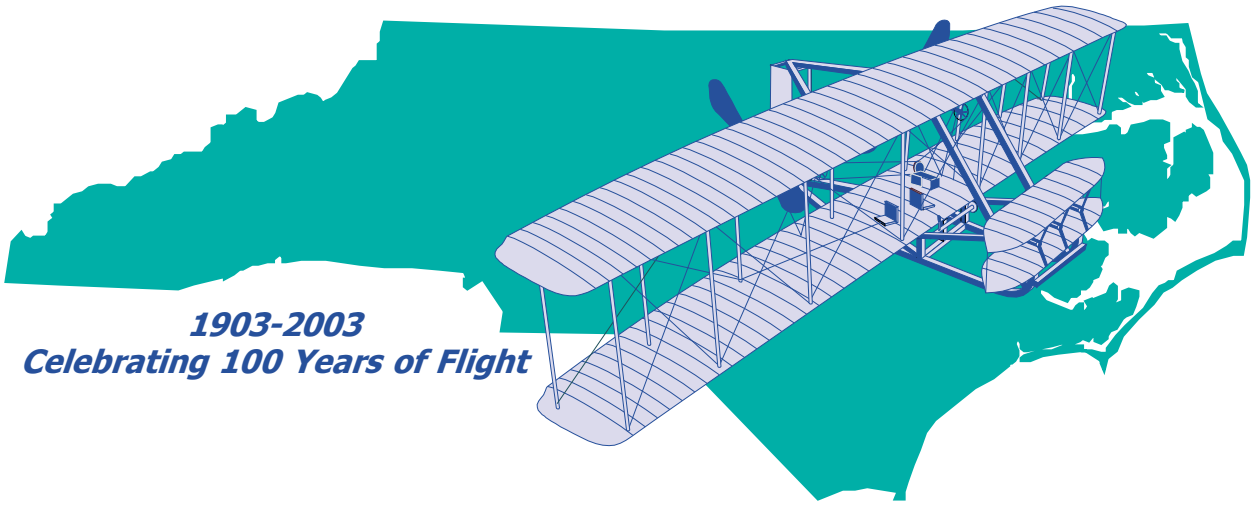
BRFSS

A Report from the
Behavioral Risk Factor Surveillance System

Health Risks Among North Carolina Adults: 2001



Department of Health and Human Services
Division of Public Health
State Center for Health Statistics
August 2003

NC Division of Public Health
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North Carolina Public Health
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Department of Health and Human Services
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State Center for Health Statistics
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Raleigh, NC 27699-1908
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August 2003

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Health Risks Among North Carolina Adults: 2001

A Report from the Behavioral Risk Factor Surveillance System

Introduction

The Behavioral Risk Factor Surveillance System (BRFSS) is a random telephone survey of adults. It is designed to collect information about health status, health behaviors, and use of health services that relate to the leading causes of illness and death in North Carolina and the United States. The North Carolina Division of Public Health has participated in the BRFSS since 1987. The BRFSS is a cooperative agreement with the Centers for Disease Control and Prevention (CDC) in which all 50 states, the District of Columbia, and three United States territories now participate.

The 2001 North Carolina Behavioral Risk Factor Surveillance System survey was the state's largest BRFSS to date, both in terms of the number of interviews conducted and questions included in the survey (see Questionnaire section). The survey was expanded from 3,016 interviews in 2000 to 6,205 interviews in 2001. The purpose of this expansion was to produce estimates for counties, smaller groups of minority populations, such as Latinos, and other demographic subgroups. For the first time, the NC-BRFSS over-sampled 10 of the most populous counties to produce long-sought local-level BRFSS estimates. The rest of the state was divided into three regions consisting primarily of rural counties. This second comprehensive BRFSS report uses the data from the 2001 BRFSS Survey and includes county-level estimates. We hope that the information provided in this report will assist public health program administrators and others in planning health improvement programs for the residents of North Carolina.

Topics included in this report cover the following categories: general health status, health care access, physical activity, high blood pressure, blood cholesterol, asthma, arthritis, immunization, smoking, other smoking indicators, environmental tobacco exposure, other tobacco products, substance abuse, alcohol consumption, cancer prevalence, skin cancer risk, firearms, disability, osteoporosis prevention, HIV/AIDS, diabetes, oral health, colorectal cancer screening, prostate cancer screening, nutrition, weight control, heart attack/stroke symptoms, cardiovascular disease, folic acid use, family planning, sexual behavior, alternative medicine, sexual and physical assault, and quality of life.

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An electronic version of this report is available on the State Center for Health Statistics web site: http://www.schs.state.nc.us/SCHS/pubs.

For more information about the BRFSS, visit the CDC's BRFSS web site: http://www.cdc.gov/nccdphp/brfss. The CDC's *BRFSS At-A-Glance* publication is available at http://www.cdc.gov/nccdphp/brfss/at-a-gl.htm.

Sampling

North Carolina used a disproportionate stratified sampling (DSS) design for its 2001 BRFSS. In the DSS design, the universe of all North Carolina telephone numbers was disproportionately stratified by density of household telephone numbers. The high-density stratum (also referred to as 1+ blocks or banks) consists of telephone numbers that are expected to contain a large proportion of households. The low-density stratum (0

blocks, or banks) consists of telephone numbers that are expected to contain a small proportion of households. The high-density stratum is sampled at a disproportionately higher rate than the low-density stratum to obtain a sample that contains a larger proportion of household numbers than would be the case if all numbers were sampled at the same rate.

Once a residence was successfully contacted, a respondent was selected at random from all adults age 18 and older. The selected respondent was interviewed by following the CDC protocol. Each month approximately 550 adults were interviewed yielding an annual total of 6,205 completed interviews in 2001. North Carolina BRFSS conducted its survey in its in-house telephone survey laboratory.

The sampling was also stratified into 13 geographical areas that consisted of the 10 most populated counties (Buncombe, Cumberland, Durham, Forsyth, Gaston, Guilford, Mecklenburg, New Hanover, Onslow, and Wake) and the remaining 90 counties divided into three regions.

- **Eastern North Carolina:** Beaufort, Bertie, Bladen, Brunswick, Camden, Carteret, Chowan, Columbus, Craven, Currituck, Dare, Duplin, Edgecombe, Gates, Greene, Halifax, Harnett, Hertford, Hoke, Hyde, Johnston, Jones, Lenoir, Martin, Nash, Northampton, Pamlico, Pasquotank, Pender, Perquimans, Pitt, Robeson, Sampson, Scotland, Tyrrell, Washington, Wayne, Wilson

- **Piedmont North Carolina:** Alamance, Alexander, Anson, Cabarrus, Caswell, Catawba, Chatham, Cleveland, Davidson, Davie, Franklin, Granville, Iredell, Lee, Lincoln, Montgomery, Moore, Orange, Person, Randolph, Richmond, Rockingham, Rowan, Stanly, Stokes, Union, Vance, Warren, Yadkin

- **Western North Carolina:** Alleghany, Ashe, Avery, Burke, Caldwell, Cherokee, Clay, Graham, Haywood, Henderson, Jackson, McDowell, Macon, Madison, Mitchell, Polk, Rutherford, Surry, Swain, Transylvania, Watauga, Wilkes, Yancey

Questionnaire

The 2001 BRFSS questionnaire included more than 230 questions. Accommodation of this many questions required the use of a dual questionnaire design. All respondents received the core sections of the 2001 BRFSS questionnaire. The remaining questions were organized by topics into two sections called Questionnaire A and B. Forty-one optional modules and state added questions were included in both Questionnaire A and B and thus asked of all respondents (see 2001 BRFSS questionnaire at http://www.schs.state.nc.us/SCHS/about/programs/brfss/pdf/BRFSSQ01.pdf), and about 40 questions were unique to either Questionnaire A or B. Approximately half of the respondents were randomly assigned to receive either Questionnaire A or B.

Typically, the BRFSS questionnaire has three parts: 1) **Core Component:** The *core* is a standard set of questions asked by all states (e.g., tobacco use, demographics); 2) **Optional CDC Modules:** These are CDC-designed sets of questions on specific topics (e.g., cardiovascular disease, oral health) that states elect to use on their questionnaires; 3) **State-Added Questions:** These are questions developed or acquired by participating states and added to their questionnaires (e.g., sexual assault, substance abuse, and alternative medicine).

Data Weighting and Analysis

The final BRFSS sample data are weighted to adjust for unequal probabilities of selection due to the disproportionate sampling method and due to people living in households with different numbers of telephones and different numbers of adults. The final sample data are also weighted to account for unequal non-response rates among different demographic groups. For example, if white females ages 65 and older were 8 percent of the sample respondents, but this group was 6 percent of the total population of the state, then a factor of 0.75

would be entered into the last weighting process for these respondents to account for this discrepancy. One might expect this group to be more likely to be at home and more likely to have a telephone than some other demographic groups, and therefore more likely to complete an interview. Thus the weighting procedure makes the BRFSS data more representative of the total population of adults in the state. All of the percentages shown in the main tables of this report were calculated using the weighted data.

The following table presents for the 2001 survey the unweighted number of respondents, the unweighted percent of respondents, and the weighted percent of respondents by selected demographic characteristics.

Distribution of the 2001 North Carolina Survey Sample by Selected Characteristics

		Unweighted Number	Unweighted Percent	Weighted Percent
Total		6,205	100	100
Sex	Males	2,382	38.4	47.8
	Females	3,823	61.6	52.2
Age	18-24	548	8.8	13.2
	25-34	1,157	18.6	18.2
	35-44	1,289	20.8	20.1
	45-54	1,133	18.3	18.2
	55-64	824	13.3	12.4
	65+	1,191	19.2	17.0
	Unknown/Refused	63	1.0	0.9
Race	White	4,698	75.7	73.4
	African American	1,144	18.4	19.6
	Other Minorities	264	4.3	5.7
	Unknown/Refused	99	1.6	1.3
Hispanic Origin	Yes	174	2.8	3.5
	No	6,016	96.9	96.3
	Unknown/Refused	15	0.3	0.2
Education	Less than H.S.	833	13.4	15.8
	H.S. or G.E.D.	1,860	30.0	32.8
	Some Post-H.S.	1,589	25.6	23.9
	College Graduate	1,891	30.5	27.0
	Unknown/Refused	32	0.5	0.5
Household Income	Less than $15,000	590	9.5	9.6
	$15,000 – 24,999	1,012	16.3	17.0
	$25,000 – 34,999	883	14.2	13.8
	$35,000 – 49,999	968	15.6	14.9
	$50,000 +	1,590	25.6	25.7
	Unknown/Refused	1,162	18.7	19.0

The demographic characteristics shown in the main tables of this report are generally the characteristics of the person responding to the survey. However, income reflects the reported annual income of the household from all household members and sources. Unless otherwise specified, respondents who answered that they did not know or who refused to answer were not included in the calculation of the percentages. Therefore, the sample sizes used to calculate the estimates in this report vary.

The main data tables in this report show the 95 percent confidence interval associated with each percentage (labeled "C.I."). Since the results are based on a relatively small random sample of the total population of adults in North Carolina, the results will be subject to some degree of sampling error. The 95 percent confidence interval shows the range within which we would expect the true value for the entire population to fall 95 percent of the time. For smaller sample sizes (for example, for a particular age or race group), the confidence intervals will be wider. The confidence intervals shown in this report may not be exactly the same as those that CDC calculates for the same measures. We use a method that may result in non-symmetrical confidence intervals, which is more appropriate when the prevalence is close to 0 or 100 percent.

Given the complex nature of the BRFSS sample (i.e., it is not a simple random sample), the SUDAAN software was used to calculate the confidence intervals for the estimates. This software takes the complex sampling design into account when computing the errors of the estimates. In general, any percentage with a numerator of less than 50 will have a relatively large degree of sampling error and should be considered cautiously.

Tests of the statistical significance of a difference between two percentages (for example, between the percentages for two age groups) can be performed after calculating the standard error of the difference. The data user should contact BRFSS staff of the Center for assistance with this calculation. Though not exactly technically correct, a rough approximation of the statistical significance of a difference between two percentages can be derived by comparing the confidence intervals shown in the data tables of this report. If the confidence intervals of the two percentages being compared do not overlap, then it is likely that the difference between the two percentages is statistically significant at the 95 percent confidence level. Stated another way, one can be 95 percent certain that a difference that large would not be observed just due to random variation in the two percentages.

Nationwide data for CDC core and optional questions were used to generate maps and trend tables (if data were available 3 or more years). A clustering program was used to create four groups for the national maps and three groups for North Carolina maps. North Carolina was ranked against all participating states and territories.

Organization of the Data

All of the data tables in this report are in the same format. The left-hand column shows the demographic group, including the ten over-sampled counties and three regions, for which the data are displayed. The second column shows the total number of respondents in each category. The next columns show three items for each survey question: the number responding in the specified way to the question, the weighted percentage of respondents with the specified response, and the 95 percent confidence interval of the percentage. Note that the weighted percentage cannot be calculated directly from the unweighted numerator and denominator that are shown in the table.

In general, the overall percentage or mean is shown. In the state maps of the United States, the median state value is also shown, consistent with the way CDC often reports the BRFSS data. This is the value where half the states are above and half are below.

The percentage of persons ages 65+ is much higher in the lower education groups as compared to those with higher education. Therefore, to some extent the results for the lower education groups are affected by the age of these populations. For example, chronic disease rates are much higher among persons of lower education. This is due to the effects of both age and socioeconomic status.

Strengths and Limitations of the Survey Data

There are some significant advantages of the telephone survey methodology, including better quality control over data collection made possible by a computer-assisted-telephone-interviewing system, relatively low cost, and speed of data collection. The BRFSS methodology has been used and evaluated by the CDC and participating states since 1984. The survey questions, questionnaire design, data collection procedures, interviewing techniques, and editing procedures have been carefully developed to improve data quality and lessen the potential for bias. The data collection is ongoing and each year new annual results become available.

One limitation of a telephone survey is the lack of coverage of persons who live in households without a telephone. Households without a telephone are, on average, of lower income. Therefore, for many of the health risks shown in this report, the results are likely to understate the true level of risk in the total population of adults in North Carolina. Since approximately 95 percent of households in North Carolina do have one or more telephones, the degree of understatement is probably not large.

A second limitation is due to the fact that the data is self-reported by the respondents. We expect that respondents tend to underreport health risk behaviors, especially those that are illegal or socially unacceptable.

In 2001, the BRFSS survey was administered only in English. Therefore, the results presented here may not accurately reflect some health issues in the entire Hispanic population of North Carolina. Many of the newer Hispanic immigrants do not speak English.

The survey results presented here are purely descriptive. It is not possible to infer causes of the observed differences from the information presented here. For example, there are large differences between whites and African Americans on some of the measures. It should not be inferred that the differences are due to race alone. Social and economic factors associated with race often account for a large part of the differences observed between racial groups. Recent studies also indicate that racism may be a contributing factor to health disparities.

The results presented here for a single year of data must be approached with caution due to small numbers in some of the demographic sub-categories. The confidence intervals are provided as a means of interpreting the accuracy of the estimates.

General Health Status

Perceived fair or poor overall health

- In 2001, about 16 percent of adults (age 18 and older) believed they had fair or poor health.
- Females (18.2%) were somewhat more likely than males (14.4%) to report having fair or poor health.
- The rate of perceived fair/poor health among African Americans (20.1%) exceeded that of whites (15.3%).
- Hispanic adults reported lower rates of fair/poor health than non-Hispanics.[1]
- The highest rates of perceived fair/poor health were found among the oldest age group (37.4%) and the poorest households (40.9%).

Average (mean) number of days during previous 30 days when physical health was not good

- For NC adults, the average number of poor physical health days was about 3½ days out of the past 30 days.
- The highest average number of poor health days (7.7) was found among the poorest households.
- The lowest average number of poor health days (1.3) was found among 18 to 24 year olds.

Average (mean) number of days during previous 30 days when mental health was not good

- For all adults, the average number of poor mental health days was 2 days out of the past 30 days.

Average (mean) number of missed work days during previous 30 days due to poor health

- For all adults, the average number of missed workdays was 2.1 days. It was higher among adults with less than high school education and household income less than $15,000.

Geographical Variation (perceived fair/poor health)

North Carolina: The lowest rates of perceived fair/poor health were reported by Wake, Durham and Mecklenburg county residents and the highest rates were found in rural Western and Eastern North Carolina.
Nationwide: Among all states, North Carolina had the 13th highest rate of perceived fair/poor health. New Hampshire had the lowest rate of perceived poor health (9.4%) and Puerto Rico had the highest rate (34.5%).

North Carolina Trend

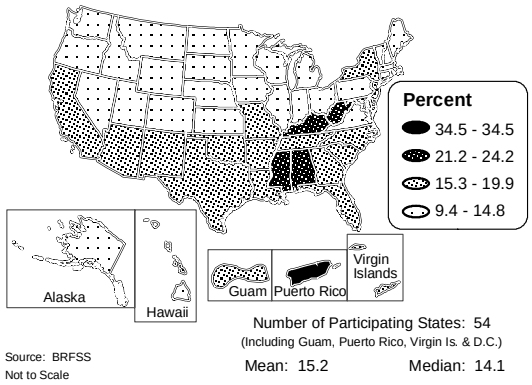
- From 1993 through 2001, African Americans had consistently higher rates of perceived fair/poor health than whites.
- White males tended to have somewhat lower rates of perceived fair/poor health than white females; among African Americans there was no consistent pattern by sex.

Table 1a. Perceived Fair/Poor Health in North Carolina by Year, Race, and Sex

	1993	1994	1995	1996	1997	1998	1999	2000	2001
NC	17.2	16.6	18.6	16.3	16.1	16.6	17.9	16.6	16.4
White	15.8	15.9	16.5	15.6	15.3	16.4	16.5	15.0	15.3
Black	23.0	21.2	27.1	19.2	19.7	18.2	23.9	23.2	20.1
White Male	14.6	15.9	15.4	15.6	13.6	14.0	15.6	14.1	14.5
White Female	16.9	15.9	17.6	15.6	16.8	18.6	17.4	15.7	16.1
Black Male	26.8	22.4	26.8	15.8	18.0	15.7	19.7	23.8	14.3
Black Female	20.0	20.2	27.3	22.1	21.0	20.1	27.4	22.7	24.7
(US)	13.4	13.7	13.9	14.5	14.4	14.8	14.9	15.5	15.7

[1]One of the primary reasons for this finding is due to the relative youth of the Hispanic population in North Carolina, at the present time.

Figure 1a. Perceived Fair/Poor Health
United States, 2001

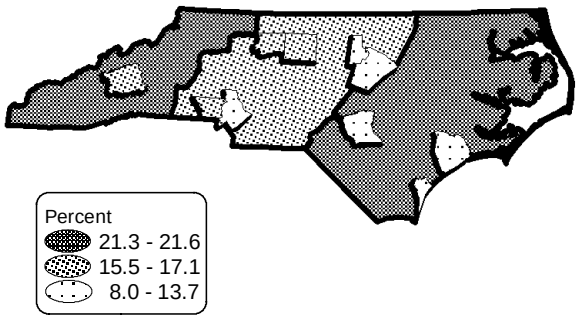


Number of Participating States: 54
(Including Guam, Puerto Rico, Virgin Is. & D.C.)

Source: BRFSS
Not to Scale

Mean: 15.2 Median: 14.1

Figure 1b. Perceived Fair/Poor Health
North Carolina, 2001



Source: BRFSS

Mean: 14.8 Median: 15.5

Table 1b. Health Status of NC Adults, 2001

	Fair or Poor General Health				Poor Physical Health Days/Month			Poor Mental Health Days/Month			Missed Work Days Due to Health/Month		
	Total Resp.	N	%	95% C.I.	Total Resp.	Mean	95% C.I.	Total Resp.	Mean	95% C.I.	Total Resp.	Mean	95% C.I.
TOTAL	6186	1047	16.4	15.0-17.8	6105	3.6	3.3-3.9	6205	2.0	1.8-2.3	6156	2.1	1.8-2.3
GENDER													
Male	2373	343	14.4	12.4-16.5	2359	3.1	2.6-3.5	2382	1.8	1.4-2.2	2368	1.8	1.4-2.2
Female	3813	704	18.2	16.4-20.1	3746	4.1	3.7-4.5	3823	2.3	2.0-2.6	3788	2.3	2.0-2.6
RACE													
White	4685	754	15.3	13.9-16.9	4629	3.6	3.3-4.0	4698	1.9	1.7-2.2	4666	1.9	1.7-2.2
African American	1139	229	20.1	16.8-23.9	1118	3.6	2.9-4.3	1144	2.4	1.8-3.0	1132	2.4	1.8-3.0
Other Minorities	263	44	15.7	10.2-23.5	259	2.5	1.2-3.9	264	1.6	0.6-2.7	262	1.6	0.6-2.7
HISPANIC													
Yes	174	20	10.2	5.2-19.0	171	2.8	1.1-4.6	174	1.9	0.2-3.6	173	1.9	0.2-3.6
No	5998	1026	16.6	15.3-18.1	5920	3.6	3.3-3.9	6016	2.1	1.8-2.3	5969	2.1	1.8-2.3
AGE													
18-24	548	33	6.1	3.5-10.2	544	1.3	0.9-1.7	548	0.5	0.3-0.6	548	0.5	0.3-0.6
25-34	1157	61	4.8	3.3- 6.9	1152	1.8	1.4-2.2	1157	1.1	0.7-1.5	1156	1.1	0.7-1.5
35-44	1283	117	10.3	7.9-13.4	1277	2.8	2.2-3.4	1289	1.6	1.2-2.1	1285	1.6	1.2-2.1
45-54	1131	187	16.2	13.2-19.8	1124	3.7	3.0-4.5	1133	2.3	1.7-2.9	1128	2.3	1.7-2.9
55-64	821	215	25.6	21.5-30.1	806	5.2	4.2-6.3	824	2.5	1.7-3.2	812	2.5	1.7-3.3
65+	1184	427	37.4	33.5-41.5	1141	7.0	6.1-8.0	1191	4.2	3.4-5.0	1167	4.2	3.4-5.0
EDUCATION													
Less Than H.S.	827	366	39.7	34.8-44.9	798	7.2	6.1-8.3	833	4.5	3.5-5.4	816	4.5	3.6-5.5
H.S. or G.E.D.	1856	340	16.8	14.5-19.5	1824	3.4	2.9-3.9	1860	2.0	1.5-2.4	1843	2.0	1.5-2.4
Some Post-H.S.	1586	214	11.7	9.6-14.1	1568	3.3	2.7-3.9	1589	1.6	1.2-2.0	1581	1.6	1.2-2.0
College Graduate	1886	120	6.3	4.9- 8.1	1884	2.1	1.7-2.4	1891	1.1	0.8-1.3	1885	1.1	0.8-1.3
HOUSEHOLD INCOME													
Less than $15,000	584	251	40.9	34.9-47.3	570	7.7	6.3-9.2	590	5.7	4.3-7.1	579	5.8	4.3-7.2
$15,000-24,999	1008	261	24.7	21.0-29.0	992	4.9	4.0-5.8	1012	2.8	2.1-3.5	1004	2.8	2.1-3.5
$25,000-34,999	881	114	14.3	11.1-18.1	877	3.5	2.7-4.3	883	1.6	1.1-2.1	882	1.6	1.1-2.1
$35,000-49,999	967	84	7.8	5.9-10.3	963	2.2	1.7-2.7	968	1.0	0.6-1.3	967	1.0	0.6-1.3
$50,000+	1589	79	4.7	3.3-6.6	1584	1.8	1.5-2.2	1590	0.7	0.5-1.0	1586	0.7	0.5-1.0
COUNTY/REGION*													
Buncombe	421	76	17.1	13.5-21.4	417	3.7	2.9-4.5	424	2.3	1.7-3.0	421	2.3	1.6-3.0
Cumberland	427	71	13.7	10.0-18.4	423	2.8	2.1-3.5	429	1.7	1.2-2.3	427	1.7	1.2-2.3
Durham	400	50	10.5	7.6-14.3	391	2.4	1.7-3.1	400	1.3	0.8-1.7	393	1.3	0.8-1.7
Forsyth	454	83	16.8	13.1-21.1	451	3.6	2.8-4.4	457	1.6	1.1-2.1	455	1.6	1.1-2.1
Gaston	464	87	16.7	13.4-20.7	458	3.8	3.0-4.6	467	2.4	1.7-3.0	461	2.4	1.7-3.0
Guilford	417	77	16.4	13.0-20.4	412	3.4	2.6-4.2	418	1.9	1.2-2.5	415	1.9	1.2-2.5
Mecklenburg	431	50	10.8	7.8-14.8	427	2.3	1.7-3.0	431	1.3	0.8-1.7	427	1.3	0.8-1.7
New Hanover	405	51	11.6	8.5-15.6	397	3.8	2.8-4.8	405	2.3	1.5-3.1	402	2.3	1.5-3.1
Onslow	434	61	11.8	8.8-15.5	430	2.9	2.2-3.6	436	2.0	1.3-2.8	434	2.0	1.3-2.8
Wake	428	39	8.0	5.6-11.3	426	2.3	1.7-2.9	428	1.3	0.8-1.8	427	1.3	0.8-1.8
Western NC	617	143	21.3	18.0-25.0	607	4.7	3.9-5.5	619	2.4	1.8-2.9	614	2.4	1.8-3.0
Piedmont NC	669	115	15.5	12.6-18.9	661	3.8	3.1-4.5	670	2.3	1.7-2.9	664	2.3	1.7-2.9
Eastern NC	619	144	21.6	18.0-25.6	605	4.0	3.2-4.8	621	2.3	1.6-2.9	616	2.3	1.6-2.9

*See the Introduction for counties included in the three regions (Western, Piedmont, and Eastern)

No health care coverage

- 14.2 percent of North Carolinians had no health insurance in 2001, up from 12.7 percent in 2000.
- African Americans had higher uninsured rates (16.0%) than whites (12.6%).
- As expected, *not* having health insurance declines with increasing age and income.
- Persons of Hispanic ethnicity who spoke English were the most likely (28.6%) of any demographic group not to have health insurance.

Does not have a personal doctor

- 19.3 percent of North Carolinians do not have someone they think of as their personal doctor.
- Males were significantly more likely than females to report not having a personal doctor.
- 43.7 percent of Hispanics report not having a personal doctor, the highest of any group.
- 39.9 percent of 18 to 24 year olds have no personal doctor; among seniors the rate was 6.9 percent.

Could not see a doctor in past year due to cost

- 11.5 percent of NC adults could not see a doctor in the past year because of cost (no significant change from 2000).
- The rate for females (13.7%) was significantly higher than the rate for males (9.0%).
- The rate for African Americans (14.3%) was significantly higher than the rate for whites (9.9%).

Geographical Variation (no health insurance coverage)

North Carolina: Onslow County and the Eastern Region had the highest rates of no health insurance. Forsyth and Mecklenburg counties had the lowest rates of no health insurance.
Nationwide: North Carolina had the 23rd highest rate (14.2%) of no health insurance coverage in the country. The highest rates of no health insurance were observed in the Virgin Islands (28.3%) and Texas (22.9%), while the lowest rate was observed in Minnesota (5.5%).

North Carolina Trend

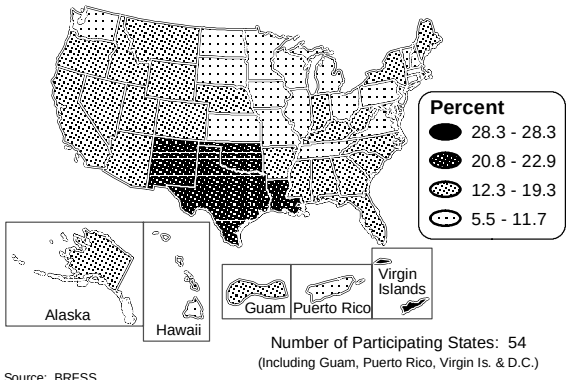
- Statewide, the highest rates (above 14%) of no health insurance coverage were reported in 1997 and 2001.

Table 2a. Percent No Health Insurance Coverage in North Carolina by Year, Race, and Sex

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
NC	13.3	12.3	12.5	12.6	12.9	14.7	12.7	11.5	12.7	14.2
White	11.4	10.7	11.3	10.6	10.7	12.9	11.0	9.7	11.0	12.6
Black	18.7	16.1	14.7	18.5	21.0	20.4	16.1	16.7	18.8	16.0
White Male	12.9	10.9	13.8	12.0	10.3	13.9	10.4	10.2	12.3	13.7
White Female	10.0	10.4	8.9	9.2	11.0	11.9	11.6	9.3	9.8	11.5
Black Male	17.6	11.3	17.1	19.2	22.1	24.9	22.1	19.0	17.9	16.8
Black Female	19.7	20.1	12.8	17.9	20.2	16.6	11.6	14.9	19.5	15.4
(US)	15.4	13.8	13.8	13.1	14.4	14.1	14.2	14.1	13.8	13.8

HP 2010 Objective:
1) Increase the percentage with health insurance to 100% (NC: 1999=89.7%; 2000=88.9%; 2001=85.8%).
2) Increase the proportion of persons with a usual primary care provider to 85% (NC: 2001=80.7%).

Figure 2a. No Health Insurance
United States, 2001

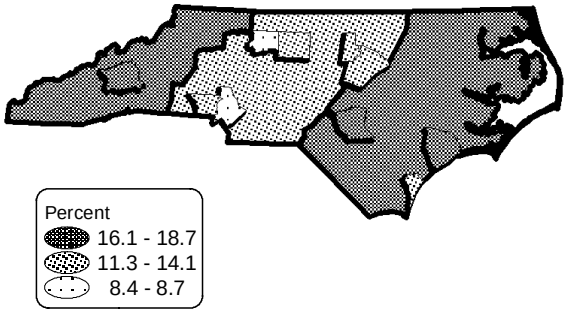


Number of Participating States: 54
(Including Guam, Puerto Rico, Virgin Is. & D.C.)

Source: BRFSS
Not to Scale

Mean: 13.7 Median: 13.3

Figure 2b. No Health Insurance
North Carolina, 2001



Source: BRFSS

Mean: 13.8 Median: 13.4

Table 2b. Health Care Access of NC Adults, 2001

	No Current Health Insurance				Don't Have a Personal Doctor				Could Not See a Doctor Due to Cost			
	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.
TOTAL	6192	735	14.2	12.8-15.8	6195	1034	19.3	17.7-21.1	5964	664	11.5	10.2-12.8
GENDER												
Male	2377	309	15.7	13.4-18.3	2376	575	25.4	22.8-28.3	2285	194	9.0	7.3-11.1
Female	3815	426	13.0	11.3-14.8	3819	459	13.8	11.8-16.0	3679	470	13.7	12.0-15.4
RACE												
White	4687	501	12.6	11.0-14.3	4691	734	17.8	16.0-19.9	4537	453	9.9	8.6-11.3
African American	1142	162	16.0	12.9-19.8	1142	197	18.3	15.1-21.9	1085	149	14.3	11.5-17.7
Other Minorities	264	53	26.3	17.8-37.1	264	76	37.7	28.0-48.4	256	44	20.1	12.4-31.0
HISPANIC												
Yes	174	34	28.6	17.4-43.2	174	55	43.7	31.8-56.4	168	21	20.5	10.3-36.6
No	6003	698	13.7	12.3-15.2	6006	974	18.4	16.7-20.1	5782	641	11.1	10.0-12.4
AGE												
18-24	544	126	26.8	21.0-33.4	544	206	39.9	33.4-46.8	529	78	16.7	12.1-22.6
25-34	1155	188	18.2	14.9-22.0	1155	290	27.4	23.6-31.5	1114	144	12.5	9.7-16.0
35-44	1285	178	14.6	11.8-18.0	1287	236	18.2	15.2-21.8	1240	170	11.5	9.3-14.1
45-54	1133	126	13.8	10.6-17.8	1133	151	17.3	12.9-22.7	1103	121	12.5	9.6-16.1
55-64	824	82	11.3	8.5-15.0	824	63	8.1	5.6-11.6	790	70	9.8	7.2-13.2
65+	1188	28	2.6	1.6-4.2	1191	83	6.9	5.1-9.3	1138	72	6.3	4.7-8.5
EDUCATION												
Less Than H.S.	831	163	27.6	22.5-33.4	833	147	24.2	19.1-30.2	787	144	21.8	17.3-27.2
H.S. or G.E.D.	1856	263	15.4	12.9-18.2	1855	319	18.7	16.0-21.8	1771	223	11.9	9.8-14.3
Some Post-H.S.	1587	188	12.5	10.3-15.1	1587	251	15.3	13.0-18.0	1544	185	11.4	9.3-13.9
College Graduate	1887	118	6.7	5.1-8.7	1888	310	20.5	17.4-24.0	1843	109	5.0	3.9-6.5
HOUSEHOLD INCOME												
Less than $15,000	587	137	26.7	20.9-33.3	589	111	20.0	15.0-26.1	562	144	24.5	19.5-30.2
$15,000-24,999	1010	208	25.5	21.2-30.4	1011	212	24.1	20.0-28.8	976	192	17.8	14.5-21.7
$25,000-34,999	882	133	16.7	13.2-20.9	883	176	21.3	17.5-25.6	859	112	14.8	11.5-18.7
$35,000-49,999	968	77	9.5	7.1-12.8	966	159	14.9	12.0-18.3	942	72	7.5	5.2-10.7
$50,000+	1589	56	3.7	2.4-5.5	1589	189	16.0	12.9-19.7	1556	34	2.4	1.4-3.9
COUNTY/REGION*												
Buncombe	423	60	17.1	12.9-22.2	423	69	19.0	14.8-24.2	406	53	13.6	10.0-18.3
Cumberland	429	49	17.1	9.0-29.9	427	101	32.6	24.0-42.7	417	35	12.4	5.0-27.7
Durham	399	45	12.5	8.8-17.4	400	76	20.5	16.0-25.7	386	36	9.8	6.6-14.1
Forsyth	455	37	8.4	5.8-12.0	457	45	10.0	7.3-13.7	446	42	8.3	5.9-11.6
Gaston	467	62	13.4	10.1-17.4	466	54	14.5	10.9-19.0	444	73	17.5	13.7-22.1
Guilford	415	40	11.4	7.9-16.0	418	59	16.2	12.4-20.9	395	30	7.6	5.0-11.5
Mecklenburg	431	28	8.7	5.7-12.9	431	63	17.5	13.7-22.1	418	34	8.6	6.0-12.3
New Hanover	403	41	11.3	8.0-15.7	404	80	24.0	18.9-29.9	391	43	12.4	8.8-17.1
Onslow	436	57	18.6	11.8-28.1	434	105	31.3	23.8-39.9	419	46	8.3	6.0-11.4
Wake	427	50	14.1	10.3-18.9	427	84	22.4	18.0-27.7	408	34	6.9	4.7-10.1
Western NC	618	87	16.1	12.8-20.0	618	84	15.7	12.6-19.5	597	69	11.9	9.3-15.1
Piedmont NC	669	71	12.2	9.2-16.0	670	112	18.9	15.1-23.5	645	72	9.9	7.5-12.9
Eastern NC	620	108	18.7	15.1-22.8	620	102	19.8	15.9-24.4	592	97	16.3	13.1-20.1

*See the Introduction for counties included in the three regions (Western, Piedmont, and Eastern)

Physical Activity

No leisure-time physical activity in the past month

- In 2001, 26.4 percent of NC adults reported no leisure-time physical activity in the past month.
- Females had a higher risk of no leisure-time activity than males.
- African-Americans and other minorities had a higher risk of no leisure activity than whites.
- Leisure-time activity was correlated with household income: as household income increases, participation in leisure-time activities also increases.

Not getting recommended physical activity

- More than half (57.6%) of NC adults did not meet the recommended amount of moderate physical activity (30 minutes per day on 5 or more days of the week, regardless of intensity) during the past month.
- At least 60 percent of those age 45 and older did not meet the moderate activity recommendations.
- A substantial gap in moderate activity rates was evident among whites, African Americans, and Hispanics.

No vigorous physical activity

- Almost 80 percent of NC adults did not meet the recommended amount of vigorous physical activity (rapid increase in heart rate for 20 or more minutes per day, three or more days per week) during the past month.
- Over two-thirds of those between ages 18 and 34 did not meet vigorous activity levels in the past month.

Geographical Variation (no leisure-time activity)

North Carolina: New Hanover County had the lowest rate (18.8%) of no leisure-time physical activity, followed by Cumberland (21.0%) and Mecklenburg (21.1%). Gaston County had the highest rate of no leisure activity (29.3%).
Nationwide: North Carolina had the 22nd highest rate (26.4%) of no leisure-time activity in the country. The highest rates were found in Puerto Rico (49.2%) and Louisiana (35.6%); the lowest rate was found in Utah (16.5%).

North Carolina Trend

- From 1990 through 2001, African American females had the highest risk for no leisure-time activity.
- For the state, the 1990-2001 trend fluctuates between 42.8 and 26.4 percent.

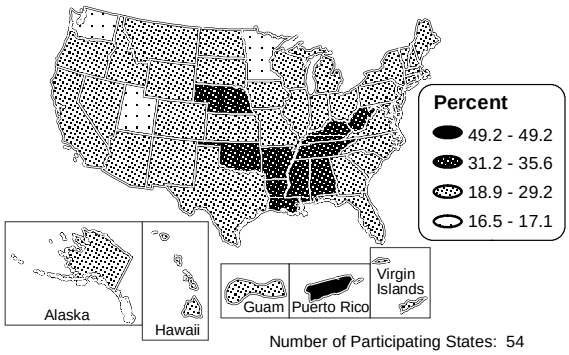
Table 3a. Percent No Leisure-Time Physical Activity in North Carolina by Year, Race, and Sex

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
NC	40.5	33.4	34.2	*	42.8	*	40.7	*	27.7	*	30.4	26.4
White	37.6	31.2	33.0	*	39.4	*	38.9	*	25.2	*	28.7	23.5
Black	50.9	41.0	39.0	*	56.9	*	47.6	*	33.4	*	37.6	34.9
White Male	36.8	28.7	32.6	*	38.8	*	39.1	*	21.9	*	27.0	20.9
White Female	38.2	33.5	33.3	*	40.0	*	38.7	*	28.3	*	30.3	25.9
Black Male	49.9	34.9	35.8	*	49.6	*	41.5	*	24.5	*	30.0	27.3
Black Female	51.8	45.7	41.6	*	62.8	*	52.7	*	40.3	*	44.1	40.9
(US)	29.7	29.8	28.7	30.6	29.4	27.6	29.7	33.9	29.1	29.0	27.8	26.4

*Question not asked in these years.

HP2010 Objective:
Reduce the proportion of adults who engage in no leisure-time physical activity to 20% (NC 2001=26.4%).

Figure 3a. No Leisure Activity
United States, 2001

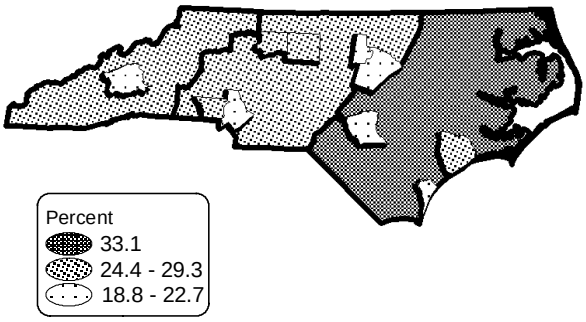


Number of Participating States: 54
(Including Guam, Puerto Rico, Virgin Is. & D.C.)

Source: BRFSS
Not to Scale

Mean: 25.8 Median: 25.7

Figure 3b. No Leisure Activity
North Carolina, 2001



Source: BRFSS

Mean: 24.5 Median: 24.4

Table 3b. Physical Activity of NC Adults, 2001

	No Leisure-Time Physical Activity				Not Getting Recommended Physical Activity				No Vigorous Leisure-Time Physical Activity			
	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.
TOTAL	6205	1627	26.4	24.8-28.1	5926	3463	57.6	55.6-59.6	6071	4830	79.6	78.0-81.1
GENDER												
Male	2382	538	23.0	20.5-25.6	2276	1214	53.7	50.6-56.7	2323	1673	74.6	72.0-77.1
Female	3823	1089	29.5	27.4-31.8	3650	2249	61.1	58.6-63.6	3748	3157	84.1	82.1-85.9
RACE												
White	4698	1101	23.5	21.8-25.4	4489	2552	55.5	53.2-57.7	4605	3632	78.8	76.9-80.6
African American	1144	424	34.9	30.8-39.2	1086	719	67.3	63.0-71.3	1113	931	83.5	79.9-86.6
Other Minorities	264	74	32.6	23.9-42.8	259	132	49.9	40.1-59.6	261	194	75.9	67.2-82.9
HISPANIC												
Yes	174	53	28.0	19.2-38.8	167	95	52.8	40.2-65.1	170	126	73.2	61.3-82.5
No	6016	1570	26.3	24.7-28.1	5747	3362	57.7	55.7-59.7	5887	4692	79.8	78.1-81.3
AGE												
18-24	548	113	22.4	17.2-28.7	538	244	47.9	41.2-54.6	541	344	67.5	61.2-73.1
25-34	1157	229	21.3	18.0-25.1	1125	566	49.3	44.9-53.8	1140	769	65.8	61.3-70.0
35-44	1289	315	24.3	21.0-28.1	1234	702	57.9	53.7-61.9	1256	969	79.4	76.1-82.4
45-54	1133	305	27.5	23.6-31.8	1093	689	61.6	56.8-66.2	1113	922	83.8	80.4-86.7
55-64	824	269	33.0	28.5-37.8	776	496	63.5	58.6-68.2	807	720	89.0	85.6-91.6
65+	1191	381	31.3	27.6-35.2	1108	735	65.7	61.6-69.6	1157	1058	92.5	90.3-94.3
EDUCATION												
Less Than H.S.	833	384	41.7	36.6-46.9	772	534	67.9	62.3-73.0	812	743	91.2	88.0-93.7
H.S. or G.E.D.	1860	624	34.4	31.1-37.8	1772	1092	60.5	56.9-63.9	1810	1525	83.4	80.6-85.9
Some Post-H.S.	1589	356	20.1	17.4-23.0	1531	878	54.6	50.9-58.3	1561	1218	76.3	72.9-79.3
College Graduate	1891	249	13.0	10.9-15.4	1837	949	51.1	47.4-54.9	1871	1329	71.0	67.5-74.2
HOUSEHOLD INCOME												
Less than $15,000	590	260	42.7	36.5-49.1	555	377	67.1	60.8-72.9	574	506	88.2	83.4-91.8
$15,000-24,999	1012	363	35.6	31.1-40.4	975	614	59.9	55.0-64.7	995	845	85.4	81.8-88.4
$25,000-34,999	883	242	28.6	24.4-33.3	845	480	58.2	53.1-63.1	865	682	79.0	74.7-82.7
$35,000-49,999	968	195	19.9	16.6-23.8	946	532	55.4	50.8-59.9	955	735	74.8	70.5-78.6
$50,000+	1590	206	13.2	11.0-15.7	1557	801	50.6	46.5-54.6	1577	1125	70.7	66.9-74.3
COUNTY/REGION*												
Buncombe	424	100	22.7	18.5-27.6	396	222	55.6	49.9-61.1	405	316	75.7	70.3-80.3
Cumberland	429	115	21.0	16.8-26.0	418	227	48.4	40.5-56.4	422	316	73.4	67.0-78.9
Durham	400	99	22.4	17.9-27.8	381	222	55.4	48.5-62.1	391	302	71.9	64.8-78.0
Forsyth	457	128	26.0	21.7-30.8	443	270	57.6	51.9-63.1	454	370	78.1	72.6-82.8
Gaston	467	148	29.3	25.0-34.0	448	272	57.8	52.5-63.0	456	383	80.8	76.0-84.9
Guilford	418	100	24.6	20.0-29.8	394	252	64.5	58.9-69.7	404	330	80.5	75.7-84.6
Mecklenburg	431	100	21.1	17.2-25.6	415	262	65.0	59.6-70.1	420	333	79.8	75.2-83.7
New Hanover	405	79	18.8	14.7-23.6	388	225	55.2	48.0-62.1	396	297	70.0	62.0-77.0
Onslow	436	108	24.4	18.4-31.5	418	208	44.8	38.0-51.8	432	313	70.2	64.1-75.7
Wake	428	93	20.9	16.8-25.8	416	231	54.5	48.9-60.1	420	320	75.9	70.9-80.2
Western NC	619	182	28.5	24.7-32.7	577	337	55.3	50.7-59.9	603	498	80.5	76.5-84.0
Piedmont NC	670	167	25.4	21.7-29.6	643	378	57.9	53.0-62.6	659	543	81.6	77.6-85.1
Eastern NC	621	208	33.1	28.8-37.8	589	357	58.8	53.8-63.6	609	509	81.8	77.6-85.4

*See the Introduction for counties included in the three regions (Western, Piedmont, and Eastern)

High Blood Pressure

High blood pressure (hypertension)

- In 2001, the rate of high blood pressure for NC adults was 27.2 percent, up from 24.0 percent in 1999.
- The rate of diagnosed hypertension was significantly higher among African Americans (37.4%) than among whites (25.3%); for both race groups, high blood pressure rates also increased from 1999 to 2001.
- The highest rate of hypertension (40.0%) was reported among the lowest income households (< $15,000 annually).
- By age, hypertension ranged from a low of 7.5 percent among 18 to 24 year olds to a high of 54.9 percent among 65+ year olds.

Blood pressure not checked within past 2 years

- In 2001, 3.3 percent of adults reported that they had not had their blood pressure checked within the past two years.
- Males had a substantially higher rate of not having their blood pressure checked in the past 2 years than females.
- The rate among those with less than a high school education (4.7%) was about twice the rate of college graduates (2.4%).

Not taking medicine for high blood pressure

- About one-fourth of NC adults who have high blood pressure did not take any hypertension medicine.
- About 10 percent of persons age 65 and older with high blood pressure did not take blood pressure medicine: this compares to about 28 percent of persons in the 45-54 age group.
- By educational status, those with less than a high school education were the least likely of any group *not* to take blood pressure medicine.

Geographical Variation (high blood pressure)

North Carolina: The rate of high blood pressure ranged from a low of 17.5 percent in Wake County to a high of 29.8 percent in Gaston County. There was little difference across the three regions of the state.
Nationwide: Among all states, North Carolina had the 14th highest rate (27.2%) of high blood pressure. The highest rate of high blood pressure was found in West Virginia (32.5%); the lowest rate was found in New Mexico (20.0%).

North Carolina Trend

- Beginning in 1995 the rate of high blood pressure increased for whites and African Americans.

Table 4a. Percent with High Blood Pressure in North Carolina by Year, Race, and Sex

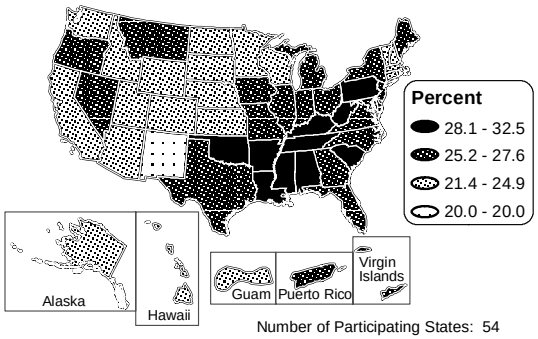
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
NC	17.9	18.3	17.0	*	20.8	*	23.3	*	24.1	*	27.2
White	18.1	17.9	15.9	*	19.3	*	22.2	*	22.8	*	25.3
Black	17.9	20.7	22.0	*	27.4	*	28.6	*	30.5	*	37.4
White Male	19.6	18.8	14.8	*	19.3	*	21.1	*	22.7	*	24.5
White Female	16.7	17.0	16.8	*	19.2	*	23.2	*	22.8	*	26.0
Black Male	14.2	12.9	25.3	*	25.7	*	20.1	*	26.1	*	32.2
Black Female	20.9	27.3	19.4	*	28.7	*	35.8	*	34.2	*	41.5
(US)	21.0	20.8	21.6	21.6	22.9	24.5	23.2	23.8	24.4	25.8	21.0

*Question not asked in these years.

HP2010 Objectives:

1) Increase the percentage of adults who have had their blood pressure measured within the last two years to 95% (NC: 1999 = 90.7%; 2001 = 92.8%).
2) Reduce the proportion of adults with high blood pressure to 16%. (NC = 27.2%)

Figure 4a. High Blood Pressure
United States, 2001

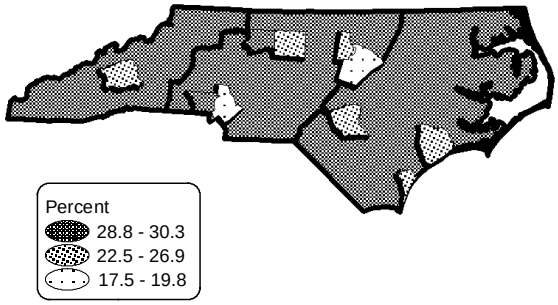


Number of Participating States: 54
(Including Guam, Puerto Rico, Virgin Is. & D.C.)

Source: BRFSS
Not to Scale

Mean: 25.7 Median: 25.6

Figure 4b. High Blood Pressure
North Carolina, 2001



Source: BRFSS

Mean: 25.8 Median: 26.8

Table 4b. High Blood Pressure, 2001

	Reported Having High Blood Pressure				Did Not Have Blood Pressure Checked in Last 2 Years				Not Taking Medicine for High Blood Pressure**			
	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.
TOTAL	6197	1743	27.2	25.6-28.9	5916	151	3.3	2.6-4.2	1742	416	25.1	22.1-28.4
GENDER												
Male	2380	620	25.4	22.9-28.0	2262	92	5.0	3.7-6.8	620	182	31.1	25.9-36.8
Female	3817	1123	28.9	26.8-31.1	3654	59	1.7	1.2-2.5	1122	234	20.3	17.1-24.0
RACE												
White	4694	1236	25.3	23.5-27.2	4500	114	3.1	2.3-4.0	1236	292	25.2	21.7-29.1
African American	1142	428	37.4	33.2-41.8	1076	20	1.9	1.0-3.5	427	103	25.4	19.4-32.5
Other Minorities	263	51	16.1	10.7-23.4	254	14	8.9	4.3-17.4	51	14	21.0	10.2-38.3
HISPANIC												
Yes	174	37	19.9	12.3-30.8	167	10	12.5	5.7-25.4	37	16	52.4	28.5-75.2
No	6009	1704	27.5	25.9-29.2	5735	141	2.9	2.3-3.8	1703	400	24.4	21.4-27.7
AGE												
18-24	548	42	7.5	4.9-11.3	520	14	2.0	1.0-3.8	42	38	93.1	81.0-97.7
25-34	1157	106	8.4	6.3-11.3	1101	35	4.6	2.7-7.6	106	75	71.7	57.9-82.4
35-44	1287	208	19.2	16.0-22.9	1233	48	4.9	3.3-7.3	208	86	39.1	29.7-49.5
45-54	1132	342	30.7	26.5-35.2	1098	26	3.4	1.8-6.3	342	92	27.6	21.0-35.3
55-64	824	388	45.2	40.3-50.1	784	14	2.8	1.3-5.8	388	62	13.5	9.8-18.5
65+	1189	633	54.9	50.8-58.9	1130	11	0.8	0.4-1.7	632	60	10.4	7.4-14.3
EDUCATION												
Less Than H.S.	831	374	38.6	33.8-43.8	773	32	4.7	2.6-8.4	373	61	16.3	11.3-22.9
H.S. or G.E.D.	859	577	30.4	27.4-33.6	1761	55	3.7	2.5-5.4	577	145	27.2	21.9-33.1
Some Post-H.S.	1588	421	25.0	22.0-28.2	1532	32	2.9	1.7-4.9	421	114	29.9	23.5-37.1
College Graduate	1887	360	18.5	16.0-21.3	1832	32	2.4	1.5-3.8	360	94	26.8	20.7-34.0
HOUSEHOLD INCOME												
Less than $15,000	588	244	40.0	34.0-46.3	554	20	3.4	1.7-6.6	244	54	23.0	16.1-31.8
$15,000-24,999	1012	339	33.9	29.5-38.6	968	28	5.7	3.3-9.6	339	75	24.7	18.0-32.9
$25,000-34,999	883	236	25.5	21.5-30.0	850	22	2.3	1.4-3.9	236	76	28.0	20.6-36.7
$35,000-49,999	967	213	21.3	17.9-25.1	938	23	3.2	1.8-5.8	213	53	27.0	19.0-36.8
$50,000+	1589	314	20.5	17.5-23.7	1551	21	1.9	1.1-3.3	314	93	31.5	24.0-40.2
COUNTY/REGION*												
Buncombe	422	113	25.3	21.0-30.1	403	10	3.0	1.5-6.0	113	31	27.5	19.2-37.6
Cumberland	429	132	26.9	21.7-32.8	414	6	1.5	0.6-3.9	132	32	29.2	20.8-39.3
Durham	400	106	23.8	19.2-29.1	384	11	3.7	1.9-7.0	106	21	23.2	14.9-34.3
Forsyth	455	145	28.8	24.3-33.6	442	6	1.3	0.5-3.1	145	33	24.3	16.7-33.8
Gaston	467	146	29.8	25.4-34.6	443	7	1.8	0.8-3.9	146	36	28.7	21.0-37.9
Guilford	418	112	26.8	22.3-31.9	392	14	3.5	1.9-6.4	112	29	26.4	18.4-36.4
Mecklenburg	431	96	19.8	16.2-24.1	414	9	2.6	1.2-5.4	96	26	28.6	19.6-39.8
New Hanover	405	107	23.9	19.4-29.2	390	12	8.3	3.1-20.6	107	21	21.5	13.6-32.1
Onslow	435	98	22.5	17.3-28.7	417	13	3.2	1.6-6.4	98	24	33.4	19.6-50.9
Wake	427	82	17.5	13.7-22.1	405	10	3.5	1.5-8.0	82	21	23.0	14.5-34.5
Western NC	619	200	30.3	26.4-34.5	588	16	2.8	1.7-4.8	199	46	24.9	18.6-32.5
Piedmont NC	669	203	29.3	25.4-33.4	641	19	2.8	1.6-5.1	203	45	21.0	15.2-28.1
Eastern NC	620	203	30.1	26.0-34.5	583	18	4.4	2.7-7.3	203	51	28.4	21.0-37.2

*See the Introduction for counties included in the three regions (Western, Piedmont, and Eastern)
**Among those who reported having high blood pressure.

Blood Cholesterol

High blood cholesterol

- In 2001, about 29 percent of North Carolinians reported having been diagnosed with high blood cholesterol.
- The diagnosis of high blood cholesterol increases sharply with age: 6.7 percent among 18-24 year olds compared to 44.6 percent among 65+ year olds.
- African Americans (24.4%) had a lower prevalence of high cholesterol than whites (30.2%).

Cholesterol not checked within past 5 years

- About 25 percent of NC adults reported that they had not had their cholesterol checked within the past 5 years.
- 22.5 percent of whites had not had their cholesterol checked within the past 5 years, compared to 28.2 percent of African Americans and 46.0 percent of other minorities.
- Males were somewhat more likely to have their cholesterol checked in the past five years than females.
- Those who were less than age 45 were more likely to have not had their cholesterol checked in the past five years than those age 45 and older.

Geographical Variation (high blood cholesterol)

North Carolina: Overall, Durham County had the lowest rate of high blood cholesterol (18.2%) and Western North Carolina had the highest rate (32.9%).
Nationwide: Regarding high blood cholesterol, North Carolina had one of the lowest rates (28.9%) in the country, ranking 47th nationwide. The highest rate was found in West Virginia (37.7%); the lowest rate was found in New Mexico (24.8%).

North Carolina Trend

- The statewide trend in the rate of high cholesterol has a range of about 7 percentage points, from a low of 24 percent in 1995 to a high of 30.9 percent in 1999.
- In general, white females have had higher rates of high cholesterol than white males.

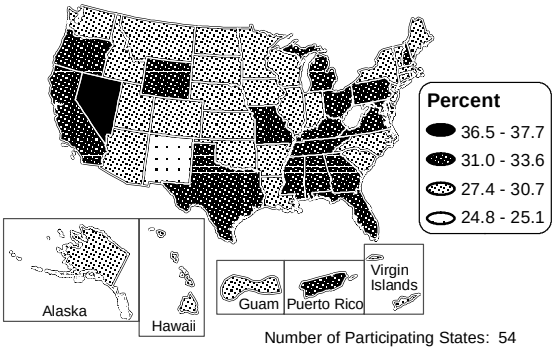
Table 5a. Percent with High Cholesterol in North Carolina by Year, Race, and Sex

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
NC	25.5	24.3	25.1	26.0	*	24.0	*	26.0	*	30.9	*	28.9
White	25.8	23.4	26.7	25.3	*	24.7	*	27.7	*	31.5	*	30.2
Black	24.2	27.6	19.4	29.2	*	21.8	*	20.8	*	28.4	*	24.4
White Male	23.3	22.1	27.2	23.4	*	22.7	*	26.2	*	31.6	*	29.0
White Female	28.0	24.5	26.2	27.1	*	26.7	*	29.0	*	31.4	*	31.3
Black Male	24.7	26.9	20.0	28.6	*	19.6	*	20.3	*	29.7	*	17.7
Black Female	23.8	28.2	18.8	29.7	*	23.6	*	21.2	*	27.3	*	29.4
(US)	25.6	26.1	26.7	28.6	29.6	28.4	30.0	28.6	29.5	30.0	30.9	25.6

*Question not asked in these years.

HP2010 Objective:
Increase the percentage of adults who have had their cholesterol checked within the preceding five years to 80% (NC: 1999=74.3%; 2001=75.1%;)

Figure 5a. High Cholesterol
United States, 2001

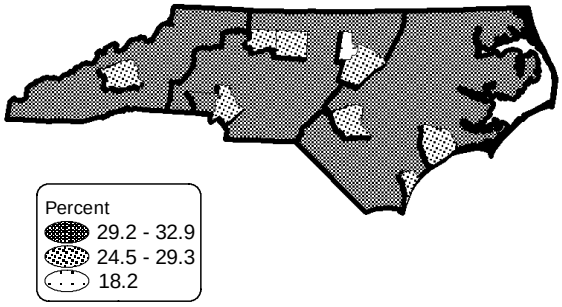


Number of Participating States: 54
(Including Guam, Puerto Rico, Virgin Is. & D.C.)

Source: BRFSS
Not to Scale

Mean: 30.4 Median: 30.3

Figure 5b. High Cholesterol
North Carolina, 2001



Source: BRFSS

Mean: 27.0 Median: 26.5

Table 5b. Blood Cholesterol, 2001

	Blood Cholesterol Not Checked in Last Five Years				Reported Being Diagnosed with High Blood Cholesterol**			
	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.
TOTAL	6049	1253	24.9	23.2-26.8	5018	1440	28.9	27.0-30.8
GENDER								
Male	2327	526	27.6	24.8-30.6	1885	525	27.1	24.3-30.0
Female	3722	727	22.5	20.3-24.8	3133	915	30.5	28.0-33.1
RACE								
White	4590	881	22.5	20.6-24.5	3894	1164	30.2	28.0-32.5
African American	1109	256	28.2	24.1-32.7	874	220	24.4	20.5-28.8
Other Minorities	254	90	46.0	35.9-56.3	178	39	22.8	15.2-32.9
HISPANIC								
Yes	168	57	43.7	31.5-56.7	120	24	21.6	12.3-35.0
No	5868	1195	24.3	22.5-26.2	4884	1412	29.1	27.2-31.1
AGE								
18-24	520	235	49.3	42.6-56.0	303	20	6.7	3.8-11.6
25-34	1131	405	42.4	37.9-47.0	773	105	14.0	10.7-18.2
35-44	1261	295	25.0	21.6-28.7	1039	221	24.4	20.5-28.8
45-54	1112	159	17.4	14.0-21.6	993	305	30.7	26.3-35.4
55-64	816	63	8.4	6.0-11.6	769	320	39.9	35.1-45.0
65+	1146	87	9.0	6.7-12.1	1087	457	44.6	40.4-48.9
EDUCATION								
Less Than H.S.	792	168	26.7	21.8-32.3	647	238	33.7	28.6-39.2
H.S. or G.E.D.	1816	437	28.7	25.5-32.1	1441	439	29.3	25.9-32.9
Some Post-H.S.	1550	333	25.2	21.9-28.8	1268	374	31.3	27.6-35.2
College Graduate	1859	310	19.5	16.6-22.8	1635	384	24.4	21.4-27.7
HOUSEHOLD INCOME								
Less than $15,000	566	142	30.9	25.0-37.5	441	160	34.8	28.4-41.9
$15,000-24,999	989	249	29.2	24.7-34.1	768	252	33.7	28.8-38.8
$25,000-34,999	863	226	28.5	24.1-33.2	669	177	26.7	21.8-32.4
$35,000-49,999	953	189	25.0	21.0-29.5	801	220	29.4	25.0-34.2
$50,000+	1570	227	17.4	14.4-20.9	1404	354	25.0	21.9-28.5
COUNTY/REGION*								
Buncombe	418	75	21.1	16.5-26.5	353	97	26.5	21.8-31.8
Cumberland	419	96	31.6	22.8-42.0	331	95	27.4	22.3-33.3
Durham	391	76	24.0	17.9-31.4	325	70	18.2	14.0-23.3
Forsyth	443	67	15.4	11.8-19.7	389	109	26.3	21.7-31.4
Gaston	461	78	19.4	15.4-24.1	394	129	31.3	26.5-36.6
Guilford	402	75	18.8	14.9-23.4	340	90	24.8	20.0-30.3
Mecklenburg	420	81	22.6	17.9-28.0	354	93	24.9	20.3-30.1
New Hanover	398	77	24.2	17.4-32.7	337	95	27.2	22.2-32.9
Onslow	422	112	34.1	26.6-42.6	333	77	24.5	17.3-33.5
Wake	417	81	23.7	18.8-29.4	354	91	26.3	21.4-31.8
Western NC	608	128	22.7	19.0-26.8	505	162	32.9	28.4-37.8
Piedmont NC	652	152	25.0	21.0-29.5	527	179	31.6	27.0-36.6
Eastern NC	598	155	29.3	24.8-34.2	476	153	29.2	24.6-34.2

*See the Introduction for counties included in the three regions (Western, Piedmont, and Eastern)
**Among those who reported ever having their blood cholesterol checked.

Asthma

Current asthma

- Statewide, an estimated 6.4 percent of the adult population have asthma (current asthma).
- The rate of current asthma among females (8.2%) was significantly higher than that among males (4.5%).
- Across all demographic categories, the highest rate of current asthma was found among 18 to 24 year olds (8.5%).
- An estimated 8 percent of persons from the two lowest income groups (<$25,000) have asthma; those in higher income groups tended to have lower rates of current asthma.

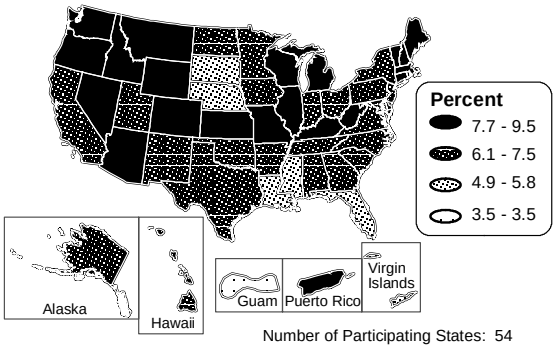
Ever diagnosed with asthma

- 10 percent of NC adults have ever been diagnosed with asthma, based on the 2001 BRFSS sample.
- Females (11.4%) had a somewhat higher asthma-diagnosis rate than males (8.5%).
- The rate was also higher among African Americans (12.3%) than whites (9.7%).
- Across all demographic categories, the highest rate of asthma was found among 18 to 24 year olds (14.8%).
- Adults with high school education or less and household income less than $25,000 were more likely to report being ever diagnosed with asthma than those with higher education levels and household incomes.

Geographical Variation (current asthma)

North Carolina: Forsyth County had the highest prevalence of current asthma (8.0%), while Mecklenburg had the lowest prevalence (5.3%). Of the three regions, both the Piedmont and the Eastern region had higher rates of current asthma than that found in the Western region.
Nationwide: North Carolina (6.4%) ranked in the lower half of the country, or 43rd nationwide, with respect to the prevalence of current asthma. The highest current asthma rate was found in Massachusetts (9.5%); the lowest rate was found in Guam (3.5%).

Figure 6a. Current Asthma
United States, 2001

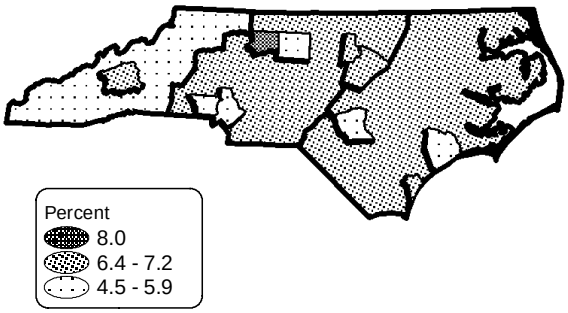


Number of Participating States: 54
(Including Guam, Puerto Rico, Virgin Is. & D.C.)

Source: BRFSS
Not to Scale

Mean: 7.3 Median: 7.3

Figure 6b. Current Asthma
North Carolina, 2001



Source: BRFSS

Mean: 6.1 Median: 6.4

Table 6. Asthma, 2001

	Reported Ever Being Diagnosed with Asthma				Still Have Asthma			
	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.
TOTAL	6201	628	10.1	8.9-11.4	6191	418	6.4	5.5-7.5
GENDER								
Male	2380	199	8.5	6.9-10.6	2376	111	4.5	3.4-5.9
Female	3821	429	11.4	9.9-13.2	3815	307	8.2	6.8-9.8
RACE								
White	4695	457	9.7	8.4-11.2	4687	304	6.2	5.2-7.4
African American	1144	132	12.3	9.3-16.0	1142	91	7.8	5.6-10.9
Other Minorities	264	30	7.9	4.8-12.7	264	15	3.8	1.9-7.7
HISPANIC								
Yes	173	19	8.2	4.0-16.1	173	13	5.9	2.4-13.6
No	6013	609	10.1	9.0-11.5	6003	405	6.4	5.5-7.5
AGE								
18-24	548	73	14.8	10.2-21.0	546	48	8.5	5.3-13.4
25-34	1156	125	10.1	7.7-13.2	1154	82	6.3	4.4-9.0
35-44	1289	118	8.8	6.7-11.4	1287	68	5.3	3.6-7.7
45-54	1133	107	8.7	6.5-11.5	1131	75	5.5	3.9-7.7
55-64	823	96	11.8	9.0-15.4	821	65	7.7	5.4-10.9
65+	1189	101	8.1	6.2-10.6	1189	74	6.2	4.5-8.5
EDUCATION								
Less Than H.S.	832	106	10.5	8.0-13.6	829	81	7.7	5.6-10.4
H.S. or G.E.D.	1858	185	12.5	9.9-15.6	1857	125	7.3	5.4-9.8
Some Post-H.S.	1588	159	8.1	6.5-10.1	1584	99	4.9	3.7-6.4
College Graduate	1891	174	8.4	6.8-10.2	1889	109	5.6	4.3-7.3
HOUSEHOLD INCOME								
Less than $15,000	590	76	11.6	8.2-16.1	588	51	8.0	5.1-12.3
$15,000-24,999	1012	125	12.7	9.4-16.9	1010	93	8.0	5.9-10.9
$25,000-34,999	883	87	7.6	5.5-10.4	881	51	3.9	2.6-5.8
$35,000-49,999	967	93	9.9	7.5-13.1	965	62	6.3	4.5-8.7
$50,000+	1590	138	8.7	6.8-11.2	1588	77	5.1	3.5-7.3
COUNTY/REGION*								
Buncombe	423	46	11.2	8.2-15.3	422	27	6.5	4.2-9.8
Cumberland	429	41	7.5	5.2-10.6	429	25	4.5	2.9-7.0
Durham	400	43	10.8	7.7-14.9	400	28	6.8	4.4-10.2
Forsyth	457	58	12.6	9.4-16.7	454	38	8.0	5.5-11.6
Gaston	467	33	6.8	4.7-9.7	467	25	5.4	3.6-8.2
Guilford	418	40	10.2	6.9-14.8	416	25	5.9	3.6-9.6
Mecklenburg	431	35	7.2	5.0-10.3	431	26	5.3	3.4-8.1
New Hanover	405	41	9.7	7.0-13.5	405	29	6.4	4.3-9.3
Onslow	435	47	10.1	7.3-13.8	433	27	5.5	3.6-8.3
Wake	428	42	9.1	6.4-12.6	428	29	6.5	4.2-9.7
Western NC	618	54	8.3	6.2-11.1	617	35	4.9	3.4-7.0
Piedmont NC	669	74	10.8	8.1-14.2	669	54	6.9	4.9-9.8
Eastern NC	621	74	11.5	8.6-15.2	620	50	7.2	5.0-10.3

*See the Introduction for counties included in the three regions (Western, Piedmont, and Eastern)

Arthritis

Total arthritis

- Approximately one in three adults reported to have arthritic conditions; this includes doctor-diagnosed arthritis and/or the presence of chronic joint symptoms (CJS).
- Females had a substantially higher rate of total arthritis (37.8%) than males (26.7%).
- Whites had a somewhat higher rate (34.1%) of total arthritis than African Americans (30.3%).
- Almost half (48.6%) of those between the ages of 55 and 64 had arthritis; almost 60 percent (57.4%) of those age 65 and older had arthritis.

Doctor-diagnosed arthritis

- 23.3 percent of NC adults have doctor-diagnosed arthritis, which accounts for about 70 percent of total arthritis (CJS comprised the remaining 30%).
- The rate of doctor-diagnosed arthritis was substantially higher among females.
- An estimated half of all persons over 64 years of age have doctor-diagnosed arthritis.
- Those with less than a high school education were more likely to have doctor-diagnosed arthritis than those with higher levels of education.

Activities limited due to joint symptoms (among those who reported any joint symptoms)

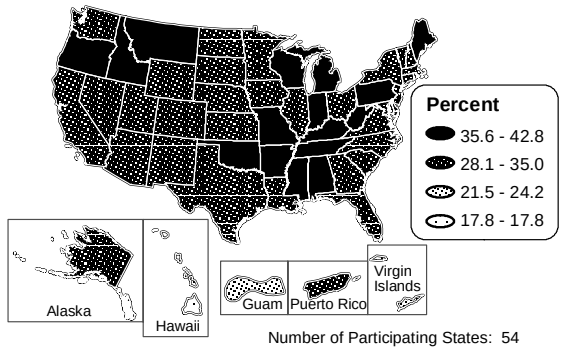
- Approximately, one-third of the adult population with joint symptoms reported activity limitations due to the joint symptoms.
- Females with joint symptoms were far more likely to be limited by joint symptoms than males.
- The difference between whites and African Americans in the percentage with chronic joint symptoms was small.
- For those between the ages of 35 to 54, at least 30 percent reported activity limitations due to joint problems; for those age 55 and older, at least 40 percent reported activity limitations.

Geographical Variation (total arthritis)

North Carolina: Among the counties, Buncombe and Gaston had the highest rates of total arthritis, 34.2 percent and 36.1 percent respectively. Of the three regions, the rate was highest in the Western region (41.6%).
Nationwide: North Carolina (23.3%) ranked in the top half of the country, or 24th nationwide, with respect to the prevalence of total arthritis. The highest rate of arthritis was found in West Virginia (42.8%); the lowest rate was found in Alaska (17.8%).

HP2010 Objective:
Reduce the proportion of adults with joint symptoms who experience a limitation in activity due to arthritis to 20% (NC: 2001=34.1%)

Figure 7a. Total Arthritis Prevalence
United States, 2001

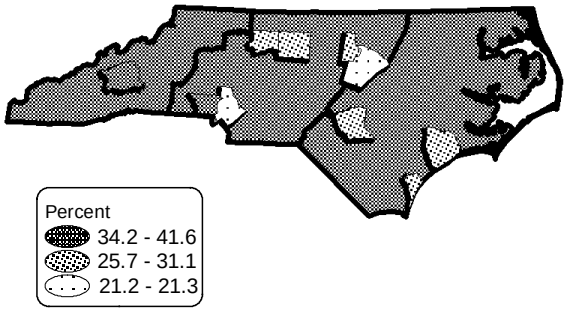


Number of Participating States: 54
(Including Guam, Puerto Rico, Virgin Is. & D.C.)

Source: BRFSS
Not to Scale

Mean: 33.2 Median: 33.1

Figure 7b. Total Arthritis Prevalence
North Carolina, 2001



Source: BRFSS

Mean: 30.3 Median: 30.4

Table 7. Arthritis, 2001

	Total Arthritis				Diagnosed with Arthritis				Activities Limited due to Joint Symptoms**			
	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.
TOTAL	6182	2119	32.5	30.8-34.3	6193	1543	23.3	21.8-24.9	2563	906	34.1	31.3-37.0
GENDER												
Male	2371	673	26.7	24.2-29.4	2380	445	17.4	15.3-19.7	902	276	27.9	23.8-32.4
Female	3811	1446	37.8	35.5-40.1	3813	1098	28.7	26.6-30.9	1661	630	38.8	35.1-42.7
RACE												
White	4679	1646	34.1	32.0-36.1	4689	1197	24.3	22.5-26.1	1985	707	33.5	30.3-36.9
African American	1141	377	30.3	26.5-34.4	1141	275	22.1	18.7-25.8	456	153	35.5	29.2-42.3
Other Minorities	264	70	21.4	15.3-29.2	264	51	15.5	10.6-22.2	84	31	38.2	24.1-54.5
HISPANIC												
Yes	172	40	13.7	8.8-20.9	173	24	8.2	4.6-14.3	59	16	19.8	8.2-40.6
No	5995	2074	33.2	31.4-35.0	6005	1515	23.8	22.3-25.5	2497	888	34.6	31.7-37.5
AGE												
18-24	546	61	12.0	8.0-17.6	547	18	5.1	2.5-10.0	136	18	21.9	10.8-39.3
25-34	1156	161	15.3	12.3-18.9	1157	64	6.3	4.5-8.8	298	66	21.2	15.0-29.2
35-44	1285	325	27.0	23.4-30.9	1287	181	15.0	12.1-18.4	473	141	30.2	24.3-36.9
45-54	1129	435	36.6	32.2-41.3	1131	303	25.1	21.4-29.3	549	194	33.2	26.8-40.4
55-64	823	418	48.6	43.7-53.5	823	342	40.6	35.8-45.5	433	191	42.2	35.7-48.9
65+	1182	700	57.4	53.2-61.4	1186	620	51.0	46.9-55.1	654	290	44.3	38.9-49.9
EDUCATION												
Less Than H.S.	830	465	48.0	42.7-53.3	830	380	38.2	33.4-43.3	437	230	48.3	41.5-55.1
H.S. or G.E.D.	1847	683	34.8	31.6-38.2	1855	495	24.4	21.6-27.5	808	288	33.2	28.3-38.4
Some Post-H.S.	1585	506	30.2	27.0-33.6	1586	365	21.4	18.5-24.6	655	218	31.3	26.3-36.8
College Graduate	1889	453	22.2	19.5-25.2	1890	291	14.2	12.0-16.6	655	167	26.7	21.2-33.0
HOUSEHOLD INCOME												
Less than $15,000	587	293	47.5	41.2-53.8	588	234	35.6	29.9-41.8	298	167	58.3	49.3-66.7
$15,000-24,999	1010	416	38.6	34.0-43.3	1010	312	28.7	24.7-33.0	492	204	41.3	34.9-48.1
$25,000-34,999	880	280	31.1	26.8-35.8	882	198	22.0	18.2-26.4	338	96	28.9	22.4-36.5
$35,000-49,999	964	268	27.4	23.4-31.7	967	175	18.1	14.8-22.0	364	88	18.3	13.5-24.4
$50,000+	1590	402	23.8	20.8-27.1	1590	267	16.5	13.9-19.3	582	147	26.5	20.7-33.3
COUNTY/REGION*												
Buncombe	424	157	34.2	29.3-39.3	424	122	25.2	21.0-29.8	192	72	39.7	32.2-47.8
Cumberland	428	141	26.7	21.7-32.4	429	102	18.7	14.8-23.4	173	62	32.9	25.7-41.1
Durham	398	118	25.7	20.8-31.2	398	79	15.1	11.7-19.4	144	42	24.3	16.8-33.8
Forsyth	454	154	30.4	25.8-35.4	456	115	21.2	17.4-25.6	186	65	28.9	22.4-36.3
Gaston	464	187	36.1	31.4-41.0	467	144	28.0	23.8-32.6	203	79	38.9	31.7-46.6
Guilford	416	130	27.6	23.2-32.6	417	91	18.5	14.9-22.7	153	57	35.6	27.6-44.5
Mecklenburg	430	109	21.3	17.5-25.5	430	70	14.2	11.1-17.9	146	33	22.4	15.9-30.7
New Hanover	404	137	31.1	25.9-36.9	404	99	21.1	16.9-26.0	172	60	34.1	26.8-42.3
Onslow	435	139	27.1	22.3-32.4	435	98	18.4	14.5-22.9	179	67	35.1	27.6-43.4
Wake	427	94	21.2	17.2-25.9	428	56	11.5	8.7-15.0	155	45	29.0	21.5-38.0
Western NC	616	269	41.6	37.4-46.0	616	203	30.3	26.5-34.4	301	117	36.5	30.7-42.7
Piedmont NC	666	247	35.2	31.1-39.7	668	184	26.2	22.5-30.2	292	102	32.8	26.4-39.9
Eastern NC	620	237	35.7	31.3-40.3	621	180	26.6	22.7-30.9	267	105	39.6	32.8-46.8

*See the Introduction for counties included in the three regions (Western, Piedmont, and Eastern)
**Among those who reported any joint symptoms.

No flu shot within the last 12 months

- 69 percent of NC adults age 18 and older reported not having a flu shot in the past 12 months.
- The risk of not having a flu shot in the past 12 months was higher for males than females and higher for African Americans than whites.
- Among Hispanics about 75 percent did not have a recent flu shot.
- The risk of not having a flu shot varied substantially by age, ranging from 81.4 percent among 18 to 24 year olds to 33.9 percent among 65+ year olds.
- No significant differences in rates were observed with respect to education.

Never had a pneumonia vaccination

- Almost 80 percent (78.9 %) of NC adults (age 18+) have never had a pneumonia vaccination (NPV).
- The rate of NPV was fairly similar among males and females.
- 25 to 34 year olds were most at risk for NPV (93.0%).
- Those with more education or higher income were more likely to have never had a pneumonia vaccination.

Geographical Variation (no flu shot age 18+)

North Carolina: The rate of no annual flu shot across the oversampled counties ranged from a low of 63.4 percent in Forsyth to a high of 72.6 percent in Wake. There were no statistically significant differences, however, across the counties.
Nationwide: North Carolina ranked in the top half of the country, or 29th nationwide, with respect to no annual flu shot for 18+ year olds. The highest rate of no annual flu shot was found in Puerto Rico (82.8%); the lowest rate was found in South Dakota (59.1%).

North Carolina Trend

- The statewide trend from 1993 through 2000 indicates a steady decline in percentage of adults, age 18 and older, with no flu shot in the past 12 months.

Table 8a. Percent with No Annual Flu Shot (age 18+) in North Carolina by Year, Race, and Sex

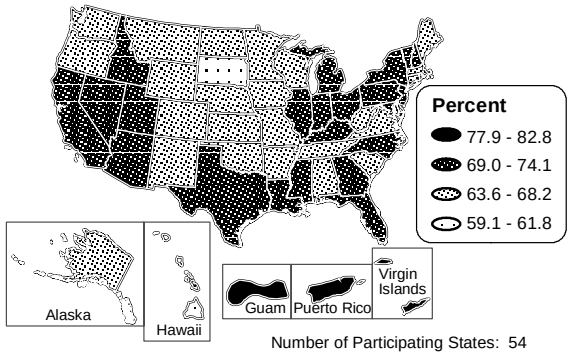
	1993	1994	1995	1996	1997	1998	1999	2000	2001
NC	78.4	*	76.5	*	72.3	*	70.0	67.6	69.0
White	79.0	*	75.6	*	70.9	*	68.9	65.8	67.5
Black	76.5	*	78.6	*	77.0	*	73.0	74.1	73.1
White Male	79.8	*	75.4	*	70.3	*	71.6	68.2	69.8
White Female	78.2	*	75.8	*	71.4	*	66.4	63.5	65.3
Black Male	73.1	*	74.2	*	73.1	*	68.0	71.3	71.6
Black Female	79.3	*	82.3	*	80.4	*	77.0	76.4	74.3
(US)	80.1	72.5	75.6	73.3	71.4	70.1	69.3	68.2	69.9

*Question not asked in these years.

HP2010 Objectives:

1) Increase the percentage of adults 65 years of age or older who are vaccinated annually against influenza to 75% (NC: 1999=64.2%; 2000= 65.3%; 2001= 66.1%).
2) Increase the percentage of adults 65 years of age or older who are ever vaccinated against pneumococcal disease to 75% (NC: 1999=58.5%; 2000= 57.8%; 2001= 65.8%).

Figure 8a. No Flu Shot (Age 18+)
United States, 2001

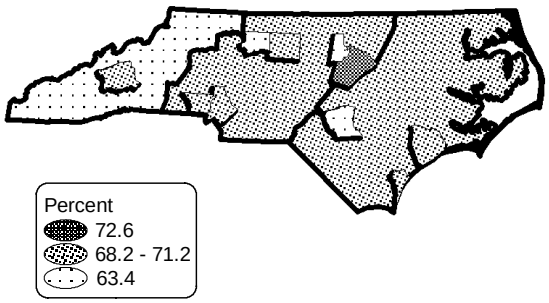


Number of Participating States: 54
(Including Guam, Puerto Rico, Virgin Is. & D.C.)

Source: BRFSS
Not to Scale

Mean: 69.0 Median: 68.2

Figure 8b. No Flu Shot (Age 18+)
North Carolina, 2001



Source: BRFSS

Mean: 68.3 Median: 69.6

Table 8b. Flu and Pneumonia Immunization of NC Adults (Age 18+), 2001

	Did Not Have a Flu Shot in Last 12 Months				Never Had Pneumonia Vaccination			
	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.
TOTAL	6185	4092	69.0	67.2-70.6	6026	4669	78.9	77.3-80.4
GENDER								
Male	2371	1581	70.5	67.8-73.0	2279	1770	79.5	77.1-81.8
Female	3814	2511	67.6	65.4-69.7	3747	2899	78.3	76.3-80.2
RACE								
White	4685	3011	67.5	65.5-69.4	4560	3459	77.6	75.8-79.3
African American	1141	837	73.1	69.1-76.8	1116	913	80.4	76.5-83.9
Other Minorities	262	182	72.6	63.7-80.0	254	217	87.8	80.5-92.6
HISPANIC								
Yes	173	118	74.8	64.6-82.8	169	137	80.6	69.8-88.2
No	5997	3965	68.8	67.0-70.5	5842	4521	78.8	77.3-80.3
AGE								
18-24	540	413	81.4	76.3-85.6	505	443	88.1	83.2-91.7
25-34	1153	932	83.5	80.1-86.4	1116	1040	93.0	90.3-94.9
35-44	1288	1022	79.4	75.8-82.5	1262	1166	91.1	88.2-93.3
45-54	1132	802	73.1	69.0-76.9	1110	968	89.3	86.2-91.8
55-64	822	481	58.5	53.6-63.3	804	606	74.3	69.5-78.6
65+	1188	402	33.9	30.2-37.9	1167	398	34.2	30.4-38.2
EDUCATION								
Less Than H.S.	832	514	65.7	60.7-70.4	813	508	67.5	62.5-72.1
H.S. or G.E.D.	1851	1225	69.6	66.4-72.6	1802	1383	79.2	76.3-81.8
Some Post-H.S.	1582	1066	70.5	67.2-73.7	1543	1206	79.8	76.7-82.6
College Graduate	1888	1269	68.7	65.5-71.8	1837	1549	84.3	81.8-86.6
HOUSEHOLD INCOME								
Less than $15,000	589	370	63.1	56.9-69.0	573	366	67.5	61.3-73.1
$15,000-24,999	1008	643	69.4	65.1-73.4	989	691	71.6	67.2-75.7
$25,000-34,999	881	588	65.8	60.9-70.3	849	673	78.6	74.2-82.4
$35,000-49,999	966	696	74.6	70.6-78.3	946	818	88.4	85.4-90.8
$50,000+	1587	1094	70.6	67.1-73.8	1540	1360	88.5	85.9-90.6
COUNTY/REGION*								
Buncombe	423	284	70.5	65.4-75.1	407	318	79.5	74.5-83.6
Cumberland	427	265	63.7	57.1-69.9	411	309	74.5	67.9-80.2
Durham	400	265	63.6	56.2-70.4	392	314	81.6	76.7-85.8
Forsyth	456	275	63.4	58.2-68.3	446	322	74.9	70.2-79.1
Gaston	467	319	69.2	64.3-73.8	456	342	79.0	74.9-82.6
Guilford	416	281	68.2	62.7-73.2	409	328	82.9	78.7-86.4
Mecklenburg	429	301	70.1	64.9-74.9	421	341	83.7	79.7-87.1
New Hanover	405	270	71.2	65.7-76.0	386	303	81.6	76.8-85.6
Onslow	431	298	70.1	64.3-75.3	419	351	84.8	80.3-88.5
Wake	426	294	72.6	67.7-77.0	412	345	85.0	80.6-88.5
Western NC	619	375	64.4	60.1-68.4	606	431	73.6	69.6-77.2
Piedmont NC	668	449	69.6	65.4-73.5	659	508	79.5	75.8-82.7
Eastern NC	618	416	70.8	66.4-74.9	602	457	76.4	72.1-80.3

*See the Introduction for counties included in the three regions (Western, Piedmont, and Eastern)

Smoking

Current smokers (everyday or some days)

- In 2001, 25.7 percent of NC adults were current smokers, down slightly from the 2000 smoking rate (26.1%).
- Smoking rates were noticeably higher among males (28.6%) than females (23.1%).
- Smoking rates were highest among other minorities (31.0%), followed by whites (26.5%) and African Americans (21.7%).
- The rate of smoking among those with less than a high school education (37.4%) was more than 2½ times the rate among college graduates (13.6%).

Former smokers (smoked at least 100 cigarettes in lifetime and do not currently smoke)

- An estimated 23.8 percent of adults were former smokers.
- A significantly higher percentage of males (28.1%) were reportedly former smokers than females (19.9%).
- By race, other minorities were least likely to be former smokers and whites were most likely to be former smokers.
- Former smoking rates did not vary significantly by education or income.

Did not attempt to quit smoking in the past year (daily smokers only)

- About 44 percent of daily smokers reported that they had *not* attempted to quit smoking in the past 12 months.
- The risk of not attempting to quit smoking was higher among males (48.7%) than females (39.2%).
- More than half of all daily smokers age 55 and older did not attempt to quit smoking in the past year.

Geographical Variation (current smokers)

North Carolina: The smoking rates by county varied from a high of 34.3 percent in Onslow to a low of 18.2 percent in Durham. By regions, smoking rates were highest in the east (30.1%).
Nationwide: The rate of smoking in North Carolina (25.7%) was the 10th highest nationwide. The highest smoking rates were found in Guam (31.2%) and Kentucky (30.9%); the lowest smoking rate was found in the Virgin Islands (9.6%).

North Carolina Trend

- Except for 1991 and 1998, the rate of smoking in North Carolina has remained above 25 percent for the past 12 years.
- Beginning in 1998, African Americans tended to smoke less than whites.

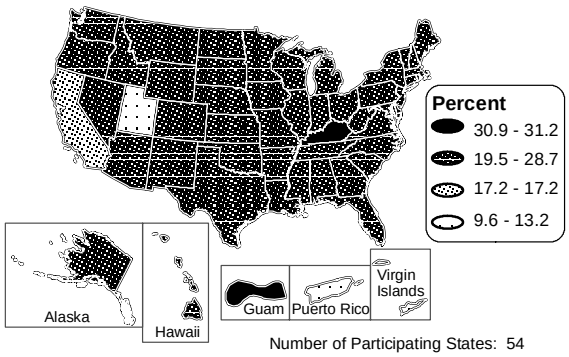
Table 9a. Percent of Current Smokers in North Carolina by Year, Race, and Sex

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
NC	28.0	23.9	26.4	25.9	27.8	25.9	25.7	25.8	24.6	25.1	26.1	25.7
White	29.9	24.0	26.3	26.9	27.4	26.2	25.4	26.2	25.8	25.2	26.9	26.5
Black	21.8	23.3	27.3	22.3	29.3	23.9	27.6	26.3	20.5	24.6	23.8	21.7
White Male	32.6	28.8	29.2	29.5	29.5	30.3	29.3	29.1	27.2	27.8	28.2	29.3
White Female	27.4	19.6	23.6	24.4	25.4	22.5	21.8	23.4	24.5	22.8	25.7	23.8
Black Male	22.6	31.8	37.2	26.1	37.9	28.5	33.8	34.7	28.4	25.8	29.1	22.2
Black Female	21.2	16.7	19.1	19.2	22.3	20.1	22.5	19.3	14.5	23.7	19.4	21.3
(US)	23.5	23.1	22.5	22.7	22.8	22.3	23.3	22.9	22.8	22.5	22.2	22.7

*Question not asked in these years.

HP2010 Objective:
Reduce cigarette smoking among adults to 12% (NC=25.7%). Increase smoking cessation attempts (quit smoking at least one day in the past year) by adult smokers to 75% (NC=55.8%).

Figure 9a. Current Cigarette Smoker
United States, 2001

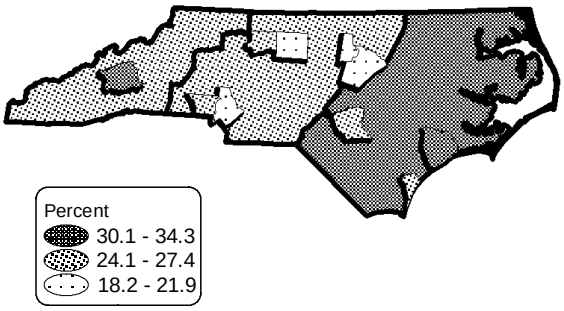


Number of Participating States: 54
(Including Guam, Puerto Rico, Virgin Is. & D.C.)

Source: BRFSS
Not to Scale

Mean: 23.0 Median: 22.9

Figure 9b. Current Cigarette Smoker
North Carolina, 2001



Source: BRFSS

Mean: 25.4 Median: 25.2

Table 9b. Tobacco Use of NC Adults, 2001

	Current Cigarette Smoker				Former Cigarette Smoker			Did not Quit Smoking One Day in the Past Year			
	Total Resp.	N	%	95% C.I.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.
TOTAL	6181	1514	25.7	24.0-27.5	1519	23.8	22.3-25.4	1513	669	44.2	40.3-48.2
GENDER											
Male	2369	659	28.6	25.9-31.4	702	28.1	25.6-30.9	658	320	48.7	43.0-54.4
Female	3812	855	23.1	21.0-25.4	817	19.9	18.1-21.8	855	349	39.2	34.1-44.5
RACE											
White	4685	1172	26.5	24.4-28.6	1257	26.1	24.3-28.1	1172	544	46.6	42.1-51.2
African American	1134	243	21.7	18.3-25.6	204	18.6	15.4-22.3	242	83	30.4	22.9-39.1
Other Minorities	264	79	31.0	23.0-40.4	43	13.8	7.7-23.5	79	36	53.3	37.1-68.7
HISPANIC											
Yes	173	46	26.5	17.5-38.1	30	12.6	7.0-21.5	46	22	58.9	37.0-77.8
No	5993	1467	25.7	24.0-27.6	1486	24.2	22.7-25.9	1466	646	43.7	39.7-47.7
AGE											
18-24	546	173	30.8	24.8-37.5	59	10.2	6.6-15.5	173	57	27.4	18.4-38.8
25-34	1156	298	27.9	24.0-32.1	172	12.5	10.1-15.4	298	118	41.0	32.8-49.8
35-44	1285	385	31.2	27.5-35.2	234	17.0	14.3-20.2	385	176	47.1	39.6-54.8
45-54	1129	320	29.6	25.4-34.1	302	26.7	22.9-31.0	319	153	47.6	39.2-56.1
55-64	822	171	21.0	17.3-25.2	302	37.7	33.0-42.7	171	77	53.5	43.1-63.7
65+	1181	162	13.0	10.4-16.0	435	40.9	36.8-45.0	162	87	56.9	45.3-67.8
EDUCATION											
Less Than H.S.	827	282	37.4	32.3-42.9	214	25.1	20.9-29.8	282	132	45.1	36.4-54.2
H.S. or G.E.D.	1849	552	31.1	27.8-34.5	431	20.7	18.1-23.6	551	238	45.4	38.9-52.1
Some Post-H.S.	1586	416	24.5	21.5-27.7	388	25.3	22.2-28.6	416	174	41.3	34.4-48.5
College Graduate	1887	259	13.6	11.4-16.0	480	25.5	22.7-28.6	259	123	45.2	36.5-54.3
HOUSEHOLD INCOME											
Less than $15,000	584	195	30.1	24.6-36.3	132	21.7	17.0-27.3	195	83	45.5	34.2-57.3
$15,000-24,999	1010	339	33.9	29.5-38.6	210	20.0	16.7-23.9	339	129	34.5	27.4-42.4
$25,000-34,999	882	239	29.3	24.8-34.2	212	22.9	19.1-27.3	238	107	45.8	36.2-55.7
$35,000-49,999	967	252	28.8	24.6-33.3	234	24.3	20.7-28.4	252	130	56.5	47.2-65.3
$50,000+	1585	281	19.5	16.7-22.8	416	25.1	22.1-28.4	281	124	44.5	36.1-53.2
COUNTY/REGION*											
Buncombe	421	117	30.7	25.7-36.2	113	25.2	20.9-30.0	117	46	39.9	30.0-50.7
Cumberland	428	110	26.5	21.0-32.8	84	16.7	13.0-21.2	110	44	40.5	29.1-53.0
Durham	400	76	18.2	14.2-23.0	82	18.7	14.7-23.6	76	32	42.3	30.2-55.4
Forsyth	455	114	24.1	19.9-28.9	110	25.0	20.7-29.8	114	64	58.7	48.2-68.4
Gaston	466	125	27.4	23.0-32.4	106	22.0	18.2-26.4	125	55	40.9	31.5-51.0
Guilford	415	94	21.0	17.1-25.7	101	24.2	19.7-29.3	94	43	45.7	34.8-57.0
Mecklenburg	429	88	19.9	15.9-24.6	105	22.8	18.8-27.4	88	36	39.6	28.9-51.5
New Hanover	405	104	24.5	19.9-29.9	123	30.0	24.8-35.8	104	47	39.6	29.9-50.2
Onslow	435	121	34.3	27.0-42.5	113	25.4	20.6-31.0	120	43	46.5	30.6-63.1
Wake	425	85	21.9	17.4-27.2	106	21.5	17.7-25.9	85	37	39.4	28.0-52.0
Western NC	616	154	26.5	22.7-30.8	154	26.5	22.7-30.7	154	76	48.6	39.7-57.6
Piedmont NC	668	161	25.2	21.2-29.6	181	27.1	23.3-31.4	161	81	50.6	41.3-59.9
Eastern NC	618	165	30.1	25.7-34.8	141	20.6	17.2-24.5	165	65	37.9	29.5-47.1

*See the Introduction for counties included in the three regions (Western, Piedmont, and Eastern)

Other Smoking Indicators

Age when took first puff of a cigarette

- Among smokers, 15 is about the average age that North Carolinians recall taking their first puff of a cigarette.
- Females wait longer than males to take their first puff.
- The average age for African Americans (16.7 yrs.), who recall taking their first puff, is significantly older than that of whites (15.0 yrs.).

Age started smoking regularly

- Among smokers, 18 is about the average age that North Carolinians begin smoking regularly.
- The average age for smoking regularly among females was 19.0 years, compared to 17.7 years for males.
- The average age for smoking regularly was significantly older for African Americans (19.5 yrs.) than whites (18.1 yrs.).
- Those with less than a high school education begin smoking regularly at about 17 years, compared to about 19 years for college graduates.

Not advised by health professional to quit smoking or did not visit health professional in past year

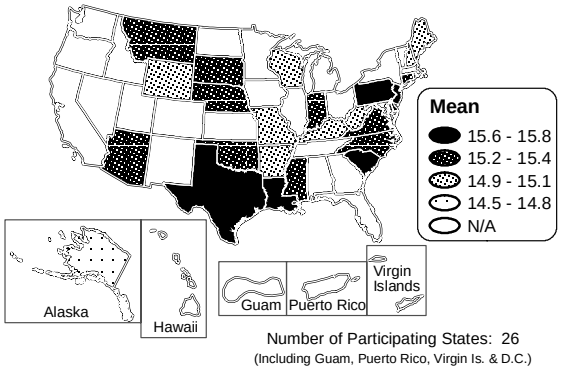
- Among current smokers, or those who smoked regularly in the past year, 51.9 percent reported that they were not advised to quit or did not visit a health professional in the past year.
- The rate of not being advised to quit or no health visit was higher among male smokers than female smokers.
- The rate of not being advised to quit or no health visit among African American smokers (66.1%) was substantially higher than that among whites (47.5%).

Geographical Variation (average age of first cigarette puff)

North Carolina: The average age of first taking a puff from a cigarette varied from 14.9 years in Buncombe and Gaston counties to 16.4 years in Guilford County.
Nationwide: The average age of smoking in North Carolina (15.2 years) ranked near the middle (11th) of the 27 participating states. The oldest average age was 15.8 years in Louisiana and the youngest was 14.8 years in Alaska.

Participating States: *Alaska, Arizona, Arkansas, Connecticut, Delaware, Indiana, Kentucky, Louisiana, Maine, Mississippi, Missouri, Montana, Nebraska, New Hampshire, New Jersey, North Carolina, Oklahoma, Pennsylvania, Rhode Island, South Carolina, South Dakota, Texas, Virginia, West Virginia, Wisconsin, and Wyoming.*

Figure 10a. Mean Age First Puff of Cigarette
United States, 2001

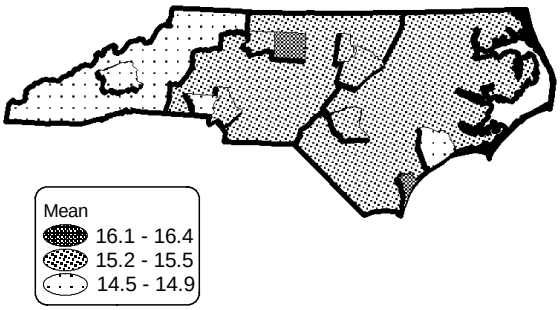


Number of Participating States: 26
(Including Guam, Puerto Rico, Virgin Is. & D.C.)

Source: BRFSS
Not to Scale

Mean: 15.3 Median: 15.3

Figure 10b. Mean Age First Puff of Cigarette
North Carolina, 2001



Source: BRFSS

Mean: 15.3 Median: 15.25

Table 10. Other Smoking Indicators for NC Adult Smokers, 2001

	Age Took the First Puff			Age Started Smoking Regularly			Received No Advice to Quit Smoking or Did not Visit Health Professional Last Year			
	Total Resp.	Mean	95% C.I.	Total Resp.	Mean	95% C.I.	Total Resp.	N	%	95% C.I.
TOTAL	1446	15.2	14.8-15.6	1374	18.2	17.9-18.6	828	395	51.9	46.6-57.2
GENDER										
Male	654	14.3	13.8-14.8	628	17.7	17.2-18.1	357	202	57.1	49.3-64.6
Female	792	16.3	15.7-16.9	746	19.0	18.4-19.6	471	193	46.2	39.0-53.5
RACE										
White	1149	15.0	14.6-15.4	1091	18.1	17.7-18.5	640	292	47.5	41.5-53.7
African American	215	16.7	15.6-17.8	207	19.5	18.6-20.5	134	74	66.1	53.9-76.4
Other Minorities	69	13.8	12.2-15.4	61	17.2	15.6-18.8	43	26	67.1	47.1-82.4
HISPANIC										
Yes	36	15.7	14.5-17.0	34	19.3	18.0-20.6	19	12	72.4	44.7-89.5
No	1409	15.2	14.8-15.6	1339	18.2	17.9-18.6	808	383	51.4	46.0-56.8
AGE										
18-24	118	14.1	13.0-15.3	110	17.0	16.3-17.7	96	52	54.9	37.8-70.9
25-34	228	14.8	14.1-15.6	211	17.7	16.9-18.5	161	90	66.2	55.6-75.4
35-44	302	14.9	14.2-15.6	298	18.0	17.4-18.7	208	109	58.3	48.6-67.5
45-54	299	15.0	14.4-15.6	284	18.1	17.5-18.7	177	80	40.2	29.6-51.8
55-64	213	15.1	14.2-16.0	204	18.6	17.8-19.4	96	35	44.5	30.8-59.0
65+	276	17.0	15.8-18.3	259	19.7	18.4-20.9	86	28	33.0	20.0-49.3
EDUCATION										
Less Than H.S.	227	14.5	13.5-15.4	216	17.3	16.4-18.2	152	76	61.6	50.2-71.8
H.S. or G.E.D.	457	15.3	14.7-16.0	443	18.2	17.7-18.7	288	136	48.7	39.6-57.9
Some Post-H.S.	394	15.2	14.5-16.0	369	18.4	17.6-19.1	225	103	46.5	36.8-56.5
College Graduate	364	15.8	15.0-16.6	342	19.1	18.3-19.8	162	80	53.4	42.4-64.1
HOUSEHOLD INCOME										
Less than $15,000	148	14.8	13.6-16.0	140	17.9	16.7-19.1	100	41	50.5	34.5-66.4
$15,000-24,999	263	15.9	14.9-16.8	250	18.5	17.7-19.3	182	86	56.5	45.4-67.0
$25,000-34,999	232	15.4	14.2-16.5	225	18.2	17.1-19.2	139	67	53.1	41.5-64.4
$35,000-49,999	251	15.1	14.4-15.8	242	18.1	17.5-18.7	147	75	54.8	42.4-66.6
$50,000+	336	15.1	14.4-15.8	311	18.7	18.0-19.4	158	72	44.2	32.7-56.4
COUNTY/REGION*										
Buncombe	106	14.9	14.1-15.8	103	18.2	17.0-19.4	60	30	58.1	42.9-71.9
Cumberland	86	15.3	14.3-16.2	82	17.9	17.3-18.5	52	21	49.8	36.5-63.0
Durham	75	15.5	14.4-16.6	67	18.2	17.0-19.4	42	21	51.1	33.5-68.4
Forsyth	97	15.3	14.4-16.3	90	18.7	17.7-19.8	59	22	36.1	23.6-50.7
Gaston	113	14.9	13.9-15.9	105	18.0	16.7-19.2	78	34	50.3	37.6-63.0
Guilford	85	16.4	15.3-17.4	81	19.8	18.5-21.0	44	26	59.4	43.2-73.8
Mecklenburg	99	15.4	14.6-16.1	94	18.3	17.5-19.2	47	20	40.8	25.9-57.6
New Hanover	107	16.1	15.0-17.1	98	18.8	17.7-19.8	58	25	44.7	31.4-58.9
Onslow	115	14.7	13.8-15.7	114	18.2	17.4-19.0	80	41	53.6	36.3-70.1
Wake	89	15.2	14.3-16.1	85	18.3	17.5-19.1	50	33	69.3	53.6-81.5
Western NC	153	14.5	13.6-15.4	150	17.6	16.9-18.3	85	33	42.3	30.5-55.0
Piedmont NC	176	15.3	14.3-16.2	162	18.0	17.2-18.9	79	41	53.8	40.2-66.9
Eastern NC	145	15.3	14.3-16.2	143	18.5	17.7-19.4	94	48	52.5	40.8-63.9

*See the Introduction for counties included in the three regions (Western, Piedmont, and Eastern)

Smoking allowed in the home or no rules about home-smoking

- 37.9 percent of NC adults permit smoking in the home or have no rules about it.
- There were no noticeable differences between males and females or between whites and African Americans about smoking being allowed in the home.
- By educational status, those with the lowest education (< H.S.) were most likely to permit smoking in the home or have no rules about it (56.9%) – significantly higher than other educational groups.

Smoking allowed at work in public areas

- Among those who work indoors most of the time, 23.8 percent of North Carolinians (down slightly from 24.9% in 2000) reported that smoking was allowed in some or all public/common areas, such as lobbies or lunch rooms.
- Males (28.9%) were more likely to work in places where smoking was permitted in public areas than females (19.5%).
- Persons of lower education were more likely to be in work environments that permitted smoking in public areas.

Smoking allowed at work in work areas

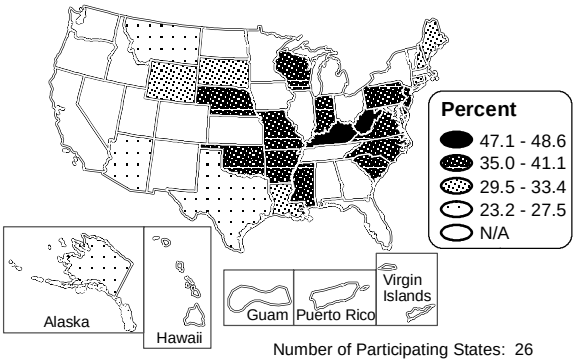
- Among those who work indoors most of the time, 13.3 percent of North Carolinians reported that smoking was allowed in some or all work areas, or that there were no official smoking policies (down from 16.1% in 2000).
- Males (17.1%) were more likely than females (10.0%) to report that smoking was permitted in work areas.

Geographical Variation (smoking allowed at home or no rules)

North Carolina: Allowing in-home smoking was highest among Forsyth residents and lowest among Wake residents. Caution must be exercised, however, when interpreting these results given the small county sample sizes (N~200).
Nationwide: Smoking allowed at home or having no rules was the highest in Kentucky and lowest in Alaska among the 26 participating states. North Carolina ranked 16th among the 26 participating states.

Participating States: *Alaska, Arizona, Arkansas, Connecticut, Delaware, Indiana, Kentucky, Louisiana, Maine, Mississippi, Missouri, Montana, Nebraska, New Hampshire, New Jersey, North Carolina, Oklahoma, Pennsylvania, Rhode Island, South Carolina, South Dakota, Texas, Virginia, West Virginia, Wisconsin, and Wyoming.*

Figure 11a. Smoking Allowed in Home
United States, 2001

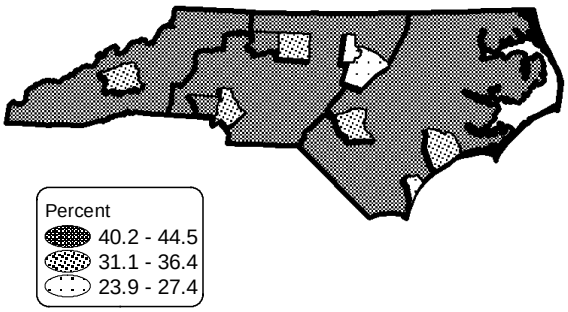


Number of Participating States: 26
(Including Guam, Puerto Rico, Virgin Is. & D.C.)

Source: BRFSS
Not to Scale

Mean: 35.2 Median: 36.1

Figure 11b. Smoking Allowed in Home
North Carolina, 2001



Source: BRFSS

Mean: 34.7 Median: 34.2

Table 11. Exposure to Tobacco Smoke of NC Adults, 2001

	Smoking Allowed at Home or No Rules				Smoking Allowed at Work in Public Areas or No Official Policy				Smoking Allowed at Work in Work Areas or No Official Policy			
	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.
TOTAL	2930	1039	37.9	35.2-40.6	1535	302	23.8	20.5-27.5	1534	168	13.3	10.7-16.4
GENDER												
Male	1145	430	37.5	33.5-41.6	578	135	28.9	23.6-34.9	576	80	17.1	12.8-22.5
Female	1785	609	38.2	34.7-41.9	957	167	19.5	15.7-24.0	958	88	10.0	7.2-13.7
RACE												
White	2209	769	37.1	34.1-40.2	1150	230	24.2	20.4-28.5	1149	133	14.2	11.1-17.9
African American	544	207	38.7	32.7-45.2	282	54	23.0	16.1-31.7	282	23	8.0	4.2-14.9
Other Minorities	135	46	43.0	30.5-56.5	80	16	23.9	12.4-41.0	80	11	17.5	8.1-33.8
HISPANIC												
Yes	78	23	35.0	21.1-52.0	45	7	18.8	7.3-40.5	45	5	15.3	5.0-38.2
No	2847	1014	37.9	35.2-40.7	1488	295	24.1	20.7-27.8	1487	163	13.2	10.6-16.4
AGE												
18-24	262	78	31.8	23.6-41.4	147	36	29.9	19.3-43.2	147	22	16.6	8.7-29.5
25-34	537	146	32.1	26.2-38.7	375	76	22.6	16.5-30.1	375	41	12.7	8.1-19.4
35-44	621	210	37.3	31.8-43.1	436	91	25.6	19.8-32.3	435	50	15.0	10.3-21.3
45-54	559	227	43.1	36.9-49.4	373	70	25.7	18.8-33.9	373	44	15.2	10.0-22.4
55-64	366	149	42.0	34.9-49.4	151	21	12.7	7.0-21.9	151	6	2.0	0.8-5.0
65+	559	222	40.9	35.0-47.0	35	5	13.3	3.6-38.8	35	5	13.3	3.6-38.8
EDUCATION												
Less Than H.S.	382	214	56.9	49.3-64.2	97	33	35.6	22.5-51.2	97	20	24.5	13.1-41.3
H.S. or G.E.D.	844	348	43.6	38.5-48.8	401	90	25.8	19.6-33.2	400	48	11.8	7.7-17.7
Some Post-H.S.	771	258	36.3	31.4-41.6	397	93	28.3	21.9-35.6	398	55	16.5	11.5-23.1
College Graduate	923	216	21.4	17.9-25.5	638	85	15.9	11.9-21.1	637	45	9.4	6.2-14.1
HOUSEHOLD INCOME												
Less than $15,000	265	145	51.4	41.9-60.7	64	19	35.8	18.5-57.6	64	11	23.9	9.2-49.4
$15,000-24,999	478	227	51.2	44.2-58.1	205	52	25.1	16.7-35.9	205	26	11.7	6.1-21.5
$25,000-34,999	440	146	37.5	31.1-44.4	226	51	27.5	19.5-37.3	226	33	16.6	10.4-25.3
$35,000-49,999	468	162	37.5	31.2-44.3	286	55	27.9	20.0-37.6	287	34	16.4	10.5-24.9
$50,000+	756	186	25.7	21.4-30.6	560	85	17.0	12.8-22.2	558	44	8.3	5.6-12.2
COUNTY/REGION*												
Buncombe	207	69	31.1	24.2-38.9	108	17	13.7	8.3-21.8	108	9	8.3	4.2-15.9
Cumberland	196	59	31.1	24.6-38.5	91	10	9.1	4.4-17.7	91	6	4.5	1.9-10.3
Durham	201	58	24.9	18.6-32.5	111	14	10.0	5.2-18.3	111	7	4.0	1.8-8.6
Forsyth	214	94	44.5	37.1-52.0	110	29	24.9	17.3-34.6	110	16	13.4	8.1-21.5
Gaston	226	92	40.2	33.1-47.7	111	24	19.6	13.0-28.5	112	18	14.7	9.1-22.9
Guilford	180	63	36.4	28.8-44.7	103	21	18.3	11.6-27.6	103	12	11.1	5.9-19.7
Mecklenburg	204	63	31.3	24.4-39.2	123	17	14.6	8.8-23.3	123	6	7.5	3.3-16.1
New Hanover	190	55	27.4	21.1-34.9	100	11	24.9	9.9-49.8	100	7	18.9	5.5-48.5
Onslow	207	71	34.2	25.1-44.7	114	19	16.2	9.9-25.3	114	14	13.1	7.4-22.1
Wake	196	46	23.9	17.3-32.0	134	25	19.7	13.1-28.6	134	13	8.3	4.7-14.3
Western NC	292	122	41.8	35.5-48.3	130	38	34.6	25.4-45.0	130	17	12.8	7.7-20.5
Piedmont NC	309	123	40.2	33.9-46.9	160	40	25.3	17.9-34.4	158	20	12.8	7.6-20.6
Eastern NC	308	124	43.8	37.2-50.6	140	37	29.7	21.3-39.7	140	23	21.5	14.1-31.4

*See the Introduction for counties included in the three regions (Western, Piedmont, and Eastern)

Other Tobacco Products

Ever used cigar, pipe tobacco, or bidi

- About 41 percent of NC adults reported ever using other tobacco products such as a cigar or pipe tobacco.
- A substantial difference in the use of other tobacco products exists between males and females, 67.5 percent and 17.4 percent respectively.
- Whites were more likely to ever use other tobacco products than African Americans.
- Those in the highest income group (45.0%) were more likely to use other tobacco products than those in the lowest income group (36.2%).

Currently uses cigar, pipe tobacco, or bidi

- About 6 percent of NC adults currently smoke cigars, pipe tobacco, or bidis.
- The rate of current use of these tobacco products was 11.9 percent among males and 1.0 percent among females.
- Other minorities were more likely to currently use other tobacco products than whites or African Americans.
- Current use of other tobacco products was highest among those with less than a high school education.

Currently uses smokeless tobacco (e.g., chewing tobacco)

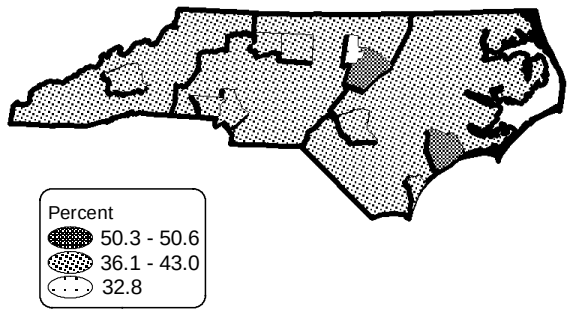
- About 5 percent of NC adults currently use smokeless tobacco products.
- Smokeless tobacco use among males was 9.5 percent, compared to less than one percent among females.
- By income, the rate of smokeless tobacco use was highest among households with annual incomes of $35,000 to $49,999.

Geographical Variation (other tobacco products)

North Carolina: The report of ever using other tobacco products (cigar, pipe) was highest among Wake residents (50.6%) and lowest among Durham residents (32.8%). Current use of other tobacco products was highest in Cumberland County (8.9%) and lowest in Durham County (4.6%). By region, use of other tobacco products and smokeless tobacco was highest in the west.

HP2010 Objective:
Reduce cigar smoking among adults to 1.2%.

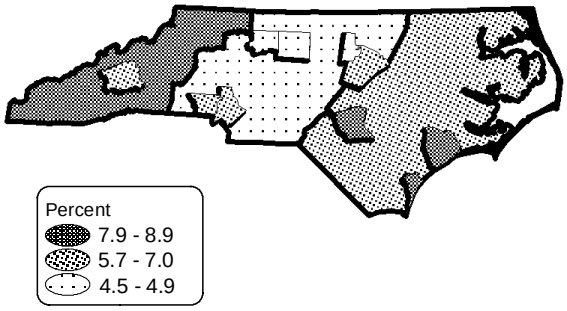
Figure 12a. Ever Used Pipe, Cigar, or Bidi
North Carolina, 2001



Source: BRFSS

Mean: 40.1 Median: 38

Figure 12b. Currently Uses Pipe, Cigar, or Bidi
North Carolina, 2001



Source: BRFSS

Mean: 6.5 Median: 6.1

Table 12. Other Tobacco Products Use of NC Adults, 2001

	Ever Used Cigar, Tobacco in Pipe, or Bidi				Currently Uses Cigar, Tobacco in Pipe, or Bidi				Currently Uses Smokeless Tobacco			
	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.
TOTAL	3084	1093	41.2	38.5-43.9	3071	165	6.2	5.0-7.6	3091	117	4.9	3.9-6.2
GENDER												
Male	1190	778	67.5	63.5-71.2	1180	146	11.9	9.5-14.8	1192	99	9.5	7.4-12.1
Female	1894	315	17.4	14.8-20.3	1891	19	1.0	0.6-1.8	1899	18	0.8	0.4-1.3
RACE												
White	2322	875	43.7	40.6-46.8	2310	131	6.1	4.8-7.8	2329	90	5.3	4.0-6.9
African American	566	155	33.3	27.3-40.0	565	18	4.2	2.2-7.8	566	18	4.2	2.3-7.8
Other Minorities	150	52	40.9	29.0-54.0	150	13	13.3	6.8-24.5	150	6	2.7	1.1-6.4
HISPANIC												
Yes	88	30	30.5	19.6-44.1	88	6	6.1	2.3-15.4	88	5	2.2	0.9-5.7
No	2990	1062	41.6	38.9-44.4	2977	158	6.2	4.9-7.7	2997	111	5.0	3.9-6.3
AGE												
18-24	284	126	47.6	38.4-56.9	282	32	8.8	5.6-13.6	284	11	3.4	1.5-7.2
25-34	568	216	43.7	37.5-50.1	567	35	7.8	4.8-12.6	568	34	7.8	5.0-12.0
35-44	650	247	44.0	38.5-49.7	647	41	8.4	5.6-12.6	651	20	4.9	2.8-8.5
45-54	582	211	44.8	38.7-51.1	578	32	7.6	4.7-12.0	584	16	4.2	2.2-7.7
55-64	385	126	35.5	28.9-42.7	383	15	3.2	1.5-6.6	386	15	5.7	2.9-11.1
65+	587	162	30.9	25.5-36.9	586	9	0.6	0.3-1.3	589	21	3.4	2.0-5.7
EDUCATION												
Less Than H.S.	402	138	38.9	31.9-46.4	401	26	9.4	5.7-15.0	403	30	9.1	5.8-14.1
H.S. or G.E.D.	889	288	39.4	34.3-44.7	887	38	4.0	2.5-6.2	891	44	4.7	3.2-7.0
Some Post-H.S.	804	289	41.0	36.0-46.2	800	50	7.8	5.3-11.4	806	21	4.9	2.9-8.1
College Graduate	979	377	44.9	40.3-49.6	973	51	5.5	3.7-8.0	981	22	2.7	1.5-5.0
HOUSEHOLD INCOME												
Less than $15,000	282	96	36.2	27.6-45.7	281	11	5.0	2.0-11.9	282	11	2.4	1.1-5.4
$15,000-24,999	491	171	44.3	37.4-51.5	489	22	6.1	3.5-10.4	493	25	5.4	3.2-9.0
$25,000-34,999	473	162	41.1	34.8-47.7	472	26	7.0	4.3-11.2	474	19	4.8	2.7-8.6
$35,000-49,999	487	187	46.8	40.3-53.3	487	31	8.1	4.8-13.5	488	26	9.6	6.0-14.9
$50,000+	802	312	45.0	39.8-50.3	796	50	6.3	4.2-9.4	805	18	4.0	2.2-6.9
COUNTY/REGION*												
Buncombe	212	72	38.9	31.3-47.0	210	8	6.1	2.6-13.7	212	7	4.5	2.1-9.5
Cumberland	209	73	38.0	30.1-46.5	208	16	8.9	5.3-14.4	209	8	4.1	1.9-8.6
Durham	211	62	32.8	25.2-41.5	210	7	4.6	1.8-10.9	211	2	0.6	0.1-2.3
Forsyth	233	75	36.7	29.8-44.1	231	11	4.9	2.6-8.9	233	2	1.0	0.2-4.3
Gaston	234	74	36.8	29.8-44.3	234	14	7.0	4.0-11.9	236	9	6.6	3.3-12.8
Guilford	194	65	36.1	28.7-44.2	193	9	4.9	2.5-9.5	195	7	4.5	1.9-10.3
Mecklenburg	213	74	37.4	30.3-45.1	212	10	5.7	2.8-11.2	213	4	2.2	0.8-6.0
New Hanover	195	66	37.5	28.9-47.0	194	11	7.9	4.2-14.3	197	7	3.9	1.7-8.4
Onslow	216	94	50.3	40.8-59.8	216	16	8.5	4.9-14.2	216	15	7.7	4.3-13.4
Wake	207	95	50.6	42.6-58.5	207	12	5.8	3.1-10.4	208	4	2.3	0.8-6.1
Western NC	310	115	43.0	36.7-49.4	309	19	8.8	5.4-14.0	311	17	8.4	5.1-13.6
Piedmont NC	324	116	42.2	35.7-49.0	323	14	4.5	2.4-8.1	324	22	7.1	4.5-11.0
Eastern NC	326	112	40.6	34.3-47.3	324	18	7.0	4.1-11.5	326	13	3.6	1.9-6.6

*See the Introduction for counties included in the three regions (Western, Piedmont, and Eastern)

Substance Abuse

Ever received counseling for substance abuse

- About 5 percent of NC adults reported that they have ever received counseling for substance abuse including alcohol.
- The rate for ever receiving counseling was 8.1 percent for males and 2.6 percent for females – a significant difference.
- African Americans received counseling for substance abuse at a higher rate than whites.
- By age group, the highest rate for receiving counseling was among 45 to 54 year olds.
- By income, the highest rate for receiving counseling was among the $15,000 to $24,999 income group.

Arrested for driving while impaired in the past 5 years

- Two percent of NC adults reported being arrested in the past 5 years for driving while impaired.[2]
- The arrest rate for males (4.0%) was substantially higher than the arrest rate for females (0.3%).
- There was no substantial difference in the arrest rates between African Americans and whites.
- By age group, the highest arrest rate (4.5%) was found among 25 to 34 year olds.
- By income, the highest arrest rate was found among the $15,000 to $24,999 income group, which also had the highest rate for receiving substance abuse counseling.

Family member ever received treatment for substance abuse

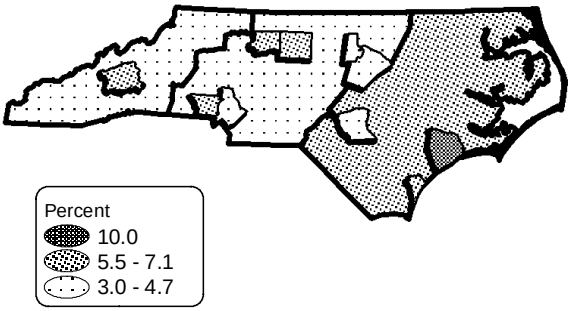
- About 14 percent of NC adults reported that a close family member has ever received treatment for a substance abuse problem.
- African Americans were somewhat more likely than whites to report that a close family member ever received treatment.
- Those in the highest income group ($50,000+) were most likely to report that a family received treatment, compared to other income groups.

Geographical Variation (ever received counseling/treatment)

North Carolina: The report of ever receiving counseling for a substance abuse problem was highest among Onslow residents (10.0%) and lowest among Durham residents (3.0%). Similarly, almost 20 percent of Onslow residents reported that a close family member has ever received treatment for substance abuse, the highest rate of any of the over-sampled counties. With respect to regional variation, the receipt of substance abuse counseling or having a family member receive treatment was somewhat higher in the Eastern region.

[2] The effect of social desirability is likely to result in a bias for this indicator, i.e., the arrest rate is likely to be under-reported.

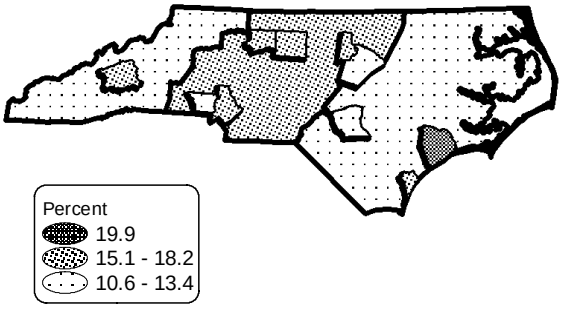
Figure 13a. Received Counseling for Substance Abuse North Carolina, 2001



Source: BRFSS

Mean: 5.5 Median: 5.5

Figure 13b. Family Member Received Counseling for Substance Abuse, North Carolina, 2001



Source: BRFSS

Mean: 15.0 Median: 15.3

Table 13. Substance Abuse of NC Adults, 2001

	Received Counseling for Substance Abuse Including Alcohol				Family Member Received Treatment for Substance Abuse				Arrested for Driving While Impaired in the Past 5 Years			
	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.
TOTAL	5958	279	5.2	4.4-6.2	5905	868	14.2	12.8-15.7	5967	101	2.1	1.6-2.7
GENDER												
Male	2285	175	8.1	6.5-10.0	2257	282	12.5	10.6-14.8	2287	80	4.0	2.9-5.4
Female	3673	104	2.6	1.9-3.7	3648	586	15.7	13.8-17.9	3680	21	0.3	0.2-0.6
RACE												
White	4537	199	4.6	3.7-5.6	4505	623	13.7	12.1-15.5	4541	70	1.7	1.2-2.4
African American	1081	62	6.8	4.7-9.8	1062	191	16.2	13.3-19.6	1082	22	2.2	1.3-3.9
Other Minorities	254	14	8.2	3.9-16.7	252	41	13.5	8.6-20.7	257	8	5.7	2.2-13.5
HISPANIC												
Yes	168	3	1.7	0.4-6.1	166	13	9.4	4.5-18.6	168	5	5.4	1.7-15.6
No	5776	276	5.4	4.5-6.4	5725	853	14.4	13.0-16.0	5785	96	2.0	1.5-2.6
AGE												
18-24	532	38	5.5	3.4-8.8	525	112	17.6	13.3-23.0	532	19	3.0	1.7-5.6
25-34	1114	61	7.3	5.0-10.3	1103	204	17.8	14.6-21.7	1113	30	4.5	2.8-7.3
35-44	1239	72	5.7	3.9-8.3	1232	200	16.5	13.6-19.9	1240	21	1.0	0.6-1.8
45-54	1100	63	6.9	4.8-10.0	1093	169	15.3	11.2-20.6	1103	18	2.6	1.4-4.9
55-64	788	22	3.1	1.6-6.0	782	96	11.4	8.7-15.0	789	10	0.6	0.3-1.4
65+	1134	23	2.2	1.3-3.8	1120	81	5.6	4.2-7.5	1139	3	0.5	0.1-1.8
EDUCATION												
Less Than H.S.	780	61	10.1	7.0-14.4	762	91	10.4	7.8-13.8	785	23	3.4	1.9-6.0
H.S. or G.E.D.	1776	85	4.4	3.2-6.0	1760	242	14.3	11.8-17.0	1777	35	2.0	1.2-3.2
Some Post-H.S.	1540	83	6.3	4.6-8.7	1532	284	17.3	14.7-20.3	1543	27	2.6	1.5-4.7
College Graduate	1843	49	2.5	1.6-3.8	1832	250	13.7	11.0-17.0	1843	16	0.9	0.5-1.7
HOUSEHOLD INCOME												
Less than $15,000	562	49	10.2	6.2-16.2	555	76	10.3	7.3-14.3	562	21	2.5	1.4-4.3
$15,000-24,999	973	80	10.5	7.7-14.2	968	172	16.3	13.1-20.1	975	26	4.4	2.5-7.5
$25,000-34,999	863	47	5.3	3.5-8.0	854	147	16.2	12.9-20.1	862	14	1.5	0.8-2.9
$35,000-49,999	943	35	3.8	2.3-6.3	934	137	12.9	10.1-16.5	942	13	2.6	1.2-5.3
$50,000+	1558	42	2.9	1.9-4.5	1550	240	17.0	13.8-20.8	1557	16	0.9	0.5-1.6
COUNTY/REGION*												
Buncombe	407	20	5.5	3.2-9.4	402	63	16.8	12.8-21.6	408	9	2.4	1.1-4.8
Cumberland	416	19	3.7	2.2-6.2	411	53	12.6	8.8-17.9	417	10	2.4	1.2-5.0
Durham	386	13	3.0	1.6-5.7	384	63	18.2	12.8-25.2	387	3	1.1	0.3-3.8
Forsyth	444	22	6.7	4.2-10.4	438	65	15.1	11.7-19.3	444	8	2.5	1.2-5.5
Gaston	444	22	6.1	3.9-9.4	440	61	13.4	10.2-17.5	445	11	3.3	1.8-6.2
Guilford	394	21	5.9	3.7-9.4	390	66	15.8	12.1-20.4	394	9	3.4	1.7-6.9
Mecklenburg	417	17	3.4	2.0-5.5	410	62	15.3	11.7-19.9	419	5	1.5	0.6-3.7
New Hanover	390	21	7.1	4.3-11.4	384	75	17.2	13.3-21.8	391	4	1.9	0.6-5.7
Onslow	420	29	10.0	5.2-18.5	416	65	19.9	13.8-27.7	420	6	1.0	0.4-2.4
Wake	409	17	4.6	2.8-7.7	407	49	10.6	7.7-14.3	409	7	1.9	0.8-4.2
Western NC	598	22	4.7	2.9-7.5	595	69	11.6	8.9-14.9	599	11	2.7	1.3-5.4
Piedmont NC	642	25	4.5	2.9-7.0	641	96	15.8	12.3-20.0	642	6	1.1	0.5-2.6
Eastern NC	591	31	6.7	4.4-10.1	587	81	13.0	10.1-16.6	592	12	2.8	1.5-5.4

*See the Introduction for counties included in the three regions (Western, Piedmont, and Eastern)

Alcohol Consumption

Binge drinking in past 30 days

- Binge drinking among males (15.6%) was at least three times higher than that of females (4.5%).
- Among 18 to 24 year olds, binge drinking was 19 percent; for 25 to 34 year olds the rate was 17 percent. Older people had lower binge drinking rates.
- Binge drinking was least likely to occur among the lowest educated.

Heavy drinking in past 30 days

- About 4 percent of NC adults met the definition for heavy drinking: at least 2 drinks for males or 1 drink for females every day out of the past 30 days.
- Heavy drinking was highest among 18 to 24 year olds (7.2%), males (5.3%), and those with a post high school education (5.3%).

Drank alcohol in past 30 days

- About 42 percent of NC adults reported drinking alcohol in past 30 days.
- About 52 percent of males and about 33 percent of females drank alcohol in past month.
- African Americans (30.5%) were less likely to drink alcohol than whites (44.5%).
- The rate of drinking in the past 30 days among 18 to 34 year olds was more than 50 percent.
- Those with the highest level of education or highest household income were significantly more likely than others to report drinking in the past month.

Geographical Variation (binge drinking in past 30 days)

North Carolina: Binge drinking ranged from a high of 16.7 percent in New Hanover County to a low 8.5 percent in Forsyth. The three regions, which consisted mainly of rural counties, tended to have lower binge drinking rates than the oversampled (more urban) counties.
Nationwide: Nationally, North Carolina ranked 47th in binge drinking, one of the lowest rates in the country. The highest rate of binge drinking was found in Wisconsin (25.6%); the lowest rate was found in Tennessee (6.8%).

North Carolina Trend

- The rates for binge drinking peaked in 1999 at 20 percent for white males and 15.3 percent for African American males.

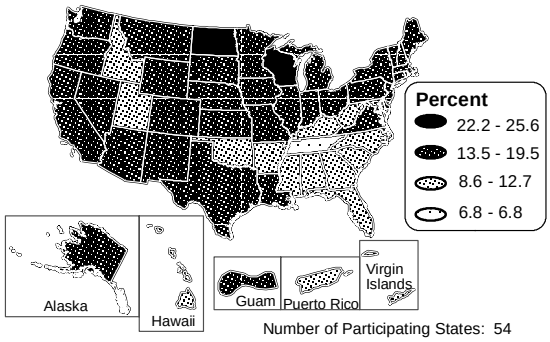
Table 14a. Percent of Binge Drinkers in North Carolina by Year, Race and Sex

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
NC	9.1	7.6	8.4	8.2	*	5.8	*	9.0	*	12.0	*	9.8
White	9.6	7.5	9.0	8.7	*	6.1	*	9.5	*	12.8	*	10.4
Black	6.8	7.1	6.1	5.9	*	4.3	*	7.7	*	8.2	*	6.4
White Male	16.3	12.5	15.2	14.5	*	10.0	*	16.4	*	20.0	*	16.6
White Female	3.5	2.9	3.2	3.3	*	2.4	*	3.2	*	6.2	*	4.8
Black Male	12.8	14.6	11.9	12.0	*	8.4	*	12.6	*	15.3	*	11.4
Black Female	2.0	1.3	1.4	1.1	*	1.0	*	3.7	*	2.4	*	2.7
(US)	14.7	14.3	14.6	14.4	30.1	13.9	15.0	13.4	15.2	14.7	17.7	14.5

*Question not asked in these years.

HP2010 Objective:
Reduce the proportion of adults engaging in binge drinking of alcoholic beverages to 6%
(NC: 1999=12.0%; 2001=9.8%).

Figure 14a. Binge Drinking (5+ drinks on at least one occasion in the past month), United States, 2001

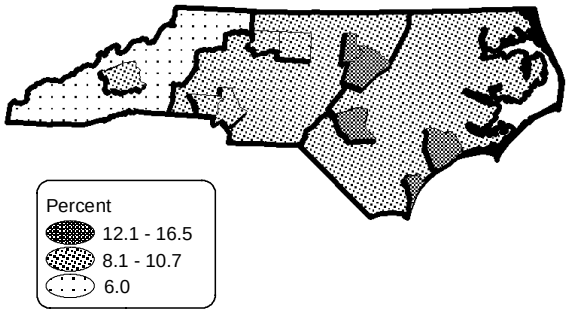


Number of Participating States: 54
(Including Guam, Puerto Rico, Virgin Is. & D.C.)

Source: BRFSS
Not to Scale

Mean: 14.5 Median: 14.7

Figure 14b. Binge Drinking (5+ drinks on at least one occasion in the past month), North Carolina, 2001



Source: BRFSS

Mean: 11.3 Median: 10.6

Table 14b. Alcohol Consumption of NC Adults, 2001

	Drank Alcohol in the Past 30 Days				Binge Drinking				Heavy Drinking			
	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.
TOTAL	6131	2629	41.7	39.8-43.6	6099	553	9.8	8.7-11.0	6094	248	4.1	3.4-5.0
GENDER												
Male	2345	1269	51.8	48.8-54.8	2324	370	15.6	13.6-17.9	2324	127	5.3	4.2-6.7
Female	3786	1360	32.5	30.3-34.8	3775	183	4.5	3.6-5.6	3770	121	3.0	2.2-4.2
RACE												
White	4644	2113	44.5	42.3-46.7	4623	452	10.4	9.2-11.9	4616	211	4.6	3.7-5.6
African American	1127	369	30.5	26.8-34.5	1118	71	6.4	4.7-8.9	1122	26	2.9	1.7-4.9
Other Minorities	263	109	44.9	35.3-54.9	262	22	12.5	7.2-21.0	260	7	2.6	0.9-7.0
HISPANIC												
Yes	171	76	49.5	37.4-61.6	168	22	12.6	7.0-21.8	167	5	1.0	0.4-2.8
No	5945	2548	41.4	39.5-43.4	5916	531	9.7	8.6-10.9	5912	243	4.3	3.5-5.1
AGE												
18-24	538	309	51.1	44.4-57.8	534	123	19.0	14.6-24.4	530	51	7.2	4.9-10.6
25-34	1147	619	52.6	48.2-57.0	1138	180	17.2	14.1-20.9	1138	49	4.8	3.2-7.1
35-44	1272	620	46.9	42.8-50.9	1265	117	10.5	8.2-13.4	1269	49	3.9	2.3-6.4
45-54	1124	520	42.6	38.1-47.3	1117	88	8.1	6.1-10.7	1117	47	4.5	3.0-6.7
55-64	814	268	33.4	28.9-38.2	812	26	2.3	1.3-4.2	810	20	2.9	1.5-5.5
65+	1176	276	22.3	19.2-25.8	1173	18	1.4	0.8-2.5	1170	32	2.0	1.2-3.2
EDUCATION												
Less Than H.S.	822	169	21.8	17.2-27.2	814	41	5.7	3.6-8.9	816	25	3.2	1.8-5.5
H.S. or G.E.D.	1833	665	36.1	32.8-39.5	1820	154	8.8	6.9-11.1	1821	76	3.9	2.7-5.7
Some Post-H.S.	1575	709	46.9	43.2-50.5	1568	171	12.8	10.4-15.7	1560	82	5.3	3.9-7.3
College Graduate	1870	1081	56.1	52.5-59.6	1866	186	10.8	8.9-13.0	1866	65	4.0	2.9-5.5
HOUSEHOLD INCOME												
Less than $15,000	581	180	33.7	27.8-40.1	576	54	9.7	6.4-14.6	577	29	4.4	2.5-7.5
$15,000-24,999	999	350	32.7	28.4-37.3	993	88	10.1	7.5-13.4	990	42	5.0	3.2-7.6
$25,000-34,999	875	356	38.2	33.5-43.2	872	97	10.5	8.0-13.6	870	36	4.9	2.7-8.6
$35,000-49,999	959	443	45.4	40.9-50.0	951	85	11.4	8.6-15.1	954	41	5.1	3.3-7.7
$50,000+	1578	938	57.1	53.2-60.9	1573	165	10.9	8.7-13.5	1572	64	3.9	2.8-5.4
COUNTY/REGION*												
Buncombe	414	158	39.4	34.1-44.9	413	29	10.7	7.2-15.5	411	16	4.1	2.4-6.8
Cumberland	422	177	49.5	41.7-57.4	417	42	12.2	8.2-17.7	418	14	3.0	1.5-6.0
Durham	399	180	47.8	41.2-54.6	397	38	13.6	8.5-21.1	397	8	2.0	0.9-4.3
Forsyth	455	203	47.2	41.8-52.6	455	36	8.5	6.0-11.9	454	20	4.2	2.5-6.8
Gaston	465	161	38.4	33.4-43.6	464	37	10.0	7.2-13.9	462	13	2.8	1.5-4.9
Guilford	414	197	46.9	41.4-52.4	411	38	10.6	7.6-14.7	412	22	5.4	3.4-8.6
Mecklenburg	424	235	55.7	50.4-61.0	422	47	10.6	7.7-14.3	423	22	4.9	3.0-7.9
New Hanover	397	221	57.9	51.4-64.1	394	57	16.7	12.6-21.8	393	32	8.9	6.0-12.9
Onslow	429	184	46.2	39.3-53.2	428	39	15.1	9.2-24.0	427	14	3.8	2.1-7.0
Wake	426	257	58.2	52.5-63.6	423	65	16.0	12.2-20.6	426	17	4.9	2.8-8.3
Western NC	611	200	34.1	29.9-38.5	609	34	6.0	4.2-8.6	608	18	3.9	2.3-6.4
Piedmont NC	663	232	34.9	30.5-39.6	660	49	8.2	6.0-11.2	657	28	4.4	2.8-6.9
Eastern NC	612	224	37.7	33.1-42.5	606	42	9.0	6.4-12.5	606	24	3.3	2.0-5.4

*See the Introduction for counties included in the three regions (Western, Piedmont, and Eastern)

Cancer Prevalence

Ever diagnosed with any cancer *(age 40+)*

- 11.3 percent of adults, age 40 and older, have ever been diagnosed with cancer.
- Among persons over the age of 64, the rate of cancer diagnosis was 21.1 percent.
- Whites (12.9%) were more than twice as likely as African Americans (5.4%) to be diagnosed with cancer.

Ever diagnosed with breast cancer *(age 40+)*

- 4.1 percent of females, age 40 and older, have ever been diagnosed with breast cancer.
- The highest rates of breast cancer were found among women ages 55 to 64 (6.9%) and women aged 65 and older (6.5%).
- The rate of breast cancer tended to be higher in lower income households.

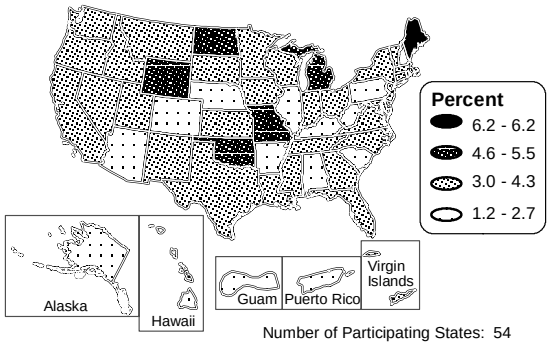
Ever diagnosed with prostate cancer *(age 40+)*

- 3.8 percent of males, age 40 and older, have ever been diagnosed with prostate cancer.
- Prostate cancer among white males was 4.4 percent compared to 1.4 percent among African American males; however, the small sample size for African American males reduces the reliability of the estimate.
- The rate of prostate cancer jumps from about 2 percent among 55 to 64 year olds to about 13 percent among males over age 64.

Geographical Variation (overall cancer and prostate cancer)

North Carolina (overall cancer prevalence**):** The rate of ever being diagnosed with cancer was highest in Durham County (15.6%), followed by Cumberland (14.5%) and Buncombe (14.0%). Cancer diagnosis rates were fairly similar across the three regions.
Nationwide (prostate cancer)**:** Regarding prostate cancer, North Carolina (3.8%) had the 15th highest rate in the country. Maine had the highest prostate cancer rate (6.2%) and Illinois had the lowest rate (2.3%).

Figure 15a. Told By Health Professional Has Prostate Cancer (Males, Age 40+) United States, 2001

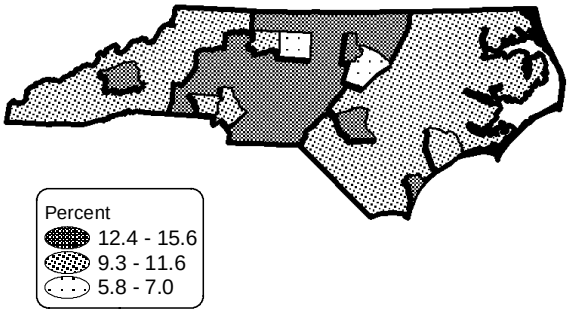


Number of Participating States: 54
(Including Guam, Puerto Rico, Virgin Is. & D.C.)

Source: BRFSS
Not to Scale

Mean: 3.5 Median: 3.5

Figure 15b. Cancer Prevalence (Age 40+) North Carolina, 2001



Source: BRFSS

Mean: 11.1 Median: 10.8

Table 15. Cancer Prevalence of NC Adults (age 40+), 2001

	Ever Diagnosed with Cancer				Ever Diagnosed with Breast Cancer				Ever Diagnosed with Prostate Cancer			
	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.
TOTAL	3666	432	11.3	9.8-13.0	2326	96	4.1	3.1-5.4	1378	63	3.8	2.7-5.3
GENDER												
Male	1340	153	10.9	8.6-13.8					1378	63	3.8	2.7-5.3
Female	2326	279	11.6	9.8-13.7	2326	96	4.1	3.1-5.4				
RACE												
White	2931	388	12.9	11.1-15.0	1820	80	4.4	3.2-5.9	1136	58	4.4	3.1-6.3
African American	586	33	5.4	3.3-8.8	410	12	3.4	1.5-7.4	186	4	1.4	0.4-4.4
Other Minorities	110	9	5.6	2.1-13.8	70	3	2.7	0.6-12.4	43	0	0.0	–
HISPANIC												
Yes	55	6	13.2	4.7-31.6	34	1	4.4	0.6-25.8	21	1	1.2	0.2-8.5
No	3605	424	11.2	9.7-12.9	2290	95	4.1	3.1-5.4	1353	62	3.8	2.7-5.4
AGE												
40-44	636	22	3.6	1.9-6.8	406	5	0.5	0.2-1.2	237	0	0.0	–
45-54	1103	73	7.0	4.7-10.5	687	8	1.9	0.8-4.3	428	1	0.1	0.0-0.8
55-64	789	81	10.7	8.0-14.2	477	21	6.9	4.1-11.5	322	8	1.7	0.7-4.0
65+	1138	256	21.1	17.9-24.8	756	62	6.5	4.5-9.1	391	54	12.8	8.9-18.2
EDUCATION												
Less Than H.S.	630	83	11.9	8.5-16.2	385	18	3.8	2.0-7.1	257	10	2.9	1.3-6.3
H.S. or G.E.D.	1092	119	10.6	8.2-13.6	758	29	4.8	2.9-7.7	346	17	4.4	2.2-8.5
Some Post-H.S.	895	106	10.4	7.8-13.7	606	26	3.0	1.8-4.9	296	16	4.5	2.1-9.3
College Graduate	1036	122	12.5	9.4-16.5	571	23	4.6	2.7-7.9	472	19	3.4	1.9-5.9
HOUSEHOLD INCOME												
Less than $15,000	388	64	16.7	11.0-24.5	265	18	6.6	3.3-12.5	128	3	1.3	0.3-5.4
$15,000-24,999	569	79	11.7	8.6-15.9	396	16	4.3	2.1-8.5	183	13	3.9	1.8-8.2
$25,000-34,999	465	49	9.0	6.2-12.8	305	12	4.8	2.3-9.9	164	10	4.8	2.0-10.9
$35,000-49,999	511	47	7.0	4.8-10.1	306	8	1.9	0.9-4.3	207	4	1.3	0.4-3.8
$50,000+	964	90	10.6	7.7-14.6	540	14	3.0	1.5-5.9	429	12	2.2	1.0-4.5
COUNTY/REGION*												
Buncombe	267	42	14.0	10.2-19.0	168	4	1.6	0.6-4.7	101	5	4.6	1.9-11.0
Cumberland	213	30	14.5	9.8-20.9	134	6	5.9	2.2-15.0	81	1	1.2	0.2-8.1
Durham	207	31	15.6	10.5-22.6	136	8	6.2	2.9-12.7	71	3	3.8	1.1-12.3
Forsyth	304	32	9.7	6.7-13.7	192	11	5.5	2.9-10.2	115	7	4.4	2.0-9.3
Gaston	283	33	10.8	7.6-15.2	175	8	4.5	2.1-9.2	114	7	5.6	2.6-11.4
Guilford	250	27	7.0	47-10.5	163	6	2.7	1.2-6.2	90	4	2.1	0.7-5.6
Mecklenburg	239	23	9.3	6.0-14.2	151	9	4.7	2.3-9.5	89	4	3.0	1.1-8.3
New Hanover	236	30	12.4	8.5-17.8	137	2	1.5	0.4-6.1	101	8	8.6	4.2-16.8
Onslow	217	22	9.6	5.9-15.3	135	2	1.1	0.3-4.6	87	4	2.9	1.0-7.9
Wake	210	16	5.8	3.4-9.6	136	5	3.2	1.2-8.2	77	0	0.0	–
Western NC	432	49	10.7	8.0-14.3	272	10	3.1	1.6-6.1	167	8	5.0	2.5-9.7
Piedmont NC	425	50	12.9	9.4-17.5	274	15	5.5	3.2-9.3	152	5	3.2	1.3-7.7
Eastern NC	383	47	11.6	8.4-16.0	253	10	3.2	1.6-6.3	133	7	4.8	2.2-10.3

*See the Introduction for counties included in the three regions (Western, Piedmont, and Eastern)

Skin Cancer Risk

Never/sometimes uses sunscreens or protective clothing

- Based on reported behaviors, about half of NC adults may be at risk for skin cancer.
- The risk for skin cancer among males (56.9%) appears to be noticeably higher than that among females (45.6%).
- Among age groups, the risk of skin cancer is highest among 18 to 24 year olds.

Never/sometimes uses sunscreens or protective clothing on children

- Among households with children, the risk of skin cancer for the youngest child (under age 13) is about 29 percent.
- The risk for the African American children appears to be substantially higher than the risk for white children.
- By income, the risk for skin cancer among children decreases with increasing levels of household income.

Had sunburn within the last 12 months

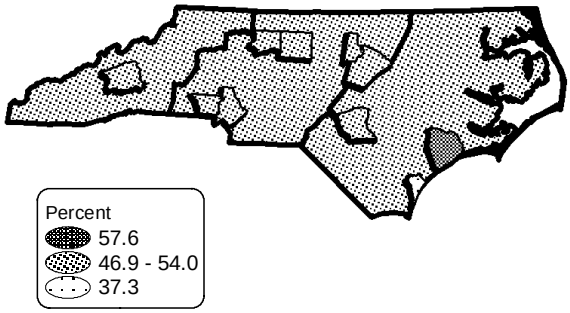
- About 22 percent of adults reported that they have had a sunburn in the past 12 months.
- Sunburn rates among whites were six times that of African Americans.
- By age, 25 to 34 year olds were most likely to report having a sunburn in the past year.

Geographical Variation (skin cancer risk; sunburn)

North Carolina: Among adults, the risk of skin cancer was highest among Onslow County residents (57.6%). Among households with children, the risk of skin cancer was highest for children in Forsyth County (41.3%) (based on small numbers). The reported rate of sunburn in the past 12 months was highest in New Hanover County (38.4%), which borders the coastline.

HP2010 Objective:
Increase the proportion of adults aged 18 years and older who follow protective measures that may reduce the risk of skin cancer to 75%.

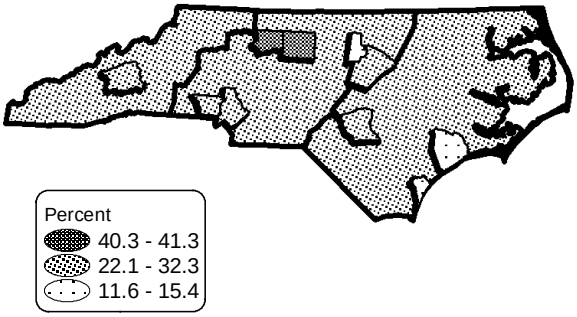
Figure 16a. Never or Sometimes Use Sunblock When Outdoors 30+ Minutes North Carolina, 2001



Source: BRFSS

Mean: 49.6 Median: 50.4

Figure 16b. Never or Sometimes Protect Child's Skin when Outdoors 30+ Minutes North Carolina, 2001



Source: BRFSS

Mean: 26.5 Median: 28.3

Table 16. Skin Cancer Risk of NC Adults, 2001

	Never or Sometimes Uses Sunscreens or Protective Clothing				Never or Sometimes Uses Sunscreens or Protective Clothing on Children				Had a Sunburn within Last 12 Months			
	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.
TOTAL	3039	1466	51.0	48.3-53.7	831	227	28.7	24.3-33.5	3047	642	21.7	19.6-24.1
GENDER												
Male	1177	629	56.9	52.7-60.9	302	72	24.4	18.2-31.8	1172	315	27.7	24.1-31.7
Female	1862	837	45.6	42.1-49.1	529	155	32.3	26.4-38.8	1875	327	16.4	14.1-19.0
RACE												
White	2294	1046	49.2	46.1-52.3	562	111	20.6	16.1-26.0	2299	602	27.5	24.8-30.4
African American	551	314	55.2	48.7-61.6	204	97	48.0	37.9-58.2	556	19	4.3	2.1-8.6
Other Minorities	149	84	60.1	47.8-71.3	55	14	32.0	17.1-51.8	148	17	10.0	5.1-18.8
HISPANIC												
Yes	86	44	57.2	42.2-71.0	36	11	31.2	14.8-54.2	87	18	30.7	18.1-47.1
No	2947	1419	50.8	48.1-53.6	793	215	28.3	23.9-33.3	2954	624	21.5	19.3-23.8
AGE												
18-24	278	178	67.1	58.3-74.9	88	25	34.6	21.9-49.9	279	108	30.6	23.2-39.1
25-34	565	317	56.5	50.1-62.7	278	71	27.6	20.5-36.1	564	201	34.3	28.7-40.3
35-44	643	305	48.1	42.5-53.7	330	74	25.1	18.9-32.4	643	170	28.3	23.3-33.8
45-54	572	272	52.3	46.2-58.4	107	44	30.0	19.4-43.3	576	107	21.9	16.9-27.9
55-64	378	166	48.0	40.9-55.2	14	6	35.2	11.7-68.9	378	37	7.8	4.9-12.1
65+	576	213	36.3	30.9-42.1	9	2	9.1	1.2-44.8	580	18	4.8	2.8-8.4
EDUCATION												
Less Than H.S.	389	197	50.1	42.8-57.4	76	21	31.6	18.3-48.7	395	46	10.8	7.3-15.7
H.S. or G.E.D.	872	440	53.8	48.6-58.9	234	83	36.1	27.7-45.4	879	166	20.2	16.3-24.7
Some Post-H.S.	795	409	55.9	50.8-60.9	242	61	27.3	19.7-36.6	797	178	26.2	21.7-31.2
College Graduate	973	415	43.9	39.2-48.7	279	62	21.5	15.4-29.3	967	252	25.9	22.0-30.2
HOUSEHOLD INCOME												
Less than $15,000	273	133	49.9	40.8-59.1	55	26	39.9	23.0-59.8	273	37	12.9	8.0-20.1
$15,000-24,999	486	239	49.8	42.7-56.8	126	40	38.2	25.7-52.6	487	93	19.1	14.2-25.0
$25,000-34,999	464	248	57.7	51.2-64.1	136	34	24.1	15.3-35.7	466	90	18.8	14.2-24.4
$35,000-49,999	484	239	54.3	47.9-60.6	155	39	26.6	18.2-37.1	486	130	32.3	26.2-39.1
$50,000+	799	357	46.4	41.2-51.7	265	51	16.7	11.3-24.0	797	221	29.2	24.6-34.4
COUNTY/REGION*												
Buncombe	209	96	49.4	41.6-57.3	50	11	28.3	15.5-45.9	210	52	26.9	20.0-35.1
Cumberland	206	92	46.9	38.6-55.5	78	21	30.1	17.9-45.9	207	34	15.3	10.8-21.2
Durham	206	99	52.5	43.3-61.5	50	11	14.2	7.2-26.3	207	35	17.0	11.9-23.6
Forsyth	227	107	48.3	40.8-55.8	47	20	41.3	27.3-56.9	228	42	18.5	13.5-24.7
Gaston	231	111	47.8	40.5-55.2	73	19	23.7	14.9-35.6	229	46	19.2	14.2-25.4
Guilford	192	93	48.9	40.9-57.0	50	18	40.3	26.4-55.9	193	28	13.9	9.3-20.2
Mecklenburg	208	104	51.0	43.3-58.6	59	14	22.1	12.1-36.9	211	49	25.2	19.1-32.4
New Hanover	194	79	37.3	28.8-46.7	56	10	15.4	6.8-31.3	195	58	38.4	27.7-50.3
Onslow	213	116	57.6	48.2-66.5	67	11	11.6	5.6-22.3	213	56	26.6	19.8-34.7
Wake	207	95	50.4	42.4-58.3	59	16	28.8	17.0-44.4	204	53	28.2	21.6-35.8
Western NC	307	160	50.8	44.4-57.1	70	20	26.5	17.1-38.8	309	57	19.7	15.0-25.4
Piedmont NC	319	160	54.0	47.4-60.4	88	28	29.5	19.4-42.0	320	75	24.6	19.4-30.8
Eastern NC	320	154	50.4	43.8-56.9	84	28	32.3	22.0-44.7	321	57	17.7	13.2-23.2

*See the Introduction for counties included in the three regions (Western, Piedmont, and Eastern)

Firearms

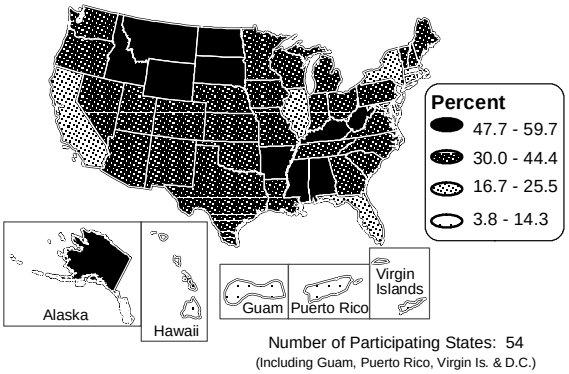
Keeping firearms in or around home

- An estimated 41.3 percent of adults keep firearms in or around the home.
- Whites (46.6%) were significantly more likely than African Americans (27.4%) to keep firearms at home.
- Keeping guns around the home tends to increase with age.
- Across all demographic groups, the highest rate of gun ownership (52.5%), or keeping firearms around the home, was found among 55 to 64 year olds.

Geographical Variation (firearms at home)

North Carolina: More than half of adults (55.4%) in Western North Carolina report keeping firearms at home, the highest rate of any geographical area. By county, gun ownership rates varied from 42.9 percent in Gaston to 22.1 percent in Wake County.
Nationwide: North Carolina had the 23rd highest rate (41.3%) of gun ownership (keeping firearms in or around home) nationwide. The highest reported rate of gun ownership was in Wyoming (59.7%) and the lowest reported rate was in the District of Columbia (3.8%).

Figure 17a. Keep Firearms Around Home
United States, 2001

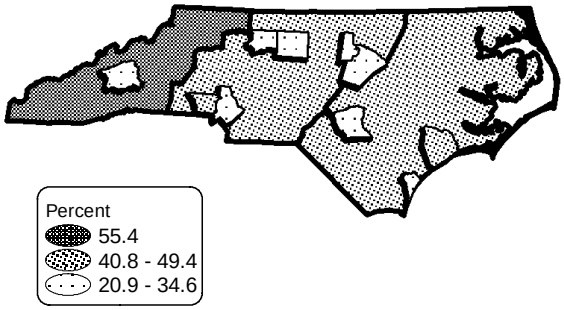


Number of Participating States: 54
(Including Guam, Puerto Rico, Virgin Is. & D.C.)

Source: BRFSS
Not to Scale

Mean: 35.5 Median: 38.9

Figure 17b. Keep Firearms Around Home
North Carolina, 2001



Source: BRFSS

Mean: 35.4 Median: 32.5

Table 17. Firearms of NC Adults, 2001

	Keeping Firearms in or around Home			
	Total Resp.	N	%	95% C.I.
TOTAL	5906	2070	41.3	39.3-43.3
GENDER				
Male	2227	1016	48.2	45.1-51.3
Female	3679	1054	35.1	32.6-37.7
RACE				
White	4440	1734	46.6	44.3-48.9
African American	1121	243	27.4	23.3-31.9
Other Minorities	252	65	24.7	17.6-33.4
HISPANIC				
Yes	168	40	25.0	16.2-36.6
No	5727	2027	41.9	39.9-43.9
AGE				
18-24	542	125	27.4	21.6-34.1
25-34	1125	325	36.9	32.6-41.5
35-44	1241	423	39.4	35.3-43.6
45-54	1073	428	48.4	43.4-53.5
55-64	759	335	52.5	47.4-57.5
65+	1116	422	44.9	40.7-49.2
EDUCATION				
Less Than H.S.	794	299	43.0	37.7-48.5
H.S. or G.E.D.	1756	638	42.3	38.7-46.0
Some Post-H.S.	1507	561	43.7	40.0-47.5
College Graduate	1821	561	36.9	33.1-40.9
HOUSEHOLD INCOME				
Less than $15,000	567	132	26.0	20.7-32.1
$15,000-24,999	984	301	37.8	33.1-42.7
$25,000-34,999	861	281	38.9	34.0-44.1
$35,000-49,999	940	390	50.4	45.8-55.0
$50,000+	1535	628	48.0	43.8-52.1
COUNTY/REGION*				
Buncombe	398	129	34.6	29.5-40.1
Cumberland	415	128	27.4	22.3-33.3
Durham	386	81	20.9	16.5-26.0
Forsyth	431	124	32.5	27.5-38.0
Gaston	440	178	42.9	37.7-48.3
Guilford	409	119	30.1	25.3-35.5
Mecklenburg	417	108	24.7	20.5-29.5
New Hanover	392	122	32.5	26.9-38.6
Onslow	413	158	40.8	33.6-48.3
Wake	403	90	22.1	18.0-26.9
Western NC	577	294	55.4	50.8-59.9
Piedmont NC	635	276	47.5	42.6-52.4
Eastern NC	590	263	49.4	44.5-54.4

*See the Introduction for counties included in the three regions (Western, Piedmont, and Eastern)

Disability

Disability prevalence

- An estimated 1 in 4 North Carolinians (age 18 and older) have a disability of some kind.
- The disability rate among females was somewhat higher than that of males.
- Close to half (46.5%) of those over the age of 64 reported having a disability of some kind.
- The prevalence of disability declined with higher levels of education and income.

Activity limitation due to physical, mental, or emotional problems

- 15.5 percent of NC adults reported that they were "limited in any way in any activities because of physical, mental, or emotional problems."
- Reported activity limitations among females (17.3%) were somewhat higher than that among males (13.6%).
- The activity limitation rates for African Americans and whites were about the same.
- For persons age 65 and older, the limitation rate was 30.6 percent.

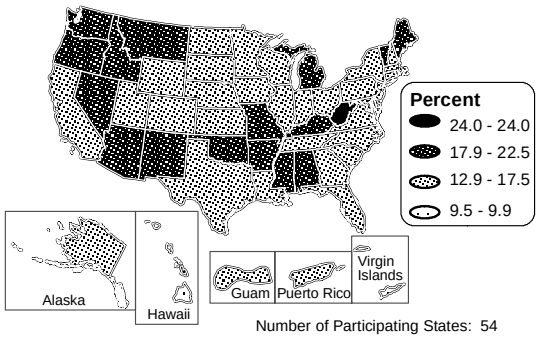
Health problem requires use of special equipment

- 6.2 percent of NC adults reported that they have a health problem that requires use of special equipment, "such as a cane, a wheelchair, a special bed, or a special telephone."
- The need for special equipment was slightly higher among females and African Americans than among others.
- The need for special equipment ranged from 2.2 percent among 18 to 24 year olds to 17.0 percent among those age 65 and older.
- The highest need for special equipment (18.4%) was found among those from the poorest households.

Geographical Variation (disability and activity limitations)

North Carolina (disability prevalence): Across all counties, the prevalence of disability ranged from 16.9 percent in Wake to 26.8 percent in Buncombe. The need for special equipment and activity limitations was also highest in the Eastern region.
Nationwide (activity limitation): North Carolina (15.5%) ranked 38th, or in the bottom half of the country, regarding the prevalence of activity limitation. West Virginia had highest rate of activity limitation (24.0%); Hawaii had the lowest rate of disability (9.5%).

Figure 18a. Activity Limitation due to Physical/ Mental/Emotional Problems, United States, 2001

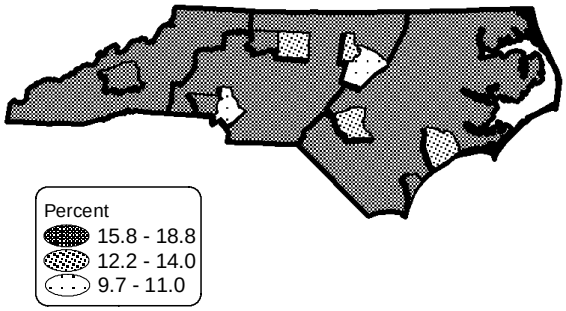


Number of Participating States: 54
(Including Guam, Puerto Rico, Virgin Is. & D.C.)

Source: BRFSS
Not to Scale

Mean: 16.8 Median: 16.4

Figure 18b. Activity Limitation due to Physical/ Mental/Emotional Problems, North Carolina, 2001



Source: BRFSS

Mean: 14.5 Median: 15.8

Table 18. Disability of NC Adults, 2001

	Disability Prevalence				Limited due to Physical, Mental, or Emotional Problems				Health Problem Requires Use of Special Equipment			
	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.
TOTAL	5956	1598	25.3	23.7-27.1	6155	1033	15.5	14.2-16.9	6160	403	6.2	5.4-7.2
GENDER												
Male	2277	554	23.6	21.0-26.3	2367	351	13.6	11.7-15.7	2364	129	5.2	4.1-6.6
Female	3679	1044	26.9	24.8-29.1	3788	682	17.3	15.5-19.2	3796	274	7.2	6.0-8.6
RACE												
White	4535	1222	25.6	23.7-27.6	4669	815	15.8	14.3-17.4	4671	297	6.2	5.2-7.3
African American	1080	295	26.0	22.2-30.1	1130	172	16.0	12.9-19.7	1132	89	7.7	5.7-10.2
Other Minorities	252	51	18.1	12.2-26.2	261	33	9.1	5.2-15.7	263	9	2.3	0.9-5.5
HISPANIC												
Yes	171	39	18.8	11.7-28.9	173	24	9.2	4.7-17.5	173	5	1.0	0.3-3.4
No	5771	1557	25.6	23.9-27.4	5968	1008	15.7	14.4-17.2	5973	398	6.4	5.6-7.4
AGE												
18-24	525	81	16.0	11.5-21.9	546	33	5.4	2.9-9.9	546	9	2.2	0.9-5.5
25-34	1112	147	13.0	10.1-16.7	1151	80	6.9	4.7-10.1	1150	19	2.0	1.0-4.1
35-44	1233	224	16.7	13.7-20.1	1275	151	10.7	8.3-13.7	1277	39	2.4	1.5-3.9
45-54	1103	330	28.0	23.9-32.5	1130	233	18.8	15.5-22.6	1132	72	6.4	4.5-9.0
55-64	788	281	33.1	28.6-37.9	815	199	21.2	17.7-25.2	818	62	8.4	5.9-11.8
65+	1144	523	46.5	42.4-50.7	1180	331	30.6	26.9-34.6	1178	201	17.0	14.1-20.4
EDUCATION												
Less Than H.S.	793	391	43.4	38.2-48.7	831	272	28.1	23.9-32.8	831	133	13.6	10.6-17.2
H.S. or G.E.D.	1772	505	26.8	23.7-30.2	1839	323	15.6	13.1-18.4	1842	132	6.7	5.1-8.7
Some Post-H.S.	1541	402	23.2	20.3-26.4	1580	236	13.3	11.0-15.9	1583	88	5.1	3.8-6.8
College Graduate	1831	295	15.1	12.7-17.8	1883	198	9.9	8.1-12.0	1883	49	2.4	1.6-3.6
HOUSEHOLD INCOME												
Less than $15,000	570	305	49.3	42.8-55.7	589	221	34.7	29.0-40.9	589	103	18.4	13.9-24.0
$15,000-24,999	973	337	32.2	27.8-36.9	1008	226	21.0	17.5-25.0	1009	86	7.7	5.6-10.4
$25,000-34,999	853	193	20.3	16.7-24.4	877	106	9.9	7.6-12.8	877	36	3.8	2.3-6.3
$35,000-49,999	941	161	17.2	13.9-21.1	964	104	9.5	7.2-12.5	964	25	2.2	1.2-3.8
$50,000+	1549	242	15.0	12.4-18.1	1588	161	9.8	7.7-12.2	1588	35	2.2	1.3-3.8
COUNTY/REGION*												
Buncombe	407	118	26.8	22.2-31.8	419	73	16.3	12.8-20.5	417	25	4.8	3.1-7.3
Cumberland	415	114	24.4	19.4-30.3	428	72	14.0	10.6-18.2	428	22	3.6	2.2-5.7
Durham	385	103	22.4	18.0-27.5	395	62	12.3	9.2-16.3	398	24	4.8	3.0-7.6
Forsyth	445	130	25.8	21.4-30.6	456	85	16.0	12.7-20.0	457	35	5.4	3.8-7.7
Gaston	447	129	26.6	22.3-31.4	464	87	16.6	13.3-20.5	465	26	5.3	3.4-8.1
Guilford	392	92	20.1	16.1-24.8	412	64	12.2	9.4-15.7	412	33	6.2	4.3-8.9
Mecklenburg	415	84	20.2	16.2-24.9	425	48	11.0	8.1-14.6	425	24	5.5	3.5-8.7
New Hanover	393	108	24.7	20.0-30.2	402	72	15.8	12.2-20.2	402	24	4.7	3.0-7.3
Onslow	416	101	20.7	16.5-25.6	433	66	12.8	9.7-16.7	433	29	6.1	4.0-9.2
Wake	408	75	16.9	13.2-21.3	424	45	9.7	7.0-13.2	425	14	3.1	1.7-5.5
Western NC	594	178	28.0	24.1-32.1	615	122	17.6	14.6-21.0	615	47	7.1	5.2-9.8
Piedmont NC	645	181	26.3	22.4-30.6	667	119	15.9	12.9-19.4	667	46	6.3	4.6-8.7
Eastern NC	594	185	29.2	25.0-33.8	615	118	18.8	15.4-22.9	616	54	8.2	6.0-11.2

*See the Introduction for counties included in the three regions (Western, Piedmont, and Eastern)

Osteoporosis Prevention

No professional counseling about osteoporosis prevention *(females age 45+)*

- About 47 percent of NC women, age 45 and older, reported that they were never counseled about how to prevent osteoporosis.
- The risk of no prevention counseling among African American females (65.6%) was noticeably higher than the risk among white females (41.5).
- The risk of no prevention counseling was also high among females with less than a high school education (60.1%).

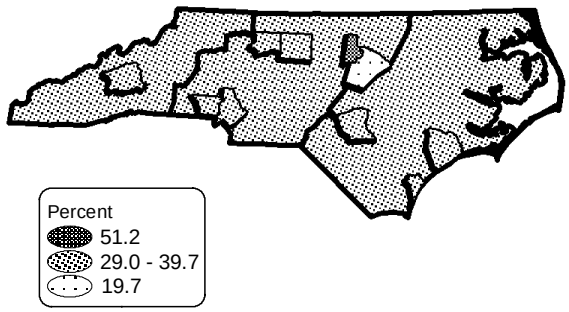
Not taking vitamins with calcium supplements to lower risk of osteoporosis *(females age 45+)*

- About 37 percent of NC women, age 45 and older, reported that they were not taking any vitamin pills that contain calcium to lower the risk of osteoporosis.
- About half (49.6%) of women with less than a high school education are not taking calcium supplements, compared to 32 percent of women who are college graduates.
- The lowest risk (20.7%) of not taking calcium supplements was found among women from households with annual incomes of $35,000 to $49,999 – the second highest income group.

Geographical Variation (osteoporosis prevention)

North Carolina: The risk of not being counseled about osteoporosis prevention was fairly similar across all three regions of the state; the same was true for the risk of not taking vitamins containing calcium.

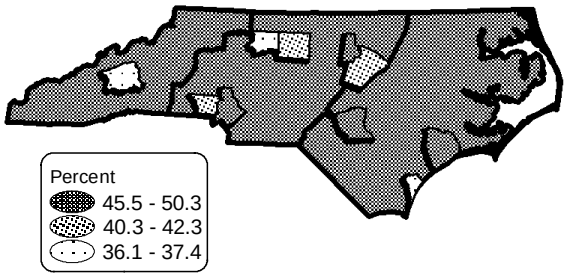
Figure 19a. Not Taking Calcium to Lower Risk of Osteoporosis (Females, age 45+), North Carolina, 2001



Source: BRFSS

Mean: 36.0 Median: 36.6

Figure 19b. No Health Counseling About Osteoporosis Prevention (Females, age 45+), North Carolina, 2001



Source: BRFSS

Mean: 43.6 Median: 45.5

Table 19. Osteoporosis Counseling and Calcium Use of NC Adult Females (age 45+), 2001

	Not Taking Calcium Containing Supplements or Vitamin Pills				Doctor Didn't Counsel about Preventing Osteoporosis			
	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.
TOTAL	1885	676	37.1	33.5-40.9	1904	831	46.6	43.0-50.2
RACE								
White	1494	472	32.7	28.6-37.2	1509	591	41.5	37.3-45.8
African American	313	170	54.4	46.3-62.4	316	197	65.6	57.7-72.7
Other Minorities	54	24	52.8	33.1-71.7	55	32	67.9	48.4-82.6
HISPANIC								
Yes	25	12	49.8	24.3-75.4	25	10	32.9	14.0-59.6
No	1859	663	36.9	33.2-40.7	1877	820	46.8	43.2-50.5
AGE								
45-54	680	262	40.6	33.6-48.1	685	316	49.8	43.0-56.6
55-64	467	156	36.4	30.2-43.0	473	168	41.9	35.6-48.6
65+	738	258	34.2	29.5-39.3	746	347	46.5	41.4-51.7
EDUCATION								
Less Than H.S.	349	169	49.6	42.0-57.3	354	202	60.1	52.6-67.3
H.S. or G.E.D.	627	232	36.6	31.3-42.3	635	285	44.7	39.2-50.4
Some Post-H.S.	477	144	30.8	25.3-37.0	482	193	41.3	35.1-47.7
College Graduate	429	129	32.0	21.4-44.8	430	151	42.2	31.9-53.3
HOUSEHOLD INCOME								
Less than $15,000	228	104	48.4	38.4-58.5	230	122	53.2	43.1-63.1
$15,000-24,999	347	144	47.4	39.7-55.2	352	183	53.7	46.1-61.2
$25,000-34,999	248	83	31.4	24.3-39.6	250	101	42.6	34.3-51.4
$35,000-49,999	229	62	20.7	15.1-27.7	232	83	38.2	29.7-47.5
$50,000+	387	109	32.0	21.5-44.6	388	127	39.9	29.6-51.2
COUNTY/REGION*								
Buncombe	142	48	32.5	24.9-41.2	143	53	37.0	28.9-45.9
Cumberland	119	44	35.8	26.7-46.1	119	55	46.8	36.9-57.0
Durham	109	51	51.2	41.0-61.4	110	48	47.6	37.6-57.9
Forsyth	163	59	34.6	27.2-42.8	163	60	36.1	28.6-44.3
Gaston	142	50	36.6	28.3-45.8	142	64	41.6	33.1-50.5
Guilford	128	39	29.0	21.1-38.4	127	56	42.3	33.0-52.1
Mecklenburg	111	44	38.2	28.9-48.3	111	50	45.5	35.6-55.7
New Hanover	115	38	34.6	25.6-45.0	115	45	37.4	28.4-47.4
Onslow	95	34	39.7	29.2-51.2	96	43	47.6	36.8-58.7
Wake	102	22	19.7	12.9-28.9	104	41	40.3	30.6-50.8
Western NC	235	83	37.4	30.8-44.5	238	110	47.0	40.1-54.0
Piedmont NC	228	87	39.5	31.0-48.8	236	113	50.3	42.0-58.6
Eastern NC	196	77	39.4	31.6-47.8	200	93	47.4	39.4-55.5

*See the Introduction for counties included in the three regions (Western, Piedmont, and Eastern)

Ever tested for the HIV virus that causes AIDS

- About half of adults (males and females) under the age of 65 reported that they have ever been tested for the HIV virus.
- HIV testing rates for males and females were fairly similar.
- The HIV testing rate among African Americans (59.5%) was significantly higher than that among whites (46.5%).
- About 51 percent of other minorities report being tested for HIV.
- Among age groups, the highest testing rate was found among 25 to 34 year olds (65.5%), the lowest rate among 55 to 64 year olds (26.4%).
- Testing rates were somewhat lower for those with less education.

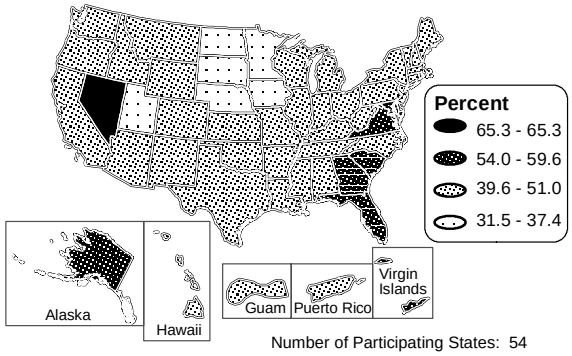
Not counseled by health professional about using condoms to prevent STDs

- About 83 percent of adults reported that they were not counseled in the past 12 months about using condoms to prevent sexually transmitted diseases.
- African Americans (68.6%) were less likely than whites not to be counseled about using condoms to prevent STDs.
- The likelihood of not being counseled about condoms and STDs increases with age; almost all respondents (98.4%) in the 55-64 age group reported that were not counseled in the past 12 months.

Geographical Variation (ever tested for HIV/AIDS)

North Carolina: The rate of ever being tested for HIV ranged from a high of 71.6 percent in Cumberland County (which houses military bases) to a low of 48.6 percent in Wake. The rate of ever being tested for HIV was significantly higher in the Eastern region (49.4%) compared to the Western region (38.0%). The rate of not being counseled about condoms and STDs was also highest in the Western region (89.5%).
Nationwide: Nationwide, North Carolina had the 12th highest rate (49.5%) of adults ever being tested for HIV. The District of Columbia had the highest rate (65.3%), while South Dakota had the lowest rate (31.5%).

Figure 20a. Ever Tested for HIV/AIDS
United States, 2001

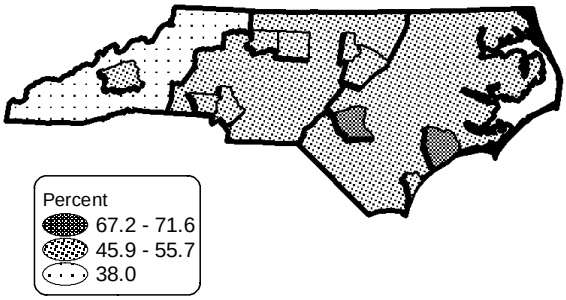


Number of Participating States: 54
(Including Guam, Puerto Rico, Virgin Is. & D.C.)

Source: BRFSS
Not to Scale

Mean: 45.7 Median: 45.7

Figure 20b. Ever Tested for HIV/AIDS
North Carolina, 2001



Source: BRFSS

Mean: 52.9 Median: 50.3

Table 20. HIV/ AIDS Risk and Awareness of NC Adults (Age <65 only), 2001

	Ever Tested for HIV/AIDS				Doctor Didn't Talk about Using Condom to Prevent Sexually Transmitted Diseases			
	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.
TOTAL	4744	2472	49.5	47.3-51.6	4849	4040	82.7	80.9-84.4
GENDER								
Male	1879	987	47.8	44.5-51.2	1923	1647	85.2	82.4-87.6
Female	2865	1485	51.1	48.3-53.8	2926	2393	80.3	77.8-82.6
RACE								
White	3524	1710	46.5	44.0-49.0	3602	3146	87.5	85.5-89.2
African American	917	580	59.5	54.6-64.3	937	665	68.6	63.8-73.1
Other Minorities	238	141	50.9	40.6-61.1	243	184	76.5	67.8-83.4
HISPANIC								
Yes	147	89	45.4	33.3-58.2	151	112	76.9	65.6-85.4
No	4589	2379	49.6	47.4-51.8	4690	3923	83.0	81.1-84.7
AGE								
18-24	534	335	53.2	46.4-59.8	541	278	58.0	51.4-64.3
25-34	1121	791	65.5	61.1-69.7	1130	842	75.7	71.4-79.5
35-44	1235	711	54.1	49.9-58.2	1260	1103	87.1	83.9-89.7
45-54	1084	422	41.0	36.0-46.2	1118	1038	92.2	89.1-94.5
55-64	770	213	26.4	22.1-31.2	800	779	98.4	97.3-99.1
EDUCATION								
Less Than H.S.	446	221	44.8	37.6-52.3	456	379	81.2	74.3-86.6
H.S. or G.E.D.	1418	687	44.9	41.0-48.9	1457	1178	79.8	76.3-82.9
Some Post-H.S.	1277	696	50.6	46.6-54.7	1301	1069	81.6	78.2-84.6
College Graduate	1595	866	55.8	52.0-59.5	1627	1406	87.5	84.5-90.0
HOUSEHOLD INCOME								
Less than $15,000	372	203	45.5	37.6-53.7	381	272	75.6	68.9-81.3
$15,000-24,999	721	429	57.1	51.3-62.6	736	539	75.1	70.0-79.6
$25,000-34,999	710	368	50.3	44.8-55.9	717	553	75.9	70.7-80.4
$35,000-49,999	858	445	46.4	41.7-51.2	874	752	87.1	83.6-90.0
$50,000+	1420	721	53.1	49.0-57.1	1457	1339	90.0	86.5-92.7
COUNTY/REGION*								
Buncombe	324	164	50.3	44.0-56.6	335	280	81.1	75.1-85.9
Cumberland	334	246	71.6	59.4-81.4	338	243	73.6	66.9-79.4
Durham	309	186	55.7	47.6-63.4	315	252	76.3	68.5-82.7
Forsyth	330	154	45.9	39.6-52.4	340	286	83.0	76.8-87.7
Gaston	343	189	53.7	47.7-59.6	352	306	84.6	79.3-88.7
Guilford	315	174	55.4	49.0-61.7	319	258	77.8	71.5-83.0
Mecklenburg	351	177	49.2	43.3-55.1	355	304	84.8	79.9-88.7
New Hanover	314	161	54.9	48.5-61.1	324	275	81.9	75.9-86.7
Onslow	374	232	67.2	60.8-73.0	375	298	74.0	67.1-79.9
Wake	356	174	48.6	42.6-54.7	365	312	84.9	79.9-88.9
Western NC	429	162	38.0	33.0-43.4	435	388	89.5	85.8-92.3
Piedmont NC	502	228	47.5	42.4-52.7	521	447	84.0	79.3-87.7
Eastern NC	463	225	49.4	43.9-54.9	475	391	80.6	75.4-85.0

*See the Introduction for counties included in the three regions (Western, Piedmont, and Eastern)

Diabetes

Prevalence of diabetes

- 6.7 percent of NC adults reported being told by a doctor that they had diabetes (excluding pregnancy-related diabetes).
- The prevalence of diabetes among males (6.8%) and females (6.7%) was nearly the same.
- The prevalence of diabetes among African Americans (9.7%) was significantly higher than for whites (5.9%).
- The prevalence of diabetes increased significantly with age.
- The prevalence of diabetes tended to increase as education and household income declined.

Geographical Variation (diabetes prevalence)

North Carolina: Among the ten counties, the rate of diabetes was highest in Gaston (7.9%) and lowest in Wake (4.6%). The prevalence estimates for both Western and Eastern North Carolina were the same (8.5%) and were the two highest among all geographic strata.
Nationwide: Compared to other states, North Carolina had the 18th highest rate (6.7%) of diabetes. Alabama had the highest rate of diabetes (9.6%) and Alaska had the lowest rate (4.0%).

North Carolina Trend

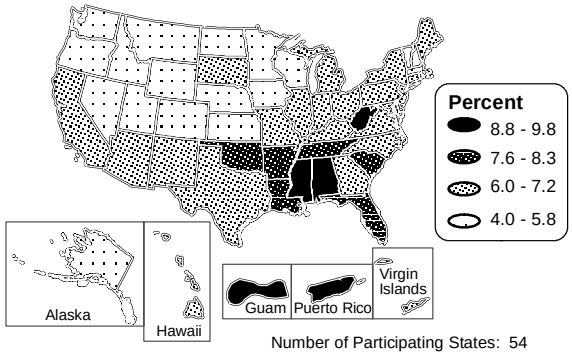
- From 1993 to 1996, the prevalence of diabetes was below 5 percent; since 1998, the prevalence of diabetes has remained above 6 percent for the state.
- Since 1990, black females have consistently had the highest rates of diabetes of any race-sex group.

Table 21a. Percent of Adults with Diabetes in North Carolina by Year, Race and Sex

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
NC	5.9	6.3	5.7	4.9	4.2	4.5	4.4	5.0	6.4	6.1	6.4	6.7
White	5.0	5.7	5.4	4.6	3.8	3.8	3.9	4.5	6.2	5.1	5.9	5.9
Black	8.7	9.6	7.0	6.5	5.8	7.2	7.0	6.8	7.6	10.4	9.0	9.7
White Male	5.2	5.8	5.1	4.8	4.2	3.7	4.1	4.4	5.5	4.8	5.8	6.5
White Female	4.8	5.5	5.7	4.3	3.4	3.9	3.8	4.5	6.8	5.4	6.1	5.4
Black Male	5.3	8.3	4.7	5.5	5.5	5.8	5.4	4.9	4.4	9.8	8.2	8.4
Black Female	11.4	10.6	8.8	7.3	6.1	8.4	8.3	8.4	10.0	10.9	9.7	10.8
(US)	4.9	5.0	5.4	4.8	4.4	4.7	4.8	5.2	5.6	5.9	6.4	6.8

HP2010 Objective:
Reduce the rate of diabetes that is clinically diagnosed to 25 overall cases per 1000 population (2.5%).

Figure 21a. Diabetes Prevalence
United States, 2001

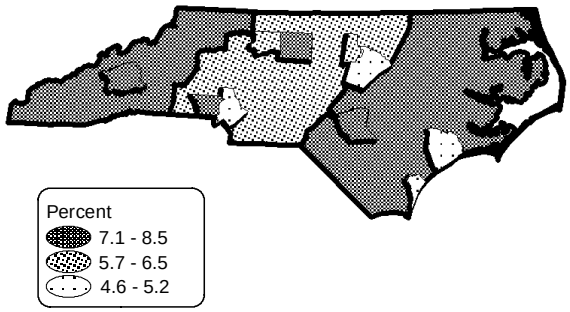


Number of Participating States: 54
(Including Guam, Puerto Rico, Virgin Is. & D.C.)

Source: BRFSS
Not to Scale

Mean: 6.6 Median: 6.5

Figure 21b. Diabetes Prevalence
North Carolina, 2001



Source: BRFSS

Mean: 6.5 Median: 6.5

Table 21b. Diabetes Prevalence among NC Adults, 2001

	Diabetes Prevalence			
	Total Resp.	N	%	95% C.I.
TOTAL	6199	451	6.7	5.9-7.7
GENDER				
Male	2380	168	6.8	5.5-8.4
Female	3819	283	6.7	5.7-7.8
RACE				
White	4695	290	5.9	5.0-6.9
African American	1143	132	9.7	7.5-12.5
Other Minorities	263	18	6.2	3.2-11.6
HISPANIC				
Yes	173	7	3.9	1.6-9.3
No	6012	440	6.8	6.0-7.8
AGE				
18-24	548	4	0.3	0.1-0.8
25-34	1157	18	1.1	0.6-2.0
35-44	1289	36	2.6	1.7-4.1
45-54	1132	89	7.4	5.4-10.1
55-64	823	119	15.8	12.3-20.0
65+	1188	179	15.0	12.3-18.2
EDUCATION				
Less Than H.S.	830	124	12.1	9.3-15.5
H.S. or G.E.D.	1860	141	6.6	5.2-8.3
Some Post-H.S.	1588	106	7.0	5.3-9.2
College Graduate	1889	77	3.5	2.6-4.7
HOUSEHOLD INCOME				
Less than $15,000	589	93	13.2	9.7-17.7
$15,000-24,999	1012	95	8.7	6.5-11.5
$25,000-34,999	883	49	6.1	4.1-9.0
$35,000- 9,999	968	47	4.2	2.6-6.5
$50,000+	1589	56	3.8	2.6-5.3
COUNTY/REGION*				
Buncombe	424	31	7.1	4.9-10.3
Cumberland	429	41	7.7	5.4-10.9
Durham	400	26	6.5	4.2-10.1
Forsyth	455	33	5.9	4.0-8.6
Gaston	467	42	7.9	5.8-10.9
Guilford	418	32	7.3	4.9-10.9
Mecklenburg	430	24	4.9	3.2-7.5
New Hanover	405	20	5.0	3.1-8.1
Onslow	435	23	5.2	3.2-8.2
Wake	427	22	4.6	2.9-7.2
Western NC	618	57	8.5	6.2-11.4
Piedmont NC	670	45	5.7	4.0-8.0
Eastern NC	621	55	8.5	6.3-11.2

*See the Introduction for counties included in the three regions (Western, Piedmont, and Eastern)

Not visited a dentist or dental clinic within the past year

- About 31 percent of NC adults reported that they did not visit a dentist or dental clinic within the past year.
- African Americans (38.8%) were more likely than whites (28.3%) to report not visiting a dentist in the past year, although the current rate for African Americans is lower than that for 1999 (44.7%).
- A wide disparity in the risk of not visiting a dentist existed with levels of education – a spread of 35 percentage points.

Lost one or more teeth due to tooth decay or gum disease

- About 54 percent of NC adults reported that they had lost one or more teeth due to tooth decay or gum disease; in 1999, that figure was 70.9 percent. (Variation in these rates may be partially due to differences in the age of the two samples.)
- Tooth loss remains more of a risk for African Americans (61.7%) than whites (53.5%).
- 88 percent of older adults (65+ yrs.) reported tooth loss, the highest prevalence of any age group.
- Among those with less than a high school education, tooth loss was reported to be 80.9 percent.

Not had teeth cleaned by dentist or dental hygienist within the past year

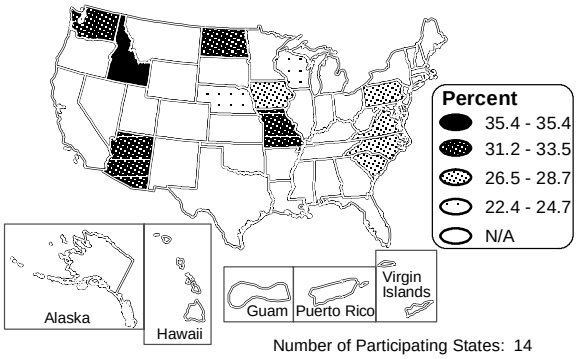
- 29.0 percent of NC adults reported not having their teeth professionally cleaned within the past year. (In 1999 the rate was 31.2%).
- African Americans (40.3%) were more at risk than whites (26.0%) for this indicator.
- 18 to 24 year olds were more likely than any other age group to report not having their teeth cleaned.
- About half (51.5%) of those with less than a high school degree reported that they did not have their teeth cleaned in the last year.

Geographical Variation (no recent dental visit)

North Carolina: Among the counties, Wake County had the lowest rate of no dental visit in the past year and Gaston County had the highest. Rural regions have higher rates of no dental visit than most of the counties.
Nationwide: Among the 14 states that participated in the Oral Health Module in 2001 (Arizona, Idaho, Iowa, Missouri, Nebraska, New Hampshire, North Carolina, North Dakota, Pennsylvania, Rhode Island, South Carolina, Virginia, Washington, and Wisconsin), North Carolina (28.7%) had the 6th highest rate of no dental cleaning in the past year. Idaho had the highest rate of no dental cleaning (35.4%) and New Hampshire had the lowest rate (22.4%).

HP2010 Objective:
Increase the proportion of adults who have never had a permanent tooth extracted because of dental caries or periodontal disease to 42% (NC 2001=45.7%).

Figure 22a. No Dental Cleaning Past 12 Months
United States, 2001

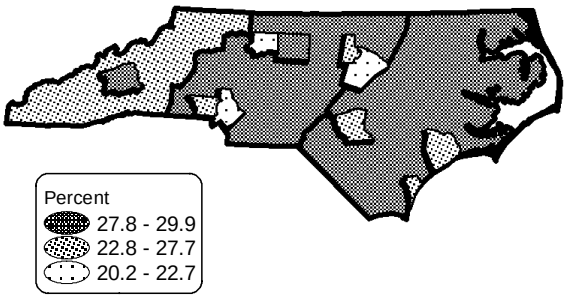


Number of Participating States: 14
(Including Guam, Puerto Rico, Virgin Is. & D.C.)

Source: BRFSS
Not to Scale

Mean: 28.2 Median: 27.3

Figure 22b. No Dental Cleaning Past 12 Months
North Carolina, 2001



Source: BRFSS

Mean: 26.6 Median: 27

Table 22. Oral Health Status of NC Adults, 2001

	Not Visited a Dentist or Dental Clinic Within Past Year				Lost One or More Teeth due to Tooth Decay or Gum Disease				Not Had Teeth Cleaned by Dentist/Dental Hygienist in Past Year			
	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.
TOTAL	6033	1719	30.6	28.8-32.5	6016	3262	54.3	52.3-56.2	5447	1401	29.0	27.1-31.1
GENDER												
Male	2318	726	34.7	31.8-37.7	2311	1207	53.0	50.0-56.0	2099	603	33.1	30.0-36.3
Female	3715	993	26.9	24.7-29.2	3705	2055	55.5	52.9-58.0	3348	798	25.3	23.0-27.8
RACE												
White	4592	1202	28.3	26.2-30.4	4571	2412	53.5	51.2-55.7	4138	937	26.0	23.8-28.3
African American	1092	395	38.8	34.5-43.3	1094	682	61.7	57.2-66.0	990	359	40.3	35.7-45.1
Other Minorities	257	90	33.6	25.4-43.0	259	121	41.7	32.8-51.3	239	79	29.0	21.1-38.4
HISPANIC												
Yes	170	58	38.7	27.7-51.0	168	68	28.3	20.0-38.3	159	48	34.1	23.4-46.8
No	5850	1655	30.3	28.4-32.2	5835	3188	55.2	53.2-57.2	5277	1348	28.8	26.9-30.9
AGE												
18-24	534	144	31.0	24.8-38.0	539	71	14.6	10.4-20.1	532	156	32.6	26.3-39.5
25-34	1129	289	28.5	24.5-32.8	1130	288	29.1	25.1-33.3	1120	314	30.2	26.2-34.6
35-44	1255	290	23.0	19.8-26.6	1245	559	48.5	44.4-52.7	1231	301	27.1	23.4-31.1
45-54	1116	278	29.2	24.9-34.0	1112	683	63.9	58.8-68.6	1041	256	29.0	24.5-34.0
55-64	802	247	34.6	29.8-39.6	797	634	82.4	78.3-85.8	664	147	26.5	21.6-32.0
65+	1144	457	40.5	36.5-44.7	1143	995	88.1	85.3-90.5	810	215	28.5	24.1-33.2
EDUCATION												
Less Than H.S.	791	439	54.0	48.4-59.4	799	681	80.9	75.1-85.6	528	259	51.5	44.7-58.2
H.S. or G.E.D.	1805	565	33.1	29.7-36.6	1798	1138	61.0	57.4-64.5	1620	477	33.2	29.5-37.0
Some Post-H.S.	1560	393	24.5	21.6-27.8	1550	808	51.2	47.5-54.9	1469	357	23.9	20.8-27.2
College Graduate	1860	313	19.4	16.5-22.7	1853	624	33.3	30.1-36.6	1817	301	19.3	16.4-22.7
HOUSEHOLD INCOME												
Less than $15,000	570	285	48.5	42.0-55.0	573	422	70.4	64.0-76.1	440	201	44.5	37.4-51.9
$15,000- 4,999	988	369	39.7	34.9-44.7	984	635	64.2	59.3-68.9	831	292	39.2	33.9-44.8
$25,000-34,999	865	267	32.5	28.1-37.3	864	482	54.9	49.9-59.9	796	226	34.6	29.6-40.0
$35,000 49,999	952	197	24.8	20.8-29.3	950	461	52.3	47.7-56.9	916	189	23.2	19.3-27.7
$50,000+	1574	232	17.7	14.6-21.2	1566	594	40.2	36.5-44.0	1543	231	17.6	14.5-21.2
COUNTY/REGION*												
Buncombe	408	124	31.6	26.5-37.3	409	226	52.2	46.6-57.7	366	102	29.9	24.5-35.8
Cumberland	416	122	27.3	21.7-33.7	413	209	43.5	36.1-51.1	387	112	27.7	21.8-34.5
Durham	389	114	28.9	23.7-34.7	385	179	42.4	36.1-49.0	358	89	26.3	21.0-32.4
Forsyth	451	115	25.0	20.7-29.8	449	258	54.6	49.0-60.1	409	87	20.5	16.5-25.3
Gaston	455	150	33.2	28.4-38.4	457	280	56.9	51.6-62.1	385	101	28.1	23.0-33.7
Guilford	404	110	28.7	23.8-34.2	401	200	48.7	43.1-54.4	373	101	30.2	24.8-36.1
Mecklenburg	419	87	22.7	18.4-27.7	417	179	39.8	34.7-45.2	394	82	22.7	18.3-27.8
New Hanover	399	108	32.4	25.4-40.2	396	189	42.6	36.4-49.0	368	89	26.4	21.3-32.2
Onslow	428	110	25.6	19.6-32.7	427	204	44.3	37.6-51.3	397	96	25.0	18.7-32.7
Wake	411	85	20.0	15.9-24.9	410	162	36.6	31.5-42.0	399	85	21.1	16.7-26.1
Western NC	596	184	31.3	27.3-35.7	598	401	64.3	59.7-68.6	510	132	27.8	23.5-32.6
Piedmont NC	656	216	34.0	29.5-38.8	652	388	56.9	52.0-61.7	568	159	32.5	27.6-37.7
Eastern NC	601	194	34.4	29.8-39.4	602	387	63.4	58.4-68.1	533	166	33.0	28.2-38.2

*See the Introduction for counties included in the three regions (Western, Piedmont, and Eastern)

Never had a sigmoidoscopy or colonoscopy (age 50+)

- Among older adults (age 50+), 52.4 percent reported never having a sigmoidoscopy or colonoscopy test.
- The risk was about the same for males (51.4%) and females (53.2%).
- 66.9 percent of adults ages 50-54 reported no colonoscopy screening, compared to 49.3 percent among the next oldest age group, 55 to 64 year olds.

Did not have a sigmoidoscopy or colonoscopy within the past 5 years (age 50+)

- About 60 percent of NC adults aged 50 or older did not have a sigmoidoscopy or colonoscopy test within the last 5 years.
- There were no significant differences in this risk by sex or by race (whites, African Americans).

Never had a blood stool test (age 50+)

- About 45 percent of adults age 50 and older reported that they never had a blood stool test.
- The risk is higher among males (49.4%) than females (41.2%).
- By age, the risk is highest among 50 to 54 year olds.

Geographical Variation (never had a sigmoidoscopy or colonoscopy, age 50+)

North Carolina: Among the counties, the risk of never having a colonoscopy exam ranged from 55.6 percent in Buncombe to 37.4 percent in Forsyth. There were no statistically significant differences across regions for this indicator. There was wide variation – a range of 29 percentage points – across counties regarding the risk of never having a blood stool test.
Nationwide: North Carolina had the 32nd lowest rate (52.4%) of adults with no colonoscopy exam nationwide. Virgin Islands had the highest rate of adults with no colonoscopy exam (69.5%); Minnesota had the lowest rate (38.0%).

North Carolina Trend

- Statewide, never having a sigmoidoscopy/colonoscopy has declined by 36 percentage points since 1997.

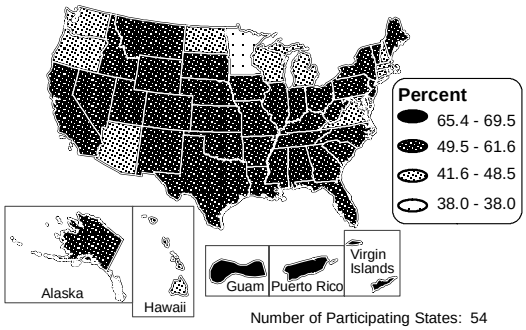
Table 23a. Percent of Adults Who Never Had a *Sigmoidoscopy/Colonoscopy* in North Carolina by Year, Race and Sex

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
NC	*	*	*	*	*	*	*	88.9	88.6	58.3	*	52.4
White	*	*	*	*	*	*	*	88.4	88.8	57.7	*	51.0
Black	*	*	*	*	*	*	*	90.0	88.8	59.1	*	57.0
White Male	*	*	*	*	*	*	*	88.2	87.6	58.0	*	51.4
White Female	*	*	*	*	*	*	*	88.6	90.0	57.4	*	50.7
Black Male	*	*	*	*	*	*	*	90.7	90.5	59.7	*	51.2
Black Female	*	*	*	*	*	*	*	89.5	87.5	58.6	*	60.6
(US)								72.2	67.1	68.7	*	65.9

* Question not asked in these years

HP2010 Objective:
Increase the proportion of adults age 50+ who receive a colorectal cancer screening examination to 50% (NC: 1999=39.1%; 2001=47.6%).

Figure 23a. Never Had Colonoscopy Exam (Age 50+)
United States, 2001

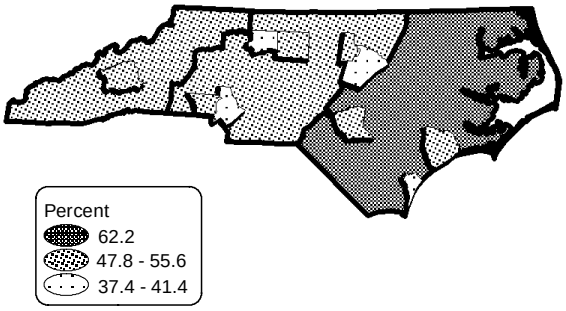


Number of Participating States: 54
(Including Guam, Puerto Rico, Virgin Is. & D.C.)

Source: BRFSS
Not to Scale

Mean: 53.5 Median: 53.7

Figure 23b. Never Had Colonoscopy Exam (Age 50+)
North Carolina, 2001



Source: BRFSS

Mean: 49.3 Median: 51.4

Table 23b. Colorectal Cancer Screening of NC Adults (Age 50+), 2001

	Never Had a Sigmoidoscopy or Colonoscopy				Did not Have a Sigmoidoscopy or Colonoscopy in Past 5 Years				Never Had a Blood Stool Test			
	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.
TOTAL	2494	1247	52.4	49.6-55.2	2470	1392	58.9	56.1-61.6	2514	1075	44.9	42.1-47.7
GENDER												
Male	901	437	51.4	46.7-56.0	893	479	57.2	52.6-61.7	911	425	49.4	44.8-54.0
Female	1593	810	53.2	49.7-56.7	1577	913	60.2	56.7-63.6	1603	650	41.2	37.8-44.8
RACE												
White	2058	1007	51.0	47.9-54.1	2041	1136	58.2	55.1-61.2	2074	850	43.8	40.7-46.9
African American	354	189	57.0	49.4-64.2	348	202	60.5	52.9-67.7	358	176	47.0	39.7-54.5
Other Minorities	52	33	73.2	55.7-85.5	51	35	75.4	58.0-87.2	53	34	67.1	45.4-83.3
HISPANIC												
Yes	31	18	59.3	34.2-80.4	31	18	59.3	34.2-80.4	32	15	57.7	34.0-78.3
No	2457	1226	52.4	49.5-55.2	2433	1371	58.9	56.1-61.7	2477	1058	44.7	41.9-47.6
AGE												
50-54	540	347	66.9	60.9-72.3	538	369	71.7	66.0-76.8	540	282	55.0	48.8-61.1
55-64	809	391	49.3	44.3-54.2	804	435	56.3	51.4-61.1	810	314	43.5	38.6-48.6
65+	1145	509	47.6	43.4-51.8	1128	588	54.4	50.2-58.5	1164	479	41.0	36.9-45.1
EDUCATION												
Less Than H.S.	534	287	60.2	54.2-65.9	522	312	65.5	59.6-71.0	549	263	49.6	43.6-55.6
H.S. or G.E.D.	758	409	55.8	50.6-60.8	754	451	61.1	56.0-66.0	763	340	41.9	37.0-47.0
Some Post-H.S.	582	286	48.1	42.3-54.0	575	327	55.3	49.4-61.2	581	246	47.7	41.8-53.7
College Graduate	611	259	42.7	37.1-48.4	610	296	51.4	45.8-57.1	612	222	40.4	34.9-46.2
HOUSEHOLD INCOME												
Less than $15,000	316	169	61.2	53.0-68.8	309	189	67.2	59.2-74.3	320	161	52.6	44.3-60.8
$15,000-24,999	428	221	53.4	46.6-60.2	424	253	59.6	52.7-66.1	435	192	43.1	36.5-50.0
$25,000-34,999	321	161	54.1	46.3-61.6	320	181	61.5	53.8-68.6	321	130	39.5	32.3-47.2
$35,000-49,999	292	149	47.1	39.0-55.3	291	164	54.1	45.8-62.2	293	124	43.5	35.5-51.8
$50,000+	523	245	48.7	42.6-54.8	522	272	55.2	49.2-61.1	522	193	42.9	36.9-49.1
COUNTY/REGION*												
Buncombe	194	106	55.6	47.8-63.1	192	113	58.1	50.3-65.5	196	94	47.9	40.3-55.6
Cumberland	154	75	49.8	41.1-58.6	153	80	53.3	44.5-61.9	156	64	42.2	33.8-51.1
Durham	137	64	47.8	36.1-59.8	132	69	53.4	41.5-64.8	137	49	43.8	31.9-56.5
Forsyth	217	84	37.4	30.6-44.7	213	103	46.2	39.0-53.6	218	63	26.6	20.8-33.3
Gaston	201	107	51.4	43.8-59.0	200	116	56.7	49.0-64.1	203	98	47.2	39.8-54.8
Guilford	170	90	54.4	45.6-62.9	166	95	57.9	49.0-66.3	173	74	45.4	36.9-54.2
Mecklenburg	142	60	41.0	32.4-50.2	141	70	49.6	40.6-58.7	143	55	38.4	30.0-47.7
New Hanover	166	66	39.7	31.8-48.2	165	82	47.3	39.0-55.7	166	65	39.8	31.9-48.3
Onslow	118	68	55.5	45.1-65.5	118	76	61.5	50.9-71.2	118	64	55.6	45.3-65.5
Wake	118	49	41.4	31.8-51.6	116	56	47.9	38.0-58.0	118	44	39.3	30.0-49.4
Western NC	322	165	52.9	46.8-59.0	321	189	61.7	55.7-67.4	325	144	45.9	39.8-52.1
Piedmont NC	295	159	51.8	45.3-58.3	294	178	59.3	52.7-65.6	297	131	43.1	36.8-49.7
Eastern NC	260	154	62.2	55.1-68.8	259	165	66.4	59.4-72.7	264	130	52.3	45.3-59.3

*See the Introduction for counties included in the three regions (Western, Piedmont, and Eastern)

Prostate Cancer Screening

Did not have a Prostate Specific Antigen (PSA) test within the last year *(males age 40+)*

- 55.5 percent of males reported not having a PSA test in the last year.
- The rate of no PSA test was about the same among African American and white males.
- The rate of no PSA test drops with increasing age, e.g., 75.7 percent of 40 to 44 year olds versus 39.2 percent of 65+ year olds reported no PSA test in the past year.
- Lack of education and low income were associated with higher rates of no PSA test.

Did not have a digital rectal exam (DRE) within the last year *(males age 40+)*

- 52 percent of NC adult males ages 40 and older reported not having a DRE within the last year.
- The rate of no DRE was about the same among African American and white males.
- The of rate no DRE declined with age.

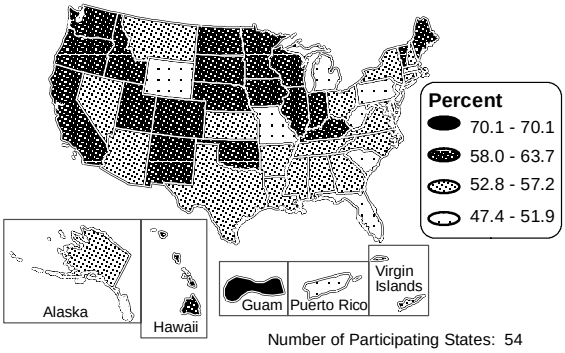
Personal or Family History of Prostate Cancer *(males age 40+)*

- An estimated 16 percent of the male population, age 40 and older, in North Carolina reported that a family member (i.e., father, brother, son, or grandfather) had prostate cancer.
- 17.5 percent of white males and 11.2 percent of African American males reported a family history of prostate cancer.
- 15.4 percent of 40 to 44 year old males reported a family history; 21.0 percent of 65+ year olds reported a family history of prostate cancer.

Geographical Variation (no PSA test within past year)

North Carolina: Across the counties, the rate of no PSA test in the past year varied from 62.4 percent in New Hanover County to 38 percent in Cumberland. Though the sample sizes are too small to be reliable, the risk of a reported family history of prostate cancer was highest in the Western region, compared to all other geographic strata.
Nationwide: Among all states, North Carolina had the 29th highest rate (55.5%) of male adults with no PSA test in the past year. Hawaii had the highest rate (63.7%), while Florida had the lowest rate of no PSA test (47.4%) for males in the past year.

Figure 24a. No PSA Test Past Year (Males, Age 40+)
United States, 2001

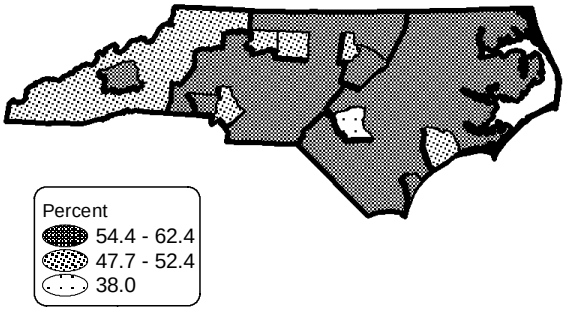


Number of Participating States: 54
(Including Guam, Puerto Rico, Virgin Is. & D.C.)

Source: BRFSS
Not to Scale

Mean: 55.9 Median: 56.1

Figure 24b. No PSA Test Past Year (Males, Age 40+)
North Carolina, 2001



Source: BRFSS

Mean: 52.9 Median: 52.4

Table 24. Prostate Cancer Screening of NC Men (Age 40+), 2001

	Didn't Have a Prostate Specific Antigen Test in Past Year				Didn't Have a Digital Rectal Exam in Past Year				Personal or Family History of Prostate Cancer			
	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.
TOTAL	1311	683	55.5	51.6-59.3	1356	669	52.0	48.2-55.8	1352	197	16.1	13.3-19.4
RACE												
White	1076	542	53.9	49.6-58.2	1119	532	50.5	46.3-54.7	1119	172	17.5	14.3-21.2
African American	180	104	58.3	47.8-68.1	182	100	54.0	43.6-63.9	178	20	11.2	5.9-20.3
Other Minorities	42	30	75.8	54.7-89.0	42	31	72.0	50.0-86.9	42	4	9.2	2.4-30.1
HISPANIC												
Yes	20	10	58.7	31.6-81.4	21	13	64.7	37.5-84.8	21	2	4.2	0.9-18.1
No	1287	670	55.4	51.5-59.3	1331	654	51.8	47.9-55.7	1327	195	16.3	13.4-19.6
AGE												
40-44	225	170	75.7	66.8-82.8	234	163	69.4	60.7-76.9	235	26	15.4	9.5-24.1
45-54	405	255	65.9	58.7-72.4	423	237	58.1	51.1-64.8	422	47	14.4	9.5-21.4
55-64	314	123	42.8	35.1-50.8	318	127	42.0	34.5-49.9	315	41	13.6	9.1-19.8
65+	367	135	39.2	32.4-46.5	381	142	40.6	33.8-47.8	380	83	21.0	15.9-27.2
EDUCATION												
Less Than H.S.	230	145	64.2	55.2-72.3	251	135	57.2	48.6-65.3	248	32	11.1	7.1-16.9
H.S. or G.E.D.	333	182	60.6	53.1-67.6	342	189	56.1	48.6-63.4	341	46	16.4	11.2-23.5
Some Post-H.S.	288	140	48.0	39.6-56.4	293	144	48.3	40.0-56.7	291	54	21.1	14.7-29.3
College Graduate	453	212	49.9	43.2-56.6	464	198	46.8	40.2-53.6	465	64	16.2	11.3-22.7
HOUSEHOLD INCOME												
Less than $15,000	111	71	65.9	52.1-77.4	126	67	56.4	43.8-68.2	126	13	15.9	7.7-29.7
$15,000- 24,999	176	101	59.0	48.3-68.9	181	96	58.0	47.7-67.7	178	28	14.4	8.3-23.9
$25,000- 34,999	158	83	50.4	39.4-61.3	160	82	43.7	33.5-54.4	162	28	20.5	12.5-31.8
$35,000- 49,999	200	99	57.8	48.0-67.1	207	105	54.8	45.0-64.2	204	17	9.8	5.4-17.0
$50,000+	417	209	51.1	44.3-57.9	426	197	47.2	40.5-54.1	422	70	16.4	11.6-22.8
COUNTY/REGION*												
Buncombe	93	53	57.1	46.2-67.3	98	55	57.5	46.9-67.4	99	10	9.9	5.3-17.9
Cumberland	80	32	38.0	27.2-50.1	80	31	36.8	26.1-48.9	80	10	11.1	5.8-20.1
Durham	69	30	49.6	33.6-65.7	70	26	44.4	28.4-61.6	70	10	12.6	6.4-23.2
Forsyth	108	51	51.3	41.2-61.3	115	46	44.0	34.4-54.1	114	17	13.4	8.1-21.3
Gaston	105	55	54.4	44.2-64.3	111	61	54.2	44.1-63.9	113	17	15.5	9.7-23.8
Guilford	85	43	49.9	38.2-61.6	89	41	42.3	31.5-53.8	87	11	9.4	4.9-17.1
Mecklenburg	87	47	52.4	41.3-63.3	87	49	55.5	44.3-66.2	87	11	11.2	6.0-19.8
New Hanover	97	58	62.4	51.8-71.9	99	53	55.8	45.2-65.9	95	16	17.0	10.4-26.6
Onslow	82	38	47.7	35.4-60.3	83	42	54.3	42.0-66.1	87	11	13.5	7.1-24.2
Wake	73	41	56.7	44.3-68.4	76	41	56.3	44.2-67.7	75	7	13.2	6.1-26.3
Western NC	160	78	50.9	42.4-59.3	166	80	50.3	42.0-58.6	165	33	22.8	16.2-31.1
Piedmont NC	146	91	61.4	51.9-70.1	152	85	59.7	50.6-68.2	148	22	16.0	9.8-24.9
Eastern NC	126	66	56.3	46.4-65.7	130	59	46.4	36.9-56.1	132	22	18.2	11.7-27.0

*See the Introduction for counties included in the three regions (Western, Piedmont, and Eastern)

Consumed 5 or more servings of fruits/vegetables per day

- About 25 percent of NC adults reported that they consumed the recommended number of servings of fruits and vegetables, i.e., five or more fruits and/or vegetables daily.
- Women (28.8%) were more likely to consume 5+ servings of fruits and vegetables than men (21.1%).
- Consuming 5+ servings of fruits and vegetables tended to increase with age.
- Consuming 5+ servings of fruits and vegetables increased with each level of education.

Geographical Variation (recommended consumption fruits/vegetables)

North Carolina: Consumption of the recommended daily amount of fruits and vegetables was nearly the same for the Piedmont and the Eastern region, while in the Western region consumption was noticeably higher. Small sample sizes warrant caution for geographical comparisons of this indicator.
Nationwide: Among the 12 states/territories that participated in the 2001 Fruits and Vegetables Module, North Carolina had the 6th highest rate (25.2%) of the recommended servings of five fruits/vegetables per day; Tennessee had the highest rate (37.1%) and Kentucky had the lowest rate (20.4%). (Participants: *Arizona, Connecticut, Hawaii, Illinois, Iowa, Kentucky, Montana, North Carolina, Ohio, Tennessee, Wisconsin, and Guam.)*

North Carolina Trend

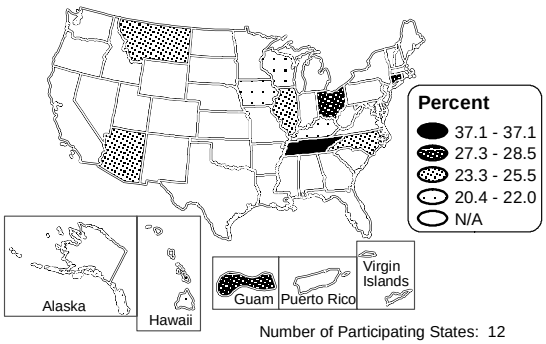
- The rate of consuming five servings of fruits or vegetables per day increased in North Carolina from 18.9 percent in 1994 to 25.2 percent in 2001. This increase was the highest among white males.

Table 25a. Consumption of Five or More Fruit and Vegetables per Day in North Carolina by Year, Race, and Sex

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
NC	*	*	*	*	18.9	14.9	16.5	*	21.4	*	22.1	25.2
White	*	*	*	*	17.8	13.8	13.3	*	16.7	*	19.6	26.7
Black	*	*	*	*	23.1	19.4	21.7	*	28.5	*	26.6	21.7
White Male	*	*	*	*	8.2	6.1	11.6	*	16.7	*	16.0	22.0
White Female	*	*	*	*	15.3	11.5	13.0	*	17.2	*	20.0	30.8
Black Male	*	*	*	*	20.5	16.6	17.6	*	22.8	*	23.2	22.4
Black Female	*	*	*	*	12.1	9.2	12.4	*	17.0	*	18.2	21.0
(US)	21.4	21.0	21.2	23.3	24.2	24.0	24.3	23.3	23.9	24.8	24.2	26.1

* Question not asked in these years

Figure 25a. Eat 5+ Fruits and Vegetables Daily United States, 2001

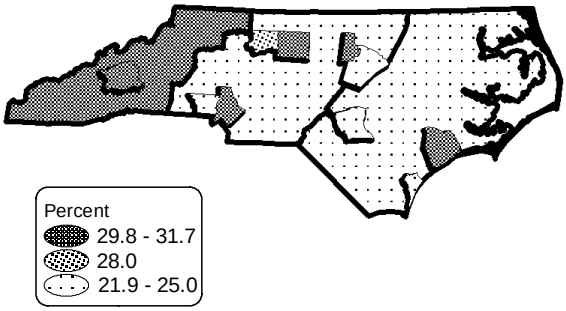


Number of Participating States: 12
(Including Guam, Puerto Rico, Virgin Is. & D.C.)

Source: BRFSS
Not to Scale

Mean: 25.4 Median: 24.8

Figure 25b. Eat 5+ Fruits and Vegetables Daily North Carolina, 2001



Source: BRFSS

Mean: 27.2 Median: 28

Table 25b. Daily Fruit and Vegetable Consumption by NC Adults, 2001

	Less than once				1 to 2 times			3 to 4 times			5 or more times		
	Total Resp.	N	%	95% C.I.	N	%	95% C.I.	N	%	95% C.I.	N	%	95% C.I.
TOTAL	2,904	88	3.5	2.4-5.0	781	30.0	27.3-32.8	1,220	41.4	38.5-44.4	815	25.2	22.9-27.5
GENDER													
Male	1,107	44	5.1	3.1-8.2	352	34.7	30.6-39.1	453	39.0	34.8-43.4	258	21.1	17.8-24.9
Female	1,797	44	1.9	1.2-3.0	429	25.7	22.3-29.4	767	43.5	39.6-47.6	557	28.8	25.9-31.9
RACE													
White	2,233	56	2.8	1.7-4.7	574	30.0	26.9-33.4	934	40.7	37.3-44.1	669	26.5	24.0-29.1
African American	521	26	6.3	3.7-10.6	171	30.5	24.9-36.7	218	41.5	35.3-48.0	106	21.7	16.4-28.1
Other Minorities	108	5	2.2	0.8-5.8	28	31.0	18.5-47.1	42	44.5	28.8-61.3	33	22.4	13.0-35.6
HISPANIC													
Yes	81	3	2.7	0.6-10.6	31	39.1	23.1-57.8	27	41.7	23.2-62.8	20	16.6	8.5-29.8
No	2,815	85	3.5	2.4-5.1	749	29.6	26.9-32.5	1,189	41.4	38.5-44.4	792	25.5	23.2-27.9
AGE													
18-24	248	11	6.7	2.3-17.9	73	32.7	24.4-42.2	111	41.3	32.1-51.2	53	19.3	13.6-26.7
25-34	548	17	4.4	2.0-9.2	190	38.8	32.9-45.1	216	34.5	29.1-40.3	125	22.3	17.2-28.5
35-44	596	18	3.1	1.6-5.8	183	31.9	26.1-38.3	246	44.9	38.9-51.0	149	20.2	16.3-24.7
45-54	527	18	2.6	1.4-4.5	142	29.7	23.6-36.8	210	41.5	33.9-49.6	157	26.2	20.6-32.6
55-64	407	12	3.0	1.4-6.4	82	25.9	19.6-33.5	176	39.2	32.7-46.1	137	31.8	25.8-38.5
65+	555	12	1.8	0.8-4.3	108	20.1	15.7-25.3	252	45.7	39.9-51.6	183	32.4	27.1-38.2
EDUCATION													
Less Than H.S.	388	23	8.3	4.0-16.3	137	39.3	31.5-47.7	160	36.9	29.4-45.2	68	15.4	10.7-21.6
H.S. or G.E.D.	897	38	4.5	2.7-7.4	261	31.3	26.7-36.3	356	39.9	35.2-44.9	242	24.3	20.4-28.7
Some Post-H.S.	743	16	1.5	0.7-3.0	183	28.6	24.1-33.7	328	41.6	36.5-46.8	216	28.3	23.9-33.1
College Graduate	867	11	1.1	0.5-2.4	197	23.7	19.6-28.4	374	45.9	40.3-51.5	285	29.3	24.9-34.1
HOUSEHOLD INCOME													
Less than $15,000	281	19	5.5	3.2-9.5	81	31.2	22.9-40.8	110	37.6	29.4-46.6	71	25.7	18.9-33.8
$15,000-24,999	489	20	4.5	2.3-8.9	147	35.9	29.3-43.2	205	41.9	35.4-48.6	117	17.7	13.4-23.0
$25,000-34,999	389	16	4.9	2.3-9.8	113	36.3	28.9-44.4	148	31.3	25.2-38.1	112	27.5	21.4-34.6
$35,000-49,999	456	6	2.9	1.0-7.8	117	29.4	23.5-36.1	204	43.1	36.7-49.7	129	24.6	19.7-30.3
$50,000+	759	11	0.9	0.4-1.7	184	26.5	21.9-31.8	335	43.7	37.9-49.8	229	28.8	23.9-34.3
COUNTY/REGION*													
Buncombe	195	3	1.0	0.3-3.2	52	26.9	20.5-34.5	75	40.8	33.2-48.8	65	31.3	24.6-38.8
Cumberland	210	9	3.3	1.5-7.1	56	26.4	18.5-36.1	80	45.7	31.9-60.1	65	24.6	17.4-33.7
Durham	178	5	2.2	0.8-5.7	54	37.3	25.3-51.0	68	29.6	21.8-38.8	51	31.0	22.0-41.6
Forsyth	214	5	1.6	0.6-4.2	61	29.7	22.8-37.6	93	41.2	33.6-49.3	55	27.5	20.2-36.3
Gaston	216	7	3.1	1.4-6.9	58	28.0	21.6-35.4	100	45.3	38.0-52.8	51	23.5	17.8-30.4
Guilford	204	5	3.0	1.2-7.2	53	26.2	19.9-33.6	87	41.0	33.4-49.1	59	29.8	23.0-37.7
Mecklenburg	206	6	3.1	1.3-7.4	44	21.9	16.2-28.9	90	44.2	36.8-51.8	66	30.8	24.2-38.3
New Hanover	196	7	4.4	1.9-9.7	53	27.9	21.1-35.9	82	43.5	35.5-51.9	54	24.2	18.2-31.4
Onslow	206	7	2.7	1.2-6.1	47	27.8	17.7-40.7	87	39.3	30.9-48.5	65	30.2	22.2-39.6
Wake	201	7	4.7	1.7-12.4	64	32.1	25.0-40.2	79	39.2	31.7-47.2	51	24.1	18.2-31.2
Western NC	288	7	2.3	1.0-5.1	64	23.0	17.9-29.0	131	44.0	37.6-50.5	86	30.8	25.0-37.2
Piedmont NC	325	10	2.7	1.3-5.5	100	34.4	27.7-41.7	137	41.0	33.8-48.7	78	21.9	17.0-27.6
Eastern NC	265	10	5.7	2.4-12.9	75	32.2	25.4-39.7	111	40.5	33.6-47.9	69	21.6	16.3-28.2

*See the Introduction for counties included in the three regions (Western, Piedmont, and Eastern)

Weight Control

Obesity (body mass index [BMI] ≥ 30 kg/m²)

- About 23 percent of adults were obese in 2001, up slightly from 21.8 percent in 2001.
- The prevalence of obesity was about the same for males and females.
- The 2001 difference in obesity rates for African Americans (34.9%) and whites (20.4%) was about the same as in 2000 (33.1 percent and 19.4 percent, respectively).
- The prevalence of obesity increased as income decreased.

Overweight (body mass index [BMI] ≥ 25 kg/m² and < 30 kg/m²)

- In 2001 35.9 percent of NC adults were overweight, based on reported height and weight, down slightly from 37.4 percent in 2000.
- Males were more likely to be overweight (44.9%) than females (27.2%).
- The prevalence of being overweight was about the same for whites and African Americans.

Underweight (body mass index [BMI] < 18.5 kg/m²)

- 2.1 percent of adults were underweight according to national guidelines.
- 2.9 percent of females were underweight, compared to 1.3 percent of males.
- The overall prevalence of being underweight in NC has remained almost unchanged since 1999.

Geographical Variation (obesity)

North Carolina: Prevalence of obesity ranged from 16.9 percent in New Hanover County to 26.5 percent in Gaston County and the Eastern North Carolina region.
Nationwide: Nationally**,** the prevalence of obesity ranged from 14.9 percent in Colorado to 26.5 percent in Mississippi. North Carolina ranked 12th highest with a rate of 22.9 percent.

North Carolina Trend

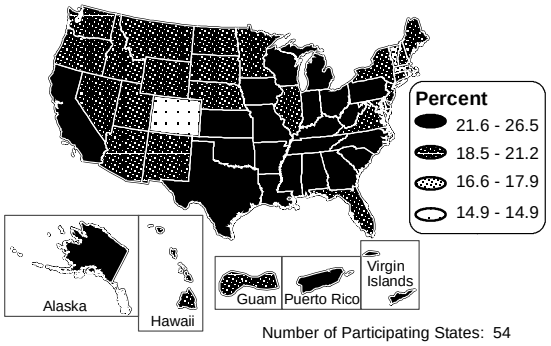
- The prevalence of obesity in North Carolina has been increasing annually since 1990 and has nearly doubled since then. This trend has affected all demographic groups.

Table 26a. Percent Obese in North Carolina by Year, Race, and Sex

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
NC	12.9	13.4	13.4	15.7	16.3	16.9	18.1	18.3	19.4	21.5	21.8	22.9
White	11.2	11.7	10.8	13.8	14.6	14.1	16.0	15.7	17.1	19.6	19.4	20.4
Black	21.1	19.8	23.9	24.3	25.9	28.6	26.9	29.3	29.7	30.2	33.1	34.9
White Male	11.3	11.8	11.4	13.6	17.4	14.4	18.0	18.0	17.7	19.7	20.5	22.0
White Female	11.0	11.6	10.3	14.1	11.8	13.8	13.9	13.5	16.5	19.5	18.3	18.9
Black Male	19.0	18.3	15.1	23.8	22.3	22.7	21.3	26.3	25.0	27.8	26.9	28.6
Black Female	22.7	21.0	31.6	24.8	28.9	33.9	31.9	32.1	33.7	32.3	38.7	40.2
(US)	11.5	12.4	13.0	14.1	14.8	15.8	16.3	16.9	18.4	19.4	20.4	21.6

HP2010 Objective:
Reduce the percentage of adults who are obese to 15%
(NC: 1999 = 21.5%, 2000 = 21.8%, 2001 = 22.9%).

Figure 26a. Obesity Prevalence
United States, 2001

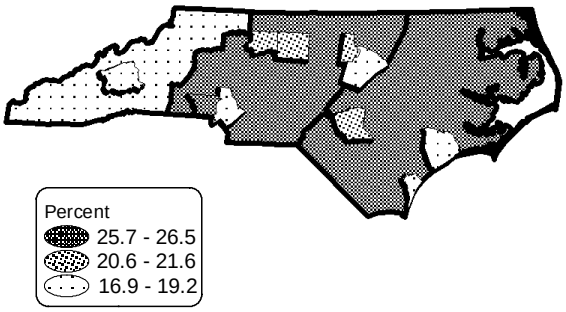


Number of Participating States: 54
(Including Guam, Puerto Rico, Virgin Is. & D.C.)

Source: BRFSS
Not to Scale

Mean: 21.2 Median: 21.1

Figure 26b. Obesity Prevalence
North Carolina, 2001



Source: BRFSS

Mean: 21.1 Median: 20.6

Table 26b. Body Mass Index of NC Adults, 2001

		Underweight			Recommended Range			Overweight			Obese		
	Total Resp.	N	%	95% C.I.	N	%	95% C.I.	N	%	95% C.I.	N	%	95% C.I.
TOTAL	5,852	140	2.1	1.6-2.7	2,415	39.1	37.2-41.0	2,014	35.9	34.1-37.9	1,283	22.9	21.2-24.6
GENDER													
Male	2,337	24	1.3	0.7-2.2	781	31.2	28.6-34.1	1,042	44.9	41.9-47.9	490	22.6	20.1-25.3
Female	3,515	116	2.9	2.2-3.7	1,634	46.7	44.0-49.4	972	27.2	25.0-29.6	793	23.2	21.1-25.4
RACE													
White	4,458	112	2.0	1.5-2.7	1,965	41.2	39.0-43.5	1,524	36.3	34.1-38.5	857	20.4	18.6-22.4
African American	1,066	18	2.1	1.1-3.7	305	28.8	24.7-33.2	374	34.3	30.2-38.7	369	34.9	30.6-39.4
Other Minorities	250	8	1.7	0.5-5.2	115	48.4	39.0-57.9	88	34.7	25.8-44.8	39	15.2	10.0-22.4
HISPANIC													
Yes	167	3	2.2	0.5-10.3	65	35.8	26.1-46.8	64	42.6	31.8-54.1	35	19.4	12.6-28.7
No	5,675	136	2.0	1.6-2.6	2,347	39.2	37.3-41.2	1,948	35.7	33.8-37.7	1,244	23.0	21.3-24.8
AGE													
18-24	525	27	5.3	3.1-8.9	302	53.3	46.6-59.9	129	25.4	19.9-31.8	67	16.0	11.3-22.0
25-34	1,109	21	1.3	0.7-2.4	501	44.0	39.6-48.6	365	34.7	30.6-39.1	222	19.9	16.6-23.7
35-44	1,211	18	1.1	0.6-2.1	508	36.4	32.6-40.4	428	38.0	33.9-42.2	257	24.5	20.8-28.6
45-54	1,073	20	0.9	0.5-1.7	364	31.8	27.1-37.0	389	38.8	34.2-43.7	300	28.5	24.3-33.0
55-64	786	18	2.1	1.2-3.9	252	29.7	25.4-34.3	300	40.4	35.6-45.5	216	27.8	23.3-32.7
65+	1,114	36	2.8	1.8-4.4	476	41.0	36.9-45.1	387	36.4	32.4-40.6	215	19.8	16.6-23.5
EDUCATION													
Less Than H.S.	783	28	2.7	1.7-4.3	285	39.7	34.5-45.2	254	32.8	28.1-38.0	216	24.7	20.5-29.4
H.S. or G.E.D.	1,755	44	2.5	1.6-3.8	684	35.4	32.2-38.9	615	35.7	32.3-39.3	412	26.3	23.1-29.8
Some Post-H.S.	1,514	33	1.7	0.9-3.3	604	37.0	33.5-40.6	543	39.8	36.2-43.5	334	21.4	18.5-24.7
College Graduate	1,785	35	1.6	1.0-2.5	833	45.0	41.4-48.5	598	34.8	31.5-38.2	319	18.7	16.1-21.7
HOUSEHOLD INCOME													
Less than $15,000	555	28	5.5	3.1-9.7	210	37.2	31.1-43.6	151	28.1	22.6-34.4	166	29.3	23.7-35.5
$15,000-24,999	977	24	2.1	1.2-3.7	381	35.8	31.3-40.6	320	34.7	30.2-39.6	252	27.3	23.1-32.0
$25,000-34,999	844	18	1.7	0.9-3.2	356	38.4	33.8-43.3	284	36.1	31.3-41.1	186	23.8	19.6-28.6
$35,000-49,999	936	15	1.0	0.5-1.9	379	40.0	35.6-44.7	338	35.8	31.5-40.3	204	23.2	19.5-27.4
$50,000+	1,525	21	1.2	0.7-2.1	638	37.7	34.0-41.5	577	41.7	37.9-45.5	289	19.4	16.5-22.7
COUNTY/REGION*													
Buncombe	403	7	1.5	0.7-3.3	190	46.1	40.6-51.7	130	33.2	28.1-38.7	76	19.2	15.3-23.9
Cumberland	408	4	1.0	0.4-2.9	168	40.3	34.6-46.2	141	37.3	31.7-43.3	95	21.4	17.2-26.3
Durham	380	4	0.6	0.2-1.6	159	40.2	33.9-46.8	135	38.5	31.6-46.0	82	20.7	16.1-26.1
Forsyth	432	11	1.5	0.8-2.9	174	41.5	36.0-47.1	150	35.4	30.4-40.8	97	21.6	17.3-26.6
Gaston	434	9	1.4	0.7-2.9	157	35.3	30.3-40.5	154	36.8	31.7-42.1	114	26.5	22.1-31.5
Guilford	392	17	3.8	2.1-6.8	166	40.6	35.2-46.2	124	35.0	29.6-40.9	85	20.6	16.4-25.5
Mecklenburg	407	8	2.0	0.9-4.6	179	40.9	35.4-46.6	144	38.2	32.7-43.9	76	18.9	15.1-23.5
New Hanover	388	14	2.5	1.4-4.3	175	42.9	36.5-49.5	129	37.7	30.7-45.3	70	16.9	13.0-21.7
Onslow	409	10	3.0	1.5-5.9	168	39.0	32.5-45.9	138	39.7	32.3-47.6	93	18.3	14.3-23.0
Wake	400	11	2.6	1.3-5.1	170	43.3	37.7-49.0	139	34.8	29.6-40.5	80	19.2	15.2-24.0
Western NC	581	17	3.3	1.9-5.7	258	42.8	38.4-47.4	203	35.6	31.3-40.1	103	18.3	15.0-22.1
Piedmont NC	635	15	1.6	0.9-2.9	241	36.6	32.0-41.4	223	36.1	31.6-41.0	156	25.7	21.7-30.1
Eastern NC	583	13	2.0	1.0-4.0	210	36.4	31.7-41.5	204	35.0	30.6-39.7	156	26.5	22.4-31.2

*See the Introduction for counties included in the three regions (Western, Piedmont, and Eastern)

Recognition of Heart Attack and Stroke Symptoms

Did not recognize all heart attack symptoms

- Most adults (90.4%) could not correctly identify all five actual symptoms of a heart attack [1) discomfort in jaw, neck; 2) lightheadedness; 3) chest pain; 4) arm/shoulder pain; and 5) shortness of breath] and one incorrect symptom (vision trouble).
- Females had a lower rate of not recognizing symptoms than males.
- African Americans had a higher rate of not recognizing symptoms than whites.
- The lowest rate of not recognizing symptoms was evident among college graduates.

Did not recognize all stroke symptoms

- Compared to recognition of heart attack symptoms, somewhat fewer adults (80.2%) could not correctly identify all five actual symptoms of a stroke [1) sudden confusion/trouble speaking; 2) sudden numbness face/arm/leg; 3) vision trouble; 4) sudden dizziness; and 5) severe headache of no known cause] and one incorrect symptom (sudden chest pain).
- Not recognizing all stroke symptoms was most associated with education.

Not call 911 if someone was having a heart attack or stroke

- About 11 percent of adults reported that calling 911 would not be their first response if someone was having a heart attack or stroke.
- The risk of not calling 911 was significantly higher among males (13.9%) than females (8.9%).
- The highest risk of not calling 911 was evident among 65+ year olds (16.6%).

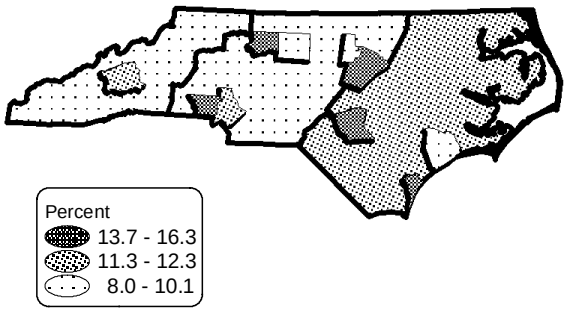
Geographical Variation (not calling 911 if someone having a heart attack or stroke)

North Carolina: Respondents from New Hanover (16.3%) were most likely to not call 911 as their first response if someone was having a heart attack or stroke. Respondents from Rural Western North Carolina, Durham, Guilford, and Onslow counties were less likely not to call 911 as a first choice when witnessing a heart attack or stroke (but these results are based on small numbers).
Nationwide: Respondents from Virgin Islands (27.1%) were the most likely not to choose 911 as their first response if someone was having a heart attack or stroke, compared to 9.1 percent of respondents from Minnesota. North Carolina ranked 5th highest among the 19 participants with a rate of 11.3 percent. (Participants: *Alabama, Arkansas, Colorado, Connecticut, Hawaii, Louisiana, Maine, Minnesota, Montana, North Carolina, Ohio, South Carolina, Tennessee, Utah, Virgin Islands, Virginia, West Virginia, Wisconsin, and Wyoming*.)

HP2010 Objective:

(Developmental) Increase the proportion of adults aged 20 years and older who are aware of the early warning symptoms and signs of a heart attack and the importance of accessing rapid emergency care by calling 911.

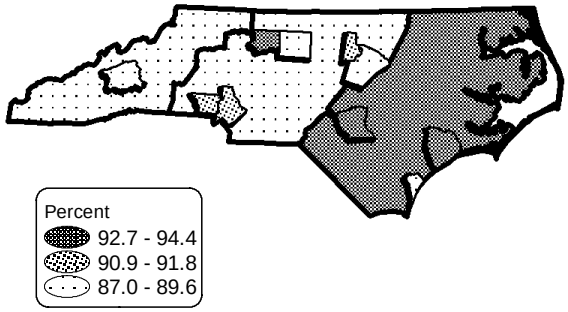
Figure 27a. 911 Not First Reponse/Heart Attack
North Carolina, 2001



Source: BRFSS

Mean: 12.0 Median: 11.5

Figure 27b. Did Not Recognize Symptoms of a Heart Attack
North Carolina, 2001



Source: BRFSS

Mean: 90.6 Median: 90.9

Table 27. Recognition of Heart Attack and Stroke Symptoms by NC Adults, 2001

	Did not Recognize All Heart Attack Symptoms				Did not Recognize All Stroke Symptoms				Would not Call 911 First When Seeing Heart Attack or Stroke			
	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.
TOTAL	2946	2647	90.4	88.1-92.2	2940	2385	80.2	77.9-82.3	2909	328	11.3	9.6-13.2
GENDER												
Male	1122	1032	92.5	90.2-94.4	1119	917	82.2	78.6-85.2	1109	162	13.9	11.1-17.4
Female	1824	1615	88.4	84.6-91.4	1821	1468	78.5	75.4-81.2	1800	166	8.9	7.2-11.0
RACE												
White	2264	2009	89.0	86.1-91.4	2259	1794	78.4	75.7-80.8	2237	247	11.1	9.3-13.2
African American	531	499	94.4	90.8-96.6	529	454	83.9	78.0-88.5	520	59	13.3	8.9-19.3
Other Minorities	106	98	94.1	85.9-97.6	107	99	90.8	79.4-96.2	107	15	7.4	3.8-14.1
HISPANIC												
Yes	81	79	98.8	95.0-99.7	81	76	95.4	84.6-98.7	82	8	11.7	4.9-25.6
No	2858	2561	90.0	87.7-92.0	2852	2303	79.6	77.2-81.8	2820	319	11.3	9.6-13.2
AGE												
18-24	253	241	95.0	89.6-97.6	251	217	87.2	80.6-91.8	249	28	7.5	4.7-11.8
25-34	559	512	90.6	86.3-93.6	558	448	76.3	69.9-81.7	556	50	12.0	7.7-18.2
35-44	602	541	90.2	86.5-93.0	602	484	77.8	71.9-82.7	593	61	9.8	6.9-13.8
45-54	533	460	86.2	76.1-92.5	532	404	75.9	66.9-83.0	526	74	11.9	7.9-17.5
55-64	412	367	91.3	87.4-94.1	411	329	81.3	75.6-85.9	408	34	8.6	5.3-13.6
65+	564	505	90.4	86.5-93.3	563	485	85.8	81.3-89.4	554	78	16.6	12.5-21.7
EDUCATION												
Less Than H.S.	399	374	94.8	91.0-97.0	398	363	92.2	88.2-94.9	390	34	7.3	4.7-11.2
H.S. or G.E.D.	907	825	92.6	89.8-94.6	905	770	84.3	79.9-87.9	896	100	12.1	8.9-16.1
Some Post-H.S.	757	689	92.7	90.0-94.7	756	616	77.3	72.3-81.6	747	92	12.3	9.3-16.1
College Graduate	875	752	83.1	76.4-88.1	873	628	70.5	64.4-75.9	868	101	11.8	8.7-15.8
HOUSEHOLD INCOME												
Less than $15,000	289	267	94.3	89.1-97.1	288	260	88.3	80.7-93.1	281	34	12.2	7.8-18.5
$15,000-24,999	495	460	94.2	90.5-96.5	493	428	87.0	82.0-90.7	485	51	9.7	6.6-14.0
$25,000-34,999	394	368	94.5	90.9-96.7	393	335	80.1	72.2-86.3	389	57	15.1	10.5-21.2
$35,000-49,999	462	399	86.1	80.9-90.1	460	343	73.6	67.4-79.1	457	46	9.8	6.5-14.4
$50,000+	764	668	86.4	79.4-91.2	764	564	72.4	65.7-78.2	759	74	12.2	8.4-17.3
COUNTY/REGION*												
Buncombe	199	171	87.0	81.1-91.3	198	157	79.8	73.0-85.2	196	22	12.3	7.9-18.6
Cumberland	211	195	93.5	88.8-96.3	210	173	83.5	74.8-89.6	208	31	15.8	9.7-24.7
Durham	178	159	91.8	86.5-95.2	178	145	85.8	79.3-90.5	178	18	8.4	5.0-13.8
Forsyth	218	198	92.7	88.4-95.4	218	175	82.7	76.7-87.3	215	30	13.7	9.3-19.7
Gaston	221	199	90.9	85.9-94.2	220	184	84.4	78.4-88.9	216	30	15.2	10.5-21.6
Guilford	208	183	88.9	83.3-92.7	208	167	82.9	76.7-87.7	205	16	9.4	5.2-16.4
Mecklenburg	207	188	91.0	85.6-94.5	207	164	77.2	69.9-83.1	205	21	11.3	7.1-17.5
New Hanover	200	179	89.4	83.3-93.4	200	167	86.8	81.3-90.9	196	27	16.3	10.9-23.8
Onslow	209	190	93.0	88.4-95.9	207	174	85.3	78.7-90.1	205	17	8.0	4.7-13.2
Wake	203	179	89.6	84.3-93.2	205	164	78.8	71.5-84.6	205	25	14.4	9.0-22.2
Western NC	290	256	87.8	82.9-91.5	289	232	79.8	74.1-84.5	287	28	9.2	6.2-13.4
Piedmont NC	329	295	87.8	79.8-92.9	329	269	79.2	73.6-84.0	326	31	10.1	6.7-15.0
Eastern NC	273	255	94.4	90.4-96.8	271	214	79.5	72.8-84.9	267	32	11.5	7.4-17.4

*See the Introduction for counties included in the three regions (Western, Piedmont, and Eastern)

Cardiovascular Disease

History of coronary heart disease or stroke

- 8.6 percent of NC adults reported that their doctor had ever told them that they had coronary heart disease (heart attack, angina, or other coronary heart disease) or stroke.
- The rate of these cardiovascular diseases was significantly higher among males (10.4%) than females (7.0%).
- The rate of these cardiovascular diseases was about the same among whites and African Americans.
- The rate of these cardiovascular diseases among those with less than a high school education (19.4%) was more than four times that of college graduates (4.1%); the same disparity was found between the poorest households and the wealthiest households.
- About 1 in 4 persons age 65 and older had a history of coronary heart disease or stroke (or both).

History of coronary heart disease

- 6.9 percent of adults had a history of coronary heart disease (heart attack, angina, or other coronary heart disease).
- Coronary heart disease prevalence follows a similar demographic risk pattern as that observed for coronary heart disease and stroke combined.

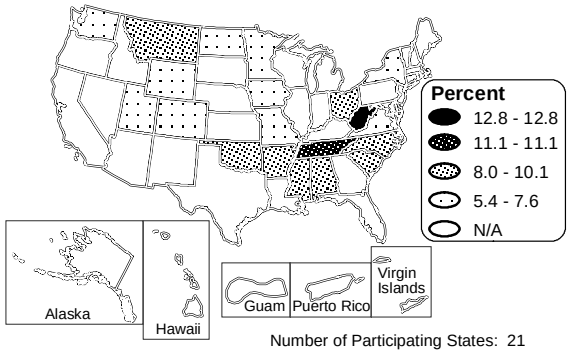
History of Stroke

- 2.8 percent of adults reported that their doctor had ever told them that they had had a stroke.
- In the 2001 sample, no 18 to 24 year olds reported that they had had a stroke.
- The rate was much higher in the lowest education group compared to other education levels.
- The highest rate of stroke was found among 65+ year olds (8.5%) and those from the poorest households (8.1%).

Geographical Variation (history of cardiovascular disease)

North Carolina: The reported history of cardiovascular disease (coronary heart disease or stroke) ranged from a high of 10.9 percent in the Piedmont to a low of 3.7 percent in Wake County. The reported history of stroke was highest in the Eastern region (4.1%) and lowest in Wake County (1.0%).
Nationwide: Among 21 states that participated in the Cardiovascular Disease Module in 2001, North Carolina had the 8th highest rate (8.6%) of reported cardiovascular disease. West Virginia had the highest rate of cardiovascular disease (12.8%), while the District of Columbia had the lowest rate (5.4%). (Participants: *Alabama, Arkansas, Colorado, District of Columbia, Iowa, Minnesota, Mississippi, Missouri, Montana, New York, North Carolina, North Dakota, Ohio, Oklahoma, South Carolina, Tennessee, Utah, Virginia, Washington, West Virginia, and Wyoming.)*

Figure 28a. History of Cardiovascular Disease United States, 2001

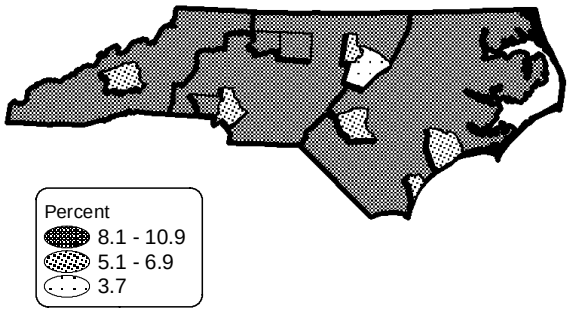


Number of Participating States: 21
(Including Guam, Puerto Rico, Virgin Is. & D.C.)

Source: BRFSS
Not to Scale

Mean: 8.2 Median: 8.0

Figure 28b. History of Cardiovascular Disease North Carolina, 2001



Source: BRFSS

Mean: 7.5 Median: 6.9

Table 28. Cardiovascular Disease History of NC Adults, 2001

	History of Heart Attack Angina, Other Coronary Heart Disease, or Stroke				History of Heart Attack, Angina, or Other Coronary Heart Disease				History of Stroke			
	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.
TOTAL	5981	517	8.6	7.6-9.8	5981	415	6.9	5.9-7.9	5988	159	2.8	2.2-3.5
GENDER												
Male	2293	228	10.4	8.7-12.5	2293	188	8.6	7.0-10.5	2296	66	3.0	2.1-4.4
Female	3688	289	7.0	6.0-8.3	3688	227	5.3	4.4-6.3	3692	93	2.5	1.9-3.5
RACE												
White	4549	403	8.8	7.6-10.1	4550	335	7.3	6.2-8.5	4555	108	2.4	1.8-3.2
African American	1085	93	8.5	6.3-11.6	1084	63	5.5	3.8-8.1	1086	44	4.5	2.8-7.3
Other Minorities	257	16	7.4	3.8-14.0	257	14	6.1	3.0-12.2	257	4	2.1	0.6-6.8
HISPANIC												
Yes	171	7	1.8	0.7-4.9	171	6	1.7	0.6-4.8	171	3	0.3	0.1-1.1
No	5796	508	8.9	7.8-10.1	5796	407	7.0	6.1-8.1	5803	156	2.9	2.3-3.7
AGE												
18-24	529	4	1.1	0.3-3.5	529	4	1.1	0.3-3.5	530	0	0.0	–
25-34	1121	11	0.8	0.4-1.7	1121	6	0.3	0.1-0.8	1121	5	0.5	0.2-1.4
35-44	1244	26	2.2	1.1-4.4	1244	24	2.0	0.9-4.1	1243	4	1.0	0.3-3.8
45-54	1111	85	9.4	6.7-13.0	1111	63	7.3	5.0-10.6	1111	31	2.9	1.6-5.1
55-64	789	121	15.2	11.8-19.4	789	107	14.0	10.7-18.1	792	34	4.1	2.5-6.7
65+	1136	267	24.7	21.1-28.6	1136	208	18.2	15.2-21.7	1140	85	8.5	6.2-11.5
EDUCATION												
Less Than H.S.	788	170	19.4	15.6-23.9	787	132	14.4	11.2-18.4	791	64	7.4	5.2-10.4
H.S. or G.E.D.	1782	152	8.3	6.5-10.6	1782	126	6.6	5.1-8.6	1786	45	2.9	1.7-4.7
Some Post-H.S.	1551	118	7.3	5.6-9.4	1552	92	6.0	4.5-8.0	1550	33	2.0	1.2-3.2
College Graduate	1842	77	4.1	2.9-5.7	1842	65	3.6	2.5-5.2	1843	17	0.8	0.4-1.6
HOUSEHOLD INCOME												
Less than $15,000	561	115	19.8	15.3-25.2	562	90	15.2	11.4-20.1	562	46	8.1	5.4-12.1
$15,000-24,999	980	103	10.7	7.9-14.5	980	82	8.5	6.0-12.1	982	30	3.5	2.0-6.4
$25,000-34,999	858	51	5.8	3.8- 8.9	858	41	4.6	3.0-7.1	859	14	1.6	0.6-4.2
$35,000-49,999	945	48	7.2	4.9-10.5	945	39	6.0	3.9-9.1	945	11	1.8	0.8-3.9
$50,000+	1562	70	4.3	3.1-6.0	1562	55	3.5	2.4-5.1	1561	20	0.9	0.5-1.7
COUNTY/REGION*												
Buncombe	405	30	6.8	4.5-10.1	406	24	5.8	3.7-9.1	405	8	1.4	0.7-3.0
Cumberland	417	29	6.4	4.1-9.8	417	27	6.2	3.9-9.6	417	6	1.2	0.5-3.0
Durham	386	28	6.1	3.9-9.3	386	22	5.2	3.1-8.4	385	10	1.8	0.9-3.4
Forsyth	445	41	8.1	5.7-11.2	445	34	6.8	4.7-9.8	446	11	1.7	0.9-3.3
Gaston	450	50	10.0	7.5-13.2	450	40	8.1	5.8-11.1	450	13	2.7	1.5-4.8
Guilford	397	38	8.4	5.9-11.7	397	33	7.4	5.1-10.7	398	14	2.7	1.5-4.8
Mecklenburg	417	23	5.1	3.3-7.7	417	19	4.4	2.7-6.9	416	6	1.1	0.5-2.6
New Hanover	396	35	6.9	4.8-9.8	396	29	5.7	3.9-8.4	396	7	1.4	0.6-3.1
Onslow	417	30	5.8	3.7-9.0	417	21	3.7	2.2-6.0	422	12	2.6	1.2-5.3
Wake	411	19	3.7	2.2-5.9	411	16	3.0	1.8-5.1	411	5	1.0	0.4-2.7
Western NC	598	66	9.3	7.2-12.0	597	53	7.5	5.6-10.0	600	22	2.9	1.9-4.6
Piedmont NC	650	67	10.9	8.3-14.1	650	54	9.2	6.8-12.2	651	21	3.3	2.0-5.5
Eastern NC	592	61	9.9	7.4-13.1	592	43	6.5	4.6-9.1	591	24	4.1	2.5-6.6

*See the Introduction for counties included in the three regions (Western, Piedmont, and Eastern)

Folic Acid Use

Did not use multivitamins or vitamin pills containing folic acid anytime *(females, ages 18-44)*

- 56.3 percent of females of child-bearing age reported that they do not take multivitamins or vitamin pills/ supplements containing folic acid at any time.
- The rate of not taking multivitamins or vitamin pills/supplements containing folic acid declined with increasing education.
- African American females (64.4%) had a somewhat higher rate of not taking multivitamins or vitamin pills/supplements containing folic acid than white females (52.7%).

Did not use multivitamins or vitamin pills containing folic acid daily *(females, ages 18-44)*

- 57.8 percent of females of child-bearing age reported that they do not take multivitamins or vitamin pills/ supplements containing folic acid on a daily basis.

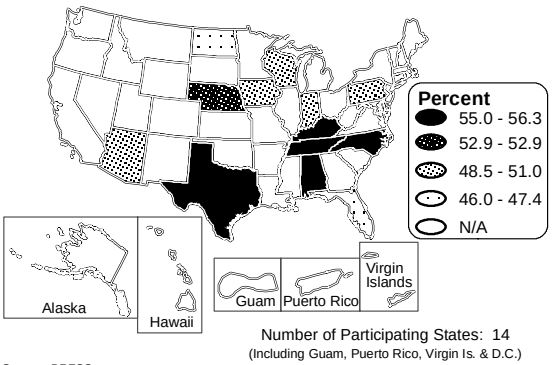
Did not know that folic acid could help prevent birth defects *(males and females, ages 18-44)*

- Overall, 58.6 percent of adults, ages 18 to 44, did not know that folic acid could help prevent birth defects.
- More men (67.8%) than women (49.6%) did not know that folic acid could help prevent birth defects.
- Knowledge of folic acid and prevention of birth defects increased with education.

Geographical Variation (intake of folic acid/multivitamins)

North Carolina: Based on small sample sizes that have large margins of errors, Wake County and rural Western North Carolina women ages 18-44 had the lowest rates of reporting that they did not take daily vitamins containing folic acid or multivitamins.
Nationwide: Among the 14 states that participated in the Folic Acid Module in 2001, North Carolina had the highest rate (56.3%) of females ages 18-44 not taking vitamins containing folic acid or multivitamins at any time. (Participants: *Alabama, Arizona, Delaware, Florida, Indiana, Iowa, Kentucky, Nebraska, North Carolina, North Dakota, Pennsylvania, Tennessee, Texas, and Wisconsin.)*

Figure 29a. Not Taking Vitamins with Folic Acid at Any Time (Females, Age 18-44), United States, 2001

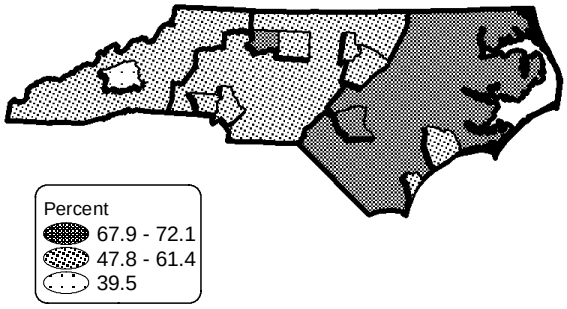


Number of Participating States: 14
(Including Guam, Puerto Rico, Virgin Is. & D.C.)

Source: BRFSS
Not to Scale

Mean: 51.3 Median: 50.3

Figure 29b. Did Not Know that Folic Acid Helps Prevent Birth Defects (Age 18-44), North Carolina, 2001



Source: BRFSS

Mean: 56.2 Median: 53.8

Table 29. Folic Acid Use and Awareness of Birth Defects Prevention among NC Adults, 2001

	Did Not Take Multivitamins or Vitamin Pills/Supplements Containing Folic Acid (Females, Ages 18-44)				Did Not Take Multivitamins or Vitamin Pills/Supplements Containing Folic Acid Daily (Females, Ages 18-44)				Did Not Know That Folic Acid Could Prevent Birth Defects (Ages 18-44)			
	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.
TOTAL	839	464	56.3	51.1-61.4	839	484	57.8	52.6-62.9	1386	755	58.6	54.6-62.5
GENDER												
Male									540	353	67.8	61.8-73.3
Female	839	464	56.3	51.1-61.4	839	484	57.8	52.6-62.9	846	402	49.6	44.5-54.8
RACE												
White	582	303	52.7	46.3-59.0	582	319	54.2	47.9-60.5	993	505	56.0	51.4-60.6
African American	202	126	64.4	54.0-73.6	202	128	65.4	54.9-74.5	301	190	62.5	53.6-70.7
Other Minorities	42	26	61.8	40.8-79.1	42	27	63.0	41.8-80.1	72	46	72.7	55.9-84.8
HISPANIC												
Yes	33	19	61.1	34.6-82.3	33	20	63.0	36.2-83.6	59	39	78.6	60.8-89.7
No	805	444	56.1	50.8-61.2	805	463	57.6	52.2-62.7	1326	716	57.4	53.4-61.4
AGE												
18-24	147	90	59.3	47.3-70.3	147	92	60.0	47.9-71.0	247	138	64.5	55.5-72.5
25-34	322	172	53.9	46.4-61.3	322	182	56.7	49.1-63.9	548	279	54.0	47.7-60.1
35-44	370	202	56.5	48.1-64.6	370	210	57.5	49.0-65.5	591	338	58.8	52.6-64.7
EDUCATION												
Less Than H.S.	49	34	71.0	42.3-89.2	49	34	71.0	42.3-89.2	103	74	79.4	64.6-89.1
H.S. or G.E.D.	259	166	62.5	52.8-71.3	259	168	63.1	53.4-71.8	427	277	65.8	58.3-72.5
Some Post-H.S.	257	138	54.7	46.0-63.1	257	144	56.3	47.5-64.6	389	206	56.6	49.5-63.4
College Graduate	273	126	45.8	37.7-54.2	273	138	48.9	40.5-57.2	465	197	43.0	36.8-49.5
HOUSEHOLD INCOME												
Less than $15,000	77	47	57.2	36.8-75.5	77	48	57.9	37.3-76.1	112	69	54.9	39.9-69.1
$15,000-24,999	157	100	64.4	53.0-74.3	157	101	64.8	53.4-74.7	239	147	67.9	58.8-75.9
$25,000-34,999	117	65	57.5	42.2-71.4	117	68	58.9	43.6-72.6	206	114	58.8	47.8-69.0
$35,000-49,999	153	73	53.0	41.8-63.9	153	78	55.8	44.6-66.4	269	140	56.5	48.0-64.6
$50,000+	225	108	48.1	38.6-57.8	225	115	50.0	40.4-59.6	396	189	51.8	44.5-59.1
COUNTY/REGION*												
Buncombe	45	23	52.8	36.9-68.1	45	23	52.8	36.9-68.1	78	29	39.5	28.1-52.2
Cumberland	70	38	53.3	40.4-65.8	70	41	58.2	45.2-70.1	122	76	72.1	58.3-82.7
Durham	52	26	52.5	37.5-67.0	52	27	53.5	38.5-67.9	96	47	50.6	38.8-62.4
Forsyth	51	33	65.8	50.3-78.6	51	34	67.0	51.4-79.6	97	63	67.9	56.0-77.8
Gaston	59	34	51.2	36.3-65.9	59	37	55.6	40.1-70.0	101	60	54.1	42.8-65.0
Guilford	55	34	63.4	48.3-76.2	55	34	63.4	48.3-76.2	88	44	52.9	41.2-64.3
Mecklenburg	70	41	54.8	41.6-67.5	70	44	58.7	45.2-71.0	116	62	55.5	45.2-65.4
New Hanover	53	27	58.8	43.6-72.4	53	30	65.1	50.5-77.4	86	49	61.4	49.0-72.6
Onslow	78	43	59.5	46.9-71.0	78	43	59.5	46.9-71.0	122	62	52.6	39.1-65.7
Wake	71	29	42.7	30.2-56.2	71	35	49.1	36.0-62.4	116	57	47.8	37.2-58.5
Western NC	63	32	49.5	36.3-62.8	63	32	49.5	36.3-62.8	107	55	55.8	45.1-66.0
Piedmont NC	83	45	60.5	47.8-72.0	83	45	60.5	47.8-72.0	124	68	54.3	43.8-64.4
Eastern NC	89	59	59.2	45.6-71.5	89	59	59.2	45.6-71.5	133	83	69.4	58.8-78.3

*See the Introduction for counties included in the three regions (Western, Piedmont, and Eastern)

Family Planning

Unintended pregnancy within the last 5 years *(females, ages 18-44)*

- 42.9 percent of women who had been pregnant within the past five years reported that their *last* pregnancy was unintended, i.e., not wanted at all or wanted later.
- About two-thirds of African American women (67.6%) reported that their last pregnancy was unintended, as compared to one-third (32.2%) of white women.

No birth control use among sexually active women *(females, ages 18-44)*

- 29.8 percent of all sexually active women reported that they were not using birth control, up from 23.9 percent in 2000.
- Not using birth control was slightly higher among African American women (32.7%) than white women (29.0%).
- Not using birth control was higher among women ages 35 to 44 than among younger women, ages 18 to 34.

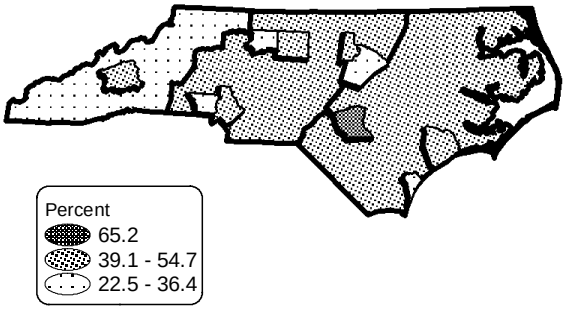
Never used a family planning clinic *(females, ages 18-44)*

- 63.1 percent of women (18-44 yrs.) reported that they have never used a family planning clinic.
- No use of a family planning clinic was higher among white women (66.7%) than African American women (51.3%).
- No use of a family planning clinic was not associated with age.

Geographical Variation (never used family planning clinic)

North Carolina: The report of never using a family planning clinic was highest in Gaston County (78.5%) and lowest in Durham County (60.9%). By region, no use of a family planning clinic was highest in the Western region (68.7%), followed by the Piedmont (64.2%) and the Eastern region (51.6%).

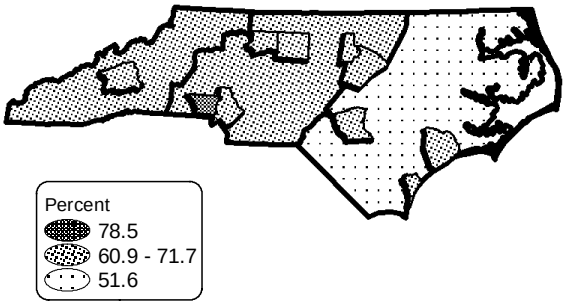
Figure 30a. Had Unintended Pregnancy in Past 5 Years (Females, Age 18-44), North Carolina, 2001



Source: BRFSS

Mean: 41.79 Median: 41.6

Figure 30b. Never Used Family Planning Clinic (Females, Age 18-44), North Carolina, 2001



Source: BRFSS

Mean: 67.1 Median: 68.3

Table 30. Family Planning among NC Women (Age 18-44), 2001

	Unintended Pregnancy within the Last 5 Years**				No Birth Control Use Among Sexually Active Women				Never Used Family Planning Clinic			
	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.
TOTAL	555	228	42.9	36.8-49.3	1293	376	29.8	26.0-33.8	1695	1132	63.1	59.4-66.7
RACE												
White	370	117	32.2	25.5-39.8	934	260	29.0	24.6-33.8	1183	842	66.7	62.1-71.0
African American	138	87	67.6	55.5-77.8	273	87	32.7	24.8-41.8	396	213	51.3	43.9-58.7
Other Minorities	40	20	40.8	22.5-62.1	67	25	31.3	17.8-48.9	91	65	73.0	56.8-84.8
HISPANIC												
Yes	26	12	40.9	18.6-67.6	42	15	35.8	17.4-59.6	64	42	67.5	47.4-82.7
No	529	216	43.0	36.7-49.6	1250	361	29.6	25.8-33.7	1629	1089	63.0	59.2-66.7
AGE												
18-24	126	83	58.3	44.8-70.7	238	59	29.8	21.1-40.3	304	207	66.3	57.6-74.0
25-34	294	109	39.4	31.2-48.3	531	139	24.9	20.0-30.5	652	408	60.9	54.6-66.8
35-44	135	36	28.2	18.3-40.8	524	178	34.6	28.5-41.2	739	517	63.1	57.1-68.8
EDUCATION												
Less Than H.S.	37	19	48.1	26.2-70.9	70	24	30.8	16.9-49.2	104	58	53.0	37.4-68.0
H.S. or G.E.D.	156	73	46.6	35.4-58.1	362	117	34.6	27.0-43.2	483	293	56.5	49.3-63.5
Some Post-H.S.	167	77	51.3	40.4-62.1	396	117	28.2	22.3-34.9	504	334	63.5	57.0-69.6
College Graduate	194	59	29.5	21.2-39.5	464	118	25.6	20.4-31.7	601	444	72.5	65.6-78.4
HOUSEHOLD INCOME												
Less than $15,000	41	26	67.7	42.5-85.6	91	32	37.0	23.1-53.6	139	78	53.7	40.1-66.8
$15,000-24,999	98	64	68.9	55.5-79.7	219	69	34.4	25.5-44.6	301	167	55.4	46.9-63.5
$25,000-34,999	95	48	59.8	45.0-73.1	218	63	26.6	19.0-36.0	273	179	59.5	49.1-69.1
$35,000-49,999	103	26	24.7	15.4-37.1	246	60	23.8	16.9-32.5	310	214	66.2	58.2-73.3
$50,000+	153	35	20.5	13.1-30.6	375	106	28.3	22.1-35.4	460	344	69.8	61.6-76.9
COUNTY/REGION*												
Buncombe	28	14	54.7	32.5-75.2	77	20	19.0	11.8-29.1	102	73	69.7	57.4-79.7
Cumberland	47	31	65.2	49.5-78.1	102	41	39.8	30.1-50.3	129	86	70.0	61.0-77.6
Durham	45	23	48.7	32.5-65.2	95	25	27.2	18.1-38.8	125	78	60.9	50.3-70.5
Forsyth	30	12	36.4	20.9-55.3	77	27	40.4	26.3-56.2	106	72	71.7	61.2-80.3
Gaston	47	16	33.9	20.6-50.4	104	26	25.7	17.1-36.8	130	98	78.5	70.4-84.9
Guilford	39	16	41.6	26.4-58.5	87	33	37.8	27.4-49.3	117	78	68.3	58.3-76.8
Mecklenburg	38	14	45.0	28.0-63.2	96	27	29.5	20.6-40.3	130	84	63.7	54.0-72.4
New Hanover	41	14	31.6	18.8-48.0	81	18	23.1	14.2-35.2	110	73	68.2	57.9-77.0
Onslow	58	20	39.1	25.7-54.3	117	31	26.5	18.3-36.8	147	99	66.9	58.0-74.7
Wake	32	8	22.5	10.4-42.0	103	28	29.0	19.9-40.0	131	90	69.7	60.3-77.7
Western NC	40	11	30.8	17.4-48.4	94	33	38.9	28.7-50.2	127	89	68.7	59.1-77.0
Piedmont NC	58	25	41.8	28.0-57.0	126	36	28.7	19.7-39.7	169	113	64.2	54.9-72.5
Eastern NC	52	24	52.0	35.8-67.9	134	31	26.2	18.3-36.0	172	99	51.6	42.5-60.6

*See the Introduction for counties included in the three regions (Western, Piedmont, and Eastern)
**Among women who had been pregnant within the past five years.

Sexual Behavior

Had more than one sexual partner

- 8.4 percent of sexually active adults reported having more than one partner in the past year.
- Having multiple partners was twice as high among males (12.0%) as females (5.0%).
- African Americans (12.9%) were more likely than whites (7.6%) to have multiple partners.
- Having multiple partners was highest among 18 to 24 year olds.

Did not use condom during last sexual intercourse

- 80 percent of sexually active adults reported not using a condom during last intercourse.
- No condom use was more likely to be reported by females than males.
- By race, no condom use was highest among whites.
- 54.8 percent of 18 to 24 year olds reported no condom use; the rate was 76.7 percent for the next oldest age group, 25 to 34 year olds, and was even higher for the older age groups.

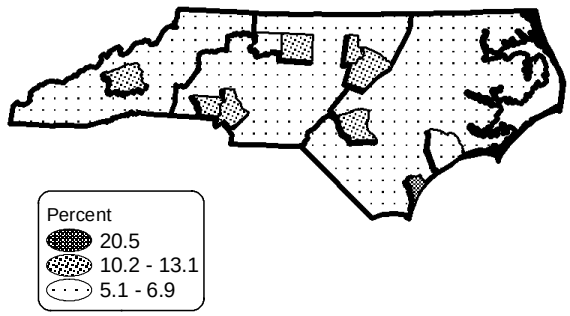
Did not believe condoms very effective in preventing HIV/AIDS

- Almost half (49.3%) of sexually active adults reported that condom use was not effective, was somewhat effective, or they were not sure of the effectiveness of condoms in preventing HIV/AIDS.
- 37.5 percent of 18 to 24 year olds did not believe condoms were very effective.
- 55.5 percent of 35 to 44 year olds did not believe condoms were very effective in preventing HIV/AIDS (the highest rate among the age groups).

Geographical Variation (multiple sexual partners; condom use and HIV risk)

North Carolina: County rates for having multiple sexual partners ranged from 20.5 percent in New Hanover to 5.3 percent in Forsyth; this wide variation may be due, in part, to small sample sizes. The percent not believing that condoms are very effective in preventing HIV/AIDS was highest among Buncombe residents and lowest among Wake residents.

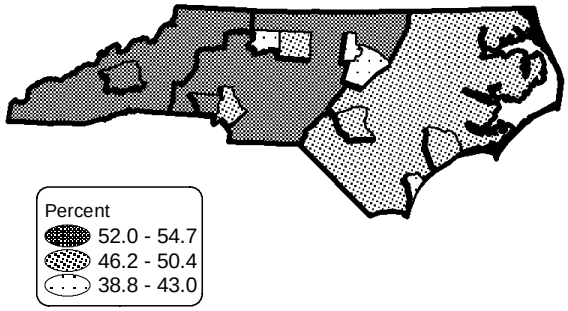
Figure 31a. More Than One Sexual Partner Past Year (Sexually Active Adults), North Carolina, 2001



Source: BRFSS

Mean: 10.2 Median: 10.8

Figure 31b. Believe Condom Use Not Very Effective in Preventing HIV (age <65), North Carolina, 2001



Source: BRFSS

Mean: 47.9 Median: 49.2

Table 31. Sexual Behavior of Sexually Active NC Adults (Age 18-64), 2001

	Had More Than One Sexual Partner				Did Not Use Condom During the Last Intercourse				Did Not Believe Condoms Very Effective in Preventing HIV/AIDS			
	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.
TOTAL	2214	192	8.4	6.8-10.4	1818	1456	80.0	77.0-82.8	1857	924	49.3	45.5-53.0
GENDER												
Male	843	112	12.0	9.1-15.7	744	580	76.2	71.0-80.6	763	363	47.6	42.5-52.9
Female	1371	80	5.0	3.6-6.7	1074	876	84.0	80.7-86.8	1094	561	50.9	45.5-56.3
RACE												
White	1684	131	7.6	5.9-9.9	1399	1162	84.5	81.6-87.0	1431	722	50.1	45.7-54.4
African American	409	51	12.9	8.7-18.6	317	210	61.7	52.6-70.1	325	154	46.2	38.0-54.6
Other Minorities	95	5	2.9	1.1-7.5	77	66	84.2	67.2-93.3	75	39	53.8	37.5-69.3
HISPANIC												
Yes	68	4	2.9	1.0-8.2	61	52	78.8	54.9-91.9	61	28	50.2	32.3-68.0
No	2142	188	8.7	7.0-10.7	1752	1400	80.1	77.0-82.8	1791	894	49.3	45.5-53.1
AGE												
18-24	239	66	24.2	17.4-32.7	204	116	54.8	44.8-64.4	204	89	37.5	28.8-47.3
25-34	530	59	10.6	7.1-15.5	476	357	76.7	69.8-82.5	482	211	48.1	41.4-54.9
35-44	554	43	4.9	3.2-7.4	486	389	81.2	75.2-86.0	497	260	55.5	48.8-62.0
45-54	488	17	3.4	1.5-7.5	385	346	89.0	83.2-92.9	397	211	49.7	40.9-58.6
55-64	370	7	1.8	0.6-5.2	251	232	96.0	93.0-97.8	259	141	50.4	41.8-58.9
EDUCATION												
Less Than H.S.	212	22	5.3	3.0-9.3	152	126	79.0	66.0-87.9	155	90	47.1	35.7-58.8
H.S. or G.E.D.	687	54	6.7	4.5-9.8	542	442	78.9	72.5-84.1	555	303	55.0	48.6-61.2
Some Post-H.S.	599	69	12.7	9.0-17.8	511	395	79.1	73.6-83.7	514	250	47.7	41.5-53.9
College Graduate	711	45	7.8	4.9-12.1	610	490	82.1	77.1-86.2	630	278	44.7	38.3-51.3
HOUSEHOLD INCOME												
Less than $15,000	186	25	13.0	6.8-23.6	108	67	66.7	52.7-78.3	112	56	42.9	29.8-57.0
$15,000-24,999	345	39	10.8	7.0-16.4	258	182	65.6	55.6-74.4	261	127	47.3	38.2-56.6
$25,000-34,999	312	41	15.3	9.8-23.0	252	193	78.0	69.2-84.8	256	124	43.2	34.1-52.8
$35,000-49,999	400	29	4.9	2.9-8.0	361	298	83.2	77.3-87.9	367	181	51.6	44.3-58.9
$50,000+	681	32	5.5	3.2-9.4	628	543	86.9	81.7-90.8	634	303	49.9	43.3-56.4
COUNTY/REGION*												
Buncombe	155	15	10.2	5.7-17.4	126	107	86.1	77.8-91.6	127	73	54.7	44.8-64.3
Cumberland	168	26	13.0	7.8-20.8	144	108	79.3	71.2-85.5	143	69	48.8	38.4-59.3
Durham	135	14	12.6	6.5-22.9	109	78	76.4	64.7-85.2	111	47	38.8	26.3-53.1
Forsyth	153	10	5.3	2.7-10.2	114	89	78.6	68.9-85.9	115	52	43.0	33.2-53.3
Gaston	161	14	11.5	6.5-19.6	137	107	76.7	67.4-83.9	138	74	53.2	43.8-62.3
Guilford	149	16	13.1	7.5-21.8	121	95	78.7	69.0-86.0	122	61	50.1	40.1-60.2
Mecklenburg	161	13	11.7	6.1-21.4	139	112	78.6	69.5-85.5	144	65	46.2	37.3-55.3
New Hanover	147	23	20.5	13.3-30.2	120	90	74.6	64.5-82.5	128	56	42.3	32.7-52.6
Onslow	176	7	6.0	2.5-13.4	148	131	83.8	62.8-94.1	152	82	49.2	37.4-61.2
Wake	162	11	10.8	5.3-20.8	138	110	78.3	69.0-85.3	142	60	41.0	32.1-50.6
Western NC	200	12	5.1	2.6-9.7	168	141	82.7	74.5-88.7	171	87	52.0	43.6-60.4
Piedmont NC	236	15	6.2	3.3-11.4	183	149	81.0	73.1-87.0	188	102	52.6	42.3-62.6
Eastern NC	211	16	6.9	3.7-12.5	171	139	79.7	70.6-86.5	176	96	50.4	41.5-59.4

*See the Introduction for counties included in the three regions (Western, Piedmont, and Eastern)

Alternative Medicine

Ever used herbal medicine such as Ginseng or St. John's Wort

- 20 percent of adults reported that they have ever used herbal medicines.
- Use of herbal medicines among whites was higher than use among African Americans.
- By age, 25 to 44 year olds were most likely to report use of herbal medicines.

No discussion of herbal medicine use with health care provider

- Among those who have used herbal medicines, 66 percent have never discussed their use with a health professional.
- Males are more likely not to discuss use of herbal medicines than females.
- 88 percent of persons with less than a high school education versus 61 percent of college graduates have never discussed use of herbal medicines with a health care provider.

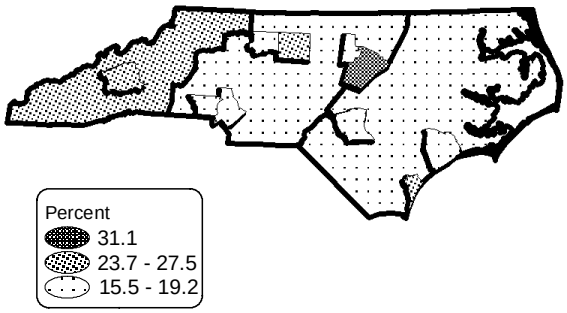
Have given children medicinal herb products in past 12 months

- 4.9 percent of adults who have used herbal medicine, have given their children medicinal herb products in the past 12 months.
- Other minority parents were more likely to give herbal products to their children than white or African American parents.
- Among the educational groups, giving herbal products to children was highest among parents who graduated from college.

Geographical Variation (use of medicinal herbs/adult and child)

North Carolina: Adult use of herbal medicines was highest in Wake, Durham and Buncombe counties, and also in the Western region. The rate of giving children medicinal products (in the past 12 months) ranged from a low of 1.1 percent in Gaston to a high of 8.6 percent in Mecklenburg County and the Western region.

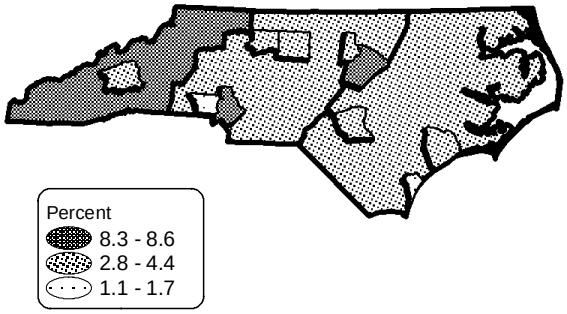
Figure 32a. Have Used Herbal Medicine
North Carolina, 2001



Source: BRFSS

Mean: 22.4 Median: 20.4

Figure 32b. Have Given Herbal Medicine to Children
North Carolina, 2001



Source: BRFSS

Mean: 4.4 Median: 3.7

Table 32. Alternative Medicine Use of NC Adults, 2001

	Have Used Herbal Medicine Such as Ginseng or St. John's Wort				Did Not Discuss Use of Herbal Medicine with Health Care Provider**				Have Given Children Medicinal Herb Products in the Past 12 Months**			
	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.
TOTAL	3043	667	19.9	18.0-21.9	666	426	65.8	60.6-70.6	1111	58	4.9	3.4-7.0
GENDER												
Male	1175	250	18.8	16.0-22.0	249	186	73.5	65.0-80.6	394	13	4.0	2.0-7.6
Female	1868	417	20.9	18.4-23.6	417	240	59.4	52.8-65.8	717	45	5.6	3.7-8.4
RACE												
White	2290	525	21.4	19.1-23.8	524	326	63.0	57.1-68.6	743	39	5.0	3.2-7.5
African American	559	98	14.4	10.9-18.9	98	72	73.9	58.8-84.9	275	11	3.3	1.3-8.1
Other Minorities	149	35	17.9	11.3-27.3	35	23	77.2	56.8-89.7	77	8	9.9	3.8-23.1
HISPANIC												
Yes	88	19	23.4	13.3-37.8	19	14	76.1	48.8-91.4	46	5	16.2	6.2-36.2
No	2949	647	19.8	17.9-21.9	646	412	65.4	60.1-70.4	1063	53	4.3	2.9-6.3
AGE												
18-24	280	69	19.3	14.0-25.9	69	51	75.2	60.9-85.4	108	2	3.5	0.8-13.1
25-34	563	151	25.9	21.0-31.5	151	99	66.9	55.2-76.9	300	8	1.5	0.6-3.5
35-44	643	165	25.9	21.4-31.0	164	111	68.4	58.0-77.3	437	25	4.5	2.7-7.5
45-54	578	159	21.9	17.7-26.7	159	94	59.8	48.5-70.1	210	22	12.7	7.2-21.6
55-64	378	63	14.6	10.5-20.0	63	35	58.6	41.8-73.7	35	1	6.3	0.9-33.5
65+	574	56	9.5	6.6-13.4	56	34	62.3	43.8-77.9				
EDUCATION												
Less Than H.S.	389	29	5.5	3.2-9.1	29	24	88.2	68.9-96.2	99	2	3.7	0.9-13.9
H.S. or G.E.D.	878	143	14.7	11.9-18.1	143	102	70.3	59.3-79.3	323	10	3.2	1.3-7.7
Some Post-H.S.	800	207	25.8	21.6-30.4	207	130	65.5	55.9-74.0	312	13	3.6	1.5-8.2
College Graduate	967	288	28.8	24.9-33.2	287	170	60.9	52.7-68.6	377	33	8.3	5.3-12.7
HOUSEHOLD INCOME												
Less than $15,000	274	43	13.6	8.6-20.8	43	30	77.8	58.5-89.7	72	0	0.0	–
$15,000-24,999	487	89	16.5	12.4-21.7	88	59	68.9	53.7-81.0	167	4	5.7	1.9-16.0
$25,000-34,999	467	114	24.0	19.0-30.0	114	73	64.2	51.0-75.5	169	4	1.3	0.3-5.1
$35,000-49,999	486	123	23.8	18.9-29.5	123	81	69.3	56.8-79.5	198	18	7.1	3.8-12.9
$50,000+	794	223	26.1	22.1-30.5	223	136	60.8	51.7-69.1	362	25	6.5	3.8-10.7
COUNTY/REGION*												
Buncombe	209	60	27.5	21.1-34.9	60	35	62.9	48.6-75.2	69	3	3.7	1.1-11.4
Cumberland	207	40	15.5	11.0-21.2	40	28	71.1	53.5-84.0	90	4	4.0	1.5-10.3
Durham	206	41	25.9	17.0-37.3	41	26	70.7	50.4-85.1	64	4	3.8	1.2-11.6
Forsyth	229	42	17.2	12.5-23.3	42	27	65.5	48.6-79.2	73	3	2.9	0.9-9.1
Gaston	232	43	19.2	14.0-25.6	43	30	68.2	51.1-81.5	92	2	1.1	0.2-5.2
Guilford	191	50	23.7	17.8-30.7	50	37	76.9	62.9-86.8	67	3	3.2	1.0-10.0
Mecklenburg	210	37	17.6	12.7-23.9	37	25	69.9	52.4-83.1	80	5	8.6	3.3-20.9
New Hanover	195	47	24.0	17.4-32.1	47	32	74.4	60.1-84.8	69	2	1.7	0.4-7.0
Onslow	212	41	17.0	12.1-23.4	41	26	64.7	47.6-78.6	104	4	2.8	0.9-8.3
Wake	205	65	31.1	24.2-38.9	65	45	77.0	65.0-85.8	79	6	8.3	3.3-19.3
Western NC	304	75	25.2	19.9-31.3	74	47	68.4	55.5-79.0	87	9	8.6	4.2-17.1
Piedmont NC	323	68	17.7	13.7-22.6	68	41	63.7	50.4-75.2	119	7	3.6	1.5-8.6
Eastern NC	320	58	15.6	11.6-20.6	58	27	52.0	37.1-66.5	118	6	4.4	1.7-11.3

*See the Introduction for counties included in the three regions (Western, Piedmont, and Eastern)
**Among those who have used herbal medicines.

Sexual and Physical Assault

Ever been sexually assaulted

- About 10 percent of females and 3 percent of males reported ever being sexually assaulted.
- The prevalence of sexual assault was highest among other minorities (10.5%), followed by African Americans (7.6%).
- By age, sexual assault was highest among 25 to 34 year olds (9.4%), followed by 35 to 44 year olds (8.9%).

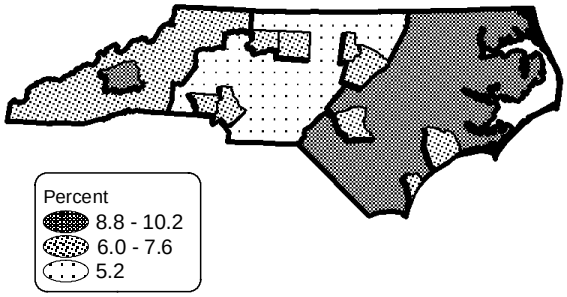
Ever been physically assaulted

- About 2 in 10 adults have ever been physically assaulted.
- Males and females reported about the same level of physical assault.
- African Americans reported a slightly lower level of physical assault than whites or other minorities.
- By age, the report of physical assault was highest among 25 to 34 year olds (28.0%), followed by 45 to 54 year olds (25.4%).
- By education, reported physical assault was lowest among those with less than a high school education and highest among those with some post high school education.

Geographical Variation (sexual/physical assault)

North Carolina: The report of ever being sexually assaulted was highest in Buncombe County and the Eastern region. The report of physical assault was highest in Onslow (27.9%) and New Hanover counties (25.6%).

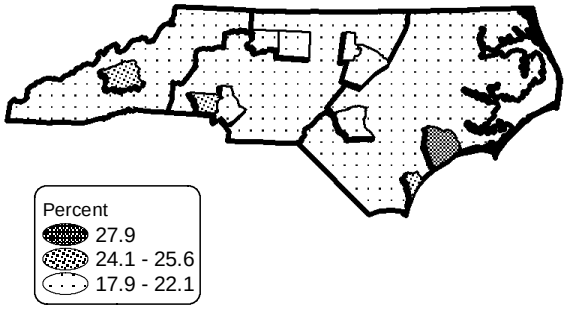
Figure 33a. Ever Sexually Assaulted
North Carolina, 2001



Source: BRFSS

Mean: 7.0 Median: 6.7

Figure 33b. Ever Physically Assaulted
North Carolina, 2001



Source: BRFSS

Mean: 21.9 Median: 21.4

Table 33. Sexual and Physical Assault among NC Adults, 2001

	Had Ever Been Sexually Assaulted				Had Ever Been Physically Assaulted			
	Total Resp.	N	%	95% C.I.	Total Resp.	N	%	95% C.I.
TOTAL	5795	506	6.8	5.9-7.7	5809	1334	20.2	18.8-21.8
GENDER								
Male	2214	69	2.8	2.0-3.9	2219	482	19.1	17.0-21.5
Female	3581	437	10.4	9.0-11.9	3590	852	21.2	19.2-23.4
RACE								
White	4423	354	6.2	5.3-7.2	4432	1017	20.7	18.9-22.5
African American	1046	112	7.6	5.7-10.0	1049	237	18.3	15.3-21.8
Other Minorities	246	32	10.5	6.4-16.7	248	63	20.8	14.7-28.7
HISPANIC								
Yes	164	13	5.3	2.4-11.3	165	46	20.3	13.4-29.6
No	5618	492	6.8	6.0-7.8	5631	1286	20.3	18.7-21.9
AGE								
18-24	519	44	6.2	4.0-9.5	521	125	18.6	14.5-23.5
25-34	1088	128	9.4	7.3-12.0	1093	331	28.0	24.3-32.0
35-44	1206	132	8.9	6.9-11.3	1211	314	22.2	19.0-25.9
45-54	1073	110	7.1	5.3-9.5	1073	303	25.4	21.6-29.6
55-64	765	54	5.4	3.6-8.1	767	141	15.2	12.2-18.9
65+	1098	36	2.8	1.7-4.4	1098	113	9.1	6.9-11.9
EDUCATION								
Less Than H.S.	759	59	6.0	4.3-8.5	759	149	14.9	11.8-18.5
H.S. or G.E.D.	1723	147	6.9	5.3-8.8	1726	393	20.1	17.4-23.0
Some Post-H.S.	1506	146	7.1	5.6-9.0	1508	415	24.5	21.5-27.8
College Graduate	1795	150	6.7	5.3-8.5	1803	373	19.7	17.2-22.6
HOUSEHOLD INCOME								
Less than $15,000	536	66	7.7	5.4-10.8	537	145	19.1	14.9-24.3
$15,000-24,999	960	96	8.7	6.4-11.7	960	240	23.1	19.3-27.3
$25,000-34,999	830	91	8.6	6.4-11.5	831	220	24.7	20.5-29.5
$35,000-49,999	930	85	6.7	4.9-9.0	929	224	21.4	18.0-25.4
$50,000+	1531	95	5.2	3.8-7.0	1534	331	19.5	16.8-22.5
COUNTY/REGION*								
Buncombe	401	42	10.2	7.0-14.6	400	104	25.4	20.8-30.7
Cumberland	409	35	6.7	4.5-9.8	411	93	21.1	16.1-27.2
Durham	373	35	6.3	4.2-9.4	373	96	22.1	17.5-27.4
Forsyth	432	36	6.5	4.6-9.3	432	94	20.0	16.2-24.5
Gaston	435	38	7.6	5.4-10.6	437	110	24.1	19.9-29.0
Guilford	379	33	7.0	4.8-10.2	380	84	21.4	17.0-26.5
Mecklenburg	403	31	6.5	4.4-9.4	407	78	17.9	14.2-22.4
New Hanover	376	32	6.9	4.5-10.3	377	99	25.6	20.6-31.3
Onslow	411	40	7.3	5.1-10.4	411	112	27.9	21.6-35.3
Wake	400	35	6.5	4.5-9.5	402	83	19.7	15.7-24.4
Western NC	575	43	6.0	4.3-8.2	575	120	21.4	17.8-25.5
Piedmont NC	628	47	5.2	3.6-7.3	630	147	19.4	16.1-23.2
Eastern NC	573	59	8.8	6.5-11.8	574	114	19.1	15.5-23.2

*See the Introduction for counties included in the three regions (Western, Piedmont, and Eastern)

Average (mean) number of days when pain made it hard to do usual activities

- The average number of days in the past 30 when usual activities were restricted by pain was 2.8 days.
- The highest average number of days (5.1) was found among the poorest households.
- The lowest average number of days (1.2) was found among 25 to 34 year olds.

Average (mean) number of days felt sad, blue, or depressed

- For NC adults, the average number of sad days in the past 30 days was 2.6 days.
- The mean number of sad days was significantly higher for females (3.6) than for males (1.6).
- By income level, the mean numbers of sad days were close to the mean numbers of days when pain limited activity.

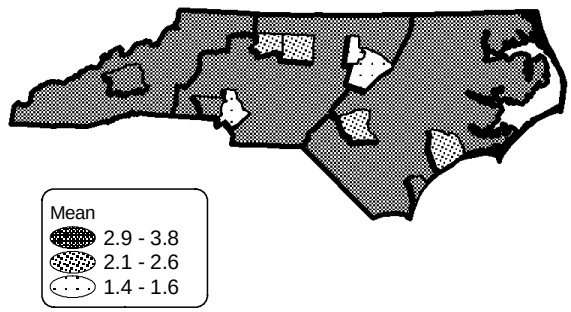
Average (mean) number of days felt worried, tense, or anxious

- The average number of anxious days in the past 30 was 4.1 days.
- Adults under the age of 55 were more likely to experience anxious days than older adults.
- There was no clear pattern of anxious days by education.

Geographical Variation (pain and sad days)

North Carolina: The average number of reported days when pain limited activity was highest in Buncombe County and the Western region. The average number of sad days was highest in Gaston and New Hanover counties.

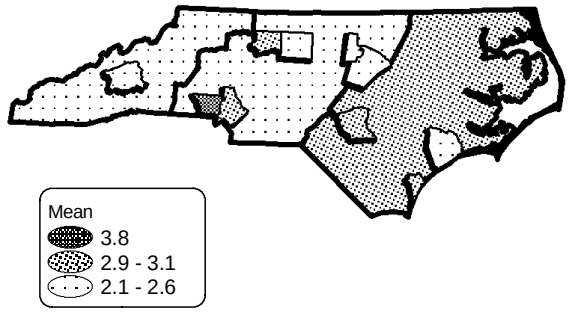
Figure 34a. Average Number of Days When Pain Restricted Usual Activity (Past 30 Days), North Carolina, 2001



Source: BRFSS

Mean: 2.6 Median: 2.6

Figure 34b. Average Number of Days Felt Sad, Blue, or Depressed (Past 30 Days), North Carolina, 2001



Source: BRFSS

Mean: 2.7 Median: 2.6

Table 34. Quality of Life of NC Adults, 2001

	Number of Days Pain Made It Hard to Do Usual Activities			Number of Days Felt Sad, Blue, or Depressed			Number of Days Felt Worried, Tense, or Anxious			Number of Days Did Not Get Enough Rest or Sleep		
	Total Resp.	Mean	95% C.I.	Total Resp.	Mean	95% C.I.	Total Resp.	Mean	95% C.I.	Total Resp.	Mean	95% C.I.
TOTAL	3014	2.8	2.4-3.2	2977	2.6	2.3-3.0	2946	4.1	3.7-4.6	2970	8.0	7.4-8.5
GENDER												
Male	1168	2.1	1.6-2.6	1151	1.6	1.2-2.0	1136	3.3	2.7-3.9	1149	7.6	6.8-8.4
Female	1846	3.4	2.8-4.0	1826	3.6	3.1-4.1	1810	4.9	4.4-5.5	1821	8.4	7.6-9.1
RACE												
White	2268	3.0	2.5-3.5	2246	2.5	2.2-2.9	2215	4.1	3.7-4.6	2238	8.1	7.4-8.7
African American	552	2.1	1.4-2.9	542	3.0	2.1-3.8	544	3.9	3.0-4.8	546	7.5	6.3-8.8
Other Minorities	148	2.3	0.7-4.0	145	3.1	1.6-4.6	143	5.3	3.3-7.4	143	8.8	6.3-11.3
HISPANIC												
Yes	88	0.6	0.1-1.1	87	2.1	1.1-3.0	84	3.5	2.0-5.0	86	7.4	4.5-10.3
No	2920	2.9	2.4-3.3	2884	2.7	2.3-3.0	2856	4.2	3.8-4.6	2878	8.0	7.5-8.6
AGE												
18-24	284	2.2	0.6-3.8	279	2.9	2.0-3.7	277	4.5	3.4-5.6	275	9.5	7.7-11.3
25-34	569	1.2	0.8-1.6	565	2.6	2.0-3.2	558	5.1	4.2-6.0	558	10.6	9.2-12.0
35-44	635	1.8	1.2-2.5	628	2.7	2.0-3.5	623	4.5	3.6-5.3	626	8.7	7.5-9.9
45-54	567	3.7	2.5-4.8	559	2.9	2.2-3.6	558	5.3	4.0-6.6	561	8.3	7.0-9.7
55-64	376	4.3	2.8-5.7	368	1.9	1.3-2.5	362	2.6	1.9-3.3	370	5.7	4.4-6.9
65+	554	4.2	3.1-5.2	550	2.7	1.7-3.8	543	2.3	1.6-3.1	555	4.5	3.4-5.5
EDUCATION												
Less Than H.S.	371	4.9	3.6-6.2	368	2.9	1.9-3.8	353	3.8	2.7-4.9	367	8.1	6.4-9.8
H.S. or G.E.D.	875	3.0	2.1-3.8	863	3.0	2.3-3.7	853	4.4	3.5-5.2	859	7.7	6.6-8.8
Some Post-H.S.	788	2.6	1.8-3.3	779	2.8	2.1-3.4	775	4.8	3.9-5.6	780	9.2	8.1-10.2
College Graduate	970	1.6	1.0-2.2	958	2.0	1.6-2.4	955	3.4	2.9-3.9	956	7.2	6.5-7.9
HOUSEHOLD INCOME												
Less than $15,000	258	5.1	3.3-6.8	251	4.8	3.0-6.6	249	7.2	5.1-9.3	257	8.0	6.2-9.8
$15,000- 24,999	482	3.7	2.5-4.8	464	3.8	2.7-4.9	463	5.0	3.8-6.2	477	8.2	6.8-9.5
$25,000- 34,999	459	2.9	1.9-3.8	463	2.9	2.2-3.6	458	3.5	2.8-4.3	454	8.3	6.9-9.7
$35,000- 49,999	486	1.3	0.9-1.8	482	1.6	1.2-2.0	478	4.4	3.2-5.7	477	8.8	7.3-10.3
$50,000+	798	1.7	1.1-2.4	792	1.8	1.3-2.2	782	3.4	2.8-4.0	786	7.4	6.5-8.2
COUNTY/REGION**												
Buncombe	208	3.5	2.2-4.7	203	2.3	1.5-3.1	204	4.7	3.5-5.8	207	8.6	7.0-10.2
Cumberland	205	2.3	1.3-3.2	203	3.0	2.0-4.0	202	5.5	3.9-7.1	202	9.5	7.7-11.3
Durham	206	1.4	0.8-2.1	202	2.5	1.6-3.3	202	3.7	2.6-4.9	204	7.3	6.0-8.7
Forsyth	225	2.6	1.6-3.5	220	2.9	2.1-3.7	217	5.6	4.2-7.0	219	8.1	6.6-9.7
Gaston	226	3.0	1.9-4.1	228	3.8	2.7-4.8	226	5.5	4.2-6.7	224	8.0	6.5-9.5
Guilford	192	2.1	1.2-2.9	187	2.2	1.4-3.0	183	3.9	2.8-4.9	188	7.5	5.8-9.1
Mecklenburg	208	1.6	0.8-2.5	206	2.9	1.9-3.9	206	4.6	3.4-5.9	208	7.3	5.9-8.7
New Hanover	194	3.3	2.0-4.6	194	3.1	2.1-4.1	188	4.4	3.2-5.6	191	8.3	6.8-9.7
Onslow	213	2.5	1.5-3.5	209	2.1	1.4-2.8	209	4.2	2.9-5.4	206	10.0	7.2-12.8
Wake	208	1.5	0.8-2.3	203	2.2	1.2-3.2	204	4.0	2.8-5.1	205	7.1	5.8-8.5
Western NC	301	3.8	2.8-4.9	297	2.6	1.9-3.3	289	3.5	2.7-4.4	290	7.3	6.1-8.5
Piedmont NC	317	2.9	1.8-4.0	315	2.3	1.7-3.0	312	4.1	3.1-5.1	315	8.6	7.2-10.1
Eastern NC	311	3.2	2.1-4.2	310	3.0	2.1-4.0	304	3.9	2.9-4.9	311	7.8	6.5-9.1

*See the Introduction for counties included in the three regions (Western, Piedmont, and Eastern)