

VIDANT
BEAUFORT
HOSPITAL'S
2016 COMMUNITY
HEALTH NEEDS
ASSESSMENT FOR
HYDE COUNTY

TABLE OF CONTENTS

| | |
|--|----|
| Acknowledgments | 5 |
| Executive Summary..... | 9 |
| Introduction..... | 11 |
| Background..... | 11 |
| Team Selection Process..... | 12 |
| Team Operational Process | 12 |
| Key Partnerships | 13 |
| County Description | 14 |
| Geography | 14 |
| History..... | 15 |
| Mainland Hyde County..... | 15 |
| Data Collection Process | 16 |
| Demographic, Economic and Sociodemographic Data Findings | 18 |
| Demographics..... | 18 |
| Age Groups | 18 |
| Economics | 19 |
| Income | 19 |
| Employment | 19 |
| Poverty | 20 |
| Sociodemographics | 20 |
| Housing | 20 |
| Affordable Housing..... | 21 |
| Homelessness..... | 21 |
| Education | 21 |
| Higher Education..... | 21 |
| Primary and Secondary Education..... | 21 |
| Crime and Safety | 22 |
| Community Crime Rates | 22 |
| Juvenile Crime | 23 |
| Sexual Assault and Domestic Violence | 23 |
| Child Maltreatment | 23 |
| Adult Maltreatment..... | 24 |
| Environmental Data Findings | 25 |
| Air Quality | 25 |

| | |
|--|----|
| Water Quality | 25 |
| Drinking Water Systems..... | 25 |
| Solid Waste | 26 |
| Solid Waste Disposal | 26 |
| Health Data Findings | 27 |
| Using Health Data..... | 27 |
| Health Rankings | 28 |
| County Health Rankings | 28 |
| Maternal and Infant Health | 29 |
| Pregnancy Rates..... | 29 |
| Overall Pregnancy Rate | 29 |
| Teen Pregnancy Rate | 29 |
| Pregnancy Risk Factors | 29 |
| High Parity and Short-Interval Births | 29 |
| Lack of Early Prenatal Care | 29 |
| Smoking during Pregnancy | 30 |
| Birth Outcomes | 30 |
| Low and Very Low Birth Weight Births | 30 |
| Birth Complications..... | 30 |
| Infant Mortality | 31 |
| Life Expectancy and Leading Causes of Death..... | 31 |
| Life Expectancy..... | 31 |
| Leading Causes of Death | 31 |
| Morbidity and Chronic Disease..... | 34 |
| Diabetes | 34 |
| Overweight and Obesity..... | 34 |
| Communicable Disease | 35 |
| Mental Health and Substance Abuse..... | 35 |
| Health Resources and Needs | 38 |
| Health Insurance..... | 38 |

| | |
|--|----|
| Health Care Resources | 39 |
| Health Care Providers..... | 39 |
| Health Care Facilities | 40 |
| Hospital..... | 40 |
| Health Department | 41 |
| Telemedicine | 41 |
| Federally-Qualified Health Center | 41 |
| Emergency Medical Services | 41 |
| School Health | 42 |
| Long-Term Care Facilities | 42 |
| Home Care, Home Health and Hospice Services | 42 |
| Mental Health Services and Facilities | 42 |
| Other Healthcare Resources..... | 43 |
| Recreational Facilities | 43 |
| Local Health Promotion Initiatives | 44 |
| Community Concerns Summary | 46 |
| Community Priorities | 49 |
| Priority Selection Process..... | 49 |
| References | 51 |
| Appendices | 56 |
| 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 4: 2016 Hyde County Primary and Secondary Data | |

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, and Vidant Beaufort Hospital

| 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 |
| Guire Cahoon | Hyde County Sheriffs Department | Stakeholder | Advise in planning and implementation | Hyde County Sheriffs Department time |
| Jamie T. Carter | Engelhard Medical and Ocracoke Health Center | Representative | Collect and provide data | Engelhard Medical and Ocracoke Health Center time |
| Rita Clayton | Hydeland Homecare | Stakeholder | Advise in planning and implementation | Hydeland Homecare time |
| Roni Collier | Hyde County Health Department Environmental Health | Representative | Advise in planning and implementation | Hyde County Health Department time |
| Christine Davis | Project DIRECT Legacy for Men & Their Families | Stakeholder | Collect, provide data, advise in planning, and implementation | Personal time |
| Tim Eason | ECU Center for Survey Research | Researcher | Analyze and compile data | Funded by Vidant Beaufort Community Benefits |
| Laura Edwards | Center for Healthy North Carolina | Representative | Inform group of 2020 Objectives and action plan requirements | Center for Healthy North Carolina time |
| Corinne Gibbs | Hyde County Government Finance Department | Stakeholder | Collect and provide data | Hyde County Government time |

| | | | | |
|-------------------------|--|-------------------------------|---|---|
| Luana Gibbs | Hyde County Health Department | Stakeholder | Collect, provide data, advise in planning, and implementation | Hyde County Health Department time |
| Justin Gibbs | Hyde County Government Emergency Management | Stakeholder | Collect and provide data | Hyde County Government time |
| Jane Hodges | Hyde County Government | Representative | Collect and provide data | Hyde County Government time |
| Shelisa Howard-Martinez | Care Share Health Alliance | Regional Technical Consultant | Facilitate Prioritization | Administrative time and travel |
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| Janet Joyner | Vidant Medical Group Behavioral Health | Representative | Advise in planning and implementation | Vidant Medical Group Behavioral Health time |
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| Jennifer Lewis | Vidant Medical Group | Stakeholder | Advise in planning and implementation | Vidant time and travel |
| Tracy Lewis | Hyde County Hotline, Inc. Sexual Assault & Domestic Violence | Stakeholder | Advise in planning and implementation | Hyde County Hotline Time |
| Leah Mayo | ARHS Active Routes to School | Stakeholder | Advise in planning and implementation | Region 9 Community Transformation Grant/Active Routes to School time and travel |
| Linda McCabe | Hyde County Department of Social Services | Representative | Collect and provide data | Hyde County Department of Social Services |
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| Lou Montana-Rhodes | Vidant Medical Group | Stakeholder | Advise in planning and implementation | Vidant time and travel |
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| Kelley Newman | Hyde County Health Department | Stakeholder | Collect and provide data | Hyde County Health Department time |
| Michelle Newman | Cross Creek Health Care | Stakeholder | Advise in planning and implementation | Cross Creek Health Care time |

| | | | | |
|---------------------|---|---------------------|---|---|
| Beverly Paul | Hyde County Transit | Stakeholder | Advise in planning and implementation | Hyde County Transit time |
| Sheila Pfaender | Public Health Independent Consultant | Researcher, Advisor | Collect, provide data, advise in planning, and implementation | Administrative time and travel |
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| Eve Richardson | Hyde County Hotline, Inc. Sexual Assault & Domestic Violence | Representative | Collect and provide data | Hyde County Hotline, Inc. Sexual Assault & Domestic Violence time |
| Anthony Roper | Hyde County Recreation Commission, NCDOT and Hyde County Minister's Council for Education | Stakeholder | Advise in planning and implementation | Personal time and travel |
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| Melissa Roupe | Vidant Medical Group | Stakeholder | Collect, provide data, advise in planning, and implementation | Vidant Medical Group time and travel |
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| Melissa Sadler | Hyde County Health Department | Stakeholder | Collect, provide data, advise in planning, and implementation | Hyde County Health Department time |
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| Anna Schafer | Hyde County Health Department | Stakeholder | Advise in planning and implementation | Hyde County Health Department time |
| Pam Shadle | Vidant Beaufort | Stakeholder | Advise in planning and implementation | Vidant Beaufort time and travel |
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| Katie Vitiello | ECU Center for Survey Research | Researcher | Analyze and compile data | Funded by Vidant 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

2016 Hyde County CHA

Executive Summary

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

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

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

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

- Obesity/Chronic Disease Prevention
- Access to Care
- Substance Abuse

Community Health Implementation Plan Progress Report -FY 2015

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

Health Priority Category: Obesity/Chronic Disease Prevention

- Vidant Beaufort Hospital Community Health Improvement team is partnering with Hyde County Health department to conduct wellness screenings at a large community health event in early November.

Vidant Beaufort Hospital is providing complimentary transportation from Hyde County to the 2016 Pink Power breast cancer awareness event in Washington.

- Vidant Beaufort Hospital through support of the Vidant Health Foundation has provided funding through our Community Benefit Grants and Health Initiatives program to community partners that focus on chronic disease prevention and management.
 - Beaufort-Hyde/Pantego Community Center Growing a Fit community program
 - Food Bank of the Albemarle Mobile Food Pantry
 - Albemarle Commission Senior Nutrition Program/Meals on Wheels - Hyde County

Health Priority Category: Access to Care

- Vidant Beaufort Hospital continues to be committed to providing quality health care to everyone who seeks our services.
- Vidant Beaufort Hospital continue to provide financial counselors who can assist with determining if patients qualify for Medicaid and in applying for other government- assisted programs.
- Vidant Beaufort Hospital continues to offer charity care to our patients who are unable to pay due to financial hardships.
- Collaborate with Hyde County Health Department to help resident's access health care services in the community.

Health Priority Category: Mental Health/Substance Abuse

1. Vidant Beaufort Hospital provides an inpatient behavioral health unit to provide mental health services to Beaufort, Hyde and surrounding counties.
2. Collaborate with Vidant Medical Group to continue to provide mental health services in the region through Vidant Behavioral Health with locations in Swan Quarter and Ocracoke.
3. Support Project LAZURUS

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 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 Department of Public Instruction; NC Department of Justice; NC Division of Medical Assistance; NC Division of Health Services Regulation; and the Cecil B. Sheps Center for Health Services Research. 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 County Health Data Books, Vital Statistics, and Cancer Registry. Other health data sources included: US Centers for Disease Control and Prevention; NC Division of Mental Health, Developmental Disabilities and Substance Abuse Services; and NCDPH Nutrition Services Branch, 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 EMS.

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 and the NC Department of Environment and Natural Resources Divisions of Air Quality and Waste Management.

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

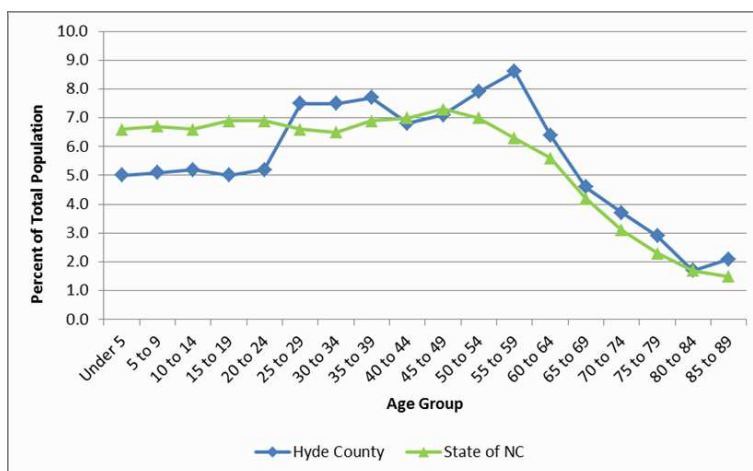
DEMOGRAPHICS

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 | | | |
| <i>Possession</i> | 2 | 9 | 4 |
| <i>Possession with intent to sell or deliver</i> | 5 | 21 | 10 |
| Schedule IV Drug | | | |
| <i>Possession</i> | 9 | 2 | 1 |
| <i>Possession with intent to sell or deliver</i> | 0 | 2 | 1 |
| Schedule VI Drug | | | |
| <i>Possession</i> | 0 | 19 | 22 |
| <i>Possession with intent to sell or deliver</i> | 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 ($\leq 2,500$ 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 | | | | Total |
|----------|---|--------------------------|------|----------------------|------|-------|
| | | Vidant Beaufort Hospital | | Outer Banks Hospital | | |
| | | 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 (55):

- 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 show 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 2010-2011, <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.ncdhs.gov/dm/CA/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 (55).

Health Department

Hyde County Health Department programs accessible to the community include: primary care services, acute and chronic disease prevention and management, 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 maternal 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 a nurse practitioner, health educator, registered nurses, environmental health specialists, 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. RHA 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 managed 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. Data for the sample included in this report reflects this weighting.

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.

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***

REFERENCES

- 1 Hyde County 2011 Community Health Assessment; October, 2011.
- 2 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>.
- 3 US Census Bureau, American FactFinder, 2010 Census, Summary File DP-1, 2010 Demographic Profile Data, Profile of General Population and Housing Characteristics: 2010 (Geographies as noted); <http://factfinder2.census.gov>.
- 4 US Census Bureau, American FactFinder. Profile of General Population and Housing Characteristics: 2010 (DP-1); <http://factfinder2.census.gov>.
- 5 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.
- 6 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>.
- 7 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>.
- 8 Article 3J County Tier Designations (2014). NC Department of Commerce, Research and Publications, Incentive Reports; <http://www.nccommerce.com/research-publications/incentive-reports/county-tier-designations>.
- 9 NC Department of Commerce, AccessNC, Community Demographics, County Report, County Profile, <http://accessnc.commerce.state.nc.us/EDIS/page1.html>, and US Census Bureau, American Fact Finder, American Community Survey, 2012 ACS 5-Year Estimate. <http://factfinder2.census.gov>.
- 10 NC Employment Security Commission, Labor Market Information, Industry Information. Employment and Wages Data by Industry, 2012, Annual Summary. By State or by County. <http://eslmi23.esc.state.nc.us/ew/EWYear.asp?Report=1>.
- 11 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>.
- 12 US Census Bureau, American Fact Finder, American Community Survey, 2011, 2012 ACS 5-Year Estimates, Table DP03: Selected Economic Characteristics, County, North Carolina (Counties as listed); <http://factfinder2.census.gov>.
- 13 US Census Bureau, American Fact Finder, American Community Survey, 2010, 2011 and 2012 American Community Survey 5-Year Estimates, Table S1701: Poverty Status in the Past 12 Months. Data Profiles, County, North Carolina (Counties as listed); <http://factfinder2.census.gov>.
- 14 US Census Bureau, American Fact Finder, American Community Survey, 2010, 2011 and 2012 American Community Survey 5-Year Estimates, Data Profiles, County, North Carolina (Counties as listed); <http://factfinder2.census.gov>.
- 15 US Census Bureau, American FactFinder, American Community Survey, 2009 and 2012 ACS 5-Year Estimates. Table DP04: Selected Housing Characteristics (geographies as listed). <http://factfinder2.census.gov>.

-
- 16 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>.
 - 17 County Profiles: Hyde and Alleghany Counties and North Carolina. NC Rural Economic Development Center website: Rural Data Bank;
http://www.ncruralcenter.org/index.php?option=com_wrapper&view=wrapper&Itemid=121.
 - 18 NC Housing Coalition, County Resource Guides;
http://www.nchousing.org/need_help/housing_location/county-resource-guides/atct_topic_view?b_start:int=20&C=.
 - 19 NC Coalition to End Homelessness, NC Point-In-Time County Data, Data by Year, NC Balance of State by County, 2009-2013; <http://www.ncceh.org/PITdata/>.
 - 20 NC Department of Public Instruction, Data and Statistics, Education Data, NC School Report Cards, School Year 2011-12; <http://www.ncreportcards.org/src>.
 - 21 NC Division of Non-Public Education, 2013 Directory of Non-Public Schools;
<http://www.ncdnpe.org/documents/12-13-CS-Directory.pdf>.
 - 22 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>.
 - 23 NC Department of Public Instruction, Data and Statistics, Education Data, NC School Report Cards. District Profile. <http://www.ncreportcards.org/src/>.
 - 24 NC Department of Public Instruction, Research and Evaluation, Dropout Data and Collection Process, Annual Dropout Reports;
<http://www.ncpublicschools.org/research/dropout/reports/>.
 - 25 NC Department of Justice, Sex Offender Statistics, Offender Statistics;
<http://sexoffender.ncdoj.gov/stats.aspx>.
 - 26 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>.
 - 27 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>.
 - 28 East Carolina University Center for Survey Research. *2014 Hyde County Community Health Needs Assessment, Primary Data Executive Summary*, December 15, 2014. Communicated via email from Anna Schaffer, Health Educator, Hyde County Health Department, to Sheila Pfaender, Public Health Consultant, December 16, 2014.
 - 29 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>.
 - 30 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>.
 - 31 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>.
 - 32 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.
 - 33 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.
 - 34 Air Quality Index Reports, 2013. US EPA Air Data website:
http://www.epa.gov/airdata/ad_rep_aqi.html.

-
- 35 SDWIS. US Environmental Protection Agency Envirofacts website:
<http://www.epa.gov/enviro/facts/sdwis/search.html>.
- 36 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.
- 37 NC Department of Environment and Natural Resources, Division of Waste Management, Solid Waste Section. Solid Waste Management Annual Reports, FY2012-2013; County Waste Disposal Report Fiscal Year 2012-2013.
http://portal.ncdenr.org/web/wm/sw/swmar?p_p_id=110_INSTANCE_V4fV&p_p_lifecycle=0&p_p_state=maximized&p_p_mode=view&p_p_col_id=column-3&p_p_col_count=1&110_INSTANCE_V4fV_struts_action=%2Fdocument_library_display%2Fview&110_INSTANCE_V4fV_folderId=15429422.
- 38 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/>.
- 39 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/>.
- 40 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/>.
- 41 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/>.
- 42 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>.
- 43 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/>.
- 44 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/>.
- 45 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/>.
- 46 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/>.
- 47 East Carolina University Center for Survey Research. 2014 Hyde County Community Health Needs Assessment, Primary Data Executive Summary, December 15, 2014. Communicated via email from Anna Schaffer, Health Educator, Hyde County Health Department, to Sheila Pfaender, Public Health Consultant, December 16, 2014.
- 48 Centers for Disease Control and Prevention, Diabetes Data and Trends, County Level Estimates of Diagnosed Diabetes - of Adults in North Carolina, 2006-2011;
<http://apps.nccd.cdc.gov/ddtstrs/default.aspx>.

-
- 49 East Carolina University Center for Survey Research. 2014 Hyde County Community Health Needs Assessment, Raw Primary Data Report. Communicated via email from Anna Schaffer, Health Educator, Hyde County Health Department, to Sheila Pfaender, Public Health Consultant, December 8, 2014,
- 50 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>.
- 51 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>.
- 52 Personal communication from Amber McCann, Hyde County Schools to Elizabeth Mumm, Public Health Educator, Hyde County Health Department; February 20, 2014.
- 53 Personal communication from Amber McCann, Hyde County Schools to Elizabeth Mumm, Public Health Educator, Hyde County Health Department; February 20, 2014.
- 54 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>.
- 55 2014 Hyde County Community Health Assessment, Secondary Data Report.
- 56 Gray, Allison. Reforming mental health reform: the history of mental health reform in North Carolina. North Carolina Insight Special Report, March 2009; <http://www.nccppr.org/drupal/content/insightissue/88/the-history-of-mental-health-reform>.
- 57 Mental Health Reform in North Carolina. Wikipedia: http://en.wikipedia.org/wiki/Mental_health_reform_in_North_Carolina.
- 58 "State Managed Care Organizations to Consolidate". North Carolina Health News, December 12, 2013; <http://www.northcarolinahealthnews.org/2013/12/20/state-managed-care-organizations-to-consolidate/>.
- 59 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.
- 60 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.
- 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://www.wapps.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 4: 2016 HYDE COUNTY PRIMARY AND SECONDARY DATA

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 |

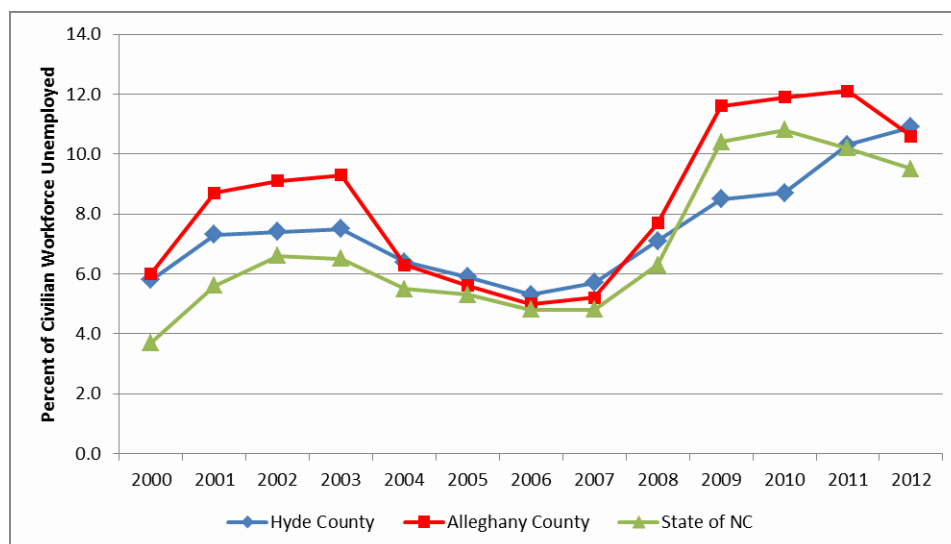
Source (except as noted): NC Department of Commerce, AccessNC, Community Demographics, County Report, County Profile, <http://accessnc.commerce.state.nc.us/EDIS/page1.html>.

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 - 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 - 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 | 0 |
| Alleghany County | 11 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 1 |
| State of NC | 14,028 | 982 | 328 | 197 | 157 | 197 | 206 | 235 | 344 | 460 | 561 | |

Source: 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=CHIL D&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 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 | ; | 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 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.ncdhs.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 | 2011-12 | 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 |

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 ($\leq 2,500$ 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 | | Males | Females |
| | Number | Rate | Number | Rate | Number | Rate | Number | Rate | | |
| 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 perinatal period | Conditions originating in the perinatal period | Conditions originating in the perinatal 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)

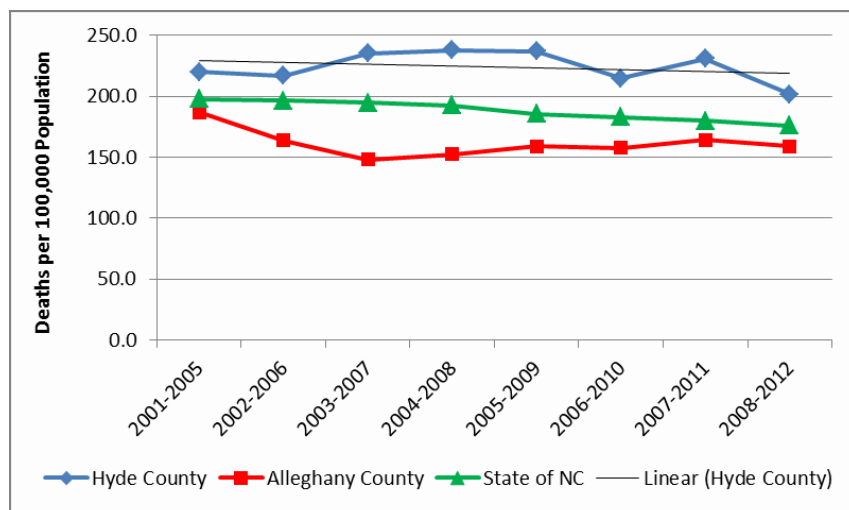
| Location | Rate (Deaths per 100,000 Population) | | | | | | | |
|------------------|--------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | 2001-2005 | 2002-2006 | 2003-2007 | 2004-2008 | 2005-2009 | 2006-2010 | 2007-2011 | 2008-2012 |
| 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 10,000 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.

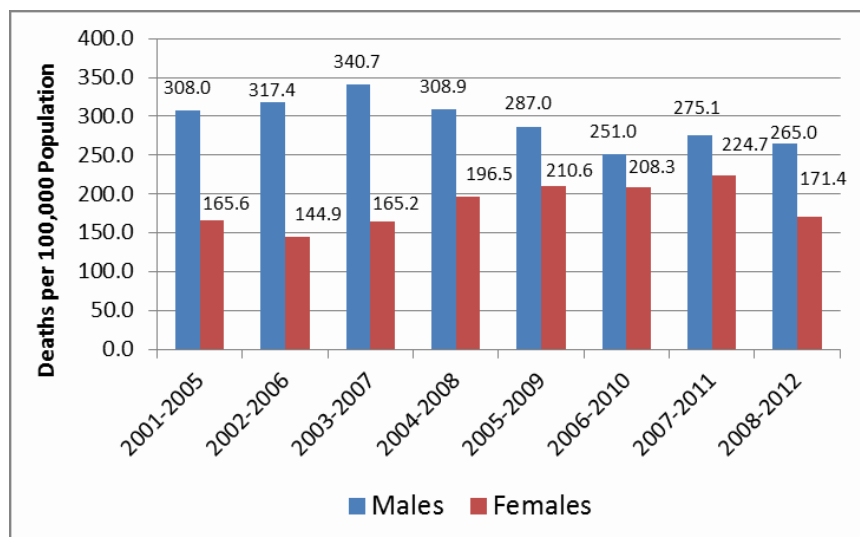
Gender Disparity Trend in Total Cancer Mortality Rate (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

| Location | Deaths, Number and Rate (Deaths per 10,000 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)



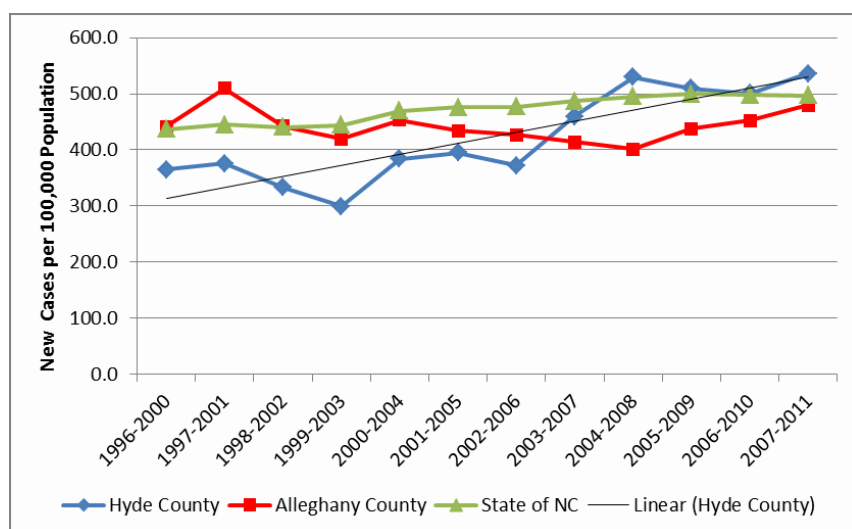
Graph derived from data table above

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

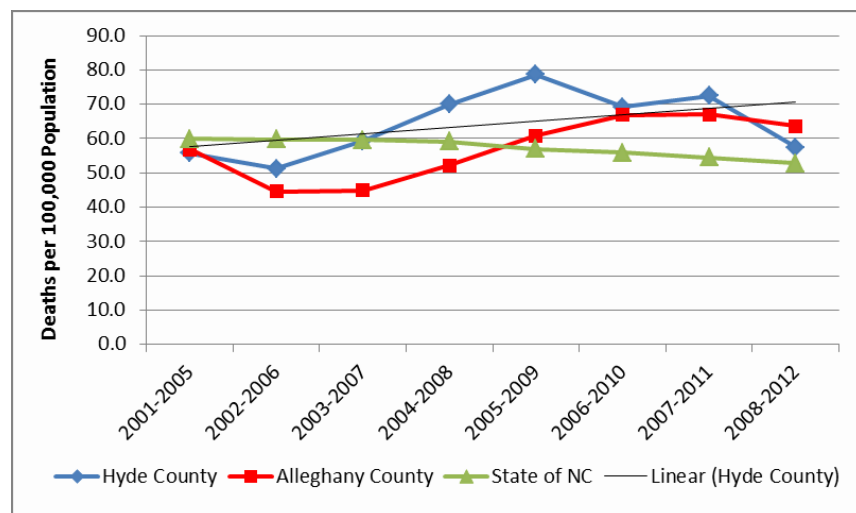
Lung Cancer

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.

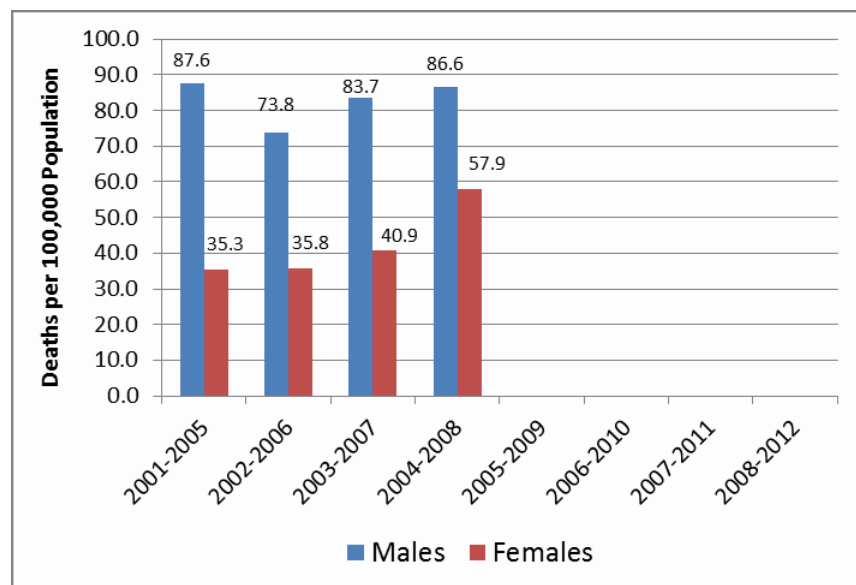
Gender Disparity Trend in Lung Cancer Mortality Rate (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

| 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)



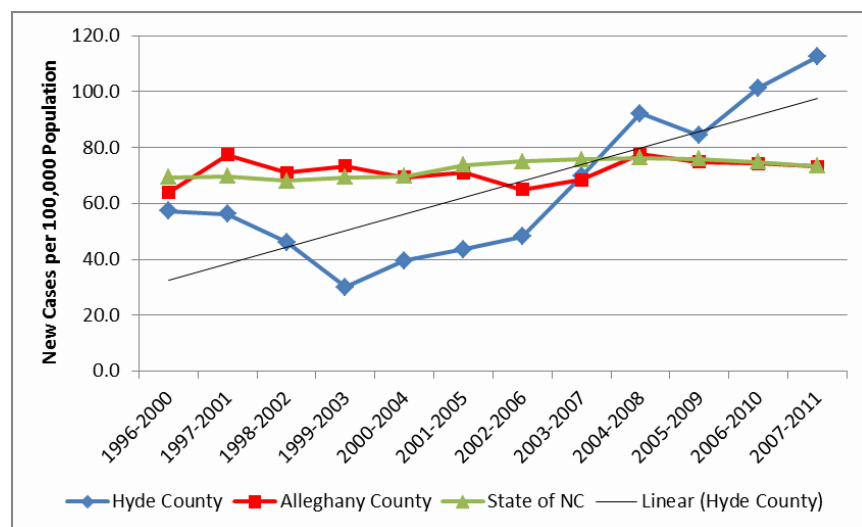
Graph derived from data table above

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 |

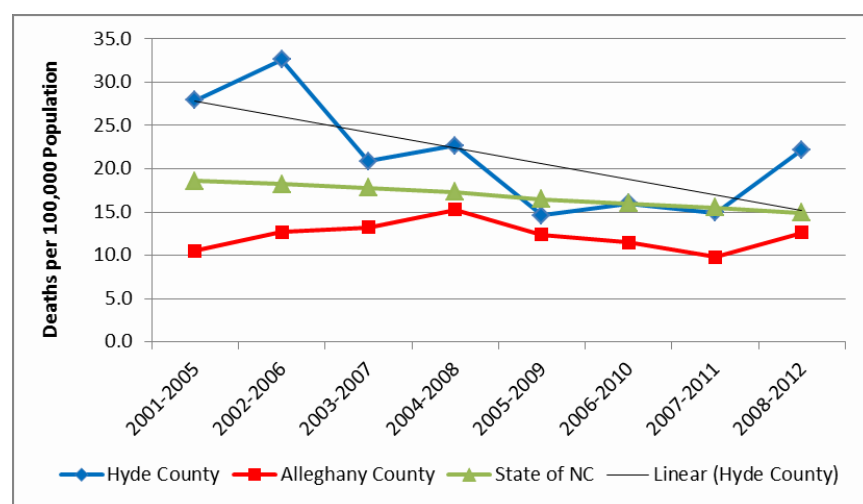
Source:

a - 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

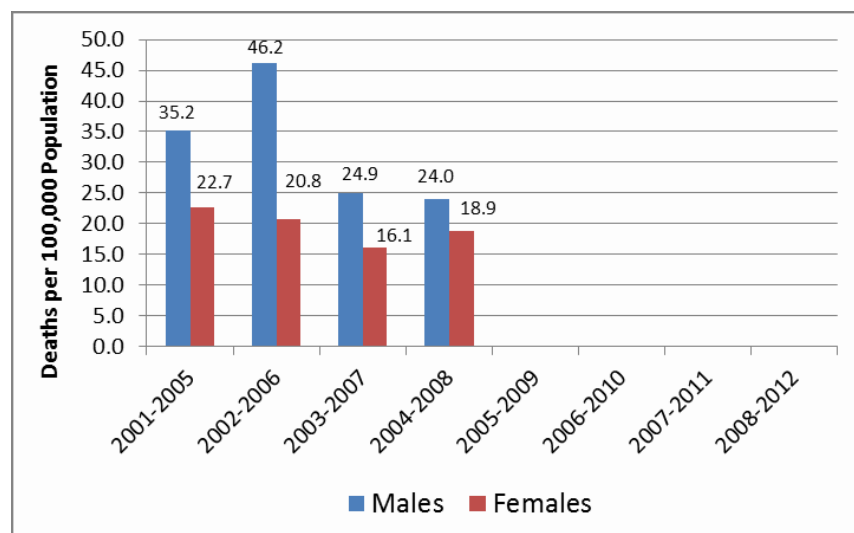
Gender Disparity Trend in Colon, Rectum, Anus Cancer Mortality Rate (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

| 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)

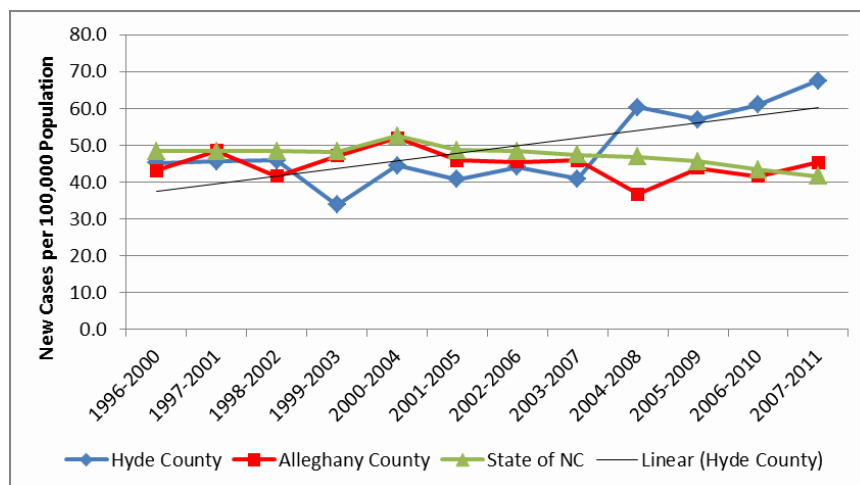
| Location | Rate (New cases per 100,000 Population) | | | | | | | | | | | |
|------------------|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | 1996-2000 | 1997-2001 | 1998-2002 | 1999-2003 | 2000-2004 | 2001-2005 | 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)

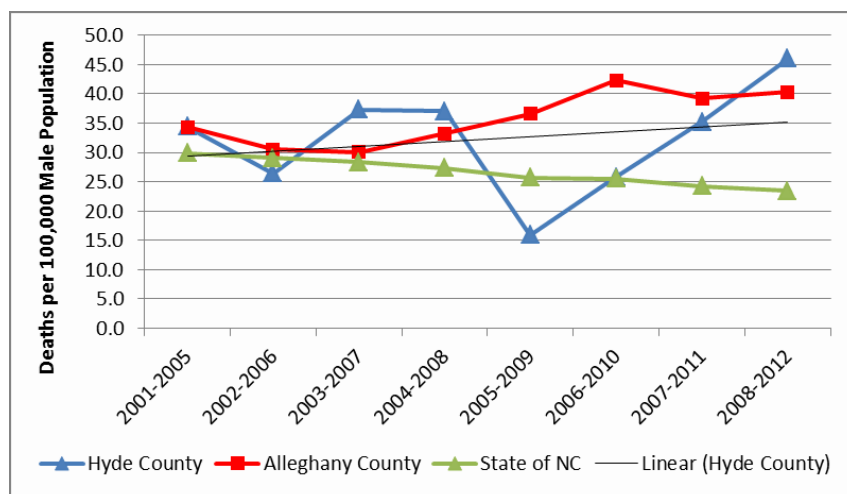
| Location | Overall Rate (Deaths per 100,000 Male Population) | | | | | | | |
|------------------|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | 2001-2005 | 2002-2006 | 2003-2007 | 2004-2008 | 2005-2009 | 2006-2010 | 2007-2011 | 2008-2012 |
| Hyde County | 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.

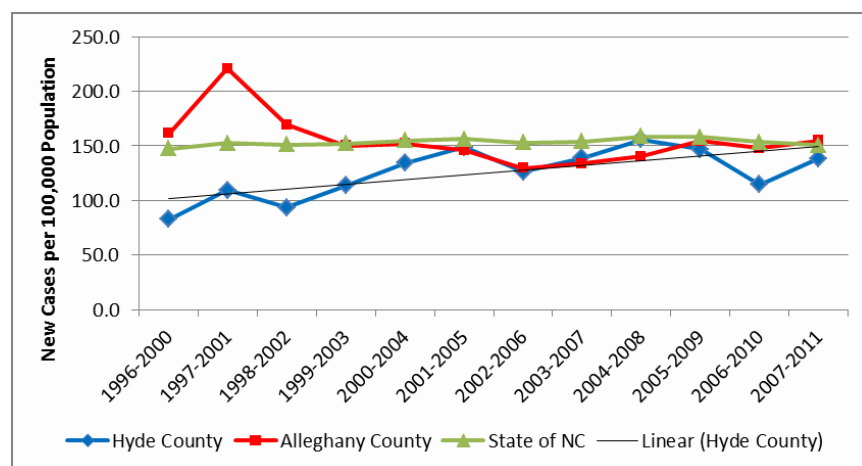
Prostate Cancer Incidence Rate Trend (Five-Year Aggregate Periods, 1996-2000 through 2007-2011)

| 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

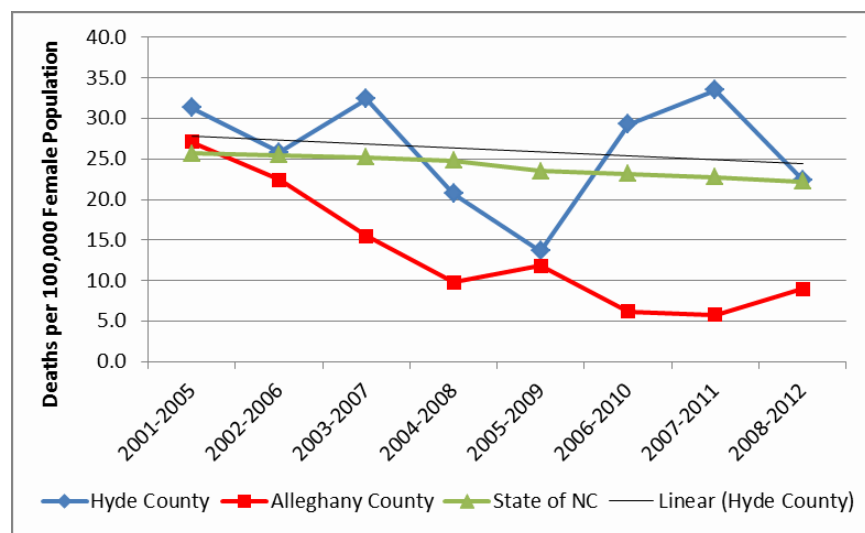
a - NC State Center for Health Statistics, County Health Data Books (2007-2014), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>

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)

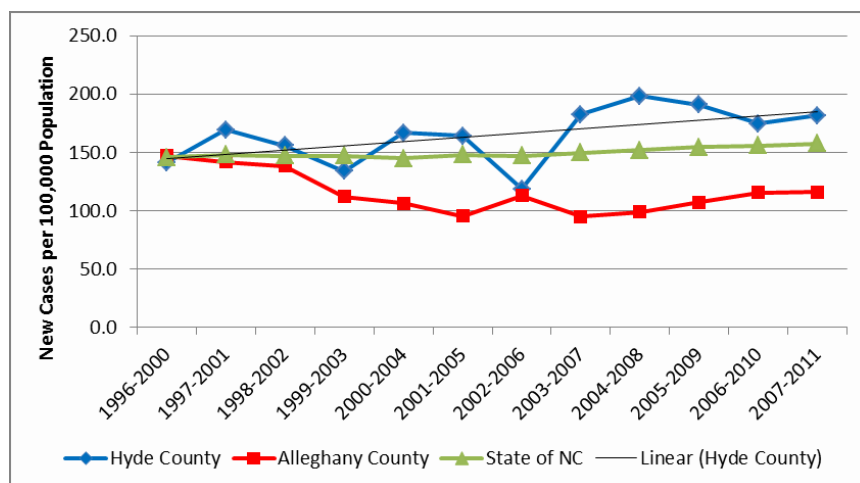
| Location | Rate (New cases per 100,000 Population) | | | | | | | | | |
|------------------|---|-----------|-----------|-----------|-----------|-----------|--------------|-----------|-----------|-----------|
| | 1996-2000 | 1997-2001 | 1998-2002 | 1999-2003 | 2000-2004 | 2001-2005 | 2002-2006 | 2003-2007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

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

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



Graph derived from data table above

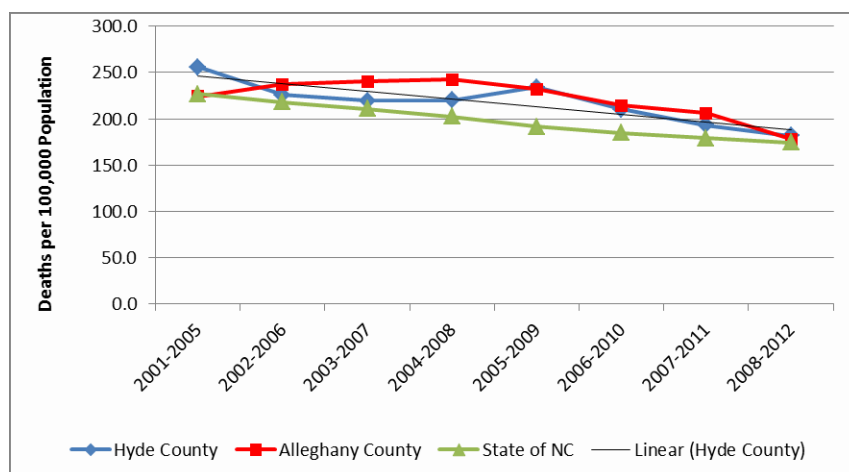
Heart Disease

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/>.

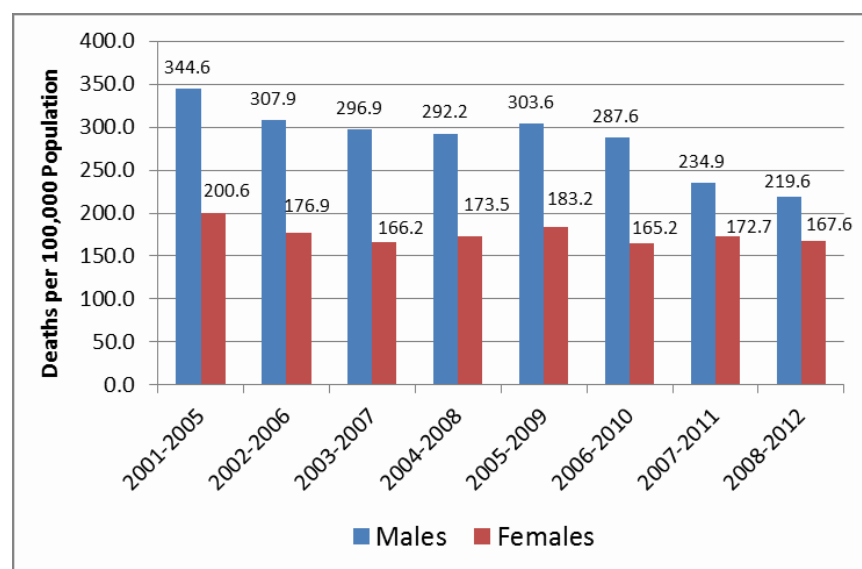
Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.

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)

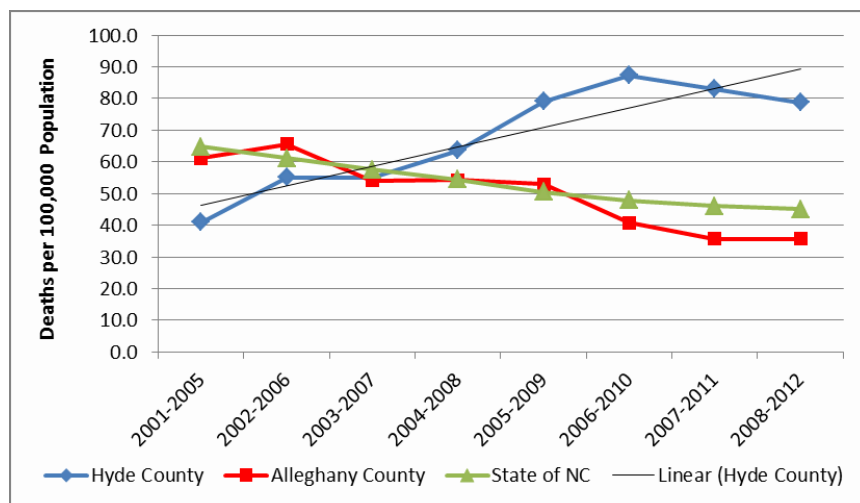
| Location | Rate (Deaths per 100,000 Population) | | | | | | | |
|------------------|--------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | 2001-2005 | 2002-2006 | 2003-2007 | 2004-2008 | 2005-2009 | 2006-2010 | 2007-2011 | 2008-2012 |
| 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)

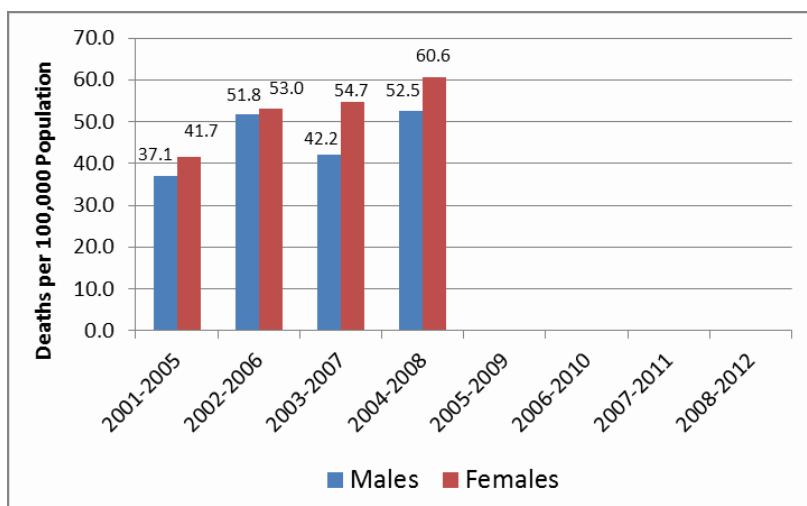
| Location | Rate (Deaths per 100,000 Population) | | | | | | | | | | | | | | | |
|------------------|--------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | 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 |

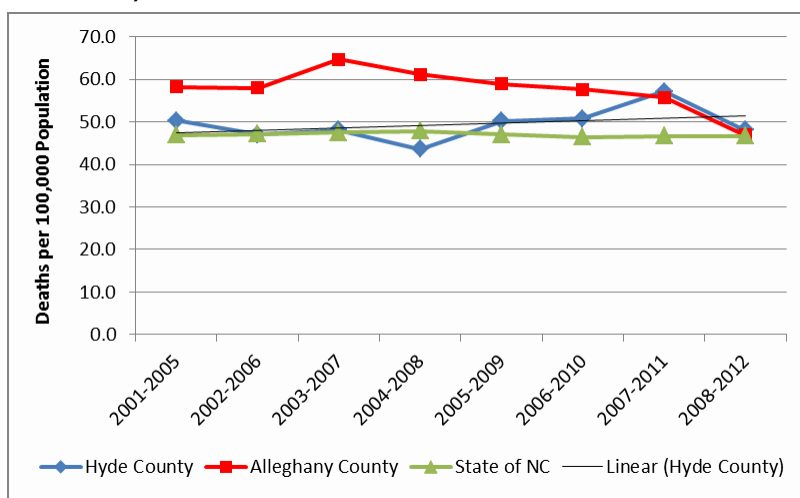
Source:

a - 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/>.

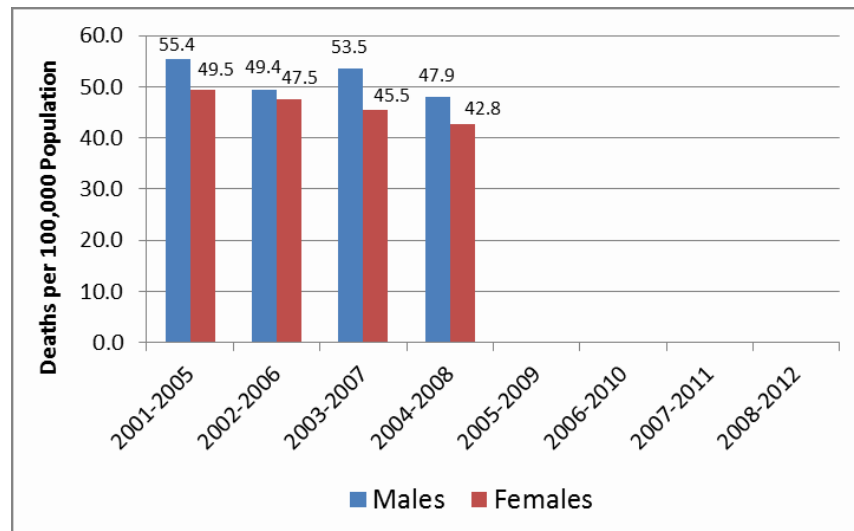
Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.

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 | 64.8 | 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

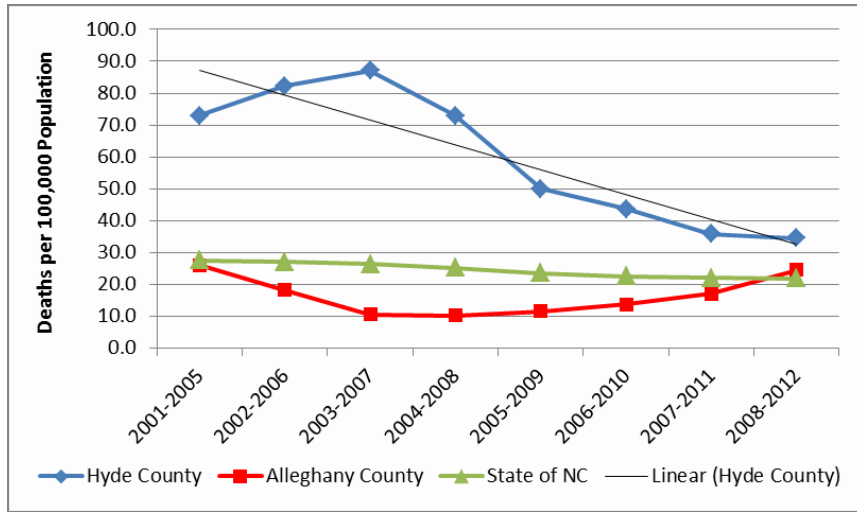
a - NC State Center for Health Statistics, County Health Data Books (2007-2014), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>

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)

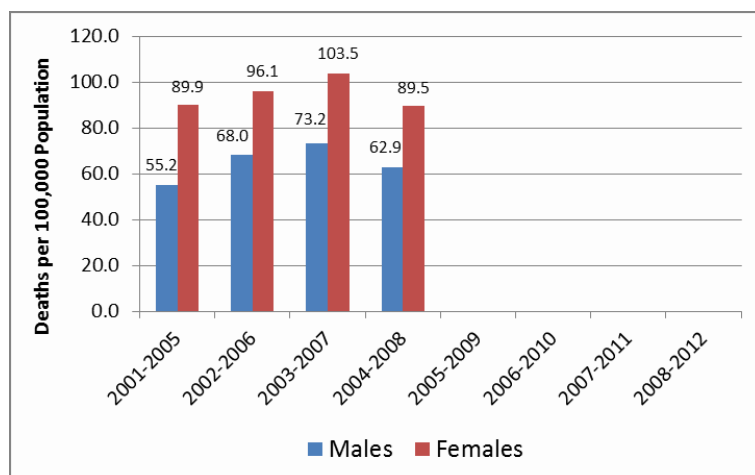
| Location | Rate (Deaths per 100,000 Population) | | | | | | | | | | | | | | | |
|------------------|--------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | 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 |

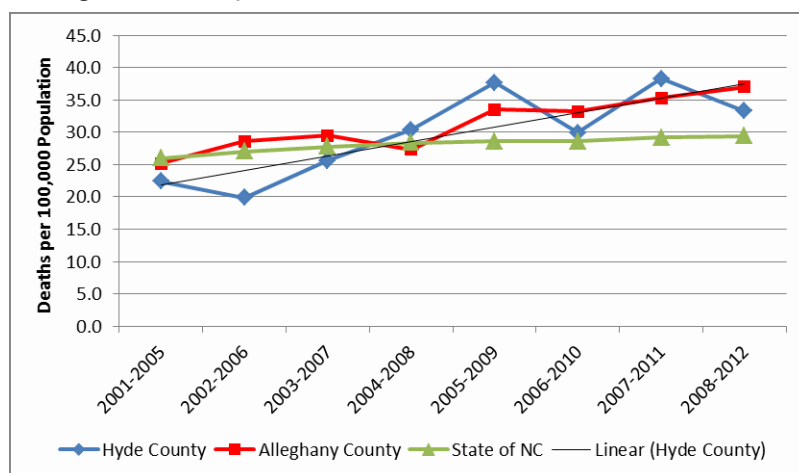
Source:

a - 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.

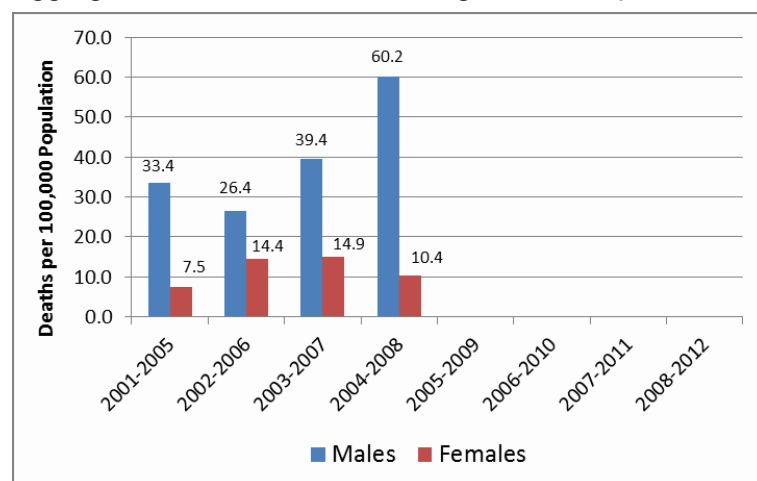
Gender Disparity Trend in All Other Unintentional Injury Mortality Rate (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

| 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

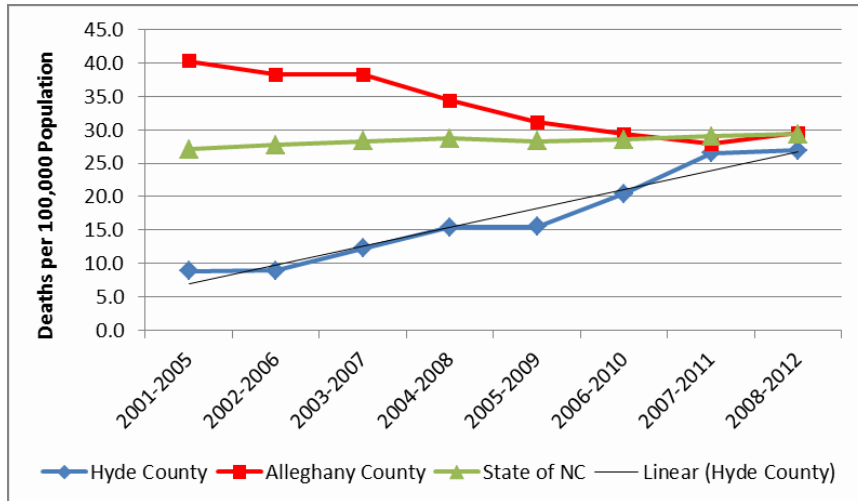
a - NC State Center for Health Statistics, County Health Data Books (2007-2014), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>

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 | |
| | 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 |
| Alleghany County | 25 | 30.2 | 0 | N/A | 0 | N/A | 0 | N/A | 3 | N/A | 22 | 39.9 |
| 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 |

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)

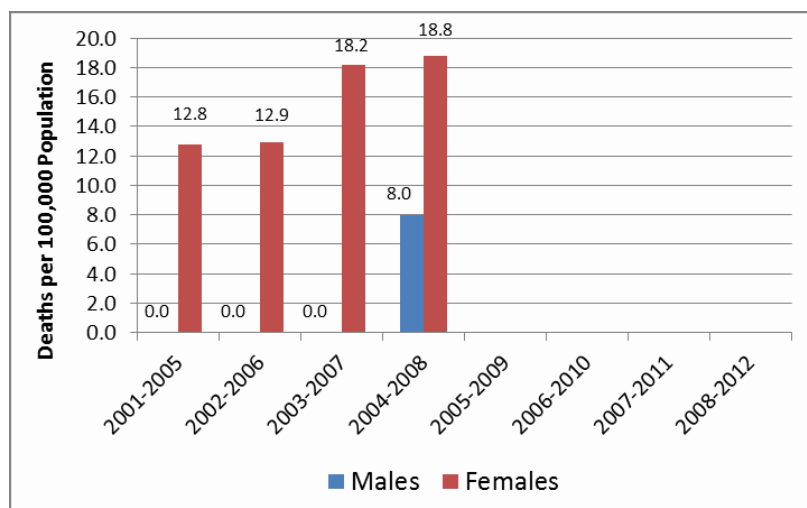
| Location | Rate (Deaths per 100,000 Population) | | | | | | | | | | | | | | | |
|------------------|--------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | 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 |

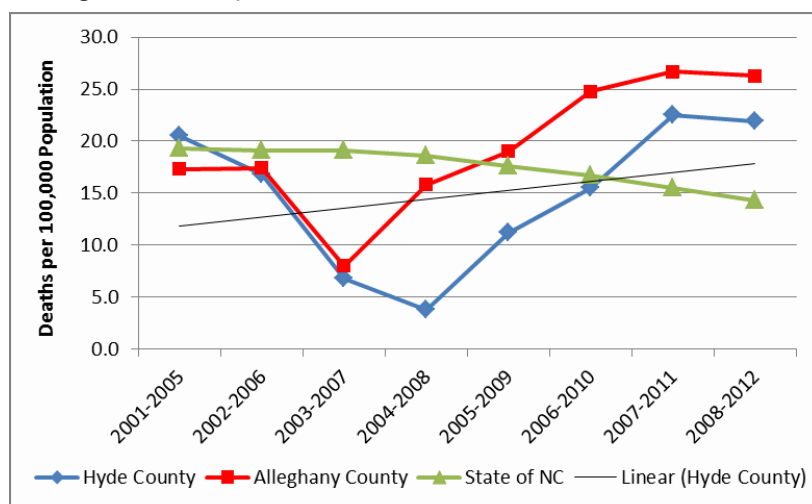
Source:

a - 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.

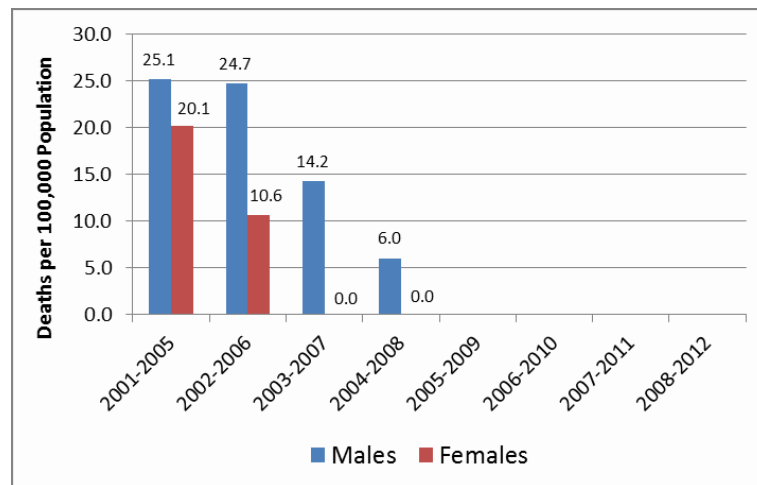
Gender Disparity Trend in Unintentional Motor Vehicle Injury Mortality Rate (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

| 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 |

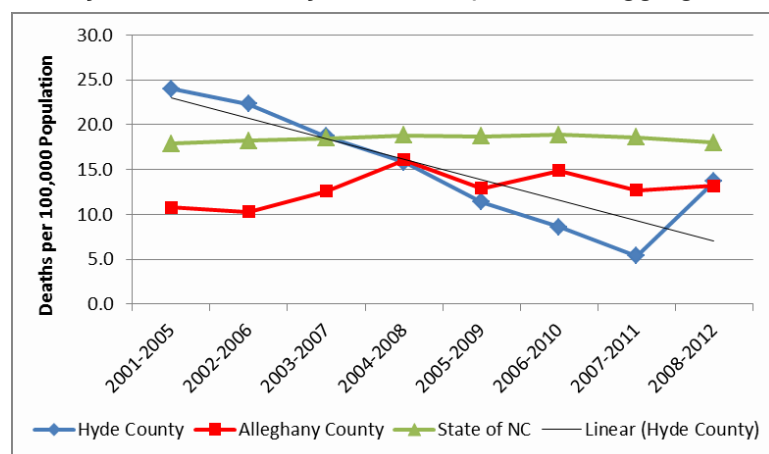
Source: a - NC State Center for Health Statistics, County Health Data Books (2007-2014), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>

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

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 | |
| | 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 |
| Alleghany County | 10 | N/A | 0 | N/A | 0 | N/A | 1 | N/A | 5 | N/A | 6 | N/A |
| State of NC | 5,685 | 14.6 | 2,904 | 35.1 | 142 | 17.3 | 64 | 7.3 | 4,273 | 22.0 | 4,522 | 15.4 |

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.

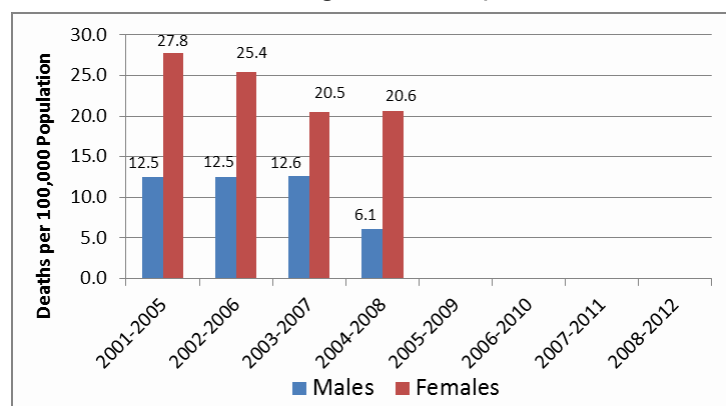
Gender Disparity Trend in Kidney Disease Mortality Rate (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

| 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 |

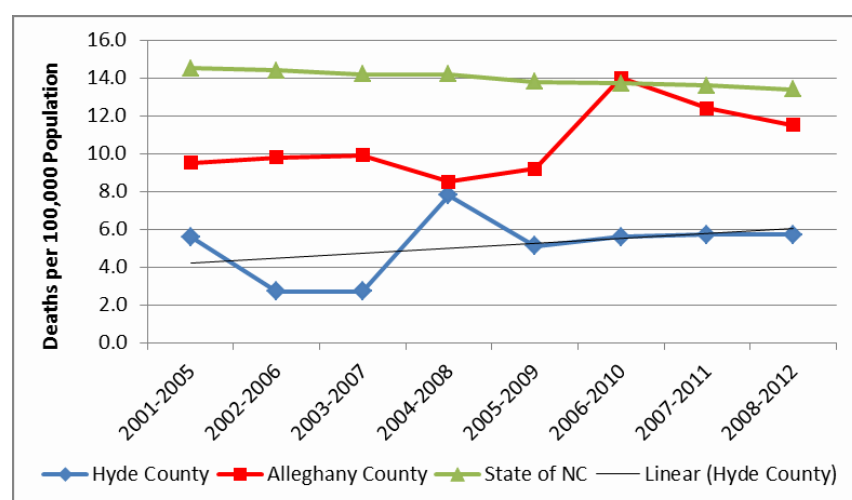
Source:

a - 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)

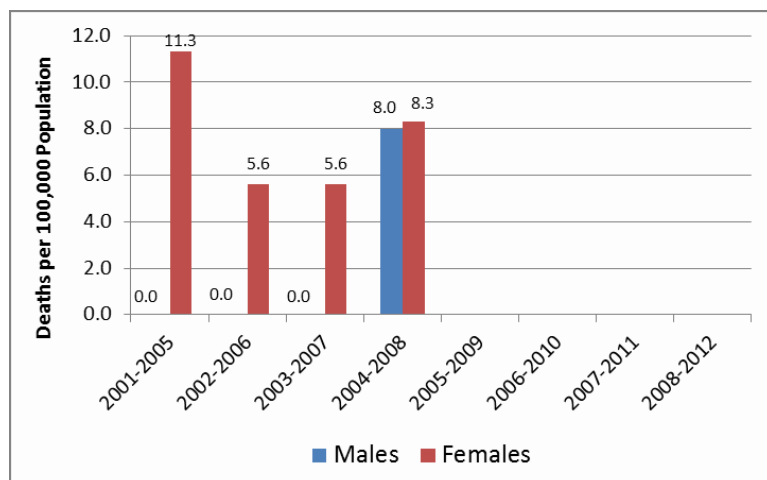
| Location | Rate (Deaths per 100,000 Population) | | | | | | | | | | | | | | | |
|------------------|--------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | 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 |

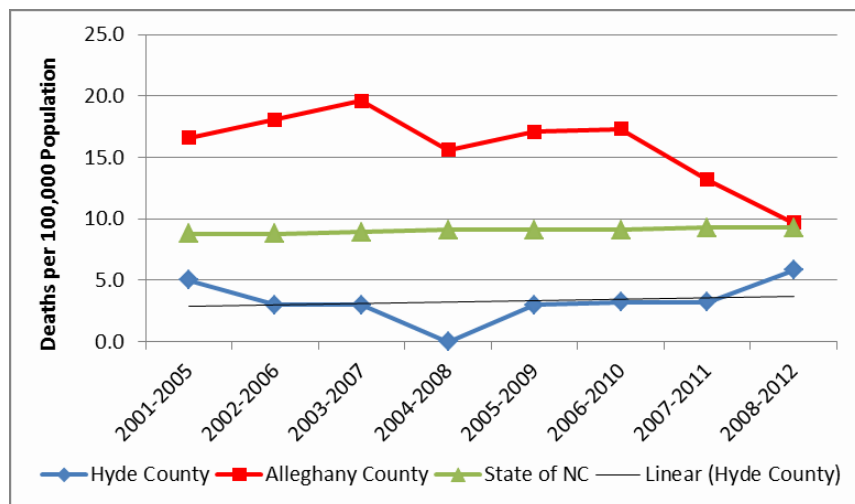
Source:

a - 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.

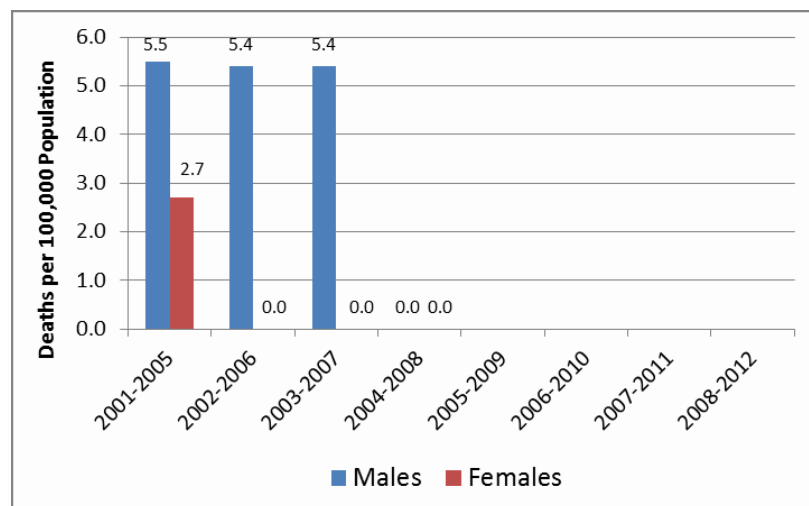
Gender Disparity Trend in Liver Disease Mortality Rate (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

| 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

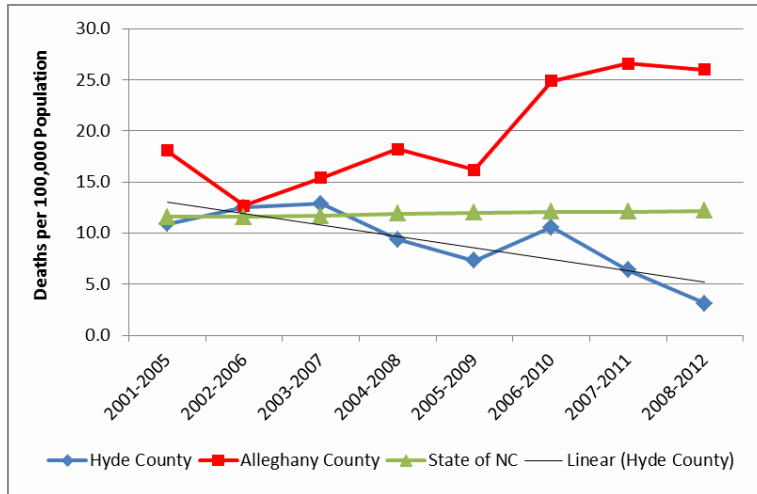
a - NC State Center for Health Statistics, County Health Data Books (2007-2014), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

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 | 11 | N/A | 0 | 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.

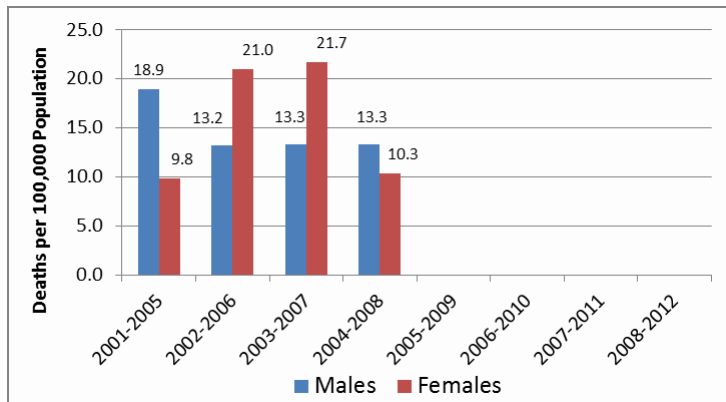
Gender Disparity Trend in Suicide Mortality Rate (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

| 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 |

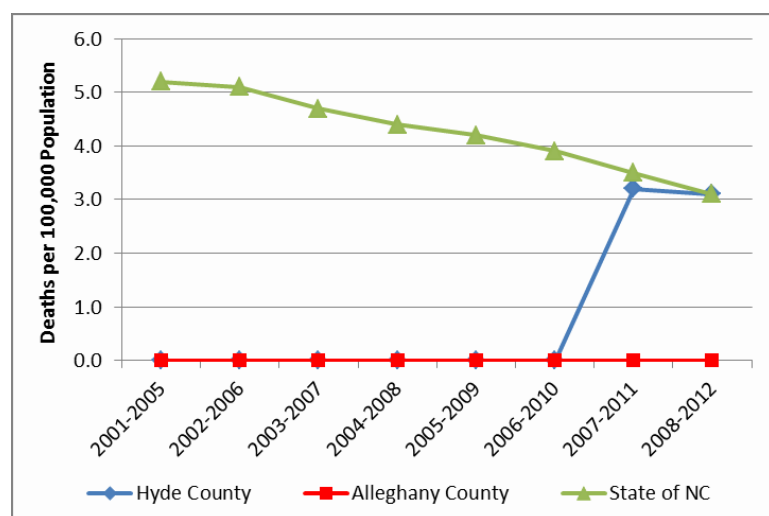
Source:

a - 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 10 0,000 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)

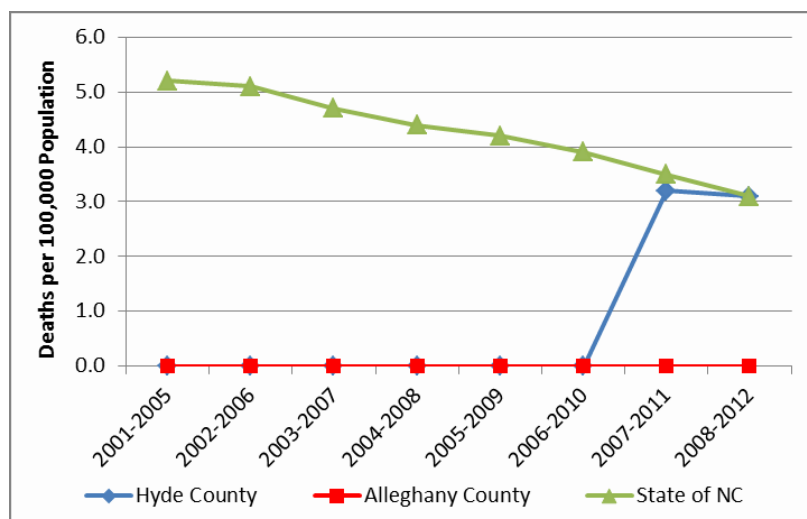
| Location | Rate (Deaths per 100,000 Population) | | | | | | | | | | | | | | | |
|------------------|--------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | 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 |

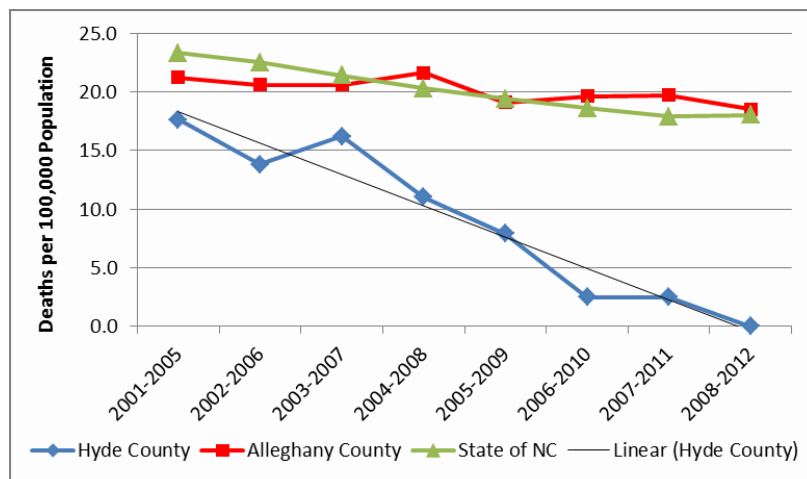
Source:

a - 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.

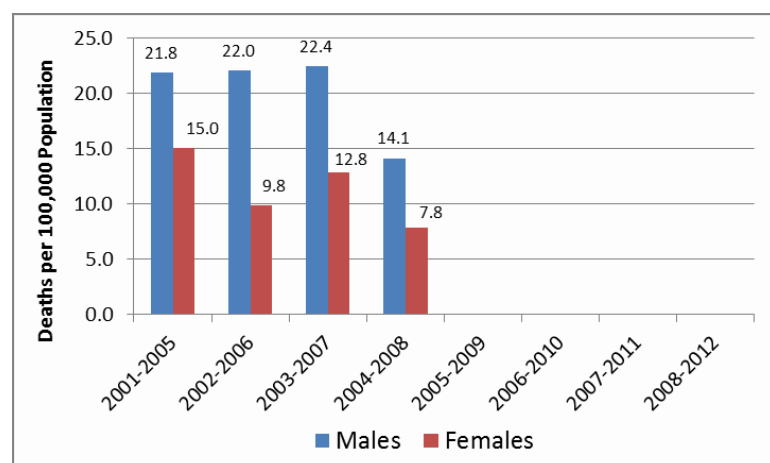
Gender Disparity Trend in Pneumonia and Influenza Mortality Rate (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

| 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 | 25.7 | 21.7 | 16.6 | 13.0 | N/A | 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:

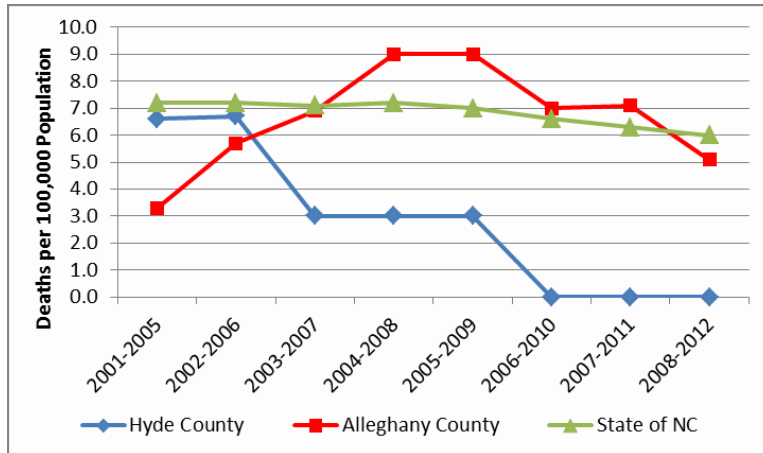
a - NC State Center for Health Statistics, County Health Data Books (2007-2014), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

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.

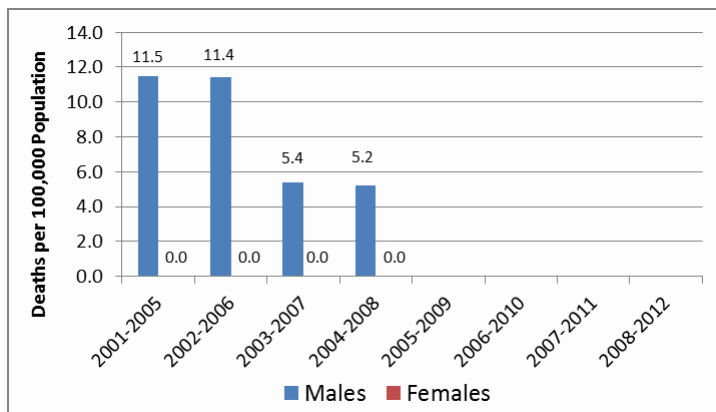
Gender Disparity Trend in Homicide Mortality Rate (Five-Year Aggregate Periods, 2001-2005 through 2008-2012)

| 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 |
| <i>Family Practice</i> | 1 | 5 |
| <i>General Practice</i> | 0 | 0 |
| <i>Internal Medicine</i> | 0 | 2 |
| <i>Obstetrics/Gynecology</i> | 0 | 0 |
| <i>Pediatrics</i> | 0 | 0 |
| Other Specialities | 0 | 4 |
| Dentists and Dental Hygienists | | |
| Dentists | 0 | 2 |
| Dental Hygienists | 0 | 0 |
| Nurses | | |
| Registered Nurses | 28 | 41 |
| <i>Nurse Practitioners</i> | 4 | 6 |
| <i>Certified Nurse Midwives</i> | 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)

| FacilityType/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 Facilities¹ | | | |
| None | | | |
| Home Care Agencies | | | |
| Hydeland Home 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.



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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.



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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.



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Demographic Data



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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 |



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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

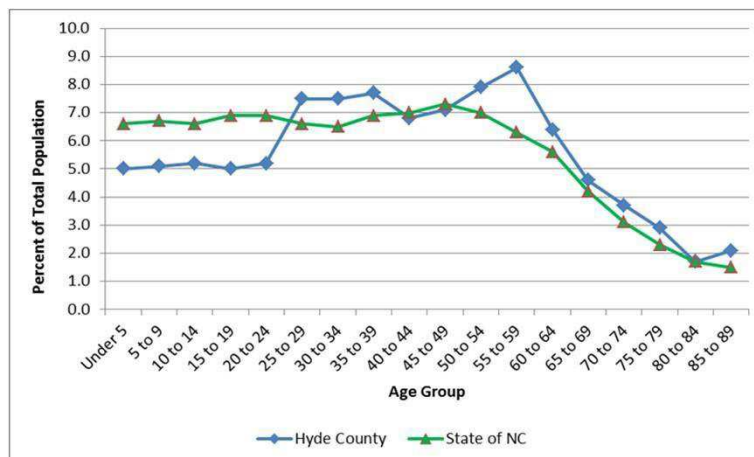
| Location | Percent of Overall Population | | | | | | |
|------------------|-------------------------------|-------|-------|-------|-------|----------------|----------|
| | White | Black | AI/AN | Asian | Other | Multiple Races | Hispanic |
| Hyde County | 64.0 | 31.6 | 0.5 | 0.3 | 2.4 | 1.2 | 7.1 |
| 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



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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



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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%)

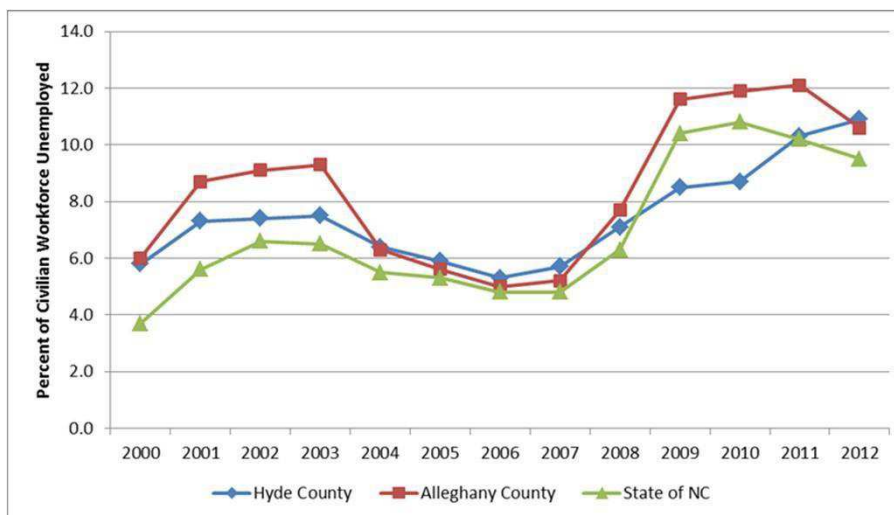
Accommodation and Food Service (15%)

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



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Annual Unemployment Rate



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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 as 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 | 23.3 | 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.



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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.



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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.



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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



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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.



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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%



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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.



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Health Resources



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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 | 006-07 | | | 008-09 | | | 010-11 | | |
|------------------|--------|-------|------|--------|-------|------|--------|-------|------|
| | 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).



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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



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Health Statistics



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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



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Maternal and Infant Health



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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)



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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 | Conditions originating in the perinatal period |
| | 2 | Pneumonitis/congenital anomalies/motor vehicle injuries/COPD |
| | 3 | Motor vehicle injuries |
| 20-39 | 1 | Motor vehicle injuries |
| | 2 | Cancer (all sites)/non-motor vehicle injuries |
| 40-64 | 1 | Cancer (all sites) |
| | 2 | Diseases of the heart |
| | 3 | Cerebrovascular disease/non-motor vehicle injuries |
| 65-84 | 1 | Cancer (all sites) |
| | 2 | Diseases of the heart |
| | 3 | Cerebrovascular disease |
| 85+ | 1 | Diseases of the heart |
| | 2 | Cerebrovascular disease |
| | 3 | 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)



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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



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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.



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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.



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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.



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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.



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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".

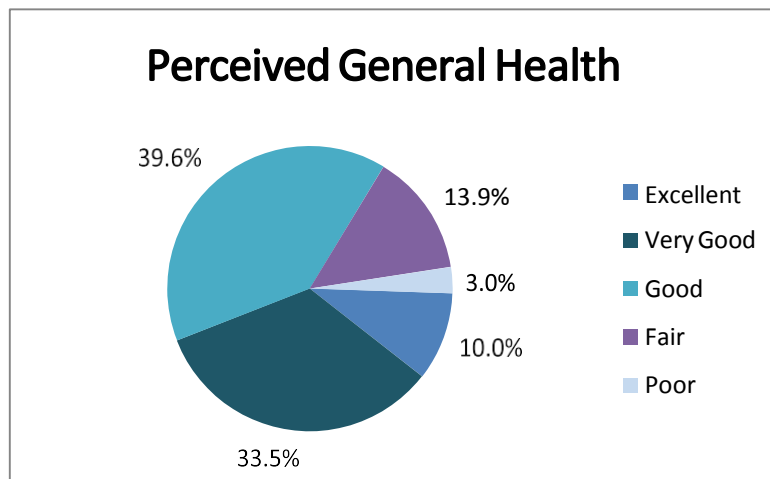
Data weighting is conducted in order to compensate for discrepancies between the sample of random survey respondents and the demographic profile of the entire county. In the current study, weighting procedures were only necessary for the demographic variables of gender and age, as all other demographic 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, they 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.

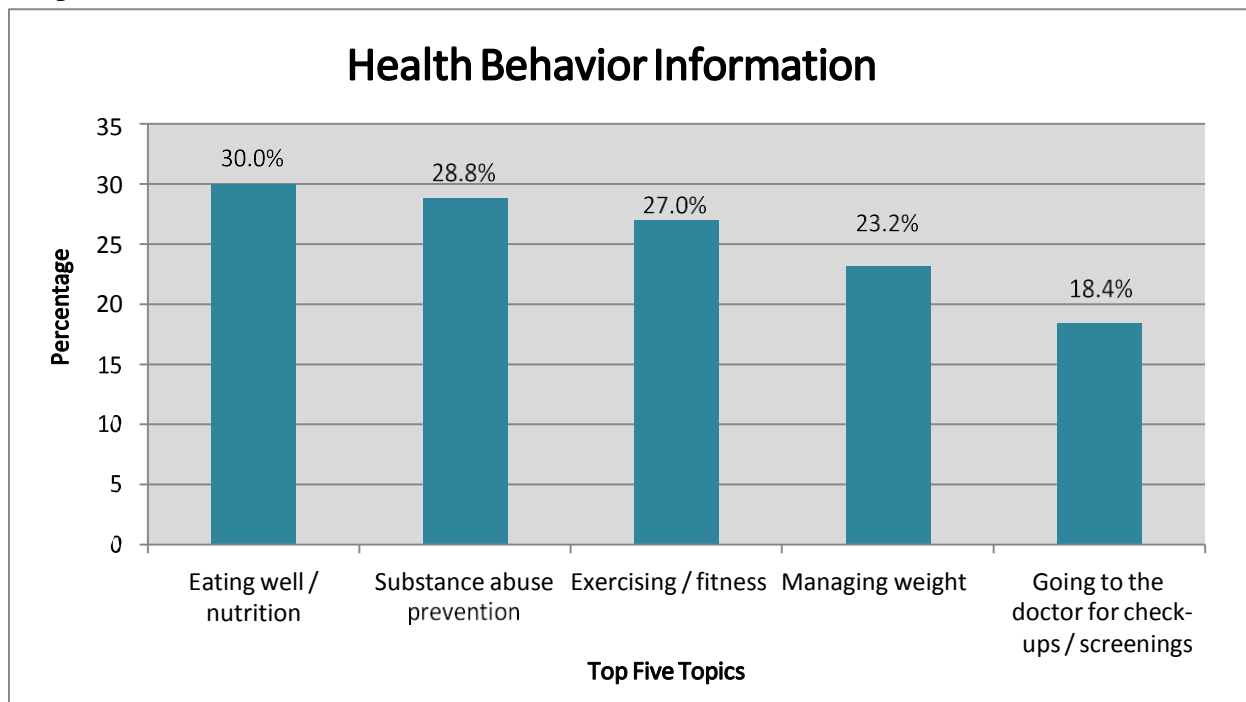
Health Information

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.

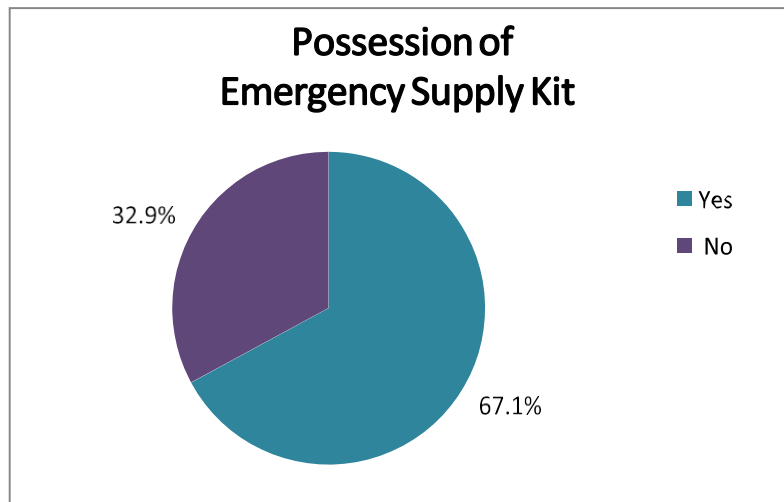
Graph 1.



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.



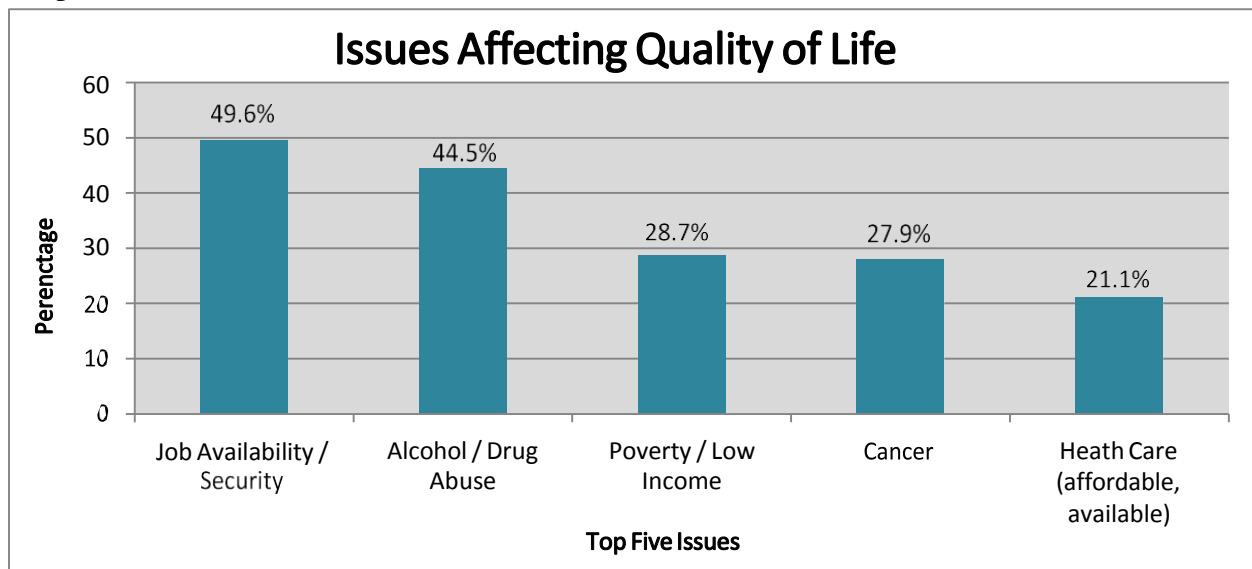
Health Problems

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".

- | | |
|------------------------------------|------------------------------------|
| <input type="radio"/> Currituck | <input type="radio"/> Ocracoke |
| <input type="radio"/> Fairfield | <input type="radio"/> Swan Quarter |
| <input type="radio"/> Lake Landing | <input type="radio"/> 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 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| It is a good place to grow old | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| It is a good place to raise children | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| There is plenty of economic opportunity | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| It is a safe place to live | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| There is plenty of help for people during times of need | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| There is good air and water quality | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Housing that meets my needs is available | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| There are sufficient transportation services | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

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?

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

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

Part 3: Health Information

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

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

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

- | | |
|---|---|
| <input type="checkbox"/> Books / magazines | <input type="checkbox"/> Internet |
| <input type="checkbox"/> Church | <input type="checkbox"/> My child's school |
| <input type="checkbox"/> Doctor / nurse | <input type="checkbox"/> Newspaper |
| <input type="checkbox"/> Friends and family | <input type="checkbox"/> Pharmacist |
| <input type="checkbox"/> Health department | <input type="checkbox"/> Social media |
| <input type="checkbox"/> Help lines | <input type="checkbox"/> TV |
| <input type="checkbox"/> Hospital | <input type="checkbox"/> 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 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Arthritis | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Asthma | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Breast cancer | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Cervical cancer | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Chronic back pain | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Chronic body aches | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Colon cancer | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| COPD or emphysema | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Depression or anxiety | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Diabetes (not during pregnancy) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| High blood pressure | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| High cholesterol | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| HIV | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Mental illness (other than depression or anxiety) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Osteoporosis | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Overweight / obesity | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Prostate cancer | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Sexually transmitted disease (e.g., gonorrhea, chlamydia, syphilis) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Skin cancer | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Sickle cell anemia | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Tuberculosis | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Uterine cancer | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

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

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

Please indicate if you participate in any of the following.

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

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?

- | | |
|------------------------------|------------------------------|
| <input type="radio"/> 0 days | <input type="radio"/> 4 days |
| <input type="radio"/> 1 day | <input type="radio"/> 5 days |
| <input type="radio"/> 2 days | <input type="radio"/> 6 days |
| <input type="radio"/> 3 days | <input type="radio"/> 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.

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

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

- | | |
|---|---|
| <input type="checkbox"/> Home | <input type="checkbox"/> Sidewalks / roads in your own neighborhood |
| <input type="checkbox"/> Park | <input type="checkbox"/> Walking trails |
| <input type="checkbox"/> Private gym | <input type="checkbox"/> Other (please specify) _____ |
| <input type="checkbox"/> Public recreation center | |

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

- | | |
|----------------------------------|----------------------------------|
| <input type="radio"/> None | <input type="radio"/> 3 servings |
| <input type="radio"/> 1 serving | <input type="radio"/> 4 servings |
| <input type="radio"/> 2 servings | |

☐ 5 servings

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

☒ 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? | <input type="radio"/> | <input type="radio"/> |
| Do you chew tobacco? | <input type="radio"/> | <input type="radio"/> |
| Are you frequently exposed to secondhand smoke? | <input type="radio"/> | <input type="radio"/> |

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? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Have you tried to stop in the last year? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Have you tried medication to stop? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Would you attend smoking cessation classes? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

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

- | | |
|--|---|
| <input type="checkbox"/> Church | <input type="checkbox"/> Quitline NC |
| <input type="checkbox"/> Doctor | <input type="checkbox"/> Not sure |
| <input type="checkbox"/> Health department | <input type="checkbox"/> I don't want to quit |
| <input type="checkbox"/> Pharmacy | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Private counselor/therapist | |

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.

- | | |
|--|--|
| <input type="checkbox"/> Health insurance my employer provides | <input type="checkbox"/> Health insurance through Health Insurance Marketplace / Affordable Care Act |
| <input type="checkbox"/> Health insurance my spouse's employer provides | <input type="checkbox"/> Medicaid |
| <input type="checkbox"/> Health insurance my school provides | <input type="checkbox"/> Medicare |
| <input type="checkbox"/> Health insurance my parent or my parent's employer provides | <input type="checkbox"/> Veteran's Administration benefits |
| <input type="checkbox"/> Health insurance I bought myself | <input type="checkbox"/> Other (please specify) _____ |
| | <input type="checkbox"/> 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.

- | | |
|---|--|
| <input type="checkbox"/> Dentist | <input type="checkbox"/> Health Department |
| <input type="checkbox"/> General Practitioner | <input type="checkbox"/> Hospital |
| <input type="checkbox"/> Eye care / optometrist / ophthalmologist | <input type="checkbox"/> Urgent Care Center |
| <input type="checkbox"/> Pharmacist | <input type="checkbox"/> Medical Clinic |
| <input type="checkbox"/> Pediatrician | <input type="checkbox"/> Specialist (please specify) _____ |
| <input type="checkbox"/> OB/GYN | <input type="checkbox"/> 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.

[illegible]

☐ Yes

☐ No

Please indicate your level of agreement with the following statements.

[illegible]

Which of the following health topics do you think your child needs more information about? Please choose all that apply.

- | | |
|--|--|
| <input type="checkbox"/> Alcohol / drug abuse | <input type="checkbox"/> Nutrition / healthy eating |
| <input type="checkbox"/> Asthma management | <input type="checkbox"/> Reckless driving / speeding / texting |
| <input type="checkbox"/> Dental hygiene | <input type="checkbox"/> Sexual intercourse / STDs |
| <input type="checkbox"/> Diabetes management | <input type="checkbox"/> Suicide prevention |
| <input type="checkbox"/> Exercise / physical fitness | <input type="checkbox"/> Tobacco |
| <input type="checkbox"/> Mental health issues | <input type="checkbox"/> 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?

- | | |
|---|---|
| <input type="radio"/> Emergency alert system (text, email, phone) | <input type="radio"/> Print media (e.g., newspaper) |
| <input type="radio"/> Television | <input type="radio"/> Social media |
| <input type="radio"/> Radio | <input type="radio"/> Neighbors |
| <input type="radio"/> Internet | <input type="radio"/> 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?

- | | |
|---|---|
| <input type="radio"/> Lack of transportation | <input type="radio"/> Concern about leaving pets |
| <input type="radio"/> Lack of trust in public officials | <input type="radio"/> Concern about traffic jams and inability to get out |
| <input type="radio"/> Concern about leaving property behind | <input type="radio"/> Health problems / physical disability |
| <input type="radio"/> Concern about personal safety | <input type="radio"/> Other (please specify) _____ |
| <input type="radio"/> Concern about family safety | |

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?

- | | |
|--------------------------------------|---|
| <input type="radio"/> 15 to 19 years | <input type="radio"/> 55 to 59 years |
| <input type="radio"/> 20 to 24 years | <input type="radio"/> 60 to 64 years |
| <input type="radio"/> 25 to 29 years | <input type="radio"/> 65 to 69 years |
| <input type="radio"/> 30 to 34 years | <input type="radio"/> 70 to 74 years |
| <input type="radio"/> 35 to 39 years | <input type="radio"/> 75 to 79 years |
| <input type="radio"/> 40 to 44 years | <input type="radio"/> 80 to 84 years |
| <input type="radio"/> 45 to 49 years | <input type="radio"/> 85 years or older |
| <input type="radio"/> 50 to 54 years | |

Are you Hispanic or Latino?

- ☐ Yes
- ☐ No

What is your race?

- | | |
|--|---|
| <input type="radio"/> White | <input type="radio"/> Asian |
| <input type="radio"/> Black or African American | <input type="radio"/> Native Hawaiian or other Pacific Islander |
| <input type="radio"/> American Indian or Alaska Native | <input type="radio"/> Other |

Do you speak a language other than English at home?

- ☐ Yes (please specify) _____
- ☐ No

What is your marital status?

- | | |
|--|---------------------------------|
| <input type="radio"/> Never married/single | <input type="radio"/> Widowed |
| <input type="radio"/> Married | <input type="radio"/> Separated |
| <input type="radio"/> Unmarried partner | <input type="radio"/> Other |
| <input type="radio"/> Divorced | |

What is the highest level of education you have completed?

- | | |
|---|---|
| <input type="radio"/> Less than 9th grade | <input type="radio"/> Associate's degree |
| <input type="radio"/> 9th to 12th grade, no diploma | <input type="radio"/> Bachelor's degree |
| <input type="radio"/> High school graduate (GED / equivalent) | <input type="radio"/> Graduate or professional degree |
| <input type="radio"/> Some college, no degree | |

What is your combined annual household income?

- | | |
|--|--|
| <input type="radio"/> Less than \$10,000 | <input type="radio"/> \$35,000 to \$49,999 |
| <input type="radio"/> \$10,000 to \$14,999 | <input type="radio"/> \$50,000 to \$74,999 |
| <input type="radio"/> \$15,000 to \$24,999 | <input type="radio"/> \$75,000 to \$99,999 |
| <input type="radio"/> \$25,000 to \$34,999 | <input type="radio"/> \$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.

- | | |
|---|--|
| <input type="checkbox"/> Employed full-time | <input type="checkbox"/> Student |
| <input type="checkbox"/> Employed part-time | <input type="checkbox"/> Homemaker |
| <input type="checkbox"/> Retired | <input type="checkbox"/> Self-employed |
| <input type="checkbox"/> Armed Forces | <input type="checkbox"/> Unemployed for 1 year or less |
| <input type="checkbox"/> Disabled | <input type="checkbox"/> 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.

- | | |
|-----------------------------|---|
| <input type="radio"/> 27810 | <input type="radio"/> 27875 |
| <input type="radio"/> 27824 | <input type="radio"/> 27885 |
| <input type="radio"/> 27826 | <input type="radio"/> 27960 |
| <input type="radio"/> 27860 | <input type="radio"/> Not listed (please specify) _____ |

What are the best ways to communicate upcoming Hyde County health related events to you? Please choose all that apply.

- | | |
|--|--|
| <input type="checkbox"/> Newspaper | <input type="checkbox"/> Facebook |
| <input type="checkbox"/> Radio | <input type="checkbox"/> County of Hyde website |
| <input type="checkbox"/> Church bulletin | <input type="checkbox"/> Hyde County Health Department website |
| <input type="checkbox"/> E-mail | <input type="checkbox"/> TV |
| <input type="checkbox"/> Twitter | <input type="checkbox"/> 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!

Appendix 4: 2016 Hyde County Primary and Secondary Data

2016 Hyde County Community Health Needs Assessment

*Summary of Secondary Data and Hospital
Data*

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

Purpose of the Community Health Needs Assessment

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

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Contributing Viewpoints for CHNA

| Secondary Data | Hospital Data | Citizen Opinion |
|---|---|--------------------------|
| -Demographic -Socioeconomic -Health -Environmental | -Emergency department discharges -Inpatient hospitalization discharges | -Community health survey |

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We Take Special Notice When...

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

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Definitions and Symbols

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

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Data Caveats

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

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Demographic Data

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

General Population Characteristics

- Hyde County has a significantly higher proportion of males than females. Among the 10 counties included in the Vidant Region, Hyde has the highest proportion of males. (See Data Workbook)
- The median age of the Hyde County population is 4.8 years older than NC average and 1.3 years older than the Region.
- 18% of the county is under the age of 18, which is lower than NC and the Region.
- Approximately 18% of the county population is over the age of 65, a higher proportion than either the state or the Region.

July 1, 2014 Estimate

| County | Total Population (2014 Estimate) | | | | | | Under 18 Years | | 18-64 Years | | 65 Years and Older | |
|----------------|----------------------------------|-----------|---------|-----------|-----------|-------------|------------------|------------------|---------------|---------------|--------------------|---------|
| | # Total | # Males | % Males | # Females | % Females | Median Age* | # Under 18 Years | % Under 18 Years | # 18-64 Years | % 18-64 Years | # Total | % Total |
| Hyde | 5,676 | 3,153 | 55.5 | 2,523 | 44.5 | 43.0 | 1,019 | 18.0 | 3,652 | 64.3 | 1,005 | 17.7 |
| Regional Total | 458,613 | 221,596 | 48.3 | 237,017 | 51.7 | 41.7 | 100,240 | 21.9 | 287,278 | n/a | 71,095.0 | 15.5 |
| State Total | 9,943,964 | 4,844,593 | 50.8 | 5,099,371 | 53.5 | 38.2 | 2,287,549 | 23.0 | 6,193,063 | 62.3 | 1,463,362 | 14.7 |
| State Average | 99,440 | 48,446 | n/a | 50,994 | n/a | n/a | 22,875 | 23.0 | 61,931 | n/a | 14,634 | n/a |

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Minority Populations

- Hyde County has a higher proportion of Black or African American residents compared to the state.
- Most other minority groups comprise smaller proportions of the population compared to other jurisdictions.
- The county has a similar proportion of Hispanic residents compared to the State and the Region.

Population Distribution by Race/Ethnicity July 1, 2014 Estimate

| Location | Percent of Overall Population | | | | | |
|----------------|-------------------------------|-------|------------------|-------|----------------|----------|
| | White | Black | American Indians | Asian | Multiple Races | Hispanic |
| Hyde County | 68.0 | 29.6 | 0.7 | 0.5 | 1.2 | 8.0 |
| Regional Total | 60.9 | 35.4 | 0.8 | 1.3 | 1.6 | 8.0 |
| State of NC | 71.5 | 22.1 | 1.6 | 2.8 | 2.1 | 9.0 |

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Population Growth

- ▶ Hyde County's population is predicted to shrink over the coming decades.
- ▶ Between 2000 and 2030, the county population is expected to decrease by around 5% overall, while the Region increases by 20% and NC grows by 44% (see Data Workbook).

Percent Population Growth

| Decade | Hyde County | Regional Average | State of NC |
|-----------|-------------|------------------|-------------|
| 2000-2010 | -0.3 | 14.6 | 15.6 |
| 2010-2020 | -2.4 | 2.8 | 10.9 |
| 2020-2030 | -2.2 | 1.8 | 9.8 |

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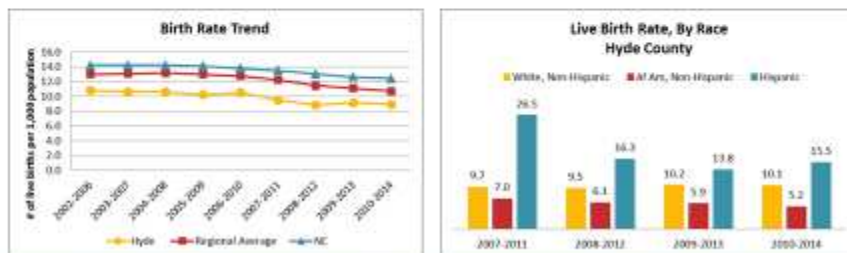
Urban and Rural Populations

- ▶ According to both the 2000 and 2010 Census, 100% of the Hyde County population lived in rural areas.
- ▶ Statewide, North Carolina is more urban than rural and is becoming even more so. In 2010, 66% of residents lived in urban areas and 34% lived in rural areas.

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Birth Rate

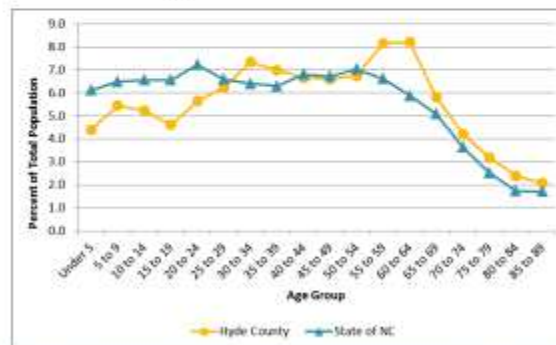
- ▶ The Hyde County birth rate demonstrated an overall decline over the period presented below, with a similar trend seen in the Region and the State.
- ▶ Birth rates increased overall among white residents and decreased overall among minority groups.
- ▶ Over the period cited, the highest birth rate occurred among Hispanics. A similar trend is seen across the Region and the state.



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Population Age Distribution

- ▶ According to 2014 estimates, compared to NC as a whole Hyde County had lower proportions of people under the age of 30 and aged 40-55 and higher proportions of people aged 30-40 and over the age of 55.



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Growth of the Elderly Population

- ▶ The population in every major age group age 65 and older in Hyde County is projected to increase between 2000 and 2030.
 - ▶ **Age 65-74:** by 48% (vs. 63% in NC)
 - ▶ **Age 75-84:** by 94% (vs. 67% in NC)
 - ▶ **Age 85+:** by 23% (vs. 75% in NC)
 - ▶ **Overall Age 65+:** by 58% (vs. 66% in NC)
- ▶ In 2014 there were an estimated 1,005 persons age 65 and older in Hyde County, representing around 18% of the total population.
- ▶ By 2030, with the total population predicted to decrease, 1,436 residents over the age of 65 will comprise 26% of the population.

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Children and Families

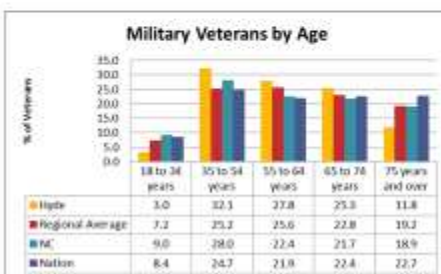
According to 2014 Estimates:

- ▶ There were 2,112 households in Hyde County.
 - ▶ 21% were family households with children under 18.
 - ▶ 61% of these households were headed by a married couple
[NC = 65% Region = 58%]
 - ▶ 26% were headed by a female householder (no husband present)
[NC = 27% Region = 34%]
 - ▶ 13% were headed by a male householder (no wife present)
[NC = 8% Region = 8%]
- ▶ 20% of the estimated 69 Hyde County grandparents living with their minor grandchildren *also* were financially responsible for their care.
[NC = 48% Region = 52%]

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Military Veterans

- ▶ Approximately 5% of the Hyde County civilian population is a military veteran. [NC = 10% Region = 11%] (See Data Workbook)
- ▶ Veterans over the age of 65 comprise 37% of the veteran population in Hyde County. [NC = 41% Region = 42%]
- ▶ Hyde County has a higher proportion of veterans in the 35 to 54, 55 to 64, and 65-74 age groups than any other jurisdiction presented.



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Foreign-Born Population

- ▶ According to 2014 Estimates, 196 individuals living in Hyde County were born outside the US.
 - ▶ 56% entered the US between 2000 and 2009
 - ▶ 37% entered between 1990 and 1999.
- ▶ Among the 78 households (3.7% of all households in Hyde County) that speak a language other than English, the most common is Spanish (85%).
 - ▶ 100% of those speaking a language other than English at home are “not limited English speaking”. Put another way, no non-English speakers would be considered “linguistically isolated”.

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Socioeconomic Data

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

County Economics

- ▶ Hyde County is designated as Tier 1, meaning it is a “most distressed” county, based on unemployment rates, median household income, population growth, and property taxes.
- ▶ Compared to the average county in NC as well as the VIDANT Region, Hyde County historically has significantly lower gross collections and lower total taxable sales, though both have increased in each of the last three fiscal years.

| County | 2014-2015 | |
|--------------------------|--------------------|-----------------|
| | Gross Collections* | Taxable Sales** |
| Hyde | 2,677,809 | 55,677,242 |
| Regional Total | 233,271,072 | 4,892,702,095 |
| Regional Arithmetic Mean | 23,327,107 | 489,270,209 |
| State Total | 7,186,066,406 | 120,304,939,287 |
| NC County Average | 71,860,664 | 1,203,049,393 |

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Income

In Hyde County (according to US Census Bureau figures):

- ▶ 2014 Per Capita Personal Income = \$19,796
 - ▶ \$5,812 **below** NC average
 - ▶ Per Capita Personal Income each year since 2010.
- ▶ 2014 Median Household Income = \$44,425
 - ▶ \$2,268 **below** NC average
 - ▶ Median household income has increased overall since 2010.
- ▶ 2014 Median Family Income = \$48,301
 - ▶ \$9,027 **below** NC average
 - ▶ Median Family Income varies from year to year.

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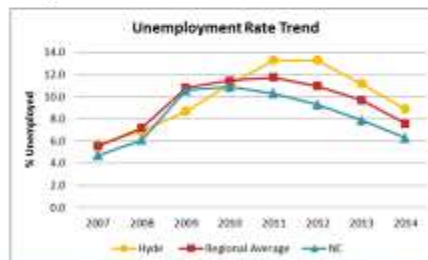
Employment

- ▶ In 2014 the three employment sectors in Hyde County with the largest workforce sectors (and their average weekly wage) were:
 - ▶ **Public Administration: 25.1% of workforce (\$648)**
 - ▶ Across the Region, this sector earns an average of \$712 a week.
 - ▶ Statewide, employees in this sector earn \$859 a week.
 - ▶ **Agriculture, Forestry, Fishing & Hunting: 16.2% of workforce (\$580)**
 - ▶ Regionally, employees in this sector earn \$619 a week.
 - ▶ Statewide, workers in this sector earn \$616 a week.
 - ▶ **Accommodation & Food Services: 13.7% of workforce (\$366)**
 - ▶ Across the Region, this sector earns an average of \$260 a week.
 - ▶ Statewide, employees in this sector earn \$300 a week.
- ▶ *Health Care & Social Assistance is the largest employment sector in the VIDANT Region (16.6%) as well as North Carolina (14.3%).*
- ▶ *Regionally, Health Care & Social Assistance employees earn an average \$647 a week. Statewide, Health Care & Social Assistance employees earn \$898 a week.*

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Annual Unemployment Rate

- ▶ According to 2014 data, a calculated annual average of 192 individuals were unemployed in Hyde County, calculating to an unemployment rate of 8.9.
- ▶ Since 2011 the Hyde County unemployment rate has been significantly higher than the NC and Regional rates.
- ▶ While an average unemployment rate was not available for 2015, the monthly average rate fell from 14.1 in February to a low point of 6.3 in July and then increased again to 11.6 by December 2015, compared to 7.3 in the Region, 5.3 in NC, and 4.8 Nationally.



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Overall Poverty Rate Trend

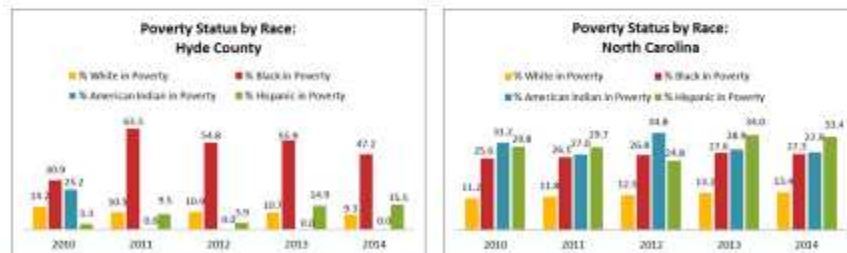
- ▶ The overall poverty rate (describing the percentage of the total population below the Federally-defined 100% poverty level) in Hyde County was higher than the comparable state rate for all of the period cited in the table below.
- ▶ In 2010-2014, the poverty rate among children under 18 in Hyde County (35.7%) was higher than the overall rate and higher than both the state rate (25%) and the same as the Regional average rate (35.7%). (See Data Workbook.)
- ▶ In 2014, an estimated 1,072 individuals, or approximately 21% of the population, were living below the poverty level in Hyde County.

| | 2006-2010 | 2007-2011 | 2008-2012 | 2009-2013 | 2010-2014 |
|------------------|-----------|-----------|-----------|-----------|-----------|
| Hyde | 20.4 | 25.1 | 23.3 | 25.6 | 21.1 |
| Regional Average | 20.1 | 21.5 | 22.3 | 23.3 | 23.0 |
| State of NC | 15.5 | 18.1 | 16.8 | 17.5 | 17.6 |

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Poverty and Race

- ▶ The poverty rate among African Americans in Hyde County is several orders of magnitude higher than the rates among other racial groups.
- ▶ Compared to the state, Hyde County African Americans demonstrated higher poverty rates for all periods presented.
- ▶ The poverty rates among African American and white residents has declined overall in Hyde County while the rate among Hispanics had increased overall.



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Free and Reduced-Price Lunch

- ▶ Another measure of poverty, particularly among families with children, is the rate of participation in the free- and reduced-price lunch programs in the public school system.
- ▶ In Hyde County, a higher percentage of students have been identified as "needy", compared to the State.
- ▶ For the 2014-15 school year, approximately 63% of Hyde County students were identified as needy, compared to 67% in the Region and 53% across the state.



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Housing Costs

- ▶ The estimated median monthly mortgage cost among Hyde County homeowners, which decreased overall since 2010 = \$878 in 2014.
\$394 less than the NC median
- ▶ The estimated median gross monthly rent among Hyde County renters, which has increased overall since 2010 = \$769 in 2014.
\$21 less than the NC median
- ▶ The percentage of Hyde County homeowners spending more than 30% of their monthly income on housing decreased overall from 42% in 2010 to 35% in 2014, compared to 31% in NC in 2014.
- ▶ The percentage of Hyde County renters who spend more than 30% of their income on housing decreased each year since 2011, from 46% to 28% in 2014, compared to 46% in NC in 2014.

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Homelessness

- ▶ Every January the NC Coalition to End Homelessness conducts a point-in-time count of homeless individuals.
- ▶ Hyde County was not among the areas participating in the count in 2009 through 2015.

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Educational Achievement

- ▶ Compared to the NC average, Hyde County has:
 - ▶ A **higher** population whose highest attainment was a high school diploma (or equivalent) (37.8% in 2014)
[NC = 26.9% Region = 31.9%]
 - ▶ A **lower** population who had a bachelor's degree or higher (11.2% in 2014) [NC = 27.8% Region = 16.4%]
- ▶ Compared to the NC average the 2014-2015 4-Year Cohort HS Graduation Rate was:
 - ▶ **Higher** in Hyde County Schools (94.7%)
[NC = 85.6% Region = 83.5%]
 - ▶ **Lowest** among males (88.9%)
[NC = 82.2% Region = 79.5%]

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Educational System

- ▶ The number of students enrolled in Hyde County schools has decreased almost every year since 2006-07. In the 2014-15 school year 594 students were enrolled in Hyde County public schools.
- ▶ The high school drop out rate has **decreased** overall from 6.95 in 2009-10 to 0.00 in 2013-14 and was higher than the state for most of the period presented.
- ▶ The high school reportable crime rate in Hyde County has decreased overall from a high of 42.25 in 2010-11 to 0.0 in 2013-14.

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Crime and Safety: Index Crime

- ▶ The "index crime rate" is the rate of the sum of violent crime and property crime. The majority of crimes committed are property crimes.
- ▶ According to the source, Hyde County did not submit complete crime data in any year between 2006 and 2014 and the NC Department of Justice does not publish such incomplete data. Given that the only data available is a decade old, none of it is presented in this report. Please see the Data Workbook for specific rates.

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Juvenile Crime

- ▶ Between 2011 and 2014 very few individuals were subjects of complaints of **undisciplined** youth (ages 6-17) in Hyde County. A total of 5 children were determined to be undisciplined in 2011 and none were involved in 2012-2014.
 - *Undisciplined* refers to disobedience beyond disciplinary control of parent/guardian (e.g., truancy, vagrancy, running away from home for more than 24 hours).
- ▶ Over the same period the *number* and *rate* of complaints of **delinquent** youth in the county fluctuated from a low of 0 in 2011 to a high of 12 and 20.65 in 2014.
 - *Delinquency* refers to acts committed by youths that would be crimes if committed by an adult
 - "Rate" equals the number of events per 1,000 youth in the age group
- ▶ 2 Hyde County youths were sent to secure detention between 2011 and 2014.

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Domestic Violence

- ▶ The number of domestic violence clients seen by local agencies increased overall in Hyde County, from 80 in 2009-10 to 130 in 2014-15.
- ▶ The number of services provided (advocacy, counseling, legal help, transportation, etc.) is variable from year to year; 1,957 services were provided in 2014-15.
- ▶ The domestic violence shelter serving Hyde County was full on 0 days in FY2014-2015.

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Child Maltreatment

- ▶ The number of children subject to abuse, neglect, or abuse and neglect in Hyde County is very small and fluctuates on a yearly basis.
- ▶ A small proportion of reports are eventually substantiated. Neglect-only cases are typically the most common type of child maltreatment in most years. In 2014-15, the single substantiated case involved only neglect.
- ▶ There are too few substantiated cases of child maltreatment for a discussion of the racial, gender or age characteristics of the victims (see Data Workbook).

| Category | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Total No. of Findings of Abuse, Neglect, Dependency | 14 | 21 | 7 | 3 | 3 | 9 | 19 | 4 | 2 | 5 | 24 |
| No. Substantiated ¹ Findings of Abuse and Neglect | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| No. Substantiated Findings of Abuse | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| No. Substantiated Findings of Neglect | 5 | 2 | 0 | 3 | 0 | 1 | 1 | 2 | 0 | 0 | 1 |
| Services Needed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Services Recommended | 0 | 0 | 1 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 |
| No. Unsubstantiated Findings | 8 | 18 | 5 | 0 | 3 | 4 | 15 | 1 | 2 | 4 | 22 |
| Services Not Recommended | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |

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

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Health Resources

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

Health Insurance

- ▶ The percent of uninsured adults (19-64) in Hyde County was variable over the periods shown below.
- ▶ Compared to NC, Hyde County tends to demonstrate higher percentages of uninsured residents in all age groups.
- ▶ The age group 0-18 tends to have a lower percentage of uninsured than the 19-64 age group, due partly at least to NC Health Choice.

Percent of Population Without Health Insurance, by Age Group

| Location | 2011 | | | 2012 | | | 2013 | | |
|------------------|------|-------|------|------|-------|------|------|-------|------|
| | 0-18 | 19-64 | 0-64 | 0-18 | 19-64 | 0-64 | 0-18 | 19-64 | 0-64 |
| Hyde County | 13.2 | 27.2 | 23.6 | 12.3 | 28.9 | 24.6 | 12.5 | 27.0 | 23.3 |
| Regional Average | 8.7 | 24.6 | 20.2 | 8.8 | 25.2 | 20.7 | 8.1 | 24.3 | 19.9 |
| State of NC | 7.9 | 23.0 | 18.7 | 7.9 | 23.4 | 19.0 | 6.9 | 22.5 | 18.1 |

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Medicaid Eligibility

- ▶ 18.5% of Hyde County residents were eligible for Medicaid in 2013, compared to 16.5% in NC and 19.6% in the Region (see Data Workbook).
- ▶ The total number of people in Hyde County eligible for Medicaid changed by fewer than 20 people each year.
- ▶ The Medicaid programs with the largest proportion of eligibles in 2013 were Infants & Children (36%), AFDC (19%), Disabled (18%) and Aged (18%).
- ▶ In each month of 2013, an average of 192 aged individuals were eligible for both Medicaid and Medicare, much lower than the NC County average of 1,195 and the Regional average of 828 (see Data Workbook).

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

| Year | Number of Eligibles | | | | | | | | | | | Total Eligibles |
|------|---------------------|-------|----------|-------|-------------|----------------|--------------------|--------------|-----------------------|-------------------|-------|-----------------|
| | Aged | Blind | Disabled | AFDC* | Foster Care | Pregnant Women | Infants & Children | Medicaid CHP | Medicare Catastrophic | Refugees & Aliens | BCC** | |
| 2009 | 211 | 3 | 200 | 273 | 1 | 9 | 263 | 43 | 50 | 0 | 0 | 1,069 |
| 2010 | 203 | 3 | 200 | 258 | 0 | 13 | 298 | 41 | 58 | 0 | 1 | 1,075 |
| 2011 | 199 | 2 | 202 | 261 | 0 | 13 | 290 | 31 | 56 | 0 | 1 | 1,065 |
| 2012 | 189 | 2 | 194 | 217 | 0 | 12 | 346 | 38 | 60 | 0 | 0 | 1,068 |
| 2013 | 188 | 2 | 187 | 206 | 0 | 15 | 364 | 22 | 64 | 0 | 0 | 1,068 |

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Health Care Practitioners

- ▶ 2012 ratios of active health professionals per 10,000 population were significantly *lower* in Hyde County than in NC for:
 - ▶ MDs: 1.74 [NC=22.31 Region=8.38]
 - ▶ Primary Care MDs: 1.74 [NC=7.58 Region=3.53]
 - ▶ Dentists: 0.00 [NC=4.51 Region=1.72]
 - ▶ Registered Nurses: 48.76 [NC=98.56 Region=53.15]
 - ▶ Pharmacists: 0.00 [NC=10.06 Region=4.19]
- ▶ These ratios do not take into consideration medical practitioners in neighboring counties accessible to Hyde County residents.
- ▶ As will become even more clear on the following slides, there is a significant lack of health care practitioners and health care-related facilities in Hyde County.

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Health Care Practitioners

- ▶ As of 2012 there was only 1 physician in Hyde County, categorized as a family practitioner.
- ▶ 0 dentists and 1 hygienists were practicing in the county in 2012.
- ▶ The count of 28 nurses included 5 nurse practitioners and 1 certified nurse midwife. An additional 9 LPNs were located in Hyde County.
- ▶ The only other health professionals practicing in 2012 were: 1 occupational therapy assistant, 2 physical therapists, and 2 physical therapy assistants.

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Other Healthcare Facilities (as of March 2016)

▶ Hospitals

- ▶ There is no hospital located in Hyde County.

▶ Dialysis Facilities

- ▶ There is no dialysis facility in Hyde County.
- ▶ There are no licensed ambulatory care facilities, no cardiac rehabilitation facilities, and no licensed nursing pool in the county.
- ▶ There are 2 mental health facilities in Fairfield: one offers supervised living for developmentally disabled adults and one offers day activity services.

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Other Healthcare Providers (as of March 2016)

▶ Home Health/Hospice:

- ▶ There are two facilities: one in Englehard offering hospice services and one in Swan Quarter offering home care and home health services.

▶ School Nurses

- ▶ The student to school nurse ratio has increased in Hyde County from 287:1 in 2009-10 to 565:1 in 2012-13. The recommended ratio is 750:1 and the state average is 1,177:1.

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Long-Term Care Facilities (as of March 2016)

- ▶ There is only one NC-licensed long-term care facility in Hyde County, located in Swan Quarter, which has 80 skilled nursing home beds and no adult care home beds.

Total = 80 beds, or 1 bed for every 13 persons age 65 and older in Hyde County (1,005 persons \geq 65 in 2014)

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Hospital Utilization Summary: Emergency Department

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

ED Discharges by Gender and Age Group

| Fiscal Year | No. by Gender | | No. by Age Group | | | Total No. Discharges |
|--------------|---------------|--------------|------------------|--------------|------------|----------------------|
| | Females | Males | < 18 | 18-64 | \geq 65 | |
| 2013 | 340 | 286 | 94 | 395 | 137 | 626 |
| 2014 | 489 | 395 | 124 | 545 | 215 | 884 |
| 2015 | 651 | 656 | 205 | 740 | 364 | 1,309 |
| Total | 1,480 | 1,337 | 423 | 1,680 | 716 | 2,819 |

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Hospital Utilization Summary: Emergency Department

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

ED Discharges by Race/Ethnicity

| Fiscal Year | No. by Racial/Ethnic Group (Excluding "Blank") | | | | | | | Total No. Discharges |
|-------------|--|-------|-------|----------|-------|---------|-------|----------------------|
| | Am. Indian Alaskan | Asian | Black | Hispanic | Other | Unknown | White | |
| 2013 | 0 | 0 | 219 | 27 | 1 | 1 | 378 | 626 |
| 2014 | 2 | 0 | 288 | 35 | 4 | 1 | 554 | 884 |
| 2015 | 0 | 1 | 490 | 63 | 8 | 2 | 745 | 1,309 |
| Total | 2 | 1 | 997 | 125 | 13 | 4 | 1,677 | 2,819 |

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Hospital Utilization Summary: Emergency Department

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

ED Discharges by Payor Group

| Fiscal Year | No. by Payor Group (Excluding the payor group "Other") | | | | | | | | | | | Total No. Discharges |
|------------------|--|--------|-------|--------|----------------|-----------------|------------------|-----------------|-----------------------|----------|-----------|------------------------|
| | Champus Tricare | Com-ai | M-aid | M-care | Mgd. Care BCBS | Mgd. Care M-aid | Mgd. Care M-care | Mgd. Care Other | Mgd. Care VH Medcoast | Self-Pay | Work Comp | |
| 2013 | 6 | 8 | 134 | 166 | 127 | 3 | 3 | 28 | 0 | 135 | 6 | 626 |
| 2014 | 6 | 10 | 236 | 256 | 154 | 10 | 28 | 50 | 2 | 118 | 5 | 884 |
| 2015 | 10 | 4 | 327 | 393 | 191 | 16 | 50 | 102 | 1 | 197 | 8 | 1,309 |
| Total | 22 | 22 | 697 | 815 | 472 | 29 | 81 | 180 | 4 | 450 | 19 | 2,819 |
| Group % of Total | 0.8% | 0.8% | 24.7% | 28.9% | 16.7% | 1.0% | 2.9% | 6.4% | 0.1% | 16.0% | 0.7% | 99.0% ("Other" = 1.0%) |

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Hospital Utilization Summary: Inpatient Hospitalizations

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

IP Discharges by Gender and Age Group

| Fiscal Year | No. by Gender | | No. by Age Group | | | Total No. Discharges |
|--------------|---------------|------------|------------------|------------|------------|----------------------|
| | Females | Males | < 18 | 18-64 | ≥ 65 | |
| 2013 | 173 | 130 | 48 | 151 | 104 | 303 |
| 2014 | 176 | 177 | 38 | 192 | 123 | 353 |
| 2015 | 186 | 175 | 43 | 183 | 135 | 361 |
| Total | 535 | 482 | 129 | 526 | 362 | 1,017 |

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Hospital Utilization Summary: Inpatient Hospitalizations

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

IP Discharges by Race/Ethnicity

| Fiscal Year | No. by Racial/Ethnic Group | | | | | | | Total No. Discharges |
|--------------|----------------------------|----------|------------|-----------|----------|----------|------------|----------------------|
| | Am. Indian Alaskan | Asian | Black | Hispanic | Other | Unknown | White | |
| 2013 | 0 | 0 | 93 | 9 | 0 | 2 | 199 | 303 |
| 2014 | 0 | 0 | 96 | 20 | 1 | 0 | 236 | 353 |
| 2015 | 0 | 0 | 122 | 15 | 0 | 1 | 223 | 361 |
| Total | 0 | 0 | 311 | 44 | 1 | 3 | 658 | 1,017 |

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Hospital Utilization Summary: Inpatient Hospitalizations

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

IP Discharges by Payor Group

| Fiscal Year | No. by Payor Group (Excluding the payor group "Other") | | | | | | | | | | | Total No. Discharges |
|------------------------|--|--------|-------|--------|----------------------|-----------------------|------------------------|-----------------------|--------------------------------|--------------|--------------|------------------------------|
| | Champus Tricare | Com-ai | M-aid | M-care | Mgd. Care BCBS | Mgd. Care M-aid | Mgd. Care M-care | Mgd. Care Other | Mgd. Care VH Medcoast | Self- Pay | Work Comp | |
| 2013 | 5 | 3 | 74 | 124 | 59 | 5 | 2 | 9 | 2 | 18 | 0 | 303 |
| 2014 | 2 | 4 | 80 | 137 | 69 | 8 | 18 | 17 | 0 | 16 | 0 | 353 |
| 2015 | 2 | 1 | 69 | 142 | 57 | 11 | 26 | 18 | 3 | 27 | 3 | 361 |
| Total | 9 | 8 | 223 | 403 | 185 | 24 | 46 | 44 | 5 | 61 | 3 | 1,017 |
| Group % of Total | 0.9% | 0.8% | 21.9% | 39.6% | 18.2% | 2.3% | 4.5% | 4.3% | 0.5% | 6.0% | 0.3% | 99.3% ("Other" = 0.6%) |

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Health Statistics

Health Rankings

Health Rankings

- ▶ According to *America's Health Rankings* (2015)
 - ▶ NC ranked 31st overall out of 50 (where 1 is “best”)
- ▶ According to *County Health Rankings* (2015) for NC, Hyde County was ranked:
 - ▶ 64th overall out of 100 (where 1 is best) for ***health outcomes***
 - ▶ 84th in length of life
 - ▶ 23rd for quality of life
 - ▶ 72nd overall out of 100 for ***health factors***
 - ▶ 45th for health behaviors
 - ▶ 94th for clinical care
 - ▶ 75th for social and economic factors
 - ▶ 1st for physical environment

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Maternal and Infant Health

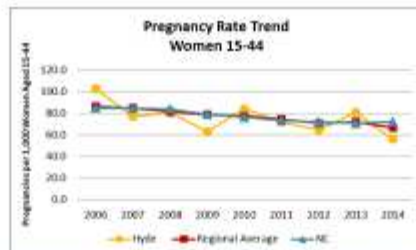
Pregnancy Rate, Risk Factors, Outcomes, Infant Mortality

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

Pregnancy Rate: Women 15-44

Pregnancies per 1,000 Women Age 15-44

- ▶ Total pregnancy rate in Hyde County fluctuates on a yearly basis but has demonstrated a general decline over the period cited.
- ▶ Total pregnancy rates in the VIDANT Region and NC have fallen overall since 2007.
- ▶ The 2014 total pregnancy rate was 56.3 in Hyde County, compared to 66.8 in the Region and 72.1 in NC.



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Pregnancy Rate: Women 15-19

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

- ▶ Teen pregnancy rates in Hyde County are variable, likely due to instability after 2008, but demonstrated an increase after 2009.
- ▶ The 2012 (the last year in which a stable rate is available) the teen pregnancy rate was 59.3 in Hyde County, compared to 49.5 for the Region and 39.6 for the state.



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Pregnancy Rate: By Race/Ethnicity

- ▶ Discussion of racially stratified pregnancy rates is complicated by unstable and suppressed rates between 2010 and 2014.
- ▶ Among Hyde County women age 15-44 the highest (and the only consistently stable) pregnancy rates tend to occur among White residents.
- ▶ Among Hyde County teens, the rates over time appear quite variable and were unstable for most groups over the period presented.

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Teen and Adolescent Pregnancies

- ▶ The *number* of teen (women aged 15-19) pregnancies in Hyde County is variable from year to year. Between 2004 and 2013, a total of 81 teen pregnancies occurred; none occurred in 2014. The county demonstrates a lower number than the NC county average (103 in 2014).
- ▶ Between 2004 and 2014 there were 0 pregnancies among Hyde County adolescent girls (age 14 and younger).

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Abortion Trend

- ▶ The Hyde County abortion rate among women aged 15-44 fluctuates each year, likely due to unstable rates based on very low numbers, but has been consistently lower than the state.
 - In 2012 (the last year for which a rate is available) the Hyde County rate was 6.0 compared to 10.1 in the Region and 10.7 in NC.
- ▶ Among teenage women the abortion rate also fluctuates widely without pattern.
 - In 2012 (the last year for which rates are available) the Hyde County rate was 7.4, compared to 7.3 across the Region and 7.6 for NC.

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Pregnancy Risk Factors: Smoking During Pregnancy

- ▶ The percentage of Hyde County women who smoked during pregnancy decreased dramatically in 2014, but all percentages are based on low numbers and should be interpreted with caution.
- ▶ Comparable percentages for the Region did not change significantly over the same period and Statewide percentages decreased.

| Location | Percent of Births to Mothers Who Smoked While Pregnant | | | |
|------------------|--|------|------|------|
| | 2011 | 2012 | 2013 | 2014 |
| Hyde County | 15.4 | 14.3 | 15.5 | 5.4 |
| Regional Average | 7.7 | 7.7 | 7.6 | 7.9 |
| State of NC | 10.9 | 10.6 | 10.3 | 9.8 |

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Pregnancy Risk Factors: Inadequate Prenatal Care

- ▶ The percentage of Hyde County women receiving early prenatal care decreased in 2014 after several years of improvement. In 2014 a lower percentage of women in Hyde County (67.6%) received prenatal care in the first trimester than in NC (68.2%) or the Vidant Region (71.4%).
- ▶ Among racial groups, a higher proportion of white and Hispanic women received prenatal care in the first trimester (71% and 75%, respectively) compared to African American women (50%) in 2014. Percentages for all minority groups are unstable. (See Data Workbook)

| County | Percent of Pregnancies Receiving Prenatal Care in 1 st Trimester | | | |
|------------------|---|------|------|------|
| | 2011 | 2012 | 2013 | 2014 |
| Hyde County | 63.5 | 71.4 | 75.9 | 67.6 |
| Regional Average | 70.5 | 67.0 | 70.0 | 71.4 |
| State of NC | 71.2 | 71.3 | 70.3 | 68.2 |

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Pregnancy Risk Factors: Pre-term and Low Weight Births

In Hyde County in 2010-2014

- ▶ Preterm Births (less than 37 weeks)
 - 11.6% [NC=11.8% Region=13.4%]
- ▶ Low Weight Births (≤2500 grams/5.5 lbs.)
 - Overall 8.6% [NC=9.0% Region=9.9%]
 - The rate has declined overall since 2006-2010.
 - Rates are similar among all racial groups.
- ▶ Very Low Weight Births (≤1500 grams/3.3 lbs.)
 - Overall = 3.5% [NC = 1.7% Region=2.3%]
 - The variable rate has increased steadily since 2005-2009.
 - Rates are very similar among all racial groups.

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

- According to data from the three VIDANT Region hospitals seeing 30 or more Hyde County inpatients over three years, the number of discharges associated with newborns or neonates with some kind of problem originating in the perinatal period was small but totaled 29% of all newborns over the period cited.

| Year | Number of Hospital Discharges by DRG (Diagnosis Related Group) Diagnosis | | | | | |
|-------|--|--|---------------------------------|------------------------------------|---------------------------------------|---|
| | Total Newborns | Extreme Immaturity or Respiratory Distress | Prematurity with Major Problems | Prematurity without Major Problems | Full-Term Neonate with Major Problems | Neonate with Other Significant Problems |
| 2013 | 42 | 2 | 1 | 1 | 1 | 5 |
| 2014 | 33 | 0 | 1 | 1 | 2 | 8 |
| 2015 | 36 | 1 | 0 | 0 | 0 | 9 |
| Total | 111 | 3 | 2 | 2 | 3 | 22 |

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Pregnancy Outcomes: Infant Mortality

- None of the Hyde County infant mortality rates are stable and are based on fewer than 4 deaths in aggregate periods, so the trend presented should be interpreted with caution.
- The total infant mortality rate in Hyde County has increased from a low of 0.0 in 2006-2010 to 15.6 in 2010-2014. [NC = 7.1 Region = 9.8]
- The Hyde County infant mortality rate was higher than the state for the most recent four periods.
- Note that according to the CDC the 2013 infant mortality rate in NC was the 10th highest in the nation.



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Pregnancy Outcomes: Infant Mortality by Race

- ▶ No stable minority infant mortality rates are available for any racial group in Hyde County; all minority rates were suppressed after 2008-2012, when there were only 3 infant deaths.
- ▶ In 2008-2012, the infant mortality rate among African Americans in Hyde County was 17.2 compared to 13.9 in the Region and 14.0 in NC.

Mortality

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

Life Expectancy

Life Expectancy for persons born in 2012-2014

- Compared to the state, life expectancy is longest in Hyde County for every group below.

| County | Overall | Sex | | Race | |
|--------------------------|---------|------|--------|-------|------------------|
| | | Male | Female | White | African-American |
| Hyde | 80.0 | 78.0 | 81.4 | 80.6 | 79.2 |
| Regional Arithmetic Mean | 77.7 | 75.0 | 80.3 | 78.4 | 76.5 |
| State Total | 78.3 | 75.8 | 80.7 | 78.9 | 75.9 |

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Leading Causes of Death: Overall

| Age-Adjusted Rates (2010-2014) | Hyde County No. of Deaths | Hyde County Mortality Rate | Hyde Rate Difference from NC |
|---|---------------------------------|----------------------------------|---------------------------------------|
| 1. Cancer | 74 | 197.9 | +15.2% |
| 2. Diseases of the Heart | 59 | 154.7 | -6.8% |
| 3. Cerebrovascular Disease | 18 | 48.6 | +13.0% |
| 4. Diabetes Mellitus | 16 | 43.4 | +96.4% |
| 5. Chronic Lower Respiratory Diseases | 15 | 42.4 | -7.8% |
| 6. Nephritis, Nephrotic Syndrome, and Nephrosis | 7 | 19.8 | +16.5% |
| 7. Alzheimer's disease | 7 | 18.8 | -35.6% |
| 8. All Other Unintentional Injuries | 6 | 17.3 | -41.6% |
| 9. Unintentional Motor Vehicle Injuries | 5 | 18.3 | +35.6% |
| 10. Pneumonia and Influenza | 2 | 5.6 | -68.2% |
| 11. Suicide | 2 | 5.5 | -55.6% |
| 12. Chronic Liver Disease and Cirrhosis | 1 | 2.5 | -74.2% |
| 13. Septicemia | 1 | 2.5 | -80.8% |
| 14. Homicide | 1 | 4.0 | -29.8% |
| 15. Acquired Immune Deficiency Syndrome | 1 | 3.3 | +26.9% |

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Hospital Activity Associated with Leading Causes of Death (LCD)

- Below is data on *emergency department* discharges from the four VIDANT hospitals seeing 30 or more Hyde County patients in the ED over the three years cited. The diagnoses referenced match the NC State Center for Health Statistics' ICD-9 case definitions for several Leading Causes of Death (LCD).
- Note that the pattern of ED utilization by Hyde County residents changed significantly with the closing of Vidant Pungo Hospital in April, 2014. Up until that time, Vidant Pungo appeared to be the area hospital most heavily utilized for ED services by Hyde County residents. (see: 2014 Hyde County Community Health Assessment).

| Year | Number of Emergency Department Discharges (by SCHS ICD-9 Case Definitions for LCD) | | | | | | | |
|--------------|--|---------------|--------|----------|-------------------------------|---------------------|--------------------|----------------------|
| | Total Cancer | Heart Disease | Stroke | Diabetes | COPD (Bronchitis & Emphysema) | Alzheimer's Disease | Injury & Poisoning | Pneumonia/ Influenza |
| 2013 | 7 | 28 | 6 | 8 | 15 | 0 | 114 | 7/3 |
| 2014 | 7 | 33 | 9 | 9 | 13 | 0 | 141 | 8/3 |
| 2015 | 12 | 47 | 11 | 11 | 24 | 0 | 213 | 14/8 |
| Total | 26 | 108 | 26 | 28 | 52 | 0 | 468 | 29/14 |

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Hospital Activity Associated with Leading Causes of Death (LCD)

- Below is data on *inpatient hospitalization* discharges from the three VIDANT hospitals seeing 30 or more Hyde County inpatients over the three years cited. The diagnoses referenced match the NC State Center for Health Statistics' ICD-9 case definitions for several Leading Causes of Death.
- IP discharges for heart disease, stroke and injury/poisoning appear to be higher in 2015 than in 2013.

| Year | Number of Inpatient Hospitalization Discharges (by SCHS ICD-9 Case Definitions for LCD) | | | | | | | |
|--------------|---|---------------|--------|----------|-------------------------------|---------------------|--------------------|----------------------|
| | Total Cancer | Heart Disease | Stroke | Diabetes | COPD (Bronchitis & Emphysema) | Alzheimer's Disease | Injury & Poisoning | Pneumonia/ Influenza |
| 2013 | 22 | 35 | 11 | 3 | 8 | 0 | 16 | 3/1 |
| 2014 | 15 | 49 | 7 | 3 | 8 | 0 | 26 | 5/0 |
| 2015 | 16 | 43 | 15 | 3 | 4 | 0 | 27 | 2/0 |
| Total | 53 | 125 | 33 | 9 | 20 | 0 | 69 | 10/1 |

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Leading Causes of Death: Gender Comparison

| Hyde County Rank by Descending Overall Age-Adjusted Rate (2010-2014) | Rank Among Males | Rank Among Females | % Male Rate Difference from Females |
|--|------------------------|--------------------------|---|
| 1. Cancer | 1 | 1 | +69.0% |
| 2. Diseases of the Heart | 2 | 2 | +6.0% |
| 3. Cerebrovascular Disease | n/a | n/a | n/a |
| 4. Diabetes Mellitus | n/a | n/a | n/a |
| 5. Chronic Lower Respiratory Diseases | n/a | n/a | n/a |
| 6. Nephritis, Nephrotic Syndrome, and Nephrosis | n/a | n/a | n/a |
| 7. Alzheimer's disease | n/a | n/a | n/a |
| 8. All Other Unintentional Injuries | n/a | n/a | n/a |
| 9. Unintentional Motor Vehicle Injuries | n/a | n/a | n/a |
| 10. Pneumonia and Influenza | n/a | n/a | n/a |
| 11. Suicide | n/a | n/a | n/a |
| 12. Chronic Liver Disease and Cirrhosis | n/a | n/a | n/a |
| 13. Septicemia | n/a | n/a | n/a |
| 14. Homicide | n/a | n/a | n/a |
| 15. Acquired Immune Deficiency Syndrome | n/a | n/a | n/a |

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Leading Causes of Death: Race Comparison

| Hyde County Rank by Descending Overall Age-Adjusted Rate (2010-2014) | Rank Among White Non-Hispanic | Rank Among Black non- Hispanic | % Blacks Rate Difference from Whites |
|--|-------------------------------------|---|--|
| 1. Cancer | 1 | 1 | +15.6% |
| 2. Diseases of the Heart | 2 | n/a | n/a |
| 3. Cerebrovascular Disease | n/a | n/a | n/a |
| 4. Diabetes Mellitus | n/a | n/a | n/a |
| 5. Chronic Lower Respiratory Diseases | n/a | n/a | n/a |
| 6. Nephritis, Nephrotic Syndrome, and Nephrosis | n/a | n/a | n/a |
| 7. Alzheimer's disease | n/a | n/a | n/a |
| 8. All Other Unintentional Injuries | n/a | n/a | n/a |
| 9. Unintentional Motor Vehicle Injuries | n/a | n/a | n/a |
| 10. Pneumonia and Influenza | n/a | n/a | n/a |
| 11. Suicide | n/a | n/a | n/a |
| 12. Chronic Liver Disease and Cirrhosis | n/a | n/a | n/a |
| 13. Septicemia | n/a | n/a | n/a |
| 14. Homicide | n/a | n/a | n/a |
| 15. Acquired Immune Deficiency Syndrome | n/a | n/a | n/a |

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Leading Causes of Death – By Age

| Age Group | Rank | Cause of Death in Hyde County (2010-2014) |
|-----------|------|--|
| 00-19 | 1 | Conditions originating in the perinatal period |
| | 2 | Chronic lower respiratory diseases |
| | | Congenital anomalies (birth defects) |
| | | Motor vehicle injuries |
| 20-39 | 1 | Motor vehicle injuries |
| | 2 | Cancer - All Sites |
| | | Diabetes mellitus |
| | | Homicide |
| | | Other Unintentional injuries |
| 40-64 | 1 | Cancer - All Sites |
| | 2 | Diseases of the heart |
| | 3 | Cerebrovascular disease |
| 65-84 | 1 | Cancer - All Sites |
| | 2 | Diseases of the heart |
| | 3 | Cerebrovascular disease |
| | | Chronic lower respiratory diseases |
| 85+ | 1 | Diseases of the heart |
| | 2 | Cancer - All Sites |
| | 3 | Diabetes mellitus |

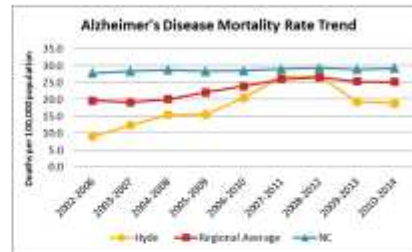
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Overall Mortality Rate Trends, 2002-2006 to 2010-2014

| Hyde County Rank by Descending Overall Age-Adjusted Rate (2010-2014) | Rate in 2002-2006 | Rate in 2010-2014 | % Change 2002-2006 to 2010-2014 |
|--|----------------------|----------------------|---------------------------------------|
| 1. Cancer | 216.8 | 197.9 | -8.7% |
| 2. Diseases of the Heart | 225.7 | 154.7 | -31.5% |
| 3. Cerebrovascular Disease | 55.1 | 48.6 | -11.8% |
| 4. Diabetes Mellitus | 82.2 | 43.4 | -47.2% |
| 5. Chronic Lower Respiratory Diseases | 47.0 | 42.4 | -9.8% |
| 6. Nephritis, Nephrotic Syndrome, and Nephrosis | 22.3 | 19.8 | -11.2% |
| 7. Alzheimer's disease | 9.0 | 18.8 | +108% |
| 8. All Other Unintentional Injuries | 19.9 | 17.3 | -13.1% |
| 9. Unintentional Motor Vehicle Injuries | 16.8 | 18.3 | +8.9% |
| 10. Pneumonia and Influenza | 13.8 | 5.6 | -59.4% |
| 11. Suicide | 12.5 | 5.5 | -56.0% |
| 12. Chronic Liver Disease and Cirrhosis | 3.0 | 2.5 | -16.7% |
| 13. Septicemia | 2.7 | 2.5 | -7.4% |
| 14. Homicide | 6.7 | 4.0 | -40.3% |
| 15. Acquired Immune Deficiency Syndrome | 0.0 | 3.3 | +3x |

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Mortality Rate Trends of Concern: Increasing



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Mortality Rate Trends of Concern: High Rates



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

| Hyde County Rank by Descending Overall Age-Adjusted Rate (2010-2014) | Male Rate % Change | Female Rate % Change |
|--|-----------------------|-------------------------|
| 1. Cancer | -18.6% | +12.1% |
| 2. Diseases of the Heart | -45.9% | -11.1% |
| 3. Cerebrovascular Disease | n/a | n/a |
| 4. Diabetes Mellitus | n/a | n/a |
| 5. Chronic Lower Respiratory Diseases | n/a | n/a |
| 6. Nephritis, Nephrotic Syndrome, and Nephrosis | n/a | n/a |
| 7. Alzheimer's disease | n/a | n/a |
| 8. All Other Unintentional Injuries | n/a | n/a |
| 9. Unintentional Motor Vehicle Injuries | n/a | n/a |
| 10. Pneumonia and Influenza | n/a | n/a |
| 11. Suicide | n/a | n/a |
| 12. Chronic Liver Disease and Cirrhosis | n/a | n/a |
| 13. Septicemia | n/a | n/a |
| 14. Homicide | n/a | n/a |
| 15. Acquired Immune Deficiency Syndrome | n/a | n/a |

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

- ▶ Most mortality rates are unstable/suppressed when stratified by race and gender in Hyde County.
- ▶ Cancer and Heart Disease produce the most stable rates, but only among White Males and White Females and not for every period. Rates appear quite variable.

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Trends in Racial Disparities in Hospital Discharges for All Neoplasms

- ▶ Although the total cancer mortality rate in Hyde County has decreased over time, currently it is the leading cause of death in the county, with a mortality rate higher than the NC rate. Total cancer mortality is high among males and African Americans. It may be illustrative to examine hospital discharges for all neoplasms (ICD-9 Codes 140-239xx). The ED data is from TOBH only; the IP data is from VMC only.
- ▶ The numbers of ED discharges for Hyde County residents under this code was too small to describe racial differences in ED utilization.
- ▶ Blacks accounted for 39% and whites 61% of all IP discharges for Hyde County residents under this code.

| Fiscal Year | No. ED Discharges | | | No. IP Discharges | | |
|-------------|-------------------|-------|-------|-------------------|-------|-------|
| | Black | White | Total | Black | White | Total |
| 2013 | 0 | 1 | 1 | 5 | 10 | 15 |
| 2014 | 1 | 1 | 2 | 4 | 10 | 14 |
| 2015 | 1 | 5 | 6 | 7 | 5 | 12 |
| Total | 2 | 7 | 9 | 16 | 25 | 41 |

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Trends in Gender Disparities in Hospital Discharges for All Neoplasms

- ▶ These data are for ICD-9 Codes 140-239xx). ED data is from TOBH only, and IP data is from VMC only.
- ▶ The numbers of ED discharges for Hyde County residents under this code was too small to describe gender differences in ED utilization.
- ▶ Females accounted for 34% and males 66% of all IP discharges for Hyde County residents under this code.

| Fiscal Year | No. ED Discharges | | | No. IP Discharges | | |
|-------------|-------------------|------|-------|-------------------|------|-------|
| | Female | Male | Total | Female | Male | Total |
| 2013 | 1 | 0 | 1 | 5 | 10 | 15 |
| 2014 | 2 | 0 | 2 | 6 | 8 | 14 |
| 2015 | 2 | 4 | 6 | 3 | 9 | 12 |
| Total | 5 | 4 | 9 | 14 | 27 | 41 |

Sheila S. Pfaender, Public Health Consultant

Trends in Racial Disparities in Hospital Discharges for Cerebrovascular Disease

- ▶ Although the cerebrovascular disease mortality rate in Hyde County has decreased over time, currently it is higher than the NC rate, so it may be illustrative to examine hospital discharges for cerebrovascular disease (ICD-9 Codes 430-438xx). ED data is from TOBH only, and IP data is from VMC only.
- ▶ The numbers of ED discharges for Hyde County residents under this code was too small to definitely describe racial differences in ED utilization, although it would appear that ED utilization among whites was higher in the period cited.
- ▶ Although relatively few, the total number of IP discharges for whites was more than three times the total number of IP discharges for blacks.

| Fiscal Year | No. ED Discharges | | | No. IP Discharges | | |
|--------------|-------------------|-----------|-----------|-------------------|-----------|-----------|
| | Black | White | Total | Black | White | Total |
| 2013 | 1 | 2 | 3 | 1 | 6 | 7 |
| 2014 | 0 | 2 | 2 | 1 | 6 | 7 |
| 2015 | 0 | 6 | 6 | 3 | 6 | 10 |
| Total | 1 | 10 | 11 | 5 | 18 | 24 |

Sheila S. Pfaender, Public Health Consultant

Trends in Gender Disparities in Hospital Discharges for Cerebrovascular Disease

- ▶ For these ICD-9 Codes (430-438xx), ED data is from TOBH only, and IP data is from VMC only.
- ▶ Although numbers are small, there appear to be more ED and IP discharges under this code among Hyde County males than among females.

| Fiscal Year | No. ED Discharges | | | No. IP Discharges | | |
|--------------|-------------------|----------|-----------|-------------------|-----------|-----------|
| | Female | Male | Total | Female | Male | Total |
| 2013 | 0 | 3 | 3 | 1 | 6 | 7 |
| 2014 | 0 | 2 | 2 | 4 | 3 | 7 |
| 2015 | 2 | 4 | 6 | 5 | 5 | 10 |
| Total | 2 | 9 | 11 | 10 | 14 | 24 |

Sheila S. Pfaender, Public Health Consultant

Trends In Racial Disparities in Hospital Discharges for Diabetes

- ▶ Because in Hyde County the diabetes mortality rate, although falling, currently is significantly higher than the NC rate, and statewide is disproportionately higher among African Americans, it may be illustrative to examine hospital discharges for diabetes (ICD-9 Code 250xx). ED data is from TOBH only, and IP data is from VMC only.
- ▶ The numbers of ED and IP discharges for Hyde County residents under this code was too small to definitely describe racial differences in ED or IP utilization.

| Fiscal Year | No. ED Discharges | | | No. IP Discharges | | |
|-------------|-------------------|-------|-------|-------------------|-------|-------|
| | Black | White | Total | Black | White | Total |
| 2013 | 1 | 2 | 3 | 2 | 0 | 2 |
| 2014 | 0 | 0 | 0 | 1 | 0 | 1 |
| 2015 | 4 | 3 | 7 | 1 | 1 | 2 |
| Total | 5 | 5 | 10 | 4 | 1 | 5 |

Sheila S. Pfaender, Public Health Consultant

Trends in Gender Disparities in Hospital Discharges for Diabetes

- ▶ For this ICD-9 Code (250xx) ED data is from TOBH only, and IP data is from VMC only.
- ▶ The numbers of ED and IP discharges for Hyde County residents under this code were too small to definitely describe gender differences in ED or IP utilization.

| Fiscal Year | No. ED Discharges | | | No. IP Discharges | | |
|-------------|-------------------|------|-------|-------------------|------|-------|
| | Female | Male | Total | Female | Male | Total |
| 2013 | 1 | 2 | 3 | 1 | 1 | 2 |
| 2014 | 0 | 0 | 0 | 0 | 1 | 1 |
| 2015 | 4 | 3 | 7 | 1 | 1 | 2 |
| Total | 5 | 5 | 10 | 2 | 3 | 5 |

Sheila S. Pfaender, Public Health Consultant

Site-Specific Cancer Trends: Incidence and Mortality Rates

Incidence: 1999-2003 to 2009-2013
Mortality: 2002-2006 to 2010-2014

| Cancer Site | Parameter | Overall Trend Direction |
|-------------------|-----------|-------------------------|
| Total Cancer | Incidence | ▲46.4% |
| | Mortality | ▼8.7% |
| Lung Cancer | Incidence | ▲182.0% |
| | Mortality | ▼8.0% |
| Prostate Cancer | Incidence | ▲5.7% |
| | Mortality | ▲90.2% |
| Breast Cancer | Incidence | ▼8.4% |
| | Mortality | ▲50.4% |
| Colorectal Cancer | Incidence | ▲67.8% |
| | Mortality | ▼2.8% |

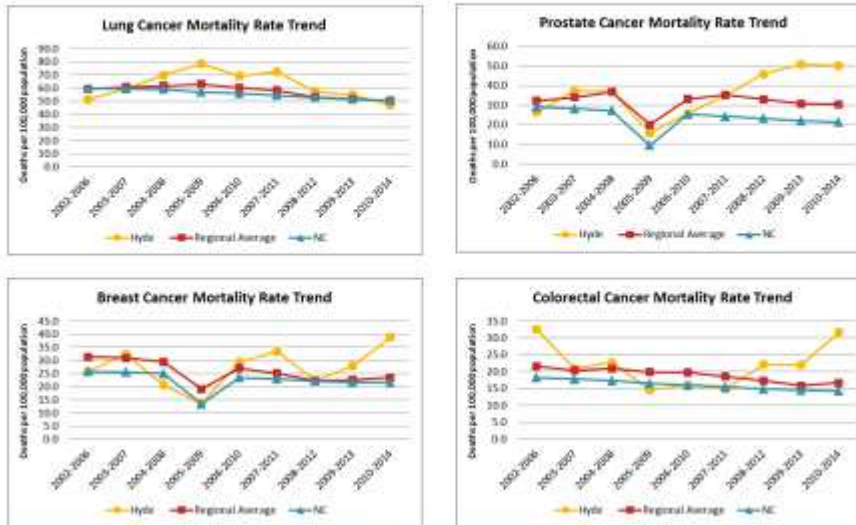
Sheila S. Pfaender, Public Health Consultant

Site-Specific Cancer Incidence Rates, by Jurisdiction



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Site-Specific Cancer Mortality Rates, by Jurisdiction



Sheila S. Pfaender, Public Health Consultant

Race and Gender Disparities in Site-Specific Cancer Mortality Rates

- There are not enough stable site-specific cancer mortality rates among stratified groups to present a meaningful analysis of current or trend data.

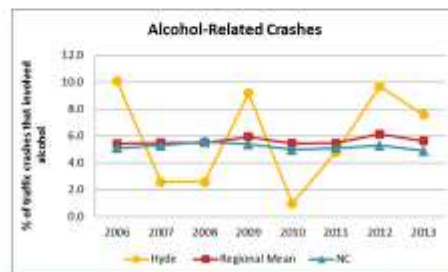
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Morbidity

Sexually Transmitted Infections, Diabetes, Obesity, Mental Health

Vehicular Injury Alcohol-Related Motor Vehicle Crashes

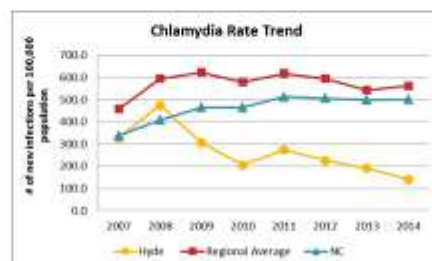
- ▶ According to the NC Highway Safety Research Center, over the period from 2006 through 2013 an annual average of 6.0% of all traffic crashes in Hyde County were alcohol-related. Statewide the comparable figure was 5.2% and it was 6.0% across the VIDANT Region.



Sheila S. Pfaender, Public Health Consultant

Sexually Transmitted Infections: Chlamydia

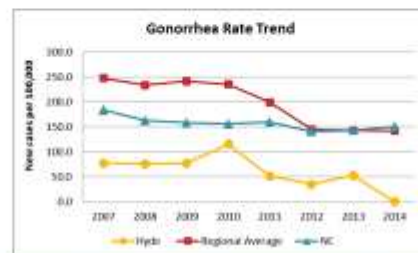
- ▶ The chlamydia infection rate in Hyde County has decreased overall and since 2009 has been lower than the state rate.
- ▶ In 2014, there were 8 new cases of chlamydia in Hyde County, calculating to a rate of 140.9 compared to 501.9 statewide.
- ▶ Of the 15-24 year olds who were tested for chlamydia in 2011, too few tested positive to result in an unsuppressed rate.



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Sexually Transmitted Infections: Gonorrhea

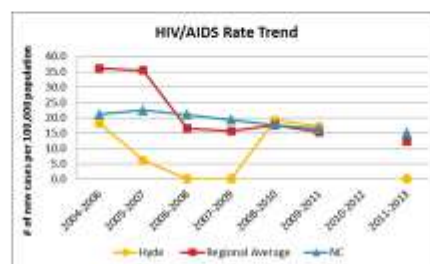
- ▶ The gonorrhea infection rate in Hyde County had decreased from a high of 115.1 in 2010 and has remained lower than the comparable state rate.
- ▶ In 2014, there were no new cases of gonorrhea in Hyde County; the state rate was 150.4.
- ▶ The gonorrhea rate was highest among African Americans in 2006-2010 (the last year for which stratified data is available); 159.9 compared to 74.9 overall.



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Sexually Transmitted Infections: HIV/AIDS

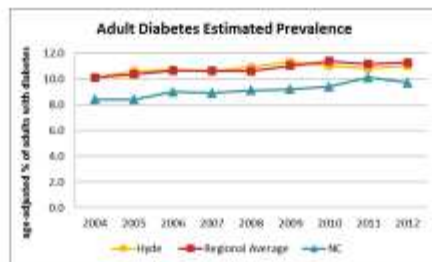
- ▶ There were no newly diagnosed HIV infections in Hyde County between 2012-2014). The comparable state rate was 13.4.
- ▶ When numbers are aggregated over three-year periods to stabilize them, the Hyde County rates increased in 2008-2010 and 2009-2011 and then fell to 0.0 in 2011-2013.
- ▶ 10 people in Hyde County were living with HIV as of the end of 2014.



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Adult Diabetes

- ▶ The average prevalence of diabetes among Hyde County adults has risen over time and was higher than the state for the entire period shown.
- ▶ Over the 9-year period presented, the Hyde County average was 10.8%, compared to 10.8% Region-wide and 9.1% across the state.



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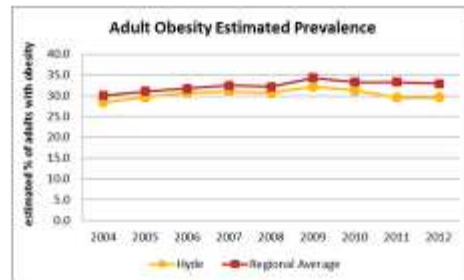
Trends in Racial Disparities in Hospital Discharges for Diabetes

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

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Adult Obesity

- ▶ The average prevalence of obesity in Hyde County was 30.4% in the period from 2004 through 2012, compared to 32.4% in the Region. [State data is not available].
- ▶ The Hyde County percentage has increased over the period cited, but was lower than the Region for the entire period.



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Child Obesity (Ages 2-4)

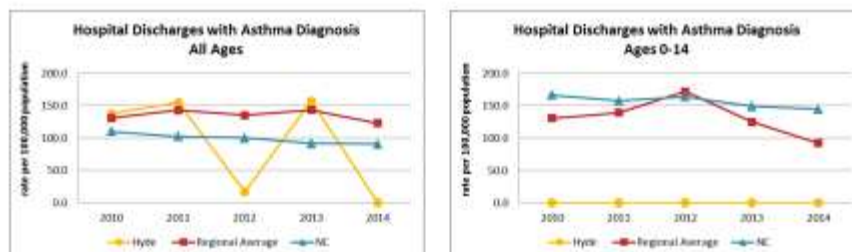
- ▶ There is limited data on the prevalence of childhood obesity in Hyde County. Data is collected for three age groups (2-4, 5-11, 12-18) and covers only children seen in health department WIC and child health clinics and certain other facilities and programs. The most recent data available is for 2010.
- ▶ According to this NC-NPASS data, in Hyde County in 2010
 - ▶ 15.1% of the participating children age 2-4 were "overweight" and 18.6% were "obese" (total = 33.7%) [NC=16.1% and 15.6% respectively]

There is no stable data at the source for the other two age groups in Hyde County, due to very small numbers of children participating.

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Asthma

- ▶ The Hyde County rate of hospital discharges with a primary diagnosis of asthma is highly variable and in 2014 was 0.0. The state rate was 90.9 in 2014.
- ▶ Between 2010 and 2014, no Hyde County children aged 0-14 were discharged from the hospital with a primary diagnosis of asthma.



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Mental Health

- ▶ The number of Hyde County residents served by the **Area Mental Health Program** fluctuated from a high of 277 in 2007 to a low of 61 in 2012. 124 individuals from Hyde County were served in 2014.
- ▶ Over the same 9-year period the number of Hyde County residents served by **State Psychiatric Hospitals** decreased from a high of 9 in 2007 to 0 in 2013 and 2014.
- ▶ During the same 9-year period, a total of 38 Hyde County residents were served by **NC State Alcohol and Drug Abuse Treatment Centers (ADATCs)**, with the number varying from year to year. A high of 9 were served in 2008; 1 was served in 2014.

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Trends in Hospital Discharges for Mental Health Diagnoses

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

- ▶ ED discharges related to all Mental, Behavioral and Neurological Disorder diagnoses compose 3.3% of all ED discharges; ED discharges rose every year cited. Keep in mind that part of the increase may be attributed to the closure of Vidant Pungo Hospital.
- ▶ IP discharges for mental health diagnoses composed 4.1% of all IP discharges.
- ▶ Note that these diagnoses (ICD-9 290-319xx) include psychotic and non-psychotic disorders, and conditions associated with alcohol and drug abuse

| Year | No. Emergency Department Discharges | No. In-Patient Hospitalization Discharges |
|------|-------------------------------------|---|
| 2013 | 22 (3.5% of all ED discharges) | 10 (3.3% of all IP discharges) |
| 2014 | 25 (2.8%) | 13 (3.7%) |
| 2015 | 47 (3.6%) | 19 (5.3%) |

Sheila S. Pfaender, Public Health Consultant

Hyde County Health Problem “Watch List”

- ▶ Health care access – very few medical providers are physically located in Hyde County.
- ▶ Cancer – although it has been dropping over time, the total cancer mortality rate in the county currently is higher than the NC rate; mortality among males and African Americans is high; the incidence rates for total cancer and lung, prostate and colorectal cancers have increased; the mortality rates for breast and prostate cancer have risen, and the mortality rate for colorectal cancer may be rising.
- ▶ Diabetes – although the county diabetes mortality rate has fallen over time, the current rate is significantly higher than the NC rate
- ▶ Stroke – county mortality rate is higher than the NC rate.
- ▶ Unintentional motor vehicle injuries – county mortality rate is higher than the NC rate and has increased over time.
- ▶ Pregnancy – the teen pregnancy rate in the county is higher than the NC rate and may be rising; the frequency of early prenatal care has dropped recently; almost 30% of neonates are born with some kind of problem; infant mortality rate is higher than NC rate and appears to be increasing.
- ▶ Alzheimer’s disease – although currently below the NC rate, the county mortality rate is increasing rapidly and might be expected to increase further as the county population ages.

Sheila S. Pfaender, Public Health Consultant

Populations “At Risk” for Poor Health Outcomes in Hyde County

- ▶ The uninsured and under-insured
- ▶ Persons living in poverty
- ▶ Minorities
- ▶ Males, who generally have poorer health outcomes than female
- ▶ Persons with poor access to transportation, because travel will be necessary to reach certain healthcare providers in this under-resourced county
- ▶ The elderly, because healthcare services are already limited and may not be sufficient to accommodate their needs as their population grows
- ▶ Pregnant women and the children they carry, since the infant mortality rate is high and may be increasing; the frequency of prenatal care has decreased recently; almost 30% of infants in county are born with some sort of problem; teen pregnancy in Hyde County may be increasing.

 Sheila S. Pfaender, Public Health Consultant