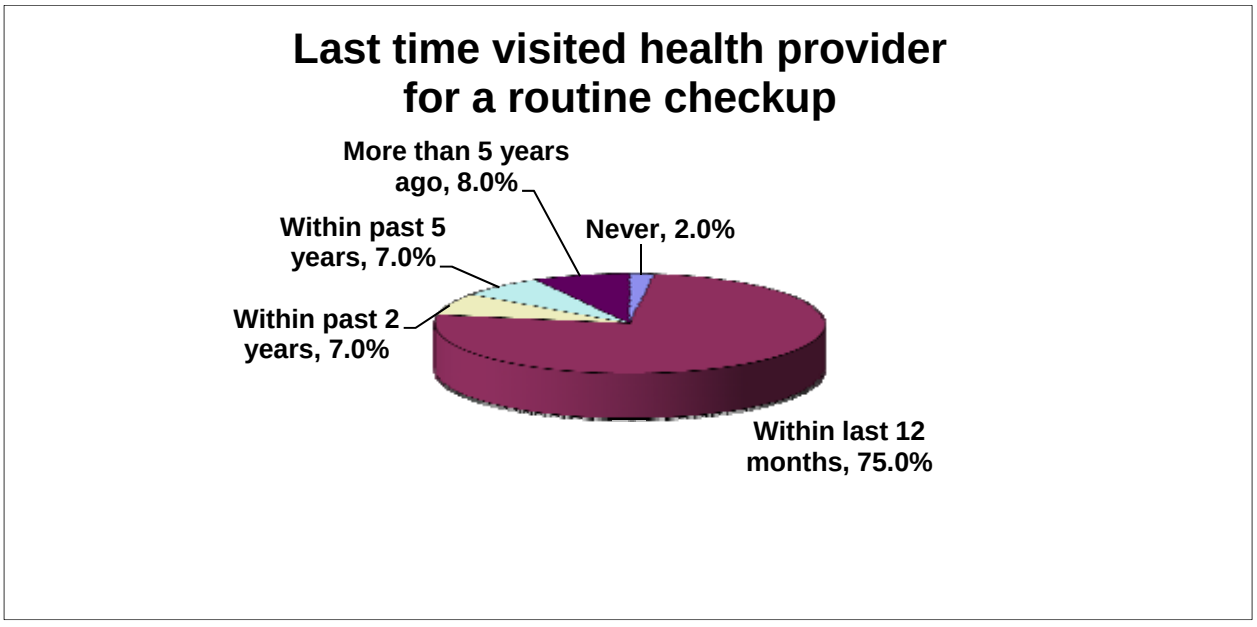
"Everyone has a doctor they can see when they are sick" is currently considered a national health policy priority. Also, our local health opinion survey ranked having a doctor as the #1 health priority. Local survey results may indicate that of the Buncombe County population, possibly 10,300 people don't have a place to go when they are sick.

Health Care Access & Utilization

Local Health Survey



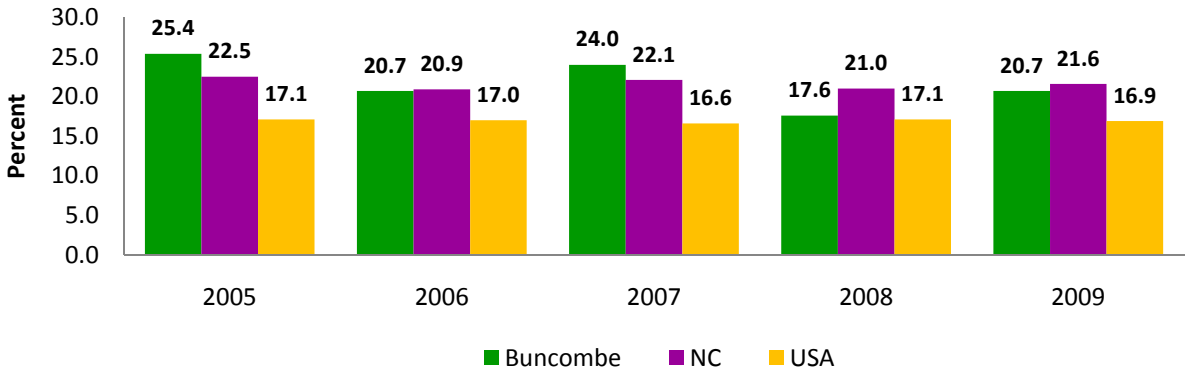
Source: Buncombe County Health Survey, 2010



Overall, 3 out of 4 of those surveyed report getting a checkup in the past year. If we adjusted for age, however, the results would be even lower. Eighty-seven percent of people over age 45 have been for a checkup within the past year, compared to only 57% of adults less than 44 years of age.

Checkups are encouraged to increase early detection of disease or even prevent conditions before they start. 1 out of 10 report either never getting a checkup or having been more than 5 years ago, most likely due to lack of health insurance. http://www.cdc.gov/family/checkup/

Category Clinical Care	**Affordability and Health Insurance**
Indicators	% uninsured adults, % of adults wanting care but didn't get it
Why is this important?	Evidence shows that uninsured individuals experience more adverse outcomes (physically, mentally, and financially) compared to insured individuals. The uninsured are less likely to receive preventive and diagnostic health care services, are more often diagnosed at a later disease stage, and on average receive less treatment for their condition compared to insured individuals. At the individual level, self-reported health status and overall productivity are lower for the uninsured. The Institute of Medicine reports that the uninsured population has a 25% higher mortality rate than the insured population. Ethnic minorities are more likely to be uninsured than non-Hispanic whites. Employment-based coverage is the largest source of health coverage in the U.S., and many unskilled, low paying, and part-time jobs do not offer health coverage benefits. In general, employment status is the most important predictor of health care coverage in the U.S. Within the employer framework, racial disparities exist that are important to address. [MATCH County Ranking]



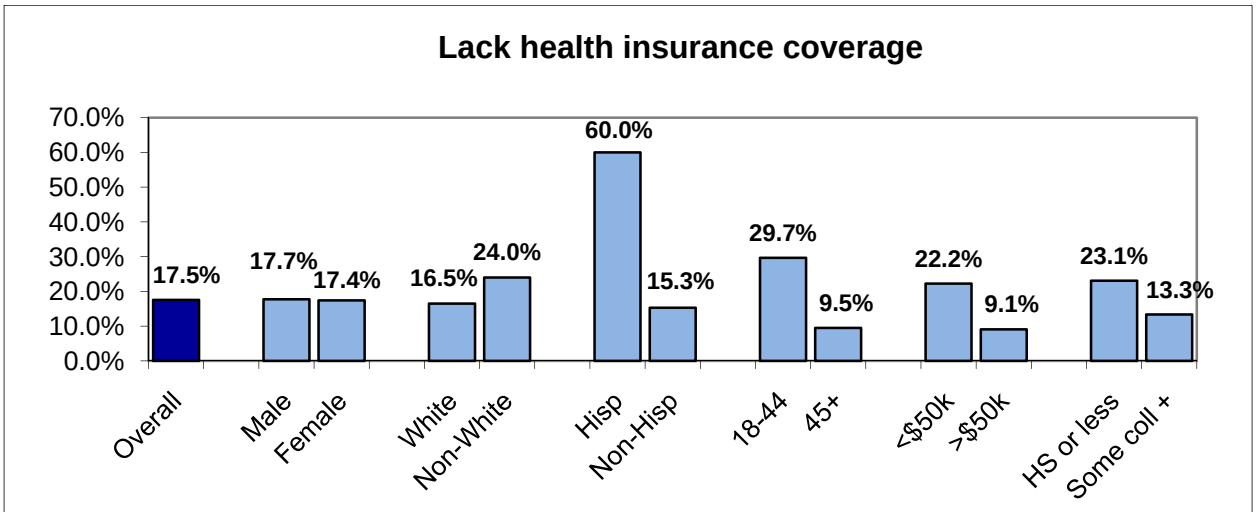
Source: NC and US BRFSS

NC and US BRFSS is a randomized telephone survey. It's important to note that cell phones are not included in this survey and therefore the survey responses do not represent the population who only use cell phones.

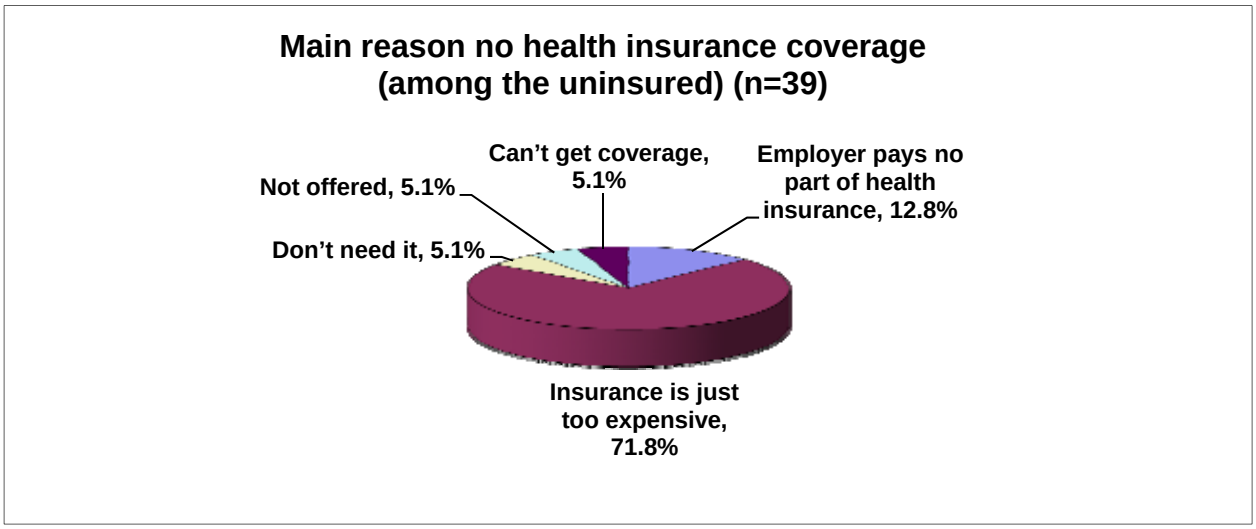
By focusing on adults, ages 18 – 64, the measure offers a better understanding of uninsured population in Buncombe County because most adults age 65 and older have Medicare insurance. During the past two years, uninsured adults in Buncombe County have been just below NC rates while still higher than the US rate of uninsured adults. In 2005, 1 in 4 Buncombe adults (ages 18 – 64) didn't have insurance. By comparison, 1 in 5 didn't have insurance in 2009.

Affordability and Health Insurance

Local Health Survey



Source: Buncombe County Health Survey, 2010

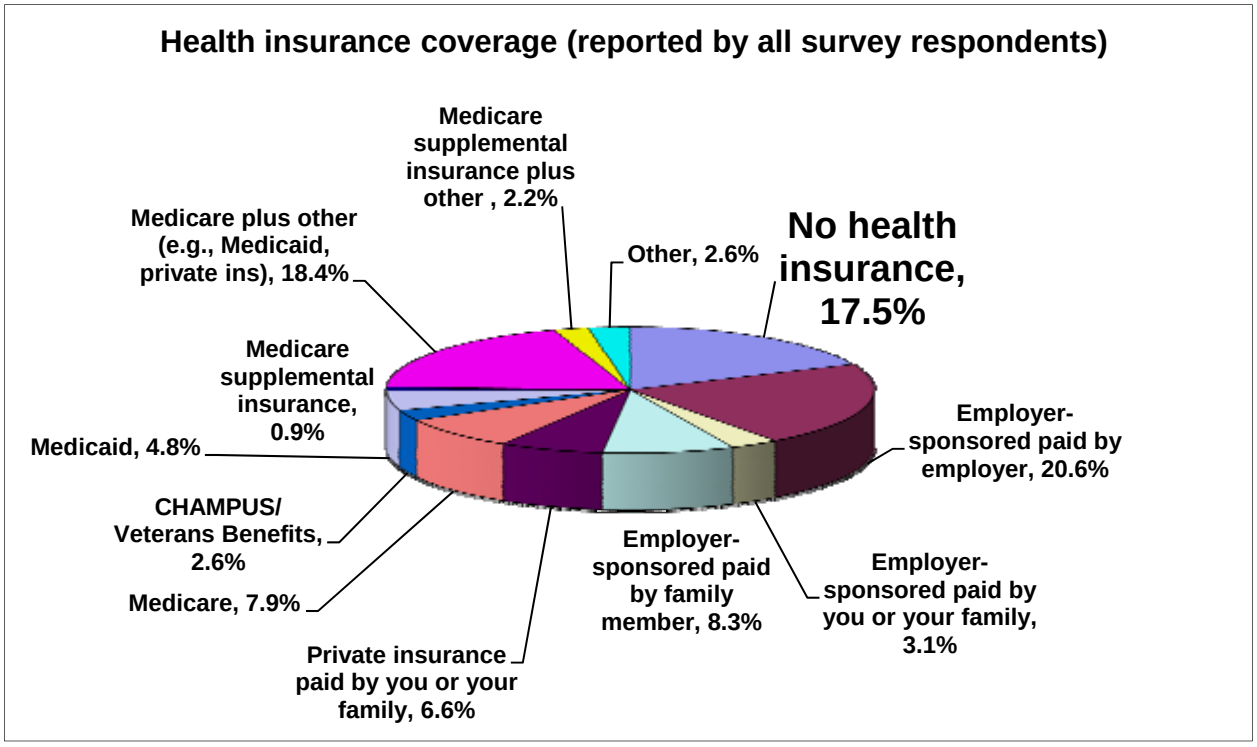


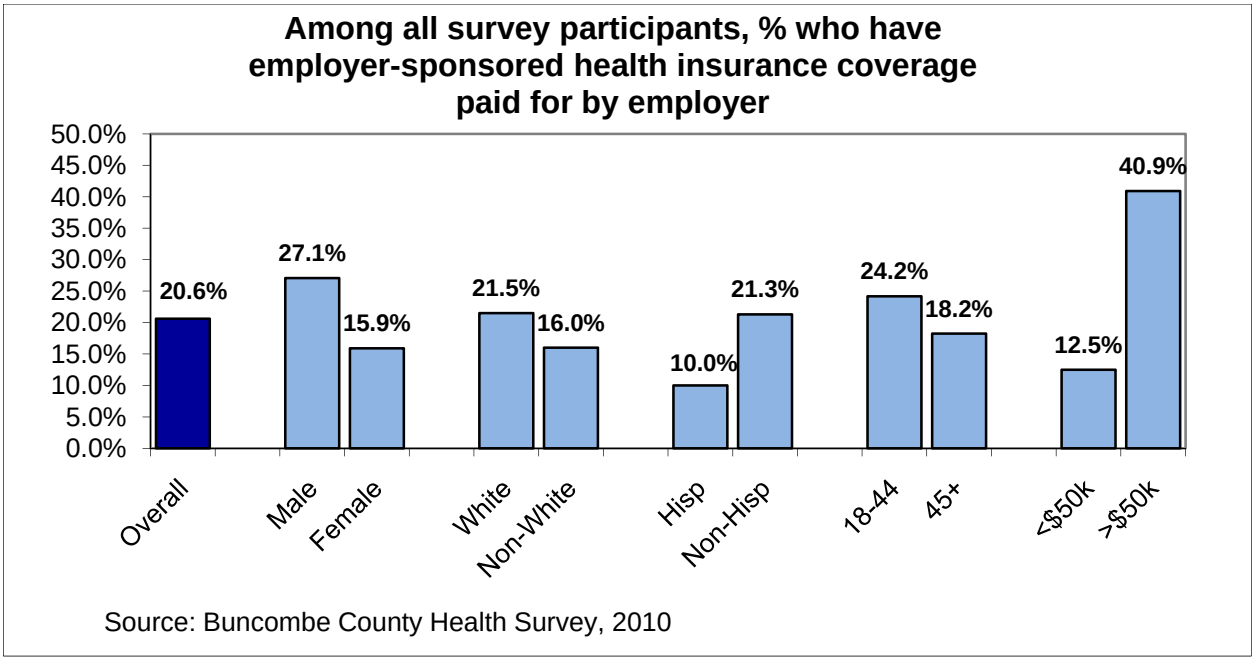
Source: Buncombe County Health Survey, 2010

Among all adults in the local survey, **17.5% report having no health insurance**. Of all groups, Hispanics were most likely to be uninsured (60%). Others more likely to be uninsured include younger people, non-whites, and those with lower income and education. Conversely, less than 1 in 10 adults over 44 are without insurance and most are likely between the ages of 44 – 64 (before they are eligible for Medicare Insurance).

Nearly 85% attribute lack of insurance to the cost or that employer pays no part of insurance (and therefore cost is a factor). 5% report they can't get coverage, and just as many report they don't feel that they need health insurance.

Local Health Survey





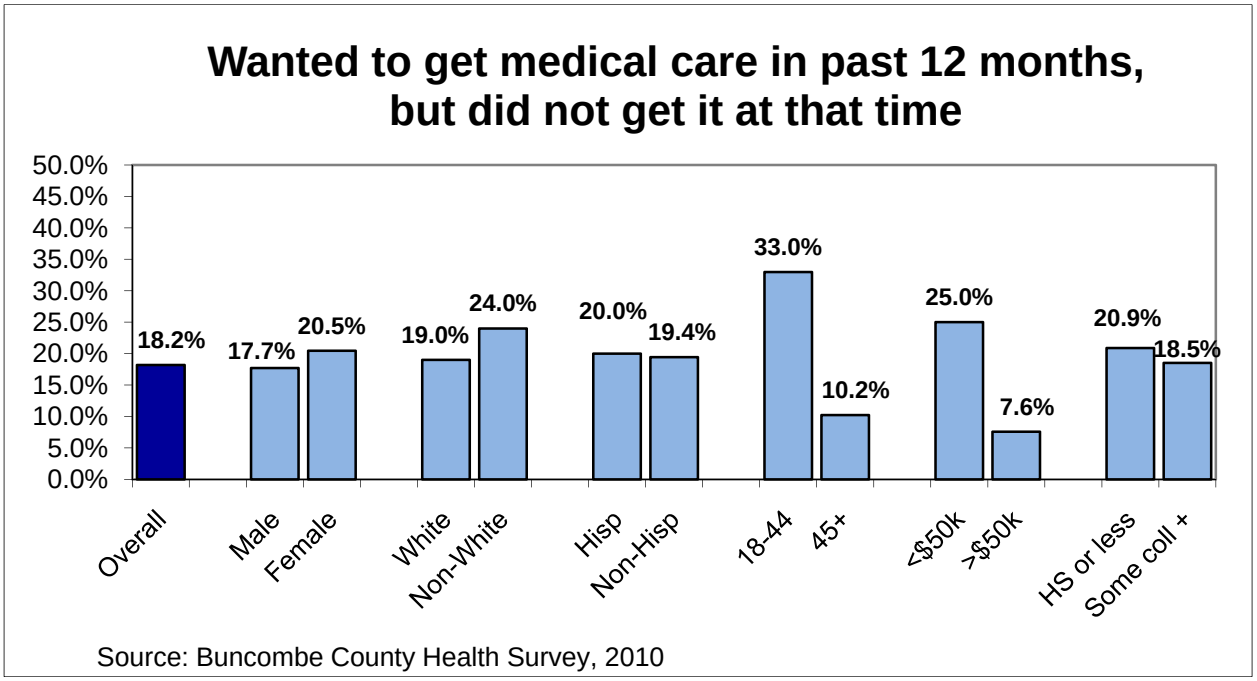
Source: Buncombe County Health Survey, 2010

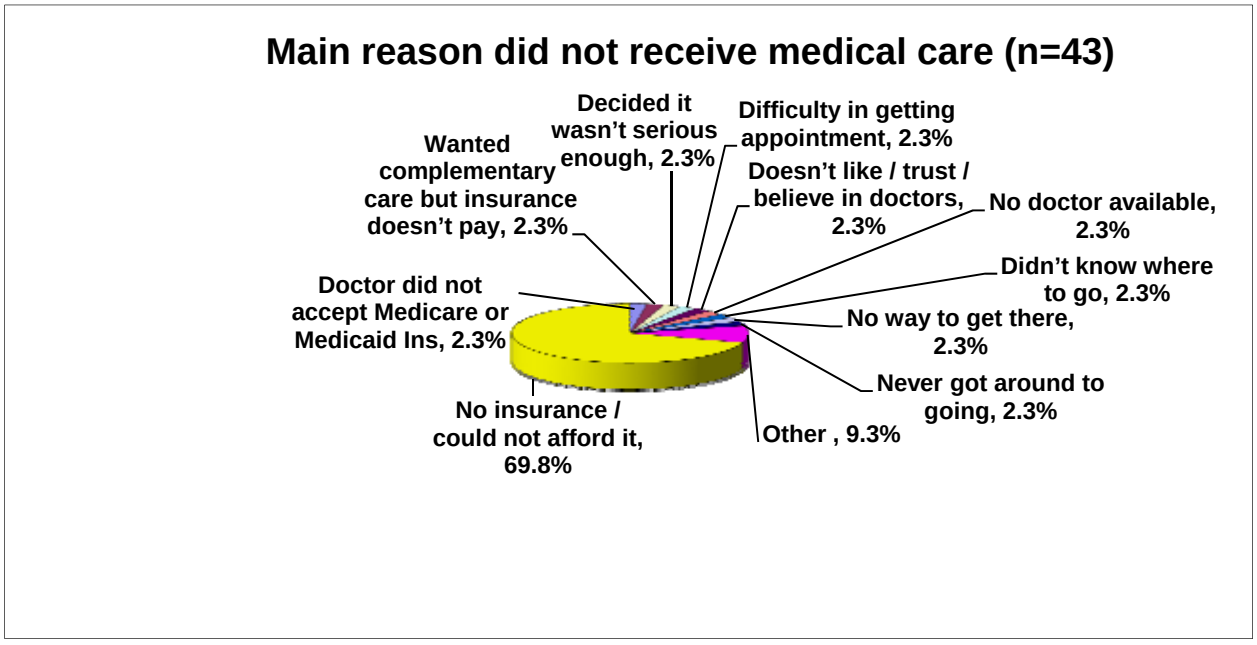
We asked all survey respondents to describe types of insurance they have, if any. The pie chart depicts the types of health insurance (or lack of) that people put together to pay for medical care.

1 in 4 people between the ages of 18 – 44 have insurance paid by their employer and another 11% pay for health insurance sponsored by their employer. Over 17% don't have insurance and the remaining have other forms of health insurance.

Affordability and Health Insurance

Local Health Survey



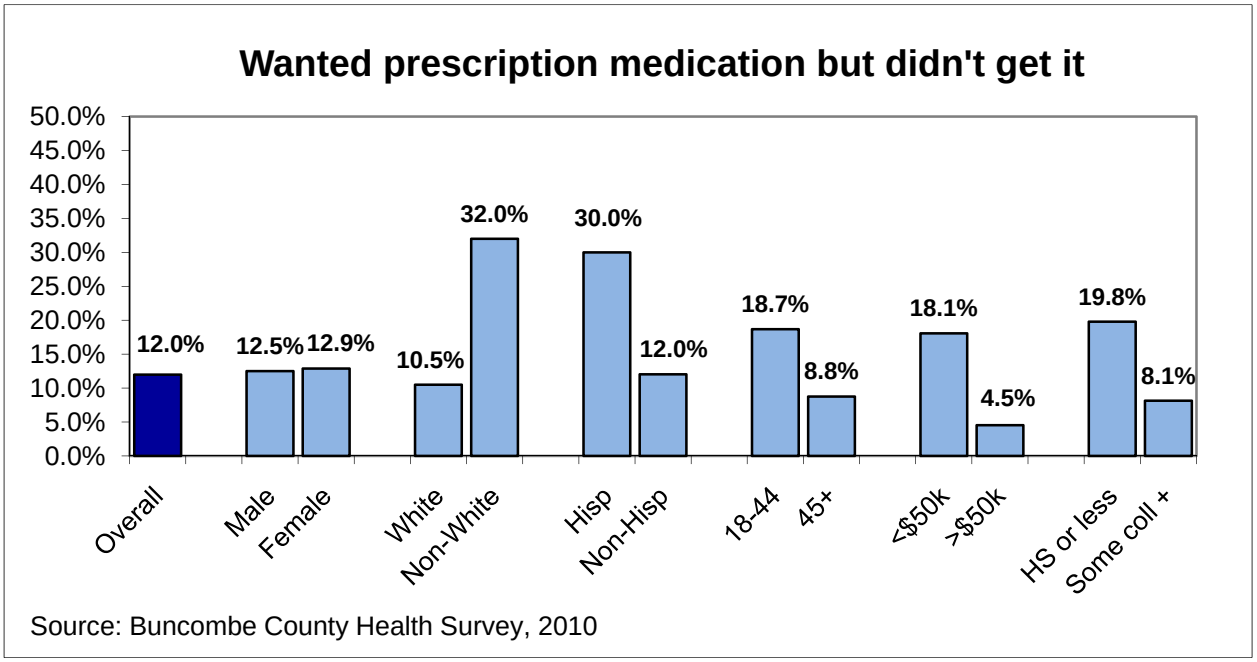


Source: Buncombe Local Health Survey, 2010

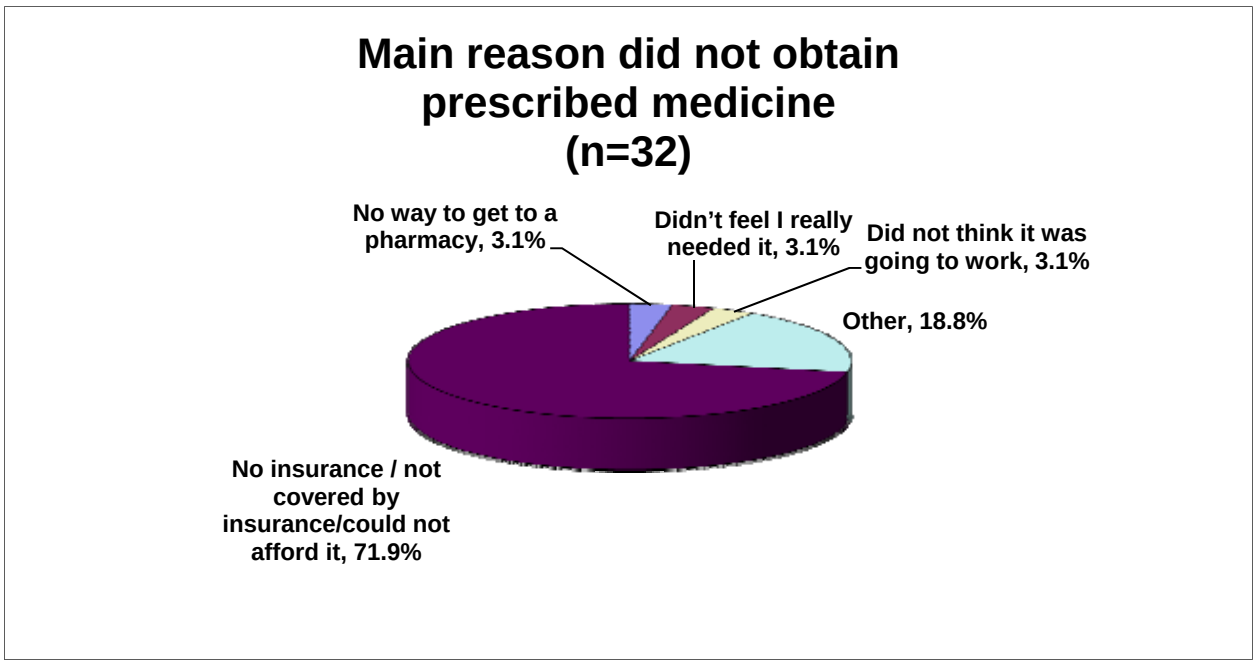
Overall, 18.2% of survey respondents reported wanting medical care in past year but didn't get it. The results increase to **1 in 3 younger adults (18-44) reporting they didn't get the medical care they wanted** in the past year. Others who reported the same are those with less income and non-whites. Approximately 7 out of 10 people reported lack of insurance as the primary reason.

Affordability and Health Insurance

Local Health Survey



Source: Buncombe County Health Survey, 2010

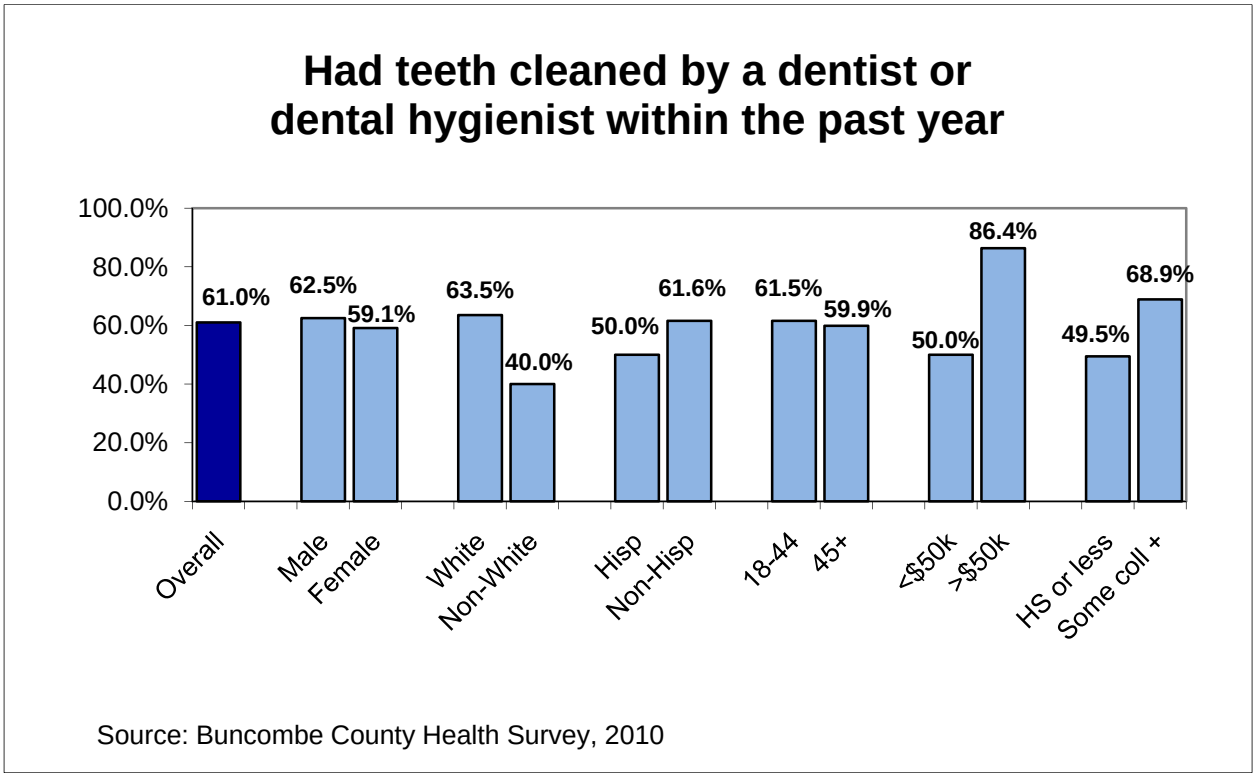


Source: Buncombe Local Health Survey, 2010

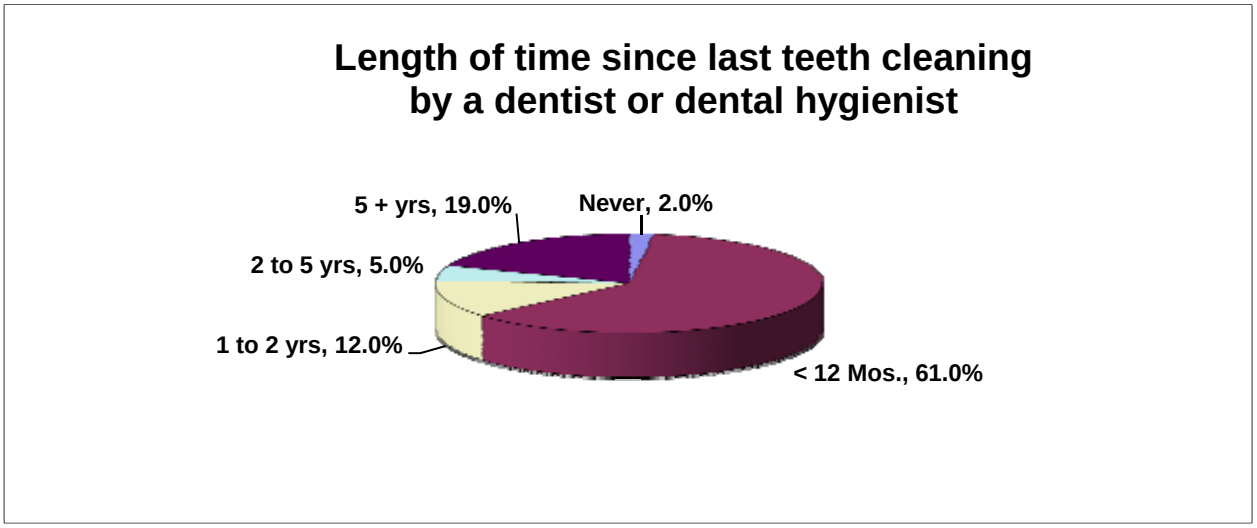
Overall, fewer people participating in the survey report wanting prescription medicine but not getting it, possibly attributable to the fact that fewer young people take prescription medicines and are therefore not needing them. However, when observing selected populations, nearly 1 in 3 non-whites, as well as Hispanics, wanted medication in the last year but didn't get it. Over 70% report lack of insurance and cost as the main reasons.

Affordability and Health Insurance

Local Health Survey



Source: Buncombe County Health Survey, 2010

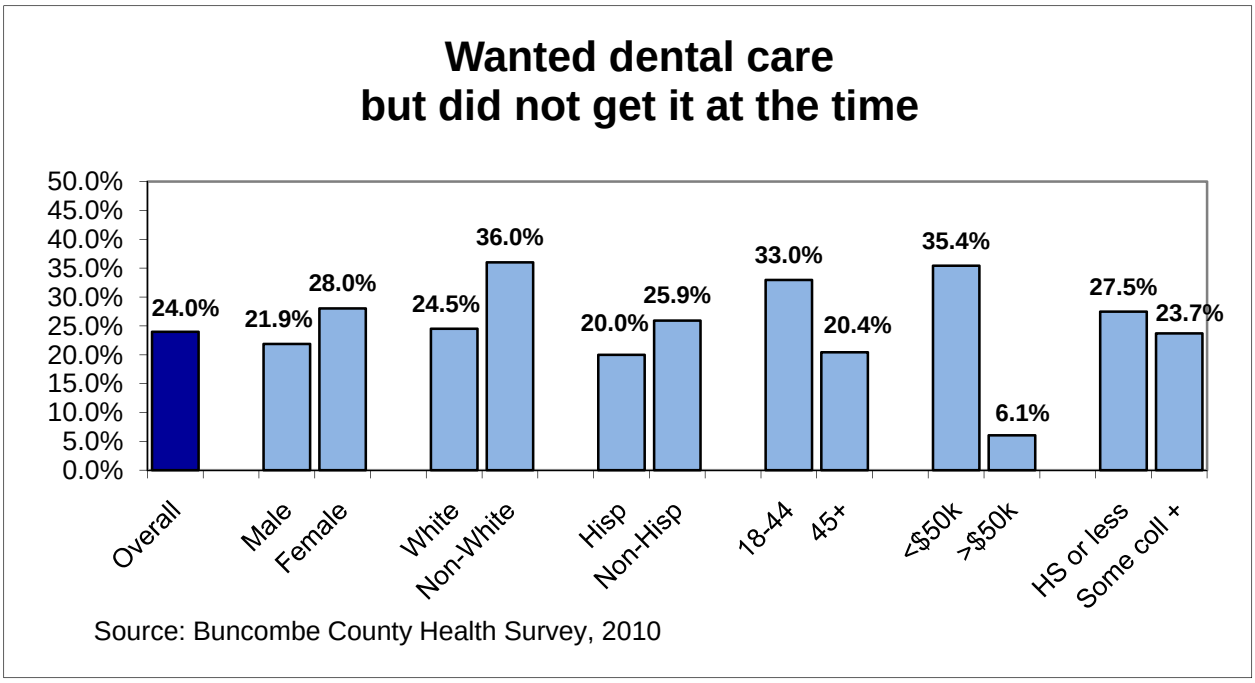


Overall, 62% of survey population report getting their teeth cleaned in past year and among most subpopulations, at least 50% get their teeth cleaned at least annually. The exception is among non-white, of whom 40% report annual visits to get their teeth cleaned.

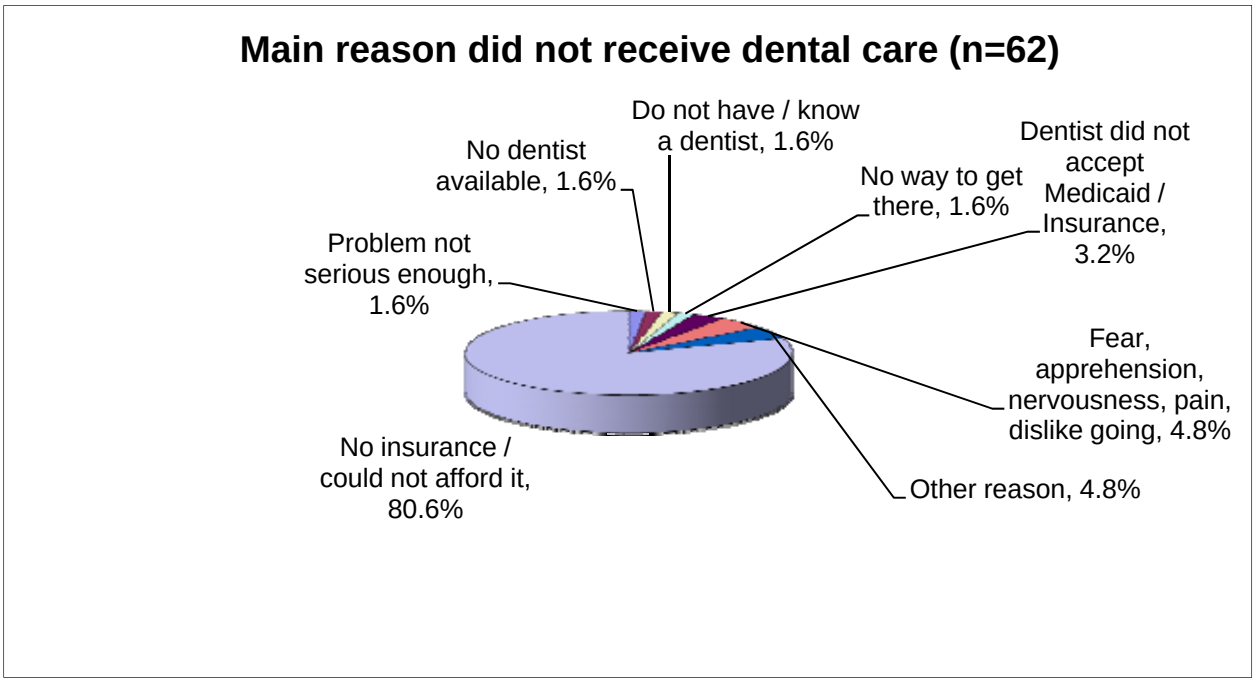
Over 1 in 5 report either never visiting the dentist/dental hygienist to get teeth cleaned or that it has been longer than 5 years. The actual recommendation for normal teeth cleaning is every 6 months.

Affordability and Health Insurance

Local Health Survey

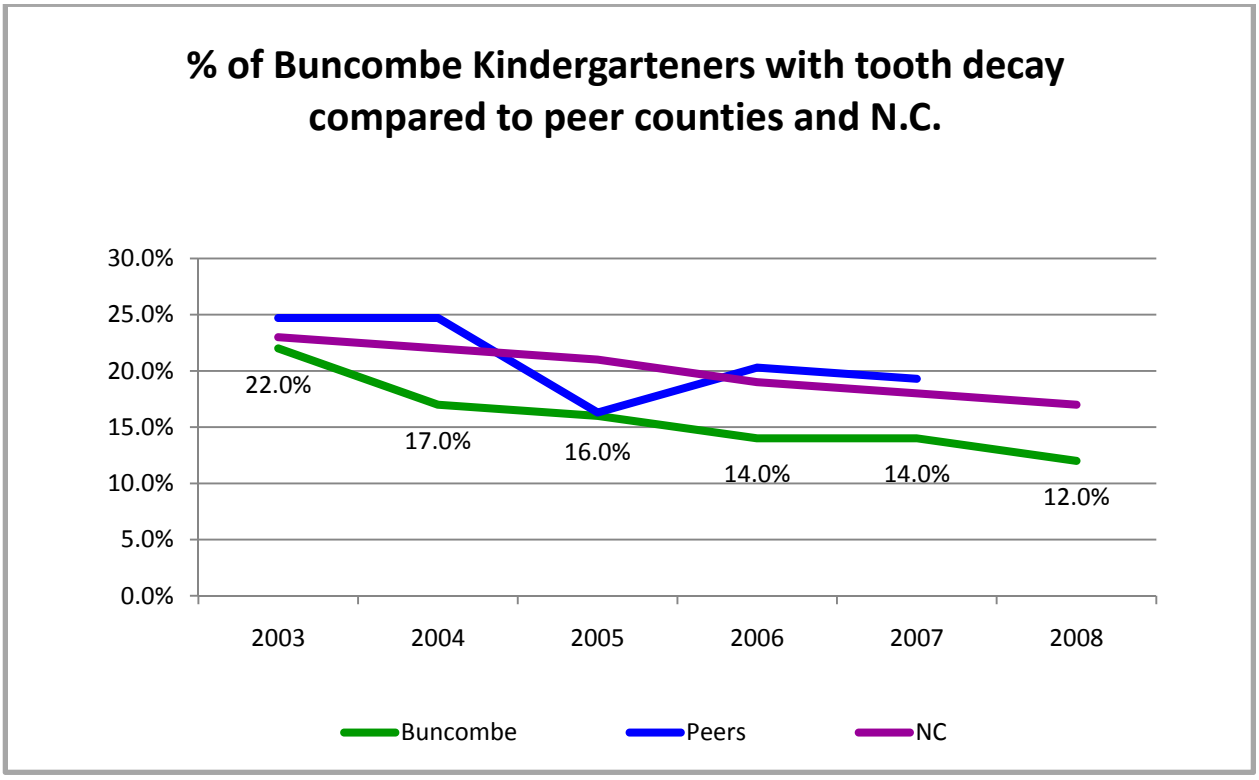


Source: Buncombe County Health Survey, 2010



Nearly 1 in 4 of survey participants report wanting to get their teeth cleaned but did not (in past year). Over 80% attribute not getting dental care when they wanted it to lack of dental insurance or costs. We observe disparities among non-whites and younger adults, as well as those with less income. Only 6% of those with incomes greater than $50,000 reported wanting dental care but not getting it.

Affordability and Health Insurance



Source: NC CATCH (2003 – 2007), DHHS Oral Health Section (2008);

Peer Counties: Davidson, Burke, Randolph

Note: Dental Assessment data is gathered by a Public Health Dental Hygienist, employed by Buncombe County Department of Health, who screens all Kindergarten children for tooth decay. This is very reliable data since it is gathered for ALL kindergarten children in both city and county school systems.

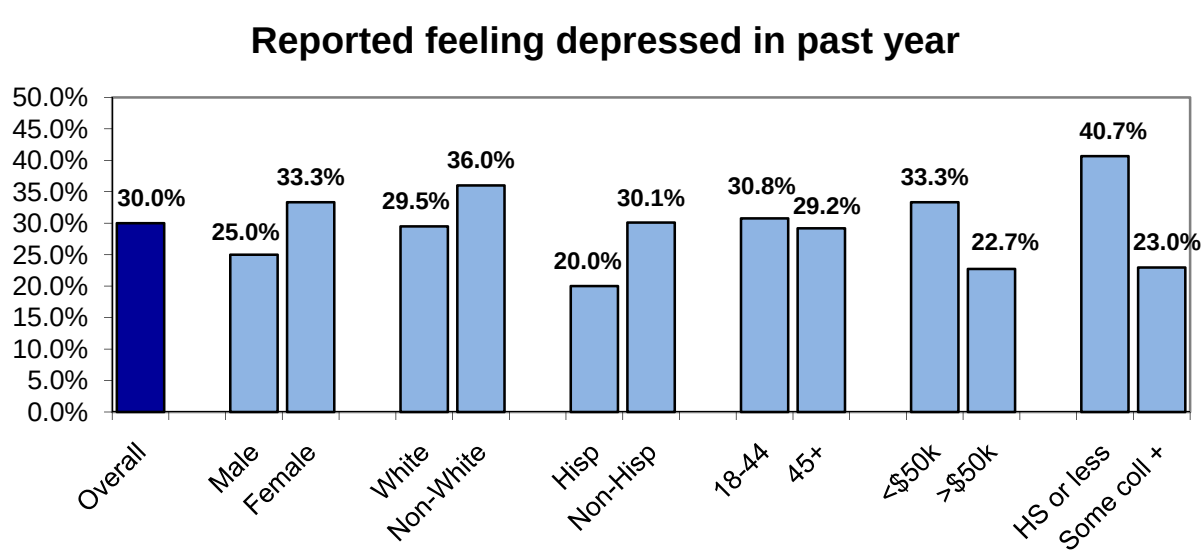
The percentage of Buncombe County kindergarteners with untreated dental disease continues a downward trend from 22% in 2003 to 12% in 2008, lower than NC and peer counties during the five year period.

The 45% decline in tooth decay since 2003 is attributable to several factors: increased number of pediatric and general dentists who also accept Medicaid; Mission Children's Dental Program, which provides extensive restorative dental care for children; and the introduction of a preschool dental screening and referral program in 1999, supported by funding from Buncombe County Partnership for Children (Smart Start).

Due to budget reductions and new state priorities, the program lost funding and is no longer in operation (as of July 1, 2010). Kindergarten tooth decay will be monitored closely to determine if an increase in dental care resources is enough to sustain a 12% incidence of tooth decay among kindergarteners in Buncombe County.

Category Clinical Care	**Mental Health Care**
Indicators	% reporting feeling depressed; % wanting mental health care but did not get it/main reason
Why is this important?	Poor mental health and drug and alcohol addictions affect millions of American workers each year, causing a monumental toll on American workplaces each year through lost productivity and health care costs. People with severe mental illnesses and other chronic conditions such as diabetes, asthma, heart disease, and obesity die earlier than do people without such conditions. Behavioral health conditions may not be properly addressed because of a lack of community resources and poor health insurance coverage for such conditions. The federal government — in partnership with states, communities, consumers, families, and the private sector — has responded with proposals for health care reform that include mental health care. [Center for Disease Control, 2010]

Local Health Survey

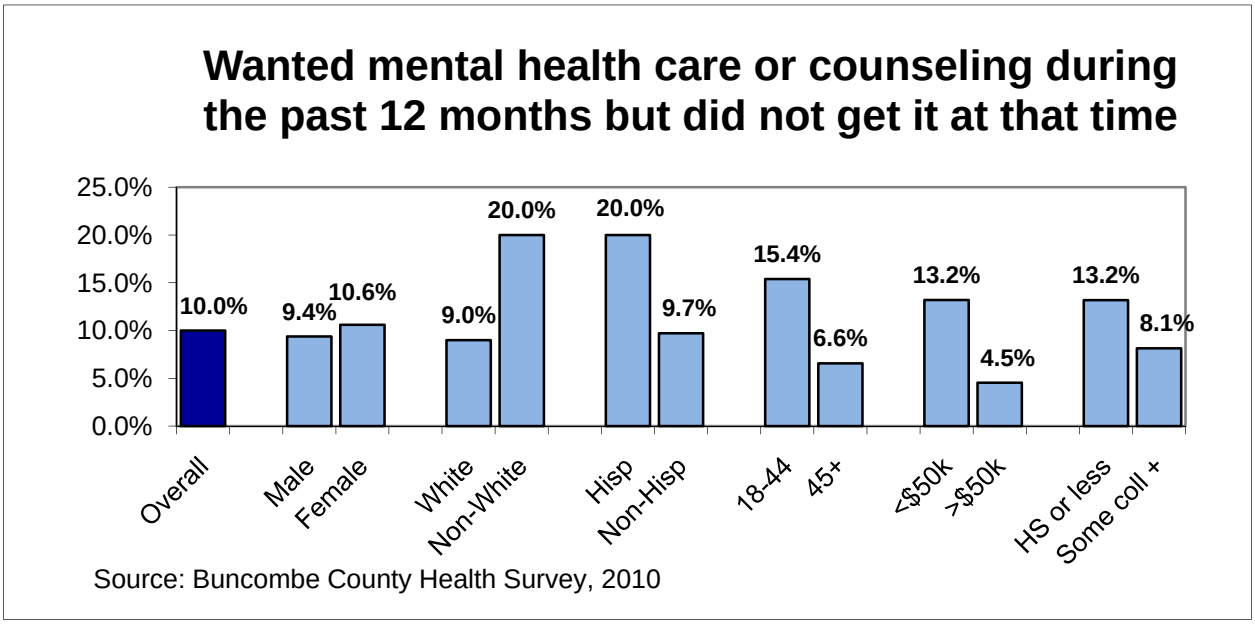


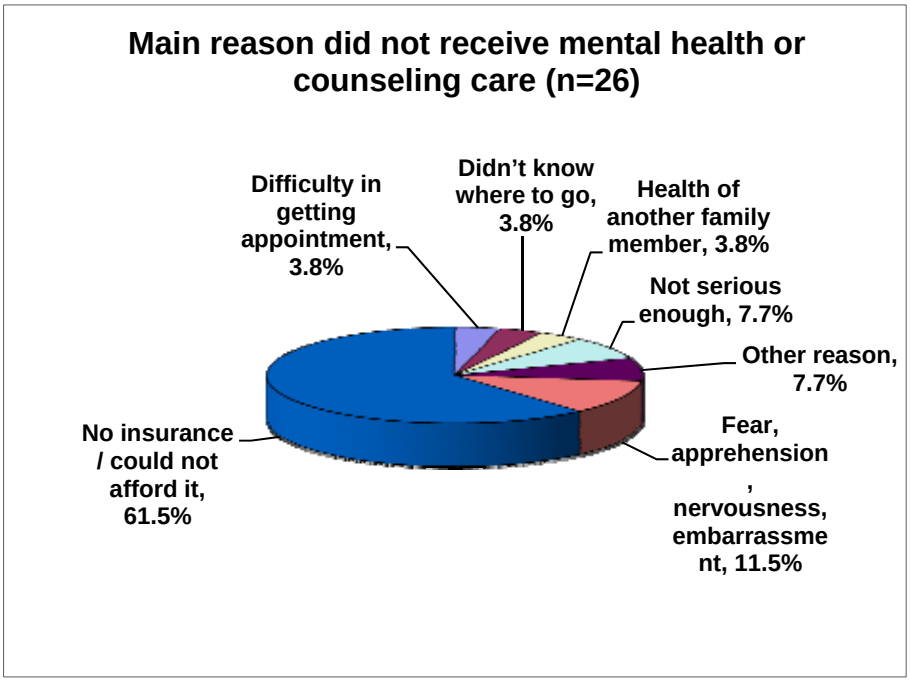
Source: Buncombe County Health Survey, 2010
Note: Question asked if they experienced symptoms of depression for two weeks or more in the past year

Overall, 30% of local survey respondents reported feeling depressed for more than two weeks in the past year. Results were the highest among those with an education level of high school or less (40%) followed by non-whites (36%). It is notable that 20% of Hispanics reported depression compared to 30% of non-Hispanics, and Hispanics had the lowest results among all categories of sex, race, income, education.

Mental Health Care

Local Health Survey





Health Opinion Survey Findings

People commonly listed access to mental health counseling as a priority issue.

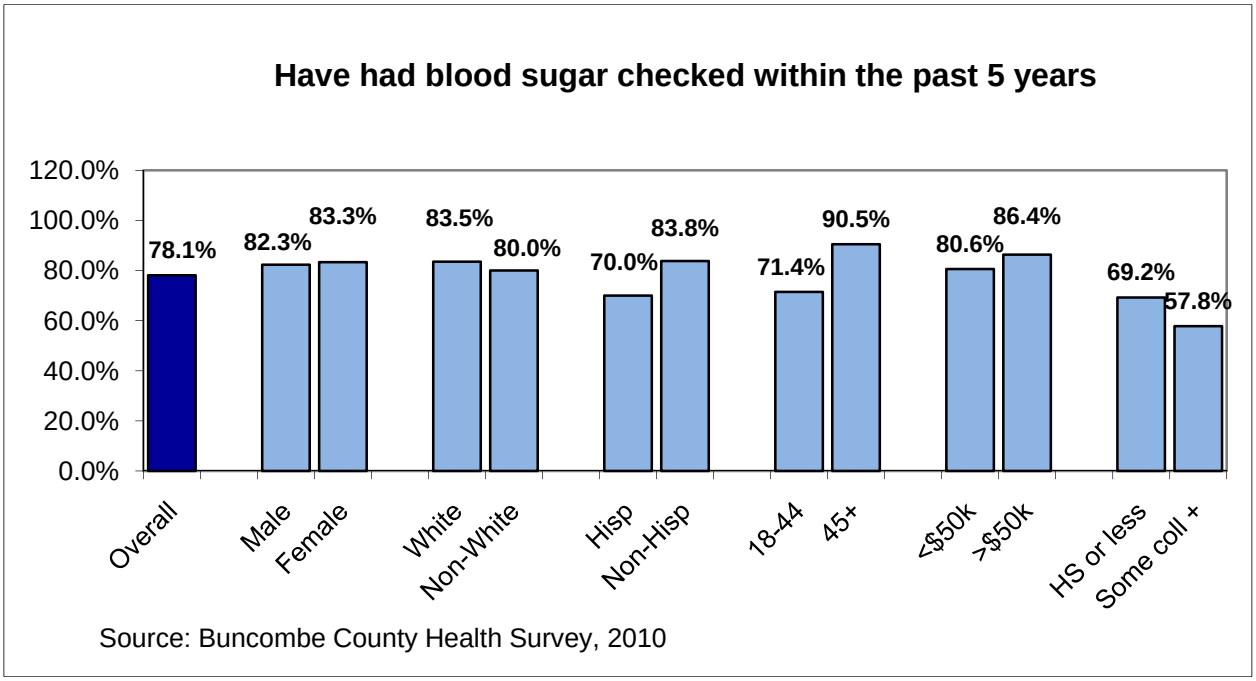
Source: Buncombe County Health Survey, 2010

1 in 10 survey participants report wanting mental health counseling /care but didn't get it during the past year. Results were 50% higher among non-whites and Hispanics. Those with incomes over $50,000, as well as those 45+ years of age were least likely to report wanting mental health care but didn't get it.

Health Opinion survey results found access to mental health care listed as a priority issue.

Category Clinical Care	**Disease Management**
Indicators	% getting blood pressure, cholesterol and diabetes screenings
Why is this important?	High blood pressure, high cholesterol and diabetes increase the risk for heart disease and stroke, which are among the top leading causes of death in Buncombe County and the US. High blood pressure is called the "silent killer" because it often has no warning signs or symptoms, and many people don't realize they have it. That's why it's important to get your blood pressure checked regularly. Proper diagnosis and management of diabetes may help reduce risk of complications caused by diabetes, such as heart disease, stroke, and some cancers, as well as specific complications of diabetes such as kidney disease, blindness, and lower-limb amputations.

Local Health Survey

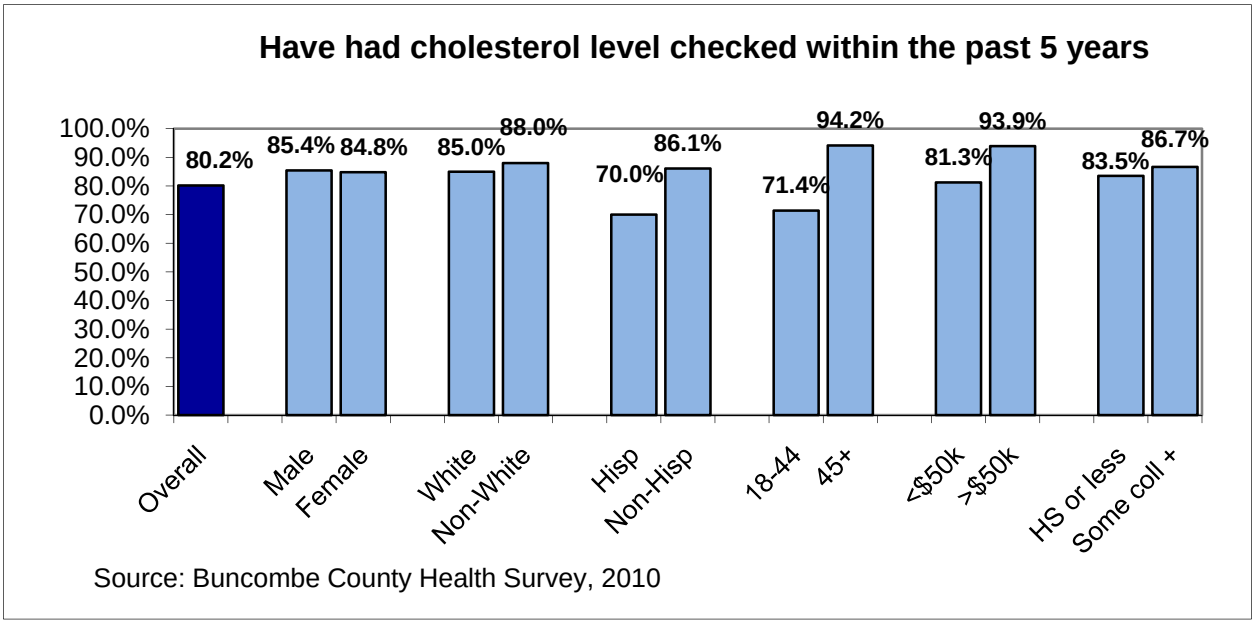


Source: Buncombe County Health Survey, 2010

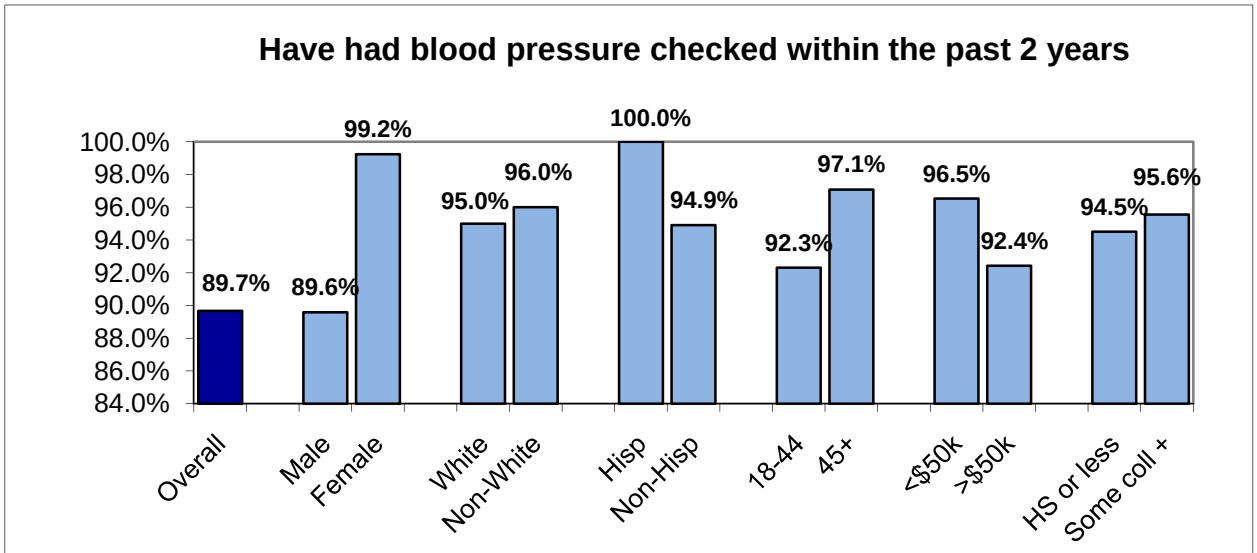
American Diabetic Association recommendation: Currently, the ADA recommends that all adults aged 45years and older be considered for diabetes screening by their health care provider every 3 years, particularly in those who are overweight or obese. Nearly 80% of Buncombe County adults had their blood sugar checked within the past five years. The local healthy survey didn't offer three years as an answer to select. The five year measure is the closest indicator of whether adults are getting recommended diabetes screenings.

Disease Management

Local Health Survey



Source: Buncombe County Health Survey, 2010



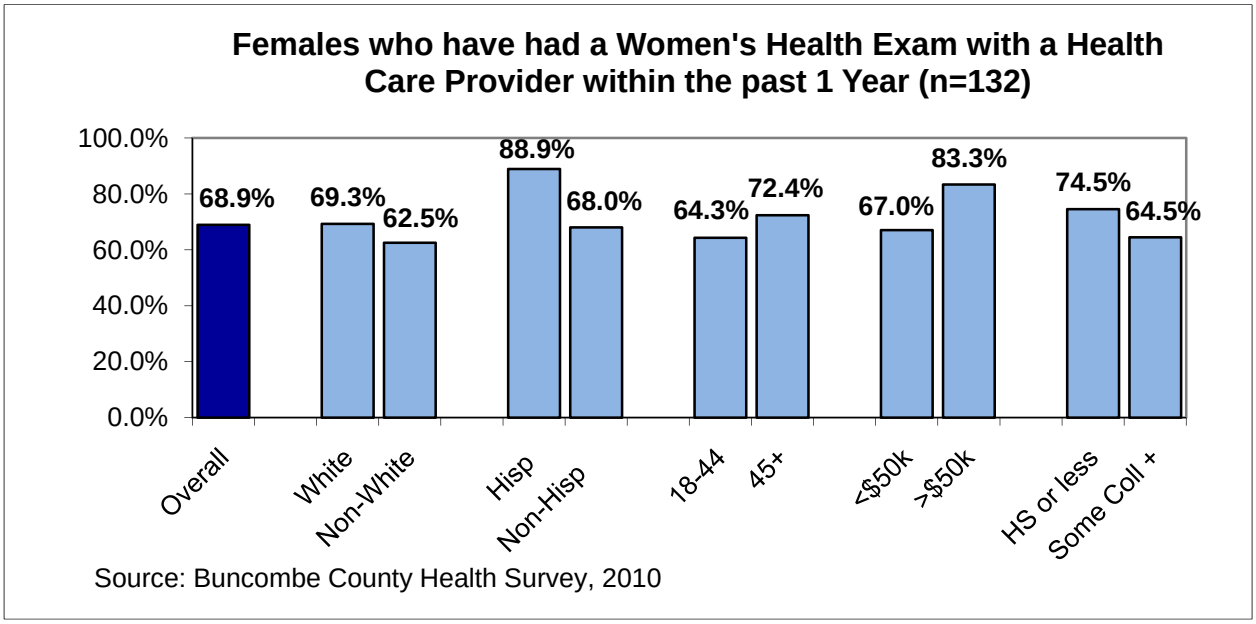
Source: Buncombe County Health Survey, 2010

The National Cholesterol Education Program recommendation: adults should get their cholesterol checked every five years by their doctor. Over 9 out of 10 local survey respondents had their blood pressure checked within the recommended amount of time.

American Health Association Recommendation: adults should have their blood pressure checked by a doctor / health care professional at least once every two years and more often if it's high. Overall, close to 9 out of 10 local survey respondents had their cholesterol checked within the recommended amount of time.

Category Clinical Care	**Early Detection of Disease**
Indicators	% of males and females getting recommended health screenings; HIV testing
Why is this important?	**Mammograms** are the best method to detect breast cancer early when it is easier to treat and before it is big enough to feel or cause symptoms. Having regular mammograms can lower the risk of dying from breast cancer. **Cervical cancer** is the easiest female cancer to prevent with regular screening tests and follow-up. Two screening tests can help prevent cervical cancer or find it early: Pap Test and HPV (human papilloma virus) Test. Among the leading causes of cancer death in men, **prostate cancer** is second, behind lung cancer. DRE (Digital Rectal Exam) can sometimes help suggest cancers in men, especially if they have had a normal PSA test. The potential benefit of prostate cancer screening is early detection of cancer, which may make treatment more effective. People who are infected with **HIV** but not aware of it are not able to take advantage of the therapies that can keep them healthy and extend their lives, nor do they have the knowledge to protect their sex or drug-use partners from becoming infected. Because medical treatment that lowers HIV viral load might also reduce risk for transmission to others, early referral to medical care could prevent HIV transmission in communities while reducing a person's risk for HIV-related illness and death. [Center for Disease Control and Prevention]

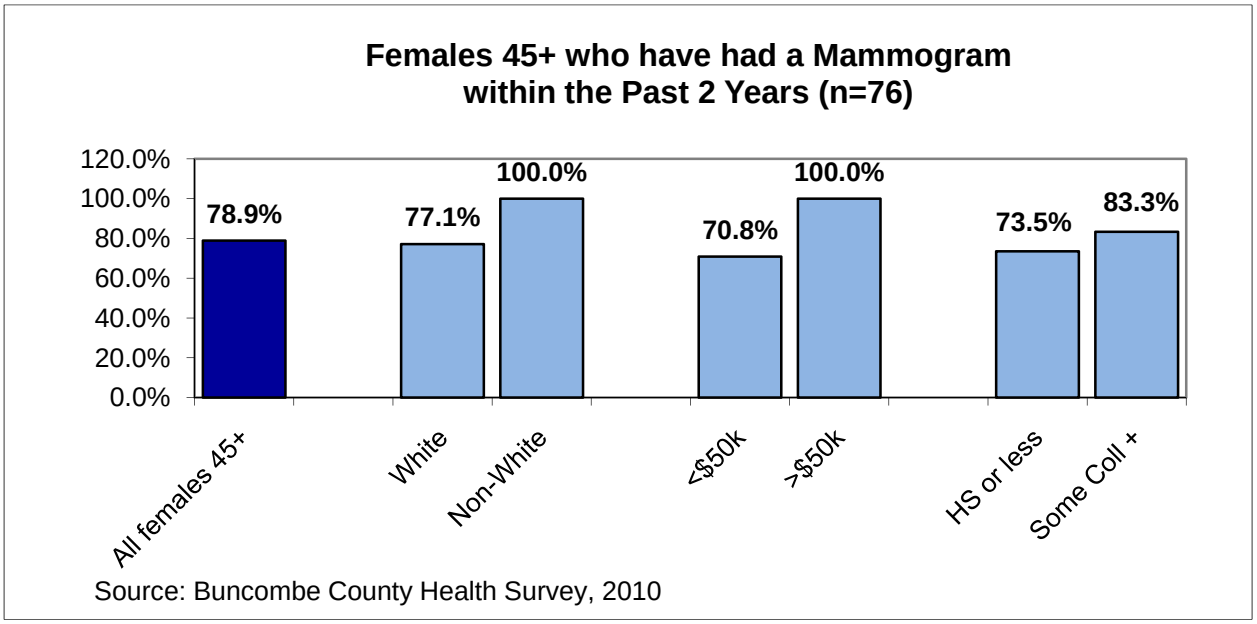
Local Health Survey

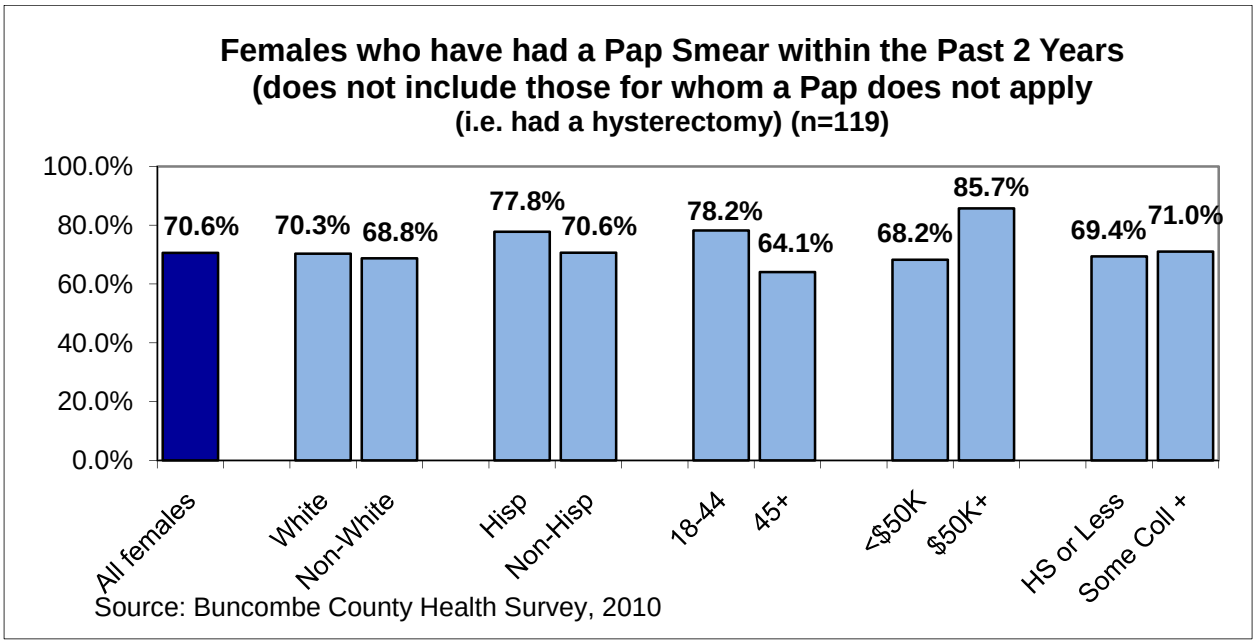


Source: Buncombe County Health Survey, 2010

Early Detection of Disease

Local Health Survey

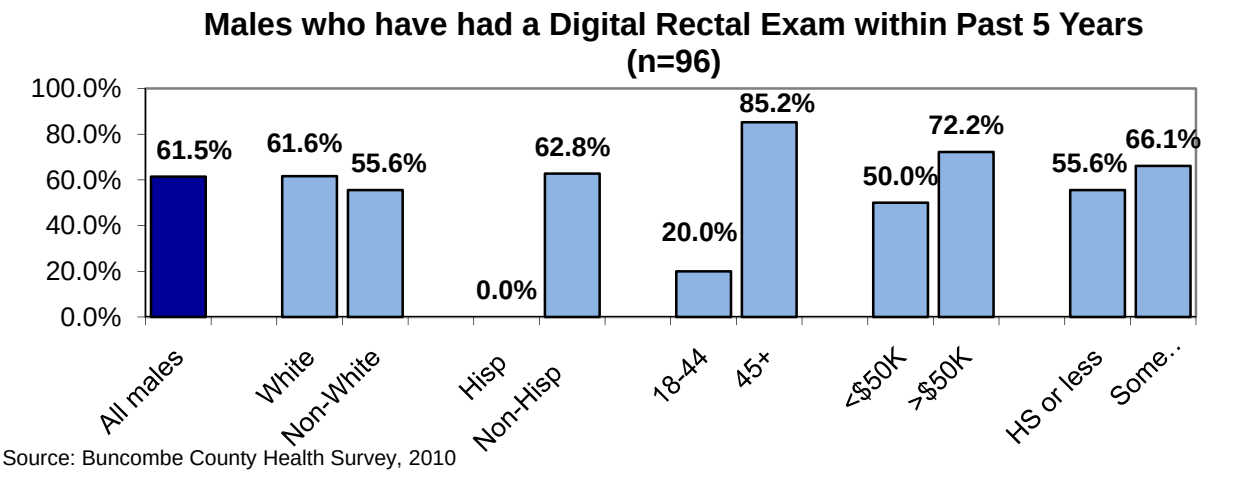




The US Preventive Services Task Force (USPSTF) recommends: screening for cervical cancer in women who have been sexually active and have a cervix. They recommend against routinely screening women 65+ years for cervical cancer if they have had adequate recent screening with normal Pap smears and are not otherwise at high risk for cervical cancer. 71% of women (excluding those for whom it doesn't apply) had a cervical cancer screening within the past 2 years. Nearly 8 out of 10 women 45+ years had a mammogram within past 2 years. 100% of non-whites had recommended mammograms, as well as women reporting income greater than $50,000.

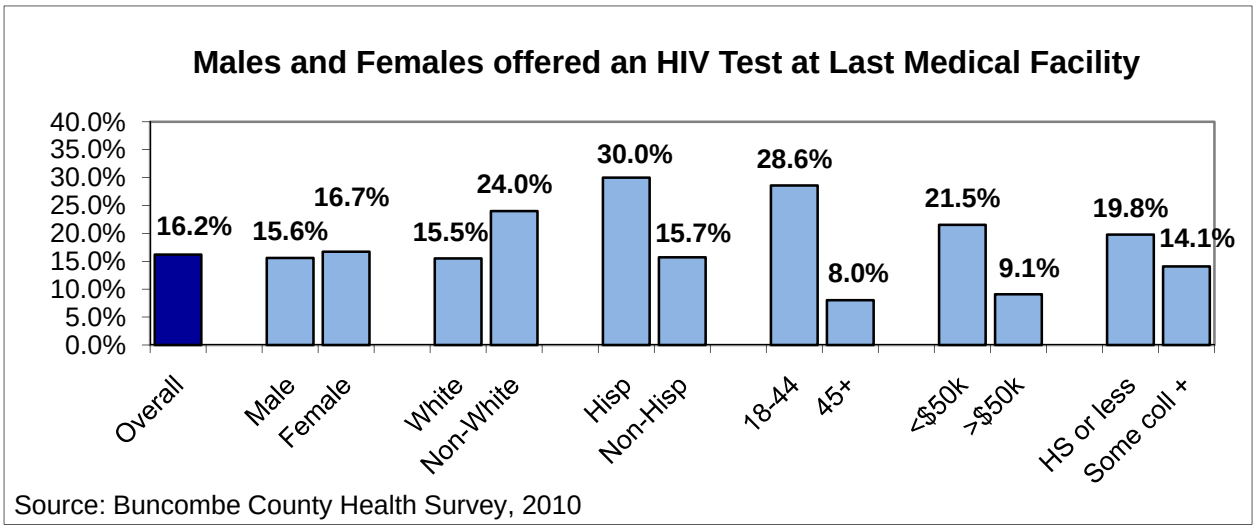
Early Detection of Disease

Local Health Survey



Source: Buncombe County Health Survey, 2010

The potential benefit of prostate cancer screening is early detection of cancer, which may make treatment more effective. However, it is unclear if the potential benefits of a PSA screening test outweigh the known side effects of treatment. CDC recommends that all men be given information on the pros and cons before making their own decision about prostate screening. For this reason the indicator selected to monitor prostate cancer screening is the DRE (Digital Rectal Exam) rather than a PSA test. It is notable that zero Hispanics reported having a DRE. More than 1 in 3 men in Buncombe County haven't had this type of exam in over 5 years (or never).

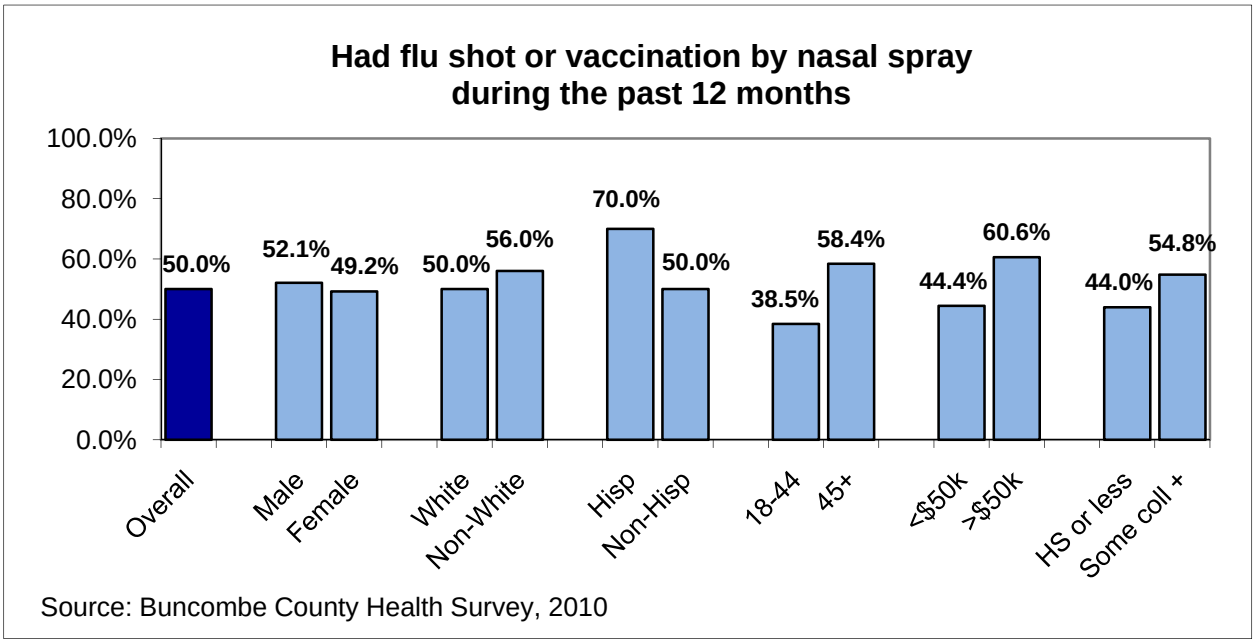


Source: Buncombe County Health Survey, 2010

People who are infected with HIV but not aware of it are not able to take advantage of the therapies that can keep them healthy and extend their lives, nor do they have the knowledge to protect their sex or drug-use partners from becoming infected. Knowing whether one is positive or negative for HIV confers great benefits in healthy decision making. HIV testing at medical facilities is a policy initiative aimed at early detection and early treatment of HIV disease. Overall, only 16% report getting an HIV test at the last medical facility they visited. Results are higher for Hispanics (30%) and younger adults, ages 18-44 (29%).

Category Clinical Care	**Flu Vaccine (adults)**
Indicators	% adults getting recommended vaccination
Why is this important?	Flu is a serious contagious disease that can lead to hospitalization and even death. In 2009–2010, a new and very different flu virus (called 2009 H1N1) spread worldwide causing the first flu pandemic in more than 40 years. Flu is unpredictable, but the Centers for Disease Control and Prevention (CDC) expect the 2009 H1N1 virus to spread this upcoming season along with other seasonal flu viruses. While everyone should get a flu vaccine each flu season, it's especially important that certain groups (people over 50, young children, those with chronic illnesses) get vaccinated either because they are at high risk of having serious flu-related complications or because they live with or care for people at high risk for developing flu-related complications. [Center for Disease Control and Prevention]

Local Health Survey



Source: Buncombe County Health Survey, 2010

Center for Disease Control recommendation: a yearly flu vaccine is the first and most important step in protecting against flu viruses, especially to decrease the risk of severe flu illness for high risk persons. 50% of survey respondents report having a flu vaccine in past year. The number has increased from previous years, as indicated by local survey data (29% in 1995, 38% in 2000, 30% in 2005).

Summary of Findings

What does the data tell us?

Among Buncombe adults who participated in the **local health survey**:

Medical care & medication

- 4.5% report not having a place to go when they are sick and 2.9% report going to the ER if they are sick or need medical advice, a costly place to get health care when sick.
- 1 out of 10 report either never getting a checkup or having been more than 5 years ago.
- 1 in 3 adults between ages 18-44 report wanting medical care but did not get it, mostly due to lack of insurance or cost.
- Only 8% of adults making greater than $50,000 report wanting to get medical care but did not get it, which correlates to the greater number among this population with medical insurance.
- Nearly 1 in 3 nonwhites and Hispanics report wanting medication but did not get it in past year, primarily attributed to cost.

Affordability and Health Insurance

- 17.5% have NO health insurance, with 85% attributing lack of insurance due to cost.
- 6 out of 10 Hispanics did not have health insurance, along with 1 out of 4 nonwhites.
- Only 25% of adults between the ages of 18 – 44 have insurance paid by their employer and another 11% pay for health insurance sponsored by their employer.

Dental care

- 62% have gotten their teeth cleaned within the past year.
- 1 in 5 adults report either never getting their teeth cleaned or that it has been more than 5 years.
- 1 in 4 reports they wanted to get their teeth cleaned in the past year but did not, over 80% site lack of insurance as the primary reason.

Mental health care

- 30% report feeling depressed (for two or more weeks) in past year.
- 1 in 10 report wanting mental health care but didn't get it in past year. Hispanics and non-whites were twice as likely to report depression as their non-Hispanic and white counterparts.

Disease Management

- Overall, 90% reported getting blood pressure and cholesterol checked at recommended intervals, while only 80% had diabetes screening following recommendations.

Early identification of disease

- 1 in 3 males haven't had a digital rectal exam for prostate cancer in over 5 years (or never).
- Nearly 8 out of 10 women ages 45+ have had mammograms within the past two years. 100% of non-whites participating in the survey had recommended mammograms.
- 71% of women (excluding those whom it doesn't apply) have had a cervical cancer screening within the past 2 years.

50% of report having a flu vaccine in past year. The number has increased from previous years, as indicated by local survey data (29% in 1995, 38% in 2000, 30% in 2005).

Buncombe County's six year average for adults who are uninsured is above the North Carolina

average (18% vs. 17%) and is also ABOVE the Target of 14%.

What do people care about?

Health opinion survey Ranks as #1 health priority: Making sure everyone has a doctor they can see when they are sick (Medical Care Home).

Where can I find more data about health care affordability, disease management and preventive health care?

BC Health Survey, 2010: http://www.buncombecounty.org
BC and NC BRFSS: http://www.schs.state.nc.us/SCHS/brfss/
US BRFSS: http://apps.nccd.cdc.gov/BRFSS/
NC State Center for Health Statistics: http://www.schs.state.nc.us/SCHS/data/vitalstats.cfm
NC CATCH (warehouse of data): http://www.schs.state.nc.us/SCHS/catch/
MATCH – County Health Rankings: http://www.countyhealthrankings.org/north-carolina

Health Factors Social and Economic

MATCH – County Ranking Data (Mobilizing Action Toward Community Health)

2010 Snapshot of Social and Economic Health Factors

MATCH - Buncombe County	Buncombe Value	NC Value	Target Value	
Social & Economic Factors NC Rank 12th healthiest				
Community Safety - Homicide Rate	5	7	4	↓
College degree (4 year or higher), 2008	31%	26%	31%	↑
Unemployment, 2009	8.6%	10.6%	5%	↓
Children in poverty	24.0%	22.6%	15%	↓
Income inequality, 2008	0.489	0.463	0.4	↓
Inadequate social support	16%	20%	16%	↓
Single-parent households	8%	7%	6%	↓

Sources URL: http://www.countyhealthrankings.org/north-carolina/buncombe

About the Target Value
The arrows help us know whether we should be higher or lower than the targeted value in order to improve health. For example, when looking at Adult Smoking, the Buncombe Value is higher than the Target Value. We need to decrease ↓ the percentage of adults who smoke in order to meet or exceed the Target Value.

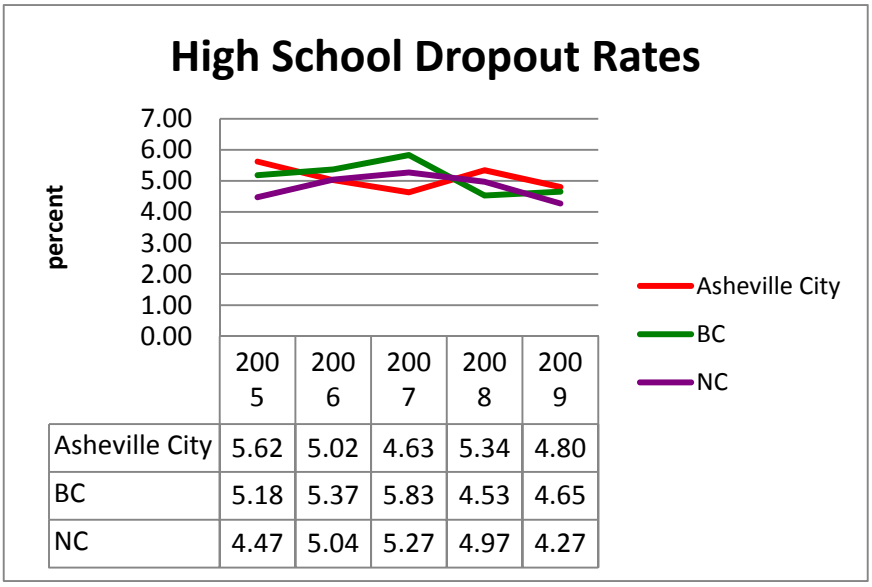
About the Buncombe Value
The Buncombe Value is calculated using multiple years of data to stabilize the data and offer a good "snapshot" of a particular health behavior. Health behaviors that are highlighted in **Red** are above ↑ the Target Value.

In this Section…

Find data from American Community Survey (census data) and other resources about factors that impact health outcomes.

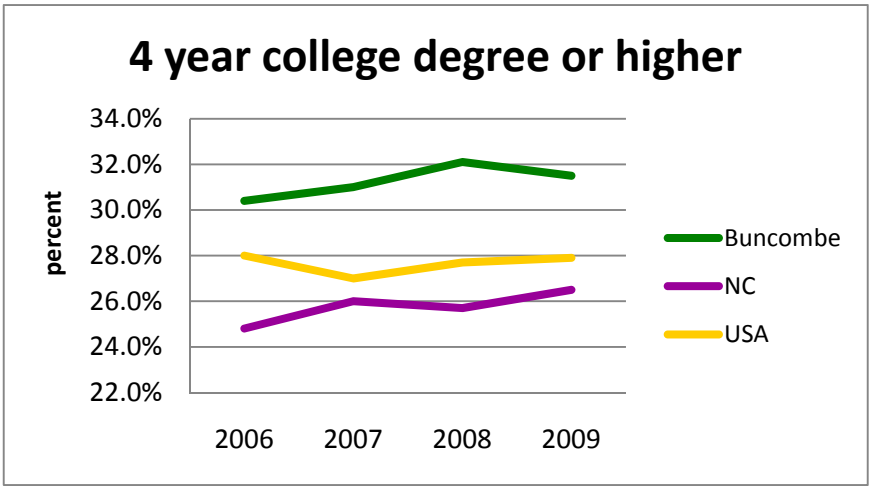
- **Income**
  - Income Inequality
  - Poverty
  - Unemployment
- **Other social factors**
  - Community Safety, Bullying
- **Education**
  - High school graduation
  - College attainment

Category Social and Economic	Educational Attainment
Indicators	% of students who started 9th grade but did not finish 12th grade; % of residents who have completed a 4 year college degree.
Why is this important?	A positive relationship exists between higher levels of education and better health. Higher educational levels often result in more opportunities for higher-paid employment and for jobs that offer health insurance. When economic times get tough, is it the workers with lowest levels of education who generally have the most difficulty securing and keeping employment. The financial security that often comes with higher education can expand the resources needed to make healthy choices.



	2005	2006	2007	2008	2009
Asheville City	5.62	5.02	4.63	5.34	4.80
BC	5.18	5.37	5.83	4.53	4.65
NC	4.47	5.04	5.27	4.97	4.27

NOTE : % of students who started 9th grade but did not finish 12th grade
Source: NC Dept of Public Instruction

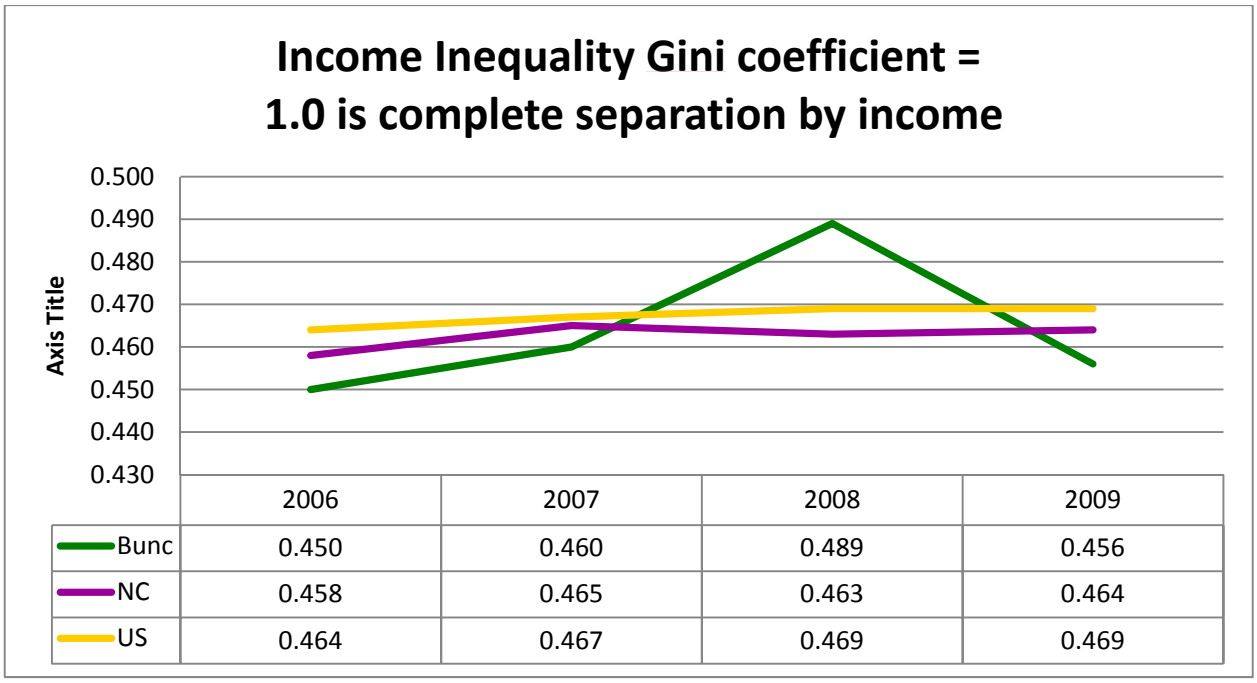


Source: American Community Survey

High school dropout rates have declined slightly in both the Buncombe County and Asheville City school districts during the last five years. Both of the local dropout rates, however, are slightly higher than the state average high school dropout rate.

Buncombe County residents are much more likely to have completed four-year college degrees than either North Carolina or US residents. However, a significant racial and ethnic disparity exists. Over 33% of White residents in Buncombe County have 4 year degrees compared to 12.7% of African American residents and 8.5% of Hispanic residents (US Census Bureau, 2009).

Category Social and Economic	Income Equality
Indicators	Gini coefficient
Why is this important?	Those communities with lower inequalities in income distribution tend to have healthier residents. In communities where income inequality is rising, the gap between the wealth of the rich and the poor is getting bigger.



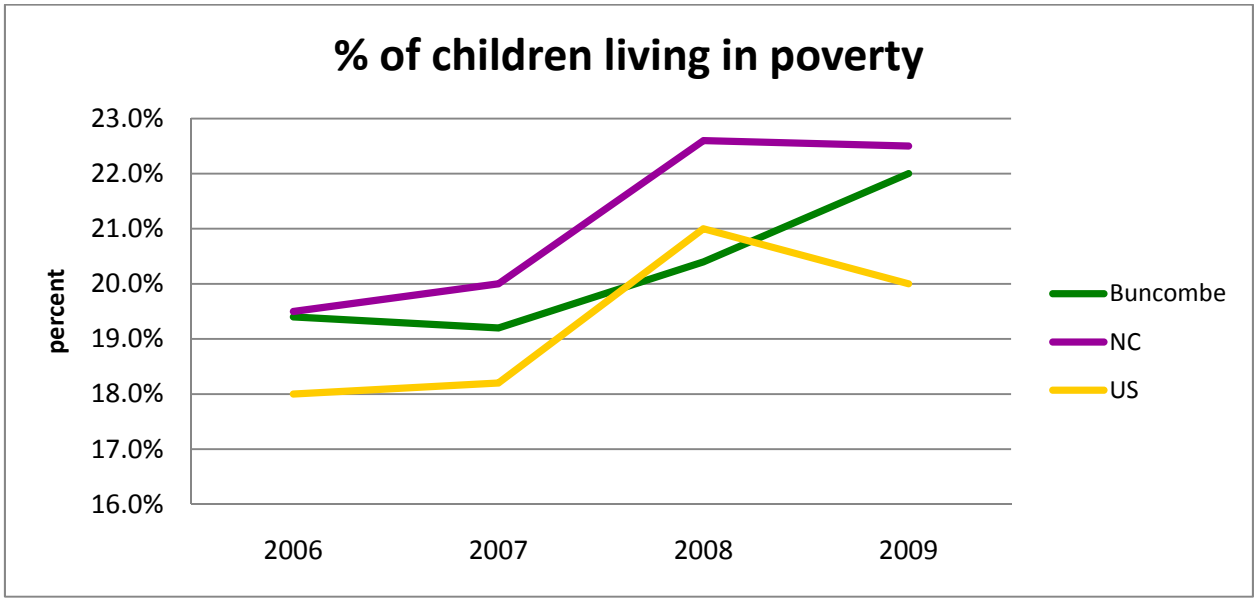
	2006	2007	2008	2009
Bunc	0.450	0.460	0.489	0.456
NC	0.458	0.465	0.463	0.464
US	0.464	0.467	0.469	0.469

Source: American Community Survey, US Census Bureau

The Gini Coefficient is the result of a mathematical formula that measures the distribution of income in a county, state, or country. A result of "0" would mean that every individual in the community had the exact same income or wealth (a complete distribution) while a result of 1 would mean that all of the income or wealth of the entire community would be held by one person (complete separation). If the coefficient rises, that means that wealth is more concentrated = the rich are getting richer and the poor are getting poorer.

The Gini Coefficient for Buncombe County fell dramatically in 2009 to a level lower than the state or national average. However, the Gini Coefficient has been on the rise throughout the nation for more than forty years – with the sharpest increases seen since 2000. The United States Gini coefficient has risen from the .3 range (1960 to approximately 2000) into the mid .4 range since 2000 (US Census Bureau).

Category Social and Economic	**Poverty**
Indicators	% of children living in poverty % of all residents living in poverty
Why is this important?	The poverty level is a reflection of a community's ability to meet the basic needs necessary to maintain health. Income and financial resources have long been understood as important to health, so that individuals can obtain health insurance, pay for medical care, afford healthy food, safe housing, and access to other basic goods, at least until a certain income threshold is achieved. If poverty were considered a cause of death in the U.S., it could be ranked among the top 10 causes of death. [MATCH County Rankings]

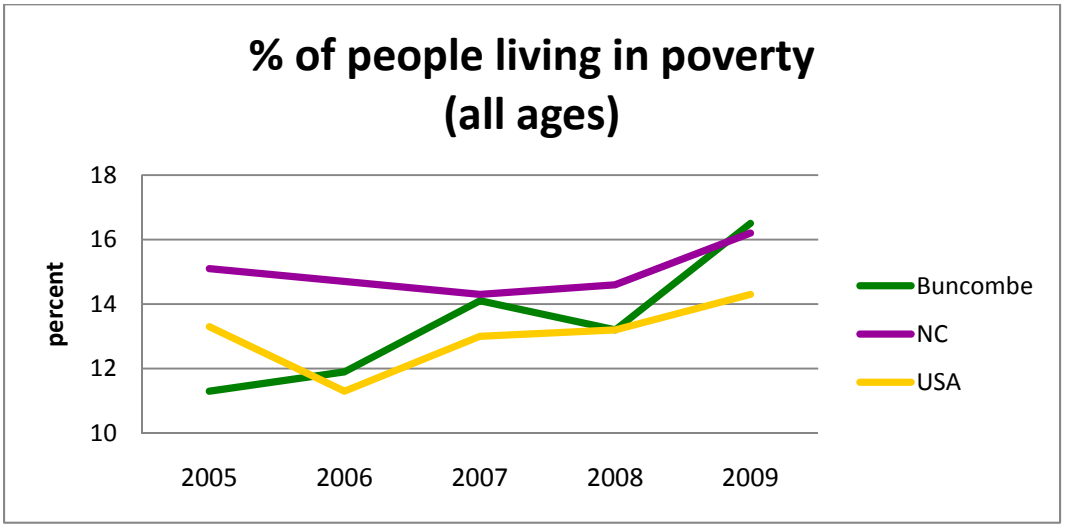


Source: American Community Survey

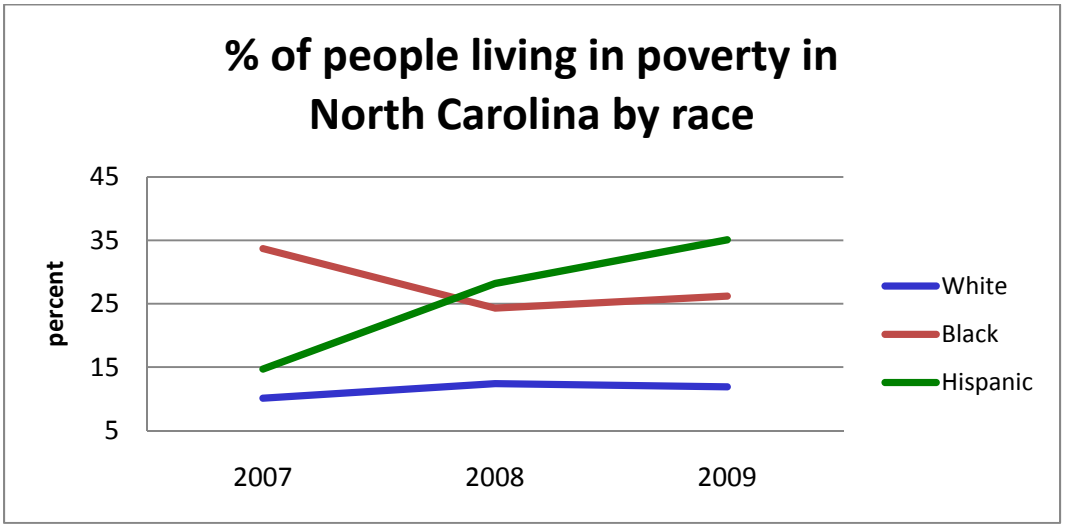
More than 1 out of every 5 Buncombe County children lives in poverty. The percent of children in poverty has been slowly rising for the past three years. Children who live in poverty often lack the basic necessities such as adequate food; stable, safe homes; or health care. Federal poverty level for 2010 is set at $22,050 a year for a family of four.

The federal poverty guidelines were originally developed in the early 1960s. The guideline was set as the cost of the US Department of Agriculture's economy food plan for three or more people and multiplied by three. The figures are adjusted each year to account for inflation.

Poverty



Source: American Community Survey



Source: American Community Survey

The percent of Buncombe County residents (all ages) living in poverty has risen significantly from 11% in 2005 to 16.5% in 2009. In particular, there was sharp increase from 13% in 2008 to 16.5% in 2009.

A significant disparity by race and ethnicity exists in poverty among North Carolina residents. While this data is not available from the US Census Bureau specifically for Buncombe County, the North Carolina numbers are an indication that a significant racial wealth divide exists in our state. In 2009, almost 1 in 8 white NC residents lived in poverty. Among African Americans, the number was over 1 in 4 and among Hispanics, the number was nearly 1 in 3.

Category Social and Economic	**Children in regulated childcare**
Indicators	Number of children in Buncombe County, number in regulated child care by quality
Why is this important?	Families and communities benefit when children attend regulated childcare during their preschool years. For Families: • Helps parents to work and attend school • Provides a safe setting for children • Having a good early childhood education experience helps children to be better prepared for school and contributes to being successful in language, math and social skills in school. For the Community: • The cost of child care subsidy services is offset by the working families' ability to pay taxes. • Parents with stable child care arrangements may be more focused on the job. • Receiving child care subsidy services offers children a chance to receive an early childhood education. This can lead to increased success in school and less costs to the community and state in terms of remedial services [NC Division of Child Development-DHHS]

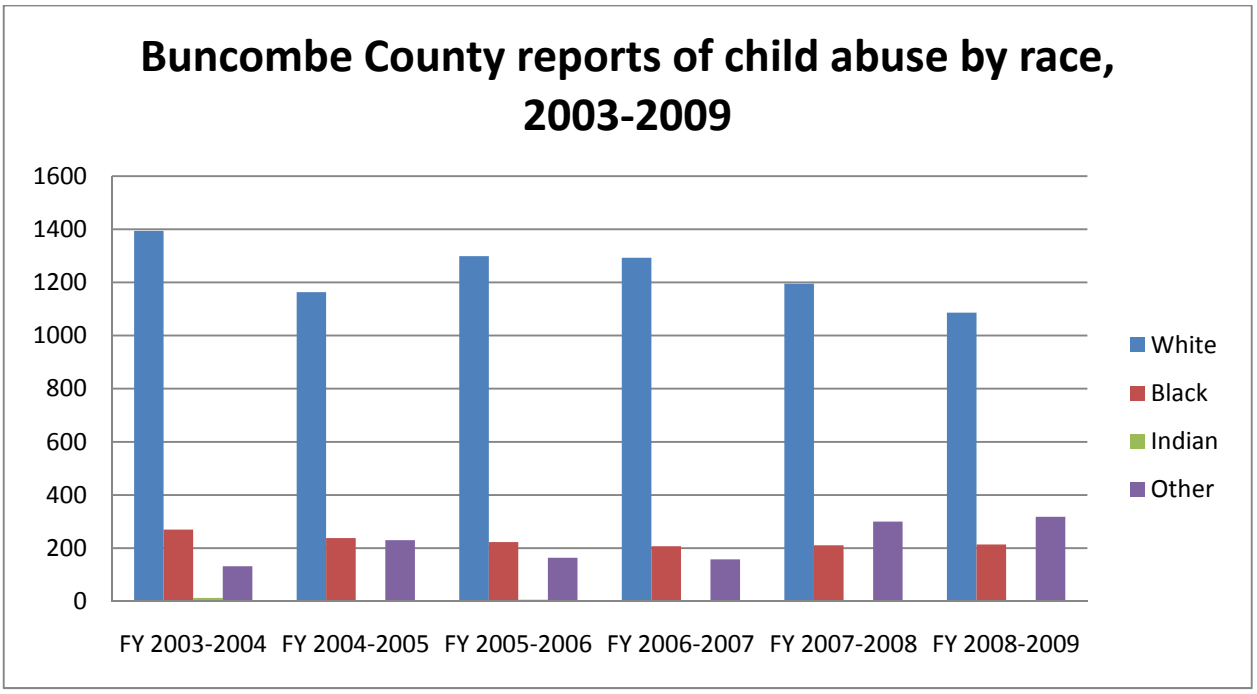
Children in childcare and childcare subsidies, 2009

	Number	Percent
Number of BC children age 0 to 5 **enrolled in regulated childcare**	**4,280**	**31%** of all Buncombe County children 0-5
Of 0 to 5 children in regulated care, **those in 4 or 5 star care**	**2,108**	**54.6 %** of all 0-5 children in regulated care
Of 0 to 5 year olds in regulated care, **children on child care subsidy**	**1,346**	**32.4%** of all 0-5 children in regulated care

Source: Children's First / Communities in Schools

Approximately 1 out of every 6 children in regulated childcare in Buncombe County is receiving a child care subsidy. Without this subsidy, parents or caregivers would likely not be able to return to work or school.

Category Social and Economic	Community Safety
Indicators	Child abuse reports, crime reports
Why is this important?	The health impacts of community safety are far-reaching, from the obvious impact of violence on the victim to the symptoms of post-traumatic stress disorder (PTSD) and psychological distress felt by those who are routinely exposed to violence. Community safety impacts various other health factors and outcomes as well, including birth weight, diet and exercise, and family and social support. [MATCH County Rankings]



Source: North Carolina Child Welfare Division

There has been a 10% reduction in reports of child abuse in Buncombe County over the past six years from 1,809 total reports in 2003-2004 to 1,619 in 2008-2009. This reduction in total number of child abuse reports came even though the percent of Buncombe County residents under age 18 rose more than 3% between 2000 and 2009 (US Census Bureau).

Community Safety

Crime Data for Buncombe County

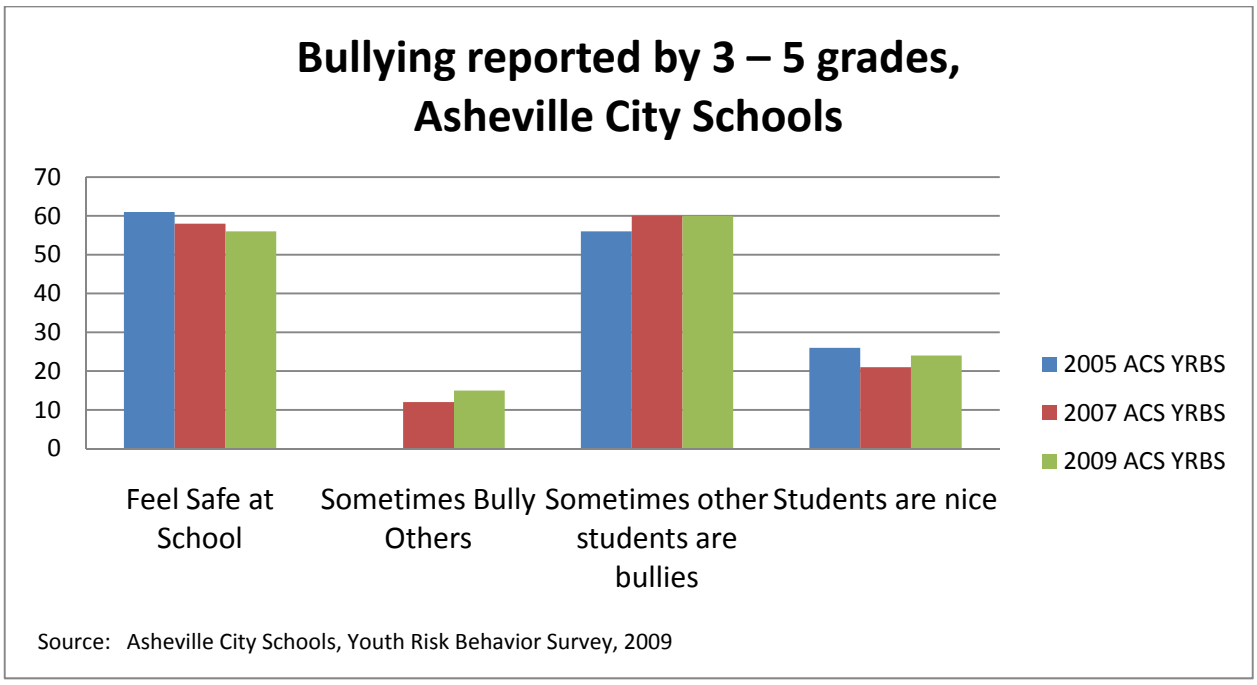
Year	Total	Murder	Rape	Robbery	Assault	Burglary	Larceny	MV Theft
2004	8,967	7	52	296	307	2,299	5,181	825
2005	8,893	7	33	262	315	2,082	5,278	916
2006	8,027	5	68	267	399	1,997	4,537	754
2007	7,993	16	48	267	445	2,070	4,489	658
2008	7,944	7	59	308	449	1,890	4,576	655
2009	6,842	7	46	216	339	1,792	3,962	480

Source: Unified Crime Report, NC State Bureau of Investigation

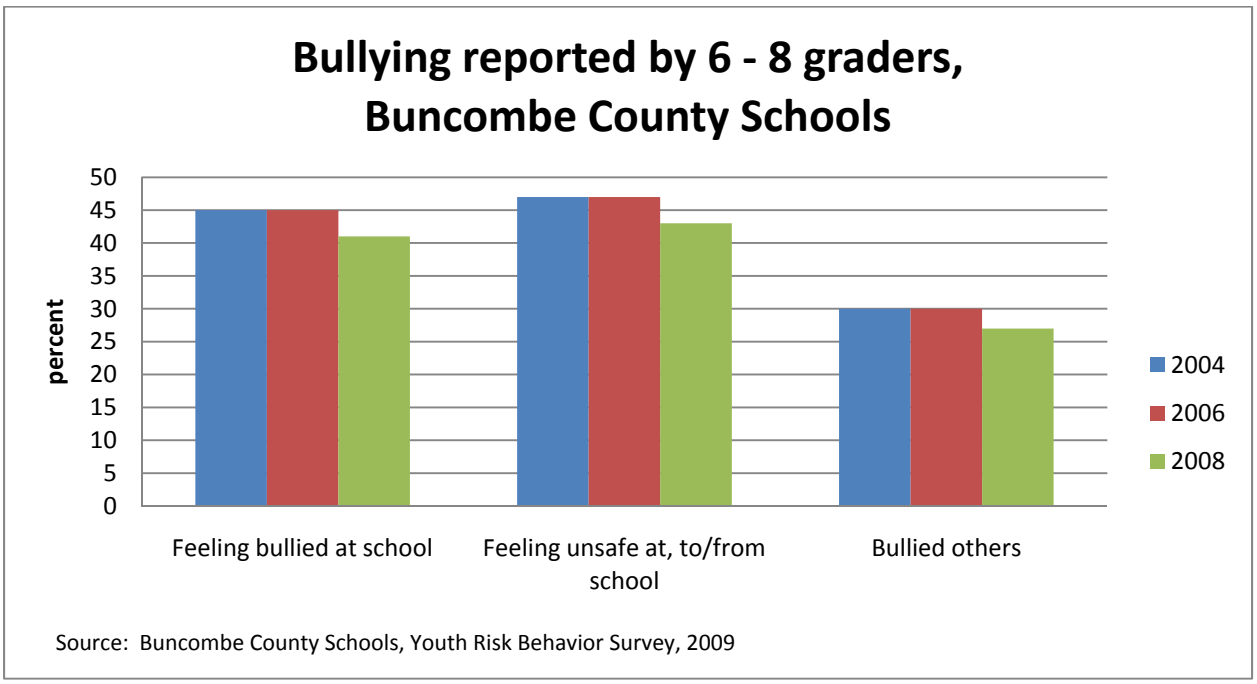
Buncombe County has experienced a 30% reduction in reported violent and serious crime over the last six years. The largest drops were in burglaries, larcenies, and motor vehicle thefts. Assaults dropped significantly in 2009 compared to 2008 and 2007. Keep in mind that rapes are notoriously under-reported.

The Unified Crime Report includes data shared by entities including both the Buncombe County Sherriff and the Asheville City Police Department.

Community Safety



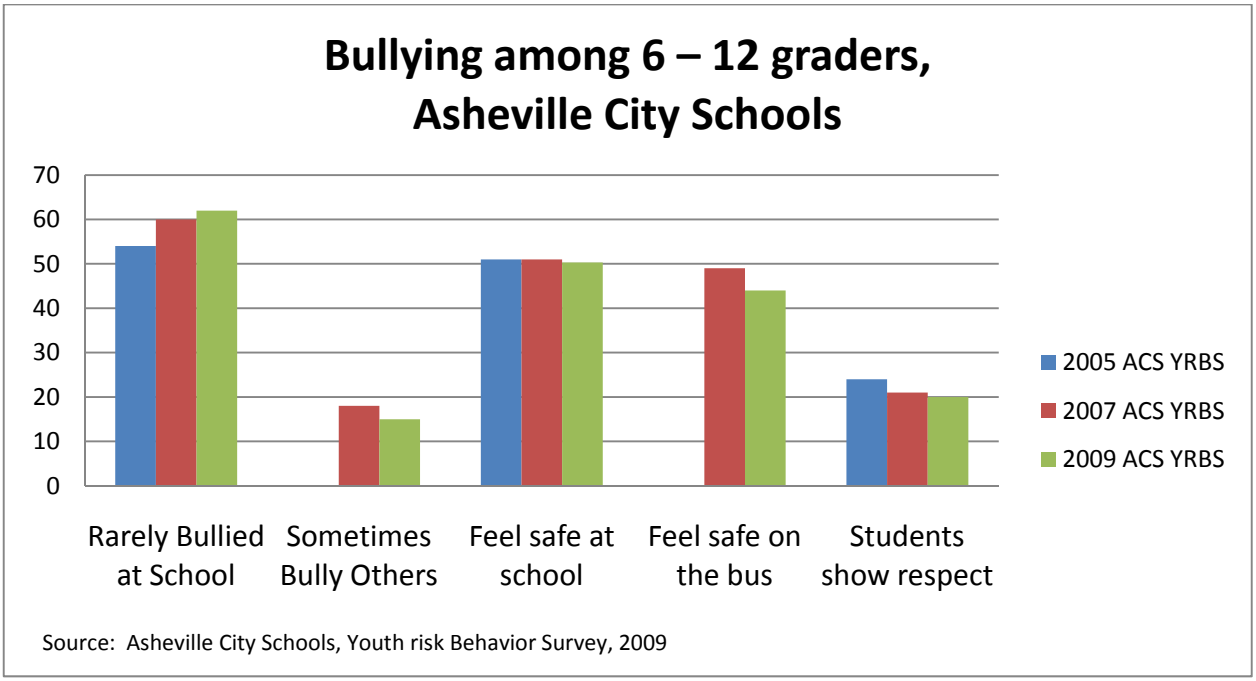
Source: Asheville City Schools, Youth Risk Behavior Survey, 2009



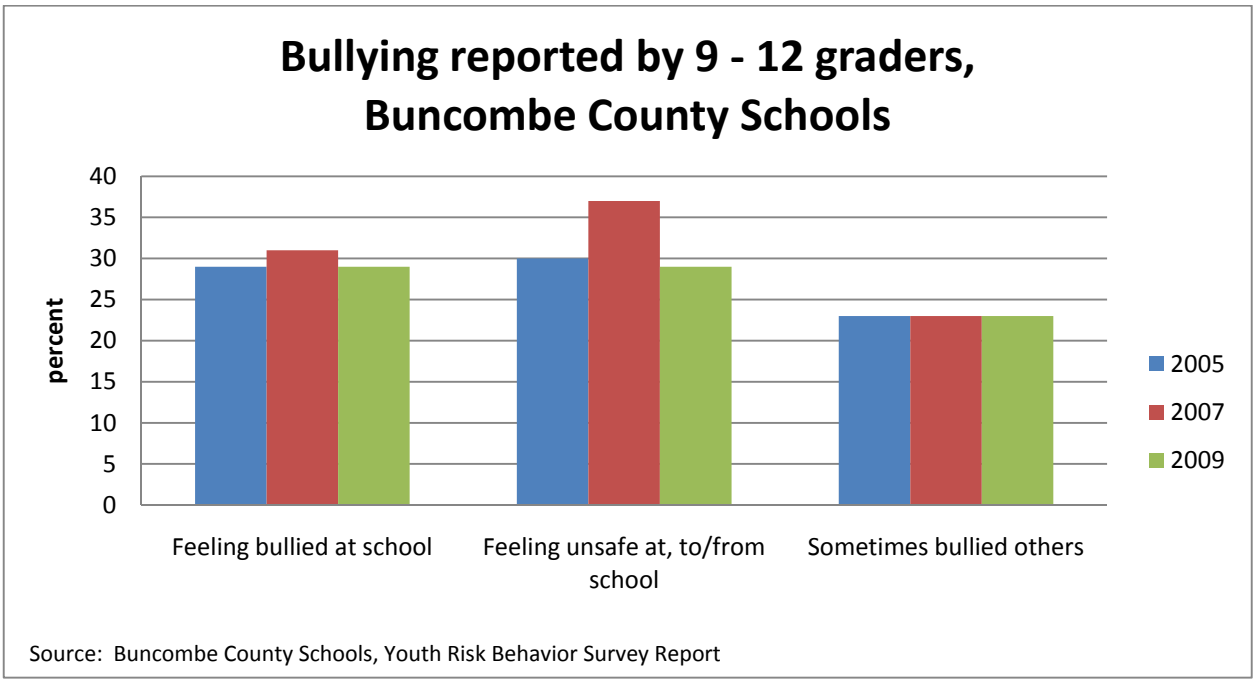
Source: Buncombe County Schools, Youth Risk Behavior Survey, 2009

Reports of bullying in both the Asheville City schools and the Buncombe County schools are wide spread. In Asheville City elementary schools, for example, nearly 45% of 3rd-5th graders responded that they do not feel safe at school. Buncombe County schools saw a slight improvement in the number of students in middle school who reported that they feel bullied (drop from 45% to 40%).

Community Safety



Source: Asheville City Schools, Youth risk Behavior Survey, 2009



Source: Buncombe County Schools, Youth Risk Behavior Survey Report

Only 50% of Asheville City schools students, in 6th to 12th grades, report feeling safe at school. In Buncombe County schools, there is a significant drop in those who feel bullied during middle school (40%) compared to those who feel bullied in high school (less than 30%.) In the County schools, more than 1 in 4 middle and high schools students surveyed report that they sometimes bully others. In the City schools, that number was slightly higher than 15%.

Summary of Findings

What does the data tell us?

Secondary data regarding social and economic factors highlights:

- Buncombe County children are sometimes facing challenging situations. The percentage of children in poverty has been steadily increasing in our community over the last few years and is now above the national average, though is still lower than for NC state-wide. About half of students surveyed in upper elementary grades and in middle schools report that they do not feel safe.
- The income gap grew significantly between 2007 and 2008, but then corrected sharply in 2009. We will continue to monitor this metric in future years to determine whether or the gap continues to widen.
- **Community safety has greatly improved in recent years**. Reports of child abuse are down 10% in the past six years and report of violent or serious crime is down 30% in the same time period. Living in neighborhoods where people feel safe is a key component of their ability to make healthy choices such as going out for walks or taking their children out to play in local playgrounds.
- We do continue to see a marked racial and ethnic separation of educational attainment, employment, and poverty. Buncombe County's African American and Hispanic residents are less likely to earn a 4 year college degree, remain employed, and to make it out of poverty.

What do people care about?

- Health opinion survey results clearly believe that all residents should have opportunity to make healthy choices.

Do social and economic factors really matter to heath? YES.

- In a recent analysis, those North Carolina counties with good scores on the Social and Economic measures in the MATCH County Health Rankings report were very likely to be counties that had low rates of death and disease. The correlation was very strong: much stronger than health behaviors and four times as strong as clinical care measures.

Where can I find more data about social and economic conditions that impact health?

The Robert Wood Johnson Foundation www.rwjf.org
2008 Documentary film entitled *"Unnatural Causes: Is Inequality Making Us Sick?"*

Health Factors | Physical Environment

MATCH – County Ranking Data (Mobilizing Action Toward Community Health)

2010 Snapshot of Physical Environment Factors that Impact Health Outcomes

MATCH - Buncombe County	Buncombe Value	NC Value	Target Value	
Physical Environment NC Rank 13th Healthiest				
Air pollution-particulate matter days [25]	0	1	0	=
Air pollution-ozone days [26]	6	4	0	=
Access to healthy foods [27]	58%	45%	69%	↑
Liquor store density [28]	0.5	0.6	0.2	↓

Source URL: http://www.countyhealthrankings.org/north-carolina/buncombe

About the Target Value

The arrows help us know whether we should be higher or lower than the targeted value in order to improve health. For example, when looking at Adult Smoking, the Buncombe Value is higher than the Target Value. We need to decrease ↓ the percentage of adults who smoke in order to meet or exceed the Target Value.

About the Buncombe Value

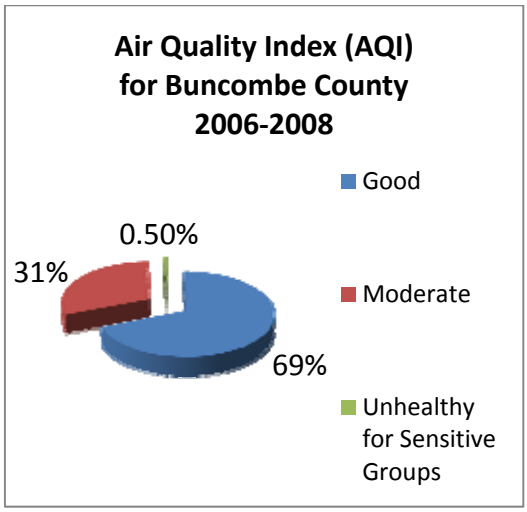
The Buncombe Value is calculated using multiple years of data to stabilize the data and offer a good "snapshot" of a particular health behavior. Health behaviors that are highlighted in **Red** are above ↑ the Target Value.

In this Section…

Find data from resources about physical environment factors that impact health outcomes.

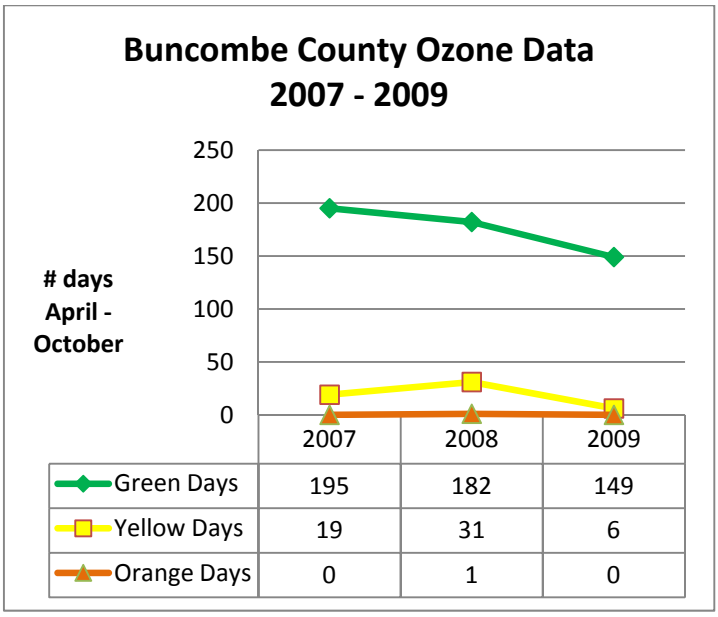
- **Air Quality**
- **Water Quality**
- **Food Safety**
  - Website for current Restaurant Inspection Ratings
- **Environment (built environment)**
  - Access to Healthy Food – web-based Map
  - Access to Physical Activity – web-based Map

Category Physical Environment	**Air Quality**
Indicators	Air Quality Index, Ozone days
Why is this important?	The negative consequences of ambient air pollution include decreased lung function, chronic bronchitis, asthma, and other adverse pulmonary effects. Exposure to excess levels of ozone or fine particulate matter are correlated with an increase in hospital emergency room visits and hospitalizations among asthmatics and others with compromised respiratory function. Increases in these pollutants are associated with greater risk of death due to cardiopulmonary and cardiovascular conditions and ischemic heart disease. All-cause mortality also is associated with greater concentrations of ozone and fine particulate matter. [MATCH County Ranking]



Source: www.wncairquality.org

NOTE: There were 0 number of Unhealthy Days reported during this period of time.



Source: www.wncairquality.org

Air Quality Index rating was "good" slightly more than 2 out of 3 days. When compared to nearby cities, Asheville's number of "good" days compares more favorably (Atlanta - 36%, Chattanooga – 52%, Charlotte – 45%). Ozone causes health problems, especially for people with asthma and respiratory problems and also for children and workers who are active outside during the months of April through October when ozone levels may be elevated. In 2009 the number of days with elevated ozone was less than in the previous two years, possibly linked to fewer hot and humid days. The number of elevated ozone days has increased significantly since the 1990's due to increased pollution.

Category Physical Environment	**Water Quality**
Indicators	Number of inspections
Why is this important?	Adequate environmental quality in terms of good air and water quality are prerequisites for good health. Poor air or water quality can be particularly detrimental to the very young, the old, and those with chronic health conditions. [MATCH County Ranking] Giardia and cryptosporidium are pathogens that have been found occasionally in public-water supplies and have caused illness in a large number of people in a few locations. Pathogens can enter our water from leaking septic tanks, wastewater-treatment discharge, and animal wastes. [USGS Water-Quality Information] Chemicals such as pharmaceutical drugs, dry-cleaning solvents, and gasoline that are used in urban and industrial activities, have been found in streams and ground water. After decades of use, pesticides are now widespread in streams and ground water, though they rarely exceed the existing standards and guidelines established to protect human health. Some pesticides have not been used for 20 to 30 years, but they are still detected in fish and streambed sediment at levels that pose a potential risk to human health, aquatic life, and fish-eating wildlife. [USGS Water-Quality Information]

The Buncombe County Department of Health's Division of Environmental Health is responsible for septic permitting in the County. Correctly installed septic systems protect public health by preventing groundwater contamination resulting from improperly treated wastewater and sewage discharges to the surface of the ground.

In FY 2009 – 2010, Environmental Health Services provided the following services to county residents to assure safe well water and proper disposal and treatment of wastewater.

- 3,500 well inspection services, ranging from well sitting and evaluation to well abandonment and water sampling.
- 5,600 on-site septic system inspection services, including new, existing and repair permits.

Category Physical Environment	**Food Safety**
Indicators	Inspections at restaurants
Why is this important?	Unsafe food causes many acute and life-long diseases, ranging from diarrheal diseases to various forms of cancer. World Health Organization estimates that foodborne and waterborne diarrheal diseases taken together kill, worldwide, about 2.2 million people annually, 1.9 million of them children. (World Health Organization) Food poisoning or foodborne illness can affect anyone who eats food contaminated by bacteria, viruses, parasites, toxins, or other substances. But, certain groups of people are more susceptible to foodborne illness (pregnant women, older adults, those with chronic disease and weakened immune systems) Harmful bacteria are the most common cause of food poisoning, but other causes include viruses, parasites, toxins, and contaminants. The bacteria and viruses most frequently associated with food poisoning cases in the United States are: Salmonella, Vibrio Infections, Botulism, Listeria, Norovirus (Norwalk Virus), Hepatitis A, E. coli, B. cereus, Campylobacter, Staphylococcus. [FoodSafety.gov]

The Buncombe County Department of Health's Environmental Health Division is charged with enforcing North Carolina laws and rules to safeguard health and protect the environment in Buncombe County. Inspectors are required to regulate restaurants, motel/hotels, food stands, and day care centers to insure safe handling and preparation of food. They also investigate food poisoning outbreaks.

To find current inspection results online, go to: http://buncombe.digitalhealthdepartment.com/

In FY2009-2010, Environmental Health services provided the following services to Buncombe County residents to assure safe handling, preparation and serving of food:

- Restaurant inspections are 52.75 % of required annual inspections. This drop compared to FY 2004-05 is due to the change to a risk-based frequency inspection rate that began July 2007.
- As of September 30, 2010 the inspection compliance rate was 98.85%.

Category Physical Environment	Environment (and Built Environment)
Indicators	Lead screening in children
Why is this important?	**Lead poisoning** is one of the most common public health problems for children. According to the Centers for Disease Control and Prevention (CDC), lead poisoning also remains the foremost preventable disease of childhood. Early detection of blood lead levels can prevent brain damage and harm to other organs. [CDC; and Lead Poisoning Prevention Project] **Built environment:** The variety, price, and availability of healthy foods in the local environment can play a role in which foods are consumed. Likewise, the availability of liquor may influence alcohol-related behaviors and health outcomes. [MATCH County Ranking Report]

Lead Screening, Inspections and Training is offered to Buncombe residents through a partnership with the Lead Poisoning Prevention Project (LPPP), Warren Wilson College and Buncombe County Department of Health. Children, ages 1 and 2, should be screened by their doctor and if risk factors exist, children up to age 6 may be screened annually. Depending on the results of the screening, families and children may receive additional testing and services. Blood lead levels are measured in micrograms per deciliter (m g/dl). Blood lead levels are currently classified as:

5-9 mg/dl = early detection
10-19 mg/dl = elevated, state action level
20 mg/dl + = poisoned

2009 NC Childhood Blood Lead Surveillance Data

	Ages 1 and 2 Year Tested for Lead Poisoning					Ages 6 months to 6 Years		
	# Target	# Tested	% Tested	# Lead >10	% Lead >10	# tested	Confirmed 10-19m g/dl	≥20 m g/dl
Buncombe County	**5,602**	**3,325**	**59.4**	**8**	**0.2**	**3,994**	**1**	**0**
North Carolina	261,644	129,262	49.4	581	0.4	160,558	143	38

In 2009, 59.4% of children ages 1 or 2 were screened for elevated blood levels. Eight children were identified with levels greater than 10 mg/dl, and were referred to LPPP for follow-up testing in their homes and extra assistance and education to reduce the child's exposure to lead. LPPP provides family education, training for professionals exposed to lead, home builders and others in order to prevent lead exposure especially focusing on young children and pregnant women.

For more lead information: http://www.warren-wilson.edu/~lpp/

Strategic Innovation – the Healthy Living project

In the spring of 2008, Health Partners hosted an Obesity Summit to bring various community partner organizations together and jointly seek solutions to the developing obesity crisis in our community. The Department of Health facilitated a collaborative City / County government workshop of local leaders focusing on reducing obesity later that same year. One frustration expressed at both of these sessions was that organizational responses to obesity were so varied and complex, it was very challenging for any group trying to have an impact to actually stay connected to all of the different initiatives. The Obesity Summit participants called for some kind of understanding of what all the obesity prevention resources were. Organizational representatives sought some sort of connection to other groups so that they could create innovative partnerships, reduce duplication, and enhance their impact. These two obesity workshops in 2008 laid the groundwork for what became the Healthy Living Strategy Team in 2009 and the Healthy Living Network in 2010.

In October 2009, the Buncombe County Department of Health began to look closely at a strategy that might bring together the many obesity reduction efforts in the County around a shared plan. The purpose was to maximize the resources and energy necessary to achieve short and long-term health impact.

Strategy Team

From fall 2009 to spring 2010, a small group of volunteers invested significant time and energy learning and testing out a different way of conducting long-term problem solving. The Department of Health and Health Partners engaged Doc Klein, founder and CEO of Uncharted Territories, a national systems analysis consulting firm based in Asheville, to lead this work. Klein led the Strategy Team through a six month interactive process to identify all of the key pieces or systems that play a role it whether or not community members became overweight or obese. The group took a holistic approach by using a discipline called systems thinking to step back and see the whole system and test assumptions about what combination of interventions were necessary to achieve results. An organizational development grant was secured from the Community Foundation of Western North Carolina in late 2009 that enabled Klein to transition from a volunteer to a paid consultant. See Attachment A for a listing of Strategy Team members.

A number of key points emerged from this work based on both experience and the current the evidence-base:

(1) Throughout American, our current approaches to weight loss management have had minimal impact in sustaining weight loss beyond the initial program time period

(2) The focus on relieving obesity as a problem often creates shame and self-loathing for those whom were labeled obese, thus minimizing the desired actions
(3) All populations can benefit from the behaviors that promote healthy weights
(4) Healthy weights are influenced directly by caloric balance, which focused on type and quantity of calories into the body (inputs), how calories were burned (outputs) and the physiology of body.
(5) A wide range of drivers or root causes influence caloric balance, such as the cultural choices around food and physical activity, the built environment, food production and costs, the amount of physical activity in the workplace/school environments, life stage, etc.

It should be noted that our surveillance system is not currently designed to measure all the things we feel are important to measure, but it was critical to create the story that we wished to grow into versus simply measure the things that were easy to measure as our goals.

The Healthy Living Strategy Team dedicated six months in 2009 and 2010 to understanding all of the pieces of Buncombe County life that impact a person's opportunities to make healthy choices. The Strategy Team turned away from the common tasks of identifying problems and looking for relatively quick solutions. Instead, the Healthy Living project focused on using health systems analysis to really understand why people make the decisions they do about activity and food. Only after the team could "see the whole system" would the Network begin the strategic work of changing the context of our community so that more people would have health choices available and would be able to take advantage of those opportunities.

Midway through the process, the group made an intentional decision to shift from ***organizing their efforts to react to the problem*** (obesity) to ***focusing their attention on creating the good health they were striving towards***. In addition, based on input from wellness coaches and nutritionists, the Strategy Team changed to a process that would strive to create a community where all residents could live a healthy life – and not to simply focus on weight. The effort was re-named the Healthy Living project.

These insights emerged from our systems thinking approaches and were eventually translated into a map that allowed our stakeholders to see the bigger picture before diving into action. In addition to healthy weights, the map includes the outcomes of emotional and physical wellbeing, productivity, and body-fat to muscle ratios. The map also includes a visual of all the key drivers or root causes that influence the inputs and outputs of caloric balance and eventually the health outcomes. Many of these drivers already have various organizations engaged in finding solutions. The map is available on the Department of Health website at www.buncombecounty.org

The Healthy Living Network

Once the Strategy Team had identified all of the key actors in the system that enable community members to make healthy choices about being active and eating well, the Department of Health and Health Partners sought to engage partners and community members in the longer-term work of making system changes a reality. The Strategy Team conceived of creating a network that would serve to:

- Create new opportunities or expand existing ones so that residents could eat smart, move more, and live better.
- Connect partners and community members in creative ways to take action that improves physical activity and healthy eating.
- Keep us all connected to the "big picture" of how our various activities can collectively move us toward a more healthy community.
- Break down silos that stifle innovation, keep us focused on our own turf, and lead to duplication of efforts and services.
- Measure health and well-being outcomes for decades to come. Celebrate our successes and make changes when needed.

The Healthy Living Network is essentially an experiment in trying to create a healthy living movement by focusing efforts in the community in a concerted way, while still allowing those who have diverse interests to be involved.

It is also clear that duplication of services sometimes creates a competitive atmosphere concerning funding and resources. The Healthy Living Network will hopefully direct stakeholders to thinking deeply about what contributions are needed and foster a spirit of cooperation towards our desired health goals.

Lastly, any new networks that emerge to address specific areas of need must coordinate their efforts in order to succeed. The Healthy Living Network is a starting place for building Buncombe County's public health capacity and tapping into the many diverse gifts and talents of its residents and organizations.

The Healthy Living Network was launched at a Healthy Living Summit in April of 2010. Over 90 participants spent the day learning about health systems analysis, coming to understand the map of the Healthy Living System that the Strategy Team had created, and identifying which piece of the system each of them wanted to focus on improving. The Summit was designed to harness the energy organizational partners already had around addressing and improving different pieces of the system. By the end of the day, seven specific system issues had been identified and small group brainstorming had begun. Groups were charged with continuing to gather, defining what specific system change innovations they would promote, and beginning to align their work so that these innovations could be implemented and succeed.

Defining leverage

The key task of the Healthy Living Network is find ways to achieve systems changes that will enable more Buncombe County residents to lead healthy, high-quality lives. It is NOT to create more programs and services. One key learning of health systems analysis is to identify and focus on leverage points. Points of leverage are those specific actions, policies, or experiments that offer an opportunity to create system changes that will have broad impact. One of the Healthy Living Network teams took on the task of creating a set of criteria to define "leverage" in the Buncombe County Healthy Living context. Five criteria to use when considering which actions to be taken were identified. The criteria are:

- Is the action doable?
- What is the scope and scale of impact?
- Is it equitable?
- Is there ripeness of opportunity?
- Do local assets exist to make this action materialize?

See Appendix D to review the Leverage Equation that all teams in the Network now use when selecting a specific system change to focus on. If the proposed action does not address each and every one of these questions, it will not be selected to move forward.

Healthy Living Network Teams

Seven teams were created at the Healthy Living Summit in April 2010 to address causes or "drivers" of healthy living in Buncombe County. We are fortunate in Buncombe County to have many talented individuals and organizations working to address health and wellness. However, these efforts are often fragmented and duplication of effort is common. The goal of the Healthy Living Network is help make connections so that across the community, we can work smarter, reduce duplication of effort, identify key partners and better address critical gaps.

To date, the seven teams created the day of the Healthy Living Summit have had varying levels of success. A key lesson learned is that fostering the work and impact of the teams requires on-going staffing and cultivation.

The Physical Activity Team

The Healthy Living Network Physical Activity Team was formed to develop a strategy to increase physical activity in Buncombe County. The team has chosen to do this by creating a communication and encouragement strategy that will roll out in one neighborhood as a pilot project in 2011. Key goals are:

- To increase the awareness in communities of the many existing parks, open spaces and greenways nearby for physical activity and
- To provide support to engage community members and encourage them to use these spaces.

Initially, a single neighborhood or area will be identified and will receive focused attention. We then hope this approach can be replicated across the county in both rural and urban areas.

The Opportunities for Physical Activity – Built Environment Team

The Healthy Living Network Built Environment Team was formed to develop a strategy to create opportunities for physical activity through policy and environmental change strategies. Streets designed

solely for the automobile deny people the opportunity to choose more active ways to get around, such as walking and biking. *Complete streets policies* ensure that transportation planners and engineers consider all users in transportation design - including bicyclists, pedestrians of all ages and abilities as well as public transportation users. This team has chosen to address this by providing support to Buncombe County municipalities to enact *Complete Streets Policies*.

Access to Whole, Healthy Foods Team
This team was created to develop a strategy to improve community-wide nutrition by increasing access to whole, healthy foods. The team was challenged with multiple scheduling issues after the April Summit. Several strategies are currently being explored with individual organizations and we anticipate forming a team in early 2011.

Nutrition Team
This team was created to develop a strategy that would encourage Buncombe County residents to consider altering the way they eat and to include more fresh, whole foods in their diet. To date, team members have been exploring strategies for supporting gardening as an activity that allows community members to grown their own healthy food.

Health Systems Team
This team was formed to develop a strategy that would promote a systemic integration of encouragement of physical activity and good nutrition into clinical medical encounters. A number of health care providers have joined the team and team members are focusing on developing strategies that will:

1. Ensure that local child and adult focused medical practices include age-appropriate Body Mass Index calculations as a part of clinical visits, and
2. That health care providers actually consider the BMI when making recommendations to the patient.

Social and Economic Factors Team
After creating the leverage equation, members of this team have been unable to devote the time to continue their efforts.

Personal Motivation Team
This team was designed to focus on creating a strategy to offer standard best-practices concerning how to motivate and support community members, clients and patients to adopt health lifestyle behaviors. Due to scheduling challenges, this team is not far along in its deliberations.

Network Directory

A clear need emerged in the development of the Healthy Living Network to create a mechanism that would foster partnerships, enable community organizations to work together more efficiently, and to prevent duplication. The Healthy Living Network Directory being created will be an on-line tool that will address this need. It is important to note that this is not a directory of services, but a tool to enhance networking and strategic partnerships. The Directory is currently under development with an anticipated launch date in early 2011. This user-friendly electronic directory will be housed on the Buncombe County Department of Health website.

Data collection for the directory began with the Healthy Living Summit in April 2010 and has been promoted and circulated to organizations throughout the county. Currently, 74 organizations have created network profiles to be included in the directory. Organizations, volunteer groups, and institutions are able to create a profile and identify which of the topics and key words below relate to issues they are already working to address and/or would like to create new partnerships around.

The Directory will include the following focus areas with related key word search capability that will enable identification of more detailed information on the practice or service areas each organizations' addresses:

- **Nutrition / healthy food**. Keywords: Cost of Food, Amount of Food, Quality/Safety of Food, Food Production/Distribution, Healthy Eating Experience, Knowledge, and Skills
- **Opportunities to be physically active**. Keywords: Amount of Leisure Time, Access to Safe/Quality Places to Exercise, Parks and Green Spaces, Workplace Activity, Physical Activity Experience, Knowledge, and Skills
- **Individual behavior**. Keywords: Mindsets, Goal Setting/Assessment, Cultural Traditions, Stress/Sleep, Mental Health, Independent Living Skills
- **Health systems**. Keywords: Outpatient Education and Support, Health Promotion, Health Care and Prevention Capacity, Access and Coordination of Care, Costs and Quality of Care
- **Community context / social and economic factors**. Keywords: Graduation Levels, Educational Attainment, Built Environment, Family/Community Support, Housing, Livable Wage, Income Stability, Equal Opportunity, Networks

Organizations also use their profile to further clarify the types of activities they are engaged in including:

- Education of individuals
- Community education and/or organizing
- Direct advocacy with leaders
- Teaching / coordinating advocacy efforts among community members/ clients
- Policy development
- Assistance to organizations
- Assistance to families
- Assistance to individuals
- Strategic partnership development
- Clinical services

When the Healthy Living Network Directory is created, it will be a tool that organizations as well as individual community members will be able to use to seek out new partners or organizations with similar interests. The Directory will allow a wide variety of groups and organizations to easily connect with each other and will bypass the current need for knowledgeable people to connect those they happen to know about who might like to try working together.

Healthy living opportunities web map

Though Buncombe County and its communities offer a wealth of opportunities to be active and to eat well, few residents or organizations are aware of all the supports for healthy living that already exist. The Department of Health and Health Partners brought together a team of GIS experts and health volunteers to create an on-line map application that could be used to connect residents with opportunities for being physically active and eating well. This team met for nine-months to create a prototype of the Buncombe County Healthy Living Opportunities Map.

The Map team brought together GIS experts, medical professionals, neighborhood advocates, and community volunteers. Together, this diverse group created an inventory of local resources that could be co-located in one web application. The map will be launched to the community in early 2011.

Current resources available on the map are:

- Sidewalks
- County and City Parks and all of the amenities in each park (so a resident can search only by tennis counts, or example or only by basketball courts)
- Greenways and trail networks
- Bike routes
- Full Service grocery stores and discount stores – provided through a research project of the UNC Asheville Department of Health and Wellness. Students and interns surveyed over 50 local grocery stores using the Nutritional Environments Monitoring Survey, a tool available from the Centers for Disease Control and Prevention. The survey instrument provides a score for grocery stores based on the fruits and vegetables they have available and also assesses the availability of low fat or healthier options to common items such as milk, hot dogs, soda, and bread.
- Farmers markers and tailgate markets
- Bus routes and Mountain Mobility routes

Additional layers to be added include:

- Food bank food distribution sites
- Community Gardens
- If volunteer labor can be identified, UNC Asheville is interested in implementing the Convenience Store version of the Nutritional Environments Monitoring Survey in 2011 or 2012.

A training session will be developed and offered to local medical practices, non-profit organization, and employers so they can engage their patients, clients and employees in using the map to link to local resources for being active and eating well.

Summary and Next Steps

Hundreds of organizations and community residents have taken part in various pieces of the Community Healthy Assessment over the past eighteen months. Their ideas and input have been woven into the six priorities identified by the Steering Committee.

Now that the assessment is complete, the real work of identifying strategic action to create change will begin. The Department of Health and Health Partners ran a test of the strategic action process through late 2009 and 2010 with the Healthy Living planning process and the Healthy Living Network. That effort will continue to grow in the years ahead. Additional efforts to address some of the other five health priorities are underway in Buncombe County. Before action planning around those priorities begins, the Department of Health will be strategic about investigating and aligning with other local efforts so that maximum impact can be achieved.

The Department of Health is now in the process of reorganizing its assessment process so that on-going monitoring and facilitation of community health outcomes becomes a significant piece of the service it offers. Beginning in early 2011, the Department of Health will facilitate the creation of a Community Health Scorecard. Such a scorecard can become a tool that many partner organizations can contribute to and use to assess community health improvement

Appendices

A. Community Engagement & Leadership

B. Local Health Survey

C. Health Opinion Survey

D. Strategic Innovation – the Healthy Living project

E. Staff and Consultants

F. Survey Tools

Appendix A:

Community Engagement & Leadership

Health Partners volunteers and organizational representatives

Danielle	Arias	ARP
Melissa	Baker	Community volunteer
Amanda	Banks	Community volunteer
Amy	Barry	Smart Start of Buncombe County
David	Bennert	Innova Homes
Linda	Block	UNC Asheville
Greg	Borom	Children First
Debbie	Bryant	Buncombe County Schools
Van	Collins	Help Mate
Lucy	Crown	Buncombe County Parks and Recreation Services
Suzannah	Davis	Community volunteer
Shannon	Dowler	Community volunteer
Darcel	Eddins	The Bountiful Cities Project
Lesley	Edwards	Mission Hospital
Chris	Emory	Buncombe County Department of Health
Stephanie	Fredrick	Holistic Nurses Association
Jill	Fromewick	Summit Researchers
Dan	Garrett	Community volunteer
Kathie	Garbe	UNC Asheville
Sarah	Gayle	American Cancer Society
Althea	Gonzales	Buncombe County Medical Society
Belinda	Grant	Mt. Zion Community Development Corporation
Nelle	Gregory	Buncombe County Department of Health
Pete	Gretz	Community volunteer
Michael	Harney	WNC AIDS Project
Linda	Hemstreet	Mission Hospital
Cathy	Hohenstein	NC Cooperative Extension
Emily	Jackson	Appalachian Sustainable Agriculture Project
Joseph	Jones	Council on Aging
Karl	Katterjohn	Community volunteer
Ron	Katz	United Way
Kris	Kauffman	YMCA
Stephanie	Kiser	Mission Hospital
Jane	Laping	UNC Cancer Center – Asheville office
Libby	Libner	Access II Care
Trish	Mahoney	Sisters of Mercy Foundation
Barbara	Marlowe	Mission Hospital
Wendy	Marsh	Council on Aging
Paula	Massey	Community volunteer
Destiny	Mattson	City of Asheville

Jo	McGill	Buncombe County
Jean	McGuire	WCU - Nursing Department
Barb	Mee	City of Asheville - Transportation Dept
Julie	Montanea	Buncombe County Department of Health
Richard	Oliver	Board of Health
Leigh	Pettus	Feeding America
Beth	Reeves	ABCCM Medical Ministry
Elaine	Robinson	Asheville Buncombe Institute for Parity Achievement
Wendy	Sause	Buncombe County Council on Aging
Lynn	Scarbrough	Mission Hospital/Emma clinic
Miriam	Schwartz	Buncombe County Medical Society
Mary Beth	Schmid	Community volunteer
Brett	Sculthorp	ARP
April	Slagle	Buncombe County Schools
Sally	Smith	MAHEC
Susan	Sutherland	Mission Hospitals
Paul	Tax	Sisters of Mercy Urgent Care
Fran	Thigpen	Buncombe County Parks and Recreation Services
Jennifer	Tyner	Access II Care
Paul	Vest	YMCA
Ann	Von Brock	United Way
Jennifer	Wehe	Access II Care
Peter	Whelihan	Community volunteer

Healthy Living Strategy Team

Gibbie	Harris	Buncombe County Dept of Health, Health Partners Board
Holly	Jones	YWCA
Dan	Garrett	American Health Care, Health Partner Board
Ron	Katz	United Way of Asheville & Buncombe County
Susan	Mims	Medical Director, Mission Children's Hospital
Lynn	Scarbrough	Mission Hospital - Emma Clinic, Health Partners Board

Consultant:

Doc	Klein	Uncharted Territories

Staff:

Gaylen	Ehrlichman	Buncombe County Department of Health
J.	Nelson-Weaver	Health Partners

Community Health Assessment Steering Committee members

Tony Baldwin – Buncombe County Schools
Ron Bradford – Smart Start of Buncombe County
Tom Britton – Neil Dobins Center
Joan Brown – community resident
Debbie Bryant – Buncombe County School Health Education Coordinator
Tracey Buchanan – Care Partners
Ron Curran – WNCAP
Steve Duckett – NC Cooperative Extension
Hank Dunn – AB Tech Community College
Lance Edwards – United Way of Buncombe County
Don Farrow – Black Mountain Health Initiative
Carolyn Fryberger – Town of Black Mountain
Donita Flemming – Mission Hospital
Mike Goodson – Buncombe County Board of Health
Belinda Grant – Mt. Zion Community Development Center
Wanda Greene – Buncombe County Government - County Manager
Nelle Gregory – BC Dept of Health, School Health Advisory Council (co-Chair)
John Hayes – NAACP
Linda Hemstreet – Mission Hospital
Connie Jackson – Buncombe County Schools
Allen Johnson – Asheville City Schools
Tim Johnston – Sisters of Mercy Services Corporation
Holly Jones – YWCA, Buncombe County Commissioner
Allison Jordan – Children First
Stephanie Kiser – Mission Hospital
Christine Laucher – Youth Empowered Solutions & Question Y
Michael Leahey – Asheville HUB
Doris Loomis – Biltmore Forest Commissioner
Rick Lutovsky – Asheville Area Chamber of Commerce
Joesph Martinez – First, Inc.
David McClain – Buncombe County Board of Health
Bill McElrath – Buncombe County Board of Health
Joe McKinney – Land of Sky Regional Council
Mike Meyer – Black Mountain resident
Susan Mims – Mission Children's Hospital
Linda Morgan – Buncombe County Board of Health
Bill Murdock – Eblen Charities
Molly Nicholie – Asheville Sustainabile Agriculture Project (ASAP)
Claudia Nix – Liberty Bikes
Stephanie Novack – Wellness Council of America
Keith Ogden – Hill Street Baptist Church
Richard Oliver – Chair, Buncombe County Board of Health
Beth Palien – Asheville City Schools
Scott Parker – WNC Community Health Services
Teck Penland – MAHEC
Carol Peterson – Buncombe County Board of Health, County Commissioner
Jim Pitts – National Association for Mental Illness
Keith Ray – NC Center for Health & Wellness
L.C. Ray – One Youth at a Time
Elaine Robinson – Asheville Buncombe Institute of Parity Achievement (ABIPA)

Scott Rogers – Asheville Buncombe Community Christian Ministries
Kitty Schaller – MANNA FoodBank
Charlie Schoenheit – Western Highlands Network
Miriam Schwarz – Buncombe County Medical Society
Dottie Sherrill – Town of Weaverville
Mandy Stone – Buncombe County Government - Asst County Manager & DSS Director
Mary Bett Stoud – Town of Weaverville
Susan Sutherland – Mission Hospital
Susanne Swanger – Buncombe County Board of Health
Fran Thigpen – Buncombe County Government - Child Care Services, Parks & Rec
Jennifer Tyner – Access II Care
Jerry Vehaun – Woodfin Mayor, Buncombe County Emergency Services
Paul Vest – YMCA
Nancy Walker – City of Asheville
Jennifer Wehe – Access II Care
John Whitner – Board of Health
Jason Young – Town of Woodfin
Winnie Ziegler – Board of Health

Healthy Living Opportunities map development team members

Alex	Livingston	UNCA student
Bob	White	CDS, Inc
Brett	Sculthorp	ARP
Danitza	Earls	Buncombe County
Doc	Klein	Uncharted Territories
Eugene	Hume	Buncombe County
Jason	Mann	Edan Engineering
Jessie	Lane	UNCA student
Jim	Pitts	National Association of Mental Illness
John	Wood	UNCA
Julie	Montanea	Buncombe County
Lucy	Crown	Buncombe County
Marsha	Stickford	City of Asheville
Neil	Thomas	Resource Data, Inc
Richard	Hudspeth	Access II Care
Scott	Barnwell	City of Asheville
Vicki	Magnis	Buncombe County

Appendix B.

Local Health Survey - Methodology

Selecting the survey questions

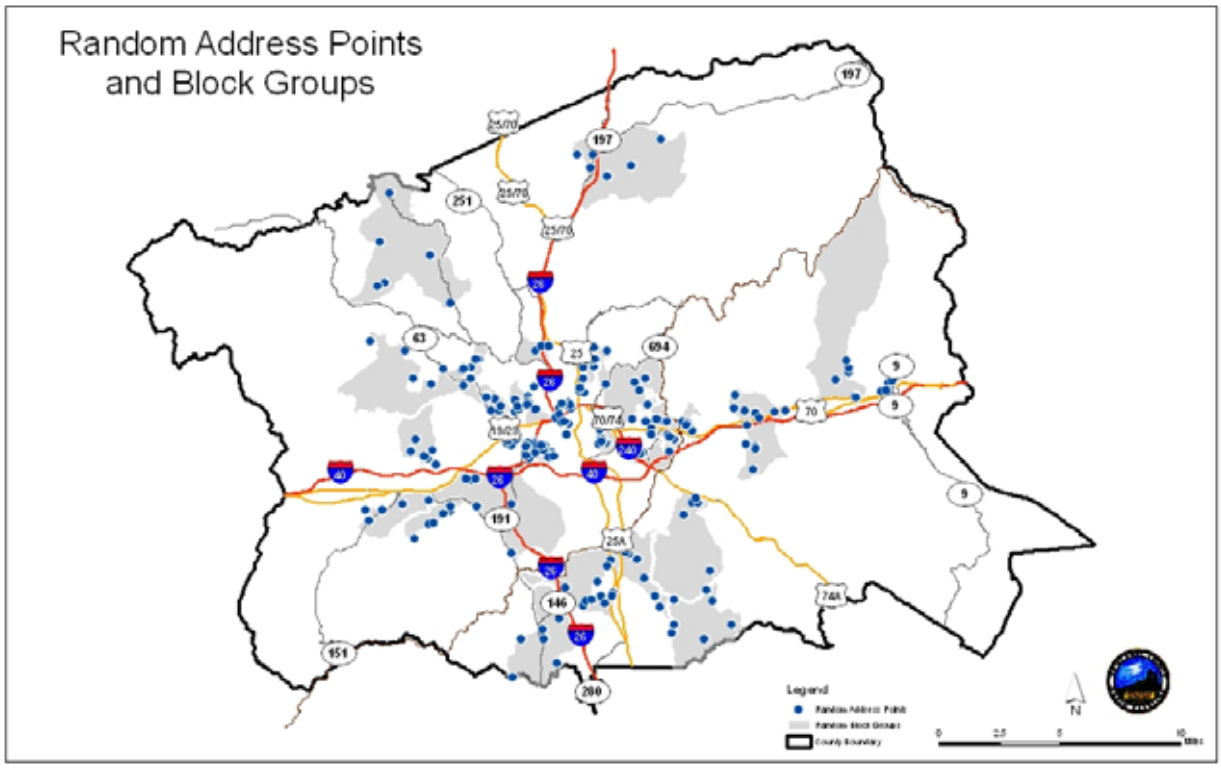
Approximately 60 community members were involved in development of the local survey instrument. Survey Monkey (online survey instrument) was used to gather input about questions to be included / excluded in the survey (compared to 2000 and 2005 surveys). Using the online survey tool expanded community involvement and input. A **Data Team** met to finalize the selection of the questions, using input from the online survey, and their own expertise and/or prior experience with health assessments. Emphasis was placed on creating a local survey that included questions that were comparable to prior surveys (didn't change the wording) and was similar to BRFSS questions.

Health Survey Preparation for GPS handheld computers

The health survey was developed and formatted by Buncombe County Department of Health and then converted by Buncombe County Information Technology to a Trimble Data Dictionary using Trimble GPS Analyst and Trimble Terra Sync software. Once the Data Dictionary was created, the health survey could be collected digitally and a GPS location could be collected for each survey. Each survey and GPS location was stored as a file on the handheld computer. To make data entry as easy as possible, dropdown menus and other ease of use functions were created. Freehand data entry of text was limited as much as possible because the stylus/keyboard system on the GPS units is not user friendly. Also, the interpret-tation and analysis of freehand text is much more complicated.

Site selection

The main goal in creating the survey sample was to randomly identify household locations to interview people that represent the community as a whole. For this process, a Two-Stage Cluster Sampling method was used because of its popularity and successful results around the world. This scheme was developed by the World Health Organization (WHO) with the aim of calculating the prevalence of immunized children. In the first stage, 38 census block groups were randomly selected from all census block groups within Buncombe County. In statistical terms, census block groups were selected through a method known as "probability proportionate to size," which means that a census block group with more households is more likely to be selected than one with fewer households. This first stage was completed by using a Survey Sites Selection Toolkit in combination with the Buncombe County Civic Address Street Locator. The map below shows the 38 randomly selected block groups. In the second stage six interview sites were randomly selected for every selected block group. This task was completed by running a python script. Python is an open source programming language that can run scripts that perform geoprocessing function on GIS data. It is an automated way of executing GIS processes. While the WHO commonly uses a "30x7", we are using a "38x6" sampling method because adding additional census block groups provides more information than selecting additional points within a block group.



For more information on the methodology used by the WHO, visit:
http://whqlibdoc.who.int/bulletin/1982/Vol60-No2/bulletin_1982_60(2)_253-260.pdf

Conducting the health survey with help from community and college student volunteers

Over 65 students and community volunteers signed up to help conduct 228 survey interviews, along with 12 health department staff, including bilingual staff (Spanish and Russian). Several community health classes at UNC-Asheville and Mars Hill College dedicated a segment of their class learning requirements to the health survey. Most students were excited about using GPS features and handheld computers.

Training for volunteers was mandatory and focused on student / volunteer interviewing skills, selection of households when no one was home, use of handheld units and GPS features, safety protocols and use of sheriff radios for communication, familiarity of survey questions, and commitment to the project.

Students were often paired with adult volunteers or staff until they gained experience. Many student volunteers became quite "expert" and volunteered time far exceeding class requirements. Gift cards were offered to students who worked more than required to meet class / teacher expectations. There were a few adults who were without work who enjoyed working with the project in exchange for a gift card for food or gas.

Safety of Volunteers – Buncombe County Sheriff Department

Surveying began in October 2009, on the heels of media coverage related to the census worker who died while gathering census surveys. This motivated health department staff to significantly increase safety precautions for volunteers who were expected to go to unknown homes to conduct the health surveys. We partnered with *Buncombe County Sheriff Department* because the sheriff department has an active *Sheriff Reserve program*. The Sheriff Reserve program enrolls deputies that are not on payroll because they are retired or have other jobs but receive the same annual training as paid sheriff deputies and can serve just as sheriff deputies. The Sheriff Reserves are required to participate in activities such as street barricades, parade and bike routes, large even security, etc. They also have access to patrol cars and handheld radios for communication.

The Sheriff Department dedicated staff time for Lieutenant Calhoun, Coordinator of the Sheriff Reserve Program, to coordinate training and scheduling Sheriff Reserve volunteers, communication equipment and patrol cars, mapping / driving routes for volunteers, and on several occasions served as headquarters for survey teams. This was a significant commitment of resources and an affirmation of our commitment to the safety of our volunteers.

The sheriff reserve deputies were assigned to teams of volunteers and were in constant radio contact using a designated radio channel, also monitored by 911. The deputies conducted general security checks of the selected households based on 911 call histories which enabled them to direct volunteers away from potentially dangerous households. They also assisted with dogs and other security issues, such as access to gated communities which would have otherwise been excluded from the surveys. Their presence was a comfort to the volunteers who frequently "got lost", and their presence often increased the validity of the survey among household occupants being asked to participate in the survey. There was only one safety issue – a minor car accident. The deputy assigned was promptly on the scene and took on securing the safety of those involved until Asheville Police Department arrived.

The Sheriff Reserve deputies worked over 150 hours on the days when we deployed survey teams, which would not have been feasible if paid sheriff department staff were involved. The coordinator, Lt. Calhoun, was present and helped patrolling on the 15 scheduled times teams were surveying, while also providing additional hours of assistance to review maps & driving directions for volunteers, plans to deploy volunteers so they would be in close proximity to a deputy, organize cars and radios, and provide overall safe implementation of the survey project. We wouldn't want to this type of survey without these men and women!

GPS Unit training (how to use the handheld computers)

The survey was performed using handheld Trimble Juno GPS units. Volunteers were trained to capture both the survey answers and a location where the survey was taken. Training on the GPS units happened in a couple of different settings. The majority of volunteers and students who conducted the surveys attended a two-hour training session to learn about the survey and the protocol to ensure reliability, role play conducting the survey with residents, and test out the technology using the

handheld devices. We also performed a refresher course and orientation for any volunteers that were not in the volunteer training.

Data Post Processing

Once surveys were collected, the data was synthesized and converted to a format that is usable for mapping. This process involved several steps.

Creating a spatial dataset: Data was transferred from the Juno units in their native .ssf file format. It was then converted to a shapefile using the Trimble GPS Analyst extension for ArcGIS. At this point in the process, each individual survey point was a separate dataset. These

separate datasets were then merged into a single contiguous spatial dataset using tools in ArcGIS. This process was complicated by the fact that there were small changes in the survey after the first couple of surveys were performed so we had to take that into account as we pulled them together.

Dataset cleanup: Once the dataset was created there was quite a bit of work put into cleaning the dataset to make it easy to use in our analysis. Due to the use of a rotating cast of volunteers, answers were not always entered into the GPS unit uniformly. For instance, while one group would enter A to identify the first answer of a multiple choice question another group might type out the entire answer. Some of this clean up could be automated but much of it was a manual process. Another step in the process of cleaning the survey-wide dataset was the removal of extraneous data points. These were often created in the mornings during training before surveys were conducted. They became very obvious because of the time they were recorded and the fact that few or none of the survey questions were answered.

Data Conversion: Data conversion took place in a couple of phases as well. First, we exported data from a GIS format for ease of use from a statistical perspective. The format we agreed would be best from everyone was a Microsoft Excel (.xls) file. We also made some changes to the format of the answers to try to ease analysis. The survey had several questions where a respondent could pick multiple answers from a list of possibilities, as well as, an 'other' option where the respondent could add an answer not already listed in the survey. For analysis we found it much more convenient to have these questions broken out to several Yes/No questions.

Health survey sample demographics compared to Buncombe County population - 2009 estimates

GENDER	Total	% of known	*Bunc*
Female	132	58%	52%
Male	96	42%	48%
Grand Total	228		

AGE GRP	Total	% of known	
18-24	22	10%	9%
25-44	69	30%	27%
45-64	72	32%	28%
65-79	42	18%	11%
80+	23	10%	5%
Declined	3		
Grand Total	228		

ETHNICITY	Total	% of all	
Hispanic	10	4%	4%
Russ/Ukr/Mold	4	2%	
Neither	214	94%	
Grand Total	228		

RACE	Total	% of all	
Black	13	6%	7%
White	200	88%	89%
Multi-White/American Indian	1	0%	
Multi-White/Asian	1	0%	
Other-Hispanic	4	2%	
Other-Mediterranean	3	1%	
Other-unspecified	1	0%	
Declined	1	0%	
Not sure	1	0%	
Unknown	3	1%	
Grand Total	228		

EDUCATION	Total	% of known	*Bunc*
Gr 1-11	31	14%	14%
HS Grad / GED	61	27%	26%
Some coll	51	22%	29%
Coll grad	84	37%	32%
Unknown	1		
Grand Total	228		

Household INCOME	Total		
<$15,000	51	22%	15%
$15 <$25,000	38	17%	14%
$25 <$50,000	55	24%	29%
$50 <$75,000	27	12%	18%
$75,000 +	39	18%	24%
Declined	10	4%	
Don't know	7	3%	
Unknown	1		.
Grand Total	228		

"Buncombe" Population Data

Source: US Census, Buncombe, 2009 population estimates

American Community Survey (2009)

The survey sample was created by randomizing selection of households using double cluster randomizing method (explained on pg 109 – Site selection). The randomized selection aligns with the actual Buncombe County population in most categories. We find that lower income (<$25,000) is somewhat over represented in the survey, as well people over the age of 65, attributable to the survey design (going to households). Although were conducted on Fridays and Saturdays, busy, working families were less likely to be at home between 9 – 6 on either day, a limitation of this type of survey. All in all, the randomized method helped create a sample of buncombe's population that is quite representative, especially regarding race and ethnicity.

Data Analysis for creating charts, graphs, written analysis

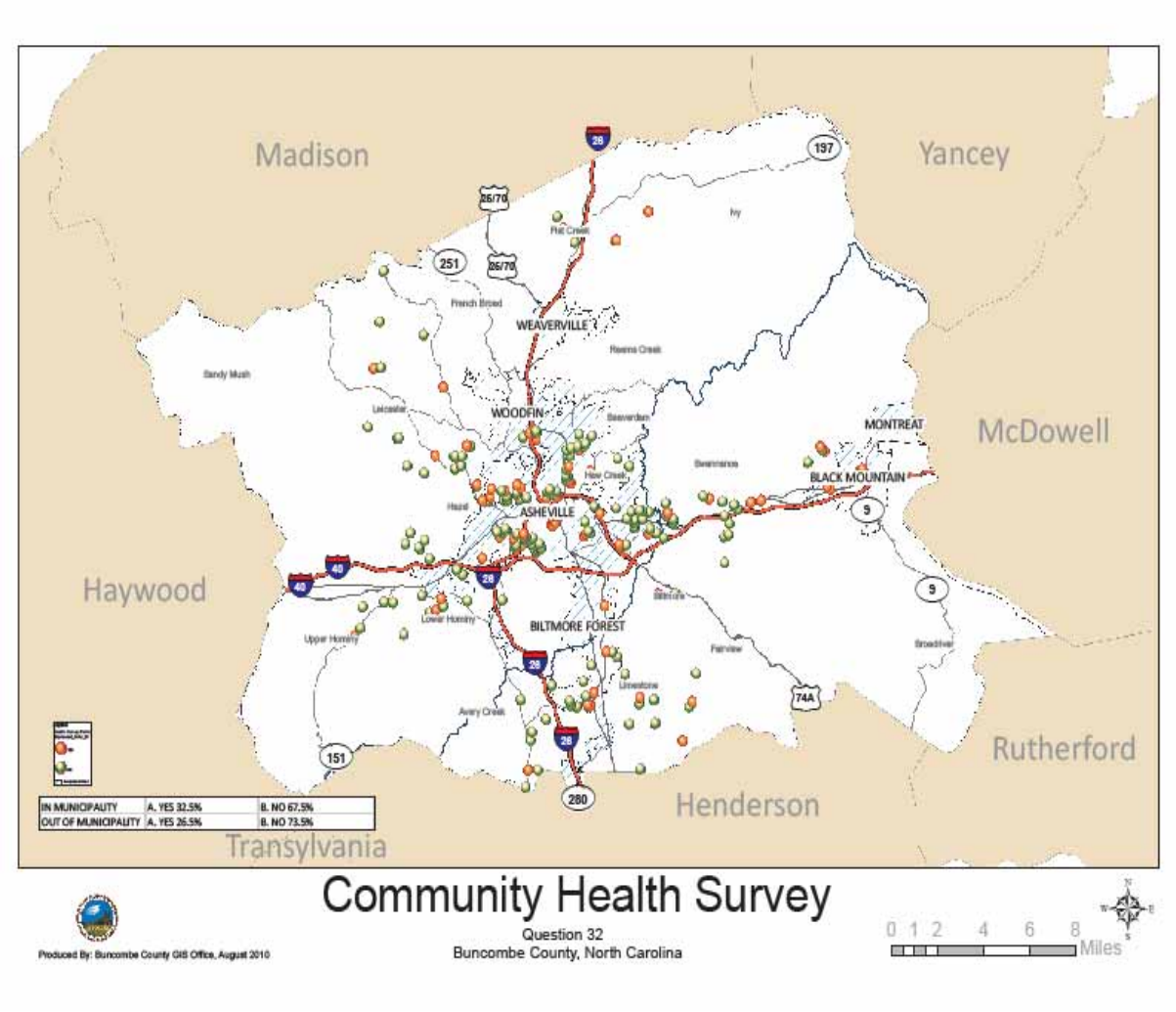
With the help of a paid consultant, Dr. Jill Fromewick of Summit Research Associates, the local health survey data was prepared for graphic displays and written analysis. Frequency tables were created for all questions, broken down in detail according to selected demographics. Then the demographic categories were further formatted to make it easier to display break down of data. For example, age was collapsed into categories of 18 – 44 and 44+, although it is available in much greater detail in frequency tables. Similar formatting was created for income, education, race and ethnicity. We used comparable formatting to NC BRFSS and/or US Census data.

The consultant created bar charts or pie charts of selected local survey variables. Selection of variables were based on community input (via an online survey) telling us the data that is most important to find in the report, as well as knowledge of the variables that have typically appeared in Buncombe's previous health assessment reports.

Data for spatial analysis (mapping results)

With some exceptions, much of what we found in our spatial analysis (mapping) was the limitations of mapping results of a randomized survey. The small sample size and the fact that the entire county was not represented due to the Clustered Random Sample made it difficult to draw too many generalizations. One way in which I think spatial analysis will be helpful is when our survey points are mapped in comparison to demographic data. This process could help to predict health service needs in areas that were not surveyed. For instance, if we see a correlation between and age group or race and health issue (lack of exercise, depression, etc) we could use the demographics from census data to identify areas that have not been surveyed to which we might target specific populations or services. It could allow us to make educated guesses on how best to deploy our resources.

Example of spatial analysis of survey respondents *Reporting feelings of depression for two or more weeks in past year* (yes = orange and no = green).



A limitation of mapping randomized survey responses is the danger of misinterpreting the data, leading some to believe that the points on the map indicate the geographic locations of a specific health issues. We can correctly interpret from this spatial analysis that slightly more people living in a municipality report feelings of depression than those living out of municipalities. If we layered income data we would also find that the red dots (those reporting depression) are more likely to be located in areas with lower income. If the actual data subsets support that, then we could map low income areas and generalize where depression might more likely be found.

Appendix C.

Health Opinion Survey - Methodology

The purpose of the health opinion survey and listening sessions was to gain community input about health concerns the community cares most about and consider most important. The opinion data was then shared with county health leaders serving on the CHA Steering Committee as they worked through a process of selecting community-wide health priorities for the next four years.

Survey Instrument - The health opinion survey instrument included 26 health concerns identified by the CHA Steering Committee based on review of local survey and secondary data. A survey tool was designed to allow community members to rank their top health concerns, as well as list concerns that were not already listed. The survey also included questions about basic demographics such as age, sex, ethnicity, race and county of residence. The tool was translated into Spanish by a Buncombe County Department of Health (BCDH) interpreter. It was also converted into an online survey using Survey Monkey and posted on the Buncombe County website.

Survey Administration - The survey was administered in several ways: 1) holding listening sessions at pre-established community meetings; 2) online survey; 3) ESL classes; 4) interpreters in clinic settings.

The online survey tool was sent through multiple email distributions, as well as using social media outlets including Twitter and Facebook.

A deliberate effort was made to include residents in all parts of Buncombe County in the opinion survey. Brief presentations were made to the Buncombe County Commissioners and to Asheville City Council to invite elected officials to take the survey but also to invite all residents watching the proceedings on television to participate. CHA staff spoke with staff / officials at all of the County municipalities to encourage resident participation in the opinion survey. Many of the municipalities posted links to the survey on their town websites or included it in their e-mail communications to residents.

BCDH staff conducted eight listening sessions in Buncombe County:

- UNCA Center for Creative Retirement
- Planned Parenthood
- Health Partners
- United Way-Health Focus Area Committee
- United Way staff
- Asheville Buncombe Institute for Parity Achievement
- Community Provider's Forum (Clinical)
- BCDH Leadership Team
- CLOSER (A support, educational, and social group serving LGBTQ community in Asheville area)
- Spanish Interpreters – surveys for non-English speaking people (ESL classes at AB Tech and BC Department of Health Prenatal Clinic)

Listening Session Agenda

Listening Session Guide

Facilitator gives brief overview of Community Health Assessment and purpose of the survey.

Review top health issues listed (handout): *Are there any that are missing?*

Discuss the following questions:

- *Which of these health-related issues do you think are most important for our community to improve?*
- *Of all of these health issues, which are the ones that you care enough about to help make them better?*
- *What organizations / groups do you know of that could help make a difference?*

Rank Health Priorities (each person ranks individually, not as a group): Rank in order with "1" being most important and "5" being less important. List health priorities that are not on the form.

Health Opinion Survey RESULTS:

Opinion survey results were shared with the CHA Steering Committee at the Nov 2010 meeting. Results were incorporated into discussions, review of data and selection of the county's health priorities. The top issues ranked in Opinion Surveys were also top priorities selected by the leadership team:

Rankings	Health Issues – Rank top 5
1	Making sure everyone has a doctor they can see when they are sick (Medical Care Home)
2	Healthy Weight: promotion efforts focusing on childhood and youth
3	Improving nutrition
4	Increasing opportunity to make healthy choices such as access to walking trails and healthy foods
5	Increasing physical activity

Total listed	Health Issues that people listed
13	Healthy Living
9	PAN in schools (Physical Activity and Nutrition)
8	Affordable health insurance
8	Mental health (access to care and counseling)
6	Access to a doctor
6	Access to Family Planning

Health Opinion Survey sample characteristics

- Total number of surveys: 401
- Age: 18-40, 42.6%; 40-65, 48.6%; over 65, 8.8%
- Sex: Male, 21.8%; Female, 78.2%
- Ethnicity: Hispanic, 15.2%; Non-Hispanic, 84.8%
- Race: White, 86.8%; African American, 3%; Other 10.2%
- BC resident, 95.7%; non-residents, 4.3%
  North, 12.7%; East, 18.7%; South, 13.0%; West, 15.1%; Central, 40.5%

A copy of the Health Opinion Survey can be found in Appendix E.

Appendix D.

Strategic Innovation – the Healthy Living project

Being strategic & focusing on outcomes

Network teams **use these 5 criteria** when deciding on strategies to enact and policies to promote.

Doable

Can this be accomplished in a specific period of time?

✖

Impact:

Scope & Scale

How many? How much?

How long?

✖

Equity

Opportunity for class & race diversity?

Overcoming barriers or differences in access to resources?

✖

Ripeness of Opportunity

Political will? Community will?

Costs, efforts

vs. returns?

✖

Assets

Leadership?

Spark plugs?

Collaboration?

Community wisdom?

= MOST STRATEGIC option

Each team will:

1. Brain storm / consider possibilities. **Inventory** what is already happening. **Review data and best practices**.

2. For each strategy identified, **score** each 0 (non-existent) to 3 (high) for each of the leverage factors. These scores will result in a menu of higher-score (meaning higher-leverage) strategies.

3. Engage with community members / stakeholders / experts to review and add input on strategy options.

4. Teams **select one or more complimentary strategies**. Some quick wins with big change. Some slightly longer team with multi-level interventions (individual, social network, community, organizational, policy change.

Appendix E.

Staff Support and Consultants

Staff Support:

Gaylen Ehrlichman - Buncombe County Department of Health

Deborah Gentry – Buncombe County Department of Health

J. Nelson-Weaver - Health Partners, a Healthy Carolinians Partnership

Paid Consultants:

Jill Fromewick - Summit Research Associates

Kevin “Doc” Klein – Uncharted Territories

Student Internships:

Marian Sadler – UNC Chapel Hill, HBHE Graduate Internship

Alex Livingston – UNC-Asheville, Undergraduate Internship

Jessie Allen – UNC-Asheville, Undergraduate Internship

Appendix F.

We are happy to share our actual survey tools and instruments. The following are available by request:

- Local Health Survey
- Health Opinion Survey
- Health Opinion Survey (online survey)
- Community Health Assessment – Evaluation of needs (online survey)
- Healthy Living Assessment (online survey)

Make requests to:

Gaylen Ehrlichman, Health Promotion Supervisor

828.250.5045 or email, Gaylen.Ehrlichman@buncombecounty.org