

2016 CURRITUCK COUNTY COMMUNITY HEALTH ASSESSMENT

Albemarle Regional Health Services, Vidant Bertie, Vidant Chowan, and Vidant Roanoke-Chowan Hospitals, The Outer Banks Hospital, Sentara Albemarle Medical Center, Three Rivers Healthy Carolinians, Gates Partners for Health, and Healthy Carolinians of the Albemarle

*Comprehensive
Secondary Data
Report with
Primary Data
Summary*

March, 2017

Dear Community Member,

Your partnership in the Community Health Assessment process is important to the health of our residents. Albemarle Regional Health Services, The Outer Banks Hospital, and Sentara Albemarle Medical Center continue to work together to provide this comprehensive report which illustrates the health status, health needs and improvements, as well as health resources in our communities. This document represents much time and effort by local health department staff, hospital staff, Healthy Carolinians members, and community members like you.

Factors such as the rural landscape of our counties and the diversity of our population continue to make the Albemarle region an exciting place to live, work, and learn, as well as create challenges in our systems of service delivery which drive the need for a continuum of programs. Through the Community Health Assessment process, we are allowed to analyze and prioritize our community's needs and strengths *with* the people of the seven counties.

Strategies are implemented to target needs identified in the 2016 Community Health Assessment priority health rankings selection in order to create increased opportunities for healthier outcomes in our communities. Relationships will continue to be formed and strengthened as we join together to address the needs. This document provides data and steps to ensure we empower our communities to seek available and potential resources.

Thank you for your continued interest in the health of our communities.

Sincerely yours,



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Albemarle Regional Health Services



Ronnie Sloan
President
The Outer Banks Hospital



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President
Sentara Albemarle Medical Center

ACKNOWLEDGMENTS

The Community Health Assessment (CHA) process requires much work and dedication from those who are committed to identifying and solving health problems within our communities to improve the quality of life for our residents. The first phase of this process is forming a CHA Leadership Team. It is essential that the CHA Team involve people who have significant influence in the county, as well as the people who are most affected by health problems. People from throughout the county must be mobilized during this process, therefore a broad representation of county residents, agencies, and organizations were invited to be a part of this team.

This document was developed by Albemarle Regional Health Services, in partnership with Sentara Albemarle Medical Center, Vidant Bertie Hospital, Vidant Chowan Hospital, Vidant Roanoke Chowan Hospital, and The Outer Banks Hospital as part of a local community health assessment process. We would like to thank and acknowledge several agencies for their contributions and support in conducting this health assessment:

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Vidant Roanoke Chowan Hospital*

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Independent public health consultants Sheila S. Pfaender and Annika Pfaender-Purvis provided secondary data collection and analysis and report development services for a comprehensive Community Health Assessment which is the source document from which this report was derived.

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INTRODUCTION

Local public health agencies in North Carolina (NC) are required to conduct a comprehensive Community Health Assessment (CHA) at least once every four years. The CHA is required of public health departments in the consolidated agreement between the NC Division of Public Health (NC DPH) and the local public health agency. Furthermore, a CHA is required for local public health department accreditation through the NC Local Health Department Accreditation Board (G.S. § 130A-34.1). As part of the US Affordable Care Act of 2011, non-profit hospitals are also required to conduct a community health needs assessment (CHNA) at least every three years. Recognizing that duplicate assessment efforts are a poor use of community resources, local health departments (LHDs) and non-profit hospitals across the state are developing models for collaboratively conducting the community health assessment process. For the Albemarle region, a partnership between Albemarle Regional Health Services and local hospitals has been a long-standing tradition, and the hospitals have helped fund and participate in previous community health assessments. This health assessment report is the culmination of the most recent partnership between Albemarle Regional Health Services (ARHS) and five regional hospitals: Vidant Bertie Hospital (VBER), Vidant Chowan Hospital (VCHO), Vidant Roanoke-Chowan Hospital (VROA), The Outer Banks Hospital (TOBH), and Sentara Albemarle Medical Center (SAMC).

In communities where there is an active Healthy Carolinians partnership, the CHA activity also usually includes that entity. Healthy Carolinians is “a network of public-private partnerships across North Carolina that shares the common goal of helping all North Carolinians to be healthy.” The members of local partnerships are representatives of the agencies and organizations that serve the health and human service needs of the local population, as well as representatives from businesses, communities of faith, schools and civic groups. In Currituck County, the local Healthy Carolinians coalition is Healthy Carolinians of the Albemarle, which also includes Camden, Pasquotank and Perquimans Counties.

The community health assessment, which is both a process and a document, investigates and describes the current health status of the community, the social factors impacting health, what has changed since the last assessment, and what still needs to change to improve the health of the community. The *process* involves the collection and analysis of a large range of data, including demographic, socioeconomic and health statistics, environmental data, and professional and public opinion. The *document* is a summary of all the available evidence and serves as a resource until the next assessment. The completed CHA serves as the basis for prioritizing the community’s health needs, and culminates in planning to meet those needs.

Albemarle Regional Health Services contracted with Sheila S. Pfaender, Public Health Consultant, and her team to assist in conducting the 2016 CHNA for the seven counties of the ARHS region, following the guidance provided by the *Community Assessment Guidebook: North Carolina Community Health Assessment Process*, published by the NC Office of Healthy Carolinians/Health Education and the NC State Center for Health Statistics (June 2014 revision). The assessment also adheres to the 2014 standards for community assessment stipulated by the NC Local Health Department Accreditation (NCLHDA) Program. An additional goal for this project was to meet the US Affordable Care Act/Internal Revenue Service Form 990 Schedule H requirements for not-for-profit hospitals in conducting a CHNA as cited in the December, 2014 Final Rule.

The ARHS Lead Regional CHA Coordinator worked with the consultant to develop a multi-phase plan for conducting the assessment. The phases included: (1) a research phase to identify, collect and analyze secondary demographic, socioeconomic, health and environmental data; (2) a data synthesis and analysis phase; (3) a period of data reporting and discussion among the project partners. In addition to this work, ARHS contracted with another vendor to assist with (4) a community input phase to elicit opinion and ideas regarding the assessment outcomes among community stakeholders. ARHS and its partners, particularly the Healthy Carolinians coalitions within the region worked on a final step: (5) a prioritization and decision-making phase. Upon completion of this work the CHNA partners and the community will have the tools they need to develop plans and activities that will improve the health and well-being of the people living in Currituck County.

ASSESSMENT METHODOLOGY

In order to learn about the specific factors affecting the health and quality of life of Currituck County residents, the CHNA data consultant tapped numerous readily available secondary data sources. For data on Currituck County demographic, economic and social characteristics sources included: the US Census Bureau; Log Into North Carolina (LINC); NC Office of State Budget and Management; NC Department of Commerce; Employment Security Commission of NC; NC Division of Aging and Adult Services; NC Department of Public Instruction; NC Department of Justice; NC Department of Juvenile Justice and Delinquency Prevention; NC Department of Administration; NC Division of Medical Assistance; NC Division of Child Development; NC State Board of Elections; NC Division of Health Services Regulation; the Cecil B. Sheps Center for Health Services Research; and the Annie E. Casey Foundation *Kids Count Data Center*. Local sources for socioeconomic data included: the Currituck County Department of Social Services; Currituck County Schools; and other Currituck County agencies and organizations. The consultant made every effort to obtain the most current data available at the time the report was prepared.

The primary source of health data for this report was the NC State Center for Health Statistics, including its County Health Data Books, Vital Statistics, and Cancer Registry units. Other health data sources included: US Centers for Disease Control and Prevention; NC DPH Epidemiology Section; NC Division of Mental Health, Developmental Disabilities and Substance Abuse Services; National Center for Health Statistics; Healthy North Carolina 2020; NC DPH Nutrition Services Branch; UNC Highway Safety Research Center; NC Department of Transportation; and the NC DPH Oral Health Section, as well as other *public domain* sources. *Local* health data from the county Health Department, county schools and emergency management services department were also accessed. Through the current ARHS partnership with the region's five hospitals, the consultant accessed de-identified hospital utilization data (primarily emergency department discharges and in-patient hospitalization discharges) that contributed greatly to the understanding of health issues in Currituck County.

Because in any community health assessment it is instructive to relate local data to similar data in other jurisdictions, Currituck County data is compared to like data describing the state of NC as a whole, as well as to data from Pamlico County, a state-recommended "peer county". Also used for comparison is data for the average measure of each parameter in the seven counties in the ARHS jurisdiction: Bertie County, Camden County, Chowan County, Currituck County, Gates County, Pasquotank County and Perquimans County. In some cases Currituck County data is compared to US-level data, or to Healthy People 2020 goals or other standardized measures. Where appropriate, trend data has been used to show changes in indicators over time, at least since the 2013 Currituck County CHA, but sometimes further back than that.

Environmental data were gathered from sources including: US Environmental Protection Agency; NC Department of Environment and Natural Resources Divisions of Air Quality, Waste Management, and Environmental Health; and NC State Laboratory of Public Health.

As an additional part of the CHNA process, ARHS and its partners also conducted community listening sessions (i.e., *primary data* collection) among members of the public and community leaders. A brief summary of listening session results is provided in this document, but since the listening sessions are not the work of the secondary data consultant, the full description of the methodologies and results of the listening sessions are presented in a separate document.

This report represents a topical synthesis of all the *secondary data* researched in connection with the 2016 ARHS CHNA project. It is intended to serve as the master secondary data resource for guiding community deliberations about the most important health issues in Currituck County and how to solve them.

It should be noted at the onset that the secondary data consultant thoroughly cites and personally vouches for all data sources in the public domain. Local data cites the name of the provider of the information, and readers should judge for themselves the authority of those sources. Finally, as is typical in all time-limited activities such as community health assessment, all data were mined at a point in time in the recent past, and may not represent present conditions. Website URLs, numbers, entity names, program titles, etc. that appear in the data may no longer be current.

This comprehensive report is available on-line in PDF format on the ARHS website at: <http://www.arhs-nc.org/>.

CHAPTER ONE: DEMOGRAPHIC DATA

GEOGRAPHY

Currituck County is found at the northern tip of the Outer Banks region of NC and is surrounded by the Currituck Sound, the Albemarle Sound, and the Atlantic Ocean. The county covers a total of 526 square miles, 262 on land and 264 in water (1,2).

The town of Currituck serves as the county seat. In addition to Currituck, the county is home to 19 other cities or towns (1,2).

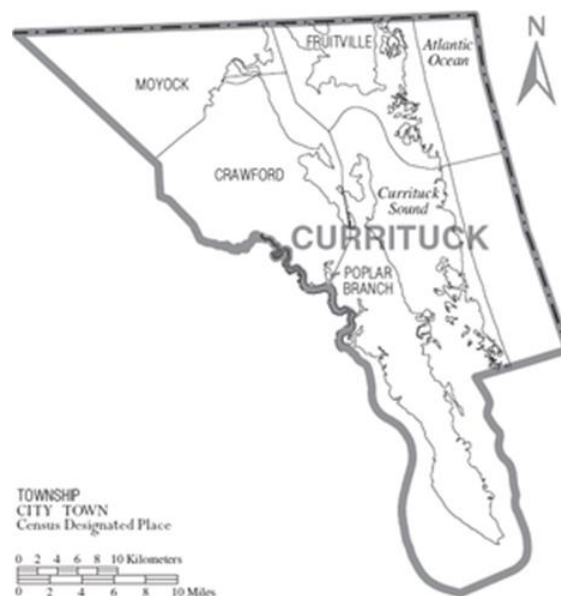
Dare County is adjacent to the southeast, Camden County to the west, Chesapeake and Virginia Beach, VA to the north, and the Atlantic Ocean to the east (1).

US Highway 158 runs through the county east to west, parallel to US Highway 58. NC 168 begins at an intersection with US 158 in Barco, where US 58 continues south towards Nags Head. NC 168 goes north into VA towards Norfolk and I-64. Southward, NC 168 runs down the spine of the Currituck County peninsula and is the gateway to the Outer Banks. I-95, a major north-south corridor, is approximately 100 miles to the west of the county (1).

The commercial airports nearest to Currituck County are the Norfolk International Airport in Norfolk, VA (approximately 48 miles) and the Newport News/Williamsburg International Airport in Newport News, VA (approximately 75 miles). There is a Greyhound bus stop just 15 miles away in Elizabeth City. The nearest Amtrak train station can be found in Norfolk, VA, 31 miles from the county seat (3,4,5).

Currituck County has a relatively mild climate. The average January temperature is 41 degrees and the average July temperature is 79 degrees. The average annual rainfall is 48 inches (6).

Figure 1. Map of Currituck County



HISTORY

Currituck County, located on the northeastern coast of NC between Kitty Hawk, NC and Chesapeake, VA, was established in 1668. Currituck was one of the first areas to be settled in the United States, is an original NC county, and was one of the five original ports in the state. In 1668, a large tract of land known as Carolina was given to eight men. These Lord Proprietors set up a government with the inhabited part known as the County of Albemarle. This county was divided into four precincts that same year: Currituck, Pasquotank, Perquimans and Chowan. William Sears was sent to the Provincial Assembly from Currituck in 1677, thus beginning a long line of involvement in Colonial matters from Currituck (7,8,9).

The first Native Americans to live in the Outer Banks area were the Yeopim and Pasquotank. They moved to the east as settlers began to immigrate to present-day Currituck County. The county's name comes from an Indian term meaning "the land of the wild geese". The fertile, rich soil, abundance of nature, and climate is what originally drew settlers to this area (8,9).

Currituck County's original courthouse was constructed in the early 1700s and was replaced in 1842. Remodeled in 1898, it now houses the governmental administrative offices. Two of the oldest buildings in the state are the Old Currituck Jail and Historic Courthouse, which the Colonial Legislature gave permission to build in 1776 (7).

By the early 1800s Currituck County had become known for its fishing villages and peaceful way of life. In 1859 the Albemarle Chesapeake Waterway was opened and provided vital passage from Maine to Florida. Today it is known as the Intracoastal Waterway and separates Currituck County's southern mainland from the northern mainland. In the late 1800s the county obtained a reputation as a "sportsman's paradise" as it attracted wealthy industrialists to its abundance of hunt clubs and wildlife. Several hunt clubs remain from this era, including the Pine Island Club, the Currituck Shooting Club, and the Whalehead Club. The Whalehead Club, often referred to as the "Crown Jewel of the Outer Banks," is still one of the county's tourist attractions. It was originally constructed in 1925 by Edward C. Knight, Jr. as a private residence for his wife and himself. In 1992, the Whalehead Club along with more than 28 acres of land were purchased by Currituck County and is now open seasonally for public tours, and the grounds are available for special events (7,8).

Religion and education played an important part in the lives of the county's people. Two examples of the county's interest in education were the Indian Town Academy (1761) and the Currituck Seminary of Learning (1789). According to a survey conducted in 1731, the majority of people in the Albemarle region were Quakers and Ana-Baptists. The first Methodist sermon in NC was preached at the Currituck County courthouse (9).

An important native son of Currituck, Thomas J. Jarvis, was appointed to the governorship after Zebulon Vance left to serve in the United States Senate. Governor Jarvis was responsible for incorporating several policies in support of NC farmers, expanding the state's education system, and eliminating state government waste. Jarvis also helped to establish the East Carolina University by being an advocate for a teacher's training school (8).

Currituck County was active during the Revolutionary War with beach raids and making supplies for the Continental Army. Veterans of the American Revolution from Currituck include Sam Jarvis, John Nicholson, Dennis Dozier, Hollowell Williams, Taylor Jones, Solomon Perkins, Asabel Simmonds, John Pointer, and William and Joseph Ferebee. The Jarvis Co., 10th NC

Continental Troops were on the line at Valley Forge. Currituck's citizens have been known for their independence and aided the nation in gaining its independence. Currituckian Samuel Ferebee was present to accept and ratify the United States Constitution for the State of NC. Currituck also sent numerous natives to serve during the Civil War, including Colonel Henry Shaw, for whom Shawboro was named. Currituck recovered quickly following the Civil War due to agriculture and the duck hunting industry, which caused hunting clubs to be built throughout the county (9).

The county has much to offer tourists and recreationalists. One highlight is the Currituck County Rural Center, which encourages education, cultural, and recreational enrichment. The center offers horse-riding arenas, a playground, stocked fishing ponds, picnic areas, a boardwalk and canoe and kayak launches. The Outer Banks area of the county is rich with great beaches, historic sites, shopping, dining and golfing. USA Today selected Corolla as one of the top ten beaches in the nation and described Currituck beaches as some of the "best undiscovered beaches on the East Coast." The Corolla Wild Horses have run free on Currituck's Outer Banks for more than 400 years. The Spanish mustangs can still be seen roaming the beaches. The historical pedestrian footbridge, boathouse, Currituck Beach Lighthouse and Light Keeper's House can be found within the Currituck Heritage Park which also includes the Whalehead Club and the Outer Banks Center for Wildlife Education. The Currituck Beach Lighthouse, first lit in the mid-1800s, warned ships hugging the chain of barrier islands along the NC Coast. It is made up of over one million bricks and towers at a height of 163 feet. Currituck's mainland is full of antique shops, numerous other shopping options, roadside markets, the Historic Currituck Courthouse and Old Currituck Jail. There are also six 18-hole golf courses to be enjoyed. There is also the Currituck Banks Coastal Reserve, an example of an undisturbed barrier island with foot and jeep trails available. The county's climate makes it ideal for year-round recreation (7).

Currituck County presents a blend of a past rich in heritage and a vision for future progress. It is now one of the fastest growing counties in NC, with growth highlighted by a balance between environment and development (7).

POPULATION CHARACTERISTICS

General Population Characteristics

The following general population characteristics of Currituck County and its peer county were based on 2014 US Census data presented in the table below.

- As of the 2014 US Census estimate, the population of Currituck County was 24,976.
- The population of Currituck County was approximately evenly divided between males and females, which is the typical pattern.
- The overall median age in Currituck County was 42.6, 1.0 years younger than the median age for the seven-county ARHS region and 8.1 years younger than Pamlico County, an assigned peer county. The median age in Currituck County was 4.4 years older than the median age for NC as a whole.

**Table 1. General Demographic Characteristics
(2014 US Census Bureau Estimate)**

Location	Total Population	Number Males	% Population Male	Median Age Males	Number Females	% Population Female	Median Age Females	Overall Median Age
Currituck County	24,976	12,406	49.7	42.3	12,570	50.3	43.0	42.6
Regional Average	19,258	9,467	49.2	42.0	9,791	50.9	45.1	43.6
Pamlico County	12,948	6,641	51.3	48.5	6,307	48.7	52.6	50.7
State of NC	9,943,964	4,844,593	48.7	36.7	5,099,371	51.3	39.7	38.2

Note: percentages by gender are calculated.

Source: US Census Bureau, American Fact Finder, 2014 Population Estimates. PEPAGESEX: Annual Estimates of the Resident Population for Selected Age Groups by Sex for the United States, States, Counties, and Puerto Rico Commonwealth and Municipios: April 1, 2010 to July 1, 2014. (Geographies as noted) <http://factfinder.census.gov>.

Population by Township

Currituck County is divided into four townships: Crawford Township, Fruitville Township, Moyock Township, and Poplar Branch Township. The following population information was derived from 2014 US Census data presented in the following table.

- Poplar Branch Township was the largest township by population in Currituck County, accounting for over 34% of the county's population.
- Crawford Township was the second-largest township in Currituck County, with approximately 30% of the county's population.
- Fruitville Township was the smallest township in Currituck County, and was home to only about 7% of the overall county population.
- Moyock and Poplar Branch Townships were the youngest townships in the county in terms of median age: approximately 41 years.
- Fruitville Township was the oldest township in the county, with a median age of 45.4 years.

**Table 2. Population by Township, Currituck County
(2014 US Census Bureau Estimate)**

Township	No. of Persons	% of County Population	Median Age
Crawford Township	7,195	29.7	43.9
Fruitville Township	1,707	7.1	45.4
Moyock Township	6,965	28.8	41.1
Poplar Branch Township	8,345	34.5	41.2
Currituck County Total	24,212	100.0	42.2

Source: US Census Bureau, American Fact Finder, 2014 ACS 5-year estimates, Table S0101: Age and Sex. Geographies as noted. <http://factfinder.census.gov>.

Population Growth

The next table presents historical population counts and population projections from 1980 through 2030. From this data, it appears that the Currituck County population increased in every decade since 1980. The highest rate of growth in the county (32.4%) occurred in the decade 1990-2000.

**Table 3. Decadal Population Growth
(1980-2030 [Projected])**

Location	Number of Persons and Percent Change										
	1980	1990	% Change 1980-1990	2000	% Change 1990-2000	2010	% Change 2000-2010	2020 (Projection)	% Change 2010-2020	2030 (Projection)	% Change 2020-2030
Currituck County	11,089	13,736	23.9	18,190	32.4	23,547	29.5	27,533	16.9	33,773	22.7
<i>Regional Average</i>	13,908	14,941	7.4	16,550	10.8	19,416	17.3	19,673	1.3	20,377	3.6
Pamlico County	10,398	11,368	9.3	12,934	13.8	13,144	1.6	13,293	1.1	13,561	2.0
State of NC	5,880,095	6,632,448	12.8	8,046,485	21.3	9,535,483	18.5	10,573,611	10.9	11,609,883	9.8

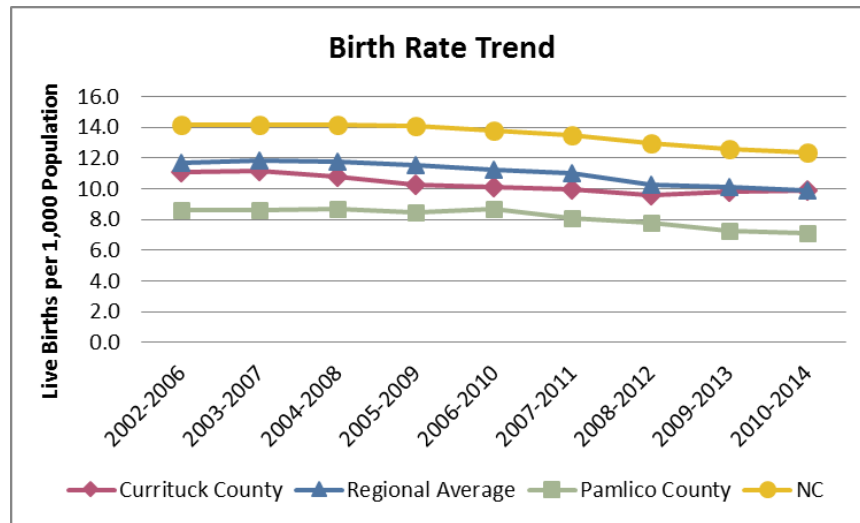
Note: percentage change is calculated.

Source: Log Into North Carolina (LINC) Database, Topic Group Population and Housing, Total Population, Population (Data Item 5001); http://data.osbm.state.nc/pls/linc/dyn_linc_main.show.

Birth Rate

Overall population growth is a function both of increase (via births and in-migration) and decrease (via deaths and out-migration). The following figure illustrates that the birth rate is declining in NC and all three other jurisdictions in the comparison.) In Currituck County, the birth rate decreased from 11.2 live births per 1,000 population in the 2002-2006 aggregate period to 9.9 live births per 1,000 population in the 2010-2014 aggregate period, a decrease of 12%. The birth rate for NC exceeded the comparable rates in the other jurisdictions for every period cited.

Figure 2. Birth Rate Trend, Live Births per 1,000 Total Population (Five-Year Aggregates, 2002-2006 through 2010-2014)



Source: NC State Center for Health Statistics, Health Data, County Level Data, County Health Databooks 2008 through 2016. <http://www.schs.state.nc.us/schs/data/databook/>.

Population Density

The Currituck County population *increased* overall in density between 1980 and 2010. In every period cited in the table below, Pamlico County was the least densely populated jurisdiction and the state the most densely populated jurisdiction among those being compared.

Table 4. Decadal Population Density (1980-2030 [Projected])

Location	Persons per Square Mile					
	1980	1990	2000	2010 (Estimate)	2020 (Projection)	2030 (Projection)
Currituck County	43.39	52.49	69.51	101.39	52.29	64.13
<i>Regional Average</i>	<i>50.91</i>	<i>55.99</i>	<i>62.72</i>	<i>75.55</i>	<i>55.73</i>	<i>57.50</i>
Pamlico County	30.52	33.74	38.39	39.82	23.45	23.93
State of NC	120.39	136.14	165.19	191.93	196.47	215.72

Source: Log Into North Carolina (LINC) Database, Topic Group Population and Housing, Total Population, Population Density (Data Item 5004); http://data.osbm.state.nc.us/pls/linc/dyn_linc_main.show.

Race and Ethnicity

The population of Currituck County is less racially diverse than both the ARHS region and NC as a whole. For example, according to 2014 data from the US Census Bureau cited below, the non-white population in Currituck County was approximately 10% of the total population, a proportion only one-third the comparable proportion in NC as a whole (30%) and slightly less than less than one-third the comparable proportion for the region (35%). The non-white population in Currituck County was also smaller in proportion to the non-white population in Pamlico County (23%).

According to data in the following table, in Currituck County:

- Whites composed 89.6% of the total population; regionally the comparable figure was 64.8% and statewide the figure was 69.6%.
- Blacks/African Americans composed 6.6% of the total population; regionally the comparable figure was 31.8% and statewide the figure was 21.5%.
- American Indians and Alaskan Natives composed 0.5% of the total population; regionally the comparable figure was 0.3% and statewide the figure was 1.2%.
- Asians, Native Hawaiians and Other Pacific Islanders composed 0.4% of the total population; regionally the comparable figure was 1.0% and statewide the figure was 2.4%.
- Hispanics/Latinos of any race composed 3.3% of the total population; regionally the comparable figure was 3.0% and statewide the figure was 8.7%.

**Table 5. Population Distribution by Race/Ethnicity
(US Census Bureau 5-Year Estimate, 2010-2014)**

Location	Total	Number and Percent													
		White		Black or African-American		American Indian and Alaskan Native		Asian, Native Hawaiian and Other Pacific Islander		Some Other Race		Two or More Races		Hispanic or Latino of Any Race	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Currituck County	24,212	21,698	89.6	1,589	6.6	114	0.5	87	0.4	151	0.6	573	2.4	798	3.3
<i>Regional Average</i>	19,334	12,534	64.8	6,146	31.8	64	0.3	192	1.0	92	0.5	306	1.6	584	3.0
Pamlico County	13,062	10,036	76.8	2,497	19.1	132	1.0	108	0.8	36	0.3	253	1.9	428	3.3
<i>State of NC</i>	9,750,405	6,784,901	69.6	2,093,389	21.5	113,798	1.2	237,913	2.4	293,865	3.0	226,539	2.3	848,597	8.7

Source a a a b a b a b a b a b a b c b

a - US Census Bureau, American Fact Finder, 2014 ACS 5-year estimates. Table B02001: Race. (Geographies as noted).

<http://factfinder.census.gov>

b - Percentages were calculated

c - US Census Bureau, American Fact Finder, 2014 ACS 5-year estimates. Table B03003: Hispanic or Latino Origin. (Geographies as noted). <http://factfinder.census.gov>.

Race and Ethnicity by Township

The following information about racial and ethnic population diversity at the township level in Currituck County was derived from 2014 US Census data presented in the table below.

- All townships in Currituck County were predominately white.
- Poplar Branch Township was the township with the largest *number* of whites, 7,465; this figure represented 30.8% of the total county population and 34.4% of all the white persons in the county.
- Crawford Township was the township with the largest *number* of Black/African Americans, 583; this figure represented 2.4% of the total county population and 36.7% of all Black/African American persons in the county.
- Poplar Branch Township was the township with the largest *number* of Hispanics/Latinos, 333; this figure represented 1.4% of the total county population and 41.7% of all Hispanic/Latino persons in the county.

**Table 6. Population by Race/Ethnicity, by Township, Currituck County
(US Census Bureau 5-Year Estimate, 2010-2014)**

Township	Persons Self-Identifying as of One Race														
	Total Population	White		Black or African American		American Indian and Alaska Native		Asian, Native Hawaiian or Other Pacific Islander		Some Other Race		Two or More Races		Hispanic or Latino (of any race)	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Crawford Township	7,195	6,420	26.5	583	2.4	0	0.0	49	0.2	0	0.0	143	0.6	197	0.8
Fruitville Township	1,707	1,699	7.0	0	0.0	0	0.0	3	0.0	0	0.0	5	0.0	6	0.0
Moyock Township	6,965	6,114	25.3	435	1.8	59	0.2	26	0.1	13	0.1	318	1.3	262	1.1
Poplar Branch Township	8,345	7,465	30.8	571	2.4	55	0.2	9	0.0	138	0.6	107	0.4	333	1.4
Currituck County Total	24,212	21,698	89.6	1,589	6.6	114	0.5	87	0.4	151	0.6	573	2.4	798	3.3

Note: percentages are calculated from population figures. Percentage figures describe a racial or ethnic group as a proportion of the overall county population.

Sources: US Census Bureau, American Fact Finder, 2014 ACS 5-year estimates. Table B02001: Race. (Geographies as noted). <http://factfinder.census.gov>, and US Census Bureau, American Fact Finder, 2014 ACS 5-year estimates. Table B03003: Hispanic or Latino Origin. (Geographies as noted). <http://factfinder.census.gov>.

Age

The following information about the age (and gender) distribution of the Currituck County population was derived from 2014 US Census Bureau estimates presented in the next table. Generally, these data demonstrate that Currituck County had a population distribution skewed slightly *older* than the distribution for the state as a whole.

- In terms of both numbers (2,224) and percent (8.9%), the largest segment of the population in Currituck County was the age group 50-54. This differed from NC as a whole, where the segment composing the largest number and percent (7.2%) of the state's population was age group 20-24.
- Persons 65 years of age or older composed 15.0% of the population in Currituck County, but 14.6% of the population of NC.
- Persons 19 years of age and younger composed 24.4% of the population in Currituck County, but 25.8% of the population of NC.

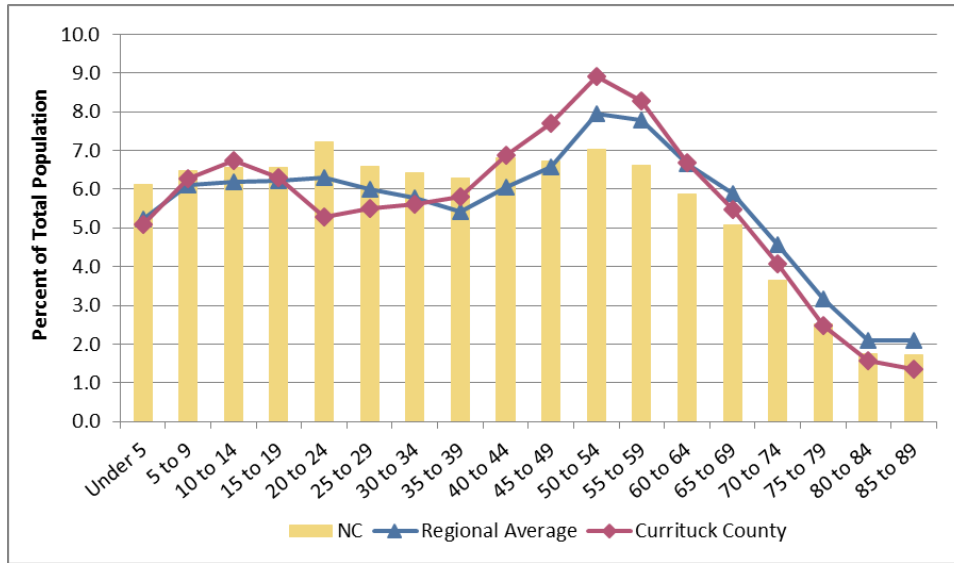
**Table 7. Population Distribution by Age and Gender, Number and Percent
(US Census Bureau Estimate, 2014)**

Age Group	Currituck County						North Carolina					
	No. in Population			% of Total Population			No. in Population			% of Total Population		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
All ages	24,976	12,406	12,570	100.0	49.7	50.3	9,943,964	4,844,593	5,099,371	100.0	48.7	51.3
Under 5	1,273	648	625	5.1	2.6	2.5	607,476	310,355	297,121	6.1	3.1	3.0
5 to 9	1,568	779	789	6.3	3.1	3.2	644,895	328,815	316,080	6.5	3.3	3.2
10 to 14	1,684	819	865	6.7	3.3	3.5	651,864	332,271	319,593	6.6	3.3	3.2
15 to 19	1,575	819	756	6.3	3.3	3.0	652,941	333,645	319,296	6.6	3.4	3.2
20 to 24	1,323	711	612	5.3	2.8	2.5	718,261	376,049	342,212	7.2	3.8	3.4
25 to 29	1,373	668	705	5.5	2.7	2.8	654,475	324,122	330,353	6.6	3.3	3.3
30 to 34	1,401	685	716	5.6	2.7	2.9	637,775	312,509	325,266	6.4	3.1	3.3
35 to 39	1,453	715	738	5.8	2.9	3.0	625,513	305,953	319,560	6.3	3.1	3.2
40 to 44	1,719	884	835	6.9	3.5	3.3	677,245	331,038	346,207	6.8	3.3	3.5
45 to 49	1,921	929	992	7.7	3.7	4.0	668,371	327,819	340,552	6.7	3.3	3.4
50 to 54	2,224	1,125	1,099	8.9	4.5	4.4	699,194	338,657	360,537	7.0	3.4	3.6
55 to 59	2,070	1,059	1,011	8.3	4.2	4.0	658,373	314,339	344,034	6.6	3.2	3.5
60 to 64	1,668	800	868	6.7	3.2	3.5	584,219	273,695	310,524	5.9	2.8	3.1
65 to 69	1,365	693	672	5.5	2.8	2.7	505,469	236,107	269,362	5.1	2.4	2.7
70 to 74	1,016	489	527	4.1	2.0	2.1	362,314	165,643	196,671	3.6	1.7	2.0
75 to 79	617	306	311	2.5	1.2	1.2	251,577	109,253	142,324	2.5	1.1	1.4
80 to 84	391	163	228	1.6	0.7	0.9	173,620	69,325	104,295	1.7	0.7	1.0
85 and older	335	114	221	1.3	0.5	0.9	170,382	54,998	115,384	1.7	0.6	1.2

Source: US Census Bureau, American Fact Finder, 2014 Population Estimates. PEPAGESEX: Annual Estimates of the Resident Population for Selected Age Groups by Sex for the United States, States, Counties, and Puerto Rico Commonwealth and Municipios: April 1, 2010 to July 1, 2014. <http://factfinder.census.gov>. (Geographies as noted) <http://factfinder2.census.gov>. Percentages are calculated.

The following figure compares the age distribution of the NC population to the age distribution of the populations in Currituck County and the ARHS Region. In both Currituck County and the region, there was a smaller proportion of young persons and a larger proportion of older persons than demonstrated in the state age distribution profile.

Figure 3. Population Distribution by Age, Currituck County, ARHS Region and NC (US Census Bureau Estimate, 2014)



Source: US Census Bureau, American Fact Finder, 2014 Population Estimates. PEPAGESEX: Annual Estimates of the Resident Population for Selected Age Groups by Sex for the United States, States, Counties, and Puerto Rico Commonwealth and Municipios: April 1, 2010 to July 1, 2014. <http://factfinder.census.gov>. (Geographies as noted) <http://factfinder2.census.gov>.

Age by Township

The discussion below is based on the 2014 US Census Bureau Estimates presented in the table below:

- Moyock Township was the township with the highest proportion of persons under the age of 18 (27.5%).
- Poplar Branch Township had the highest proportion of persons ages 65 and older (15.8%).

Table 8. Population by Age, by Township, Currituck County (US Census Bureau 5-Year Estimate, 2010-2014)

Township	Percent of Total Population						
	<18	18-24 Years	25-34 Years	35-44 Years	45-54 Years	55-64 Years	65 Years and Over
Crawford Township	21.8	7.7	9.1	12.3	18.0	15.9	15.1
Fruitville Township	17.4	7.9	11.3	12.8	16.2	19.1	15.5
Moyock Township	27.5	6.4	8.1	14.2	20.5	14.4	9.0
Poplar Branch Township	20.7	7.5	13.7	14.5	15.4	12.6	15.8
Currituck County Total	22.8	7.3	10.5	13.7	17.7	14.6	13.6

Source: US Census Bureau, American FactFinder, 2014 ACS 5-year Estimates. Table S0101 Age and Sex (geographies as listed); <http://factfinder2.census.gov>. Some age groups calculated.

Elderly Population

Because the proportion of the Currituck County population age 65 and older is slightly larger than the proportion of that age group statewide, it merits closer examination. The population segment age 65 and older often requires more and different health and social services than the rest of the population, and understanding how that population will change in coming years will be an important consideration in planning to meet the future health and human service needs of the community.

The following information regarding the elderly population in Currituck County was extracted from the multi-part table below, which was developed from 2000 and 2010 US Census figures and current projections for the years 2020 and 2030 from the NC Office of State Budget and Management.

- The proportion of every age group in Currituck County age 65 and older will increase through the year 2030.
- Though all segments of the elderly population will grow, the segment expected to grow by the largest percentage in the twenty years between 2010 and 2030 is the age group 75-84, which is predicted to grow by 81% over that period, from 3.6% to 6.5% of the total county population.
- The segment of the population expected to grow by the second largest percentage between 2010 and 2030 is the group aged 65-74, which is predicted to grow by 62% over that period, from 8.1 % to 13.1% of the total county population.
- The segment of the Currituck County population age 65 and older is projected to total 7,197 persons by 2030.

Table 9. Growth Trend for the Elderly (Age 65 and Older) Population, by Decade (2000 through 2030)

Location	2000 Census Data								
	Total Population (2000)	# Population Age 65 and Older	% Population Age 65 and Older	# Age 65-74	% Age 65-74	# Age 75-84	% Age 75-84	# Age 85+	% Age 85+
Currituck County	18,190	2,186	12.0	1,310	7.2	674	3.7	202	1.1
<i>Regional Total</i>	116,155	17,502	15.1	9,504	8.2	6,011	5.2	1,987	1.7
<i>Regional Average</i>	16,594	2,500	15.3	1,358	8.4	859	5.2	284	1.7
Pamlico County	12,934	2,429	18.8	1,455	11.2	722	5.6	252	1.9
State of NC	8,049,313	969,048	12.0	533,777	6.6	329,810	4.1	105,461	1.3
Source	1	1	1	1	5	1	5	1	5

Location	2010 Census Data								
	Total Population (2010)	# Population Age 65 and Older	% Population Age 65 and Older	# Age 65-74	% Age 65-74	# Age 75-84	% Age 75-84	# Age 85+	% Age 85+
Currituck County	23,547	3,041	12.9	1,899	8.1	854	3.6	288	1.2
<i>Regional Total</i>	135,913	21,119	15.5	12,006	8.8	6,579	4.8	2,534	1.9
<i>Regional Average</i>	19,416	3,017	16.1	1,715	9.3	940	4.9	362	1.9
Pamlico County	13,144	2,857	21.7	1,655	12.6	929	7.1	273	2.1
State of NC	9,535,483	1,234,079	12.9	697,567	7.3	389,051	4.1	147,461	1.5
Source	2	2	2	2	5	2	5	2	5

**Table 9. Growth Trend for the Elderly (Age 65 and Older) Population, by Decade
(2000 through 2030)
Continued**

Location	2020 (Projected)								
	Total Projected Population	# Population Age 65 and Older	% Population Age 65 and Older	# Age 65-74	% Age 65-74	# Age 75-84	% Age 75-84	# Age 85+	% Age 85+
Currituck County	28,334	4,762	16.8	3,023	10.7	1,390	4.9	349	1.2
<i>Regional Total</i>	138,650	27,070	19.5	15,597	11.2	8,460	6.1	3,013	2.2
<i>Regional Average</i>	19,807	3,867	20.6	2,228	11.7	1,209	6.6	430	2.4
Pamlico County	13,293	3,955	29.8	2,168	16.3	1,286	9.7	501	3.8
<i>State of NC</i>	10,574,718	1,778,807	16.8	1,056,828	10.0	530,540	5.0	191,439	1.8
Source	3	3	5	3	5	3	5	3	5

Location	2030 (Projected)								
	Total Projected Population	# Population Age 65 and Older	% Population Age 65 and Older	# Age 65-74	% Age 65-74	# Age 75-84	% Age 75-84	# Age 85+	% Age 85+
Currituck County	33,773	7,197	21.3	4,430	13.1	2,188	6.5	579	1.7
<i>Regional Total</i>	142,641	33,125	23.2	18,048	12.7	11,082	7.8	3,995	2.8
<i>Regional Average</i>	20,377	4,732	24.4	2,578	13.0	1,583	8.3	571	3.2
Pamlico County	13,561	4,442	32.8	2,072	15.3	1,678	12.4	692	5.1
<i>State of NC</i>	11,609,883	2,314,948	19.9	1,256,441	10.8	792,733	6.8	265,774	2.3
Source	4	4	5	4	5	4	5	4	5

1 - US Census Bureau, American FactFinder. Profile of General Demographic Characteristics: 2000 (DP-1), SF1; <http://factfinder2.census.gov>.

2 - US Census Bureau, American FactFinder. Profile of General Population and Housing Characteristics: 2010 (DP-1); website: <http://factfinder2.census.gov>.

3 - NC Office of State Budget and Management, Facts and Figures, County Projections. Age, Race and Sex Projections. Age Groups - Total: July 2020 - Totals. http://www.osbm.nc.gov/demog/countytotals_standardagegroups.

4 - NC Office of State Budget and Management, Facts and Figures, County Projections. Age, Race and Sex Projections. Age Groups - Total: July 2030 - Totals. http://www.osbm.nc.gov/demog/countytotals_standardagegroups.

5 - Percentages are calculated using age group population as numerator and total population as denominator.

Demographic Characteristics of the Elderly Population

The next table summarizes a variety of data describing the educational and financial status of the population age 65 and older. Among the jurisdictions presented for comparison in the table, the elderly population in Currituck County had:

- the second-lowest proportion with less than a high school diploma or GED (20.0%);
- the second-lowest proportion with a graduate or professional degree (17.0%);
- the second-lowest proportion living below 100% poverty (5%);
- the second-lowest proportion living between 100% and 199% poverty (20.3%);
- the lowest proportion living alone (21.7%);
- the highest proportion in the labor force (18.9%); and
- the highest median household income (\$45,234), \$10,210 higher than the NC average.

In addition, according to US Census Bureau estimates, 34.3% of the Currituck County population age 65 or older had some sort of disability (10).

Table 10. Demographic Characteristics of the Population Age 65+ (US Census Bureau Estimate, 2014)

Location	% with Less than HS Diploma	% with Graduate or Professional Degree	% Below Poverty Level	% in 100% or 199% poverty level	% Homeowners	% Living Alone	% Persons Age 65+ in Labor Force	Median Household Income Householders Age 65+
Currituck County	20.0	17.0	5.0	20.3	87.7	21.7	18.9	\$45,234
<i>Regional Average</i>	28.0	15.0	11.5	26.9	87.3	25.2	14.2	\$36,210
Pamlico County	19.2	21.4	5.9	18.4	88.9	22.3	14.4	\$39,917
<i>State of NC</i>	22.3	21.6	9.9	24.4	81.7	28.0	15.7	\$35,024

Source: NC Division of Aging and Adult Services. Data Reports. County Aging Profiles. https://ncdhhs.s3.amazonaws.com/s3fs-public/documents/files/county-aging-profiles_0.pdf.

Non-English Speaking Population

The foreign-born population in a community is one that potentially does not speak English, and so is of concern to service providers.

In NC, the greatest proportion of the increase in foreign-born persons is represented by immigrants of Hispanic origin; however, statewide there has also been an influx of foreign-born immigrants from Southeast Asia.

According to US Census Bureau estimates summarized in the table below:

- There were 1,025 foreign-born residents residing in Currituck County in 2014. Using a base 2014 county population figure of 24,976, foreign-born residents made up 4.1% of the total county population at that time.
- Since 1990, the largest influx of foreign-born persons in Currituck County—488 people, or 48% of the total foreign born population in 2014—arrived before 1990.

Table 11. Growth of the Foreign-Born Population (Before 1990 through 2014)

Location	Number of Persons Arriving				
	Total	Before 1990	1990-1999	2000-2009	After 2010
Currituck County	1,025	488	214	287	36
<i>Regional Total</i>	4,680	2,125	831	1,577	147
<i>Regional Average</i>	669	304	119	225	21
Pamlico County	653	209	198	199	47
<i>State of NC</i>	834,327	225,160	241,832	324,570	42,765

Source: US Census Bureau, American Fact Finder, 2014 ACS 5-Year Estimates, Table B05005: Year of Entry by Citizenship Status in the United States. <http://factfinder2.census.gov>.

Linguistic Isolation

“Linguistic isolation”, reflected as an inability to communicate because of a lack of language skills, can be a barrier preventing foreign-born residents from accessing needed services. The US Census Bureau tracks linguistically isolated households according to the following definition:

A linguistically isolated household is one in which no member 14 years and over (1) speaks only English, or (2) speaks a non-English language and speaks English “very well”. In other words, all members 14 years old and over have at least some difficulty with English.

The following information about linguistically isolated households is derived from the 2010-2014 five-year US Census Bureau estimates presented in the table below.

- Of the 22,926 persons five years old and older in Currituck County in the period cited, an estimated 2.8% (642 persons) spoke a language other than English. Of these, an estimated 24.1% (155 persons) were linguistically isolated.
- The largest *number* (152) and *proportion* (36.8%) of linguistically isolated persons in Currituck County in the period cited occurred within the Spanish-speaking population.

**Table 12. Household Language by Linguistic Isolation
(US Census Bureau 5-Year Estimate, 2010-2014)**

Location	Total Population 5 Years and Older	Spanish Speakers			Other Indo-European Languages			Asian & Pacific Island Languages			Other Languages		
		% of Population	% Speaking English Very Well	% Speaking English less than Very Well	% of Population	% Speaking English Very Well	% Speaking English less than Very Well	% of Population	% Speaking English Very Well	% Speaking English less than Very Well	% of Population	% Speaking English Very Well	% Speaking English less than Very Well
Currituck County	22,926	1.8	63.2	36.8	0.9	98.6	1.4	0.0	0.0	0.0	0.1	100.0	0.0
Regional Average	18,095	1.8	47.8	50.8	0.8	87.3	12.7	0.7	33.6	37.9	0.1	57.1	14.3
Pamlico County	12,525	3.8	50.4	49.6	0.9	54.5	45.5	1.0	88.5	11.5	0.3	78.4	21.6
State of NC	9,132,159	7.4	56.5	43.5	1.6	75.6	24.4	1.5	56.7	43.3	0.5	71.8	28.2

Source: US Census Bureau, American Fact Finder, Table B16002: Household Language by Linguistic Isolation, 2014 American Community Survey 5-Year Estimates. <http://factfinder.census.gov>.

Age Distribution of the Latino Population

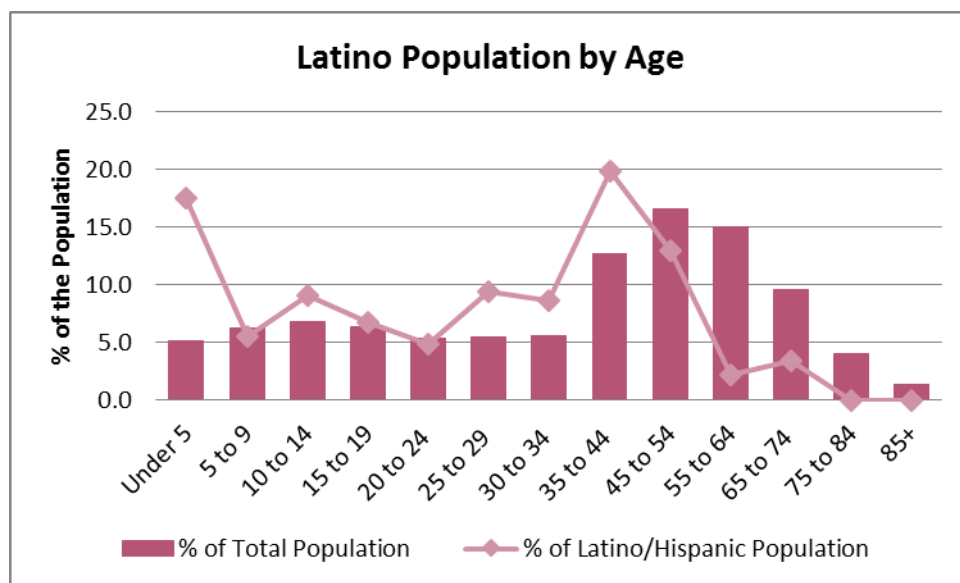
Since the Hispanic/Latino population is the principal linguistically-isolated group in Currituck County, further knowledge of the characteristics of this group is helpful in anticipating service needs.

In Currituck County, as in other counties in NC, a major impetus for immigration—at least until the economic downturn that began in 2008—was the prospect of employment opportunities. One would expect then that the age groups predominant in this population would be those in their “prime” for work, especially the physical labor-type jobs in construction, agricultural, and fishing industries available to them in the coastal region of the state. The spouses of these workers would be in the midst of their childbearing years, so it might also be expected that this population would have children.

The following figure presents a graphic profile of the 2014 US Census Bureau estimates for population by age group for the total Currituck County population compared to the same profile for the Hispanic/Latino population.

- The age profile of the Hispanic/Latino population in Currituck County displays peaks in the age groups under 5, 10-19, and 25-44, in proportions significantly higher than in the overall county population. There were lower proportions for Hispanics/Latinos than for the general population in all the other age groups.

Figure 4. Age Distribution of Overall and Latino Populations in Currituck County, Percent (US Census Bureau 5-Year Estimate, 2010-2014)



Source: US Census Bureau, American Fact Finder, 2014 ACS 5-Year Estimates. Table B01001: Sex by Age (Hispanic or Latino) (geographies as noted); <http://factfinder2.census.gov>. Percentages are calculated

Special Populations

Military Veterans

A population group that sometimes needs special health services is military veterans. The following table summarizes information about that population for the aggregate period 2010-2014.

The population in Currituck County had the *largest* proportion of military veterans among the jurisdictions under comparison. Veterans composed 14.6% of Currituck County’s overall adult civilian population in the period cited.

Currituck County was home to the *youngest* veteran population among its peer, region and state comparators: 38.6% of the veterans in Currituck County were age 65 or older, compared to 57.7% in Pamlico County, 40.9% in the region, and 40.6% statewide. Nationally, 45.1% of the veteran population was age 65 or older.

**Table 13. Veteran Status of Population
(US Census Bureau 5-Year Estimate, 2010-2014)**

Location	Civilian Population 18 years and over					% Veterans by Age				
	Total	# Non-Veterans	% Non-Veterans	# Veterans	% Veterans	18 to 34 years	35 to 54 years	55 to 64 years	65 to 74 years	75 years and over
Currituck County	18,536	15,821	85.4	2,715	14.6	5.9	32.4	23.1	25.6	13.0
<i>Regional Total</i>	104,388	91,634	87.8	12,754	12.2	n/a	n/a	n/a	n/a	n/a
<i>Regional Average</i>	14,913	13,091	87.5	1,822	12.5	6.4	30.6	22.0	22.8	18.1
Pamlico County	10,810	9,441	87.3	1,369	12.7	3.3	19.6	19.4	30.0	27.7
State of NC	7,380,446	6,670,975	90.4	709,471	9.6	9.0	28.0	22.4	21.7	18.9
National Total	239,305,217	218,604,506	91.3	20,700,711	8.7	8.4	24.7	21.9	22.4	22.7

Source: US Census Bureau, American Fact Finder. Veteran Status, 2014 American Community Survey 5-Year Estimate. Table S2101: Veteran Status; <http://factfinder2.census.gov>.

Blind and Visually-Impaired Persons

The table below presents data on the number of blind or visually-impaired persons in the jurisdictions being compared. In 2011, there were 51 blind or visually-impaired persons living in Currituck County, and a total of 463 persons with those disabilities region-wide. Note that no update to this data was available at the source.

**Table 14. Blind and Visually-Impaired Persons
(2011)**

Location	Number Blind/Visually Impaired (2011)
Currituck County	51
<i>Regional Total</i>	463
<i>Regional Average</i>	66
Pamlico County	36
State of NC	20,972

Source: Log into North Carolina (LINC) Database, Topic Group Vital Statistics and Health (Data Item 520); http://data.osbm.state.nc.us/pls/linc/dyn_linc_main.show.

Special Needs Registry

The Currituck County Department of Social Services maintains a Special Medical Needs (SMN) registry first responders can reference to provide special assistance in the event of a county emergency. As of September, 2015 there were 22 individuals in the county registered. The broad categories of need were: ventilator (2), oxygen (7), transportation assistance needed (6), ambulation assistance required (9), visual impairment (1), feeding tube (1), communications disability (1) and service animal (1) (11).

CIVIC ENGAGEMENT

Electoral Process

One measure of a population's engagement in community affairs is its participation in the electoral process. The following two tables summarize current voter registration and historical voter turnout data. Note that turnout in any particular election is at least partially determined by the voters' interest and investment in the particular issues on the ballot at that time.

Registered Voters

- According to the State Board of Elections, the proportion of the voting age population registered to vote in Currituck County in 2016 was 88.1% (see the footnote to the table, below).
- Approximately 4.9% of the registered voters in Currituck County were Black/African American, a percentage lower than the proportion this racial group represented in the overall county population (6.6%) in 2014.

**Table 15. Registered Voters, by Race/Ethnicity, Number and Percent
(As of 1/9/16)**

Location	Estimated Voting Age Population (2015)	Number and Percent of Voting Age Population Registered to Vote ¹											
		Total		White		Black		American Indian		Other		Hispanic	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Currituck County	20,147	17,757	88.1	16,196	80.4	994	4.9	47	0.2	520	2.6	111	0.6
<i>Regional Average</i>	15,357	13,476	87.8	8,765	58.7	4,220	26.2	24	0.1	466	2.8	64	0.4
Pamlico County	11,023	9,375	85.0	7,304	66.3	1,772	16.1	29	0.3	270	2.4	51	0.5
<i>State of NC</i>	7,752,543	6,436,922	83.0	4,539,092	58.5	1,443,414	18.6	52,540	0.7	401,876	5.2	130,982	1.7

Source:

¹ The total number of registered voters reported by the NC State Board of Elections is based on the sum of registrations by party affiliation, and does not necessarily equal the sum of registrations by race. Therefore, the sum of the percentages does not equal 100%.

a - Log Into North Carolina (LINC) Database, Topic Group Government, Voters and Elections, Voting Age Population (Data Item 1714), 2012; http://data.osbm.state.nc.us/pls/linc/dyn_linc_main.show.

b - NC State Board of Elections, Data and Statistics, Voter Registration Statistics, By Date;

http://www.ncsbe.gov/webapps/voter_stats/.

c - Percentages are calculated

Voter Turnout

It is apparent from the data below that voter turnout was higher in every jurisdiction cited in elections that included a presidential race (2004 and every four-years). (Note that this data is no longer available at the source.)

**Table 16. Voter Turnout in General Elections
(2004-2012)**

Location	% Registered Voters that Voted				
	2004	2006	2008	2010	2012
Currituck County	54.00	45.00	67.63	47.85	64.05
<i>Regional Average</i>	58.57	35.29	68.67	44.37	65.81
Pamlico County	62.00	44.00	71.66	51.59	71.20
<i>State of NC</i>	64.00	37.00	69.93	43.75	68.42

Source: NC State Board of Elections, Elections Central, Elections Results Data (years as noted), General Elections;

<http://www.sboe.state.nc.us/content.aspx?id=69>.

RELIGIOUS LIFE

The fabric of a community is often maintained and repaired through its citizens' participation in organized religion. Increasingly, health and human service providers have come to realize that the faith community can be an important partner in assuring the health and well-being of at least its members if not larger segments of the population.

The following table lists the religious bodies in Currituck County as of 2010 (no more recent data was available at the source.) These data, gathered in January 2016, show that in 2010 there was a range of options for exploring faith and religion within the county.

**Table 17. Religious Bodies in Currituck County
(2010)**

Religious Bodies	Number of Congregations	Number of Adherents
African Methodist Episcopal Zion Church	3	425
American Carpatho-Russian Orthodox Diocese	1	25
Assemblies of God	2	228
Bahá'í	0	6
Catholic Church	1	290
Christian Church (Disciples of Christ)	3	0
Christian Churches and Churches of Christ	2	395
Churches of Christ	1	28
Episcopal Church	1	38
International Pentecostal Holiness Church	1	198
National Baptist Convention, USA, Inc.	1	182
Non-denominational	2	250
Southern Baptist Convention	10	3,403
United Methodist Church	7	1,573
TOTAL	35	7,041

Source: Association of Religious Data Archives (ARDA), US Congregational Membership: Reports, County Membership Report, Browse Reports, Counties;
<http://www.thearda.com/rcms2010/>.

COMMUNITY SERVICES AND ORGANIZATIONS

Law Enforcement

The primary law enforcement agency in Currituck County is the Sheriff's Office, which is responsible for the full range of law enforcement and court related duties. The Sheriff's Office is headquartered in Maple, NC, with branches in Corolla, NC and Knotts Island, NC that are generally unmanned (12).

Fire and Rescue Departments

The fire departments that serve Currituck County are listed in the table below.

**Table 18. Fire Departments in Currituck County
(November, 2016)**

Department Name	Location
Carova Beach Volunteer Fire Department, Inc.	Corolla
Corolla Fire and Rescue Squad, Inc.	Corolla
Crawford Township Volunteer Fire Department, Inc.	Moyock
Currituck County Department of Fire and Emergency Medical Services	Currituck
Knotts Island Volunteer Fire Department, Inc.	Knotts Island
Lower Currituck Volunteer Fire Department, Inc.	Grandy
Moyock Volunteer Fire Department, Inc.	Moyock
Virginia Beach Fire Department - Blackwater Station (serves Gibbs Woods)	Gibbs Woods

Source: Currituck County Government website. Fire Departments. <http://www.co.currituck.nc.us/fire-departments.cfm>.

Public Libraries

The Currituck County Public Library is located at 4261 Caratoke Highway in front of the campus of Currituck County Middle School in Barco. The library provides information and recreational materials in a variety of formats to the citizens of the County. The library is a member of the East Albemarle Regional Library System and makes the resources of the counties of Currituck, Dare, Camden, and Pasquotank available to the residents of Currituck County (13).

Senior Centers

Currituck County's three Senior Centers are a community focal point on aging. The Senior Centers play an integral role as a resource for the entire community and assists other agencies in serving senior adults. The Centers provide services and programs and are open to all Currituck County residents age 55 and older, regardless of religion, national origin, or disability. There is no charge or membership fee to participate in most programs provided by the Centers. Required fees for certain programs and activities will be posted.

The County's three center facilities, Currituck County, Knotts Island and Powells Point, are places where senior adults can meet, receive services, and participate in activities that will affirm their dignity and self-worth. Within this atmosphere, the centers create opportunities for senior adults to apply their wisdom and insight, and exercise their skills. Lunchtime meals are

offered at all three centers on weekdays at 12:00 noon. The Centers do not provide adult day care services, housekeeping or sitting services for senior adults, or legal advice (14).

Other Community Services and Organizations

It is a nearly impossible task to create a print catalogue or listing of community resources that is current beyond its print date. Therefore, this CHNA document provides instead *links* to on-line or telephone resources that provide information on community organizations and services available to Currituck County residents. These particular community resource directories and guides have been included because they are sponsored and/or maintained by entities likely to remain in existence, and because they cover a range of community resources.

[Note that Health and Health Care Resources, while included in some of the directories and guides cited below, are listed separately in an appendix to this CHA.]

Currituck County Community Resource Directories and Guides

Currituck County Department of Travel and Tourism

Links to events, dining, attractions, organizations, lodging, golfing, churches, and volunteer opportunities throughout Currituck County.

Portal - <http://www.visitcurrituck.com/>.

Currituck County Government Directory of Services

Alphabetical list of live links to services provided by the county.

Portal: <http://www.co.currituck.nc.us/>

Albemarle Alliance for Children and Families

Maintains links to support services targeted to families of children throughout the Albemarle Region.

Portal - <http://albemarleacf.org/links.php>.

NC 2-1-1 for Currituck County

The United Way sponsors a telephone and/or on-line referral program via which the public can find assistance with housing, food, healthcare, utility payments, and more. Inquiries involve entering the area of need and the target county, city, and/or zip code into the search categories at the website listed below.

For telephone assistance, information seekers can simply call 2-1-1 24 hours a day, 7 days a week to speak with a trained specialist.

Portal - <http://www.unitedwaync.org/nc211>.

CHAPTER TWO: SOCIOECONOMIC DATA

ECONOMIC CLIMATE

Tier Designation

The NC Department of Commerce annually ranks the state's 100 counties based on economic well-being and assigns a Tier Designation. The parameters included in the assignment include unemployment rate, median household income, population growth, and assessed property value per capita. The 40 most distressed counties are designated as Tier 1, the next 40 as Tier 2, and the 20 least distressed as Tier 3. The Tier system is incorporated into various state programs, including a system of tax credits (Article 3J Tax Credits) that encourage economic activity and business investment in less prosperous areas of NC. In 2016, Currituck County and Pamlico County were assigned Tier 2 designations (15).

County Revenue Indicators

The state of NC monitors gross collections of state sales and use taxes in counties. While the majority of these taxes go to the state, these collections do provide some of the money available to the county to fund public services. Changes in these collections point to changes in overall economic activity and fiscal confidence in a county, as depicted in the time series of figures presented in the table below.

- For the period covering FY2005-06 through FY2014-15, gross collections of state sales and use taxes in Currituck County were approximately 30% of the average for all NC counties.
- Currituck County collections fell slightly after FY2005-06 but rebounded in FY2009-10, when they rose significantly and remained high.

**Table 19. NC State Sales and Use Tax Gross Collections
(FY2005-06 through FY2014-15)**

Location	FY2005-06	FY2006-07	FY2007-08	FY2008-09	FY2009-10	FY2010-11	FY2011-12	FY2012-13	FY2013-14	FY2014-15
Currituck County	10,299,573	10,042,159	9,910,026	9,908,895	15,813,782	19,180,930	18,508,365	18,862,555	19,091,309	19,807,221
Regional Average	5,235,545	5,294,336	5,066,629	4,936,479	6,981,295	7,998,729	7,314,849	7,651,788	7,379,530	7,730,478
NC County Average	45,605,858	46,004,427	46,029,546	43,169,210	50,252,290	55,679,535	49,906,563	50,164,100	52,548,980	57,312,401

Source: NC Department of Revenue, Tax Publications and Reports, State Sales and Use Tax Reports by Fiscal Year, by County Summary (years as noted); <http://www.dornc.com/publications/fiscalyearsales.html>.

Another measure of community vitality is the growth over time in the number and value of *new* building permits in a county. The Currituck County Central Permitting Division provided the local data below, which shows relatively steady growth in building over the period cited. Note that the data for CY2015 covers only nine months of the year.

**Table 20. Number and Value of New Building Permits, Currituck County
CY2012-CY2015**

	CY2012		CY2013		CY2014		CY2015 (Jan-Sept)	
	Number	Value	Number	Value	Number	Value	Number	Value
Mainland								
Residential	160	\$28,307,539	184	\$38,372,333	192	\$42,906,615	173	\$37,364,916
Commercial	6	\$7,888,500	5	\$2,098,060	5	\$1,704,790	6	\$40,887,190
Corolla								
Residential	60	\$31,582,883	57	\$30,939,372	65	\$42,601,202	54	\$30,471,073
Commercial	0	\$0	6	\$6,493,963	3	\$408,228	0	\$0
TOTAL	226	\$67,778,922	252	\$77,903,728	265	\$87,620,835	233	\$108,723,179

Source: Personal Communication, Debbie J. LaShomb, Permit Officer, Central Planning Division, Planning and Community Development, Currituck County Government, to Dana Hamill, Public Health Educator, Albemarle Regional Health Services, October 16, 2015.

Income

While revenue indicators give us some idea of economic health from the community economic development standpoint, income measures tell us about the economic well-being of individuals in the community. Among the more useful income measures are personal income, family income, and household income. For comparison purposes, personal income is calculated on a per capita basis; family income and household income are viewed as a median value for a target population. The following are definitions of each of the three income categories:

- *Per capita personal income* is the income earned per person 15 years of age or older in the reference population.
- *Median household income* pertains to the incomes of all the people 15 years of age or older living in the same household (i.e., occupying the same housing unit) regardless of relationship. For example, two roommates sharing an apartment would be a household, but not a family.
- *Median family income* pertains to the income of all the people 15 years of age or older living in the same household who are related either through marriage or bloodline. For example, in the case of a married couple who rent out a room in their house to a non-relative, the household would include all three people, but the family would be just the couple.

The table below summarizes recent income data for Currituck County and its typical comparators. (Note: although US data is included in the table, no comparisons are highlighted here.) Among the traditional comparator jurisdictions:

- Currituck County had the highest income figures in all categories except Mean Retirement Income, and its measures were consistently and significantly above the comparable state averages.
- Median household income in Currituck County was almost \$12,000 higher than the NC average.
- Median family income in Currituck County was over \$13,500 higher than the state average
- Per capita personal income in Currituck County was more than \$1,000 higher than the NC average.
- Mean retirement income was highest in Pamlico County and second-highest in Currituck County, where the county figure was almost \$4,000 higher than the NC average.

**Table 21. Income Measures
(US Census Bureau 5-Year Estimate, 2010-2014)**

Location	Household Income		Family Income		Per Capita Income		Retirement Income	
	Median Household Income	Difference from State	Median Family Income	Difference from State	Per Capita Income	Difference from State	Mean Retirement Income	Difference from State
Currituck County	\$58,676	\$11,983	\$70,882	\$13,554	\$26,703	\$1,095	\$25,744	\$3,904
<i>Regional Average</i>	\$46,909	\$216	\$55,155	-\$2,173	\$22,680	-\$2,928	\$22,488	\$648
Pamlico County	\$44,762	-\$1,931	\$57,513	\$185	\$24,854	-\$754	\$27,382	\$5,542
State of NC ¹	\$46,693	-\$6,789	\$57,328	-\$8,115	\$25,608	-\$2,947	\$21,840	-\$2,255
United States	\$53,482	n/a	\$65,443	n/a	\$28,555	n/a	\$24,095	n/a

Source: US Census Bureau, American Fact Finder, 2014 American Community Survey 5-Year Estimate. Table DP03: Selected Economic Characteristics; <http://factfinder2.census.gov>.

¹ The calculation in the "Difference from State" cell for NC reflects the difference between the State and the Nation.

The next table shows gender-based differences in median earnings.

- Male full-time, year-round workers in all comparator jurisdictions earn significantly more than their female counterparts, but the difference was second-smallest in Currituck County.

**Table 22. Median Earnings, by Gender
(US Census Bureau 5-Year Estimate, 2010-2014)**

Location	Median Earnings				
	Male full-time, year-round workers	Difference from State	Female full-time, year-round workers	Difference from State	Difference between Male and Female
Currituck County	\$44,578	\$1,141	\$35,789	\$317	-\$8,789
<i>Regional Average</i>	\$43,748	\$311	\$34,502	-\$970	-\$9,246
Pamlico County	\$43,280	-\$157	\$31,385	-\$4,087	-\$11,895
State of NC ¹	\$43,437	-\$6,263	\$35,472	-\$3,615	-\$7,965
United States	\$49,700	n/a	\$39,087	n/a	-\$10,613

Source: US Census Bureau, American Fact Finder, 2014 American Community Survey 5-Year Estimate. Table DP03: Selected Economic Characteristics; <http://factfinder2.census.gov>.

¹ The calculation in the "Difference from State" cell for NC reflects the difference between the State and the Nation.

Employment

The following definitions will be useful in understanding the data in this section.

- *Labor force*: includes all persons over the age of 16 who, during the week, are employed, unemployed or in the armed services.
- *Unemployed*: civilians who are not currently employed but are available for work and have actively looked for a job within the four weeks prior to the date of analysis; also, laid-off civilians waiting to be called back to their jobs, as well as those who will be starting new jobs in the next 30 days.

- *Unemployment rate*: calculated by dividing the number of unemployed persons by the number of people in the civilian labor force.

Employment by Sector

The following table details the various categories of industry by sector in Currituck County and its three jurisdictional comparators for the 2nd Quarter of 2015, showing the number employed in each sector, the percentage of all employment that that number represents, and the average weekly wage for people employed in each sector.

- The industry in Currituck County that employed the largest percentage of the workforce (20.7%) was Educational Services, at an average weekly wage per employee of \$964.
- Retail Trade accounted for the second largest percentage of the Currituck County workforce, at 18.2% (\$478), followed in third place by Administrative and Waste Services, at 13.0% (\$454).
- Statewide, the sector employing the largest percentage of the workforce was Health Care & Social Assistance (14.1%), followed by Retail Trade (11.7%) and Manufacturing (11.0%).

**Table 23. Insured Employment and Wages by Sector
(2nd Quarter, 2015)**

Sector	Currituck County			Pamlico County			Regional Average			North Carolina		
	Avg. No. Employed	% Total Employment in Sector ¹	Average Weekly Wage per Employee	Avg. No. Employed	% Total Employment in Sector	Average Weekly Wage per Employee	Avg. No. Employed	% Total Employment in Sector	Average Weekly Wage per Employee	Avg. No. Employed	% Total Employment in Sector	Average Weekly Wage per Employee
Agriculture, Forestry, Fishing & Hunting	46	0.7	\$526	63	1.8	\$743	1,166	3.3	\$615	28,946	0.7	\$597
Mining	*	n/a	*	*	n/a	*	0	0.0	n/a	2,780	0.1	\$1,069
Utilities	*	n/a	*	*	n/a	*	0	0.0	n/a	15,238	0.4	\$1,572
Construction	347	5.4	\$687	142	4.1	\$652	1,199	3.4	\$10,542	188,858	4.5	\$890
Manufacturing	63	1.0	\$653	132	3.8	\$630	1,314	3.7	\$779	460,067	11.0	\$1,036
Wholesale Trade	128	2.0	\$737	13	0.4	\$887	1,192	3.3	\$787	178,902	4.3	\$1,342
Retail Trade	1,176	18.2	\$478	639	18.5	\$387	5,017	14.0	\$447	487,995	11.7	\$504
Transportation & Warehousing	65	1.0	\$652	68	2.0	\$644	1,304	3.7	\$901	137,793	3.3	\$880
Information	16	0.2	\$670	28	0.8	\$345	217	0.6	\$986	76,944	1.8	\$1,344
Finance & Insurance	103	1.6	\$883	42	1.2	\$653	745	2.1	\$890	157,807	3.8	\$1,486
Real Estate & Rental & Leasing	530	8.2	\$501	35	1.0	\$367	704	2.0	\$548	54,949	1.3	\$817
Professional, Scientific & Technical Services	145	2.2	\$944	48	1.4	\$957	1,075	3.0	\$915	219,166	5.3	\$1,338
Management of Companies & Enterprises	*	n/a	*	*	n/a	*	35	0.1	\$863	81,596	2.0	\$178
Administrative & Waste Services	839	13.0	\$454	41	1.2	\$805	2,001	5.6	\$552	289,504	6.9	\$630
Educational Services	1,335	20.7	\$964	488	14.1	\$666	5,475	15.3	\$798	380,457	9.1	\$796
Health Care & Social Assistance	384	6.0	\$593	560	16.2	\$502	5,176	14.5	\$710	587,137	14.1	\$862
Arts, Entertainment & Recreation	240	3.7	\$344	296	8.6	\$364	499	1.4	\$455	70,577	1.7	\$553
Accommodation & Food Services	754	11.7	\$330	271	7.8	\$231	3,396	9.5	\$291	401,515	9.6	\$306
Other Services	276	4.3	\$424	158	4.6	\$472	1,420	4.0	\$479	106,428	2.6	\$590
Public Administration	*	n/a	*	437	12.6	\$599	3,776	10.6	\$638	240,222	5.8	\$830
Unclassified	*	n/a	*	*	n/a	*	0	0.0	n/a	534	0.0	\$746
TOTAL/AVERAGE ALL SECTORS	6,447	100.0	\$615	3,461	100.0	\$583	35,711	100.0	\$1,233	4,167,415	100.0	\$875

¹ Percent Total Employment in Sector values were calculated by dividing the Avg. Number of Employed within a sector by the total employees in All Sectors.

* Disclosure suppressed

Source - Quarterly Census Employment and Wages (QCEW), 2015. NC Employment Security Commission, Labor & Economic Analysis Division (LEAD), 4D:

<http://d4.nccommerce.com/>.

Largest Employers

The table below lists the largest 25 employers in Currituck County as of the end of the 2nd Quarter, 2015.

- Only two employers listed—Academi Training Center LLC and the Currituck Board of Education—employed more than 500 people.

**Table 24. Largest 25 Employers in Currituck County
(2nd Quarter, 2015)**

Rank	Employer	Industry	No. Employed
1	Academi Training Center LLC	Education & Health Services	500-999
2	Currituck Board of Education	Education & Health Services	500-999
3	Currituck County Finance Office	Public Administration	250-499
4	Coastal Staffing	Professional & Business Services	100-249
5	Brindley Beach Vacations & Sales	Financial Activities	100-249
6	Food Lion	Trade, Transportation & Utilities	100-249
7	Twiddy & Co of Duck Inc.	Financial Activities	100-249
8	Sentara Internal Medicine Physicians	Education & Health Services	100-249
9	Resort Realty	Financial Activities	100-249
10	Sun Realty	Financial Activities	100-249
11	Harris Teeter Inc.	Trade, Transportation & Utilities	100-249
12	Southland Trade Corp	Trade, Transportation & Utilities	100-249
13	Wyndham Vacation Rentals North America	Financial Activities	100-249
14	YMCA of South Hampton Roads	Other Services	50-99
15	Hardee's	Leisure & Hospitality	50-99
16	The Currituck Club	Leisure & Hospitality	50-99
17	Carter Lumber of the South Inc. #70	Trade, Transportation & Utilities	50-99
18	Employers Resource	Professional & Business Services	50-99
19	8624 Cleaning Company LLC	Professional & Business Services	50-99
20	Sonic Drive In	Leisure & Hospitality	50-99
21	Corolla Light Community Association	Other Services	50-99
22	The Cotton Gin Inc.	Trade, Transportation & Utilities	Below 50
23	Morris Farms Inc.	Trade, Transportation & Utilities	50-99
24	Coinjock Marina & Restaurant	Leisure & Hospitality	Below 50
25	NC Department of Transportation	Public Administration	Below 50

Source: NC Department of Commerce, Economic Intelligence Development System (EDIS), Business Data, Top Employers, by County; <http://accessnc.commerce.state.nc.us/EDIS/business.html>.

Note that the apparent error in the ordering of #22 and #23 is present in the source document.

Travel for Employment

Data gathered by the US Census Bureau on how many resident workers travel outside the county for employment can help demonstrate whether or not a county provides adequate employment opportunities for its own citizens. The economic impact of out-of-state employment is that those workers may pay taxes and spend part of their income out of state. The following table summarizes 2010-2014 estimated travel for employment data for Currituck County and its comparator jurisdictions.

- A majority—67%—of Currituck County resident workers left the county for work.
- Of the 67% of Currituck County resident workers who left the county for work, most worked out-of-state, but a small proportion worked in another NC county.
- Statewide, roughly 72% of resident workers worked in their county of residence; 26% worked in another county, and less than 3% worked out-of-state.

**Table 25. Place of Work for Resident Workers Age 16 and Older
(US Census Bureau 5-Year Estimate, 2010-2014)**

Location	Percent of Residents					
	Total # Workers Over 16	% Working in NC	% Working in County	% Leaving County for Work	% Working out of County	% Working out of State
Currituck County	11,620	54.0	33.4	66.6	20.6	46.0
<i>Regional Average</i>	7,979	75.1	43.2	56.8	31.9	24.9
Pamlico County	5,152	98.7	53.1	46.9	45.6	1.3
<i>State of NC</i>	4,280,414	97.5	71.8	28.2	25.7	2.5

Note: percentages are calculated and may include some rounding error.

Source: US Census Bureau, American Fact Finder, 2014 ACS 5-Year Estimate, Table S0801 Commuting Characteristics by Sex. <http://factfinder.census.gov>.

Modes of Transportation to Work

Besides serving as an indicator of environmentalism, the mode of transportation workers use to get to their places of employment can also point to the relative convenience of local workplaces and the extent of the local public transportation system. The next table compares data on modes of transportation to work from the 2000 US Census and a 2010-2014 US Census Bureau estimate.

- A very small percentage of Currituck County workers used public transportation to get to work in either 2000 or 2010-2014. Use of public transportation for getting to work was not common in any of the jurisdictions being compared.
- The proportion of workers who carpooled decreased in all jurisdictions between 2000 and 2010-2014.
- The proportion of Currituck County workers who worked at home increased by 41% between 2000 and 2010-2014. Working-at-home increased by 67% statewide in the same period.

**Table 26. Modes of Transportation to Work
(US Census Bureau, 2000, and 5-Year Estimate, 2010-2014)**

Location	Percent of Workers over 16											
	Total Workers over 16		Drove Alone		Carpooled		Used Public Transportation		Walked		Worked at Home	
	2000	2010-2014	2000	2010-2014	2000	2010-2014	2000	2010-2014	2000	2010-2014	2000	2010-2014
Currituck County	8,603	11,620	79.8	84.9	15.4	9.5	0.4	0.4	0.5	0.8	2.2	3.1
<i>Regional Average</i>	6,879	7,979	76.3	82.3	17.1	11.6	0.5	0.3	2.3	1.1	2.7	3.0
Pamlico County	4,939	5,152	74.3	75.9	16.5	13.6	0.7	0.1	3.1	2.8	3.5	5.0
<i>State of NC</i>	3,837,773	4,280,414	79.4	81.2	14.0	10.2	0.9	1.1	1.9	1.8	2.7	4.5

Source: a - US Census Bureau, American Fact Finder, Data Sets, Summary File 3 for 2000, Detailed Tables, Means of Transportation to Work for Workers 16 Years and Over; <http://factfinder.census.gov>.

b - US Census Bureau, American Fact Finder, 2014 ACS 5-Year Estimate, Table S0801: Commuting Characteristics by Sex.

<http://factfinder.census.gov>.

Public Transportation in Currituck County

Public transportation in Currituck County is provided by the Inter-County Public Transportation Authority (ICPTA), operated by Albemarle Regional Health Services, which serves the five-county area of Camden, Chowan, Currituck, Pasquotank and Perquimans counties.

ICPTA's demand-response and subscription services are intended to assist the general public in accessing health and social services such as medical appointments and nutrition sites or attending activities related to daily living such as shopping, education, employment and recreation. Hours of operation are from 4:30 am - 7:30 pm, Monday through Friday, although it is possible to schedule transportation outside of this time frame with approval of management. While much travel is within the region, the service also transports passengers to other locations in NC and the Hampton Roads region of VA.

The ICPTA fleet of buses and vans are equipped with special features to transport the handicapped and the elderly; for example, vehicles are equipped with wheelchair lifts mounted at the rear and at the side for easy and safe loading and off-loading. Drivers are required to participate in road training, on-the-job training, emergency operating training, and periodic safety meetings (16).

The table below presents annual trip data for the ICPTA system for FY 2012 through FY2015.

- The largest number of trips each year cited represented travel for senior services.
- Travel for mental health services composed the second-largest ridership in FY2012-2014. Travel on account of DSS Medicaid composed the largest ridership in FY2015.

**Table 27. ICPTA Ridership Statistics
(FY2012 through FY2015)**

Category of Service	Number Trips Served			
	FY2012	FY2013	FY2014	FY2015
Total Human Service/Community Organization Trips	38,995	41,842	39,694	39,146
Senior Services	17,546	17,611	16,311	15,568
Mental Health	10,938	11,607	11,101	10,046
Department of Social Services - Medicaid	6,317	8,749	9,693	10,627
Department of Social Services – Work First	832	169	47	25
Department of Social Services - Other	0	0	29	4
Vocational Workshop (or equivalent)	2,247	1,868	2,310	2,851
Vocational Rehabilitation	0	9	64	1
Parks and Recreation	811	831	118	7
Nursing Home/Assisted Living Facility	195	122	0	0
Other	109	876	21	17

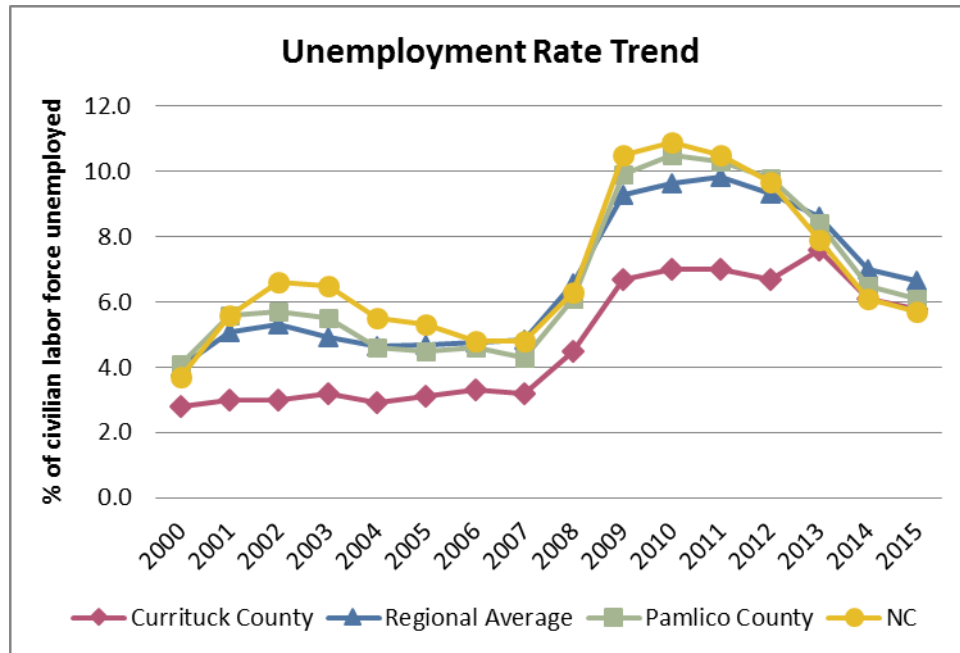
Source: Personal communication from Herb Mullen, Director of Transportation, Inter-County Public Transportation Authority to Dana Hamill, Public Health Educator, Albemarle Regional Health Services, September 1, 2015.

Unemployment

The following figure plots the unemployment rate in Currituck County and its jurisdictional comparators for the period 2000 through 2015.

- Beginning with 2008 data, the unemployment rate began to rise sharply in all four jurisdictions, mirroring the onset of the national recession. Unemployment began to decrease in Pamlico County and statewide in 2011, and a year later in Currituck County and the region as a whole. However, unemployment in Currituck County was well below the comparable figures in the other jurisdictions throughout the period cited.
- Although post-recession unemployment figures have improved, none have returned to pre-recession levels.

Figure 5. Annual Unemployment Rate (2000-2015)



Source: North Carolina Department of Commerce, Labor and Economic Analysis Division (LEAD), D4 - Demand Driven Data Delivery System. Local Area Unemployment Statistics (LAUS) - Unemployment Rate, Unadjusted. <http://d4.nccommerce.com/LausSelection.aspx>. The unemployment rate is calculated by dividing the number of unemployed by the civilian labor force. The civilian labor force is the total employed plus the unemployed. Note: 2015 figures represent the average monthly rate from January through November

Poverty

The poverty rate is the percent of the population (both individuals and families) whose money income (which includes job earnings, unemployment compensation, social security income, public assistance, pension/retirement, royalties, child support, etc.) is below a federally established threshold; this is the “100%-level” figure.

The following table shows the decadal poverty rate for the period from 1970-2000 and the estimated poverty rate for five, five-year periods: 2006-2010 through 2010-2014. The data in this table describe an overall rate, representing the entire population in each geographic entity. As subsequent data will show, poverty may have strong racial and age components that are not discernible in these numbers.

- In Pamlico County, the seven-county ARHS region and the state of NC, the poverty rate fell each decade from 1970 through 2000.
- The decadal poverty rate in Currituck County fell between 1970 and 1990, after which there was a brief increase in the decade of 2000 before falling again in 2006-2010 and 2007-2011. From 2008-2012 through 2010-2014, the poverty rate in Currituck County has averaged 10.0%.
- Currituck County had the lowest overall poverty rate among the four jurisdictions from 1990 through 2010-2014.

**Table 28. 100%-Level Poverty Rate
(US Census Bureau, Decades 1970-2000; and 5-Year Estimates, 2006-2010 through 2010-2014)**

Location	Percent of All People in Poverty								
	1970	1980	1990	2000	2006-2010	2007-2011	2008-2012	2009-2013	2010-2014
Currituck County	23.3	18.3	10.1	10.7	8.5	7.8	9.9	9.8	10.3
<i>Regional Average</i>	31.8	21.5	18.1	16.5	16.4	17.5	17.3	18.1	17.7
Pamlico County	31.2	20.6	18.9	15.3	10.7	12.2	13.8	13.8	13.3
<i>State of NC</i>	20.3	14.8	13.0	12.3	15.5	16.1	16.8	17.5	17.6
Source:	a	a	a	a	b	b	b	b	b

a - Log Into North Carolina (LINC) Database, Topic Group Employment and Income (Data Item 6094); http://data.osbm.state.nc.us/pls/linc/dyn_linc_main.show.

b - US Census Bureau, American Fact Finder, American Community Survey 5-Year Estimates (2010 through 2014). Table DP03: Selected Economic Characteristics, County (Geographies as listed); <http://factfinder2.census.gov>.

The next table expands the topic of poverty by presenting decadal poverty data stratified by broad racial group (white/black). It is clear from these data that Blacks/African Americans have much higher poverty rates than whites.

- Across all time periods and in all jurisdictions cited in the table, the poverty rate among blacks was significantly higher than the poverty rate among whites.
- In Currituck County over the three decades cited, the poverty rate among blacks was from 2.3 to 4.1 times the comparable rate for whites.

**Table 29. Persons in Poverty (100%-Level) by Race, by Decade
(1980-2000)**

Location	1980				1990				2000			
	Total No. in Poverty	Total % in Poverty	% White in Poverty	% Black in Poverty	Total No. in Poverty	Total % in Poverty	% White in Poverty	% Black in Poverty	Total No. in Poverty	Total % in Poverty	% White in Poverty	% Black in Poverty
Currituck County	1,998	18.3	15.4	35.1	1,353	10.1	7.6	31.1	1,922	10.7	9.2	23.6
<i>Regional Average</i>	2,985	21.5	12.1	37.1	2,775	18.1	10.6	31.6	2,769	16.5	8.9	29.7
Pamlico County	2,142	20.6	13.5	34.9	2,119	18.9	13.7	34.0	1,885	15.3	11.0	29.4
<i>State of NC</i>	839,950	14.8	10.0	30.4	829,858	13.0	8.7	27.1	958,667	12.3	8.5	22.9

a - Log Into North Carolina (LINC) Database, Topic Group Employment and Income (Data Items 6094, 6096, 6098); http://data.osbm.state.nc.us/pls/linc/dyn_linc_main.show.

The three figures that follow present similar racially-stratified 100%-level poverty data, but as five-year estimates and for an expanded scope of racial groups that includes Hispanics.

- In Currituck County, region-wide and statewide, poverty rates among minority groups are higher compared to white residents.

- In Currituck County over the period cited, the poverty rate among blacks was from 1.5 to 3.5 times the rate among whites, and the poverty rate among Hispanics was from 1.6 to 2.7 times the comparable rate for whites.

Figure 6. Poverty Rate by Race, Currituck County
(US Census Bureau 5-Year Estimates, 2006-2010 through 2010-2014)

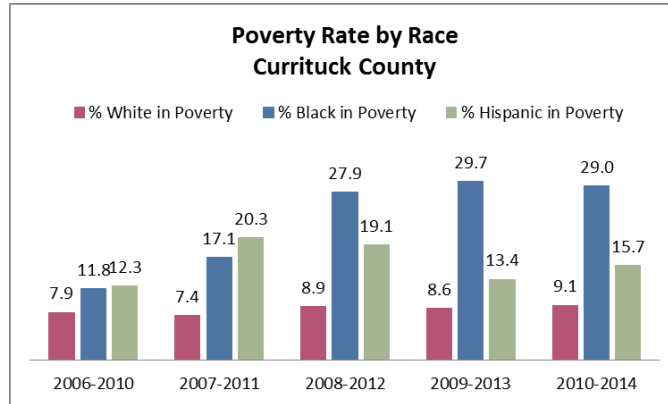
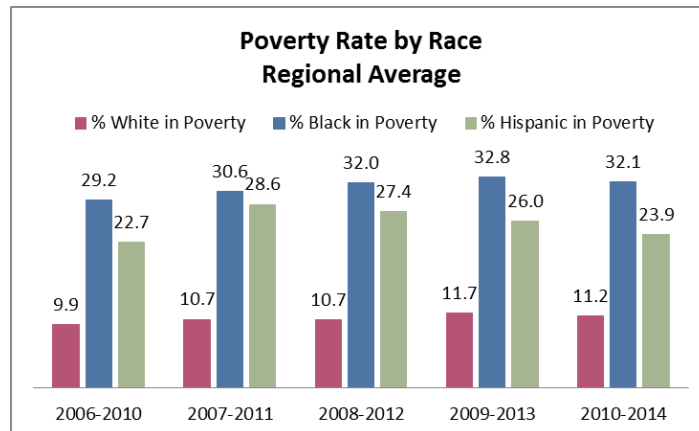
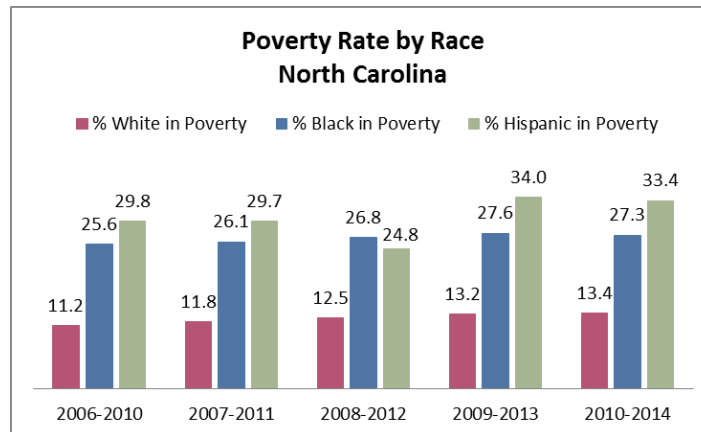


Figure 7. Poverty Rate by Race, ARHS Region
(US Census Bureau 5-Year Estimates, 2006-2010 through 2010-2014)



**Figure 8. Poverty Rate by Race, North Carolina
(US Census Bureau 5-Year Estimates, 2006-2010 through 2010-2014)**



Source: US Census Bureau, American Fact Finder, ACS 5-Year Estimates, 2010 through 2014, Table S1701 Poverty Status in the Past 12 Months. <http://factfinder.census.gov/>

The table below further expands the topic of poverty by presenting decadal poverty data stratified by age group. It is clear from these data that children, and especially very young children, suffer disproportionately from poverty.

- In all four jurisdictions in every time period cited in the table, the poverty rate for children under the age of 18 exceeded the overall poverty rate. The variance was greatest for children under six.

**Table 30. Persons in Poverty (100%-Level) by Age, by Decade
(1980-2000)**

Location	1980				1990				2000			
	Total % in Poverty	% Children Under 18 in Poverty	% Children Under 6 in Poverty	% Adults 65 or Older in Poverty	Total % in Poverty	% Children Under 18 in Poverty	% Children Under 6 in Poverty	% Adults 65 or Older in Poverty	Total % in Poverty	% Children Under 18 in Poverty	% Children Under 6 in Poverty	% Adults 65 or Older in Poverty
Currituck County	18.3	21.5	27.5	28.7	10.1	13.4	10.6	14.6	10.7	16.1	17.7	8.9
<i>Regional Average</i>	21.5	26.1	29.8	29.9	18.1	24.7	28.4	21.6	16.5	22.2	24.7	19.2
Pamlico County	20.6	24.5	23.9	35.7	18.9	22.1	27.4	23.3	15.3	24.2	25.7	13.4
<i>State of NC</i>	14.8	18.3	19.7	23.9	13.0	16.9	19.1	19.5	12.3	15.7	17.8	13.2
Source:	a	a	a	a	a	a	a	a	a	a	a	a

Source: Log Into North Carolina (LINC) Database, Topic Group Employment and Income (Data Items 6094, 6100, 6102, 6104); http://data.osbm.state.nc.us/pls/linc/dyn_linc_main.show.

The three figures that follow present similar age-stratified 100%-level poverty data, but as more recent five-year estimates.

- In Currituck County, region-wide and statewide, poverty rates among children are higher compared to the overall rate.
- In Currituck County over the period cited, the poverty rate among children was from 4% to 38% higher than the total poverty rate.
- The poverty rate among children in Currituck County has risen significantly over time.

Figure 9. Poverty Rate by Age, Currituck County
 (US Census Bureau 5-Year Estimates, 2006-2010 through 2010-2014)

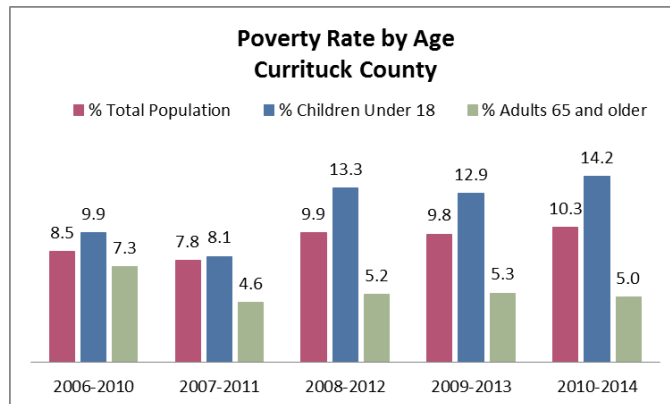


Figure 10. Poverty Rate by Age, ARHS Region
 (US Census Bureau 5-Year Estimates, 2006-2010 through 2010-2014)

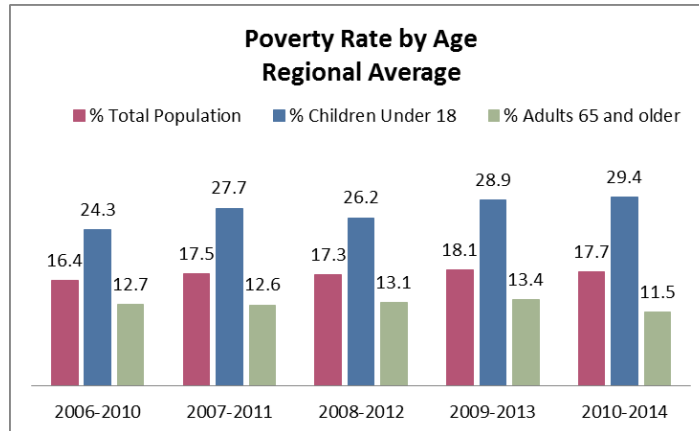
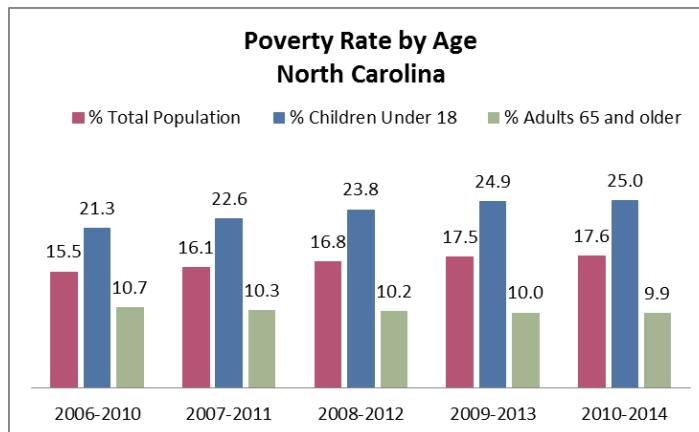


Figure 11. Poverty Rate by Age, North Carolina
 (US Census Bureau 5-Year Estimates, 2006-2010 through 2010-2014)



Source: US Census Bureau, American Fact Finder, 2010 through 2014 ACS 5-Year Estimate, Table S1701: Poverty Status in the Past 12 Months. <http://factfinder.census.gov>.

Note that the 5-Year Estimates do not present figures for the 5/6 year-old age group.

Children Receiving Free or Reduced-price School Meals

Other data corroborate the impression that children, especially the very young, bear a disproportionate burden of poverty, and that their burden is increasing. One measure of poverty among children is the number and/or percent of school-age children who are eligible for and receive free or reduced-price school meals.

Students have to be eligible to receive meals; not everyone who is eligible will choose to enroll in the program and receive meals. To be eligible for *free* lunch under the National School Lunch Act students must live in households earning at or below 130 percent of the Federal poverty guidelines. To be eligible for *reduced-price* lunch students must live in households earning at or below 185 percent of the Federal poverty guidelines.

The following table presents data from the NC Department of Public Instruction showing the *percentage* of students in the named school jurisdiction who have been determined to be “*needy*”, the currently-preferred term describing children who are *eligible* for free-or reduced-price meals.

- The percentage of students in Currituck County eligible for free or reduced-price school lunch has varied over time, but rose overall between SY2006-07 and SY2013-14 before falling in SY2014-15. The percent deemed “needy” was 54% higher in SY2014-15 than in SY2006-07

Table 31. Percent of Students Eligible for Free or Reduced price School Meals (SY 2006-07 through SY2014-15)

Location	% of Students Determined to be "Needy" (% Eligible for Free- or Reduced-Price Meals)								
	SY2006-07	SY2007-08	SY2008-09	SY2009-10	SY2010-11	SY2011-12	SY2012-13	SY2013-14	SY2014-15
Currituck County	24.53	26.96	33.09	35.81	35.06	36.92	36.90	38.82	37.66
<i>Regional Average</i>	<i>53.02</i>	<i>51.97</i>	<i>52.47</i>	<i>55.93</i>	<i>54.82</i>	<i>58.65</i>	<i>58.91</i>	<i>60.22</i>	<i>57.23</i>
Pamlico County	52.58	58.84	53.14	62.00	64.13	64.23	64.20	65.43	44.46
State of NC	48.46	48.39	49.85	53.68	53.86	55.94	56.14	57.56	52.83

Source: NC Department of Instruction, Data & Statistics, Other Education Data: Select Financial Data, Free and Reduced Meals Application Data (by school year). <http://www.ncpublicschools.org/fbs/resources/data/>.

To help readers grasp the numbers behind the percentages cited above, the following table, also based on data from the NC Department of Public Instruction, shows the *number* of students who *received* either free or reduced-price school lunch in several recent school years.

- The number of students in Currituck County receiving free or reduced-price meals rose almost every year from SY2006-07 through SY2013-14 before falling again for the last school year cited.

Table 32. Number of Students Receiving Free or Reduced-price School Meals (SY2006-07 through SY2014-15)

Location	No. Students RECEIVING Free or Reduced-Price Meals								
	SY2006-07	SY2007-08	SY2008-09	SY2009-10	SY2010-11	SY2011-12	SY2012-13	SY2013-14	SY2014-15
Currituck County	992	1,085	1,310	1,394	1,354	1,430	1,408	1,503	1,451
<i>Regional Average</i>	<i>1,624</i>	<i>1,557</i>	<i>1,563</i>	<i>1,627</i>	<i>1,574</i>	<i>1,777</i>	<i>1,664</i>	<i>1,680</i>	<i>1,586</i>
Pamlico County	794	862	745	855	892	878	816	831	566
State of NC	671,831	679,877	703,887	752,708	759,361	793,893	803,302	820,009	753,817

Source: NC Department of Instruction, Data & Statistics, Other Education Data: Select Financial Data, Free and Reduced Meals Application Data (by school year). <http://www.ncpublicschools.org/fbs/resources/data/>.

County Economic Service Utilization

The Currituck County Department of Social Services (DSS) manages a number of programs that provide assistance to low-income people.

The *Food and Nutrition Services* program (formerly known as Food Stamps) helps eligible households buy the food they need for a nutritionally adequate diet. Benefits may be used to purchase most foods at participating stores; they may not be used to purchase tobacco, pet food, paper products, soap products, or alcoholic beverages (17).

Medicaid is a health insurance program for eligible low-income individuals and families who cannot afford health care costs. Medicaid may help pay for certain medical expenses including doctor bills, hospital bills, vision care, dental care, Medicare premiums, nursing home care, Personal Care Services (PCS), medical equipment, and other Home Health Services, in-home care under the Community Alternatives Program (CAP), mental health care, and most medically necessary services for children under age 21 (18).

WorkFirst is North Carolina's Temporary Assistance for Needy Families (TANF) program, through which parents can get short-term training and other services, including cash supports, to help them become employed and self-sufficient (19).

The table below presents local data on some of these economic services provided by Currituck County DSS for FY2008-09 through FY2012-13.

- In the case of both Medicaid and FNS services, caseloads and participants rose each year from FY2008-09 through FY2011-12 before falling slightly.

**Table 33. Economic Services Provided by Currituck County Department of Social Services
(FY2008-09 through FY2012-13)**

Program	Number				
	FY2008-09	FY2009-10	FY2010-11	FY2011-12	FY2012-13
Medicaid					
<i>Avg. Current Total Caseload</i>	1,975	2,101	2,139	2,221	2,164
<i>Avg. Current Total Participants</i>	2,450	2,624	2,671	2,752	2,679
Food and Nutrition Services					
<i>Avg. Current Total Caseload</i>	712	861	1,013	1,102	1,094
<i>Avg. Current Total Participants</i>	1,703	2,081	2,392	2,588	2,529

Source: Personal communication, Kathlyn S. Romm, Director, Currituck County Department of Social Services, to Dana Hamill, Public Health Educator, Albemarle Regional Health Services, September 22, 2015.

HOUSING

The following table presents US Census Bureau data on housing by type.

- While approximately 35% of housing units in Currituck County were vacant in 2000, 38% or more were vacant in 2006-2010 and 2010-2014.
- The percentage of owner-occupied housing units in Currituck County remained about the same in all periods cited (~81%).
- The lowest or second-lowest proportion of mobile homes among comparators in all periods was in Currituck County.

**Table 34. Housing by Type
(US Census Bureau, 2000, and 5-Year Estimates, 2006-2010 and 2010-2014)**

Location	2000										
	Total Housing Units	Vacant Housing Units		Occupied Housing Units		Owner Occupied Units		Renter Occupied Units		Mobile Home Units	
	No.	No.	%	No.	%	No.	%	No.	%	No.	%
Currituck County	10,687	3,785	35.4	6,902	64.6	5,630	81.6	1,272	18.4	2,230	20.9
<i>Regional Average</i>	7,696	1,362	16.8	6,334	83.2	4,715	76.9	1,619	23.1	1,781	24.3
Pamlico County	6,781	1,603	23.6	5,178	76.4	4,256	82.2	922	17.8	2,117	31.2
<i>State of NC</i>	3,523,944	391,931	11.1	3,132,013	88.9	2,172,355	69.4	959,658	30.6	577,323	16.4

a - US Census Bureau, American FactFinder, 2000 US Census, Summary File 1 (SF-1), 2000 Demographic Profile Data, DP-1, Profile of General Population and Housing Characteristics: 2000 (geographies as listed); <http://factfinder2.census.gov>.

b - US Census Bureau, American FactFinder, 2000 US Census, Summary File 1 (SF-3), 2000 Demographic Profile Data, DP-4, Profile of Selected Housing Characteristics: 2000 (geographies as listed); <http://factfinder2.census.gov>.

Location	2006-2010 Estimate										
	Total Housing Units	Vacant Housing Units		Occupied Housing Units		Owner Occupied Units		Renter Occupied Units		Mobile Home Units	
	No.	No.	%	No.	%	No.	%	No.	%	No.	%
Currituck County	14,453	5,573	38.6	8,880	61.4	7,163	80.7	1,717	19.3	2,597	18.3
<i>Regional Average</i>	9,242	1,786	17.5	7,456	82.5	5,467	75.3	1,989	24.7	1,972	22.9
Pamlico County	7,534	2,044	27.1	5,490	72.9	4,337	79.0	1,153	21.0	2,486	33.4
<i>State of NC</i>	4,327,528	582,373	13.5	3,745,155	86.5	2,497,900	66.7	1,247,255	33.3	605,418	14.3

Source: US Census Bureau, American Fact Finder, 2010 ACS 5-Year Estimates, Table DP04: Selected Housing Characteristics (geographies as listed). <http://factfinder2.census.gov>.

Location	2010-2014 Estimate										
	Total Housing Units	Vacant Housing Units		Occupied Housing Units		Owner Occupied Units		Renter Occupied Units		Mobile Home Units	
	No.	No.	%	No.	%	No.	%	No.	%	No.	%
Currituck County	14,705	5,581	38.0	9,124	62.0	7,432	81.5	1,692	18.5	1,861	12.7
<i>Regional Average</i>	9,285	1,996	19.7	7,289	80.3	5,317	75.3	1,972	24.7	1,773	20.5
Pamlico County	7,561	2,416	32.0	5,145	68.0	4,088	79.5	1,057	20.5	2,333	30.9
<i>State of NC</i>	4,385,668	643,154	14.7	3,742,514	85.3	2,461,741	65.8	1,280,773	34.2	592,859	13.5

Source: US Census Bureau, American Fact Finder, 2014 ACS 5-Year Estimates, Table DP04: Selected Housing Characteristics (geographies as listed). <http://factfinder2.census.gov>.

The next table presents data on housing costs.

- In both time periods cited, the percentage of *renter-occupied* housing units costing more than 30% of household income was second-highest among comparators in Currituck County, and the county's percentage increased 8% from the first period to the second. During the interval cited, median gross rent in Currituck County increased 28%.
- In Currituck County the percentage of *mortgaged* housing units costing more than 30% of household income was highest among comparators in 2005-2009 and second-lowest in 2010-2014. The percentage of mortgaged units in Currituck County costing more than 30% of household income decreased 18% between intervals. During the period cited median mortgage cost in Currituck County increased by 6%.

**Table 35. Estimated Housing Cost
(US Census Bureau 5-Year Estimates, 2005-2009 and 2010-2014)**

Location	Renter Occupied Units							
	2005-2009				2010-2014			
	Total Units	Units Spending >30% Household Income on Housing		Median Gross Rent	Total Units	Units Spending >30% Household Income on Housing		Median Gross Rent
		#	%			#	%	
Currituck County	1,469	779	53.0	\$761	1,453	835	57.5	\$973
<i>Regional Average</i>	1,562	856	54.3	\$671	1,693	969	58.3	\$825
Pamlico County	751	391	52.1	\$655	761	398	52.3	\$739
<i>State of NC</i>	1,015,891	486,934	47.9	\$702	1,158,320	590,756	51.0	\$790
Source	1	1	1	1	2	2	2	2

Location	Mortgaged Housing Units							
	2005-2009				2010-2014			
	Total Units	Units Spending >30% Household Income on Housing		Median Mortgage Cost	Total Units	Units Spending >30% Household Income on Housing		Median Mortgage Cost
		#	%			#	%	
Currituck County	5,541	2,600	46.9	\$1,513	5,311	2,043	38.4	\$1,596
<i>Regional Average</i>	3,285	1,299	37.7	\$1,180	3,301	1,313	38.5	\$1,390
Pamlico County	2,343	902	38.5	\$1,218	2,162	848	39.3	\$1,233
<i>State of NC</i>	1,626,652	713,340	31.5	\$1,216	1,617,586	503,743	31.2	\$1,272
Source	1	1	1	1	2	2	2	2

1 - US Census Bureau, American FactFinder. 2009 ACS 5-Year Estimates. Table DP04: Selected Housing Characteristics (geographies as listed). <http://factfinder2.census.gov>.

2 - US Census Bureau, American FactFinder. 2014 ACS 5-Year Estimates. Table DP04: Selected Housing Characteristics (geographies as listed). <http://factfinder2.census.gov>.

The numbers here reflect the housing units for which the GRAPI (gross rent as percentage of household income) or SMOCAPI (selected monthly owner costs as a percentage of household income) can be computed. It does not necessarily include ALL rented or owned housing units.

Affordable Housing

According to information from the NC Rural Economic Development Center based on 2006-2010 US Census data estimates, 40% of housing in Currituck County was classified as “unaffordable”, compared to 29% in Pamlico County, and averages of 35% region-wide and 32% statewide (20). This data is at least partially reflective of the population living in households that pay more than 30% of the household income for housing costs.

The US Department of Housing and Urban Development (HUD) maintains a system for tracking “affordable” housing for its low-income clients, to whom it provides housing subsidies. HUD services are delivered through Public and Indian Housing Authority (PHA) offices throughout NC.

There is no PHA office located in Currituck County to assist residents in accessing HUD services. The nearest offices are in Elizabeth City (Pasquotank County), Edenton (Chowan County), Hertford (Perquimans County), Plymouth (Washington County), Ahoskie (Hertford County), Williamston (Martin County) and Washington (Beaufort County) (21). In November, 2016 there were no HUD-subsidized single-family homes available in Currituck County (22) and only one low-rent apartment facilities: an ARC facility in Grandy for developmentally disabled persons (23).

The US Department of Agriculture (USDA) catalogues information about rental properties available in rural areas. The agency’s Multi-Family Housing (MFH) Rental website provides an online guide to Government assisted rental projects. In November, 2016 the MFH website listed no qualifying rental properties in Currituck County (24).

Homelessness

The NC Coalition to End Homelessness coordinates a statewide *Point-in-Time Count*, an unduplicated count of homeless people, held on one night in the last week of January each year. It is not clear which of the counties in the Albemarle region do or do not participate in this count, but results are available only for Pasquotank County (25).

There is no homeless shelter located in Currituck County (26).

HOUSEHOLDS

The table below describes some of the characteristics of households in the four comparator jurisdictions.

- The average number of persons per household in Currituck County—3.07—was the highest among the comparators.
- The percent of one-person households in Currituck County—19.6%—was the lowest proportion among the comparator jurisdictions.
- The percent of households where the resident lived alone *and* was age 65 or older was lowest among comparators in Currituck County.

**Table 36. Household Characteristics
(US Census Bureau 5-Year Estimate, 2010-2014)**

Location	Total No. Households ¹	Persons per Household	% Households One-person	% Households One-person and Age ≥65
Currituck County	9,124	3.07	19.6	7.6
<i>Regional Average</i>	<i>7,289</i>	<i>2.64</i>	<i>24.2</i>	<i>11.0</i>
Pamlico County	5,145	2.41	25.9	13.2
<i>State of NC</i>	<i>3,742,514</i>	<i>2.54</i>	<i>27.9</i>	<i>9.7</i>

1 - A household includes all the persons who occupy a housing unit. A housing unit is a house, an apartment, a mobile home, a group of rooms, or a single room that is occupied (or if vacant, is intended for occupancy) as separate living quarters. Separate living quarters are those in which the occupants live and eat separately from any other persons in the building and which have direct access from the outside of the building or through a common hall. The occupants may be a single family, one person living alone, two or more families living together, or any other group of related or unrelated persons who share living arrangements. (People not living in households are classified as living in group quarters.)

Source: US Census Bureau, American FactFinder, 2014 ACS 5-year estimates. Table S1101: Households and Families (geographies as noted); <http://factfinder2.census.gov>.

Family Households

The following table describes some characteristics of family households by type of head of household. Note that percentages were calculated from the counts in the table.

- In Currituck County in the period cited, 39% of all households (2,652 of 6,753) included children under the age of 18.
- Of the 2,652 households with minor children, 2,013 (76%) were headed by a married couple. Another 209 (8%) were headed by a male householder, and 430 (16%) were headed by a female householder.

**Table 37. Family Households, by Type of Head of Household
(US Census Bureau 5-Year Estimate, 2010-2014)**

Location	Total Households	Households w/ children <18	Married-couple Households	Married-couple w/ children <18	Male Householder	Male Householder w/ children <18	Female Householder	Female Householder w/ children <18
	Number	Number	Number	Number	Number	Number	Number	Number
Currituck County	6,753	2,652	5,412	2,013	439	209	902	430
<i>Regional Average</i>	<i>5,158</i>	<i>1,970</i>	<i>3,741</i>	<i>1,251</i>	<i>334</i>	<i>147</i>	<i>1,083</i>	<i>571</i>
Pamlico County	3,695	1,021	2,978	632	187	103	530	286
<i>State of NC</i>	<i>2,484,973</i>	<i>1,077,906</i>	<i>1,803,981</i>	<i>699,864</i>	<i>166,170</i>	<i>84,965</i>	<i>514,822</i>	<i>293,077</i>

Source: US Census Bureau, American FactFinder, 2014 American Community Survey 5-Year Estimates. Table: S1101: Households and Families. <http://factfinder2.census.gov>

Grandparents Responsible for Minor Children

The table below presents data on grandparents with responsibility for minor children. Data on grandparents as primary caregivers were derived from US Census Bureau American Community Survey questions. Data were collected on whether a grandchild lives with a grandparent in the household, whether the grandparent has responsibility for the basic needs of the grandchild, and the duration of that responsibility. Responsibility of basic needs determines if the grandparent is financially responsible for food, shelter, clothing, day care, etc., for any or all grandchildren living in the household. Percent is derived with the number of grandparents

responsible for grandchildren (under 18 years) as the numerator and number of grandparents living with own grandchildren (under 18 years) as the denominator.

- In Currituck County for the period cited, an estimated 44% of grandparents living with their minor grandchildren were also responsible for their care, the lowest figure among comparators.
- In Currituck County, 41% of grandparents financially responsible for minor grandchildren were over the age of 60, none were disabled, and 17% lived below the poverty level.

**Table 38. Grandparents with Responsibility for Minor Children
(US Census Bureau 5-Year Estimate, 2010-2014)**

Location	Grandparents Living with own grandchildren under 18	Grandparents Responsible for grandchildren under 18							
		Number	Percent	# Over 60	% Over 60	% White	% African American	% Disabled	% Below Poverty Level
Currituck County	527	231	43.8	94	40.7	82.7	17.3	0.0	17.3
<i>Regional Average</i>	561	293	49.1	114	37.6	67.0	33.0	21.8	29.0
Pamlico County	296	222	75.0	79	35.6	70.7	18.9	25.2	27.0
<i>State of NC</i>	209,835	100,472	47.9	34,797	34.6	56.2	36.3	27.6	26.2

Source: US Census Bureau, American FactFinder, 2014 American Community Survey 5-Year Estimates. Table: S1002: Grandparents. <http://factfinder2.census.gov>

CHILD CARE

Child Care Facilities

The NC Division of Child Development is the state agency charged with overseeing the child care industry in the state, including the regulation of child day care programs. The Division licenses child care facilities that keep more than two unrelated children for more than four hours a day. In NC, regulated child day care facilities are divided into two categories—Child Care Centers and Family Child Care Homes—with the categories delineated on the basis of enrollment. A *child care center* is a larger program providing care for three or more children, but not in a residential setting. The number of children in care is based upon the size of individual classrooms and having sufficient staff, equipment and materials. A *family child care home* is a smaller program offered in the provider's residence where three to five preschool children are in care. A family child care home may also provide care for three school-age children (27).

In 1999, the NC Division of Child Development began issuing “star rated” licenses to all eligible Child Care Centers and Family Child Care Homes. NC’s Star Rated License System gave from one to five stars to child care programs based on how well they were doing in providing quality child care. A rating of one star meant that a child care program met the state’s minimum licensing standards for child care. Programs that chose to voluntarily meet higher standards could apply for a two to five star license. (Note: Religious-sponsored child care programs could opt to continue to operate with a notice of compliance and not receive a star rating.)

Three areas of child care provider performance were assessed in the star system: program standards, staff education, and compliance history. Each area had a range of one through five points. The star rating was based on the total points earned for all three areas.

Then, in 2005, the way facilities were evaluated was changed in order to give parents better information about a program’s quality. The new rules made a 75% “compliance history” a minimum standard for any licensed facility. Because it is now a minimum requirement, all programs earn their star rating based only on the two components that give parents the best indication of quality: staff education and program standards. In addition, programs having a two component license can earn a “quality point” for enhanced standards in staff education and program standards.

According to data in the table that follows:

- Of the seven licensed child care centers in Currituck County at the time of this report, two (29%) were five-star facilities and three (43%) were four-star facilities.
- Of the eight licensed family child care homes in Currituck County, none was a five-star facility, two (25%) were four-star facilities, and two (25%) were three-star facilities,

**Table 39. NC-Licensed Child Care Facilities in Currituck County
(February, 2016)**

Type of Facility	Number
Child Care Centers (7)	
Five-star	2
Four-star	3
Three-star	1
Two-star	0
One-star	0
GS 110-106 (Church-affiliated)	1
Temporary	0
Family Child Care Homes (8)	
Five-star	0
Four-star	2
Three-star	2
Two-star	0
One-star	4

Source: NC Department of Health and Human Services, Division of Child Development, Child Care Facility Search Site; <http://ncchildcaresearch.dhhs.state.nc.us/search.asp>.

The table below presents total enrollment summaries for child care facilities. This data is old, but had not been updated at the source by the time of this report.

**Table 40. Children Enrolled in NC-Regulated Child Care
(2008-2011)**

Location	No. Children (0-5) Enrolled in Child Care Centers				No. Children (0-12) Enrolled in Family Care Homes			
	2008	2009	2010	2011	2008	2009	2010	2011
Currituck County	309	310	273	332	58	47	45	39
<i>Regional Average</i>	347	355	351	428	45	45	45	41
Pamlico County	158	186	174	141	37	33	43	45
State of NC	172,717	168,953	169,852	194,632	15,354	14,936	14,384	13,321

Source: Annie E. Casey Foundation, Kids Count Data Center, Community Level Data, North Carolina Indicators; <http://datacenter.kidscount.org/data/bystate/StateLanding.aspx?state=NC>.

The WorkFirst Employment Program discussed previously includes child care subsidies for families that qualify. The following table also contains old data on the number of children in each jurisdiction that received WorkFirst Working Connections Child Care Subsidies.

- The number of children in Currituck County that received a WorkFirst child care subsidy decreased over the period cited, as for the most part did the comparable figures for the region and Pamlico County.
- In each jurisdiction, including the state of NC, the figures were their lowest of the entire period in 2010.

**Table 41. Number of Children Receiving WorkFirst Child Care Subsidy
(2007-2010)**

Location	2007	2008	2009	2010
Currituck County	51	52	44	35
<i>Regional Average</i>	110	118	91	77
Pamlico County	70	68	46	33
State of NC	41,075	43,124	42,944	39,341

Note: the number of children is based on the number of children under 18 receiving Work First benefits for the month of December for a particular year.
Source: Annie E. Casey Foundation, Kids Count Data Center, Community Level Data, North Carolina Indicators;
<http://datacenter.kidscount.org/data/bystate/chooseindicator.aspx?state=NC>.

EDUCATION

Higher Education

There are no four-year colleges or universities physically located in Currituck County, but there are several institutions of higher education in the ARHS region accessible to Currituck County residents.

College of the Albemarle

The College of The Albemarle (COA) is a community college that serves northeastern NC with sites in several locations throughout the region, including a campus in Edenton, one in Elizabeth City, and a third in Manteo. A comprehensive community college, COA offers two-year degrees in college transfer and career programs, basic skills programs, continuing education classes for personal enrichment as well as credit, customized business and industry training, and cultural enrichment opportunities including an annual summer program called College for Kids. The COA is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award associate degrees (28).

Roanoke-Chowan Community College

Roanoke-Chowan Community College (RCCC) is a regional community college located in Ahoskie, NC (Hertford County). The College currently has about 20 curricular programs in which students may seek degrees, diplomas and short term skills-based certificates. RCCC recently added an Associate of Fine Arts Degree in Visual Arts, in addition to diplomas in high demand occupational training in Building Construction, Plumbing and other construction-related technologies. The College offers a Lateral Entry Teacher Certificate tailored to meet the need of public schools within the region to fully credential educators who have entered the classroom without the advantage of full unrestricted licensure.

RCCC has established formal transfer agreements with the 16-member University of North Carolina System and several private colleges to provide transfer opportunities for students to pursue higher-level degrees. RCCC has expanded its distance learning studies to include Internet-based courses, and has increased efforts with area school systems to provide more opportunities for high school students to take college courses, either on the R-CCC campus or at their respective high schools.

The RCCC Continuing Education and Workforce Development Division meets business needs by establishing basic or occupation-related classes within local industries and by developing Focused Industrial Training (FIT) opportunities. Its Small Business component works on a one-on-one basis with individuals and small companies wanting to start and or enhance a small business enterprise. The Hertford County JobLink Career Center is also located on the R-CCC Campus (29).

Chowan University

Chowan University is a small (~1,300 students) four-year liberal arts university located in Murfreesboro, NC (Hertford County). Chowan University is affiliated with the Southern Baptist Association. The university offers over 63 academic programs and the recently-opened School

of Graduate Studies provides students the opportunity to earn Masters Degrees. Currently, Chowan offers the Master of Education (M.Ed.) degree with advanced teacher license.

Chowan University enrolls about 30 adult students in the Adult Degree Completion Program. Through this program, adult students take classes at Halifax Community College in Weldon, NC, at the main campus in Murfreesboro, NC, and online.

The Chowan University student/faculty ratio is 16:1, with an average class size of 15. The university has a campus-wide fiber-optic network and Blackboard communication system, computer labs, "smart" multimedia classrooms, hardware and software discounts, in-house technical support, and 24/7 high-speed Internet access (30).

Martin Community College

Martin Community College (MCC) is a regional community college located in Williamston, NC (Martin County) with a satellite campus located in Windsor. MCC provides adult basic education, adult high school education, extension classes, and selected curriculum courses in 20 vocational and technical areas. MCC also offers an Associate in Arts College Transfer Program and a Transfer Core Diploma. The college offers online curricular and continuing education classes via a system called *ed2go* (31).

Elizabeth City State University

Elizabeth City State University (ECSU) is a four-year state university located in Elizabeth City, NC (Pasquotank County). Originally an institution for African-American students, the university now has an increasingly multicultural student body. In the fall of 2012, ECSU had a total enrollment of 2878. A constituent institution of The University of North Carolina System, ECSU offers 37 baccalaureate degrees and four master's degrees in four academic schools: Arts and Humanities; Business and Economics; Education and Psychology; and Mathematics, Science and Technology. The university has academic programs that appeal to various interests and fields of study, including the honors program, military science, study abroad, Viking Fellows for education majors, and "signature" programs in aviation and pharmacy (32).

East Carolina University

East Carolina University (ECU) is a large, four-year state university located in Greenville, NC (Pitt County). ECU is a constituent member of the UNC System founded in 1907 to alleviate the desperate shortage of teachers in the eastern part of NC. Since then, the ECU College of Education has been joined by programs of high distinction in health care and the fine and performing arts. Today the university offers over 100 bachelor's degree programs, more than 70 master's degree programs, four specialist degree programs, an MD program, and 16 doctoral programs. The university is the largest educator of nurses in NC, and its Brody School of Medicine is consistently ranked among the top medical schools in the nation that emphasize primary care. The school was recently ranked second in the nation by the American Academy of Family Physicians for productivity of family physicians.

ECU is the state's leader in distance education, offering more than 60 degrees and certificate programs in subjects such as business, education, health care, and technology. Two of the top

distance-education programs in the nation are run by ECU's colleges of nursing and education (33).

Primary and Secondary Education

Schools and Enrollment

The following several tables focus on data pertaining to primary and secondary (mostly public) schools in Currituck County (as well as its comparator jurisdictions where appropriate).

- There are ten public schools in the Currituck County school district: six elementary schools, two middle schools, and two secondary schools. There also is one private school in the county.

**Table 42. Number of Schools
(SY2012-13 or as Noted)**

Location	Public (SY2012-13)				Private (SY2014-15)			
	Elementary (PK-8)	Middle (4-8)	Secondary (9-12)	Combined	K-10/11/12	Middle School	K-5	Other
Currituck County Schools	6	2	2	0	1	0	0	0
<i>Regional Total</i>	25	10	12	1	6	3	1	2
Source:	a	a	a	a	b	b	b	b

a - NC Department of Public Instruction, NC School Report Cards, Search by School District. <http://www.ncreportcards.org/src/>.

b - NC Division of Non-Public Education, Resources and Statistics, NC Directory of Non-Public Schools.

<http://www.ncdnpe.org/documents/14-15-CS-Directory.pdf>.

- Currituck County High School in Barco was the largest school in the district, with a SY2012-13 enrollment of 942. Moyock Middle School, in Moyock, was the second largest school in the district, with a SY2012-13 enrollment of 591.

**Table 43. Currituck County Public Schools (Not Including Charter Schools)
(SY2012-13)**

School	Location	School Type/Calendar	Grade Range	Enrollment SY2012-13
Central Elementary	Barco	Regular School, Traditional Calendar	PK-5	164
Currituck County High	Barco	Regular School, Traditional Calendar	9-12	942
Currituck County Middle	Barco	Regular School, Traditional Calendar	6-8	354
Jarvisburg Elementary	Jarvisburg	Regular School, Traditional Calendar	PK-5	240
Knotts Island Elementary	Knotts Island	Regular School, Traditional Calendar	K-5	105
Moyock Elementary	Moyock	Regular School, Traditional Calendar	K-5	466
Moyock Middle	Moyock	Regular School, Traditional Calendar	6-8	591
Shawboro Elementary	Shawboro	Regular School, Traditional Calendar	K-5	508
The JP Knapp ECH School	Currituck	Regular School, Traditional Calendar	9-12	202
WT Griggs Elementary	Poplar Branch	Regular School, Traditional Calendar	K-5	244

Source: NC Department of Public Instruction, Data and Statistics, Education Data, NC School Report Cards, School Year 2009-10;

<http://www.ncschoolreportcards.org/src>.

- In addition to ten regular public schools, there is also one charter school in Currituck County, which enrolled 19 students in SY2014-15.

Table 44. Currituck County Charter School (SY2014-15)

Location	Name	City	Year Established	Grades	Enrollment
Currituck	Waters Edge Village School (27A)	Corolla	2012	K-6	19
	1	1	1	1	2

1 - NC Department of Public Instruction, Office of Charter Schools, Schools: Find by County.

<http://www.dpi.state.nc.us/charterschools/schools/by-county/>.

2 - NC Department of Public Instruction, Data and Statistics, Education Data: NC Statistical Profile. NC Statistical Profile Online: Charter Schools: Pupil Accounting. Charter/Regional Schools List and Table 34: Final Pupils by Grade.

<http://apps.schools.nc.gov/pls/apex/f?p=1:1:1478699300126501::NO>.

- K-12 public school enrollment in Currituck County has been relatively stable since SY2007-08, varying by fewer than 200 students over the period cited.

Table 45. K-12 Public School Enrollment (SY2007-08 through SY2014-15)

Location	Number of Students							
	SY2007-08	SY2008-09	SY2009-10	SY2010-11	SY2011-12	SY2012-13	SY2013-14	SY2014-15
Currituck County Schools	4,207	4,169	4,096	4,067	4,167	4,013	4,096	4,057
<i>Regional Average</i>	3,150	3,101	3,038	3,017	3,122	2,933	2,905	2,902
<i>State of NC</i>	1,458,156	1,456,558	1,446,650	1,450,435	1,458,572	1,467,297	1,493,980	1,498,654

Note: this data excludes charter school enrollment.

Source: NC Department of Public Instruction, Data and Statistics, Education Data: NC Statistical Profile. NC Statistical Profile Online: Local Education Agencies Information, Pupil Accounting. Table A1: Final Pupils by Year and Grade.

<http://apps.schools.nc.gov/pls/apex/f?p=1:1:497147721913602>.

Educational Attainment

The following table presents data on several measures of educational attainment.

Compared to the NC average, in 2014 or SY2014-15 Currituck County had:

- A <1% lower proportion of residents with *less than* a high school education;
- A 31% lower proportion of residents with a bachelor's degree or higher;
- Higher proficiency on both math and reading EOG tests among 3rd graders, and among 8th graders on EOG reading tests. A lower percentage of Currituck County 8th graders were grade-level proficient in math than the NC average.
- A slightly higher rate of participation in the SAT and higher average scores.

**Table 46. Educational Attainment
(Years as Noted)**

Location	% Population High School Graduate or Higher	% Population Bachelor's Degree or Higher	% 3rd Graders Grade Level Proficient, EOG Reading Test	% 3rd Graders Grade Level Proficient, EOG Math Test	% 8th Graders Grade Level Proficient, EOG Reading Test	% 8th Graders Grade Level Proficient, EOG Math Test	SAT Participation Rate	Average Total SAT Scores
	2014	2014	SY2014-15	SY2014-15	SY2014-15	SY2014-15	SY2014-15	SY2014-15
Currituck County	84.7	19.2	61.5	74.8	64.6	41.1	56%	1022
<i>Regional Average</i>	82.8	16.9	55.3	64.8	51.5	35.6	60%	918
Pamlico County	86.7	19.9	55.8	58.4	45.3	45.3	60%	963
<i>State of NC</i>	85.4	27.8	59.0	61.7	53.4	43.2	54%	989

Source: a - US Census Bureau, American Fact Finder, 2014 ACS 5-Year Estimate. Table S1501: Educational Attainment (Geographies as noted). <http://factfinder.census.gov>.
 b - NC Department of Public Instruction, Data and Statistics, Education Data, NC School Report Cards. District Profile. <http://www.ncpublicschools.org/src/>.

Educational Expenditures

The next table presents data on local, state and federal expenditures on public education.

- In SY2014-15 the total per pupil expenditure (the sum of Federal, state and local investments) in Currituck County (\$9,241) was 9% lower than the average for the ARHS region (\$10,208), and 6% higher than the average for the state as a whole (\$8,734).
- In all jurisdictions, the state contributed the highest proportion to the total per-pupil expenditure: 63% in Currituck County, an average of 69% region-wide, and an average of 64% statewide.

**Table 47. Educational Expenditures
(SY2014-15)**

Location	Per-Pupil Expenditure			
	Local	State	Federal	Total
Currituck County Schools	\$2,782	\$5,820	\$639	\$9,241
<i>Regional Average</i>	\$2,064	\$7,020	\$1,124	\$10,208
<i>State of NC</i>	\$2,137	\$5,624	\$973	\$8,734

Source: NC Department of Public Instruction, Data and Statistics, Education Data, NC School Report Cards. District Profile. <http://www.ncpublicschools.org/src/>.

High School Drop-Out Rate

The following table presents data on the high school (grades 9-12) drop-out rate. According to the NC Department of Public Instruction, a "drop-out" is any student who leaves school for any reason before graduation or completion of a program of studies without transferring to another elementary or secondary school. For reporting purposes, a drop-out is a student who was enrolled at some time during the previous school year, but who was not enrolled (and who does not meet reporting exclusions) on day 20 of the current school year. The data below is specific to high school students.

- The high school drop-out rate in Currituck County fluctuated somewhat over the period cited in the table, but was highest (4.79) in SY2007-08.

- In the most recent period the drop-out rate in Currituck County was lower than either the regional or state averages.

**Table 48. High School Drop-Out Rate
(SY2006-07 through SY2013-14)**

Location	Drop-Out Rate							
	SY2006-07	SY2007-08	SY2008-09	SY2009-10	SY2010-11	SY2011-12	SY2012-13	SY2013-14
Currituck County Schools	4.04	4.79	4.19	3.16	3.73	2.01	1.84	2.10
<i>Regional Average</i>	4.38	4.78	3.65	3.42	3.53	2.70	2.18	2.19
<i>State of NC</i>	5.27	4.97	4.27	3.75	3.43	3.01	2.45	2.28

Source: NC Department of Public Instruction, Research and Evaluation, Dropout Data and Collection Process, Annual Dropout Reports. Consolidated Report: Table D5: high School Dropout Counts and Rates; <http://www.ncpublicschools.org/research/dropout/reports/>.

Graduation Rate

The four-year cohort graduation rates for subpopulations of 9th graders entering high school in SY2011-12 and graduating in SY2014-15 are presented in the table below.

- Among comparators, the graduation rates in all student categories shown were highest among comparators in Currituck County Schools.

**Table 49. Four Year Cohort Graduation Rate
(9th Graders Entering SY2011-12 and Graduating SY2014-15 or Earlier)**

Location	All Students			Male			Female			Economically Disadvantaged		
	Total Students	# Students Graduating	% Students Graduating	Total Students	# Students Graduating	% Students Graduating	Total Students	# Students Graduating	% Students Graduating	Total Students	# Students Graduating	% Students Graduating
Currituck County Schools	294	265	90.1	144	125	86.8	150	140	93.3	58	51	87.9
<i>Regional Average</i>	218	188	86.7	110	90	83.1	109	98	90.3	91	75	83.9
<i>State of NC</i>	110,473	94,544	85.6	56,294	46,288	82.2	54,179	48,256	89.1	44,047	35,076	79.6

Note: subgroup information is based on data collected when a student is last seen in the cohort
Source: Public Schools of North Carolina, Cohort Graduation Rate. 4-Year Cohort Graduation Rate Report, 2011-12 Entering 9th Graders Graduating in 2014-15 or Earlier. <http://www.ncpublicschools.org/accountability/reporting/cohortgradrate>.

School Crime and Violence

Along with test scores and dropout rates, schools also track and report acts of crime and violence that occur on school property.

The NC State Board of Education has defined 17 criminal acts that are to be monitored and reported, ten of which are considered dangerous and violent:

- Homicide
- Assault resulting in serious bodily injury
- Assault involving the use of a weapon
- Rape
- Sexual offense
- Sexual assault
- Kidnapping
- Robbery with a dangerous weapon
- Robbery without a dangerous weapon
- Taking indecent liberties with a minor

The other seven criminal acts are:

- Assault on school personnel
- Bomb threat
- Burning of a school building
- Possession of alcoholic beverage
- Possession of controlled substance in violation of law
- Possession of a firearm or powerful explosive
- Possession of a weapon

The next table summarizes acts of school crime and violence catalogued by the NC Department of Public Instruction.

- The number and rate of acts of school crime and violence in Currituck County Schools and the other jurisdictions fluctuated significantly over the period cited. Only the statewide average showed any stability, likely due to the large size of the sample. The state rate decreased in the three most recent school years cited.

**Table 50. School Crime and Violence Trend
(SY2006-07 through SY2013-14)**

Location	SY2006-07		SY2007-08		SY2008-09		SY2009-10		SY2010-11		SY2011-12		SY2012-13		SY2013-14	
	No. Acts	Rate	No. Acts	Rate	No. Acts	Rate	No. Acts	Rate	No. Acts	Rate	No. Acts	Rate	No. Acts	Rate	No. Acts	Rate
Currituck County Schools	22	5.4	32	8.0	59	14.9	31	8.0	39	10.1	35	9.0	22	5.8	30	7.7
<i>Regional Average</i>	17	5.5	21	7.6	19	6.0	14	5.0	16	4.6	16.7	6.3	15.3	4.9	15.9	5.8
Pamlico County Schools	33	21.9	20	14.3	12	8.6	7	5.1	6	4.3	13	9.5	15	11.8	9	7.1
State of NC	11,013	7.8	11,276	7.9	11,116	7.6	11,608	8.0	11,657	8.0	11,161	7.6	10,630	7.2	10,132	6.8
Source	a	a	b	b	b	b	b	b	b	b	b	b	b	b	b	b

¹ For list of reportable acts see accompanying text

² Rate is number of acts per 1,000 students

a - NC Department of Public Instruction, Research and Evaluation, Discipline Data, Annual Reports, Annual Reports of School Crime and Violence (years as noted); <http://www.ncpublicschools.org/research/discipline/reports/#consolidated>.

b - NC Department of Public Instruction, Research and Evaluation, Discipline Data, Consolidated Data Reports. Crime & Violence Table C-5. <http://www.ncpublicschools.org/research/discipline/reports/#consolidated>.

The following table displays locally-provided detail on the acts of crime and violence committed in Currituck County Schools in SY2011-12 through SY2013-14.

- According to this data, the most common offenses in Currituck County Schools were possession of a controlled substance, accounting for 58 reportable acts over the three years cited, and possession of a weapon, accounting for 12 reportable acts.

Table 51. School Crime and Violence in Currituck County Schools, by Type of Offense (SY2011-12 through SY2013-14)

Offense	Number of Acts		
	SY2011-12	SY2012-13	SY2013-14
Assault resulting in serious injury	0	1	0
Assault involving use of weapon	0	0	0
Assault of school personnel	1	0	1
Bomb threat	4	0	2
Burning of school building	0	0	0
Death by other natural causes	0	0	0
Kidnapping	0	0	0
Possession of alcoholic beverage	1	1	4
Possession of controlled substance	26	15	17
Possession of firearm	0	0	0
Possession of weapon	2	4	6
Rape	0	0	0
Robbery with a dangerous weapon	0	0	0
Sexual assault	1	1	0
Sexual offense	0	0	0
Taking liberties with a minor	0	0	0
Total Reportable Acts	35	22	30
Average Daily Membership	3,873	3,816	3,872
Acts per 1,000 Students	9.0	5.8	7.7

Source: NC Department of Public Instruction, Research and Evaluation, Discipline Data, Consolidated Data Reports. Crime & Violence Table C-5, years as noted.
<http://www.ncpublicschools.org/research/discipline/reports/#consolidated>.

The final table in this section presents data summarizing disciplinary activity in the public schools. Since the data represent counts of activity of school systems of different sizes, direct comparisons are problematic.

- In all the school systems under comparison the most common disciplinary activity was the short-term suspension, and expulsions were rare.

Table 52. School Disciplinary Activity (SY2010-11 through SY2013-14)

School System	SY2010-11			SY2011-12			SY2012-13			SY2013-14		
	No. Short-Term Suspensions	No. Long-Term Suspensions	No. Expulsions	No. Short-Term Suspensions	No. Long-Term Suspensions	No. Expulsions	No. Short-Term Suspensions	No. Long-Term Suspensions	No. Expulsions	No. Short-Term Suspensions	No. Long-Term Suspensions	No. Expulsions
Currituck County Schools	595	3	0	518	0	0	487	0	0	369	0	0
<i>Regional Average</i>	570	6	0	615	2	0	590	4	0	450	2	0
Pamlico County Schools	286	1	0	316	1	0	229	3	0	288	2	0
State of NC	262,858	2,586	59	258,197	1,609	30	247,919	1,423	37	198,254	1,088	37

¹ A short-term suspension is up to 10 days.

² A long term suspension is 11 or more days.

Source: NC Department of Public Instruction, Research and Evaluation, Discipline Data, Consolidated Data Reports (years as noted); <http://www.ncpublicschools.org/research/discipline/reports/#consolidated>.

CRIME AND SAFETY

Crime Rates

All crime statistics reported below were obtained from the NC Department of Justice, State Bureau of Investigation unless otherwise noted.

Index crime is composed of *violent crime* and *property crime*. Violent crime includes murder, forcible rape, robbery, and aggravated assault; property crime includes burglary, larceny, arson, and motor vehicle theft.

The table below presents the rates for index crime, violent crime, and property crime for the period from 2010 through 2014.

- The largest component of index crime in all four jurisdictions was property crime.

Table 53. Crime Rates, Crimes per 100,000 Population (2010-2014)

Location	Crimes per 100,000 Population														
	2010			2011			2012			2013			2014		
	Index Crime	Violent Crime	Property Crime	Index Crime	Violent Crime	Property Crime	Index Crime	Violent Crime	Property Crime	Index Crime	Violent Crime	Property Crime	Index Crime	Violent Crime	Property Crime
Currituck County	2,876.3	201.6	2,674.8	3,404.2	225.0	3,179.3	2,440.5	156.6	2,284.0	1,987.1	120.0	1,858.1	1,636.3	300.0	1,436.4
<i>Regional Average</i>	2,191.1	211.0	1,980.1	2,512.8	196.6	2,316.2	2,326.2	229.9	2,096.4	2,108.7	197.8	1,909.5	2,006.2	214.5	1,808.4
Pamlico County	2,320.3	166.9	2,153.4	2,296.5	220.7	2,075.8	2,632.2	219.4	2,412.9	2,829.3	374.0	2,455.3	2,423.6	304.0	2,119.6
State of NC	3,955.7	374.4	3,581.4	3,919.8	354.6	3,565.2	3,770.6	358.9	3,411.7	3,518.7	340.4	3,178.3	3,287.2	333.0	2,954.1

* - Indicates incomplete or missing data.

Source: NC Department of Justice, State Bureau of Investigation, Crime, View Crime Statistics, Crime Statistics (by Year). County Rates Ten Year Trend and Statewide Offenses and Rates, Ten Year Trend; <http://crimereporting.ncsbi.gov/Reports.aspx>.

The following three figures present long-term (2006-2014) trend data for index, violent and property crime.

- The index crime rate in Currituck County was lower than the comparable rate for NC in every year cited. The Currituck County index crime rate was higher than the regional rate in six of the nine years cited. In 2014 the Currituck County index crime rate was 1,636.3 crimes committed per 100,000 population, compared to 3,287.2 in NC and 2,006.2 in the ARHS region.
- The violent crime rate in the county has increased dramatically recently, but was lower than the comparable rates region-wide and statewide for much of the period cited. In 2014 the Currituck County violent crime rate was 300.0 compared to a state rate of 333.0 and a Regional rate of 214.5.
- The property crime rate in Currituck County also has been variable over time. Although the county property crime rate was lower than the comparable NC rate in every year cited, and has fallen recently, it was higher than the regional average in seven of the nine years cited. In 2014 the property crime rate in Currituck County was 1,436.4, compared to 2,954.1 statewide and 1,808.4 Region wide.

Figure 12. Index Crime Rate Trend

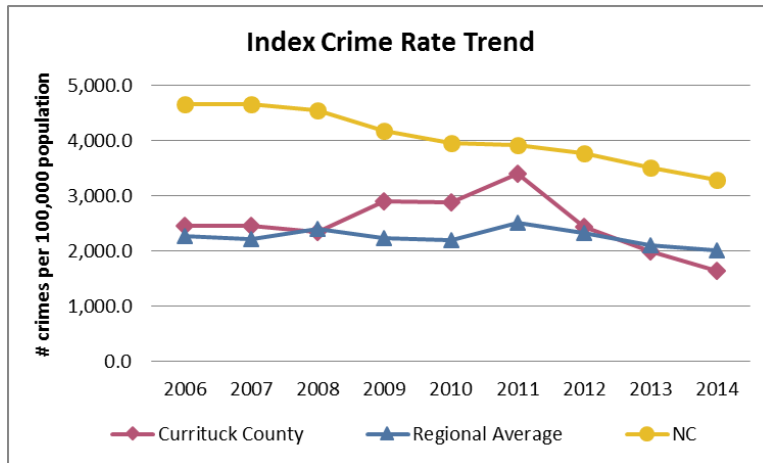


Figure 13. Violent Crime Rate Trend

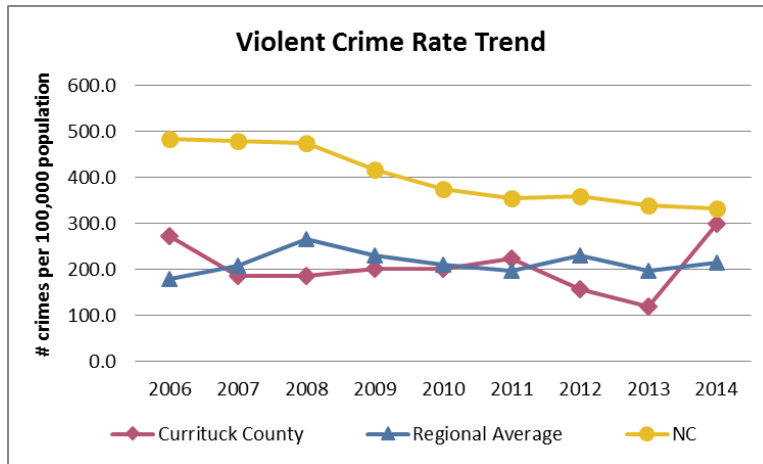
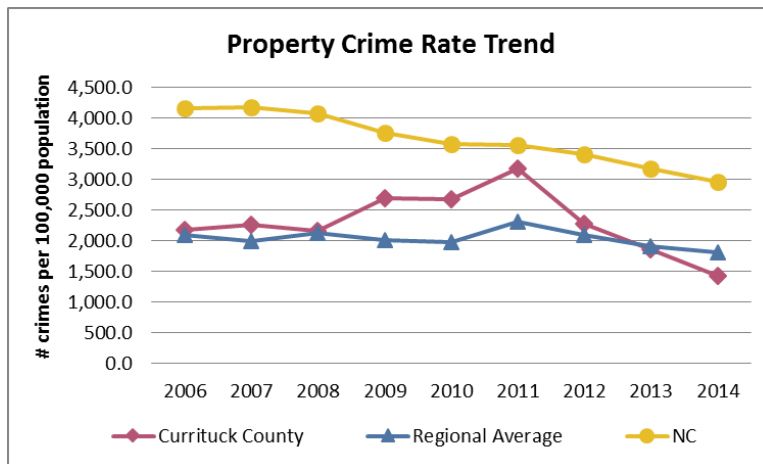


Figure 14. Property Crime Rate Trend



Source: NC Department of Justice, State Bureau of Investigation, Crime, View Crime Statistics, Crime Statistics (by Year). County Rates Ten Year Trend and Statewide Offenses and Rates, Ten Year Trend; <http://crimereporting.ncsbi.gov/Reports.aspx>.

The next table presents detail on index crime committed in Currituck County from 2006 through 2014. Note the following definitions:

Robbery: larceny by the threat of violence;

Aggravated assault: a physical attack on another person which results in serious bodily harm and/or is made with a deadly or dangerous weapon such as a gun, knife, sword, ax or blunt instrument;

Burglary: unlawful breaking and entering into the premises of another with the intent to commit a felony;

Larceny: the theft of property without use of force; and

Motor vehicle theft: the theft or attempted theft of a motor vehicle

- The predominant violent crime reported in every year cited was aggravated assault.
- Larceny was the predominant property crime reported in every year cited.

Table 54. Types of Crimes Reported in Currituck County (2006-2014)

Type of Crime	Number of Crimes								
	2006	2007	2008	2009	2010	2011	2012	2013	2014
Violent Crime									
<i>Murder</i>	1	1	1	0	1	2	0	0	1
<i>Rape</i>	6	1	4	3	2	6	2	2	4
<i>Robbery</i>	9	1	2	3	0	2	2	3	2
<i>Aggravated Assault</i>	47	41	37	42	45	43	33	24	42
Property Crime									
<i>Burglary</i>	194	179	170	175	160	202	114	117	90
<i>Larceny</i>	287	334	325	449	462	520	415	317	248
<i>Motor Vehicle Theft</i>	21	20	19	16	15	27	11	15	14
Total Index Crimes	565	577	558	688	685	802	577	478	401

Source: NC State Bureau of Investigation, Crime in North Carolina, North Carolina Crime Statistics, Crime Statistics in Detailed Reports (By Year), Annual Reports, County Offenses Ten Year Trend, <http://crimereporting.ncsbi.gov/Reports.aspx>.

Other Criminal Activities

The following table summarizes data on other types of criminal activities.

- As of February 4, 2016 there were 42 registered sex offenders in Currituck County, compared to 25 in Pamlico County. The average for counties in the region was 38.
- According to the NC Governor's Crime Commission, in 2013 there were no gangs in Currituck County or Pamlico County. The same year, the Crime Commission sited a total of 982 gangs statewide.
- According to the NC State Bureau of Investigation, there were four methamphetamine drug lab busts in Currituck County during the period from 2005 through 2013, all of them in 2012 and 2013. Over the same period, 2,685 meth lab busts were recorded statewide.

Table 55. Other Criminal Activity

Location	No. Registered Sex Offenders (2/4/16)	No. Gangs	No. Methamphetamine Lab Busts									
			2013	2005	2006	2007	2008	2009	2010	2011	2012	2013
Currituck County	42	0	0	0	0	0	0	0	0	0	3	1
<i>Regional Average</i>	38	2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Pamlico County	25	0	0	0	1	0	0	0	0	0	0	0
State of NC	n/a	982	328	197	157	197	206	235	344	460	561	
Source:	a	b	c	c	c	c	c	c	c	c		

a - NC Department of Justice, Sex Offender Statistics, Offender Statistics; <http://sexoffender.ncsbi.gov/>.

b - NC Department of Crime Control and Public Safety, Governor's Crime Commission, Publications. Gangs in North Carolina 2013 (March 2013). Appendix 2. <https://www.ncdps.gov/div/GCC/PDFs/Pubs/Gangs2013.pdf>.

c - NC Department of Justice, State Bureau of Investigation, Crime, Enforce Drug Laws, Meth Focus, Meth Lab Busts; <http://www.ncdoj.gov/getdoc/b1f6f30e-df89-4679-9889-53a3f185c849/Meth-Lab-Busts.aspx>.

Juvenile Crime

The following definitions will be useful in understanding the subsequent data and discussion.

Complaint: A formal allegation that a juvenile committed an offense, which will be reviewed by a counselor who decides whether to approve or not approve the complaint. If approved, it will be heard in juvenile court.

Undisciplined: Describes a juvenile between the ages of six and 16, who is unlawfully absent from school, or regularly disobedient and beyond disciplinary control of parent/guardian, or is regularly found where it is unlawful for juveniles to be, or has run away from home for more than 24 hours. It also includes 16-17 year olds who have done any of the above except being absent from school.

Delinquent: Describes a juvenile between the ages of six and not yet 16 who commits an offense that would be a crime under state or local law if committed by an adult.

Diversion: If a complaint is not approved, it may be diverted to a community resource or placed on a diversion contract or plan that lays out stipulations for the juvenile (like community service) to keep the juvenile out of court.

Non-divertible: Non-divertible offenses include offenses like: murder, rape, sexual offense, arson, first degree burglary, crime against nature, willful infliction of serious bodily harm, assault with deadly weapon, etc.

Transfer to Superior Court: A juvenile who is 13, 14 or 15 who is alleged to have committed a felony may be transferred to Superior Court and tried and sentenced as an adult. If a juvenile is over 13 and charged with first degree murder, the judge must transfer the case to Superior Court if probable cause is found.

Rate: The number per 1,000 persons that are aged 6 to 17 in the county.

The following table presents a summary of juvenile justice complaints and rates:

- Between 2010 and 2014 the *number* of complaints of *undisciplined* youth in Currituck County increased from 6 to 8, passing through at least two years of double-digit counts. The *rate* of *undisciplined* youth followed the same erratic pattern.
- Over the same period the *number* of complaints of *delinquent* youth in Currituck County increased from 133 to 164, and the *rate* of *delinquent* youth increased from 45.97 to 51.17.

**Table 56. Complaints and Rates of Undisciplined and Delinquent Youth
(2010 through 2014)**

Location	Complaints									
	No. Undisciplined					Rate Undisciplined (Complaints per 1,000 Ages 6 to 17)				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Currituck County	6	11	5	12	8	1.68	2.84	1.28	3.07	2.05
<i>Regional Average</i>	10	9	8	6	5	2.92	2.89	2.73	1.95	1.78
Pamlico County	4	3	2	0	2	2.64	1.86	1.23	0.00	1.28
<i>State of NC</i>	4,285	3,603	3,194	2,556	2,277	2.94	2.34	2.50	1.66	1.47

Location	Complaints									
	No. Delinquent					Rate Delinquent (Complaints per 1,000 Age 6 to 15)				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Currituck County	133	106	99	103	164	45.97	33.57	31.13	32.31	51.17
<i>Regional Average</i>	83	66	52	58	77	29.06	24.99	19.54	20.69	27.05
Pamlico County	31	28	41	21	28	24.8	21.18	30.8	15.84	21.57
<i>State of NC</i>	33,299	33,556	31,575	29,535	29,288	27.55	26.08	24.70	22.91	22.52

Source: NC Department of Public Safety. Juvenile Justice, Data/Statistics/Reports, County Databooks (Search by Year); <https://www.ncdps.gov/Index2.cfm?a=000003.002476.002487>.

The next table summarizes the outcomes of complaints of undisciplined and delinquent youth.

- A total of 41 Currituck County juveniles were sent to secure detention over the five years cited.
- Two Currituck County juveniles were sent to youth development centers over the period cited; none were transferred to Superior Court.

**Table 57. Juvenile Justice Outcomes
(2010 through 2014)**

Location	Outcomes														
	No. Sent to Secure Detention					No. Sent to Youth Development Center					No. Transferred to Superior Court				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Currituck County	12	9	5	8	7	0	0	0	1	1	0	0	0	0	0
<i>Regional Average</i>	9	10	6	6	7	0	0	0	0	0	0	0	0	0	0
Pamlico County	5	3	2	1	5	0	0	0	0	0	0	0	0	0	0
<i>State of NC</i>	4,297	3,558	2,767	2,352	2,244	357	307	216	219	202	30	28	36	28	14

Source: NC Department of Public Safety. Juvenile Justice, Data/Statistics/Reports, County Databooks (Search by Year); <https://www.ncdps.gov/Index2.cfm?a=000003.002476.002487>

Sexual Assault

The following table summarizes data from the Domestic Violence Commission of the NC Council for Women on the number of individuals who filed complaints of sexual assault. (See Currituck County Sociodemographic Data Workbook for an explanation of the NC Council for Women's data collection methodology.)

- Since the figures are counts and not rates, they cannot be definitively compared from one jurisdiction to another.
- The annual number of complaints varied without a clear pattern in all four jurisdictions over the period covered.

Table 58. Sexual Assault Complaint Trend (FY2007-08 through FY2014-15)

Location	No. of Individuals Filing Complaints ("Clients")							
	FY2007-08	FY2008-09	FY2009-10	FY2010-11	FY2011-12	FY2012-13	FY2013-14	FY2014-15
Currituck County	n/a	n/a	129	79	207	120	134	111
<i>Regional Average</i>	17	58	66	51	64	54	71	60
Pamlico County	n/a	n/a	n/a	n/a	n/a	n/a	30	30*
State of NC	6,527	8,494	13,392	13,881	13,214	12,971	13,736	13,655

Source: NC Department of Administration, Council for Women, Domestic Violence Commission, Statistics, County Statistics (years as noted); <http://www.doa.state.nc.us/cfw/stats.htm>.

* Count includes Jones County

The next table presents details on the types of sexual assaults reported in FY2014-15.

- In Currituck County, approximately 28% of the sexual assaults catalogued in FY2014-15 involved complaints of adult rape. In the same period 22% of complaints in Currituck County involved child sexual offense.
- Region-wide the largest proportion of sexual assault complaints (38.6%) was by adult survivors of child sexual assault, and the second highest proportion (26.9%) was for adult rape.
- Statewide the largest proportion of sexual assault complaints (27.3%) involved child sexual offense; the second largest proportion (21.5%) involved adult rape.

Table 59. Types of Sexual Assaults (FY2014-15)

Location	Total Assault Clients	Type of Assault													
		Adult Rape		Date Rape		Adult Survivor of Child Sexual Assault		Marital Rape		Child Sexual Offense		Incest		Other	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Currituck County	111	31	27.9	1	0.9	16	14.4	17	15.3	24	21.6	2	1.8	20	18.0
<i>Regional Average</i>	60	11	26.9	1	1.3	26	38.6	8	13.6	4	4.8	0	0.3	9	14.3
Pamlico County **	30	5	16.7	2	6.7	7	23.3	4	13.3	4	13.3	3	10.0	5	16.7
State of NC	13,655	2,940	21.5	892	6.5	2,194	16.1	824	6.0	3,721	27.3	782	5.7	2,302	16.9

Source: NC Department of Administration, Council for Women, Domestic Violence Commission, Statistics, 2014-2015 County Statistics; <http://www.doa.state.nc.us/cfw/stats.htm>.

** Pamlico County data includes data for Jones County

The following table details the types of offenders involved in sexual assaults in FY2014-15.

- In Currituck County the most common offender in sexual assault complaints was a relative (~47%), followed by an acquaintance (~31%).
- Region-wide, the most common offender was a relative (53%), followed by an acquaintance (20%).
- Statewide the most common offender was a relative (33%), followed by an acquaintance (28%).

Table 60. Types of Offenders in Sexual Assaults (FY2014-15)

Location	Total Offenders	Type of Offender											
		Relative		Acquaintance		Boy/Girl Friend		Stranger		Unknown		Other	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Currituck County	111	52	46.8	34	30.6	18	16.2	2	1.8	5	4.5	0	0.0
<i>Regional Average</i>	60	34	52.7	13	20.4	5	5.4	3	11.8	5	9.7	0	0.0
Pamlico County**	20	8	40.0	7	35.0	2	10.0	2	10.0	1	5.0	0	0.0
<i>State of NC</i>	13,720	4,474	32.6	3,823	27.9	1,604	11.7	655	4.8	3,119	22.7	45	0.3

Source: NC Department of Administration, Council for Women, Domestic Violence Commission, Statistics, 2014-2015 County Statistics; <http://www.doa.state.nc.us/cfw/stats.htm>.

Domestic Violence

The table below summarizes data from the Domestic Violence Commission of the NC Council for Women on the number of individuals who filed complaints of domestic violence. (See Currituck County Sociodemographic Data Workbook for an explanation of the NC Council for Women's data collection methodology.)

- Since the figures are counts and not rates, they are difficult to compare from one jurisdiction to another.
- In Currituck County the annual numbers of complaints were higher in FY2011-12 through FY2013-14 than in any previous period cited.

Table 61. Domestic Violence Complaint Trend (FY2007-08 through FY2014-15)

Location	No. of Individuals Filing Complaints ("Clients")							
	FY2007-08	FY2008-09	FY2009-10	FY2010-11	FY2011-12	FY2012-13	FY2013-14	FY2014-15
Currituck County	154	146	272	261	333	283	407	225
<i>Regional Average</i>	134	163	252	216	209	279	372	328
Pamlico County	301	93	86	50	35	30	32	88
<i>State of NC</i>	41,787	51,873	66,320	61,283	51,563	57,345	55,274	53,875

Source: NC Department of Administration, Council for Women, Domestic Violence Commission, Statistics, County Statistics (years as noted); <http://www.doa.state.nc.us/cfw/stats.htm>.

The table below provides details on the services received by domestic violence complainants.

- The 225 clients complaining of domestic violence in Currituck County in FY2014-15 were provided a total of 2,203 services.
- The largest numbers of services received by domestic violence complainants in Currituck County were for information (747) followed by advocacy (496) and counseling (430).
- There is no domestic violence shelter in Currituck County at the present time. Domestic violence complainants in Currituck County are served by Albemarle Hopeline in Elizabeth City (see below) (34).

Table 62. Services Received by Domestic Violence Complainants (FY2014-15)

Location	Total Domestic Violence Clients	Services Received									Days Local Shelter was Full
		Total	Information	Advocacy	Referral	Transport	Counseling	Hospital	Court	Other	
Currituck County	225	2,203	747	496	332	37	430	0	161	0	32
<i>Regional Average</i>	328	2,929	814	890	400	62	528	1	228	6	27
Pamlico County	88	933	385	122	218	16	116	6	50	20	0
State of NC	53,875	480,730	148,363	86,475	73,979	34,413	47,942	844	37,247	51,467	8,281

Source: NC Department of Administration, Council for Women, Domestic Violence Commission, Statistics, 2014-15 County Statistics; <http://www.doa.state.nc.us/cfw/stats.htm>.

Albemarle Hopeline

This agency serves victims of family violence, sexual assault and teen dating violence in Camden, Chowan, Currituck, Gates, Perquimans and Pasquotank counties. Hopeline offers free individual and group counseling and emergency shelter, a 24-hour crisis counseling telephone line, and educational programs, courtroom advocacy and volunteer training. All services are provided free of charge (35).

Main telephone: (252) 338-5335

24-Hour Crisis Line: (252) 338-3011

Address: PO Box 2064, Elizabeth City, NC 27906

Albemarle Hopeline provided the following service utilization statistics for the period July 1, 2014 through June 30, 2015. These data are specific to services provided to Currituck County clients (36).

- Victims served – 336
- Shelter nights – 81
- Counseling sessions – 668
- Advocacy services – 671
- Court services – 239
- Crisis calls – 634
- Prevention education and outreach programs conducted - 87

Child Maltreatment

The responsibility for identifying and reporting cases of child abuse, neglect and exploitation falls to the child protective services program within a county's department of social services. Generally speaking, such a unit will have sufficient staff to handle intake of all reports. However, an agency's ability to investigate and monitor reported cases may vary from year to year, depending on the number of properly trained staff available to it; hence, follow-up on reports may vary independently of the number of reports.

The table below presents child protective services data from the state's Child Welfare website for the period from FY2007-08 through FY2014-15.

- The total number of findings of child abuse, neglect or dependency in Currituck County fluctuated annually without a clear pattern. For the period cited, the highest number of findings was 214 in FY2013-14, and the lowest was 145 in FY2011-12. The average number of reports of child abuse, neglect or dependency per year throughout the period cited was 180.
- Neglect-only cases composed the most common type of substantiated child maltreatment in Currituck County in every year cited.

Table 63. Reports of Child Abuse and Neglect, Currituck County (FY2007-08 through FY2014-15)

Category	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Total No. of Findings of Abuse, Neglect, Dependency	162	199	184	173	145	167	214	196
No. Substantiated ¹ Findings of Abuse and Neglect	8	0	5	6	5	0	2	0
No. Substantiated Findings of Abuse	2	1	3	0	0	2	1	3
No. Substantiated Findings of Neglect	15	26	21	42	17	15	39	30
Services Recommended	66	83	87	41	59	50	49	50
No. Unsubstantiated Findings	58	53	40	39	39	43	77	61
Services Not Recommended	8	9	2	18	7	19	20	30

¹ A "substantiated" report of child abuse, neglect or exploitation indicates that the investigation supports a conclusion that the subject child(ren) was/were abused, neglected, or exploited.

Source: Child Welfare, Reports of Abuse and Neglect section, Reports of Abuse and Neglect Type of Finding/Decision (Not Exclusive) (Longitudinal Data); http://sasweb.unc.edu/cgi-bin/broker?_service=default&_program=cwweb.tbReport.sas&county=Currituck&label=County&format=html&entry=10&type=CHILD&fn=FRST&vtype=xfind.

The next table presents demographic detail from the same source as above on the substantiated cases in Currituck County described for FY2014-15.

- Thirty of the 33 substantiated cases of abuse, neglect, or abuse and neglect (91%) involved white children; two of the remaining three cases involved African American children and one case involved a child of some "other race".
- Seventeen of the 33 substantiated cases of maltreatment involved male children; 17 involved female children.
- Fourteen of the 33 involved children age 5 and younger; 10 involved ages 6-12, and 8 cases involved teenagers; age information was missing for one child.

Table 64. Demographic Detail of Child Abuse Cases, Currituck County (FY2014-15)

Finding	Total	White	African-American	American Indian/Alaskan	Other Races	Hispanic	Non-Hispanic	Male	Female	Ages 0-5	Ages 6-12	Ages 13-17	Missing Age Information
Abuse	3	3	0	0	0	0	3	3	0	1	1	1	0
Neglect	30	27	2	0	1	0	30	14	16	13	9	7	1
Dependency	2	2	0	0	0	2	0	1	1	0	0	2	0
Services Needed	12	9	2	0	1	2	10	9	3	6	4	2	0
Services Provided, No Longer Needed	8	8	0	0	0	0	8	3	5	4	2	2	0
Services Recommended	50	35	6	0	9	0	50	24	26	27	19	3	1
Unsubstantiated	61	50	5	0	6	8	53	23	38	29	27	5	0
Services Not Recommended	30	29	0	0	1	2	28	20	10	9	14	7	0

Source: Child Welfare, Reports of Abuse and Neglect section, Table of Summary Data: Type of Finding by Category (Longitudinal). http://sasweb.unc.edu/cgi-bin/broker?_service=default&_program=cwweb.icans.sas&county=North%20Carolina&label=&entry=10.

The following data on activity within its child protective services (CPS) unit was provided by Currituck County Department of Social Services.

- Over the eight periods reported in the table, the annual average number of Currituck County children in DSS custody varied from a low of 14 in FY2009-10 to a high of 34 in FY2007-08.

Table 65. Child Protective Services Provided by Currituck County Department of Social Services (FY2007-08 through FY2014-15)

Activity	Number							
	FY2007-08	FY2008-09	FY2009-10	FY2010-11	FY2011-12	FY2012-13	FY2013-14	FY2014-15
Number of CPS Reports Received	352	390	350	326	297	395	456	480
Avg. Current Children in DSS Custody	34	29	14	27	30	16	24	33
Avg. Number Children Receiving Case Management	25	25	27	29	28	23	24	31

Source: Personal communication, Kathlyn S. Romm, Director, Currituck County Department of Social Services, to Dana Hamill, Public Health Educator, Albemarle Regional Health Services, September 22, 2015.

Adult Maltreatment

Adults who are elderly, frail, or mentally challenged are also subject to abuse, neglect and exploitation. County DSS Adult Protective Services units screen, investigate and evaluate reports of what may broadly be referred to as adult maltreatment. The table below presents state-cataloged adult protective service survey data for 2009 and 2011. Note that no update to this old data is available at the source.

- Note that reports “screened out” do not meet the legal definition of potential maltreatment and are not investigated further.
- In Currituck County the proportion of reports screened in for further investigation and services was 49% in 2009 and 31% in 2011.
- Services most frequently provided in Currituck County adult maltreatment cases were information and referral, outreach, and legal intervention.

**Table 66. NC Adult Protective Services Survey Results
(2009 and 2011)**

Location	2009										
	Reports Received	Reports Screened In	Reports Screened Out	Information and Referral	Outreach	Law Enforcement	DHSR or Home Specialist	District Attorney	Veterans Admin	Division of Medical Assistance	Social Security
Currituck County	37	19	18	7	3	3	0	3	0	0	0
<i>Regional Average</i>	31	16	14	4	6	1	1	1	0	0	0
Pamlico County	27	9	18	1	9	0	0	0	0	0	0
State of NC	17,073	9,835	7,239	2,443	2,640	471	568	488	34	42	134

Location	2011										
	Reports Received	Reports Screened In	Reports Screened Out	Information and Referral	Outreach	Law Enforcement	DHSR or Home Specialist	District Attorney	Veterans Admin	Division of Medical Assistance	Social Security
Currituck County	26	18	8	3	6	1	0	1	0	0	1
<i>Regional Average</i>	35	21	14	3	7	1	1	1	0	0	0
Pamlico County	11	4	7	4	4	0	0	0	0	0	0
State of NC	19,635	10,929	8,706	2,665	2,736	725	475	651	33	30	152

Source: NC DHHS. Division of Aging and Adult Services. Adult Protective Services. APS Survey Data, 2009 and 2011;
http://www.ncdhhs.gov/aging/adultsvcs/afs_aps.htm

The following data on activity within its adult protective services (APS) unit was provided by Currituck County Department of Social Services.

- Over the eight periods reported in the table, the annual average number of Currituck County adults receiving guardianship services varied from a low of 6 in FY2010-11 to a high of 10 in several years.
- The number of adults receiving contracted and DSS in-home services in FY2014-15 (43) was a high for the period cited.

**Table 67. Adult Protective Services Provided by Currituck County Department of Social Services
(FY2007-08 through FY2014-15)**

Activity	Number							
	FY2007-08	FY2008-09	FY2009-10	FY2010-11	FY2011-12	FY2012-13	FY2013-14	FY2014-15
Number of APS Reports Received	25	34	39	33	20	29	33	35
Avg. Number Adults Receiving APS Services	3	4	5	4	3	4	5	4
Avg. Number Adults Receiving Guardianship Services	10	10	10	6	10	10	9	9
Number Adults Receiving Contracted and DSS In-Home Services	33	34	33	31	31	29	35	43

Source: Personal communication, Kathlyn S. Romm, Director, Currituck County Department of Social Services, to Dana Hamill, Public Health Educator, Albemarle Regional Health Services, September 22, 2015.

CHAPTER THREE: HEALTH RESOURCES

Access to and utilization of healthcare is affected by a range of variables including the availability of medical insurance coverage, availability of medical professionals, transportation, cultural expectations and other factors.

MEDICAL INSURANCE

Medically Indigent Population

In most communities, citizens' utilization of health care services is related to their ability to pay for those services, either directly or through private or government health insurance plans/programs. People without these supports are called “medically indigent”, and theirs is often the segment of the population least likely to seek and/or to be able to access necessary health care.

The next table presents data on the proportion of the population (by age group) without health insurance of any kind. (Note that the age distribution presented stops at age 65, when persons become eligible for Medicare.) Prior to the adoption of the Affordable Care Act (ACA) the health insurance system in the US was built largely upon employer-based insurance coverage, so an increase in the number of unemployed people usually resulted in an increase in the number of uninsured. This may change due to activity in the ACA Insurance Marketplace; time will tell.

- The percent of the Currituck County adult population (age 18-64) without health insurance remained approximately the same in every period cited, averaging 21.2%.
- Children (age <19) tend to have a lower percentage of uninsured than the adult population age (18-64) due primarily to coverage of children through NC Health Choice. In Currituck County the average percent uninsured among children during the five-year period cited was 9.4%.
- The percent of uninsured children in Currituck County decreased from 10.6% in 2009 to 8.8% in 2013, a 17% improvement.

Table 68. Percent of Population without Health Insurance, by Age Group (2009-2013)

Location	2009			2010			2011			2012			2013		
	<19	18-64	<65	<19	18-64	<65	<19	18-64	<65	<19	18-64	<65	<19	18-64	<65
Currituck County	10.6	21.3	18.2	9.4	21.4	18.0	9.8	20.8	17.7	8.6	21.3	17.9	8.8	21.0	17.8
Regional Avg.	9.2	21.5	17.9	8.1	21.5	17.7	8.2	21.0	17.4	8.0	21.2	17.6	7.4	20.7	17.1
Pamlico County	10.0	21.8	18.9	10.0	22.8	19.6	10.3	21.5	18.7	10.2	22.4	19.3	10.8	22.9	19.9
State of NC	8.7	21.9	18.0	8.3	23.5	19.1	7.9	23.0	18.7	7.9	23.4	19.0	6.9	22.5	18.1

Source: *Small Area Health Insurance Estimates, 2009 [and other years as noted]* U.S. Census Bureau, Small Area Health Insurance Estimate (SAHIE) Interactive Data Tool. Geographies and age groups as noted. www.census.gov/did/www/sahie/data/interactive.

Note on Source: The Small Area Health Insurance Estimates (SAHIE) program was created to develop model-based estimates of health insurance coverage for counties and states. The SAHIE program models health insurance coverage by combining survey data from several sources, including the American Community Survey (ACS), demographic population estimates, aggregated federal tax returns, participation in SNAP, County Business Patterns, Medicaid, CHIP and Census 2010 (<http://www.census.gov/did/www/sahie/about/index.html>).

The table below presents different US Census Bureau data on health insurance coverage for the single aggregate period 2010-2014. This data reflects the civilian, non-institutionalized population only.

- According to this data, 17.3% of the total defined population in Currituck County lacked health insurance over the five-year period cited.
- Of the approximately 83% of the Currituck County population that was insured, approximately 70% had private insurance.

**Table 69. Health Insurance Coverage
(US Census Bureau 5-Year Estimate, 2010-2014)**

Location	With Health Insurance						With No Health Insurance			
	Total		With Private Insurance		With Public Coverage		Total		Under 18	
	#	%	#	%	#	%	#	%	#	%
Currituck County	19,749	82.7	16,817	70.4	5,879	24.6	4,145	17.3	667	12.1
<i>Regional Average</i>	<i>15,891</i>	<i>85</i>	<i>11,667</i>	<i>63</i>	<i>6,871</i>	<i>37</i>	<i>2,905</i>	<i>15</i>	<i>289</i>	<i>6</i>
Pamlico County	10,386	83.4	7,761	62.4	5,307	42.6	2,060	16.6	306	13.6
State of NC ¹	8,072,475	84.5	6,131,516	64.2	3,039,062	31.8	1,479,285	15.5	155,453	6.8
United States	265,204,127	85.8	203,328,517	65.8	96,075,708	31.1	43,878,131	14.2	5,217,055	7.1

Source: US Census Bureau, American Fact Finder. 2014 American Community Survey 5-Year Estimate. Table DP03: Selected Economic Characteristics; <http://factfinder2.census.gov>

North Carolina Health Choice

In 1997, the Federal government created the *State Children’s Health Insurance Program* (SCHI)—later known more simply as the *Children’s Health Insurance Program* (CHIP)—that provides matching funds to states for health insurance for families with children. The program covers uninsured children in low-income families who earn too much to qualify for Medicaid (37).

States are given flexibility in designing their CHIP eligibility requirements and policies within broad Federal guidelines. The NC CHIP program is called NC Health Choice for Children (NCHC). This plan, which took effect in October 1998, includes the same benefits as the State Health Plan, plus vision, hearing and dental benefits (following the same guidelines as Medicaid). Children enrolled in NCHC are eligible for benefits including sick visits, check-ups, hospital care, counseling, prescriptions, dental care, eye exams and glasses, hearing exams, hearing aids, and more (38).

The following table presents enrollment figures for NCHC for 2010 through 2013. It should be noted that enrollment is directly related to the funding available, which may change at either the Federal or state level.

- In Currituck County the *number* of children eligible for the program rose 6% over the period cited, but the percent of eligible children actually enrolled rose by 23% over the same period.
- Statewide, the percent of eligible children enrolled in the program increased 16% over the same period.
- The percent of eligible children enrolled in NC Health Choice was lowest in every period in Currituck County.

**Table 70. NC Health Choice Enrollment
(As of January, 2010 through 2013)**

Location	January, 2010			January, 2011			January, 2012			January, 2013		
	# Children Eligible	# Eligibles Enrolled	% Eligibles Enrolled	# Children Eligible	# Eligibles Enrolled	% Eligibles Enrolled	# Children Eligible	# Eligibles Enrolled	% Eligibles Enrolled	# Children Eligible	# Eligibles Enrolled	% Eligibles Enrolled
Currituck County	237	144	61.0	240	153	63.8	252	176	69.8	252	189	75.0
<i>Regional Average</i>	261	216	77.0	255	258	79.8	267	236	85.3	266	237	86.4
Pamlico County	167	147	88.0	180	158	87.8	196	190	96.9	193	193	100.0
State of NC	131,499	108,533	83.0	137,825	122,536	88.9	1,455,992	1,35,076	92.5	151,262	145,363	96.1

Source: NC Division of Medical Assistance, Statistics and Reports, N.C. Health Choice Monthly Enrollment/Exemption Reports, 2010-2013; <http://www.ncdhhs.gov/dmA/ca/nchcenroll/index.htm>.

Medicaid

Medicaid is a health insurance program for low-income individuals and families who cannot afford health care costs. It serves low-income parents, children, seniors, and people with disabilities. Both coverage and eligibility requirements are different for people with different kinds of needs. Chief among these requirements is low income, which depending on service can range from 51% to 200% of the Federal Poverty Guideline.

A previous table presented Currituck County DSS data on Medicaid services. The following table summarizes state data on the number of Currituck County residents eligible for Medicaid, by program area, for the period 2008 through October 2015.

- Using the estimated population figure for the county of 24,976, it appears that 11% of Currituck County residents were eligible for Medicaid in 2014.
- The total number of people in Currituck County eligible for Medicaid increased by 576 persons between 2008 and 2014.
- The Medicaid programs for which the largest numbers of Currituck County residents were eligible were (1) Infants and Children, (2) AFDC and (3) Disabled.

**Table 71. Currituck County Medicaid Eligibles, by Program Area
(2008 through October 2015)**

Year	Number of Eligibles, as of December 31 each year													Total Eligibles
	Aged	Blind	Disabled	AFDC	Foster Care	Pregnant Women	Family Planning Waiver	Infants & Children	Medicaid CHIP	Medicare Catastrophic	Comprehensive Medicare-Aid (MQBQ-B-E)	Refugees Aliens	BCC	
2008	159	3	357	545	23	50	n/a	903	77	71	n/a	0	1	2,189
2009	151	3	361	340	8	53	n/a	1,013	71	78	n/a	0	1	2,379
2010	156	4	363	613	12	47	n/a	1,103	60	105	n/a	0	0	2,463
2011	155	3	386	601	26	59	n/a	1,124	80	102	n/a	0	2	2,538
2012	146	3	399	509	9	56	n/a	1,084	66	110	n/a	0	1	2,383
2013	135	4	426	468	14	65	n/a	1,099	68	132	n/a	0	5	2,416
2014	137	5	438	610	27	43	94	1,020	257	n/a	130	3	1	2,765
Oct-15	139	2	465	925	32	26	126	707	196	n/a	109	8	3	2,738

Sources: NC Division of Medical Assistance, Statistics and Reports, Medicaid Data: Authorized Eligibles by County and Program Aid Category. Title XIX Authorized Medicaid Eligibles (years as noted) and NC Division of Medical Assistance, Statistics and Reports, Medicaid Data: Authorized Eligibles by County and Program Aid Category. State Fiscal Year Reports: SFY 2015 Monthly Medicaid/Health Choice Enrollees -- County Totals. <http://www2.ncdhhs.gov/dma/elig/index.htm>.
AFDC - Medicaid Aid to Families with Dependent Children
BCC - Breast and Cervical Cancer Program

HealthCheck Early Periodic Screening, Diagnosis and Treatment

Federal law requires that Medicaid-eligible children under the age of 21 receive any medically necessary health care service covered by the federal Medicaid law, even if the service is not normally included in the NC State Medicaid Plan. This requirement is called Early Periodic Screening, Diagnosis and Treatment (EPSDT). In NC, HealthCheck EPSDT covers complete medical and dental check-ups, provides vision and hearing screenings, and referrals for treatment (39).

The following table presents a four-year summary of the participation of eligible children in the NC HealthCheck program.

- The HealthCheck *participation ratio* for Currituck County children in FY2011-12 was 33% *lower* than the participation ratio in FY2008-09. During this same time interval the *number* of eligible Currituck County children increased 9%.
- The HealthCheck participation ratio in Currituck County was below the comparable state ratio during each fiscal year cited.

**Table 72. Participation in HealthCheck (EPSDT)
(FY2008-09 through FY2011-12)**

Location	FY2008-09			FY2009-10			FY2010-11			FY2011-12		
	No. Eligible	No. Eligibles Due Initial or Periodic Service	Participation Ratio	No. Eligible	No. Eligibles Due Initial or Periodic Service	Participation Ratio	No. Eligible	No. Eligibles Due Initial or Periodic Service	Participation Ratio	No. Eligible	No. Eligibles Due Initial or Periodic Service	Participation Ratio
Currituck County	1,923	1,011	74.3	2,009	1,660	49.4	2,041	1,628	46.3	2,093	1,696	50.1
<i>Regional Average</i>	2,235	1,211	71.8	2,282	1,955	47.2	2,296	1,896	46.1	2,264	1,922	52.1
Pamlico County	1,413	747	96.9	1,487	1,278	60.6	1,492	1,269	55.2	1,398	1,219	59.6
State of NC	n/a	594,043	80.0	1,185,510	963,619	53.8	1,146,716	961,381	54.7	1,161,170	999,141	57.1

Note: the participation ratio is calculated by dividing the number of eligibles receiving at least one initial screening service by the number of eligibles who should receive at least 1 initial or period screenings (not shown in the table).

Source: NC Division of Medical Assistance, Statistics and Reports, Health Check Participation Data;

<http://www.ncdhhs.gov/dma/healthcheck/participationdata.htm>.

Medicaid Managed Care

The goal of Medicaid managed care is to create community health networks to achieve long-term quality, cost, access, and utilization objectives.

Overview

As of July 2011, over 80 percent of Medicaid beneficiaries were enrolled in some form of managed care. North Carolina operated a small risk-based, capitated managed care program called Health Care Connection, which began in 1986 in one county, but that program was terminated in 2006. The state currently operates managed care only through a primary care case management (PCCM) model. The state's PCCM program, called Carolina ACCESS (CA), began in 1991 in five counties and provided beneficiaries with a designated medical home and primary care provider to coordinate care. Children, non-elderly individuals with disabilities and low-income caretaker adults are enrolled on a mandatory basis, while older adults, American Indian/Alaska Natives, Foster Care Children, dual eligibles, pregnant women, and special needs children have the option to enroll. By 1997, the program expanded statewide. In 1998, the state developed an enhanced case management program to support Carolina ACCESS primary care practices. It was originally called Access II and III but now referred to as Community Care of North Carolina (CCNC), which pays 14 community health networks a monthly fee to provide case management, data analysis, and quality improvement and training activities for primary

care practices participating in CCNC/Carolina Access. In 2008, CCNC’s care management model was expanded to Medicare-Medicaid dual enrollees and to Medicaid-only individuals with long-term care needs.

Since 2005, North Carolina has operated a limited benefit, pre-paid program under its 1915(b)/(c) Waiver for Mental Health (MH), Developmental Disability (DD), and Substance Abuse (SA) Services. The program began as a five-county pilot in the Piedmont region but was scheduled to be adopted statewide in 2013. The 1915(b)/(c) waiver uses public Local Management Entities (LMEs) to manage behavioral health and developmental disabilities services for most Medicaid beneficiaries with behavioral health needs on a mandatory basis. North Carolina also offers a Program for All-Inclusive Care for the Elderly (PACE), which provides all Medicare and Medicaid services to individuals over age 55 that require a nursing home level of care.

Participating Plans, Plan Selection, and Rate Setting

Under the CCNC program, North Carolina contracts with 14 community networks, which are each paid a per-member per-month fee to coordinate patient care. Networks are paid a higher fee to coordinate the needs of aged, blind, and disabled beneficiaries. All medical services delivered to beneficiaries are still reimbursed on a fee-for-service basis. For the 1915(b)/(c) waiver program, North Carolina contracts with three local, non-profit LMEs (Piedmont Behavioral Health, Highlands, and East Carolina Behavioral Health) to provide behavioral health services on a capitated basis.

Quality and Performance Incentives

CCNC/CA uses an elaborate Quality Measurement and Feedback (QMAF) program that collects a variety of chart review measures and claims-based measures, including HEDIS. Quality measures are reported to the primary care practices in order to encourage improvement relative to CCNC and NCQA, HEDIS and IPIP benchmarks. CCNC also conducts a CAHPS survey every three years for both adults and children. The MH/DD/SAS waiver does not collect quality measures but instead uses a variety performance measures to oversee the program (40).

The following table summarizes CCNC/CA enrollment data for the period from 2010-2013.

- The percent of Medicaid eligible persons in Currituck County enrolled in CCNC/CA increased 14% over the period cited, from 74.86% in 2010 to 85.50% in 2013.
- Statewide, the percent of Medicaid eligible persons enrolled in CCNC/CA increased 11% over the same period, from 82.3% in 2010 to 92.0% in 2013.

Table 73. Community Care of NC/Carolina ACCESS Enrollment (2010-2013)

Location	December, 2010			December, 2011			December, 2012			December, 2013		
	Managed Care Eligibles	Managed Care Enrollment	% of Eligibles Enrolled	Managed Care Eligibles	Managed Care Enrollment	% of Eligibles Enrolled	Managed Care Eligibles	Managed Care Enrollment	% of Eligibles Enrolled	Managed Care Eligibles	Managed Care Enrollment	% of Eligibles Enrolled
Currituck County	2,271	1,700	74.86	2,342	1,847	78.86	2,206	1,860	84.32	2,201	1,882	85.50
<i>Regional Average</i>	<i>3,013</i>	<i>2,495</i>	<i>80.10</i>	<i>3,057</i>	<i>2,605</i>	<i>82.96</i>	<i>3,078</i>	<i>2,755</i>	<i>87.57</i>	<i>3,030</i>	<i>2,742</i>	<i>88.64</i>
Pamlico County	2,008	1,561	77.74	1,906	1,630	85.52	1,913	1,769	92.47	1,912	1,799	94.10
<i>State of NC</i>	<i>1,362,207</i>	<i>1,130,474</i>	<i>82.99</i>	<i>1,427,273</i>	<i>1,236,638</i>	<i>86.64</i>	<i>1,475,108</i>	<i>1,335,393</i>	<i>90.53</i>	<i>1,473,219</i>	<i>1,355,483</i>	<i>92.00</i>

Source: NC Division of Medical Assistance, Statistics and Reports, CCNA/CA: Medicaid Monthly Enrollment Reports. Years as Noted. <https://www2.ncdhs.gov/dma/ca/enroll/index.htm>

HEALTH CARE PROVIDERS

Practitioners

One way to judge the supply of health professionals in a jurisdiction is to calculate the ratio of the number of health care providers to the number of persons in the population of that jurisdiction. In NC, there is data on the ratio of active health professionals per 10,000 population calculated at the county level. The table below presents those data (which for simplicity's sake will be referred to simply as the "ratio") for Currituck County, Pamlico County, the Albemarle Region, the state of NC and the US for five key categories of health care professionals: physicians, primary care physicians, registered nurses, dentists and pharmacists.

- 2012 ratios of active health professionals per 10,000 population were *lower* in Currituck County than in all the other jurisdictions for all categories of providers cited in the table except for the regional average for dentists.
- The Currituck County ratio for dentists (~1.7) was particularly low and did not improve over the period shown in the table.

Table 74. Active Health Professionals per 10,000 Population (2010-2012)

Location	2010					2011					2012				
	MDs	Primary Care MDs	DDSs	RNs	Pharms	MDs	Primary Care MDs	DDS	RNs	Pharms	MDs	Primary Care MDs	DDS	RNs	Pharms
Currituck County	3.8	2.1	1.7	21.7	1.7	3.8	1.7	2.1	22.0	1.3	4.21	1.68	1.68	26.51	1.26
Regional Average	8.6	4.6	1.6	49.7	4.2	8.6	3.9	1.7	49.4	4.0	8.3	3.7	1.6	50.3	4.3
Pamlico County	4.6	3.8	3.8	34.2	5.3	6.1	4.5	3.8	38.6	6.1	5.31	4.55	3.79	38.67	6.07
State of NC	21.7	9.4	4.4	97.3	9.2	22.1	7.8	4.4	98.6	9.5	22.31	7.58	4.51	99.56	10.06
United States	22.7 ²	8.2 ²	5.7 ³	92.0 ³	8.3 ³	22.7 ²	8.2 ²	5.7 ³	92.0 ³	8.3 ³	22.7	8.2	5.7	92	8.3

Abbreviations used: MDs (Physicians), RNs (Registered Nurses), DDSs (Dentists), Pharms (Pharmacists)

¹ Primary Care Physicians are those who report their primary specialty as family practice, general practice, internal medicine, pediatrics, or obstetrics/gynecology

² US ratio from US Census Bureau estimates. Comparison data is for date two years previous.

³ US ratio from Bureau of Labor Statistics. Comparison data matches.

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

Since the health professional ratio for dentists in Currituck County is so low to begin with, accessing dental care may be a tremendous problem for Medicaid enrollees. According to local information, there was one dentist in Currituck County that did accept Medicaid patients (41).

The following table lists the number of active health professionals in Currituck County and the ARHS region, by specialty, for 2012:

- There were no general practitioners, obstetrician/gynecologists, pediatricians, nurse practitioners, certified nurse midwives, optometrists, podiatrists, psychologists, or respiratory therapists practicing in Currituck County at the time of the count.
- At the regional level there were no general practitioners and only one podiatrist listed in 2012.

Table 75. Number of Active Health Professionals, by Specialty (2012)

Category of Professionals	Currituck County	Regional Total
Physicians		
Primary Care Physicians	4	63
<i>Family Practice</i>	3	23
<i>General Practice</i>	0	0
<i>Internal Medicine</i>	1	19
<i>Obstetrics/Gynecology</i>	0	8
<i>Pediatrics</i>	0	13
Other Specialities	6	94
Dentists and Dental Hygienists		
Dentists	4	25
Dental Hygienists	2	32
Nurses		
Registered Nurses	63	835
<i>Nurse Practitioners</i>	0	29
<i>Certified Nurse Midwives</i>	0	3
Licensed Practical Nurses	36	299
Other Health Professionals		
Chiropractors	3	11
Occupational Therapists	2	20
Occupational Therapy Assistants	1	14
Optometrists	0	6
Pharmacists	3	72
Physical Therapists	4	37
Physical Therapy Assistants	3	40
Physician Assistants	4	36
Podiatrists	0	1
Practicing Psychologists	0	12
Psychological Assistants	1	8
Respiratory Therapists	0	32

¹ Numbers reported include those active within the profession and those newly licensed in 2009 with unknown activity status; inactives are excluded.

Source: Cecil G. Sheps Center for Health Services Research, North Carolina Health Professions Data System. Publications. 2012 North Carolina Health Professions Databook; http://www.shepscenter.unc.edu/hp/publications/2012_HPDS_DataBook.pdf.

Hospitals

There is no hospital in Currituck County or its peer, Pamlico County.

Other Hospitals

The following table lists the eight hospitals in northeastern NC that may be accessed by Currituck County residents. Of these, only Vidant Medical Center in Greenville offers a Trauma Center (rated for Level I care).

**Table 76. Licensed Hospitals in Northeastern NC
(February, 2016)**

Facility Name	Location	No. Beds	Operating Rooms
Bertie County			
Vidant Bertie Hospital	Windsor	General - 6	Shared inpatient/ambulatory surgery - 2
Chowan County			
Vidant Chowan Hospital	Edenton	General - 49	Shared inpatient/ambulatory surgery - 3
		Nursing Home - 40	Endoscopy - 1
Dare County			
The Outer Banks Hospital, Inc.	Nags Head	General - 21	C-section - 1
			Shared inpatient/ambulatory surgery - 2
			Endoscopy - 2
Hertford County			
Vidant Roanoke-Chowan Hospital	Ahoskie	General - 86	C-section - 1
		Psychiatric - 28	Shared inpatient/ambulatory surgery - 5
			Endoscopy - 1
Martin County			
Martin General Hospital	Williamston	General - 49	Shared inpatient/ambulatory surgery - 2
			Endoscopy - 1
Pasquotank County			
Albemarle Hospital	Elizabeth City	General - 182	C-section - 2
			Shared inpatient/ambulatory surgery - 8
			Endoscopy - 3
Pitt County			
Vidant Medical Center	Greenville	General - 782	C-section - 4
		Rehabilitation - 75	Shared inpatient/ambulatory surgery - 26
		Psychiatric - 52	Endoscopy - 2
			Other inpatient - 3
Washington County			
Washington County Hospital	Plymouth	General - 49	Shared inpatient/ambulatory surgery - 2

Source - NC Department of Health and Human Services, Division of Health Services Regulation (DHSR), Licensed Facilities, Hospitals (by County); <http://www.ncdhhs.gov/dhsr/reports.htm>.

Residents of Currituck County also may seek medical services in southeastern VA, primarily in the area referred to as the *Tidewater Region*. The following table lists hospitals in the cities in this region.

**Table 77. Hospitals in Southeastern Virginia
(February, 2013)**

Hospital	Location
Chesapeake General Hospital	Chesapeake
Hampton VA Medical Center	Hampton
Riverside Behavioral Health Center	Hampton
Sentara Careplex Hospital	Hampton
Mary Immaculate Hospital	Newport News
Riverside Memorial Medical Center	Newport News
Riverside Rehabilitation Institute	Newport News
Children's Hospital of the Kings Daughters	Norfolk
DePaul Medical Center	Norfolk
Lake Taylor Hospital	Norfolk
Sentara Heart Hospital	Norfolk
Sentara Leigh Hospital	Norfolk
Sentara Norfolk General Hospital	Norfolk
Tidewater Psychiatric Institute	Norfolk
Maryview Medical Center	Portsmouth
Naval Medical Center	Portsmouth
Sentara Obici Hospital	Suffolk
Sentara Bayside Hospital	Virginia Beach
Sentara Princess Anne Hospital	Virginia Beach
Sentara Virginia Beach General Hospital	Virginia Beach
Virginia Beach Psychiatric Center	Virginia Beach

Source: The Agape Center, Virginia Hospitals;
<http://www.theagapecenter.com/Hospitals/Virginia.htm>.

Hospital Utilization

The five hospitals partnering in the development of this CHA—Vidant Bertie Hospital (VBER), Vidant Chowan Hospital (VCHO), Vidant Roanoke-Chowan Hospital (VROA), The Outer Banks Hospital (TOBH) and Sentara Albemarle Medical Center (SAMC)—have made available extensive utilization data, some of which will be examined in conjunction with health statistics in a later section of this report. Detailed hospital utilization data is available in a county-specific Excel workbook available as a companion to this report.

Presented below are hospital utilization summaries for the population of Currituck County residents who (1) were patients in the emergency department, and (2) were hospitalized as inpatients at any of the five hospitals in 2013 and 2014. The data are stratified demographically by gender, age group and race/ethnicity; in addition, data also is categorized according to the primary payor groups associated with the utilization records.

By convention, the analyst included patient counts from a hospital only in cases where the total number of patients at that hospital over the two-year period cited exceeded a threshold of 20. For that reason, data from fewer than five hospitals are included in some tables.

Notes relevant for the discussion of each table appear *after* the table.

Emergency Department (ED) Utilization

The emergency departments (EDs) of hospitals have become providers of convenience, urgency, or last resort for many healthcare consumers, and an examination of ED utilization patterns can reveal much about the healthcare resource status of a community.

Table 78. ED Discharges by Gender and Age Group

Fiscal Year	No. by Gender		No. by Age Group			Total No. Discharges
	Female	Male	< 18	18-64	≥ 65	
2013	3,051	2,204	863	3,697	695	5,225
2014	2,877	2,209	793	3,607	686	5,086
Total	5,928	4,413	1,656	7,304	1,381	10,341

- The hospitals qualifying for inclusion in the table on the basis of more than 20 ED discharges over the period cited are: Vidant Chowan Hospital, The Outer Banks Hospital, and Sentara Albemarle Medical Center only.
- Females accounted for 57% of all ED discharges over the two-year period cited. Females compose 50% of the total Currituck County population
- Males accounted for 43% of all ED discharges over the same period. Males compose 50% of the total Currituck County population.
- Minors under the age of 18 (“pediatric” patients) accounted for 16% of all ED discharges over the two-year period cited. This age group composes a total of 23% of the total Currituck County population.
- Persons between the ages of 18 and 64 (“adult” patients) accounted for 71% of all ED discharges over the same period. This age group composes a total of 63% of the total Currituck County population.
- Persons age 65 and older (“geriatric” patients) accounted for 13% of all ED discharges over the same three-year period. This age group composes a total of 14% of the total Currituck County population.

Table 79. ED Discharges by Racial/Ethnic Group

Fiscal Year	Am Ind/ Alaskan	Asian	Black	Hispanic	Other	Unknown	White	Total No. Discharges
2013	7	7	640	79	60	13	4,449	5,225
2014	4	11	623	83	43	22	4,300	5,086
Total	11	18	1,263	162	103	35	8,749	10,341

- The hospitals qualifying for inclusion in the table on the basis of more than 20 ED discharges over the period cited are: Vidant Chowan Hospital, The Outer Banks Hospital, and Sentara Albemarle Medical Center only.
- Blacks accounted for 12% of all ED discharges over the two-year period cited. Blacks compose 7% of the total Currituck County population
- Whites accounted for 85% of all ED discharges over the same period. Whites compose 90% of the total Currituck County population.
- Hispanics accounted for 1.6% of all ED discharges over the same period. Hispanics compose 3.3% of the total Currituck County population. (Keep in mind that in US Census terms, persons of Hispanic/Latino ethnicity may also be of any race. The hospitals tend to consider Hispanic ethnicity to be a separate racial category.)

Table 80. ED Discharges by Payor Group

Fiscal Year	Comm	M-aid	M-aid Mgd Care	M-care	M-care Mgd Care	Self-Pay	Military	Other	Total No. Discharges
2013	491	633	662	872	38	1,794	209	556	5,255
2014	523	733	485	979	47	1,558	180	581	5,086
Total	1,014	1,366	1,147	1,851	85	3,352	389	1,137	10,341
Group as % of Total	9.8	13.2	11.1	17.9	0.8	32.4	3.8	11.0	100%

- The hospitals qualifying for inclusion in the table on the basis of more than 20 ED discharges over the period cited are: Vidant Chowan Hospital, The Outer Banks Hospital, and Sentara Albemarle Medical Center only.
- Note that Sentara Albemarle Medical Center categorizes payor groups differently than do the Vidant Hospitals. For that reason, in order to allow direct comparisons payor groups have been compressed to Commercial, Medicaid, Medicaid Managed Care, Medicare, Medicare Managed Care, Self-Pay, Military, and the broad category “Other”. The category “Other” includes (but is not limited to) Medcost, other managed care payors, Workers Compensation, and other less frequent payors.
- The most common ED payor groups, in descending order, were:
 - Self-Pay (32.4%)
 - Medicare (17.9%)
 - Medicaid (13.2%)
 - Medicaid Managed Care (11.1%)
 - “Other” (11.0%)

Inpatient (IP) Hospital Utilization

Inpatient hospitalizations may be the result of illness, injury, or sometimes elective procedure.

Table 81. IP Discharges by Gender and Age Group

Fiscal Year	No. by Gender		No. by Age Group			Total No. Discharges
	Female	Male	< 18	18-64	≥ 65	
2013	423	260	109	294	280	683
2014	442	335	120	348	309	777
Total	865	595	229	642	589	1,460

- The hospitals qualifying for inclusion in the table on the basis of more than 20 IP discharges over the period cited are: Vidant Roanoke-Chowan Hospital, The Outer Banks Hospital, and Sentara Albemarle Medical Center only.
- Females accounted for 59% of all IP discharges over the two-year period cited. Females compose 50% of the total Currituck County population
- Males accounted for 41% of all IP discharges over the same period. Males compose 50% of the total Currituck County population.
- Minors under the age of 18 (“pediatric” patients) accounted for 16% of all IP discharges over the two-year period cited. This age group composes a total of 23% of the total Currituck County population.
- Persons between the ages of 18 and 64 (“adult” patients) accounted for 44% of all IP discharges over the same period. This age group composes a total of 63% of the total Currituck County population.

- Persons age 65 and older (“geriatric” patients) accounted for 40% of all IP discharges over the same three-year period. This age group composes a total of 14% of the total Currituck County population. Note that the proportion of geriatric (≥ 65) IP discharges is almost three times the proportion of persons ≥ 65 in the Currituck County population.

Table 82. IP Discharges by Racial/Ethnic Group

Fiscal Year	Am Ind/ Alaskan	Asian	Black	Hispanic	Other	Unknown	White	Total No. Discharges
2013	0	3	79	12	2	2	585	683
2014	0	0	56	25	1	6	689	777
Total	0	3	135	37	3	8	1,274	1,460

- The hospitals qualifying for inclusion in the table on the basis of more than 20 IP discharges over the period cited are: Vidant Roanoke-Chowan Hospital, The Outer Banks Hospital, and Sentara Albemarle Medical Center only.
- Blacks accounted for 9% of all IP discharges over the two-year period cited. Blacks compose 7% of the total Currituck County population
- Whites accounted for 87% of all IP discharges over the same period. Whites compose 90% of the total Currituck County population.
- Hispanics accounted for 2.5% of all IP discharges over the same period. Hispanics compose 3.3% of the total Currituck County population. (Keep in mind that in US Census terms, persons of Hispanic/Latino ethnicity may also be of any race. The hospitals tend to consider Hispanic ethnicity to be a separate racial category.)

Table 83. IP Discharges by Payor Group

Fiscal Year	Comm	M-aid	M-aid Mgd Care	M-care	M-care Mgd Care	Self-Pay	Military	Other	Total No. Discharges
2013	65	129	49	296	4	45	21	74	683
2014	81	148	39	341	8	73	21	66	777
Total	146	277	88	637	12	118	42	140	1,460
Group as % of Total	10.0	19.0	6.0	43.6	0.8	8.1	2.9	9.6	100%

- The hospitals qualifying for inclusion in the table on the basis of more than 20 IP discharges over the period cited are: Vidant Roanoke-Chowan Hospital, The Outer Banks Hospital, and Sentara Albemarle Medical Center only.
- Note that Sentara Albemarle Medical Center categorizes payor groups differently than do the Vidant Hospitals. For that reason, in order to allow direct comparisons payor groups have been compressed to Commercial, Medicaid, Medicaid Managed Care, Medicare, Medicare Managed Care, Self-Pay, Military, and the broad category “Other”. The category “Other” includes (but is not limited to) Medcost, other managed care payors, Workers Compensation, and other less frequent payors.
- The most common IP payor groups, in descending order, were:
 - Medicare (43.6%)
 - Medicaid (19.0%)
 - Commercial (10.0%)
 - “Other” (9.6%)
 - Self-Pay (8.1%)

County Emergency Medical Services

Currituck County government did not submit information on its EMS system in a useable format, and since little information is available on line, it was not possible to develop this section of the current report.

Public Health Department: Albemarle Regional Health Services

Albemarle Regional Health Services (ARHS) is a regional Public Health agency in rural, northeastern NC serving the seven counties of Bertie, Camden, Chowan, Currituck, Gates, Pasquotank and Perquimans.

ARHS programs include children's developmental services, home care and hospice, adult day health, clinical services, immunizations, women, infants, and children, diabetes management, health promotion and health education, disaster planning and response, transportation, environmental health, and waste management. Specific services may vary from county-to-county within the service region.

Regionally, ARHS administers the Children's Developmental Service Agency (CDSA), the Albemarle Regional Solid Waste Management Authority, the Inter-County Public Transportation Authority (ICPTA), and the Perquimans-Chowan-Gates (PCG) Landfill and Convenience Sites (42).

Currituck County Health Department

The Currituck County Health Department is physically located in Currituck. ARHS programs offered in Currituck County include:

AgriSafe of the Albemarle

AgriSafe is a program designed to make life on the farm safer and healthier by making healthcare more accessible for farmers, their families and workers. The program strives to provide health and safety resources to increase access to preventive services for farm families and the agricultural community. Services are provided on the farm, at agricultural events, and other locations convenient to farm families. Health screenings and farm health/safety information are currently provided at no cost. Screenings include respirator fit testing, blood pressure checks, blood sugar monitoring, pulmonary function testing (spirometry), and hearing and vision screenings.

Clinical Services

- **Child Health Services** - Primary child health services are provided in an effort to detect problems so that appropriate interventions can begin as early as possible. The focus of child health is the total well-being of the child; emotional, social, health, and environmental. Local agencies work as a team to ensure that optimal level of care for the child is achieved. An additional program goal is to guarantee that Medicaid-eligible children receive all recommended child health services.
- **Immunizations.** Immunizations are provided to children and adults in an effort to prevent communicable diseases such as: polio, pertussis, tetanus, mumps, measles, rubella, diphtheria, and hepatitis. The goal is to have all children fully immunized by two years of age and then to receive recommended booster doses. Adult

immunizations include the annual influenza and pneumonia campaign, in addition to all recommended adult immunizations.

- **WIC/Nutrition.** Women, Infants, and Children (WIC) is a nutrition education and food supplement program for children birth to five and women who are pregnant or breastfeeding. All clients must meet medical and financial eligibility requirements.
- **General Communicable Disease Control.** Surveillance of various communicable diseases including educational counseling for individuals is accomplished. Bioterrorism educational materials are available to communities related to preparedness. Presentations and overviews of potential biological, chemical, and nuclear agents can be given by the ARHS Team.
- **Sexually Transmitted Diseases.** STD and HIV diagnosis, treatment, and counseling is available. An appointment may be required. There are no fees associated with STD services.
- **Women's Preventive Health.** Family Planning helps women and men maintain optimal reproductive health and assists families in determining the number, timing, and spacing of their children.
- **Maternal Health.** Primary Prenatal Health Care services are provided in an effort to reduce infant mortality and ensure that all pregnant women receive the highest level of health care. The health department maintains a close working relationship with the area's private physicians and local hospitals for the provision of deliveries, emergency and specialized care. High Risk Perinatal Clinic was established to improve the pregnancy outcomes of women with pregnancy complications. In addition to comprehensive health care, patients receive nutrition education, medical social work intervention, and childbirth preparation and parenting education. Case management services are also offered and are an integral component of the maternal patient's health care services to ensure that all health, social, mental, and environmental needs are met.
- **Adult Health.** Comprehensive physical assessments and clinical services are provided for all adults in an effort to detect and prevent chronic diseases, which may cause disability or premature mortality. The Breast and Cervical Cancer Control Program (BCCCP) provides access to screening services for financially and medically eligible women.
- **Diabetes Care Program.** Due to the prevalence of diabetes within the region, ARHS provides a comprehensive Diabetes Care Center for individuals living with diabetes and their families. Individualized counseling, follow-up, nutrition education, and disease management are integral components.

Women, Infants, and Children (WIC)

WIC is a federal program designed to provide food to low-income pregnant, postpartum and breastfeeding women, infants and children until the age of five. The program provides a combination of nutrition education, supplemental foods, breastfeeding promotion and support, and referrals for health care. WIC has proven effective in preventing and improving nutrition related health problems within its population.

Albemarle Regional Diabetes Care

Dedicated to providing education and support to individuals living with diabetes, the Albemarle Regional Diabetes Care Program works to counsel patients on blood sugar monitoring, physical activity, and proper nutrition. This program incorporates a team approach to diabetes care, working collaboratively with regional referring physicians and medical providers and focusing on medical care, education, and health promotion. The Albemarle Regional Diabetes Care Program is recognized by the American Diabetes Association for Quality Self-Management Education.

Health Education and Promotion

- **Health Education.** The Health Education Team begins with the assessment and identification of community health issues and problems. While identifying diseases as significant health problems that cause disability, mortality, premature death, and morbidity. Health Education Specialists utilize tools and expertise to analyze demographics and socioeconomic status data of the individual client within the community.
- **Healthy Communities.** Health promotion programming increases opportunities for healthy eating and physical activity opportunities in the schools, worksites, and communities. The environmental and policy changes promote a healthy lifestyle for all community members in the region and works to make it easier for people to eat healthy food and be physically active.

Environmental Health

ARHS Environmental Health ensures the health and safety of residents while reducing the threat of the spread of communicable diseases through evaluation and education of environmental health policies and regulations. EH activities include:

- Private Drinking Well Inspections
- Swimming Pool Inspections
- Communicable Disease Investigations
- Food & Lodging Inspections
- Management Entity
- Lead Investigations
- On-Site Wastewater

Preparedness and Response

The ARHS Public Health Preparedness and Response (PHP&R) program works with the communities in the region and local emergency management partners and response agencies to keep everyone safe and prepared for any disaster, but especially the hurricanes that frequent the region.

Inter-County Public Transportation Authority

The intent of ICPTA is to provide high quality transportation services to the people who live in or visit the five-county service area of: Pasquotank, Perquimans, Camden, Chowan and Currituck. ICPTA services are intended to transport the general public to nutrition sites, medical appointments and other locations in order to access services or attend activities related to daily living, while promoting improved quality of life.

Children's Developmental Service Agency

The catchment area for this program includes 10 counties in the northeastern corner of the state. Program personnel are physically housed in the counties of Dare, Hertford, Washington and Pasquotank. The CDSA serves children age birth to three years of age suspected of having developmental delays, and their families. Evaluations for the purpose of determining eligibility and planning, assurance of quality service provision and case management services are provided in partnerships with parents and community providers.

Albemarle Regional Solid Waste Authority

The Albemarle Regional Solid Waste Authority is a county-level legal entity serving the Counties of Perquimans, Chowan, Gates, Dare, Currituck, Hyde, Tyrrell and Washington. It also serves the towns within these counties. The Authority members have a long-term waste disposal and transportation contract with Republic Services of NC, LLC, to use East Carolina Environmental Landfill in Bertie County, NC. Waste is primarily sent to the East Carolina Environmental Landfill through the three transfer stations located in Dare County, Currituck County, and Perquimans County. Some waste is hauled to the landfill directly from the site of origin.

The towns and counties individually operate their solid waste management and recycling programs or contract for those services. The Authority conducts centralized solid waste billing, data collection and reporting, hauler licensing and technical assistance for its members. It also assists its members with market research, special waste management program development, legislative updates, grant writing and educational services. The Authority works under the administration of Albemarle Regional Health Services based in Elizabeth City, NC (43).

Health Department Utilization Data

ARHS has provided data on the utilization of agency services at the county level. The following table summarizes the number of unduplicated patients and total visits at the Currituck County Health Department, by program area.

- The programs seeing the largest number of patients at the Currituck County Health Department in Currituck over the three years cited were, in descending order, immunization, adult health, and family planning.

**Table 84. Currituck County Health Department Service Utilization, by Program
(FY2013-FY2015)**

Program	Unduplicated Patient Count							
	FY2013		FY2014		FY2015		Total	
	Patients	Visits	Patients	Visits	Patients	Visits	Patients	Visits
Adult Health	399	642	399	525	326	550	1,124	1,717
Child Health	65	76	28	29	47	57	140	162
Communicable Disease	0	0	0	0	4	4	4	4
Dental Health	0	0	0	0	0	0	0	0
Family Planning	245	507	217	434	227	458	689	1,399
Health Check Child Health Physicals	75	104	68	76	83	88	226	268
High Risk	0	0	0	0	2	2	2	2
Immunization	813	866	346	371	796	894	1,955	2,131
Maternal Health	54	251	46	210	53	265	153	726
Other Services	88	99	85	87	62	63	235	249
STD	104	143	70	76	65	87	239	306
Tuberculosis	6	19	33	41	29	35	68	95
TOTAL	1,849	2,707	1,292	1,849	1,694	2,503	4,835	7,059

Source: Albemarle Regional Health Services

Federally-Qualified Health Centers

The Federally-Qualified Health Center (FQHC) benefit under Medicare was added effective October 1, 1991, when the Social Security Act was amended to qualify “safety net” providers such as community health centers, public housing centers, outpatient health programs funded by the Indian Health Service, and programs serving migrants and the homeless to receive enhanced reimbursement from Medicare and Medicaid, as well as other benefits.

The main purpose of the FQHC Program is to enhance the provision of primary care services in underserved urban and rural communities. FQHCs must serve an underserved area or population, offer a sliding fee scale, provide comprehensive services, have an ongoing quality assurance program, and have a governing board of directors. Certain tribal organizations and FQHC Look-Alikes (an organization that meets PHS Section 330 eligibility requirements, but does not receive grant funding) also may receive special Medicare and Medicaid reimbursement (44).

As of October 10, 2016 the US Health Resources and Services Administration (HRSA) listed only one FQHC facility (Gateway Community Health Center, Inc., Elizabeth City) within 25 miles of Currituck, the county seat of Currituck County. If Centers in the state of Virginia are included, there are an additional ten within 35 miles of Currituck (45):

- Virginia Beach Family Medical Center (Virginia Beach, VA)
- Virginia Beach Family Medicine (Virginia Beach, VA)
- Chesapeake Community Health Center (Chesapeake, VA)
- Portsmouth Community Health Center (Portsmouth, VA)
- Healthy Smiles Dental Mobile Van (Portsmouth, VA)
- Healthy Smiles Dental Center (Portsmouth, VA)
- Hampton Road I Care (Norfolk, VA)
- Communicare Family Health Center (Norfolk, VA)
- Park Place Family Health Center (Norfolk, VA)
- East Ocean View Medical and Dental Center (Norfolk, VA)

School Health

School nurses facilitate health services such as immunizations, follow-up, communicable disease control, vision and hearing screening and follow-up, health assessments and referrals, health counseling and information for students and families. School nurses actively collaborate with school personnel, students and parents to create health plans and to administer medication. In addition, they provide prevention, crisis, and conflict resolution.

Student-to-School Nurse Ratio

The table below presents student to school nurse ratios for the four jurisdictions being compared.

- The average student-to-school nurse ratio in Currituck County for the most recent-period cited was 603:1, better than the recommended maximum of 750:1.

**Table 85. Student to School Nurse Ratio
(SY2009-10 through SY2012-13)**

Location	Student to School Nurse Ratio			
	SY2009-2010	SY2010-2011	SY2011-2012	SY2012-2013
Currituck County	608	651	651	603
<i>Regional Average</i>	713	712	712	652
Pamlico County	272	316	316	318
<i>State of NC</i>	1,185	1,201	1,179	1,177

Source - NC DHHS, DPH, Women's and Children's Health, Facts & Figures, Data Reports & Publications. Annual School Health Services Reports, End-of-Year-Reports, years as listed.
<http://www.ncdhhs.gov/dph/wch/stats/>.

According to updated information provided by Currituck County Schools, the nurse to student ratio in SY2015-2016 was 1:409 (46).

School Nurse Reports

The table on the following page offers excerpts from the SY2014-2015 End-of-Year School Health Nursing Survey and Program Summary for Currituck County Schools.

- The health conditions identified most frequently among Currituck County students included asthma, ADD/ADHD, and allergies.

**Table 86. School Nurse Activities, Currituck County Schools
(SY2014-2015)**

Nature of Activity	Services Provided/ Students Served	Nature of Activity	Services Provided/ Students Served
Health Counseling - Individual Session		Identified Health Conditions among Students	
ADD/ADHD	20	ADD/ADHD	116
Asthma	98	Allergies (severe)	85
Child abuse/neglect	1	Asthma	241
Chronic illness not otherwise listed	18	Autistic disorders, including Asperger's Syndrome	19
Depression (situational or chronic)	8	Blood disorders not listed elsewhere (e.g., chronic anemia)	1
Diabetes	25	Cancer, including leukemia	2
Hygiene	28	Cardiac condition	15
Illness/Injury Recovery	39	Cerebral palsy	7
Mental health issues not otherwise listed	11	Chromosomal/genetic conditions not otherwise listed	10
Nutrition	240	Concussion	26
Pregnancy	6	Chronic infectious diseases (e.g., toxoplasmosis, Hepatitis B)	2
Puberty; reproductive health	48	Diabetes Type I	11
Seizure disorders	10	Diabetes Type II	5
Severe allergies	121	Eating disorders (including anorexia, bulimia)	3
Substance abuse (including tobacco, prescription drugs, etc.)	6	Emotional/behavioral/psychiatric disorder not otherwise listed	25
Suicidal ideation	0	Gastrointestinal disorders (Crohn's, celiac disease, IBS, etc.)	14
Violence/bullying	3	Hearing loss	11
Student Medications		Hydrocephalus	2
Students on long-term medications		Hypertension	4
Students on short-term medications	58	Hypo/Hyperthyroidism	1
Students on PRN (non-emergency) medications	23	Metabolic conditions or endocrine disorders not otherwise listed	2
Students on emergency medications	102	Migraine headache	28
	194	Obesity >95%ile BMI	4
Health Care Procedures Administered		Orthopedic disability (permanent)	4
Blood glucose monitoring	13	Other neurological condition not otherwise listed	2
Insulin injection	12	Other neuromuscular condition not otherwise listed	3
Insulin pump	4	Renal/adrenal/kidney conditions including Addison's disease	12
Nebulizer treatment	8	Rheumatological conditions (including Lupus)	3
Tube feeding	3	Seizure disorder/epilepsy	18
Vagal nerve stimulator	1	Sickle Cell Trait (only)	1
		Spina Bifida (myelomeningocele)	1
		Traumatic Brain Injury	1
		Visually impaired (uncorrectable)	6

Source: 2014-15 End of Year School Health Report, Section 2. Personal communication from Virginia Arrington, Currituck County Schools, to Dana Hamill, Public Health Educator, Albemarle Regional Health Services, December 1, 2015.

Long-Term Care Facilities

The NC Division of Aging and Adult Services is the state agency responsible for planning, monitoring and regulating services, benefits and protections to support older adults, persons with disabilities, and their families. Among the facilities under the agency's regulatory jurisdiction are nursing homes, family care homes, and adult care homes. Each category of long-term care is discussed subsequently, but the following table lists all the county facilities by name.

- There was a total of 190 long-term beds in Currituck County as of February, 2016. Using the 2014 US Census estimate of the population age 65 and older (1,959) the ratio of long term care beds to the population age 65 and older was 1:10.

Table 87. NC-Licensed Long-Term Care Facilities in Currituck County (February, 2016)

Facility Type/Name	Location	# Beds SNF (ACH) ¹	Star Rating (If applicable)
Adult Care Homes/Homes for the Aged			
Currituck House	Moyock	90	3
Family Care Homes			
None			
Nursing Homes/Homes for the Aged			
Sentara Nursing Center - Currituck	Barco	100 (0)	n/a

¹ – SNF (ACH) = Maximum number of nursing or adult care home beds for which the facility is licensed.

Source - NC Department of Health and Human Services, Division of Health Services Regulation (DHSR), Licensed Facilities, Adult Care Homes, Family Care Homes, Nursing Facilities (by County); <http://www.ncdhs.gov/dhsr/reports.htm>.

Nursing Homes

Nursing homes are facilities that provide nursing or convalescent care for three or more persons unrelated to the licensee. A nursing home provides long term care of chronic conditions or short term convalescent or rehabilitative care of remedial ailments, for which medical and nursing care are indicated. All nursing homes must be licensed in accordance with state law by the NC Division of Health Service Regulation Licensure Section (47).

The table below presents the number of nursing facility beds in the jurisdictions being compared. Note that the local figures have not changed in eleven years.

- At the time this report was prepared, there was one nursing home in Currituck County, offering a total of 100 beds: Sentara Nursing Center - Currituck in Barco.

Table 88. Number of Nursing Facility Beds (2005-2015)

Location	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Currituck County	100	100	100	100	100	100	100	100	100	100	100
<i>Regional Average</i>	118	118	118	118	118	118	118	112	112	112	111
Pamlico County	96	96	96	96	96	96	96	96	96	96	96
<i>State of NC</i>	43,987	44,248	44,210	44,234	44,315	45,143	45,382	43,470	43,606	43,955	43,857

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

Source: Log Into North Carolina (LINC) Database, Topic Group Vital Statistics and Health (Data Item 513); http://data.osbm.state.nc/pls/linc/dyn_linc_main.show.

Adult Care Homes

Adult care homes are residences for aged and disabled adults who may require 24-hour supervision and assistance with personal care needs. People in adult care homes typically need a place to live, some help with personal care (such as dressing, grooming and keeping up with medications), and some limited supervision. Medical care may be provided on occasion but is not routinely needed. Medication may be given by designated, trained staff. These homes vary in size from *family care homes* of two to six residents to *adult care homes* of more than 100 residents. These homes were previously called "domiciliary homes," or "rest homes." The smaller homes, with two to six residents, are still referred to as family care homes. In addition, there are Group Homes for Developmentally Disabled Adults, which are licensed to house two to nine developmentally disabled adult residents (48).

Adult care homes are different from nursing homes in the level of care and qualifications of staff. They are licensed by the state Division of Health Service Regulation (Group Care Section) under State regulations and are monitored by Adult Home Specialists within county departments of social services. Facilities that violate licensure rules can be subject to sanctions, including fines.

- As cited previously, at the time this report was prepared there was one state-licensed adult care home in Currituck County: Currituck House, in Moyock, offering 90 beds.
- At the time this report was prepared there were no state-licensed family care homes in Currituck County.

In January, 2009, NC Division of Health Services Regulation introduced a "Star Rated Certificate" program to provide consumers with more information about the quality of care offered by the state's adult care homes and family care homes. The Star Rated Certificate program is based on an inspections-related point scale, and ratings range from zero to four stars (49).

- As cited previously, the one adult care home in Currituck County was rated three stars.

Alternatives to Institutional Care

An alternative to institutional care preferred by many disabled and senior citizens is to remain at home and use community in-home health and/or home aide services. The table below lists the home care, home health, and hospice providers in the ARHS Region, including those serving Currituck County. Note that there may be additional providers that refer to themselves as "home health service (or care) providers"; the table below lists only those licensed by the state.

Table 89. NC-Licensed Home Care, Home Health and Hospice Service Providers in the ARHS Region (As of December, 2016)

Facility Name	County	City	Licensed for	Accredited
Albemarle Home Care and Hospice	Bertie	Windsor	Home Care, Home Health	yes
Definitive Touch Home Care	Bertie	Aulander	Home Care	no
Home Life Care Inc	Bertie	Windsor	Home Care	no
Positive Step Home Care Agency	Bertie	Windsor	Home Care	no
Quality Home Staffing, Inc	Bertie	Windsor	Home Care	no
Sure Care Health Services	Bertie	Kelford	Home Care	no
Vidant Home Health and Hospice	Bertie	Windsor	Home Care, Home Health	yes
Albemarle Home Care and Hospice	Camden	Camden	Home Care, Home Health	yes
Albemarle Home Care and Hospice	Chowan	Edenton	Home Care, Home Health	yes
Continuum Home Care of Edenton	Chowan	Edenton	Home Care	no
Continuum Home Care and Hospice of Edenton	Chowan	Edenton	Hospice facilities	no
Health Care Options	Chowan	Edenton	Home Care	no
Home Life Care Inc	Chowan	Edenton	Home Care	no
Albemarle Home Care and Hospice	Currituck	Poplar Branch	Home Care, Home Health	yes
Outer Banks Home Care	Currituck	Harbinger	Home Care	no
Hertford-Gates Home Health Agency	Gates	Gatesville	Home Care, Home Health	no
Albemarle Home Care and Hospice	Pasquotank	Elizabeth City	Home Care, Home Health, Hospice facilities	yes
Carolina East Home Care Agency	Pasquotank	Elizabeth City	Home Care	no
Coastal Rehabilitation, Inc	Pasquotank	Elizabeth City	Home Care	no
Community Home Care and Hospice	Pasquotank	Elizabeth City	Hospice facilities	yes
East Carolina Home Care Inc	Pasquotank	Elizabeth City	Home Care	no
Home Life Care Inc	Pasquotank	Elizabeth City	Home Care	no
Lincare, Inc	Pasquotank	Elizabeth City	Home Care	no
Quality Home Staffing, Inc	Pasquotank	Elizabeth City	Home Care	no
ResCare HomeCare	Pasquotank	Elizabeth City	Home Care	no
Sentara Home Care Services	Pasquotank	Elizabeth City	Home Care, Home Health	yes
Albemarle Home Care and Hospice	Perquimans	Hertford	Home Care, Home Health	yes

Adult Day Care/Adult Day Health Centers

Adult day care provides an organized program of services during the day in a community group setting for the purpose of supporting the personal independence of older adults and promoting their social, physical and emotional well-being. Also included in the service, when supported by funding from the Division of Aging and Adult Services (NCDAAS), are no-cost medical examinations required for admission to the program. Nutritional meals and snacks, as appropriate, are also expected. Providers of adult day care must meet State Standards for Certification, which are administrative rules set by the state Social Services Commission. These standards are enforced by the office of the Adult Day Care Consultant within the NCDAAS. Routine monitoring of compliance is performed by Adult Day Care Coordinators located at county departments of social services. Costs to consumers vary, and there is limited funding for adult day care from state and federal sources (50).

Adult day health services are similar programs to adult day care programs in that they provide an organized program of services during the day in a community group setting to support the personal independence of older adults and promote their social, physical, and emotional well-being. In addition, providers of adult day health services, as the name implies, offer health care services to meet the needs of individual participants. Programs must also offer referral to and assistance in using other community resources, and transportation to and from the program may be provided or arranged when needed and not otherwise available. Also included in the service, when supported by funding from the NCDAAS, are medical examinations required for individual participants for admission to day health care services and thereafter when not

otherwise available without cost. Food and services to provide a nutritional meal and snacks as appropriate are expected as well (51).

The NCDAAS did not list any adult day care/adult day health centers for Currituck County at the time this report was developed. However, *DayBreak Adult Day Health Center*, a program of Albemarle Home Care, provides care and support for adults who, due to frailty or physical disability, require assistance during the day. Daybreak provides a range of activities designed to promote social, physical, and emotional well-being. The agency's facility is located in Elizabeth City (52).

Mental Health Services and Facilities

Local LME/MCO

The unit of NC government responsible for overseeing mental health services is the Division of Mental Health, Developmental Disabilities and Substance Abuse Services (DMH/DD/SAS). In NC, the mental health system is built on a system of governmental Local Management Entities/Managed Care Organizations (LME/MCOs). LME/MCOs are responsible for managing, coordinating, facilitating and monitoring the provision of mental health, developmental disabilities and substance abuse services in the catchment area served. LME/MCO responsibilities also include offering consumers 24/7/365 access to services, developing and overseeing providers, and handling consumer complaints and grievances.

At the time this report was prepared, the LME/MCO for Currituck County was Trillium Health Resources (THR). THR serves a total of 24 counties in eastern NC, including all seven counties served by ARHS (53). THR's responsibility is to connect individuals and families to the help they need when they need it. It also is responsible for managing state and federally funded services for people who receive Medicaid, are uninsured or cannot afford services.

Trillium does not provide direct care. Instead, partnering with agencies and licensed therapists in its Provider Network to offer services and supports to people in need in or near their own communities. It also works collaboratively with local non-profits, other governmental agencies, medical providers, and hospitals to create a holistic system of total patient care that recognizes all needs of an individual (54).

Services offered include: diagnostic assessment, outpatient therapy, multi-systemic therapy, psychosocial rehabilitation, developmental therapy, intensive in-home services, medication management, substance abuse residential care, day treatment, community respite, group living, supportive living, supportive employment, substance abuse treatment (outpatient and residential), day activity and vocational program for the developmentally disabled, personal assistance, and targeted case management.

THR provides an on-line "Find a Provider" tool on its website (<http://www.trilliumhealthresources.org/en/For-Providers/Provider-Directory/>) that consumers can use to find agencies and group practices, hospitals or licensed independent practitioners who contract with this LME/MCO. The THR Network Provider Directory is updated on a regular basis. THR can also assist clients with services and supports through direct contact with the Trillium Health Resources Call Center at 1-877-685-2415. Since it is subject to change, the list of Currituck County mental health providers in the THR network is not presented in this document.

In-County Mental Health Facilities

There is a list of NC-licensed mental health facilities (not providers) physically located in Currituck County, as shown in the following table. These facilities provide day activities or supervised living services for the developmentally disabled, or day treatment for substance abuse.

Table 90. NC-Licensed Mental Health Facilities (G.S. 122C) in Currituck County (February, 2016)

Operator/Name of Facility	Location	Category	Capacity
Currituck Home	Grandy	Supervised living, developmentally disabled adult	6
Lighthouse Club - Currituck (Monarch)	Point Harbor	Day Activity	n/a
Two Dreams - Outer Banks, LLC	Corolla	Day treatment for substance abuse	n/a

Source - NC Department of Health and Human Services, Division of Health Services Regulation (DHSR), Licensed Facilities, Mental Health Facilities (G.S. 122C) (by County); <http://www.ncdhhs.gov/dhsr/reports.htm>.

Accessing mental health services is sometimes a significant problem for patients whose medical insurance is provided by Medicaid or NC Health Choice. To help them, the NC Division of Medical Assistance maintains a list of mental health *providers* who accept patients with Medicaid or NC Health Choice. A recent listing for Currituck County is presented in the table below.

- At the time this list was assembled, there were six such providers in Currituck County.

Table 91. Mental Health Providers Accepting Medicaid or NC Health Choice Patients, Currituck County (September 2015)

Provider Name	Provider Type	Specialty	Location
Patricia A. Bischoff	Individual Provider	Licensed Clinical Social Worker	Moyock
Tonia M. Cassaday	Individual Provider	Licensed Clinical Social Worker	Shawboro
Peter J. Clagnaz	Individual Physician	Psychiatry	Grandy
Dietrich W. Heyder	Individual Physician	Psychiatry	Jarvisburg
Jessica Penson Heyder	Individual Provider	Licensed Clinical Social Worker	Jarvisburg
Linda J. Ward	Individual Provider	Licensed Psychological Associate (LPA)	Coinjock

Source: NC Division of Medical Assistance, Medicaid, Find a Doctor, NC Mental Health Providers; <http://dma.ncdhhs.gov/find-a-doctor/mental-health-providers>.

Other Healthcare Resources

The following table lists other healthcare facilities in the Albemarle Region that are licensed by the state of NC. Note that none were physically located in Currituck County

- As of February, 2016 there were no NC-licensed ambulatory surgical facilities or nursing pools in the Albemarle Region.
- There were two NC-licensed cardiac rehabilitation facilities in the region: the Cardiopulmonary Rehabilitation Program at Sentara Albemarle Medical Center in Elizabeth City, and HealthSteps in Edenton.

**Table 92. Other NC Licensed Healthcare Facilities in the Albemarle Region
(As of February, 2016)**

Type and Name of Facility	County	Location
Licensed Ambulatory Surgical Facilities		
None		
Licensed Cardiac Rehabilitation Facilities		
Sentara Albemarle Medical Center	Pasquotank	Elizabeth City
HealthSteps (East Carolina Health - Chowan Inc)	Chowan	Edenton
Licensed Nursing Pools		
None		

Source - NC Department of Health and Human Services, Division of Health Services Regulation (DHSR), Licensed Facilities, Hospitals (by County); <http://www.ncdhhs.gov/dhsr/reports.htm>.

Dialysis Centers

The table below lists dialysis centers in the Albemarle Region, none of which was physically located in Currituck County.

**Table 93. Dialysis Centers in the Albemarle Region
(2012)**

Name of Facility	County	Location	Features
BMA of Windsor	Bertie	Windsor	20 hemodialysis stations, no evening hours
Edenton Dialysis	Chowan	Edenton	17 hemodialysis stations; no evening hours
Elizabeth City Dialysis	Pasquotank	Elizabeth City	24 hemodialysis stations; no evening hours

Source: Dialysis Facility Compare, <http://www.Medicare.gov/Dialysis/Include/DataSection/Questions>.

Urgent Care Centers

Apparently there are no free-standing urgent care centers in Currituck County, but Internet searches identify urgent care centers in Elizabeth City (Pasquotank County), Southern Shores (Dare County) and Kitty Hawk (Dare County), as well as a number of urgent care facilities in the Tidewater region of Virginia.

Other Currituck County Medical Practitioners

The following table lists active, NC Medical Board-licensed physicians and physician assistants in Currituck County as of November 5, 2016.

- There were 11 physicians (not counting sleep technicians) and six physician assistants active in Currituck County at the time.

**Table 94. Active NC Licensed Physicians and Physician Assistants in Currituck County
(As of November 5, 2016)**

Physician Name	Location	Specialty	Practice Affiliation
Anglero, Melissa	Moyock	Obstetrics and Gynecology	Private
Dahm, Norman Richard	Point Harbor	Gynecology	The Harbinger Center Family Medicine & Gynecology
LoFaso, Peter Frederick	Point Harbor	Internal Medicine	Private
Lustig, David Michael	Point Harbor	Urological Surgery	David Lustig, MD, Urology Services
Martz, Michael Roy	Barco	Family Medicine	Private
Miran, Mohammed J.	Moyock	Internal Medicine	Currituck Internal Medicine
Old, Jr., Forrest Paul	Moyock	Internal Medicine	Currituck Internal Medicine
Owens, James Lee	Jarvisburg	Family Medicine	Private
Ray, Dipes Kumar	Moyock	Internal Medicine	Private
Terryberry, Daniel Scott	Moyock	Administrative Medicine	Mustang Medical of NC
Ziglar, Susan Kimberly	Moyock	Geriatrics	Currituck Internal Medicine
Physician Assistant Name		Area of Practice	Practice Affiliation
Aros, Carolyn	Moyock	Family Medicine	Currituck Internal Medicine
McAninley, Marc Anthony	Moyock	Occupational Medicine	Mustang Medical of NC
Skoski, Myron	Moyock	Family Medicine	Mustang Medical of NC
White, Kristen Danielle	Moyock	Occupational Medicine	Mustang Medical of NC
Williams, Allison Ruth	Moyock	Internal Medicine	Currituck Internal Medicine
Yeatts, Sherry Lin	Aydlett	Neurological Surgery	Private

Source: Licensee Information. NC Medical Board,
<http://wwwapps.ncmedboard.org/Clients/NCBOM/Public/LicenseeInformationSearch.aspx>.

Recreational Facilities

The table below lists some of the public parks and recreational centers in Currituck County.

Table 95. Public Recreational Facilities in Currituck County

Category/Name	Location	Facilities/Programs
Recreational Facilities and Opportunities		
Carova Beach Park	Corolla	Pavilion, shelters, boardwalk, volleyball pit, horseshoe pit
Currituck Community Center	Barco	YMCA, Senior Center, athletic fields, administrative offices, walking trails
Currituck County Rural Center	Powells Point	indoor and outdoor riding arenas, barns, open spaces, playgrounds, stocked fishing ponds, boat launch, boardwalk, picnic areas
Historic Corolla Park	Corolla	Currituck Beach lighthouse, Keeper's House, tours, Wildlife Education, pedestrian footbridge, boat ramp, picnic facilities, gazebo
Knotts Island Ruritan Park	Knotts Island	Pavilion, playground, Senior Center, skate park
Maple Park	Maple	Pavilion, shelters, athletic fields (baseball, softball, volleyball, horseshoes, badminton), fitness trail, skate park, fishing, walking trails, playground
Poyner's Road Park	Poyner's Road	Picnic grounds, fishing, boat ramp
Special Olympics	Various access points	Bowling and basketball, ages 8 and up
Sound Park	Point Harbor	Pavilion, boat ramps, boardwalk, sound-front overlook, playgrounds, walking trails, athletic facilities (baseball, softball, volleyball, tennis) playing fields, skate park, waterslide boardwalk
Veteran's Memorial Park	Coinjock	Pavilion, horseshoe pit, waterfront boardwalk with fishing, Veteran's Memorial monument and flags,
Walnut Island Park	Grandy	Pavilion, playground
Walking Communities	Various access points	21 community walking trail maps, available through the Parks and Recreation Department website
Historical Sites		
Parker House	Corolla	Restored house in historic Corolla Village
Corolla Chapel	Corolla	Restored interdenominational historic church and wedding facility
Whalehead Club at Currituck Heritage Park	Corolla	Restored 1920s residence, boathouse and footbridge, bike paths, picnic facilities, boat ramp, self-guided walking tour
Currituck Beach Lighthouse	Corolla	Functioning lighthouse
Currituck County Historic Courthouse and Jail	Currituck	Historic site and in-use courthouse, one of the four oldest jails in NC

Sources: Currituck County government website. Departments: Parks and Recreation. <http://www.co.currituck.nc.us/Parks-and-Recreation.cfm>. Currituck County government website. Leisure. <http://www.co.currituck.nc.us/Leisure.cfm>.

For a broader listing of community resources, including health resources, please consult the Appendix to this report.

CHAPTER FOUR: HEALTH STATISTICS

METHODOLOGY

Routinely collected mortality and morbidity surveillance data and behavior survey data can be used to describe—and compare—the health status of communities. Briefly speaking, mortality refers to death; morbidity refers to illness or disability among the living. These data, which are readily available in the public domain, typically use standardized definitions, thus allowing comparisons among county, state and national figures. There is, however, some error associated with each of these data sources. Surveillance systems designed to track morbidity, for communicable diseases and cancer diagnoses, for instance, rely on reports submitted by health care facilities across the state and are likely to miss a number of cases, and mortality statistics are dependent on the primary cause of death listed on death certificates without consideration of co-occurring conditions.

Understanding Health Statistics

Mortality

Mortality, or the rate of death, is calculated by dividing the number of deaths due to a specific disease in a given period of time by the population size in the same period. Mortality typically is described as a rate, usually presented as a number of deaths per 100,000 residents. Mortality rates are readily available since the underlying (or primary) cause of death is routinely reported on death certificates, the submission of which is more or less universal. However, some error can be associated with cause-of-death classification, since it is sometimes difficult to choose a single underlying cause of death from potentially many co-occurring conditions.

Mortality rate by cause is calculated according to the following formula:

$$\text{(number of deaths due to a cause/population)} \times 100,000 = \text{deaths per 100,000 people.}$$

Age-adjustment

Many factors can affect the risk of death, including race, gender, occupation, education and income. The most significant factor is age, because the risk of death inevitably increases with age; that is, as a population ages, its collective risk of death increases. Therefore, an older population will automatically have a higher overall death rate just because of its age distribution. At any one time some communities have higher proportions of “younger” people, and others have a higher proportion of “older” people. In order to compare mortality data from one community with the same kind of data from another, it is necessary first to control for differences in the age composition of the communities being compared. This is accomplished by *age-adjusting* the data. Age-adjustment is a statistical manipulation usually performed by the professionals responsible for collecting and cataloging health data, such as the staff of the NC State Center for Health Statistics (NCSCHS). It is not necessary to understand the nuances of age-adjustment to use this report. Suffice it to know that age-adjusted data are preferred for comparing health data from one population or community to another and have been used in this report whenever available.

Aggregate Data

Another convention typically used in the presentation of health statistics is *aggregate data*, which combines annual data gathered over a multi-year period, usually three or five years. The practice of presenting data that are aggregated avoids the instability typically associated with using highly variable year-by-year data consisting of relatively few cases or deaths. The calculation is performed by dividing the number of cases or deaths due to a particular disease over a period of years by the sum of the population size for each of the years in the same period.

Morbidity

Morbidity as used in this report refers generally to the presence of injury, sickness or disease (and sometimes the symptoms and/or disability resulting from those conditions) in the population. Morbidity data usually is presented as a percentage, or a count, but not a rate.

Prevalence

Prevalence, which describes the extent of morbidity, refers to the number of existing cases of a disease or health condition in a population at a defined point in time or during a period. Prevalence expresses a proportion, not a rate. Prevalence is often estimated by consulting hospital records; for instance, hospital discharge records available from NCSCHS show the number of residents within a county who use hospital in-patient services for given diseases during a specific period. Typically, these data underestimate the true prevalence of the given disease in the population, since individuals who do not seek medical care or who are diagnosed outside of the hospital in-patient setting are not captured by the measure. Note also that decreasing hospital discharge rates do not necessarily indicate decreasing prevalence; rather they may be a result of a lack of access to hospital care.

Incidence

Incidence is the population-based rate at which *new cases* of a disease occur and are diagnosed. It is calculated by dividing the number of newly diagnosed cases of a disease or condition during a given period by the population size during that period. Typically, the resultant value is multiplied by 100,000 and is expressed as cases per 100,000; sometimes the multiplier is a smaller number, such as 10,000.

Incidence rate is calculated according to the following formula:

$$\text{(number of new cases/population)} \times 100,000 = \text{new cases per 100,000 people}$$

The incidence rates for certain diseases, such as cancer, are simple to obtain, since data on newly discovered cases is routinely collected by the NC Central Cancer Registry. However, diagnoses of other conditions, such as diabetes or heart disease, are not normally reported to central data-collecting agencies, so accurate incidence data on these conditions is rare.

Trends

Data for multiple years is included in this report wherever possible. Since comparing data on a year-by-year basis can yield very unstable trends due to the often small number of cases, events or deaths per year (see below), the preferred method for reporting incidence and mortality data is long-term trends using the age-adjusted, multi-year aggregate format. Most trend data used in this report is of that type.

Small Numbers

Year-to-year variance in small numbers of events can make dramatic differences in rates that can be misleading. For instance, an increase from two events one year to four the next could be statistically insignificant in a population sense but result in a calculated rate increase of 100%. Aggregating annual counts over a five year period before calculating a rate is one method used to ameliorate the effect of small numbers. Sometimes even aggregating data is not sufficient, so the NCSCHS recommends that all rates based on fewer than 20 events—whether covering an aggregate period or not—be considered “unstable”, and interpreted only with caution. In recent years, NCSCHS has suppressed reporting data (e.g., mortality rates) based on fewer than 20 events in a five-year aggregate period. (Other state entities that report health statistics may use their own minimum reporting thresholds.) In an effort to assure that unstable health data do not become the basis for local decision-making, this author makes every effort to highlight and discuss primarily rates based on 20 or more events in a five-year aggregate period and on 10 or more events in a single year. However, in smaller jurisdictions it may be necessary to use unstable figures in order to have any data at all to report. Where these exceptions occur, the narrative will highlight the potential instability of the data being discussed.

Describing Difference and Change

In describing differences in data of the same type from two populations or locations, or changes over time in the same kind of data from one population or location—both of which appear frequently in this report—it is useful to apply the concept of percent difference or change. While it is always possible to describe difference or change by the simple subtraction of a smaller number from a larger number, the result often is inadequate for describing and understanding the scope or significance of the difference or change. Converting the amount of difference or change to a *percent* takes into account the relative size of the numbers that are changing in a way that simple subtraction does not, and makes it easier to grasp the meaning of the change.

For example, there may be a rate for a type of event (e.g., death) that is one number one year and another number five years later. Suppose the earlier figure is 12.0 and the latter figure is 18.0. The simple mathematical difference between these rates is 6.0. Suppose also there is another set of rates that are 212.0 in one year and 218.0 five years later. The simple mathematical difference between these rates also is 6.0. Although the same, these simple numerical differences are not of the same significance in both instances. In the first example, converting the 6 point difference to a percent yields a relative change factor of 50%; that is, the smaller number increased by half, a large fraction. In the second example, converting the 6-point difference to a percent yields a relative change factor of 2.8%; that is, the smaller number in the comparison increased by a relatively small fraction. In these examples the application of percent makes it very clear that the difference in the first example is of far greater degree than the difference in the second example. This document uses percentage almost exclusively to describe and highlight degrees of difference and change, both positive (e.g., increase, larger than, etc.) and negative (e.g., decrease, smaller than, etc.)

Behavioral Risk Factor Surveillance System (BRFSS)

Currituck County residents, as well as those living in the other six counties of the ARHS region, participate in the state’s annual Behavioral Risk Factor Surveillance System (BRFSS) Survey, as part of an aggregate 41-county sample that encompasses the entire eastern third of the state (“Eastern North Carolina”). It is not possible to isolate survey responses from any ARHS county’s BRFSS participants without oversampling the county, which rarely occurs. Since the

aggregate regional data covers such a diverse area, the results cannot responsibly be interpolated to describe health in any one of the ARHS counties. As a result, BRFSS data will not be used in this document *except* for local BRFSS data manipulated by the CDC to yield a county-level *estimate*.

Final Health Data Caveat

Some data that is used in this report may have inherent limitations, due to sample size, or a sampling date far in the past, for example, but is used nevertheless because there is no better alternative. Whenever this kind of data is used, it will be accompanied by a warning about its limitations.

HEALTH RANKINGS

America’s Health Rankings

Each year for more than 20 years, America’s Health Rankings™, a project of United Health Foundation, has tracked the health of the nation and provided a comprehensive perspective on how the nation—and each state—measures up. America’s Health Rankings is the longest running state-by-state analysis of health in the US.

America’s Health Rankings are based on several kinds of measures. Together the metrics for those measures help calculate an overall rank. The table below shows where North Carolina stood in the 2014 overall rankings relative to the “best” and “worst” states, where number one is “best”.

- North Carolina was ranked 37th overall in the US. Hawaii was ranked 1st and Mississippi was ranked 50th (last).

Table 96. Rank of North Carolina in America’s Health Rankings (2014)

Location	National Rank (Out of 50) ¹		
	Overall	Determinants	Outcomes
Hawaii	1	3	1
North Carolina	37	36	40
Mississippi	50	50	50

Source: United Health Foundation. America’s Health Rankings. Our Reports, 2014 Annual Report.
<http://cdnfiles.americashealthrankings.org/SiteFiles/Reports/Americas%20Health%20Rankings%202014%20Edition.pdf>.

County Health Rankings

Building on the work of *America’s Health Rankings*, the Robert Wood Johnson Foundation, collaborating with the University of Wisconsin Population Health Institute, undertook a project to develop health rankings for the counties in all 50 states. In this project, each state’s counties are ranked according to health outcomes and the multiple health factors that determine a county’s health. Each county receives a summary rank for its health outcomes and health factors and also for the four different types of health factors: health behaviors, clinical care, social and economic factors, and the physical environment.

The following table presents the 2015 county rankings for Currituck County, the ARHS regional average and Pamlico County in terms of health outcomes and health factors.

- Currituck County ranked 6th overall in NC, chiefly due to a high quality of life ranking (20th) and a very high ranking for social and economic factors (6th).

It should be noted that the County Health Rankings serve a limited purpose, since the data on which they are based in some cases is very old and different parameters are measured in different time periods.

**Table 97. County Health Rankings
(2015)**

Location	County Rank (Out of 100) ¹						Overall
	Health Outcomes		Health Factors				
	Length of Life	Quality of Life	Health Behaviors	Clinical Care	Social & Economic Factors	Physical Environment	
Currituck County	35	20	59	56	6	37	6
<i>Regional Average</i>	<i>46</i>	<i>58</i>	<i>61</i>	<i>40</i>	<i>49</i>	<i>30</i>	<i>48</i>
Pamlico County	30	22	35	9	63	89	21

County Health Rankings and Roadmaps, 2015. University of Wisconsin Population Health Institute;
<http://www.countyhealthrankings.org/app/north-carolina/2013/rankings/outcomes/overall/by-rank>.

The table below presents additional detail for these jurisdictions as well as the average for NC and national benchmarks.

**Table 98. County Health Rankings Details
(2015)**

Health Factor	Currituck County	ARHS Regional Average	Pamlico County	NC County Average	National Median
Health Outcomes	26	51	21		
<i>Length of Life</i>	35	46	30		
Premature deaths	7,466	7,856	7,279	7,212	7,681
<i>Quality of Life</i>	20	58	22		
Poor or fair health		22%		18%	17%
Poor physical health days	3.9	4.2	2.1	3.6	3.7
Poor mental health days		2.9		3.4	3.5
Low birthweight	6.8%	9.9%	8.8%	9.1%	8.0%
Health Factors	22	49	35		
<i>Health Behaviors</i>	59	61	35		
Adult smoking	26%	25%		20%	21%
Adult obesity	31%	33%	30%	29%	31%
Food environment index	8%	7%	7.5	6.6	7.3
Physical inactivity	26%	28%	27%	25%	27%
Access to exercise opportunities	79%	53%	31%	76%	65%
Excessive drinking	27%	21%		13%	16%
Alcohol-impaired driving deaths	26%	27%	15%	33%	31%
Sexually transmitted infections	212	468	260	519	291
Teen birth rate	34	40	49	42	41
<i>Clinical Care</i>	56	40	9		
Uninsured	18%	18%	19%	19%	17%
Primary Care physicians (ratio:1)	6,019	5,510	2,615	1,448	2,015
Dentists (ratio:1)	4,879	7,616	3,238	1,970	2,670
Mental health providers (ratio:1)	2,440	3,094	1,850	472	1,128
Preventable hospital stays	51	56	34	57	65.3
Diabetic monitoring	88%	86%	92%	89%	85%
Mammography screening	60.8%	69%	78.9%	68.2%	61%
<i>Social & Economic Factors</i>	6	49	63		
High school graduation	87%	83%	88%	81%	85%
Some college	56%	55%	54%	64%	56%
Unemployment	6.4%	8.7%	8.9%	8.0%	7.0%
Children in poverty	19%	29%	35%	25%	24%
Income inequality	4.0	467%	4.4	4.8	4.4
Children in single-parent households	24%	36%	37%	36%	31%
Social associations	13.7	14.5	9.2%	11.7%	12.6%
Violent crime rate	194	198	186	355	199
Injury deaths	76	67	104	64	73.8
<i>Physical Environment</i>	37	30	89		
Air pollution - particulate matter	11.6	12	11.6	12.3	11.9
Drinking water violations	0%	0%	47%	4%	1%
Severe housing problems	15%	0	17%	16%	14
Driving alone to work	85%	82%	79%	81%	80%
Long commute - driving alone	60%	45%	42%	30%	29%
Source	1	1	1	2	2

1 - County Health Rankings and Roadmaps, 2015. University of Wisconsin Population Health Institute;

<http://www.countyhealthrankings.org/app/north-carolina/2015/rankings/outcomes/overall>.

2 - State Health Gap Reports, 2015. University of Wisconsin Population Health Institute;

http://www.countyhealthrankings.org/sites/default/files/state/downloads/CHR2015_NC_0.pdf.

Note: Blank values ("n/a") reflect unreliable or missing data.

MATERNAL AND INFANT HEALTH

Pregnancy

The following definitions and statistical conventions will be helpful in understanding the data on pregnancy:

- Reproductive age = 15-44
- Total pregnancies = live births + induced abortions + fetal death at 20+ weeks gestation
- Pregnancy rate = number of pregnancies per 1,000 women of reproductive age
- Fertility rate = number of live births per 1,000 women of reproductive age
- Abortion rate = number of induced abortions per 1,000 women of reproductive age
- Birth rate = number of live births per 1,000 *population* (Note that in the birth rate calculation the denominator includes the entire population, both men and women, not just women of reproductive age.) Since the birth rate is a measure of population growth, it was presented among the demographic data in Chapter One of this report.

Pregnancy, Fertility and Abortion Rates, Women Age 15-44

The following table presents total annual pregnancy, fertility and abortion rates for women age 15-44 for the period from 2010-2014.

- The 2014 overall pregnancy rate was 67.4 in Currituck County, compared to 66.3 in the Region and 72.1 in NC.
- The overall abortion rate in Currituck County among women aged 15-44 decreased over time. In 2014, the Currituck County abortion rate was 7.8 compared to 15.1 in 2005.
- Discussion of racially stratified pregnancy and abortion rate trends is complicated by numerous unstable and suppressed rates as well as changes over time in the way the SCHS has handled racial identity.

Table 99. Total Pregnancy, Fertility and Abortion Rates, Ages 15-44 (Single Years, 2010-2014)

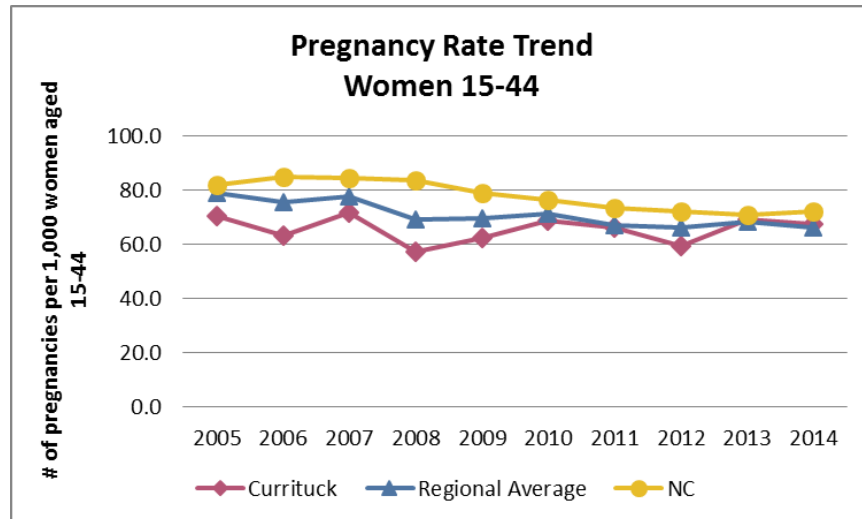
Location	Females Ages 15-44															
	2010			2011			2012			2013			2014			
	Pregnancy Rate	Fertility Rate	Abortion Rate	Pregnancy Rate	Fertility Rate	Abortion Rate	Pregnancy Rate	Fertility Rate	Abortion Rate	Pregnancy Rate	Fertility Rate	Abortion Rate	Pregnancy Rate	Fertility Rate	Abortion Rate	
Currituck County	Total	69.0	56.3	12.7	66.1	53.8	12.3	59.3	48.2	10.6	69.1	59.4	9.5	67.4	59.6	7.8
	White, Non-Hispanic	70.5	57.8	12.7	64.6	52.9	11.8	58.1	47.6	9.9	68.0	59.2	8.5	65.0	58.1	6.9
	African American, Non-Hispanic	75.6	50.4	25.2	86.6	59.1	27.6	81.3	*	*	79.8	*	*	*	*	*
	American Indian, Non-Hispanic															
	Other, Non-Hispanic	51.3	51.3	0.0	66.7	66.7	0.0	*	*	*	*	*	*	*	*	*
	Hispanic	31.3	31.3	0.0	68.8	62.5	6.3	*	*	*	*	*	*	*	*	*
Regional Average	Total	71.5	57.9	13.3	67.2	56.7	10.2	66.3	55.9	20.6	68.2	58.7	9.6	66.3	57.0	10.7
	White, Non-Hispanic	67.1	58.0	8.5	61.3	54.5	6.6	62.5	55.9	9.5	67.4	59.3	7.2	63.6	57.3	7.6
	African American, Non-Hispanic	79.8	58.1	21.5	70.8	54.7	15.7	74.4	57.2	18.4	68.3	61.4	14.3	69.9	55.0	15.8
	American Indian, Non-Hispanic															
	Other, Non-Hispanic	61.3	60.4	0.9	73.2	63.8	9.4	*	*	*	*	*	*	*	*	*
	Hispanic	65.6	52.1	13.1	82.1	76.2	5.9	78.0	71.3	*	121.8	113.2	*	56.0	54.0	*
Pamlico County	Total	71.5	57.6	11.7	59.3	49.3	10.0	63.0	55.6	*	52.6	45.6	*	61.9	52.2	*
	White, Non-Hispanic	69.1	55.8	11.8	59.3	48.9	10.4	59.0	54.4	*	49.0	45.1	*	61.9	54.1	*
	African American, Non-Hispanic	80.2	61.7	15.4	38.2	32.4	5.9	73.6	*	*	*	*	*	62.7	*	*
	American Indian, Non-Hispanic															
	Other, Non-Hispanic	0.0	0.0	0.0	69.0	69.0	0.0	*	*	*	*	*	*	*	*	*
	Hispanic	98.8	86.4	0.0	141.2	117.6	23.5	*	*	*	*	*	*	*	*	*
State of NC	Total	76.4	62.7	13.2	73.3	61.5	11.4	72.1	61.0	10.7	70.8	60.3	10.1	72.1	61.0	10.7
	White, Non-Hispanic	65.6	57.1	8.2	63.6	56.4	7.0	63.0	56.1	6.6	61.8	55.4	6.1	63.5	56.5	6.6
	African American, Non-Hispanic	86.1	61.0	24.4	81.5	59.7	21.1	79.6	59.1	19.8	79.0	59.7	18.6	79.5	59.4	19.4
	American Indian, Non-Hispanic															
	Other, Non-Hispanic	84.5	71.3	12.8	80.6	69.4	10.9	79.7	69.7	9.5	79.4	69.5	9.5	82.4	72.0	10.1
	Hispanic	114.0	99.0	14.7	106.6	94.0	12.2	102.6	91.4	10.8	98.6	87.9	10.3	98.4	87.0	10.9

Note: Bold type indicates an unstable rate based on a small number (fewer than 10 cases). An asterisk signifies a suppressed rate. Source: NC Center for Health Statistics, Vital Statistics. Reported Pregnancies. Years as noted. Pregnancy, Fertility, and Abortion Rates per 1,000 Population, by Race, by Age; <http://www.schs.state.nc.us/data/vital/pregnancies/>.

The following figure plots the overall pregnancy rate for the comparators (minus Pamlico County) for a period that spans 2005 through 2014.

- The total pregnancy rate in Currituck County fluctuated quite a bit but demonstrated a small, general decline over the period cited.
- The total pregnancy rates in both the ARHS Region and NC have fallen overall since 2007.

Figure 15. Overall Pregnancy Rate Trend, Age 15-44 (2005-2014)



Source: NC Center for Health Statistics, Vital Statistics. Reported Pregnancies. Years as noted. Pregnancy, Fertility, and Abortion Rates per 1,000 Population, by Race, by Age; <http://www.schs.state.nc.us/data/vital/pregnancies/>

Pregnancy, Fertility and Abortion Rates, Women Age 15-19

The table below presents total annual pregnancy, fertility and abortion rates for women age 15-19 (“teens”) for the period from 2010-2014.

- In 2014 the teen pregnancy rate was 26.5 in Currituck County, compared to 26.4 for the Region and 32.3 for the state.
- Among Currituck County teens, the pregnancy rates over time appear quite variable and have become unstable for most racially stratified groups.
- Among teenage women the abortion rate in Currituck County fluctuates widely, due to unstable rates based on very low numbers, but has decreased overall. In 2011 (the last year for which rates are available) the Currituck County teen abortion rate was 19.7, compared to 9.7 across the Region and 8.7 for NC.

**Table 100. Total Pregnancy, Fertility and Abortion Rates, Ages 15-19
(Single Years, 2010-2014)**

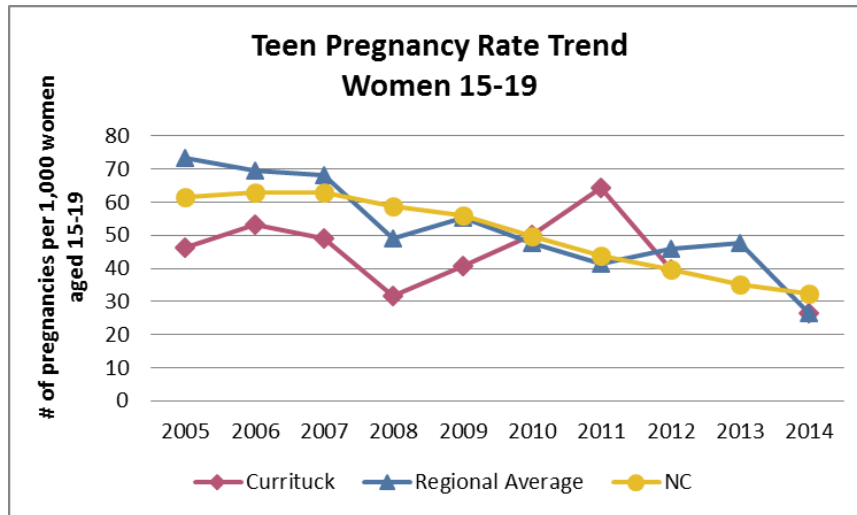
Location	Females Ages 15-19														
	2010			2011			2012			2013			2014		
	Pregnancy Rate	Fertility Rate	Abortion Rate	Pregnancy Rate	Fertility Rate	Abortion Rate	Pregnancy Rate	Fertility Rate	Abortion Rate	Pregnancy Rate	Fertility Rate	Abortion Rate	Pregnancy Rate	Fertility Rate	Abortion Rate
Currituck County Total	50.2	37.0	13.2	64.3	44.6	19.7	39.5	26.8	*	*	*	*	26.5	*	*
White, Non-Hispanic	54.1	40.5	13.5	65.1	45.4	19.7	40.2	*	*	*	*	*	*	*	*
African American, Non-Hispanic	41.7	20.8	20.8	50.8	16.9	33.9	*	*	*	*	*	*	*	*	*
American Indian, Non-Hispanic															
Other, Non-Hispanic	0.0	0.0	0.0	0.0	0.0	0.0	*	*	*	*	*	*	*	*	*
Hispanic	0.0	0.0	0.0	96.8	96.8	0.0	*	*	*	*	*	*	*	*	*
Regional Average Total	47.7	37.9	11.4	41.5	30.7	9.7	45.9	35.6	*	47.6	40.6	*	26.4	21.7	*
White, Non-Hispanic	44.6	34.3	9.7	29.2	21.6	7.6	40.2	*	*	37.7	34.3	*	*	*	*
African American, Non-Hispanic	60.8	44.0	16.4	51.1	38.0	12.8	40.7	*	*	52.8	44.4	*	30.2	*	*
American Indian, Non-Hispanic															
Other, Non-Hispanic	8.4	0.0	8.4	20.4	20.4	0.0	*	*	*	*	*	*	*	*	*
Hispanic	0.0	0.0	0.0	55.2	49.8	5.4	*	*	*	*	*	*	*	*	*
Pamlico County Total	82.2	62.3	17.0	59.3	41.5	17.8	*	*	*	*	*	*	*	*	*
White, Non-Hispanic	77.8	55.6	18.5	61.0	40.7	20.3	*	*	*	*	*	*	*	*	*
African American, Non-Hispanic	92.3	76.9	15.4	41.1	41.1	0.0	*	*	*	*	*	*	*	*	*
American Indian, Non-Hispanic															
Other, Non-Hispanic	0.0	0.0	0.0	0.0	0.0	0.0	*	*	*	*	*	*	*	*	*
Hispanic	125.0	125.0	0.0	125.0	62.5	62.5	*	*	*	*	*	*	*	*	*
State of NC Total	49.7	38.3	11.0	43.8	34.8	8.7	39.6	31.8	7.6	35.2	28.4	6.6	32.3	25.9	6.2
White, Non-Hispanic	34.4	27.2	7.0	30.8	25.2	5.5	28.3	23.1	5.1	24.7	20.3	4.2	23.1	19.0	4.0
African American, Non-Hispanic	70.2	50.9	18.7	61.6	45.5	15.6	55.0	41.4	13.1	49.2	37.3	11.5	44.0	33.1	10.5
American Indian, Non-Hispanic										52.6	46.4	6.0	44.9	40.3	*
Other, Non-Hispanic	48.9	38.8	9.5	39.4	32.9	6.4	36.4	29.8	6.3	19.9	14.3	5.4	19.0	14.3	4.7
Hispanic	82.7	70.6	11.7	71.1	62.7	8.2	62.0	55.7	6.2	57.9	51.2	6.2	52.8	45.9	6.5

Note: Bold type indicates an unstable rate based on a small number (fewer than 10 cases). An asterisk signifies a suppressed rate. Source: NC Center for Health Statistics, Vital Statistics. Reported Pregnancies. Years as noted. Pregnancy, Fertility, and Abortion Rates per 1,000 Population, by Race, by Age. <http://www.schs.state.nc.us/data/vital/pregnancies/>.

The figure below plots the overall teen pregnancy rate for the comparators (minus Pamlico County) for a period that spans 2005 through 2014.

- The teen pregnancy rates in Currituck County has fluctuated significantly since 2005, and in one period was higher than the state rate. The teen pregnancy rate in the county was 46.3 in 2005 and 26.5 in 2014.

**Figure 16. Overall Pregnancy Rate Trend, Age 15-19
(2005-2014)**



Source: NC Center for Health Statistics, Vital Statistics. Reported Pregnancies. Years as noted. Pregnancy, Fertility, & Abortion Rates per 1,000 Population, by Race, by Age; <http://www.schs.state.nc.us/data/vital/pregnancies/2014/>.

Pregnancies among Teens (age 15-19) and Adolescents (under age 15)

The table below presents trend data on the number of teen pregnancies in each jurisdiction from 2003-2013.

- The number of teen (women aged 15-19) pregnancies in Currituck County averaged 37 per year from 2003 through 2012. In 2013, the number of teen pregnancies (18) was one-half the previous average.

**Table 101. Number of Teen Pregnancies (Ages 15-19)
(Single Years, 2003-2013)**

Location	Number of Pregnancies, Ages 15-19										
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Currituck County	37	42	33	40	35	28	32	38	49	31	18
<i>Regional Average</i>	36	38	47	46	43	37	38	31	28	23	23
Pamlico County	21	24	26	23	18	29	23	29	20	14	9
State of NC	17,390	18,143	18,259	19,192	19,615	19,398	18,142	15,957	13,909	12,535	11,178

Source: NC State Center for Health Statistics, North Carolina health Data Query System. Pregnancy Data. North Carolina Reported Pregnancy Data. Year: 2003-2013. (Counties and age groups as indicated); <http://www.schs.state.nc.us/SCHS/data/preg/preg.cfm>.

The following table presents trend data on the number of adolescent pregnancies in each jurisdiction from 2003-2013.

- Between 2003 and 2013 there were eight pregnancies among Currituck County adolescent girls (age 14 and younger). There were no pregnancies among adolescent girls in Currituck County in either 2012 or 2013.

**Table 102. Number of Adolescent Pregnancies (Under Age 15)
(Single Years, 2003-2013)**

Location	Number of Pregnancies, Age 14 and Younger										
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Currituck County	0	2	2	0	1	1	0	1	1	0	0
Pamlico County	0	0	1	0	0	1	0	0	0	0	0
State of NC	443	472	468	405	404	376	324	282	255	214	182

Source: NC State Center for Health Statistics, North Carolina health Data Query System. Pregnancy Data. North Carolina Reported Pregnancy Data. Year: 2003-2013. (Counties and age groups as indicated); <http://www.schs.state.nc.us/SCHS/data/preg/preg.cfm>.

Pregnancy Risk Factors

High Parity and Short Interval Births

According to the NC SCHS, a birth is *high parity* if the mother is younger than 18 when she has had one or more births, or aged 18 or 19 and has had two or more births, or is 20-24 and has had four or more births, etc. A *short-interval birth* involves a pregnancy occurring less than six months since the last birth. High-parity and short-interval pregnancies can be a physical strain on the mother and sometimes contribute to complicated pregnancies and/or poor birth outcomes.

The next table presents data on high-parity and short interval births for the aggregate period 2010-2014.

- The percentage of high-parity births among women under age 30 in Currituck County (13.1%) was lower than the comparable average for the region (14.8%) or the state (15.2%). Among women age 30 or older the rate in Currituck County (19.7%) also was lower than the regional rate (21.0%) or the state average (21.9%).
- The percentage of short-interval births in Currituck County (10.4%) was lower than the regional rate (13.3%) and the state rate (12.3%).

**Table 103. High Parity and Short Interval Births
(Single Five-Year Aggregate Period, 2010-2014)**

Location	High Parity Births				Short Interval Births	
	Mothers < 30		Mothers ≥ 30		No. ³	% ⁴
	No. ¹	% ²	No. ¹	% ²		
Currituck County	104	13.1	80	19.7	76	10.4
<i>Regional Average</i>	<i>107.0</i>	<i>14.8</i>	<i>64.6</i>	<i>21.0</i>	<i>83.9</i>	<i>13.3</i>
Pamlico County	57	17.5	30	22.2	30	10.0
State of NC	27,216	15.2	49,588	21.9	48,837	12.3
Source:	a	a	a	a	b	b

¹ Number at risk due to high parity

² Percent of all births with age of mother in category indicated

³ Number with interval from last delivery to conception of six months or less

⁴ Percent of all births excluding 1st pregnancies

a - NC State Center for Health Statistics, County-level Data, County Health Data Book (2016), Pregnancy and Births, 2010-2014 Number At Risk NC Live Births due to High Parity by County of Residence; <http://www.schs.state.nc.us/SCHS/data/data>.

b - NC State Center for Health Statistics, County-level Data, County Health Data Book (2016), Pregnancy and Births, 2010-2014 NC Live Births by County of Residence, Number with Interval from Last Delivery to Conception of Six Months or Less; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Smoking during Pregnancy

Smoking during pregnancy is an unhealthy behavior that may have negative effects on both the mother and the fetus. Smoking can lead to fetal and newborn death, and contribute to low birth weight and pre-term delivery. In pregnant women, smoking can increase the rate of placental problems, and contribute to premature rupture of membranes and heavy bleeding during delivery (55).

The table below presents trend data on smoking during pregnancy for 2011 through 2014.

- The percentage of Currituck County women who smoked during pregnancy increased dramatically from 8.6% in 2011 to 15.0% in 2014 and was higher than the state in 2013 and 2014.

**Table 104. Smoking during Pregnancy Trend
(2011-2014)**

Location	Number and Percent of Births to Mothers Who Smoked Prenatally							
	2011		2012		2013		2014	
	No.	%	No.	%	No.	%	No.	%
Currituck County	20	8.6	20	9.6	28	10.9	39	15.0
<i>Regional Average</i>	23	11.3	18	10.4	21	10.6	26	13.6
Pamlico County	23	25.8	18	18.4	14	17.7	12	13.2
State of NC	13,159	10.9	12,727	10.6	12,242	10.3	11,896	9.8

Source: NC State Center for Health Statistics, Vital Statistics: North Carolina Vital Statistics, Volume 1 (years as noted). <http://www.schs.state.nc.us/data/vital/volume1/>

Early Prenatal Care

Good pre-conception health and early prenatal care can help assure women the healthiest pregnancies possible. The next table presents trend data on the percent of all women receiving prenatal care in the first trimester for the four jurisdictions included in this report.

- The percentage of women receiving early prenatal care was significantly lower in Currituck County compared to the State for much of the period presented below.
- The percentage of Currituck County women receiving prenatal care in the first trimester increased from 31.0% in 2011 to 71.5% in 2014.

**Table 105. Early Prenatal Care Trend
(2011-2014)**

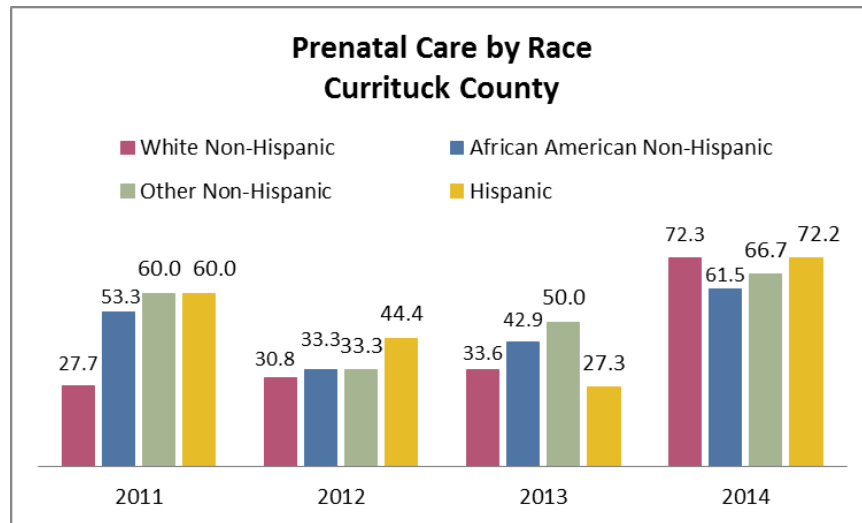
Location	Percent Women Receiving Prenatal care in the First Trimester			
	2011	2012	2013	2014
Currituck County	31.0	31.6	34.4	71.5
Regional Average	53.5	49.0	55.6	70.5
Pamlico County	69.7	75.5	63.3	63.7
State of NC	71.2	71.3	70.3	68.2

Source: NC State Center for Health Statistics, Vital Statistics, Basic Automated Birth Yearbook (BABYBOOK) 2011-2014. Calculated from numbers in Table 6. <http://www.schs.state.nc.us/data/vital.cfm>.

The following figure plots the prenatal care trend, stratified by race, for Currituck County women for the same period covered in the table above.

- Among racial groups in Currituck County in 2014, a higher proportion of white women (72.3) received prenatal care in the first trimester compared to African American women (61.5), but white women and Hispanic women appeared to receive early prenatal care in equal proportions. (Note that the percentage for Other non-Hispanic women was unstable.

Figure 17. Percent of Currituck County Women Receiving Prenatal Care in the First Trimester, by Race (2011-2014)



Source: NC State Center for Health Statistics, Vital Statistics, Basic Automated Birth Yearbook (BABYBOOK) 2011-2014. Calculated from numbers in Table 6.
<http://www.schs.state.nc.us/data/vital.cfm>.

Pregnancy Outcomes

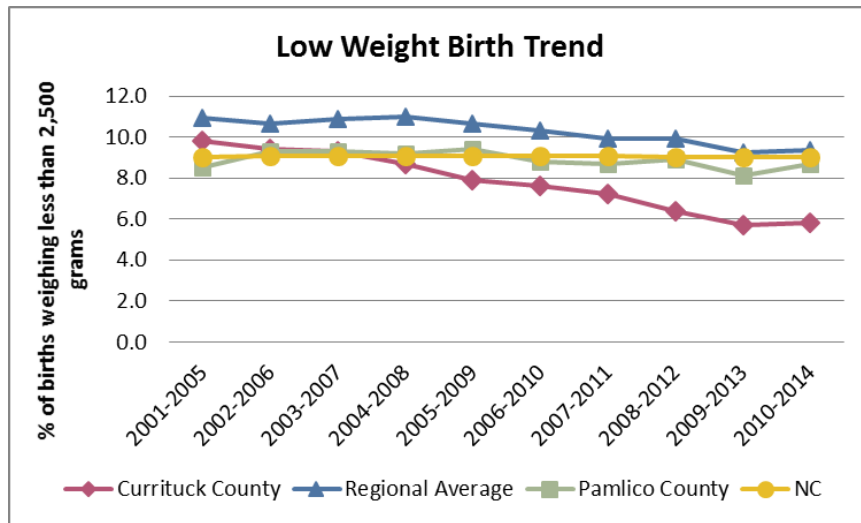
Low Birth Weight and Very Low Birth Weight

Low birth weight can result in serious health problems in newborns (e.g., respiratory distress, bleeding in the brain, and heart, intestinal and eye problems), and cause lasting disabilities (mental retardation, cerebral palsy, and vision and hearing loss) or even death (56).

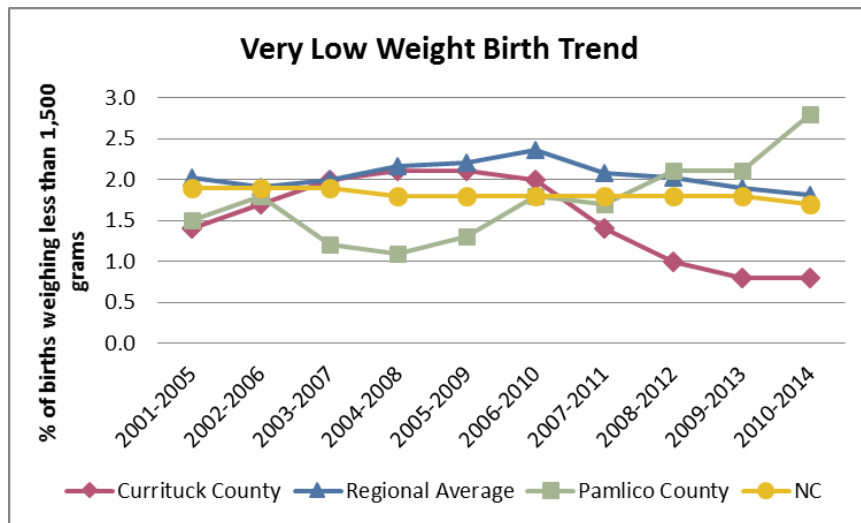
The two figures that follow plot data for low birth-weight births: infants weighing 2,500 grams (5.5 pounds) or less, and very low birth-weight births: infants weighing 1,500 grams (3.3 pounds) or less.

- The frequency of low birth-weight births in Currituck County was below regional and state averages throughout most of the period 2001-2005 through 2010-2014.
- The percentage of low birth-weight births in Currituck County decreased overall over the period cited.
- The percentage of very low birth-weight births in Currituck County was variable over the period cited, but decreased overall between 2001-2005 and 2010-2014.

**Figure 18. Low Birth-Weight Births
(2001-2005 through 2010-2014)**



**Figure 19. Very Low Birth-Weight Births
(2001-2005 through 2010-2014)**



Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2016), Pregnancy and Births, Low and Very Low Weight Births, Black Births; <http://www.schs.state.nc.us/SCHS/data/databook/>.

The following two figures plot data on low- and very-low birth-weight births in Currituck County stratified by race.

- The only stable percentages of low birth-weight births in Currituck County occurred among white non-Hispanics throughout the period cited. All other stratified rates, although sometimes quite high, were unstable.
- All percentages of very-low birth-weight births in Currituck County were technically unstable.

Figure 20. Low Birth-Weight Births, Currituck County, by Race (2006-2010 through 2010-2014)

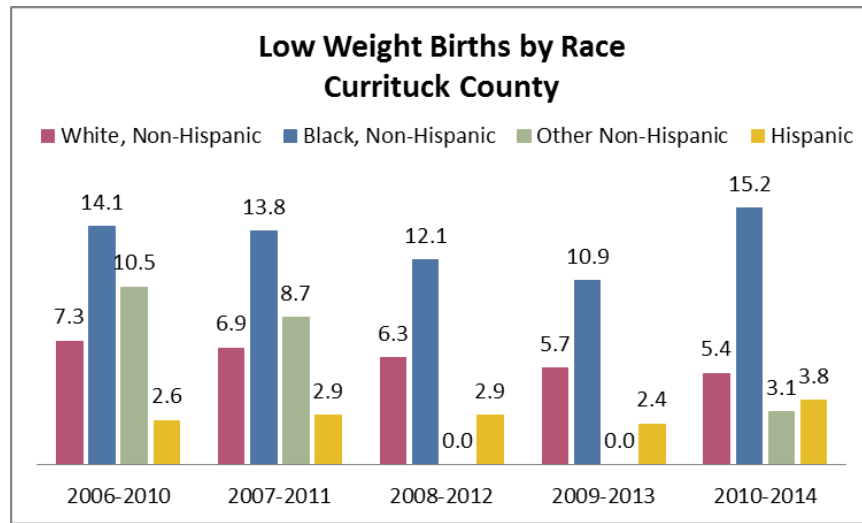
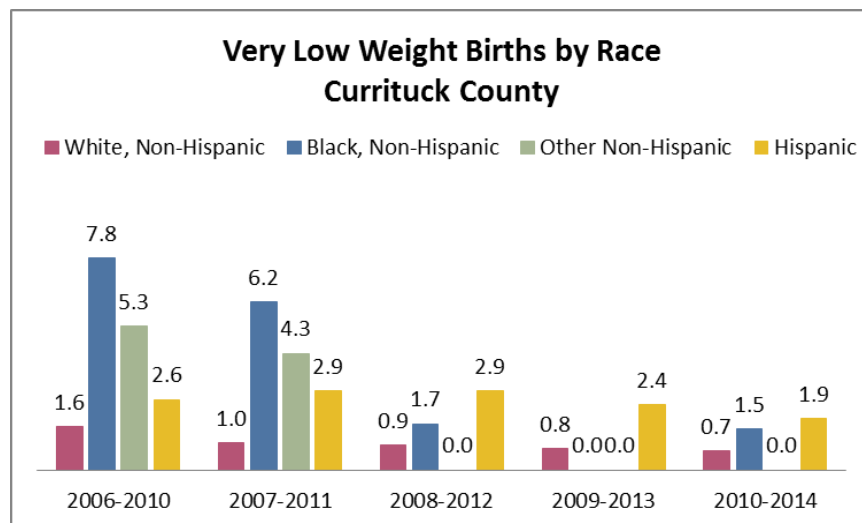


Figure 21. Very-Low Birth-Weight Births, Currituck County, by Race (2006-2010 through 2010-2014)



Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2012-2016), Pregnancy and Births, Low and Very Low Weight Births, Black Births; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Cesarean Section Delivery

The following table presents data on the percent of births delivered by Cesarean section.

- As elsewhere in the US, the percentage of Cesarean section delivery in all four jurisdictions has risen over time. From the beginning to the end of the period cited in the table, Cesarean deliveries rose by 14% in Currituck County, 16% in the ARHS region, 1% in Pamlico County, and 10% statewide.

**Table 106. Cesarean Section Deliveries.
(Aggregate Periods 2001-2005 through 2010-2014)**

Location	Percent of Resident Births Delivered by Cesarean Section									
	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012	2009-2013	2010-2014
Currituck County	29.4	30.4	32.0	31.7	33.2	34.4	34.2	34.8	35.0	33.6
<i>Regional Average</i>	28.6	29.5	30.3	30.8	31.3	31.8	32.2	33.0	32.9	33.1
Pamlico County	27.5	28.3	28.1	28.9	28.8	30.5	28.9	30.0	29.3	27.8
<i>State of NC</i>	27.7	28.7	29.6	30.3	30.9	31.2	31.2	31.1	30.9	30.5

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2016), Pregnancy and Births, Births Delivered by Primary Caesarian Section; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Birth Complications

The Diagnosis Related Group (DRG) method of coding diagnoses associated with inpatient hospitalizations offers a series of codes describing newborns and neonates having certain conditions originating in the perinatal period. The table below summarizes inpatient discharges associated with these codes for Currituck County residents delivering infants at the hospitals participating in this CHNA that saw over 20 inpatients in the two years cited.

- Among Currituck County residents the number of discharges at the cited hospitals associated with newborns or neonates with prematurity or some kind of problem originating in the perinatal period totaled 33% of all newborns over the period cited.

**Table 107. Discharges of Newborn Infants, Currituck County Resident Mothers
(2013 and 2014)**

Year	Number of Hospital Discharges by DRG (Diagnosis Related Group) Diagnosis					
	Normal Newborns	Extreme Immaturity or Respiratory Distress	Prematurity with Major Problems	Prematurity without Major Problems	Full-Term Neonate with Major Problems	Neonate with Other Significant Problems
2013	71	0	0	4	1	28
2014	70	0	0	5	4	28
Total	141	0	0	9	5	56

Source: Vidant Roanoke-Chowan Hospital, The Outer Banks Hospital, and Sentara Albemarle Medical Center only.

Infant Mortality

Infant mortality is the number of infant (under one year of age) deaths per 1,000 live births. The following table presents infant mortality data for Currituck County, the ARHS region, Pamlico County and the state of NC.

- All of the Currituck County infant mortality rates are unstable, so the trend presented should be interpreted with caution.
- The total infant mortality rate in Currituck County has decreased from 14.1 in 2006-2010 to 8.3 in 2010-2014.
- Note that according to the CDC the 2013 infant mortality rate in NC was the 10th highest in the nation.

**Table 108. Total Infant Deaths
(2006-2010 through 2010-2014)**

Location	Infant Deaths									
	2006-2010		2007-2011		2008-2012		2009-2013		2010-2014	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Currituck County	17	14.1	15	12.6	10	8.8	7	6.0	10	8.3
White, Non-Hispanic	12	11.1	11	10.3	9	8.8	7	n/a	7	n/a
African American, Non-Hispanic	3	46.9	3	46.2	0	0.0	0	n/a	0	n/a
Other, Non-Hispanic	1	52.6	0	0.0	0	0.0	0	n/a	1	n/a
Hispanic	1	25.6	1	28.6	1	28.6	0	n/a	2	n/a
<i>Regional Average</i>	13	11.9	13	11.4	11	10.6	8	8.0	8	7.7
White, Non-Hispanic	5	8.0	5	7.5	5	7.6	3	n/a	3	n/a
African American, Non-Hispanic	7	18.3	7	18.1	6	11.1	5	n/a	4	n/a
Other, Non-Hispanic	0	7.5	0	0.0	0	0.0	0	n/a	0	n/a
Hispanic	1	33.9	1	20.6	1	21.1	0	n/a	1	n/a
Pamlico County	5	9.2	5	9.7	7	13.6	7	14.6	7	15.2
White, Non-Hispanic	3	7.3	3	7.8	5	13.2	6	n/a	5	n/a
African American, Non-Hispanic	2	19.4	2	21.3	2	21.5	1	n/a	2	n/a
Other, Non-Hispanic	0	0.0	0	0.0	0	0.0	0	n/a	0	n/a
Hispanic	0	0.0	0	0.0	0	0.0	0	n/a	0	n/a
State of NC	5,066	7.9	4,899	7.8	4,675	7.5	4,441	7.3	4,295	7.1
White, Non-Hispanic	2,074	5.9	2,001	5.7	1,918	5.6	1,850	5.4	1,811	5.4
African American, Non-Hispanic	2,208	14.7	2,129	14.3	2,064	14.0	1,967	13.6	1,858	12.9
Other, Non-Hispanic	187	6.3	188	6.2	181	5.9	178	5.7	185	5.8
Hispanic	597	5.8	581	5.8	512	5.3	446	4.8	441	4.9

Source: a a a a a a a b a b

Note: Bold type indicates a likely unstable rate based on a small (fewer than 20) number of cases.

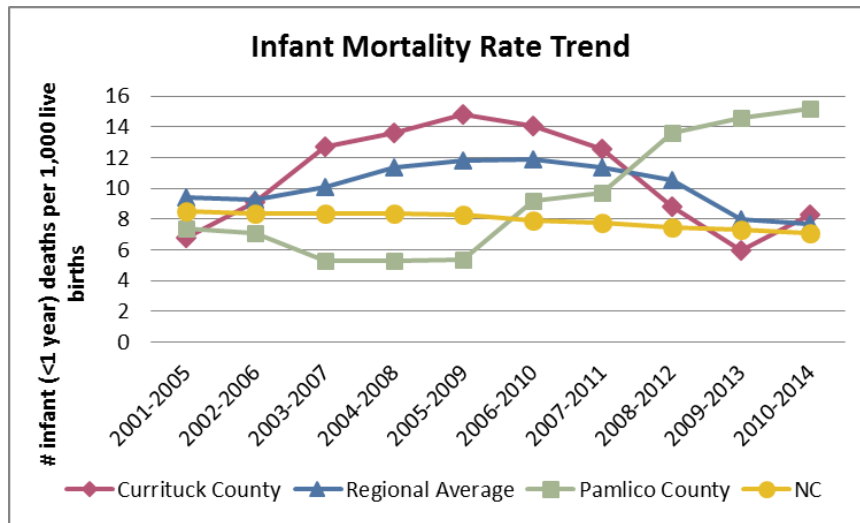
a - NC Center for Health Statistics, County-level Data, County Health Data Books (2007-2014), Mortality, Infant Death Rates per 1,000 Live Births; <http://www.schs.state.nc.us/SCHS/data/databook/>.

b - NC Center for Health Statistics, Vital Statistics, Infant Mortality Statistics (2013 and 2014). Infant Death Rates by Perinatal Care Regions and County of Residence. <http://www.schs.state.nc.us/data/vital.cfm>.

The following figure plots the infant mortality trend for a longer period than shown in the table above.

- The rather extreme variability infant mortality rate in Currituck County is likely due to small numbers of infant deaths and resulting unstable rates.

Figure 22. Infant Mortality Rate (2001-2005 through 2010-2014)

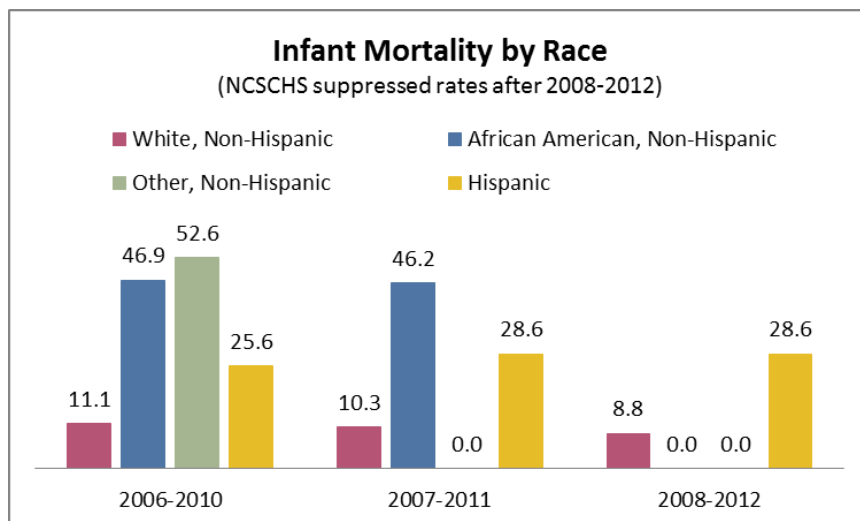


Sources: NC Center for Health Statistics, County-level Data, County Health Data Books (2007-2014), Mortality, Infant Death Rates per 1,000 Live Births; <http://www.schs.state.nc.us/SCHS/data/databook/>, and NC Center for Health Statistics, Vital Statistics, Infant Mortality Statistics (2013 and 2014). Infant Death Rates by Perinatal Care Regions and County of Residence. <http://www.schs.state.nc.us/data/vital.cfm>.

The figure below plots infant mortality rates in Currituck County, stratified by race.

- No stable minority infant mortality rates are available for any racial group in Currituck County; all minority rates were suppressed after 2008-2012.
- Of the 10 infant deaths that occurred in the county in 2010-2014, seven occurred among white non-Hispanics, one among Other non-Hispanics, and two among Hispanics.

Figure 23. Infant Mortality Rate, Currituck County, by Race (2006-2010 through 2008-2012)



Source: NC Center for Health Statistics, County-level Data, County Health Data Books (2012-2014), Mortality, Infant Death Rates per 1,000 Live Births; <http://www.schs.state.nc.us/SCHS/data/databook/>.

LIFE EXPECTANCY

Life expectancy is the average number of additional years that someone at a given age would be expected to live if he/she were to experience throughout life the age-specific death rates observed in a specified reference period. Life expectancies in terms of years of life remaining can be calculated for any age. Because life expectancy is an average, however, a particular person may well die many years before or many years after their "expected" survival, due to life experiences, environment, and personal genetic characteristics.

Life expectancy from birth is a frequently utilized and analyzed component of demographic data. It represents the average life span of a newborn and is considered an indicator of the overall health of a population or community.

Life expectancy rose rapidly in the twentieth century due to improvements in public health, nutrition and medicine, and continued progress in these areas can be expected to have further positive impact on life expectancy in the future. Decreases in life expectancy are also possible, influenced mostly by epidemic disease (e.g. plagues of history and AIDS in the modern era), and natural and man-made disasters. One of the most significant influences on life expectancy in populations is infant mortality, since life expectancy at birth is highly sensitive to the rate of death in the first few years of life.

The following table presents gender- and race-stratified life expectancy at birth data for comparator jurisdictions.

- Among comparators, life expectancy overall, for males and females born in 2012-2014 is shortest in Currituck County; life expectancies were second-shortest for whites and African Americans born in Currituck County.
- Life expectancy has improved over time among all groups presented.

Table 109. Life Expectancy at Birth, by Gender and Race (1990-1992 and 2012-2014)

Location	Life Expectancy in Years									
	Person Born in 1990-1992					Person Born in 2012-2014				
	Overall	Male	Female	White	African-American	Overall	Male	Female	White	African-American
Currituck County	73.1	69.9	76.7	74.4	62.9	77.2	74.7	79.8	77.3	76.4
<i>Regional Average</i>	73.7	69.8	77.7	75.1	70.3	78.3	75.8	81.0	79.0	76.5
Pamlico County	75.1	71.5	78.7	76.7	70.7	77.5	75.2	80.3	77.2	77.6
State of NC	74.9	71.0	78.7	76.4	69.8	78.3	75.8	80.7	79.1	75.9

Source: NC State Center for Health Statistics, County-level Data, Life Expectancy, State and County Estimates, Life Expectancy: North Carolina 1990-1992 and 2012-2014, State and County; <http://www.schs.state.nc.us/schs/data/lifexpectancy/>.

MORTALITY

Leading Causes of Death

This section describes mortality for the 15 leading causes of death, as well as mortality due to major site-specific cancers. The list of topics and the accompanying data was retrieved from the NC SCHS *County Health Databook*. Unless otherwise noted, the numerical data are age-adjusted and represent five-year aggregate periods.

The table on the following page compares mortality rates for the 15 leading causes of death in Currituck County, the ARHS region, Pamlico County, NC and the US for the five-year aggregate period 2010-2014 (or as otherwise noted). The causes of death are listed in descending order of rank in Currituck County.

The table directly below highlights differences in mortality for the 15 leading causes of death (LCDs) between Currituck County and NC. LCDs for which the mortality rate in Currituck County is *higher* than the NC rate are highlighted in **red**; county rates *lower* than the NC rate are highlighted in **green**. Rates represented in **blue** are unstable.

Table 110. Comparison of Leading Causes of Death, Currituck County and NC (Aggregate Period 2010-2014)

Age-Adjusted Rates (2010-2014)	Currituck County No. of Deaths	Currituck County Mortality Rate	Currituck Rate Difference from NC
1. Heart Disease	246	199.4	+20.2%
2. Total Cancer	264	197.8	+15.1%
3. Pneumonia and Influenza	108	97.2	+4x
4. Chronic Lower Respiratory Disease	80	63.6	+38.3%
5. All Other Unintentional Injuries	40	31.4	+6.1%
6. Cerebrovascular Disease	33	26.9	-37.4%
7. Alzheimer's Disease	27	25.9	-11.3%
8. Suicide	22	16.4	+32.3%
9. Septicemia	18	15.4	+18.5%
10. Nephritis, Nephrotic Syndrome, and Nephrosis	16	12.8	-24.7%
11. Diabetes Mellitus	16	10.5	-52.2%
12. Unintentional Motor Vehicle Injuries	12	9.9	-26.7%
13. Chronic Liver Disease and Cirrhosis	13	8.7	-10.3%
14. Homicide	4	3.8	-33.3%
15. Acquired Immune Deficiency Syndrome	0	0.0	-100.0%

Source: NC State Center for Health Statistics, County Health Data Book (see source detail at following table.)

Table 111. Overall Age-Adjusted Mortality Rates for the 15 Leading Causes of Death, Currituck County and Comparators (Aggregate Period 2010-2014 or as Noted)¹

Cause of Death	Currituck County			<i>Regional Average</i>			Pamlico County			State of NC			United States (2013)	
	Number	Rate	Rank	Number	Rate	Rank	Number	Rate	Rank	Number	Rate	Rank	Rate	Rank
Diseases of the Heart	246	199.4	1	235	189.9	1	173	166.6	1	86,699	165.9	2	169.8	1
Total Cancer	264	197.8	2	225	175.1	2	166	153.1	2	92,542	171.8	1	163.2	2
Pneumonia and Influenza	108	97.2	3	32	28.2	5	11	12.0	11	9,011	17.6	8	15.9	8
Chronic Lower Respiratory Disease	80	63.6	4	52	43.2	3	44	39.4	4	24,042	46.0	3	42.1	3
All Other Unintentional Injuries	40	31.4	5	29	25.3	8	31	37.2	5	14,791	29.6	5	39.4	4
Cerebrovascular Disease	33	26.9	6	50	40.0	4	44	41.0	3	22,116	43.0	4	36.2	5
Alzheimer's Disease	27	25.9	7	34	27.3	6	31	30.0	6	14,595	29.2	6	23.5	6
Suicide	22	16.4	8	11	11.4	12	13	19.7	8	6,256	12.4	12	12.6	10
Septicemia	18	15.4	9	15	13.3	11	10	8.7	13	6,798	13.0	11	10.7	12
Nephritis, Nephrotic Syndrome, and Nephrosis	16	12.8	10	17	14.2	10	14	14.1	10	8,813	17.0	9	13.2	9
Diabetes Mellitus	16	10.5	11	34	26.5	7	24	20.0	7	11,798	22.1	7	21.2	7
Unintentional Motor Vehicle Injuries	12	9.9	12	14	16.1	9	11	16.3	9	6,679	13.5	10	10.9	11
Chronic Liver Disease and Cirrhosis	13	8.7	13	10	7.2	13	9	10.7	12	5,378	9.7	13	10.2	13
Homicide	4	3.8	14	4	4.0	14	4	7.6	14	2,728	5.7	14	5.2	14
Acquired Immune Deficiency Syndrome	0	0.0	15	3	2.8	15	3	6.1	15	1,331	2.6	15	2.1	15
Total Deaths All Causes (Some causes are not listed above)	1,093	881.7		987	803.7		742	747.4		408,611	785.2		731.9	

Source:

a b c c c c a b c a a b d c

¹ Rate = Number of events per 100,000 population, where the Standard = Year 2000 US Population

a - NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race-Sex-Specific Age-Adjusted Death Rates by County;

<http://www.schs.state.nc.us/SCHS/data/databook/>.

b - NC State Center for Health Statistics, Vital Statistics, NC Vital Statistics, Volume 2: Leading Causes of Death, 2014. <http://www.schs.state.nc.us/data/vital.cfm>.

c - Calculated

d - National Center for Health Statistics, National Vital Statistics System, Mortality Data. Deaths: Final Data for 2013 Volume 64, Number 2, Tables 9 and 16.

http://www.cdc.gov/nchs/data/nvsr/nvsr64/nvsr64_02.pdf.

The overall mortality rate in Currituck County (881.7) was 12% higher than the overall NC mortality rate (785.2). Individual mortality rates were *higher* in Currituck County than statewide for 7 of the 15 leading causes of death (*note that some of the Currituck County mortality rates were unstable*):

- Heart disease
- Total cancer
- Pneumonia and influenza
- Chronic lower respiratory disease
- All other unintentional injuries (i.e., non-motor vehicle injuries)
- Suicide
- Septicemia

The overall mortality rate in Currituck County was 10% higher than the regional average overall mortality rate (803.7). Individual mortality rates were higher in Currituck County than region-wide for 8 of the 15 LCDs (*note that some of the Currituck County mortality rates were unstable*):

- Heart disease
- Total cancer
- Pneumonia and influenza
- Chronic lower respiratory disease
- All other unintentional injuries
- Suicide
- Septicemia
- Chronic liver disease and cirrhosis

The overall mortality rate in Currituck County was 20% higher than the overall US mortality rate (731.9). Individual mortality rates in Currituck County were higher than US rates for 7 of the 15 LCDs (*note that some of the Currituck County mortality rates were unstable*):

- Heart disease
- Total cancer
- Pneumonia and influenza
- Chronic lower respiratory disease
- Alzheimer's disease
- Suicide
- Septicemia

Hospital Discharges Associated with Leading Causes of Death

Below is data on *emergency department* (ED) discharges of Currituck County residents from the three hospitals in the study region seeing more than 20 Currituck County patients in the ED over the two years cited. The diagnoses referenced match the NC State Center for Health Statistics' ICD-9 case definitions for several Leading Causes of Death (LCD).

- The largest number of ED discharges in the table below are associated with injuries and poisoning, followed by pneumonia/influenza and COPD.
- Note that the total number of discharges for suicide ideation (28) approaches the totals for stroke (30) and cancer (33).

Table 112. Emergency Department Discharges for Leading Causes of Death

Year	Number of Emergency Department Discharges (by SCHS ICD-9 Case Definitions for LCD)							
	Heart Disease	Total Cancer	Pneumonia/ Influenza	COPD (Bronchitis & Emphysema)	Injuries/ Poisoning	Stroke	Alzheimer's Disease	Suicide Ideation
2013	47	16	38/27	60	1,025	15	0	15
2014	52	17	38/27	64	966	15	0	13
Total	99	33	76/54	124	1,991	30	0	28

The hospitals qualifying for inclusion in the table on the basis of more than 20 ED discharges over the period cited are: Vidant Chowan Hospital, The Outer Banks Hospital, and Sentara Albemarle Medical Center.

Note that the ICD-9 category "Injury and Poisoning" is used here as a surrogate for the NC Leading Cause of Death category "All Other Unintentional Injuries". This LCD category does not include motor vehicle injury, but the ICD category does. The closest ICD-9 category to suicide is "Suicide Ideation" (ICD-9 Code V62.84). Some leading causes of death (such as Nephritis, Nephrotic Syndrome, and Nephrosis) have been excluded from this table.

The ICD-9 Code Categories referenced are as follows: Heart disease [Rheumatic heart disease (390-398xx), Hypertensive heart disease (402xx), All other heart disease (404-429xx)]; Total cancer [All neoplasms (140-239xx)]; Pneumonia and influenza [Pneumonia (480—486xx), Influenza (487-488xx)]; COPD [Bronchitis and emphysema (490-492xx)]; Injury and poisoning [All injuries and poisonings (800-999xx)]; Stroke [Cerebrovascular disease (430-438xx)]; Alzheimer's disease [Alzheimer's dementia (331.0)]; Suicide [Suicide Ideation (V62.84)].

The next table presents data on *inpatient* (IP) hospitalization discharges of Currituck County residents from the three hospitals in the study region seeing more than 20 Currituck County inpatients over the two years cited. Again, the diagnoses referenced match the NC State Center for Health Statistics' ICD-9 case definitions for several Leading Causes of Death.

- The largest number of IP discharges in the table below are associated with heart disease, followed by COPD and injuries/poisoning.

Table 113. Inpatient Hospitalization Discharges for Leading Causes of Death

Year	Number of Inpatient Hospitalization Discharges (by SCHS ICD-9 Case Definitions for LCD)							
	Heart Disease	Total Cancer	Pneumonia/ Influenza	COPD (Bronchitis & Emphysema)	Injuries/ Poisoning	Stroke	Alzheimer's Disease	Suicide Ideation
2013	68	19	23/0	27	31	11	0	0
2014	100	16	14/1	32	24	18	0	0
Total	168	35	37/1	59	55	39	0	0

The hospitals qualifying for inclusion in the table on the basis of more than 20 IP discharges over the period cited are: Vidant Roanoke-Chowan Hospital, The Outer Banks Hospital, and Sentara Albemarle Medical Center only.

Gender Disparities in Leading Causes of Death

In the past, NC CHAs have demonstrated some significant differences in mortality rates between men and women. The following table compares gender stratified rates for the 15 leading causes of death in Currituck County and its comparator jurisdictions. The usefulness of the table is hampered somewhat by numerous suppressed rates.

In Currituck County the overall mortality rate for males (1,033.2) was 36% higher than the overall mortality rate for females (761.0).

In Currituck County, mortality rates for males were *higher* than comparable rates for females for:

- Heart disease (by 74%)
- Total cancer (by 26%)
- Chronic lower respiratory disease (by 32%)

In Currituck County, the mortality rate for males was *lower* than comparable rate for females for:

- Pneumonia/influenza (by 16%)

These local figures reiterate a long-term, statewide trend: males suffer mortality disproportionately. In NC as a whole, mortality rates for males traditionally have been higher than comparable rates for females for every leading cause of death except Alzheimer's disease. Statewide in the 2010-2014 period the overall mortality rate for males (931.0) was 39% higher than the overall mortality rate for females (669.6).

Table 114. Sex-Specific Age-Adjusted Death Rates for the 15 Leading Causes of Death, Currituck County and Comparators (Aggregate Period 2010-2014)

Cause of Death	Currituck County				Pamlico County		Regional Average Rate		State of NC Rate	
	Males		Females		Males	Females	Males	Females	Males	Females
	Number	Rate	Number	Rate						
Diseases of the Heart	144	262.7	102	151.2	206.6	129.3	240.3	148.6	212.3	130.4
Total Cancer	137	225.4	127	178.4	191.0	121.6	218.0	143.4	214.4	142.1
Pneumonia and Influenza	37	88.3	71	104.8	n/a	n/a	67.3	36.7	26.4	18.7
Chronic Lower Respiratory Disease	41	74.4	39	56.2	39.6	37.5	47.1	43.0	43.6	41.7
All Other Unintentional Injuries	24	40.2	16	n/a	56.6	n/a	88.3	61.2	22.9	32.5
Cerebrovascular Disease	10	n/a	23	34.9	n/a	56.0	31.4	35.1	39.1	21.4
Alzheimer's Disease	8	n/a	19	n/a	n/a	39.7	54.1	36.6	52.3	42.2
Suicide	20	30.7	2	n/a	n/a	n/a	41.4	31.2	20.6	14.6
Septicemia	9	n/a	9	n/a	n/a	n/a	n/a	n/a	20.0	7.5
Nephritis, Nephrotic Syndrome, and Nephrosis	9	n/a	7	n/a	n/a	n/a	n/a	n/a	20.2	15.9
Diabetes Mellitus	9	n/a	7	n/a	n/a	n/a	n/a	n/a	13.4	6.5
Unintentional Motor Vehicle Injuries	12	n/a	0	n/a	n/a	n/a	30.7	n/a	14.5	12.0
Chronic Liver Disease and Cirrhosis	9	n/a	4	n/a	n/a	n/a	n/a	n/a	19.7	5.9
Homicide	1	n/a	3	n/a	n/a	n/a	n/a	n/a	3.7	1.5
Acquired Immune Deficiency Syndrome	0	n/a	0	n/a	n/a	n/a	n/a	n/a	9.0	2.4
Total Deaths All Causes	572	1,033.2	521	761.0	850.4	639.6	962.2	676.1	931.0	669.6

Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases. Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Racial Disparities in Leading Causes of Death

Because of below-threshold numbers of deaths during the period, 2010-2014, age-adjusted racially-stratified mortality rates for Currituck County are available only for white and African American non-Hispanics, and for only some causes of death.

According to data in the table below:

- In Currituck County the overall mortality rate for African American non-Hispanics (977.3) was approximately 10% higher than the overall mortality rate for white non-Hispanics (887.7).
- In Currituck County the individual mortality rate for heart disease was 37% higher for African American non-Hispanics than for white non-Hispanics. No other stable racially-stratified rates were available for comparison.

Racial differences in mortality will be described in detail as each cause of death is discussed separately in subsequent sections of this report.

Table 115. Race-Specific Age-Adjusted Death Rates for the 15 Leading Causes of Death, Currituck County (Aggregate Period 2010-2014)

Cause of Death	Currituck County											
	White, non-Hispanic		African-American, non-Hispanic		American Indian, non-Hispanic		Other Races, non-Hispanic		Hispanic		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Diseases of the Heart	218	197.2	24	270.4	0	n/a	2	n/a	2	n/a	246	199.4
Total Cancer	243	200.6	18	n/a	1	n/a	0	n/a	2	n/a	264	197.8
Pneumonia and Influenza	98	98.2	10	n/a	0	n/a	0	n/a	0	n/a	108	97.2
Chronic Lower Respiratory Disease	78	68.3	0	n/a	0	n/a	2	n/a	0	n/a	80	63.6
All Other Unintentional Injuries	38	33.2	2	n/a	0	n/a	0	n/a	0	n/a	40	31.4
Cerebrovascular Disease	30	27.5	3	n/a	0	n/a	0	n/a	0	n/a	33	26.9
Alzheimer's Disease	23	24.8	3	n/a	0	n/a	1	n/a	0	n/a	27	25.9
Suicide	22	18.2	0	n/a	0	n/a	0	n/a	0	n/a	22	16.4
Septicemia	16	n/a	2	n/a	0	n/a	0	n/a	0	n/a	18	15.4
Nephritis, Nephrotic Syndrome, and Nephrosis	16	n/a	0	n/a	0	n/a	0	n/a	0	n/a	16	12.8
Diabetes Mellitus	14	n/a	2	n/a	0	n/a	0	n/a	0	n/a	16	10.5
Unintentional Motor Vehicle Injuries	11	n/a	1	n/a	0	n/a	0	n/a	0	n/a	12	9.9
Chronic Liver Disease and Cirrhosis	13	n/a	0	n/a	0	n/a	0	n/a	0	n/a	13	8.7
Homicide	4	n/a	0	n/a	0	n/a	0	n/a	0	n/a	4	3.8
Acquired Immune Deficiency Syndrome	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	0	0.0
Total Deaths All Causes	996	887.7	82	977.3	1	n/a	7	n/a	7	n/a	1093	881.7

Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
 Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Age Disparities in Leading Causes of Death

Each age group tends to have its own leading causes of death. The following table lists the three leading causes of death by age group for the five-year aggregate period from 2010-2014. (Note that for this purpose it is important to use *non-age adjusted* death rates.)

The leading cause(s) of death in each of the age groups in Currituck County were:

- Age Group 00-19: Conditions originating in the perinatal period
- Age Group 20-39: Other unintentional injuries (i.e., other than motor vehicle injuries)
- Age Group 40-64: Cancer – all sites
- Age Group 65-84: Cancer – all sites
- Age Group 85+: Diseases of the heart

It is notable in Currituck County that homicide ranked among the leading causes of death in the 00-19 age group, suicide was a leading cause of death in the 20-39 age group, and that pneumonia/influenza was a leading cause of death in the 85+ age group.

Table 116. Three Leading Causes of Death by Age Group, by Unadjusted Death Rates, Currituck County and Comparators (Aggregate Period 2010-2014)

Age Group	Rank	Cause of Death		
		Currituck County	Pamlico County	State of NC
00-19	1	Conditions originating in the perinatal period	Conditions originating in the perinatal period	Conditions originating in the perinatal period
	2	<i>Congenital anomalies (birth defects)</i>	<i>Suicide</i>	<i>Congenital anomalies (birth defects)</i>
	3	<i>Diseases of the heart</i>	<i>HIV Disease</i>	<i>Motor vehicle injuries</i>
20-39	1	<i>Other unintentional injuries</i>	<i>Other unintentional injuries</i>	<i>Other unintentional injuries</i>
	2	<i>Motor vehicle injuries</i>	<i>Diseases of the heart</i>	<i>Motor vehicle injuries</i>
	3	<i>Diseases of the heart</i>	<i>Homicide</i>	<i>Suicide</i>
40-64	1	<i>Cancer - All sites</i>	<i>Cancer - all sites</i>	<i>Cancer - all sites</i>
	2	<i>Diseases of the heart</i>	<i>Diseases of the heart</i>	<i>Diseases of the heart</i>
	3	<i>Other unintentional injuries</i>	<i>Diabetes mellitus</i>	<i>Other unintentional injuries</i>
65-84	1	<i>Cancer - All sites</i>	<i>Cancer - all sites</i>	<i>Cancer - all sites</i>
	2	<i>Diseases of the heart</i>	<i>Diseases of the heart</i>	<i>Diseases of the heart</i>
	3	<i>Chronic lower respiratory diseases</i>	<i>Cerebrovascular disease</i>	<i>Chronic lower respiratory diseases</i>
85+	1	<i>Diseases of the heart</i>	<i>Diseases of the heart</i>	<i>Diseases of the heart</i>
	2	<i>Pneumonia & Influenza</i>	<i>Cancer - all sites</i>	<i>Cancer - all sites</i>
	3	<i>Cancer-all sites</i>	<i>Alzheimer's disease</i>	<i>Alzheimer's disease</i>

Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, Death Counts and Crude Death Rates per 100,000 for Leading Causes of Death, by Age Groups, NC, 2010-2014; <http://www.schs.state.nc.us/SCHS/data/databook/>.

The next table summarizes changes in the leading causes of death between the last CHA (2007-2011 aggregate period) and the present CHNA (2010-2014 aggregate period), an interval of three years.

- Mortality rates for **7 of the 15** leading causes of death in Currituck County **decreased** between the last CHA and the present effort.

- The county mortality rate **increased** for **8 of the 15** leading causes of death. (Note that some of the rates and corresponding rate differences should be deemed unstable, as indicated by blue type.)

Table 117. Short-Term Changes in Leading Causes of Death, Currituck County (Between 2007-2011 and 2010-2014)

Currituck County Rank by Descending Overall Age-Adjusted Rate (2010-2014)	Rate in 2007-2011	Rate in 2010-2014	Percent Difference
1. Heart Disease	195.0	199.4	+2.3%
2. Total Cancer	199.6	197.8	-0.9%
3. Pneumonia and Influenza	80.9	97.2	+20.1%
4. Chronic Lower Respiratory Disease	60.9	63.6	+4.4%
5. All Other Unintentional Injuries	29.4	31.4	+6.8%
6. Cerebrovascular Disease	26.5	26.9	+1.5%
7. Alzheimer's Disease	24.4	25.9	+6.1%
8. Suicide	17.4	16.4	-5.7%
9. Septicemia	14.2	15.4	+8.5%
10. Nephritis, Nephrotic Syndrome, and Nephrosis	14.0	12.8	-8.6%
11. Diabetes Mellitus	11.4	10.5	-7.9%
12. Unintentional Motor Vehicle Injuries	27.8	9.9	-64.4%
13. Chronic Liver Disease and Cirrhosis	12.9	8.7	-32.6%
14. Homicide	3.3	3.8	+15.2%
15. Acquired Immune Deficiency Syndrome	1.2	0.0	-100.0%

Source: Sheila S. Pfaender, Public Health Consultant, via data from the NC State Center for Health Statistics, County Health Data Books.

The table below follows the same format to summarize the *long-term* change in leading causes of death. The data described in this table covers aggregate periods beginning in 2000-2004 and continuing through 2010-2014. The table displays a directional arrow for each cause of death. Each of these *overall trend direction* arrows describes the direction of the overall slope of the regression line calculated by MS Excel from the mortality rate data for each cause of death. The arrows are describing mortality rate changes: a **red/upward arrow** signifies an increasing rate trend, and a **green/downward arrow** signifies a decreasing rate trend.

- Over the 11-year period cited, Currituck County mortality rates **decreased** overall for **5 of the 15** leading causes of death: heart disease, stroke, diabetes, unintentional motor vehicle injuries, and AIDS. Meanwhile, county mortality rates **increased** for **9 of the 15** LCDs, with the rate for total cancer relatively unchanged. Particularly noteworthy was a *doubling* in the mortality rate for pneumonia/influenza.

**Table 118. Long-Term Changes in Leading Causes of Death, Currituck County
(Between 2000-2004 and 2010-2014)**

Currituck County Rank by Descending Overall Age-Adjusted Rate (2010-2014)	Overall Trend Direction <i>(determined by Excel trendline)</i>
1. Heart Disease	▼
2. Total Cancer	Little change
3. Pneumonia and Influenza	▲▲
4. Chronic Lower Respiratory Disease	▲
5. All Other Unintentional Injuries	▲
6. Cerebrovascular Disease	▼▼
7. Alzheimer's Disease	▲
8. Suicide	▲
9. Septicemia	▲
10. Nephritis, Nephrotic Syndrome, and Nephrosis	▲
11. Diabetes Mellitus	▼
12. Unintentional Motor Vehicle Injuries	▼
13. Chronic Liver Disease and Cirrhosis	▲
14. Homicide	▲
15. Acquired Immune Deficiency Syndrome	▼

Source: Sheila S. Pfaender, Public Health Consultant, via data from the NC State Center for Health Statistics, County Health Data Books.

Differences in mortality statistics will be covered as each cause of death is discussed separately below, in the order of highest Currituck County rank to lowest, beginning with heart disease. It is important to emphasize once more that because of below-threshold numbers of deaths there will be no stable county rates for some causes of death, especially among racially stratified groups. Some unstable data will be presented in this document, but always accompanied by cautions regarding its use.

Note that all health data--however briefly it may be referenced in subsequent sections of this report--is available in detailed format in one or more of the following supporting document files: the 2016 Currituck County Health Data Workbook, the 2016 Currituck County CHA Presentation, or the 2016 Currituck County Hospital Data Summary Workbook.

Diseases of the Heart

Heart disease is an abnormal organic condition of the heart or of the heart and circulation. Heart disease is the number one killer in the US and a major cause of disability. The most common cause of heart disease, coronary artery disease, is a narrowing or blockage of the coronary arteries, the blood vessels that supply blood to the heart itself. Coronary artery disease is the major reason people have heart attacks, but other kinds of heart problems may originate in the valves in the heart, or the heart may not pump well and cause heart failure (57).

Heart disease was the leading cause of death in Currituck County in the 2010-2014 period (cited previously).

Heart Disease Hospitalizations

The table below presents inpatient hospital discharge rate trend data for several years. According to this data from NC SCHS, heart disease has been cause for a moderate rate of inpatient hospitalization among Currituck County residents, at rates significantly lower than the comparable state and regional averages.

Table 119. Heart Disease Hospital Discharge Rate Trend (2005-2014)

Location	Rate (Discharges per 1,000 Population)									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Currituck County	4.6	4.5	4.6	4.0	3.5	2.4	3.0	4.4	3.1	4.2
Regional Average	11.4	11.9	11.1	10.6	9.7	9.7	9.9	11.1	10.8	11.1
Pamlico County	16.5	16.3	15.6	16.2	14.1	15.5	12.4	13.5	12.8	13.1
State of NC	13.1	12.7	12.2	11.8	11.4	11.3	10.9	10.7	10.3	10.1

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2016), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; <http://www.schs.state.nc.us/SCHS/data/databook/>.

The table below presents data on 2013 and 2014 hospital discharges at qualifying area hospitals for Currituck County residents with diagnoses of chronic rheumatic heart disease (ICD-9 Codes 393-398), hypertensive heart disease (ICD-9 Code 402), and other forms of heart disease (ICD-9 Codes 420-429). Note that while significant, these categories do *not* include all forms of heart disease.

- Over the period cited, 1.0% of all ED discharges and 11.5% of all IP discharges of Currituck County residents at qualifying hospitals involved a primary diagnosis of heart disease.

Table 120. Hospital Discharges, Currituck County Residents: Heart Disease (2013-2014)

Service	Number and Percent of All Discharges					
	2013		2014		Total	
	#	%	#	%	#	%
ED	47	0.9	52	1.0	99	1.0
IP	68	10.0	100	12.9	168	11.5

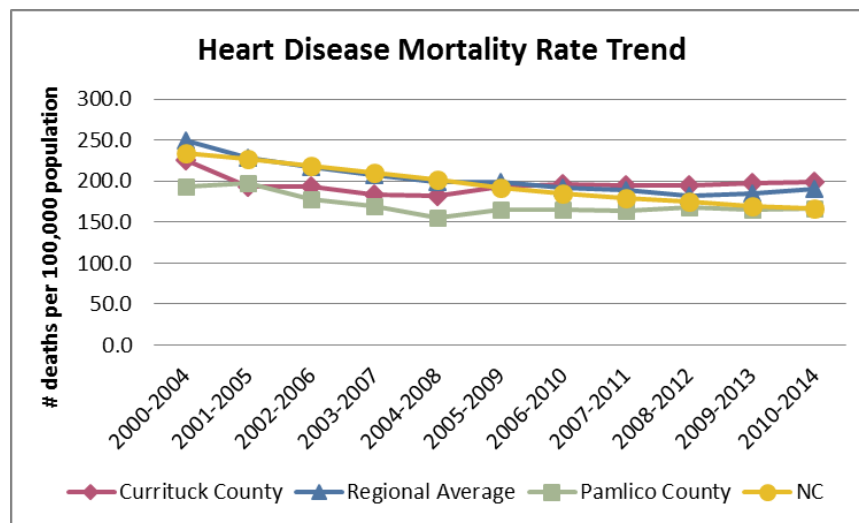
The hospitals qualifying for inclusion on the basis of more than 20 ED discharges over the period cited were: Vidant Chowan Hospital, The Outer Banks Hospital, and Sentara Albemarle Medical Center. The hospitals qualifying on the basis of more than 20 IP discharges over the period cited are: Vidant Roanoke-Chowan Hospital, The Outer Banks Hospital, and Sentara Albemarle Medical Center.

Heart Disease Mortality Rate Trend

The figure below displays the heart disease mortality rate trend over time.

- The heart disease mortality rate fell significantly in all four jurisdictions over the period cited. The heart disease mortality rate for Currituck County fell by 12% overall (from 226.1 to 199.4) between 2002-2004 and 2010-2014. At the state level, the heart disease mortality rate fell 29% overall in the same period.

Figure 24. Overall Heart Disease Mortality Rate Trend (Aggregate Periods 2000-2004 through 2010-2014)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2016), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Racial Disparities in Heart Disease Mortality

The following table presents heart disease mortality data for 2010-2014, stratified by race.

- Due to below-threshold numbers of heart disease deaths among some minority populations at the county-level, mortality rates were suppressed for these groups.
- In Currituck County the heart disease mortality rate among African American non-Hispanics (270.4) was 37% higher than the comparable rate among white non-Hispanics (197.2).

Table 121. Race/Ethnicity-Specific Heart Disease Mortality (Aggregate Period 2010-2014)

Location	Deaths, Number and Rate (Deaths per 100,000 Population)											
	White, Non-Hispanic		African American, Non-Hispanic		American Indian, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Currituck County	218	197.2	24	270.4	0	n/a	2	n/a	2	n/a	246	199.4
Regional Average	159	188.7	74	229.8	0	n/a	1	n/a	1	n/a	235	189.9
Pamlico County	128	158.7	43	205.2	1	n/a	1	n/a	0	n/a	173	166.6
State of NC	67,699	163.8	17,190	190.0	863	190.4	397	70.5	550	52.7	86,699	165.9

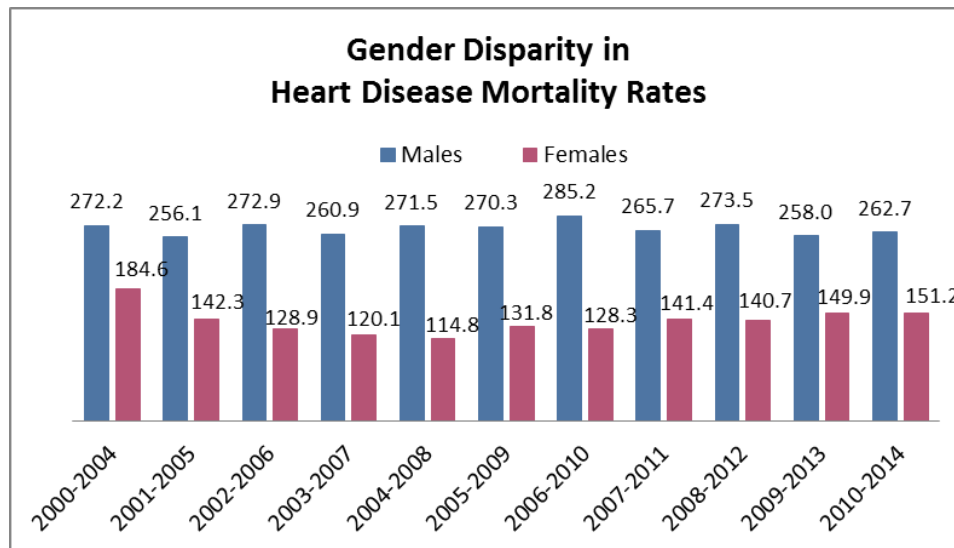
Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases. Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Gender Disparities in Heart Disease Mortality

The figure below presents gender-stratified heart disease mortality rates in Currituck County for the aggregate periods 2000-2004 through 2010-2014.

- It appears that there is a long-standing gender difference in heart disease mortality in Currituck County. The mortality rate among males has been consistently higher than the mortality rate among females.
- The heart disease mortality rates among either men or women in Currituck County have not decreased significantly, and the rate among women appears to be increasing of late.

Figure 25. Sex-Specific Heart Disease Mortality Rate Trend, Currituck County (Aggregate Periods 2000-2004 through 2010-2014)



Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2006-2016), Mortality, NC Resident Race-Specific and Sex-Specific Age-Adjusted Death Rates, by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Cancer

Cancer is a term for diseases in which abnormal cells divide without control and can invade nearby tissues. Cancer cells also can spread to other parts of the body through the blood and lymph systems. If the disease remains unchecked, it can result in death (58).

Total Cancer

Total cancer (cancers of all types) was the second-leading cause of death in Currituck County in the 2010-2014 period (cited previously).

Malignant Neoplasm Hospitalizations

The table below presents the inpatient hospital discharge rate trend for malignant neoplasms.

- The malignant neoplasm discharge rate in Currituck County was lowest among comparators throughout the period cited. Statewide, hospitalizations for this diagnosis decreased over time; there was no clear pattern in Currituck County.

Table 122. All Malignant Neoplasms Hospital Discharge Rate Trend (2005-2014)

Location	Rate (Discharges per 1,000 Population)									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Currituck County	1.3	1.4	1.2	1.9	1.2	1.1	1.1	1.5	0.6	0.9
<i>Regional Average</i>	3.6	3.4	3.5	2.9	2.9	2.4	2.4	2.4	2.2	2.4
Pamlico County	6.2	5.3	5.5	6.0	5.2	3.6	3.8	4.4	3.2	3.5
State of NC	3.9	3.9	3.9	3.6	3.4	3.3	3.2	3.0	2.9	2.8

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2016), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; <http://www.schs.state.nc.us/SCHS/data/databook/>.

The table below presents data on 2013 and 2014 hospital discharges at qualifying area hospitals for Currituck County residents with a diagnosis of neoplasm (ICD-9 Codes 140-239).

- Over the period cited, 0.3% of all ED discharges and 1.7% of all IP discharges of Currituck County residents at qualifying hospitals involved a primary diagnosis of neoplasm (cancer).

Table 123. Hospital Discharges, Currituck County Residents: All Malignant Neoplasms (2013-2014)

Service	Number and Percent of All Discharges					
	2013		2014		Total	
	#	%	#	%	#	%
ED	16	0.3	17	0.3	33	0.3
IP	19	2.8	16	2.1	35	1.7

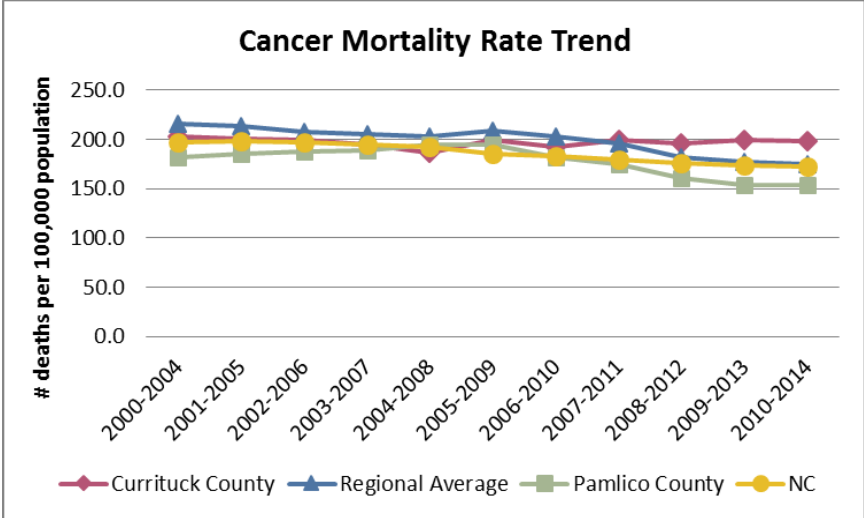
The hospitals qualifying for inclusion on the basis of more than 20 ED discharges over the period cited were: Vidant Chowan Hospital, The Outer Banks Hospital, and Sentara Albemarle Medical Center. The hospitals qualifying on the basis of more than 20 IP discharges over the period cited are: Vidant Roanoke-Chowan Hospital, The Outer Banks Hospital, and Sentara Albemarle Medical Center.

Total Cancer Mortality Rate Trend

The figure below displays total cancer mortality rate trend over time.

- The total cancer mortality rate in Currituck County has been remarkably steady over the past decade.
- The total cancer mortality rate for Currituck County fell by only 2% overall (from 202.5 to 197.8) between 2002-2004 and 2010-2014. At the state level, the total cancer mortality rate fell 13% overall in the same period.

Figure 26. Overall Total Cancer Mortality Rate Trend (Aggregate Periods 2000-2004 through 2010-2014)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2016), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Racial Disparities in Total Cancer Mortality

The next table presents total cancer mortality data stratified by race.

- Due to below-threshold numbers of total cancer deaths among some minority populations at the county-level, mortality rates were suppressed for these groups.
- Statewide the total cancer mortality rate among African American non-Hispanics (199.4) was 17% higher than the comparable rate among white non-Hispanics (169.9).

Table 124. Race/Ethnicity-Specific Total Cancer Mortality (Aggregate Period 2010-2014)

Location	Deaths, Number and Rate (Deaths per 100,000 Population)											
	White, Non-Hispanic		African American, Non-Hispanic		American Indian, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Currituck County	243	200.6	18	n/a	1	n/a	0	n/a	2	n/a	264	197.8
Regional Average	156	174.2	68	187.6	0	n/a	0	n/a	1	n/a	225	175.1
Pamlico County	141	165.7	25	122.0	0	n/a	0	n/a	0	n/a	166	153.1
State of NC	71,216	169.9	18,985	199.4	798	159.7	681	97.8	862	67.1	92,542	171.8

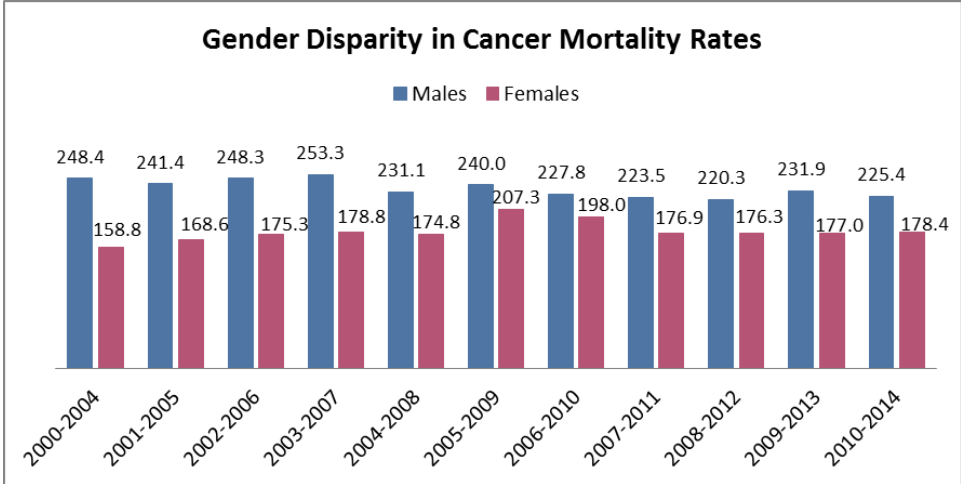
Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases. Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Gender Disparities in Total Cancer Mortality

The table below depicts gender-stratified total cancer mortality rates in Currituck County for the aggregate periods 2000-2004 through 2010-2014.

- It appears that there is a long-standing gender difference in total cancer mortality in Currituck County. The mortality rate among males has been consistently higher than the mortality rate among females, although the size of the gap has varied over time.

Figure 27. Sex-Specific Total Cancer Mortality Rate Trend, Currituck County (Aggregate Periods 2000-2004 through 2010-2014)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2016), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

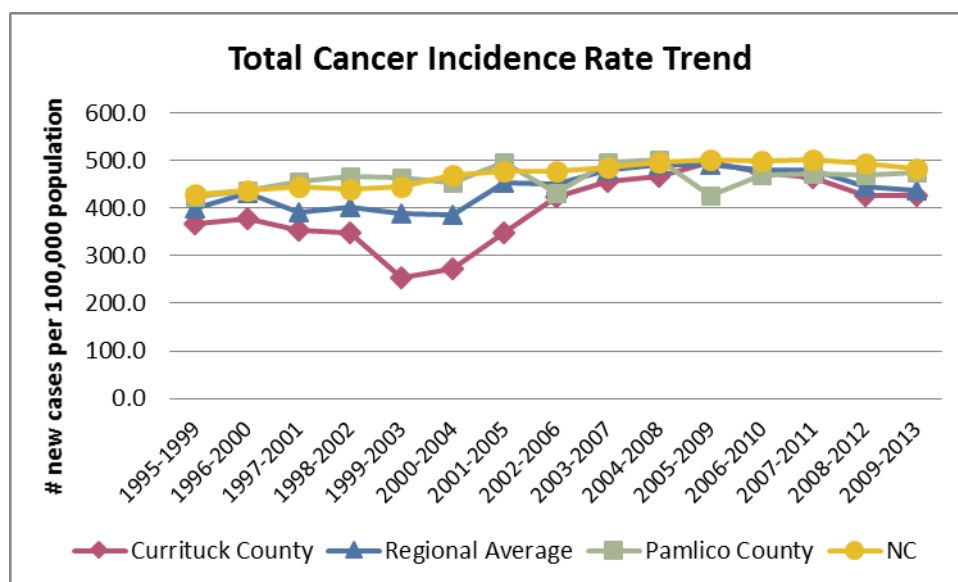
Total Cancer Incidence

Since total cancer is a significant cause of death, it is useful to examine patterns in the development of new cases. The statistic important to understanding the growth of a health problem is *incidence*, the population-based rate at which new cases of a disease occur and are diagnosed (methodology for which was described previously). Cancer incidence rates used in this report were obtained from the NC Cancer Registry, which collects data on newly diagnosed cases from NC clinics and hospitals as well as on NC residents whose cancers were diagnosed at medical facilities in bordering states.

The following figure plots the incidence rate trend for total cancer.

- The total cancer incidence rate in Currituck County first fell, then increased from 2000-2004 through 2005-2009, after which it decreased slightly and leveled. The county incidence rate for total cancer *increased* by 17% overall (from 366.1 to 427.1) over the entire time period cited.
- The total cancer incidence rate region-wide *increased* 9% over the same time period, from 398.8 to 435.5.
- The total cancer incidence rate for the state of NC increased gradually over the period cited, and was 13% higher in 2009-2013 (483.4) than in 1995-1999 (429.4).

**Figure 28. Overall Total Cancer Incidence Rate Trend
(Aggregate Periods 1995-1999 through 2009-2013)**



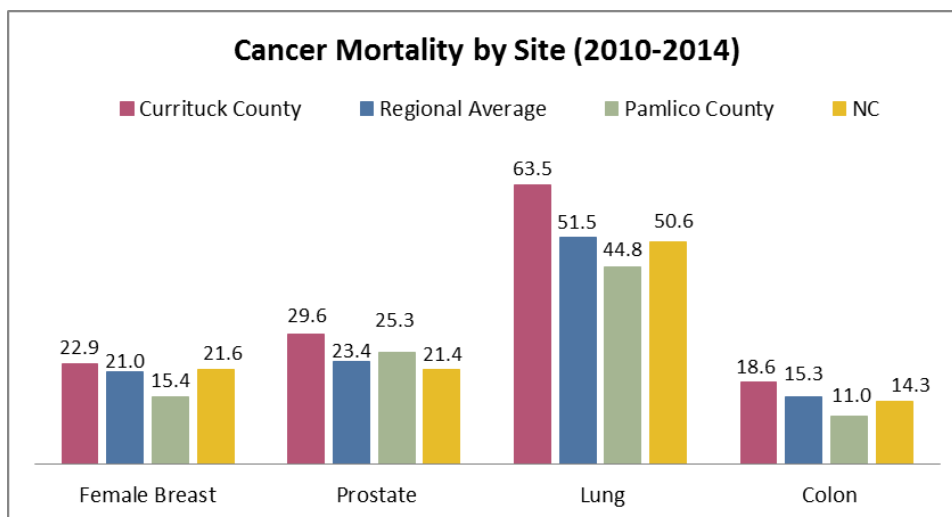
Source: NC State Center for Health Statistics, Health Data, Cancer, Cancer Data Available from SCHS, Annual Reports, NC Cancer Incidence Rates for All Counties by Specified Site (Years as noted); <http://www.schs.state.us.nc/SCHS/CCR/reports.html>.

To this point the discussions of cancer mortality and incidence have focused on figures for total cancer. In Currituck County, as throughout the state of NC, there are four (or five) site-specific cancers that cause most cancer deaths: breast cancer, colon cancer, lung cancer, prostate cancer, and, sometimes, pancreas cancer. It should be noted that males also can have breast cancer, but since the number of cases tends to be small, the mortality rates for breast cancer (and prostate cancer) used here are gender-specific.

The following two figures present age-adjusted *mortality rate* data and *incidence rate* data for the four major site-specific cancers for the most recent aggregate periods.

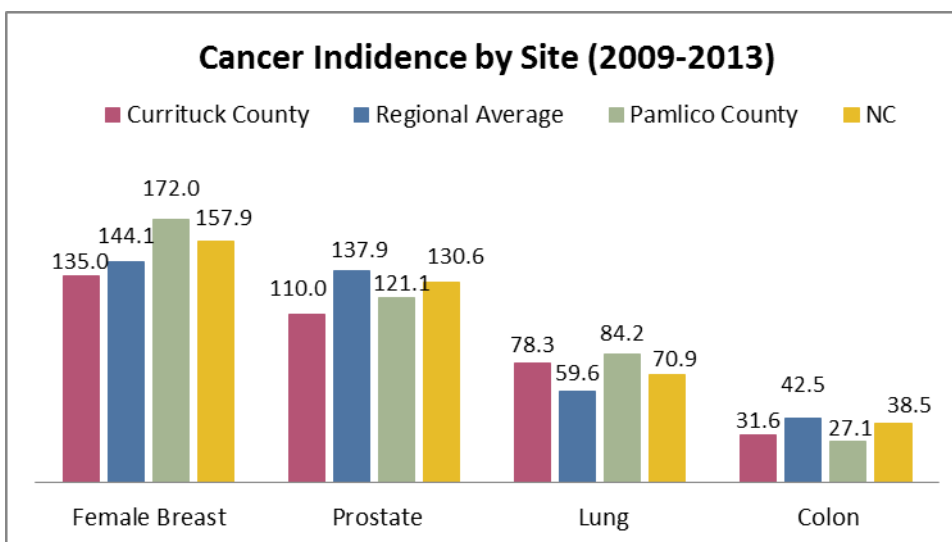
- In Currituck County, in 2010-2014 the site-specific cancer with the highest *mortality rate* was lung cancer, followed by prostate cancer, female breast cancer, and colon cancer.
- In Currituck County, in 2009-2013 the site specific cancer with the highest *incidence rate* was female breast cancer, followed by prostate cancer, lung cancer, and colon cancer.

Figure 29. Mortality Rates for Four Major Site-Specific Cancers (Aggregate Period, 2010-2014)



Source: NC State Center for Health Statistics, County-level Data, County Health Data Book (2016). 2010-2014 NC Resident Race/Ethnicity and Sex-Specific Age-Adjusted Death Rates (counties and cancer sites as indicated); <http://www.schs.state.nc.us/schs/data/databook/>.

Figure 30. Incidence Rates for Four Major Site-Specific Cancers (Aggregate Period 2009-2013)



Source: NC State Center for Health Statistics, Cancer Data, Annual Reports. NC Cancer Incidence Rates 2009-2013, All Counties by Specified Site. http://www.schs.state.nc.us/data/cancer/incidence_rates.htm.

Multi-year mortality and incidence rate trends for these site-specific cancers will be presented subsequently, as each cancer type is discussed separately. The cancer topics are presented in decreasing order of site-specific cancer mortality rates in Currituck County: lung cancer, prostate cancer, female breast cancer, and colon cancer.

Lung Cancer

The category of cancer referred to as lung cancer traditionally *also* includes cancers of the trachea and bronchus.

Lung, Trachea and Bronchus Cancer Hospitalizations

The table below summarizes hospital discharge rate data for malignant trachea, bronchus and lung neoplasms. Note that only inpatient data from the NC State Center for Health Statistics is used here; local hospital data revealed too few cases to report.

- The hospital discharge rate for lung cancer in Currituck County fell 20% between 2005 and 2014; the comparable state rate fell 33% over the same period. Note that most rates were unstable.

Table 125. Malignant Trachea, Bronchus, Lung Neoplasms Hospital Discharge Rate Trend (2005-2014)

Location	Rate (Discharges per 1,000 Population)									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Currituck County	0.5	0.1	0.3	0.3	0.3	0.3	0.1	0.3	0.3	0.4
<i>Regional Average</i>	0.5	0.5	0.7	0.5	0.4	0.5	0.4	0.5	0.3	0.5
Pamlico County	0.4	0.6	1.5	0.7	1.2	0.5	0.7	1.2	0.5	0.8
State of NC	0.6	0.6	0.6	0.5	0.5	0.5	0.4	0.4	0.4	0.4

Note: Bold type indicates a likely unstable rate based on a small (fewer than 20) number of cases.

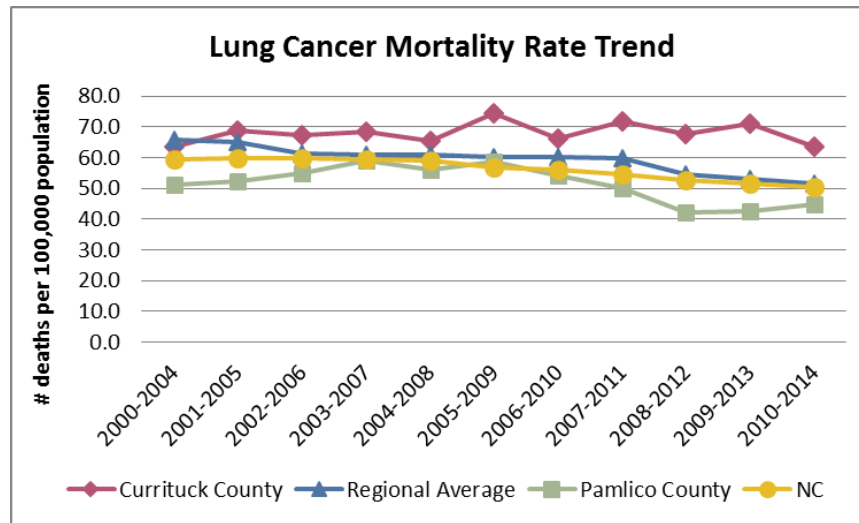
Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2016), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Lung Cancer Mortality Rate Trend

The following figure plots the lung cancer mortality rate trend over time.

- The lung cancer mortality rate was highest among comparators in Currituck County.
- Lung cancer mortality rates fell overall in all jurisdictions shown *except* Currituck County.
- The lung cancer mortality rate for Currituck County was the same in 2010-2014 as in 2000-2004: 63.5. At the state level, the lung cancer mortality rate fell 15% overall over the same period.

**Figure 31. Overall Lung Cancer Mortality Rate Trend
(Aggregate Periods 2000-2004 through 2010-2014)**



Source: NC State Center for Health Statistics, County Health Data Books (2006-2016), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Racial Disparities in Lung Cancer Mortality

The following table presents lung cancer mortality data for the 2010-2014 aggregate period, stratified by race.

- Due to below-threshold numbers of lung cancer deaths among some minority populations at the county-level, mortality rates were suppressed for these groups.
- At the state level the lung cancer mortality rate among African American non-Hispanics (50.9) was 2% lower than the comparable rate among white non-Hispanics (52.0). Statewide, the highest lung cancer mortality rate (53.0) occurs among American Indian non-Hispanics.

**Table 126. Race/Ethnicity-Specific Lung Cancer Mortality
(Aggregate Period 2010-2014)**

Location	Deaths, Number and Rate (Deaths per 100,000 Population)											
	White, Non-Hispanic		African American, Non-Hispanic		American Indian, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Currituck County	80	64.8	6	n/a	0	n/a	0	n/a	0	n/a	86	63.5
Regional Average	51	59.4	17	44.2	0	n/a	0	n/a	0	n/a	67	51.5
Pamlico County	46	53.3	3	n/a	0	n/a	0	n/a	0	n/a	49	44.8
State of NC	22,161	52.0	4,888	50.9	273.0	53.0	157	22.7	112	10.3	27,591	50.6

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

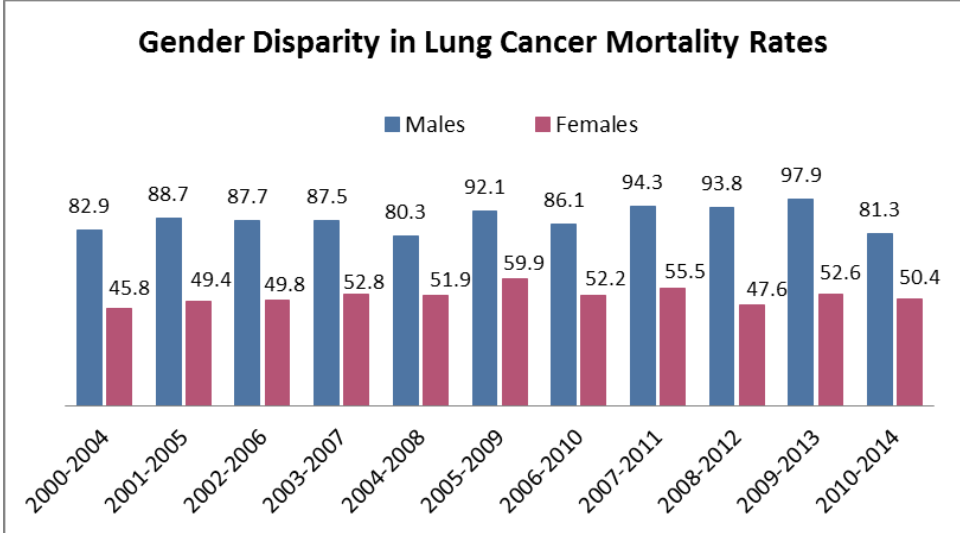
Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Gender Disparities in Lung Cancer Mortality

The following figure plots gender-stratified lung cancer mortality rates in Currituck County for the aggregate periods 2000-2004 through 2010-2014.

- The lung cancer mortality rate for Currituck County males traditionally has been significantly higher than the comparable rate for females.
- The lung cancer mortality rates among both Currituck County males and females showed no significant improvement over the period cited.

Figure 32. Sex-Specific Lung Cancer Mortality Rate Trend, Currituck County (Aggregate Periods 2000-2004 through 2010-2014)



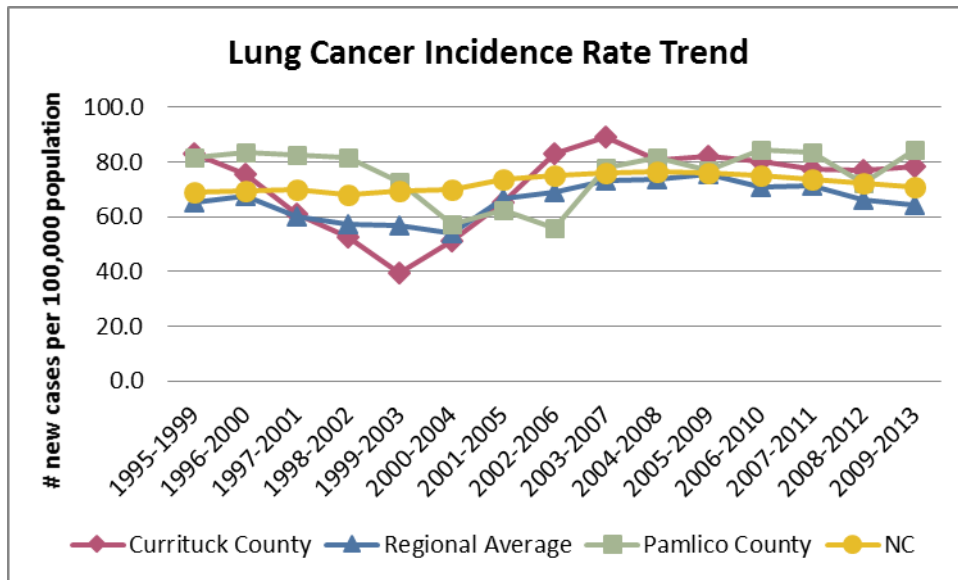
Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2006-2016), Mortality, NC Resident Race-Specific and Sex-Specific Age-Adjusted Death Rates, by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Lung Cancer Incidence

The following figure plots the incidence rate trend for lung cancer.

- The lung cancer incidence rate in Currituck County showed both a major decrease and increase between 1995-1999 and 2003-2007, before leveling for a number of consecutive aggregate periods.
- Sometimes increases in incidence are noted after major screening campaigns. It is not known whether or not increased screening activity played a role in the lung cancer incidence changes in these jurisdictions, especially since screenings for breast, prostate and colon cancer are more common than screenings for lung cancer.

**Figure 33. Lung Cancer Incidence Rate Trend
(Aggregate Periods 1995-1999 through 2009-2013)**



Source: NC State Center for Health Statistics, Health Data, Cancer, Cancer Data Available from SCHS, Annual Reports, NC Cancer Incidence Rates for All Counties by Specified Site (Years as noted); <http://www.schs.state.us.nc/SCHS/CCR/reports.html>.

Prostate Cancer

Prostate Cancer Hospitalizations

The table below summarizes hospital discharge rate data for malignant neoplasms of the prostate. Note that only inpatient data from the NC State Center for Health Statistics is used here; local hospital data revealed too few cases to report.

- The hospital discharge rates for prostate cancer in Currituck County and the state of NC were variable throughout the period cited. All the county rates cited were unstable.

**Table 127. Malignant Prostate Neoplasms Hospital Discharge Rate Trend
(2005-2014)**

Location	Rate (Discharges per 1,000 Population)									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Currituck County	0.0	0.3	0.0	0.2	0.1	0.2	0.3	0.2	n/a	n/a
Regional Average	0.3	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2
Pamlico County	0.3	0.4	0.3	0.7	0.5	0.5	0.3	0.3	0.1	0.2
State of NC	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2

Note: Bold type indicates a likely unstable rate based on a small (fewer than 20) number of cases.

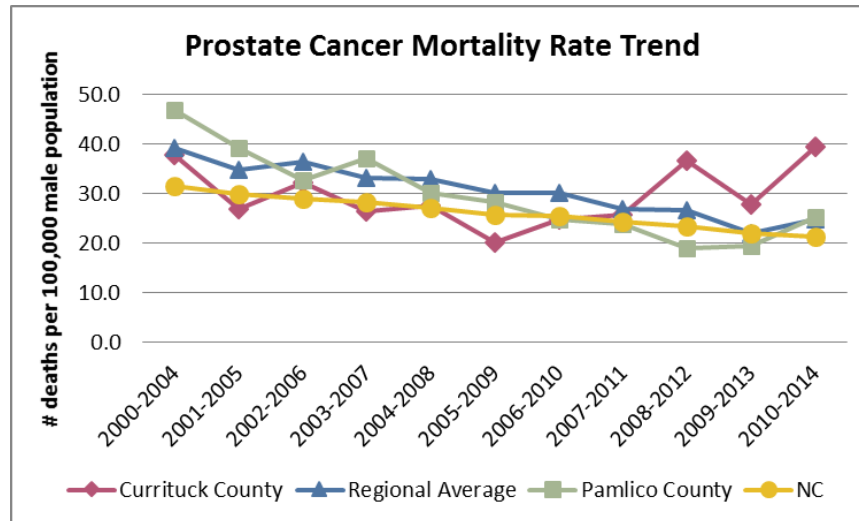
Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2016), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Prostate Cancer Mortality Rate Trend

The following figure plots the prostate cancer mortality rate trend over time.

- The prostate cancer mortality rate in Currituck County was erratic over the period cited, due to small numbers of cases and unstable rates. The local rate was sometimes lowest and sometimes highest among comparators.
- The NC prostate cancer mortality rate decreased by 32% over the period cited, from 31.6 in 2000-2004 to 21.4 in 2010-2014.

**Figure 34. Overall Prostate Cancer Mortality Rate Trend
(Aggregate Periods 2000-2004 through 2010-2014)**



Source: NC State Center for Health Statistics, Vital Statistics, Volume 2: Leading Causes of Death (2004 through 2014), <http://www.schs.state.nc.us/data/vital.cfm>.

Racial Disparities in Prostate Cancer Mortality

The table below presents prostate cancer mortality rate data for the aggregate period 2010-2014, stratified by race.

- Due to below-threshold numbers of prostate cancer deaths among racially-stratified populations in all jurisdictions except NC, mortality rates for those groups were suppressed.
- Statewide, the prostate cancer mortality rate for African American non-Hispanic males (44.2) was 2.5 times the comparable rate for white non-Hispanic males (17.9).

**Table 128. Race/Ethnicity-Specific Prostate Cancer Mortality Rate
(Aggregate Period 2010-2014)**

Location	Deaths, Number and Rate (Deaths per 100,000 Male Population)											
	White, Non-Hispanic		African American, Non-Hispanic		American Indian, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Currituck County	13	n/a	2	n/a	0	n/a	0	n/a	0	n/a	15	39.6
Regional Average	7	n/a	6	n/a	0	n/a	0	n/a	0	n/a	13	24.8
Pamlico County	8	n/a	2	n/a	0	n/a	0	n/a	0	n/a	10	25.3
State of NC	2,939	17.9	1,305	44.2	50	32.8	11	n/a	33	9.6	4,338	21.4

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

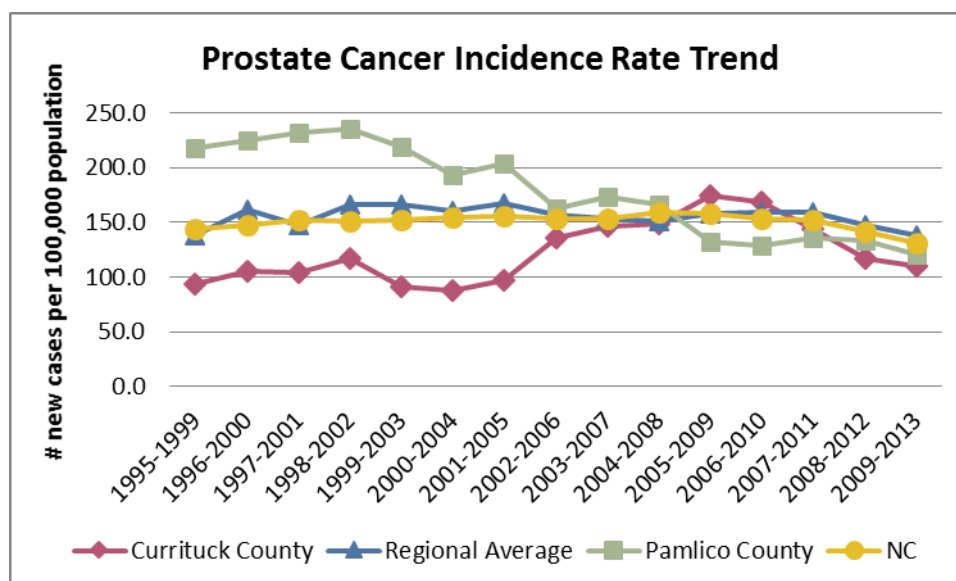
Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Prostate Cancer Incidence

The following figure plots the incidence rate trend for prostate cancer.

- The prostate cancer incidence rate in Currituck County was lowest among comparators throughout much of the period cited, but from 2005-2009 through 2006-2010 it was highest.
- The prostate cancer incidence rate in Currituck County rose significantly between 1995-1999 and 2005-2009 before falling again. In 2009-2013 it was 110.0, 18% higher than it was in 1995-1999 (93.5).

**Figure 35. Prostate Cancer Incidence Rate Trend
(Aggregate Periods 1995-1999 through 2009-2013)**



Source: NC State Center for Health Statistics, Health Data, Cancer, Cancer Data Available from SCHS, Annual Reports, NC Cancer Incidence Rates for All Counties by Specified Site (Years as noted); <http://www.schs.state.us.nc/SCHS/CCR/reports.html>.

It is not known whether or not increased screening activity played a role in any of the increases in prostate cancer incidence.

Female Breast Cancer

For purposes of this report, breast cancer pertains exclusively to women, although males can and do contract the disease. There were no breast cancer deaths among males in Currituck County in the 2010-2014 period; there also were no breast cancer deaths among males statewide. Note that only inpatient data from the NC State Center for Health Statistics is used here; local hospital data revealed too few cases to report.

Breast Cancer Hospitalizations

The following table summarizes inpatient hospital discharge rate data for female breast cancer.

- Hospital discharge rates for breast cancer in the two counties were unstable due to small numbers of hospitalizations; the rates for the region also were unstable since the regional average was based on county rates, many of which were unstable.
- Statewide, the discharge rate for female breast cancer was steady at 0.2 until 2011 when it fell to (and remained at) 0.1.

Table 129. Malignant Female Breast Neoplasms Hospital Discharge Rate Trend (2005-2014)

Location	Rate (Discharges per 1,000 Population)									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Currituck County	0.0	0.0	n/a	0.1	0.1	0.1	0.0	0.1	n/a	n/a
Regional Average	0.2	0.2	0.3	0.2	0.2	0.2	0.1	0.1	0.2	0.1
Pamlico County	0.5	0.2	n/a	0.2	0.3	n/a	0.1	n/a	0.1	0.1
State of NC	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1

Note: Bold type indicates a likely unstable rate based on a small (fewer than 20) number of cases.

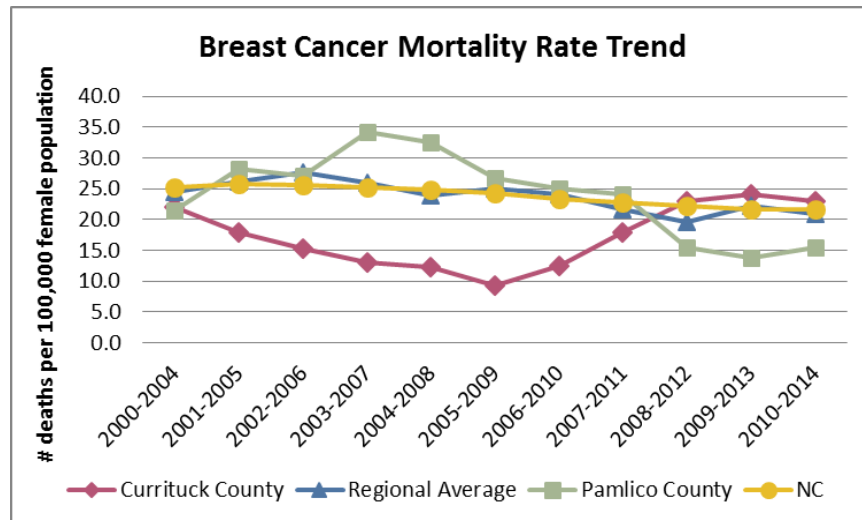
Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2016), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Breast Cancer Mortality Rate Trend

The following figure displays the female breast cancer mortality rate trend over time.

- The breast cancer mortality rate in Currituck County fell steadily from 2000-2004 through 2005-2009 before rising again from 2006-2010 through 2009-2013.
- The Currituck County breast cancer mortality rate in 2010-2014 (22.9) was 4% higher than the rate in 2000-2004 (22.0).
- The NC breast cancer mortality rate declined 14% over the period cited, from 25.2 to 21.6.

Figure 36. Overall Female Breast Cancer Mortality Rate Trend (Aggregate Periods 2000-2004 through 2010-2014)



Source: NC State Center for Health Statistics, Vital Statistics, Volume 2: Leading Causes of Death (2004 through 2014), <http://www.schs.state.nc.us/data/vital.cfm>.

Racial Disparities in Breast Cancer Mortality

The next table presents breast cancer mortality rate data for the 2010-2014 aggregate period, stratified by race.

- Due to below-threshold numbers of female breast cancer deaths among racially-stratified populations in all jurisdictions except NC, mortality rates for those groups were suppressed.
- Statewide, the breast cancer mortality rate for African American non-Hispanic females (29.0) was 43% higher than the comparable rate for white non-Hispanic females (20.3).

Table 130. Race/Ethnicity-Specific Female Breast Cancer Mortality (Aggregate Period 2010-2014)

Location	Deaths, Number and Rate (Deaths per 100,000 Female Population)											
	White, Non-Hispanic		African American, Non-Hispanic		American Indian, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Currituck County	16	n/a	1	n/a	0	n/a	0	n/a	0	n/a	17	22.9
Regional Average	10	25.7	6	n/a	0	n/a	0	n/a	0	n/a	15	21.0
Pamlico County	8	n/a	2	n/a	0	n/a	0	n/a	0	n/a	10	15.4
State of NC	4,645	20.3	1,678	29.0	43.0	15.0	15	11.6	74	9.1	6,491	21.6

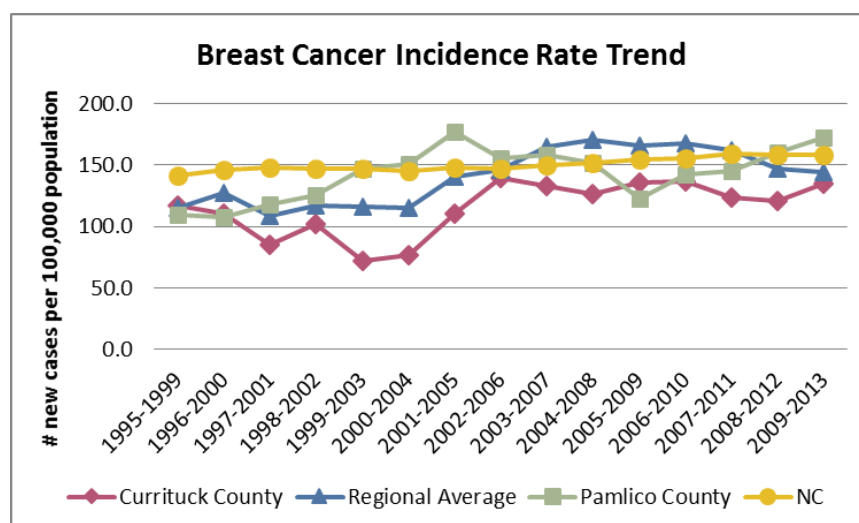
Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
 Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Breast Cancer Incidence

The figure below plots the incidence rate trend for breast cancer.

- Breast cancer incidence rates increased overall in the period cited in every jurisdiction listed. In Currituck County the overall increase was 15%, from 116.9 in 1995-1999 to 135.0 in 2009-2013. The increase statewide in the same period was 12%.

Figure 37. Breast Cancer Incidence Rate Trend (Aggregate Periods 1995-1999 through 2009-2013)



Source: NC State Center for Health Statistics, Health Data, Cancer, Cancer Data Available from SCHS, Annual Reports, NC Cancer Incidence Rates for All Counties by Specified Site (Years as noted); <http://www.schs.state.us.nc/SCHS/CCR/reports.html>.

Colon Cancer

The category of cancer referred to as colon cancer (sometimes referred to as *colorectal cancer*) traditionally *also* includes cancers of the rectum and anus.

Colon Cancer Hospitalizations

The table below summarizes hospital discharge rate data for malignant neoplasms of the colon, rectum and anus. Note that only inpatient data from the NC State Center for Health Statistics is used here; local hospital data revealed too few cases to report.

- The hospital discharge rates for colorectal cancer in Currituck County was variable over the period cited, but was lower in 2014 than in 2005. The NC rate has been static at 0.4 for several years.

Table 131. Malignant Colon, Rectum and Anus Neoplasms Hospital Discharge Rate Trend (2005-2014)

Location	Rate (Discharges per 1,000 Population)									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Currituck County	0.2	0.1	0.4	0.4	0.1	0.0	0.2	0.2	0.1	0.1
<i>Regional Average</i>	0.5	0.7	0.6	0.5	0.5	0.3	0.4	0.4	0.4	0.4
Pamlico County	0.4	0.6	0.5	0.6	0.4	0.4	0.5	0.2	0.3	0.5
State of NC	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4

Note: Bold type indicates a likely unstable rate based on a small (fewer than 20) number of cases.

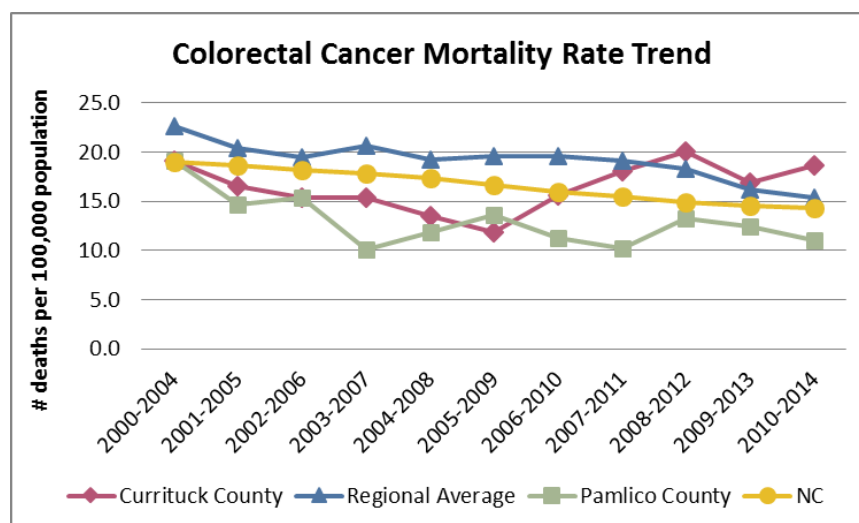
Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2016), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Colon Cancer Mortality Rate Trend

The following figure plots the colon cancer mortality rate trend over time.

- The colorectal cancer mortality rate fell overall in every jurisdiction cited *except* Currituck County.
- The colorectal cancer mortality rate for Currituck County decreased for a number of aggregate periods before beginning to increase again with the 2006-2010 period. In 2010-2014, the county rate was a stable 18.6, only 3% lower than the 2000-2004 unstable rate of 19.1. At the state level, the colorectal cancer mortality rate fell 25% overall between 2000-2004 and 2010-2014.

**Figure 38. Overall Colon Cancer Mortality Rate Trend
(Aggregate Periods 2000-2004 through 2010-2014)**



Source: NC State Center for Health Statistics, Vital Statistics, Volume 2: Leading Causes of Death (2004 through 2014). <http://www.schs.state.nc.us/data/vital.cfm>

Racial Disparities in Colon Cancer Mortality

The next table presents colorectal cancer mortality rates for the 2010-2014 aggregate period, stratified by race.

- Due to below-threshold numbers of colon cancer deaths among racially stratified populations at the county level, mortality rates for those groups were suppressed.
- Statewide, the colon cancer mortality rate for African American non-Hispanics was 51% *higher* than the comparable rate for white non-Hispanics.

**Table 132. Race/Ethnicity-Specific Colon Cancer Mortality
(Aggregate Period 2010-2014)**

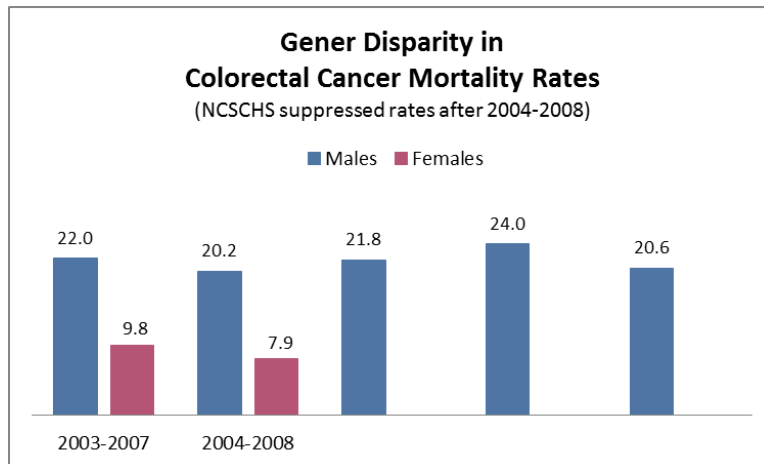
Location	Deaths, Number and Rate (Deaths per 100,000 Population)											
	White, Non-Hispanic		African American, Non-Hispanic		American Indian, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Currituck County	22	18.7	2	n/a	0	n/a	0	n/a	0	n/a	24	18.6
Regional Average	13	19.1	7	26.0	0	n/a	0	n/a	0	n/a	20	15.3
Pamlico County	9	n/a	1	n/a	0	n/a	0	n/a	0	n/a	10	11.0
State of NC	5,550	13.4	1,907	20.3	65	12.9	48	6.2	62	4.8	7,632	14.3

Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Gender Disparities in Colon Cancer Mortality

Gender-stratified colon cancer mortality rates in Currituck County cannot be plotted after 2004-2008 because all subsequent colon cancer mortality rates were suppressed. For the periods shown in the graph, the colorectal cancer mortality rates for males were higher than the rates for females.

Figure 39. Sex-Specific Colorectal Cancer Mortality Rate Trend, Currituck County (Aggregate Periods 2000-2004 through 2010-2014)



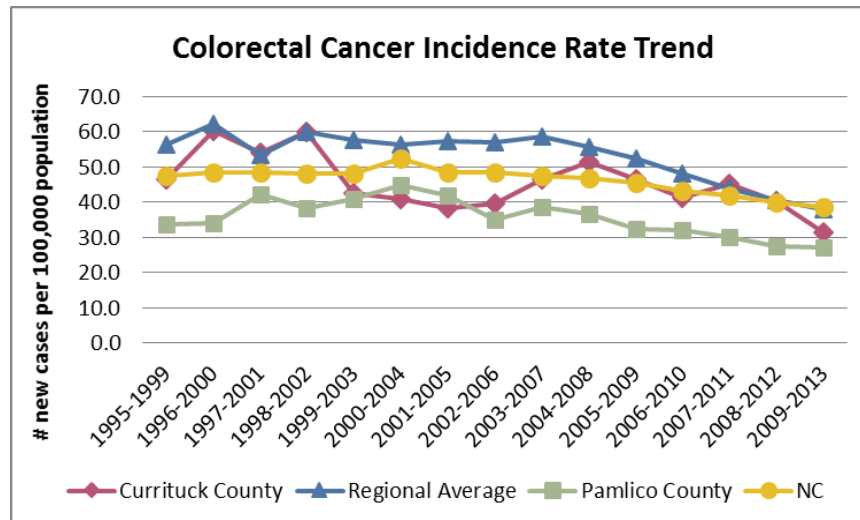
Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2006-2016), Mortality, NC Resident Race-Specific and Sex-Specific Age-Adjusted Death Rates, by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Colorectal Cancer Incidence

The following figure plots the incidence rate trend for colon cancer.

- Colorectal cancer incidence rates decreased in all four jurisdictions over the period cited.
- In Currituck County the colorectal cancer incidence rate was erratic, but decreased overall from 46.6 in 1995-1999 to 31.6 in 2009-2013, a decrease of 32%.
- At the state level, the colon cancer incidence rate fell from 47.4 in 1995-1999 to 38.5 in 2009-2013, an overall decrease of 19%.

Figure 40. Colon Cancer Incidence Rate Trend (Aggregate Periods 1995-1999 through 2009-2013)



Source: NC State Center for Health Statistics, Health Data, Cancer, Cancer Data Available from SCHS, Annual Reports, NC Cancer Incidence Rates for All Counties by Specified Site (Years as noted); <http://www.schs.state.us.nc/SCHS/CCR/reports.html>.

Pneumonia and Influenza

Pneumonia and influenza are diseases of the lungs. Pneumonia is an inflammation of the lungs caused by either bacteria or viruses. Bacterial pneumonia is the most common and serious form of pneumonia and among individuals with suppressed immune systems it may follow influenza or the common cold. Influenza (the “flu”) is a contagious infection of the throat, mouth and lungs caused by an airborne virus (59).

Pneumonia/influenza was the third ranked cause of death in Currituck County in 2010-2014 (cited previously).

Pneumonia and Influenza Hospitalizations

The table below presents hospital discharge rate trend data. According to this data, pneumonia and influenza has consistently generated a *lower* discharge rate in Currituck County than in the other jurisdictions.

Table 133. Pneumonia and Influenza Hospital Discharge Rate Trend (2005-2014)

Location	Rate (Discharges per 1,000 Population)									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Currituck County	2.7	2.0	1.2	1.4	1.7	1.7	1.3	1.0	1.0	0.6
<i>Regional Average</i>	4.1	3.5	2.6	3.0	2.9	2.7	2.8	2.6	2.7	2.1
Pamlico County	4.8	3.7	3.7	2.6	2.7	2.6	2.0	3.3	3.1	3.0
State of NC	4.1	3.7	3.4	3.3	3.5	3.1	3.2	3.2	3.1	2.8

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2016), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; <http://www.schs.state.nc.us/SCHS/data/databook/>.

The ICD-9 codes for pneumonia are 480-487 and the code for influenza is 488. The next table presents data on 2013 and 2014 hospital discharges at qualifying area hospitals for Currituck County residents with a primary diagnosis of pneumonia (ICD-9 Codes 480-487xx) or influenza (ICD-9 Code 488xx).

- Over the period cited, 0.7% of all ED discharges and 2.5% of all IP discharges of Currituck County residents at qualifying hospitals involved a primary diagnosis of pneumonia.
- Over the period cited, 0.5% of all ED discharges and 0.1% of all IP discharges of Currituck County residents at qualifying hospitals involved a primary diagnosis of influenza.

NOTE: These low rates of hospitalization attributable to pneumonia and influenza are puzzling when compared to the very high Currituck County mortality rate (97.2) associated with these lung infections. There were 108 pneumonia/influenza deaths in Currituck County in the 2010-2014 aggregate period; there were a total of 38 inpatient hospitalizations in 2013 and 2014. Logical questions are: where—and even if—people with pneumonia and influenza are seeking care, and if they are getting adequate, early medical care, why are so many becoming mortality statistics?

Table 134. Hospital Discharges, Currituck County Residents: Pneumonia and Influenza (2013-2014)

Service	Number and Percent of All Discharges					
	2013		2014		Total	
	#	%	#	%	#	%
Pneumonia						
ED	38	0.7	38	0.7	76	0.7
IP	23	3.4	14	1.8	37	2.5
Influenza						
ED	27	0.5	27	0.5	54	0.5
IP	0	0.0	1	0.1	1	0.1

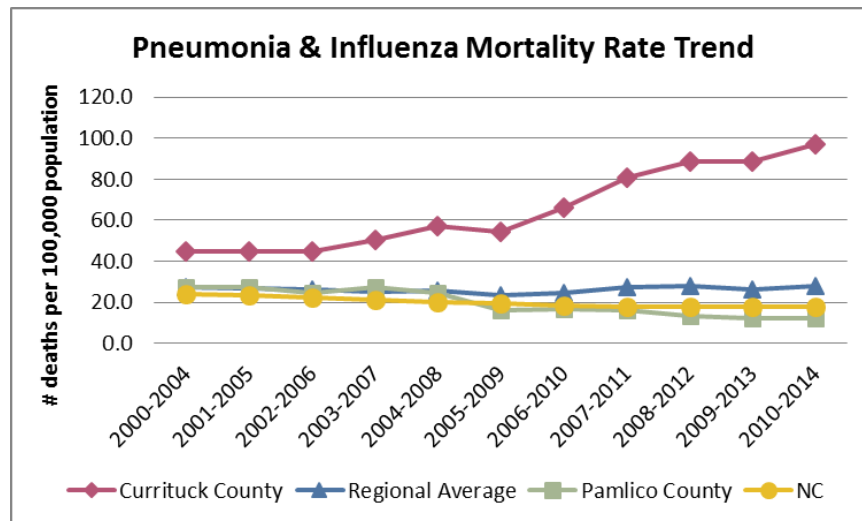
The hospitals qualifying for inclusion on the basis of more than 20 ED discharges over the period cited were: Vidant Chowan Hospital, The Outer Banks Hospital, and Sentara Albemarle Medical Center. The hospitals qualifying on the basis of more than 20 IP discharges over the period cited are: Vidant Roanoke-Chowan Hospital, The Outer Banks Hospital, and Sentara Albemarle Medical Center.

Pneumonia and Influenza Mortality Rate Trend

The following figure plots the pneumonia/influenza mortality rate trend over time.

- The pneumonia/influenza mortality rate in Currituck County was higher than rates in the comparator jurisdictions throughout the period cited, and it has more than doubled overall in that period.
- The pneumonia/influenza mortality rate in Currituck County was **4 times** the state rate in 2010-2014.
- The Currituck County pneumonia/influenza rate has been the **highest in the state** since 2004-2008, so the problem is not new. Since death due to pneumonia and influenza is at least partly vaccine-preventable, continuing high mortality is especially troubling.

Figure 41. Overall Pneumonia and Influenza Mortality Rate Trend (Aggregate Periods 2000-2004 through 2010-2014)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2016), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Racial Disparities in Pneumonia and Influenza Mortality

The next table presents pneumonia/influenza mortality data for the aggregate period 2010-2014, stratified by race.

- Due to below-threshold numbers of pneumonia/influenza deaths among stratified populations in Currituck County and elsewhere, mortality rates were suppressed for those groups, so no county-level comparisons are possible.
- At the state level the pneumonia/influenza mortality rate for African American non-Hispanic persons was slightly lower than the rate for white non-Hispanic persons.

Table 135. Race/Ethnicity-Specific Pneumonia and Influenza Mortality (Aggregate Period 2010-2014)

Location	Deaths, Number and Rate (Deaths per 100,000 Population)											
	White, Non-Hispanic		African American, Non-Hispanic		American Indian, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Currituck County	98	98.2	10	n/a	0	n/a	0	n/a	0	n/a	108	97.2
Regional Average	26	58.6	6	n/a	0	n/a	0	n/a	0	n/a	32	28.2
Pamlico County	8	n/a	3	n/a	0	n/a	0	n/a	0	n/a	11	12.0
State of NC	7,421	18.1	1,412	16.2	57	13.2	50	10.9	71	6.2	9,011	17.6

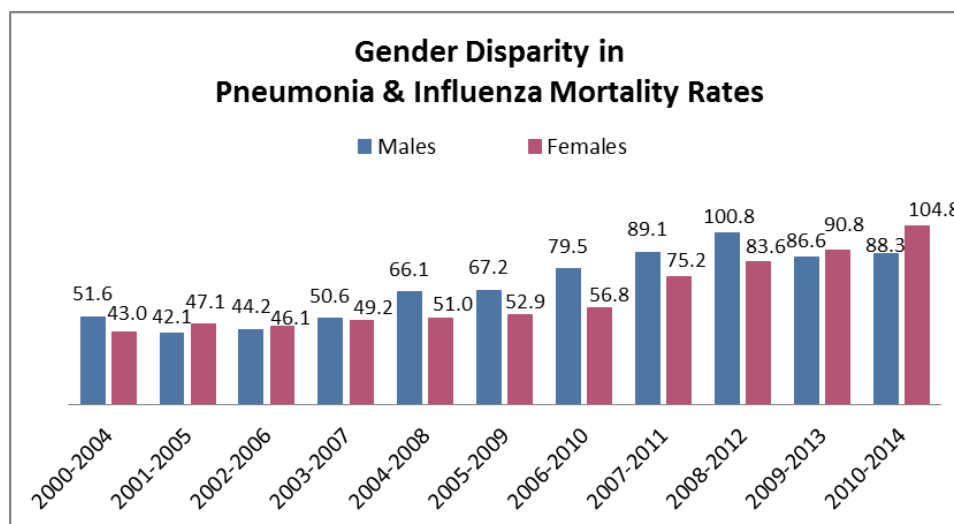
Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
 Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Gender Disparities in Pneumonia and Influenza Mortality

The next figure shows gender-stratified pneumonia/influenza mortality rates in Currituck County.

- At times over the period cited below, the rate for males was higher than that for females, and vice-versa. Notable is the steady increase in the mortality rates for both genders.

Figure 42. Sex-Specific Pneumonia and Influenza Mortality Rate Trend, Currituck County (Aggregate Periods 2000-2004 through 2010-2014)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2010), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Chronic Lower Respiratory Disease (CLRD)

Chronic lower respiratory disease (CLRD) is composed of three major diseases, chronic bronchitis, emphysema, and asthma, all of which are characterized by shortness of breath caused by airway obstruction and sometimes lung tissue destruction. The obstruction is irreversible in chronic bronchitis and emphysema, reversible in asthma. Before 1999, CLRD was called *chronic obstructive pulmonary disease (COPD)*. Some in the field still use the designation COPD, but limit it to mean chronic bronchitis and emphysema only. In the US, tobacco use is a key factor in the development and progression of CLRD/COPD, but exposure to air pollutants in the home and workplace, genetic factors, and respiratory infections also play a role (60).

CLRD was the fourth leading cause of death in Currituck County in the 2010-2014 period (cited previously).

The following table presents the inpatient hospital discharge rate trend data for COPD (the term still used by some data-compiling organizations). According to this data, COPD caused a significant proportion of illness-related hospitalizations among Currituck County residents over time, although often at a lower rate than in the other jurisdictions.

Table 136. COPD Hospital Discharge Rate Trend (2005-2014)

Location	Rate (Discharges per 1,000 Population)									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Currituck County	4.3	2.9	3.4	3.1	1.8	2.6	2.8	1.7	1.5	1.2
<i>Regional Average</i>	4.3	3.8	4.0	4.3	3.3	3.3	3.7	2.2	2.1	1.8
Pamlico County	2.2	3.7	4.2	4.0	4.4	2.7	1.7	0.7	1.2	2.3
State of NC	3.5	3.2	3.1	3.4	3.4	3.2	3.2	2.1	2.0	1.8

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2016), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; <http://www.schs.state.nc.us/SCHS/data/databook/>.

In the ICD-9 system, Chronic Obstructive Pulmonary Disease and Allied Conditions appear in the code range of 490-496. This category includes chronic bronchitis, emphysema, asthma, and other forms of chronic airway obstruction. The table below presents data on 2013 and 2014 hospital discharges at qualifying area hospitals for Currituck County residents with a primary diagnosis of COPD and Allied Conditions (ICD-9 490-496xx).

- Over the period cited, 2.9% of all ED discharges and 5.3% of all IP discharges of Currituck County residents at qualifying hospitals involved a primary diagnosis of COPD and Allied Conditions.

Table 137. Hospital Discharges, Currituck County Residents: COPD and Allied Conditions (2013-2014)

Service	Number and Percent of All Discharges					
	2013		2014		Total	
	#	%	#	%	#	%
ED	156	3.0	146	2.9	302	2.9
IP	40	5.9	37	4.8	77	5.3

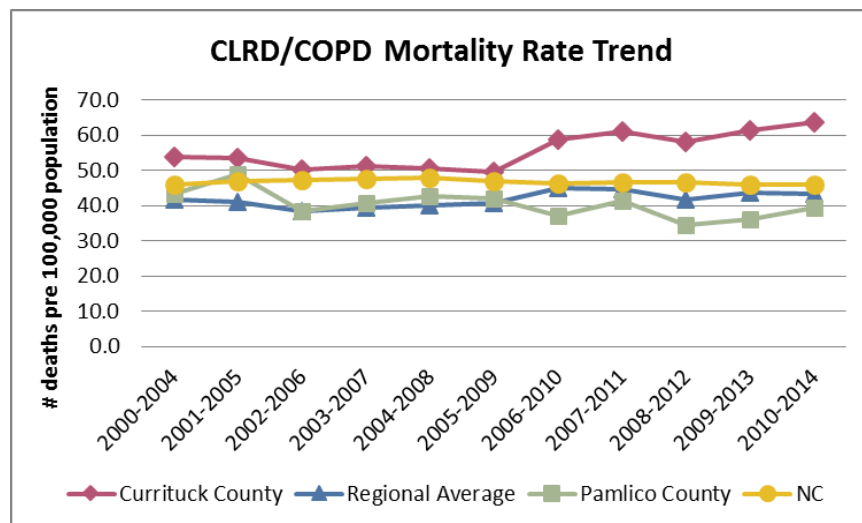
The hospitals qualifying for inclusion on the basis of more than 20 ED discharges over the period cited were: Vidant Chowan Hospital, The Outer Banks Hospital, and Sentara Albemarle Medical Center. The hospitals qualifying on the basis of more than 20 IP discharges over the period cited are: Vidant Roanoke-Chowan Hospital, The Outer Banks Hospital, and Sentara Albemarle Medical Center.

CLRD Mortality Rate Trend

The figure below plots the CLRD mortality rate trend over time.

- The CLRD mortality rate in Currituck County, highest among comparator rates throughout the interval cited, increased 18% overall, rising from 53.7 in 2000-2004 to 63.6 in 2010-2014.
- At the state level, the CLRD mortality rate was essentially unchanged over the period.

Figure 43. Overall CLRD Mortality Rate Trend (Aggregate Periods 2000-2004 through 2010-2014)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2016), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Racial Disparities in CLRD Mortality

The following table presents CLRD mortality data for the aggregate period 2010-2014, stratified by race.

- Note that due to below-threshold numbers of CLRD disease deaths among some stratified populations, mortality rates were suppressed for those groups.
- Statewide the CLRD mortality rate for African American non-Hispanic persons was 45% lower than the rate for white non-Hispanic persons. In the period cited, the highest CLRD mortality rate in NC occurred among white non-Hispanics, followed by American Indian non-Hispanics.

Table 138. Race/Ethnicity-Specific CLRD Mortality (Aggregate Period 2010-2014)

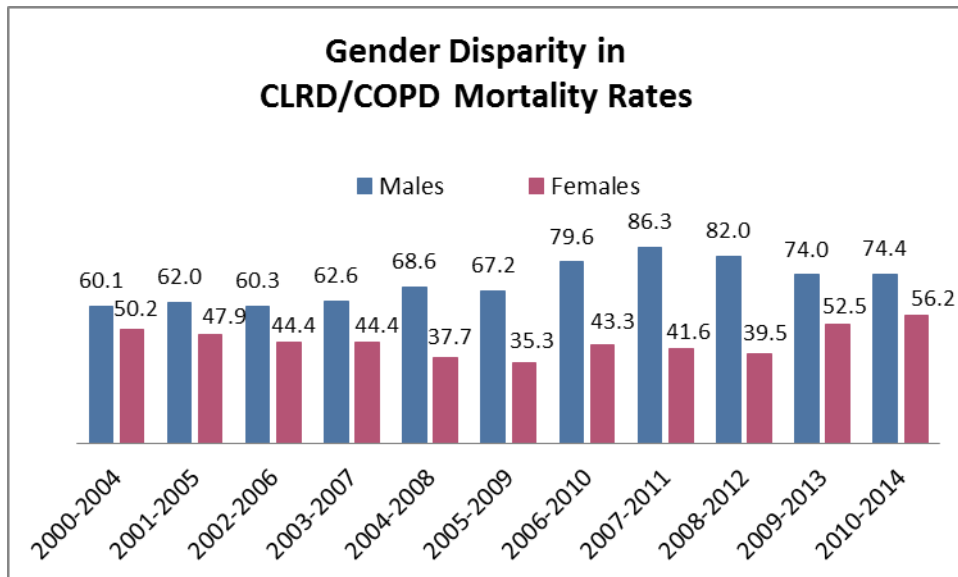
Location	Deaths, Number and Rate (Deaths per 100,000 Population)											
	White, Non-Hispanic		African American, Non-Hispanic		American Indian, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Currituck County	78	68.3	0	n/a	0	n/a	2	n/a	0	n/a	80	63.6
<i>Regional Average</i>	44	51.2	8	28.3	0	n/a	0	n/a	0	n/a	52	43.2
Pamlico County	39	44.9	5	n/a	0	n/a	0	n/a	0	n/a	44	39.4
State of NC	21,274	51.0	2,466	27.9	175.0	40.8	56	11.3	71	8.7	24,042	46.0

Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases. Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

The figure below plots gender-stratified CLRD mortality rates in Currituck County for the aggregate periods 2000-2004 through 2010-2014.

- The CLRD mortality rate among Currituck County males historically has been higher than the comparable rate for females, but the gap is narrowing, as the rate for males decreases and the rate for females increases.

Figure 44. Sex-Specific CLRD Mortality Rate Trend, Currituck County (Aggregate Periods 2000-2004 through 2010-2014)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2016), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

All Other Unintentional Injury

This category includes death without purposeful intent due to poisoning, falls, burns, choking, animal bites, drowning, and occupational or recreational injuries; it expressly excludes unintentional injury due to motor vehicle crashes. (Death due to injury involving motor vehicles is a separate cause of death and will be covered subsequently.)

All other unintentional injury was the fifth leading cause of death in Currituck County in the 2010-2014 period (cited previously).

All Other Unintentional Injury Hospitalizations

In its customary reports in the public domain the NC State Center for Health Statistics separates mortality from injury due to unintentional motor vehicle crashes (“unintentional motor vehicle injury”) from injury due to unintentional *non*-motor vehicle events (“all other unintentional injury”). At the present time the Center does not provide inpatient hospitalization data specific to motor vehicle injury, but it *does* report hospitalization data for the broad category “injury and poisoning”. The table below presents trend data on inpatient hospitalization discharges for injury and poisoning hospitalizations.

- The inpatient hospitalization discharge rate for injury and poisoning in Currituck County was lower—usually *significantly* so—than the rates in the comparator jurisdictions throughout the period cited.

Table 139. Injury and Poisoning Hospital Discharge Rate Trend (2005-2014)

Location	Rate (Discharges per 1,000 Population)									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Currituck County	3.0	2.7	2.4	2.3	2.7	2.1	1.9	2.1	1.5	1.2
<i>Regional Average</i>	6.6	6.3	6.3	5.6	5.3	5.6	5.2	5.8	5.6	4.8
Pamlico County	9.5	11.8	9.9	11.9	8.7	9.3	8.6	9.4	7.5	7.8
<i>State of NC</i>	8.5	8.6	8.6	8.5	8.3	8.2	8.2	8.1	7.7	7.6

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2016), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; <http://www.schs.state.nc.us/SCHS/data/databook/>.

The large ICD-9 code category called *all injuries and poisonings* (ICD-9 Codes 800-999) includes injuries resulting from motor vehicle crashes as well as all other injuries. This category also covers poisoning from all sources, including drug overdoses.

The table below presents data on 2013 and 2014 hospital discharges at qualifying area hospitals for Currituck County residents with a primary diagnosis of Injury and Poisoning (ICD-9 800-999xx).

- Over the period cited, 19.3% of all ED discharges and 3.8% of all IP discharges of Currituck County residents at qualifying hospitals involved a primary diagnosis of injury and poisoning.

Table 140. Hospital Discharges, Currituck County Residents: All Injury and Poisoning (2013-2014)

Service	Number and Percent of All Discharges					
	2013		2014		Total	
	#	%	#	%	#	%
ED	1,025	19.5	966	19.0	1,991	19.3
IP	31	4.5	24	3.1	55	3.8

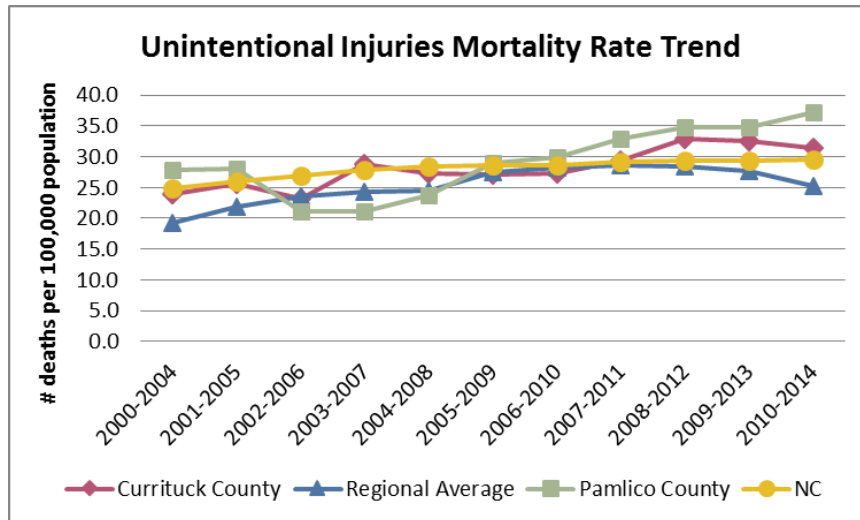
The hospitals qualifying for inclusion on the basis of more than 20 ED discharges over the period cited were: Vidant Chowan Hospital, The Outer Banks Hospital, and Sentara Albemarle Medical Center. The hospitals qualifying on the basis of more than 20 IP discharges over the period cited are: Vidant Roanoke-Chowan Hospital, The Outer Banks Hospital, and Sentara Albemarle Medical Center.

All Other Unintentional Injury Mortality Rate Trend

The figure below plots the all other unintentional injury mortality rate trend over time.

- The all other unintentional injury mortality rate in Currituck County rose 31% overall, from 23.9 in 2000-2004 to 31.4 in 2010-2014.
- At the state level, the all other unintentional injury mortality rate rose 19% over the period cited.

Figure 45. Overall All Other Unintentional Injury Mortality Rate Trend (Aggregate Periods 2000-2004 through 2010-2014)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2016), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Racial Disparities in All Other Unintentional Injury Mortality

The following table presents all other unintentional injury mortality data for the aggregate period 2010-2014, stratified by race.

- Note that due to below-threshold numbers of all other unintentional injury deaths among some stratified populations, mortality rates were suppressed for those groups.

- At the state level, the all other unintentional injury mortality rate is highest among American Indian non-Hispanics (41.0), followed by white non-Hispanics (34.3) and African American non-Hispanics (19.9).

Table 141. Race/Ethnicity-Specific All Other Unintentional Injury Mortality (Aggregate Period 2010-2014)

Location	Deaths, Number and Rate (Deaths per 100,000 Population)											
	White, Non-Hispanic		African American, Non-Hispanic		American Indian, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Currituck County	38	33.2	2	n/a	0	n/a	0	n/a	0	n/a	40	31.4
Regional Average	22	32.7	7	28.5	0	n/a	0	n/a	0	n/a	29	25.3
Pamlico County	26	42.3	5	n/a	0	n/a	0	n/a	0	n/a	31	37.2
State of NC	12,247	34.3	1,963	19.9	217	41.0	86	11.7	278	11.9	14,791	29.6

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

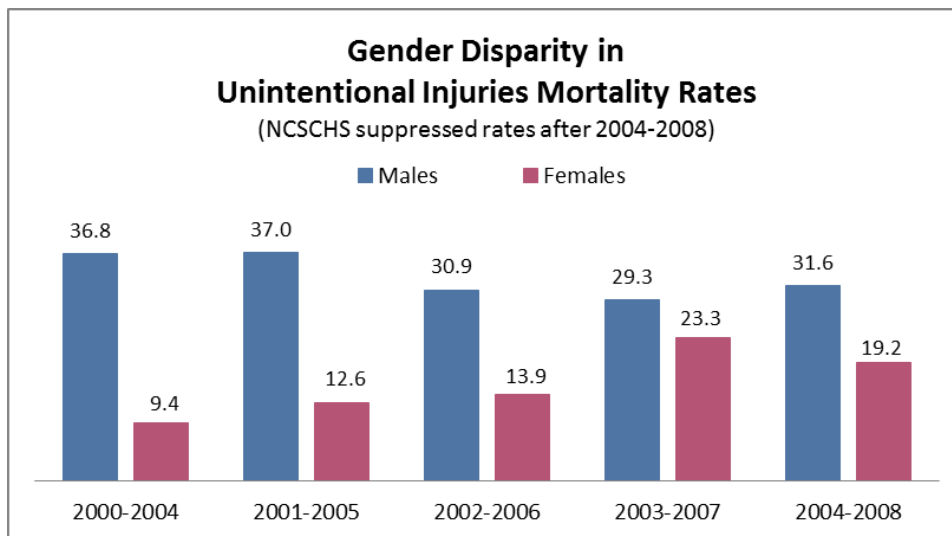
Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Gender Disparities in All Other Unintentional Injury Mortality

The figure below plots gender-stratified all other unintentional injury mortality rates in Currituck County for the aggregate periods 2000-2004 through 2004-2008. Note that most gender-stratified mortality rates for subsequent periods were suppressed.

- This data appears to indicate a significant gender disparity in mortality, with males experiencing the higher rate. Note, however that the mortality rate for females has increased overall while the rate for males has decreased overall. (Most of the mortality rates shown in the graph are technically unstable.)

Figure 46. Sex-Specific All Other Unintentional Injury Mortality Rate Trend, Currituck County (Aggregate Periods 2000-2004 through 2004-2008)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2016), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Cerebrovascular Disease

Cerebrovascular disease describes the physiological conditions that lead to stroke. Strokes happen when blood flow to the brain stops and brain cells begin to die. There are two types of stroke. Ischemic stroke (the more common type) is caused by a blood clot that blocks or plugs a blood vessel in the brain. The other kind, called hemorrhagic stroke, is caused by a blood vessel that breaks and bleeds into the brain (61).

Cerebrovascular disease was the sixth leading cause of death in Currituck County in the 2010-2014 period (cited previously).

Cerebrovascular Disease Hospitalizations

The table below presents the inpatient hospital discharge rate trend data for cerebrovascular disease (CVD). According to this data, CVD resulted in a smaller proportion of illness-related hospitalizations among Currituck County residents than among residents in the comparator jurisdictions. The last three discharge rates for Currituck County were unstable.

Table 142. Cerebrovascular Disease Hospital Discharge Rate Trend (2005-2014)

Location	Rate (Discharges per 1,000 Population)									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Currituck County	1.0	1.1	1.4	1.0	1.2	1.1	0.7	0.8	0.5	0.8
<i>Regional Average</i>	3.1	3.0	2.8	2.5	2.4	2.8	2.2	2.4	2.7	2.7
Pamlico County	4.4	4.0	4.8	4.4	3.8	5.3	4.9	4.7	4.9	2.9
State of NC	3.2	3.1	3.1	3.0	3.1	3.1	3.0	3.0	2.9	2.8

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2016), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; <http://www.schs.state.nc.us/SCHS/data/databook/>.

In the ICD-9 system, cerebrovascular disease is in the category Diseases of the Circulatory System, within the specific ICD-9 Code range of 430-438. The table below presents data on 2013 and 2014 hospital discharges at qualifying area hospitals for Currituck County residents with a diagnosis of cerebrovascular disease (ICD-9 430-438xx).

- Over the period cited, 0.3% of all ED discharges and 2.0% of all IP discharges of Currituck County residents at qualifying hospitals involved a primary diagnosis of cerebrovascular disease.

Table 143. Hospital Discharges, Currituck County Residents: Cerebrovascular Disease (2013-2014)

Service	Number and Percent of All Discharges					
	2013		2014		Total	
	#	%	#	%	#	%
ED	15	0.3	15	0.3	30	0.3
IP	11	1.6	18	2.3	29	2.0

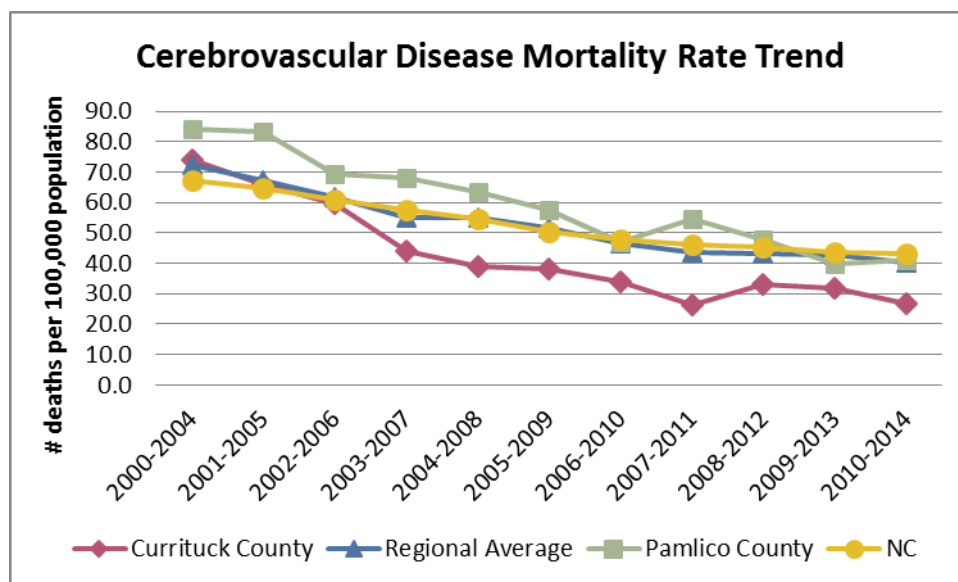
The hospitals qualifying for inclusion on the basis of more than 20 ED discharges over the period cited were: Vidant Chowan Hospital, The Outer Banks Hospital, and Sentara Albemarle Medical Center. The hospitals qualifying on the basis of more than 20 IP discharges over the period cited are: Vidant Roanoke-Chowan Hospital, The Outer Banks Hospital, and Sentara Albemarle Medical Center.

Cerebrovascular Disease Mortality Rate Trend

The figure below plots the CVD mortality rate trend over time.

- The CVD mortality rate in Currituck County was lower than the comparable rates for the comparators throughout most the interval cited.
- CVD mortality rates in every jurisdiction fell over the period cited.
- The Currituck County CVD mortality rate in 2010-2014 was 26.9, 64% lower than the rate in 2000-2004 (73.8).
- The CVD mortality rate for NC as a whole decreased 25% over the period cited.

Figure 47. Overall Cerebrovascular Disease Mortality Rate Trend (Aggregate Periods 2000-2004 through 2010-2014)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2016), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Racial Disparities in Cerebrovascular Disease Mortality

The table below presents CVD mortality data for the aggregate period 2010-2014, stratified by race.

- Note that due to below-threshold numbers of CVD disease deaths among some stratified populations in Currituck County and elsewhere, mortality rates were suppressed for those groups.
- Statewide, the CVD mortality rate for African American non-Hispanic persons (55.8) was 37% higher than the rate for white non-Hispanic persons (40.6).

Table 144. Race/Ethnicity-Specific Cerebrovascular Disease Mortality (Aggregate Period 2010-2014)

Location	Deaths, Number and Rate (Deaths per 100,000 Population)											
	White, Non-Hispanic		African American, Non-Hispanic		American Indian, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Currituck County	30	27.5	3	n/a	0	n/a	0	n/a	0	n/a	33	26.9
Regional Average	32	41.6	18	56	0	n/a	0	n/a	0	n/a	50	40.9
Pamlico County	34	39.7	10	n/a	0	n/a	0	n/a	0	n/a	44	41.0
State of NC	16,713	40.6	4,870	55.8	158	37.2	167	30.9	208	19.3	22,116	43.0

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

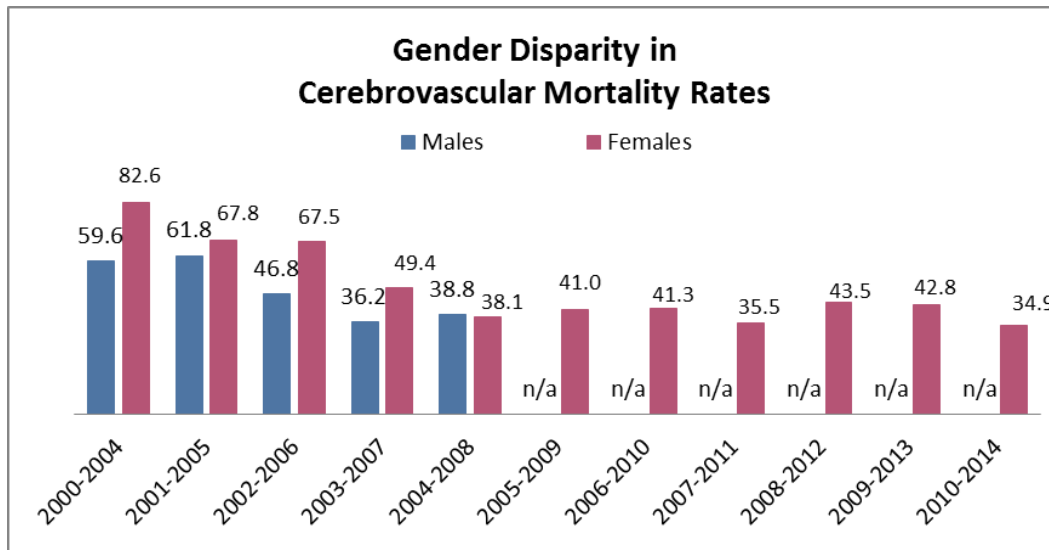
Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Gender Disparities in Cerebrovascular Disease Mortality

The figure below plots gender-stratified CVD mortality rates in Currituck County for the aggregate periods 2000-2004 through 2010-2014.

- The graph demonstrates that the CVD mortality rate among Currituck County females historically has been higher than the comparable rate for males. County rates for males were suppressed after 2004-2008, after a period of decrease.

Figure 48. Sex-Specific Cerebrovascular Disease Mortality Rate Trend, Currituck County (Aggregate Periods 2000-2004 through 2010-2014)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2016), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Alzheimer's Disease

Alzheimer's disease is a progressive neurodegenerative disease affecting mental abilities including memory, cognition and language. Alzheimer's disease is characterized by memory loss and dementia. The risk of developing Alzheimer's disease increases with age (e.g., almost half of those 85 years and older suffer from Alzheimer's disease). Early-onset Alzheimer's has been shown to be genetic in origin, but a relationship between genetics and the late-onset form of the disease has not been demonstrated. No other definitive causes have been identified (62).

Alzheimer's disease was the seventh leading cause of death in Currituck County in the 2010-2014 aggregate period (cited previously).

Alzheimer's Disease Hospitalizations

At the present time the NC SCHS does not track Alzheimer's disease-related hospitalizations.

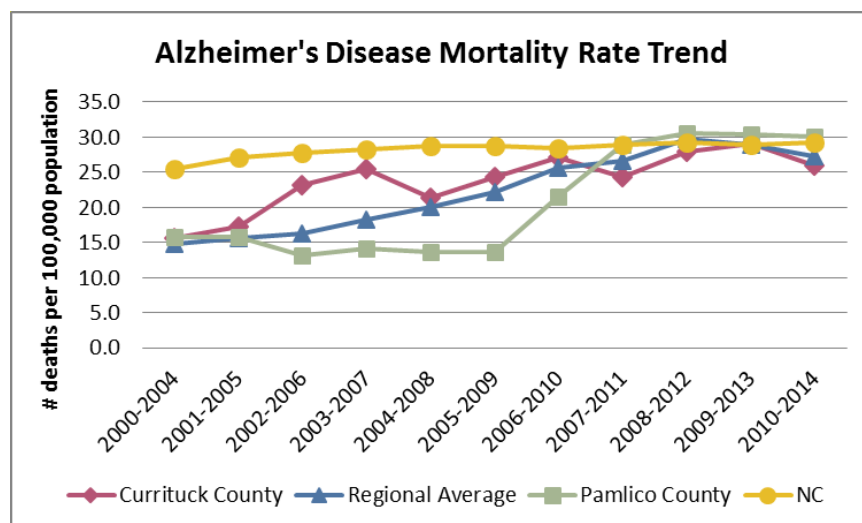
Alzheimer's disease is coded 331.0 in the ICD-9 system; however, it can be difficult to diagnose and may first be identified as another form of dementia. There were no ED or IP discharges of Currituck County residents from area hospitals coded with that primary diagnosis in 2013 or 2014.

Alzheimer's Disease Mortality Rate Trend

The figure below plots the Alzheimer's disease mortality rate trend over time.

- The Alzheimer's disease mortality rate in Currituck County rose by 66% over the period cited, from 15.6 in 2000-2004 to 25.9 in 2010-2014. Over the same period the NC rate rose 15%.

Figure 49. Overall Alzheimer's Disease Mortality Rate Trend (Aggregate Periods 2000-2004 through 2010-2014)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2016), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Racial Disparities in Alzheimer's Disease Mortality

The table below presents Alzheimer's disease mortality data for the aggregate period 2010-2014, stratified by race.

- Note that due to below-threshold numbers of Alzheimer's disease deaths among many stratified populations, mortality rates were suppressed for those groups.
- Statewide, the Alzheimer's disease mortality rate was highest among American Indian non-Hispanics, followed by white non-Hispanics and African American non-Hispanics.

Table 145. Race/Ethnicity-Specific Alzheimer's Disease Mortality (Aggregate Period 2010-2014)

Location	Deaths, Number and Rate (Deaths per 100,000 Population)											
	White, Non-Hispanic		African American, Non-Hispanic		American Indian, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Currituck County	23	24.8	3	n/a	0	n/a	1	n/a	0	n/a	27	25.9
<i>Regional Average</i>	22	32.1	12	33.8	0	n/a	0	n/a	0	n/a	34	27.3
Pamlico County	23	29.0	8	n/a	0	n/a	0	n/a	0	n/a	31	30.0
<i>State of NC</i>	12,318	30.1	2,017	26.5	134	41.0	39	9.9	87	13.2	14,595	29.2

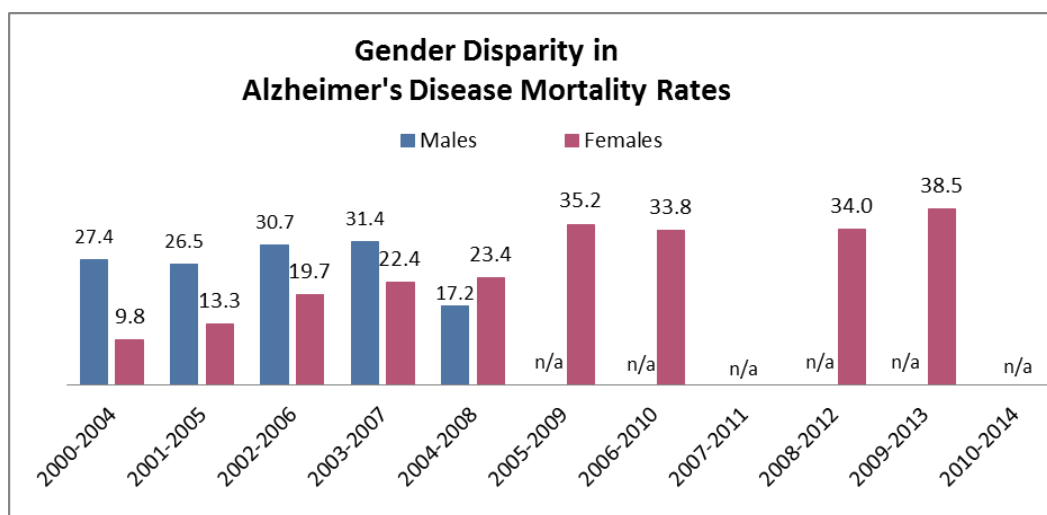
Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
 Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Gender Disparities in Alzheimer's Disease Mortality

The following figure plots gender-stratified Alzheimer's disease mortality rates in Currituck County for the aggregate periods 2000-2004 through 2010-2014.

- Interestingly, in the early years of the whole period cited, the Currituck County Alzheimer's disease mortality rate for males exceeded the rate for females. That pattern reversed itself in 2004-2008, after which period rates for males were suppressed.

Figure 50. Sex-Specific Alzheimer's Disease Mortality Rate Trend, Currituck County (Aggregate Periods 2000-2004 through 2010-2014)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2016), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Suicide

Suicide was the eighth ranked cause of death in Currituck County in 2010-2014.

Suicide Hospitalizations

At the present time the NC State Center for Health Statistics does not track hospitalizations related to suicide or attempted suicide.

Hospitals do, however, track a diagnosis called Suicide Ideation, which is coded V62.84 in the ICD-9 system. As shown in the table below, there were no inpatient hospitalizations of Currituck County residents with that ICD-9 code at any of the qualifying hospitals in 2013 or 2014. There were, however, 28 emergency department visits by Currituck County residents coded for suicide ideation in the same period.

- Over the period cited, 0.3% of all ED discharges of Currituck County residents at qualifying hospitals involved a primary diagnosis of suicide ideation.

Table 146. Hospital Discharges, Currituck County Residents: Suicide Ideation (2013-2014)

Service	Number and Percent of All Discharges					
	2013		2014		Total	
	#	%	#	%	#	%
ED	15	0.3	13	0.3	28	0.3
IP	0	0.0	0	0.0	0	0.0

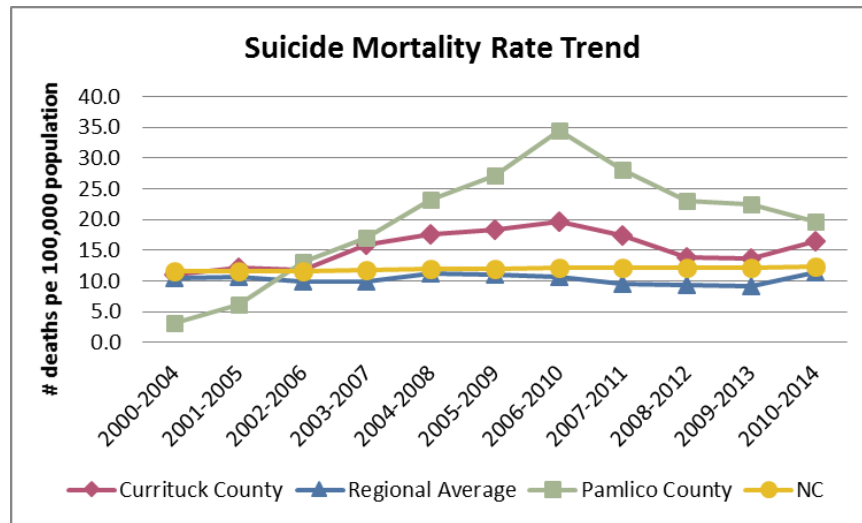
The hospitals qualifying for inclusion on the basis of more than 20 ED discharges over the period cited were: Vidant Chowan Hospital, The Outer Banks Hospital, and Sentara Albemarle Medical Center. The hospitals qualifying on the basis of more than 20 IP discharges over the period cited are: Vidant Roanoke-Chowan Hospital, The Outer Banks Hospital, and Sentara Albemarle Medical Center.

Suicide Mortality Rate Trend

The following figure plots the suicide mortality rate trend over time.

- The suicide mortality rate for Currituck County was higher than the comparable regional and state rates throughout most the period cited. Note that most—but not all—Currituck County suicide rates were unstable.
- The Currituck County rate fluctuated over the period cited, but increased by 49% overall, rising from 11.0 (unstable) in 2000-2004 to 16.4 (stable) in 2010-2014.
- The state suicide rate was relatively static over the period cited. The rate in 2010-2014 (12.4) was 7% higher than the rate in 2000-2004 (11.6).

**Figure 51. Overall Suicide Mortality Rate Trend
(Aggregate Periods 2000-2004 through 2010-2014)**



Source: NC State Center for Health Statistics, Vital Statistics, Volume 2: Leading Causes of Death (2004 through 2014), <http://www.schs.state.nc.us/data/vital.cfm>.

Racial Disparities in Suicide Mortality

The following table presents suicide mortality data for the aggregate period 2010-2014, stratified by race.

- Note that due to below-threshold numbers of suicide deaths among stratified populations in Currituck County and elsewhere, mortality rates were suppressed for those groups, and no comparisons are possible.
- Statewide the highest suicide rate occurred among white non-Hispanics, followed by American Indian non-Hispanics and Other races non-Hispanic.

**Table 147. Race/Ethnicity-Specific Suicide Mortality
(Aggregate Period 2010-2014)**

Location	Deaths, Number and Rate (Deaths per 100,000 Population)											
	White, Non-Hispanic		African American, Non-Hispanic		American Indian, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Currituck County	22	18.2	0	n/a	0	n/a	0	n/a	0	n/a	22	16.4
Regional Average	11	18.2	1	n/a	0	n/a	0	n/a	0	n/a	11	11.4
Pamlico County	12	n/a	1	n/a	0	n/a	0	n/a	0	n/a	13	19.7
State of NC	5,466	15.9	518	4.9	66	11.4	78	5.9	128	3.5	6,256	12.4

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

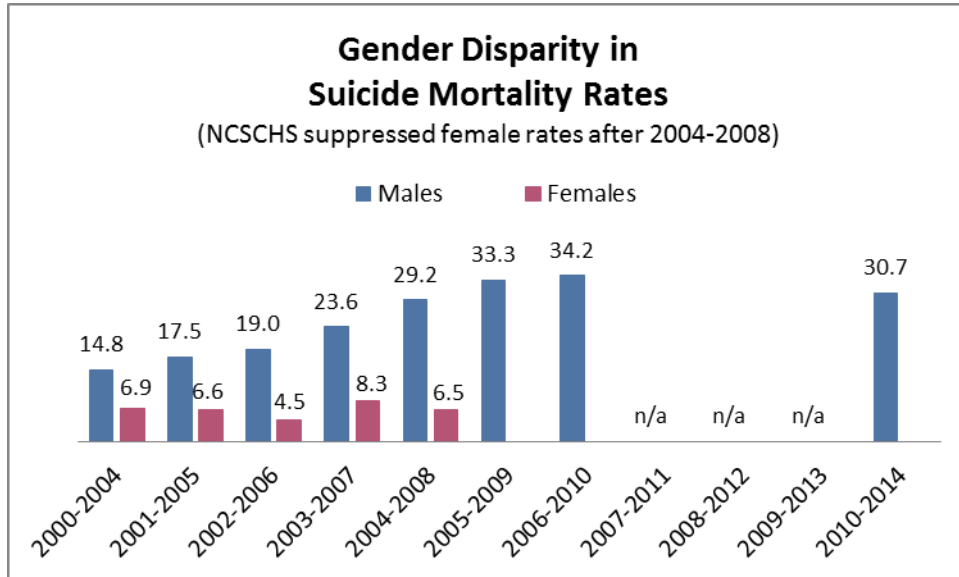
Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Gender Disparities in Suicide Mortality

The following figure plots gender-stratified suicide mortality rates in Currituck County for the aggregate periods 2000-2004 through 2010-2014. Note that rates for males were intermittently suppressed, and all rates for females were suppressed after 2004-2008.

- In aggregate periods in which there were rates for both males and females, the suicide rate among Currituck County males was several times the comparable mortality rate among Currituck County females. This disproportionate-pattern of gender-based suicide mortality is common throughout NC.

Figure 52. Sex-Specific Suicide Mortality Rate Trend, Currituck County (Aggregate Periods 2000-2004 through 2010-2014)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2010), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Septicemia

Septicemia is a rapidly progressing infection resulting from the presence of bacteria in the blood. The disease often arises from other infections throughout the body, such as meningitis, burns, and wound infections. Septicemia can lead to septic shock in which case low blood pressure and low blood flow cause organ failure (63). While septicemia can be community-acquired, some cases are acquired by patients hospitalized initially for other conditions; these are referred to as nosocomial infections. *Sepsis* is now a preferred term for septicemia, but NC SCHS continues to use the older term.

Septicemia was the ninth-ranked cause of death in Currituck County in 2010-2014 (cited previously).

Septicemia Hospitalizations

The table below presents inpatient hospital discharge rate trend data for septicemia. According to this data, septicemia caused a proportion of illness-related hospitalizations among Currituck County residents that increased over time, although the local rate was consistently the lowest among comparators.

Table 148. Septicemia Hospital Discharge Rate Trend (2005-2014)

Location	Rate (Discharges per 1,000 Population)									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Currituck County	0.3	0.2	0.3	0.1	0.4	0.5	0.4	1.2	1.5	1.2
<i>Regional Average</i>	1.4	1.7	1.5	1.5	1.4	1.9	3.0	3.4	4.3	4.1
Pamlico County	1.5	1.7	2.2	1.9	2.2	3.2	3.6	6.3	4.7	4.8
State of NC	1.6	1.8	2.0	2.3	2.5	2.9	3.4	3.7	4.2	4.8

Note: Bold type indicates a likely unstable rate based on a small (fewer than 20) number of cases.

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2016), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; <http://www.schs.state.nc.us/SCHS/data/databook/>.

In the case of septicemia, it is more convenient to use the DRG (Diagnosis-Related Group) diagnosis code rather than the ICD-9 diagnosis code, despite the fact that DRG codes apply only to inpatient hospitalizations. The table below presents data on 2013 and 2014 inpatient hospital discharges at qualifying area hospitals for Currituck County residents with a primary diagnosis of septicemia (DRG Codes 870-872xx).

- Over the period cited, 3.4% of all IP discharges of Currituck County residents at qualifying hospitals involved a primary diagnosis of septicemia.

Table 149. Hospital Discharges, Currituck County Residents: Septicemia (2013-2014)

Service	Number and Percent of All Discharges					
	2013		2014		Total	
	#	%	#	%	#	%
IP	28	4.1	21	2.7	49	3.4

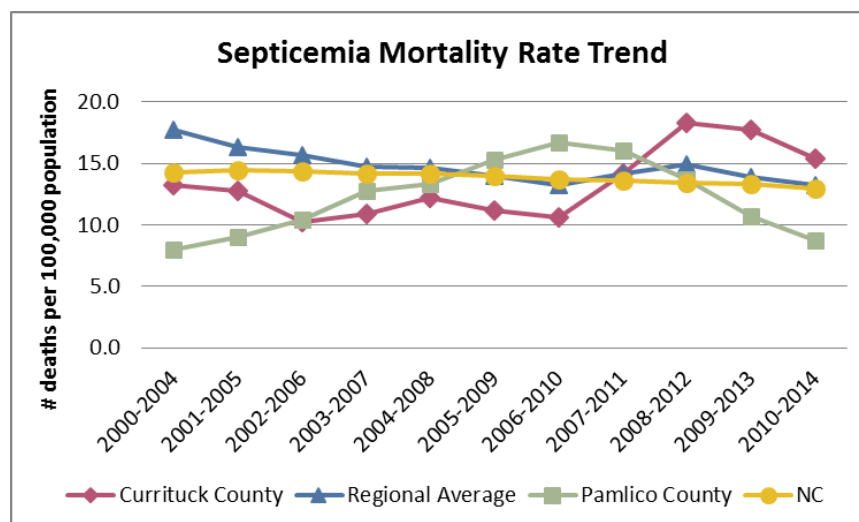
The hospitals qualifying on the basis of more than 20 IP discharges over the period cited are: Vidant Roanoke-Chowan Hospital, The Outer Banks Hospital, and Sentara Albemarle Medical Center.

Septicemia Mortality Rate Trend

The following figure plots the septicemia mortality rate trend over time.

- The septicemia mortality rate in Currituck County was highest among comparators in the last three aggregates cited. The Currituck County rate increased by 17% overall, from 13.2 in 2000-2004 to 15.4 in 2010-2014.
- The septicemia mortality rate for NC as a whole decreased 9% overall between 2000-2004 and 2010-2014.

Figure 53. Overall Septicemia Mortality Rate Trend (Aggregate Periods 2000-2004 through 2010-2014)



Source: NC State Center for Health Statistics, Vital Statistics, Volume 2: Leading Causes of Death (2009 through 2014), <http://www.schs.state.nc.us/data/vital.cfm>.

Racial Disparities in Septicemia Mortality

The following table presents septicemia mortality data for the aggregate period 2010-2014, stratified by race.

- Note that due to below-threshold numbers of septicemia disease deaths among stratified populations in Currituck County and elsewhere, mortality rates were suppressed for those groups.
- Statewide, the septicemia mortality rate was highest among African American non-Hispanic persons, followed by American Indian non-Hispanics and white non-Hispanics.

**Table 150. Race/Ethnicity-Specific Septicemia Mortality
(Aggregate Period 2010-2014)**

Location	Deaths, Number and Rate (Deaths per 100,000 Population)											
	White, Non-Hispanic		African American, Non-Hispanic		American Indian, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Currituck County	16	n/a	2	n/a	0	n/a	0	n/a	0	n/a	18	15.4
Regional Average	10	15.1	5	n/a	0	n/a	0	n/a	0	n/a	15	13.3
Pamlico County	6	n/a	4	n/a	0	n/a	0	n/a	0	n/a	10	8.7
State of NC	4,974	12.1	1,664	18.6	58	13.3	33	5.5	69	5.5	6,798	13.0

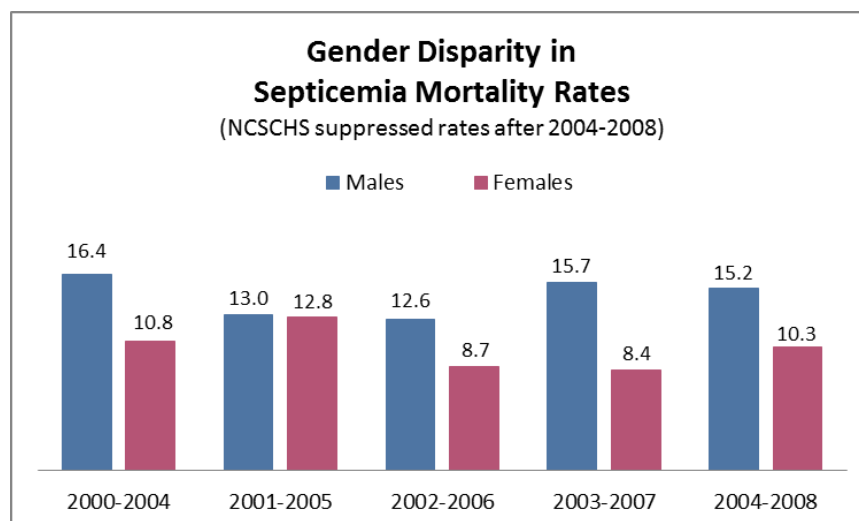
Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Gender Disparities in Septicemia Mortality

The next figure depicts gender-stratified septicemia mortality rates in Currituck County for the aggregate periods 2000-2004 through 2004-2008. Note that rates in subsequent periods were suppressed.

- According to the graph, the septicemia mortality rate among Currituck County males appeared to be higher than the comparable rate among Currituck County females for all but one of the time periods shown. However, it should be noted that all the gender-stratified septicemia mortality rates in the graph were unstable.

**Figure 54. Sex-Specific Septicemia Mortality Rate Trend, Currituck County
(Aggregate Periods 2000-2004 through 2004-2008)**



Source: NC State Center for Health Statistics, County Health Data Books (2006-2010), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Nephritis, Nephrotic Syndrome, and Nephrosis

Nephritis refers to inflammation of the kidney, which causes impaired kidney function. Nephritis can be due to a variety of causes, including kidney disease, autoimmune disease, and infection. Nephrotic syndrome refers to a group of symptoms that include protein in the urine, low blood protein levels, high cholesterol levels, high triglyceride levels, and swelling. Nephrosis refers to any degenerative disease of the kidney tubules, the tiny canals that make up much of the substance of the kidney. Nephrosis can be caused by kidney disease, or it may be a complication of another disorder, particularly diabetes (64,65).

This composite set of kidney disorders was the tenth leading cause of death in Currituck County in 2010-2014 (cited previously).

Nephritis, Nephrotic Syndrome and Nephrosis Hospitalizations

According to data in the table below, kidney disease caused a lower rate of hospitalizations in Currituck County than in the ARHS region or statewide throughout the period cited. Note that many of the rates for Currituck County were unstable.

Table 151. Nephritis, Nephrosis, Nephrotic Syndrome Hospital Discharge Rate Trend (2005-2014)

Location	Rate (Discharges per 1,000 Population)									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Currituck County	0.6	0.4	0.4	0.4	0.4	0.1	0.3	0.7	0.3	0.7
<i>Regional Average</i>	1.3	1.4	1.3	1.0	1.0	1.2	1.3	1.6	1.7	2.0
Pamlico County	1.0	1.5	1.7	1.6	1.8	2.1	2.7	1.8	2.5	2.2
State of NC	1.2	1.3	1.7	1.6	1.4	1.5	1.8	1.8	1.8	1.9

Note: Bold type indicates a likely unstable rate based on a small (fewer than 20) number of cases.

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2016), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Diagnoses of nephritis, nephrotic syndrome and nephrosis are coded 580-589 in the ICD-9 system. The table below presents data on 2013 and 2014 hospital discharges at qualifying area hospitals for Currituck County residents with a primary diagnosis of any of the above listed kidney diseases (ICD-9 Codes 580-589xx).

- Over the period cited, 0.1% of all ED discharges and 1.7% of all IP discharges of Currituck County residents at qualifying hospitals involved a primary diagnosis of kidney disease.

Table 152. Hospital Discharges, Currituck County Residents: Kidney Diseases (2013-2014)

Service	Number and Percent of All Discharges					
	2013		2014		Total	
	#	%	#	%	#	%
ED	5	0.1	4	0.1	9	0.1
IP	8	0.9	17	2.2	25	1.7

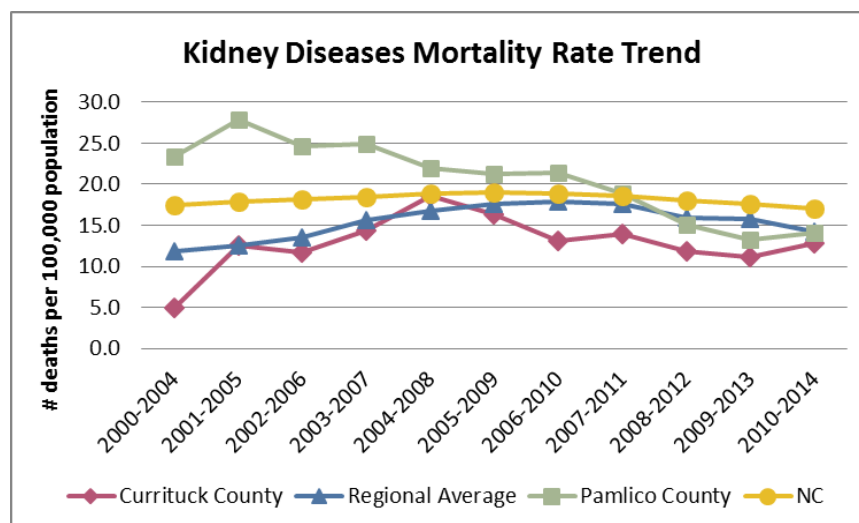
The hospitals qualifying for inclusion on the basis of more than 20 ED discharges over the period cited were: Vidant Chowan Hospital, The Outer Banks Hospital, and Sentara Albemarle Medical Center. The hospitals qualifying on the basis of more than 20 IP discharges over the period cited are: Vidant Roanoke-Chowan Hospital, The Outer Banks Hospital, and Sentara Albemarle Medical Center.

Nephritis, Nephrotic Syndrome and Nephrosis Mortality Rate Trend

The figure below plots the kidney disease mortality rate trend over time.

- The kidney disease mortality rate in Currituck County, which was lower than the NC or regional rates throughout most of the period cited, increased 156% overall (from 5.0 to 12.8) between 2000-2004 and 2010-2014. Note, however, that all the rates cited for Currituck County were unstable.
- The kidney disease mortality rate for NC as a whole rose 7% overall between 2000-2004 and 2010-2014.

Figure 55. Overall Nephritis, Nephrotic Syndrome and Nephrosis Mortality Rate Trend (Aggregate Periods 2000-2004 through 2010-2014)



Source: NC State Center for Health Statistics, Vital Statistics, Volume 2: Leading Causes of Death (2004 through 2014), <http://www.schs.state.nc.us/data/vital.cfm>.

Racial Disparities in Nephritis, Nephrotic Syndrome and Nephrosis Mortality

The following table presents kidney disease mortality data for the aggregate period 2010-2014, stratified by race.

- Note that due to below-threshold numbers of kidney disease deaths among stratified populations in Currituck County and elsewhere, mortality rates were suppressed for those groups.
- Statewide the kidney disease mortality rate among African American non-Hispanic persons was more than twice the rate for white non-Hispanic persons.

Table 153. Race/Ethnicity-Specific Nephritis, Nephrotic Syndrome and Nephrosis Mortality (Aggregate Period 2010-2014)

Location	Deaths, Number and Rate (Deaths per 100,000 Population)											
	White, Non-Hispanic		African American, Non-Hispanic		American Indian, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Currituck County	16	n/a	0	n/a	0	n/a	0	n/a	0	n/a	16	12.8
<i>Regional Average</i>	10	n/a	7	25.7	0	n/a	0	n/a	0	n/a	17	14.2
Pamlico County	8	n/a	6	n/a	0	n/a	0	n/a	0	n/a	14	14.1
State of NC	5,667	13.8	2,910	32.9	100	24.5	48	8.8	88	9.1	8,813	17.0

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

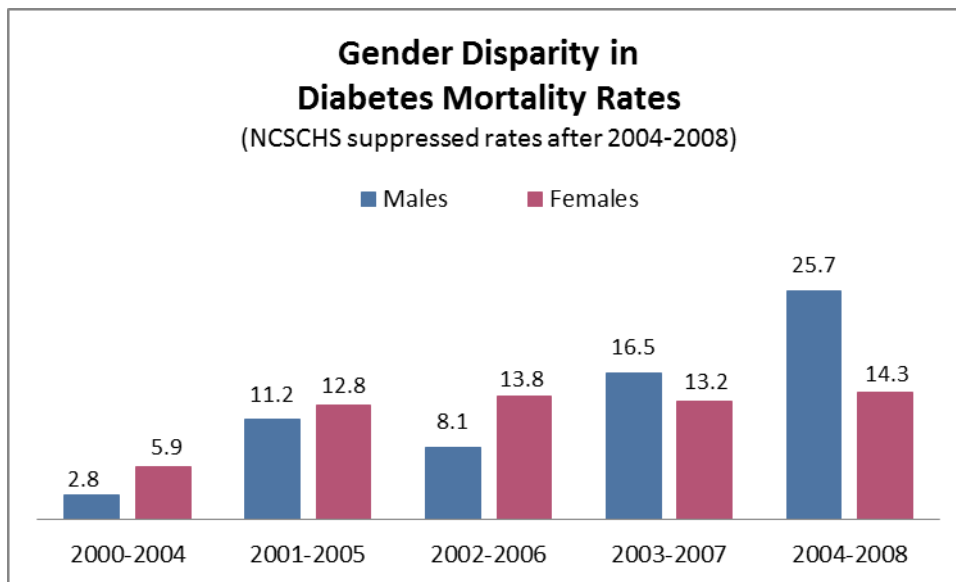
Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Gender Disparities in Nephritis, Nephrotic Syndrome and Nephrosis Mortality

The figure below depicts gender-stratified kidney disease mortality rates in Currituck County for the aggregate periods 2000-2004 through 2004-2008. (The period covered is truncated to only those aggregates for which the NC State Center for Health Statistics did not suppress rates.)

- According to the graph, the kidney disease mortality rates among Currituck County females appeared to be higher than the comparable rates among males for the first three aggregates shown, after which the pattern reversed. However, it should be noted that all the gender-stratified kidney disease mortality rates in the graph were unstable.

Figure 56. Sex-Specific Nephritis, Nephrotic Syndrome, Nephrosis Mortality Rate Trend, Currituck County (Aggregate Periods 2000-2004 through 2004-2008)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2010), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Diabetes Mellitus

Diabetes is a disease in which the body's blood glucose levels are too high due to problems with insulin production and/or utilization. Insulin is a hormone that helps glucose get to cells where it is used to produce energy. With Type 1 diabetes, the body does not make insulin. With Type 2 diabetes, the more common type, the body does not make or use insulin well. Without enough insulin, glucose stays in the blood. Over time, having too much glucose in the blood can damage the eyes, kidneys, and nerves. Diabetes can also lead to heart disease, stroke and even the need to remove a limb (66).

Diabetes was the eleventh leading cause of death in Currituck County in 2010-2014 (cited previously).

Diabetes Mellitus Hospitalizations

The table below presents inpatient hospitalization discharge rate trend data for diabetes. The rates for Currituck County were lower than the rates for the region or NC as a whole throughout the period cited.

Table 154. Diabetes Hospital Discharge Rate Trend (2005-2014)

Location	Rate (Discharges per 1,000 Population)									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Currituck County	0.4	0.8	0.5	1.1	0.6	0.7	0.8	1.0	0.5	0.6
<i>Regional Average</i>	1.9	1.7	1.5	1.7	1.2	1.6	1.5	1.5	1.5	1.3
Pamlico County	1.3	1.9	1.9	2.0	1.3	2.2	2.3	2.1	1.3	1.5
State of NC	1.8	1.8	1.9	1.8	1.8	1.9	2.0	1.9	1.9	1.9

Note: Bold type indicates a likely unstable rate based on a small (fewer than 20) number of cases.

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2016), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; <http://www.schs.state.nc.us/SCHS/data/databook/>.

In ICD-9 coding, diabetes falls in the category Endocrine and Metabolic Diseases (ICD-9 Codes 240-279), with a specific ICD-9 Code of 250 for diabetes mellitus. The table below presents data on 2013 and 2014 hospital discharges at qualifying area hospitals for Currituck County residents with a diagnosis of diabetes (ICD-9 250xx).

- Over the period cited, 0.3% of all ED discharges and 1.8% of all IP discharges of Currituck County residents at qualifying hospitals involved a primary diagnosis of diabetes.

Table 155. Hospital Discharges, Currituck County Residents: Diabetes Mellitus (2013-2014)

Service	Number and Percent of All Discharges					
	2013		2014		Total	
	#	%	#	%	#	%
ED	16	0.3	16	0.3	32	0.3
IP	12	1.8	15	1.9	27	1.8

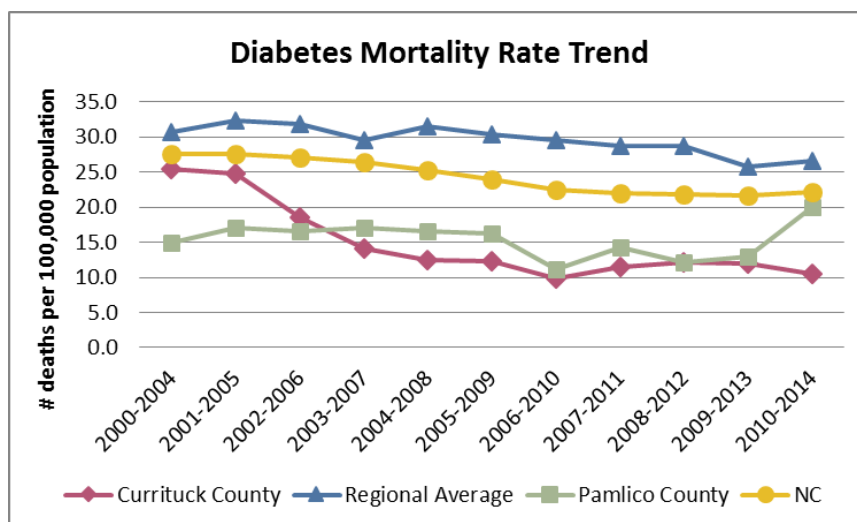
The hospitals qualifying for inclusion on the basis of more than 20 ED discharges over the period cited were: Vidant Chowan Hospital, The Outer Banks Hospital, and Sentara Albemarle Medical Center. The hospitals qualifying on the basis of more than 20 IP discharges over the period cited are: Vidant Roanoke-Chowan Hospital, The Outer Banks Hospital, and Sentara Albemarle Medical Center.

Diabetes Mellitus Mortality Rate Trend

The figure below plots the diabetes mortality rate trend over time.

- The diabetes mortality rate in Currituck County was significantly lower than the regional and state rates throughout the period cited.
- The Currituck County diabetes mortality rate decreased by 59% over the period cited, from 25.4 (stable) in 2000-2004 to 10.5 (unstable) in 2010-2014.
- The diabetes mortality rate for NC as a whole decreased 20% over the period cited.

Figure 57. Overall Diabetes Mellitus Mortality Rate Trend (Aggregate Periods 2000-2004 through 2010-2014)



Source: NC State Center for Health Statistics, Vital Statistics, Volume 2: Leading Causes of Death (2004 through 2014), <http://www.schs.state.nc.us/data/vital.cfm>.

Racial Disparities in Diabetes Mellitus Mortality

The following table presents diabetes mortality data for the aggregate period 2010-2014, stratified by race.

- Due to below-threshold numbers of diabetes deaths among all racially stratified populations at the county-level, mortality rates were suppressed for these groups.
- Statewide the diabetes mortality rate among African American non-Hispanics (43.3) was 2.4 **times** the comparable rate among white non-Hispanics (17.9). The highest diabetes mortality rate statewide (46.0) occurred among American Indian non-Hispanics.

Table 156. Race/Ethnicity-Specific Diabetes Mellitus Mortality (Aggregate Period 2010-2014)

Location	Deaths, Number and Rate (Deaths per 100,000 Population)											
	White, Non-Hispanic		African American, Non-Hispanic		American Indian, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Currituck County	14	n/a	2	n/a	0	n/a	0	n/a	0	n/a	16	10.5
Regional Average	16	28.2	18	53.1	0	n/a	0	n/a	0	n/a	34	26.5
Pamlico County	17	n/a	7	n/a	0	n/a	0	n/a	0	n/a	24	20.0
State of NC	7,432	17.9	3,961	43.3	219	46.0	69	11.9	117	9.3	11,798	22.1

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

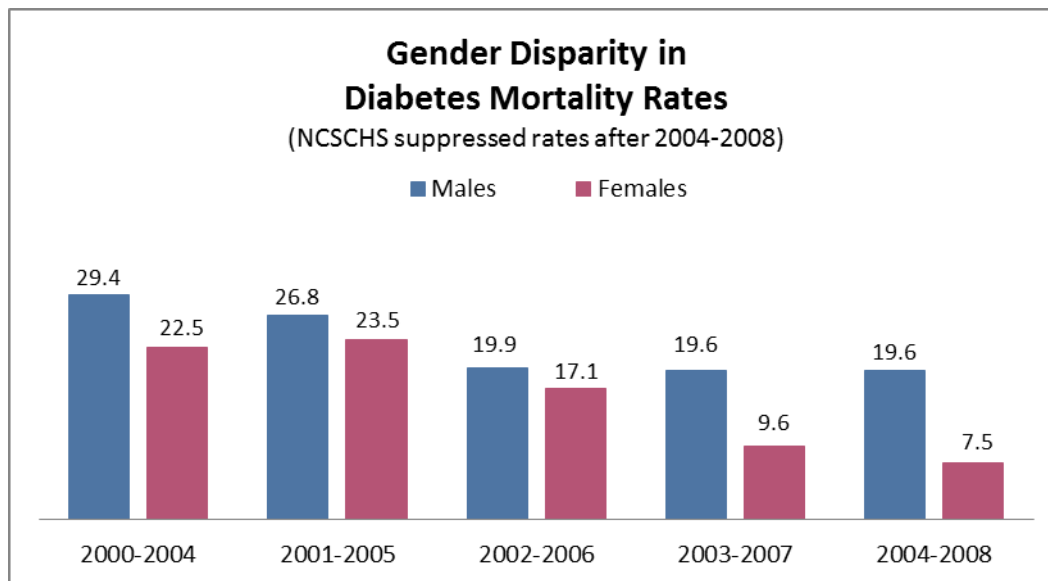
Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Gender Disparities in Diabetes Mellitus Mortality

The figure below plots gender-stratified diabetes mortality rates in Currituck County for the aggregate periods 2000-2004 through 2004-2008. (Rates for subsequent periods were suppressed.)

- The diabetes mortality rate among Currituck County males was higher than the comparable rate among females in every aggregate period shown, and the difference appears to be widening. Note, however, that all the rates plotted are technically unstable.

Figure 58. Sex-Specific Diabetes Mellitus Mortality Rate Trend, Currituck County (Aggregate Periods 2000-2004 through 2004-2008)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2010), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Unintentional Motor Vehicle Injury

As described earlier in this report, the NC State Center for Health Statistics distinguishes unintentional motor vehicle injuries from all other injuries when calculating mortality rates and ranking leading causes of death. (Deaths due to all other unintentional injuries were discussed in detail in a previous section of this report.)

Mortality attributable to unintentional motor vehicle injury was the twelfth leading cause of death in Currituck County in the aggregate period 2010-2014 (cited previously).

Unintentional Motor Vehicle Injury Hospitalizations

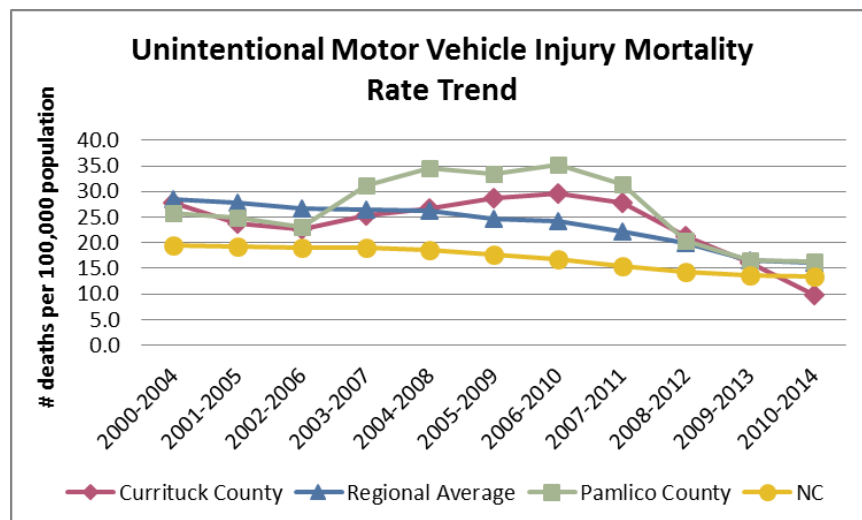
Neither the NC State Center for Health Statistics nor the hospitals participating in this assessment use a *diagnosis* code specific for hospitalizations caused by motor vehicle injury. The hospitals do code *causation* for injury and poisoning, but that data is not included in this report.

Unintentional Motor Vehicle Injury Mortality Rate Trend

The figure below plots the unintentional motor vehicle injury mortality rate trend over time.

- The unintentional motor vehicle injury mortality rate in Currituck County fluctuated throughout the period cited. The state rate was consistently the lowest.
- Although it rose for a span in the middle of the period cited, the unintentional motor vehicle injury mortality rate in Currituck County fell 64% overall between 2000-2004 and 2010-2014, from 27.8 (stable) to 9.9 (unstable).
- At the state level, the unintentional motor vehicle injury mortality rate fell 31% over the period cited.

Figure 59. Unintentional Motor Vehicle Injury Mortality Rate Trend (Aggregate Periods 2000-2004 through 2010-2014)



Source: NC State Center for Health Statistics, Vital Statistics, Volume 2: Leading Causes of Death (2004 through 2014), <http://www.schs.state.nc.us/data/vital.cfm>.

Racial Disparities in Unintentional Motor Vehicle Injury Mortality

The next table presents unintentional motor vehicle injury mortality data for the aggregate period 2010-2014, stratified by race.

- Note that due to below-threshold numbers of unintentional motor vehicle injury deaths among racially stratified populations in Currituck County and elsewhere, mortality rates were suppressed for those groups, leaving no local data to compare.
- Statewide the unintentional motor vehicle injury mortality rate was highest for American Indian non-Hispanics, followed by African American non-Hispanics and white non-Hispanics.

Table 157. Race/Ethnicity-Specific Unintentional Motor Vehicle Injury Mortality (Aggregate Period 2010-2014)

Location	Deaths, Number and Rate (Deaths per 100,000 Population)											
	White, Non-Hispanic		African American, Non-Hispanic		American Indian, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Currituck County	11	n/a	1	n/a	0	n/a	0	n/a	0	n/a	12	9.9
<i>Regional Average</i>	8	n/a	6	n/a	0	n/a	0	n/a	0	n/a	14	16.1
Pamlico County	10	n/a	1	n/a	0	n/a	0	n/a	0	n/a	11	16.3
State of NC	4,513	13.6	1,512	14.2	150	25.8	74	6.0	430	9.9	6,679	13.5

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

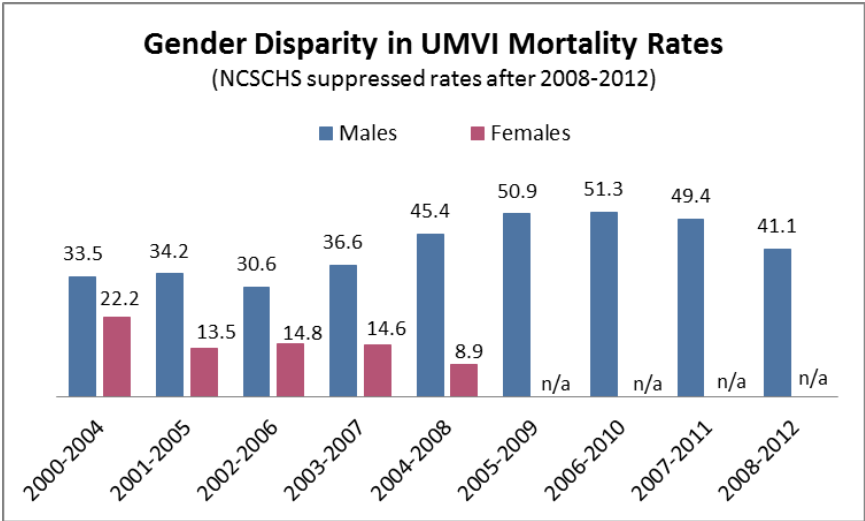
Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Gender Disparities in Unintentional Motor Vehicle Injury Mortality

The figure below plots gender-stratified unintentional motor vehicle injury mortality rates in Currituck County for the aggregate periods 2000-2004 through 2010-2014.

- Rates for both males and females were suppressed after 2008-2012.
- Over the period cited, the unintentional motor vehicle injury mortality rate among males in the county was, on occasion, five times the comparable rate for females. Note, however, that some of the rates for males were unstable all of the rates for females were either unstable or suppressed (as indicated by "n/a"), due to below-threshold numbers of deaths.

Figure 60. Sex-Specific Unintentional Motor Vehicle Injury Mortality Rate Trend, Currituck County (Aggregate Periods 2000-2004 through 2008-2012)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2014), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Age Disparities in Motor Vehicle Injury Mortality

The unintentional motor vehicle injury mortality rate has a strong age component.

The table below presents unintentional motor vehicle injury mortality data, stratified by age group, for the aggregate period 2010-2014. Note that this data is *not* age-adjusted.

- In Currituck County, the 20-39 age group had the highest motor vehicle injury mortality rate (18.9). Note, however, that this rate is based on a small number of events and should be considered unstable.
- Statewide, the 20-39 age group has the highest motor vehicle injury mortality rate (18.1), followed by the 40-64 age group (14.5).

Table 158. Motor Vehicle Injury Mortality, Numbers and Rates, by Age (Aggregate Period 2010-2014)

Location	Number of Deaths and Unadjusted Death Rates per 100,000 Population							
	All Ages		0-19		20-39		40-64	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Currituck County	n/a	n/a	n/a	n/a	5	18.9	4	8.5
<i>Regional Average</i>	17	22.6	2	10.9	6	26.5	4	13.4
Pamlico County	n/a	n/a	n/a	n/a	1	7.8	9	36.9
State of NC	n/a	n/a	794	6.2	2,354	18.1	2,357	14.5

Note: Bold type indicates a likely unstable rate based on a small (fewer than 20) number of cases. Source: NC State Center for Health Statistics, 2016 County Health Databook, Death Counts and Crude Death Rates per 100,000 Population for Leading Causes of Death, by Age Groups, NC 2010-2014; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Alcohol-Related Traffic Crashes

The table below presents several years of data on the proportion of traffic crashes that were alcohol-related.

- The percent of alcohol-related crashes varied over time without a clear pattern in all the jurisdictions.
- In Currituck County the six-year average of alcohol-related traffic crashes was 7.4%. Region-wide the comparable average was 5.8%, in Pamlico County it was 7.8%, and in NC it was 5.2%

Table 159. Alcohol-Related Traffic Crashes Trend (2008-2013)

Location	2008			2009			2010			2011			2012			2013		
	Total Crashes			Total Crashes			Total Crashes			Total Crashes			Total Crashes			Total Crashes		
	# Reportable Crashes	# Alcohol-Related Crashes	% Alcohol-Related Crashes	# Reportable Crashes	# Alcohol-Related Crashes	% Alcohol-Related Crashes	# Reportable Crashes	# Alcohol-Related Crashes	% Alcohol-Related Crashes	# Reportable Crashes	# Alcohol-Related Crashes	% Alcohol-Related Crashes	# Reportable Crashes	# Alcohol-Related Crashes	% Alcohol-Related Crashes	# Reportable Crashes	# Alcohol-Related Crashes	% Alcohol-Related Crashes
Currituck County	337	25	7.4	324	21	6.5	334	23	6.9	339	20	5.9	340	31	9.1	386	34	8.8
<i>Regional Average</i>	345	18	5.3	367	21	6.2	348	20	6.0	347	18	5.0	333	21	6.0	329	19	6.0
Pamlico County	224	18	8.0	200	10	5.0	213	14	6.6	180	15	8.3	169	19	11.2	170	13	7.7
State of NC	214,358	11,982	5.6	209,695	11,384	5.4	213,573	10,696	5.0	208,509	10,708	5.1	213,641	11,274	5.3	220,309	10,802	4.9

Note: statistical information for North Carolina Alcohol Facts was obtained from the NC Administrative Office of the Courts (AOC) and the NC Division of Motor Vehicles (DMV) for the years 2000 through 2013 (single years).

Note: Percentages appearing in **bold** type are based on fewer than 10 alcohol-related crashes per year. Such figures are likely unstable and should be interpreted with caution.

1 - UNC Chapel Hill, Highway Safety Research Center. North Carolina Alcohol Facts (2008-2013); <http://www.hsrrc.unc.edu/ncaf/crashes.cfm>.

2 - Calculated (% alcohol related crashes is calculated by dividing # alcohol-related crashes by # reportable crashes)

The next table presents detail on the outcomes of alcohol-related crashes in 2013.

- In 2013 in Currituck County 8.8% of all crashes, 8.6% of all property damage only crashes, 32.1% of non-fatal crashes, and none of the fatal crashes were alcohol-related.
- Statewide in 2013, 4.9% of all crashes, 3.5% of all property damage only crashes, 7.6% of all non-fatal crashes, and 28.0% of fatal crashes were alcohol-related.

Table 160. Outcomes of Alcohol-Related Traffic Crashes (2013)

Location	Total Crashes			Property Damage Only Crashes			Non-Fatal Crashes			Fatal Crashes		
	# Reportable Crashes	# Alcohol-Related Crashes	% Alcohol-Related Crashes	# Reportable Crashes	# Alcohol-Related Crashes	% Alcohol-Related Crashes	# Reportable Crashes	# Alcohol-Related Crashes	% Alcohol-Related Crashes	# Reportable Crashes	# Alcohol-Related Crashes	% Alcohol-Related Crashes
Currituck County	386	34	8.8	302	26	8.6	81	26	32.1	3	0	0.0
<i>Regional Average</i>	<i>329</i>	<i>19</i>	<i>6.0</i>	<i>236</i>	<i>12</i>	<i>5.0</i>	<i>91</i>	<i>9</i>	<i>11.8</i>	<i>2</i>	<i>0</i>	<i>4.8</i>
Pamlico County	170	13	7.6	120	6	5.0	48	7	14.6	2	0	0.0
State of NC	220,309	10,802	4.9	149,604	5,172	3.5	69,547	5,306	7.6	1,158	324	28.0
Source	1	1	2	1	1	2	1	1	2	1	1	2

Note: statistical information for North Carolina Alcohol Facts was obtained from the NC Administrative Office of the Courts (AOC) and the NC Division of Motor Vehicles (DMV) for the year 2011.

Note: Percentages appearing in bold type are based on fewer than 10 alcohol-related crashes per year. Such figures are likely unstable and should be interpreted with caution.

Note: Regional arithmetic mean percentages appearing in italic type include unstable county percentages. Such mean figures likely are unstable and should be interpreted with caution.

1 - Source: UNC Chapel Hill, Highway Safety Research Center. North Carolina Alcohol Facts, 2013;

<http://www.hsrc.unc.edu/ncafc/crashes.cfm>.

2 - Calculated (% alcohol related crashes is calculated by dividing # alcohol-related crashes by # reportable crashes)

Chronic Liver Disease and Cirrhosis

Chronic liver disease describes an ongoing disturbance of liver function that causes illness. Liver disease, also referred to as hepatic disease, is a broad term that covers all the potential problems that cause the liver to fail to perform its designated functions. Usually, more than 75% or three quarters of liver tissue needs to be affected before decrease in function occurs. Cirrhosis is a term that describes permanent scarring of the liver. In cirrhosis, the normal liver cells are replaced by scar tissue that cannot perform any liver function (67).

Chronic liver disease and cirrhosis was the thirteenth-ranked cause of death in Currituck County in 2010-2014 (cited previously).

Chronic Liver Disease and Cirrhosis Hospitalizations

The table below presents hospital discharge rate trend data for chronic liver disease and cirrhosis. Note that all of the county-level rates were unstable.

Table 161. Chronic Liver Disease and Cirrhosis Hospital Discharge Rate Trend (2005-2014)

Location	Rate (Discharges per 1,000 Population)									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Currituck County	0.2	0.1	0.2	0.2	0.1	0.0	n/a	0.1	n/a	0.2
Regional Average	0.3	0.3	0.2	0.3	0.2	0.1	0.2	0.2	0.2	0.2
Pamlico County	0.7	0.2	0.1	0.5	0.5	0.7	0.6	0.3	0.1	0.4
State of NC	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3

Note: Bold type indicates a likely unstable rate based on a small (fewer than 20) number of cases.

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2016), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence;
<http://www.schs.state.nc.us/SCHS/data/databook/>.

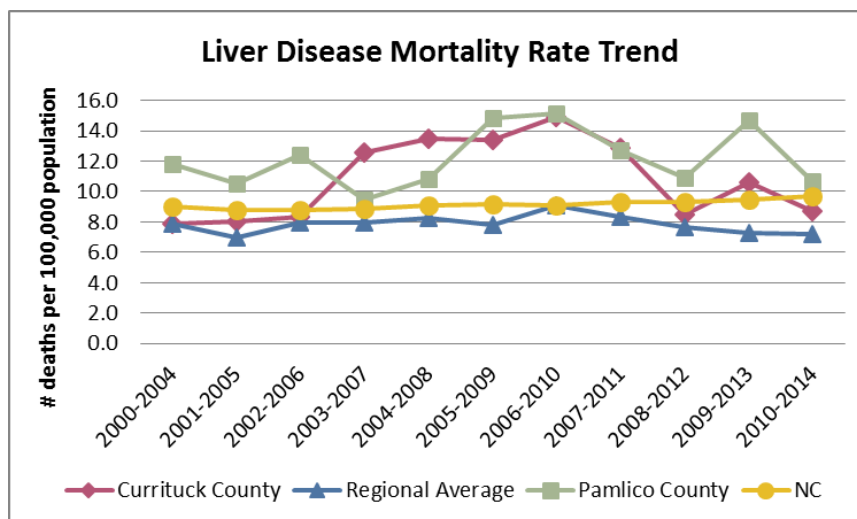
The ICD-9 Code for chronic liver disease and cirrhosis is 571, but there were too few discharges at any of the participating hospitals to merit tabulation for this report.

Chronic Liver Disease and Cirrhosis Mortality Rate Trend

The following figure displays the chronic liver disease and cirrhosis mortality rate trend over time.

- The chronic liver disease and cirrhosis mortality rate for Currituck County fluctuated widely over the period cited, due to small numbers of deaths and unstable rates. The local mortality rate was 7.9 in 2000-2004 and 8.7 in 2010-2014, a 10% increase.
- The chronic liver disease and cirrhosis mortality rate for NC as a whole rose 8% over the period cited, from 9.0 in 2000-2004 to 9.7 in 2010-2014.

Figure 61. Overall Chronic Liver Disease and Cirrhosis Mortality Rate Trend (Aggregate Periods 2000-2004 through 2010-2014)



Source: NC State Center for Health Statistics, Vital Statistics, Volume 2: Leading Causes of Death (2004 through 2014), <http://www.schs.state.nc.us/data/vital.cfm>.

Racial Disparities in Chronic Liver Disease and Cirrhosis Mortality

The table below presents chronic liver disease and cirrhosis mortality data for the aggregate period 2010-2014, stratified by race.

- Note that due to below-threshold numbers of chronic liver disease and cirrhosis deaths among stratified populations in Currituck County and elsewhere, mortality rates were suppressed for those groups.
- Statewide, the chronic liver disease and cirrhosis mortality rate was highest among American Indian non-Hispanics, followed by white non-Hispanics and African American non-Hispanics.

Table 162. Race/Ethnicity-Specific Chronic Liver Disease and Cirrhosis Mortality (Aggregate Period 2010-2014)

Location	Deaths, Number and Rate (Deaths per 100,000 Population)											
	White, Non-Hispanic		African American, Non-Hispanic		American Indian, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Currituck County	13	n/a	0	n/a	0	n/a	0	n/a	0	n/a	13	8.7
Regional Average	8	n/a	2	n/a	0	n/a	0	n/a	0	n/a	11	7
Pamlico County	7	n/a	2	n/a	0	n/a	0	n/a	0	n/a	9	10.7
State of NC	4,404	10.8	798	7.3	65	11.2	28	3.4	83	4.4	5,378	9.7

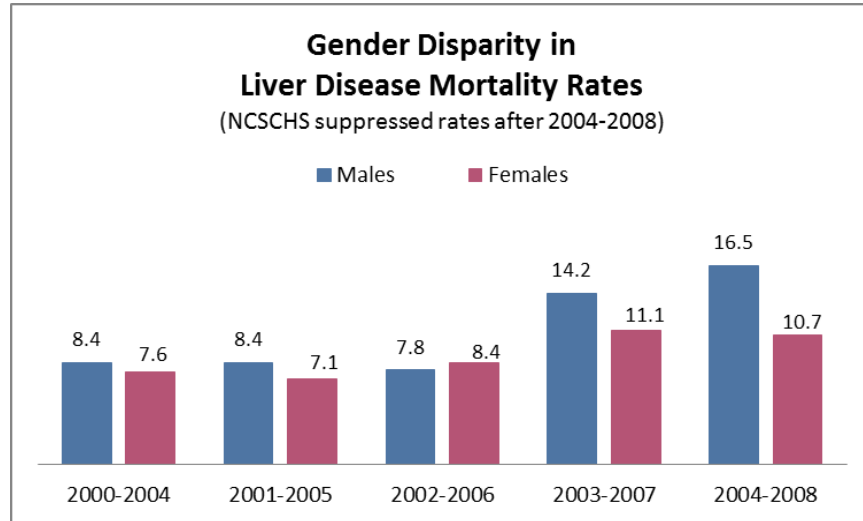
Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
 Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Gender Disparities in Chronic Liver Disease and Cirrhosis Mortality

The following figure plots gender-stratified chronic liver disease and cirrhosis mortality rates in Currituck County for the aggregate periods 2000-2004 through 2004-2008. Note that subsequent rates were suppressed.

- According to the graph, the chronic liver disease and cirrhosis mortality rate among Currituck County males exceeded the comparable rate among Currituck County females in four of the five time periods shown. However, it should be noted that all the gender-stratified mortality rates in the graph were unstable.

Figure 62. Sex-Specific Chronic Liver Disease and Cirrhosis Mortality Rate Trend, Currituck County (Aggregate Periods 2000-2004 through 2004-2008)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2010), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Homicide

Homicide was the fourteenth-ranked cause of death in Currituck County in 2010-2014 (cited previously).

Homicide Hospitalizations

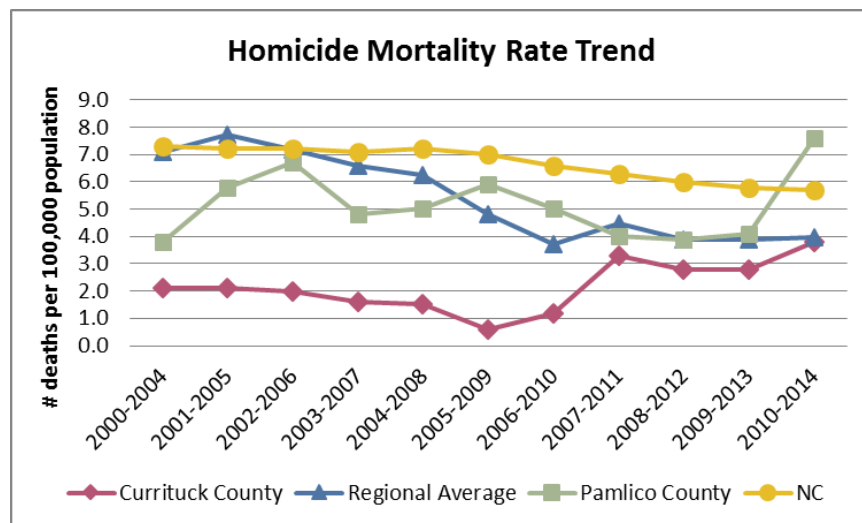
At the present time the NC SCHS does not track hospitalizations related to homicide or attempted homicide. There is an ICD-9 code descriptive of Homicidal Ideation (V62.85), but it has not been pursued for inclusion in this report.

Homicide Mortality Rate Trend

The figure below plots the homicide mortality rate trend over time.

- The homicide mortality rate in Currituck County was the lowest among the comparators in all the periods cited until the last one. The homicide rate in Currituck County has increased recently, and increased by 81% overall over the entire period cited. It should be noted, however, that all the county-level homicide rates were unstable.
- At the state level, the homicide rate decreased 22% over the period cited.

Figure 63. Overall Homicide Mortality Rate Trend (Aggregate Periods 2000-2004 through 2010-2014)



Source: NC State Center for Health Statistics, Vital Statistics, Volume 2: Leading Causes of Death (2009 through 2014), <http://www.schs.state.nc.us/data/vital.cfm>.

Racial Disparities in Homicide Mortality

The next table presents homicide mortality data for the period 2010-2014, stratified by race.

- Note that due to below-threshold numbers of homicide deaths among stratified populations at the county level, all mortality rates were suppressed for those groups.
- Statewide, the homicide mortality rate was highest for American Indian non-Hispanics, followed by African American non-Hispanics and Hispanics.

**Table 163. Race/Ethnicity-Specific Homicide Mortality
(Aggregate Period 2010-2014)**

Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		American Indian, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Overall			
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate		
Currituck County	4	n/a	0	n/a	0	n/a	0	n/a	0	n/a	4	3.8		
Regional Average	2	n/a	2	n/a	0	n/a	0	n/a	0	n/a	4	4.0		
Pamlico County	2	n/a	1	n/a	0	n/a	0	n/a	1	n/a	4	7.6		
State of NC	997	3.1	1,416	13.0	88	15.0	40	3.2	187	4.3	2,728	5.7		

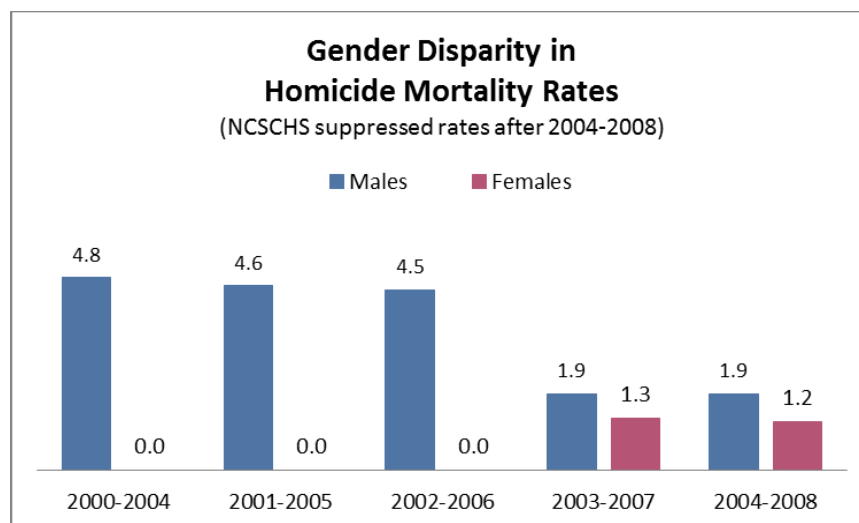
Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Gender Disparities in Homicide Mortality

The figure below plots gender-stratified homicide mortality rates in Currituck County for the aggregate periods 2000-2004 through 2004-2008. Rates for subsequent aggregate periods were suppressed.

- Although all the rates for both sexes were unstable, the disproportional gender-based pattern of homicide mortality depicted in the graph—a mortality rate higher among males—is common throughout NC.

**Figure 64. Sex-Specific Homicide Mortality Rate Trend, Currituck County
(Aggregate Periods 2000-2004 through 2004-2008)**



Source: NC State Center for Health Statistics, County Health Data Books (2006-2010), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Acquired Immune Deficiency Syndrome (AIDS)

The human immune deficiency virus (HIV) is the virus that causes AIDS. HIV attacks the immune system by destroying CD4 positive (CD4+) T cells, a type of white blood cell that is vital to fighting off infection. The destruction of these cells leaves people infected with HIV vulnerable to other infections, diseases and other complications. The acquired immune deficiency syndrome (AIDS) is the final stage of HIV infection. A person infected with HIV is diagnosed with AIDS when he or she has one or more opportunistic infections, such as pneumonia or tuberculosis, and has a dangerously low number of CD4+ T cells (less than 200 cells per cubic millimeter of blood) (68).

AIDS was the fifteenth-ranked cause of death in Currituck County in 2010-2014 (cited previously).

AIDS Hospitalizations

The table below presents hospital discharge rate trend data for AIDS. All the rates for Currituck County and Pamlico County were unstable. Statewide, the AIDS hospital discharge was 0.2 for many years, but in 2011 it decreased to 0.1.

Table 164. AIDS Hospital Discharge Rate Trend (2005-2014)

Location	Rate (Discharges per 1,000 Population)									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Currituck County	0.1	n/a	0.0	0.0	0.2	0.0	n/a	0.0	n/a	n/a
<i>Regional Average</i>	<i>0.4</i>	<i>0.3</i>	<i>0.2</i>	<i>0.2</i>	<i>0.2</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>0.2</i>
Pamlico County	n/a	n/a	0.1	0.1	0.2	0.2	n/a	n/a	n/a	0.1
State of NC	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1

Note: Bold type indicates a likely unstable rate based on a small (fewer than 20) number of cases.

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2016), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; <http://www.schs.state.nc.us/SCHS/data/databook/>.

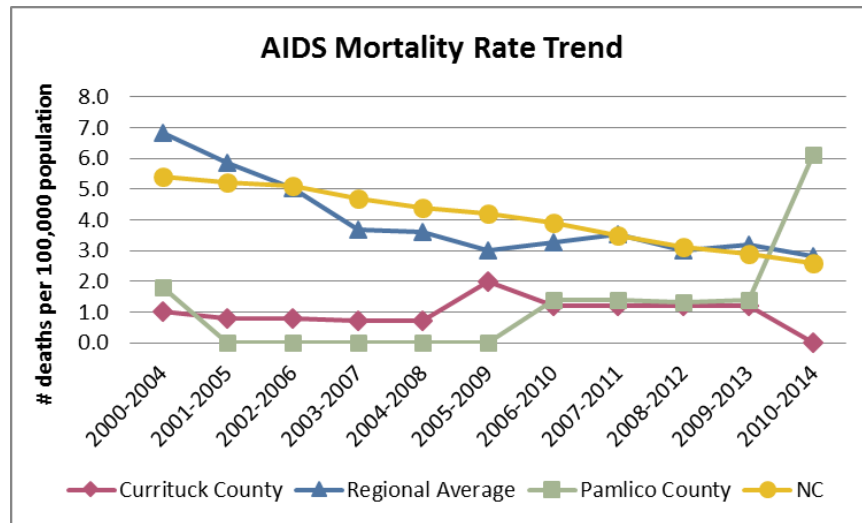
In the ICD-9 coding scheme, AIDS falls in the category Infectious and Parasitic Diseases, with the specific code of 042. There were too few discharges at any of the participating hospitals to warrant tabulation in this report.

AIDS Mortality Rate Trend

The following figure plots the AIDS mortality rate trend over time.

- The county- and regional-level AIDS mortality rates for the entire period cited were unstable. Despite the instability, it appeared that the AIDS mortality rate was decreasing in Currituck County and across the region.
- The AIDS mortality rate for NC as a whole decreased 52% (from 5.4 to 2.6) over the period cited.

**Figure 65. Overall AIDS Mortality Rate Trend
(Aggregate Periods 2000-2004 through 2010-2014)**



Source: NC State Center for Health Statistics, Vital Statistics, Volume 2: Leading Causes of Death (2004 through 2014), <http://www.schs.state.nc.us/data/vital.cfm>.

Racial Disparities in AIDS Mortality

The table below presents AIDS mortality data for the aggregate period 2010-2014, stratified by race.

- Note that due to below-threshold numbers of AIDS deaths among all stratified populations at the county- and regional level, mortality rates were suppressed for those groups.
- Statewide, the AIDS mortality rate was highest among African American non-Hispanics, followed by Hispanics and white non-Hispanics.

**Table 165. Race/Ethnicity-Specific AIDS Mortality
(Aggregate Period 2010-2014)**

Location	Deaths, Number and Rate (Deaths per 100,000 Population)											
	White, Non-Hispanic		African American, Non-Hispanic		American Indian, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Currituck County	0	n/a	0	n/a	0	n/a	0	n/a	0	n/a	0	0.0
Regional Average	0	n/a	2	n/a	0	n/a	0	n/a	0	n/a	3	2.8
Pamlico County	2	n/a	1	n/a	0	n/a	0	n/a	0	n/a	3	6.1
State of NC	306	0.9	973	9.0	9	n/a	4	n/a	39	1.4	1,331	2.6

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

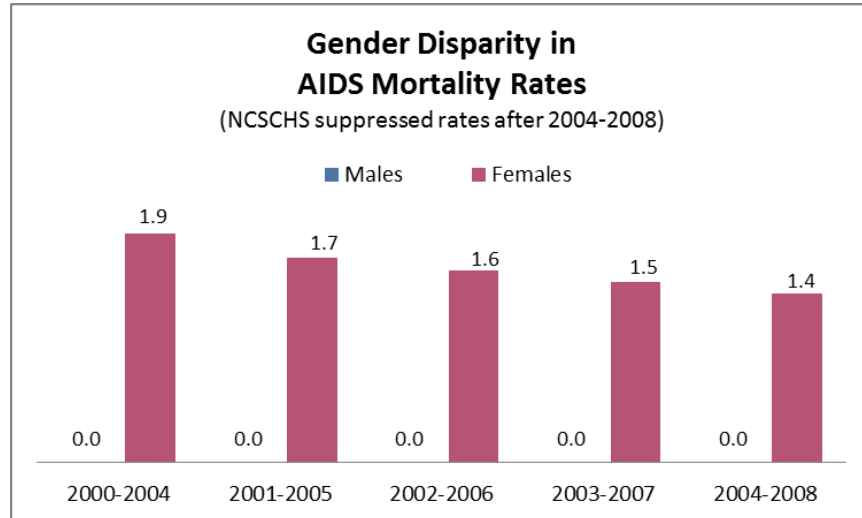
Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Gender Disparities in AIDS Mortality

The following figure plots gender-stratified AIDS mortality rates in Currituck County for the aggregate periods 2000-2004 through 2004-2008. Mortality rates in subsequent aggregate periods were suppressed.

- All the AIDS mortality rates shown in the graph were unstable, but the pattern displayed of higher rates for females than for males is *not* common in NC. Noteworthy, however, is the steady decrease in AIDS mortality among the county's females.

Figure 66. Sex-Specific AIDS Mortality Rate Trend, Currituck County (Aggregate Periods 2000-2004 through 2004-2008)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2010), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

MORBIDITY

Morbidity refers generally to the current presence of injury, sickness or disease (and sometimes the symptoms and/or disability resulting from those conditions) in the living population. In this report, communicable disease (including sexually-transmitted infections), asthma, diabetes, obesity, oral health, and mental health conditions are the topics covered under morbidity.

The parameter most frequently used to describe the current extent of any condition of morbidity in a population is *prevalence*: the number of existing cases of a disease or health condition in a population at a defined point in time or during a period. Prevalence usually is expressed as a proportion, not a rate, and often represents an estimate rather than a direct count.

Communicable Disease

A communicable disease is a disease transmitted through direct contact with an infected individual or indirectly through a vector.

Sexually Transmitted Infections

The topic of communicable diseases includes sexually transmitted infections (STIs). The STIs of greatest regional interest are chlamydia and gonorrhea. HIV/AIDS is sometimes grouped with STIs, since sexual contact is one mode of HIV transmission. While AIDS, as the final stage of HIV infection, was discussed previously among the leading causes of death, HIV is discussed here as a communicable disease.

Chlamydia

Chlamydia is the most frequently reported bacterial STI in the US, with an estimated 2.8 million new cases reported in the US each year. Chlamydia cases frequently go undiagnosed and can cause serious problems in men and women, such as penile discharge and infertility respectively, as well as infections in newborn babies of infected mothers (69).

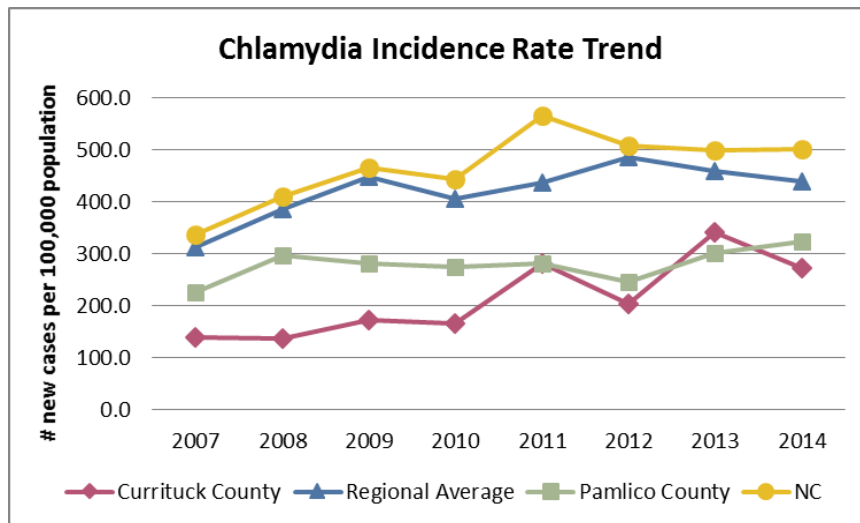
The following figure presents incidence data (i.e., new cases diagnosed) on chlamydia infections.

- There is considerable variability in the annual incidence rates for chlamydia at the county level, which is not uncommon for an infectious disease (see also disclaimer, below).
- The chlamydia incidence rate in Currituck County was well below the comparable NC rate and regional average in every year cited.
- The rates in all jurisdictions appear to be increasing.
- The NC Communicable Disease Branch provides the following disclaimer to this chlamydia incidence data:

Note: chlamydia case reports represent persons who have a laboratory-confirmed Chlamydial infection. It is important to note that Chlamydial infection is often asymptomatic in both males and females and most cases are detected through screening. Changes in the number of reported cases may be due to changes in screening practices. The disease can cause serious complications in females and a

number of screening programs are in place to detect infection in young women. There are no comparable screening programs for young men. For this reason, Chlamydia case reports are always highly biased with respect to gender. The North Carolina STD Surveillance data system has undergone extensive changes since 2008 when North Carolina implemented North Carolina Electronic Disease Surveillance System (NC ESS). During this transition, Chlamydia morbidity counts for some counties may have been affected. Report totals for 2011 should be considered with this in mind. Reports are summarized by the date received in the Communicable Disease Surveillance Unit office rather than by date of diagnosis.

Figure 67. Chlamydia Infection Incidence Trend (2007-2014)



Source: NC DHHS, Division of Public Health, Epidemiology Section, Communicable Disease Branch. Facts and Figures. AIDS/HIV and STDs. Annual Reports. Years as noted. Table 13; <http://epi.publichealth.nc.gov/cd/stds/annualrpts.html>.

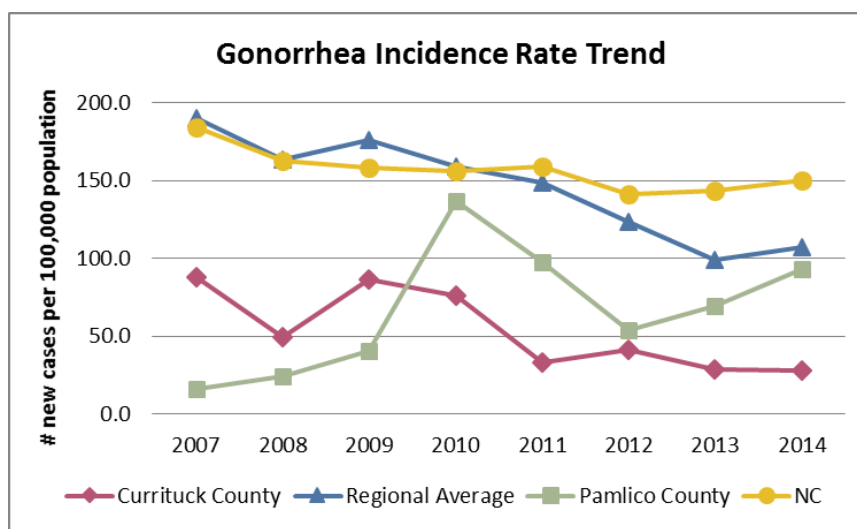
Gonorrhea

Gonorrhea is the second most commonly reported bacterial STI in the US. The highest rates of gonorrhea have been found in African Americans, people 20 to 24 years of age, and women, respectively. In women, gonorrhea can spread into the uterus and fallopian tubes, resulting in pelvic inflammatory disease (PID). PID affects more than one million women in the US every year and can cause tubal pregnancy and infertility in as many as 10 percent of infected women. In addition, some health researchers think gonorrhea adds to the risk of getting HIV infection (70).

The following figure presents incidence data (i.e., new cases diagnosed) for gonorrhea infections.

- The gonorrhea incidence rate in Currituck County was significantly lower than the comparable state and regional average rates in every aggregate period cited.
- The rates in all jurisdictions except Pamlico County appear to be decreasing.

Figure 68. Gonorrhea Infection Incidence Trend (2007-2014)



Source: NC DHHS, Division of Public Health, Epidemiology Section, Communicable Disease Branch. Facts and Figures. AIDS/HIV and STDs. Annual Reports. Years as noted. Table 8; <http://epi.publichealth.nc.gov/cd/stds/annualrpts.html>.

The table below presents the 2006-2010 racially/ethnically-stratified gonorrhea infection rates for the four comparator jurisdictions. Note that this is old data, but no update was available from the source at the time this report was developed.

- In every jurisdiction the highest gonorrhea incidence occurred among the African American non-Hispanic population, in which group the incidence rate was 8 to 10 times the comparable rate among the white non-Hispanic population in all locales cited except Pamlico County, where the difference was less than 3-fold.
- Gonorrhea incidence rates for other stratified groups at the local level were unstable.

Table 166. Gonorrhea Infection Incidence Rate, Stratified by Race/Ethnicity (Aggregate Period 2006-2010)

Location	Incidence, All Ages, Number and Rate (New cases per 100,000 population)									
	Total		White, Non-Hispanic		African American, Non-Hispanic		Other, Non-Hispanic		Hispanic	
	# Cases	Rate	# Cases	Rate	# Cases	Rate	# Cases	Rate	# Cases	Rate
Currituck County	102	85.5	60	56.4	39	449.8	1	75.4	2	71.2
<i>Regional Average</i>	195	179.5	34	51.6	158	430.1	0	39.2	2	178.7
Pamlico County	33	52.5	18	38.2	15	107.0	0	0.0	0	0.0
State Total	77,867	168.9	16,488	52.9	58,041	581.6	1,485	96.7	1,853	54.2

Note: Rates for 5-year aggregates appearing in **bold** type are based on fewer than 20 cases per five year period. Such rates are unstable and should be interpreted with caution.

Note: Regional arithmetic mean rates appearing in *italic* type include more than three unstable county rates. Such mean rates likely are unstable and should be interpreted with caution.

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2012). NC Resident Gonorrhea Cases and Rates per 100,000 Population (years and counties as noted): <http://www.schs.state.nc.us/schs/data/databook/>.

Human Immune Deficiency Virus (HIV)

From the standpoint of traditional incidence rates, the numbers of new HIV cases in smaller counties like Currituck County tend to be low and yield extremely variable or suppressible rates. (For example, there were only two new HIV cases in Currituck County in the five-year period from 2010-2014.) Instead, the following table approximates a *prevalence* estimate for each jurisdiction on the basis of how many persons are living with HIV on a particular date.

- As of December 31, 2014 there were 14 persons with HIV/AIDS living in Currituck County.

**Table 167. HIV Prevalence: HIV and AIDS Cases Living as of December 31, 2014
(By County of Residence)**

Location	Number of Living Cases
Currituck County	14
<i>Regional Average</i>	<i>36</i>
Pamlico County	21
<i>State of NC</i>	<i>28,526</i>

Source: NC DHHS, Division of Public Health, Epidemiology Section, Communicable Disease Branch. Facts and Figures. AIDS/HIV and STDs. Annual Reports. 2014. Table 1. <http://epi.publichealth.nc.gov/cd/stds/figures/std14rpt.pdf>.

Asthma

Asthma, a disease that affects the lungs, is one of the most common long-term diseases of children, but adults also can have asthma. Asthma causes wheezing, breathlessness, chest tightness, and coughing at night, early in the morning, or upon exertion. The symptoms result because the sides of the airways in the lungs swell and the airways shrink. Less air gets in and out of the lungs, and mucous naturally produced by the body further clogs the airways. In most cases, the cause of asthma is unknown (although there likely is a hereditary component), and there is no known cure. Asthma can be hard to diagnose (71).

The table below presents hospital discharge data for asthma, stratified by age, for the period 2011-2014. (At the present time this is the best measure of asthma prevalence available from NC SCHS.)

- Among comparators, the overall asthma hospitalization rate in Currituck County was the lowest, and it appears to be decreasing. In 2014, the overall asthma discharge rate in Currituck County was only about 18% of the state rate.
- County-level discharge rates for youth are all unstable, but at the state level the rates for youth (age 0-14) are half-again higher than the overall rates.

Table 168. NC Hospital Discharges with a Primary Diagnosis of Asthma, Numbers and Rates per 100,000 (2011-2014)

Location	Discharges, Number and Rate (Discharges per 100,000 Population)															
	2011				2012				2013				2014			
	All Ages		Age 0-14		All Ages		Age 0-14		All Ages		Age 0-14		All Ages		Age 0-14	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Currituck County	11	45.9	0	0.0	11	45.7	0	0.0	13	53.3	0	0.0	4	16.0	0	0.0
<i>Regional Average</i>	24	118.1	3	52.7	26	134.6	5	124.6	21	122.1	3	86.3	21	102.7	1	33.5
Pamlico County	8	60.6	0	0.0	11	84.1	2	107.8	3	23.2	0	0.0	14	108.1	5	291.7
State of NC	9,880	102.3	3,004	157.3	9,786	100.3	3,128	163.7	9,021	91.6	2,841	148.9	9,035	90.9	2,754	144.6

Note: Bold type indicates a likely unstable rate based on a small (fewer than 10) number of cases.

Source: NC State Center for Health Statistics, County-level Data, County Health Data Book (Years as noted), Morbidity, Asthma Hospital Discharges (Total and Age 10-14) per 100,000 Population (years and counties as noted);

<http://www.schs.state.nc.us/SCHS/data/databook>.

Diabetes

Diabetes mellitus, or simply, diabetes, is a group of diseases characterized by high blood glucose levels that result from defects in the body's ability to produce and/or use insulin. Diabetes can cause serious health complications including heart disease, blindness, kidney failure, and lower-extremity amputations. There are three major types of diabetes:

Type 1 diabetes results from the body's failure to produce insulin. This form was previously referred to as "insulin-dependent diabetes mellitus" or "juvenile diabetes". *Type 2 diabetes* results from insulin resistance, a condition in which cells fail to use insulin properly, sometimes combined with an absolute insulin deficiency. This form was previously referred to as "non-insulin-dependent diabetes mellitus" or "adult-onset diabetes". The third main form, *gestational diabetes*, occurs when pregnant women without a previous diagnosis of diabetes develop a high blood glucose level. Gestational diabetes is caused by the hormones of pregnancy or a shortage of insulin. Although this form of diabetes usually goes away after the baby is born, a woman who has had it is more likely to develop Type 2 diabetes later in life.

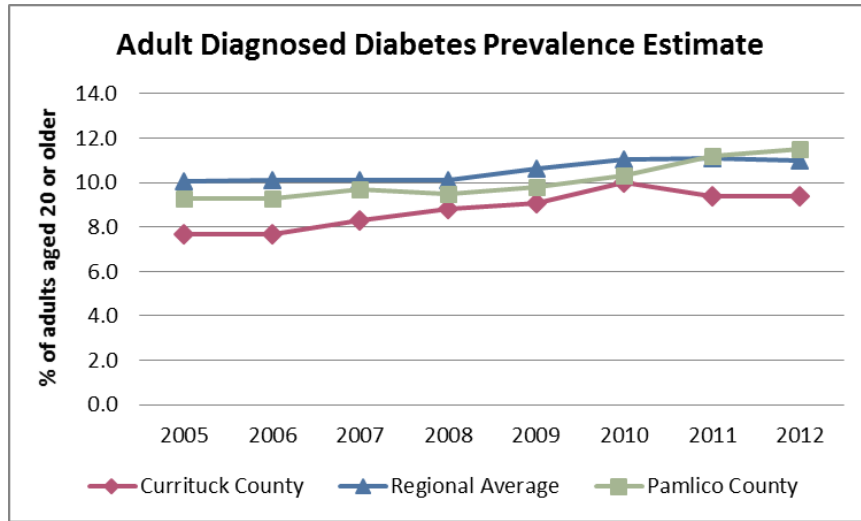
In recent years, medical professionals have begun to diagnose *prediabetes*, a condition in which blood glucose levels are higher than normal but not high enough for a diagnosis of diabetes. People with prediabetes are at increased risk for developing Type 2 diabetes and for heart disease and stroke (72).

As discussed previously in the mortality section of this report, diabetes was the 11th leading cause of death in Currituck County for the 2010-2014 aggregate period, causing 16 deaths. However, diabetes is a chronic condition, and, as noted above can have multiple significant health effects on its sufferers long before it might cause death.

The following figure plots estimates of the prevalence of diagnosed diabetes in adults age 20 and older in Currituck County and its local comparators (state-level data was not available).

- The annual estimated prevalence of diabetes among Currituck County adults was lower than the Region for the entire period shown.
- Over the 8-year period presented, the average annual estimated prevalence of adult diabetes in Currituck County was 8.8%, compared to 10.5% Region-wide.

Figure 69. Adult Diagnosed Diabetes Prevalence Estimate Trend (2005-2012)



Note: The prevalence of diagnosed diabetes and selected risk factors by county was estimated using data from CDC's Behavioral Risk Factor Surveillance System (BRFSS) and data from the U.S. Census Bureau's Population Estimates Program. Three years of data were used to improve the precision of the year-specific county-level estimates of diagnosed diabetes and selected risk factors.

Source: Centers for Disease Control and Prevention, Diabetes. Data and Statistics. County Data: Maps and Data Tables. Indicator: Diagnosed Diabetes, Age Adjusted Percentage. Years as noted; <http://www.cdc.gov/diabetes/atlas/countydata/atlas.html>.

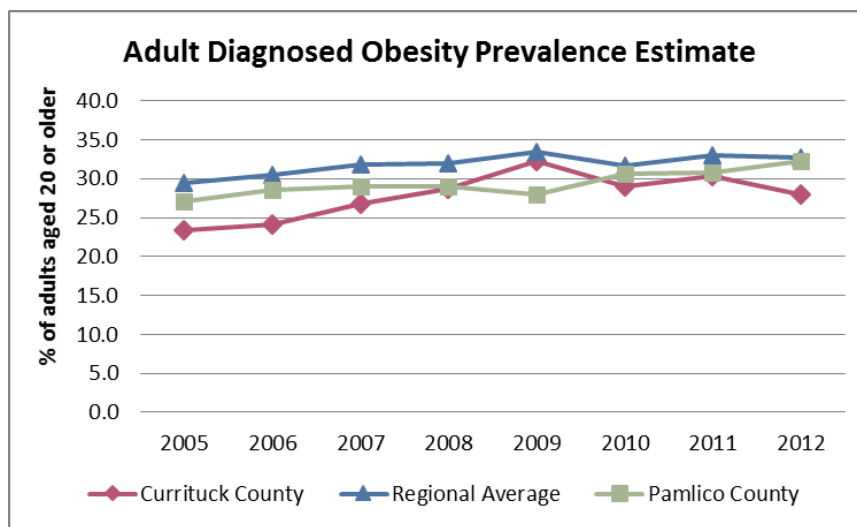
Obesity

Obesity in Adults

The figure below plots recent estimates of the prevalence of diagnosed obesity in adults age 20 and older in the three local jurisdictions being compared in this CHA. Comparable state-level data was not available.

- The annual estimated prevalence of adult obesity in Currituck County was lower than in the Region for the entire period presented and increased slightly overall.
- The average annual estimated prevalence of adult obesity in Currituck County was 27.8% in the period from 2005 through 2012, compared to 31.8% in the Region [State data is not available].

Figure 70. Adult Diagnosed Obesity Prevalence Estimate Trend (2005-2012)



Note: The prevalence of diagnosed diabetes and selected risk factors by county was estimated using data from CDC's Behavioral Risk Factor Surveillance System (BRFSS) and data from the U.S. Census Bureau's Population Estimates Program. Three years of data were used to improve the precision of the year-specific county-level estimates of diagnosed diabetes and selected risk factors.

Source: Centers for Disease Control and Prevention, Diabetes. Data and Statistics. County Data: Maps and Data Tables. Indicator: Diagnosed Diabetes, Age Adjusted Percentage. Years as noted; <http://www.cdc.gov/diabetes/atlas/countydata/atlas.html>

Obesity in Children

There is limited “measured” obesity data for children in Currituck County. One source is the NC *Healthy Weight Initiative*, which via the NC Nutrition and Physical Activity Surveillance System (NC NPASS), collects height and weight measurements from children seen in NC DPH-sponsored WIC and Child Health Clinics, as well as some school-based Health Centers (73). (It is important to note that this data is not necessarily representative of the county-wide population of children.) This data is used to calculate Body Mass Indices (BMIs) in order to gain some insight into the prevalence of childhood obesity. BMI is a calculation relating weight to height by the following formula:

$$\text{BMI} = (\text{weight in kilograms}) / (\text{height in meters})$$

For children, a BMI in the 95th percentile or above is considered “obese” (formerly defined as “overweight”), while BMIs that are between the 85th and 94th percentiles are considered “overweight” (formerly defined as “at risk for overweight”).

The table below presents NC NPASS data for children ages 2-4 for the period 2008-2012. Data for other age groups in Currituck County represented small numbers of children and too many unstable rates for inclusion here. Unfortunately, more recent data was not available from this source at the time this report was developed.

- In Currituck County in 2012, 12.8% of the participating children age 2-4 were “overweight” and 17.5% were “obese” (total = 30.3%)

- In NC in the same period, 14.9% were overweight and 14.5% were obese (total = 29.4%)

Table 169. Prevalence of Obesity and Overweight in Children, Ages 2-4, NC NPASS (2008-2012)

Location	Prevalence of Overweight and Obesity in Children Ages 2-4, by Percent									
	2008		2009		2010		2011		2012	
	Overweight	Obese	Overweight	Obese	Overweight	Obese	Overweight	Obese	Overweight	Obese
Currituck County	15.8	18.6	13.3	10.6	14.5	10.8	19.1	14.0	12.8	17.5
<i>Regional Average</i>	15.5	17.1	14.0	15.1	15.6	16.2	15.2	16.6	13.0	16.9
Pamlico County	18.8	9.8	22.6	18.9	29.4	n/a	16.8	16.8	15.7	12.2
State of NC	16.3	15.4	15.8	15.4	16.1	15.6	16.2	15.7	14.9	14.5

Note: Figures denoted in **bold** type indicate percentages based on fewer than 10 cases.

Note: NC-NPASS data for children ages 2 to 4 are reflective of the population at 185% of the federal poverty level. Approximately 85 to 95% of the children included in the NC-NPASS sample for ages 2 to 4 are WIC participants. Since children are not eligible to participate in WIC once they become 5 years old, the sample size for NC-NPASS data received from the child health clinics was not adequate to calculate county-specific rates for children age 5 and older.

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

Oral Health

Adult Oral Health

Counties are expected to use data from the annual Behavioral Risk Factor Surveillance System (BRFSS) survey to describe dental problems in the community. In NC, the BRFSS survey results are compiled on the county level only for large jurisdictions or metropolitan areas. Currituck County responses are combined among those of 40 other counties in an eastern NC region BRFSS data summary. Consequently, it is necessary to look elsewhere to adequately describe the dental needs of adults in Currituck County.

As noted in the Health Resources section of this report the ratio of dentists-to-population in Currituck County is very low, and there appears to be only one dentist in the county that accepts Medicaid and/or HealthChoice patients. With resources for dental care in such short supply, it might be expected that county residents would have some difficulty accessing needed dental care.

Sometimes an indicator of a dental care access problem is the frequency with which the local emergency department is used as a dental provider. The ICD-9 Codes 520-525, Diseases of Oral Cavity, Salivary Glands, and Jaws, include diagnoses typically associated with dentistry (e.g., dental caries, gingivitis, periodontitis, tooth loss, etc.) and ICD-9 Code 528, Diseases of the Oral Soft Tissue. The table below lists ED visits to the region's three qualifying hospitals in 2013-2014 by Currituck County residents for conditions associated with these code categories.

- For the period 2013-2014, Currituck County residents made a total of 247 visits (an annual average of 124 visits) to local EDs for attention to dental problems.

Table 170. Emergency Department Admissions of Currituck County Residents for Dental Conditions (2013-2014)

ICD-9 Code	Diagnosis	Number of ED Discharges		
		2013	2014	Total
520-525xx	Diseases of the oral cavity	123	111	234
528xx	Diseases of the oral soft tissue	8	5	13
Total		131	116	247

Source: Vidant Chowan Hospital, The Outer Banks Hospital, and Sentara Albemarle Medical Center.

Since cost of dental care can be daunting but is covered for Medicaid-eligible patients, it is interesting to examine the proportion of Medicaid clients who actually receive dental services. The following table presents dental service utilization figures for Medicaid clients for SFY2010. This data is very old, but the source has not added data any more recent.

- From this data it appears that Medicaid-eligible persons under the age of 21 in Currituck County receive dental services in a 52% higher proportion than Medicaid-eligible persons age 21 and older. The direction, if not the proportion, of difference is the same in the other three jurisdictions.

Table 171. Dental Service Utilization by Medicaid Recipients, by Age Group (SFY2010)

Location	SFY2010					
	<21 Years Old			21+ Years Old		
	# Eligible for Services	# Receiving Services	% Eligibles Receiving Services	# Eligible for Services	# Receiving Services	% Eligibles Receiving Services
Currituck County	1,968	708	36.0	1,232	292	23.7
<i>Regional Average</i>	<i>2,256</i>	<i>773</i>	<i>34.6</i>	<i>1,716</i>	<i>464</i>	<i>26.5</i>
Pamlico County	1,480	812	54.9	1,131	369	32.6
<i>State Total</i>	<i>1,113,692</i>	<i>541,210</i>	<i>48.6</i>	<i>679,139</i>	<i>214,786</i>	<i>31.6</i>

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

Child Oral Health

Each year about 200,000 NC elementary school children participate in dental screenings, also called assessments. Public health dental hygienists screen for tooth decay and other disease conditions in individuals. The hygienists refer children who have dental problems and need dental care to public or private practice dental care professionals (74).

The table below presents partial summaries of the screenings conducted in SY2009-2010 and SY2012-2013. Note that no Currituck County data for SY2012-2013 was available at the source.

- Region-wide, the percentage of children at both grade levels with untreated decay decreased between SY2009-2010 and SY2012-2013. Even after the decrease,

however, the percentage of kindergarteners with untreated decay was almost 50% higher in the region than in the state.

**Table 172. Child Dental Screening Summary
(SY2009-2010 and SY2012-2013)**

Location	School Dental Screening Results							
	2009-2010				2012-2013			
	Kindergarten		5th Grade		Kindergarten		5th Grade	
	% Screened	% Untreated Decay	% Screened	% Untreated Decay	% Screened	% Untreated Decay	% Screened	% Untreated Decay
Currituck County	95	19	96	3	n/a	n/a	n/a	n/a
<i>Regional Average</i>	95	23	95	5	93	19	94	3
Pamlico County	87	18	96	4	88	7	90	3
<i>State of NC</i>	74	15	69	3	58	13	51	2

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

Mental Health

With the mental health system in the state—and Currituck County—still coping with system reform growing pains, mental health merits a closer look.

As previously noted in the Mental Health Services and Facilities section of this report, the unit of NC government responsible for overseeing mental health services is the Division of Mental Health, Developmental Disabilities and Substance Abuse Services (DMH/DD/SAS).

In 2001, the NC General Assembly passed the Mental Health System Reform Act, which ended the previous system by which quasi-independent local entities such as counties and regional agencies delivered mental health services by directly employing the care providers. The new law essentially privatized mental health services by requiring the governmental local management entities (LMEs) to contract with other public or private providers or provider groups to serve area residents in need of mental health services. The local counties and regions no longer directly controlled the provision of services, but instead were responsible for managing provider contracts (75).

The status quo of the mental health system in NC did not remain static for long, since state government recognized that even with reorganization of the service system the budget for Medicaid-funded mental health services was not adequately managed and was growing at a high rate each year. In 2004 the state Division of Medical Assistance chose to implement the 1915(b)(c) Medicaid Waiver Program as a means to control and budget the costs of Medicaid-funded services. This program budgets and manages expenditures on the basis of a capitation formula and other fiscal adjustments that take into account the historical service costs associated with different Medicaid-eligible groups. Starting in 2005 the state established one LME (Piedmont Behavioral Health) as a pilot Medicaid managed care vendor via the waiver program. Expansions of the pilot program were undertaken in 2008 and 2010, and in 2011 NCDHHS was instructed to implement the 1915(b)(c) Waiver Program statewide by July 1, 2013 (76).

The state established a series of minimum requirements for LMEs to participate in the Waiver Program, and if an LME could not meet the minimum standards it was required to merge with another LME. As a result of standards enforcement, the state’s original 23 LMEs had shrunk to 10 by December, 2013, at which time NCDHHS proposed to consolidate the remaining 10 into four agencies (77). The LME/MCO serving Currituck County is Trillium Health Resources.

One goal of mental health reform in NC was to refocus mental health, developmental disabilities and substance abuse care in the community instead of in state mental health facilities. The data below clearly illustrates how utilization of some state-level services has diminished.

Mental Health Service Utilization

The following table presents an annual summary of the number of persons in each jurisdiction served by LMEs/Area Programs from 2005 through 2014.

- The number of Currituck County residents served by the Area Mental Health Program has decreased overall, from 572 in 2005 to 482 in 2014.

Table 173. Persons Served by Mental Health Area Programs/Local Management Entities (2005-2014)

Location	Number of Persons Served									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Currituck County	572	580	607	609	543	554	656	417	611	482
<i>Regional Average</i>	<i>758</i>	<i>724</i>	<i>730</i>	<i>730</i>	<i>733</i>	<i>706</i>	<i>765</i>	<i>382</i>	<i>611</i>	<i>511</i>
Pamlico County	341	312	324	427	515	454	497	438	276	457
State of NC	337,676	322,397	315,338	306,907	309,155	332,796	360,180	315,284	306,080	316,863

Note: The figures in the table represent all clients of a community-based Area Program for mental health, developmental disabilities, and drug and alcohol abuse active at the beginning of the state fiscal year plus all admissions during the year. Also included are persons served in three regional mental health facilities. Multiple admissions of the same client are counted multiple times. County of residence is reported at the time of admission. State figures include clients reported to reside out-of-state and sometimes contains individuals of Unknown County of residence.

Source: Log Into North Carolina (LINC) Database, Topic Group Vital Statistics and Health (Data Item 519); http://data.osbm.state.nc/pls/linc/dyn_linc_main.show.

Since mental health reform in NC, only the most seriously ill mental health patients qualify for treatment at state psychiatric hospitals. The individual must be assessed as meeting the diagnostic criteria for (1) acute schizophrenia and/or other psychotic disorders, (2) acute mood disorders or (3) the combination of both, with or without medical and/or physical complications that are within the parameters of what the state hospital can manage (78).

At the present time, there are three state-operated psychiatric hospitals in NC: Broughton Hospital (Morganton), Central Regional Hospital (Butner), and Cherry Hospital (Goldsboro).

The table below presents a summary of the number of persons in each comparator jurisdiction served in NC State Psychiatric Hospitals for the period from 2005 through 2014.

- Over the 10-year period cited the number of Currituck County residents served by State Psychiatric Hospitals *decreased* by 95%. In 2014, 2 persons were served.

**Table 174. Persons Served in NC State Psychiatric Hospitals
(2005-2014)**

Location	Number of Persons Served									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Currituck County	44	34	24	11	18	10	5	3	5	2
<i>Regional Average</i>	41	39	33	18	13	9	8	5	4	4
Pamlico County	31	18	19	5	4	2	0	4	4	1
State of NC	18,435	18,292	18,498	14,643	9,643	7,188	5,754	4,572	3,964	3,529

Note: Sometimes referred to as "episodes of care", these counts reflect the total number of persons who were active (or the resident population) at the start of the state fiscal year plus the total of first admissions, readmissions, and transfers-in which occurred during the fiscal year at the three state alcohol and drug treatment centers. Excluded are visiting patients and outpatients. Multiple admissions of the same client are counted multiple times. County of residence is reported at the time of admission. North Carolina data include clients reported to reside out-of-state.

Source: Log Into North Carolina (LINC) Database, Topic Group Vital Statistics and Health (Data Item 519);

http://data.osbm.state.nc/pls/linc/dyn_linc_main.show.

Developmental Disabilities Service Utilization

According to NC MH/DD/SAS, *developmental disability* means a severe, chronic disability of a person which:

- a. is attributable to a mental or physical impairment or combination of mental and physical impairments;
- b. is manifested before the person attains age 22, unless the disability is caused by a traumatic head injury and is manifested after age 22;
- c. is likely to continue indefinitely;
- d. results in substantial functional limitations in three or more of the following areas of major life activity: self-care, receptive and expressive language, capacity for independent living, learning, mobility, self-direction and economic self-sufficiency; and
- e. reflects the person's need for a combination and sequence of special interdisciplinary, or generic care, treatment, or other services which are of a lifelong or extended duration and are individually planned and coordinated; or
- f. when applied to children from birth through four years of age, may be evidenced as a developmental delay (79).

Although community care is preferred where available, the state currently operates three facilities serving the developmentally disabled: Caswell Developmental Center (Kinston), Murdoch Developmental Center (Butner), and J. Iverson Riddle Developmental Center (Morganton).

The next table presents a summary of the persons in each jurisdiction served in NC State Developmental Centers for the period from 2005 through 2014.

- The numbers of persons in the three local jurisdictions served in state developmental centers were small and variable, and demonstrated no definitive pattern.
- At the state level, the number of persons served decreased by 41% between 2005 and 2014.

**Table 175. Persons Served in NC State Developmental Centers
(2005-2014)**

Location	Number of Persons Served									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Currituck County	2	2	0	1	3	3	3	0	4	4
<i>Regional Average</i>	6	6	1	1	6	6	5	0	5	5
Pamlico County	6	6	0	0	6	6	5	0	4	4
State of NC	2,172	1,690	1,713	1,409	1,404	1,375	1,355	1,340	1,331	1,282

Source: Log Into North Carolina (LINC) Database, Topic Group Vital Statistics and Health (Data Item 517); http://data.osbm.state.nc/pls/linc/dyn_linc_main.show.

Substance Abuse Service Utilization

Alcohol and Drugs

There are three state-operated residential alcohol and drug abuse treatment centers (ADATC): the Julian F. Keith ADATC (Black Mountain), the R.J. Blackley ADATC (Butner), and the Walter B. Jones ADATC (Greenville).

The following table presents a summary of the persons in each jurisdiction served in NC State ADATC for the period from 2005 through 2014.

- During the 10-year period from 2005 through 2014, a total of 188 Currituck County residents were served by NC State Alcohol and Drug Abuse Treatment Centers (ADATCs), with the number varying from year to year. A high of 35 were served in 2009; 12 were served in 2014.

**Table 176. Persons Served in NC Alcohol and Drug Abuse Treatment Centers
(2005-2014)**

Location	Number of Persons Served									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Currituck County	13	19	16	33	35	16	17	13	14	12
<i>Regional Average</i>	11	14	9	19	21	13	11	8	11	8
Pamlico County	12	16	10	8	11	13	9	13	3	9
State of NC	3,732	4,003	3,733	4,284	4,812	4,483	4,590	4,265	4,343	4,049

Sometimes referred to as "episodes of care", these counts reflect the total number of persons who were active (or the resident population) at the start of the state fiscal year plus the total of first admissions, readmissions, and transfers-in which occurred during the fiscal year at the three state alcohol and drug treatment centers. Excluded are visiting patients and outpatients. Multiple admissions of the same client are counted multiple times. County of residence is reported at the time of admission. North Carolina data include clients reported to reside out-of-state.

Source: Log Into North Carolina (LINC) Database, Topic Group Vital Statistics and Health (Data Item 518); http://data.osbm.state.nc/pls/linc/dyn_linc_main.show.

Utilization of the Hospital for Mental Health Services

It is unclear whether local mental health resources are actually meeting the need in Currituck County, because the hospitals, especially the emergency departments in the region, are seeing many mental health patients.

The table below presents 2013-2014 data on ED and IP discharges of Currituck County residents with diagnoses associated with mental health issues, or primary diagnosis of ICD-9 Codes 290-319xx. The data are from the ARHS Region hospitals seeing more than 20 Currituck County patients in the two years cited. The ED data is from Vidant Chowan Hospital,

The Outer Banks Hospital, and Sentara Albemarle Medical Center. The IP data is from Vidant Roanoke-Chowan Hospital, The Outer Banks Hospital, and Sentara Albemarle Medical Center. Note that IP discharges for mental health diagnoses may be “skewed” because Vidant Roanoke-Chowan Hospital has a specialized inpatient mental health unit.

- Over the two-year period cited, ED discharges related to all Mental, Behavioral and Neurological Disorder diagnoses composed an average of 3.8% of all ED discharges, and IP discharges for mental health diagnoses composed an average of 4.0% of all IP discharges.
- Note that these diagnoses (ICD-9 290-319xx) include psychotic and non-psychotic disorders, and conditions associated with alcohol and drug abuse.

Table 177. ED and IP Discharges of Currituck County Residents with Mental Health Diagnoses

Year	No. Emergency Department Discharges	No. In-Patient Hospitalization Discharges
2013	213 (4.1% of all ED discharges)	26 (3.8% of all IP discharges)
2014	177 (3.5%)	32 (4.1%)

The following table provides more detailed 2013-2014 hospital data for Currituck County residents from the ARHS region hospitals that saw more than 20 Currituck County patients over the period cited. The diagnoses covered in this case include codes in the ICD-9 code category 290-319xx, Mental, Behavioral and Neurodevelopmental Disorders specific to drug- and alcohol-related conditions.

- In the period cited there was a total of 390 ED discharges of Currituck County residents diagnosed with mental or behavioral disorders.
- The most commonly-diagnosed drug- or alcohol-related mental health problem among this patient group was non-dependent use of drugs. There was a total of 85 discharges under this code, or 22% of all mental, behavioral and neurodevelopmental disorder discharges.

Table 178. Detailed ED Discharges of Currituck County Residents with Mental Health Diagnoses (2013-2014)

ICD-9 Code	Diagnosis	Number of ED Discharges		
		2013	2014	Total
290-319xx	Mental, Behavioral and Neurodevelopmental Disorders	213	177	390
290-299.9	Psychosis	66	56	122
291	<i>Alcohol-induced mental disorders</i>	7	2	9
292	<i>Drug-induced mental disorders</i>	10	10	20
300	Neurotic, Personality Disorders, etc. (non-psychotic)	147	121	268
300.9	<i>Suicidal risk and tendencies</i>	1	1	2
303	<i>Alcohol dependence syndrome</i>	11	11	22
304	<i>Drug dependence</i>	6	4	10
305-305.99	<i>Non-dependent use of drugs (excluding 305.1)</i>	45	40	85
305.1	<i>Tobacco use disorder</i>	2	1	3

Source: Vidant Chowan Hospital, The Outer Banks Hospital, and Sentara Albemarle Medical Center.

CHAPTER FIVE: ENVIRONMENTAL DATA

AIR QUALITY

Air Quality Index

Nationally, outdoor air quality monitoring is the responsibility of the Environmental Protection Agency (EPA). In NC, the agency responsible for monitoring air quality is the Division of Air Quality (DAQ) in the NC Department of Environment and Natural Resources (NC DENR).

The impact of air pollutants in the environment is described on the basis of emissions, exposure, and health risks. A useful measure that combines these three parameters is the EPA's Air Quality Index (AQI). The EPA monitors and catalogues AQI measurements at the county level, but not in all counties. There is no AQI monitoring station in or near Currituck County.

Toxic Releases

Over 4 billion pounds of toxic chemicals are released into the nation's environment each year. The US Toxic Releases Inventory (TRI) program, created in 1986 as part of the Emergency Planning and Community Right to Know Act, is the tool the EPA uses to track these releases. Approximately 20,000 industrial facilities are required to report estimates of their environmental releases and waste generation annually to the TRI program office. These reports do not cover all toxic chemicals, and they omit pollution from motor vehicles and small businesses (80).

The table below lists the TRI chemicals released in Currituck County in 2014 and the facilities responsible for releasing them.

- No releases were listed for Currituck County in 2014.

Table 179. Facilities Releasing TRI Chemicals, Currituck County (2014)

Location	Total On- and Off-Site Disposal or Other Releases, In Pounds	County Rank (of 86 reporting) for Total Releases	Compounds Released in Greatest Quantity	Quantity Released, In Pounds	Releasing Facility	Facility Location
Currituck County	<i>No data for TRI on-site and off-site reported disposed of or Otherwise Released for all industries, for all chemicals</i>					
<i>Regional Total</i>	2,746,802					
NC Total	61,903,968					
NC County Average	619,040					

Source: *TRI Release Reports: Chemical Reports, 2014*. US EPA TRI Explorer, Release Reports, Chemical Reports website: http://iaspub.epa.gov/triexplorer/tri_release.chemical.

WATER QUALITY

Drinking Water Systems

The EPA is responsible for monitoring the safety of drinking water and water system violations of the federal Safe Drinking Water Act (SDWA). The EPA's Safe Drinking Water Information System (SDWIS) contains information about public water systems and their violations of EPA's drinking water regulations, as reported to EPA by the states. These regulations establish maximum contaminant levels, treatment techniques, and monitoring and reporting requirements to ensure that water systems provide safe water to their customers (81).

As of February 14, 2016, SDWIS listed six active community water systems in Currituck County, serving an estimated total of 23,725 persons. A community water system is one that serves at least 15 service connections used by year-round residents or regularly serves 25 year-round residents. This category includes municipalities, subdivisions and mobile home parks.

SDWIS also listed one non-transient, non-community water system in Currituck County that served a total of approximately 125 people. These are water systems that serve the same people, but not year-round (e.g. schools that have their own water system). The non-transient, non-community water system is located at Knott's Island Elementary School.

Finally, SDWIS listed 16 transient non-community water systems in the county serving an estimated 1,608 persons. These are water systems that provide water in places where people do not remain for long periods of time, such as gas stations, restaurants, churches or campgrounds.

The EPA records in SDWIS violations of drinking water standards reported to it by states. It records violations as either *health-based* (contaminants exceeding safety standards or water not properly treated) or *monitoring- or reporting-based* (system failed to complete all samples or sample in a timely manner, or had another non-health related violation). The table below lists the active water systems in Currituck County as of October 28, 2015. The table also includes any *health-based* violations for the period from 2005 through 2015.

- All the water systems rely on groundwater sources.
- The recorded health violations mostly were for exceedances for coliforms; some of the violations occurred as recently as 2013 and 2015.
- One recorded violation (in 2008) was for an exceedance of trihalomethanes, Trihalomethanes (THM) are a group of four chemicals that are formed along with other disinfection by products when chlorine or other disinfectants used to control microbial contaminants in drinking water react with naturally occurring organic and inorganic matter in water. Trihalomethanes are Cancer Group B carcinogens, which means they have been shown to cause cancer in laboratory animals (82).

**Table 180. Active Water Systems in Currituck County
(2015)**

Type of Water System	Total Population Served	Primary Water Source Type	Health Violations 2005-2015
Community Water Systems			
Carolina Village Mobile Home Park	427	Groundwater	None
Currituck County Water System	12,500	Groundwater	MCL average for trihalomethanes (2008)
Ocean Sands Development	2,449	Purchased groundwater	None
Ponderosa Mobile Home Park	300	Groundwater	None
Sandy Point Resort and Campground	559	Groundwater	None
Southern Outer Banks Water System	7,490	Groundwater	None
Total	23,725		
Non-Transient, Non-Community Water Systems			
Knott's Island Elementary School	125	Groundwater	None
Total	125		
Transient, Non-Community Water Systems			
Barnyard Foods	38	Groundwater	None
Bay Villa Restaurant	30	Groundwater	MCL monthly TCR for Coliforms (2011)
Bell's Island Campground	160	Groundwater	None
Carova Park	250	Groundwater	None
Currituck County Rural Center	25	Groundwater	MCL monthly TCR for Coliforms (2013)
Dawn's Kitchen Gourmet to Go	25	Groundwater	None
Duck Thru No. 25	250	Groundwater	MCL monthly TCR for Coliforms (2013)
Hollyridge Golf	100	Groundwater	None
Knotts Island Senior Center	25	Groundwater	None
Knotts Island United Methodist Church	36	Groundwater	MCL monthly TCR for Coliforms (2015)
Knott's Island Baptist Church	124	Groundwater	None
Knott's Island Ferry Operations	50	Groundwater	None
Knott's Island Market	200	Groundwater	MCL monthly TCR for Coliforms (2010)
Pointe Golf Course	75	Groundwater	None
Powell's Point Christian Church	150	Groundwater	None
Wiseguys Pies	70	Groundwater	None
Total	1,570		

Source: *Safe Drinking Water Search for the State of North Carolina*. US EPA Envirofacts Safe Drinking Water Information System (SDWIS) website: <http://www3.epa.gov/enviro/facts/sdwis/search.html>.

Municipal Drinking Water Systems

Currituck County Water Department

The Currituck County Water Department services over 4,800 active accounts, and by EPA estimates serves 12,500 people. The county water system is self-supporting and uses no tax dollars in its operating funds.

The Currituck County Water System produces and delivers potable water for County residents; installs new water services and meters for individual property owners; maintains and repairs County-owned water mains, service lines, and metering equipment; reads meters for billing; calculates, produces, mails, and collects bills for water and sewer services; tests private well water; and locates water lines for customers who are digging. The department does *not* install supply lines from meters to dwellings or buildings, diagnose or repair customer plumbing problems, or advise customers on well or septic tank/field placement (83).

The following specifics on particular municipal systems is from the website cited above.

Mainland Water Department. The Mainland Water Department serves properties on the Currituck County mainland only. Consideration of a countywide water system for the residents of Currituck County began in the early 1970's. Feasibility studies were submitted in 1973 and again in 1982.

Construction began in 1988. Water distribution line construction was scheduled in several phases. Phase I, serving residents from Moyock south to Grandy and west to Shawboro and Gregory, was completed in September 1989. Consumers were able to tap into the system and begin using water in November 1989.

Phase II of the water system expansion began in 1999 and was completed in 2001, providing service to residents along US Highway 158 from Grandy to Point Harbor. At this time, only those properties bordering US Highway 158 are eligible for water service in Phase II.

As of July 2013, the mainland water system services 5,300 active accounts. The water plant treatment capacity is 2.9 million gallons per day, with a storage capacity of 1.9 million gallons. There are five elevated storage tanks: Moyock (100,000 gallons), High Cotton (500,000), Currituck (300,000 gallons), Grandy (100,000 gallons), and Currituck Industrial Park (300,000).

Southern Outer Banks Water System. The Southern Outer Banks Water System (SOBWS) serves the potable water needs of several communities on the Currituck Outer Banks. These communities include:

- The Villages at Ocean Hill
- Ocean Hill Section 1
- Corolla Village area
- Whalehead Beach
- Ocean Sands Water/Sewer District (OSWSD)
- Ocean Sands Sections A, B and C
- Spindrift
- Corolla Light
- Currituck Club
- Monterey Shores
- Pine Island

Ocean Sands Water and Sewer District (OSWSD). Ocean Sands properties are currently served by the Ocean Sands Water/Sewer District. This system will become part of the Southern Outer Banks Water System, but currently retains a separate rate and fee schedule.

The Currituck County Water Department administrative office provides billing and administrative services for the Ocean Sands Water/Sewer District.

Wastewater Systems

Although there is no large municipal wastewater facility in Currituck County there are several smaller wastewater entities that serve regions or residential developments within the county (84).

Municipal Wastewater Systems

Moyock Commons Sewer District

The Moyock Commons Sewer District was created to provide wastewater service to the following commercial areas:

- Moyock Commons Subdivision
- Currituck Commercial Center Subdivision
- Romm Business Center

The Moyock Commons wastewater facility is operated by Currituck County. The Currituck County Water Department administrative office provides billing and administrative services for the District.

Newtown Road Wastewater Treatment District

The Newtown Community Wastewater Collection and Treatment District (Water and Sewer District) was created by a resolution adopted by the Currituck County Board of Commissioners on February 3, 1992 in order to alleviate the public health nuisance created by the failure of individual septic systems and the resulting drainage of that overflow into open ditches within the district.

In general, properties on Newtown Road and Richard Shaw Road may be serviced by the District.

System operations, maintenance, billing and administrative services are provided by the Currituck County Water Department.

Ocean Sands Water/Sewer District

The Currituck County Water Department administrative office provides billing and administrative services for the Ocean Sands Water/Sewer District. Areas served include:

- Ocean Sands subdivision, in the following sections: D, E, F, H, I, J, K, L, M, N, O, P, Q
- Crown Point

Walnut Island Sewer District

On November 1, 2011, the County of Currituck acquired ownership of the Walnut Island Sanitary District.

NPDES Permits

Water pollution degrades surface waters making them unsafe for drinking, fishing, swimming, and other activities. As authorized by the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into US waters. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters.

The following table lists the NPDES-permitted dischargers in Currituck County and the destinations and permitted volumes of their discharges. Both of the permitted dischargers are water treatment plants operated by the county government.

Table 181. National Pollutant Discharge Elimination System (NPDES) Permitted Dischargers, Currituck County (September, 2015)

Owner	Facility	Type	Discharge Destination	Permitted Flow (Gal/Day)
Currituck County	Mainland WTP	Water Treatment Plant	North River	1,670,000
Currituck County	Southern Outer Banks Water System WTP	Water Treatment Plant	Atlantic Ocean	not limited

Source: NC Department of Environment and Natural Resources, Division of Water Quality, Surface Water. NPDES Wastewater Permitting and Compliance Program. Permit Info, List of Active Individual Permits as of 9/4/15; <http://portal.ncdenr.org/web/wq/swp/ps/npdes/>.

SOLID WASTE

Solid Waste Disposal

The next table presents figures summarizing tonnage of solid waste disposed for the period FY2009-10 through FY2013-14.

- In FY2013-14, Currituck County managed 24,017 tons of municipal solid waste (MSW) for a rate of 0.98 tons per capita. This tonnage represented a decrease of 2% from the per capita rate for FY1991-92 (the period customarily used for the base rate).
- As a regional average, the per capita rate of waste disposed in FY2013-14 fell by 1% from the rate for the base year.
- During the same FY2013-14 period the overall state per capita solid waste management rate was 12% less than the FY1991-92 base per capita rate.

**Table 182. Solid Waste Disposal
FY2009-10 through FY2013-14**

Location	MSW Tons Managed 1991-1992	MSW Tons Disposed					Base Year Per Capita (1991-1992)	Per Capita Rate 2013-14	%Change Base Year to 2013-14
		2009-2010	2010-2011	2011-12	2012-13	2013-14			
Currituck County	13,792.48	22,564.59	22,944.32	18,100	15,904	24,017	1.00	0.98	-2
<i>Regional Total</i>	<i>90,272.93</i>	<i>112,837.00</i>	<i>116,918.14</i>	<i>111,229</i>	<i>109,034</i>	<i>118,565</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>
<i>Regional Average</i>	<i>12,896.13</i>	<i>16,119.57</i>	<i>16,702.59</i>	<i>15,890</i>	<i>15,576</i>	<i>16,938</i>	<i>0.78</i>	<i>0.78</i>	<i>-1</i>
Pamlico County	8,541.24	9,591.29	9,445.25	19,211	11,034	17,347	0.75	1.33	77
State of NC	7,257,428.09	9,395,457.19	9,467,044.71	9,443,380.00	9,149,130.00	9,273,571.00	1.07	0.94	-12

Source: NC Department of Environment and Natural Resources, Division of Waste Management, Solid Waste Program, NC Solid Waste Management Annual Report, Fiscal Years as noted. County Per Capita Report; <http://portal.ncdenr.org/web/wm/sw/swmar>.

The following table presents the FY2013-14 County Waste Disposal Report for Currituck County.

- The majority of Currituck County's solid waste is either transported directly to the East Carolina Regional Landfill (Bertie County) or processed for transfer. A small proportion of county waste is landfilled locally.

**Table 183. County Waste Disposal Report, Currituck County
(FY2013-14)**

Location	Facility Name	Facility Type	Tons Received	Tons Transferred
Currituck County	East Carolina Regional Landfill	Municipal Solid Waste Landfill	20,849.95	0.00
	Currituck Transfer Station	Municipal Solid Waste Transfer Station	20,012.85	20,012.85
	Soundside Recycling & Materials, Inc.	Materials Recovery TP	0.00	0.00
	Bay Disposal Inc.	Transfer and Recovery Facility	2,969.81	2,969.81
	Dare County C & D Landfill	Construction & Demolition Landfill	0.40	0.00
	Atlantic Waste Disposal, Inc. (VA)	Municipal Solid Waste Landfill	5,857.72	0.00
	John C. Holland Enterprises	Municipal Solid Waste Landfill	125.96	0.00

Source: NC Department of Environment and Natural Resources, Division of Waste Management, Solid Waste Section. Solid Waste Management Annual Reports, FY2013-2014; County Waste Disposal Report Fiscal Year 2013-2014. http://portal.ncdenr.org/c/document_library/get_file?p_l_id=4649434&folderId=4667253&name=DLFE-38490.pdf.

The table below describes the capacity of the major landfills in the Albemarle Region.

- Based on current fiscal year tons, the estimated remaining “life” capacity of the East Carolina Regional Landfill (which serves Currituck County) was approximately 23 years from FY2013-14.

Table 184. Landfill Capacity, Albemarle Region (FY2013-14)

Location	Facility Name	Open Date	Volume Overall	Volume Overall Remaining	Volume Overall Remaining in Tons	Volume Overall Remaining in Years (Fiscal Year Tons)
Bertie County	East Carolina Regional Landfill	8/6/93	24,200,000	13,065,468	11,148,585	23.16
Pasquotank County	Pasquotank County C&D Landfill	4/1/96	780,149	56,318	16,896	1.60

Source: NC Department of Environment and Natural Resources, Division of Waste Management, Solid Waste Management, Solid Waste Section. Solid Waste Management Annual Reports, FY2013-2014; Landfill Capacity Report Fiscal Year 2010-2011. http://portal.ncdenr.org/c/document_library/get_file?p_l_id=4649434&folderId=4667253&name=DLFE-41641.pdf.

Municipal Solid Waste Management

Solid waste management in Currituck County is the responsibility of Albemarle Regional Solid Waste Management Authority (ARSWMA), a subsidiary of Albemarle Regional Health Services. ARSWMA is a county-level legal entity serving the Counties of Perquimans, Chowan, Gates, Dare, Currituck, Hyde, and Tyrrell. It also serves towns within these counties. This area currently has approximately 108,000 permanent residents and several hundred thousand visitors each year. Through a long-term waste disposal and transportation contract with Republic Services of NC, LLC, the Authority aims to provide cost-effective and efficient solid waste disposal for the region.

All municipal wastes and most of the construction and demolition debris from the Authority’s members are landfilled in the East Carolina Environmental Landfill in Bertie County (owned by Republic Services of NC). The waste is primarily sent there through the three transfer stations located in Dare County, Currituck County, and Perquimans County. Some waste is hauled to the landfill directly from the site of origin (85).

Currituck County Recycling Program

Currituck County has eight manned Recycling Centers for residential solid waste collection and recycling. Each Recycling Center has the capability to recycle many products (86).

Manned Convenience Center Locations

- Knotts Island - 180 Knotts Island Rd. (SR 1255)
- Moyock - 101 Panther Landing Rd. (SR 1231)
- Shawboro (Swap Shop location) - 426 Shawboro Rd. (NC 34)
- Barco - 183 Shortcut Rd. (US 158)
- Grandy - 6815 Caratoke Hwy. (US 158)
- Powells Point - 309 N. Spot Rd. (SR 1113)
- Gibbs Woods - 132 Reeds Rd. (SR 1250)
- Carova Beach - 2030 Ocean Pearl Rd.

Hazardous Waste Generation

The EPA maintains a database that catalogs generators, transporters, and other handlers of hazardous wastes. The data, located in the Resource Conservation and Recovery Act Information (RCRAInfo) database, is accessed via EPA Envirofacts. The table below lists the hazardous waste generators in Currituck County.

**Table 185. Hazardous Waste Generators, Currituck County
(Accessed February, 2016)**

County	Generator Name	Location	Type of Business (NAICS Code/Description)	Type of Generator
Currituck County	7-Eleven #20160	Grandy	not available	unspecified
	7-Eleven #20996	Barco	not available	unspecified
	Currituck County Board of Education	Currituck	general automotive repair; automotive oil change and lubrication shops; automotive exhaust system repair; all other automotive repair and maintenance	Conditionally Exempt Small Quantity
	Currituck County Buildings Complex	Currituck	not available	unspecified
	Currituck Dump	Barco	not available	unspecified
	Jeff Denton Complaint	Moyock	private households	unspecified
	Melson's Junk & Salvage	Powell's Point	not available	unspecified
	Poyner's Auto Sales	Barco	recyclable material wholesalers	unspecified
	Presidential Airways	Moyock	nonscheduled chartered freight air transportation; nonscheduled chartered passenger air transportation; other nonschedule air transportation	unspecified
	US Coast Guard Station Coinjock	Coinjock	not available	Conditionally Exempt Small Quantity
	Woodies	Grandy	not available	unspecified
	XE Services/US Training Center	Moyock	Automotive Driving Schools; heavy duty truck manufacturing; security guards and patrol services; other technical and trade schools; military armored vehicle, tank and tank component manufacturing	Small Quantity

Source: US EPA, Envirofacts, RCRAInfo, Search; <http://www.epa.gov/enviro/facts/rcrainfo/search.html>.

LEAD

Lead is a highly toxic natural metal found in the environment in soil, dust, air, and water. Historically it was used for many years in common household products such as paint, batteries, makeup, and ceramics, as an additive to gasoline, and as an ingredient in pesticides. Currently, it is used in lead-acid batteries, fishing weights, marine paint, lead shot, bullets, and in the manufacture of some plastics. Recently, the electronics industry is using more lead in magnetic imaging equipment, transistors, night vision equipment, and energy generation (87).

People can get lead in their body if they put their hands or other objects covered with lead dust in their mouths, ingest paint chips, soil, or water that contains lead, or breathe in lead dust, especially during renovations that disturb painted surfaces. Children are at greatest risk.

The Children's Environmental Health Branch of DENR, via its Lead Poisoning Prevention Program, catalogues data on the results of blood lead level monitoring among children. The following table presents blood lead monitoring data for 2006-2011. This site offers no data that is more recent.

The data for Ages 1 and 2 are routine screening results; the data for Ages 6 Months to 6 Years represents children who have been tested because a lead poisoning hazard had been identified in their residential housing unit or their child-occupied facility (e.g., daycare facility). All results at the county level likely are unstable due to small numbers of positive cases.

**Table 186. Blood Lead Assessment Results
(2006-2011)**

Location	Year	Ages 1 and 2					Ages 6 Months to 6 Years		
		Target Population	No. Tested	% Tested	No. ≥ 10µg/dL	% ≥ 10µg/dL	No. Tested	Confirmed 10-19 µg/dL	Confirmed ≥20 µg/dL
Currituck County	2006	521	214	41.1	2	0.9	309	2	N/A
	2007	498	183	36.7	1	0.5	257	N/A	N/A
	2008	511	180	35.2	2	1.1	254	N/A	N/A
	2009	489	162	33.1	N/A	0.0	246	N/A	N/A
	2010	448	188	42.0	1	0.5	270	N/A	N/A
	2011	471	182	38.6	2	0.6	376	N/A	N/A
Pamlico County	2006	234	165	70.5	2	1.2	278	N/A	N/A
	2007	229	147	64.2	1	0.7	237	N/A	N/A
	2008	218	162	74.3	1	0.6	271	N/A	N/A
	2009	212	155	73.1	N/A	0.0	241	N/A	N/A
	2010	223	155	69.5	N/A	0.0	208	N/A	N/A
	2011	215	138	64.2	N/A	N/A	165	N/A	N/A
State of NC	2006	242,813	103,899	42.8	867	0.8	135,595	255	38
	2007	250,686	112,556	44.9	706	0.6	143,972	232	38
	2008	258,532	121,023	46.8	654	0.5	152,222	181	36
	2009	261,644	129,395	49.5	583	0.5	160,713	143	38
	2010	257,543	132,014	51.3	519	0.4	162,060	146	24
	2011	249,087	129,558	52	461	0.4	156,039	102	22

Source: NC DHHS, Division of Public Health, Environmental Health Section, Children's Environmental Health. NC Childhood Lead Poisoning Prevention Program (CLPPP). Resources: Surveillance Data.
<http://ehs.ncpublichealth.com/hhccehb/cehu/lead/resources.htm>.

FOOD-, WATER-, AND VECTOR-BORNE HAZARDS

Food-, Water-, and Vector-Borne Diseases

A number of human diseases and syndromes are caused or exacerbated by microbial contaminants or by animal vectors in the natural environment. Several of these conditions are among the illnesses that must be reported to health authorities. A number of food-, water-, and vector-borne diseases are of increasing importance because they are either rare but becoming more prevalent, or spreading in geographic range, or becoming more difficult to treat. Among these diseases are Shiga toxin producing *E. coli*, salmonellosis, Lyme disease, West Nile virus infection, Eastern equine encephalitis, and rabies.

The following table summarizes cases of food-, water-, and vector-borne disease statewide in the period 2009-2014.

- The most common food-, water-, and vector-borne disease statewide is salmonellosis, followed by campylobacter infection and Rocky Mountain spotted fever (spotted fever rickettsiosis).

Table 187. Food-, Water-, and Vector-Borne Diseases, North Carolina (2009-2014)

Disease/Organism	Number of Cases					
	2009	2010	2011	2012	2013	2014 ¹
Campylobacter infection	587	851	909	1,091	1,101	982
Cryptosporidiosis	160	94	115	88	126	167
E. Coli O157:H7 (or other STEC)	112	97	155	208	101	89
Ehrlichiosis	31	130	96	133	93	85
Encephalitis California Group (Lacrosse)	169	22	24	26	13	23
Hepatitis A	41	48	30	34	46	38
Listeriosis	27	22	21	14	23	30
Lyme Disease	252	89	75	124	180	171
Rocky Mountain Spotted Fever	325	292	305	594	428	500
Salmonellosis	1,806	2,352	2,516	2,208	1,926	2,115
Shigellosis	358	253	225	137	256	474

¹: 2014 data includes January - December but it is not presented in the source as a final number for the year.

Source: NC DHHS, Epidemiology Branch, Communicable Disease Section, Facts and Figures, NC Communicable Disease Reports (years as noted) <http://epi.publichealth.nc.gov/cd/figures.html>.

Vector Control

Bacterial, viral and parasitic diseases that are transmitted by mosquitoes, ticks and fleas are collectively called *vector-borne diseases* (the insects and arthropods are the *vectors* that carry the diseases). Although the term vector can also apply to other carriers of disease—such as mammals that can transmit rabies or rodents that can transmit Hantavirus—those diseases are generally called *zoonotic* (animal-borne) diseases.

The most common vector-borne diseases found in North Carolina are carried by ticks and mosquitoes. The tick-borne illnesses most often seen in the state are Rocky Mountain Spotted Fever, ehrlichiosis, Lyme disease and Southern Tick-Associated Rash Illness (STARI). The

most frequent mosquito-borne illnesses, or "arboviruses," in North Carolina include Lacrosse encephalitis, West Nile virus and Eastern equine encephalitis (88).

One way to prevent or limit the transmission of vector-borne illnesses is to control the vectors of the disease. In the case of mosquitoes, that is usually accomplished by improving cultural practices (e.g., emptying temporary water reservoirs like puddles, flowerpots and bird feeders or by people covering their skin or applying insect repellent when outdoors). In extreme cases, communities may sometimes resort to large-scale aerial spraying to destroy the insect or interfere with its reproductive cycle. Spraying initiatives can be controversial, however, since the typically broadcast application of the pesticide is non-selective and can affect humans and pets.

Rabies, a vector-borne disease, can be controlled among pets by having dogs and cats properly vaccinated. While pets can be protected that way, there is no practical way to control rabies in the wild, where it actually is more common.

The following table lists the total number of rabies cases detected in Currituck County (6) and its comparators for the period 2005-2014. First of all, rabies is not common in the region, with only 46 cases identified region-wide in 10 years. Secondly, rabies is more common in animals *other* than cats, dogs or bats. Statewide in 2013 54% of all rabies cases were in raccoons.

**Table 188. Animal Rabies Cases
(2005-2014)**

Location	Total Number of Animal Rabies Cases									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Currituck County	0	0	1	2	1	0	0	0	2	0
<i>Regional Total</i>	<i>3</i>	<i>5</i>	<i>3</i>	<i>7</i>	<i>10</i>	<i>10</i>	<i>0</i>	<i>2</i>	<i>5</i>	<i>1</i>
Pamlico County	2	1	0	0	0	0	0	1	0	1
State of NC	458	521	474	452	473	397	429	431	380	352

Source: NC Division of Public Health, Epidemiology. Rabies. Facts and Figures. Rabies by County, Tables by Year. <http://epi.publichealth.nc.gov/cd/rabies/figures.html>.

Animal Control in Currituck County

The Department of Animal Services and Control was created on August 17, 2015 by resolution of the Currituck County Board of Commissioners. Effective November 1, 2015, this department is responsible for operating the animal shelter and providing animal control services for the citizens of Currituck County.

Animal Services and Control handles all aspects of domesticated animal safety and welfare concerns. The staff is responsible for protecting the rights of animals in the community to ensure proper care and accommodations are provided.

Officers are committed to enforcing the animal ordinances as mandated by the Currituck County Ordinances and the North Carolina General Statutes. Officers respond to emergency and routine calls for assistance concerning the animals in the county. Staff also investigates reports of animal bites and quarantine the animal if necessary. They investigate cruelty and neglect reports as well as enforce the county wide leash law (89).

Animal Shelters Serving Currituck County

As noted above, as of August, 2015 the Department of Animal Services and Control was charged with operating the county animal shelter. The shelter maintains list of adoptable pets on the county website.

In addition, the Animal Lovers Assistance League, located in Currituck County in the town of Maple, conducts projects that benefit animals and advocates for their proper care. It provides foster care for abandoned animals and conducts adopt-a-thons at local businesses. The organization reaches out to rescue groups to exchange resources and know-how (90).

BUILT ENVIRONMENT

The term *built environment* refers to the human-made surroundings that provide the setting for human activity, ranging in scale from buildings and parks or green space to neighborhoods and cities. As often used the term also includes supporting infrastructure for those settings, such as the water supply, or the energy grid. In recent years, public health research has expanded the definition of built environment to include healthy food access, community gardens, recreational facilities, and the ease of getting around on foot or on bicycle.

Access to Grocery Stores and Farmers' Markets

The following table presents data on the availability of grocery stores.

- The number of grocery stores in Currituck County decreased from nine to eight between 2007 and 2012.
- In 2010, an estimated 186 Currituck County households (~2%) had no car and therefore had low access to grocery stores.
- In 2010 an estimated 649 persons in Currituck County (~3%) had low income and low access to grocery stores.

**Table 189. Availability of Grocery Stores
(2007 and 2012; 2010)**

Location	Grocery Stores						2010			
	2007		2012		% Change (2007-2012)		Households with No Car and Low Access		Low Income & Low Access	
	#	# per 1,000 Population	#	# per 1,000 Population	#	# per 1,000 Population	#	%	#	%
Currituck County	9	0.38	8	0.33	-11.11	-11.88	186	2.10	649	2.76
<i>Regional Total</i>	39	n/a	30	n/a	n/a	n/a	2,349	n/a	6,632	n/a
<i>Regional Average</i>	6	n/a	5	n/a	n/a	n/a	336	n/a	947	n/a
Pamlico County	3	0.25	4	0.31	33.34	26.72	215	3.91	307	2.34
<i>State of NC</i>	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Source	1	1	1	1	1	1	2	2	2	2

1 - Store Availability. U.S. Department of Agriculture Economic Research Service, Your Food Environment Atlas website:

<http://ers.usda.gov/FoodAtlas/>.

2 - Stores. U.S. Department of Agriculture Economic Research Service, Your Food Environment Atlas website:

<http://ers.usda.gov/FoodAtlas/>.

Low access = living more than 1 mile from a supermarket or large grocery store if in an urban area, or more than 10 miles from a supermarket or large grocery store if in a rural area

The next table presents data on the availability of farmers' markets.

- Despite the rural, agrarian nature of much of the ARHS region, there are very few farmers' markets anywhere in the region: two in 2009 and four in 2013, none of which was in Currituck County.
- According to another source (NCFarmFresh.com) there were eight farms, roadside stands or farmer's markets in Currituck County in 2015 (91).

**Table 190. Availability of Farmers' Markets
(2009 and 2013)**

Location	Farmers' Markets					
	2009		2013		% Change (2009-2013)	
	# Markets	# Markets per 1,000 Population	# Markets	# Markets per 1,000 Population	# Markets	# Markets per 1,000 Population
Currituck County	0	0.000	0	0.000	0.0	0.0
<i>Regional Total</i>	2	n/a	4	n/a	100.0	n/a
Pamlico County	0	0.000	1	0.080	0.0	0.0
<i>State of NC</i>	n/a	n/a	n/a	n/a	n/a	n/a
Source	1	1	1	1	1	1

1 - *Local Foods: Farmers Markets*. U.S. Department of Agriculture Economic Research Service, Your Food Environment Atlas website: <http://ers.usda.gov/FoodAtlas/>.

Access to Fast Food Restaurants

The following table presents data on the availability of fast food restaurants.

- Currituck County had 24 fast food restaurants in 2007 and 2012. In 2012 there were three times as many fast food restaurants in the county as grocery stores.

**Table 191. Availability of Fast Food Restaurants
(2007 and 2012)**

Location	Fast Food Restaurants					
	2007		2012		% Change (2007-2012)	
	#	# per 1,000 Population	#	# per 1,000 Population	#	# per 1,000 Population
Currituck County	24	1.01	24	1.00	0.0	-0.86
<i>Regional Total</i>	77	n/a	86	n/a	n/a	n/a
<i>Regional Average</i>	11	0.47	12	0.51	9.0	10.79
Pamlico County	9	0.72	11	0.74	22.2	16.16
<i>State of NC</i>	n/a	n/a	n/a	n/a	n/a	n/a
Source	1	1	1	1	1	1

Source: *Fast Food Restaurants*. U.S. Department of Agriculture Economic Research Service, Your Food Environment Atlas website: <http://ers.usda.gov/FoodAtlas/>.

Access to Recreational Facilities

The table below presents data on the availability of recreational and fitness facilities.

- There were three recreation and fitness facilities in Currituck County in 2007 and 2009. This source does not provide more recent data on recreation and fitness facilities.

**Table 192. Availability of Recreation and Fitness Facilities
(2007 and 2009)**

Location	Recreation and Fitness Facilities					
	2007		2009		% Change (2007-2009)	
	#	# per 1,000 Population	#	# per 1,000 Population	#	# per 1,000 Population
Currituck County	3	0.13	3	0.12	0	-0.86
<i>Regional Total</i>	9	n/a	7	n/a	n/a	n/a
Pamlico County	1	0.08	1	0.08	0	-4.96
<i>State of NC</i>	n/a	n/a	n/a	n/a	n/a	n/a
Source	1	1	1	1	1	1

Source: *Physical Activity Levels and Outlets*. U.S. Department of Agriculture Economic Research Service, Your Food Environment Atlas website: <http://ers.usda.gov/FoodAtlas>.

CHAPTER SIX: COMMUNITY INPUT

SMALL GROUP DISCUSSIONS SUMMARY

The information in this section was summarized by the secondary data consultant team from a report of a primary data gathering activity facilitated by another vendor. The complete report for Currituck County is appended to this document.

Methodology

ARHS partnered with Vidant Chowan Hospital to collect primary data by conducting ten small-group discussions throughout Currituck County. Discussions included listening sessions and focus groups were led by trained moderators to learn about the community's definitions and understandings of health, illness and services that affect health attitudes, beliefs and behaviors.

The Center for Survey Research at East Carolina University provided moderator trainings and an accompanying interview guide to ensure consistent and effective data collection methods.

Discussion questions were researched, selected and approved by the CHA Lead Team. Discussions were recorded and lasted around one hour. Results were then transcribed and analyzed.

A total of 100 Currituck County residents participated in the small-group discussions, which were composed according to detail provided in the following table.

Table 193. Participants in Chowan County Small-Group Discussions

Currituck County Locations	Date	Participants
Knotts Island Senior Center	2/06/15	1 Male; 2 Females
Currituck County Cooperative Extension	2/10/15	1 Male; 9 Females
Currituck Chamber of Commerce	5/21/15	5 Males; 7 Females
NAACP	6/15/15	4 Males; 2 Females
Shawboro Ruritan Club	8/24/15	3 Males; 4 Females
Barco Senior Center	10/08/15	2 Males; 8 Females
Powells Point Senior Center	10/14/15	9 Females
Currituck County YMCA	10/20/15	6 Females
Currituck County Schools	10/26/15	3 Males; 3 Females
Currituck County Parks and Recreation	10/27/15	7 Males; 1 Female

The following list describes the demographic profile of the small group discussion participants:

- 16% Black (compared to 7% in the county)
- 77% white (compared to 90% in the county)
- 0% Hispanic participants (compared to 3.3% in the county)
- 34% male (compared to 50% in the county)

- 0% unemployed (compared to 5.8% unemployment rate)
- 32% with bachelor's degree or higher (compared to 19% in the county)
- 6% currently without health insurance (compared to 17% in the county)
- 34% retired
- 48% earning more than \$50,000 household income

Results

No results in the following summary are quantifiable. The source document does not include any specific numbers with the responses, and terms like "most frequently" are not used with clarity of quantity. Therefore it is difficult to draw any conclusions regarding consensus or majority in response to any particular question.

Q 1: Tell us what you think is the best thing about living in this community.

- Sense of community
 - Small town atmosphere with close relationships
 - People dependable and trustworthy; safe place
- Physical environment
 - Quiet surroundings
 - Slow pace of life
 - Good weather
 - Proximity to oceans, mountains and larger cities
- Good local school system

Q2: What do people in this community do to stay healthy?

- Physical activity
 - Run, bike, walk, golf, surf, garden
 - Working in farming and construction help people stay active
- Youth recreational sports
- Programs at senior center and YMCA
- PE in schools
- Teachers are positive role models
- People grown their own produce and utilize farmers markets

Q3: In your opinion, what are the serious health-related problems in your community?

- Poor nutrition
 - poor dietary choices, too many processed foods containing preservatives, Southern-style cooking unhealthy
- Diabetes
- Heart disease
- Cancer
- Obesity
- High blood pressure
- Tobacco use
- Substance abuse, especially among youth

- Other problems mentioned included: aging, dementia, mosquitoes, lack of education, and overuse of technology.

Q4: What keeps people in your community from being healthy?

- Unhealthy foods and poor eating habits
 - Unhealthy foods cheaper and more available
 - Lack of affordable restaurants with healthy options
 - Local food traditions and cultural practices are unhealthy
- Lack of healthcare facilities
- Lack of transportation
- Lack of knowledge about healthy behaviors and available resources
- Lack of motivation to be healthy

Q5: What could be done to solve these problems?

- Additional transportation services
 - To grocery stores, pharmacies, doctors
- Increased community collaboration
 - Opportunities for exercise
 - Wellness screening events
 - Countywide Internet
 - Connect community with local government to improve health-related decision making
- Health-related education in schools and healthier food choices
 - Hire nutritionists
 - School garden projects
- Increase number of local healthcare providers
- Provide children with more opportunities to be active
- Other solutions mentioned included: build walking paths, build grocery store, a “patient first” medical facility, and improve motivation to be healthy and take advantage of available resources.

Q6: Have you or someone close to you ever experienced any challenges in trying to get healthcare services? If so, what happened?

- Too few doctors, specialists, and 24-hour pharmacies
- Community travels to VA for care
- Lack of transportation
- Dissatisfaction with local doctors
 - Inconsistent care
 - Poor treatment and bedside manner
 - Misdiagnosis
 - Long wait times, especially at ER
- Lack of health insurance
 - People don’t get preventative care
 - Seniors, children and those who don’t qualify for subsidies are most affected

Q7: Are there any home remedies you use in place of traditional healthcare and/or medicine?

The following table summarizes the predominant responses.

Table 194. Home Remedies Reported by Participants

Home Remedy	Targeted Ailment
Vick's VapoRub	Congestion, toe fungus
Bar of soap	Cramps
Kerosene	Sore throat, head lice
Potatoes	Boils
Iodine	Sore throat
Baking soda	Heartburn
Cherry Juice	Arthritis
Yogurt	Upset Stomach
Bourbon, lemon, & honey	Cough or sore throat
Tobacco	Bee stings
Epsom Salt	Inflammation
Horse Liniment	Joints
Two Old Goats	Arthritis
Warm salt water	Sore throat
Cranberry juice	Kidney infection
Vinegar	Blood pressure, bee stings
Bacon	Cuts
Raw onion	Warts
Black tea	Pink eye
Fennel tea	Indigestion
Salve	Skin cracks
Local honey	Allergies
Castor oil & baking soda	Warts
Alcohol	Sore joints
Menthol	Colds

Q8: What are the strengths related to health in your community?

- Access to outdoor activities
 - Sports, gardening, hunting, fishing, swimming, boating
 - Help people “mentally decompress”
- Access to fresh produce from home gardens and farmers markets
- Local health-related facilities and programs
 - YMCA, senior center, parks and rec department
 - Hospital
 - Local churches help those in need of food and support
- Overall sense of community
 - Low stress environment

Q9: Cancer and heart disease are the leading causes of death in your county. In your opinion, what makes these the leading causes of death in your county?

- Exposure to harmful substances in food and farming
 - Chemicals and hormones in food processing in farming

- Contaminate the local water
- Unhealthy lifestyle habits
 - Tobacco use, poor diet, lack of exercise
 - Unhealthy cultural habits/food traditions
 - Unhealthy foods are convenient and cheap
- Lack of healthcare resources and information
 - Lack of specialty healthcare services
 - Lack of transportation and time constraints makes accessing care difficult

Q10: How does living in a rural area affect health?

- Benefits:
 - Favorable climate
 - Access to outdoor activities
 - Limited number of fast food restaurants
- Weaknesses
 - Limited transportation options to health food options, recreational facilities and healthcare
 - Hard to attract physicians to the area
 - Lack of sidewalks and safe places to walk

CHAPTER SEVEN: PRIORITIES IDENTIFICATION

PRIORITIES-SETTING PROCESS

PRIORITY SELECTION PROCESS BY HEALTHY CAROLINIANS OF THE ALBEMARLE

A vital phase of the Community Health Assessment (CHA) involves reporting out to the communities being served and to those residents who participated in the data gathering process. Community health presentations were held to provide the opportunity for community residents and key stakeholders to learn about the health-related primary and secondary data from the 2016 CHA process. The data was presented by Mrs. Sheila Pfaender, Public Health Consultant, during seven presentations conducted over a one-week period, geographically dispersed throughout the Albemarle Region.

The presentations were widely promoted through email invitations, newspaper announcements, the ARHS website, social media outlets, and by partnering organizations in an effort to bring the community together and strengthen an environment where the individuals were empowered in the decisions highlighted through the prioritization process. To maximize the potential audience reached by these presentations, each was live-streamed on Facebook in real time. In addition, each streamed presentation included a link to a web-based ballot via which the viewing community could indicate their choices for health priorities. Persons attending the presentations in-person completed the prioritization ballot immediately following each presentation.

Below is the list of presentations:

Monday, August 22, 2016:

Currituck County Cooperative Extension, Currituck County Center, Barco, NC
Camden County Public Library, Camden, NC

Tuesday, August 23, 2016:

Pasquotank County Health Department, Elizabeth City, NC

Wednesday, August 24, 2016:

Merchants Millpond State Park, Gatesville, NC (Gates County)

Thursday, August 25, 2016:

Perquimans County Recreation Department, Hertford, NC
Shepard Pruden Library, Edenton, NC (Chowan County)

Friday, August 26, 2016:

Bertie County Department of Social Services, Windsor, NC

As noted above, after reviewing the CHA presentation for each county, participants were asked to list what they thought were the three most important health issues for the county while utilizing the following criteria:

- **Magnitude of the Problem:** The size or extent of the problem as it relates to your county

- **Consequences of the Problem:** How the economic, social, cultural, and political issues within your county might be influenced by addressing this issue
- **Feasibility:** Are there enough resources in the county to address this issue and is the community ready to address this issue?
- **Duplication:** Is this issue already being addressed by other community stakeholders/programs?

A web-based ballot with the same directions was also used to gather additional input from the community. The survey was open to the public for ten days.

After the post-presentation ballot results and web-based surveys were collected, the top ten health issues were tallied for each county. For Healthy Carolinians of the Albemarle (Camden, Currituck, Pasquotank and Perquimans Counties) those ten were, in no particular order:

- Heart disease
- Substance abuse/Mental health access and resources
- Infant and maternal health/Smoking during pregnancy
- Lung disease
- Access to care (medical and dental)
- Obesity
- Diabetes
- Cancer
- Suicide
- Aging problems

On September 16, 2016, the Healthy Carolinians of the Albemarle (HCOTA) Partnership met to finalize the priority selections for Camden, Currituck, Pasquotank and Perquimans counties.

Members in attendance were: Amy Underhill, Pam Hurdle, Barbara Courtney, Amanda Betts, Rich Olson, Michael Barclift, Janet Jarrett, Amanda Meads, Leslie Otts, and Julie Tunney. During the HCOTA meeting, members participated in a facilitated discussion, answering the following questions:

1. To what degree does (health issue) have a significant impact on our community's health?
2. To what degree should (health issue) be a focus area for our community to address?

After discussions, participants were then asked to use the top ten list that was developed for each county to vote on their top three priority issues by placing a colored sticker next to their choices. The priority areas with the most votes were as follows:

- **Obesity**
- **Diabetes**
- **Heart Disease**

It is important to note that these three priorities have been selected for a diverse four-county coalition, so certain priorities may be more applicable to some counties than to others.

NEXT STEPS

The next step Healthy Carolinians of the Albemarle plans to take is the development of the Community Action Plans which are due in September 2017. The Action Plans will reflect the priority health issues, strategies, and steps to implement change along with our target populations, and resource networking with the various community partners. This is a critical component that the partnership must take in selecting activities that are reasonable and relatively easy to implement and align with the 2020 Healthy People Objectives in Pasquotank, Currituck, Camden, Pasquotank and Perquimans counties. Healthy Carolinians of the Albemarle Partnership members will utilize the information gathered during the Community Health Assessment process and the prioritization process to clearly define our community's health priorities, actions, and expected results. All Partnership members will be involved in completing new action plans based on the prioritization of health needs. The completed action plans will include a description of each health issue/problem and will specify the proposed actions and community organizations that will provide and coordinate the interventions and activities. The Action Plans will be developed after carefully considering all the factors that cause and perpetuate the problem being addressed. The Action Plans will also identify how progress towards the outcome will be measured.

DISSEMINATION PLAN

Healthy Carolinians of the Albemarle plans to share results from the Community Health Assessment (CHA) during meetings with county and city governments, local civic groups, faith organizations, and business leaders and through other community outreach events. The CHA documents can be found on the Albemarle Regional Health Services website at www.arhs-nc.org. Efforts will be made with other agencies and local government, including county home pages, to provide links to the information. ARHS also plans to work with the local newspapers to provide news releases to the public about the findings made in each county. HCOTA members and the broader community will have access to the information found in the CHA to use at their discretion for activities such as seeking evidence-based strategies, developing grant proposals, and planning and implementing programs.

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APPENDICES

APPENDIX 1: CONSULTANT'S PRESENTATION

APPENDIX 2: PRIMARY DATA REPORT

APPENDIX 3: PRIORITIZATION TOOL

APPENDIX 4: COMMUNITY RESOURCE INVENTORY



2016

CURRITUCK COUNTY

COMMUNITY HEALTH ASSESSMENT

Secondary Data Summary
and Brief Primary Data Results Summary

August, 2016

Sheila S. Pfaender, Public Health Consultant

PURPOSE OF THE COMMUNITY HEALTH ASSESSMENT

- Describe the health status of the community.
- Create a report that will serve as a resource for the Currituck County Health Department, local Healthy Carolinians affiliates, area hospitals, and other community organizations.
- Provide direction for the planning of disease prevention and health promotion services and activities.



CONTRIBUTING VIEWPOINTS

Secondary Data	Hospital Data	Citizen Opinion
Demographic Socioeconomic Health Environmental	Emergency department discharges Inpatient hospitalization discharges	Community listening sessions



WE TAKE SPECIAL NOTICE WHEN...

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

DEFINITIONS AND SYMBOLS

○ **Arrows**

- Arrow up (▲) indicates an increase.
- Arrow down (▼) indicates a decrease.

○ **Color**

- **Red** indicates a “worse than” or negative difference
- **Green** indicates a “better than” or positive difference
- **Blue** indicates a likely unstable rate or difference based on a small number of events; figures in blue should be used with great caution.

○ **Bold Type**

- Indicates the higher value of a pair, or the highest value among several.



DATA CAVEATS

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



DEMOGRAPHIC DATA

Total Population, Birth Rate, Population Growth, Minority Populations, Age Groups, Elderly Population, Foreign-Born Populations, Veterans

GENERAL POPULATION CHARACTERISTICS

(2014 ESTIMATES)

- Currituck County has approximately equal proportions of males and females.
- The overall median age of the Currituck County population is 4.4 years *older* than NC average and 1.0 year *younger* than the regional average.

Location	Total Population	Total Males	Median Age Males	Total Females	Median Age Females	Overall Median Age
Currituck County	24,976	12,406	42.3	12,570	43.0	42.6
Regional Avg.	19,258	9,467	42.0	9,791	45.1	43.6
Pamlico County	12,948	6,641	48.5	6,307	52.6	50.7
NC	9,943,964	4,844,593	36.7	5,099,371	39.7	38.2

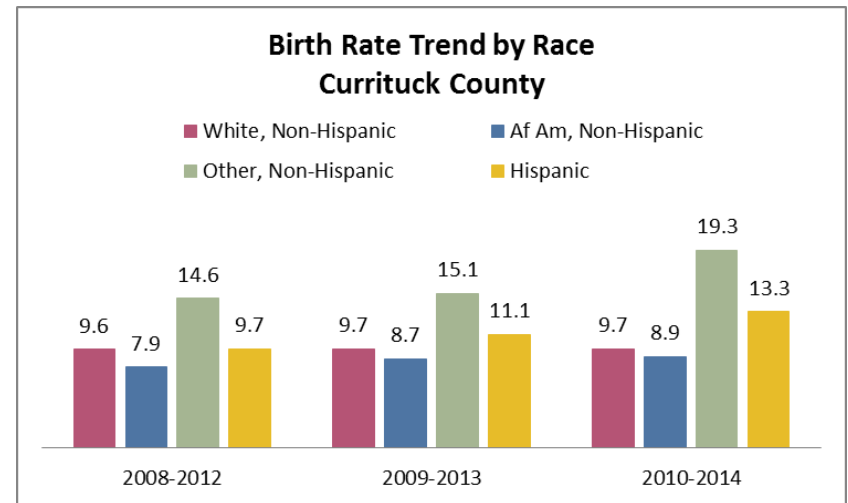
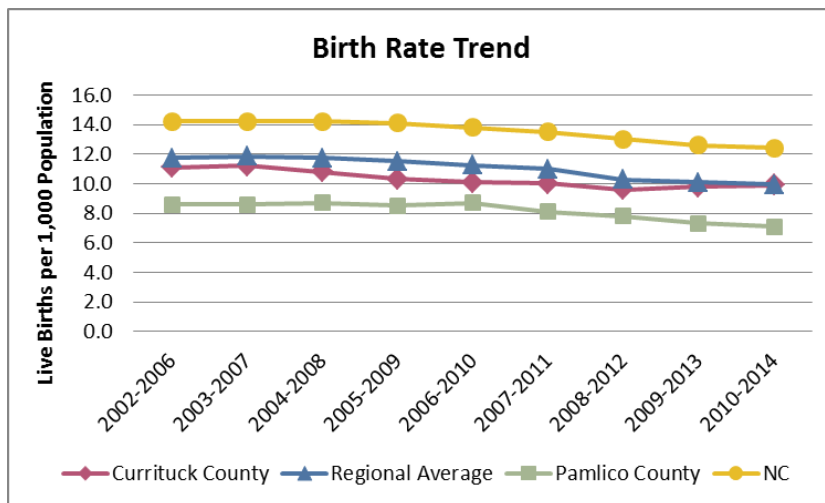
POPULATION GROWTH (PROJECTED)

- Currituck County's recent population growth is predicted to slow slightly over the coming decades, though it is expected to grow at faster rates than its comparators.
- By 2030, the county population is predicted to total 33,773.

Decade	Currituck County	Regional Average	Pamlico County	NC
1980-1990	23.9	7.4	9.3	12.8
1990-2000	34.2	10.8	13.8	21.3
2000-2010	29.5	17.3	1.6	18.5
2010-2020	16.9	1.3	1.1	10.9
2020-2030	22.7	3.6	2.0	9.8

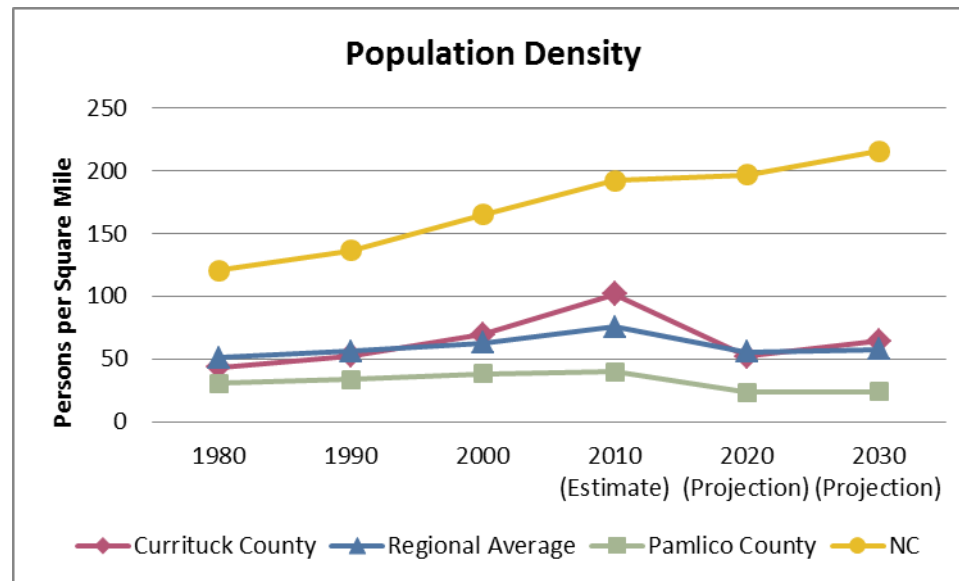
BIRTH RATE

- The Currituck County birth rate demonstrated an overall decline over the period presented below, with a similar trend seen in the Region and the State.
- Since 2008-2012 the county birth rate increased slightly among all racial groups, with the highest rate in 2010-2014 occurring among Other non-Hispanics (19.3).



POPULATION DENSITY

- The population density of Currituck County increased to a high in 2010 but is predicted to decrease in the coming decades. It remains lower than population density for the state as a whole.



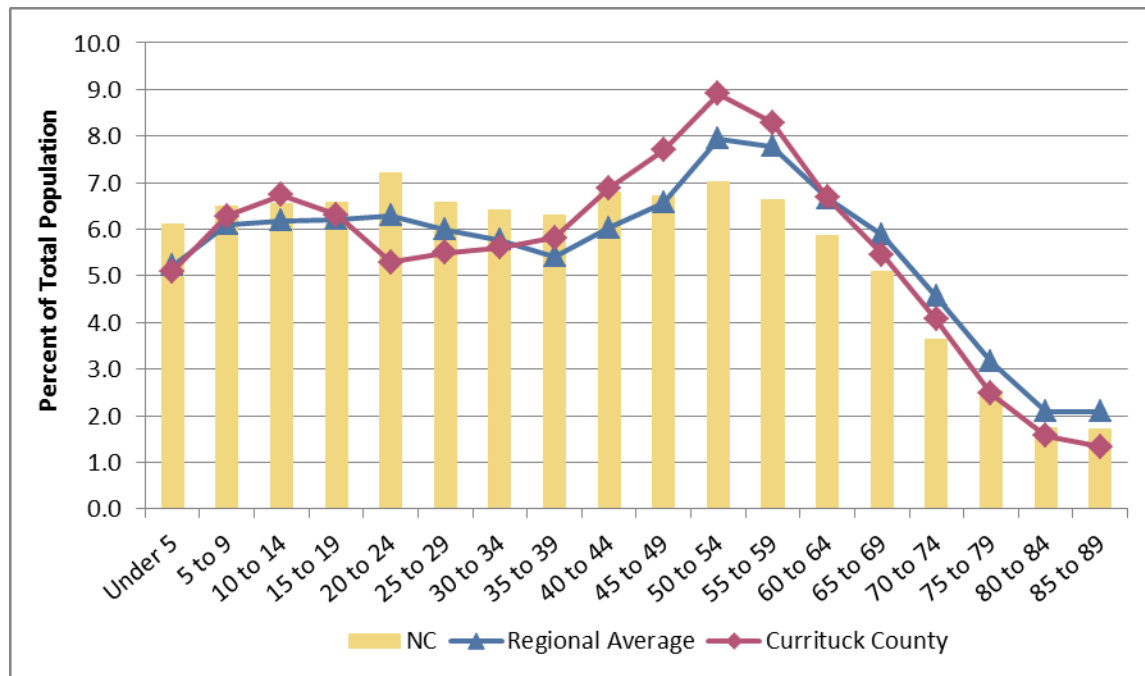
MINORITY POPULATIONS

- White residents compose the largest proportion (~90%) of the Currituck County population.
- With the exception of persons of “multiple races”, minority groups comprise smaller proportions of the population in Currituck County than in the comparator jurisdictions.

Location	Percent of Overall Population					
	White	Black	American Indian/Alaskan	Asian	Multiple Races	Hispanic
Currituck County	89.6	6.6	0.5	0.4	2.4	3.3
Regional Average	64.8	31.8	0.3	1.0	1.6	3.0
Pamlico County	76.8	19.1	1.0	0.8	1.9	3.3
State of NC	69.6	21.5	1.2	2.4	2.3	8.7

POPULATION AGE DISTRIBUTION

- According to 2014 estimates, compared to NC as a whole Currituck County has higher proportions of people age 45-74 and lower proportions in other age groups.



GROWTH OF THE *ELDERLY* POPULATION

- The population in every major age group age 65 and older in Currituck County is projected to increase between 2000 and 2030.
 - **Age 65-74:** by **82%** (vs. 63% in NC)
 - **Age 75-84:** by **76%** (vs. 67% in NC)
 - **Age 85+:** by 55% (vs. **75%** in NC)
 - **Overall Age 65+:** by **78%** (vs. 66% in NC)
- In 2014 there were an estimated 3,724 persons age 65 and older in Currituck County, representing around 15% of the total population.
- By 2030, with the total population predicted to be growing, 7,197 residents over the age of 65 will comprise 21% of the Currituck County population.

CHARACTERISTICS OF THE ELDERLY POPULATION

(2014 AMERICAN COMMUNITY SURVEY ESTIMATES)

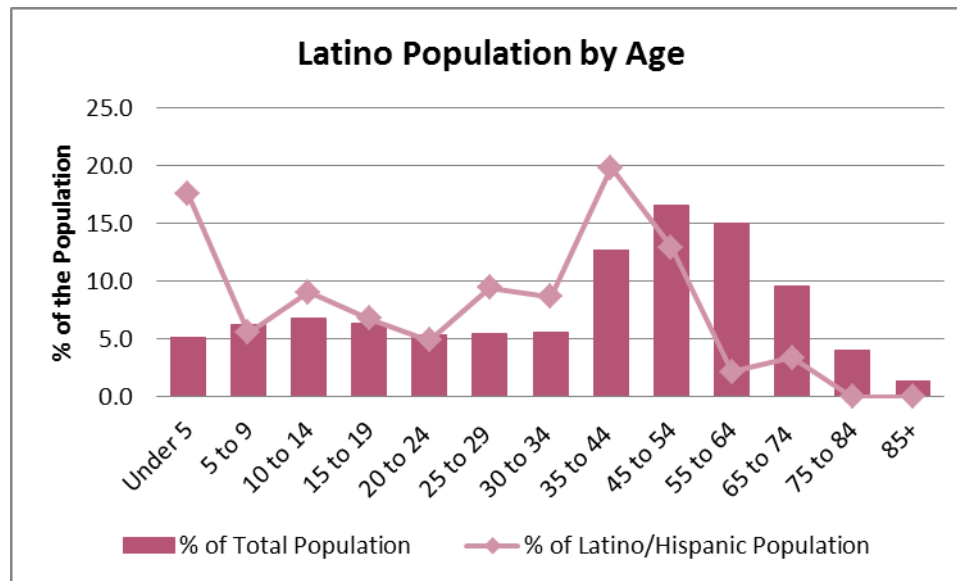
- Among the Currituck County population over the age of 65:
 - 20% have less than a high school diploma (22% in NC)
 - 17% have a graduate or professional degree (22% in NC)
 - 5% are below the poverty level (10% in NC)
 - 20% are in the 100% to 199% poverty level (24% in NC)
 - 88% are homeowners (82% in NC)
 - 22% live alone (28% in NC)
 - 19% are in the labor force (16% in NC)
 - Have a median household income of **\$45,234** (\$35,024 in NC)
- An estimated 34% of Currituck County residents over the age of 65 have a disability (38% in NC).
 - The most common disabilities are ambulatory difficulty (23% vs. 25% in NC) and hearing difficulty (13% vs. 15% in NC).

FOREIGN-BORN POPULATION

- According to 2014 Estimates, 1,025 individuals living in Currituck County were born outside the US.
 - 48% entered before 1990.
- Spanish speakers comprise 1.8% of the total population and 37% of them speak English “less than very well”.
- Other Indo-European Language speakers comprise 0.9% of the population and 99% speak English “very well”.
- “Other” language speakers comprise 0.1% of the population and 100% speak English “very well”.

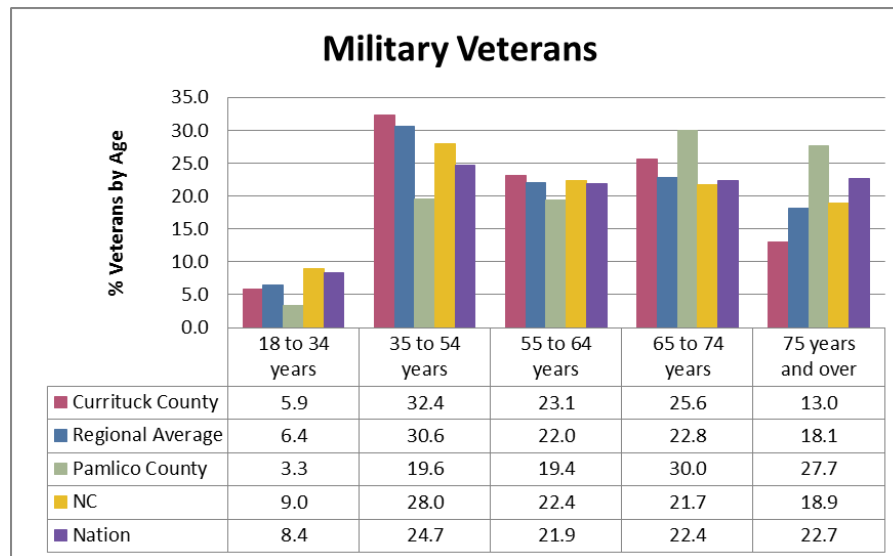
AGE DISTRIBUTION OF LATINO POPULATION

- Compared to the age distribution of the total Currituck County population, the Latino population in the county has higher proportions of persons in most age categories under the age of 45.
- Males represent 57% of the Latino population.



MILITARY VETERANS

- Approximately **15%** of the Currituck County civilian population is a military veteran. [NC = 10% Region = 12%]
- Veterans over the age of 65 comprise 39% of the county's veteran population. [NC = **41%** Region = **41%**]
- Currituck County has higher proportions of veterans in the 35-54 and 55-64 age groups than any other jurisdiction presented.





SOCIOECONOMIC DATA

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

COUNTY ECONOMICS

- Total gross monetary collections in Currituck County, as displayed in the table below, increased each year since 2011-12.

Location	FY2009-10	FY2010-11	FY2011-12	FY2012-13	FY2013-14	FY2014-15
Currituck County	15,813,782	19,180,930	18,508,365	18,862,555	19,091,309	19,807,221
<i>Regional Average</i>	6,981,295	7,998,729	7,314,849	7,651,788	7,379,530	7,730,478
<i>NC County Average</i>	50,252,290	55,679,535	49,906,563	50,164,100	52,548,980	57,312,401

INCOME (2014 ACS ESTIMATES)

In Currituck County:

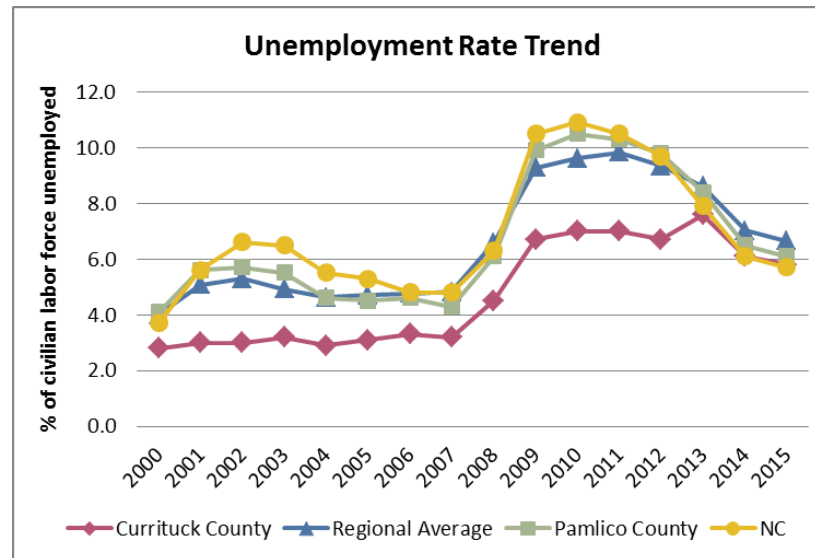
- 2014 Per Capita Income = \$26,703
 - \$1,095 **above** NC average
- 2014 Median Household Income = \$58,676
 - \$11,983 **above** NC average
- 2014 Median Family Income = \$70,882
 - \$13,554 **above** NC average
- 2014 Mean Retirement Income = \$25,744
 - \$3,904 **above** NC average

EMPLOYMENT (AS OF 2ND QUARTER 2015)

- The three employment sectors in Currituck County with the largest workforce (and their average weekly wage) were:
 - Educational Services: 20.7% of workforce (\$964)
 - Statewide, Educational Services workers represent 9.1% of the workforce and earn \$796 a week.
 - Retail Trade: 18.2% of workforce (\$478)
 - Statewide, Retail Trade workers represent 11.7% of the workforce and earn \$504 a week.
 - Administrative & Waste Services: 13.0% of workforce (\$454)
 - Statewide, Administrative & Waste Services workers represent 6.9% of the workforce and earn an average of \$630 a week.

ANNUAL UNEMPLOYMENT RATE

- The unemployment rate in Currituck County was lower than the comparable rates in comparator jurisdictions for most of the period presented.
- From 2013 through 2015 the county unemployment rate approximated the NC rate. In 2015 the unemployment rate was 5.8 in Currituck County, **6.6** across the ARHS Region and 5.7 in NC.



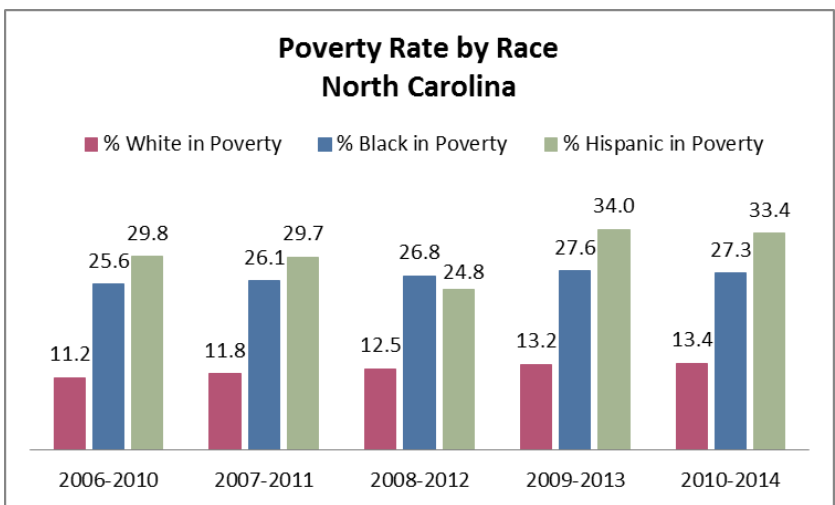
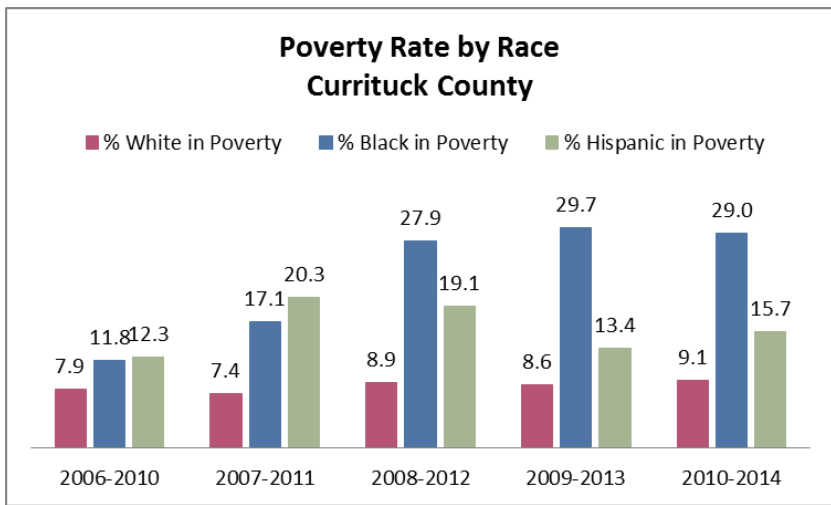
OVERALL POVERTY RATE TREND

- The overall poverty rate (describing the percentage of the total population below the Federally-defined 100% poverty level) in Currituck County was lower than the comparable rate in any location and period shown in the table below.

	2006-2010	2007-2011	2008-2012	2009-2013	2010-2014
Currituck County	8.5	7.8	9.9	9.8	10.3
Regional Average	16.4	17.5	17.3	18.1	17.7
Pamlico County	10.7	12.2	13.8	13.8	13.3
State of NC	15.5	16.1	16.8	17.5	17.6

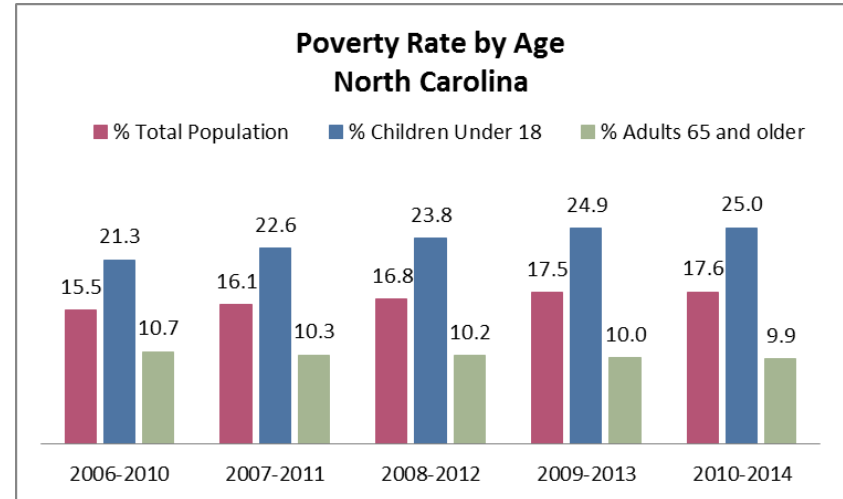
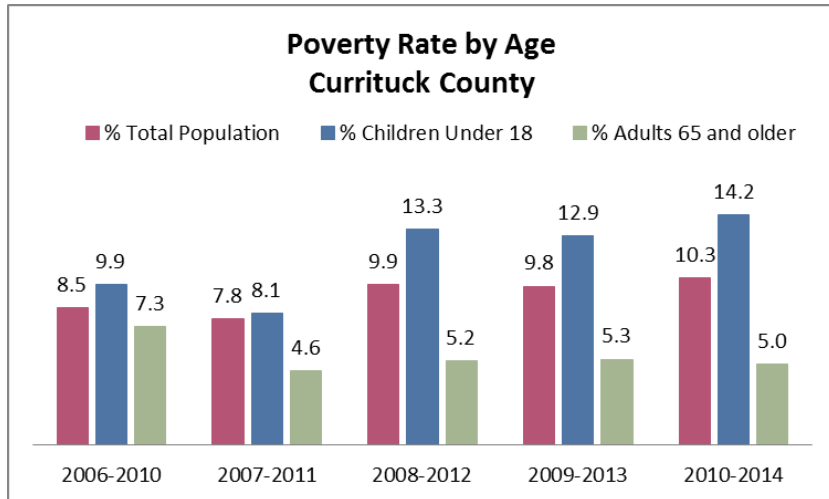
POVERTY AND RACE

- In Currituck County over the period cited, the poverty rates among minorities were significantly higher than the comparable rate for whites, with rates among blacks from 1.5 to 3.5 times higher, and the rate for Hispanics 1.6 to 2.7 times higher.
- Poverty in all racial groups cited increased overall from the beginning to the end of the period cited.



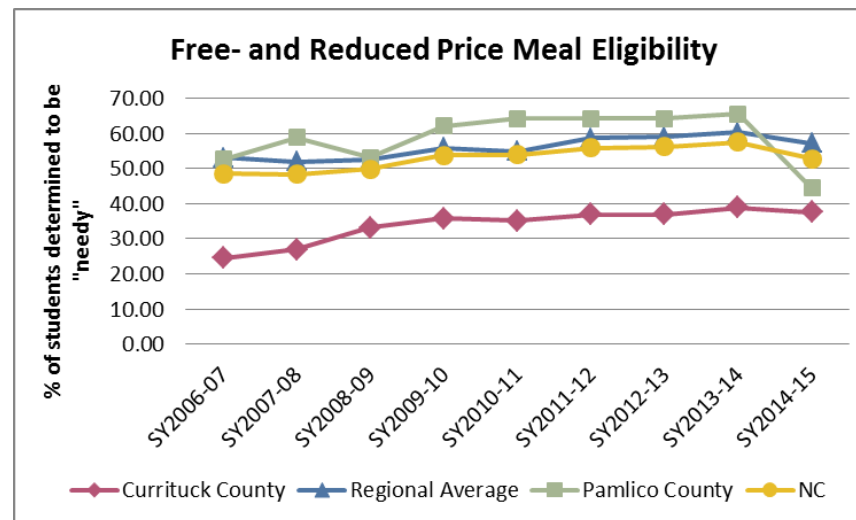
POVERTY AND AGE

- The poverty rate among children, which historically is higher than the overall poverty rate, rose overall in Currituck County during the period cited below, although it remained lower than comparable state rates.
- The poverty rate among senior adults in Currituck County declined overall.



FREE- AND REDUCED-PRICE MEALS

- Another measure of poverty, particularly among families with children, is the rate of participation in the free- and reduced-price meal programs in the public school system.
- In Currituck County, a much lower percentage of students have been identified as “needy” compared to the State, although the county figure has increased over time.
- For the 2014-15 school year, approximately 38% of Currituck County students were identified as needy, compared to **57%** in the Region and 53% across the state.



HOUSING AND HOUSING COSTS

According to 2014 ACS estimates:

- **81%** of Currituck County housing units were owned and 18% were rented. Statewide, 66% of housing units were owned and **34%** were rented.
- 13% of housing units in Currituck County were mobile homes, compared to 13.5% statewide.
- The estimated median monthly mortgage cost among Currituck County home owners **increased** from \$1,513 in 2005-2009 to
\$1,596 in 2010-2014, **\$324 more than the NC median**
- The estimated median gross monthly rent among Currituck County renters **increased** from \$761 in 2005-2009 to
\$973 in 2014, **\$183 more than the NC median**
- In 2014, the percentage of Currituck County mortgagees spending more than 30% of their monthly income on housing was **38%**, compared to 31% statewide.
- In 2014, the percentage of Currituck County renters spending more than 30% of their monthly income on housing was **58%**, compared to 51% statewide.

HOMELESSNESS

- Every January the NC Coalition to End Homelessness conducts a point-in-time count of homeless individuals.
- Currituck County was not among the jurisdictions participating in the count in 2009 through 2015.



CHILDREN AND FAMILIES (2014 ESTIMATES)

- There were 6,753 households in Currituck County
 - 39% of households had children under 18 (NC = **43%**)
 - **80%** of households were married couples (NC = 73%)
 - 6% of households were single male householders (NC = **7%**)
 - 13% of households were single female householders (NC = **21%**)
 - **30%** of households were married couples with minor children (NC = 28%)
 - 3% of households were single males with minor children (NC = 3%)
 - 6% of households were single females with minor children (NC = **12%**)

GRANDPARENTS (2014 ESTIMATES)

- An estimated 527 Currituck County grandparents were living with their minor grandchildren
- 44% were *also* financially responsible for those grandchildren
 - [NC = 48% Region = **49%**]
 - 41% were over the age of 60 [NC = 35% Region = 38%]
 - 17% were African American [NC = **36%** Region = 33%]
 - 0% were disabled [NC = **28%** Region = 22%]
 - 17% were below the poverty level [NC = 26% Region = **29%**]



EDUCATIONAL ACHIEVEMENT

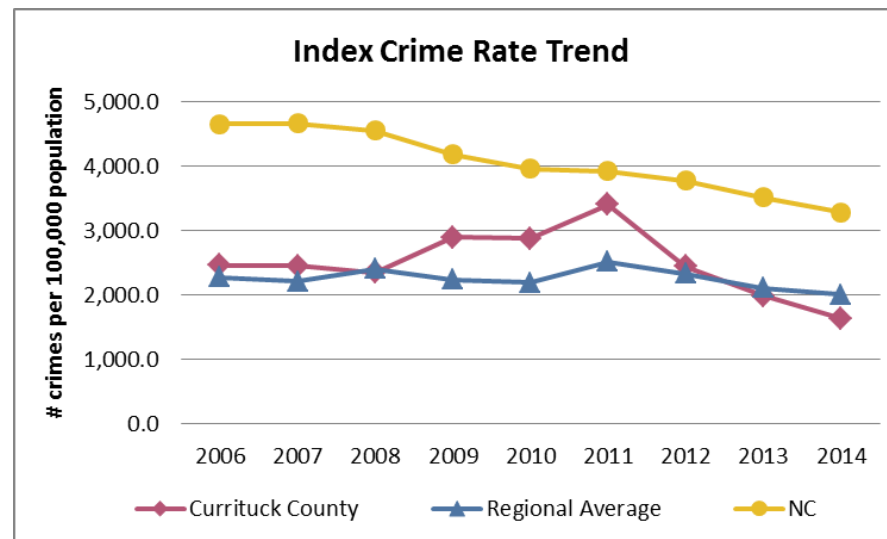
- Compared to the NC average, Currituck County has:
 - A **similar** proportion of residents with less than a high school education: 15% [NC = 15% Region = **17%**]
 - A **lower** proportion of residents with a bachelor's degree or higher: 19% [NC = **28%** Region = 17%]
 - **Higher** proficiency compared to the state and the region on most math and reading EOG tests among 3rd and 8th graders (scores on 8th grade math EOG is slightly lower).
 - **Higher** rate of participation in the SAT and **higher** average scores.
 - **Higher** local and state per-pupil expenditures but **lower** federal funding.
 - **Higher** graduation for rates for all groups.

EDUCATIONAL SYSTEM

- The number of students enrolled in Currituck County schools has changed little since SY2008-09, fluctuating by fewer than 100 students each year. In the 2014-15 school year 4,057 students were enrolled in Currituck County public schools.
- While the county high school drop-out rate varies on a yearly basis, it has decreased overall from a high of 5.87 in SY2004-05 to 2.10 in SY2013-14. The Currituck County rate fluctuated around the state rate.
- The high school reportable crime rate in Currituck County is variable and was higher than the state rate in SY2013-14 (7.7 vs. 6.8, respectively).

CRIME AND SAFETY

- The “index crime rate” is the rate of the sum of violent crime and property crime. The majority of crimes committed are property crimes.
- Index, Violent and Property crime rates are historically **lower** in Currituck County compared to State rates.
- In 2014 the Currituck County **index** crime rate was 1,636.3 crimes committed per 100,000 population, compared to **3,287.2** in NC and 2,006.2 in the ARHS Region.
- In 2014 the Currituck County **violent** crime rate rate was 300.0 compared to a state rate of **333.0** and a Regional rate of 214.5.
- The 2014 **property** crime rate was 1,436.4 in Currituck County compared to **2,954.1** in NC and 1,808.4 in the Region.



JUVENILE CRIME

- Between 2010 and 2014 the *number/rate* of individuals who were subjects of complaints of **undisciplined** youth (ages 6-17) in Currituck County ranged from a low of 5/1.28 in 2012 to a high of 12/3.07 in 2013.
- Over the same period the *number* and *rate* of complaints of **delinquent** youth in the county fluctuated from a low of 99 and 31.13 respectively in 2012 to a high of 164 and 51.17 in 2014.
- 41 Currituck County youths were sent to secure detention between 2010 and 2014.

DOMESTIC VIOLENCE

- The number of domestic violence clients seen by Currituck County agencies varies from year to year. In FY2013-14, 407 clients filed complaints; 225 filed complaints in FY2014-15.
- 2,203 services were provided to Currituck County domestic violence clients in FY2014-15. The most common service was the provision of information, followed by advocacy.
- The domestic violence shelter serving Currituck County was full on 32 days in FY2014-2015.

SEXUAL ASSAULT

- Data related to sexual assault clients in Currituck County was not available before FY2009-10.
- The number of sexual assault clients seen by local agencies is variable in Currituck County. In FY2010-11, 79 clients filed complaints; 11 filed complaints in FY2014-15.
- The most common types of assault in FY2014-15 were adult rape (accounting for 28% of the clients) and child sexual offense (22%).
- The most common type of offender was a relative (47%).

CHILD MALTREATMENT

- The number of children subject to abuse, neglect, abuse and neglect, or dependency in Currituck County fluctuates yearly.
- Neglect-only cases composed the most common type of child maltreatment in most years; in 2014-15, 30 of the 35 substantiated cases involved neglect.
- In Currituck County in 2014-15, 91% of the substantiated cases of abuse or neglect were white children, 51% of the victims were male, and 40% were under the age of 5.

Category	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Total No. of Findings of Abuse, Neglect, Dependency	212	198	193	162	199	184	173	145	167	214	196
No. Substantiated ¹ Findings of Abuse and Neglect	1	1	2	8	0	5	6	5	0	2	0
No. Substantiated Findings of Abuse	0	4	1	2	1	3	0	0	2	1	3
No. Substantiated Findings of Neglect	16	49	18	15	26	21	42	17	15	39	30
Services Recommended	72	80	65	66	83	87	41	59	50	49	50
No. Unsubstantiated Findings	58	32	43	58	53	40	39	39	43	77	61
Services Not Recommended	51	15	26	8	9	2	18	7	19	20	30

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



HEALTH RESOURCES

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

HEALTH INSURANCE

- The percent of uninsured adults (age 19-64) in Currituck County rose and fell in the periods shown below but was lower than the comparable state figures in all years presented.
- The age group 0-18 tends to have a lower percentage of uninsured than the 19-64 age group, due partly at least to coverage of children through NC Health Choice. A higher proportion of Currituck minors are uninsured compared to NC and the ARHS region.
- As of 2014 estimates, 17.3% of Currituck County residents were without health insurance and 12.1% under 18 were uninsured. Twenty five percent of county residents were insured via public programs, compared to 32% statewide.

Location	2011			2012			2013		
	0-18	19-64	0-64	0-18	19-64	0-64	0-18	19-64	0-64
Currituck County	9.8	20.8	17.7	8.6	21.3	17.9	8.8	21.0	17.8
Regional Average	8.2	21.0	17.4	8.0	21.2	17.6	7.4	20.7	17.1
Pamlico County	10.3	21.5	18.7	10.2	22.4	19.3	10.8	22.9	19.9
State of NC	7.9	23.0	18.7	7.9	23.4	19.0	6.9	22.5	18.1

MEDICAID ELIGIBILITY

- Approximately 11% of Currituck County residents were eligible for Medicaid in 2014.
- The total number of people in Currituck County eligible for Medicaid increased over the period presented.
- As of January 2013, 75% of Currituck County children who were eligible for NC Health Choice were enrolled.
- As of December 2013, 85% of those eligible for Carolina ACCESS were enrolled.

Year	Number of Eligibles, as of December 31 each year													
	Aged	Blind	Disabled	AFDC	Foster Care	Pregnant Women	Family Planning Waiver	Infants & Children	Medicaid CHIP	Medicare Catastrophic	Comprehensive Medicare-Aid (MQBQ-B-E)	Refugees Aliens	BCC	Total Eligibles
2008	159	3	357	545	23	50	n/a	903	77	71	n/a	0	1	2,189
2009	151	3	361	340	8	53	n/a	1,013	71	78	n/a	0	1	2,379
2010	156	4	363	613	12	47	n/a	1,103	60	105	n/a	0	0	2,463
2011	155	3	386	601	26	59	n/a	1,124	80	102	n/a	0	2	2,538
2012	146	3	399	509	9	56	n/a	1,084	66	110	n/a	0	1	2,383
2013	135	4	426	468	14	65	n/a	1,099	68	132	n/a	0	5	2,416
2014	137	5	438	610	27	43	94	1,020	257	n/a	130	3	1	2,765
Oct-15	139	2	465	925	32	26	126	707	196	n/a	109	8	3	2,738

HEALTH CARE PRACTITIONERS

- 2012 ratios of active health professionals per 10,000 population were **lower** in Currituck County than in NC for:
 - MDs: 4.21 [NC=22.31 Region=8.38]
 - Primary Care MDs: 1.68 [NC=7.58 Region=3.53]
 - Dentists: 1.68 [NC=4.51 Region=1.72]
 - Registered Nurses: 26.51 [NC=98.56 Region=53.15]
 - Pharmacists: 1.26 [NC=10.06 Region=4.19]
- These ratios do not take into consideration medical practitioners in neighboring counties accessible to Currituck County residents.

HEALTH CARE PRACTITIONERS

- As of 2012, there were 4 primary care physicians (no General Practice physicians, no Obstetrician/Gynecologists, no Pediatricians) and 6 specialists in Currituck County.
- In 2012, 4 dentists and 2 hygienists were practicing in Currituck County.
- The 2012 count of 63 nurses in the county included zero nurse practitioners. An additional 36 LPNs were located in Currituck County.
- Among other health professional categories in Currituck County in 2012, there was no optometrists, no podiatrists, no practicing psychologists, and no respiratory therapists.

OTHER HEALTHCARE PROVIDERS

- As of February 2016, there were 2 dental providers in Currituck County who were currently participating in Medicaid or NC Health Choice. One was accepting new Medicaid clients.
- As of September 2015 there were 7 mental health providers listed in Currituck County accepting Medicaid/NC Health Choice clients.
- The student to school nurse ratio was 1 nurse for approximately 600 students in SY2012-13. The recommended ratio is 1 nurse for every 750 students.

OTHER HEALTHCARE FACILITIES

- There is no hospital located in Currituck County.
- There are no dialysis facilities in Currituck County.
- As of February 2016 there were no licensed ambulatory care facilities, cardiac rehabilitation facilities or nursing pools in the county.
- As of February 2016 there were 3 licensed mental health facilities in Currituck County; 1 provided supervised living for developmentally disabled adults, 1 provided day activities for developmentally disabled persons, and 1 provided day treatment for substance abuse.

LONG-TERM CARE FACILITIES (AS OF FEBRUARY 2016)

- The number of beds in NC-licensed long-term care facilities in Currituck County are:
 - Adult Care Homes/Homes for the Aged (1 facility): 90 beds
 - No Family Care Homes
 - Nursing Homes/Homes for the Aged (1 facility): 100 beds

Total = 190 beds, or 1 bed for every 20 persons age 65 and older in Currituck County (3,724 persons \geq 65 in 2014)

HOSPITAL UTILIZATION SUMMARY: EMERGENCY DEPARTMENT

Below is the overall gender and age-group profile of ED utilization at the three hospitals in the study region seeing more than 20 Currituck County ED patients over two years.

No. ED Discharges by Gender and Age Group						
Fiscal Year	No. by Gender		No. by Age Group			Total No. Discharges
	Females	Males	< 18	18-64	≥ 65	
2013	3,051	2,204	863	3,697	695	5,225
2014	2,877	2,209	793	3,607	686	5,086
Total	5,928	4,413	1,656	7,304	1,381	10,341

HOSPITAL UTILIZATION SUMMARY: EMERGENCY DEPARTMENT

Below is the overall racial and ethnic profile of ED utilization at the three hospitals in the study region seeing more than 20 Currituck County ED patients over two years.

Fiscal Year	No. ED Discharges by Racial/Ethnic Group							Total No. Discharges
	Am. Indian/ Alaskan	Asian	Black	Hispanic	Other	Unknown	White	
2013	7	7	640	79	60	13	4,449	5,225
2014	4	11	623	83	43	22	4,300	5,086
Total	11	18	1,263	162	103	35	8,749	10,341

HOSPITAL UTILIZATION SUMMARY: EMERGENCY DEPARTMENT

Below is the overall payor profile of ED utilization at the three hospitals in the study region seeing more than 20 Currituck County ED patients over two years.

Fiscal Year	No. ED Discharges by Payor Group								Total No. Discharges
	Commercial	Medicaid	Medicaid Managed Care	Medicare	Medicare Managed Care	Self-Pay	Military	Other	
2013	491	633	662	872	38	1,794	209	556	5,255
2014	523	733	485	979	47	1,558	180	581	5,086
Total	1,014	1,366	1,147	1,851	85	3,352	389	1,137	10,341
Group % of Total	9.8	13.2	11.1	17.9	0.8	32.4	3.8	11.0	100%

HOSPITAL UTILIZATION SUMMARY:

INPATIENT HOSPITALIZATIONS

Below is the overall gender and age-group profile of IP utilization at the three hospitals in the study region seeing more than 20 Currituck County IP patients over two years.

No. IP Discharges by Gender and Age Group						
Fiscal Year	No. by Gender		No. by Age Group			Total No. Discharges
	Females	Males	< 18	18-64	≥ 65	
2013	423	260	109	294	280	683
2014	442	335	120	348	309	777
Total	865	595	229	642	589	1,460



HOSPITAL UTILIZATION SUMMARY:

INPATIENT HOSPITALIZATIONS

Below is the overall racial and ethnic profile of IP utilization at the three hospitals in the study region seeing more than 20 Currituck County IP patients over two years.

Fiscal Year	No. IP Discharges by Racial/Ethnic Group							Total No. Discharges
	Am. Indian/Alaskan	Asian	Black	Hispanic	Other	Unknown	White	
2013	0	3	79	12	2	2	585	683
2014	0	0	56	25	1	6	689	777
Total	0	3	135	37	3	8	1,274	1,460



HOSPITAL UTILIZATION SUMMARY:

INPATIENT HOSPITALIZATIONS

Below is the overall payor profile of IP utilization at the three hospitals in the study region seeing more than 20 Currituck County IP patients over two years.

Fiscal Year	No. IP Discharges by Payor Group								Total No. Discharges
	Commercial	Medicaid	Medicaid Managed Care	Medicare	Medicare Managed Care	Self-Pay	Military	Other	
2013	65	129	49	296	4	45	21	74	683
2014	81	148	39	341	8	73	21	66	777
Total	146	277	88	637	12	118	42	140	1,460
Group % of Total	10.0	19.0	6.0	43.6	0.8	8.1	2.9	9.6	100%



HEALTH STATISTICS

Health Rankings

HEALTH RANKINGS

- According to *America's Health Rankings* (2014)
 - NC ranked 37th overall out of 50 (where 1 is “best”)
- According to *County Health Rankings* (2015) for NC, Currituck County was ranked:
 - 26th overall out of 100 (where 1 is best) for **health outcomes**
 - 35th in length of life
 - 20th for quality of life
 - 22nd overall out of 100 for **health factors**
 - 59th for health behaviors
 - 56th for clinical care
 - 6th for social and economic factors
 - 37th for physical environment



MATERNAL AND INFANT HEALTH

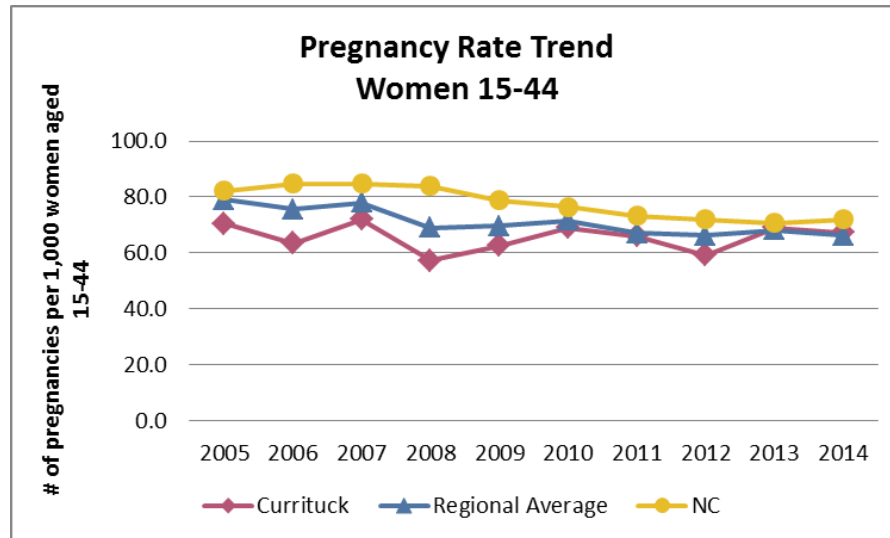
***Pregnancy Rate, Risk Factors,
Outcomes, Infant Mortality***

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

PREGNANCY RATE: WOMEN 15-44

Pregnancies per 1,000 Women Age 15-44

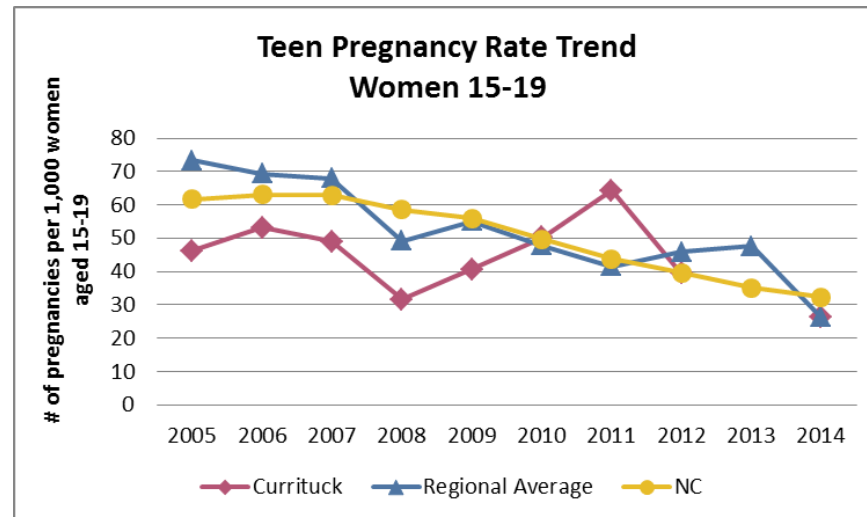
- The total pregnancy rate in Currituck County fluctuates on a yearly basis and has changed little overall in the period cited. The county total pregnancy rate was lower than the comparable NC rate throughout the period.
- Total pregnancy rates in the ARHS Region and NC have fallen overall since 2006.
- The 2014 pregnancy rate was 67.4 in Currituck County, compared to 66.3 in the Region and **72.1** in NC.



PREGNANCY RATE: WOMEN 15-19

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

- The teen pregnancy rate in Currituck County increased between 2008 and 2011 but has fallen since.
- In 2014 the teen pregnancy rate was 26.5 in Currituck County, compared to 26.4 for the Region and 32.3 for the state.



PREGNANCY RATE: BY RACE/ETHNICITY

- Discussion of racially stratified pregnancy rates is complicated by unstable and suppressed rates as well as changes in the way the SCHS has handled racial identity.
- Among women aged 15-44, the county pregnancy rate in 2013 was higher among African American non-Hispanics (79.8) than among white non-Hispanic women (68.0).
- In 2011 (the last year of unsuppressed rates) the county teen (women age 15-19) pregnancy rate was 50.8 among African American non-Hispanics and 65.1 among white non-Hispanics.

TEEN AND ADOLESCENT PREGNANCIES

- The *number* of teen (women aged 15-19) pregnancies in Currituck County was variable between 2003 and 2013. An average of 35 teen pregnancies occurred each year (the same as the average for the Region).
- There were 8 pregnancies among Currituck County adolescent girls (age 14 and younger) in 2003 through 2011. There were no pregnancies among this age group in 2012 or 2013.

ABORTION TREND

- The Currituck County abortion rate among women aged 15-44 has decreased overall since 2007 and was lower than the state for much of the period presented.
 - In 2014, the Currituck County rate was 7.8 compared to **10.7** in the Region and **10.7** in NC.
- The county abortion rate among teenage women has increased each year since 2007. Note, however, that some of these rates were based on small numbers of events and thus were unstable.
 - In 2011 (the last year for which rates are available) the Currituck County rate was **19.7** (and stable), compared to 9.7 across the Region and 8.7 for NC.

PREGNANCY RISK FACTORS: SMOKING DURING PREGNANCY

- The percentage of Currituck County women who smoked during pregnancy increased in each of the years presented below and was higher than comparable state and regional rates in the most recent two periods.

Location	Percent of Births to Mothers Who Smoked While Pregnant			
	2011	2012	2013	2014
Currituck County	8.6	9.6	10.9	15.0
Regional Average	11.3	10.4	10.6	13.6
Pamlico County	25.8	18.4	17.7	13.2
State of NC	10.9	10.6	10.3	9.8

PREGNANCY RISK FACTORS: INADEQUATE PRENATAL CARE

- For much of the period cited below the percentage of women receiving early prenatal care was lower in Currituck County than statewide.
- The percentage of Currituck County women receiving prenatal care in the first trimester increased from 31% in 2011 to 71.5% in 2014.
- It is worth noting that in 2011-2013, the answer to this question was “Not Stated” for approximately 60% of Currituck County births. In 2014, only 8% of the answers were “Not Stated”. Gates County saw similar proportions of “Not Stated” and low prenatal care rates. Most other ARHS counties had less than 11% “Not Stated”. So the low rates of prenatal care could be more a result of this question not being answered than of women not getting the recommended care.

County	Percent of Pregnancies Receiving Prenatal Care in 1 st Trimester			
	2011	2012	2013	2014
Currituck County	31.0	31.6	34.4	71.5
Regional Average	53.3	49.0	55.6	70.5
Pamlico County	69.7	75.5	63.3	63.7
State of NC	71.2	71.3	70.3	68.2

PREGNANCY OUTCOMES:

LOW WEIGHT BIRTHS

- **Low Weight Births (≤ 2500 grams/5.5 lbs.) in 2010-2014**
 - Overall Currituck = 5.8% [NC = 9.0% Region = **9.4%**]
 - The rate declined steadily since 2001-2005.
 - Highest (unstable) rate is among Black non-Hispanics (15.2%).

- **Very Low Weight Births (≤ 1500 grams/3.3 lbs.) in 2010-2014**
 - Overall Currituck = 0.8% [NC = 1.7% Region = **1.8%**]
 - The variable rate has decreased steadily since 2005-2009.
 - Highest (unstable) rate is among Hispanics (1.9%).

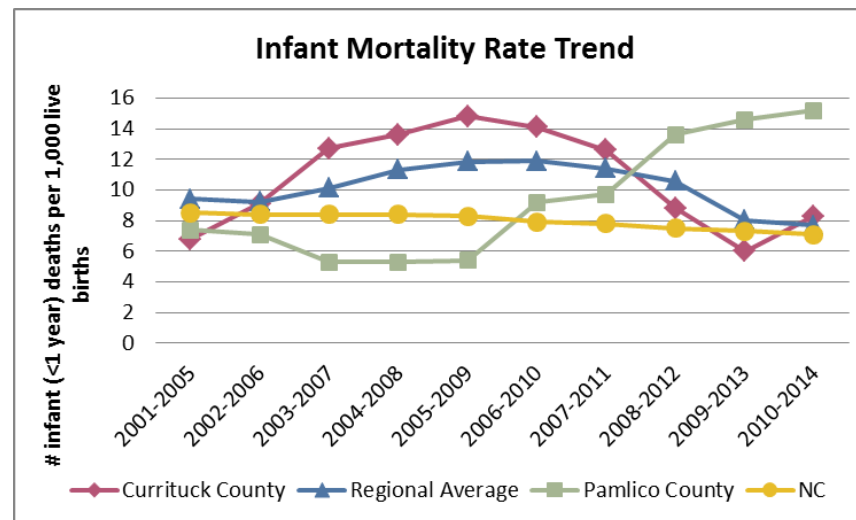
PREGNANCY OUTCOMES: HOSPITAL DISCHARGES FOR NEWBORNS AND NEONATES WITH CONDITIONS ORIGINATING IN THE PERINATAL PERIOD

According to data from the three hospitals in the study region seeing more than 20 Currituck County inpatients over two years, the number of discharges associated with newborns or neonates with prematurity or some kind of problem originating in the perinatal period totaled 33% of all newborns over the period cited.

Year	Number of Hospital Discharges by DRG (Diagnosis Related Group) Diagnosis					
	Normal Newborns	Extreme Immaturity or Respiratory Distress	Prematurity with Major Problems	Prematurity without Major Problems	Full-Term Neonate with Major Problems	Neonate with Other Significant Problems
2013	71	0	0	4	1	28
2014	70	0	0	5	4	28
Total	141	0	0	9	5	56

PREGNANCY OUTCOMES: INFANT MORTALITY

- All of the Currituck County infant mortality rates are unstable, so the trend presented should be interpreted with caution.
- The Currituck County infant mortality rate was higher than both the state and region for most of the period shown.
- The total infant mortality rate in Currituck County decreased steadily between 2005-2009 and 2009-2013, but increased to **8.3** in 2010-2014 [when NC = 7.1 and Region = 7.7].
- Note that according to the CDC the 2013 infant mortality rate in NC was the 10th highest in the nation.



PREGNANCY OUTCOMES: INFANT MORTALITY BY RACE

- No stable infant mortality rates are available for any minority racial group in Currituck County; between 2008-2012 and 2010-2014, 4 infant deaths occurred among minorities.





MORTALITY

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

LIFE EXPECTANCY

Life Expectancy for persons born in 2012-2014

- Among comparators, life expectancy is shortest in Currituck County for many groups.
- Life expectancy has improved over time among all groups presented.

Location	Life Expectancy in Years									
	Person Born in 1990-1992					Person Born in 2012-2014				
	Overall	Male	Female	White	African-American	Overall	Male	Female	White	African-American
Currituck County	73.1	69.9	76.7	74.4	62.9	77.2	74.7	79.8	77.3	76.4
<i>Regional Average</i>	<i>73.7</i>	<i>69.8</i>	<i>77.7</i>	<i>75.1</i>	<i>70.3</i>	<i>78.3</i>	<i>75.8</i>	<i>81.0</i>	<i>79.0</i>	<i>76.5</i>
Pamlico County	75.1	71.5	78.7	76.7	70.7	77.5	75.2	80.3	77.2	77.6
State of NC	74.9	71.0	78.7	76.4	69.8	78.3	75.8	80.7	79.1	75.9



LEADING CAUSES OF DEATH: OVERALL

Age-Adjusted Rates (2010-2014)	Currituck County No. of Deaths	Currituck County Mortality Rate	Currituck Rate Difference from NC
1. Heart Disease	246	199.4	+20.2%
2. Total Cancer	264	197.8	+15.1%
3. Pneumonia and Influenza	108	97.2	+4x
4. Chronic Lower Respiratory Disease	80	63.6	+38.3%
5. All Other Unintentional Injuries	40	31.4	+6.1%
6. Cerebrovascular Disease	33	26.9	-37.4%
7. Alzheimer's Disease	27	25.9	-11.3%
8. Suicide	22	16.4	+32.3%
9. Septicemia	18	15.4	+18.5%
10. Nephritis, Nephrotic Syndrome, and Nephrosis	16	12.8	-24.7%
11. Diabetes Mellitus	16	10.5	-52.2%
12. Unintentional Motor Vehicle Injuries	12	9.9	-26.7%
13. Chronic Liver Disease and Cirrhosis	13	8.7	-10.3%
14. Homicide	4	3.8	-33.3%
15. Acquired Immune Deficiency Syndrome	0	0.0	-100.0%

HOSPITAL ACTIVITY ASSOCIATED WITH LEADING CAUSES OF DEATH (LCD)

- Below is data on *emergency department* discharges from the three hospitals in the study region seeing more than 20 Currituck County patients in the ED over the two years cited. In most cases, the diagnoses referenced match the NC State Center for Health Statistics' ICD-9 case definitions for several Leading Causes of Death (LCD).
- The largest number of ED discharges in the table below are associated with injuries and poisoning, followed by pneumonia/influenza and COPD.

Year	Number of Emergency Department Discharges (by SCHS ICD-9 Case Definitions for LCD)							
	Heart Disease	Total Cancer	Pneumonia/ Influenza	COPD (Bronchitis & Emphysema)	Injuries/ Poisoning	Stroke	Alzheimer's Disease	Suicide Ideation
2013	47	16	38/27	60	1,025	15	0	15
2014	52	17	38/27	64	966	15	0	13
Total	99	33	76/54	124	1,991	30	0	28

HOSPITAL ACTIVITY ASSOCIATED WITH LEADING CAUSES OF DEATH (LCD)

- Below is data on *inpatient hospitalization* discharges from the three hospitals in the study region seeing more than 20 Currituck County inpatients over the two years cited. In most cases, the diagnoses referenced match the NC State Center for Health Statistics' ICD-9 case definitions for several Leading Causes of Death.
- The largest number of IP discharges in the table below are associated with heart disease, followed by COPD.

Year	Number of Inpatient Hospitalization Discharges (by SCHS ICD-9 Case Definitions for LCD)							
	Heart Disease	Total Cancer	Pneumonia/ Influenza	COPD (Bronchitis & Emphysema)	Injuries/ Poisoning	Stroke	Alzheimer's Disease	Suicide Ideation
2013	68	19	23/0	27	31	11	0	0
2014	100	16	14/1	32	24	18	0	0
Total	168	35	37/1	59	55	39	0	0

LEADING CAUSES OF DEATH: GENDER COMPARISON

Currituck County Rank by Descending Overall Age-Adjusted Rate (2010-2014)	Rank Among Males	Rank Among Females	% Male Rate Difference from Females
1. Heart Disease	1	2	+73.7%
2. Total Cancer	2	1	+26.3%
3. Pneumonia and Influenza	3	3	-15.7%
4. Chronic Lower Respiratory Disease	4	4	+32.4%
5. All Other Unintentional Injuries	5	n/a	n/a
6. Cerebrovascular Disease	n/a	5	n/a
7. Alzheimer's Disease	n/a	6	n/a
8. Suicide	6	n/a	n/a
9. Septicemia	n/a	n/a	n/a
10. Nephritis, Nephrotic Syndrome, and Nephrosis	n/a	n/a	n/a
11. Diabetes Mellitus	n/a	n/a	n/a
12. Unintentional Motor Vehicle Injuries	n/a	n/a	n/a
13. Chronic Liver Disease and Cirrhosis	n/a	n/a	n/a
14. Homicide	n/a	n/a	n/a
15. Acquired Immune Deficiency Syndrome	n/a	n/a	n/a

LEADING CAUSES OF DEATH: RACE COMPARISON

Currituck County Rank by Descending Overall Age-Adjusted Rate (2010-2014)	Rank Among White Non-Hispanic	Rank Among Black non- Hispanic	% Blacks Rate Difference from Whites
1. Heart Disease	2	1	+37.1%
2. Total Cancer	1	n/a	n/a
3. Pneumonia and Influenza	3	n/a	n/a
4. Chronic Lower Respiratory Disease	4	n/a	n/a
5. All Other Unintentional Injuries	5	n/a	n/a
6. Cerebrovascular Disease	6	n/a	n/a
7. Alzheimer's Disease	7	n/a	n/a
8. Suicide	8	n/a	n/a
9. Septicemia	n/a	n/a	n/a
10. Nephritis, Nephrotic Syndrome, and Nephrosis	n/a	n/a	n/a
11. Diabetes Mellitus	n/a	n/a	n/a
12. Unintentional Motor Vehicle Injuries	n/a	n/a	n/a
13. Chronic Liver Disease and Cirrhosis	n/a	n/a	n/a
14. Homicide	n/a	n/a	n/a
15. Acquired Immune Deficiency Syndrome	n/a	n/a	n/a

LEADING CAUSES OF DEATH – BY AGE

Age Group	Rank	Cause of Death in Currituck County (2010-2014)
00-19	1	Conditions originating in the perinatal period
	2	Congenital anomalies
	3	Other unintentional injuries
20-39	1	Diseases of the Heart
	2	Cerebrovascular Disease
	3	Homicide SIDS
40-64	1	Other unintentional injuries
	2	Motor vehicle injuries
	3	Suicide Diseases of the heart
65-84	1	Cancer (all sites)
	2	Diseases of the heart
	3	Other unintentional injuries
85+	1	Cancer (all sites)
	2	Diseases of the heart
	3	Chronic lower respiratory diseases
85+	1	Diseases of the heart
	2	Pneumonia & Influenza
	3	Cancer (all sites)



OVERALL SHORT-TERM MORTALITY RATE TRENDS: 2007-2011 AND 2010-2014

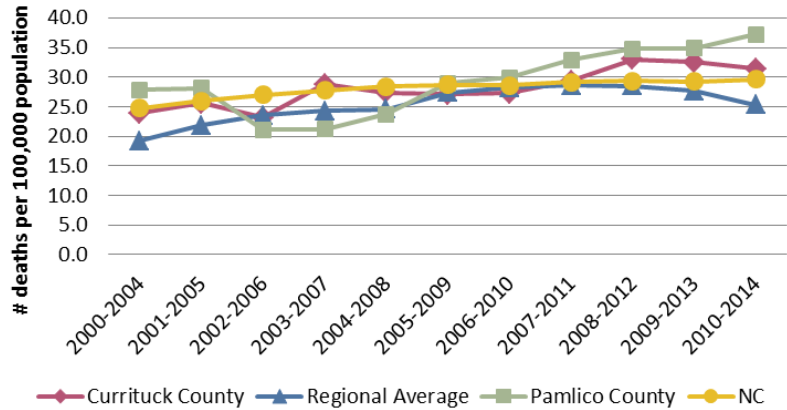
Currituck County Rank by Descending Overall Age-Adjusted Rate (2010-2014)	Rate in 2007-2011	Rate in 2010-2014	Percent Difference
1. Heart Disease	195.0	199.4	+2.3%
2. Total Cancer	199.6	197.8	-0.9%
3. Pneumonia and Influenza	80.9	97.2	+20.1%
4. Chronic Lower Respiratory Disease	60.9	63.6	+4.4%
5. All Other Unintentional Injuries	29.4	31.4	+6.8%
6. Cerebrovascular Disease	26.5	26.9	+1.5%
7. Alzheimer's Disease	24.4	25.9	+6.1%
8. Suicide	17.4	16.4	-5.7%
9. Septicemia	14.2	15.4	+8.5%
10. Nephritis, Nephrotic Syndrome, and Nephrosis	14.0	12.8	-8.6%
11. Diabetes Mellitus	11.4	10.5	-7.9%
12. Unintentional Motor Vehicle Injuries	27.8	9.9	-64.4%
13. Chronic Liver Disease and Cirrhosis	12.9	8.7	-32.6%
14. Homicide	3.3	3.8	+15.2%
15. Acquired Immune Deficiency Syndrome	1.2	0.0	-100.0%

OVERALL LONG-TERM MORTALITY RATE TRENDS: 2000-2004 TO 2010-2014

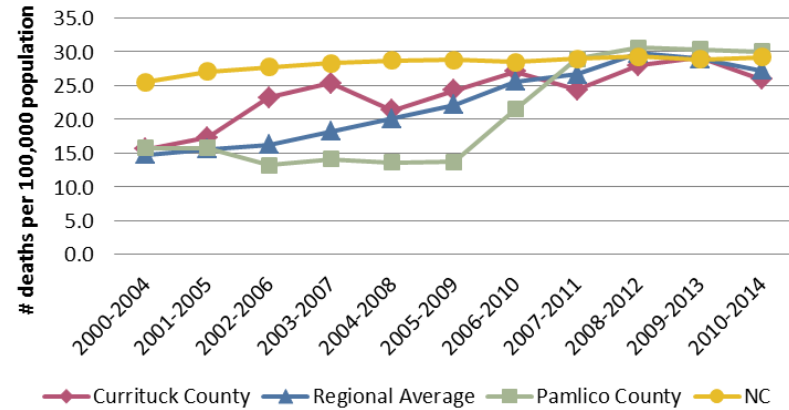
Currituck County Rank by Descending Overall Age-Adjusted Rate (2010-2014)	Overall Trend Direction (determined by Excel trendline)
1. Heart Disease	▼
2. Total Cancer	Little change
3. <i>Pneumonia and Influenza</i>	▲▲
4. Chronic Lower Respiratory Disease	▲
5. All Other Unintentional Injuries	▲
6. Cerebrovascular Disease	▼▼
7. Alzheimer's Disease	▲
8. Suicide	▲
9. Septicemia	▲
10. Nephritis, Nephrotic Syndrome, and Nephrosis	▲
11. Diabetes Mellitus	▼
12. Unintentional Motor Vehicle Injuries	▼
13. Chronic Liver Disease and Cirrhosis	▲
14. Homicide	▲
15. Acquired Immune Deficiency Syndrome	▼

MORTALITY RATE TRENDS OF CONCERN: INCREASING COUNTY RATES

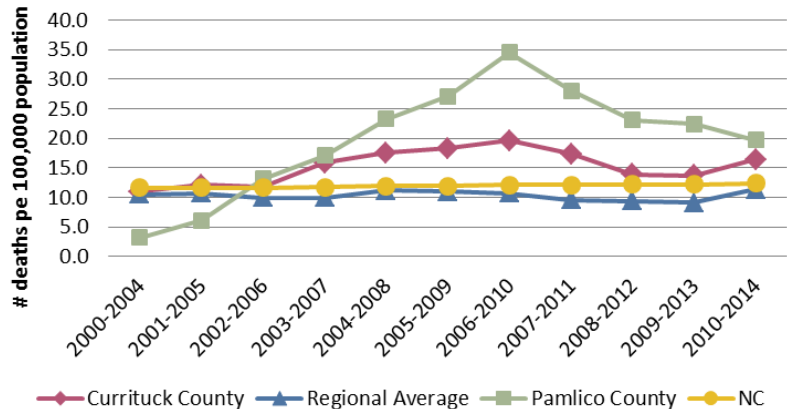
Unintentional Injuries Mortality Rate Trend



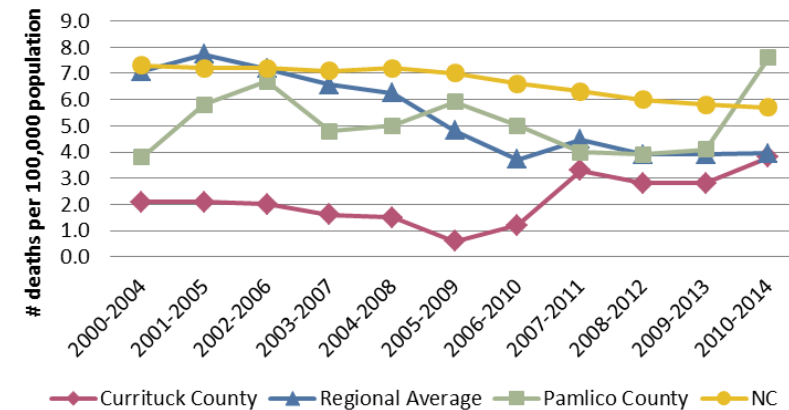
Alzheimer's Disease Mortality Rate Trend



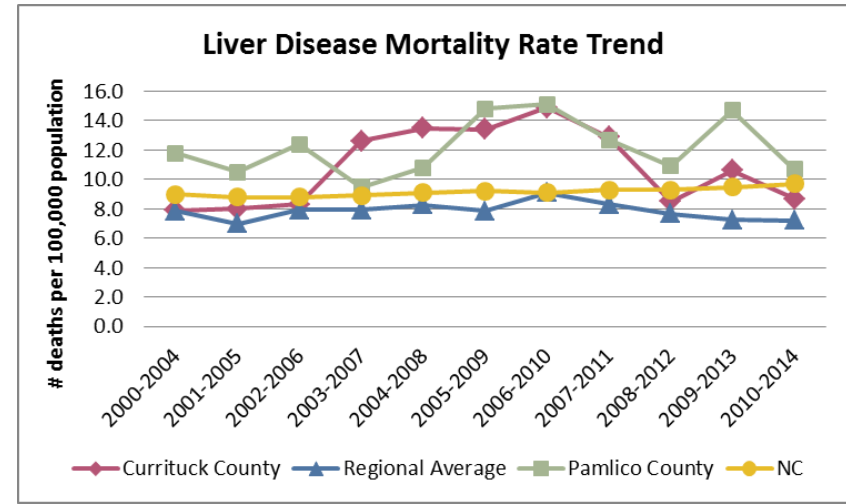
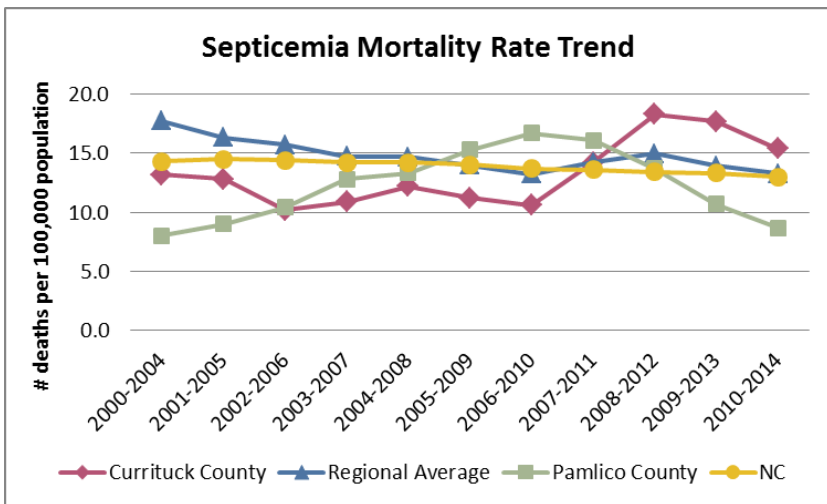
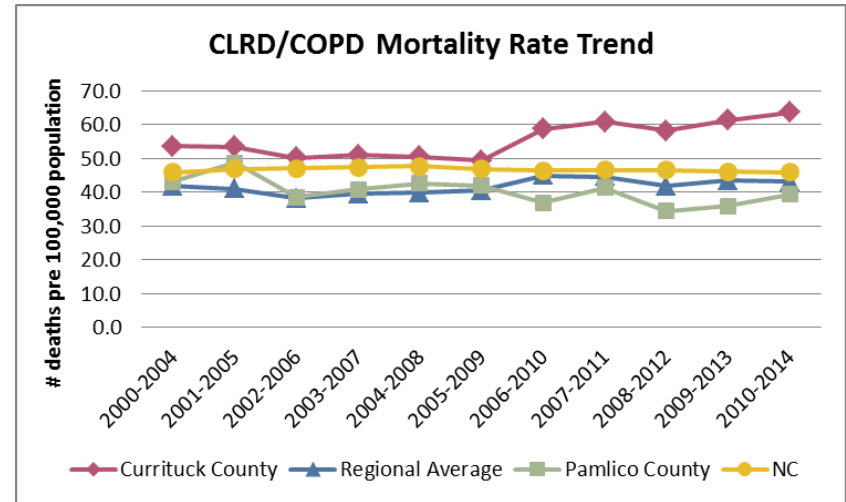
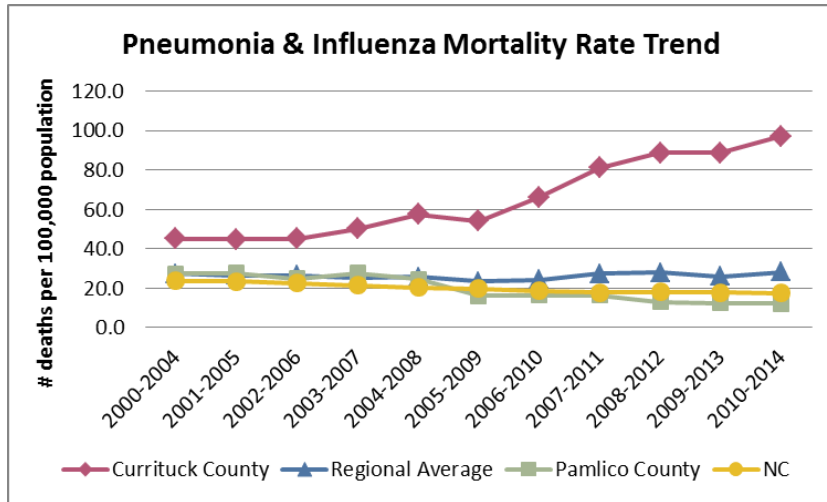
Suicide Mortality Rate Trend



Homicide Mortality Rate Trend



MORTALITY RATE TRENDS OF CONCERN: HIGH COUNTY RATES



TRENDS IN RACIAL DISPARITIES IN HOSPITAL DISCHARGES FOR INJURY AND POISONING

- Because the mortality rate in Currituck County for all other unintentional injuries has increased in both the short- and long-term and currently is higher than the comparable NC rate, it may be illustrative to examine hospital discharges for injuries and poisoning (ICD-9 Codes 800-999xx). The data are from Sentara Albemarle Medical Center.
- The total number of ED discharges among blacks represented 14% of all ED discharges under these codes; blacks compose approximately 7% of the Currituck County population.

Fiscal Year	No. ED Discharges			No. IP Discharges		
	Black	White	Total	Black	White	Total
2013	87	545	647	2	22	24
2014	86	511	614	0	20	20
Total	173	1,056	1,261	2	42	44

TRENDS IN GENDER DISPARITIES IN HOSPITAL DISCHARGES FOR INJURY AND POISONING

- These data are for ICD-9 Codes 800-999xx. The data are from Sentara Albemarle Medical Center.
- The numbers of ED discharges under these codes were about the same for males and females. The number of IP discharges for females surpassed the number of IP discharges for males.

Fiscal Year	No. ED Discharges			No. IP Discharges		
	Female	Male	Total	Female	Male	Total
2013	324	323	647	16	8	24
2014	300	314	614	10	10	20
Total	624	637	1,261	26	18	44

TRENDS IN RACIAL DISPARITIES IN HOSPITAL DISCHARGES FOR PNEUMONIA AND INFLUENZA

- Because the short- and long-term pneumonia/influenza mortality rate trends in Currituck County demonstrate increases, and the current mortality rate is four times the comparable NC rate, it may be illustrative to examine hospital discharges for pneumonia and influenza, (ICD-9 Codes 480-486xx and 487-488xx, respectively). The data are from Sentara Albemarle Medical Center.
- The total number of ED discharges under these codes for blacks represented 21% of the total, and the number of IP discharges for blacks represented 16% of the total. Blacks compose approximately 7% of the Currituck County population.

Fiscal Year	No. ED Discharges			No. IP Discharges		
	Black	White	Total	Black	White	Total
2013	3/5	16/6	19/11	4/0	15/0	19/0
2014	3/1	15/7	18/8	1/0	10/1	11/1
Total	6/6	31/13	37/19	5/0	25/1	30/1

TRENDS IN GENDER DISPARITIES IN HOSPITAL DISCHARGES FOR PNEUMONIA AND INFLUENZA

- These data are for ICD-9 Codes 480-486xx and 487-488xx. The data are from Sentara Albemarle Medical Center.
- The numbers of ED discharges under these codes for females and males were similar; the number of IP discharges for females exceeded the number of IP discharges for males. Females and males compose equal proportions of the Currituck County population.

Fiscal Year	No. ED Discharges			No. IP Discharges		
	Female	Male	Total	Female	Male	Total
2013	10/5	9/6	19/11	15/0	4/0	19/0
2014	8/5	10/3	18/8	4/0	7/1	11/1
Total	18/10	19/9	37/19	19/0	11/1	30/1

TRENDS IN RACIAL DISPARITIES IN HOSPITAL DISCHARGES FOR COPD

- Because the short- and long-term CLRD mortality rate trends in Currituck County both demonstrate increases, and the current county mortality rate is higher than the comparable NC rate, it may be illustrative to examine hospital discharges for COPD, especially bronchitis and emphysema (ICD-9 Codes 490-492xx). The data are from Sentara Albemarle Medical Center.
- The number of ED discharges under this code for whites surpassed the number of ED discharges for blacks, but approximated their representation in the overall county population. The proportion of IP discharges among blacks was more than twice their representation in the overall county population.

Fiscal Year	No. ED Discharges			No. IP Discharges		
	Black	White	Total	Black	White	Total
2013	2	9	11	3	17	20
2014	0	16	16	5	23	28
Total	2	25	27	8	40	48

TRENDS IN GENDER DISPARITIES IN HOSPITAL DISCHARGES FOR COPD

- These data are for ICD-9 Codes 490-492xx. The data are from Sentara Albemarle Medical Center.
- The numbers of ED and IP discharges under this code for females surpassed the numbers of ED and IP discharges for males by a factor of two.

Fiscal Year	No. ED Discharges			No. IP Discharges		
	Female	Male	Total	Female	Male	Total
2013	8	3	11	13	7	20
2014	10	6	16	19	9	28
Total	18	9	27	32	16	48

TRENDS IN RACIAL DISPARITIES IN HOSPITAL DISCHARGES FOR SEPTICEMIA

- Because the short- and long-term septicemia mortality rate trends in Currituck County show increases, and the current county mortality rate is higher than the comparable NC rate, it may be illustrative to examine hospital discharges for septicemia. Note that in this instance, a DRG code (870-872) describing inpatient hospitalizations only, is used. The data are from Sentara Albemarle Medical Center.
- Blacks accounted for 12% of all IP discharges under these codes, while composing 7% of overall county population. Females accounted for 61% of IP discharges under these codes.

Fiscal Year	No. IP Discharges				
	Black	White	Female	Male	Total
2013	4	23	17	11	28
2014	2	19	13	8	21
Total	6	42	30	19	49

HOSPITAL DISCHARGES ASSOCIATED WITH SUICIDE IDEATION

- Because the long-term suicide mortality rate trend in Currituck County shows an increase, and the current county suicide mortality rate is significantly higher than the NC rate, it may be illustrative to examine hospital discharges associated with suicide ideation (ICD-9 Code V62.84). The data are from Sentara Albemarle Medical Center, and represent ED discharges only, because there were no IP discharges under this code at this hospital in the period cited.

Fiscal Year	No. ED Discharges							Total
	Black	White	Female	Male	Age <18	Age 18-64	Age ≥65	
2013	0	14	7	8	3	11	1	15
2014	0	9	6	3	0	9	0	9
Total	0	23	13	11	3	20	1	24

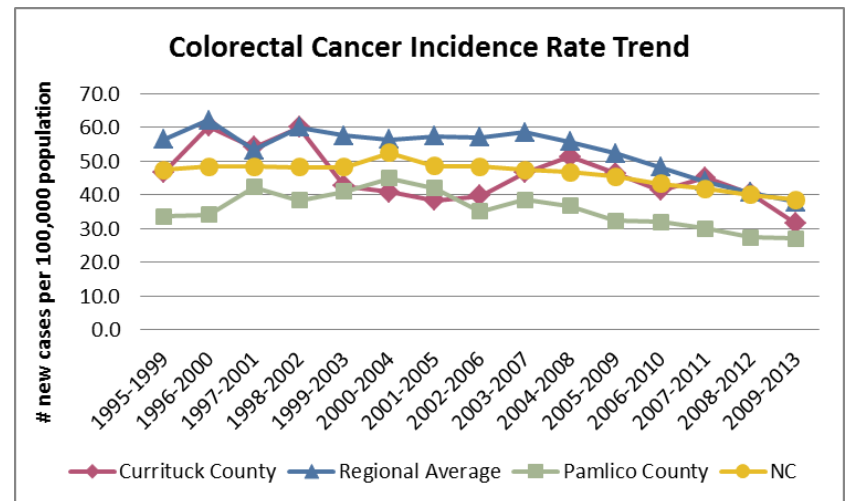
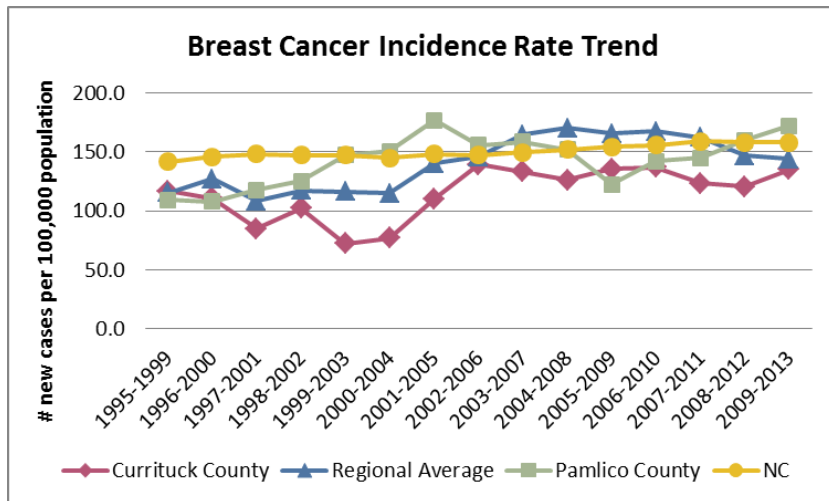
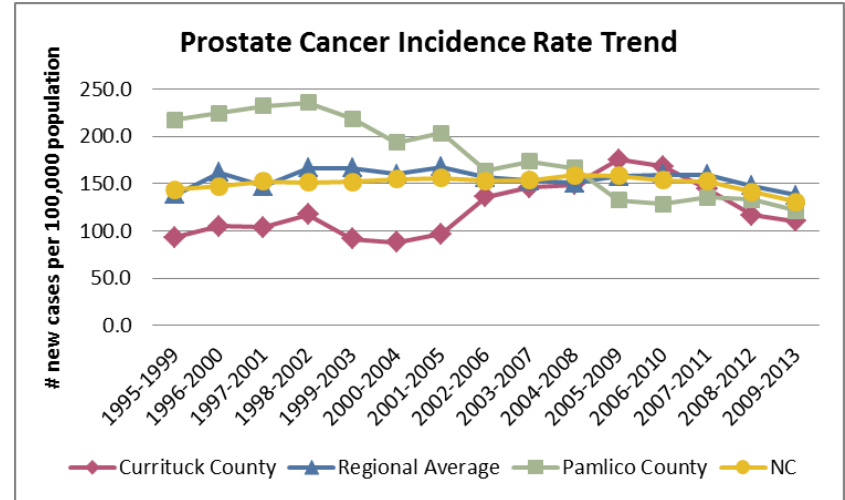
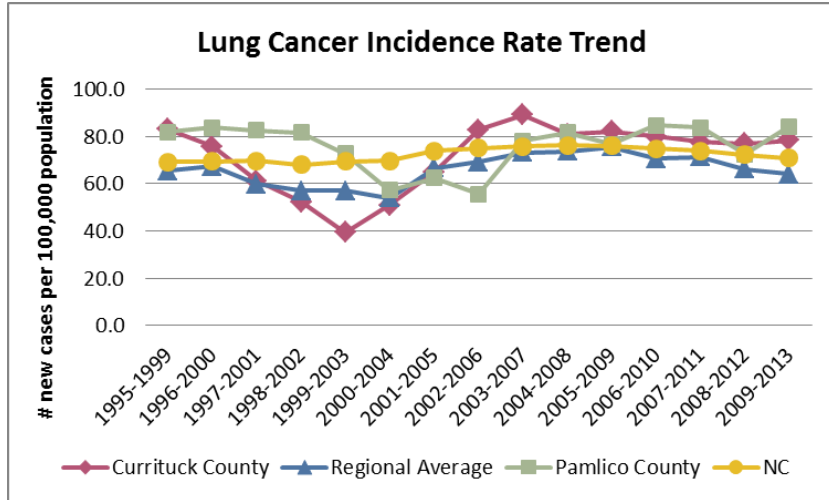
SITE-SPECIFIC CANCER TRENDS: INCIDENCE AND MORTALITY RATES

Incidence: 1995-1999 to 2009-2013

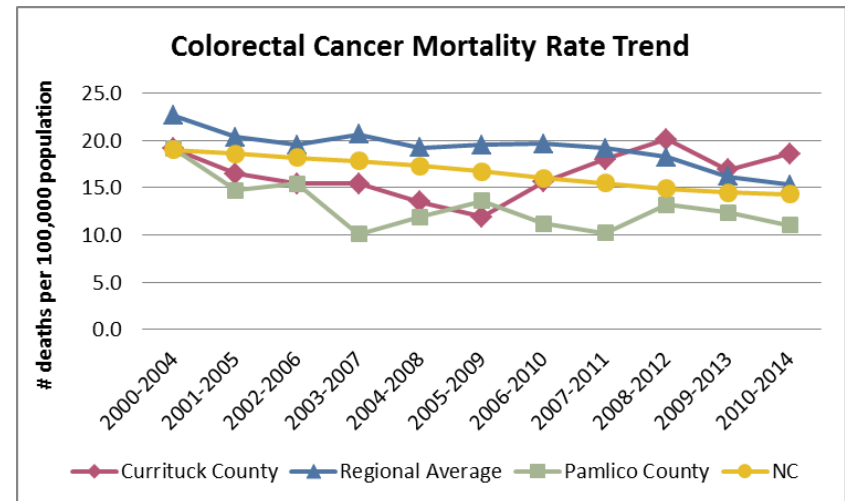
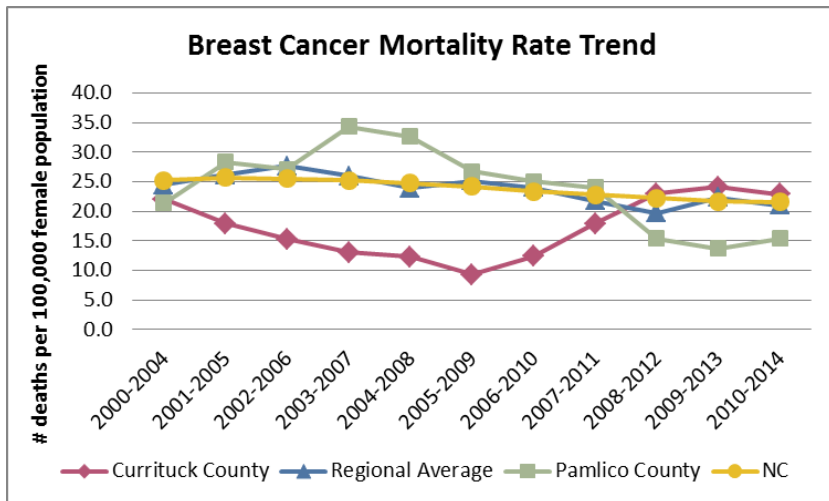
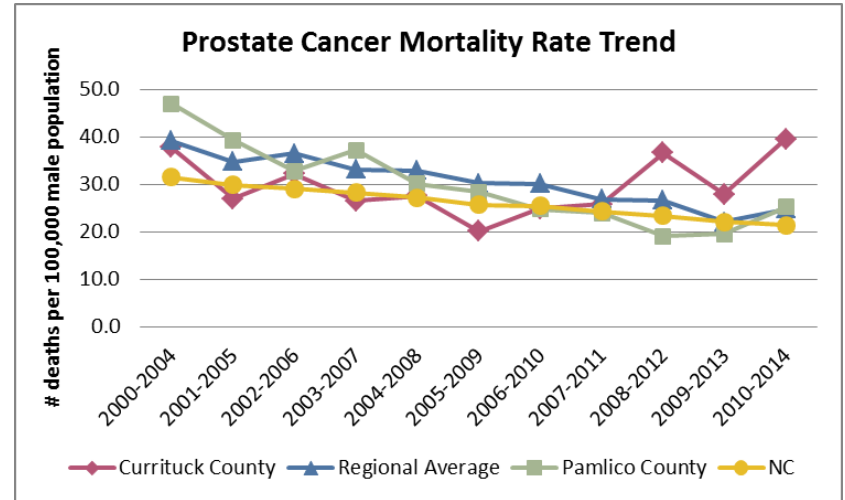
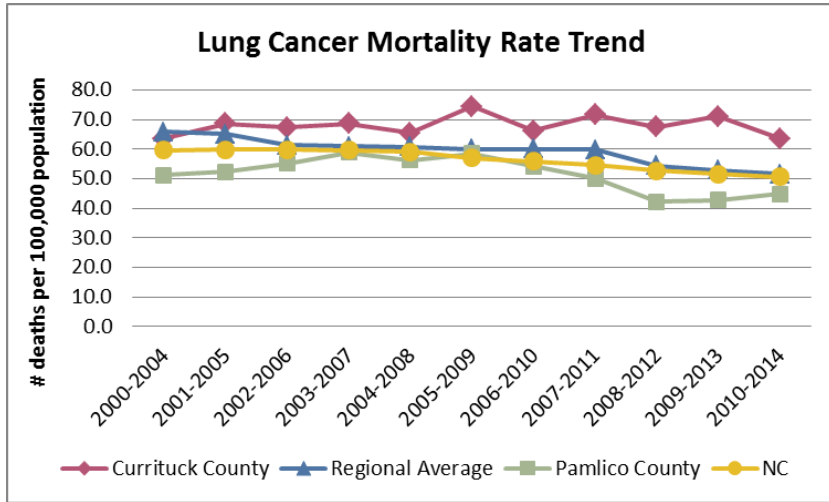
Mortality: 2000-2004 to 2010-2014

Cancer Site	Parameter	Overall Trend Direction
Total Cancer	Incidence Mortality	▲ Little change
Lung Cancer	Incidence Mortality	▲ ▲
Prostate Cancer	Incidence Mortality	▲ ▲
Breast Cancer	Incidence Mortality	▲ ▲
Colorectal Cancer	Incidence Mortality	▼ ▲

SITE-SPECIFIC CANCER INCIDENCE RATES



SITE-SPECIFIC CANCER MORTALITY RATES





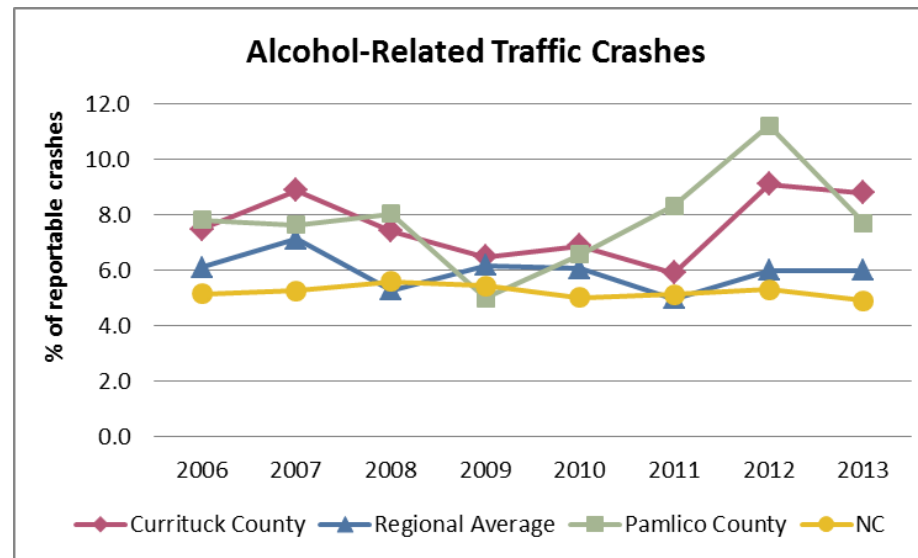
MORBIDITY

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

VEHICULAR INJURY

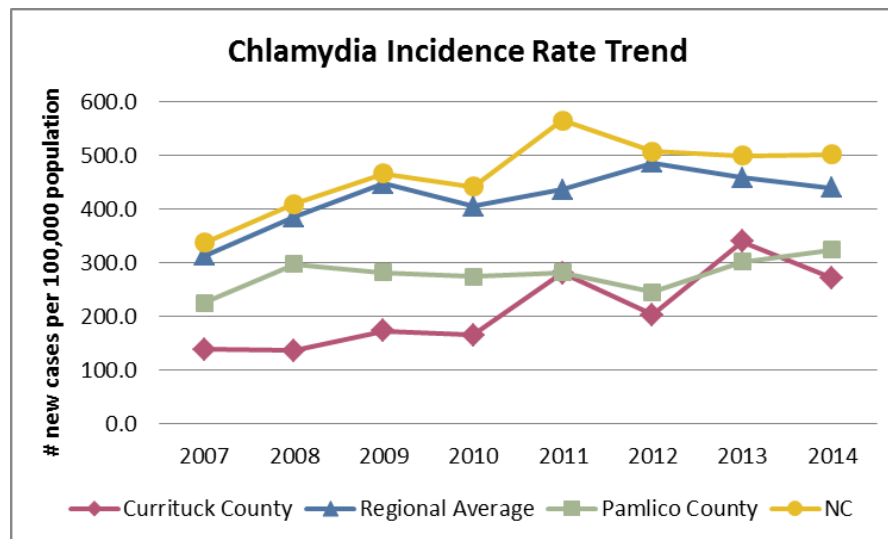
ALCOHOL-RELATED MOTOR VEHICLE CRASHES

- According to the NC Highway Safety Research Center, over the period from 2006 through 2013 an annual average of **7.6%** of all traffic crashes in Currituck County were alcohol-related. Statewide the comparable figure was 5.2% and it was 6.0% across the ARHS Region.



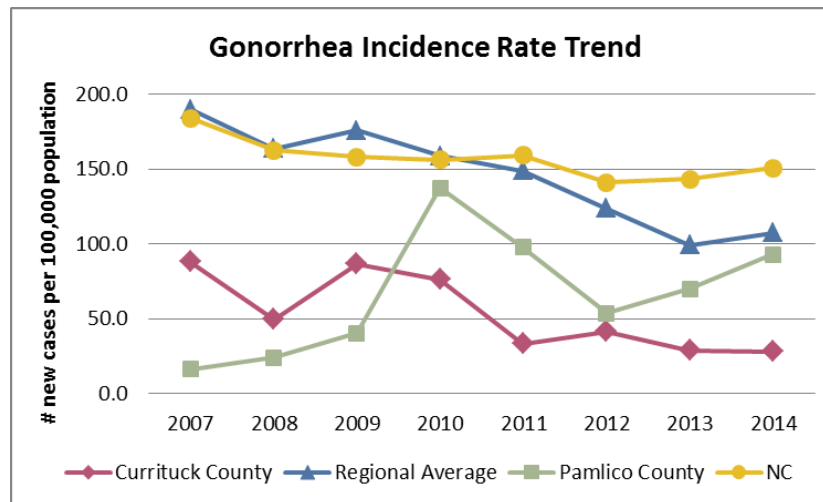
SEXUALLY TRANSMITTED INFECTIONS: CHLAMYDIA

- The chlamydia infection rate in Currituck County has increased overall since 2007, though it remains much lower than the state and Regional rates.
- In 2014, there were 68 new cases of chlamydia in Currituck County, calculating to a rate of 272.3 compared to **501.9** statewide.



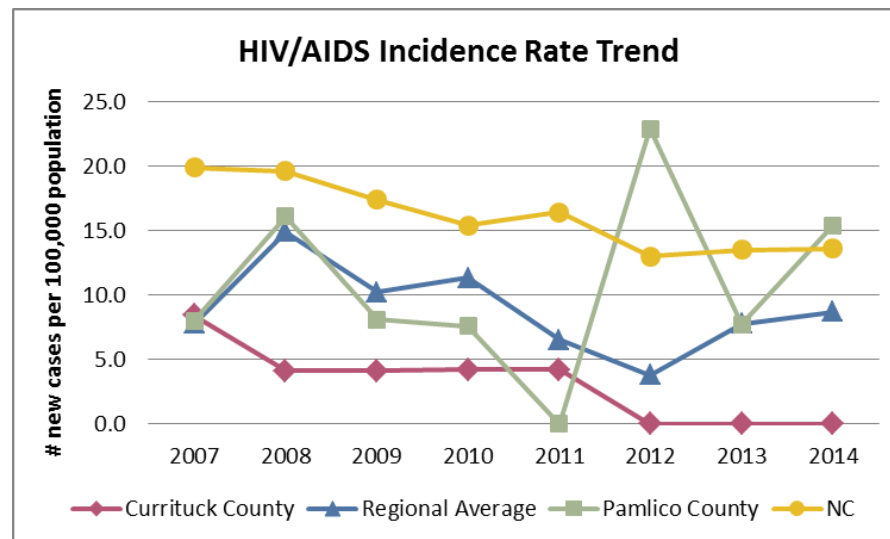
SEXUALLY TRANSMITTED INFECTIONS: GONORRHEA

- The gonorrhea infection rate in Currituck County had decreased since 2009 and was lower than the state and Regional rates for the entire period cited.
- In 2014, there were 7 new cases of gonorrhea in Currituck County, calculating to a rate of 28.0, compared to the state rate of **150.4**.
- The gonorrhea rate in the county was highest among African Americans in 2006-2010 (the last period for which stratified data is available): **449.8** compared to 85.5 overall.



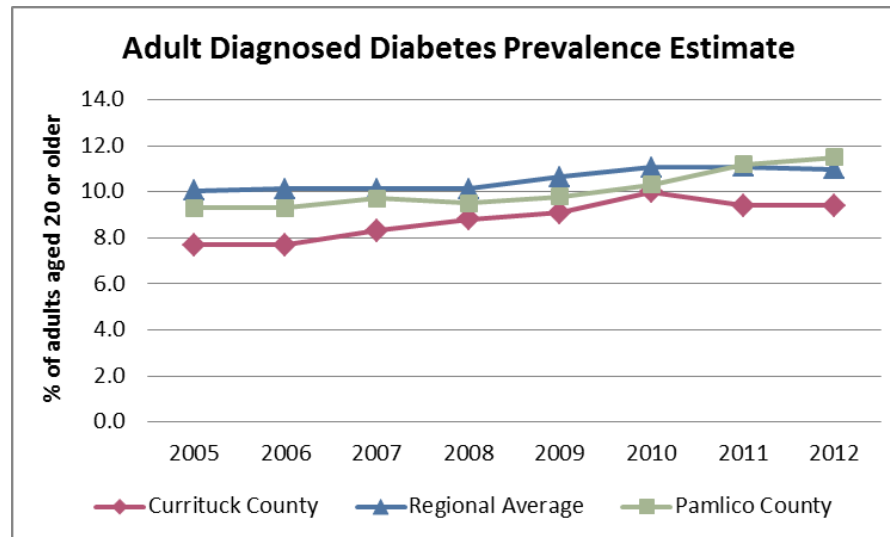
SEXUALLY TRANSMITTED INFECTIONS: HIV/AIDS

- The numbers of HIV cases in Currituck County are too low to yield stable rates for newly diagnosed HIV infections. There was a total of 6 newly diagnosed cases over the entire period presented. No new cases were recorded in 2012-2014.
- At the end of 2014, 14 people in Currituck County were living with HIV.



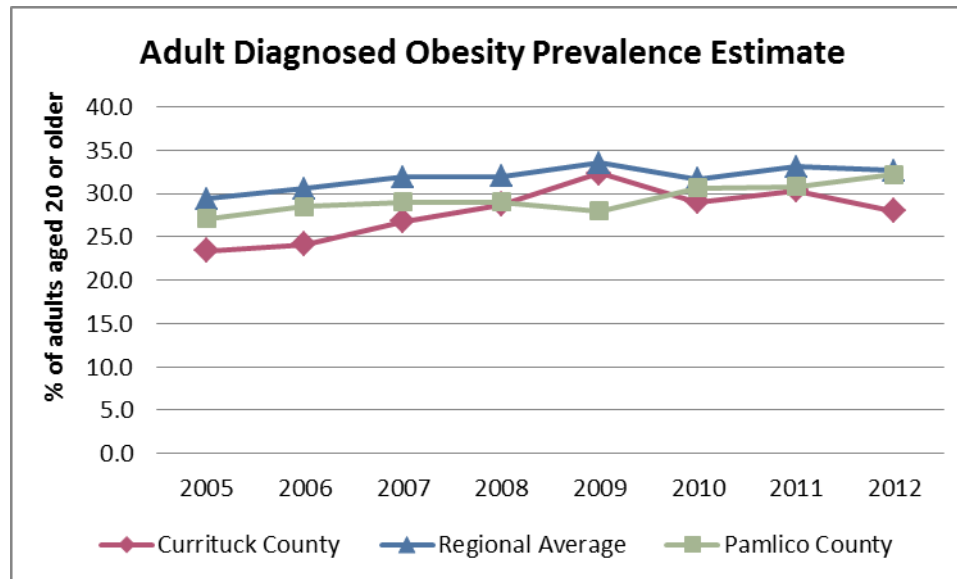
ADULT DIABETES

- The annual estimated prevalence of diabetes in Currituck County changed little over time and was lower than the Region for much of the period shown. Nevertheless the prevalence of diabetes in the county increased overall since 2005. (Comparable state data is not available).
- Over the 8-year period presented, the average annual estimated prevalence of adult diabetes in Currituck County was 8.8%, compared to **10.5%** Region-wide.



ADULT OBESITY

- The average annual estimated prevalence of adult obesity in Currituck County was 27.8% in the period from 2005 through 2012, compared to **31.8%** in the Region. (Comparable state data is not available).
- The annual estimated prevalence of adult obesity in the county was lower than the regional figure for the entire period cited, but it did increase overall.

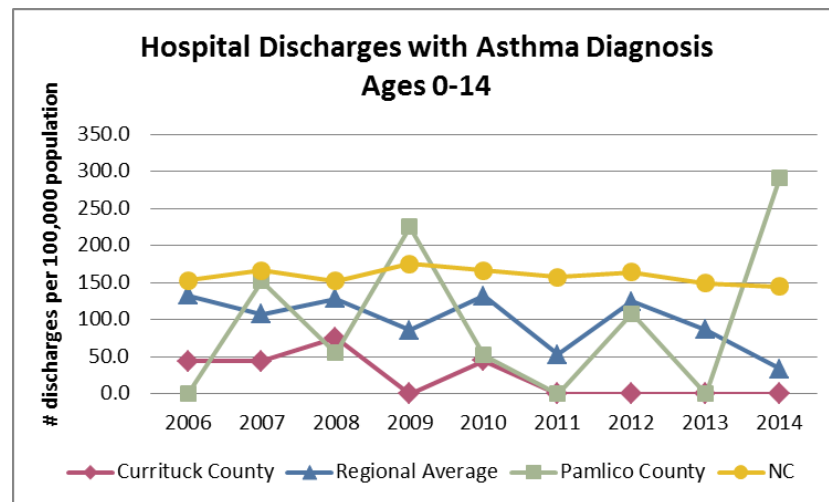
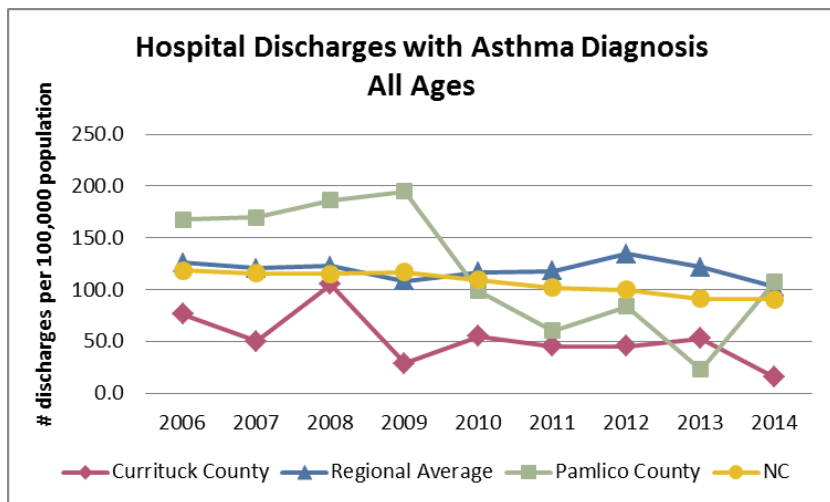


CHILD OBESITY (AGES 2-4)

- There is limited data on the prevalence of childhood obesity in Currituck County. NC NPASS data is cataloged for three age groups (2-4, 5-11, 12-18) and covers only children seen in health department WIC and child health clinics and certain other facilities and programs. The most recent data available is for 2012.
- According to this NC-NPASS data, in Currituck County in 2012
 - 12.8% of the participating children age 2-4 were “overweight” and 17.5% were “obese” (total = **30.3%**)
 - For this period NC = 14.9% overweight and 14.5% obese (total = 29.4%)

ASTHMA

- The Currituck County rate of inpatient hospital discharges with a primary diagnoses of asthma decreased overall between 2008 and 2014 and was lower than the state rates for the entire period shown. In 2014 the Currituck County rate was 16.0 compared to **90.9** in NC.
- Among children aged 0-14, the inpatient hospital discharge rate is highly variable due to small numbers. There were no Currituck County children discharged with a primary diagnosis of asthma since 2010.



TRENDS AND DISPARITIES IN HOSPITAL DISCHARGES FOR ASTHMA

- According to NC SCHS, the inpatient hospital discharge rate for asthma in Currituck County has decreased to a current historical low. Because this data is limited to inpatient hospitalizations, it may be illustrative to examine local ED discharge data for asthma (ICD-9 Code 493xx). The data is from Sentara Albemarle Medical Center.
- The total number of ED discharges under this code for blacks represented 42% of all discharges for asthma; this population represents only 7% of the county population.
- The total number of ED discharges under this code for minors represented 29% of all discharges for asthma despite representing 23% of the county population.

Fiscal Year	No. ED Discharges							Total
	Black	White	Female	Male	Age <18	Age 18-64	Age ≥65	
2013	22	39	39	22	13	45	3	61
2014	23	22	28	18	18	28	0	46
Total	45	61	67	40	31	73	3	107

MENTAL HEALTH

- The number of Currituck County residents served by the **Area Mental Health Program** varies yearly. Between 2005 and 2014 an average of 563 people were served annually
- Over the same 10-year period the number of Currituck County residents served by **State Psychiatric Hospitals** *decreased* from 44 in 2005 to 2 in 2014.
- During the same 10-year period, a total of **188** Currituck County residents were served by **NC State Alcohol and Drug Abuse Treatment Centers (ADATCs)**, with the number varying from year to year. A high of 35 were served in 2009; 12 were served in 2014.

TRENDS IN HOSPITAL DISCHARGES FOR MENTAL HEALTH DIAGNOSES

According to data from the ARHS Region hospitals seeing more than 20 Currituck County patients in the two years cited:

- ED discharges related to all Mental, Behavioral and Neurological Disorder diagnoses compose an average of 3.8% of *all* ED discharges over the period cited; IP discharges for mental health diagnoses compose an average of 4.0% of *all* IP discharges.
- Note that these diagnoses (ICD-9 290-319xx) include psychotic and non-psychotic disorders, and conditions associated with alcohol and drug abuse.

Year	No. Emergency Department Discharges	No. In-Patient Hospitalization Discharges
2013	213 (4.1% of all ED discharges)	26 (3.8% of all IP discharges)
2014	177 (3.5%)	32 (4.1%)

CURRITUCK COUNTY HEALTH PROBLEM

“WATCH LIST”

- **Pneumonia and influenza** – these diseases *remain* a significant problem in Currituck County. The county mortality rate for pneumonia and influenza currently is four times the NC rate, and the short- and long-term mortality rate trends both indicate significant increases over time. Note that these conditions are at least partly vaccine preventable.
- **Cancer** – although short- and long-term mortality rate trends for *total* cancer in Currituck County indicate no net increase, mortality rates for all four site-specific cancers have increased over time, and incidence rates for lung, prostate and breast cancers have also increased over time.
- **Lung diseases**
 - **Pneumonia and influenza** – as described above
 - **CLRD** – county mortality rate has increased in both the short- and long term; COPD accounts for a large number of ED discharges; current county mortality rate is higher than state rate; CLRD is disproportionately fatal among males
 - **Asthma** – accounts for a high number of ED discharges which are disproportionately high among African Americans

CURRITUCK COUNTY HEALTH PROBLEM

“WATCH LIST” (CONTINUED)

- **Unintentional injuries of all kinds** – short- and long-term mortality rates for non-motor vehicle injuries demonstrate an overall increase; current county rate is higher than NC rate. Injuries and poisonings are a problem for both males and females in the county, and account for the highest proportion of ED discharges in the county. A higher-than-statewide proportion of vehicular injuries in the county involve alcohol.
- **Suicide** – Although the county mortality rate attributable to suicide has decreased since the last CHA, the long-term mortality rate trend demonstrates a net increase; the current county mortality rate significantly exceeds the NC rate; suicide ideation accounts for noteworthy numbers of ED discharges.
- **Diabetes** – prevalence in Currituck County has increased since 2005.
- **Overweight and obesity** – Prevalence among both adult and children are unacceptably high.

POPULATIONS “AT RISK” FOR POOR HEALTH OUTCOMES IN CURRITUCK COUNTY

- The uninsured and under-insured; people without a medical home
- Persons living in poverty
- Minorities
- Males, who generally have poorer health outcomes than female
- Persons with poor access to transportation, because travel may be necessary to reach certain healthcare providers
- The elderly, because healthcare services may not be sufficient to accommodate their needs as their population grows
- Newborns, up to one-third of whom may be born with medical problems; infant mortality rate in the county has risen recently.



PRIMARY DATA SUMMARY

**Small-Group Discussions
Conducted in 10 locations in 2015
100 participants**

METHODOLOGY

- ARHS partnered with The Outer Banks Hospital and Sentara Albemarle Medical Center to collect primary data by conducting ten small-group discussions throughout Currituck County. Discussions included listening sessions and focus groups were led by trained moderators to learn about the community's definitions and understandings of health, illness and services that affect health attitudes, beliefs and behaviors.
- The Center for Survey Research at East Carolina University provided moderator trainings and an accompanying interview guide to ensure consistent and effective data collection methods.
- Discussion questions were researched, selected and approved by the CHA Lead Team. Discussions were recorded and lasted around one hour. Results were then transcribed and analyzed. **A total of 100 Currituck County residents participated in the small-group discussions.**

SMALL GROUP DISCUSSIONS

Currituck County Small-Group Discussions	Date	Participants
Knotts Island Senior Center	2/06/15	1 Male; 2 Females
Currituck County Cooperative Extension	2/10/15	1 Male; 9 Females
Currituck Chamber of Commerce	5/21/15	5 Males; 7 Females
NAACP	6/15/15	4 Males; 2 Females
Shawboro Ruritan Club	8/24/15	3 Males; 4 Females
Barco Senior Center	10/08/15	2 Males; 8 Females
Powells Point Senior Center	10/14/15	9 Females
Currituck County YMCA	10/20/15	6 Females
Currituck County Schools	10/26/15	3 Males; 3 Females
Currituck County Parks and Recreation	10/27/15	7 Males; 1 Female

PARTICIPANT DEMOGRAPHICS

- 16% Black (compared to 7% in the county)
- 77% white (compared to 90% in the county)
- 0 Hispanic participants (compared to 3.3% in the county)
- 34% male (compared to 50% in the county)
- 0% unemployed (compared to 5.8% unemployment rate)
- 32% with bachelor's degree or higher (compared to 19% in the county)
- 6% currently without health insurance (compared to 17% in the county)
- 34% retired
- 48% earning more than \$50,000 household income

Q1: TELL US WHAT YOU THINK IS THE BEST THING ABOUT LIVING IN THIS COMMUNITY.

- Sense of community
 - Small town atmosphere with close relationships
 - People dependable and trustworthy; safe place
- Physical environment
 - Quiet surroundings
 - Slow pace of life
 - Good weather
 - Proximity to oceans, mountains and larger cities
- Good local school system



Q2: WHAT DO PEOPLE IN THIS COMMUNITY DO TO STAY HEALTHY?

- Physical activity
 - Run, bike, walk, golf, surf, garden
 - Working in farming and construction help people stay active
- Youth recreational sports
- Programs at senior center and YMCA
- PE in schools
- Teachers are positive role models
- People grown their own produce and utilize farmers markets



Q3: IN YOUR OPINION, WHAT ARE THE SERIOUS HEALTH-RELATED PROBLEMS IN YOUR COMMUNITY?

- Poor nutrition
 - poor dietary choices
 - too many processed foods containing preservatives
 - Southern-style cooking unhealthy
- Diabetes
- Heart disease
- Cancer
- Obesity
- High blood pressure
- Tobacco use
- Substance abuse, especially among youth

Q4: WHAT KEEPS PEOPLE IN YOUR COMMUNITY FROM BEING HEALTHY?

- Unhealthy foods and poor eating habits
 - Unhealthy foods cheaper and more available
 - Lack of affordable restaurants with healthy options
 - Local food traditions and cultural practices are unhealthy
- Lack of healthcare facilities
- Lack of transportation
- Lack of knowledge about healthy behaviors and available resources
- Lack of motivation to be healthy



Q5: WHAT COULD BE DONE TO SOLVE THESE PROBLEMS?

- Additional transportation services
 - To grocery stores, pharmacies, doctors
- Increased community collaboration
 - Opportunities for exercise
 - Wellness screening events
 - Countywide Internet
 - Connect community with local government to improve health-related decision making
- Health-related education in schools and healthier food choices
 - Hire nutritionists
 - School garden projects
- Increase number of local healthcare providers
- Provide children with more opportunities to be active

Q6: HAVE YOU OR SOMEONE CLOSE TO YOU EVER EXPERIENCED ANY CHALLENGES IN TRYING TO GET HEALTHCARE SERVICES? IF SO, WHAT HAPPENED?

- Too few doctors, specialists, and 24-hour pharmacies
- Community travels to VA for care
- Lack of transportation
- Dissatisfaction with local doctors
 - Inconsistent care
 - Poor treatment and bedside manner
 - Misdiagnosis
 - Long wait times, especially at ER
- Lack of health insurance
 - People don't get preventative care
 - Seniors, children and those who don't qualify for subsidies are most affected

Q7: ARE THERE ANY HOME REMEDIES YOU USE IN PLACE OF TRADITIONAL HEALTHCARE AND/OR MEDICINE?

Home Remedy	Targeted Ailment
Vick's VapoRub	Congestion, toe fungus
Bar of soap	Cramps
Kerosene	Sore throat, head lice
Potatoes	Boils
Iodine	Sore throat
Baking soda	Heartburn
Cherry Juice	Arthritis
Yogurt	Upset Stomach
Bourbon, lemon, & honey	Cough or sore throat
Tobacco	Bee stings
Epsom Salt	Inflammation
Horse Liniment	Joints
Two Old Goats	Arthritis
Warm salt water	Sore throat
Cranberry juice	Kidney infection
Vinegar	Blood pressure, bee stings
Bacon	Cuts
Raw onion	Warts
Black tea	Pink eye
Fennel tea	Indigestion
Salve	Skin cracks
Local honey	Allergies
Castor oil & baking soda	Warts
Alcohol	Sore joints
Menthol	Colds



Q8: WHAT ARE THE STRENGTHS RELATED TO HEALTH IN YOUR COMMUNITY?

- Access to outdoor activities
 - Sports, gardening, hunting, fishing, swimming, boating
 - Help people “mentally decompress”
- Access to fresh produce from home gardens and farmers markets
- Local health-related facilities and programs
 - YMCA, senior center, parks and rec department
 - Hospital
 - Local churches help those in need of food and support
- Overall sense of community
 - Low stress environment



Q9: CANCER AND HEART DISEASE ARE THE LEADING CAUSES OF DEATH IN YOUR COUNTY. IN YOUR OPINION, WHAT MAKES THESE THE LEADING CAUSES OF DEATH IN YOUR COUNTY?

- Exposure to harmful substances in food and farming
 - Chemicals and hormones in food processing in farming
 - Contaminate the local water
- Unhealthy lifestyle habits
 - Tobacco use, poor diet, lack of exercise
 - Unhealthy cultural habits/food traditions
 - Unhealthy foods are convenient and cheap
- Lack of healthcare resources and information
 - Lack of specialty healthcare services
 - Lack of transportation and time constraints makes accessing care difficult



Q10: HOW DOES LIVING IN A RURAL AREA AFFECT HEALTH?

○ Benefits

- Favorable climate
- Access to outdoor activities
- Limited number of fast food restaurants

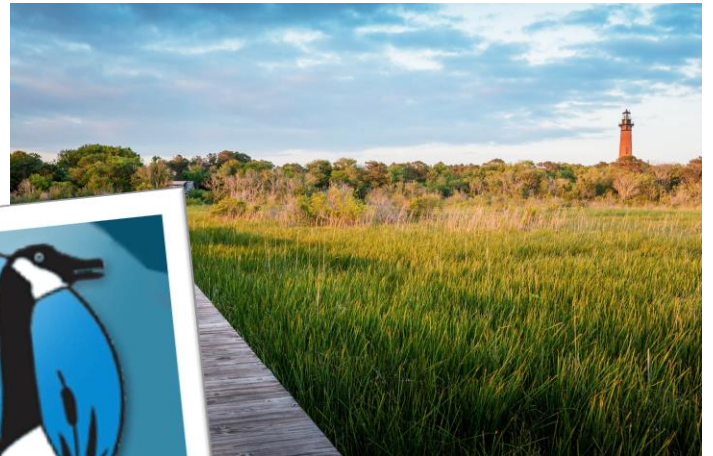
○ Weaknesses

- Limited transportation options to health food options, recreational facilities and healthcare
- Hard to attract physicians to the area
- Lack of sidewalks and safe places to walk



2016

Currituck County Primary Data Report



2016 CHA PRIMARY DATA COLLECTION PROCESS

Process Overview

ARHS partnered with The Outer Banks Hospital and Sentara Albemarle Medical Center to collect primary data for the 2016 CHA process for Currituck County. Data that are collected firsthand are known as primary data. For past CHA processes, surveys were conducted to collect primary data. However, the CHA Lead Team elected to collect primary data by conducting ten small-group discussions throughout Currituck County for the 2016 CHA. Small-group discussions including listening sessions and focus groups were led by trained moderators to learn more about the community's definitions and understandings of health, illness, and services that affect health attitudes, beliefs, and behaviors. The CHA Lead Team collected data directly from county residents to better understand their health status, needs, and county resources. Data was collected from a wide variety of county residents to assure that the data represent all parts of the county population.

ARHS contracted with the Center for Survey Research at East Carolina University to provide two moderator trainings, and to conduct, transcribe, and analyze a portion of the discussions. The training sessions were conducted using a curriculum developed and approved by the CHA Lead Team. The training sessions and accompanying interview guide were provided to ensure moderators and assistant moderators used effective and consistent data collection methods. The CHA Lead Team assigned responsibility for completing discussions to each partnering agency according to their geographical area of service. Each partner designated staff to facilitate each discussion. Partners were also responsible for ensuring that their discussions were conducted and transcribed within established timelines. A complete list of team members from the Center for Survey Research is presented below.

Mandee F. Lancaster, MA
Randy Knebel

Justin M. Raines, MA
Tiffany Pires

Methods

The CHA Lead Team met in October 2014 for a Road Mapping Session led by Leah Mayo Acheson, MPH, and trained as a Strategic Planning Facilitator to (a) identify groups and organizations to participate in the discussions, (b) identify suitable locations for the discussions, and (c) set deadlines for the data collection process. Road Mapping Sessions are strategic, outcome-focused stakeholder meetings and provide a month-to-month agenda, basis for meeting planning, calendar for all partners, and helps maintain focus and pace.

A formal letter of invitation was prepared and distributed via e-mail and led by Healthy Carolinians Coordinators to participate in a discussion. Demographic characteristics of participants were considered to ensure that results portrayed an accurate representation of Currituck County as a whole.

Discussion questions were researched and selected by the CHA Lead and approved by the CHA Lead Team. After the questions were established, ten small-group discussions with community members were scheduled at various locations throughout Currituck County (see Table 1). At least two moderators facilitated each session by asking the predetermined series of questions (see Appendix A). Discussions were recorded and lasted approximately one hour. Results were then transcribed and analyzed.

Table 1. Small-Group Discussion Summary Table

Currituck County Small-Group Discussions	Date	Participants
Knotts Island Senior Center	2/06/15	1 Male; 2 Females
Currituck County Cooperative Extension	2/10/15	1 Male; 9 Females
Currituck Chamber of Commerce	5/21/15	5 Males; 7 Females
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Currituck County Schools	10/26/15	3 Males; 3 Females
Currituck County Parks and Recreation	10/27/15	7 Males; 1 Female

Primary Data Demographics and Results

Demographics

Discussion participants completed a demographic form at the beginning of each session. As shown in Table 2, the majority of participants were female (66 percent), White (77 percent), and married (69 percent). Furthermore, nearly half of participants had attained some form of college degree (e.g., Associate, Bachelor’s, Graduate, or Professional Degree; 45 percent).

Table 2. Currituck County Demographics

Race/Ethnicity	N	Percent
Asian	0	0
Black	12	16
Hispanic	0	0
Native American	2	3
Other	3	4
White	60	77
Gender/Sex	N	Percent
Male	26	34
Female	51	66
Marital Status	N	Percent
Divorced	8	11
Married	53	69
Never Married	4	5
No Response	0	0
Other	0	0
Separated	1	1
Widowed	11	14
Education	N	Percent
< 9 th Grade	1	1
High School – No Diploma	5	7
High School – Diploma	17	22
College – No Degree	17	22
Associate Degree	10	13
Bachelor’s Degree	12	16
Graduate or Professional Degree	12	16
No Response or Other	2	3

Most participants reported that they work full-time (52 percent) or are retired (34 percent; see Table 3). Moreover, approximately half of participants reported an annual household income of \$50,000 or more (48 percent). Additionally, nearly all of participants reported that they currently possess health insurance (94 percent), and only a small portion of participants reported spending time without insurance in the past 12 months (7 percent). Finally, the majority of participants reported that they have access to the Internet (80 percent).

Table 3. Currituck County Demographics

Employment Status	N	Percent
Disabled; Unable to Work	8	10
Full-Time	40	52
Homemaker	1	1
Part-Time	9	12
No Response	2	3
Retired	26	34
Student	0	0
Unemployed	0	0
Household Income	N	Percent
< \$20,000	7	10
\$20,000 - \$29,999	7	10
\$30,000 - \$49,999	9	13
\$50,000 - \$74,999	8	12
\$75,000 - \$100,000	13	20
> \$100,000	11	16
Don't Know	1	1
No Response	12	18
Health Insurance/Health Coverage	N	Percent
Yes	68	94
No	4	6
Time Without Insurance (past 12 months)	N	Percent
Yes	5	7
No	65	90
Don't Know	2	3
Internet Access	N	Percent
Yes	57	80
No	12	17
No Response	2	3

Results

An aggregated report of results from Currituck County discussions is presented below. As these data may be limited in various ways, results only aim to portray a snapshot of community perceptions.

What is the best thing about living in this community?

Participants were first asked to discuss the positive aspects of their community by reporting what they believe is the best thing about living in Currituck County. Overall, participants stated that the sense of community and location are the best things about living in Currituck County.

Specifically, participants stated that the small town atmosphere is a positive aspect of living in Currituck County. Participants believed that the social atmosphere helps develop close, tight-knit relationships between community members. In turn, participants viewed fellow community members as dependable and trustworthy – contributing to feelings of safety in the community.

"It's a small town. We all have a lot of good relationships with the community. Everyone knows everyone, and we trust each other. People feel like it's a safe place to live."

Additionally, participants expressed that the environment of Currituck County was one of the best things about living in the community. Specifically, participants stated that they enjoy the county's quiet surroundings, slower pace of life, and weather. Moreover, participants viewed Currituck County's proximity to the ocean, mountains, and larger cities as positive aspects of living in the county.

"Climate here is wonderful. Love the produce stands in the summer and the peace and quiet."

"We live one hour from a big city, one hour from the beach, and an hour and a half from the mountains. We have the best of everything here."

Finally, participants expressed that the school system in Currituck County makes the community a great place to live.

A word cloud of responses is shown in Figure 1. Larger words represent words stated more frequently in small-group discussions. For example, participants frequently reported enjoying the easygoing atmosphere and privacy of the community.

Figure 1. The best things about living in this community



What do people in this community do to stay healthy?

Next, participants were asked to report what activities community members engage in to stay healthy. The most common responses were related to physical activity. Specifically, participants suggested that community members run, bike, garden, golf, walk, and surf to stay healthy (see Figure 2). Participants also mentioned that certain occupations, such as farming and construction, help community members maintain their health.

Additionally, participants stated that many youth community members play recreational sports, such as baseball and basketball. Moreover, participants discussed the senior center and YMCA as resources that improve the health of the community – stating that many community members take part in exercise programs offered by these facilities.

“We have a lot of friends who go to the YMCA, and I’ve been really impressed with our YMCA.”

“Community center is a big thing. A lot of folks are joining the YMCA, working out, and learning better nutrition.”

Figure 2. Staying healthy in the community



Moreover, participants discussed the impact of physical education programs at local schools and suggested that they provide students with an opportunity to better their health. Additionally, participants stated that positive role models, such as teachers, influence and encourage students to incorporate healthy habits into their lifestyles.

“The teachers here are good role models and you will see them walking about the school track. I think when kids learn early on that activity can be fun, then it becomes a habit in their adult life”

Participants also stated that community members attempt to stay healthy by avoiding unhealthy foods and eating fresh fruits and vegetables, often from personal gardens or farmers’ markets.

“People raise their own gardens or get fresh produce from the farmers’ market.”

“I have tried to start redirecting what I eat and cutting back on a lot of fatty foods and fried foods.”

What are the serious health-related problems in your community?

When asked to list the serious health-related problems in Currituck County, the most frequently cited health problem was poor nutrition. Specifically, participants stated that community members make poor dietary choices and eat too many processed foods that contain preservatives because there is a limited availability of healthy food options in the area. Additionally, participants expressed that Southern style cooking practices make foods unhealthy.

“People are not making good choices, buying canned over fresh or frozen food.”

Overall, participants discussed several serious health-related problems related to physical health in Currituck County, such as diabetes, heart disease, cancer, obesity, high blood pressure, and tobacco use.

“High blood pressure is a concern with the stressful lives we lead now, which leads to strokes and heart disease.”

Additionally, participants cited social health-related issues that accompany the physical health-related issues in the county. For example, participants stated they believe that drug and alcohol abuse is a serious problem in Currituck County, particularly with youth.

“That is the number one risk to our youth in the county – problems with drugs and alcohol.”

Serious Health-Related Problems	<i>“I’m scared to death of a drunk driver because we have many narrow and winding roads.”</i>
Diabetes	Finally, participants cited a variety of other serious health-related problems in the county, including aging, dementia, mosquitoes, a lack of education, and an overuse of technology.
Heart Disease	<i>“I think the aging of our community is a big problem because senior citizens, many times, don’t have the means to get to the doctor and find it hard to get around.”</i>
Poor Nutrition	<i>“We suffer sometimes because of a lack of knowledge.”</i>
Lack of Access to Healthy Foods	
Tobacco Use	
Cancer	
Obesity	
High Blood Pressure	
High Cholesterol	
Childhood Obesity	
Drug and Alcohol Abuse	
Dementia	
Aging	
Mosquitoes	
Lack of Education	
Overuse of Technology	

What keeps people in your community from being healthy?

Next, participants were asked to describe barriers that prevent community members from being healthy. Participants discussed a variety of such factors, ranging from a lack of affordable, healthy food options to low levels of motivation within community members.

Specifically, participants stated that unhealthy foods and poor eating habits act as barriers to community health. For example, participants expressed that unhealthy foods are less expensive and more available to community members. In contrast, participants stated that the area does not support restaurants that offer healthier food choices and that the healthy options that are available are too expensive, particularly for low-income families. Moreover, participants stated that in addition to the above-mentioned factors, community members often choose to eat certain unhealthy foods because they are associated with traditions, cultural practices, or family gatherings.

“The area does not support healthier restaurants.”

“Unhealthy foods are less expensive and people tend to go with what’s not pricey.”

“Low-income families are unable to purchase healthier foods because they are more expensive than processed foods and easier to prepare.”

Additionally, participants discussed a lack of healthcare facilities, transportation, and health-related education as barriers to community health. Specifically, participants stated that there is a lack of healthcare facilities in the area, such as doctors’ offices. In turn, participants stated that community members must travel in order to receive the care they need. However, participants discussed a lack of transportation services as a barrier that prevents community members from seeking services and traveling outside of the area. Additionally, participants expressed that there is a lack of health-related education in the county, which results in both a lack of knowledge about healthy behaviors, as well as a lack of awareness about resources that are available to community members.

“Lack of facilities for the elderly population and the fact that you have to drive long distances to see health professionals discourages people from getting check-ups and addressing health problems.”

“Lack of transportation for older adults keeps people from being healthy and getting the care they need.”

Lastly, participants frequently discussed an overall lack of motivation to be healthy as a common obstacle among community members. In particular, participants felt that community members have little motivation to exercise and utilize the healthcare resources that are available in the county.

“Lack of exercise and motivation to be healthy.”

“People don’t take care of themselves even though we have resources.”

What could be done to solve these problems?

In addition to describing Currituck County's barriers to health, participants also proposed potential solutions to the serious health-related problems in the county. Participants provided a wide range of unique responses. For example, participants frequently discussed the need for additional transportation services in the county. Specifically, participants expressed a desire for increased and improved public transportation options in the area, as well as several specific transportation services. In particular, participants believed that providing delivery and transportation services for grocery shopping, prescription drug pickup, and doctor visits would greatly improve the health of Currituck County.

Next, participants expressed that increased communication and collaboration among community members would have a positive impact on community health. Specifically, participants desired fundraisers to advertise services and provide opportunities for exercise; wellness screening events; countywide Internet; and a county support network involving community members and local government to improve health-related decision-making, planning, policies, and programs.

"I wish we had places to run and walk for fundraisers."

"There are no places to meet and discuss nutrition and healthy lifestyles."

"We need a way for people to hook up to the Internet and get information, make appointments, and text."

"Reach out to the commissioners and people in charge to get new policies and programs implemented."

Participants also suggested increasing the health-related education in schools and increasing opportunities to eat healthy. Specifically, participants stated that hiring nutritionists to work in the schools, providing schools the opportunity to grow their own gardens, and increasing the variety of healthy foods and health food stores in the area could improve community health.

Furthermore, participants suggested increasing the number and quality of healthcare providers in the area, as well as building health-related resources, such as walking paths, a grocery store, and a Patient First medical facility.

"Bring in enough providers that community members have a choice of who they see."

"Need to concentrate on senior services in the area."

Finally, participants suggested solutions, such as providing kids with the opportunity to be active and improving individuals' motivation to be healthy and take advantage of resources, such as parks.

"The schools are closed for the summer but you could open up a few of the gyms. Give somebody the job to watch the gym during the day and give the kids something to do."

Have you or someone close to you ever experienced any challenges in trying to get healthcare services? If so, what happened?

Participants were then asked to report any challenges they have experienced when accessing healthcare services in Currituck County. Participants frequently cited challenges associated with the quantity and quality of healthcare providers in the county. For example, in regard to the amount of providers in the area, participants expressed that there are too few doctors, specialty care providers, and 24-hour pharmacies. In turn, participants suggested that many community members do not utilize doctors located in North Carolina, but rather, travel to Virginia to seek care. However, participants stated that a lack of transportation services in the area makes it difficult for some community members to travel out of the area to access other healthcare resources.

In regard to the quality of providers, participants frequently expressed dissatisfaction with the care they received from doctors in Currituck County. For example, participants stated that healthcare facilities in the county are plagued with inconsistent care, poor treatment and bedside manner, and misdiagnosis. Moreover, participants expressed dissatisfaction with long wait times, particularly at the ER.

“You are a number now. Patients see a different doctor each time...that is not consistent care.”

“I have had terrible experiences at certain facilities, in regard to treatment and bedside manner.”

“I went to a nurse practitioner here and knew that I had an infection, but they misdiagnosed me and sent me home with pain medication.”

Next, participants cited challenges associated with health insurance. In particular, participants stated that some community members do not have health insurance and are prevented from receiving healthcare. For example, participants suggested that some children do not receive annual check-ups due to a lack of health insurance and that some healthcare needs, such as injuries from car accidents, are not covered by certain types of insurance. In turn, participants felt that community members do not receive the proper care. Furthermore, participants believed that, due to high costs, many community members are unable to afford an adequate amount of health insurance to meet their needs. Specifically, participants suggested that senior citizens, children, and adults who do not qualify for healthcare assistance, experience some of the greatest challenges in affording and receiving healthcare services.

“Not everyone has insurance or they are in transition and some people can’t afford services and medications without insurance.”

“Children lack a yearly check-up because parents can’t afford insurance.”

“My daughter was in a car accident but our insurance doesn’t cover car accidents so she couldn’t even get transportation to facilities or the care she needed to get.”

“Some people work for minimum wage and are told that they can afford to provide healthcare for their family, feed their family, and put a roof over their family’s head...realistically, it’s not attainable.”

Are there any home remedies you use in place of traditional healthcare and medicine?

As many participants stated that traditional healthcare and medicine is inconvenient and unaffordable, participants provided a list of home remedies and reported using such items as a substitute before seeking out conventional services.

“People are starting to use home remedies rather than traditional health care because of the costs.”

“These things work and if you find that they don’t work, then you can go to the doctor.”

Participants provided examples of commonly used natural remedies, over-the-counter products, and less commonly used home remedies (see Table 4). For example, several natural remedies that participants reported include cherry juice for arthritis, salt water for sore throats, and vinegar for high blood pressure. Next, participants discussed over-the-counter products such as Vick’s VapoRub for chest congestion and toe fungus, Two Old Goats for arthritis, and Iodine for sore throats. Lastly, participants suggested various less common home remedies such as bacon for cuts and scratches, tobacco for bee stings, and Kerosene for sore throats and head lice.

Table 4. Home remedies and Targeted Ailments

Home Remedy	Targeted Ailment
Vick’s VapoRub	Congestion, toe fungus
Bar of soap	Cramps
Kerosene	Sore throat, head lice
Potatoes	Boils
Iodine	Sore throat
Baking soda	Heartburn
Cherry Juice	Arthritis
Yogurt	Upset Stomach
Bourbon, lemon, & honey	Cough or sore throat
Tobacco	Bee stings
Epsom Salt	Inflammation
Horse Liniment	Joints
Two Old Goats	Arthritis
Warm salt water	Sore throat
Cranberry juice	Kidney infection
Vinegar	Blood pressure, bee stings
Bacon	Cuts
Raw onion	Warts
Black tea	Pink eye
Fennel tea	Indigestion
Salve	Skin cracks
Local honey	Allergies
Castor oil & baking soda	Warts
Alcohol	Sore joints
Menthol	Colds

What are the strengths related to health in your community?

Next, participants were asked to discuss the strengths related to health in the community. Participants stated specific strengths of Currituck County, such as *access to outdoor activities, local health-related facilities and programs*, and an *overall sense of community*.

Specifically, participants expressed that access to the outdoors provides many different opportunities, such as outdoor sports, gardening, and fresh produce, which allow for a more active and healthier community. Participants referenced various outdoor activities that are available, including hunting, fishing, swimming, soccer, and boating. Furthermore, participants expressed that a strength of Currituck County is access to fresh and local produce from personal gardens and local farmers' markets.

"The houses are not close together like in the city; you are able to enjoy the outdoors."

Additionally, participants discussed various local health-related facilities that provide healthcare services, exercise equipment, and classes at an affordable price. Such facilities include the YMCA, senior center, and the parks and recreation department. Furthermore, participants expressed that local hospitals are a great resource that provide adequate services. Also, another strength that participants mentioned included local churches, which often provide outreach programs to assist parts of the community in need of food and support.

"We take a lot of things for granted. We are close to great top-notch hospitals—the best on the east coast. Not many people have that close of access."

"I don't know what we would do without the senior center."

Next, participants viewed support from the community as a health-related strength of Currituck County, as it creates an environment that is characterized by little stress and a strong sense of community. Furthermore, participants expressed that, alongside support from the community, the available outdoor activities in Currituck County are low in stress and good ways to mentally decompress.

"These activities are healthy mentally and good to blow off steam."

Furthermore, participants mentioned other health-related strengths of the community, such as labor-intensive jobs. In particular, participants viewed local jobs that require manual labor, such as farming, as strengths of the community because such work requires members to be active.

"A lot of the time we don't think of our jobs as being a form of exercise but they keep us from being sedentary."

Finally, participants stated that the local school system provides opportunities for youth to make healthy choices. For example, participants suggested that the local school system supports children's health by removing vending machines from schools and by providing a supportive environment for the children.

Cancer and heart disease are the leading causes of death in your county. In your opinion, what makes these the leading causes of death in your county?

Next, participants were asked to discuss potential explanations for why cancer and heart disease are the leading cause of death in Currituck County. Participants provided multiple explanations, including *the exposure and use of harmful substances in food and farming, unhealthy lifestyle habits, and a lack of healthcare resources and information.*

Participants suggested that the use of chemicals and hormones in food processing and farming contribute to the leading causes of death in the area. Furthermore, participants stated that they believe that the chemicals used in farming also contaminate the local water. Additionally, participants expressed that many local farmers are exposed to such chemicals and pesticides due to their occupation.

"I think a lot of it is coming from things that are added to our foods—preservatives and growth hormones. It seems like there are a lot of things getting pumped into our food."

"The county can't take care of every chemical that gets into the water, and if you live near fields and have well water, your water will have all the fertilizers in it."

Participants also suggested that unhealthy habits, such as tobacco use, excessive eating, poor diet, and lack of exercise are other factors that contribute to cancer and heart disease. Participants expressed that these unhealthy habits may be related to cultural practices in the community, such as eating large, home cooked meals that contain fried or processed foods.

"I think heart disease is poor diet and poor exercise, and I think most people affected by heart disease are "old school" in their diet...and aren't as savvy to the latest health trends."

"The mass quantity of food that we consume has gotten out of hand."

Additionally, participants expressed that financial issues and the convenience of unhealthy foods, may contribute to community members' poor diets. Specifically, eating healthier foods was viewed as more expensive and less convenient than eating unhealthy foods, as unhealthy foods are more accessible through sources such as fast food restaurants.

"You don't have a lot of money, so you buy the cheaper food."

Lastly, participants stated that many people lack the necessary resources and information to be healthy. For example, multiple participants noted the lack of specialty healthcare services in Currituck County. Additionally, participants stated that the healthcare that is available is difficult to access because of lack of transportation and time constraints, as it is challenging to take time off of work to go to the doctor. Furthermore, multiple participants noted that community members are not aware of the resources that are available and are uneducated about healthy lifestyle choices. In turn, community members believed that the above-mentioned factors contribute to the prevalence and mortality of cancer and heart disease.

"People are uneducated about healthy food choices."

How does living in a rural area affect health?

In the final question, participants were asked to discuss how living in a rural area affects health. Participants discussed both positive and negative aspects; however, most comments were focused on negative characteristics. Positive effects mentioned include a favorable climate and accessibility to the outdoors. In regard to negative aspects, participants frequently discussed how living in a rural area is associated with limited transportation options and a lack of healthcare services.

Specifically, participants stated that living in a rural area is associated with a dependency on available transportation and inadequate transportation prevents community members from living a healthy lifestyle. For example, participants believed that a lack of transportation prevents community members from accessing healthcare services, recreational facilities, and healthy food options.

"I think you have to have transportation. You have to have a car around here and I think that is probably the biggest challenge about living in a rural community."

Additionally, participants believed that rural areas are associated with a lack of healthcare services. For example, participants stated that rural communities have a hard time attracting practicing physicians to serve the area. Furthermore, participants stated that the area lacks specialized medical care – causing community members to travel outside of the county to receive the services they need.

"Sometimes in a rural area they aren't able to pay doctors as much as they are in a big city and we have a hard time attracting good doctors and keeping them here."

Participants also discussed the lack of sidewalks in the community. Many participants stated that community members struggle to find safe places to walk, and as a result, community members may stay indoors.

"If we had more safe places to walk, more people might get out. We just need more sidewalks."

In contrast, some participants viewed Currituck County's limited number of fast food restaurants as a positive effect of living in a rural area.

I believe living in a rural area affects health for the better. You are not exposed to fast food if you do not leave the island."

Finally, participants suggested additional positive effects of living in a rural area. Specifically, participants discussed how living in a rural area increases accessibility to the outdoors. For example, many participants stated that they enjoy hiking, hunting, and biking. Moreover, participants believed that the relaxing, fresh environment of Currituck County allows individuals to enjoy being outdoors and positively affects health.

"There's a different mindset here. Your mind doesn't race, there is less traffic, and there isn't stuff going on all night long like sirens. It's quiet and there is no pollution."

Summary and Next Steps

There were many common, identifiable themes among the Currituck County small-group discussions. When asked to discuss the **best things about living in the county**, participants frequently spoke about the *small town atmosphere* and *strong sense of community* in Currituck County. Furthermore, when speaking about the **health-related strengths of the community**, participants again discussed the county's *environment* and stated that the space in Currituck County allows community members to engage in a variety of *outdoor activities*, such as hunting and fishing.

In contrast, when asked to discuss the **health-related weaknesses of the community**, participants stated that the community has a variety of **serious health-related problems**, such as *heart disease, hypertension, high cholesterol, cancer, and diabetes*. Participants also expressed that *poor nutrition* was a serious problem in the county and led to many of the physical health-related problems experienced by community members. When discussing **barriers to health**, participants stated that many of the aforementioned conditions are the result of *not being able to afford healthy food, cultural norms, not having adequate healthcare facilities*, and *an overall lack of motivation to stay healthy*.

In turn, participants provided a variety of **solutions to the serious health-related problems** in Currituck County. For example, participants stated that the community would benefit from an *improved public transportation system* and *increase in health education in the schools*. Finally, participants stated that an *increase in the availability of healthcare providers* and *health-related facilities*, such as parks, is critical in improving the overall health of Currituck County.

At the conclusion of each discussion, the moderators explained the CHA would be available on ARHS's website in March 2017 and the website address was given, as well as the contact information for the CHA Lead.

Appendix A: Focus Group Script

GUIDELINES:

1. All cell phones need to be on silent or vibrate.
2. Be respectful to each other. Do not talk over each other or be dismissive of others' opinions.
3. Be open and honest in your responses.
4. Ask for clarification of questions if needed.
5. Share your opinion. Every participant brings a unique perspective and we want to hear from each person.
6. Refrain from using individual's names when sharing information during the session.
7. Refrain from sharing confidential information that may be discussed during the session.
8. Use appropriate language.

QUESTIONS:

1. Introduce yourself and tell us what you think is the best thing about living in this community.
2. What do people in this community do to stay healthy?
3. In your opinion, what are the serious health-related problems in your community?
4. What keeps people in your community from being healthy?
5. What could be done to solve these problems?
6. Have you or someone close to you ever experienced any challenges in trying to get healthcare services? If so, what happened?
7. Are there any home remedies you use in place of traditional healthcare and/or medicine?
8. What are the strengths related to health in your community?
9. Cancer and heart disease are the leading causes of death in your county. In your opinion, what makes these the leading causes of death in your county?
10. How does living in a rural area affect health?

CONTACT INFORMATION:

Dana Hamill
Albemarle Regional CHA Lead
Email: dhamill@arhs-nc.org; Phone: 426-2115

2016 Community Health Assessment

Priority Selection Worksheet

County: _____

After reviewing the CHA Presentation, please tell us what you think are the three most important health issues for your county.

When choosing these issues, please consider the following:

- **Magnitude of the Problem:** The size or extent of the problem as it relates to your county
- **Consequences of the Problem:** How the economic, social, cultural, and political issues within your county might be influenced by addressing this issue
- **Feasibility:** Are there enough resources in the county to address this issue and is the community ready to address this issue?
- **Duplication:** Is this issue already being addressed by other community stakeholders/programs?

Top Health Issues	
1.	
2.	
3.	



Currituck County Community Resource Inventory

Fire Departments

Carova Beach Volunteer Fire Department, Inc.

P.O. Box 20
Corolla, NC 27927
252-453-8690
Fax: 252-453-8659

Corolla Fire and Rescue Squad, Inc.

P.O. Box 52
Corolla, NC 27927
252-453-3242
Fax: 252-453-3082
Website: www.corollafireandrescue.com

Crawford Township Volunteer Fire Department, Inc.

102 Shawboro Rd.
Moyock, NC 27958

Barco Station: 252-453-2213
Sligo Station: 252-232-3313
Sligo Station Fax: 252-232-3489
Website: www.ctvfdept.org

Knotts Island Volunteer Fire Department, Inc.

P.O. Box 115
Knotts Island, NC 27950
252-429-3536
Fax: 252-429-3737
Website: <http://knottsislandvfd.com/>

Lower Currituck Volunteer Fire Department, Inc.

P.O. Box 207
Grandy, NC 27939
Grandy Station: 252-453-2761
Grandy Station Fax: 252-453-4579
Harbinger Station: 252-491-8101
Waterlily Station: 252-453-4675
Website: www.lcvfd.org

Moyock Volunteer Fire Department, Inc.

108 Fire Station Ct.

Moyock, NC. 27958
252-435-2281
Fax: 252-435-6450
Website: www.moyockfd.org

Virginia Beach Fire Department – Blackwater Station (serves the community of Gibbs Woods)

Fire/EMS

Currituck County Fire-EMS (CCFEMS)
2795 Caratoke Highway
Currituck, NC 27929
252-232-7746
Fax: 252-232-0015
Hours: Mon-Fri 8am-5pm

Police

Non-Emergency

252-232-2216

Currituck County Sherriff's Office

407 Maple Road
Maple, NC 27956
252-453-8204
Fax: 252-453-2238

Corolla/Carova Office

1123 Ocean Trail
Corolla, NC 27927
252-453-2121

Knotts Island Office

633 Knotts Island Road
Knotts Island, NC 27950
252-429-3827

Detention Center

252-453-2194

Animal Control

252-453-8682

Libraries

East Albemarle Regional Library

<http://www.earlibrary.org/TLCScripts/interpac.dll?SearchForm&Directions=1&Config=pa>
[c](#)

Main Library

4261 Caratoke Hwy.
Barco, NC 27917
252-453-8345

Moyock Library

126 Campus Drive (off of Tulls Creek Rd)
Moyock, NC 27958
252-435-6419

Corolla Branch

1123 Ocean Trail
P.O. Box 193
Corolla, NC 27927
252-453-0496

Carova Station

Honor Books Available at the Fire Station

Knotts Island and Gibbs Woods

Books Available by Mail

Outreach

Books delivered to Shut-ins and Nursing Home Residents -- First Wednesday of the Month
Day-cares -- Third Tuesday and Wednesday

Parks and Recreation

Community Center/YMCA Building

130 Community Way,
Barco, NC 27917
252-232-3007
Hours: Mon-Fri 8am-5pm

Public Schools

Currituck County Schools

<http://www.currituck.k12.nc.us/Domain/1>

Central Elementary School

504 Shortcut Rd.
Barco, NC 27917
252-453-0010

Currituck County High School

4203 Caratoke Hwy.
Barco, NC 27917
252-453-0014

Currituck County Learning Center

Located at Currituck County High School
252-453-0017 EXT 3003

Currituck County Middle School

4263 Caratoke Hwy.
Barco, NC 27917
252-453-2171

Griggs Elementary School

261 Poplar Branch Rd.
Poplar Branch, NC 27965
252-453-2700

J.P. Knapp Early College

2966 Caratoke Hwy.
Currituck, NC 27929
252-232-3107

Jarvisburg Elementary School

110 Jarvisburg Rd.
Jarvisburg, NC 27947
252-491-2050

Knotts Island Elementary School

Knotts Island, NC 27950
252-722-0770

Moyock Elementary School

255 Tulls Creek Rd.
Moyock, NC 2758
252-435-6521

Moyock Middle School

216 Survey Rd.
Moyock, NC 27958
252-435-2566

Shawboro Elementary School

370 Shawboro Rd.
Moyock, NC 27958
252-232-2237

Private Schools**Jarvisburg Christian Academy**

121 Forbes Rd.
Jarvisburg, NC 27947
252-491-8283

Higher Education**Chowan University**

One University Dr.
Murfreesboro, NC 27855
Phone: 252-398-6436
Toll-Free: 1-888-4-CHOWAN
Fax: 252-398-1190
Website: <https://www.chowan.edu/>

Martin Community College - Bertie Campus

409 West Granville St.
Windsor, NC 27983
Phone: 252-794-4861
Website: <http://www.martincc.edu/>

Martin Community College - Williamston Campus

1161 Kehukee Park Rd.
Williamston, NC 27892

Commented [PR1]: College of the Albemarle

Elizabeth City Campus
1208 N. Road St
PO Box 2327
Elizabeth City, NC 27909
P: 252-335-0821
F: 252-335-2011

Dare County Campus

132 Russell Twiford Road
Manteo, NC 27954
P: 252-473-2264
F: 252-473-5497

Roanoke Island Campus

205 Highway 64 S.
Manteo, NC 27954
F: 252-473-6002

Edenton-Chowan Campus

800 N. Oakum St
Edenton, NC 27932
P: 252-482-7900
F: 252-482-7999

Regional Aviation & Technical Training Center

107 College Way
Barco, NC 27917
P: 252-453-3035
F: 252-453-3215

<http://www.albemarle.edu/>

Phone: 252-792-1521
Fax: 252-792-0826
Website: <http://www.martincc.edu/>

Roanoke Chowan Community College

109 Community College Rd.
Ahoskie, NC 27910
Phone: 252-862-1200
Website: <https://www.roanokechowan.edu/>

Elizabeth City State University

1704 Weeksville Rd.
Elizabeth City, NC 27909
252-335-3400
Website: <http://www.ecsu.edu/>

College of the Albemarle - Elizabeth City Campus

1208 N. Road St
PO Box 2327
Elizabeth City, NC 27909
Phone: 252-335-0821
Fax: 252-335-2011
Website: <http://www.albemarle.edu/about-coa/elizabeth-city-campus>

College of the Albemarle - Dare County Campus

132 Russell Twiford Road
Manteo, NC 27954
Phone: 252-473-2264
Fax: 252-473-5497
Website: <http://www.albemarle.edu/about-coa/dare-campus>

College of the Albemarle - Roanoke Island Campus

205 Highway 64 S.
Manteo, NC 27954
Fax: 252-473-6002
Website: <http://www.albemarle.edu/>

College of the Albemarle - Edenton-Chowan Campus

800 N. Oakum St
Edenton, NC 27932
Phone: 252-482-7900
Fax: 252-482-7999
Website: <http://www.albemarle.edu/about-coa/edenton-chowan-campus>

Commented [PR2]: East Carolina University
East Fifth Street
Greenville, NC 27858
Phone: 252-328-6131
<http://www.ecu.edu/>

Regional Aviation & Technical Training Center

107 College Way
Barco, NC 27917
Phone: 252-453-3035
Fax: 252-453-3215
Website: <http://www.albemarle.edu/currituck>

East Carolina University

East Fifth Street
Greenville, NC 27858
Phone: 252-328-6131
Website: <http://www.ecu.edu/>

Old Dominion University

5115 Hampton Boulevard
Norfolk, VA 23529
757-683-3000
Website: <http://www.odu.edu/#prospective>

College of William and Mary

Williamsburg, VA 23187
757-221-4000
Website: <http://www.wm.edu/index.php>

Norfolk State University

700 Park Avenue
Norfolk, VA 23504
757-823-8600
Website: <https://www.nsu.edu/>

Regent University

1000 Regent University Drive
Virginia Beach, VA 23464
800-373-5504
Website: <http://www.regent.edu/>

Virginia Wesleyan College

1584 Wesleyan Dr.
Norfolk, VA 23502
757-455-3200
Website: <http://www.vwc.edu/>

Hampton University

Hampton, VA 23668

757-727-5000

Website: <http://www.hamptonu.edu/>

Eastern Virginia Medical School

P.O. Box 1980

Norfolk, VA 23501

757-446-5600

Website: <http://www.evms.edu/>

Partnerships to Improve Community Health (PICH)

This project focuses on addressing risk factors for chronic disease with coalitions compiled of representatives from health departments, faith-based institutions, local governments, community colleges, health and human service agencies, and community organizations which will implement strategies to reduce secondhand smoke exposure and improving nutrition

Website: <http://healthync.org/>

Farmers Markets, Farmstands, and Roadside Stands

The Farm Market by United Turf

7940 Caratoke Hwy.

Powells Point, NC 27966

252-491-2181

Grandy Greenhouse and Market

6264 Caratoke Hwy.

Grandy, NC 27939

252-452-2658

Morris Farm Market

3784 Caratoke Hwy.

Barco, NC 27917

252-453-2837

Powells Roadside Market

2138 Caratoke Hwy.

Moyock, NC 27958

252-232-2745

Roberts Ridge Farm

501 N. Indiantown Rd.

Shawboro, NC 27973

252-202-9665

Rose Produce and Seafood Market

6378 Caratoke Hwy.
Grandy, NC 27939
252-453-2911

Seaside Farm Market

787 Sunset Blvd.
Corolla, NC 27927
252-453-8285

Tarheel Produce

16954 Caratoke Hwy.
Grandy, NC 27939
252-491-8600

Coinjock Creek Farm and Market

194 Maple Rd.
Maple, NC 27956
252-267-3332

Scott Newbern's Farm Market

7464 Caratoke Hwy.
Jarvisburg, NC 27947
252-619-9370

Home Grown Market

7026 Caratoke Hwy.
Jarvisburg, NC 27947
252-491-2181

United Turf Honor Cart

120 Leonhauser Lane
Grady, NC
Email: info@thefarmmarketobx.com

Albemarle Regional Health Services

Albemarle Regional Health Services (ARHS) is a regional Public Health agency in rural, northeastern NC serving the seven counties of Bertie, Camden, Chowan, Currituck, Gates, Pasquotank and Perquimans. ARHS has provided over 70 years of service to the Albemarle Region.

The regional Public Health agency provides the following healthcare services: immunizations, diabetes care and management, women's preventive health, maternal health, including high-risk perinatal services, child health, WIC and nutrition counseling,

pediatric asthma management, services for people with communicable diseases including STDs, adult day health care, children's developmental services, Public Health preparedness and response, public information, interpreter assistance, home health care, and hospice.

Albemarle Regional Health Services also administers the following programs: Environmental Health, Regional Landfill, Solid Waste Authority and Recycling, LifeQuest Worksite Wellness, and the Inter-County Public Transportation Authority. The more than 29 ARHS operational sites are completely networked by technology to increase the efficiency and effectiveness of service delivery across the agency.

Local Health Department

The Currituck County Health Department is part of ARHS, a seven-county regional, accredited Public Health Department headquartered in Elizabeth City, NC. The local health department is located in Edenton at 100 W. Freemason Circle. Comprehensive clinical services include Women's Preventive Health, Adult Health, Communicable Disease programming, Immunizations, School and Community Health Education, Breast and Cervical Cancer Control Program, Diabetes Management, Child Health, WIC, Albemarle Hospice, Albemarle Home Care, Albemarle LifeQuest/Health Promotion, Environmental Health, Preparedness and Response Solid Waste Management Authority, and the Regional Landfill services.

Currituck County Health Department

2795 Caratoke Hwy.
Currituck, NC 27929
252-232-2271

Hospitals

There is no hospital in either Currituck County or Pamlico County.

Other Hospitals

There are eight hospitals in northeastern NC that serve residents of Currituck County. Of these, only Vidant Medical Center in Greenville offers a Trauma Center (rated for Level I care).

Vidant Bertie Hospital

1403 South King Street
P.O. Box 40
Windsor, NC 27983
252-794-6600

Vidant Chowan Hospital

211 Virginia Road
P.O. Box 629
Edenton, NC 27932
252-482-8451

The Outer Banks Hospital, Inc.

4800 S. Croatan Highway
Nags Head, NC 27959
877-359-9179

Vidant Roanoke-Chowan Hospital

500 South Academy Street
P.O. Box 1385
Ahoskie, NC 27910

Martin General Hospital

310 South McCaskey Road
Williamston, NC 27892
252-809-6179

Sentara Albemarle Medical Center

1144 N. Road Street
Elizabeth City, NC 27909
252-384-4122

Vidant Medical Center

2100 Statonsburg Road
P.O. Box 6028
Greenville, NC 27835
252-847-4100

Washington County Hospital

958 US Hwy 64 East
Plymouth, NC 27962
252-793-4135

NC Cooperative Extension

120 Community Way
Barco, NC 27917
252-232-2261
Fax: 252-453-2782

Website: <https://currituck.ces.ncsu.edu/>

Albemarle Hopeline, Inc.

Albemarle Hopeline, a private, non-profit organization founded in 1981, is the only program of its kind in the Albemarle region, with outreach through four satellite offices (Chowan, Currituck, Gates and Perquimans counties), a shelter/direct service facility, and a thrift store. The agency is guided by the mission of "providing comprehensive direct and preventive services to victims of family violence, sexual assault and teen dating violence" in the counties of Camden, Chowan, Currituck, Gates, Pasquotank and Perquimans.

Services include: 24-hour crisis line; emergency Hope House shelter; food, clothing and transportation; crisis intervention; court advocacy; individual and group counseling for adults and children; Displaced Homemaker Program; information and referral; outreach; and prevention through awareness and education to school, church and civic groups and the community-at-large. Since the opening of an enlarged 14,200 square foot Hope House facility in 2006, Hopeline has been able to consolidate services to both residential and non-residential victims, and improve coordination and effectiveness. All services are designed to meet basic safety needs of victims of domestic and sexual violence, empowering them to establish and maintain healthy, violence-free lives.

Mailing address:
PO Box 2064
Elizabeth City, NC 27906
Phone: 252-338-5338
24-hour crisis line: 252-338-3011
Fax: 252-338-2952
Website: www.albemarlehopeline.org

Community Care of North Carolina/Carolina ACCESS

Phone: 252-847-6430

Mental Health Resources

Trillium Healthcare Resources

Manages mental health, substance use, and intellectual/development disability services in a 24-county area. Trillium partners with agencies and licensed therapists to offer services and support to people in need within their community.

Crisis Care & Service Enrollment: 1-877-685-2415
Email: info@trilliumnc.org
Website: <http://www.trilliumhealthresources.org/>

Trillium Access Point

Anonymous, evidence-based, self-conducted screenings online 24hrs a day for depression, bipolar disorder, post-traumatic stress disorder, eating disorders, and alcohol use disorders.

Available in English and Spanish, provides local referral information, and includes learning and resource section.

Website: <http://www.trilliumhealthresources.org/en/Community-Partnerships/Trillium-Initiatives/Access-Point/>

Quitline NC

Free, confidential, one-on-one support and in addition to new extended hours of 6am-3am, nicotine replacement therapy - patch, gum and lozenge - is now available for every person who enrolls.

1-800-QUIT-NOW

Physicians**Sentara Family & Internal Medicine Physicians**

446 Caratoke Hwy

Moyock, NC 27958

252-435-1275

Website: <http://www.sentara.com/hampton-roads-virginia/hospitalslocations/locations/sentara-internal-medicine-physicians/simple-locations/sentara-family-internal-medicine-physicians-moyock.aspx>

Currituck Internal Medicine & Family Practice

534 Caratoke Hwy

Moyock, NC

252-435-6621

Albemarle Family Practice

1141 N. Road St.

252-335-5424

Dentists**Morgan & Morgan: Morgan Jr. Patrick H DDS**

153 Worth Guard Rd.

Coinjock, NC 27923

252-453-2181

Currituck Dental: Rimmer Suzanne D DDS

112 Currituck Commercial Dr.
Moyock, NC 27958
252-232-0800

Community Clinic

Dr. Norman Dahm

8845 Caratoke Highway
Point Harbor, NC 27964
252-491-8550

Others

Mane and Tail Therapeutic Horsemanship Academy

6066 Caratoke Highway
Poplar Branch, NC 27965
252-448-1774

Currituck County Joblink Career Center

2793 Caratoke Highway
Currituck, NC 27929
252-232-3083

Work First Family Assistance

2793 Caratoke Highway
Currituck, NC 27929
252-232-3083

Currituck County Department of Social Services

153 Courthouse Road
Suite 400
Currituck, NC 27929
252-232-3083
Fax: 252-232-2167

Services for Seniors and Disabled Persons

Currituck County Senior Center

2793 Caratoke Hwy.
Currituck, NC 27929
252-232-3505

Currituck House Assisted Living

141 Moyock Landing Dr.
Currituck, NC
252-435-1024

Albemarle Home Health

2793 Caratoke Hwy
Currituck Gov. Complex
Currituck, NC
866-845-5147

Sentara Nursing Center

3907 Caratoke Highway
Barco, NC 27917
252-457-0500

Albemarle Smart Start Partnership

Mission: To improve children's lives in Bertie, Camden, Currituck, Gates, and Pasquotank Counties.

Goals: To make sure children enter school healthy and ready to learn. To provide programs for young children and caregivers to improve quality of child care and funds child care scholarships and programs designed to support families.

1403 Parkview Drive
Elizabeth City, NC 27909
Phone: 252-333-1233
Fax: 252-333-1201
Email: smartstart@albemarlessp.org
Website: <http://www.albemarlessp.org/>

Childcare**Humble Beginnings Child Care Center**

268 Caratoke Hwy
Moyock, NC 27958
252-232-1398

Jarvisburg Elementary School: More at Four

110 Jarvisburg Road
Jarvisburg, NC 27947
252-491-2050

Central Elementary Preschool

504 Shortcut Road
Barco, NC 27917
252-453-0010

A Brighter Start Academy, Inc.

113 Gallop Road
Point Harbor, NC 27964
252-491-2040

Currituck Head Start

494 Short Cut Road
Barco, NC 27917
252-453-4992

Farmer in the Dell Preschool

7467 Caratoke Highway
Jarvisburg, NC 27947
252-491-8196

Tiny Tots Learning Center

Highway 3 Aydlett Road
Poplar Branch, NC 27965
252-453-8218