2014 HYDE COUNTY COMMUNITY HEALTH ASSESSMENT

Hyde County Health Department, Vidant Pungo Hospital, Vidant Beaufort Hospital, The Outer Banks Hospital and Hyde Partners for Health

Report to NCDPH

March 1, 2015

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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-Hyde Partners for Health. 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.

Community Health Assessment Funding Provided by
The Outer Banks Hospital, Hyde County Health Department, Vidant Pungo and Vidant Beaufort Hospitals

CHA Team Member	Organization	Contributions	Committee assignments	In-kind Financial Contribution
Mike Adams	Davis Ventures Youth and Rec. Center	Representative	Advise in planning and implementation	Administrative time and travel
Cheryl Ballance	Engelhard Medical and Ocracoke Health Center	Stakeholder	Advise in planning and implementation	Engelhard Medical and Ocracoke Health Center time
Kathy Ballance	Hyde County Hotline, Inc. Sexual Assault & Domestic Violence	Stakeholder	Advise in planning and implementation	Hyde County Hotline Time
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Jamie T. Carter	Engelhard Medical and Ocracoke Health Center	Representative	Collect and provide data	Engelhard Medical and Ocracoke Health Center time
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Laura Edwards	Center for Healthy North Carolina	Representative	Inform group of 2020 Objectives and action plan requirements	Center for Healthy North Carolina time
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Justin Gibbs	Hyde County Government Emergency Management	Stakeholder	Collect and provide data	Hyde County Government time
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Michelle Newman	Cross Creek Health Care	Stakeholder	Advise in planning and implementation	Cross Creek Health Care time

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Jeff Shovelin	Vidant Medical Group	Representative	Collect and provide data	Vidant Medical Group time
Melissa Sadler	Hyde County Health Department	Stakeholder	Collect, provide data, advise in planning, and implementation	Hyde County Health Department time
Chris Salerno	Engelhard Medical and Ocracoke Health Center	Stakeholder	Advise in planning and implementation	Engelhard Medical and Ocracoke Health Center time
Anna Schafer	Hyde County Health Department	Stakeholder	Advise in planning and implementation	Hyde County Health Department time
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Chinita Vaughan	East Carolina Behavioral Health	Stakeholder	Collect and provide data	East Carolina Behavioral Health time
Katie Vitiello	ECU Center for Survey Research	Researcher	Analyze and compile data	Vidant Pungo and Beaufort Community Benefits
Hugh Watson	Hyde County Health Department	Stakeholder	Collect, provide data, advise in planning, and implementation	Hyde County Health Department time
Stephanie Watson	Hydeland Homecare	Representative	Collect and provide data	Hydeland Homecare
Geraldine Weatherly	Cross Creek Health Care	Stakeholder	Advise in planning and implementation	Cross Creek Health Care time
Tracy Webster	East Carolina Behavioral Health	Stakeholder	Collect and provide data	East Carolina Behavioral Health time
Lisa Woolard	Beaufort/Hyde Partnership for Children	Stakeholder	Advise in planning and implementation	Administrative time and travel

EXECUTIVE SUMMARY

INTRODUCTION

This Community Health Assessment document is the work of a local partnership among the Hyde County Health Department (HCHD), Vidant Pungo Hospital (VPH), Vidant Beaufort Hospital (VBH), the Outer Banks Hospital (OBH), and the community's Healthy Carolinians coalition, Hyde Partners for Health (HPH). This team's work, assisted by both an independent public health consultant and the Center for Survey Research at East Carolina University, culminated in a comprehensive CHA report (available on the Hyde County Health Department website, http://hydehealth.com/healtheducation.htm) that was excerpted to create this report.

HYDE COUNTY AND ITS PEOPLE

Hyde County is a coastal county located in eastern NC with parts of the jurisdiction on both the mainland and the Outer Banks. It has a small population (less than 6,000 residents), whose employment opportunities are primarily in public administration, agriculture, fishing, forestry, and hunting. It is rather isolated, with no commercial air or rail services, and no Interstate highways. The county has 250 miles of paved roads but no four-lane highways. In fact, no Hyde County residents live within 10 miles of a four-lane highway. Once the center of a significant timber "boom", the county has lost this economic driver, and now relies largely on its natural resources (seacoast and wildlife refuges) to attract visitors.

A particularly noteworthy aspect of the Hyde County population is its age. The median age in the county is 41.2 years, nearly four years "older" than the population for NC as a whole. The county population of citizens over the age of 65 is projected to grow by 71% by 2030. It will be critical for the community to monitor the growth of this population to address its needs, since this segment of the population tends to consume health and human services as high rates.

As elsewhere in NC, unemployment in Hyde County accelerated between 2008 and 2009, with the onset of the nation-wide economic recession. While lower than in NC as a whole for most of the period since 2008, unemployment in Hyde County continued to increase from 2008 through the most recent rate (2012) even as it fell in NC. In 2012 the unemployment rate in Hyde County surpassed the comparable rate for NC.

Despite an improving national economy, poverty remains significant in Hyde County, especially among African Americans and children. The overall poverty rate in Hyde County in 2008-12 was 23.3%, almost 40% higher than in NC as a whole. However, the poverty rate among African Americans in the county in the same period was 54.8%, more than twice the overall rate and five times the rate among whites. Among Hyde County children under the age of five the poverty rate for the same period was 47.8%, twice the overall poverty rate for the county.

Poverty can diminish all aspects of quality of life including health. The population in poverty is even more at risk for poor health outcomes if its members do not have health insurance. In 2010-11 20.9% of the Hyde County population between ages 0-64 lacked health insurance of any kind. Children ages 0-18 fared considerably better, with only 8.5% uninsured, due largely to growing success in enrolling eligible Hyde County children in NC Health Choice.

HEALTH IN HYDE COUNTY

Life expectancy in Hyde County has improved overall: overall life expectancy was 76.7 years in 2010-12, compared to 72.2 years in 1990-92. There was significant improvement in the African American community, where despite continued disparate poverty and poor health outcomes life expectancy improved from 68.4.8 years in 1990-92 to 75.9 years in 2010-12. Surprisingly, life expectancy for Hyde County females decreased over the same period, from 76.0 years to 74.6 years.

Comparison of Hyde County health data over the past several years identified that overall mortality rates in the county have decreased for several leading causes of death but increased for others. Since the 2001-05 aggregate period, overall mortality rates have *decreased* in Hyde County for cancer, heart disease, diabetes, kidney disease, suicide, pneumonia/influenza, and homicide. Comparable mortality rates in Hyde County have *increased* for chronic lower respiratory disease, unintentional non-motor vehicle injuries, unintentional motor vehicle injuries, septicemia, AIDS, and especially cerebrovascular disease and Alzheimer's disease. Although comparable rate data for minorities is limited due to below threshold numbers of deaths, 2008-12 age-adjusted mortality rates among African Americans were 15% higher than among whites for total cancer and 4% higher for heart disease. The overall mortality rate for African American non-Hispanics in Hyde County was 19% higher than the overall mortality rate for white non-Hispanics.

Recent (2008-12) Hyde County mortality rates for several leading causes of death exceeded comparable rates for NC as a whole. Among these causes of death were cancer, heart disease, cerebrovascular disease, chronic lower respiratory disease, Alzheimer's disease, unintentional motor vehicle injuries, and AIDS.

Among the lifestyle factors contributing to chronic disease prevalence and mortality, overweight and obesity are perhaps the most important. According to the CDC the prevalence of diagnosed adult obesity in Hyde County in 2010 was 31%, and had averaged 31% from 2005 through 2010.

Other data would appear to indicate that overweight and obesity are significant health problems among children in Hyde County as well. According to relatively recent data from the NC Nutrition and Physical Activity Surveillance System (NC-NPASS) an average of 31% of 2-4 year-olds in the system were overweight or obese in 2010, 2011 and 2012. According to 2011 BMI data on all seventh-grade students in the Hyde County school system, an average of 50% of the seventh-graders each year were either overweight or obese. In addition, SY2013-14 BMI data for students at Mattamuskeet Middle School showed that 47% were overweight or obese, and that 11% were "extremely obese".

The 2014 Hyde County Community Health Needs Assessment Survey asked respondents whether they had been medically diagnosed with any of a list of health conditions, including overweight/obesity. The percentage of respondents replying "yes" to a diagnosis of "overweight/obesity" in 2014 was 27% of 207 respondents. Survey respondents also identified obesity as a leading community health problem.

Complications from overweight and obesity also often include high cholesterol and high blood pressure. Each of these conditions is prevalent in the Hyde County community, as indicated by results of the 2014 Hyde County Community Health Needs Assessment Survey. In the survey,

41% of 213 respondents reported they had been diagnosed with high blood pressure, and 34% of 205 respondents reported a diagnosis of high cholesterol.

Despite a decreasing mortality trend, total cancer was the leading cause of death in Hyde County in the 2008-12 period, and the respondents ranked cancer among the most significant health problems on the 2014 Hyde County Community Health Needs Assessment Survey.

Between 2001-05 and 2008-12 cancer mortality rates in Hyde County decreased for breast cancer and colorectal cancer, but increased for lung cancer and prostate cancer. Since 2000, Hyde County incidence rates have increased for all four major site specific cancers; it is noteworthy that the county incidence rate for lung cancer has tripled between 1996-2000 and 2007-11.

Total pregnancy rates among Hyde County teens (ages 15-19) were unstable from 2010 through 2012; however, despite this instability, it appears that the total teen pregnancy rate may have increased significantly since 2010. The frequency of total low birth weight births in Hyde County has decreased overall since 2006-10; however, although admittedly unstable, the frequencies of low birth weight births among African American and Hispanic women consistently have been almost double the frequency among white women. The percent of pregnant women who received early prenatal care has been falling recently in Hyde County, as it has elsewhere in NC, for reasons that are unclear. Infant mortality rates for the county are not available due to small numbers of infant deaths.

POPULATIONS AT RISK

Taken together, the demographic, sociodemographic and health data point to certain Hyde County populations at risk for poor health outcomes:

- **People without a medical home:** low medical provider ratios and utilization of area hospital emergency departments for health care are indicators that many in Hyde County do not have a stable medical home. This problem will be exacerbated with the closure of Vidant Pungo Hospital.
- **The growing elderly population**: there is an apparent lack of nursing home and assisted living housing options for the elderly as they reach the point they can no longer are for themselves.
- **Uninsured or underinsured Hyde County residents:** these populations have difficulty accessing health care.
- **Males:** men suffer mortality and morbidity at higher rates than females.
- **People without reliable transportation:** the elderly and poor, especially, have limited transportation options to access the limited health care in large, predominately rural Hyde County.
- **Minority populations:** this population group suffers the consequences of poverty and limited health care access at the highest rates.

COMMUNITY PRIORITIES

The Hyde County CHA Stakeholder Group and Leadership Team undertook three phases of prioritization. The first phase involved creating a preliminary list of priorities based on the secondary data. This list was created in order to identify the health concerns that the group needed to pay special attention to when reviewing the primary data. In creating this list, the

group took into consideration the magnitude of the problem (examination of the data), as well as the feasibility of addressing the problem (community resources and assets) and the impact that could be made by addressing the problem in Hyde County.

Prior to the second priority setting process, the CHA Stakeholder Group and Leadership Team examined the similarities and differences between the primary and secondary data. Using the same selection criteria as the preliminary priority setting process, the group created a new, yet very broad list of priorities, necessitating a third process to reduce the priorities list.

This was achieved by creating and distributing a survey via Survey Monkey which asked CHA Stakeholders to rank identified priorities according to 1) magnitude/importance of health issue and 2) feasibility/impact of addressing the health issue. Once responses were collected, the CHA Leadership Team examined the ranked health issues. As a result of this multi-step process Hyde County's health priorities for the next three year period (2014-17) are:

1) ***Physical Activity/Nutrition (Chronic Disease Prevention)***
2) ***Access to Primary Care***
3) ***Substance Abuse***

INTRODUCTION

BACKGROUND

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 NCDPH) 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 now required to conduct a community health (needs) assessment at least every three years. Recognizing that duplicate assessment efforts are a poor use of community resources, LHDs and non-profit hospitals across the state are developing models for collaboratively conducting the community health assessment process. This report is the culmination of such a partnership between the Hyde County Health Department (HCHD), Vidant Pungo Hospital (VPH), Vidant Beaufort Hospital (VBH), and the Outer Banks Hospital (OBH).

In communities where there is an active Healthy Carolinians coalition, the CHA partnership also usually includes that entity. The members of local coalitions 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 Hyde County, the local Healthy Carolinians coalition is Hyde Partners for Health (HPH).

The community health assessment, which is both a process and a document, investigates and describes the current health status of the community, 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 is a useful data 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.

The HCHD contracted with Sheila S. Pfaender, Public Health Consultant, to assist in collecting and analyzing secondary data. HCHD also contracted with the Center for Survey Research at East Carolina University for assistance in collecting and analyzing primary data gathered via a survey and focus groups.

The Hyde County CHA team developed a multi-phase plan for conducting the assessment. The phases included: (1) a research phase to identify, collect and review 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; (4) a community input phase to elicit opinion and ideas regarding the assessment outcomes among community stakeholders; and (5) a prioritization and decision-making phase.

The team's work culminated in a comprehensive CHA report that was excerpted to create this report. The comprehensive CHA document is available on the Hyde County Health Department website, http://hydehealth.com/healtheducation.htm.

TEAM SELECTION PROCESS

The Community Health Assessment Stakeholder Group was formed by inviting a wide variety of community partners to participate in the process. Because the population of Hyde County is so small and the community agencies are limited, it was the goal to select and invite all agencies that take an interest in the health of the county and certainly those whose missions and services pertain to community health and wellness. Some of these individuals were selected because of their agency affiliation, but most every person/agency represented in the group has been engaged in some form of collaboration with the health department in past years. The CHA Stakeholder group was formed in order to serve in both an advisory and working capacity throughout the process. The Health Director and Health Educator made contact with identified partners, provided information about the CHA process, and extended an invitation to the initial team meeting in May 2014.

In addition to the CHA Stakeholder Group, a smaller group, the CHA Leadership Team, was formed in order to facilitate some of the more specific work related to primary data collection, as well as to serve in an advisory capacity. This group was comprised of the Health Director, Health Educator, Director and Assistant Director of the East Carolina University Center for Survey Research (ECU CSR), and a representative from Vidant Beaufort Hospital. This group met on a regular basis throughout the entire Community Health Assessment process.

TEAM OPERATIONAL PROCESS

The CHA Stakeholder Group first came together in May 2014 for the first in-person introduction to the CHA process and to review the secondary data report created by our Public Health Consultant, Sheila Pfaender. Additionally, during this meeting, the group created a list of "preliminary priorities". Shelisa Howard-Martinez from Care Share Health Alliance assisted the group in this process. The entire prioritization process will be discussed in more depth later in this report.

In August 2014, the CHA Leadership Team met to form primary data collection tools, including community input survey and focus group scripts, which were later sent out to the Stakeholder Group for review. Once these instruments were finalized, the CHA Stakeholder Group met to discuss specific strategies for engaging community members in the primary data collection process. Members of the group were also asked to distribute the survey to clients served in their agencies, as well as to their staff. Members of the CHA Leadership Team distributed surveys, as well as slips to the online survey, and invited community members to participate in focus groups in five townships in Hyde County. Ultimately, 245 paper and online surveys were completed by Hyde County residents and each focus group yielded no less than eight participants per township.

In January 2015, the CHA Stakeholder Group came back together in order to 1) examine the primary data results, 2) review the secondary data results in comparison to the primary data results, 3) examine the Healthy North Carolina 2020 Objectives, 4) review action planning requirement changes since the 2011 CHA, and 5) establish priorities based on both the primary and secondary data results. Shelisa Howard-Martinez returned to assist the group in priority setting, and Laura Edwards from the Center for Healthy North Carolina assisted the group in reviewing the Healthy NC 2020 Objectives and action planning requirements.

In addition to attending the formal meetings throughout the 2014 Community Health Assessment process, the CHA Stakeholder Group provided input and support via email and phone contact with the Public Health Educator. Additionally, these Stakeholders played an active role in their daily work by distributing and collecting surveys, identifying potential focus group participants, and creating awareness about the Community Health Assessment process. Both the CHA Stakeholder Group and the CHA Leadership Team will continue to be involved in the dissemination of the final report and the creation of a community action plan.

KEY PARTNERSHIPS

Collaboration between Hyde County Health Department, Vidant Medical Group, East Carolina University, the Public Health Consultant, and local partners made this assessment possible. Many partners spent numerous hours attending team meetings, collecting local data, promoting and distributing the community health survey, and assisting the Health Educator in various ways. Additional partners, who were unable to serve on the team, contributed to the process through providing data and assisting with survey distributions. A collective list of the key partners in the 2014 CHA process in Hyde County includes:

- Davis Ventures Youth and Recreation Center
- Engelhard Medical and Ocracoke Health Center
- Hyde County Hotline, Inc.
- Hyde County Sheriff's Department
- Hydeland Homecare
- Center for Healthy North Carolina
- Hyde County Government
- Care Share Health Alliance
- Hyde County Department of Social Services
- Hyde County Schools
- ARHS Active Routes to School
- Hyde County Cooperative Extension
- The Outer Banks Hospital
- Hyde County Transit
- Hyde County Recreation Commission
- East Carolina Behavioral Health
- Beaufort/Hyde Partnership for Children
- Cross Creek Health Care
- Project DIRECT Legacy for Men & Their Families

COUNTY DESCRIPTION

GEOGRAPHY

Hyde County is a coastal NC county perched on the eastern edge of NC with an aquatic boundary that includes the Atlantic Ocean, the Pamlico Sound, and the Pungo, Alligator, and Long Shoal Rivers. The largest part of the county is on the mainland; it is accessible by road and ferry, or by private aircraft. The smaller part of the county—remote Ocracoke Island—lies twenty miles across the Pamlico Sound and is reachable only by water or air.

NC counties adjacent to Hyde include Tyrrell County to the north, Dare County to the northeast, Carteret County to the southwest, Beaufort County to the west, and Washington County to the northwest. Hyde County has a total area of 1,424 square miles, of which 613 (43%) is land and 811 (57%) is water, including Lake Mattamuskeet, a large inland lake. The nearest Interstate highway is I-95, approximately 140 miles west of the county. The county has 250 miles of paved roads but no four-lane highways. In fact, no Hyde County residents live within 10 miles of a four-lane highway. The nearest metropolitan area is Washington, NC, located 61 miles to the west. The county is divided into five townships: Currituck, Fairfield, Lake Landing, Ocracoke, and Swan Quarter (the county seat).

The nearest airport offering commercial passenger service is Pitt-Greenville airport, 77 miles west in Greenville NC. US Highway 64 provides access to the Raleigh-Durham International Airport located 185 miles to the west. An airport in Manteo NC (Dare County) serves commuter and recreational fliers. Hyde County has a small airport in Engelhard with a 4,700 foot runway and the National Park Service operates a small airport on Ocracoke; both are utilized by private air traffic and for emergencies. Rocky Mount, NC is the closest stop on any passenger railway system; the nearest Greyhound Lines stop is Edenton, NC.

HISTORY

Mainland Hyde County

Europeans landed on mainland Hyde County in 1585, near Wysocking Bay, where they discovered an Algonquian Indian village named “Pomeiooc”. This settlement was located somewhere between what is now Middletown and the great lake the Indians called “Paquippe” and is currently known as Lake Mattamuskeet. Although many Indian artifacts have been found in the vicinity, archaeologists have yet to unearth Pomeiooc.

During the seventeenth and eighteenth centuries, Hyde County’s rich soils, plentiful wildlife, and abundant fisheries appealed to settlers from Virginia, Maryland, and New England. Eventually intense conflicts arose in Hyde County and elsewhere in eastern NC between the Indians and settlers, and resulted in the Tuscarora War of 1711. Following the war, surviving Algonquians were deeded the Mattamuskeet Reservation along the southeastern shore of the lake. By 1761, the Mattamuskeet Indians had sold their interest in the reservation and moved away or married non-Indians.

The nineteenth century was a period of prosperity for Mainland farmers whose crops were shipped throughout the South. The Civil War brought great unrest to the Mainland as Union soldiers raided farms and battles erupted near Swan Quarter, Fairfield, Nebraska, Sladesville, and Germantown.

From the 1870s to the 1930s, mainland Hyde County was the center of a timber boom. Thriving communities such as Makleyville, Hydeland, and Rotersville were built near the mills that sawed Atlantic white-cedar or "juniper", bald cypress, and loblolly pine. As the virgin timber disappeared in the middle of the twentieth century so too did most of the settlements.

Meanwhile in the early twentieth century, Lake Mattamuskeet caught the attention of three entrepreneurial corporations who each took their turn at attempting to drain and farm portions of the fertile lakebed. The third try, in 1926, was successful and about a third of the lake was kept drained and farmed for five years. The Mattamuskeet Pumping Station pumped the water from the lake to Pamlico Sound and was the largest pumping plant in the world at that time. The cost of the drainage venture quickly outweighed the profit and the pumps were shut down. In 1934 the lake and pumping station were sold to the Federal Government and the Mattamuskeet Migratory Bird Refuge was established and later named the Mattamuskeet National Wildlife Refuge. During the 1930s, a Civilian Conservation Corps camp was built nearby and the Corpsmen worked on several refuge projects including the conversion of the pumping station into a first-rate accommodation known then and now as the Mattamuskeet Lodge.

The Mattamuskeet Lodge served sportsmen and tourists alike in grand style from 1937 through the 1950s and 1960s when Lake Mattamuskeet was revered as the Canada goose hunting capital of the world. As the wintering goose population declined in the late 1960s and 1970s, so did revenue, and by 1974 the Lodge had closed. In 1980 it was added to the Register of Historic Places and today is the focus of many groups working together to see its grandeur as a Hyde County landmark preserved for the 21st century.

Today, Mainlanders plow the fields and fish the Pamlico Sound much as the Mainlanders of yesteryear. Many trace their roots to the early settlers, soldiers, loggers, lake farmers, and hunting guides (1).

DATA COLLECTION PROCESS

All secondary data referred to in the present document were derived, unless otherwise specifically noted, from the consultant's comprehensive report, *2014 Hyde County Community Health Assessment: Secondary Data Report*, which is available on the Hyde County Health Department website, http://hydehealth.com/healtheducation.htm). The consultant's secondary data collection process is described below. The primary data referenced in this report was excerpted from the *2014 Hyde County Community Health Needs Assessment Primary Data Executive Summary* as well as raw data from community survey and focus group results prepared by the Center for Survey Research at East Carolina University. A description of the primary data collection methodology is described in the Community Concerns Summary section of this report.

In order to learn about the specific factors affecting the health and quality of life of Hyde County residents, the consultant tapped numerous readily available secondary data sources. For data on Hyde 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 Child Advocacy Institute; 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 Hyde County Department of Social Services, Hyde County Public Schools, and other Hyde County agencies and organizations. The author has made every effort to obtain the most current data available at the time her report was prepared (October 2013 through April 2014).

The primary source of health data for the Hyde County CHA report was the NC State Center for Health Statistics, including its County Health Data Books, Behavioral Risk Factor Surveillance System, Vital Statistics, and Cancer Registry. Other health data sources included: US Centers for Disease Control and Prevention; NCDPH Epidemiology Section; NC Division of Mental Health, Developmental Disabilities and Substance Abuse Services; National Center for Health Statistics; Healthy People 2020; NCDPH Nutrition Services Branch; UNC Highway Safety Research Center; NC Department of Transportation; and the NCDPH Oral Health Section, among other *public domain* sources. Through the current CHA partnership with area hospitals, the consultant accessed de-identified hospital utilization data (e.g., emergency department visits, in-patient hospitalizations, and surgeries) that contributed greatly to the understanding of health issues in Hyde County. Other important local health data sources included HCHD, the Ocracoke Health Center, and Hyde County Emergency Medical Services.

Because in any community health assessment it is instructive to relate local data to similar data in other jurisdictions, Hyde County data is compared to like data describing the state of NC as a whole, as well as to data from Alleghany County, NC, a state-approved "peer" county. Where appropriate, trend data has been used to show changes in indicators over time, at least since the previous assessment three years ago, but sometimes further back than that.

Environmental data were gathered from public domain sources including: US Environmental Protection Agency, NC Department of Environment and Natural Resources Divisions of Air

Quality and Waste Management, the Section of Environmental Health in NCDPH, and the NC State Laboratory of Public Health.

It should be noted that as is typical in all time-limited activities such as community health assessment, all secondary data were mined at points in time in the recent past, and may not represent present conditions. Numbers, entity names, program titles, etc. that appear in the consultant's report may no longer be current.

DEMOGRAPHIC, ECONOMIC AND SOCIODEMOGRAPHIC DATA FINDINGS

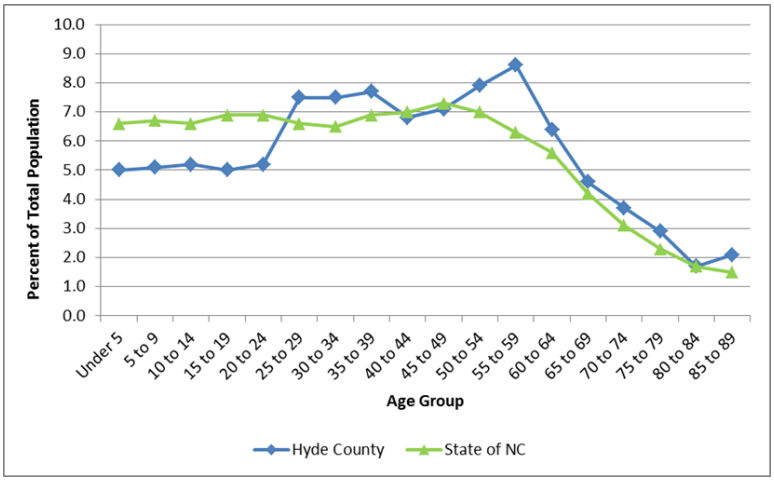
DEMOGRAPHICS

According to the 2010 US Census, the population of Hyde County was 5,810, more than half of whom (56%) were males. Racial and ethnic diversity in Hyde County is greater than that of NC as a whole. Locally, 64% of county residents were white, 32% were African American, and 7% were Hispanic/Latino of any race (the comparable percentages for NC are 69% white, 22% African American, and 8% Hispanic/Latino (2).

Age Groups

Perhaps the most noteworthy aspect of the Hyde County population is its age. The median age in the county is 41.2 years, nearly four years "older" than the population for NC as a whole. Furthermore, the graph of population distributions for Hyde County and NC shown below demonstrates how the Hyde County population has higher percentages of "older" residents, and lower percentages of "younger" residents than NC as a whole, except in the 25-39 year-old age group (3). Anecdotally, the population "bulge" for this age group is explained as due to employment opportunities in the local fishing, hunting and agricultural industries.

Population Distribution, by Age Group



Source: US Census Bureau, American FactFinder, 2010 Census, 2010 Demographic Profile Data, Summary File DP-1, Profile of General Population and Housing Characteristics: 2010 (Geographies as noted); http://factfinder2.census.gov.

The larger-than-NC average proportions of older residents should be of concern to the county, since this is a population group that tends to utilize health and human services at higher rates than younger age groups.

Exacerbating current concern about older segments of the population is projected growth in the population over the age of 65. According to US Census Bureau figures, the overall population of Hyde County is expected to grow by approximately 9% between 2010 and 2030 (4). Apparently much of this growth will occur among older population groups. According to figures from the NC Office of State Budget and Management, the population of persons age 65 and

older in Hyde County is projected to grow from 875 at the time of the 2010 US Census to 1,495 by 2030, an increase of 71%. More specifically, between 2010 and 2030 the Hyde County population age 65-74 is projected to grow by 53%, the population age 75-84 by 111%, and the population over age 85 by 52% (5). The growth of this age group certainly is due in part to increased life expectancy (see the health data section of this report); it is possible that retirees also immigrate to the area, but demonstration of that phenomenon is beyond the scope of this report.

One concern in meeting the future—and perhaps even the current needs—of its elderly population is the relative dearth of beds in long-term care facilities in Hyde County. As of the March, 2014 listing of NC-licensed long-term beds by the NC Division of Health Services Regulation, there were no Adult Care Home/Homes for the Aged beds, no Family Care Home beds, and only 80 beds in Nursing Homes and Homes for the Aged that can provide skilled nursing (6). If the current number of long-term beds does not change, the ratio of beds to population over the age of 65 will decrease from 1:11 to 1:19.

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. As of March, 2014, there was one NC-licensed home care/home health service in Hyde County, Hydeland Home Care Agency, a unit of the Hyde County Health Department serving Hyde, Beaufort and Washington Counties (7). The fact of the growing elderly population in Hyde County points to a necessary investigation of the adequacy of current resources for this population group, and of new facilities and services that might be necessary to meet future needs.

ECONOMICS

The NC Department of Commerce annually ranks the state's 100 counties based on economic well-being and assigns a Tier Designation, where the 40 most distressed counties are Tier 1, the next 40 are Tier 2, and the 20 least distressed are Tier 3. In 2014, Hyde County and its peer Alleghany County both were assigned Tier 1 Designation (8).

Income

Regardless of income category designation, incomes in Hyde County were below comparable state figures in 2011-12. Projected 2012 *per capita* personal income in Hyde County was $18,291, $5,664 lower than the comparable state average, and the projected 2012 median household income in the county was $33,768, $10,148 lower than the comparable state average. Estimated 2011 median family income in Hyde County was $42,121, $10,799 lower than the comparable state average (9). These differences are due partly to the proportion of low-wage earning persons in Hyde County (see below).

Employment

In 2012 the employment sector in Hyde County that employed the largest percentage of the workforce (26%) was Public Administration, with an average annual wage of $33,363, a relatively high figure. The Agriculture, Forestry, Fishing and Hunting sector (average annual wage of $28,099) accounted for the second largest percentage of the Hyde County workforce, at 16%, followed by Accommodation and Food Services (average annual wage of $18,229) at 15%. No other sector accounted for even 10% of the total workforce in Hyde County.

While health insurance and other benefits are likely to accrue to workers in the Public Administration sector, the other two leading employment sectors include many self-employed or part-time workers who do not have health benefits. In 2012 for all employment sectors the average annual wage per worker in Hyde County was $28,485, $19,623 (or 41%) less than the average annual wage per worker statewide (10).

As elsewhere in NC, unemployment in Hyde County accelerated between 2008 and 2009, with the onset of the nation-wide economic recession. While lower than in Alleghany County and NC as a whole for most of the period since 2008, unemployment in Hyde County continued to increase from 2008 through 2012 even as it fell in Alleghany County and NC. In 2012 the unemployment rate in Hyde County (10.9) surpassed the comparable rates for NC (9.5) and Alleghany County (10.6) (11).

Poverty

The annual poverty rate in Hyde County does not strictly follow the trend that would be expected on the basis of the county's unemployment figures. In Hyde County and the state of NC, the poverty rate fell each decade from 1970 through 2000, but rose between 2000 and 2006-10 and again between 2006-10 and 2007-11. While the poverty rate statewide rose further in 2008-12, in Hyde County it declined in that period. In Hyde County, the overall annual poverty rate peaked at 25.1% in the aggregate period 2007-11 and fell to 23.3% in the subsequent 2008-12 period, the "heart" of the recession. Meanwhile, statewide the comparable rates were 16.1% in 2007-11 and 16.8% in 2008-12. In Alleghany County, where unemployment was higher, the poverty rate was 22.6% in 2007-11 and 20.9 in 2008-12 (12).

African Americans in all three jurisdictions endured poverty at *much* higher rates than their white counterparts. Throughout the periods 2006-10, 2007-11 and 2008-12, the poverty rate among blacks in Hyde County was four to six *times* the comparable rate for whites (13).

Another group that suffers disproportionately from poverty is children. Youth under the age of 18, and especially those under the age of 5, have higher poverty rates than the overall population in all three comparator jurisdictions. In the 2008-12 period in Hyde County, the proportion of related children under age 18 living at or below the 100% poverty level stood at 31.9%, and the proportion of children under age 5 living under the same circumstances was 47.8%. In the same period the comparable overall poverty rate in the total population in Hyde County was 23.3% (14).

Poverty can diminish all aspects of quality of life including health. The population in poverty is even more at risk for poor health outcomes if its members do not have health insurance. The uninsured population in Hyde County will be discussed fully in the Health Resources section of this report.

SOCIODEMOGRAPHICS

Housing

Housing is often the largest expense for a household. A benchmark sometimes used to comparing housing expense among communities is to cite the proportion of household units spending 30% or more of total household income on housing. In 2008-12, 50% of rental units and 33% of mortgaged units in Hyde County were paying 30% or more on housing, the same as

comparable figures statewide. The percentage of renter occupied housing units in Hyde County spending 30% or more of household income on housing increased by 71% between 2005-09 and 2008-12, while the percent of mortgaged housing units meeting or exceeding the same threshold decreased by 22% over the same period (15).

According to other US Census housing data, there was a significantly higher estimated proportion (39%) of vacant housing units in Hyde County than in NC as a whole (15%) during 2008-12. Of the estimated total occupied housing units in Hyde County, 73% were owner-occupied, and 27% were renter-occupied. In Hyde County, approximately 24% of all housing units were classified as mobile homes, a figure 75% higher than the NC average. In the period 2008-12, the estimated median monthly mortgage cost in Hyde County ($895) was 30% lower than the state average, and the estimated gross monthly rent in Hyde County ($614) was 19% lower than the state average (16).

Affordable Housing

According to information from the NC Rural Economic Development Center based on 2006-10 US Census data estimates, 34% of housing in Hyde County was classified as “unaffordable”, compared to 33% in Alleghany County and 32% statewide (17). 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.

Homelessness

According to current (March, 2014) data from the NC Housing Coalition, there is at the present time no homeless shelter in Hyde County (18).

While the NC Coalition to End Homelessness assists local jurisdictions in conducting an annual “point-in-time” survey of homeless persons every autumn, Hyde County has not conducted such a survey in at least the last five years (19).

Education

Higher Education

There are no two- or four-year colleges in Hyde County. The nearest community colleges are in Beaufort County and Martin County.

Primary and Secondary Education

There are three public schools in the Hyde County school district (20); there are no private schools in the county (21).

Educational Attainment

As of 2008-12 US Census Bureau estimates, Hyde County had lower percentages than NC as a whole of both high school graduates (77.1% vs. 84.5% respectively), and residents with a bachelor’s degree or higher (13.2% vs. 26.8% respectively) (22).

According to SY2011-12 End of Grade (EOG) Test results, third graders in Hyde County public schools demonstrated grade-appropriate proficiency in reading at a higher percentage than students statewide (72.5% vs. 68.8%), but their math proficiency percentage was lower than the state average (70.0% vs. 82.8%). Higher proportions of eighth graders in Hyde County

demonstrated grade-level proficiency in both reading (77.8 vs. 71.1) and math (>95% vs. 85.2%) than students statewide (23). In SY2011-12 the average total SAT score for students in the Hyde County schools (953) was below the average total SAT score for students statewide (997) (23).

High School Drop-out Rate

The high school drop-out rate in Hyde County fluctuated dramatically over the period covering SY2004-05 through SY2011-12, due partly to the relatively small number of students in the system. Over that period the high school drop-out rate ranged from a low of 0.50 in SY2004-05 to a high of 6.95 in SY2009-01. The local drop-out rate in SY2011-12 was 2.33 (24).

CRIME AND SAFETY

Community Crime Rates

While the NC State Bureau of Investigation (SBI) tracks numbers and rates of index crimes, violent crimes and property crimes at the county level over time, data for Hyde County have been mostly incomplete or totally missing at that source for the past decade.

Besides index crime, other criminal activities occur in Hyde County. As of January 13, 2014 there were 10 registered sex offenders living in Hyde County (25). According to the NC Governor's Crime Commission, there were no gangs in Hyde County in 2013 (26). Finally, according to the NC State Bureau of Investigation, there were two methamphetamine drug lab busts in the county during the period from 2005 through 2013, none of them recent (27).

The Hyde County Sheriff's Department provided the CHA team data on drug charges processed from 2011 through 2013. Note the following definitions used in the table below: Schedule II drug – cocaine and opiate-based pain medications; Schedule IV drug – other prescription medications; and Schedule VI drug – marijuana. The largest number of drug charges over the period cited (68) occurred in 2012. Without drug charge rates it is difficult to put these in an accurate population perspective, but according to results from the 2014 Hyde County Community Health Needs Assessment Survey, 45% of respondents cited alcohol and drug abuse as an important community problem (28).

Drug Charges in Hyde County (2011-2013)

Charge	Number		
	2011	2012	2013
Schedule II Drug			
Possession	2	9	4
Possession with intent to sell or deliver	5	21	10
Schedule IV Drug			
Possession	9	2	1
Possession with intent to sell or deliver	0	2	1
Schedule VI Drug			
Possession	0	19	22
Possession with intent to sell or deliver	3	14	6

Source: Personal communication from Josh Hopkins, Hyde County Sheriff's Department, to Elizabeth Mumm, Public Health Educator, Hyde County Health Department, February 27, 2014.

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.

The number of complaints for *undisciplined* youth in Hyde County decreased from five to zero between 2011 and 2012. Over the same period the number of complaints of *delinquent* youth in the county increased from zero to eight (29). It is not clear whether or not this reversal in the nature of complaints reflects a basic change in the perception of youth behaviors or actual behavioral changes.

Sexual Assault and Domestic Violence

According to data from the Domestic Violence Commission of the NC Council for Women on the number of individuals who filed complaints of sexual assault from FY2004-05 through FY2011-12, the annual number of complaints varied from year to year in Hyde County, its peer county and the state of NC over the period covered but appeared to have increased dramatically in Hyde County (by 150%) and Alleghany County (by 49%) between FY2010-11 and FY2011-12 (30). This increase is not surprising, since it is not unusual for complaints of sexual assault to increase when social stresses increase, as they did during the national economic recession, the effect of which was relatively worse in many rural counties in NC.

The same source catalogs data on complaints of domestic violence. The annual number of complaints varied without a clear pattern in all three jurisdictions over the period covered but appeared to have increased dramatically in Hyde County between FY2009-10 (80 complaints) and FY2010-11 (123 complaints) and again the following year (142 complaints) (31).

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 total number of findings of child abuse, neglect or dependency in Hyde County fluctuated without a clear pattern from FY2004-05 through 2012-13. Over that period, the highest numbers of findings were 20 in FY2005-06 and 17 in FY2010-11, and the lowest number was one in 2012-13. The average number of reports of child abuse, neglect or dependency per year throughout the period cited was nine.

The total number of *substantiated* findings of abuse and neglect, abuse only, and neglect only covered annually by the reports cited above ranged from a low of zero in FY 2008-09 and FY2012-13 to a high of six in FY2004-05, and averaged two per year (32).

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.

According to adult protective services data for 2009 and 2011 summarized from surveys returned by counties to the NC division of Aging and Adult Services, it would appear that fewer than 10 cases of adult maltreatment were “screened in” (i.e., deemed appropriate for further service) in Hyde County in either year reported (33).

ENVIRONMENTAL DATA FINDINGS

AIR QUALITY

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 (NCDENR).

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. According to the EPA, air quality was measured in Hyde County on 46 days in 2013. Of these days, 44 had "good" air quality and two had "moderate" air quality. On each of the monitored days small particulate matter ($PM_{2.5}$) was present at the level of pollutant (34).

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 (35).

As of February 10, 2014, SDWIS listed three active water systems in Hyde County. Two were *community water systems* that together served 5,997 people. 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.

In addition to two community water systems, there is also one *transient, non-community water system* in Hyde County, located at the Hatteras Ferry South Dock operated by the NC Department of Transportation. Water systems in this category are those that do not consistently serve the same people and include rest stops, campgrounds and gas stations.

The EPA also 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). There were no health violations cited for the water systems in Hyde County over the period cited (35).

SOLID WASTE

Solid Waste Disposal

The solid waste disposal trend in Hyde County is moving in the *wrong* direction. In FY2012-13, Hyde County managed 4,908 tons of municipal solid waste (MSW) for a rate of 0.86 tons per capita. This tonnage represented an *increase* of 72% from the per capita rate (0.50 tons per capita) for FY1991-92 (the period customarily used for the base rate). During the same 2012-13 period the overall state per capita solid waste management rate was 12% *less* than the FY1991-92 base per capita rate (36).

All of Hyde County's solid waste of record is transferred to or transported directly to landfills *outside* the county (37).

HEALTH DATA FINDINGS

USING HEALTH DATA

Routinely collected surveillance data can be used to describe—and compare—the health status of communities. These data, which are readily available in the public domain, typically use standardized definitions. Some of the important terms used in this section of the report are defined or explained below, excerpted from the consultant's comprehensive CHA report:

- **Mortality rate** – The mortality rate, or the rate of death, is calculated by dividing the number of deaths in a target population in a given time period due to a specific cause by the total number of persons in the target population in the same period. Mortality rate typically is described as number of deaths per 100,000 persons.
- **Age-adjustment -** Many factors can affect the risk of death, including race, gender, occupation, education and income. The most significant factor is age, because as a population ages, its collective risk of death increases. 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, a statistical manipulation usually performed by the professionals responsible for collecting and cataloging health data.
- **Aggregate data –** Aggregation of data 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. It is particularly important to aggregate data for smaller jurisdictions like Hyde County. Aggregating annual counts over a five year period before calculating a rate is a method commonly used by the NC State Center for Health Statistics (NCSCHS). 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.
- **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) among the living population. Morbidity data usually is presented as a percentage or a count, but not a rate.
- **Prevalence –** Prevalence 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 defined period. Prevalence is usually expressed as a *proportion*, not a rate.
- **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.
- **Pregnancy rate –** The pregnancy rate is the number of pregnancies per 1,000 women of target reproductive age. In this report, the target ages are "all women of reproductive age" (15-44 years) and "teen women" (15-19 years).

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 are based on several kinds of measures, including *determinants* (socioeconomic and behavioral factors and standards of care that underlie health and well-being) and *outcomes* (measures of morbidity, mortality, and other health conditions). For the purposes of this CHA report, North Carolina's ranking is important because it adds a national perspective to these comparisons. The table below shows where NC stood in the 2013 rankings relative to the "best" and "worst" states, and those states ranked on either side of NC. Note that first ranked (Hawaii) is best and 50th ranked (Mississippi) is worst.

Rank of North Carolina in America's Health Rankings (2013)

Location	National Rank (Out of 50)[1]						
	Overall	Determinants	Outcomes	Diabetes	Smoking	Obesity	Infant Mortality
Hawaii	1	2	2	7	3	3	24
Michigan	34	33	38	34	39	40	39
North Carolina	35	34	36	33	33	33	40
Texas	36	36	29	35	20	32	22
Mississippi	50	48	49	49	44	49	50

Source: United Health Foundation, 2013. America's Health Rankings; http://www.americashealthrankings.org.

County Health Rankings

The Robert Wood Johnson Foundation, collaborating with the University of Wisconsin Population Health Institute, produces annual health rankings for the counties in all 50 states. In this project, each state's counties are ranked within the state according to health outcomes and the health factors that determine a county's health. The following table presents the 2014 county rankings for Hyde County and its comparator. In 2014 Hyde County was ranked 21st in the state of NC in terms of health outcomes, due mostly to shortened life expectancy, and 68th in terms of health factors, in which category social and economic factors and clinical care contributed most to the lower rank. These parameters will be discussed more fully later in this report.

County Health Rankings (2014)

Location	County Rank (Out of 100)[1]							
	Health Outcomes			Health Factors				
	Length of Life	Quality of Life	Overall Outcomes Rank	Health Behaviors	Clinical Care	Social & Economic Factors	Physical Environment	Overall Factors Rank
Hyde County	22	25	21	52	94	73	1	68
Alleghany County	67	58	66	53	85	74	70	77

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

MATERNAL AND INFANT HEALTH

Pregnancy Rates

Overall Pregnancy Rate

As is true for NC as a whole, the *overall* pregnancy rate in Hyde County has been falling, decreasing by 20% between 2008 and 2012. Statewide over the same period the overall pregnancy rate fell by 14%. In 2012 the overall pregnancy rate in Hyde County was 64.7 pregnancies per 1,000 women, 10% *lower* than the state rate of 72.1. When stratified by race, it is apparent that between 2010 and 2012 the overall pregnancy rate for white non-Hispanic women in Hyde County rose by 11%. Since the 2012 pregnancy rates for African American non-Hispanic women and Hispanic women in Hyde County both were based on fewer than 10 pregnancies and were unstable, definitive comparisons with stable 2010 data is not possible. However it appears that the overall pregnancy rates among both African American non-Hispanic women and Hispanic women in Hyde County have decreased significantly since 2010 (38).

Teen Pregnancy Rate

The total pregnancy rates among Hyde County teens (ages 15-19) were unstable (due to small numbers of pregnancies) from 2010 through 2012; however, despite this instability, it appears that the total teen pregnancy rate *may* have increased since 2010. Statewide the total pregnancy rate in this age group fell 32% between 2008 and 2012. While racially and ethnically stratified teen pregnancy rates in Hyde County were unstable over the period cited, it appears that 2012 teen pregnancy rates in Hyde County for white non-Hispanic girls and African American non-Hispanic girls *may* have increased from 2010 levels (38).

Pregnancy Risk Factors

High Parity and Short-Interval Births

Although in 2008-12 the frequency of high parity births among Hyde County women under the age of 30 (14.6%) was 12% *lower* than the comparable NC figure, among Hyde County women age 30 or older the frequency of high parity (31.3%) was 46% *higher* than the comparable NC figure (39).

The frequency of short-interval births in Hyde County in 2008-12, although unstable, was 21% *lower* than the comparable NC figure (10.2 vs. 12.9, respectively) (40).

Lack of Early Prenatal Care

Good pre-conception health and early prenatal care can help assure women the healthiest pregnancies possible. The percent of pregnant women in Hyde County who received early prenatal care exceeded the comparable state figure each year from 2006 through 2008, but beginning in 2009 the percentage in Hyde County began to fall. After averaging 86% from 2006 to 2008, the percentage of Hyde County women accessing prenatal care in the first trimester was 79% in 2009, 64% in 2011, and 71% in 2012 (2010 data is missing at the source). Indeed, the comparable figures for the state and Alleghany County also fell over that period (41). It is unclear whether this jurisdiction-wide negative trend is linked to a change in the way the state handles prenatal care data or some other common factor.

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. Smoking during pregnancy data for Hyde County was unstable between 2007 and 2012, due to below-threshold numbers of occurrences. For comparison, the percent of births to mothers who smoked during pregnancy was higher in Hyde's peer, Alleghany County, than in NC as a whole in 2007 through 2012. Statewide, the percent of births to mothers who smoked during pregnancy fell 4% overall between 2007 and 2012 (42).

Birth Outcomes

Low and Very Low Birth Weight Births

Low birth weight (≤ 2,500 grams) 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 or even death. The frequency of total low birth-weight births in Hyde County decreased each aggregate period between 2006-10 and 2008-12, falling from 10.0% (above the state average) in 2006-10, to 8.8% in 2007-11 and to 8.6% in 2008-12 (both below the state average). Although racially stratified figures for Hyde County were all unstable, statewide a clear low birth weight birth disparity emerges. Over the period cited above, the frequency of low birth weight births among African American non-Hispanic women was consistently almost double the frequency among white non-Hispanic women (43).

Birth Complications

Data provided by the Hyde County region's three hospitals on inpatient hospitalizations speaks to the frequency of problems connected with infants upon birth. The following table summarizes some of that data for 2012 and 2013. The codes used in this table refer to *diagnosis related groups* (DRGs), payment categories used to classify patients (especially Medicare patients) for the purpose of reimbursing hospitals with a fixed fee regardless of the actual costs incurred.

Of 33 hospitalizations associated with infant birth DRGs among Hyde County mothers at Vidant Beaufort Hospital and The Outer Banks Hospital in 2012 and 2013, 28 (85%) involved "normal" infants. An additional five (15%) involved infants that presented with "significant" problems. None of the birth hospitalizations in this data involved infants that presented with "major" problems. (There were no infant hospitalizations at Vidant Pungo Hospital in the period cited.)

Inpatient Hospitalizations of Newborn Infants
Among Hyde County Resident Mothers
Vidant Beaufort Hospital and The Outer Banks Hospital
(2012 and 2013)

DRG Code	Diagnosis	Number of Discharges				
		Vidant Beaufort Hospital		Outer Banks Hospital		Total
		2012	2013	2012	2013	
795	Normal newborn	3	12	5	8	28
793	Full-term neonate with major problems	0	0	0	0	0
794	Neonate with other significant problems	0	0	3	2	5
	Total	3	12	8	10	33

Infant Mortality

Infant mortality is the number of infant (under one year of age) deaths per 1,000 live births. Due to infant deaths numbering fewer than 20 per aggregate period in both Hyde County and its peer, Alleghany County, stable total infant mortality rates were not available for comparison. Statewide, the infant mortality rate among African American non-Hispanic babies for 2008-12 was 14.0, almost twice the overall rate and 2½ times the rate among white non-Hispanic infants (44). It bears noting that the infant mortality rate in NC has been among the 10 worst of the 50 states for the last decade.

LIFE EXPECTANCY AND LEADING CAUSES OF DEATH

Life Expectancy

According to data in the table below, life expectancy overall for persons born in Hyde County in 2010-12 was 1.5 years lower than the comparable state average. Men in Hyde County had a higher and women a lower life expectancy compared to NC data. The life expectancy for African Americans in Hyde County was the same as for that group statewide. Between 1990-92 and 2010-12, life expectancies in Hyde County improved in all categories *except* females.

Life Expectancy at Birth, by Gender and Race

Location	Life Expectancy in Years									
	Person Born in 1990-1992					Person Born in 2010-2012				
	Overall	Male	Female	White	African-American	Overall	Male	Female	White	African-American
Hyde County	72.2	68.4	76.0	74.2	68.4	76.7	77.5	74.6	76.9	75.9
Alleghany County	75.4	69.8	81.7	75.7	N/A	78.6	76.9	80.8	78.7	N/A
State of NC	74.9	71.0	78.7	76.4	69.8	78.2	75.7	80.6	78.7	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 2010-2012, State and County; http://www.schs.state.nc.us/schs/data/lifexpectancy/.

Leading Causes of Death

The following two tables summarize information on the leading causes of death in Hyde County. The source for these tables is a PowerPoint presentation summarizing secondary data that was prepared by the independent consultant and appears as Appendix 2 of this report.

According to the table below, 2008-12 mortality rates in Hyde County exceeded the comparable rates statewide for 9 of the 15 leading causes of death traditionally tracked by the NC State Center for Health Statistics. Note, however, that many county rates were unstable, as indicated in ***blue italic*** type.

Leading Causes of Death in Hyde County 2008-2012

Age-Adjusted Rates (2008-2012)	No. of Deaths	Hyde Co. Mortality Rate	Rate Difference from NC
1. Total Cancer	73	201.5	+27%
2. Diseases of the Heart	67	181.7	+4%
3. Cerebrovascular Disease	29	78.8	+75%
4. Chronic Lower Respiratory Disease	17	*58.5*	+26%
5. Diabetes Mellitus	13	*44.7*	2X
6. All Other Unintentional Injuries	12	*41.3*	+96%
7. Alzheimer's Disease	10	*34.4*	+17%
8. Unintentional Motor Vehicle Injuries	6	*20.7*	+45%
9. Nephritis, Nephrotic Syndrome, Nephrosis	4	*13.8*	-23%
10. Septicemia	2	*6.9*	-49%
10. Chronic Liver Disease and Cirrhosis	2	*6.9*	-26%
12. Suicide	1	*3.4*	-72%
12. AIDS	1	*3.4*	+10%
14. Pneumonia and Influenza	0	n/a	n/a
15. Homicide	0	n/a	n/a

Although hampered by numerous suppressed unstable rates, it does appear that males definitively suffer mortality disproportionally compared to females from two causes of death: total cancer (265.0 vs. 171.4, a difference of 55%) and heart disease (219.6 vs. 167.6, a difference of 31%).

Because of below-threshold numbers of deaths during the period, 2008-12 age-adjusted mortality rates among Hyde County minorities are available only for African Americans and for only two causes of death. In Hyde County the total cancer mortality rate among African American non-Hispanics (228.8) was 15% higher than the comparable rate among white non-Hispanics (198.2), and the heart disease mortality rate for African American non-Hispanics (190.8) was 4% higher than the comparable rate for white non-Hispanics (183.8). The overall mortality rate for African American non-Hispanics in Hyde County (953.5) was 19% higher than the overall mortality rate for white non-Hispanics (802.7) (45).

Each age group tends to have its own leading causes of death. Note that for this purpose it is important to use *non-age adjusted* death rates. In the period 2008-12 the leading cause(s) of death in each of the age groups in Hyde County were as follows (46):

- Age Group 00-19: Conditions originating in the perinatal period
- Age Group 20-39: Motor vehicle injuries
- Age Group 40-64: Cancer – all sites
- Age Group 65-84: Cancer – all sites
- Age Group 85+: Diseases of the heart

The next table, also from the consultant's PowerPoint presentation, summarizes mortality rate trends in Hyde County for the 15 leading causes of death. The summary arrow describes the direction of slope of a regression line calculated using the eight rolling five-year aggregate mortality rates in the period from 2001-05 through 2008-12. A downward arrow indicates a negative slope/decreasing rate; an upward arrow indicates a positive slope/increasing rate. Two (or three) upward arrows indicate a rising rate that has doubled (or tripled) since the initial period of the data; two downward arrows indicate a falling rate that has halved since the initial

period of the data. It is apparent from this data that over the period cited mortality rates in Hyde County improved overall for 7 of the 15 leading causes of death, and were comparatively unchanged in one. Unfortunately, rates *increased* overall for seven causes of death: cerebrovascular disease, chronic lower respiratory disease, unintentional non-motor vehicle injuries, Alzheimer's disease, unintentional motor vehicle injuries, septicemia, and AIDS.

Trends of Change in the Leading Causes of Death in Hyde County

Leading Cause of Death in Hyde County	Overall Trend Direction
1. Total Cancer	▼
2. Diseases of the Heart	▼
3. Cerebrovascular Disease	▲▲
4. Chronic Lower Respiratory Disease	▲
5. Diabetes Mellitus	▼▼
6. All Other Unintentional Injuries	▲
7. Alzheimer's Disease	▲▲▲
8. Unintentional Motor Vehicle Injuries	▲
9. Nephritis, Nephrotic Syndrome, Nephrosis	▼▼
10. Septicemia	▲
10. Chronic Liver Disease and Cirrhosis	n/c
12. Suicide	▼▼
12. AIDS	▲
14. Pneumonia and Influenza	▼▼
15. Homicide	▼▼

Despite its decreasing mortality rate trend, total cancer was the leading cause of death in Hyde County in the 2008-12 period, and the community ranked cancer among the most significant health problem on the 2014 Hyde County Community Health Needs Assessment Survey (47).

Examining incidence and mortality rate trends for site-specific cancers is helpful in understanding more about the problem of cancer in the community. The following table from the consultant's PowerPoint presentation summarizes trends in the incidence and mortality rates for four site-specific cancers: lung cancer, prostate cancer, breast cancer, and colorectal cancer. The incidence data covers the period from 1996-2000 through 2007-11 and the mortality rate data covers the period from 2001-05 through 2008-12. (The symbol protocol is the same as that used in the table above.)

Trends of Change in Cancer Incidence and Mortality in Hyde County

Cancer Site	Parameter	Overall Trend Direction
Lung Cancer	Incidence	▲▲▲
	Mortality	▲
Breast Cancer	Incidence	▲
	Mortality	▼
Prostate Cancer	Incidence	▲
	Mortality	▲
Colorectal Cancer	Incidence	▲
	Mortality	▼

The data above indicate that incidence has risen for all cancers, but especially lung cancer, the incidence rate for which tripled over the period cited. It is difficult to fully interpret incidence data without information about cancer screening activities, since screenings sometimes raise incidence rates by discovering cancer cases that might otherwise go unnoticed for some period of time. A rise in incidence connected to screening is not necessarily a bad thing, since the resulting figure may include numerous cases that were caught early and treated. While screenings for breast, prostate and colorectal cancer are common, there is no routine lung cancer screening mechanism.

The table above also shows that in Hyde County mortality has decreased over time for breast and colorectal cancer; unfortunately, the comparable mortality rate trend for lung cancer and prostate cancer increased over the time period cited.

The rise in lung cancer incidence and mortality is not surprising, since one major cause of lung cancer—smoking—remains a problem in Hyde County. According to data from the 2014 Hyde County Community Health Needs Assessment Survey, 18% of 243 respondents reported that they smoked. According to 2013 Behavioral Risk Factor Surveillance System (BRFSS) survey results, 20.2% of survey respondents statewide reported that they are current smokers.

MORBIDITY AND CHRONIC DISEASE

Diabetes

As noted previously, diabetes was the fifth leading cause of death overall in Hyde County in 2008-12.

Although not racially stratified, data available from the Centers for Disease Control and Prevention (CDC) describes the estimated prevalence of diagnosed diabetes among adults age 18 and older at the county level. According to this data (derived from the BRFSS) the prevalence of adult diabetes in Hyde County increased 4% overall between 2005 and 2010; the comparable figures for Alleghany County and NC were 16% and 8%, respectively. The average 6-year prevalence of diagnosed adult diabetes in Hyde County over that period was 12%; the comparable figures for Alleghany County and NC were 11% and 9%, respectively (48).

For this CHA cycles the Hyde County Community Health Needs Assessment Survey asked respondents whether they had been medically diagnosed with any of a list of diseases, including diabetes (not during pregnancy). The percentage of respondents replying “yes” to a diabetes diagnosis in 2014 was 17% of 199 respondents (49). Survey respondents also identified diabetes as a leading community health problem.

Overweight and Obesity

Overweight and obesity are well-recognized as precursors to many health problems, including diabetes. As it does with diabetes, the CDC describes the estimated prevalence of diagnosed obesity in adults age 18 and older at the county level. According to this data (also derived from the BRFSS) the prevalence of diagnosed obesity in Hyde County increased 5% between 2005 and 2010; the comparable figure for Alleghany County was 2%. (Similar state-level data is not available from the source.) The average 6-year prevalence of diagnosed obesity among adults in Hyde County over that period was 31%; the comparable figure for Alleghany County was 26% (50).

Other data would appear to indicate that overweight and obesity are significant health problems among children in Hyde County. According to relatively recent data from the NC Nutrition and Physical Activity Surveillance System (NC-NPASS) an average of 31% of 2-4 year-olds in the system were overweight or obese in 2010, 2011 and 2012 (51).

In 2011, Hyde County school nurses collected BMI data on all seventh-grade students in the system. According to these findings, an average of 50% of the seventh-graders each year were either overweight or obese (52). In addition, youth BMI data for Hyde County students at Mattamuskeet Middle School (n=38) were collected as part of the MATCH program in SY2013-14. According to those results, 47% of those students were overweight or obese, and 11% were deemed "extremely obese" (53).

The 2014 Hyde County Community Health Needs Assessment Survey asked respondents whether they had been medically diagnosed with any of a list of health conditions, including overweight/obesity. The percentage of respondents replying "yes" to a diagnosis of "overweight/obesity" was 27% of 207 respondents (49). Survey respondents also identified obesity as a leading community health problem (47).

Complications from overweight and obesity include high cholesterol and high blood pressure. Each of these conditions is prevalent in the Hyde County community, as indicated by results of the 2014 Hyde County Community Health Needs Assessment Survey. In the survey, 41% of 213 respondents reported they had been diagnosed with high blood pressure, and 34% of 205 respondents reported a diagnosis of high cholesterol (49).

Communicable Disease

Sexually transmitted infections (STIs) are the most common communicable diseases in Hyde County. Among STIs, chlamydia is the most prevalent, followed by gonorrhea. According to state data, Hyde County incidence rates for chlamydia were consistently lower than comparable rates for the state overall throughout the period from 2009 through 2012. In 2012 the chlamydia incidence rate in Hyde County was 223.3 new cases per 100,000 population; statewide the rate was 524.1. There were so few cases of gonorrhea annually over the same period that all rates should be considered unstable (54).

Emergency department admissions at the three area hospitals associated with the most common diagnoses of Infectious and Parasitic Diseases (ICD-9 Codes 001-139) in the period 2011-2013 were as follows (55):

- There were a total of 62 ED admissions of Hyde County residents for infectious and parasitic diseases in the period cited.
- Among admissions in this category, by far the most common diagnosis was streptococcal sore throat and scarlet fever, which accounted for 26 of the 62 admissions. The second most frequent ED diagnosis among Hyde County residents was unspecified viral infections (11 cases) followed by intestinal diseases (10 cases).

Mental Health and Substance Abuse

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 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 (56). 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. NCDHHS was instructed to implement the 1915(b)(c) Waiver Program statewide by July 1, 2013 (57). The LME/MCO serving Hyde County is East Carolina Behavioral Health (ECBH), which is headquartered in Greenville, NC. Under proposed consolidation ECBH would join the Eastpointe and CoastalCare LMEs in becoming one organization (58).

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 state-level services has diminished.

There was a 62% drop in number of Hyde County persons served by mental health area programs/local management entities between 2007 and 2008. While the figure for Hyde County rebounded by approximately 50% over the next three years, by 2012 it had fallen again to the lowest number in the entire span cited: 61 persons (59).

Since mental health reform of the early 2000s, only the most seriously ill mental health patients statewide qualify for treatment at state psychiatric hospitals. In Hyde County the numbers of persons served annually in NC State Psychiatric Hospitals were small and unstable, ranging from one to nine persons served per year. Statewide the number of persons served fell every year after 2007; in 2012 the total number served was 75% lower than in 2007 (60).

The three area hospitals participating in the Hyde County CHA provided data related to emergency department admissions relative to ICD-9 Codes 290-319, Mental, Behavioral and Neurodevelopmental Disorders for the period 2011 through 2013. Of specific interest in this case are the numbers of admissions for mental health diagnoses in ICD-9 Code categories 296, 298, 300 and 311 (the categories not related to alcohol or drugs) (55).

- In the period cited there were six admissions under ICD-9 Code 296, episodic mood disorders (including bipolar disorder).
- There were 14 admissions under ICD-9 Code 300, anxiety, dissociative and somatoform disorders.
- There were two admissions under ICD-9 Code 311, depressive disorder, not elsewhere classified.

Regarding the numbers of hospital ED admissions for alcohol- and drug-related diagnoses (30):

- From 2011 through 2013 there were two total admissions under ICD-9 Code 291, alcohol-induced mental disorders, and three total admissions under ICD-9 Code 292, Drug-induced mental disorders.
- There also were six total admissions under ICD-9 Code 303, alcohol dependence syndrome, and one admission under ICD-9 Code 304, drug dependence.
- There were 12 total admissions under ICD-9 Code 305, non-dependent use of drugs.

It is noteworthy that almost half of these mental health ED admissions occurred at Vidant Pungo Hospital, which has since closed. It is unknown at this time whether Hyde County residents will turn to the other area hospitals (Vidant Beaufort Hospital and The Outer Banks Hospital) for their emergency mental health care.

In the 2014 Hyde County Community Health Needs Assessment Survey respondents listed mental health concerns among the county's four most frequently identified health problems (47). Furthermore, 29% of 200 respondents reported having been diagnosed with depression or anxiety (49).

On the same survey, respondents ranked substance abuse and treatment highest as the health behavior about which the community needed more information, and 45% of respondents selected alcohol and drug abuse as among the three key community issues influencing quality of life in Hyde County (49).

HEALTH RESOURCES AND NEEDS

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

HEALTH INSURANCE

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 and programs. People without health insurance 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 table below summarizes the population (by age group) without health insurance of any kind for three biennia from 2006-07 through 2010-11. Prior to the advent of the Affordable Care Act the health insurance system in the US was built largely on employer-based insurance coverage, and any significant increase in the number of unemployed people usually led to an increase in the number of uninsured. With the advent of the Affordable Care Act, it is difficult to assess the current scope of the uninsured population, as available data all describes past circumstances which may no longer match reality.

Interestingly, the table below does shows a significant increase in the percent of uninsured people in Hyde County at the start of the national recession in 2008-09, but recovery in the period following that. This phenomenon was repeated in Alleghany County; statewide the pattern of uninsured was more variable. In the 2010-11 period approximately 25% of the Hyde County population between ages 19 and 64 were uninsured, the highest figure among the comparators in that time period.

Percent of Population Without Health Insurance, by Age Group

Location	2006-2007			2008-2009			2010-2011		
	0-18	19-64	0-64	0-18	19-64	0-64	0-18	19-64	0-64
Hyde County	10.8	31.4	25.8	11.0	31.6	26.8	8.5	24.6	20.9
Alleghany County	10.5	25.7	21.4	12.8	26.8	23.2	8.7	21.6	18.2
State of NC	11.3	19.5	19.5	11.5	23.2	19.7	9.4 [1]	23.0 [1]	18.9 [1]

North Carolina Institute of Medicine, NC Health Data, Uninsured Snapshots, Characteristics of Uninsured North Carolinians 2006-2011, http://www.nciom.org/nc-health-data/uninsured-snapshots/.
[1] Source: North Carolina Institute of Medicine, NC Health Data, Uninsured Snapshots, Characteristics of Uninsured North Carolinians 2020-2011, http://www.nciom.org/nc-health-data/uninsured-snapshots/.

The 2014 Hyde County Community Health Needs Assessment Survey asked participants whether or not they had health insurance at the time of the survey (autumn, 2014). Among the 245 respondents who answered the question, 20 (8%) did not have health insurance of any kind at the time of the survey (49) a figure not even close to the admittedly dated figures in the table above. The smaller proportion of uninsured identified in the survey compared to the 2010-11 data in the table may be due to a number of factors, including uneven distribution of survey participants (the survey was based on a sample that reached high proportions of wealthier and employed residents), and an economy that had improved since 2010-11. It is also possible that the lower survey figure was connected to persons having gained coverage recently through the

Affordable Care Marketplace. It will not be possible to fully assess the scope of lack of health insurance in Hyde County until the new health insurance paradigm initiated by the Affordable Care Act is well established.

In the opposite case from poverty, which is worse among children, the percent of children who are uninsured is *lower* than the percent of adults who are uninsured. The table above contains data showing that the percent of children age 0-18 without health insurance is much lower than the comparable percent for the 19-64 age group, and that the figure for children fell significantly in all jurisdictions shown between 2006-07 and 2010-11. As shown in the table below, enrollment in NC Health Choice (the program that provides insurance to children in low-income families who earn too much to qualify for Medicaid) has increased steadily over time in Alleghany County and statewide, helping insure children who might otherwise "fall through the cracks." In Hyde County however, the percent of eligible children enrolled in NC Health Choice was more variable, displaying both increases and decreases between 2009 and 2013 but averaging 85.7%. Note that most of the time period represented in the table below occurred coincident with or later than the time period covered by the table above.

Enrollment in NC Health Choice

Location	2009		2010		2011		2012		2013 [1]	
	# Children Eligible	% Eligibles Enrolled	# Children Eligible	% Eligibles Enrolled	# Children Eligible	% Eligibles Enrolled	# Children Eligible	% Eligibles Enrolled	# Children Eligible	% Eligibles Enrolled
Hyde County	92	82.6	94	88.3	91	81.3	92	88.0	103	88.3
Alleghany County	216	82.9	213	85.9	230	85.7	226	91.6	231	90.0
State of NC	132,273	82.2	137,800	88.8	146,070	92.2	151,745	95.1	153,312	96.5

Source: NC Division of Medical Assistance, Statistics and Reports, N.C. Health Choice Monthly Enrollment/Exemption Reports, 2009-2013; http://www.ncdhhs.gov/dmA/ca/nchcenroll/index.htm.

HEALTH CARE RESOURCES

Health Care Providers

Hyde County has very few practicing health care professionals. According to County Health Rankings (cited previously) in 2014 Hyde County was ranked 94th in NC in terms of clinical care—almost the bottom of the range statewide. Further, the ratios of providers to population for major groups of health care professionals in Hyde County were lower than comparable state or national averages for MDs, primary care MDs, dentists and pharmacists in 2009, 2010 and 2011, the three most recent years for which data is available (61). In fact, according to the NC Medical Board, as of March 18, 2014 there were only three licensed physicians in Hyde County, two located in Ocracoke and one located on the mainland in Engelhard (62), and according to the Sheps Center, there were no dentists or pharmacists practicing in Hyde County in 2011 (36). A 2011 listing from the Sheps Center shows that the largest proportions of active health professionals in Hyde County are registered nurses (n=28), licensed practical nurses (n=9), and nurse practitioners (n=4). The only other active health professionals listed in Hyde County at that time were one certified nurse midwife, two physical therapists, one physical therapy assistant, and one occupational therapy assistant (63).

While the citizens likely are aware of the dearth of health professionals in the county, they are not as "unsatisfied" with health care or health care access as might be expected. According to results from the 2014 Hyde County Community Health Needs Assessment Survey, 38% of respondents strongly agreed or agreed with the statement, "There is good healthcare in Hyde

County"; 18% were neutral on the question, but 44% disagreed or strongly disagreed (49). On the same survey, only 7% of respondents cited the number of health care providers as the service issue requiring the most improvement in Hyde County. On the other hand, almost one-third of survey respondents reported they received their health care from a provider *outside* of Hyde County. Those who sought care elsewhere reported doing so because of the positive reputation of the practitioner or of past positive experiences with their distant provider (47%), or because a specialist they needed was not available in Hyde County (27%).

When asked whether they had difficulty accessing needed medical care in the past 12 months, 23% (n=55) of respondents to the 2014 Hyde County Community Health Needs Assessment Surveys answered "yes". Among those who had problems, the highest proportion (26 of 55 respondents) reported they had difficulty accessing dental care (49). This is not surprising in a county with no practicing dentists. Since there are no dentists in Hyde County, accessing dental care may be a particularly difficult problem for Medicaid enrollees. According to the NC Division of Medical Assistance, there are 12 dental practices in neighboring counties (Beaufort, Martin and Washington counties) that by their own policy *may* accept Medicaid and/or NC Health Choice clients (64). Note that a Medicaid- or Health Choice-friendly policy does not mean that the practice has openings for these clients at any point in time.

To help offset the lack dental services in Hyde County, the Dare County Department of Public Health offers affordable dental care for children through the *Miles of Smiles* Children's Dental Program. The program operates a completely equipped dental van that visits elementary schools in Dare *and* Hyde Counties. All school-age children are welcome to participate. Routine services include exams, cleanings, fluoride treatment, x-rays, dental sealants, silver and white fillings, steel crowns, custom athletic mouth guards and removal of teeth, limited root canals and space maintainers. The program does not provide braces. In the 2011-12 school year, the Miles of Smiles program served 119 Hyde County school children (65).

The barriers Hyde County survey respondents cited for their difficulty in accessing needed healthcare of all kinds included "no health insurance" as the main barrier, followed by "my insurance didn't cover what I needed" and "my share of the cost (i.e., deductible or co-pay) was too high" (49).

Health Care Facilities

Hospital

There is no hospital physically located in Hyde County. The nearest hospital, Vidant Pungo Hospital, is located in Belhaven in eastern Washington County. This 39-bed hospital/10-bed nursing home closed in April, 2014, after which time the mainland hospital nearest to Hyde County was Vidant Beaufort Hospital, located in the town of Washington in western Beaufort County. Hyde County residents living on Ocracoke Island mostly utilize the services of The Outer Banks Hospital, located in Nags Head in Dare County (a ferry ride and nearly 85 miles of overland travel away from Ocracoke).

The closing of Vidant Pungo Hospital is likely to have considerable effect on access to healthcare for Hyde County residents. Among the three area hospitals cited above, Vidant Pungo Hospital had the largest proportion—54%—of inpatient hospitalizations of Hyde County residents in the period 2012-13. Further, examination of emergency department admissions at the same three hospitals revealed that Vidant Pungo Hospital accounted for over two-thirds of all ED admissions of Hyde County residents in 2012-13 (54).

Health Department

Hyde County Health Department programs accessible to the community include: disease prevention and control, preparedness and response to emergent diseases and events, environmental health, home health, in-home aide services, medication assistance, WIC nutrition and supplemental food, and personal health programs, such as family planning and child health. Some agency programs, such as home health and the medication assistance program, reach across county lines in order to provide the same quality of care to others.

The health department staff is comprised of registered nurses, environmental health specialists, nurse practitioners, pharmacists, physical therapists, occupational therapists, billing clerks, medication technicians, nursing assistants, chore providers and management personnel (66).

Telemedicine

Beginning in 2013, patients of the Hyde County Health Department were able to access medical care five days a week via a "virtual" appointment with a physician in a different location. Each appointment is facilitated by a nurse who is present to carry out the instructions of the physician. Hyde County Telemedicine offers medical care to patients of all ages. The board-certified providers are located at a Family Practice Clinic in Jacksonville, NC (67).

Federally-Qualified Health Center

Currently there is one FQHC in Hyde County: The Ocracoke Health Center, Inc. (68). It has two facilities: Ocracoke Health Center (OHC) on Ocracoke Island, and the Engelhard Medical Center (EMC) on the mainland in Engelhard. Staff at each location offer primary care and other health services on a sliding fee scale based on the patient's income and family size. Both facilities accept Medicare, Medicaid, Blue Cross, Medcost, and Tricare.

OHC partners with Roanoke-Chowan Community Health Center Telehealth Network to provide daily in-home monitoring services to patients diagnosed with cardiovascular disease, heart failure, or diabetes. At the time data was gathered for this report there were ten patients in this program.

OHC refers patients in need of behavioral health services to RHA Health Services, a contracted provider with East Carolina Behavioral Health (ECBH) the Local Management Entity (LME) that the state has designated to manage state-subsidized behavioral health services for low-income residents. RHS Health Services is a designated Critical Access Behavioral Health Agency (CABHA). OHC has a no-payment contract with ECBH to provide mental health and substance abuse counseling services on-site at OHC.

In 2013, OHC in Ocracoke had 1,303 patients, and EHC in Engelhard had 927 patients (69).

Emergency Medical Services

Hyde County EMS, operated by the county government, responds to a variety of calls, including medical conditions but also crimes, fires, false alarms, etc. Medically-related calls represented approximately 77% of EMS response activities over the period 2011-13 (70).

School Health

The local educational authority in Hyde County—Hyde County Schools—employs all school health nursing staff. The most recent (SY2011-12) ratio of school nurses to students in Hyde

County schools was 1:575; during the same school year the ratio for the state was 1:1,179. The recommended ratio is 1:750 (71).

Long-Term Care Facilities

As of July, 2014 there were no state-licensed family care homes, no adult care homes/homes for the aged, and only one nursing home in Hyde County, offering 80 beds (72). As was discussed previously, this number of beds may not be adequate for a county whose population over the age of 65 is projected to grow by over 70% in the next 15 years.

Home Care, Home Health and Hospice Services

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. This report prefers to cite only those in-home health and/or home aide services that are licensed by the state of NC. Note that there may be additional providers in Person County that refer to themselves as "home health service (or care) providers" that are *not* licensed by the state and are not named in this report.

As of July, 2014 there was one licensed home care/home health provider in Hyde County: Hydeland Home Care Agency, affiliated with the Hyde County Health Department. In addition, Community Home Care and Hospice, located in Engelhard, was the only entity licensed by the state of NC to provide hospice services in Hyde County (73). The same state source listed two licensed hospice facilities in neighboring Beaufort County: Community Home Care and Hospice in Washington, and Continuum Home Care and Hospice of Beaufort County, also located in Washington (74). Given the projected population growth in Hyde County, it would be prudent to more fully assess the adequacy of these alternatives to institutional care for the elderly and disabled as the county grows.

A majority of respondents to the 2014 Hyde County Community Health Needs Assessment reported that Hyde County is "a good place to grow old", with 66% agreeing or strongly agreeing with that statement. Further, only 9% of respondents listed elder care, and only 4% specifically cited long-term care among the issues most affecting quality of life in Hyde County. Only 6% of respondents cited elder care options as a community service needing improvement, but 15% of respondents thought the community needed more information about elder care or about caring for family members with special needs or disabilities. Finally, 21% of respondents who were caring for an elderly person (n=38) disagreed or strongly disagreed with the statement, "I can find adequate health care related specifically to the needs of the elderly" (49).

Mental Health Services and Facilities

At the time this report was prepared, the LME for Hyde County was East Carolina Behavioral Health (ECBH), which also functions as a manage care organization (MCO). ECBH serves a total of 19 counties in eastern NC, facilitating mental health services for both children and adults. 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. (See also the discussion of Mental Health in the Health Data Findings section of this report for an update on the Mental Health system in NC.)

There exists a “master” list of ECBH network providers who offer services throughout the LME’s 19-county service area (75). At the time the list was prepared no network providers or services were physically located in Hyde County itself. There are two state-licensed mental health facilities in the county, one of which provides a supervised living environment for developmentally disabled adults, and the other of which provides day activities for ADAP clients.

It is unclear how the lack of local providers hinders access to and utilization of mental health services by Hyde County residents. It is even unclear whether the public knows of the local LME or how to access it. When respondents to the 2014 Hyde County Community Health Needs Assessment Survey were asked to where they might refer a friend or family member with a mental health or drug/alcohol problem, fully 16% said they didn’t know. (Note that the LME was not specifically named among the referral options on the survey.) While most respondents recommended a physician (38%) or a mental health practitioner in private practice (19%), a significant proportion chose referral answers outside of the network of mental health professionals, such as a member of the clergy (16%), a support group (7%) or a school counselor (2%). The adequacy of mental health services *should* be important to Hyde County citizens, since 29% of survey respondents reported they had been diagnosed with depression, yet mental health was *not* among the issues identified by respondents as most affecting quality of life, nor was it identified as a service area needing the most improvement. However, respondents did rank substance abuse and treatment *highest* as the health behavior about which the community needed more information (49).

Other Healthcare Resources

As of March 3, 2014 there were no NC-licensed hospitals, ambulatory surgical facilities or cardiac rehabilitation facilities in Hyde County (76) nor were there any Medicare-approved dialysis facilities in the county (77). Since diabetes is among the county’s leading health problems, especially in the African American community, and high blood pressure is prevalent according to the 2014 Hyde County Community Health Needs Assessment Survey (cited as a personal diagnosis among 41% of survey respondents) (49), complications from these conditions, including kidney failure, might be expected to become more prevalent as well. The community should investigate the need for kidney dialysis now and in the future and determine the level of service needed.

Recreational Facilities

The physical environment of Hyde County offers many opportunities for outdoor physical recreation associated with its temperate climate and its proximity to the ocean. At the present time there is no governmental Parks and Recreation authority in the county, but there are plans to improve recreational opportunities through the work of a Hyde County Recreation Committee that was formed in 2000. In 2002 the Committee completed a *2002 Parks and Recreation Master Plan* with the help of East Carolina University. The Recreation Committee contributed to the creation of the Ponzer Community Park and the Engelhard Development Corporation’s Recreational Park. Presently, the Committee plans on updating the 2002 Parks and Recreation Master Plan and identifying what recreational assets the county currently has, how those assets can be more efficiently used and where deficits lie (78).

There is a Senior Center that helps meet the recreational needs of the elderly in Hyde County. The Senior Center offers games, activities, wellness initiatives and congregate meals. Exercise equipment available includes a treadmill, stationary bike, and a *NuStep*—a low-impact, recumbent cross trainer. Members of the public are always invited to share a meal or join in Center activities (79).

Local Health Promotion Initiatives

The following list includes some of the prevention and health promotion resources in Hyde County. It is by no means an exhaustive list of everything available in the community. These resources are primarily those with which public health has been directly involved.

Triple P (Positive Parenting Program) – Triple P is a coordinated system of parenting education and support programs that focus on all developmental periods, from infancy to adolescence. Triple P is for every parent – from parents facing everyday challenges with their children to parents facing more moderate to severe behavioral problems. Contact the Health Department to connect with a Triple P provider in Hyde County.

Family Connects – This program offer skilled nursing visits to postpartum women in Hyde County in order to support parents' health and social needs after having a baby, as well as connecting them with community resources. Women of any socio-economic background are seen.

Adult Health/Primary Care/Telemedicine – Acute care, in addition to chronic disease management has been available to patients via Telemedicine since February 2013. Hyde County Health Department was the first and only health department at that time to offer primary care services through telehealth. Services have been available to males and females regardless of payer source. Starting February 2015, the Health Department offers acute and chronic disease management as well as preventive services via on-site Family Nurse Practitioner. Telemedicine will continue as needed, but a shift will likely take place to use telehealth for specialty care.

Buckle Up Kids – Through this program, car seats are provided to WIC or Medicaid clients for $10 to promote child passenger safety.

TEDI Bear Children's Advocacy – Hyde County Health Department contracts with this provider, who offers child abuse support through therapy, to children and parents. Prevention programs and parent education is available.

Smoking Cessation - This counseling program is designed to assist tobacco users in cessation. This program uses the 5A approach, which includes Asking, Assessing, Advising, Assisting, and Arranging. Pharmacotherapy requires a referral to provider.

Chronic Disease and Diabetes Self-Management – The Project DIRECT Legacy for Men offers free classes are open to all men and women with long-term conditions, including diabetes, high blood pressure, arthritis and others. These classes aim to help those who are managing a chronic condition through education regarding fitness, nutrition, medication management, communication with health care providers, and goal setting. Contact the Health Department to learn more about class scheduling.

NC 211 - The first step in finding help is knowing who to call. 2-1-1 was created to connect people to community health and human service resources. A call to NC 2-1-1 is free, confidential, and available all day, every day and in any language.

COMMUNITY CONCERNS SUMMARY

The 2014 Hyde County Community Health Needs Assessment primary data collection process solicited respondents' opinions about community health problems, unhealthy behaviors and non-health related issues. The East Carolina University (ECU) Center for Survey Research conducted the primary data collection exercise. The complete Executive Summary of the primary data collection process appears appended to this document (Appendix 3).

The data collection process included a paper and online survey and focus groups. The Stakeholder Group, consisting of engaged community members selected by the Leadership Team, distributed paper surveys and slips containing the online survey link to participants in key county locations. The survey link also was posted on various websites (e.g., Hyde County Government website) to broaden its accessibility. Every effort was made to ensure that participants in the primary data process reflected the population of the county. The Center for Survey Research examined the demographic composition of the survey sample and applied data weighting where necessary to compensate for discrepancies between the demographic profiles of the sample and county populations. Data weighting procedures were necessary only for the demographic variables of gender and age, as all other demographic variables were representative of the county.

The survey was made available to the community for a total of 12 weeks. Following data collection, responses received from the online and paper surveys were combined to create an overall sample of 245 responses. The ECU team applied "data weighting" to the survey results in order to compensate for discrepancies between the sample of random survey respondents and the demographic profile of the entire county. In the current study, weighting procedures were only necessary for the demographic variables of gender and age, as all other demographic variables were representative of the county. Data for the sample included in this report reflects this weighting.

In addition to the survey, five focus groups were conducted to obtain supplementary information from county residents regarding their opinions about health and quality of life. The focus groups were held in the mainland communities of Ponzer, Swan Quarter, Fairfield, and Engelhard; an additional focus group was conducted on Ocracoke Island. Focus group participants' responses were analyzed and categorized into main points and key direct quotes. A total of 44 Hyde County residents participated in the focus groups.

Several key survey and focus group results relative to specific personal health problems and opinions about health and unhealthy behaviors have already been integrated into other parts of this report. The discussion that follows focuses primarily on survey and focus group findings related to community concerns rather than personal health concerns.

Survey participants were asked to select three key *community issues* that influenced the quality of life in Hyde County. Participants most frequently selected job availability (50%), alcohol and drug abuse (45%), and poverty/low income (29%) as the main issues impacting life in the county. Additionally, cancer was selected by 28% of participants, highlighting this health problem as a close fourth in the list of top issues impacting quality of life.

The survey and focus group instruments asked a series of specific questions regarding the quality of life in Hyde County. When asked to describe the best aspects of life in the Hyde County community, focus group participants indicated that it was a "welcoming environment".

For example, focus group participants stated that Hyde County "is a very friendly place to live," and that "there are so many people that will step in to help if something needs to be done."

However, when asked to respond to the following statement, "There is plenty of help for people during times of need," only half of *survey* participants indicated agreement. This reveals a discrepancy between focus group members who reported the presence of a supportive community and survey respondents who felt there were insufficient resources for those in need. Perhaps this uncovers a difference between the amount of community-level support available and systems-level support, such as government funding and economic opportunity. For example, multiple focus group participants (most of whom were college educated, long-time residents of the county) reported a desire to participate in or create community programs (e.g., local gyms, community parks), but noted a lack of available financial resources. In sum, respondents highlighted the benefits provided by other community members and an overall sense of unity, as well as the restrictions associated with obviously limited economic resources.

When asked to select specific *health issues* that impacted the quality of life in Hyde County, participants most frequently chose alcohol and drug abuse (45%), cancer (28%) and chronic diseases (i.e., heart disease, diabetes, obesity; 14%).

Survey respondents were asked to select specific health behaviors that they believe *other* community members need more information about. Approximately one-third of participants (30%) identified eating well/nutrition as an essential topic. Further, nearly half of participants (44%) who currently care for a child (approximately 26% of the entire sample) also recognized this topic as an issue they would like *their child* to learn more about. Substance abuse and prevention (29%), exercising/fitness (27%), and managing weight (23%) were also frequently selected topics. Finally, although going to the doctor for check-ups and screenings was also one of the most frequently selected topics requiring more information (19%), over 80% of survey respondents noted that their last check-up with a doctor was less than a year ago.

Similarly, survey respondents were asked to answer a free-response question about health topics *they personally* would like to learn more about. The two most commonly reported topics were diabetes and heart disease. Notably, these responses parallel some of the respondents' more commonly self-reported diagnosed health conditions. For example, approximately 18% of the survey sample reported having been diagnosed with diabetes and 11% reported having been diagnosed with heart disease/angina.

Focus group members were asked to identify various factors that acted as *barriers* to a healthy lifestyle. Barriers cited included time, money, a lack of health insurance, and limited access to healthy foods. For example, one focus group participant stated that "it is costly to incorporate healthy foods into your diet." Additionally, some community members reported that food preparation (i.e., knowing how to cook certain foods) was a barrier to healthy eating.

The healthy living barrier "inadequate monetary resources" was attributed by respondents primarily to unemployment and low income. (Recall that job availability and poverty were listed as two of the top five factors influencing quality of life in the Hyde County community.)

Access to affordable health care was recognized as one of the top five issues affecting quality of life in Hyde County. Many survey participants indicated that they lacked sufficient health insurance. Approximately 22% of the survey sample reported having trouble receiving the health care they needed within the past year. Within this group of individuals, 38% reported that

a complete lack of insurance was the barrier to care, whereas 27% were limited by an inadequate amount of coverage.

When discussing access to health care, focus group participants consistently listed children and the elderly as groups who do not receive adequate care. Community members in the focus groups also expressed that the uninsured, the Hispanic/Latino population, and individuals who suffer from mental health issues are other groups of people who do not receive proper health care.

Within the group of survey participants who reported an inability to receive adequate care, the most frequently reported type of care was dental (47 percent). Additionally, 45 percent of all participants indicated that they have not received a dental exam in the past three years. A contributing factor to this result may be a lack of dental insurance, as 50 percent of participants reported a lack of such coverage. While not specifically mentioned by survey or focus group respondents, surely the lack of a dentist in Hyde County must contribute to dental care access difficulty.

When survey respondents were asked to report their level of agreement with the statement "There is good healthcare in Hyde County", a larger portion of participants indicated disagreement (44 percent) than those who indicated agreement (38 percent). This response may reflect more than a judgment on "quality" of health care, incorporating also feelings about the adequacy of providers (in short supply, as noted elsewhere in this report) and the cost of care.

Transportation was frequently discussed by the focus group participants as a barrier to receiving health care. Specifically, they expressed how the lack of transportation mostly affected the ability of children and the elderly to access health care. These opinions regarding a lack of transportation were also represented in the survey results. For example, only 52% of the community members agreed with the statement "There are sufficient transportation services in Hyde County".

Finally, approximately 18% of survey participants viewed emergency preparedness as a key health and well-being issue that required additional education. This topic was also supported by responses to questions directly targeting the emergency preparedness status of community members. For example, over 10% of respondents do not currently own a smoke or carbon monoxide detector. Furthermore, a third of participants (33%) also do not possess an emergency supply kit. Finally, nearly half of survey respondents (46%) reported that they do not know who to call for transportation, in order to get to a local shelter during a large-scale disaster. The issue of preparedness is of great significance in Hyde County, since as an Outer Banks and coastal county it is frequently subject to hurricanes and flooding.

COMMUNITY PRIORITIES

PRIORITY SELECTION PROCESS

This section describes the process implemented by Hyde County's Community Health Assessment (CHA) Team to establish health priorities for the county for the next three years (2014-2017).

The CHA Stakeholder Group and Leadership Team went through three phases of prioritization. The first phase involved creating a preliminary list of priorities based on the secondary data. This list was created in order to identify the health concerns that the group needed to pay special attention to when reviewing the primary data. In creating this list, the group took into consideration the magnitude of the problem (examination of the data), as well as the feasibility of addressing the problem (community resources and assets) and the impact that could be made by addressing the problem in Hyde County. The following "preliminary priority" list was created:

1. *Unintentional injury/substance abuse/mental health*
2. *Chronic disease prevention & management: obesity, education, nutrition, cancer*
3. *Access to care: transportation, emergency, preventative care, infant mortality/ pre-natal care*

Prior to the second priority setting process, the CHA Stakeholder Group and Leadership Team examined the similarities and differences between the primary and secondary data. Using the same selection criteria as the preliminary priority setting process, the group created a new, yet very broad list of priorities. This list included:

1. *Chronic Diseases: prevention and management*
   - *Cerebrovascular & cardiovascular disease*
   - *Diabetes*
   - *Cancer*
   - *Alzheimer's Disease*
   - *Physical activity & nutrition*
   - *Screenings*
   - *Access to care*
   - *Youth*
2. *Access to care: including dental and mental*
   - *Depression/ anxiety*
   - *Youth*
3. *Substance abuse: alcohol, tobacco, illicit drugs*
   - *Youth*
4. *Unintentional injury*

Because this meeting yielded such a broad list of priorities, there was a need to create a shorter, more specific list of priorities for action planning purposes. This was achieved by creating and distributing a survey via Survey Monkey which asked CHA Stakeholders to rank identified priorities according to 1) magnitude/importance of health issue and 2) feasibility/impact of addressing the health issue. Once responses were collected, the CHA Leadership Team examined the ranked health issues. As it turned out, the issues that the Stakeholders felt were in most need of attention were also, in their opinion, the issues that were

most feasible to change. The top five issues that were identified by the CHA Stakeholder Group were 1) Physical Activity & Nutrition, 2) Cardiovascular Disease, 3) Diabetes Mellitus, 4) Access to Primary Care, and 5) Substance Abuse. After reviewing this information, the Leadership Team came to the consensus that, because physical activity and nutrition are the basis for preventing cardiovascular disease and diabetes (as well as other chronic conditions), these issues should be grouped into one priority. Therefore, the following were established as Hyde County's health priorities for the next three year period (2014-2017):

1. ***Physical Activity/Nutrition (Chronic Disease Prevention)***
2. ***Access to Primary Care***
3. ***Substance Abuse***

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61 Cecil G. Sheps Center for Health Services Research, North Carolina Health Professions Data System, North Carolina Health Professions Data Books, Table 14 (2008, 2009, 2010, 2011); http://www.shepscenter.unc.edu/hp/publications.htm.

62 NC Medical Board, Licensee Search; http://wwwapps.ncmedboard.org/Clients/NCBOM/Public/LicenseeInformationSearch.aspx.

63 Cecil G. Sheps Center for Health Services Research, North Carolina Health Professions Data System. Publications. 2011 North Carolina Health Professions Databook; http://www.shepscenter.unc.edu/hp/publications/2011_HPDS_DataBook.pdf.

64 NC Division of Medical Assistance, Medicaid, Find a Doctor, NC Medicaid and NC Health Choice Dental Provider Lists; http://www.ncdhhs.gov/dma/dental/dentalprov.htm.

65 Personal communication from Annette Swindell, Administrative Assistant, Hyde County Health Department, to Elizabeth Mumm, Public Health Educator, Hyde County Health Department; February 21, 2014.

66 Hyde County Health Department website; http://www.hydehealth.com/aboutus.htm.

67 "A New Way to See a Doctor, Close to Home". Hyde County Health Department patient brochure. Provided via personal communication from Elizabeth Mumm, Public Health Educator, Hyde County Health Department, to Sheila Pfaender, Public Health Consultant.

68 US Health Resources and Services Administration website: Find a Health Center (Search by State or County). http://findahealthcenter.hrsa.gov/Search_HCC.aspx?byCounty=1.

69 Personal communication from Jamie Tunnell Carter, Office Manager, Ocracoke Health Center, to Elizabeth Mumm, Public Health Educator, Hyde County Health Department; February 27, 2014.
70 Personal communication from Justin Gibbs, Emergency Services Director, County of Hyde, to Elizabeth Mumm, Public Health Educator, Hyde County Health Department; February 19, 2014.
71 NC DHHS, DPH, Women's and Children's Health, Facts & Figures, Data Reports and Publications. Annual School Health Services Reports, End-of-Year-Reports. http://www.ncdhhs.gov/dph/wch/stats.
72 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.ncdhhs.gov/dhsr/reports.htm.
73 NC Department of Health and Human Services, Division of Health Services Regulation (DHSR), Licensed Facilities, Home Care Only, Home Care with Hospice, Home Health Only, and Home Health with Hospice Facilities (by County); http://www.ncdhhs.gov/dhsr/reports.htm.
74 NC Department of Health and Human Services, Division of Health Services Regulation (DHSR), Licensed Facilities, Hospice Facilities (by County); http://www.ncdhhs.gov/dhsr/reports.htm.
75 East Carolina Behavioral Health Provider Network Directory, September 2012
76 NC Department of Health and Human Services, Division of Health Services Regulation (DHSR), Licensed Facilities; http://www.ncdhhs.gov/dhsr/reports.htm.
77 Dialysis Facility Compare, http://www.Medicare.gov/Dialysis/Include/DataSection/Questions.
78 Welcome to Hyde County, Planning and Economic Development, Spring 2013 Report: Recreation Committee; http://www.hydecountync.gov/departments/hyde_county_recreation_committee.php.
79 Welcome to Hyde County, Departments, Senior Center; http://www.hydecountync.gov/departments/senior_center.php.

APPENDICES

APPENDIX 1: *DATA WORKBOOK*

APPENDIX 2: *CONSULTANT'S SECONDARY DATA SUMMARY PRESENTATION*

APPENDIX 3: *2014 HYDE COUNTY COMMUNITY HEALTH NEEDS ASSESSMENT PRIMARY DATA EXECUTIVE SUMMARY*

APPENDIX 1

DATA WORKBOOK

Demographic Data

Population

General Demographic Characteristics (2010 US Census)

Location	Total Population	Number Males	% Population Male	Median Age Males	Number Females	% Population Female	Median Age Females	Overall Median Age
Hyde County	5,810	3,226	55.5	38.6	2,584	44.5	45.9	41.2
Alleghany County	11,155	5,532	49.6	44.3	5,623	50.4	47.5	45.9
State of NC	9,535,483	4,645,492	48.7	36.0	4,889,991	51.3	38.7	37.4

Note: percentages by gender are calculated.
Source: US Census Bureau, American Fact Finder, 2010 Census, Summary File DP-1, 2010 Demographic Profile Data, Profile of General Population and Housing Characteristics: 2010; http://factfinder2.census.gov.

Population Distribution by Age and Gender, Number and Percent (2010 US Census)

Age Group	Hyde 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	5,810	3,226	2,584	100.0	55.5	44.5	9,535,483	4,645,492	4,889,991	100.0	48.7	51.3
Under 5	293	155	138	5.0	2.7	2.4	632,040	322,871	309,169	6.6	3.4	3.2
5 to 9	297	151	146	5.1	2.6	2.5	635,945	324,900	311,045	6.7	3.4	3.3
10 to 14	303	157	146	5.2	2.7	2.5	631,104	322,795	308,309	6.6	3.4	3.2
15 to 19	288	135	153	5.0	2.3	2.6	659,591	338,271	321,320	6.9	3.5	3.4
20 to 24	304	202	102	5.2	3.5	1.8	661,573	336,648	324,925	6.9	3.5	3.4
25 to 29	434	299	135	7.5	5.1	2.3	627,036	311,499	315,537	6.6	3.3	3.3
30 to 34	436	308	128	7.5	5.3	2.2	619,557	304,807	314,750	6.5	3.2	3.3
35 to 39	448	286	162	7.7	4.9	2.8	659,843	324,681	335,162	6.9	3.4	3.5
40 to 44	393	230	163	6.8	4.0	2.8	667,308	329,652	337,656	7.0	3.5	3.5
45 to 49	414	243	171	7.1	4.2	2.9	698,753	341,432	357,321	7.3	3.6	3.7
50 to 54	459	245	214	7.9	4.2	3.7	669,893	323,702	346,191	7.0	3.4	3.6
55 to 59	497	259	238	8.6	4.5	4.1	600,722	285,244	315,478	6.3	3.0	3.3
60 to 64	369	178	191	6.4	3.1	3.3	538,039	255,034	283,005	5.6	2.7	3.0
65 to 69	270	143	127	4.6	2.5	2.2	403,024	188,125	214,899	4.2	2.0	2.3
70 to 74	214	97	117	3.7	1.7	2.0	294,543	133,021	161,522	3.1	1.4	1.7
75 to 79	170	66	104	2.9	1.1	1.8	223,655	94,981	128,674	2.3	1.0	1.3
80 to 84	101	41	60	1.7	0.7	1.0	165,396	63,573	101,823	1.7	0.7	1.1
85 and older	120	31	89	2.1	0.5	1.5	147,461	44,256	103,205	1.5	0.5	1.1

US Census Bureau, American FactFinder, 2010 Census, 2010 Demographic Profile Data, Summary File DP-1, Profile of General Population and Housing Characteristics: 2010 (Geographies as noted); http://factfinder2.census.gov.

APPENDIX 1

Growth Trend for Elderly (Age 65 and Older) Population, by Decade, 2010 through 2030

Location	2010 Census								
	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+
Hyde County	5,810	875	15.1	484	8.3	271	4.6	120	2.1
Alleghany County	11,155	2,304	20.7	1,282	11.5	754	6.8	268	2.4
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

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+
Hyde County	5,906	1,279	21.7	782	13.2	353	6.0	144	2.4
Alleghany County	10,272	2,762	26.9	1,484	14.4	918	8.9	360	3.5
State of NC	10,614,862	1,763,950	16.6	1,051,688	9.9	519,963	4.9	192,299	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+
Hyde County	5,994	1,495	24.9	742	12.4	571	9.5	182	3.0
Alleghany County	9,390	2,742	29.2	1,243	13.2	1,060	11.3	439	4.7
State of NC	11,629,556	2,262,855	19.5	1,241,404	10.7	765,598	6.6	255,853	2.2
Source	4	4	5	4	5	4	5	4	5

2 - US Census Bureau, American FactFinder. Profile of General Population and Housing Characteristics: 2010 (DP-1); http://factfinder2.census.gov.
3 - NC Office of State Budget and Management, County/State Population Projections. Age, Race, and Sex Projections, Age Groups - Total, July 1, 2020 County Total Age Groups - Standard; http://www.osbm.state.nc.us/ncosbm/facts_and_figures/socioeconomic_data/population_estimates/county_projections.shtm.
4 - NC Office of State Budget and Management, County/State Population Projections. Age, Race, and Sex Projections, Age Groups - Total, July 1, 2030 County Total Age Groups - Standard; http://www.osbm.state.nc.us/ncosbm/facts_and_figures/socioeconomic_data/population_estimates/county_projections.shtm.
5 - Percentages calculated using age group population as numerator and total population as denominator

Economic and Sociodemographic Data

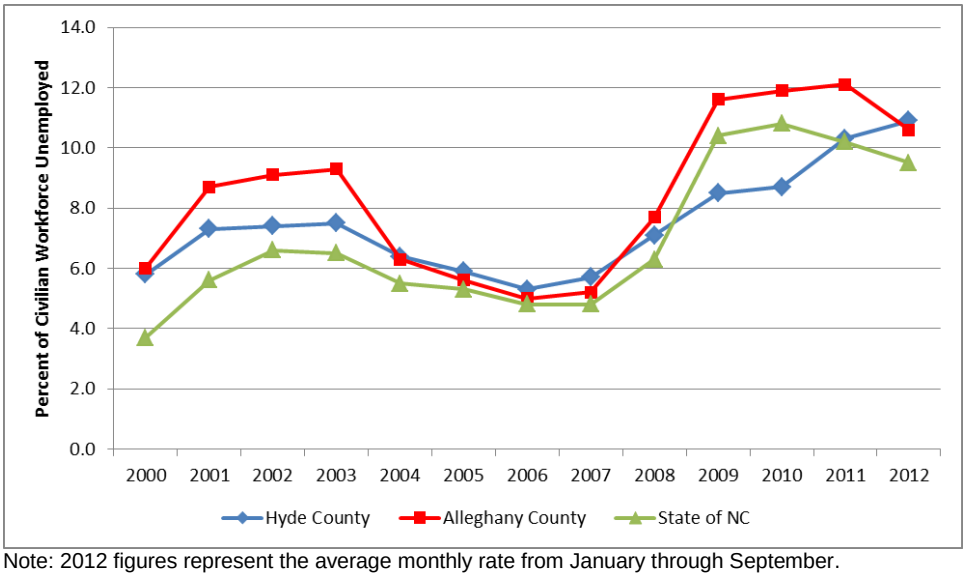
Income Measures

Location	2012 Projected Per Capita Personal Income	Per Capita Income Difference from State	2012 Projected Median Household Income	Median Household Income Difference from State	2011 Est Median Family Income	Median Family Income Difference from State
Hyde County	$18,291	-$5,664	$33,768	-$10,148	$42,121	-$10,799
Alleghany County	$19,640	-$4,315	$32,927	-$10,989	$40,092	-$12,828
State of NC	$23,955	n/a	$43,916 [1]	n/a	$52,920 [1]	n/a

Source (except as noted): NC Department of Commerce, AccessNC, Community Demographics, County Report, County Profile, http://accessnc.commerce.state.nc.us/EDIS/page1.html.
[1] US Census Bureau, American Fact Finder, American Community Survey, 2012 ACS 5-Year Estimate. http://factfinder2.census.gov.

APPENDIX 1

Annual Unemployment Rate (2000-2012)



Note: 2012 figures represent the average monthly rate from January through September.
Source: NC Employment Security Commission, Labor Market Information, Workforce Information, Employed, Unemployed and Unemployment Rates, Labor Force Statistics, Single Areas for All Years; http://eslmi03.esc.state.nc.us/ThematicLAUS/clfasp/startCLFSAAY.asp.

Annual Poverty Rate, 100% Level (1970-2000; 2006-2010, 2007-2011 and 2008-2012 Five-Year Estimates)

Location	Percent of All People in Poverty						
	1970	1980	1990	2000	2006-2010	2007-2011	2008-2012
Hyde County	42.2	28.3	24.0	15.4	20.4	25.1	23.3
Alleghany County	30.0	19.6	20.1	17.2	26.2	22,6	20.9
State of NC	20.3	14.8	13.0	12.3	15.5	16.1	16.8
Source:	a	a	a	a	b	c	d

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, 2010 ACS 5-Year Estimates, Data Profiles, County, North Carolina (Counties as listed); http://factfinder2.census.gov.
c - US Census Bureau, American Fact Finder, American Community Survey, 2011 ACS 5-Year Estimates, Data Profiles, County, North Carolina (Counties as listed); http://factfinder2.census.gov.
d - US Census Bureau, American Fact Finder, American Community Survey, 2012 ACS 5-Year Estimates, Table DP03: Selected Economic Characteristics, County, North Carolina (Counties as listed); http://factfinder2.census.gov.

Persons in Poverty by Race, 100% Level (2006-2010, 2007-2011 and 2008-2012 Five-Year Estimates)

Location	2006-2010				2007-2011				2008-2012			
	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
Hyde County	871	20.4	12.3	47.8	1,224	25.1	10.5	63.3	1,150	23.3	10.9	54.8
Alleghany County	2,866	26.2	22.1	0.0	2,444	22.6	21.0	18.5	2,260	20.9	19.1	35.6
State of NC	1,399,945	15.5	11.2	25.6	1,473,556	16.1	11.8	26.1	1,536,464	16.8	12.5	26.8

Source - US Census Bureau, American Fact Finder, American Community Survey, 2010, 2011 and 2012 ACS 5-Year Estimates, Table S1701: Poverty Status in the Past 12 Months. Data Profiles, County, North Carolina (Counties as listed); http://factfinder2.census.gov.

APPENDIX 1

Persons in Poverty by Age, 100% Level (2006-2010, 2007-11 and 2008-2012 Five-Year Estimates)

Location	2006-2010				2007-2011				2008-2012			
	Total % in Poverty	% Related Children Under 5 in Poverty	% Related Children Under 18 in Poverty	% Adults 65 or Older in Poverty	Total % in Poverty	% Related Children Under 5 in Poverty	% Related Children Under 18 in Poverty	% Adults 65 or Older in Poverty	Total % in Poverty	% Related Children Under 5 in Poverty	% Related Children Under 18 in Poverty	% Adults 65 or Older in Poverty
Hyde County	20.4	32.6	21.3	29.8	25.1	44.2	25.6	26.4	23.3	47.8	31.9	22.7
Alleghany County	26.2	48.9	29.4	13.7	22.6	50.6	32.4	12.2	20.9	43.6	30.0	13.0
State of NC	15.5	25.5	21.3	10.7	16.1	26.4	22.3	10.3	16.8	28.0	23.5	10.2

Source - US Census Bureau, American Fact Finder, American Community Survey, 2010, 2011 and 2012 ACS 5-Year Estimates, Table S1701: Poverty Status in the Past 12 Months. Data Profiles, County, North Carolina (Counties as listed); http://factfinder2.census.gov.

Estimated Housing Cost as Percent of Household Income (2005-09 and 2008-2012 Five-Year Estimates)

Location	Renter Occupied Units						Mortgaged Housing Units					
	2005-2009			2008-2012			2005-2009			2008-2012		
	Total Units	Units Spending >30% Household Income on Housing		Total Units	Units Spending >30% Household Income on Housing		Total Units	Units Spending >30% Household Income on Housing		Total Units	Units Spending >30% Household Income on Housing	
		#	%		#	%		#	%		#	%
Hyde County	377	110	29.2	397	199	50.1	789	335	42.5	673	222	33.0
Alleghany County	924	485	52.5	928	546	58.8	1,655	708	42.8	1,657	652	39.3
State of NC	1,131,480	486,934	43.0	1,095,577	554,428	50.6	1,634,410	513,340	31.4	1,658,483	539,993	32.6
Source	1	1	3	2	2	3	1	1	3	2	2	3

1 - US Census Bureau, American FactFinder, American Community Survey, 2009 ACS 5-Year Estimates. Table DP04: Selected Housing Characteristics (geographies as listed). http://factfinder2.census.gov.
2 - US Census Bureau, American FactFinder, American Community Survey, 2012 ACS 5-Year Estimates. Table DP04: Selected Housing Characteristics (geographies as listed). http://factfinder2.census.gov.
3 – Percentages are calculated.

Housing by Type (2008-2012 Five-Year Estimate)

Location	2008-2012 Estimate												
	Total Housing Units	Vacant Housing Units		Occupied Housing Units		Owner Occupied Units		Median Monthly Housing Cost, Homes With Mortgage	Renter Occupied Units		Median Gross Monthly Rent	Mobile Home Units	
	No.	No.	%	No.	%	No.	%	$	No.	%	$	No.	%
Hyde County	3,241	1,259	38.8	1,982	61.2	1,454	73.4	$895	528	26.6	$614	788	24.3
Alleghany County	8,050	3,256	40.0	4,794	59.6	3,547	74.0	$1,105	1,247	26.0	$538	1,138	14.1
State of NC	4,325,088	631,867	14.6	3,693,221	85.5	2,477,360	67.1	$1,287	1,215,861	32.9	$759	599,924	13.9

Source - US Census Bureau, American Fact Finder, American Community Survey, 2012 ACS 5-Year Estimates, Table DP04: Selected Housing Characteristics (geographies as listed). http://factfinder2.census.gov.

K-12 Public School Enrollment (SY2006-07 through SY2012-13)

Location	Number of Students						
	SY2006-07	SY2007-08	SY2008-09	SY2009-10	SY2010-11	SY2011-12	SY2012-13
Hyde County Schools	679	656	641	604	585	610	583
Alleghany County Schools	1,642	1,641	1,569	1,566	1,516	1,490	1,458
State of NC	1,452,420	1,458,156	1,456,558	1,446,650	1,450,435	1,458,572	1,467,297

Source: NC Department of Public Instruction, Data and Statistics, Education Data: NC Statistical Profile. NC Statistical Profile Online: Local Education Agencies Information, Pupil Accounting. http://apps.schools.nc.gov/pls/apex/f?p=1:1:497147721913602.

APPENDIX 1

Educational Attainment

Location	% Population High School Graduate or Higher	% Population Bachelor's Degree or Higher	% 3rd Graders At or Above Grade Level, ABCs EOG Reading Test	% 3rd Graders At or Above Grade Level, ABCs EOG Math Test	% 8th Graders At or Above Grade Level, ABCs EOG Reading Test	% 8th Graders At or Above Grade Level, ABCs EOG Math Test	SAT Participation Rate	Average Total SAT Scores
	2008-2012	2008-2012	SY2011-12	SY2011-12	SY2011-12	SY2011-12	SY2011-12	SY2011-12
Hyde County	77.1	13.2	72.5	70.0	77.8	>95	52%	953
Alleghany County	76.2	14.9	79.4	92.8	76.8	92.8	49%	979
State of NC	84.5	26.8	68.8	82.8	71.1	85.2	68%	997
Source:	a	a	b	b	b	b	b	b

a - US Census Bureau, American Fact Finder, American Community Survey, 2012 ACS 5-Year Estimates, Data Profiles, Detailed Tables, Selected Social Characteristics, Educational Attainment, by State or County; http://factfinder.census.gov.
b - NC Department of Public Instruction, Data and Statistics, Education Data, NC School Report Cards. District Profile; Charter School Profiles; http://www.ncreportcards.org/src/.

High School Drop-Out Rate (SY2004-05 through SY2011-12)

Location	Drop-Out Rate							
	SY2004-05	SY2005-06	SY2006-07	SY2007-08	SY2008-09	SY2009-10	SY2010-11	SY2011-12
Hyde County Schools	0.50	3.16	5.19	3.69	2.97	6.95	1.76	2.33
Alleghany County Schools	5.36	2.69	3.09	4.09	3.04	4.56	4.13	1.41
State of NC	4.74	5.04	5.27	4.97	4.27	3.75	3.43	3.01

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

Other Criminal Activity

Location	No. Registered Sex Offenders (2/13/14)	No. Gangs	No. Methamphetamine Lab Busts								
		2013	2005	2006	2007	2008	2009	2010	2011	2012	2013
Hyde County	10	0	0	2	0	0	0	0	0	0	0
Alleghany County	11	0	2	1	0	0	0	0	1	2	1
State of NC	14,028	982	328	197	157	197	206	235	344	460	561
Source:	a	b	c	c	c	c	c	c	c	c	c

a - NC Department of Justice, Sex Offender Statistics, Offender Statistics; http://sexoffender.ncdoj.gov/stats.aspx.
b - NC Department of Crime Control and Public Safety, Governor's Crime Commission, Publications. Gangs in North Carolina 2013: An Analysis of GangNET Data, 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 Justice Complaints (2011 and 2012)

Location	Complaints								Outcomes					
	No. Undisciplined		No. Delinquent		Rate Undisciplined (Complaints per 1,000 Ages 6 to 17)		Rate Delinquent (Complaints per 1,000 Age 6 to 15)		No. Sent to Secure Detention		No. Sent to Youth Development Center		No. Transferred to Superior Court	
	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012
Hyde County	5	0	0	8	7.2	0.0	0.0	13.4	1	0	0	0	0	0
Alleghany County	7	8	39	42	4.6	5.3	31.3	34.1	9	3	1	1	0	0
State of NC	3,603	3,194	33,556	31,575	2.3	2.5	26.1	24.7	3,558	2,767	307	216	28	36

Source: NC Department of Juvenile Justice and Delinquency Prevention, Statistics and Legislative Reports, County Databooks (Search by Year); https://www.ncdps.gov/index2.cfm?a=000003,002476,002483,002482,002506,002523.

APPENDIX 1

Sexual Assault Complaint Trend (FY2004-05 through FY2011-12)

Location	No. of Individuals Filing Complaints ("Clients")							
	FY2004-05	FY2005-06	FY2006-07	FY2007-08	FY2008-09	FY2009-10	FY2010-11	FY2011-12
Hyde County	1	4	3	2	*	7	6	15
Alleghany County	14	11	9	2	12	13	35	52
State of NC	8,564	8,721	7,444	6,527	8,494	13,392	13,881	13,214

"n/a" Program submitted no data.
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.

Domestic Violence Complaint Trend (FY2004-05 through FY2011-12)

Location	No. of Individuals Filing Complaints ("Clients")							
	FY2004-05	FY2005-06	FY2006-07	FY2007-08	FY2008-09	FY2009-10	FY2010-11	FY2011-12
Hyde County	36	41	40	17	*	80	123	142
Alleghany County	104	124	59	90	107	141	139	146
State of NC	50,726	48,173	47,305	41,787	51,873	66,320	61,283	51,563

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.

Reports of Child Abuse and Neglect, Hyde County (FY2004-05 through FY2012-13)

Category	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Total No. of Findings of Abuse, Neglect, Dependency	14	20	7	3	3	9	17	5	1
No. Substantiated[1] Findings of Abuse and Neglect	1	1	1	0	0	0	0	0	0
No. Substantiated Findings of Abuse	0	1	0	0	0	2	0	0	0
No. Substantiated Findings of Neglect	5	2	0	3	0	1	1	3	0
Services Recommended	0	0	1	0	0	2	2	0	0
No. Unsubstantiated Findings	8	18	5	0	3	4	13	1	1
Services Not Recommended	0	0	0	0	0	0	0	1	0

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=Alamance&label=County&format=html&entry=10&type=CHILD&fn=FRST&vtype=xfind.

Adult Protective Services Survey Results (2009, 2011)

Location	2009											
	Reports Received	Screened In	Screened Out	Information & Referral	Outreach	Law Enforcement	DHSR/Home Specialist	District Attorney	VA	Div. Medical Assistance	Social Security	No. Staff Perf. APS Tasks
Hyde County	6	4	2	2	1	0	0	0	0	0	0	1
Alleghany County	46	34	12	1	12	0	1	0	0	0	0	1
State of NC	17,073	9,835	7,239	2,443	2,640	471	568	488	34	42	134	542

Location	2011											
	Reports Received	Screened In	Screened Out	Information & Referral	Outreach	Law Enforcement	DHSR/Home Specialist	District Attorney	VA	Div. Medical Assistance	Social Security	No. Staff Perf. APS Tasks
Hyde County	11	8	3	2	2	1	0	1	0	0	0	2
Alleghany County	51	38	13	0	9	0	0	0	0	0	2	2
State of NC	19,635	10,929	8,706	2,665	2,736	725	475	651	33	30	152	559

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.

APPENDIX 1

Environmental Data

Air Quality Index Summary, 2013

Location	No. Days with AQI	Number of Days When Air Quality Was:					Number of Days When Air Pollutant Was:					
		Good	Moderate	Unhealthy for Sensitive Groups	Unhealthy	Very Unhealthy	CO	NO2	O3	SO2	PM2.5	PM10
Hyde County	46	44	2	n/a	n/a	n/a	n/a	n/a	n/a	n/a	46	n/a
Alleghany County	*No report*											
State of NC	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Source - Air Quality Index Reports, 2013. US EPA Air Data website: http://www.epa.gov/airdata/ad_rep_aqi.html.

Population Served by Active Water Systems (2014)

Type of System	Total Population Served	Primary Water Source Type	Health Violations 2004-2014
Community Water Systems			
Hyde County Water System	5,197	Groundwater	None
Ocracoke Sanitary District	800	Groundwater	None
Total	**5,997**		
Non-Transient, Non-Community Water Systems			
None			
Total	**0**		
Transient, Non-Community Water Systems			
DOT-Hatteras Ferry South Dock	100	Groundwater	None
Total	**100**		

Source: *Safe Drinking Water Search for the State of North Carolina*. Retrieved on April 9, 2014 from US EPA Envirofacts Safe Drinking Water Information System (SDWIS) website: http://www.epa.gov/enviro/facts/sdwis/search.html.

Solid Waste Disposal, FY2008-09 through FY2012-13

Location	MSW Tons Managed 1991-92	MSW Tons Disposed					Base Year Per Capita (1991-92)	Per Capita Rate 2012-13	% Change Base Year to 2012-13
		2008-09	2009-10	2010-11	2011-2012	2012-2013			
Hyde County	2,762	5,658	4,831	5,409	6,059	4,908	0.50	0.86	72
Alleghany County	14,131	8,689	8,390	8,612	8,287	7,825	1.45	0.71	-51
State of NC	7,257,428	9,910,031	9,395,457	9,467,045	9,443,380	9,149,130	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 Reports, County Per Capita Report, Fiscal Year 2012-2013; http://portal.ncdenr.org/c/document_library/get_file?p_l_id=4649434&folderId=15429422&name=DLFE-80542.pdf.

Health Data

Maternal and Child Health

Total Pregnancy, Fertility and Abortion Rates, Ages 15-44 (Single Years, 2008-2012)

Location	Females Ages 15-44														
	2008			2009			2010			2011			2012		
	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
Hyde County	80.5	67.7	12.8	63.0	51.9	**11.1**	84.2	72.4	11.9	72.1	62.5	**9.6**	64.7	58.7	**6.0**
Alleghany County	56.9	52.6	**3.8**	68.4	62.2	6.2	61.8	58.3	3.5	50.2	49.6	**0.6**	58.2	54.0	**4.3**
State of NC	83.9	69.1	14.4	78.9	65.1	13.4	76.4	62.7	13.2	73.3	61.5	11.4	72.1	61.0	10.7

Source: NC Center for Health Statistics, County-level Data, County Health Data Books (2010-2014). Pregnancy and Live Births. Pregnancy, Fertility, & Abortion Rates per 1,000 Population, by Race, by Age; http://www.schs.state.nc.us/SCHS/data/databook/.

APPENDIX 1

Pregnancy, Fertility and Abortion Rates, Ages 15-44, Stratified by Race/Ethnicity (Single Years, 2010-2012)

Location		Females Ages 15-44								
		2010			2011			2012		
		Pregnancy Rate	Fertility Rate	Abortion Rate	Pregnancy Rate	Fertility Rate	Abortion Rate	Pregnancy Rate	Fertility Rate	Abortion Rate
Hyde County	Total	84.2	72.4	11.9	72.1	62.5	**9.6**	64.7	58.7	**6.0**
	White, Non-Hispanic	72.9	65.3	**7.7**	75.6	67.8	**7.8**	80.8	75.2	**5.6**
	African American, Non-Hispanic	96.2	76.9	**19.2**	48.5	**38.8**	**9.7**	**36.5**	**31.3**	**5.2**
	Other, Non-Hispanic	**250.0**	**250.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
	Hispanic	109.1	90.9	**18.2**	94.3	**84.9**	**9.4**	**28.0**	**28.0**	**0.0**
Alleghany County	Total	61.8	58.3	3.5	50.2	49.6	**0.6**	58.2	54.0	**4.3**
	White, Non-Hispanic	57.7	53.7	**4.0**	43.4	42.7	**0.7**	52.9	49.3	**3.5**
	African American, Non-Hispanic	**71.4**	**71.4**	**0.0**	**40.0**	**40.0**	**0.0**	**83.3**	**41.7**	**41.7**
	Other, Non-Hispanic	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**58.8**	**58.8**	**0.0**
	Hispanic	101.7	101.7	**0.0**	113.0	113.0	**0.0**	99.4	93.6	**5.8**
State of NC	Total	76.4	62.7	13.2	73.3	61.5	11.4	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
	African American, Non-Hispanic	86.1	61.0	24.4	81.5	59.7	21.1	79.6	59.1	19.8
	Other, Non-Hispanic	84.5	71.3	12.8	80.6	69.4	10.9	79.7	69.7	9.5
	Hispanic	114.0	99.0	14.7	106.6	94.0	12.2	102.6	91.4	10.8

Note: Bold type indicates an unstable rate based on a small number (fewer than 10 cases)
Source: NC Center for Health Statistics, County-level Data, County Health Data Books (2012-2014). Pregnancy and Live Births. Pregnancy, Fertility, & Abortion Rates per 1,000 Population, by Race, by Age; http://www.schs.state.nc.us/SCHS/data/databook/.

Total Pregnancy, Fertility and Abortion Rates, Ages 15-19 (Single Years, 2008-2012)

Location	Females Ages 15-19														
	2008			2009			2010			2011			2012		
	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
Hyde County	**39.8**	**34.1**	**5.7**	**21.7**	**10.9**	**10.9**	**32.7**	**26.1**	**6.5**	**61.2**	**61.2**	**0.0**	**59.3**	**51.9**	**7.4**
Alleghany County	80.2	77.2	**3.1**	96.0	82.8	**13.2**	54.8	51.6	**3.2**	**25.0**	**21.9**	**3.1**	59	49.2	**9.8**
State of NC	58.6	45.7	12.5	56.0	43.4	12.2	49.7	38.3	11.0	43.8	34.8	8.7	39.6	31.8	7.6

Note: Bold type indicates an unstable rate based on a small number (fewer than 10 cases)
Source: NC Center for Health Statistics, County-level Data, County Health Data Books (2008-2014). Pregnancy and Live Births. Pregnancy, Fertility, & Abortion Rates per 1,000 Population, by Race, by Age; http://www.schs.state.nc.us/SCHS/data/databook/.

Pregnancy, Fertility and Abortion Rates, Ages 15-19, Stratified by Race/Ethnicity (Single Years, 2010-2012)

Location		Females Ages 15-19								
		2010			2011			2012		
		Pregnancy Rate	Fertility Rate	Abortion Rate	Pregnancy Rate	Fertility Rate	Abortion Rate	Pregnancy Rate	Fertility Rate	Abortion Rate
Hyde County	Total	**32.7**	**26.1**	**6.5**	**61.2**	**61.2**	**0.0**	**59.3**	**51.9**	**7.4**
	White, Non-Hispanic	**11.6**	**11.6**	**0.0**	**88.6**	**88.6**	**0.0**	**50.0**	**50.0**	**0.0**
	African American, Non-Hispanic	**52.6**	**35.1**	**17.5**	**18.5**	**18.5**	**0.0**	**75.0**	**50.0**	**25.0**
	Other, Non-Hispanic	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
	Hispanic	**100.0**	**100.0**	**0.0**	**71.4**	**71.4**	**0.0**	**66.7**	**66.7**	**0.0**
Alleghany County	Total	54.8	51.6	**3.2**	**25.0**	**21.9**	**3.1**	59.0	49.2	**9.8**
	White, Non-Hispanic	45.3	41.5	**3.8**	**22.9**	**19.1**	**3.8**	43.5	**35.6**	**7.9**
	African American, Non-Hispanic	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
	Other, Non-Hispanic	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
	Hispanic	**122.0**	**122.0**	**0.0**	**45.5**	**45.5**	**0.0**	**170.7**	**146.3**	**24.4**
State of NC	Total	49.7	38.3	11.0	43.8	34.8	8.7	39.6	31.8	7.6
	White, Non-Hispanic	34.4	27.2	7.0	30.8	25.2	5.5	28.3	23.1	5.1
	African American, Non-Hispanic	70.2	50.9	18.7	61.6	45.5	15.6	55.0	41.4	13.1
	Other, Non-Hispanic	48.9	38.8	9.5	39.4	32.9	6.4	36.4	29.8	6.3
	Hispanic	82.7	70.6	11.7	71.1	62.7	8.2	62.0	55.7	6.2

Note: Bold type indicates an unstable rate based on a small number (fewer than 10 cases).
Source: NC Center for Health Statistics, County-level Data, County Health Data Books (2012-20114). Pregnancy and Live Births. Pregnancy, Fertility, & Abortion Rates per 1,000 Population, by Race, by Age; http://www.schs.state.nc.us/SCHS/data/databook/.

APPENDIX 1

Number of Teen Pregnancies (Ages 15-19) (Single Years, 2004-2012)

Location	Number of Pregnancies, Ages 15-19								
	2004	2005	2006	2007	2008	2009	2010	2011	2012
Hyde County	**9**	11	14	10	**7**	**4**	**5**	**9**	**8**
Alleghany County	16	11	17	21	26	29	17	**8**	18
State of NC	18,143	18,259	19,192	19,615	19,398	18,142	15,957	13,909	12,535

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

High Parity and Short Interval Births (Single Five-Year Aggregate Period, 2008-2012)

Location	High Parity Births				Short Interval Births	
	Mothers < 30		Mothers ≥ 30			
	No.[1]	%[2]	No.[1]	%[2]	No.[3]	%[4]
Hyde County	23	14.6	31	31.3	**19**	10.2
Alleghany County	74	21.0	28	22.0	48	15.0
State of NC	66,159	16.6	47,781	21.5	52,829	12.9
Source:	a	a	a	a	b	b

[1] Number at risk due 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 (2013), Pregnancy and Births, 2007-2011 Number At Risk NC Live Births due to High Parity by County of Residence; http://www.schs.state.nc.us/SCHS/data/databook/.

b - NC State Center for Health Statistics, County-level Data, County Health Data Book (2013), Pregnancy and Births, 2007-2011 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 Trend (Single Years, 2006-2012)

Location	Number and Percent of Births to Mothers Who Smoked Prenatally													
	2006		2007		2008		2009		2010		2011		2012	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Hyde County	11	15.1	**8**	**15.4**	**6**	**11.3**	**7**	**16.7**	n/a	n/a	**8**	**15.4**	**7**	**14.3**
Alleghany County	19	18.4	19	17.0	25	25.5	19	17.3	n/a	n/a	18	21.4	19	21.6
State of NC	14,668	11.5	14,426	11.0	13,621	10.4	12,975	10.2	n/a	n/a	13,159	10.9	12,727	10.6

Source: NC State Center for Health Statistics, Vital Statistics, Volume 1 (2006, 2007,-2008, 2009, 2010, 2011 and 2012): Population, Births, Deaths, Marriages, Divorces, (geography as noted), Mother Smoked; http://www.schs.state.nc.us/schs/data/vitalstats.cfm.

Women Receiving Prenatal Care in the First Trimester (Single Years, 2006-2012)

Location	Number and Percent of Women Receiving Prenatal Care in the First Trimester													
	2006		2007		2008		2009		2010		2011		2012	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Hyde County	65	89.0	43	82.7	46	86.8	33	78.6	n/a	n/a	33	63.5	35	71.4
Alleghany County	89	86.4	93	83.0	81	82.6	93	84.5	n/a	n/a	50	59.5	52	59.1
State of NC	104,528	81.9	105,849	80.9	107,183	82.0	105,626	83.3	n/a	n/a	85,706	71.2	85,380	71.3

Source: NC State Center for Health Statistics, Basic Automated Birth Yearbook (BABY Book), North Carolina Residents (2006, 2007,-2008, 2009, 2010, 2011 and 2012) (geographies as noted): Table 6 (and others): County Resident Births by Month Prenatal Care Began, All Women; http://www.schs.state.nc.us/schs/births/babybook/.

APPENDIX 1

Low Birth-Weight Births (Five Year Aggregate Periods, 2006-2010 through 2008-2012)

Location	Percent of Low Birth Weight (≤ 2,500 Gram) Births														
	2006-2010					2007-2011					2008-2012				
	Total	White, Non-Hispanic	Black, Non-Hispanic	Other Non-Hispanic	Hispanic	Total	White, Non-Hispanic	Black, Non-Hispanic	Other Non-Hispanic	Hispanic	Total	White, Non-Hispanic	Black, Non-Hispanic	Other Non-Hispanic	Hispanic
Hyde County	10.0	**8.2**	**12.0**	**0.0**	**14.7**	8.8	**7.0**	**13.6**	**0.0**	**8.6**	8.6	**7.8**	**13.8**	**0.0**	**3.1**
Alleghany County	7.6	8.4	**0.0**	**0.0**	**4.4**	6.3	7.2	**0.0**	**0.0**	**3.1**	6.9	8.1	**0.0**	**0.0**	**2.2**
State of NC	9.1	7.7	14.4	9.3	6.3	9.1	7.7	14.3	9.4	6.5	9.0	7.6	14.1	9.3	6.5

Note: Bold type indicates an unstable rate based on a small number (fewer than 20 cases).
Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2012, 2013, 2014), Pregnancy and Births, Low and Very Low Weight Births; http://www.schs.state.nc.us/SCHS/data/databook/.

Total Infant Deaths (Five-Year Aggregate Periods, 2002-2006 through 2008-2012)

Location	Infant Deaths													
	2002-2006		2003-2007		2004-2008		2005-2009		2006-2010		2007-2011		2008-2012	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Hyde County	**1**	**3.3**	**1**	**3.4**	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**	**3**	**11.5**	**3**	**11.7**
Alleghany County	**5**	**10.2**	**6**	**12.0**	**6**	**11.5**	**5**	**9.4**	**4**	**7.6**	**4**	**7.9**	**2**	**4.2**
State of NC	5,084	8.4	5,234	8.4	5,333	8.4	5,289	8.3	5,066	7.9	4,899	7.8	4,675	7.5

Note: Bold type indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC Center for Health Statistics, County-level Data, County Health Data Books (2008-2014), Mortality, Infant Death Rates per 1,000 Live Births; http://www.schs.state.nc.us/SCHS/data/databook/.

Infant Deaths, Stratified by Race/Ethnicity (Five-Year Aggregate Periods, 2006-2010 through 2008-2012)

Location		Infant Deaths					
		2006-2010		2007-2011		2008-2012	
		No.	Rate	No.	Rate	No.	Rate
Hyde County	Total	**0**	**0.0**	**3**	**11.5**	**3**	**11.7**
	White, Non-Hispanic	**0**	**0.0**	**2**	**12.7**	**2**	**12.0**
	African American, Non-Hispanic	**0**	**0.0**	**1**	**15.2**	**1**	**17.2**
	Other, Non-Hispanic	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**
	Hispanic	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**
Alleghany County	Total	**4**	**7.6**	**4**	**7.9**	**2**	**4.2**
	White, Non-Hispanic	**3**	**7.0**	**3**	**7.4**	**2**	**5.2**
	African American, Non-Hispanic	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**
	Other, Non-Hispanic	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**
	Hispanic	**1**	**11.0**	**1**	**10.4**	**0**	**0.0**
State of NC	Total	5,066	7.9	4,899	7.8	4,675	7.5
	White, Non-Hispanic	2,074	5.9	2,001	5.7	1,918	5.6
	African American, Non-Hispanic	2,208	14.7	2,129	14.3	2,064	14.0
	Other, Non-Hispanic	187	6.3	188	6.2	181	5.9
	Hispanic	597	5.8	581	5.8	512	5.3

Note: Bold type indicates a likely unstable rate based on a small (fewer than 20) number of cases.
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/.

APPENDIX 1

Life Expectancy

Life Expectancy at Birth, by Gender and Race (1990-1992 and 2010-2012)

Location	Life Expectancy in Years									
	Person Born in 1990-1992					Person Born in 2010-2012				
	Overall	Male	Female	White	African-American	Overall	Male	Female	White	African-American
Hyde County	72.2	68.4	76.0	74.2	68.4	76.7	77.5	74.6	76.9	75.9
Alleghany County	75.4	69.8	81.7	75.7	N/A	78.6	76.9	80.8	78.7	N/A
State of NC	74.9	71.0	78.7	76.4	69.8	78.2	75.7	80.6	78.7	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 2010-2012, State and County; http://www.schs.state.nc.us/schs/data/lifexpectancy/.

Leading Causes of Death

Overall Age-Adjusted Mortality Rates for the 15 Leading Causes of Death (Single Five-Year Aggregate Period, 2008-2012 or as Noted)[1]

Rank/Cause of Death	Hyde County			Alleghany County			State of NC			United States (2011)	
	Number	Rate	Rank	Number	Rate	Rank	Number	Rate	Rank	Rate	Rank
1. Cancer	73	201.5	1	137	158.9	2	89,505	175.9	1	168.6	2
Trachea, Bronchus, and Lung	20	57.4	a	57	63.6	a	27,204	52.8	a	45.9	N/A
Prostate	**5**	**31.0**	**b**	**15**	**54.7**	**b**	4,356	23.4	b	8.3 [2]	N/A
Colon, Rectum and Anus	**8**	**27.5**	**c**	**11**	**19.9**	**c**	7,561	14.9	d	15.3	N/A
Breast	**3**	**23.2**	**d**	**4**	**14.3**	**d**	6,357	22.2	c	12.0 [2]	N/A
Pancreas	**1**	**N/A**	**e**	**6**	**N/A**	**e**	5,330	10.4	e	10.9	N/A
2. Diseases of the Heart	67	181.7	2	150	178.2	1	85,890	174.4	2	173.7	1
3. Cerebrovascular Disease	29	78.8	3	31	35.7	5	21,821	45.1	4	37.9	4
4. Chronic Lower Respiratory Disease	**17**	**58.5**	**4**	41	46.9	3	22,884	46.6	3	42.7	3
5. Diabetes Mellitus	**13**	**44.7**	**5**	22	24.6	8	10,984	21.8	7	21.5	7
6. All Other Unintentional Injuries	**12**	**41.3**	**6**	24	37.0	4	14,168	29.4	5	38.0	5
7. Alzheimer's Disease	**10**	**34.4**	**7**	25	29.5	6	13,746	29.3	6	24.6	6
8. Unintentional Motor Vehicle Injuries	**6**	**20.7**	**8**	**13**	**23.5**	**9**	6,875	14.3	10	10.9	N/A
9. Nephritis, Nephrotic Syndrome, and Nephrosis	**4**	**13.8**	**9**	**11**	**19.9**	**11**	8,795	18.0	8	13.4	9
10. Septicemia	**2**	**6.9**	**10**	**9**	**16.3**	**12**	6,597	13.4	11	10.5	11
11. Chronic Liver Disease and Cirrhosis	**2**	**6.9**	**10**	**8**	**14.5**	**13**	4,926	9.3	13	9.7	12
12. Suicide	**1**	**3.4**	**12**	**13**	**23.5**	**9**	5,958	12.2	12	12.0	10
13. Acquired Immune Deficiency Syndrome	**1**	**3.4**	**12**	**0**	**N/A**	**15**	1,560	3.1	15	2.4	N/A
14. Pneumonia and Influenza	**0**	**N/A**	**N/A**	**15**	**27.1**	**7**	8,710	18.0	8	15.7	8
15. Homicide	**0**	**N/A**	**N/A**	**2**	**3.6**	**14**	2,846	6.0	14	3.6	N/A
Total Deaths All Causes (Some causes are not listed above)	295	828.0	N/A	634	779.8	N/A	394,087	800.6	N/A	740.6	N/A
Source:	a	a	c	a	a	c	b	b	c	d	d

Note that all rates and corresponding rankings appearing in **bold** typeface are based on fewer than 20 deaths and should be considered unstable.

[1] Rate = Number of events per 100,000 population, where the Standard = Year 2000 US Population

a - NC State Center for Health Statistics, Statistics and Reports, Vital Statistics, NC Vital Statistics Volume II, Leading Causes of Death, 2008, 2009, 2010, 2011, 2012; http://www.schs.state.nc.us/data/vital.cfm#vitalvol1.

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

c - Calculated

d - National Center for Health Statistics, National Vital Statistics Reports, Volume 61, Number 6 (October 10, 2012), Deaths, Preliminary data for 2011; http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61_06.pdf.

APPENDIX 1

Sex-Specific Age-Adjusted Death Rates for Leading Causes of Death (Single Five-Year Aggregate Period, 2008-2012)

Cause of Death	Hyde County				Alleghany County				State of NC Rate	
	Males		Females		Males		Females			
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Males	Females
1. Cancer	40	265.0	33	171.4	85.0	221.2	52.0	116.2	221.4	145.0
2. Diseases of the Heart	29	219.6	38	167.6	75.0	217.3	75.0	145.1	222.3	138.1
3. Cerebrovascular Diseases	13	N/A	16	N/A	14.0	N/A	17.0	N/A	45.7	43.7
4. Chronic Lower Respiratory Disease	8	N/A	9	N/A	20.0	55.8	21.0	42.1	54.0	42.1
5. Diabetes Mellitus	2	N/A	11	N/A	11.0	N/A	11.0	N/A	25.9	18.6
6. Unintentional Non-Motor Vehicle Injury	3	N/A	3	N/A	17.0	N/A	7.0	N/A	39.1	21.1
7. Alzheimer's Disease	5	N/A	5	N/A	3.0	N/A	22.0	39.9	23.3	32.4
8. Unintentional Motor Vehicle Injury	3	N/A	3	N/A	10.0	N/A	3.0	N/A	21.1	8.0
9. Nephritis, Nephrotic Syndrome and Nephrosis	2	N/A	2	N/A	5.0	N/A	6.0	N/A	22.0	15.4
10. Septicemia	1	N/A	1	N/A	1.0	N/A	8.0	N/A	14.8	12.4
11. Chronic Liver Disease and Cirrhosis	2	N/A	0	N/A	6.0	N/A	2.0	N/A	13.2	6.0
12. Suicide	1	N/A	0	N/A	11.0	N/A	2.0	N/A	19.8	5.4
13. Acquired Immune Deficiency Syndrome	0	N/A	1	N/A	0.0	N/A	0.0	N/A	4.4	2.0
14. Pneumonia and Influenza	0	N/A	0	N/A	8.0	N/A	7.0	N/A	20.7	16.4
15. Homicide	0	N/A	0	N/A	2.0	N/A	0.0	N/A	9.3	2.8
Total Deaths All Causes (Some causes are not listed above)	137	996.5	158	763.8	323.0	941.7	311	636	954.5	680.8

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 (2014), Mortality, 2008-2012 Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Race-Specific Age-Adjusted Death Rates for Leading Causes of Death, Hyde County (Single Five-Year Aggregate Period, 2008-2012)

Cause of Death	Hyde County									
	White, non-Hispanic		African-American, non-Hispanic		Other Races, non-Hispanic		Hispanic		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
1. Cancer	48	198.2	25	228.8	0	N/A	0	N/A	73	201.5
2. Diseases of the Heart	45	183.8	22	190.8	0	N/A	0	N/A	67	181.7
3. Cerebrovascular Diseases	13	N/A	15	N/A	0	N/A	0	N/A	29	78.8
4. Chronic Lower Respiratory Disease	15	N/A	2	N/A	0	N/A	0	N/A	17	N//A
5. Diabetes Mellitus	6	N/A	7	N/A	0	N/A	0	N/A	13	N//A
6. Unintentional Non-Motor Vehicle Injury	8	N/A	4	N/A	0	N/A	0	N/A	12	N//A
7. Alzheimer's Disease	6	N/A	4	N/A	0	N/A	0	N/A	10	N//A
8. Unintentional Motor Vehicle Injuries	4	N/A	2	N/A	0	N/A	0	N/A	6	N//A
9. Nephritis, Nephrotic Syndrome and Nephrosis	3	N/A	1	N/A	0	N/A	0	N/A	4	N//A
10. Septicemia	0	N/A	2	N/A	0	N/A	0	N/A	2	N//A
11. Chronic Liver Disease and Cirrhosis	2	N/A	0	N/A	0	N/A	0	N/A	2	N//A
12. Suicide	1	N/A	0	N/A	0	N/A	0	N/A	1	N//A
13. Acquired Immune Deficiency Syndrome	1	N/A	0	N/A	0	N/A	0	N/A	1	N//A
14. Pneumonia and Influenza	0	N/A	0	N/A	0	N/A	0	N/A	0	N//A
15. Homicide	0	N/A	0	N/A	0	N/A	0	N/A	0	N//A
Total Deaths All Causes (Some causes are not listed above)	188	802.7	105	953.5	0	N/A	0	N/A	295	828.0

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 (2014), Mortality, 2008-2012 Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

APPENDIX 1

Three Leading Causes of Death by Age Group, Number of Deaths and Unadjusted Death Rates (Single Five-Year Aggregate Period, 2008-2012)

Age Group	Rank	Cause of Death		
		Hyde County	Alleghany County	State of NC
00-19	1	Conditions originating in the	Conditions originating in the perinatal	Conditions originating in the perinatal
		perinatal period	period	period
	2	Chronic lower respiratory diseases	Motor vehicle injuries	Congenital anomalies (birth defects)
		Pneumonitis due to solids & liquids		
		Congenital anomalies (birth defects)		
		Motor vehicle injuries		
	3	N/A	N/A	Motor vehicle injuries
20-39	1	Motor vehicle injuries	Motor vehicle injuries	Other Unintentional injuries
			Suicide Other Unintentional Injuries	
	2	Cancer-all sites	N/A	Motor vehicle injuries
		Other unintentional injuries		
	3	N/A	N/A	Suicide
40-64	1	Cancer-all sites	Cancer-All Sites	Cancer-All sites
	2	Diseases of the heart	Diseases of the heart	Diseases of the heart
	3	Cerebrovascular Disease	Other Unintentional Injuries	Other Unintentional injuries
		Other Unintentional Injuries		
65-84	1	Cancer-all sites	Cancer-All Sites	Cancer-All sites
	2	Diseases of the heart	Diseases of the heart	Diseases of the heart
	3	Cerebrovascular disease	Chronic Lower Respiratory Diseases	Chronic lower respiratory diseases
85+	1	Diseases of the heart	Diseases of the heart	Diseases of the heart
	2	Cerebrovascular Disease	Cancer-All sites	Cancer-All sites
	3	Cancer-all sites	Alzheimer's Disease	Cerebrovascular Disease

Source: NC State Center for Health Statistics, County Health Data Book (2014), Mortality, Death Counts and Crude Death Rates per 100,000 for Leading Causes of Death, by Age Groups, NC, 2008-2012; http://www.schs.state.nc.us/SCHS/data/databook/.

Total Cancer

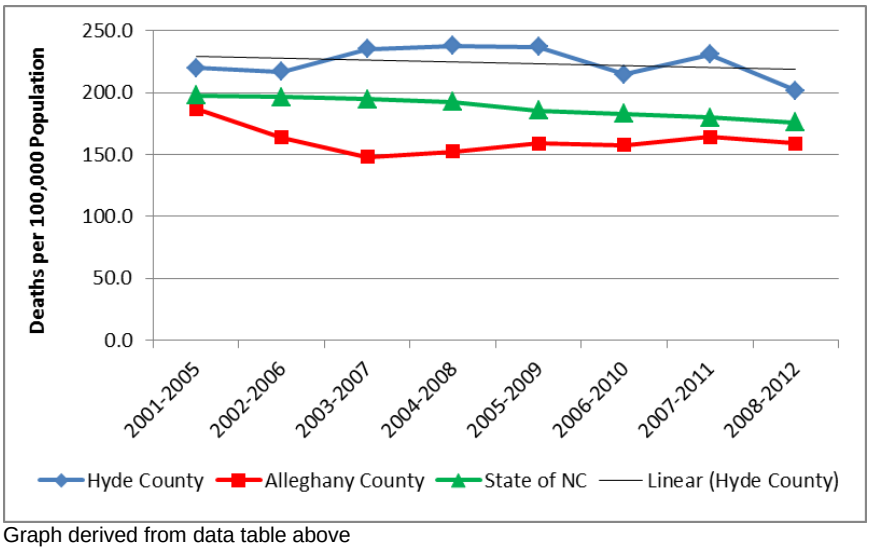
Overall Total Cancer Mortality Rate Trend (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

Location	Rate (Deaths per 100,000 Population)							
	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012
Hyde County	219.8	216.8	235.1	237.8	237.2	214.7	231.0	201.5
Alleghany County	186.7	163.8	147.9	152.2	158.9	157.8	164.1	158.9
State of NC	197.7	196.4	194.9	192.5	185.6	183.1	179.7	175.9

Source: NC State Center for Health Statistics, County Health Data Books (2007-2014), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.
Note: The use of bold type or 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.

APPENDIX 1

Overall Total Cancer Mortality Rate Trend (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)



Graph derived from data table above

Total Cancer Mortality, by Race/Ethnicity and Sex (Single Five-Year Aggregate Period, 2008-2012)

Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Person County	339	189.9	131	223.5	**1**	**N/A**	**1**	**N/A**	264	256.2	208	153.0	472	195.4
Bladen County	248	182.9	130	175.6	**6**	**N/A**	**1**	**N/A**	213	234.1	172	139.7	385	177.4
State of NC	69,212	173.5	18,222	204.5	1,305	124.6	766	70.0	47,751	221.4	41,754	145.0	89,505	175.9

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

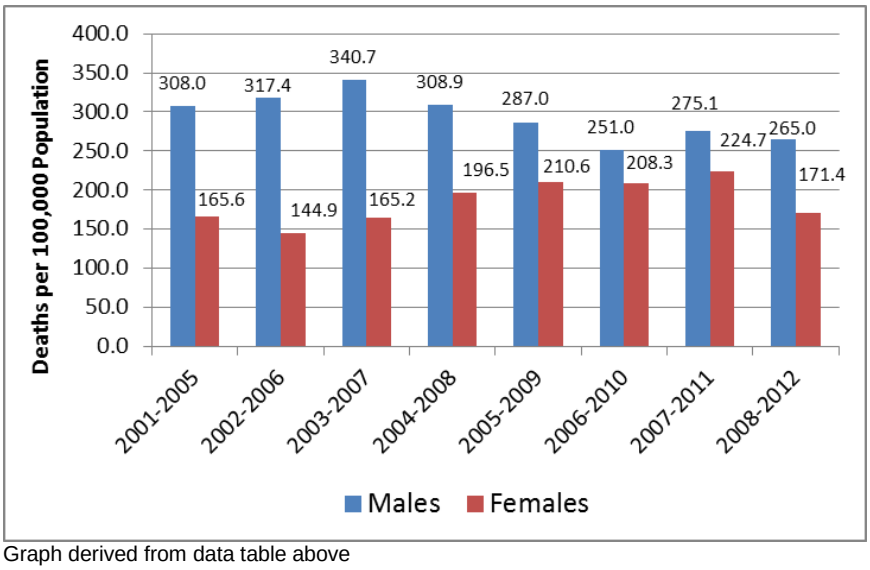
Gender Disparity Trend in Total Cancer Mortality Rate (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Hyde County	48	198.2	25	228.8	**0**	**N/A**	**0**	**N/A**	40	265.0	33	171.4	73	201.5
Alleghany County	131	158.2	**4**	**N/A**	**0**	**N/A**	**2**	**N/A**	85	221.2	52	116.2	137	158.9
State of NC	69,212	173.5	18,222	204.5	1,305	124.6	766	70.0	47,751	221.4	41,754	145.0	89,505	175.9

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2014), Mortality, NC Resident Race-Specific and Sex-Specific Age-Adjusted Death Rates, by County; http://www.schs.state.nc.us/SCHS/data/databook/.

APPENDIX 1

Gender Disparity Trend in Total Cancer Mortality Rate, Hyde County (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)



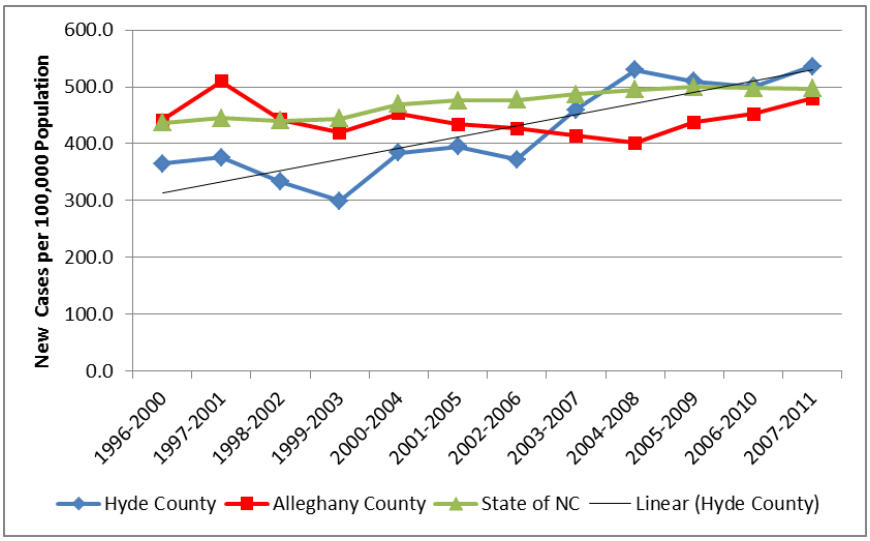
Graph derived from data table above

Total Cancer Incidence Rate Trend (Five-Year Aggregate Periods, 1996-2000 through 2007-2011)

Location	Rate (New cases per 100,000 Population)											
	1996-2000	1997-2001	1998-2002	1999-2003	2000-2004	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011
Hyde County	365.2	375.7	333.4	299.7	383.9	395.3	372.5	459.7	530.0	509.7	500.9	536.3
Alleghany County	441.6	509.9	442.2	419.8	453.5	434.1	426.7	413.7	401.3	437.4	452.1	479.2
State of NC	437.2	445.3	440.5	444.0	469.8	475.9	477.0	487.0	495.2	500.1	498.1	496.7

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.

Total Cancer Incidence Rate Trend (Five-Year Aggregate Periods, 1996-2000 through 2007-2011)



Graph derived from data table above

APPENDIX 1

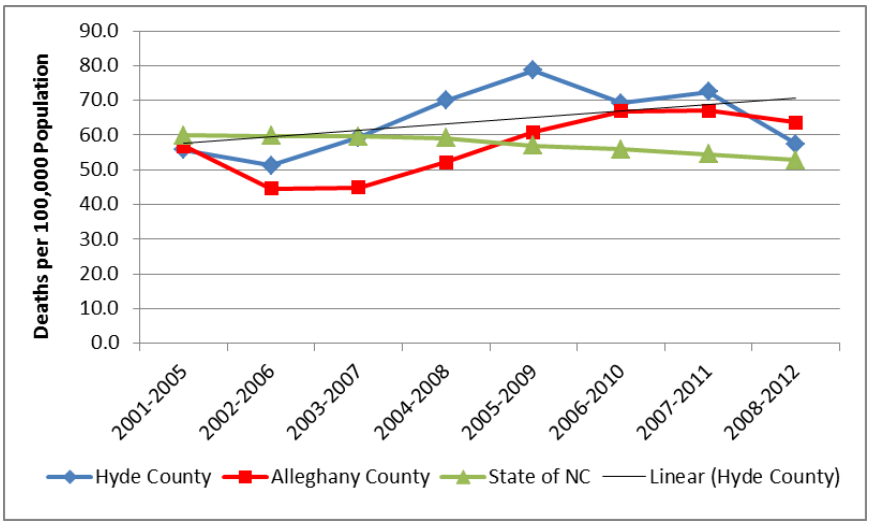
Lung Cancer

Lung Cancer Mortality Rate Trend (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

Location	Rate (Deaths per 100,000 Population)							
	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012
Hyde County	55.7	**51.2**	59.3	69.9	78.6	69.2	72.4	57.4
Alleghany County	56.8	44.6	44.8	52.2	60.9	66.8	67.1	63.6
State of NC	59.9	59.8	59.6	59.1	57.0	55.9	54.5	52.8

Source: NC State Center for Health Statistics, County Health Data Books (2007-2014), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Lung Cancer Mortality Rate Trend (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)



Graph derived from data table above

Lung Cancer Mortality, by Race/Ethnicity and Sex (Single Five-Year Aggregate Period, 2008-2012)

Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Hyde County	**14**	**N/A**	**6**	**N/A**	**0**	**N/A**	**0**	**N/A**	**11**	**N/A**	**9**	**N/A**	20	57.4
Alleghany County	55	63.6	**2**	**N/A**	**0**	**N/A**	**0**	**N/A**	38	98.6	**19**	**N/A**	57	63.6
State of NC	21,971	54.2	4,718	52.2	397	37.0	118	12.9	15,924	71.6	11,280	39.1	27,204	52.8

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

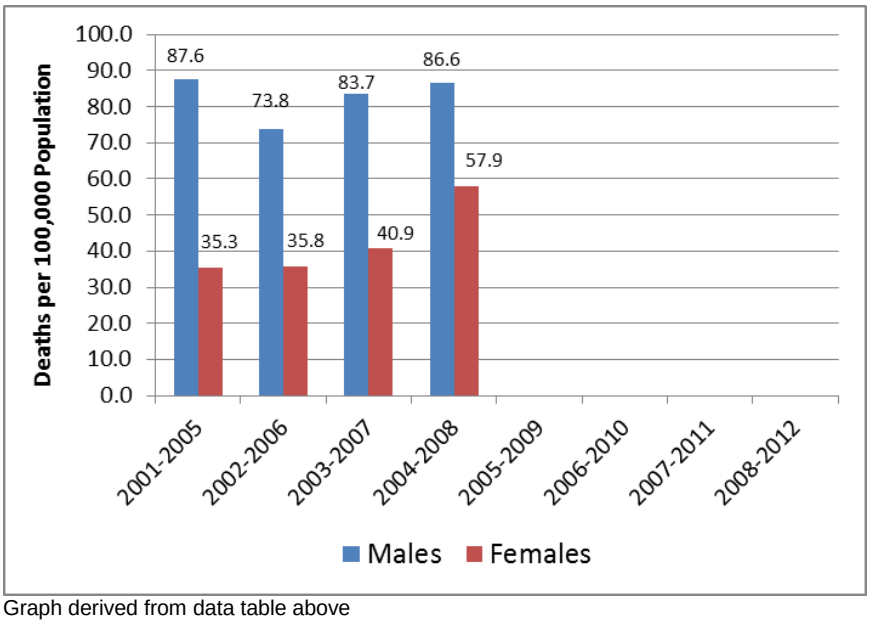
Gender Disparity Trend in Lung Cancer Mortality Rate (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

Location	Rate (Deaths per 100,000 Population)															
	Males								Females							
	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012
Hyde County	**87.6**	**73.8**	83.7	**86.6**	N/A	N/A	**N/A**	**N/A**	**35.3**	**35.8**	**40.9**	**57.9**	N/A	N/A	**N/A**	**N/A**
Alleghany County	82.1	61.4	57.6	79.1	92.3	98.4	100.8	98.6	**39.2**	**33.1**	**35.1**	**31.6**	**N/A**	41.4	41.7	**N/A**
State of NC	85.6	84.3	83.3	81.9	78.6	76.7	74.4	71.6	41.7	42.3	42.7	42.7	41.5	40.8	40.0	39.1

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2014), Mortality, NC Resident Race-Specific and Sex-Specific Age-Adjusted Death Rates, by County; http://www.schs.state.nc.us/SCHS/data/databook/.

APPENDIX 1

Gender Disparity Trend in Lung Cancer Mortality Rate, Hyde County (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)



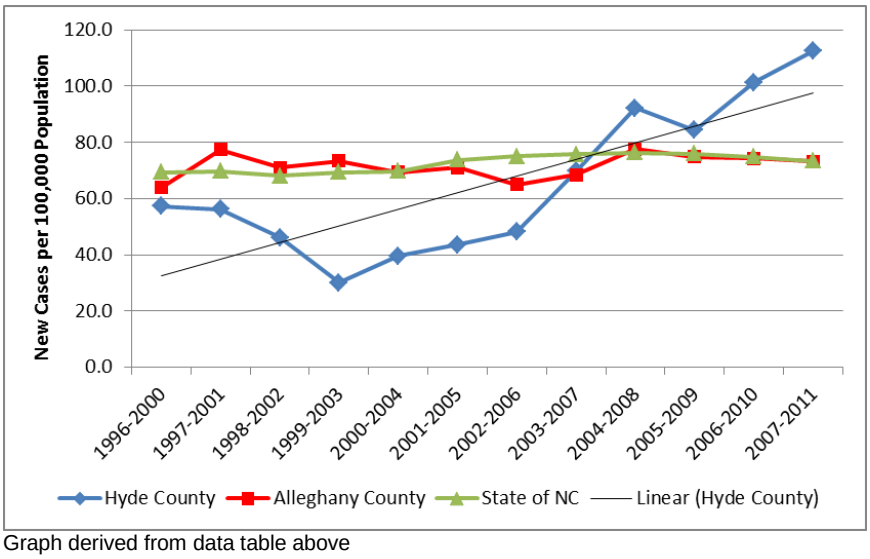
Graph derived from data table above

Lung Cancer Incidence Rate Trend (Five-Year Aggregate Periods, 1996-2000 through 2007-2011)

Location	Rate (New cases per 100,000 Population)											
	1996-2000	1997-2001	1998-2002	1999-2003	2000-2004	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011
Hyde County	57.2	56.2	**46.2**	**30.1**	**39.6**	**43.6**	**48.2**	69.7	92.1	84.3	101.3	112.5
Alleghany County	63.9	77.4	71.0	73.3	69.3	70.9	65.0	68.4	77.5	74.9	74.2	73.1
State of NC	69.3	69.7	68.0	69.3	69.7	73.8	75.0	75.8	76.3	75.9	74.8	73.4

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.

Lung Cancer Incidence Rate Trend (Five-Year Aggregate Periods, 1996-2000 through 2007-2011)



Graph derived from data table above

APPENDIX 1

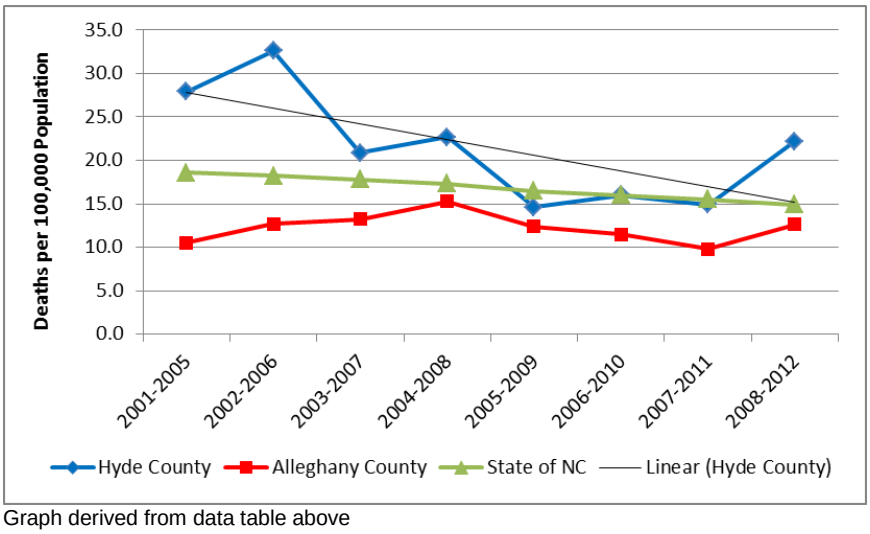
Colon Cancer

Colon, Rectum, Anus Cancer Mortality Rate Trend (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

Location	Rate (Deaths per 100,000 Population)							
	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012
Hyde County	**27.9**	**32.6**	**20.9**	**22.7**	**14.6**	**16.0**	**14.9**	**22.2**
Alleghany County	**10.5**	**12.7**	**13.2**	**15.3**	**12.4**	**11.5**	**9.8**	**12.6**
State of NC	18.6	18.2	17.8	17.3	16.5	16.0	15.5	14.9
Source:	a	a	a	a	b	b	b	b

a -NC State Center for Health Statistics, County Health Data Books (2007-2014), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.
b - NC State Center for Health Statistics, Statistics and Reports, Vital Statistics, NC Vital Statistics Volume II: Leading Causes of Death, 2009, 2010, 2011 and 2012; http://www.schs.state.nc.us/data/vital.cfm#vitalvol2.
Note: The use of bold type or 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.

Colon, Rectum, Anus Cancer Mortality Rate Trend (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)



Graph derived from data table above

Colon, Rectum, Anus Cancer Mortality, by Race/Ethnicity and Sex (Single Five-Year Aggregate Period, 2008-2012)

Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Hyde County	**6**	**N/A**	**2**	**N/A**	**0**	**N/A**	**0**	**N/A**	**4**	**N/A**	**4**	**N/A**	**8**	**N/A**
Alleghany County	**11**	**N/A**	**0**	**N/A**	**0**	**N/A**	**0**	**N/A**	**6**	**N/A**	**5**	**N/A**	**11**	**N/A**
State of NC	5,533	14.0	1,865	21.2	102	9.7	61	6.1	3,928	18.1	3,633	12.6	7,561	14.9

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

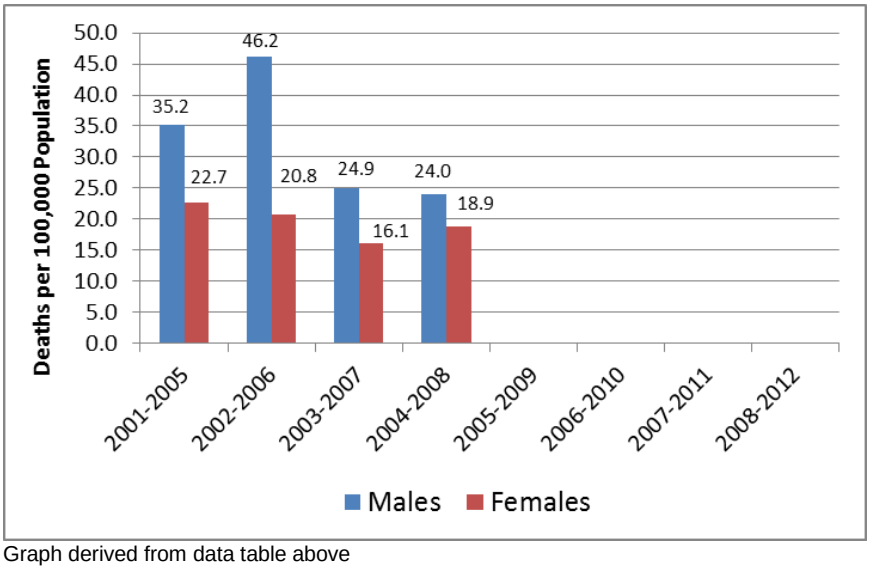
APPENDIX 1

Gender Disparity Trend in Colon, Rectum, Anus Cancer Mortality Rate (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

Location	Rate (Deaths per 100,000 Population)															
	Males								Females							
	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012
Hyde County	**35.2**	**46.2**	**24.9**	**24.0**	N/A	N/A	**N/A**	**N/A**	**22.7**	**20.8**	**16.1**	**18.9**	N/A	N/A	**N/A**	**N/A**
Alleghany County	**7.1**	**16.0**	**15.7**	**22.0**	**N/A**	**N/A**	**N/A**	**N/A**	**13.8**	**11.0**	**11.8**	**11.6**	**N/A**	**N/A**	**N/A**	**N/A**
State of NC	22.3	21.9	21.6	20.7	19.9	19.6	19.0	18.1	16.0	15.5	15.0	14.7	13.9	13.4	12.9	12.6

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2014), Mortality, NC Resident Race-Specific and Sex-Specific Age-Adjusted Death Rates, by County; http://www.schs.state.nc.us/SCHS/data/databook/.
Note: The use of **bold type** or 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.

Gender Disparity Trend in Colon, Rectum, Anus Cancer Mortality Rate, Hyde County (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)



Graph derived from data table above

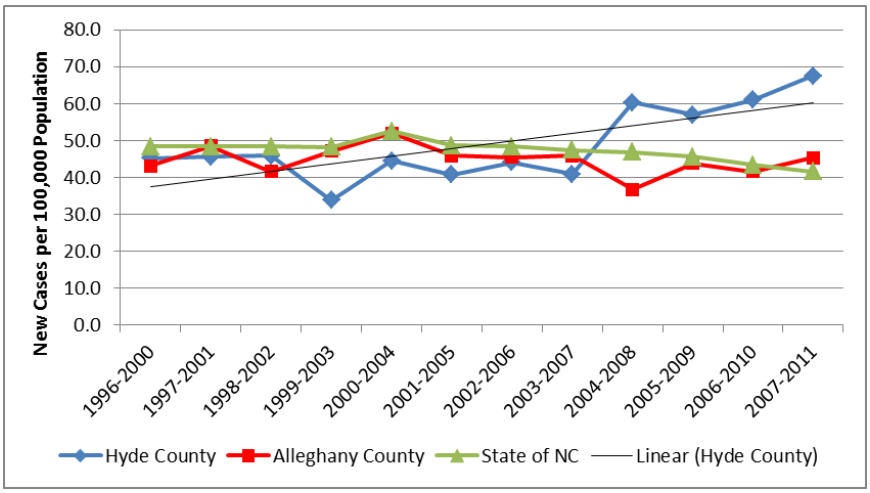
Colon, Rectum, Anus Cancer Incidence Rate Trend (Five-Year Aggregate Periods, 1996-2000 through 2007-2011)

Location	Rate (New cases per 100,000 Population)											
	1996-2000	1997-2001	1998-2002	1999-2003	2000-2004	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011
Hyde County	**45.1**	**45.6**	**45.8**	**33.8**	**44.5**	**40.7**	**44.1**	**40.8**	60.2	57.0	60.9	67.5
Alleghany County	43.1	48.5	41.6	47.1	51.9	45.9	45.4	45.8	36.7	43.8	41.6	45.3
State of NC	48.4	48.4	48.3	48.2	52.5	48.6	48.4	47.4	46.8	45.5	43.4	41.5

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.
Note: The use of **bold type** or 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.

APPENDIX 1

Colon, Rectum, Anus Cancer Incidence Rate Trend (Five-Year Aggregate Periods, 1996-2000 through 2007-2011)



Graph derived from data table above

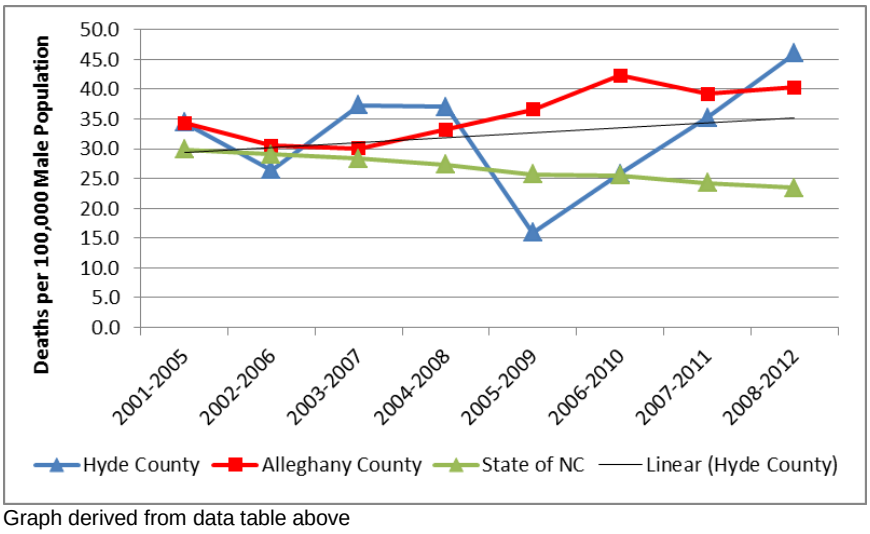
Prostate Cancer

Prostate Cancer Mortality Rate Trend (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

Location	Overall Rate (Deaths per 100,000 Male Population)							
	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012
Hyde County	**34.4**	**26.4**	**37.3**	**37.0**	**15.9**	**25.8**	**35.2**	**46.0**
Alleghany County	**34.3**	**30.5**	**30.1**	**33.2**	**36.6**	**42.3**	**39.2**	**40.3**
State of NC	29.9	29.1	28.3	27.3	25.7	25.5	24.3	23.4
Source:	a	a	a	a	b	b	b	b

a - NC State Center for Health Statistics, County Health Data Books (2007-2014), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.
b - NC State Center for Health Statistics, Statistics and Reports, Vital Statistics, NC Vital Statistics Volume II: Leading Causes of Death, 2009, 2010, 2011 and 2012; http://www.schs.state.nc.us/data/vital.cfm#vitalvol2.
Note: The use of bold type or 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.

Prostate Cancer Mortality Rate Trend (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)



Graph derived from data table above

APPENDIX 1

Prostate Cancer Mortality, by Race/Ethnicity (Single Five-Year Aggregate Period, 2008-2012)

Location	Deaths, Number and Rate (Deaths per 100,000 Male Population)									
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Hyde County	**3**	**N/A**	**2**	**N/A**	**0**	**N/A**	**0**	**N/A**	**5**	**N/A**
Alleghany County	**12**	**N/A**	**2**	**N/A**	**0**	**N/A**	**1**	**N/A**	**15**	**N/A**
State of NC	2,887	19.0	1,378	51.6	54	18.9	37	13.0	4,356	23.4

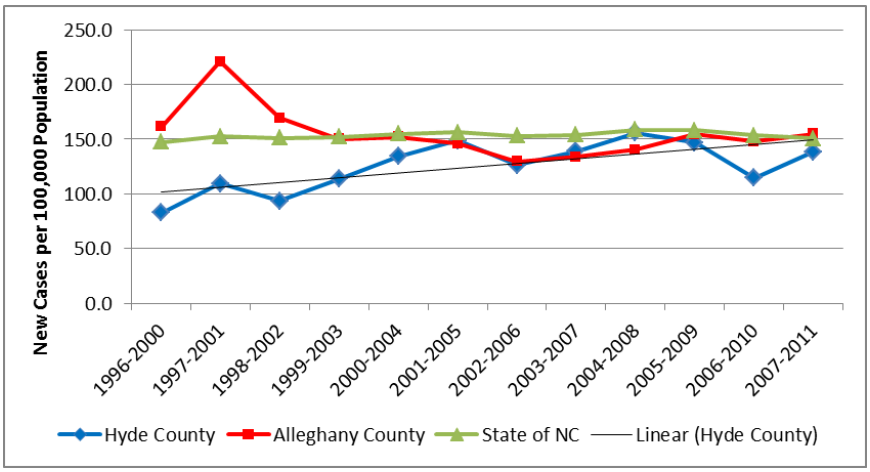
Source: NC State Center for Health Statistics, County Health Data Book (2014), Mortality, 2008-2012 Race/Ethnicity-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.
Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.

Prostate Cancer Incidence Rate Trend (Five-Year Aggregate Periods, 1996-2000 through 2007-2011)

Location	Rate (New cases per 100,000 Population)											
	1996-2000	1997-2001	1998-2002	1999-2003	2000-2004	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011
Hyde County	82.7	**109.7**	93.4	**113.7**	134.3	148.6	**126.3**	139.1	156.0	146.8	**114.6**	138.5
Alleghany County	161.6	221.0	169.4	150.2	152.3	145.9	129.7	133.6	140.2	154.2	148.0	154.7
State of NC	147.3	152.5	151.2	152.0	154.7	156.1	153.2	153.8	158.8	158.3	153.7	150.6

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.
Note: The use of bold type or 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.

Prostate Cancer Incidence Rate Trend (Five-Year Aggregate Periods, 1996-2000 through 2007-2011)



Graph derived from data table above

Breast Cancer

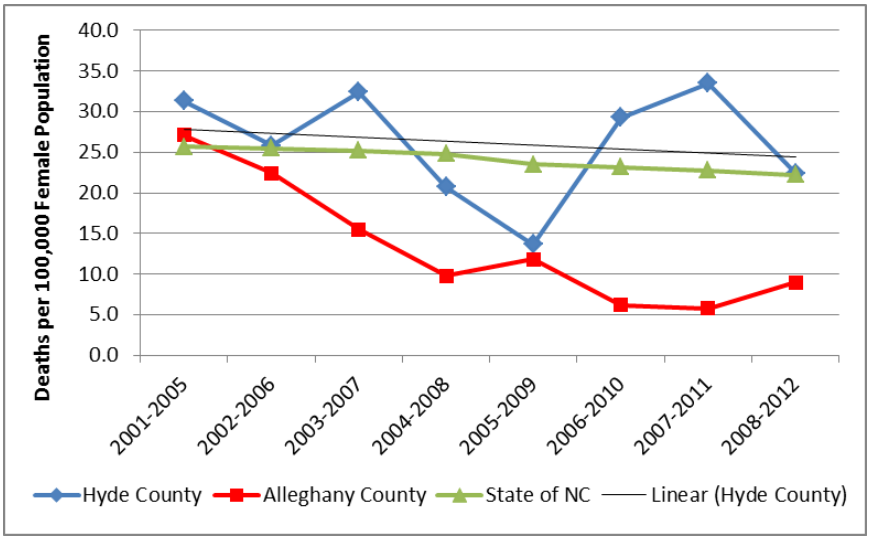
Breast Cancer Mortality Rate Trend (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

Location	Rate (Deaths per 100,000 Female Population)							
	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012
Hyde County	**31.3**	**25.8**	**32.4**	**20.7**	**13.7**	**29.3**	**33.5**	**22.4**
Alleghany County	**27.1**	**22.4**	**15.5**	**9.8**	**11.8**	**6.2**	**5.8**	**9.0**
State of NC	25.7	25.5	25.2	24.8	23.5	23.2	22.8	22.2
Source:	a	a	a	a	b	b	b	b

a - NC State Center for Health Statistics, County Health Data Books (2007-2014), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/
b - NC State Center for Health Statistics, Statistics and Reports, Vital Statistics, NC Vital Statistics Volume II: Leading Causes of Death, 2009, 2010, 2011 and 2012; http://www.schs.state.nc.us/data/vital.cfm#vitalvol2
Note: The use of **bold type** or 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.

APPENDIX 1

Breast Cancer Mortality Rate Trend (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)



Graph derived from data table above

Breast Cancer Mortality, by Race/Ethnicity and Sex (Single Five-Year Aggregate Period, 2008-2012)

Location	Deaths, Number and Rate (Deaths per 100,000 Female Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Hyde County	**2**	**N/A**	**1**	**N/A**	**0**	**N/A**	**0**	**N/A**	**0**	**N/A**	**3**	**N/A**	**3**	**N/A**
Alleghany County	**4**	**N/A**	**0**	**N/A**	**0**	**N/A**	**0**	**N/A**	**0**	**N/A**	**4**	**N/A**	**4**	**N/A**
State of NC	4,677	21.3	1,595	29.0	80	11.9	63	9.1	58	**N/A**	6,357	22.2	6,415	22.4

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

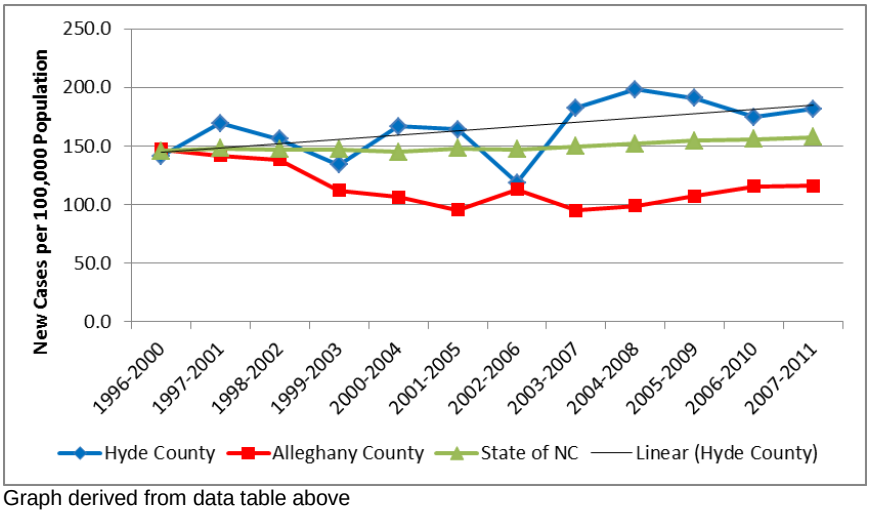
Breast Cancer Incidence Rate Trend (Five-Year Aggregate Periods, 1996-2000 through 2007-2011)

Location	Rate (New cases per 100,000 Population)											
	1996-2000	1997-2001	1998-2002	1999-2003	2000-2004	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011
Hyde County	141.3	169.6	156.0	134.1	166.9	164.2	**118.9**	182.7	198.2	190.9	174.5	181.7
Alleghany County	147.1	141.8	138.5	112.2	106.4	95.4	112.8	95.2	99.0	107.3	115.5	116.1
State of NC	145.9	148.2	147.1	147.3	144.9	148.2	147.2	149.6	151.9	154.5	155.9	157.4

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.
Note: The use of **bold type** or 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.

APPENDIX 1

Breast Cancer Incidence Rate Trend (Five-Year Aggregate Periods, 1996-2000 through 2007-2011)



Graph derived from data table above

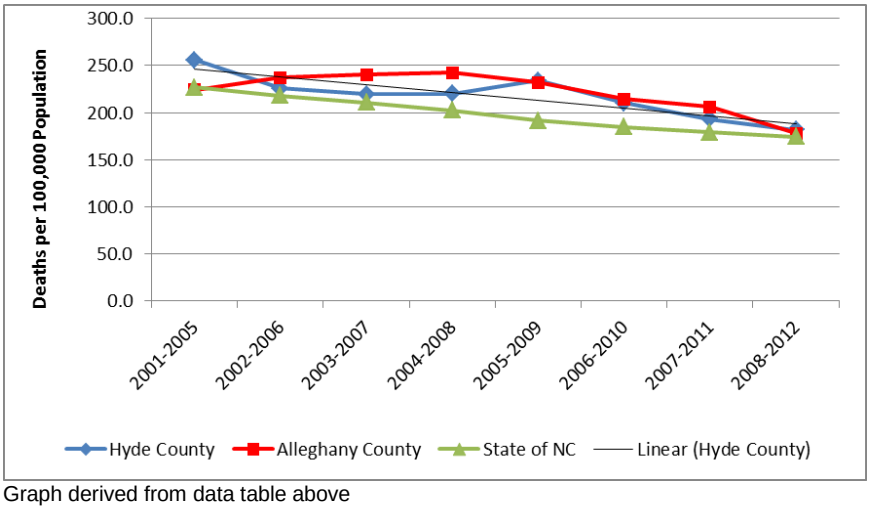
Heart Disease

Overall Heart Disease Mortality Rate Trend (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

Location	Rate (Deaths per 100,000 Population)							
	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012
Hyde County	255.6	225.7	219.7	219.9	233.9	210.3	192.9	181.7
Alleghany County	224.2	237.2	240.1	242.2	232.1	214.4	206.1	178.2
State of NC	226.8	217.9	210.7	202.2	191.7	184.9	179.3	174.4

Source: NC State Center for Health Statistics, County Health Data Books (2007-2014), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Overall Heart Disease Mortality Rate Trend (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)



Graph derived from data table above

APPENDIX 1

Heart Disease Mortality, by Race/Ethnicity and Sex (Single Five-Year Aggregate Period, 2008-2012)

Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Hyde County	45	183.8	22	190.8	**0**	**N/A**	**0**	**N/A**	29	219.6	38	167.6	67	181.7
Alleghany County	145	176.3	**2**	**N/A**	**0**	**N/A**	**3**	**N/A**	75	217.3	75	145.1	150	178.2
State of NC	67,453	172.1	16,843	198.4	1,103	122.8	491	53.6	44,701	222.3	41,189	138.1	85,890	174.4

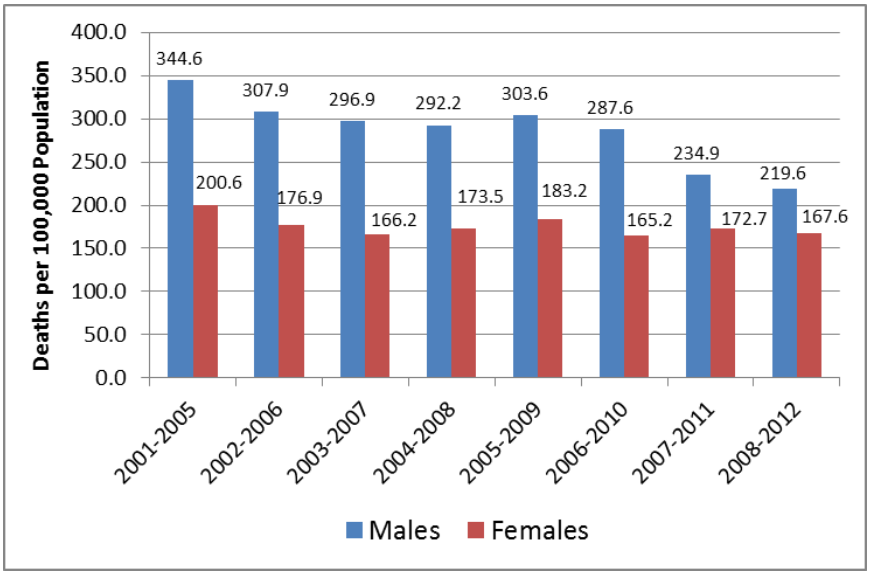
Source: NC State Center for Health Statistics, County Health Data Book (2014), Mortality, 2008-2012 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.
Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.

Gender Disparity Trend in Heart Disease Mortality Rate (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

Location	Rate (Deaths per 100,000 Population)															
	Males								Females							
	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012
Hyde County	344.6	307.9	296.9	292.2	303.6	287.6	234.9	219.6	200.6	176.9	166.2	173.5	183.2	165.2	172.7	167.6
Alleghany County	287.9	310.6	283.4	288.7	262.9	252.1	233.0	217.3	171.6	175.9	200.2	201.1	199.3	182.4	181.6	145.1
State of NC	285.5	275.3	267.0	256.6	244.9	237.2	229.4	222.3	183.0	174.9	168.7	161.2	151.9	145.8	141.6	138.1

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2014), Mortality, NC Resident Race-Specific and Sex-Specific Age-Adjusted Death Rates, by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Gender Disparity Trend in Heart Disease Mortality Rate, Hyde County (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)



Graph derived from data table above

Cerebrovascular Disease

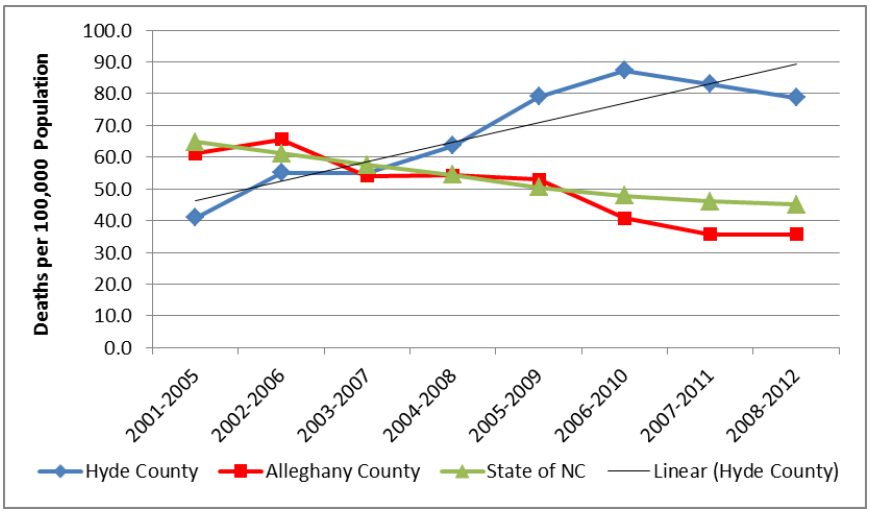
Cerebrovascular Disease Mortality Rate Trend (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

Location	Rate (Deaths per 100,000 Population)							
	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012
Hyde County	**41.0**	55.1	55.1	63.6	79.0	87.3	83.0	78.8
Alleghany County	61.2	65.5	54.1	54.2	52.9	40.7	35.7	35.7
State of NC	64.7	61.1	57.6	54.4	50.5	47.8	46.0	45.1

Source: NC State Center for Health Statistics, County Health Data Books (2007-2014), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.
Note: The use of **bold type** or 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.

APPENDIX 1

Cerebrovascular Disease Mortality Rate Trend (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)



Graph derived from data table above

Cerebrovascular Disease Mortality, by Race/Ethnicity and Sex (Single Five-Year Aggregate Period, 2008-2012)

Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Hyde County	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	29	78.8
Alleghany County	31	36.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	31	35.7
State of NC	16,519	42.5	4,871	59.3	274	32.6	157	17.6	8,792	45.7	13,029	43.7	21,821	45.1

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

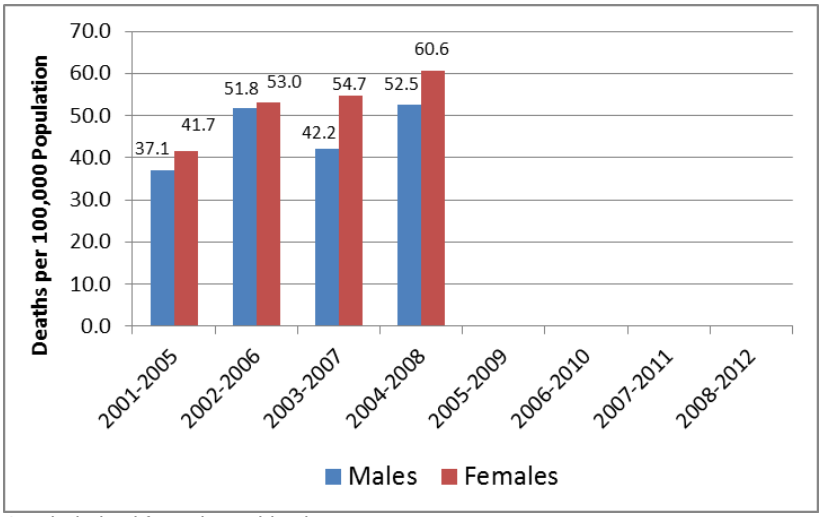
Gender Disparity Trend in Cerebrovascular Disease Mortality Rate (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

Location	Rate (Deaths per 100,000 Population)															
	Males								Females							
	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012
Hyde County	**37.1**	**51.8**	**42.2**	**52.5**	N/A	N/A	**N/A**	**N/A**	**41.7**	**53.0**	**54.7**	**60.6**	N/A	N/A	**N/A**	**N/A**
Alleghany County	81.5	87.6	70.8	66.5	59.1	**N/A**	**N/A**	**N/A**	47.1	48.5	40.4	43.5	46.4	**N/A**	**N/A**	**N/A**
State of NC	65.8	62.1	58.9	55.9	52.0	48.7	46.8	45.7	63.0	59.5	55.7	52.4	48.6	46.3	44.5	43.7

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2014), Mortality, NC Resident Race-Specific and Sex-Specific Age-Adjusted Death Rates, by County; http://www.schs.state.nc.us/SCHS/data/databook/.
Note: The use of **bold type** or 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.

APPENDIX 1

Gender Disparity Trend in Cerebrovascular Disease Mortality Rate, Hyde County (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)



Graph derived from data table above

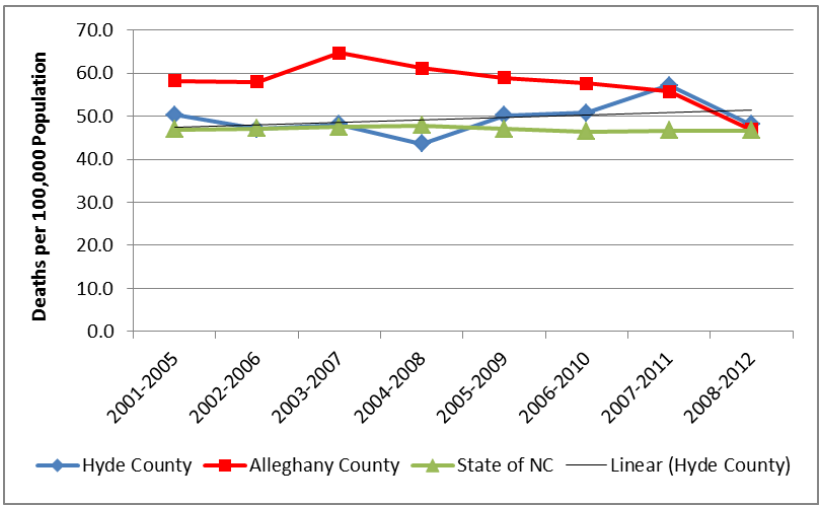
Chronic Lower Respiratory Disease

CLRD/COPD Mortality Rate Trend (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

Location	Rate (Deaths per 100,000 Population)							
	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012
Hyde County	50.3	**47.0**	**48.1**	**43.6**	**50.2**	**50.8**	**57.1**	**48.1**
Alleghany County	58.2	58.0	64.6	61.1	58.9	57.6	55.7	46.9
State of NC	46.9	47.1	47.5	47.8	47.0	46.4	46.6	46.6
Source:	a	a	a	a	b	b	b	b

a - NC State Center for Health Statistics, County Health Data Books (2007-2014), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/
b - NC State Center for Health Statistics, Statistics and Reports, Vital Statistics, NC Vital Statistics Volume II: Leading Causes of Death, 2009, 2010, 2011 and 2012; http://www.schs.state.nc.us/data/vital.cfm#vitalvol2
Note: The use of **bold type** or 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.

CLRD/COPD Mortality Rate Trend (Five-Year Aggregate Periods, Hyde County, 2001-2005 through 2008-2012)



Graph derived from data table above.

APPENDIX 1

CLRD/COPD Mortality, by Race/Ethnicity and Sex (Single Five-Year Aggregate Period, 2008-2012)

Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Hyde County	**15**	**N/A**	**2**	**N/A**	**0**	**N/A**	**0**	**N/A**	**8**	**N/A**	**9**	**N/A**	**17**	**N/A**
Alleghany County	41	48.3	**0**	**N/A**	**0**	**N/A**	**0**	**N/A**	20	55.8	21	42.1	41	46.9
State of NC	20,275	51.3	2,364	28.7	181	21.6	64	9.4	10,662	54.0	12,222	42.1	22,884	46.6

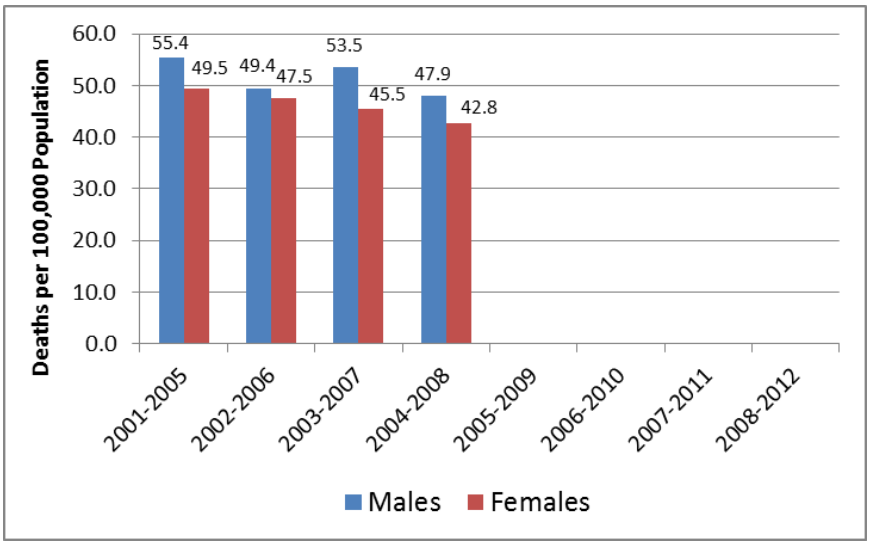
Source: NC State Center for Health Statistics, County Health Data Book (2014), Mortality, 2008-2012 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.
Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.

Gender Disparity Trend in CLRD/COPD Mortality Rate (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

Location	Rate (Deaths per 100,000 Population)															
	Males								Females							
	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012
Hyde County	**55.4**	**49.4**	**53.5**	**47.9**	N/A	N/A	**N/A**	**N/A**	**49.5**	**47.5**	**45.5**	**42.8**	N/A	N/A	**N/A**	**N/A**
Alleghany County	**59.4**	68.6	84.8	73.8	73.7	70.1	65.3	55.8	61.0	52.6	52.0	54.7	50.3	49.9	51.0	42.1
State of NC	61.0	60.1	59.5	58.9	57.1	55.5	54.9	54.0	38.6	39.5	40.4	41.3	41.0	41.1	41.7	42.1

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2014), Mortality, NC Resident Race-Specific and Sex-Specific Age-Adjusted Death Rates, by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Gender Disparity Trend in CLRD/COPD Mortality Rate, Hyde County (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)



Graph derived from data table above

Diabetes

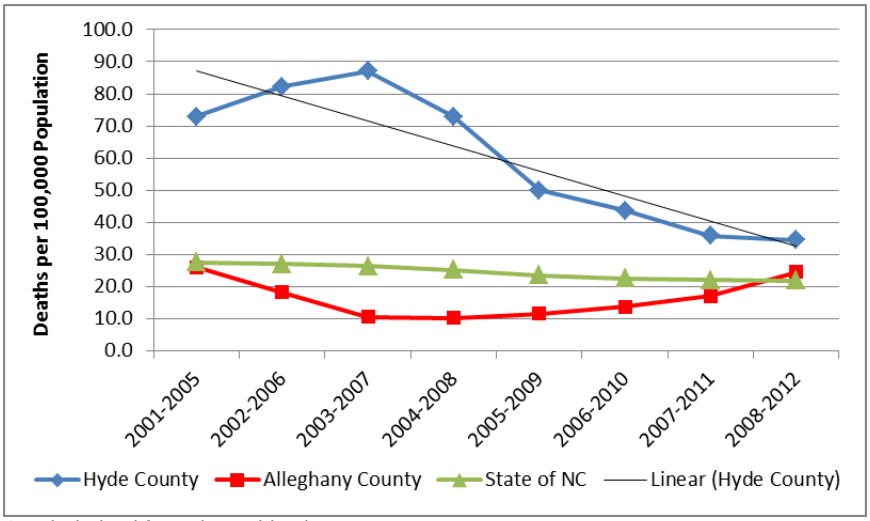
Diabetes Mortality Rate Trend (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

Location	Rate (Deaths per 100,000 Population)							
	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012
Hyde County	72.9	82.2	87.0	**73.0**	**50.0**	**43.7**	**35.8**	**34.6**
Alleghany County	26.0	**18.2**	**10.5**	**10.2**	**11.5**	**13.8**	**17.1**	24.6
State of NC	27.6	27.1	26.4	25.2	23.6	22.5	22.0	21.8
Source:	a	a	a	a	b	b	b	b

a - NC State Center for Health Statistics, County Health Data Books (2007-2014), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/
b - NC State Center for Health Statistics, Statistics and Reports, Vital Statistics, NC Vital Statistics Volume II: Leading Causes of Death, 2009, 2010, 2011 and 2012; http://www.schs.state.nc.us/data/vital.cfm#vitalvol2
Note: The use of **bold type** or 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.

APPENDIX 1

Diabetes Mortality Rate Trend (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)



Graph derived from data table above

Diabetes Mortality, by Race/Ethnicity and Sex (Single Five-Year Aggregate Period, 2008-2012)

Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Hyde County	**6**	**N/A**	**7**	**N/A**	**0**	**N/A**	**0**	**N/A**	**2**	**N/A**	**11**	**N/A**	**13**	**N/A**
Alleghany County	**22**	**25.4**	**0**	**N/A**	**0**	**N/A**	**0**	**N/A**	**11**	**N/A**	**11**	**N/A**	22	24.6
State of NC	6,911	17.5	3,752	43.8	229	24.3	92	9.2	5,571	25.9	5,413	18.6	10,984	21.8

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

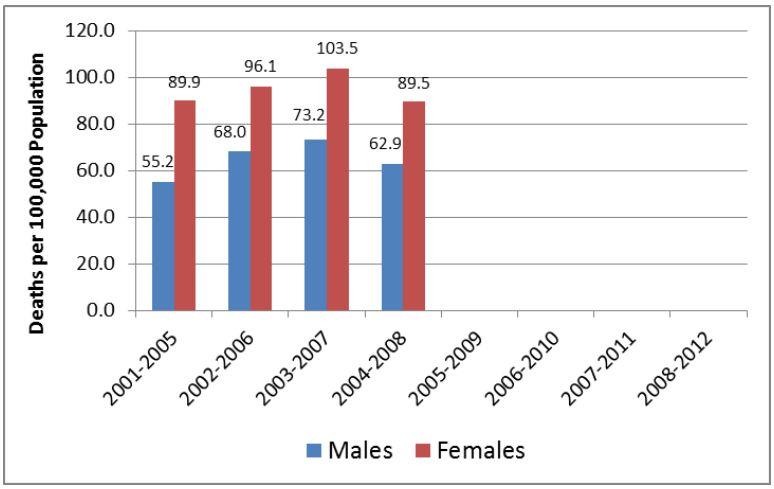
Gender Disparity Trend in Diabetes Mortality Rate (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

Location	Rate (Deaths per 100,000 Population)															
	Males								Females							
	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012
Hyde County	**55.2**	**68.0**	**73.2**	**62.9**	N/A	N/A	**N/A**	**N/A**	**89.9**	**96.1**	103.5	**89.5**	N/A	N/A	**N/A**	**N/A**
Alleghany County	**21.4**	**18.8**	**8.1**	**7.9**	**N/A**	**N/A**	**N/A**	**N/A**	**27.6**	**16.6**	**11.3**	**10.9**	**N/A**	**N/A**	**N/A**	**N/A**
State of NC	30.4	30.2	30.0	28.9	27.3	26.4	26.0	25.9	25.3	24.5	23.5	22.2	20.7	19.4	18.8	18.6

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2014), Mortality, NC Resident Race-Specific and Sex-Specific Age-Adjusted Death Rates, by County; http://www.schs.state.nc.us/SCHS/data/databook/.
Note: The use of **bold type** or 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.

APPENDIX 1

Gender Disparity Trend in Diabetes Mortality Rate, Hyde County (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)



Graph derived from data table above

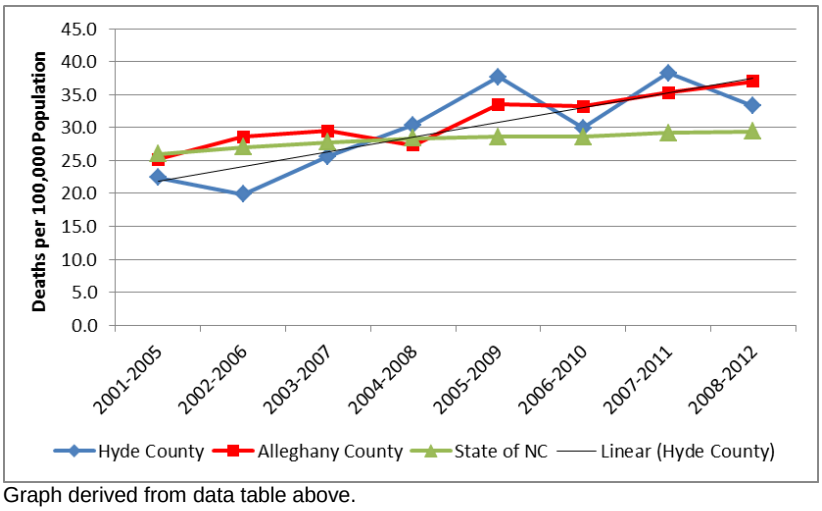
All Other Unintentional Injury (Non-Motor Vehicle Injury)

All Other Unintentional Injury Mortality Rate Trend (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

Location	Rate (Deaths per 100,000 Population)							
	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012
Hyde County	**22.4**	**19.9**	**25.6**	**30.4**	**37.7**	**29.9**	**38.3**	**33.3**
Alleghany County	**25.2**	**28.6**	**29.5**	**27.3**	33.5	33.2	35.3	37.0
State of NC	26.0	27.0	27.8	28.4	28.6	28.6	29.2	29.4
Source:	a	a	a	a	b	b	b	b

a - NC State Center for Health Statistics, County Health Data Books (2007-2014), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/
b - NC State Center for Health Statistics, Statistics and Reports, Vital Statistics, NC Vital Statistics Volume II: Leading Causes of Death, 2009, 2010, 2011 and 2012; http://www.schs.state.nc.us/data/vital.cfm#vitalvol2
Note: The use of **bold type** or 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.

All Other Unintentional Injury Mortality Rate Trend (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)



Graph derived from data table above.

APPENDIX 1

All Other Unintentional Injury Mortality, by Race/Ethnicity and Sex (Single Five-Year Aggregate Period, 2008-2012)

Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Hyde County	**8**	**N/A**	**4**	**N/A**	**0**	**N/A**	**0**	**N/A**	**9**	**N/A**	**3**	**N/A**	**12**	**N/A**
Alleghany County	23	39.7	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	24	37.0
State of NC	11,761	33.8	1,862	19.8	256	19.1	289	12.0	8,385	39.1	5,783	21.1	14,168	29.4

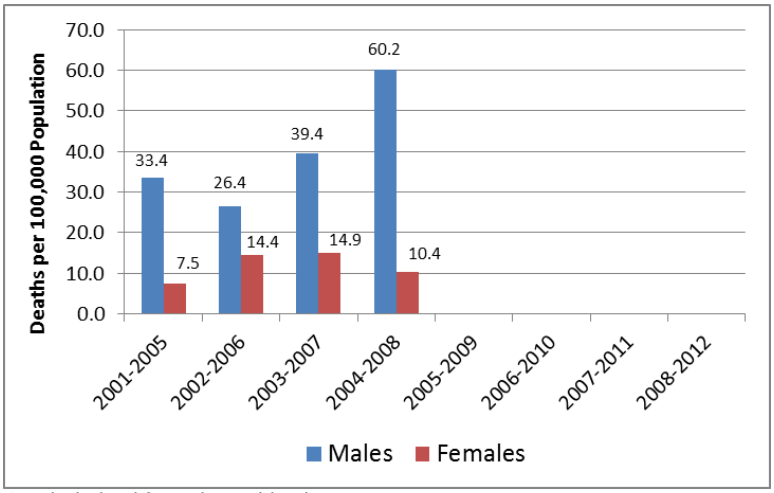
Source: NC State Center for Health Statistics, County Health Data Book (2014), Mortality, 2008-2012 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.
Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.

Gender Disparity Trend in All Other Unintentional Injury Mortality Rate (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

Location	Rate (Deaths per 100,000 Population)															
	Males								Females							
	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012
Hyde County	**33.4**	**26.4**	**39.4**	**60.2**	N/A	N/A	**N/A**	**N/A**	**7.5**	**14.4**	**14.9**	**10.4**	N/A	N/A	**N/A**	**N/A**
Alleghany County	**30.9**	**37.5**	**34.7**	**29.4**	**N/A**	**N/A**	**N/A**	**N/A**	**21.9**	**22.0**	**24.3**	**24.0**	**N/A**	**N/A**	**N/A**	**N/A**
State of NC	34.7	36.1	36.8	37.8	38.4	38.4	38.8	39.1	18.3	19.0	19.8	20.2	20.1	20.2	20.9	21.1

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2014), Mortality, NC Resident Race-Specific and Sex-Specific Age-Adjusted Death Rates, by County; http://www.schs.state.nc.us/SCHS/data/databook/.
Note: The use of bold type or 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.

Gender Disparity Trend in All Other Unintentional Injury Mortality Rate, Hyde County (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)



Graph derived from data table above

Alzheimer's Disease

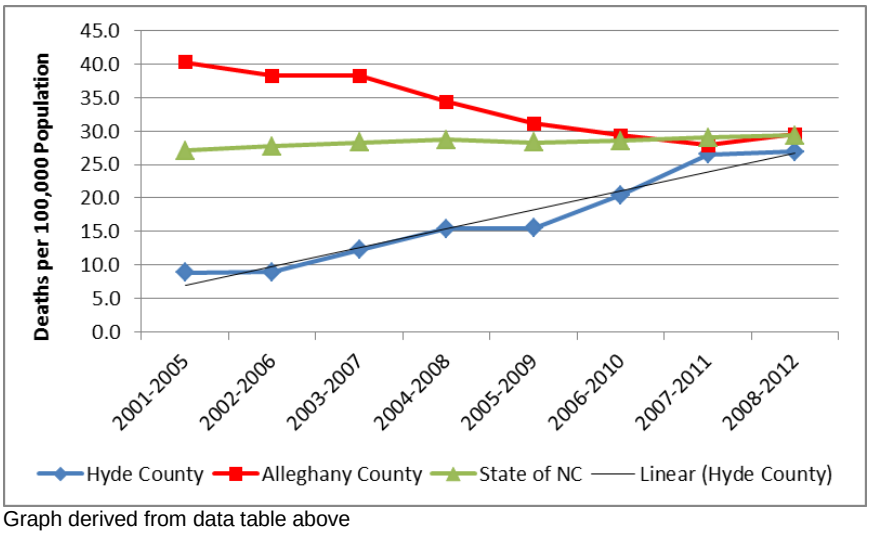
Alzheimer's Disease Mortality Rate Trend (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

Location	Rate (Deaths per 100,000 Population)							
	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012
Hyde County	**8.9**	**9.0**	**12.3**	**15.4**	**15.5**	**20.4**	**26.5**	**26.9**
Alleghany County	40.2	38.2	38.2	34.3	31.1	29.3	27.9	29.5
State of NC	27.1	27.7	28.3	28.7	28.3	28.5	29.0	29.3
Source:	a	a	a	a	b	b	b	b

a - NC State Center for Health Statistics, County Health Data Books (2007-2014), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/
b - NC State Center for Health Statistics, Statistics and Reports, Vital Statistics, NC Vital Statistics Volume II: Leading Causes of Death, 2009, 2010, 2011 and 2012; http://www.schs.state.nc.us/data/vital.cfm#vitalvol2
Note: The use of **bold type** or 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.

APPENDIX 1

Alzheimer's Disease Mortality Rate Trend (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)



Graph derived from data table above

Alzheimer's Disease Mortality, by Race/Ethnicity and Sex (Single Five-Year Aggregate Period, 2008-2012)

Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Hyde County	**6**	**N/A**	**4**	**N/A**	**0**	**N/A**	**0**	**N/A**	**5**	**N/A**	**5**	**N/A**	**10**	**N/A**
Alleghany County	25	30.2	**0**	**N/A**	**0**	**N/A**	**0**	**N/A**	**3**	**N/A**	22	39.9	25	29.5
State of NC	11,685	30.3	1,861	26.1	151	24.9	49	9.3	3,818	23.3	9,928	32.4	13,746	29.3

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

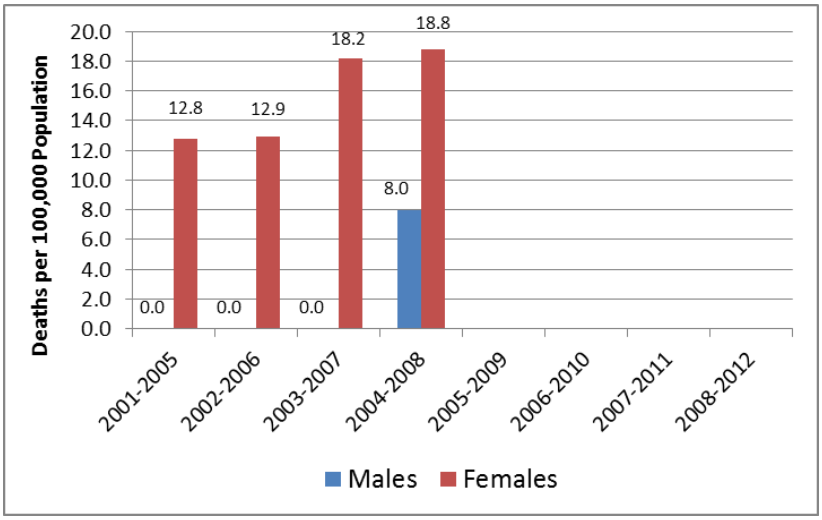
Gender Disparity Trend in Alzheimer's Disease Mortality Rate (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

Location	Rate (Deaths per 100,000 Population)															
	Males								Females							
	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012
Hyde County	**0.0**	**0.0**	**0.0**	**8.0**	N/A	N/A	**N/A**	**N/A**	**12.8**	**12.9**	**18.2**	**18.8**	N/A	N/A	**N/A**	**N/A**
Alleghany County	**41.8**	**24.0**	**38.6**	**35.2**	**N/A**	**N/A**	**N/A**	**N/A**	37.8	37.3	37.2	**33.8**	**N/A**	**N/A**	**N/A**	39.9
State of NC	21.6	22.0	22.2	22.2	22.3	22.7	22.7	23.3	29.6	30.3	31.1	31.8	31.3	31.3	32.2	32.4

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2014), Mortality, NC Resident Race-Specific and Sex-Specific Age-Adjusted Death Rates, by County; http://www.schs.state.nc.us/SCHS/data/databook/.
Note: The use of bold type or 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.

APPENDIX 1

Gender Disparity Trend in Alzheimer's Disease Mortality Rate, Hyde County (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)



Graph derived from data table above

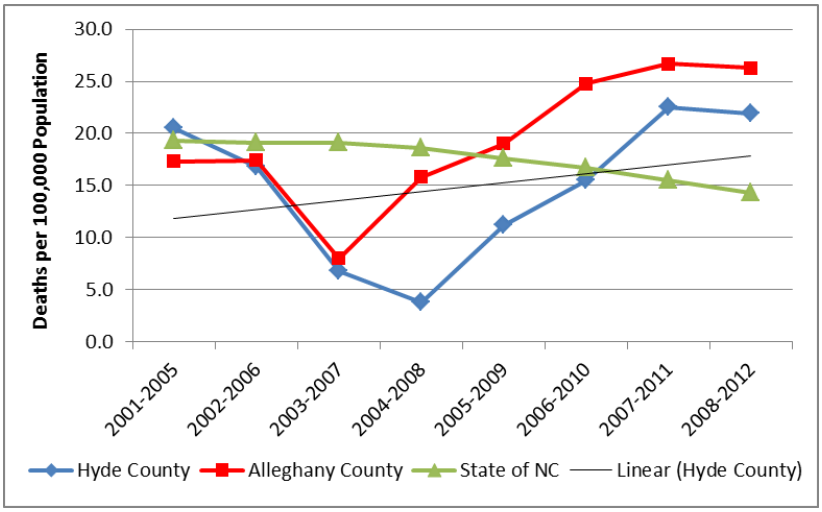
Unintentional Motor Vehicle Injury

Unintentional Motor Vehicle Injury Mortality Rate Trend (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

Location	Rate (Deaths per 100,000 Population)							
	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012
Hyde County	**20.5**	**16.8**	**6.8**	**3.8**	**11.2**	**15.5**	**22.5**	**21.9**
Alleghany County	**17.3**	**17.4**	**8.0**	**15.8**	**19.0**	**24.8**	**26.7**	**26.3**
State of NC	19.3	19.1	19.1	18.6	17.6	16.7	15.5	14.3
Source:	a	a	a	a	b	b	b	b

a - NC State Center for Health Statistics, County Health Data Books (2007-2014), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/
b - NC State Center for Health Statistics, Statistics and Reports, Vital Statistics, NC Vital Statistics Volume II: Leading Causes of Death, 2009, 2010, 2011 and 2012; http://www.schs.state.nc.us/data/vital.cfm#vitalvol2
Note: The use of **bold type** or 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.

Unintentional Motor Vehicle Injury Mortality Rate Trend (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)



Graph derived from data table above.

APPENDIX 1

Unintentional Motor Vehicle Injury Mortality, by Race/Ethnicity and Sex (Single Five-Year Aggregate Period, 2008-2012)

Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Hyde County	**4**	**N/A**	**2**	**N/A**	**0**	**N/A**	**0**	**N/A**	**3**	**N/A**	**3**	**N/A**	**6**	**N/A**
Alleghany County	**13**	**N/A**	**0**	**N/A**	**0**	**N/A**	**0**	**N/A**	**10**	**N/A**	**3**	**N/A**	**13**	**N/A**
State of NC	4,697	14.5	1,476	14.3	211	12.3	491	11.9	4,882	21.1	1,993	8.0	6,875	14.3

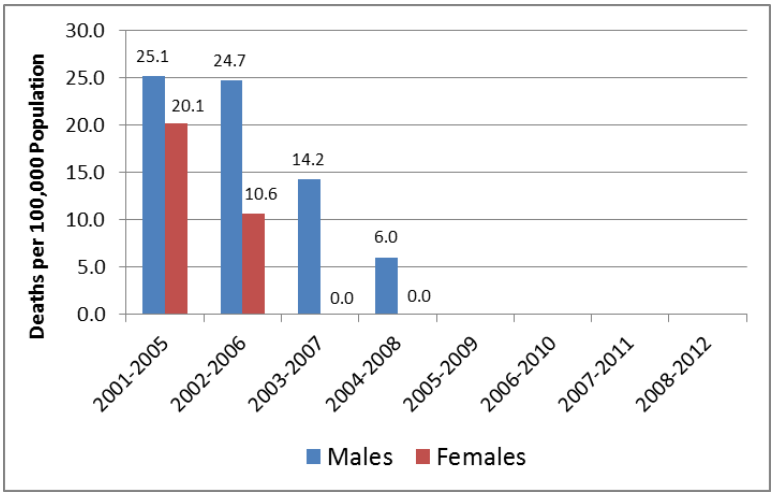
Source: NC State Center for Health Statistics, County Health Data Book (2014), Mortality, 2008-2012 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.
Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.

Gender Disparity Trend in Unintentional Motor Vehicle Injury Mortality Rate (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

Location	Rate (Deaths per 100,000 Population)															
	Males								Females							
	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012
Hyde County	**25.1**	**24.7**	**14.2**	**6.0**	N/A	N/A	**N/A**	**N/A**	**20.1**	**10.6**	**0.0**	**0.0**	N/A	N/A	**N/A**	**N/A**
Alleghany County	**20.1**	**20.3**	**9.3**	**21.4**	**N/A**	**N/A**	**N/A**	**N/A**	**14.0**	**13.9**	**6.7**	**8.4**	**N/A**	**N/A**	**N/A**	**N/A**
State of NC	27.4	27.2	27.3	26.7	25.6	24.6	22.9	21.1	11.8	11.6	11.4	10.8	10.1	9.3	8.6	8.0

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2014), Mortality, NC Resident Race-Specific and Sex-Specific Age-Adjusted Death Rates, by County; http://www.schs.state.nc.us/SCHS/data/databook/.
Note: The use of bold type or 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.

Gender Disparity Trend in Unintentional Motor Vehicle Injury Mortality Rate, Hyde County (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)



Graph derived from data table above

Kidney Disease

Kidney Disease Mortality Rate Trend (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

Location	Rate (Deaths per 100,000 Population)							
	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012
Hyde County	**24.0**	**22.3**	**18.7**	**15.8**	**11.4**	**8.6**	**5.4**	**13.7**
Alleghany County	**10.8**	**10.3**	**12.6**	**16.1**	**12.9**	**14.9**	**12.7**	**13.2**
State of NC	17.9	18.2	18.5	18.8	18.7	18.9	18.6	18.0
Source:	a	a	a	a	b	b	b	b

a - NC State Center for Health Statistics, County Health Data Books (2007-2014), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/
b - NC State Center for Health Statistics, Statistics and Reports, Vital Statistics, NC Vital Statistics Volume II: Leading Causes of Death, 2009, 2010, 2011 and 2012; http://www.schs.state.nc.us/data/vital.cfm#vitalvol2
Note: The use of **bold type** or 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.

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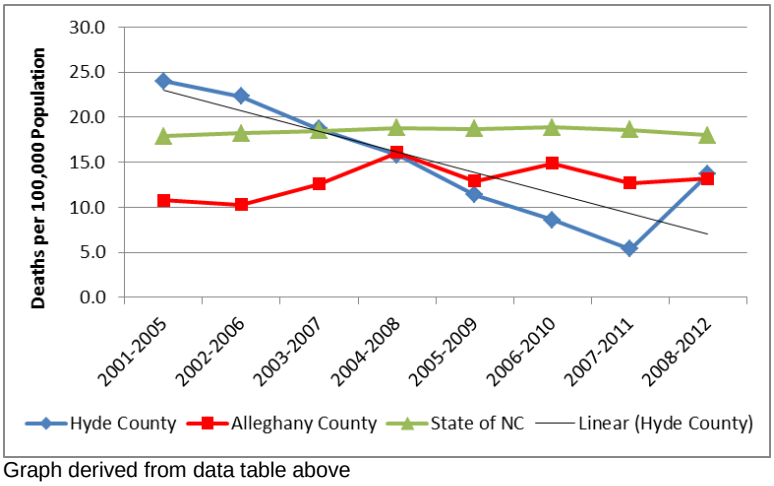
Kidney Disease Mortality Rate Trend (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)



Graph derived from data table above

Kidney Disease Mortality, by Race/Ethnicity and Sex (Single Five-Year Aggregate Period, 2008-2012)

Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Hyde County	**3**	**N/A**	**1**	**N/A**	**0**	**N/A**	**0**	**N/A**	**2**	**N/A**	**2**	**N/A**	**4**	**N/A**
Alleghany County	**10**	**N/A**	**0**	**N/A**	**0**	**N/A**	**1**	**N/A**	**5**	**N/A**	**6**	**N/A**	**11**	**N/A**
State of NC	5,685	14.6	2,904	35.1	142	17.3	64	7.2	4,273	22.0	4,522	15.4	8,795	18.0

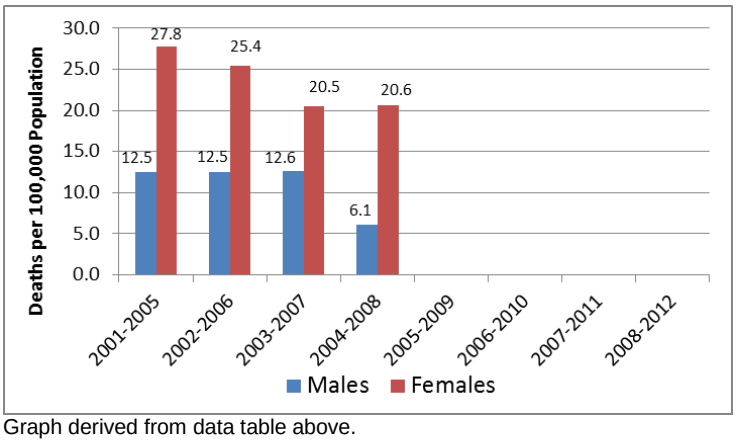
Source: NC State Center for Health Statistics, County Health Data Book (2014), Mortality, 2008-2012 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.
Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.

Gender Disparity Trend in Kidney Disease Mortality Rate (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

Location	Rate (Deaths per 100,000 Population)															
	Males								Females							
	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012
Hyde County	**12.5**	**12.5**	**12.6**	**6.1**	N/A	N/A	**N/A**	**N/A**	**27.8**	**25.4**	**20.5**	**20.6**	N/A	N/A	**N/A**	**N/A**
Alleghany County	**14.2**	**7.4**	**14.3**	**17.8**	**N/A**	**N/A**	**N/A**	**N/A**	**6.8**	**10.8**	**10.8**	**14.5**	**N/A**	**N/A**	**N/A**	**N/A**
State of NC	21.0	21.5	21.6	22.3	22.4	22.9	22.7	22.0	15.9	16.2	16.5	16.6	16.4	16.4	16.0	15.4

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2014), Mortality, NC Resident Race-Specific and Sex-Specific Age-Adjusted Death Rates, by County; http://www.schs.state.nc.us/SCHS/data/databook/.
Note: The use of bold type or 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.

Gender Disparity Trend in Kidney Disease Mortality Rate, Hyde County (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)



Graph derived from data table above.

APPENDIX 1

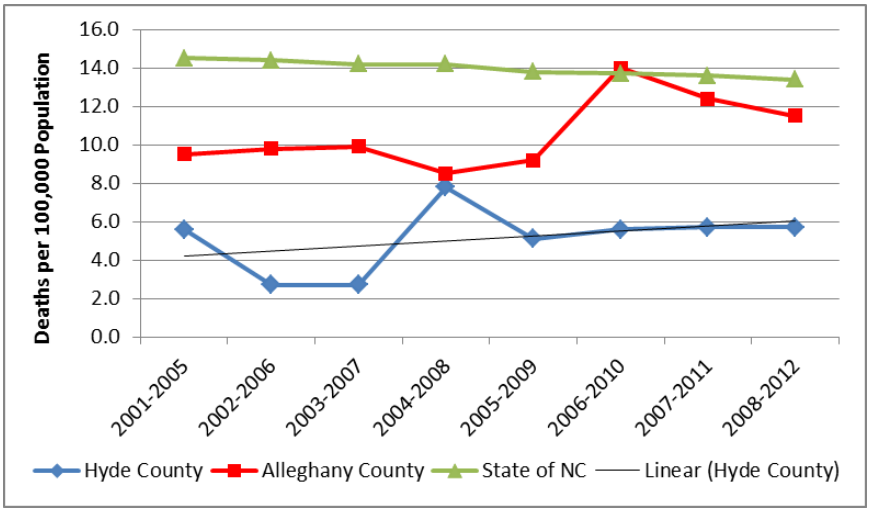
Septicemia

Septicemia Mortality Rate Trend (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

Location	Rate (Deaths per 100,000 Population)							
	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012
Hyde County	**5.6**	**2.7**	**2.7**	**7.8**	**5.1**	**5.6**	**5.7**	**5.7**
Alleghany County	**9.5**	**9.8**	**9.9**	**8.5**	**9.2**	**14.0**	**12.4**	**11.5**
State of NC	14.5	14.4	14.2	14.2	13.8	13.7	13.6	13.4
Source:	a	a	a	a	b	b	b	b

a - NC State Center for Health Statistics, County Health Data Books (2007-2014), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/
b - NC State Center for Health Statistics, Statistics and Reports, Vital Statistics, NC Vital Statistics Volume II: Leading Causes of Death, 2009, 2010, 2011 and 2012; http://www.schs.state.nc.us/data/vital.cfm#vitalvol2
Note: The use of **bold type** or 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.

Septicemia Mortality Rate Trend (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)



Graph derived from data table above

Septicemia Mortality, by Race/Ethnicity and Sex (Single Five-Year Aggregate Period, 2008-2012)

Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Hyde County	**0**	**N/A**	**2**	**N/A**	**0**	**N/A**	**0**	**N/A**	**1**	**N/A**	**1**	**N/A**	**2**	**N/A**
Alleghany County	**9**	**N/A**	**0**	**N/A**	**0**	**N/A**	**0**	**N/A**	**1**	**N/A**	**8**	**N/A**	**9**	**N/A**
State of NC	4,786	12.3	1,657	19.7	80	9.1	74	6.1	2,997	14.8	3,600	12.4	6,597	13.4

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

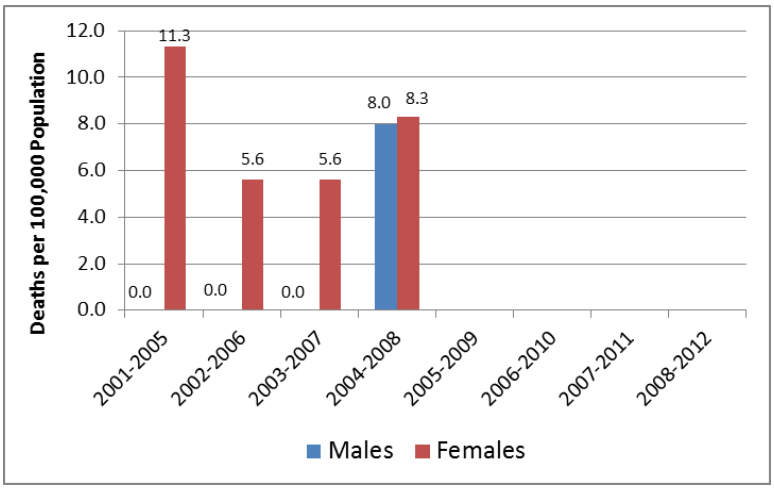
Gender Disparity Trend in Septicemia Mortality Rate (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

Location	Rate (Deaths per 100,000 Population)															
	Males								Females							
	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012
Hyde County	**0.0**	**0.0**	**0.0**	**8.0**	N/A	N/A	**N/A**	**N/A**	**11.3**	**5.6**	**5.6**	**8.3**	N/A	N/A	**N/A**	**N/A**
Alleghany County	**10.9**	**13.9**	**10.0**	**9.8**	**N/A**	**N/A**	**N/A**	**N/A**	**8.5**	**7.3**	**9.6**	**7.7**	**N/A**	**N/A**	**N/A**	**N/A**
State of NC	15.7	15.7	15.5	15.6	15.1	15.1	15.0	15.0	13.6	13.6	13.4	13.2	12.8	12.7	12.6	12.6

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2014), Mortality, NC Resident Race-Specific and Sex-Specific Age-Adjusted Death Rates, by County; http://www.schs.state.nc.us/SCHS/data/databook/.
Note: The use of bold type or 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.

APPENDIX 1

Gender Disparity Trend in Septicemia Mortality Rate, Hyde County (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)



Graph derived from data table above.

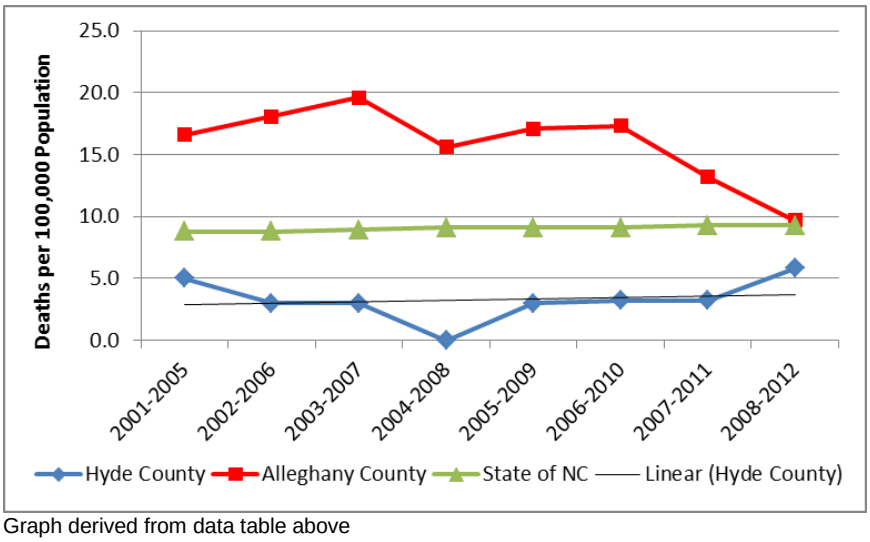
Liver Disease

Liver Disease Mortality Rate Trend (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

Location	Rate (Deaths per 100,000 Population)							
	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012
Hyde County	**5.0**	**3.0**	**3.0**	**0.0**	**3.0**	**3.2**	**3.2**	**5.8**
Alleghany County	**16.6**	**18.1**	**19.6**	**15.6**	**17.1**	**17.3**	**13.2**	**9.7**
State of NC	8.8	8.8	8.9	9.1	9.1	9.1	9.3	9.3
Source:	a	a	a	a	b	b	b	b

a - NC State Center for Health Statistics, County Health Data Books (2007-2014), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/
b - NC State Center for Health Statistics, Statistics and Reports, Vital Statistics, NC Vital Statistics Volume II: Leading Causes of Death, 2009, 2010, 2011 and 2012; http://www.schs.state.nc.us/data/vital.cfm#vitalvol2
Note: The use of **bold type** or 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.

Liver Disease Mortality Rate Trend (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)



Graph derived from data table above

APPENDIX 1

Liver Disease Mortality, by Race/Ethnicity and Sex (Single Five-Year Aggregate Period, 2008-2012)

Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Hyde County	**2**	**N/A**	**0**	**N/A**	**0**	**N/A**	**0**	**N/A**	**2**	**N/A**	**0**	**N/A**	**2**	**N/A**
Alleghany County	**7**	**N/A**	**0**	**N/A**	**0**	**N/A**	**1**	**N/A**	**6**	**N/A**	**2**	**N/A**	**8**	**N/A**
State of NC	4,022	10.2	746	7.2	84	6.5	74	4.7	3,236	13.2	1,690	6.0	4,926	9.3

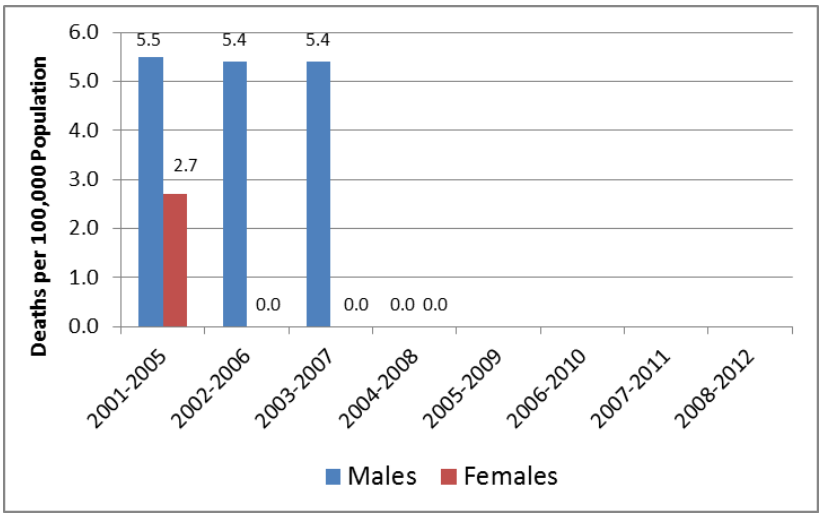
Source: NC State Center for Health Statistics, County Health Data Book (2014), Mortality, 2008-2012 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.
Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.

Gender Disparity Trend in Liver Disease Mortality Rate (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

Location	Rate (Deaths per 100,000 Population)															
	Males								Females							
	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012
Hyde County	**5.5**	**5.4**	**5.4**	**0.0**	N/A	N/A	**N/A**	**N/A**	**2.7**	**0.0**	**0.0**	**0.0**	N/A	N/A	**N/A**	**N/A**
Alleghany County	**20.2**	**20.8**	**22.0**	**18.9**	**N/A**	**N/A**	**N/A**	**N/A**	**14.7**	**17.1**	**18.2**	**13.4**	**N/A**	**N/A**	**N/A**	**N/A**
State of NC	12.6	12.5	12.7	12.9	12.9	13.0	13.2	13.2	5.6	5.6	5.7	5.8	5.8	5.8	5.9	6.0

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2014), Mortality, NC Resident Race-Specific and Sex-Specific Age-Adjusted Death Rates, by County; http://www.schs.state.nc.us/SCHS/data/databook/.
Note: The use of bold type or 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.

Gender Disparity Trend in Liver Disease Mortality Rate, Hyde County (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)



Graph derived from data table above

Suicide

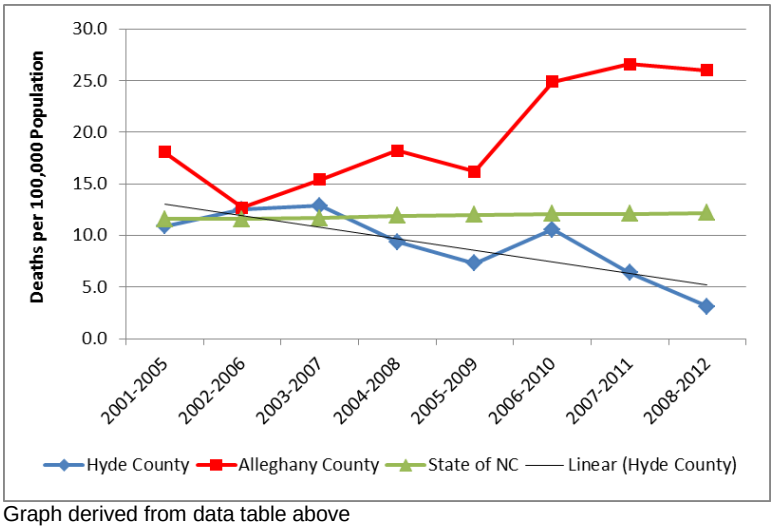
Suicide Mortality Rate Trend (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

Location	Rate (Deaths per 100,000 Population)							
	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012
Hyde County	**10.9**	**12.5**	**12.9**	**9.4**	**7.3**	**10.6**	**6.4**	**3.1**
Alleghany County	**18.1**	**12.7**	**15.4**	**18.2**	**16.2**	**24.9**	**26.6**	**26.0**
State of NC	11.6	11.6	11.7	11.9	12.0	12.1	12.1	12.2
Source:	a	a	a	a	b	b	b	b

a - NC State Center for Health Statistics, County Health Data Books (2007-2014), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.
b - NC State Center for Health Statistics, Statistics and Reports, Vital Statistics, NC Vital Statistics Volume II: Leading Causes of Death, 2009, 2010, 2011 and 2012; http://www.schs.state.nc.us/data/vital.cfm#vitalvol2.
Note: The use of bold type or 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.

APPENDIX 1

Suicide Mortality Rate Trend (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)



Graph derived from data table above

Suicide Mortality, by Race/Ethnicity and Sex (Single Five-Year Aggregate Period, 2008-2012)

Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Hyde County	**1**	**N/A**	**0**	**N/A**	**0**	**N/A**	**0**	**N/A**	**1**	**N/A**	**0**	**N/A**	**1**	**N/A**
Alleghany County	**12**	**N/A**	**1**	**N/A**	**0**	**N/A**	**0**	**N/A**	**11**	**N/A**	**2**	**N/A**	**13**	**N/A**
State of NC	5,184	15.4	493	4.8	134	7.7	147	4.1	4,580	19.8	1,378	5.4	5,958	12.2

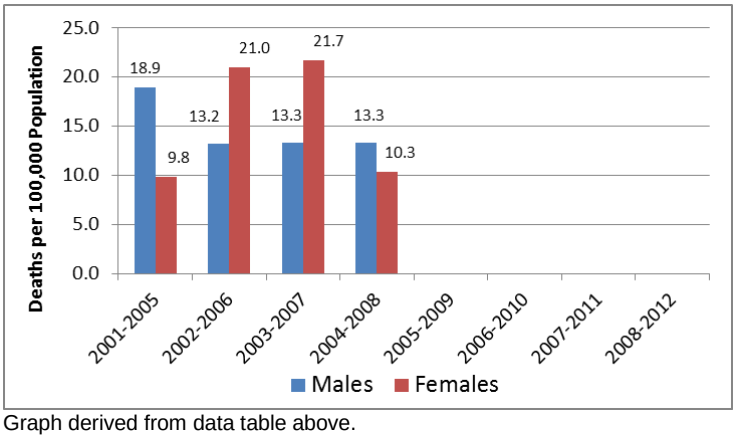
Source: NC State Center for Health Statistics, County Health Data Book (2014), Mortality, 2008-2012 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.
Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.

Gender Disparity Trend in Suicide Mortality Rate (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

Location	Rate (Deaths per 100,000 Population)															
	Males								Females							
	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012
Hyde County	**18.9**	**13.2**	**13.3**	**13.3**	N/A	N/A	**N/A**	**N/A**	**9.8**	**21.0**	**21.7**	**10.3**	N/A	N/A	**N/A**	**N/A**
Alleghany County	**35.8**	**23.0**	**19.1**	**21.8**	**N/A**	**N/A**	**N/A**	**N/A**	**4.6**	**4.7**	**12.8**	**16.1**	**N/A**	**N/A**	**N/A**	**N/A**
State of NC	19.3	19.2	18.9	19.1	19.5	19.6	19.6	19.8	4.8	4.9	5.2	5.4	5.3	5.3	5.3	5.4

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2014), Mortality, NC Resident Race-Specific and Sex-Specific Age-Adjusted Death Rates, by County; http://www.schs.state.nc.us/SCHS/data/databook/.
Note: The use of bold type or 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.

Gender Disparity Trend in Suicide Mortality Rate, Hyde County (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)



Graph derived from data table above.

APPENDIX 1

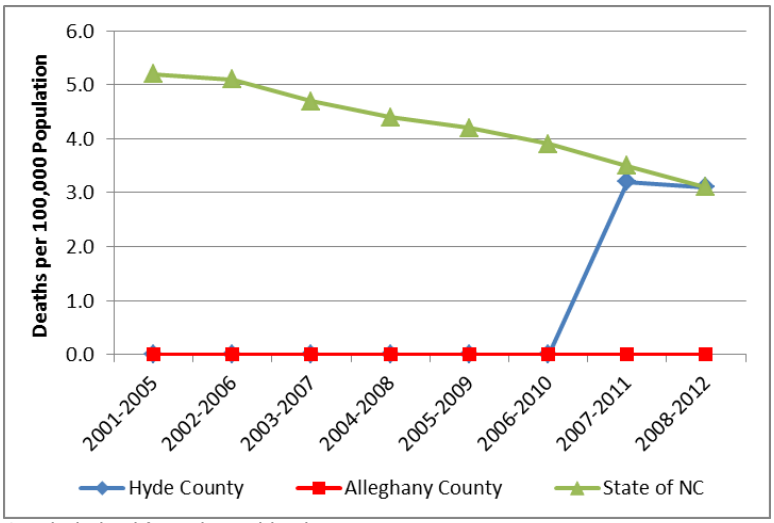
AIDS

AIDS Mortality Rate Trend (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

Location	Rate (Deaths per 100,000 Population)							
	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012
Hyde County	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**3.2**	**3.1**
Alleghany County	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
State of NC	5.2	5.1	4.7	4.4	4.2	3.9	3.5	3.1
Source:	a	a	a	a	b	b	b	b

a - NC State Center for Health Statistics, County Health Data Books (2007-2014), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.
b - NC State Center for Health Statistics, Statistics and Reports, Vital Statistics, NC Vital Statistics Volume II: Leading Causes of Death, 2009, 2010, 2011 and 2012; http://www.schs.state.nc.us/data/vital.cfm#vitalvol2.
Note: The use of bold type or 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.

AIDS Mortality Rate Trend (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)



Graph derived from data table above

AIDS Mortality, by Race/Ethnicity and Sex (Single Five-Year Aggregate Period, 2008-2012)

Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Hyde County	**1**	**N/A**	**0**	**N/A**	**0**	**N/A**	**0**	**N/A**	**0**	**N/A**	**1**	**N/A**	**1**	**N/A**
Alleghany County	**0**	**N/A**	**0**	**N/A**	**0**	**N/A**	**0**	**N/A**	**0**	**N/A**	**0**	**N/A**	**0**	**N/A**
State of NC	324	0.9	1,165	11.3	**18**	**N/A**	53	2.2	1,065	4.4	495	2.0	1,560	3.1

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

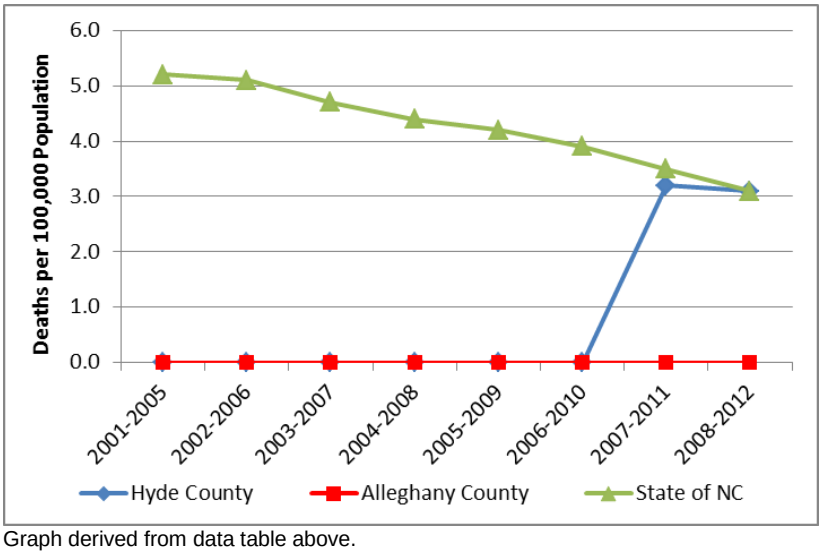
Gender Disparity Trend in AIDS Mortality Rate (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

Location	Rate (Deaths per 100,000 Population)															
	Males								Females							
	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012
Hyde County	**0.0**	**0.0**	**0.0**	**0.0**	**N/A**	**N/A**	**N/A**	**N/A**	**0.0**	**0.0**	**0.0**	**0.0**	N/A	N/A	**N/A**	**N/A**
Alleghany County	**0.0**	**0.0**	**0.0**	**0.0**	**N/A**	**N/A**	**N/A**	**N/A**	**0.0**	**0.0**	**0.0**	**0.0**	**N/A**	**N/A**	**N/A**	**N/A**
State of NC	7.4	7.1	6.6	6.1	5.9	5.4	4.8	4.4	3.1	3.1	2.9	2.7	2.7	2.5	2.3	2.0

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2014), Mortality, NC Resident Race-Specific and Sex-Specific Age-Adjusted Death Rates, by County; http://www.schs.state.nc.us/SCHS/data/databook/.
Note: The use of bold type or 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.

APPENDIX 1

Gender Disparity Trend in AIDS Mortality Rate (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)



Graph derived from data table above.

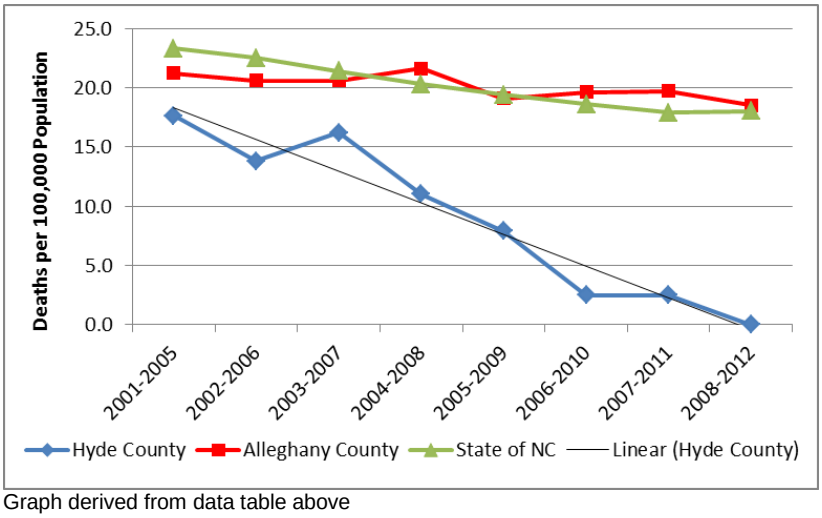
Pneumonia and Influenza

Pneumonia and Influenza Mortality Rate Trend (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

Location	Rate (Deaths per 100,000 Population)							
	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012
Hyde County	**17.6**	**13.8**	**16.2**	**11.0**	**7.9**	**2.5**	**2.5**	**0.0**
Alleghany County	**21.2**	**20.6**	**20.6**	**21.6**	**19.1**	**19.6**	**19.7**	**18.5**
State of NC	23.3	22.5	21.4	20.3	19.4	18.6	17.9	18.0
Source:	a	a	a	a	b	b	b	b

a - NC State Center for Health Statistics, County Health Data Books (2007-2014), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.
b - NC State Center for Health Statistics, Statistics and Reports, Vital Statistics, NC Vital Statistics Volume II: Leading Causes of Death, 2009, 2010, 2011 and 2012; http://www.schs.state.nc.us/data/vital.cfm#vitalvol2.
Note: The use of bold type or 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.

Pneumonia and Influenza Mortality Rate Trend (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)



Graph derived from data table above

APPENDIX 1

Pneumonia and Influenza Mortality, by Race/Ethnicity and Sex (Single Five-Year Aggregate Period, 2008-2012)

Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Person County	39	22.5	**7**	**N/A**	**1**	**N/A**	**0**	**N/A**	25	30.4	22	14.5	47	20.3
Bladen County	**12**	**N/A**	**17**	**N/A**	**1**	**N/A**	**0**	**N/A**	**14**	**N/A**	**16**	**N/A**	30	15.7
State of NC	7,152	18.4	1,395	17.2	93	11.5	70	7.4	3,819	20.7	4,891	16.4	8,710	18.0

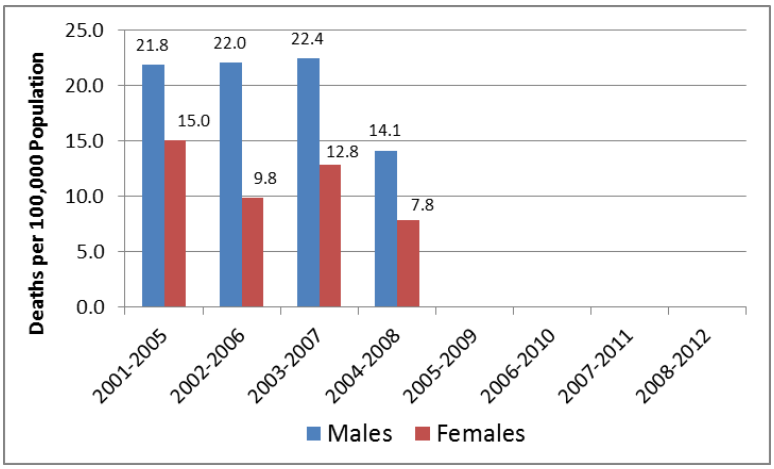
Source: NC State Center for Health Statistics, County Health Data Book (2014), Mortality, 2008-2012 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.
Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.

Gender Disparity Trend in Pneumonia and Influenza Mortality Rate (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

Location	Rate (Deaths per 100,000 Population)															
	Males								Females							
	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012
Person County	**22.1**	30.6	**25.3**	28.8	27.9	**N/A**	**N/A**	30.4	27.3	33.9	32.2	31.2	30.0	27.6	17.9	14.5
Bladen County	**19.5**	**16.0**	**15.2**	**12.6**	**N/A**	**N/A**	**N/A**	**N/A**	25.7	21.7	**16.6**	**13.0**	**N/A**	**N/A**	**N/A**	**N/A**
State of NC	28.0	26.6	25.4	23.9	22.6	21.6	20.9	20.7	20.5	20.1	19.0	18.1	17.4	16.8	16.1	16.4

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2014), Mortality, NC Resident Race-Specific and Sex-Specific Age-Adjusted Death Rates, by County; http://www.schs.state.nc.us/SCHS/data/databook/.
Note: The use of bold type or 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.

Gender Disparity Trend in Pneumonia and Influenza Mortality Rate, Hyde County (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)



Graph derived from data table above

Homicide

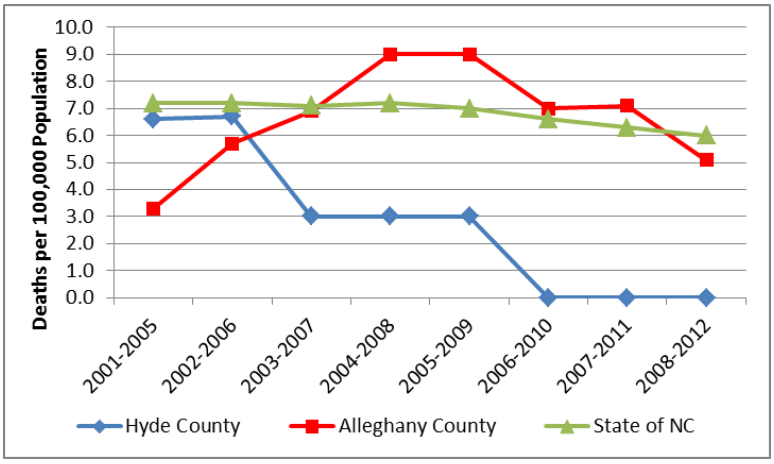
Homicide Mortality Rate Trend (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

Location	Rate (Deaths per 100,000 Population)							
	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012
Hyde County	**6.6**	**6.7**	**3.0**	**3.0**	**3.0**	**0.0**	**0.0**	**0.0**
Alleghany County	**3.3**	**5.7**	**6.9**	**9.0**	**9.0**	**7.0**	**7.1**	**5.1**
State of NC	7.2	7.2	7.1	7.2	7.0	6.6	6.3	6.0
Source:	a	a	a	a	b	b	b	b

a - NC State Center for Health Statistics, County Health Data Books (2007-2014), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.
b - NC State Center for Health Statistics, Statistics and Reports, Vital Statistics, NC Vital Statistics Volume II: Leading Causes of Death, 2009, 2010, 2011 and 2012; http://www.schs.state.nc.us/data/vital.cfm#vitalvol2.
Note: The use of bold type or 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.

APPENDIX 1

Homicide Mortality Rate Trend (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)



Graph derived from data table above

Homicide Mortality, by Race/Ethnicity and Sex (Single Five-Year Aggregate Period, 2008-2012)

Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Hyde County	**0**	**N/A**	**0**	**N/A**	**0**	**N/A**	**0**	**N/A**	**0**	**N/A**	**0**	**N/A**	**0**	**N/A**
Alleghany County	**1**	**N/A**	**0**	**N/A**	**0**	**N/A**	**1**	**N/A**	**2**	**N/A**	**0**	**N/A**	**2**	**N/A**
State of NC	1,068	3.4	1,397	13.1	134	7.3	247	5.9	2,174	9.3	672	2.8	2,846	6.0

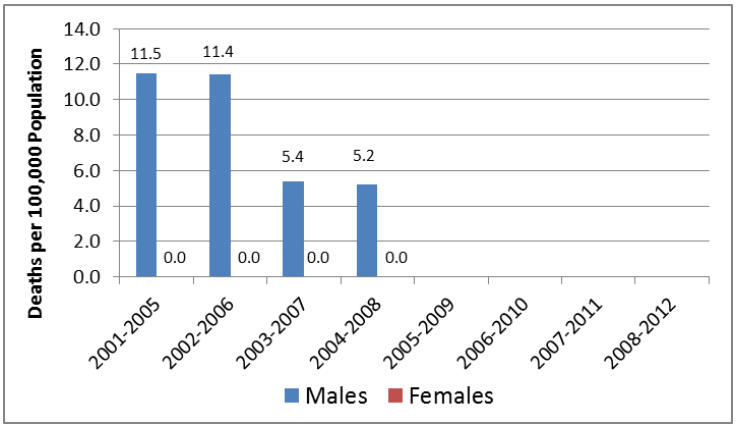
Source: NC State Center for Health Statistics, County Health Data Book (2014), Mortality, 2008-2012 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.
Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.

Gender Disparity Trend in Homicide Mortality Rate (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

Location	Rate (Deaths per 100,000 Population)															
	Males								Females							
	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012
Hyde County	**11.5**	**11.4**	**5.4**	**5.2**	N/A	N/A	**N/A**	**N/A**	**0.0**	**0.0**	**0.0**	**0.0**	N/A	N/A	**N/A**	**N/A**
Alleghany County	**6.3**	**10.7**	**13.0**	**16.7**	**N/A**	**N/A**	**N/A**	**N/A**	**0.0**	**0.0**	**0.0**	**0.0**	**N/A**	**N/A**	**N/A**	**N/A**
State of NC	11.0	10.9	11.0	11.0	10.8	10.2	9.8	9.3	3.3	3.3	3.2	3.3	3.2	3.0	2.9	2.8

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2014), Mortality, NC Resident Race-Specific and Sex-Specific Age-Adjusted Death Rates, by County; http://www.schs.state.nc.us/SCHS/data/databook/.
Note: The use of bold type or 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.

Gender Disparity Trend in Homicide Mortality Rate (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)



Graph derived from data table above

APPENDIX 1

Morbidity

Sexually-Transmitted Infections

Chlamydia Infection Incidence Trend (Single Years, 2008-2012)

Location	Incidence, All Ages, Number and Rate (New cases per 100,000 population)									
	2008		2009		2010		2011		2012	
	#	Rate	#	Rate	#	Rate	#	Rate	#	Rate
Hyde County	25	475.3	16	307.0	14	241.0	16	275.4	13	223.3
Alleghany County	**7**	**63.5**	11	100.3	**6**	**53.8**	22	197.2	17	153.8
State of NC	37,885	409.7	43,734	466.2	42,167	442.2	53,854	564.8	50,606	524.1

Source: NC DHHS, Division of Public Health, Epidemiology Section, Communicable Disease Branch. Facts and Figures, Annual Reports. North Carolina 2012 HIV/STD Surveillance Report, Table 7; http://epi.publichealth.nc.gov/cd/stds/figures/std12rpt.pdf
Note: Rates appearing in **bold** type are based on fewer than 10 cases per year. Such rates are unstable and should be interpreted with caution.

Gonorrhea Infection Incidence Trend (Single Years, 2008-2012)

Location	Incidence, All Ages, Number and Rate (New cases per 100,000 population)									
	2008		2009		2010		2011		2012	
	# Cases	Rate	# Cases	Rate	# Cases	Rate	# Cases	Rate	# Cases	Rate
Hyde County	**4**	**76.0**	**4**	**76.8**	**6**	**103.1**	**3**	**51.5**	**2**	**34.4**
Alleghany County	**0**	**0.0**	**0**	**0.0**	**0**	0.0	**0**	**0.0**	**0**	**0.0**
State of NC	15,012	162.3	14,811	157.9	14,153	148.0	17,158	177.7	14,322	148.3

Source: NC DHHS, Division of Public Health, Epidemiology Section, Communicable Disease Branch. Facts and Figures, Annual Reports. North Carolina 2012 HIV/STD Surveillance Report, Table 8; http://epi.publichealth.nc.gov/cd/stds/figures/std12rpt.pdf
Note: Rates appearing in **bold** type are based on fewer than 10 cases per year. Such rates are unstable and should be interpreted with caution.

Gonorrhea Infection Incidence Trend (Five-Year Aggregate Periods, 2002-2006 through 2006-2010)

Location	Incidence, All Ages, Number and Rate (New cases per 100,000 population)									
	2002-2006		2003-2007		2004-2008		2005-2009		2006-2010	
	# Cases	Rate	# Cases	Rate	# Cases	Rate	# Cases	Rate	# Cases	Rate
Hyde County	27	95.4	28	100.3	23	83.0	**19**	**69.2**	20	74.9
Alleghany County	**2**	**3.7**	**4**	**7.3**	**2**	**3.6**	2	3.6	**2**	**3.6**
State of NC	77,948	182.0	79,244	181.9	79,172	178.4	78,778	174.2	77,867	168.9

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2008-2012). NC Resident Gonorrhea Cases and Rates per 100,000 Population (years and counties as noted): http://www.schs.state.nc.us/schs/data/databook/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.

Gonorrhea Infection Incidence Trend, by Race (Single Five-Year 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
Hyde County	20	74.9	**5**	**31.1**	**15**	**159.9**	**0**	**0.0**	**0**	**0.0**
Alleghany County	**2**	**3.6**	**2**	**4.1**	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**
State of NC	77,867	168.9	16,488	52.9	58,041	581.6	1,485	96.7	1,853	54.2

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/
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.

APPENDIX 1

Diabetes

Adult Diagnosed Diabetes Prevalence Estimate Trend (Six Single Years, 2005 through 2010)

Location	Estimated Prevalence, Number and Percent (Age-adjusted)											
	2005		2006		2007		2008		2009		2010	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Hyde County	502	11.7	505	11.9	495	12.0	510	12.3	518	12.5	566	12.2
Alleghany County	852	9.8	886	10.2	926	10.7	899	10.4	923	10.8	992	11.4
State Total	n/a	8.6	n/a	8.8	n/a	9.0	n/a	9.1	n/a	9.2	n/a	9.3
Source	a	a	a	a	a	a	a	a	a	a	b	b

a: Centers for Disease Control and Prevention, Diabetes Data and Trends, *County Level Estimates of Diagnosed Diabetes - of Adults in North Carolina, 2005-2010;* http://apps.nccd.cdc.gov/ddtstrs/default.aspx
b: Centers for Disease Control and Prevention, Diabetes Public Health Resource, Diabetes Interactive Atlas, Diagnosed Diabetes Percentage, 2010*;* http://www.cdc.gov/diabetes/atlas/countydata/atlas.html
"Adults" are persons 18 years of age or older.
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.

Obesity

Adult Diagnosed Obesity Prevalence Estimate Trend (Six Single Years, 2005 through 2010)

Location	Estimated Prevalence, Number and Percent (Age-adjusted)											
	2005		2006		2007		2008		2009		2010	
	#	%	#	%	#	%	#	%	#	%	#	%
Hyde County	1,276	29.9	1,305	30.9	1,288	31.2	1,281	30.8	1,330	32.2	1,330	31.3
Alleghany County	2,115	24.4	2,268	26.1	2,242	25.9	2,314	26.7	2,146	25.0	2,146	25.0
State of NC	n/a	54.6	n/a	56.0	n/a	56.8	n/a	56.4	n/a	57.1	n/a	57.4

Source: Centers for Disease Control and Prevention, Obesity Data and Trends, County Level Estimates of Diagnosed Obesity - of Adults in North Carolina, 2006-2011; http://apps.nccd.cdc.gov/ddtstrs/default.aspx.
"Adults" are persons 18 years of age or older.
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.

Prevalence of Overweight and Obesity in Children Ages 2-4 (2007-2012)[1]

Location	Prevalence of Overweight and Obesity in Children Ages 2-4, by Percent											
	2007		2008		2009		2010		2011		2012	
	Overweight	Obese	Overweight	Obese	Overweight	Obese	Overweight	Obese	Overweight	Obese	Overweight	Obese
Hyde County	**9.0**	12.0	**13.6**	**4.5**	**9.9**	21.1	15.1	18.6	12.3	17.3	15.5	14.1
Alleghany County	17.2	27.0	22.2	24.8	18.6	18.6	22.6	17.7	20.1	28.4	13.0	19.4
State of NC	15.7	15.3	16.3	15.4	15.8	15.4	16.1	15.6	16.2	15.7	14.9	14.5

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 (2007-2012), counties and age groups as noted; http://www.eatsmartmovemorenc.com/Data/ChildAndYouthData.html.
1 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.
Note: Figures denoted in bold type indicate percentages based on fewer than 10 cases.
Overweight (Formerly "At Risk for Overweight") = BMI greater than or equal to the 85th percentile but less than the 95th percentile.
Obese (Formerly "Overweight") = BMI greater than or equal to the 95th percentile.

APPENDIX 1

Mental Health

Persons Served by Area Mental Health Programs (2005-2012)[1]

Location	Number of Persons Served							
	2005	2006	2007	2008	2009	2010	2011	2012
Hyde County	315	255	277	105	166	157	155	61
Alleghany County	597	526	456	445	635	544	459	452
State of NC	337,676	322,397	315,338	306,907	309,155	332,796	360,180	315,284

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.

[1] 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. North Carolina data include clients reported to reside out-of-state and sometimes contains individuals of unknown county of residence.

Persons Served in NC State Psychiatric Hospitals (2005-2012)[1]

Location	Number of Persons Served							
	2005	2006	2007	2008	2009	2010	2011	2012
Hyde County	6	5	9	8	3	4	1	1
Alleghany County	18	16	24	16	8	10	3	0
State of NC	18,435	18,292	18,498	14,643	9,643	7,188	5,754	4,572

Source: Log Into North Carolina (LINC) Database, Topic Group Vital Statistics and Health (Data Item 516); http://data.osbm.state.nc/pls/linc/dyn_linc_main.show.

[1] 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.

Persons Served in NC State Developmental Centers (2008-2013)

Location	Number of Persons Served							
	2005	2006	2007	2008	2009	2010	2011	2012
Hyde County	2	2	0	0	2	2	1	0
Alleghany County	2	2	2	2	3	3	3	5
State of NC	2,172	1,690	1,713	1,409	1,404	1,375	1,355	1,340

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.

Persons Served in NC State Alcohol and Drug Abuse Treatment Centers (2008-2013)[1]

Location	Number of Persons Served							
	2005	2006	2007	2008	2009	2010	2011	2012
Hyde County	2	5	1	9	4	5	5	2
Alleghany County	5	3	8	2	4	2	2	3
State of NC	3,732	4,003	3,733	4,284	4,812	4,483	4,590	4,265

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.

[1] 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.

APPENDIX 1

Active Health Professionals per 10,000 Population (2008 through 2011)

Location	2008					2009					2010					2011				
	MDs	Primary Care MDs[1]	DDSs	RNs	Pharms	MDs	Primary Care MDs	DDSs	RNs	Pharms	MDs	Primary Care MDs	DDSs	RNs	Pharms	MDs	Primary Care MDs	DDS	RNs	Pharms
Hyde County	1.8	1.8	0.0	54.4	0.0	0.0	0.0	0.0	48.3	0.0	1.7	1.7	0.0	46.5	0.0	1.7	1.7	0.0	48.2	0.0
Alleghany County	11.7	8.1	0.9	47.0	6.3	10.7	7.1	0.9	44.5	4.4	10.7	8.1	1.8	43.0	6.3	9.9	6.3	1.8	37.0	5.4
State of NC	21.2	9.0	4.3	95.1	9.3	21.2	9.2	4.4	96.9	9.3	21.7	9.4	4.4	97.3	9.2	22.1	7.8	4.4	98.6	9.5
United States	23.2 [2]	8.5 [2]	4.9 [3]	91.4 [3]	8.0 [3]	23.4 [2]	8.5 [2]	5.3 [3]	92.5 [3]	8.7 [3]	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]

[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 (2008, 2009, 2010, 2011); http://www.shepscenter.unc.edu/hp/publications.htm
Abbreviations used: MDs (Physicians), RNs (Registered Nurses), DDSs (Dentists), Pharms (Pharmacists)

Active Health Professionals (2011)

Category of Health Professional	Number of Professionals [1]	
	Hyde	Alleghany
Physicians		
Primary Care Physicians	1	7
Family Practice	1	5
General Practice	0	0
Internal Medicine	0	2
Obstetrics/Gynecology	0	0
Pediatrics	0	0
Other Specialities	0	4
Dentists and Dental Hygienists		
Dentists	0	2
Dental Hygienists	0	0
Nurses		
Registered Nurses	28	41
Nurse Practitioners	4	6
Certified Nurse Midwives	1	0
Licensed Practical Nurses	9	10
Other Health Professionals		
Chiropractors	0	1
Occupational Therapists	0	4
Occupational Therapy Assistants	1	2
Optometrists	0	1
Pharmacists	0	6
Physical Therapists	2	2
Physical Therapy Assistants	1	2
Physician Assistants	0	1
Podiatrists	0	0
Practicing Psychologists	0	0
Psychological Assistants	0	1
Respiratory Therapists	0	7

* 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. 2011 North Carolina Health Professions Databook; http://www.shepscenter.unc.edu/hp/publications/2011_HPDS_DataBook.pdf.

APPENDIX 1

Hyde County FQHC: Ocracoke Health Center (2011-2013)

Parameter	Number of Patients					
	2011		2012		2013	
	OHC[1]	EMC[2]	OHC	EMC	OHC	EMC
Gender						
Male	584	406	590	401	622	444
Female	667	474	689	478	681	483
Total Patients	1,251	880	1,279	879	1,303	927
Age Group						
Under age 1	0	0	2	2	17	9
1-9	163	67	178	64	146	69
10-19	189	143	155	133	160	124
20-29	127	112	131	96	140	96
30-39	163	90	170	92	162	94
40-49	161	108	161	112	180	125
50-59	167	168	187	187	186	191
60-64	80	64	92	71	96	81
65-69	95	54	95	46	97	55
70-74	34	19	40	24	50	26
75-79	28	25	34	27	36	26
80-84	21	17	12	15	15	17
85 and over	23	13	22	10	18	14
Race						
Asian	6	0	2	0	2	0
Hawaiian/Pacific Islander	0	4	1	1	0	0
Black or African American	5	284	3	307	4	277
American Indian/Alaska Native (including Hispanic)	1	1	3	1	3	2
White (including Hispanic)	1,063	548	1,108	522	1,188	611
More than one race	4	9	7	11	5	16
Unreported/refused to report	172	34	155	37	101	21
Total self-described Hispanic/Latino of any race	124	54	135	57	129	47
Patients Served in a Language Other than English	17	1	15	1	11	1
Income as Percent of Poverty Level						
100% and below	110	177	135	198	121	178
101-150%	74	44	75	49	83	49
151-200%	59	34	68	37	56	32
Over 200%	194	3	266	6	85	4
Unknown	814	622	735	589	958	664
Principal Third-Party Insurance						
None/uninsured	406	475	410	427	481	387
Regular Medicaid (Title XIX)	87	118	95	110	89	147
CHIP Medicaid	0	0	0	0	0	0
Other public insurance (non-CHIP)	0	0	0	1	0	1
Medicare (Title XVII)	146	133	162	143	174	155
Private insurance	612	154	612	198	559	237
Special Populations						
Migrant/seasonal	2	0	3	0	3	0
Homeless	1	0	1	0	1	0
School-based health center	0	0	0	0	0	0
Veterans	18	0	15	0	16	0

Source: Personal communication, Jamie Tunnell Carter, Office Manager, Ocracoke Health Center, to Elizabeth Mumm, Public Health Educator, Hyde County Health Department; February 27, 2014.
1 - OHC = Ocracoke Health Center, Ocracoke
2 - EMC = Engelhard Medical Center, Engelhard

School Student to School Nurse Ratio (SY2009-10 through 2011-12)

Location	Student to School Nurse Ratio		
	SY2009-10	SY2010-11	SY2011-12
Hyde County	287	575	575
Alleghany County	742	724	724
State of NC	1,185	1,201	1,179

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/

APPENDIX 1

Hyde County Long-Term Care Facilities (as of July, 2014)

Facility Type/Name	Location	# Beds SFN (ACH)[1]
Nursing Homes/Homes for the Aged		
Cross-Creek Health Care	Swan Quarter	80 (0)
Adult Care Homes/Homes for the Aged		
None		
Family Care Homes		
None		

[1] - SNF (ACH) = Maximum number of nursing (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.ncdhhs.gov/dhsr/reports.htm.

Licensed Health Service Facilities in Hyde County (as of March, 2014)

Facility Name	Location	No. Beds	Operating Rooms/Notes
Hospitals			
None			
Ambulatory Surgery Facilities			
None			
Cardiac Rehabilitation Facilities			
None			
Dialysis Facilities[1]			
None			
Home Care Agencies			
Hydeland Homea Care Agency	Swan Quarter		

Source (unless otherwise noted) - NC Department of Health and Human Services, Division of Health Services Regulation (DHSR), Licensed Facilities; http://www.ncdhhs.gov/dhsr/reports.htm.
[1] - Source: Dialysis Facility Compare, http://www.medicare.gov/dialysisfacilitycompare/search.html.

NC-Licensed Mental Health Facilities in Hyde County (G.S. 122C) (as of February 2014)

Name of Facility/Operator	Location	Category
Hyde County Group Home		
Roanoke Developmental Center	Fairfield	Supervised Living DD Adult
Mattamuskeet Opportunities Hyde ADAP		
Hyde County DSS	Fairfield	Day Activity

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.

APPENDIX 1

Hyde County Recreational Opportunities (March, 2014)

Category/Name	Location	Facilities/Programs
Natural Attractions		
Cape Hatteras National Seashore	Ocracoke	Fishing village, historic structures, historic British cemetery, Ocracoke Light Station; pristine beaches, shelling, nature study
Ocracoke Hammock Hills Nature Trail	North of Ocracoke Village	A 3/4-mile loop trail through yaupon, pine, myrtle and dunes
Ocracoke Preservation Society Museum	Ocracoke	Houses displays from the early history of the island and environs
Ocracoke Historical Interpretive Trail	Ocracoke	Walking or biking island tour of historical, natural and cultural attractions of the harbor, town and beach
Springer's Point	Off Loop Road in Ocracoke	Ancient maritime forest
Mattamuskeet National Wildlife Refuge	Lake Mattamuskeet	50,000 acres of water, marsh, timber and crop lands; largest natural lake in North Carolina; migration and wintering habitat for waterfowl and other birds; fishing, hunting, photography and wildlife observation
Mattamuskeet Lodge	Lake Mattamuskeet	A former steam-powered pumping plant undergoing restoration by the NC Wildlife Resources Commission.
Swan Quarter National Wildlife Refuge	Swan Quarter	8,800 acres of saltmarsh islands and forested wetlands interspersed with potholes, creeks, and drains; winter sanctuary and nesting habitat for waterfowl; fishing, hunting, photography
Pocosin Lakes National Wildlife Refuge	Several access points	A unique wetland habitat of more than 113,000 acres featuring migratory waterfowl and other birds; fishing, hunting, photography and wildlife observation; wildlife-oriented interpretation, outdoor recreation and environmental education
Alligator River National Wildlife Refuge	Accessed from Manteo	A 152,000-acre refuge established to preserve and protect the pocosin, a unique wetland habitat type, and its associated wildlife species; fishing, hunting and interpretation
Historic Albemarle Trail	Northeast NC	Mattamuskeet Lodge and Historic Ocracoke are two of 32 sites on this driving tour of historic and natural sites of the northeastern region of NC
Charles Kuralt Trail	Various	Hyde County's four National Wildlife Refuges are featured on this trail.
Biking and Paddling Trails		
NC Bile Route 2	Various sites in Hyde County	Stretching 700 miles from the NC mountains to the sea, this bike route has two segments within Hyde County: the Mattamuskeet segment, along the Pamlico Sound, and the Outer Banks route through Ocracoke Island.
NC Birding Trail	Various sites in Hyde County	This trail links great bird-watching sites and birders with communities, businesses and other local historical and educational attractions.
NC Coastal Plain Paddle Trails	Waterways in Hyde County	Three waterways within Hyde County have been designated as paddle trails: Alligator River Trail (22 miles) which includes a portion on the Atlantic Intracoastal Waterway; Lake Mattamuskeet Trail (10 miles) entirely on the National Wildlife Refuge; and Pungo River Trail (11 miles) that runs through black-water marshes and cypress swamps in the western end of Hyde County.
Self-Guided Tours		
Historic Fairfield	Fairfield	Walking/riding tour through the Fairfield National Register Historic District; rural village including rare, intact examples of the Italianate and Carpenter Gothic-style buildings
Historic Lake Landing	Lake Landing	Riding tour through the Lake Landing Historic District, part of the Mattamuskeet Indian Reservation. Site comprises 13,400 acre and 25 homes, churches and other buildings
Talking Houses and Historic Places	Various sites	AM-radio accessible tour information about numerous sites
Campgrounds/Recreational Vehicle Parks		
Bayside Marina and Campground	Swan Quarter	
Osprey Nest Campground	Fairfield	
Beachcomber Campground	Ocracoke	
Teeter's Campground	Ocracoke	

2014 Hyde County Community Health Assessment

Secondary Data Summary

Report to Hyde Partners for Health
May 12, 2014

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 Hyde Partners for Health, the Hyde County Health Department, area hospitals, and other community organizations.
- Provide direction for the planning of disease prevention and health promotion services and activities.

Sheila S. Pfaender, Public Health Consultant

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.

We Take Special Notice When…

- Hyde County statistics deviate from North Carolina (or comparison county) statistics, or some other "norm".
- Trend data show significant changes over time.
- There are significant age, gender, or racial disparities.

Demographic Data

General Population Characteristics

- The Hyde County population is “older” than the overall NC population.
- Median age for Hyde County females is seven years “older” than median age for Hyde County males.
- The Hyde County population has a higher proportion of males than females, the reverse of the “usual” situation.

2010 US Census

Location	Total Population	Number Males	% Population Male	Median Age Males	Number Females	% Population Female	Median Age Females	Overall Median Age
Hyde County	5,810	3,226	55.5	38.6	2,584	44.5	45.9	41.2
Alleghany County	11,155	5,532	49.6	44.3	5,623	50.4	47.5	45.9
State of NC	9,535,483	4,645,492	48.7	36.0	4,889,991	51.3	38.7	37.4

Population Growth

- Rate of growth in Hyde County has been mostly *negative*, a trend predicted to continue in the decade 2010-2020 and beyond.

Percent Population Growth		
Decade	**Hyde County**	**State of NC**
1980-1990	-7.9	**12.8**
1990-2000	7.7	**21.3**
2000-2010	-0.3	**18.5**
2010-2020	-3.5	**15.0**
2020-2030	-3.7	**13.7**

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Minority Populations

- Hyde County population has a higher proportion of African Americans than NC or Alleghany County.

Population Distribution by Race/Ethnicity
2010 US Census

Location	Percent of Overall Population						
	White	Black	AI/AN	Asian	Other	Multiple Races	Hispanic
Hyde County	64.0	31.6	0.5	0.3	2.4	1.2	7.1
Alleghany County	92.2	1.3	0.2	0.5	4.6	1.1	9.0
State of NC	68.5	21.5	1.3	1.7	4.3	2.2	8.4

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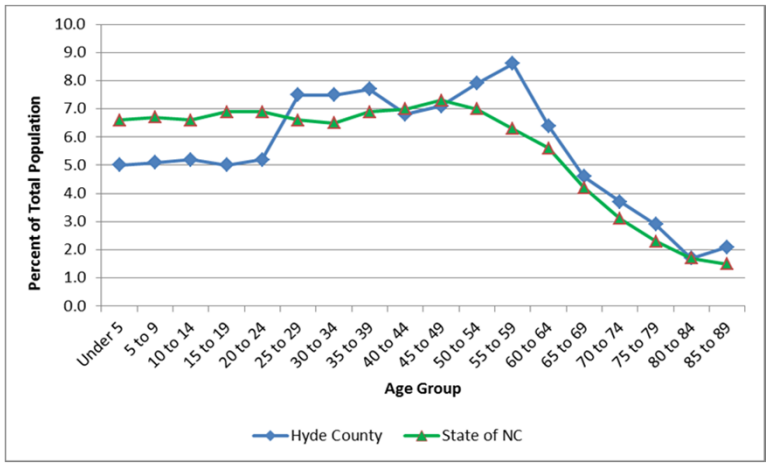
Population Age Distribution

- Hyde County has lower proportions of people ≤24 and 40-49, and higher proportions of people 25-39 and ≥50 than NC.



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Growth of the Elderly Population

- The proportion of every major age group 65 years and older in Hyde County will increase between 2010 and 2030.
  - **Age 65-74:** by **49%** (to 742) [in NC by 47%]
  - **Age 75-84:** by **107%** (to 571) [in NC by 61%]
  - **Age 85+:** by 43% (to 182) [in NC by **47%**]
  - **Overall Age 65+:** by **65%** (to 1,495) [in NC by 51%]

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Socioeconomic Data

Income

In Hyde County as of November, 2013:

- Per Capita Personal Income (2012) = $18,291
  - $5,664 **below** NC average
- Median Household Income (2012) = $33,768
  - $10,148 **below** NC average
- Median Family Income (2011) = $42,121
  - $10,799 **below** NC average

Employment

- As of 2012, the employment sector in Hyde County with the largest proportion of workers (26% of total workforce):

  Public Administration

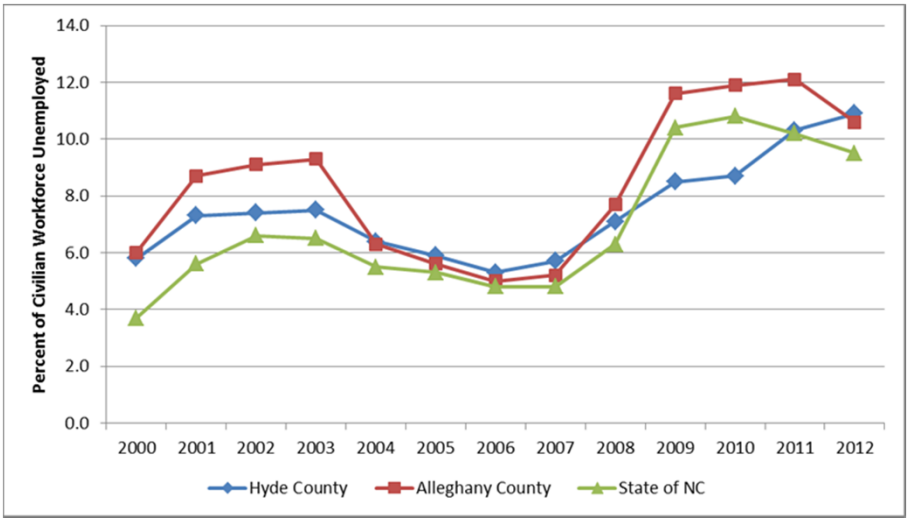
- Employment sectors in Hyde County with the second and third largest proportion of workers:

  Agriculture, Forestry, Fishing and Hunting (16%)

  Accommodation and Food Service (15%)

Statewide in 2012 the largest employment sector was Health Care and Social Assistance (14%).

Annual Unemployment Rate



Poverty / Poverty and Race

- The total poverty rate in Hyde County was significantly higher than the NC rate in each period cited.
- In 2008-2012 the poverty rate for blacks in Hyde County was 5 times the rate for whites.

Percent in Poverty

Location	2006-2010			2007-2011			2008-2012		
	Total % in Poverty	% White in Poverty	% Black in Poverty	Total % in Poverty	% White in Poverty	% Black in Poverty	Total % in Poverty	% White in Poverty	% Black in Poverty
Hyde County	20.4	12.3	47.8	25.1	10.5	63.3	23.3	10.9	54.8
Alleghany County	26.2	22.1	0.0	22.6	21.0	18.5	20.9	19.1	35.6
State of NC	15.5	11.2	25.6	16.1	11.8	26.1	16.8	12.5	26.8

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Poverty and Age

- Very young children in Hyde County, as elsewhere, are disproportionately affected by poverty, at a rate as much a twice the overall rate.

Percent in Poverty

Location	2006-2010				2007-2011				2008-2012			
	Total % in Poverty	% Related Children Under 5 in Poverty	% Related Children Under 18 in Poverty	% Adults 65 or Older in Poverty	Total % in Poverty	% Related Children Under 5 in Poverty	% Related Children Under 18 in Poverty	% Adults 65 or Older in Poverty	Total % in Poverty	% Related Children Under 5 in Poverty	% Related Children Under 18 in Poverty	% Adults 65 or Older in Poverty
Hyde County	20.4	32.6	21.3	29.8	25.1	44.2	25.6	26.4	23.3	47.8	31.9	22.7
Alleghany County	26.2	48.9	29.4	13.7	22.6	50.6	32.4	12.2	20.9	43.6	30.0	13.0
State of NC	15.5	25.5	21.3	10.7	16.1	26.4	22.3	10.3	16.8	28.0	23.5	10.2

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Housing Costs

- For 2008-2012, the estimated median monthly mortgage cost among Hyde County homeowners = $895

  $392 less than the NC median

- For 2008-2012, the estimated median monthly rent among Hyde County renters = $614

  $145 less than the NC median

For 2008-2012, approximately 50% of Hyde County renters and 33% of Hyde County mortgage-holders lived in a household paying > 30% of household income for housing, the same figures as for NC as a whole.

Socioeconomics and Health

- The population in Hyde County is aging and will continue to age. It will be necessary to invest resources to provide needed health and social services for this segment of the population.
- Unemployment and poverty remain high in Hyde even as they improve elsewhere in NC. Loss of employment (which apparently is continuing in Hyde County) correlates with loss of health insurance, so greater numbers of people will have difficulty accessing needed healthcare services.

Children and Families

- In 2010, 20% of the Hyde County population was under the age of 18. [NC = **24%**]
- In 2010, in Hyde County households with children under the age of 18:
  - Total children under the age of 18 = 1,076
  - Children <18 living with both parents = 601 (56%) [NC = **60%]**
- For 2008-2012, 41% of the estimated 99 Hyde County grandparents living with their minor grandchildren *also* were responsible for their care. [NC = **50%]**

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Educational Achievement and Investment

- Compared to the NC average, Hyde County has:
  - **9% *lower*** percentage of high school graduates (2008-12)
  - **51% *lower*** percentage of college graduates (2008-12)
  - **23% *lower*** HS drop-out rate (SY2011-12)
  - **4%** *lower* average SAT score (SY2011-12)
  - ***higher*** proficiency among 3rd graders on EOG math tests but ***lower*** proficiency on EOG reading tests (SY2011-12)
  - ***higher*** proficiency among 8th graders on EOG math *and* reading tests (SY2011-12)
  - **118%** *higher* total per pupil expenditure (SY2011-12)

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Education and Health

- The relatively lower educational attainment of the Hyde County population could mean that health-focused messages might not be understood by some in the community. Special effort also may be needed to overcome cultural biases and myths about health in some segments of the population.
- With healthcare services inaccessible and unaffordable for some segments of the Hyde County population, local schools may need to become a growing source of healthcare and health information (including mental health) for youth.

Crime and Safety

- Overall crime rates and counts of index crimes were not available for Hyde County.
- Of 14,028 **registered sex offenders** in NC in January 2014, **10** lived in Hyde County.
- **Two clandestine methamphetamine lab** busts have taken place in Hyde County since 2005.
- As of 2013 there were **no gangs** reported in Hyde County

Juvenile Crime

- Between 2011 and 2012 the *number* of complaints of **undisciplined** youth (ages 6-17) in Hyde County ▼ to zero, and the *rate* ▼ to zero.

  Undisciplined *refers to disobedience beyond disciplinary control of parent/guardian (e.g., truancy, vagrancy, running away from home for more than 24 hours).*

- Over the same period the *number* of complaints of **delinquent** youth in the county ▲ from zero to 8, and the *rate* ▲ 13%.

  Delinquency *refers to acts committed by youths that would be crimes if committed by an adult.*

- One Hyde County youth was sent to secure detention in 2011; none were sent in 2012.

Juvenile Crime

- **Risks (8 Hyde County youth assessed, FY2011-2013)**
  - Age at first complaint ≥12: 100%
  - Prior referral(s) to court: 25%
  - Negative peers and/or gang association: 75%
  - Involved in substance abuse: 50%
  - Parents willing and able to supervise: 87%
  - Parents willing but unable to supervise: 13%

Juvenile Crime

- **Needs (18 Hyde County youth assessed, FY2011-2013)**
  - Functioning at grade level: 89%
  - No school behavior problems: 28%
  - Serious school behavior problems: 44%
  - Domestic discord at home: 22%
  - Domestic violence at home: 0%
  - Marginal/inadequate parenting skills at home: 78%
  - Family history of criminality: 56%
  - Family uses drugs and/or alcohol: 22%

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Sexual Assault

- The number of individuals filing sexual assault claims in Hyde County and NC increased in the most recent period.

Location	No. of Individuals Filing Complaints ("Clients")				
	FY2007-08	FY2008-09	FY2009-10	FY2010-11	FY2011-12
Hyde County	2	*	7	6	15
Alleghany County	2	12	13	35	52
State of NC	6,527	8,494	13,392	13,881	13,214

- In Hyde County in 2011-2012 the largest proportion of sexual assault complaints (33%) involved adult rape; statewide the largest proportion (24%) also involved adult rape.

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Domestic Violence

- The number of individuals filing domestic violence claims in Hyde County increased in the two most recent periods.

Location	No. of Individuals Filing Complaints ("Clients")				
	FY2007-08	FY2008-09	FY2009-10	FY2010-11	FY2011-12
Hyde County	17	*	80	123	142
Alleghany County	90	107	141	139	146
State of NC	41,787	51,873	66,320	61,283	51,563

- The Hyde County domestic violence shelter served 6 victims in FY2011 and FY2012 and 24 in FY2013.

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Child Maltreatment

- The most common type of child maltreatment in Hyde County is *neglect*.

Category	2008-09	2009-10	2010-11	2011-12	2012-13
No. Substantiated[1] Findings of Abuse and Neglect	0	0	0	0	0
No. Substantiated Findings of Abuse	0	2	0	0	0
No. Substantiated Findings of Neglect	0	1	1	3	0

[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.

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Crime / Safety and Health

- Crime (especially theft, robbery and domestic violence) often increases during times of economic hardship, especially among populations already experiencing poverty. Crime is sometimes committed in response to economic desperation and mental depression.
- Community crime–and sometimes even the *perception* of crime or inadequate safety–can increase anxiety among residents.
- Efforts to control crime may, of necessity, divert resources that might otherwise be applied to health and social service needs.

Health Resources

Health Insurance

- The percent uninsured improved substantially in all age groups in Hyde County and NC between the two most recent periods cited.

Percent of Population Without Health Insurance, by Age Group

Location	2006-07			2008-09			2010-11		
	0-18	19-64	0-64	0-18	19-64	0-64	0-18	19-64	0-64
Hyde County	10.8	31.4	25.8	11.0	31.6	26.8	8.5	24.6	20.9
Alleghany County	10.5	25.7	21.4	12.8	26.8	23.2	8.7	21.6	18.2
State of NC	11.3	19.5	19.5	11.5	23.2	19.7	9.4	23.0	18.9

- The age group 0-18 tends to have a lower percentage of uninsured than the 19-64 age group, due partly at least to NC Health Choice.

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Medicaid Eligibility

- The *total* number eligible for Medicaid in Hyde County changed little from year to year over the period cited, although the numbers in some programs varied more dramatically.

Hyde County Medicaid Eligibles by Program Area

Year	Number of Eligibles						
	Aged	Disabled	AFDC	Infants & Children	Medicaid CHIP	Medicare Catastroph	Total Eligibles
2010	203	200	258	298	41	58	1,075
2011	199	202	261	290	31	56	1,055
2012	189	194	217	346	38	60	1,058
2013	188	187	206	384	22	64	1,068

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Health Care Practitioners

- 2011 ratios of active health professionals per 10,000 population were ***lower*** in Hyde County than NC for:
  - **MDs:** 1.7 (NC = **22.7**)
  - **Primary Care MDs:** 1.7 **(**NC = **8.2)**
  - **Registered Nurses:** 48.2 (NC=**92.0**)
  - **Dentists:** 0.0 (NC = **4.4**)
  - **Pharmacists:** 0.0 (NC = **9.5**)
- The only medical specialties represented in Hyde County in 2011 were: primary care; family medicine; nursing (registered nurse, nurse practitioner, certified nurse midwife, and licensed practical nurse); and physical therapy (physical therapist, physical therapy assistant, occupational therapy assistant).

Long-Term Care Facilities

- Beds in Nursing Homes/Homes for the Aged in Hyde County: 80 (Cross Creek Health Care)
- Beds in Adult Care Homes/Homes for the Aged in Hyde County: 0
- Beds in Family Care Homes in Hyde County: 0

Health Statistics

Health Rankings

- According to *America's Health Rankings* (2013)
  - NC ranked 35th overall out of 50 (where 1 is "best")
- According to *County Health Rankings* (2014) Hyde County was ranked among the 100 NC counties (where 1st is "best"):
  - 22nd in length of life
  - 25th in quality of life
  - 52nd in health behaviors
  - 94th in clinical care
  - 73rd in social and economic factors
  - 1st in physical environment

Maternal and Infant Health

Pregnancy Rate

Women Age 15-44
Pregnancies per 1,000 women (2012)

- **Hyde County:**
  - Total = 64.7 [▼ 20% since 2008] (NC = **72.1**)
  - White non-Hispanic= **80.8** (NC = 63.0)
  - African American non-Hispanic = *36.5* (NC = **79.6**)
  - Other non-Hispanic = *0.0* (NC = 80.6)
  - Hispanic = *28.0* (NC = **102.6**)

Pregnancy Rate

Women Age 15-19 ("Teens")
Pregnancies per 1,000 women (2012)

- **Hyde County** (Note all county rates are *unstable*):
  - Total = ***59.3*** [▲ 49% since 2008] (NC = 39.6)
  - White non-Hispanic= ***50.0*** (NC = 30.8)
  - African American non-Hispanic = ***75.0*** (NC = 61.6)
  - Other non-Hispanic = *0.0* (NC = **39.4**)
  - Hispanic = *66.7* (NC = **71.1**)

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Pregnancy Risk Factors

- **High Parity Births (2008-2012)**
  - Hyde County <30 = 14.6% (NC = **16.6%**)
  - Hyde County ≥30 = **31.3%** (NC = 21.5%)
- **Short Interval Births (2008-2012)**
  - Hyde County Overall = 10.2% (NC = **12.9%**)
- **Percent of Births to Moms Who Received Prenatal Care in the First Trimester (2012)**
  - Hyde County Overall = **71.4%** (NC = 71.3%)

  *Note: this is the second lowest percentage for Hyde County in 7 years. The frequency of early prenatal care in 2006 was 89.0%. (The percentage is falling in NC as well.)
- **Percent of Births to Moms Who Smoked During Pregnancy (2012)**
  - Hyde County Overall = ***14.3%*** (NC = **10.6%***)*

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Pregnancy Outcomes

For 2008-2012:

- **Low Birth Weight Births** (<5.5 pounds)
  - Hyde County Overall = 8.6% (NC = **9.0%**)
- **Very Low Birth Weight** (<3.3 pounds)
  - Hyde County Overall = ***2.7%*** (NC = 1.8%)
- **Caesarian Section Deliveries**
  - Hyde County Overall = **42.0%** (NC = 31.1%)
- **Infant Mortality Rate** (per 1,000 live births)
  - Hyde County Overall = ***11.7*** (NC = 7.5)

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Mortality

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Leading Causes of Death in Hyde County

Age-Adjusted Rates (2008-2012)	No. of Deaths	Hyde Co. Mortality Rate	Rate Difference from NC
1. Total Cancer	73	201.5	+27%
2. Diseases of the Heart	67	181.7	+4%
3. Cerebrovascular Disease	29	78.8	+75%
4. Chronic Lower Respiratory Disease	17	58.5	+26%
5. Diabetes Mellitus	13	44.7	2X
6. All Other Unintentional Injuries	12	41.3	+96%
7. Alzheimer's Disease	10	34.4	+17%
8. Unintentional Motor Vehicle Injuries	6	20.7	+45%
9. Nephritis, Nephrotic Syndrome, Nephrosis	4	13.8	-23%
10. Septicemia	2	6.9	-49%
10. Chronic Liver Disease and Cirrhosis	2	6.9	-26%
12. Suicide	1	3.4	-72%
12. AIDS	1	3.4	+10%
14. Pneumonia and Influenza	0	n/a	n/a
15. Homicide	0	n/a	n/a

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Leading Causes of Death: Gender Comparison

Hyde County Rank by Descending Overall Age-Adjusted Rate (2008-2012)	Rank Among Males	Rank Among Females	% Male Rate Difference from Females
1. Total Cancer	1	2	+55%
2. Diseases of the Heart	2	1	+31%
3. Cerebrovascular Disease	n/a	n/a	n/a
4. Chronic Lower Respiratory Disease	n/a	n/a	n/a
5. Diabetes Mellitus	n/a	n/a	n/a
6. All Other Unintentional Injuries	n/a	n/a	n/a
7. Alzheimer's Disease	n/a	n/a	n/a
8. Unintentional Motor Vehicle Injuries	n/a	n/a	n/a
9. Nephritis, Nephrotic Syndrome, Nephrosis	n/a	n/a	n/a
10. Septicemia	n/a	n/a	n/a
10. Chronic Liver Disease and Cirrhosis	n/a	n/a	n/a
12. Suicide	n/a	n/a	n/a
12. AIDS	n/a	n/a	n/a
	n/a	n/a	n/a
Overall Mortality Rate	---	---	+30%

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Leading Causes of Death – By Age

Age Group	Rank	Cause of Death in Hyde County (2008-2012)
00-19	1 2 3	Conditions originating in the perinatal period Pneumonitis/congenital anomalies/motor vehicle injuries/COPD Motor vehicle injuries
20-39	1 2	Motor vehicle injuries Cancer (all sites)/non-motor vehicle injuries
40-64	1 2 3	Cancer (all sites) Diseases of the heart Cerebrovascular disease/non-motor vehicle injuries
65-84	1 2 3	Cancer (all sites) Diseases of the heart Cerebrovascular disease
85+	1 2 3	Diseases of the heart Cerebrovascular disease Cancer (all sites)

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Mortality Trends, 2001-2005 to 2008-2012

Leading Cause of Death in Hyde County	Overall Trend Direction
1. Total Cancer	▼
2. Diseases of the Heart	▼
3. Cerebrovascular Disease	▲▲
4. Chronic Lower Respiratory Disease	▲
5. Diabetes Mellitus	▼▼
6. All Other Unintentional Injuries	▲
7. Alzheimer's Disease	▲▲▲
8. Unintentional Motor Vehicle Injuries	▲
9. Nephritis, Nephrotic Syndrome, Nephrosis	▼▼
10. Septicemia	▲
10. Chronic Liver Disease and Cirrhosis	n/c
12. Suicide	▼▼
12. AIDS	▲
14. Pneumonia and Influenza	▼▼
15. Homicide	▼▼

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Site-Specific Cancer Trends 1996-2000 to 2007-2011

Cancer Site	Parameter	Overall Trend Direction
Lung Cancer	Incidence Mortality	▲▲▲ ▲
Breast Cancer	Incidence Mortality	▲ ▼
Prostate Cancer	Incidence Mortality	▲ ▲
Colorectal Cancer	Incidence Mortality	▲ ▼

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Morbidity

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Communicable Disease

In Hyde County for the period 2011-2013:

- **The most commonly-reported communicable diseases were:**
  - *Vibrio* sp. infection (1 case)
  - Salmonellosis (1 case)
  - Rocky Mountain spotted fever (1 case)
- **The most commonly-reported STIs were:**
  - Chlamydia (41 cases)
  - Gonorrhea (8 cases)
  - Non-gonococcal urethritis (2 cases)

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Adult Obesity

- Prevalence of diagnosed obesity among adults in Hyde County changed little over the four years cited.

Prevalence of Diagnosed Obesity among Adults

Location	Estimated Prevalence, Number and Percent (Age-adjusted)							
	2007		2008		2009		2010	
	#	%	#	%	#	%	#	%
Hyde County	1,288	31.2	1,281	30.8	1,330	32.2	1,330	31.3
Alleghany County	2,242	25.9	2,314	26.7	2,146	25.0	2,146	25.0
State of NC	n/a	56.8	n/a	56.4	n/a	57.1	n/a	57.4

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Childhood Obesity

- **Overweight and Obesity among Hyde County 7th Graders (SY2010-11)**
  - 50% were overweight or obese
  - 50% were of normal weight
- **Overweight and Obesity in Mattamuskeet Middle School (SY2013-14)**
  - 24% were overweight
  - 13% were obese
  - 11% were extremely obese
- **Overweight and Obesity in Hyde County 2-4 Year Olds (NC-NPASS)**
  - 30% were overweight or obese in 2012
  - 34% were overweight or obese in 2010

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Adult Diabetes

- Prevalence of diagnosed diabetes among adults has been higher in Hyde County than statewide.
- Prevalence in Hyde County has increased only slightly since 2007.

Prevalence of Diagnosed Diabetes among Adults

Location	Estimated Prevalence, Number and Percent (Age-adjusted)							
	2007		2008		2009		2010	
	No.	%	No.	%	No.	%	No.	%
Hyde County	495	12.0	510	12.3	518	12.5	566	12.2
Alleghany County	926	10.7	899	10.4	923	10.8	992	11.4
State Total	n/a	9.0	n/a	9.1	n/a	9.2	n/a	9.3

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Oral Health

- **2011 Hyde County Community Health Survey respondents who reported that accessing dental care was a "challenge":**
  - 13% (62 of 461)
- **Patients served by *Miles of Smiles* Dental Van:**
  - 2011-12: 119
- **Visits to area hospital EDs for disorders of teeth and gums:**
  - 2011-2013: 25 (20 at Vidant Pungo)

Mental Health

- From 2008 through 2011, the number of Hyde County residents served by the **Area Mental Health Program** averaged 146/year. In 2012, only 61 persons were served.
- Over the same period, admissions of Hyde County residents to **NC State Psychiatric Hospitals** averaged 4/year. In 2012 there was 1 such admission.
- From 2011-2013 there were 60 *total* **area hospital ED admissions** for mental, behavioral and neurodevelopmental disorders (including alcohol- and drug-related diagnoses).
  - Anxiety, dissociative and somatoform disorders: 14
  - Episodic mood disorders (including bipolar disorder): 6
  - Special symptoms and syndromes not elsewhere classified: 6
  - Schizophrenic disorders: 3
  - Acute reaction to stress: 3
  - Depressive disorders not elsewhere classified: 2

Substance Abuse

- From 2008 through 2011, the number of Hyde County residents served by **NC State Alcohol and Drug Treatment Centers** averaged 6/year. In 2012, only 2 persons were served.
- From 2011-2013, there were numerous **area hospital ED admissions** for conditions specifically related to drugs and alcohol. Three-year totals include:
  - Non-dependent abuse of drugs: 12
  - Alcohol-dependence syndrome: 6
  - Drug-induced mental disorders: 3
  - Alcohol-induced mental disorders: 2
  - Drug dependence: 1

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"Watch List" of Health Problems

- **Alzheimer's disease** – the overall mortality rate tripled in the last several years, and is significantly higher among females than males.
- **Cerebrovascular disease (stroke)** – the overall mortality rate doubled overall between 2001-2005 and 2008-2012. The rate has increased significantly among both males and females.
- **Unintentional injuries** – mortality rates have increased both for motor vehicle and non-motor vehicle injuries; the mortality rates for both are higher among males than females.

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"Watch List" of Health Problems
(continued)

- **Lung cancer** – the mortality rate is increasing, and the incidence rate has tripled over the last decade.
- **Prostate cancer** – both the mortality and incidence rates have been increasing.
- **Colon cancer** – although the mortality rate has fallen significantly, the incidence rate is increasing.
- **Breast cancer** – although the mortality rate has fallen, the incidence rate is increasing.

Hyde County Populations at Risk for Poor Health Outcomes

- People without a "medical home": low medical provider ratios and utilization of area hospital EDs for "routine" health problems are indicators that many people in Hyde County do not have a stable medical home. This problem will be exacerbated with the closure of Vidant Pungo Hospital.
- People who abuse alcohol and drugs, and persons with mental health disorders: utilization of the EDs and falling utilization rates for the LMEs might indicate that many people are not connected to/do not know how to/do not want to connect to the local LME.

Hyde County Populations at Risk for Poor Health Outcomes

- The growing elderly population in Hyde County: there is an apparent lack of nursing home and assisted living housing options for the elderly as they reach the point they can no longer care for themselves.
- All uninsured or underinsured Hyde County residents: these populations have difficulty accessing the few health care providers are available.

Hyde County Populations at Risk for Poor Health Outcomes

- Males, who suffer mortality and morbidity at higher rates than females.
- People without reliable transportation (including the elderly and the poor) because transportation is key to accessing health care in large, rural Hyde County.
- Minority populations, who suffer most of the consequences of poverty and ill-health cited in this report at the highest rates.

Hyde County Community Health Needs Assessment

Primary Data Executive Summary

East Carolina University

Center for Survey Research

12/15/2014

Acknowledgements

This report is the result of the collaborative effort between the Hyde County Health Department, Vidant Health, East Carolina University's Center for Survey Research, and a Stakeholder Group consisting of engaged community members within Hyde County. A list of the primary members of the collaborative Leadership Team is listed below.

Leadership Team

Mandee Foushee Lancaster, M.A.	ECU Center for Survey Research
Justin M. Raines, M.A.	ECU Center for Survey Research
Katie Vitiello, B.A.	ECU Center for Survey Research
Tim Eason, B.A.	ECU Center for Survey Research
Fiona Moyer, B.A.	ECU Center for Survey Research
Wes Smith	Hyde County Health Department
Anna Schafer	Hyde County Health Department
Pam Shadle	Vidant Health

Stakeholders

The above-mentioned individuals would also like to show their appreciation for all of the individuals who participated in the research project by completing the Hyde County Community Health Needs Assessment Survey or by attending a focus group session. Your participation was instrumental to the mission of the project and provided the collaborative team with vital information.

Purpose and Method

The focus of this project was to collect public opinions from community members in Hyde County regarding their health and quality of life. The input collected from the project is intended to help improve the major health and community issues in the county. The following executive summary details the results of the primary data collection effort consisting of a county-wide survey and various focus groups.

Specifically, the project methodology included a paper and online survey and focus groups. The Stakeholder Group, consisting of engaged community members selected by the Leadership Team, distributed paper surveys and slips containing the online survey link to participants in key county locations. Additionally, the survey link was posted on various websites (e.g., Hyde County's Government website) to make the survey accessible to Hyde County residents.

Both forms of the survey were made available to the community for a total of 12 weeks. Following data collection, responses received from the online and paper surveys were subsequently combined to create an overall sample of responses. In sum, responses received from the online and paper surveys resulted in a total of 245 participants.

In addition to the survey, five focus groups were also conducted to obtain supplementary information from county residents regarding their feelings toward health and quality of life. The focus groups were held in Ponzer, Swan Quarter, Fairfield, Engelhard, and Ocracoke. Following the focus group, participants' responses were analyzed and categorized into main points and key direct quotes. A total of 44 Hyde County residents participated in the focus groups.

Study Limitations

One potential limitation to all public opinion research is error derived from not receiving responses from all individuals within a given population. The only approach to eliminate this error is to increase the size of the sample, which is often not a feasible solution for many studies. Fortunately, several solutions exist that help to reduce the level of bias caused by sampling error. One such solution used in the current study is population calibration or "data weighting".

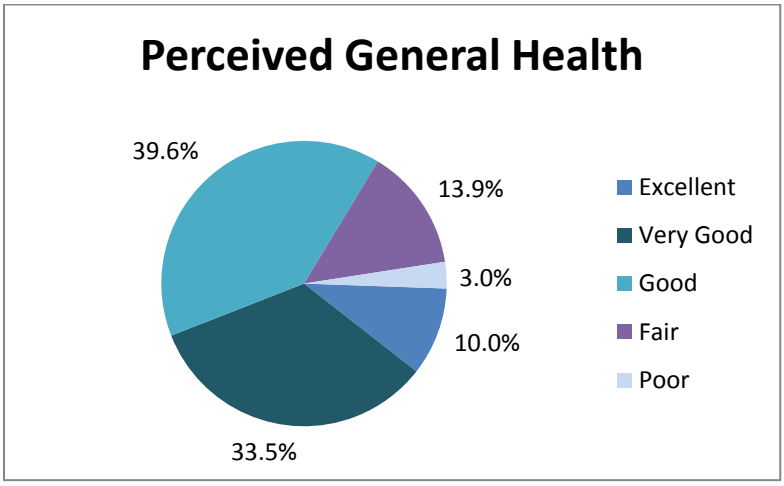
Data weighting is conducted in order to compensate for discrepancies between the sample of random survey respondents and the demographic profile of the entire county. In the current study, weighting procedures were only necessary for the demographic variables of gender and age, as all other demographic variables were representative of the county. In sum, the weighting process helps to equalize the opinions of underrepresented or overrepresented survey participants. All data for the sample included in the report reflects weighted survey data based on the demographics of Hyde County.

Survey Results Overview

The following Results Overview details key findings derived from participants' survey responses. A copy of the survey instrument can be found in the Appendix (see Appendix A). Analysis of the survey demographics indicated that the sample consisted primarily of White men with at least a high school education and an annual household income of greater than $35,000.

When asked to describe their general health, the majority of participants were generally optimistic, stating that they felt they were in good (40 percent) or very good (34 percent) health. Additionally, only 17 percent of the sample said that their health was either fair or poor (see Chart 1).

Chart 1.



Participants were asked to report any health conditions they have been diagnosed with by a health professional, such as a doctor or nurse. The three most frequently reported health conditions were high blood pressure (41 percent), high cholesterol (34 percent), and depression or anxiety (29 percent).

Next, participants were asked to select three key issues that influenced the quality of life in Hyde County. Participants most frequently selected job availability (50 percent), alcohol and drug abuse (45 percent), and poverty/low income (29 percent) as the main issues impacting life in the county. Additionally, cancer was selected by 28 percent of participants, highlighting the chronic health condition as a close fourth in the list of top issues impacting quality of life.

Finally, survey respondents indicated their preferred methods of communication with Hyde County regarding upcoming health related events. The top three methods of communication were television (41 percent), email (39 percent), and Facebook (39 percent). Although two of the most frequently selected methods were internet based, it is important to note that approximately 18 percent of the community members stated that they did not have access to the internet.

Survey Sample Characteristics

Overall, 245 residents of Hyde County from various county locations (see Table 1) completed the online or paper copy surveys. To better represent the demographics of Hyde County, survey data was weighted using the demographic variables of age and gender. The remaining demographic variables (e.g., race, education, household income) were not used for data weighting, as they were representative of the demographic profile of Hyde County.

The survey sample contains 56 percent males and 44 percent females. Overall, 64 percent of the participants are Caucasian, followed by 32 percent who are African American. In regard to age, approximately 7 percent of the sample is contained in each of the age categories from 25 to 59 (e.g. 25-29, 30-34, etc.). Additionally, approximately 10 percent of the sample is under the age of 25 and 15 percent is over the age of 65. The majority of participants reported achieving either a high school diploma or some college education without a degree (58 percent). Ten percent of the survey respondents reported less than a 9th grade education. Finally, the annual household income for the majority of the community members was between $25,000 and $74,999 (63 percent). An additional 18 percent of the sample reported an annual household income less than $15,000.

Table 1.

Locations where survey respondents live		
	Percent	**Freq (N)**
Ocracoke	25.9%	64
Swan Quarter	21.4%	52
Fairfield	15.7%	38
Lake Landing	7.6%	19
Currituck	7.6%	19
Not Listed	21.8%	53

Focus Group Sample Characteristics

Overall, 44 residents of Hyde County participated in the five focus groups. Most of the focus group participants reported living in Swan Quarter (25 percent), Ocracoke (23 percent), or Engelhard (18 percent). No more than 10 percent of the participants reported living in any other areas of the county. The majority of focus group participants defined their household as a couple with children (36 percent), a couple without children (27 percent), or retired with no children at home (23 percent). Furthermore, over 65 percent of the participants had lived in Hyde County for more than 20 years.

In regard to the demographic characteristics of the community members who contributed to the focus groups, the majority of participants were women (82 percent), White (77 percent), and between the ages of 40 and 64 (50 percent). In addition, most participants indicated having at least some college education (88 percent), with a large portion (30 percent) holding a graduate or professional degree. While reported income varied, the majority of participants (57 percent) reported a total household income greater than $50,000. Finally, key quotes derived from the focus groups have been included throughout this executive summary and a complete focus group script can be found in the Appendix (see Appendix B).

Living in this Community

Community members were asked a series of questions regarding the quality of life in Hyde County. Specifically, when asked to describe the best aspects of life in the Hyde County community, participants indicated that it was a welcoming environment. For example, focus group participants stated that Hyde County "is a very friendly place to live," and that "there are so many people that will step in to help if something needs to be done." Additionally, participants felt that Hyde County and its proximity to the water provided a slow-paced and relaxed lifestyle. Finally, Hyde County was perceived to have relatively low rates of crime and the majority of survey participants (87 percent) agreed that Hyde County was a safe place to live.

However, when asked to respond to the following statement, "There is plenty of help for people during times of need," only half of survey participants indicated agreement. This reveals a potential discrepancy between focus group members who reported the presence of a supportive community and those who felt there were insufficient resources for those in need. Perhaps this uncovers a difference between the amount of community-level support available and systems-level support, such as government funding and economic opportunity. For example, multiple participants reported a desire to participate in or create community programs (e.g., local gyms, community parks), but are unable to afford them due to a lack of financial support. In sum, respondents highlighted the benefits provided by other community members and an overall sense of unity, as well as the restrictions associated with limited economic resources.

Healthy Behaviors

Community members were asked to report on a series of questions regarding their participation in healthy behaviors. Specifically, when asked how many days per week they engage in at least 30 minutes of physical activity, approximately one third of the survey respondents (38 percent) reported that they exercise 2 to 3 days out of the week. Additionally, 11 percent of the sample stated that they exercise every day of the week.

When asked where they typically go to exercise, survey participants reported exercising in their homes (48 percent) and on sidewalks/roads in their neighborhood (27 percent). Additionally, 14 percent of the sample reported exercising in other locations, such as at local schools or as part of

their job. Focus group responses were similar to those collected in the survey, as participants often stated that they use their neighborhood sidewalks and roads for exercise activities such as "walking" and "biking." Furthermore, some explanation was provided for certain exercise locations, as one participant stated that they often exercise at home because "the local gym is open for a limited number of hours."

Participants were also asked to answer questions regarding their eating habits, such as daily fruit and vegetable consumption. Specifically, there were asked how many servings of fruits and vegetables they consume in an average day, with options ranging from "none" to "7." On average, participants reported consuming 3 servings of fruits per day and 4 servings of vegetables. Focus group participants also discussed their healthy eating habits, stating that they often consume the "fresh produce" and "seafood" that is available in the area.

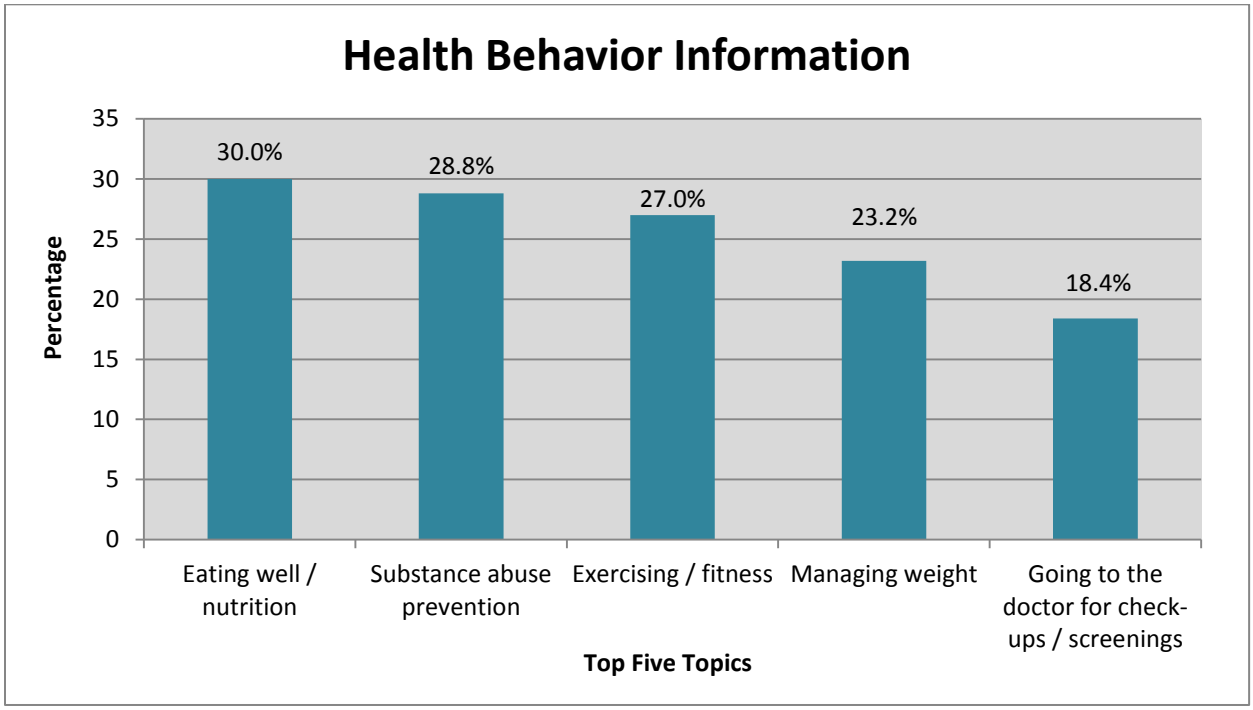
Health Information

Focus group participants and survey respondents were asked to identify sources from which they receive most of their health-related information. According to survey participants, the two most commonly utilized sources of such information are doctors/nurses (51 percent) and the Internet (46 percent). Approximately 20 percent of participants also revealed that friends and family are a noteworthy source of health-related information.

In contrast, focus group responses suggest that the most common method to obtain health-related information is through word-of-mouth via schools, churches, and neighborhoods. One focus group participant stated that "around here (Hyde County), word-of-mouth is the most common." Word-of-mouth was also indicated as a source of health information by survey participants, by selecting "other" and specifying the form of communication. Additional methods used to spread information include television, social media, and message boards located in local businesses or offices.

Respondents who completed the survey were also asked to select specific health behaviors that they believe other community members need more information about (see Graph 1). Approximately one-third of participants (30 percent) identified eating well/nutrition as an essential topic. Further, nearly half of participants (44 percent) who currently care for a child (approximately 26 percent of the entire sample) also recognized this topic as an issue they would like their child to learn more about. Substance abuse and prevention (29 percent), exercising/fitness (27 percent), and managing weight (23 percent) were also frequently selected topics. Finally, although going to the doctor for check-ups and screenings was also one of the most frequently selected topics requiring more information (19 percent), over 80 percent of survey respondents noted that their last check-up with a doctor was less than a year ago.

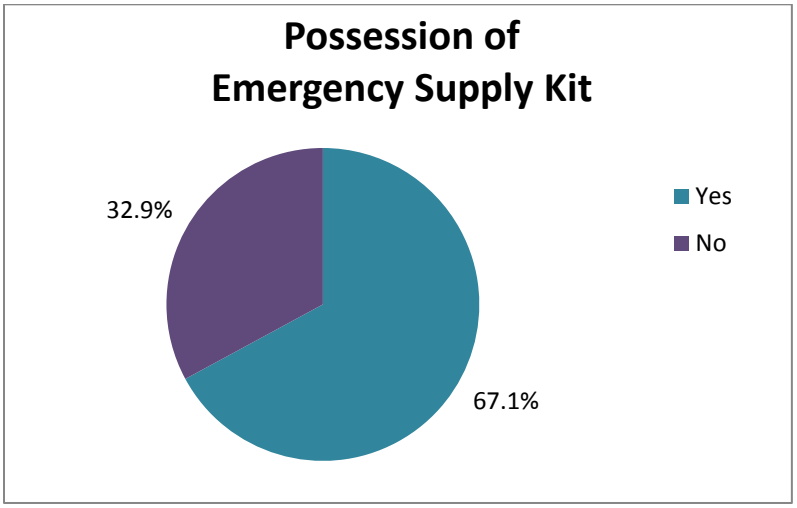
Graph 1.



Similarly, survey respondents were asked to answer a free-response question about health topics they personally would like to learn more about. The two most commonly reported topics were diabetes and heart disease, with ten respondents reporting each of the chronic health conditions. Other frequently reported topics included cancer (8), arthritis (5), and stroke (4). Notably, these responses parallel some of the more commonly reported diagnosed health conditions. For example, approximately 18 percent of the survey sample reported having been diagnosed with diabetes and 11 percent reported having been diagnosed with heart disease/angina.

Finally, approximately 18 percent of survey participants viewed emergency preparedness as a key health and well-being issue that required additional education. This topic was also supported by responses to questions directly targeting the emergency preparedness status of community members. For example, over 10 percent of respondents do not currently own a smoke or carbon monoxide detector. Furthermore, a third of participants (33 percent) also do not possess an emergency supply kit (see Chart 2). However, of those who do possess an emergency kit, the most commonly reported response was that their supply kit would support them for approximately 7 days. Finally, nearly half of community members (46 percent) reported that they do not know who to call for transportation, in order to get to a local shelter during a large-scale disaster.

Chart 2.



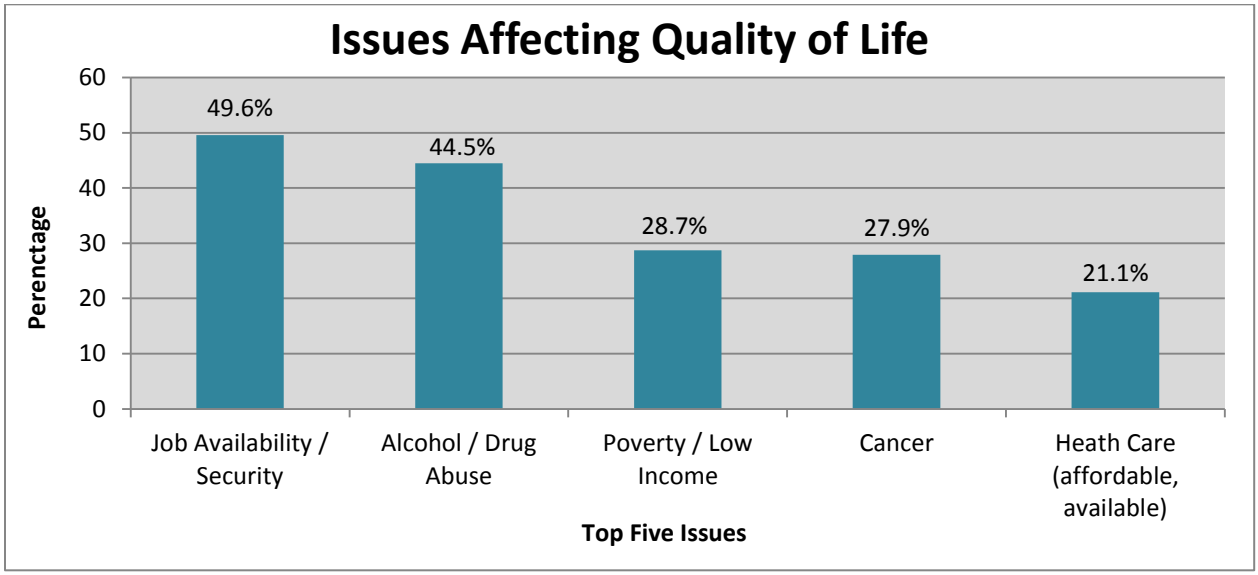
Health Problems

Next, focus group participants were asked to discuss health problems that affect the Hyde County community. The most frequently reported health problems included diabetes, heart disease, obesity, and mental health concerns. Cancer and chronic body aches were also reported by focus group participants, with one participant stating, "We have had more than our fair share of cancer."

According to survey results, depression/anxiety (29 percent) and obesity (27 percent) are the two most commonly reported health conditions affecting the Hyde County community. Moreover, diabetes (17 percent) and chronic body aches (14 percent) were other frequently reported health issues. Similarly, when asked to select issues that impacted the quality of life in Hyde County, participants frequently reported that alcohol and drug abuse (45 percent), cancer (28 percent) and chronic diseases (i.e., heart disease, diabetes, obesity; 14 percent) influenced life in Hyde County (see Graph 2).

Despite alcohol and drug abuse being listed as one of the top issues impacting quality of life in Hyde County, survey participants reported low levels of personal drug and alcohol use, with nearly 75 percent of participants reported having no more than two drinks per week. Additionally, only 4 percent reported misusing prescription drugs. In turn, results revealed a discrepancy between survey participants' personal reports of substance use/abuse and the perceived prevalence of such behavior in the general population.

Graph 2.



Causes of the Health Problems

In response to the question, "What are some causes of these health problems," focus group participants identified multiple origins. The most consistently identified causes were a lack of exercise and poor eating habits. For example, one participant stated that Hyde County residents "have a lot of fast food in their diets." Constant stress was also recognized as a cause to various health problems. Participants elaborated that this stress was due to financial burdens and the lack of job opportunities in the area. Lastly, the use of pesticides and chemicals was identified as a cause of some health conditions, such as cancer, with one participant stating that "a lot of people in this county think that the chemicals that are used (on crops) make them ill and cause cancer."

Some of the causes identified in the focus groups were supported by the survey data. For example, in support of participants who viewed lack of exercise and poor eating habits as primary causes of health problems, 21 percent of survey respondents stated that they do not engage in exercise and almost 25 percent reported that they eat fast food more than two days a week. Although the survey did not specifically address the price of or access to healthy food, these combined results may reflect a need for healthier and more affordable food choices in the community, as well as more education regarding healthy behaviors such as exercise.

Finally, although not stated explicitly as a cause, the survey data revealed relatively large portions of participants who reported tobacco use and exposure to secondhand smoke. Specifically, 18 percent of participants reported that they smoke cigarettes, and an even greater percentage (28 percent) reported being frequently exposed to secondhand smoke. If taken collectively with participants' concerns regarding cancer, smoking could be a potential cause needing further investigation in the community.

Barriers to Health

Focus group members were asked to identify various factors that acted as barriers to a healthy lifestyle. Such barriers included time, money, a lack of health insurance, and limited access to healthy foods. For example, one focus group participant stated that "it is costly to incorporate healthy foods into your diet." Additionally, some community members reported that food preparation (i.e., knowing how to cook certain foods) was a barrier to healthy eating. Although focus group members reported difficulty finding affordable healthy foods, survey participants reported consuming an adequate number of fruits and vegetables. Therefore, results may indicate an increased desire to afford and consume more home-cooked healthy foods.

A potential cause of the aforementioned barrier is inadequate monetary resources attributed to unemployment and low income. Job availability and poverty were listed as two of the top five factors influencing quality of life in the Hyde County community. Furthermore, participants indicated that they lacked sufficient health insurance, which may be associated with one's employment status. Approximately 22 percent of the survey sample reported having trouble receiving the health care they needed within the past year. Within this group of individuals, 38 percent reported that a complete lack of insurance was the barrier to care, whereas 27 percent were limited by an inadequate amount of coverage.

Within the group of survey participants who reported an inability to receive adequate care, the most frequently reported type of care was dental (47 percent). Additionally, 45 percent of all participants indicated that they have not received a dental exam in the past three years. A contributing factor to this result may be a lack of dental insurance, as 50 percent of participants reported a lack of such coverage.

Finally, survey participants who reported that they do not exercise were asked to identify reasons for their lack of physical activity. Community members attributed their lack of exercise to barriers such as tiredness (55 percent), health conditions (39 percent), and time-related issues (29 percent). Focus group members also reported the desire to engage in more physical exercise, however, they indicated the limited hours and staff at the local gym as a barrier.

Health Care

Access to affordable health care was recognized as one of the top five issues affecting quality of life in Hyde County. Furthermore, when discussing access to health care, focus group participants consistently listed children and the elderly as groups who do not receive adequate care. Community members in the focus groups also expressed that the uninsured, the Hispanic/Latino population, and individuals who suffer from mental health issues are other groups of people who do not receive proper health care.

Transportation was frequently discussed by the focus group participants as a barrier to receiving health care. Specifically, they expressed how the lack of transportation mostly affected the ability of children and the elderly to access health care. Furthermore, these feelings towards a lack of transportation were also represented in the survey results. For example, only 52 percent of the community members agreed with the statement "There are sufficient transportation services in Hyde County".

Additionally, when survey respondents were asked to report their level of agreement with the statement "There is good healthcare in Hyde County", a larger portion of participants indicated disagreement (44 percent) than those who indicated agreement (38 percent).

Solutions to Health Problems

Members of the community were asked to propose solutions for the health problems that impact Hyde County. Focus groups participants responded to this question with a variety of responses. For example, participants proposed the use of various methods for delivering health information, as well as introducing healthier food options to the community. Furthermore, participants expressed a need for more education in their community with regard to health and exercise practices. Specifically, participants stated that, "if people understand, they might exercise more." Additional solutions included increasing the availability of financial support, jobs, and various other resources in the community.

When asked to select the top three issues that most affect the quality of life in Hyde County, survey participants repeatedly identified cancer, affordable and available health care, job availability or security, poverty or low income, chronic disease, and substance abuse as top issues. In turn, multiple solutions were proposed to address the aforementioned issues. Furthermore, some of the proposed solutions applied to multiple issues. Such solutions included increasing the affordability and availability of health screening tools, health care, and quality education. Furthermore, bringing more financial prosperity and jobs into the community was also consistently proposed.

Finally, some of the proposed solutions were specific to certain problems in Hyde County. Among the solutions for cancer and chronic disease, participants suggested decreasing the use of chemicals and pesticides and increasing both the availability and affordability of healthy food choices. Specific to substance abuse, participants recommended increased monitoring and punishment of substance-related offenses, as well as increased availability of support services and alternative healthier activities. The solutions that were specific to job availability/security and poverty/low income consistently supported the creation of additional job opportunities and assistance provided by the local and state governments.

Conclusion

The purpose of the following study was to collect data that would inform policy aimed at positively impacting the health and quality of life in Hyde County. Through the use of a multi-method approach, including paper and online surveys, as well as various focus groups, the data collection effort was successful in receiving the opinions of community members. Furthermore, by using an engaged Leadership Team and a carefully selected Stakeholder Group, the data collected accurately represented a diverse group of community members across all areas of the County.

Overall, results indicate that community members feel safe and well connected in Hyde County. Individuals stated that they confide in and rely on the help of others during times of need and also recognize the limitations of the current status of economic opportunities within the County. Consequently, results indirectly revealed a general sense of readiness and need, in regard to the economic growth of the community.

Regarding health and well-being, community members report relatively high levels of health and healthy behaviors. Specific areas of success include the use of local sidewalks and roads for daily exercise and local agriculture for access to healthy and affordable fruits and vegetables. In contrast, specific areas of improvement include health education, financial resources that support a healthy lifestyle, and the prevention and management of chronic diseases such as diabetes, obesity, and heart disease.

Despite the several health concerns noted by the community, a variety of promising solutions were recommended. For example, it is suggested that communication of health-related topics increase via word-of-mouth, as well as more technologically advanced methods such as social media and community emails. Additionally, interest was displayed for outreach programs to educate community members and reduce the prevalence of alcohol and drug abuse, dental clinics to provide necessary care for the large portion of individuals who lack adequate health insurance, and smoking cessation programs to reduce the number of individuals who smoke and are exposed to secondhand smoke. Finally, an overarching solution for many of the health problems identified for Hyde County is to bring jobs and economic opportunity to the area, which may subsequently increase the number of individuals with health insurance and accelerate the demand for health providers to relocate to the area.

Appendix A

Survey Instrument

Hyde County Community Health Needs Assessment

We are conducting a survey to learn about the health and quality of life in Hyde County. The results of the survey will be used to help improve the major health and community issues in our county. Your participation is completely voluntary and all survey responses will remain anonymous. Thank you for your participation.

Completed surveys may be turned into the Hyde County Health Department, Government Center, or Post Office, as well as the BHM Regional Library.

In order to participate, you must be at least 16 years old and live in Hyde County.

Are you at least 16 years old and live in Hyde County?

- ❍ Yes
- ❍ No

Please select the area of Hyde County in which you live.

If the area in which you live is not listed, please select "not listed".

- ❍ Currituck
- ❍ Fairfield
- ❍ Lake Landing
- ❍ Ocracoke
- ❍ Swan Quarter
- ❍ Not listed

Part 1: Quality of Life Statements

Please indicate your level of agreement with the following statements about Hyde County.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
There is good healthcare	❍	❍	❍	❍	❍
It is a good place to grow old	❍	❍	❍	❍	❍
It is a good place to raise children	❍	❍	❍	❍	❍
There is plenty of economic opportunity	❍	❍	❍	❍	❍
It is a safe place to live	❍	❍	❍	❍	❍
There is plenty of help for people during times of need	❍	❍	❍	❍	❍
There is good air and water quality	❍	❍	❍	❍	❍
Housing that meets my needs is available	❍	❍	❍	❍	❍
There are sufficient transportation services	❍	❍	❍	❍	❍

Part 2: Community Improvement

Please look at the following list of community issues. In your opinion, which are the top **THREE** issues that most affect the quality of life in Hyde County?

- ❑ Alcohol / drug abuse
- ❑ Allergies
- ❑ Asthma and other respiratory disorders
- ❑ Bio-terrorism
- ❑ Cancer
- ❑ Child care (safe, affordable, available)
- ❑ Childhood obesity
- ❑ Chronic diseases (e.g., heart disease, diabetes, obesity)
- ❑ Crime (e.g., theft, murder, assault)
- ❑ Discrimination / racism
- ❑ Domestic violence
- ❑ Education (K-12) / dropout rate
- ❑ Elder care (safe, affordable, available)
- ❑ Firearms
- ❑ Gang activity
- ❑ Health care (affordable, available)
- ❑ Homelessness
- ❑ Infant health
- ❑ Infectious diseases (e.g., hepatitis, meningitis, TB)
- ❑ Job availability / security
- ❑ Lack of community support
- ❑ Lack of parenting skills
- ❑ Lack of / inadequate health insurance
- ❑ Law enforcement
- ❑ Long term care
- ❑ Mental illness
- ❑ Pollution (air, water, land)
- ❑ Poverty / low income
- ❑ Prenatal health
- ❑ Rape / sexual assault
- ❑ Recreation opportunities
- ❑ Secondhand smoke
- ❑ Sexual health
- ❑ School violence
- ❑ Services for the disabled
- ❑ Teenage pregnancy

Please suggest any possible solutions you believe can address the top three issues you selected above.

Community Issue	Solution to Community Issue
1	
2	
3	

In your opinion, which **ONE** of the following services needs the most improvement in your neighborhood or community?

- ❍ Animal control
- ❍ Availability of employment
- ❍ Better / more healthy food choices
- ❍ Better / more recreational facilities (parks, trails, community centers)
- ❍ Child care options
- ❍ Counseling / mental health / support groups
- ❍ Culturally appropriate health services
- ❍ Elder care options
- ❍ Healthy family activities
- ❍ Higher paying employment
- ❍ More affordable / better housing
- ❍ More affordable health services
- ❍ Number of health care providers
- ❍ Parent education
- ❍ Positive teen activities
- ❍ Road maintenance / safety
- ❍ Services for disabled people
- ❍ STD / HIV testing
- ❍ Transportation options
- ❍ Other (please specify) _____
- ❍ None

Part 3: Health Information

In your opinion, which **THREE** health behaviors do people in your own community need more information about?

- ❑ Anger management
- ❑ Caring for family members with special needs / disabilities
- ❑ Child care / parenting
- ❑ Crime prevention
- ❑ Domestic violence prevention
- ❑ Driving safely (using seat belts, texting while driving)
- ❑ Eating well / nutrition
- ❑ Elder care
- ❑ Exercising / fitness
- ❑ Getting flu shots and other vaccines
- ❑ Getting prenatal care during pregnancy
- ❑ Going to a dentist for check-ups / preventive care
- ❑ Going to the doctor for check-ups / screenings
- ❑ Managing weight
- ❑ Preparing for an emergency / disaster
- ❑ Practicing safe sex (preventing unplanned pregnancy and sexually transmitted disease)
- ❑ Quitting smoking / tobacco use prevention
- ❑ Rape / sexual assault prevention
- ❑ Stress management
- ❑ Substance abuse prevention / treatment
- ❑ Suicide prevention
- ❑ Using child safety seats
- ❑ Other (please specify) _____
- ❑ None

From which **TWO** sources do you get most of your health-related information?

- ❑ Books / magazines
- ❑ Church
- ❑ Doctor / nurse
- ❑ Friends and family
- ❑ Health department
- ❑ Help lines
- ❑ Hospital
- ❑ Internet
- ❑ My child's school
- ❑ Newspaper
- ❑ Pharmacist
- ❑ Social media
- ❑ TV
- ❑ Other (please specify) _____

What health topic(s) / disease(s) would you like to learn more about?

_____

_____

_____

Part 4: Personal Health

Would you say that, in general, your health is…

- ❍ Excellent
- ❍ Very good
- ❍ Good
- ❍ Fair
- ❍ Poor

Have you ever been told by a doctor, nurse, or other health professional that you have any of the following health conditions?

	Yes	No	Not Sure
Angina / heart disease	❍	❍	❍
Arthritis	❍	❍	❍
Asthma	❍	❍	❍
Breast cancer	❍	❍	❍
Cervical cancer	❍	❍	❍
Chronic back pain	❍	❍	❍
Chronic body aches	❍	❍	❍
Colon cancer	❍	❍	❍
COPD or emphysema	❍	❍	❍
Depression or anxiety	❍	❍	❍
Diabetes (not during pregnancy)	❍	❍	❍
High blood pressure	❍	❍	❍
High cholesterol	❍	❍	❍
HIV	❍	❍	❍
Mental illness (other than depression or anxiety)	❍	❍	❍
Osteoporosis	❍	❍	❍
Overweight / obesity	❍	❍	❍
Prostate cancer	❍	❍	❍
Sexually transmitted disease (e.g., gonorrhea, chlamydia, syphilis)	❍	❍	❍
Skin cancer	❍	❍	❍
Sickle cell anemia	❍	❍	❍
Tuberculosis	❍	❍	❍
Uterine cancer	❍	❍	❍

Have you undergone any preventive screenings for the following conditions in the last 3 years?

	Yes	No	Not Sure
Asthma	❍	❍	❍
Breast cancer	❍	❍	❍
Cervical cancer	❍	❍	❍
Colon cancer	❍	❍	❍
COPD or emphysema	❍	❍	❍
Dental exam	❍	❍	❍
Depression or anxiety	❍	❍	❍
Diabetes - blood sugar	❍	❍	❍
High blood pressure	❍	❍	❍
High cholesterol	❍	❍	❍
Mental illness (other than depression or anxiety)	❍	❍	❍
Osteoporosis	❍	❍	❍
Prostate cancer	❍	❍	❍
Skin cancer	❍	❍	❍
Sickle cell anemia	❍	❍	❍
STD / HIV	❍	❍	❍
Tuberculosis - skin test	❍	❍	❍
Uterine cancer	❍	❍	❍

Please indicate if you participate in any of the following.

	Yes	No	Not Sure	Not Applicable
Wash your hands before eating	❍	❍	❍	❍
Eat fast food less than 2 times per week	❍	❍	❍	❍
Get 7 or more hours of sleep each night	❍	❍	❍	❍
Practice safe sex	❍	❍	❍	❍
Use sunscreen outside	❍	❍	❍	❍
Routinely wear a seat belt	❍	❍	❍	❍
Find time to relax daily	❍	❍	❍	❍
Regularly get STD / HIV testing	❍	❍	❍	❍
Get an annual flu vaccination	❍	❍	❍	❍

In the past 12 months, have you worried about your basic needs (e.g., food, water, electricity, plumbing)?

❍ Yes ❍ No ❍ Not sure

In the past month, have there been any days when feeling sad or worried kept you from going about your normal business?

❍ Yes ❍ No ❍ Not sure

How many days do you exercise or engage in physical activity (at least 30 minutes) during a normal week?

❍ 0 days
❍ 1 day
❍ 2 days
❍ 3 days
❍ 4 days
❍ 5 days
❍ 6 days
❍ 7 days

If "0 days" was selected, please answer question A. For all other answers, please answer question B.

A. What are the reasons you do not exercise or engage in physical activity for at least a half hour during a normal week? Please choose all that apply.

❑ My job is physical or hard labor
❑ Exercise is not important to me
❑ Not enough time
❑ Lack of child care
❑ I don't like to exercise
❑ Too costly
❑ A health condition limits my physical activity
❑ There is no safe place to exercise
❑ Too tired
❑ Other (please specify) _____

B. Where do you go to exercise or engage in physical activity? Please choose all that apply.

❑ Home
❑ Park
❑ Private gym
❑ Public recreation center
❑ Sidewalks / roads in your own neighborhood
❑ Walking trails
❑ Other (please specify) _____

Not counting juice, how many servings of fruit do you consume in an average day? (e.g., one apple is equal to one serving)

❍ None
❍ 1 serving
❍ 2 servings
❍ 3 servings
❍ 4 servings
❍ 5 servings
❍ 6 servings
❍ 7 servings
❍ Not sure

Not counting potatoes and salad, how many servings of vegetables do you consume in an average day? (e.g., 12 baby carrots equal one serving)

- ❍ None
- ❍ 1 serving
- ❍ 2 servings
- ❍ 3 servings
- ❍ 4 servings
- ❍ 5 servings
- ❍ 6 servings
- ❍ 7 servings
- ❍ Not sure

Please indicate how frequently you consume alcohol.

- ❍ I do not consume alcohol
- ❍ Less than 1 - 2 alcoholic drinks per week
- ❍ Consume 1 - 2 alcoholic drinks per week
- ❍ Consume 1 - 2 alcoholic drinks per day
- ❍ Consume 3 or more alcoholic drinks per day

Please indicate your status on the following items regarding tobacco use / exposure.

	Yes	No
Do you smoke?	❍	❍
Do you chew tobacco?	❍	❍
Are you frequently exposed to secondhand smoke?	❍	❍

If “Yes” was selected for questions “Do you smoke?” or “Do you chew tobacco?”, please answer the following questions. If “No” was selected, please proceed to the next question (“Based on the following definition, do you believe you abuse prescription drugs?”).

Please indicate your status on the following items.

	Yes	No	Not Sure
Do you want to stop using tobacco products?	❍	❍	❍
Have you tried to stop in the last year?	❍	❍	❍
Have you tried medication to stop?	❍	❍	❍
Would you attend smoking cessation classes?	❍	❍	❍

Where would you go for help if you wanted to quit using tobacco products?

- ❑ Church
- ❑ Doctor
- ❑ Health department
- ❑ Pharmacy
- ❑ Private counselor/therapist
- ❑ Quitline NC
- ❑ Not sure
- ❑ I don't want to quit
- ❑ Other: _____

Based on the following definition, do you believe you abuse prescription drugs?

Prescription drug abuse is the use of a prescription medication in a way not intended by the prescribing doctor, such as for the feelings you get from the drug or using a prescription drug that you were not specifically prescribed to take.

❍ Yes ❍ No ❍ Not sure

Part 5: Access to Care/Family Health

Where do you go most often when you are sick? Please choose all that apply.

- ❑ Doctor's office
- ❑ Health Department
- ❑ Hospital Emergency Department
- ❑ Urgent Care Center
- ❑ Other (please specify) _____

Is your primary health care provider outside of Hyde County?

- ❍ Yes
- ❍ No

If "Yes" was selected, please answer the following question. If "No" was selected, please proceed to the next question ("When was your last visit to a doctor?").

Please indicate the reasons why your primary health provider is located outside of Hyde County. Please choose all that apply.

- ❑ Specialty not available in Hyde County
- ❑ Cannot get appointment in Hyde County
- ❑ Positive experience / history with provider outside of Hyde County
- ❑ Positive reputation of provider outside of Hyde County
- ❑ Other (please specify) _____

When was your last visit to a doctor?

- ❍ Less than 1 year ago
- ❍ 1 - 2 years ago
- ❍ 2 - 3 years ago
- ❍ 3 or more years ago

Do you currently have any of the following forms of health insurance or health care coverage? Please choose all that apply.

- ❑ Health insurance my employer provides
- ❑ Health insurance my spouse's employer provides
- ❑ Health insurance my school provides
- ❑ Health insurance my parent or my parent's employer provides
- ❑ Health insurance I bought myself
- ❑ Health insurance through Health Insurance Marketplace / Affordable Care Act
- ❑ Medicaid
- ❑ Medicare
- ❑ Veteran's Administration benefits
- ❑ Other (please specify) _____
- ❑ No health insurance plan of any kind

Do you have dental health insurance?

❍ Yes ❍ No ❍ Not sure

In the past 12 months, did you or a family member have a problem getting health care needed from any type of health care provider, dentist, pharmacy or other facility?

- ❍ Yes
- ❍ No

If "Yes" was selected, please answer the following two questions. If "No" was selected, please proceed to the next question ("If a friend or family member…?").

What type of provider or facility did you or a family member have trouble getting health care from? Please choose all that apply and write in any that are not listed.

- ❑ Dentist
- ❑ General Practitioner
- ❑ Eye care / optometrist / ophthalmologist
- ❑ Pharmacist
- ❑ Pediatrician
- ❑ OB/GYN
- ❑ Health Department
- ❑ Hospital
- ❑ Urgent Care Center
- ❑ Medical Clinic
- ❑ Specialist (please specify) _____
- ❑ Specialist (please specify) _____

Which of these problems prevented you or a family member from getting the necessary health care? Please choose all that apply and write in any that are not listed.

- ❑ No health insurance
- ❑ Insurance didn't cover what I / we needed
- ❑ My / our share of the cost (deductible / co-pay) was too high
- ❑ Provider would not take my / our insurance or Medicaid
- ❑ Lack of transportation
- ❑ Couldn't get an appointment
- ❑ The wait was too long
- ❑ Lack of access to health provider
- ❑ Other (please specify) _____

If a friend or family member needed counseling for a mental health or an alcohol / drug abuse problem, who is the first person you would tell them to talk to?

- ❍ Private counselor or therapist
- ❍ Support group (e.g., AA, Al-Anon)
- ❍ School counselor
- ❍ Doctor
- ❍ Minister / religious official
- ❍ Other (please specify) _____
- ❍ Not sure

Do you provide care for an elderly person?

- ❍ Yes
- ❍ No

If "Yes" was selected, please answer the following questions. If "No" was selected, please proceed to the next question ("Do you provide care for a child…?").

Please indicate your level of agreement with the following statements.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Not Applicable
I am able to find health care professionals who are knowledgeable in aging issues	❍	❍	❍	❍	❍	❍
There is adequate and affordable transportation available for the elderly	❍	❍	❍	❍	❍	❍
I can find affordable options and resources for caregiver respite (e.g., support services for temporary care of an elderly family member)	❍	❍	❍	❍	❍	❍
I can find adequate health care related specifically to the needs of the elderly	❍	❍	❍	❍	❍	❍

Do you provide care for a child (newborn through 16 years of age) living in your home?

- ❍ Yes
- ❍ No

If “Yes” was selected, please answer the following two questions. If “No” was selected, please proceed to the next question (“Does your household have either of the following items?”).

Please indicate your level of agreement with the following statements.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Not Applicable
I know what my child needs to be successful in school	❍	❍	❍	❍	❍	❍
I have concerns about my child's development	❍	❍	❍	❍	❍	❍
My child has the same language skills as his or her friends	❍	❍	❍	❍	❍	❍
My child has the same physical abilities as his or her friends	❍	❍	❍	❍	❍	❍
My child has trouble understanding and completing assigned school work	❍	❍	❍	❍	❍	❍
I have had a good experience with sending my child to child care or preschool	❍	❍	❍	❍	❍	❍
Child care or preschool programs can serve my child's special needs	❍	❍	❍	❍	❍	❍
There is child care or preschool in my community that meets my family's cultural needs	❍	❍	❍	❍	❍	❍
I can't afford to send my child to child care, preschool, or an after-school program	❍	❍	❍	❍	❍	❍
I don't have transportation to get my child to child care or preschool	❍	❍	❍	❍	❍	❍
Quality after-school care is easy to find in my community	❍	❍	❍	❍	❍	❍
I know who to contact so my child can participate in age-appropriate civic or community recreation activities	❍	❍	❍	❍	❍	❍
I worry about the safety of my child before and after school because I cannot be at home with them	❍	❍	❍	❍	❍	❍

Which of the following health topics do you think your child needs more information about? Please choose all that apply.

- ❑ Alcohol / drug abuse
- ❑ Asthma management
- ❑ Dental hygiene
- ❑ Diabetes management
- ❑ Exercise / physical fitness
- ❑ Mental health issues
- ❑ Nutrition / healthy eating
- ❑ Reckless driving / speeding / texting
- ❑ Sexual intercourse / STDs
- ❑ Suicide prevention
- ❑ Tobacco
- ❑ Other (please specify) _____

Part 6: Emergency Preparedness

Does your household have either of the following items? Please choose all that apply.

- ❑ Smoke detectors
- ❑ Carbon monoxide detectors
- ❑ Neither

Does your household have a basic emergency supply kit?

An emergency supply kit includes items such as water, non-perishable food, any necessary prescriptions, first aid supplies, flashlight and batteries, non-electric can opener, and blankets.

- ❍ Yes
- ❍ No

If "Yes" was selected, please answer the following question. If "No" was selected, please proceed to the next question ("What would be the primary…?").

How many days could these supplies support your household?

Write in the number of days _____

What would be the primary way that you would get information from authorities in a large-scale disaster or emergency?

- ❍ Emergency alert system (text, email, phone)
- ❍ Television
- ❍ Radio
- ❍ Internet
- ❍ Print media (e.g., newspaper)
- ❍ Social media
- ❍ Neighbors
- ❍ Other (please specify) _____

If public authorities announced a mandatory evacuation from your neighborhood or community due to a large-scale disaster or emergency, would you evacuate?

❍ Yes ❍ No ❍ Not sure

If "No" or "Not sure" is selected, please answer the following question. If "Yes" is selected, please proceed to the next question ("Do you know where to call for help…?").

What would be the primary reason you might not evacuate if asked to do so?

❍ Lack of transportation
❍ Lack of trust in public officials
❍ Concern about leaving property behind
❍ Concern about personal safety
❍ Concern about family safety
❍ Concern about leaving pets
❍ Concern about traffic jams and inability to get out
❍ Health problems / physical disability
❍ Other (please specify) _____

Do you know where to call for help to get transportation to a shelter during a large-scale disaster or emergency?

❍ Yes
❍ No

Part 7: Demographic Questions

The next set of questions are general questions about you, which will only be reported as a summary of all answers given by survey participants. Your answers will remain anonymous.

What is your gender?

❍ Male
❍ Female

What is your age?

❍ 15 to 19 years
❍ 20 to 24 years
❍ 25 to 29 years
❍ 30 to 34 years
❍ 35 to 39 years
❍ 40 to 44 years
❍ 45 to 49 years
❍ 50 to 54 years
❍ 55 to 59 years
❍ 60 to 64 years
❍ 65 to 69 years
❍ 70 to 74 years
❍ 75 to 79 years
❍ 80 to 84 years
❍ 85 years or older

Are you Hispanic or Latino?

- ❍ Yes
- ❍ No

What is your race?

- ❍ White
- ❍ Black or African American
- ❍ American Indian or Alaska Native
- ❍ Asian
- ❍ Native Hawaiian or other Pacific Islander
- ❍ Other

Do you speak a language other than English at home?

- ❍ Yes (please specify) _____
- ❍ No

What is your marital status?

- ❍ Never married/single
- ❍ Married
- ❍ Unmarried partner
- ❍ Divorced
- ❍ Widowed
- ❍ Separated
- ❍ Other

What is the highest level of education you have completed?

- ❍ Less than 9th grade
- ❍ 9th to 12th grade, no diploma
- ❍ High school graduate (GED / equivalent)
- ❍ Some college, no degree
- ❍ Associate's degree
- ❍ Bachelor's degree
- ❍ Graduate or professional degree

What is your combined annual household income?

- ❍ Less than $10,000
- ❍ $10,000 to $14,999
- ❍ $15,000 to $24,999
- ❍ $25,000 to $34,999
- ❍ $35,000 to $49,999
- ❍ $50,000 to $74,999
- ❍ $75,000 to $99,999
- ❍ $100,000 or more

How many people does this income support?

- ❍ 1 person
- ❍ 2 people
- ❍ 3 people
- ❍ 4 people
- ❍ 5 or more people

What is your employment status? Please choose all that apply.

- ❑ Employed full-time
- ❑ Employed part-time
- ❑ Retired
- ❑ Armed Forces
- ❑ Disabled
- ❑ Student
- ❑ Homemaker
- ❑ Self-employed
- ❑ Unemployed for 1 year or less
- ❑ Unemployed for more than 1 year

Do you have access to the Internet?

- ❍ Yes
- ❍ No

Please select your home zip code.

If your zip code is not listed, please select "Not listed" and specify your home zip code.

- ❍ 27810
- ❍ 27824
- ❍ 27826
- ❍ 27860
- ❍ 27875
- ❍ 27885
- ❍ 27960
- ❍ Not listed (please specify) _____

What are the best ways to communicate upcoming Hyde County health related events to you? Please choose all that apply.

- ❑ Newspaper
- ❑ Radio
- ❑ Church bulletin
- ❑ E-mail
- ❑ Twitter
- ❑ Facebook
- ❑ County of Hyde website
- ❑ Hyde County Health Department website
- ❑ TV
- ❑ Other (please specify) _____

Please provide any additional comments.

_____

_____

_____

_____

Thank you for your participation!

Appendix B

Focus Group Script

Date: _____ **Topic: Hyde County Health Needs**

INTRO: Hello. My name is XXXXX and I am the moderator for today's group discussion. Our purpose today is to talk about health related topics in Hyde County.

AGENDA: Tonight, you will be participating in a group discussion. This is a free flowing discussion and there are no wrong answers. I'm looking for different points of view.

MODERATOR INFO: I work for East Carolina University's Center for Survey Research in Greenville, NC and I'm working on this project as a research consultant to help learn the needs of the county.

ACKNOWLEDGE: I want to thank you for coming in this evening and for fitting this session into your schedule.

DISCLOSURES: 1. Facility Setting: Mention observers and taping.
2. The session is being taped so I can write an accurate report – not of who said what, but "what was said".

PERMISSIONS: At any time you can excuse yourself to go to the restroom or to get more food or beverages. I ask that only one person should be up or out at a time.

GUIDELINES:

1. Please talk one at a time.
2. Talk in a voice as loud as mine.
3. Avoid side conversations with your neighbors.
4. Work for equal "air time" so that no one talks too little or too much.
5. Allow for different points of view. There are no wrong answers.
6. Say what you believe, whether or not anyone else agrees with you.
7. Only one person up or out of the room at one time.

SELF INTROS: Please introduce yourself to the group and tell us:

Name
Area of the County where you live
Occupation

FOCUS GROUP QUESTIONS:

1. What do you think is the best thing about living in this community?

2. What do people in this community do to stay healthy?

    a. How do people get information about health?

3. What are the serious health problems in your community?

    a. What are some causes of these problems?

4. What keeps people in your community from being healthy?

5. What could be done to solve these problems?

6. Is there any group not receiving enough health care? If so, why?

7. Is there anything else you would like to add, or you think would be helpful for us to know?

Thank you very much for your participation in today's discussion! We really appreciate you taking the time to come and offer your opinions!

Please take the online survey and spread the word about the survey to others in your community!