

Community Health Assessment CHA 2005

Buncombe County's Had a Check-Up!



Buncombe County CHA 2005 Community Report

Presented by the
CHA 2005 Community Volunteer Teams

under the joint leadership of



Health Partners

Healthy Carolinians Coalition



**Buncombe County
Health Center**

Based on Reports to the Teams by
SAGE Partners, Inc. "Services in Assessment, Grants and Evaluation"



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COMMUNITY HEALTH ASSESSMENT (CHA) PROCESS

Why Do a CHA?

Regular assessment of a community's health status lays a foundation for effective, strategic community health planning. In its PATCH model (*Planned Approach to Community Health*), the national Centers for Disease Control and Prevention (CDC) gives five elements critical to a successful community health promotion process:

- A wide range of community members participates in every phase of the process.
- Data guide the development of programs.
- Participants develop a comprehensive health promotion strategy.
- Evaluation emphasizes feedback and program improvement.
- Community capacity for health planning and health promotion is increased.

DHSS Planned Approach to Community Health: Guide for the Local Coordinator

Every five years committed organizations and individuals in Buncombe County work together to perform a health "check-up" for our county. The first was conducted in 1995, a second in 2000, and we are happy to present here results from Community Health Assessment (CHA) 2005.

Community and Contractual Partners

The Buncombe County Health Center (BCHC) and Health Partners, Inc. (Buncombe's certified Healthy Carolinians partnership) provided the leadership to carry out CHA 2005. Work was performed through five teams of volunteers – many from key community organizations, but also individuals who volunteered (*see "Acknowledgements" report section*). With financial support from Mission Health & Hospitals (Mission), BCHC, and Buncombe County Medical Society & Alliance Endowment, consultants were hired to work collaboratively with the teams to: (1) conduct the phone survey (Appalachian Regional Development Institute (ARDI) at Appalachian State University); (2) conduct the focus groups, support the face-to-face surveys, compile secondary data, and analyze and synthesize all data (SAGE Partners, Inc.); and (3) recruit and train bilingual volunteers, obtain interview sites and recruit respondents, and coordinate the Latino survey process (Althea Gonzalez). Our final and essential "partners" were the community residents who gave their time to participate as respondents in our surveys and focus groups.

The Data

To perform the CHA 2005 "check-up" we collected our own data ("primary data") and compiled pre-existing data from other sources ("secondary data").

(Further detail on CHA 2005 Methodology is provided in a section at the end of this report.)

CHA 2005 Data Sources	
<p>Primary (CHA-generated) data</p> <ul style="list-style-type: none"> • Phone survey (random digit dial throughout county), n=941 • Latino survey (face to face survey), n=77 • Senior survey (face to face survey), n=79 • Focus groups (12 face to face group interviews) <ul style="list-style-type: none"> ◦ 10 types of groups ◦ 101 participants 	<p>Secondary (existing) data</p> <ul style="list-style-type: none"> • U.S. Census • Behavioral Risk Factor Surveillance Survey (BRFSS) • NC Center for Health Statistics • Vital Statistics • State of the County's Health (SOTCH) reports • Other locally generated data

Focus Group Sessions Held
<ul style="list-style-type: none"> • 2 Health and Human Service Providers • 2 Policy Advocates / Policy Makers • 1 Parents of Young Children • 1 Parents of Teens • 1 Young Adults • 1 Business Leaders • 1 School Nurses • 1 African Americans • 1 Immigrants / Immigrant Advocates • 1 Rural / Appalachian



Collaborative Data Collection

Five CHA teams convened in the Spring of 2005: (1) Integration, (2) Survey, (3) Perceptions, (4) Secondary Data, and (5) Communications, with fifty volunteers participating altogether. Integration Team members chaired the other four committees and provided overall coordination. The team's first task was to select consultants for data collection and analysis; team-developed contracts were signed with ARDI and SAGE Partners by June 2005.

Primary Data Collection

- The Survey Team developed both content and format of the interview tools for the phone, Senior, and Latino surveys. ARDI conducted the phone surveys from their location at Appalachian State in Boone, NC. The Survey Team recruited volunteer interviewers and sites for the Senior surveys; SAGE Partners trained the interviewers and supported the team's refinement of survey tools and process.
- Realizing the critical need for linguistic and cultural competence, the Integration Team contracted with Althea Gonzalez to coordinate the Latino (Spanish language) survey.
- SAGE conducted the focus groups, with the Perceptions Team formulating the discussion questions, identifying potential participants, and providing refreshments.
- The Communications Team developed and disseminated promotional materials and press releases to convey information to the community about the CHA process and products.

Secondary Data Compilation

- The CHA team determined data indicators for inclusion and provided SAGE with web links. Today's internet provides a large universe of readily available data, and the team prioritized data for which we would provide links-only, in the CHA report.
- In February 2006, the team held a focus group with community professionals most likely to actively use the CHA report and obtained their input on criteria for data inclusion in the report, and preferred methods of organization, presentation and dissemination.

Data Synthesis and Analysis

SAGE Partners synthesized and analyzed the primary and secondary data – including the ARDI dataset from the phone survey. SAGE produced initial drafts in Spring 2006 for the CHA teams to review, and with their feedback prepared a comprehensive PowerPoint slideshow to present at the CHA Community Summit. SAGE provided final report drafts in November 2006.

CHA 2005 Community Summit

Data collection and compilation took place throughout 2005 and extended into early 2006. On May 31, 2006, we held the CHA 2005 Community Summit on the campus of the University of North Carolina-Asheville, hosted by their Department of Health & Wellness. The meeting was open to all interested community members, and 117 persons attended the full-day event. The agenda was 5-part: (1) update on CHA 2000 priority issues; (2) presentation of CHA 2005 initial findings; (3) small-group process to select priorities for 2006-2010; (4) announcement of priorities; and (5) "Issues Marketplace" for participant input on starting action on these issues.

The priorities named by Summit participants for community focus in the coming five years were:

- (1) obesity (childhood and adult),
- (2) access to comprehensive, whole person care,
- (3) economic access to care,
- (4) mental health,
- (5) health disparities.



CHA 2005 Communication and Action

This CHA 2005 report and supporting documents will be posted at Health Partners' website (www.healthpartnerswnc.org). This site will post information on Internet resource links, on local community resources, and on local initiatives addressing CHA 2005's five priority issues that are undertaken by Health Partners' action teams and other community organizations. Note that United Way's 2-1-1 referral service is an excellent starting point for finding local resources; the service can be accessed by dialing "211" or going on-line to: <http://www.211wnc.org>.

Presentation of Data in this Report

CHA 2005 data findings, from both primary and secondary sources, are presented in the report sections below. The CHA teams used the criteria at right to select data for inclusion in the Community Summit and in this report.

The data are organized with reference to **North Carolina's 2010 Health Objectives (NC 2010)**, (www.healthycarolinians.org/healthobj2010.htm).

The NC2010 state objectives emerge from the national **Healthy People 2010 (HP 2010)** health objectives, (www.healthypeople.gov/healthfinder/). Both share two primary goals, to:

- (1) increase quality and years of healthy life, and
- (2) eliminate health disparities.

How Findings Were Selected for "Highlights" Presentation

With input from community data users, we considered the following questions:

- How does Buncombe compare with the state and nation, and with goals and targets?
- Has there been substantial change in the past five years? Or notable lack of change?
- Do many people have this condition? Is it a major cause of death or chronic condition?
- Are we giving coverage to each significant area of health concern?
- Is this an emerging concern?

The goal of eliminating health disparities has been strongly supported in public review and comment. Disparities exist when a "sub-population" has poorer health outcomes than the population as a whole. Sub-populations may be defined by factors such as: gender, race, ethnicity, rural residence, sexual orientation, educational attainment, income, etc.



While we reject being complacent about disparities, to make progress we must acknowledge current disparities and set ambitious yet reasonable benchmarks for their elimination.

Accordingly, in the following pages of slides and discussion, the data are often shown with break-outs by sub-group, to identify those who are in need of greater attention. The graphs typically look like the one at left, where the defining factor is shown along the bottom (gender, income, race/ethnicity, etc.) and the columns above illustrate whether there is disparity (white vs. minority, high school vs. some college, etc.).

In its discussion of various diseases and health issues, this report includes visual displays (graphs and tables) of:

- population-based rates
- data trends over time
- demographic breakout of sub-groups or detail on groups with special concerns

Comparative state and national data are often given, as well as targeted benchmarks from the national Health People 2010 program (HP2010) and the state's set of measurable objectives, referred to variously as HC2010 (Healthy Carolinians 2010) and NC2010 (North Carolina 2010). The report also incorporates community comments from the CHA focus groups.



NOTES ON DATA SOURCES AND INTERPRETATION

This report covers a broad array of community health issues, and our discussion draws on data from four source types: (1) our own local CHA surveys, (2) our CHA focus group findings, (3) secondary data available on-line, and (4) data shared by local community partners. Images from the CHA 2005 Community Summit are keyed with icons to these data source, as shown at right. Certain characteristics and/or limitations should be kept in mind as you consider and interpret health indicator data from these various sources (see “Methodology” section for further detail):



- For all surveys, sample size is reduced (and confidence interval widens) for follow-up questions, where not everyone is asked that question.
- CHA 2005 phone survey data
 - random sample of general county population of adults (age 18 and up)
 - sampling error is $\pm 3.5\%$ at the 95% confidence level
 - data have not been “weighted” to compensate for differences in demographic distribution between the sample and the full county population, due to current budget constraints (see *table at page 84 to compare sample characteristics*)
 - includes over-sample of African Americans, to increase data confidence for this group
 - does not reach those using only cell phones (many young adults), having unlisted numbers, having no telephone service, or declining calls using call screening technology
- CHA 2005 Latino survey data
 - sample of convenience (age 18 and up); results may not be fully representative of the full population of Latinos in Buncombe County
 - small sample size (77 respondents) means larger possible variance from true response value for all Latino adults in Buncombe County
 - mean (average) age of Latino survey respondent was 32.4 years
- CHA 2005 Senior survey data
 - sample of convenience (age 60 and up); results are likely to not be fully representative of seniors of all ages, situations, and health status in Buncombe County
 - CHA 2005 Senior survey respondents were all interviewed outside their residence, indicating participants were at least relatively mobile; in contrast, CHA 2000 respondents were the “frail elderly” interviewed mostly at long term care facilities where they resided
 - small sample size (79 respondents) means larger possible variance from true response value for all persons 60 years of age or older in Buncombe County
- CHA 2005 focus group data
 - samples of convenience
 - participants received no compensation or incentives, other than refreshments
- Secondary data
 - For health indicator data, we relied primarily on the national BRFSS (Behavioral Risk Factor Surveillance System), a random phone survey conducted annually by the Centers for Disease Control and Prevention (CDC). Beginning in 2001, Buncombe County opted to pay for a larger survey sample in our county, giving us a source of reliable annual data that can be compared with state and national data. This new resource enabled us to include in this report many time-trend graphs, tracking data on an annual basis from 2000-2004.
 - Another major source of health and vital statistics data was the North Carolina State Center for Health Statistics (NC-SCHS).
 - Data on demographics was drawn in large part from US Census Bureau datasets, both the 2000 decennial census and the interim American Community Survey studies.



Demographics and Social Context

Population Characteristics
Socio-Economic Factors

“Demographics” refers to data on the distribution of people within a defined geographic area (such as Buncombe County) in terms of characteristics such as their:

- age
- gender
- race-ethnicity
- income
- educational attainment
- housing circumstances
- employment status
- location within the geographic area

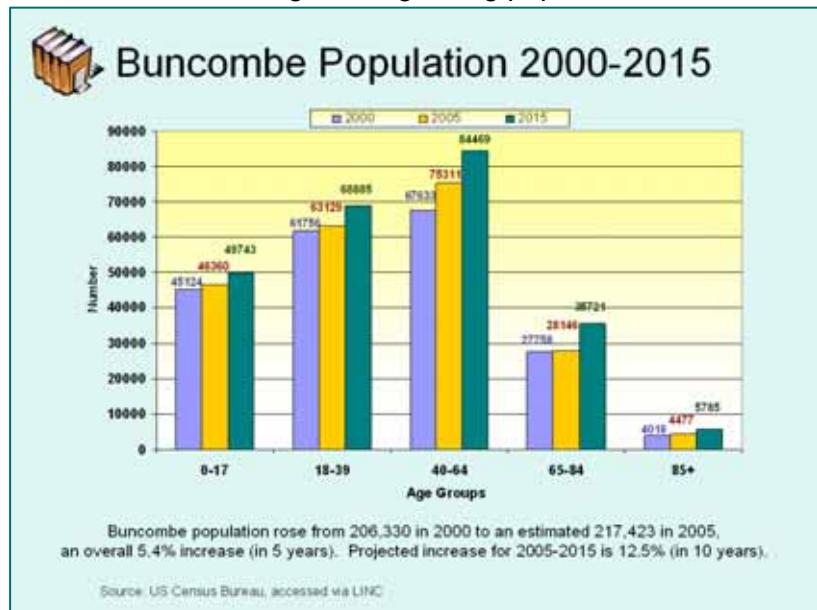
Demographic factors can both impact and illuminate the health status of community residents.

Population Composition and Growth: By Age and Race-Ethnicity

Between 1990 and 2000, Buncombe County’s population increased 18%, faster than the US growth rate of 13%, and less than North Carolina’s growth rate of 21%. Projecting population growth through 2015, increases are expected to be greatest in the oldest age groups, ranging from a 10% increase in the 0-17 age group to 44% in the 85+ group.

Much of the growth has been and will be, due to “in-migrants,” residents who lived in another county, state or country five years before the census. In 1970 in-migrants were 11% of the county’s population, whereas in 2000 21% of the population was in-migrants. New residents from Mexico, Central and South America are expected to increase by more than 50% between 2000 and 2010. Along with a growing population of Latino immigrants, Buncombe County is

also home to a sizable Eastern European immigrant community.



The graph to the left shows the estimated or projected age distributions for 2000, 2005, and 2015.

Projected 10-year population growth rates for 2005-2015 (Source: LINC) are:

- 12.5% – Buncombe County
- 15.3% – North Carolina
- 9.1% – United States

For 2015, the projected proportion of residents who are age 65 years or older is:

- 17.0% – Buncombe County (LINC)
- 13.7% – North Carolina (US Census)
- 14.5% – United States (US Census)



Census experts predict an aging trend in our county's population. Increases in the number of Buncombe County residents from 2000 to 2015, by age group, are projected at:

- 44% for 85+ years
- 29% for 65-84
- 25% for 40-64
- 12% for 18-39
- 10% for 0-17 (Source: LINC)

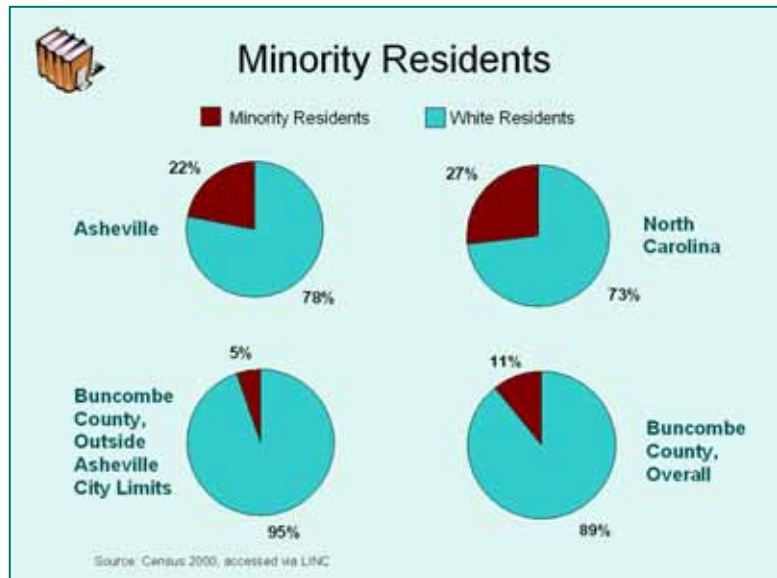
In terms of race-ethnicity, Buncombe County is considerably less diverse than is North Carolina. "Minority" is the term used by the North Carolina State Center for Health Statistics for persons who describe themselves as:

- (1) any race other than White, and/or
- (2) persons who identify as Hispanic/Latino, regardless of their race.

"Non-Minority" then refers to White, Non-Hispanic persons. In Buncombe County, those tabulated as "Minority" are predominantly Black/African American.

For the sake of space, tables and graphs are often labeled "Minority" and "White," even though "Minority" includes Latino/Hispanic persons whose race is White.

As shown in this chart, minorities are 11% of Buncombe County's residents versus 27% of North Carolina residents. Minority residents are concentrated in Asheville itself; only 5% of county residents are minorities outside the City of Asheville.



Racial diversity is increasing in the County. Between 2000 and 2015 the white population is projected to increase 18%, while the minority population is expected to increase 23%.

In 2005, Buncombe County has a considerably smaller Latino population (3.8%) than does North Carolina (6.3%) or the US (14.5%) (Source: American Fact Finder, accessed 2006).

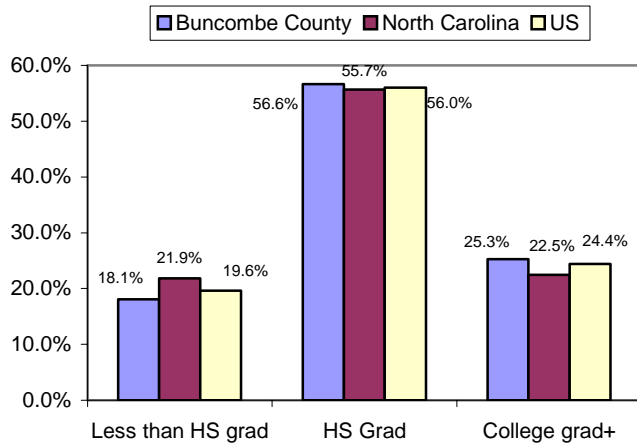
However, our Latino population is growing at a rapid pace. In the year 2000, Latinos made up 2.9% of the county's population. Projections for the year 2010 are that 4.2% of Buncombe residents will be Latino, with the number of Latinos growing 52.3% in ten years.



Socio-Economics: Education

Another significant predictor of overall health is education level. Overall, Buncombe County's adult residents have a slightly higher education level than do the North Carolina and US adult populations, with more graduates from both high school and college.

**Educational Attainment of Population Age 25+
Buncombe County, NC & US, 2000**



However, educational attainment for adults (age 25 or older) shows pronounced disparity by race-ethnicity.

	African American	Latino	White
Less than HS grad	28.1%	48.6%	17.1%
HS (not college) grad	61.9%	37.7%	56.5%
College grad and up	9.9%	13.7%	26.5%
	100%	100%	100%

Source: US Census 2000

Source: US Census 2000

Buncombe County is one of the few counties in the state that has two school districts, Asheville and the county outside of Asheville. The Buncombe County school system has 41 school facilities, and there are 11 Asheville City schools, as shown:

	Number of Schools	
	Asheville City	Buncombe Co.
Elementary Schools (grades K-5)	5	23
Intermediate Schools (grades 5-6)		1
Middle Schools (grades 6-8)	3	7
High Schools (grades 9-12)	1	6
Special Schools / Programs	2	2
Early College		1
Middle College		1
<i>Per Student Expenditure</i>	\$10,210	\$7,153

The two districts differ greatly in their per student expenditures. Buncombe County spent \$7,153 per student, while Asheville spent \$10,210 per student, in the 2004-5 school year¹.

There is one community college, Asheville-Buncombe Technical Community College, that serves any high school graduate 18 years of age or older.

High school *graduation* rates currently are unavailable, but will be tracked beginning with the 2005-6 school year as baseline. School *drop-out* rates for the 2003-04 year – 5.28% for Buncombe County schools and 4.12% for Asheville – were comparable to the State rate of

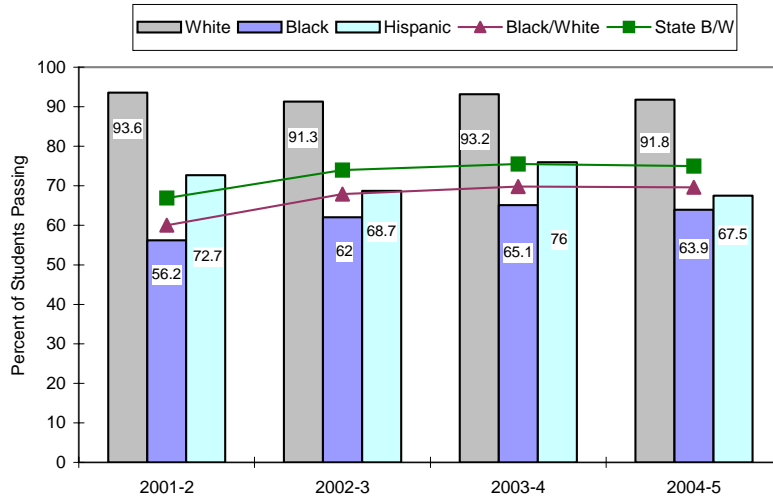
¹ Source: North Carolina Public Schools: Statistical Profile, 2006, pages 99 and 101



4.86%. The drop out rates have been declining, with the County system rate generally higher than in the City schools.

Closing the educational achievement gap between African-American and White students has been a county goal and priority for several years. End-of-grade test results for 3-8th graders suggests little progress in Asheville City Schools. Progress would be indicated by an upward trend in the Black/White ratio. This ratio has been stable since 2002-3. North Carolina has maintained a slight edge over Asheville over the four-year period.

**Asheville City Schools End-of-Grade Test Results by Race-Ethnicity:
Percent of Students Passing Both Math and Reading Tests, 2001-2005**



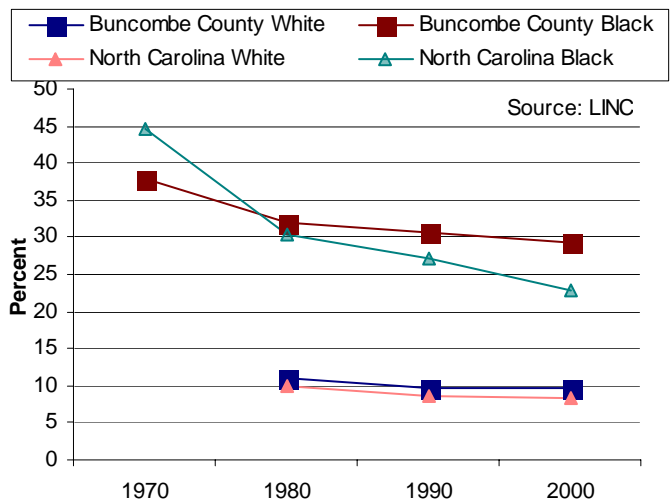
Socio-Economics: Poverty

At the 2000 Census, an estimated 11.4% of Buncombe County residents had incomes below the official US poverty level. This proportion is slightly less than the North Carolina (12.3%) and United States (12.4%) poverty rates.

The poverty rate for seniors (age 65+) is comparable to the US seniors' rate (both just under 10%), and significantly lower than for North Carolina seniors (over 13%).

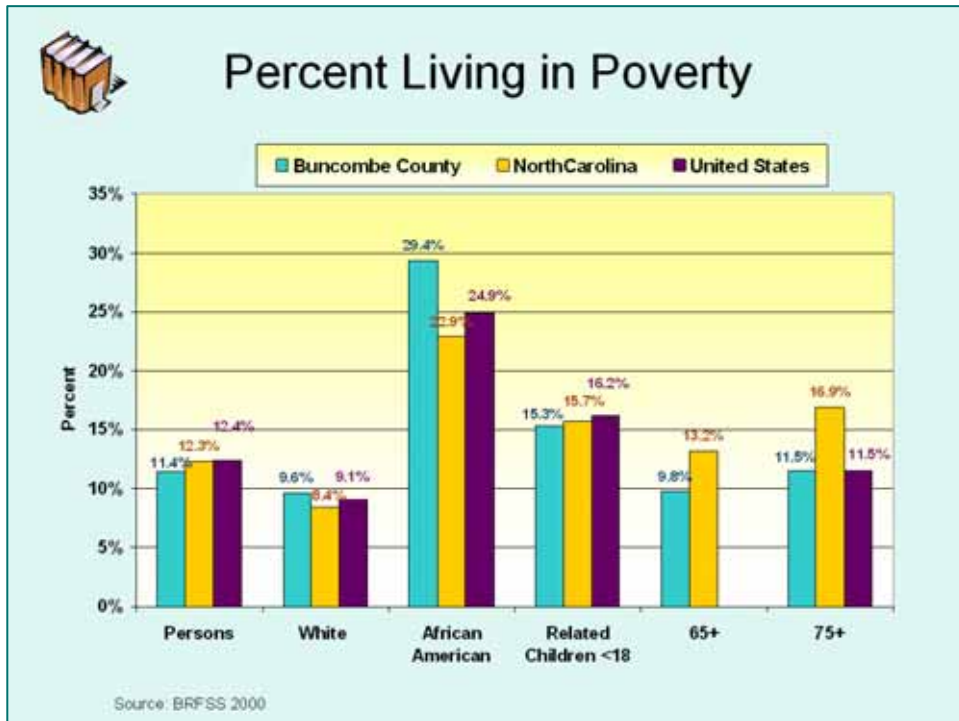
In 2000, the poverty rate for African-American county residents was 29.4%, three times that for White county residents. The African-American poverty rate has been declining over time, but the decline has been much more gradual in the county than in the state. In 1970 fewer Buncombe County African Americans lived in poverty than did North Carolina African-Americans. By 2000 the county's African-American poverty rate exceeded African-American poverty rates in North Carolina (22.9%), as well as in the US (24.9%).

**Percent of People in Poverty, by Race,
Buncombe County and NC, 1970-2000**





Buncombe County families with a female head of household also have elevated poverty levels; 40% of families with a female head of household and children present are living below the poverty level.



Comparable to North Carolina public schools, within the City of Asheville 47% of students participate in the free or reduced lunch program, while in outer Buncombe County 39% of students participate².

Poverty and Health

- “A lot of money is being wasted to study ‘us’ [African Americans] but no money is provided to help us.”

- Source: African American Focus Group Participant
- “We need a comprehensive plan to improve health and wellness in those neighborhoods with concentrated poverty.”

- Source: Policy Makers Focus Group Participant

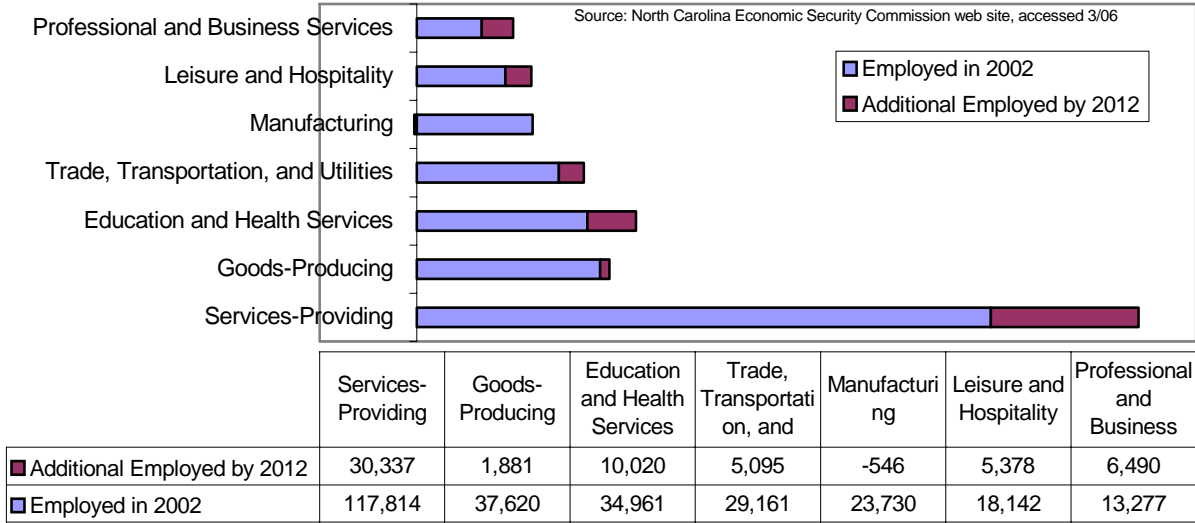
² Source: NC Public Schools website



Socio-Economics: Employment

Buncombe and surrounding counties (Madison, Henderson, and Transylvania) are expected to add about 65,000 jobs between 2002 and 2012, a 20% increase, and greater than the 17% increase anticipated for North Carolina and 15% for the US over the same period.

Numbers Employed in Seven Largest Employment Categories in Buncombe County, 2002 and 2012 (Projected)



Employment is dominated by service sector jobs, and this trend is expected to continue. By 2012 nearly 40% of all area jobs will be service-providing. The highest percent growth is expected in Professional and Business Services, Leisure and Hospitality, and Education and Health services. Manufacturing jobs will continue their decline, a trend that is occurring across the state and nation.

Consistent with this trend, the county's largest employers do not include a manufacturer. The ten largest employers are shown at the right.

- Mission Health System is the county's only public hospital, and it is a major provider for the entire Western North Carolina Region. Mission has by far the most employees of any company.
- The VA hospital is also among the top ten employers.
- School and other government employees, when combined, comprise the greatest numbers of employees.
- A grocery chain (Ingles) is the third largest employer, reflecting the dominance of this chain in the area.

Buncombe County's Ten Largest Employers	
	# Employees
Mission Health System	5125
Buncombe County Public Schools	3650
Ingles Markets, Inc.	2225
Buncombe County Government	1959
City Of Asheville Government	1245
VA Medical Center-Asheville Hospital	1068
The Biltmore Company	1057
Grove Park Inn Resort And Spa	1000
Care Partners	1000
Asheville City Schools	722

Source: Buncombe County Government web page, Statistical Section

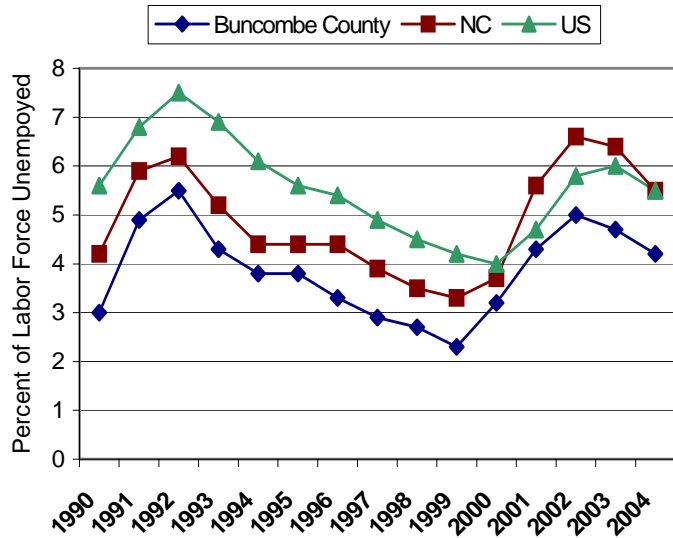


Socio-Economics: Unemployment

Buncombe County has a low unemployment rate (4.2% in 2004) relative to North Carolina and the United States (5.5% each), a pattern that has persisted over time. However, well-paying and well-benefited jobs are not plentiful.

Median family income in Buncombe County has lagged behind that of North Carolina over the same period.

Unemployment Rate, Buncombe County, NC, and US, 1990-2004



Source: Economic Security Commission of North Carolina website, accessed 3-06

Average Family Income

- Buncombe County average family income (\$49,700 estimated in 2005) continues to lag behind the State's median income (\$53,000).
- This gap has increased slightly and steadily over the past ten years.

Media Contact 2005

Lower wages are not accounted for by inadequate educational attainment of the work force

Socio-Economics: Housing Affordability

Meanwhile, since 2002 the price of the average Buncombe County home has risen much faster than in other areas of NC.

- In the decade from 1995 to 2005, the average selling price for existing homes in Buncombe County increased \$100,000 – or 40%.
- By 2005 the average residential selling price exceeded North Carolina's by more than 20%.
- About 30% of Buncombe County renters paid more than 35% of their gross salary for rent in 2000 (US Census Bureau).



Source: North Carolina Association of Realtors, 1999-2005



Environmental Health and Physical Context

Air & Water Quality
Other Environmental Health Factors

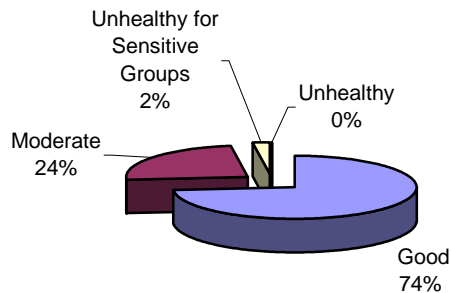
Air Quality

Although Buncombe County's air quality has been a subject of community debate and concern for many years, objective measures of air quality show our air quality ranks well compared with similar-sized and larger cities nearby.

- Buncombe's Air Quality Index (AQI) rating was "Good" 3 out of 4 days in 2000-2002.
- Ozone levels on the worst summer days have risen as high as 25% over 1990 levels.

Fine particulates have been increasing, and can contribute to preterm births, breathing problems, lung cancer, and premature deaths.

Percent of Days County Air Was Good or Bad, 2000-2002



Source: Air Quality Index (AQI), Western North Carolina Regional Air Quality Agency website, accessed 11-6-06

		1998-2000	2003	2004	2005	2006
OZONE	Grade	F	F	F	D	D
	Days over standard: weighted average	4.7	3.3	5	2.7	2.3
PARTICLE POLLUTION	Grade			C	C	B
	Days over standard: weighted average			1.5	1.5	0.7

Source: American Lung Association

The 2004 BRFSS asked about perceptions of air quality.

- 1 in 5 Buncombe County residents thought poor indoor air quality had made them ill in the past year.
- Nearly the same percent said that poor outdoor air quality had made them ill.
- Both percentages are higher than those for North Carolina as a whole.
- 1 in 4 women, younger residents, and residents with above a high school education said that poor indoor air quality had made them ill in the past year.



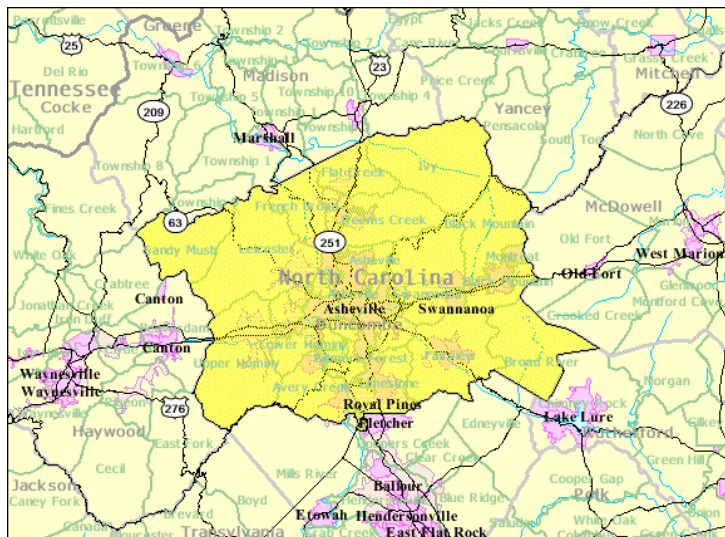
Environmental Health Assurance Measures and Policy Context

Air Quality Assurance: Tobacco Policies

- Both school systems (Asheville City Schools and Buncombe County Schools) in Buncombe County have adopted a 100% tobacco free policy, which prohibits the use of tobacco products by anyone, including students, staff, and visitors, on school grounds or at school events at all times. Tobacco-free zones include school premises, school vehicles, and school events, both indoors and outdoors, and both on and off school property.
- Mission Hospitals (our largest employer) adopted a smoke-free policy 2 years ago.
- NC General Statute, "Smoking in Public Places" enacted in 1993, preempts local governments from restricting smoking in public buildings, worksites, and restaurants. Any policy passed prior to this law can stand, but new ordinances or policies cannot be passed. Health center staff and community partners work with worksites, restaurants, and other venues to voluntarily adopt a tobacco-free policy. Currently 218 restaurants are smoke-free, as are four shopping malls, a prison system, the airport, all public-sector and many private-sector indoor-recreation facilities, and numerous worksites.
- Prior to the 1993 law, Asheville City passed a policy that prohibited any employee, customer, or visitor from smoking in any City building or City motor vehicle.
- In 2005, Buncombe County (off the record and unofficially) designated County buildings smoke-free up to 50 feet of the entrance to buildings. So far, this has not been challenged.
- In November 2006, the Board of Health signed a resolution to support legislation that would make all North Carolina worksites and public places 100% smoke free.

Water Quality Assurance³

- Beginning January 1, 2005, well permits are required prior to drilling a well in the County, to ensure compliance with State well construction standards.
- The waste from approximately half of Buncombe County's population is treated by ground absorption septic tank systems, generating about 10 million gallons of wastewater per day.
- Septic permits are required prior to obtaining any building permits or initiating construction.
- In FY 2004-05 county staff performed 613 well inspections, and nearly 11,000 septic system inspections.



³ Environmental Health Program Review, FY04-05, Buncombe County Health Department, PowerPoint Presentation.



Other Environmental Health Assurances: Lead Screening, Inspections and Training

- All children should be screened for lead at ages 1 and 2, and annually up to age 6 if risk factors exist. If a child has an elevated blood lead level, the physician reports this to the county health department. BCHC provides free lead screenings to children up to 6 years old. For children with elevated blood lead levels or lead poisoning - 10 m g/dl or above - BCHC provides follow-up services. Here are BCHC's 2005 surveillance data:

Ages 1 and 2 Years Tested for Lead Poisoning						Ages 6 months to 6 Years		
Target #	# Tested	% Tested	% Medicaid Tested	# Lead ≥10	% Lead ≥10	#Tested	Confirmed Lead 10-19	Confirmed Lead > 20
5,081	1,596	31.4%	45.5%	14	0.9%	2,001	2	0
State Totals 2005		40.6%	56.1%		0.9%		299	53

- If blood lead levels are below 10 m g/dl, children may be referred to a CDC grant-funded regional program under the Environmental Quality Institute at UNC-Asheville. The Lead Poisoning Prevention Project (LPPP) offers free home paint tests and clearance tests to families with children living in a house built before 1978, to recently remodeled homes, to the City of Asheville, and to Mountain Housing Opportunities. LPPP provides follow-up home inspections and resources to families when children have lead levels of 5-9 m g/dl.
- LPPP takes interactive presentations and displays in English or Spanish to community associations, PTA /PTOs, fair events, day-care providers, real estate agents, pregnant women, parenting groups, and the general public. The focus is on identifying lead hazards, potential health effects of lead poisoning, preventive measures, and renters' rights. LPPP gives special attention to providing culturally competent outreach services to our growing population of young Latino families, as there are numerous sources of lead exposure more likely to be found in the Latino community environment.
- LPPP provides training workshops for home renovation professionals, home owners and maintenance workers, including training that awards Lead-Safe Work Practices certification. LPPP also hosts a Lead Prevention Task Force, with Medical Outreach and Housing Sub-Committees, and a full task force meeting held quarterly.

2006 Program Data for UNCA Lead Poisoning Prevention Program (LPPP)

- # children referred due to blood lead level
 - Buncombe County Health Center ~ 40 / year (2/3 Latino)
 - other clinics (in Henderson and Buncombe counties) ~ 45 / year (2/3 Latino)
- # household inspections performed: ~ 80 / year 2006, up 27% from 2005
- # professional/homeowners trainings provided on lead safety:
 - 3 Lead-Safe Work Practices classes, 37 participants (up 164%)
 - 1 Realtor Training, 15 participants
 - 8 presentations to young women & mothers, 97 participants, 27 (28%) Spanish speakers
- # healthcare provider trainings: 14 trainings at clinics, conferences, grand rounds, ~140 participants
- # exhibits ~ 6 / year

► For further information, contact LPPP: <http://orgs.unca.edu/eqi/LPP/index.html>

Other Environmental Health Assurances: Food and Lodging Inspections⁴

- Buncombe County has a strong service economy, and therefore a high concentration of restaurants, hotels, and motels.
- In 2005 there were 1858 establishments requiring food and lodging inspections. This includes all restaurants, motels/hotels, food stands, day care centers, swimming pools, and tattoo parlors. In FY 2004-05, health department staff conducted 4,679 inspections.
- Restaurant inspections are 56% of total health department required annual inspections.
- The current inspection compliance rate is 91.3%.

⁴ Buncombe County, NC website. URL: <http://www.buncombecounty.org/governing/depts/health/environment.htm>. Accessed 10-6-06.



Health Status of County Residents

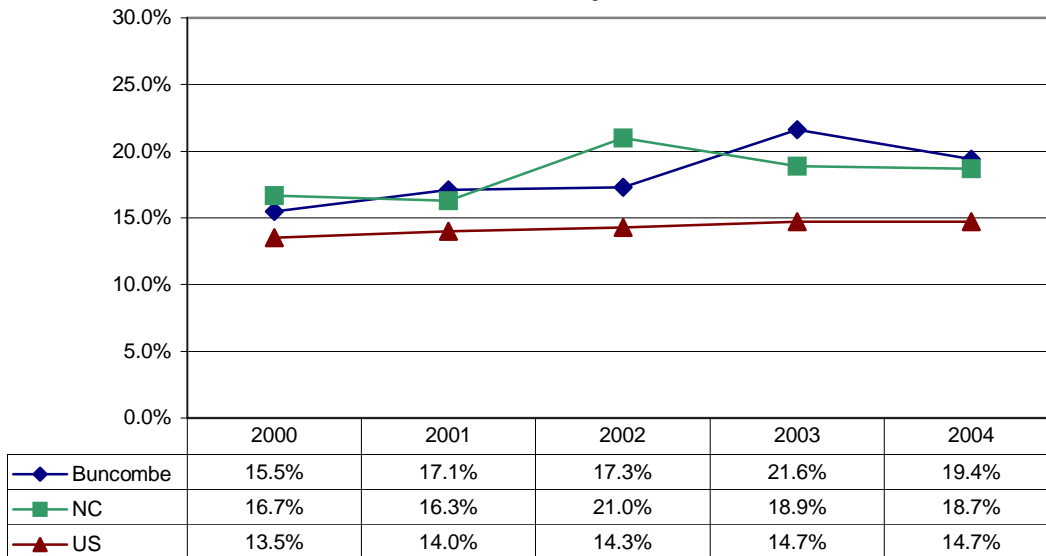
HIGHLIGHTS: Health Status

- Almost 2 out of 10 Buncombe adults rate their health as “fair” or “poor.”
- Latinos were most likely to report fair or poor health (Latino survey) and are also most likely to be uninsured.
- Leading causes of death in Buncombe County are heart disease, cancer and stroke.
- Buncombe’s death rates for diabetes, motor vehicle accidents, prostate cancer and homicide (among others) are meeting NC 2010 target objectives.
- The death rate for suicide is farthest from meeting state and national mortality rate targets.
- Hospitalization rates in Buncombe County have been dropping over the past 5 years.

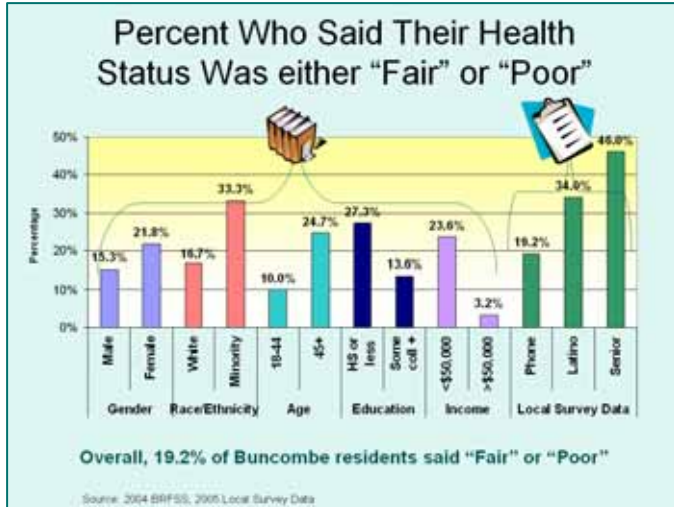
Self-Perceptions of Health Status

Buncombe County residents, as well as those of North Carolina, are somewhat more likely to describe their overall health as “fair” or “poor” than are US residents. The proportion of Buncombe County residents reporting “fair” or “poor” health has increased from 15% to 19% since 2000.

Percent Reporting "Fair" or "Poor" Health Status by Year, Buncombe County, NC, and US, 2000-4



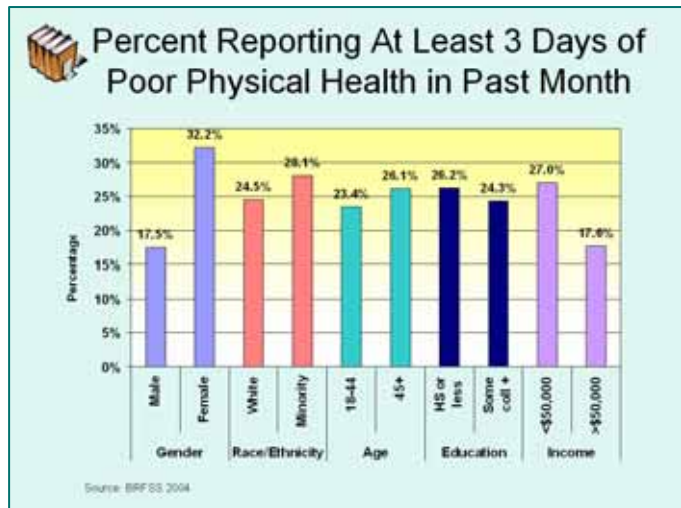
NC State Center for Health Statistics, BRFSS



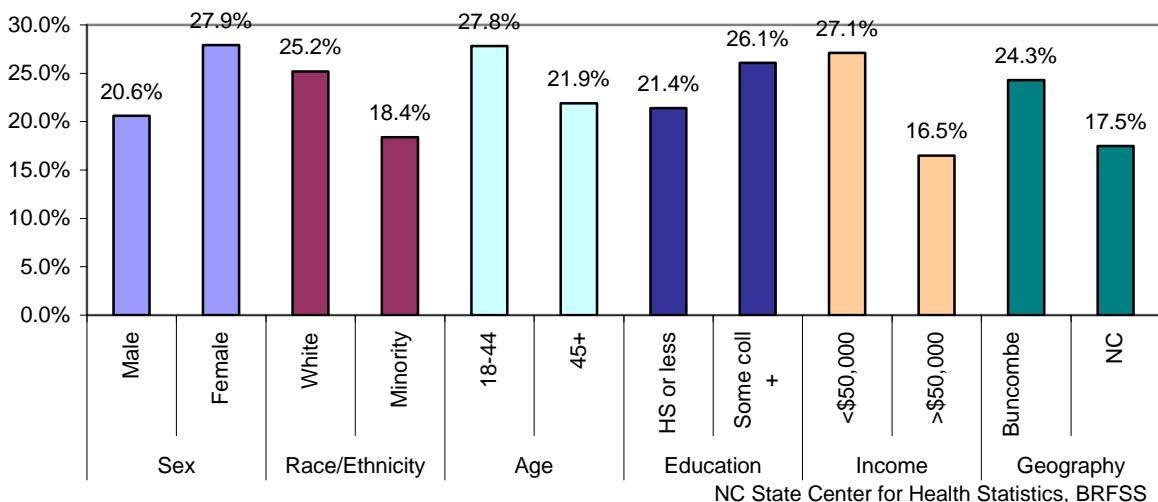
Health status varies considerably by group. One-third of the county's minority residents describe their overall health as "fair" or "poor." Given that CHA 2005 Latino survey respondents were, on average, considerably younger than the phone survey respondents, it is particularly striking that a much higher percent (34.0% vs. 19.2% for general phone survey) rated their health as "fair" or "poor." Lower income and educational attainment also correlated with poorer health status.

Activity limitations brought about by poor health were reported more often by Buncombe County residents than by North Carolina residents (*graph below*).

Substantially more low-income persons activity limitations, as might be expected, but somewhat higher rates were also reported by Whites, younger persons, and those with higher education.

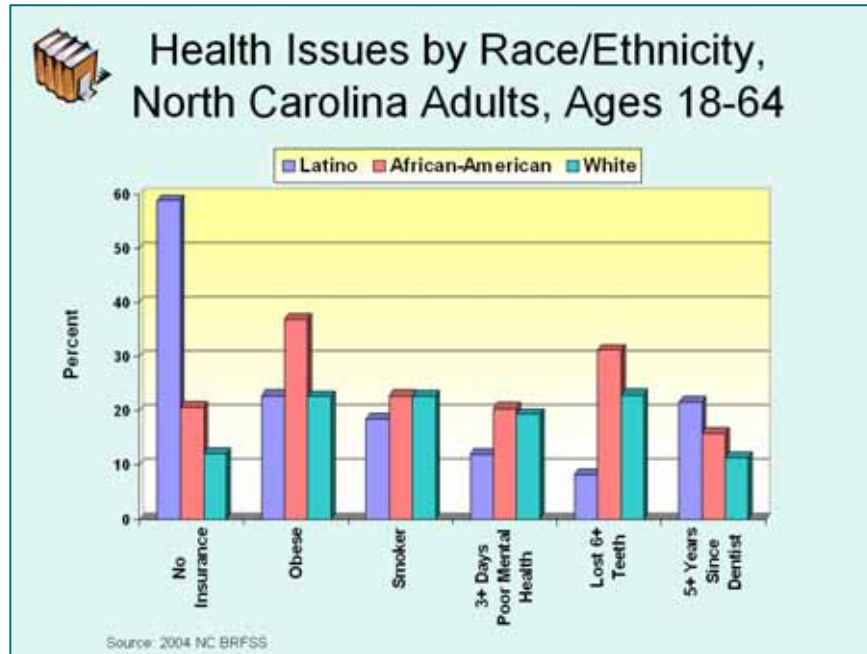


Percent Reporting Some Days in Past Month That Poor Health Kept Them from Usual Activities, Buncombe County, by Group, 2004





The graph below shows North Carolina statewide data on several issues that impact or reflect an individual's health status. The 2004 BRFSS survey involves large enough numbers to allow valid comparison between African-Americans, Latinos, and Whites. The data illustrate that health status is often markedly different between population sub-groups.

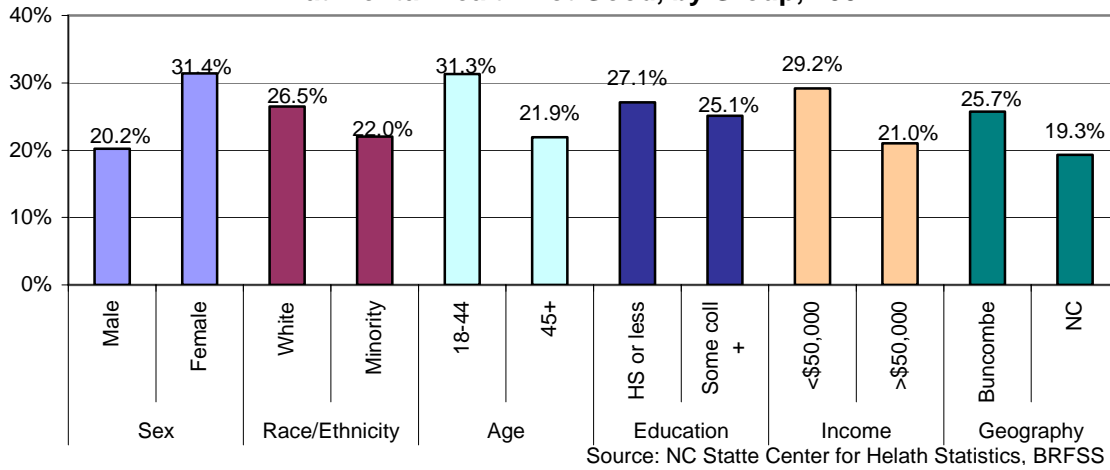


- Latinos are by far the most likely to lack health insurance. Lack of insurance is nearly six times as high for Latinos as for Whites, and African Americans are nearly twice as likely to lack insurance than are Whites. (Insurance is discussed further in the report section entitled *Access to Healthcare*, pp. 66-74)
- Obesity is similar for Latinos and Whites overall, but African Americans in North Carolina are 63% more likely to be obese than are Whites. “Obese” is defined as having a Body Mass Index (BMI) score of 30 or higher.
- “Smokers” are persons who currently smoke cigarettes (and have smoked at least 100 cigarettes in their lifetime). Latinos are least likely to be current smokers, while statewide African American and White smoking rates were quite similar.
- Poor mental health status is indicated by a report of 3 or more days of poor mental health in the preceding 30 days. African Americans and Whites were again similar, with Latinos reporting just slightly more than half the rate of poor mental health days.
- A sizable portion of North Carolina residents have lost six or more teeth to decay or gum disease.
 - 8.2% of Latinos
 - 31.2% of African Americans
 - 22.9% of Whites
- When asked when they had last been treated by a dentist for any reason, many had gone 5 or more years:
 - 21.5% of Latinos
 - 15.8% of African Americans
 - 11.3% of Whites



BRFSS survey respondents were asked about their overall mental health: “Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?” Overall, Buncombe County had more people saying they had three or more such days than did North Carolina. Females and younger people were particularly likely to report having three or more days per month that their mental health was not good.

Percent Reporting At Least Three Days in Past Month That Mental Health Not Good, by Group, 2004



Leading Causes of Death

The leading causes of death in Buncombe County (2000-2004) are similar to those in counties across the state and nation: Heart disease is the leading cause of deaths, accounting for one death in every four. Cancer deaths accounted for 22% of deaths and stroke accounted for 7%. More than half the deaths in the county were from one of these three causes.

Rank	BUNCOMBE	Rank	NORTH CAROLINA
1	Heart diseases	1	Same
2	Cancer (all sites)	2	Same
3	Cerebrovascular disease	3	Same
4	Chronic lower respiratory disease	4	Same
5	Alzheimer's disease	5	Unintentional injuries
6	Unintentional injuries	6	Diabetes
7	Pneumonia / influenza	7	Same
8	Diabetes	8	Alzheimer's disease
9	Kidney diseases	9	Same
10	Septicemia	10	Same

Source: NC State Center for Health Statistics

Mortality rates for four types of cancer would appear on a list of major causes of death even if graphed separately, rather than lumped with all cancers:

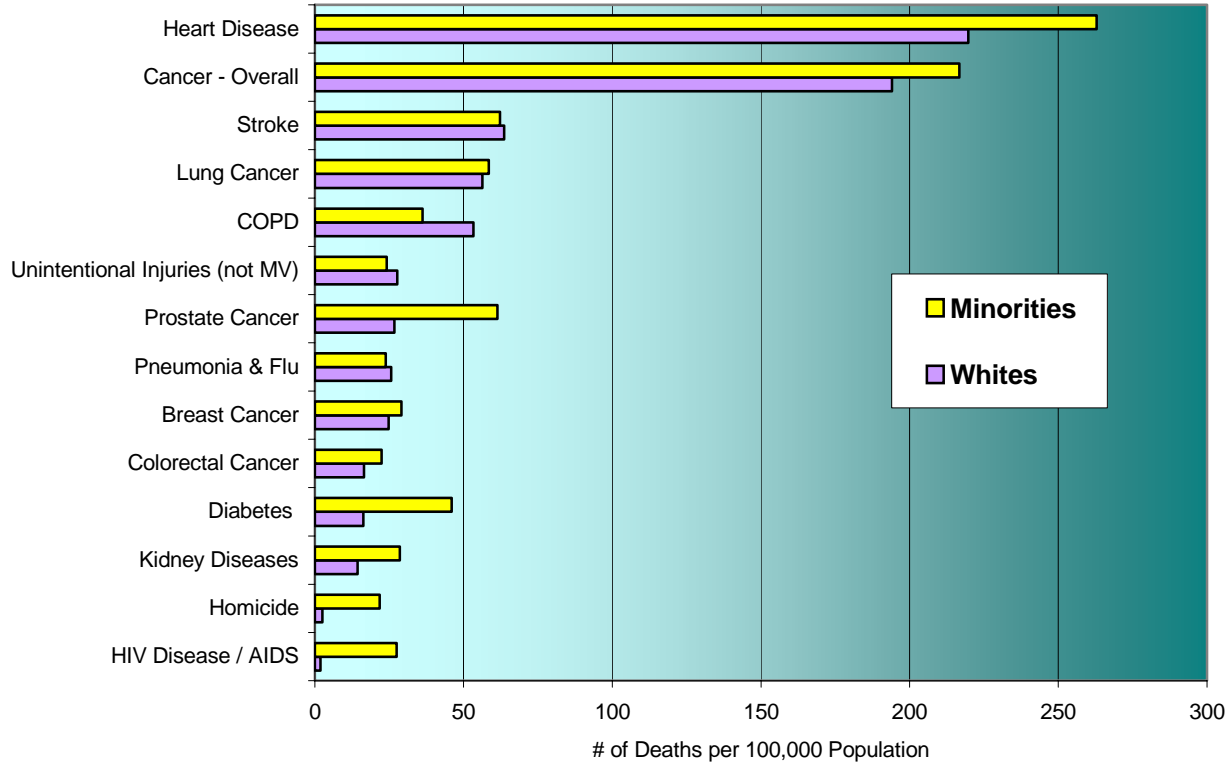
- Lung cancer has by far the highest death rate, 57.3
- Prostate cancer, 25.9
- Female breast cancer, 22.7
- Colon cancer, 16.8 deaths per 100,000 population



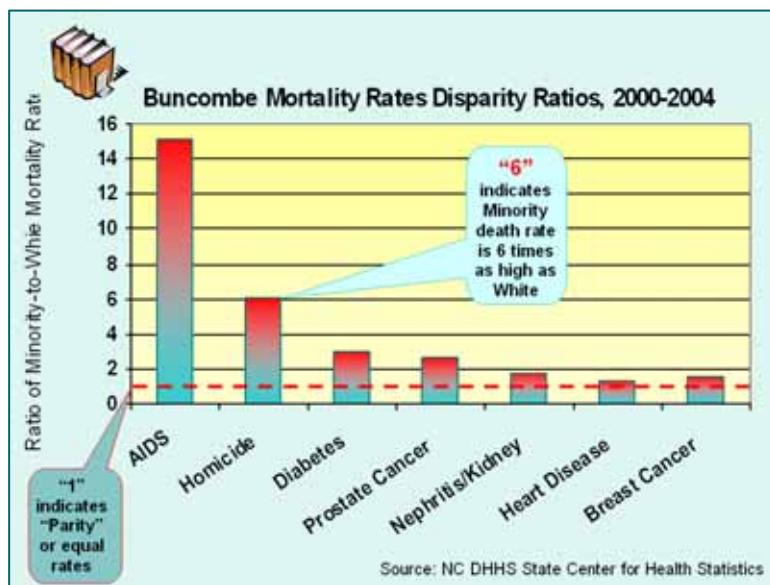
Leading Causes of Death by Race-Ethnicity

For most diseases, death rates for Minorities exceed the rate for Whites.

Leading Causes of Death, Buncombe County by Race, 1999-2003



Source: NC State Center for Health Statistics



- Heart disease and cancer (overall) are the top two causes of death for both Whites and Minorities, but the death rates are higher for Minorities.
- AIDS and homicide are leading causes of death for Minorities but quite minor causes among Whites.
- Diabetes and kidney diseases (often related to diabetes) are much more prominent causes of death for Minorities than for Whites, as is prostate cancer.
- COPD (chronic lower respiratory disease) is the only chronic disease with a noticeably higher death rate for Whites than for Minorities.



Leading Causes of Death Compared to Target Objectives

The Healthy People 2010 (HP2010) and NC 2010 initiatives have set objectives for numerous disease death rates. Rates shown in the table below are in the form of:

deaths per 100,000 population

A Buncombe mortality rate that is below the target rate is desirable, indicating we have fewer deaths due to this disease or condition. The national (HP 2010) objectives are generally more ambitious. Causes of death, below, are ordered – from best to worst – by the extent to which they meet North Carolina targets first, and then national targets if no state target has been set. Cells that are shaded in **light green** show that we have met or exceeded the target rate.

Deaths Due to:	Buncombe 2000-2004	NC 2010		HP 2010	
		Target	Status	Target	Status
Diabetes	17.3	67.4	☺ 74% ↓	45.0	☺ 62% ↓
COPD	50.0	No target set		60.0	☺ 17% ↓
Motor Vehicle Accidents	14.2	15.8	☺ 10% ↓	9.2	54% ↑
Prostate Cancer	25.9	No target set		28.8	☺ 10% ↓
Heart Disease	213.1	219.8	☺ 3% ↓	* 166.0	*Subset only
Stroke	59.7	61.0	☺ 2% ↓	48.0	24% ↑
Homicide	5.0	5.0	☺ At target	3.0	67% ↑
Breast Cancer (<i>female</i>)	22.7	22.6	1% ↑	22.3	2% ↑
Colorectal Cancer	16.8	16.4	2% ↑	13.9	21% ↑
Cancer – Overall	190.1	166.2	14% ↑	159.9	19% ↑
Lung Cancer	57.3	No target set		44.9	28% ↑
Suicide	11.6	8.0	45% ↑	5.0	132% ↑
Unintended Injury (not MV)	29.3	No target set		17.5	67% ↑
Liver Disease / Cirrhosis	9.2	No target set		3.0	207% ↑

- Buncombe County is doing best on goals for death rates due to diabetes, COPD, homicide, motor vehicle accidents, prostate cancer and heart disease.
- Substantial reductions in mortality are needed to reach targets on suicide and accidents.
- More moderate improvement is needed to reach targets for cancer overall, lung and breast cancers. We're near state – but not national – targets for stroke and colorectal cancer.



Leading Causes of Death, by Age

The graph below shows the ten leading causes of death (from top to bottom in each column) for each age group (moving from youngest in the left column to the oldest toward the right, with the far right column for all persons, regardless of age). Color-coded cells assist in seeing how a given disease ranks across the range of age groups; causes shown in white are not repeated.

Buncombe County Leading Causes of Death by Age, Deaths in 2000-2004

Rank	Age 0-19	Age 20-39	Age 40-64	Age 65-84	Age 85+	All Ages
1	Conditions originating in the perinatal period	Unintentional injury (not motor vehicle)	Cancer, overall	Cancer, overall	Heart diseases	Heart diseases
2	Motor vehicle accident injuries	Motor vehicle accident injuries	Heart diseases	Heart diseases	Stroke (cerebrovascular disease)	Cancer, overall
3	**	Suicide	Unintentional injury (not motor vehicle)	COPD Chronic lower resp.disease	Cancer, overall	Stroke (cerebrovascular disease)
4	**	Cancer, overall	COPD Chronic lower resp.disease	Stroke (cerebrovascular disease)	Alzheimer's disease	COPD Chronic lower resp.disease
5	**	Heart diseases	Suicide	Alzheimer's disease	Pneumonia & influenza	Alzheimer's disease
6	**	Homicide	Stroke (cerebrovascular disease)	Pneumonia & influenza	COPD Chronic lower resp.disease	Unintentional injury (not motor vehicle)
7	**	**	Liver disease & cirrhosis	Diabetes	Unintentional injury (not motor vehicle)	Pneumonia & influenza
8	**	**	Diabetes	Kidney diseases (nephritis, etc.)	Pneumonitis due to solids & liquids	Diabetes
9	**	**	Motor vehicle accident injuries	Septicemia	Kidney diseases (nephritis, etc.)	Kidney diseases (nephritis, etc.)
10	**	**	HIV disease (AIDS)	Unintentional injury (not motor vehicle)	Septicemia	Septicemia

** 20 or fewer deaths occurred; therefore causes not ranked

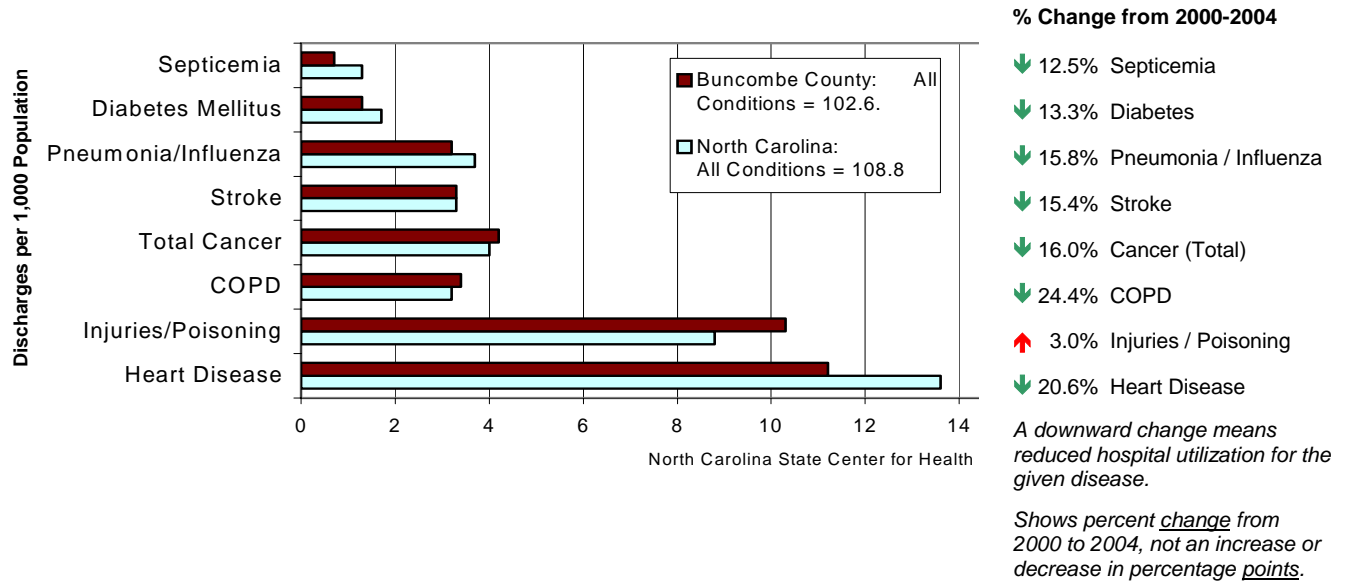
Source: NC State Center for Health Statistics County Data Book, 2006



Hospitalizations as a General Indicator of Disease Burden

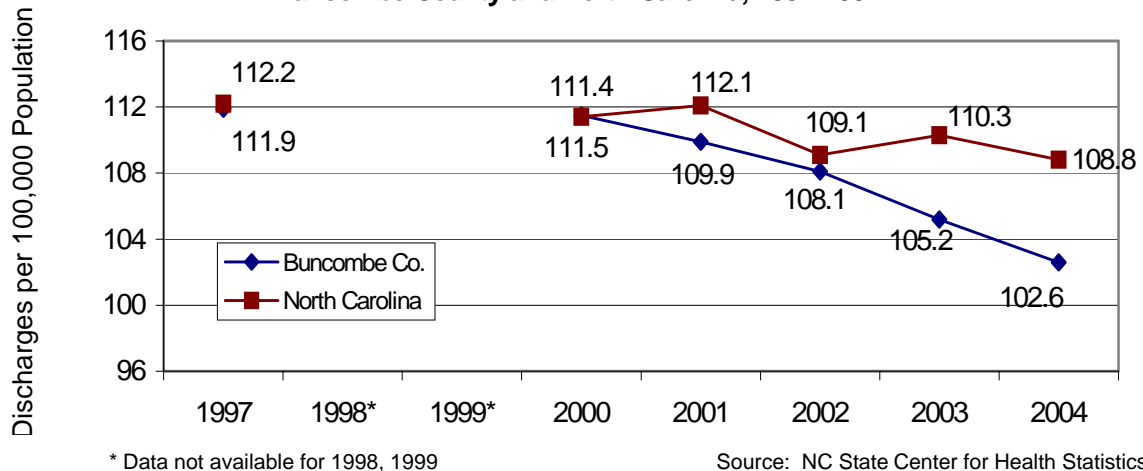
Overall, fewer Buncombe County residents are hospitalized (102.6 discharges/1,000) than are state residents as a whole (108.8%). For most conditions, fewer Buncombe County residents are hospitalized than are residents of other counties. Exceptions are hospitalizations for Injuries and poisonings, total cancer, and COPD. The rate for strokes is the same as North Carolina's. Lower hospitalization rates could indicate lower incidence of a disease, but might also reflect improvements in out-patient management, or barriers to hospital care such as cost issues.

Hospital Discharge Rates, Buncombe County and North Carolina, 2004



Rates of hospitalization in Buncombe County are trending downward for all conditions combined. The overall hospitalization rate is decreasing faster in the county than in North Carolina. The downward trend in hospitalization rates has occurred in almost all diagnostic categories. Only the hospitalization rate for injuries and poisoning is higher in 2004 than in 2000, and that increase is only by 3%.

Hospital Discharge Rates for All Conditions, Buncombe County and North Carolina, 1997-2004





Impairment and Disability

Even in the general community phone survey, more than one in five reported experiencing chronic pain and/or having arthritis.

More than half the older residents in the Seniors survey experience difficulty walking, and two-thirds of seniors reported having arthritis.

Such limiting conditions can affect a person's health indirectly as well, for example by making it difficult to stay active and fit.



Impairment and Disability

CHA 2005 Phone Survey

- ◆ 23.3% reported limitations to their activities due to physical, mental or emotional problems
- ◆ 23.3% reported having arthritis
- ◆ 21.3% reported suffering from chronic pain

CHA 2005 Seniors Survey

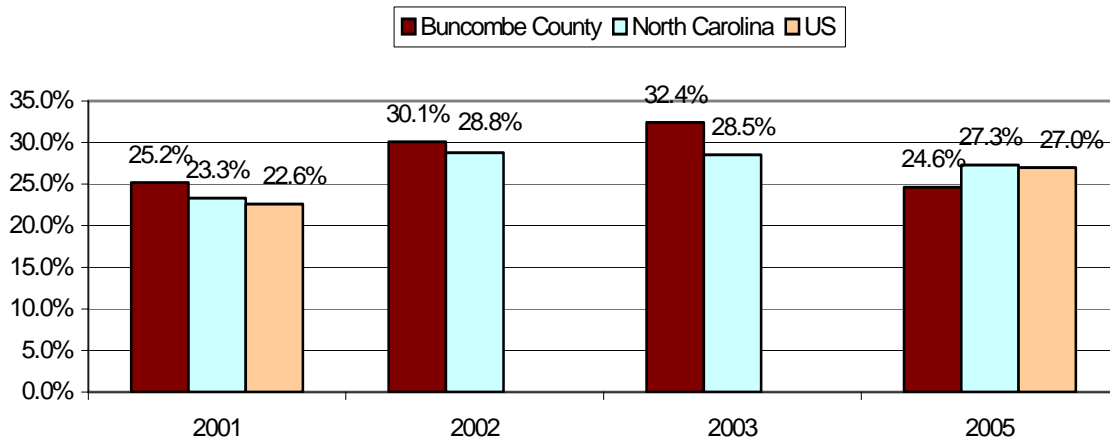
- ◆ 67.0% reported having arthritis
- ◆ 57.0% reported difficulty in walking



Arthritis Prevalence

In the annual BRFSS survey respondents are asked about arthritis. About one in four residents say that they have arthritis.⁵ The Buncombe County and North Carolina rates appear to have risen in 2002 and 2003, but Buncombe County's 2005 rate is nearly the same as its 2001 rate.

Percent That Have Ever Been Told They Have Arthritis, 2001-2005



Sources: NC State Center for Health Statistics, BRFSS; CDC BRFSS

Within Buncombe County, nearly half of all adults age 45 and older report that they have arthritis. Arthritis appears to be slightly more prevalent in Whites than in Minorities.

⁵ Arthritis diagnoses include rheumatism; polymyalgia rheumatica; osteoarthritis (not osteoporosis); tendonitis, bursitis, bunion, tennis elbow; carpal tunnel syndrome, tarsal tunnel syndrome; joint infection, Reiter's syndrome; ankylosing spondylitis; spondylosis; rotator cuff syndrome; connective tissue disease, scleroderma, polymyositis, Raynaud's syndrome; vasculitis (giant cell arteritis, Henoch-Schonlein purpura, Wegener's granulomatosis, polyarteritis nodosa)



Chronic and Infectious Diseases

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Stroke	49
Syphilis	50



HIGHLIGHTS: Chronic and Infectious Diseases

- Self-report on **asthma** suggests an upward trend in Buncombe County.
- Death rates from **cancer** are higher for Minorities, especially Minority men.
- **Diabetes** death rates are nearly three times higher for Minority men and women than for Whites. Related overall death rates from kidney disease are on the rise.
- Death rates for **heart disease** are trending downward.
- Overall, 60% of Buncombe adults are either **overweight or obese**. The number of at-risk and overweight children starts to grow exponentially beginning in second grade.
- The rate of new **AIDS** cases has declined (improved), and is lower than the North Carolina average for the first time in years. However, the AIDS death disparity ratio is increasing.
- New-case rates for **STDs** (sexually-transmitted diseases) have improved substantially.
- Race-ethnic disparity in the death rates for **stroke** is reduced considerably.

Chronic and Infectious Diseases – Notes on Data Presented

The preceding section on “Health Status” provided a quick overview of physical and mental health status in Buncombe County. This section covers prominent chronic (ongoing) diseases and infectious diseases, organized alphabetically, with discussion of:

- disease rates
- trends over time in incidence, prevalence and/or mortality
- how demographic sub-groups affected and where disparities lie
- links to further information and help on this disease

When talking about disease rates:

“**Incidence**” refers to newly diagnosed cases in a specified area and time period. For example, the county’s “lung cancer incidence rate” is based on the number of newly diagnosed lung cancer cases in Buncombe County in a calendar year.

“**Prevalence**” refers to the ongoing experience of an illness or disease. The county’s “lung cancer prevalence rate” is based on the number of persons living in Buncombe County who have been diagnosed as having lung cancer.

An increase in the prevalence rate of a disease does not necessarily mean an increasing rate of new cases.

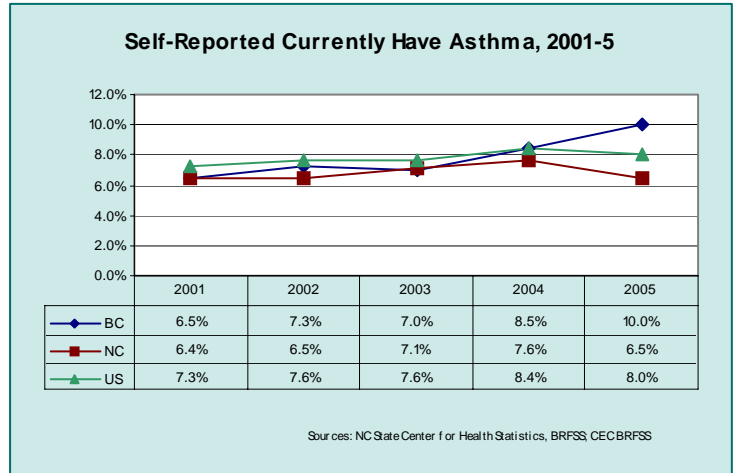
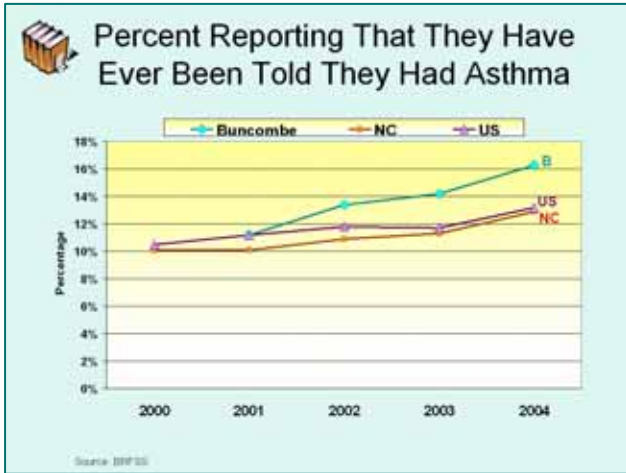
- Improvements in medical treatment can mean that fewer people are dying from the disease, and therefore an increasing number of people are living with it.
- For diseases that can be detected through laboratory tests or medical check-ups, an increase in the prevalence rate may be due in part to more persons getting screened and diagnosed. Such early detection can lead to improved disease management and a longer, healthier life for the affected person.



Chronic & Infectious Disease: ASTHMA

Asthma: Rates and Trends

Adulthood asthma prevalence, both current and lifetime is estimated through BRFSS survey questions that ask if the respondent currently has asthma (now), or has ever had it.



Ever been told they had asthma	2000	2001	2002	2003	2004
Buncombe County	n/a	11.2%	13.4%	14.2%	16.3%
North Carolina	10.1%	10.1%	10.9%	11.3%	12.9%
United States	10.5%	11.2%	11.8%	11.7%	13.2%

Buncombe 3-year average (2001-03) 12.9% (2002-04) 14.6%

The data suggest an upward trend in North Carolina (NC) and the nation (US), and a clearer upward trend in Buncombe County (BC). One in ten Buncombe County adults reported that they currently have asthma, in 2005. Buncombe County has a statistically significant higher percentage of adults with asthma than does North Carolina. If the current rate of increase holds steady, by 2007 the percent of Buncombe County residence who know they currently have asthma will be double that of 2001.

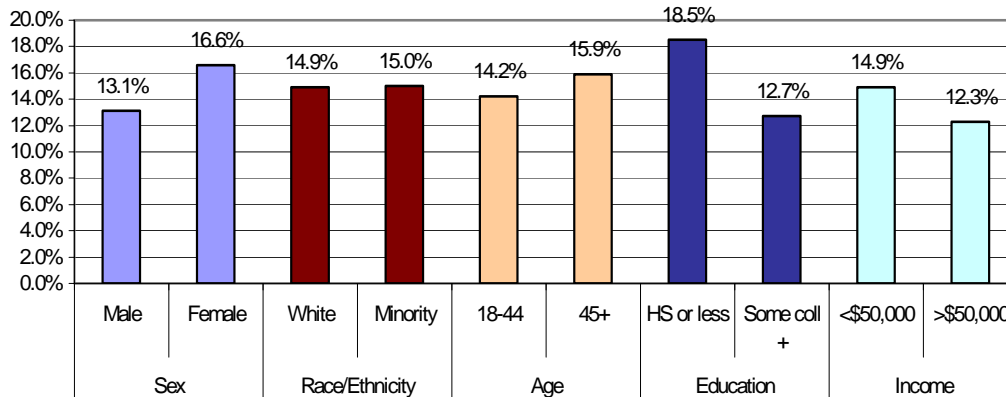
- In 2004 16.3% of Buncombe adults (18-64) reported they had ever been told they have asthma (at any time in their lifetime).
- Buncombe's annual and 3-year average rates exceed state and national percentages.
- Rate of increase shows some slowing over this 4-year time frame.
- Since 2000, the Buncombe County's hospitalization rate for asthma has dropped more than the North Carolina hospitalization rate. Buncombe County improvement may be due to greater attention to this issue on many fronts.
- Air quality is of particular concern to individuals with pre-existing respiratory diseases such as asthma, chronic bronchitis and emphysema.
- Poor air quality can aggravate or worsen respiratory symptoms. The air quality data shown in the earlier discussion of air quality (see page 14, above) indicate some improvement in:
 - ozone levels (a respiratory irritant) in 2005 and 2006
 - particle pollution in 2006



Asthma: Demographics and Disparities

Residents with less education report more asthma than those with more education; this is the case to a lesser extent for women compared to men. However, neither difference is statistically significant, and no sub-group of adults in Buncombe County has a low asthma prevalence level.

Percent Reporting Ever Having Asthma, by Group, 2005



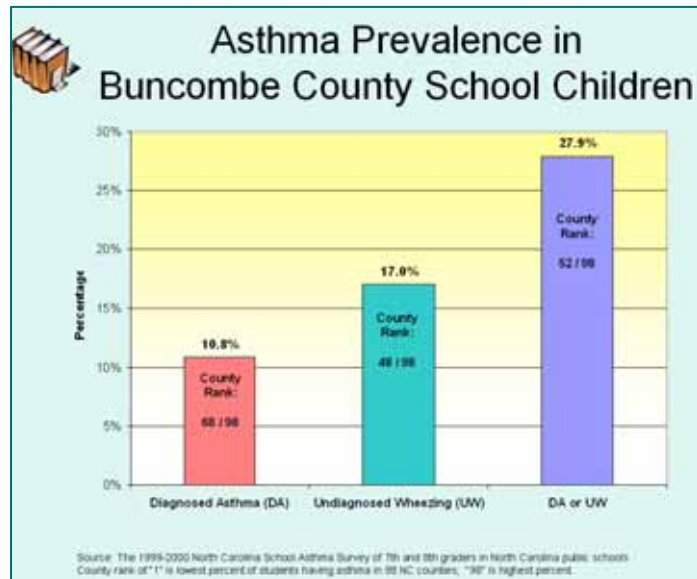
Source: NC State Center for Health Statistics

Childhood Asthma

According to the North Carolina School Asthma Survey, conducted in 1999-2000 with 7th and 8th grade students in North Carolina Public Schools, for Buncombe students:

- 10.8% had been diagnosed with asthma (DA)
- 17.0% were found to have undiagnosed wheezing (UW)
- Overall, almost 28% with DA or UW
- For overall percentage, Buncombe ranked 62 of 98 participating counties (where 1= lowest rate of childhood asthma prevalence and 98 = highest rate)

Buncombe hospitalization rates for childhood asthma are on the decline. This may indicate better primary care management of childhood asthma.



Asthma Links

- The CDC's main page for asthma is: <http://www.cdc.gov/asthma/>
- A CDC link specific to children's asthma: <http://www.cdc.gov/asthma/children.htm>
- Basic asthma facts *en Español*: <http://www.cdc.gov/asthma/es/faqs.htm>



Chronic & Infectious Disease: CANCER

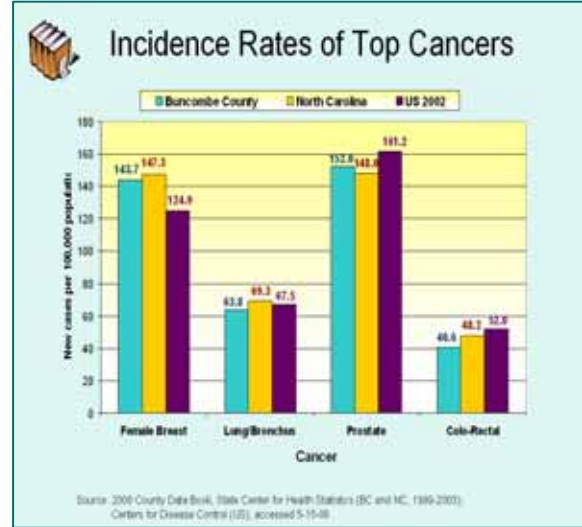
Resource links for specific cancers are at the end of the "Cancer" section, rather than in each sub-section.

Cancer - Overall: Rates and Trends

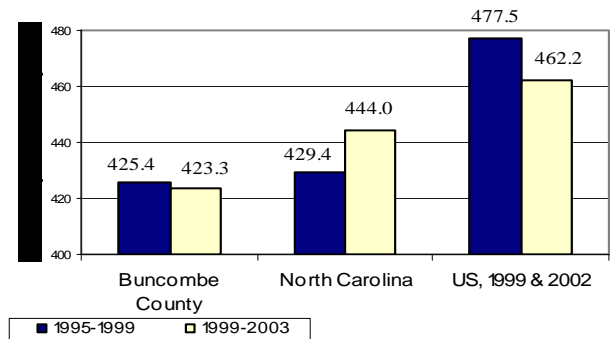
The data at right show the new-case rates on various cancers in Buncombe County and North Carolina from 1999-2003 (a 5-year period); the US data are from 2002.

The small number of occurrences can make annual rates unstable, so for most diseases, it's preferable to use 5-year rates for county and state data.

Buncombe County compares favorably with state averages for top cancers: female breast, lung, and colorectal cancers. It is nearly equal for prostate cancer.



Total Cancer Incidence, 1995-9 and 1999-2003



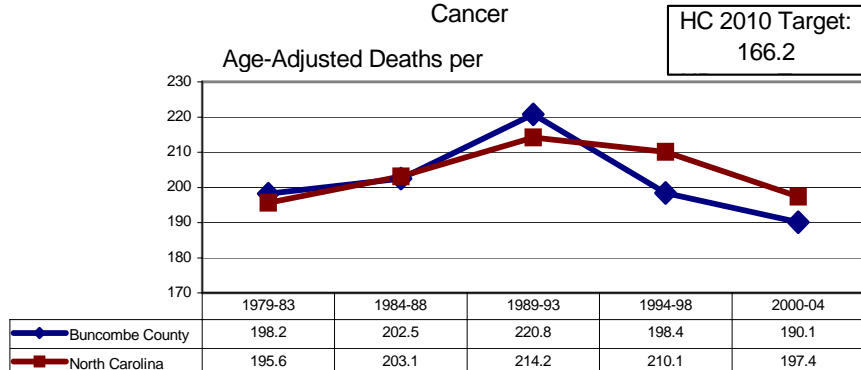
Sources: NC Center for Health Statistics

While Buncombe compares favorably with NC, both the county's and state's breast cancer incidence rates are higher than the national average.

Buncombe County's overall cancer incidence rate is lower than the state, and substantially lower than the overall national rate. Whereas the state showed an overall increase in new cancer cases, the county's rate held steady.

After peaking about 1990, overall cancer death rates have decreased in both the county (190.1) and the state (197.4). However, both are still short of meeting the state and national objectives (166.2 and 159.9 respectively).

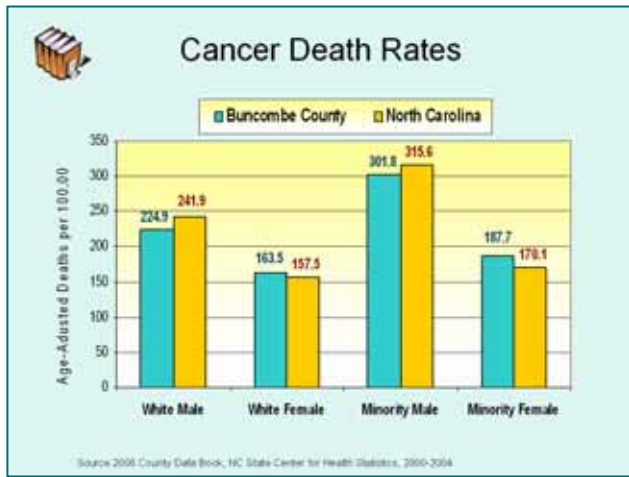
Mortality Trends 1979-2004, Buncombe County and NC: Cancer



Source: North Carolina State Center for Health



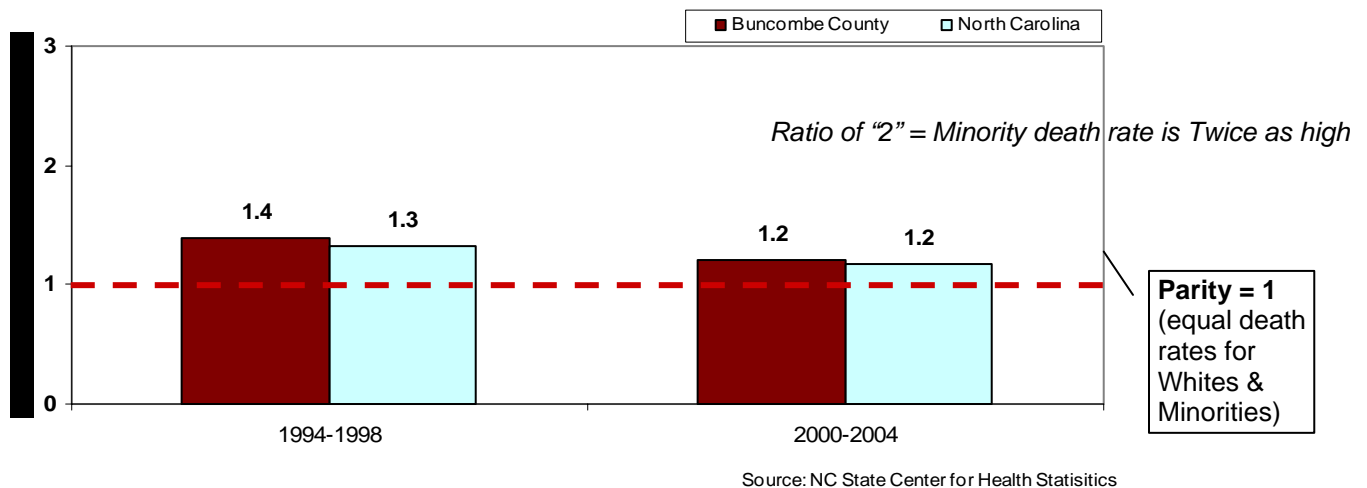
Cancer - Overall: Demographics and Disparities



- These are 5-year (2000-2004) overall death rates for all cancers combined, by race-ethnicity and gender.
- For both Buncombe County and North Carolina, minority residents have higher total cancer death rates.
- There is greater disparity in cancer death rates between Minority and White men, than Minority and White women.
- Buncombe County Minority women's overall cancer death rate exceeds the state average. This is also true, but to a lesser extent, for White women.

- Buncombe's cancer death rates for Minority males and White males compare favorable with state rates for men.
- Death rates from cancer are substantially higher for men than for women. This may reflect, in part, women's tendency to participate more regularly in routine physicals and screening exams. More Buncombe County women reported having a personal health care provider (82.9%) than did men (69.5%) (BRFSS 2005).
- For both Buncombe County and the state, the disparity ratios (Minority-to-White cancer death rates) suggest very modest improvement over the past 10 years, with a slight trend toward narrowing the disparities gap on cancer deaths.

All Cancers Death Disparities, Buncombe County and North Carolina, 1994-2004

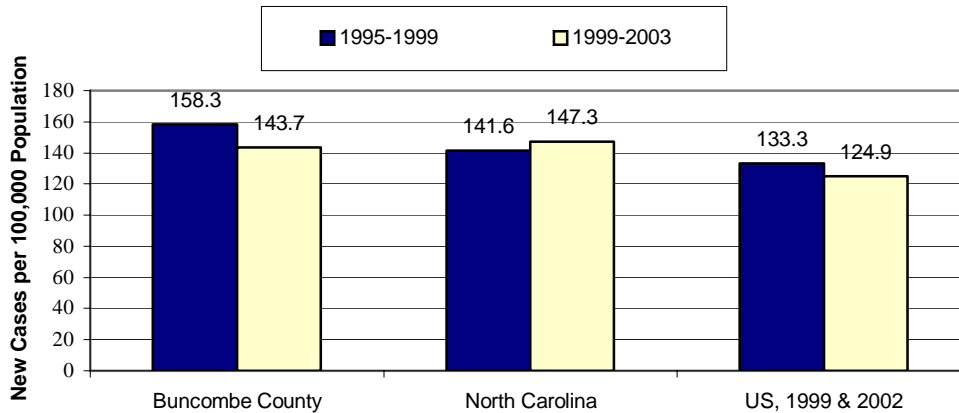




Breast Cancer (in Women): Rates and Trends

The rate of new cases of female breast cancer in Buncombe County showed no clear trend over the past five years. Buncombe's 5-year incidence rate (143.7 for 1999-2003) is about the same as North Carolina's (147.3), which are higher than the national rate (132.2 for 1997-2001).

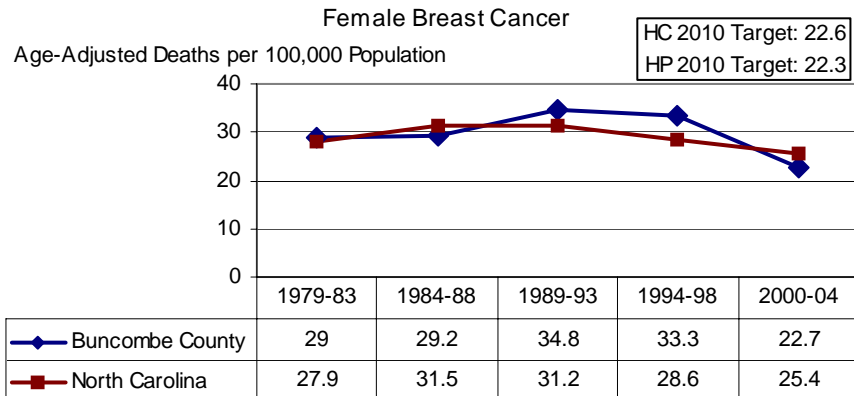
Female Breast Cancer Incidence, 1995-9 and 1999-2003



Sources: North Carolina Center for Health Statistics; National Program of Cancer Registries, Centers for Disease Control

The female breast cancer death rate in Buncombe County, once higher than state rates, is now lower than the state's and is approaching the Healthy Carolinian 2010 and Healthy People 2010 targets.

Mortality Trends 1979-2004, Buncombe County and NC:



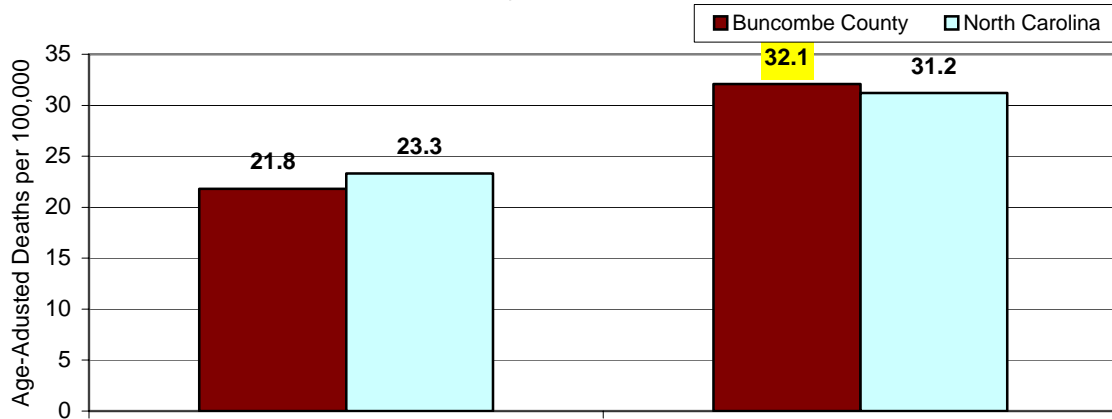
Source: North Carolina State Center for Health Statistics



Breast Cancer (in Women): Demographics and Disparities

NOTE: Throughout this report, where graph values are highlighted in yellow, this indicates that the number of incidents is small, and therefore the data must be interpreted cautiously.

**Women's Breast Cancer Death Rates by Race-Ethnicity
Buncombe County and North Carolina, 2000-4**

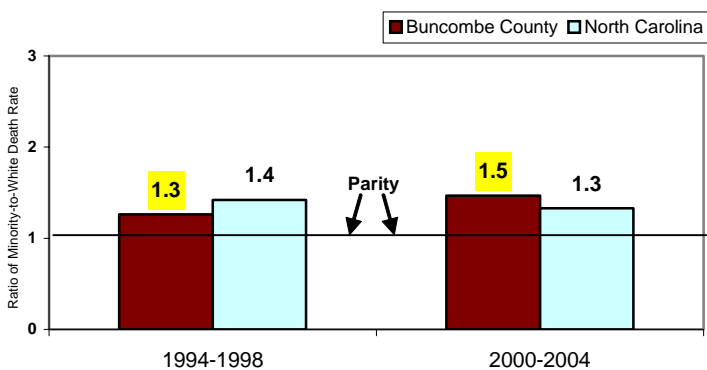


Yellow highlight indicates fewer than 20 deaths; interpret with caution

Source: NC State Center for Health Statistics

Even over a 5-year time period, the small number of deaths from breast cancer among Minority women requires cautious interpretation. The breast cancer death rate for Minority women in Buncombe County appears to be close to the same as the state rate, and nearly 50% higher than for White women. The county's death rate for White women appears slightly better than the statewide rate.

**Breast Cancer Death Disparity Ratios
Buncombe County and North Carolina, 1994-2004**



Yellow highlight = < 20 deaths; interpret with caution

Source: NC State Center for Health Statistics

In comparing breast cancer death rates by race-ethnicity over time, this graph of disparity ratios suggests the gap is widening slightly between breast cancer death rates for Minority and White women in Buncombe County.

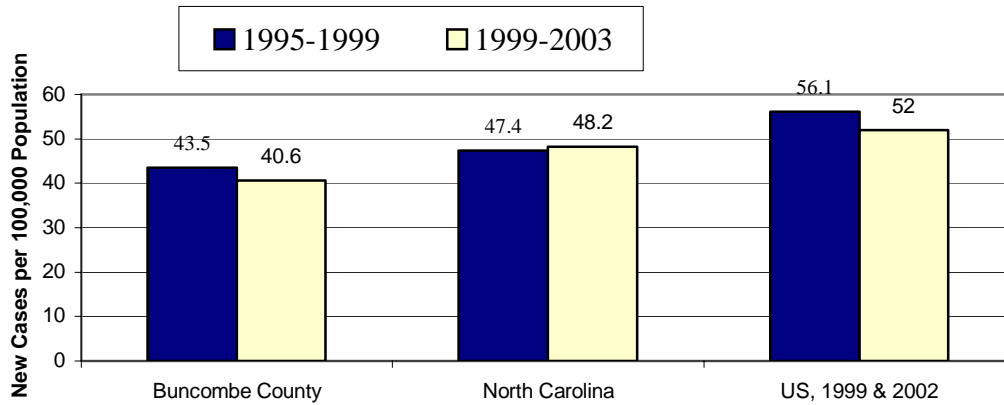
The "Prevention" section of this report (below) discusses utilization of breast cancer screening, and programs available to assist in accessing these services (mammography and physical examination).



Colorectal Cancer: Rates and Trends

In contrast to the state and nation, the rate of new cases of colorectal cancer appears to be on a downward trend in Buncombe County.

Colo-Rectal Cancer Incidence, 1995-9 and 1999-2003



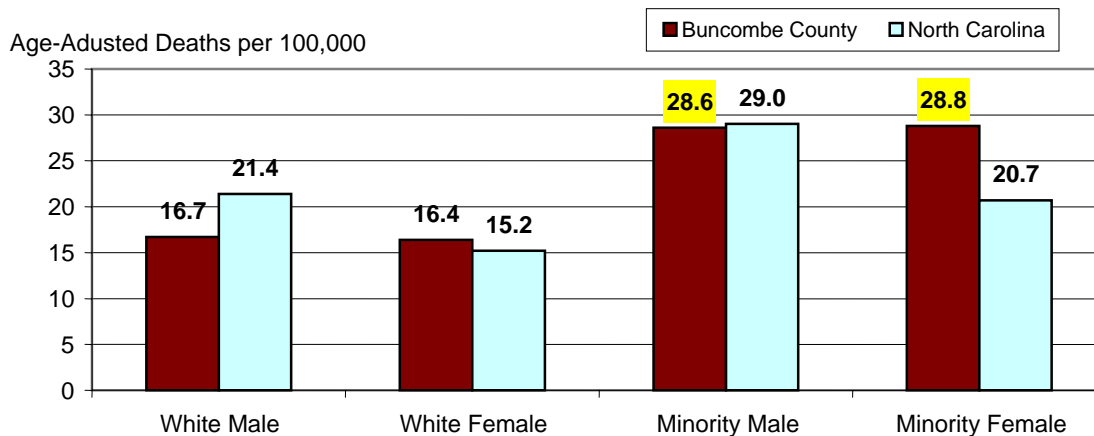
Source: NC State Center for Health Statistics

For Buncombe County residents altogether, the rate of death from colorectal cancer (16.8) is again lower than both North Carolina's (19.0) and the US rates, and is trending lower.

Colorectal Cancer: Demographics and Disparities

However, there appear to be marked disparities in death from colorectal cancer in Buncombe County. Although the low rate of occurrences among the county's Minority residents yields unstable rates, the data suggest a rate nearly 70% higher for Minority (versus White) men, and about 75% higher for Minority (versus White) women.

Colo-Rectal Cancer Death Rates by Race-Sex, Buncombe County and North Carolina, 2000-4



Yellow highlight indicates fewer than 20 deaths; interpret with caution

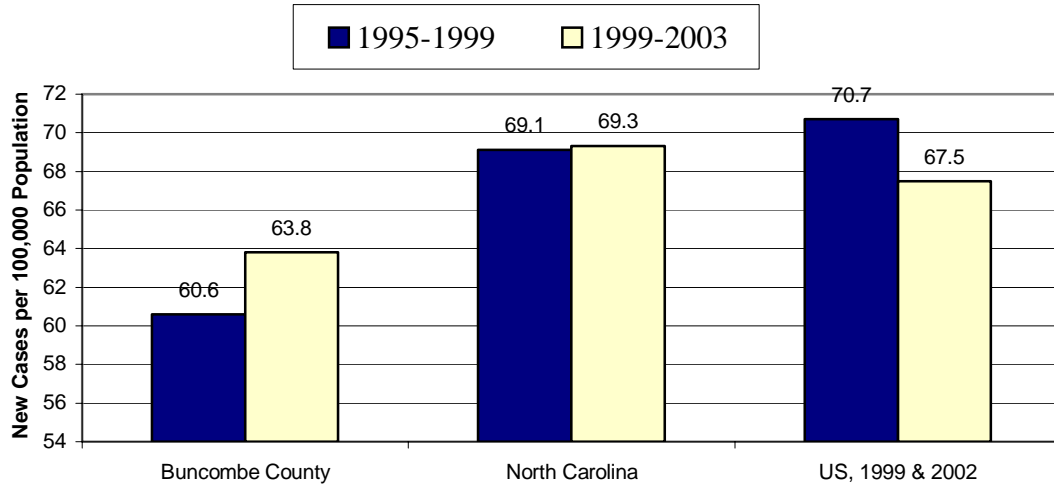
Screening rates for colorectal cancer are discussed below in the section on "Prevention."



Lung Cancer: Rates and Trends

The rate of new cases of lung cancer (incidence rate) is lower in Buncombe County than in North Carolina or the United States, even though it rose in the 1999-2003 time period.

Lung/Bronchus Cancer Incidence, 1995-9 and 1999-2003



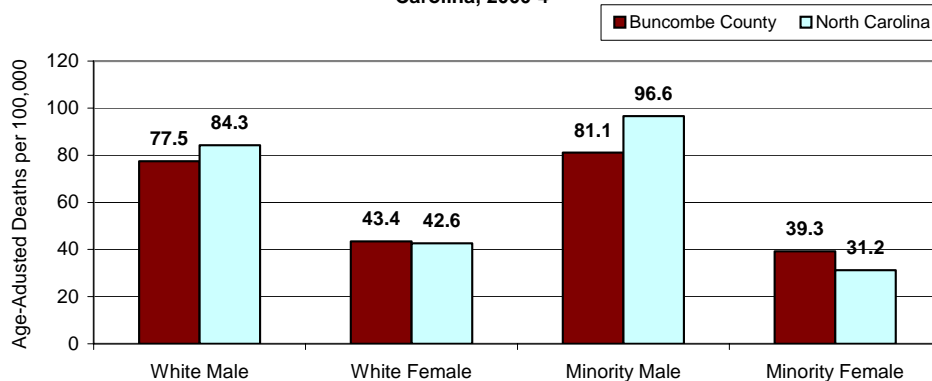
Sources: NC State Center for Health Statistics; CDC

Lung cancer death rates have diminished only slightly in the past ten years in the county and at the state level, as well. The county's lung cancer death rate (57.3 deaths per 100,000) for 2000-2004 is better than the state's (59.6), but is about 25% above the Healthy People target of 44.9 deaths per 100,000 population.

Lung Cancer: Demographics and Disparities

Comparing lung cancer deaths by race-ethnicity and gender for Buncombe County, we do not see the pattern of race-ethnic disparity typical for most diseases. Minority women have a lower death rate than White women. Minority men have only a modestly higher rate than for White men. The death rates for men are nearly twice the rates experienced by women.

Lung Cancer Death Rates by Race-Sex, Buncombe County and North Carolina, 2000-4



Source: NC State Center for Health Statistics

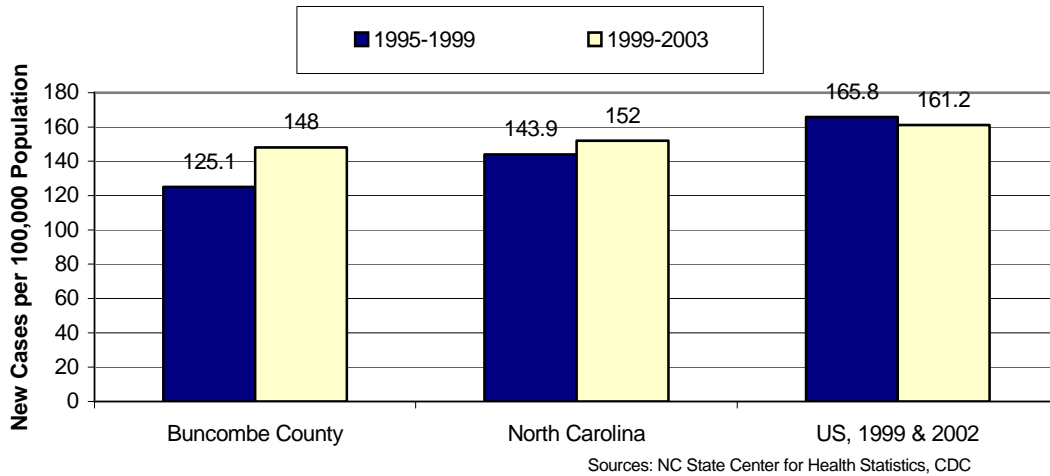
Buncombe County rates for men compare favorably with North Carolina's. Lung cancer death rates are higher for both White and Minority women in Buncombe compared to state rates.



Prostate Cancer: Rates and Trends

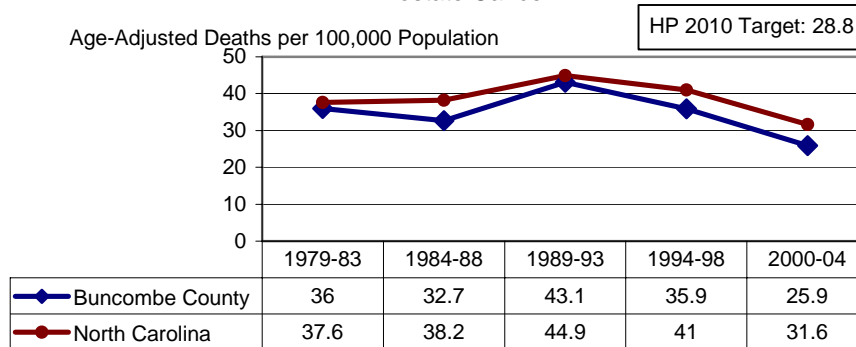
The rate of new cases of prostate cancer in Buncombe County has risen in the past decade. This could be partly due to detection through increased prostate screening (see "Prevention" section below) The county rate remains lower than for North Carolina and the US.

Prostate Cancer Incidence, 1995-9 and 1999-2003



Prostate cancer death rates in both Buncombe County and North Carolina have decreased steadily over the past ten years, with the rate of decrease being somewhat faster in the county than in NC as a whole. The Healthy People 2010 target (28.8 deaths per 100,000) was met in Buncombe County in 2000-2004 (25.9 deaths per 100,000).

**Mortality Trends 1979-2004, Buncombe County and NC:
Prostate Cancer**



Source: North Carolina State Center for Health Statistics

Prostate Cancer: Demographics and Disparities

There is a dramatic disparity (disparity ratio of 2.6) between prostate cancer death rates for Minority versus White men in Buncombe County (2000-2004). This was similar to NC rates.

	Buncombe	No. Carolina
Minority Men	62.0	67.2
White Men	23.8	24.8
Disparity Ratio	2.6	2.7

The HP2010 objective has been reached for White men in Buncombe County and North Carolina, but Minority men suffer a heavy disparity in death due to prostate cancer.



CANCER Links

- The federal government's National Cancer Institute, on-line at: <http://www.cancer.gov/>, has extensive information about all aspects of cancer – behavioral prevention, screening and testing, treatment, specialists, data on specific cancers, clinical trials, and living with cancer.
- The CDC's main webpage for cancer information is: <http://www.cdc.gov/cancer>
Links for specific cancers are:
 - Breast cancer <http://www.cdc.gov/cancer/breast/>
 - Cervical cancer <http://www.cdc.gov/cancer/cervical/>
 - Colo-rectal cancer <http://www.cdc.gov/cancer/colorectal/>
 - Lung cancer <http://www.cdc.gov/cancer/lung/>
 - Ovarian cancer <http://www.cdc.gov/cancer/ovarian/>
 - Prostate cancer <http://www.cdc.gov/cancer/prostate/>
 - Skin cancer <http://www.cdc.gov/cancer/skin/>
- And some special links:
 - Cancer disparities <http://www.cdc.gov/cancer/healthdisparities/>
 - Cancer survivors <http://www.cdc.gov/cancer/survivorship/>
 - **en Español** <http://www.cdc.gov/spanish/cancer/>
- The national American Cancer Society offers a wealth of information and resources at: <http://www.cancer.org/docroot/home/> including links to their local chapter in Asheville.
- The community offers many support groups for cancer patients and their families. For up-to-date information, contact United Way's 2-1-1 referral service. Either call "211" on your telephone, or use the 2-1-1 database at: <http://www3.irissoft.com/ashe/> and click on "Support Groups, Cancer."

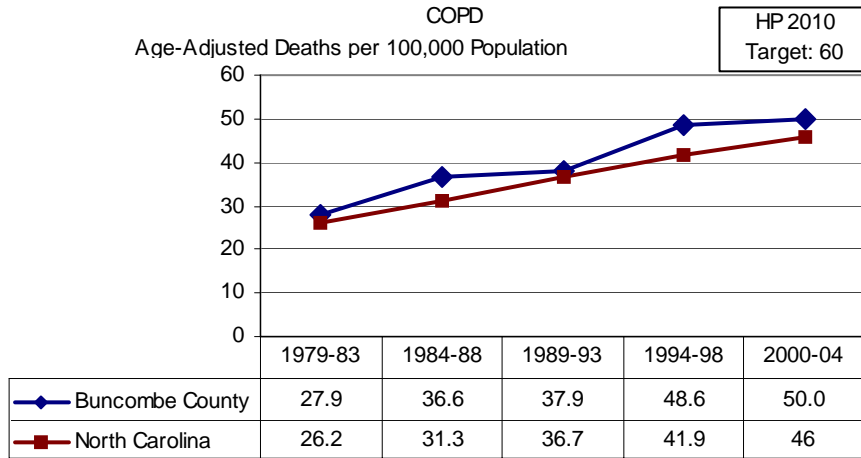


Chronic & Infectious Disease: CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD)

Chronic Obstructive Pulmonary Disease (COPD): Rates and Trends

The rate of death from COPD is nearly identical in Buncombe County (50 per 100,000) and North Carolina (46 per 100,000), and the rate has been rising. However, it remains well within the benchmark target of 60 deaths per 100,000, set by Healthy People 2010.

Mortality Trends 1979-2004, Buncombe County and NC:

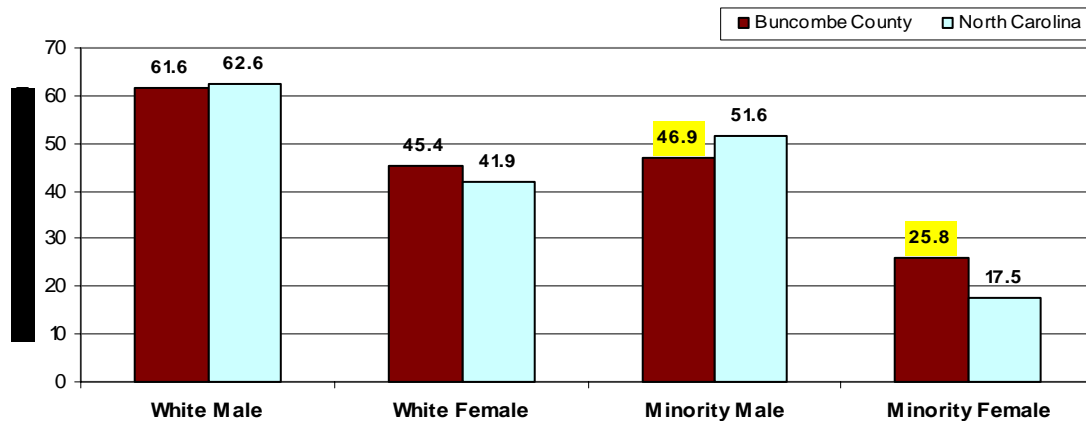


Source: North Carolina State Center for Health Statistics

Chronic Obstructive Pulmonary Disease (COPD): Demographics and Disparities

COPD is one of only a few health issues where Minority men and women fare better than their White counterparts. Minority men, and to a lesser extent White males, die far more often from COPD than do women within their race-ethnic group.

Chronic Lower Respiratory Disease Death Rates by Race-Sex, Buncombe County and North Carolina, 2000-4



Yellow highlight indicates fewer than 20 deaths; interpret with caution

Source: NC State Center for Health Statistics

Chronic Obstructive Pulmonary Disease (COPD): Links and Resources

- The CDC link for COPD is: <http://www.cdc.gov/nceh/airpollution/copd/copdfaq.htm>
 - *en Español* <http://www.cdc.gov/nceh/airpollution/copd/es/copdfaq.htm>

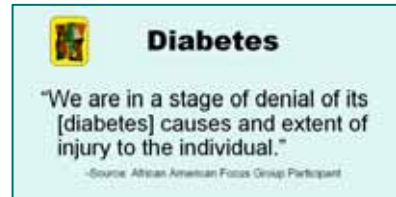


Chronic & Infectious Disease: DIABETES

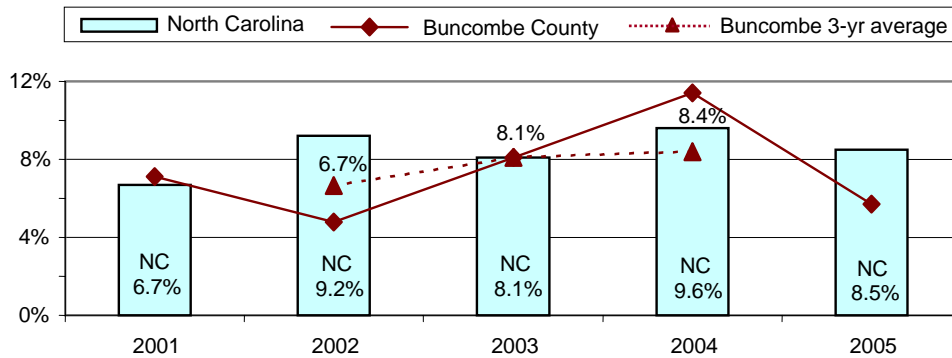
Diabetes: Rates and Trends

BRFSS results show that in 2005 in Buncombe County, 5.7% of adults said they had been told at some point in their lives that they had diabetes. A gradual upward trend for the county is more clearly seen by averaging three-year periods (*dotted line in graph below*).

- Buncombe's diabetes prevalence was 5.7% in 2005, 11.4% in 2004, and 8.1% in 2003.
- The prevalence of diabetes in North Carolina was 8.5% in 2005, 9.6% in 2004, and 8.1% in 2003.
- US rates were 7.3% in 2005, and 7.0% in 2004.
- At each geographic level, data suggest an upward trend in diabetes prevalence.



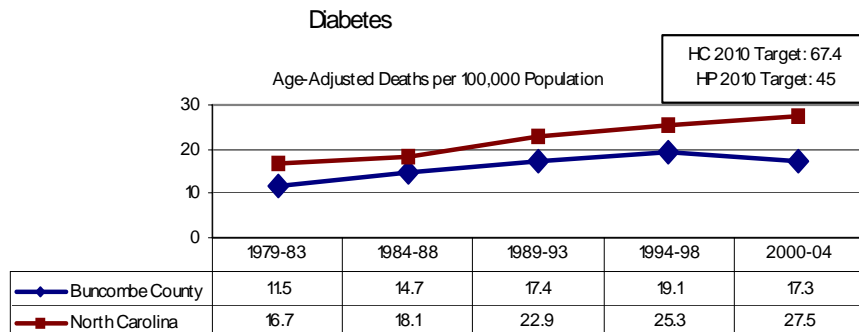
**Diabetes Prevalence - Buncombe County and North Carolina
2001 - 2005**



Source: NC State Center for Health Statistics, BRFSS

After increasing for many years, the Buncombe County diabetes death rate decreased in the last 5-year period to an average of 17.3 deaths per 100,000 population, per year. North Carolina's rate continued to increase, averaging 27.5 per 100,000 over the last

Mortality Trends 1979-2004, Buncombe County and NC:



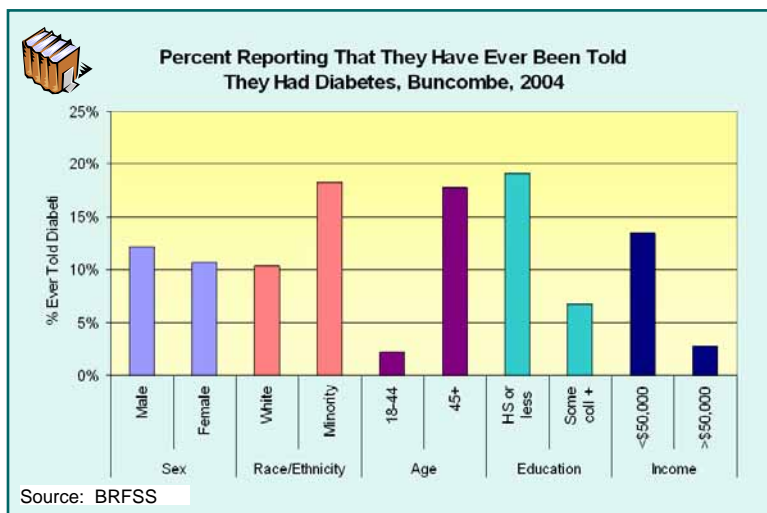
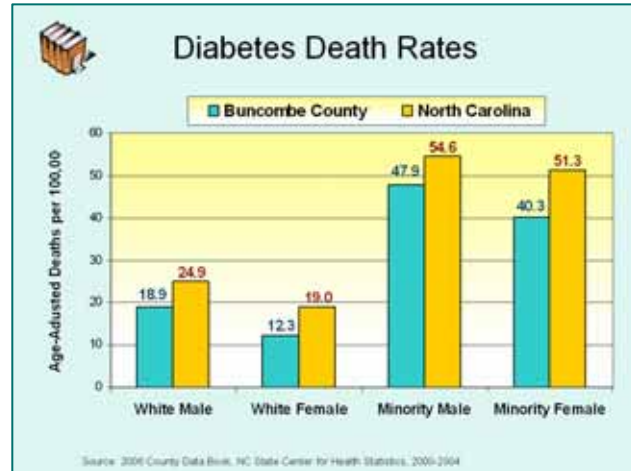
Source: North Carolina State Center for Health Statistics

five years. Both county and state rates are significantly lower than both the HP2010 target (45 deaths per 100,000) and the state's HC2010 target (67.4 deaths per 100,000).



Diabetes: Demographics and Disparities

- Diabetes kills Minority men at a rate about two-and-a-half times higher than the rate for White men. Minority women are more than three times as likely as White women to die of diabetes.
- Buncombe county diabetes death rates compare favorably with state rates for each race-ethnic and gender group.
- There are no routinely collected data to determine the diabetes prevalence or death rates for Buncombe's Latino population.
- There is a marked socioeconomic disparity in those who have been told at any time that they had diabetes. Those with less education were almost 3-times more likely, and those



with lower income were nearly five times more likely to have been diagnosed with diabetes.

- An increase in diabetes with increasing age is an expected manifestation of the disease.

Diabetes Links

- The National Institute of Health hosts a comprehensive National Diabetes Information Clearinghouse at: <http://diabetes.niddk.nih.gov/enEspañol> <http://diabetes.niddk.nih.gov/spanish>
- The CDC link for diabetes is: <http://www.cdc.gov/diabetes/enEspañol> <http://www.cdc.gov/diabetes/spanish/>

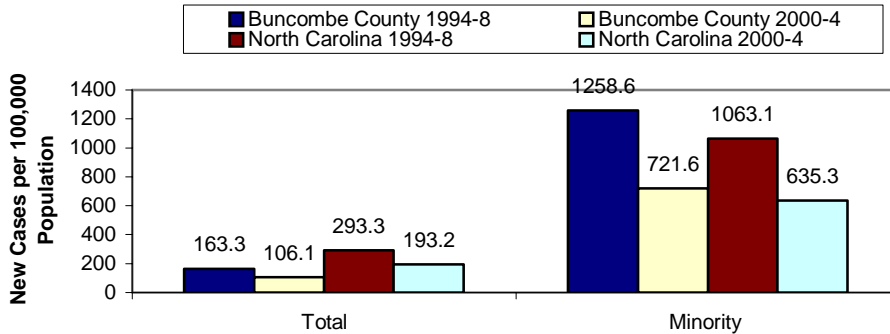


Chronic & Infectious Disease: GONORRHEA

Gonorrhea: Rates and Trends

Gonorrhea rates are an indicator of risk for all sexually transmitted diseases (including HIV/AIDS). Both Buncombe County and statewide new-case rates for gonorrhea have dropped substantially over the past decade.

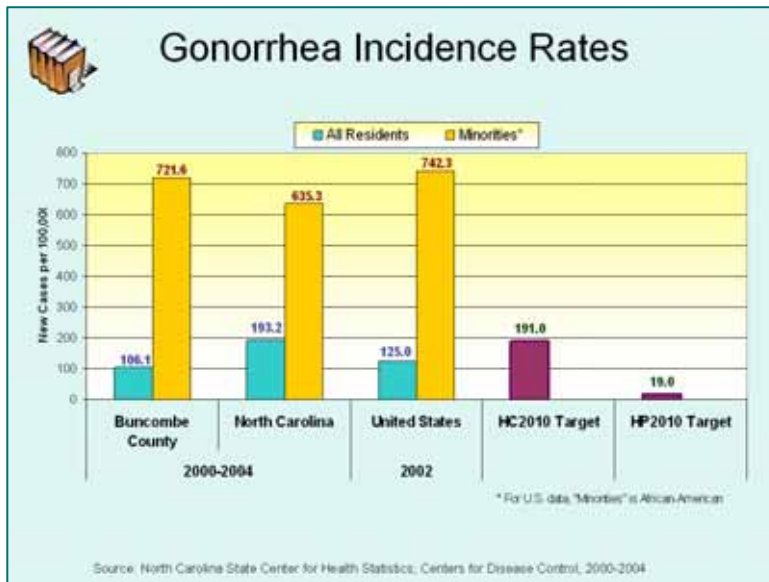
Gonorrhea Incidence Rates, Buncombe County and NC, 1994-8 and 2000-4



Source: North Carolina State Center for Health Statistics

Gonorrhea: Demographics and Disparities

At all geographic levels, incidence rates for gonorrhea (over the 5-year period 2000-2004) show a daunting gap between current reality and the HP2010 and NC 2010 health objectives.



- In Buncombe, Minority residents are about 7-times more likely than the overall population to be infected with gonorrhea.
- Whereas there are (statistically) over 700 new cases of gonorrhea for every 100,000 Minority residents in Buncombe, the national target objective is to reduce this to about 20 cases.

Gonorrhea Links

- The CDC's website on gonorrhea is: <http://www.cdc.gov/std/Gonorrhea/>
y *en Español*: <http://www.cdc.gov/std/Spanish/>



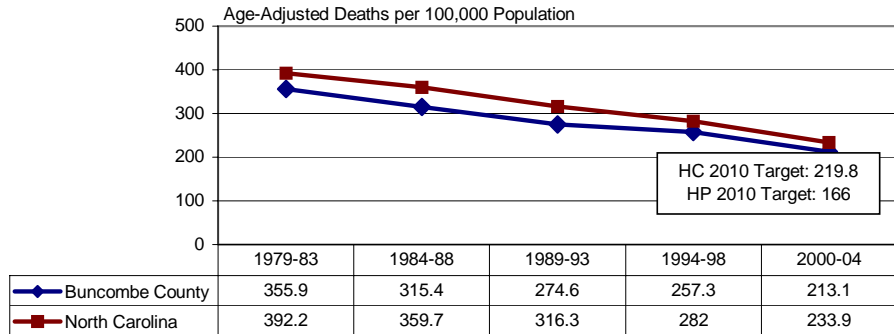
Chronic & Infectious Disease: HEART (Cardiovascular) DISEASE

Heart Disease: Rates and Trends

BRFSS included questions asking if a doctor had ever told the person they had had a heart attack, angina or coronary heart disease, or a stroke. Based on the responses to these questions it was estimated that, in 2005, 8.1% of Buncombe County residents overall had a history of cardiovascular disease, as compared to 8.7% of North Carolinians. These rates have changed little since 2001.

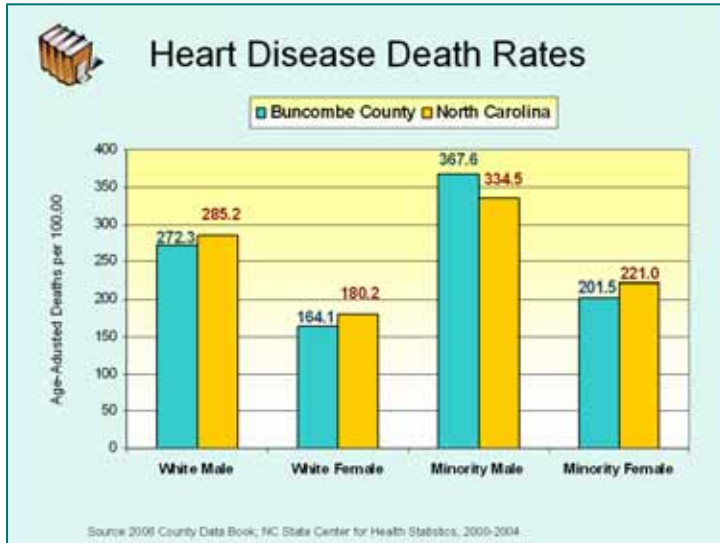
Heart disease death rates are decreasing, and Buncombe's rate now meets the NC 2010 objective. If the current trend continues, the county may meet the Healthy People 2010 target by 2010.

Mortality Trends 1979-2004, Buncombe County and NC: Heart Disease



Source: North Carolina State Center for Health Statistics

Heart Disease: Demographics and Disparities



This graph again uses 5 year rates (2000-2004), for greater data stability.

- County and state death rates from heart disease are higher for Minorities than for Whites.
- The heart disease death rate for Minority men in Buncombe County is somewhat higher than the state average, with a disparity ratio of 1.35. The disparity for women is somewhat lower (1.23).
- Buncombe's rates generally compare favorably with the state's, but fall behind when compared with national rates (not shown on this graph).

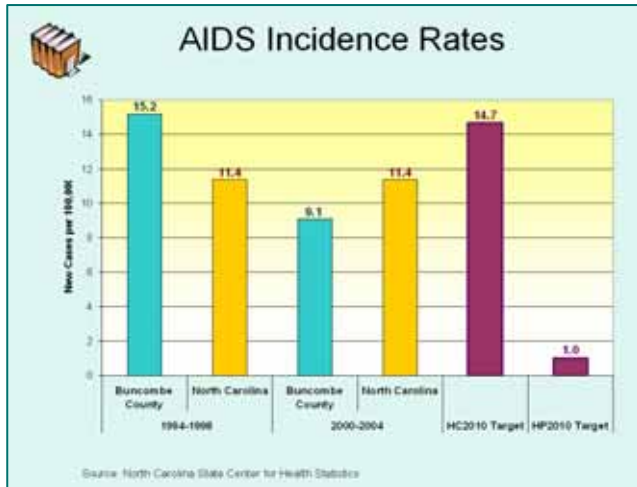
Heart Disease Links

- The CDC's website on heart disease is: <http://www.cdc.gov/HeartDisease/> or for more comprehensive information: <http://www.cdc.gov/dhdsp/>
- For fact sheets **en Español**, try: <http://www.cdc.gov/dhdsp/library/spanish>



Chronic & Infectious Disease: HIV / AIDS

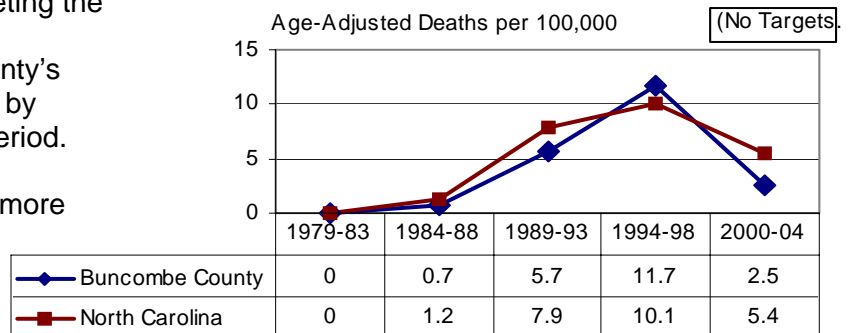
HIV / AIDS: Rates and Trends



The rate of new AIDS cases in Buncombe County dropped appreciably between the two most recent multi-year intervals the two latest time periods (1994-1998, 1999-2003). Lower AIDS incidence rates do not necessarily mean that fewer persons are becoming infected. A diagnosis of AIDS indicates a worsening in health for a person who has been infected for some time with the HIV virus. A person may be infected with HIV and not yet have AIDS. The AIDS incidence rate is affected by HIV screening and early treatment, by access in general to medical care, and by the effectiveness of treatment options after HIV diagnosis.

Although Buncombe has had a very welcome reduction in new AIDS cases, we are still a long way from meeting the HP 2010 target. After climbing for many years, Buncombe County's AIDS death rate has decreased by nearly 80% in the past 5-year period. As elsewhere in the US, this improvement is likely to be due more to effective drug therapies for managing HIV disease, than due to decreasing HIV infection rates.

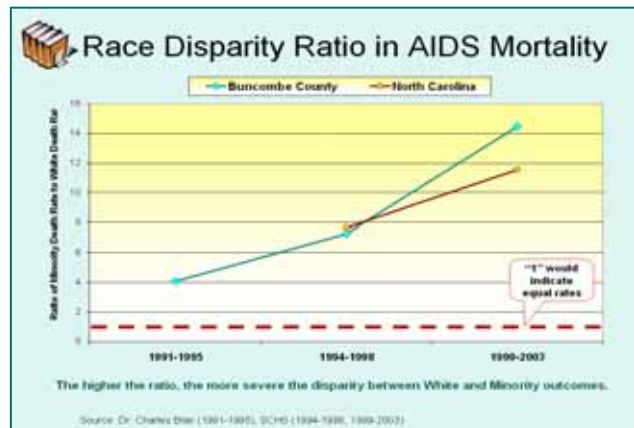
Mortality Trends 1979-2004, Buncombe County and NC: AIDS



HIV / AIDS: Demographics and Disparities

Disparity by race-ethnicity in Buncombe County's AIDS death rates is increasing more than for the state, and is the most extreme of all our health disparities. A disparity ratio of "1" (see dotted red line on graph) would show equal death rates.

AIDS Disparity Ratio	1991-1995	1994-1998	1999-2003
Buncombe	4.07	7.25	14.47
North Carolina		7.65	11.56



HIV / AIDS Links

- At the CDC: <http://www.cdc.gov/hiv/>
- Contact 2-1-1 for information on HIV prevention services, testing, and treatment.



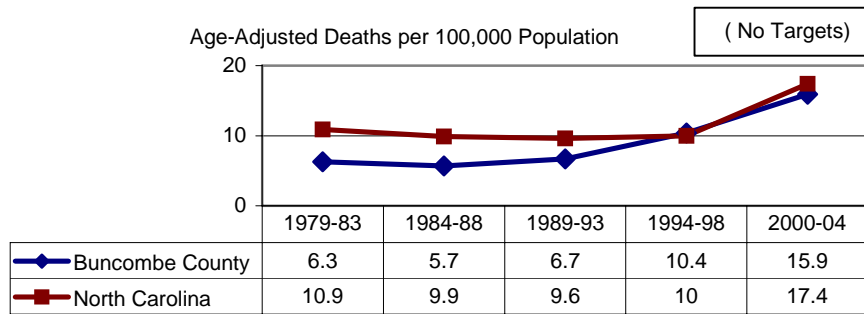
Chronic & Infectious Disease: KIDNEY DISEASES (Nephritis and Others)

Kidney Diseases: Rates and Trends

Persons with diabetes or hypertension (high blood pressure) are at particular risk for kidney disease, as are persons with a family history of kidney disease. Preventing or properly managing diabetes and hypertension are, therefore, important in reducing the incidence of kidney disease.

Deaths due to kidney diseases – nephritis, nephritic syndrome, and nephrosis – now appear to be rising, after remaining steady over a considerable number of years. The switch from ICD-9 to ICD-10 exaggerates the scale of increase between the last two time periods.⁶

Mortality Trends 1979-2004, Buncombe County and NC:
Nephritis & Other Kidney Diseases



Source: North Carolina State Center for Health Statistics

Kidney Diseases: Demographics and Disparities

Minority residents in Buncombe were about twice as likely, in 1999-2003, to die of kidney disease than White residents (28.6 versus 14.4 deaths per 100,000; Source: - NC State Center for Health Statistics). This correlates with higher rates of diabetes and hypertension among Minorities.

Looking at gender regardless of race-ethnicity, in 1999-2003 men were two-thirds more likely to die of kidney disease (20.1 per 100,000) than were women (12.2 per 100,000; same Source).

Kidney Diseases Links

- The National Institute of Health posts an information clearinghouse on kidney disease: <http://kidney.niddk.nih.gov/>
- There is the National Kidney Disease Education Program <http://www.nkdep.nih.gov/>

⁶ Ibid.

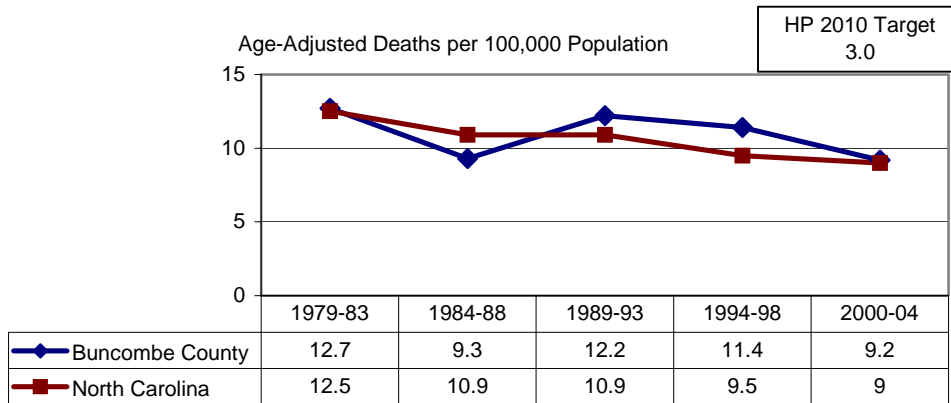


Chronic & Infectious Disease: LIVER DISEASE

Liver Disease: Rates and Trends

Chronic liver disease and cirrhosis claim about 9 lives per 100,000 population in Buncombe County, three times the Healthy People 2010 target, but very similar to the North Carolina rate. This rate has held relatively constant for over 20 years.

Mortality Trends 1979-2004, Buncombe County and NC:
Liver Disease



Source: North Carolina State Center for Health Statistics

Liver Disease: Demographics and Disparities

Men were almost two and a half times more likely than women to die of chronic liver disease in 1999-2003 (13.7 and 5.6 deaths per 100,000 respectively; Source – NC State Center for Health Statistics).

Death rates from liver disease were basically equal for Whites (overall, regardless of gender) and Minorities (9.4 versus 8.9 deaths per 100,000 respectively; same Source).

Liver Disease Links

- The American Liver Association site is : <http://www.liverfoundation.org/>



Chronic & Infectious Disease: OBESITY

Obesity: Rates and Trends

Public awareness and concern continues to grow over healthy weight maintenance. Obesity is itself categorized as a chronic illness, which contributes directly to other, sometimes life-threatening diseases.

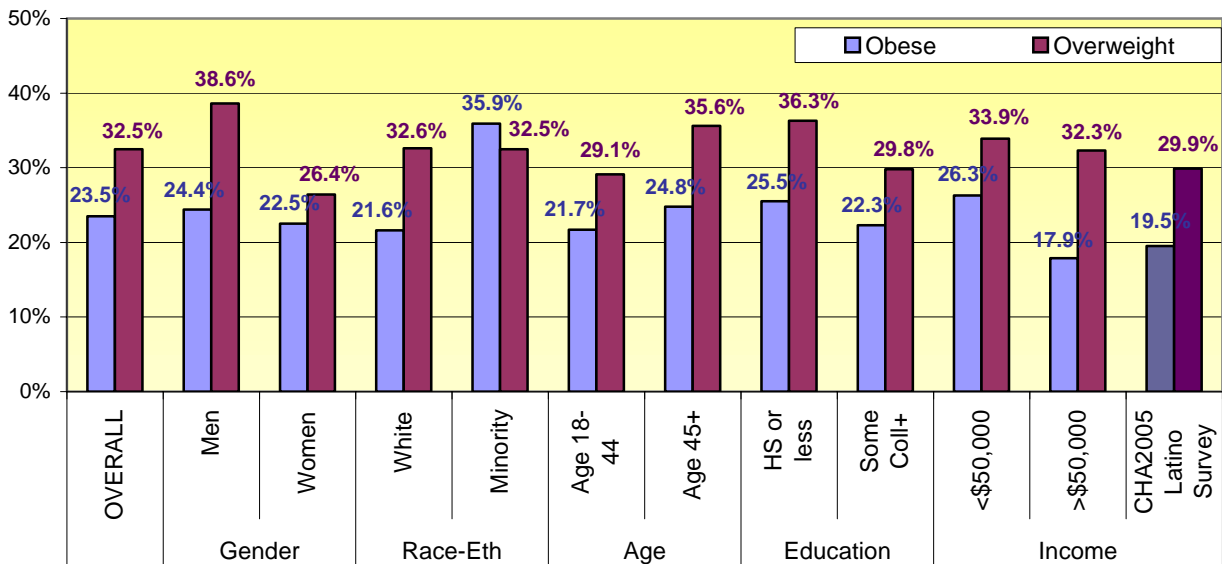
The Community Health Assessment general phone surveys have shown a steady increase over time in overweight (BMI \geq 25) and obesity (BMI \geq 30) among Buncombe County adults:

- In CHA 1995 – 45.2% were either overweight or obese
- In CHA 2000 – 51.7%
- In CHA 2005 – 60.0%

The HP2010 target is that no more than 15% of adults are obese. Buncombe, like most of the country, is far from reaching this target. Secondary data (BRFSS 2004) found 23% of adults were obese; the primary data were consistent with this (26.8% in phone survey).

Obesity: Demographics and Disparities

**Percent Obese & Overweight, Buncombe County
2002-2004 Averaged, and CHA 2005 Latino Survey**



Source: BRFSS 2002, 2003, 2004; and CHA 2005 Latino Survey

This chart shows rates of obesity and overweight, averaged over a 3-year period to increase rate stability. In the single year 2004, overall adult overweight and obesity *combined* was 59.6%. Note: in the CHA 2005 Latino survey, about 80% of respondents were under age 45 and about 60% were women, so we would expect to find lower than “Overall” rates.

The obesity rate (blue columns) is significantly higher for Minorities than for Whites. Rates also differ, but to a lesser extent, by income and education. Those who are older show a slightly higher rate of obesity, while women have a slightly lower rate than do men.

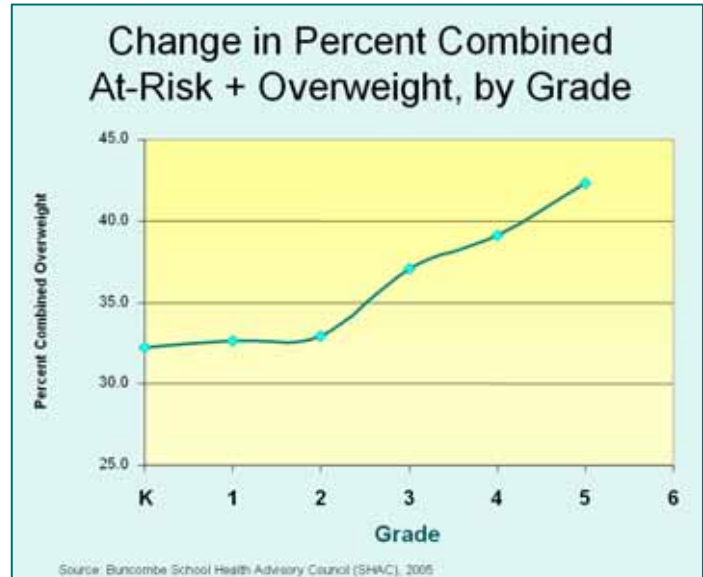
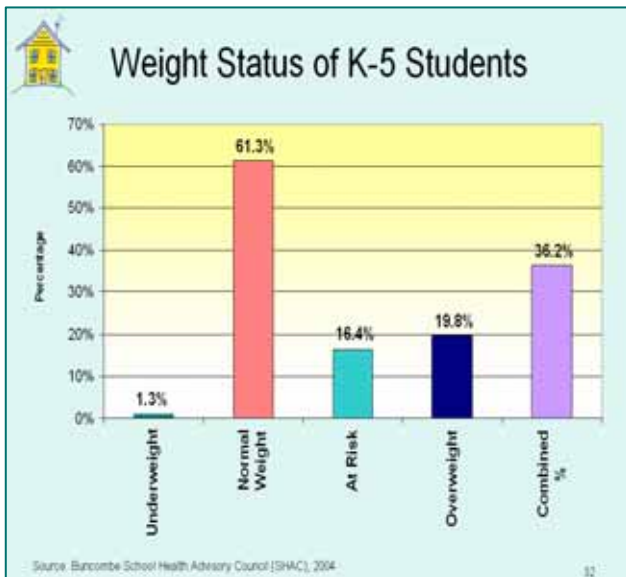
Overweight is much more common than obesity in all sub-groups except for Minorities, where the rate of obesity is slightly higher than overweight. Men are far more likely to be overweight than are women. Those with less education and those who are older are more likely to be overweight.



Children At-Risk and Overweight

Beginning in 2004, the Buncombe School Health Advisory Council (SHAC) has sanctioned and supported a volunteer initiative to collect each year the height, weight, age and gender of over 10,000 students from almost every elementary school in the county, in order to compute BMI percentiles.

- If you recall growth charts physicians use to track growth in children, these charts determine the normal range of BMI for specific a specific age and gender. For example, if your six-year-old daughter is at the 50th percentile for BMI, it means half of the other 6 year old girls have a higher BMI and half have a lower BMI. Students are determined "At Risk" if they are at the 85th percentile or above on BMI.
- Weight status for all 5-11 year old students disclosed that 16% were at risk for becoming overweight, based on their BMI.
- In 2004, almost 20% were already overweight (BMI at or above the 95th percentile).
- Combined, 36% (more than one in three students) have a weight concern



- There is a strikingly swift rise in the number of at-risk and overweight children, beginning in the second grade. Although alarming, this data finding helps us see by what age we need to impact children's behaviors if we want to stem the rising tide of obesity.
- If you look at the data by grade, by the time a child reaches 5th grade, over 42% of students have a weight concern - that is, they are either at-risk or overweight.

Obesity Links

- In the section below on "Health Promotion," there is further discussion of the State of North Carolina's "Eat Smart, Move More" program to manage weight through good nutrition and adequate physical activity: <http://www.eatsmartmovemorenc.com/>
- The CDC's site on obesity <http://www.cdc.gov/nccdphp/dnpa/obesity/> notes nine chronic disease and health conditions for which risk increases when a person is obese.

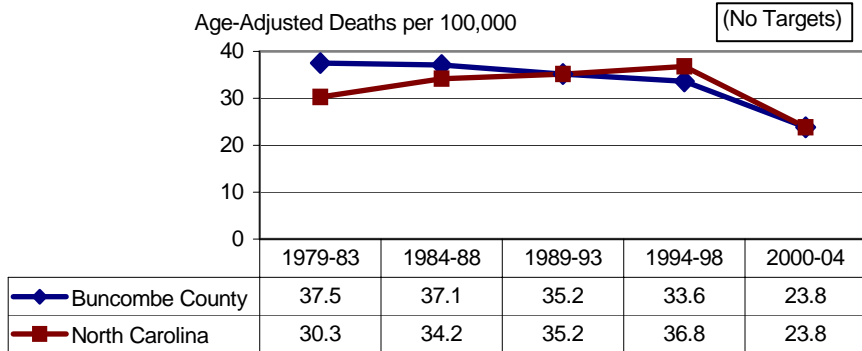


Chronic & Infectious Disease: PNEUMONIA & INFLUENZA

Pneumonia & Influenza: Rates and Trends

Pneumonia and influenza are among the top 10 causes of death for the elderly (age 65 and older) and are a major cause of hospitalization. Deaths from pneumonia and influenza have remained fairly constant for the entire 25-year span shown here. The apparent decline in the last five-year period is due entirely to the switch from ICD-9 to ICD-10 that took place in

Mortality Trends 1979-2004, Buncombe County and NC:
Pneumonia/Influenza



Source: North Carolina State Center for Health Statistics

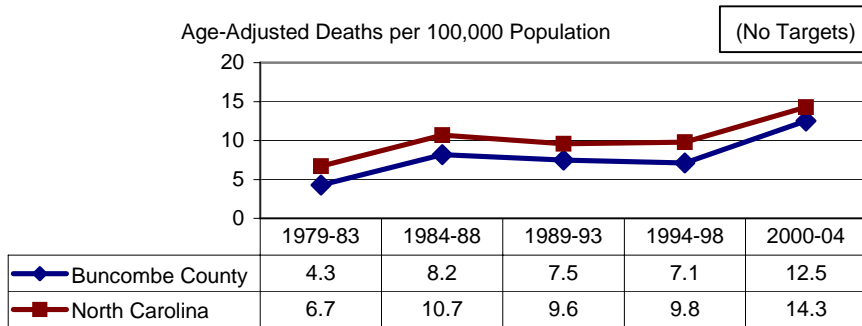
the most recent 5-year period.⁷ The change had a greater effect on this disease category than on any other. Vaccination is discussed in the “Prevention” section, below.

Chronic & Infectious Disease: SEPTICEMIA

Septicemia: Rates and Trends

Septicemia death rates appear to have increased recently; however, this is one of the rates for which an ICD adjustment is needed.⁸ Applying the correction reduces the Buncombe County increase from 5.4 deaths per 100,000 population to 4.0 deaths. This is still a large increase over the 1994-8 rate.

Mortality Trends 1979-2004, Buncombe County and NC:
Septicemia



Source: North Carolina State Center for Health Statistics

⁷.Ibid
⁸ Ibid.

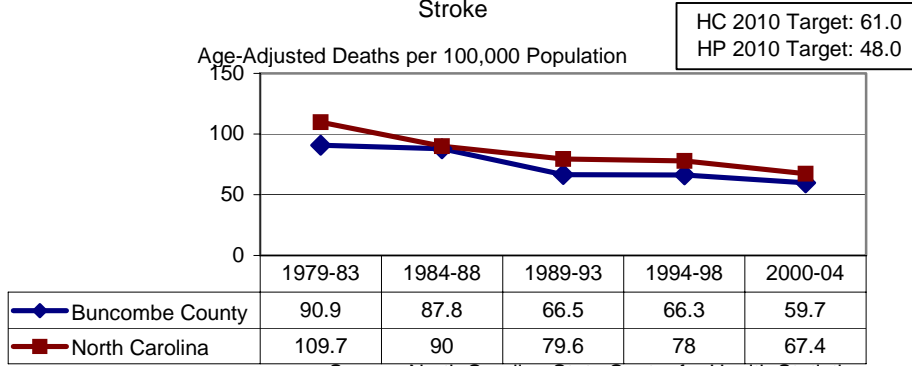


Chronic & Infectious Disease: STROKE (Cerebrovascular Disease)

Stroke: Rates and Trends

Stroke is a major cause of both long-term disability and death, beginning with the 40-64 year old age range. Deaths rates due to stroke have been declining for more than 20 years at both the state level and in Buncombe County. Buncombe County's rate has reached the state's target for 2010 (61.0) and has another 25% to go before achieving the stricter Healthy People 2010 objective.

Mortality Trends 1979-2004, Buncombe County and NC:
Stroke

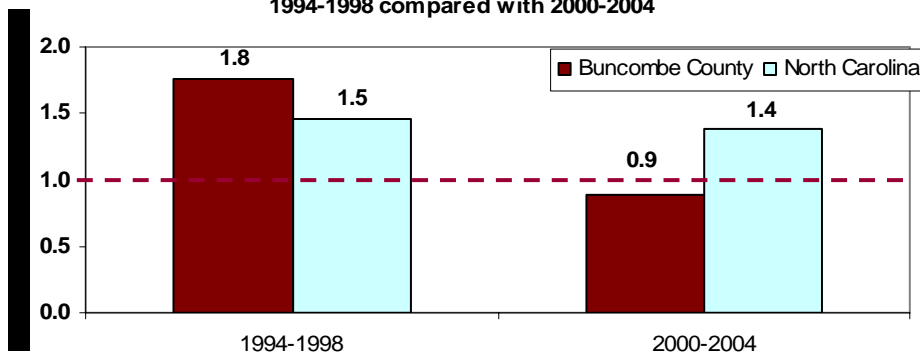


Source: North Carolina State Center for Health Statistics

Stroke: Demographics and Disparities

During 1999-2003, death rate from stroke was roughly equal for Whites and Minorities (slightly lower for Minorities), a substantial improvement over the prior 5-year period, when stroke mortality was about 75% higher for Minorities than Whites.

Stroke Death Disparity Ratios, Buncombe County and North Carolina,
1994-1998 compared with 2000-2004



Source: NC State Center for Health

Death from stroke was about 10% higher in women than in men, the only major cause of death for which that was so (other than gender-specific diseases, such as uterine cancer).

Stroke Links

- The CDC's website for stroke is at: <http://www.cdc.gov/stroke/>



Chronic & Infectious Disease: SYPHILIS

Syphilis: Rates and Trends

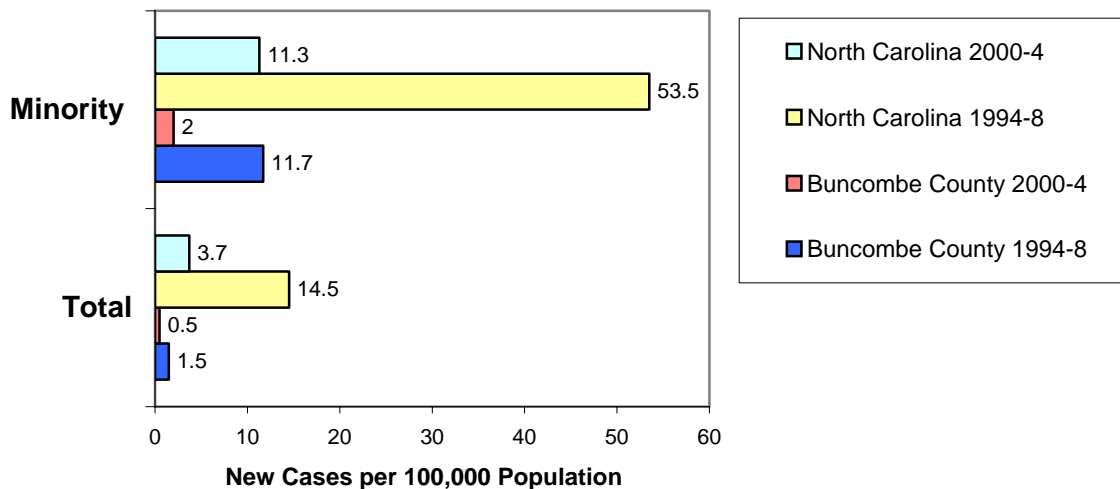
The incidence of new cases of syphilis in Buncombe County (as in North Carolina) has dropped dramatically in the 5-year period ending in 2004, compared with the prior 5-year period. The incidence rate improved by more than 90% (dropping from 11.7 to 2.0) among minority patients, who are the most heavily affected group. In the overall population, the new-case rate improved by two-thirds, dropping from 1.5 to 0.5 cases per 100,000 population.

The county's improvement in the minority syphilis rate was mirrored (though to a lesser degree) throughout North Carolina, where the rate dropped from 53.5 to 11.3 new cases per 100,000 (nearly an 80% improvement). In comparing Buncombe's total syphilis incidence rate with the state's total rate, keep in mind that the county has a much higher proportion of White residents.

Buncombe's overall incidence rate for syphilis (0.5 per 100,000 population) is approaching the NC2010 objective of 0.25 per 100,000, and the HP2010 target of 0.20 cases per 100,000.

Syphilis: Demographics and Disparities

Syphilis Incidence Rates, Buncombe County and North Carolina, 1994-1998 compared with 2000-2004



Source: NC State Center for Health Statistics

Syphilis Links

- Syphilis is readily treatable with antibiotics. Early detection and treatment is critical to avoiding long-term negative health consequences.
- The CDC's website on syphilis is: <http://www.cdc.gov/std/syphilis/>
- A fact sheet regarding syphilis in North Carolina is at: <http://www.cdc.gov/stopsyphilis/stateprofiles/2004/NC2004.pdf>



Prevention

Health Screenings
Immunizations

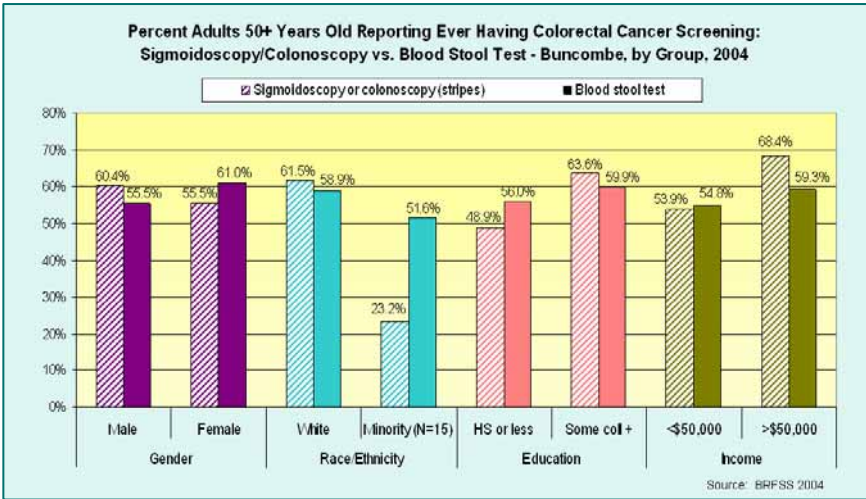
Prevention: HEALTH SCREENINGS

- Early detection of disease is a form of **secondary prevention**, reducing the harm done.
- Early detection through health exams and screening tests typically leads to treatment before the disease or condition progresses further, and thus can improve health outcomes.
- Early detection can also help prevent further spread of infectious diseases.

Colorectal Cancer

According to 2005 BRFSS survey results, 77% of Buncombe County adults and 68% of North Carolina adults reported that a health professional has at some time recommended they be tested for colon or rectal cancer. About two-thirds of respondents said they thought it was very important to be tested for colon cancer, rating the importance a “10” on a scale of 1 to 10. Asked if people “their age” should be tested, 96% of Buncombe County adults said “yes.” Colorectal cancer screening may be limited to a home-administered blood stool test, or it may include more intensive (and costly) examination by sigmoidoscopy or colonoscopy.

- The BRFSS questions are asked only of survey respondents for whom routine colorectal cancer screening is recommended: those age 50 or older.
- The overall percent of Buncombe County residents age 50 or over who have ever had sigmoidoscopy or colonoscopy was 58% in 2004, up from 44% three years prior. This represents a welcome 30% increase in screening.



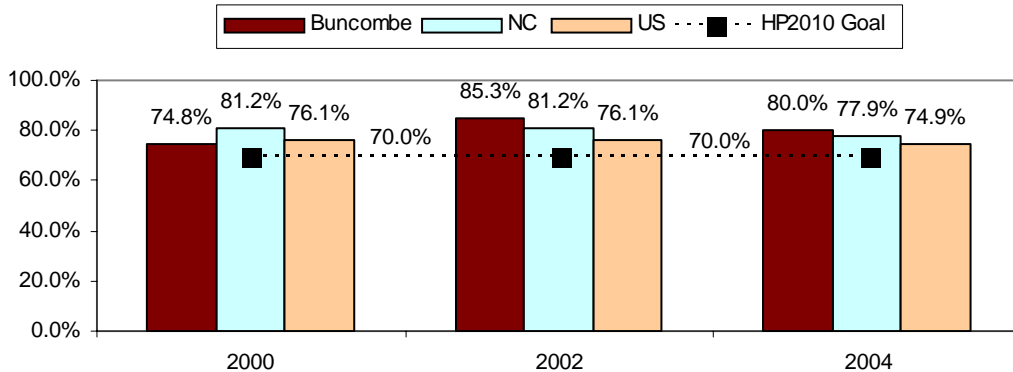
- Rates were fairly uniform for screening with a blood stool test (solid bars, above).
- However, Whites appear over two-and-a half times more likely than Minorities* to receive the more intensive sigmoidoscopy/colonoscopy screening (striped columns, above). Sigmoidoscopy/colonoscopy rates were also higher for those with higher income and education, and for men. This finding is likely to correlate with insurance status.
- ***NOTE:** The small number of Minority respondents (15) for this question yields a very unstable rate that could fluctuate considerably from year to year. Data must be interpreted cautiously, and the extent of difference between White and Minority rates is only suggestive.



Female Breast Cancer

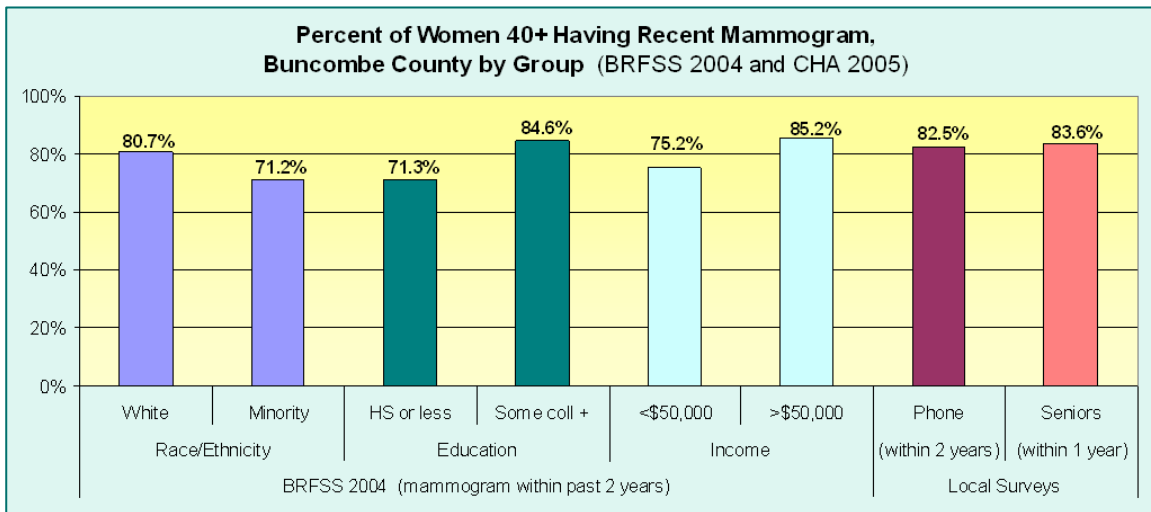
Women age 40 or older are advised to have a routine mammogram every one to two years to screen for breast cancer. In 2004, 80% of Buncombe County women, age 40 or older, reported having done this. Both Buncombe County and North Carolina have met the national Healthy People 2010 goal of at least 70% women (age 40+) meeting this recommendation for screening by mammogram.

Percent of Women 40+ Having Mammogram in Past 2 Years, 2000, 2002 and 2004



Sources: NC Site Center for Health Statistics, CRC BRFSS; 2000 Buncombe County Community Health Assessment

The graph below displays data from both the BRFSS 2004 survey (first 6 columns, on left) and from the CHA 2005 phone survey and seniors survey (last 2 columns).



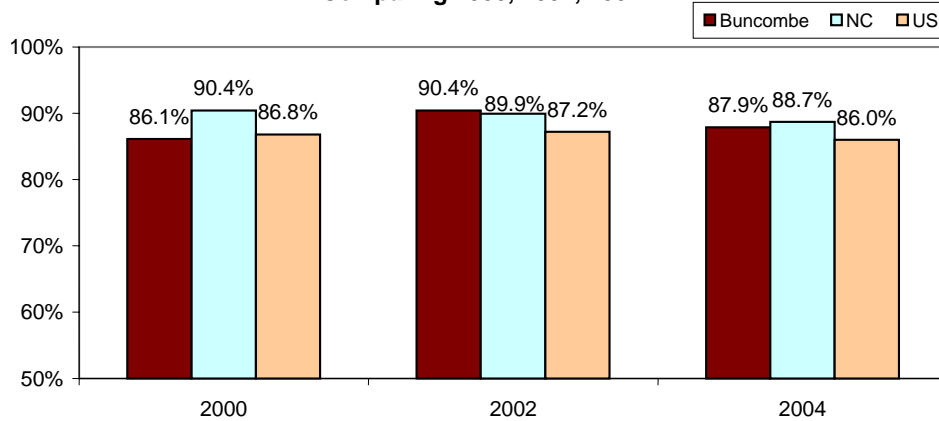
- The CHA 2005 seniors survey asked women 60+ years of age if they had had a mammogram within the past one year. The rate for mammograms within the past two years would likely be somewhat higher than 83.6%.
- All women in the CHA 2005 Latino survey who were 40 years or older reported having a mammogram within the past two years; however, this was a very small sample (6 women).
- Due to small sample sizes, there were no statistically significant differences within any of these sub-groups in the percent of women recently receiving a mammogram.



Cervical Cancer

The Healthy People 2010 target objective is that at least 90% of women 21+ years old will have had a Pap test within the past three years, for early detection of cervical cancer.

Percent of Women Having a Pap Test in Past 3 Years, Buncombe County, NC and US Comparing 2000, 2002, 2004



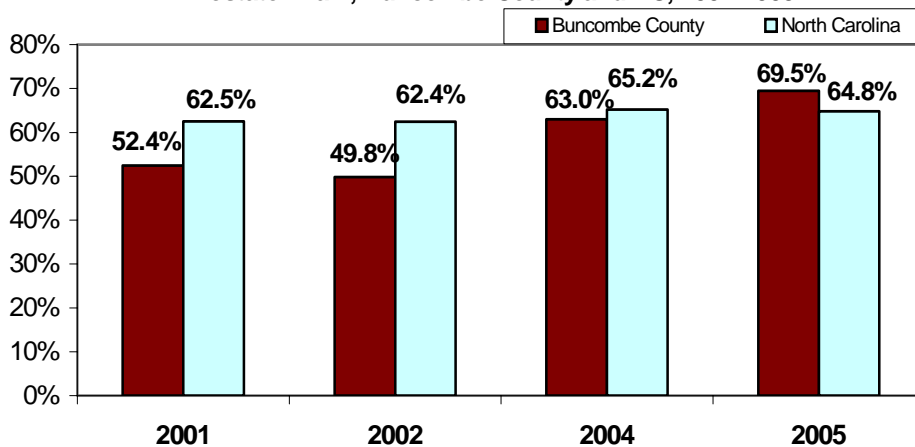
Source: NC State Center for Health Statistics, BRFSS; CDC BRFSS

- Both Buncombe County and North Carolina are just about at that goal. Buncombe's rate, in fact, met the target in 2002. However, these are small samples and therefore subject to considerable yearly fluctuation. There is no clear evidence of an upward rate trend.
- For 2004, there were no significant differences among groups (by race-ethnicity, education, income) in the proportion of women having a recent Pap test.

Prostate Cancer

Buncombe County has caught up with and surpassed the state in percentage of men who have ever had a prostate examination. Men age 44 and younger were unlikely to have had a prostate exam; otherwise, there were no statistically significant differences in the proportion ever tested (according to race-ethnicity, education, income). (There is not currently a uniform recommendation for prostate cancer screening.)

Percent of Men Ever Having Had A Prostate Exam, Buncombe County and NC, 2001-2005



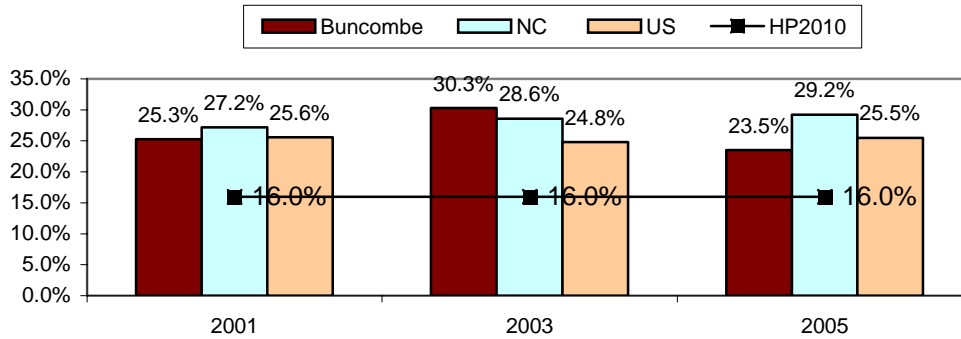
Source: NC State Center for Health Statistics, BRFSS



Hypertension Check

The proportion of Buncombe County residents who have ever been told that they have high blood pressure appears to be similar to the proportion in North Carolina and the US, and considerably above the Healthy People goal of 16%. No trend is apparent.

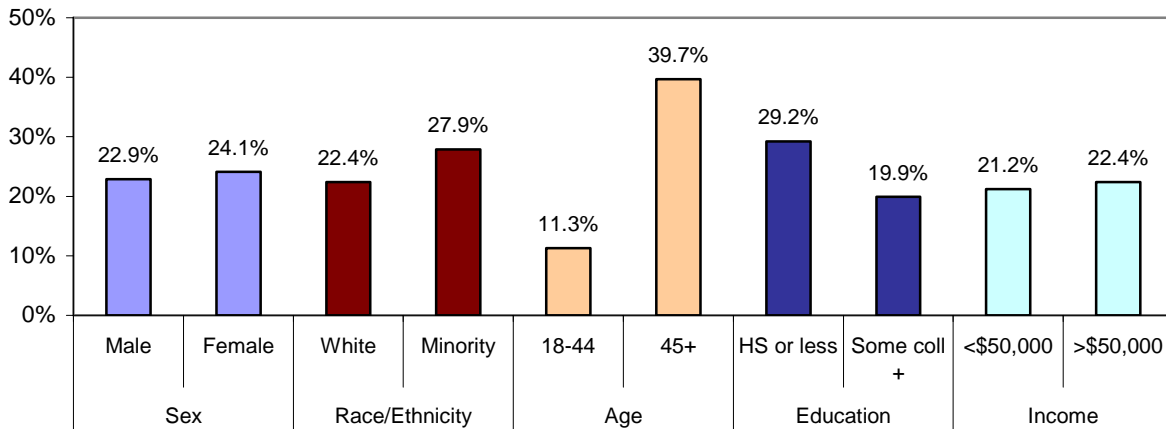
Percent Who Have Ever Been Told They Have High Blood Pressure, by Year, 2001, 2003, and 2005



Sources: NC State Center for Health Statistics, CDC

Age is the only factor which is statistically related to having been told one has high blood pressure. Nearly 40% of adults 45 and older have been told at some point that they have high blood pressure, while 11% of adults 44 and younger report having ever been told they have high blood pressure.

Percent Reporting Ever Having Been Told They Have High Blood Pressure, by Group, 2005



Source: NC State Center for Health Statistics

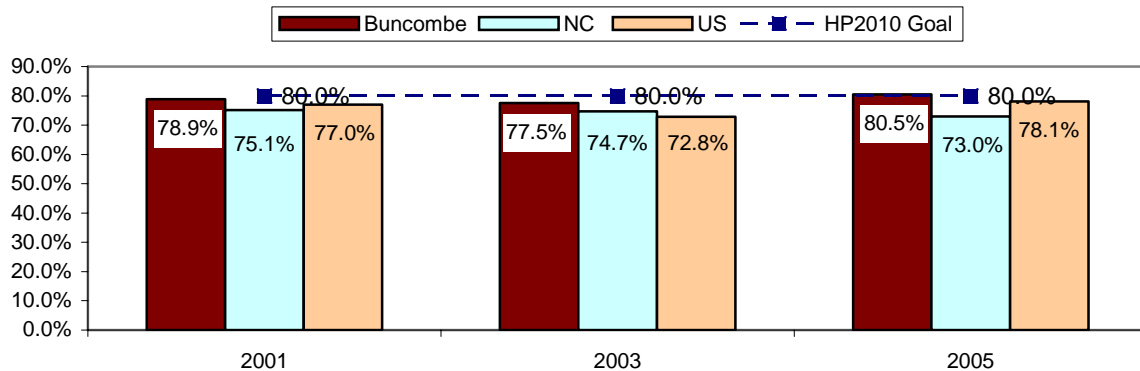
In Buncombe County, fewer than three-fourths of those who had been told they had high blood pressure are currently taking medication for it. This percentage has changed little since 2001, and is slightly below that of the state. The Healthy People 2010 objective is at least 80% of those with high blood pressure taking medication for it.



Cholesterol Check

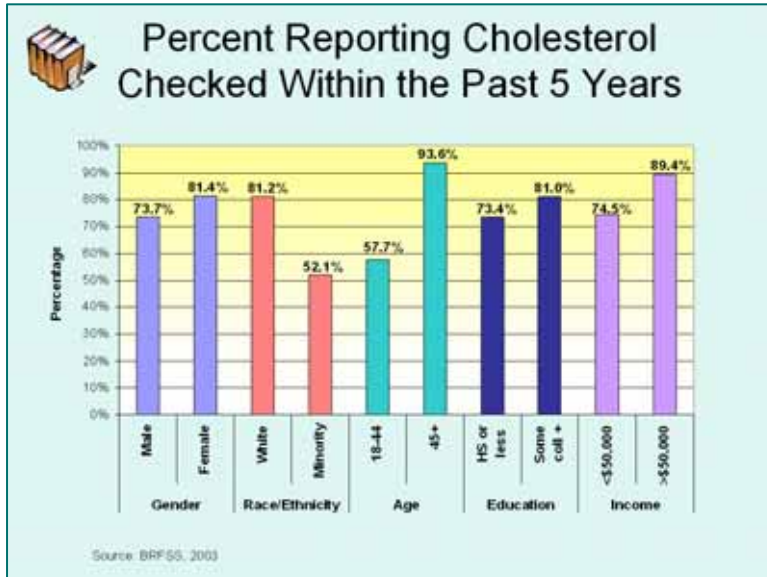
In 2005, Buncombe County met the Healthy People 2010 goal that at least 80% of the population has had a cholesterol test within the past five years. The county's rate of ever having been tested was higher than North Carolina and US rates.

Percent Reporting Having Cholesterol Checked in Past Five Years, 2001, 2003, & 2005



Sources: NC State Center for Health Statistics, BRFSS; CDC, BRFSS

Age and income both are associated with having had one's cholesterol checked in the past five years. Wealthier Buncombe County residents and those age 45 or higher are statistically significantly more likely to have had the test in the past five years.

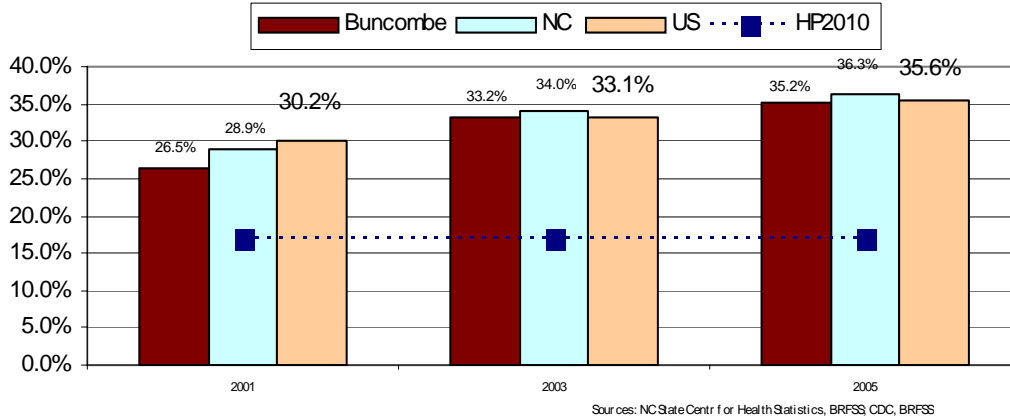


In our primary data surveys, 28.7% of respondents reported high cholesterol. 33.9% reported high blood pressure. Those reporting high blood pressure and high cholesterol indicated their top intervention was conventional medicines, second was changing their diet, and third was incorporating physical activity.



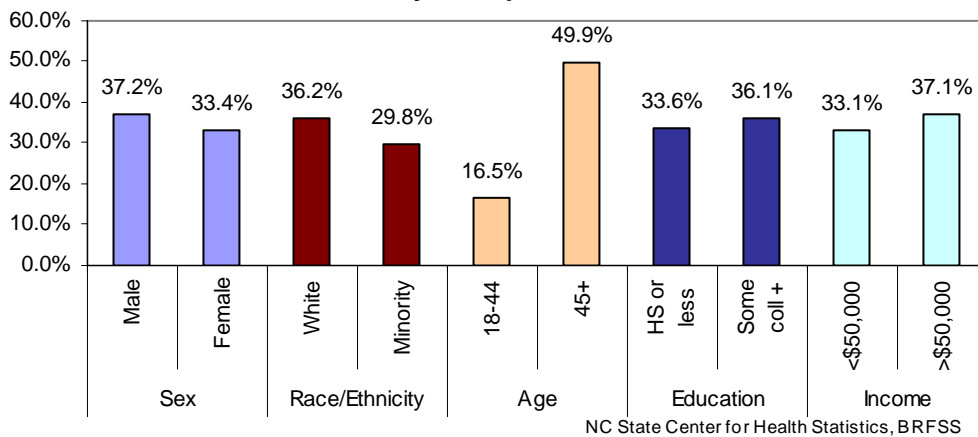
The proportion of Buncombe County adults who have ever been told they have high cholesterol increased from 26.5% to 35.2% between 2001 and 2005. Increases were evident in North Carolina and the US, as well, though not as steep. The county, state and nation are all moving away from the Healthy People 2010 goal of no more than 17% of adults with high cholesterol.

Percent Ever Told They Have High Cholesterol , Buncombe County, NC, and US, 2001, 2003, & 2005



Half of Buncombe County residents 45 + years old reported having ever been told their cholesterol was high, a statistically higher proportion than younger residents. No other group differences were evident.

Percent Reporting Being Told Their Cholesterol Was High, by Group, 2005

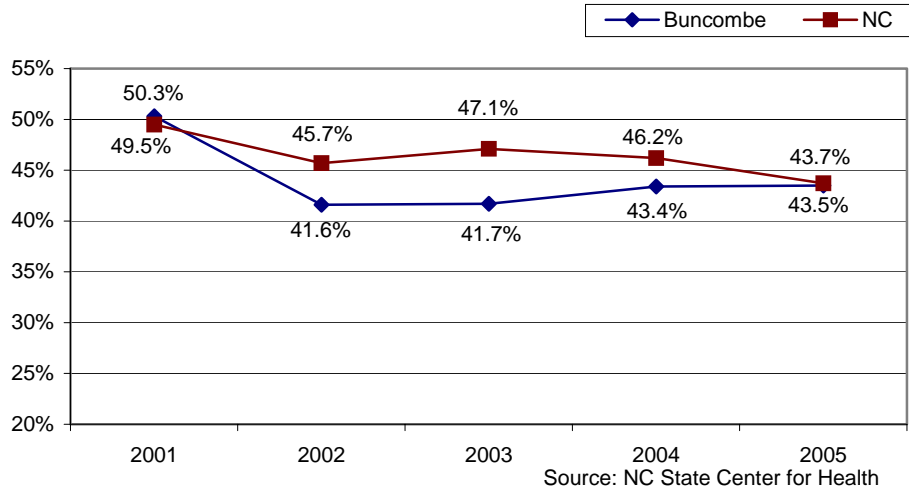




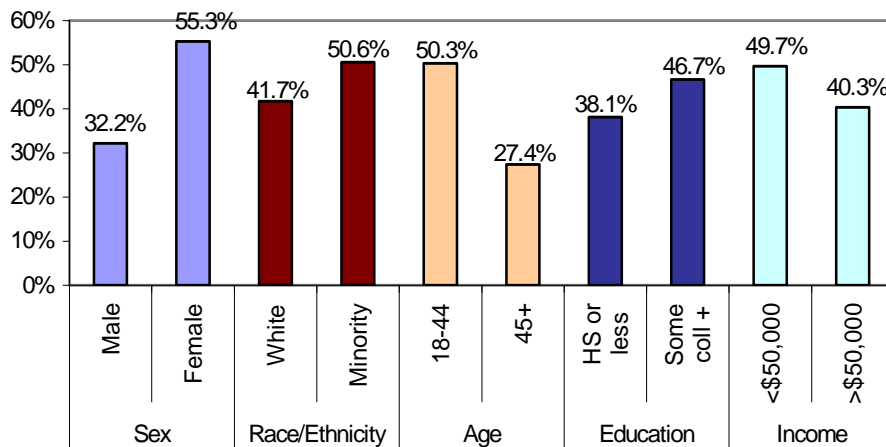
HIV Testing

About four in ten adults report they have been tested for HIV infection. The percentage of adults who have ever had an HIV test appears to have held fairly steady since 2002, for both Buncombe County and North Carolina.

Percent Reporting That They Have Been Tested for HIV - Buncombe County and NC, 2001-2005



Percent Reporting Ever Being Tested for HIV, by Group, 2005



Among Buncombe County adults, those:

- age 18-44
- having some college education

are significantly more likely to have been tested for HIV than those who are older or less educated. Women are usually tested if pregnant.



Access to Screenings

▪ "The mammogram and bone density traveling van lost its funding and doesn't come anymore."

- Source: Rural/Appalachian Focus Group

▪ Focus group participants recommended more community education on what screening tests are needed, and how to access the health care system to get tested



Prevention: IMMUNIZATIONS

Administering vaccines is one strategy for preventing and/or reducing the impact of certain infectious diseases. There are medical factors that must be considered on an individual basis between a person and his or her medical care provider, before a final decision can be made about whether and when to get immunized.

There is a general recommendation, however, for older persons to obtain annual flu vaccines and to get vaccinated against pneumonia. The North Carolina 2010 Health Objectives recommend:

- 75% of adults age 65+ receive an annual influenza vaccine
- 75% of adults age 65+ be vaccinated against pneumococcal disease

The 2005 BRFSS findings for Buncombe County adult respondents of all age are:

	Flu Vaccine in Past Year	Ever Had Pneumonia Vaccine
North Carolina – OVERALL	27.6%	23.8%
Buncombe County – OVERALL	30.4%	25.6%
Male	27.2%	25.8%
Female	33.5%	25.5%
White	32.3%	24.9%
Minority	22.8%	29.1%
Age 18-44 Years	14.3%	6.5%
Age 45+ Years	50.7%	48.9%
High School or Less	24.9%	32.7%
Some College	34.1%	21.4%
Income < \$50,000	26.1%	27.5%
Income \$50,000+	36.9%	21.7%

- Buncombe rates appear to be meeting or exceeding current state rates
- Rates for older adults are higher, as we would expect.
- Whites and persons with higher income and greater educational attainment appear more likely to have gotten an annual flu shot.
- Public health efforts appear successful in achieving parity in vaccinations for pneumonia.

- Among CHA 2005 seniors survey respondents, who ranged in age from 60 to 92 years, 75.9% had a flu vaccination within the prior year, meeting the state's NC 2010 target.

Efforts are underway in Buncombe County – as in many communities across the state and nation – to finalize a reporting infrastructure that can provide a reliable estimate of communitywide compliance with childhood immunization recommendations. This process requires collaboration between the local health department, community health clinics, private physicians, and our local school systems.

Immunization Links:

- The CDC provides information about vaccine recommendations at: <http://www.cdc.gov/nip/recs/adult-schedule.htm#chart>



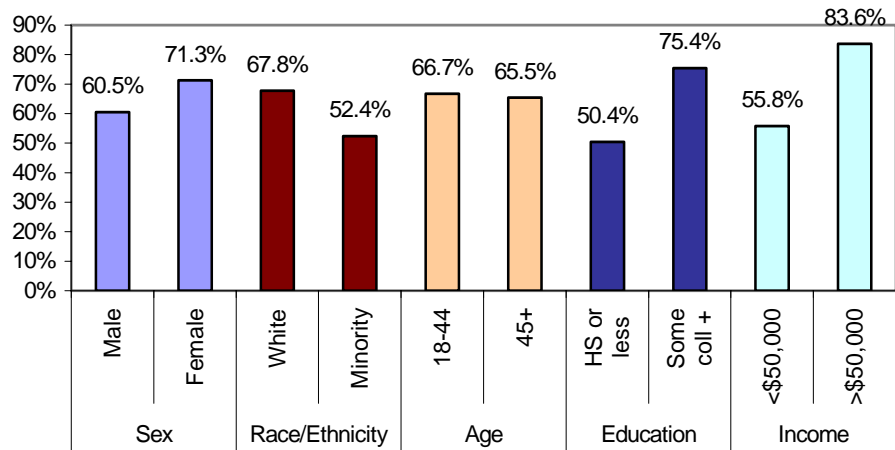
Oral Health

Dental Office Visits

The Healthy People 2010 goal is for 56% of adults and children to visit the dental office annually. In Buncombe County in 2004, 66% of adults reported having seen a dentist for any reason during the prior year (BRFSS, 2004).

Among Buncombe County residents, education and income are significantly related to seeing a dentist in the past year. Those with less education and less income are less likely to have made a visit.

Percent Who Have Seen A Dentist in Past Year, Buncombe County, by Group, 2004

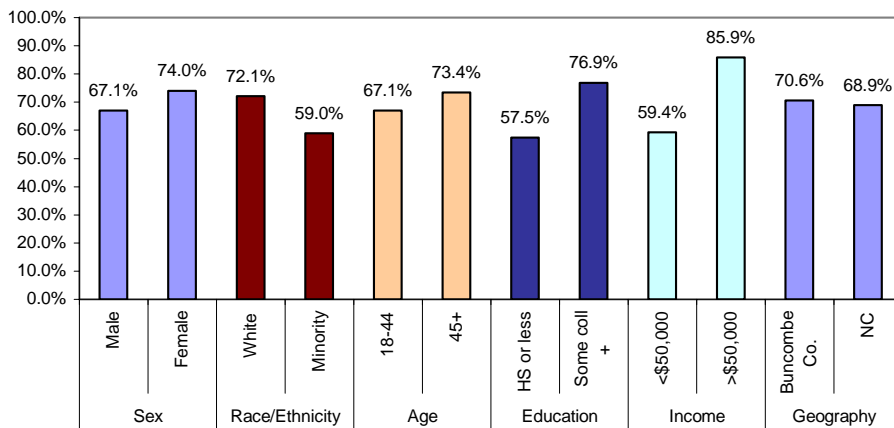


Source: NC State Center for Health Statistics, BRFSS

In our CHA 2005 surveys, the percentages who had visited a dentist within the past year for any reason were:

- 67% - general phone survey
- 38% - seniors survey
- 26% - Latino survey

Percent Who Had Their Teeth Cleaned in the Past Year, Buncombe County, by Group, 2004



Source: NC State Center for Health Statistics, BRFSS

In Buncombe County, about 71% of adults in 2004 reported that they had their teeth cleaned in the past year, slightly ahead of North Carolina. Residents with lower incomes and lower education levels had their teeth cleaned significantly less often in the past year.



CHA 2005 survey respondents were asked: **“During the past 12 months, was there a time you wanted to get dental care, but did not get it at that time?”**

- 17% of phone survey respondents said they had unmet dental care needs, even though 32% hadn't been to the dentist during the year.
 - 76.6% of these cited cost or lack of insurance as the main reason
- 15% of seniors surveyed said they had unmet dental care needs, even though 61% had not visited the dentist within the year.
 - 40% of these cited cost as the main reason
- 34% of Latino survey respondents said they had unmet dental care needs, even though 71% had not visited the dentist that year.
 - 62% of those who'd wanted care cited cost as the main reason

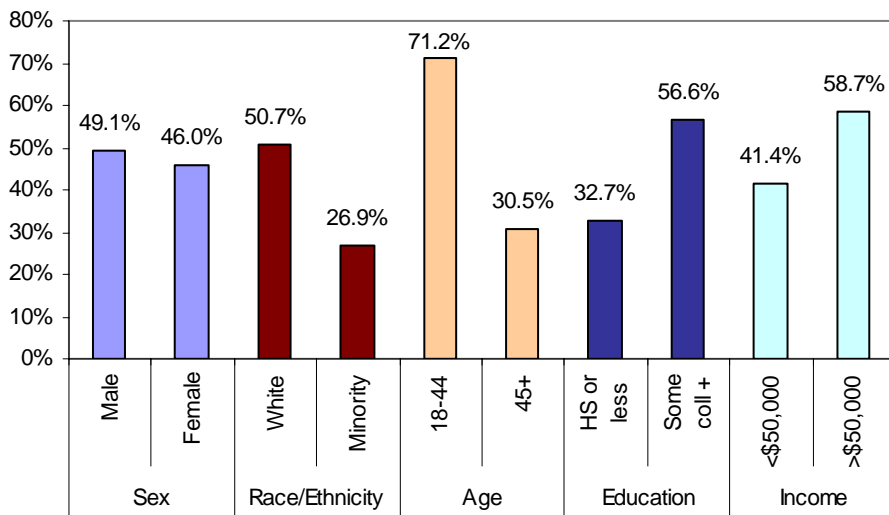
Tooth Extractions

Healthy People 2010's goal related to tooth loss is that no more than 42% of adults will have lost any teeth to decay or gum disease. Buncombe County is currently more than five percentage points above this goal, and this rate remained steady from 2001 through 2004.

- In the CHA 2005 general telephone survey, 20.1% of respondents reported having lost 6 or more teeth due to decay or gum disease. Of these, 8.0% had all teeth extracted.
- Among respondents in the CHA 2005 seniors survey, 63% had lost 6 or more teeth, including 39% who had all their teeth extracted.

Loss of teeth through decay and gum disease is related to age and education, with older and less educated residents more often reporting tooth loss. Other differences are suggested, but are not statistically significant because of the relatively small sample sizes.

Percent Who Have Had No Teeth Removed Due to Decay or Gum Disease, Buncombe County, by Group, 2004



Source: NC State Center for Health Statistics, BRFSS

There are broad community perceptions of unmet oral health needs. Both costs and a shortage of dentists are seen as contributing factors. When decay and infection reach a critical level, extraction is often the only option that uninsured persons can afford.

As a participant in our Appalachian / Rural focus group stated:

“There’s a lot of people in dire need of dental care.”



Children's Oral Health

Dental care in childhood is an obvious determinant of oral health status as an adult. Preventing decay and establishing good oral hygiene habits in childhood clearly reduce the potentially high lifelong financial costs and negative health impact of poor oral health.

Three of the five North Carolina 2010 Objectives for Oral Health are aimed at children's oral health status. They are to:

Reduce tooth decay in preschool children.

Target: 1.30 average number of decayed, missing, and filled primary teeth

Increase the proportion of 5th Graders whose permanent teeth are free of decay.

Target: 87 percent.

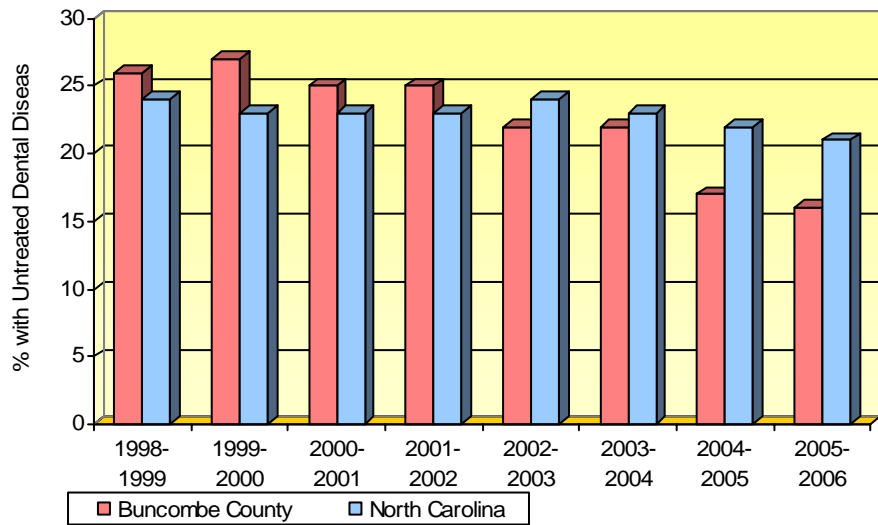
Increase the proportion of children under age 19 at or below 200 percent of the Federal Poverty Level who received any preventive dental service during the past year.

Target not yet established.

We don't have direct data on the occurrence of tooth decay in preschool children. But we know Buncombe County has shown improvement in the proportion of young children with unmet need for dental treatment.

Buncombe's rate for the 2005-06 school year (16%) is down by a third from the rate five years ago (25%); in contrast, state rates have shown little change.

Percentage of Kindergartners with Untreated Dental Disease
Buncombe and North Carolina, 1998-2005



Source: NC Oral Health Section, DHHS

Percentage of 5th Graders with Dental Sealants in Buncombe County and North Carolina

School Year	Buncombe	No.Carolina
1999 – 2000	20%	34%
2000 – 2001	Not Available	37%
2001 – 2002	52%	37%
2002 – 2003	Not Available	Not Available
2003 – 2004	41%	51%
2004 – 2005	58%	43%
2005 – 2006	51%	44%

Source: Children's Dental Sealant Program of Buncombe County

Applying dental sealants is an effective oral health strategy for increasing the proportion of 5th graders whose permanent teeth are free from decay. Beginning in 2000, Buncombe County dental professionals and community organizations, united through Eblen Children's Charities, formed the collaborative Children's Dental Sealant Program, providing free dental sealants to 3rd graders in need.

Buncombe County also appears to be doing well in the percent of Medicaid-eligible children receiving dental treatment. In 2005-06, 54% of Medicaid-eligible 6-14 year olds in Buncombe County had gotten treatment, compared with 45% statewide. The county was tied for the 3rd place rank, among North Carolina's 100 counties.



Mental and Behavioral Health

Mental Health Status, Depression
Suicide

In 2001 North Carolina passed “mental health reform” legislation, calling for a comprehensive plan to decentralize the state’s mental health service structure. Under the plan, Local Management Entities (LMEs) were formed to oversee privatized county-based services.

Though well-intended, mental health reform has proven controversial. Five years after its enactment, many have criticized that its sweeping changes were rushed into implementation, and that services have suffered as a result. Mental healthcare consumers, their families and friends, and mental health service providers and their staffs have all known considerable stress in the ongoing transition to a new service structure.

Mental health is a rising concern and priority in our community. Fortunately, our county’s LME and the region’s health and social service professionals have been widely recognized for their leadership in addressing the challenges of mental health care. We can be confident of their continued collaboration toward meeting community needs.

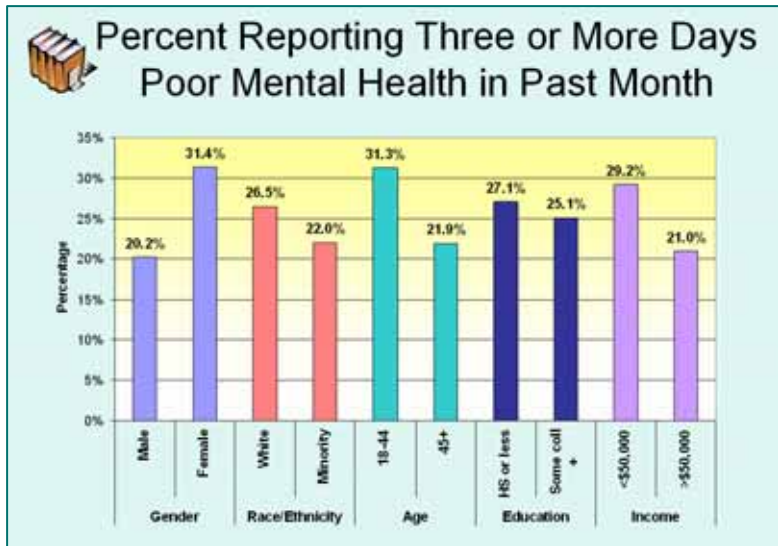


Mental Health Reform

- The divestiture of mental health services was cited among participants as a key contributing factor
 - Broken mental health system
 - Treatment options have disappeared
 - Long waiting lists
 - Demand exceeding supply
- “Mental health reform is not working.”

- Source: School Nurses Focus Group

Mental Health Status



Overall, about one in four (25.8%) Buncombe adults reported their mental health was not good on three or more days within the past month. This is higher than the statewide finding of 19.3%. (BRFSS, 2004)

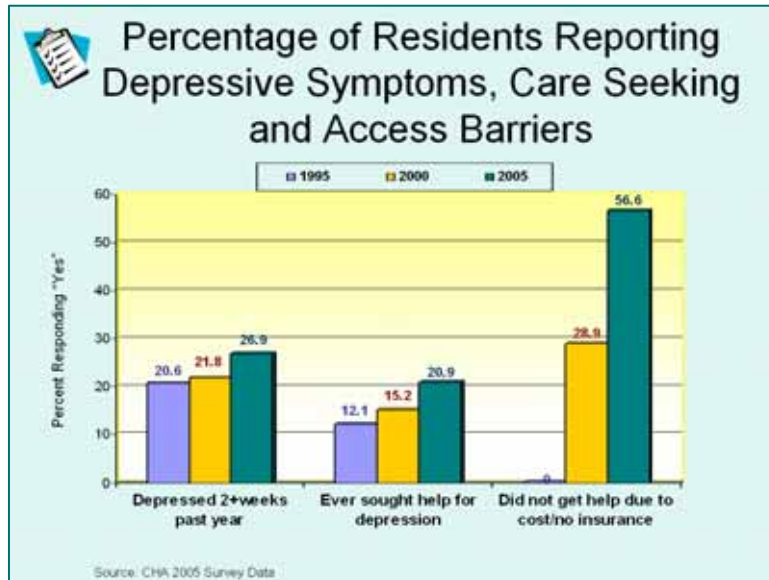
By sub-groups, higher reports of poor mental health days were made by women, younger adults, and lower income respondents.



Depression

Comparison of CHA survey data on mental health from the 1995, 2000 and 2005 phone surveys gives some reason for concern. A *rising percentage* of respondents reported:

- depressive symptoms (2 or more weeks in the past year),
- seeking care for depression, and
- not being able to access care when needed, due to cost or lack of insurance



These data cannot be fully interpreted, however, without additional clarification of respondents' experiences and perspectives. It's possible there could be some positive aspects to these trends. For example, they might indicate that respondents:

- are acknowledging mental health needs they may have denied in the past,
- are more interested and willing to obtain mental health services, or
- perceive less stigma attached to seeking mental health care.

Without follow-up research this is speculation, but it points to the possibility of differing interpretations.

The percent of CHA 2005 respondents reporting symptoms of depression was consistent with the BRFSS 2004 survey, and was virtually identical in all three local surveys despite the very different demographics. The percent describing symptoms of depression was:

- 27% - phone survey (general population)
- 29% - Latino survey (younger population, largely recent immigrants)
- 30% - seniors survey (older population, generally not homebound)

(Timeframe references in the depression questions were designed differently for the Seniors Survey. Phone and Latino survey respondents were asked about depression in the past year, whereas seniors were asked about the prior month.)

The CHA 2005 phone and Latino surveys asked respondents: **“During the past 12 months, was there a time when you wanted mental health care or counseling but did not get it at that time?”** Those who said “Yes” were:

- 5.6% of phone survey respondents
- 6.5% of Latino survey respondents

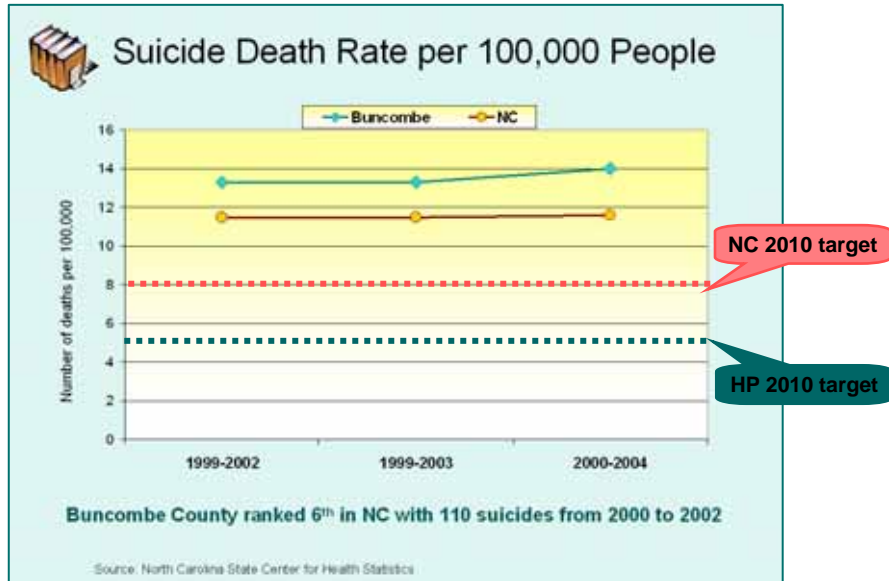
As shown in the graph above (rightmost set of columns), 56.6% of those who said they couldn't get the help they needed gave “cost” as their main barrier to receiving mental health care.



Suicide

Buncombe County's suicide rate is far from meeting the state and national objectives.

- 14.0 deaths per 100,000 population, the county's suicide rate for 2000-2004, was three-fourths higher than the NC 2010 objective of 8 deaths per 100,000
- The suicide rate was 2.8 times the HP 2010 target of 5 deaths per 100,000.



The county's suicide death rate ran about 15% higher than the North Carolina rate in the past 5 years.

In the age groups where suicide is a major cause of death (youth to 64 years), Buncombe has not compared favorably with statewide suicide rates.

Suicide Rates, Age-Adjusted, Buncombe and NC, 2000-2004

deaths per 100,000 Population

	Buncombe	No Car
0-19 years old	2.4	2.2
20-39 years old	18.1	14.1
40-64 years old	19.5	16.0

Youth and Mental Health

- "More attention is needed for [teen] mental health—especially in high schools where the counselors are only there to help prepare you for college."
- Source: Young Adult Focus Group Participant
- "[There is] lots of depression on campus and some people commit suicide. People aren't open about their problems and need to know they're not alone..."
- Source: Young Adult Focus Group Participant

Mental health concerns were raised across the board in our focus group sessions. Participants in the Young Adults group voiced their concerns (*box at left*) about mental health and suicide among youth and young adults.


Other groups' comments included:

- "I'd like for my doctor to work on lifestyle issues not just medication. Too much over-prescription around mental health."
- "I want to know what else is recommended. As far as Mental Health, there has been a huge increase in the medications that kindergartners are on; this needs to be addressed."



Injuries

Buncombe County's death rate due to motor vehicle accidents (15.0 deaths per 100,000) is meeting the NC 2010 objective (15.8), but needs further improvement to meet the higher target set under HP 2010 (9.2 deaths per 100,000).



Unintentional Injuries

At every age level, unintentional injury – not including motor vehicle accidents - is one of the 10 Leading Causes of Death in Buncombe Co.

- **The age-adjusted death rate for 1999-2003 was:**
 - 42.4 per 100,000 Buncombe County residents
 - 43.2 per 100,000 North Carolina residents
- **While the targeted national goal (HP 2010) is:**
 - 17.5 deaths per 100,000

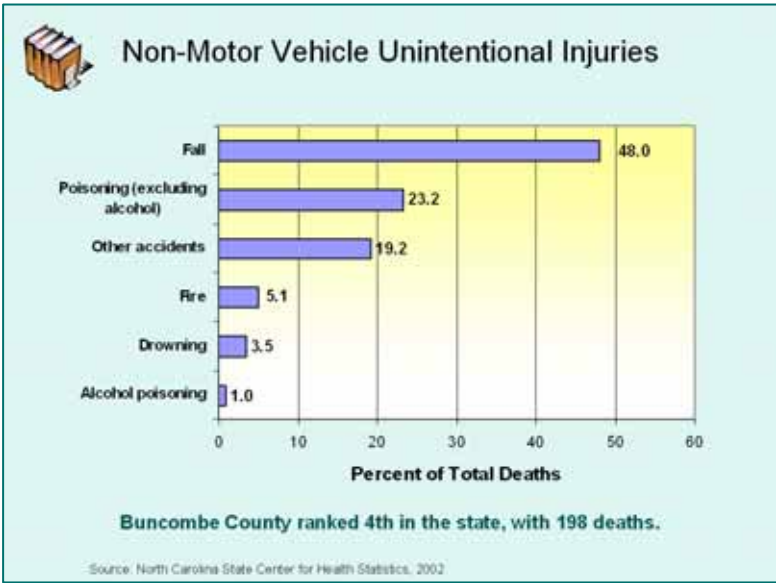
Death rates in both Buncombe County and North Carolina for other unintentional injury (non-vehicular) are more than twice the national Healthy People 2010 objective of 17.5 deaths per 100,000:

- 42.4 in Buncombe County
- 43.2 in North Carolina

during 1999-2003 (NC State Center for Health Statistics).

As noted in the "Health Status" section above, unintentional injuries (including poisonings) are the second leading reason for inpatient hospital use.

- Falls result in twice as many deaths as poisoning, which is the next leading cause of injury-related death. (NC State Center for Health Statistics, 2002)
- Buncombe County hospital utilization rates for injuries and poisonings exceeded the state average.
- Buncombe County ranks 4th in the state for the number of deaths due to "other unintentional injury" (not due to motor vehicle accident). (Buncombe has the state's 7th largest county population.)





Maternal and Child Health

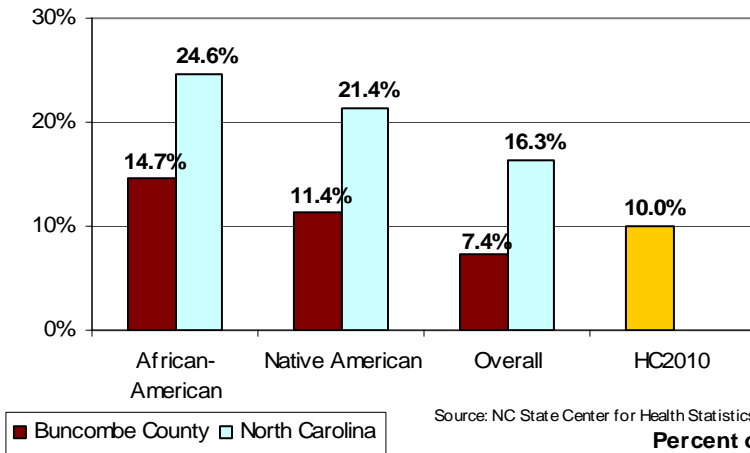
Pregnancy
Childbirth and Infant Birth Outcomes
Infant, Fetal and Child Mortality
Other Child Health Issues

Maternal / Child Health – and especially infant mortality – is often cited as the foremost indicator of a country’s or community’s general state of health and of the strength of its health care and support systems. A number of conditions and maternal behaviors have been linked to pre-term birth and low birth weight, which in turn are strongly correlated with infant mortality and compromised child health. These factors include (but are not limited to): beginning prenatal care in the first trimester, maternal smoking during pregnancy, mothers having less than a 12th grade education, and births to adolescent women (under age 20).⁹

Pregnancy and Prenatal Care

Beginning prenatal care in the first trimester of pregnancy has been shown to result in healthier babies. North Carolina’s objective for 2010 is for no more than 10% of pregnant women to begin prenatal care later than their first trimester of pregnancy.

Percent of Pregnant Women Not Receiving Prenatal Care in 1st Trimester, by Race, Buncombe and NC, 2000-04

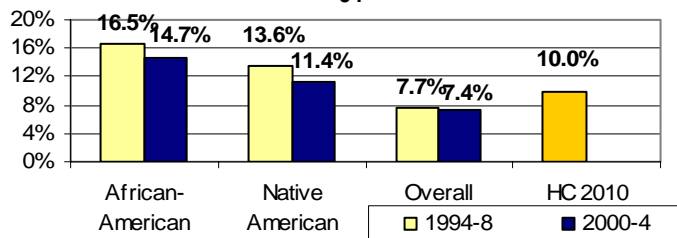


Buncombe County has reached the 10% target for all pregnant women collectively (“overall” rate of 7.4%), but not for African-Americans (14.7%) or Native Americans (11.4%).

Buncombe County’s pregnant women are far more likely to enter prenatal care in the first trimester than are women in North Carolina overall.

A higher proportion of pregnant Buncombe County women now receive prenatal care than did during the period 1994-98, not only overall, but also among African-American and Native American pregnant women.

Percent of Women Not Receiving Prenatal Care in 1st Trimester By Race, Buncombe, 1994-98 and 2000-04



⁹ Right Start Birth Outcomes, Kids Count, Annie E. Casey Foundation



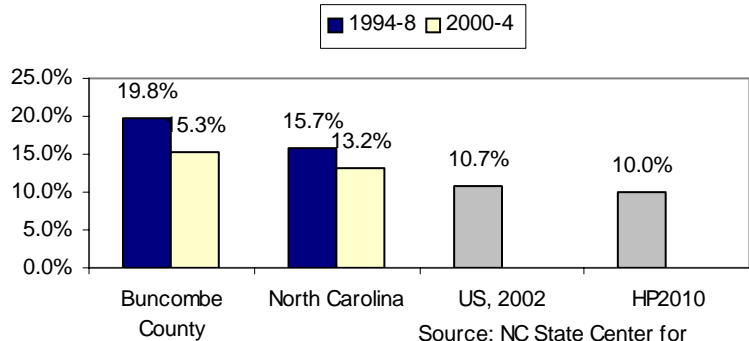
Smoking During Pregnancy

Smoking during pregnancy is a major factor in prenatal deaths and preterm and low birth weight babies. Compared with the prior five year period, fewer Buncombe County women are smoking during pregnancy. But the county's 2000-04 rate is still higher than state and national rates and targets.

- 15.3% Buncombe County
- 13.2% North Carolina
- 10.7%¹⁰ United States
- 7.0% NC 2010 target rate
- 10.0% HP 2010 target rate

Smoking during pregnancy appears high among all 17 counties that comprise Western North Carolina. Only Henderson County has a lower pregnancy smoking rate than Buncombe County.

Percentage of Births to Mothers Who Smoke, Buncombe County and NC, 1994-8 and 2000-4



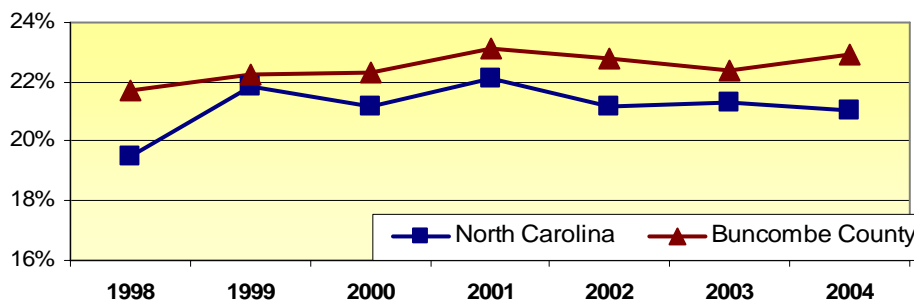
Source: NC State Center for Health Statistics

Mother's Education

A mother's level of educational attainment has been shown to be a good predictor of birth outcome (birth weight and gestational age). This effect may be due, at least in part, to associations with other important factors affecting birth outcome: prenatal care, smoking, parity, and likelihood of being married.¹¹

- The percent of Buncombe County mothers without a 12th grade education has risen since 1998, but seems to have stabilized at between 22% and 23% in recent years.
- North Carolina mothers appear slightly more likely to have a 12th grade education. The North Carolina rate of mother's with less education may be trending downward.
- In 2003 the US average was 21.6%.¹²

Percent of Mothers with Less than 12th Grade Education, Buncombe County and NC, 1998 to 2004



Source: North Carolina Center for Health Statistics, Baby Books,

¹⁰ Kids County State-Level Data Online, Annie E. Casey Foundation

¹¹ Currie, J, and Moretti, E. Mother's Education and the Intergenerational Transmission of Human Capital: Evidence from College Openings and Longitudinal Data. National Bureau of Economic Research, December 2002. <http://www.nber.org/papers/W9360>

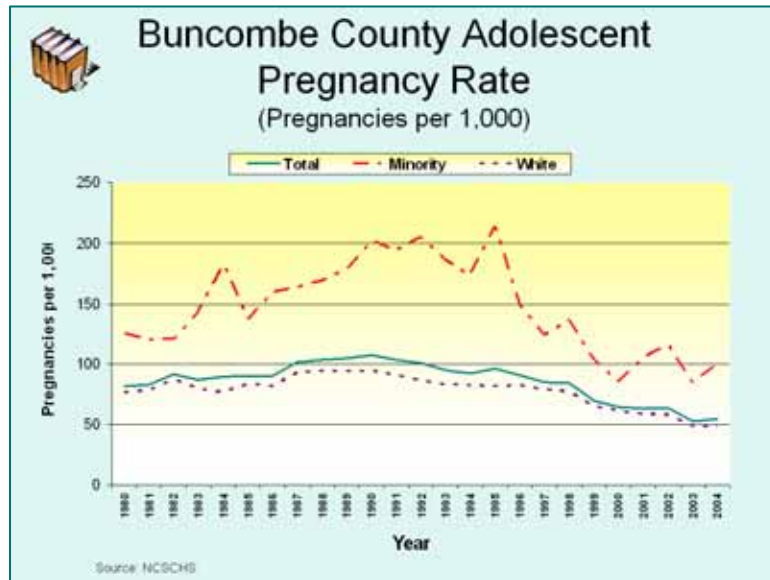
¹² Kids Count State Level Online Data, Annie E. Casey Foundation



Adolescent Pregnancy Rates

North Carolina's teen pregnancy rate has been historically high compared with other states, but has decreased over the past ten years. Buncombe County's pregnancy rate among teen girls age 15-19 is lower than North Carolina's for both Whites and the population overall. However, this is due in part to our smaller Minority population. Buncombe County's Minority pregnancy rate for 15-19 year olds is higher than North Carolina's.

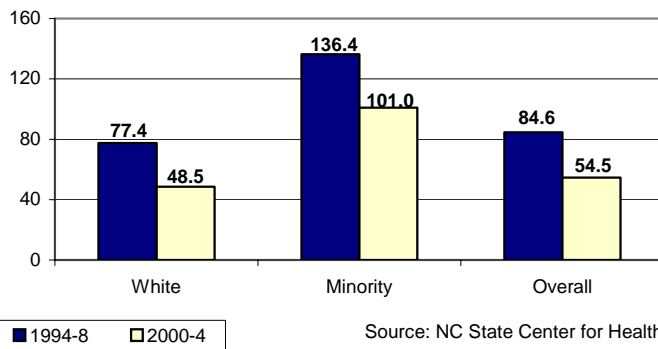
Buncombe County has followed state and national trends since the early 1990s in reducing adolescent pregnancy rates among both White and Minority teens.



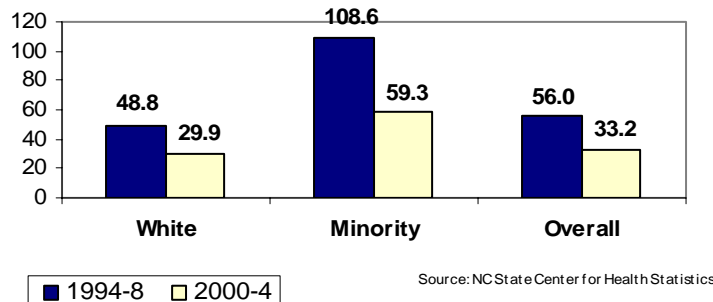
- Though we see some narrowing of the gap, in 2004 Minority teens (age 15-19) were about twice as likely as White teens to become pregnant.
- In 2004, 1 in 10 Minority adolescent girls became pregnant (100 pregnancies per 1,000 girls age 15-19).
- The Minority rate fluctuates more from year to year because of the far smaller population involved.

- Comparison between two 5-year periods (1994-98 and 2000-04) reduces the impact of these annual fluctuations.
- Buncombe's pregnancy rate for White teens decreased by over a third between these two time periods.
- The rate for Minority teens decreased by one-fourth.

Adolescent Pregnancy Rates, Ages 15-19, by Race, Buncombe County, 1994-98 and 2000-04



Adolescent Pregnancy Rates, Ages 15-17, by Race, Buncombe County, 1994-8 and 2000-4



- As with 15-19 year olds, the pregnancy rate for teens 15-17 decreased substantially between 1994-1998 and 2000-2004. The overall rate in 2000-4 was 41% lower than the 1994-8 rate.
- There was a larger decrease in the pregnancy rate for Minority teens (45%) than for Whites (39%).



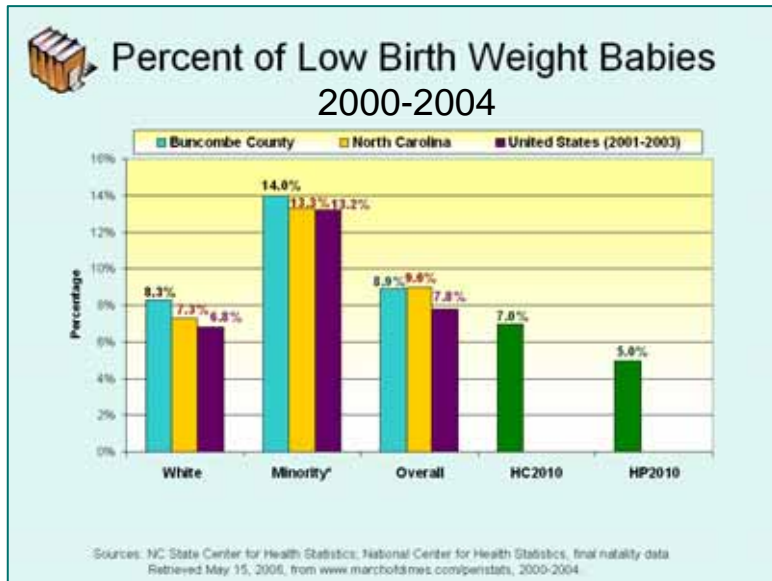
Childbirth and Infant Outcomes

Low Birth Weight

Low birth weight is defined, without regard to the duration of the pregnancy, as:

- **Low Birth Weight (LBW)** = < 2500 grams or about 5.5 pounds
- **Very Low Birth Weight (VLBW)** = < 1500 grams or about 3.3 pounds

Babies born pre-term (prior to 37 weeks of pregnancy) are usually also LBW or VLBW. However, full-term babies (born at 37 or more weeks of pregnancy) can also be born at a low birth weight, usually indicating some health problem. Good quality, comprehensive prenatal care and support services reduce the incidence of babies born at a low birth weight. Low birth weight is a significant health issue in the United States and a significant factor in infant death.



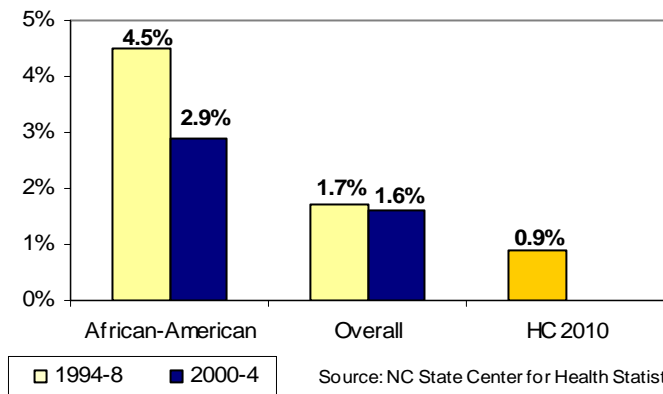
- North Carolina's objective is for no more than 7.0% of infants to be born LBW.
- The HP 2010 target is no more than 5.0% of all births.
- North Carolina's rate of 9% during 2000-2004 ranks the state 41st of the 50 states. Only nine states have a higher proportion of LBW babies.
- Buncombe County's overall rate is essentially the same at 8.9%. (Keep in mind the county's a lower proportion of Minorities, with higher LBW percentages.)

- Both White and Minority LBW rates are higher in Buncombe County than in the state or US.
- Buncombe County's Minority LBW rate (14.0%) is two-thirds higher than the White rate (8.3%).

Infants born at **very low birth weight (VLBW)** face even larger, sometimes lifelong, health challenges.

- Buncombe's 2000-04 VLBW rate for African Americans (2.9%) is better than the state's (3.6%) and about same as the national rate (3.1%).
- We see a welcome 36% reduction in the VLBW rate for African American infants, between these two report periods: from 4.5% down to 2.9%.
- African Americans' VLBW rate (2.9%) is still nearly twice the overall rate (1.6%).
- The overall VLBW rate changed little, suggesting no improvement at all for White infants.
- Neither the county, state nor national rates reach the NC2010 and HP2010 target of 0.9%.

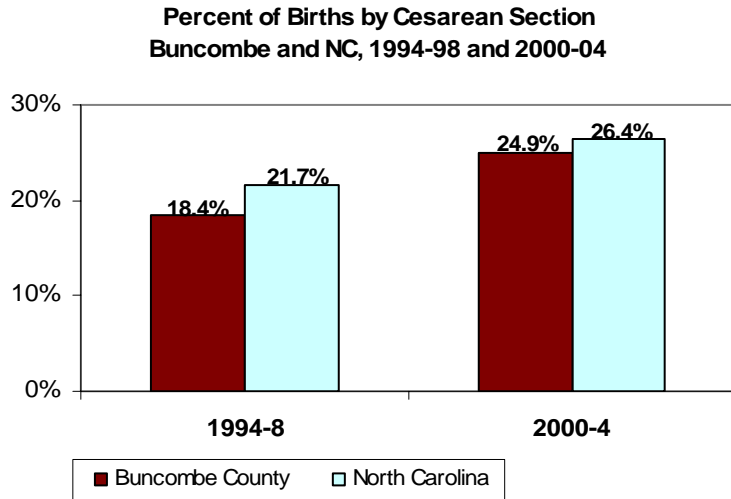
Percent of Very Low Birth Weight Babies, by Race, Buncombe County, 1994-98 and 2000-04





Birth by Cesarean-Section (Surgical Delivery)

Increasing rates of surgical delivery (“cesareans”) in low-risk pregnancies have been of growing concern in the United States. Cesarean delivery can save lives or improve outcomes, but only when used in response to certain specific medical indications of risk. The procedure is major abdominal surgery, and as such it introduces significant risks of its own to mother and baby. Nationally, the cesarean rate among women with low-risk pregnancies increased by one-third between 1996 and 2003.¹³ The Healthy People 2010 objective is that cesareans occur in no more than 15% of births where the mother is giving birth for the first time and her pregnancy is considered low risk.



Cesarean birth rates are rising in Buncombe County and in North Carolina.

- In the period 1994-98 only six North Carolina counties had lower cesarean birth rates than Buncombe County's.
- During the period 2000-2004, 27 counties had lower cesarean rates than Buncombe.
- Buncombe County's cesarean rate rose more than a third (35%) to 24.9% of all births.
- North Carolina's cesarean rate rose 22% in the same time period, to 26.4% of all births.

Breastfeeding Rates

A desirable outcome at childbirth is that the baby be breastfed. Breastfeeding is known to offer extensive health benefits to both baby and mother.

Healthy People 2010 targets are that:

- 75% of babies begin breastfeeding
- 50% of babies are still breastfeeding at 6-months of age

**Percent of Post-Partum Women Enrolled in WIC
Who Are Breastfeeding**

Source: Buncombe County WIC Program

	Buncombe	NC
Breastfeeding initiation rate	67.6%	49.7%
Breastfeeding at 6 weeks of age	34.5%	28.1%
Breastfeeding at 6 months of age	19.4%	14.7%

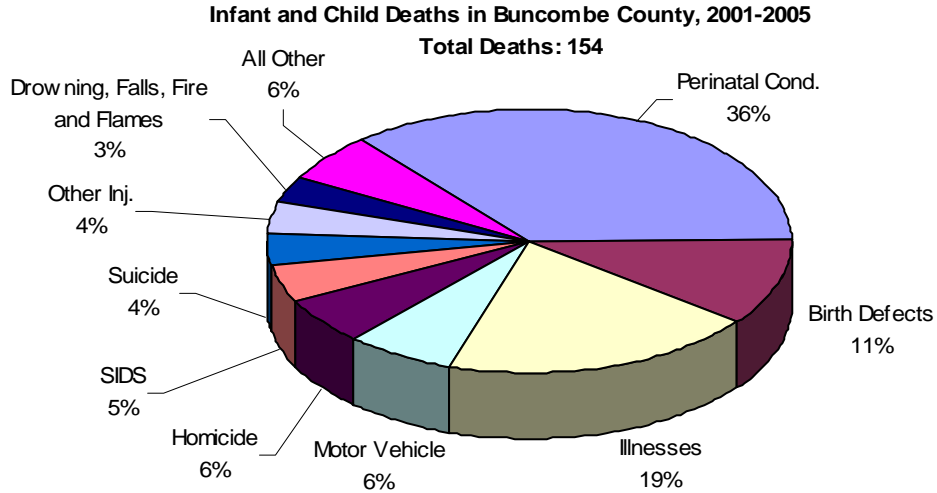
Historically, breastfeeding has been less common among lower-income women, who often face additional barriers in undertaking breastfeeding. WIC (“Women, Infants & Children”) is a national program that provides nutritional support to low-income women and their young children. For more than a decade, WIC has intensified efforts to support and enable participating women and their babies to enjoy the benefits of breastfeeding. The Buncombe County program is close to meeting the general population target for initiating breastfeeding (67.6% vs. 75%).

¹³ Menacker, F. Trends in Cesarean Rates for First Births and Repeat Cesarean Rates for Low-Risk Women: United States, 1990-2003. *National Vital Statistics Reports*, 54 (4) (PHS) 2005-1120



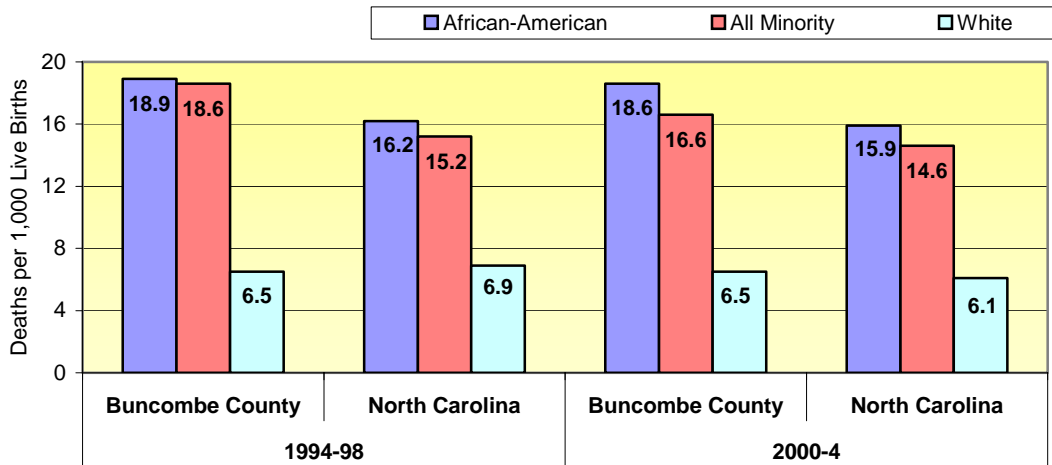
Infant, Fetal and Childhood Death

Of the 154 **deaths to children 0-17** that occurred in the county between 2001 and 2005, 101 of these, or 66%, were deaths in infancy (<1 year of age). More than a third of childhood deaths were due to “perinatal conditions” (medical circumstances around the time of birth).



Buncombe County and North Carolina **infant mortality rates** are shown below for two 5-year time frames: 1994-1998 and 2000-2004:

Infant (< age 1) Death Rates by Race-Ethnicity
Buncombe County and North Carolina, 1994-98 and 2000-04



- The North Carolina 2010 target is 7.4 deaths per 1000 live births.
- **Buncombe’s overall infant mortality rate was 7.5** deaths per 1,000 live births in 2000-04, close to the target. However, there is dramatic disparity in infant mortality by race.
- An African American baby was nearly three times as likely as a White infant to die before reaching his or her first birthday, during the past five years in Buncombe County.
- Buncombe’s infant mortality rates changed very little between the two periods for African Americans, and not at all for Whites. The overall Minority rate decreased 11%.
- North Carolina rates were also stable. White infant mortality statewide dropped about 12%.



In addition to infant deaths within the first year of life, we consider fetal deaths, defined as death that occurs before live birth but at 20 or more weeks of pregnancy.

Fetal Death Rates 2001-2005

$$\text{Fetal Death Rate} = \frac{\# \text{ fetal deaths}}{(\# \text{ fetal deaths}) + (\# \text{ live births})} * 1,000$$

	Buncombe	No. Carolina
White	6.6	5.3
Minority	15.3	11.7
OVERALL	7.5	7.1

- Even over a five year period, there were only 20 Minority fetal deaths, so data is of limited stability even over this aggregated period.

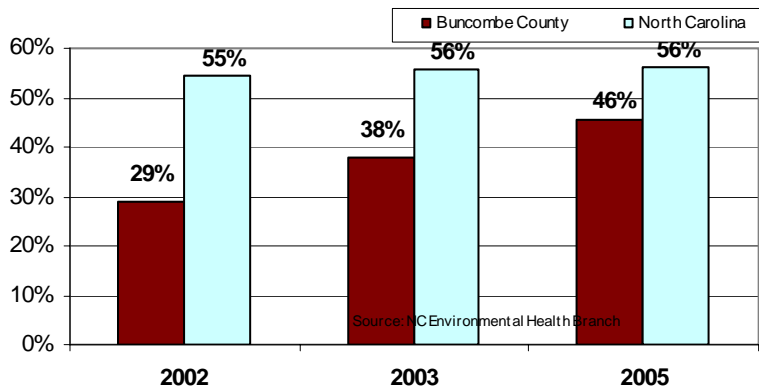
- In both Buncombe County and statewide, fetal death was more than twice as likely to be experienced by a pregnant Minority woman than a White woman.
- Overall pregnancies in Buncombe were over 5% more likely to end in fetal death than for pregnancies throughout North Carolina.

Other Child Health Issues

Environmental Health – Lead Poisoning Prevention

Lead poisoning is the most common preventable pediatric health problem in the US today, and is caused by exposure to lead that is eaten or breathed in the form of dust. It is one of the most serious health threats for children in and around the home. If not detected early, high levels of lead in a child can cause: damage to the brain and nervous system, behavior and learning problems (such as hyperactivity), delayed growth, hearing problems, and headaches.¹⁴

Medicaid Children (12-36 Mos.) Screened for Lead Poisoning
Buncombe County and NC - 2002, 2003, 2005



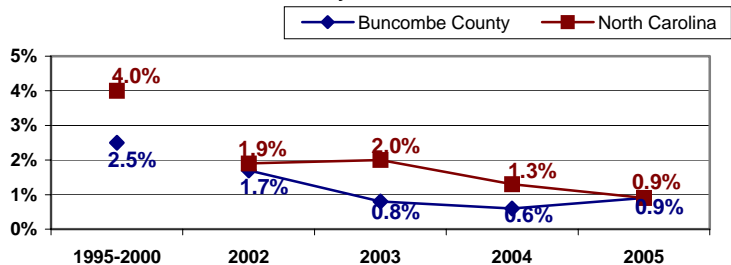
The NC General Assembly enacted the Childhood Lead Exposure Control Act, establishing a voluntary program of testing for lead in children, especially children 12 to 36 months. Special focus is given to ensuring that children eligible for Medicaid are screened in infancy for lead exposure.

Buncombe County has lagged behind the state in the percentage of Medicaid-eligible children being screened by age three.

Progress is being made, however, and the 2005 screening rate was nearly 60% higher than the rate in 2002. Screening results have found fewer problems in Buncombe than elsewhere in the state. In 2005, the county and state rates converged at 0.9% of those tested having elevated blood lead levels.

See also discussion on pg. 16, above.

Children (12-36 Months) Found with Elevated Lead Levels*
Buncombe County and NC - 1995 to 2005



* >10 microliters per deciliter blood Source: NC Children's Environmental Health Branch

¹⁴ Protecting your family from lead poisoning. Buncombe County News, Buncombe County Government, 10-8-06.

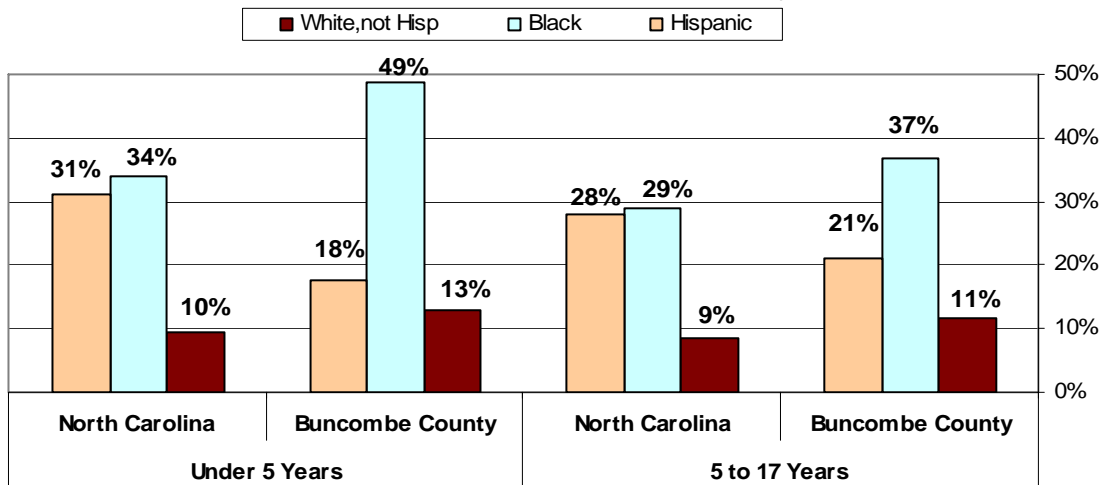


Underlying Poverty among Children

As we consider health concerns for Buncombe County's children, we need to be mindful of the impact of poverty, knowing that in our county, the very young are most likely to live in poverty.

- Between 1990 and 2000 there was a 15% rise in the number of Buncombe County children living below the poverty level.
- The younger the child, the more likely he or she is to live below the poverty level. This pattern is seen across North Carolina and the nation.
- Economic disparity between Black and White (non-Hispanic) children is considerably more pronounced in Buncombe County than in North Carolina as a whole:

**Percent of Children in Poverty within Race-Ethnic Groups:
Under 5 Years and 5-to-17 Years, Buncombe County and NC**




- Half (49%) of Buncombe's **African American children under age 5** are living in poverty. The likelihood that these children live in poverty is:
 - 3.8 times the rate for young White children in Buncombe
 - 2.7 times the rate for young Hispanic children in Buncombe
 - 1.4 times the rate for young African Americans in North Carolina
- Young Latino children (under age 5) in Buncombe are about half as likely to be living in poverty as are Latino children in North Carolina as a whole.
- Comparing Whites and Latinos, there is a greater difference in poverty levels between older children in Buncombe than between the younger aged children.
- Comparing African American with White or Latino children, there is less disparity in poverty for the older aged children than the younger, in Buncombe.
- Where a female head of household lives with her children, 4 out of 10 Buncombe County live below the poverty level. This statistic was trending downward 30 years ago, but appears to have stalled since then.



Health Promotion

Health Education
Nutrition & Fitness
Tobacco Use
Alcohol & Substance Use

Health Promotion refers to educational, motivational and support activities to promote positive behavior change that improves health. Such activities can take place one-on-one with



Education/Health Promotion

- Five of 12 groups agreed that more community education/health promotion was a pressing need in their community.
 - African American
 - Business Leaders
 - Health & Human Services (1 of 2)
 - Policy Makers (1 of 2)
 - Young Adults

individuals, in groups-based programs, and through community-wide initiatives. State objectives for Health Promotion address five areas:

- nutrition
- physical activity
- tobacco use
- alcohol and substance abuse
- responsible sexual behavior


These are “modifiable behaviors” – factors individuals can control, which have a strong impact on their health.

Health Education

As national health costs spiral out of control, we all find ourselves “stakeholders” in health promotion.

In our CHA 2005 focus group sessions, health professionals, business leaders, policy makers and community residents alike were interested in a pro-active approach to improving our health and reducing health care costs.

An important starting point for supporting positive behavior change is to provide individuals with good factual information. This information should be delivered in understandable language and a layering of multi-media messages that are culturally acceptable and persuasive, given the person’s primary language, age, gender, race-ethnicity, etc.



Education/Health Promotion

- “We need to put our efforts in promoting health care, instead of just keeping people out of the emergency room.”
- Source: School Nurses Focus Group
- “I want my child to have access to information and confidential services around family planning/birth control, [and] STDs.”
- Source: Parents of Teens Focus Group



Nutrition and Fitness

The **Eat Smart, Move More** (ESMM) initiative is North Carolina's strategic health promotion program for achieving and maintaining a healthy weight. The **Eat Smart, Move More** website <http://www.eatsmartmovemorenc.com/> offers many free resources for action.

Eat Smart, Move More has four goals. **GOAL 2** is to **increase the percentage of North Carolinians who are at a healthy weight**. Goals 1, 3 and 4 are discussed below, and all are a means to achieving Goal 2.

Eat Smart, Move More - GOAL 1:

Increase healthy eating and physical activity opportunities for all North Carolinians by **fostering supportive policies and environments**.

Since 1990, the **Healthy Buncombe Coalition** has offered community members a means to work together on policy and environmental issues that impact nutrition and fitness. The Coalition has three Action Teams:

- Active Communities
- Community Nutrition
- Worksite Action.

For further information, visit:

<http://www.healthybuncombe.org/>

The Healthy Buncombe Coalition works closely with the **School Health Advisory Council** (SHAC) on school policies related to nutrition and fitness:

- The Asheville-Buncombe SHAC has 20-25 members representing school personnel, parents and organizations.
- In 2005-2006, SHAC developed recommendations regarding healthy eating for both the Buncombe County and Asheville City school districts. It has also developed – and the schools are implementing – a set of Wellness Policies on healthy eating and fitness; all school systems receiving funds from the Child Nutrition and WIC school lunch program are now required to adopt a wellness policy.
- The policy regarding food in schools – vending, snacks, celebrations, etc. – was passed in August 2005, and the USDA-required wellness policy passed in July 2006.

Some other Buncombe community actions affecting policy and environment include:

- Community organizers have been trained in the “**Safe Routes to School**” program, and they are now qualified to train others. Discussions are underway with some schools about initiating this fitness program.
- In 2005, the City and partnering organizations submitted a successful application, and in early 2006 the City of Asheville earned one of the first “**Fit Communities**” designations.
- The City of Asheville Parks & Greenways Foundation Board is working actively to raise the funds needed to complete the City's greenway project. Funding has also been secured to develop a bicycling plan for the City. The full **Master Greenways Plan** is available on the City website: www.ci.asheville.nc.us/parks/mastergreenways.htm
- The City of Asheville's **Pedestrian Plan** was updated in 2004-05 and adopted by City Council in February 2005.

The environment we live in was cited by CHA 2005 focus group participants as a key contributing factor in our ability to eat and exercise wisely. Examples given included:

- challenge of advertisements and marketing influences on healthy choices
- readily available fast food
- processed food
- poor urban/suburban development patterns
- lack of sidewalks and bike paths
- community safety
- having appropriate recreational places



Eat Smart, Move More - GOAL 3:

Increase the percentage of North Carolinians who **consume a healthy diet.**

Research has shown that the number of meals a person eats that are prepared outside the home – fast-food, take-out, vending machines and restaurants – is one indicator of the general quality of a person’s diet.

The CHA 2005 phone and Latino surveys asked how often respondents ate meals prepared away from home. Almost 1 in 5 said they did so five or more times a week. About 1 in 10 ate out, on average, at least once a day.

As one focus group participant commented:
“It’s fast food all the time.”

 **How often do you eat meals prepared away from home?**

- 3 or more times per week
 - 40% phone survey respondents
 - 25% Latino survey respondents
- 5 or more times per week
 - 19% phone survey respondents
 - 17% Latino survey respondents

 **“It’s fast food all the time.”**
- Source: African American Focus Group Participant

It is recommended that a person eat three or more daily servings of both vegetables and whole grain foods. Keeping caution in mind, due to the small sample sizes for the Latino and Seniors Surveys (*numbers are shown beside percents*), here are some CHA 2005 survey findings.

	Phone	Latino	Seniors
0 - 1 vegetable servings daily	22% (206)	55% (42)	
0 - 1 whole grain servings daily	41% (387)	56% (43)	60% (47)
Of these, NO whole grain foods daily	13% (118)	14% (11)	13% (10)

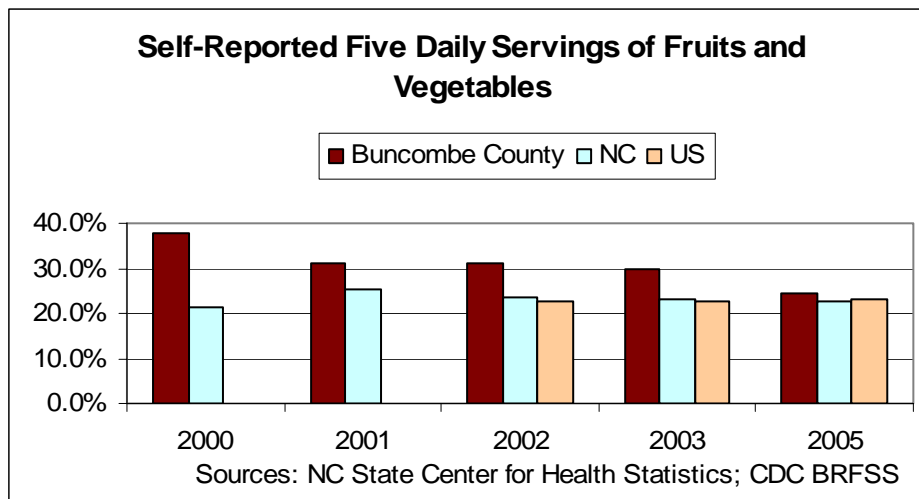
The 2005 BRFSS survey asks about servings of fruits and vegetables (combined) to see how many Buncombe County adults eat the recommended 5 or more servings per day:

Met Recommendation of 5 or More Servings of Fruit/Vegetables per Day

OVERALL	Whites	Minorities	High Income	Low Income	Older (45+)	Younger
24.5%	26.8%	15.2%	36.2%	21.3%	30.9%	19.7%

Source: BRFSS 2005 – Buncombe County

Consumption of fruits and vegetables seems to be showing a disturbing downward trend:





Eat Smart, Move More - GOAL 4:

Increase the percentage of adults, youth and children ages 2 and up who participate in the recommended amounts of **physical activity**.

Seven of the 12 focus groups conducted as part of CHA 2005 strongly agreed that poor nutrition, diet and exercise were some of the biggest health problems in their community. These were the two parent groups, school nurses, young adults, 1 of 2 health and human service groups, and both policy maker groups.

Participants were concerned about their own needs and their children's. One parent noted, "The more fun and exercise he [my son] has, the more calm and cool he is...Lately, I haven't been able to afford those registration fees and boy is he becoming a crank!"



Challenges for Children and Parents

- "I have a 16-year-old and I'm fighting a battle all the time against the messages he gets about what he would like to eat and drink."

- Source: Policy Maker Focus Group Participant

- "We don't have a place to take our children [to exercise]."

- Source: Immigrants/Advocates Focus Group Participant

- "Schools don't seem to realize that a kid who is healthier will test better."

- Source: School Nurses Focus Group Participant



Exercise

- 25.3% reported that they do not engage in any physical activity
 - 56.6% reported that they engage in physical activity for at least ten minutes, three days a week or more
- 56% reported that they do not engage in any physical activity to strengthen muscles

The CHA 2005 surveys asked whether the person had gotten exercise in the past month, and asked how many sessions of physical activity they typically do in a week, at various levels of physical activity.

The table below shows the response percentage, followed by the number of respondents shown in (*italics*) within parentheses. Again keeping caution in mind, due to the small sample sizes for the Latino and Seniors Surveys, these results suggested a high level of inactivity:

	Phone	Latino	Seniors
NO exercise in past month	20% (<i>187</i>)	34% (<i>26</i>)	28% (<i>22</i>)
NO light physical activity in a typical week	25% (<i>238</i>)	29% (<i>22</i>)	22% (<i>17</i>)
NO heavy physical activity in a typical week	31% (<i>290</i>)	30% (<i>23</i>)	48% (<i>38</i>)
NO strengthening exercises in a typical week	56% (<i>527</i>)	69% (<i>53</i>)	75% (<i>59</i>)

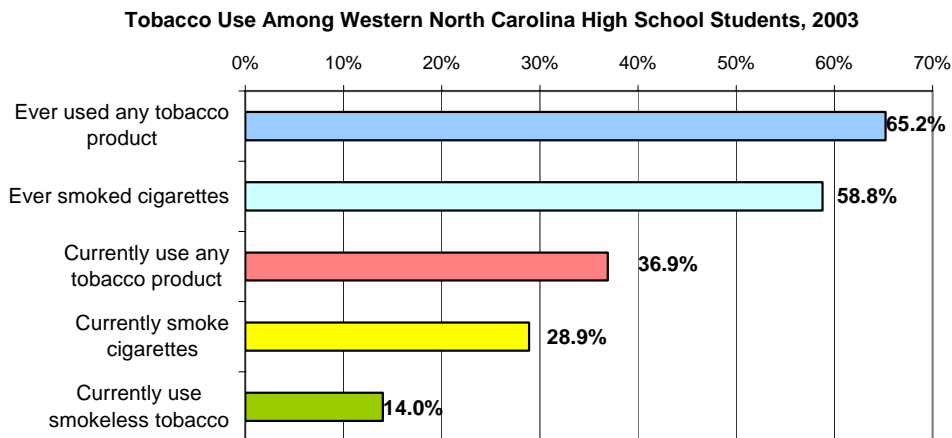


Tobacco Use

Tobacco Policies:

Comparable to the Healthy Buncombe Coalition policy work on healthy eating and physical activity, Buncombe County's Project Assist coalition takes a policy approach to preventing and reducing tobacco use. Efforts are focused especially on youth, since nearly all lifetime smokers begin to use cigarettes in their teen years.

- Both school systems (Asheville City Schools and Buncombe County Schools) have adopted a 100% tobacco free policy. They prohibit use of tobacco products by anyone – including students, staff, and visitors – on school grounds or at school events at all times. Tobacco-free zones include school premises, school vehicles, and school events held indoors and outdoors, both on and off school property.



Source: NC 2003 Youth Tobacco Survey (YTS) High School Fact Sheet, NC DHHS

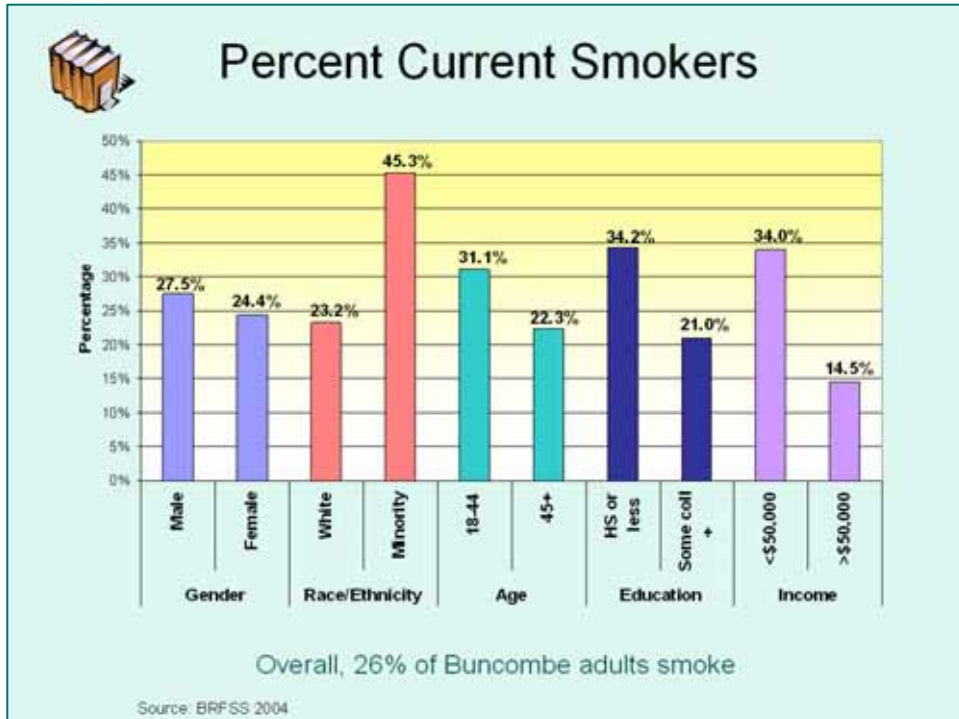
- Mission Hospitals (which is the largest employer in Buncombe County) adopted a smoke-free campus policy in 2004.
- NC General Statute "Smoking in Public Places," enacted in 1993, preempts local governments from restricting smoking in public buildings, worksites, and restaurants. Any policy passed prior to this law is grandfathered in, but new ordinances and policies cannot be passed. Project Assist works instead to encourage worksites, restaurants, and other venues to voluntarily adopt a tobacco-free policy.
- Prior to the 1993 state law, Asheville City passed a policy prohibiting any employee, customer, or visitor from smoking in any City building or City motor vehicle.
- In 2005, Buncombe County (off the record and unofficially) designated County buildings smoke-free up to 50 feet from a building's entrance. To date, this policy hasn't been challenged.

Our CHA 2005 surveys asked whether the respondent was often around smokers, where they live or work. The percentages of those who said, "Yes" they are exposed to second hand smoke are:

- 21% of phone survey respondents
- 20% of seniors surveyed
- 29% of Latino respondents.



Smoking Rates



From our CHA 2005 surveys:

	Have been a smoker	Currently smoke	Exposed to second-hand smoke
Phone survey	47%	22%	21%
Latino survey	25%	5%	20%
Seniors survey	51%	9%	29%

Keep in mind that the sample sizes were small for the Latino and senior surveys.

To determine if a respondent is exposed to considerable second-hand smoke, they were asked: ***“Do you live or work with someone who often smokes around you?”***

Considering demographic disparities, in the BRFSS 2004 survey:

- 51% of Whites have been smokers, compared with
- 62% of Minority respondents.

Of these respondents who have been cigarette smokers:

- 54% of Whites have now quit, and don't smoke at all.
- By contrast, only 26% of Minorities have quit.
- So White smokers were twice as likely as Minorities to have quit.



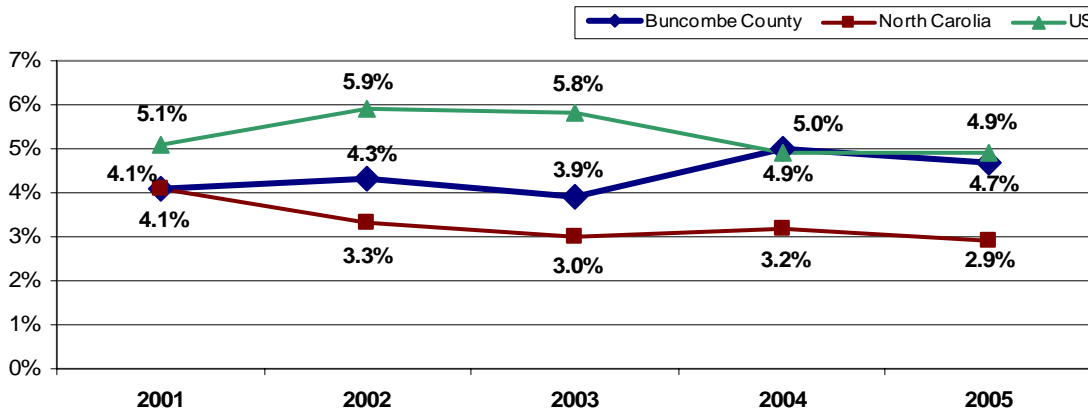
Alcohol Use and Substance Abuse

Alcohol Use

The NC Office of Chief Medical Examiner reports that between 2000 and 2002 there were 146 deaths of a person 15 years or older in which alcohol level of the decedent was checked. Blood alcohol levels were positive in seven cases, or about 2%, and above the legal limit (0.08%) in three of those cases. Alcohol was positive for about 11% of those tested statewide.¹⁵

“**Heavy drinking**” is not significantly more common among any particular demographic group in Buncombe County.

Self-Reported Heavy Drinking*, Buncombe County, NC, and US, 2001-5

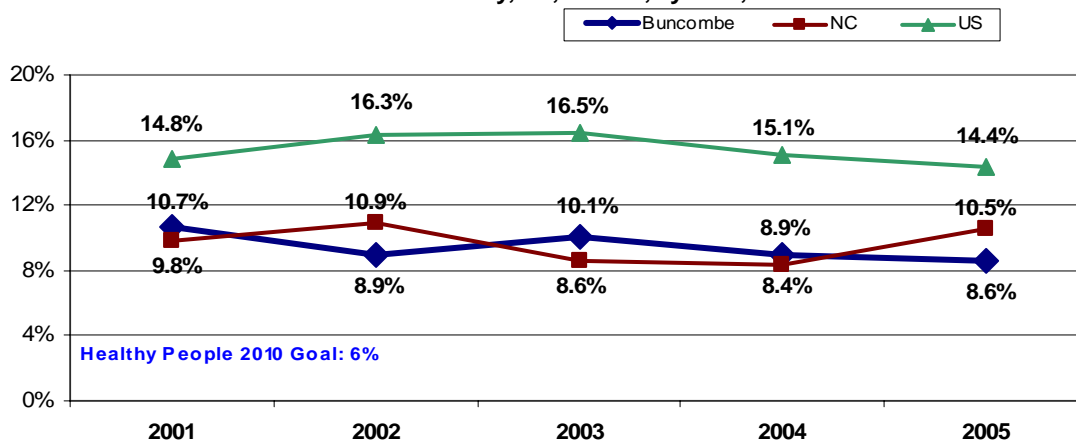


*Adult men having more than two drinks per day and adult women having more than one drink per day.

Sources: NC State Center for Health Statistics, BRFSS; CDC BRFSS

“**Binge drinking**” is defined as having five or more drinks on one occasion. About 18% of those Buncombe county adults who drink, engage at times in binge drinking.

Percent of All Respondents Reporting They Drank 5+ Drinks in Past 30 Days, Buncombe County, NC, and US, by Year, 2000-4



Sources: NC State Center for Health Statistics, BRFSS; CDC BRFSS

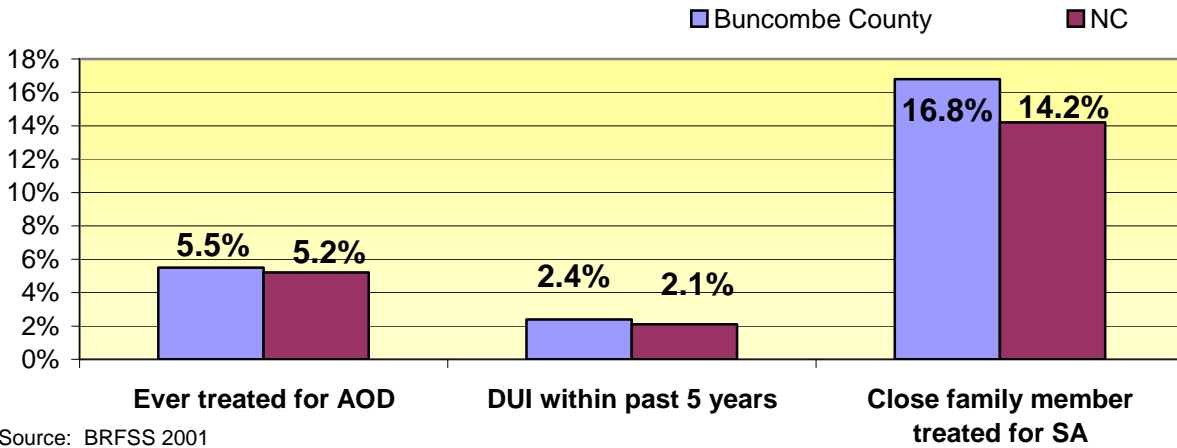
¹⁵ Natural deaths by presence of alcohol and county of residence for decedents who were tested for alcohol. North Carolina OCME data: 2000-2002.



Substance Abuse

County-level data pertaining substance abuse are less readily available. The BRFSS 2001 survey included a few questions regarding a both person's own experiences and those of close family members.

**Percent With Alcohol or Drug Experiences
Buncombe County and NC, 2001**

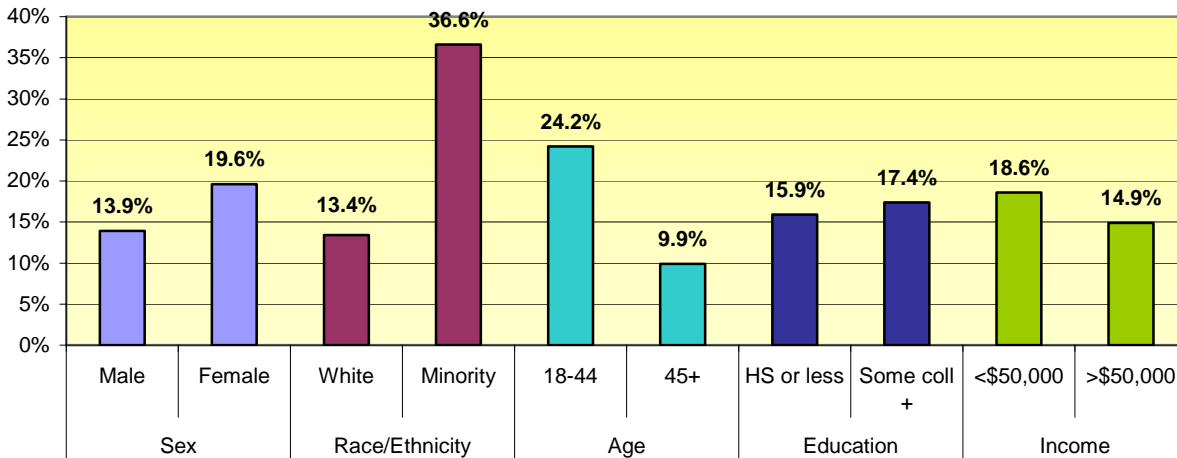


Source: BRFSS 2001

In Buncombe County, 2.4% of adult respondents reported having been arrested for “driving under the influence” (DUI) within the past five years, and 5.5% have been treated at some time for alcohol or drug use. For every person involved in substance abuse, there are likely to be family members who are impacted by this problem as well. About 1 in 6 persons reported they have a close family member who has been treated for substance abuse; this does not include the numbers of person with substance abuse issues who have not received treatment.

The graph below shows a demographic breakout concerning affected family members, not the persons who are themselves receiving treatment for substance abuse.

**Percent With Close Family Member Treated for Substance Abuses
By Group, Buncombe County, 2001**



Source: BRFSS 2001



Access to Healthcare

Healthcare Providers, "Medical Home"
Affordability & Health Insurance
Systems Issues

Access to health care has been a key issue in Buncombe County. Beginning in 1994 with a physician-led effort sponsored by the Buncombe County Medical Society and funded by Robert Wood Johnson Foundation, health care access for low-income Buncombe County residents has



Access to Care

Eleven of 12 focus groups strongly agreed that access to care was one of the biggest health problems in their community.

- Health & Human Service Providers (2 of 2 groups)
- School Nurses
- Rural/Appalachian
- Policy Advocates/Makers (2 of 2 groups)
- Parents of Young Children
- Parents of Teens
- Young Adults
- Business Leaders
- Immigrants/Immigrant Advocates

African American focus group participants were also concerned about access, but it did not rank as one of their top three concerns.

been transformed into a coordinated system. The county's major "safety-net access providers" work together to operate and improve the system of care. Their efforts, however, are constantly shaped by market forces and economic trends, changes in care reimbursement and care delivery systems, national and state policy changes, and other factors.

For individuals in need of care, two major determinants of access to health care are the numbers of available providers and the means to pay for their services – health insurance coverage.

Healthcare Providers

In 2004, there were 718 physicians in Buncombe County, including 295 primary care physicians (family practice, internal medicine, OB/GUN, and pediatrics), 422 in other specialties, and 55 federal physicians. The table below also shows numbers of nurses and other health professionals.

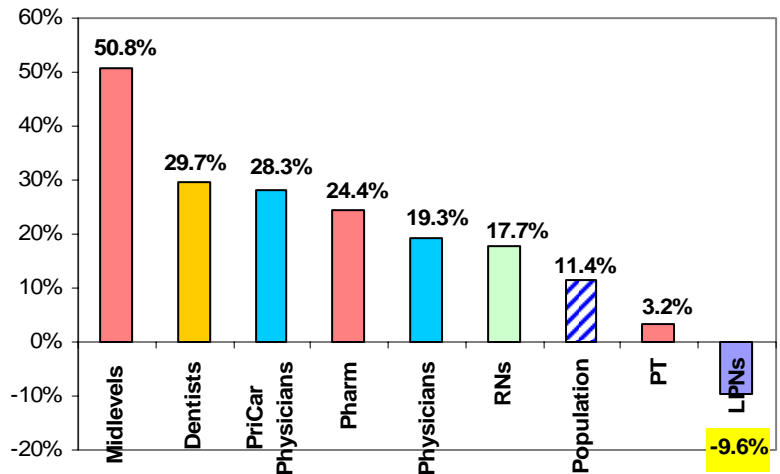
Health Care Professionals, Buncombe County, 2004

Physicians		Mid-Levels & Nurses		Other Health Professionals	
Total Physicians	718	Physician Assistants	101	Chiropractors	68
Population per Physician	300	Nurse Practitioners	92	Dentists	131
Primary Care Physicians	295	Registered Nurses	3,459	Dental Hygienists	150
<i>Family Practice</i>	118	Licensed Practical Nurses	710	Optometrists	29
<i>General Practice</i>	8			Pharmacists	255
<i>Internal Medicine</i>	92			Physical Therapists	194
<i>OB/GYN</i>	39			Physical Therapy Assts	69
<i>Pediatrics</i>	38			Podiatrists	8
Physicians, Oth. Specialty	422			Psychological Assocs.	63
Federal Physicians	55			Practicing Psychologists	98



Compared to 1998, there are more providers in every category except LPNs, whose numbers decreased nearly 10%. Over this same period of time, also, the population increased by 11.4%. To insure that the supply of providers keeps pace with population growth, we track population-to-provider ratios. These show provider supply has kept up with the population, with the exception of LPN's. The biggest increase has been in midlevel providers, or "physician extenders," a change consistent with state and national trends.

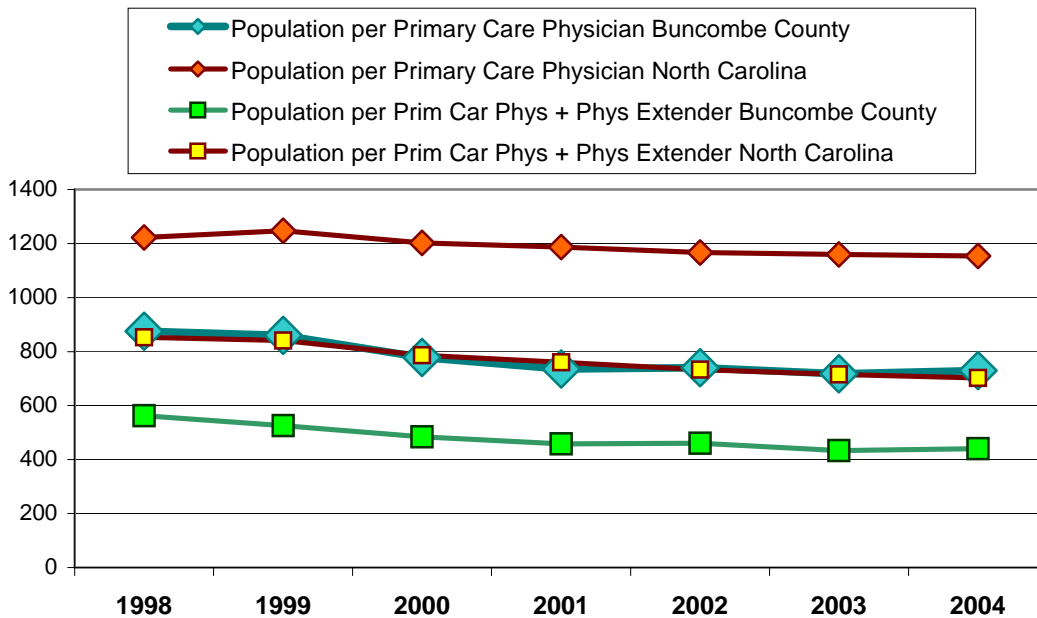
**Changes in Health Care Provider Supply
Buncombe County, from 1998 to 2004**



Source: Cecil G. Sheps Center for Health Services Research. UNC & AHEC. accessed 3-06

If every person had a primary care physician, Buncombe County primary care physicians would care for 729 residents, while their state counterparts cover 1154 residents. These figures do not take into account the fact that Buncombe County primary care providers may also care for out-of-county patients. The time trend chart, below, shows the near overlap between Buncombe County's primary care physician (PCP)-to-population ratio compared with North Carolina's ratio when its PCPs and mid-level practitioners ("physician extenders") are added together (and compared to the population of potential patients).

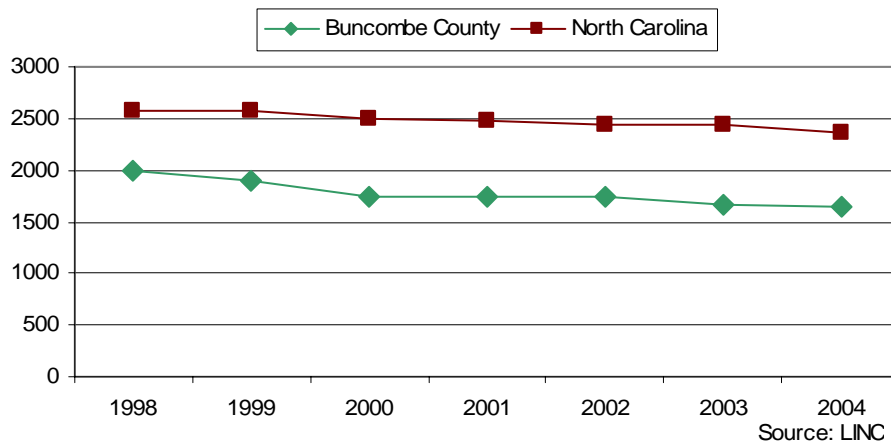
**Ratios of Population to Providers: Primary Care Physicians and
Physician Extenders, Buncombe County and NC, 1998-2004**



Source: LINC, 3-06



Population per Dentist, Buncombe County and North Carolina, 1998-2004



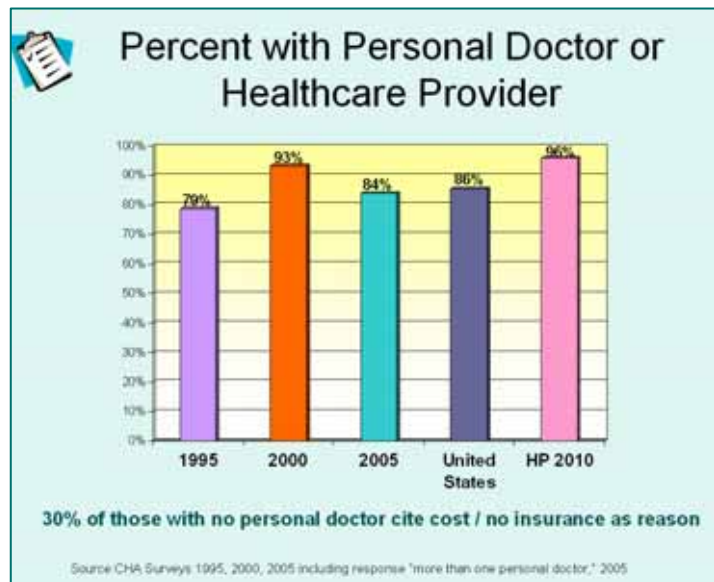
Buncombe County's supply of dentists compares favorably with that of the state, as well. Note that a lower ratio is desirable. It indicates a provider has fewer patients in need of her or his time. The caseload for a dentist in Buncombe County is about 20% smaller than average for dentists in North Carolina overall.

Primary Care and the "Medical Home"

The healthiest countries are those with good primary health care systems. Increasing the proportion of the population that has a primary care "medical home" is both a county and Healthy People 2010 goal.

Community collaboration around access to care emerged big time in 1995. Through the vehicle of a major grant from Robert Wood Johnson, volunteer-based Project Access was begun to increase access to primary and specialty care for persons who are uninsured. Buncombe County Medical Society is the project's parent organization. Success, however, depends on maintaining a strong network between all those who help meet the healthcare needs of low-income residents. At the same time, in 1995, those involved in this effort formed the Health Partners coalition.

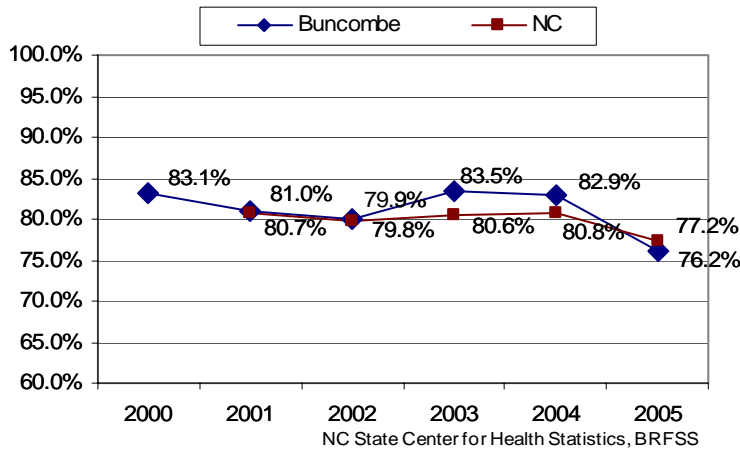
Five years into Project Access (and other "safety net" collaborative efforts), the CHA 2000 assessment survey found 93% of respondents had a "usual place to go" for their health care (a medical practice other than the hospital Emergency Department or hospital admission). This number dropped to 83% in 2003, and then dropped further to 77% in CHA 2005. It is too early to tell if the trend will persist, of fewer people having a medical home. In 2005, though, there was a similar drop among North Carolina residents, the largest reduction at the State level in four years.



The discussion below of the growth in the uninsured population sheds light on the drop in the percentage of residents without a medical home. It is not the case that a smaller number of people are finding a medical home. But the number in need is growing quickly.



Percent Who Have a Personal Doctor of Other Provider, Buncombe County, and NC, 2000-2005



Buncombe County's network of safety net providers went through an extended strategic planning process in 2003 to refocus their collaborative efforts. This graph shows an upswing in 2003 and 2004 in the percent of persons with a medical home, before the trend again dropped in 2005. (Note that the vertical scale begins at 60%.)

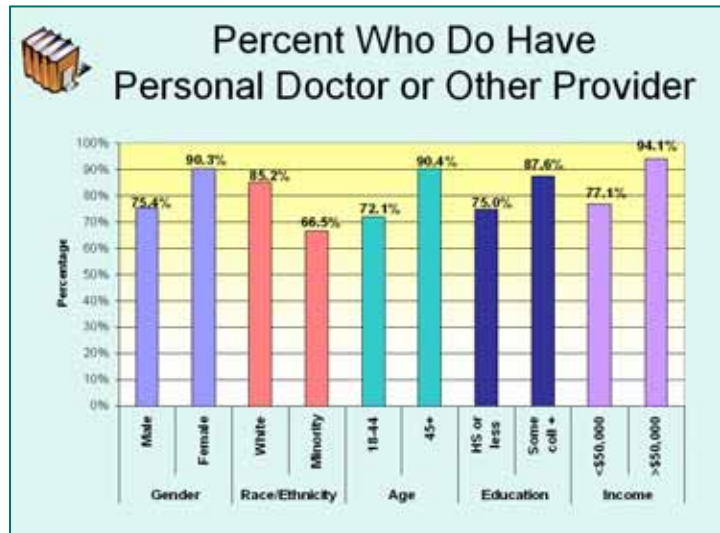
Aside from the upswing in persons with a PCP in 2003 and 2004, Buncombe County's rate here is nearly identical to the rates for all of North Carolina.

The graph to the right shows a breakout for sub-groups of the percent who do have a personal doctor or caregiver. That is, a tall bar is a better outcome.

(Source: BRFSS 2004.)

We see that those less likely to have a personal healthcare provider are:

- men
- Minorities
- younger residents
- those with less education
- those with lower income.





Affordability and Health Insurance

Our data on the supply of providers (above) show we do not have a particular problem in our community with an under-supply of medical care providers. It is reasonable to suppose, then, that cost – especially when you lack health insurance – is the biggest barrier to care for people in Buncombe County.

Our surveys and assessment results confirm this. They also show that the economics of health costs is a complex matter impacting all community stakeholders and county residents – even those who do have health insurance.

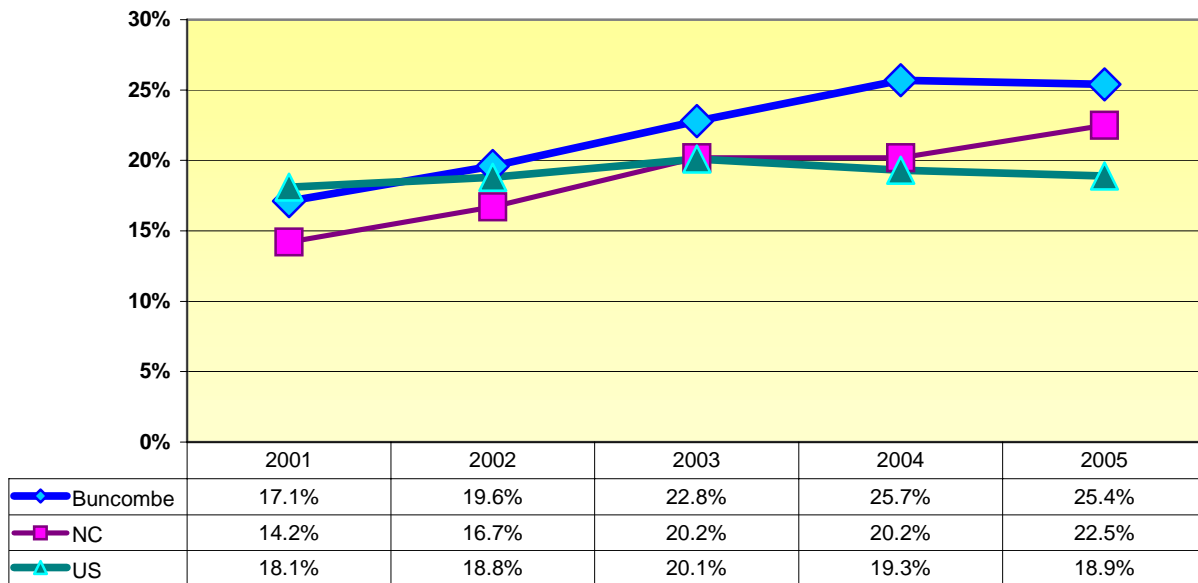
Affordability

- “If you don’t have Medicaid or the money, then you’re out.”
- Source: Parents of Young Children Focus Group Participant
- “When I succeed by getting a job, I can lose my Medicaid and Social Security benefits for my children. I left a job to keep benefits for my children.”
- Source: Parents of Young Children Focus Group Participant
- “Our costs relate directly to what happens to the uninsured.”
- Source: Business Leaders Focus Group Participant

Health Insurance Coverage in Adults

The proportion of the county’s adult population having no health insurance of any kind has risen over the past five years. The rate of uninsured adults under age 65 has climbed in both Buncombe County and North Carolina, in contrast to national rates which have held fairly steady for this age group. (Almost all adults age 65 and older are covered by Medicare.)

**Percent Adults Age 18-64 Reporting They Have No Health Insurance
Buncombe County, NC, and US, 2001-2005**



Sources: NC State Center for Health Statistics - BRFSS; NCHS Natl Health

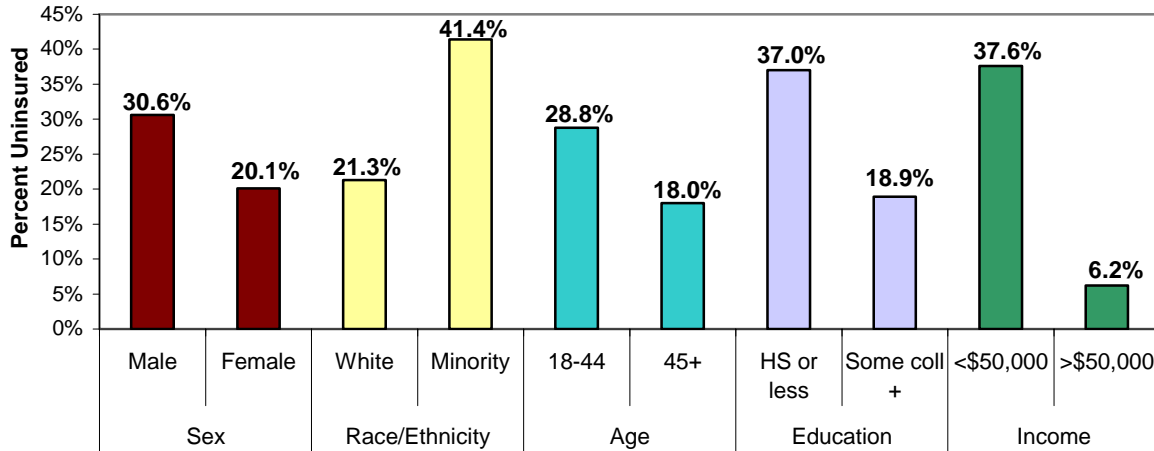
Comparing local and national uninsured rates for adults (age 18-64) during the past two years:

- for every 3 who were uninsured in the United States
- there were 4 uninsured in Buncombe County.



Among adults (18-64 years of age) in Buncombe County who have low income or who are less educated, more than 1 in 3 have no health insurance of any kind (including no Medicaid assistance). Among Minorities, more than 1 in 4 have no insurance. The most striking contrast is, not surprisingly, according to income.

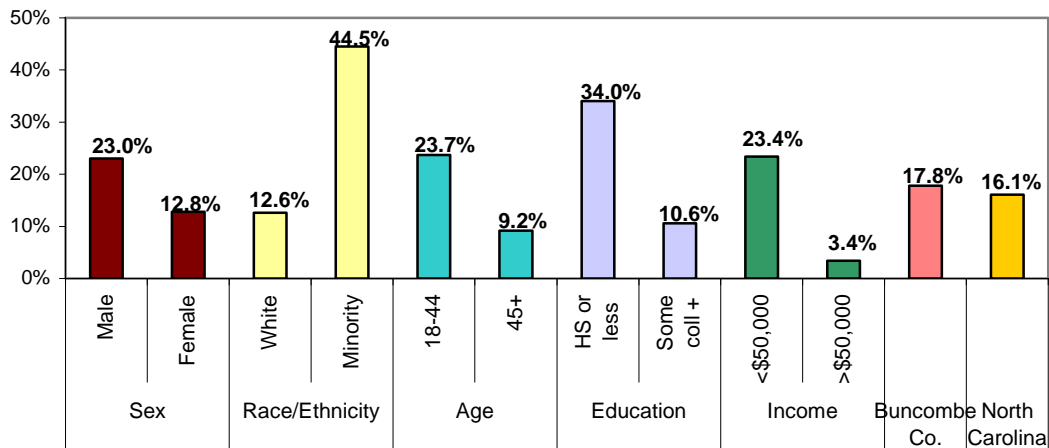
Demographics of the Uninsured (18-64 Years of Age), Buncombe County , 2005



Even more disturbing than data on the bare fact of being uninsured are the data on how many of the uninsured are employed.

Comparing each demographic group in the graph above with the one below, we see that in general, as we would expect, workers more often do have health insurance than their counterparts who do not work.

Percent of Those Employed for Wages Who Lack Health Insurance, Buncombe County, by Group, 2005



NC State Center for Health Statistics. BRFSS 2005

However, there was one very notable exception in the 2005 BRFSS results. Buncombe's minority residents responding to the BRFSS survey were no more likely to have health insurance coverage if they were employed than if they were not.

(Note: Those "not employed for wages" includes persons who are retired.)



Health Insurance Coverage in Children

Statewide, health insurance coverage for children is generally better than coverage for adults.¹⁶

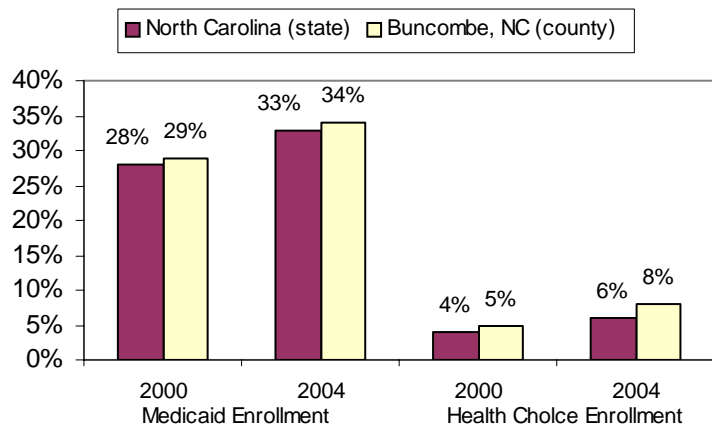
- 10.1% of the state's children were uninsured, in the year 2000.
- 10% of Buncombe County's children were uninsured in 2000, which compares well with the 8% to 21% range found across other North Carolina counties.
- The percent of uninsured children in North Carolina is rising. In 2005, 11.9% of the state's children were uninsured. There is no more current figure for individual counties.

Enrollment in public insurance programs increased between 2000 and 2004 for both North Carolina and Buncombe County.

Buncombe County's enrollment rates in both Health Check and Health Choice are slightly higher than the North Carolina enrollment rates.

- **Health Check** is North Carolina's state Medicaid program for low-income children.
- **Health Choice** is North Carolina's child health insurance program for families whose income is not enough to be able to afford private insurance for their children, but it's too high to be eligible for Health Check.

Percent of Children Enrolled in Health Choice and Medicaid, Buncombe County and North Carolina, 2000 and 2004



Action for Children, Annie E. Casey Foundation



Affordability of Care

“[We] need dental care for kids, and there is no insurance coverage ...”

Source: Immigrant/Advocates Focus Group

“It's interesting to me that at some point we decided [about education] that everyone deserves the right to a public education system, but we have never done that with health care.”

Source: CHA 2005 Focus Group

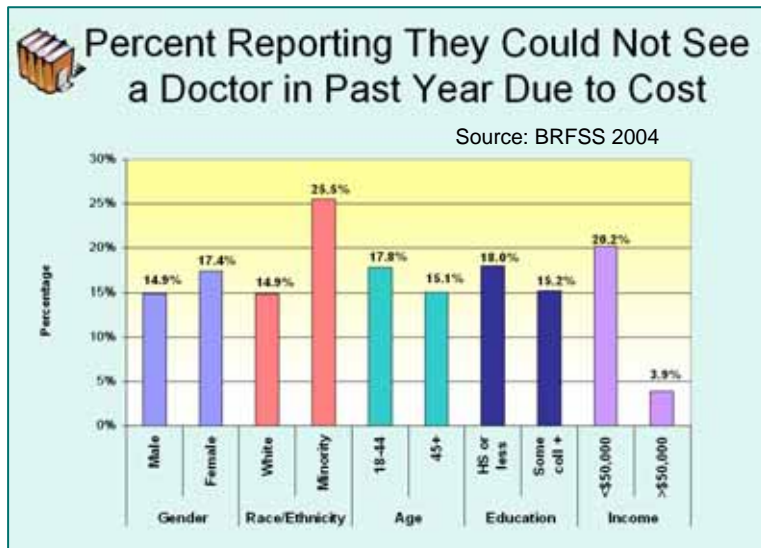
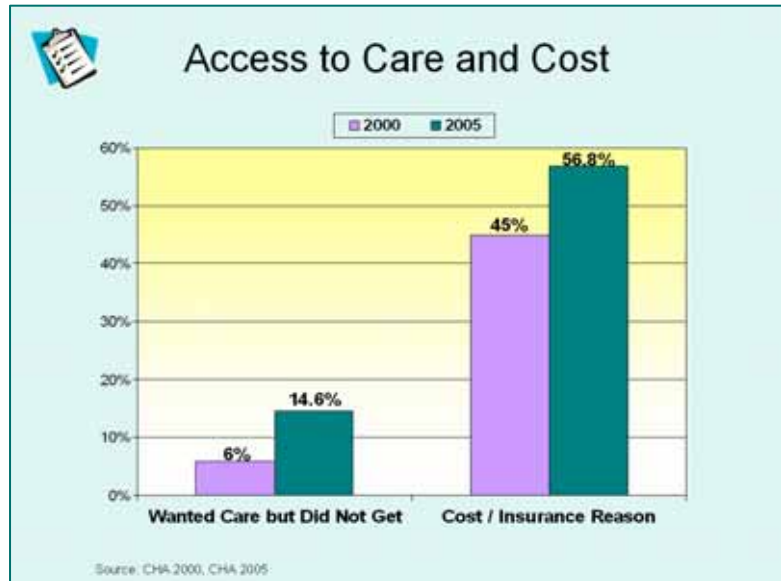
¹⁶ Source of all children's health insurance data: 2006 Child Health Report Card, Action for Children, ncchild.org.



Systems Issues and Barriers to Care

Survey responses confirm that people see themselves as in need of care which they can't obtain. And the problem seems to be growing over time. Compared with our survey five years ago, more than twice as many respondents in the CHA 2005 phone survey said they hadn't received needed care.

Cost has become more of a problem over the past five years, also. When asked why they hadn't gotten care, 45% gave affordability as the reason in CHA 2000; in the CHA 2005 survey, 57% said cost was the issue.



Among those who said they had needed to see a care provider sometime in the past year but hadn't gotten care at that time:

- 56.8% overall said the main reason was either that they had no insurance **OR** they couldn't afford care. (Sometimes the cost of deductibles or co-pays is a problem, even when you do have insurance.)
- This was especially true for Minorities, and for those with lower income.

How has Buncombe County responded as a community to the large number of residents in need of medical care who can't afford it? "Safety net access providers," from the public sector, private non-profits and charitable organizations, work closely together to address these needs as best they can. Collaboration has involved not only medical providers but also the county's social service infrastructure. A great deal of the work has been accomplished through the generosity of physicians, nurses and other medical personnel who have volunteered their skilled services through Project Access and through ABCCM's medical ministry. Health Partners, Buncombe County's certified Healthy Carolinians partnership (visit) "is the glue that has helped hold this safety net together," said George Bond, Director of the Buncombe County Health Center, when he retired in 2006 after eleven years in that post. It is by no means a perfect system, but it has accomplished a great deal for many in need of assistance. The following section briefly outlines the "care navigation pathways" for referring the uninsured into care.



Care Navigation Pathways for the Uninsured

Buncombe County has a network of "Safety Net Access Providers" working together to create access to essential health care services for those who are uninsured. The following information is true as of December 2006 but is subject to change at any time.

Goals and Ideals of our Safety Net of Care are:

- To give excellent care in a timely manner, with respect and dignity, at the appropriate level of care, in the appropriate care setting, with cultural competency, and with a good outcome.
- To satisfy our patients by providing a health intervention that not only helps with today's problem but also helps prevent future problems and teaches self-management.
- To match each patient with a primary care home for ongoing care and follow up.

Medical / Physical Care

When a person seeks care, a number of factors are considered in determining the appropriate provider of care. These include (but are not limited to):

- Urgency of need
 - Clinic visit if problem can wait a little
 - Urgent Care/ER visit if problem needs immediate attention
- Type of care needed
 - "Acute Episodic" for an immediate, short-term health concern
 - "Primary Care" for long-term "medical home," chronic disease management
- Type of medical provider needed
 - generalist is appropriate
 - medical specialist is needed
- Care appointment logistics
 - days/times available
 - patient job requirements
 - walk-in vs. scheduled appointment
 - transportation
 - cultural factors (e.g., language translation services)
 - geographic location in county

Safety Net Providers of "Acute Episodic Care" only are:

- ABCCM Clinic
- Emma Clinic
- Mission Hospitals Emergency Rooms (Memorial and St. Joseph's campuses)
- Sisters of Mercy Urgent Care clinics

Safety Net Providers offering ongoing "Primary Care" are:

- Buncombe County Health Center
- Three Streams Family Health Center
- WNC Community Health Services (WNCCHS)
 - Minnie Jones Clinic
 - Ridgelawn Clinic

Medical Specialty Care – Project Access

- Most specialty care for the uninsured is done by enrolling the patient in the Buncombe County Medical Society (BCMS) Foundation's Project Access program, if the needed medical specialty has physicians who participate.
- Project Access enrollment requires that the patient meet residency and income requirements, and have no insurance.
- Enrollment can be done at BCHC, ABCCM Clinic, Emma Clinic, some private physician's offices, and through the BCMS Foundation office. Final approval for enrollment is always done by BCMS Foundation office, which then mails an enrollment card to the patient.
- Specialty care referrals also occur when a patient is seen at the ER and receives a specialty referral to a physician who is taking ER call at that time. This physician is required to see the patient, but is NOT required to see the patient at no cost.



Non-emergency locations which allow care on a walk-in basis are:

- ABCCM Clinic (note: appointments required for dental)
- Buncombe County Health Center: Limited capacity for walk-ins, but urgent same-day appointments are encouraged
- Emma Clinic
- Sisters of Mercy Urgent Care clinics
- WNCCHS: you may walk in and establish your first care arrangement, or you may walk in as a repeat/established patient

Locations which book appointments for care are:

- Buncombe County Health Center
 - Getting a new-patient appointment may take longer.
 - Appointments for an STD (sexually-transmitted disease) are given high priority, regardless of whether the patient has been seen before at BCHC.
 - Appointments for care at BCHC are released for booking on a monthly, weekly, and daily basis. The appointment reservation system is aimed at allowing a maximum number of patients to be seen at the clinics, with a minimum of no-shows. Appointments fill up quickly. Patients and providers may call at various times of day to see if there has been a cancellation by another patient, leaving an appointment available for an urgent visit.
- Three Streams Family Health Center
 - New patient care is established only by appointment.
 - Once care is established, patients may be seen on an urgent basis, still by appointment.
- WNC Community Health Services (Ridgelawn and Minnie Jones Clinics)
 - Appointments are available and are released to be booked on a monthly basis; appointments do fill up quickly.
 - Patients and providers may call on a daily or weekly basis to see if there have been cancellations.
 - Patients are also encouraged to try at 8:30am or 11:30am for morning or afternoon walk-in slots, except on Mondays.
 - Someone who has never been to WNCCHS before is encouraged to start their care as a walk-in patient.
 - New patients living in 28806 zip code who have chronic disease issues, and who are not current patients of BCHC are being referred to WNCCHS for primary care.
 - HIV testing is done on a walk-in basis every afternoon, Monday through Friday.

Dental Care

ABCCM Clinic

- By appointment. Extractions clinic Monday and Thursday evenings (booked via 9:00am phone call-in to first eight callers). Evaluations are done for potential restorative care by referral to BCHC dental services, based on a current grant which funds this collaboration.

Buncombe County Health Center

- Restorative care, extractions, and dental hygiene services are available.
- By appointment during weekday business hours, with a number of slots available on an urgent basis.
- A fee is required for each visit.
- The dental patient does not have to be a primary medical care patient of BCHC.
- Limited outpatient oral surgery may be done, based on protocols for care and the availability of staff. Anesthesia requirements are a limiting factor within these care guidelines.



WNC Community Health Services (Ridgelawn Clinic)

- By appointment during weekday business hours, with most appointments being for patients who receive primary care at WNC Community Health Services.
- Depending on staffing, there may be some appointment available for non-WNCCHS patients.
- A fee is required for each visit.
- Area dentists in private practice
- On a case by case basis as negotiated between patient and dentistry practice

Emergency Room treatment

- Treatment of dental infections occurs by default in the Emergency Department of the hospitals, and in the various community clinic sites, for those with no dental provider and no insurance, who meet income eligibility.
- The goal is to treat the infection and inflammation in an urgent manner, and then achieve referral for true dental care.

Mental Health Care

Once it has been determined that a patient needing mental health services is uninsured, then urgency of need becomes the primary determining factor for obtaining care. Availability of medications is also an issue. If the patient is being referred to a primary care home in which integrated mental health care is available in tandem with primary care, this is a logical and efficient way to obtain non-emergency mental health care.

Some clinics where integrated mental health services are available if the patient is established for ongoing primary care:

- Buncombe County Health Center
- Three Streams patients: please inquire at the clinic
- WNC Community Health Services (Ridgelawn Clinic)

For Emergency mental health situations:

- Parkway Behavioral Health
- Saint Joseph's Emergency Room, for evaluation toward Copestone inpatient services or toward regional referral care such as Broughton Hospital

Sources for non-emergency mental health services for the uninsured, outside the primary care setting:

- All Souls Counseling Center
- Crossroads Counseling Service

For questions regarding mental health referrals: call Western Highlands Network

For mental health medications which are not controlled substances:

- ABCCM Clinic may be able to help if the patient is not being seen at a clinic where medications are provided, such as at WNCCHS or BCHC.

Medication Assistance

Common factors in local medication assistance programs:

- Person is uninsured or has no medication coverage as part of their insurance.
- Eligibility is based on income.
- Most programs apply to residents of Buncombe County.
- Medications are non-controlled substances. (Exception: WNCCHS & BCHC programs for mental health patients who are in their primary care services; or WNCCHS program for patients recently discharged from Broughton.)
- Most involve linkages with primary care site, or a specialty physician practice. (Notable exceptions: ABCCM will fill prescriptions for those who have received episodic care from ABCCM or other sites, and for those who have received a prescription in primary care sites which they cannot fill. However, there must be no insurance, and the patient must meet income eligibility.)



ABCCM Clinic

- Based on availability through formulary or through donated samples.
- Will fill prescriptions from outside providers, as well as those from ABCCM volunteer physicians and staff NP.
- No controlled substances.
- Additional program with limited services through pharmaceutical company assistance programs, primarily for seniors on Medicare awaiting part D coverage to take effect.

Buncombe County Health Center

- For their primary care patients only, who meet income requirements and have no medication coverage.

Eblen Foundation

- Special focus on children and families.
- Phone Eblen Foundation for intake and information/eligibility.

Mission MAP (Medication Assistance Program)

- Must have a primary care physician with privileges at Mission Hospitals who will provide necessary prescriptions and sign paperwork.
- Not eligible if the patient's primary care location runs its own medication assistance program.
- Special focus: Those discharged from Mission Hospitals who cannot afford medications, and those 18-64 years old and income eligible who do not have insurance coverage for medications.

Project Access (at BCMS Foundation)

- Only for patients enrolled on Project Access.
- Must be prescribed by your Project Access physician instead of another provider.
- Generally must select from formulary list of available medications.

Three Streams Clinic

- For primary care patients of Three Streams Clinic.
- Eligibility and enrollment intake is done in collaboration with Eblen Foundation.

WNC Community Health Services

- For primary care patients of WNCCHS, and for certain special populations as negotiated by WNCCHS based on situations of need within the community or the region.

In addition to the above clinics, some private medical practices assist their primary care patients in connecting with pharmaceutical companies' medication assistance programs.



Other Systems Issues

In our assessment process, our focus group work was a rich source of community input on difficulties encountered in the community's system of care. A separate report on the Focus Group findings is available at: www.healthpartnerswnc.org.

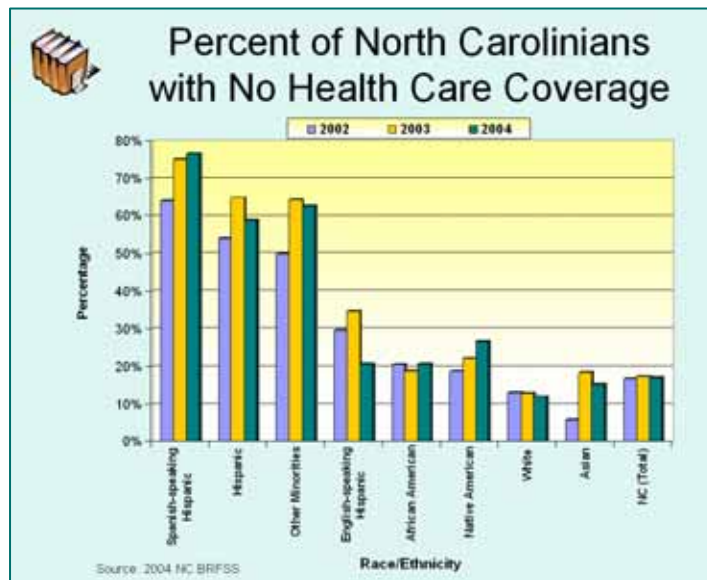
Language and cultural issues were cited among focus group participants as key contributing factors. Examples given by focus group participants included:

- lack of interpreters (Note: Buncombe does have "WIN – WNC Interpreter Network" a quality medical interpreter service operating through the Buncombe County Medical Society)
- lack of translated materials
- undocumented immigrants
- cultural differences
- lack of cultural competence at doctors' offices
- immigrants don't understand how to use insurance if they have it
- employers not providing education about benefits to immigrants



Race, Language, and Culture

- "Health providers and community organizations should hire people who are bilingual, offer language training to staff, find funding for interpreters, have bicultural staff members, and offer cultural sensitivity trainings."
- Source: Immigrants/Advocates Focus Group Participant
- "We're still seeing stereotyping." [Re: health treatment for African-Americans]
- Source: African American Focus Group Participant
- "Health providers need to know that immigrants are intelligent people and should be talked to respectfully and patiently."
- Source: Immigrants/Advocates Focus Group Participant



We have very limited county-level data available to us that has information specific to the Latino community or to immigrants from non-Hispanic countries. This is due to their relatively small population sizes.

This graph of North Carolina data shows that Spanish-speaking Latinos are the demographic group by far most likely to be uninsured.



The complexity of the health care system was cited among focus group participants as a key barrier. Examples given included: bureaucracy, too much paperwork, government regulations, profit-seeking in the system, red tape, cost shifting, and confusion about health care services.



Complexity of System

- "I don't know where to go or what to have checked. I need to know what to ask for and when I should seek treatment or care. I don't know my risk factors."
- Source: Young Adults Focus Group
- "You can have all the advanced degrees in the world and I defy you to explain my mother's bills."
- Source: Policy Makers Focus Group Participant



Lack of System Coordination

- "There needs to be more collaboration between the different agencies; there is too much fragmentation of agencies in the county. We need to work together and focus on goals, not individual identity."
- Source: Health & Human Services Focus Group Participant
- "I have difficulty getting continuous care for my child... [There is] no coordination between his mental/behavioral health care and physical health care."
- Source: Parents of Young Children Focus Group Participant

Lack of coordinated system of services was cited by some focus group participants as a key contributing factor.

Examples given were:

- duplication of services
- lack of understanding of how to navigate through services [both patients and providers]
- lack of follow up by providers
- lack of collaboration between agencies
- fragmentation
- lack of continuity of care

Some services mentioned by focus group participants as desired, but not sufficiently available included:

- Home health services
- School nurses and wellness focus in schools
- Day care or respite care for elderly
- Health care providers/practitioners
- Dental care
- Vision care
- Assisted living, nursing homes, and long-term care
- EMT and other emergency services



Lack of Services and Facilities

- Lack of available health care services, facilities, and resources was of particular concern, cited by rurally-based focus group participants as key contributing factors.
- "We need a health and wellness center without having to drive to Asheville."
- Rural / Appalachian Focus Group Participant



FROM ASSESSMENT TO ACTION

The CHA 2005 community volunteer teams who participated in this assessment process hope that you will find this report increases your understanding of:

- the health status of Buncombe County residents as of 2005
- trends that are suggested by comparing current with historical data
- which population groups within the larger community are most impacted by a particular health problem
- where you might turn to learn more about a disease or health issue
- how you might use these data in your own organizational or volunteer work

Under its Healthy Carolinians program (<http://www.healthycarolinians.org/>) the State of North Carolina strongly encourages every community to form an umbrella coalition – a “community health partnership” – which can support collaboration and help mobilize a



timely response to changing concerns and opportunities. Health Partners is the certified partnership filling this role in Buncombe County.



Health Partners’ action teams pursue collaborative strategies to bring about positive change on the priority concerns identified through the Community Health Assessment process. As mentioned in the opening section of the report (page 4) Buncombe’s five priorities for 2006-2010 are: (1) obesity, (2) access to comprehensive whole-person care, (3) economic access to care, (4) mental Health, and (5) health disparities. This report and other secondary reports from CHA 2005 will be kept on Health Partners new website <http://www.healthpartnerswnc.org>, along with news updates on the coalition’s team activities.

HealthPartners’ policy of open general membership welcomes all interested individuals and organizations to participate in team actions and to give input on program planning and implementation. The coalition also honors others’ independent efforts and wants to share program information through its team meetings, website, and other communication strategies. Collaboration takes its first step in understanding the assets, interests, and needs of community stakeholders, as well as community residents.

In addition to working on the health priorities, CHA teamwork continues around making best use of the assessment process. The cycle now begins its fourth iteration, moving toward Buncombe Community Health Assessment 2010. Rapid changes in information technology transformed our 2005 assessment process from what it had been five years before. We anticipate even more dramatic changes ahead for the year 2010, and see opportunities and challenges resulting from these changes.

For further information, contact:

Health Partners
PO Box 1463
Asheville NC 28802
(828) 253-7009
hpart@bellsouth.net
www.healthpartnerswnc.org

Buncombe County Health Center
35 Woodfin Street
Asheville NC 28801
(828) 250-5040



LINKS TO FURTHER INFORMATION

Buncombe County is fortunate to have a very well-developed resource referral service in: 2-1-1 of Western North Carolina is a free community service information line, run by the **United Way of Asheville and Buncombe County**.



Callers can speak with a referral specialist "24/7" (24-hours a day, 7 days a week). Assistance is available to persons who do not speak English. To access updated information on community resources and volunteer opportunities:

- Dial 211 from a land-line telephone
- Call 252-HELP from a cell phone
- Or access the interactive database at: www.211wnc.org

Below you will find internet links to sources of data and educational information on the topics discussed within this report.

General Data and Information

- ▶ *Portal to* US Census Bureau's American FactFinder (*demographics, social, economic, housing*)
<http://factfinder.census.gov/home/saff/main.html?lang=en>
- ▶ NC Division of Medical Assistance (Medicaid, adults and children)
<http://www.ncdhs.gov/dma/>
- ▶ Economic Development System
<http://cmedis.commerce.state.nc.us/countyprofiles>
- ▶ Comprehensive Adult Student Assessment System
<http://www.casas.org>
- ▶ North Carolina State Bureau of Investigation
<http://sbi2.jus.state.nc.us/crp/public/Default.htm>

General Health Data and Information

- ▶ Centers for Disease Control and Prevention Behavioral Risk Factor Surveillance System (BRFSS)
<http://www.cdc.gov/brfss/>
- ▶ Buncombe County BRFSS 2005 data
<http://www.schs.state.nc.us/SCHS/brfss/2005/bunc/topics.html#oh>
- ▶ National Center for Health Statistics
<http://www.cdc.gov/nchs/hus.htm>
- ▶ *Portal to* NC State Center for Health Statistics, County Data Book 2005
<http://www.schs.state.nc.us/SCHS/data/databook/2005/>
- ▶ *Portal to* NC State Center for Health Statistics, Vital Statistics
www.schs.state.nc.us/SCHS/data/vitalstats.cfm
- ▶ NC State Center for Health Statistics, related links
<http://www.schs.state.nc.us/SCHS/links.html>
- ▶ Cecil G. Sheps Center for Health Services Research
<http://www.shepscenter.unc.edu>
- ▶ North Carolina Tobacco Prevention and Control Branch
www.communityhealth.dhhs.state.nc.us/tobacco.htm



General Health Data and Information – continued

- ▶ American Lung Association of North Carolina
www.lungnc.org
- ▶ American Heart Association
www.americanheart.org
- ▶ Healthy People 2010
www.healthypeople.gov
- ▶ National Mental Health Information Center (SAMHSA)
<http://mentalhealth.samhsa.gov/>

Environmental Health Data and Information

- ▶ Western North Carolina Air Quality Agency
http://www.wncairquality.org/Air%20Quality/asheville_aqi.htm
- ▶ Lead Poisoning Prevention
<http://orgs.unca.edu/eqi/LPP/index.html>
- ▶ Buncombe County Food & Lodging inspections
<http://www.buncombecounty.org/governing/depts/health/environment.htm>.

Chronic and Infectious Disease Data and Information

Asthma

- ▶ Centers for Disease Control and Prevention main page
<http://www.cdc.gov/asthma/>
- ▶ Centers for Disease Control and Prevention link specific to children's asthma
<http://www.cdc.gov/asthma/children.htm>
- ▶ **en Español**
<http://www.cdc.gov/asthma/es/faqs.htm>

Cancer

- ▶ National Cancer Institute
<http://www.cancer.gov/>
- ▶ American Cancer Society
www.cancer.org
- ▶ Centers for Disease Control and Prevention main webpage
<http://www.cdc.gov/cancer>

Specific cancers links:

- Breast cancer <http://www.cdc.gov/cancer/breast/>
- Cervical cancer <http://www.cdc.gov/cancer/cervical/>
- Colo-rectal cancer <http://www.cdc.gov/cancer/colorectal/>
- Lung cancer <http://www.cdc.gov/cancer/lung/>
- Ovarian cancer <http://www.cdc.gov/cancer/ovarian/>
- Prostate cancer <http://www.cdc.gov/cancer/prostate/>
- Skin cancer <http://www.cdc.gov/cancer/skin/>

Special links:

- Cancer disparities <http://www.cdc.gov/cancer/healthdisparities/>
- Cancer survivors <http://www.cdc.gov/cancer/survivorship/>
- **en Español** <http://www.cdc.gov/spanish/cancer/>



Chronic and Infectious Disease Data and Information - Continued

Chronic Obstructive Pulmonary Disease (COPD):

- ▶ Centers for Disease Control and Prevention
<http://www.cdc.gov/nceh/airpollution/copd/copdfaq.htm>
 - **en Español**
<http://www.cdc.gov/nceh/airpollution/copd/es/copdfaq.htm>

Diabetes

- ▶ National Institute of Health - National Diabetes Information Clearinghouse
<http://diabetes.niddk.nih.gov/> **en Español** <http://diabetes.niddk.nih.gov/spanish>
- ▶ Centers for Disease Control and Prevention
<http://www.cdc.gov/diabetes/> **en Español** <http://www.cdc.gov/diabetes/spanish/>

Heart Disease

- ▶ Centers for Disease Control and Prevention
<http://www.cdc.gov/HeartDisease> **en Español** <http://www.cdc.gov/dhdsp/library/spanish>

HIV / AIDS

- ▶ Centers for Disease Control and Prevention
<http://www.cdc.gov/hiv/>

Kidney Diseases

- ▶ National Institute of Health
<http://kidney.niddk.nih.gov/>
- ▶ National Kidney Disease Education Program
<http://www.nkdep.nih.gov/>

Liver Disease

- ▶ American Liver Association
<http://www.liverfoundation.org/>

Obesity

- ▶ North Carolina "Eat Smart, Move More" program
<http://www.eatsmartmovemorenc.com/>
- ▶ Centers for Disease Control and Prevention
<http://www.cdc.gov/nccdphp/dnpa/obesity/>

Stroke

- ▶ Centers for Disease Control and Prevention
<http://www.cdc.gov/stroke/>

Gonorrhea

- ▶ Centers for Disease Control and Prevention
<http://www.cdc.gov/std/Gonorrhea/> **en Español**<http://www.cdc.gov/std/Spanish/>

Syphilis

- ▶ Centers for Disease Control and Prevention
<http://www.cdc.gov/std/syphilis/>
- ▶ North Carolina fact sheet
<http://www.cdc.gov/stopsyphilis/stateprofiles/2004/NC2004.pdf>



Children's Health Data and Information

- ▶ KIDS COUNT, national and state-by-state child well-being data
<http://www.aecf.org/kidscount/>
- ▶ NC Healthy Choice (state program of affordable children's health insurance)
<http://www.dhhs.state.nc.us/dma/>
- ▶ North Carolina's Child Health Assessment and Monitoring Program (CHAMP)
(health characteristics data of children, ages 0 to 17)
<http://www.schs.state.nc.us/SCHS/champ/index.html>
- ▶ *Portal to* North Carolina CLIKS: Community-Level Information on Kids (broad data on children)
http://www.aecf.org/cgi-bin/cliiks.cgi?action=profile_results&subset=NC
- ▶ Action for Children North Carolina (data on the well-being of North Carolina's children and youth)
<http://www.ncchild.org>
- ▶ Department of Public Instruction (education data)
<http://www.ncpublicschools.org>

Prevention

- ▶ Centers for Disease Control and Prevention – Adult Immunizations
<http://www.cdc.gov/nip/recs/adult-schedule.htm#chart>

Healthy Living

- ▶ Healthy Buncombe Coalition (physical activity and nutrition)
<http://www.healthybuncombe.org/>
- ▶ Project ASSIST
<http://www.healthybuncombe.org/healthycommunity/restaurants/whatisorojectassist.htm>
- ▶ North Carolina "Eat Smart, Move More" initiative
<http://www.eatsmartmovemorenc.com/>



CHA 2005 METHODOLOGY

CHA 2005 was a collaborative community effort to assess the health status of the people of Buncombe County and establish action priorities. Such assessments are required of counties by the State of North Carolina but without specific funding allocations. Thus the CHA is collaborative not only in its execution but also in its funding. Our methodology, therefore, balanced scientific rigor with cost feasibility, contracted work with voluntary community manpower. Best practices and tested approaches were employed, and capacity and skills building among community advisors and volunteers was an additional, beneficial outcome of the assessment process.

Telephone Survey: Appalachian Research Development Institute (ARDI)

Sample Design: The sample design consisted of a random sample of 806 citizens of Buncombe County, aged 18 years and older. The sample was drawn from a list of randomly assigned telephone numbers purchased from InfoUSA, a database company that maintains up-to-date lists of telephone numbers by geographic areas and is a leading provider of proprietary information such as residential numbers. The project team used a systematic random digit dialing procedure, selecting numbers from a list of all Buncombe County telephone numbers.

Sampling Error: The sampling error for a sample of this size, employing assumptions generally used in survey research, is approximately $\pm 3.5\%$ at the 95% confidence level. This means that if 100 random samples of size 806 were drawn from the 18 years and older population of Buncombe County, no more than five of those samples would have characteristics that differ from this sample by more than $\pm 3.5\%$. For sub-groups within the overall sample (men, women, minority groups, etc.) the sampling error will be larger, based upon the number of that sub-group in the overall sample. Since this is a probability sample developed using accepted statistical and survey techniques, the findings may be generalized to the entire population of Buncombe County with a high degree of confidence.

Survey Instrument: The survey tool was developed by the Buncombe County CHA 2005 Survey Team, drawing from the county's 1995 and 2000 community health assessments, and from established and tested national survey efforts such as the Behavioral Risk Factor Surveillance System (BRFSS) and NHANES (National Health and Nutrition _ Survey). The tool explored the following concepts: health status which included questions on chronic diseases and mental health; medical, mental health and dental care access and utilization, focusing on location of care, medical home, and insurance; medications access and use; preventative care and modifiable risks, including tobacco use, alcohol consumption, screenings and immunizations, diet behaviors, exercise, violence, and mobility; and demographics. There were a total of 101 questions.

Sample Characteristics: (*See also following table.*) To obtain as accurate a sample as possible, the project team utilized proven survey methodologies in sampling and data collection. Surveyors were constantly monitored during the calling process. It is difficult to compare the demographic results from the sample to the population at large using 2000 U.S. Census data. 2005 was the mid-point of the Census; there is sampling error involved in any sample, and this sample was composed of adults 18 years and older, not the entire population. Therefore, some differences between the two estimates should be expected. However, given the proven techniques used in surveying and data collection, the ARDI project team is confident that the results represent the target population.

Oversampling of African-Americans: In addition to the random sample of 806 adults in Buncombe County, the project team conducted an oversample of 80 telephone surveys with African American adults. The purpose of the oversample was to obtain a larger overall sample of African Americans, to enhance the validity and reliability of results for this generally underrepresented population. Combined with the number of African-Americans in the initial sample ($n=53$), the total number of African-Americans in the sample is 133 adults. The data file was constructed so that the original sample can be analyzed with or without including the over-sample to assure maximum flexibility. When analyzing results for African Americans only, the reliability of the results is not the same as the overall sample due to a larger sampling error for subgroups.

Buncombe County's Had a Check-Up!



CHA 2005 Survey Demographics	Phone (n=941)	Latino (n=77)	Senior (n=79)	US Census: Buncombe 2005	US Census: Asheville 2005
Gender					
Male	32.3%	41.6%	30.4%	48.4%	44.5%
Female	67.2%	58.4%	69.6%	51.6%	55.5%
Marital Status & Household Composition					
Married or Living Together	55.6%	72.7%	29.1%		
Divorced or Separated	15.0%	3.9%	11.4%		
Widowed	10.7%	1.3%	55.7%		
Single, never married	17.4%	22.1%	3.8%		
Children in Home (<i>surveys differ</i>)	33.6%	67.5%	n/a		
Age					
18 to 29	10.5%	46.8%	-	19.3%	
30 to 39	16.5%	36.4%	-	17.7%	
40 to 49	18.3%	6.5%	-	19.5%	
50 to 59	24.1%	7.8%	-	18.0%	
60 to 69	14.7%	1.3%	26.6%	11.7%	
70 to 79	9.9%	1.3%	35.4%	8.3%	
80 + (oldest=93)	4.3%	0.0%	38.0%	5.6%	
18 to 64	78.6%	97.4%	11.4%	81.0%	
65 and Over	19.6%	2.6%	88.6%	19.0%	
Ethnicity					
Hispanic or Latino	1.3%	100.0%	2.5%		
Russian, Ukrainian, or Muldovian	1.3%	-	2.5%		
Neither of these	96.8%	-	94.9%		
Race		Race-Eth		Buncombe	Asheville
White	81.5%	26.0%	73.4%	89.7%	83.1%
Black or African American	13.9%	0.0%	24.1%	6.7%	13.9%
Other (<i>*for Latinos, mostly 'Latino'</i>)	2.1%	64.9%	2.5%		
Educational Attainment					
Less than High School Diploma	7.1%	58.4%	41.8%	14.4%	
High School Diploma or GED	24.0%	11.7%	29.1%	26.0%	
Some College or Technical School	26.6%	13.0%	17.7%	28.4%	
College Graduate	41.1%	15.6%	11.4%	31.2%	
Employment				US Census: Age 16+	
Employed for wages	43.6%	63.6%	2.5%	66.8%	64.6%
Self-employed	11.8%				
Out of work for more than 1 year	4.6%			Unemployed	
Out of work for less than 1 year	2.9%			5.2%	4.4%
Homemaker or Student	7.5%				
Retired	23.7%	0.0%	97.5%		
Unable to work	4.6%				
Household Income	% Valid	% Valid		Buncombe	Asheville
Under \$10,000	8.2%	5.2%		7.9%	9.6%
\$10,000 < \$25,000	21.6%	50.7%		22.0%	22.8%
\$25,000 < \$50,000	32.8%	16.9%	Not Asked	29.8%	30.3%
\$50,000 < \$75,000	18.4%	9.1%		18.9%	17.1%
\$75,000 +	18.9%	2.6%		21.5%	20.3%
Declined or Don't Know [Invalid]	20.4%	15.6%		0.0%	0.0%
Zip Code					
Asheville, Central: 28801	9.8%	3.9%	17.7%		
Asheville, East: 28805	6.6%	2.6%	16.5%		
Asheville, North: 28804	7.9%	13.0%	2.5%		
Asheville, South: 28803	13.5%	5.2%	7.6%		
Asheville, West: 28806	14.3%	35.1%	12.7%		
East Buncombe: 28711, 30, 78	12.9%	5.2%	11.4%		
North Buncombe: 28709, 87	10.0%	6.5%	10.1%		
South Buncombe: 28704, 76	6.7%	6.5%	6.3%		
West Buncombe: 28701, 15, 28, 32, 48	15.9%	9.1%	6.3%		



Survey Administration: The administration of the telephone survey, data collection, and preliminary data analysis were conducted by ARDI staff and faculty members from Appalachian State University who were members of the project team. All interviewers were trained and supervised by the staff of ARDI, an organization with extensive experience in survey research, including telephone surveys. Survey responses were recorded by hand, rather than through the use of computer-assisted technology (CATI). Generally, calls were made Monday through Thursday, during the hours of 6:00 to 9:00 p.m.

Seniors Survey: CHA 2005 Survey Team in partnership with SAGE Partners, Inc.

Sample Design and Characteristics: This was a sample of convenience that reached a fairly mobile sample of 79 adults age 60 or older, residing in Buncombe County. Three interview sites were outside the City of Asheville in the county's more rural areas (Black Mountain, Avery's Creek, Weaverville). Respondents' ages ranged from 60 to 92 years. More than half (57.0%) lived in the City of Asheville; the remainder lived in other Buncombe municipalities or in the rural area of the county.

Survey Instrument: The Senior Survey tool was developed by the Buncombe CHA 2005 Survey Team and addressed: health status (including questions on chronic diseases and mental health); access to care (insurance, access issues to both medical and dental care, medications use); preventative care and risks that can be modified (diet behaviors, exercise, tobacco use, alcohol consumption, violence, screenings and immunizations); demographics; and social involvement. There were 84 questions.

Survey Administration: Recruitment of respondents and survey administration occurred at congregate meal sites and at senior housing subsidized by the City of Asheville:

- Asheville Terrace – East Asheville (Council on Aging (COA) congregate meal site)
- Ashton Park Towers – Central Asheville (Housing Authority of the City of Asheville)
- Avery's Creek Community Center – South Buncombe (COA congregate meal site)
- Lake Tomahawk – Black Mountain, East Buncombe (COA congregate meal site)
- Senior Opportunity Center – Central Asheville (COA congregate meal site)
- Shiloh Community Center – South Asheville (weekly community potluck)
- First Baptist Church – Weaverville, North Buncombe (COA congregate meal site)
- West Asheville Community Center – West Asheville (COA congregate meal site)

NOTE: Given that many of the results from 2000 contrast sharply with 2005 results, it is extremely important to keep in mind that the respondents interviewed in 2000 were drawn from very different sources and included frail older adults in assisted living or similar facilities. In all likelihood, the respondents in 2000 experienced greater challenges in functioning, health status, and chronic disease burden. The older adults interviewed in 2005 were more mobile, engaged in the community (at least to some extent), and none was living in a residential facility or similar environment.

Latino Survey: CHA 2005 Survey Team in partnership with SAGE Partners, Inc.

Survey Instrument:

The Latino tool was developed by the Buncombe County CHA 2005 Survey Team and addressed the many of the same concepts in the telephone survey: The tool explored the following concepts: health status which included questions on chronic diseases and mental health; medical, mental health and dental care access and utilization, focusing on location of care, medical home, and insurance; medications access and use; preventative care and modifiable risks, including tobacco use, alcohol consumption, screenings and immunizations, diet behaviors, exercise, violence, and mobility; and demographics. Demographic questions included country of origin, length of residence in Buncombe County, and whether respondent resides here year-round. The survey tool contained a total of 100 questions. The Team worked with several Latino volunteers to ensure the developed concepts were culturally appropriate. A bilingual professor was hired by SAGE Partners to translate the instrument into Spanish, and the translation was revised by several bilingual reviewers.



Sample Design and Characteristics:

The sample of convenience consisted of 77 Buncombe County Latino residents, aged 18 years and older. The mean (average) age of survey respondents was 32.4 years of age, and 72.7% were either married or living together without formal marriage. Two-thirds of respondents had children living in the home. This, and the young average age, can be attributed in part to holding interview at the WIC office and two Head Start programs. The most striking sample characteristic was low educational attainment; 70.1% had at best a high school diploma or GED. See preceding table for additional characteristics.

Survey Administration:

Althea Gonzalez was hired to coordinate the CHA 2005 Latino Survey. Ms. Gonzalez is a native Spanish speaker; she also has an undergraduate degree in Spanish and has managed a medical translation service. She successfully recruited 15 community volunteers to conduct interviews and engaged community gatekeepers who provided both space for interview sessions and help in recruiting respondents. Surveys were administered at locations known to be patronized by Latinos, including:

- AB Technical Community College (ESL program)
- Basilica of St. Lawrence
- Buncombe County Health Center (WIC program)
- Catholic Social Services
- Crossroads Assembly of God
- Pisgah View Housing (Head Start program)
- Mountain Area Children Family Center (Head Start program)
- St Eugene Church

In addition, several interviews were conducted at residences, local Latino stores, a laundry, a doctor's office, and the Buncombe County Medical Society.

Focus Groups: SAGE Partners, Inc. with support from CHA 2005 Perceptions Team

Sample Design and Characteristics:

SAGE Partners conducted 12 focus groups in Buncombe County: 2 Health and Human Service Providers, 2 Policy Advocates/Makers, 1 Parents of Young Children (ages 0-10), 1 Parents of Teens (ages 11-17), 1 Young Adults (ages 18-22), 1 Business Leaders, 1 School Nurses, 1 Immigrant Advocates and Immigrants, 1 African Americans, and 1 Appalachian/Rural. The purpose of these focus groups was to gain a better understanding of the perceptions of various populations in Buncombe County related to health, wellness, and access to health care. The total number participants for this sample were 101, including 24 males, 77 females. Participants' ages were estimated to have ranged from early 20's to early 70's. Participants did not self-identify racial/ethnic background, but it appeared that the majority of participants were Caucasian, twelve were African American, two were Russian/Ukrainian, and two were Latino.

Discussion Guide:

The CHA Perceptions Team developed a Discussion Guide for each of the 10 focus group categories. A set of four core questions was asked of each group, and then each group had two questions tailored to their particular area of focus.

Focus Group Administration:

SAGE Partners recruited 12 focus groups using a combination of media (several articles were posted in the *Asheville Citizen Times* and announcements were placed in the *Mountain Xpress*), flyers posted around town, sign up sheets posted in key locations, announcements posted to local listservs, and networking. The CHA Perceptions team developed recruitment lists, which SAGE supplemented. Efforts were made to reach outside the City of Asheville, such as the town of Black Mountain and outlying rural areas. Several groups had already been in existence and were used for several reasons: 1) the intact group represented well the targeted population, and/or 2) the need to mitigate the extremely high cost of recruitment. These intact groups included Leadership Teams for the Cooperative Extension community clubs across the county, School Nurses from across the county,



and ARP-Phoenix support group. The Perceptions Team, along with community input, recommended some individuals for the Business Leaders, Policy Advocates/Makers, and Health and Human Service groups.

SAGE Partners trained staff and provided each group with a moderator and assistant moderator. Focus groups were electronically recorded, but because of limited funding, verbatim transcription was not conducted. Instead, detailed notes were taken by the assistant moderator and filled in later by listening to sections of the recordings. **The focus** groups were held at multiple sites in Buncombe County, including AB-Tech Community College, ARP-Phoenix (mental health service agency), Buncombe County Health Center, Buncombe County Medical Society, Hill Street Baptist Church, Interchange Building (county office building), International Link, Mountain Area Health Education Center (MAHEC), NC Cooperative Extension, and YWCA of Asheville. The CHA Integration Team provided refreshments for all groups, appropriate to the hour of day. Childcare and transportation were made available to the Parents of Young Children group.

The moderator and assistant moderator debriefed immediately after the focus group interviews. The debriefing captured first impressions and highlights, and contrasted the findings with those from earlier focus groups. For question 2 (challenges/barriers in the community), responses were organized into themes and ranked in terms of level of agreement within groups: high (51-100%) moderate (26-50%), or low (<1-25%). For other focus group questions, the following factors were noted for future reference: frequency (how often something was said), extensiveness (how many people said it), and intensity (how strong the opinion or point of view was). What was not said was noted as well.

NOTE: A danger of single focus groups is the lack of comparison and resulting difficulties in discerning patterns. *Caution should be used in interpreting and acting upon data derived from single focus groups.*

Community Summit Process: CHA Integration Team with support from Futch Consulting, Inc.

On May 31st, 2006, we held the CHA 2005 Community Summit on the campus of the University of North Carolina-Asheville, hosted by their Department of Health and Wellness. The main purpose of the Summit was to share with the community key data findings from CHA 2005. The meeting was open to all interested community members. Announcements were made in print media, via flyers, and through email networking; 117 persons attended the full-day event.

The agenda was five-part: (1) update on CHA 2000 priority issues; (2) presentation of CHA 2005 initial findings; (3) small-group process to select priorities for 2006-2010; (4) keynote speech and announcement of priorities; and (5) "Issues Marketplace" for participant input on starting action on these issues.

Judy Futch Consulting, Inc. was hired to assist in developing the Summit program, train community volunteers, and facilitate the day-long summit meeting. Ms. Futch met with the Integration Team for several planning sessions, and on 5/24/2006 she conducted a small-group facilitator training. We recruited 15 community volunteers for this duty.

At the Summit on 5/31/2006, we first provided an overview of the CHA process and updated participants on actions and outcomes related to CHA 2000. Members of local health organizations and coalitions who had worked on the top five CHA 2000 priority issues took turns updating on indicator data and the community strategies pursued for each of these five priorities.

In the second part of the morning, we made a lengthier presentation of data highlights from CHA 2005. The Current Data Snapshot presentation was led by two key CHA Integration team members, one from Mission Hospitals and one from Buncombe County Health Center. There was a modest amount of time available to raise questions on the data and their meaning. Fun stretch-breaks were led by The Health Adventure.

Participants received a catered box lunch and had some time for networking, including viewing displays from community agencies on programming that had addressed CHA 2000 priorities.



In the afternoon, participants met in assigned small groups. Time was scheduled for reaction and response to the data. Then each small group was led by two volunteer facilitators in developing a group list of key health issues, following suggested criteria to weigh in deciding priorities:

- (1) Does this issue impact health in Buncombe County?
- (2) Does the leadership to tackle this issue reside in the health community?
- (3) Is the issue specific enough that actions can be taken to address it?
- (4) Are there do-able actions that can be taken which will impact this issue in the next 5 years?
- (5) Is the “environment” favorable and the community ready to tackle this issue?

After brainstorming possibilities, priorities were then voted on within each small group.

Integration Team members then assessed and tabulated results from all the small groups, and identified five major priorities to be targeted by the community for collaborative action in 2006-2010. While they performed this analysis, Mission Hospitals CEO Joe Damore gave a keynote address to participants.

The participant-named priorities that emerged as the CHA 2005 Top Five were: (1) obesity (childhood and adult), (2) access to whole person care, (3) economic access to care, (4) mental health, and (5) health disparities.

These priorities were announced to the participants, who then had an opportunity to give some initial input on the priorities during “Issues Marketplace.” Participants used sticky-notes on chart paper to (1) identify existing resources currently addressing priority areas, (2) suggest target benchmarks for 2006-2010, (3) recommend stakeholders who should partner on the issues, and (4) sign themselves up to participate on the action teams.

Participants were asked to complete an evaluation form at the end of the day. Forty-one responses were received. Feedback was generally very positive:

	Excellent	Good	Fair	Poor	Blank
Overall satisfaction with Summit	18 (44%)	21 (51%)	1 (2%)	0	1 (2%)
Summit presenters and facilitators	22 (54%)	12 (29%)	4 (10%)	0	3 (7%)
Variety and quality of the food	4 (10%)	25 (61%)	11 (29%)	0	1 (2%)

	Yes	No	Blank
Did presentation meet expectations?	36 (88%)	2	3
Opportunities for networking?	35 (85%)	3	3
Easy to find way around?	39 (95%)	1	1



TEAM ACKNOWLEDGEMENTS

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 Joanna Jordan, Mission
 Beverly Levinson, BCHC
 Julie Montanea, Health Partners
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CHA Survey Interview

Latino Survey

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 Ramon Davalos, *Community*
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It would not have been possible to carry out this comprehensive assessment of the health of Buncombe County residents, and of sub-groups within the county experiencing greater need, without the voluntary partnership and financial contributions of many of our county's organizations and institutions.

On behalf of all county residents, the CHA Integration Team expresses gratitude and appreciation to the assessment's primary financial and in-kind sponsors:

Mission Health & Hospitals
Buncombe County Health Center
Buncombe County Public Health Foundation
Buncombe County Medical Society & Alliance Endowment
University of North Carolina at Asheville
Department of Health and Wellness
Crescent PPO
The Health Adventure
Culligan Water Professionals

We also wish to thank those organizations who graciously allowed their staff to devote time to serving on our CHA 2005 committees or to supporting that work:

AB Tech Community College	Head Start (Mtn. Area Children Family Center)
ABCCM	Head Start (Pisgah View)
Access II Care	Health Partners
American Cancer Society	Housing Authority of the City of Asheville
Basilica of St. Lawrence	Mission Hospitals
Buncombe County Health Center	NC Cooperative Extension Services
Buncombe County Medical Society Foundation	Smart Start
Buncombe County Government	St. Eugene's
Catholic Social Services	UNCA, Dept. of Health & Wellness
Council on Aging	UNCA Lead Poisoning Prevention Project
Crescent PPO	United Way of Asheville-Buncombe
Crossroads Association	YWCA of Asheville

Finally, we thank our consultants, who not only performed under contract but also were strongly supportive of the community-collaboration aspects of our work:

SAGE Partners, Inc.
Appalachian Regional Development Institute (ARDI)
Appalachian State University
Althea Gonzalez
Judy Futch Consulting, Inc.