



VIDANT DUPLIN
HOSPITAL'S
2013
COMMUNITY
HEALTH
NEEDS
ASSESSMENT



Table of Contents






Acknowledgements	3
Executive Summary.....	4
Chapter 1: Background and Introduction	8
Community Health Assessment Process	10
Chapter 2: Community Profile	12
Geography.....	12
Economy.....	14
Towns and Municipalities.....	18
Quality of Life	21
Duplin County History	27
Demographic Characteristics of Duplin County	29
Chapter 3: Health Data Collection Process	32
Demographic Characteristics of Duplin and Peer Counties.....	33
Data Limitations	34
Chapter 4: Community Health Status	35
Mortality.....	35
Heart Disease.....	40
Cancer	42
Cerebrovascular Disease.....	44
Chronic lower respiratory disease.....	45
Unintentional motor vehicle injuries.....	46
Diabetes.....	47
Other unintentional injuries	49
Alzheimer’s Disease	50

Septicemia	51
Morbidity/Diseases	51
Maternal Health	51
Child Health	55
Obesity.....	61
Childhood obesity.....	63
Asthma	65
Dental Health.....	67
Communicable Diseases	68
Mental Health.....	71
Health Care.....	73
Health Care Resources.....	76
Community Resources.....	80
Determinants of Health	84
County Health Rankings.....	94
Chapter 5: Community Health Survey	97
Chapter 6: Community Priorities	106
Appendix A - 2012 Community Health Assessment Committee.....	112
Appendix B – 2012 Duplin County Community Health Survey	113
Appendix C - Summary of Survey Responses.....	143

Acknowledgements

The Duplin County Health Department and Vidant Duplin Hospital wish to thank all of the people and organizations that have made the 2012 Community Health Assessment process and report possible. We also wish to thank the Community Benefits program of Vidant Hospital foundation for their financial support of the Community Health Assessment Process and ECU Department of Family Medicine Research Division and its partner organizations for their assistance in the planning, development, data collection and the preparation of this report.

We would also like to thank the following organizations and businesses for their help throughout the community health assessment process:

-  Duplin County Board of Health
-  Duplin County Commissioners
-  Duplin Partners for Health Steering Committee
-  Carolina East Home Care and Hospice
-  Duplin County Partnership for Children
-  Duplin County Cooperative Extension
-  Duplin County Board Of Education
-  Duplin County Department of Social Services
-  Economic Development and County Planning

A wise man will make more opportunities than he finds – Sir Francis Bacon



Duplin County Health Department www.duplincoutnync.com
Ila Davis, RN, BSN, M.Ed Health Director ilad@duplincoutnync.com
Elizabeth Ricci, RN, BSN Director of Nursing bethr@duplincoutnync.com



Vidant Duplin www.vidanthealth.com/duplin/
Jay Briley, President Vidant Duplin Hospital jay.briley@vidanthealth.com
Laura Maready, Director of Marketing and Development laura.maready@vidanthealth.com

Executive Summary

The health status of a community plays a large role in social and economic prosperity, hence it is important that a community strives to continually improve and maintain its health. Successful health programming must also include input from community agencies and community members. The first step in improving the health status of any community is to complete a community health assessment and share the findings with the community. The community health assessment (CHA) is a systematic collection and analysis of information about the health of the community. The assessment of Duplin County's health is based upon multiple sources of data. Under the joint leadership of the Duplin County Health Department (DCHD) and Vidant Duplin Hospital (Vidant Duplin), a county-wide community assessment was completed to provide an overview of the county's health. The following report outlines the findings of the assessment.

Data

The overall data from this assessment supports many of the findings from the 2011 national county health rankings. Out of 100 North Carolina counties, Duplin ranked 55 for overall health outcomes. While the ranking is an improvement from 2010 and there has been some progress since the 2008 CHA, the real issues are reflected in the primary and secondary data. The primary data was collected through distribution of the CHA survey to the community. The secondary data includes information from the North Carolina State Center for Health Statistics, 2012 U. S. Census, 2009 Youth Behavior Risk Survey, US Bureau of Justice, NC Department of Public Instruction and others. For a complete list see Data Sources in the Appendix. Duplin ranked 81 out of 100 with 100 being the worst for health factors (61 for healthy behaviors, 95 for clinical care), 75 for social economic factors and 40 for physical environment. Overall, survey respondents rated their own health very positively; 85% rated their health good, very good or excellent, while only 1.2% rated their health as poor. This is a self-reported finding, however, is not in full agreement with the health and behavioral data presented in the assessment. There is survey bias as the majority of respondents were; English speaking , white with high school education or greater , employed and had an income well above the federal poverty level. In general minorities report more fair to poor health then whites, and as income level decreases, poor mental, physical and oral health increases. It is clear that improvement in the overall population health of Duplin County will require changes in personal behavior and improvement in social circumstances.

Demographics

The 2010 US Census population shows 58,505 residents in Duplin County. This indicates an increase of 10% since the 2008 CHA. The racial composition has remained stable since 2008 with 57.2% white, 25.3% Black and 21% are of Latino origin. Approximately 53% of residents are under 40 years of age. Children less than 18 years of age comprise 25% of the population; females outnumber males and everyone is living longer.

Behavioral Health Risks

Data indicates that residents need to exercise more, eat a healthier diet and pay close attention to their oral health. Many children and adults have unmet dental care needs. As a community we must make improvements in our behaviors and lifestyle choices because they are directly related to our health outcomes. Duplin County ranks 26th out of 100 counties for population that is overweight, and 98th out of 100 for obesity in children. There are limited recreational centers and like many other rural counties, Duplin is oriented to the use of vehicles rather than walking or biking.

Health Outcomes

Heart disease and cancer remain the leading causes of death in the county. Cancer deaths are on the rise as compared to the 2008 CHA. Unintentional injuries, chronic lower respiratory disease, stroke, diabetes and Alzheimer's are included in the top ten causes of death but have substantially lower mortality rates than heart disease and cancer. Diabetes is associated statistically with higher body Mass Index (BMI), cholesterol and elevated blood pressure. Many of these risk factors are associated with lifestyle choices. For children in the birth to 19 years of age group, the leading causes of death are conditions in the perinatal period. This is closely linked to the health of the mother, before and during pregnancy. The next two causes of death in this group are motor vehicle accidents and unintentional injuries. The county's teen birth rate and the percent of low birth weight babies have not improved. Consistently there is a disparity between the percentages of babies born with a low birth weight between black and white women. Sexually transmitted diseases such as chlamydia and gonorrhea continue to be a community problem. Though the rates are lower than the state, they are on the rise. Compared to whites, black are disproportionately affected by these diseases.

Socioeconomic





Duplin County has the highest uninsured rate in the state with 26% of residents with no health care benefits, 33% of children live in poverty, 24% of the population lives in poverty and 40% live in single parent households. Out of wedlock births increased and the rate for Duplin County remains higher than the state rates. The teen birth rate (15-19) continues to be higher than the state. In 2011 the NESTS reports Duplin 69.2 and the state rate at 43.8. Teenage parents also fall at the low end of the poverty status as they usually have little support, are more likely to drop out of school and consequently have fewer job opportunities. Looking at the community survey results respondents reacted strongly to the statement regarding economic opportunity. Only 9.5% agreed or strongly agreed with the statement “There is plenty of economic opportunity in Duplin County”. 34.1% of African-Americans indicated they strongly disagreed with the statement compared to 19.7% of white respondents.

Document Layout

The 2012 Duplin County Community Assessment begins with the Acknowledgements to community partners, and the Executive Summary. Chapter 1 is the background and introduction to the CHA process; Chapter 2 is the county profile which includes information on the geography, economy, and information on the ten incorporated towns, history, and demographics. Chapter 3 is the health data collection process for the primary and secondary data. Chapter 4 covers the health data results, health resources, educational and socioeconomic factors. Finally, Chapter 5 is a review of the community priorities, as determined by Duplin County Health Department, Vidant Duplin Hospital, Duplin Partners for Health and other community partners and identifies community trends and areas of strengths and areas that to be addressed for improvement to positively affect the county residents health.

Finalizing Priorities

After examining the results of the community survey, the health data and listening to input from community members and agencies’ the CHA team chose four health priorities. These long-term goals will assist in the development of the community health actions plans. The action plans will move the county forward toward improving health and health outcomes for county residents. Vulnerable populations, those with risk factors for poor health, children, elderly, minorities, low income, and low literacy (including Non-English speaking) must be at the forefront if there is to be any improvement in the coverall county’s health outcomes.

-  Promote Healthy Weights Through Healthy Living
-  Improve Women's Health During the Childbearing Years
-  Access to and Continuity of a Primary Care Home
-  Promote Prevention of Chronic Diseases and Improve Outcomes

Chapter 1: Background and Introduction

A County Community Health Assessment (CHA) is completed every four years by the Duplin County Health Department and every three years by the local hospital entity, Vidant Duplin Hospital. The CHA and is an analysis of the health status of the community in context with the community's economic, social and environmental climate. This report will be an important resource for the community to improve the health and well-being of the people in Duplin County. The purpose of the community assessment is to identify factors that affect the health of a population. The next step is to determine the availability of resources within the community and identify the gaps in services so that the agencies may adequately address the community health needs. Through collaborative efforts forged among community leaders, public health agencies, businesses and health care, the community can begin to answer key questions such as:

1. What are our population's health issues?
2. What are the environmental and social factors that contribute to these issues?
3. What are strengths within our communities?
4. What resources are currently available in our communities?
5. What are the needed resources that will be required to assist the population?

The 2012 CHA report is the first time there has been a major collaborative effort between local public health and the hospital entity. The components of a CHA for each agency have been combined into one comprehensive assessment. Community members take the lead role in forming partnerships, gathering health related data, determining priority health issues, identifying resources, and planning community health programs. In this framework, the assessment process starts with the people who live in the community. The community has the primary responsibility for determining the focus of the assessment activities at every level, including collection and interpretation of data, evaluation of health resources, identification of health problems, and development of strategies for addressing these problems. In this view, the community assessment is done by the community rather than simply an assessment conducted on a community.

Duplin County began preparing for the Community Health Assessment in December 2011 by having a preliminary combined board meeting on the probability of combining the resources of the health department and the hospital to effectively manage the CHA process. A community health assessment team was developed to inform and guide the process, identify primary data collecting tools, and to gather information for the assessment. The community

assessment team consisted of: the management team of Duplin County Health Department, key members of Vidant Duplin's management team and the Steering Committee of Duplin Partners for Health. The members were from a variety of service agencies such as the Duplin Partnership for Children, Carolina East Home Care and Hospice, Cooperative Extension, Community organizations and Duplin County Schools (See Appendix A).

These groups were chosen because of the broad spectrum of members representing the community as a whole. They also represent key relationships between the Duplin County Health Department, Vidant Duplin, Duplin County Schools, and other county agencies.

Part of the orientation process for the team members to the CHA process, was a detailed review of the NC LHD Accreditation Standards and the Affordable Care Act (ACA) requirements for hospitals. This review helped each agency compare the plan requirements and develop a crosswalk between the two plans to ensure all components for the CHA would be met. The decision was made to merge the requirements of the CHA for both the hospital and public health into one effort. This decision was made to effectively use the limited agency resources and enhance the ability to gather data, distribute surveys and complete an evaluation. Vidant Duplin was able to secure funds through the Vidant Health system to negotiate a contract with the ECU Department of Family Medicine's Research Division to assist the agencies with data collection and analysis, provide technical support and expertise and assist in the development of the finished written report. The team identified a few broad goals and objectives in which to frame the CHA process.

Goals

1. Equip local partnerships with the skills and tools needed so they can assess the health of their communities.
2. Evaluate the impact of such interventions.

The Community Health Assessment team identified the following objectives for the 2012 assessment.

Objectives

1. Measure what progress has been made on the priority issues identified in the 2008 Community Health Assessment.
2. Identify the important health behavior and disease trends in Duplin County.

3. Identify community member's perception of the health of their communities.
4. Determine the new focus of health priority issues for the next three years.
5. Identify existing community resources, the strengths and gaps that will impact development of effective health strategies.
6. Develop effective public health programs and policies using the CHA data.

Community Health Assessment Process

The CHA team met in the early months of 2012 to discuss the development of the primary data collection instruments; such as the community and web surveys. Using the survey template provided by the NC Healthy Carolinians the team adapted the questions to meet the needs of the county's population. At the team meeting in March 2012 the timeline for survey distribution, secondary data collection and identification of target populations was completed. During a Duplin Partners for Health meeting the CHA team gathered information from community leaders on strengths, needs, resources and overall concerns about the county. The secondary data sources were discussed by the CHA team and the ECU research staff was tasked with completing the review of these sources over the next few months.

As part of the community health assessment, a community health opinion survey was distributed to various segments of the population. The survey was printed in English and Spanish and distributed to a range of people in the community, targeting different income levels, the Latino community, the elderly, and the general population. Duplin County Health Department, Vidant Duplin and Duplin Partners for Health representatives conducted an intercept type survey at area health fairs, civic groups, schools, and distributed surveys to local government offices, physician's offices, libraries, faith community and to the general public. Partner agencies who distributed surveys to the public and to clients they serve included; Duplin County Schools, Department of Social Services and county government employees. Vidant Duplin's bilingual staff conducted face-to-face interviews in Spanish to the Latino faith community. In addition to the paper surveys, a web-based survey tool was developed by the Vidant Duplin staff and made available to the public through the hospital web site and list serves. The web survey intended to capture the younger population who are frequent users of electronic media. The notice of the survey was shared with the community through the local newspaper, radio station, and listserv. The primary data collection tools were used to collect data from April 1st - May 19, 2012.

Next Steps

Upon completion, the Community Health Assessment (CHA) will be distributed in the following ways:

- Email and/or mail to the County Commissioners
- Provide copies for the local libraries
- Provide copies to Health Department, Vidant Duplin, Department of Social Services and other county agencies to be placed in their public waiting rooms
- Provide copy by email to all county department heads
- Provide copies to Board of Health (BOH) members by email and make available hard copies at the December BOH meeting
- Place link to CHA on the Vidant Duplin Hospital and the Duplin County web site
- Place article in local weekly newspapers, and provide electronic link to CHA

A discussion of the CHA will be the topic of the December 2012 BOH meeting and will be presented to the county commissioners at the first available meeting in January 2013.

Following this discussion a combined BOH and Vidant Duplin board meeting will be convened in late January 2013, for the purpose of developing strategic health and action plans. This meeting will have an outside facilitator to lead the group's discussion and the end result of the meeting will be the preliminary action plans for the community. The CHA team will continue to develop the Community Health Action Plans that are to be submitted by the first Friday in June 2013.

The top five leading causes of death from the 2008 CHA and 2012 CHA does not look very different. Heart disease, cancer and cerebrovascular disease still hold the top three slots.

Leading causes of death 2012 report	Leading causes of death 2008 report
Heart disease	Heart disease
Cancer	Cancer
Cerebrovascular disease	Cerebrovascular disease
Chronic lower respiratory disease	Chronic lower respiratory disease
Motor vehicle injuries	Diabetes mellitus

Chapter 2: Community Profile

Duplin County is located in the Coastal Plains of the Southeastern portion of North Carolina. The county claims 819 square miles, making it the 9th largest county for land mass in the state, with Kenansville as its county seat.

The county is governed by the six members of the Duplin County Board of Commissioners. They are elected officials who serve for four-year terms. A professional county manager serves under the direction of the County Commissioners. Duplin County has operated under the County Manager form of government since 1979.

Geography



Land

In general, most Duplin County soils located outside the flood plains are suitable for agriculture and are capable of supporting structures. The major limiting factor is poor drainage. The soils of Duplin County, except Pamlico Muck, are derived from the Coastal Plains parent formations and are classified as mineral soils. Information on soil conditions for specific sites is available through the Duplin County Natural Resources Conservation Service.¹

Water

Abundant supplies of high quality ground water are available to Duplin County from two aquifers; the water table aquifer and the cretaceous aquifer. The water table aquifer is generally within 20 feet of the ground surface. Wells tapping this aquifer generally yield 10 to 350 gallons per minute. The water quality varies from fair to good. The cretaceous aquifer is Duplin County's most important source of water. This aquifer varies from 400 to 800 feet and consists of water stored under artesian pressures in sands of the Cretaceous Age. The quality of the Cretaceous aquifer varies from very good to excellent.²

Surface

Duplin County's surface water streams are classified by the North Carolina Department of Environment and Natural Resources as class "CSW Waters". This classification designates water suitable for aquatic life propagation and survival, fishing, wildlife, secondary recreation and agriculture. The section of the Northeast Cape Fear River between Muddy Creek and Rockfish Creek is classified as "High Quality Waters". This segment is rated as good based on biological and physical/chemical characteristics.²

Drainage

The greater portion of the County is drained by the Northeast Cape Fear River. Its main tributaries include Goshen Swamp and Rockfish Cypress, Maxwell, Muddy, Limestone, and Grove Creeks. A small area west of Warsaw is drained by Stewarts and Turkey Creeks, which are both tributaries of the Black River in Sampson County.³

Climate

Due to its proximity to the Atlantic Ocean and its location in the coastal plain, Duplin County experiences relatively mild temperatures. The average temperature is 61 degrees and the average annual rainfall is approximately 49 inches with most precipitation occurring during the summer months. Summers are long and commonly have short periods of very hot and humid weather. Winters are generally short and mild with significant accumulations of ice and snow being unusual. The average frost-free season is from mid-April to mid-November, slightly more than 200 days.^{4,5}

Topography

Duplin County lies within the Coastal Plain of Eastern North Carolina. Typical of this region, the terrain is nearly flat to gently rolling. Slopes rarely exceed 5 percent. The highest elevation in the county is near Bowden, approximately 167 feet above sea level. The lowest elevation is approximately 20 feet above sea level at the point where the Northeast Cape Fear River flows out of the county.⁶

Highways

Interstate 40 is accessible via six exits across Duplin County and provides easy connections to I-95, I-85, I-77 and I-26. The County is also traversed by a well-maintained network of U.S. and state highways. Typical drive times are:

Interstate 95	30 minutes
Wilmington	55 minutes
Morehead City	90 minutes
NC Beaches	40 minutes
Raleigh/Research Triangle Park	90 minutes
Myrtle Beach, SC	120 minutes

- ✚ The nearest Interstate Highway is I-40, which dissects Duplin County.
- ✚ Bordering Counties include: Wayne County to the north; Lenoir, Jones and Onslow Counties to the east; Pender County to the south and Sampson County to the west.
- ✚ Population is approximately 71 persons per square mile.
- ✚ The largest town in Duplin County is Wallace with a population of approximately 4,000.
- ✚ 14.3% of population is over 65 years of age.
- ✚ 25.3% of population is under 18 years of age.

Source: quickfacts.census.gov

Economy

Duplin County has a strong future with many new and promising developments coupled with a strong agricultural heritage. Duplin County is now home to three Industrial Parks, which is an incentive for businesses to relocate or develop within the county. The parks are in proximity to North Carolina's Global TransPark and Foreign Trade Zone 214 as well as the deep-water ports of Wilmington and Morehead City, NC. The parks are geographically located

between Fayetteville, Goldsboro and Jacksonville, all of which are homes to major military bases.

SouthPark is located northeast of Wallace, approximately one-quarter mile from Interstate 40 via NC Highway 11. SouthPark Center is a corridor of 175 acres of industrial property. The entire tract is planned for subdividing into smaller tracts, which are zoned for industrial use. The current land layout is farmland and idle wooded acres. The initial facility was a joint effort between the Wallace 100 Committee, Inc., Duplin County Economic Development Commission, North Carolina Department of Commerce and Four County Electric Membership Corporation. WestPark is located just west of Warsaw and one mile from Interstate 40 via NC Highway 24 and US Highway 117. WestPark is a 906 acre corridor of industrial property adjacent to I-40. Formerly used as farmland, this site currently is home to Eastern Carolina Food Ventures Incubator Kitchen. This facility is a regional shared-use commercial incubator kitchen whose mission is to help develop food entrepreneurs, create new food businesses and provide workforce development resulting in new jobs and economic development. It is a collaborative effort of James Sprunt Community College, Duplin and Pender counties.

Duplin County Airport covers 126 acres, is centrally located in Duplin County approximately 2 miles north of Kenansville and within close proximity to Interstate 40. The airport has a 6,000' runway; new terminal and conference facilities. Geographically located under the North/South Flyway and Midpoint between New York and Miami, the airport is a preferred stop for many regular transients.



Industry in Duplin County

While Duplin County is a regional leader in agriculture, livestock, textiles and manufacturing, the County has a broadly diversified economy and is an excellent choice for many types of enterprises.

Major Employers	Industry Sector	Employees
Butterball LLC	Manufacturing	1,000+
Smithfield Foods Inc.	Manufacturing	1,000+
House of Raeford	Manufacturing	1,000+
Duplin County Schools	Education	1,000+
Murphy Family Ventures	Natural Res.	500-999
County of Duplin	Public Admin.	500-999
Guilford Mills Inc.	Manufacturing	500-999
Vidant Duplin Hospital	Health Svc	250-499
Johnson Breeders Inc.	Natural Res.	250-499
Bay Valley Foods Llc	Manufacturing	250-499
James Sprunt Community College	Education	250-499
Wal-Mart	Trade	100-249
Nash Johnson & Sons	Natural Res.	100-249
Precision Hydraulic Cylinders	Manufacturing	100-249
Valley Protein Inc.	Manufacturing	100-249
Southern Produce	Natural Res.	100-249
Duplin Wine Cellars Inc.	Manufacturing	100-249
Glen Care of Mt. Olive	Health Svc	100-249
Goshen Medical Center	Health Svc	100-249
The Pork Company	Manufacturing	100-249
NC Depart. Of Corrections	Public Admin	100-249

Employment

Most of Duplin County is a rural agrarian economy and depends on livestock, poultry and manufacturing industries for jobs and economic growth. Today, Duplin's agriculture industries range from the family farm to corporate headquarters of agriculture related businesses. Drawing from the rich, natural resources and mild climate, local farmers grow crops ranging from cotton to grapes to zucchini. Duplin County recognizes emerging opportunities and many citizens are meeting the ever-changing demands of the industry with new crops as well as services.

Duplin County recently ranked second in North Carolina in livestock and poultry total receipts while also ranking in the top 10 in crop receipts. Swine and poultry are Duplin County's two most important agricultural commodities. Duplin County, along with neighboring Sampson County, produces 1/6 of the world's population food supply. In August 2012 the unemployment rate for Duplin County was 9.9%. The average unemployment rate has remained fairly stable for the last three years: for 2009 it was 9.6%, for 2010 it was 9.7%, and for 2011 it was 9.8%⁷.

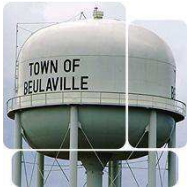
At least 46% of all jobs in the county are related to the agriculture industry. The Gross Domestic Product (GDP) is a measure of the total economic production of a county or state. In Duplin County 98% of the GDP is impacted by the agriculture industry. The GDP does not measure quality of life or account for disparity in incomes but is used to give a picture of how much the county's economy relies on the agriculture industry. Many agriculture jobs are at or below the minimum wage, do not offer health benefits or benefits are provided at cost to the employee which most cannot afford.

Towns and Municipalities



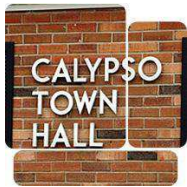
- There are ten incorporated towns in Duplin County. The towns are Beulaville, Calypso, Faison, Greenevers, Kenansville, Magnolia, Rose Hill, Teachey, Wallace and Warsaw.
- The Town of Warsaw has the distinction of holding the oldest continuous Veteran's Day Celebration in the United States. The first celebration in Warsaw was in 1921.
- The Town of Rose Hill is home to the Word's Largest Frying Pan.
- The Town of Rose Hill is the headquarters of Smithfield Farms, formerly Murphy Farms, the nation's largest pork producer.
- The Town of Wallace is home to River Landing, a nationally recognized private 36-hole championship golf course.

Source: Duplin County Economic Development Commission



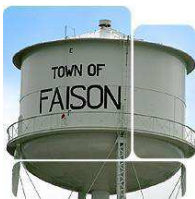
Beulaville: Zip Code 28518

Town of Beulaville was founded in 1874, named for Beulah Baptist church and was chartered in 1915. Home to East Duplin High School, Cabin Lake and has a rural area population of approximately of approximately 7,500. Total town population (2010 census) 1,296 with 68.1% white, 23.3% Black and 6.5% Latino. Population density is low at 893 people per square mile. March 2012 cost of living index : 80.3 (low, U.S. average is 100). Intersected by highways 24, 41 and 11, with the city of Jacksonville, Onslow County less and 20 minutes away. Jacksonville offers shopping, recreation and medical facilities and is home to Camp Lejeune. The area is also served by the Onslow County Albert Ellis Airport only 12 miles away. <http://www.townofbeulaville.com/>



Calypso: Zip Code 28325

Town of Calypso is the northern most towns in the county with a population of 538 (2010 Census); 52.4 white, 26% Latino, and 19.3% Black. Originally founded around 1890 as Goshen Grove, Calypso became a hub of farm families and local produce. The community was named after the sea nymph described by Homer in the "Odyssey". March 2012 cost of living index: 80.9 (low, U.S. average is 100). Population density: 555 people per square mile (low).



Faison: Zip Code 28341

The Town of Faison was settled on land granted to Henry Faison on July 2, 1778. The village was first called Faison Depot, but later became known as the Town of Faison. Faison is located in the northwest corner of Duplin County at the intersection of highways NC 117 and 403. Highway NC 50 intersects NC 403 and is near Interstate 40. Faison is also home to Cates Pickle, a division of Dean Pickle and Specialty Products Company and Southern Produce Distributors Inc. The 2010 Census population of Faison is 961 and the population density: 1147 people per square mile (low). The ethnic breakdown is 47.7% white, 38.5% Latino and 12.8% Black. <http://faisonnc.org/>



Greenevers: Zip Code 28458

Town of Greenevers is a very rural area located in the southern part of Duplin County just east of Interstate 40 and was incorporated in 1969. Greenevers has a population of 634 with about 81.7% Black, 8.7% Latino and 7.7% white. March 2012 cost of living index: 80.7 (low, U.S. average is 100). Population density: 394 people per square mile (very low).



Kenansville: Zip Code 28349

Kenansville is located at the center of Duplin County and is the county seat. The town was settled in 1735 by immigrants from Northern Ireland and Swiss Germans from Switzerland. These early pioneers called their town "Golden Grove". The present town of Kenansville was laid out in 1818 and named for James Kenan. Kenansville has a population of 1,169 with 56.4% White, 37.4% Black and 3.9% Latino. March 2012 cost of living index: 81.3 (low). Population density: 454 people per square mile (low). The Duplin County airport is located 2 miles outside of Kenansville. <http://www.kenansville.org/>



Magnolia: Zip Code 28453

The town of Magnolia is situated in Duplin County at the intersections of US Hwy 117 and NC Hwy 903 with other smaller roads leading into the town. Magnolia has two entrances from I-40, one three miles north on US Hwy 117 and the other two miles east on NC Hwy 11/NC Hwy 903/NC Hwy 24. The population of Magnolia is approximately 956 people with about 35% black, 40% white and 25% Latino. <http://www.magnolianc.us/>



Rose Hill: Zip Code 28458

Originally located about a mile south of the present town, it was named Rosemary because of the stand of rosemary pine trees which grew abundantly in the area. For the past thirty years, a tremendous growth in the processing and production of poultry and pork has contributed to the economy and well-being of the community. Rose Hill is the headquarters of Murphy Family Farms (swine), Nash Johnson and Sons Farms, Inc. (poultry), House of Raeford (poultry) and Duplin Wine Cellars. The population of Rose Hill (2010 census) is

1,626; 46.9 white, 31.2 Black, and 20.8 % Latino. Population density: 1185 people per square mile. <http://www.rosehillchamber.com/>



Wallace: Zip Code 28466

The town of Wallace was first known as Duplin Crossroads and was incorporated in 1873. Later in 1899, the town fathers decided to adopt the new name, Wallace, to honor Stephen D. Wallace, an official of the Atlantic Coast Line Railroad. Wallace is Duplin County's largest population and retail trade center serving over 50,000 people in a surrounding three county area. The population of Wallace in 2010 was 3,724 and a surrounding area of 10,103 people. The county's second airport Henderson Field is located in Wallace.

<http://www.townofwallace.com/>



Warsaw: Zip Code: 28398

Originally known as Mooresville and later changed to Duplin Depot, the Town of Warsaw was settled in 1825. Warsaw was incorporated in 1855 and is home today to 3,066 people. Demographics: 52.7% black, 28.8% white and 16.9% Latino. March 2012 cost of living index: 82.6 (low). Warsaw is fortunate that the construction of Interstate 40 has prompted the establishment of several nationally recognized food service and lodging establishments to serve the estimated 20,000 vehicles that pass along I-40 and Highway 24 each month. <http://www.townofwarsawnc.com/>

Quality of Life



Bulk & More Store

A family owned and operated bakery and bulk food products store located in Beulaville. They stock a variety of baked goods, candies and sugar-free treats.

Confederate Arms Factory

Weapons and other supplies for the Confederate armies were produced here beginning in March 1863 and continuing, with a few interruptions, through June 1864. This site is an example of the huge amount of material produced in North Carolina that kept the Confederate armies in the field throughout the war.

Duplin County Events Center

Duplin County's showcase for events and entertainment, the center seats 4,000, and can host events from bull riding to concerts to banquets to expositions. It is the site of the North Carolina Muscadine Harvest Festival each September and the Duplin County Business Expo each March.

Historic Kenansville Spring

Legend states that Barbara Gastor Beverett discovered the spring in the early 1700's while searching for gold. The abundant water was the deciding factor in locating the county seat here. The cool waters continue to flow today just off Duplin Street, across the street from the courthouse.

The Stockyard Flea Market

The long-time Thursday morning flea market is commonly known only as "the stockyard" and it attracts bargain hunters, antique hawks, and those hungry for homemade treats, produce or fruits, and fresh seafood from all parts of the state and beyond. The stockyard is located in Wallace.

World's Largest Frying Pan

Located in Rose Hill this is used for community fundraising events, this is a unique symbol of the poultry industry. Its capacity is 365 chickens. It weighs 2 tons, is 15 feet in diameter, and holds 200 gallons of cooking oil.



Fleming Fish Farm

The Fleming Fish Farm is a private venture established to grow fish stock for private ponds. Its main office and hatchery facilities are located outside Faison, North Carolina, on the Sampson/Duplin County line. Over 9,000 sq. ft. of buildings for hatching fish, 200 tanks for holding fish and over 10 acres of water, make up Fleming Fish Farm.

Golden Grove Peanuts

Golden Grove candy company began in 2007 and is home of the Carolina Crisp Peanut Bar and peanuts.

In The Red Farmstead Cheese

Family owned goat dairy farm that produces cheese and meat. They have won many show ribbons for their goats.

Eastern Carolina Food Ventures

An on-line farmer's fresh market, virtual farms marketing by linking growers, chefs and individual buyers. <http://www.farmersfreshmarket.org/easterncarolinafoodventures/>



Buckner Hill Plantation

One of the largest antebellum plantation houses in North Carolina, recently restored Buckner Hill House (1855) still surrounded by hundreds of acres of cotton, corn, tobacco and

cattle, provides a rare view of original, mostly undisturbed Greek revival plantation architecture. Built by highly skilled African-American labor for the Hill family on the site of their previous plantation house (c.1700s), this house was used for filming the “Divine Secrets of the Ya-Ya Sisterhood”.

Cowan Museum

The Cowan Museum is located in the fully restored Kelly-Farrior House (circa 1848). There are farming implements, household items from the 18th and 19th centuries, a unique one-room log schoolhouse, a log tobacco barn, log cabin and blacksmith shop on the grounds.

Grove Presbyterian Church

The original Presbyterian settlement was established in 1736, making it the oldest continuous Presbyterian congregation in North Carolina. The current church structure is listed on the National Register of Historic Places.

The Historic L.P. Best House / Duplin County Veterans Museum

This restored 1894 Queen Anne style house is the home of Duplin’s only Veterans museum. The second floor is dedicated to recognizing Duplin County servicemen and women through the display of military artifacts and memorabilia from years past. It is located in Warsaw, which is the home of the oldest, continuous Veterans Day Celebration in the nation. The community has honored veterans since Armistice Day in 1918.

Liberty Hall Restoration

Liberty Hall features the 19th century main house and 12 outbuildings of the Kenan family’s ancestral home located in Kenansville.

National Register Historic Districts

Downtown districts of Wallace, Warsaw, Kenansville, Faison and some surrounding residential areas are designated historic districts.

Tarkil Branch Farm’s Homestead Museum

This restored 1830s homestead is an example of early farm life typical of most families in rural NC in the 19th century.

Thomas C. Townsend Firemen's Museum

The collection's showpiece is a classic and rare 1926 Dodge/Graham Brothers Fire Truck. The fire truck is restored to its fire-engine red and polished brass shine, authentic in every detail and can be viewed in its glass enclosure in Wallace.



Many of the county's municipalities have their own recreation departments and offer a wide variety of athletic activities for the youth of the community. These programs include baseball, softball, flag football, tackle football, cheerleading soccer and basketball. The local recreation departments operate the public parks, which may include lighted tennis courts, picnic shelters, playgrounds, volleyball court, and soccer fields. Most of the town parks are open year round for public use. The county's Parks and Recreation Department was dissolved in 2009 by the county government due to budget concerns. This created a gap in services for the county since not all towns are large enough to support their own recreation departments. The county does not have nationally recognized community centers such as the Boys and Girls clubs or the YMCA. There is an active Boy Scout and Girls Scout programs but they are not centered in every town or municipality. Two towns, Faison located in the north end of the county, and Warsaw in the central area have ventured out and opened community fitness and recreation centers.

Cabin Lake

Duplin County's Cabin Lake Park is located approximately five miles north of Beulaville on Hwy. 111. The park is open year-round for camping, swimming, hiking, fishing, boating, and picnics. Cabin Lake County Park has a 2.2 mile hiking trail around the 69 acre lake.

Clement Park

Clement Park is located right off Hwy 117 in Wallace. Facilities include a tot lot, a playground for older children, sand volleyball court, basketball court and a 1/4 mile walking track with lights.

Duplin County Walking Trail

Located by the Cooperative Extension office building in Kenansville a .69 mile circular paved walking trail was built with funding obtained through Duplin Partners for Health. This area provides a safe, lighted walking train near the Duplin Events Center and James Sprunt Community College. A covered outdoor exercise area has fitness equipment stations for use by the public.

Faison Recreation and Wellness Center

Located at the north end of the county, provides fitness memberships and indoor exercise opportunities.

Golf Courses

Longmeadow Country Club located in Pink Hill is a semi-private 18-hole course built in 1968. Majestic Pines Golf and Country club is located in Kenansville is a semi-private 18-hole course built in 1980. River Landing Country Club a 36-hole gated community private club located in Wallace. Rockfish Country Club is an 18-hole community golf course built in 1958 and is located in Wallace.

Kenan Park

A multipurpose yard offers recreation for all ages and family activities such as picnic facilities and children's play area is located in Kenansville. The park includes tennis courts, ball fields, and most recently has expanding the ball fields and spectator viewing area.

Lake Leamon

RV or set up the tent at Lake Leamon Campground. Sites include power and nearby conveniences. Swimming, paddleboats and canoes and three miles of walking trails are available. Lake Leamon Campground is south of Wallace.

Maxwell Mill Park

This park is located in northeastern Duplin County near Pink Hill.

Warsaw Wellness and Recreation Center

Provides by membership, indoor fitness activities, access to fitness trainer, group exercise classes and kids fitness. Recently added an outdoor walking trail, ¼ mile paved and lighted trail with fitness equipment stations located around the track.



The Country Squire Winery

The restaurant has operating facilities for individuals and groups of all sizes and is open seven days a week serving lunch and dinner. Its newest facility is a winery with a tasting room at the restaurant site.

Duplin Winery

As the oldest and largest winery in the south, Duplin Winery has been producing award winning wines for over three generations. Free daily tours and tastings, gift shop, gourmet foods, restaurant and Dinner Theater.

Source: Duplin County Tourism www.uncorkduplin.com

Duplin County History

Duplin County was first formed by the General Assembly in New Bern on April 7, 1750 from what was the northern part of New Hanover County. At that time the boundaries of Duplin County included what would eventually become Sampson County. Duplin County was named after Sir Thomas Hays, Lord Duplin, who served on the Board of Trade and Plantations for the Crown in the 1740's.

Duplin County's earliest immigrants were the Welsh who arrived in the 1700's. They were soon followed by German Palatines and the Swiss in the 1730's and 1740's. The Scotch-Irish arrived in 1736 with Henry McCulloch and settled on a rich and fertile 71,160-acre land granted to him by the British Crown. Among the earliest settlers were the French Huguenots and English who migrated from Virginia. The Scottish Highlanders migrated from the Upper Cape Fear region. The African population arrived to the area along with the other immigrants. The early settlements were primarily along the river and larger creeks as these were the best means of transportation.

Henry McCulloch, a wealthy London merchant, transported Ulster Scots and Swiss Protestants to establish several settlements. Sarecta, established on the east bank of the Northeast Cape Fear River, became Duplin's first incorporated town in 1787. Another settlement was established on the west side of the river, Goshen Swamp. A third settlement referred to as Golden Grove, later became the Town of Kenansville. These early settlers were primarily Presbyterians and they established the Goshen congregation in 1736. Later called the Grove congregation, it was the first Presbyterian Church in the state and is still active today.

In 1751, the first official county court was held in the home of William McRee. Today, Guilford Mills, Inc, located on NC Highway 11/903, is on the original site. A short time later, the first courthouse was built on Turkey Swamp near the present day Duplin/Sampson County line. When Sampson County was created in 1784 from the western half of Duplin County, the courthouse was relocated again to a more central location. The first sessions of county court at this new site were held in a home near the road to Magnolia about 2 miles south of Kenansville. Later, the court was relocated to the area that was to become Kenansville.

Duplin has grown steadily through the years. The first industry in the county was the naval stores industry. The harvesting of rosin from the abundant longleaf pine forests to make tar, pitch and turpentine, provided barter and income for the early settlers and remained a significant part of the economy up until the late 1800's. The naval stores products were floated down the Northeast Cape Fear River for sale in Wilmington on large log rafts. In later years, paddlewheel riverboats became a far better means of transportation on the river. Necessary supplies and staple goods were ferried back up the river. When the Wilmington and Weldon Railroad was completed it provided a faster and more convenient method of shipping and the use of the river for transportation decreased.

The completion of the Wilmington and Weldon Railroad in 1840, which ran through the western half of the county, provided additional opportunities for growth and a tremendous influence for further development, not only for Duplin County, but the entire region. Rail

service is available through CSX Rail service and the Duplin County Airport provides a 6,001-foot paved, lighted runway.

The Towns of Wallace, Teachey, Rose Hill, Magnolia, Warsaw, Faison and Calypso developed along the tracks. Duplin County is the 9th largest county in the state in land area with 819 square miles. The 2007 population was 52,063. There are 10 incorporated towns in the county: Calypso, Faison, Warsaw, Kenansville, Magnolia, Rose Hill, Teachey, Wallace, Greenevers and Beulaville. The county is served by Interstate 40, U.S. Highway 117, and NC Highways 11, 24, 50, 403 and 903.

Duplin County has maintained its agricultural heritage and rural environment through the years while still allowing for a blending of industrial development, economic growth and a lifestyle.

Source: www.duplinhistory.org

Demographic Characteristics of Duplin County

Population

In the 2010 US Census the population of Duplin County was 58,505. This represents an increase of 19.2% since the 2000 US Census when the population was 49,063 and an increase of 10% since the last community health assessment (2008) when the population was 53,133. The 2011 estimate is 59,542, an additional 1.8% increase.⁷

Race and ethnicity

The majority of Duplin County residents are Caucasian and African American. In the 2010 census 57.2% of the population was white, 25.3% was African American, 1.2% was American Indian, Asian, Native Hawaiian, other Pacific Islander, 15.1% was some other race, and 1.6% two or more races.⁷ The Hispanic/Latino population has grown tremendously in the past two decades. In 1990, 2.45% of the total population was Hispanic compared to 15.14% of the total population in the year 2000, greater than fivefold growth from the 1990 population.⁸ In the 2010 Census, 20.6% of Duplin County residents were of Hispanic or Latino origin. The Latino population is a subset of the white, African American and other race totals as Hispanic/Latino origin is asked separately from race. It is likely that the percentages reported by the Census Bureau for the Latino population are underestimated due to immigration and mobility issues.

Age and gender

Over 50% of Duplin County residents are under the age of 40 years (52.9%), 25.3% under the age of 18 years and 14.3% are over the age of 65 years. The median age is 37.8 years. Females comprise 50.7% of the population.⁹ These distributions are similar to those reported in the 2008 community health assessment, with the current median age slightly higher (37.8 years versus 36 years). Below is the distribution of gender and race by age for 2010.

2010 Duplin County Population by Age, Race/Ethnicity and Sex

		RACE/ETHNICITY				SEX	
		WHITE NON- HISPANIC	AF. AM. NON- HISPANIC	OTHER NON- HISPANIC	HISPANIC	MALE	FEMALE
AGE (YEARS)	58,505	31,217	14,867	362	12,059	28,758	29,747
0-4	4,284	1,649	906	19	1,710	2,167	2,117
5-9	4,175	1,693	952	29	1,501	2,215	1,960
10-14	4,077	1,797	1,001	25	1,254	2,093	1,984
15-19	3,804	1,762	1,072	18	952	1,989	1,815
20-24	3,497	1,572	901	24	1,000	1,802	1,695
25-29	3,577	1,612	748	27	1,190	1,807	1,770
30-34	3,742	1,718	777	22	1,225	1,874	1,868
35-39	3,813	1,875	815	32	1,091	1,914	1,899
40-44	3,771	2,002	977	23	769	1,875	1,896
45-49	4,044	2,378	1,122	32	512	1,982	2,062
50-54	4,136	2,559	1,190	37	350	2,036	2,100
55-59	3,800	2,426	1,130	27	217	1,850	1,950
60-64	3,490	2,342	998	19	131	1,680	1,810
65-69	2,631	1,856	712	7	56	1,249	1,382
70-74	2,055	1,426	579	8	42	939	1,116
75-79	1,611	1,156	418	4	33	630	981
80-84	1,105	807	280	3	15	427	678
85+	893	587	289	6	11	229	664

Source : NC State Center for Health Statistics

Chapter 3: Health Data Collection Process

Primary and secondary data were collected and analyzed as part of the community assessment process. Over 353 Duplin County citizens were surveyed with their answers being an instrumental component of this report. The survey in English and Spanish included questions including basic demographics, health concerns, health topics, and personal health information (Appendices B and C). The composition of the respondents was as follows; 80.7% female, 19.3 % male, 83% Caucasian, 16% African American, 1% other. 9% reported they were of Hispanic/Latino origin. The Youth Risk Behavior Survey (YRBS) was administered to middle school students in spring, 2009.

Secondary, pre-existing data were collected and compiled using an array of data sources. The major sources of data used in the Community Assessment are:

- NC State Center for Health Statistics
- 2010 US Census
- East Carolina University Center for Health Systems Research and Development
- Centers for Disease Control and Prevention (CDC)
- The Department of Justice
- The Department of Public Instruction

Where applicable, Duplin County statistics were compared with NC statistics and with peer counties that were identified using the following criteria from the past five years:

- Percentage of population less than 18 years old
- Percentage of population over 64 years old
- Percentage of non-white population
- Percentage of families with children (<18 years old) living below poverty

Final peer counties were chosen from a group of counties with these characteristics and with similar total population. The peer counties for Duplin County are Bladen, Pasquotank, Sampson, and Wilson and the demographic characteristics are in the table below.

Demographic Characteristics of Duplin and Peer Counties

	Duplin	Bladen	Pasquotank	Sampson	Wilson
Population, 2011 estimate	59,542	34,928	40,696	63,734	81,452
Population, percent change, April 1, 2010 to July 1, 2011	1.80%	-0.70%	0.10%	0.50%	0.30%
Persons under 18 years, percent, 2011	25.30%	22.70%	22.20%	25.30%	24.40%
Persons 65 years and over, percent, 2011	14.30%	16.30%	14.10%	14.60%	14.60%
Black persons, percent, 2011	26.20%	35.40%	38.10%	27.70%	39.50%
Persons of Hispanic or Latino Origin, percent, 2011	21.00%	7.20%	4.10%	16.90%	9.70%
White persons not Hispanic, percent, 2011	52.40%	54.50%	55.00%	52.90%	49.30%
Foreign born persons, percent, 2006-2010	12.70%	4.20%	3.00%	9.50%	6.80%
Language other than English spoken at home, pct age 5+, 2006-2010	18.10%	5.90%	6.50%	14.60%	9.50%
High school graduates, percent of persons age 25+, 2006-2010	69.70%	74.00%	81.90%	75.20%	77.30%
Bachelor's degree or higher, pct of persons age 25+, 2006-2010	10.10%	9.80%	18.70%	12.40%	17.50%
Median household income 2006-2010	\$32,816	\$30,471	\$44,085	\$35,740	\$38,596
Persons below poverty level, percent, 2006-2010	23.70%	24.10%	18.10%	20.40%	21.00%

Source: US Census Bureau Quick Facts

Data Limitations

The majority of the health statistics in this report were obtained from the NC State Center of Health Statistics and the United States Census Bureau. There have been funding cuts at the state level since the 2008 CHA was completed. Many of the data sources and data referenced in that assessment are no longer available. In the cases that data are compared between Duplin County and the state of North Carolina the 2006 - 2010 years used were chosen because it is the only data from the County Health Data Book that is comparable in periods, age adjusted, and in consecutive years. Comparable morbidity data were found in the 2006 - 2010 periods and were therefore used.

The State Center for Health Statistics states the following about its data:

Rates presented here utilize the North Carolina State Demographer's Office population estimates. Population estimates are periodically modified based on the best available information. Therefore, rates presented in this report may vary over time as revised population estimates become available. Data may include revisions and, therefore, may differ from data previously published in this report and other publications.

Rates over time should be interpreted with caution due to small numbers. Noticeable spikes and dips over time may be due to small numbers of people with those diseases.

The Community Health Assessment Survey may have a response bias. Those who answered the survey may have different characteristics such as motivation, educational background, or concern for the community than those who did not respond. The data in this report should be viewed with the errors and limitations kept in mind.

Chapter 4: Community Health Status

Mortality

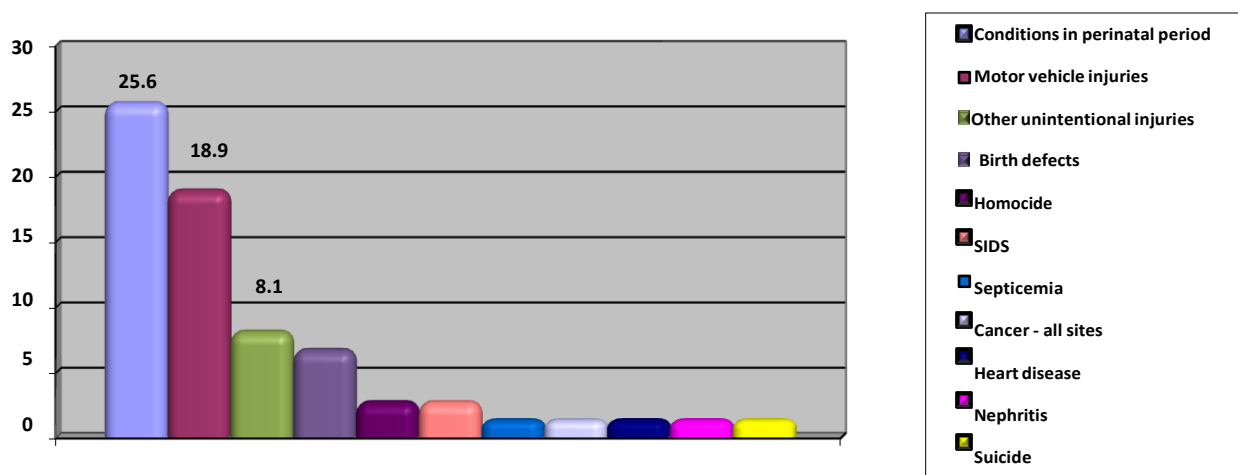
The most comprehensive source of data is from the NC State Center for Health Statistics.¹⁰ The 2006 – 2010 age-adjusted leading causes of death and death rates are shown in the table below. The number one cause of death for all ages combined continues to be heart disease, followed by cancer and cerebrovascular disease. The 10 leading causes of death remain similar to those from 2001 – 2005 with two exceptions: diabetes and motor vehicle injuries are reversed and pneumonia and influenza are replaced by septicemia as the 10th leading cause of death. As shown in the final column of the table below only cancer and septicemia has higher age adjusted death rates in 2006 – 2010 than in 2001 -2005.

Top Ten Leading Causes of Death in Duplin County 2006 - 2010 Compared to 2001 - 2005

		# of deaths	Death rate	Compared to 2001 – 2005
Rank	Cause of Death			
0	Total deaths – all causes	2508	901.6	↓ (1004.1)
1	Diseases of the heart	570	204.6	↓ (248.3)
2	Cancer - All Sites	522	181.4	↑ (216.2)
3	Cerebrovascular disease	160	58.4	↓ (88.0)
4	Chronic lower respiratory diseases	119	42.3	↓ (47.5)
5	Motor vehicle injuries	84	32.2	↓ (34.2)
6	Diabetes mellitus	87	29.8	↓ (33.4)
7	Other Unintentional injuries	72	26.0	↓ (30.3)
8	Nephritis, nephrotic syndrome, & nephrosis	64	22.7	↓ (29.0)
9	Alzheimer's disease	58	21.9	↓ (24.5)
10	Septicemia	51	18.3	↑ (16.4)

The figure and table below show the leading causes of death for children age birth to 19 years. The leading cause of death is conditions in the perinatal period. The second and third are motor vehicle injuries and other unintentional injuries. The number one cause of death has a lot to do with the health of the mother before and during pregnancy. Treatment of chronic health conditions such as obesity, diabetes and high blood pressure all impact the health of the baby. The accessibility and affordability of health care prior to and during pregnancy has a huge impact on infant mortality.

Leading Causes of Death for Children Age Birth to 19 Years (2006 – 2010)



Data source: NC State Center for Health Statistics

Looking more broadly at the birth to 39 year age group, and excluding perinatal conditions, the major cause of death is motor vehicle injuries. In the 40 to 64 year age group the leading cause of death is cancer and in those 65 years and older heart disease is the leading cause of death.

Duplin County 2006 - 2010 Ten Leading Causes of Death by Age Group, Unadjusted Rates per 100,000

			# OF DEATHS	DEATH RATE
AGE GROUP:	RANK	CAUSE OF DEATH:		
TOTAL - ALL AGES	0	TOTAL DEATHS --- ALL CAUSES	2,508	932.2
	1	Diseases of the heart	570	211.9
	2	Cancer - All Sites	522	194.0
	3	Cerebrovascular disease	160	59.5
	4	Chronic lower respiratory diseases	119	44.2
	5	Diabetes mellitus	87	32.3
	6	Motor vehicle injuries	84	31.2
	7	Other Unintentional injuries	72	26.8
	8	Nephritis, nephrotic syndrome, & nephrosis	64	23.8
	9	Alzheimer's disease	58	21.6
	10	Septicemia	51	19.0
00-19 YEARS	0	TOTAL DEATHS --- ALL CAUSES	75	97.8
	1	Conditions originating in the perinatal period	22	28.7
	2	Motor vehicle injuries	16	20.9
	3	Congenital anomalies (birth defects)	8	10.4
	4	Homicide	7	9.1
	5	Other Unintentional injuries	5	6.5
	6	SIDS	3	3.9
	7	Septicemia	1	1.3
		In-situ/benign neoplasms	1	1.3
		Diseases of the heart	1	1.3
		Chronic lower respiratory diseases	1	1.3
		Hernia	1	1.3
		Pregnancy, childbirth, and puerperium	1	1.3

			# OF DEATHS	DEATH RATE
20-39 YEARS	0	TOTAL DEATHS --- ALL CAUSES	107	152.1
	1	Motor vehicle injuries	24	34.1
	2	Suicide	14	19.9
	3	Cancer - All Sites	10	14.2
		Diseases of the heart	10	14.2
		Other Unintentional injuries	10	14.2
	6	Homicide	8	11.4
	7	Diabetes mellitus	2	2.8
		Cerebrovascular disease	2	2.8
		Pneumonia & influenza	2	2.8
		Congenital anomalies (birth defects)	2	2.8
40-64 YEARS	0	TOTAL DEATHS --- ALL CAUSES	552	640.5
	1	Cancer - All Sites	154	178.7
	2	Diseases of the heart	128	148.5
	3	Motor vehicle injuries	34	39.5
	4	Diabetes mellitus	26	30.2
	5	Cerebrovascular disease	25	29.0
	6	Other Unintentional injuries	19	22.0
	7	Nephritis, nephrotic syndrome, & nephrosis	16	18.6
		Suicide	16	18.6
	9	Chronic liver disease & cirrhosis	15	17.4
	10	Chronic lower respiratory diseases	14	16.2

			# OF DEATHS	DEATH RATE
65-84 YEARS	0	TOTAL DEATHS --- ALL CAUSES	1,155	3621.6
	1	Cancer - All Sites	295	925.0
	2	Diseases of the heart	264	827.8
	3	Chronic lower respiratory diseases	81	254.0
	4	Cerebrovascular disease	79	247.7
	5	Diabetes mellitus	45	141.1
	6	Nephritis, nephrotic syndrome, & nephrosis	32	100.3
	7	Septicemia	27	84.7
	8	Other Unintentional injuries	24	75.3
	9	Alzheimer's disease	22	69.0
	10	Hypertension	19	59.6
85+ YEARS	0	TOTAL DEATHS --- ALL CAUSES	619	15564.5
	1	Diseases of the heart	167	4199.1
	2	Cancer - All Sites	63	1584.1
	3	Cerebrovascular disease	54	1357.8
	4	Alzheimer's disease	35	880.1
	5	Chronic lower respiratory diseases	22	553.2
	6	Nephritis, nephrotic syndrome, & nephrosis	16	402.3
	7	Pneumonia & influenza	15	377.2
	8	Septicemia	14	352.0
		Diabetes mellitus	14	352.0
		Other Unintentional injuries	14	352.0

Data source: NC State Center for Health Statistics

The distribution of the three leading causes of death is similar across race and gender groups, as shown in the table below. For African American females, cancer is the leading cause of death. The only marked difference is that chronic lower respiratory disease is one of the top three leading causes of death only for white males.¹¹

Top Three Leading Causes of Death by Race and Gender, 2006 – 2010 (rate per 100,000)

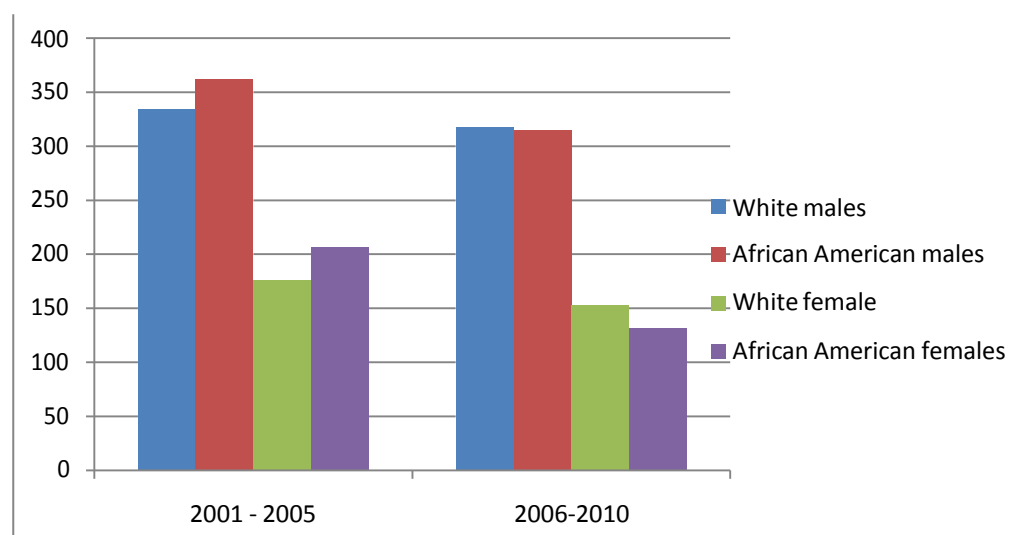
	White male	AA male	White female	AA female
1	Heart disease 317.9	Heart disease 315.1	Heart disease 152.9	Cancer 155.1
2	Cancer 233.4	Cancer 298.3	Cancer 151.1	Heart disease 132.1
3	Chronic lower respiratory disease 92.6	Cerebrovascular disease 79.8	Cerebrovascular disease 58.5	Cerebrovascular disease 61.1

Heart Disease

Heart disease is the leading age-adjusted cause of death in Duplin County. In the 2006 – 2010 data, Duplin County was above the state average in heart disease deaths. There were 570 deaths attributable to heart disease with a death rate of 204.6 per 100,000 compared to the North Carolina rate of 184.9 per 100,000.¹² The rate for Duplin's peer county group over this time period was 214.6 per 100,000.

As in the last community health assessment, the age-adjusted death rate for males (298.3) is significantly higher than for females (141.2) and overall, the mortality rate for Whites (218.5) is higher than the rate for African Americans (204.6).¹³ The pattern of heart disease mortality by race and gender has changed in Duplin County since the 2001 – 2005 data. In 2006 – 2010, as shown below, White males had a slightly higher death rate than African American males and White females had a higher mortality rate than African American females, whereas in 2001 – 2005 minority males had higher rates than white males and minority females had higher rates than white females.

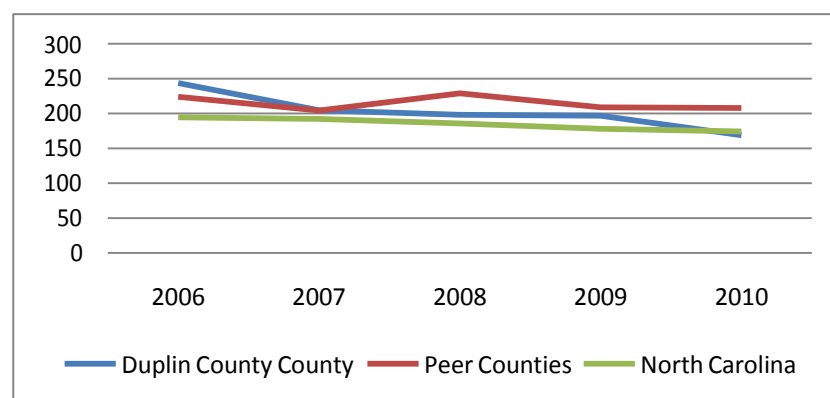
Heart Disease Death Rate by Race for 2001 – 2005 Compared to 2006 - 2010



Source: NC State Center for Health Statistics

The death rate for both Duplin County and NC declined from 2006 – 2010, as shown in the chart below.

Heart Disease Death Rate (per 100,000) 2006 – 2010; Duplin County Compared to Peer Counties and North Carolina



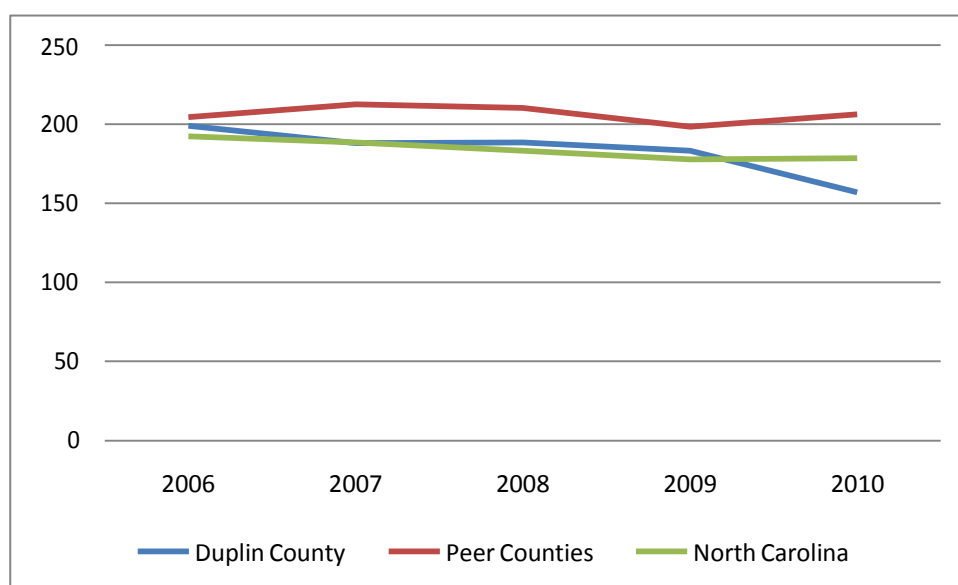
Source: <http://www.ecu.edu/cs-dhs/chsrd/InstantAtlas/NC-Health-Data-Explorer.cfm>

Cancer

Cancer is the second leading cause of death in Duplin County, just behind heart disease (181.4 deaths per 100,000 during the period from 2006 – 2010). This rate is slightly lower than the state rate, which is 183.1 and well below the peer county rate of 206.3.¹⁴ While the mortality rate decreased from 2001 - 2005 when it was 216.2 deaths per 100,000 population, cancer still remains the second leading cause of death in Duplin County.¹⁵

As shown in the graph below, death rates from all cancers decreased from 2006 – 2010.

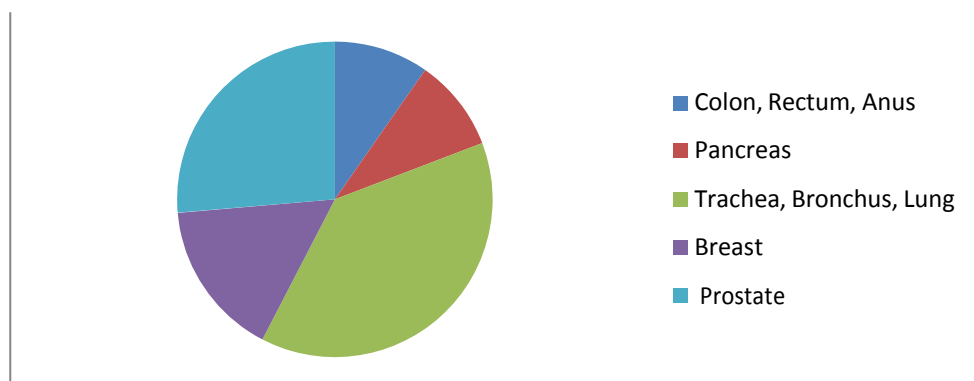
Cancer Death Rate (per 100,000) 2006 – 2010; Duplin County Compared to Peer Counties and North Carolina



Source: <http://www.ecu.edu/cs-dhs/chsrd/InstantAtlas/NC-Health-Data-Explorer.cfm>

The following figure shows the distribution of mortality rates by types of cancer for 2006 - 2010. The highest rate is for trachea, bronchus or lung cancer, followed by prostate cancer (25.5). This is the same pattern found for the state as a whole.

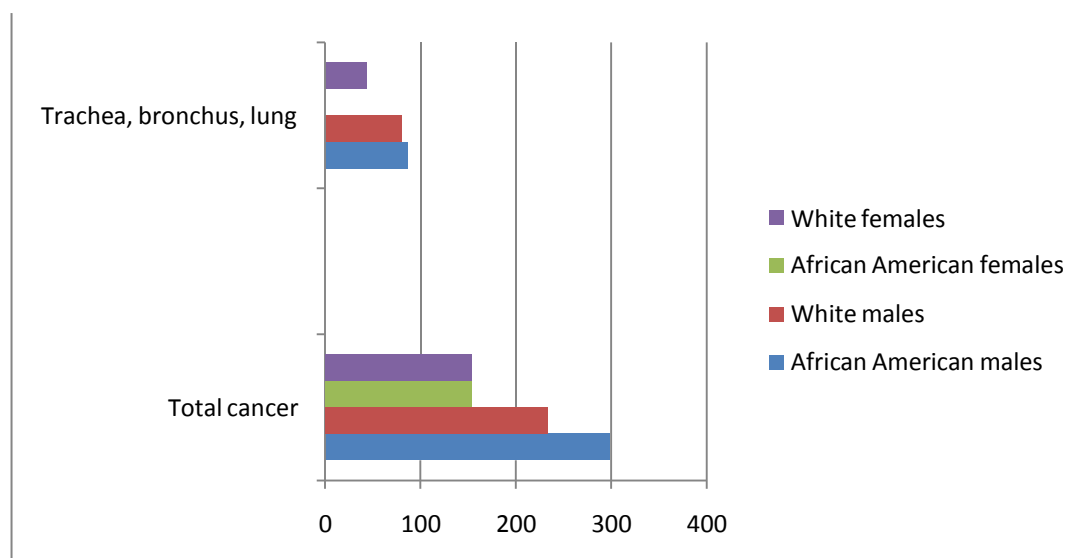
Cancer Mortality Rate (per 100,000) by Type of Cancer



Source: NC State Center for Health Statistics

Looking at age-adjusted death rates by race and gender, the chart below shows the highest rate among African American males (298.3) followed by white males (233.4). Rates are only slightly different for African American (155.1) and white (151.1) women. Due to small numbers, rates for specific types of cancers are only available for cancer of the trachea, bronchus or lung. Here again, rates are higher for African American men (86.3) than for white men (80.3). Rates are not available for African American women.¹⁶

Cancer Mortality Rate by Race, 2006 - 2010



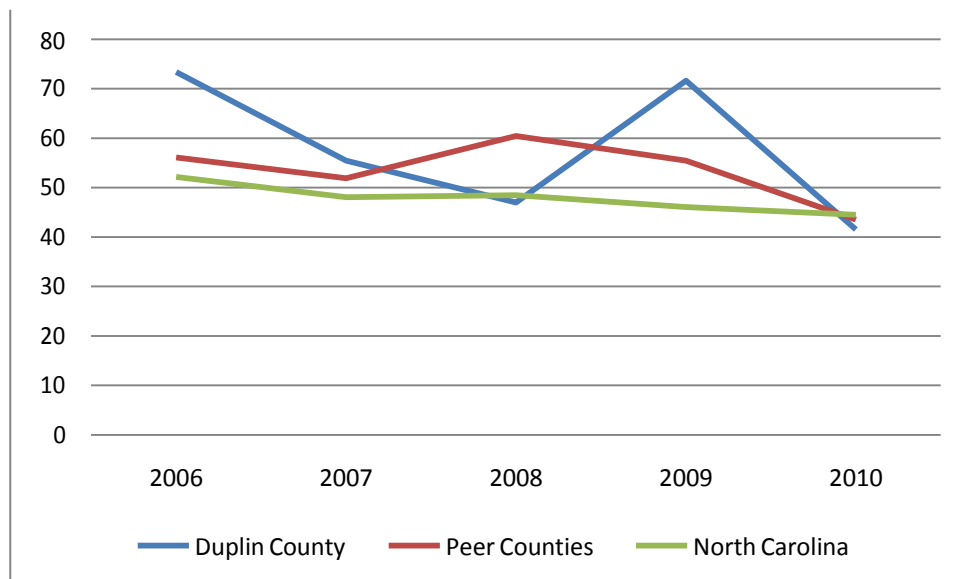
Cerebrovascular Disease

During the 2006 – 2010 period age-adjusted mortality rate for cerebrovascular disease was higher in Duplin County (58.4 per 100,000) than in the state of NC (47.8 per 100,000) as well as in peer counties (53.5 per 100,000).¹⁷ The death rate for this period has decreased in Duplin County from 88.0 in the 2001 – 2005 period.¹⁸

In 2006 – 2010, the rate per 100,000 is higher among African American (66.2) than White (58.5) residents, and higher among men (60.4) than women (56.8). These same patterns were present during the 2001 – 2005 and 2004 – 2008 periods.¹⁹

The graph below shows the general decline in death rates for cerebrovascular disease for Duplin County, peer counties and NC from 2006-2010.

Cerebrovascular Disease Death Rate (per 100,000) 2006 – 2010; Duplin County Compared to Peer Counties and North Carolina

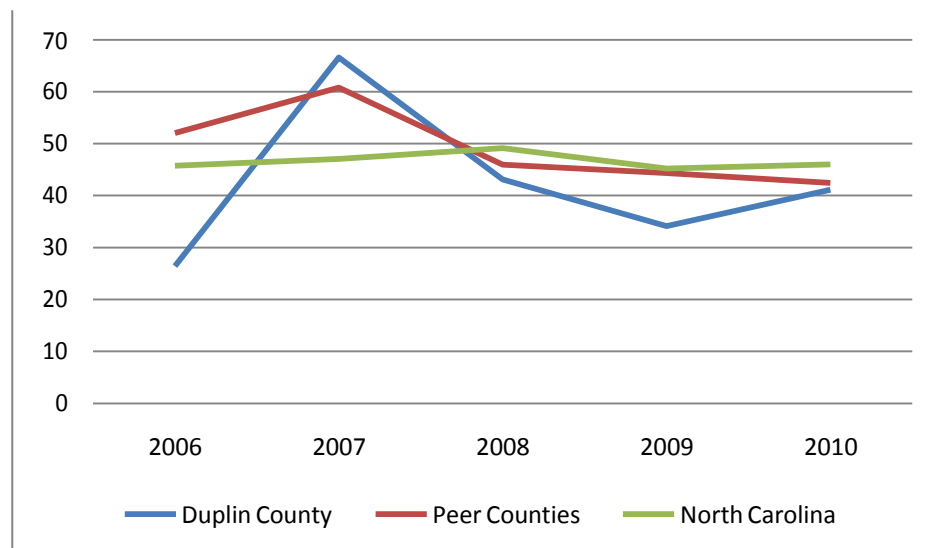


Source: <http://www.ecu.edu/cs-dhs/chsrd/InstantAtlas/NC-Health-Data-Explorer.cfm>

Chronic lower respiratory disease

Many risk factors for chronic respiratory diseases have been identified and can be prevented. The most important modifiable risk factors are tobacco use, second hand smoke exposure, other indoor/outdoor air pollutants, allergens, occupational exposure. People with chronic diseases such as heart disease, diabetes are also at risk as they may have high blood pressure, and be overweight. In the table below, the age-adjusted death rates for chronic lower respiratory disease spiked in 2007 but rates fell again through 2009. There was an increase in 2010. The graph below shows rates from the last 5 years in Duplin County compared to peer counties and NC.

Chronic Lower Respiratory Disease Death Rate (per 100,000) 2006 – 2010; Duplin County Compared to Peer Counties and North Carolina



Source: <http://www.ecu.edu/cs-dhs/chsrd/InstantAtlas/NC-Health-Data-Explorer.cfm>

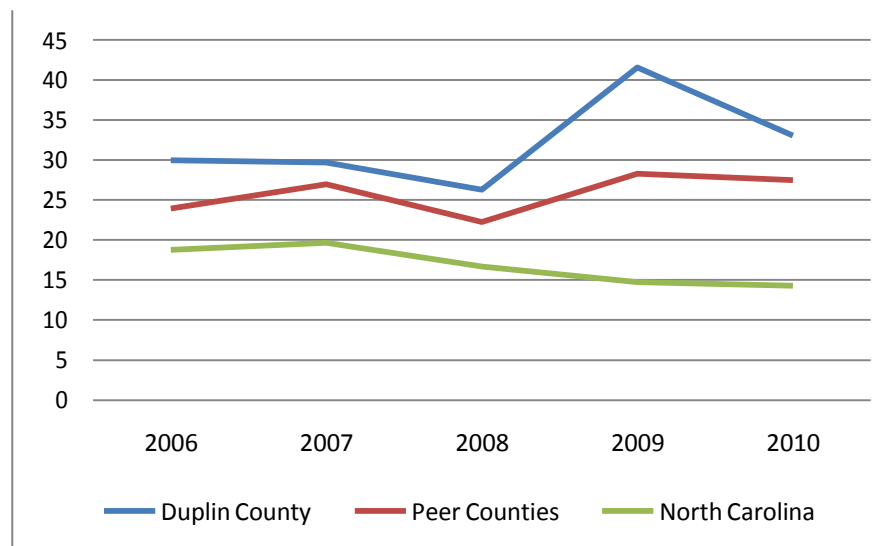
In 2006 – 2010 the age-adjusted death rate per 100,000 populations for chronic lower respiratory disease in NC was 46.4, while in Duplin County it was 42.3. The peer county rate was 49.1. The rates are considerably higher for men (69.5) than for women (28.0). There are not sufficient numbers to compare by race.²⁰ On January 1, 2006 the DCS and DCHD went completely tobacco free. The hospital became smoke free in 2007. The NC smoke free restaurant law went into effect in 2010. By law the public may make reports of violations of this law to local Environmental Health. Duplin County has received no reports of any violations in the county since the enactment of the law.

Unintentional motor vehicle injuries

Unintentional motor vehicle deaths includes traffic and non-traffic accidents; on-or-off road involving motorcycles; cars; trucks; buses; ATVs; industrial; agricultural and construction vehicles and bikes and pedestrians when colliding with any of the vehicles mentioned.

Individuals at highest risk of death from motor vehicle accidents usually are: teens and older adults; involving excessive speeds; not wearing seat belts; and are accidents with inexperienced drivers or impaired drivers. The age-adjusted death rates per 100,000 population attributed to unintentional motor vehicle injuries has fluctuated over the past 5 years but in most years were higher than the rates in peer counties and in NC.

Unintentional Motor Vehicle Injury Death Rate (per 100,000) 2006 – 2010; Duplin County Compared to Peer Counties and North Carolina



Source: <http://www.ecu.edu/cs-dhs/chsrd/InstantAtlas/NC-Health-Data-Explorer.cfm>

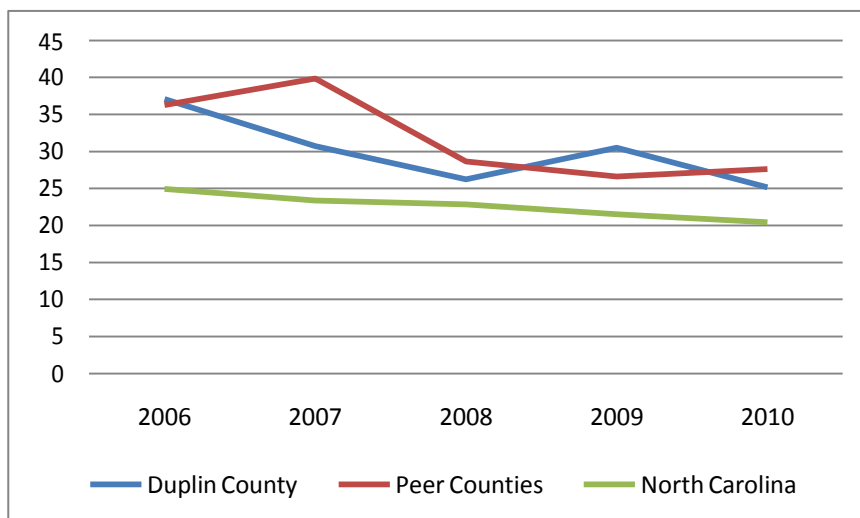
In the 2006 – 2010 data the rate in Duplin County was 32.2 per 100,000 while in North Carolina it was 16.7 and among the peer counties it was 25.8. The rate for Duplin County is slightly less than the rate for 2001 – 2005 (33.4). The 2006 – 2010 rate for males (44.6) is more than double the rate for females (18.9) and is higher for African Americans (37.1) than for Whites (30.9).²¹

Diabetes

Diabetes Mellitus is a major contributor to the development of heart disease, cerebrovascular disease and kidney disease and was the 6th leading cause of death in Duplin County during the 2006 – 2010 period. The overall death rate for diabetes was 29.8 per 100,000, about 32% greater than the death rate for North Carolina, which was 22.5 per 100,000 population.²² There was a decline from 2001 - 2005 when the diabetes death rate in Duplin County was 34.2.²³

The chart below shows the change in death rate from 2006 – 2010 compared to those of the 4 county peer group and the overall NC rate. Both Duplin County and its peer counties have a higher diabetes death rate than NC.

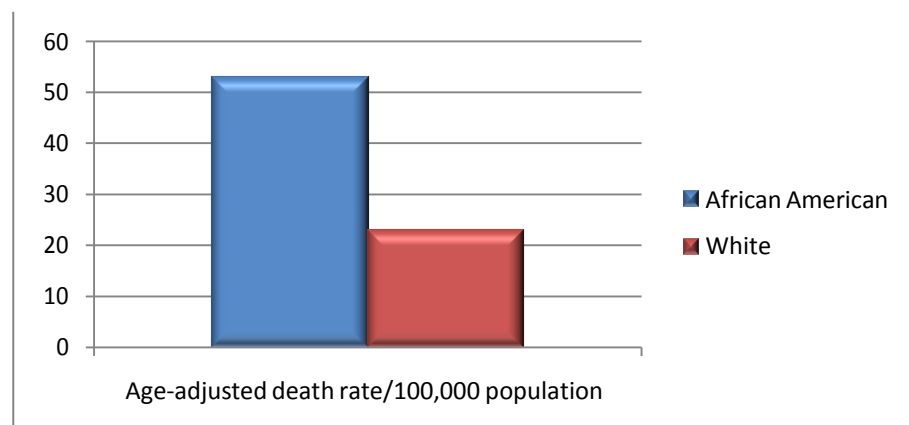
Diabetes Death Rate (per 100,000) 2006 – 2010; Duplin County Compared to Peer Counties and North Carolina



Source: <http://www.ecu.edu/cs-dhs/chsrd/InstantAtlas/NC-Health-Data-Explorer.cfm>

As seen in the chart below there is a clear disparity by race, with the death rate for African Americans (52.8) more than double that for Whites (22.9).²⁴

Diabetes Age-adjusted Death Rate by Race

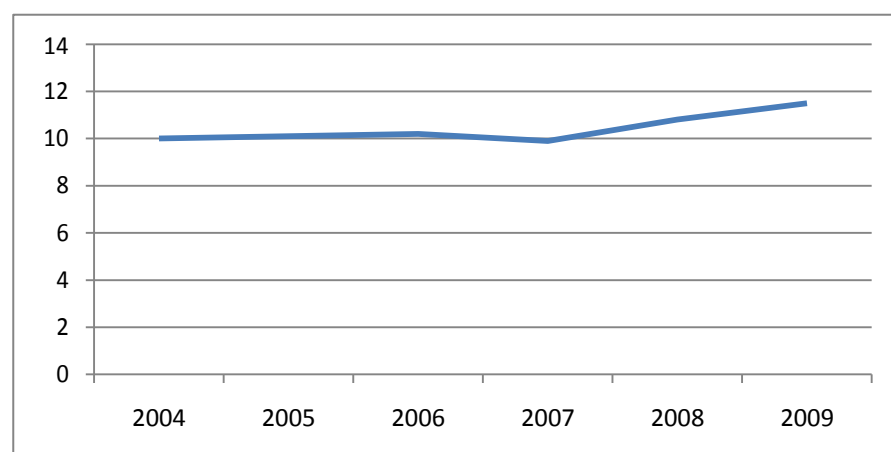


Source: NC State Center for Health Statistics

Aggregate data from the Behavioral Risk Factor Surveillance System (BRFSS) for 2006 – 2010 indicates that 14.26% of respondents reported that a doctor had told them they have diabetes. This rate is higher than all neighboring counties except Jones County: Onslow (8.29%), Sampson (10.35%), Wayne (10.66%), Pender (10.82%), Lenoir (14.11%), Jones (15.26%).⁴⁵

The following graph shows age-adjusted diabetes prevalence for the years 2004 – 2009 for those age 20 years and older. To improve the precision of the estimates, each year is based on three years of data. For example, the 2004 estimate is based on 2003, 2004, and 2005. The data are derived from the BRFSS and U.S. Census Bureau's Population Estimates Program. In 2009, the age-adjusted prevalence of diabetes for men was 11.4% and for women 11.7%.

Age-adjusted Diabetes Prevalence, 2004 - 2009

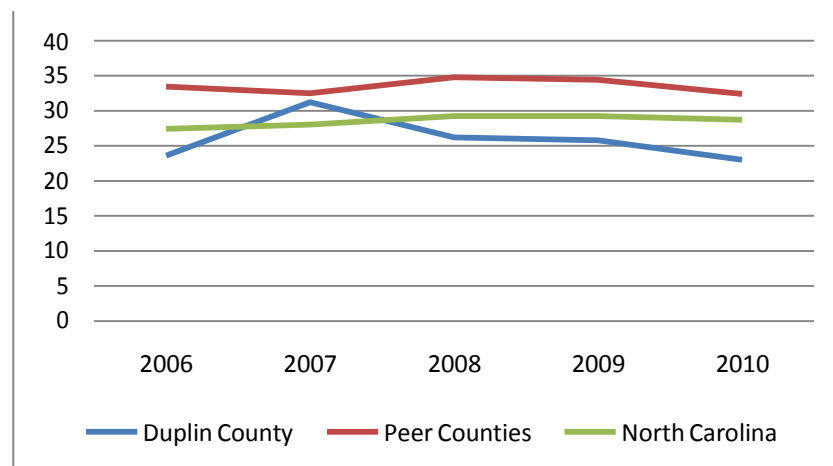


Source: <http://www.cdc.gov/diabetes/atlas/countydata/atlas.html>

Other unintentional injuries

Unintentional injuries were the seventh leading cause of death in Duplin County for 2006 – 2010 with an age-adjusted death rate of 26 per 100,000 population.²⁶ This rate has decreased from 2001 – 2005 when it was 30.3.²⁷ These injuries include unintentional poisoning with prescription and over-the-counter drugs and falls. As with unintentional motor vehicle injuries the rate is higher for males (36.3) than for females (18.0).²⁸ The graph below shows the Duplin County rates compared to the peer counties as well as the overall North Carolina rates. Duplin County's rates have declined slightly while those of the peer counties and the state have remained fairly stable.

Death Rate (per 100,000) for Other Unintentional Injuries, 2006 – 2010; Duplin County Compared to Peer Counties and North Carolina



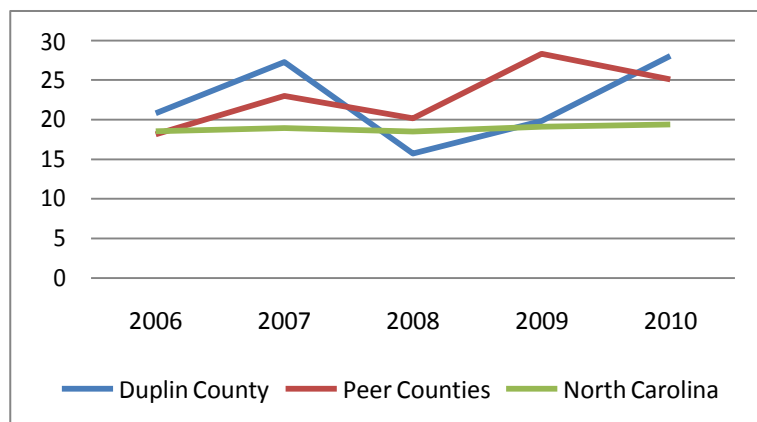
Source: <http://www.ecu.edu/cs-dhs/chsrd/InstantAtlas/NC-Health-Data-Explorer.cfm>

Nephritis, nephrotic syndrome and nephrosis

Kidney-related diseases are the 8th leading cause of death for 2006 – 2010 in Duplin County (22.7 per 100,000 population). In this time period, the age-adjusted death rate is higher for African Americans (38.4) than for Whites (17.4). The rates are lower for women (19.1) than for men (28.8). In NC the 2006 – 2010 rate is 18.9 and 22.9 for the peer counties.²⁹

Kidney disease was also the 8th leading cause of death for 2001 – 2005 when the rate was 29.0 per 100,000 population.³⁰ The change in rates over the past 5 years for Duplin County, the peer county group and North Carolina are shown in the graph below. In 2006 and again in 2010 the rate was higher in Duplin County than in peer counties or the state.

Death Rate (per 100,000) for Nephritis, Nephrotic Syndrome, and Nephrosis, 2006 – 2010; Duplin County Compared to Peer Counties and North Carolina

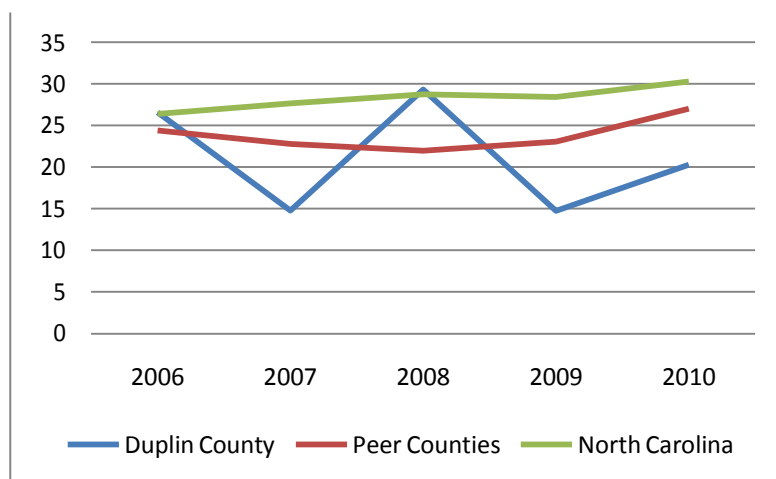


Source: <http://www.ecu.edu/cs-dhs/chsrd/InstantAtlas/NC-Health-Data-Explorer.cfm>

Alzheimer's Disease

In both 2001 – 2005 and 2006 – 2010 Alzheimer's Disease was the ninth leading cause of death in Duplin County. The age-adjusted rates in those periods were 24.5 and 21.9, respectively.³¹ The numbers of deaths by race and gender during those periods were too small to estimate rates per 100,000 population. The graph below shows the change in death rates from 2006 – 2010

Alzheimer's Disease Death Rate (per 100,000), 2006 – 2010; Duplin County Compared to Peer Counties and North Carolina



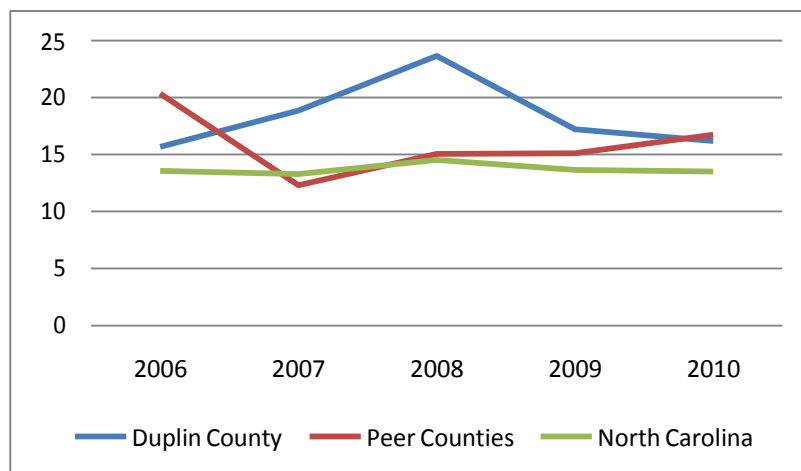
Source: <http://www.ecu.edu/cs-dhs/chsrd/InstantAtlas/NC-Health-Data-Explorer.cfm>

Septicemia

Septicemia was not one of the ten leading causes of death for the 2001 – 2005 period, but for 2006 – 2010 it was the 10th leading cause with a rate of 18.3 per 100,000 population. The number of deaths during these periods is too small to compare rates by race and gender.³²

Overall, the septicemia rate increased some in Duplin County from 2006 - 2010 as shown in the graph below, and remains higher than the rate in N

Septicemia Death Rate (per 100,000), 2006 – 2010; Duplin County Compared to Peer Counties and North Carolina



Source: <http://www.ecu.edu/cs-dhs/chsrd/InstantAtlas/NC-Health-Data-Explorer.cfm>

Morbidity/Diseases

Maternal Health

The 2012 County Health Data Books from the State Center for Health Statistics include summary data related to pregnancy and live births and infant mortality for 2006 - 2010.³³ During 2006 - 2010 there were 4,090 live births in the county and 40% of the births were to Latino women. In 2011 there were 803 live births: 35% were to Latino women, 40% white and 24% black.³³ One of the most important factors for positive birth outcomes is the health of the mother prior to pregnancy. Women with chronic health conditions such as diabetes and

hypertension, those who are overweight, have had a previous preterm delivery, and teens are a higher risk for poor birth outcomes.

Maternal Risk Factors

A review of the 2011 NC SCHS county data on maternal risk factors and birth weight is indicated in the following table. Looking at the table below, out of the 803 live births, 226 had known maternal health risk factors. This translates into 28% of births that were impacted by the health of the mother. These risk factors are largely preventable and manageable with early intervention and medical care.

Maternal Risk Factors and Birth Weight 2011

Risk Factors for All women	Birth weight <1500 gm	Birth Weight 1500-2499	Birth Weight >or equal 2500	Total
None	6	23	548	577
Prepregnancy Diabetes	0	1	5	6
Gestational Diabetes	2	2	55	59
Prepregnancy Hypertension	2	6	16	24
Gestation Hypertension/ Eclampsia	4	9	52	65
Previous Preterm	0	2	14	16
Other poor pregnancy outcomes	1	1	8	10
Previous C-section	0	6	79	85
Totals	14	44	745	803

Source: NC State Center for Health Statistics

Teen pregnancy

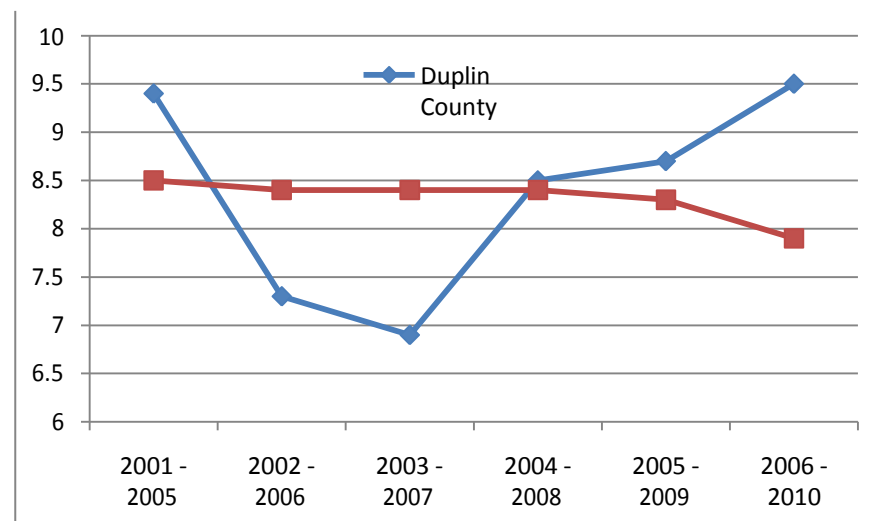
The pregnancy rate for girls 15 – 17 years of age in Duplin County (41.9 per 1,000 girls) was higher than the rate for North Carolina (31.7 per 1,000 girls). In Duplin County the highest pregnancy rate for 15 – 17 year old girls is among Hispanic girls (84.4) followed by African

American girls (40.4) and White girls (23.5). The pregnancy rate is lower than it was during 2001 – 2005 when the rate was 46.7.³⁴

Infant mortality

Infant mortality is the death rate during the first year of life. In Duplin County the infant death rate was 9.5 per 1,000 live births and in North Carolina 7.9 during 2006 – 2010.³⁵ This represents a very slight increase from 2001 – 2005 when the rate was 9.4 in Duplin County.³⁶ The following graph shows that during the period from 2001 – 2010 the infant mortality rate for Duplin County declined for several periods then rose again beginning with the 2004 - 2008 period while for NC the rate has declined from that same period.

Infant Mortality Rates per 1,000 Live Births over Six Time Periods



Source: NC State Center for Health Statistics; County Health Databook

The infant mortality rate in Duplin County is higher among African American (19.1) than among White (7.9) or Hispanic (6.1) infants.³⁷ Comparisons with earlier reporting periods are difficult as the classification changed from white and minority to white, African-American, other, and Hispanic.

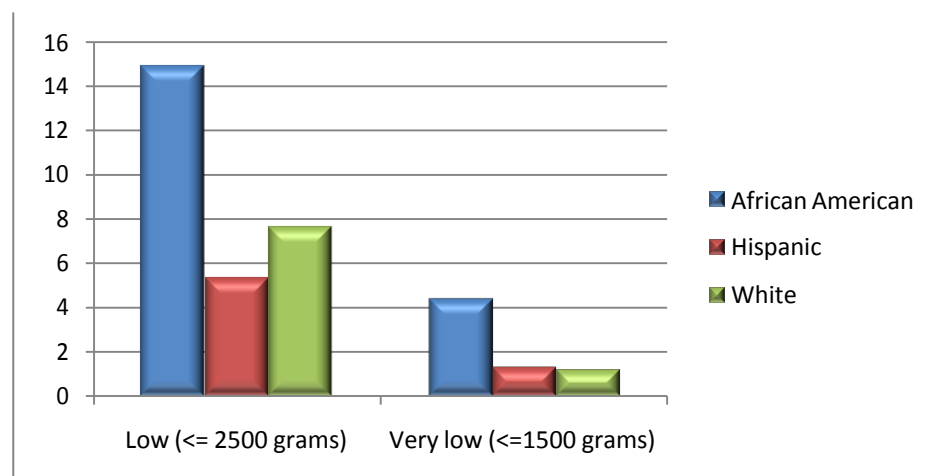
Low birth weight

In 2006 – 2010 9.1% of births in North Carolina were considered low birth weight (<2500 grams) and 1.8% were considered very low birth weight (<1500) grams. In Duplin County these

percentages were 8.2% and 2.0%, respectively.³⁸ For low birth weight this percentage represents a decrease from 2001 – 2005 (9.5%), for very low birth rate the percentage is the same.³⁹

Consistently there is a disparity between the percentage of babies of low birth weight born to white and minority women. The chart below shows the racial disparity for low birth weight births for the 2006 – 2010 period.

Percent of low and very low birth weights by race in Duplin County, 2006 - 2010



Source: NC State Center for Health Statistics; County Health Databook

Other risk factors

- In 2005 – 2009 8.8% of births were to mothers who smoked during pregnancy representing a decline from 2001 – 2005 (10.8%). This percentage is also lower than that for NC as a whole: 2005 – 2009 (11.0%) and 2001 – 2005 (12.9%)³⁹
- 13.6% of live births (excluding first pregnancies) were classified as short interval, which is defined as six months or less between last delivery and conception; the percentage for NC was 13.0%. These percentages have increased from 2001 – 2005 for both Duplin County (12.2%) and NC (12.2%)⁴⁰
- 29% of births in Duplin County were delivered by Cesarean Section in 2006 – 2010; 31.2% in NC.⁴¹
- Out of wedlock births increased from 48.6% for 2001 – 2005 to 53.6 for 2006 – 2010. For the state out of wedlock birth rate also increased during the same time frame, from 35.9 for 2001 – 2005 to 41.5 for 2006 – 2010. The rate for Duplin County remains higher than the state rates.⁴²

- Health care access before and during pregnancy can help identify and manage conditions that contribute to premature birth. The following table shows the percent of women overall and Black women in Duplin County and NC who received prenatal care in the 1st trimester.

Percent of Women Receiving Prenatal Care in First Trimester

2005 - 2009	Duplin	NC
Percent of women receiving prenatal care in 1 st trimester	77.2%	82.1%
Percent of Black women receiving prenatal care 1 st trimester	76.2%	75.2%

Source: NC State Center for Health Statistics

Several studies have shown that women who take a daily multivitamin with 400 micrograms of folic acid before and during pregnancy decrease the risk that their baby will be born with a neural tube defect by up to 70 percent. Consuming folic acid may also prevent other birth defects, such as cleft lip/cleft palate and some congenital heart defects. Mentioned in the 2008 CHA, Duplin County Health Department continues to distribute free multivitamins that contain folic acid to women of child bearing age in an effort to prevent premature births. This practice has been supported for the past several years through funding from the March of Dimes and is managed by the North Carolina Preconception Health Campaign.

In 2009 DCHD received a Healthy Beginnings grant from Women's and Children's Health Branch to address the high infant mortality rate in the county. The program provides a case manager, a nurse, to work with high risk minority women. The advisory board for Healthy Beginnings, works with churches, community agencies, service groups, day care and county agencies to promote safe sleep messages and risk reduction education to at risk communities and the public. The case manager works closely with county resources such as the Duplin Partnership for Children's, Parent's as Teachers program and the domestic violence center. The program has strong community support and positive outcomes. The Health Department will be re-applying for these state funds in 2013.

Child Health

From 2006 - 2010 60 children under the age of 18 years died. As shown in the table

below over 1/3 of these deaths was due to perinatal conditions. These were followed by motor vehicle deaths, birth defects and illness. There were four deaths attributed to homicide. Over half of these deaths were among children under the age of 1 year. In 2011 8 children died; 3 due to perinatal conditions, 1 illness, 2 motor vehicle, 1 drowning, and 1 poisoning.

Number of infant and child deaths, 2006 – 2010

	Total	Birth defects	Perinatal condition	SIDS	Illness	Motor vehicle	Bicycle	Fire Flame	Drowning	Falls	Poison	Other Injury	Homicide	Suicide	All other
2006-2010	60	8	22	3	7	9	0	0	1	1	0	2	4	0	3
2010	15	3	4	1	1	2	0	0	1	1	0	2	0	0	0

Source: NC State Center for Health Statistics; Child Deaths in NC

Age at time of death for infants and children, 2006 - 2010

	Under 1 year	1 – 4 years	5 – 9 years	10 – 14 years	15 – 17 years
2006-2010	39	3	4	5	9
2010	10	1	2	1	1

Source: NC State Center for Health Statistics; Child Deaths in NC

Elevated blood lead levels

Elevated blood lead levels are determined by the presence of two consecutive blood lead test results of greater than 10 micrograms per deciliter within a six-month period. As shown in the table below there was an increase in the percentage of children age 1 and 2 years who were screened for elevated blood lead levels and a decrease in the percentage of children ages 1 and 2 years who had elevated blood lead levels from 2006 – 2010.

Percent of children age 1 and 2 Years Screened for Elevated Blood Lead Levels and the Percent with Elevated Blood Lead Levels

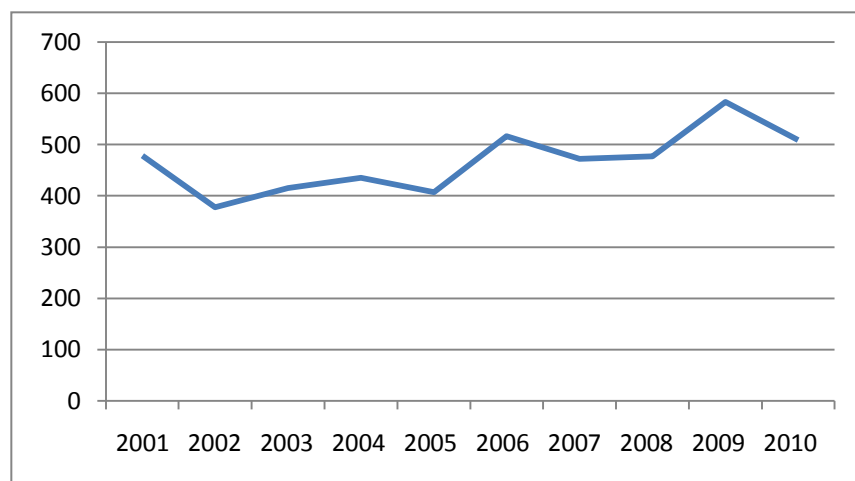
	2006	2007	2008	2009	2010
Percent screened	52.7%	53.4%	65.2%	67.3%	67.1%
Percent with elevated blood lead levels	1.5%	1.0%	0.5%	0.6%	0.1%

Source: North Carolina Department of Health and Human Services, Children's Environmental Health Branch, Lead Poisoning Prevention Program, Surveillance Data Tables

Child abuse and neglect

The chart below shows the number of children reported for abuse and neglect from fiscal year 2001 – 2002 to 2010 – 2011. Rates are not available so these numbers do not take into consideration the number of children in the population during each year. The general trend has been an increase in reported cases. In all but one of these periods over 50% of the reports are for children from 0 – 5 years of age. The reported cases in fiscal year 2010 – 2011 were approximately equal numbers of boys and girls, and 65.62% were white and 32.42% African American.⁴³

Number of Children Reported for Abuse and Neglect



Risk Behaviors among middle school youth

The middle school version of the Youth Risk Behavior Survey, developed by the Centers for Disease Control and Prevention, was completed by 1,544 middle school students in Duplin

County Schools in 2009. This survey contains questions about personal safety and violence, bullying, suicide, tobacco and other substance use, weight perception, physical activity and nutrition. A script was provided to classroom teachers with the same instructions across all grades and classrooms. Passive consent was obtained from parents. The survey administration was coordinated by the Research Division at East Carolina University and approved by their Institutional Review Board.

Demographic Characteristics of Students

Demographic	%
Female	50.7
Grade	
6 th	36.8
7 th	32.4
8 th	30.2
Race	
African American	31.2
White	43.8
Other or more than one race	25.1
Hispanic origin	31.9

Substance use

Cigarette smoking

- 10.2% smoked at least one cigarette in the past 30 days
 - 5.1% smoked 1 - 2 days
 - 2.0% smoked 3 – 5 days
 - 3.1% smoke 6 or more days
- Of those who have ever smoked a cigarette
 - Almost half first tried before middle school
 - Over half get cigarettes from friends, brothers or sisters; 23% get from their parents, without their permission; 9% get from their parents, with permission.

Most students (87.5%) feel that it is wrong or very wrong for someone their age to smoke and 94.3% believe that their parents think it is wrong or very wrong for them to smoke. Over 80% believe that smoking presents a moderate or great risk to people.

Alcohol use

Just over 36% (537) of students said they had ever had a drink of alcohol. Of those, 42% were 10 or younger when they first had a drink of alcohol. 16.6% had had at least one drink in the past 30 days, and over 10% of boys and girls reported binge drinking in the past 30 days (5 or more drinks in a row for boys, 4 or more in a row for girls.) 27% of students said they get alcohol at home with their parents' permission and 21% said they get alcohol from their friends or siblings.

Just over 80% of students believe that it is wrong or very wrong for someone their age to drink alcohol and 89.6% believe that their parents think it is wrong or very wrong for them to drink alcohol. 75.3% believe that drinking alcohol is a moderate or great risk to people. It is interesting to note that more students perceive cigarettes to be a moderate or great risk than alcohol, and more believe that that their parents think it is wrong for them to smoke than to drink alcohol.

Marijuana use

In the past 30 days, 6.8% of students reported they had used marijuana; 6% had smoke marijuana on school property. Most students who smoke marijuana get it from friends or siblings most of the time, but 59 students reported they get marijuana at home, either with (36) or without (23) parental permission. Almost 92% think it is wrong for someone their age to smoke marijuana and over 95% believe their parents think it is wrong for them to smoke marijuana. Most students think marijuana is a risk to people (78.5% moderate or great risk) especially if used regularly (82.5% moderate or great risk).

Other substances

Cocaine	4.8
Inhalants	14.1
Steroid pills or shots without prescription	3.2
Prescriptions drugs without prescription	5.1

Overweight, nutrition and physical activity

Students were asked how serious of a problem they believe being overweight was among youth. 75.3% reported that it is a serious or very serious problem. 25.8% described their

own weight as slightly or very overweight, and 50.4% said they are trying to lose weight. Most students said they were exercising (72.3%) or eating less food (49.4%) to lose weight, smaller numbers reported fasting (20.8%), taking diet pills (6.8%) or vomiting/using laxatives (9.6%) to lose weight.

Students were asked about consumption of fruits, vegetables and sugar sweetened beverages. Almost half of students reported drinking 3 or more sugar sweetened beverages in a typical day.

	3 or more times per day
Fruit	42.8%
Vegetables	32.7%
Sugar sweetened beverages	46.7%
Milk	17.7%

Almost half of students reported buying from a vending machine at school at least once a day. Fewer than half of students reported eating breakfast seven days per week (39.2%) or eating dinner prepared at home seven days per week (43.2%).

When asked on how many days they were physically active, 31% said they were active 7 days per week; 8.3% said they were active zero days per week. 43.3% watched 3 or more hours of TV and 21.3% played video or computer games for 3 or more hours on school days; 48.2% watched 3 or more hours of TV on weekends.

Violence, bullying, depression, and suicide

Students were asked a series of questions related to violence, bullying, depression and suicide. Most students agreed or strongly agreed (79.9%) that they feel good about themselves; 21.2% said they feel alone in their lives.

<i>Violence/injury</i>	%
Threatened or injured with weapon on school property (past 12 months)	5.2
Been in a physical fight	56.8
Hurt in fight and had to be treated	7.0
Not go to school because felt unsafe (past 30 days)	4.5
Property stolen or damaged at school (past 12 months)	26.3
<i>Bullying</i>	%
Bullied on school property	41.2
Electronically bullied	15.9
Seen someone bullied	70.9
<i>Depression and suicide</i>	%
Felt sad or hopeless (past 12 months)	24.3
Seriously thought about suicide	20.1
Made a suicide plan	14.4

Safety

The majority of students (70.3%) report that they wear a seatbelt most of the time or always but only 7.5% of those who ride a bicycle report wearing a helmet most or all of the time. Over a quarter (27.8%) said they are ridden in a car with a driver who had been drinking.

Health care

Almost half of students (46.5%) said they had been to a doctor for a check-up when not sick in the past 12 months and 52.7% had been to the dentist in the past 12 months.

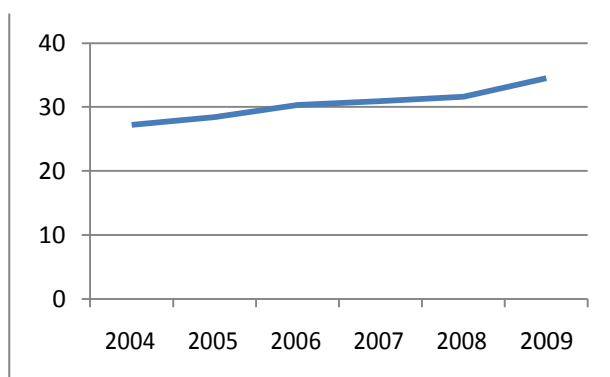
Obesity

The relationship between overweight or obese and health is well established. In North Carolina 25% of adults are obese and in Duplin County 35% of adults are obese.⁴⁴ Obesity-related conditions include heart disease, stroke, type 2 diabetes and certain types of cancer, some of the leading causes of preventable death. Obese children are more likely to become obese adults. For children who are overweight, obesity in adulthood is likely to be more severe.

The age-adjusted obesity prevalence for the years 2004 – 2009 for adults 20 years of age and older is in the graph below. To improve the precision of the estimates, each year is based

on three years of data. For example, the 2004 estimate is based on 2003, 2004, and 2005. The data are derived from the BRFSS and U.S. Census Bureau's Population Estimates Program and calculated from self-reported height and weight. For 2009 the age-adjusted prevalence of obesity was 33.1% for men and 35.7% for women.

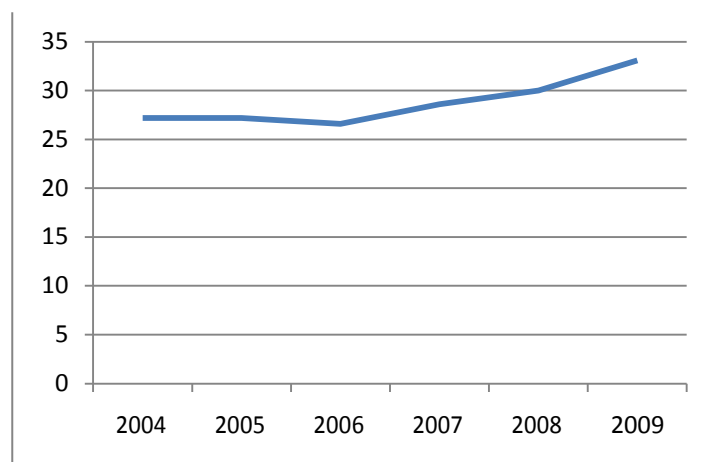
Age-adjusted Obesity Prevalence, 2004 - 2009



Source: <http://www.cdc.gov/diabetes/atlas/countydata/atlas.html>

Physical inactivity is related to the increased prevalence of obesity and chronic diseases such as diabetes and heart disease. The following figure shows the age-adjusted prevalence of leisure-time physical inactivity in Duplin County adults age 20 years and older from 2004 – 2009 derived from the same sources as the obesity prevalence figure above. Respondents were considered to be physically inactive if they answered "no" to the question, "During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?" For 2009 the age-adjusted prevalence of physical inactivity for men was 30.6% and for women 35.4%.

Age-adjust Leisure-time Physical Inactivity



Source: <http://www.cdc.gov/diabetes/atlas/countydata/atlas.html>

Childhood obesity

The NC Nutrition and Physical Activity Surveillance System (NC-NPASS) includes data on children seen in North Carolina public health sponsored WIC and Child Health Clinics and some school-based health center. The 2010 data indicate that 14.7% of children age 2 – 4 years are overweight (between the 85th and 95th percentile) and 21.8% are obese (greater than or equal to the 95th percentile). Duplin County ranks 26th out of 100 counties for overweight and 98th out of 100 counties for obesity in children. Statewide, 16.1% of children ages 2 – 4 years are overweight and 15.6% are obese.⁴⁵

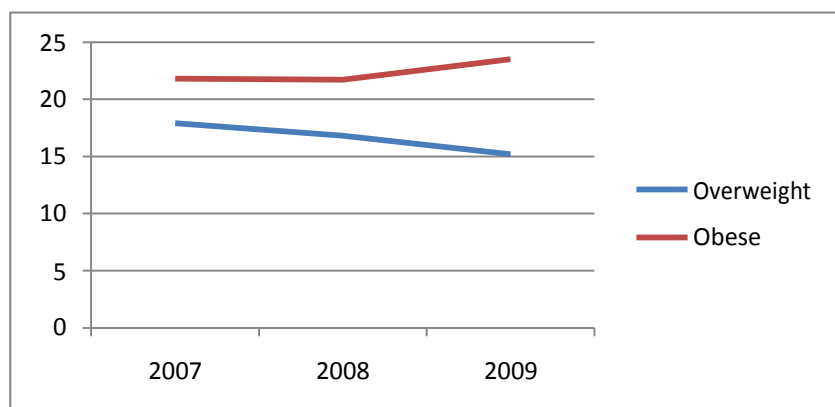
Percent of children of age 2 – 4 years who are overweight or obese and rank order among NC counties

	Percent overweight	Rank order	Percent obese	Rank order
2007	18.2	91	20.4	97
2008	17.7	71	18.6	91
2009	15.1	38	21.8	98
2010	14.7	26	21.8	98

Source: ESMM NC <http://www.eatsmartmovemorenc.com/Data/ChildAndYouthData.html>

Due to small numbers county rates for children age 5 and older are not available for 2010. In the figure below we see the percentage of children age 2 – 18 years in Duplin County who were overweight or obese in 2007, 2008, 2009 according to NC-NPASS data. While the percentage who are overweight has decreased, the percentage who are obese has increased over time.

Percent of children age 2 – 18 years who were overweight or obese



Source:NC-NPASS

In 2010 the DCHD applied for and received a grant from the Cape Fear Foundation for the seed money to start a monthly childhood obesity clinic at the health department. The model for this clinic is based on the Pitt County Pediatric Obesity clinic offered in Greenville, NC. This clinic revolves a multidisciplinary team working with overweight/obese children and their families with the goal to impact lifestyles and create behavior changes. The team includes a pediatrician, nurse, registered dietician and behavior health specialist. The team is able to pool their expertise to assist the patients and their parents with problem solving and goal setting to improve their physical and emotional health. Often the family's economics, family dynamics and the family relationship to food must be addressed in order for children to be successful. The clinic provides a nonthreatening environment so all these difficulties can be discussed. In 2011 the Health Department received an additional grant from the Hospital foundation to continue the obesity clinic and with this funding was able to add a second clinic day per month. The receipt of this funding enabled the Health Department to provide these services at no cost to the participants. Referrals are accepted from community agencies, schools and health care providers. The program has enrolled 76 children and their families from August 2011-October 2012 and provided follow-up visits for 104 children.

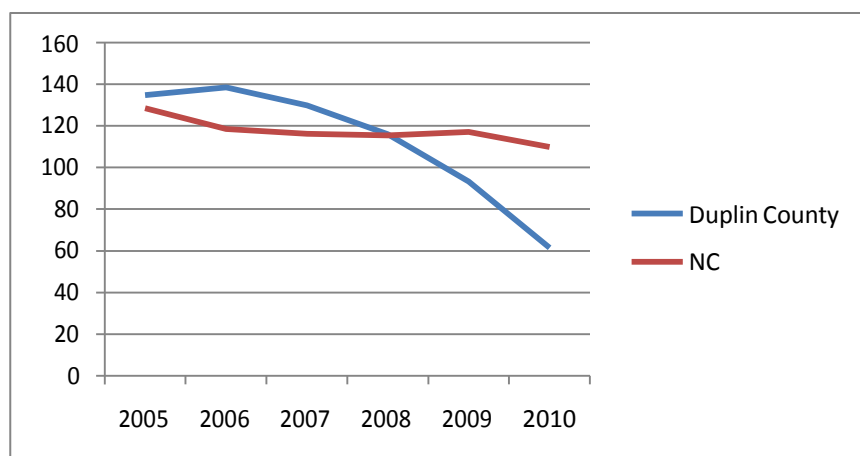
Asthma

Asthma is a disease of the lungs that inflames and narrows the airway and often leads to repeated episodes of wheezing, chest tightness, shortness of breath, and early morning or nighttime coughing. Asthma most often starts in childhood; 25 million people in the US have asthma, 7 million of these are children.⁴⁶ According to the 2011 North Carolina Behavioral Risk Factor Surveillance System, 13.2% of adults had ever been told by a health professional that they had asthma; 8.8% reported that they still had asthma. Percentages reporting current asthma are higher among women (11.6%) than men (5.9%) and among those with less than a high school education (11.5%) and household income less than \$15,000 per year (16.6%).⁴⁷ Due to changes in weighting techniques we are not able to compare percentages to earlier BRFSS reports.

In 2010, 89 North Carolinians died due to asthma.⁴⁸ While asthma impacts all North Carolinians, African Americans, Native Americans, women, the elderly, and children are among the groups most affected by asthma. There are many issues surrounding the causes and diagnosis of asthma. Asthma can be hard to diagnosis especially under the age of five years. Many factors impact the disease; poverty, lack of health care, literacy levels and environmental triggers, all play into the progression of the disease.

The graph below compares the hospital discharge rates with a primary diagnosis of asthma for Duplin County and NC. While the hospital discharge rates for NC remained fairly stable until a decline between 2009 and 2010, the rates for Duplin County have declined steadily from 2006 to 2010. Since the 2008 CHA the incidence of hospitalizations for people with asthma declined as indicated in the graphs below.

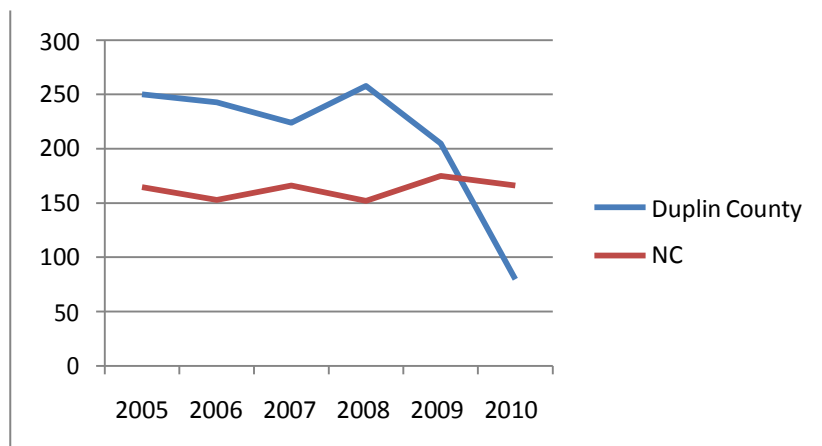
2010 Comparison of Duplin County and NC Hospital Discharges with Primary Diagnosis of Asthma per 100,000



Source: <http://www.schs.state.nc.us/schs/data/databook>

Children who wheeze and have respiratory infections are at highest risk for asthma. The following graph shows hospital discharges with primary diagnosis of asthma for children age 0 – 14 years. In Duplin County, since 2008 there has been a substantial decline in asthma hospitalizations for children.

2010 Duplin County and NC Hospital Discharges with Primary Diagnosis of Asthma per 100,000 for ages 0 – 14 years



Source: <http://www.schs.state.nc.us/schs/data/databook>

In the 2011 – 2012 end of year report school nurses reported a total of 774 students with asthma in Duplin County (501 elementary, 138 middle school, and 135 high school). Duplin County Schools provides an asthma education program for staff that reached 135, but not for students. There are 59 students using peak flow meters. School nurses reported that asthma treatments during school are an ever increasing problem. This includes both lack of knowledge on how to take medications as well as regular update to the asthma action plan. The Duplin County schools system has been 100% Tobacco Free since 2005.⁴⁹ A factor that will impact both asthma and tobacco use is the elimination of the tobacco prevention initiative in the county schools. The TRU (tobacco reality unfiltered) program was funded by the state Health and Wellness Trust Fund was eliminated from the state budget in 2011. The health educators that facilitated in-school group education and peer community outreach on tobacco use are gone.

Dental Health

Dental disease can have negative and lasting effects on overall health and quality of life. Dental diseases share many risk factors with other chronic diseases, particularly social determinants such as poverty and education attainment. Duplin County has a high percentage of children with poor dental health. In 2008-2009, 27% of kindergarten children had untreated tooth decay; in 2009, 9% of 5th graders had untreated tooth decay. In 2009, among Medicaid eligible children, 35% age 0 – 5 years, 54% age 6 – 14 years, and 39% age 15 – 20 years received dental services.⁷⁰

The following table shows the percent of kindergarten and 5th grade students in Duplin County and its peer counties with untreated tooth decay. In all five counties 20% or more of kindergarten students had untreated tooth decay in 2008 and between 4 – 9 percent of 5th graders.

Untreated Tooth Decay among Kindergarten and 5th Grade Students

	Duplin	Bladen	Pasquotank	Sampson	Wilson
Percent of kindergarten children with untreated tooth decay, percent, 2008	27	22	23	20	26
Percent of fifth graders with untreated tooth decay, percent, 2009	9	5	4	4	4

Source: <http://www.ecu.edu/cs-dhs/chsrd/InstantAtlas/NC-Health-Data-Explorer.cfm>

Fluoridation of the water is a cost-effective preventive program and one measure that will impact dental health. The Duplin County's water system is not fluoridated and there is little natural fluoride in the ground water. The Health Department continues to pursue the initiative to fluoridate the county water systems. The Health Department is currently working with the county water department and several municipalities to apply for a Golden Leaf foundation grant. The grant would provide funds to convert the county and area municipalities well heads to be able to deliver fluoride to the residents on those systems. The hospital reports that in 2010 children's dental surgery was the number one operation scheduled at Vidant Duplin Hospital.

In 2001, the Health Department obtained funding from the Kate B. Reynolds Foundation to start a mobile dental unit. The unit continues to operate and travels to the county's public elementary schools and some of the middle schools to provide care to children through 18 years of age. During the summer months the unit is located at the DCHD and provides serves to children and some limited services to adults. The unit accepts all forms of insurance, Medicaid and provides a sliding fee scale for self-pay clients.

Communicable Diseases

A highlight of communicable disease cases indicates a minority health disparity with the African American shouldering the burden of the disease. In 2011 in North Carolina, African American males had the highest rate of syphilis and represented 63% of the total early syphilis cases; African American males and females had the highest gonorrhea rates and represented 30% and 23% of total cases. Among chlamydia reports for females in 2011, the age groups with the highest rates were 20-24 year olds followed by 15-19 year olds. The principle risk factor for HIV indicated by 59% of the total cases was men who have sex with men followed by heterosexual transmission risk rate of 35% state wide. The county numbers follow along with the state statistics.⁵²

HIV/AIDS

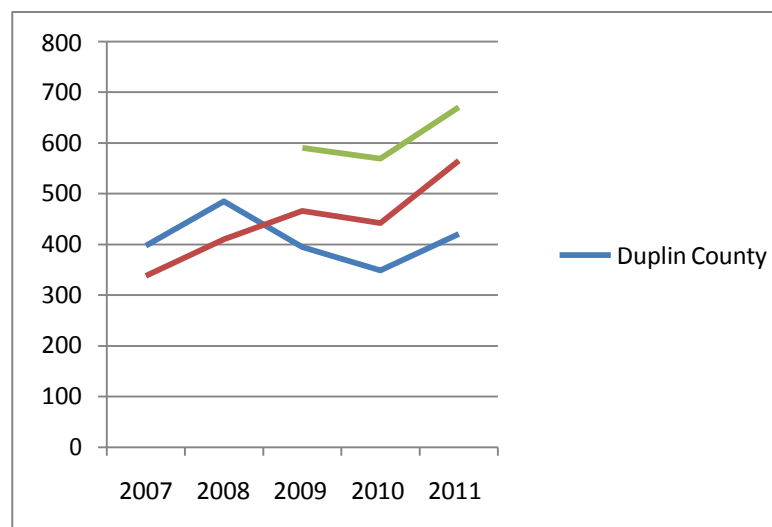
HIV disease case reports represent persons who have a confirmed diagnosis with human immunodeficiency virus (HIV). Cases are counted by the date of diagnosis for the initial HIV diagnose. AIDS (acquired immunodeficiency syndrome) case reports by contrast represent only persons infected with HIV infection who have progressed to the more life threatening stage of the disease. In North Carolina, about one-fourth to one third of the new HIV cases represents people who are initially diagnosed with HIV and AIDS at or very near the same time. As of December 31, 2011 there were 167 documented cases of individuals living with HIV disease (including both HIV infection as well as a diagnosis of AIDS) in Duplin County. The three year average rate for new HIV diagnoses between 2009 and 2011 was 16 per 100,000 population.

This is comparable to the rate for the rest of North Carolina of 16.4 over the same time period. The average rate from 2009 to 2011 for new AIDS diagnoses were also similar for Duplin County (9.4 per 100,000 population) and the rest of North Carolina (9 per 100,000 population).⁵³

Chlamydia

Chlamydia reports represent persons whom have a laboratory- confirmed infection. It is important to note that a chlamydia infection is often asymptomatic in both males and females, and most cases are detected through screening. Changes in the number of reported cases may be due to changes in screening practices. The disease can cause serious complications in young women; therefore there are a number of screening programs in place for young women. Some of these include required screening during pregnancy, required screening for women 24 years of age and under seeking family planning services. There are no comparable screening programs for young men. For this reason, chlamydia reports are always biased with respect to gender. As shown below, the rate of chlamydia diagnoses in Duplin County has remained well below the state average since 2009. The three year average of 388 cases per 100,000 population for Duplin County was well below the rate for North Carolina (491.1 cases per 100,000 population). What the graph does indicate is that for all three areas, county, state and region there is an upward trend.

2011 Chlamydia rate per 100,000 by county of residence

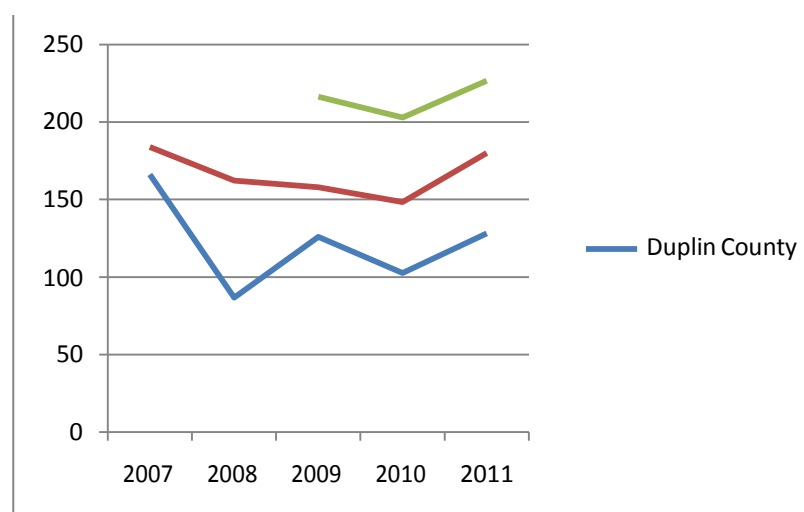


Source: North Carolina HIV/STD Surveillance Report

Gonorrhea

Gonorrhea reports represent person who have a laboratory- confirmed gonorrhea infection. Gonorrhea is often symptomatic in males and slightly less so in females. Many cases are detected when patients seek medical care. Gonorrhea can cause serious complications for females and a number of screening programs exist targeting this population. There is less screening of males because they are more likely to have symptoms that would bring them to the STD clinic. As shown in the graph below, the rate of gonorrhea diagnoses in Duplin County has remained well below the state average since 2009. The three year average of 118.9 cases per 100,000 population for Duplin County was well below the rate for North Carolina (162.1 cases per 100,000 population).⁵⁴

2007-2011 Duplin County Gonorrhea Rate per 100,000



Source: North Carolina HIV/STD Surveillance Report

Syphilis

Syphilis cases are reported by stage of infection, which is determined through a combination of laboratory testing and patient interviews. Primary and secondary syphilis have very specific symptoms; early latent syphilis is asymptomatic but can be staged with confirmation that the infection is less than a year old. Together these three stages that occur within the first year of infection are called “early syphilis”. The five year average rate for early syphilis diagnoses between 2007 and 2011 for Duplin County was 5.4 per 100,000 population. This is lower than the overall state rate of 7.5 per 100,000 population but as with tuberculosis, the low numbers make the rates highly susceptible to small fluctuations in the number of cases.⁵⁵

Tuberculosis

The three year average rate for new tuberculosis diagnoses between 2009 and 2011 for Duplin County was 8 per 100,000 population. While higher than the North Carolina rate for this time frame (2.76 per 100,000 population), the rate for Duplin County is still very low which makes it highly susceptible to small fluctuations in the number of cases. For instance the rate for 2011 in Duplin County was 5.5 cases per 100,000 population but that only represented 3 individual cases.⁵⁰

Mental Health

The table below shows the use of mental health facilities, substance abuse centers and related area programs. Use of state psychiatric hospitals and NC alcohol and drug treatment centers decreased between 2008 and 2010. Use of state mental retardation centers and mental health programs increased during that same time period. Correspondingly, emergency department admissions for any diagnosis of mental health/developmental disability/substance abuse increased from 2008 - 2009 and 2009 – 2010.

Use of Mental Health Facilities, Substance Abuse Centers and Related Area Programs Duplin County Residents (number of residents), 2008-2010

State Psychiatric Hospitals									Mental Health Programs					
2008	2009	2010	2008	2009	2010	2008	2009	2010		0	2008	2009	2010	
144	78	44	0	14	15	42	44	27			2,172	2,362	2,791	

Source: Log into North Carolina Database (LINC) for Duplin County, <http://linc.state.nc.us> (November 2012)

Original data obtained from the State Agency data: Department of Health and Human Services

Admissions to Local Emergency Departments with a Mental Health/Developmental Disability/Substance Abuse Diagnosis for Duplin County Residents (Fiscal Year) 2008-2010

Fiscal Year	Admissions with a primary diagnosis MH/DD/SA		any DD/SA	
	Number of admissions	Rate per 10,000	Number of admissions	Rate per 10,000
2008-2009	452	84.1	2,190	407.5
2009-2010	N/A	N/A	2,445	452.9

Source: Community Hospital Emergency Department Admissions for Persons Diagnosed with Mental Illness, Developmental Disabilities or Substance Abuse Disorder, Statistics and Publications Reports Regarding LMEs and Providers: Emergency Department Admissions End of year reports available at <http://ncdhhs.gov/mhddsas/statspublications/Reports/lmes-providers/EDAdmissions/index.htm> (November 2012)

Health Care

Health Care Providers

The rate of health care providers per 10,000 people in Duplin County is low compared to the state rate. Duplin County has a lower rate of total physicians, primary care physicians, dentists, nurses and mental health professionals than the state. There is a severe shortage of primary care practices. The county recognizes this gap and had made an effort to recruit providers in all areas of health care. In 2012 Vidant Duplin opened a new primary care practice in the Wallace area. The tables below give a snapshot of the gaps in health care professionals and in turn health care services in the county. Duplin County has one of the highest uninsured rates in the state. 26% of the population has no health insurance as compared to surrounding counties; Sampson 21%, Lenoir 19% and the state rate is 18%.⁵⁶ The County's major industries, which are agricultural related either do not provide health insurance plan as a benefit or the cost for the employee to participate is not an option for an hourly, low wage earner. Many employees work part-time or are seasonal workers and are not eligible for health benefits. Many immigrants who come to Duplin County to work are not eligible for Medicaid benefits.

Total and Primary Care Physicians, Duplin County 2010

Total physicians	33
Total primary care	23
Family Practice	9
General Practice	0
Internal Medicine	7
OB/GYN	4
Pediatrics	3
Other specialty	9

Source: North Carolina Health Professions Data System,
http://www.shepscenter.unc.edu/hp/2010/county/61_2010.pdf

Number of Other Health Professionals, Duplin County, 2010

Dentists	12
Chiropractors	3
Registered nurses	292
Nurse practitioners	11
Licensed practical nurses	112
Occupational therapists	4
Optometrists	8
Pharmacists	33
Physical therapists	7
Physician assistants	8
Podiatrists	2
Psychologists	1

Source: North Carolina Health Professions Data System,
http://www.shepscenter.unc.edu/hp/2010/county/61_2010.pdf

The following table shows the rate per 10,000 population of health professionals in Duplin County compared to peer counties and the state of North Carolina. The rate in Duplin County is lower than in North Carolina for all health professions except licensed practical nurses and optometrists. Duplin County also has a lower rate than peer counties in all professions except optometrists and podiatrists.

Health Professionals per 10,000 Population, Duplin County, Peer Counties, and NC – 2010

	Duplin County	Peer Counties	North Carolina
Total physicians	5.4	14.1	21.7
Total primary care	3.9	6.7	9.4
Physician Assistants	1.4	3.2	3.8
Nurse Practitioners	1.9	3.0	3.6
Registered Nurses	49.7	72.5	97.3
Licensed Practical Nurses	19.1	26.1	18.7
Dentists	2.0	2.5	4.4
Chiropractors	0.5	1.0	1.6
Occupational Therapists	0.7	1.1	2.7
Optometrists	1.4	0.9	1.1
Pharmacists	5.6	6.8	9.1
Physical Therapists	1.2	3.1	5.3
Podiatrists	0.3	0.1	0.3
Psychologists	0.2	0.9	2.1

Source: ECU Center for Health Systems Research & Development; <http://www.ecu.edu/cs-dhs/chsrd/InstantAtlas/NC-Health-Data-Explorer.cfm>

Dental Health

Another gap in health care is highlighted by the limited number of dentists per population. Of these dentists there is a limited number who will see patients on Medicaid or children under the age of 5 years of age. Due to economic concerns and rising costs of health care plans few employers in the county offer health insurance benefits and fewer still offer dental insurance. It all comes down to cost and many residents are making tough decisions and are choosing to forgo dental care. Another issue effecting dental health is the lack of fluoride in the county and municipal water systems.

Eye Health

There are adequate numbers of optometrists practicing in the county but considering the county's poverty level and low household income many of those who need eye services may not be able to afford this care.

Health Care Resources

Duplin County Health Department

Duplin County Health Department provides preventive health services and primary health care for the citizens of the county. The mission of the agency is to provide prevention, promotion and protective measures to ensure the health of the community. The Health Department is the only provider in the county that operates on a sliding fee scale with no co-pay required. Services include: family planning, maternity care, child health, immunizations, and provides treatment and surveillance for communicable disease, sexually transmitted diseases. The Health Department manages the Women Infants and Children's (WIC) nutrition program. The Department operates a pediatric healthy weight clinic twice a month, has a registered dietician on staff for medical nutrition therapy and diet counseling. The Health Department operates a mobile dental unit that travels to the county elementary and middle schools to provide dental care to eligible children. In partnership with Community Care of Eastern NC, DCHD nursing and social work staff provides targeted case management to high risk Medicaid children and pregnant women. The maternal health staff manages the 17P program which is used to prevent preterm labor for eligible women.

Since 2006 the Health Department has offered childbirth education and breastfeeding support classes. The classes are offered free of charge to the public. The DCHD childbirth educator works in collaboration with Goshen Medical and Vidant Duplin staff. WIC has a peer breastfeeding educator on staff that works with WIC eligible women to help increase and both their initiation and sustaining breastfeeding their infants. WIC manages a breast pump loan program to assist working women as they return to the workforce to continue breastfeed. Since 2008, the Health Department has provided a community chronic disease case management program focusing on diabetes and renal disease. The program offers free monthly diabetic education classes to the community in English and Spanish; provides (based on income) a reduced fee for diabetic monitoring equipment and holds a peer support group. The Health Department is the medical home for over 130 diabetic patients.

Duplin County started a county employee wellness program in 2008. This program which is managed by the Health Department involves having a nurse practitioner available to

employees for walk-in sick visits, provide physicals and laboratory services. There is a health educator to assist staff in setting health and fitness goals. This program saves the county money by decreasing insurance claims, outside laboratory cost and promoting healthy behaviors in the workforce. The Health Department applied for and received funds in 2009 and 2010 from the hospital foundation to assist the county in opening a county employee gym and fitness center.

www.duplincountync.com

Duplin County Emergency Management Services

Duplin County EMS (Emergency Medical Service) is responsible for providing emergency medical treatment and transportation throughout Duplin County. The EMS system is made up of Duplin County EMS, providing paramedic level emergency response and transport, several volunteer rescue squads providing basic level treatment and transport, along with fire department medical responders providing basic initial response and treatment. Duplin County EMS covers over 840 square miles, 50,000 residents, and 30 miles of interstate 40. Duplin County EMS primarily transports to 6 community hospitals and 3 Trauma Centers. Duplin County EMS was dispatched on over 7,500 calls in 2011 and transported over 5000 people to the hospital. The Department has initiated an emergency stroke protocol, involving staff training and polices which has greatly reduced the amount of time it take to manage stroke victims and get them to early treatment thereby increasing positive patient outcomes. Duplin's program has received recognition from the Governors' Task Force and become a model for the state. EMS community outreach also includes a lay person CPR program. EMS answers many calls that involve the clients not having a medical home and who use emergency services as their first line of health care. This is an expensive and inappropriate use of county assets.

Goshen Medical Center

Goshen Medical Center (GMC) is a Federally Qualified Rural Health Center (FQRHC) with its main office in Faison and five satellite sites within the county. The FQRHC operates clinics in Beulaville, Kenansville, Wallace, Warsaw, and Greenevers. This organization provides health care in the practice of Family Medicine, Internal Medicine, Obstetrics/GYN and Pediatrics. GMC manages the Breast and Cervical Cancer Program (BCCP) for eligible low income women. Provides services on a sliding fee based on income with co-pay. GMC provides dental care at the Faison location. <http://www.goshenmedical.org/>

Home Care and Hospice

Several Home Care Health organizations are available to the county's qualifying residents. This service provides skilled nursing to those under the direction of a physician; and end of life care to those in the final stages of a terminal illness. Carolina East Care and Hospice open a new hospice care facility in 2009.

Private Medical Practices

There are only a few private medical practices within the county. These private practices have limited ability to serve new people as their practices are at or near capacity. There is a huge gap in the number of medical practices and professional for the population. Most people will travel to Willington, Greenville, Fayetteville or Raleigh to see specialists.

Vidant Duplin Hospital

Vidant Duplin is the only hospital located in the county. It is a no-profit hospital with 101 licensed beds located in Kenansville. The hospital has identified the need for primary care providers in the county and has actively recruited physicians and developed practices in Kenansville and Wallace. One of the programs supported by the hospital is the Latino Health Care Access. Latino Health Care Access is a program at DGH that helps to meet the health care needs of a rapidly changing community. The service provides Spanish-speaking patients, and their families, information on the services available at the hospital and in the community. <https://www.vidanthealth.com/duplin/default.aspx>

The charts below summarize the 2011 hospital data, staff and services.

2011 Vidant Duplin Statistics (Source: Vidant Duplin Management Team)

Date opened in the county - 1955	Inpatient surgeries: 662
Admissions: 3,866	Top three types of surgery
Average daily census: 45.67	<ul style="list-style-type: none"> • Gall Bladder • C- Section • Mastectomy
Average length of stay: 3	Outpatient surgeries: 1,290
# of Employees: 426	24- Hour Emergency Department
# Doctors, active and consulting: 110	Hospitalist Program
# Registered Nurses: 131	
# Volunteers: 17	

2011 Vidant Duplin Services

Intensive Care unit	Radiology – CT / MRI/Digital mammography
Women’s Unit/ Nursery	Electronic Health Records
24-Hour adult inpatient psychiatric unit	Laboratory/ Pharmacy
Surgical services	Outpatient Clinics
<ul style="list-style-type: none"> • Cataract • Endoscopy • General • Gynecology • Laparoscopy • Orthopedics • Pediatric Dental 	<ul style="list-style-type: none"> • Cardiology • Gastroenterology • Nephrology • OB/GYN • Ophthalmology • Orthopedic • Otolaryngology • Pathology • Pediatric Cardiology • Pulmonology • Sleep diagnostic lab
Community Services	
<ul style="list-style-type: none"> • Community Benefits Grants Program • Diabetes self-management class • Community Health screenings • Community Health Assessment • Women’s Heart Health & Breast Cancer Awareness 	

Community Resources

Duplin County offers many services to its residents. The following is a list of community agencies and organizations that provide services in different areas. For a complete list go to the quality of life tab at www.duplincountync.com where there is a link to the list of area churches, civic organizations, schools and community calendar. For a list of medical providers and other health and human services see the attached list in Appendix D.

Selected List of Duplin County Resources			
Resources	Population Served	Service Provided	Agency
Child Care	Low income Medicaid eligible Non-English speaking	Referrals and Subsidy After school programs	Duplin County Partnership for Children- http://www.dcpfc.org/ Head Start East Coast Migrant Head Start http://www.ecmhsp.org/ 4 H Club- Cooperative Extension Duplin County Schools (DCS) http://www.duplinschools.net
Clothing	Low income General population Non-English speaking		Duplin Christian Outreach Ministry thrift store – Blessings in Store Eastern Baptist Association Area Churches
Employment	General population	Job Listing	James Sprunt Community College- Job Link Center http://www.jamessprunt.edu/

		Employment assistance	<p>Duplin County Department of Social Services (DSS) http://www.duplincountync.com/</p> <p>Duplin Times Newspaper http://theduplintimes.com/</p> <p>Employment Security Commission https://www.ncesc.com/default.aspx</p> <p>Mega Force Staffing Agency</p> <p>Work First Programs/ DSS</p>
Family support	<p>Medicaid/Medicare eligible</p> <p>Low income families</p> <p>Non-English speaking</p>	Referrals	<p>DSS</p> <p>Cooperative Extension 4-H duplin.ces.ncsu.edu/</p> <p>Duplin County Schools</p> <p>Juvenile justice- teen court, Parenting skills</p>
Financial	<p>Low income</p> <p>Non-English speaking</p>	<p>Assistance</p> <p>Child Support</p>	<p>DSS</p> <p>Duplin Christian Outreach Ministries- Crisis Center</p> <p>DSS child support office</p>
Fitness Centers	General population	Exercise and recreation	<p>Faison Recreation and Wellness Center</p> <p>Warsaw Wellness and Recreation Center www.townofwarsawnc.com</p>
Food	Low income	Emergency food	Duplin Christian Outreach Ministry- Crisis Center

	<p>Individuals /families in crisis</p> <p>Non-English speaking</p> <p>Medicaid eligible</p>	<p>On-going assistance</p>	<p>Eastern Baptist Association http://www.easternbaptist.com/</p> <p>Wallace Presbyterian Church http://www.wallacepresbyterian.com/</p> <p>Word of Faith Ministries</p> <p>Backpack Buddies school aged children (DCS)</p> <p>DSS Food Stamp program</p> <p>WIC- Kenansville/Wallace/Warsaw</p> <p>DCS- Free and Reduced school lunches</p> <p>Cooperative Extension's EFNAP programs duplin.ces.ncsu.edu/</p>
Housing	Low income	Referrals	<p>Eastern Carolina Regional Housing Authority</p> <p>Eastern Carolina Human Services http://www.echsainc.com/</p>
Medical Care	<p>Low income</p> <p>Private pay sliding fee</p> <p>Medicaid/Medicare</p> <p>Private Insurance</p> <p>Non-English speaking</p>	Medical care and referrals	<p>Duplin County Health Department http://www.duplincountync.com/</p> <p>Goshen Medical Center http://www.goshenmedical.org/</p> <p>Vidant Duplin Hospital https://www.vidanthealth.com/duplin/</p> <p>Urgent Care NHRMC-Wallace</p> <p>Private physicians and other health care providers</p>

Mental Health and Substance abuse	General population with mental health needs Non-English speaking	Mental health services	Eastpointe Mental Health Authority http://www.eastpointe.net/ Private Mental Health providers AA and NA
Public Safety	General population Non-English speaking	Crisis center Safety	Sarah's Refuge Domestic Violence Crisis Center http://www.sarahsrefuge.org/ Safe Surrender/ DSS child abuse reporting DC Sherriff's Department http://www.duplincountync.com/

In a rural county there are always barriers to offering additional or more comprehensive services. Some of the barriers identified are:

- Funding- Many agencies budgets have been cut to the economic downturn and the loss of funds from the county and state.
- Transportation- Residents do not have access to consistent transportation, there are limited routes provided by the county transportation agency. Many residents do not have access to this fee for service and rely on family or friends for transportation.
- Accessing services- many residents do not understand how to access services provided by different agencies due to language and literacy barriers.
- Volunteers- recruiting and maintaining volunteers is a problem.
- Communication- Media is limited, currently the county has a weekly local newspaper and it is difficult to get the word out about programs and services.
- Diversity- Dealing with difference in language, education and culture
- Salaries- Many agencies have difficulty recruiting and maintaining staff due to migration to better paying jobs in surrounding counties.

Determinants of Health

Social Environment

Education in Duplin County

Education is an important factor in understanding the health status of a community. The Behavioral Risk Factor Surveillance System (BRFSS) indicates that lower educational levels are associated with sedentary lifestyles, obesity and other health risk behaviors.

Overall, Duplin County has relatively low educational attainment as shown below; 30.3% of those 25 years of age and older do not hold a high school diploma or equivalency compared to 16.4% in NC and 14.9% in the US. In Duplin County 18.4% have some type of college degree compared to 34.4% in NC and 40.4% in the US.⁵⁷

Educational Attainment in Duplin County (2006 – 2010)

	Number	Percent
Population 25 years and over	37,252	100.0
Less than 9th grade	5,114	13.7
9th to 12th grade, no diploma	6,171	16.6
High school graduate (includes equivalency)	11,751	31.5
Some college, no degree	7,363	19.8
Associate degree	3,090	8.3
Bachelor's degree	2,789	7.5
Graduate or professional degree	974	2.6
Percent high school graduate or higher	(X)	69.7
Percent bachelor's degree or higher	(X)	10.1

Source: 2006-2010 American Community Survey 5-year estimates, US Census

The Duplin County School System is the only public school system located within the county and had a student enrollment of 8,945 for the 2011-2012 school year.⁵⁸ There are a total of 16 public schools located within the county: eight elementary schools, three middle schools, one charter school and four high schools.

In 2010-2011 the graduation rate in public schools was 69.1%; the district did not meet its cohort graduation target.⁵⁹ The average SAT score in 2011 was 909 (out of 1600).⁶⁰ The number of high school dropouts in Duplin County decreased 15.5% from 2009-2010 (103) to 2010-2011 (87) school year, a difference in rates of 4.14/1,000 students to 3.52/1,000 students.⁶¹

The 2011-2012 ABCs of Public Education results for Duplin County Schools and the state of North Carolina were approved and released by the State Board of Education and the North Carolina Department of Public Instruction. The North Carolina growth model focuses on and recognizes individual student performance/ growth and the extensive instruction required to achieve the growth standards. The Expected Growth status standard is met when a school shows positive overall growth when individual student growth results are summed. In order for High Growth status to be awarded, 60% of the students assessed must show individual growth when their results are compared to their previous years' performance. Duplin County Schools' results reflect a decrease in the percentage of schools having met Expected Growth (11 of 16 schools or 68.8%) and attaining High Growth (3 of 16 schools or 18.8%) status.⁶² The official results for individual school can be accessed at <http://abcs.ncpublicschools.org/abcs/>.

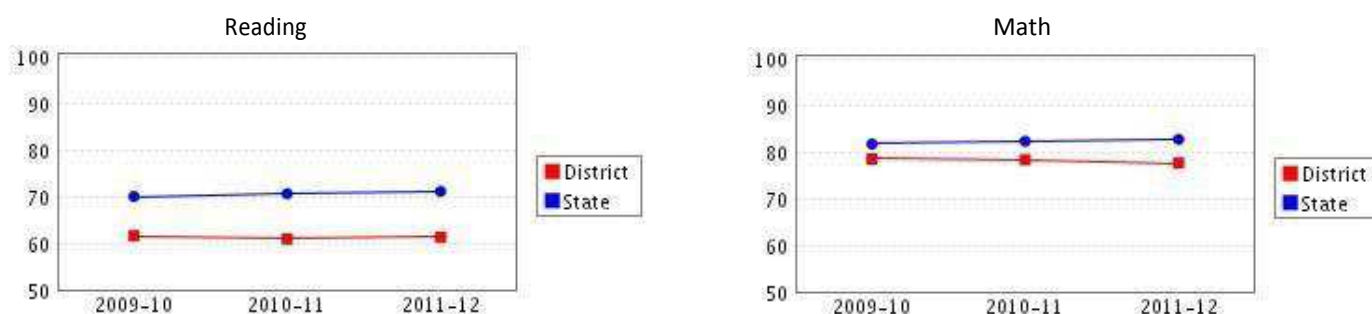
The results of end-of-grade testing for the 2011 - 2012 school year are shown below. In all grades, for both reading and math, the percentage of students at or above grade level is lower in Duplin County than in the state. Following this table is a representation of three year trends in reading and math end-of-grade tests. The percentage of students at or above grade level in 2011 – 2012 is slightly lower in Duplin County than in 2009 – 2010.

Percentage of Students' Scores At or Above Grade Level by Grade (2011 - 2012)

	Grade 3		Grade 4		Grade 5		Grade 6		Grade 7		Grade 8		OVERALL	
	Reading	Math	Reading	Math	Reading	Math	Reading	Math	Reading	Math	Reading	Math	Reading	Math
District	61.4	80.6	62.6	77.7	62.9	77.7	67.2	72.3	56.9	78.6	56.9	79.5	61.4	77.7
State	68.8	82.8	71.6	85.1	72.3	82.1	75.2	80.5	68.2	81.1	71.1	85.2	71.2	82.8

Source: NC School Report Cards

Three Year Trend in Student Performance on ABCs End-of-Grade Tests



Source: NC School Report Cards

The percentage of high school students at or above grade level on end-of-course tests is shown in the table below. As with the end of grade testing shown above, the percentage of student scores at or above grade level is lower in Duplin County than in the state.

Percent of Students' Scores At or Above Grade Level by End-of-Course Tests (2011 – 2012)

	English I	Algebra I	Biology
District	80.4	72.2	75.9
State	82.9	78.7	83.0

Source: NC School Report Cards

School Improvement Plan

In response to the declining statistics the Duplin County Schools (DCS) met in 2009-2010 to develop a five year 2011-2016 strategic plan. The strategic plan contains eight goals and implementation plans. The mission of Duplin County Schools is to work collaboratively with community to prepare all students for career, college and life success. The DCS staff and administration will continue to use the strategic plan as a road map toward becoming an exemplary school system. Source: DCS Five Year Strategic Plan 2011-2016.

Student Academic Success

DCS has implemented the first phase of District –Wide Early College in all schools. Staff has worked to ensure readiness for the Common Core and Essential Standards through curriculum development and Race to the Top Coaches. High school students have the opportunity to take Scholastic Aptitude Test (SAT) and preparation classes are offered by DCS staff at minimal expense. DCS has increased advanced placement, virtual public schools and honors classes for all high school students.

Distinguished Leaders, Teachers, and Personnel

DCS has implemented incentive plans to maintain employee supplements over the next four years. Development of Professional Learning Communities (PLC) meet regularly to discuss data, best practices to meet local, state and federal expectations. Workforce development is provided by the Teachers Advisory Committee, Beginning Teacher Program and the NC Teacher Evaluation Process.

Safe and Nurturing Schools

DCS partners with School Resource Officers to ensure a safe environment. Character education and bullying prevention are emphasized at each school. All visitors are required to sign-in and be photographed at each building. Physical education and health classes are required at all schools. Child nutrition provides vegetables, fruits and whole grain options daily. A grant from the Hospital Foundation provided several refrigerated cases for salads and fruits to be available on the cafeteria line. DCS has expanded that grant and is working to offer these options at all county schools.

21st Century Facilities

Lottery funds are used for upgrading projects on school sites and the technology department strives to maintain modern and safe technological resources and networks.

Positive School and Community Partnerships

Faith-based support is provided throughout DCS on many levels including but not limited to: prayer, volunteers, crisis response, Backpack Buddies, summer programs and a Faith-Based Leaders Advisory Group. Communication with parents is delivered by several methods, website, ConnectEd messages (automated phone messages), newsletters, and internet seminars to name a few. A strong partnership with James Sprunt Community College fosters growth. Career fairs, mentoring programs, and job shadowing promote student success and community involvement.

Fiscal Leadership

Budgets are aligned to and driven by local, state and national plans. Budget information is provided at Board meetings, on website, in the newspaper and upon request.

21st Century Technology

The local technology plan is followed and aligned with state and national plans. Collaborative partnership with JSCC has provided a grant to provide a distance learning classroom at each high school.

College Opportunities

There are numerous opportunities for Duplin County residents to further their education. Duplin County is fortunate to have James Sprunt Community College whose main campus is located in the center of Duplin County near Kenansville. The 52-acre landscaped campus provides an attractive setting for an educational and cultural center for students and the community. The full time enrollment of students at James Sprunt Community College is 1,587. The college offers programs in Applied Science, Health Education, General Education, Diploma Programs, Duplin Correctional Center Programs, Continuing Education, and Special Programs. The highest degree offered is an associate's

degree. The College operates Adult Education Centers at various locations and offers several curriculum courses along with a wide variety of continuing education courses each semester except summer semester. The College also offers courses at the N.C. Department of Corrections located in Kenansville.⁶³

Several four-year colleges are located within 200 miles of the County.

- Barton College
- Campbell University
- Duke University
- East Carolina University
- Fayetteville State University
- Meredith College
- Mount Olive College
- North Carolina State University
- North Carolina Wesleyan
- Peace College
- Pembroke State University
- Shaw University
- University of North Carolina-Chapel Hill
- Wake Forest University

Crime and Violence: Adult and Youth

The table below presents data compiled by the North Carolina Department of Commerce and available through AccessNC.⁶⁴ The indices are presented relative to a 100 United States average. Using this scoring scheme Duplin County has higher indices than the US for murder and burglary. These are the same two areas in which Duplin County was higher than US in 2007. In addition, these scores are nearly identical to those presented in the 2008 Community Health Assessment, with none varying by more than 2 points.

Duplin County Crime Indices

Statistic	Duplin County (NC)
Total Crime Index (100 US Avg)	101
Personal Crime Index (100 US Avg)	93
Murder Index (100 US Avg)	152
Rape Index (100 US Avg)	70
Robbery Index (100 US Avg)	41
Assault Index (100 US Avg)	99
Property Crime Index (100 US Avg)	92
Burglary Index (100 US Avg)	156
Larceny Index (100 US Avg)	61
Motor Vehicle Theft Index (100 US Avg)	56
Total Households, Crime Risk Base	24,131

Source: <http://accessnc.commerce.state.nc.us/EDIS/page1.html>

Data from the NC Department of Justice further define crime rate statistics for Duplin County.⁶⁵ While there was a decrease in violent and property crime rates between 2008 and 2009, there has been an increase in property crime rates since then.

Duplin County Index Crime Rates per 100,000 Population, 2008 - 2011

	Index crime rate ¹	Violent crime rate	Property crime rate
2008	3607.1	345.6	3261.5
2009	2804.5	217.7	2586.8
2010	3090.3	401.0	2689.3
2011	3205.2	346.1	2859.1

¹ Index crime includes the total number of violent crimes (murder, rape, robbery, and aggravated assault) and property crimes (burglary, larceny, and motor vehicle theft).

Source: <http://crimereporting.ncdoj.gov/>

The rates for specific violent and property crimes follow. From 2009 – 2011 rates for murder, assault, burglary, and larceny increased. Arson rates decreased from 2009. Rates for rape, robbery, and motor vehicle thefts have fluctuated. There were 91 sex offenders in Duplin County.⁶⁶

Duplin County Crime Rates per 100,000 Population, 2008 - 2011

Year	Violent crime rates				Property crime rates			
	Murder	Rape	Robbery	Assault	Burglary	Larceny	Motor Vehicle Theft	Arson
2008	23.6	21.6	62.8	237.6	1,305.8	1,686.7	269.0	21.6
2009	3.9	19.6	35.3	158.9	1,112.0	1,367.0	107.9	33.3
2010	1.9	16.8	24.2	358.1	1,087.3	1,411.8	190.2	18.6
2011	11.9	20.5	35.8	277.9	1,329.8	1,401.4	127.9	10.2

Source: <http://crimereporting.ncdoj.gov/>

The juvenile delinquency rate for children age 6 – 15 years decreased from 25.7/1,000 in 2007 to 20.98/1,000 in 2011. The number of youth placed in state operated detention centers remained fairly stable from 2007 to 2010 (25, 27, 24, and 26 respectively) with a slight decrease in 2011 (20 youth). These numbers are not rates and therefore do not account for base population.⁶⁷

The Annual Report on School Crime and Violence⁶⁸ summarizes the number of reportable acts that include:

- Possession of a Controlled Substance in Violation of Law
- Possession of a Weapon
- Assault on School Personnel
- Possession of Alcoholic Beverage
- Sexual Assault not including Rape or Sexual Offense
- Bomb Threat
- Possession of a Firearm or Powerful Explosive
- Sexual Offense
- Assault Involving Use of a Weapon
- Assault Resulting in Serious Injury
- Burning of a School Building
- Robbery with a Dangerous Weapon
- Kidnapping
- Rape
- Taking Indecent Liberties with a Minor
- Death By Other Than Natural Causes
- Robbery without a Dangerous Weapon

In the 2010-2011 school year, there were 9 reportable acts in grades 9 -13 Duplin County, resulting in a rate of 3.59/1,000 students. During that same school year there were 2,118 short- term suspensions (1 – 10 days) and 6 long-term suspensions (11 or more days). Specifically for grades 9 – 13 there were 684 short-term suspensions with a rate of 27.27/100 students. As a comparison, in the 2007 – 2008 school year, there were 23 reportable acts resulting in a rate of 9.83/1,000 students. There were 3,279 short-term suspensions and no long-term suspensions. For grades 9 – 12 there were 1,620 short-term suspensions with a rate of 69.3/100.⁶⁹ These data suggest a marked improvement in the number and rate of reportable acts and short-term suspensions.

Economic Characteristics of Duplin County

Income and Poverty

In 2010, there were 25,728 households in Duplin County and an average of 2.49 persons per household from 2006 - 2010. The median household income from 2006 - 2010 was \$32,816 compared to \$29,897 in 2000. The per capita income from 2006 – 2010 was

\$16,693.⁷⁰

The 2010 Census provides the most comprehensive poverty data for Duplin County. The percent of the population with income below the Federal poverty level from 2006 – 2010 was 23.7% compared to 15.5% in the state of NC. As reported in the 2008 community health assessment, in 2000 19.4% of the Duplin County population had income below the poverty level and in 2004, 17.9%. The poverty rate for children under the age of 18 years was 32.8%.⁷¹ During the 2006 – 2010 time period 47.7% of households with a female head of household and no husband present with children lived below the poverty level. Women with children have few economic resources and little mobility to seek services. Teenage parents also fall at the low end of the poverty status as they usually have few supports, may drop out of school, and have few job opportunities.

Unemployment

The August 2012 unemployment rate for Duplin County is 9.9% and the state rate is 9.7. The average unemployment rates have remained stable for the last three years: in 2009 it was 9.6%, 2010 it was 9.7% and in 2011 it was 9.8%⁷⁴. Based on the community survey results the public indicated that the issues that most affect quality of life were low income and poverty. The survey respondents ranked higher paying employment and the availability of employment as the top two things that needed improvement in the community.

Child Care

According to the Child Care Services Association⁷⁵, in Duplin County there are almost 3,100 children under the age of six whose sole parent or both parents are working. Child care is necessary for the economic security of these families. The county received \$2 ¾ million to help parents pay for child care in 2010-2011. The county served 609 children with subsidies and there was a waiting list with 454 eligible children. There are 58 licensed child care programs including centers and family child care homes in which over 1,400 children are enrolled. The Child Care Services Association estimated that the monthly rate for a 4 star center is \$583 per month. Looking at the median household income of \$32,816 most families in Duplin County cannot afford to pay the full cost of child care. A family would need to spend over 21% of their monthly income on childcare leaving little left for other things such as food, medical expenses, clothing, travel or other living expenses. Many parents seek cheaper, inadequate care or may leave children unattended.

Percentage of Families and People Whose Income in the Past 12 Months is Below the Poverty Level

All families	17.2%
With related children under 18 years	26.4%
With related children under 5 years only	22.2%
Married couple families	9.0%
With related children under 18 years	14.5%
With related children under 5 years only	13.6%
Families with female householder, no husband present	38.5%
With related children under 18 years	47.7%
With related children under 5 years only	36.2%
All people	23.7%
Under 18 years	32.1%
Related children under 18 years	32.0%
Related children under 5 years	30.3%
Related children 5 to 17 years	32.6%
18 years and over	20.8%
18 to 64 years	20.8%
65 years and over	20.9%
People in families	19.8%
Unrelated individuals 15 years and over	40.3%

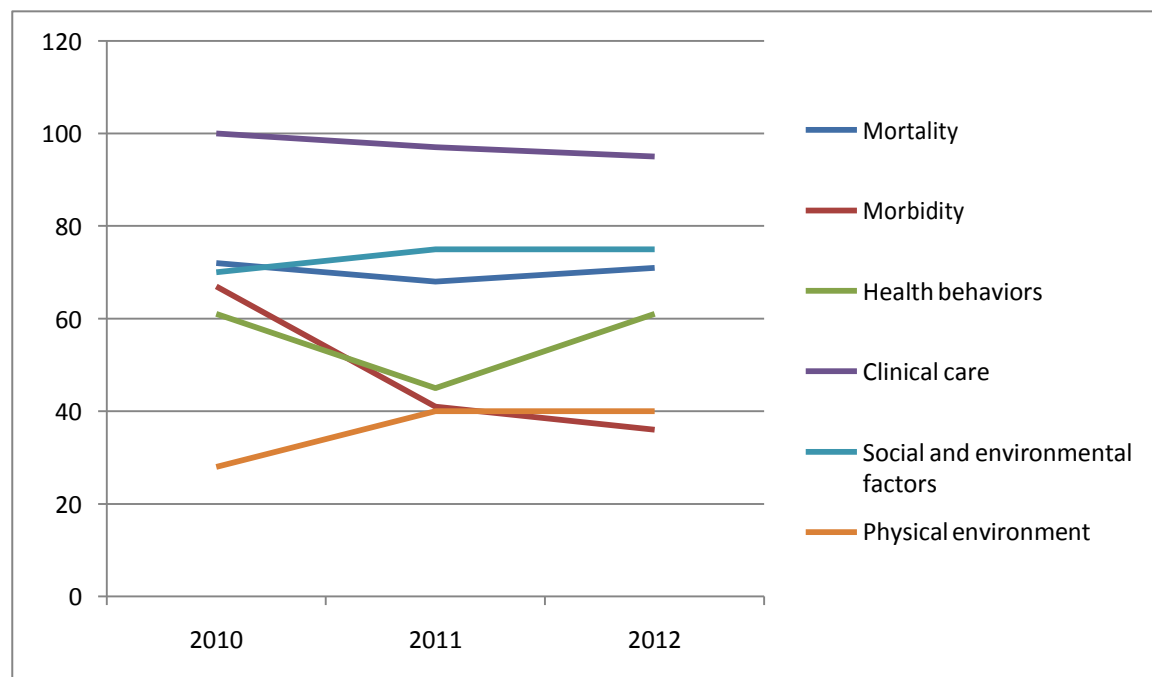
Source: U.S. Census Bureau, 2006-2010 American Community Survey

Five- year estimates (2006 – 2010) indicate that 2,781 households (13.3%) received food stamps/SNAP benefits in the past 12 months compared to 10.3% in NC and 9.3% in the US.⁷² In the 2010 – 2011 school year 73.6% of children were enrolled in free and reduced lunch representing an increase from previous years (69.4% in 2006 – 2007; 68.5% in 2007 – 2008; 69.2% in 2008 – 2009, and 72.1% in 2009 – 2010).⁷³

County Health Rankings

The Robert Wood Johnson Foundation compiles and reports on various indicators of health outcomes for nearly every county in the United States.⁷⁵ Many of the factors shown in the graph and table below represent determinants of health and illuminates their impact on the health of Duplin County residents. In 2012, Duplin County is ranked 55 out the 100 NC Counties. The graph below shows the rankings across domains for 2010 – 2012.

County Health Rankings (out of 100) by Domain from 2010 - 2012



The following table shows the specific health outcomes and health factors that were ranked compared to national benchmarks and to North Carolina. The highlighted area indicate key issues the impact the county's health.

Health Outcomes and Health Factors Used for Ranking

	Duplin County	Error Margin	National Benchmark*	North Carolina	Trend	Rank (of 100)
Health Outcomes						55
Mortality						71
Premature death	9,516	8,598-10,434	5,466	7,961		
Morbidity						36
Poor or fair health			10%	18%		
Poor physical health days	4.3	3.3-5.3	2.6	3.6		
Poor mental health days	2.9	1.9-3.9	2.3	3.4		
Low birth weight	8.6%	7.9-9.4%	6.0%	9.1%		
Health Factors						81
Health Behaviors						61
Adult smoking	19%	14-26%	14%	22%		
Adult obesity	35%	29-40%	25%	29%		
Physical inactivity	34%	28-40%	21%	25%		
Excessive drinking	7%	4-12%	8%	13%		
Motor vehicle crash death rate	30	25-36	12	19		
Sexually transmitted infections	394		84	445		
Teen birth rate	75	70-80	22	50		
Clinical Care						95
Uninsured	26%	24-28%	11%	18%		
Primary care physicians**	3,535:1		631:1	1,135:1		
Preventable hospital stays	76	69-82	49	64		
Diabetic screening	87%	82-93%	89%	87%		
Mammography screening	67%	61-75%	74%	70%		
Social & Economic Factors						75
High school graduation	70%			78%		
Some college	40%	35-44%	68%	61%		
Unemployment	9.0%		5.4%	10.6%		
Children in poverty	33%	27-39%	13%	25%		
Inadequate social support	22%	16-29%	14%	21%		
Children in single-parent households	40%	34-45%	20%	34%		
Violent crime rate	321		73	448		
Physical Environment						40
Air pollution-particulate matter days	0		0	1		
Air pollution-ozone days	0		0	6		
Access to recreational facilities	4		16	11		
Limited access to healthy foods	0%		0%	10%		
Fast food restaurants	50%		25%	49%		

* 90th percentile, i.e., only 10% are better

** This data was updated on Nov. 1, 2012. Please see <http://www.countyhealthrankings.org/node/8939> for more information.

Note: Blank values reflect unreliable or missing data

<http://www.countyhealthrankings.org/print/county/snapshots/2012/37/061>

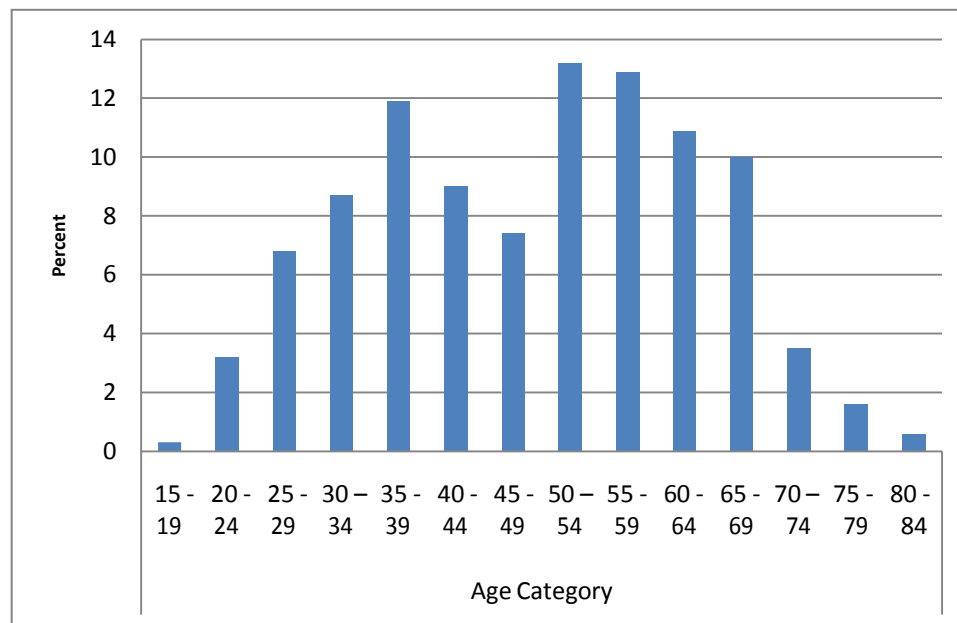
Chapter 5: Community Health Survey

Primary data were gathered through the distribution of the community health assessment survey. The paper version was given out at community events, churches, the health department, schools, Department of Social Services, local hospital, libraries, industry, civic groups, and area health care providers. An online survey was developed by the Vidant Duplin using Survey Monkey and posted on their website. The web survey intended to capture younger population who are frequent users of electronic media. The notice of the survey was shared with the community through the local newspaper, radio station, and listserv. The primary data collection tools were used to collect data from April 1st - May 19, 2012. The English and Spanish versions of the survey are in Appendix B and the tables of responses are in Appendix C.

Survey Demographics

A total of 371 respondents completed at least some of the survey; 277 respondents completed the survey online through Survey Monkey with the remaining 94 completing paper surveys. Fourteen of the paper surveys were Spanish language. Many questions have a different denominator than 371. This is due to respondents who either chose not to answer certain questions/portions of the survey or respondents who failed to adhere to the guidelines for answering specific questions (providing multiple answers when a single answer was requested). Twenty-two zip codes of residence were reported by 353 of the respondents. The Zip Codes for Wallace (28466), Beulaville (28518), Kenansville (28349), Warsaw (28398) and Pink Hill (28572) represented almost seventy percent of respondents who provided a zip code of residence. As seen below, the age of respondents was widely distributed.

Percent of Respondents in Each Age Category (in years)



Over 80% of the respondents who reported gender were women (80.7%). White respondents accounted for 83.0% of surveys collected. It should be noted that 83 survey respondents (22%) did not report their race and another 18% did not report gender. 9.0% of respondents who answered the question about ethnicity indicated that they were of Hispanic, Latino or Spanish origin. This number is potentially low since 18% of survey respondents did not answer this question. 33 of 304 (10.9%) respondents indicated that they spoke a language other than English at home with Spanish almost the unanimous response. The vast majority of respondents were married (72.9%).

As the table below shows, the distribution of respondent's highest level of education was skewed heavily toward higher levels of education. According to the Census, only 38.2% of the population in Duplin County has any education above 12th grade. 251 of the 302 (83.1%) respondents that provided a response to the question of highest level of education attained indicated some education beyond the 12th grade. 16.9% reported having a graduate or professional degree, which is well above the Census finding of 2.6%. 18.5% failed to answer this question.

Level of Education for Survey Respondents

Education level	Count	%
Less than 9th grade	7	2.3
9-12th grade, no diploma	7	2.3
High school graduate (or GED/ equivalent)	36	11.9
Associate's Degree or Vocational Training	84	27.8
Some college (no degree)	41	13.6
Bachelor's degree	75	24.8
Graduate or professional degree	51	16.9
Other	1	0.3
Total	302	100.0

The reported household income was also skewed towards higher values, which is not surprising when coupled with the education component. Well over half (58.5%) indicated they were employed full-time while 1.8% reported being unemployed (non-retired) completely.

Responses from the community health survey describe priorities for county residents, including issues that most affect the quality of life in Duplin County, services that need most improvement, health behaviors about which residents need more information, and health behaviors about which children need more information.

Issues that most affect the quality of life in Duplin County

1. Low income/poverty
2. Drug abuse and distribution
3. Lack of/inadequate health insurance
4. Gang activity
5. Dropping out of school
6. Pollution (air, water, land)
7. Discrimination/racism
8. Criminal activity
9. Lack of community support

10. Domestic violence

Services needing the most improvement in the community

1. Higher paying employment
2. Availability of employment
3. Positive teen activities
4. Elder care options
5. Number of health care providers
6. Road maintenance
7. More affordable health services
8. Better/more healthy food choices
9. Healthy family activities
10. Better/more recreational facilities (parks, trails, community centers)

Health behaviors people need more information about

1. Eating well/nutrition
2. Substance abuse prevention (ex: drugs and alcohol)
3. Managing weight
4. Exercising/fitness
5. Going to the doctor for yearly check-ups and screenings
6. Quitting smoking/tobacco use prevention
7. Preventing pregnancy and sexually transmitted disease (safe sex)
8. Stress management
9. Elder care
10. Caring for family members with special needs/disabilities

Health topics that children need more information about

1. Nutrition
2. Drug abuse
3. Sexual education
4. Reckless driving/speeding
5. Sexually transmitted diseases
6. Safe sex
7. Dental hygiene
8. Alcohol

- 9. Tobacco
- 10. Eating disorders

Responses from participants indicate the importance of employment and poverty in the county as those are the top issues identified as most affecting quality of life in Duplin County and perceived as needing most improvement. For both adults and children, participants indicated the need for more information about healthy eating and nutrition, and about substance abuse prevention and education.

Based on the secondary data collection, the top four leading causes of death in Duplin County remain the same as the 2008 CHA. In the current report, motor vehicle injuries moved into the fifth position, replacing diabetes mellitus.

Quality of Life Statements

Respondents were asked their level of agreement to a number of statements about the quality of life in Duplin County. Agreement was rated using a 5 point scale ranging from 1 (strongly disagree) to 5 (strongly agree). The responses to these questions are summarized in below.

Average Score and Percent who Agree or Strongly Agree with Quality of Life Statements

How do you feel about this statement:	Average Score	Percent Agree/ Strongly Agree
There is good healthcare in Duplin County	3.25	44.4
Duplin County is a good place to raise children	3.38	53.5
Duplin County is a good place to grow old	3.35	49.3
There is plenty of economic opportunity in Duplin County	2.20	9.5
Duplin County is a safe place to live	3.63	65.3
There is plenty of help for people during times of need in Duplin County	3.29	52.2

Respondents reacted strongly to the statement regarding economic opportunity. Only 9.5% agreed or strongly agreed with the statement “There is plenty of economic opportunity in Duplin County”. 34.1% of African-Americans indicated they strongly disagreed with the statement compared to 19.7% of white respondents. There was a large difference between

African-American and white respondents to the statement “There is plenty of help for people during times of need in Duplin County” as well. 52.2% of African-Americans indicated they disagreed or strongly disagreed with the statement compared to 21.5% of white respondents.

Health Information/Personal Health

Survey respondents indicated a number of different sources they utilize for health-related information. Doctors or nurses were the most frequently cited source accounting for 47.5% of responses followed by the internet (18.8%) and friends and family (8.6%).

Where Respondents Seek Health-related Information

Where do you get most of your health-related information?	Count	%
Doctor/nurse	149	47.5
Internet	59	18.8
Friends and family	27	8.6
Books/magazines	20	6.4
Health department	19	6.1
Hospital	18	5.7
Pharmacist	8	2.5
Other	8	2.5
Church	6	1.9
Total	314	100.0

Personal Health

Self-rated health and health conditions

Overall, survey respondents rated their own health very positively; 85.5% rated their health good, very good or excellent, while only 1.2% rated their health as poor. They were also asked if a healthcare professional had ever told them that had any of a list of conditions. High blood pressure (35%), high cholesterol (34.2%), overweight/obesity (31.3%) and depression or anxiety (18.6%) were the most frequently cited conditions identified by respondents. 15.4% said yes to the question “In the past 30 days, have there been any days when feeling sad or worried kept you from going about your normal business”.

Physical activity

Over 2/3 of respondents (66.9%) indicated that they exercise outside of work for at least 30 minutes. The overwhelming majority cited their home (61.7%) as the place they engage in exercise, followed distantly by a wellness center (9.7%) and parks (9%). Not having enough time (14.8%) or being too tired (13.7%) were the most commonly identified reasons that respondents said kept them from exercising.

Tobacco use/exposure

Nearly one in ten respondents (9.7%) indicated that they currently smoked and 51.1% said that they had been exposed to secondhand smoke in the previous year. As seen below, home (33.8%) was the most frequently cited location for exposure to secondhand smoke. Restaurants (19.4%) and the workplace (17.5%) were also highly identified. Only 6.7% of current smokers said they did not want to quit and almost half (46.7%) cited a doctor as the most likely place they go to if they wanted help quitting.

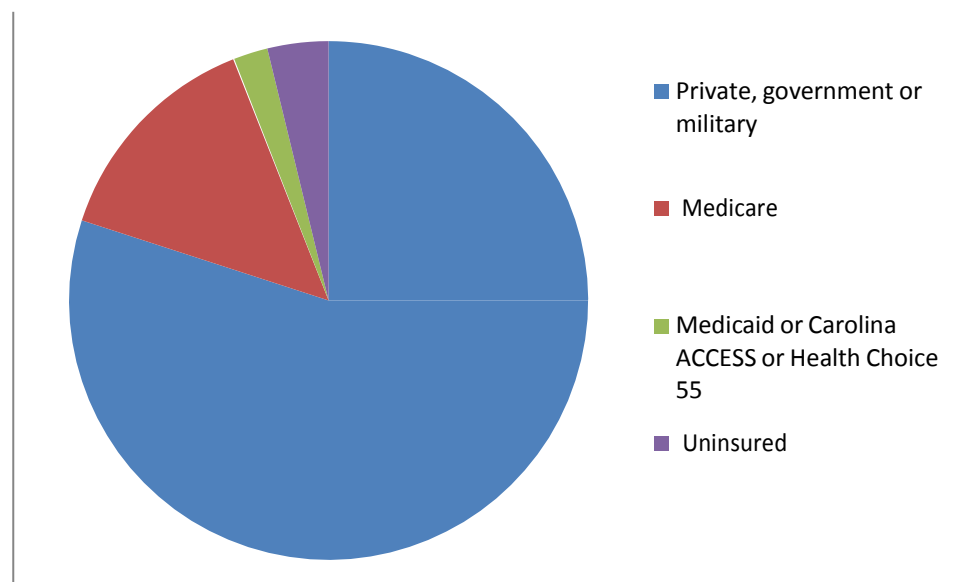
Where Respondents are Exposed to Second-hand Smoke

Where do you think you are exposed to secondhand smoke most often?	Count	%
Home	54	33.8
Other	42	26.3
Restaurants	31	19.4
Workplace	28	17.5
School	3	1.9
Hospitals	2	1.3
Total	160	100.0

Access to Care/Family Health

The vast majority of respondents identified a doctor's office (77.4%) as the location they go to when they are sick. The health department (11%) was also selected often. As shown below, the overwhelming majority of respondents used some form of private insurance for their primary health plan; 3.8% answered that they were uninsured.

Insurance Status



16.3% of respondents said they had trouble getting health care needed for themselves or a family member in the previous 12 months. Dental clinics (34.6%), general practitioners (30.8%), medical clinics (23.1%) and specialty care (17.3%) were the most frequently cited locations/types of care that they had trouble accessing. Cost or lack of insurance was overwhelmingly identified as a barrier that kept them from accessing care. Inability to get an appointment and long wait times also were often cited.

A doctor (40%) or private counselor/therapist (29.2%) were the most commonly cited places that someone would go to get help for a friend or family member that needed counseling about mental health or substance abuse problems. Religious officials (14.4%) were also highly identified.

Where Refer Family Member for Counseling

If a friend or family member needed counseling for a mental health or a drug/alcohol abuse problem, who is the first person you would tell them to talk to?	Count	%
Doctor	122	40.0
Private counselor or therapist	89	29.2
Minister/religious official	44	14.4
Don't know	28	9.2
Support group (e.g., AA, Al-Anon)	13	4.3
Other	6	2.0
School counselor	3	1.0
Total	305	100.0

Emergency Preparedness

41% of respondents said that their family had a basic emergency supply kit. Almost half (45.5%) cited television as their main way of getting information from authorities in a large-scale disaster with radio (20.9%), text message system (14.3%) and the internet (10%) also being identified. 84.6% said they would evacuate if public authorities announced a mandatory evacuation.

Chapter 6: Community Priorities

The CHA team is taking a multipronged approach to improving the health of the county residents. In order to have a chance at improving the health of the community it is important to engage diverse populations, agencies and organization in the strategic planning. Poverty, education levels are two very important determinates of health. The county's high poverty rate, low literacy levels and lack of jobs will be a factor across all the health objectives. Looking the primary and secondary data and guidance from the Healthy North Carolina 2020 objectives Duplin County's data can be categorized into broad health priority groups. The ranking is based on the magnitude of the problem, seriousness of the problem and the feasibility of a successful intervention. Looking at the table on *Duplin County-Inpatient Admissions and Charges by Principle Diagnosis* the diseases with the highest cost are largely preventable with behavioral and lifestyle changes. The highlighted sections reflect the disease that are the most costly and that can be affected by access to medical care, changes in behavior, lifestyle and healthy eating: Cancers average \$37,962/ case; Heart disease \$40,327/case; Cerebrovascular(stroke) \$31,588/case and perinatal complications is \$47,321/case.

The top four health concerns are:

1. Obesity
2. Chronic disease
3. Women's and children's health
4. Access to care

Community survey respondents ranked eating well and nutrition as top topic people needed more information about, with managing weight and exercise & fitness as 3 and 4. They also put nutrition as the number one topic children needed more information about. Looking at the health statistics this need is supported and will be a top two priorities for the county. Overweight and obesity pose significant health concerns for children and adults. Excess weight increases an individual's risk of development of type II diabetes, high blood pressure, heart disease, stroke and certain cancers. With heart disease the number one cause of death for Duplin County residents and cancer on the rise, addressing this issue will be imperative. Increased physical activity and improved nutrition are among the many factors that can help the individual decrease their risk of developing these diseases. The need to involve community partners such as the faith community, schools, civic groups and others to reach out to our population and get the needed prevention messages in the community will be a key factor to success.

The community survey respondents listed low income and poverty as the issue that most affected the quality of life in Duplin County, lack of or inadequate health insurance as number three. It is well documented in the report the need for more health care practices to serve the community but also it must be affordable. The Health Department and Federal Qualified Rural Health Centers predominately serve the low income population. The need for quality prenatal care cannot be underestimated. The Health Department, Goshen Medical Center and Vidant Duplin have prenatal programs. While some progress has been made to increase access to care the need is still great and there is more work to be completed. The need to identify those at risk and provide affordable care will be crucial.

For almost every health issue mentioned in this report the statistics for the minority population are higher than the white population. There are many factors that contribute to this disparity; higher number of minorities living at or below poverty level, cultural factors and access to health care. With the current economic status, cost of health care, the cost of insurance the numbers of uninsured in Duplin County will continue to grow over the next three years. Access to health care for this population is limited; many are denied access due to inability to pay a medical bill in full. The Community Assessment Team and its partners are committed to closing this gap.

Duplin County- Inpatient Admissions and Charges by Principle Diagnosis

DIAGNOSTIC CATEGORY	TOTAL CASES	DISCHARGE RATE (PER 1,000 POP)	AVERAGE DAYS STAY	DAYS STAY RATE (PER 1,000 POP)	TOTAL CHARGES	AVERAGE CHARGE PER DAY	AVERAGE CHARGE PER CASE
INFECTIOUS & PARASITIC DISEASES	234	4.0	6.5	26.1	\$7,015,808	\$4,598	\$29,982
-- Septicemia	168	2.9	7.5	21.5	\$5,908,728	\$4,704	\$35,171
-- AIDS	2	0.0	7.0	0.2	\$36,422	\$2,602	\$18,211
MALIGNANT NEOPLASMS	176	3.0	6.5	19.5	\$6,681,391	\$5,866	\$37,962
-- Colon, Rectum, Anus	20	0.3	5.8	2.0	\$662,788	\$5,763	\$33,139
-- Trachea, Bronchus, Lung	18	0.3	3.9	1.2	\$446,856	\$6,384	\$24,825
-- Female Breast	13	0.2	2.3	0.5	\$173,724	\$5,791	\$13,363
-- Prostate	6	0.1	1.7	0.2	\$143,134	\$14,313	\$23,856
BENIGN, UNCERTAIN & OTHER NEOPLASMS	63	1.1	3.3	3.5	\$1,374,043	\$6,703	\$21,810
ENDOCRINE, METABOLIC & NUTRIT. DISEASES	227	3.9	3.9	15.0	\$4,327,314	\$4,917	\$19,063
-- Diabetes	100	1.7	4.6	7.8	\$1,816,016	\$3,956	\$18,160
BLOOD & HEMOPOETIC TISSUE DISEASES	110	1.9	3.7	6.9	\$1,423,447	\$3,506	\$12,940
NERVOUS SYSTEM & SENSE ORGAN DISEASES	102	1.7	3.5	6.2	\$1,719,314	\$4,776	\$16,856
CARDIOVASCULAR & CIRCULATORY DISEASES	1,004	17.2	4.6	78.1	\$37,204,944	\$8,141	\$37,057
-- Heart Disease	689	11.8	4.6	54.4	\$27,785,635	\$8,732	\$40,327
-- Cerebrovascular Disease	183	3.1	4.6	14.4	\$5,780,640	\$6,865	\$31,588
RESPIRATORY DISEASES	534	9.1	4.9	44.8	\$10,776,030	\$4,115	\$20,180
-- Pneumonia/Influenza	223	3.8	4.5	17.0	\$3,638,348	\$3,653	\$16,315
-- Chronic Obstructive Pulmonary Disease	142	2.4	3.5	8.4	\$1,842,555	\$3,730	\$12,976
DIGESTIVE SYSTEM DISEASES	607	10.4	4.2	43.1	\$13,179,917	\$5,224	\$21,713
-- Chronic Liver Disease/Cirrhosis	17	0.3	6.5	1.9	\$431,718	\$3,889	\$25,395
GENITOURINARY DISEASES	350	6.0	3.9	23.1	\$4,812,324	\$3,567	\$13,749
-- Nephritis, Nephrosis, Nephrotic Synd.	112	1.9	5.0	9.6	\$1,904,905	\$3,402	\$17,008
PREGNANCY & CHILDBIRTH	893	15.3	2.5	37.7	\$6,750,218	\$3,064	\$7,559
SKIN & SUBCUTANEOUS TISSUE DISEASES	112	1.9	3.5	6.7	\$1,064,830	\$2,703	\$9,507
MUSCULOSKELETAL SYSTEM DISEASES	307	5.2	3.8	20.1	\$13,885,012	\$11,817	\$45,228
-- Arthropathies and Related Disorders	154	2.6	3.5	9.3	\$5,550,342	\$10,203	\$36,041
CONGENITAL MALFORMATIONS	16	0.3	9.0	2.5	\$1,269,021	\$8,813	\$79,314
PERINATAL COMPLICATIONS	53	0.9	12.2	11.1	\$2,508,006	\$3,864	\$47,321
SYMPTOMS, SIGNS & ILL-DEFINED CONDITIONS	247	4.2	3.3	13.9	\$4,045,173	\$4,963	\$16,377
INJURIES & POISONING	502	8.6	5.8	49.5	\$18,345,840	\$6,335	\$36,545
OTHER DIAGNOSES (INCL. MENTAL DISORDERS)	422	7.2	9.4	67.8	\$8,384,400	\$2,114	\$19,915
ALL CONDITIONS	5,959	101.9	4.7	475.5	\$144,767,031	\$5,204	\$24,298

Data source: NC State Center for Health Statistics (Does not include newborn data)

Data Sources

1. Soil Survey, Duplin County, NC U.S. Department of Agriculture 1959
2. http://www.duplincountync.com/pdfs/statistical_profile/STATISTICAL_LOCATION.pdf
3. Duplin County Land Use Plan
4. Soil Survey, Duplin County, NC U.S. Department of Agriculture 1959
5. U.S. Department of Commerce Climate Summary of the U.S. 1972
6. http://www.duplincountync.com/pdfs/statistical_profile/STATISTICAL_LOCATION.pdf
7. U.S. Census <http://quickfacts.census.gov/qfd/states/37/37061lk.html>
8. http://www.indexmundi.com/facts/united-states/quick-facts/north-carolina/population-2000#map_2000_census
9. U.S. Census <http://quickfacts.census.gov/qfd/states/37/37061lk.html>
10. NC State Center for Health Statistics <http://www.schs.state.nc.us/schs/data/databook/>
11. Leading causes of death by race and gender
<http://www.schs.state.nc.us/schs/data/databook/>
12. Heart disease rates
<http://www.schs.state.nc.us/schs/deaths/lcd/2010/heartdisease.html>
13. Heart disease by gender and race <http://www.schs.state.nc.us/schs/data/databook/>
14. Cancer <http://www.schs.state.nc.us/schs/CCR/mort0610cnty.pdf>
15. Cancer mortality 2001 – 2005
http://www.schs.state.nc.us/schs/CCR/docs/NC_2008_CountyLevelData.pdf
16. Cancer by gender and race <http://www.schs.state.nc.us/schs/CCR/mortality.html>
17. Stroke <http://www.schs.state.nc.us/schs/data/databook/>
18. Stroke 2001 – 2005 <http://www.schs.state.nc.us/schs/data/databook/2007/>
19. Stroke race and gender <http://www.schs.state.nc.us/schs/data/databook/>
20. Chronic lower resp disease <http://www.schs.state.nc.us/schs/data/databook/>
21. Motor vehicle <http://www.schs.state.nc.us/schs/data/databook/>
22. Diabetes <http://www.schs.state.nc.us/schs/data/databook/>
23. Diabetes 2001 – 2005 <http://www.schs.state.nc.us/schs/data/databook/2007/>
24. Diabetes by race <http://www.schs.state.nc.us/schs/data/databook/>
25. BRFSS diabetes
26. Unintentional injuries <http://www.schs.state.nc.us/schs/data/databook/>
27. UI 2001 – 2005 <http://www.schs.state.nc.us/schs/data/databook/2007/>
28. UI gender <http://www.schs.state.nc.us/schs/data/databook/>
29. Nephritis <http://www.schs.state.nc.us/schs/data/databook/>
30. Nephritis 2001 – 2005 <http://www.schs.state.nc.us/schs/data/databook/2007/>
31. Alzheimer's <http://www.schs.state.nc.us/schs/data/databook/>
32. Septicemia <http://www.schs.state.nc.us/schs/data/databook/>

33. County health data books maternal risk factors
<http://www.schs.state.nc.us/schs/data/databook/>
34. Teen pregnancy rates <http://www.schs.state.nc.us/schs/data/databook/CD9A%2015-17%20Preg%20rates%20by%20race.html>
35. Infant mortality 2006 – 2010
<http://www.schs.state.nc.us/schs/data/databook/CD12C%20inf%20death%20rates.html>
36. Infant mortality 2001 -2005 <http://www.schs.state.nc.us/schs/data/databook/2007/>
37. Infant mortality by race <http://www.schs.state.nc.us/schs/data/databook/>
38. <http://www.schs.state.nc.us/schs/data/databook/CD4-6%20LBW%20&%20VLBW%20by%20race.html>
39. <http://www.schs.state.nc.us/schs/data/databook/>
40. <http://www.schs.state.nc.us/schs/data/databook/>
41. <http://www.schs.state.nc.us/schs/data/databook/>
42. <http://www.schs.state.nc.us/schs/data/databook/>
43. Duncan, D.F., Kum, H.C., Flair, K.A., Stewart, C.J., Vaughn, J., Bauer, R., and You, A. (2012). Management Assistance for Child Welfare, Work First, and Food & Nutrition Services in North Carolina. Retrieved [11/08/2012], from University of North Carolina at Chapel Hill Jordan Institute for Families website. URL: <http://ssw.unc.edu/ma/>
44. <http://www.cdc.gov/diabetes/atlas/countydata/atlas.html>
45. <http://www.nutritionnc.com/pdfPregPed/ncpass/2010/TableCountyObesityRates.pdf>
46. <http://www.nhlbi.nih.gov/health/health-topics/topics/asthma/atrisk.html>
47. 2011 NC Behavioral Risk Factor Surveillance System
48. Asthma deaths, 2010
<http://www.schs.state.nc.us/schs/deaths/dms/2010/northcarolina.pdf>
49. [2011 – 2012 End of Year Report, Section 2, School Health Nursing Survey and Program Summary](http://www.schs.state.nc.us/schs/deaths/dms/2010/northcarolina.pdf)
50. NC EDSS TB Surveillance - Demographic Data Report.
http://epi.publichealth.nc.gov/cd/tb/figures/ratebycounty2007_2011.pdf
51. NC Health Data Explorer.
<http://150.216.202.228/InstantAtlas/Simple%20Map%20Series%201/atlas.html>
52. North Carolina HIV/STD Surveillance Report
<http://epi.publichealth.nc.gov/cd/stds/figures.html>
53. North Carolina HIV/STD Surveillance Report
<http://epi.publichealth.nc.gov/cd/stds/figures.html>
54. Gonorrhea race <http://epi.publichealth.nc.gov/cd/stds/figures/std11rpt.pdf>
55. North Carolina HIV/STD Surveillance Report
<http://epi.publichealth.nc.gov/cd/stds/figures/std11rpt.pdf>
56. Health insurance rates

57. 2006-2010 American Community Survey 5-year estimates, US Census
58. North Carolina Department of Public Instruction
<http://accessnc.commerce.state.nc.us/docs/countyProfile/NC/37061.pdf>
59. (district report card)
60. SAT of 909
<http://datacenter.kidscount.org/data/bystate/stateprofile.aspx?state=NC&loc=5044>
61. <http://dpi.state.nc.us/docs/research/discipline/reports/consolidated/2010-11/consolidated-report.pdf>
62. NC School Report Cards
<http://www.ncschoolreportcard.org/src/servlet/srcCreatePDF?pLEACode=310&pYear=2011-2012&pDataType=1>
63. James Sprunt Community College
64. <http://accessnc.commerce.state.nc.us/EDIS/page1.html>
65. <http://crimereporting.ncdoj.gov/>
66. <http://sexoffender.ncdoj.gov/stats.aspx>
67. Juvenile delinquency rate
<http://datacenter.kidscount.org/data/bystate/stateprofile.aspx?state=NC&group=All&loc=4940&dt=1%2c3%2c2%2c4>
68. <http://dpi.state.nc.us/docs/research/discipline/reports/consolidated/2010-11/consolidated-report.pdf>
69. <http://dpi.state.nc.us/docs/research/discipline/reports/consolidated/2010-11/consolidated-report.pdf>
70. <http://quickfacts.census.gov/qfd/states/37/37061lk.html>
71. <http://www.ers.usda.gov/data-products/county-level-data-sets/poverty.aspx>
72. Food stamps/snap
http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_10_5YR_S2201&prodType=table
73. <http://datacenter.kidscount.org/data/bystate/stateprofile.aspx?state=NC&group=All&loc=4940&dt=1%2c3%2c2%2c4>
74. NC Dept. of Commerce
<http://eslmi03.esc.state.nc.us/ThematicLAUS/clfasp/CLFSAAYResults.asp>
75. www.countyhealthrankings.org

Appendix A - 2012 Community Health Assessment Committee

Lynn Hardy; Co-Chair Duplin Partners for Health, Carolina East Home Care and Hospice

Alex Asbun, Latino Access Director, Vidant Duplin Hospital

Laura Maready, Marketing Director, Vidant Duplin Hospital

Jay Briley, President of Vidant Duplin Hospital

Tom Fife, Vidant Duplin Hospital

Christina Miller, Vidant Duplin Hospital

Annette Taylor, Vidant Duplin Hospital

Brooke Bitzenhofer, Community Outreach, Vidant Duplin Hospital

Erica Edwards, Community Outreach, Vidant Duplin Hospital

Carolyn Ezzell, Director Duplin Partners for Health, Vidant Duplin Hospital

Wanda Clay, Department Head Cooperative Extension

Joan Williams, Director Duplin Partnership for Children

Paula Miller, Co-Chair Duplin Partners for Health, Duplin Partnership for Children

Eric Bush, Director Department of Social Services

Darlene Leysath, The Cornerstone CDC

Bridgett White—Jones, Duplin County Schools

B.G. Kennedy, Director of Support Services, Duplin County Schools

Ila Davis, Health Director Duplin County Health Department

Samantha Kennedy, Duplin County Health Department

Beth Ricci, Duplin County Health Department

Appendix B – 2012 Duplin County Community Health Survey

2012 Duplin County Community Health Survey

Do you live in Duplin County? _____ Yes _____ Zip code

_____ No, Thanks for your time but do not complete the survey.

PART 1: Quality of Life Statements

Please tell us whether you “strongly disagree”, “disagree”, “neutral”, “agree” or “strongly agree” with each of the next 6 statements.

Statements					
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. How do you feel about this statement, “There is good healthcare in Duplin County”? Consider the cost and quality, number of options, and availability of healthcare in the county.	1	2	3	4	5
2. How do you feel about this statement, “Duplin County is a good place to raise children”? Consider the quality and safety of schools and child care programs, after school programs, and places to play in this county.	1	2	3	4	5
3. How do you feel about this statement, “Duplin County is a good place to grow old”? Consider the county’s elder-friendly housing, transportation to medical services, recreation, and services for the elderly.	1	2	3	4	5
4. How do you feel about this statement, “There is plenty of economic opportunity in Duplin County”? Consider the number and quality of jobs, job training/higher education opportunities, and availability of affordable	1	2	3	4	5

housing in the county.	
5. How do you feel about this statement, “Duplin County is a safe place to live”? Consider how safe you feel at home, in the workplace, in schools, at playgrounds, parks, and shopping centers in the county.	<div>1 2 3 4 5</div>
6. How do you feel about this statement, “There is plenty of help for people during times of need in Duplin County”? Consider social support in this county: neighbors, support groups, faith community outreach, community organizations, and emergency monetary assistance.	<div>1 2 3 4 5</div>

PART 2: Community Improvement

The next set of questions will ask about community problems, issues, and services that are important to you. Remember your choices will not be linked to you in any way.

7. Please look at this list of community issues. In your opinion, which issues most affects the quality of life in Duplin County? (Please choose three.)

- | | |
|--|---|
| a. <input type="checkbox"/> Pollution (air, water, land) | i. <input type="checkbox"/> Elder abuse |
| b. <input type="checkbox"/> Dropping out of school | j. <input type="checkbox"/> Child abuse |
| c. <input type="checkbox"/> Low income/poverty | k. <input type="checkbox"/> Domestic Violence |
| d. <input type="checkbox"/> Homelessness | l. <input type="checkbox"/> Violent crime (murder, assault) |
| e. <input type="checkbox"/> Lack of/ inadequate health insurance | m. <input type="checkbox"/> Criminal Activity |
| f. <input type="checkbox"/> Hopelessness | n. <input type="checkbox"/> Rape/sexual assault |
| g. <input type="checkbox"/> Discrimination/ racism | o. <input type="checkbox"/> Gang Activity |
| | p. <input type="checkbox"/> Drug Abuse and distribution |

h. ____ Lack of community support

q. ____ Other: _____

8. In your opinion, which one of the following services needs the most improvement in your neighborhood or community? (Please choose only one.)

a. ____ Animal control

j. ____ Provide language services/

b. ____ Child care options

Interpreters

c. ____ Elder care options

k. ____ Better/ more recreational facilities

d. ____ Services for disabled people

(parks, trails, community centers)

e. ____ More affordable health

l. ____ Healthy family activities

services

m. ____ Positive teen activities

f. ____ Better/ more healthy food

n. ____ Transportation options

choices

o. ____ Availability of employment

g. ____ More affordable/better housing

p. ____ Higher paying employment

h. ____ Number of health care provider

q. ____ Road maintenance

i. ____ Counseling/ mental health/

r. ____ Road safety

support groups

s. ____ Other: _____

Part 3. Health Information

9. In your opinion, which one health behaviors do people in your own community need more information about?

- | | | |
|---|--|--|
| a. <input type="checkbox"/> Eating well/ nutrition | i. <input type="checkbox"/> Using child safety seats | q. <input type="checkbox"/> Substance abuse prevention (ex: drugs and alcohol) |
| b. <input type="checkbox"/> Exercising/ fitness | j. <input type="checkbox"/> Using seat belts | |
| c. <input type="checkbox"/> Managing weight | k. <input type="checkbox"/> Driving safely | r. <input type="checkbox"/> Suicide prevention |
| d. <input type="checkbox"/> Going to a dentist check-ups/ preventive care | l. <input type="checkbox"/> Quitting smoking/ tobacco use prevention | s. <input type="checkbox"/> Stress management |
| e. <input type="checkbox"/> Going to the doctor for yearly check-ups and screenings | m. <input type="checkbox"/> Child care/ parenting | t. <input type="checkbox"/> Anger management |
| f. <input type="checkbox"/> Getting prenatal care during pregnancy | n. <input type="checkbox"/> Elder care | u. <input type="checkbox"/> Domestic violence prevention |
| g. <input type="checkbox"/> Getting flu shots and other vaccines | o. <input type="checkbox"/> Caring for family members with special needs/ disabilities | v. <input type="checkbox"/> Crime prevention |
| h. <input type="checkbox"/> Preparing for an emergency/disaster | p. <input type="checkbox"/> Preventing pregnancy and sexually transmitted disease (safe sex) | w. <input type="checkbox"/> Rape/ sexual abuse prevention |
| | | x. <input type="checkbox"/> Other _____ |

10. Where do you get most of your health-related information? Please choose only one.

- | | |
|--|--|
| a. <input type="checkbox"/> Friends and family | <input type="checkbox"/> Hospital |
| b. <input type="checkbox"/> Doctor/nurse | <input type="checkbox"/> Health department |
| c. <input type="checkbox"/> Pharmacist | <input type="checkbox"/> Help lines |
| d. <input type="checkbox"/> Church | <input type="checkbox"/> Books/magazines |
| e. <input type="checkbox"/> Internet | <input type="checkbox"/> Other _____ |
| f. <input type="checkbox"/> My child's school | |

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

12. Which of the following health topics do you think your child/children need(s) more information about? *Check all that apply.*

- | | | |
|--|----------------------------|--------------------------|
| a. _____Dental hygiene | f.____Tobacco | k.____Drug Abuse |
| b. _____Nutrition | g.____Sexually Transmitted | |
| Diseases l.____Reckless driving/speeding | c.____Eating Disorders | h.____ |
| ____Sexual education | m.____Mental health issues | |
| d.____Asthma management | i.____Alcohol | n.____Suicide prevention |
| e.____Diabetes management | j. ____Safe Sex | o.____Other |

PART 4: Personal Health

These next questions are about your own personal health. Remember, the answers you give for this survey will not be linked to you in any way.

13. Would you say that, in general, your health is... (Choose only one.)

- | | |
|----------------|--------------------------|
| _____Excellent | _____Fair |
| _____Very good | _____Poor |
| _____Good | _____Don't know/Not sure |

14. Have you ever been told by a doctor, nurse, or other health professional that you have any of the health conditions? (DK= Don't know/ Not sure;)

- | | | |
|------------------------------------|----------|----------------|
| a. Asthma | _____Yes | _____No_____DK |
| b. Depression or anxiety | _____Yes | _____No_____DK |
| c. High blood pressure | _____Yes | _____No_____DK |
| d. High cholesterol | _____Yes | _____No_____DK |
| e. Diabetes (not during pregnancy) | _____Yes | _____No_____DK |

- f.** Osteoporosis ____ Yes ____ No ____ DK
- g.** Overweight/Obesity ____ Yes ____ No ____ DK

- h. Angina/ heart disease ☐ Yes ☐ No ☐ DK
- i. Cancer ☐ Yes ☐ No ☐ DK

15. In the past 30 days, have there been any days when feeling sad or worried kept you from going about your normal business?

☐ Yes ☐ No ☐ Don't know/ Not sure

16. During a normal week, outside of your regular job, do you engage in any physical activity or exercise that lasts at least 30 minutes?

☐ Yes ☐ No ☐ Don't know/ Not sure

17. Since you said yes, how many times do you exercise or take part in physical activity during a normal week? _____(Write number)

18. Where do you go to exercise or take part in physical activity? Check all that apply.

- a. _____ Wellness center d. _____ Private gym
- b. _____ Park e. _____ Home
- c. _____ Public Recreation Center f. _____ Other: _

19. Since you said "no", what are the reasons you do not exercise for at least 30 minutes during a normal week? You can give as many of these reasons as you need to.

- a. _____ My job is physical or hard labor
- b. _____ Exercise is not important to me.
- c. _____ I don't have access to a facility that has the things I need, like a pool, golf course, or a track.

b.____Doctor

g. I don't know

- c. ____ Church
- d. ____ Pharmacy
- e. ____ Private counselor/therapist
- h. ____ Other: _____
- i. Not applicable; I don't want to quit

Part 5. Access to Care/ Family Health

24. Where do you go most often when you are sick? (Choose only one please.)

- ____ Doctor's office
- ____ Health department
- ____ Hospital
- ____ Medical Clinic
- ____ Urgent Care Center
- ____ Other: _____

25. What is your primary health insurance plan? This is the plan which pays the medical bills first or pays most of the medical bills? (Please choose only one.)

- a. ____ The State Employee Health Plan
- b. ____ Blue Cross and Blue Shield of North Carolina
- c. ____ Other private health insurance plan purchased from employer or workplace
- d. ____ Other private health insurance plan purchased directly from an insurance company
- e. ____ Medicare
- f. ____ Medicaid or Carolina ACCESS or Health Choice 55
- g. ____ The military, Tricare, CHAMPUS, or the VA
- h. ____ The Indian Health Service
- i. ____ Other (government plan)
- j. ____ No health plan of any kind
- k. Don't know/Not sure

26. In the past 12 months, did you have a problem getting the health care you needed for yourself or a family member from any type of health care provider, dentist, pharmacy, or other facility?

_____Yes

_____No

____ Don't know/ Not sure

27. Since you said “yes,” what type of provider or facility did you or your family member have trouble getting health care from? You can choose as many of these as you need to. If there was a provider that you tried to see but we do not have listed here, please write in “other”.

____Dentist

____ Urgent Care Center

____ General practitioner

_____Medical Clinic

____Eye care/ optometrist/ ophthalmologist ____Specialist

_____Specialist

____ Pharmacy/ prescriptions

_____Hospital

____ Pediatrician

_____ Other

____OB/GYN

____Health department

28. Which of these problems prevented you or your family member from getting the necessary health care? You can choose as many of these as you need to. If you had a problem that we do not have written here, please write in "other".

- a. ____ No health insurance.
- b. ____ Insurance didn't cover what I/we needed.
- c. ____ My/our share of the cost (deductible/co-pay) was too high.
- d. ____ Doctor would not take my/our insurance or Medicaid.
- e. ____ Hospital would not take my/our insurance.
- f. ____ Pharmacy would not take my/our insurance or Medicaid.
- g. ____ Dentist would not take my/our insurance or Medicaid.
- h. ____ No way to get there.
- i. ____ Didn't know where to go.
- j. ____ Couldn't get an appointment.
- k. ____ The wait was too long.
- l. ____ Other: _____

29. If a friend or family member needed counseling for a mental health or a drug/alcohol abuse problem, who is the first person you would tell them to talk to? Please choose only one.

- a. _____ Private counselor or therapist e. _____ Doctor
b. _____ Support group (e.g., AA, Al-Anon) f. _____
Minister/religious official
c. _____ School counselor g. _____
Other: _____
d. Don't know

Part 6. Emergency Preparedness

30. Does your family have a basic emergency supply kit?

(These kits include water, non-perishable food, any necessary prescriptions, first aid supplies, flashlight and batteries, non-electric can opener, blanket, etc.)

___ Yes ___ No ___ Don't know/Not sure

31. If yes, how many days do you have supplies for? _____ (Write number of days)

32. What would be your main way of getting information from authorities in a large-scale disaster or emergency? (Check only one.)

- ___ a. Television
___ b. Radio
___ c. Internet
___ d. Print media (ex: newspaper)
___ e. Social networking site
___ f. Neighbors
___ g. Text message (emergency alert system)

____ h. Other (describe) _____

☐ i. Don't know/ Not sure

33. 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

☐ Don't know/ Not sure

34. What would be the main reason you might not evacuate if asked to do so?

(Check only one.)

☐ a. Lack of transportation

☐ b. Lack of trust in public officials

☐ c. Concern about leaving property behind

☐ d. Concern about personal safety

☐ e. Concern about family safety

☐ f. Concern about leaving pets

☐ g. Concern about traffic jams and inability to get out

☐ h. Health problems (could not be moved)

☐ i. Other (describe) _____

☐ j. Don't know/ Not sure

Part 7. Demographic Questions

Your answers will remain anonymous.

35. How old are you? (Check age category.)

☐ 15 - 19

☐ 35 - 39

☐ 55 - 59

☐ 75 - 79

☐ 20 - 24

☐ 40 - 44

☐ 60 - 64

☐ 80 - 84

_____ 25 - 29 _____ 45 - 49 _____ 65 - 69 _____ 85 or older
_____ 30 - 34 _____ 50 - 54 _____ 70 - 74

36. Are you Male or Female? _____ Male _____ Female

37. a) Are you of Hispanic, Latino, or of Spanish origin?

_____ Yes _____ No

b) If yes, are you: _____ Mexican, Mexican American, or Chicano

_____ Honduran

_____ Guatemalan

_____ Other Hispanic or Latino (please specify) _____

38. What is your race? (Please check all that apply.)

_____ White

_____ Black or African American

_____ American Indian or Alaska Native (*List tribe(s)*) _____

_____ Asian Indian

_____ Other Asian including Japanese, Chinese, Korean, Vietnamese, and Filipino/a:

_____ Pacific Islander including Native Hawaiian, Samoan, Guamanian/ Chamorro:

_____ Other race not listed here: (*write in race*) _____

39. A. Do you speak a language other than English at home?

_____ Yes _____ No

B. If yes, what language do you speak at home? _____

40. What is your marital status?

_____ Never Married/Single

_____ Divorced

_____ Married

_____ Widowed

_____ Unmarried partner

_____ Separated

_____ Other

41. What is the highest level of school, college or vocational training that you have finished? (*Mark only one.*)

_____ Less than 9th grade

_____ 9-12th grade, no diploma

_____ High school graduate (or GED/ equivalent)

_____ Associate's Degree or Vocational Training

_____ Some college (no degree)

_____ Bachelor's degree

_____ Graduate or professional degree

_____ Other: _____

42. What was your total household income last year, before taxes? Please check only one.

_____ Less than \$10,000	_____ \$35,000 to \$49,999
_____ \$10,000 to \$14,999	_____ \$50,000 to \$74,999
_____ \$15,000 to \$24,999	_____ \$75,000 to \$99,999
_____ \$25,000 to \$34,999	_____ \$100,000 or more

What is your employment status? (Check all that apply.)

- | | |
|--|--|
| a. _____ Employed full-time | g. _____ Disabled |
| b. _____ Employed part-time | h. _____ Student |
| c. _____ Retired | i. _____ Stay at home parent/caregiver |
| d. _____ Armed forces | j. _____ Self-employed |
| e. _____ Unemployed for more than 1 year | k. _____ Unemployed for 1 year or less |

43. Do you have access to the Internet?

_____ Yes _____ No _____ Don't know/ Not sure

These are all the questions that we have.

Thank you so much for taking the time to complete this survey!

T
h
i
s

s
u
r
v
e
y

i
s

a

c
o
m
b
i
n
e
d

e
f
f
o
r
t

o
f

t
h
e

Duplin County Health Department

Vidant Duplin Hospital

Duplin Partners for Health and other community agencies.



2012 Encuesta de Opinion Sobre la Salud del Condado de Duplin

¿Reside usted en el condado de Duplin? Sí _____ Código Postal _____ No _____

(Si no reside en el condado gracias por su tiempo usted no tiene que completar este cuestionario.)

Sección 1. Preguntas sobre la calidad de vida

Preguntas	Marque con un círculo el número que mejor represente la opinión de la persona sobre cada pregunta.				
	Totalmente en desacuerdo	En desacuerdo	Neutro	De acuerdo	Totalmente de acuerdo
1. ¿Qué piensa de la afirmación: "En el condado de Duplin hay un buen sistema de salud"?					
Piense en el precio y la calidad, las opciones que existen y la facilidad con	1	2	3	4	5



que se puede recibir atención médica en el condado.	
2. ¿Qué piensa de la afirmación: "El condado de Duplin es un buen lugar para tener hijos"? Piense en la calidad y seguridad de las escuelas y los programas de guardería infantil, los programas extraescolares y los lugares en los que los niños pueden jugar en el condado.	<div>1 2 3 4 5</div>
3. ¿Qué piensa de la afirmación: "El condado de Duplin es un buen lugar para personas de edad avanzada"? Piense si en el condado existen viviendas para personas de edad avanzada, servicios de transporte a los centros médicos, entretenimiento y servicios para mayores.	<div>1 2 3 4 5</div>
4. ¿Qué piensa de la afirmación: "En el condado de Duplin existen muchas oportunidades laborales"? Piense en el número y la calidad de puestos de trabajo disponibles, las oportunidades de capacitación laboral y de educación superior, y sobre la existencia de vivienda asequible en el condado.	<div>1 2 3 4 5</div>
5. ¿Qué piensa de la afirmación: "El condado de Duplin es un lugar seguro para vivir"? Piense en si se siente seguro(a) en casa, en el trabajo, en la escuela, en las áreas de recreo, en los parques y en los centros comerciales del condado.	<div>1 2 3 4 5</div>
6. ¿Qué piensa de la afirmación: "En el condado de Duplin existe mucha ayuda para las personas y las familias necesitadas"? Piense en el sistema social de ayuda del condado: vecinos, grupos de apoyo, iniciativas comunitarias de las iglesias, organizaciones de la comunidad y asistencia monetaria de emergencia.	<div>1 2 3 4 5</div>

Díganos si está "totalmente en desacuerdo", "en desacuerdo", "neutro", "de acuerdo" o "totalmente de acuerdo" con cada una de las 6 afirmaciones siguientes.

Sección 2. Mejoras en la comunidad

Las preguntas siguientes tratan de los problemas, asuntos y servicios de la comunidad que son importantes para usted. Recuerde que sus respuestas no se relacionarán con usted de ningún modo.

8. Lea esta lista de asuntos comunitarios. (En su opinión, ¿Cuáles son los problemas que más afectan la calidad de vida en el condado de Duplin? (Elija tres solamente.) Si alguno de los asuntos que usted considera más graves no está en la lista, dígamelo para que lo pueda añadir. Si lo desea, puedo leerle la lista en voz alta mientras piensa su respuesta.

- | | |
|---|---|
| <input type="checkbox"/> Contaminación (aire, agua, tierra) | <input type="checkbox"/> Abandono y abuso (<i>indica rel tipo</i>) |
| <input type="checkbox"/> Abandono de los estudios | <input type="checkbox"/> Abuso de ancianos |
| <input type="checkbox"/> Ingresos bajos/pobreza | <input type="checkbox"/> Abuso de niños |
| <input type="checkbox"/> Personas sin hogar | <input type="checkbox"/> Violencia doméstica |
| <input type="checkbox"/> Falta de seguro médico o seguro insuficiente | <input type="checkbox"/> Crímenes violentos (asesinatos, asaltos, etc.) |
| <input type="checkbox"/> Falta de confianza en el futuro | <input type="checkbox"/> Actividad criminal (robo, etc.) |
| <input type="checkbox"/> Discriminación / racismo | <input type="checkbox"/> Violaciones/agresiones sexuales |
| <input type="checkbox"/> Falta de apoyo de la comunidad | <input type="checkbox"/> Pandillas |
| | <input type="checkbox"/> Drogadicción / distribución de drogas |
| | <input type="checkbox"/> Otros: _____ |
| | <input type="checkbox"/> Ninguno |

44. ¿Cuál de los servicios siguientes piensa usted que necesita mejorar más en su barrio o comunidad? (Elija una respuesta solamente.) Si alguno de los servicios que usted considera que necesitan mejorar más no está en la lista, dígamelo para que lo pueda añadir. Si lo desea, puedo leerle la lista en voz alta mientras piensa su respuesta.

- | | |
|--|---|
| <input type="checkbox"/> Control de los animales | <input type="checkbox"/> Servicio de intérpretes / traducción |
| <input type="checkbox"/> Opciones de guardería infantil | <input type="checkbox"/> Mejores / más espacios recreativos
(parques, senderos para ejercicio, centros comunitarios, etc.) |
| <input type="checkbox"/> Opciones de cuidados para mayores | |
| <input type="checkbox"/> Servicios para discapacitados | <input type="checkbox"/> Actividades familiares saludables |

- | | |
|---|--|
| <input type="checkbox"/> Servicios de salud más asequibles | <input type="checkbox"/> Actividades positivas para adolescentes |
| <input type="checkbox"/> Mejores o más opciones de alimentación sana | <input type="checkbox"/> Opciones de transporte |
| <input type="checkbox"/> Vivienda mejor/más asequible | <input type="checkbox"/> Disponibilidad de empleo |
| <input type="checkbox"/> Cantidad de proveedores de servicios médicos | <input type="checkbox"/> Empleos bien pagados |
| <input type="checkbox"/> ¿De qué tipo? _____ | <input type="checkbox"/> Mantenimiento de carreteras |
| <input type="checkbox"/> Asesoría/salud mental/grupos de apoyo | <input type="checkbox"/> Seguridad en carretera |
| | <input type="checkbox"/> Otros: _____ |
| | <input type="checkbox"/> Ninguno |

Parte 3. Información sobre la salud

45. ¿Cuál es en su opinión el asunto sobre el que más información necesitan las personas en su comunidad para el cuidado de su salud? (Sugiera solo uno.)

- | | | |
|--|---|--|
| <input type="checkbox"/> Comer bien/nutrición | <input type="checkbox"/> Utilizar asientos de seguridad para niños | <input type="checkbox"/> Prevenir la drogadicción y el alcoholismo |
| <input type="checkbox"/> Ejercicio/condición física | <input type="checkbox"/> Ponerse el cinturón de seguridad | <input type="checkbox"/> Prevenir el |
| <input type="checkbox"/> Control del peso | <input type="checkbox"/> Manejar con seguridad | <input type="checkbox"/> Controlar el estrés |
| <input type="checkbox"/> Ir al dentista para revisiones/cuidados preventivos | <input type="checkbox"/> Dejar de fumar /Prevención para el consumo de tabaco | <input type="checkbox"/> Controlar la agresividad |
| <input type="checkbox"/> Ir al médico para revisiones y evaluaciones anuales | <input type="checkbox"/> Cuidados de niños / paternidad responsable | <input type="checkbox"/> Prevenir la violencia doméstica |
| <input type="checkbox"/> Obtener atención prenatal durante el embarazo | <input type="checkbox"/> Cuidados para mayores | <input type="checkbox"/> Prevenir el crimen |
| <input type="checkbox"/> Ponerse vacunas antigripales u otras | <input type="checkbox"/> Cuidados para familiares con necesidades especiales / discapacidades | <input type="checkbox"/> Prevenir la violación/abuso sexual |
| <input type="checkbox"/> Prepararse para | | <input type="checkbox"/> Otras: _____ |
| | | <input type="checkbox"/> Ninguno |

emergencias/desastres

____Prevenir el embarazo y las
enfermedades de transmisión
sexual (prácticas sexuales
seguras)

46. ¿Dónde obtiene usted la mayoría de la información sobre la salud? Elija una respuesta solamente.

____Amigos y familia

____Hospital

____Médico/enfermera

____Departamento de salud

____Farmacéutico

____Teléfonos de ayuda

____Iglesia

____Libros/revistas

____Internet

____Otro _____

____La escuela de mis hijos

47. ¿Hay algún tema de la salud o alguna enfermedad sobre la que a usted le gustaría saber más?

48. ¿Sobre cuáles de los siguientes temas de salud piensa usted que sus hijos necesitan más información?

a.____Higiene dental

f.____Tabaco

j.____Drogadicción

b.____Nutrición

g.____Enfermedades de
transmisión sexual

k.____manejar irresponsablemente
/velocidad excesiva

c.____Trastornos

h.____Educación sexual

l.____Problemas mentales

alimenticios

d. ____ Control del asma

i. ____ Alcohol

m. ____ Prevención del suicidio

e. ____ Control de la
diabetes

n. Otro _____

Sección 4. Salud personal

Las siguientes preguntas son sobre su salud personal. Recuerde que las respuestas no serán relacionadas con usted en ningún momento.

49. Diría usted que en general su salud es...

_____ Excelente

_____ Regular

_____ Muy buena

_____ Deficiente

_____ Buena

_____ No sabe/No está seguro(a)

50. ¿Le ha dicho alguna vez un médico, enfermera u otro profesional de la salud que sufría alguna de las siguientes condiciones? (NS No estoy Seguro)

j. Asma

_____ Sí _____ No _____ NS

k. Depresión o ansiedad

_____ Sí _____ No _____ NS

l. Presión arterial alta

_____ Sí _____ No _____ NS

m. Colesterol alto

_____ Sí _____ No _____ NS

n. Diabetes (excepto si estaba embarazada)

_____ Sí _____ No _____ NS

o. Osteoporosis

_____ Sí _____ No _____ NS

p. Sobrepeso/obesidad

_____ Sí _____ No _____ NS

q. Angina/problemas de corazón

_____ Sí _____ No _____ NS

r. Cáncer

_____ Sí _____ No _____ NS

51. ¿Ha habido algún momento en los últimos 30 días en el que se sintiera tan triste o preocupado(a) que le costara seguir con sus actividades normales?

_____ Sí

_____ No

52. Ahora voy a hacerle unas preguntas sobre su condición física. Aparte de su trabajo, ¿hace durante la semana algún tipo de ejercicio o actividad física que dure media hora como mínimo?

No sabe/ No está seguro(a)

f. Otro:

m. Otro

_____ No sabe/ No está seguro(a)

e. Escuela

- b. ____ Trabajo f. ____ Otro: _____
- c. ____ Hospitales g. ____ No estoy expuesto(a) al humo de fumadores.
- d. ____ Restaurantes

58. ¿Fuma usted?

____ Sí ____ No

59. ¿A dónde acudiría para que le ayudaran a dejar de fumar?

- a. ____ Quit Line NC f. ____ Departamento de salud
- b. ____ Médico g. ____ No sabe
- c. ____ Iglesia h. ____ Otro
- d. ____ Farmacia i. ____ No quiero dejar de fumar
- e. ____ Consejero o terapeuta privado

Parte 5. Acceso a atención/salud familiar

60. ¿A dónde acude con más frecuencia cuando se enferma?

- ____ Consultorio médico ____ Clínica
- ____ Departamento de salud ____ Centro de urgencias
- ____ Hospital ____ Otro: _____

61. ¿Qué plan de seguro de salud tiene? ¿Es este el plan que paga las facturas médicas primero o que paga la mayoría de las facturas médicas?

(Elija una respuesta solamente.)

- a. ____ The State Employee Health Plan
- b. ____ Blue Cross and Blue Shield of North Carolina
- c. ____ Otro plan de seguro médico privado pagado por el empleador o lugar de trabajo
- d. ____ Otro plan de seguro médico privado adquirido directamente del asegurador
- e. ____ Medicare

f. ____ Medicaid o Carolina ACCESS o Health Choice 55

g. ____ Militar, Tricare, CHAMPUS o VA

h. ____ The Indian Health Service

i. ____ Otro (plan del gobierno)

j. ____ No tiene seguro médico

62. ¿Ha tenido algún problema para obtener atención para usted o alguien de su familia de algún proveedor médico, dentista, farmacia u otro tipo de establecimiento médico en los últimos 12 meses?

____ Sí

____ No

____ No sabe/ No está seguro(a)

63. Si usted contesto “sí” a la pregunta anterior ¿Con qué proveedor o centro médico tuvo usted o su familiar el problema para obtener atención? Puede elegir todas las respuestas que necesite. Si el proveedor con el que tuvo el problema no está en la lista, dígamelo y yo lo anotaré.

____ Dentista

____ Médico de medicina general

____ Óptica/optometrista/oftalmólogo

____ Clínica

____ Farmacia/recetas

____ Especialista

____ Pediatra

____ Hospital

____ Ginecólogo/obstetra

____ Otro

____ Departamento de salud

____ Centro de urgencias

64. ¿Cuál de los problemas siguientes evitó que usted o su familiar obtuvieran la atención médica necesaria? Puede elegir todas las respuestas que necesite. Si alguno de los problemas que tuvo no está en la lista, dígamelo y yo lo anotaré.

____ No tenía seguro.

____ El seguro no cubría lo que necesitaba.

____ La parte de la factura que había que pagar (deducible/copago) era demasiado alta.

____ El médico no aceptaba el seguro o Medicaid.

- ___ El hospital no aceptaba el seguro.
- ___ La farmacia no aceptaba el seguro o Medicaid.
- ___ El dentista no aceptaba el seguro o Medicaid.
- ___ No tenía forma de llegar hasta allí.
- ___ No sabía a dónde ir.
- ___ No se pudo conseguir una cita.
- ___ La espera era demasiado larga.
- ___ Otro: _____

65. Si un amigo o familiar tuviera algún problema de salud mental, de alcoholismo o de drogadicción, ¿quién sería la primera persona con la que le recomendaría que hablara? Estas son algunas posibilidades. Elija una respuesta solamente.

- | | |
|--|-------------------------|
| a. ___ Consejero o terapeuta privado | e. ___ Médico |
| b. ___ Grupo de apoyo (ej., AA. Al-Anon) | f. ___ Sacerdote/Pastor |
| c. ___ Consejero escolar | g. ___ Otro: _____ |
| d. ___ No sabe | |

Sección 6. Preparación para casos de emergencia

66. ¿Tiene su familia un paquete de suministros de emergencia?

(Estos paquetes incluyen agua, alimentos no perecederos, los medicamentos con receta que se necesiten, primeros auxilios, linternas y pilas, abridor de latas manual, mantas, etc.)

- ___ Sí
- ___ No
- ___ No sabe/ No está seguro(a)

67. Si lo tiene, ¿para cuántos días son los suministros? _____ (anote un número)

68. ¿Cuál sería el medio principal por el que obtendría información autorizada en caso de emergencia o una catástrofe a gran escala? (Marque solo una respuesta.)

- ___ a. Televisión
- ___ b. Radio

- ☐ c. Internet
- ☐ d. Prensa (ej.: periódico)
- ☐ e. Página web de red social
- ☐ f. Vecinos
- ☐ g. Mensaje de texto (sistema de alerta de emergencias)
- ☐ h. Otro (describir) _____
- ☐ i. No sabe/ No está seguro(a)

69. Si las autoridades decretaran una evacuación obligatoria de su barrio o comunidad debido a una catástrofe a gran escala u otra emergencia, ¿seguiría usted la orden de evacuación?

- ☐ Sí
- ☐ No
- ☐ No sabe/ No está seguro(a)

70. ¿Cuál sería el motivo principal para que no siguiera la orden de evacuación?

(Marque solo una respuesta.)

- ☐ a. Falta de transporte
- ☐ b. Falta de confianza en las autoridades
- ☐ c. No querer dejar sus posesiones/propiedad
- ☐ d. Preocupación sobre la seguridad personal
- ☐ d. Preocupación sobre la seguridad de la familia
- ☐ f. No querer dejar solos a sus animales
- ☐ g. Preocupación sobre embotellamiento de tráfico y la imposibilidad de salir
- ☐ h. Problemas de salud (no se me podría trasladar)
- ☐ i. Otro (describir) _____
- ☐ j. No sabe/ No está seguro(a)

Sección 7. Preguntas demográficas

Las preguntas siguientes son preguntas generales sobre usted y solo aparecerán en un resumen de todas las respuestas que hayan dado los participantes. Las respuestas son anónimas.

71. ¿Cuántos años tiene?

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

72. ¿Es usted hombre o mujer? ☐ Hombre ☐ Mujer

73. a) ¿Es usted hispano, latino o de origen hispano? ☐ Sí ☐ No

b) Si la respuesta es afirmativa usted es: ☐ Mexicano, mexicano americano o chicano
☐ Hondureño

_____Guatemalteco

_____Otro hispano o latino (especificar)_____

74. ¿Cuál es su grupo étnico? (Marque todas las que correspondan.)

_____ Blanco

_____ Negro o afroamericano

_____ Nativo americano/de Alaska (*especificar tribu*) _____

_____ Indio-asiático

_____ Otro país asiático, como japonés, chino, coreano, vietnamita o filipino: (*anotar grupo*)

_____ Isleño del Pacífico, como hawaiano nativo, samoano, guamaniano/chamorro: (*anotar grupo*) _____

_____ Otro grupo étnico no que no se haya mencionado: (*anotar grupo*) _____

75. A. ¿Habla en casa algún otro idioma que no sea el inglés?

_____Sí

_____No

B. Si contesto "sí" a la pregunta anterior ¿Qué idioma habla en casa?

76. ¿Cuál es su estado civil? (*Lea las categorías. Marque solo una respuesta. No se necesita explicación para "otro".*)

_____Soltero/Nunca se ha casado

_____Divorciado

_____Casado

_____Viudo

_____ Convive con pareja (unión libre) _____ Separado
_____ Otro

77. ¿Cuál es el curso más alto que ha completado en la escuela, la universidad o la escuela vocacional?

_____ Menos de noveno grado
_____ Grado 9-12, sin diploma
_____ Ha finalizado la escuela secundaria (o GED/equivalente)
_____ Diploma universitario de dos años o capacitación vocacional
_____ Universidad, pero sin diploma
_____ Título universitario (licenciatura)
_____ Título de posgrado o profesional
_____ Otro: _____

78. ¿Cuáles fueron los ingresos de su familia durante el año anterior, sin contar impuestos? Dígame a qué categoría pertenece usted.

_____ Menos de \$10,000	_____ \$35,000 a \$49,999
_____ \$10,000 a \$14,999	_____ \$50,000 a \$74,999
_____ \$15,000 a \$24,999	_____ \$75,000 a \$99,999
_____ \$25,000 a \$34,999	_____ \$100,000 o más

79. ¿Cuál es su situación laboral? Le voy a leer la lista de opciones. Dígame cuál es su caso. *(Lea las opciones. Marque todas las que correspondan.)*

a. _____ Empleado de tiempo completo g. _____ Discapacitado

- b. _____ Empleado de medio tiempo h. _____ Estudiante
- c. _____ Jubilado i. _____ Ama de casa
- d. _____ Militar j. _____ Autónomo (por su cuenta)
- e. _____ Desempleado por más de un año k. _____ Desempleado por menos de un año

80. ¿Tiene acceso a Internet?

____ Sí

____ No

____ No sabe/ No está seguro(a)

Estas han sido todas las preguntas.

Muchas gracias por haber completado esta encuesta sobre la salud de la comunidad!

Esta encuesta sobre la salud de la comunidad ha sido realizada con el esfuerzo y la colaboración del Departamento de Salud del Condado de Duplin

Vidant Duplin Hospital

Duplin Partners for Health y otras agencias comunitarias.



Appendix C - Summary of Survey Responses

Survey Demographics

Demographic		Count	%
Zip Code	27614	1	0.3
	28306	1	0.3
	28325	2	0.6
	28337	1	0.3
	28341	6	1.7
	28349	35	9.9
	28365	21	5.9
	28398	32	9.1
	28431	1	0.3
	28444	1	0.3
	28453	16	4.5
	28458	24	6.8
	28464	9	2.5
	28466	87	24.6
	28478	1	0.3
	28504	1	0.3
	28508	7	2.0
	28518	58	16.4
	28521	16	4.5
	28558	1	0.3
	28572	29	8.2
	28574	3	0.8
	Total	353	100.0

Demographic		Count	%
Age Category	15 - 19	1	0.3
	20 - 24	10	3.2
	25 - 29	21	6.8
	30 - 34	27	8.7
	35 - 39	37	11.9
	40 - 44	28	9.0
	45 - 49	23	7.4
	50 - 54	41	13.2
	55 - 59	40	12.9
	60 - 64	34	10.9
	65 - 69	31	10.0
	70 - 74	11	3.5
	75 - 79	5	1.6
	80 - 84	2	0.6
	Total	311	100.0

Demographic		Count	%
Gender	Male	59	19.3
	Female	246	80.7
	Total	305	100.0

Demographic		Count	%
Race	White	239	83.0
	African American	46	16.0
	Other	3	1.0
	Total	288	100.0

Demographic		Count	%
Hispanic, Latino or Spanish Origin	Yes	27	9.0
	No	276	91.0
	Total	303	100.0

Demographic		Count	%
Hispanic, Latino or Spanish Origin - Nationality	Mexican, Mexican American, or Chicano	13	48.1
	Honduran	3	11.1
	Guatemalan	4	14.8
	Other Hispanic or Latino (please specify)	7	25.9
	Total	27	100.0

Demographic		Count	%
Primary Language at Home Other Than English	Yes	33	10.9
	No	271	89.1
	Total	304	100.0

Demographic		Count	%
Marital Status	Never Married/Single	26	8.5
	Married	223	72.9
	Unmarried partner	4	1.3
	Other	2	0.7
	Divorced	30	9.8
	Widowed	10	3.3
	Separated	11	3.6
	Total	306	100.0

Demographic		Count	%
Education	Less than 9th grade	7	2.3
	9-12th grade, no diploma	7	2.3
	High school graduate (or GED/ equivalent)	36	11.9
	Associate's Degree or Vocational Training	84	27.8
	Some college (no degree)	41	13.6
	Bachelor's degree	75	24.8
	Graduate or professional degree	51	16.9
	Other	1	0.3
	Total	302	100.0

Demographic		Count	%
Income	Less than \$10,000	6	2.1
	\$10,000 to \$14,999	10	3.5
	\$15,000 to \$24,999	28	9.9
	\$25,000 to \$34,999	36	12.7
	\$35,000 to \$49,999	29	10.2
	\$50,000 to \$74,999	66	23.3
	\$75,000 to \$99,999	56	19.8
	\$100,000 or more	52	18.4
	Total	283	100.0

Demographic		Count	%
Employment Status	Employed full-time	217	58.5
	Employed part-time	27	7.3
	Retired	59	15.9
	Unemployed for more than 1 year	2	0.5
	Disabled	4	1.1
	Student	5	1.3
	Stay at home parent/caregiver	2	0.5
	Self-employed	12	3.2
	Unemployed for 1 year or less	5	1.3

Demographic		Count	%
Internet Access	Yes	290	93.5
	No	16	5.2
	Don't know/ Not	4	1.3
	Total	310	100.0

Quality of Life Statements

How do you feel about this statement:		Count	%
There is good healthcare in Duplin County	Strongly Disagree	12	3.5
	Disagree	65	19.0
	Neutral	113	33.0
	Agree	128	37.4
	Strongly Agree	24	7.0
	Total	342	100.0
Duplin County is a good place to raise children	Strongly Disagree	14	4.1
	Disagree	66	19.3
	Neutral	79	23.1
	Agree	140	40.9
	Strongly Agree	43	12.6
	Total	342	100.0
Duplin County is a good place to grow old	Strongly Disagree	10	3.0
	Disagree	64	19.1
	Neutral	96	28.7
	Agree	129	38.5
	Strongly Agree	36	10.7
	Total	335	100.0
There is plenty of economic opportunity in Duplin County	Strongly Disagree	72	21.4
	Disagree	160	47.6
	Neutral	72	21.4
	Agree	28	8.3
	Strongly Agree	4	1.2
	Total	336	100.0
Duplin County is a safe place to live	Strongly Disagree	5	1.5
	Disagree	23	6.8
	Neutral	90	26.5
	Agree	196	57.6
	Strongly Agree	26	7.6
	Total	340	100.0
There is plenty of help for people during times of need in Duplin County	Strongly Disagree	24	7.1
	Disagree	58	17.1
	Neutral	80	23.6
	Agree	148	43.7
	Strongly Agree	29	8.6
	Total	339	100.0

Community Improvement

		Count	%
Please look at this list of community issues. In your opinion, which issues most affect the quality of life in Duplin County?	Low income/poverty	259	69.8
	Drug Abuse and distribution	181	48.8
	Lack of/ inadequate health insurance	106	28.6
	Gang Activity	97	26.1
	Dropping out of school	96	25.9
	Pollution (air, water, land)	53	14.3
	Discrimination/ racism	53	14.3
	Criminal Activity	52	14.0
	Lack of community support	48	12.9
	Domestic Violence	34	9.2
	Hopelessness	22	5.9
	Child abuse	22	5.9
	Violent crime (murder, assault)	22	5.9
	Homelessness	10	2.7
	Other	8	2.2
	Elder abuse	5	1.3
	Rape/sexual assault	4	1.1
		Count	%
In your opinion, which one of the following services needs the most improvement in your neighborhood or community?	Higher paying employment	84	28.3
	Availability of employment	56	18.9
	Positive teen activities	25	8.4
	Elder care options	15	5.1
	Number of health care provider	15	5.1
	Road maintenance	15	5.1
	More affordable health services	14	4.7
	Better/ more healthy food choices	12	4.0
	Healthy family activities	11	3.7
	Better/ more recreational facilities(parks, trails,	10	3.4
	Counseling/ mental health/support groups	8	2.7
	Animal control	7	2.4
	More affordable/better housing	6	2.0
	Services for disabled people	5	1.7
	Child care options	4	1.3
	Provide language services/Interpreters	4	1.3
	Transportation options	3	1.0

	Road safety	3	1.0
	Total	297	100.0

Health Information

		Count	%
In your opinion, which one health behaviors do people in your own community need more information about?	Eating well/ nutrition	81	21.8
	Substance abuse prevention (ex: drugs and alcohol)	73	19.7
	Managing weight	72	19.4
	Exercising/ fitness	71	19.1
	Going to the doctor for yearly check-ups and screening	45	12.1
	Quitting smoking/ tobacco use prevention	44	11.9
	Preventing pregnancy and sexually transmitted disease	43	11.6
	Stress management	39	10.5
	Elder care	31	8.4
	Caring for family members with special needs/ disabilities	26	7.0
	Preparing for an emergency/disaster	25	6.7
	Going to a dentist check-ups/ preventive care	22	5.9
	Child care/ parenting	20	5.4
	Anger management	20	5.4
	Crime prevention	19	5.1
	Domestic violence prevention	15	4.0
	Driving safely	12	3.2
	Getting prenatal care during pregnancy	11	3.0
	Suicide prevention	10	2.7
	Getting flu shots and other vaccines	7	1.9
	Using child safety seats	7	1.9
	Using seat belts	7	1.9
	Rape/ sexual abuse prevention	6	1.6
	Other	3	.8

		Count	%
Where do you get most of your health-related information?	Doctor/nurse	149	47.5
	Internet	59	18.8
	Friends and family	27	8.6
	Books/magazines	20	6.4
	Health department	19	6.1
	Hospital	18	5.7
	Pharmacist	8	2.5
	Other	8	2.5
	Church	6	1.9
	Total	314	100.0

		Count	%
Which of the following health topics do you think your child/children need(s) more information about?	Nutrition	124	33.4
	Drug Abuse	71	19.1
	Sexual education	48	12.9
	Reckless driving/speeding	47	12.7
	Sexually Transmitted Diseases	46	12.4
	Safe Sex	40	10.8
	Dental hygiene	39	10.5
	Alcohol	31	8.4
	Tobacco	30	8.1
	Eating Disorders	27	7.3
	Diabetes management	26	7.0
	Mental health issues	24	6.5
	Asthma management	19	5.1
	Suicide prevention	13	3.5
	Other	11	3.0

Personal Health

		Count	%
Would you say that, in general, your health is...	Excellent	34	10.5
	Very good	112	34.6
	Good	131	40.4
	Fair	40	12.3
	Poor	4	1.2
	Don't know/Not sure	3	.9
	Total	324	100.0

		Count	%
Have you ever been told by a doctor, nurse, or other health professional that you have any of the health conditions?	High blood pressure	130	35.0
	High cholesterol	127	34.2
	Overweight/Obesity	116	31.3
	Depression or anxiety	69	18.6
	Diabetes (not during pregnancy)	42	11.3
	Asthma	39	10.5
	Osteoporosis	24	6.5
	Cancer	17	4.6
	Angina/ heart disease	11	3.0

		Count	%
In the past 30 days, have there been any days when feeling sad or worried kept you from going about your normal business?	Yes	50	15.4
	No	267	82.4
	Don't know/ Not sure	7	2.2
	Total	324	100.0

		Count	%
During a normal week, outside of your regular job, do you engage in any physical activity or exercise that lasts at least 30 minutes?	Yes	218	66.9
	No	98	30.1
	Don't know/ Not sure	10	3.1
	Total	326	100.0

		Count	%
Where do you go to exercise or take part in physical activity?	Home	185	61.7
	Wellness center	29	9.7
	Park	27	9.0
	Other	25	8.3
	Private gym	23	7.7
	Public Recreation Center	11	3.7
	Total	300	100.0

		Count	%
Since you said “no”, what are the reasons you do not exercise for at least 30 minutes during a normal week?	I don’t have enough time to exercise	55	14.8
	I’m too tired to exercise	51	13.7
	I don’t have access to a facility that has the thing	20	5.4
	I don’t like to exercise	20	5.4
	My job is physical or hard labor	14	3.8
	It cost too much money to exercise	13	3.5
	I would need child care and I don’t have it	9	2.4
	I don’t know how to find exercise partners	8	2.2
	There is no safe place to exercise	8	2.2
	I don’t know	7	1.9
	I’m physically disabled	6	1.6
	Exercise is not important to me	1	.3

		Count	%
Have you been exposed to secondhand smoke in the past year?	Yes	165	51.1
	No	153	47.4
	Don't know/ Not sure	5	1.5
	Total	323	100.0

		Count	%
If yes, where do you think you are exposed to secondhand smoke most often?	Home	54	33.8
	Other	42	26.3
	Restaurants	31	19.4
	Workplace	28	17.5
	School	3	1.9
	Hospitals	2	1.3
	Total	160	100.0

		Count	%
Do you currently smoke?	Yes	31	9.7
	No	288	90.3
	Total	319	100.0

		Count	%
If yes, where would you go for help if you wanted to quit?	Doctor	19	30.2
	I don't know	12	19.0
	Not applicable; I don't want to quit	12	19.0
	Quit Line NC	6	9.5
	Church	5	7.9
	Health Department	5	7.9
	Other:	3	4.8
	Private counselor/therapist	1	1.6
	Total	63	100.0

Access to Care/Family Health

		Count	%
Where do you go most often when you are sick?	Doctor's office	247	77.4
	Health department	35	11.0
	Hospital	5	1.6
	Medical Clinic	13	4.1
	Urgent Care Center	17	5.3
	Other:	2	.6
	Total	319	100.0

		Count	%
What is your primary health insurance plan? This is the plan which pays the medical bills first or pays most of the medical bills?	Blue Cross and Blue Shield of North Carolina	128	40.6
	Other private health insurance plan purchased from employer	64	20.3
	The State Employee Health Plan	44	14.0
	Medicare	44	14.0
	No health plan of any kind	12	3.8
	The military, Tricare, CHAMPUS, or the VA	9	2.9
	Medicaid or Carolina ACCESS or Health Choice 55	7	2.2
	Other private health insurance plan purchased directly	5	1.6
	Other (government plan)	2	.6
	Total	315	100.0

		Count	%
Since you said “yes,” what type of provider or facility did you or your family member have trouble getting health care from?	Dentist Center	18	34.6
	General practitioner Clinic	16	30.8
	Medical Clinic	12	23.1
	Specialist	9	17.3
	Pharmacy/ prescriptions	8	15.4
	Hospital	5	9.6
	Eye care/ optometrist/ ophthalmologist	3	5.8
	Urgent Care	3	5.8
	Pediatrician	2	3.8
	OB/GYN	1	1.9
	Other	1	1.9

		Count	%
Which of these problems prevented you or your family member from getting the necessary health care?	No health insurance	46	88.5
	My/our share of the cost (deductible/co-pay) was too high	40	76.9
	Insurance didn’t cover what I/we needed	30	57.7
	Couldn’t get an appointment	27	51.9
	The wait was too long	27	51.9
	Doctor would not take my/our insurance or Medicaid	9	17.3
	Other	9	17.3
	Dentist would not take my/our insurance or Medicaid	5	9.6
	Didn’t know where to go	5	9.6
	Hospital would not take my/our insurance	4	7.7
	No way to get there	4	7.7
	Pharmacy would not take my/our insurance or Medicaid	2	3.8

		Count	%
If a friend or family member needed counseling for a mental health or a drug/alcohol abuse problem, who is the first person you would tell them to talk to?	Doctor	122	40.0
	Private counselor or therapist	89	29.2
	Minister/religious official	44	14.4
	Don't know	28	9.2
	Support group (e.g., AA, Al-Anon)	13	4.3
	Other	6	2.0
	School counselor	3	1.0
	Total	305	100.0

Emergency Preparedness

		Count	%
Does your family have a basic emergency supply kit?	Yes	129	41.0
	No	178	56.5
	Don't know/Not sure	8	2.5
	Total	315	100.0

		Count	%
What would be your main way of getting information from authorities in a large-scale disaster or emergency?	Television	137	45.5
	Radio	63	20.9
	Text message (emergency alert system)	43	14.3
	Internet	30	10.0
	Don't know/ Not sure	10	3.3
	Social networking site	7	2.3
	Neighbors	6	2.0
	Other	4	1.3
	Print media (ex: newspaper)	1	.3
	Total	301	100.0

		Count	%
If public authorities announced a mandatory evacuation from your neighborhood or community due to a large-scale disaster or emergency, would you evacuate?	Yes	264	84.6
	No	8	2.6
	Don't know/ Not sure	40	12.8
	Total	312	100.0

		Count	%
What would be the main reason you might not evacuate if asked to do so?	Concern about leaving property behind	42	24.6
	Concern about leaving pets	35	20.5
	Don't know/ Not sure	34	19.9
	Concern about family safety	27	15.8
	Concern about traffic jams and inability to get out	8	4.7
	Concern about personal safety	7	4.1
	Health problems (could not be moved)	5	2.9
	Other	5	2.9
	Lack of transportation	4	2.3
	Lack of trust in public officials	4	2.3
	Total	171	100.0

Appendix D

Duplin County Resource List

Last update 11/30/12

This directory highlights services that relate to community health and is not a complete listing of all services. The availability of services may change without notice.

<i>Physicians Directory</i>	Address	Phone Number
Beulaville Pediatrics	116 E. Main Street Beulaville, NC 28518	910-296-6550
Vidant Medical Group Dr. Blair/Dr. Crawford	125 River Vine Parkway Wallace, NC 28466	910-285-2134
Carolina Coast Primary	275 N. 24 & 50 Hwy. Kenansville, NC 28349	910-296-1087
Coastal Carolina Foot and Ankle	114 N. Norwood Street Wallace, NC 28466	910-285-3362
Dr. Corazon Ngo	214 Duplin Street Kenansville, NC 28349	910-296-1811
Dr. Elizabeth Blair	417 N. Main Street Kenansville, NC 28349	910-275-0060
Dr. Daniel Ricci	207 E. Murphy Street Wallace, NC 28466	910-285-4100
Dr. Kimberly Sessoms	102 SW Railroad Street Rose Hill, NC 28458	910-289-9248
Duplin County Health Department	340 Seminary Street Kenansville, NC 28349	910-296-2130
Duplin Foot Care	227 N. Norwood Street Wallace, NC 28466	910-285-5451
Duplin OB/GYN - Dr. Cooper	149 Limestone Rd #2 Kenansville, NC 28349	910-296-1666
Duplin Surgical	407 N. Main Street Kenansville, NC 28349	910-275-0027

Eastern Carolina Physicians	159 Crossover Road Beulaville, NC 28518	910-298-4688
Goshen Medical - Beulaville	119 Crossover Street Beulaville, NC 28518	910-298-3125
Goshen Medical - Faison	444 SW Center Street Faison, NC 28341	910-267-0421
Goshen Medical - Wallace	102 Medical Village Drive Wallace, NC 28466	910-285-2111
Goshen OB/GYN - Dr. Draughn	603 E. College Street Warsaw, NC 28398	910-293-3900
Kinston Pediatrics	106 E. Main Street Beulaville, NC 28518	910-298-6550
Mt. Olive Family Medicine	201 N. Breazeale Avenue Mt. Olive, NC 28365	919-658-4954
Mt. Olive Pediatrics	327 Nc Hwy 55 W Mt. Olive, NC 28365	919-658-9123
Pink Hill Medical Center	103 S. Central Avenue Pink Hill, NC 28572	252-568-4111
Plainview Health Center	360 E. Charity Road Greenevers, NC 28458	910-289-3086
Rose Hill Medical Center	600 S. Sycamore Street Rose Hill, NC 28458	910-289-3027
Wallace Urgent Care	112 Medical Village Dr #6 Wallace, NC 28466	910-285-0333

Optometry/Ophthalmology

Doctor's Vision Center 104 W. Main Street 9110-285-5050
Wallace, NC 28466

Dr. Richard Fry	317 N. Norwood Street Wallace, NC 28466	910-298-3001
------------------------	--	--------------

Duplin Eye Associates	304 N. Main Street Kenansville, NC 28349	910-296-1781
------------------------------	---	--------------

Optometric Eye Associates	311 East Main Street Wallace, NC 28466	910-285-3167
----------------------------------	---	--------------

Dentists

Dr. Bologna	117 N. Rockfish Street Wallace, NC 28466	910-285-5649
--------------------	---	--------------

Dr. Fell, DCHD Mobile Dental Unit	Located at the elementary/middle schools	910-385-4676
--	--	--------------

Dr. Gilliland	122 East Main Street Beulaville, NC 28518	910-298-5111
----------------------	--	--------------

Dr. Hunter Joh	123 Bryan Street Kenansville, NC 28349	910-275-1880
-----------------------	---	--------------

Dr. Kennedy	522 S. Norwood Street Wallace, NC 28466	910-285-7800
--------------------	--	--------------

Dr. Larry Price	114 Marshall Street Rose Hill, NC 28458	910-289-2081
------------------------	--	--------------

Dr. O'Brien	117 N. Roskfish Street Wallace, NC 28466	910-285-5649
--------------------	---	--------------

Dr. Saas	612 East College Street Kenansville, NC 28349	910-296-1925
-----------------	--	--------------

Faison Dental Services	460 SW Center Street Faison, NC 28341	910-267-0951
-------------------------------	--	--------------

Southland Dental Care	522 S. Norwood Street Wallace, NC 28466	910-285-7800
------------------------------	--	--------------

Stoppelbein and Hardison <i>Pharmacies</i>	121 Professional Court Warsaw, NC 28398	910-293-4940
CVS Pharmacy	1224 N. Norwood Street Wallace, NC 28466	910-285-0114
CVS Pharmacy	634 S. Main Street Kenansville, NC 28349	910-296-0675
Faison Pharmacy	206 SW Center Street Faison, NC 28341	910-267-0080
Graham Drug Store	116 E. Main Street Wallace, NC 28466	910-285-2937
Kerr Drug	308 N. Jackson Street Beulaville, NC 28466	910-298-8114
Kerr Drug	Hwy 117 North Rose Hill, NC 28458	910-289-7046
Pink Hill Pharmacy	100 S. Central Avenue Pink Hill, NC 28572	252-568-4131
Rite Aid Pharmacy	1019 N. Breazeale Avenue Mt. Olive, NC 28365	919-658-8660
Sam's Pharmacy	110 S. Sycamore Street Rose Hill, NC 28458	910-289-4271
Value RX	107 S. Pine Street Warsaw, NC 28398	910-293-4334
Walgreen's	5717 S NC 41 Hwy Wallace, NC 28466	910-285-6481
Walgreen's	115 W. Main Street Beulaville, NC 28518	910-298-9172

Wal-Mart Pharmacy

5625 S Hwy 41
Wallace, NC 28466

910-285-3411

Warsaw Drug	204 N. Front Street Warsaw, NC 28398	910-293-4521
--------------------	---	--------------

Mental Health Agencies

CNC/Access	510 Yancey Street Warsaw, NC 28398	910-293-4519
-------------------	---------------------------------------	--------------

East Cove Psychiatric Services	149 Limeston Road Kenansville, NC 28349	910-275-0016
---------------------------------------	--	--------------

Eastpointe	Local mental health authority	800-913-6109/800-513-4002
-------------------	-------------------------------	---------------------------

New Dimension Group	416 West Ridge Street Rose Hill, NC 28458	910-289-2610
----------------------------	--	--------------

Rass Inc.	206 North Front Street Warsaw, Nc 28398	910-298-6207
------------------	--	--------------

Tar Heel Home Health and Human Services	N NC 41 Beulaville, NC 28518	910-298-6207
--	------------------------------	--------------

Vidant Duplin Hospital psychiatric program	514 N. Main Street Kenansville, NC 28349	910-296-0401
---	---	--------------

Physical Therapy

Carolina Physical Therapy	214 Lanefield Road Warsaw, NC 28398	910-296-3390
----------------------------------	--	--------------

Carolina Rehabilitation Inc.	159 Crossover Road Beulaville, NC 28518	910-298-6455
-------------------------------------	--	--------------

Comprehensive Rehabilitation	615 E. Southerland Street Wallace, NC 28466	910-285-1799
-------------------------------------	--	--------------

Graybar Chiropractic Center	116 Norwood Street Wallace, NC 28466	910-285-7222
------------------------------------	---	--------------

Kelly Chiropractic

112 Medical Village
Drive #A Wallace, NC

910-285-9002

28466

Duplin County Chiropractic Center	102 N. Main Street Kenansville, NC 28349	910-296-0019
--	---	--------------

Pigford Physical Therapy	401 N. Main Street Kenansville, NC 28349	910-296-0788
-------------------------------------	---	--------------

Nursing Homes/Rest Homes/Assisted Living Facility

Autumn Village	235 N. NC Hwy 41 Beulaville, NC 28518	910-298-5877
-----------------------	--	--------------

Baker's Youth Enrichment	1060 US 117 Hwy S, Warsaw, NC 28398	910-293-9983
-------------------------------------	--	--------------

Brian Center Health and Rehabilitation Center	647 Southeast Railroad Street Wallace, NC 28466	910-285-9700
--	--	--------------

Daysprings Assisted Living	4026 S NC 11 Hwy Wallace, NC 28466	910-285-3246
---------------------------------------	---------------------------------------	--------------

Glencare	214 Lanefield Road Warsaw, NC 28398	910-293-3144
-----------------	--	--------------

Golden Care	4002 S NC Hwy Wallace, NC 28466	910-285-5352
--------------------	------------------------------------	--------------

Kenansville Health and Rehabilitation Center	209 Beasley Street Kenansville, NC 28349	910-296-1561
---	---	--------------

Moore's Family Care Home	181 East Charity Road Rose Hill, NC 28458	910-289-7183
-------------------------------------	--	--------------

Parrish Family Care Home	856 Claude Scott Toad Warsaw, NC 28398	910-293-4221
-------------------------------------	---	--------------

Pen-Du Rest Home	235 NC Hwy 50 Wallace, NC 28466	910-285-4469
-------------------------	------------------------------------	--------------

Rosemary Rest

517 S Sycamore Street

910-289-2435

Home	Rose Hill, NC 28458	
Wallace Gardens	1054 NE Railroad Street Wallace, NC 28466	910-285-7881
Windham Hall Home for Adults	329 Cooper Street Kenansville, NC 28349	910-296-0333

Hospital

Vidant Duplin Hospital	401 N. Main Street Kenansville, NC 28349	910-296-0401
-----------------------------------	--	--------------

Home Care and Hospice Services

Carolina East Home Care and Hospice	401 N. Main Street Kenansville, NC 28349	910-296-0819
Good Health Services	302 N. Main Street Kenansville, NC 28349	910-296-0053
Interim Health Care	149 Limestone Road Kenansville, NC 28349	910-296-2085
Liberty Home Care and Hospice	115 E. Main Street Kenansville, NC 28466	910-285-4954
Quinn Hospice Center	South Kenansville Bypass Kenansville, NC 28349	910-275-0050
ResCare Home Care	312 E. College Street Warsaw, NC 28398	910-293-4080

Medical Supply Companies

Coastal Carolina Respiratory Services	106 S. Brown Road Beulaville, NC 28518	910-298-6007
--	---	--------------

**Duplin Medical
Supply**

136 Liberty Square
Shopping Center
Kenansville, NC
28349

910-296-2085

Homebound Medical Supply	112 Medical Village Dr. # B Wallace, NC 28466	910-285-4410
---------------------------------	---	--------------

Dialysis Centers

Davita Dialysis	305 Beasley Street Kenansville, NC 28349	1-800-424-6589
------------------------	--	----------------

Renal Advantage	213 w. College Street Warsaw, NC 28398	910-293-9984
------------------------	---	--------------

Human Services

Women Infants and Children- WIC <i>Open 8-5 M-F</i>	340 Seminary St. Kenansville, NC 28349	910-296-2130
---	--	--------------

<i>Open Tuesday-Thursday 9:30-6:00</i>	220 E. Main St. Wallace, NC 28466	910-285-0340
--	--------------------------------------	--------------

<i>Open Fridays 8-5</i>	210 W. Hill St. Warsaw, NC 28398	910-293-4293
-------------------------	-------------------------------------	--------------

Duplin County Partnership for Children	149 Limeston Road Kenansville, NC 28349	910-296-2000
---	---	--------------

Eastern Carolina Housing Authority	437 West Main Street Magnolia, NC 28453	910-289-2750
---	---	--------------

Eastern Carolina Human Services	208 SW Railroad Street Wallace, NC 28466	910-285-5331
--	--	--------------

DC Department of Social Services	423 N. Main Street Kenansville, NC 28439	910-296-2200
---	---	--------------

Church Outreach Ministries

Wallace Presbyterian Church	205 West Main Street Wallace, NC 28466	910-285-2808
------------------------------------	--	--------------

Tuesday/Thursday 9:00 a.m. - 11:00 a.m. & 1:00 p.m. - 5:00 p.m.

Rose Hill United Methodist Church	314 East Church Street Rose Hill, NC 28458	910-289-2449
--	---	--------------

*Open 1st/3rd Tuesday 1:00 p.m. - 3:00 p.m.
Food Pantry Services*

Eastern Baptist Association	109 N. Center Street Warsaw, NC 28398	910-293-7077
------------------------------------	--	--------------

Wallace Church of God	212 West Main Street Wallace, NC 28466	910-285-7179
------------------------------	---	--------------

Food Ministry Tuesday/Thursday 9:00 a.m. - 11:00 a.m.

<i>Blessings in Store - thrift store</i>	127 W. Main Street Wallace, NC 28466	910-285-5557
--	---	--------------

Crisis Centers & Substance Abuse

Beulaville Crisis Center		910-298-4140
Duplin Christian Outreach Ministries	514 S. Norwood Street Wallace, NC	910-285-6000

Sarah's Refuge Domestic Violence Center	222 W. Hill Street Warsaw, NC 28398	910-293-2550
DSS Child Abuse Services	423 N Main Street Kenansville, NC 29349	910-296-2293

Libraries

Duplin County - Dorothy Wightman Library	107 Bowden Drive Kenansville, NC 28349	910-296-2117
Phillip-Leff Memorial Library	807 Broad Street Beulaville, NC 28518	910-298-4577

Emily S. Hill Library	106 Park Circle Faison, NC 28341	910-267-0601
------------------------------	-------------------------------------	--------------

Florence Gallier Library	104 Main Street Magnolia, NC 28453	910-289-7056
---------------------------------	---------------------------------------	--------------

Thelma Dingus Library	409 W. Main Street Wallace, NC 28466	910-285-3796
Rose Hill Library	113 South Walnut Street Rose Hill, NC 28458	910-289-2490
Warsaw - Kornegay Library	117 East College Street Warsaw, NC 28398	910-293-4664

Produce Stands/Farmer's Markets

Rouse Brothers Produce	1526 W. Charity Road Rose Hill, NC 28458	910-376-0621
Cottle Tip Top Farms	1006 Fire Tower Road Rose Hill, NC 28458	910-289-5034
Chesnutt Farms	459 Hamilton Road Magnolia, NC 28453	910-296-7357
Harold Smith	677 NC Highway 11 E. Pink Hill, NC 28572	910-296-3008
Sean Cullen	Hwy 41 Beulaville, NC 28518	910-465-9623
Melvin Farland	Hwy 41 Beulaville, NC 28518	910-375-0525
Eastern Carolina Food Ventures JSCC	133 James Sprunt Drive Kenansville, NC 28349	910-296-2400

Recreation Centers

Faison Recreation and Wellness Center	184 Park Circle Faison, NC 28341	910-267-0115
Warsaw Wellness and Recreation Center	210 W. Hill St. Warsaw, NC 28398	910-293-2010