



Onslow Memorial Hospital

2013 Community Health Needs Assessment

A comprehensive assessment of the health needs of Onslow County residents

ACKNOWLEDGEMENTS

This Community Health Needs Assessment (CHNA) represents the culmination of work completed by multiple individuals and groups during the past year. Onslow Memorial Hospital would specifically like to thank the individuals named below for their contributions to this process.

The 2013 Community Health Needs Assessment Project Team:

Onslow Memorial Hospital Board

Mrs. Vanessa Ervin	Chairperson
Mr. Ed Catrett	Vice Chairperson
Mr. Pat Alford	Secretary/Treasurer
Mrs. Susan Edwards	
Mr. Richard Pugh	
Ms. Elizabeth Britt	
Mrs. Sarah Wiltgen	
Kenneth Scarborough, JD	
Mr. Jamie McGlaughon	
Carol Johnston, MD	
Ms. Julia Collins	

Onslow Memorial Hospital Executive Team

Ed Piper, PhD	President and Chief Executive Officer
Penney Burlingame, DHA	Senior Vice President, Nursing and Clinical Services
Crystal Hayden, MSN	Senior Vice President, Chief Nursing Officer
Sue Kegley, MHSM	Senior Vice President, Director, Human Resources
Roy Smith, MBA	Senior Vice President, Chief Financial Officer
Danny Waller, MBA	Senior Vice President, Support Services
Amy Cain Sousa	Vice President, Public Relations and Marketing

Erin Tallman, MHA

Vice President, Patient & Family Advocacy and Service
Improvement

Onslow Memorial Hospital Patient Advisory Council

Mrs. Kay Brandon

Mr. Leland Brown

Mr. David Douglas

Mr. Michael Elder

Ms. LaRue Hambrick

Mr. Robert Kimbrough

Mrs. Lucinda Shubrick

Ms. Phyllis Holt

Ms. Linda Young

Ms. Betty Brittain

Ms. Kathryn Smith

Ascendient Healthcare Advisors

Brian Ackerman, MHA

Managing Consultant

Daniel Carter, MBA

Managing Consultant

DeeDee Murphy, JD, MPH

Senior Consultant

Glenn Ruggles, CPA, MBA

Senior Consultant

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EXECUTIVE SUMMARY

Overview and Background

The 2013 Community Health Needs Assessment (CHNA) examines the overall health needs of the Onslow County population. While Onslow Memorial Hospital (OMH) has historically assessed the health needs of the community and responded accordingly, this CHNA is another step in OMH's efforts to identify and respond to the needs of its community. As outlined throughout this document, a significant amount of data and information has been reviewed and incorporated in this planning process, and OMH has been careful to ensure that a variety of sources were leveraged to arrive at a truly comprehensive report. It is also important to note that, although unique to Onslow County, the sources and methodologies used to develop this report comply with CHNA guidelines provided in the Patient Protection and Affordable Care Act (PPACA).

Study Objectives

The overall intent of this study is to better understand, quantify, and articulate the health needs of Onslow County residents. Key objectives of this CHNA include:

- Identify the unmet health needs of underserved residents in Onslow County
- Understand the challenges these populations face when trying to maintain and/or improve their health
- Understand where underserved populations turn for services needed to maintain and/or improve their health
- Understand what is needed to help these populations maintain and/or improve their health
- Prioritize the needs of the community and clarify/focus on the highest priorities
- Provide the framework and grounding for the future development of programs and initiatives to meet those priority needs

Community

Onslow Memorial Hospital's community for the CHNA is Onslow County. Historically, Onslow County residents have accounted for 85 to 90 percent of OMH's patients, with no other county representing more than four percent of patients. In addition, the majority of Onslow County residents needing inpatient acute care hospital care were treated at OMH.

A unique aspect of Onslow County is the impact of the presence of a significant military population based at Marine Corps Base Camp Lejeune and Marine Corps Air Station New River. In addition to tens of thousands of active duty personnel, the population includes family members of active duty personnel and a contingent of retired military

personnel who choose to live in Onslow County. While the Onslow County community is proud to be home to the troops, their families, and retired veterans, the presence of these groups, and, in particular, the high level of transience that accompanies military life, make the task of identifying and prioritizing the community resources and needs more challenging.

Data Collection and Analysis

To achieve the study objectives both primary and secondary data were collected and reviewed. Primary data included qualitative information from interviews conducted with the target population, including both community members and health service providers. Secondary data included public data on demographics, health and healthcare resources, behavioral health surveys, county rankings, and disease trends as well as proprietary data on county resident utilization of inpatient, outpatient, and emergency department services.

Key Findings

This report includes detailed information in a variety of areas and on a number of topics. The report sections outlined below segment the results of this process into nine distinct, but interrelated segments:

- I. **Methodology** – The methodology section provides a brief summary of how information was collected and assimilated into the development of this CHNA, as well as study limitations.
- II. **Existing Healthcare Facilities and Resources** – This section provides a description of existing healthcare facilities, services, and provider resources available in Onslow County. In addition, this section includes a summary of needs identified for the service area in the *Proposed 2013 State Medical Facilities Plan (SMFP)* as well as a discussion of the impact of the military population on the healthcare needs of the county.
- III. **Demographics** – This section provides information regarding the population characteristics (such as age, gender, and race) and trends of Onslow County.
- IV. **Socioeconomic Factors** – Data findings regarding income, poverty, unemployment, and education level for Onslow County are presented here.
- V. **Access to Care** – An assessment of factors impacting access to healthcare services in Onslow County is discussed here.

- VI. Health Data/Indicators** – Data findings for Onslow County regarding health status and behavior, vital statistics, mental health and substance abuse, chronic disease prevalence, cancer incidence and mortality, communicable diseases, and women and children’s health are presented here.
- VII. Health Utilization** – This section presents findings from utilization data provided by Onslow Memorial Hospital, including inpatient discharges, outpatient and emergency department visits.
- VIII. Interviews/Community Feedback** – Conclusions from interviews and meetings with community leaders and stakeholders are presented in this section.
- IX. Health Needs, Prioritization Process and Results** – This section provides an overall summary of the health needs as identified in the prioritization process.

Based on the analyses and findings from these sections, OMH condensed a list of nearly 100 potential health needs down to a few select health needs it believes to represent the current priorities for Onslow County. Each potential need was analyzed against the others and prioritized based on a variety of different considerations, which are discussed throughout this assessment. Through the prioritization process, OMH identified four priority health need areas, which include:

- **Heart/Vascular Disease** – Driven primarily by the current rates of disease incidence/mortality, community input, amount of patient migration out of Onslow County for care, and level of physician need.
- **Cancer/Oncology Care** – Driven primarily by current rates of disease incidence/mortality, community input, and amount of patient migration out of Onslow County for care.
- **Primary Care/Uninsured Access** – Driven primarily by unusually low levels of physician supply, higher than average level of uninsured, community input, and historical composition and growth of emergency department volumes in Onslow County.
- **Behavioral Health** – Driven primarily by high behavioral health related occurrence rates, community input, and amount of patient migration out of Onslow County for care.

I. METHODOLOGY

A. Study Design

A multi-faceted approach was utilized to assess the community health needs and concerns of Onslow County. Multiple sources of public and private data along with diverse community viewpoints were incorporated in the study to paint a complete picture of Onslow County's health and healthcare landscape. Multiple methodologies, including ongoing community and stakeholder engagement, analysis of data, and content analysis of community feedback were utilized to identify key areas of priority and need. Specifically the following data types were employed:

Primary Data

Community engagement and feedback was obtained through individual and group interviews with key community and healthcare leaders, as well as significant input and direction from the OMH Patient Advisory Council.

Secondary Data

Key sources for quantitative health related data on Onslow County included:

1. Multiple public data sources on demographics, health and healthcare resources, county rankings, social/behavioral health trends, and disease trends.
2. Proprietary data on county resident utilization of hospital inpatient, outpatient, and emergency department services

B. Study Limitations

The primary study limitation was the availability of high quality data in sufficient quantity to make reasonable conclusions regarding certain types of healthcare needs. These limitations included the areas of military healthcare delivery (i.e. at the Naval Hospital and its physician clinics), military population statistics and civilian outpatient healthcare delivery.

This study utilized a broad range of data to assess the needs in the service area, however gaps in information for sub-segments of the underserved population exist given that most of the publicly available information is provided at the county level, with more limited data available at the ZIP Code level.

As mentioned previously, the military population in the county creates a challenge in terms of interpreting data and identifying health needs. According to Naval Hospital administration, emergency care and primary care for active military are provided on base at Camp Lejeune, and community, non-military resources are not needed to provide these services. Some specialty healthcare services are available on base for active duty personnel, while others are the responsibility of the community. Much of the primary care and virtually all of the specialty care needed by military dependents and retirees are not provided on base; however, the exact number and composition of that population is unknown, creating a challenge for understanding its health needs. Moreover, public data on healthcare providers do not include military physicians on base and obtaining utilization data for active military is difficult. The transient, combat-experienced, and highly mobile nature of the active duty military create unique needs and make assessing current needs more challenging.

In North Carolina, civilian hospitals are required to submit utilization data to a state-selected data vendor. These data are available to the state and to anyone choosing to subscribe to the data. As a result, data for hospital-based services, both inpatient and some outpatient, are generally available. Data for non-hospital based services, including most outpatient data, are available for some services, but not for all. As a result, data regarding the delivery of healthcare services on an outpatient basis are at best incomplete.

Finally, for the population as a whole, health status, behavior and morbidity data from the Behavioral Risk Factor Surveillance System (BRFSS) were self-reported through telephone-based surveys. First, there is a possibility some respondents may have over- or underestimated true measures. Second, because BRFSS data are collected through telephone based surveys, there is a possibility that less affluent populations, particularly those without telephones, may be under-represented. However, these data are considered in public health analysis and are likely the most accurate available.

II. EXISTING HEALTHCARE FACILITIES AND RESOURCES

The section below provides a description of the healthcare landscape in Onslow County, including a description of the available healthcare facilities and services, the need for additional healthcare facilities and services as identified by the state, and the impact the military population has on the healthcare needs of the county.

A. Acute Care Hospital Services

1. Hospitals Located in Onslow County

Onslow Memorial Hospital (OMH) is the only civilian acute care hospital located in Onslow County. OMH is a 162-bed acute care facility that has served the residents of Onslow County for more than 65 years. OMH provides a wide-range of inpatient and outpatient services, supported by more than 1,000 healthcare professionals. As a healthcare facility that has provided care since 1945, OMH has an extensive history delivering acute care services and community residents rely heavily on it for their healthcare needs. As the only public hospital in the county, OMH serves an important function as the safety net for healthcare services in the community. Specifically, its Emergency Department is not only utilized for emergency services, but also serves to provide primary healthcare for many uninsured and underinsured residents of OMH's community, including behavioral health patients.

Inpatient acute care services are also provided at the Naval Hospital Camp Lejeune (NHCL) in Onslow County. NHCL is the only full-service Department of Defense hospital located in Onslow County. NHCL is a 65-bed facility (including 53 acute care beds and 12 psychiatric beds) that serves as the military treatment facility (MTF) for all active duty service members and their family members stationed at Camp Lejeune.¹ In addition, NHCL provides medical services for military retirees and their family members located in the area when capacity is available. All active duty Marines stationed at Camp Lejeune receive primary care management through a physician located at NHCL or through a physician specifically assigned to their unit. Active duty family members, retirees and retiree family members may have a primary care manager located on base as well.

2. Hospitals Serving Onslow County Residents

¹ Family members utilize services at NHCL at varying rates depending on their TRICARE enrollment status and on the availability of physicians at NHCL.

In fiscal year 2011, a total of 15,374 Onslow County residents were discharged from acute care hospitals in North Carolina. Nearly 60 percent of Onslow County resident discharges in fiscal year 2011 were from Onslow Memorial Hospital. Put another way, more than 40 percent of Onslow County resident discharges in fiscal year 2011 were from facilities located outside of Onslow County. As demonstrated in the table below, patients are leaving Onslow County and seeking care at facilities such as New Hanover Regional Medical Center, Pitt County Memorial Hospital, CarolinaEast Medical Center, Carteret County General Hospital, and academic medical centers located in the Triangle. The facility with the second highest percent of Onslow County resident discharges, which totaled nearly 15 percent, New Hanover Regional Medical Center, is located in New Hanover County.

<i>Acute Care Hospital Facility</i>	<i>County</i>	<i>Patient Discharges (FY 2011)</i>	<i>Percent of Total</i>
Onslow Memorial Hospital	Onslow	9,053	58.9%
New Hanover Regional Medical Center	New Hanover	2,252	14.6%
Pitt County Memorial Hospital	Pitt	1,226	8.0%
CarolinaEast Medical Center	Craven	889	5.8%
Carteret County General Hospital	Carteret	630	4.1%
University of North Carolina Hospitals	Orange	542	3.5%
Duke University Medical Center	Durham	362	2.4%
Other*		420	2.7%
Total		15,374	100.0%

Source: Truven Health Analytics (Truven) (formerly Thomson Reuters); excludes substance abuse, psychiatric, and rehabilitation discharges

*Other includes all other acute care hospital facilities with less than one percent of the total discharges. For a complete list of discharges by acute care hospital facility for fiscal year 2011, please see Attachment 1.

B. Behavioral/Mental Health/Substance Abuse

1. Providers Located in Onslow County

Brynn Marr Hospital, located in Jacksonville, is the only non-military provider of inpatient behavioral health services in Onslow County. Brynn Marr operates 16 adult psychiatric, 26 adolescent psychiatric, and 12 substance abuse inpatient beds. As of August 15, 2012, Brynn Marr applied for a certificate of need to develop an additional 12 inpatient psychiatric beds to serve adolescents.

NHCL also provides inpatient behavioral health services and plans internally for those needs. As noted above, NHCL operates a total of 12 psychiatric beds.

2. Providers Serving Onslow County Residents

In fiscal year 2011, Onslow County residents had a total of 1,131 psychiatric/substance abuse discharges. More than 40 percent of psychiatric/substance abuse discharges were from Brynn Marr Hospital in Onslow County. The facility with the second highest percent of Onslow County resident discharges, which totaled more than 20 percent, Duplin General Hospital, is located in the adjacent Duplin County.

<i>Hospital Facility</i>	<i>County</i>	<i>Patient Discharges (FY 2011)</i>	<i>Percent of Total</i>
Brynn Marr Hospital	Onslow	471	41.6%
Duplin General Hospital	Duplin	258	22.8%
Onslow Memorial Hospital	Onslow	107	9.5%
CarolinaEast Medical Center	Craven	96	8.5%
New Hanover Regional Medical Center	New Hanover	62	5.5%
Roanoke-Chowan Hospital	Hertford	31	2.7%
Holly Hill Hospital	Wake	26	2.3%
Pitt County Memorial Hospital	Pitt	19	1.7%
University of North Carolina Hospitals	Orange	13	1.1%
Beaufort County Medical Center	Beaufort	13	1.1%
Other*		35	3.1%
Total		1,131	100.0%

Source: Truven; only includes substance abuse and psychiatric discharges

*Other includes all other hospital facilities with less than one percent of the total discharges. For a complete list of discharges by hospital facility for fiscal year 2011, please see Attachment 2.

C. Inpatient Rehabilitation Services

1. Providers Located in Onslow County

There are no providers of inpatient rehabilitation services located in Onslow County.

2. Providers Serving Onslow County Residents

In fiscal year 2011, Onslow County residents had a total of 146 inpatient rehabilitation discharges. Nearly 30 percent of these discharges were from Pitt County Memorial Hospital. The facility with the second highest percent of Onslow County resident discharges, which totaled more than 28 percent, CarolinaEast Medical Center, is located in Craven County.

<i>Hospital Facility</i>	<i>County</i>	<i>Patient Discharges (FY 2011)</i>	<i>Percent of Total</i>
Pitt County Memorial Hospital	Pitt	42	28.8%
CarolinaEast Medical Center	Craven	41	28.1%
New Hanover Regional Medical Center	New Hanover	38	26.0%
Other*		25	17.1%
Total		146	100.0%

Source: Truven; only includes rehabilitation discharges

*Other includes all other hospital facilities with less than ten patient discharges in fiscal year 2011. For a complete list of discharges by hospital facility for fiscal year 2011, please see Attachment 3.

D. Outpatient Services

Outpatient services in Onslow County are primarily located in Jacksonville as shown in the table below.

<i>Facility Name</i>	<i>City</i>
Outpatient Rehabilitation	
Onslow Memorial Hospital†	Jacksonville
Naval Hospital Camp Lejeune	Jacksonville
Diagnostic Imaging Centers*	
Jacksonville Diagnostic Imaging d/b/a Coastal Diagnostic Imaging	Jacksonville
Onslow Memorial Hospital	Jacksonville
Naval Hospital Camp Lejeune	Jacksonville
Ambulatory Surgery Centers	
Naval Hospital Camp Lejeune	Jacksonville
Ambulatory Surgery Centers/Endoscopy	
East Carolina Gastroenterology Endoscopy Center	Jacksonville
Urgent Care Centers	
Pediatric Urgent Care	Jacksonville
Family Urgent Care	Jacksonville
Med Care	Jacksonville
Surf City Urgent Care	Holly Ridge

‡Includes outpatient cardiac rehabilitation program.

*Please note that this includes major diagnostic imaging centers, specifically those with either mobile or fixed MRI offices. This list is not exhaustive and does not include services provided at physician offices.

E. Provider Supply

1. Health Professionals

The table below provides the number of health professionals per 10,000 population in Onslow County and North Carolina for 2010. In 2010, Onslow County had 8.5 physicians per 10,000, a rate nearly three times less than that of North Carolina (21.7 per 10,000). Also in 2010, Onslow County had 4.4 primary care physicians per 10,000, a rate less than half that of North Carolina (9.4 per 10,000). In addition, as illustrated in the table below, Onslow County had fewer dentists, pharmacists, registered nurses, nurse practitioners, physician assistants, licensed practical nurses, chiropractors, occupational therapists, occupational therapy assistants, optometrists, podiatrists, psychologists, physical therapists, physical therapist assistants, and respiratory therapists as compared to North Carolina.

<i>2010 Health Professionals Per 10,000 Population</i>		
<i>Health Professionals</i>	<i>Onslow County 2010 Population*</i>	<i>North Carolina 2010 Population*</i>
Physicians**	8.5	21.7
Primary Care Physicians**^	4.4	9.4
Dentists	3.2	4.4
Pharmacists	4.3	9.1
Registered Nurses	53.2	97.3
Nurse Practitioners	2.3	3.8
Certified Nurse Midwives^^	2.5	1.2
Physician Assistants	2.4	3.8
Dental Hygienists	7.8	5.5
Licensed Practical Nurses	12.9	18.7
Chiropractors	0.7	1.6
Occupational Therapists	1.5	2.7
Occupational Therapy Assistants	0.8	1.2
Optometrists	0.9	1.1
Podiatrists	0.2	0.3
Psychologists	1.4	2.1
Psychological Associates	1.0	0.9

2010 Health Professionals Per 10,000 Population		
Health Professionals	Onslow County 2010 Population*	North Carolina 2010 Population*
Physical Therapists	3.5	5.3
Physical Therapist Assistants	1.2	2.4
Respiratory Therapists	1.9	4.2

Note: the data provided in the table above includes those who are licensed and active within the profession as well as those with unknown activity status; inactive are excluded.

*Source: Log onto North Carolina (LINC) Database, Office of State Planning, NC Office of the Governor

**Physicians include doctors of medicine and doctors of osteopathy who are non-federal, non-resident-in-training.

^Primary care physicians include those physicians who report a primary specialty of family practice, general practice, internal medicine, obstetrics/gynecology, or pediatrics.

^^Certified nurse midwives are calculated per 10,000 females aged 15-44 (child-bearing population); population source: LINC

Note: while the population data in the table above include the military, the provider data do not. As such, shortages may be overstated relative to certain health professionals.

Please note that given the data challenges concerning the military population, its physicians and needs, OMH regularly conducts its own medical staff planning analysis. In its most recent analysis, conducted 2011, OMH calculated the surplus/deficit of providers by specialty in its service area.

Using information from the Naval Hospital, the total service area population was adjusted based on estimated use of primary and specialty community providers in three categories: active military, active military dependents, and retirees and their dependents. The results are presented in the table below.

Group	Measure	2010	2016*
Total Service Area	Population	170,970	187,540
Primary Care	Adjusted population	112,070	122,520
	Percent of population using community providers	65%	65%
Specialty Care	Adjusted population	138,880	152,060
	Percent of population using community providers	81%	81%
OB/GYN	Adjusted population	170,960	187,540
	Percent of population using community or military providers	100%	100%

*Includes projected military growth in 2014 (1,650 active military personnel and 4,125 active military family members).

Source data provided by Claritas and Naval Hospital Camp Lejeune, 2010

In its analysis, OMH identified a significant deficit in adult primary care manpower as detailed in the table below.

Specialty	2010 FTEs			2016 FTEs		
	Physician Need*	Physician Supply	Surplus/(Deficit)	Physician Need*	Physician Supply^	Surplus/(Deficit)
Primary Care	63.4	38.8	(24.6)	70.8	32.5	(38.3)
Medical	24.0	15.5	(8.5)	27.0	10.5	(16.5)
Surgical**	47.9	42.2	(5.7)	52.8	33.0	(19.8)
Psychiatry	6.1	5.0	(1.1)	6.8	5.0	(1.8)
Total***	141.4	101.5	(39.9)	157.4	81.0	(76.4)

*Ratios represent physician need per 100,000 population.

**OB/GYN physician supply includes military physicians.

***Hospital-based specialties (e.g., anesthesiology, emergency, pathology, radiology, occupational medicine, and physical medicine and rehabilitation) are excluded from the analysis.

^Assumes physicians age 65 or older by 2016 will be retired.

Note: totals may not foot due to computer rounding

As detailed in the table above, in 2016, deficits increase due to an increase in the population, aging of the population, and a decrease in physician supply as a result of possible retirements.

In summary, OMH identified the following surpluses and deficits by specialty in its service area by 2016.

<i>In Equilibrium (1.0 FTE or Less Deficit) or Surplus</i>	<i>Slight to Moderate Deficits (1.1 to 3.0 FTEs)</i>	<i>Significant Deficits (Greater than 3.0 FTEs)</i>
Allergy/immunology Cardiac surgery Colorectal surgery Endocrinology Hematology/oncology Nephrology Neurosurgery Orthopedics Plastic surgery Rheumatology Vascular surgery	Dermatology Gastroenterology Gynecology only Infectious disease Neurology Ophthalmology Otolaryngology Pulmonology Urology Psychiatry	Cardiology Family/general practice General surgery Internal medicine OB/GYN Pediatrics

F. Needs Identified in the Proposed 2013 State Medical Facilities Plan (SMFP)

Each calendar year, the Governor of North Carolina, under advisement from the State Health Coordinating Council, publishes the *State Medical Facilities Plan*, which identifies the need for certain types of beds, equipment and other services in the state.

1. Acute Care Hospital Beds

According to the *Proposed 2013 SMFP*, there is no need for additional acute care beds in Onslow County. While Onslow County was identified as having a 13 bed deficit, the threshold for a need determination for additional acute care beds is a projected deficit of 20 or more beds as stated in the acute care bed need methodology in the *Proposed 2013 SMFP*.

2. Operating Rooms

According to the *Proposed 2013 SMFP*, there is no need for additional operating rooms in Onslow County. In fact, Onslow County was identified as having a 1.74 operating room surplus in the *Proposed 2013 SMFP*.

3. Other Acute Care Services

a) Open Heart Surgery Services

Currently, there are no providers of open heart surgery services in Onslow County. According to the *Proposed 2013 SMFP*, there is no need for additional open heart surgery services anywhere in the state.

b) Burn Intensive Care Services

Currently, there are no providers of burn intensive care services in Onslow County. According to the *Proposed 2013 SMFP*, there is no need for additional burn intensive care services anywhere in the state.

c) Bone Marrow Transplantation Services

Currently, there are no providers of bone marrow transplantation services in Onslow County. According to the *Proposed 2013 SMFP*, there is no need for additional bone marrow transplantation services anywhere in the state.

d) Solid Organ Transplantation Services

Currently, there are no providers of solid organ transplantation services in Onslow County. According to the *Proposed 2013 SMFP*, there is no need for additional solid organ transplantation services anywhere in the state.

4. Inpatient Rehabilitation Services

Currently, there are no providers of inpatient rehabilitation services in Onslow County. According to the *Proposed 2013 SMFP*, there is no need for additional inpatient rehabilitation beds anywhere in the state.

5. Technology and Equipment

a) Lithotripter

Currently, there are no providers of lithotripter services in Onslow County. According to the *Proposed 2013 SMFP*, there is no need for additional lithotripters anywhere in the state.

b) Gamma Knife

Currently, there are no providers of gamma knife services in Onslow County. According to the *Proposed 2013 SMFP*, there is no need for additional gamma knives anywhere in the state.

c) Linear Accelerator

Onslow County has one linear accelerator, operated by a joint venture which includes OMH. According to the *Proposed 2013 SMFP*, there is no need for additional linear accelerators anywhere in the state.

d) PET

According to the *Proposed 2013 SMFP*, there is no need for additional fixed dedicated PET scanners in Health Service Area (HSA) VI, which includes Onslow County.

Currently, OMH provides mobile PET services through a mobile vendor. According to the *Proposed 2013 SMFP*, there is no need for additional mobile PET scanners anywhere in the state.

e) MRI

Currently, there are three providers of MRI service in Onslow County: OMH, Jacksonville Diagnostic Imaging and NHCL. According to the *Proposed 2013 SMFP*, there is no need for additional fixed MRI scanners anywhere in the state.

f) Cardiac Catheterization

Currently, OMH owns one unit of fixed cardiac catheterization equipment and is the only provider in Onslow County. According to the *Proposed 2013 SMFP*, there is no need for additional fixed cardiac catheterization equipment in Onslow County.

According to the *Proposed 2013 SMFP*, there is no need for additional shared fixed or mobile cardiac catheterization equipment anywhere in the state.

6. Nursing Care Facilities

Currently, there are two providers of nursing facility services in Onslow County: Carolina Rivers Nursing and Rehabilitation Center and Premier Nursing and Rehabilitation Center. According to the *Proposed 2013 SMFP*, there is no need for additional nursing care beds anywhere in the state.

7. Adult Care Homes

Currently, there are seven providers of adult care home services in Onslow County: Carebridge Assisted Living Community, GlenCare of Holly Ridge, Liberty Commons Assisted Living, Lighthouse Village, Premier Nursing and Rehabilitation Center, The Arc Community, and The Heritage of Richlands. According to the *Proposed 2013 SMFP*, there is no need for additional adult care home beds in Onslow County.

8. Home Health Services

Currently, there are three providers of home health services in Onslow County: Liberty Home Care, Onslow County Home Health and Hospice, and Continuum Home Care and Hospice. According to the *Proposed 2013 SMFP*, there is no need for additional Medicare-certified home health agencies or offices in Onslow County.

9. Hospice Services

Currently, there are three hospice offices in Onslow County: Continuum Home Care and Hospice, Liberty Home Care and Hospice, and Onslow County Home Health and Hospice. According to the *Proposed 2013 SMFP*, there is no need for additional hospice home offices in Onslow County.

Currently, there are no hospice inpatient or residential beds in Onslow County. According to the *Proposed 2013 SMFP*, there is a need for seven additional hospice inpatient beds in Onslow County.

10. End Stage Renal Disease Dialysis Facilities

Currently, there is one provider of outpatient end stage renal disease dialysis services in Onslow County: Southeastern Dialysis Center Jacksonville. OMH provides dialysis services for inpatients needing the service during their inpatient stay. The North Carolina Medical Facilities Planning Section determines the need for new outpatient dialysis stations two times each calendar year. The report containing these determinations is called the North Carolina Semiannual Dialysis Report (SDR). The relevant SDRs will be available in January 2013 and July 2013.

11. Psychiatric Inpatient Services

Currently, there is one provider of psychiatric inpatient services in Onslow County: Brynn Marr Behavioral Health System. According to the *Proposed 2013 SMFP*, there is no need for additional child/adolescent psychiatric inpatient beds in the Eastern Coastal Care Local Management Entity service area, which includes Onslow County.

According to the *Proposed 2013 SMFP*, there is a need for 16 additional adult psychiatric inpatient beds in the Eastern Coastal Care Local Management Entity service area, which includes Onslow County as well as Brunswick, New Hanover, Pender, and Carteret counties.

12. Substance Abuse Inpatient and Residential Services

Currently, there is one provider of substance abuse inpatient and residential services in Onslow County: Brynn Marr Behavioral Health System. According to the *Proposed 2013 SMFP*, there is a need for 13 additional adult chemical dependency treatment beds (inpatient or residential) in the Central Region (HSAs II, IV, V, and VI), which includes Onslow County.

According to the *Proposed 2013 SMFP*, there is a need for two additional child/adolescent chemical dependency treatment beds (inpatient or residential) in the Eastern Region (HSAs IV, V, and VI), which includes Onslow County.

13. Intermediate Care Facilities for Individuals with Intellectual Disabilities (ICF/IID) (formerly Intermediate Care Facilities for the Mentally Retarded (ICF/MR))

Currently, there are three providers of ICF/IID services in Onslow County: Countryview Residential, Queen's Pond, and Sand Ridge I, II, III & IV. According to the *Proposed 2013 SMFP*, there is no need for additional adult or child ICF/IID beds anywhere in the state.

G. Impact of Military Presence and Deployment on Health Needs

As noted previously, a unique aspect of Onslow County is the impact of the presence of a significant military population. Marines and their families stationed at MCB Camp Lejeune and MCAS Cherry Point have experienced multiple deployments in the past several years. With each deployment, the physical and behavioral health needs of not only the Marines serving abroad, but also their families supporting them from home have increased. Although there is a need to collect more raw data from Marines and their families regarding their specific needs for physical and behavioral healthcare services, particularly during the reintegration process, regional healthcare providers have identified the physical health, behavioral health and re-integration needs discussed below.

1. Physical Healthcare Needs

Service members returning from combat generally require physical healthcare in the following specialties: Orthopedics (including orthopedic subspecialties, such as foot and ankle specialists), inpatient and outpatient rehabilitation, and neurology. The Military Growth Task Force's Regional Growth Management Plan indicated a shortage of each of these specialties in North Carolina's Eastern Region. In addition, the areas surrounding MCB Camp Lejeune, MCAS Cherry Point and MCAS New River have a shortage of primary care physicians which negatively impacts the ability of Marine families to access primary and specialty physical and behavioral healthcare services.

2. Behavioral Healthcare Needs

In 2007, a survey of soldiers and Marines confirmed what many suspected: the mental health of service members worsens as deployments lengthen and increase. In May 2010, the Pentagon announced that mental health disorders caused more hospitalizations among United States troops in 2009 than any other reason. In North Carolina's Eastern Region, which includes

Onslow County, regional providers report that Marines are experiencing higher rates of mental health disorders and substance abuse disorders as deployments increase. Further, mental health providers indicate that families at home are under greater stress as deployments increase and their mental health needs are increasing as well.

Throughout the country, there are simply not enough mental health providers to meet the needs of military families. Behavioral health providers at Naval Hospital Camp Lejeune are overwhelmed by the needs of soldiers and their families. As such, many patients are referred by TRICARE or self-refer to community providers. These providers do not have enough capacity (neither inpatient nor outpatient) to meet the needs of the region. Further, many community services which have proven benefits, such as crisis services, are not reimbursed by TRICARE.

3. Re-Integration Challenges

Because of new communication technologies, deployed service members have been able to stay in closer contact with home during deployment than was previously possible. In addition, because the process to return home is much faster than it was in the past, service members have less time to process their combat experience prior to re-joining their family and re-integrating into their regular routine.

In the region surrounding MCB Camp Lejeune, it has been reported that participation in high risk activities increases as each group of Marines returns from abroad. Service members and their families are also more susceptible to domestic violence during re-integration. This may result in the need to access law enforcement and/or child protective services. Finally, another significant concern for returning Marines is the presence of jobs in the local community. The recession has impacted the availability of jobs for all Americans, and unfortunately our troops are no exception. Many Marines report having difficulty finding employment upon separation from the military. In combination with Post Traumatic Stress Disorder, lack of employment is particularly concerning.

It is important to understand the existing healthcare landscape in Onslow County given that the availability of healthcare facilities and resources greatly impacts access to healthcare. The state has identified a need for additional inpatient hospice beds, additional adult psychiatric inpatient beds, and additional adult and child chemical dependency treatment beds in Onslow County. Moreover, as discussed above, healthcare providers in the county must take steps to ensure that the needs of the military population and their families are being adequately met.

III. DEMOGRAPHICS

Onslow County occupies 756 square miles on the southeastern coast of North Carolina along the Atlantic Ocean and is the home to more than 180,000 people. The U.S. Marine Corps Base Camp Lejeune occupies approximately 246 square miles, nearly a third of Onslow County's land area. The section below provides detailed information regarding the population characteristics of Onslow County.

A. Total Population

According to data from the North Carolina Office of State Budget and Management (NC OSBM), Attachment 4, Onslow County is the second fastest growing county in North Carolina based on percentage growth. Further, Onslow County's high growth is projected to continue in the next decade. In fact, the NC OSBM projects Onslow County to grow 22.5 percent between 2010 and 2020.² In the coming decade, Onslow County is projected to add over 40,000 people, which is more than the total 2010 population in each of 38 counties in the state.

B. Age

The tables below show the population by age (and gender) for 2010, 2012, and 2017 in Onslow County.

	2010 Population by Age				
	<18	18-44	45-64	≥65	Total
Onslow County					
Male	24,302	53,542	15,955	6,227	100,026
Female	22,199	40,106	16,702	7,833	86,840
Total	46,501	93,648	32,657	14,060	186,866
North Carolina					
Male	1,170,185	1,755,451	1,213,832	531,178	4,670,646
Female	1,114,823	1,770,399	1,308,235	716,589	4,910,046
Total	2,285,008	3,525,850	2,522,067	1,247,767	9,580,692

Source: NC OSBM, Attachment 6.

² Source: NC OSBM County Population Growth (2010-2020). Please see Attachment 5 for county growth data for 2010-2020 from the NC OSBM.

	2012 Population by Age				
	<18	18-44	45-64	≥65	Total
Onslow County					
Male	24,757	52,944	15,716	6,821	100,238
Female	24,396	38,217	16,959	8,271	87,843
Total	49,153	91,161	32,675	15,092	188,081
North Carolina					
Male	1,192,612	1,790,120	1,247,633	582,631	4,812,996
Female	1,120,233	1,794,233	1,335,902	769,366	5,019,734
Total	2,312,845	3,584,353	2,583,535	1,351,997	9,832,730

Source: NC OSBM, Attachment 6.

	2017 Population by Age				
	<18	18-44	45-64	≥65	Total
Onslow County					
Male	30,500	53,939	16,321	8,303	109,063
Female	29,522	40,088	18,114	9,857	97,581
Total	60,022	94,027	34,435	18,160	206,644
North Carolina					
Male	1,265,248	1,860,340	1,329,672	711,179	5,166,439
Female	1,161,500	1,828,534	1,398,986	906,177	5,295,197
Total	2,426,748	3,688,874	2,728,658	1,617,356	10,461,636

Source: NC OSBM, Attachment 6.

As illustrated in the tables below, the under-18 population age is growing at a faster rate than that of the state as a whole, for both males and females.

	2010	2012	2017	CAGR (2010-2017)
	<18	<18	<18	
Onslow County				
Male	24,302	24,757	30,500	3.3%
Female	22,199	24,396	29,522	4.2%
Total	46,501	49,153	60,022	3.7%
North Carolina				
Male	1,170,185	1,192,612	1,265,248	1.1%
Female	1,114,823	1,120,233	1,161,500	0.6%
Total	2,285,008	2,312,845	2,426,748	0.9%

Source: NC OSBM, Attachment 6.

	2010	2012	2017	CAGR
	18-44	18-44	18-44	(2010-2017)
<i>Onslow County</i>				
Male	53,542	52,944	53,939	0.1%
Female	40,106	38,217	40,088	0.0%
Total	93,648	91,161	94,027	0.1%
<i>North Carolina</i>				
Male	1,170,185	1,790,120	1,860,340	6.8%
Female	1,114,823	1,794,233	1,828,534	7.3%
Total	2,285,008	3,584,353	3,688,874	7.1%

Source: NC OSBM, Attachment 6.

	2010	2012	2017	CAGR
	45-64	45-64	45-64	(2010-2017)
<i>Onslow County</i>				
Male	15,955	15,716	16,321	0.3%
Female	16,702	16,959	18,114	1.2%
Total	32,657	32,675	34,435	0.8%
<i>North Carolina</i>				
Male	1,213,832	1,247,633	1,329,672	1.3%
Female	1,308,235	1,335,902	1,398,986	1.0%
Total	2,522,067	2,583,535	2,728,658	1.1%

Source: NC OSBM, Attachment 6.

	2010	2012	2017	CAGR
	≥65	≥65	≥65	(2010-2017)
<i>Onslow County</i>				
Male	6,227	6,821	8,303	4.2%
Female	7,833	8,271	9,857	3.3%
Total	14,060	15,092	18,160	3.7%
<i>North Carolina</i>				
Male	531,178	582,631	711,179	4.3%
Female	716,589	769,366	906,177	3.4%
Total	1,247,767	1,351,997	1,617,356	3.8%

Source: NC OSBM, Attachment 6.

C. Gender

1. Males

According to the NC OSBM, the distribution of males in Onslow County is higher than the statewide distribution of males for the same time periods as demonstrated in the tables below; such difference reflects the presence of the military population in Onslow County.

	% of 2010 Population Onslow County	% of 2010 Population North Carolina	% of 2012 Population Onslow County	% of 2012 Population North Carolina	% of 2017 Population Onslow County	% of 2017 Population North Carolina
Males	53.5%	48.8%	53.3%	48.9%	52.8%	49.4%

Source: NC OSBM, Attachment 6.

Moreover, the compound annual growth rate of the male population in Onslow County indicates that it is growing at a slower rate than the statewide male population for the same time period, as demonstrated in the table below.

	Male Population*			CAGR** (2010-2017)
	2010	2012	2017	
Onslow County	100,026	100,238	109,063	1.2%
North Carolina	4,670,646	4,812,996	5,166,439	1.5%

*Source: NC OSBM, Attachment 6.

**Compound annual growth rate

2. Females

According to the NC OSBM, the distribution of females in Onslow County is lower than the statewide distribution of females for the same time periods as demonstrated in the tables below; such difference reflects the presence of the military population in Onslow County.

	% of 2010 Population Onslow County	% of 2010 Population North Carolina	% of 2012 Population Onslow County	% of 2012 Population North Carolina	% of 2017 Population Onslow County	% of 2017 Population North Carolina
Females	46.5%	51.2%	46.7%	51.1%	47.2%	50.6%

Source: NC OSBM, Attachment 6.

Moreover, the compound annual growth rate of the female population in Onslow County is growing at a faster rate than the statewide female population for the same time period as demonstrated in the table below.

	<i>Female Population*</i>			<i>CAGR** (2010-2017)</i>
	<i>2010</i>	<i>2012</i>	<i>2017</i>	
Onslow County	86,840	87,843	97,581	1.7%
North Carolina	4,910,046	5,019,734	5,295,197	1.1%

*Source: NC OSBM, Attachment 6.

**Compound annual growth rate

D. Race and Ethnicity

1. Race

According to the NC OSBM, the majority of Onslow County residents originate from one race. As such, and as demonstrated in the table below, the race distribution in Onslow County is less diverse than that of the state as a whole.

	<i>% of 2011 Population Onslow County</i>	<i>% of 2011 Population North Carolina</i>
One Race		
White	77.3%	72.1%
Black or African American	15.7%	21.9%
Asian Pacific Islander	2.4%	2.5%
American Indian or Alaska Native	0.8%	1.6%
Two or More Races	3.9%	1.9%

Source: NC OSBM, Attachment 7.

2. Hispanic Population

Since the data source utilized above, the NC OSBM, does not provide data on the Hispanic population, OMH utilized data from another source, Claritas, to calculate the proportion of the total population that is Hispanic in Onslow County and North Carolina as documented in the table below. As illustrated in the table, Onslow County has a greater proportion of Hispanics than the state as a whole.

	Onslow County		North Carolina	
	2012	2017	2012	2017
Not Hispanic or Latino	90.0%	88.8%	91.0%	89.3%
Hispanic Population	10.0%	11.2%	9.0%	10.7%
Mexican	4.6%	5.1%	5.7%	6.8%
Puerto Rican	2.6%	2.9%	0.8%	0.9%
Cuban	0.4%	0.5%	0.2%	0.2%
All Other Hispanic or Latino	2.4%	2.6%	2.4%	2.8%

Source: Claritas

While both Onslow County and the state have a greater proportion of Hispanics who are male than female, the male Hispanic population in Onslow County is projected to grow faster than that of the state as demonstrated in the table below.

Hispanic Population	Onslow County		North Carolina	
	2012	2017	2012	2017
Male	56.6%	55.7%	57.9%	57.2%
Female	43.4%	44.3%	42.1%	42.8%

Source: Claritas

Onslow County is a growing community with a strong military presence. As outlined above, Onslow County has experienced a steady increase in overall population in the past couple of years and that growth is projected to continue in the future. As discussed throughout this assessment, health is dependent on multiple factors, including, but not limited to individual characteristics and the environment and community in which one lives. Such information can guide efforts to identify gaps in the existing system and to improve the health and healthcare available to communities. By examining the population of Onslow County, OMH can identify local needs that may be obscured when data is aggregated on a state or national level.

IV. SOCIOECONOMIC FACTORS

In addition to demographics, this assessment reviews socioeconomic factors which play a significant role in identifying healthcare needs. The following section examines the details of some of the key factors including income, poverty, unemployment, and education.

A. Income Level

The median household income in 2012 for Onslow County is approximately 5.5 percent below the North Carolina average and 15.5 percent below the United States average. However, the compound annual growth rate in median household income for Onslow County from 2000-2012 has been higher than both North Carolina and the United States.

<i>Onslow County Median Household Income By ZIP Code</i>						
<i>ZIP Code</i>	<i>City</i>	<i>2000</i>	<i>2012</i>	<i>2017</i>	<i>CAGR (2000-2012)</i>	<i>CAGR (2012-2017)</i>
28445	Holly Ridge	\$38,303	\$44,701	\$45,405	1.3%	0.3%
28460	Sneads Ferry	\$36,698	\$44,073	\$45,222	1.5%	0.5%
28539	Hubert	\$35,831	\$45,745	\$46,895	2.1%	0.5%
28540	Jacksonville	\$32,808	\$39,938	\$40,951	1.7%	0.5%
28543	Tarawa Terrace	\$24,512	\$29,094	\$29,708	1.4%	0.4%
28544	Midway Park	\$26,688	\$34,098	\$34,978	2.1%	0.5%
28546	Jacksonville	\$37,934	\$43,935	\$44,764	1.2%	0.4%
28547	Camp Lejeune	\$43,273	\$54,220	\$55,777	1.9%	0.6%
28555	Maysville	\$31,496	\$37,585	\$38,620	1.5%	0.5%
28574	Richlands	\$30,950	\$40,325	\$41,566	2.2%	0.6%
Onslow County Total		\$34,056	\$41,875	\$42,953	1.7%	0.5%
NC Total		\$39,586	\$44,290	\$45,066	0.9%	0.3%
US Total		\$42,729	\$49,581	\$50,850	1.2%	0.5%

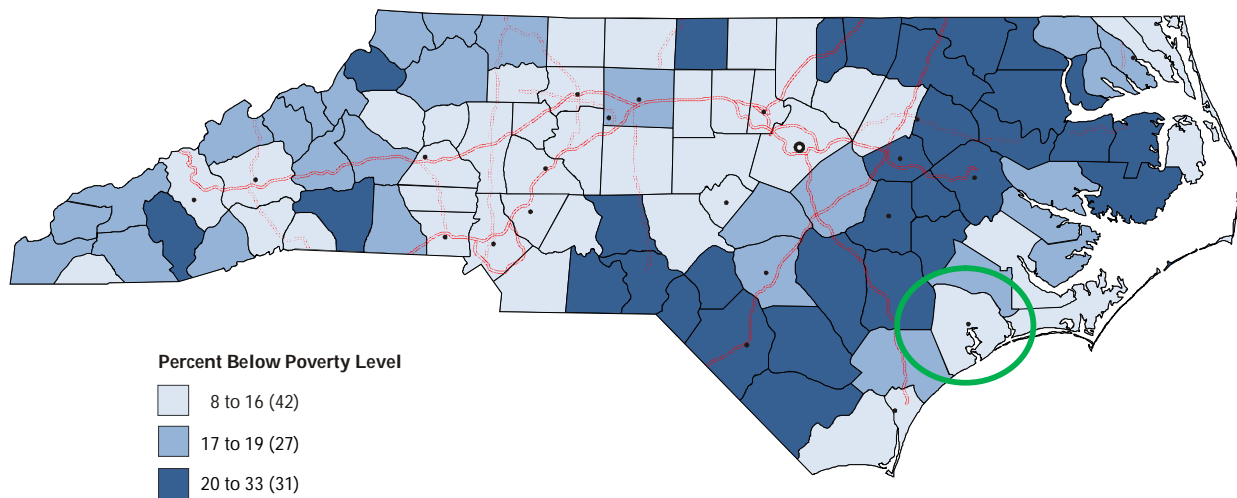
Source: Claritas

B. Poverty

Poverty in Onslow County is on the lower end of the range with 8 to 16 percent of the resident population living below the Federal Poverty Level, which was \$21,954 for a family of four in 2009.

Percent of Population Below Federal Poverty Level

North Carolina 2009



Source: U.S. Census Bureau; Model-based Small Area Income & Poverty Estimates (SAIPE) for School Districts, Counties, and States, 2009
Produced By: Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill

C. Unemployment

Unemployment in Onslow County is lower than North Carolina overall but higher than the national average. The unemployment rate has remained steady over the past year while the North Carolina and United States rates have dropped.

Onslow County Labor Force and Unemployment						
	Civilian Labor Force (000's)			Unemployment Rate		
	May 2011	May 2012	Change	May 2011	May 2012	Change
Onslow County	68	69	1	8.6%	8.6%	0.0%
North Carolina	4,669	4,663	(6)	10.3%	9.4%	-0.9%
United States	153,449	154,998	1,549	8.7%	7.9%	-0.8%

Source: Bureau of Labor Statistics

D. Education Level

The percentage of individuals with a high school education or higher is over 85 percent and has increased since 1999. The percentage of individuals with a Bachelor's degree or higher has also increased since 1999. Finally, Onslow County had the lowest dropout rate in eastern North Carolina for the 2006-2007 school year behind Pamlico and Wayne counties.

According to Claritas, it is estimated that 3.5 percent of the population age 25 and over in Onslow County had earned a Master's Degree, 0.6 percent had earned a Professional School Degree, 0.3 percent had earned a Doctorate Degree, and 13 percent had earned a Bachelor's Degree. In comparison, for the United States, it is estimated that for the population over age 25, 7.2 percent had earned a Master's Degree, 1.9 percent had earned a Professional School Degree, 1.2 percent had earned a Doctorate Degree, and 17.6 percent had earned a Bachelor's Degree.

E. Community Need Index

Developed by Dignity Health and Truven, the Community Need Index (CNI) identifies the severity of health disparity for every ZIP Code in the United States and demonstrates the link between community need, access to care, and preventable hospitalizations.

Rather than relying solely on public health data, the CNI accounts for the underlying economic and structural barriers that affect overall health. Using a combination of research, literature, and experiential evidence, Dignity Health identified five prominent barriers that make it possible to quantify healthcare access in communities across the nation. These barriers include those related to income, culture/language, education, insurance, and housing.

To determine the severity of barriers to healthcare access in a given community, the CNI gathers data about that community's socio-economy. For example, what percentage of the population is elderly and living in poverty; what percentage of the population is uninsured; what percentage of the population is unemployed, etc. Using this data a score is assigned to each barrier condition (with one representing less community need and five representing more community need). The scores are then aggregated and averaged for a final CNI score (each barrier receives equal weight in the average). A score of 1.0 indicates a ZIP Code with the lowest socio-economic barriers, while a score of 5.0 represents a ZIP Code with the most socio-economic barriers.

As reflected in the table below, the Maysville zip code 28555 has the most socio-economic barriers to healthcare access in the Onslow County area. Moreover, please note that all but two of the ZIP Codes in the table below have CNI scores that fall in the mid-high to high ranges.

Onslow County Community Need Index (CNI) By ZIP Code				
ZIP Code	Description	Population	Community Need Index	Community Need Level
28445	Holly Ridge	5,216	3.2	Mid
28460	Sneads Ferry	6,440	3.4	Mid-high
28539	Hubert	14,862	3.4	Mid-high
28540	Jacksonville	49,315	4.0	Mid-high
28543	Tarawa Terrace	6,434	4.0	Mid-high
28544	Midway Park	5,581	3.8	Mid-high
28546	Jacksonville	37,130	4.0	Mid-high
28547	Camp Lejeune	23,983	3.0	Mid
28555	Maysville	4,746	4.2	High
28574	Richlands	9,847	3.8	Mid-high

Source: Dignity Health (www.dignityhealth.org/cni)

Please see Attachment 8 for a map illustrating the CNI scores by ZIP Code in Onslow County.

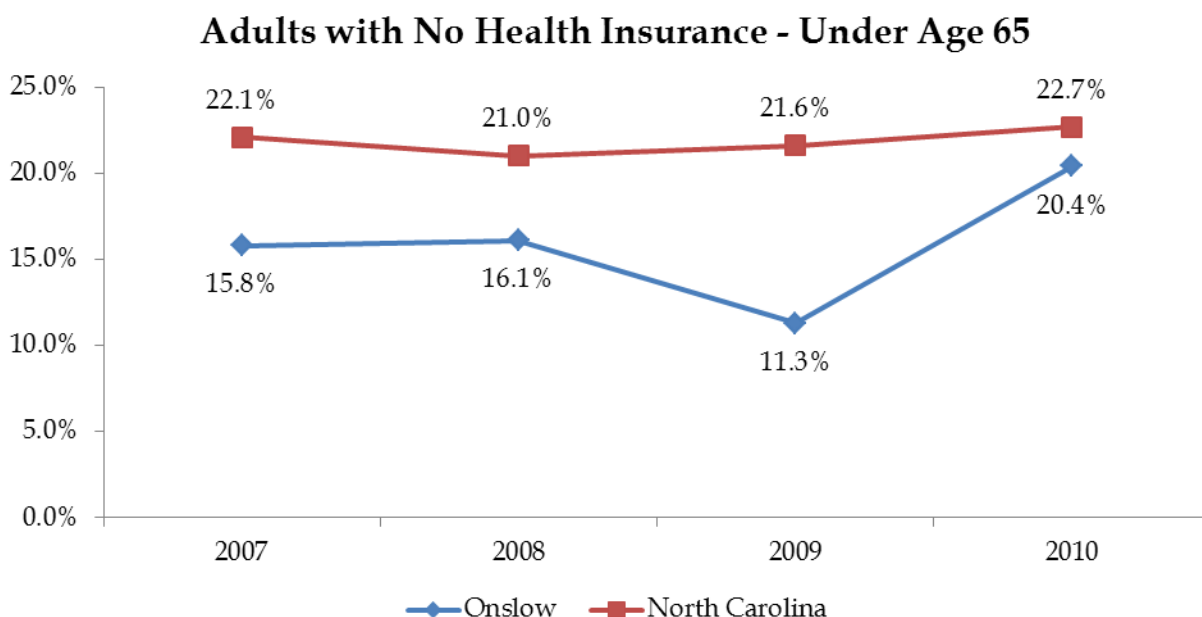
Overall, Onslow County is a thriving community with unemployment less than the state average. There is a lower percentage of the population living at or below the poverty level in the county compared to other counties in the state. There is a high percentage of individuals with a high-school education or higher and Onslow County can boast the lowest dropout rate in the state. The 2012 median income in the service area is 5.5 percent below the state average. Tarawa Terrace (ZIP Code 28543) is over 30 percent below the Onslow County average, indicating a possible underserved population in that area. Maysville (ZIP Code 28555) has a high Community Need Index (CNI) score indicating higher socio-economic barriers to health and healthcare for the population in that area.

V. ACCESS TO CARE

This section examines data and issues related to individuals' ability to obtain access to needed healthcare services in Onslow County. Insurance, primary care, ED utilization, distance to care, and outmigration are covered here.

A. Uninsured

The North Carolina Behavioral Risk Factor Surveillance System (BRFSS) data shows that Onslow County has a lower percentage of adults younger than 65 without insurance – see the trend graph below – though in 2010 it is close to the statewide average.



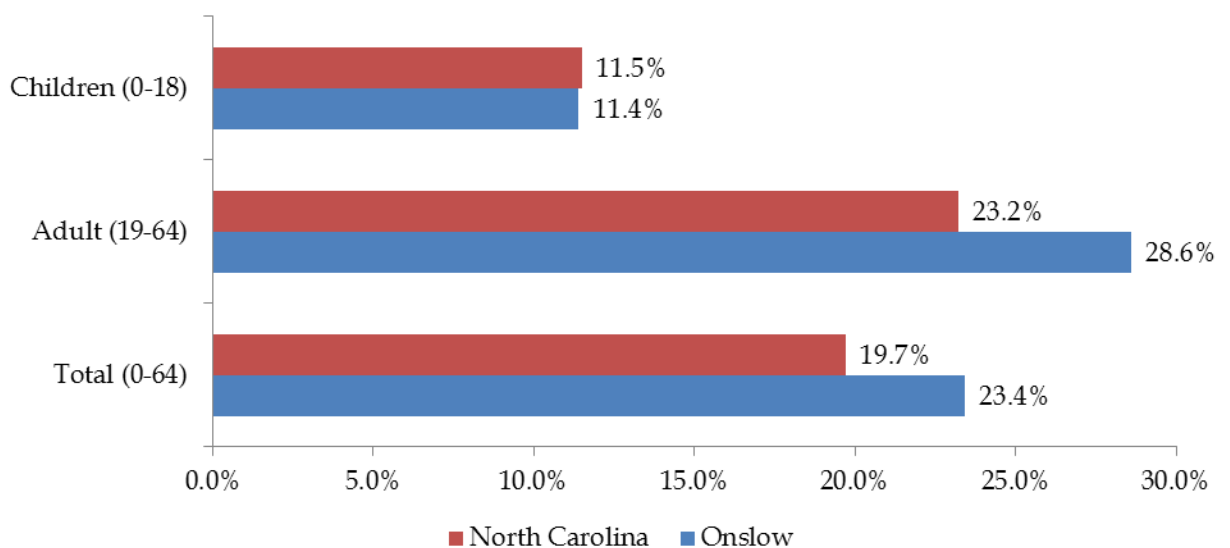
Source: North Carolina Department of Health and Human Services (NC DHHS), State Center for Health Statistics (SCHS), Behavioral Risk Factor Surveillance System (BRFSS)

However a 2008-2009 study by the North Carolina Institute of Medicine (NCIOM) indicates the percentage of uninsured adults in Onslow County was high at 23.4 percent compared to other counties and to the statewide average of 19.7 percent. The data for Onslow County is provided below. For a complete list of all North Carolina counties, please see Attachment 9.

Estimates of Uninsured 2008-2009									
	Children (0-18)			Adults (19-64)			Total (0-64)		
	Number	Percent	Rank	Number	Percent	Rank	Number	Percent	Rank
Onslow County	5,508	11.4%	Mid-High	32,121	28.6%	High	37,629	23.40%	High
North Carolina	282,000	11.5%		1,326,000	23.2%		1,608,000	19.70%	

Source: NC Institute of Medicine

North Carolina Estimates of Uninsured 2008-2009



Source: NC Institute of Medicine

B. Usual Source of Care

Access to primary care is an ongoing issue in Onslow County and is reflected in several different data sources as discussed in detail below.

As noted previously, given the data challenges concerning the military population, its physicians and needs, OMH regularly conducts its own medical staff planning analysis. In its most recent analysis, conducted 2011, OMH identified a significant deficit in adult primary care manpower as detailed in the table below.

Specialty	2010 FTEs			2016 FTEs		
	Physician Need*	Physician Supply	Surplus/(Deficit)	Physician Need*	Physician Supply^	Surplus/(Deficit)

Primary Care	63.4	38.8	(24.6)	70.8	32.5	(38.3)
Medical	24.0	15.5	(8.5)	27.0	10.5	(16.5)
Surgical**	47.9	42.2	(5.7)	52.8	33.0	(19.8)
Psychiatry	6.1	5.0	(1.1)	6.8	5.0	(1.8)
Total***	141.4	101.5	(39.9)	157.4	81.0	(76.4)

*Ratios represent physician need per 100,000 population.

**OB/GYN physician supply includes military physicians.

***Hospital-based specialties (e.g., anesthesiology, emergency, pathology, radiology, occupational medicine, and physical medicine and rehabilitation) are excluded from the analysis.

^Assumes physicians age 65 or older by 2016 will be retired.

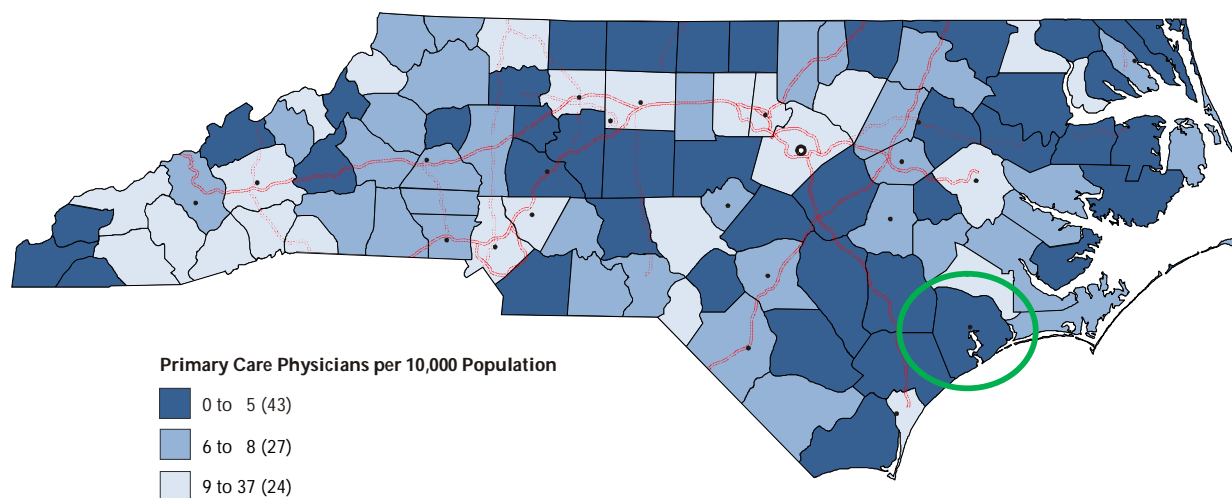
Note: totals may not foot due to computer rounding

As detailed in the table above, in 2016, deficits increase due to an increase in the population, aging of the population, and a decrease in physician supply as a result of possible retirements.

The map below reflects that the availability of primary care physicians in the county is in the lowest category in the state.

Primary Care Physicians per 10,000 Population

North Carolina 2009



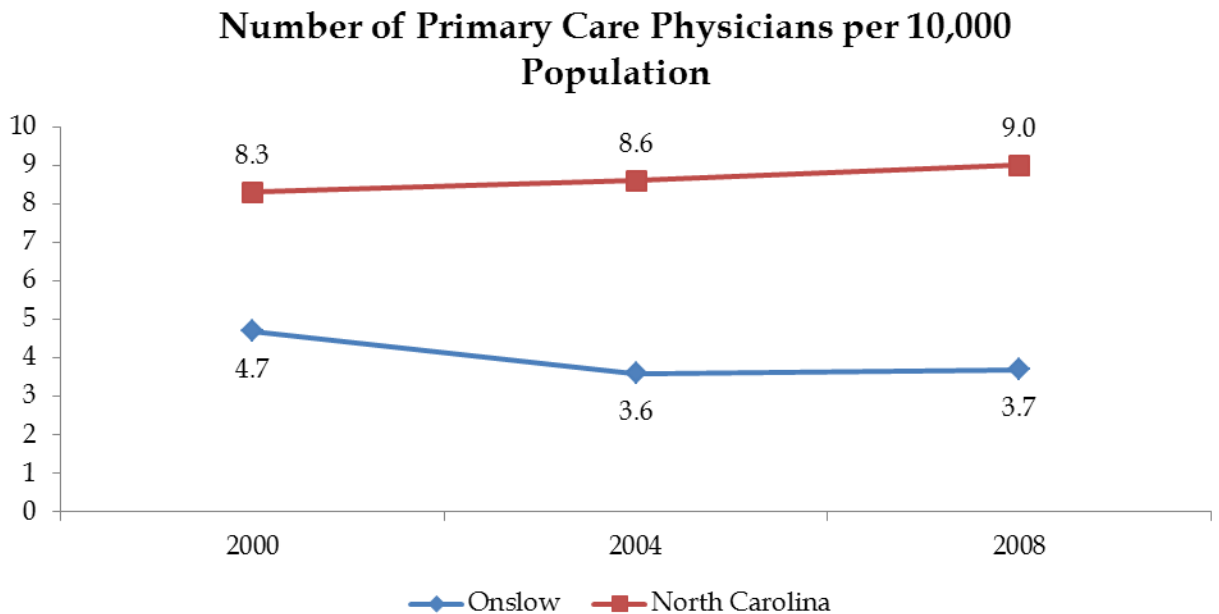
Note: Primary Care Physicians include active or unknown activity status, instate, nonfederal, non-resident-in-training MDs and Dos indicating a primary specialty of Family Practice, Internal Medicine, Ob/Gyn, or Pediatrics.

Source: North Carolina Health Professions Data System with data derived from the North Carolina Medical Board, 2009.

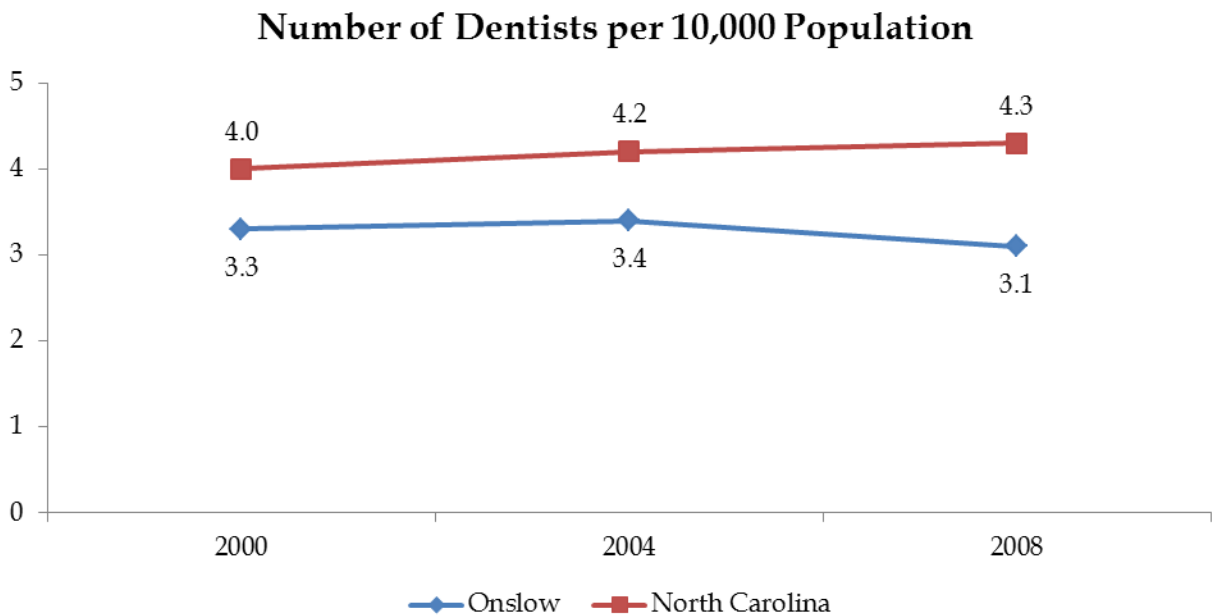
Produced By: Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill.

The trend of availability of both primary care and dental care in Onslow County has not improved. The lack of preventative dental care as a prevailing health issue is reflected in the ED utilization data in Section VII where the

number one ED diagnosis for self-pay patients is for diseases of the mouth and supporting structures.



Source: NC DHHS, SCHS, BRFSS



Source: NC DHHS, SCHS, BRFSS

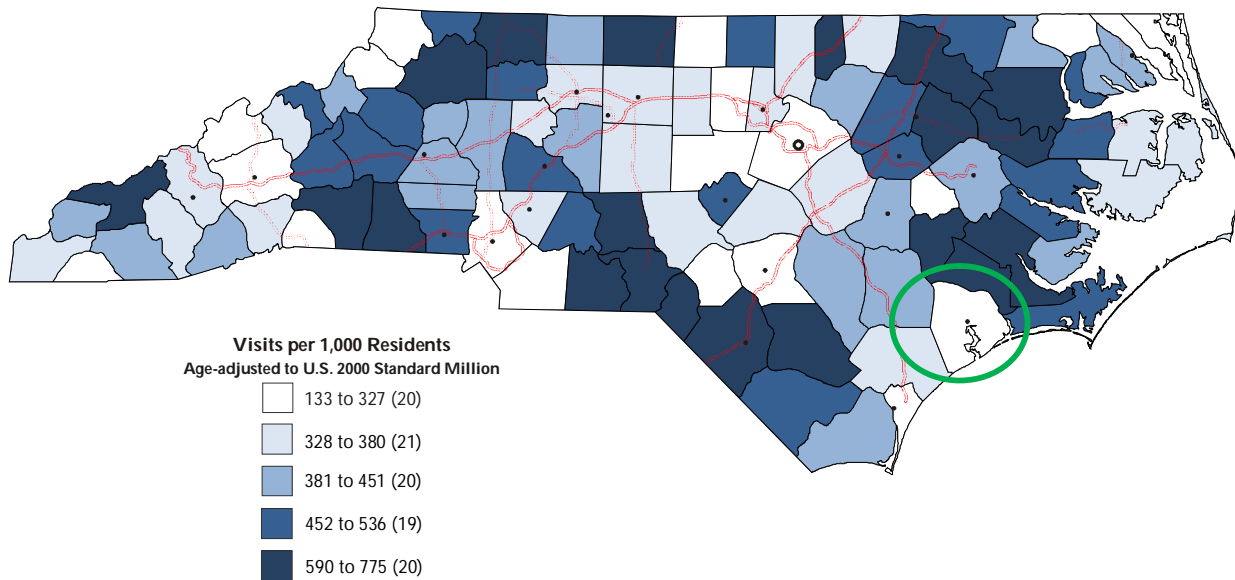
Despite the lack of access to primary care in the county, Emergency Department visit rates are low. As noted above, this could be skewed by

emergency care visits taking place at Camp Lejeune that are not included in the county numbers.

Emergency Department Visit Rates per 1,000 Residents

Resident Visits to North Carolina Emergency Departments

October 1, 2009 to September 30, 2010



Note: Includes patients admitted to hospital.

Source: Thomson Reuters North Carolina Hospital Discharge Data, Fiscal Year 2010.

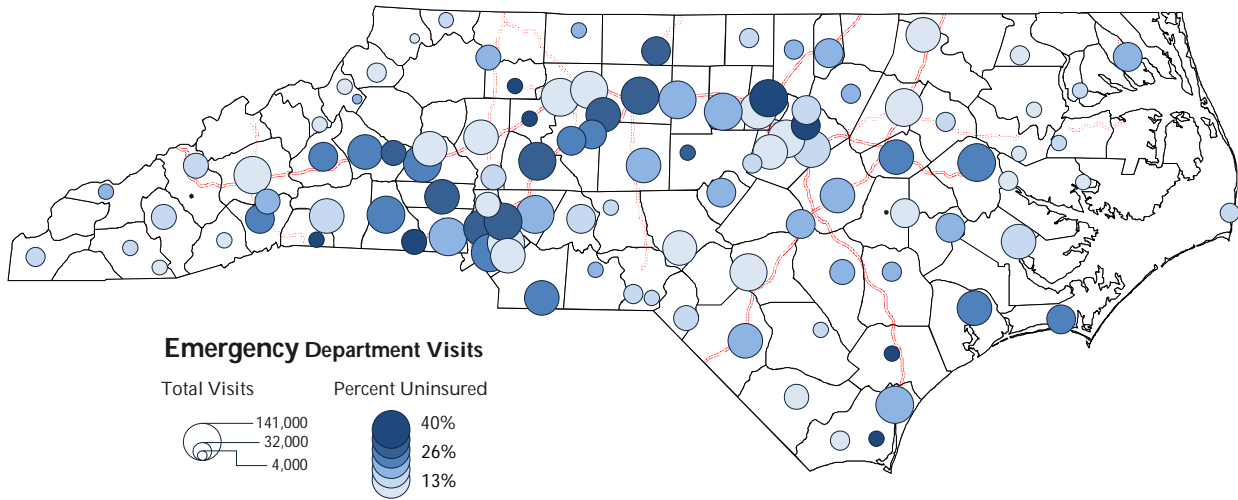
Produced By: Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill.

Although overall ED visit rates are low, the map below indicates that the uninsured continue to turn to the ED as a primary source of care.

Emergency Department Visits and Insurance Status

Percent Uninsured Visits by Emergency Department

October 1, 2009 to September 30, 2010



Note: Includes patients admitted to hospital.

Source: Thomson Reuters North Carolina Hospital Discharge Data, Fiscal Year 2010.

Produced By: Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill.

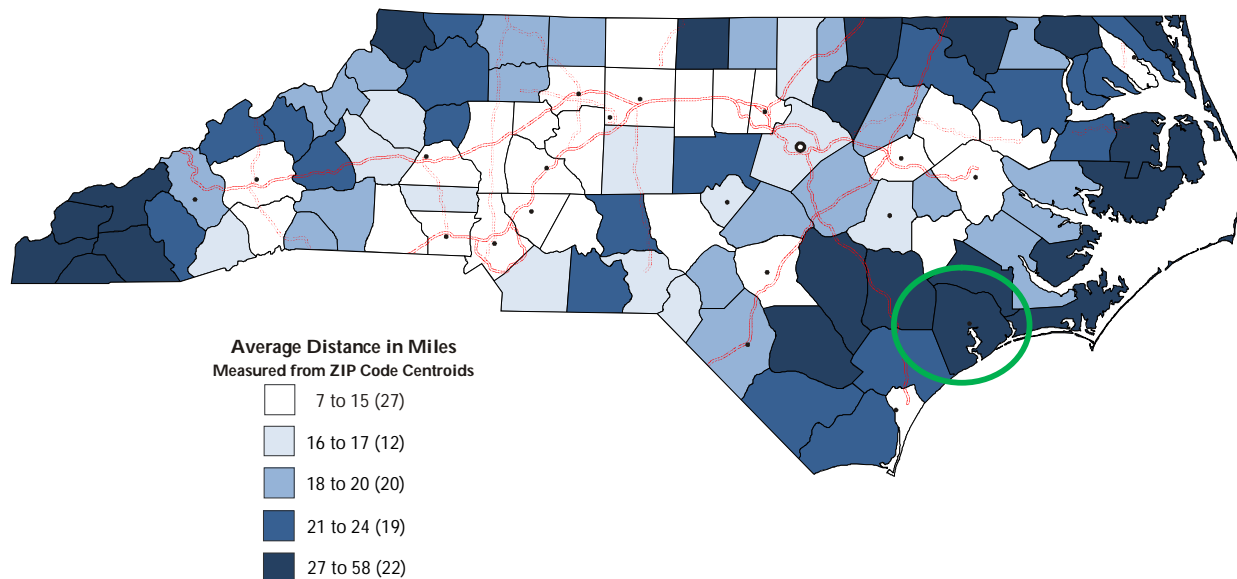
C. Delay in Care

Distance to care indicates a severe need in the county for either more distributed services or assistance for residents without transportation. The map below shows that the average distance from home to the hospital for Onslow County residents discharged is in the highest category of between 27 and 58 miles. This is likely a factor of a number of issues, including the lack of some needed healthcare services in Onslow County, as well as the size of the county and the distance of some residents from OMH or other hospitals.

Average Distance to Care: Miles from Residence to Hospital

Residents Discharged from North Carolina Hospitals

October 1, 2009 to September 30, 2010



Note: Discharges from Psychiatric, Rehabilitation, Long Term Care, and Substance Abuse Treatment Facilities are not included.

Note: Normal newborn discharges (DRG 795) excluded.

Source: Thomson Reuters North Carolina Hospital Discharge Data, Fiscal Year 2010.

Produced By: Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill.

D. Outmigration

Outmigration to other provider facilities reveals a need for certain services, including: heart & vascular, ENT, bariatrics, and ortho/neuro/spine. Ongoing efforts by OMH to reduce outmigration have been successful, resulting in the recent recruitment of cardiologists. The most recent data from FY 2012 Q1 reflect positive impact on the reduction of outmigration and a dramatic

increase in OMH's outpatient cardiology market share. For additional detail by subservice, please see Attachment 10.

<i>Onslow County Residents 2011 Inpatient Outmigration</i>		
<i>Service</i>	<i># Inpatients</i>	<i>% Outmigration</i>
Rehabilitation	146	100%
Cardiac, Vascular, Thoracic	1,351	64%
Mental Health/Psychiatry	962	99%
Gastroenterology	420	41%
Bariatric/Obesity	71	99%
Orthopedic/Spine Surgery	789	81%

Source; Truven: State Inpatients Area Based Analysis FY11 (provided by OMH) April 2012

While estimates of the uninsured in the county vary, data suggests that the number has increased and the uninsured population continues to be an ongoing issue. Access to both primary care and dental care is of particular importance and concern. As a result of the lack of both insurance coverage and the availability of primary care, emergency department utilization has risen dramatically, even more so for the uninsured. The average distance to care in Onslow County is high indicating a need for assistance to residents who lack transportation or more distributed services. Outmigration to other locales for specific services is high, particularly, rehabilitation, cardiovascular, and mental health. Efforts by OMH to reduce outmigration have begun to be successful, particularly in cardiology.

VI. HEALTH DATA/INDICATORS

This section looks at a broad range of Onslow County specific data that provide detailed insight into the health status and health-related behavior of residents in the service area. This publicly reported data is based on statistics of actual occurrences, such as the incidence of certain diseases, as well statistics based on interviews of individuals about their personal health condition and health concerns from the Behavioral Risk Factor Surveillance System (BRFSS).

A. Health Status and Behavior

1. Health Status – County Rankings

The overall health rankings for Onslow County are high/positive - 20th out of 100 for health outcomes and 36th out of 100 for health factors, however those overall rankings mask low/negative rankings for health behaviors (smoking, binge drinking, and STD's), clinical care (diabetic and mammography screening), and physical environment (access to healthy foods).

HEALTH OUTCOMES						
Focus Area	Measure	Weight	National Benchmark	North Carolina	Onslow County	Onslow Rank
Mortality	Premature Death (years of potential life lost before age 75 per 100,000 population age-adjusted)	50%	5,466	7,961	7,647	23
Morbidity	Poor or fair health (percent of adults reporting fair or poor health age-adjusted)	10%	10.0%	18.0%	16.0%	24
	Poor physical health days (avg number of unhealthy days in past 30 days, age-adjusted)	10%	2.6	3.6	3.8	
	Poor mental health days (avg number in past 30 days age-adjusted)	10%	2.3	3.4	3.8	
	Low birthweight (percent of live births with birthweight < 2500 grams)	20%	6.0%	9.1%	7.9%	

Source: www.countyhealthrankings.org

HEALTH FACTORS – HEALTH BEHAVIORS						
Focus Area	Measure	Weight	National Benchmark	North Carolina	Onslow County	Onslow Rank
Tobacco Use	Adult smoking (percent of adults that report smoking >= 100 cigarettes and currently smoking)	10%	14%	22%	27%	81
Diet and	Adult obesity (percent of adults that report a	7.5%	25%	29%	30%	43

Exercise	BMI >= 30)					
	Physical inactivity (percent of adults that report no leisure time physical activity)	2.5%	21%	25%	23%	13
Alcohol Use	Excessive drinking (percent of adults who report heavy or binge drinking)	2.5%	8%	13%	18%	98
	Motor vehicle crash deaths per 100,000 population	2.5%	12	19	22	43
Sexual Activity	Sexually transmitted infections (chlamydia rate per 100,000)	2.5%	84	445	644	86
	Teen birth rate (per 1,000 females ages 15-19)	2.5%	22	50	81	97

Source: www.countyhealthrankings.org

HEALTH FACTORS – CLINICAL CARE						
Focus Area	Measure	Weight	National Benchmark	North Carolina	Onslow County	Onslow Rank
Access to Care	Uninsured (percent of population < 65 without health insurance)	5%	11%	18%	16%	4
	Primary Care (ratio of population to primary care physicians)	5%	631:1	859:1	1,567:1	67
Quality of Care	Preventable hospital stays (rate for ambulatory sensitive conditions per 1,000 Medicare enrollees)	5%	49	64	76	68
	Diabetic screening (percent of diabetic Medicare enrollees that receive HbA1c screening)	2.5%	89%	87%	78%	97
	Mammography screening (percent of female Medicare enrollees)	2.5%	74%	70%	63%	90

Source: www.countyhealthrankings.org

HEALTH FACTORS – SOCIAL AND ECONOMIC ENVIRONMENT						
Focus Area	Measure	Weight	National Benchmark	North Carolina	Onslow County	Onslow Rank
Education	High school graduation (percent of ninth grade cohort that graduates in four years)	5%		78%	83%	29
	Some college (percent of adults aged 25-44 years with some post-secondary education)	5%	68%	61%	65%	10
Employment	Unemployment rate (percent of population age 16+ unemployed)	10%	5.4%	10.6%	8.5%	12
Income	Children in poverty (percent of children under age 18 in poverty)	10%	13%	25%	22%	14
Family and social support	Inadequate social support (percent of adults without social/emotional support)	2.5%	14%	21%	17%	12
	Percent of children that live in single-parent household	2.5%	20%	34%	31%	36

Community safety	Violent crime rate per 100,000 population	5%	73	448	360	72
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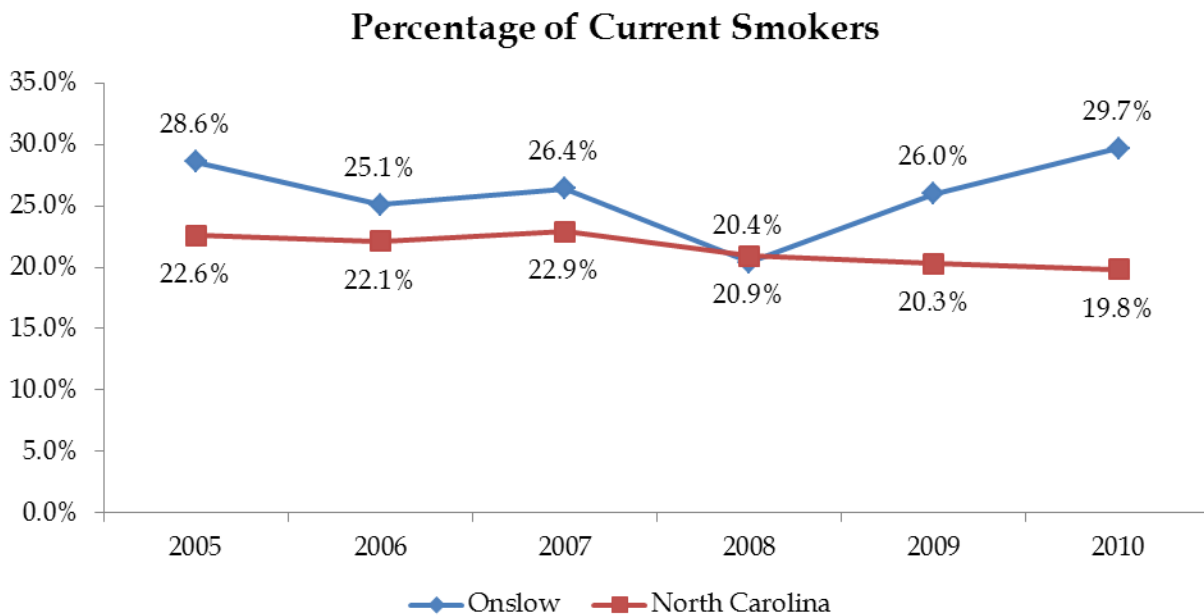
Source: www.countyhealthrankings.org

HEALTH FACTORS – PHYSICAL ENVIRONMENT						
Focus Area	Measure	Weight	National Benchmark	North Carolina	Onslow County	Onslow Rank
Environmental Quality	Air pollution (particulate matter days)	2%	0	1	0	
	Air pollution (ozone days)	2%	0	6	0	
Built Environment	Access to recreational facilities (rate per 100,000 population)	2%	16	11	5	80
	Limited access to health foods (percent of population who are low-income and do not live close to a grocery store)	2%	0%	10%	26%	92
	Fast food restaurants (percent of all restaurants that are fast food)	2%	25%	49%	56%	79

Source: www.countyhealthrankings.org

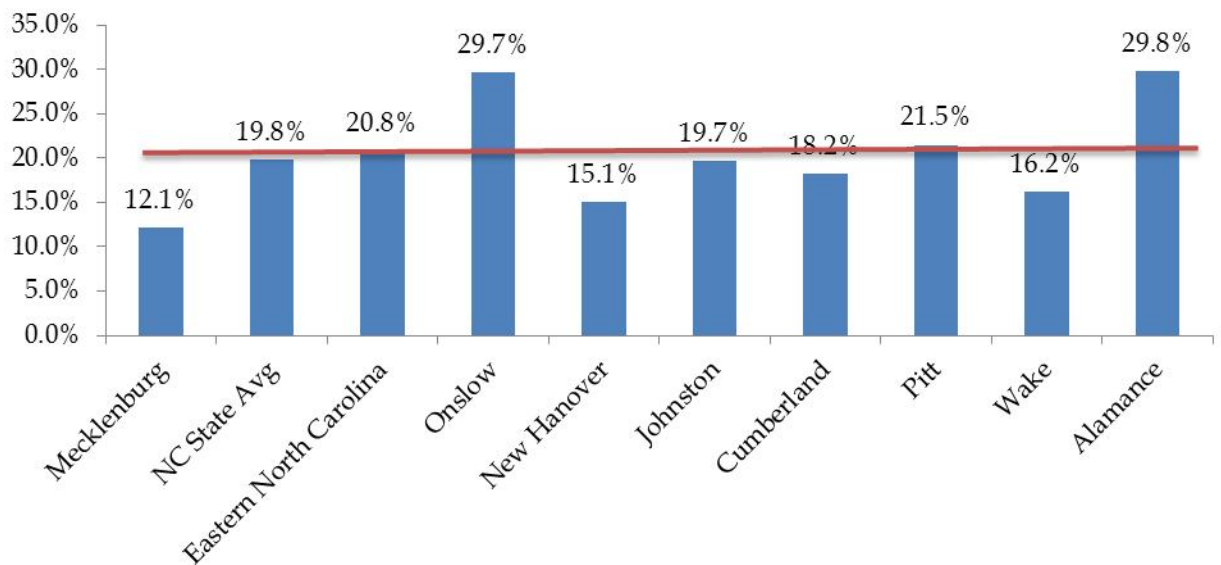
2. Smoking

The percentage of adults who are current smokers in Onslow County ranks among the highest in the state. Although the percentage declined from 2005 to 2008, it appears that the percentage has increased in the past two years.



Source: NC DHHS, SCHS, BRFSS; data is subject to statistical variation with a 95 percent Confidence Interval for a range of values.

Percent of Current Smokers by County

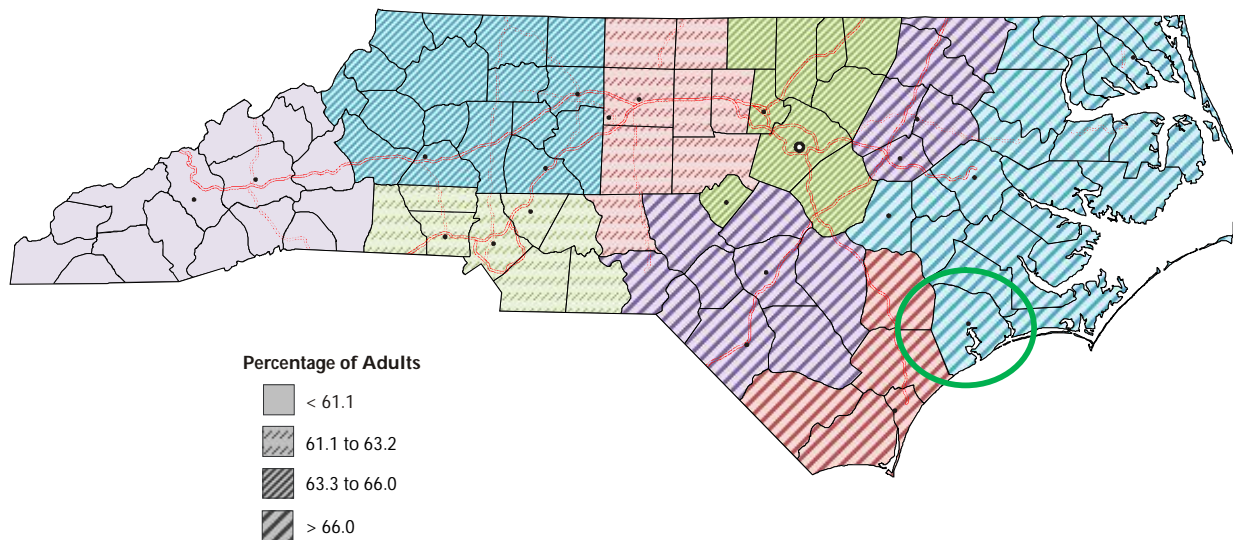


Source: NC DHHS, SCHS, BRFSS; data is subject to statistical variation with a 95 percent Confidence Interval for a range of values.

3. Obesity, Exercise, and Nutrition

Eastern North Carolina has a higher percentage of obesity than the Western part of the state.

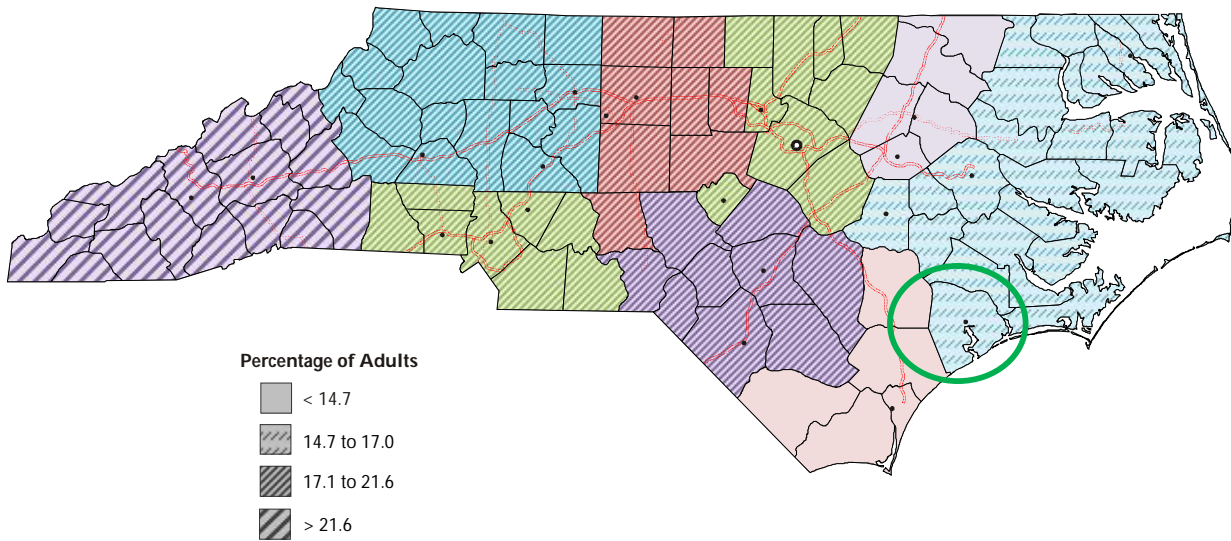
Percentage of North Carolina Adults Who Are Overweight or Obese by Area Health Education Center (AHEC) Regions



Note: Body mass index is computed as weight in kilograms divided by height in meters squared (kg/m^2). BMI is an intermediate variable used in defining overweight and obesity. Underweight = BMI less than 18.5, Recommended Range = BMI 18.5 to 24.9, Overweight = BMI 25.0 to 29.9, and Obese = BMI greater than 30.0.
Source: 2009 Behavioral Risk Factor Surveillance System (BRFSS)

In comparison to the previous slide, it is interesting to note that the Eastern part of North Carolina consumes fewer fruits and vegetables than Western North Carolina.

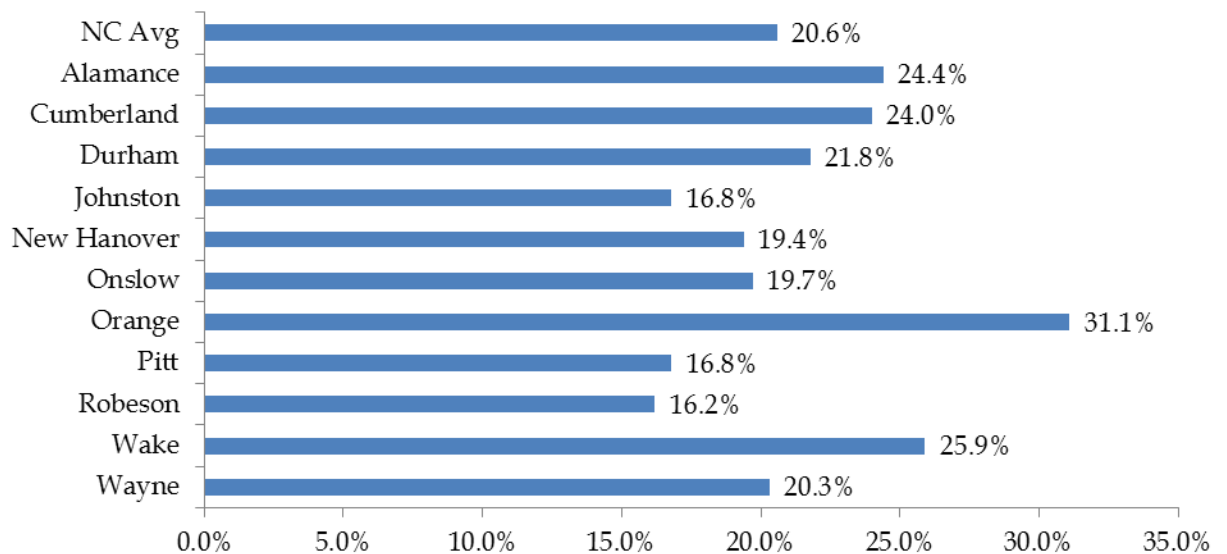
**Percentage of North Carolina Adults
Who Consume 5 or More Servings of Fruits or Vegetables per Day**
by Area Health Education Center (AHEC) Regions



Source: 2009 Behavioral Risk Factor Surveillance System (BRFSS)

In 2009, Onslow was below the state average of 20.6% in consumption of fruits and vegetables.

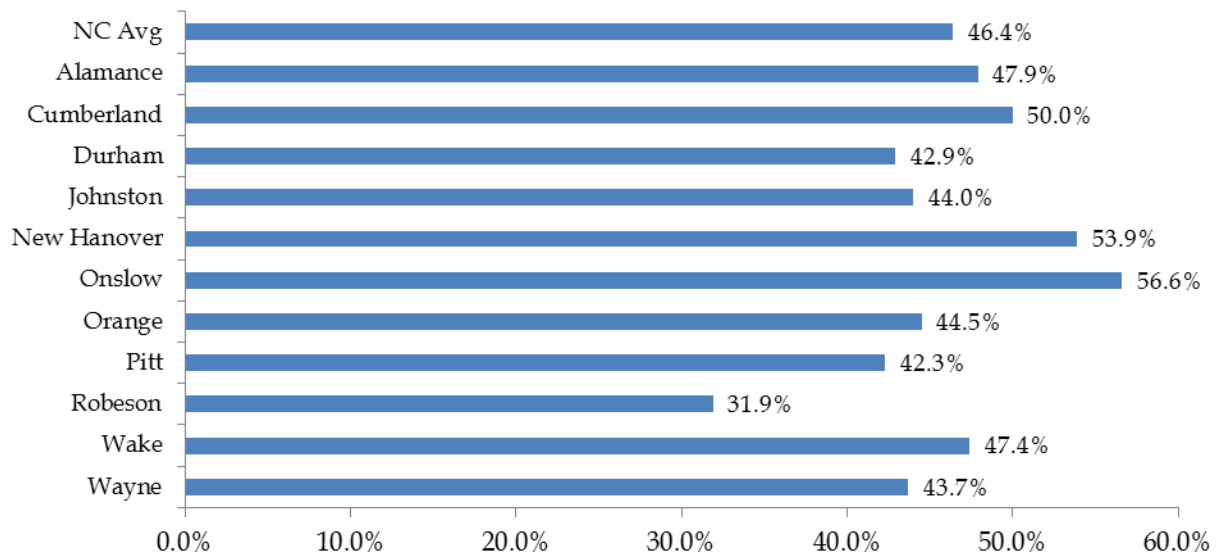
Five or More Fruits/Veg's Per Day - 2009



Source: NC DHHS, SCHS, BRFSS; data is subject to statistical variation with a 95 percent Confidence Interval for a range of values.

In 2009, Onslow was the highest in the state in physical activity, possibly due to military respondents.

Recommended Amount of Physical Activity - 2009



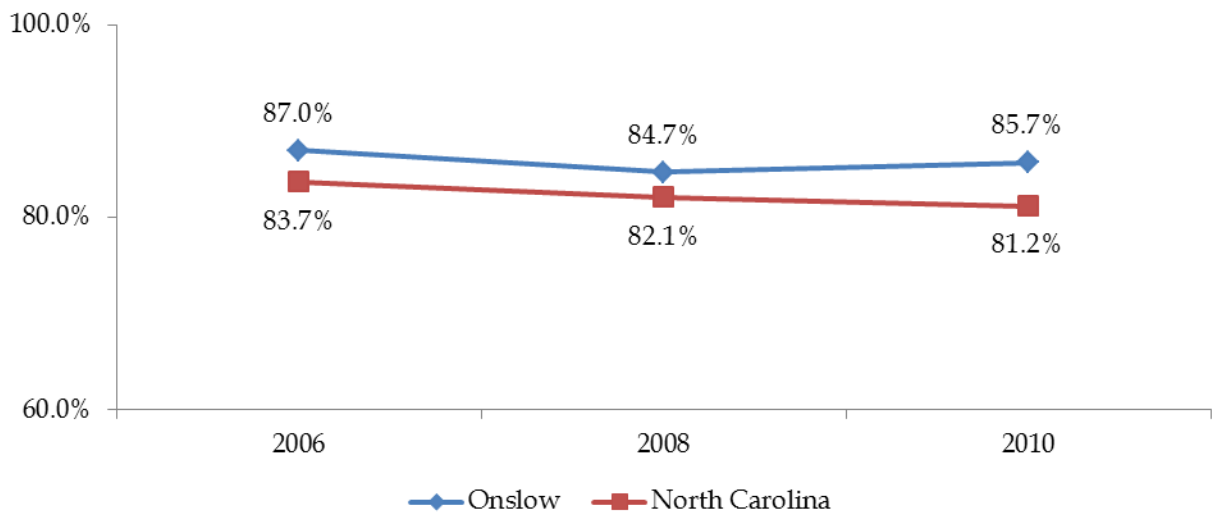
Source: NC DHHS, SCHS, BRFSS; data is subject to statistical variation with a 95 percent Confidence Interval for a range of values.

4. Screenings/Prevention

Screenings for breast, prostate, and colorectal cancers in Onslow County do not appear to be issues of concern at this time.

The percentage of women receiving mammograms has remained high and is above the state average.

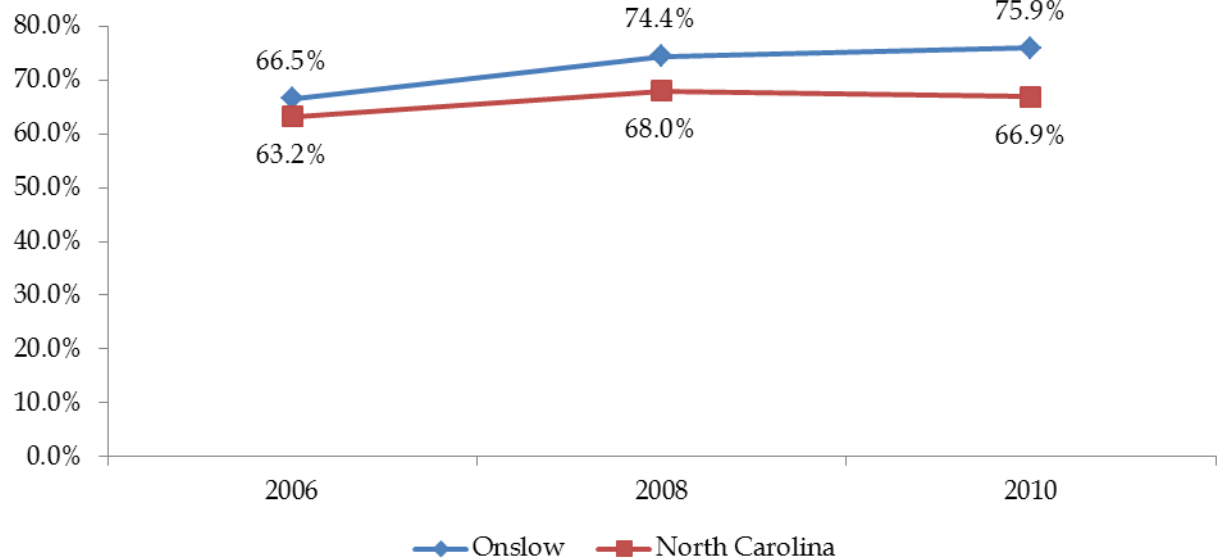
Percent of Females Aged 50+ w/ Mammogram in Past Two Years



Source: NC DHHS, SCHS, BRFSS; data is subject to statistical variation with a 95 percent Confidence Interval for a range of values.

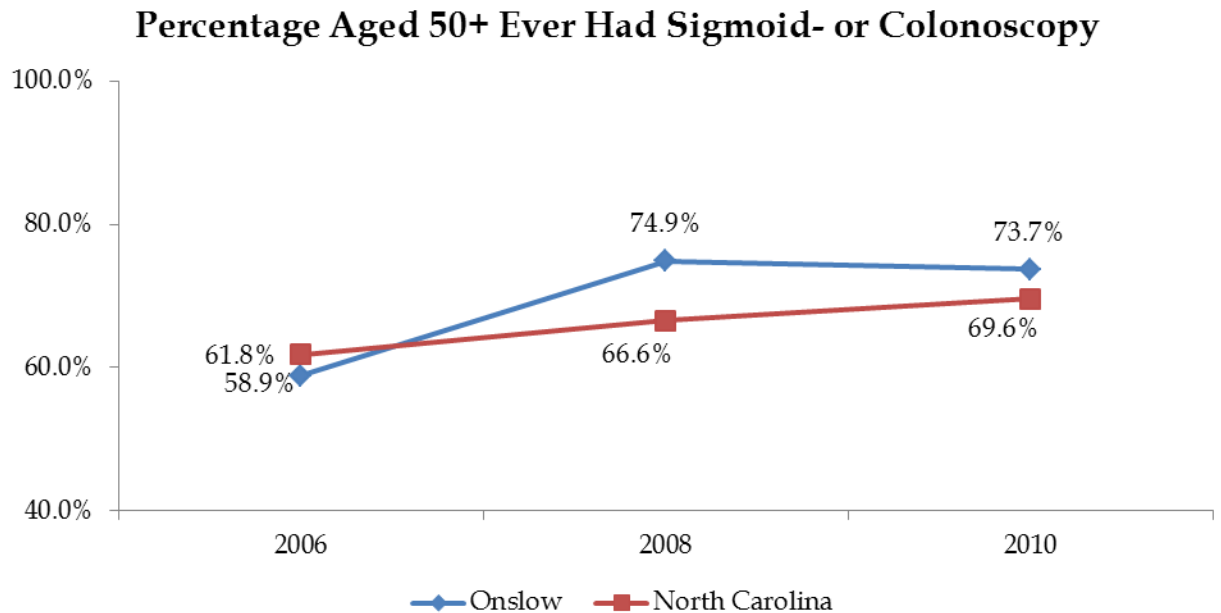
The percentage of men receiving a PSA test has increased and is also above the percentage in North Carolina overall.

Percentage Males 40+ Ever Had a PSA Test



Source: NC DHHS, SCHS, BRFSS; data is subject to statistical variation with a 95 percent Confidence Interval for a range of values.

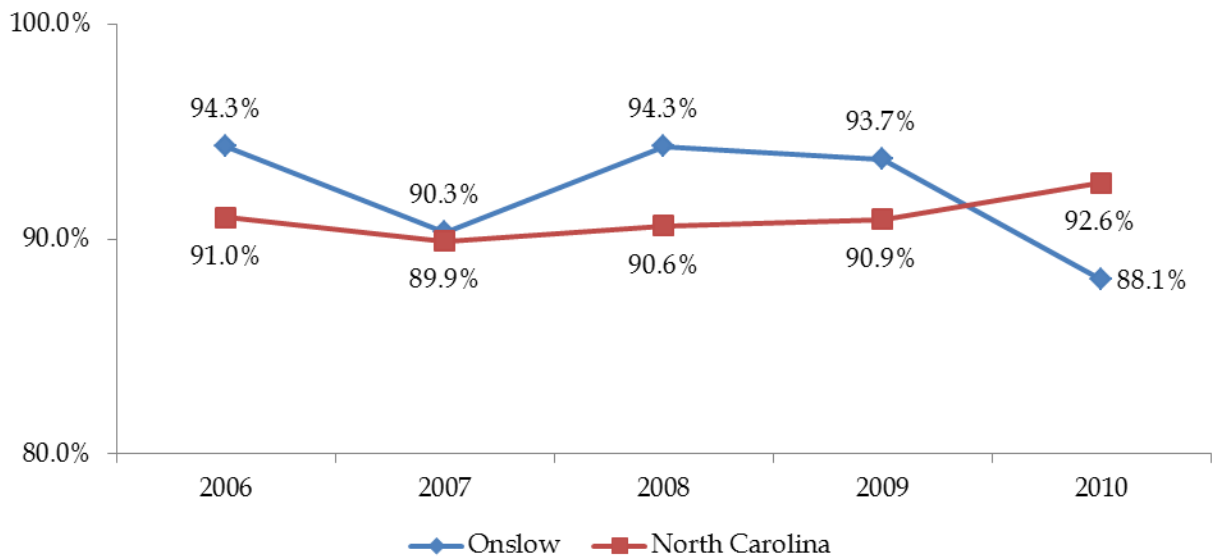
The percentage of adults aged 50 and over having sigmoidoscopy or colonoscopy diagnostic procedures has increased and remains above the overall percentage for the state.



Source: NC DHHS, SCHS, BRFSS; data is subject to statistical variation with a 95 percent Confidence Interval for a range of values.

The percentage of respondents who had received a Hemoglobin A1C test in the past 12 months (to check the average level of blood sugar over the past three months) was higher than the state through 2009. In 2010 the percentage dropped considerably from the year before and was lower than the state overall, indicating a possible need for additional screenings to identify diabetic and pre-diabetic individuals.

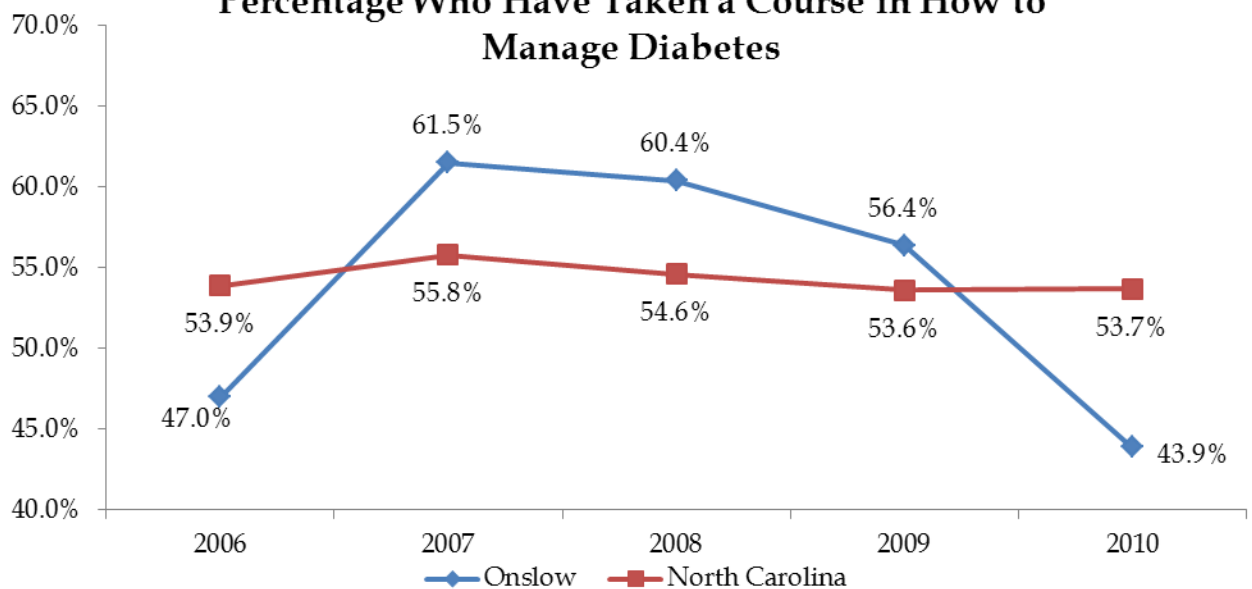
Percentage With HbA1C in Last 12 Months



Source: NC DHHS, SCHS, BRFSS; data is subject to statistical variation with a 95 percent Confidence Interval for a range of values.

The percentage of respondents who indicated they have taken a course or class in how to manage their own diabetes has been higher than the state overall, however that percentage dropped in 2010 and was below the state overall.

Percentage Who Have Taken a Course in How to Manage Diabetes



Source: NC DHHS, SCHS, BRFSS; data is subject to statistical variation with a 95 percent Confidence Interval for a range of values.

B. Vital Statistics

1. Births

The birth rate in Onslow County is higher than the state average, which is not surprising given the younger/military population in the county.

North Carolina Resident Live Birth Rates per 1,000 population 2005-2009						
	Total Births	Total Rate	White Births	White Rate	Minority Births	Minority Rate
Onslow County	18,143	21.5	14,683	22.8	3,460	17.3
North Carolina	639,115	14.1	458,829	13.6	180,286	15.5

Source: NC DHHS, SCHS

The percentage of low birth weights in Onslow County is lower than the state average. (See also County Health Rankings). There is room for improvement when compared with the national benchmark of 6.0 percent.

North Carolina Resident Low Birth Weights by Race 2005-2009						
	Total Low Birthweight		White Low Birthweight		Minority Low Birthweight	
	Number	Percent	Number	Percent	Number	Percent
Onslow County	1,440	7.9%	1,005	6.8%	435	12.6%
North Carolina	58,461	9.1%	33,970	7.4%	24,491	13.6%

Source: NC DHHS, SCHS

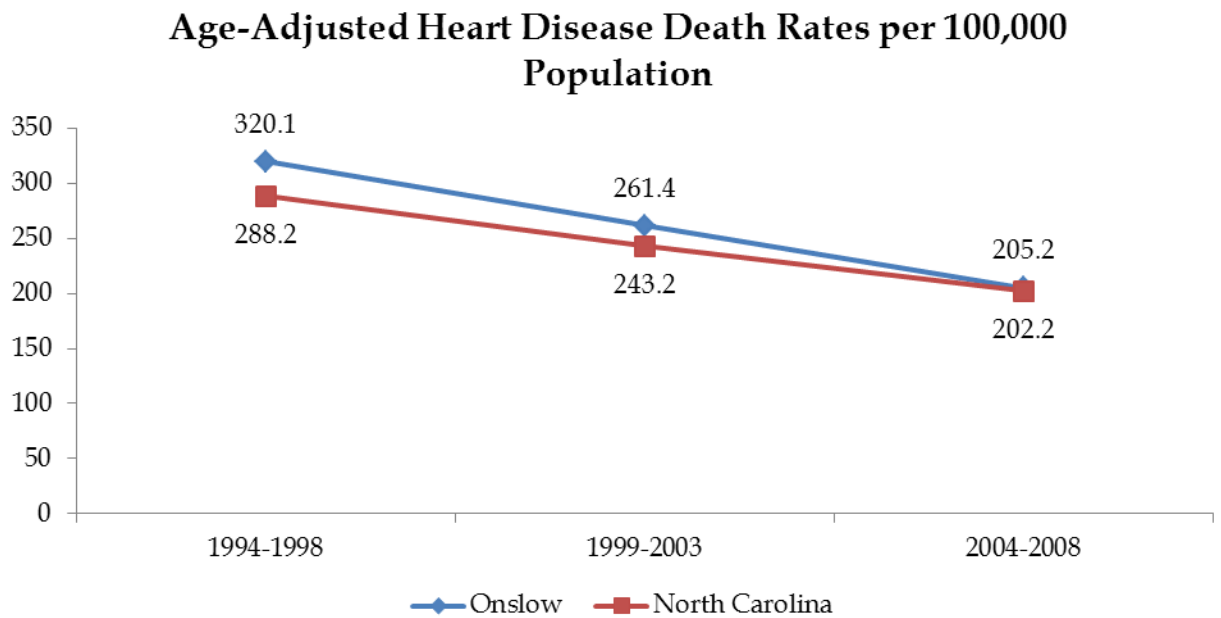
2. Deaths

Cancer and heart disease rank as the two leading causes of death in the county. The heart disease death rate is on the decline in Onslow County and in North Carolina overall (see following chart). For more detail on the 2005-2009 Ten Leading Causes of Death for Onslow County, please see Attachment 11.

Mortality Leading Causes of Death in North Carolina 2010 Onslow County			
Rank	Cause	Number	Percent
1	Cancer	197	23.0%
2	Heart disease	179	20.9%
3	Chronic lower respiratory diseases	44	5.1%
4	Diabetes	40	4.7%

5	Unintentional injuries	39	4.6%
6	Cerebrovascular diseases	31	3.6%
7	Suicide	27	3.2%
8	Motor vehicle injuries	26	3.0%
9	Septicemia	22	2.6%
10	Alzheimer's disease	21	2.5%
	All Other Causes	230	26.8%
	Total deaths – all causes	856	100.0%

Source: NC DHHS, SCHS

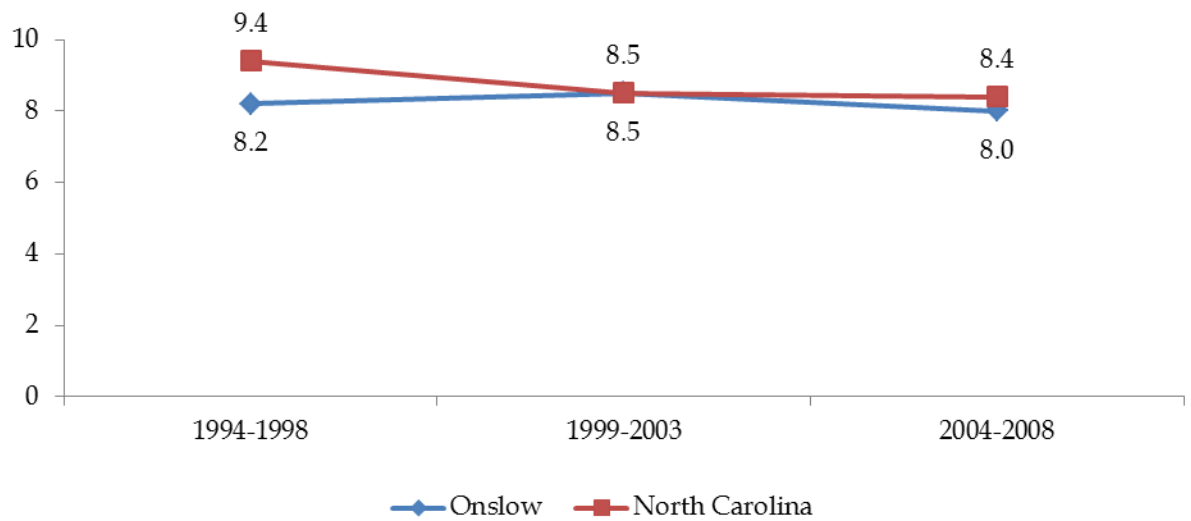


Source: NC DHHS, SCHS

3. Infant Mortality

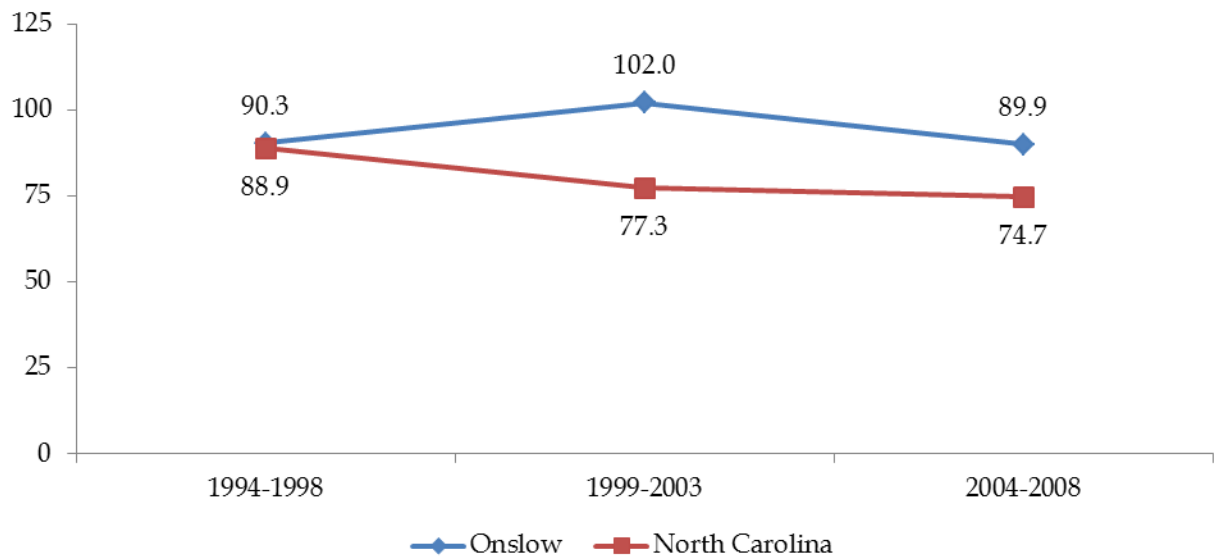
Both infant mortality and youth death rates have declined. Onslow County is below the state average for the infant mortality death rate but above the state average for the youth death rate.

Infant Mortality Rates - per 1,000 Live Births



Source: NC DHHS, SCHS

Youth Death Rates (0-17) per 100,000 Population

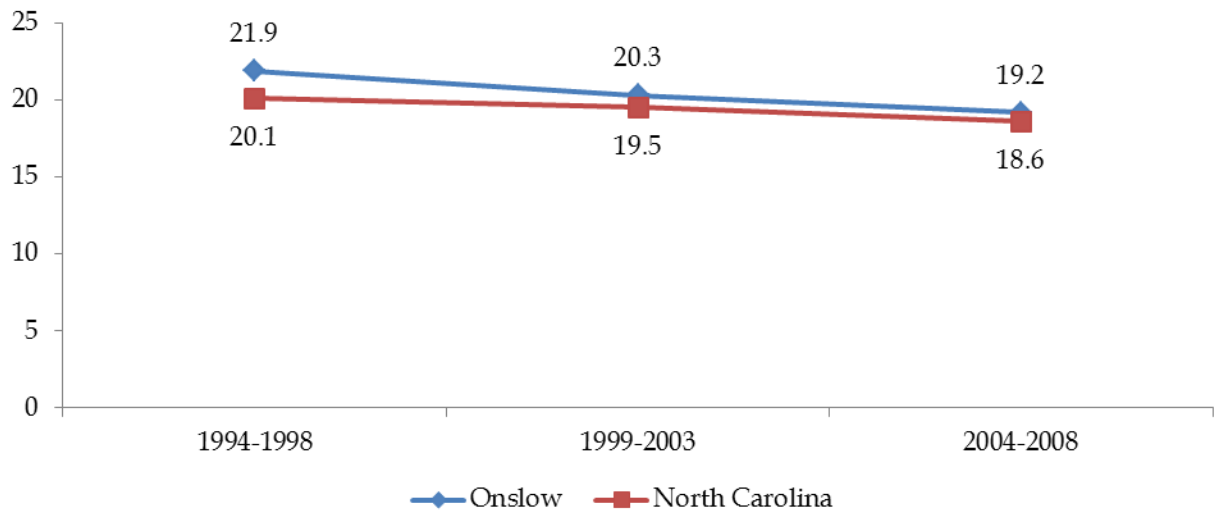


Source: NC DHHS, SCHS

4. Accidental Deaths

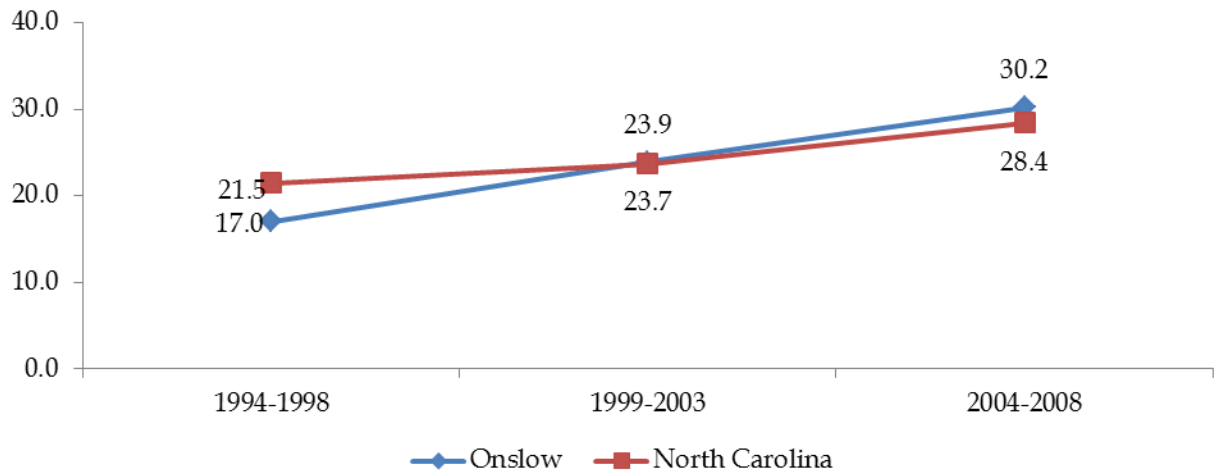
Motor vehicle death rates have declined significantly while other injury death rates have risen significantly.

Age-Adjusted Unintentional Motor Vehicle Injury Death Rates - per 100,000 Population



Source: NC DHHS, SCHS

Age-Adjusted All Other Unintentional Injury Death Rates - per 100,000 Population

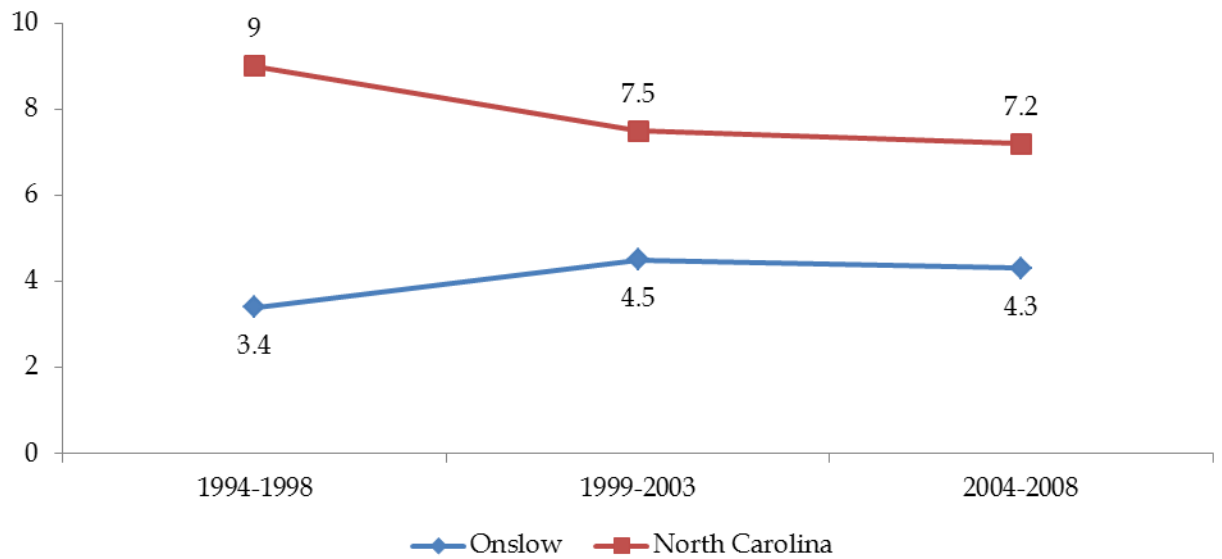


Source: NC DHHS, SCHS

5. Homicide and Suicide

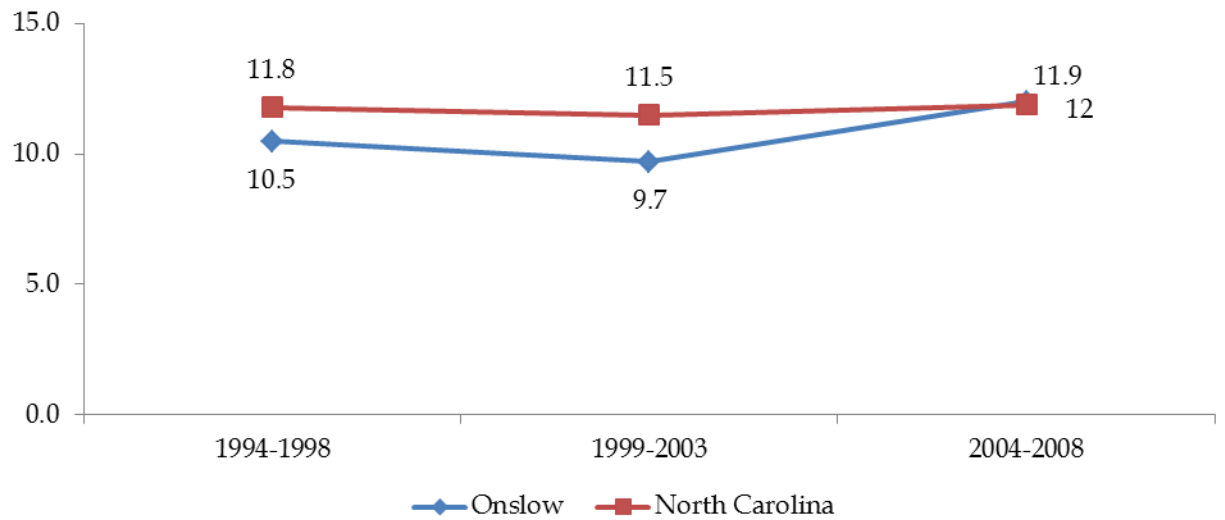
While the violent crime rate is high (as reported in the county health rankings), the homicide rate in Onslow County has declined and is below the North Carolina average. Perhaps of more concern is the suicide rate which has increased to equal the state average.

Age-Adjusted Homicide Rates - per 100,000 Population



Source: NCDHHS SCHS

Suicide Rates - per 100,000 Population



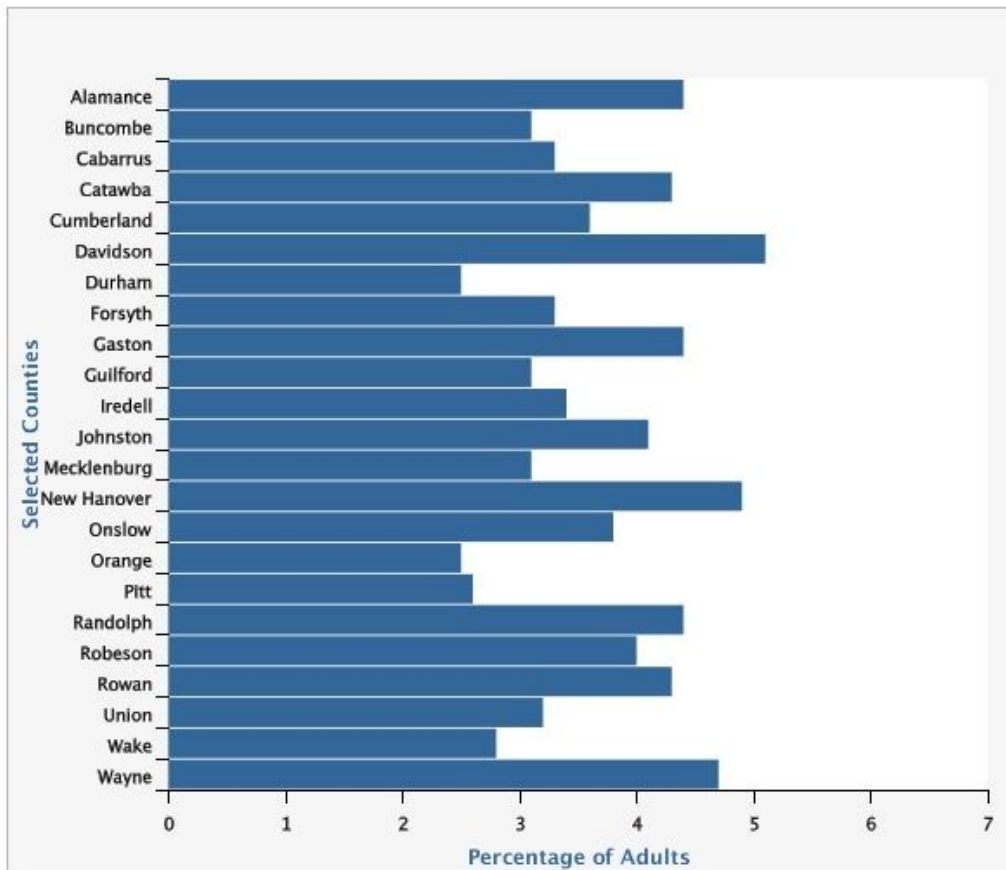
Source: NC DHHS, SCHS

C. Mental Health and Substance Abuse

1. Mental Health

As mentioned previously, the unique experience and needs of the military population add to the demand for mental health services in the county.

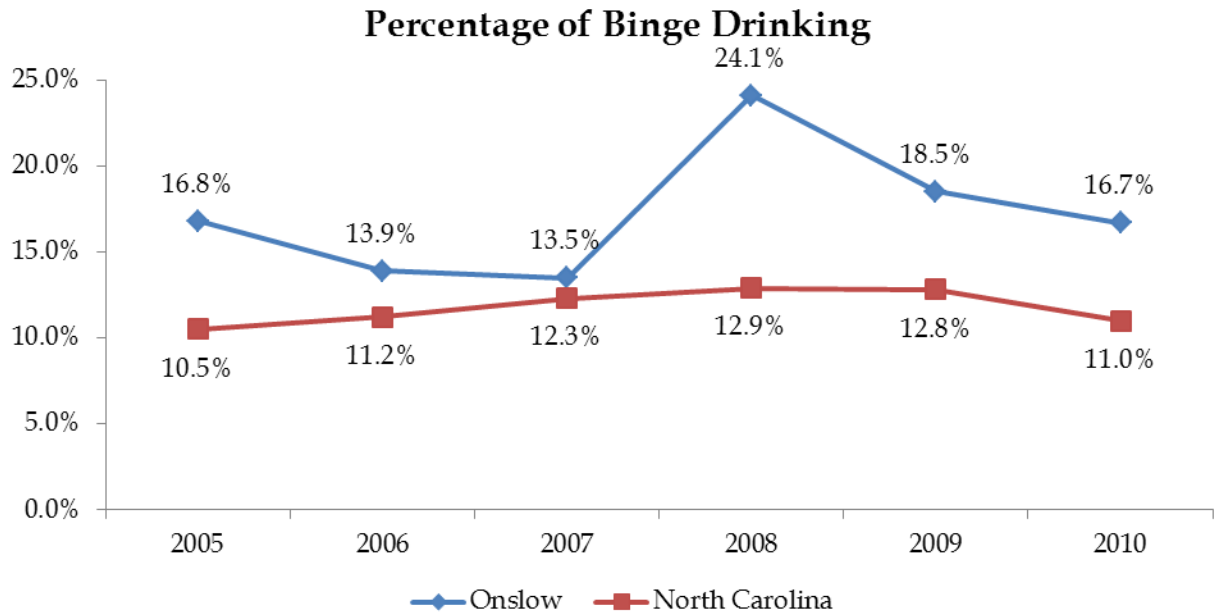
Poor Mental Health Days Among Adults in the Past 30 Days for Select Counties, 2010



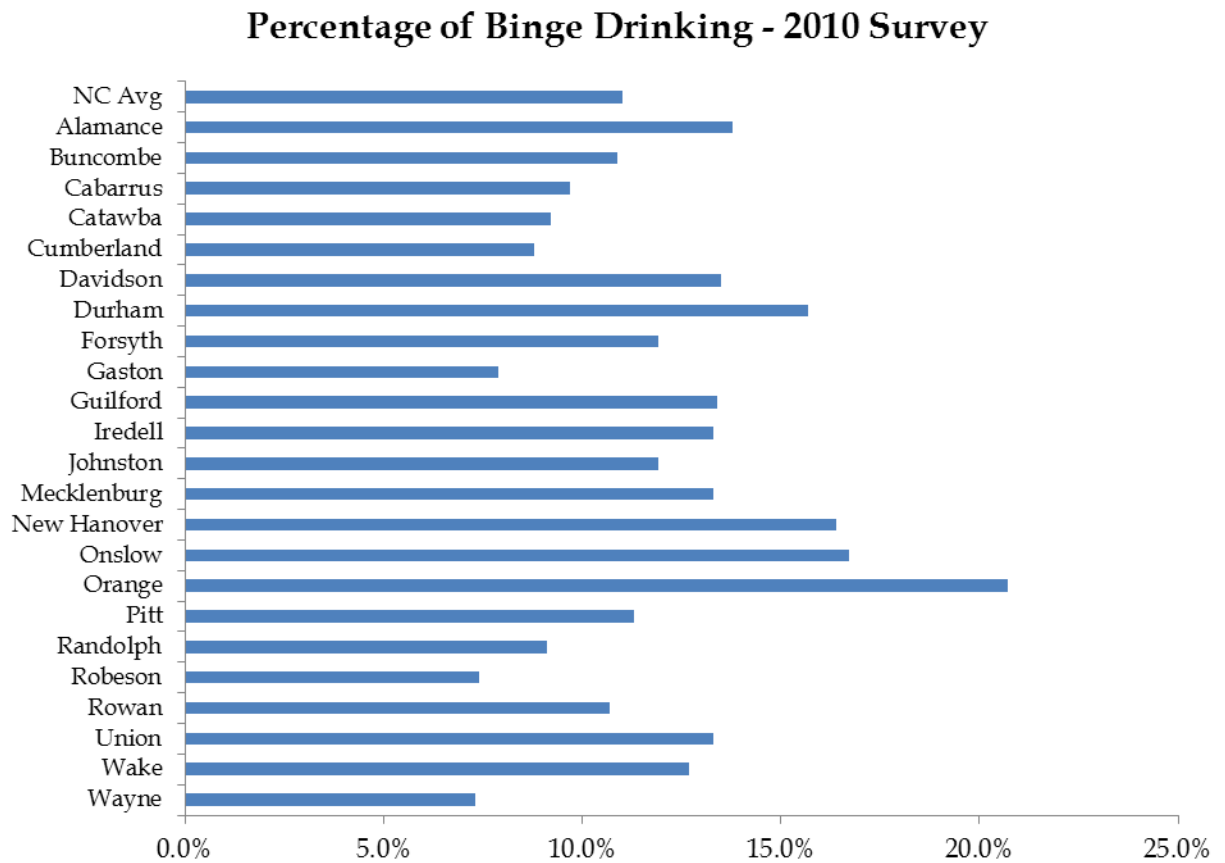
Source: NC DHHS, SCHS, BRFSS; data is subject to statistical variation with a 95 percent Confidence Interval for a range of values.

2. Substance Abuse

While binge drinking in Onslow County has declined, it is still well above the state average and is among the highest in the state. This is likely correlated to the younger/military population.



Source: NC DHHS, SCHS, BRFSS; data is subject to statistical variation with a 95 percent Confidence Interval for a range of values.



Source: NC DHHS, SCHS, BRFSS; data is subject to statistical variation with a 95 percent Confidence Interval for a range of values.

Illicit and prescription drug use and abuse data is not readily available at the county level, however healthcare leaders in the community have expressed concern about this issue. Therefore, the following information is provided at the state level, and based on comments during interviews it is believed that the need/issues surrounding substance abuse in Onslow County are at least as significant as those seen at the state level or potentially worse in some instances.

As reported in the National Survey on Drug Use and Health (NSDUH), North Carolina overall has a high percentage of illicit drug use, with the higher percentage of use among persons aged 26 or older.

Additional facts regarding drugs in North Carolina:

- The number of meth lab seizure incidents in the state of North Carolina increased 32 percent from 153 incidents in 2007 to 202 incidents in 209
- Approximately eight percent of North Carolina residents reported past-month use of illicit drugs; the national average was eight percent
- The rate of drug-induced deaths in North Carolina was similar to the national average
- Marijuana is the most commonly cited drug among primary drug treatment admissions in North Carolina (see following chart)
- Current designated High Intensity Drug Trafficking Area (HIDTA) counties in North Carolina include: Alamance, Buncombe, Durham, Gaston, Guilford, Henderson, Johnston, McDowell, Mecklenburg, Randolph, Union, Wake, Wayne, and Wilson

Source:

http://www.whitehouse.gov/sites/default/files/docs/state_profile_-_north_carolina.pdf

Prescription Drugs

Prescription drug abuse is the fastest-growing drug problem in the nation. The Obama Administration's Prescription Drug Abuse Prevention Plan, entitled, "Epidemic: Responding to America's Prescription Drug Abuse Crisis," provides a national framework for reducing prescription drug diversion and abuse by supporting the expansion of state-based prescription drug monitoring programs; recommending secure, more

convenient, and environmentally responsible disposal methods to remove expired, unused, or unneeded medications from the home; supporting education for parents and healthcare providers; and reducing the prevalence of pill mills and doctor shopping through enforcement efforts.

The North Carolina Controlled Substances Reporting System became operational in 2007 under the North Carolina Controlled Substances Reporting System Act, which was enacted in 2005. The System is under the North Carolina Department of Health and Human Services, Division of Mental Health, Developmental Disabilities, and Substance Abuse Services. It monitors controlled substances in Schedules II, III, IV, and V. The data are collected weekly; in 2008, an estimated 17 million prescription records were collected.

A comprehensive plan to address prescription drug abuse must include proper disposal of unused, unneeded, or expired medications. Providing individuals with a secure and convenient way to dispose of controlled substances will help prevent diversion and abuse of these substances and demonstrate sound environmental stewardship. Federal rulemaking is underway and will further enhance the viability and scope of state and community take-back programs. In the meantime, states are encouraged to work with the DEA to conduct additional take-back events and educate the public about safe and effective drug return and disposal.

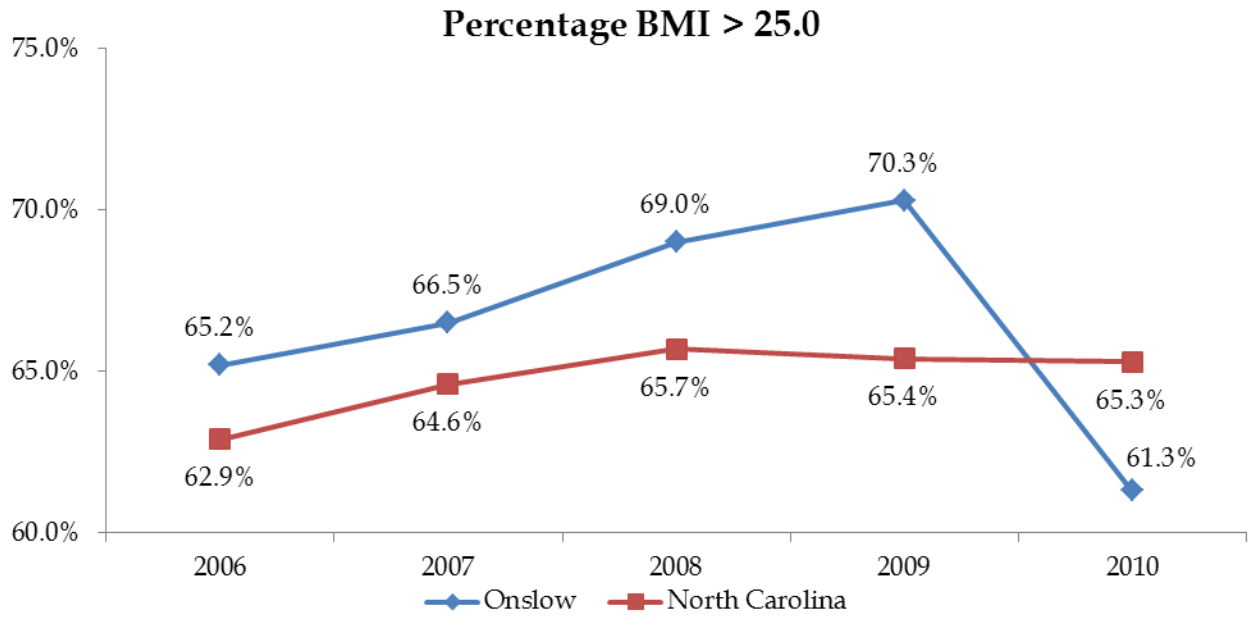
Source:

http://www.whitehouse.gov/sites/default/files/docs/state_profile_-_north_carolina.pdf

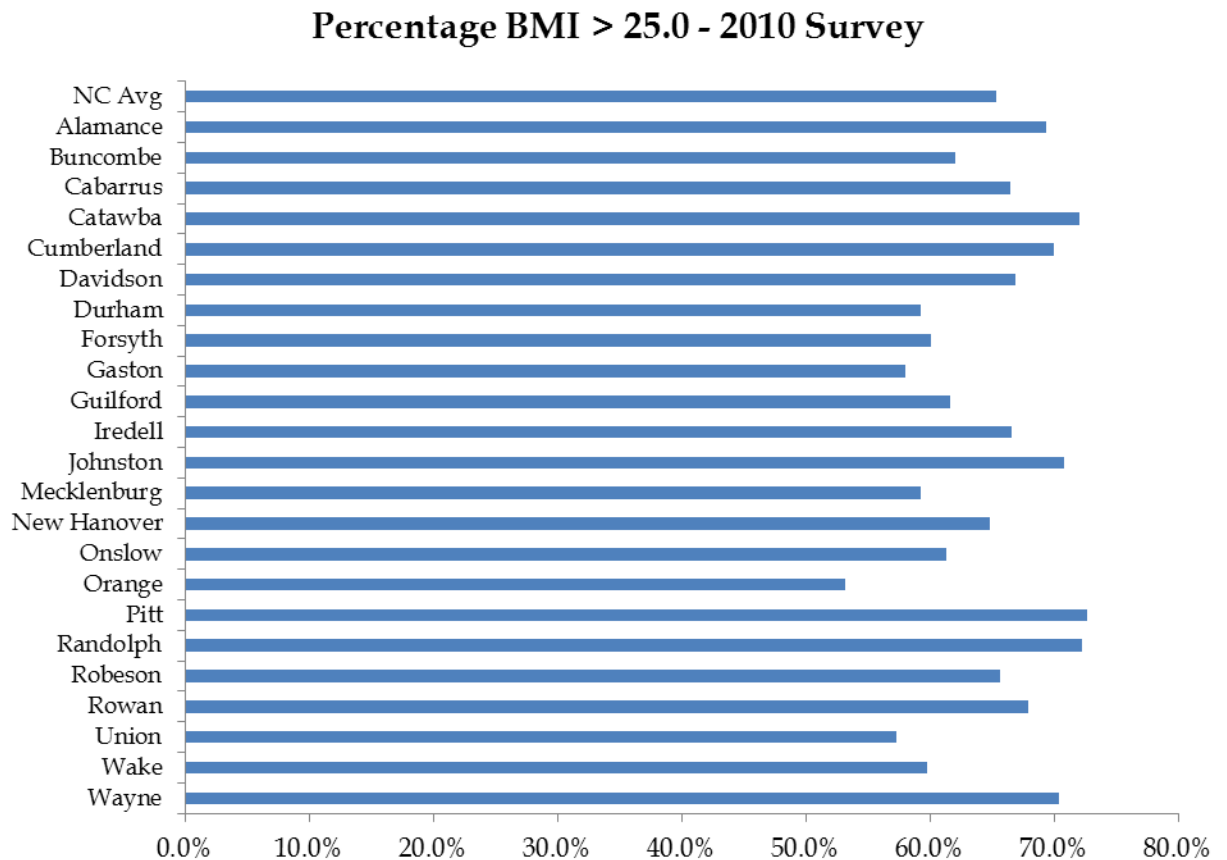
D. Chronic Disease Prevalence

1. Obesity

The percentage of respondents in Onslow County to the Behavioral Risk Factor Surveillance System (BRFSS) survey with a BMI > 25.0 has been running higher than the state average but dropped in 2010.



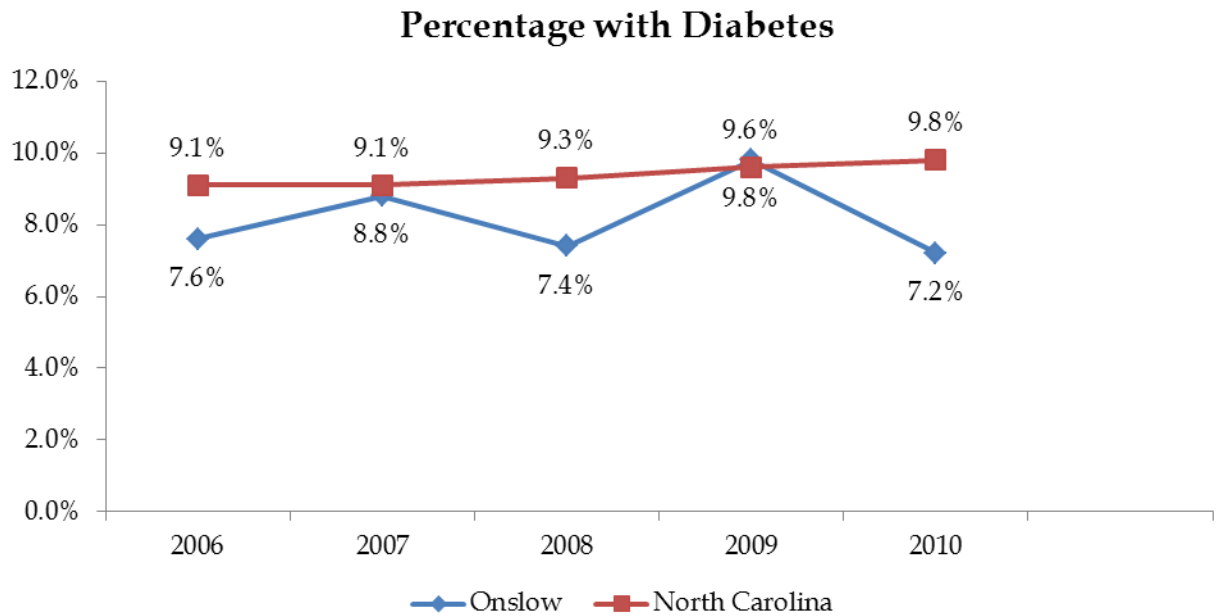
Source: NC DHHS, SCHS, BRFSS; data is subject to statistical variation with a 95 percent Confidence Interval for a range of values.



Source: NC DHHS, SCHS, BRFSS; data is subject to statistical variation with a 95 percent Confidence Interval for a range of values.

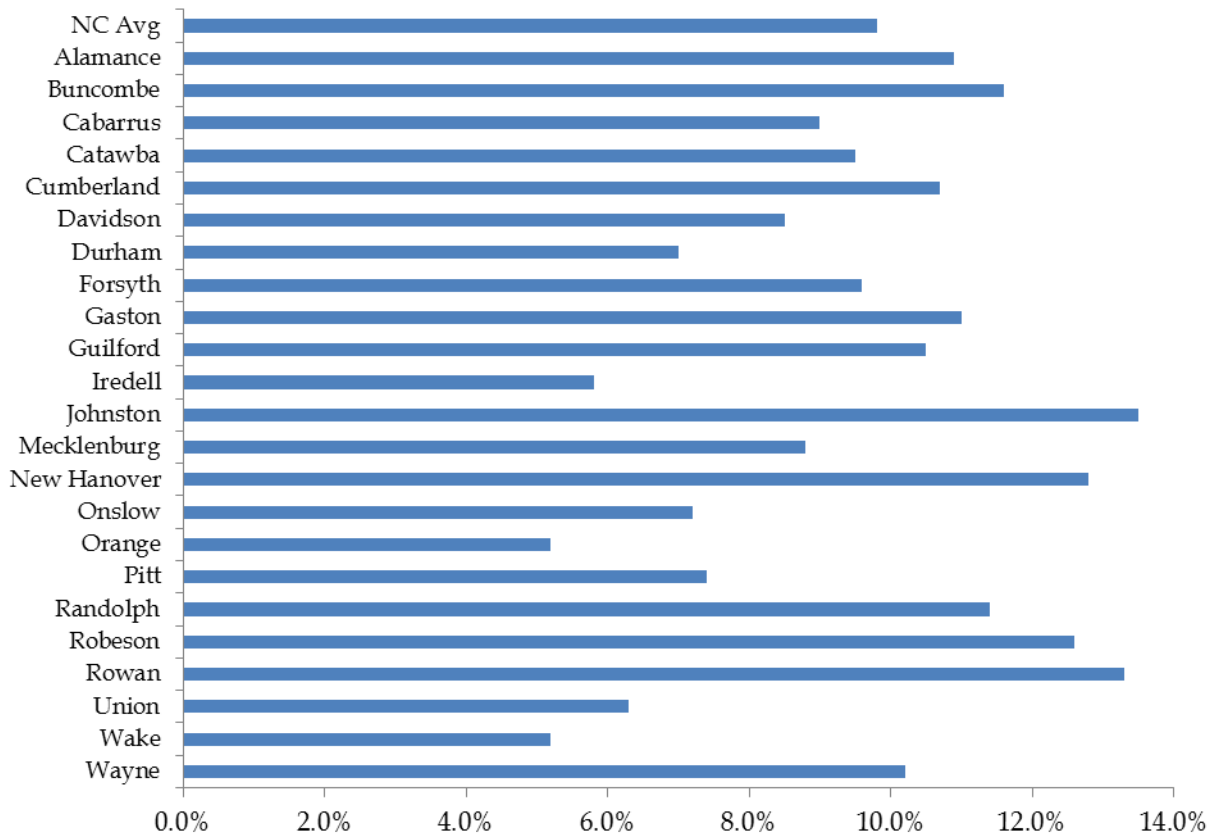
2. Diabetes

The incidence of diabetes is low compared to the state average and to other North Carolina counties.



Source: NC DHHS, SCHS, BRFSS; data is subject to statistical variation with a 95 percent Confidence Interval for a range of values.

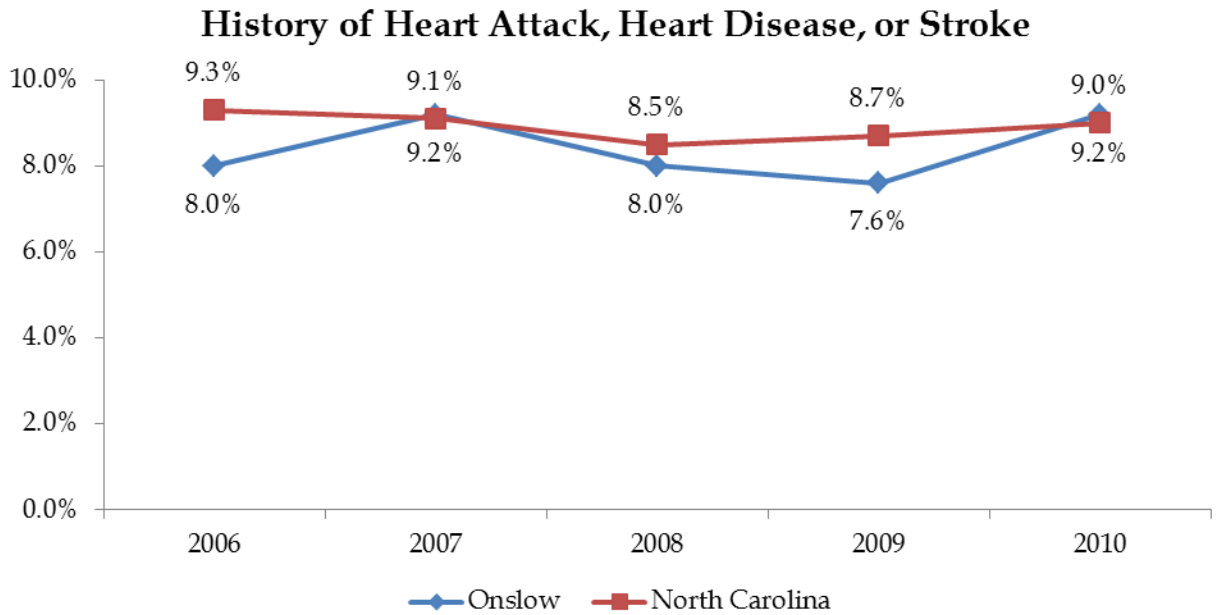
Percentage with Diabetes - 2010 Survey



Source: NC DHHS, SCHS, BRFSS; data is subject to statistical variation with a 95 percent Confidence Interval for a range of values.

3. Heart Disease

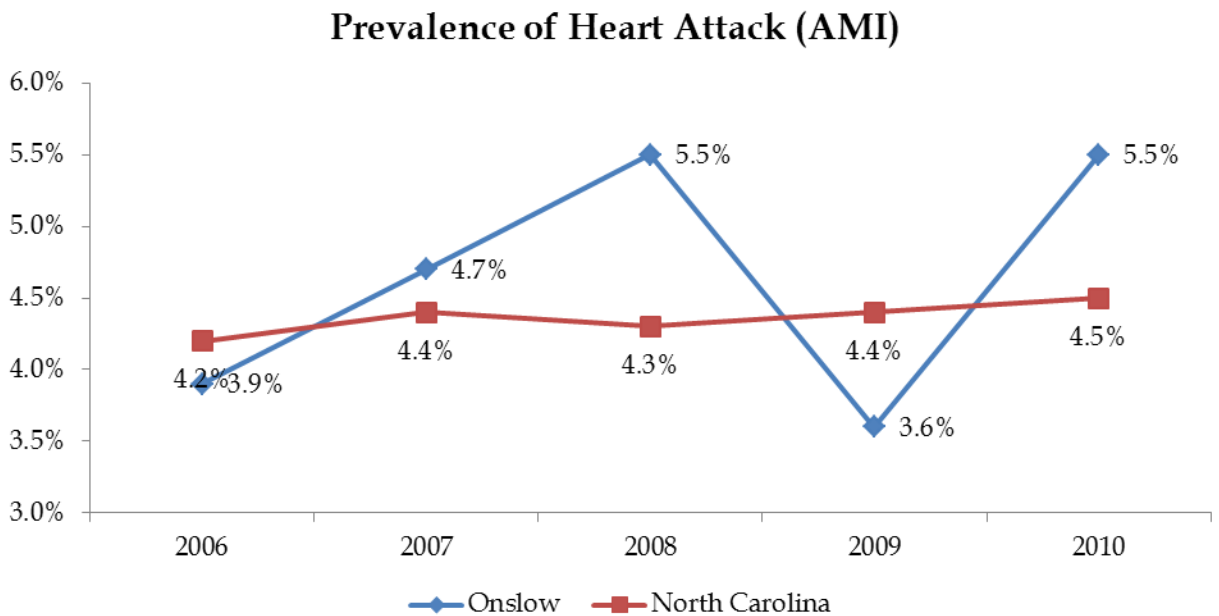
The incidence of heart disease has risen and is equivalent to the overall state incidence.



Source: NC DHHS, SCHS, BRFSS; data is subject to statistical variation with a 95 percent Confidence Interval for a range of values.

4. Heart Attack

The prevalence of heart attack in Onslow is slightly higher than in North Carolina overall.



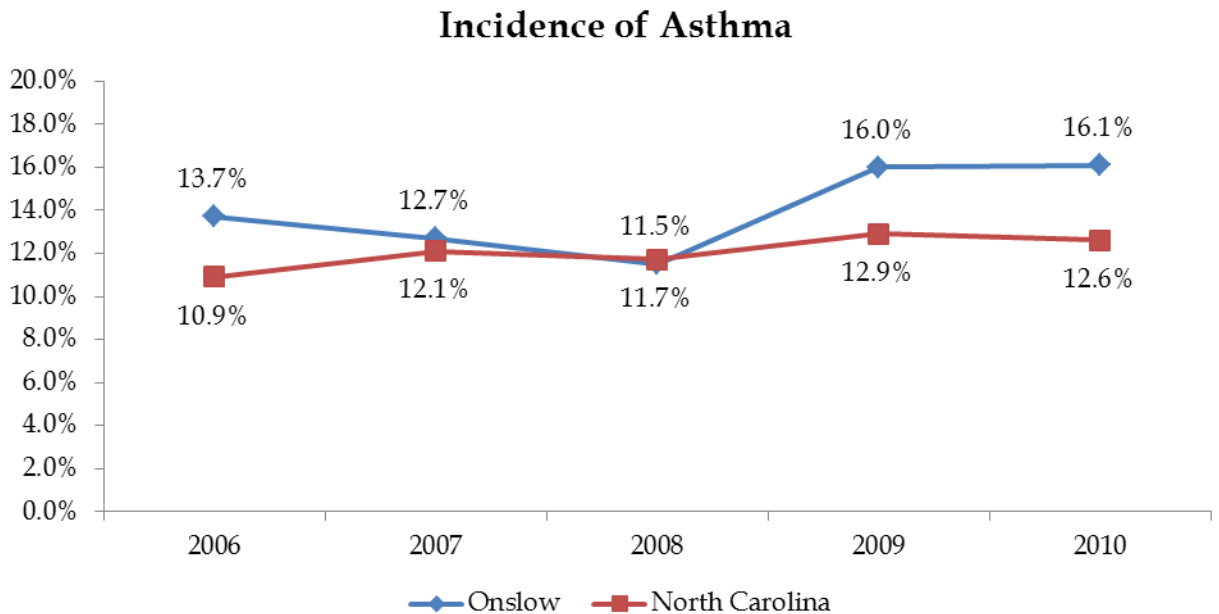
Source: NC DHHS, SCHS, BRFSS; data is subject to statistical variation with a 95 percent Confidence Interval for a range of values.

5. Asthma

While hospital discharge rates of asthma are lower in Onslow County than in North Carolina overall, recent survey data suggests that the incidence appears to have increased, which suggests that fewer individuals are being treated in a hospital setting for asthma conditions.

2010 NC Hospital Discharges with a Primary Diagnosis of Asthma				
	Total	Rate	Ages 0-14	Rate
Onslow County	174	97.9	56	142.9
North Carolina	10,470	109.8	3,152	166

NC DHHS, SCHS (Provisional NC Hospital discharge data)



Source: NC DHHS, SCHS, BRFSS; data is subject to statistical variation with a 95 percent Confidence Interval for a range of values.

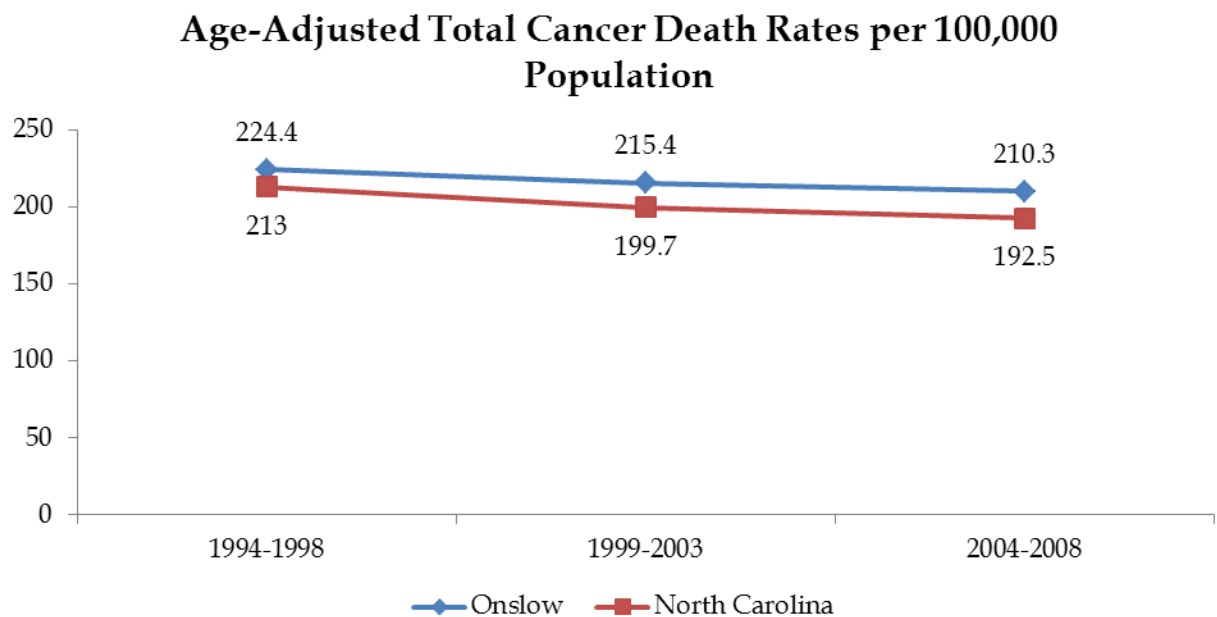
E. Cancer Incidence and Mortality

1. All Cancer

As reported in the previous section on mortality, cancer is the number one cause of death in Onslow County and it continues to be a primary health issue of utmost concern in the community.

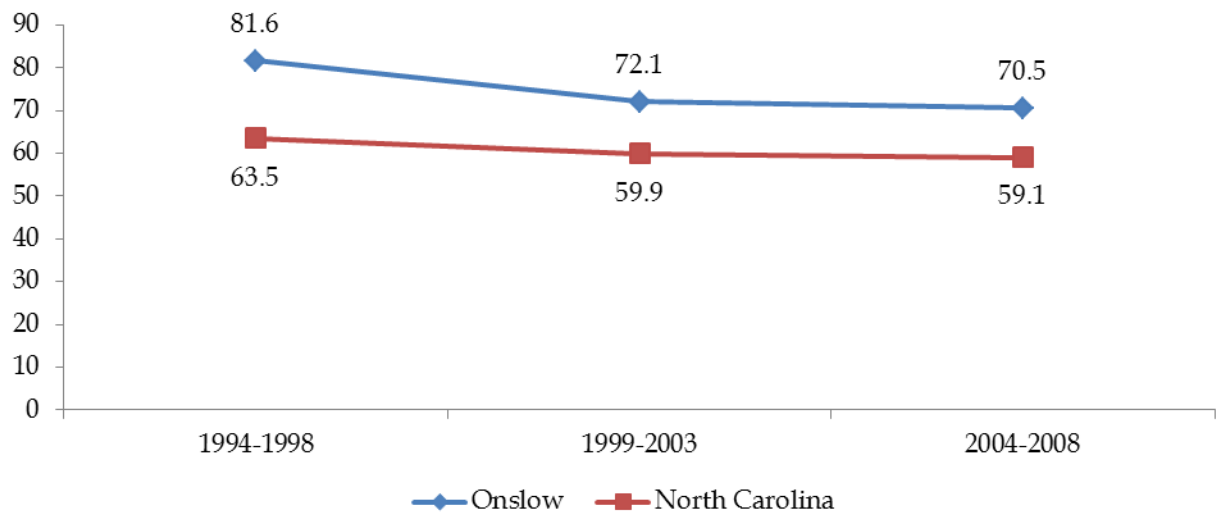
Total cancer death rates in Onslow County are higher than the state average. Of particular concern are Trachea, Bronchus, and Lung cancer death rates in Onslow County which are significantly higher than in North Carolina overall and could be linked to the higher rate of smoking in the county.

As seen on the map below, Onslow is in the next to highest rate category, among North Carolina counties, for all cancer incidences. Breast cancer incidence rates are higher than the state average.



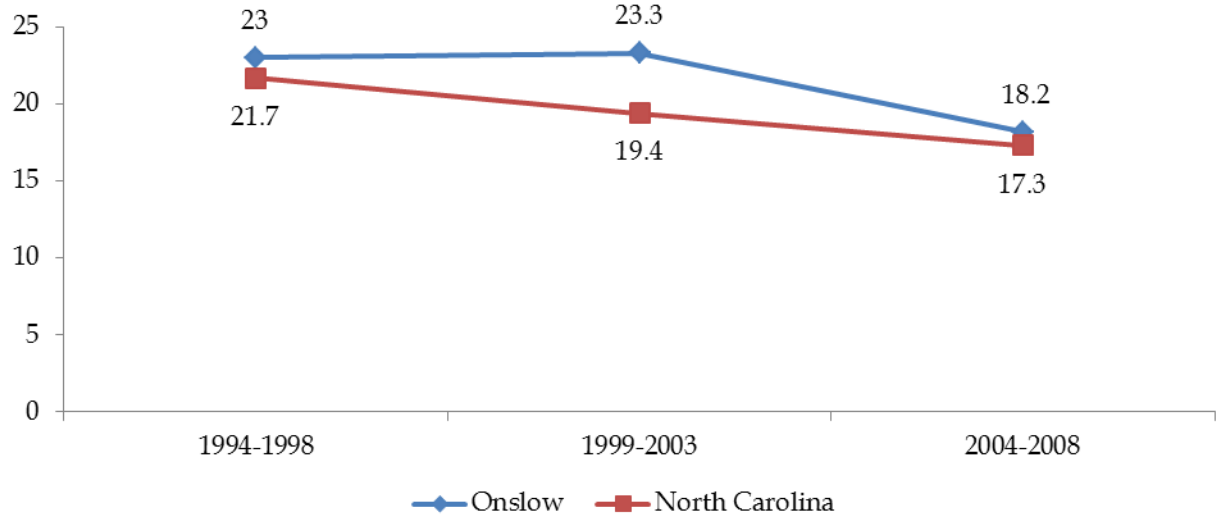
Source: NC DHHS, SCHS, NC County Trends Reports

Age-Adjusted Trachea, Bronchus, and Lung Cancer Death Rates per 100,000 Population



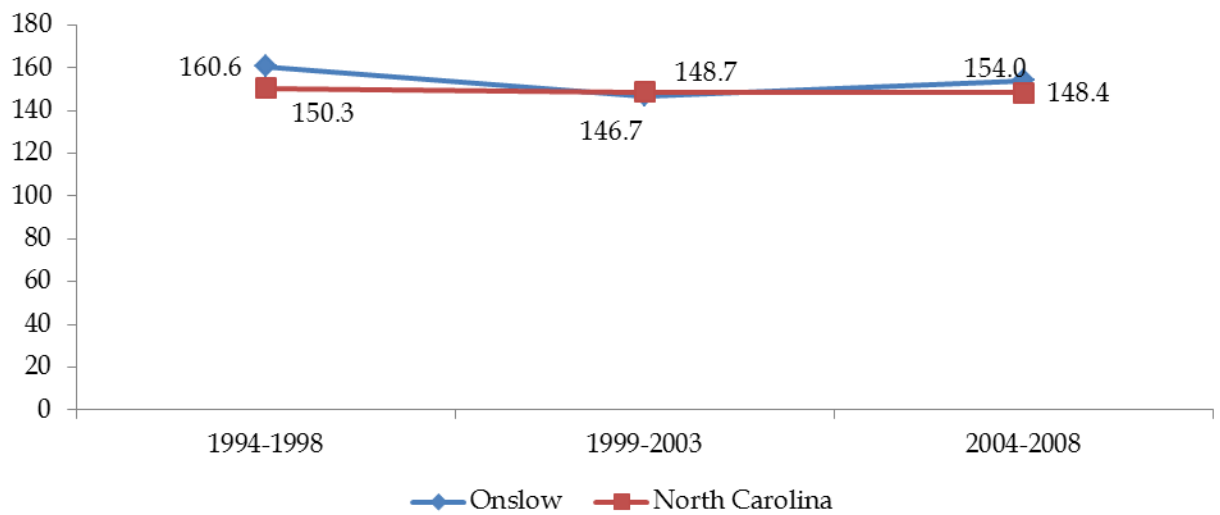
Source: NC DHHS, SCHS, NC County Trends Reports

Age-Adjusted Colon, Rectum, Anus Cancer Death Rates per 100,000 Population



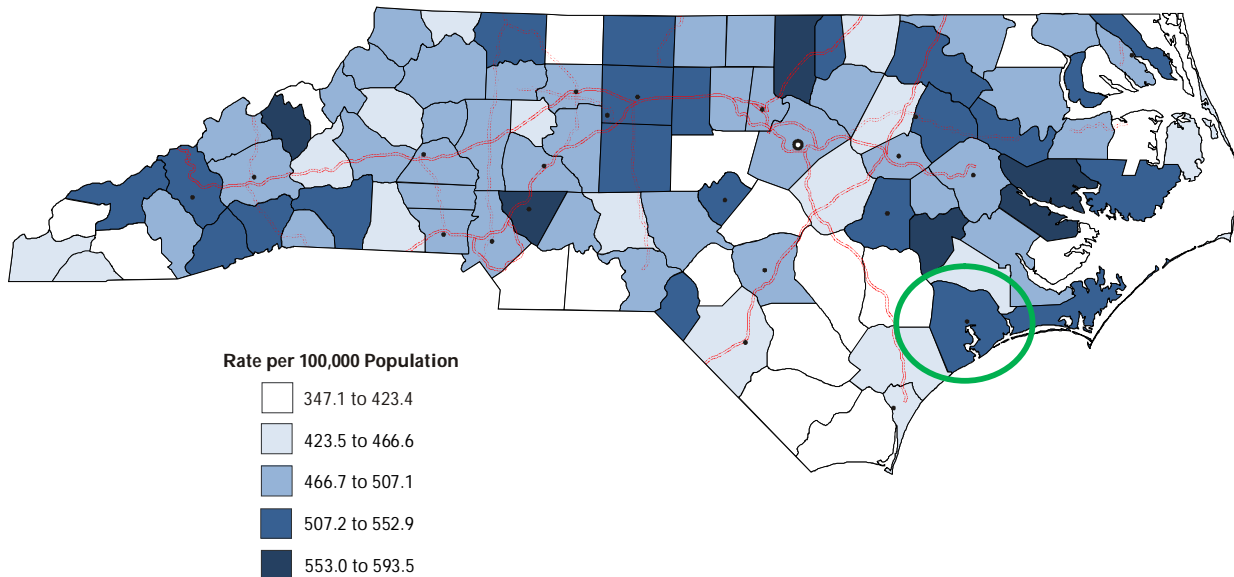
Source: NC DHHS, SCHS, NC County Trends Reports

Age-Adjusted Breast Cancer Incidence Rates per 100,000 Population



Source: NC DHHS, SCHS, NC County Trends Reports

Cancer Incidence Rates by County North Carolina 2008



Note: Rates are based on cases reported to North Carolina Central Cancer Registry and are subject to change as files are updated.
Source: N.C. Central Cancer Registry, State Center for Health Statistics, N.C. Division of Public Health, 2008.

As shown in the tables below, both lung cancer and prostate cancer death and incidence rates in Onslow are significantly higher than in the state overall.

2005-2009 Cancer Mortality Rates by County for Selected Sites Per 100,000 Population Age Adjusted to the 2000 US Census Population										
	Colon/Rectum		Lung/Bronchus		Female Breast		Prostate		All Cancer	
	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate
Onslow County	79	16.4	345	68.8	69	23.9	44	28.2	1,010	205.3
North Carolina	7,527	16.3	26,674	57.1	6,202	23.5	4,306	25.8	86,246	185.8

Source: NC Central Cancer Registry, 2011

2004-2008 Cancer Incidence Rates by County for Selected Sites Per 100,000 Population Age Adjusted to the 2000 US Census Population										
	Colon/Rectum		Lung/Bronchus		Female Breast		Prostate		All Cancer	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Onslow County	217	44.3	476	95.1	442	151.3	304	129.0	2,743	522.9
North Carolina	7,527	16.3	26,674	57.1	6,202	23.5	4,306	25.8	86,246	185.8

Source: NC Central Cancer Registry, 2011

Projected New Cancer Cases and Deaths for Selected Sites by County, 2011										
	Colon/Rectum		Lung/Bronchus		Female Breast		Prostate		All Cancer	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Onslow County	57	19	92	68	107	16	87	10	627	219
North Carolina	4,858	1,663	7,991	5,934	8,507	1,350	7,679	994	51,690	19,146

Source: NC Central Cancer Registry, 2011

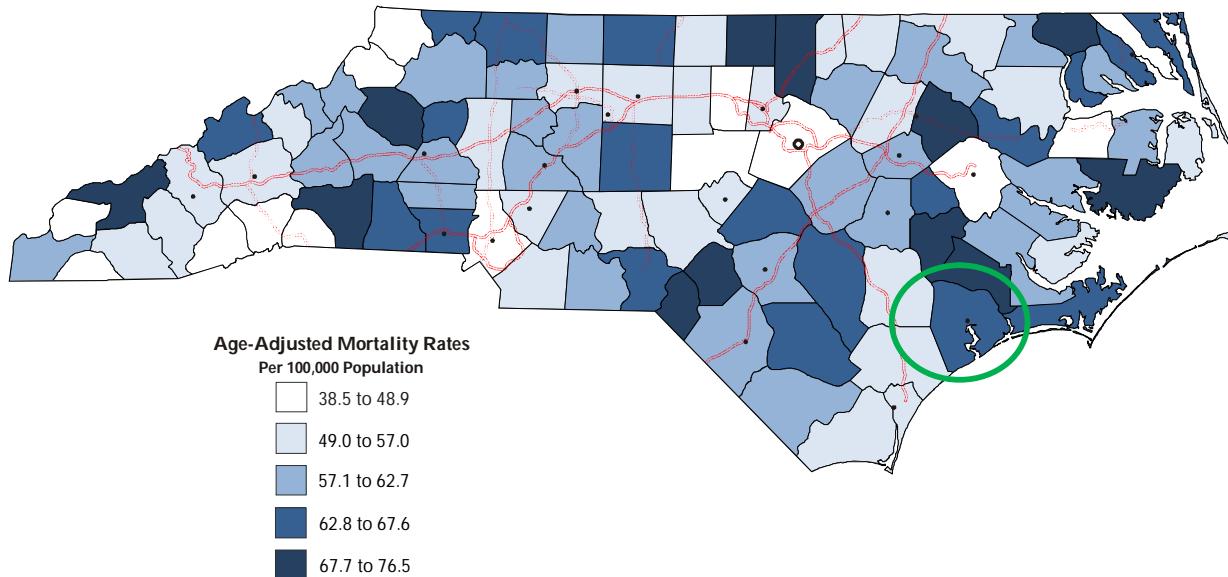
For a more detailed list by county of the above cancer mortality and incidence projections, please see Attachments 12, 13, and 14.

2. Lung Cancer

As seen in the map below, the mortality rate for trachea, bronchus, and lung cancers is in the next to highest category among all North Carolina counties.

Cancer – Trachea, Bronchus, and Lung

Age-Adjusted Mortality Rates
2006 to 2010



Source: North Carolina Resident Data 2006-2010

F. Communicable Diseases

1. Sexually Transmitted Infections

As shown in the tables below, both gonorrhea and chlamydia have higher rates in Onslow County than in the state overall while syphilis, HIV, and AIDS are at rates lower than the state overall.

NC Resident Gonorrhea Cases and Rates 2005-2009				
	Cases	Rate	Minority Cases	Rate
Onslow County	1,535	181.9	952	476
North Carolina	78,778	174.2	61,230	528

Rates are per 100,000 population

Source: NC DHHS, SCHS

NC Chlamydia Cases Rates by County Rank based on 2010 Rate					
	<i>Rank</i>	<i>2008 Rate</i>	<i>2009 Rate</i>	<i>2010 Rate</i>	<i>Avg Rate</i>
Onslow County	13	633.4	624.6	655.2	637.7
North Carolina		409.7	466.2	449.5	441.8

Rates are per 100,000 population

Source: NC DHHS, Communicable Disease Branch

NC Resident Primary and Secondary Syphilis Cases and Rates 2005-2009				
	<i>Cases</i>	<i>Rate</i>	<i>Minority Cases</i>	<i>Rate</i>
Onslow County	5	.6	3	1.5
North Carolina	1,772	3.9	1,236	10.7

Rates are per 100,000 population

Source: NCDHHS, SCHS

NC HIV Cases Rates by County Rank based on three-year average rate					
	<i>Rank</i>	<i>2008 Rate</i>	<i>2009 Rate</i>	<i>2010 Rate</i>	<i>Avg Rate</i>
Onslow County	63	6.5	6.4	7.5	6.8
North Carolina		19.6	17.4	15.9	17.6

Rates are per 100,000 population

Source: NC DHHS, Communicable Disease Branch

NC AIDS Cases Rates by County Rank based on three-year average rate					
	<i>Rank</i>	<i>2008 Rate</i>	<i>2009 Rate</i>	<i>2010 Rate</i>	<i>Avg Rate</i>
Onslow County	60	3.5	2.9	5.8	4.1
North Carolina		10.1	10	8.5	9.5

Rates are per 100,000 population

Source: NC DHHS, Communicable Disease Branch

G. Women and Children's Health

1. Pregnancy & Delivery

Pregnancy and fertility rates are high in the county due to the younger, military population. The abortion rate of the white population is twice that of the overall state rate. The percentage of primary deliveries by C-Section is higher than that for North Carolina while the percentage of C-Section's for both primary and repeat deliveries is slightly below that of North Carolina overall. For more detailed data please see Attachment 15.

2009 NC Resident Pregnancy Rates Females 15-44 By Race and County of Residence						
	<i>Total Pregnancies</i>	<i>Rate</i>	<i>White Pregnancies</i>	<i>Rate</i>	<i>Minority Pregnancies</i>	<i>Rate</i>
Onslow County	4,739	129.3	3,759	136	922	102.5
North Carolina	153,763	78.9	100,952	74	49,986	85.4

Rates are per 1,000 population

Source: NC DHHS, SCHS

NC Resident Fertility Rates Females 15-44 By Race and County of Residence						
	<i>Total Births</i>	<i>Fertility Rate</i>	<i>White Births</i>	<i>Fertility Rate</i>	<i>Minority Births</i>	<i>Fertility Rate</i>
Onslow County	4,058	110.8	3,341	120.9	717	79.7
North Carolina	126,785	65.1	90,005	66	36,780	62.8

Rates are per 1,000 population

Source: NC DHHS, SCHS

NC Resident Abortion Rates Females 15-44 By Race and County of Residence						
	<i>Total Abortions</i>	<i>Rate</i>	<i>White Abortions</i>	<i>Fertility Rate</i>	<i>Minority Abortions</i>	<i>Rate</i>
Onslow County	662	18.1	404	14.6	200	22.2
North Carolina	26,123	13.4	10,490	7.7	12,808	21.9

Rates are per 1,000 population

Source: NC DHHS, SCHS

NC Resident Births Delivered by Cesarean Section (Primary and Repeat), 2005-2009			
	<i>Total Births</i>	<i>Births by Cesarean</i>	<i>Percent Births</i>
Onslow County	18,143	5,360	29.5%
North Carolina	639,115	197,203	30.9%

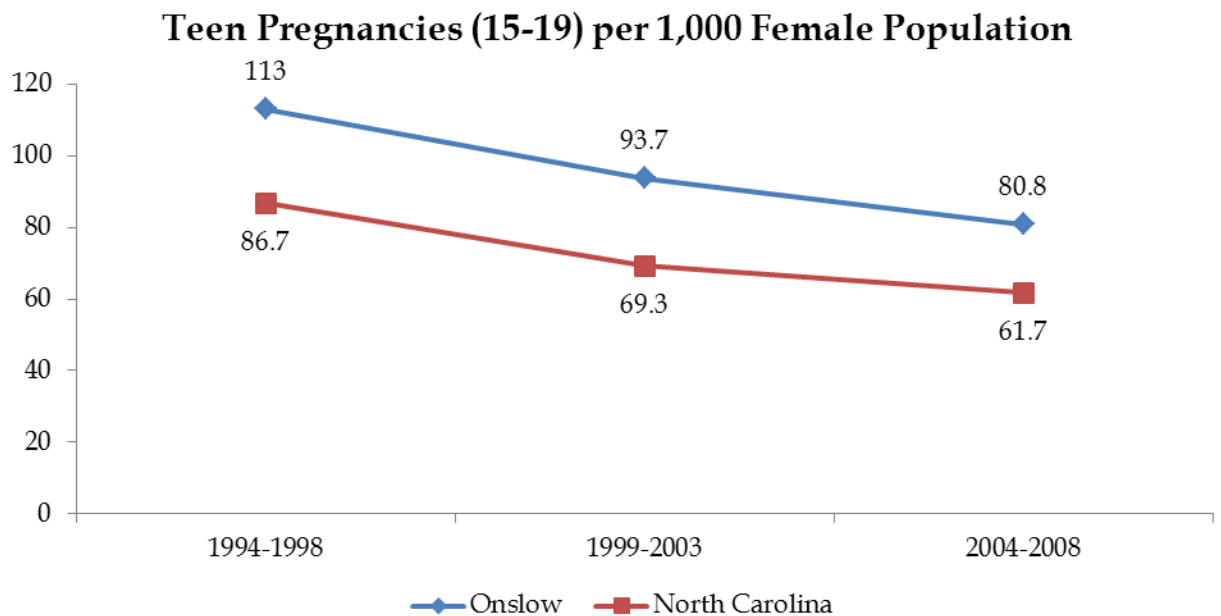
Source: NC DHHS, SCHS

NC Resident Births Delivered by Cesarean Section (Primary Only), 2005-2009			
	<i>Total Births</i>	<i>Births by Cesarean</i>	<i>Percent Births</i>
Onslow County	18,143	3,530	19.5%
North Carolina	639,115	117,650	18.4%

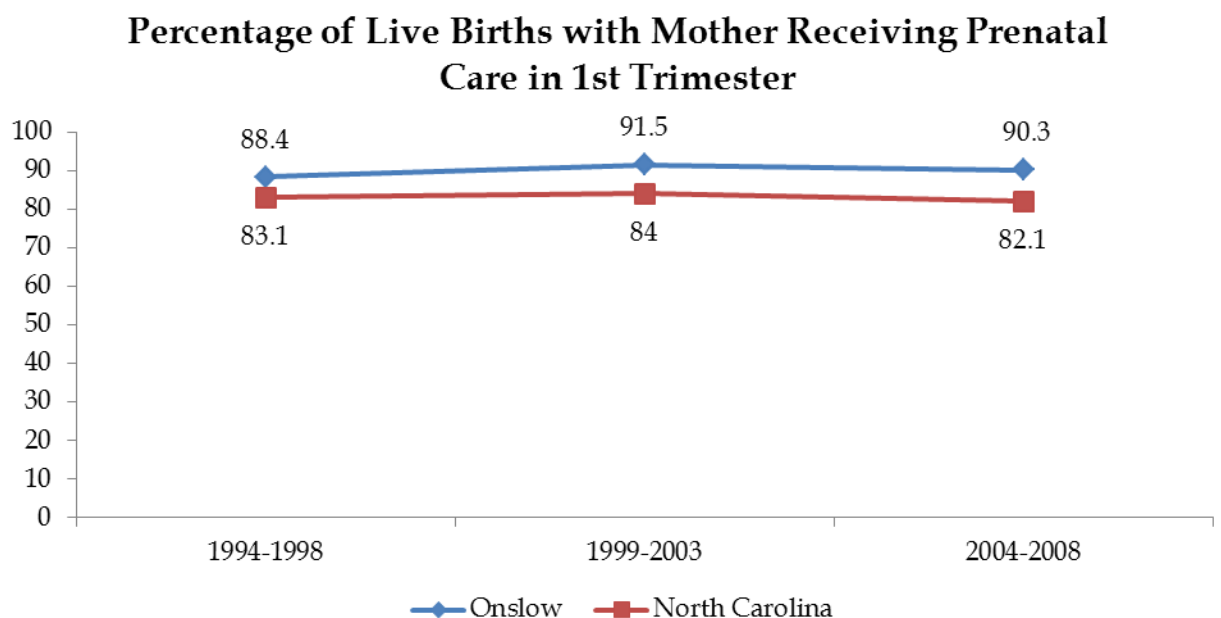
Source: NC DHHS, SCHS

2. Pregnancy continued (including Teen Pregnancy)

Teen pregnancies have been on the decline and are lower than the state average. The percentage of mothers receiving prenatal care in the first trimester has risen and is above the state average. Also encouraging is the decline in the percentage of mothers who smoke during pregnancy. While the percentage of low-birthweight babies is below the state average, it has risen and is above the national benchmark of 6.0 percent.

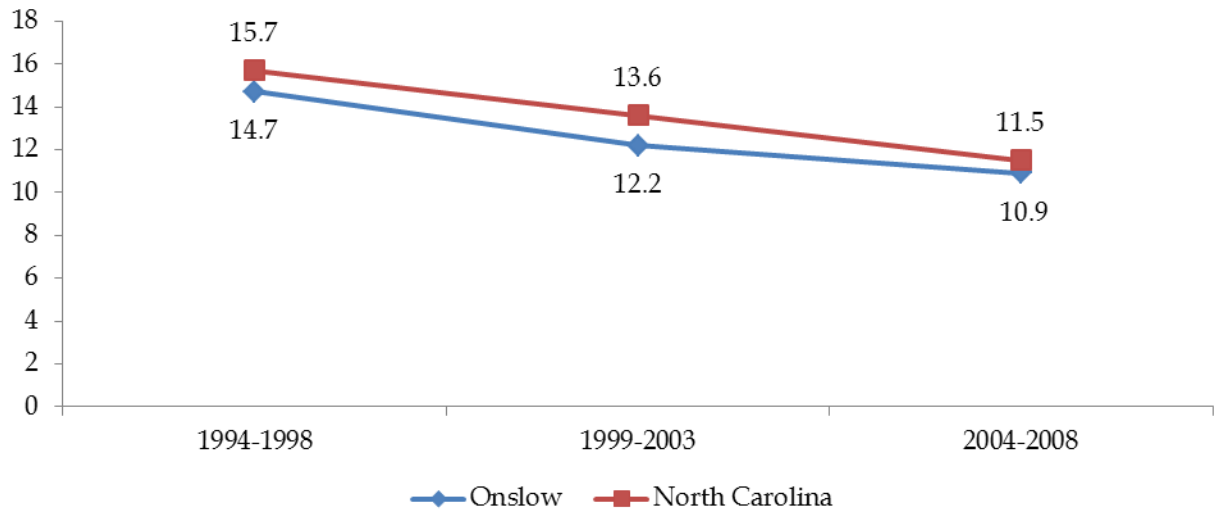


Source: NC DHHS, SCHS, NC County Trends Reports



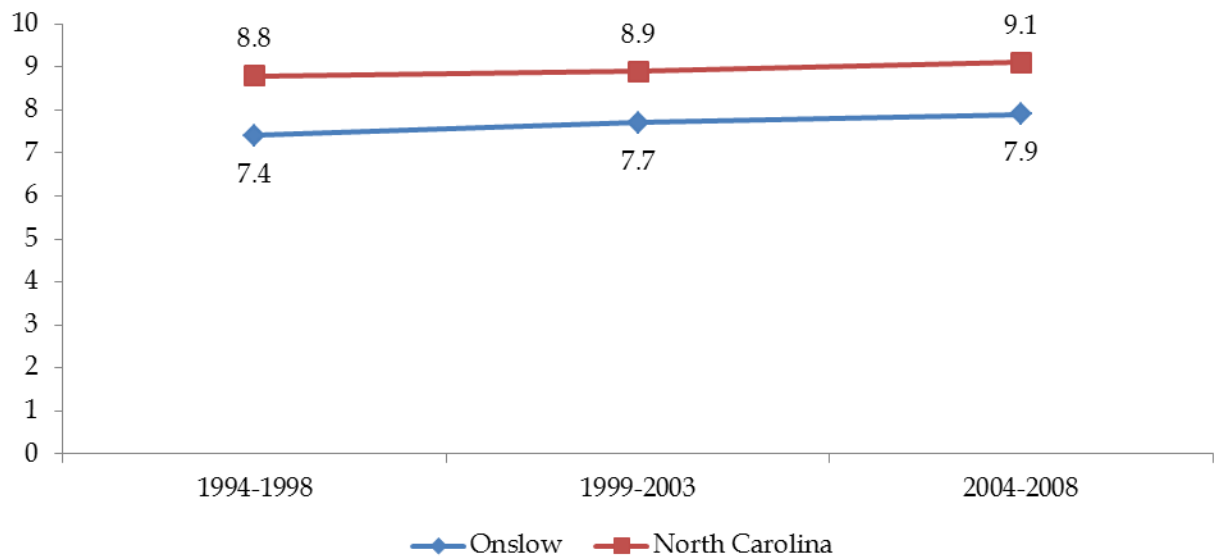
Source: NC DHHS, SCHS NC County Trends Reports

Percentage of Live Births with Mother Smoking During Pregnancy



Source: NC DHHS, SCHS, NC County Trends Reports

Percentage of Live Births Classified as Low Birthweight



Source: NC DHHS, SCHS, NC County Trends Reports

From the data presented above, the following facts are issues are evident:

- Onslow County has a young, vibrant, and educated population; a good climate; and is an economically thriving community; all of which benefit the overall health

status of the community. As expected, there are certain health characteristics, behaviors, and problems that correlate to the demographics of the county.

- Access to primary care and dental care are significant barriers to improving the health of many in the community.
- There are conflicting data about the percentage of uninsured in the county. Regardless, those without coverage will continue to seek care in hospital emergency departments, and the trend has dramatically increased in the last couple of years.
- Smoking/tobacco use and binge drinking are highly significant issues in the county. Illicit and prescription drug use and abuse are growing problems.
- Cancer is the number one cause of death in the county. Lung cancer and prostate cancer claim more lives in Onslow than the state rates. Mortality for trachea, bronchus, and lung cancers is in the second highest category in the state.
- Heart disease is the number two cause of death but, the positive news is that there has been a significant decrease in the heart disease death rate. The percentage of heart attacks varies over time but it is near the state average. OMH has been successful in recruiting cardiologists to practice in the community, which will have a beneficial and lasting impact on the community.
- The fertility, pregnancy, and birth rates are high. The good news is that prenatal care is high, low birthweights are low, infant mortality is low, and the rate of smoking during pregnancy has declined. While teen pregnancy has declined it remains higher than the state rate which has also declined. The difference between the county rate and the state rate for teen pregnancy is improving. The abortion rate among whites is double that of the state.
- The factors underlying the problem of obesity, namely diet and exercise, should be of continued concern. Diet is a significant issue as indicated by a lack of access to healthy food and a high availability of fast food in the area. Physical activity among sub-groups is a potential issue but the data for those sub-groups is unavailable and the county level data reflects the high level of physical activity among the military population. Access to recreational facilities is somewhat limited and should be improved as this impacts the lower income and child populations more significantly.
- Some of the data suggests that diabetes is not as great of an issue in Onslow as elsewhere. However, it is a serious disease and feedback from community participants in the study indicates that diabetes is an ongoing concern.
- Asthma appears to be increasing and should be more closely monitored.
- Mental health is an issue that needs to be better addressed, particularly among the military population. The current availability of mental health services cannot meet the demand.
- The rates of STDs, primarily gonorrhea and even more so chlamydia, are sufficiently high compared to the state as to be of concern in the community.
- Screenings for the prevention and detection of certain cancers are conducted on a high percentage of the population but there is always room for improvement.

Screenings and education for diabetes has been higher than the state but dropped in the most recent year, indicating a need for closer monitoring and possible improvements.

VII. HEALTH UTILIZATION

This section closely examines historical patient data specific to OMH to determine trends and possible needs in the county. Detailed utilization data from the most recent three fiscal years for inpatient discharges, emergency visits, and outpatient visits was studied from OMH internal sources.

A. Ambulatory Care Sensitive Conditions

Ambulatory Care Sensitive Conditions, as identified by the Agency for Healthcare Research and Quality (AHRQ), are conditions for which good outpatient care can potentially prevent the need for hospitalization or for which early intervention can prevent complications or more severe disease.

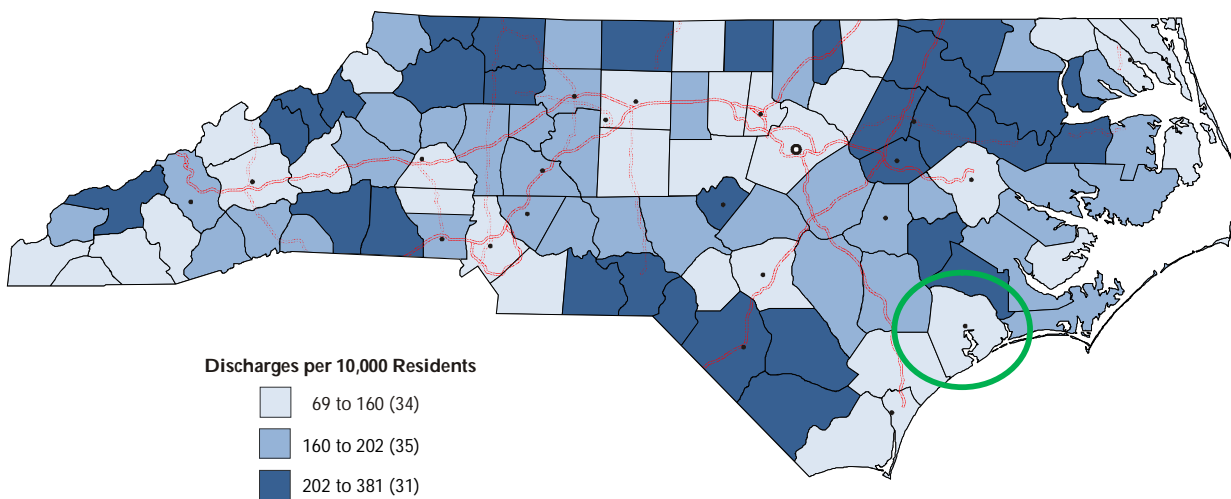
<i>AMBULATORY SENSITIVE CONDITIONS</i> <i>(AHRQ prevention quality indicators)</i>	
<i>Category</i>	<i>Conditions</i>
Acute Conditions	Bacterial pneumonia Dehydration Urinary tract infection Perforated appendix Pediatric gastroenteritis
Birth Outcomes	Low-weight
Circulatory Diseases	Congestive heart failure Hypertension Angina without procedure
Diabetes	Uncontrolled diabetes without complications Short-term diabetes complications Long-term diabetes complications Lower-extremity amputation among patients with disability
Respiratory Diseases	Adult Asthma Pediatric Asthma Chronic obstructive pulmonary disease

As shown on the map below, which is based on all residents 18 years and older, Onslow County is in the lowest category for discharges for Ambulatory Care Sensitive conditions, indicating this is not a current issue of concern. However, the county ranking for ambulatory care sensitive conditions (noted above), which is based on the more applicable Medicare population, is 68 out of 100 with a rate of 76 preventable hospital stays per 1,000 Medicare enrollees compared to the state average of 64 and a national benchmark of 49, which indicates there is room for improvement.

Hospital Discharges for Ambulatory Care Sensitive Conditions per 10,000 Residents

Residents 18 Years and Older Discharges from North Carolina Hospitals

October 1, 2009 to September 30, 2010



Note: Ambulatory Sensitive Conditions are defined as the Prevention Quality Indicators for those 18 years and older. See <<http://www.qualityindicators.ahrq.gov>>

Source: Thomson Reuters North Carolina Hospital Discharge Data, Fiscal Year 2010.

Produced By: Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill.

B. Inpatient Utilization

Of the Top 20 inpatient discharges (excluding Women's and Newborns) in 2011, six MSDRGs related to pulmonary conditions accounted for nearly 28 percent of the volume. Five Medical Cardiology MSDRGs accounted for over 20 percent of the volume. The MSDRGs for septicemia or Sepsis (871 and 872) are also in the Top 20, accounting for almost 11 percent of the volume.

Onslow Memorial Hospital Top 20 Inpatient DRGs Excluding Women's & Newborns					
MSDRG	Description	Service Line	2009	2010	2011
392	Esophagitis, gastroent & misc digest disorders w/o MCC	General Medicine	145	225	203
603	Cellulitis w/o MCC	General Medicine	95	146	176
641	Nutritional & misc metabolic disorders w/o MCC	General Medicine	115	85	144
871	Septicemia or severe sepsis w/o MV96+ hrs w/ MCC	General Medicine	138	130	139
690	Kidney & urinary tract infections w/o MCC	Nephrology Urology	97	133	128
190	Chronic obstructive pulmonary disease w MCC	Pulmonary	96	108	125
313	Chest pain	Medical Cardiology	130	148	121
203	Bronchitis & asthma w/o CC/MCC	Pulmonary	84	99	110
194	Simple pneumonia & pleurisy w CC	Pulmonary	106	114	109
192	Chronic obstructive pulmonary disease w/o CC/MCC	Pulmonary	90	103	107
292	Heart failure & shock w CC	Medical Cardiology	73	84	106
872	Septicemia or severe sepsis w/o MV96+ hrs w/o MCC	General Medicine	59	53	98
419	Laparoscopic cholecystectomy w/o c.d.e w/o CC/MCC	General Surgery	45	80	90
191	Chronic obstructive pulmonary disease w CC	Pulmonary	76	71	79
195	Simple pneumonia & pleurisy w/o CC/MCC	Pulmonary	66	78	78
639	Diabetes w/o CC/MCC	General Medicine	61	64	77
470	Major joint replacement or reattachment of lower extremity w/o MCC	Orthopedics	59	79	76
293	Heart failure & shock w/o CC/MCC	Medical Cardiology	62	60	76
312	Syncope & collapse	Medical Cardiology	38	56	73
291	Heart failure & shock w MCC	Medical Cardiology	85	92	69
Total			1,720	2,008	2,184

C. ED Utilization

ED visits increased by 19 percent in 2010 and another 10 percent in 2011. The increases in both years were across the board from all ZIP Codes except two that declined in 2011.

Onslow Memorial Hospital ED Visits by ZIP Code						
Zip Code	City	2009	2010	2011	(2010-2009)	(2011-2010)
28445	Holly Ridge	770	911	1,059	18.3%	16.2%
28460	Sneads Ferry	1,126	1,308	1,513	16.2%	15.7%
28539	Hubert	3,440	3,861	4,255	12.2%	10.2%
28540	Jacksonville	15,653	18,867	19,842	20.5%	5.2%
28543	Tarawa Terrace	83	122	108	47.0%	-11.5%
28544	Midway Park	765	841	1,036	9.9%	23.2%
28546	Jacksonville	1,907	2,200	2,447	15.4%	11.2%
28547	Camp Lejeune	10,659	12,870	14,483	20.7%	12.5%
28555	Maysville	268	297	289	10.8%	-2.7%
28574	Richlands	3,777	4,613	5,543	22.1%	20.2%
28584	Swansboro	1,000	1,124	1,203	12.4%	7.0%
Total		39,448	47,014	51,778	19.2%	10.1%

Truven: State ED Area Based Analysis FY11 (provided by OMH) April 2012

Self-pay ED visits increased dramatically from 2009 to 2010 from nearly every ZIP Code in the service area. While not as dramatic in 2011, self-pay ED visits increased another eight percent over 2010 with the highest increases coming from Holly Ridge and Richlands.

Onslow Memorial Hospital Self-pay ED Visits by ZIP Code						
Zip Code	City	2009	2010	2011	(2010-2009)	(2011-2010)
28445	Holly Ridge	281	270	330	-3.9%	22.2%
28460	Sneads Ferry	290	423	467	45.9%	10.4%
28539	Hubert	920	1,164	1,327	26.5%	14.0%
28540	Jacksonville	3,959	5,187	5,330	31.0%	2.8%
28543	Tarawa Terrace	2	8	5	300.0%	-37.5%
28544	Midway Park	16	32	35	100.0%	9.4%
28546	Jacksonville	540	711	771	31.7%	8.4%
28547	Camp Lejeune	2,108	2,958	3,248	40.3%	9.8%

28555	Maysville	16	30	21	87.5%	-30.0%
28574	Richlands	852	1,109	1,311	30.2%	18.2%
28584	Swansboro	280	337	357	20.4%	5.9%
Total		9,264	12,229	13,202	32.0%	8.0%

Truven: State ED Area Based Analysis FY11 (provided by OMH) April 2012

As mentioned in the earlier section on Access to Care, the highest volume diagnosis for self pay ED visits is diseases of teeth and supporting structures, indicating a need for access to affordable preventative dental care in the community.

Onslow Memorial Hospital Top 10 ED Self-pay Diagnoses					
MSDRG	Description	2009	2010	2011	
5259	Diseases of teeth & supporting structures NEC	236	361	457	
78900	Other symptoms involving abdomen & pelvis	111	362	445	
7840	Symptoms involving head and neck	238	287	338	
78659	Symptoms involving respiratory system & chest	118	190	330	
4659	Acute Uri multiple or NOS site	339	351	327	
8470	Back sprains & strains NEC & NOS	273	397	311	
5990	Other disorders urethra & urinary tract	200	286	310	
7242	Other & Unspecified back disorder	179	238	295	
462	Acute pharyngitis	169	234	281	
V6759	Follow-up examination	211	150	221	
Total		2,074	2,856	3,315	

Truven: State ED Area Based Analysis FY11 (provided by OMH) April 2012

D. Outpatient Utilization

Of the Top 10 outpatient diagnoses in 2011, Cataract/Eye Disease accounts for almost 24 percent of the volume.

Onslow Memorial Hospital Top 10 Outpatient Diagnoses					
DXCode1	Description	Service Line	2009	2010	2011
36619	Cataract	Eye Disease	395	432	477
2113	Benign Neoplasm Digestive System	Benign Neoplasms	305	327	460
84500	Ankle & foot sprains & strains	Other injury	279	346	354
V7651	Special screening for malignant neoplasms	Other supplementary	228	302	337
8830	Open wound finger	Open Wounds	198	208	232

78900	Other symptoms involving abdomen & pelvis	Symptoms & signs	112	210	225
36616	Cataract	Eye Disease	129	128	207
53510	Gastritis & duodenitis	Digestive disease	12	67	194
5990	Other disorders urethra & urinary tract	Urinary disease	279	287	185
78060	General Symptoms	Symptoms & Signs	114	134	184
Total			2,051	2,441	2,855

Truven: State Outpatients Area Based Analysis FY11 (provided by OMH) April 2012

Current data on ambulatory care sensitive conditions is inconclusive. Further monitoring is necessary to determine issues/needs among certain populations.

Nearly half of the inpatient discharges (excluding Women's and Newborns) are related to pulmonary and medical cardiology conditions, indicating a need for services for those diagnoses.

Both ED visits for all payor categories and ED visits for self-pay patients have risen dramatically in the past two years. Of particular note is the top diagnosis for self-pay ED visits is for dental related problems, accounting for nearly 14 percent of all self-pay ED visits, indicating a striking need for preventive dental care in the community.

VIII. INTERVIEWS/COMMUNITY FEEDBACK

A. Community Interviews: Summary

As discussed above, many members of the Onslow County community were interviewed to provide input into the CHNA, including persons representing the community's interests and those with knowledge of public health and healthcare issues. These individuals are listed below.

Mrs. Kay Brandon (Patient Advisory Council)
Dr. Richard Woodruff (City Manager, Jacksonville, NC)
Mr. Billy Sewell (Business owner and large employer)
Mr. Jamie McGlaughon (OMH Board member)
Mrs. Susan Edwards (OMH Board member)
Dr. Lennox Williams (Community physician, surgery)
Dr. Jay Garrett (Community physician, Emergency Department Medical Director)
Dr. Tim Patselas (Community physician, surgery)
Dr. Elizabeth D'Angelo (Community physician, Radiologist, Chief of Staff)
Mrs. Vanessa Ervin (OMH Board Chair)
Mr. Pat Alford (OMH Board member; Naval Hospital administration)
Dr. George Thomas (Community physician, nephrology)
Ms. Mona Padrick (Onslow County Chamber of Commerce)
Dr. Michael Josilovich (Community physician, internal medicine)
Dr. Adrian Pieleanu (Community physician, hospitalist)
Dr. Madhur Mittal (Community physician, neonatology)
Dr. Tackey Crist (Community physician, Obstetrics/Gynecology)
Dr. Andre Tse (Community physician, cardiology)
Mr. Craig Wagner (Onslow County United Way)

In addition to interviews with Onslow County physicians, leaders and other residents, OMH interviewed members of the Board and administration at Vidant Health and the Brody School of Medicine. Vidant Health and East Carolina University's Brody School of Medicine are located in Greenville, North Carolina, and serve as the academic medical center teaching hospital and medical school for Eastern North Carolina, including Onslow County. In addition, OMH is currently involved in a joint venture with Vidant to provide radiation oncology services in Onslow County. As such, the interviewees were knowledgeable about the health needs of Eastern North Carolina and Onslow County in particular.

Mr. David Womack (Vidant Board member)

Ms. Thomasine Kennedy (Vidant Board member)
Dr. Marcus Albernaz (Vidant Board member)
Mr. Art Keeney (Vidant Board member)
Dr. Walter Pofahl (Vidant Board member)
Dr. Dave Herman (CEO, Vidant Health)
Mr. Roger Robertson (Vidant administration)
Dr. Doug Privette (Vidant administration)
Dr. Paul R. G. Cunningham (Dean, Brody School of Medicine)
Ms. Kathy Barger (Vidant administration)
Mr. Travis Douglass (Vidant administration)
Mr. Steve Lawler (President, Vidant Medical Center)

Finally, the OMH Patient Advisory Council, which is comprised of residents of Onslow County, provided regular feedback at their monthly meetings during the CHNA process. The members of this group are listed at the beginning of this document.

The feedback from the interviews was diverse, but several key themes emerged, including:

- While some healthcare services are too comprehensive or too complex to be provided in Onslow County, many services are in need of expansion or development, such as:
 - Additional physicians in multiple specialties, including primary care, cardiology, urology, dermatology, endocrinology
 - Continued upgrades to the hospital's physical plant
 - Expanded emergency department, both in size and ability to care for behavioral health patients
 - Mental health (both inpatient and outpatient services)
- Some public health issues must continue to be addressed by both public resources and OMH, including obesity, smoking cessation, and diabetes.
- Access to dental care is a significant problem that often goes overlooked, but dental care often has a higher level of uninsured patients compared to other medical care, creating a financial barrier to access.
- Collaborative efforts, particularly with other, larger healthcare providers are essential, as long as they keep as much healthcare locally available as possible while enhancing the image of the service or facility. A successful example of such an effort is Onslow Radiation Oncology.
- The expansion of electronic medical records is essential for improving access to and quality of care.

Most interviewees believe that OMH is already aware of most of these issues, and in many cases, has already taken steps to try to improve care. Of some

concern is the number of services for which patients seek care outside the county. For services that are or could be provided in the county, this creates undue constraints on access. Input and assistance from larger, regional healthcare organizations are considered essential, given the changes occurring currently in healthcare on both national and more local levels.

B. Community Representative Survey Results

As noted above, OMH received regular input from the Patient Advisory Council during the development of the CHNA. During its June 2012 meeting, members were provided a list of health issues that had been discussed during interviews or discovered through data analysis. The following table shows the health issue prioritization made by the members of the Council.

<i>Results of Community Representative Survey</i>	
<i>Health Issue Ordered by Rank</i>	<i>Percent of Total</i>
Heart/Vascular Disease	21.0%
Cancer	19.5%
Physician Shortages	18.5%
Diabetes	11.3%
Mental Health	8.2%
Un-/underinsured/indigent	7.0%
Obesity	6.5%
Asthma	4.4%
Smoking	3.5%

Note: Totals do not foot due to rounding.

As shown, heart/vascular disease and cancer were the top two areas of priority, followed by physician shortages, which include many specialties. While the input of the Council was not the only factor in OMH's prioritization of health needs, significant weight was given to this feedback, as discussed in the section to follow.

IX. HEALTH NEEDS, PRIORITIZATION PROCESS AND RESULTS

This final portion of the assessment includes a summary of the priority health needs identified throughout this document. Although a large number of potential needs have been discussed, it is simply not feasible or appropriate for OMH to apply significant resources to each and every area of need. To determine which needs should be priorities, OMH reviewed outcomes and findings from this assessment and utilized an objective approach to estimate which areas of need are of greatest concern. This process and associated results are discussed below.

A. Prioritization Process

Each section of this assessment has been incorporated to not only measure and estimate the level of current health needs for Onslow County residents, but to also highlight key factors and conditions that are expected to have the greatest impact on those needs going forward. As review, these sections included the following:

- Existing Healthcare Facilities and Resources
- Demographics
- Socioeconomic Factors
- Access to Care
- Health Data/Indicators
- Health Utilization
- Interviews/Community Feedback

Leveraging the analyses and findings from those sections, OMH has condensed a list of nearly 100 potential health needs down to the few select areas it believes to be the current priorities for Onslow County. Each potential need was analyzed against the others and prioritized based on a variety of different considerations, such as:

- Input received from, and multiple discussions with, OMH's Patient Advisory Council;
- Input received from interviews with community health leaders, community members, and members of OMH leadership;
- Variance of need metric(s) from state/other benchmarks;
- Variance of need metric(s) from other OMH internal indicators;

- Impact of demographics and socioeconomic characteristics on need levels;
- Availability of other health resources to meet the need; and,
- Ability of OMH to positively impact need.

B. Results

At the conclusion of the prioritization process, OMH identified four health needs as the key areas for action going forward. Each need area is mentioned below, including a brief summary of facts and findings that led to each being considered a priority.

Priority Health Need: Heart/Vascular Disease

The rationale for identifying Heart/Vascular Disease as a priority health need in Onslow County include:

- Physician Need - Significant deficit (greater than 3.0 FTEs) for cardiologists.
- Patient Outmigration – Percentage of patients/residents that receive cardiology related services outside of Onslow County is greater than most other services.
- Smoking/Tobacco Use - Smoking/tobacco use exceed both state and national averages.
- Obesity Rates – Obesity rates exceed both state and national averages.
- Mortality Rate – Heart disease is the second leading cause of death in Onslow County.
- Mortality Rate – Heart disease death rates for Onslow County continue to exceed North Carolina.
- Heart Attack Prevalence – Heart attack prevalence in Onslow County is higher than North Carolina.
- Community Input – Heart/Vascular disease identified as number one priority health issue by the OMH Patient Advisory Council. Also cited as priority need by other interviewees.

Priority Health Need: Cancer/Oncology Care

The rationale for identifying Cancer/Oncology Care as a priority health need in Onslow County include:

- Patient Outmigration – Percentage of patients/residents that receive cancer care services outside of Onslow County is greater than most other services.
- Smoking/Tobacco Use - Smoking/tobacco use exceed both state and national averages.
- Mortality Rate – Cancer is the leading cause of death in Onslow County.
- Mortality Rate – Cancer death rates for Onslow County continue to exceed North Carolina.
- Prevention – Relative to North Carolina, cancer related screenings in Onslow County appear to be occurring at a higher rate; however, Onslow County still has a higher mortality rate, implying that additional methods are still required to improve access to cancer care services in Onslow County.
- Community Input – Cancer identified as the number two priority health issue by the OMH Patient Advisory Council. Also cited as priority need by other interviewees.

Priority Health Need: Primary Care/Uninsured Access

The rationale for identifying Primary Care/Uninsured Access as a priority health need in Onslow County include:

- Physician Need – Primary care represents the largest levels of physician need among all specialties/areas.
- Uninsured – Nearly ¼ of the Onslow County population aged 0-64 is uninsured, higher than North Carolina as a whole.
- ED Utilization - A higher percentage of OMH emergency department visits are from uninsured patients than nearly all other hospitals in the eastern part of the state, supporting the need for increased primary care access for that population.

- Patient Outmigration – Higher than expected level of patient outmigration for most hospital services, implying that many residents are likely leaving the county for primary care as well.
- Health reform – Primary care providers expected to have an increasingly important role in the care continuum going forward.
- Community Input – Primary care shortages identified as a priority health issue by the OMH Patient Advisory Council and other interviewees.

Priority Health Need: Behavioral Health

The rationale for identifying Behavioral Health as a priority health need in Onslow County include:

- Physician Need – Slight to moderate deficit (1.1 to 3.0.0 FTEs) for psychiatrists.
- Military Presence – Research appears to support the belief that behavioral health issues/concerns are likely to increase for both military service members and their families as deployments lengthen.
- Patient Outmigration – High level of patient outmigration (99 percent for inpatients) given lack of capacity in Onslow County.
- Morbidity – Mental Health occurrence rates for Onslow County exceed both the state and the nation.
- Excessive Alcohol Use – Heavy/Binge drinking rates for Onslow County is significantly greater than the state and nation.
- Community Input – Both drug use and mental health issues cited as concerns by the OMH Patient Advisory Council and other interviewees.

ATTACHMENTS

Attachment 1: Fiscal Year 2011 Onslow County Resident Acute Care Discharges by Hospital

Acute Care Hospital Facility	Patient Discharges (FY 2011)
Onslow Memorial Hospital	9,053
New Hanover Regional Medical Center	2,252
Pitt County Memorial Hospital	1,226
CarolinaEast Medical Center	889
Carteret County General Hospital	630
University of North Carolina Hospitals	542
Duke University Medical Center	362
Lenoir Memorial Hospital	114
Duplin General Hospital	60
WakeMed	50
Wayne Memorial Hospital	22
Rex Healthcare	21
Duke Raleigh	18
Durham Regional Hospital	11
Forsyth Memorial Hospital	11
WakeMed Cary	10
Pender Memorial Hospital	10
The North Carolina Baptist Hospital	8
Cone Health	7
First Health Moore Regional Hospital	7
High Point Regional Hospital	7
Carolinas HealthCare System Carolinas Medical Center	4
Betsy Johnson Memorial Hospital	4
Cape Fear Valley Health System	4
Brunswick Hospital	4
North Carolina Specialty Hospital	4
Mission Health System	4
Thomasville Medical Center	3

Johnston Medical Center-Smithfield	3
Central Carolina Hospital	3
Presbyterian Hospital Matthews	3
Sampson County Memorial Hospital	2
Carolinas Medical Center Northeast	2
Southeastern Regional Medical Center	2
CaroMont Health Inc.	2
Ashe Memorial Hospital	2
Watauga Medical Center	2
Alleghany Memorial Hospital	1
Presbyterian Hospital	1
Lake Norman Regional Medical Center	1
MedWest Haywood	1
Wilkes Regional Medical Center	1
Washington County Hospital	1
Kernersville Medical Center	1
Northern Hospital of Surry County	1
Albemarle Health	1
Frye Regional Medical Center	1
Heritage Hospital	1
Randolph Hospital	1
Cleveland Regional Medical Center	1
Wilson Memorial Hospital	1
Murphy Medical Center	1
Nash Health Care System	1
Grand Total	15,374

Source: Truven Health Analytics (Truven) (formerly Thomson Reuters); excludes substance abuse, psychiatric, and rehabilitation discharges

Attachment 2: Fiscal Year 2011 Onslow County Resident Psychiatric/Substance Abuse Discharges by Hospital

Hospital Facility	Patient Discharges (FY 2011)
Brynn Marr Hospital	471
Duplin General Hospital	258
Onslow Memorial Hospital	107
CarolinaEast Medical Center	96
New Hanover Regional Medical Center	62
Roanoke-Chowan Hospital	31
Psychiatric Solutions of NC d/b/a Holly Hill Hospital	26
Pitt County Memorial Hospital	19
University of North Carolina Hospitals	13
Beaufort County Medical Center	13
Carteret County General Hospital	8
Charles A. Cannon Jr. Memorial Hospital	7
Johnston Medical Center-Smithfield	3
Carolinas HealthCare System Carolinas Medical Center	2
Duke University Medical Center	2
WakeMed	2
Thomasville Medical Center	1
Southeastern Regional Medical Center	1
Frye Regional Medical Center	1
Presbyterian Hospital	1
Stanly Regional Medical Center	1
Wayne Memorial Hospital	1
Davis Medical Center	1
Central Carolina Hospital	1
Cape Fear Valley Health System	1
Rex Healthcare	1
Nash Health Care System	1
Grand Total	1,131

Source: Truven Health Analytics (Truven) (formerly Thomson Reuters); only includes substance abuse and psychiatric discharges

Attachment 3: Fiscal Year 2011 Onslow County Resident Inpatient Rehabilitation Discharges by Hospital

Hospital Facility	Patient Discharges (FY 2011)
Pitt County Memorial Hospital	42
CarolinaEast Medical Center	41
New Hanover Regional Medical Center	38
University of North Carolina Hospitals	9
WakeMed Rehabilitation Hospital	6
Lenoir Memorial Hospital	3
Carolinas HealthCare System Carolinas Rehabilitation	2
High Point Regional Hospital	2
Nash Health Care System	1
Cone Health	1
Kindred Hospital of Greensboro	1
Grand Total	146

Source: Truven Health Analytics (Truven) (formerly Thomson Reuters); only includes rehabilitation discharges

Attachment 4: NC OSBM 2011 Provisional County Population Estimates – Fastest Growing

County	July 2011 Estimate	April 2010 Estimate Base	Growth	
			Amount	Percent
Hoke	49,065	46,952	2,113	4.5
Onslow	184,228	177,772	6,456	3.6
Harnett	118,615	114,678	3,937	3.4
Wake	925,938	900,993	24,945	2.8
Cumberland	327,643	319,431	8,212	2.6
Brunswick	110,140	107,431	2,709	2.5
Pender	53,437	52,217	1,220	2.3
Buncombe	243,855	238,318	5,537	2.3
Mecklenburg	940,697	919,628	21,069	2.3
Union	205,717	201,292	4,425	2.2
Johnston	172,570	168,878	3,692	2.2
Madison	21,193	20,764	429	2.1
New Hanover	206,774	202,667	4,107	2
Watauga	52,111	51,079	1,032	2
Swain	14,263	13,981	282	2
Carteret	67,696	66,469	1,227	1.8
Cabarrus	181,253	178,011	3,242	1.8
Durham	272,314	267,587	4,727	1.8
Jones	10,327	10,153	174	1.7
Franklin	61,651	60,619	1,032	1.7
Duplin	59,476	58,505	971	1.7
Chatham	64,553	63,505	1,048	1.7
Henderson	108,448	106,740	1,708	1.6
Macon	34,459	33,922	537	1.6
Granville	60,863	59,916	947	1.6
Orange	135,776	133,801	1,975	1.5
Craven	104,965	103,505	1,460	1.4
Yancey	18,069	17,818	251	1.4
Guilford	495,231	488,406	6,825	1.4
Iredell	161,522	159,437	2,085	1.3
Moore	89,395	88,247	1,148	1.3
Pitt	170,263	168,148	2,115	1.3
Forsyth	354,878	350,670	4,208	1.2

County	July 2011 Estimate	April 2010 Estimate Base	Growth	
			Amount	Percent
Haywood	59,684	59,036	648	1.1
McDowell	45,462	44,996	466	1
Lincoln	79,026	78,265	761	1
Alamance	152,531	151,131	1,400	0.9
Graham	8,942	8,861	81	0.9
Alexander	37,528	37,198	330	0.9
Wayne	123,710	122,623	1,087	0.9
Dare	34,216	33,920	296	0.9
Rutherford	68,392	67,810	582	0.9
Jackson	40,606	40,271	335	0.8
Randolph	142,901	141,752	1,149	0.8
Davie	41,560	41,240	320	0.8
Lee	58,304	57,866	438	0.8
Gaston	207,506	206,086	1,420	0.7
Perquimans	13,537	13,453	84	0.6
Person	39,700	39,464	236	0.6
Greene	21,489	21,362	127	0.6
Stanly	60,936	60,585	351	0.6
Transylvania	33,275	33,090	185	0.6
Pamlico	13,214	13,144	70	0.5
Ashe	27,423	27,281	142	0.5
Sampson	63,746	63,431	315	0.5
Catawba	154,992	154,358	634	0.4
Currituck	23,643	23,547	96	0.4
Wilkes	69,592	69,340	252	0.4
Robeson	134,651	134,168	483	0.4
Stokes	47,551	47,401	150	0.3
Vance	45,558	45,422	136	0.3
Davidson	163,364	162,878	486	0.3
Nash	96,122	95,840	282	0.3
Montgomery	27,864	27,798	66	0.2
Avery	17,834	17,797	37	0.2
Beaufort	47,854	47,759	95	0.2
Wilson	81,380	81,234	146	0.2
Cleveland	98,209	98,078	131	0.1

County	July 2011 Estimate	April 2010 Estimate Base	Growth	
			Amount	Percent
Caldwell	83,117	83,029	88	0.1
Yadkin	38,442	38,406	36	0.1
Hyde	5,815	5,810	5	0.1
Chowan	14,796	14,793	3	0
Rowan	138,309	138,428	-119	-0.1
Rockingham	93,558	93,643	-85	-0.1
Bladen	35,148	35,190	-42	-0.1
Surry	73,575	73,673	-98	-0.1
Burke	90,722	90,912	-190	-0.2
Caswell	23,654	23,719	-65	-0.3
Polk	20,453	20,510	-57	-0.3
Lenoir	59,314	59,495	-181	-0.3
Scotland	36,029	36,157	-128	-0.4
Richmond	46,459	46,639	-180	-0.4
Warren	20,883	20,972	-89	-0.4
Mitchell	15,501	15,579	-78	-0.5
Cherokee	27,300	27,444	-144	-0.5
Halifax	54,397	54,691	-294	-0.5
Pasquotank	40,438	40,661	-223	-0.5
Camden	9,921	9,980	-59	-0.6
Columbus	57,657	58,098	-441	-0.8
Alleghany	11,069	11,155	-86	-0.8
Edgecombe	56,089	56,552	-463	-0.8
Hertford	24,466	24,669	-203	-0.8
Northampton	21,844	22,099	-255	-1.2
Clay	10,460	10,587	-127	-1.2
Washington	13,060	13,228	-168	-1.3
Tyrrell	4,342	4,407	-65	-1.5
Martin	24,083	24,505	-422	-1.7
Bertie	20,890	21,282	-392	-1.8
Gates	11,944	12,197	-253	-2.1
Anson	25,822	26,948	-1,126	-4.2
STATE	9,669,244	9,535,483	133,761	1.4

Source: NC OSBM; last updated 08MAY2012

Attachment 5: NC OSBM County Population Growth: 2010-2020

County	July 2020 Projection	April 2010 Estimate Base	Growth	
			Total	Percent
Alamance	161,234	151,131	10,103	6.7
Alexander	39,391	37,198	2,193	5.9
Alleghany	10,240	11,155	-915	-8.2
Anson	26,900	26,948	-48	-0.2
Ashe	29,361	27,281	2,080	7.6
Avery	17,789	17,797	-8	0
Beaufort	50,152	47,759	2,393	5
Bertie	20,573	21,282	-709	-3.3
Bladen	34,923	35,190	-267	-0.8
Brunswick	128,763	107,431	21,332	19.9
Buncombe	277,265	238,318	38,947	16.3
Burke	90,874	90,912	-38	0
Cabarrus	205,369	178,011	27,358	15.4
Caldwell	83,935	83,029	906	1.1
Camden	9,166	9,980	-814	-8.2
Carteret	76,417	66,469	9,948	15
Caswell	23,743	23,719	24	0.1
Catawba	160,859	154,358	6,501	4.2
Chatham	75,891	63,505	12,386	19.5
Cherokee	27,788	27,444	344	1.3
Chowan	15,103	14,793	310	2.1
Clay	10,357	10,587	-230	-2.2
Cleveland	99,325	98,078	1,247	1.3
Columbus	58,327	58,098	229	0.4
Craven	112,594	103,505	9,089	8.8
Cumberland	340,797	319,431	21,366	6.7
Currituck	23,576	23,547	29	0.1
Dare	36,023	33,920	2,103	6.2
Davidson	172,220	162,878	9,342	5.7
Davie	44,096	41,240	2,856	6.9
Duplin	66,810	58,505	8,305	14.2
Durham	305,001	267,587	37,414	14
Edgecombe	54,497	56,552	-2,055	-3.6

County	July 2020 Projection	April 2010 Estimate Base	Growth	
			Total	Percent
Forsyth	381,660	350,670	30,990	8.8
Franklin	72,701	60,619	12,082	19.9
Gaston	220,302	206,086	14,216	6.9
Gates	10,943	12,197	-1,254	-10.3
Graham	9,785	8,861	924	10.4
Granville	65,586	59,916	5,670	9.5
Greene	21,667	21,362	305	1.4
Guilford	547,184	488,406	58,778	12
Halifax	52,806	54,691	-1,885	-3.4
Harnett	144,503	114,678	29,825	26
Haywood	64,255	59,036	5,219	8.8
Henderson	124,163	106,740	17,423	16.3
Hertford	24,393	24,669	-276	-1.1
Hoke	60,596	46,952	13,644	29.1
Hyde	5,825	5,810	15	0.3
Iredell	177,334	159,437	17,897	11.2
Jackson	46,608	40,271	6,337	15.7
Johnston	198,644	168,878	29,766	17.6
Jones	10,497	10,153	344	3.4
Lee	61,968	57,866	4,102	7.1
Lenoir	58,729	59,495	-766	-1.3
Lincoln	84,024	78,265	5,759	7.4
Macon	39,236	33,922	5,314	15.7
Madison	23,157	20,764	2,393	11.5
Martin	22,374	24,505	-2,131	-8.7
McDowell	46,749	44,996	1,753	3.9
Mecklenburg	1,095,857	919,628	176,229	19.2
Mitchell	15,381	15,579	-198	-1.3
Montgomery	29,687	27,798	1,889	6.8
Moore	97,334	88,247	9,087	10.3
Nash	99,557	95,840	3,717	3.9
New Hanover	237,864	202,667	35,197	17.4
Northampton	20,756	22,099	-1,343	-6.1
Onslow	217,780	177,772	40,008	22.5
Orange	153,625	133,801	19,824	14.8

County	July 2020 Projection	April 2010 Estimate Base	Growth	
			Total	Percent
Pamlico	13,445	13,144	301	2.3
Pasquotank	40,223	40,661	-438	-1.1
Pender	60,846	52,217	8,629	16.5
Perquimans	13,962	13,453	509	3.8
Person	44,061	39,464	4,597	11.6
Pitt	188,239	168,148	20,091	11.9
Polk	20,517	20,510	7	0
Randolph	151,901	141,752	10,149	7.2
Richmond	46,511	46,639	-128	-0.3
Robeson	136,237	134,168	2,069	1.5
Rockingham	92,945	93,643	-698	-0.7
Rowan	137,985	138,428	-443	-0.3
Rutherford	72,693	67,810	4,883	7.2
Sampson	65,830	63,431	2,399	3.8
Scotland	31,527	36,157	-4,630	-12.8
Stanly	64,429	60,585	3,844	6.3
Stokes	48,896	47,401	1,495	3.2
Surry	73,212	73,673	-461	-0.6
Swain	15,710	13,981	1,729	12.4
Transylvania	35,303	33,090	2,213	6.7
Tyrrell	4,341	4,407	-66	-1.5
Union	236,778	201,292	35,486	17.6
Vance	46,922	45,422	1,500	3.3
Wake	1,099,385	900,993	198,392	22
Warren	20,783	20,972	-189	-0.9
Washington	12,615	13,228	-613	-4.6
Watauga	58,889	51,079	7,810	15.3
Wayne	131,031	122,623	8,408	6.9
Wilkes	72,022	69,340	2,682	3.9
Wilson	88,118	81,234	6,884	8.5
Yadkin	39,021	38,406	615	1.6
Yancey	18,811	17,818	993	5.6
STATE	10,616,077	9,535,483	1,080,594	11.3

Source: NC OSBM; last updated 08MAY2012

Attachment 6: NC OSBM County Total Age Groups - (Females and Males)

NC OSBM Total Age Groups – Females

County	July 1, 2010 County Total Age Groups-Females					July 1, 2012 County Total Age Groups-Females					July 1, 2017 County Total Age Groups-Females				
	< 18	18-44	45-64	> 65	Total	< 18	18-44	45-64	> 65	Total	< 18	18-44	45-64	> 65	Total
Alamance	17,342	28,140	20,891	13,086	79,459	17,204	28,255	21,380	13,790	80,629	17,350	28,446	22,306	15,389	83,491
Alexander	4,091	5,853	5,297	3,159	18,400	4,022	5,885	5,377	3,483	18,767	4,041	5,830	5,545	4,217	19,633
Alleghany	1,103	1,526	1,701	1,295	5,625	1,058	1,497	1,634	1,348	5,537	998	1,398	1,453	1,465	5,314
Anson	2,967	4,070	3,541	2,330	12,908	2,820	4,044	3,531	2,376	12,771	2,673	3,991	3,409	2,613	12,686
Ashe	2,595	3,856	4,238	3,113	13,802	2,608	3,813	4,258	3,304	13,983	2,611	3,867	4,164	3,822	14,464
Avery	1,514	2,516	2,343	1,721	8,094	1,465	2,557	2,258	1,827	8,107	1,419	2,539	2,136	1,994	8,088
Beaufort	5,052	7,171	7,532	4,996	24,751	5,003	7,194	7,378	5,358	24,933	5,034	7,144	7,040	6,197	25,415
Bertie	2,149	3,074	3,300	2,182	10,705	2,026	3,028	3,161	2,159	10,374	1,956	3,003	2,874	2,287	10,120
Bladen	3,997	5,644	5,418	3,248	18,307	3,863	5,665	5,292	3,432	18,252	3,740	5,623	4,938	3,862	18,163
Brunswick	9,764	15,171	18,114	12,032	55,081	9,835	15,490	17,582	13,890	56,797	10,545	16,021	16,667	17,918	61,151
Buncombe	23,685	42,430	35,524	22,204	123,843	24,077	44,020	36,332	23,913	128,342	25,457	46,697	37,338	28,400	137,892
Burke	9,576	14,106	13,232	8,453	45,367	9,260	14,050	13,226	8,847	45,383	8,657	13,894	13,000	9,892	45,443
Cabarrus	23,558	32,856	23,273	11,712	91,399	23,676	33,623	24,485	12,534	94,318	24,885	34,217	27,736	14,749	101,587
Caldwell	9,196	13,442	12,204	7,314	42,156	8,861	13,427	12,276	7,721	42,285	8,241	13,101	12,391	8,741	42,474
Camden	1,238	1,621	1,428	700	4,987	1,115	1,609	1,404	754	4,882	905	1,456	1,387	858	4,606
Carteret	6,067	9,681	11,140	6,885	33,773	6,090	9,854	11,275	7,485	34,704	6,207	10,269	11,431	8,999	36,906
Caswell	2,337	3,369	3,788	2,174	11,668	2,216	3,399	3,730	2,327	11,672	2,084	3,356	3,513	2,720	11,673
Catawba	17,917	26,280	22,017	12,536	78,750	17,713	26,233	22,178	13,342	79,466	17,556	25,784	22,668	15,263	81,271
Chatham	6,783	9,606	9,965	6,659	33,013	6,867	9,708	10,099	7,435	34,109	7,422	9,859	10,697	9,523	37,501
Cherokee	2,569	3,651	4,433	3,420	14,073	2,422	3,646	4,216	3,702	13,986	2,346	3,596	3,809	4,233	13,984
Chowan	1,604	2,117	2,352	1,674	7,747	1,600	2,154	2,298	1,765	7,817	1,618	2,290	2,123	1,953	7,984
Clay	902	1,335	1,772	1,352	5,361	859	1,350	1,672	1,460	5,341	824	1,315	1,443	1,685	5,267
Cleveland	11,126	16,651	14,387	8,552	50,716	10,835	16,640	14,400	9,033	50,908	10,417	16,317	14,335	10,139	51,208
Columbus	6,756	9,016	8,262	5,187	29,221	6,524	9,003	7,972	5,376	28,875	6,360	9,130	7,719	5,808	29,017
Craven	12,013	17,637	13,745	8,991	52,386	12,406	17,962	13,653	9,543	53,564	13,588	18,442	13,284	10,777	56,091
Cumberland	42,765	67,769	39,672	18,333	168,539	43,100	67,570	40,310	19,386	170,366	44,338	66,259	41,085	22,566	174,248
Currituck	2,777	3,805	3,704	1,644	11,930	2,597	3,787	3,740	1,789	11,913	2,360	3,636	3,741	2,133	11,870
Dare	3,346	5,160	5,760	2,748	17,014	3,322	5,111	5,686	3,090	17,209	3,495	4,912	5,398	3,876	17,681
Davidson	18,811	27,212	23,615	13,248	82,886	18,499	27,065	23,927	14,122	83,613	18,165	26,560	24,738	16,201	85,664

County	July 1, 2010 County Total Age Groups-Females					July 1, 2012 County Total Age Groups-Females					July 1, 2017 County Total Age Groups-Females				
	< 18	18-44	45-64	> 65	Total	< 18	18-44	45-64	> 65	Total	< 18	18-44	45-64	> 65	Total
Davie	4,691	6,283	6,306	3,879	21,159	4,613	6,307	6,392	4,144	21,456	4,519	6,305	6,615	4,825	22,264
Duplin	7,181	9,850	7,960	4,877	29,868	7,313	9,981	8,151	5,284	30,729	7,608	10,382	8,647	6,262	32,899
Durham	29,630	61,481	33,673	15,743	140,527	30,759	63,734	34,458	17,109	146,060	33,854	64,906	36,906	20,902	156,568
Edgecombe	6,760	9,813	8,824	4,945	30,342	6,525	9,633	8,784	5,166	30,108	6,397	9,153	8,294	5,773	29,617
Forsyth	41,765	66,578	49,431	26,910	184,684	41,961	67,606	50,232	28,584	188,383	43,800	68,496	51,511	33,085	196,892
Franklin	7,210	10,068	8,836	4,430	30,544	7,319	10,222	9,290	4,930	31,761	7,659	10,531	10,098	6,259	34,547
Gaston	23,957	36,979	29,236	16,094	106,266	23,928	36,979	29,630	17,008	107,545	24,387	37,112	31,381	19,435	112,315
Gates	1,393	1,920	1,907	1,002	6,222	1,165	1,960	1,799	1,044	5,968	1,041	1,833	1,691	1,141	5,706
Graham	897	1,310	1,353	951	4,511	894	1,351	1,308	1,036	4,589	919	1,449	1,291	1,168	4,827
Granville	6,357	9,372	8,203	4,194	28,126	6,225	9,398	8,467	4,511	28,601	6,284	9,277	8,952	5,419	29,932
Greene	2,387	3,116	2,786	1,563	9,852	2,386	3,174	2,794	1,642	9,996	2,279	3,222	2,686	1,847	10,034
Guilford	55,988	99,036	66,373	35,508	256,905	56,284	101,295	68,097	37,903	263,579	57,520	106,207	72,076	44,617	280,420
Halifax	6,145	8,514	8,480	5,335	28,474	5,911	8,438	8,392	5,512	28,253	5,837	7,888	7,926	6,031	27,682
Harnett	15,660	22,643	13,748	6,984	59,035	16,334	23,470	14,339	7,672	61,815	17,989	25,459	16,029	9,359	68,836
Haywood	5,570	8,660	9,236	7,033	30,499	5,587	8,632	9,317	7,549	31,085	5,679	8,602	9,430	8,641	32,352
Henderson	10,744	15,174	15,850	13,543	55,311	10,912	15,511	16,073	14,535	57,031	11,609	16,355	16,658	17,059	61,681
Hertford	2,557	4,003	3,724	2,364	12,648	2,440	3,966	3,629	2,404	12,439	2,382	3,843	3,340	2,546	12,111
Hoke	7,054	9,925	5,368	2,057	24,404	7,532	10,375	5,739	2,283	25,929	8,593	11,463	6,526	2,924	29,506
Hyde	518	750	813	497	2,578	498	767	794	527	2,586	477	760	762	608	2,607
Iredell	19,739	27,100	22,586	11,695	81,120	19,465	27,404	23,424	12,588	82,881	19,495	27,769	25,310	14,706	87,280
Jackson	3,368	8,224	5,301	3,369	20,262	3,409	8,452	5,237	3,711	20,809	3,708	8,927	5,162	4,452	22,249
Johnston	22,910	30,956	22,169	10,116	86,151	23,325	31,507	23,276	11,157	89,265	24,549	32,093	26,497	13,877	97,016
Jones	1,115	1,494	1,671	993	5,273	1,093	1,576	1,666	1,056	5,391	1,077	1,599	1,560	1,176	5,412
Lee	7,310	9,995	7,682	4,639	29,626	7,396	10,086	7,770	4,913	30,165	7,799	10,196	7,944	5,536	31,475
Lenoir	6,851	9,257	9,195	5,738	31,041	6,699	9,218	9,050	5,968	30,935	6,599	9,102	8,515	6,424	30,640
Lincoln	8,895	13,110	11,730	5,777	39,512	8,822	13,029	12,014	6,353	40,218	8,693	12,761	12,769	7,606	41,829
Macon	3,169	4,421	5,351	4,489	17,430	3,170	4,560	5,328	4,863	17,921	3,416	4,882	5,155	5,685	19,138
Madison	1,921	3,358	3,181	2,039	10,499	1,908	3,374	3,315	2,210	10,807	1,841	3,461	3,443	2,639	11,384
Martin	2,710	3,785	4,000	2,573	13,068	2,558	3,592	3,915	2,665	12,730	2,446	3,198	3,651	2,897	12,192
McDowell	4,712	7,034	6,588	4,160	22,494	4,651	7,013	6,643	4,430	22,737	4,454	6,894	6,533	5,053	22,934
Mecklenburg	114,624	198,643	114,826	48,681	476,774	116,692	204,909	120,796	53,158	495,555	126,691	211,176	135,745	66,325	539,937
Mitchell	1,451	2,261	2,431	1,829	7,972	1,401	2,253	2,400	1,898	7,952	1,439	2,235	2,262	2,004	7,940
Montgomery	3,343	4,556	4,036	2,505	14,440	3,265	4,591	4,007	2,692	14,555	3,242	4,777	4,223	3,236	15,478

County	July 1, 2010 County Total Age Groups-Females					July 1, 2012 County Total Age Groups-Females					July 1, 2017 County Total Age Groups-Females				
	< 18	18-44	45-64	> 65	Total	< 18	18-44	45-64	> 65	Total	< 18	18-44	45-64	> 65	Total
Moore	9,345	12,825	12,892	11,177	46,239	9,460	13,003	12,927	11,915	47,305	9,871	13,462	13,104	13,508	49,945
Nash	11,212	15,981	14,483	7,899	49,575	11,034	15,947	14,578	8,346	49,905	10,953	15,969	14,207	9,644	50,773
New Hanover	19,721	40,969	27,778	16,320	104,788	20,082	42,207	28,255	17,809	108,353	21,035	44,543	29,726	21,493	116,797
Northampton	2,171	3,044	3,553	2,591	11,359	2,056	3,051	3,396	2,706	11,209	1,951	3,041	2,966	2,767	10,725
Onslow	22,199	40,106	16,702	7,833	86,840	24,396	38,217	16,959	8,271	87,843	29,522	40,088	18,114	9,857	97,581
Orange	13,631	30,906	17,990	7,420	69,947	13,733	31,246	18,565	8,194	71,738	14,161	32,264	19,937	10,517	76,879
Pamlico	1,187	1,558	2,157	1,519	6,421	1,146	1,613	2,053	1,646	6,458	1,122	1,653	1,781	1,923	6,479
Pasquotank	4,454	7,483	5,483	3,236	20,656	4,336	7,268	5,340	3,302	20,246	4,189	6,894	5,067	3,595	19,745
Pender	5,870	8,232	7,762	4,325	26,189	5,975	8,479	7,953	4,758	27,165	6,309	8,894	8,384	5,766	29,353
Perquimans	1,389	1,914	2,148	1,578	7,029	1,333	1,933	2,097	1,709	7,072	1,306	1,946	1,962	1,968	7,182
Person	4,429	6,298	6,106	3,486	20,319	4,390	6,433	6,208	3,731	20,762	4,554	6,550	6,347	4,394	21,845
Pitt	18,449	40,162	20,483	9,838	88,932	18,605	40,837	20,939	10,596	90,977	19,212	42,461	21,975	12,903	96,551
Polk	1,878	2,563	3,409	2,801	10,651	1,804	2,565	3,348	2,923	10,640	1,686	2,567	3,136	3,229	10,618
Randolph	16,822	23,955	19,832	11,407	72,016	16,704	23,899	20,264	12,217	73,084	16,631	23,954	21,067	14,112	75,764
Richmond	5,508	7,755	6,499	3,893	23,655	5,386	7,677	6,442	4,007	23,512	5,283	7,542	6,206	4,453	23,484
Robeson	17,472	25,149	17,520	8,941	69,082	17,359	25,167	17,374	9,374	69,274	17,675	24,832	16,908	10,349	69,764
Rockingham	10,066	15,143	14,321	8,949	48,479	9,753	14,970	14,416	9,302	48,441	9,396	14,487	14,294	10,165	48,342
Rowan	16,000	23,443	19,157	11,487	70,087	15,666	23,351	19,143	11,989	70,149	15,148	23,026	18,989	13,173	70,336
Rutherford	7,484	10,626	10,135	6,766	35,011	7,347	10,684	10,342	7,193	35,566	7,319	10,678	10,535	8,205	36,737
Sampson	7,943	10,588	8,524	5,331	32,386	7,857	10,614	8,581	5,568	32,620	7,793	10,614	8,613	6,183	33,203
Scotland	4,373	6,077	5,258	2,945	18,653	4,260	5,937	5,217	3,038	18,452	4,015	5,078	4,758	3,430	17,281
Stanly	6,662	9,841	8,496	5,470	30,469	6,540	9,912	8,678	5,767	30,897	6,503	9,923	9,101	6,570	32,097
Stokes	5,117	7,420	7,362	4,363	24,262	4,911	7,414	7,429	4,712	24,466	4,619	7,241	7,617	5,379	24,856
Surry	8,372	11,630	10,532	7,202	37,736	8,179	11,510	10,532	7,440	37,661	7,728	11,424	10,419	8,025	37,596
Swain	1,609	2,231	2,037	1,293	7,170	1,649	2,340	2,052	1,357	7,398	1,756	2,459	2,030	1,507	7,752
Transylvania	2,863	4,408	5,046	4,790	17,107	2,835	4,455	4,886	5,154	17,330	2,891	4,576	4,647	5,789	17,903
Tyrrell	395	559	597	423	1,974	388	554	585	433	1,960	425	537	569	465	1,996
Union	29,699	35,706	25,966	11,071	102,442	29,640	36,278	27,980	12,297	106,195	30,073	37,361	32,601	15,433	115,468
Vance	5,668	7,877	6,646	3,889	24,080	5,527	7,977	6,657	4,103	24,264	5,658	7,830	6,570	4,627	24,685
Wake	115,708	189,059	115,656	44,999	465,422	118,982	193,600	123,242	50,514	486,338	128,028	201,674	141,743	65,657	537,102
Warren	2,091	2,811	3,206	2,229	10,337	1,994	2,865	3,065	2,364	10,288	1,946	2,862	2,663	2,627	10,098
Washington	1,463	2,027	2,074	1,425	6,989	1,416	2,001	2,016	1,491	6,924	1,416	1,878	1,899	1,606	6,799
Watauga	3,359	12,621	5,873	3,501	25,354	3,383	13,070	5,935	3,787	26,175	3,806	13,643	5,786	4,604	27,839

County	July 1, 2010 County Total Age Groups-Females					July 1, 2012 County Total Age Groups-Females					July 1, 2017 County Total Age Groups-Females				
	< 18	18-44	45-64	> 65	Total	< 18	18-44	45-64	> 65	Total	< 18	18-44	45-64	> 65	Total
Wayne	14,850	21,631	16,654	9,550	62,685	14,856	21,715	16,718	9,957	63,246	15,252	21,817	16,774	11,316	65,159
Wilkes	7,517	10,519	10,350	6,679	35,065	7,418	10,475	10,311	7,149	35,353	7,212	10,434	10,259	8,141	36,046
Wilson	9,695	14,120	11,791	6,888	42,494	9,580	14,160	11,825	7,279	42,844	9,788	14,317	12,052	8,420	44,577
Yadkin	4,271	6,192	5,502	3,563	19,528	4,189	6,129	5,603	3,691	19,612	4,061	5,980	5,617	4,089	19,747
Yancey	1,699	2,536	2,753	2,052	9,040	1,681	2,678	2,735	2,181	9,275	1,633	2,770	2,607	2,491	9,501
STATE	1,114,823	1,770,399	1,308,235	716,589	4,910,046	1,120,233	1,794,233	1,335,902	769,366	5,019,734	1,161,500	1,828,534	1,398,986	906,177	5,295,197

Source: NC OSBM; last updated 08MAY2012

NC OSBM Total Age Groups – Males

County	July 1, 2010 County Total Age Groups-Male					July 1, 2012 County Total Age Groups-Male					July 1, 2017 County Total Age Groups-Male				
	< 18	18-44	45-64	≥ 65	Total	< 18	18-44	45-64	≥ 65	Total	< 18	18-44	45-64	≥ 65	Total
Alamance	18,116	25,680	19,118	9,160	72,074	18,031	25,633	19,541	9,664	72,869	18,300	25,495	20,175	10,873	74,843
Alexander	4,339	6,537	5,448	2,516	18,840	4,197	6,561	5,508	2,767	19,033	3,999	6,377	5,618	3,271	19,265
Alleghany	1,123	1,693	1,695	1,024	5,535	1,049	1,667	1,628	1,097	5,441	1,017	1,547	1,436	1,202	5,202
Anson	2,957	5,552	3,923	1,570	14,002	2,874	5,449	3,962	1,682	13,967	2,875	5,244	4,030	2,007	14,156
Ashe	2,698	4,291	4,090	2,424	13,503	2,683	4,325	4,066	2,654	13,728	2,729	4,319	4,060	3,134	14,242
Avery	1,531	3,943	2,809	1,390	9,673	1,494	3,879	2,831	1,519	9,723	1,461	3,527	2,960	1,768	9,716
Beaufort	5,451	6,885	6,827	3,869	23,032	5,374	6,986	6,668	4,250	23,278	5,400	7,192	6,399	4,999	23,990
Bertie	2,247	3,704	3,086	1,495	10,532	2,160	3,691	2,973	1,528	10,352	2,170	3,751	2,873	1,663	10,457
Bladen	4,077	5,475	5,040	2,306	16,898	3,943	5,533	4,901	2,497	16,874	3,770	5,630	4,510	2,924	16,834
Brunswick	10,437	15,219	15,904	11,430	52,990	10,653	15,744	15,644	13,372	55,413	11,707	16,683	15,807	17,207	61,404
Buncombe	25,140	41,804	31,922	16,161	115,027	25,373	43,311	32,740	17,867	119,291	26,698	45,530	34,264	21,892	128,384
Burke	10,520	15,891	12,719	6,255	45,385	10,226	15,682	12,800	6,678	45,386	9,614	15,607	12,552	7,629	45,402
Cabarrus	25,160	31,601	21,876	8,528	87,165	25,212	32,157	22,961	9,285	89,615	26,215	32,587	25,752	11,191	95,745
Caldwell	9,499	13,839	11,938	5,574	40,850	9,194	13,768	12,048	5,997	41,007	8,606	13,438	12,246	6,978	41,268
Camden	1,301	1,608	1,508	602	5,019	1,147	1,655	1,506	647	4,955	1,011	1,555	1,483	763	4,812
Carteret	6,502	10,274	10,264	5,898	32,938	6,495	10,498	10,423	6,545	33,961	6,688	11,047	10,787	8,081	36,603
Caswell	2,504	4,072	3,848	1,622	12,046	2,383	4,038	3,852	1,782	12,055	2,241	3,896	3,791	2,136	12,064
Catawba	18,766	26,289	21,186	9,363	75,604	18,474	26,129	21,387	10,188	76,178	18,159	25,806	21,875	11,791	77,631
Chatham	7,067	9,525	9,049	5,152	30,793	7,123	9,525	9,239	5,818	31,705	7,486	9,640	9,816	7,669	34,611
Cherokee	2,695	3,650	4,103	2,912	13,360	2,587	3,627	4,000	3,180	13,394	2,443	3,699	3,824	3,703	13,669
Chowan	1,689	1,987	2,084	1,256	7,016	1,650	2,056	1,985	1,323	7,014	1,565	2,204	1,815	1,433	7,017
Clay	1,072	1,389	1,594	1,164	5,219	1,012	1,411	1,499	1,287	5,209	926	1,440	1,335	1,464	5,165
Cleveland	11,769	15,811	13,527	6,197	47,304	11,390	15,896	13,600	6,597	47,483	10,838	16,170	13,376	7,471	47,855
Columbus	6,728	10,320	8,020	3,682	28,750	6,579	10,325	7,992	3,965	28,861	6,430	10,291	7,758	4,498	28,977
Craven	12,300	20,097	12,343	7,044	51,784	12,745	20,141	12,032	7,330	52,248	14,161	20,253	11,657	7,890	53,961
Cumberland	44,488	66,525	34,871	12,925	158,809	45,402	66,104	35,109	13,977	160,592	48,016	64,997	34,745	16,635	164,393
Currituck	2,806	3,764	3,723	1,429	11,722	2,595	3,805	3,762	1,562	11,724	2,434	3,690	3,718	1,886	11,728
Dare	3,447	5,672	5,404	2,478	17,001	3,405	5,675	5,329	2,800	17,209	3,553	5,476	5,218	3,494	17,741
Davidson	19,906	26,933	22,877	10,272	79,988	19,655	26,994	23,218	11,121	80,988	19,484	27,018	24,185	12,970	83,657
Davie	5,028	6,096	6,038	3,012	20,174	4,887	6,110	6,080	3,310	20,387	4,754	6,224	6,132	3,877	20,987
Duplin	7,703	10,047	7,577	3,533	28,860	7,775	10,151	7,749	3,925	29,600	8,100	10,447	8,008	4,918	31,473

County	July 1, 2010 County Total Age Groups-Male					July 1, 2012 County Total Age Groups-Male					July 1, 2017 County Total Age Groups-Male				
	< 18	18-44	45-64	≥ 65	Total	< 18	18-44	45-64	≥ 65	Total	< 18	18-44	45-64	≥ 65	Total
Durham	30,967	57,393	28,851	10,674	127,885	32,116	56,692	29,425	11,653	129,886	35,448	55,949	31,599	14,541	137,537
Edgecombe	7,060	8,363	7,561	3,257	26,241	6,871	8,231	7,413	3,466	25,981	6,744	7,840	6,916	3,955	25,455
Forsyth	43,578	60,823	43,326	18,967	166,694	43,833	61,426	44,098	20,361	169,718	45,362	61,937	45,199	23,882	176,380
Franklin	7,639	10,766	8,529	3,358	30,292	7,725	11,073	8,864	3,791	31,453	8,055	11,721	9,671	4,960	34,407
Gaston	25,186	35,756	27,606	11,372	99,920	25,225	35,956	28,333	12,352	101,866	25,034	35,402	29,229	14,325	103,990
Gates	1,486	1,821	1,818	845	5,970	1,345	1,805	1,808	902	5,860	1,103	1,806	1,701	951	5,561
Graham	1,019	1,297	1,253	802	4,371	1,032	1,309	1,259	847	4,447	1,073	1,413	1,219	971	4,676
Granville	7,027	12,559	9,417	3,384	32,387	6,777	12,514	9,737	3,798	32,826	6,718	12,056	10,521	4,801	34,096
Greene	2,520	4,646	3,119	1,123	11,408	2,494	4,646	3,196	1,240	11,576	2,405	4,407	3,295	1,523	11,630
Guilford	58,363	89,690	59,497	25,216	232,766	58,326	90,972	60,760	27,366	237,424	59,420	93,563	63,749	32,713	249,445
Halifax	6,390	8,440	7,694	3,567	26,091	6,130	8,456	7,632	3,752	25,970	5,978	8,311	7,166	4,199	25,654
Harnett	16,468	22,057	13,090	5,142	56,757	17,288	22,899	13,739	5,752	59,678	19,361	24,882	15,465	7,328	67,036
Haywood	5,902	8,712	8,411	5,447	28,472	5,827	8,813	8,511	5,916	29,067	5,851	8,945	8,633	6,935	30,364
Henderson	11,204	15,763	14,215	10,473	51,655	11,325	16,056	14,400	11,387	53,168	12,012	16,599	15,237	13,411	57,259
Hertford	2,628	4,364	3,519	1,596	12,107	2,572	4,355	3,578	1,666	12,171	2,584	4,330	3,489	1,962	12,365
Hoke	7,297	9,476	4,929	1,500	23,202	7,773	9,802	5,166	1,677	24,418	8,746	10,526	5,736	2,240	27,248
Hyde	549	1,364	928	381	3,222	529	1,354	937	409	3,229	512	1,243	947	514	3,216
Iredell	20,727	27,361	21,661	8,897	78,646	20,420	27,796	22,515	9,670	80,401	20,413	28,511	24,213	11,647	84,784
Jackson	3,758	8,603	4,941	2,766	20,068	3,833	8,814	4,960	3,080	20,687	4,143	9,427	5,065	3,807	22,442
Johnston	24,138	30,976	21,016	7,388	83,518	24,499	31,242	22,112	8,349	86,202	25,448	31,917	24,968	10,604	92,937
Jones	1,078	1,494	1,536	775	4,883	1,086	1,570	1,529	836	5,021	1,088	1,623	1,425	946	5,082
Lee	7,540	10,049	7,328	3,339	28,256	7,552	10,113	7,339	3,543	28,547	7,866	9,974	7,446	3,987	29,273
Lenoir	7,410	8,945	8,161	3,843	28,359	7,104	9,201	8,018	4,029	28,352	6,892	9,439	7,522	4,444	28,297
Lincoln	9,522	13,176	11,510	4,676	38,884	9,276	13,218	11,799	5,215	39,508	9,037	12,975	12,352	6,385	40,749
Macon	3,345	4,782	4,740	3,631	16,498	3,423	4,895	4,767	3,984	17,069	3,654	5,195	4,826	4,832	18,507
Madison	2,162	3,389	3,079	1,653	10,283	2,171	3,450	3,153	1,818	10,592	2,136	3,573	3,232	2,238	11,179
Martin	2,688	3,337	3,629	1,770	11,424	2,572	3,225	3,499	1,867	11,163	2,479	3,043	3,147	2,083	10,752
McDowell	5,061	7,791	6,422	3,285	22,559	5,067	7,738	6,577	3,596	22,978	4,947	7,620	6,654	4,387	23,608
Mecklenburg	118,913	190,371	103,635	33,451	446,370	120,821	195,528	108,759	37,275	462,383	131,364	202,359	122,762	47,716	504,201
Mitchell	1,552	2,351	2,240	1,438	7,581	1,477	2,359	2,195	1,509	7,540	1,446	2,304	2,103	1,619	7,472
Montgomery	3,414	4,382	3,842	1,908	13,546	3,330	4,351	3,734	2,078	13,493	3,299	4,450	3,518	2,430	13,697
Moore	9,827	12,248	11,278	8,958	42,311	9,836	12,443	11,258	9,545	43,082	10,131	12,857	11,323	10,663	44,974
Nash	11,640	15,707	13,357	5,599	46,303	11,414	15,823	13,354	6,089	46,680	11,491	15,868	13,153	7,147	47,659

County	July 1, 2010 County Total Age Groups-Male					July 1, 2012 County Total Age Groups-Male					July 1, 2017 County Total Age Groups-Male				
	< 18	18-44	45-64	≥ 65	Total	< 18	18-44	45-64	≥ 65	Total	< 18	18-44	45-64	≥ 65	Total
New Hanover	20,731	40,885	24,783	12,067	98,466	21,002	42,293	25,227	13,354	101,876	22,083	45,115	27,203	16,302	110,703
Northampton	2,381	3,269	3,270	1,784	10,704	2,222	3,360	3,183	1,890	10,655	2,153	3,339	2,874	2,042	10,408
Onslow	24,302	53,542	15,955	6,227	100,026	24,757	52,944	15,716	6,821	100,238	30,500	53,939	16,321	8,303	109,063
Orange	14,333	27,944	16,338	5,639	64,254	14,437	28,297	16,877	6,411	66,022	14,745	29,684	17,717	8,650	70,796
Pamlico	1,152	2,047	2,135	1,361	6,695	1,138	2,040	2,101	1,502	6,781	1,101	2,013	1,990	1,802	6,906
Pasquotank	4,733	7,819	5,119	2,316	19,987	4,668	7,769	5,092	2,453	19,982	4,676	7,774	5,233	2,796	20,479
Pender	6,004	8,901	7,689	3,669	26,263	6,053	9,184	7,895	4,098	27,230	6,436	9,530	8,306	5,024	29,296
Perquimans	1,370	1,801	1,945	1,345	6,461	1,330	1,841	1,879	1,462	6,512	1,333	1,929	1,754	1,622	6,638
Person	4,646	6,178	5,754	2,551	19,129	4,602	6,250	5,836	2,797	19,485	4,853	6,426	6,048	3,468	20,795
Pitt	19,373	35,666	17,806	6,975	79,820	19,576	36,108	18,191	7,633	81,508	20,150	37,155	18,918	9,557	85,780
Polk	2,026	2,609	2,972	2,190	9,797	1,916	2,617	2,955	2,332	9,820	1,795	2,686	2,811	2,585	9,877
Randolph	17,811	23,947	19,455	8,680	69,893	17,658	23,983	19,699	9,475	70,815	17,461	24,073	20,542	11,061	73,137
Richmond	5,854	8,068	6,208	2,849	22,979	5,815	8,010	6,120	3,024	22,969	5,688	8,000	5,981	3,351	23,020
Robeson	18,450	24,420	16,187	6,350	65,407	18,317	24,652	15,822	6,764	65,555	18,525	24,895	15,160	7,363	65,943
Rockingham	10,625	14,568	13,640	6,314	45,147	10,197	14,584	13,522	6,746	45,049	9,803	14,349	13,074	7,582	44,808
Rowan	16,783	24,098	18,839	8,552	68,272	16,307	24,002	18,860	8,953	68,122	15,697	23,453	18,559	10,047	67,756
Rutherford	7,667	10,441	9,633	4,998	32,739	7,605	10,464	9,722	5,516	33,307	7,550	10,607	9,841	6,530	34,528
Sampson	8,312	10,748	8,283	3,782	31,125	8,204	10,792	8,384	3,977	31,357	8,117	10,914	8,377	4,526	31,934
Scotland	4,657	5,879	4,885	2,020	17,441	4,509	5,694	4,760	2,173	17,136	4,094	4,713	4,470	2,491	15,768
Stanly	7,020	10,526	8,494	4,079	30,119	6,940	10,492	8,607	4,388	30,427	6,835	10,432	8,685	5,217	31,169
Stokes	5,326	7,374	7,154	3,249	23,103	5,128	7,362	7,247	3,561	23,298	4,890	7,306	7,293	4,186	23,675
Surry	8,795	11,916	10,180	5,088	35,979	8,478	11,914	10,128	5,356	35,876	7,947	11,878	9,939	5,974	35,738
Swain	1,659	2,182	1,934	1,048	6,823	1,706	2,278	1,919	1,123	7,026	1,794	2,532	1,898	1,250	7,474
Transylvania	2,965	4,675	4,530	3,799	15,969	2,976	4,663	4,428	4,120	16,187	2,994	4,828	4,228	4,676	16,726
Tyrrell	399	1,046	663	321	2,429	384	1,007	660	329	2,380	381	944	664	356	2,345
Union	31,177	34,645	25,289	8,647	99,758	31,219	34,891	27,154	9,709	102,973	31,631	35,845	31,243	12,237	110,956
Vance	5,817	7,195	5,681	2,602	21,295	5,717	7,320	5,594	2,813	21,444	5,828	7,293	5,515	3,146	21,782
Wake	119,793	182,631	106,142	32,800	441,366	122,466	186,215	112,638	37,552	458,871	131,514	192,642	130,580	49,733	504,469
Warren	2,134	3,444	3,264	1,776	10,618	2,047	3,471	3,227	1,929	10,674	2,040	3,417	3,058	2,236	10,751
Washington	1,554	1,718	1,928	1,004	6,204	1,489	1,724	1,869	1,048	6,130	1,475	1,766	1,573	1,166	5,980
Watauga	3,697	13,509	5,595	2,879	25,680	3,706	14,183	5,583	3,217	26,689	3,766	15,483	5,476	4,066	28,791
Wayne	15,599	22,285	15,588	6,658	60,130	15,685	22,524	15,835	7,196	61,240	16,043	23,155	15,734	8,486	63,418
Wilkes	7,957	11,024	10,099	5,156	34,236	7,766	11,000	10,165	5,577	34,508	7,555	10,933	10,240	6,437	35,165

County	July 1, 2010 County Total Age Groups-Male					July 1, 2012 County Total Age Groups-Male					July 1, 2017 County Total Age Groups-Male				
	< 18	18-44	45-64	≥ 65	Total	< 18	18-44	45-64	≥ 65	Total	< 18	18-44	45-64	≥ 65	Total
Wilson	10,320	13,262	10,554	4,743	38,879	10,221	13,441	10,548	5,076	39,286	10,567	13,926	10,633	6,172	41,298
Yadkin	4,632	6,105	5,425	2,707	18,869	4,467	6,121	5,425	2,901	18,914	4,302	6,066	5,472	3,276	19,116
Yancey	1,845	2,662	2,595	1,633	8,735	1,856	2,745	2,612	1,757	8,970	1,885	2,785	2,526	2,012	9,208
STATE	1,169,023	1,753,454	1,212,560	530,582	4,665,619	1,171,400	1,772,886	1,236,937	580,065	4,761,288	1,213,297	1,804,670	1,295,622	697,291	5,010,880

Source: NC OSBM; last updated 08MAY2012

Attachment 7: NC OSBM 2011 County Total by Race (Female and Male)

County	July 1, 2011 County Total Female by Race						July 1, 2011 County Total Male by Race						July 1, 2011 County Total by Female and Male					
	American Indian Alaska Native	Asian Pacific Islander	Black African-American	Two or More Races	White	Total Female	American Indian Alaska Native	Asian Pacific Islander	Black African-American	Two or More Races	White	Total Male	American Indian Alaska Native	Asian Pacific Islander	Black African-American	Two or More Races	White	Total
Alamance	1,106	1,126	15,793	1,487	60,540	80,052	1,121	972	13,520	1,408	55,458	72,479	2,227	2,098	29,313	2,895	115,998	152,531
Alexander	61	187	816	231	17,287	18,582	95	194	1,272	226	17,159	18,946	156	381	2,088	457	34,446	37,528
Alleghany	18	31	74	50	5,408	5,581	39	36	83	58	5,272	5,488	57	67	157	108	10,680	11,069
Anson	65	164	6,010	171	5,952	12,362	128	151	6,547	160	6,474	13,460	193	315	12,557	331	12,426	25,822
Ashe	38	68	89	135	13,509	13,839	39	55	115	146	13,229	13,584	77	123	204	281	26,738	27,423
Avery	34	32	65	64	7,920	8,115	59	39	650	59	8,912	9,719	93	71	715	123	16,832	17,834
Beaufort	200	137	6,646	291	17,488	24,762	245	91	5,577	322	16,857	23,092	445	228	12,223	613	34,345	47,854
Bertie	28	66	6,628	110	3,661	10,493	67	62	6,427	91	3,750	10,397	95	128	13,055	201	7,411	20,890
Bladen	464	46	6,657	277	10,826	18,270	459	41	5,654	216	10,508	16,878	923	87	12,311	493	21,334	35,148
Brunswick	433	374	6,563	893	47,673	55,936	509	313	6,171	872	46,339	54,204	942	687	12,734	1,765	94,012	110,140
Buncombe	636	1,705	7,982	2,418	113,665	126,406	666	1,409	7,585	2,324	105,465	117,449	1,302	3,114	15,567	4,742	219,130	243,855
Burke	316	1,852	2,550	666	39,971	45,355	418	2,030	3,536	710	38,673	45,367	734	3,882	6,086	1,376	78,644	90,722
Cabarrus	565	2,081	15,272	1,805	73,138	92,861	611	1,879	13,454	1,561	70,887	88,392	1,176	3,960	28,726	3,366	144,025	181,253
Caldwell	254	270	2,079	559	39,042	42,204	248	245	2,071	555	37,794	40,913	502	515	4,150	1,114	76,836	83,117
Camden	20	85	682	102	4,045	4,934	18	82	624	107	4,156	4,987	38	167	1,306	209	8,201	9,921
Carteret	171	428	1,980	626	31,041	34,246	185	293	2,116	679	30,177	33,450	356	721	4,096	1,305	61,218	67,696
Caswell	48	35	3,931	173	7,451	11,638	62	31	4,031	174	7,718	12,016	110	66	7,962	347	15,169	23,654
Catawba	408	2,800	6,858	1,295	67,744	79,105	436	2,807	6,582	1,231	64,831	75,887	844	5,607	13,440	2,526	132,575	154,992
Chatham	426	475	4,567	508	27,453	33,429	458	369	3,944	483	25,870	31,124	884	844	8,511	991	53,323	64,553
Cherokee	190	78	170	343	13,194	13,975	185	79	185	361	12,515	13,325	375	157	355	704	25,709	27,300
Chowan	18	44	2,783	77	4,852	7,774	38	48	2,296	81	4,559	7,022	56	92	5,079	158	9,411	14,796
Clay	13	20	37	62	5,159	5,291	20	7	37	76	5,029	5,169	33	27	74	138	10,188	10,460
Cleveland	159	435	10,940	719	38,581	50,834	170	403	9,462	664	36,676	47,375	329	838	20,402	1,383	75,257	98,209
Columbus	994	117	8,687	441	18,664	28,903	958	123	9,121	412	18,140	28,754	1,952	240	17,808	853	36,804	57,657
Craven	276	1,337	12,316	1,455	37,545	52,929	316	1,103	11,422	1,251	37,944	52,036	592	2,440	23,738	2,706	75,489	104,965
Cumberland	2,950	5,432	65,551	7,211	87,531	168,675	2,708	3,679	57,507	7,142	87,932	158,968	5,658	9,111	123,058	14,353	175,463	327,643
Currituck	46	132	717	234	10,791	11,920	68	54	678	184	10,739	11,723	114	186	1,395	418	21,530	23,643
Dare	98	159	425	286	16,144	17,112	78	87	467	295	16,177	17,104	176	246	892	581	32,321	34,216
Davidson	619	1,211	7,736	1,095	72,473	83,134	664	1,024	7,050	1,094	70,398	80,230	1,283	2,235	14,786	2,189	142,871	163,364
Davie	135	180	1,405	333	19,240	21,293	132	114	1,253	301	18,467	20,267	267	294	2,658	634	37,707	41,560

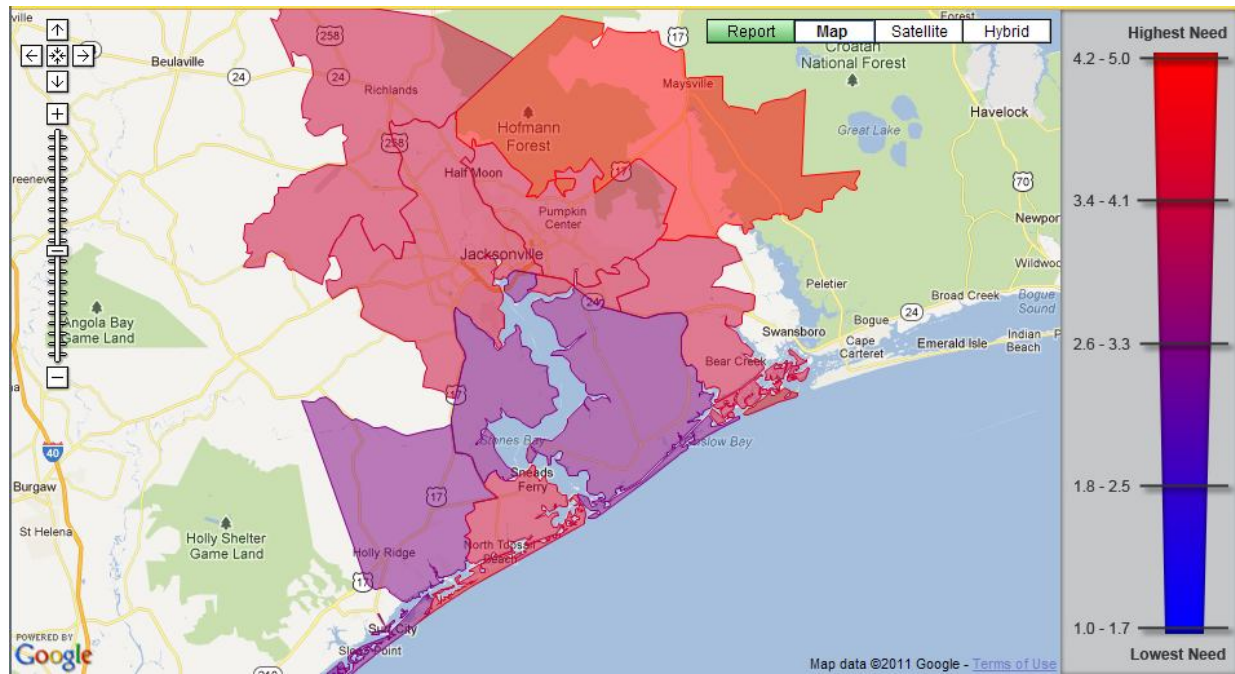
County	July 1, 2011 County Total Female by Race						July 1, 2011 County Total Male by Race						July 1, 2011 County Total by Female and Male					
	American Indian Alaska Native	Asian Pacific Islander	Black African-American	Two or More Races	White	Total Female	American Indian Alaska Native	Asian Pacific Islander	Black African-American	Two or More Races	White	Total Male	American Indian Alaska Native	Asian Pacific Islander	Black African-American	Two or More Races	White	Total
Duplin	423	277	8,151	372	21,049	30,272	433	291	7,100	362	21,018	29,204	856	568	15,251	734	42,067	59,476
Durham	1,349	6,862	58,190	3,360	73,576	143,337	1,572	6,493	47,807	2,921	70,184	128,977	2,921	13,355	105,997	6,281	143,760	272,314
Edgecombe	154	79	17,735	290	11,817	30,075	166	72	14,650	266	10,860	26,014	320	151	32,385	556	22,677	56,089
Forsyth	1,511	4,011	52,810	3,668	124,580	186,580	1,563	3,554	44,263	3,345	115,573	168,298	3,074	7,565	97,073	7,013	240,153	354,878
Franklin	277	224	8,508	481	21,551	31,041	305	165	8,007	477	21,656	30,610	582	389	16,515	958	43,207	61,651
Gaston	550	1,438	17,266	1,669	85,762	106,685	610	1,261	15,025	1,678	82,247	100,821	1,160	2,699	32,291	3,347	168,009	207,506
Gates	40	11	2,075	113	3,831	6,070	30	18	1,882	103	3,841	5,874	70	29	3,957	216	7,672	11,944
Graham	301	20	5	71	4,144	4,541	282	19	12	82	4,006	4,401	583	39	17	153	8,150	8,942
Granville	198	201	9,106	456	18,353	28,314	337	212	11,010	485	20,505	32,549	535	413	20,116	941	38,858	60,863
Greene	221	71	3,698	121	5,848	9,959	291	63	4,298	129	6,749	11,530	512	134	7,996	250	12,597	21,489
Guilford	1,847	10,696	89,550	5,529	152,580	260,202	1,816	10,458	75,522	4,742	142,491	235,029	3,663	21,154	165,072	10,271	295,071	495,231
Halifax	1,043	229	15,437	311	11,345	28,365	1,106	208	13,667	283	10,768	26,032	2,149	437	29,104	594	22,113	54,397
Harnett	1,106	866	12,931	1,860	43,650	60,413	1,175	517	12,112	1,751	42,647	58,202	2,281	1,383	25,043	3,611	86,297	118,615
Haywood	166	167	275	327	29,921	30,856	171	100	355	284	27,918	28,828	337	267	630	611	57,839	59,684
Henderson	329	725	1,713	919	52,415	56,101	364	609	1,649	805	48,920	52,347	693	1,334	3,362	1,724	101,335	108,448
Hertford	154	77	7,803	154	4,258	12,446	117	91	7,099	116	4,597	12,020	271	168	14,902	270	8,855	24,466
Hoke	2,652	457	8,590	1,092	12,421	25,212	2,290	301	7,886	968	12,408	23,853	4,942	758	16,476	2,060	24,829	49,065
Hyde	10	8	728	35	1,804	2,585	30	9	1,094	34	2,063	3,230	40	17	1,822	69	3,867	5,815
Iredell	458	1,659	10,271	1,339	68,272	81,999	472	1,624	9,242	1,295	66,890	79,523	930	3,283	19,513	2,634	135,162	161,522
Jackson	2,017	205	319	373	17,478	20,392	1,960	197	438	398	17,221	20,214	3,977	402	757	771	34,699	40,606
Johnston	763	701	13,896	1,439	70,911	87,710	873	639	12,897	1,463	68,988	84,860	1,636	1,340	26,793	2,902	139,899	172,570
Jones	33	24	1,787	103	3,404	5,351	45	12	1,487	100	3,332	4,976	78	36	3,274	203	6,736	10,327
Lee	335	389	6,286	563	22,327	29,900	387	248	5,616	512	21,641	28,404	722	637	11,902	1,075	43,968	58,304
Lenoir	180	224	13,128	333	17,109	30,974	195	180	11,203	324	16,438	28,340	375	404	24,331	657	33,547	59,314
Lincoln	159	292	2,261	464	36,653	39,829	158	200	2,184	498	36,157	39,197	317	492	4,445	962	72,810	79,026
Macon	95	131	203	174	17,072	17,675	135	110	304	159	16,076	16,784	230	241	507	333	33,148	34,459
Madison	32	66	76	135	10,396	10,705	27	23	171	132	10,135	10,488	59	89	247	267	20,531	21,193
Martin	53	52	5,766	104	6,865	12,840	49	54	4,681	98	6,361	11,243	102	106	10,447	202	13,226	24,083
McDowell	159	206	738	269	21,283	22,655	167	211	1,072	241	21,116	22,807	326	417	1,810	510	42,399	45,462
Mecklenburg	3,564	23,304	163,677	10,369	285,396	486,310	3,963	23,609	136,782	9,480	280,553	454,387	7,527	46,913	300,459	19,849	565,949	940,697
Mitchell	51	45	27	100	7,727	7,950	73	25	40	81	7,332	7,551	124	70	67	181	15,059	15,501

County	July 1, 2011 County Total Female by Race						July 1, 2011 County Total Male by Race						July 1, 2011 County Total by Female and Male					
	American Indian Alaska Native	Asian Pacific Islander	Black African-American	Two or More Races	White	Total Female	American Indian Alaska Native	Asian Pacific Islander	Black African-American	Two or More Races	White	Total Male	American Indian Alaska Native	Asian Pacific Islander	Black African-American	Two or More Races	White	Total
Montgomery	107	226	2,905	166	10,998	14,402	109	238	2,364	176	10,575	13,462	216	464	5,269	342	21,573	27,864
Moore	444	633	6,524	759	38,388	46,748	381	409	5,431	689	35,737	42,647	825	1,042	11,955	1,448	74,125	89,395
Nash	462	466	19,317	765	28,682	49,692	450	454	17,021	730	27,775	46,430	912	920	36,338	1,495	56,457	96,122
New Hanover	623	1,530	16,180	1,943	86,359	106,635	698	1,263	14,563	1,885	81,730	100,139	1,321	2,793	30,743	3,828	168,089	206,774
Northampton	62	25	6,738	110	4,287	11,222	56	29	6,028	93	4,416	10,622	118	54	12,766	203	8,703	21,844
Onslow	610	2,535	13,971	3,488	65,229	85,833	809	1,817	14,896	3,745	77,128	98,395	1,419	4,352	28,867	7,233	142,357	184,228
Orange	461	5,211	8,665	1,657	54,792	70,786	420	4,625	7,495	1,556	50,894	64,990	881	9,836	16,160	3,213	105,686	135,776
Pamlico	36	39	1,173	84	5,124	6,456	49	23	1,416	83	5,187	6,758	85	62	2,589	167	10,311	13,214
Pasquotank	77	287	7,981	427	11,693	20,465	110	236	7,588	399	11,640	19,973	187	523	15,569	826	23,333	40,438
Pender	223	172	4,670	479	21,142	26,686	262	126	4,508	468	21,387	26,751	485	298	9,178	947	42,529	53,437
Perquimans	23	36	1,857	87	5,047	7,050	22	22	1,508	83	4,852	6,487	45	58	3,365	170	9,899	13,537
Person	155	78	5,660	293	14,314	20,500	164	68	5,047	249	13,672	19,200	319	146	10,707	542	27,986	39,700
Pitt	428	1,685	32,332	1,627	53,804	89,876	473	1,561	26,637	1,489	50,227	80,387	901	3,246	58,969	3,116	104,031	170,263
Polk	42	55	457	151	9,940	10,645	54	42	452	124	9,136	9,808	96	97	909	275	19,076	20,453
Randolph	744	855	4,363	1,008	65,578	72,548	831	787	4,156	1,001	63,578	70,353	1,575	1,642	8,519	2,009	129,156	142,901
Richmond	684	259	7,411	470	14,707	23,531	748	254	6,988	446	14,492	22,928	1,432	513	14,399	916	29,199	46,459
Robeson	27,523	598	17,277	1,594	22,182	69,174	25,545	703	15,809	1,589	21,831	65,477	53,068	1,301	33,086	3,183	44,013	134,651
Rockingham	213	313	9,479	792	37,663	48,460	268	250	8,350	726	35,504	45,098	481	563	17,829	1,518	73,167	93,558
Rowan	331	813	11,799	992	56,177	70,112	420	692	11,191	934	54,960	68,197	751	1,505	22,990	1,926	111,137	138,309
Rutherford	87	200	3,560	616	30,867	35,330	112	143	3,302	556	28,949	33,062	199	343	6,862	1,172	59,816	68,392
Sampson	1,010	219	9,250	542	21,483	32,504	1,064	206	8,242	514	21,216	31,242	2,074	425	17,492	1,056	42,699	63,746
Scotland	2,147	161	7,284	387	8,672	18,651	2,029	148	6,668	373	8,160	17,378	4,176	309	13,952	760	16,832	36,029
Stanly	95	643	3,362	356	26,235	30,691	119	696	3,397	332	25,701	30,245	214	1,339	6,759	688	51,936	60,936
Stokes	90	90	947	268	22,962	24,357	100	54	974	273	21,793	23,194	190	144	1,921	541	44,755	47,551
Surry	181	260	1,482	410	35,340	37,673	203	191	1,465	420	33,623	35,902	384	451	2,947	830	68,963	73,575
Swain	2,042	45	35	328	4,877	7,327	1,880	32	47	297	4,680	6,936	3,922	77	82	625	9,557	14,263
Transylvania	51	97	599	315	16,150	17,212	68	72	703	237	14,983	16,063	119	169	1,302	552	31,133	33,275
Tyrrell	14	33	655	31	1,221	1,954	18	47	1,003	25	1,295	2,388	32	80	1,658	56	2,516	4,342
Union	582	1,976	12,766	1,699	87,313	104,336	730	1,776	11,754	1,620	85,501	101,381	1,312	3,752	24,520	3,319	172,814	205,717
Vance	165	125	12,595	269	11,027	24,181	164	105	10,464	313	10,331	21,377	329	230	23,059	582	21,358	45,558
Wake	3,956	26,865	106,879	10,611	327,590	475,901	4,320	26,033	90,338	10,144	319,202	450,037	8,276	52,898	197,217	20,755	646,792	925,938

County	July 1, 2011 County Total Female by Race						July 1, 2011 County Total Male by Race						July 1, 2011 County Total by Female and Male					
	American Indian Alaska Native	Asian Pacific Islander	Black African- American	Two or More Races	White	Total Female	American Indian Alaska Native	Asian Pacific Islander	Black African- American	Two or More Races	White	Total Male	American Indian Alaska Native	Asian Pacific Islander	Black African- American	Two or More Races	White	Total
Warren	581	36	5,424	159	4,078	10,278	540	29	5,521	170	4,345	10,605	1,121	65	10,945	329	8,423	20,883
Washington	38	25	3,594	81	3,181	6,919	31	15	3,003	97	2,995	6,141	69	40	6,597	178	6,176	13,060
Watauga	60	295	385	356	24,773	25,869	80	241	564	377	24,980	26,242	140	536	949	733	49,753	52,111
Wayne	442	1,009	20,816	1,307	39,442	63,016	484	745	18,483	1,262	39,720	60,694	926	1,754	39,299	2,569	79,162	123,710
Wilkes	117	203	1,353	413	33,128	35,214	117	161	1,589	444	32,067	34,378	234	364	2,942	857	65,195	69,592
Wilson	198	384	17,512	572	23,812	42,478	208	404	14,790	529	22,971	38,902	406	788	32,302	1,101	46,783	81,380
Yadkin	104	81	631	187	18,568	19,571	121	62	592	184	17,912	18,871	225	143	1,223	371	36,480	38,442
Yancey	49	43	73	83	8,939	9,187	62	40	92	81	8,607	8,882	111	83	165	164	17,546	18,069
STATE	76,276	123,430	1,126,976	96,592	3,537,550	4,960,824	76,681	114,192	993,431	91,568	3,432,548	4,708,420	152,957	237,622	2,120,407	188,160	6,970,098	9,669,244

Source: NC OSBM; last updated 08MAY2012

Attachment 8: Community Need Index for Onslow County by ZIP Code



Source: Catholic Healthcare West (www.chwhealth.org/cni)

Attachment 9: Estimates of Uninsured 2008-2009

County	Children (0-18)			Adult (19-64)			Total (0-64)		
	Number	Percent	Rank	Number	Percent	Rank	Number	Percent	Rank
Mitchell	341	10.2%	Low	2,004	21.8%	Low	2,345	18.7%	Low
Montgomery	1,112	15.5%	High	4,477	27.2%	High	5,589	23.6%	High
Moore	2,248	11.2%	Mid-Low	10,334	21.5%	Low	12,582	18.5%	Low
Nash	2,780	11.4%	Mid-High	13,070	23.4%	Mid-Low	15,850	19.7%	Mid-Low
New Hanover	4,448	10.1%	Low	29,794	24.0%	Mid-High	34,242	20.4%	Mid-High
Northampton	522	11.6%	Mid-High	2,978	25.6%	High	3,500	21.7%	High
Onslow	5,508	11.4%	Mid-High	32,121	28.6%	High	37,629	23.4%	High
Orange	3,573	10.9%	Mid-Low	18,281	22.1%	Mid-Low	21,854	18.9%	Mid-Low
Pamlico	231	10.0%	Low	1,730	23.5%	Mid-High	1,961	20.3%	Mid-High
Pasquotank	1,143	10.7%	Mid-Low	6,411	25.5%	High	7,553	21.1%	Mid-High
Pender	1,351	11.1%	Mid-Low	8,006	24.8%	Mid-High	9,357	21.0%	Mid-High
Perquimans	268	10.1%	Low	1,850	25.0%	Mid-High	2,118	21.1%	Mid-High
Person	930	10.2%	Low	4,881	21.1%	Low	5,811	18.0%	Low
Pitt	4,894	11.4%	Mid-High	25,589	25.6%	High	30,483	21.3%	High
Polk	402	10.8%	Mid-Low	2,267	21.0%	Low	2,669	18.4%	Low
Randolph	4,528	12.4%	High	19,319	22.4%	Mid-Low	23,847	19.5%	Mid-Low
Richmond	1,448	11.8%	Mid-High	6,973	25.7%	High	8,421	21.4%	High
Robeson	5,300	13.9%	High	22,325	28.9%	High	27,625	23.9%	High
Rockingham	2,424	11.1%	Mid-Low	12,333	22.2%	Mid-Low	14,757	19.0%	Mid-Low
Rowan	4,011	11.4%	Mid-High	18,640	22.0%	Mid-Low	22,651	18.9%	Mid-Low
Rutherford	1,519	10.0%	Low	8,180	22.0%	Mid-Low	9,699	18.5%	Low
Sampson	2,705	15.3%	High	10,556	28.0%	High	13,261	24.0%	High
Scotland	1,126	11.4%	Mid-High	5,666	26.0%	High	6,793	21.5%	High
Stanly	1,490	10.2%	Low	7,732	21.6%	Low	9,222	18.3%	Low
Stokes	1,026	9.6%	Low	5,424	19.3%	Low	6,450	16.6%	Low
Surry	2,277	12.7%	High	9,215	21.8%	Low	11,492	19.1%	Mid-Low
Swain	357	10.8%	Mid-Low	1,612	20.8%	Low	1,969	17.8%	Low
Transylvania	613	9.8%	Low	3,573	21.8%	Low	4,185	18.5%	Low
Tyrrell	106	13.2%	High	884	33.5%	High	990	28.8%	High
Union	6,997	11.2%	Mid-High	25,608	21.6%	Low	32,606	18.0%	Low
Vance	1,582	13.3%	High	6,858	27.4%	High	8,440	22.8%	High
Wake	27,701	11.1%	Mid-Low	123,891	21.6%	Low	151,592	18.4%	Low
Warren	491	11.8%	Mid-High	3,167	27.5%	High	3,658	23.3%	High
Washington	405	12.1%	High	1,893	26.0%	High	2,298	21.6%	High
Watauga	937	9.8%	Low	8,683	28.8%	High	9,621	24.2%	High
Wayne	3,736	12.1%	High	16,429	24.0%	Mid-High	20,164	20.3%	Mid-High
Wilkes	1,713	11.1%	Mid-Low	8,855	22.3%	Mid-Low	10,568	19.1%	Mid-Low
Wilson	2,684	13.0%	High	12,028	25.8%	High	14,711	21.9%	High
Yadkin	1,095	11.9%	High	4,850	21.5%	Low	5,945	18.7%	Mid-Low
Yancey	439	11.2%	Mid-High	2,580	23.5%	Mid-High	3,019	20.3%	Mid-High
NORTH CAROLINA	282,000	11.5%		1,326,000	23.2%		1,608,000	19.7%	

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For more information on this publication or the NCIOM, contact Pam Silberman, JD, DrPH, President and CEO of the North Carolina Institute of Medicine at 919.401.6599, or visit <http://www.nciom.org>.

Attachment 10: 2011 Inpatient Outmigration by Subservice Line

2011 Inpatients by DRG Subservice Line

Subservice Line	Outmigration	
	Volume	Percentage
Cardiac Services	1,043	59.6%
Cardiac Cath	227	100.0%
Cardiac EP	78	96.3%
Cardiac Surgery	131	100.0%
Medical Cardiology	607	46.3%
ENT	77	64.7%
Head and Neck Surgery	13	100.0%
Oral and Maxillofacial Surgery	8	80.0%
Other ENT	25	83.3%
Otology	20	36.4%
Tracheostomy (ENT Only)	11	100.0%
General Medicine	2,436	45.6%
Dermatology	65	24.4%
Endocrinology	124	28.1%
Gastroenterology	420	41.0%
Infectious Disease	177	36.6%
Nephrology	149	33.7%
Other General Medicine	63	40.9%
Psychiatry	962	98.9%
Pulmonology	383	28.5%
Rheumatology	31	56.4%
Substance Abuse	62	39.2%
General Surgery	622	55.0%
Adhesions	20	64.5%
Appendectomy	18	15.9%
Bariatric/Obesity	97	99.0%
Breast	7	58.3%
Cholecystectomy	45	23.1%
Colorectal/Lower GI	110	56.4%
Endocrine	8	21.6%
Hepatobiliary/Pancreatic	21	87.5%
Hernia	24	51.1%
Other General Surgery	103	69.6%
Other GI	9	60.0%
Skin	13	25.0%
Splenectomy	1	100.0%
Tracheostomy	43	84.3%
Transplant	14	100.0%

2011 Inpatients by DRG Subservice Line

Subservice Line	Outmigration	
	Volume	Percentage
Trauma (General Surgical)	44	86.3%
Inpatient Outmigration by Subservice Line (cont.)		
Upper GI	45	95.7%
Gynecology	70	42.2%
General Surgical Gynecology	48	38.7%
Gyn Surgical Oncology	13	86.7%
Medical Gynecology	9	33.3%
Neonatology	504	19.9%
Neonate with Major Problems	289	28.2%
Normal Newborn	215	14.2%
Neurology	246	47.7%
Degenerative Disorders	13	46.4%
Multiple Sclerosis	1	33.3%
Nervous System Infection	18	51.4%
Other Neurology	64	58.7%
Seizure/Epilepsy	41	48.2%
Stroke and Transient Ischemic Attack	109	42.6%
Neurosurgery	78	96.3%
Brain	66	100.0%
Peripheral and Cranial Diseases	11	78.6%
Trauma (Neurosurgery)	1	100.0%
Obstetrics	547	20.9%
Abortion/Miscarriage	5	20.8%
Antepartum Care/High Risk		
Pregnancies	130	51.6%
Delivery	392	17.1%
Post-Partum	20	37.0%
Oncology/Hematology (Medical)	276	65.7%
Hematology (Medical)	93	48.7%
Oncology (Medical)	182	79.8%
Radiation Oncology	1	100.0%
Ophthalmology	6	35.3%
Medical Ophthalmology	6	40.0%
Orthopedics	600	70.3%
Foot	3	50.0%
General Medical Orthopedics	26	61.9%
Hand	1	25.0%
Joint Replacement	394	81.9%
Medical Trauma (Orthopedics)	14	28.0%
Other Surgical Orthopedics	38	80.9%
Sports Medicine	30	73.2%

2011 Inpatients by DRG Subservice Line

Subservice Line	Outmigration	
	Volume	Percentage
Surgical Trauma (Orthopedics)	94	51.4%
Other Trauma	105	73.4%
Body Injuries	37	56.9%
Burns	33	91.7%
Head Injuries	35	83.3%
Rehabilitation	146	100.0%
Rehabilitation	146	100.0%
Spine	299	94.6%
Fusion	211	100.0%
Medical Spine	36	69.2%
Other Surgical Spine	52	98.1%
Thoracic Surgery	90	96.8%
Other Thoracic Surgery	90	96.8%
Urology	141	90.4%
Other Male Reproductive	7	77.8%
Prostate	22	91.7%
Urinary System	112	91.1%
Vascular Services	218	83.2%
Amputation	16	80.0%
Arterial Disease	172	95.0%
Other Vascular	30	49.2%
Grand Total	7,504	45.0%

Truven: State Inpatients Area Based Analysis FY11 (provided by OMH)
April 2012

Attachment 11: 2005-2009-Ten Leading Causes of Death in Onslow County by Age Group

			# OF DEATHS	DEATH RATE*
AGE GROUP:	RANK	CAUSE OF DEATH:		
TOTAL - ALL AGES	0	TOTAL DEATHS --- ALL CAUSES	4,219	500.0
	1	Cancer - All Sites	1,010	119.7
	2	Diseases of the heart	888	105.2
	3	Chronic lower respiratory diseases	244	28.9
	4	Cerebrovascular disease	204	24.2
	5	Diabetes mellitus	170	20.1
	6	Other Unintentional injuries	167	19.8
	7	Motor vehicle injuries	159	18.8
	8	Nephritis, nephrotic syndrome, & nephrosis	88	10.4
	9	Suicide	87	10.3
	10	Septicemia	78	9.2
		Pneumonia & influenza	78	9.2
00-19 YEARS	0	TOTAL DEATHS --- ALL CAUSES	219	83.0
	1	Conditions originating in the perinatal period	70	26.5
	2	Congenital anomalies (birth defects)	28	10.6
		SIDS	28	10.6
	4	Motor vehicle injuries	27	10.2
	5	Other Unintentional injuries	13	4.9
	6	Homicide	12	4.6
	7	Cancer - All Sites	9	3.4
	8	Diseases of the heart	8	3.0
	9	Suicide	6	2.3
	10	Cerebrovascular disease	2	0.8

			# OF DEATHS	DEATH RATE*
20-39 YEARS	0	TOTAL DEATHS --- ALL CAUSES	291	86.0
	1	Motor vehicle injuries	77	22.7
	2	Other Unintentional injuries	52	15.4
	3	Suicide	49	14.5
	4	Cancer - All Sites	26	7.7
	5	Homicide	19	5.6
	6	Diseases of the heart	13	3.8
	7	HIV disease	5	1.5
	8	Diabetes mellitus	3	0.9
		Nephritis, nephrotic syndrome, & nephrosis	3	0.9
	10	Septicemia	2	0.6
		Pneumonia & influenza	2	0.6
		Chronic lower respiratory diseases	2	0.6
40-64 YEARS	0	TOTAL DEATHS --- ALL CAUSES	1,107	606.9
	1	Cancer - All Sites	348	190.8
	2	Diseases of the heart	221	121.2
	3	Cerebrovascular disease	49	26.9
		Other Unintentional injuries	49	26.9
	5	Diabetes mellitus	48	26.3
	6	Chronic lower respiratory diseases	44	24.1
	7	Motor vehicle injuries	41	22.5
	8	Chronic liver disease & cirrhosis	37	20.3
	9	Suicide	25	13.7
	10	Septicemia	22	12.1
65-84 YEARS	0	TOTAL DEATHS --- ALL CAUSES	1,879	3469.3
	1	Cancer - All Sites	542	1000.7
	2	Diseases of the heart	431	795.8
	3	Chronic lower respiratory diseases	157	289.9
	4	Cerebrovascular disease	102	188.3
	5	Diabetes mellitus	98	180.9
	6	Nephritis, nephrotic syndrome, & nephrosis	60	110.8
	7	Septicemia	38	70.2
	8	Pneumonia & influenza	35	64.6
	9	Other Unintentional injuries	31	57.2
	10	Hypertension	25	46.2

			# OF DEATHS	DEATH RATE*
85+ YEARS	0	TOTAL DEATHS --- ALL CAUSES	723	14576.6
	1	Diseases of the heart	215	4334.7
	2	Cancer - All Sites	85	1713.7
	3	Cerebrovascular disease	50	1008.1
	4	Chronic lower respiratory diseases	41	826.6
	5	Alzheimer's disease	39	786.3
	6	Pneumonia & influenza	26	524.2
	7	Other Unintentional injuries	22	443.5
	8	Diabetes mellitus	21	423.4
		Pneumonitis due to solids & liquids	21	423.4
	10	Septicemia	16	322.6

North Carolina County Health Data Book – 2011

NC Department of Health & Human Services

Division of Public Health

State Center for Health Statistics

*Unadjusted Death Rates per 100,000 population

Attachment 12: 2005-2009 Cancer Mortality Rates by County Per 100,000 Population

2005-2009 CANCER MORTALITY RATES BY COUNTY FOR SELECTED SITES PER 100,000 POPULATION AGE-ADJUSTED TO THE 2000 US CENSUS POPULATION

County	COLON/ RECTUM		LUNG/BRONCHUS		FEMALE BREAST		PROSTATE		ALL CANCER	
	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate
NORTH CAROLINA	7,527	16.3	26,674	57.1	6,202	23.5	4,306	25.8	86,246	185.8
Johnston	98	15.0	419	62.9	84	21.4	56	30.7	1,230	188.1
Jones	9	12.7	45	63.7	5	12.4	4	12.1	113	163.1
Lee	46	13.8	181	54.4	32	17.4	17	14.2	515	155.2
Lenoir	79	21.9	246	67.1	51	24.8	33	26.4	767	213.3
Lincoln	60	16.2	239	62.6	37	17.3	32	26.5	710	189.9
McDowell	47	17.4	167	61.2	38	25.7	34	31.9	542	201.3
Macon	38	13.3	134	49.5	32	24.5	30	24.8	450	162.8
Madison	22	15.5	94	69.7	15	20.2	9	16.3	283	209.2
Martin	34	22.4	106	67.4	19	24.3	17	31.5	326	210.2
Mecklenburg	511	15.7	1,538	48.0	479	24.2	291	26.4	5,632	171.7
Mitchell	23	20.8	65	53.4	13	21.1	18	39.0	232	196.5
Montgomery	23	15.0	85	53.8	18	20.5	9	14.6	252	161.3
Moore	82	12.5	373	54.0	78	20.6	64	21.4	1,186	175.7
Nash	101	18.6	284	51.7	82	27.6	36	18.3	1,019	188.7
New Hanover	147	14.3	568	55.7	128	22.7	102	26.5	1,879	184.7
Northampton	30	19.2	77	49.3	28	31.9	27	47.6	294	191.1
Onslow	79	16.4	345	68.8	69	23.9	44	28.2	1,010	205.3
Orange	65	11.6	245	44.5	69	22.8	49	26.3	859	158.8
Pamlico	12	11.7	56	57.7	13	26.7	12	29.5	187	191.5
Pasquotank	28	12.9	145	67.0	36	29.2	25	32.9	432	198.9
Pender	38	12.3	183	60.7	37	23.4	31	28.7	564	191.3
Perquimans	16	18.3	58	59.6	13	29.6	15	39.7	187	201.8
Person	46	22.1	132	61.6	34	27.3	20	30.1	462	215.4
Pitt	108	17.0	309	48.6	104	27.9	67	31.3	1,206	187.5
Polk	38	22.3	82	47.9	18	16.0	10	12.0	311	174.0
Randolph	132	17.5	499	63.7	100	23.3	48	17.3	1,439	188.2
Richmond	50	19.6	170	64.3	36	24.6	32	32.7	572	218.6
Robeson	114	19.7	382	64.2	93	27.5	80	41.5	1,182	203.0
Rockingham	103	17.8	382	66.3	82	25.0	58	26.8	1,162	202.4
Rowan	125	15.3	468	58.6	92	21.2	69	22.1	1,472	182.1
Rutherford	109	25.9	266	63.8	52	22.4	47	29.9	907	217.8
Sampson	60	18.1	208	60.8	50	26.3	43	36.5	684	204.2
Scotland	49	25.7	159	82.3	26	24.1	19	29.7	472	246.3
Stanly	50	13.9	213	59.8	45	23.2	26	21.3	674	190.3
Stokes	37	13.5	168	59.2	32	21.0	12	12.4	499	180.0
Surry	82	17.6	316	67.6	61	22.7	45	26.0	947	203.0
Swain	12	14.0	57	64.8	11	23.1	7	19.0	169	193.1
Transylvania	28	10.0	102	38.7	25	18.4	22	18.7	388	149.5
Tyrrell	6	24.6	16	64.2	0	0.0	2	23.5	63	250.2
Union	116	16.3	360	52.2	73	17.3	47	22.6	1,164	169.1
Vance	57	25.3	149	62.7	22	16.2	26	34.0	487	208.4
Wake	387	12.8	1,338	45.7	401	21.9	239	24.6	4,853	162.5
Warren	34	26.1	58	42.5	21	27.7	23	42.8	248	182.7
Washington	15	17.4	33	35.7	15	31.6	13	37.3	148	167.7
Watauga	31	13.8	103	47.3	21	18.6	17	19.9	370	168.9
Wayne	101	17.8	393	66.1	97	29.0	59	32.2	1,227	211.4
Wilkes	58	13.7	260	61.2	35	14.9	39	24.7	768	184.2
Wilson	80	18.4	264	61.3	82	33.6	45	31.1	915	214.0
Yadkin	37	16.7	140	60.2	30	23.5	25	31.3	449	198.8
Yancey	25	18.3	72	53.3	18	25.6	9	15.9	244	181.3

Produced by the NC Central Cancer Registry, 1/2011.
Rates based on counts less than 16 are unstable. Use with caution.
Counts may not sum to totals due to unknown or other values.

Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at http://www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2009.

Attachment 13: 2004-2008 Cancer Incidence Rates by County Per 100,000 Population

2004-2008 CANCER INCIDENCE RATES BY COUNTY FOR SELECTED SITES PER 100,000 POPULATION AGE-ADJUSTED TO THE 2000 US CENSUS POPULATION

County	COLON/RECTUM		LUNG BRONCHUS		FEMALE BREAST		PROSTATE		ALL CANCERS	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
NORTH CAROLINA	21,349	46.8	34,881	76.3	38,098	151.9	32,943	158.8	227,397	495.2
Johnston	302	46.0	547	84.3	548	142.2	430	148.0	3,311	489.2
Jones	30	46.0	56	82.2	37	107.5	44	145.4	294	447.2
Lee	140	43.3	246	76.0	252	150.0	199	135.8	1,450	456.2
Lenoir	234	66.3	306	84.7	340	174.1	342	221.6	2,053	588.5
Lincoln	192	52.3	315	84.1	310	150.1	303	172.0	2,003	530.5
McDowell	133	50.3	234	87.8	225	166.2	172	141.0	1,352	522.5
Macon	111	41.3	189	71.2	194	149.1	153	120.0	1,183	464.1
Madison	54	41.0	120	90.1	106	156.9	80	128.5	652	504.7
Martin	78	51.3	115	72.6	133	160.5	120	194.1	738	487.4
Mecklenburg	1,444	43.3	1,947	61.6	3,130	159.8	2,538	167.1	16,157	471.4
Mitchell	50	47.6	78	65.1	65	118.3	65	125.1	484	440.9
Montgomery	63	40.0	131	83.4	120	143.2	96	131.5	704	450.1
Moore	246	39.0	504	76.6	518	166.4	463	155.0	3,070	501.9
Nash	291	55.8	354	66.5	427	150.5	336	142.0	2,501	478.4
New Hanover	401	40.2	802	80.5	843	155.8	516	108.8	4,742	475.4
Northampton	65	43.6	97	62.7	106	136.1	137	202.7	666	450.8
Onslow	217	44.3	476	95.1	442	151.3	304	129.0	2,743	522.9
Orange	193	35.5	360	68.6	513	171.8	402	158.9	2,742	504.0
Pamlico	37	36.8	79	81.7	71	151.8	85	166.5	483	501.9
Pasquotank	102	49.4	159	75.1	189	164.5	154	172.8	1,029	493.6
Pender	113	39.0	216	71.6	197	130.2	154	108.9	1,338	463.1
Perquimans	49	50.8	61	63.6	81	166.8	61	138.8	421	464.7
Person	101	48.1	193	90.6	149	123.9	145	155.0	1,074	503.2
Pitt	315	49.6	405	65.4	599	166.7	459	169.3	3,200	499.1
Polk	67	40.6	103	62.2	115	142.4	86	116.9	668	414.3
Randolph	347	46.2	669	87.0	546	134.8	538	160.4	3,778	501.4
Richmond	117	46.2	235	90.7	204	144.5	168	146.6	1,281	500.2
Robeson	294	50.1	495	83.6	436	132.9	561	220.0	2,948	498.0
Rockingham	321	56.4	557	98.2	454	148.3	343	133.8	2,941	524.5
Rowan	374	48.2	657	84.5	718	178.6	470	133.6	3,832	497.8
Rutherford	249	60.7	325	79.0	348	159.3	256	141.7	2,087	518.4
Sampson	156	46.9	265	78.5	236	131.8	184	123.7	1,540	462.4
Scotland	107	57.8	197	103.4	155	143.6	215	254.9	1,149	599.3
Stanly	179	51.5	313	89.8	268	149.2	221	141.1	1,803	525.9
Stokes	123	46.5	217	78.0	186	122.7	138	109.0	1,261	463.6
Surry	198	44.1	429	94.2	330	137.7	242	117.8	2,161	487.8
Swain	31	37.7	80	90.9	79	177.7	37	89.4	410	489.0
Transylvania	98	40.1	146	56.7	177	149.4	180	152.0	1,114	477.3
Tyrrell	6	24.9	14	58.3	16	134.8	14	133.5	97	405.7
Union	325	46.4	458	67.2	622	149.2	476	144.8	3,435	471.1
Vance	133	57.9	178	75.4	167	129.0	200	205.6	1,185	512.2
Wake	1,257	41.9	1,724	60.8	2,995	165.0	2,552	181.4	15,267	484.0
Warren	75	57.0	98	73.6	110	171.3	145	237.5	671	510.4
Washington	48	57.9	59	66.3	77	170.8	68	178.3	430	508.1
Watauga	91	42.8	129	60.6	177	167.4	138	138.4	1,051	498.8
Wayne	302	52.5	487	82.5	523	161.7	383	146.9	2,932	501.9
Wilkes	201	49.4	340	80.6	286	134.5	318	164.3	2,037	500.1
Wilson	235	56.1	320	75.9	389	167.1	308	164.0	2,153	512.0
Yadkin	109	48.9	181	79.5	163	136.1	160	159.3	1,116	502.2
Yancey	73	56.0	107	80.8	97	146.3	94	149.7	625	491.0

Produced by the NC Central Cancer Registry, 2/2011.
Rates based on counts less than 16 are unstable. Use with caution.
Cases may not sum to totals due to unknown or other values.

Rates are calculated using the bridged-race population estimates obtained from the National Center for Health Statistics available online at http://www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2009.

Attachment 14: Projected New Cancer Cases and Deaths by County

Projected New Cancer Cases and Deaths for Selected Sites by County, 2011
Produced by the North Carolina Central Cancer Registry, Revised 3/2011

County	Projected New Cases					Projected Deaths				
	Total	Lung/ Bronchus	Female Breast	Prostate	Colon/ Rectum	Total	Lung/ Bronchus	Female Breast	Prostate	Colon/ Rectum
North Carolina	51,690	7,991	8,507	7,679	4,858	19,146	5,934	1,350	994	1,663
Macon	298	50	45	46	29	124	38	8	8	11
Madison	143	23	22	22	14	55	17	4	3	5
Martin	148	24	26	22	14	55	17	4	2	5
Mecklenburg	4,108	601	710	591	377	1,430	439	107	66	124
Mitchell	119	19	18	19	12	47	15	3	3	4
Montgomery	167	26	26	26	16	64	20	4	4	6
Moore	697	116	104	106	69	294	90	18	20	26
Nash	548	85	93	81	51	201	62	15	10	17
New Hanover	1,170	184	189	176	111	442	138	30	24	38
Northampton	135	22	23	19	13	54	16	4	3	5
Onslow	627	92	107	87	57	219	68	16	10	19
Orange	639	96	106	96	59	227	70	16	11	20
Pamlico	103	17	15	17	10	42	13	3	3	4
Pasquotank	254	40	41	37	25	101	31	7	6	9
Pender	370	59	57	59	35	140	44	9	8	12
Perquimans	103	17	15	16	10	41	13	3	2	4
Person	234	36	39	35	22	87	27	6	4	8
Pitt	732	110	124	105	68	264	81	19	13	23
Polk	159	26	24	24	16	67	20	4	4	6
Randolph	820	128	132	126	77	303	95	21	16	26
Richmond	256	40	43	38	24	97	30	7	5	8
Robeson	617	93	106	89	57	221	69	16	10	19
Rockingham	575	91	95	86	55	219	68	16	11	19
Rowan	813	127	130	123	78	310	95	21	17	27
Rutherford	399	63	65	59	38	154	47	11	8	13
Sampson	358	56	58	53	34	134	41	9	7	12
Scotland	201	31	33	31	19	73	23	5	3	6
Stanly	364	58	57	56	35	139	43	9	8	12
Stokes	283	44	47	43	27	104	33	7	5	9
Surry	462	73	74	69	44	179	55	12	10	16
Swain	91	15	15	14	9	35	11	2	2	3
Transylvania	266	45	39	42	26	112	35	7	7	10
Tyrrell	28	4	4	5	3	11	3	1	1	1
Union	930	137	158	137	85	320	100	23	15	28
Vance	225	35	40	31	21	83	26	6	4	7
Wake	3,987	575	690	576	363	1,356	417	101	62	118
Warren	138	22	21	21	13	56	17	4	3	5
Washington	87	14	14	13	8	33	10	2	2	3
Watauga	252	40	38	40	24	96	30	6	6	8
Wayne	616	95	104	89	58	227	71	17	11	20
Wilkes	435	70	68	68	42	167	52	11	9	14
Wilson	454	71	76	66	43	170	53	12	8	15
Yadkin	234	37	37	36	22	89	28	6	5	8
Yancey	140	23	21	22	14	57	18	4	4	5

Projections are estimated using 2004-2008 invasive cancer incidence and 2005-2009 mortality rates and 2011 NC population estimates available at:
http://www.osbm.state.nc.us/noosbm/facts_and_figures/socioeconomic_data/population_estimates/county_projections.shtm.

Attachment 15: 2009 Total Pregnancies by County of Residence-Onslow County

		PREGNANCY OUTCOME												TOTAL PREGNANCIES			
		INDUCED ABORTIONS				LIVE BIRTHS				FETAL DEATHS							
		TOTAL	White	Minority	Unknown	TOTAL	White	Minority	Unknown	TOTAL	White	Minority	Unknown	TOTAL	White	Minority	Unknown
TOTAL ALL AGES		662	404	200	58	4,058	3,341	717	0	19	14	5	0	4,739	3,759	922	58
Ages 10 - 14		0	0	0	0	3	1	2	0	0	0	0	0	3	1	2	0
Ages 15 - 19		119	71	39	9	391	310	81	0	1	1	0	0	511	382	120	9
Ages 20 - 24		289	177	78	34	1,837	1,549	288	0	5	4	1	0	2,131	1,730	367	34
Ages 25 - 29		131	83	42	6	1,118	897	221	0	3	1	2	0	1,252	981	265	6
Ages 30 - 34		78	45	26	7	484	402	82	0	6	4	2	0	568	451	110	7
Ages 35 - 39		28	18	8	2	184	149	35	0	3	3	0	0	215	170	43	2
Ages 40 - 44		9	6	3	0	38	32	6	0	0	0	0	0	47	38	9	0
Ages 45 & UP		0	0	0	0	3	1	2	0	0	0	0	0	3	1	2	0
..... Age 9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
..... Age 10		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
..... Age 11		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
..... Age 12		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
..... Age 13		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
..... Age 14		0	0	0	0	3	1	2	0	0	0	0	0	3	1	2	0
..... Age 15		7	5	2	0	1	0	1	0	0	0	0	0	8	5	3	0
..... Age 16		7	2	4	1	20	10	10	0	0	0	0	0	27	12	14	1
..... Age 17		12	6	6	0	34	25	9	0	0	0	0	0	46	31	15	0
..... Age 18		30	20	7	3	97	76	21	0	1	1	0	0	128	97	28	3
..... Age 19		63	38	20	5	239	199	40	0	0	0	0	0	302	237	60	5
UNMARRIED TOTAL		364	206	132	26	767	462	305	0	6	4	2	0	1,137	672	439	26
Unmarried 10 - 14		0	0	0	0	3	1	2	0	0	0	0	0	3	1	2	0
Unmarried 15 - 19		85	48	36	1	161	101	60	0	0	0	0	0	246	149	96	1
Unmarried 20 - 24		148	82	47	19	326	210	116	0	3	2	1	0	477	294	164	19
Unmarried 25 - 29		78	46	31	1	191	97	94	0	1	0	1	0	270	143	126	1
Unmarried 30 - 34		33	15	14	4	56	34	22	0	0	0	0	0	89	49	36	4
Unmarried 35 - 39		12	9	2	1	22	12	10	0	1	1	0	0	35	22	12	1
Unmarried 40 - 44		3	3	0	0	7	7	0	0	0	0	0	0	10	10	0	0

	PREGNANCY OUTCOME												TOTAL PREGNANCIES			
	INDUCED ABORTIONS				LIVE BIRTHS				FETAL DEATHS							
	TOTAL	White	Minority	Unknown	TOTAL	White	Minority	Unknown	TOTAL	White	Minority	Unknown	TOTAL	White	Minority	Unknown
Unmarried 45 & UP	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	0
Unknown Marital Status	12	5	2	5	7	6	1	0	0	0	0	0	19	11	3	5

Source: NC Department of Health and Human Services, Division of Public Health, State Center for Health Statistics

