

2016

# Vidant Beaufort Hospital's Community Health Needs Assessment for Beaufort County



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## **2016 Beaufort County CHA Executive Summary**

The 2015 Community Health Needs Assessment (CHNA) for Vidant Beaufort Hospital has been updated and amended to serve as the Community Health Needs Assessment for 2016-2019. This update and amendment was completed to align the Vidant Beaufort Hospital CHNA timelines with the eastern NC regional CHNA, targeted for completion in 2019.

Vidant Beaufort Hospital completed its most recent CHNA in 2015. The 2010 Affordable Care Act (ACA) requires all 501(c) (3), tax-exempt hospitals to conduct a community health needs assessment every three years. In order to remain in compliance with these federal requirements, Vidant Beaufort Hospital is required to complete an assessment prior to 2019, when the regional CHNA is scheduled for completion. Therefore, the decision was made to update the 2015 assessment at this time. This was the most cost effective option for updating, as secondary data analyses had been completed for Vidant Beaufort Hospital as a component of the CHNA process completed for all other Vidant Health hospitals in 2016.

The 2016 Beaufort County CHNA will include primary data collected from community members in 2015 and secondary data, as current as March 2016. A review of the primary and updated secondary data identified the same health priorities as identified and approved in 2015.

Therefore, Vidant Beaufort Hospital will continue to focus on the same priorities identified and approved in 2015 for the 2016-2019 time period.

- Chronic Disease (Heart Disease, Diabetes)
- Weight Management, Nutrition and Obesity
- Cancer
- Access to Care (Including Mental Health)

Committees will continue to implement the action plans developed for these priorities over the next three years.

### **Community Health Implementation Plan Progress Report**

The IRS and Treasury Department's final regulations of the Affordable Care Act adopted in December 2014 "require that the CHNA report include an evaluation of the impact of any actions that were taken since the hospital facility finished conducting its immediately preceding CHNA to address the significant health needs identified in the hospital facility's prior CHNA(s)"<sup>11</sup>. Since this assessment is an update to the 2015 Beaufort County CHNA, progress towards action plans are reported below.

### **Health Priority Category: Chronic Disease Prevention and Management**

- Vidant Beaufort Hospital has conducted health screenings for early detection of heart disease, stroke and diabetes in adults as well as health education at community events and in churches throughout our county.
- Vidant Beaufort Hospital partners with Beaufort County Community College to offer Beau-FIT!, a program designed to encourage health and wellness for faculty, students and community members. The Vidant Beaufort community health improvement coordinator provides pre and post program wellness screens to track progress of participants.
- Vidant Beaufort Hospital partnered with the Beaufort County Health Department in its annual 411Health Fair to promote health and wellness in our county.
- Providers and allied health clinicians have provided editorial content for quarterly Healthy Living publications distributed by the local newspaper, The Washington Daily News. Topics include exercise and wellness, health technology, senior living and breast cancer awareness.
- Providers and allied health professionals have provided education to our community about a variety of health topics including chronic disease prevention and management through a Health Beat column in the local newspaper.
- Vidant Beaufort Hospital offered Heart Truth, a free event designed to promote awareness of heart disease, to our community. Over 200 women attended.
- Vidant Beaufort Hospital is participating in a faith-health partnership, HealThy Neighbor, with three Beaufort County churches to pilot a program to promote healthy lifestyles and to provide health education to members of the congregation.
- Vidant Beaufort Hospital through support of the Vidant Health Foundation has provided funding through our Community Benefit Grants and Health Initiatives program to community partners that focus on chronic disease prevention and management.
  - Belhaven Senior Center Healthy Aging Community program
  - Beaufort-Hyde/Pantego Community Center Growing a Fit community program
  - Ruth's House - Get Going/Keep Growing
  - Eagles Wings - Healthy Food Choices by Example
  - Food Bank of the Albemarle Mobile Food Pantry
  - Beaufort County Boys and Girls Club - Triple Play

### **Health Priority Category: Weight Management/Obesity, Physical Activity and Nutrition**

- Vidant Beaufort Hospital Community Health Improvement team provides height, weight, and body mass index screenings at community health events in Beaufort for obesity prevention.
- Representatives from Vidant Beaufort Hospital serve on advisory councils and partnerships to promote wellness, health and fitness including HealThy Neighbor Advisory Board, Beaufort County Physical Activity and Nutrition Council, Beaufort County Healthy Eating Active Living (HEAL) Coalition and Beaufort County 360.

- Vidant Beaufort Hospital provides support and/or funding through our Community Benefit Grants and Health Initiatives program and other community partnerships that focus on physical activity and nutrition:
  - Belhaven Senior Center Healthy Aging Community program
  - Beaufort-Hyde/Pantego Community Center Growing a Fit community program
  - Ruth's House -Get Going/Keep Growing
  - EaglesWings – Healthy Food Choices by Example
  - Food Bank of the Albemarle Mobile Food Pantry
  - Beaufort County Boys and Girls Club -Triple Play
- Provide community education about a variety of topics related to wellness, nutrition, and physical activity through Health Beat column in the local newspaper .

**Health Priority Category: Cancer**

- Vidant Cancer Care has initiated the "80% by 2018" initiative and participating in the NC Colorectal Cancer Roundtable Work Group
- Vidant Beaufort Hospital has provided screenings in Beaufort County for early detection of breast and skin cancer in adults.
- Vidant Beaufort Hospital with support from Vidant Health has implemented a breast cancer awareness program, Pink Power, to encourage early detection of breast cancer.
- Vidant Beaufort Hospital through support of the Shepard Cancer Foundation provides Knowledge is Power dinners to educate the community about prevention and early detection of colon, ovarian, prostate and lung cancer.
- Vidant Beaufort Hospital, through support of the Vidant Health Foundation has provided funding through our Community Benefit Grants and Health Initiatives program to the local health departments Breast and Cervical Cancer Control Programs (BCCCP) to provide financial assistance to those who qualify.

**Health Priority Category: Access to Care**

- Vidant Beaufort Hospital is participating in a faith-health partnership, HealThy Neighbor . Through this partnership faith health ambassadors have been identified in 3 local churches who are participating in the pilot program. The Faith Health Ambassadors are coordinating health screenings for the congregation members.
- Vidant Beaufort Hospital partners with Beaufort County Community College to offer Beau-FITT, a program designed to encourage health and wellness for faculty, students and community members. The Vidant Beaufort community health improvement coordinator provides pre and post program wellness screens to track progress of participants. These wellness screens are performed on campus.
- Vidant Beaufort Hospital, through support of the Vidant Health Foundation has provided funding through our Community Benefit Grants and Health Initiatives program to community partners that focus on providing access to care.
  - Higher Heights – Healthy Outcomes for Pregnant and Parenting Teens
  - Coastal Pregnancy Center - Families of Grace
  - Beaufort County Schools – AED's in schools

- Vidant Beaufort Hospital provides financial counselors to assist in determining if patients qualify for Medicaid and in applying for other government-assisted programs.
- Vidant Beaufort Hospital serves as one of the lead organizations for Beaufort County 360, an alliance of community health agencies, schools, social service organizations and non-profits working to address the most critical needs in Beaufort County including access to care.

**Health Priority Category: Access to Care Mental Health**

1. Vidant Beaufort Hospital provides an inpatient behavioral health unit to provide mental health services to Beaufort, Hyde and surrounding counties.
2. Collaborate with Vidant Medical Group to continue to provide mental health services in the region through Vidant Behavioral Health location in Washington
3. Participate on the Beaufort County 360 mental health task force.
4. Support Project LAZURUS

## Acknowledgements

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## Table of Contents

|   |    |
|---|----|
| Purpose .....   | 10 |
| Team Composition .....                                      | 10 |
| Process Overview .....                                      | 10 |
| Outcomes .....  | 12 |
| Overview of Primary Data Sources.....                       | 13 |
| Stakeholders.....   | 13 |
| Focus Groups.....   | 13 |
| Community Survey .....                                      | 14 |
| County Overview: Home of North Carolina’s Oldest Town ..... | 15 |
| Demographic Data.....                                       | 16 |
| General Population Characteristics .....                    | 16 |
| Population Growth.....                                      | 17 |
| Birth Rate .....  | 17 |
| Population Density .....                                    | 18 |
| Race and Ethnicity.....                                     | 19 |
| Age .....   | 20 |
| Special Populations .....                                   | 21 |
| Aging .....   | 22 |
| Veteran Status.....   | 23 |
| Non-English Speaking.....                                   | 24 |
| Disabled.....   | 25 |
| Economic Climate.....                                       | 26 |
| Tier Designation .....                                      | 26 |
| Income .....  | 26 |
| Unemployment .....  | 27 |
| Poverty .....   | 29 |
| Housing .....   | 32 |
| Affordable Housing .....                                    | 32 |
| Public Transportation in Beaufort County.....               | 33 |
| Education .....   | 33 |



|  |    |
|--|----|
| Educational Attainment .....                   | 33 |
| High School Drop-Out Rate .....                | 35 |
| Crime and Safety .....                         | 36 |
| Crime Rates .....                              | 36 |
| Homicide Mortality Rate Trend .....            | 39 |
| Health Resources.....                          | 40 |
| Medical Insurance .....                        | 40 |
| Medicaid.....                                  | 41 |
| Medicare .....                                 | 41 |
| Health Care Providers.....                     | 42 |
| Primary Care Physicians .....                  | 42 |
| Practitioners Outside of Beaufort County ..... | 45 |
| Health Services Sources.....                   | 45 |
| Health Services Limitations .....              | 46 |
| Hospitals.....                                 | 47 |
| Nursing Homes .....                            | 47 |
| Mental Health Services and Facilities.....     | 48 |
| Health Statistics.....                         | 50 |
| Understanding Health Statistics.....           | 50 |
| Age-Adjustment and Aggregate Data.....         | 50 |
| Mortality and Morbidity.....                   | 50 |
| Prevalence and Incidence.....                  | 50 |
| Trends and Small Numbers .....                 | 50 |
| County Health Rankings .....                   | 51 |
| Maternal and Infant Health.....                | 51 |
| Pregnancy, Fertility, and Abortion Rates.....  | 51 |
| Pregnancies among Teens and Adolescents.....   | 53 |
| Pregnancy Risk Factors.....                    | 54 |
| Pregnancy Outcomes .....                       | 55 |
| Life Expectancy.....                           | 58 |
| Mortality .....                                | 60 |
| Leading Causes of Death .....                  | 60 |

|                                       |     |
|---------------------------------------|-----|
| Cancer .....                          | 62  |
| Heart Disease .....                   | 73  |
| Cerebrovascular Disease .....         | 76  |
| Diabetes Mellitus.....                | 79  |
| Alzheimer’s Disease.....              | 82  |
| Suicide.....                          | 84  |
| Morbidity.....                        | 86  |
| Sexually Transmitted Infections ..... | 86  |
| Asthma .....                          | 88  |
| Diabetes .....                        | 89  |
| Obesity .....                         | 90  |
| Oral Health .....                     | 91  |
| Substance Use .....                   | 94  |
| Healthy Habits.....                   | 95  |
| Medication Compliance.....            | 97  |
| Child Health Education .....          | 97  |
| Diet and Exercise.....                | 98  |
| Health Behavior Information.....      | 100 |
| Emergency Preparedness .....          | 101 |
| Environmental Data .....              | 102 |
| Air and Water Quality.....            | 102 |
| Peer County Comparisons .....         | 103 |
| Peer County Comparison Sources .....  | 105 |
| Education .....                       | 105 |
| Economy.....                          | 105 |
| Social .....                          | 106 |
| Health.....                           | 106 |
| Vulnerable Populations .....          | 107 |
| Summary and Next Steps .....          | 107 |

## List of Figures

|   |    |
|---|----|
| Figure 1. CHA Model.....  | 11 |
| Figure 2. Original Focus Areas.....   | 12 |
| Figure 3. Population Distribution by Gender (2010-2013) .....   | 16 |
| Figure 4. Birth Rate Trend, Live Births per 1,000 Population (Five-Year Aggregates, 2005-2013) .....                                      | 18 |
| Figure 5. Beaufort County Population Distribution by Race and Ethnicity (2010 US Census).....   | 19 |
| Figure 6. North Carolina Population Distribution by Race and Ethnicity (2010 US Census) .....   | 19 |
| Figure 7. Beaufort County Population Distribution by Age and Gender (2010 US Census).....   | 20 |
| Figure 8. North Carolina Population Distribution by Age and Gender (2010 US Census).....  | 21 |
| Figure 9. Veteran Status of Population by Age (Five-Year Estimate, 2009-2013) .....   | 23 |
| Figure 10. Proportion of Non-Native-English Speakers who Speak English Poorly by Native Language<br>(Five-Year Estimate, 2009-2013) ..... | 24 |
| Figure 11. Disabled Population by Age (Five-Year Estimate, 2009-2013).....  | 25 |
| Figure 12. Annual Unemployment Rate (2004-2014).....  | 27 |
| Figure 13. Community Services in Need of Improvement (2014 CHA Survey) .....  | 28 |
| Figure 14. Issues Affecting Quality of Life (2014 CHA Survey).....  | 28 |
| Figure 15. Annual Poverty Rate (Five-Year Estimates, 2005-2013) .....   | 29 |
| Figure 16. Annual Poverty Rate by Race (Five-Year Estimates, 2005-2013) .....   | 30 |
| Figure 17. Annual Poverty Rate by Age (Five-Year Estimates, 2007-2013).....   | 31 |
| Figure 18. Beaufort County Educational Attainment of Population 25 Years and Older (Five-Year<br>Estimate, 2009-2013) .....               | 34 |
| Figure 19. North Carolina Educational Attainment of Population 25 Years and Older (Five-Year Estimate,<br>2009-2013) .....                | 34 |
| Figure 20. High School Drop-Out Rate (School Year, 2008-2013).....  | 35 |
| Figure 21. Index Crime Rate per 100,000 Population (2009-2013) .....  | 36 |
| Figure 22. Violent Crime Rate per 100,000 Population (2009-2013).....   | 37 |
| Figure 23. Property Crime Rate per 100,000 Population (2009-2013) .....   | 38 |
| Figure 24. Homicide Mortality Rates per 100,000 Population (2009-2013).....   | 39 |
| Figure 25. Forms of Health Care Coverage (2014 CHA Survey) .....  | 40 |
| Figure 26. Available Primary Care Physicians per 10,000 Population (2010-2012) .....  | 42 |
| Figure 27. Available Physicians per 10,000 Population (2010-2012) .....   | 43 |
| Figure 28. Available Registered Nurses per 10,000 Population (2010-2012) .....  | 43 |
| Figure 29. Available Dentists per 10,000 Population (2010-2012) .....   | 44 |
| Figure 30. Available Pharmacists per 10,000 Population (2010-2012) .....  | 44 |
| Figure 31. Health Care Facilities/Locations Visited when sick (2014 CHA Survey) .....   | 45 |
| Figure 32. Problems Receiving Health Care in Beaufort County (2014 CHA Survey).....   | 46 |
| Figure 33. Beaufort County LME Admissions by Admissions Category (SFY2008-2012) .....   | 48 |
| Figure 34. Mental Health Counseling Resources (2014 CHA Survey) .....   | 49 |
| Figure 35. Pregnancy Rates per 1,000 Population (2009-2012) (Women, Age 15-44) .....  | 52 |
| Figure 36. Fertility Rates per 1,000 Population (2009-2012) (Women, Age 15-44).....   | 52 |

|  |     |
|--|-----|
| Figure 37. Abortion Rates per 1,000 Population (2009-2012) (Women, Age 15-44).....                 | 53  |
| Figure 38. Low and Very Low Birth Weight by Race (2007-2011) .....                                 | 56  |
| Figure 39. Low and Very Low Birth Weight by Race (2008-2012) .....                                 | 56  |
| Figure 40. Low and Very Low Birth Weight by Race (2009-2013) .....                                 | 57  |
| Figure 41. Infant Mortality Rates per 1,000 Live Births (Five-Year Aggregates, 2004-2013).....     | 58  |
| Figure 42. Life Expectancy by Gender (1990-1992; 2011-2013).....                                   | 59  |
| Figure 43. Life Expectancy by Race (1990-1992; 2011-2013).....                                     | 59  |
| Figure 44. Diagnosed Health Conditions (2014 CHA Survey).....                                      | 60  |
| Figure 45. Total Cancer Mortality Rates (Five-Year Aggregates, 2001-2013) .....                    | 62  |
| Figure 46. Total Cancer Mortality Rates by Gender (Five-Year Aggregate, 2009-2013) .....           | 63  |
| Figure 47. Total Cancer Mortality Rates by Race (Five-Year Aggregate, 2009-2013) .....             | 63  |
| Figure 48. Total Cancer Incidence Rates (Five-Year Aggregates, 2001-2011).....                     | 64  |
| Figure 49. Breast Cancer Incidence Rates (Five-Year Aggregates, 2001-2011).....                    | 65  |
| Figure 50. Breast Cancer Mortality Rates (Five-Year Aggregates, 2001-2013) .....                   | 66  |
| Figure 51. Prostate Cancer Incidence Rates (Five-Year Aggregates, 2001-2011) .....                 | 67  |
| Figure 52. Prostate Cancer Mortality Rates (Five-Year Aggregates, 2001-2013).....                  | 68  |
| Figure 53. Lung Cancer Incidence Rates (Five-Year Aggregates, 2001-2011) .....                     | 69  |
| Figure 54. Lung/Bronchus/Trachea Cancer Mortality Rates (Five-Year Aggregates, 2001-2013).....     | 70  |
| Figure 55. Colon/Rectum Cancer Incidence Rates (Five-Year Aggregates, 2001-2011).....              | 71  |
| Figure 56. Colon/Rectum/Anus Cancer Mortality Rates (Five-Year Aggregates, 2001-2013).....         | 72  |
| Figure 57. Heart Disease Mortality Rates (Five-Year Aggregates, 2001-2013) .....                   | 74  |
| Figure 58. Cerebrovascular Disease Mortality Rates (Five-Year Aggregates, 2001-2013) .....         | 77  |
| Figure 59. Diabetes Mellitus Mortality Rates (Five-Year Aggregates, 2001-2013) .....               | 80  |
| Figure 60. Alzheimer's Disease Mortality Rates (Five-Year Aggregates, 2001-2013) .....             | 82  |
| Figure 61. Overall Suicide Mortality Rates (Five-Year Aggregates, 2001-2013) .....                 | 84  |
| Figure 62. Chlamydia Infection Incidence Rate per 100,000 Population (2008-2012) .....             | 86  |
| Figure 63. Gonorrhea Infection Incidence Rate per 100,000 Population (2008-2012).....              | 87  |
| Figure 64. Asthma Hospital Discharges (Total and Age 0-14) per 100,000 Population (2009-2013)..... | 88  |
| Figure 65. Prevalence of Diabetes in Adults (2007-2011) .....                                      | 89  |
| Figure 66. Prevalence of Overweight and Obesity in Children 2-4 years of age (2008-2012) .....     | 91  |
| Figure 67. Child Dental Screening Summary (Kindergarten; SY2006-2007 through SY2009-2010).....     | 92  |
| Figure 68. Child Dental Screening Summary (Fifth Grade; SY2006-2007 through SY2009-2010).....      | 93  |
| Figure 69. Alcohol Consumption, Number of Drinks per week (CHA Survey 2014).....                   | 94  |
| Figure 70. Perceived General Health (CHA Survey 2014) .....  | 96  |
| Figure 71. Parent/Guardian Desired Health Information for Children (CHA Survey 2014) .....         | 97  |
| Figure 72. Servings of Fruits and Vegetables Consumed per day (CHA Survey 2014) .....              | 98  |
| Figure 73. Days of Physical Activity per week (CHA Survey 2014) .....                              | 99  |
| Figure 74. Topics of Health Behavior Information for Community Members (CHA Survey 2014) .....     | 100 |
| Figure 75. Primary Method of Receiving Emergency Information (CHA Survey 2014).....                | 101 |
| Figure 76. NC Division of Air Quality Color Code Guide.....  | 102 |
| Figure 77. Peer County Comparison (Beaufort v. Average of Ashe, Cherokee, Macon).....              | 104 |

## List of Tables

|   |     |
|---|-----|
| Table 1. Focus Group Summary Table .....  | 13  |
| Table 2. Decadal Population Growth (2000-2030) .....  | 17  |
| Table 3. Decadal Population Density with Current Year Estimate (2000-2030) .....  | 18  |
| Table 4. Growth Trend for the Elderly Population (Age 65 and Older) by Decade (2010-2030) .....                         | 22  |
| Table 5. Income Measures (Five-Year Estimate, 2009-2013) .....  | 26  |
| Table 6. Housing by Type (Five-Year Estimate, 2009-2013).....   | 32  |
| Table 7. Medicaid Eligibility and Expenditures (FY2007-2010).....   | 41  |
| Table 8. Medicare/Medicaid Dual Enrollment (2007-2010).....   | 41  |
| Table 9. Number of Nursing Facility Beds (2009-2014) .....  | 47  |
| Table 10. Beaufort County Health Rankings (2014).....   | 51  |
| Table 11. Number of Pregnancies among Teens (Age 15-19) and Adolescents (Under Age 15) (2009-2012)<br>.....             | 53  |
| Table 12. Smoking during Pregnancy (2009-2013).....   | 54  |
| Table 13. Women Receiving Prenatal Care in the First Trimester (2009-2013).....   | 55  |
| Table 14. Leading Causes of Death (2009-2013) .....   | 61  |
| Table 15. Heart Disease Cases and Hospital Discharge Rates (2010-2013) .....  | 73  |
| Table 16. Gender and Racial Disparities in Heart Disease Mortality (Five-Year Aggregate, 2008-2012) ...                 | 75  |
| Table 17. Cerebrovascular Disease Cases and Hospital Discharge Rates (2009-2013) .....                                  | 76  |
| Table 18. Gender and Racial Disparities in Cerebrovascular Disease Mortality (Five-Year Aggregate, 2009-<br>2013) ..... | 78  |
| Table 19. Diabetes Mellitus Cases and Hospital Discharge Rates (2009-2013) .....  | 79  |
| Table 20. Gender and Racial Disparities in Diabetes Mellitus Mortality (Five-Year Aggregate, 2009-2013)<br>.....        | 81  |
| Table 21. Gender and Racial Disparities in Alzheimer’s Disease Mortality (Five-Year Aggregate, 2008-<br>2012) .....     | 83  |
| Table 22. Gender and Racial Disparities in Suicide Mortality (Five-Year Aggregate, 2008-2012).....                      | 85  |
| Table 23. Prevalence of Obesity in Adults (2008-2010).....  | 90  |
| Table 24. Dental Service Utilization by Medicaid Recipients by Age Group (SFY2010) .....                                | 92  |
| Table 25. Drug Use and Abuse (CHA Survey 2014).....   | 94  |
| Table 26. Tobacco Use and Exposure (CHA Survey 2014) .....  | 95  |
| Table 27. Desire and Attempts to Quit Smoking (CHA Survey 2014) .....   | 95  |
| Table 28. Participation in Healthy Habits (CHA Survey 2014).....  | 96  |
| Table 29. Locations Used for Physical Activity (CHA Survey 2014) .....  | 99  |
| Table 30. Reasons for Not Engaging in Physical Activity (CHA Survey 2014).....  | 100 |
| Table 31. Total Population Served, Water Sources, and Health Violations .....   | 103 |
| Table 32. Beaufort County Vulnerable Populations .....  | 107 |

## **Purpose**

This document serves as Vidant Beaufort Hospital's Community Health Needs Assessment for Beaufort County for 2015.

The Affordable Care Act requires hospitals with a 501(c)(3) to conduct a community health needs assessment (CHA) and adopt an implementation strategy at least once every three years. These CHA requirements are effective for tax years beginning after March 23, 2012. Furthermore, local health departments within North Carolina are required to conduct a similar assessment every four years. In turn, Vidant Beaufort Hospital and the Beaufort County Health Department partnered with one another and East Carolina University to complete the required community health assessment.

The purpose of this community health assessment is to examine the health status of the community to ascertain priority areas of focus for the next three to four years. The health needs assessment process is thorough, inclusive and transparent. It is a collaborative effort between key stakeholder groups, members of the community, Vidant Beaufort Hospital, the Beaufort County Health Department, and East Carolina University. Action plans that address the key health issues for the community will be developed following the assessment.

## **Team Composition**

Representatives from the Beaufort County Health Department, Vidant Beaufort Hospital and ECU cooperatively were responsible for conducting the community health assessment. To ensure input from persons with a broad knowledge of the community, personal invitations were sent to organizations representing the county in sectors such as mental health, children's health, and senior health services. Additionally, individuals from agencies representing the uninsured and underinsured were invited to participate. Those who committed to the assessment and planning process became the stakeholder group and attended meetings beginning in July 2014. Finally, partners from Vidant Beaufort Hospital, the Beaufort County Health Department, and East Carolina University formed a separate leadership team, which worked collectively to identify the types and sources of data to be collected and along with the stakeholder group, helped prioritize the community health concerns.

## **Process Overview**

The community health assessment has several requirements. One requirement is the collection of primary data from community members. Beaufort County elected to elicit feedback from key stakeholder groups, conduct focus groups throughout the county, and circulate a health opinion survey. The health opinion survey was adapted from the Community Health Assessment Guidebook provided by the NC Division of Public Health (see Appendix A). A final component of the assessment process was the collection of secondary data. In turn, a four-part model was created to assess the social and health indicators in Beaufort County (see Figure 1). The health department contracted with the Center for Survey Research, housed in East Carolina University's Office of Innovation and Economic Development to help facilitate and conduct portions of the community health assessment.

**Figure 1. CHA Model**



The stakeholder group of more than 14 members met throughout this process to provide feedback. Five focus groups were held in specific geographic locations to discover community members' perception of health concerns and suggestions for improving health within the community. There were a total of 55 focus group participants. The survey was available online and in paper format in both English and Spanish. A total of 1,042 surveys were completed.

A review of secondary data was conducted by examining county level health data primarily compiled by sources such as the NC State Center for Health Statistics (NCSCHS). Examples of such data included leading causes of mortality, health care resource availability, and prevalence data from the Behavioral Risk Factor Surveillance Survey (BRFSS). Factors such as demographics, educational attainment, economic vitality and environmental issues within a community also influence health. These various sources of data were reviewed to determine the potential for impact on health status within the county. Moreover, a review of data across several years was conducted to determine trends in health status for Beaufort County.

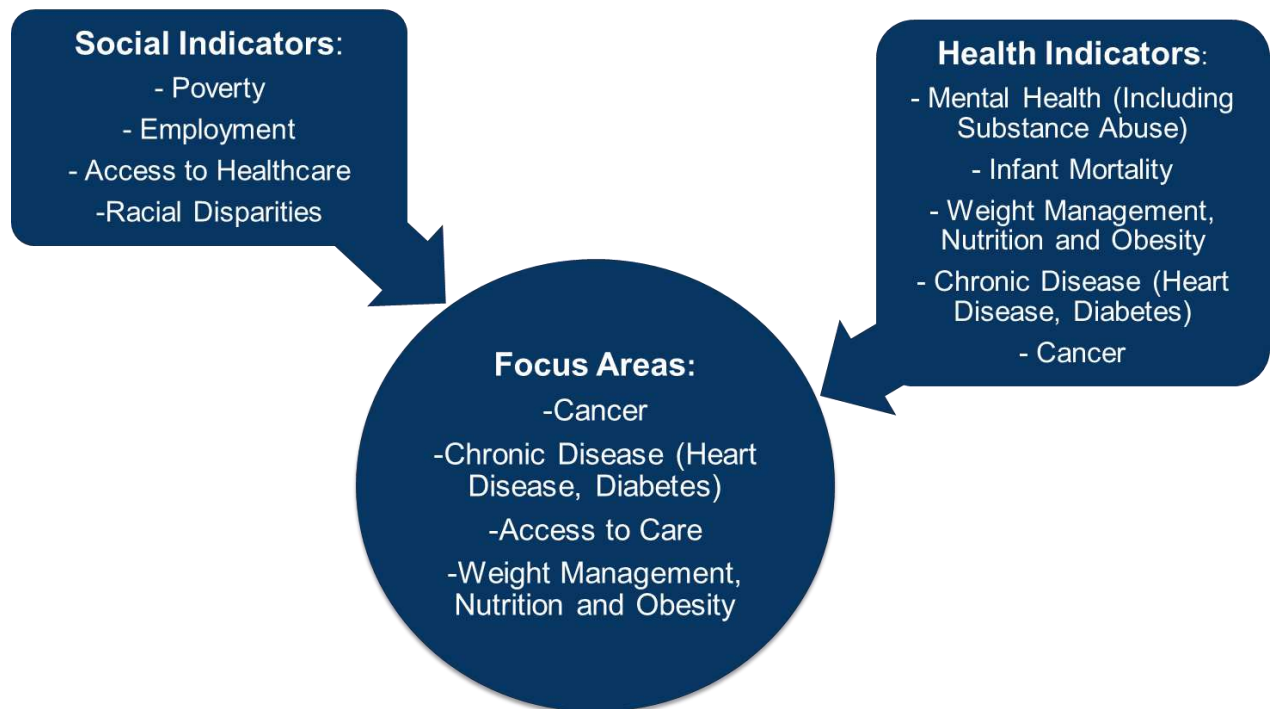
Social and health focus areas were selected based on the convergence of stakeholder input, focus group and survey results as well as secondary data sources. Members of the stakeholder group received a presentation of the data during their February 2015 meeting. During the meeting, ECU's team led a prioritization and feasibility exercise to help prioritize the focus areas.

## Outcomes

The community health assessment identified nine focus areas for 2015-2018 (see Figure 2). Although this was a community health assessment, social indicators were selected that both directly and indirectly influence community health. Thus, it is appropriate to acknowledge both social and health indicators. However, it was determined that while the social indicators were very important, it would be more feasible to narrow the focus areas into specific priorities for the action plan. Thus, for the action plan, the focus areas were narrowed to four and are listed below.

- Cancer
- Chronic Disease (Heart Disease, Diabetes)
- Access to Care (Including Mental Health)
- Weight Management, Nutrition and Obesity

Figure 2. Original Focus Areas





## Overview of Primary Data Sources

This assessment includes data collected from three primary sources: 1) meetings with stakeholders, 2) focus groups with community members, and 3) a community survey. These methods served as the “primary” data sources for the health assessment because each was collected specifically for the purpose of the assessment and includes the opinions of community members who participated in the process. Primary data is used to make comparisons with secondary data and provide contextual information, in order to help identify focus areas. As these data may be limited in various ways, such as a brief data collection period, it only aims to portray a snapshot of community perceptions during the specific assessment period.

### Stakeholders

The community health assessment process was initiated by Vidant Beaufort Hospital and the Beaufort County Health Department. Personal invitations were sent to a variety of individuals affiliated with county organizations including mental health, children’s health, senior health services, and agencies representing the uninsured and underinsured. Those who committed to the assessment and planning process became the stakeholder group and attended a total of three meetings between July 2014 and February 2015. The first meeting was used to introduce the community health assessment process and elicit initial feedback from the group. The next meeting focused on an update of the assessment progress and preliminary results. The final meeting included a presentation of the results as well as a prioritization and feasibility exercise to determine focus areas.

### Focus Groups

Focus groups (N = 55) with community members were conducted to solicit feedback regarding the health needs in the community. Focus group sessions were held at five different locations across the County. There were more women (60.0 percent) than men who participated in the focus groups. At least two team members conducted each one-hour session by asking a series of nine questions (see Appendix B). Finally, results were transcribed and analyzed for themes.

**Table 1. Focus Group Summary Table**

| Location                          | Date     | Attendance         |
|-----------------------------------|----------|--------------------|
| Beaufort County Health Department | 09/30/14 | 4 females, 4 males |
| Chocowinity Fire Department       | 09/30/14 | 5 females, 8 males |
| Bath Community Library            | 10/16/14 | 7 females, 4 males |
| Belhaven Public Library           | 10/21/14 | 8 females, 2 males |
| Aurora Fire Department*           | 11/04/14 | 9 females, 4 males |

\*Two participants not included in demographics because they were residents of Pamlico County. Their comments were included because they work very long hours in Beaufort County.

## Community Survey

A 56-item survey was created and distributed throughout the County from August-October 2014. The survey was made available online, as well as in paper format to capture the opinions of community members without Internet access. The purpose of the survey was to gain insight on community member opinions, as well as provide data to compliment and reinforce secondary data. Specifically, the survey targeted community members' opinions on various health-related topics. The survey took approximately 30 minutes to complete and consisted of fixed- and open-answer question types. A total of 1,042 community members completed the survey.

Completion of the survey data collection process was a collaborative effort of many human service agencies in Beaufort County. This method was used to solicit input from all areas within the County as well as targeted populations.

The majority of survey participants lived in Washington (57.1 percent) and Chocowinity (14.2 percent). Most survey respondents were women (78.4 percent), had access to the Internet (88.2 percent) and married (62.0 percent). Regarding racial distribution, there were more White participants than African American participants (72.3 and 22.9 percent, respectively). A small portion of participants (2.7 percent) identified as Hispanic or Latino. The largest portion of participants were between 45 and 54 years of age (20.1 percent) followed by those between 65 and 74 years of age (17.5 percent) then 35 and 44 years of age (17.0 percent). A very small portion between the ages of 20 and 24 years completed the survey (1.7 percent). Finally, over eight percent of participants did not speak English as their primary language.

Regarding participants' educational attainment, the most academically successful participants had a Graduate or Professional degree (21.2 percent). Moreover, the largest portion of participants had a Bachelor's degree (24.6 percent). Household income was approximately evenly distributed. The largest portion of participants had an annual household income between 50,000 and 74,999 dollars (21.4 percent). Finally, over half of participants (58.6 percent) were employed full-time.

In order to reduce sampling bias, population calibration or "data weighting" was conducted to compensate for discrepancies between the population of survey respondents and the demographic profile of the County. Weighting procedures were conducted on demographic variables age and sex. The weighting process grants under represented survey participants an equal "voice" as those who are overrepresented. All survey data included in the following sections of the assessment reflect weighted survey data based on the demographics of Beaufort County.

## County Overview: Home of North Carolina's Oldest Town

Beaufort County has a rich historical past with each town boasting its own bit of history. The settlement of Washington was laid out in 1775 by Colonel James Bonner. Washington was named after the first president of the United States, General George Washington. This is the reason that Washington is known as the "Original Washington." Washington bears the scars of the Civil War in a downtown home that still holds a cannonball shot by a Confederate ship. Despite war and two fires that destroyed much of the town, Washington has persevered and thrived to become what we know and love today. Washington is now home to much of the industry, recreation and population that is located in Beaufort County.

Beaufort County has the privilege of being home to North Carolina's oldest town, Bath. Officially founded in 1705, Bath was the first port of entry into N.C. In its early years the streets and docks of Bath were buzzing with everyone from Royal Governors to Pirates. Edward Teach better known as Blackbeard was said to have married a local and settled for a while in Bath. Today Bath is home to several historic sites such as the Palmer-Marsh House, and the Bonner House.

Aurora, founded in 1880 is the youngest town in Beaufort County. Aurora is most known for its geological history. Numerous items that can attest to this can be seen at the Aurora Fossil Museum. In fact, everything from the jaw of a Giant Mega-toothed shark to the skull of a whale and walrus can be seen here. Aurora is also home to one of the largest phosphate mines in the world, PotashCorp Aurora. PotashCorp Aurora also serves as one of the largest employers in Beaufort County.

Belhaven was once known as a busy industrial town that was home to several lumber companies and a branch of the Norfolk Southern Railroad. The vice-president of Norfolk Southern even made his home in Belhaven, River Forest Manor. The house is still standing today and serves as an inn, restaurant and marina. Eighteen shipwrecks have been identified by the North Carolina State Historic Preservation office at the Belhaven waterfront.

Beaufort County is now home to more than 47,000 residents. No matter what part of Beaufort County that you're in, you are sure to see a beautiful setting that blends the old with the new. The past, the present, and the future all work together to create the place that so many love and enjoy.

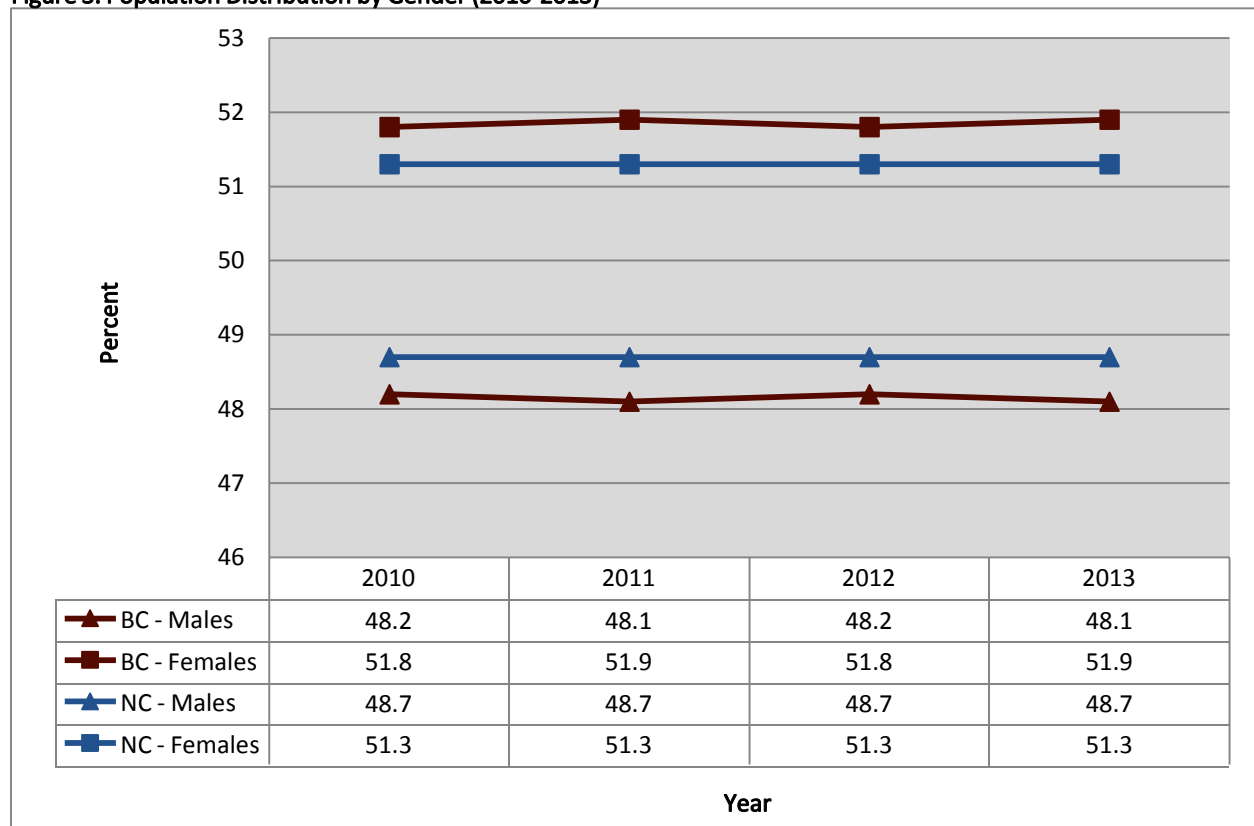
## Demographic Data

The following data represents the demographic profile of Beaufort County. Demographic data such as population growth, current population age, and birth rate are important to understand due to their influence on the current and future needs of the County. In order to facilitate comparison and provide perspective for the demographic characteristics of Beaufort County, County-level data is presented alongside State-wide data in each of the tables and figures below.

### General Population Characteristics

The most recent population estimates for Beaufort County suggest a slight decrease in population from 2010 to 2013. Specifically, the number of residents in Beaufort County has decreased from 47,759 in 2010 to 47,464 in 2013. In contrast, estimates of gender distribution have remained relatively constant, with approximately 52.0 percent of the County population consisting of females. A similar gender distribution is seen for North Carolina (approximately 51.0 percent; see Figure 3); however, population estimates for the State have steadily increased from 2010 (N = 9,535,483) to 2013 (N = 9,848,060).

**Figure 3. Population Distribution by Gender (2010-2013)**



Source: NCHS Bridged Population Data, State Center for Health Statistics, North Carolina:  
<http://www.schs.state.nc.us/SCHS/data/population/nchspop.cfm>

## Population Growth

In contrast to current trends within the County, decadal population growth projections suggest that the population of Beaufort County will steadily increase in the next five to 15 years (see Table 2). Specifically, in comparison to a population growth change of 6.2 percent experienced from 2000 to 2010, Beaufort County is expected to experience a 13.8 percent and 11.9 percent growth change from 2010 to 2020 and 2020 to 2030, respectively. A different pattern of growth is projected for the State, as change in growth is suggested to decrease from 18.5 percent, as seen from 2000 to 2010, to 12.9 percent from 2020 to 2030.

**Table 2. Decadal Population Growth (2000-2030)**

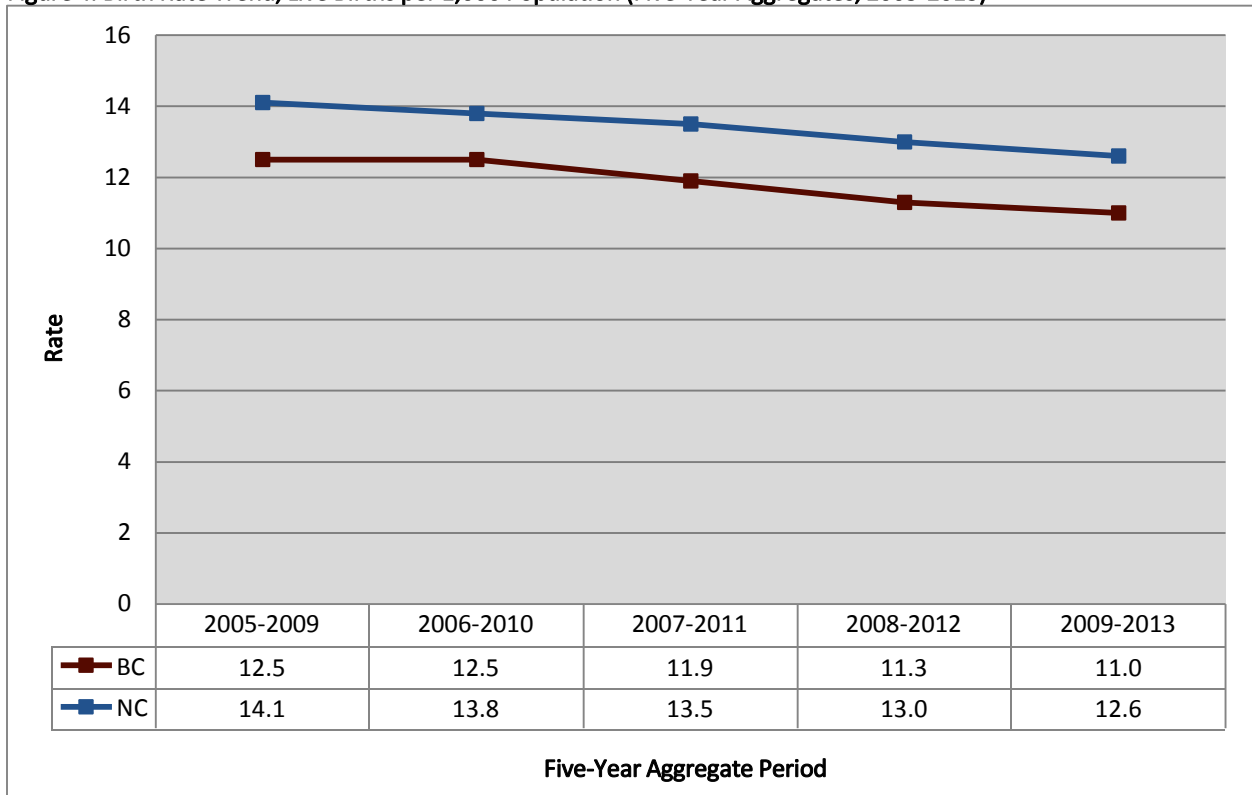
| Location        | 2000      | 2010      | Change 2000-2010 | 2020 (Projection) | Change 2010-2020 | 2030 (Projected) | Change 2020-2030 |
|-----------------|-----------|-----------|------------------|-------------------|------------------|------------------|------------------|
| Beaufort County | 44,958    | 47,759    | 6.2%             | 54,372            | 13.8%            | 60,828           | 11.9%            |
| North Carolina  | 8,046,813 | 9,535,483 | 18.5%            | 11,039,342        | 15.8%            | 12,463,244       | 12.9%            |

Source: North Carolina (LINC) Database, Topic Group (Population and Housing), Total Population, Population (Data Item5001): [http://data.osbm.state.nc.us/pls/linc/dyn\\_linc\\_main.show](http://data.osbm.state.nc.us/pls/linc/dyn_linc_main.show)

## Birth Rate

Birth rate is an important characteristic to understand, as it plays a critical role in population growth. In general, birth rates have decreased slightly since 2005 in both the County and the State (see Figure 4). The current five-year estimate (2009-2013) for birth rate in Beaufort County is 11.0 per 1,000 individuals. The current County birth rate is slightly lower than the birth rate for the entire State; however the difference between the two locations has remained relatively stable over time.

**Figure 4. Birth Rate Trend, Live Births per 1,000 Population (Five-Year Aggregates, 2005-2013)**



Source: North Carolina (LINC) Database, Topic Group (Population and Housing), Total Population, Population (Data Item 5001): [http://data.osbm.state.nc.us/pls/linc/dyn\\_linc\\_main.show](http://data.osbm.state.nc.us/pls/linc/dyn_linc_main.show)

### Population Density

Population density is currently higher in both the County and the State than in previous decades and is expected to continue to increase (see Table 3). Specifically, population density represents the number of individuals per square mile and is currently estimated at 57.7 persons/square mile for Beaufort County and 203.0 persons/square mile for North Carolina. Although expected increases in density are moderate for the County (i.e., approximately 1.0 person/square mile from 2020 to 2030), projected increases in density are larger for the State (i.e., approximately 30.0 persons/square mile from 2020 to 2030).

**Table 3. Decadal Population Density with Current Year Estimate (2000-2030)**

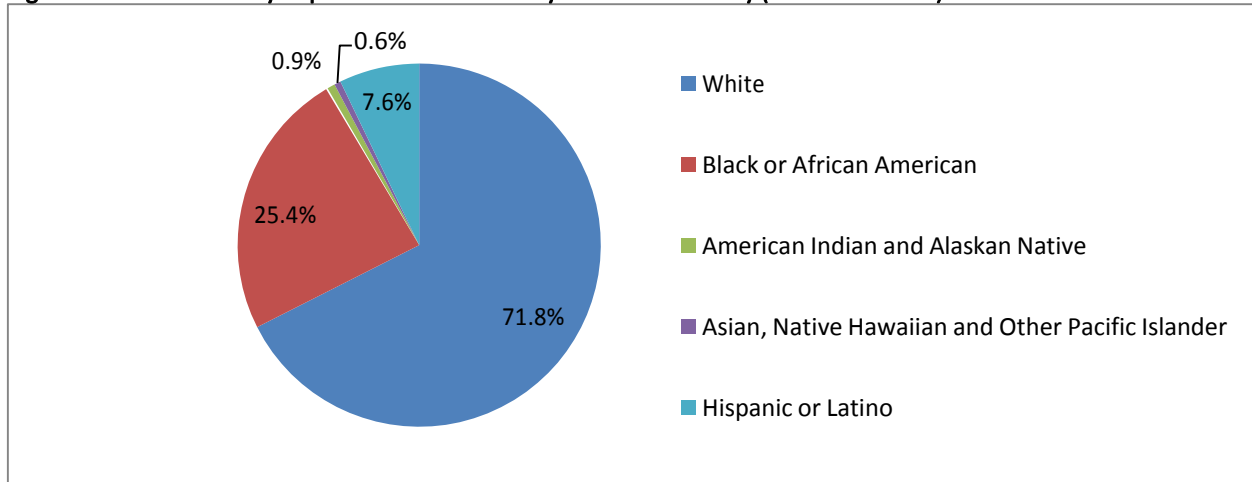
| Location        | Persons per Square Mile |       |                 |                   |                   |
|-----------------|-------------------------|-------|-----------------|-------------------|-------------------|
|                 | 2000                    | 2010  | 2014 (Estimate) | 2020 (Projection) | 2030 (Projection) |
| Beaufort County | 54.3                    | 56.9  | 57.7            | 58.9              | 60.2              |
| North Carolina  | 165.2                   | 191.9 | 203.0           | 219.9             | 248.2             |

Source: North Carolina (LINC) Database, Topic Group (Population and Housing), Total Population, Population Density (Data Item 5004): [http://data.osbm.state.nc.us/pls/linc/dyn\\_linc\\_main.show](http://data.osbm.state.nc.us/pls/linc/dyn_linc_main.show)

## Race and Ethnicity

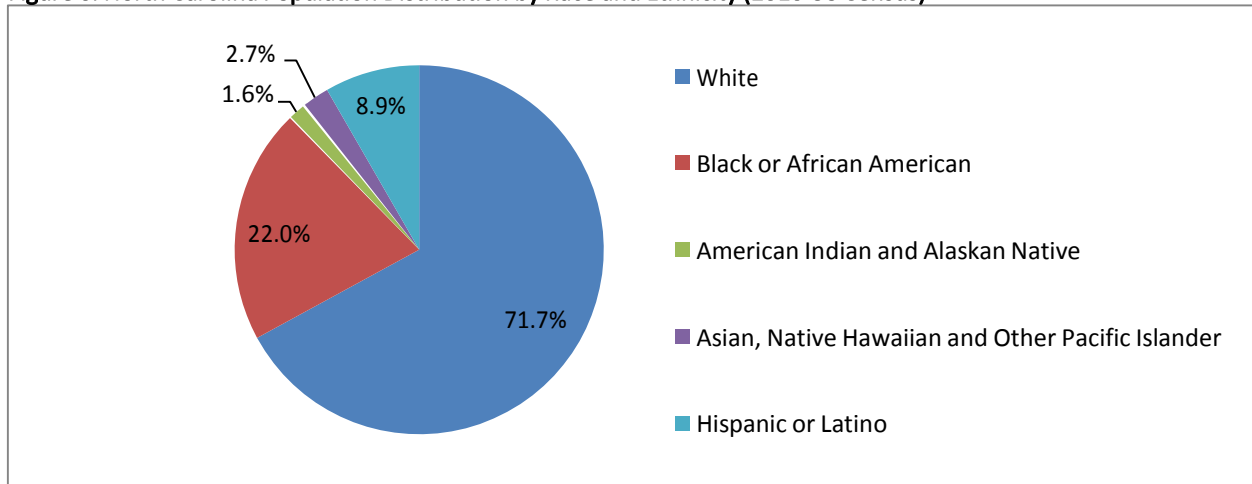
Beaufort County (see Figure 5) and North Carolina (see Figure 6) consist of predominately White then Black or African American residents. Specifically, both locations have approximately 72.0 percent White residents. Beaufort County has a slightly higher portion of Black or African American residents (25.4 percent) than North Carolina (22.0 percent). The third largest portion of residents in both the County and the State consist of residents of Hispanic or Latino ethnic origin (7.6 percent and 8.9 percent, respectively).

**Figure 5. Beaufort County Population Distribution by Race and Ethnicity (2010 US Census)**



Source: North Carolina (LINC) Database, Topic Group (Population and Housing), Age, Race, Sex (Data Items 6004, 6005, 6122, 6123, 6124, 6127): [http://data.osbm.state.nc.us/pls/linc/dyn\\_linc\\_main.show](http://data.osbm.state.nc.us/pls/linc/dyn_linc_main.show); US Census Bureau: State and County QuickFacts: <http://quickfacts.census.gov/qfd/states/37/37013.html>

**Figure 6. North Carolina Population Distribution by Race and Ethnicity (2010 US Census)**



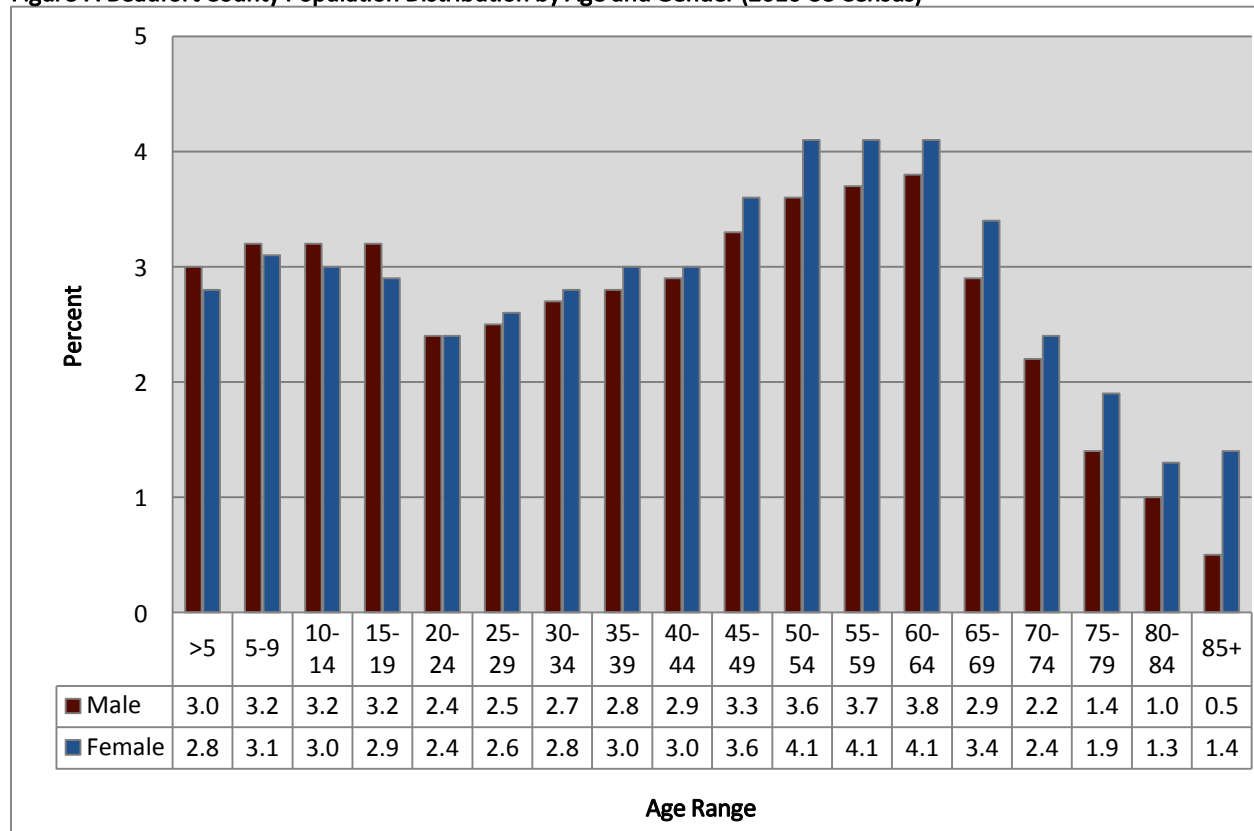
Source: North Carolina (LINC) Database, Topic Group (Population and Housing), Age, Race, Sex (Data Items 6004, 6005, 6122, 6123, 6124, 6127): [http://data.osbm.state.nc.us/pls/linc/dyn\\_linc\\_main.show](http://data.osbm.state.nc.us/pls/linc/dyn_linc_main.show); US Census Bureau: State and County QuickFacts: <http://quickfacts.census.gov/qfd/states/37/37013.html>

## Age

Although the age distribution for the population of North Carolina consists of relatively equal portions of residents in each of the age range categories from under 5 years of age to 49 years of age and a consistently decreasing portion of residents in each of the subsequent age range categories from 50 years of age to 85 years of age and older, the age distribution of Beaufort County demonstrates more variance (see Figures 7 and 8).

Specifically, the age distribution for the population of Beaufort County is characterized by a larger portion of younger residents ranging from under 5 years of age to 19 years of age than adult residents ranging from 20 years of age to 44 years of age. Furthermore, in comparison to all prior age categories, an even larger portion of residents in Beaufort County are between the ages of 45 and 69. Finally, the age distribution for residents in Beaufort County who are 70 years of age or older follows a similar decreasing pattern as that found in the State. In sum, Beaufort County has larger portions of older adults, particularly between the ages of 55 and 70, than the State.

**Figure 7. Beaufort County Population Distribution by Age and Gender (2010 US Census)**

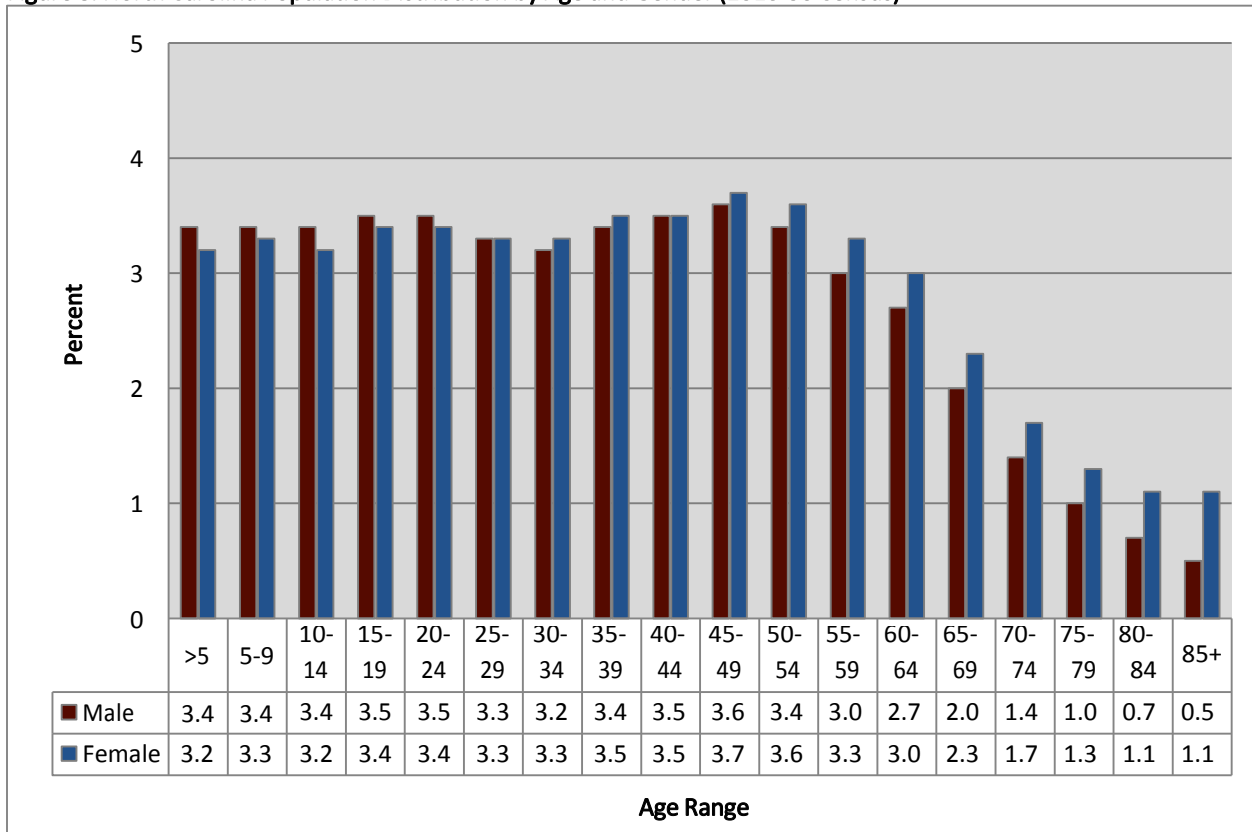


Source: US Census Bureau, American FactFinder, 2010 Census, 2010 Demographic Profile Data, Summary File DP-1, Profile of General Population and Housing Characteristics: 2010:

<http://quickfacts.census.gov/qfd/states/37/37013lk.html>



**Figure 8. North Carolina Population Distribution by Age and Gender (2010 US Census)**



Source: US Census Bureau, American FactFinder, 2010 Census, 2010 Demographic Profile Data, Summary File DP-1, Profile of General Population and Housing Characteristics: 2010:  
<http://quickfacts.census.gov/qfd/states/37/37013lk.html>

## Special Populations

Special populations, such as the aging and residents indicating veteran status, are important sub-populations that may need additional resources or forms of support regarding health and wellness. Examples of such resources include long-term care facilities for aging populations and employment opportunities for veterans.

## Aging

The aging population consists of residents who are 65 years of age or older (see Table 4). Although increases are expected in the aging population of both Beaufort County and North Carolina, greater increases are expected for the County in the next decade. Specifically, the aging population is expected to grow by approximately seven percent from 2010 to 2020 in Beaufort County, whereas the aging population in North Carolina is only expected to grow four percent in the same time period. Finally, although increases in the aging population are expected to become equivalent for the County and the State in 2030, the portion of the residents who are included in the aging population is consistently greater in Beaufort County than in the State, with a difference of approximately six to eight percent for all three decades.

Additional support regarding the size and importance of the aging population in Beaufort County was provided by CHA survey respondents, as 12.5 percent of participants indicated that they currently provide care for an elderly family member or friend. Among those community members, only approximately half (52.5 percent) indicated that they are able to find health care professionals in the community who are knowledgeable in aging issues. Furthermore, only small portions of the same caregivers indicated agreement that adequate health care was available for the elderly (47.1 percent), that affordable options were present for caregiver respite (43.4 percent), and that transportation services were available that met the needs of the elderly (33.4 percent). In turn, survey results suggest that increased attention and resources need to be directed toward this population and their caregivers.

**Table 4. Growth Trend for the Elderly Population (Age 65 and Older) by Decade (2010-2030)**

| Year                         | Beaufort County |         |      | North Carolina |           |      |
|------------------------------|-----------------|---------|------|----------------|-----------|------|
|                              | Total           | Age 65+ |      | Total          | Age 65+   |      |
|                              | #               | #       | %    | #              | #         | %    |
| <b>2030<br/>(Projection)</b> | 47,783          | 13,356  | 27.9 | 11,558,205     | 2,304,958 | 19.9 |
| <b>2020<br/>(Projection)</b> | 47,784          | 11,945  | 25.0 | 10,558,749     | 1,774,716 | 16.8 |
| <b>2010</b>                  | 47,759          | 8,782   | 18.4 | 9,535,483      | 1,234,079 | 12.8 |

Source: US Census Bureau, American FactFinder, 2010 Census, 2010 Demographic Profile Data, Summary File DP-1, Profile of General Population and Housing Characteristics: 2010:

<http://quickfacts.census.gov/qfd/states/37000lk.html>;

NC Office of State Budget and Management, County/State Population Projections. Age, Race, and Sex Projections, Age Groups – Total, July 1, 2020 County Total Age Groups – Standard:

[http://www.osbm.state.nc.us/demog/countytotals\\_agegroup\\_2020.html](http://www.osbm.state.nc.us/demog/countytotals_agegroup_2020.html);

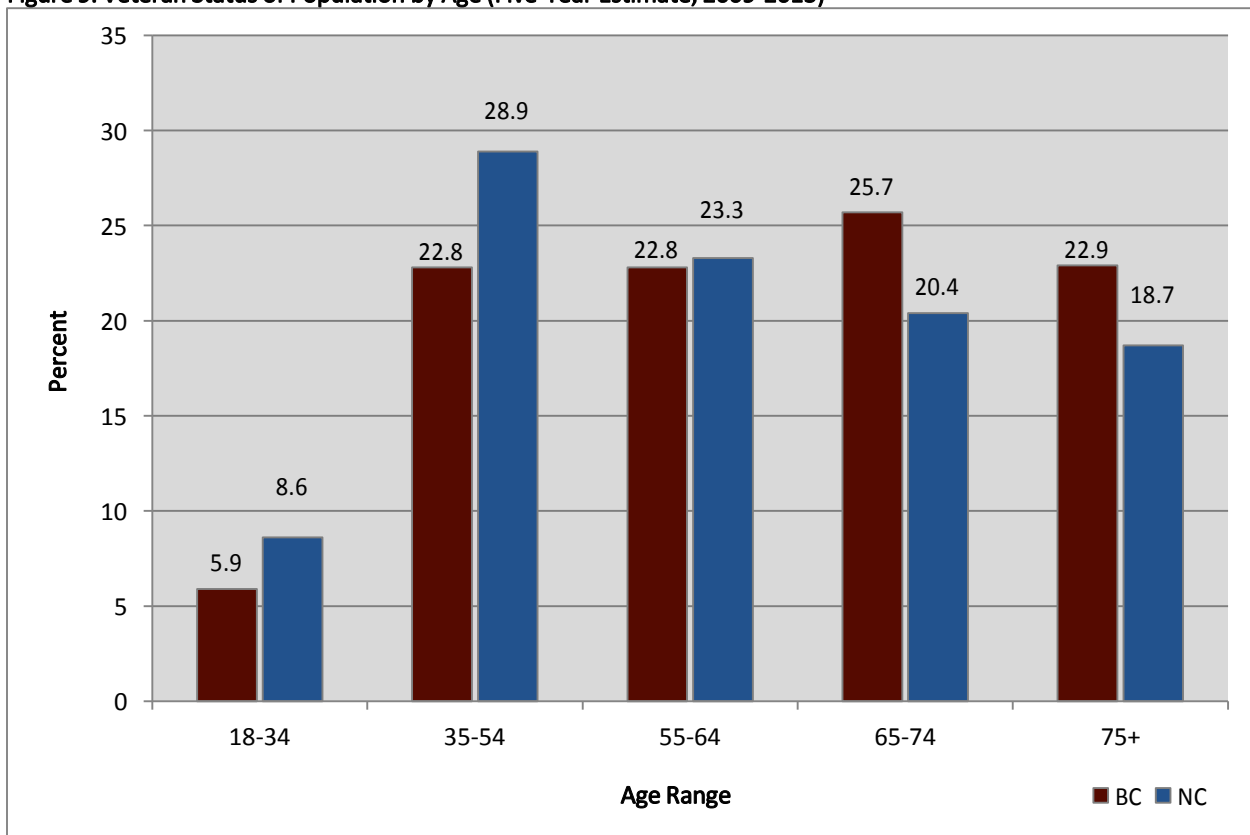
NC Office of State Budget and Management, County/State Population Projections. Age, Race, and Sex Projections, Age Groups – Total, July 1, 2020 County Total Age Groups – Standard:

[http://www.osbm.state.nc.us/demog/countytotals\\_agegroup\\_2030.html](http://www.osbm.state.nc.us/demog/countytotals_agegroup_2030.html)

## Veteran Status

A five-year estimate (2009-2013) of veteran status (see Figure 9) suggests that approximately 10.0 percent of residents in both Beaufort County and North Carolina are veterans, with approximately a quarter of veterans between the ages of 35 and 75 or older. The largest portion of veterans in Beaufort County (25.7 percent) is between the ages of 65 and 74, whereas the largest portion of veterans in North Carolina (28.9 percent) is between the ages of 35 and 54. This difference may be related to the larger portion of older residents who are located in Beaufort County, in comparison to the State. Further support for this conclusion is evidenced by a larger portion of young veterans between the ages of 18 and 34 in North Carolina (8.6 percent) than in Beaufort County (5.9 percent).

**Figure 9. Veteran Status of Population by Age (Five-Year Estimate, 2009-2013)**



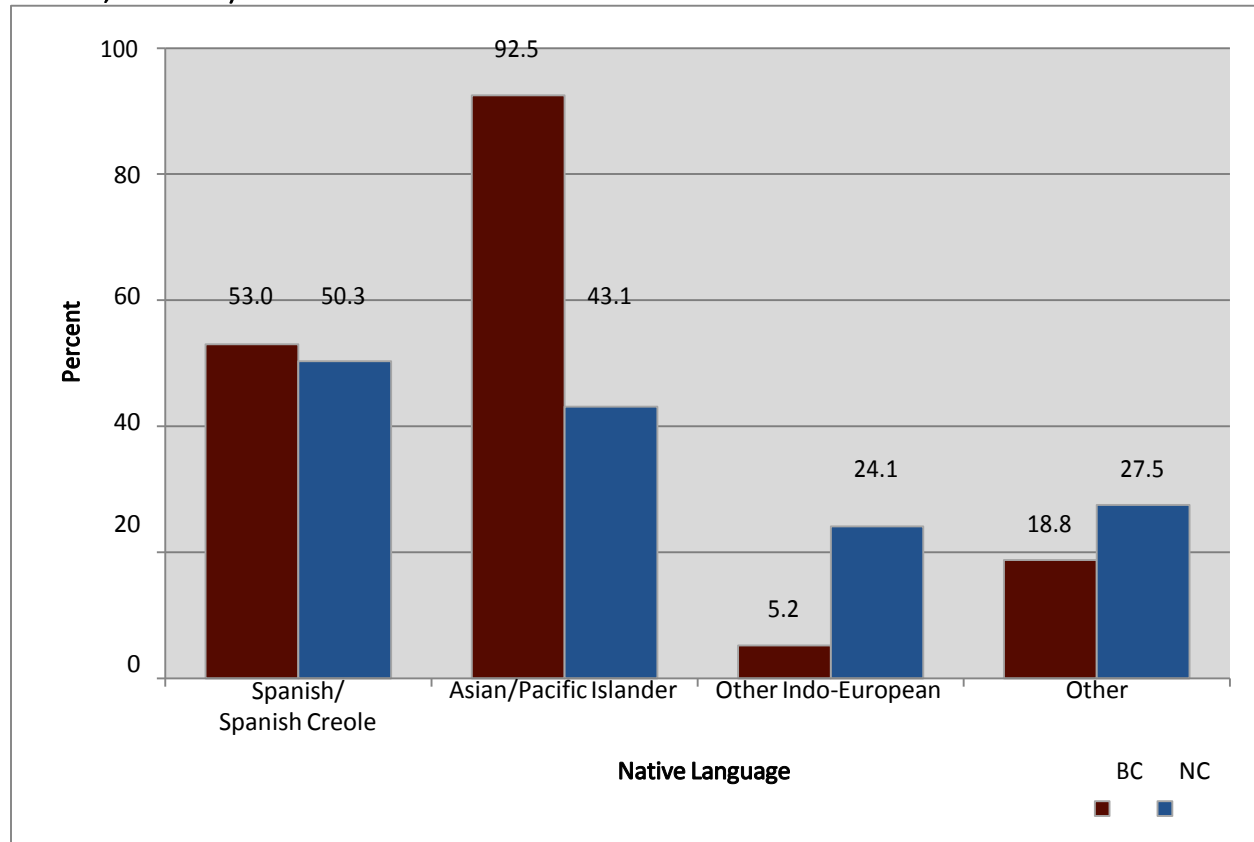
Source: US Census Bureau, American Fact Finder, American Community Survey, 2012 ACS 5-Year Estimate, Table S2101: Veteran Status: <http://factfinder.census.gov/>

## Non-English Speaking

An additional important special population includes residents who are not native English speakers. The figure below represents the proportion of residents, who speak English as a second language, who do not demonstrate proficiency in the English Language (see Figure 10). Specifically, over half of native Spanish speaking residents in both Beaufort County (N = 1270) and North Carolina (N = 331,447) speak English less than “very well.” Such findings suggest that additional support may need to be provided to non-English speaking populations to ensure their health and wellness.

Although smaller portions of residents who speak languages other than Spanish are found in Beaufort County and North Carolina, significant language barriers are still apparent. For example, of the 37 residents in Beaufort County who speak an Asian or Pacific Island language, 92.5 percent do not speak English “very well.” In contrast, only 43.1 percent of such speakers in North Carolina (N = 58,022) do not speak English “very well”; however, higher portions of additional Indo-European language speakers and residents who speak other languages appear more vulnerable to language barriers in North Carolina than in Beaufort County.

**Figure 10. Proportion of Non-Native-English Speakers who Speak English Poorly by Native Language (Five-Year Estimate, 2009-2013)**

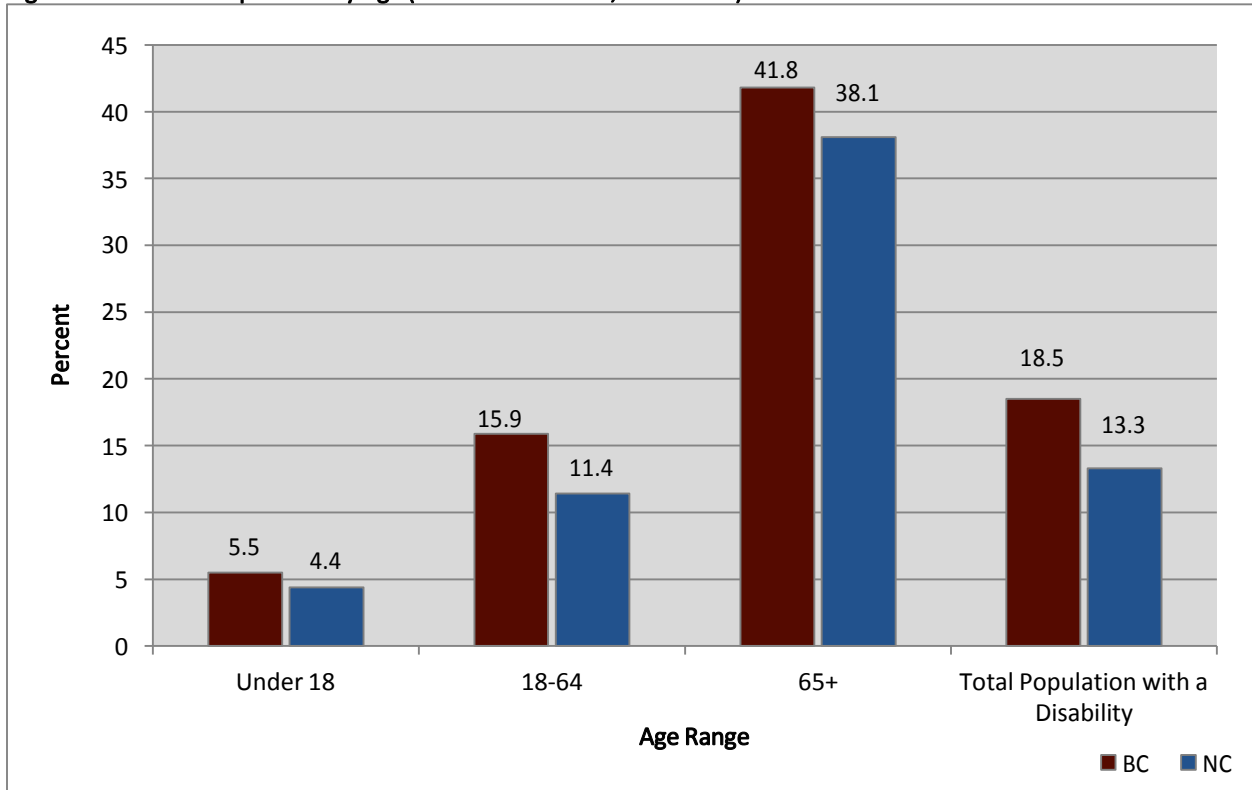


Source: US Census Bureau, American Fact Finder, American Community Survey, 2013 ACS 5-Year Estimate, Table S1601: Language Spoken at Home: <http://factfinder.census.gov/>

## Disabled

Finally, residents who are disabled represent a vital portion of the population who may require additional forms of support. The total population with a disability in Beaufort County is 18.5 percent (N = 8,728; see Figure 11). In contrast, the total population with a disability in North Carolina is approximately 5.0 percent lower (13.3 percent; N = 1,253,681). Finally, the majority of residents with a disability in both Beaufort and North Carolina are 65 years of age or older (41.8 percent and 38.1 percent, respectively).

**Figure 11. Disabled Population by Age (Five-Year Estimate, 2009-2013)**



Source: US Census Bureau, American Fact Finder, American Community Survey, 2013 ACS 5-Year Estimate, Table DP02:<http://factfinder.census.gov/>

## Economic Climate

The economic climate of a county can have a significant impact on the health and well-being of its residents. Specifically, factors such as income and unemployment may influence the amount of resources available that can be directed towards individual health. In turn, the economic status of a county can be viewed as a potential contributing factor to diminished health, as well as an appropriate topic to address when attempting to improve health outcomes.

## Tier Designation

The North Carolina Department of Commerce provides an annual ranking of the State's 100 counties based on their economic well-being. A Tier Designation is assigned to each county based on its economic status. The 40 most economically-distressed counties are assigned a Tier 1 ranking. The next 40 counties are designated as Tier 2 and the 20 least economically-distressed counties are designated as Tier 3. The Tier system is used for various state programs, such as tax credits that encourage economic growth.

Although previously at a Tier 2 designation, Beaufort County has been reassigned to Tier 1 status for 2014 due to characteristics such as population size and poverty rate. Specifically, the County's population of 48,000 combined with a poverty rate of 19.1 percent meets legislative criteria for an automatic Tier 1 designation. Notable concerns for the County include average unemployment rate, which ranks 74<sup>th</sup> in the State, and a poverty rate that has increased by two percentage points from 2013's rate of 17.2 percent.

## Income

Projected per capita income is slightly lower in Beaufort County (\$22,206 per individual) than in North Carolina (\$25,285 per individual). However, differences between the County and the State are more pronounced regarding median household and family income (see Table 5). Specifically, median household income in Beaufort County is \$40,429 per household, whereas median household income in North Carolina is approximately \$6,000 higher at \$46,334 per household. Finally, there is nearly a \$7,500 difference between estimates of median family income in Beaufort County (\$49,574 per family) and North Carolina (\$56,928 per family).

**Table 5. Income Measures (Five-Year Estimate, 2009-2013)**

| Location        | Projected Per Capita Income | Projected Median Household Income | Estimated Median Family Income |
|-----------------|-----------------------------|-----------------------------------|--------------------------------|
| Beaufort County | \$22,206                    | \$40,429                          | \$49,574                       |
| North Carolina  | \$25,285                    | \$46,334                          | \$56,928                       |

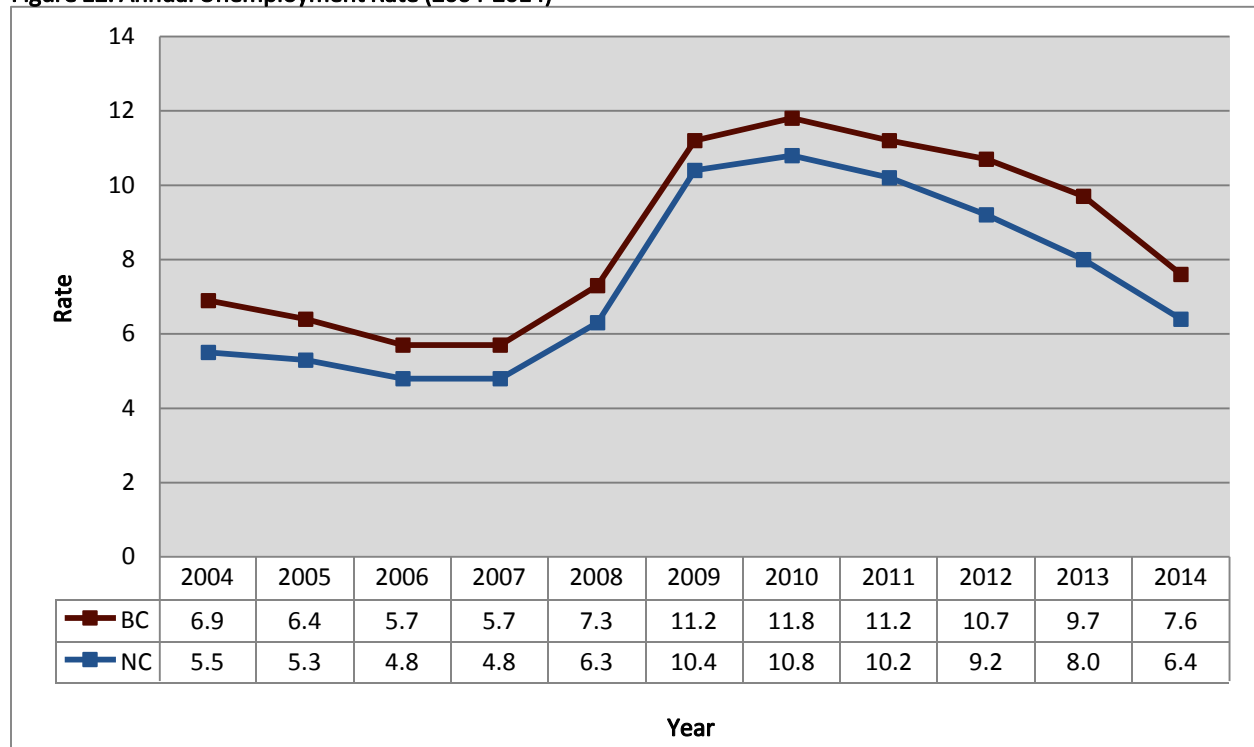
Source: US Census Bureau, American Fact Finder, American Community Survey, 2013 ACS 5-Year Estimate, Table DP03: <http://factfinder.census.gov/>; NC Department of Commerce, AccessNC, Community Demographics, County Report, County Profile: <http://accessnc.commerce.state.nc.us/EDIS/demographics.html>

## Unemployment

Although the unemployment rate in Beaufort County has steadily decreased over the past four years from 11.8 in 2010 to 7.6 in 2014 (see Figure 12), community members continue to report the impact it has on life. For example, higher paying employment (22.2 percent) and availability of employment (22.1 percent) were recognized in the 2014 CHA survey as the top two services needing improvement in the community (see Figure 13). Furthermore, when 2014 CHA survey participants were asked a series of questions regarding quality of life, 37.1 percent identified job availability/security as a primary issue (see Figure 14). The current unemployment rate was also a contributing factor in Beaufort County’s 2014 Tier 1 economic status ranking.

Additionally, only 18 percent of CHA survey respondents indicated agreement that “there is plenty of economic opportunity” in Beaufort County. Finally, issues of job availability were also discussed in focus groups, with some participants indicating that the limited availability of jobs is a significant barrier to health. Additional concerns surrounding unemployment included the notion that unemployed individuals may be vulnerable to receiving inadequate health care because of limited opportunities to obtain insurance.

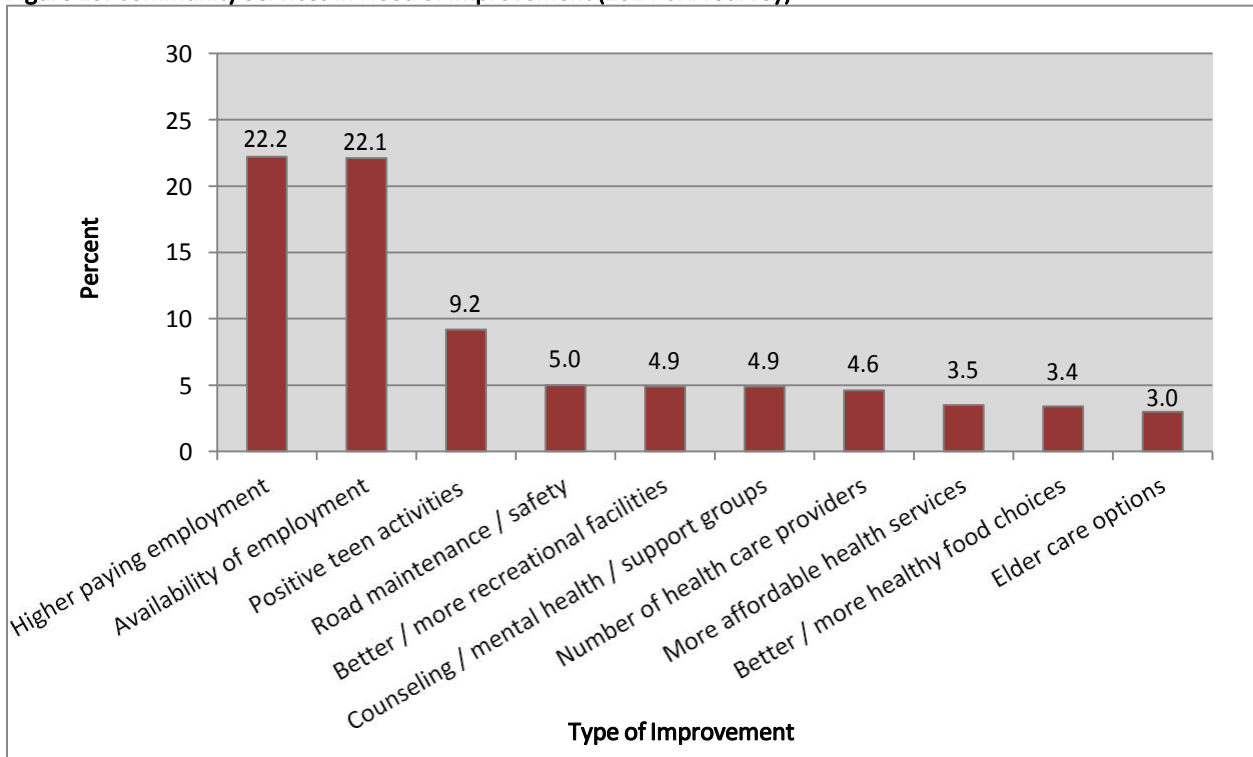
**Figure 12. Annual Unemployment Rate (2004-2014)**



Note: 2014 figures represent the average month rate from January through November

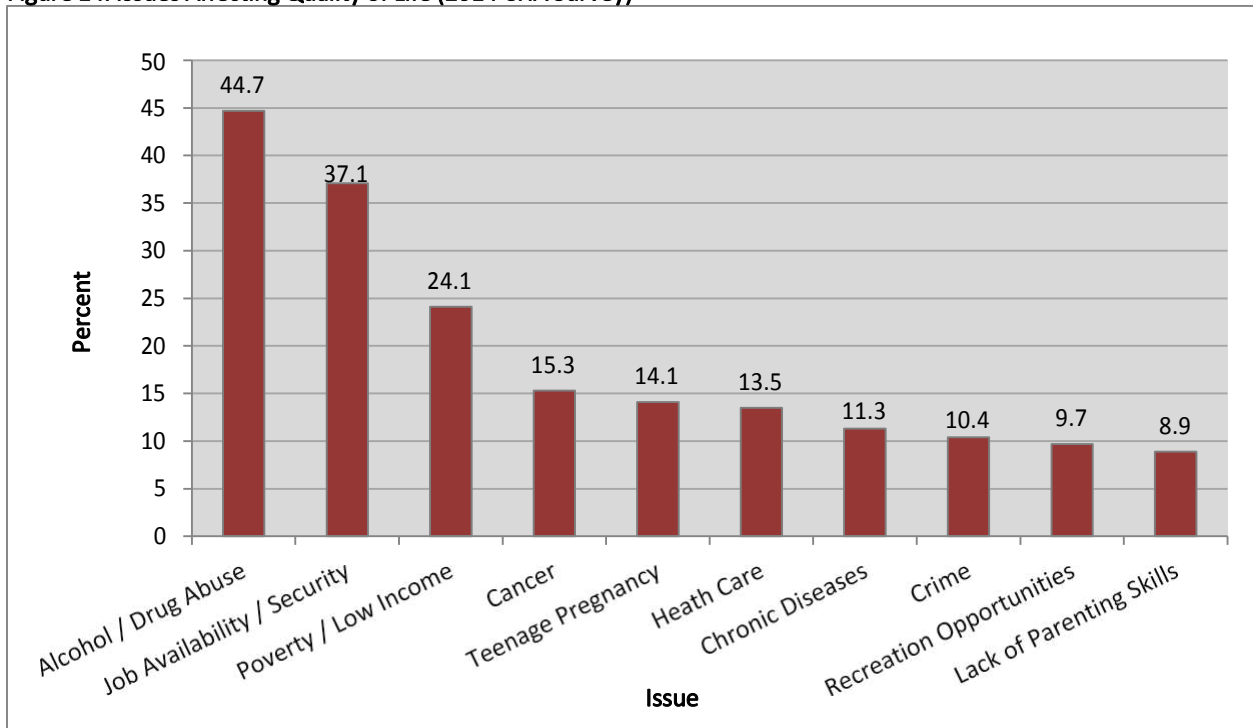
Source: Labor and Economic Analysis Division, NC Department of Commerce, Demand Drive Data Delivery System, Local Area Unemployment Statistics (LAUS), Unemployment Rate: <http://esesc23.esc.state.nc.us/d4/>

**Figure 13. Community Services in Need of Improvement (2014 CHA Survey)**



Source: Beaufort County Community Health Needs Assessment Survey 2014.

**Figure 14. Issues Affecting Quality of Life (2014 CHA Survey)**



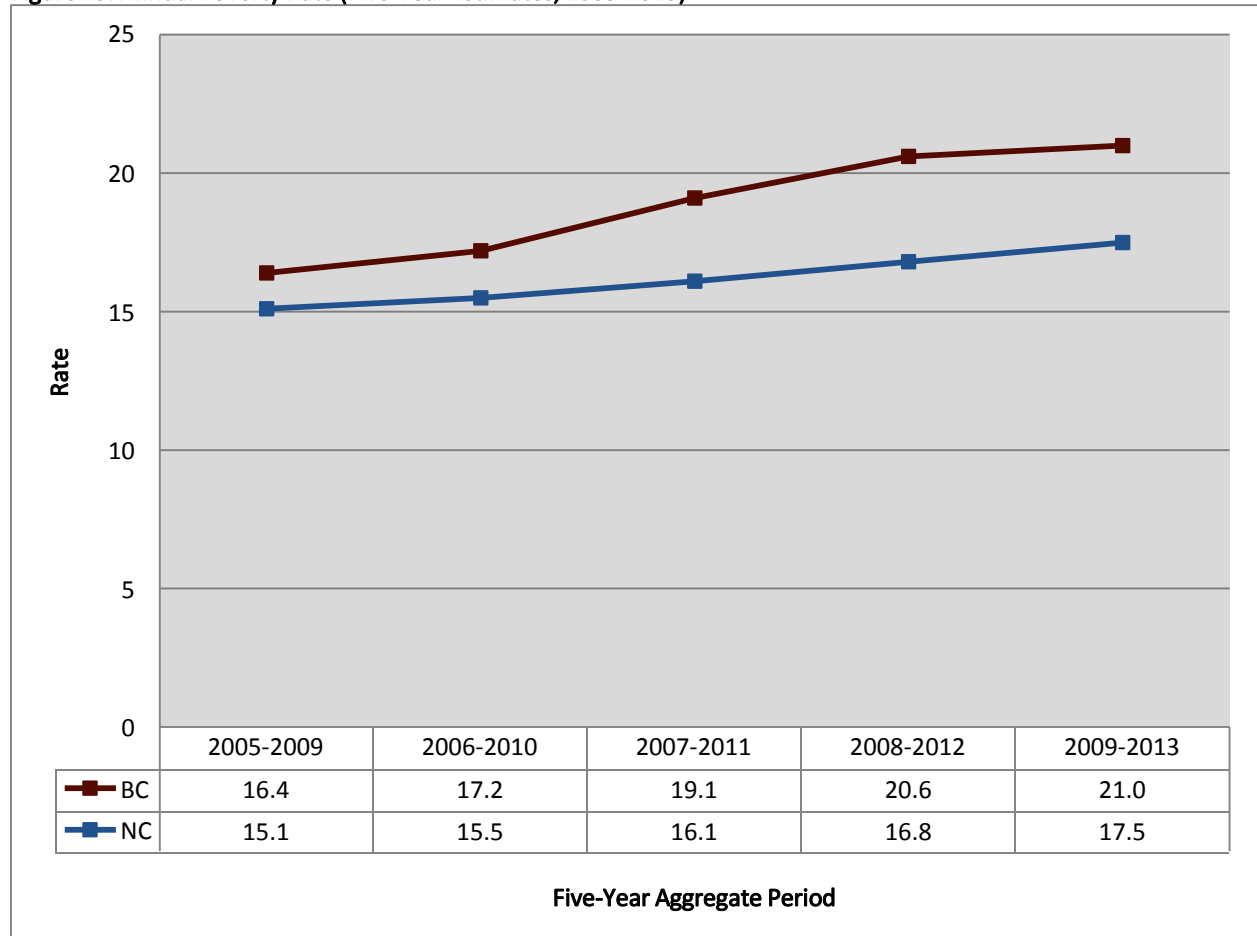
Source: Beaufort County Community Health Needs Assessment Survey 2014.



## Poverty

Poverty rates (i.e., percent of all persons living in poverty) have increased over the past eight years in both Beaufort County and North Carolina. Furthermore, such increases are more pronounced in Beaufort County, with rates rising from 16.4 percent in the 2005 to 2009 five-year aggregate period to 21.0 percent in the most recent five-year aggregate period (2009-2013). In contrast, poverty rates have only increased in North Carolina from 15.1 percent in the 2005 to 2009 five-year aggregate period to 17.5 percent in the 2009 to 2013 five-year aggregate period. Finally, as demonstrated in the figure below, poverty rates in Beaufort County are consistently higher than the rates for the State (see Figure 15).

**Figure 15. Annual Poverty Rate (Five-Year Estimates, 2005-2013)**



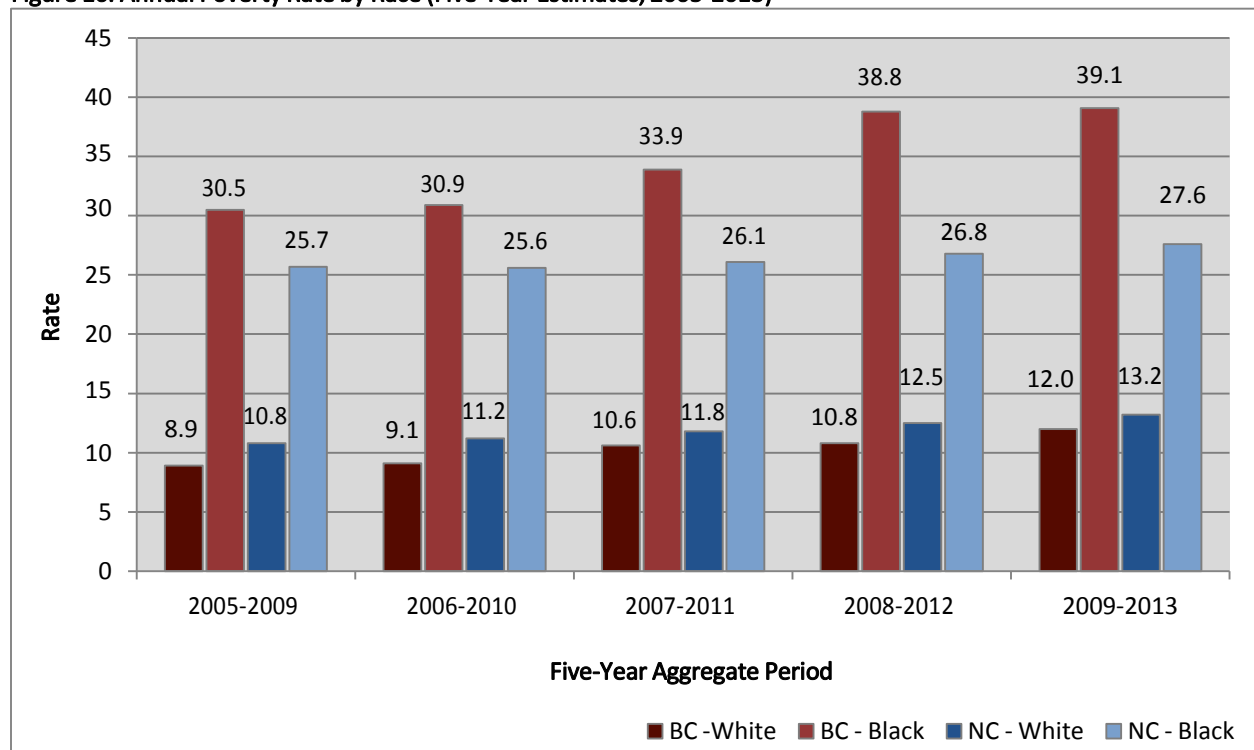
Source: US Census Bureau, American Fact Finder, American Community Survey, 2005-2013 ACS 5-Year Estimate, Table S1701: <http://factfinder.census.gov/>

Data indicating poverty rates for specific demographic categories (e.g., race, age) are useful in determining if subgroup differences exist. Furthermore, if subgroup differences are identified, such as disparities between White and Black/African American residents, it may suggest that additional resources need to be directed towards certain groups, as they may be more vulnerable to experiencing diminished levels of health. Such disparities may also help to explain any current health differences between subgroups.

In regard to race, poverty rates among Black residents are significantly higher than rates among White residents in both the County and the State (see Figure 16). Specifically, in the most recent five-year aggregate period (2009-2013), poverty rates among Black residents (39.1 percent) were over three times higher than rates among White residents (12.0 percent). In the State, rates among Black residents (27.6 percent) were over two times higher than rates among White residents (13.2 percent).

In addition to this significant disparity between races, poverty rates for both demographic groups have steadily increased over time. For example, in the County, poverty rates have risen by 8.6 percent for Black residents from 30.5 percent in the 2005 to 2009 five-year aggregate period and by 3.1 percent for White residents from 8.9 percent in the same five-year aggregate period. Nevertheless, it is clear that, in comparison to White residents, Black residents are burdened by both significantly higher and faster growing poverty rates.

**Figure 16. Annual Poverty Rate by Race (Five-Year Estimates, 2005-2013)**

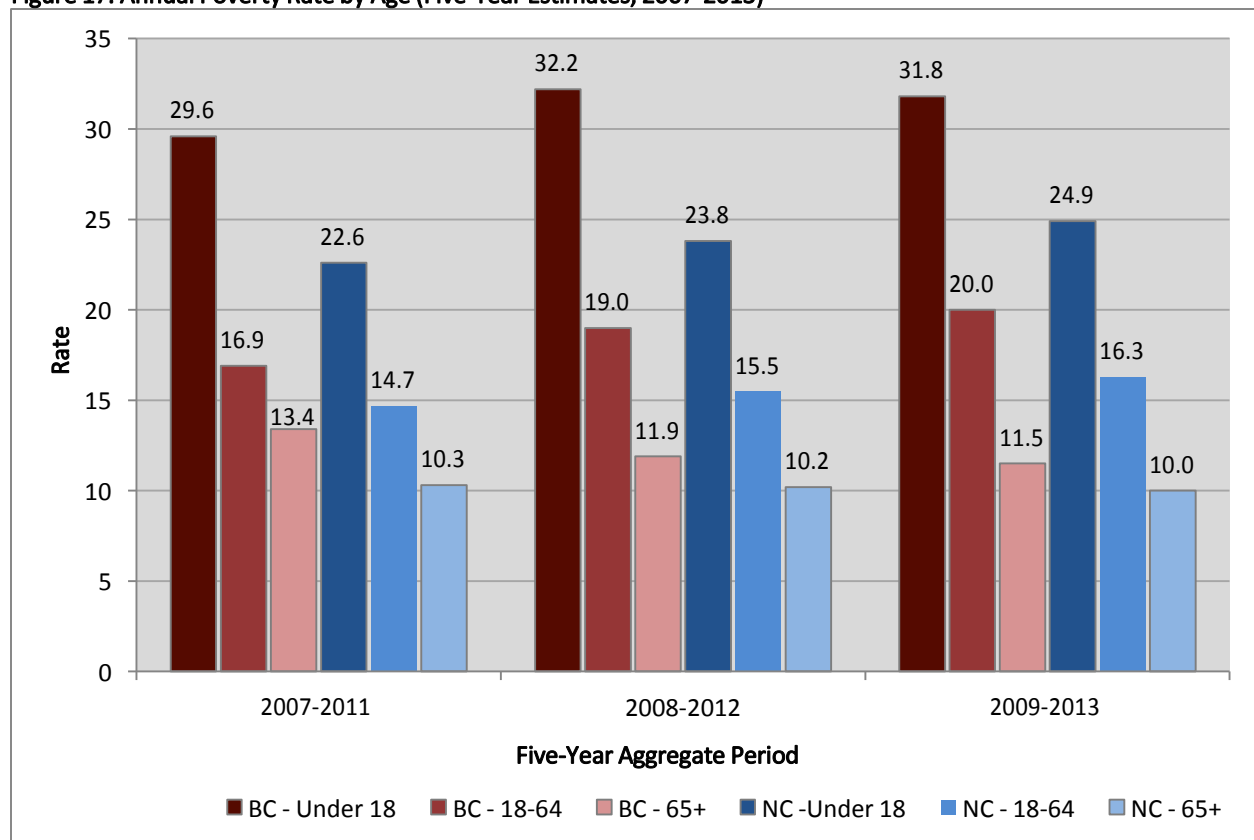


Source: US Census Bureau, American Fact Finder, American Community Survey, 2005-2013 ACS 5-Year Estimate, Table S1703: <http://factfinder.census.gov/>

In regard to age, although poverty rates have generally increased slightly over time, such increases are not uniformly experienced by all age groups (see Figure 17). Furthermore, poverty rates in general appear to be largely different depending upon age. Specifically, poverty rates for Beaufort County residents 65 years of age and older have decreased from 13.4 percent in the 2007 to 2011 five-year aggregate period to 10.0 percent in the 2009 to 2013 five-year aggregate period. In contrast, poverty rates for Beaufort County residents under the age of 18 have increased from 29.6 percent to 31.8 percent, across the same time span.

Similar increases are also associated with Beaufort County residents between the ages of 18 and 64. Overall, such data indicates that although poverty rates are improving for older residents, they are becoming increasingly worse for younger residents. A similar pattern is seen for North Carolina; however, poverty rates in general are lower than those in Beaufort County for all age groups. In sum, a gross disparity exists in regard to poverty between younger and older residents, as rates for younger residents are approximately three times higher than rates for older residents.

**Figure 17. Annual Poverty Rate by Age (Five-Year Estimates, 2007-2013)**



Source: US Census Bureau, American Fact Finder, American Community Survey, 2007-2013 ACS 5-Year Estimate, Table S1703: <http://factfinder.census.gov/>

## Housing

Vacant housing units represent a larger portion of all available housing in Beaufort County (22.5 percent) than in North Carolina (14.6 percent). However, a larger portion of residences in Beaufort County are occupied by owners (70.1 percent) than in North Carolina (66.4 percent). In contrast, 29.9 percent of housing units in Beaufort County are occupied by renters, who pay a median gross monthly rent of \$656, whereas 33.6 percent of housing units in North Carolina are occupied by renters, who pay a median \$776 per month for rent (see Table 6).

**Table 6. Housing by Type (Five-Year Estimate, 2009-2013)**

| Location               | Total Housing Units | Vacant | Occupied | Owner Occupied | Renter Occupied | Median Gross Monthly Rent |
|------------------------|---------------------|--------|----------|----------------|-----------------|---------------------------|
|                        | #                   | %      | %        | %              | %               | \$                        |
| <b>Beaufort County</b> | 24,847              | 22.5   | 77.5     | 70.1           | 29.9            | 656                       |
| <b>North Carolina</b>  | 4,349,023           | 14.6   | 85.4     | 66.4           | 33.6            | 776                       |

Source: U.S. Census Bureau, 2009-2013 5-Year American Community Survey, Table DP04: Selected Housing Characteristics (geographies as listed).

<http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF>

## Affordable Housing

Despite a larger portion of housing units in Beaufort County being occupied by owners than in North Carolina, such housing comes at a cost that may lead to issues of sustainability. Specifically, in regard to housing affordability, nearly 40 percent of Beaufort County homes with a mortgage cost 30 or more percent of the owners' household income to sustain. In contrast, approximately 30 percent of North Carolina homes carry the same level of financial burden. In turn, Beaufort County residents may find themselves unable to continue to afford their specific housing unit, leading to a higher number of vacant units. Nevertheless, for the most recent five-year aggregate period (2009-2013), it appears that despite the high level of financial commitment, residents in Beaufort County prefer to own their home rather than rent from another owner.

## **Public Transportation in Beaufort County**

Public transportation represents an important resource of individuals who may rely on such services to accomplish tasks such as going to work, taking children to doctor's appointments, or shopping for food. In Beaufort County, less than half of 2014 CHA survey respondents (39.4 percent) indicated that they felt there were sufficient transportation services available in the County. Furthermore, focus group participants supported the survey results by stating that the current public transit system was inconvenient in regard to scheduling and did not meet their needs in general. For example, one participant noted, "even though we have the Beaufort Area Transit System (BATS), a lot of people don't know how to use it." In turn, it appears as if there are both issues with the availability and convenience of the current system, as well as an overall lack of information about the resource.

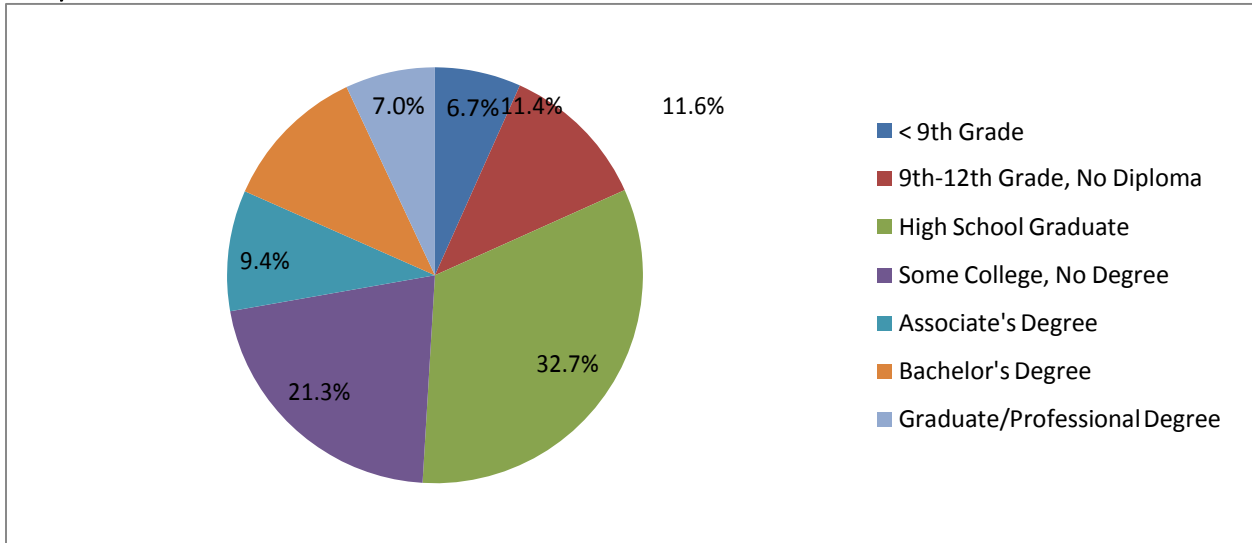
## **Education**

Educational factors, such as educational attainment and high school drop-out rate, are important indicators for social and physical well-being. Specifically, as education affords many individuals increased opportunities for financial growth, it may also influence the amount of resources one has to direct towards healthy living. Education also indicates the level of knowledge and skills that an individual has, which influence social opportunities such as employment.

### **Educational Attainment**

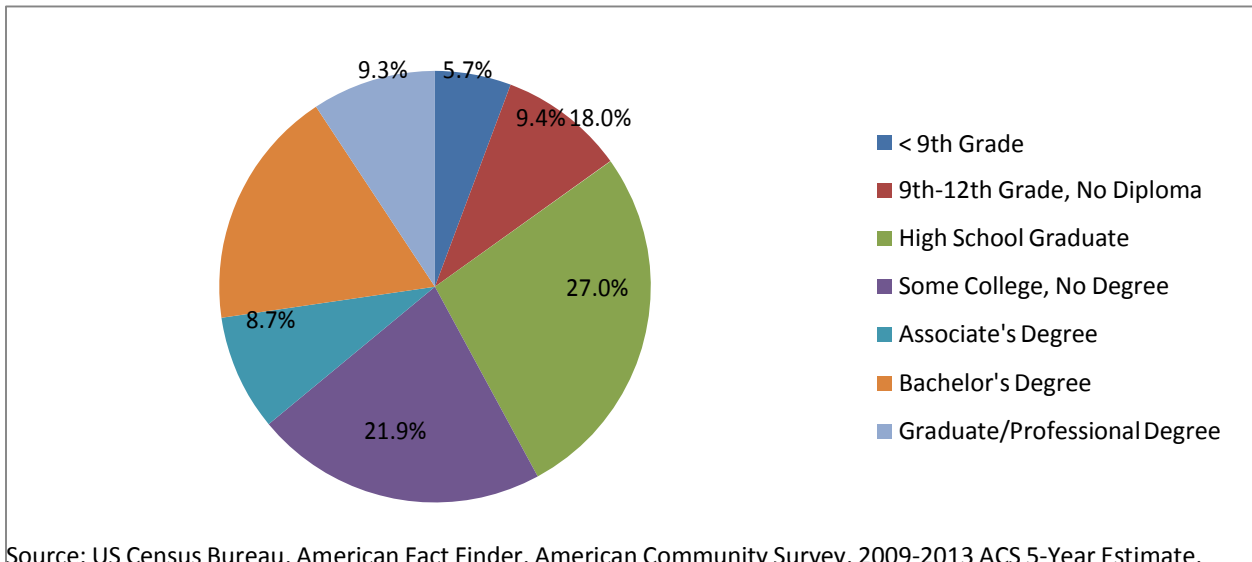
The majority of residents in Beaufort County (see Figure 18) have either a high school education (32.7 percent) or have completed some college, but did not obtain a degree (21.3 percent). Following, smaller portions of residents have either higher (i.e., Bachelor's degree; 11.4 percent) or lower (i.e., high school non-graduate; 11.6 percent) levels of educational attainment. A similar pattern of educational attainment is seen for North Carolina (see Figure 19), as 27.0 percent of residents have a high school education and 21.9 percent have completed some college, but did not obtain a degree. However, in contrast to the County, a larger portion of State residents have slightly higher levels of educational attainment (i.e., Bachelor's degree; 18.0 percent).

**Figure 18. Beaufort County Educational Attainment of Population 25 Years and Older (Five-Year Estimate, 2009-2013)**



Source: US Census Bureau, American Fact Finder, American Community Survey, 2009-2013 ACS 5-Year Estimate, Table S1501: <http://factfinder.census.gov/>

**Figure 19. North Carolina Educational Attainment of Population 25 Years and Older (Five-Year Estimate, 2009- 2013)**

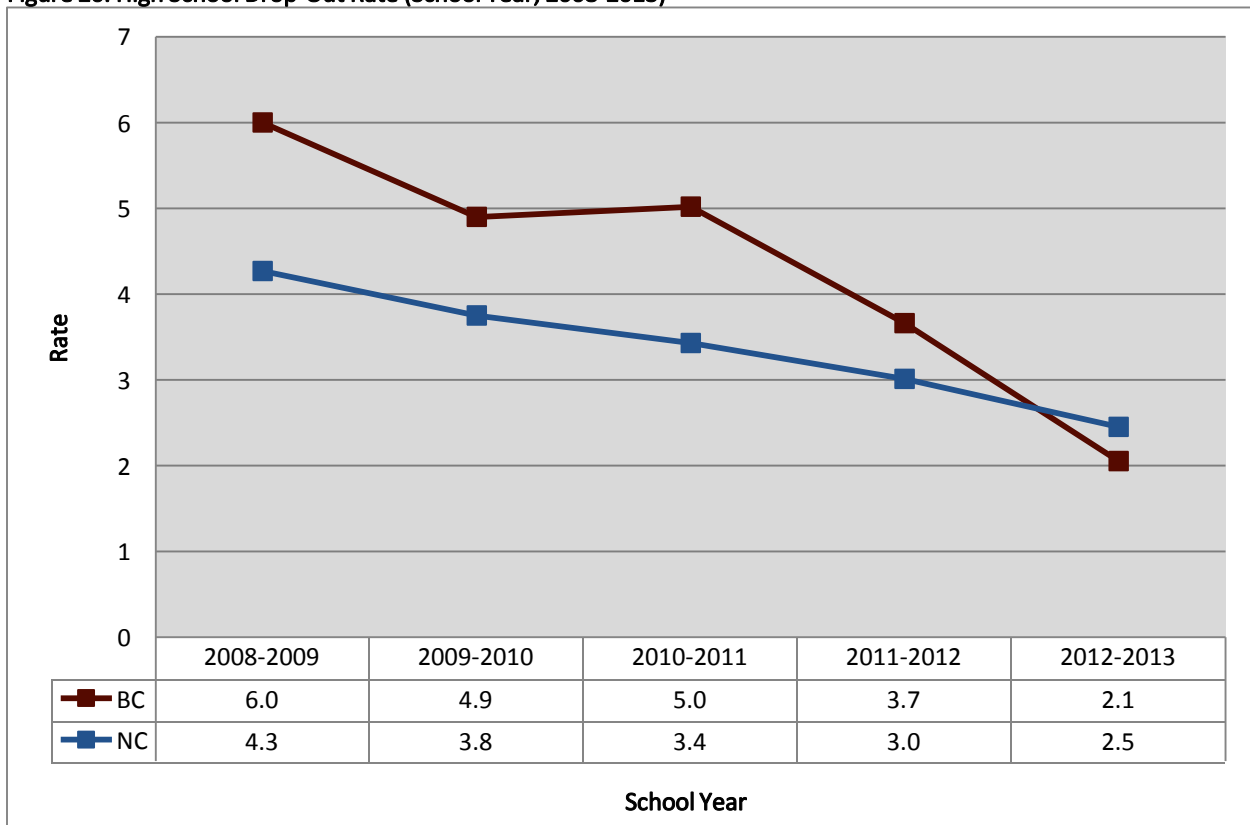


Source: US Census Bureau, American Fact Finder, American Community Survey, 2009-2013 ACS 5-Year Estimate, Table S1501: <http://factfinder.census.gov/>

## High School Drop-Out Rate

Although the high school drop-out rate (i.e., percentage of eligible students who are no longer enrolled in school) in Beaufort County has been consistently higher than rates for North Carolina in previous years, drop-out rates in Beaufort County are now lower than in the State (see Figure 20). Specifically, drop-out rates in Beaufort County have decreased significantly from six percent in the 2008 to 2009 school year to approximately two percent in the most recent school year (2012-2013). Although rates have fallen less dramatically in the State, a similar trend is still displayed, as rates moved from 4.3 percent in the 2008 to 2009 school year to 2.5 percent in the most recent school year (2012-2013). Overall, a positive trend is observed in regard to high school drop-out rates in both locations; however improvements are particularly apparent for the County.

**Figure 20. High School Drop-Out Rate (School Year, 2008-2013)**



Source: NC Department of Public Instruction, Research and Evaluation, Dropout Data and Collection Process, Annual Dropout Reports; <http://www.ncpublicschools.org/research/dropout/reports/>.

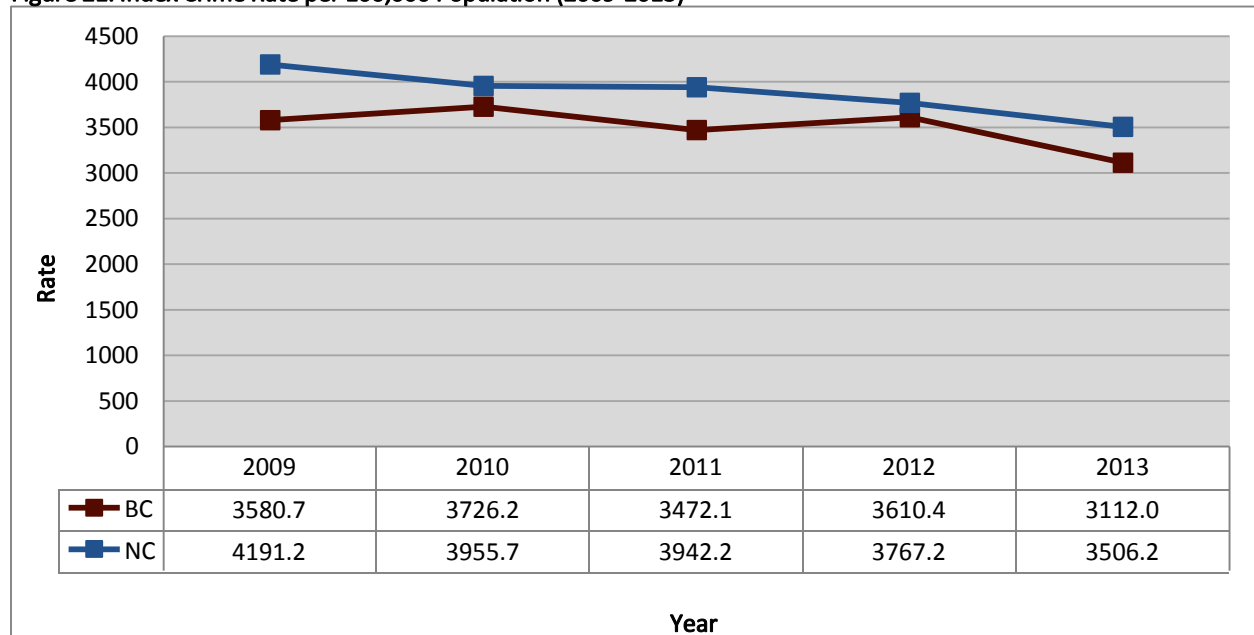
## Crime and Safety

Crime rates can play a significant role on resident perceptions regarding the safety of their community. Furthermore, such perceptions may have an impact on the physical and mental well-being of a community. Lastly, crime and safety issues may impact the degree to which individuals are likely to relocate to, continue to live in, or spend time in the community. In turn, understanding the various types of crime that currently exist in the community is of great importance.

### Crime Rates

Crime rates have decreased slightly over time in both Beaufort County and North Carolina. Specifically, index crime rates, which include the total number of murders, rapes, robberies, assaults, burglaries, larcenies, and motor vehicle thefts, have decreased in Beaufort County from 3580.7 in 2009 to 3112.0 in 2013, a decrease of 468.7. A larger decrease is observed for index crimes in North Carolina, which have decreased from 4191.2 in 2009 to 3506.2 in 2013, a decrease of 685.0. Finally, although both locations are experiencing a five-year low in index crimes, Beaufort County has maintained a consistently lower level of such crimes than North Carolina over time (see Figure 21). Lack of crime was also recognized as one of the best things about living in the County by 2014 CHA focus group participants. Furthermore, the majority of 2014 CHA survey participants (69.5 percent) agreed or strongly agreed that Beaufort County is a safe place to live. Nevertheless, 10.4 percent selected crime as a primary issue affecting the quality of life in the community, indicating the continued emphasis that is placed on community crime.

**Figure 21. Index Crime Rate per 100,000 Population (2009-2013)**

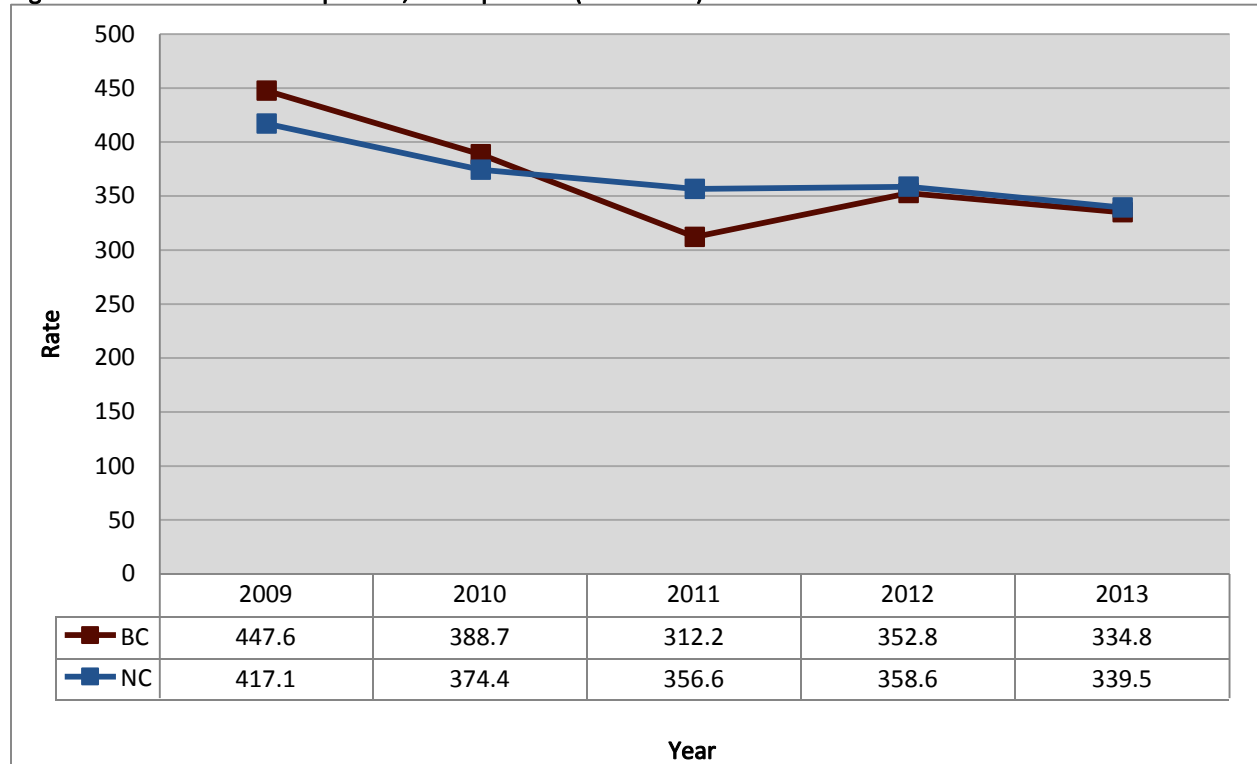


Source: North Carolina Department of Justice, Crime in North Carolina, Crime Statistics, Annual Summary Report: Years 2009, 2010, 2011, 2012, 2013; <http://crimereporting.ncdoj.gov/Reports.aspx>



Violent crime rates, which include the total number of murders, rapes, robberies, and assaults, have been largely similar between Beaufort County and North Carolina from 2009 to 2013 (see Figure 22). Specifically, in the two locations violent crime rates have been nearly identical during the two most recently reported years (2012, 2013). Currently, violent crimes rates are 334.8 for Beaufort County and 339.5 for North Carolina. Although this rate is a five-year low for the State, rates have previously lower in Beaufort County (i.e., 2011; 312.2). However, overall rates depict a positive decline across time.

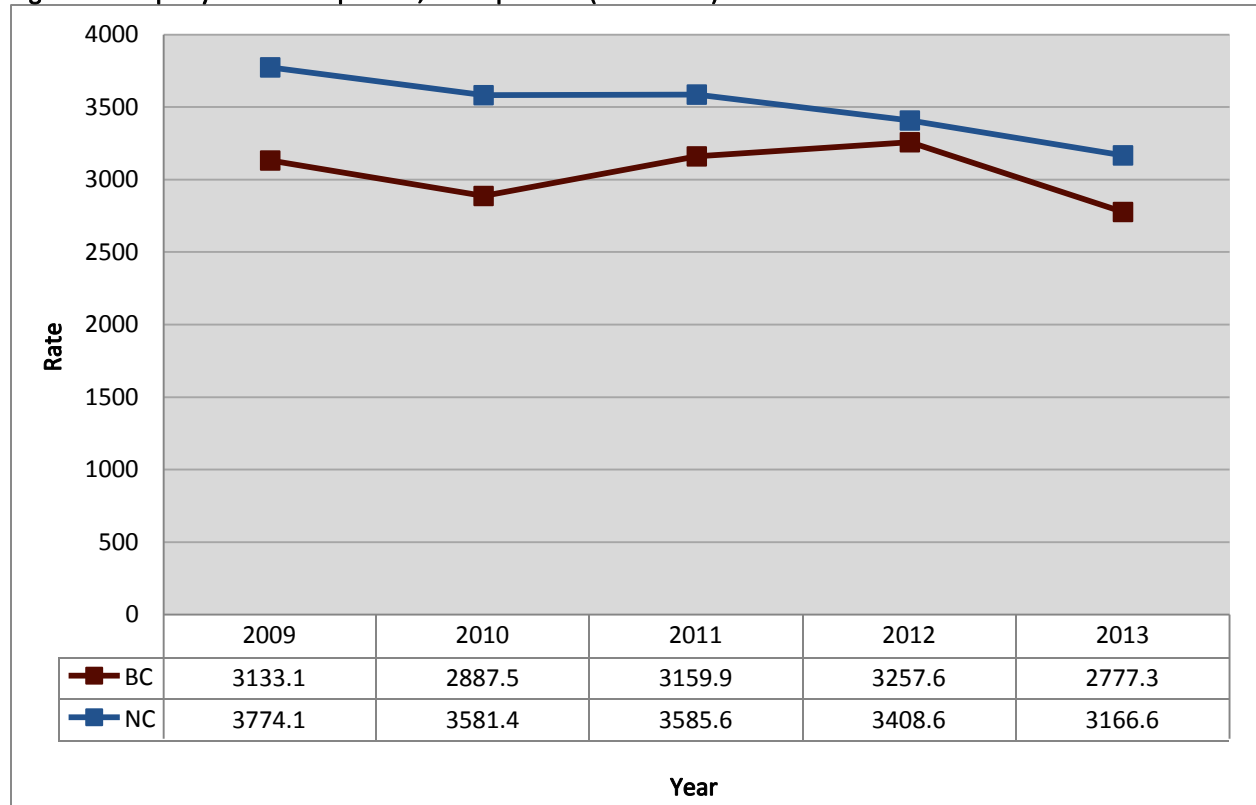
**Figure 22. Violent Crime Rate per 100,000 Population (2009-2013)**



Source: North Carolina Department of Justice, Crime in North Carolina, Crime Statistics, Annual Summary Report: Years 2009, 2010, 2011, 2012, 2013; <http://crimereporting.ncdoj.gov/Reports.aspx>

Finally, property crimes, which include the total number burglaries, larcenies, and motor vehicle thefts, are also at a five-year low for both Beaufort County and North Carolina (see Figure 23). Specifically, property crime rates are 2777.3 for Beaufort County and 3166.6 for North Carolina. Although rates have steadily decreased over time in North Carolina, property crime rates have only recently recovered from an increase in Beaufort County. In particular, property crime rates in the County increased from 2887.5 in 2010 to 3257.6 in 2012, only to eventually decrease to the current rate, which is the lowest in the past five years.

**Figure 23. Property Crime Rate per 100,000 Population (2009-2013)**

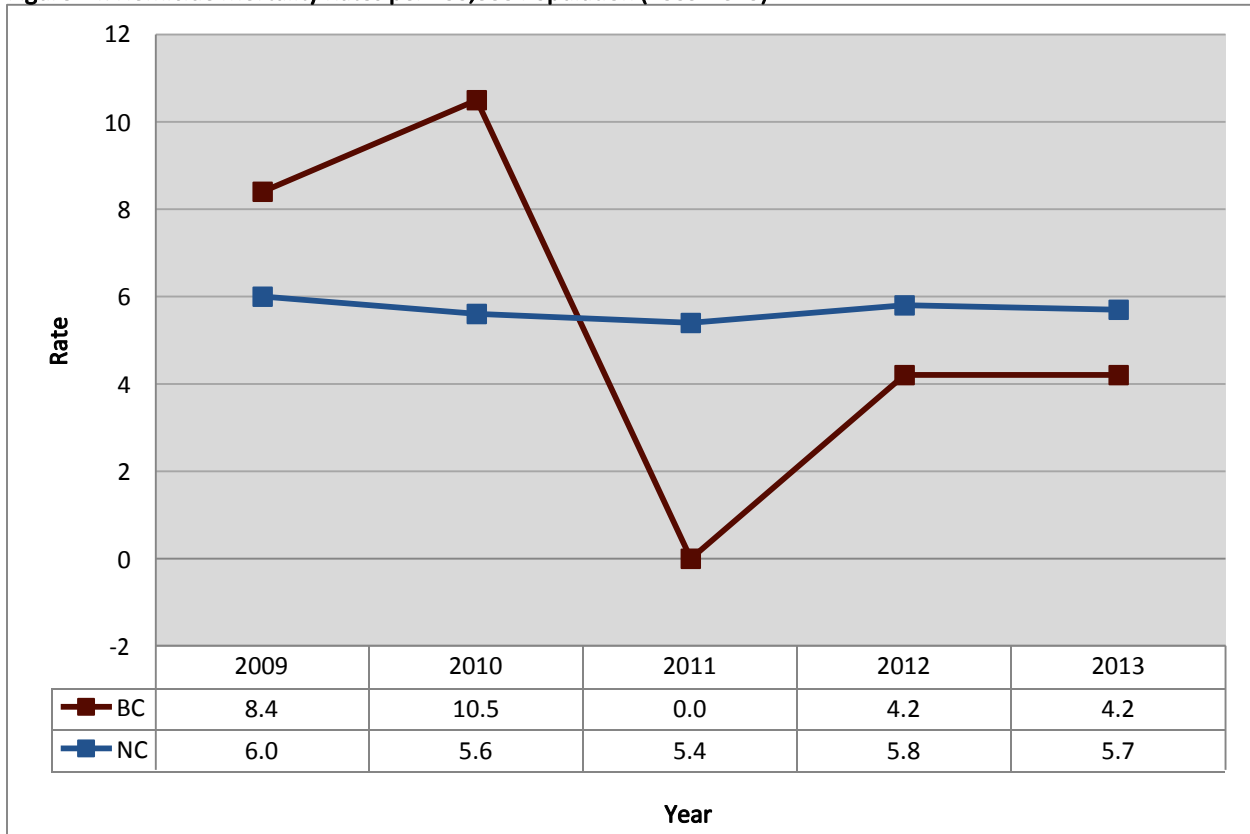


Source: North Carolina Department of Justice, Crime in North Carolina, Crime Statistics, Annual Summary Report: Years 2009, 2010, 2011, 2012, 2013; <http://crimereporting.ncdoj.gov/Reports.aspx>

## Homicide Mortality Rate Trend

A final important component to community crime and safety is the homicide mortality rate. Such rates, which indicate the number of deaths attributed to homicide, have historically demonstrated a high level of variability in Beaufort County; however, rates have stabilized in the past two reported years (2012, 2013). Specifically, the number of homicides in Beaufort County increased from 8.4 in 2009 to 10.5 in 2010, but dropped to zero in 2011. Since then, homicide rates in the County have held steady at 4.2. In contrast, homicide mortality rates in North Carolina have demonstrated a high level of stability, only moving from 6.0 in 2009 to 5.7 in 2013.

**Figure 24. Homicide Mortality Rates per 100,000 Population (2009-2013)**



Note: Rate scale includes negative values only for display purposes. Rates cannot consist of negative values.  
 Source: NC State Center for Health Statistics, NC Vital Statistics Volume 2: Leading Causes of Death, Mortality Statistics Summary for NC Residents: Homicide; <http://www.schs.state.nc.us/data/vital.cfm>

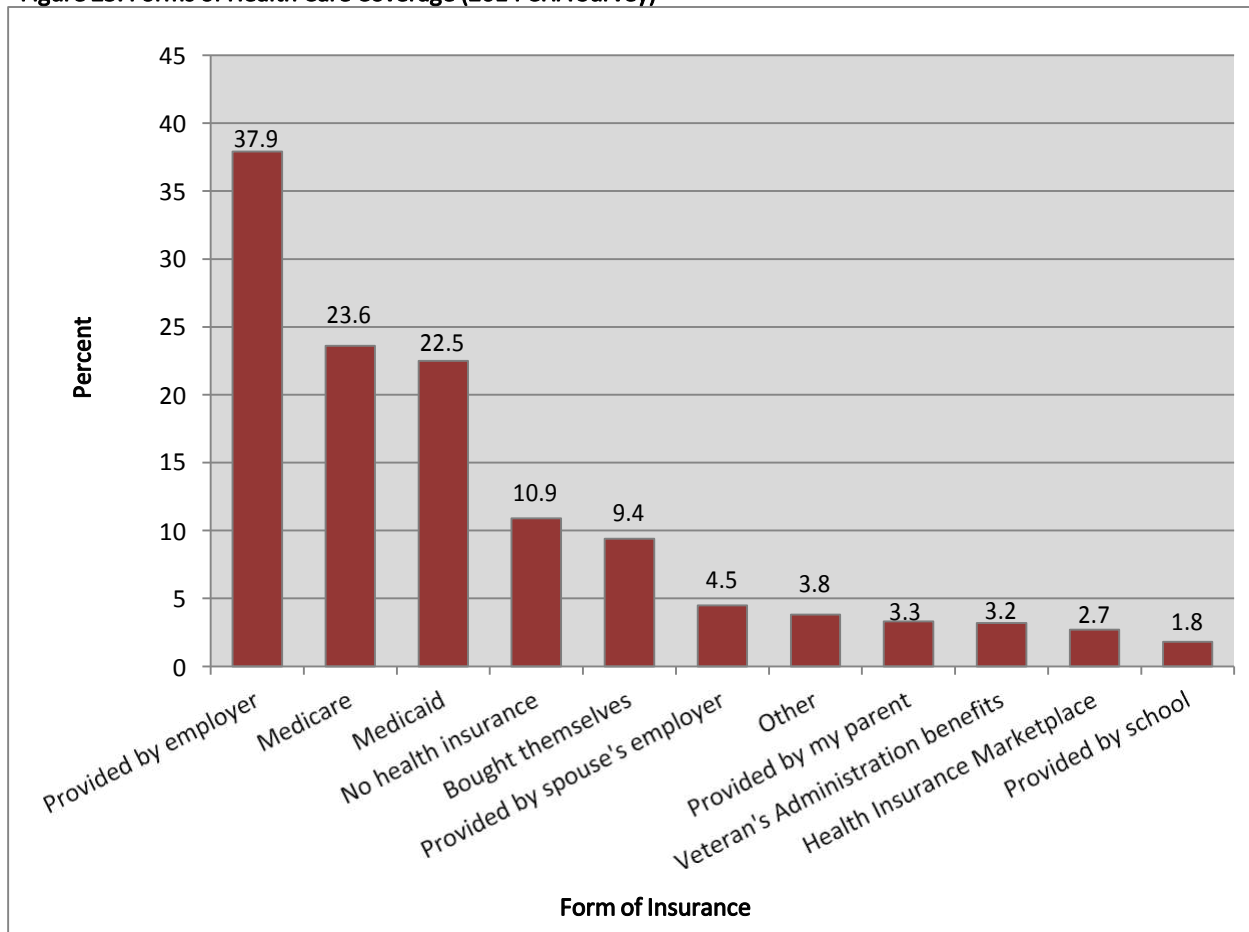
## Health Resources

Health resources consist of services that are available and accessible to community members. The primary purposes of these resources are to reduce health care costs, meet various health needs, and improve overall well-being. The following section includes statistics and CHA participant opinions regarding resources such as medical insurance, health care providers, hospitals, and nursing homes.

### Medical Insurance

Medical insurance serves as an important health resource for individuals by reducing medical costs. According to CHA survey participants, the most common form of health insurance (see Figure 25) was insurance provided by an employer (37.9 percent), followed by Medicare (23.6 percent) and Medicaid (22.5 percent). Further, approximately 10.9 percent of survey participants reported having no current form of health insurance. Tri-Care and supplemental insurance provided by Medicare were the two most frequent responses by participants who selected “other” (3.8 percent).

Figure 25. Forms of Health Care Coverage (2014 CHA Survey)



Source: Beaufort County Community Health Needs Assessment Survey 2014.

## Medicaid

Medicaid is as a resource for individuals and families who need assistance in managing health care related expenses. Eligible individuals are those who meet the requirements necessary for inclusion in the program. The number of Medicaid users has increased in both Beaufort County and in North Carolina from 2007 to 2010 (see Table 7). Also, the percentage of eligible individuals who use Medicaid (22.0 percent in 2010) is higher than the North Carolina average (17.0 percent in 2010). Finally, the average Medicaid cost per Beaufort County enrollee was \$8,385 in 2010, but was only \$7,256 in the state of North Carolina.

**Table 7. Medicaid Eligibility and Expenditures (FY2007-2010)**

| Year | Beaufort County |      |                                 | North Carolina |      |                                 |
|------|-----------------|------|---------------------------------|----------------|------|---------------------------------|
|      | Eligible        |      | Average Cost per Adult Enrollee | Eligible       |      | Average Cost per Adult Enrollee |
|      | #               | %    | \$                              | #              | %    | \$                              |
| 2007 | 9,368           | 20.0 | 8,306                           | 1,330,486      | 15.0 | 7,254                           |
| 2008 | 9,607           | 21.0 | 8,069                           | 1,397,732      | 15.0 | 7,244                           |
| 2009 | 9,962           | 21.0 | 8,451                           | 1,500,204      | 16.0 | 7,389                           |
| 2010 | 10,326          | 22.0 | 8,385                           | 1,577,121      | 17.0 | 7,256                           |

Source: NC Division of Medical Assistance, Statistics and Reports, Medicaid Data, County-Specific Snapshots for NC Medicaid Services, 2008-2011 (geographies as noted): <http://www.ncdhhs.gov/dma/countyreports/index.htm>

## Medicare

Similarly, Medicare provides health care assistance to individuals who meet the criteria for enrollment. The table below (see Table 8) indicates the percentages of eligible individuals who are dually enrolled in both Medicare and Medicaid. This means that these individuals receive benefits from both programs. The percentages of dually enrolled individuals have steadily decreased in Beaufort County and in North Carolina. Additionally, the percentage of eligible individuals who are dually enrolled has remained higher in Beaufort County compared to the State.

**Table 8. Medicare/Medicaid Dual Enrollment (2007-2010)**

| Location        | % Eligible who are Dually Enrolled |      |      |      |
|-----------------|------------------------------------|------|------|------|
|                 | 2007                               | 2008 | 2009 | 2010 |
| Beaufort County | 20.5                               | 20.1 | 18.7 | 18.2 |
| North Carolina  | 16.7                               | 16.1 | 15.0 | 14.5 |

Source: NC Division of Medical Assistance, Statistics and Reports, Medicaid Data, County Specific Snapshots for NC Medicaid Services; <http://www.ncdhhs.gov/dma/countyreports/index.htm>.

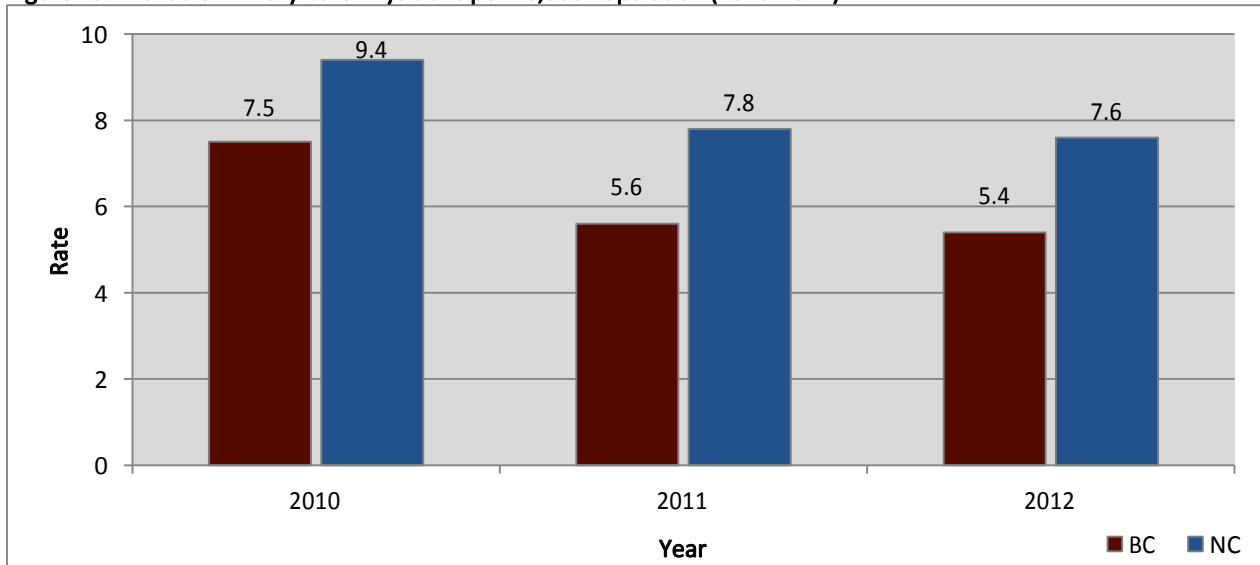
## Health Care Providers

The availability of health care providers within the County is imperative to an individual's ability to access this type of resource. Those who are able to see a doctor within the community can receive care without extensive travel. The following sections depict the numbers of available health providers in Beaufort County as well as self-reported visitation to health facilities.

### Primary Care Physicians

The figures below depict the number of available primary care physicians per 10,000 people in Beaufort County and in North Carolina. The number of primary care physicians has steadily decreased in both Beaufort County (7.5 to 5.4) and in North Carolina (9.4 to 7.6; see Figure 26) between 2010 and 2012. Even though the State is following the same trend, Beaufort County still has less access to care as demonstrated by the higher primary care physician ratio for Beaufort County (1,987:1) as compared to North Carolina (1,462:1).

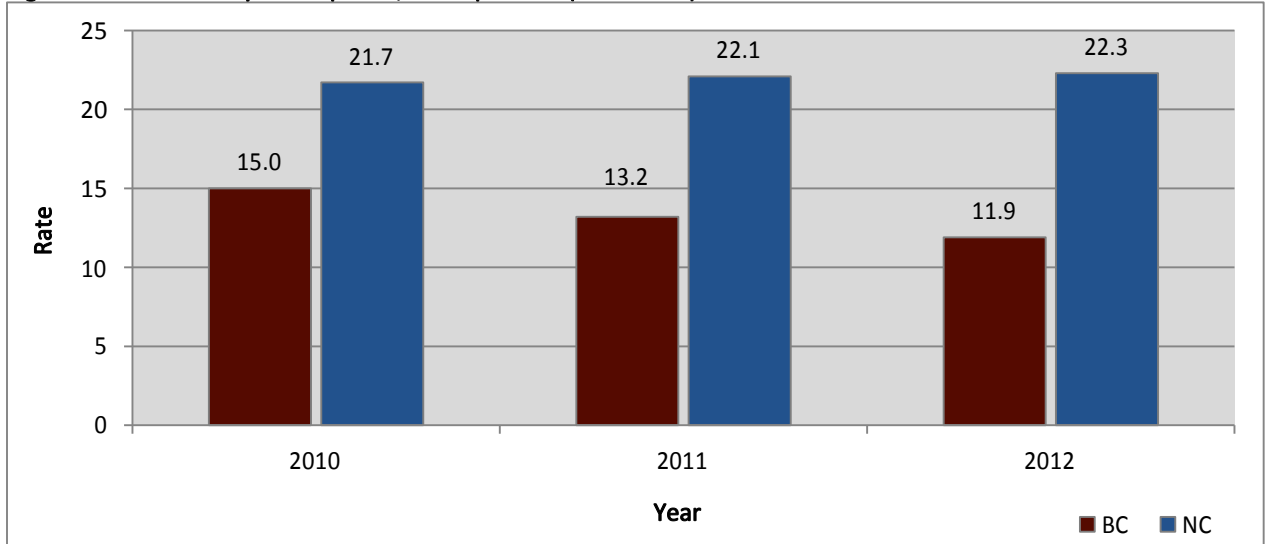
**Figure 26. Available Primary Care Physicians per 10,000 Population (2010-2012)**



Source: Cecil G. Sheps Center for Health Services Research, North Carolina Health Professions Data System, North Carolina Health Professions Data Books, Table 14 (2010, 2011, and 2012)  
<http://www.shepscenter.unc.edu/hp/publications.htm>

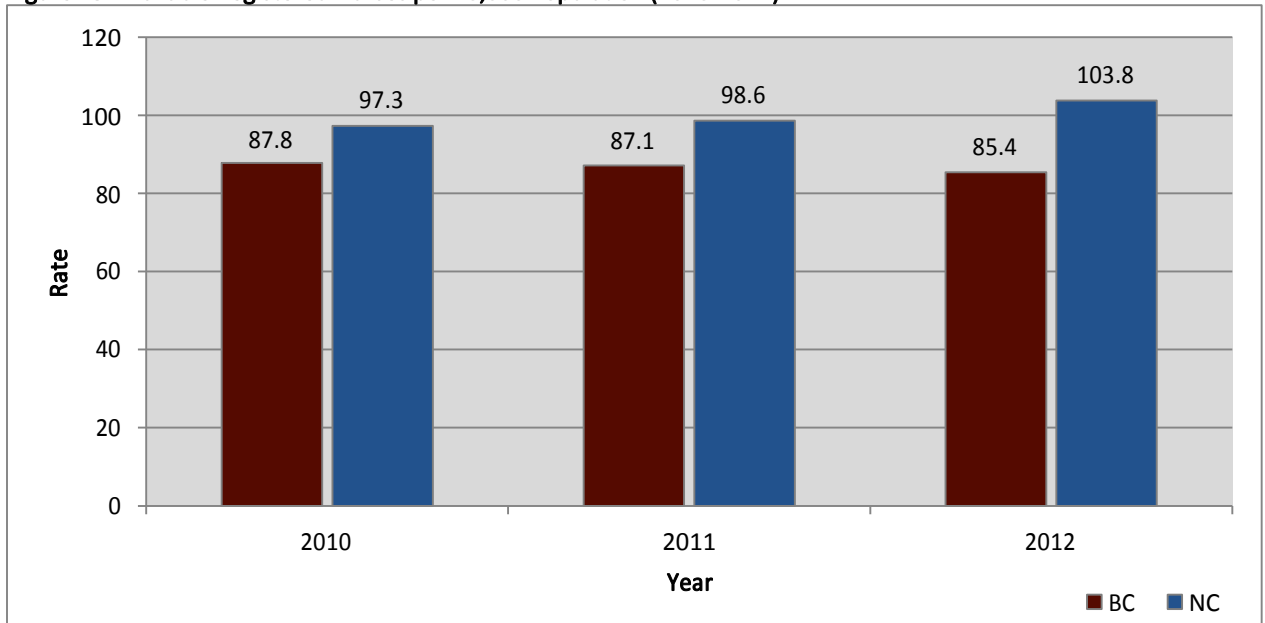
From 2010 to 2012, the number of physicians, registered nurses, dentists, and pharmacists has slowly increased or remained stable in the state of North Carolina. However, Beaufort County experienced a slow decrease in all of these health providers from 2010 and 2012, with the exception of pharmacists, which have increased from 7.1 to 9.2 (see Figures 27-30).

**Figure 27. Available Physicians per 10,000 Population (2010-2012)**



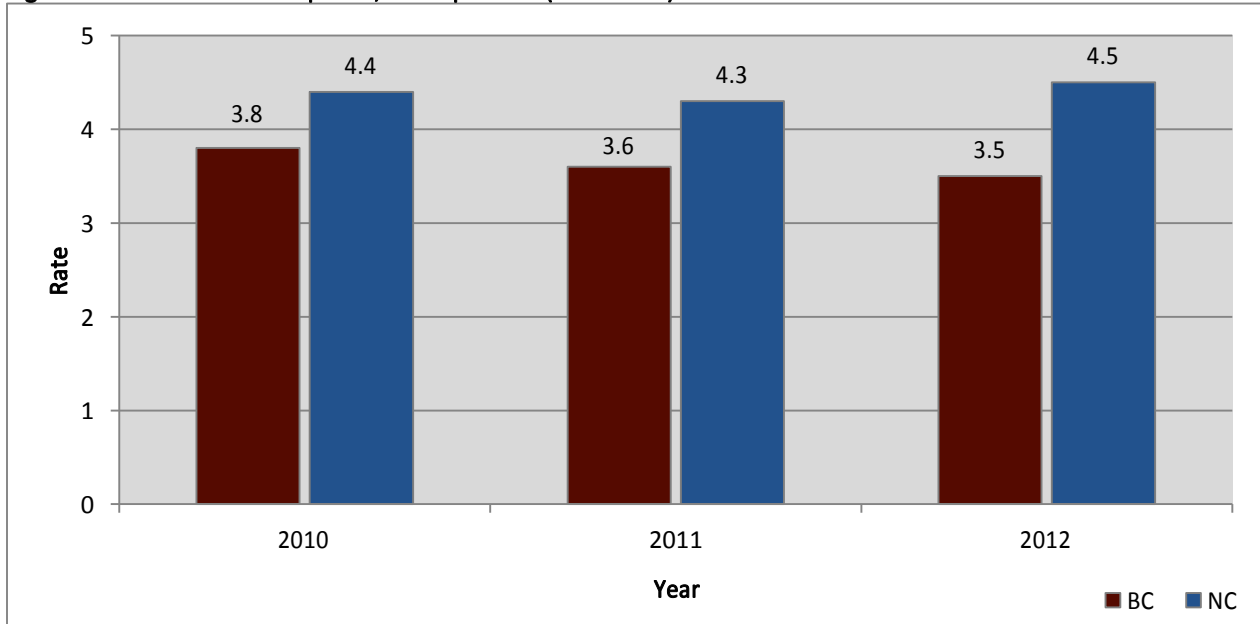
Source: Cecil G. Sheps Center for Health Services Research, North Carolina Health Professions Data System, North Carolina Health Professions Data Books, Table 14 (2010, 2011, and 2012)  
<http://www.shepscenter.unc.edu/hp/publications.htm>

**Figure 28. Available Registered Nurses per 10,000 Population (2010-2012)**



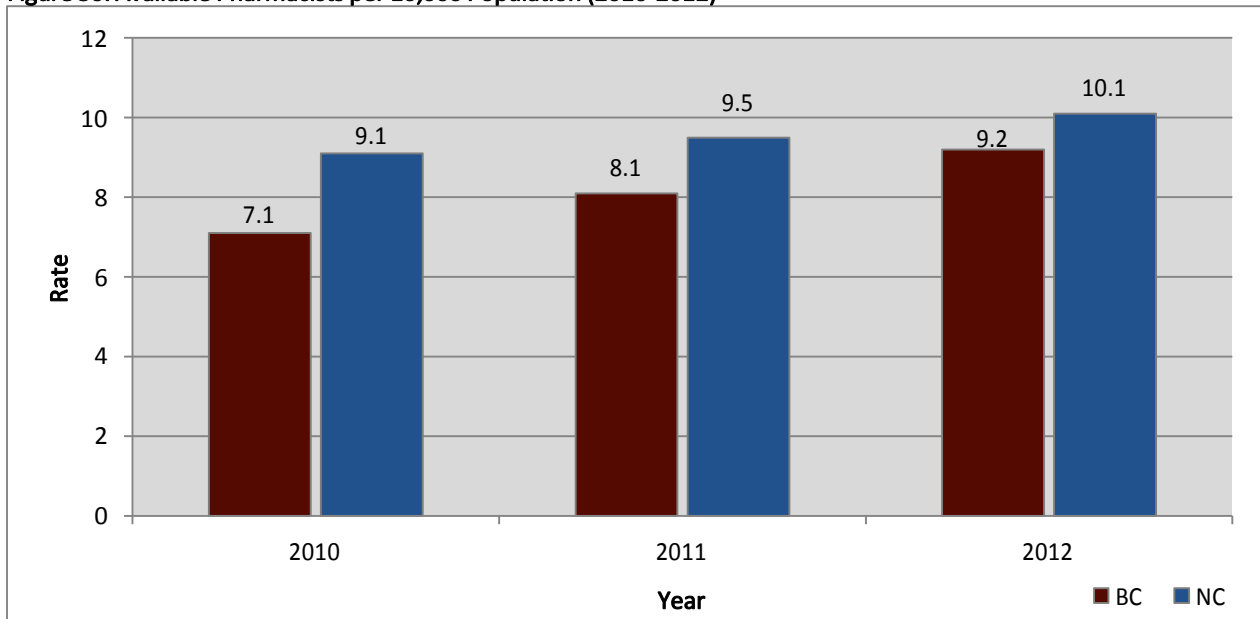
Source: Cecil G. Sheps Center for Health Services Research, North Carolina Health Professions Data System, North Carolina Health Professions Data Books, Table 14 (2010, 2011, and 2012)  
<http://www.shepscenter.unc.edu/hp/publications.htm>

**Figure 29. Available Dentists per 10,000 Population (2010-2012)**



Source: Cecil G. Sheps Center for Health Services Research, North Carolina Health Professions Data System, North Carolina Health Professions Data Books, Table 14 (2010, 2011, and 2012)  
<http://www.shepscenter.unc.edu/hp/publications.htm>

**Figure 30. Available Pharmacists per 10,000 Population (2010-2012)**



Source: Cecil G. Sheps Center for Health Services Research, North Carolina Health Professions Data System, North Carolina Health Professions Data Books, Table 14 (2010, 2011, and 2012)  
<http://www.shepscenter.unc.edu/hp/publications.htm>



### Practitioners Outside of Beaufort County

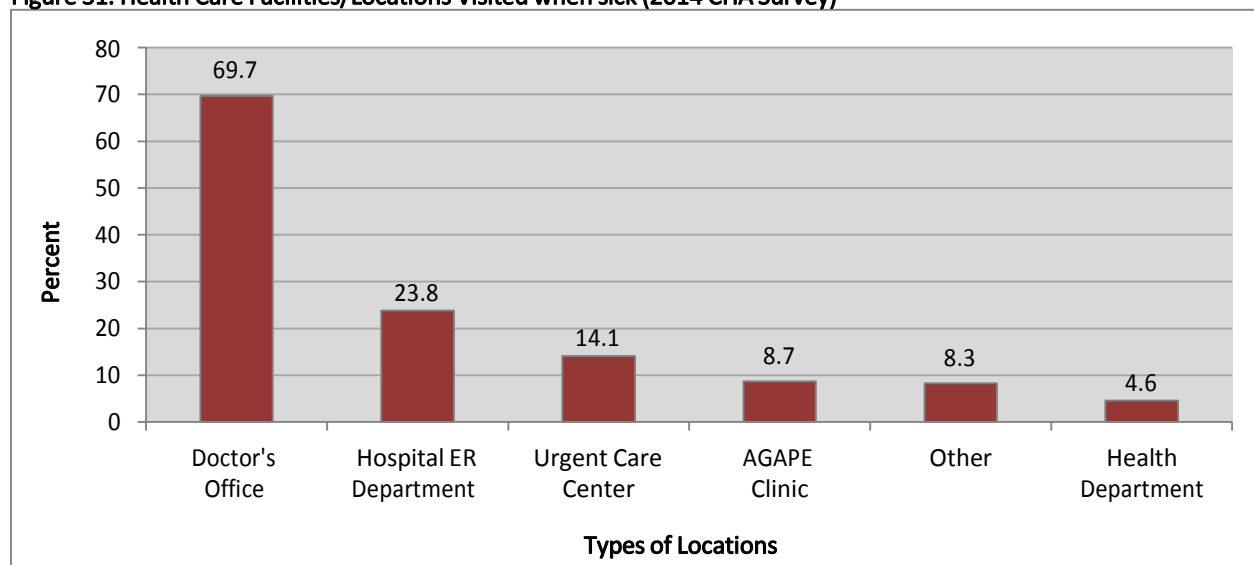
Approximately one-third of CHA survey participants (33.0 percent) reported that their primary healthcare provider was located outside of Beaufort County. Following, these individuals were asked to indicate why they leave the county to receive care. Common responses to this question were history with a specific provider (27.1 percent) and the healthcare specialty needed is not available in Beaufort County (25.3 percent). “Other” responses (25.3 percent) included poor quality of care in Beaufort and the Veterans Affairs clinic, which is located in Pitt County. One CHA survey respondent suggested, “the turnover of physicians (in Beaufort County) results in lack of continuity.” Similarly, another focus group member stated that there is “no continuity of care” in the community.

Although it was not supported by survey data, focus group members described difficulties getting doctor’s appointments in the County. One focus group member reported, “there is a shortage of doctors here. Providers in the community are either not taking new patients or not taking Medicaid.”

### Health Services Sources

The majority of Beaufort County residents who participated in the survey reported that they visit a doctor’s office (69.7 percent) when they are sick (see Figure 31). Residents also commonly visit the Hospital ER Department (23.8 percent) and the Urgent Care Center (14.1 percent). Similarly, almost half (47.8 percent) of survey respondents receive their health-related information from their doctor or nurse. Additional sources for this information include the Internet (43.2 percent), friends and family (19.7 percent), television (19.1 percent), and books or magazines (14.6 percent). Focus group participants also stated that they received the majority of their health-related information through the Internet (e.g., “Facebook”), as well as their church and children’s school.

Figure 31. Health Care Facilities/Locations Visited when sick (2014 CHA Survey)

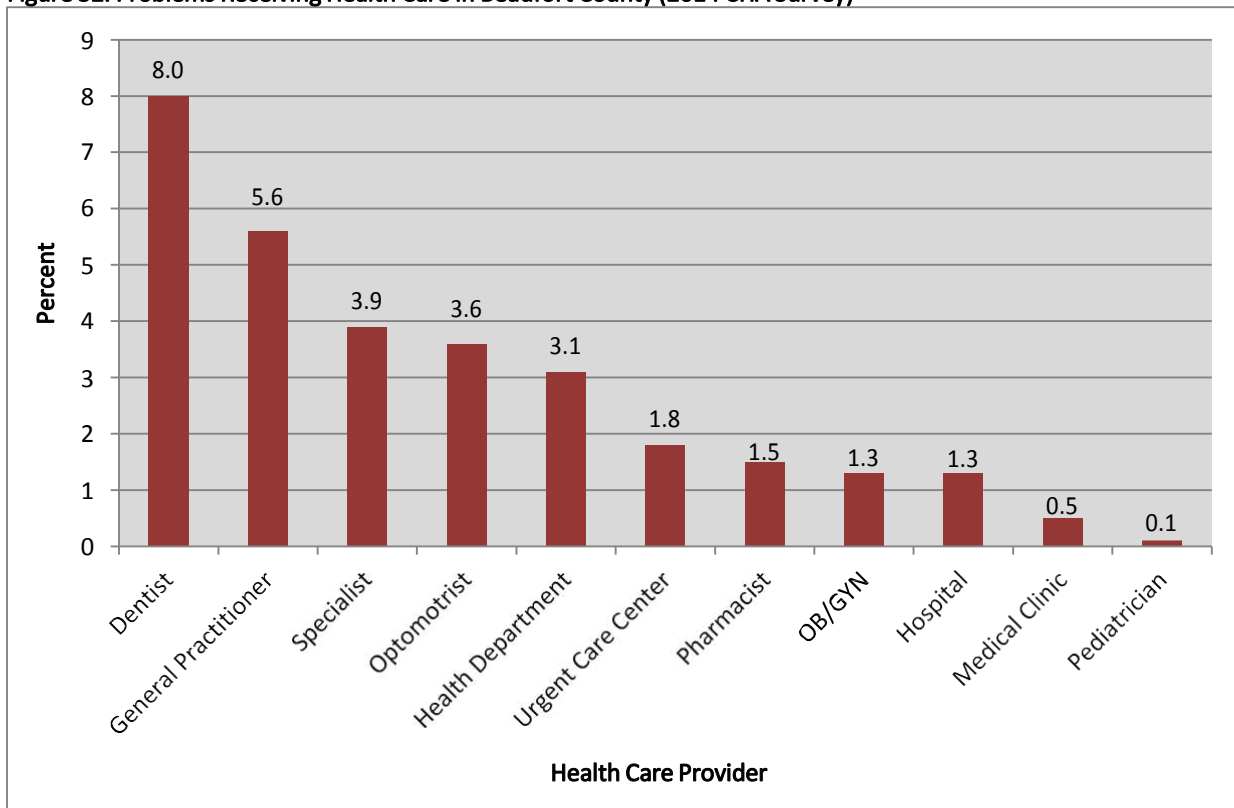


Source: Beaufort County Community Health Needs Assessment Survey 2014.

## Health Services Limitations

When CHA participants were asked whether they have had difficulty receiving health care over the past 12 months, 21.8 percent reported experiencing this issue. The most common types of providers that respondents experienced difficulties with were dentists, general practitioners, specialists, and optometrists (see Figure 32). These individuals were also asked to select reasons that affected their ability to get care from a provider. Respondents attributed their difficulty with receiving care to their inability to get an appointment (24.3 percent) and their lack of health insurance (22.6 percent).

**Figure 32. Problems Receiving Health Care in Beaufort County (2014 CHA Survey)**



Source: Beaufort County Community Health Needs Assessment Survey 2014.

Another question in the CHA survey asked participants to indicate whether they have dental insurance. Almost a quarter of participants (22.8 percent) reported that they do not have dental insurance, which perhaps puts the difficulty of receiving care from a dentist in perspective.

## Hospitals

Vidant Beaufort Hospital located in Washington is a full service hospital with an active medical staff of over 50 physicians, representing over 20 specialties. The hospital is licensed for 142 beds, including 120 acute and 22 psychiatric, and is equipped with six operating rooms. The hospital offers a broad range of inpatient and outpatient services including medical, surgical, intensive care, emergency and women's services. In addition it has a full-service lab, diagnostic imaging services, physical and respiratory therapy.

## Nursing Homes

Nursing homes are facilities that provide care and residency for elderly individuals. The number of beds in nursing homes has remained relatively stable over the past five years, with a small drop from 300 to 290 beds in 2012 (see Table 9). This parallels the significant decrease in nursing home beds from 2011 to 2012 in state of North Carolina.

**Table 9. Number of Nursing Facility Beds (2009-2014)**

| Location        | 2009   | 2010   | 2011   | 2012   | 2013   | 2014   |
|-----------------|--------|--------|--------|--------|--------|--------|
| Beaufort County | 300    | 300    | 300    | 290    | 290    | 290    |
| North Carolina  | 44,315 | 45,153 | 45,382 | 43,470 | 43,606 | 43,955 |

Note: This count includes beds licensed as nursing facility beds, meaning those offering a level of care less than that offered in an acute care hospital, but providing licensed nursing coverage 24 hours a day, seven days a week.

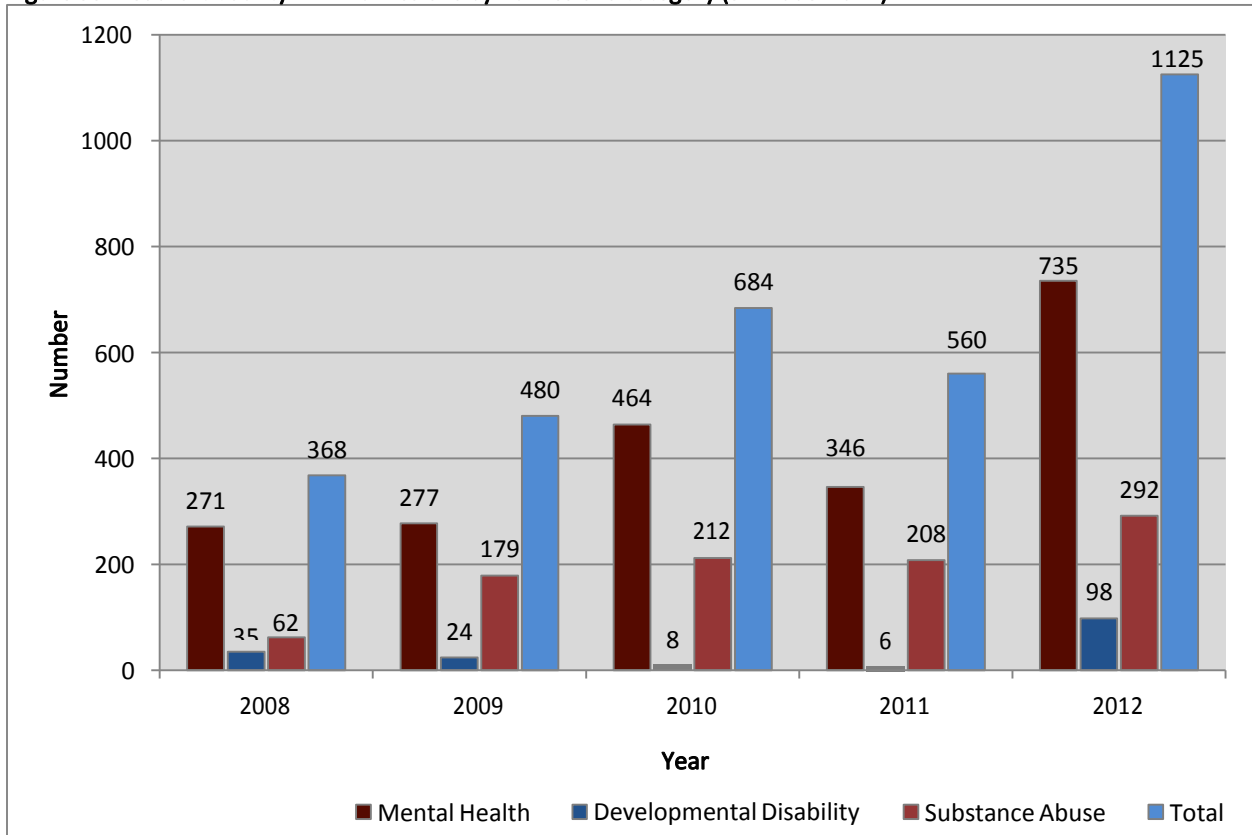
Source: Log Into North Carolina (LINC) Database, Topic Group Vital Statistics and Health (Data Item 513):

[http://data.osbm.state.nc/pls/linc/dyn\\_linc\\_main.show](http://data.osbm.state.nc/pls/linc/dyn_linc_main.show)

## Mental Health Services and Facilities

The LME (local management entity) is a local government agency that provides community-based, publicly funded services for mental health, developmental disabilities, and substance abuse. The most recently reported year (2012) demonstrated the highest total number of admissions to an LME facility (see Figure 33).

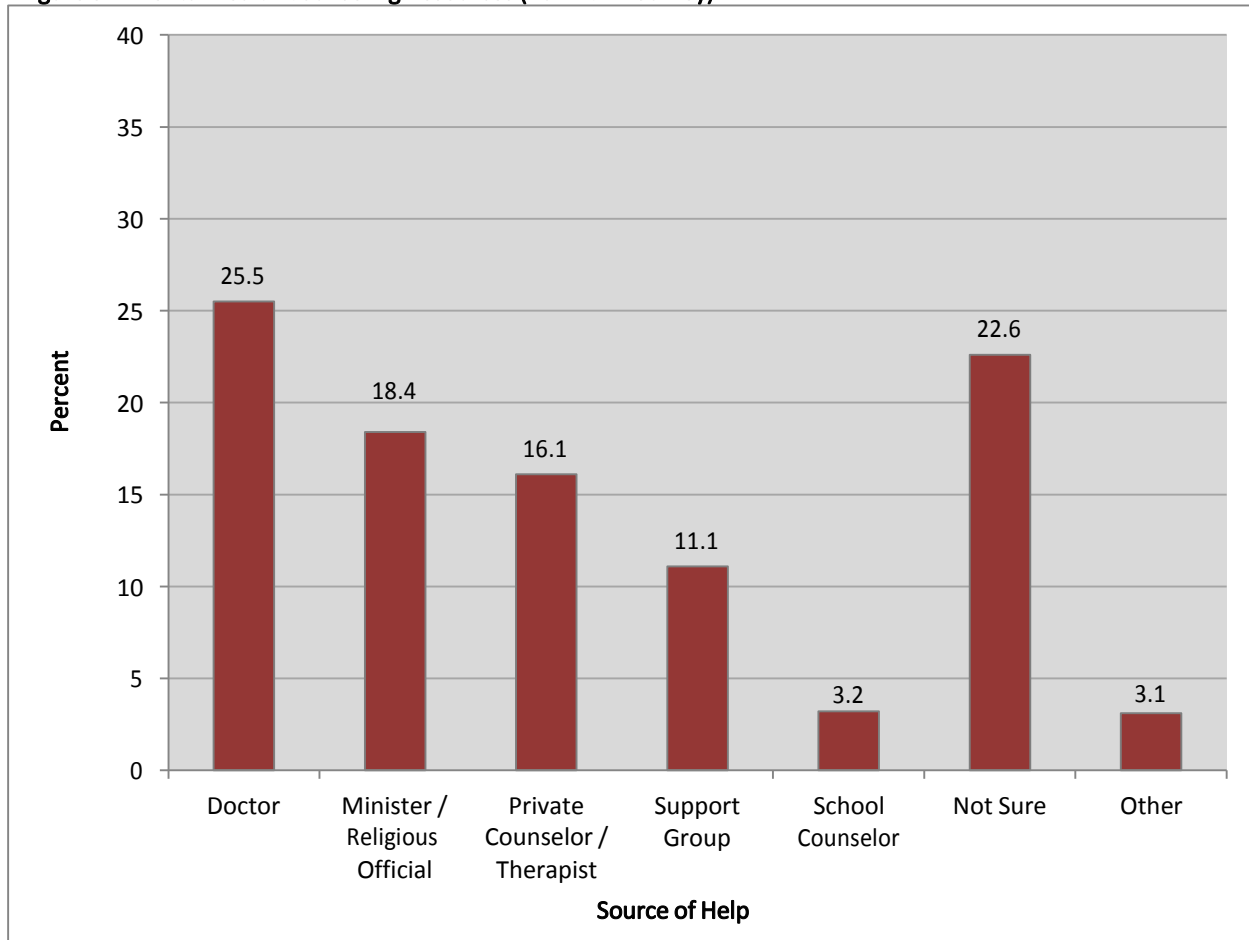
**Figure 33. Beaufort County LME Admissions by Admissions Category (SFY2008-2012)**



Source: Trends in LME Admissions and Persons Served, by County, 5-Year Study. NC Department of Health and Human Services, Division of Mental Health, Developmental Disabilities and Substance Abuse Services, Consumer Data Warehouse (CDW) Reports website; <http://www.ncdhhs.gov/mhddsas/providers/CDW/reports.htm>.

Moreover, nearly a quarter of CHA survey respondents self-reported that they have been diagnosed with depression or anxiety. When asked who would respondents recommend if a friend or family member needed counseling for a mental health or alcohol / drug abuse problem, the most frequently reported answer was a doctor (25.5 percent; see Figure 34). However, many respondents were unsure who would be the best resource for a mental health issue (22.6 percent).

**Figure 34. Mental Health Counseling Resources (2014 CHA Survey)**



Source: Beaufort County Community Health Needs Assessment Survey 2014.

Further, survey participants were asked to identify health topics or diseases about which they want to learn more. Mental health was a popular text entry for this question. The topic of mental health was also discussed in focus groups. One participant said, “mental health is a big issue.” Another participant reported, “we see behavioral issues that are beyond regular disciplinary issues with some students.”

## **Health Statistics Understanding**

### **Health Statistics Age-Adjustment and**

#### **Aggregate Data**

Age-adjustment is a statistical process applied to rates of disease, death, injuries or other health outcomes that allows communities with different age distributions to be compared. If this technique is not employed, the numbers are confounded and not comparable across counties and with the state. While it is not necessary to grasp the details of age-adjustment to understand this report, it is important to note that this type of data has been used wherever possible.

Aggregate data is also used frequently when reporting health statistics. This type of data combines individual years of data in order to provide stability for that statistic. It is necessary especially when the individual years of data are highly variable due to low numbers in some years.

#### **Mortality and Morbidity**

In this report, mortality refers to the incidence of death (number of deaths) in the population. Mortality data is often described as a rate, usually presented as number of deaths per 100,000 residents. Morbidity refers to the incidence of injury, illness or disease in a population. Morbidity data is normally presented as a percentage, or a count.

#### **Prevalence and Incidence**

Prevalence is defined as the number of total cases in the population at a given time. Incidence is defined as the rate of occurrence of new cases in the population. Incidence provides information about the risk of contracting the disease, whereas prevalence provides information about the widespread nature of the disease.

#### **Trends and Small Numbers**

Comparing data on an annual basis can sometimes result in very unsteady trends. This mainly occurs because of the small number of cases per year. Therefore, the preferred method for reporting incidence and mortality data is long-term trends using the age-adjusted, multi-year aggregate format.

Annual changes in small numbers can be misleading by causing large differences in rates. Aggregating yearly counts over a longer period prior to calculating a rate can be used to amend the effect of small numbers. The NCSCHS suggests that all rates based on fewer than 20 events are considered unstable, and should be interpreted with caution. Any data that falls into this category will be described as such.

## County Health Rankings

The information below (see Table 10) depicts Beaufort County health rankings in comparison to the rest of the State. Because North Carolina has a total of 100 counties, rankings range from 1 (highest; best) to 100 (lowest; worst). These health rankings are divided into two major types: health outcomes and health factors. Additionally, each type contains various subcategories. Among all Beaufort County health rankings for 2014, the County's highest-ranking category is physical environment (13), which includes air quality, water quality, and factors related to commuting. Finally, the lowest ranking category for the County is health behaviors (91) including smoking, obesity, and other risk behaviors.

**Table 10. Beaufort County Health Rankings (2014)**

| Type            | Category                  | County Rank (Out of 100) |
|-----------------|---------------------------|--------------------------|
| Health Outcomes | Length of Life            | 81                       |
|                 | Quality of Life           | 50                       |
|                 | Overall Outcomes Rank     | 72                       |
| Health Factors  | Health Behaviors          | 91                       |
|                 | Clinical Care             | 29                       |
|                 | Social & Economic Factors | 65                       |
|                 | Physical Environment      | 13                       |
|                 | Overall Factors Rank      | 64                       |

Source: County Health Rankings and Roadmaps, 2014. University of Wisconsin Population Health Institute: <http://www.countyhealthrankings.org/app/north-carolina/2014/rankings/outcomes/overall>

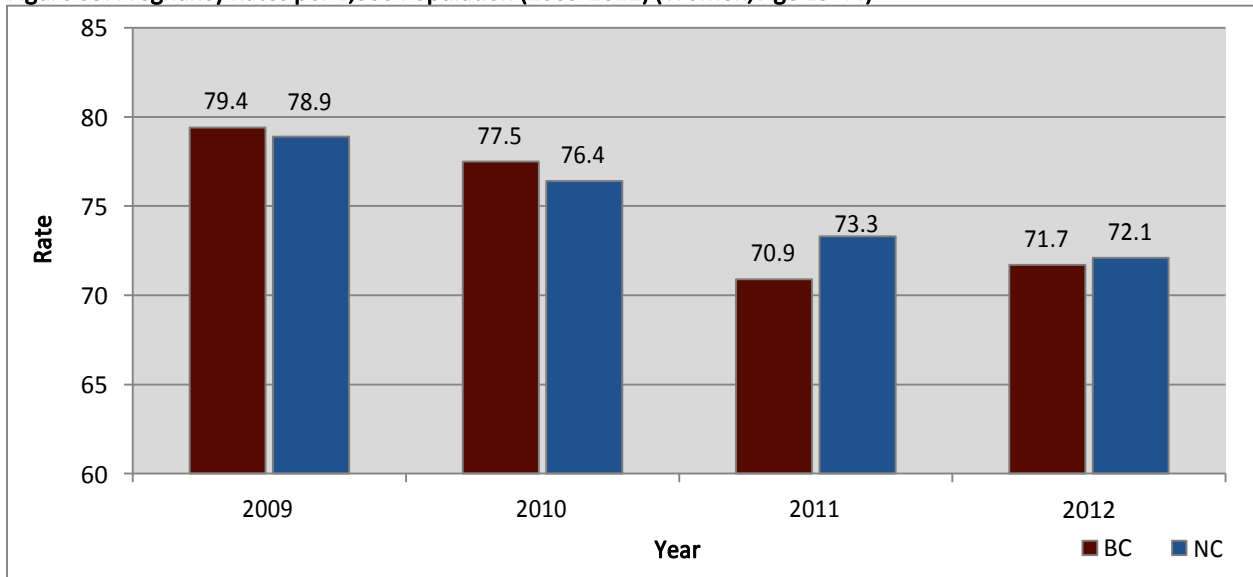
## Maternal and Infant Health

Maternal and infant health is vital to a healthy community and often determines the health and well-being of future generations. Relevant pregnancy related health statistics are presented below.

### Pregnancy, Fertility, and Abortion Rates

The pregnancy rate, the number of pregnancies per 1,000 women of reproductive age, has decreased approximately 10.0 percent in Beaufort County. This trend is similar to the nine percent decrease in North Carolina (see Figure 35).

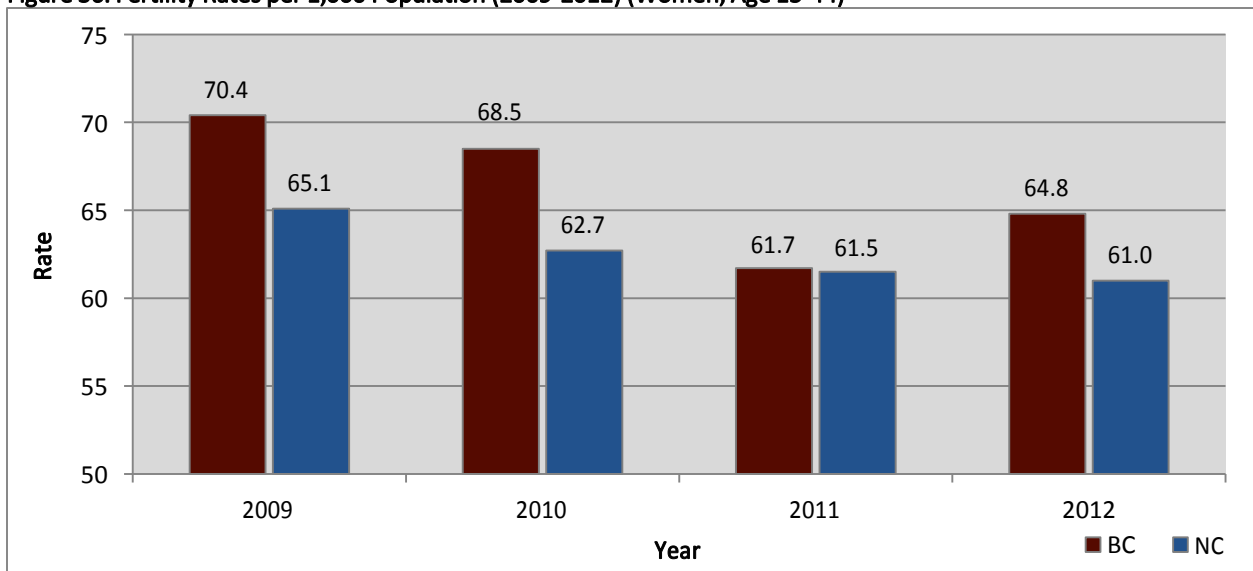
**Figure 35. Pregnancy Rates per 1,000 Population (2009-2012) (Women, Age 15-44)**



Source: NC Center for Health Statistics, County-level Data, County Health Data Books (2009-2012). Pregnancy and Live Births. Pregnancy, Fertility, & Abortion Rates per 1,000 Population, by Race, by Age; <http://www.schs.state.nc.us/SCHS/data/databook/>

Moreover, the fertility rate in Beaufort County, the number of live births per 1,000 women of reproductive age, has decreased approximately eight percent (see Figure 36). This reduction is about two percent greater than the State average.

**Figure 36. Fertility Rates per 1,000 Population (2009-2012) (Women, Age 15-44)**

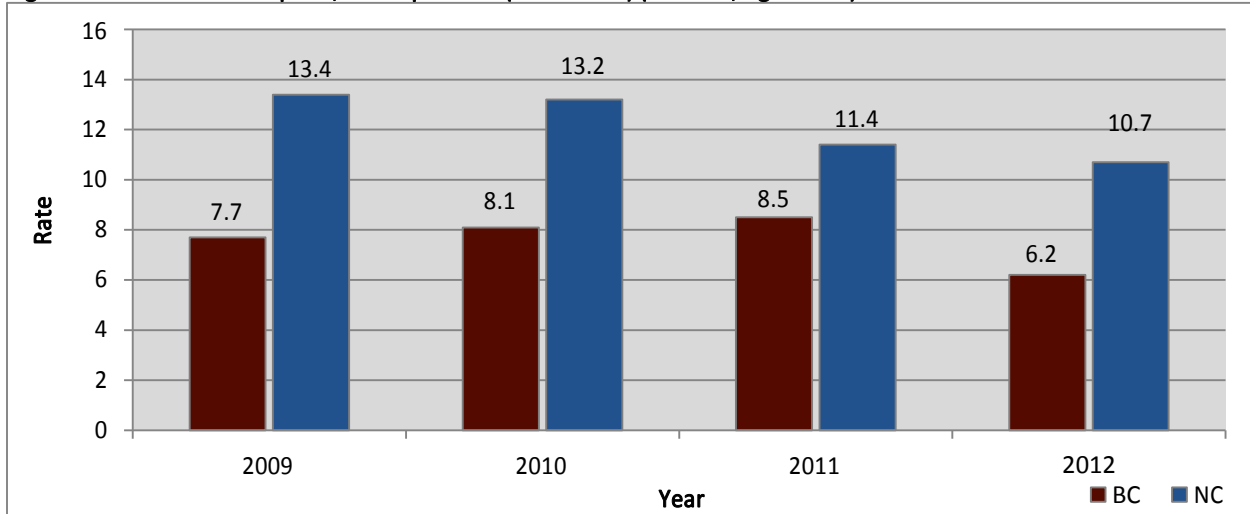


Source: NC Center for Health Statistics, County-level Data, County Health Data Books (2009-2012). Pregnancy and Live Births. Pregnancy, Fertility, & Abortion Rates per 1,000 Population, by Race, by Age; <http://www.schs.state.nc.us/SCHS/data/databook/>



Finally, the abortion rate in Beaufort County, nearly 20.0 percent lower than years past, contributed to the 20.0 percent State-wide decline (see Figure 37).

**Figure 37. Abortion Rates per 1,000 Population (2009-2012) (Women, Age 15-44)**



Source: NC Center for Health Statistics, County-level Data, County Health Data Books (2009-2012). Pregnancy and Live Births. Pregnancy, Fertility, & Abortion Rates per 1,000 Population, by Race, by Age; <http://www.schs.state.nc.us/SCHS/data/databook/>

### Pregnancies among Teens and Adolescents

The number of teenage pregnancies has decreased significantly from 2009 to 2012 (see Table 11). Specifically, Beaufort County experienced a reduction of about 40 percent in the frequency of teenage pregnancies. Comparatively, North Carolina reduced teenage pregnancy by over 65 percent. Most recent data suggests that 14.1 percent of CHA survey participants indicated that teenage pregnancy is still one of the top three issues most affecting the quality of life in Beaufort County.

**Table 11. Number of Pregnancies among Teens (Age 15-19) and Adolescents (Under Age 15) (2009-2012)**

| Year | Beaufort County |                   | North Carolina |                   |
|------|-----------------|-------------------|----------------|-------------------|
|      | Teens (15-19)   | Adolescents (<15) | Teens (15-19)  | Adolescents (<15) |
| 2009 | 115             | 0                 | 18,142         | 324               |
| 2010 | 94              | 0                 | 15,957         | 282               |
| 2011 | 82              | 0                 | 13,909         | 255               |
| 2012 | 67              | 0                 | 12,535         | 214               |

Source: NC State Center for Health Statistics, North Carolina Health Data Query System. Pregnancy Data. North Carolina Reported Pregnancy Data (2009-2012), counties and age groups as indicated; <http://www.schs.state.nc.us/SCHS/data/preg/preg.cfm>

## Pregnancy Risk Factors

Pregnancy can be affected by numerous health related factors. Smoking during pregnancy and the absence of early prenatal care can pose significant threats to maternal and infant health.

### *Smoking during Pregnancy*

Across the state of North Carolina, the rate of mothers who smoke during pregnancy has remained relatively consistent. However, Beaufort County, despite a higher frequency, demonstrates a similarly consistent rate of mothers who smoke while pregnant (see Table 12).

**Table 12. Smoking during Pregnancy (2009-2013)**

| Year | Beaufort County |      | North Carolina |      |
|------|-----------------|------|----------------|------|
|      | #               | Rate | #              | Rate |
| 2009 | 86              | 14.7 | 12,975         | 10.2 |
| 2010 | N/A             | N/A  | N/A            | N/A  |
| 2011 | 66              | 13.4 | 13,159         | 10.9 |
| 2012 | 73              | 14.4 | 12,727         | 10.6 |
| 2013 | 63              | 12.9 | 12,242         | 10.3 |

Note: 2010 data unavailable

Source: NC State Center for Health Statistics, Vital Statistics, Volume 1 (2009, 2010, 2011, 2012 and 2013): Population, Births, Deaths, Marriages, Divorces, (geography as noted), Mother Smoked;  
<http://www.schs.state.nc.us/schs/data/vitalstats.cfm>

### ***Early Prenatal Care***

From 2009 to 2013 the percentages of women receiving prenatal care in the first trimester has decreased in Beaufort County (7.4 percent) and North Carolina (13.0 percent). Early prenatal care improves the chances of a healthy pregnancy. The highest percentage of women receiving prenatal care in Beaufort County and North Carolina was in 2009, 86.9 percent and 83.3 percent, respectively (see Table 13).

**Table 13. Women Receiving Prenatal Care in the First Trimester (2009-2013)**

| Year | Beaufort County |      | North Carolina |      |
|------|-----------------|------|----------------|------|
|      | #               | %    | #              | %    |
| 2009 | 509             | 86.9 | 105,626        | 83.3 |
| 2010 | N/A             | N/A  | N/A            | N/A  |
| 2011 | 386             | 78.6 | 85,706         | 71.2 |
| 2012 | 388             | 76.4 | 85,380         | 71.3 |
| 2013 | 388             | 79.5 | 83,663         | 70.3 |

Note: 2010 data unavailable

Source: NC State Center for Health Statistics, Basic Automated Birth Yearbook (BABY Book), North Carolina Residents (2009, 2010, 2011, 2012 and 2013) (geographies as noted): Table 6 (and others): County Resident Births by Month Prenatal Care Began, All Women; <http://www.schs.state.nc.us/schs/births/babybook/>

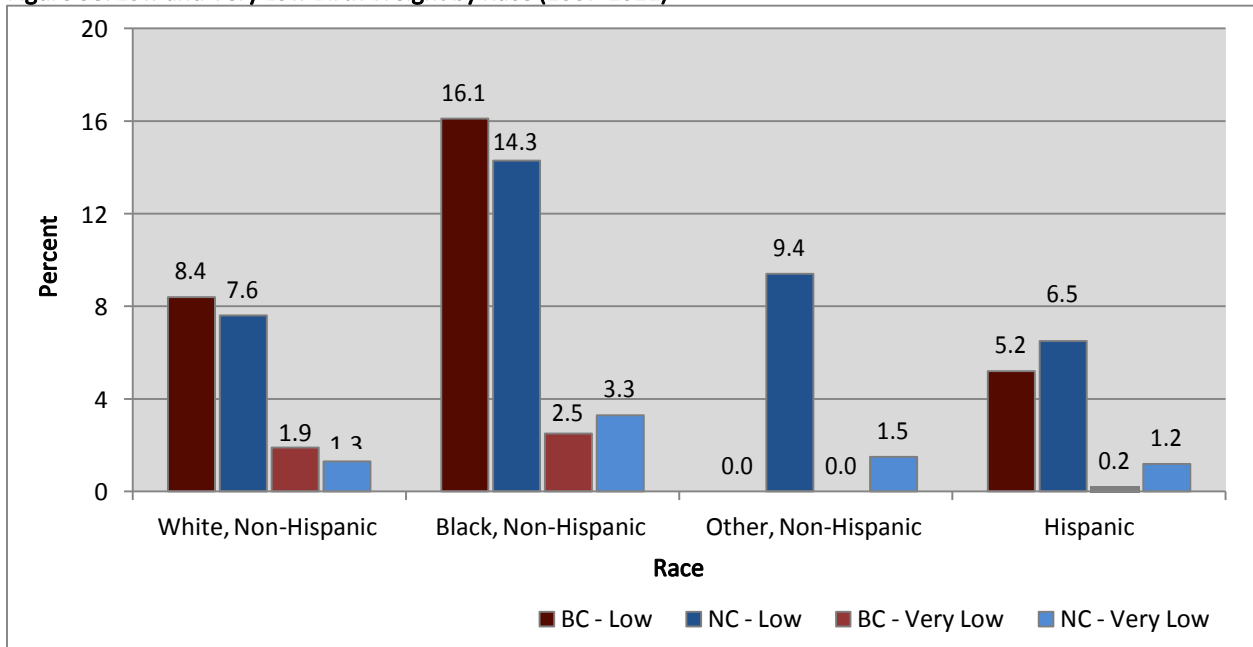
### **Pregnancy Outcomes**

Frequent and early prenatal care is significantly related to a variety of pregnancy outcomes. Poor prenatal care can influence birth weight, infant mortality, and life expectancy.

#### ***Low Birth Weight and Very Low Birth Weight***

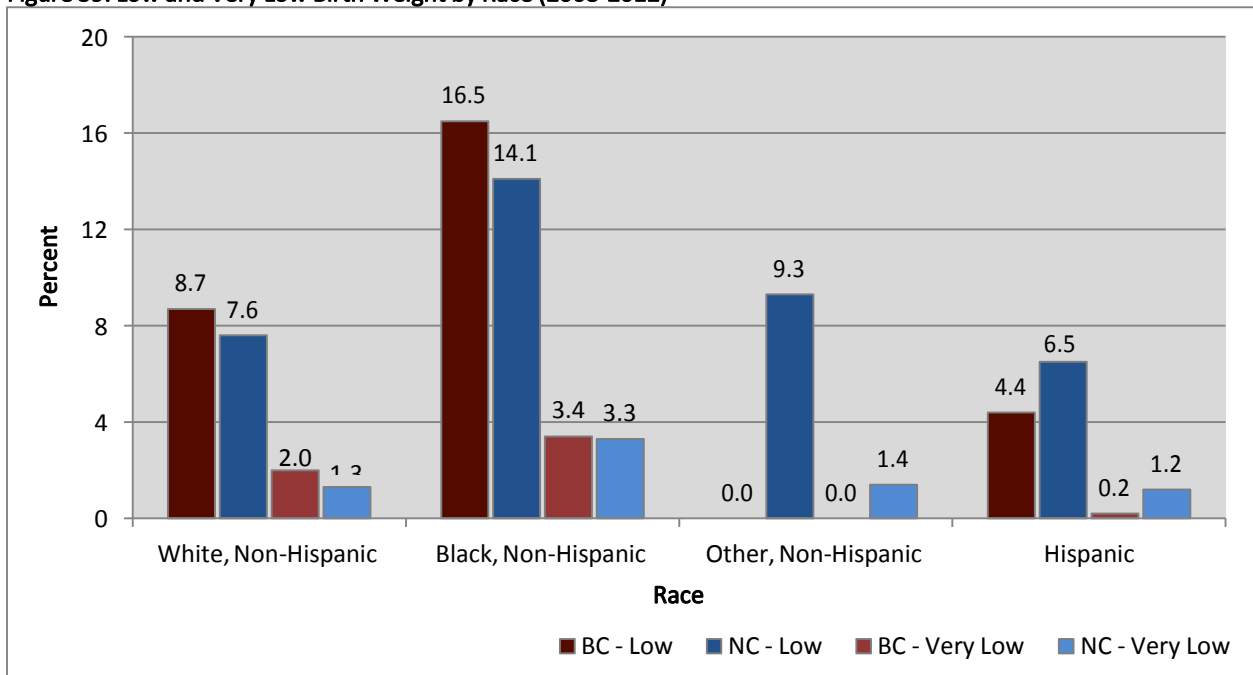
Live-born infants weighing less than five pounds, eight ounces at birth are considered to have low birth-weights. Taking into account five-year aggregate periods from 2007 to 2013, Beaufort County has overall consistently demonstrated higher percentages of low birth weights than North Carolina (see Figures 38-40). Of note, African American, Non-Hispanics were twice as likely to have low birth-weight births than White, Non-Hispanics in each aggregated period. Moreover, live-born infants weighing less than three pounds, four ounces are considered to have very low birth-weights. African Americans demonstrated the highest percentages of very low birth-weights in Beaufort County and North Carolina across all of the five-year aggregate periods.

**Figure 38. Low and Very Low Birth Weight by Race (2007-2011)**



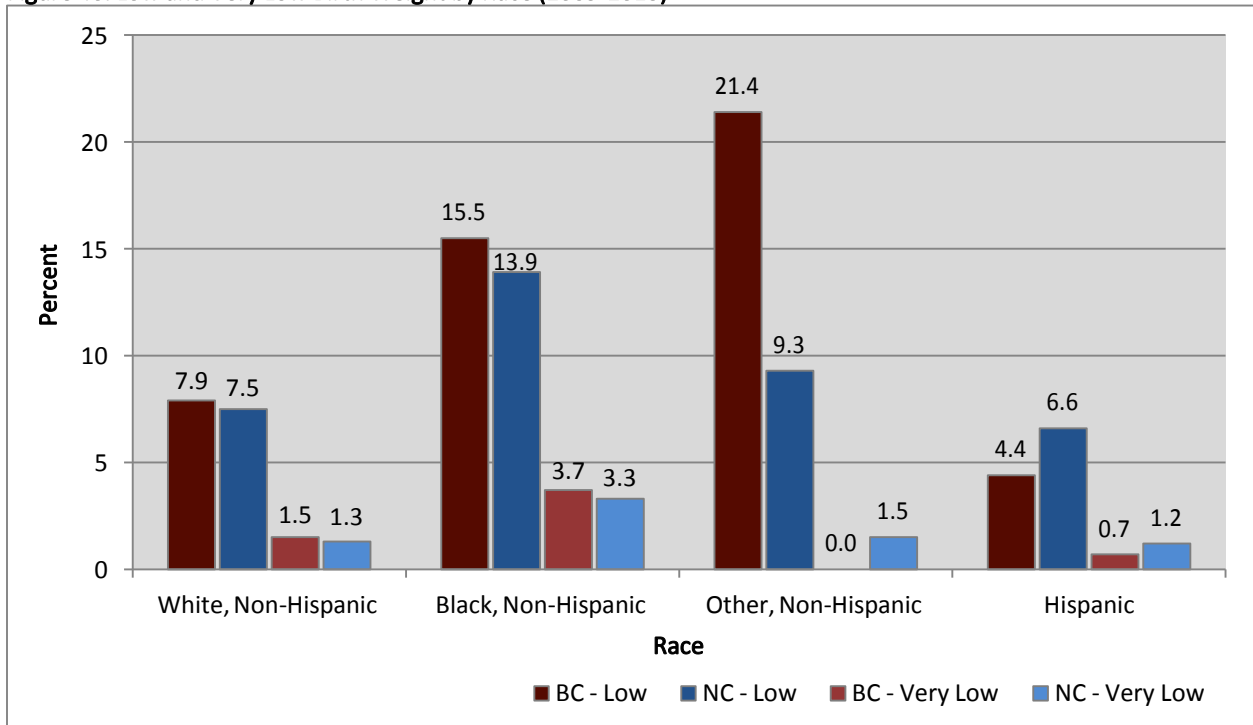
Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2011), Pregnancy and Births, Low and Very Low Weight Births; <http://www.schs.state.nc.us/SCHS/data/databook/>

**Figure 39. Low and Very Low Birth Weight by Race (2008-2012)**



Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2008-2012), Pregnancy and Births, Low and Very Low Weight Births; <http://www.schs.state.nc.us/SCHS/data/databook/>

**Figure 40. Low and Very Low Birth Weight by Race (2009-2013)**

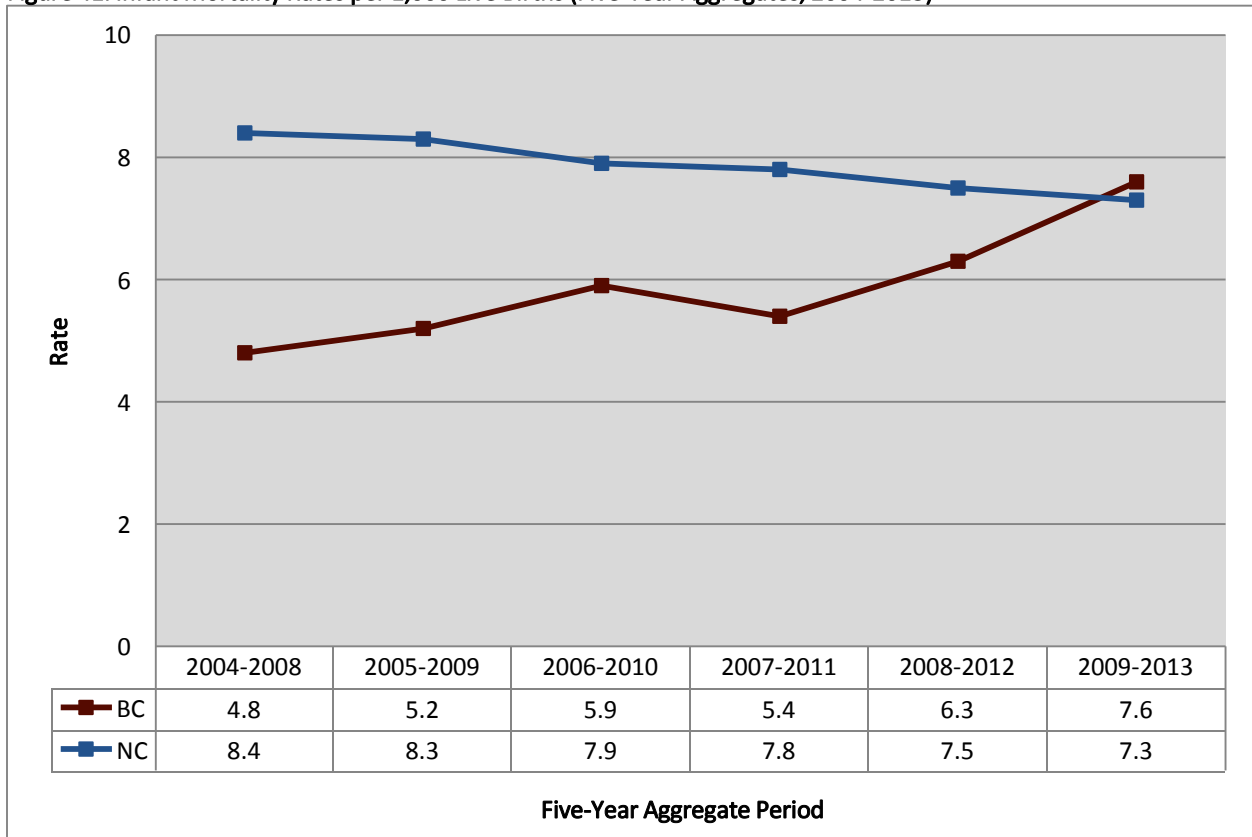


Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2009-2013), Pregnancy and Births, Low and Very Low Weight Births; <http://www.schs.state.nc.us/SCHS/data/databook/>

### ***Infant Mortality***

Infant death is the death of a live-born child under one year of age. Data presented as five-year aggregates (see Figure 41) indicates that the rate of infant deaths (per 1,000 live births) has decreased across the state of North Carolina. Uniquely, the rate of infant deaths has increased in Beaufort County by 37.0 percent from 2004 to 2013. The first aggregate period that Beaufort County had a higher rate of infant deaths than the State was 2009-2013.

**Figure 41. Infant Mortality Rates per 1,000 Live Births (Five-Year Aggregates, 2004-2013)**



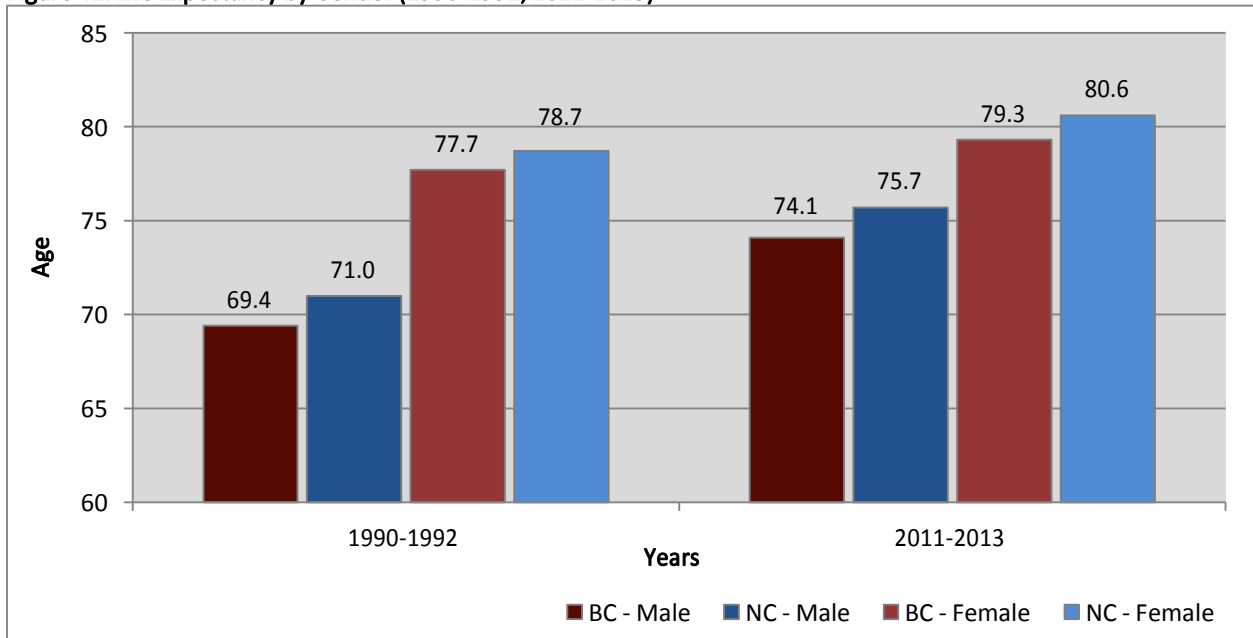
Source: NC Center for Health Statistics, County-level Data, County Health Data Books (2008-2013), Mortality, Infant Death Rates per 1,000 Live Births; <http://www.schs.state.nc.us/SCHS/data/databook/>

### Life Expectancy

Life expectancy is the average number of additional years that someone at a given age would be expected to live if current mortality conditions remained constant throughout their lifetime. Individuals born in Beaufort County between 2011 and 2013 are expected to live approximately three years longer than those born between 1990 and 1992. This trend is similar to the State-wide life expectancy increase. However, on average, those born in Beaufort County are expected to live shorter lives than the North Carolina average.

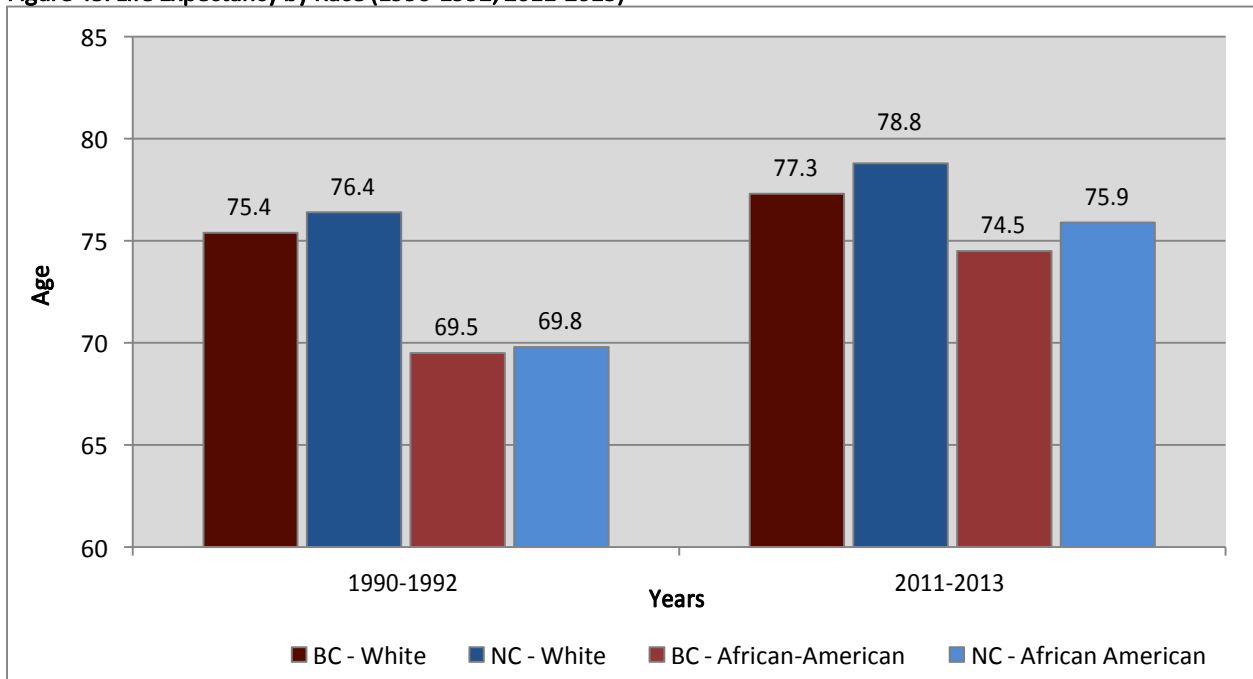
Women in both Beaufort County and North Carolina have a higher life expectancy than men (see Figure 42). Life expectancy for African Americans is lower in both Beaufort County and North Carolina. However, African Americans born in 2011 to 2013 are expected to live seven percent (five years) longer than those born in 1990 to 1992 (see Figure 43).

**Figure 42. Life Expectancy by Gender (1990-1992; 2011-2013)**



Source: NC State Center for Health Statistics, County-level Data, Life Expectancy, State and County Estimates, Life Expectancy: North Carolina 1990-1992 and 2011-2013, State and County;  
<http://www.schs.state.nc.us/schs/data/lifexpectancy/>

**Figure 43. Life Expectancy by Race (1990-1992; 2011-2013)**

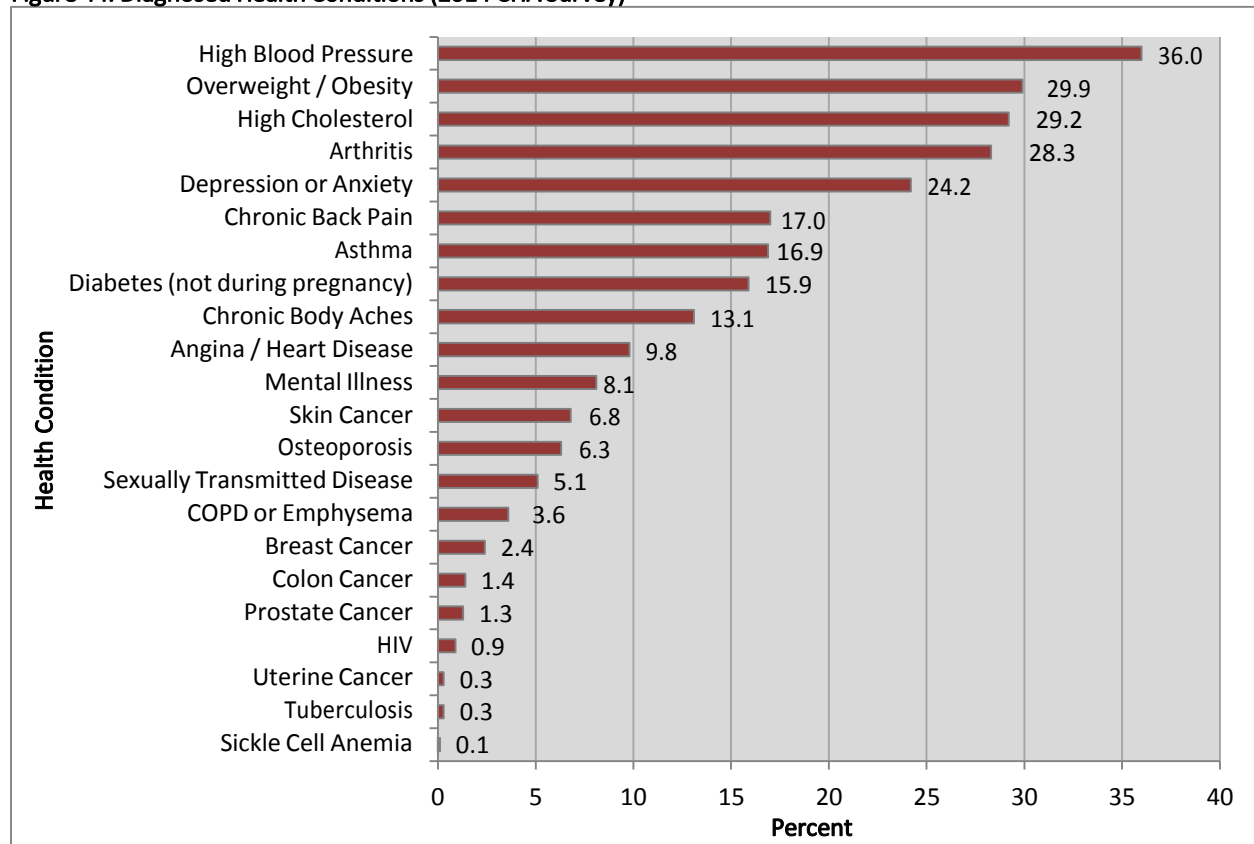


Source: NC State Center for Health Statistics, County-level Data, Life Expectancy, State and County Estimates, Life Expectancy: North Carolina 1990-1992 and 2011-2013, State and County;  
<http://www.schs.state.nc.us/schs/data/lifexpectancy/>

## Mortality

The CHA survey data below represents self-reported responses regarding diagnoses of 22 health conditions. CHA survey respondents were provided with a list of health conditions and asked to select ones they have been diagnosed with by a health professional. High blood pressure (36.0 percent) was the most common self-reported health condition affecting Beaufort County community members. Moreover, at least 28.0 percent of the survey sample reported being diagnosed with one or more of the following conditions: overweight/obesity, high cholesterol, and arthritis (see Figure 44).

**Figure 44. Diagnosed Health Conditions (2014 CHA Survey)**



Source: Beaufort County Community Health Needs Assessment Survey 2014.

## Leading Causes of Death

The top 15 leading causes of death in both Beaufort County and North Carolina are listed below (see Table 14). Each cause of death is ranked in regard to the number of deaths attributed to the condition. Cancer, heart disease, chronic lower respiratory disease, cerebrovascular disease, unintentional injury, Alzheimer’s disease, and diabetes are the top seven causes of death in both locations. In Beaufort County, number of deaths within the top seven conditions ranges from 650 deaths attributed to various forms of Cancer to 85 deaths attributed to diabetes. Remaining causes of death in the top 10 for Beaufort County include motor vehicle accidents, nephritis, and suicide.



**Table 14. Leading Causes of Death (2009-2013)**

| Cause of Death  | Beaufort County |                  |      | North Carolina     |                   |      |
|---|-----------------|------------------|------|--------------------|-------------------|------|
|   | #               | Rate             | Rank | #                  | Rate              | Rank |
| <b>Cancer</b>   | 650             | 194.5            | 1    | 90,717             | 173.3             | 1    |
| Trachea, Bronchus, and Lung                           | 205             | 59.2             | A    | 27,364             | 51.6              | A    |
| Prostate (Male-only)                                  | 48              | 34.0             | B    | 4,287              | 22.1              | C    |
| Breast (Female-only)                                  | 40              | 21.9             | C    | 6,361              | 21.7              | B    |
| Colon, Rectum, and Anus                               | 49              | 15.0             | D    | 7,520              | 14.5              | D    |
| Pancreas  | 34 <sup>a</sup> | 9.7 <sup>a</sup> | E    | 5,573 <sup>a</sup> | 10.6 <sup>a</sup> | E    |
| <b>Diseases of the Heart</b>                          | 636             | 198.6            | 2    | 86,285             | 170               | 2    |
| <b>Chronic Lower Respiratory Disease</b>              | 177             | 51.4             | 3    | 23,346             | 46.1              | 3    |
| <b>Cerebrovascular Disease</b>                        | 160             | 49.7             | 4    | 21,816             | 43.7              | 4    |
| <b>All other Unintentional Injuries</b>               | 101             | 35.9             | 5    | 14,403             | 29.3              | 5    |
| <b>Alzheimer's Disease</b>                            | 88              | 28.2             | 6    | 14,000             | 28.9              | 6    |
| <b>Diabetes Mellitus</b>                              | 84              | 25.9             | 7    | 11,220             | 21.7              | 7    |
| <b>Unintentional Motor Vehicle Injuries</b>           | 53              | 23.7             | 8    | 6,687              | 13.7              | 11   |
| <b>Nephritis, Nephrotic Syndrome, Nephrosis</b>       | 46              | 13.9             | 9    | 8,850              | 17.6              | 9    |
| <b>Suicide</b>  | 34              | 13.0             | 10   | 6,070              | 12.2              | 12   |
| <b>Pneumonia and Influenza</b>                        | 31              | 9.9              | 11   | 8,890              | 17.9              | 8    |
| <b>Chronic Liver Disease and Cirrhosis</b>            | 30              | 9.6              | 12   | 5,128              | 9.5               | 13   |
| <b>Septicemia</b>                                     | 27              | 8.3              | 13   | 6,731              | 13.3              | 10   |
| <b>Acquired Immune Deficiency Syndrome</b>            | <b>15</b>       | <b>5.2</b>       | 14   | 1,471              | 2.9               | 15   |
| <b>Homicide</b>                                       | <b>13</b>       | <b>5.8</b>       | 15   | 2,742              | 5.8               | 14   |
| <b>Total Deaths All Causes (including not listed)</b> | 2,750           | 1,156.2          | N/A  | 400,347            | 830               | N/A  |

Note: All rates and corresponding rankings appearing in **bold** typeface are based on fewer than 20 deaths and should be considered unstable. Rates are age-adjusted. Rate = Number of events per 100,000 population, where the Standard = Year 2000 US Population

Source: NC State Center for Health Statistics, Statistics and Reports, Vital Statistics, NC Vital Statistics Volume II, Leading Causes of Death, 2009 -2013; <http://www.schs.state.nc.us/data/vital.cfm#vitalvol1>

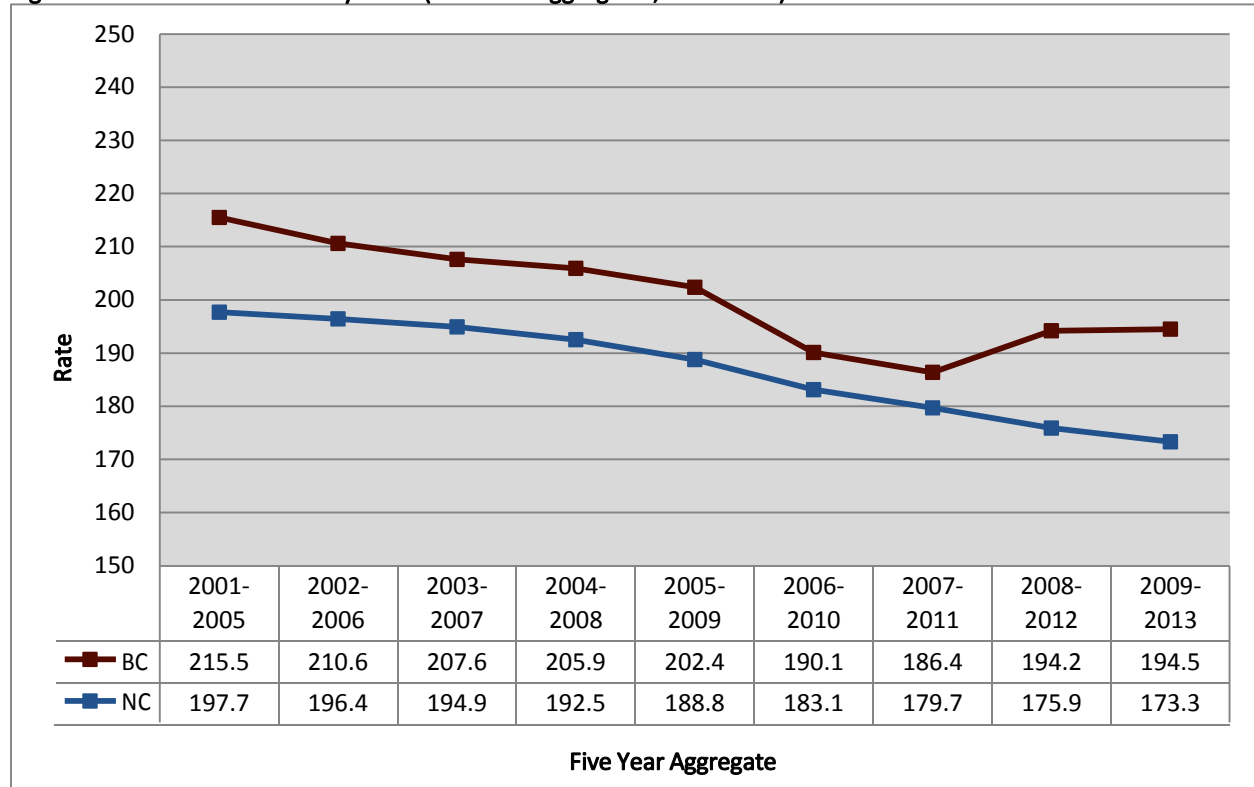
<sup>a</sup> - NC State Center for Health Statistics, County Health Data Book (2014), Mortality, 2009-2013 Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>

## Cancer

### Total Cancer Mortality Rate Trend

Total cancer mortality rate has steadily declined since 2001 in the state of North Carolina. Although Beaufort County has experienced a similar decline, the mortality rates continue to be higher than the State (see Figure 45).

**Figure 45. Total Cancer Mortality Rates (Five-Year Aggregates, 2001-2013)**

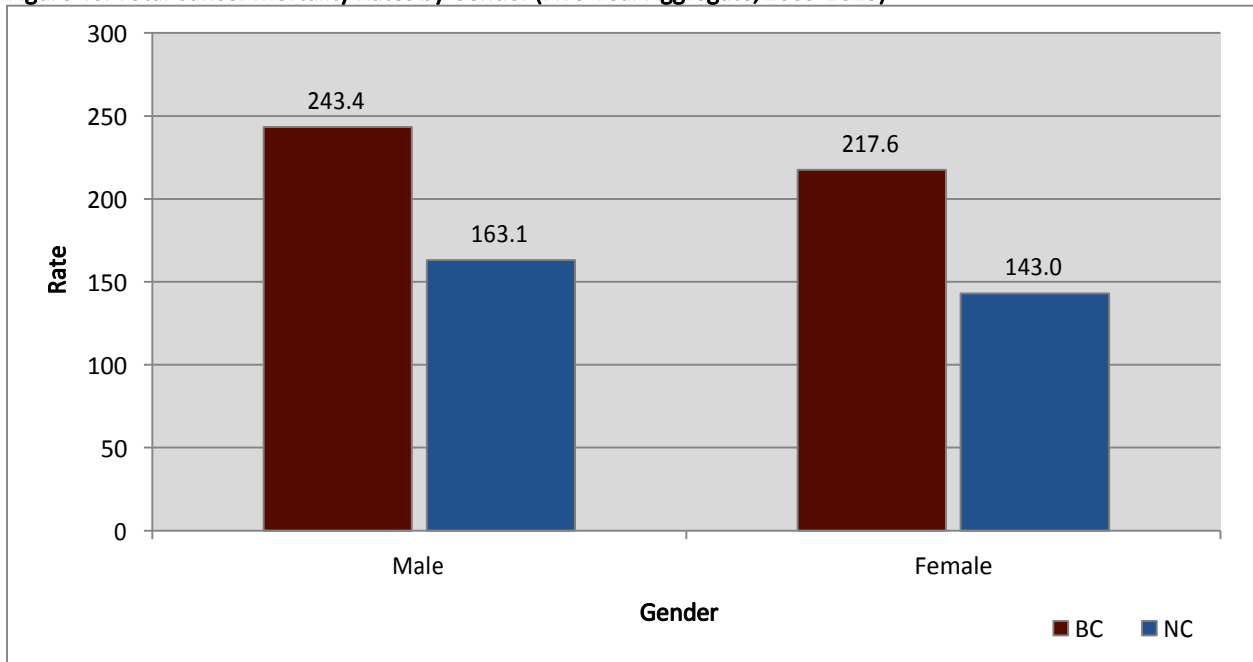


Source: NC State Center for Health Statistics, Statistics and Reports, Vital Statistics, NC Vital Statistics Volume II, Leading Causes of Death, Mortality Statistics Summary: Cancer – All Sites 2009, 2008, 2007, 2006, 2005, 2004, 2003, 2002, and 2001; <http://www.schs.state.nc.us/data/vital.cfm#vitalvol1>

### Gender and Racial Disparities in Total Cancer Mortality

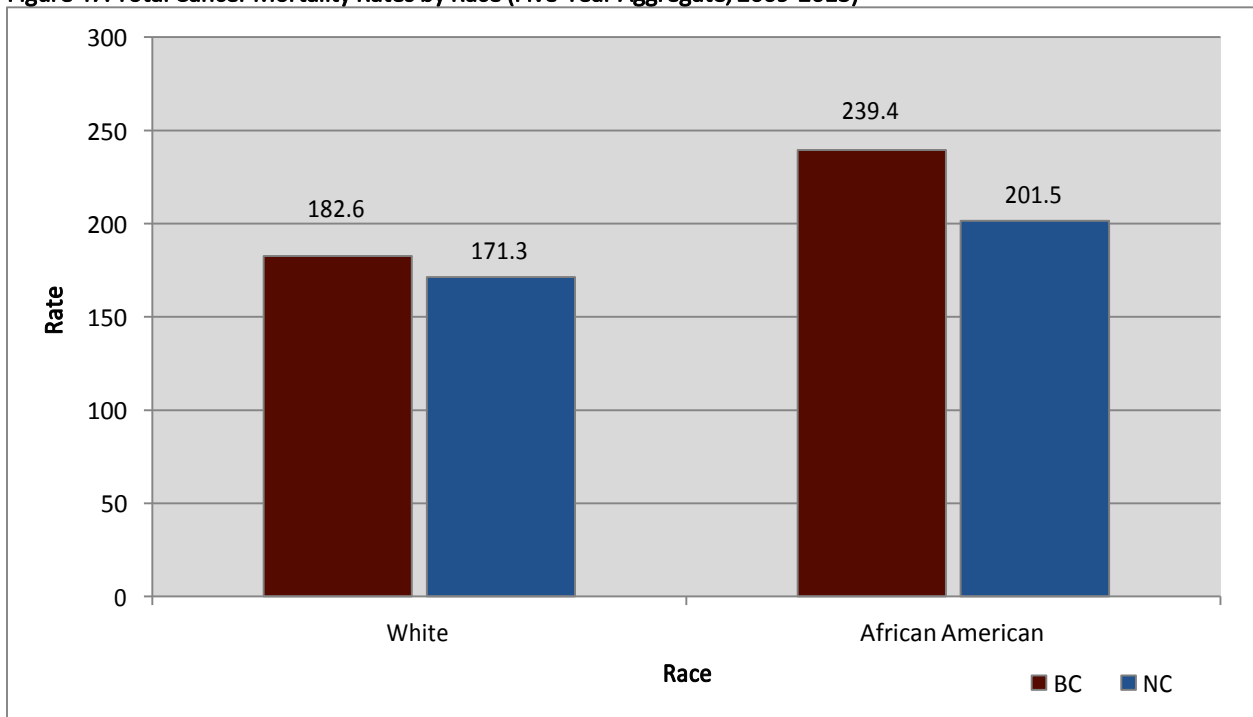
Men demonstrate a higher rate of cancer mortality than women in both Beaufort County and North Carolina (see Figure 46). Further, African American, Non-Hispanic individuals display the highest rate of cancer mortality in Beaufort County (239.4) and North Carolina (201.5). Additionally, White, Non-Hispanic individuals present the highest cancer mortality rates, with a rate of 182.6 in Beaufort County and 171.3 in the State (see Figure 47).

**Figure 46. Total Cancer Mortality Rates by Gender (Five-Year Aggregate, 2009-2013)**



Note: The use of "N/A" indicates a likely unstable rate based on a small (fewer than 20) number of cases.  
 Source: NC State Center for Health Statistics, County Health Data Book (2015), Mortality, 2009-2013 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>

**Figure 47. Total Cancer Mortality Rates by Race (Five-Year Aggregate, 2009-2013)**



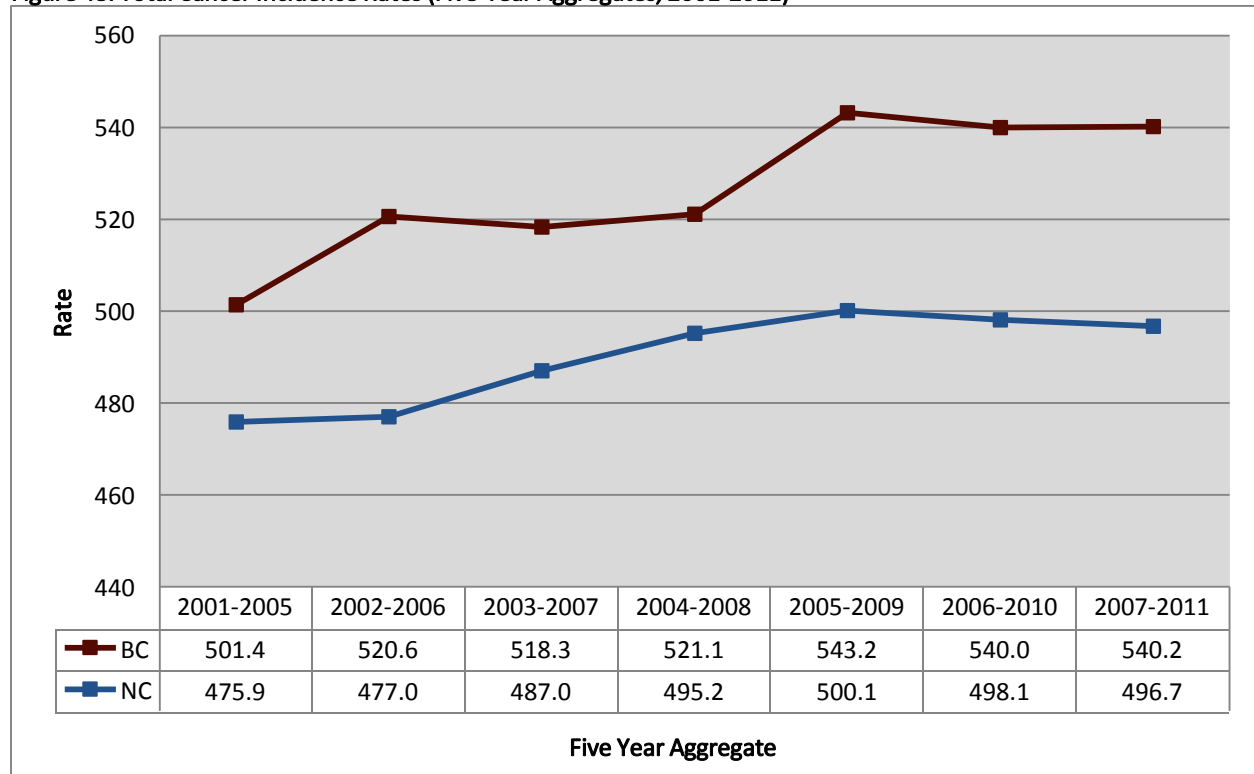
Source: NC State Center for Health Statistics, County Health Data Book (2015), Mortality, 2009-2013 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>

## Total Cancer Incidence

A total of 12.2 percent of CHA survey participants have been diagnosed with at least one of these five listed types of cancer (i.e. breast, skin, colon, prostate, and uterine). Of these, skin cancer was the most prevalent, with 6.8 percent of CHA survey participants being diagnosed at some point in their lives. Also, cancer was a topic that many survey participants desire to learn more about. Although it was not listed in the survey, focus group members reported that lung cancer was also common amongst community members.

Total cancer incidence rates have increased between 2001 and 2011 in both the County and the State (see Figure 48). Incidence rates peaked between 2005 and 2009, but have slowly started to decrease since this period. However, the most recent cancer rates remain higher in Beaufort County (540.2) compared to the State (496.7).

**Figure 48. Total Cancer Incidence Rates (Five-Year Aggregates, 2001-2011)**



Source: North Carolina State Center for Health Statistics, Cancer Incidence Rates: North Carolina, 2011, 2010, 2009, 2008, 2007, 2006, and 2005; <http://www.schs.state.nc.us/schs/CCR/reports.html>

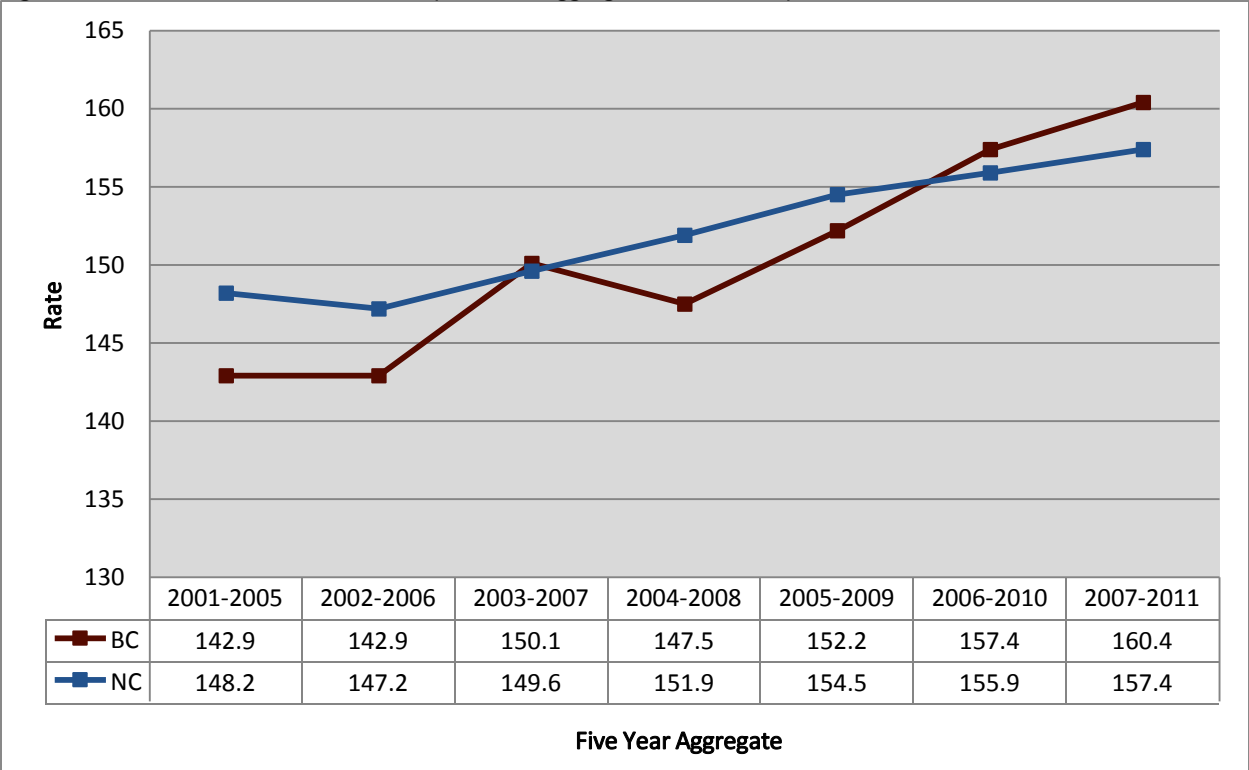
**Breast Cancer**

Breast cancer is caused by the formation of a malignant tumor in the cells of the breast. Although most prevalent in women, the disease can also occur in men. The American Cancer Society recommends that women over 40 years of age receive mammograms annually.

**Breast Cancer Incidence**

Breast cancer incidence rates have steadily increased in North Carolina from 2002 to 2011. The data from Beaufort County appeared to have a similar upward trend from 2004 to 2011. Moreover, the aggregate data beginning in 2006 demonstrated a higher incidence rate in Beaufort County than in the state of North Carolina (see Figure 49).

**Figure 49. Breast Cancer Incidence Rates (Five-Year Aggregates, 2001-2011)**

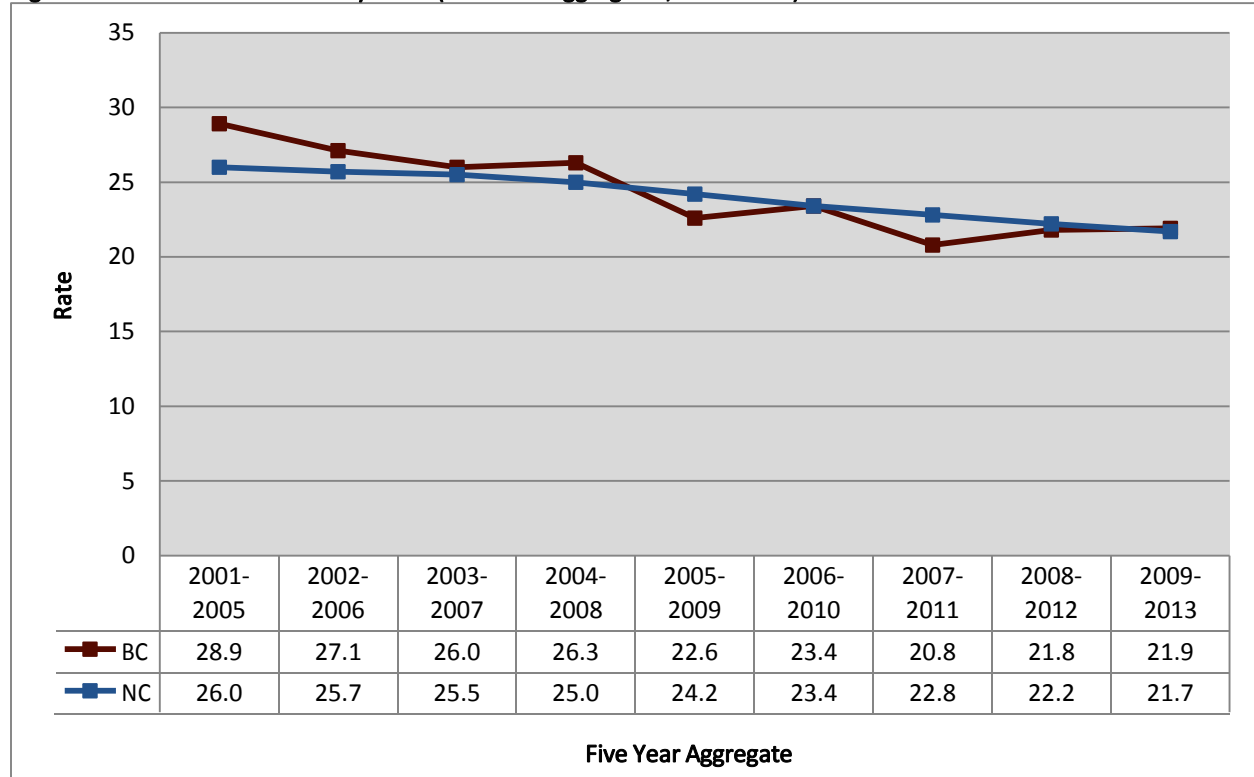


Source: North Carolina State Center for Health Statistics, Cancer Incidence Rates for All Counties by Specified Site, 2005, 2006, 2007, 2008, 2009, 2010, and 2011; <http://www.schs.state.nc.us/schs/CCR/reports.html>

## Breast Cancer Mortality

The breast cancer mortality rates in North Carolina have steadily decreased from the aggregate of 2001 to 2005 to the aggregate of 2009 to 2013 (see Figure 50). This trend was similar in the County from 2001 to 2007. However, the mortality rates of the County have not varied in a predictable way from 2004 to 2012. Despite this fluctuation, the rate of the County in recent years (21.8) remains close to the rate of the State (22.2).

**Figure 50. Breast Cancer Mortality Rates (Five-Year Aggregates, 2001-2013)**



Source: North Carolina State Center for Health Statistics, North Carolina Vital Statistics, Volume 2, Leading Causes of Death, Breast Cancer, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, and 2013;  
<http://www.schs.state.nc.us/data/vital.cfm#vitalvol1>

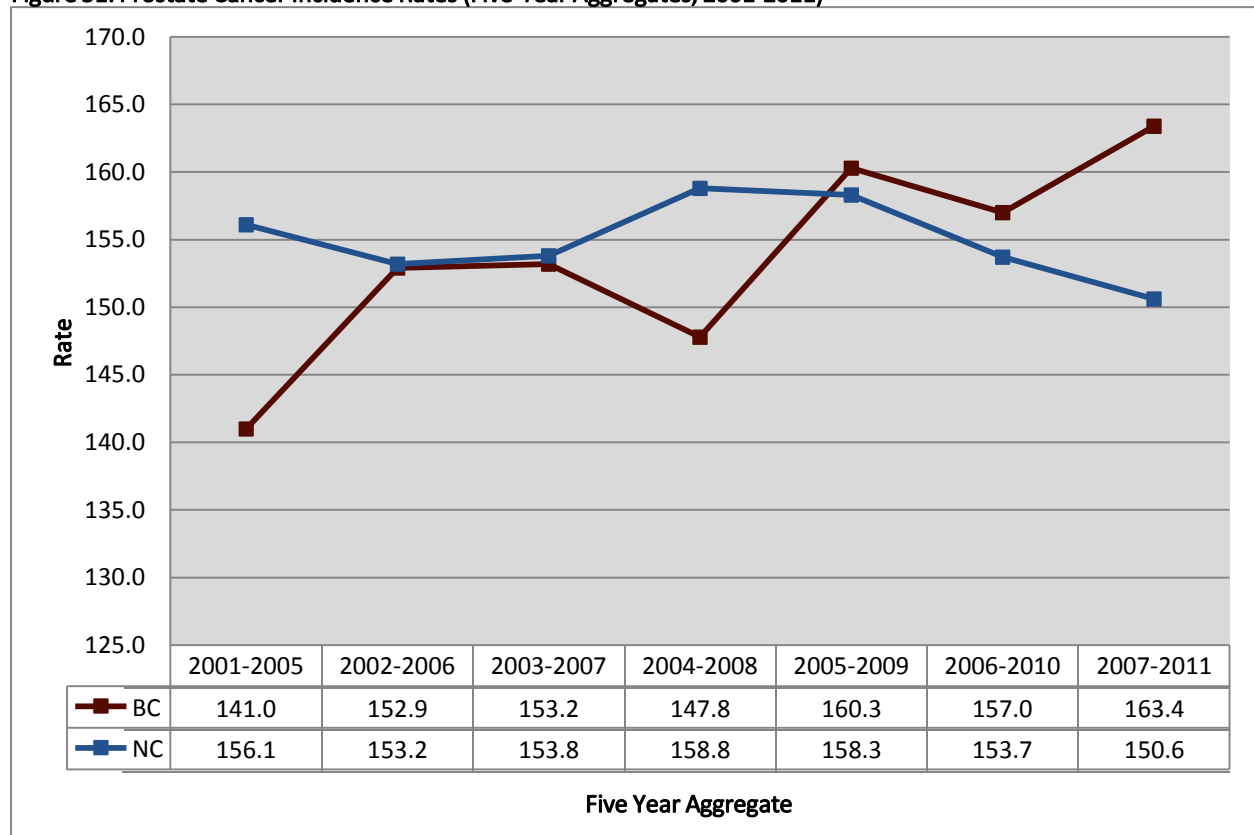
## Prostate Cancer

According to the American Cancer Society, about one in every seven American men will be diagnosed with prostate cancer. Although this figure may be high, the majority of prostate cancer cases prove to be non-fatal. It is suggested that men undergo regular prostate screenings as recommended by their doctor.

### Prostate Cancer Incidence

Beaufort County reached its highest prostate cancer incidence rate during the aggregate of 2007 to 2011 (163.4, see Figure 51). However, the State incidence rates were highest during the aggregate of 2004 to 2008 (158.8). Furthermore, the prostate cancer incidence rates in North Carolina have been in a downward trend in recent years. In contrast, the County incident rates have been in an upward trend.

**Figure 51. Prostate Cancer Incidence Rates (Five-Year Aggregates, 2001-2011)**

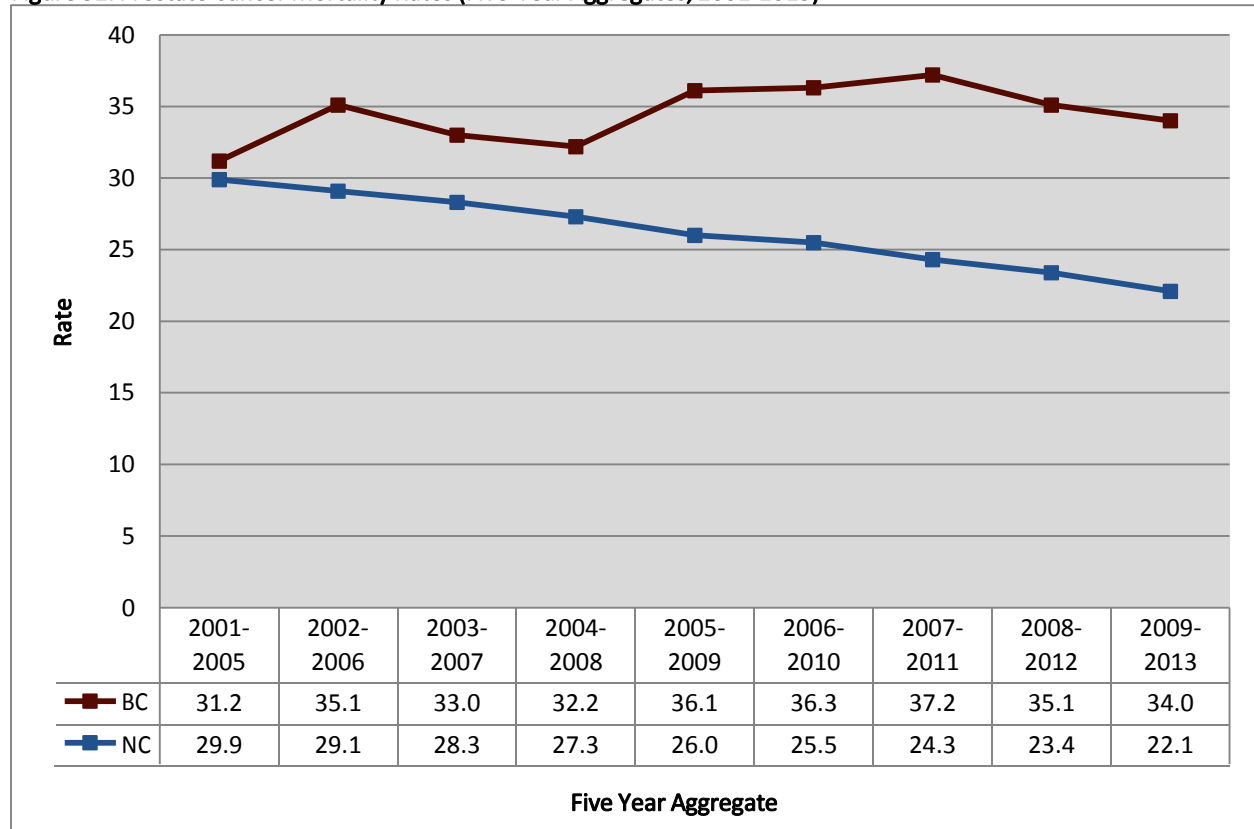


Source: North Carolina State Center for Health Statistics, Cancer Incidence Rates for All Counties by Specified Site, 2005, 2006, 2007, 2008, 2009, 2010, and 2011; <http://www.schs.state.nc.us/schs/CCR/reports.html>

## Prostate Cancer Mortality

Prostate cancer mortality rates in North Carolina have steadily decreased from 2001 to 2013 (see Figure 52). The County, however, has not experienced this downward trend. Despite numerous fluctuations, the County has experienced a seemingly upward trend. On average, Beaufort County has experienced higher mortality rates than the state of North Carolina.

**Figure 52. Prostate Cancer Mortality Rates (Five-Year Aggregates, 2001-2013)**



Source: North Carolina State Center for Health Statistics, North Carolina Vital Statistics, Volume 2, Leading Causes of Death, Prostate Cancer, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, and 2013;  
<http://www.schs.state.nc.us/data/vital.cfm#vitalvol1>



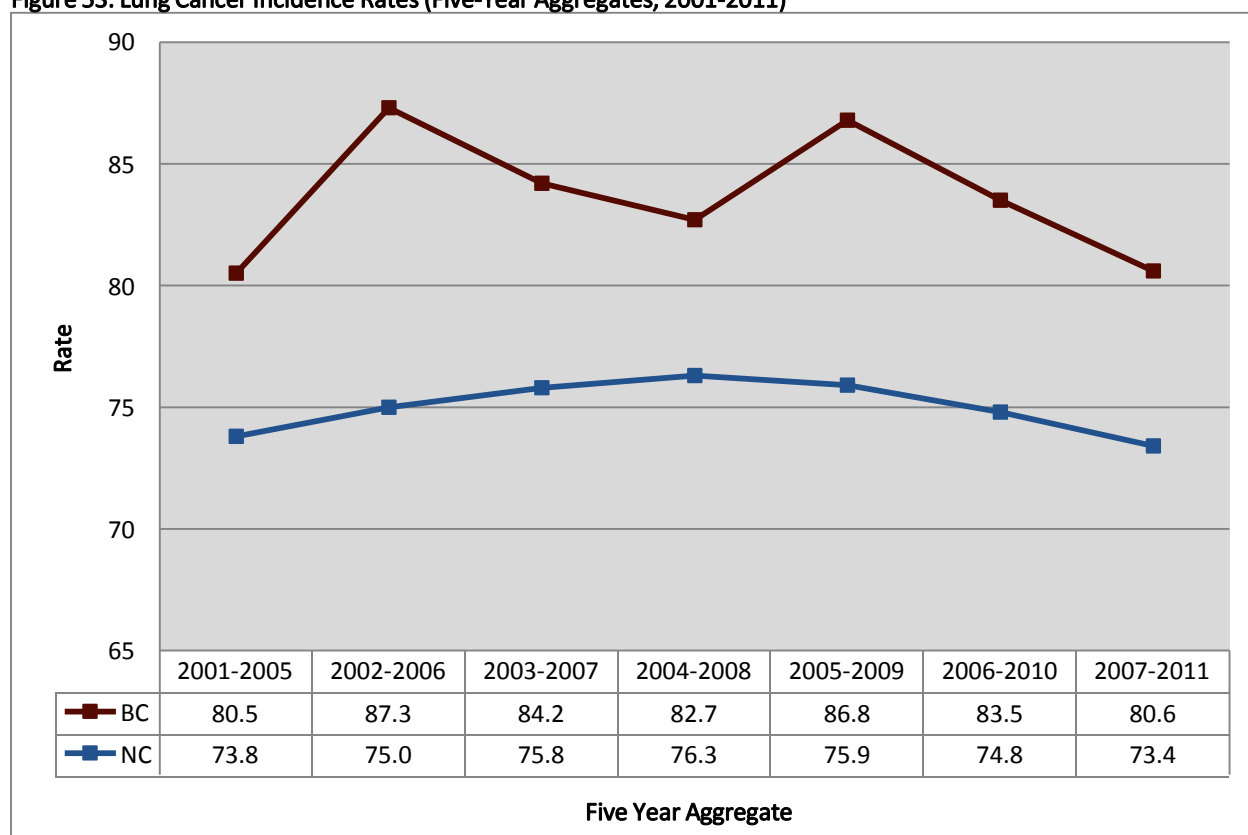
## Lung Cancer

Regardless of gender, lung cancer is one of the leading causes of cancer related deaths in the United States. Please note that the incidence rates provided include cancer of the bronchus while the mortality rates provided include both cancer of the bronchus and trachea.

### Lung Cancer Incidence Rates

In recent years, both the State and County have experienced a downward trend in lung cancer incidence rates (see Figure 53). Despite this similarity, the County rates have been consistently higher than State rates.

**Figure 53. Lung Cancer Incidence Rates (Five-Year Aggregates, 2001-2011)**

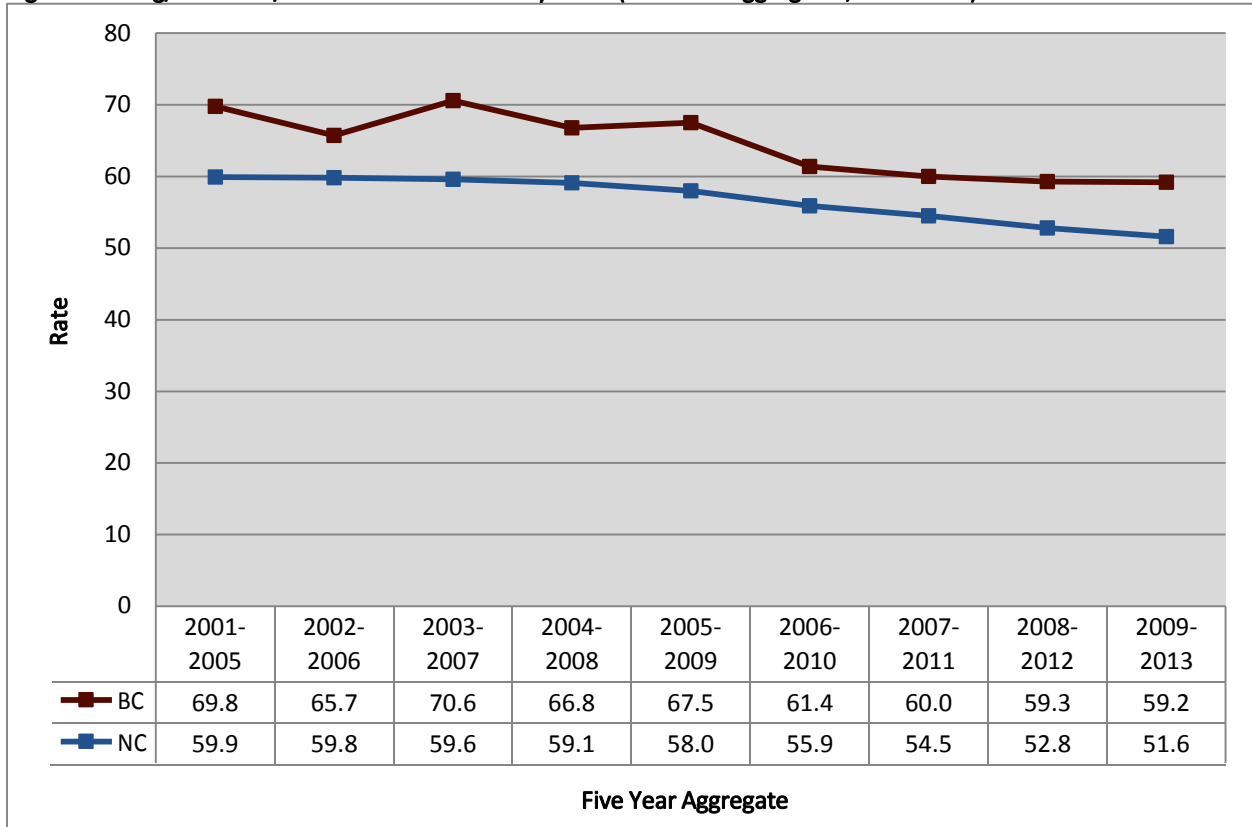


Source: North Carolina State Center for Health Statistics, Cancer Incidence Rates for All Counties by Specified Site, 2005, 2006, 2007, 2008, 2009, 2010, and 2011; <http://www.schs.state.nc.us/schs/CCR/reports.html>

## Lung/Bronchus/Trachea Cancer Mortality Rate

Both Beaufort County and North Carolina have experienced a significant decrease in lung, bronchus, and trachea cancer mortality rates over the aggregate periods between 2001 and 2013 (see Figure 54). Furthermore, the lowest rates have been demonstrated in the most recent aggregate, 2009 to 2013.

**Figure 54. Lung/Bronchus/Trachea Cancer Mortality Rates (Five-Year Aggregates, 2001-2013)**



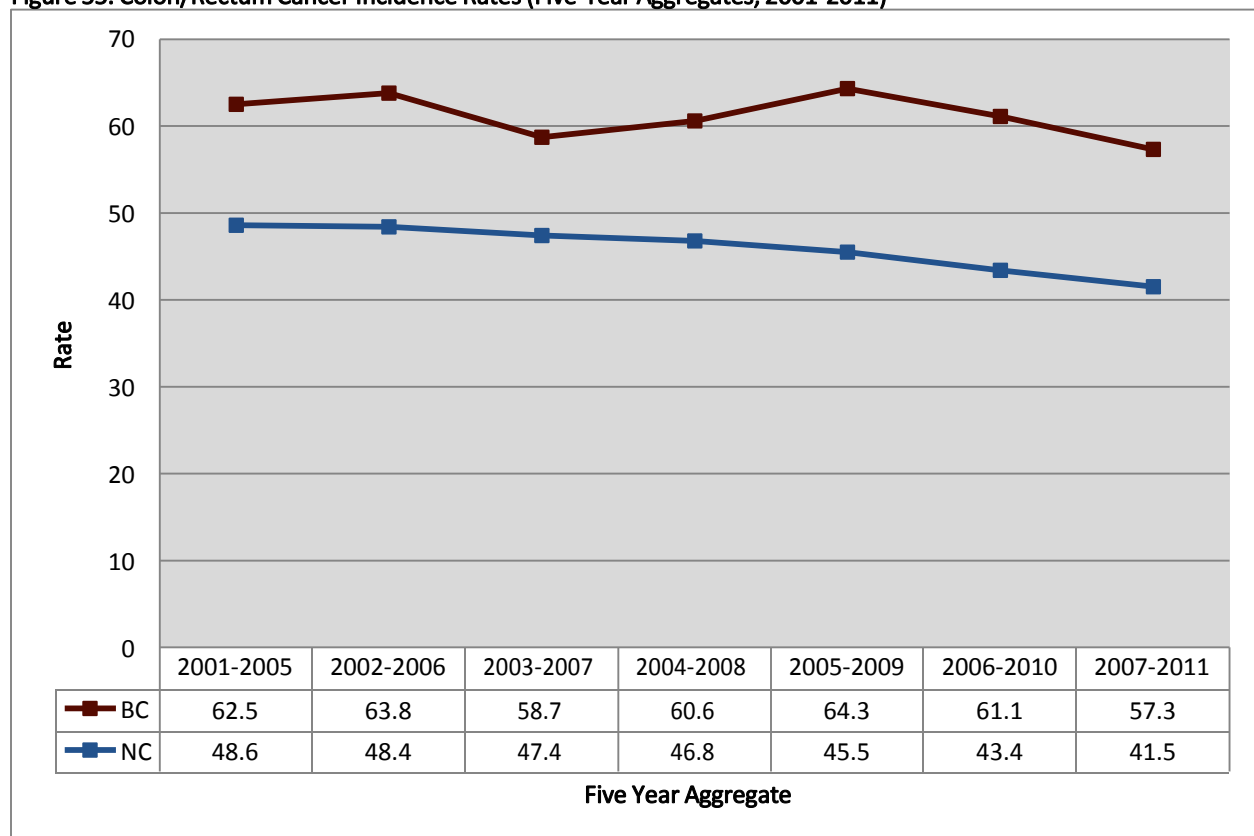
Source: North Carolina State Center for Health Statistics, North Carolina Vital Statistics, Volume 2, Leading Causes of Death, Trachea, Bronchus, and Lung Cancer, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, and 2013; <http://www.schs.state.nc.us/data/vital.cfm#vitalvol1>

## Colon Cancer

### Colon Cancer Incidence Rates

Beaufort County and North Carolina incidence rates of colon and rectum cancer have decreased since 2001 (see Figure 55). The Beaufort County rate decreased from 62.5 between 2001 and 2005 and to 57.3 between 2007 and 2011. The North Carolina rate has similarly decreased. Despite this similarity, the County reached its peak in rate during 2005 to 2009 (64.3) whereas the State reached its peak during 2001 to 2005 (48.6). Again, like many of the other provided statistics regarding incidence and mortality rates, the county rates tend to be consistently higher than the state rates.

**Figure 55. Colon/Rectum Cancer Incidence Rates (Five-Year Aggregates, 2001-2011)**

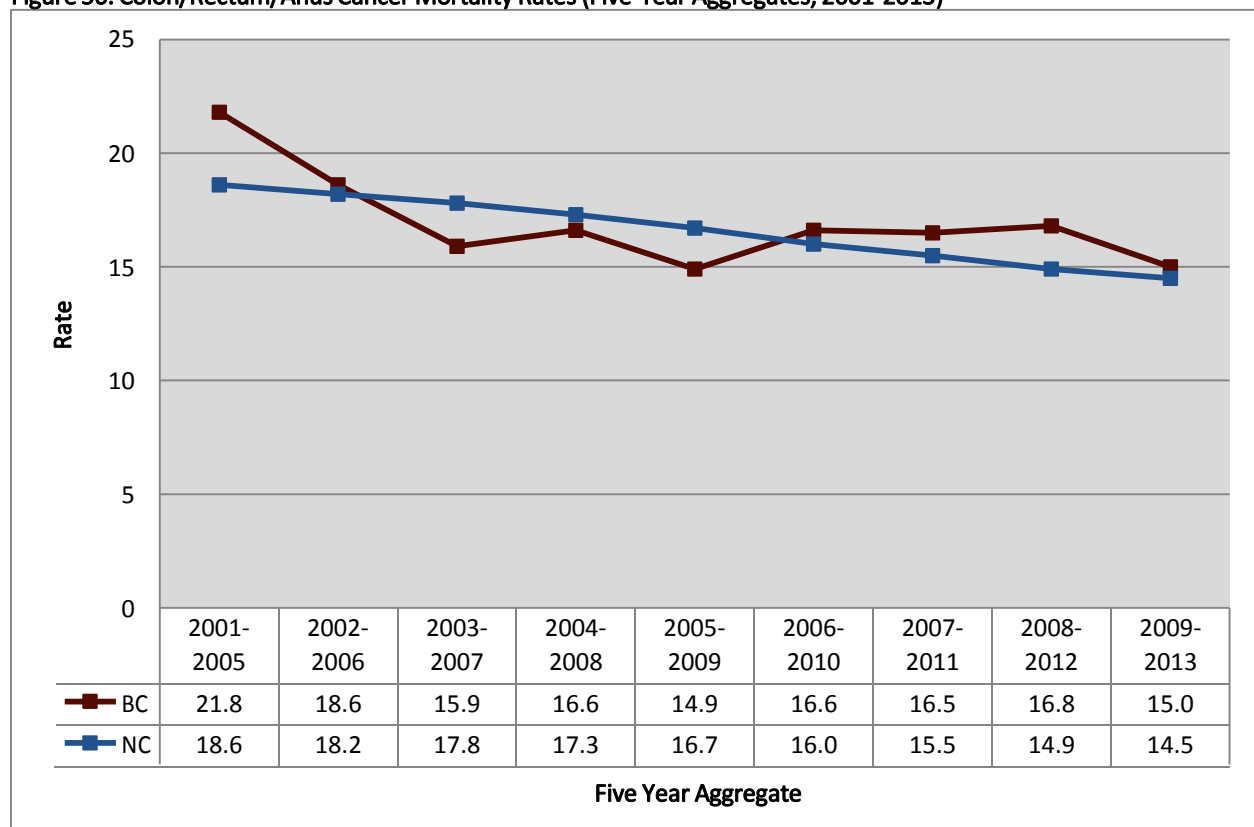


Source: North Carolina State Center for Health Statistics, Cancer Incidence Rates for All Counties by Specified Site, 2005, 2006, 2007, 2008, 2009, 2010, and 2011; <http://www.schs.state.nc.us/schs/CCR/reports.html>

## Colon/Rectum/Anus Cancer Mortality

In comparison to the mortality rate trends of the previously discussed cancers, the mortality rates for cancer of the colon, rectum, and anus tend to be quite low (see Figure 56). For example, the highest rate in the County was only 21.8 while the highest rate in the State was only 18.6. Furthermore, the statewide rate trend has steadily decreased from its highest rate in 2001 to 2005 (18.6) to its lowest rate in 2009 to 2013 (14.5). The County, however, has experienced much more variation in its mortality rate trend. Despite this variation, the County has experienced its second lowest rate in the most recent years (2009 to 2013; 15.0). Unlike the trends in previous cancer incidence or mortality rates, the colon, rectum, or anus cancer mortality rates in the County are similar to that of the State.

**Figure 56. Colon/Rectum/Anus Cancer Mortality Rates (Five-Year Aggregates, 2001-2013)**



Source: North Carolina State Center for Health Statistics, North Carolina Vital Statistics, Volume 2, Leading Causes of Death, Colon, Rectum, and Anus Cancer, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, and 2013; <http://www.schs.state.nc.us/data/vital.cfm#vitalvol1>

## Heart Disease

Heart disease is caused by a wide array of conditions that can be detrimental to an individual's well-being. Regardless of gender, heart disease is the leading cause of death in the United States.

### *Heart Disease Hospitalizations*

Heart disease cases and hospital discharge rates have steadily decreased in North Carolina from 2010 to 2013 (see Table 15). However, the same trend did not appear in the County. The number of heart disease cases in the County decreased from 811 in 2010 to 575 in 2012, but then increased significantly to 770 in 2013. The discharge rate has followed a similar pattern.

**Table 15. Heart Disease Cases and Hospital Discharge Rates (2010-2013)**

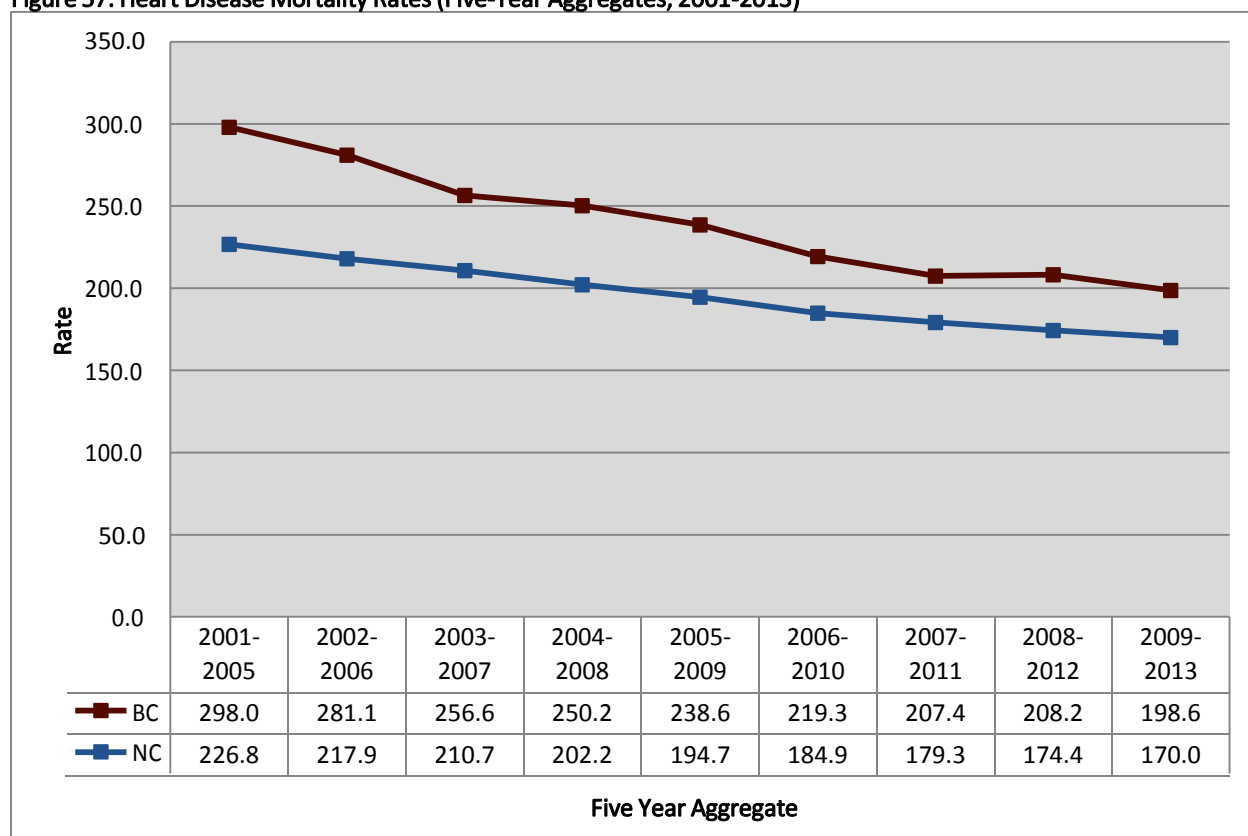
| Location        | Total Number of Heart Disease Cases and Discharge Rate per 1,000 Individuals |      |         |      |         |      |         |      |
|-----------------|--|------|---------|------|---------|------|---------|------|
|                 | 2010   |      | 2011    |      | 2012    |      | 2013    |      |
|                 | #  | Rate | #       | Rate | #       | Rate | #       | Rate |
| Beaufort County | 811  | 17.0 | 746     | 15.6 | 575     | 12.1 | 770     | 16.2 |
| North Carolina  | 108,060  | 11.3 | 105,247 | 10.9 | 104,458 | 10.7 | 101,195 | 10.3 |

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2010-2013), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence;  
<http://www.schs.state.nc.us/SCHS/data/databook/>

### *Heart Disease Mortality Rate Trend*

Aside from a slight increase in the County rate from 2008 to 2012, both the County and the State have experienced a decrease in heart disease mortality rates from 2001 to 2013 (see Figure 57). The mortality rate was lowest for both the County and the State in the most recent years (2009 to 2013). However, the County's rates still tend to be higher than the State.

**Figure 57. Heart Disease Mortality Rates (Five-Year Aggregates, 2001-2013)**



Source: North Carolina State Center for Health Statistics, North Carolina Vital Statistics, Volume 2, Leading Causes of Death, Heart Disease, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, and 2013;  
<http://www.schs.state.nc.us/data/vital.cfm#vitalvol1>

***Gender and Racial Disparities in Heart Disease Mortality***

African American, Non-Hispanic individuals face the highest heart disease mortality rate in Beaufort County (238.5) and North Carolina (193.2). Despite this increased rate, White, Non-Hispanic individuals represent the highest number of heart disease deaths in the County (466) and the State (67,667). Furthermore, men demonstrate a higher rate of heart disease mortality than do women in both Beaufort County and North Carolina (see Table 16).

**Table 16. Gender and Racial Disparities in Heart Disease Mortality (Five-Year Aggregate, 2008-2012)**

| Race/Gender                    | Beaufort County |       | na     |       |
|--------------------------------|-----------------|-------|--------|-------|
|                                | #               | Rate  | #      | Rate  |
| White, Non-Hispanic            | 466             | 191.0 | 67,667 | 168.0 |
| African American, Non-Hispanic | 166             | 238.5 | 16,926 | 193.2 |
| Other Races, Non-Hispanic      | 1               | N/A   | 343    | 6.0   |
| Hispanic                       | 3               | N/A   | 502    | 50.7  |
| Male                           | 338             | 259.6 | 45,303 | 217.3 |
| Female                         | 298             | 154.9 | 40,982 | 134.0 |
| Overall                        | 636             | 198.6 | 86,285 | 170.0 |

Note: The use of "N/A" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.

Source: NC State Center for Health Statistics, County-level Data, County Health Data Book (2014), Mortality, 2008-2012 NC Resident Race/Ethnicity and Sex-Specific Age-Adjusted Death Rates, by County;  
<http://www.schs.state.nc.us/SCHS/data/databook/>

## Cerebrovascular Disease

Cerebrovascular disease refers to an array of conditions that negatively influence blood circulation to the brain. These conditions limit or stop blood flow, which results in damaging, effects to the brain.

### *Cerebrovascular Disease Hospitalizations*

The discharge rates for cerebrovascular disease per 1,000 individuals decreased in both the County and the State from 2009 to 2012 (see Table 17). Furthermore, the rate decrease in the State was much more gradual than that of the County. For example, in North Carolina, the rate remained the same between 2009 and 2010 (3.1), then decreased, and then remained the same again between 2011 and 2012 (3.0). In addition, the rate continued to decrease in the State during 2013. In the County, however, the rate increased from 3.0 in 2012 to 4.0 in 2013. This increase may have been reflected in one of the focus group discussions. One Beaufort County resident stated, “I have several friends, young people, with strokes lately.”

**Table 17. Cerebrovascular Disease Cases and Hospital Discharge Rates (2009-2013)**

| Location               | Total Number of Cerebrovascular Disease Cases and Discharge Rate per 1,000 Individuals |      |        |      |        |      |        |      |        |      |
|------------------------|--|------|--------|------|--------|------|--------|------|--------|------|
|                        | 2009   |      | 2010   |      | 2011   |      | 2012   |      | 2013   |      |
|                        | #  | Rate | #      | Rate | #      | Rate | #      | Rate | #      | Rate |
| <b>Beaufort County</b> | 214  | 4.5  | 201    | 4.2  | 192    | 4.0  | 143    | 3.0  | 190    | 4.0  |
| <b>North Carolina</b>  | 28,758   | 3.1  | 29,429 | 3.1  | 29,265 | 3.0  | 29,599 | 3.0  | 28,472 | 2.9  |

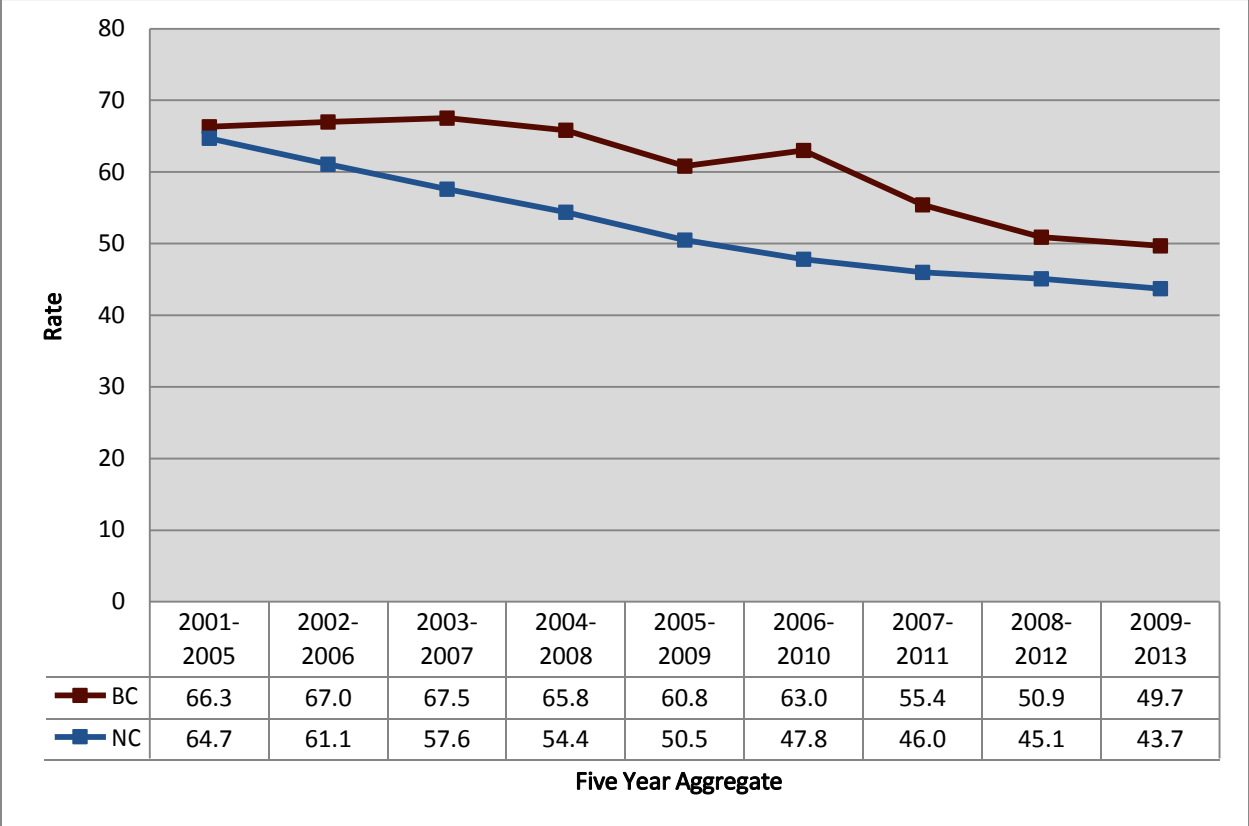
Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2009-2013), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; <http://www.schs.state.nc.us/SCHS/data/databook/>



**Cerebrovascular Disease Mortality Rate Trend**

The lowest mortality rates of the County (49.7) and the State (43.7) were experienced during the aggregate of 2009 to 2013 (see Figure 58). In addition to this similarity, the difference in mortality rates between the State and the County remained low. The rate has decreased steadily in North Carolina from 2001 to 2013. The State, on the other hand, experienced an increase from the 2001 to 2005 aggregate through the 2003 to 2007 aggregate followed by a steady decrease through 2009 to 2013.

**Figure 58. Cerebrovascular Disease Mortality Rates (Five-Year Aggregates, 2001-2013)**



Source: NC State Center for Health Statistics, County Health Data Books (2005-2013), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>

***Gender and Racial Disparities in Cerebrovascular Disease Mortality***

Similar to the statistics presented previously regarding the racial and ethnic disparities of heart disease mortality rates, African American, Non-Hispanic individuals displayed the highest rate of cerebrovascular disease mortality in Beaufort County (70.3) and North Carolina (57.1) (see Table 18). Further, women (49.4) demonstrated a higher rate of cerebrovascular disease mortality than did men (48.8) in the County. This pattern was contrasted in the State where men (44.1) demonstrated a higher rate than did women (42.5).

**Table 18. Gender and Racial Disparities in Cerebrovascular Disease Mortality (Five-Year Aggregate, 2009-2013)**

| Race/Gender                    | Beaufort County |      | na     |      |
|--------------------------------|-----------------|------|--------|------|
|                                | #               | Rate | #      | Rate |
| White, Non-Hispanic            | 109             | 45.0 | 16,525 | 41.3 |
| African American, Non-Hispanic | 51              | 70.3 | 4,833  | 57.1 |
| Other Races, Non-Hispanic      | 0               | N/A  | 146    | 29.1 |
| Hispanic                       | 0               | N/A  | 169    | 17.6 |
| Male                           | 64              | 48.8 | 8,829  | 44.1 |
| Female                         | 96              | 49.4 | 12,987 | 42.5 |
| Overall                        | 160             | 49.7 | 21,816 | 43.7 |

Note: The use of "N/A" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.

Source: NC State Center for Health Statistics, County-level Data, County Health Data Book (2014), Mortality, 2009-2013 NC Resident Race/Ethnicity and Sex-Specific Age-Adjusted Death Rates, by County;  
<http://www.schs.state.nc.us/SCHS/data/databook/>

## Diabetes Mellitus

As defined by the American Diabetes Association, diabetes mellitus refers to “a condition characterized by hyperglycemia resulting from the body’s inability to use blood glucose for energy.” Diabetes can be differentiated into two different types, Type 1 and Type 2. The data below refer to both types.

### *Diabetes Mellitus Hospitalizations*

The number of diabetes mellitus cases and the associated discharge rates decreased in the County from 2009 to 2012 followed by an increase in 2013 (see Table 19). This pattern did not appear in the data for the State. The State experienced an increase from 2009 to 2011, a decrease in 2012, and an increase in 2013. While the State experienced its highest number of diabetes mellitus cases in 2011 (18,860), the County experienced its highest number in 2013 (130).

**Table 19. Diabetes Mellitus Cases and Hospital Discharge Rates (2009-2013)**

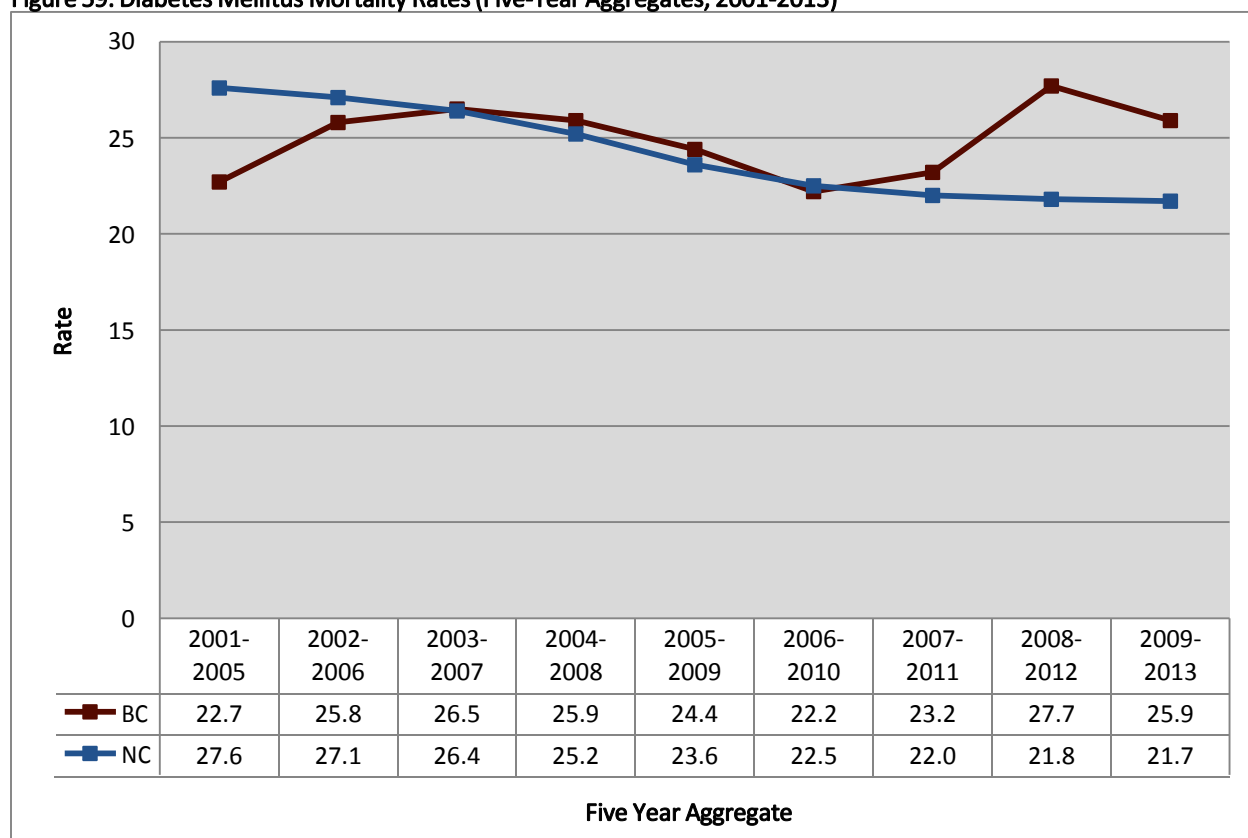
| Location               | Total Number of Diabetes Mellitus Cases and Discharge Rate per 1,000 Individuals |      |        |      |        |      |        |      |        |      |
|------------------------|--|------|--------|------|--------|------|--------|------|--------|------|
|                        | 2009   |      | 2010   |      | 2011   |      | 2012   |      | 2013   |      |
|                        | #  | Rate | #      | Rate | #      | Rate | #      | Rate | #      | Rate |
| <b>Beaufort County</b> | 129  | 2.7  | 124    | 2.6  | 120    | 2.5  | 81     | 1.7  | 130    | 2.7  |
| <b>North Carolina</b>  | 16,642   | 1.8  | 18,101 | 1.9  | 18,860 | 2.0  | 18,586 | 1.6  | 18,751 | 1.9  |

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2009-2013), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence;  
<http://www.schs.state.nc.us/SCHS/data/databook/>

### Diabetes Mellitus Mortality Rate Trend

The rate of diabetes mellitus mortality in North Carolina decreased gradually from 2001 to 2013 (see Figure 59). Beaufort County did not experience a similar trend as there was much more variation. While the North Carolina rates were higher between 2001 and 2006, Beaufort County rates have been higher than the State averages since 2007.

**Figure 59. Diabetes Mellitus Mortality Rates (Five-Year Aggregates, 2001-2013)**



Source 2001-2005 through 2004-2008: NC State Center for Health Statistics, County Health Data Books (2007-2010), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/> ; 2005-2009 through 2008-2012: NC State Center for Health Statistics, Statistics and Reports, Vital Statistics, NC Vital Statistics Volume II: Leading Causes of Death, 2009, 2010, 2011, 2012, and 2013; <http://www.schs.state.nc.us/data/vital.cfm#vitalvol2>

### *Gender and Racial Disparities in Diabetes Mellitus Mortality*

In comparison to other races or ethnicities, African American, Non-Hispanic individuals displayed the highest rate of diabetes mellitus mortality rates in both Beaufort County (55.6) and North Carolina (43.4) (see Table 20). In addition, White, Non-Hispanic individuals demonstrated the highest number of diabetes deaths in both the County and the State. The patterns between County and State appeared similar in terms of male and female diabetes mellitus mortality rate. Men appeared to experience higher rates of mortality than females. The rate differences between men in the County and State were minimal. These differences, however, were much larger for females.

**Table 20. Gender and Racial Disparities in Diabetes Mellitus Mortality (Five-Year Aggregate, 2009-2013)**

| Race/Gender                    | Beaufort County |      | na    |      |
|--------------------------------|-----------------|------|-------|------|
|                                | #               | Rate | #     | Rate |
| White, Non-Hispanic            | 45              | 19.0 | 7,043 | 17.4 |
| African American, Non-Hispanic | 39              | 55.6 | 3,835 | 43.4 |
| Other Races, Non-Hispanic      | 0               | N/A  | 53    | 9.9  |
| Hispanic                       | 0               | N/A  | 94    | 8.1  |
| Male                           | 36              | 25.8 | 5,738 | 25.7 |
| Female                         | 48              | 24.6 | 5,482 | 18.4 |
| Overall                        | 84              | 25.9 | 8,890 | 17.9 |

Note: The use of "N/A" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.

Source: NC State Center for Health Statistics, County-level Data, County Health Data Book (2014), Mortality, 2009-2013 NC Resident Race/Ethnicity and Sex-Specific Age-Adjusted Death Rates, by County;  
<http://www.schs.state.nc.us/SCHS/data/databook/>

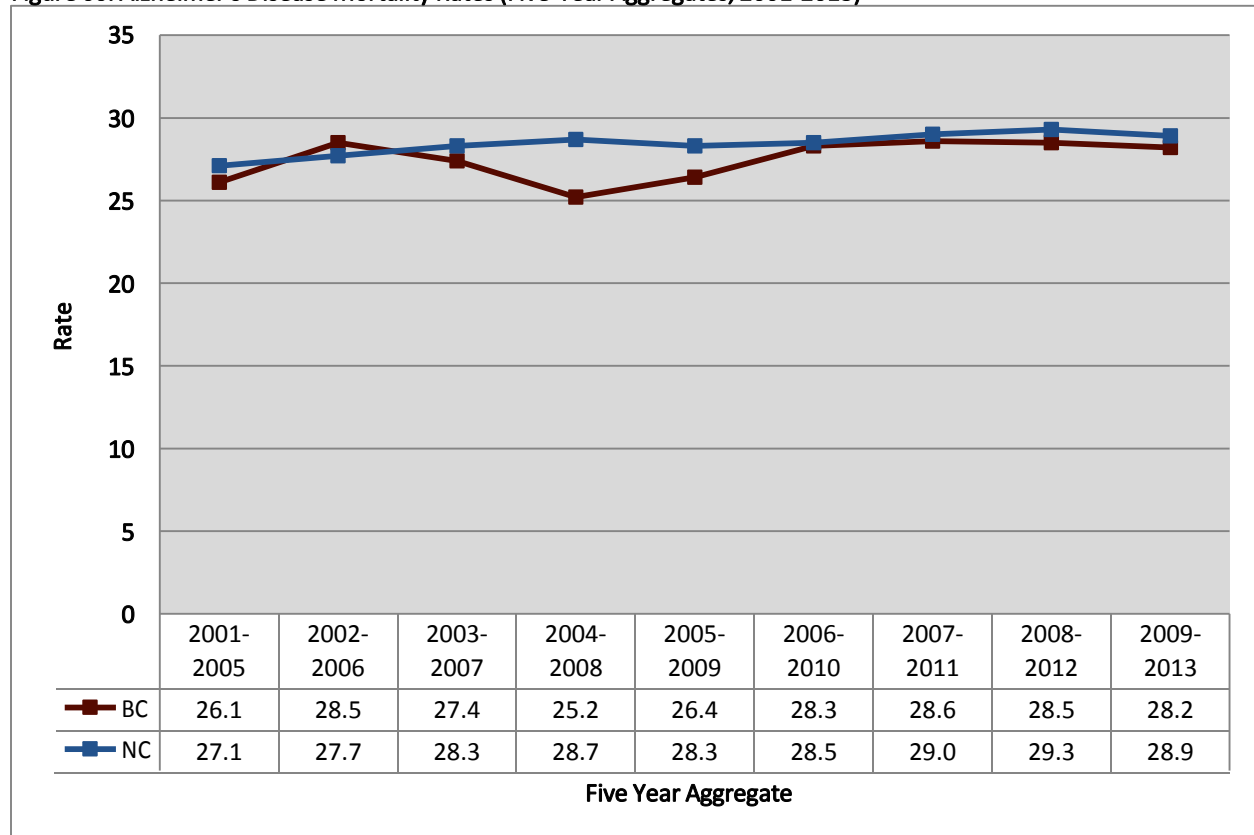
## Alzheimer's Disease

Alzheimer's disease is a form of dementia that is characterized by multiple deficiencies in brain functioning. These deficiencies can have an effect on memory, thinking, and behavior. For the majority of those affected by Alzheimer's disease, these symptoms have appeared after the age of 65.

### *Alzheimer's Disease Mortality Rate Trend*

Despite the decrease between 2004 and 2008, Beaufort County has demonstrated a similar mortality rate trend to that of North Carolina (see Figure 60). The mortality rates of the County and the State have been approximately the same from 2006 to 2013.

**Figure 60. Alzheimer's Disease Mortality Rates (Five-Year Aggregates, 2001-2013)**



Source 2001-2005 through 2004-2008: NC State Center for Health Statistics, County Health Data Books (2007-2010), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>; 2005-2009 through 2008-2012: NC State Center for Health Statistics, Statistics and Reports, Vital Statistics, NC Vital Statistics Volume II: Leading Causes of Death, 2009, 2010, 2011 and 2012; <http://www.schs.state.nc.us/data/vital.cfm#vitalvol2>

***Gender and Racial Disparities in Alzheimer's Disease Mortality***

There are gender and racial disparities in Alzheimer's disease mortality rates in Beaufort County and North Carolina (see Table 21). African American, Non-Hispanic individuals had the highest rate in the County (35.4) and White, Non-Hispanic individuals had the highest rate in the State (29.8). Furthermore, the statewide mortality rate for women (32.0) was much higher than that for men (23.0). However, there was only a slight difference between the rates of men (27.5) and women (27.8) at the County level.

**Table 21. Gender and Racial Disparities in Alzheimer's Disease Mortality (Five-Year Aggregate, 2008-2012)**

| Race/Gender                    | Beaufort County |      | na     |      |
|--------------------------------|-----------------|------|--------|------|
|                                | #               | Rate | #      | Rate |
| White, Non-Hispanic            | 64              | 26.5 | 11,856 | 29.8 |
| African American, Non-Hispanic | 24              | 35.4 | 1,932  | 26.3 |
| Other Races, Non-Hispanic      | 0               | N/A  | 35     | 9.2  |
| Hispanic                       | 0               | N/A  | 57     | 9.9  |
| Male                           | 30              | 27.5 | 3,938  | 23.0 |
| Female                         | 58              | 27.8 | 10,062 | 32.0 |
| Overall                        | 88              | 28.2 | 14,000 | 28.9 |

Note: The use of "N/A" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.

Source: NC State Center for Health Statistics, County Health Data Books, Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>

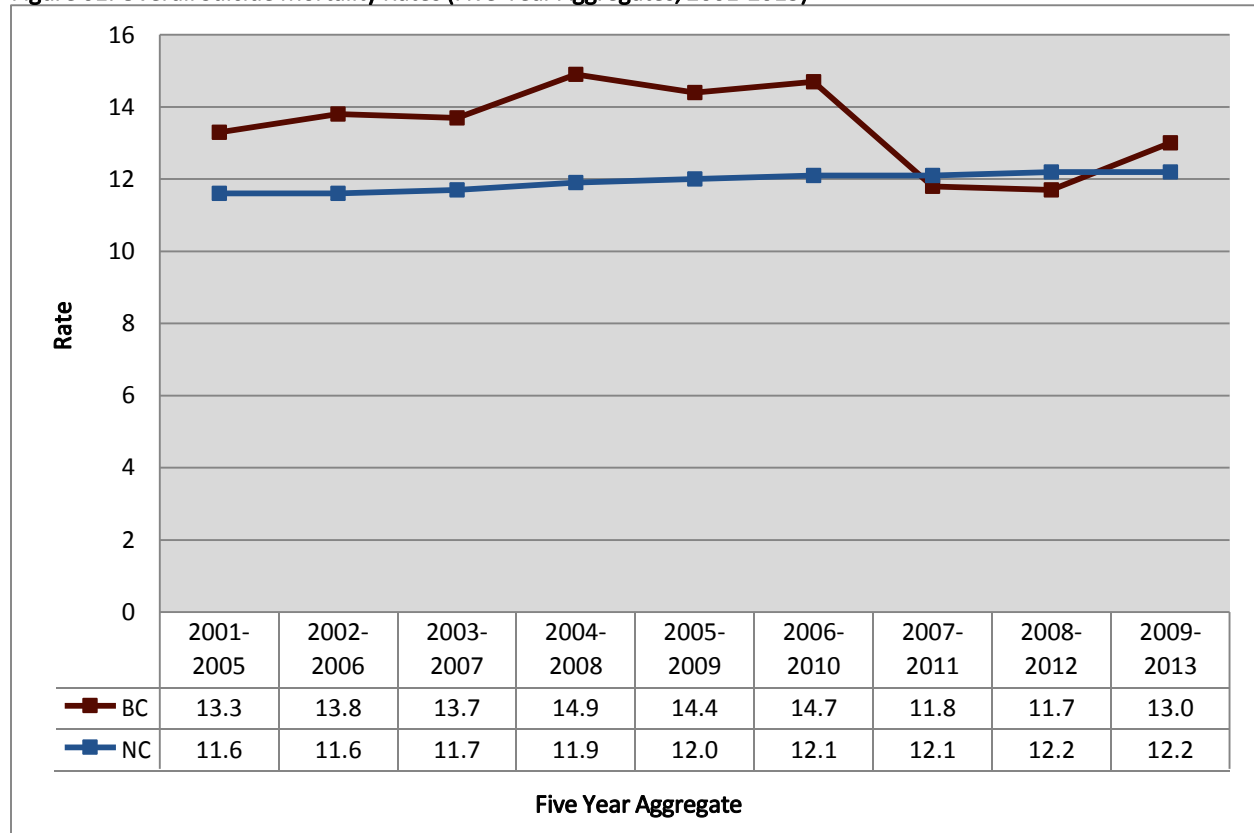
## Suicide

Suicide is the act of intentionally taking one’s own life. Reasons for committing suicide vary by individual, but can typically be attributed to mental illness or stress factors such as financial issues and interpersonal conflict.

### *Suicide Mortality Rate Trend*

Suicide mortality rates represent the proportions of community members who intentionally cause their own death. Overall, the suicide rates in the State of North Carolina have remained stable from 2001 to 2013, with a slight increase over time. However, Beaufort County suicide mortality rates have been less stable compared to the State. Between 2001 and 2010, the County experienced an increase in suicide rates from 13.3 to 14.7. While rates did decrease between 2007 and 2012, the most recent rates suggest that the number has started to increase again (see Figure 61).

**Figure 61. Overall Suicide Mortality Rates (Five-Year Aggregates, 2001-2013)**



Source: NC State Center for Health Statistics, County Health Data Books, Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>



***Gender and Racial Disparities in Suicide Mortality***

White, Non-Hispanic individuals make up the largest portion of suicide rates in Beaufort County (18.5) and in North Carolina (15.7). Further, men were more likely to commit suicide compared to women during this five-year period (see Table 22).

**Table 22. Gender and Racial Disparities in Suicide Mortality (Five-Year Aggregate, 2008-2012)**

| Race/Gender                    | Beaufort County |      | na    |      |
|--------------------------------|-----------------|------|-------|------|
|                                | #               | Rate | #     | Rate |
| White, Non-Hispanic            | 32              | 18.5 | 5,315 | 15.7 |
| African American, Non-Hispanic | 2               | N/A  | 497   | 4.8  |
| Other Races, Non-Hispanic      | 0               | N/A  | 65    | 5.1  |
| Hispanic                       | 0               | N/A  | 130   | 3.6  |
| Male                           | 27              | 21.5 | 2,119 | 9.0  |
| Female                         | 7               | N/A  | 623   | 2.5  |
| Overall                        | 34              | 13.0 | 2,742 | 5.8  |

Note: The use of "N/A" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.

Source: NC State Center for Health Statistics, County Health Data Books, Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>

## Morbidity

Morbidity refers to the presence of a particular illness or disease in a given population. The following tables depict numbers and rates of individuals living with sexually transmitted infections, asthma, diabetes, and obesity in Beaufort County and North Carolina.

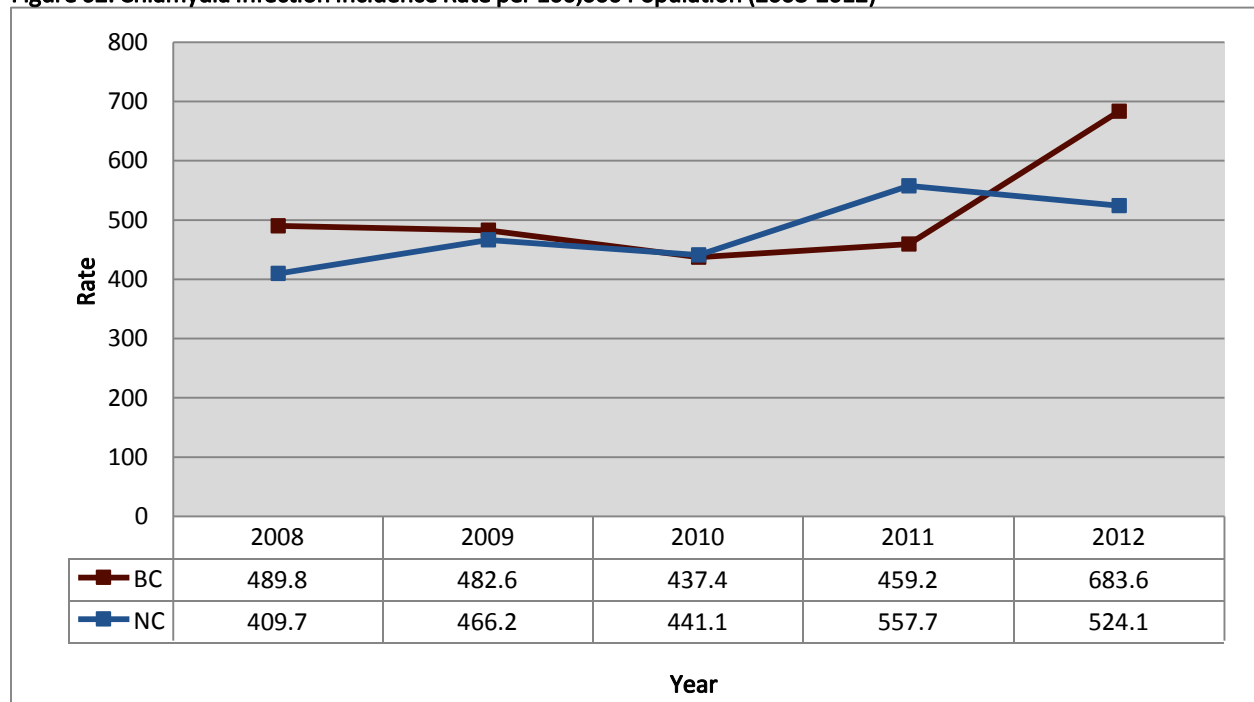
### Sexually Transmitted Infections

Sexually transmitted infections (STIs) are infections that are passed from person to person through sexual contact. The following tables and graphs reflect statistics related to two STIs (i.e., chlamydia and gonorrhea) as well as HIV.

#### *Chlamydia*

Chlamydia is a more common STI in both Beaufort County and the North Carolina (see Figure 62). Beaufort County chlamydia rates have remained slightly higher than the North Carolina state average with the exception of 2011 (459.2 in Beaufort; 557.7 in North Carolina). Lastly, while the rate of chlamydia cases slightly decreased between 2011 and 2012 in North Carolina, they rose significantly in Beaufort County (459.2 to 683.6).

**Figure 62. Chlamydia Infection Incidence Rate per 100,000 Population (2008-2012)**

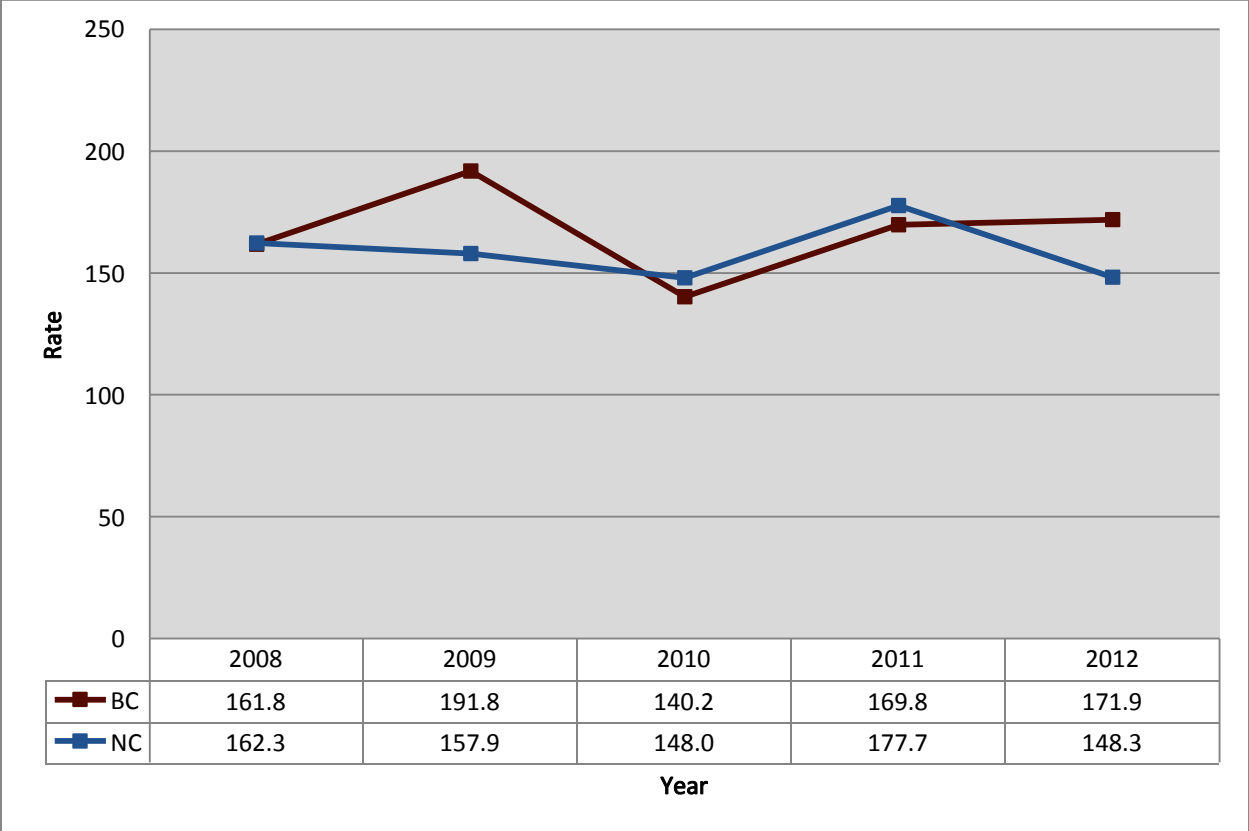


Source: NC DHHS, Division of Public Health, Epidemiology Section, Communicable Disease Branch. Facts and Figures, Annual Reports. North Carolina 2012 HIV/STD Surveillance Report, Table 7; <http://epi.publichealth.nc.gov/cd/stds/figures/std11rpt.pdf>

***Gonorrhea***

Between 2008 and 2009, the gonorrhea infection rate jumped from 161.8 to 191.8 in Beaufort County (see Figure 63). The lowest incidence rates for this STI were in 2010. Finally, while rates dropped significantly in 2012 for the State, the slightly increased in the County (169.8 to 171.9).

**Figure 63. Gonorrhea Infection Incidence Rate per 100,000 Population (2008-2012)**



Source: NC DHHS, Division of Public Health, Epidemiology Section, Communicable Disease Branch. Facts and Figures, Annual Reports. North Carolina 2012 HIV/STD Surveillance Report, Table 8; <http://epi.publichealth.nc.gov/cd/stds/figures/std12rpt.pdf>

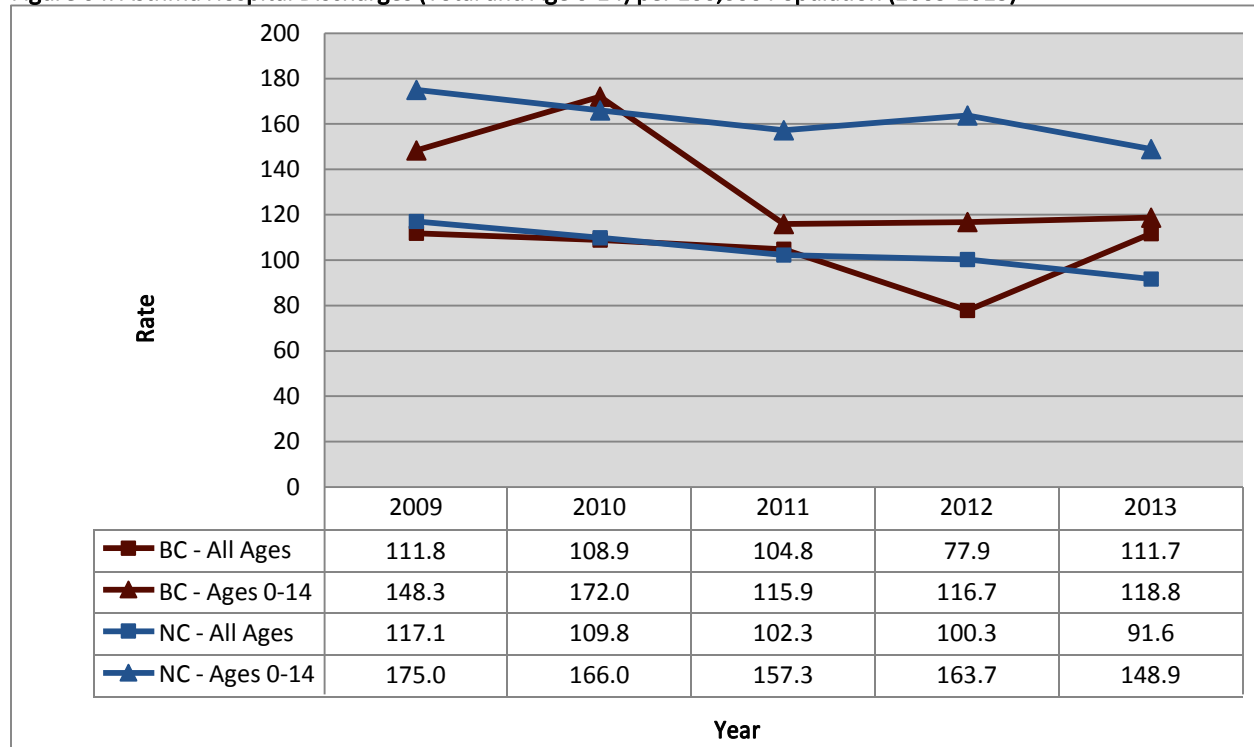
***Human Immune Deficiency Virus (HIV)***

The human immune deficiency virus (HIV) is spread through sexual contact and can lead to a more severe syndrome known as AIDS. The total number of individuals living with HIV/AIDS in the State of North Carolina is 27,068. Specifically, less than one percent of these cases are in Beaufort County, which has a total of 110 individuals living with HIV/AIDS.

## Asthma

With the exception of 2010, the hospital discharge rates of children age 14 and under for asthma has been consistently lower in Beaufort County compared to the rest of the state (see Figure 64). Similarly, the rate of hospital discharges for all ages showed a similar decrease in the County and the State between 2009 and 2011. Approximately 16.9 percent of CHA survey participants reported being diagnosed with asthma by a doctor or health professional. Further, when asked about various preventative screenings, 11.9 percent self-reported that they have undergone a screening for asthma in the past three years.

**Figure 64. Asthma Hospital Discharges (Total and Age 0-14) per 100,000 Population (2009-2013)**



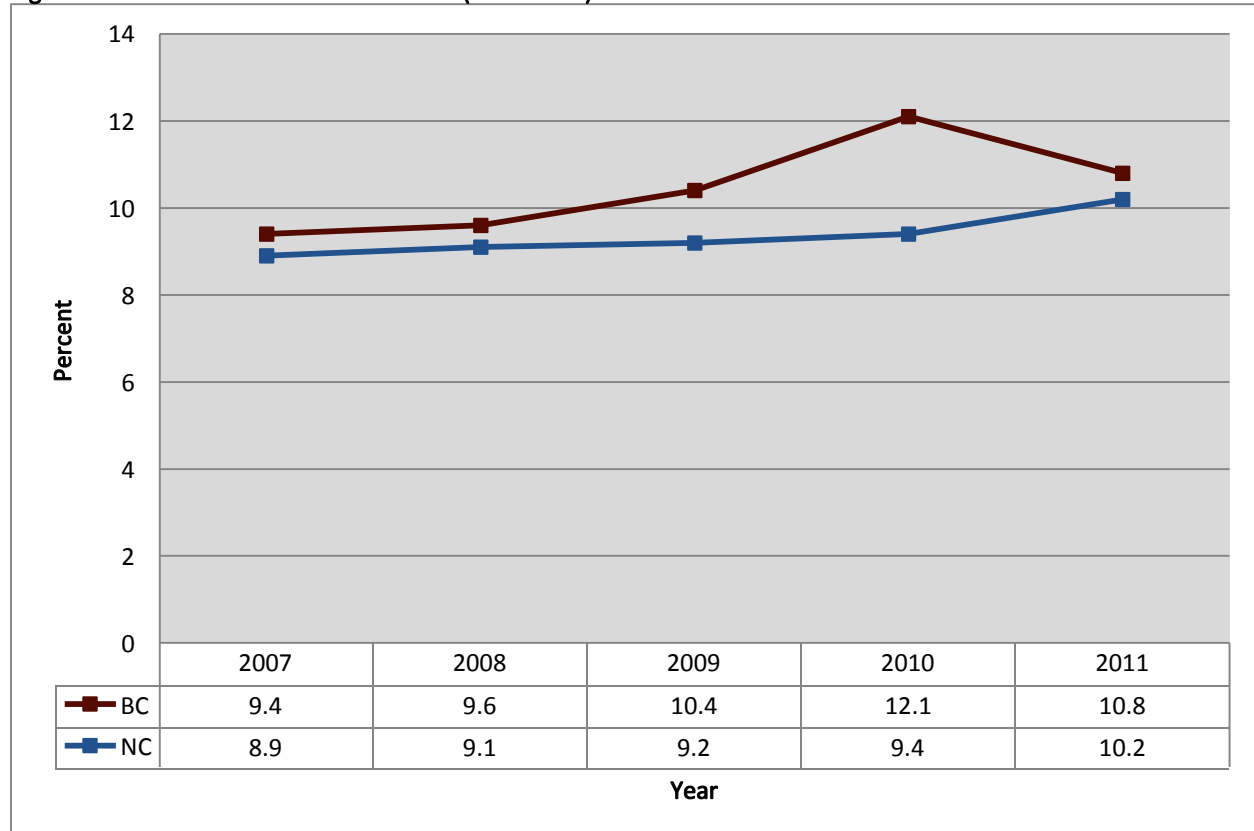
Source: NC State Center for Health Statistics, County-level Data, County Health Data Book (2010-2014), Morbidity, Asthma Hospital Discharges (Total and Age 0-14) per 100,000 Population (years and counties as noted); <http://www.schs.state.nc.us/SCHS/data/databook>

## Diabetes

There has been a steady increase in diabetes prevalence among adult community members and the State between 2007 and 2011 (see Figure 65). However, between 2010 and 2011, Beaufort County experienced a small decrease in this percentage (by 1.3 percent). According to CHA survey results, approximately 37.3 percent of participants self-reported that they have been screened for diabetes in the last three years. Additionally, 15.9 percent of these community members have actually been diagnosed with diabetes.

Diabetes was identified as a topic that survey respondents would like to learn more about and was also discussed by focus group members. Specifically, community members identified it as a serious problem affecting the community. One focus group participant said, “I’ve been a school nurse for eight years and I went from maybe four or five diabetics to 12 in a year. Specifically, within students from 6<sup>th</sup> to 12<sup>th</sup> grade, Type 2 diabetes is more popular than it used to be.”

**Figure 65. Prevalence of Diabetes in Adults (2007-2011)**



Source: Centers for Disease Control and Prevention, Obesity Data and Trends, County Level Estimates of Diagnosed Diabetes - of Adults in North Carolina, 2007-2011; <http://apps.nccd.cdc.gov/ddtstrs/default.aspx>

## Obesity

Overweight/obesity (29.9 percent) is the second leading self-reported health condition amongst CHA survey participants. Supporting this, several participants reported that they would personally like more information about weight management, healthy eating, and weight loss. Finally, about 20 percent of the CHA participants indicated Beaufort County community members need to learn more about weight management.

### *Obesity in Adults*

The prevalence statistics between 2008 and 2010 suggest that Beaufort County presents a higher percentage of obese adults compared to the State (see Table 23). The percentage of obese adults peaked in the County in 2009 (35.7 percent) and dropped slightly the following year.

**Table 23. Prevalence of Obesity in Adults (2008-2010)**

| Year | Adult Diagnosed Obesity |      |                |      |
|------|-------------------------|------|----------------|------|
|      | Beaufort County         |      | North Carolina |      |
|      | #                       | %    | #              | %    |
| 2008 | 11,690                  | 33.7 | N/A            | 28.7 |
| 2009 | 12,516                  | 35.7 | N/A            | 29.5 |
| 2010 | 12,411                  | 34.3 | N/A            | 30.1 |

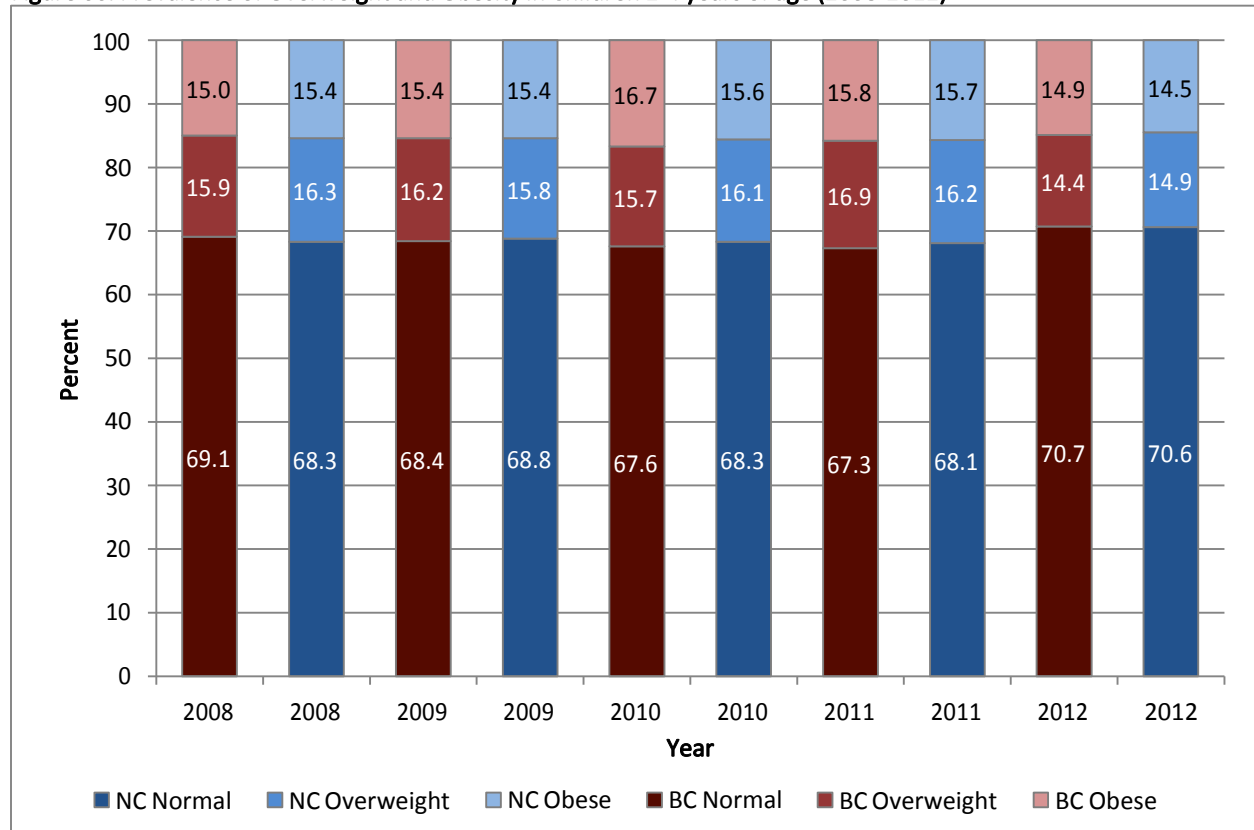
Note: North Carolina Numerical Data not available

Source: Centers for Disease Control and Prevention, Obesity Data and Trends, County Level Estimates of Diagnosed Obesity - of Adults in North Carolina, 2008-2010; <http://apps.nccd.cdc.gov/ddtstrs/default.aspx>

### *Obesity in Children and Youth*

The percentage of overweight or obese children and youth has fluctuated slightly over the five-year period (see Figure 66). Compared to the State, Beaufort County obesity levels have remained similar. In 2012, both the County and the State experienced a decrease in childhood overweight and obesity. However, focus group members still report the prevalence of this issue. One focus group member stated, "We deal with obesity a lot with the kids because they're not exercising as much."

**Figure 66. Prevalence of Overweight and Obesity in Children 2-4 years of age (2008-2012)**



Source: Eat Smart, Move More, Data on Children and Youth in NC, North Carolina Nutrition and Physical Activity Surveillance System (NC-NPASS), NC-NPASS Data (2008-2012), counties and age groups as noted; <http://www.eatsmartmovemorenc.com/Data/ChildAndYouthData.html>

### Oral Health

Almost half of survey respondents from Beaufort County reported that they did not have dental health insurance. Moreover, only 30 percent of Medicaid eligible Beaufort County residents actually receive dental services.

#### *Adult Oral Health*

The information below represents the number of individuals who are eligible for dental services through Medicaid and the percentage of eligible individuals who are receiving these services. The percentage of individuals receiving Medicaid insurance for dental services in Beaufort County is higher amongst those who are less than 21 years old (45.8 percent) compared to those who are older than 21 (29.8 percent). This pattern is consistent among North Carolina Medicaid users, except the percentages are slightly higher for the State (see Table 24).

**Table 24. Dental Service Utilization by Medicaid Recipients by Age Group (SFY2010)**

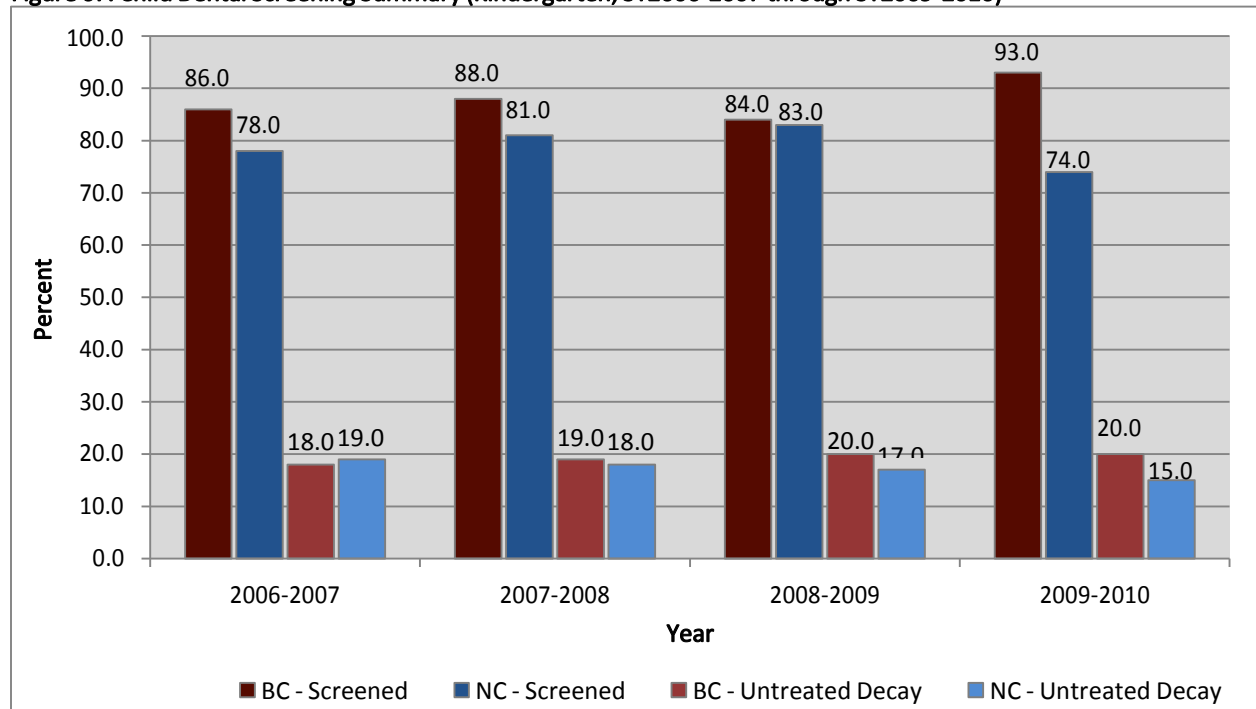
| Location        | < 21 Years of Age     |                    |                                    | 21+ Years of Age      |                    |                                    |
|-----------------|-----------------------|--------------------|------------------------------------|-----------------------|--------------------|------------------------------------|
|                 | Eligible for Services | Receiving Services | People Eligible Receiving Services | Eligible for Services | Receiving Services | People Eligible Receiving Services |
|                 | #                     | #                  | %                                  | #                     | #                  | %                                  |
| Beaufort County | 6,552                 | 3,004              | 45.8                               | 4,895                 | 1,457              | 29.8                               |
| North Carolina  | 1,113,692             | 541,210            | 48.6                               | 679,139               | 214,786            | 31.6                               |

Source: NC DHHS, NC Division of Medical Assistance, Statistics and Reports, County Specific Snapshots for NC Medicaid Services (2011); <http://www.ncdhhs.gov/dma/countyreports/index.htm>

**Child Oral Health**

Overall, Beaufort County kindergarteners (see Figure 67) and 5<sup>th</sup> graders (see Figure 68) get more dental screenings than the North Carolina average. However, the percentage of untreated decay amongst Beaufort County children is similar to the State percentages. The percentage of screened kindergarteners in Beaufort has increased from 86 percent to 93 percent between 2006 and 2010.

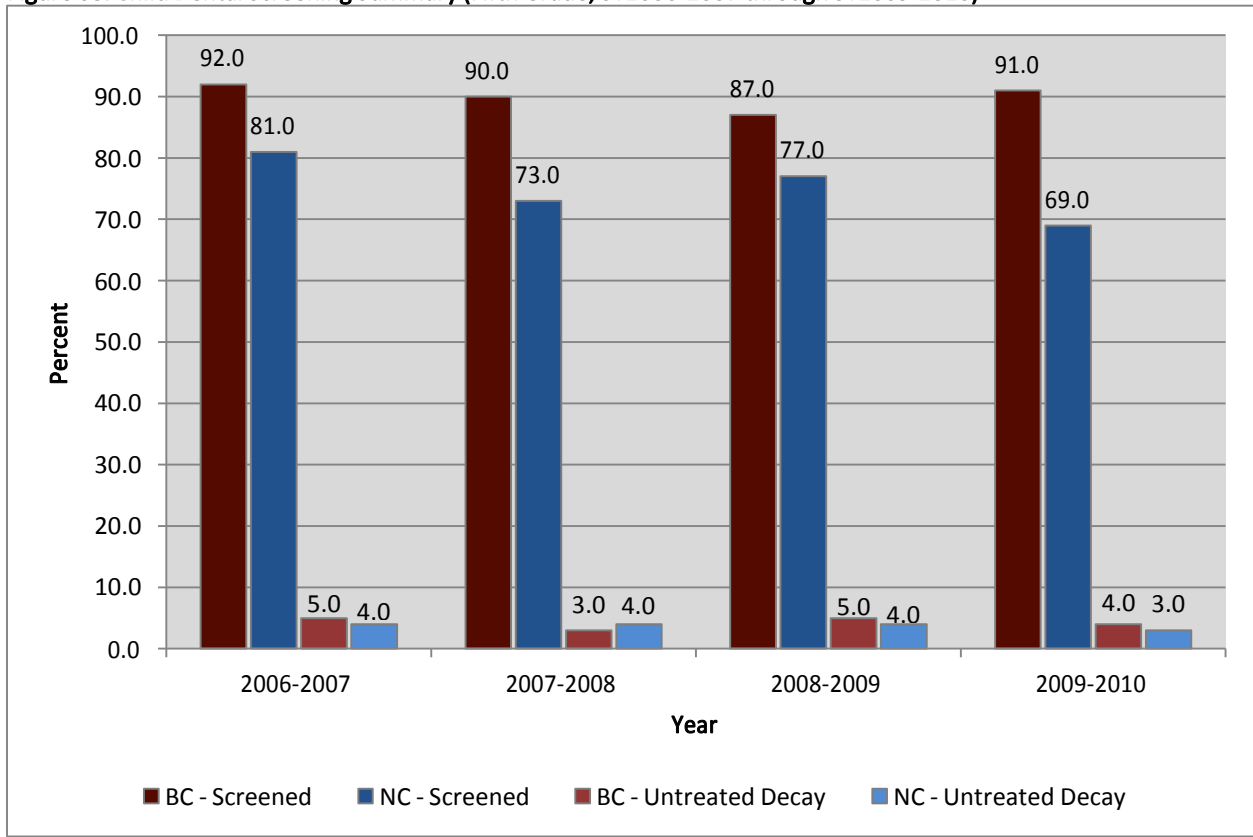
**Figure 67. Child Dental Screening Summary (Kindergarten; SY2006-2007 through SY2009-2010)**



Source: NC DHHS, Oral Health, References and Statistics, School Oral Health Assessments, NC County Level Oral Health Assessment Data by Year (years and counties as noted); <http://www.ncdhhs.gov/dph/oralhealth/stats/MeasuringOralHealth.htm>



**Figure 68. Child Dental Screening Summary (Fifth Grade; SY2006-2007 through SY2009-2010)**



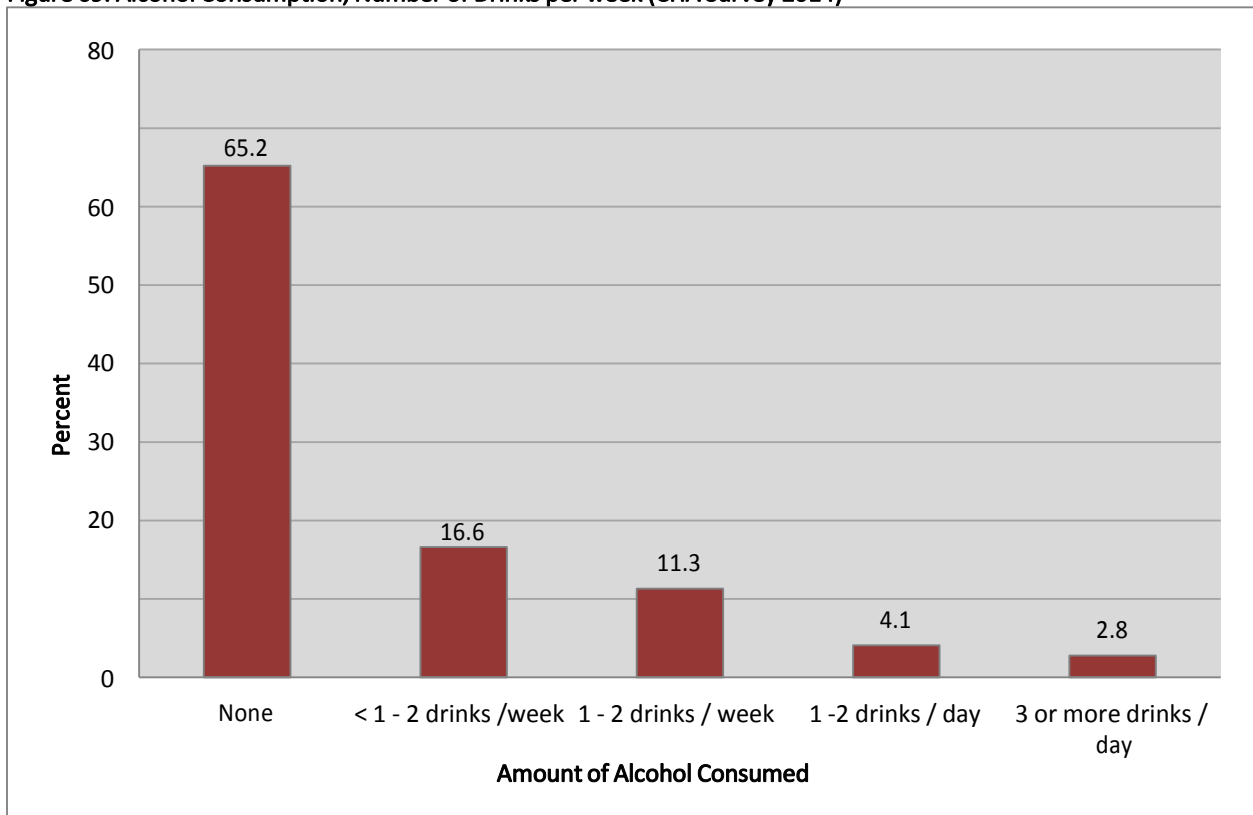
Source: NC DHHS, Oral Health, References and Statistics, School Oral Health Assessments, NC County Level Oral Health Assessment Data by Year (years and counties as noted); <http://www.ncdhhs.gov/dph/oralhealth/stats/MeasuringOralHealth.htm>

## Substance Use

### *Alcohol and Drugs*

Alcohol and drug abuse (44.7 percent) was recognized as the biggest issue affecting quality of life in the county. However, the majority (65.2 percent) of CHA survey participants reported having consumed zero alcoholic beverages on a weekly basis (see Figure 69). Also, almost all (97 percent) report that they have never illegally used drugs (see Table 25). These numbers reveal a possible discrepancy between perception of abuse and actual behavior. Although survey participants did not report significant alcohol or drug abuse themselves, they believe it is a significant problem impacting the County.

**Figure 69. Alcohol Consumption, Number of Drinks per week (CHA Survey 2014)**



Source: Beaufort County Community Health Needs Assessment Survey 2014.

**Table 25. Drug Use and Abuse (CHA Survey 2014)**

| Drug Use Question                | % Never | % Occasionally | % Routinely |
|----------------------------------|---------|----------------|-------------|
| Do you use illegal drugs?        | 97.6    | 2.2            | 0.2         |
| Do you abuse prescription drugs? | 97.0    | 2.4            | 0.6         |

Source: Beaufort County Community Health Needs Assessment Survey 2014.

## ***Tobacco Use***

The CHA survey also obtained self-reported data regarding the tobacco use of Beaufort County residents (see Table 26). Among respondents, 17.6 percent smoke, 3.1 percent chew tobacco, and 23.8 percent are frequently exposed to secondhand smoke. Of the respondents that use tobacco products, most (64.3 percent) would like to stop and had tried to stop in the last year (56.2 percent). Some had tried using medication to stop (21.2 percent) and more said they would be willing to attend smoking cessation classes (31.5 percent; see Table 27). In regards to health education, 15.6 percent of survey respondents caring for a child indicated that they would like their child to learn more about tobacco use.

**Table 26. Tobacco Use and Exposure (CHA Survey 2014)**

| <b>Tobacco Use Question</b>                            | <b>% (Yes)</b> |
|--|----------------|
| <b>Do you smoke?</b>                                   | 17.6           |
| <b>Do you chew tobacco?</b>                            | 3.1            |
| <b>Are you frequently exposed to secondhand smoke?</b> | 23.8           |

Source: Beaufort County Community Health Needs Assessment Survey 2014.

**Table 27. Desire and Attempts to Quit Smoking (CHA Survey 2014)**

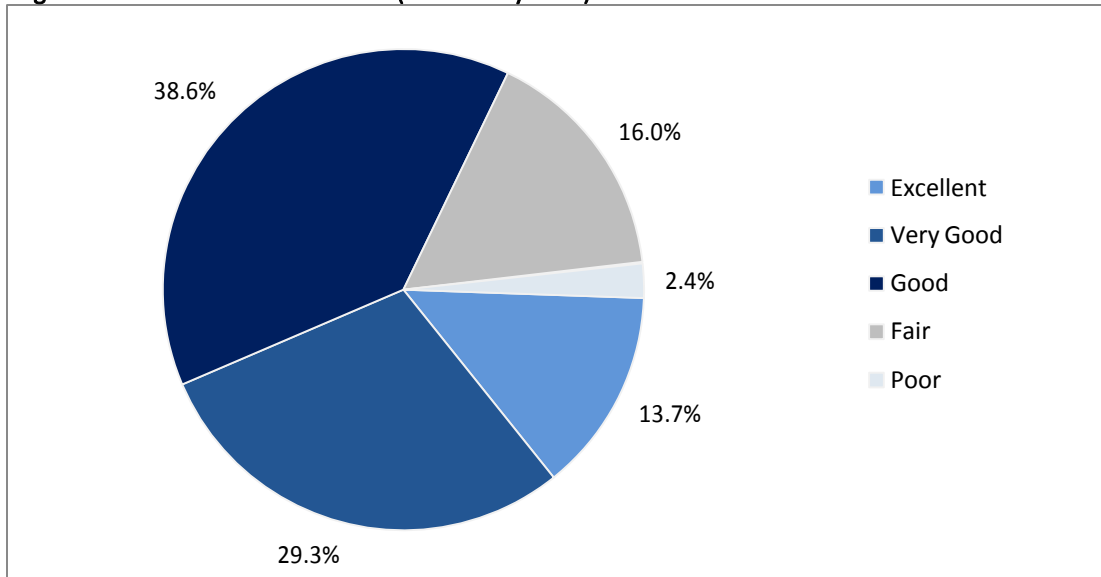
| <b>Smoking Cessation Question</b>                  | <b>% Yes</b> | <b>% No</b> | <b>% Not Sure</b> |
|--|--------------|-------------|-------------------|
| <b>Do you want to stop using tobacco products?</b> | 64.3         | 15.4        | 20.4              |
| <b>Have you tried to stop in the last year?</b>    | 56.2         | 39.4        | 4.4               |
| <b>Have you tried medication to stop?</b>          | 21.2         | 76.6        | 2.2               |
| <b>Would you attend smoking cessation classes?</b> | 31.5         | 48.7        | 19.8              |

Source: Beaufort County Community Health Needs Assessment Survey 2014.

## **Healthy Habits**

Survey participants were asked to select the description that best fits their perceived general health. Most residents indicated that their health is good, very good, or excellent (see Figure 70). The largest portion of survey participants (38.6 percent) believed their health is good.

**Figure 70. Perceived General Health (CHA Survey 2014)**



Source: Beaufort County Community Health Needs Assessment Survey 2014.

CHA survey participants were asked to indicate whether they engage in specific healthy habits (see Table 28). The most commonly reported healthy habits were wearing a seat belt (97.7 percent) and washing hands before eating (97.4 percent). Over two-thirds of respondents find time to relax daily and the majority (65.6 percent) practice safe sex. However, only 39.8 percent of respondents reported that they use sunscreen outside. Finally, 12.3 percent of participants report that they get regular STD / HIV testing (every three months).

**Table 28. Participation in Healthy Habits (CHA Survey 2014)**

| Healthy Habits                       | % (Yes) |
|--------------------------------------|---------|
| Routinely wear a seat belt           | 97.7    |
| Wash hands before eating             | 97.4    |
| Find time to relax daily             | 75.2    |
| Practice safe sex                    | 65.6    |
| Get 7 or more hours of sleep         | 62.7    |
| Get an annual flu shot               | 62.5    |
| Eat fast food less than twice a week | 53.7    |
| Use sunscreen outside                | 39.8    |
| Regular STD / HIV testing            | 12.3    |

Source: Beaufort County Community Health Needs Assessment Survey 2014.

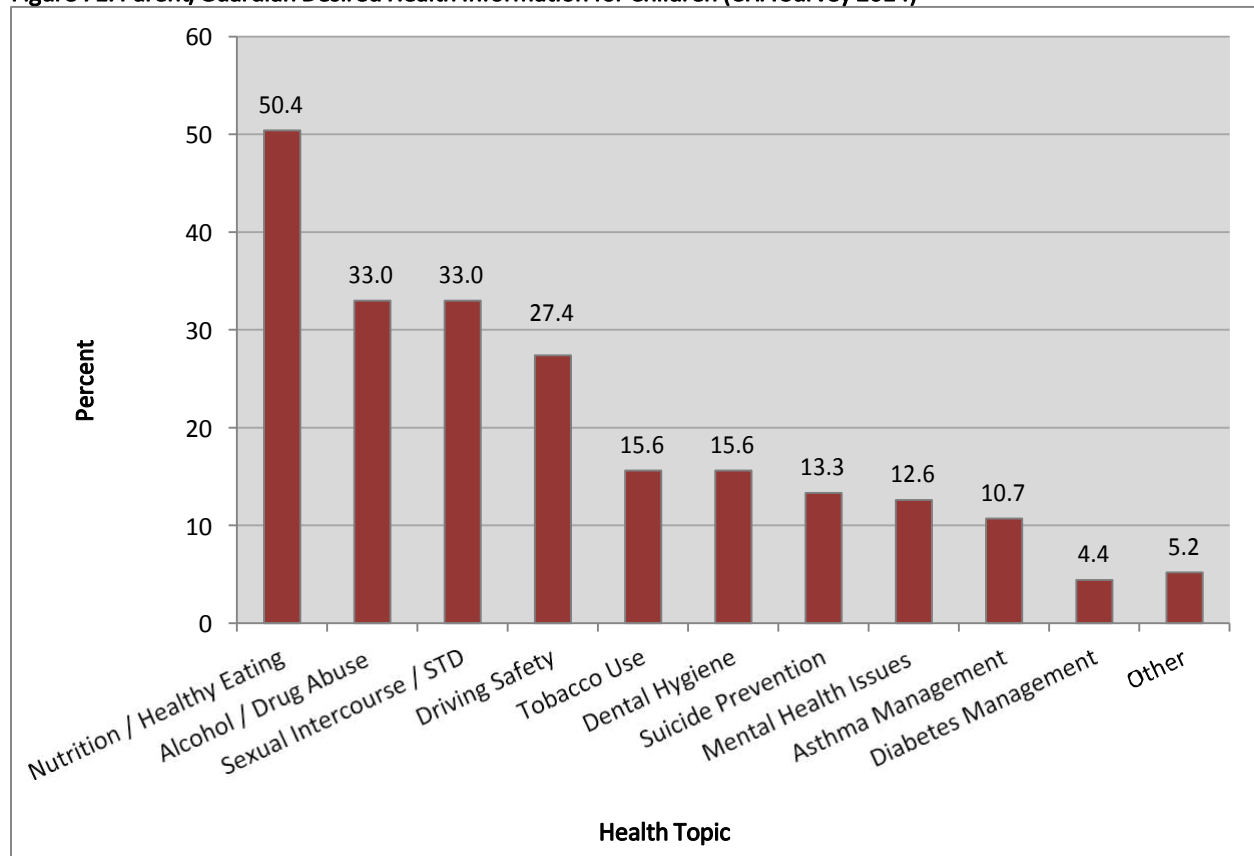
## Medication Compliance

Several focus group members identified compliance with medication as a major issue affecting health in the county. These issues included, “taking the wrong dose of the medication” and failing to take the medication prescribed. When asked how to solve these issues, focus group members suggested that education would be beneficial to helping individuals understand the importance of adhering to their medication regimens.

## Child Health Education

CHA survey participants who reported caring for a child (33.6 percent) were asked to select health topics that they would like their child to learn more about. They were encouraged to choose as many topics as they believe would be beneficial to their child’s education (see Figure 71). The most frequently selected topic was nutrition and healthy eating (50.4 percent), followed by alcohol / drug abuse and sexual intercourse (33.0 percent). Other popular health topics included driving safety (27.4 percent), tobacco use, and dental hygiene (15.6 percent).

**Figure 71. Parent/Guardian Desired Health Information for Children (CHA Survey 2014)**

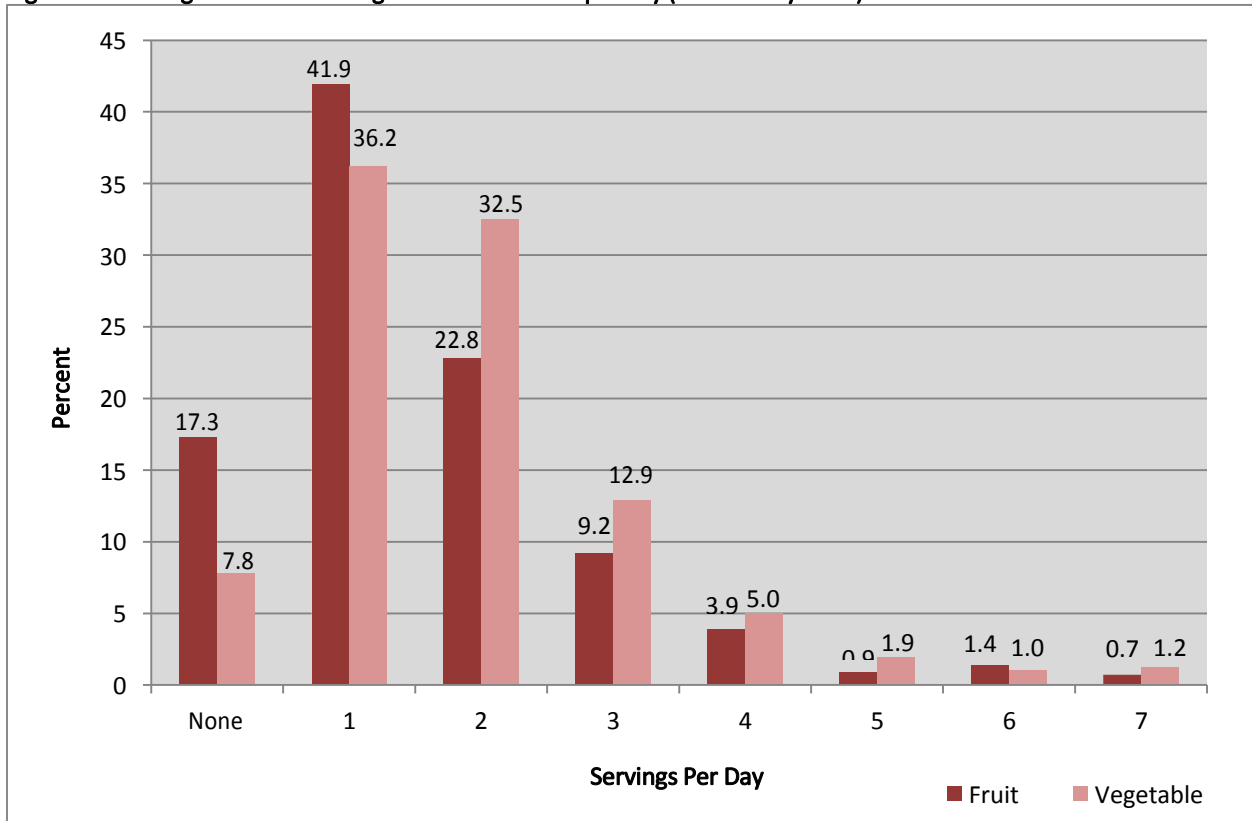


Source: Beaufort County Community Health Needs Assessment Survey 2014.

## Diet and Exercise

Overall, CHA survey participants reported consuming more vegetables than fruits per day (see Figure 72). Most participants report that they consume only one serving of fruit (41.9 percent) and only one serving of vegetables per day (36.2 percent). Further, about half of respondents (50.4 percent) consume two to four servings of vegetables per day.

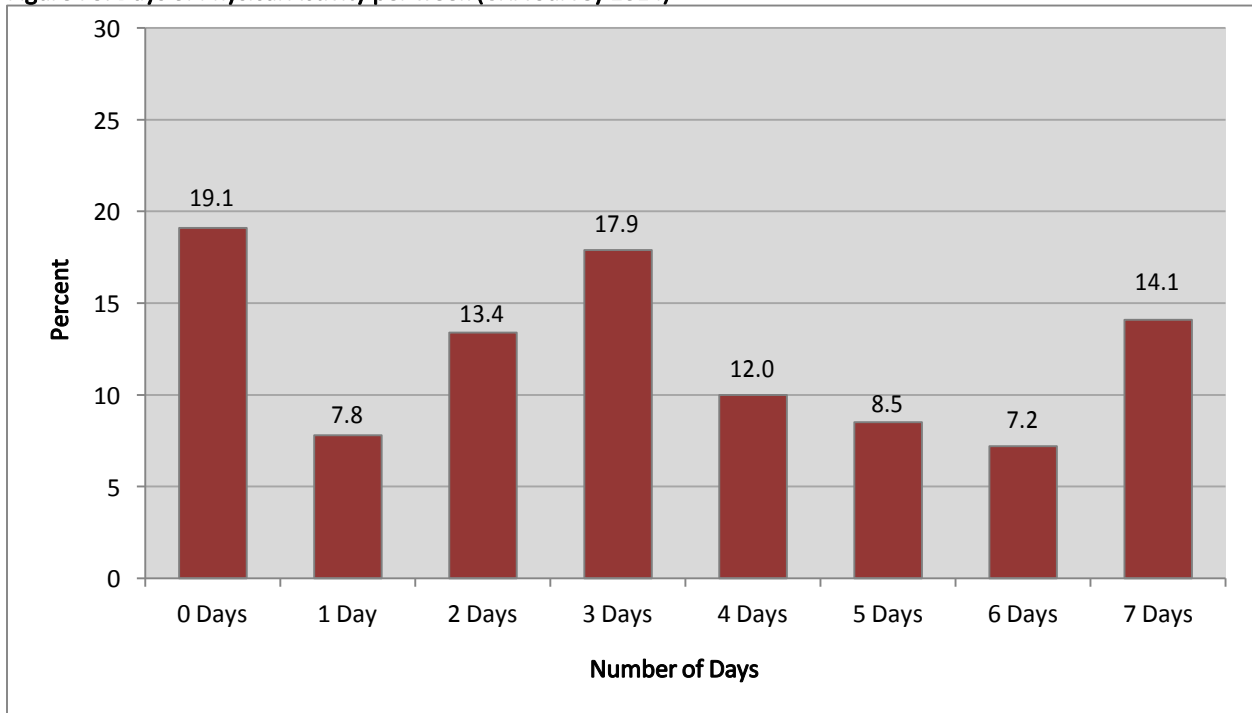
Figure 72. Servings of Fruits and Vegetables Consumed per day (CHA Survey 2014)



Source: Beaufort County Community Health Needs Assessment Survey 2014.

CHA survey participants were asked to self-report how often they engage in at least 30 minutes of physical activity during a normal week (see Figure 73). The most common response to this question was zero days per week (19.1 percent). Those who reported exercising at least one day per week were asked to select locations they utilize for physical activity (see Table 29). Most of these individuals exercise at home (53.8 percent) or in their neighborhood (42.7 percent). Participants who chose “other” reported engaging in physical activity in places such as work, on the waterfront, at the Senior Center, and at the golf course.

**Figure 73. Days of Physical Activity per week (CHA Survey 2014)**



Source: Beaufort County Community Health Needs Assessment Survey 2014.

**Table 29. Locations Used for Physical Activity (CHA Survey 2014)**

| Location                       | % (Yes) |
|--------------------------------|---------|
| Home                           | 53.8    |
| Neighborhood Roads / Sidewalks | 42.7    |
| Private Gym                    | 17.0    |
| Park                           | 13.6    |
| Public Recreation Center       | 12.1    |
| Other                          | 12.6    |

Source: Beaufort County Community Health Needs Assessment Survey 2014.

Survey participants who reported that they engage in zero days of exercise during a normal week were asked to indicate the primary reasons for their inactivity (see Table 30). The most common responses to this question were tiredness (33.3 percent) and a limiting health condition (27.0 percent). Many survey respondents (24.3 percent) and focus group members report that they do not have enough time to exercise. Also, focus group members identified a lack of motivation as a major issue among inactive community members. Finally, only two percent of survey respondents attribute their lack of physical activity to an inability to find a safe place to exercise.

**Table 30. Reasons for Not Engaging in Physical Activity (CHA Survey 2014)**

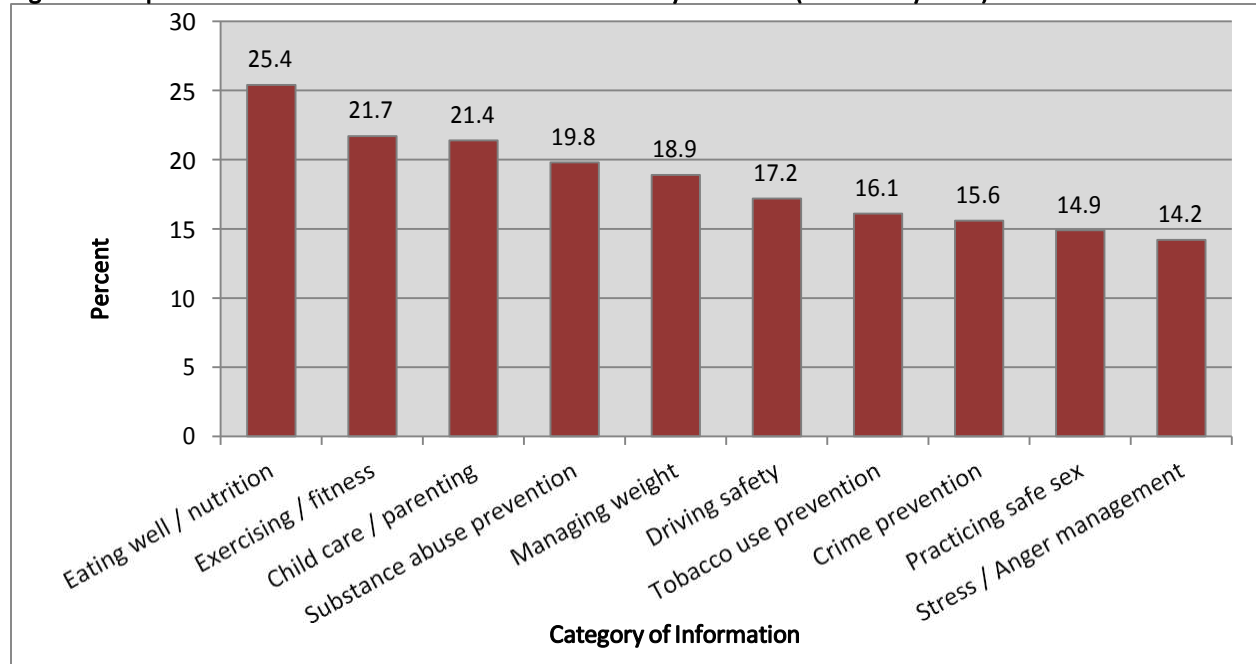
| Reason   | % (Yes) |
|--|---------|
| Too tired                                      | 33.3    |
| A health condition limits my physical activity | 27.0    |
| Not enough time                                | 24.3    |
| I don't like to exercise                       | 22.4    |
| Too costly                                     | 21.2    |
| Exercise is not important to me                | 8.9     |
| My job is physical or hard labor               | 7.6     |
| Lack of child care                             | 7.6     |
| There is no safe place to exercise             | 2.0     |
| Other  | 7.1     |

Source: Beaufort County Community Health Needs Assessment Survey 2014.

### Health Behavior Information

Survey participants were asked to identify the topics of health behavior information that they would like community members to learn more about. The most commonly chosen topics were eating well / nutrition (25.4 percent), exercising / fitness (21.7 percent), and child care/ parenting (21.4 percent; see Figure 74).

**Figure 74. Topics of Health Behavior Information for Community Members (CHA Survey 2014)**



Source: Beaufort County Community Health Needs Assessment Survey 2014.



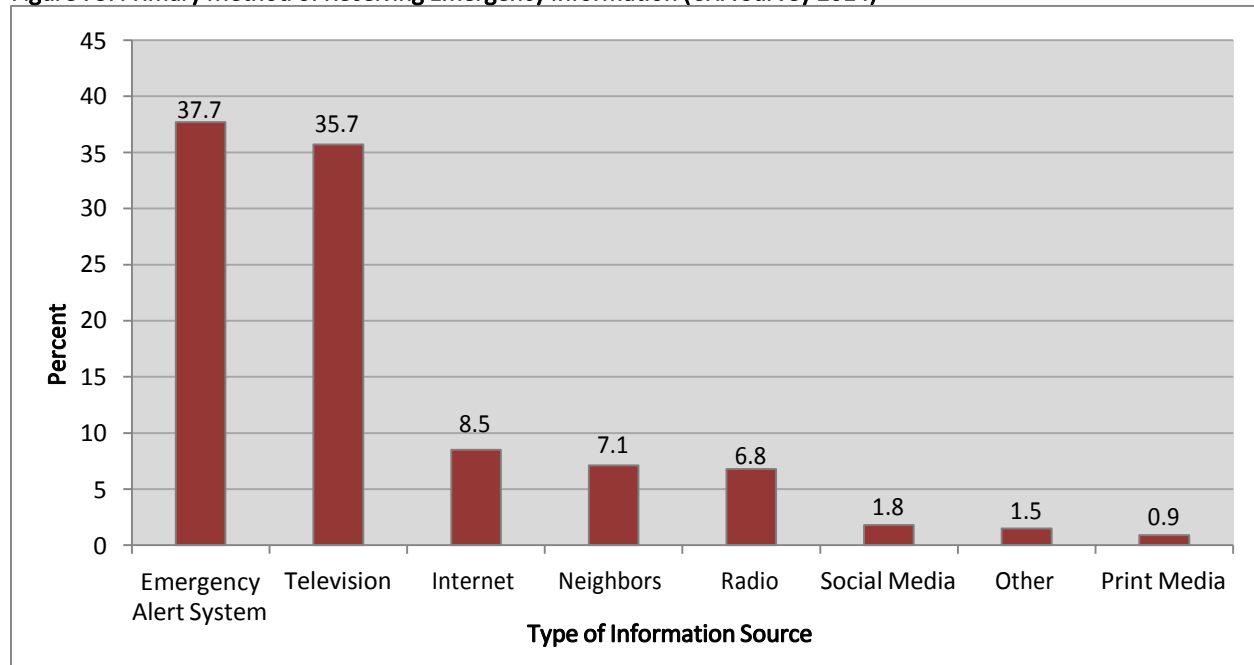
## Emergency Preparedness

There were a number of CHA survey questions that directly target the emergency preparedness of Beaufort County residents. To begin, the majority of survey respondents had smoke detectors (84.9 percent). However, significantly less (30.8 percent) had carbon monoxide detectors. Only a small amount (9.8 percent) had no smoke detector or carbon monoxide detector.

The number of respondents in possession of an emergency supply kit was almost split in half, with most having a kit (55.3 percent). Of the participants that had a kit, the most common number of days that it would last for was three days (25.8 percent) followed by seven days (19.5).

The majority of participants receive emergency information through an emergency alert system (37.7 percent) or the television (35.7 percent; see Figure 75).

**Figure 75. Primary Method of Receiving Emergency Information (CHA Survey 2014)**



Source: Beaufort County Community Health Needs Assessment Survey 2014.

If public authorities announced a mandatory evacuation from the neighborhood or community due to a large-scale disaster or emergency, most residents (73.4 percent) indicated that they would evacuate and a much smaller portion would not (8.8 percent). The remaining (17.8 percent) indicated that they were unsure. For those survey respondents that were unwilling to evacuate, the most popular reasons for not evacuating were concern about leaving property (35.4 percent), having a lack of trust in public officials (14.3 percent), and a lack of transportation (11.8 percent). Furthermore, some survey respondents indicated a variety of other reasons (13.4 percent) including both family and health related reasons as well as work or volunteer reasons.

## Environmental Data

### Air and Water Quality

The NC Division of Air Quality utilizes the Air Quality Color Code Guide (see Figure 76) to alert the public of air quality issues related to ozone and fine particles. Air pollution levels within the range of orange, red, purple or maroon are considered exceeding the Environmental Protection Agency (EPA) standard. In 2014, Beaufort County had 242 “Good” days and 1 “Moderate” day.

**Figure 76. NC Division of Air Quality Color Code Guide**

| Air Quality Index<br>Levels of Health Concern | Numerical<br>Value | Meaning  |
|---|--------------------|--|
| Green/Good                                    | 0-50               | Air quality is considered satisfactory, and air pollution poses little or no risk.   |
| Yellow/Moderate                               | 51-100             | Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people who are unusually sensitive to air pollution. |
| Orange/Unhealthy for Sensitive Groups         | 101-150            | Members of sensitive groups may experience health effects. The general public is not likely to be affected.  |
| Red/Unhealthy                                 | 151-200            | Everyone may begin to experience health effects; members of sensitive groups may experience more serious health effects.   |
| Purple/Very Unhealthy                         | 201-300            | Health alert: everyone may experience more serious health effects.   |
| Maroon/Hazardous                              | >300               | Health warnings of emergency conditions. The entire population is more likely to be affected.  |

Source: US EPA Air Data, Air Quality Index Reports, 2014: [http://www.epa.gov/airdata/ad\\_rep\\_aqi.html](http://www.epa.gov/airdata/ad_rep_aqi.html).

Between 2006 and 2016, three health violations were recorded in Beaufort County. According to the Environmental Protection Agency, a health based violation occurs when the contaminate exceeds safety standards or water was not treated properly. (see Table 31).

**Table 31. Total Population Served, Water Sources, and Health Violations**

| Type of System                       | Total Population Served | Primary Water Source Type | Health Violations 2005-2015 |
|--------------------------------------|-------------------------|---------------------------|-----------------------------|
| <b>Community Water Systems</b>       |                         |                           |                             |
| Aurora Water System                  | 550                     | Ground Water              | 2                           |
| Bath Water System                    | 290                     | Ground Water              | None                        |
| Beaufort Co Northside Regional Water | 20140                   | Ground Water Purchased    | None                        |
| Beaufort Co Southside                | 8361                    | Ground Water              | None                        |
| Belhaven Water System                | 1960                    | Ground Water              | None                        |
| Chocowinity Water System             | 2550                    | Ground Water              | None                        |
| City of Washington                   | 10613                   | Ground Water              | None                        |
| Whitley's MHP                        | 270                     | Ground Water              | 1                           |
| <b>Total</b>                         | <b>44,734</b>           |                           |                             |

Source: United States Environmental Protection Agency, Envirofacts, Safe Drinking Water Information Systems Search, Beaufort County: <http://www.epa.gov/enviro/facts/sdwis/search.html>.

## Peer County Comparisons

According to the CHA Guidelines, comparisons must be made between the county of interest and peer counties regarding secondary data. Peer counties are determined by their similarity in population size, density, age/race distributions, and poverty levels. The following counties have been identified as peer counties for Beaufort County: 1) Ashe, 2) Cherokee, and 3) Macon. Beaufort County was better than its peers in both of the income categories, percent of students qualifying for free or reduced lunch, homicide rate, primary care provider ratio and infant mortality. Beaufort County was worse than its peer counties on all other factors, especially average SAT score, both violent and property crime, as well as mortality due to cancer, heart disease and diabetes (see Figure 77).

Figure 77. Peer County Comparison (Beaufort v. Average of Ashe, Cherokee, Macon)

| Domain    | Indicator  | Beaufort | Peer County Comparison |                    |
|-----------|--|----------|------------------------|--------------------|
|           |  |          | Below Avg.             | Average Above Avg. |
| Education | High School Diploma or Higher (%)                  | 81.7     |                        |                    |
|           | Associate's Degree (%)                             | 9.4      |                        |                    |
|           | Bachelor's Degree or Higher (%)                    | 18.3     |                        |                    |
|           | Drop-Out Rate                                      | 2.05     |                        |                    |
|           | SAT Scores   | 938      |                        |                    |
| Economy   | Median Annual Household Income                     | \$40,429 |                        |                    |
|           | Per Capita Income                                  | \$22,206 |                        |                    |
|           | Persons Below Poverty Level (%)                    | 21.0     |                        |                    |
|           | Unemployment Rate                                  | 7.6      |                        |                    |
|           | Students Qualifying for Free and Reduced Lunch (%) | 67.29    |                        |                    |
| Social    | Violent Crime Rate                                 | 352.8    |                        |                    |
|           | Property Crime Rate                                | 3,259.7  |                        |                    |
|           | Homicide Rate                                      | 4.2      |                        |                    |
|           | Population Uninsured (%)                           | 17.9     |                        |                    |
|           | Primary Care Provider Ratio                        | 1,987:1  |                        |                    |
| Health    | Infant Mortality Rate                              | 7.6      |                        |                    |
|           | Repeat Teen Pregnancy Rate                         | 16.3     |                        |                    |
|           | Cancer Mortality Rate                              | 194      |                        |                    |
|           | Heart Disease Mortality Rate                       | 198.6    |                        |                    |
|           | Diabetes Mortality Rate                            | 25.9     |                        |                    |

## Peer County Comparison Sources

### Education

Educational Attainment (Three Categories):

US Census Bureau, American Fact Finder, American Community Survey, 2009-2013 ACS 5-Year Estimate, Table S1501: <http://factfinder.census.gov/>

High School Dropout Rate:

NC Department of Public Instruction, Research and Evaluation, Dropout Data and Collection Process, Annual Dropout Reports; <http://www.ncpublicschools.org/research/dropout/reports/>.

SAT Scores:

NC Department of Public Instruction, Accountability Services Division, The North Carolina 2014 SAT Report, 2014 SAT Reporting by District and School; <http://www.ncpublicschools.org/accountability/reporting/sat/2014>

### Economy

Median Annual Household Income:

US Census Bureau, American Fact Finder, American Community Survey, 2013 ACS 5-Year Estimate, Table DP03: <http://factfinder.census.gov/>

Per Capita Income:

NC Department of Commerce, AccessNC, Community Demographics, County Report, County Profile: <http://accessnc.commerce.state.nc.us/EDIS/demographics.html>

Poverty Rate:

US Census Bureau, American Fact Finder, American Community Survey, 2005-2013 ACS 5-Year Estimate, Table S1701: <http://factfinder.census.gov/>

Unemployment Rate:

Labor and Economic Analysis Division, NC Department of Commerce, Demand Drive Data Delivery System, Local Area Unemployment Statistics (LAUS), Unemployment Rate: <http://esesc23.esc.state.nc.us/d4/>

Percent of Students Qualifying for Free and Reduced Lunch:

NC Department of Public Instruction, Financial and Business Services, Data and Reports, Free and Reduced Meals Application Data 2012-2013: <http://www.ncpublicschools.org/fbs/resources/data/>

## **Social**

Violent Crime Rate and Property Crime Rate:

North Carolina Department of Justice, Crime in North Carolina, Crime Statistics, Annual Summary Report: Years 2009, 2010, 2011, 2012; <http://crimereporting.ncdoj.gov/Reports.aspx>

Homicide Mortality Rate:

NC State Center for Health Statistics, NC Vital Statistics Volume 2: Leading Causes of Death, Mortality Statistics Summary for NC Residents: Homicide; <http://www.schs.state.nc.us/data/vital.cfm>

Percent Population Uninsured:

US Census Bureau, American Fact Finder, American Community Survey, 2009-2013 ACS 5-Year Estimate, Table DP03: <http://factfinder.census.gov/>

Primary Care Provider Ratio:

County Health Rankings and Roadmaps, 2014. University of Wisconsin Population Health Institute: <http://www.countyhealthrankings.org/app/north-carolina/2014/rankings/outcomes/overall>

## **Health**

Infant Mortality Rate:

NC State Center for Health Statistics, Statistics and Reports: Vital Statistics: 2013 Infant Mortality Statistics for North Carolina. Infant Death Rates by Perinatal Care Regions (PCR) and County of Residence, North Carolina 2012, 2013 and 5-year totals 2009-2013; <http://www.schs.state.nc.us/data/vital/ims/2013/fiveyear.html>

Teen Pregnancy Rate:

NC State Center for Health Statistics, North Carolina Health Data Query System. Pregnancy Data. North Carolina Reported Pregnancy Data (2004-2012), counties and age groups as indicated; <http://www.schs.state.nc.us/SCHS/data/preg/preg.cfm>.

Cancer Mortality Rate:

NC State Center for Health Statistics, Statistics and Reports, Vital Statistics, NC Vital Statistics Volume II, Leading Causes of Death, Mortality Statistics Summary: Cancer – All Sites; <http://www.schs.state.nc.us/data/vital.cfm#vitalvol1>

Heart Disease Mortality Rate:

North Carolina State Center for Health Statistics, North Carolina Vital Statistics, Volume 2, Leading Causes of Death, Heart Disease; <http://www.schs.state.nc.us/data/vital.cfm#vitalvol1>

Diabetes Mortality Rate:

NC State Center for Health Statistics, Statistics and Reports, Vital Statistics, NC Vital Statistics Volume II: Leading Causes of Death, 2009, 2010, 2011, 2012, and 2013; <http://www.schs.state.nc.us/data/vital.cfm#vitalvol2>.

## Vulnerable Populations

Groups that have not been well integrated into the health care system because of cultural, economic, geographic or health characteristics have been defined as vulnerable populations. These populations may also be at a higher risk during disasters. Beaufort County has identified the following populations as vulnerable: persons living below the Federal Poverty Level, children under the age of 5 years, and persons of the African American race (see Table 32).

**Table 32. Beaufort County Vulnerable Populations**

| Vulnerable Population      | Relevant Statistic   | CHA Reference      |
|----------------------------|--|--------------------|
| Poverty                    | 21.0 percent of the population                                 | Figure 15, Page 29 |
| Children Less than 5 Years | 29.3 percent overweight or obese                               | Figure 66, Page 91 |
| African Americans          | Life expectancy is 74.5 years<br>(2.8 years lower than Whites) | Figure 43, Page 59 |

In addition to the statistic cited above, racial disparities are present for many other social and health indicators. For example, African Americans are three times more likely to live in poverty. Moreover, African Americans have higher incidence rates of total cancer, as well as higher mortality rates for heart disease, cerebrovascular disease, diabetes mellitus and Alzheimer's disease.

## Summary and Next Steps

The community health assessment identified nine focus areas for 2015-2018. Social indicators included 1) poverty; 2) employment; 3) access to health care; and 4) racial disparities. Health indicators included 1) mental health (including substance abuse); 2) infant mortality; 3) weight management, nutrition and obesity; 4) chronic disease (heart disease, diabetes); and 5) cancer. Although this was a community health assessment, social indicators were selected that both directly and indirectly influence community health. Thus, it is appropriate to acknowledge both social and health indicators. However, it was determined that while the social indicators were very important, it would be more feasible to narrow the focus areas into specific priorities for the action plan.

Based on the results provided by the community survey, focus groups, and secondary data collection, Beaufort County has identified the following top four health priorities:

- Chronic Disease (Heart Disease, Diabetes)
- Weight Management, Nutrition and Obesity
- Cancer
- Access to Care (Including Mental Health)

The above-mentioned priorities were selected as a result of their feasibility and impact in improving the health and well-being of Beaufort County residents. In order to address the priorities, Vidant Beaufort Hospital will work collaboratively with the Beaufort County Health Department.

The priorities selected for the 2011 Beaufort County CHA are also selected for 2014 (see Table 33), with the addition of Access to Care (Including Mental Health). The 2011 priorities selected for continued attention have also been further distinguished for 2014. For example, heart disease and diabetes are identified as key issues within the Chronic Disease focus area and nutrition has been added to the Weight Management and Obesity focus area. In sum, the priorities included in 2011, as well as the newly added Access to Care priority, demonstrate adequate levels of impact and feasibility to warrant selection for 2014.

**Table 33. Beaufort County CHA Priority Comparison**

| 2011 CHA Priorities           | 2015 CHA Priorities                       |
|-------------------------------|---|
| Chronic Disease               | Chronic Disease (Heart Disease, Diabetes) |
| Weight Management and Obesity | Weight Management, Nutrition and Obesity  |
| Cancer                        | Cancer                                    |
|                               | Access to Care (Including Mental Health)  |

Beginning in March 2015, committees will be formed around the priorities for the purpose of developing action plans. These action plans will be used to guide initiatives for the next three to four years and serve as a basis for reporting status annually toward addressing the areas identified in this community health assessment process.



## CHA Resource Guide

### Programs – General

| Program Type          |                                 | Program Description  | Time   | Location                        | Contact      |
|-----------------------|---------------------------------|--|--------|---------------------------------|--------------|
| Cancer Screenings     | Breast Cancer                   |  | Yearly | Marion L. Shepard Cancer Center | 252-975-4308 |
|                       | Prostate Cancer                 |  | Yearly | Marion L. Shepard Cancer Center | 252-975-4308 |
|                       | Skin Cancer                     |  | Yearly | Marion L. Shepard Cancer Center | 252-975-4308 |
| Cancer Support Groups | Breast Cancer Support Group     | An opportunity for all ladies ranging from currently undergoing treatment to long time survivors to gain insight, encouragement, information, and inspiration, and to talk with ladies who have had similar experiences. |        | Marion L. Shepard Cancer Center | 252-975-4308 |
|                       | Caregiver Support Group         | Designed for individuals who are caring for someone they love who is fighting cancer, to join, others who are facing the same questions and challenges that you are experiencing.  |        | Marion L. Shepard Cancer Center | 252-975-4308 |
|                       | Conversations                   | A time and place for people to gather who have any type of cancer. An opportunity to join others who might share some of your own experiences.   |        | Marion L. Shepard Cancer Center | 252-975-4308 |
|                       | Look Good...Feel Better         | A hands-on group session for adult female cancer survivors currently in treatment who are coping with the side effects of chemotherapy and/or radiation treatment.   |        | Marion L. Shepard Cancer Center | 252-975-4308 |
|                       | Restorative Yoga and Meditation | A yoga class that emphasizes relaxation for the body, mind, and spirit. Open to all cancer patients, survivors, and primary care givers.   |        | Marion L. Shepard Cancer Center | 252-975-4308 |
|                       | Therapeutic Massage             | One free therapeutic foot, hand, or chair massage is available every week to all cancer survivors and primary care givers.   |        | Marion L. Shepard Cancer Center | 252-975-4308 |
|                       |                                 |  |        |                                 |              |

**Programs – General Cont.**

| Program Type                    |                      | Program Description  | Time                                     | Location                             | Contact      |
|---------------------------------|----------------------|--|--|--------------------------------------|--------------|
| Alcohol and Drug Support Groups | Alcoholics Anonymous |  | Mondays at 8:00 pm                       | Westbrook Housing Authority          | 252-975-6113 |
|                                 | Alcoholics Anonymous |  | Tuesdays at 12:00 pm                     | Westbrook Housing Authority          | 252-975-6113 |
|                                 | Alcoholics Anonymous |  | Wednesdays at 6:00 pm                    | Westbrook Housing Authority          | 252-975-6113 |
|                                 | Alcoholics Anonymous |  | Thursdays at 12:00 pm                    | Westbrook Housing Authority          | 252-975-6113 |
|                                 | Alcoholics Anonymous |  | Fridays at 8:00 pm                       | Trinity Episcopal Church-Chocowinity | 252-945-6113 |
|                                 | Alcoholics Anonymous |  | Saturdays at 12:00 pm                    | Westbrook Housing Authority          | 252-975-6113 |
|                                 | Alcoholics Anonymous |  | Sundays at 3:00 pm                       | Westbrook Housing Authority          | 252-975-6113 |
| Other Support Groups            | Better Breathers     | Patient centered and community based opportunities to support patients with chronic lung disease and their families, friends, and support persons. | Second Tuesday of every month at 2:30 pm | Vidant Wellness Center – Washington  | 252-975-4237 |
|                                 | NutriMove            |  |  | Vidant Wellness Center – Washington  |              |

**Programs – General Cont.**

| Program Type              |                            | Program Description  | Time   | Location                            | Contact      |
|---------------------------|----------------------------|--|--|-------------------------------------|--------------|
| Educational Opportunities | Breast Feeding Class       | Class designated to give expectant mothers the skills for successful breastfeeding including take-home material.   | First Saturday every other month from 9:00 am – 12:00 pm<br>*Registration is required        | Vidant Beaufort Hospital            | 252-975-4309 |
|                           | Child Birthing Class       | Two night class focusing on pregnancy expectant mothers for labor and delivery; including signs of labor, timing contractions, at what point to come to the hospital and what to expect before, during, and after child birth. Class provides take-home-material and a tour of the nursery and birthing rooms. | First and Second Thursday of every month from 6:30 pm – 9:00 pm<br>*Registration is required | Vidant Beaufort Hospital            | 252-975-4309 |
|                           | Safe Sitters               | Teaches safe and nurturing childcare techniques, behavioral management skills and appropriate responses to medical emergencies including infant and child choking. Class fee is \$50.00.   | Summer months from 9:00 am – 3:30 pm<br>*Registration is required                            | Vidant Beaufort Hospital            | 252-975-4309 |
|                           | Healthy Living with Cancer | A four session program designed to help cancer survivors gain their well-being. Typically held twice every year and includes expert speakers at each class in the areas of oncology, nutrition, exercise and activity, and psychology.   | Held twice a year. Call for upcoming classes<br>*Registration is required                    | Marion L. Shepard Cancer Center     | 252-975-4308 |
|                           | Knowledge is power         | An educational series on topics including health interests for cancer survivors, caregivers and the community. Open to the public and dinner is provided.  |  | Marion L. Shepard Cancer Center     | 252-975-4308 |
|                           | Diabetes Education         |  | Fourth Thursday of every month at 10:00 am   | Vidant Wellness Center – Washington | 252-975-4236 |

**Programs – for Seniors**

| Program Type   |                                 | Time  | Location                      |
|--|---------------------------------|---|-------------------------------|
| Walk-In Programs   | Fitness Room/Equipment          | Monday – Friday<br>8:00 am – 5:00 pm                      | 310 W Main St. Washington, NC |
|  | Billiards                       | Monday – Friday<br>8:00 am – 5:00 pm                      | 310 W Main St. Washington, NC |
|  | Computer Access                 | Monday – Friday<br>8:00 am – 5:00 pm                      | 310 W Main St. Washington, NC |
|  | Cable TV                        | Monday – Friday<br>8:00 am – 5:00 pm                      | 310 W Main St. Washington, NC |
|  | Puzzles & Board Games           | Monday – Friday<br>8:00 am – 5:00 pm                      | 310 W Main St. Washington, NC |
|  | Lending Library                 | Monday – Friday<br>8:00 am – 5:00 pm                      | 310 W Main St. Washington, NC |
| On-site Programs   | Aerobics                        | Tuesday and Thursday at<br>8:15 am                        | 310 W Main St. Washington, NC |
|  | AHOY                            | Fridays at 11:00 am                                       | 310 W Main St. Washington, NC |
|  | Bridge                          | Thursdays at 1:00 pm                                      | 310 W Main St. Washington, NC |
|  | Buck's BINGO                    | Mondays at 10:30 am                                       | 310 W Main St. Washington, NC |
|  | Canasta                         | Thursdays at 1:00 pm                                      | 310 W Main St. Washington, NC |
|  | Computer Lessons                | As needed   | 310 W Main St. Washington, NC |
|  | Painting                        | Tuesday at 9:15 am  | 310 W Main St. Washington, NC |
|  | Neck/Foot Massages              | Second Friday of each<br>month from<br>9:00 am – 12:00 pm | 310 W Main St. Washington, NC |
|  | Needlecraft                     | Mondays at 1:00 pm  | 310 W Main St. Washington, NC |
|  | Walking Program                 | Year round  | 310 W Main St. Washington, NC |
|  | Tai Chi                         | Mondays and Fridays at<br>9:45 am                         | 310 W Main St. Washington, NC |
|  | Movie Madness                   | Seasonal  | 310 W Main St. Washington, NC |
|  | Golden Card Ladies              | Second Wednesday at<br>2:00 pm                            | 310 W Main St. Washington, NC |
|  | Yoga                            | Mondays and Fridays at<br>8:30 am                         | 310 W Main St. Washington, NC |
| Yoga   | Tuesday nights at 5:45 pm       | 310 W Main St. Washington, NC                             |                               |
| Evidence-based Programs/Classes held throughout the County | A Matter of Balance             | Twice Yearly  | 310 W Main St. Washington, NC |
|  | Chronic Disease Self-Management | Twice Yearly  | 310 W Main St. Washington, NC |
|  | Living Healthy with Diabetes    | Twice Yearly  | 310 W Main St. Washington, NC |
|  | Walk with Ease                  | Twice Yearly  | 310 W Main St. Washington, NC |
|  | Exercising with Arthritis       | Twice Yearly  | 310 W Main St. Washington, NC |
| Support Groups   | Caregivers Support Group        | Fourth Monday of each<br>month at 4:00pm                  | 310 W Main St. Washington, NC |
|  | Grand Ideas                     | Second Tuesday of each<br>month at 9:00 am                | 310 W Main St. Washington, NC |
|  | Diabetic Support Group          | Third Tuesday of each<br>month at 11:00 am                | 310 W Main St. Washington, NC |
|  | Grief Support (Aftercare)       | Third Tuesday of each<br>month at 4:00 pm                 | 310 W Main St. Washington, NC |

**Programs – for Seniors Cont.**

| Program Type     |   | Time  | Location                              |
|------------------|---|---|---------------------------------------|
| Clubs            | Helping Hands Club                        | First Thursday of each month *Membership is required      | 310 W Main St. Washington, NC         |
|                  | Pamlico Senior Citizens                   | First Wednesday of each month *Membership is required     | 310 W Main St. Washington, NC         |
|                  | Retired School Program                    | Meets Quarterly   | 310 W Main St. Washington, NC         |
|                  | Garden Club                               | Second Friday of the month *Membership is required        | 310 W Main St. Washington, NC         |
|                  | Pamlico River Quilters Club               | Twice per month on Wednesdays *Membership is required     | 310 W Main St. Washington, NC         |
| Services         | Medicare D Counseling                     | Appointment Required                                      | 310 W Main St. Washington, NC         |
|                  | End of Life Counseling                    | Appointment Required                                      | 310 W Main St. Washington, NC         |
|                  | Legal Services                            | Appointment Required                                      | 310 W Main St. Washington, NC         |
|                  | Reverse Mortgage                          | Appointment Required                                      | 310 W Main St. Washington, NC         |
|                  | AARP Tax Aide                             | Seasonal  | 310 W Main St. Washington, NC         |
|                  | Blood Pressure Checks                     | Appointment Required                                      | 310 W Main St. Washington, NC         |
|                  | General and Medical Senior Transportation | Appointment Required                                      | 310 W Main St. Washington, NC         |
|                  | Housing Assistance                        | Appointment Required                                      | 310 W Main St. Washington, NC         |
|                  | Home Repair/Modifications                 | Appointment Required                                      | 310 W Main St. Washington, NC         |
|                  | Social Security                           | Appointment Required                                      | 310 W Main St. Washington, NC         |
|                  | Disaster Preparedness                     | As needed   | 310 W Main St. Washington, NC         |
|                  | Durable Medical Equipment                 | As needed   | 310 W Main St. Washington, NC         |
|                  | Telephone Reassurance                     | As needed   | 310 W Main St. Washington, NC         |
|                  | Energy Assistance                         | As needed   | 310 W Main St. Washington, NC         |
|                  | Food Distribution                         | Providing Ensure for at-risk clients *income requirements | 310 W Main St. Washington, NC         |
| Off-sit Programs | BOCCE                                     | Fridays at 8:30 am  | 7th Street Bobby Andrews Building     |
|                  | Pickle Ball                               | Thursdays and Fridays at 8:30 am                          | 7th Street Bobby Andrews Building     |
|                  | Shuffleboard                              | Fridays at 8:30 am  | 7th Street Bobby Andrews Building     |
|                  | Senior Games                              | Fridays at 8:30 am  | 7th Street Bobby Andrews Building     |
|                  | AHOY at Chocowinity                       | Tuesdays at 11:00 am                                      | Episcopal Church Chocowinity, NC      |
|                  | AHOY at the Blind Center                  | Tuesdays at 9:30 am                                       | Blind Center, Washington, NC          |
|                  | AHOY at East Haven                        | Thursdays at 11:00 am                                     | East Haven Apartments, Washington, NC |
| Trips            | Day Trips                                 | Yearly  | 310 W Main St. Washington, NC         |
|                  | Walking Program with the Mystery Trips    | Yearly  | 310 W Main St. Washington, NC         |

|  |                     |        |                               |
|--|---------------------|--------|-------------------------------|
|  | Travel Program      | Yearly | 310 W Main St. Washington, NC |
|  | Overnight Bus Trips | Yearly | 310 W Main St. Washington, NC |

**Programs – for Caregivers of Children**

| Program Type                    |                                 | Program Description   | Time  |
|---------------------------------|---------------------------------|---|---|
| Caregivers of Children Programs | Breast Pump Loaner Program      | Hospital grade breast pumps are loaned, free of charge, on a first-come, first served basis to Beaufort and Hyde County residents who do not qualify for the WIC assistance program.  | Ongoing   |
|                                 | Buckle Up Kids Beaufort County  | Beaufort County's involvement with a national "Safe Kids" initiative to provide education to parents/primary caregivers on the proper child safety seat needed for their child's age/height/weight. First-time participants who meet eligibility requirements may qualify for a child safety seat at a reduced rate and will receive child passenger safety installation training as the seat is installed. Already installed child safety seats (car carriers, convertible car seats, and booster seats) can also be checked by a trained technician to ensure they are installed correctly. | Ongoing   |
|                                 | Child Care Referrals            | Finding child care can be a difficult, time consuming task. Making one phone call to Child Connections will allow individuals seeking child care to learn which legally operating child care or preschool facilities have openings, what questions to ask when seeking high quality, early learning environment.  | Ongoing   |
|                                 | Pat-A-Cake                      | A fun, educational and free playgroup for you and your preschooler (ages 18 months to four-years-old) to explore developmentally appropriate music, book and art. Each week we read stories, create artwork, sing, play and enjoy a snack. Your child will interact and play with other children while you have an opportunity to meet other parents, grandparents and caregivers. You will also have access to our fabulous Lending Library where you may check-out a variety of educational items and books.  | Every Thursday at 10:30 am                        |
|                                 | Lending Library                 | A twist on the regular public library, the "lending library" offers a variety of developmentally appropriate toys, books, and early educator resource materials designed to help parents and caregivers maximize their child's development from infancy to age 5.   | Ongoing<br>*Registration is required              |
|                                 | Parents as Teachers             | An evidence-based home visitation program designed for pregnant women and families with children newborn to 5 years of age, Certified parent educators teach parents how to maximize their child's development and assist them with accessing necessary resources to support overall child and family wellbeing.  | Ongoing<br>*Registration is required              |
|                                 | The Incredible Years – Teachers | A 14-week, evidenced-based parent/primary caregiver skill building opportunity with a focus on caring for preschool-aged-children. This education series is instructed in English and Spanish.  | Offered twice yearly<br>*Registration is required |
|                                 | Literacy Bags                   | An outreach initiative aimed at providing pregnant women residing in Beaufort or Hyde Counties with items and information related to searching for child care, building   | Ongoing   |

|  |  |   |  |
|--|--|---|--|
|  |  | literacy skills in young children, information on bonding with baby, safe sleep and a variety of other important topics to promote healthy development. |  |
|--|--|---|--|

**Programs – for Caregivers of Children Cont.**

| <b>Program Type</b>  |   | <b>Program Description</b>   | <b>Location</b>                              | <b>Contact</b> |
|--|---|--|--|----------------|
| Additional<br>Resources  | Coastal Pregnancy Center                      | Serves pregnant women in Beaufort County by offering prenatal parenting classes, maternity clothes, baby clothes and other baby care related items.  | 1312 John Small Ave.<br>Washington, NC       | 252-946-8040   |
|  | Child Connections                             | Child Care   | 979 Washington Square Mall<br>Washington, NC | 252-975-4647   |
|  | Beaufort/Hyde Partnership for Children        | Early Childhood Issues/Education   | 979 Washington Square Mall<br>Washington, NC | 252-975-4647   |
|  | East Carolina Behavioral Health               | Works in partnership with people who face significant challenges related to substance abuse, mental illness, and/or developmental disability. Our commitment is to provide consistently excellent, person-centered, family-oriented services within a recovery based system that is flexible, accessible, and respects the individual's freedom of choice. |  | 1-877-685-2415 |
|  | Beaufort County Department of Social Services | A series of foster and adoptive parent training classes two to three times each year.  | 632 West 5th St.<br>Washington, NC           | 252-975-5500   |
| <p>For More Information on Programs offered to primary caregivers of children please contact:<br/> Child Connections<br/> 252-975-4647<br/> <a href="http://www.beaufortcountykids.org">www.beaufortcountykids.org</a></p> |   |  |  |                |

2016 CHNA primary and secondary data updates

**2016**  
***Beaufort County***  
***Community Health Needs***  
***Assessment***

*Summary of Secondary Data and Hospital  
Data*

May 27, 2016  
Sheila S. Pfaender, Public Health Consultant



## ***Purpose of the Community Health Needs Assessment***

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

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## ***Contributing Viewpoints for CHNA***

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| <b>Secondary Data</b>                                       | <b>Hospital Data</b>  | <b>Citizen Opinion</b>   |
|---|---|--------------------------|
| -Demographic<br>-Socioeconomic<br>-Health<br>-Environmental | -Emergency department discharges<br>-Inpatient hospitalization discharges | -Community health survey |

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

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

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## *Definitions and Symbols*

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

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## *Data Caveats*

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- ▶ Data sources are cited rudimentarily among these slides, but are thoroughly cited in the supporting Data Workbook.
- ▶ Most secondary data originated from authoritative sources in the public domain (e.g., US Census Bureau, US EPA, NC State Center for Health Statistics).
- ▶ Most data for the target county is compared also to the average of data for a selected Vidant Health region of 10 counties, and to data for North Carolina as a whole.
- ▶ All secondary data were mined at a point in time in the recent past, and may not represent present conditions. Numbers, entity names, program titles, etc. that appear in the data may no longer be current.

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# *Demographic Data*

Total Population, Minority Populations, Population Growth, Age Groups, Elderly Population, Children & Families, Veterans, Foreign-Born Populations

## General Population Characteristics

- ▶ Beaufort County has a slightly higher proportion of females than males.
- ▶ The median age of the Beaufort County population is 6.9 years older than NC average and 3.4 years older than the Region.
- ▶ Approximately 21% of the county is under the age of 18, which is lower than NC and similar to the Region.
- ▶ Nearly 22% of the county population is over the age of 65, a higher proportion than either the state or the Region.

### July 1, 2014 Estimate

| County         | 2014 Population Estimates        |           |         |           |           |                |                  |                  |               |                    |           |         |
|----------------|----------------------------------|-----------|---------|-----------|-----------|----------------|------------------|------------------|---------------|--------------------|-----------|---------|
|                | Total Population (2014 Estimate) |           |         |           |           | Under 18 Years |                  |                  |               | 65 Years and Older |           |         |
|                | # Total                          | # Males   | % Males | # Females | % Females | Median Age*    | # Under 18 Years | % Under 18 Years | # 18-64 Years | % 18-64 Years      | # Total   | % Total |
| Beaufort       | 47,585                           | 22,870    | 48.1    | 24,715    | 51.9      | 45.1           | 10,073           | 21.2             | 27,257        | 57.3               | 10,255    | 21.6    |
| Regional Total | 458,613                          | 221,596   | 48.3    | 237,017   | 51.7      | 41.7           | 100,240          | 21.9             | 287,278       | n/a                | 71,095.0  | 15.5    |
| State Total    | 9,943,964                        | 4,844,593 | 50.8    | 5,099,371 | 53.5      | 38.2           | 2,287,549        | 23.0             | 6,193,053     | 62.3               | 1,463,362 | 14.7    |
| State Average  | 99,440                           | 48,446    | n/a     | 50,994    | n/a       | n/a            | 22,875           | 23.0             | 61,931        | n/a                | 14,634    | n/a     |

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## Minority Populations

- ▶ The racial distribution of Beaufort County is similar to the state of NC as a whole, with white residents comprising around 72% of the population and black residents comprising a quarter of the Beaufort County population.
- ▶ The county has a slightly lower proportion of Hispanic residents compared to the State and the Region.

### Population Distribution by Race/Ethnicity July 1, 2014 Estimate

| Location        | Percent of Overall Population |       |                 |       |                |          |
|-----------------|-------------------------------|-------|-----------------|-------|----------------|----------|
|                 | White                         | Black | American Indian | Asian | Multiple Races | Hispanic |
| Beaufort County | 71.8                          | 25.3  | 0.9             | 0.7   | 1.3            | 7.5      |
| Regional Total  | 60.9                          | 35.4  | 0.8             | 1.3   | 1.6            | 8.0      |
| State of NC     | 71.5                          | 22.1  | 1.6             | 2.8   | 2.1            | 9.0      |

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## *Population Growth*

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- ▶ Beaufort County's population growth is predicted to slow and stop by 2030.
- ▶ Between 2000 and 2030, the county population is expected to increase by 6.1% overall, while the Region increases by 20% and NC grows by 44% (see Data Workbook).

### Percent Population Growth

| Decade    | Beaufort County | Regional Average | State of NC |
|-----------|-----------------|------------------|-------------|
| 2000-2010 | 5.9             | 14.6             | 15.6        |
| 2010-2020 | -0.1            | 2.8              | 10.9        |
| 2020-2030 | 0.0             | 1.8              | 9.8         |

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## *Urban and Rural Populations*

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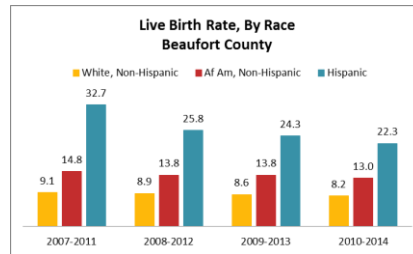
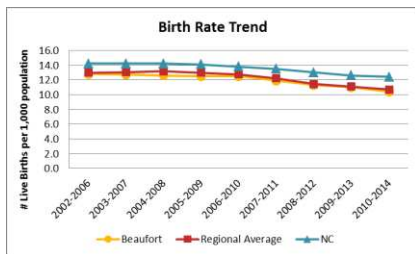
- ▶ According to the 2010 Census, 34.4% of the Beaufort County population lives in urban areas while 65.6% lives in rural areas.
- ▶ Statewide, North Carolina is more urban than rural and is becoming even more so. In 2010, 66% of residents lived in urban areas and 34% lived in rural areas.

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## Birth Rate

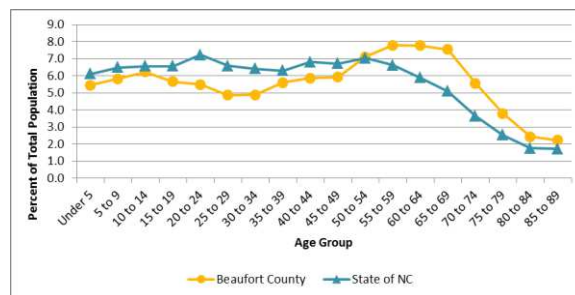
- ▶ The Beaufort County birth rate demonstrated an overall decline over the period presented below, with a similar trend seen in the Region and the State.
- ▶ Birth rates have decreased overall among all the racial groups available for comparison.
- ▶ The highest birth rates in Beaufort County over the period cited occurred among Hispanics. A similar trend is seen across the Region and the state.



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## Population Age Distribution

- ▶ According to 2014 estimates, compared to NC as a whole Beaufort County has lower proportions of people under the age of 50 and higher proportions of people over the age of 50



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## *Growth of the Elderly Population*

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- ▶ The population in every major age group age 65 and older in Beaufort County is projected to increase between 2000 and 2030.
  - ▶ **Age 65-74:** by 58% (vs. 63% in NC)
  - ▶ **Age 75-84:** by 110% (vs. 67% in NC)
  - ▶ **Age 85+:** by 100% (vs. 75% in NC)
  - ▶ **Overall Age 65+:** by 79% (vs. 66% in NC)
  
- ▶ In 2014 there were an estimated 10,255 persons age 65 and older in Beaufort County, representing around 21.6% of the total population.
  
- ▶ By 2030, with the total population predicted to change very little, 13,539 residents over the age of 65 will comprise 28.4% of the population.

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## *Children and Families*

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### According to 2014 Estimates:

- ▶ There were 18,894 households in Beaufort County.
  - ▶ 22.5% were family households with children under 18.
    - ▶ 63% of these households were headed by a married couple  
[NC = 65%      Region = 58%]
    - ▶ 31% were headed by a female householder (no husband present)  
[NC = 27%      Region = 34%]
    - ▶ 7% were headed by a male householder (no wife present)  
[NC = 8%      Region = 8%]
  
- ▶ 63% of the estimated 1,173 Beaufort County grandparents living with their minor grandchildren *also* were financially responsible for their care.  
[NC = 48%      Region = 52%]

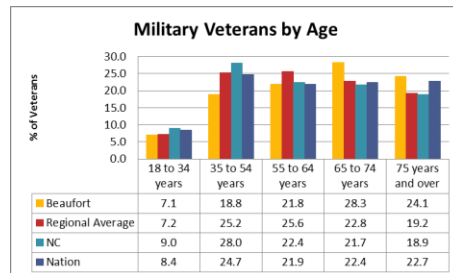
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## *Military Veterans*

- ▶ 10% of the Beaufort County civilian population is a military veteran. [NC = 10% Region = 11%] (See Data Workbook)
- ▶ Veterans over the age of 65 comprise 46% of the veteran population. [NC = 41% Region = 42%]
- ▶ Beaufort County has a higher proportion of veterans in the 65-74 and 75+ age groups than the comparator jurisdictions.



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## *Foreign-Born Population*

- ▶ According to 2014 Estimates, 2,157 individuals living in Beaufort County were born outside the US.
  - ▶ 31.2% entered the US between 2000 and 2009
  - ▶ 36.9% entered between 1990 and 1999.
- ▶ Among the 1,420 households (7.5% of all households in Beaufort County) that speak a language other than English, the most common language is Spanish (78%).
  - ▶ Among the Spanish-speaking households, 22% would be considered "limited English speaking".
  - ▶ Half of the small population speaking Asian/Pacific Island languages is linguistically isolated (18 of 36).

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# *Socioeconomic Data*

*Income, Employment, Unemployment, Poverty, Children and Families,  
Housing, Educational Attainment, Crime and Safety*

## County Economics

- ▶ Beaufort County is designated as Tier 1, meaning it is a “most distressed” county, based on unemployment rates, median household income, population growth, and property taxes.
- ▶ Compared to the average county in NC as well as the VIDANT Region, Beaufort County historically has significantly lower gross collections and lower total taxable sales, and the totals seem to vary from year to year.

| County                   | 2014-2015          |                 |
|--------------------------|--------------------|-----------------|
|                          | Gross Collections* | Taxable Sales** |
| Beaufort                 | 20,585,164         | 432,679,562     |
| Regional Total           | 233,271,072        | 4,892,702,095   |
| Regional Arithmetic Mean | 23,327,107         | 489,270,209     |
| State Total              | 7,186,066,406      | 120,304,939,287 |
| NC County Average        | 71,860,664         | 1,203,049,393   |

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## Income

### In Beaufort County (according to US Census Bureau figures):

- ▶ 2014 Per Capita Personal Income = \$21,789
  - ▶ \$3,819 **below** NC average
  - ▶ Per Capita Personal income has decreased overall since 2010.
- ▶ 2014 Median Household Income = \$40,671
  - ▶ \$6,022 **below** NC average
  - ▶ Median household income changed little since 2010.
- ▶ 2014 Median Family Income = \$50,831
  - ▶ \$6,497 **below** NC average
  - ▶ Median Family income has increased slightly overall since 2010.

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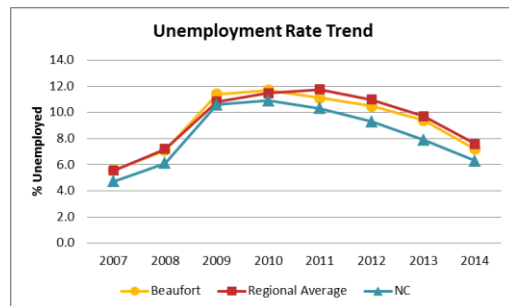
## Employment

- ▶ In 2014 the three employment sectors in Beaufort County with the largest workforce sectors (and their average weekly wage) were:
  - ▶ **Manufacturing: 17.7% of workforce (\$1037)**
    - ▶ Regionally, employees in Manufacturing earn \$848 a week.
    - ▶ Statewide, workers in Manufacturing earn an average of \$1061 a week.
  - ▶ **Retail Trade: 14.0% of workforce (\$455)**
    - ▶ Regionally, Retail Trade workers earn an average of \$447 a week.
    - ▶ Statewide, Retail Trade workers earn \$504 a week.
  - ▶ **Health Care & Social Assistance: 12.6% of workforce (\$570)**
    - ▶ Health Care & Social Assistance is the largest employment sector in the VIDANT Region (16.6%) as well as North Carolina (14.3%).
    - ▶ Regionally, Health Care & Social Assistance employees earn an average \$647 a week.
    - ▶ Statewide, Health Care & Social Assistance employees earn \$898 a week.

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## Annual Unemployment Rate

- ▶ According to 2014 data, a calculated annual average of 1,425 individuals were unemployed in Beaufort County, calculating to an unemployment rate of 7.2.
- ▶ While an average unemployment rate was not available for 2015, the rate declined each month since August, and it was lower in December 2015 (6.2) compared to the Region (7.3), but higher than the State (5.3) and the Nation (4.8).



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## Overall Poverty Rate Trend

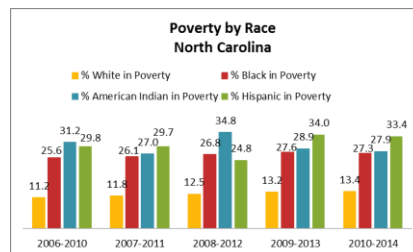
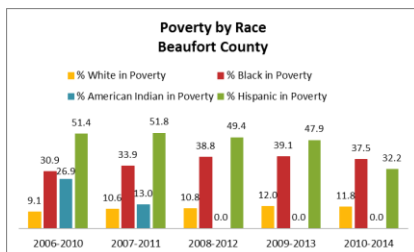
- ▶ The overall poverty rate (describing the percentage of the total population below the Federally-defined 100% poverty level) in Beaufort County was higher than the comparable state rate throughout the period cited in the table below.
- ▶ The poverty rate among children under 18 (27% in 2010-2014) is typically higher than the overall rate. In Beaufort County, the child poverty rate in 2010-2014 was higher than the state rate (25%) but lower than the Region average (36%). (See Data Workbook.)
- ▶ In 2014, an estimated 9,362 individuals, or approximately one-fifth of the population in Beaufort County, were living at or below the poverty level.
- ▶ The poverty rate in Beaufort County and NC increased in almost every period cited.

|                  | 2006-2010   | 2007-2011   | 2008-2012   | 2009-2013   | 2010-2014   |
|------------------|-------------|-------------|-------------|-------------|-------------|
| Beaufort         | 17.2        | 19.1        | 20.6        | 21.0        | 19.9        |
| Regional Average | <b>20.1</b> | <b>21.5</b> | <b>22.3</b> | <b>23.3</b> | <b>23.0</b> |
| State of NC      | 15.5        | 16.1        | 16.8        | 17.5        | 17.6        |

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## Poverty and Race

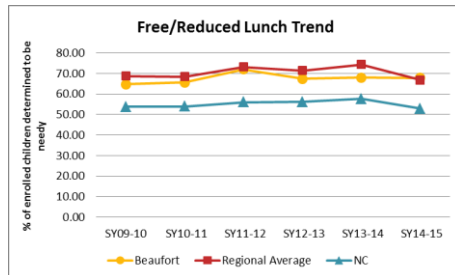
- ▶ The poverty rate among Hispanics in Beaufort County exceeded the comparable poverty rates for other groups for most periods cited below. By 2014 the poverty rate among African Americans was highest.
- ▶ Statewide, poverty rates among minority groups are higher compared to white residents.



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## Free and Reduced-Price Lunch

- ▶ Another measure of poverty, particularly among families with children, is the rate of participation in the free- and reduced-price lunch programs in the public school system.
- ▶ In Beaufort County, a higher percentage of students have been identified as “needy”, compared to the State.
- ▶ For the 2014-15 school year, approximately 68% of Beaufort County students were identified as needy, compared to 67% in the Region and 53% across the state.



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## Housing Costs

- ▶ The estimated median monthly mortgage cost, which increased each year since between 2010 and 2013, had fallen slightly in 2014 among Beaufort County homeowners = \$1,196 in 2014.  
**\$76 less than the NC median**
- ▶ The estimated median gross monthly rent, which has increased overall since 2006-2010, among Beaufort County renters = \$653 in 2014.  
**\$137 less than the NC median**
- ▶ The percentage of Beaufort County homeowners spending more than 30% of their monthly income on housing changed little overall between 2010 and 2014: it remained at approximately 36% (compared to 31% in NC in 2014).
- ▶ The percentage of renters spending more than 30% of their income on housing increased from 41% in 2010 to 45% in 2011, but has since decreased to 42% in 2014 (compared to 46% in NC in 2014).

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## *Homelessness*

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- ▶ Every January the NC Coalition to End Homelessness conducts a point-in-time count of homeless individuals.
- ▶ In Beaufort County, the number of homeless people has fluctuated, from a low of 10 in 2009 and 2014 to a high of 38 in 2011.
- ▶ The majority of the homeless are adults (15 in 2015) but children in families are also among the homeless: 3 children in 2 households in 2015. In 2011, 7 homeless households included 17 children.
- ▶ Veterans and the chronically homeless are two subpopulations to note. Over the period 2009 to 2015, a total of 6 veterans and 8 chronically homeless individuals were counted.

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## *Educational Achievement*

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- ▶ Compared to the NC average, Beaufort County has:
  - ▶ A **higher** population whose highest attainment was a high school diploma (or equivalent) (31.4% in 2014)  
[NC = 26.9%    Region = 31.9%]
  - ▶ A **lower** population who had a bachelor's degree or higher (17.8% in 2014) [NC = 27.8%    Region = 16.4%]
- ▶ Compared to the NC average the 2014-2015 4-Year Cohort HS Graduation Rate was:
  - ▶ **Lower** in Beaufort County Schools (84.3%)  
[NC = 85.6    Region = 83.5]
  - ▶ Lowest among those with limited English proficiency (66.7%)  
[NC = 57.8    Region = 47.6]

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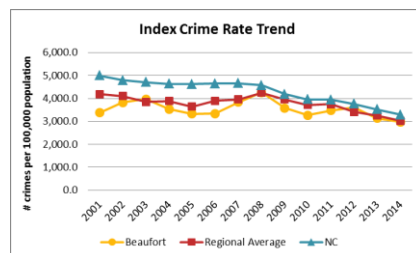
## Educational System

- ▶ The number of students enrolled in Beaufort County schools fluctuates by less than 100 students each year. In the 2014-15 school year 7,146 students were enrolled in Beaufort County public schools.
- ▶ The high school drop out rate has **decreased** overall from 4.90 in 2009-2010 to 2.24 in 2013-14, although it was higher than the comparable state and Region rates until 2012-13.
- ▶ The high school reportable crime rate in Beaufort County seems variable and has **increased** recently, from 11.64 in 2012-2013 to 14.37 in 2013-2014.

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## Crime and Safety: Index Crime

- ▶ The "index crime rate" is the rate of the sum of violent crime and property crime. The majority of crimes committed are property crimes.
- ▶ The index crime rate in Beaufort County was lower than the comparable NC average in every year cited.
- ▶ In 2014 the Beaufort County crime rate was about the lowest it had been over the period shown: 2,976.7 crimes committed per 100,000 population.
- ▶ The violent crime rate in Beaufort County has decreased dramatically, from a high of 608.7 in 2008 to a low of 302.5 in 2014. when it was lower than the state (333.0) and the Region (315.8).
- ▶ The Beaufort County property crime rate seems variable, though it has been consistently lower than the State. The 2014 property crime rate was 2,674.2 in Beaufort County compared to 2,705.6 for the Region and 2,954.1 in NC.



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## *Juvenile Crime*

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- ▶ Between 2011 and 2014 the *number* of individuals who were subjects of complaints of **undisciplined** youth (ages 6-17) and the accompanying “undisciplined rate” decreased in Beaufort County. A total of 57 children were determined to be undisciplined over the four year period.
  - ▶ *Undisciplined* refers to disobedience beyond disciplinary control of parent/guardian (e.g., truancy, vagrancy, running away from home for more than 24 hours).
- ▶ Over the same period the *number* and *rate* of complaints of **delinquent** youth in the county fluctuated from a low of 155 and 25.88 in 2011 to a high of 245 and 41.17 in 2013.
  - ▶ *Delinquency* refers to acts committed by youths that would be crimes if committed by an adult
  - ▶ “Rate” equals the number of events per 1,000 youth in the age group
- ▶ 22 Beaufort County youths were sent to secure detention in 2011; 14 were sent in 2014.

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## *Domestic Violence*

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- ▶ The number of domestic violence clients seen by local agencies decreased overall in Beaufort County, from a high of 325 in 2007-08 to 183 in 2014-15.
- ▶ The number of services provided (advocacy, counseling, legal help, transportation, etc.) decreased from 7,441 in 2007-08 to 2,725 in 2014-15.
- ▶ The domestic violence shelter serving Beaufort County was full on 50 days in FY2014-2015.

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## Child Maltreatment

- ▶ The number of children subject to abuse, neglect, or abuse and neglect in Beaufort County fluctuates yearly.
- ▶ A small proportion of reports are eventually substantiated. Neglect-only cases composed the most common type of child maltreatment; in 2014-15, 16 of the substantiated cases involved neglect.
- ▶ In Beaufort County in 2014-15, 37% of the substantiated cases of abuse, neglect, dependency (n=10) were white children [NC=57%] and 48% were African American [NC=30%]. 67% of the victims were female [NC=52%] and 63% were under the age of 5 [NC=53%] (See Data Workbook).

| Category   | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Total No. of Findings of Abuse, Neglect, Dependency          | 410     | 386     | 385     | 415     | 356     | 384     | 456     | 378     | 341     | 281     | 335     |
| No. Substantiated <sup>1</sup> Findings of Abuse and Neglect | 3       | 2       | 2       | 4       | 10      | 3       | 7       | 6       | 2       | 3       | 3       |
| No. Substantiated Findings of Abuse                          | 5       | 0       | 1       | 4       | 1       | 1       | 4       | 2       | 0       | 0       | 5       |
| No. Substantiated Findings of Neglect                        | 90      | 78      | 66      | 21      | 9       | 22      | 23      | 20      | 17      | 9       | 16      |
| Services Needed  | 0       | 1       | 12      | 40      | 54      | 55      | 32      | 20      | 14      | 40      | 43      |
| Services Recommended   | 0       | 0       | 4       | 11      | 7       | 15      | 7       | 2       | 11      | 2       | 1       |
| No. Unsubstantiated Findings                                 | 310     | 303     | 251     | 56      | 39      | 31      | 44      | 26      | 12      | 9       | 13      |
| Services Not Recommended                                     | 0       | 2       | 22      | 199     | 132     | 160     | 214     | 200     | 187     | 145     | 161     |

<sup>1</sup> A "substantiated" report of child abuse, neglect or exploitation indicates that the investigation supports a conclusion that the subject children was/were abused, neglected, or exploited.

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# *Health Resources*

*Health Insurance, Enrollment in Public Programs, Healthcare  
Practitioners, Facilities*

## Health Insurance

- ▶ The percent of uninsured adults (19-64) in Beaufort County rose and fell in the periods shown below and was higher than the state in 2012 and 2013.
- ▶ Compared to NC, Beaufort County tends to demonstrate higher percentages of uninsured residents in all age groups. Compared to the VIDANT Region, the percent uninsured in Beaufort County tends to be slightly lower.
- ▶ The age group 0-18 tends to have a lower percentage of uninsured than the 19-64 age group, due partly at least to NC Health Choice.

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

| Location         | 2011 |       |      | 2012 |       |      | 2013 |       |      |
|------------------|------|-------|------|------|-------|------|------|-------|------|
|                  | 0-18 | 19-64 | 0-64 | 0-18 | 19-64 | 0-64 | 0-18 | 19-64 | 0-64 |
| Beaufort County  | 8.8  | 23.0  | 19.1 | 8.8  | 24.4  | 20.1 | 8.2  | 23.7  | 19.5 |
| Regional Average | 8.7  | 24.6  | 20.2 | 8.8  | 25.2  | 20.7 | 8.1  | 24.3  | 19.9 |
| State of NC      | 7.9  | 23.0  | 18.7 | 7.9  | 23.4  | 19.0 | 6.9  | 22.5  | 18.1 |

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## Medicaid Eligibility

- ▶ In 2013 21.7% of Beaufort County residents were eligible for Medicaid, compared to 16.5% in NC and 19.6% in the Region (see Data Workbook).
- ▶ The total number of people in Beaufort County eligible for Medicaid increased each year from 2009 through 2013.
- ▶ The Medicaid programs with the largest proportion of eligibles were Infants & Children (39% in 2013), AFDC (22% in 2013) and Disabled (21% in 2013).
- ▶ In each month of 2013, an average of 983 aged individuals were eligible for both Medicaid and Medicare, much lower than the NC County average of 1,195 and higher than the Regional average of 828 (see Data Workbook).

### Beaufort County Medicaid-Eligibles by Program Area (as of December each year)

| Year | Number of Eligibles |       |          |       |             |                |                    |               |                       |                   |       | Total Eligibles |
|------|---------------------|-------|----------|-------|-------------|----------------|--------------------|---------------|-----------------------|-------------------|-------|-----------------|
|      | Aged                | Blind | Disabled | AFDC* | Foster Care | Pregnant Women | Infants & Children | Medicaid CHIP | Medicare Catastrophic | Refugees & Allens | BCC** |                 |
| 2009 | 1,009               | 9     | 1,995    | 2,312 | 35          | 142            | 3,350              | 198           | 442                   | 0                 | 0     | 9,492           |
| 2010 | 1,016               | 12    | 2,035    | 2,211 | 37          | 147            | 3,668              | 204           | 485                   | 1                 | 1     | 9,817           |
| 2011 | 1,009               | 14    | 2,110    | 2,101 | 31          | 138            | 3,934              | 162           | 508                   | 1                 | 1     | 10,009          |
| 2012 | 987                 | 13    | 2,130    | 2,089 | 36          | 155            | 4,048              | 178           | 505                   | 0                 | 5     | 10,146          |
| 2013 | 970                 | 14    | 2,151    | 2,275 | 34          | 132            | 4,018              | 168           | 536                   | 12                | 3     | 10,313          |

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## *Health Care Practitioners*

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- ▶ 2012 ratios of active health professionals per 10,000 population were **lower** in Beaufort County than in NC for:
  - ▶ MDs: 11.90 [NC=22.31 Region=8.38]
  - ▶ Primary Care MDs: 5.43 [NC=7.58 Region=3.53]
  - ▶ Dentists: 3.55 [NC=4.51 Region=1.72]
  - ▶ Registered Nurses: 85.38 [NC=98.56 Region=53.15]
  - ▶ Pharmacists: 9.19 [NC=10.06 Region=4.19]
- ▶ These ratios do not take into consideration medical practitioners in neighboring counties accessible to Beaufort County residents.

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## *Health Care Practitioners*

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- ▶ As of 2012, there were 26 primary care physicians (no General Practice physicians and only 2 Obstetrician/Gynecologists) and 31 specialists in Beaufort County.
- ▶ 17 dentists and 25 hygienists were practicing in 2012.
- ▶ The count of 409 nurses included 23 nurse practitioners and 1 certified nurse midwife. An additional 92 LPNs were located in Beaufort County.

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## *Other Healthcare Facilities (as of March 2016)*

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### ▶ Hospitals

- ▶ There is one hospital located in Beaufort County: Vidant Beaufort Hospital in Washington.
  - ▶ 120 general beds and 22 beds designated for mental health patients.
  - ▶ 1 operating room is designed for C-sections and another for endoscopies; 5 are shared inpatient/ambulatory surgical rooms

### ▶ Dialysis Facilities

- ▶ There is one dialysis facility in Beaufort County, located in Washington, with a total of 25 hemodialysis stations, and offering peritoneal dialysis and home hemodialysis training. This facility does not offer shifts after 5pm.
- ▶ There are no licensed ambulatory care facilities, one cardiac rehabilitation facility and one licensed nursing pool in the county.
- ▶ There are 27 mental health facilities offering a range of services, including several supervised living arrangements, psychosocial rehabilitation, substance abuse treatment, day treatment, and vocational programs.

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## *Other Healthcare Providers (as of March 2016)*

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### ▶ Home Health/Hospice:

- ▶ There are 6 facilities providing home care services in the county; 5 are located in Washington and 1 is in Belhaven.
- ▶ Two facilities offer home health care, both are in Washington.
- ▶ Two facilities offer hospice services and both are located in Washington.

### ▶ School Nurses

- ▶ The student to school nurse ratio has decreased in Beaufort County from 1,403:1 in 2009-10 to 1,163:1 in 2012-13. The recommended ratio is 750:1 and the state average is 1,177:1.

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## *Long-Term Care Facilities (as of March 2016)*

- ▶ The number of beds in NC-licensed long-term care facilities in Beaufort County are:
  - ▶ Adult Care Homes/Homes for the Aged (5 facilities): 157 beds
  - ▶ Family Care Homes (1 facility): 6 beds
  - ▶ Nursing Homes/Homes for the Aged (2 facilities): 290 beds
    - ▶ One facility also had 10 adult care home beds.
- ▶ Most long-term care facilities in the county are located in Washington.

Total = 453 beds, or 1 bed for every 23 persons age 65 and older in Beaufort County (10,255 persons  $\geq$  65 in 2014)

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## *Hospital Utilization Summary: Emergency Department*

- ▶ Overall gender and age-group profile of ED utilization at the seven VIDANT hospitals in the study region seeing 30 or more Beaufort County ED patients over three years.

### ED Discharges by Gender and Age Group

| Fiscal Year  | No. by Gender |               | No. by Age Group |               |               | Total No. Discharges |
|--------------|---------------|---------------|------------------|---------------|---------------|----------------------|
|              | Females       | Males         | < 18             | 18-64         | $\geq$ 65     |                      |
| 2013         | 13,051        | 9,913         | 4,055            | 14,387        | 4,526         | 22,968               |
| 2014         | 13,254        | 10,444        | 4,045            | 14,677        | 4,977         | 23,699               |
| 2015         | 12,885        | 10,058        | 4,526            | 13,956        | 5,034         | 22,946               |
| <b>Total</b> | <b>39,190</b> | <b>30,415</b> | <b>12,056</b>    | <b>43,020</b> | <b>14,537</b> | <b>69,613</b>        |

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## ***Hospital Utilization Summary: Emergency Department***

- ▶ Overall racial and ethnic profile of ED utilization at the seven VIDANT hospitals in the study region seeing 30 or more Beaufort County ED patients over three years.

### **ED Discharges by Race/Ethnicity**

| Fiscal Year  | No. by Racial/Ethnic Group (Excluding "Blank") |       |        |          |       |         |        | Total No. Discharges |
|--------------|--|-------|--------|----------|-------|---------|--------|----------------------|
|              | Am. Indian Alaskan                             | Asian | Black  | Hispanic | Other | Unknown | White  |                      |
| 2013         | 8  | 19    | 9,296  | 799      | 288   | 61      | 12,497 | 22,968               |
| 2014         | 17   | 22    | 9,712  | 874      | 245   | 19      | 12,808 | 23,699               |
| 2015         | 18   | 21    | 9,554  | 894      | 288   | 19      | 12,146 | 22,946               |
| <b>Total</b> | 43   | 62    | 28,562 | 2,567    | 821   | 99      | 37,451 | 69,613               |

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## ***Hospital Utilization Summary: Emergency Department***

- ▶ Overall payor profile of ED utilization at the seven VIDANT hospitals in the study region seeing 30 or more Beaufort County ED patients over three years.

### **ED Discharges by Payor Group**

| Fiscal Year             | No. by Payor Group (Excluding the payor group "Other") |        |        |        |                |                 |                  |                 |                      |          |           | Total No. Discharges   |
|-------------------------|--|--------|--------|--------|----------------|-----------------|------------------|-----------------|----------------------|----------|-----------|------------------------|
|                         | Champus Tricare  | Com-al | M-aid  | M-care | Mgd. Care BCBS | Mgd. Care M-aid | Mgd. Care M-care | Mgd. Care Other | Mgd. Care VH Medcost | Self-Pay | Work Comp |                        |
| 2013                    | 150  | 167    | 6,699  | 6,092  | 3,054          | 245             | 334              | 553             | 370                  | 5,028    | 130       | 22,968                 |
| 2014                    | 180  | 170    | 6,648  | 6,484  | 3,382          | 293             | 609              | 589             | 356                  | 4,690    | 138       | 23,699                 |
| 2015                    | 163  | 139    | 6,539  | 6,261  | 3,374          | 247             | 763              | 700             | 335                  | 4,078    | 145       | 22,946                 |
| <b>Total</b>            | 523  | 476    | 19,886 | 18,837 | 9,810          | 785             | 1,706            | 1,842           | 1,061                | 13,796   | 413       | 69,613                 |
| <b>Group % of Total</b> | 0.8%   | 0.7%   | 28.6%  | 27.1%  | 14.1%          | 1.1%            | 2.5%             | 2.6%            | 1.5%                 | 19.8%    | 0.6%      | 99.4% ("Other" = 0.6%) |

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## ***Hospital Utilization Summary: Inpatient Hospitalizations***

- ▶ Overall gender and age-group profile of IP utilization at the four VIDANT hospitals in the study region seeing 30 or more Beaufort County patients over three years.

### **IP Discharges by Gender and Age Group**

| Fiscal Year  | No. by Gender |              | No. by Age Group |              |              | Total No. Discharges |
|--------------|---------------|--------------|------------------|--------------|--------------|----------------------|
|              | Females       | Males        | < 18             | 18-64        | ≥ 65         |                      |
| 2013         | 2,910         | 2,445        | 667              | 2,669        | 2,019        | 5,355                |
| 2014         | 3,019         | 2,505        | 653              | 2,816        | 2,055        | 5,524                |
| 2015         | 2,848         | 2,361        | 569              | 2,612        | 2,029        | 5,210                |
| <b>Total</b> | <b>8,777</b>  | <b>7,311</b> | <b>1,889</b>     | <b>8,097</b> | <b>6,103</b> | <b>16,089</b>        |

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## ***Hospital Utilization Summary: Inpatient Hospitalizations***

- ▶ Overall racial and ethnic profile of IP utilization at the four VIDANT hospitals in the study region seeing 30 or more Beaufort County patients over three years.

### **IP Discharges by Race/Ethnicity**

| Fiscal Year  | No. by Racial/Ethnic Group |           |              |            |            |           |               | Total No. Discharges |
|--------------|----------------------------|-----------|--------------|------------|------------|-----------|---------------|----------------------|
|              | Am. Indian Alaskan         | Asian     | Black        | Hispanic   | Other      | Unknown   | White         |                      |
| 2013         | 0                          | 6         | 1,566        | 217        | 29         | 7         | 3,530         | 5,355                |
| 2014         | 5                          | 18        | 1,685        | 177        | 43         | 3         | 3,596         | 5,524                |
| 2015         | 2                          | 8         | 1,596        | 180        | 52         | 5         | 3,365         | 5,210                |
| <b>Total</b> | <b>7</b>                   | <b>29</b> | <b>4,847</b> | <b>574</b> | <b>124</b> | <b>15</b> | <b>10,491</b> | <b>16,089</b>        |

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## ***Hospital Utilization Summary: Inpatient Hospitalizations***

- ▶ Overall payor profile of IP utilization at the four VIDANT hospitals in the study region seeing 30 or more Beaufort County patients over three years.

### **IP Discharges by Payor Group**

| Fiscal Year             | 311No. by Payor Group (Excluding the payor group "Other") |        |       |        |                |                 |                  |                 |                      |          |           | Total No. Discharges   |
|-------------------------|---|--------|-------|--------|----------------|-----------------|------------------|-----------------|----------------------|----------|-----------|------------------------|
|                         | Champus Tricare   | Com-al | M-aid | M-care | Mgd. Care BCBS | Mgd. Care M-aid | Mgd. Care M-care | Mgd. Care Other | Mgd. Care VH Medcost | Self-Pay | Work Comp |                        |
| 2013                    | 40  | 27     | 1,203 | 2,420  | 762            | 157             | 153              | 127             | 84                   | 313      | 12        | 5,355                  |
| 2014                    | 43  | 24     | 1,183 | 2,452  | 802            | 200             | 264              | 120             | 91                   | 275      | 12        | 5,524                  |
| 2015                    | 36  | 21     | 996   | 2,314  | 757            | 154             | 311              | 162             | 114                  | 272      | 12        | 5,210                  |
| <b>Total</b>            | 119   | 72     | 3,382 | 7,186  | 2,321          | 511             | 728              | 409             | 289                  | 860      | 36        | 16,089                 |
| <b>Group % of Total</b> | 0.7%  | 0.4%   | 21.0% | 44.7%  | 14.4%          | 3.2%            | 4.5%             | 2.5%            | 1.8%                 | 5.3%     | 0.2%      | 98.7% ("Other" = 1.1%) |

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# *Health Statistics*

*Health Rankings*

## *Health Rankings*

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- ▶ According to *America's Health Rankings (2015)*
  - ▶ NC ranked 31<sup>st</sup> overall out of 50 (where 1 is “best”)
  
- ▶ According to *County Health Rankings (2015)* for NC, Beaufort County was ranked:
  - ▶ 63<sup>rd</sup> overall out of 100 (where 1 is best) for **health outcomes**
    - ▶ 75<sup>th</sup> in length of life
    - ▶ 48<sup>th</sup> for quality of life
  - ▶ 81<sup>st</sup> overall out of 100 for **health factors**
    - ▶ 87<sup>th</sup> for health behaviors
    - ▶ 25<sup>th</sup> for clinical care
    - ▶ 83<sup>rd</sup> for social and economic factors
    - ▶ 17<sup>th</sup> for physical environment

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# *Maternal and Infant Health*

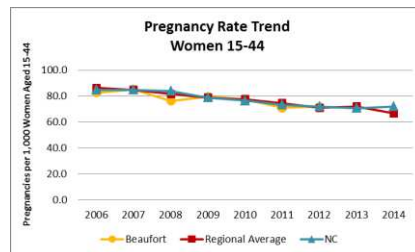
***Pregnancy Rate, Risk Factors, Outcomes, Infant Mortality***

All data from the NC State Center for Health Statistics unless otherwise cited.

## *Pregnancy Rate: Women 15-44*

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

- ▶ Total pregnancy rates fluctuate in Beaufort County on a yearly basis but have demonstrated a decrease over the period presented.
- ▶ Total pregnancy rates in the VIDANT Region and NC have fallen overall since 2007.
- ▶ The 2014 pregnancy rate was 63.9 in Beaufort County, compared to 66.8 in the Region and 72.1 in NC.

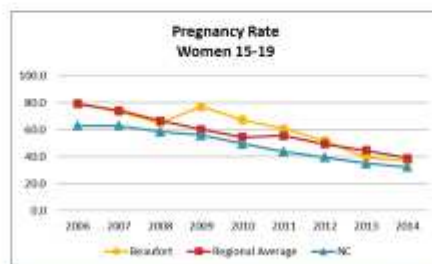


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## *Pregnancy Rate: Women 15-19*

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

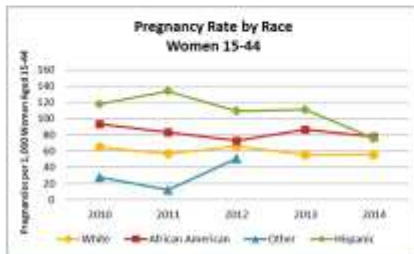
- ▶ The teen pregnancy rate in Beaufort County has decreased since 2009, though it remains higher than the state rate.
- ▶ In 2014 the teen pregnancy rate was 36.8 in Beaufort County, compared to 39.0 for the Region and 32.3 for the state.



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## Pregnancy Rate: By Race/Ethnicity

- ▶ Among Beaufort County women age 15-44 the highest pregnancy rates appear to occur among Hispanics and African Americans. In 2014 the rate among African American women (77.5) was slightly higher than the rate among Hispanic women (75.4).
- ▶ Among Beaufort County teens, the racially-stratified pregnancy rates appear quite variable and have become unstable over time for most groups. The 2014 rate was highest among African American teens (60.9) and that rate was higher than the comparable state rate (55.0).



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## Teen and Adolescent Pregnancies

- ▶ The *number* of teen (women aged 15-19) pregnancies in Beaufort County has decreased overall from a high of 115 in 2009 to 48 in 2014. The county demonstrated a lower number than the NC state average (103 in 2014).
- ▶ Between 2004 and 2014 there were 16 pregnancies among Beaufort County adolescent girls (age 14 and younger). In 2014, there were 4 pregnancies among adolescent girls in Beaufort County.

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## ***Abortion Trend***

- ▶ While the Beaufort County abortion rate among women aged 15-44 appears to fluctuate each year, it has been lower than both the Region and state rate since 2006.
  - ▶ In 2014, the Beaufort County rate was 6.5 compared to 9.8 in the Region and 10.7 in NC.
- ▶ Among teenage women the abortion rate fluctuates widely, likely due to instability based on very low numbers.
  - ▶ In 2012 (the last year for which rates are available) the Beaufort County rate was 4.7, compared to 7.3 across the Region and 7.6 for NC.

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## ***Pregnancy Risk Factors: Smoking During Pregnancy***

- ▶ The percentage of Beaufort County women who smoked during pregnancy increased from 13% in 2013 to 17.0% in 2014. The comparable percentage for the Region did not change significantly over the same period, and the statewide percentage decreased.
- ▶ Among comparators and since 2012, the highest percentages of mothers who smoked while pregnant were in Beaufort County.

| Location         | Percent of Births to Mothers Who Smoked While Pregnant |      |      |      |
|------------------|--|------|------|------|
|                  | 2011   | 2012 | 2013 | 2014 |
| Beaufort County  | 13.4   | 14.4 | 12.9 | 17.0 |
| Regional Average | 7.7  | 7.7  | 7.6  | 7.9  |
| State of NC      | 10.9   | 10.6 | 10.3 | 9.8  |

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## ***Pregnancy Risk Factors: Inadequate Prenatal Care***

- ▶ The percentage of women receiving early prenatal care was higher in Beaufort County, compared to the State.
- ▶ The percentage of Beaufort County women receiving prenatal care in the first trimester declined from 79.5% in 2013 to 77.4% in 2014.
- ▶ Among racial groups, a higher proportion of white women received prenatal care in the first trimester (80.8%) compared to African American women (72.3%) and Hispanic women (75.9%) in 2014. (See Data Workbook)

| County           | Percent of Pregnancies Receiving Prenatal Care in 1 <sup>st</sup> Trimester |      |      |      |
|------------------|---|------|------|------|
|                  | 2011  | 2012 | 2013 | 2014 |
| Beaufort County  | 78.6  | 76.4 | 79.5 | 77.4 |
| Regional Average | 70.5  | 67.0 | 70.0 | 71.4 |
| State of NC      | 71.2  | 71.3 | 70.3 | 68.2 |

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## ***Pregnancy Risk Factors: Pre-term and Low Weight Births***

### In Beaufort County in 2010-2014

- ▶ Preterm Births (less than 37 weeks)
  - ▶ 13.2% [NC=11.8% Region=13.4%]
- ▶ Low Weight Births (≤2500 grams/5.5 lbs.)
  - ▶ Overall 9.3% [NC=9.0% Region=9.9%]
  - ▶ The rate has declined slightly since 2005-2009.
  - ▶ Highest stable rate is among African Americans (15.1%).
- ▶ Very Low Weight Births (≤1500 grams/3.3 lbs.)
  - ▶ Overall = 2.1% [NC = 1.7% Region=2.3%]
  - ▶ The variable rate has increased overall since 2007-2011.
  - ▶ Highest stable rate is among African Americans (4.1%).

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## Pregnancy Outcomes: Hospital Discharges for Newborns and Neonates with Conditions Originating in the Perinatal Period

- According to data from the four VIDANT Region hospitals seeing 30 or more Beaufort County inpatients over three years, the number of discharges associated with newborns or neonates with some kind of problem originating in the perinatal period was small but totaled 17% of all newborns over the period cited.

| Year         | Number of Hospital Discharges by DRG (Diagnosis Related Group) Diagnosis |  |                                 |                                    |                                       |   |
|--------------|--|--|---------------------------------|------------------------------------|---------------------------------------|---|
|              | Total Newborns   | Extreme Immaturity or Respiratory Distress | Prematurity with Major Problems | Prematurity without Major Problems | Full-Term Neonate with Major Problems | Neonate with Other Significant Problems |
| 2013         | 295  | 4  | 0                               | 6                                  | 1                                     | 27                                      |
| 2014         | 326  | 0  | 0                               | 6                                  | 3                                     | 44                                      |
| 2015         | 249  | 4  | 0                               | 12                                 | 11                                    | 26                                      |
| <b>Total</b> | <b>870</b>   | <b>8</b>                                   | <b>0</b>                        | <b>24</b>                          | <b>15</b>                             | <b>97</b>                               |

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## Pregnancy Outcomes: Infant Mortality

- Most of the Beaufort County infant mortality rates are unstable, so they should be interpreted with caution. The total infant mortality rate in Beaufort County has increased from a low (unstable rate) of 4.8 in 2004-2008 to a high (and stable rate) of 10.5 in 2010-2014.
- The Beaufort County infant mortality rate has risen above both the state and the Region in the most recent period (2010-2014).  
[NC = 7.1      Region = 9.8]
- Note that according to the CDC the 2013 infant mortality rate in NC was the 10<sup>th</sup> highest in the nation.



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

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- ▶ No stable minority infant mortality rates are available for any racial group in Beaufort County; all minority rates were suppressed after 2008-2012.
- ▶ In 2008-2012, the infant mortality rate among African Americans was 11.8 compared to 13.9 in the Region and 14.0 in NC.

# *Mortality*

*Life Expectancy, Leading Causes of Death, Hospital Utilization by Cause, Trend Data, Gender and Racial Disparities*

## Life Expectancy

### Life Expectancy for persons born in 2012-2014

- ▶ Among comparators, life expectancy is shortest in Beaufort County for all groups presented.

| County                   | Overall | Sex  |        | Race  |                  |
|--------------------------|---------|------|--------|-------|------------------|
|                          |         | Male | Female | White | African-American |
| Beaufort                 | 76.1    | 73.3 | 78.9   | 76.9  | 73.9             |
| Regional Arithmetic Mean | 77.7    | 75.0 | 80.3   | 78.4  | 76.5             |
| State Total              | 78.3    | 75.8 | 80.7   | 78.9  | 75.9             |

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## Leading Causes of Death: Overall

| Age-Adjusted Rates (2010-2014)                  | Beaufort County No. of Deaths | Beaufort County Mortality Rate | Beaufort Rate Difference from NC |
|---|-------------------------------|--------------------------------|----------------------------------|
| 1. Cancer                                       | 669                           | 194.6                          | +13.3%                           |
| 2. Diseases of Heart                            | 633                           | 191.2                          | +16.3%                           |
| 3. Chronic Lower Respiratory Diseases           | 182                           | 52.2                           | +13.6%                           |
| 4. Cerebrovascular Disease                      | 155                           | 46.3                           | +7.7%                            |
| 5. All Other Unintentional Injuries             | 110                           | 39.4                           | +33.1%                           |
| 6. Diabetes Mellitus                            | 87                            | 26.5                           | +19.9%                           |
| 7. Alzheimer's disease                          | 84                            | 26.0                           | -11.0%                           |
| 8. Nephritis, Nephrotic Syndrome, and Nephrosis | 48                            | 14.9                           | -12.4%                           |
| 9. Unintentional Motor Vehicle Injuries         | 44                            | 19.0                           | +40.7%                           |
| 10. Suicide                                     | 41                            | 15.7                           | +26.6%                           |
| 11. Pneumonia and Influenza                     | 39                            | 11.9                           | -32.4%                           |
| 12. Chronic Liver Disease and Cirrhosis         | 32                            | 10.5                           | +8.2%                            |
| 13. Sepsicemia                                  | 26                            | 7.7                            | -40.8%                           |
| 14. Acquired Immune Deficiency Syndrome         | 14                            | 4.5                            | +73.1%                           |
| 15. Homicide                                    | 11                            | 4.5                            | -21.1%                           |

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## Hospital Activity Associated with Leading Causes of Death (LCD)

- ▶ Below is data on *emergency department* discharges from the seven VIDANT hospitals seeing 30 or more Beaufort County patients in the ED over the three years cited. The diagnoses referenced match the NC State Center for Health Statistics' ICD-9 case definitions for several Leading Causes of Death (LCD).
- ▶ ED discharges for all LCD listed except stroke, suicide ideation and pneumonia/influenza appear to be lower in 2015 than in 2013.

| Year         | Number of Emergency Department Discharges (by SCHS ICD-9 Case Definitions for LCD) |               |                                 |        |                    |          |                     |                  |                     |
|--------------|--|---------------|---------------------------------|--------|--------------------|----------|---------------------|------------------|---------------------|
|              | Total Cancer   | Heart Disease | COPD (Bronchitis and Emphysema) | Stroke | Injury & Poisoning | Diabetes | Alzheimer's Disease | Suicide Ideation | Pneumonia/Influenza |
| 2013         | 81   | 586           | 386                             | 178    | 4,146              | 285      | 0                   | 27               | 244/121             |
| 2014         | 77   | 627           | 419                             | 211    | 4,161              | 319      | 0                   | 13               | 266/36              |
| 2015         | 78   | 546           | 323                             | 228    | 3,662              | 246      | 0                   | 34               | 258/213             |
| <b>Total</b> | 236  | 1,759         | 1,128                           | 617    | 11,969             | 850      | 0                   | 74               | 768/370             |

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## Hospital Activity Associated with Leading Causes of Death (LCD)

- ▶ Below is data on *inpatient hospitalization* discharges from the four VIDANT hospitals seeing 30 or more Beaufort County inpatients over the three years cited. The diagnoses referenced match the NC State Center for Health Statistics' ICD-9 case definitions for several Leading Causes of Death.
- ▶ IP discharges for all LCD listed except COPD, stroke, injuries & poisonings, diabetes and influenza appear to be fewer in 2015 than in 2013.

| Year         | Number of Inpatient Hospitalization Discharges (by SCHS ICD-9 Case Definitions for LCD) |               |                                 |        |                    |          |                     |                  |                     |
|--------------|---|---------------|---------------------------------|--------|--------------------|----------|---------------------|------------------|---------------------|
|              | Total Cancer  | Heart Disease | COPD (Bronchitis and Emphysema) | Stroke | Injury & Poisoning | Diabetes | Alzheimer's Disease | Suicide Ideation | Pneumonia/Influenza |
| 2013         | 190   | 621           | 105                             | 160    | 332                | 99       | 0                   | 0                | 150/3               |
| 2014         | 193   | 653           | 118                             | 183    | 387                | 122      | 0                   | 0                | 135/2               |
| 2015         | 188   | 591           | 110                             | 163    | 385                | 111      | 0                   | 1                | 124/21              |
| <b>Total</b> | 571   | 1,865         | 333                             | 506    | 1,104              | 332      | 0                   | 1                | 409/26              |

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## Leading Causes of Death: Gender Comparison

| Beaufort County<br>Rank by Descending Overall Age-Adjusted Rate<br>(2010-2014) | Rank<br>Among<br>Males | Rank<br>Among<br>Females | % Male Rate<br>Difference from<br>Females |
|--|------------------------|--------------------------|---|
| 1. Cancer  | 2                      | 1                        | +45.2%                                    |
| 2. Diseases of Heart   | 1                      | 2                        | +74.2%                                    |
| 3. Chronic Lower Respiratory Diseases  | 3                      | 3                        | +37.5%                                    |
| 4. Cerebrovascular Disease   | 5                      | 4                        | +9.1%                                     |
| 5. All Other Unintentional Injuries  | 4                      | 6                        | +126.4%                                   |
| 6. Diabetes Mellitus   | 6                      | 7                        | +28.4%                                    |
| 7. Alzheimer's disease   | 9                      | 5                        | -3.9%                                     |
| 8. Nephritis, Nephrotic Syndrome, and Nephrosis                                | 10                     | 8                        | +3.3%                                     |
| 9. Unintentional Motor Vehicle Injuries  | 8                      | n/a                      | n/a                                       |
| 10. Suicide  | 7                      | n/a                      | n/a                                       |
| 11. Pneumonia and Influenza  | n/a                    | 9                        | n/a                                       |
| 12. Chronic Liver Disease and Cirrhosis  | n/a                    | n/a                      | n/a                                       |
| 13. Septicemia   | n/a                    | n/a                      | n/a                                       |
| 14. Acquired Immune Deficiency Syndrome  | n/a                    | n/a                      | n/a                                       |
| 15. Homicide   | n/a                    | n/a                      | n/a                                       |

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## Leading Causes of Death: Race Comparison

| Beaufort County<br>Rank by Descending Overall Age-Adjusted Rate<br>(2010-2014) | Rank<br>Among White<br>Non-Hispanic | Rank<br>Among<br>Black non-<br>Hispanic | % Blacks Rate<br>Difference from<br>Whites |
|--|-------------------------------------|---|--|
| 1. Cancer  | 2                                   | 1                                       | +30.3                                      |
| 2. Diseases of Heart   | 1                                   | 2                                       | +17.8                                      |
| 3. Chronic Lower Respiratory Diseases  | 3                                   | 6                                       | -49.2                                      |
| 4. Cerebrovascular Disease   | 5                                   | 4                                       | -14.7                                      |
| 5. All Other Unintentional Injuries  | 4                                   | n/a                                     | n/a  |
| 6. Diabetes Mellitus   | 8                                   | 3                                       | +156.6                                     |
| 7. Alzheimer's disease   | 6                                   | 6                                       | +17.7                                      |
| 8. Nephritis, Nephrotic Syndrome, and Nephrosis                                | 12                                  | 5                                       | +273.4                                     |
| 9. Unintentional Motor Vehicle Injuries  | 9                                   | n/a                                     | n/a  |
| 10. Suicide  | 7                                   | n/a                                     | n/a  |
| 11. Pneumonia and Influenza  | 10                                  | n/a                                     | n/a  |
| 12. Chronic Liver Disease and Cirrhosis  | 11                                  | n/a                                     | n/a  |
| 13. Septicemia   | 13                                  | n/a                                     | n/a  |
| 14. Acquired Immune Deficiency Syndrome  | n/a                                 | n/a                                     | n/a  |
| 15. Homicide   | n/a                                 | n/a                                     | n/a  |

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## Leading Causes of Death - By Age

| Age Group | Rank | Cause of Death in Beaufort County (2010-2014)  |
|-----------|------|--|
| 00-19     | 1    | Conditions originating in the perinatal period |
|           | 2    | Motor vehicle injuries                         |
|           | 3    | Other Unintentional injuries                   |
| 20-39     | 1    | Other Unintentional injuries                   |
|           | 2    | Motor vehicle injuries                         |
|           | 3    | Cancer (all sites)                             |
| 40-64     | 1    | Cancer (all sites)                             |
|           | 2    | Diseases of the heart                          |
|           | 3    | Other Unintentional injuries                   |
| 65-84     | 1    | Cancer (all sites)                             |
|           | 2    | Diseases of the heart                          |
|           | 3    | Chronic lower respiratory diseases             |
| 85+       | 1    | Diseases of the heart                          |
|           | 2    | Cancer (all sites)                             |
|           | 3    | Alzheimer's disease                            |

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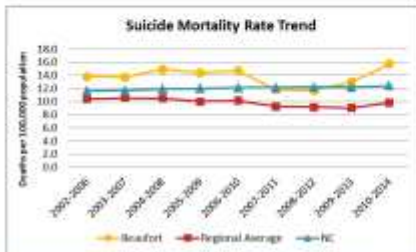
## Overall Mortality Rate Trends, 2002-2006 & 2010-2014

| Beaufort County Rank by Descending Overall Age-Adjusted Rate (2010-2014) | Rate in 2002-2006 | Rate in 2010-2014 | % Change 2002-2006 to 2010-2014 |
|--|-------------------|-------------------|---------------------------------|
| 1. Cancer  | 210.6             | 194.6             | -7.6%                           |
| 2. Diseases of Heart   | 281.1             | 191.2             | -32.0%                          |
| 3. Chronic Lower Respiratory Diseases                                    | 45.1              | 52.2              | +15.7%                          |
| 4. Cerebrovascular Disease   | 67.0              | 46.3              | -31.0%                          |
| 5. All Other Unintentional Injuries                                      | 28.7              | 39.4              | +37.3%                          |
| 6. Diabetes Mellitus   | 25.8              | 26.5              | +2.7%                           |
| 7. Alzheimer's disease   | 28.5              | 26.0              | -8.8%                           |
| 8. Nephritis, Nephrotic Syndrome, and Nephrosis                          | 13.9              | 14.9              | +7.2%                           |
| 9. Unintentional Motor Vehicle Injuries                                  | 29.8              | 19.0              | -36.2%                          |
| 10. Suicide  | 13.8              | 15.7              | +13.8%                          |
| 11. Pneumonia and Influenza  | 14.4              | 11.9              | -17.4%                          |
| 12. Chronic Liver Disease and Cirrhosis                                  | 8.4               | 10.5              | +25.0%                          |
| 13. Septicemia   | 11.2              | 7.7               | -31.3%                          |
| 14. Acquired Immune Deficiency Syndrome                                  | 4.8               | 4.5               | -6.3%                           |
| 15. Homicide   | 4.5               | 4.5               | No Change                       |

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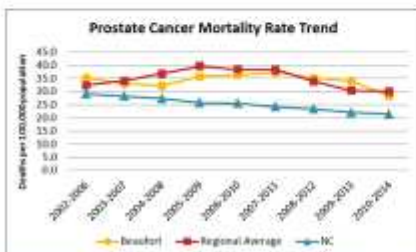
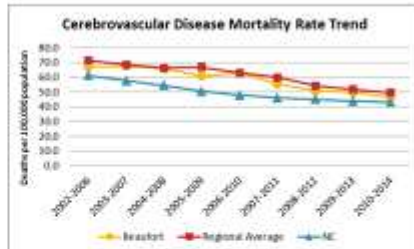
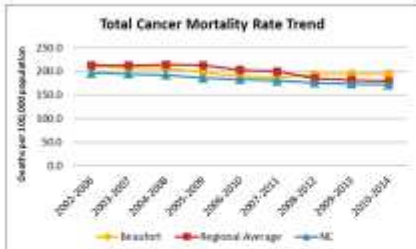


## Mortality Rate Trends of Concern: Increasing



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## Mortality Rate Trends of Concern: High Rates



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## ***Trends in Racial Disparities in Hospital Discharges for COPD***

- ▶ Because the CLRD mortality rate in Beaufort County is higher than the NC rate and appears to be increasing, it may be illustrative to examine hospital discharges of Beaufort County residents for COPD (bronchitis and emphysema; ICD-9 Codes 490-492xx). These data are from VBEA only.
- ▶ The number of ED discharges under this code for blacks increased between 2013 and 2014, then decreased; the comparable numbers for whites followed the same pattern.
- ▶ There are significantly fewer hospitalizations under this code for blacks than for whites.

| Fiscal Year | No. ED Discharges |       |       | No. IP Discharges |       |       |
|-------------|-------------------|-------|-------|-------------------|-------|-------|
|             | Black             | White | Total | Black             | White | Total |
| 2013        | 125               | 210   | 337   | 8                 | 83    | 91    |
| 2014        | 146               | 212   | 366   | 19                | 79    | 98    |
| 2015        | 87                | 196   | 284   | 9                 | 87    | 96    |

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## ***Trends in Gender Disparities in Hospital Discharges for COPD***

- ▶ These data for ICD-9 Codes 490-492xx are from VBEA only.
- ▶ The number of ED discharges under this code for both Beaufort County females and males decreased between 2013 and 2015.
- ▶ The number of IP discharges under this code for females was approximately the same from 2013 through 2015, but the comparable numbers for males were higher in 2014 and 2015 than in 2013.
- ▶ Over the period cited there was a higher proportion of COPD diagnoses among women than among men.

| Fiscal Year  | No. ED Discharges |      |       | No. IP Discharges |      |       |
|--------------|-------------------|------|-------|-------------------|------|-------|
|              | Female            | Male | Total | Female            | Male | Total |
| 2013         | 186               | 151  | 337   | 54                | 37   | 91    |
| 2014         | 199               | 167  | 366   | 50                | 48   | 98    |
| 2015         | 168               | 116  | 284   | 51                | 45   | 96    |
| <b>Total</b> | 553               | 434  | 987   | 155               | 130  | 285   |

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## ***Trends in Racial Disparities in Hospital Discharges for Injuries and Poisoning***

- ▶ Because the "all other unintentional injury" (unintentional non-motor vehicle injuries) mortality rate in Beaufort County appears to be higher than the NC rate and has been increasing for some time, it may be illustrative to examine hospital discharges among Beaufort County residents for all injuries and poisonings (ICD-9 Codes 800-999xx). These data are from VBEA only.
- ▶ The number of ED discharges under these codes for blacks decreased significantly between 2013 and 2015; the comparable number for whites also decreased.
- ▶ The number of IP discharges among blacks and whites both increased between 2013 and 2014 and decreased between 2014 and 2015.

| Fiscal Year  | No. ED Discharges |              |              | No. IP Discharges |            |            |
|--------------|-------------------|--------------|--------------|-------------------|------------|------------|
|              | Black             | White        | Total        | Black             | White      | Total      |
| 2013         | 1,174             | 2,136        | 3,504        | 22                | 85         | 111        |
| 2014         | 1,144             | 2,087        | 3,450        | 26                | 100        | 126        |
| 2015         | 966               | 1,785        | 2,951        | 15                | 96         | 111        |
| <b>Total</b> | <b>3,284</b>      | <b>6,008</b> | <b>9,905</b> | <b>63</b>         | <b>281</b> | <b>348</b> |

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## ***Trends in Gender Disparities in Hospital Discharges for Injuries and Poisoning***

- ▶ These data for ICD-9 Codes 800-999xx are from VBEA only.
- ▶ The number of ED discharges under this code for Beaufort County females decreased every year between 2013 and 2015; the comparable number for males increased between 2013 and 2014 then decreased again.
- ▶ Over the same period the number of IP discharges under these codes for females changed little over the period cited but discharges for males increased between 2013 and 2014 before decreasing again.

| Fiscal Year  | No. ED Discharges |              |              | No. IP Discharges |            |            |
|--------------|-------------------|--------------|--------------|-------------------|------------|------------|
|              | Female            | Male         | Total        | Female            | Male       | Total      |
| 2013         | 1,771             | 1,731        | 3,504        | 65                | 46         | 111        |
| 2014         | 1,631             | 1,818        | 3,450        | 68                | 58         | 126        |
| 2015         | 1,479             | 1,472        | 2,951        | 64                | 47         | 111        |
| <b>Total</b> | <b>4,881</b>      | <b>5,021</b> | <b>9,905</b> | <b>197</b>        | <b>151</b> | <b>348</b> |

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## ***Trends in Racial Disparities in Hospital Discharges for Suicide Ideation***

- ▶ Because the suicide mortality rate in Beaufort County is higher than the NC rate and appears to be increasing, it may be illustrative to examine hospital discharges among Beaufort County residents for suicide ideation (ICD-9 Code V62.84). These data are from VBEA only.
- ▶ The total number of ED discharges under this code averaged almost 14 annually over the three-year period cited.
- ▶ While the majority of ED suicide ideation cases have been among whites, the diagnosis was also found for blacks, Hispanics and the racial group "Other".

| Fiscal Year | No. ED Discharges |       |      |       |       | No. IP Discharges |       |       |
|-------------|-------------------|-------|------|-------|-------|-------------------|-------|-------|
|             | Black             | White | Hisp | Other | Total | Black             | White | Total |
| 2013        | 4                 | 8     | 1    | 0     | 13    | 0                 | 0     | 0     |
| 2014        | 4                 | 11    | 1    | 0     | 16    | 0                 | 0     | 0     |
| 2015        | 3                 | 7     | 0    | 2     | 12    | 0                 | 1     | 1     |

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## ***Trends in Gender Disparities in Hospital Discharges for Suicide Ideation***

- ▶ These data for ICD-9 Code V62.84 are from VBEA only.
- ▶ There appear to be more ED diagnoses associated with suicide ideation among males in Beaufort County than among females.

| Fiscal Year  | No. ED Discharges |      |       | No. IP Discharges |      |       |
|--------------|-------------------|------|-------|-------------------|------|-------|
|              | Female            | Male | Total | Female            | Male | Total |
| 2013         | 7                 | 6    | 13    | 0                 | 0    | 0     |
| 2014         | 5                 | 11   | 16    | 0                 | 0    | 0     |
| 2015         | 4                 | 8    | 12    | 1                 | 0    | 1     |
| <b>Total</b> | 16                | 25   | 41    | 1                 | 0    | 1     |

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## Gender Disparities in Mortality Rate Trend Changes, 2002-2006 to 2010-2014

| Beaufort County Rank by Descending Overall Age-Adjusted Rate (2010-2014) | Male Rate % Change | Female Rate % Change |
|--|--------------------|----------------------|
| 1. Cancer  | -16.2%             | -4.1%                |
| 2. Diseases of Heart   | -22.6%             | -39.0%               |
| 3. Chronic Lower Respiratory Diseases                                    | +4.9%              | +21.7%               |
| 4. Cerebrovascular Disease   | -26.4%             | -33.8%               |
| 5. All Other Unintentional Injuries                                      | +15.0%             | +89.4%               |
| 6. Diabetes Mellitus   | +33.6%             | -14.5%               |
| 7. Alzheimer's disease   | +12.7              | -19.1%               |
| 8. Nephritis, Nephrotic Syndrome, and Nephrosis                          | +15.6%             | -5.6%                |
| 9. Unintentional Motor Vehicle Injuries                                  | -47.8%             | n/a                  |
| 10. Suicide  | +20.3%             | n/a                  |
| 11. Pneumonia and Influenza  | n/a                | -17.0%               |
| 12. Chronic Liver Disease and Cirrhosis                                  | n/a                | n/a                  |
| 13. Septicemia   | n/a                | n/a                  |
| 14. Acquired Immune Deficiency Syndrome                                  | n/a                | n/a                  |
| 15. Homicide   | n/a                | n/a                  |

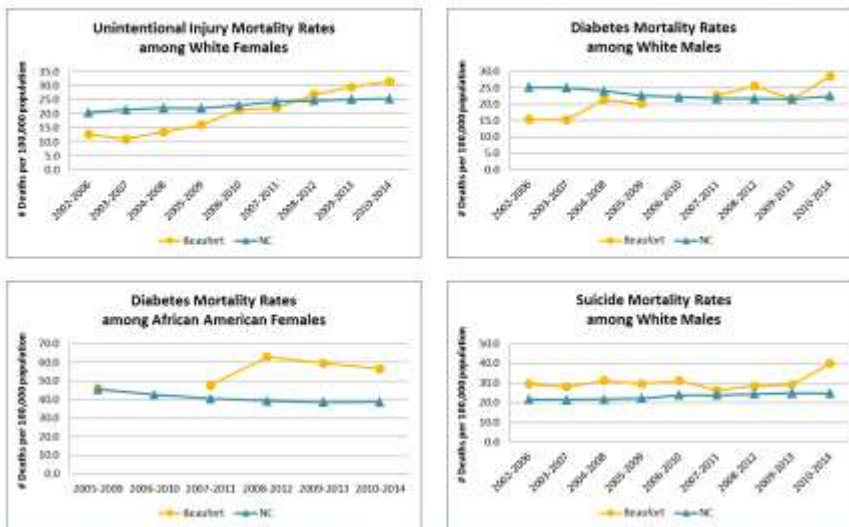
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## Race and Gender Disparities in Mortality Rate Trends, 2002-2006 to 2010-2014



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## Race and Gender Disparities in Mortality Rate Trends, 2002-2006 to 2010-2014



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## Trends in Racial and Gender Disparities in Hospital Discharges for All Neoplasms

- ▶ Because the total cancer mortality rate in Beaufort County (which is higher than the NC rate and may be increasing) is high among African American females and increasing among white males, it may be illustrative to examine hospital discharges among Beaufort County residents for all neoplasms (ICD-9 Codes 140-239xx) stratified by race and gender. These data are from VBEA only.
- ▶ Black females compose the same proportion of ED discharges under these codes as white females.

| Fiscal Year  | No. ED Discharges |               |             |               | Total      |
|--------------|-------------------|---------------|-------------|---------------|------------|
|              | Black Males       | Black Females | White Males | White Females |            |
| 2013         | 10                | 12            | 19          | 10            | 52         |
| 2014         | 5                 | 12            | 12          | 16            | 45         |
| 2015         | 7                 | 14            | 19          | 13            | 54         |
| <b>Total</b> | <b>22</b>         | <b>38</b>     | <b>50</b>   | <b>39</b>     | <b>151</b> |

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## ***Trends in Racial and Gender Disparities in Hospital Discharges for All Neoplasms***

- ▶ These data for CD-9 Codes 140-239xx, stratified by race and gender, are from VBEA only.
- ▶ Black females, white females, and white males in Beaufort County compose similarly-sized proportions of IP discharges under these codes. The outlier is black males, who compose less than half the proportion of discharges as the other gender/racial groups cited.

| Fiscal Year  | No. IP Discharges |               |             |               | Total      |
|--------------|-------------------|---------------|-------------|---------------|------------|
|              | Black Males       | Black Females | White Males | White Females |            |
| 2013         | 7                 | 11            | 19          | 16            | 54         |
| 2014         | 7                 | 15            | 10          | 19            | 51         |
| 2015         | 4                 | 15            | 16          | 10            | 47         |
| <b>Total</b> | <b>18</b>         | <b>41</b>     | <b>45</b>   | <b>45</b>     | <b>152</b> |

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## ***Trends in Racial and Gender Disparities in Hospital Discharges for COPD***

- ▶ Because the CLRD mortality rate in Beaufort County (which is higher than the NC rate and appears to be increasing) is high and increasing among both white males and females, it may be illustrative to examine racially and gender-stratified hospital discharges among Beaufort County residents for COPD (bronchitis and emphysema; ICD-9 Codes 490-492xx).
- ▶ White females compose the largest proportion (34%) of ED discharges under this code, followed by white males (28%).
- ▶ The number of ED discharges among white males has been relatively static; the number of discharges among white females decreased annually over the period cited.

| Fiscal Year  | No. ED Discharges |               |             |               | Total      |
|--------------|-------------------|---------------|-------------|---------------|------------|
|              | Black Males       | Black Females | White Males | White Females |            |
| 2013         | 60                | 65            | 90          | 120           | 337        |
| 2014         | 62                | 84            | 99          | 113           | 366        |
| 2015         | 27                | 60            | 89          | 107           | 284        |
| <b>Total</b> | <b>149</b>        | <b>209</b>    | <b>278</b>  | <b>340</b>    | <b>987</b> |

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## ***Trends in Racial and Gender Disparities in Hospital Discharges for COPD***

- ▶ These data for ICD-9 Codes 490-492xx, stratified by race and gender, are from VBEA only.
- ▶ White females composed the largest proportion (47%) of IP discharges for Beaufort County residents under these codes, followed by white males (40%). Together, discharges among blacks composed only 13% of all IP discharges under these codes.

| Fiscal Year  | No. IP Discharges |               |             |               | Total      |
|--------------|-------------------|---------------|-------------|---------------|------------|
|              | Black Males       | Black Females | White Males | White Females |            |
| 2013         | 3                 | 5             | 34          | 49            | 91         |
| 2014         | 11                | 8             | 37          | 42            | 98         |
| 2015         | 1                 | 8             | 44          | 43            | 96         |
| <b>Total</b> | <b>15</b>         | <b>21</b>     | <b>115</b>  | <b>134</b>    | <b>285</b> |

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## ***Trends in Racial and Gender Disparities in Hospital Discharges for Diabetes***

- ▶ Because the diabetes mortality rate in Beaufort County appears to be high among African American females and increasing among white males, it may be illustrative to examine hospital discharges among Beaufort County residents for diabetes (ICD-9 Code 250xx) stratified by race and gender. These data are from VBEA only.
- ▶ Black females compose the largest proportion (34%) of ED discharges under these codes; the next highest proportion (23%) is composed of black males. White males and white females compose similar proportions of discharges (21%).
- ▶ The number of ED discharges among white males increased every year cited.

| Fiscal Year  | No. ED Discharges |               |             |               | Total      |
|--------------|-------------------|---------------|-------------|---------------|------------|
|              | Black Males       | Black Females | White Males | White Females |            |
| 2013         | 50                | 73            | 36          | 48            | 211        |
| 2014         | 55                | 96            | 45          | 52            | 249        |
| 2015         | 47                | 53            | 56          | 35            | 192        |
| <b>Total</b> | <b>152</b>        | <b>222</b>    | <b>137</b>  | <b>135</b>    | <b>652</b> |

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## Trends in Racial and Gender Disparities in Hospital Discharges for Diabetes

- ▶ These data for CD-9 Code 250xx, stratified by race and gender, are from VBEA only.
- ▶ Among Beaufort County residents, white males compose the largest proportion of IP discharges (34%) under this code, followed by black females (26%).

| Fiscal Year | No. IP Discharges |               |             |               | Total |
|-------------|-------------------|---------------|-------------|---------------|-------|
|             | Black Males       | Black Females | White Males | White Females |       |
| 2013        | 9                 | 11            | 17          | 13            | 53    |
| 2014        | 9                 | 22            | 21          | 18            | 70    |
| 2015        | 11                | 14            | 22          | 8             | 55    |
| Total       | 29                | 47            | 60          | 39            | 178   |

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## Site-Specific Cancer Trends: Incidence and Mortality Rates

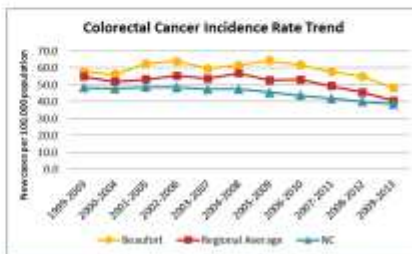
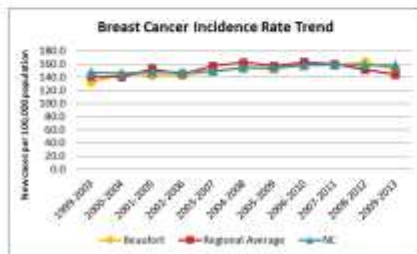
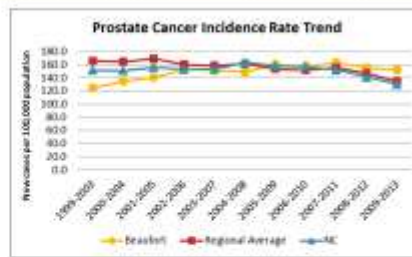
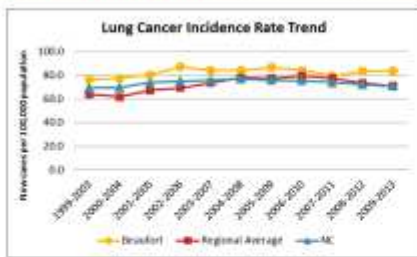
*Incidence: 1999-2003 to 2009-2013*

*Mortality: 2002-2006 to 2010-2014*

| Cancer Site       | Parameter | Overall Trend Direction |
|-------------------|-----------|-------------------------|
| Total Cancer      | Incidence | ▲21.6%                  |
|                   | Mortality | ▼7.6%                   |
| Lung Cancer       | Incidence | ▲9.4%                   |
|                   | Mortality | ▼13.0%                  |
| Prostate Cancer   | Incidence | ▲21.6%                  |
|                   | Mortality | ▼19.1%                  |
| Breast Cancer     | Incidence | ▲14.4%                  |
|                   | Mortality | ▼8.1%                   |
| Colorectal Cancer | Incidence | ▼16.6%                  |
|                   | Mortality | ▼12.4%                  |

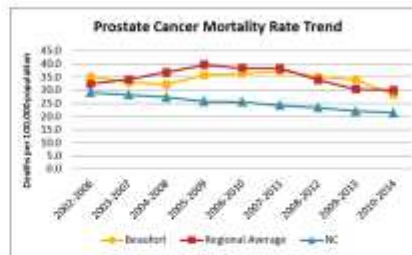
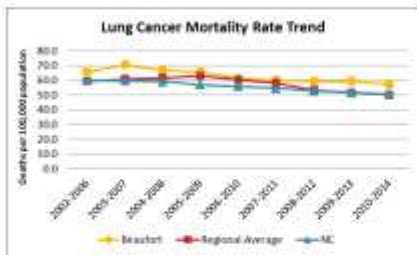
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## Site-Specific Cancer Incidence Rates, by Jurisdiction



Sheila S. Pfander, Public Health Consultant

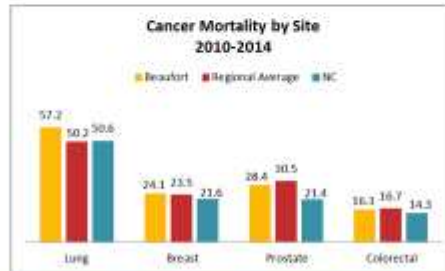
## Site-Specific Cancer Mortality Rates, by Jurisdiction



Sheila S. Pfander, Public Health Consultant

## Race and Gender Disparities in Site-Specific Cancer Mortality Rates

| Beaufort County<br>Descending Rank Order<br>(2010-2014) | % Change in Mortality Rate<br>2002-2006 to 2010-2014 |         |             |               |                        |                          |
|---|--|---------|-------------|---------------|------------------------|--------------------------|
|   | Males  | Females | White Males | White Females | African American Males | African American Females |
| Lung Cancer   | -17.7%   | -6.0%   | -21.6%      | -1.3%         | -20.7%                 | n/a                      |
| Prostate Cancer   | -19.1%   | n/a     | -16.6%      | n/a           | n/a                    | n/a                      |
| Breast Cancer   | n/a  | -15.1%  | n/a         | -19.2%        | n/a                    | n/a                      |
| Colorectal Cancer                                       | n/a  | n/a     | n/a         | n/a           | n/a                    | n/a                      |



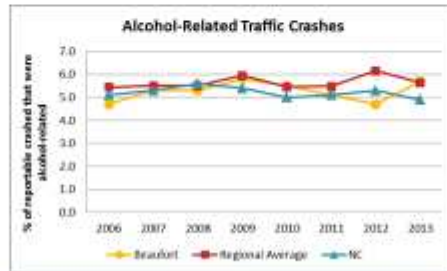
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# *Morbidity*

*Sexually Transmitted Infections, Diabetes, Obesity, Mental Health*

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

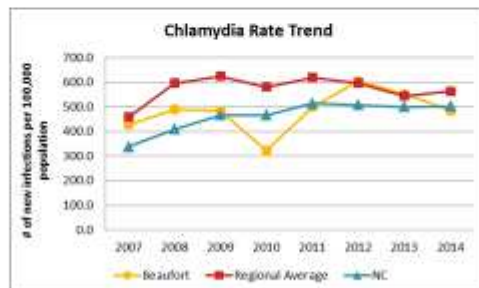
- ▶ According to the NC Highway Safety Research Center, over the period from 2006 through 2013 an annual average of 5.3% of all traffic crashes in Beaufort County were alcohol-related. Statewide the comparable figure was 5.2% and it was 6.0% across the VIDANT Region.



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

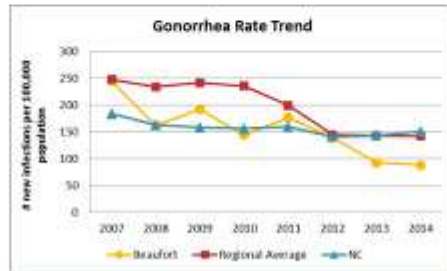
- ▶ The chlamydia infection rate in Beaufort County has decreased recently after a period of dramatic increases.
- ▶ In 2014, there were 231 new cases of chlamydia in Beaufort County, calculating to a rate of 485.4 compared to 501.9 statewide.
- ▶ Of the 15-24 year olds who were tested for chlamydia in 2011, 12.1% tested positive, compared to 10.9% in NC.



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## Sexually Transmitted Infections: Gonorrhea

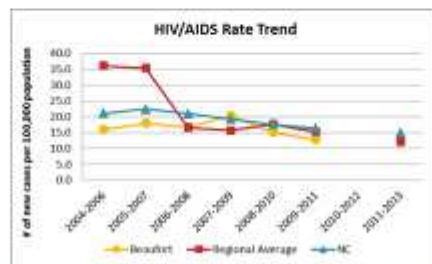
- ▶ The gonorrhea infection rate in Beaufort County had decreased steadily since 2011 and was lower than the Region and the State in 2013 and 2014.
- ▶ In 2014, there were 42 new cases of gonorrhea in Beaufort County, calculating to a rate of 88.3, lower than the state rate of 150.4.
- ▶ The gonorrhea rate was highest among African American in 2006-2010 (the last year for which stratified data is available): 519.9 compared to 182.6 overall.



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## Sexually Transmitted Infections: HIV/AIDS

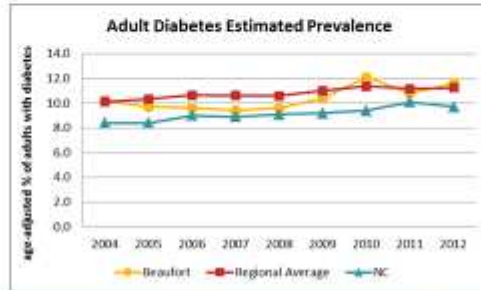
- ▶ Although the numbers are too low to yield stable rates, the rate of newly diagnosed HIV infections in Beaufort County (an average of 10.5 between 2012-2014) was lower than the comparable state rate (13.4).
- ▶ When numbers are aggregated over three-year periods to stabilize them, the Beaufort County rates have fallen below the comparable state and regional rates.
- ▶ 109 people in Beaufort County were living with HIV as of the end of 2014.



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## Adult Diabetes

- ▶ The average prevalence of diabetes among Beaufort County adults has increased slightly overall and was higher than the state for the entire period shown.
- ▶ Over the 9-year period presented, the Beaufort County average was 10.4%, compared to 10.8% region-wide and 9.1% across the state.



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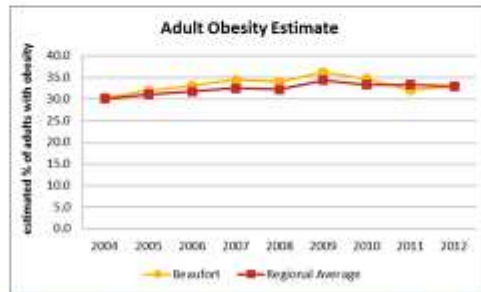
## Trends in Racial Disparities in Hospital Discharges for Diabetes

- ▶ Because the prevalence of diabetes in Beaufort County appears to be increasing, it may be illustrative to examine hospital discharges among Beaufort County residents for diabetes (ICD-9 Code 250xx). These data are described in a previous slide.

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## Adult Obesity

- ▶ The average prevalence of obesity in Beaufort County was 33.3% in the period from 2004 through 2012, compared to 32.4% in the Region. [State data is not available].
- ▶ The Beaufort County percentage was slightly higher than the Region for most of the period presented and increased slightly overall.



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## Child Obesity (Ages 2-4)

- ▶ There is limited data on the prevalence of childhood obesity in Beaufort County. Data is collected for three age groups (2-4, 5-11, 12-18) and covers only children seen in health department WIC and child health clinics and certain other facilities and programs. The most recent data available is for 2010.
- ▶ According to this NC-NPASS data, in Beaufort County in 2010
  - ▶ 15.7% of the participating children age 2-4 were "overweight" and 16.7% were "obese" (total = 32.4%) [NC=16.1% and 15.6% respectively]

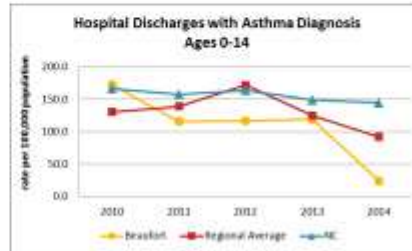
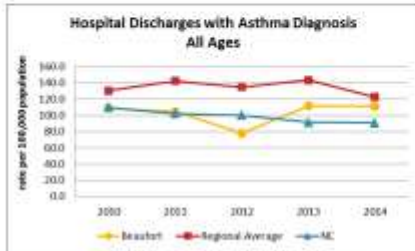
There is no data at the source for the other two age groups in Beaufort County.

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## Asthma

- ▶ The Beaufort County rate of hospital discharges with a primary diagnoses of asthma was higher than the state rate (111.4 vs. 90.9 in 2014), and has increased over time (from a low point of 77.9 in 2010).
- ▶ Among children aged 0-14, the hospital discharge rate has decreased from a high of 172.0 in 2010 to 24.0 in 2014, which is much lower than the state rate of 144.6.



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## Trends and Racial Disparities in Hospital Discharges for Asthma

- ▶ It may be illustrative to examine hospital discharges of Beaufort County residents for diagnoses of asthma (ICD-9 Code 493xx). These data are from VBEA only.
- ▶ The number of ED discharges under this code for blacks was almost three times the comparable figure for whites; the number of IP discharges among blacks was higher than the comparable figures among whites in two of the three years cited.

| Fiscal Year  | No. ED Discharges |            |            | No. IP Discharges |           |           |
|--------------|-------------------|------------|------------|-------------------|-----------|-----------|
|              | Black             | White      | Total      | Black             | White     | Total     |
| 2013         | 203               | 53         | 268        | 10                | 8         | 19        |
| 2014         | 193               | 68         | 270        | 20                | 11        | 31        |
| 2015         | 144               | 66         | 226        | 18                | 24        | 42        |
| <b>Total</b> | <b>540</b>        | <b>187</b> | <b>764</b> | <b>48</b>         | <b>43</b> | <b>92</b> |

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## Trends and Age Disparities in Hospital Discharges for Asthma

- ▶ It may be illustrative to examine hospital discharges of Beaufort County residents for asthma (ICD-9 Code 493xx) by age. These data are from VMC only.
- ▶ The percentage of ED discharges for children age 14 and younger totaled 33% of all ED discharges under this code; the comparable percentage for *all* remaining age groups was 67%. The number and percentage of IP discharges among children age 14 and younger were significantly lower than the comparable figures for all remaining age groups.

| Fiscal Year  | No. ED Discharges |          |       | No. IP Discharges |          |       |
|--------------|-------------------|----------|-------|-------------------|----------|-------|
|              | Age 0-14          | Age > 14 | Total | Age 0-14          | Age > 14 | Total |
| 2013         | 91                | 177      | 268   | 2                 | 17       | 19    |
| 2014         | 101               | 169      | 270   | 0                 | 31       | 31    |
| 2015         | 60                | 166      | 226   | 0                 | 42       | 42    |
| <b>Total</b> | 252               | 512      | 764   | 2                 | 90       | 92    |

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## Mental Health

- ▶ After a large decrease between 2007 and 2008, the number of Beaufort County residents served by the Area Mental Health Program *quadrupled* overall, from 502 in 2008 to 2,373 in 2014.
- ▶ Over the same 9-year period the number of Beaufort County residents served by State Psychiatric Hospitals *decreased* by 85%. In 2014, 16 persons were served.
- ▶ During the same 9-year period, a total of 331 Beaufort County residents were served by NC State Alcohol and Drug Abuse Treatment Centers (ADATCs), with the number varying from year to year. A high of 59 were served in 2011; 8 were served in 2014.

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## ***Trends in Hospital Discharges for Mental Health Diagnoses***

According to data from VIDANT Region hospitals seeing 30 or more Beaufort County patients over three years:

- ▶ ED discharges related to all Mental, Behavioral and Neurological Disorder diagnoses compose approximately 3.5% of all ED discharges; IP discharges for mental health diagnoses compose approximately 7.6% of all IP discharges.
- ▶ Note that these diagnoses (ICD-9 290-319xx) include psychotic and non-psychotic disorders, and conditions associated with alcohol and drug abuse

| Year | No. Emergency Department Discharges | No. In-Patient Hospitalization Discharges |
|------|-------------------------------------|---|
| 2013 | 878 ( 3.8% of all ED discharges)    | 392 (7.3% of all IP discharges)           |
| 2014 | 811 (3.4%)                          | 448 (8.1%)                                |
| 2015 | 772 (3.4%)                          | 390 (7.5%)                                |

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## ***Beaufort County Health Problem "Watch List"***

- ▶ COPD/CLRD – the county mortality rate is higher than the NC rate and has been increasing lately.
- ▶ Cancer – while cancer mortality rates have fallen, incidence rates have risen for three of the four major site-specific cancers.
- ▶ Unintentional injuries – the county mortality rate has been rising for several years, especially among women.
- ▶ Suicide – the suicide mortality rate is higher than the NC rate, and appears to be increasing.
- ▶ Chronic liver disease – the mortality rate has increased by 25% in the past 8 years.
- ▶ Diabetes – prevalence has increased over time, and mortality among white males is increasing.
- ▶ Kidney disease (especially among blacks) – the mortality rate among blacks is almost three times the rate among whites.

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## ***Populations “At Risk” for Poor Health Outcomes in Beaufort County***

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- ▶ The uninsured and under-insured
- ▶ Persons living in poverty
- ▶ Minorities
- ▶ Males, who generally have poorer health outcomes than female
- ▶ Persons with poor access to transportation, because travel may be necessary to reach certain healthcare providers
- ▶ The elderly, because healthcare services may not be sufficient to accommodate their needs as their population grows
- ▶ Pregnant women and the children they carry, since rates of prenatal care appear to be decreasing; frequency of smoking during pregnancy is significantly higher in the county than statewide

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Sheila S. Pfaender, Public Health Consultant