Duplin County



2018 Community
Health Needs
Assessment

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Executive Summary

The 2018 Duplin County Community Health Needs Assessment (CHNA) provides an overview of the significant community health needs identified in Duplin County, North Carolina. The vision of this report is to offer a meaningful understanding of the most pressing health needs across Duplin County, as well as to guide planning efforts to address those needs. 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 CHNA is a systematic collection and analysis of information about the health of the community. Special attention has been given to the needs of vulnerable populations, unmet health needs or gaps in services, and input gathered from the community. Findings from this report will be used to identify, develop and target initiatives to provide and connect community members with resources to improve the health challenges in their communities

The 2018 Duplin County CHNA was developed through a partnership between the Duplin County Health Department, Vidant Duplin Hospital, and Health ENC with Vidant Duplin Hospital serving as the fiscal sponsor. Health ENC grew out of conversations with health care leaders about improving the community health needs assessment (CHNA) process in eastern North Carolina. Health ENC, now a program of the Foundation for Health Leadership and Innovation (FHLI), coordinates a regional CHNA in 33 counties of eastern North Carolina. In addition, the Health ENC Program Manager works to build coalitions and partnerships that will address health issues identified through the regional CHNA process. Details of the regional leadership are included in the Introduction section.

Community Health Team Leadership

Duplin County Health Department- Elizabeth Ricci, BSN, RN, Nursing Director, Ila Davis, BSN, RN, MEd, Tracey Simmons-Kornegay, Health Director

Vidant Duplin Hospital- Sue Wells, Manager, Outreach Services Community Health, Laura Maready, Director of Marketing & Development, Christina Miller, BSN, RN, MBA, Director of Patient Care Services, Acute

Vidant Health- Melissa Y. Roupe, MSN, RN Senior Administrator, Community Health Improvement

The Community Health leadership team attended the April 2017 symposium to learn about the regional Community Health Needs Assessment project in eastern North Carolina. The CHNA planning team met several times between May 2017 and February 2018 to discuss the initiative and planned to join the project. The Community Health Leadership Team attended the March 2018 Regional CNHA Kick-Off Event. A MOU was signed at the end of March with the Regional CHNA which outlined the obligations for Duplin County as it takes part in the regional CHNA project. The phases included: (1) a research phase to identify, collect and review demographic, socioeconomic, health and environmental data; (2) a community input phase to receive input from community members utilizing a survey and focus group discussions; (3) data synthesis and analysis phase; (3) a period of data reporting and discussion among community partners; and (4) a prioritization and decision-making phase. Upon completion of this work, a report was generated by the vendor and the Duplin County leadership team edited the report and added county level data as appropriate. The completed 2018 CHNA was submitted to the NC

Department of Public Health on April 2, 2019. The Community Health Improvement plans (CHIP) are in development and will be submitted in September 2019.

Service Area

The service area for this report is defined as the geographical boundary of Duplin County, North Carolina. Duplin County is located inland from the coastal area of the state and has an area of 822 square miles, of which 816 square miles is land and 5.5 square miles is water.

Methods for Identifying Community Health Needs

Health ENC commissioned Conduent Healthy Communities Institute (HCI) to assist with its Community Health Needs Assessment. Conduent Healthy Communities Institute is a multi-disciplinary team of public health experts, including healthcare information technology veterans, academicians and former senior government officials. Conduent HCI completed the data analysis of the primary and secondary data, including analysis of the three focus groups and developed the web platform for data sharing across the 33 participating counties.

Secondary Data

Secondary data used for this assessment were collected and analyzed from Conduent HCl's community indicator database. The database, maintained by researchers and analysts at Conduent HCl, includes over 100 community indicators from various state and national data sources such as the North Carolina Department of Health and Human Services, the Centers for Disease Control and Prevention and the American Community Survey. See Appendix B for a full list of data sources used.

Indicator values for Duplin County were compared to North Carolina counties and U.S. counties to identify relative need. Other considerations in weighing relative areas of need included comparisons to North Carolina state values, comparisons to national values, trends over time, Healthy People 2020 targets and Healthy North Carolina 2020 targets. Based on these seven different comparisons, indicators were systematically ranked from high to low need. For a detailed methodology of the analytic methods used to rank secondary data indicators see Appendix B.

When available, county-level data are compared to the state of North Carolina, as well as Health ENC Counties. The Health ENC region consists of 33 counties in eastern North Carolina participating in the regional CHNA: Beaufort, Bertie, Bladen, Camden, Carteret, Chowan, Cumberland, Currituck, Dare, Duplin, Edgecombe, Franklin, Gates, Greene, Halifax, Hertford, Hoke, Hyde, Johnston, Lenoir, Martin, Nash, Onslow, Pamlico, Pasquotank, Pender, Perquimans, Pitt, Sampson, Tyrrell, Washington, Wayne and Wilson.

Primary Data

The primary data used in this assessment consisted of (1) a community survey distributed through online and paper submissions and (4) focus group discussions. Over 600 Duplin County residents contributed their input on the community's health and health-related needs, barriers, and opportunities, with special focus on the needs of vulnerable and underserved populations. See Appendix C for all primary data collection tools used in this assessment.

Summary of Findings

Demographics

The general population characteristics of Duplin County and its regional counties were based on 2016 US Census data population estimates. The population of Duplin County is estimated to be 58,969 a slight decrease from the 2016 CHNA. The White population accounts for 70.1% of the total population in Duplin County, with the Black or African American population accounting for 25.9% of the total population. The proportion of residents that identify as White in Duplin County (70.1%) is similar to North Carolina (71.0%) and higher than Health ENC counties (63.8%). Duplin County has a larger share of residents that identify as Hispanic or Latino (21.9%) compared to North Carolina (9.2%) and Health ENC counties (9.6%). This data is relatively unchanged as compared to the previous CHNA.

The population of Duplin County is evenly divided between males and females, which is the typical pattern. The gender balance in the region is similar with an average of 49% males and 51% females. The overall life expectancy in Duplin County is 78.4, which is higher than compared to the Regional Mean (77.7) and the state (78.3). There continues to be a disparity in life expectance between White 79.5 years and African Americans 76.3 years. The overall median age in Duplin County was 38.9, approximately 2.8 years younger than the median age in the region, and 0.7 years older than the median age for NC as a whole.

Socioeconomic

Duplin County has a high poverty rate with 27.6 % of residents living below the poverty level, 41.2 % of children live in poverty, and 41.7 % live in single parent households. The overall poverty rate in Duplin County was higher than the comparable state and Regional rate throughout the period cited. The poverty rate has increased overall since the 2016 CHNA data. In Duplin County, the 5 year 2012-2016 data for per capital personal income was \$17,960 which was \$8819 below the state average. These figures have only increased slightly but the gap between county and state has widened. The unemployment rate for Duplin is 4.1 (2018), this is a decrease from the last CHNA of 4.6.

Education

When comparing Duplin County to the NC average, the 2016-2017 high school graduation rate was lower in Duplin County Schools (81.3%) as compared to the state (85.3%). 2018 average SAT score for Duplin County students is 966 out of 1600. Only 32.2% of graduates took the SAT. This is a decrease from the 2016 CHNA data. The Seventy-two percent of people over the age of twenty-five have a high school degree or higher and 10.3% of those over age twenty-five have a bachelor's degree or higher in the community in 2012-2016. For both indicators, Duplin County performs poorer than the state.

Health Outcomes

Chronic diseases such as heart disease and cancer remain the leading causes of death in the county for adults. Heart disease, cerebrovascular disease and cancer deaths showed an increase in the death rate as compared to the 2016 CHNA data. The NC State Center for Health Statistics trend data for Duplin County (years 2013-2017) shows the age adjusted death rates per 100,000 populations for cardiovascular disease, stroke, heart disease and diabetes are all higher than state. Thirty-one percent of the population is 55 years and older and the incidence of these diseases will increase as the population ages. Many risk factors for chronic diseases have been identified and can be modified by lifestyle changes. The most important modifiable risk factors are: eliminating harmful substance use including tobacco, maintaining a healthy weight and nutrition, receiving education on how to manage your

chronic health issues to prevent secondary effects, eliminating second hand smoke exposure, getting adequate exercise and having access to a health care provider to assist with disease management.

For children in the birth to 19 years of age group, the largest numbers of deaths are conditions in the perinatal period, and birth defects. This has not changed from previous CHNA assessment. The health of the infant is closely linked to the health of the mother, before and during pregnancy. The infant death rate per 1,000 live births has decreased (from 9.1 in last assessment to 8.3) but is still higher than the state rate of 7.1 per 1000 live births.

There is a decrease in total low birth weight births defined as less than 2500 grams, Duplin (8.4) state (9.0). There continues to be a disparity between babies born to Black/ African American women (12.3) and white (9.2) women. The teen pregnancy rates have been declining since the 2016 assessment, but Duplin County remains higher (60.4 per 100,000 residents) than the state (57.8). The percentage of teen births that were repeat pregnancies (21.9) is now lower than the state (22.4). Duplin teen pregnancy rates for minorities are higher than the state rates. Teenage parents usually 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.

Access to Health Services

The development of the top ten chronic diseases can be impacted by making healthy lifestyle choices. Heart disease and diabetes are associated statistically with a higher Body Mass Index (BMI), elevated cholesterol and high blood pressure. Diabetes affects the blood vessels of the heart, eyes, and kidneys over time and creates secondary health problems. Duplin County has a lower number of active health care professional in the county. The number of primary care physicians in Duplin is 2.9 per 10,000 residents and this number has decreased from the last CHNA rates which was 3.7. The state rate is 7 per 10,000 residents and this is increasing. The ratio of dentists is even lower; Duplin has 1.7 Dentist per 10,000 residents, the state rate is 5 per 10,000. The deficiency in these resources impacts the population's health across the life span. This gap in resources decreases access to health care for many segments of the population, increases costs for residents who will need to go out of county to seek care and contributes to residents not seeking care. This gap is difficult to impact and has not improved since the last assessment.

Access to Transportation Services

Transportation is a significant challenge for rural counties. There is no public transportation system in Duplin County that provides transit services on a regular and continual basis. The current system requires the person needing transit to call the office 2 days before the ride is needed to schedule pick-up. There are no routine bus routes or bus stops. Data shows that 8.3% of households do not have access to a vehicle. The mean travel time to work is 26.8 minutes which is higher than the state average.

Substance Use

The available data on substance use at the county level does not provide a clear picture of the impact on the community. There have been low numbers of deaths related to substance use but the rise in the manufacture and use of methamphetamines, neonatal abstinence syndrome and the number of people incarcerated for drug use is increasing. The majority of the children placed in foster care by DSS is related to parental drug use. This issue has increased significantly since the last CHNA.

The CHNA findings are drawn from an analysis of an extensive set of secondary data (over 100 indicators from national and state data sources) and in-depth primary data from community leaders, health and non-health professionals who serve the community at large, vulnerable populations, at risk populations and populations with unmet health needs. Through a synthesis of the primary and secondary data the significant health needs were determined for Duplin County and are displayed in Table 1.

Table 1. Significant Health Needs

Access to Health Services

Diabetes

Economy

Education

Exercise, Nutrition & Weight

Social Environment

Substance Abuse

Transportation

Selected Priority Areas

The community engagement sessions were held in January 2019. The group discussed the available and/or needed county resources to impact the goals, and the chance of success with current resources. The group decided on four health priorities for 2019-2021:

- 1. Chronic Disease Prevention & Management; Focus on Healthy Lifestyles and Weight Management; Nutrition Education; Dental Care with a focus on children and adolescents.
- Access to Care Physical & Mental Health Care Services; Focus on After Hours Care; Primary Care & Specialty Care Available; Dental Care; Pediatric & Adolescent Care; and Transportation issues which impact access.
- 3. Disaster Recovery & Mitigation; Focus on recovery from previous hurricanes, as well as mitigating actions to prevent / minimize future damage from natural disasters. Focus on mental health issues, especially among youth.
- 4. Substance Use Youth & Adult; including focus on youth and the use of alcohol, tobacco and other drugs; adult incarcerations related to substance use and treatment options instead of incarceration for the population.

Conclusion

The prioritization of the identified significant health needs will guide community health improvement efforts of Duplin County. Following this process, Duplin County will outline how they plan to address the prioritized health needs in their implementation plan.

Introduction

Duplin County Health Department and Vidant Duplin Hospital

Local public health agencies in North Carolina are required to conduct a comprehensive Community Health Assessment (CHA) at least once every four years. The CHA is required of public health departments in the consolidated agreement between the NC Division of Public Health (DPH) and the local public health agency. Furthermore, a CHA is required by the NC Local Health Department Accreditation Board (G.S. § 130A-34.1), as part of the US Affordable Care Act of 2011, non-profit hospitals are required to conduct a community health needs assessment (CHNA) at least every three years. Recognizing that duplicate assessment efforts are a poor use of community resources, DCHD and Vidant Duplin Hospital have collaborated in conducting the community health assessment every three years.

The Foundation for Health Leadership and Innovation (FHLI) and the Brody School of Medicine (BSOM) entered into an agreement with Duplin County to, in cooperation with other participants, to conduct a regional community health needs assessment with 33 eastern counties in NC. The project which will collect, compile, analyze and report data in accordance with the North Carolina Department of Health and Human Services' Division of Public Health requirements to submit a completed community health assessment for each county in the state and with the requirements under the Affordable Care Act for every non-profit or government hospital to conduct and publicly post a community health needs assessment.

The document is a summary of all the available evidence and serves as a resource until the next assessment. The completed CHNA serves as the basis for prioritizing the community's health needs, and culminates in planning to meet those needs.

Community Health Team Structure

The Duplin County Health Department and Vidant Duplin Hospital wish to thank all of the people and organizations that have made the 2018 Community Health Assessment process and report possible. We would like to thank the following individuals for their participation in this assessment and with the prioritization process:

County Commissioner- Mr. Jesse Dowe

Board of Health - Dr. Margie Hunter, DVM; Adell Cooper, Leigh Gurley

<u>Health Department</u> – Tracey Simmons Kornegay, Health Director; Beth Ricci, Nursing Director; Rigoberto Castellanos, Health Educator

<u>Vidant Duplin Hospital</u>- Deborah Hernandez, President Vidant Duplin; Sue Taylor, VP Personal Care Services; Matt Gitzinger, Director of Operations; Tom Fife, Foundation Director; Laura Maready, Director of Marketing; Christina Miller, Director Personal Care Services; Leigh Anne Bartlett; Sue Wells, Manager Community Health; Melissa Roupe, Senior Administrator Vidant Corporate;

Community Health Vidant- Desiree Wynn, Crystal Dempsey, Krista Horne

Mental Health- Eastpointe Community Relations, Melissa Reese

<u>Department of Social Services-</u> Susan Thigpen, Director

<u>James Sprunt Community College</u>- Ken Boham, Interim Director; Amber Martinez, Single Stop Student Services

Department of Transportation- Angel Venecia, Director of Transportation

Department of Aging- Melisa Brown, Director of Senior Center

Duplin County Partnership for Children- Tristan Bruner

4H Prevention- Jasmine Williams

Public Member- Caroline Edwards, student ECU

Cooperative Extension-Sydney Johnson

<u>Duplin County Public Schools</u>- Ben Thigpen, Assistant Superintendent; Sue Ellen Cottle, Lead Nurse

Goshen Medical Center- Lynn Hardy, Quality Control

Faith Community- Pastor Ted Thomas, First Baptist

About Health ENC

Initiated in 2015 by the Office of Health Access at the Brody School of Medicine at East Carolina University, Health ENC grew out of conversations with health care leaders about improving the community health needs assessment (CHNA) process in eastern North Carolina. Health ENC, now a program of the Foundation for Health Leadership and Innovation (FHLI), coordinates a regional CHNA in 33 counties of eastern North Carolina. In addition, the Health ENC Program Manager works to build coalitions and partnerships that will address health issues identified through the regional CHNA process.

As part of the Affordable Care Act, not for profit and government hospitals are required to conduct CHNAs every three years. Similarly, local health departments in North Carolina are required by the Division of Public Health (DPH) in the NC Department of Health and Human Services (DHHS) to conduct periodic community health assessments as well. Local health departments have been required to submit their community health needs assessments once every four years. The particular year CHNA submissions are made by hospitals within a three-year cycle or by local health departments within a four-year cycle is not uniform across the state or region.

Additionally, although local health departments and hospitals have guidance from their respective oversight authorities on how to conduct and report the results of their CHNAs, that guidance allows for wide variations in the execution of these reports. The methodologies, specific data items gathered, the interpretation of the data as well as the general approach and scope of one CHNA may have little resemblance to a CHNA in another jurisdiction or conducted by another organization.

For these reasons, health care leaders across eastern North Carolina have partnered to standardize the CHNA process for health departments and hospitals in the region. This effort will also sync all participant organizations on to the same assessment cycle. Combining efforts of local health departments and hospitals in a regional CHNA will ultimately lead to an improvement in the quality and utility of population health data, the ability to compare and contrast information and interventions across geographic boundaries, and the reduction of costs for everyone involved, while maintaining local control and decision-making with regard to the selection of health priorities and interventions chosen to address those priorities. Simultaneously, it will create opportunities for new and better ways to collaborate and partner with one another.

Upon receipt of generous funding support provided by The Duke Endowment, the Office of Health Access at ECU's Brody School of Medicine transferred administrative and operational responsibility for Health ENC to the Foundation for Health Leadership and Innovation in 2018. The project continues to be

guided by a steering committee representing local health departments, hospitals and other stakeholders committed to improving the health of the people of eastern North Carolina.

Member Organizations

Health ENC is comprised of more than 40 organizations. Twenty-two hospitals, twenty-one health departments and two health districts participated in the regional CHNA.

Partner Organizations

- Foundation for Health Leadership & Innovation
- ECU Brody School of Medicine
- The Duke Endowment

Hospitals and Health Systems

- Cape Fear Valley Health (Cape Fear Valley Medical Center, Hoke Hospital and Bladen County Hospital)
- Carteret Health Care
- Halifax Regional Medical Center
- Johnston Health
- UNC Lenoir Health Care
- Nash Health Care System
- Onslow Memorial Hospital
- The Outer Banks Hospital
- Pender Memorial Hospital
- Sampson Regional Medical Center
- Sentara Albemarle Medical Center
- Vidant Beaufort Hospital
- Vidant Bertie Hospital
- Vidant Chowan Hospital
- Vidant Duplin Hospital
- Vidant Edgecombe Hospital
- Vidant Medical Center
- Vidant Roanoke-Chowan Hospital
- Wayne UNC Health Care
- Wilson Medical Center

Health Departments and Health Districts

- Albemarle Regional Health Services
- Beaufort County Health Department
- Bladen County Health Department
- Carteret County Health Department
- Cumberland County Health Department
- Dare County Department of Health and Human Services
- Duplin County Health Department
- Edgecombe County Health Department
- Franklin County Health Department
- Greene County Department of Public Health

- Halifax County Public Health System
- Hoke County Health Department
- Hyde County Health Department
- Johnston County Public Health Department
- Lenoir County Health Department
- Martin-Tyrrell-Washington District Health Department
- Nash County Health Department
- Onslow County Health Department
- Pamlico County Health Department
- Pitt County Health Department
- Sampson County Health Department
- Wayne County Health Department
- Wilson County Health Department

Steering Committee

Health ENC is advised by a Steering Committee whose membership is comprised of health department and hospital representatives participating in the regional CHNA, as well as other health care stakeholders from eastern North Carolina. The program manager oversees daily operations of the regional community health needs assessment and Health ENC.

Health ENC Program Manager

• Will Broughton, MA, MPH, CPH - Foundation for Health Leadership & Innovation

Health ENC Steering Committee Members

- Constance Hengel, RN, BSN, HNB-BC Director, Community Programs and Development, UNC Lenoir Health Care
- James Madson, RN, MPH Steering Committee Chair, Health Director, Beaufort County Health Department
- Battle Betts Director, Albemarle Regional Health Services
- Caroline Doherty Chief Development and Programs Officer, Roanoke Chowan Community Health Center
- Melissa Roupe, RN, MSN Sr Administrator, Community Health Improvement, Vidant Health
- Davin Madden Heath Director, Wayne County Health Department
- Angela Livingood Pharmacy Manager, Pender Memorial Hospital
- Lorrie Basnight, MD, FAAP Executive Director, Eastern AHEC, Associate Dean of CME, Brody School of Medicine
- Anne Thomas- President/CEO, Foundation for Health Leadership & Innovation

HealthENC.org

The <u>Health ENC</u> web platform, shows the community health needs assessment process in eastern North Carolina. The website serves as a "living" data platform, providing public access to indicator data that is continuously updated, easy to understand and includes comparisons for context. Much of the data used in this assessment is available on <u>HealthENC.org</u> and can be downloaded in multiple formats. Results of the 2018 Eastern North Carolina Community Health Survey can be downloaded by county or the entire Health ENC Region.

In addition to indicator data, the website serves as a repository for local county reports, funding opportunities, 2-1-1 resources and more. Health departments, hospital leaders and community health stakeholders in the 33-county region are invited to use the website as a tool for community assessment, strategic planning, identifying best practices for improvement, collaboration and advocacy.

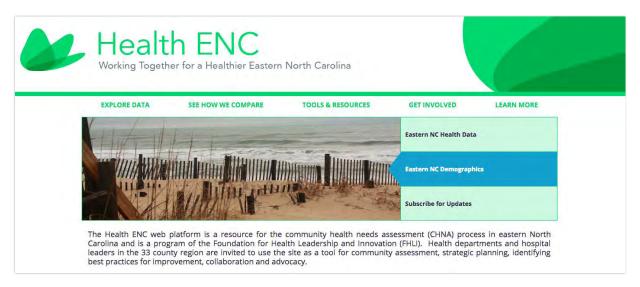


Figure 1. Health ENC Online Data Platform

Distribution

An electronic copy of this report is available on HealthENC.org. The completed report is posted on the Vidant Duplin Hospital https://www.vidanthealth.com/Locations/Hospitals/Vidant-Duplin-Hospital and the Duplin County website under the Health Department https://www.duplincountync.com. Any person wishing a paper copy may download from the website or contact the DCHD Nursing Director at 910-296-2130.

Evaluation of Progress Since Prior CHNA

The community health assessment, which is both a process and a document, investigates and describes the current health status of the community, what has changed since the last assessment, and what still needs to change to improve the health of the community

The community health improvement process should be viewed as an iterative cycle. An important piece of that cycle is revisiting the progress made on priority health topics set forth in the preceding community health needs assessment. By reviewing the actions taken to address priority health issues and evaluating the impact those actions have made in the community, it is possible to better target resources and efforts during the next round of the CHNA cycle.

As part of the 2016 Community Health Needs Assessment, the following areas were selected as prioritized health needs.

- Access to Care
- Substance Abuse/ Mental Health
- Chronic Disease
- Prevention/ Healthy Lifestyles

Community Feedback on Prior CHNA

The 2016 Duplin County Community Health Needs Assessment was made available to the public via website for Vidant Duplin Hospital https://www.vidanthealth.com/Locations/Hospitals/Vidant-Duplin-Hospital and the Duplin County website https://www.duplincountync.com under the DCHD website. Community members were invited to submit feedback via in-person session, email or by phone. No comments had been received on the preceding CHNA at the time this report was written.

Methodology

Overview

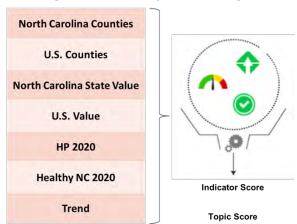
Two types of data are analyzed for this Community Health Needs Assessment: secondary data and primary data. Secondary data is data that has been collected from other sources while primary data has been collected directly as a part of this report. Each type of data is analyzed using a unique methodology, and findings are organized by health topic areas. These findings are then synthesized for a comprehensive overview of the health needs in Duplin County.

Secondary Data Sources & Analysis

The main source of the secondary data used for this assessment is HealthENC.org1, a web-based community health platform developed by Conduent Healthy Communities Institute. The Health ENC dashboard brings non-biased data, local resources, and a wealth of information in one accessible, user-friendly location. The secondary data analysis was conducted using Conduent HCI's data scoring tool, and the results are based on the 147 health and quality of life indicators that were queried on the Health ENC dashboard on July 18, 2018. The data are primarily derived from state and national public data sources. For each indicator on the platform, there exist several comparisons to assess Duplin County's status, including how Duplin County compares to other communities, whether health targets have been met, and the trend of the indicator value over time.

Conduent HCI's data scoring tool systematically summarizes multiple comparisons to rank indicators based on highest need (Figure 2). For each indicator, the Duplin County value is compared to a distribution of North Carolina and U.S. counties, state and national values, Healthy People 2020 targets, Healthy North Carolina 2020 targets, and the trend over the four most recent time periods of measure. Each indicator is then given a score based on the available comparisons. The scores range from 0 to 3, where 0 indicates the best outcome and 3 indicates the worst outcome. Availability of each type of comparison varies by indicator and is dependent upon the data source, comparability with data collected from other communities, and changes in

Figure 2. Secondary Data Scoring



methodology over time. The indicators are grouped into topic areas for a higher-level ranking of community health needs.

Please see Appendix B for further details on the secondary data scoring methodology.

¹ Health ENC is an online platform that provides access to health, economic and quality of life data, evidence-based programs, funding opportunities and other resources aimed at improving community health. The platform is publicly available and can be accessed at http://www.healthenc.org/.

Health and Quality of Life Topic Areas

Table 2 shows the health and quality of life topic areas into which indicators are categorized. These topic areas are broadly based on the Healthy People 2020 framework, with each topic area containing multiple indicators. The five topic areas exhibiting the most significant need as evidenced by the secondary data analysis are included for in-depth exploration in the data findings. Four topic areas specific to population subgroups, including Children's Health, Men's Health, Women's Health, and Older Adults & Aging, include indicators spanning a variety of topics. If a particular subgroup receives a high topic score, it is not highlighted independently as one of the top 5 findings but is discussed within the narrative as it relates to highly impacted populations. Three additional categories (County Health Rankings, Mortality Data, and Wellness & Lifestyle) are not considered for in-depth exploration, since all three are general categories that include indicators spanning a wide variety of topics. Topic areas with fewer than three indicators are considered to have data gaps and do not receive topic scores. These topics are indicated by an asterisk in Table 2.

Table 2. Health and Quality of Life Topic Areas

Access to Health Services	Family Planning*	Prevention & Safety
Cancer	Food Safety*	Public Safety
Children's Health*	Heart Disease & Stroke	Respiratory Diseases
County Health Rankings	Immunizations & Infectious Diseases	Social Environment
Diabetes	Maternal, Fetal & Infant Health	Substance Abuse
Disabilities*	Men's Health	Teen & Adolescent Health*
Economy	Mental Health & Mental Disorders	Transportation
Education	Mortality Data	Vision*
Environment	Older Adults & Aging	Wellness & Lifestyle
Environmental & Occupational Health	Other Chronic Diseases	Women's Health
Exercise, Nutrition, & Weight	Oral Health*	

^{*}Topic area has fewer than 3 indicators and is considered a data gap. No topic score is provided.

Health ENC Region Comparison

When available, county-level data are compared to the state of North Carolina, as well as Health ENC Counties. The Health ENC region consists of 33 counties in eastern North Carolina participating in the regional CHNA: Beaufort, Bertie, Bladen, Camden, Carteret, Chowan, Cumberland, Currituck, Dare, Duplin, Edgecombe, Franklin, Gates, Greene, Halifax, Hertford, Hoke, Hyde, Johnston, Lenoir, Martin, Nash, Onslow, Pamlico, Pasquotank, Pender, Perquimans, Pitt, Sampson, Tyrrell, Washington, Wayne and Wilson. Values for the Health ENC region were calculated by aggregating data from these 33 counties.

Primary Data Collection & Analysis

To expand upon the information gathered from the secondary data, Health ENC Counties collected community input. Primary data used in this assessment consists of focus groups and both an English-language and Spanish-language community survey. Community input tools are available in Appendix C.

Community Survey

Community input was collected via a 57-question online and paper survey available in both English and Spanish. Survey Monkey was the tool used to distribute and collect responses for the community survey. Completed paper surveys were entered into the Survey Monkey tool. The community survey was distributed from April 18, 2018 – June 30, 2018.

Survey Distribution

The community survey was available on the Vidant Duplin Hospitals webpage; emails were sent to community partners with the link to the on-line survey. On-line survey link was distributed to the local libraries, posted at county agencies, forwarded to the public schools and local businesses. The paper surveys were distributed to churches, available at the Health Department and Vidant Duplin Hospital. DCHD and Vidant staff solicited participation at community meetings/outreach events, School health meetings, Juvenile Crime, Population Health, Board of Health, Vidant Duplin Board of Directors, local crisis centers, daycares and civic/service organizations. Bi-lingual staff at the health department reached out with paper surveys to the Spanish community by way of local Hispanic stores, churches and clients who came through the Health Department.

Table 3 summarizes the number of survey respondents. A total of 689 responses were collected from Duplin County residents, with a survey completion rate of 88.8%, resulting in 612 complete responses from Duplin County. The survey analysis included in this CHNA report is based on complete responses.

	Number of Respondents*				
Service Area	English Spanish Survey Survey				
All Health ENC Counties	15,917	441	16,358		
Duplin County	552	60	612		

Table 3. Survey Respondents

Survey participants were asked a range of questions related - but not limited - to: what populations are most negatively affected by poor health outcomes in Duplin County, what their personal health challenges are, and what the most critical health needs are for Duplin County. The survey instrument is available in Appendix C.

<u>Demographics of Survey Respondents</u>

The following charts and graphs illustrate Duplin County demographics of the community survey respondents. English survey results and Spanish survey results are presented separately to highlight differences between survey groups.

Among Duplin County survey participants, 52.4% of English survey respondents were over the age of 50, with the highest concentration of respondents (13.5 %) grouped into 55-59 age group. 95% of Spanish survey respondents were under the age of 50 with the highest concentration of survey respondents grouped into the 30-34 age group. A high proportion of respondents were female (82.3% English survey, 68.3% Spanish survey) and identified as White (69.7% English survey, 53.4% Spanish survey). 50% of Spanish survey participants identified as Mexican or Mexican American and 36.7% identified as Other

^{*}Based on complete responses

Hispanic/Latino. 91.7% of Spanish survey respondents do not primarily speak English at home compared to 2.4% of English survey respondents.

Many English survey respondents had earned either a Bachelor's (23.8%), Graduate/Professional Degree (22.7%) or Associate Degree or Vocational Training (26%) Figure 3. Just over half of Spanish survey respondents had less than a 9th grade education and 20.3% had completed High School (Figure 4).

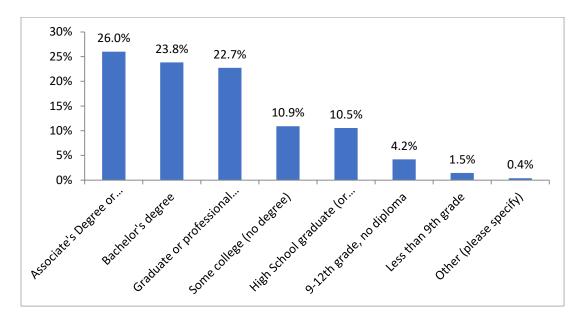
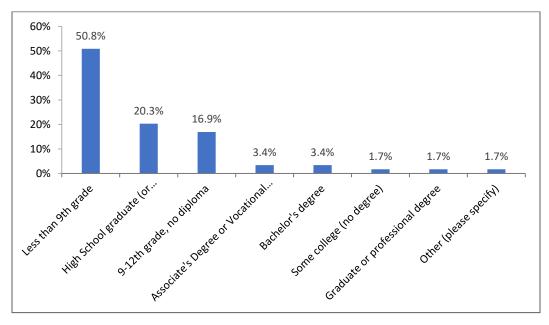


Figure 3. Education of Community Survey Respondents-English





As shown in Figure 5 and 6, most survey respondents were employed full-time (75.3% English survey, 50% Spanish survey). 40% of Spanish survey respondents selected Homemaker as their employment

status. The highest share of English survey respondents (21.3%) had annual household incomes from \$50,000 to \$74,999 before taxes and the average household size was 2.8 individuals. The highest share of Spanish survey respondents (35%) had household annual incomes from \$15,000 to \$24,999 before taxes and the average household size was 4.3.

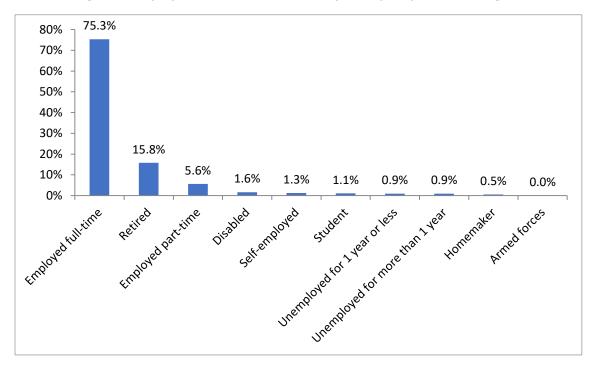


Figure 5. Employment Status of Community Survey Respondents - English



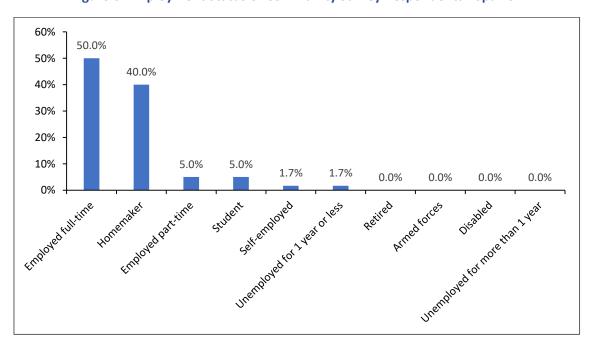


Figure 7 and Figure 8 shows the health insurance coverage of community survey respondents. Almost three quarters of English survey respondents have health insurance provided by their employer (73.4%) only 24.1% of Spanish survey respondents have health insurance provided by their employer. 65.5% of Spanish survey respondents have no insurance of any kind.

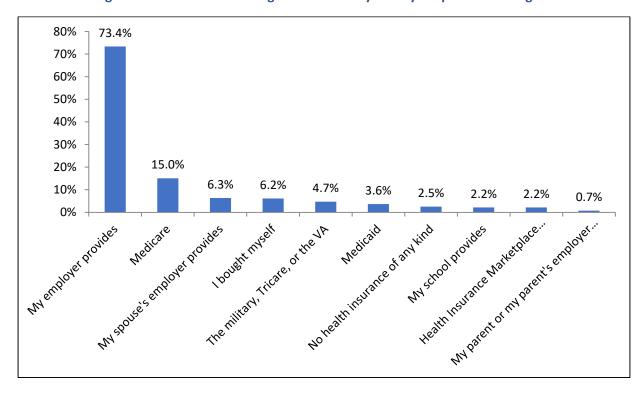


Figure 7. Health Care Coverage of Community Survey Respondents - English

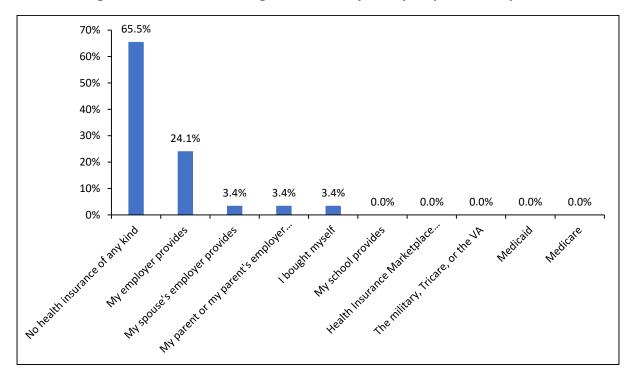


Figure 8. Health Care Coverage of Community Survey Respondents - Spanish

The survey was a convenience sample survey, and thus the results are not representative of the community population as a whole. Key findings from select questions on the community survey are integrated into this report by theme or topic area, with an emphasis on the most significant needs as evidenced by both primary and secondary data. A summary of full survey results (all 57 questions) is available on HealthENC.org. Full results can be downloaded by county or for the entire Health ENC Region.

Focus Group Discussions

Another form of community input was collected through focus groups. Focus groups are carefully constructed dialogues that invite diverse groups of people to discuss important and pressing issues. Focus groups provide community members an opportunity to engage in productive learning and sharing sessions. Focus group discussions focused on community strengths, opportunities for improvement, existing resources, health needs, and possible solutions for improving the health of Duplin County. A list of questions asked at the focus groups is available in Appendix C.

The purpose of the focus groups for Health ENC's 2019 CHNA/CHA was to engage with a broad cross-section of individuals from each county, such as migrant worker groups, healthcare workers, or county employees, to name a few.

Conduent HCI consultants developed a Focus Group Guide and led training webinars for Health ENC members. Topics included facilitation techniques, moderator and note taker roles, as well as tips and

expectations for documenting focus group discussions. The list of focus group questions was reviewed and a transcript was provided for documentation purposes.

Four focus group discussions were completed within Duplin County between July 11, 2018 – July 25, 2018 with a total of 51 individuals. Participants included various individuals from the general population and health care workers. Table 4 shows the date, location, population type, and number of participants for each focus group.

Table 4. List of Focus Group Discussions

Date Conducted	Focus Group Location	Population Type	Number of Participants
7/11/2018	Warsaw First Missionary Baptist Church	General Population	11
7/17/2018	New Christian Chapel Baptist Church	General Population	19
7/19/2018	Department of Aging	In-Home Aides	12
7/25/2018	Vidant Duplin Hospital	General Population	9

Focus group transcripts were coded and analyzed by common theme. The frequency with which a topic area was discussed in the context of needs and concerns or barriers and challenges to achieving health was used to assess the relative importance of the need in the community. Key themes that emerged from the focus group discussions are integrated into this report by topic area, with an emphasis on the most significant needs as evidenced by both primary and secondary data. A deeper analysis of focus group findings is available on HealthENC.org.

Results of the focus group dialogues further support the results from other forms of primary data collected (the community survey) and reinforces the findings from the secondary data scoring. By synthesizing the discussions that took place at the focus groups alongside the responses from the community survey, the primary data collection process for Duplin County is rich with involvement by a representative cross section of the community.

Data Considerations

Several limitations of the data should be considered when reviewing the findings presented in this report. Although the topics by which data are organized cover a wide range of health and health-related areas, within each topic there is a varying scope and depth of data availability. In some topics there is a robust set of secondary data indicators, but in others there may be a limited number of indicators for which data is collected, or limited subpopulations covered by the indicators.

Data scores represent the relative community health need according to the secondary data that is available for each topic and should not be considered to be a comprehensive result on their own. In addition, these scores reflect what was found in the secondary data for the population as a whole, and do not factor in the health or socioeconomic need that is much greater for some subpopulations. In addition, many of the secondary data indicators included in the findings are collected by survey, and though methods are used to best represent the population at large, these measures are subject to instability—especially among smaller populations. The infant mortality rate indicator was corrected

after the development of the content for this report. The values have been updated here and the impact was determined to be minimal to the analysis overall.

The disparities analysis, used to analyze the secondary data, is also limited by data availability. In some instances, data sources do not provide subpopulation data for some indicators, and for other indicators, values are only available for a select number of race/ethnic groups. Due to these limitations, it is not possible to draw conclusions about subpopulation disparities for all indicators.

The breadth of primary data findings is dependent on several factors. Focus group discussion findings were limited by which community members were invited to and able to attend focus group discussions, as well as language barriers during discussion for individuals whose native language is not English. Because the survey was a convenience sample survey, results are vulnerable to selection bias, making findings less generalizable for the population as whole.

Prioritization

In order to better target community issues with regards to the most pressing needs and align with the available county resources, the CHNA team held two community sessions. The sessions were held in January 2019 to share CHNA data and then prioritize the significant health needs of the community. Members of the community, focus group participants, agencies that served vulnerable populations, health providers, faith leaders and others were sent an invitation in November 2018. The invitation to attend the community meeting was distributed in December 2018 to county agencies, the faith community, non-profits, focus group participants, public schools and agencies serving vulnerable and atrisk populations.

On January 8th, 2019 the first of two sessions were held at Vidant Duplin Hospital, there were 25 people present. Melissa Roupe, Senior Administrator for Community Health Improvement, Vidant Health was the facilitator of the sessions. The primary and secondary data analysis was presented and then the participants reviewed and discussed the findings. A preliminary list of 15 significant health needs/concerns based on secondary and primary data of the group was developed. From there the participants scored the items which were the most important to work on. A multi-voting method was used. Each participant was given three colored stickers. They were instructed to vote for their top three choices by placing their stickers on the corresponding posters posted around the room. They were instructed that they may use all three votes for one item or spread them out. After voting the topics with the fewest votes were eliminated, there were 10 health needs remaining.

The second session was held on January 15, 2019 with 25 people present, held at the same location and with the same facilitator as the initial meeting. The group then examined the 10 health priorities and discussed the similarities/ difference in the lists and how to combine the highest health priories into three or four improvement plans. The group discussed the available and/or needed county resources to impact the goals, and the chance of success with current resources. The following Table 5 illustrates the community members who attended the community engagement sessions by service area.

Table 5. List of Community Participants by Discipline

Public Health	3
Hospital	10
County Government	1
Board of Health	3
Mental Health	1
Duplin County Schools	2
Community College	2
Faith Based	1
Department of Social Services	1
Agencies serving children	1
Medical Providers	3
Agency serving aged	1
Public member	1
Transportation agency	1
Agency serving youth	2

The group decided on four health priorities for 2019-2021:

- 1. Chronic Disease Prevention & Management; Focus on Healthy Lifestyles and Weight Management; Nutrition Education; Dental Care with a specific focus on children and adolescents (Youth).
- 2. Access to Care Physical & Mental Health Care Services; Focus on After Hours Care; Primary Care & Specialty Care Available; Dental Care; Pediatric & Adolescent Care; and Transportation Issues which impact access.
- 3. Disaster Recovery & Mitigation; Focus on recovery from previous hurricanes, as well as mitigating actions to prevent / minimize future damage from natural disasters. Focus on mental health issues, especially among youth.
- 4. Substance Use Youth & Adult; including focus on youth and the use of alcohol, tobacco and other drugs; adult incarcerations related to substance use and treatment options instead of incarceration for the population.

Overview of Duplin County

About Duplin County

Duplin County is a rural agrarian economy and depends on livestock, poultry and associated manufacturing industries for jobs and economic growth. Today, Duplin's agriculture industries range from the family farm to corporate headquarters of agriculture related businesses. The impact of Hurricane Florence in September 2018 has impacted the county in ways not fully realized at this time of the data collection and community input session. Many people were displaced during and after the storm and are unable to return as their homes and many do not have the financial resources to recover. Local agricultural industry was impact by the loss of crops and workers.

Demographic Profile

The demographics of a community significantly impact its health profile. Population growth has an influence on the county's current and future needs. Specific population subgroups, including veterans and different age, gender, race and ethnic groups, may have unique needs and require varied approaches to health improvement efforts. The following section explores the demographic profile of Duplin County, North Carolina.

Population

According to the U.S. Census Bureau's 2016 population estimates, Duplin County has a population of 58,969 (Figure 9). The population of Duplin County has decreased from 2013 to 2016.

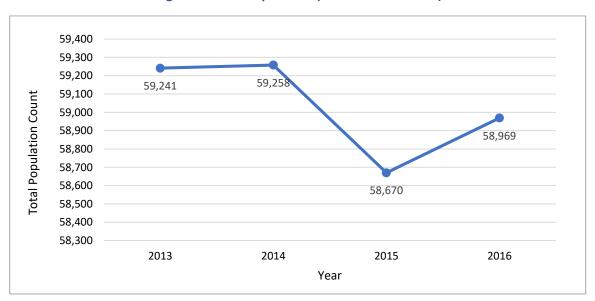


Figure 9. Total Population (U.S. Census Bureau)

Figure 10 shows the population density of Duplin County compared to other counties in the Health ENC region. Duplin County has a population density of 71.7 persons per square mile.

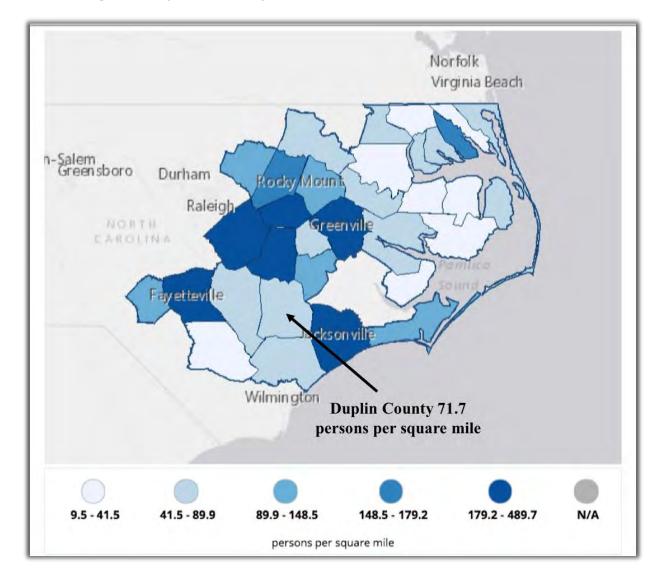


Figure 10. Population Density of Health ENC Counties (U.S. Census Bureau, 2010)

Age and Gender

Overall, the age distribution of Duplin County residents is similar to that of North Carolina and the Health ENC region. Figure 11 shows the Duplin County population by age group. Approximately 26% of the population is 0-19 years of age, 26% is 45-64 years of age and 17% are 65 years and older.

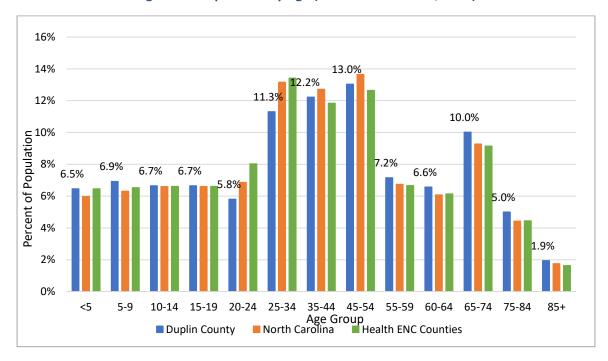


Figure 11. Population by Age (U.S. Census Bureau, 2016)

People over the age of 18 comprise 75.5% of the Duplin County population, compared to 77.3% in North Carolina and 76.7% in the Health ENC counties. Age 65 and older comprise 17.0% of the Duplin County population, 15.5% in North Carolina and 15.2% in the Health ENC counties (Figure 12).

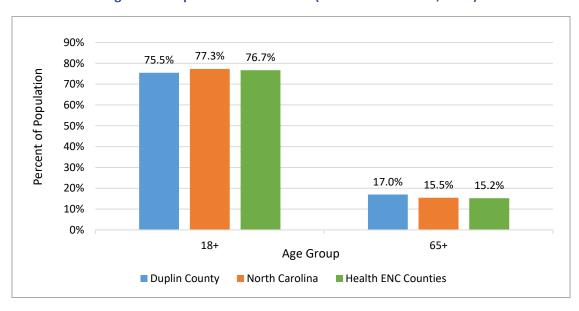


Figure 12. Population 18+ and 65+ (U.S. Census Bureau, 2016)

Males comprise 49.0% of the population, whereas females comprise 51.0% of the population (Table 5). The median age for males is 38.3 years, whereas the median age for females is 41.7 years. Both are slightly higher than the North Carolina median age (37.2 years for males and 40.1 years for females).

Table 6. Population by Gender and Age (U.S. Census Bureau, 2016)

	Percent of Total Population		Perce Male Po		Percent of Female Population			an Age ears)
	Male	Female	18+	65+	18+	65+	Male	Female
Duplin County	49.0%	51.0%	74.2%	15.4%	76.8%	18.5%	38.3	41.7
North Carolina	48.6%	51.4%	76.3%	13.9%	78.4%	17.0%	37.2	40.1
Health ENC Counties	49.2%	50.8%	75.8%	13.5%	77.5%	16.9%	N/A	N/A

Life Expectancy at Birth

Life expectancy is the average number of additional years that someone at any given age would be expected to live if current mortality conditions remained constant throughout their lifetime (Table 6). Duplin has a higher life expectancy, median age 78.1 years, as compared to state (74.6) and region (74.9). The gap in White and African American's life expectancy is large and continues to widen as compared to last assessment. Women have a longer life expectancy (81.2) as compared to males (74.9) and this ratio has been constant in the previous assessments cycles.

Table 7. Life Expectancy at Birth by Race and Sex 2014-2016 (NCSCHS 2016)

	Percent of Total Population by Sex		Percent of White	Percent of African American	Median Age (Years)
	Male	Female	All	All	All
Duplin County	74.9	81.2	79.5	76.3	78.1
North Carolina	74.8	79.9	78.3	74.9	74.9
Health ENC Counties	72.1	77.1	75.5	73.4	74.6

Birth Rate

Birth rates are important measures of population health. The birth rate is usually the dominant factor in determining the rate of population growth; however, population growth is also driven by the age structure of the population (e.g., deaths), immigration and emigration. The birth rate in Duplin County (12.0 live births per 1,000 populations in 2016) is the same as the birth rate in North Carolina (12.0) and slightly lower than the birth rate in Health ENC counties (13.1). Birth rates have decreased slightly over the past three measurement periods in all three jurisdictions.

Race/Ethnicity

The race and ethnicity composition of a population is important in planning for future community needs, particularly for schools, businesses, community centers, health care and child care. Race and ethnicity

data are also useful for identifying and understanding disparities in housing, employment, income and poverty.

Figure 13 shows the racial and ethnic distribution of Duplin County compared to North Carolina and Health ENC counties. The first six categories (White, Black or African American, American Indian or Alaska Native, Asian, Native Hawaiian & Other Pacific Islander and Multiracial) are racial groups and may include persons that identify as Hispanic or Latino. The seventh category (Hispanic or Latino) is an ethnic group and may include individuals that identify as any race.

The White population accounts for 70.1% of the total population in Duplin County, with the Black or African American population accounting for 25.9% of the total population. The proportion of residents that identify as White in Duplin County (70.1%) is similar to North Carolina (71.0%) and higher than Health ENC counties (63.8%). Duplin County has a larger share of residents that identify as Hispanic or Latino (21.9%) compared to North Carolina (9.2%) and Health ENC counties (9.6%). This data is relatively unchanged as compared to the previous CHNA.

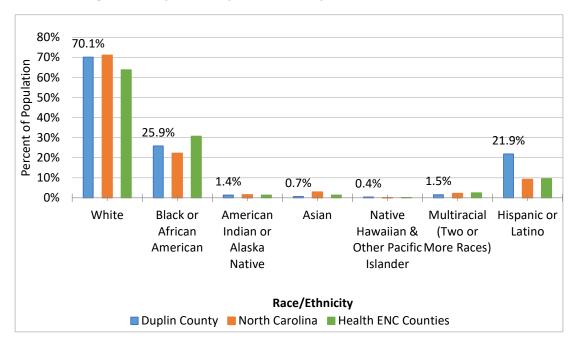


Figure 13. Population by Race/Ethnicity (U.S. Census Bureau, 2016)

Military Population

The percent of the population 16 years of age and older in the military (armed forces). In 2012-2016, Duplin County has a smaller share of residents in the military (0.2%) compared to North Carolina (1.0%) and counties in the Health ENC region (4.0%).

Veteran Population

The veteran population is given as a percent of the civilian population aged 18 years and older and this data is used for policy analyses, to develop programs, and to create budgets for veteran programs and facilities. Duplin County has a veteran population of 8.1% in 2012-2016, compared to 9.0% for North Carolina and 12.4% for Health ENC counties.

Socioeconomic Profile

Social determinates of health (SDOH) are the complex circumstances in which individuals are born and live that impact their health. They include intangible factors such as political, socioeconomic, and cultural constructs, as well as place-based conditions including accessible healthcare and education systems, safe environmental conditions, well-designed neighborhoods, and availability of healthful food. Social determinates of health are well known to be strong determinants of health outcomes – those with a low socioeconomic status are more likely to suffer from chronic conditions such as diabetes, obesity and cancer. Community health improvement efforts must determine which subpopulations are most in need in order to effectively focus services and interventions.

NC Department of Commerce Tier Designation

The North Carolina Department of Commerce annually ranks the state's 100 counties based on economic well-being and assigns each a Tier designation. The 40 most distressed counties are designated as Tier 1, the next 40 as Tier 2 and the 20 least distressed as Tier 3. Duplin County has been downgraded to a Tier 1 designation in 2018. This is a change from the 2016 CHNA when Duplin was a Tier 2.

Income

Median household income reflects the relative affluence and prosperity of an area. Areas with higher median household incomes are likely to have a greater share of educated residents and lower unemployment rates. Figure 14 shows the median household income in Duplin County (\$35,364), which is lower than the median household income in North Carolina (\$48,256). There has been no statistical informant since the last CHNA.

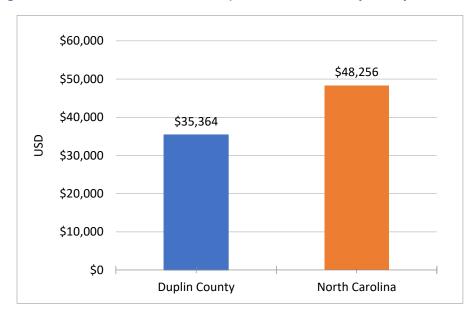


Figure 14. Median Household Income (American Community Survey, 2012-2016)

Compared to counties in the Health ENC region, Duplin County has a relatively low median household income. In the region, eight counties have a lower median household income than Duplin County; the remaining 24 counties in the Health ENC region have a higher median household income (Figure 15).

Norfolk Virginia Beach

NORTH
Raleigh
Wilmington
Duplin County
\$35,364

\$30,408 - \$35,364 \$35,364 - \$41,156 \$41,156 \$41,156 \$46,786 \$46,786 \$54,787 \$54,787 \$54,787 \$61,086 N/A

Figure 15. Median Household Income of Health ENC Counties (American Community Survey, 2012-2016)

Within Duplin County, zip code 28464 has the lowest median household income (\$26,267), followed by zip code 28398 (\$30,083), while zip code 28521 has the highest median household income (\$45,844) (Figure 16). Several of the zip codes in Duplin county are also represented within the neighboring counties.

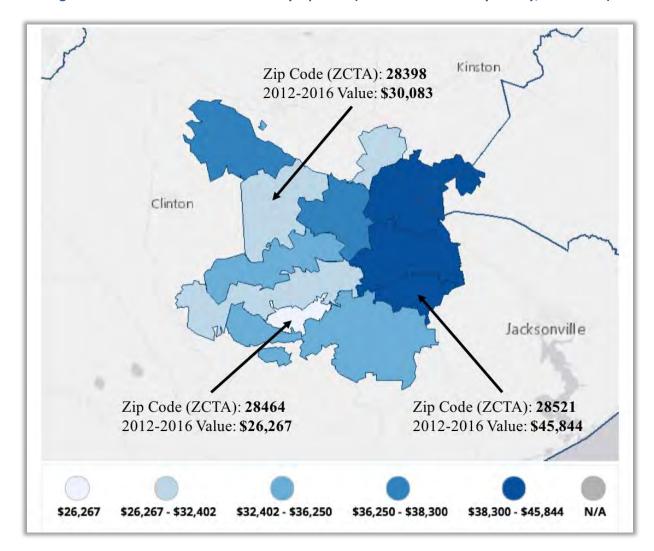


Figure 16. Median Household Income by Zip Code (American Community Survey, 2012-2016)

Poverty

Federal poverty thresholds are set every year by the Census Bureau and vary by size of family and ages of family members. A high poverty rate is both a cause and a consequence of poor economic conditions. Children in poverty are more likely to have physical health problems, behavioral problems and emotional problems. Seniors who live in poverty are an especially vulnerable group due to increased physical limitations, medical needs, and social isolation. Persons with a disability are more likely to live in poverty compared to the rest of the population. Without adequate income, individuals with disabilities may not be able to afford necessary expenses, such as rent or mortgage, utility bills, medical and dental care, and food.

As seen in Figure 17, 27.6% percent of the population in Duplin County lives below the poverty level, which is higher than the rate for North Carolina (16.8% of the population) and the Health ENC region (19.2%). The poverty rate has increased as compared to the 2016 Community Assessment report.

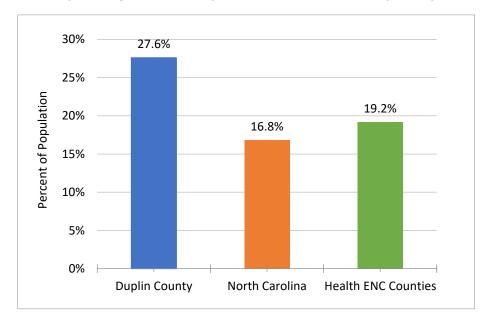


Figure 17. People Living Below Poverty Level (American Community Survey, 2012-2016)

The rate of both children and older adults living below the poverty level is also higher for Duplin County when compared to North Carolina and Health ENC counties (Figure 18 and 19). There is an upward trend in the poverty rates for both adults and children as compared to the last CHNA.

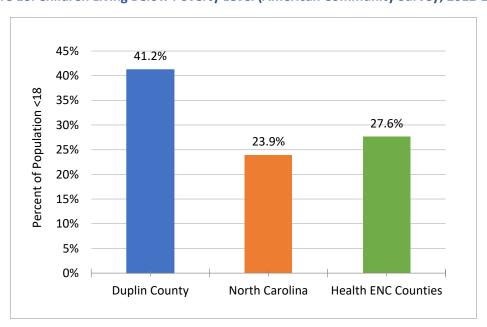


Figure 18. Children Living Below Poverty Level (American Community Survey, 2012-2016)

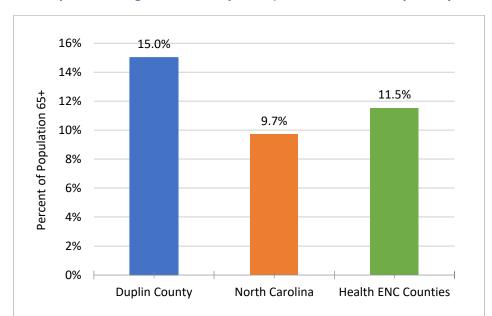


Figure 19. People 65+ Living Below Poverty Level (American Community Survey, 2012-2016)

As shown in Figure 20, the percent of disabled people living in poverty in Duplin County (26.9%) is lower than the rate for North Carolina (29.0%) and Health ENC counties (28.1%).

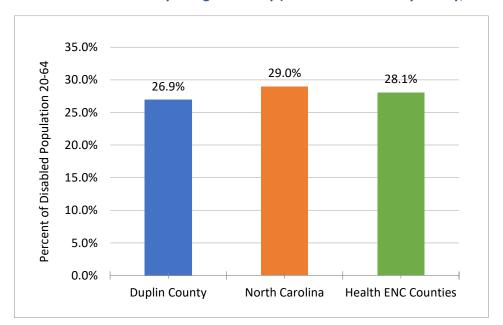


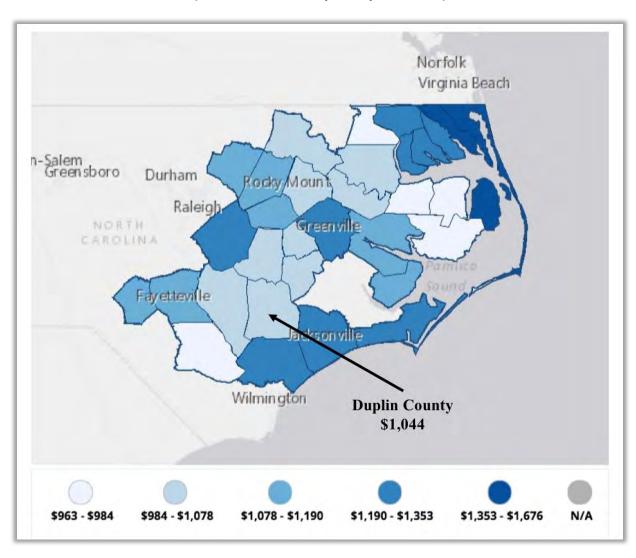
Figure 20. Persons with Disability Living in Poverty (American Community Survey, 2012-2016)

Housing

The average household size in Duplin County is 2.7 people per household, which is slightly higher than the North Carolina value of 2.5 people per household.

High costs of homeownership with a mortgage can strain both homeowners and the local housing market. Figure 21 shows mortgaged owner's median monthly household costs in the Health ENC region. In Duplin County, the median housing costs for homeowners with a mortgage is \$1,044. This is lower than the North Carolina value of \$1,243, and lower than 22 other counties in the Health ENC region. Though this looks positive but in reality 27.6 % of the population lives below the federal poverty level so housing costs will be more than 30% of the monthly income.

Figure 21. Mortgaged Owners Median Monthly Household Costs, Health ENC Counties (American Community Survey 2012-2016)



Safe and affordable housing is an essential component of healthy communities, and the effects of housing problems are widespread. Figure 22 shows the percent of households with at least one of the following problems: overcrowding, high housing costs, lack of kitchen, or lack of plumbing facilities. Slightly more than 18% of households in Duplin County have severe housing problems, compared to 16.6% in North Carolina and 17.7% in Health ENC counties. The effects of Hurricane Florence in September of 2018 on the county have increased the magnitude of the housing problem and is not reflected in the current data.

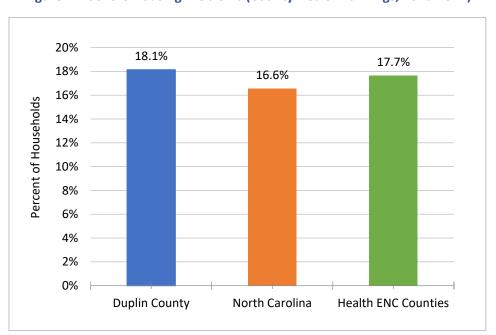


Figure 22. Severe Housing Problems (County Health Rankings, 2010-2014)

Food Insecurity

The Supplemental Nutrition Assistance Program (SNAP) is a federal assistance program that provides low-income families with electronic benefit transfers (EBTs) that can be used to purchase food. The goal of the program is to increase food security and reduce hunger by increasing access to nutritious food.

Figure 23 shows the percent of households with children that participate in SNAP. The rate for Duplin County, 54.3%, is higher than the state value of 52.6% and the Health ENC region value of 51.5%.

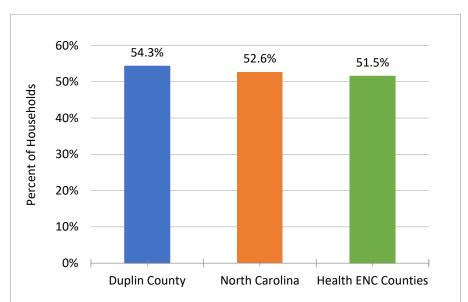


Figure 23. Households with Children Receiving SNAP (American Community Survey, 2012-2016

Employment

The following Table 7, lists the top employers of the County.

Table 8. Top 25 Industries and Employment Range 2018 (2nd Quarter)

			Employment
Company Name	Industry	County	Range
Butterball Llc	Manufacturing	Duplin	1000+
Smithfield Foods Inc	Manufacturing	Duplin	1000+
Duplin County Schools	Education & Health Services	Duplin	1000+
House Of Raeford	Manufacturing	Duplin	500-999
Murphy Family Ventures Llc	Natural Resources & Mining	Duplin	500-999
County Of Duplin	Public Administration	Duplin	500-999
Bay Valley Foods Llc	Manufacturing	Duplin	500-999
Lear Corporation	Manufacturing	Duplin	500-999
Vidant Medical Center	Education & Health Services	Duplin	250-499
Burch Equipment Llc	Natural Resources & Mining	Duplin	250-499
Southern Produce Distributors Inc	Natural Resources & Mining	Duplin	250-499
Johnson Breeders Inc	Natural Resources & Mining	Duplin	100-249
Villari Bros Foods Llc	Manufacturing	Duplin	100-249
James Sprunt Technical College	Education & Health Services	Duplin	100-249
Precision Hydraulic Cylinders Inc	Manufacturing	Duplin	100-249
Wal-Mart Associates Inc.	Trade, Transportation, & Utilities	Duplin	100-249
The Pork Company	Manufacturing	Duplin	100-249
Mcdonalds	Leisure & Hospitality	Duplin	100-249
Valley Proteins Inc	Manufacturing	Duplin	100-249
Goshen Medical Center	Education & Health Services	Duplin	100-249
Bojangles Famous Chicken & Biscuits	Leisure & Hospitality	Duplin	100-249
Cottle Strawberry Nursery Inc	Natural Resources & Mining	Duplin	100-249
Food Lion	Trade, Transportation, & Utilities	Duplin	100-249
Anthros Inc	Professional & Business Services	Duplin	50-99
Enviva Management Company Llc	Trade, Transportation, & Utilities	Duplin	50-99

SocioNeeds Index

Conduent Healthy Communities Institute developed the SocioNeeds Index® to easily compare multiple socioeconomic factors across geographies. This index incorporates estimates for six different social and economic determinants of health – income, poverty, unemployment, occupation, educational attainment, and linguistic barriers – that are associated with poor health outcomes including preventable hospitalizations and premature death.

Zip codes within Duplin County are assigned an index value from 0 (low need) to 100 (high need), based on how those zip codes compare to others in the U.S. Within Duplin County, the zip codes are then ranked from 1 (low need) to 5 (high need) to identify the relative level of need. Zip codes with populations under 300 persons are excluded. Zip code 28453, with an index value of 96.8, has the highest level of socioeconomic need within Duplin County. This is illustrated in Figure. Index values and the relative ranking of each zip code within Duplin County are provided in Table 8.

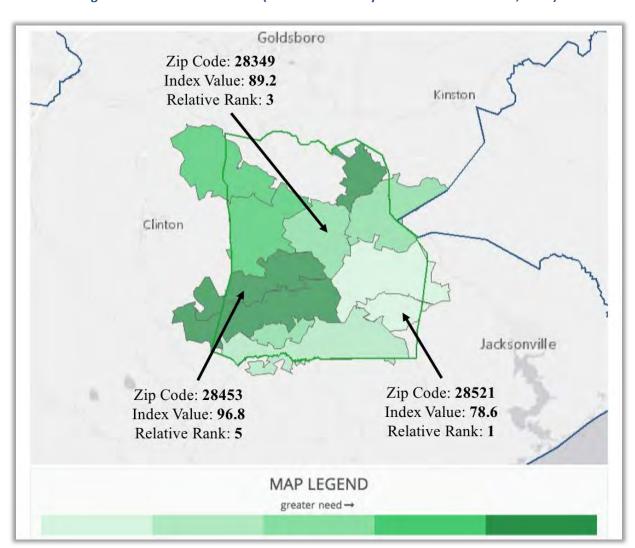


Figure 24. SocioNeeds Index® (Conduent Healthy Communities Institute, 2018)

Table 9. SocioNeeds Index® (Conduent Healthy Communities Institute, 2018)

Zip Code	Index Value	Relative Rank
28453	96.8	5
28508	96.7	5
28458	96.1	5
28398	94.6	4
28341	92.8	4
28464	91.6	3
28572	90.2	3
28349	89.2	3
28466	86.4	2
28518	80.4	1
28521	78.6	1

Source: http://www.healthenc.org/socioneeds

Understanding where there are communities with high socioeconomic need is critical to forming prevention and outreach activities.

Educational Profile

Graduating from high school is an important personal achievement and is essential for an individual's social and economic advancement. Graduation rates can also be an important indicator of the performance of an educational system. Having a bachelor's degree opens up career opportunities in a variety of fields and is often a prerequisite for higher-paying jobs.

Educational Attainment

Duplin County Schools consists of thirteen public schools that include seven K-8 schools, one K-6 school, four high traditional high schools and an early college high school. The 17-18 student enrollment is 9609, which is less than the previous CHNA data. There is one community college, James Sprunt Community College offering 30 + programs leading to an associate's degree, diploma and certifications. They offer courses traditional liberal arts programs and have several programs tailored to the industries in the county such as diesel and heavy equipment technology, swine management and viticulture.

When comparing Duplin County to the NC average, the 2016-2017 high school graduation rate was lower in Duplin County Schools (81.3%) as compared to the state (85.3%). This is a decrease from the 2016 CHNA data.

Countywide, the percent of residents 25 or older with a high school degree or higher (72.0%) is lower than the state value (86.3%) and the Health ENC region (84.7%) (Figure 25). Higher educational attainment in Duplin County is lower than the state value and the Health ENC region. While 29.0% of residents 25 and older have a bachelor's degree or higher in North Carolina, and 19.9% in the Health ENC counties, only 10.3% of residents 25 and older have a bachelor's degree or higher in Duplin County.

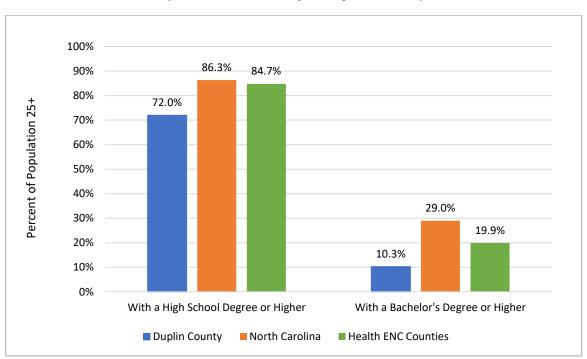


Figure 25. People 25+ with a High School Degree or Higher and Bachelor's Degree or Higher (American Community Survey, 2012-2016)

High School Dropouts

High school dropouts earn less income than high school and college graduates, and are more likely to be unemployed. High school dropouts are generally less healthy and require more medical care. Further, high school dropout rates are linked with heightened criminal activity and incarceration rates, influencing a community's economic, social, and civic health.

Duplin County's high school dropout rate, given as a percent of high school students in Figure 26, is 2.8% in 2016-2017, which is higher than the rate in North Carolina (2.3%) and the Health ENC region (2.4%). Duplin County's high school dropout rate has increased over three time periods since 2014-2015.

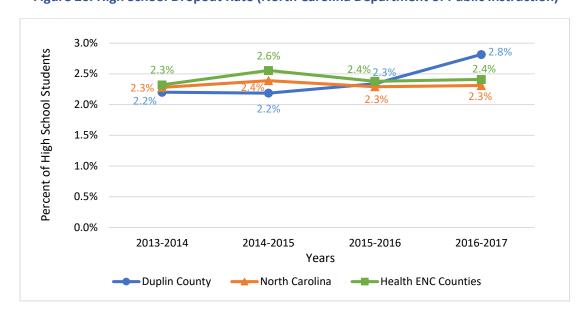


Figure 26. High School Dropout Rate (North Carolina Department of Public Instruction)

High School Suspension Rate

High school suspension is a form of discipline in which a student is temporarily removed from a classroom and/or school due to a violation of school conduct or code. Higher rates of suspension can be related to high rates of antisocial or delinquent behaviors, which may further contribute to potential future involvement in the juvenile justice system. Additionally, schools with higher suspension rates have higher rates of law or board of education violations and generally spend more money per student.

Duplin County's rate of high school suspension (19.3 suspensions per 100 students) is higher than North Carolina's rate (18.2) but lower than the rate of Health ENC counties (25.5) in 2016-2017. As shown in Figure 27, although the rates for North Carolina and the Health ENC region are fairly consistent across four time periods, there was fluctuation in Duplin County's rate between 2013-2014 and 2015-2016.

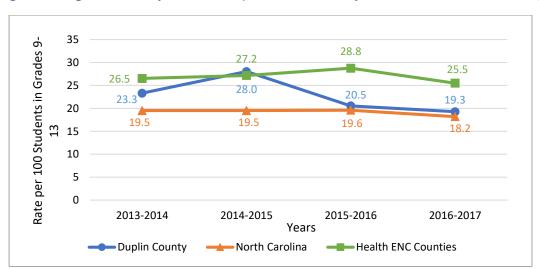


Figure 27. High School Suspension Rate (North Carolina Department of Public Instruction)

Environmental Profile

Duplin County is located inland from the coastal area of the state and has an area of 822 square miles, of which 816 square miles is land and 5.5 square miles is water. Duplin County part of the Coastal Plains and is in the Cape Fear River basin. The Northeast Cape Fear River runs the length of the County with many smaller streams and tributaries branching out. The Angola Swamp is in the southern portion of the county and extends into Pender County. Duplin County is a rural agrarian economy and depends on livestock, poultry and associated manufacturing industries for jobs and economic growth. Today, Duplin's agriculture industries range from the family farm to corporate headquarters of agriculture related businesses.

Duplin County's water system consists of both public water systems covering towns/ municipalities and private wells. The public water systems have been in compliance with federal health-based drinking water standards. The most current annual drinking water reports for public systems are located on the individual town's websites. Majority of private wells are supplied by groundwater. Typically, this is composed of rain that seeps into the ground between soil, clay and rocks before becoming ground water and enters the well supply. Private well owners are responsible to test their water. They may request water testing from Environment Health for a fee. During times of disaster, for example during Hurricane Florence, the state waived the water testing fee and Environmental Health was able to test private wells at no charge.

Transportation Profile

Public transportation offers mobility, particularly to people without cars. Transit can help bridge the spatial divide between people and jobs, services, and training opportunities. Public transportation also reduces fuel consumption, minimizes air pollution, and relieves traffic congestion. Walking to work helps protect the environment, while also providing the benefit of daily exercise.

Interstate 40 is accessible via six exits across Duplin County and provides connections to I-95, I-85, I-77 and I-26. The typical drive times from the Interstate 40 access from the town of Kenansville, the center of the county, are listed below.

Interstate 95	30 minutes
Wilmington	65 minutes
Morehead City	90 minutes
NC Beaches	40 minutes
Raleigh/Research Triangle Park	90 minutes
Myrtle Beach, SC	120 minutes

Countywide, 1.5% of residents walk to work, compared to the state value of 1.8%. Public transportation is rare in Duplin County, with an estimated 0% of residents commuting by public transportation, compared to the state value of 1.1% (Figure 28). In Duplin County, 76.2% of workers 16 and older drive alone to work, compared to 81.1% in North Carolina (Figure 29).

Figure 28. Mode of Commuting to Work (American Community Survey, 2012-2016)

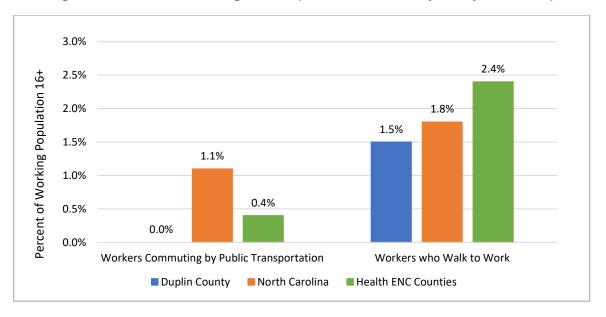
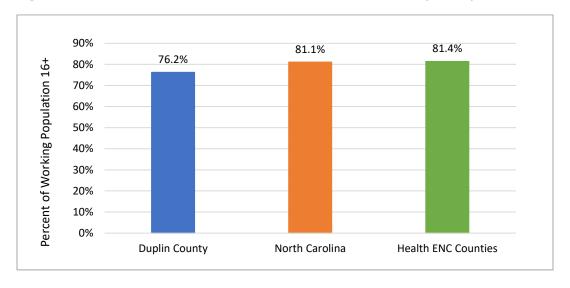


Figure 29. Workers who Drive Alone to Work (American Community Survey, 2012-2016)



Crime and Safety

Both violent crime and property crime are used as indicators of a community's crime and safety. Violence negatively impacts communities by reducing productivity, decreasing property values and disrupting social services.

Violent Crime and Property Crime

Violent crime includes four offenses: murder and non-negligent manslaughter, rape, robbery, and aggravated assault. Property crime includes the offenses of burglary, larceny-theft, motor vehicle theft, and arson. The violent crime rate in Duplin County is 215.8 per 100,000 populations, compared to 374.9 per 100,000 people in North Carolina (Figure 30). The property crime rate in Duplin County (1,823 per 100,000 people) is lower than the state value (2,779.7 per 100,000 people) (Figure 31). The rates of violent crime and property crime in Duplin County are decreasing slightly.

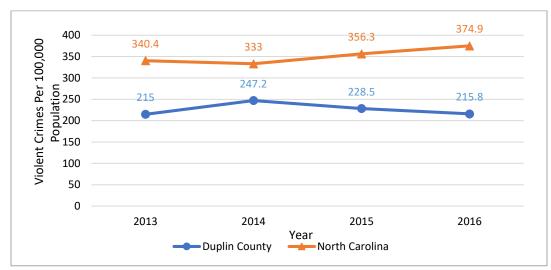
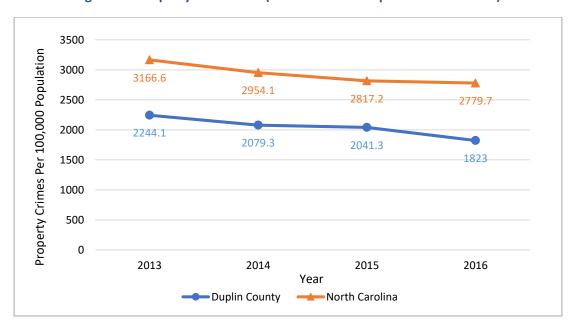


Figure 30. Violent Crime Rate (North Carolina Department of Justice)





Juvenile Crime

Youth who commit a crime may not gain the educational credentials necessary to secure employment and succeed later in life. Negative peer influences, history of abuse/neglect, mental health issues, and significant family problems increase the risk of juvenile arrest. The juvenile justice system aims to reduce juvenile delinquency through prevention, intervention, and treatment services.

Figure 32 shows the juvenile undisciplined rate per 1,000 youth ages 6-17 years old. The undisciplined rate describes juveniles who are unlawfully absent from school, regularly disobedient and beyond disciplinary control of the parent/guardian, are regularly found where it is unlawful for juveniles to be or have run away from home for more than 24 hours. The 2017 juvenile undisciplined rate in Duplin County (0.0) is lower than the rate in North Carolina (1.5) and the Health ENC region (1.1).

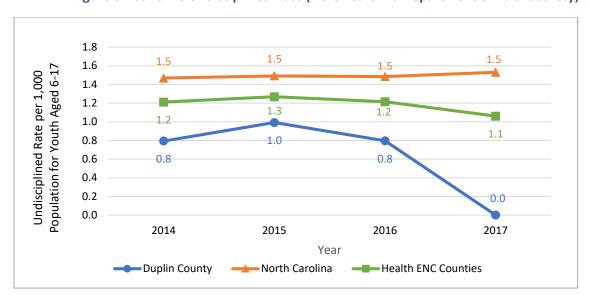


Figure 32. Juvenile Undisciplined Rate (North Carolina Department of Public Safety)

Figure 33 shows the juvenile delinquent rate, or juvenile crime rate, per 1,000 youth ages 6-15 years old. While the juvenile crime rate in Duplin County increased from 2015 to 2016, the rate decreased from 24.4 in 2016 to 16.7 in 2017. The 2017 juvenile delinquent rate for Duplin County (16.7) is lower than North Carolina (19.6) and the Health ENC region (22.8).

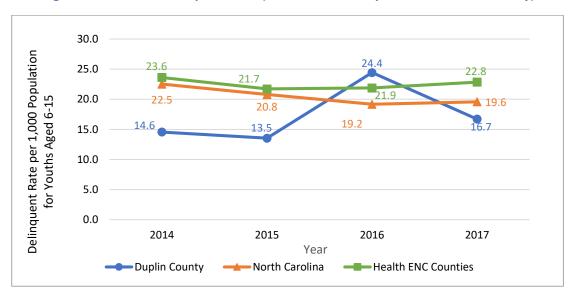


Figure 33. Juvenile Delinquent Rate (North Carolina Department of Public Safety)

The N.C. Department of Public Safety partners with Juvenile Crime Prevention Councils (JCPC) in each county to galvanize community leaders, locally and statewide, to reduce and prevent juvenile crime. General Statute 143B-845 - 852 sets out that it is the intent of the General Assembly to develop community-based alternatives to youth development centers and to provide community based delinquency and substance abuse prevention strategies and programs. The statute also says that the General Assembly intends to provide non-institutional disposition alternatives that will protect the community and juveniles. These programs and services are to be planned at the local level by local Juvenile Crime Prevention Councils (JCPCs) in partnership with the state.

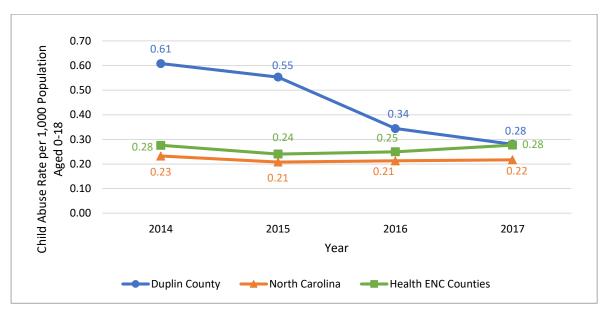
The services that are funded by the JCPC in Duplin County include:

- 1. Clinical Evaluation and Psychological Assessment
- 2. Home-Based Family Counseling & Counseling Programs
- 3. Mediation/Conflict Resolution
- 4. Restitution
- 5. Teen Court

Child Abuse

Child abuse includes physical, sexual and emotional abuse. All types of child abuse and neglect can have long lasting effects throughout life, damaging a child's sense of self, ability to have healthy relationships, and ability to function at home, at work, and at school. Figure 34 shows the child abuse rate per 1,000 population aged 0-18. The child abuse rate in Duplin County has decreased over the past four measurement periods. The 2017 child abuse rate in Duplin County (0.28 per 1,000 population) is slightly higher than the rate in North Carolina (0.22) and the same as the rate in the Health ENC region (0.28).

Figure 34. Child Abuse Rate
(Management Assistance for Child Welfare, Work First, and Food & Nutrition Services in North
Carolina & University of North Carolina at Chapel Hill Jordan Institute for Families)



The Child Fatality Task Force (CFTF) is a legislative study commission that examines the causes of child death and makes recommendations to the Governor and General Assembly on how to reduce child death, prevent abuse and neglect, and support the safety and well-being of children. Duplin County's local prevention teams consist of Community Child Protection Team (CCPT) facilitated by Department of Social Services (DSS), who reviews abuse and neglect cases and related deaths, and Child Fatality Prevention Teams (CFPT), facilitated by the Health Department, who review other child deaths. In Duplin County these two teams are blended into one group that meets quarterly. The DSS staff have seen in increase in child abuse and neglect related to parent drug use.

Incarceration

According to the U.S. Bureau of Justice Statistics, approximately one out of 100 adults in the U.S. are in jail or prison. Conditions in jails and prisons can lead to an increased risk of infectious diseases such as tuberculosis and hepatitis C, as well as assault from other inmates. After incarceration, individuals are likely to face a variety of social issues such as employment discrimination, disruption of family relationships and recidivism.

Figure 35 shows the incarceration rate per 1,000 populations. The incarceration rate in Duplin County has increased over the past three measurement periods. The 2017 incarceration rate in Duplin County (307.0 per 1,000 population) is higher than North Carolina (276.7) and the Health ENC region (232.6).

A large percentage of the local jail population has drug charges of varying degrees per local law enforcement statistics. The Duplin County Substance Use Coalition is a community group that includes LLE, healthcare, Social Service agencies, non-profits, government officials, EMS, faith based, recovery groups, court officials and public members. This group is working on the process to implement alternative sentencing for the population arrested for procession of limited amount of drugs. The NC Harm Reduction Coalition promotes LEAD (Law enforcement assisted diversion), and this has decreased incarceration of people with drug addiction issues and refers into treatment programs in surrounding counties.

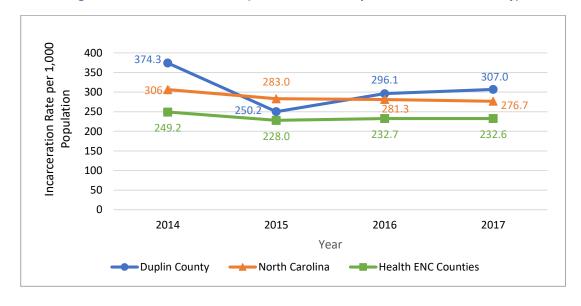


Figure 35. Incarceration Rate (North Carolina Department of Public Safety)

Access to Healthcare, Insurance and Health Resources Information

Medical costs in the United States are very high. People without health insurance may not be able to afford medical treatment or prescription drugs. They are also less likely to get routine checkups and screenings, so if they do become ill they may not seek treatment until the condition is more advanced, and therefore more difficult and costly to treat.

Health Insurance

Figure 36 shows the percent of people aged 0-64 years old that have any type of health insurance coverage. The rate for Duplin County, 79.9%, is lower than the rate for North Carolina (87.8%) and the Health ENC region (87.2). Approximately 20% of the population in Duplin County is uninsured.

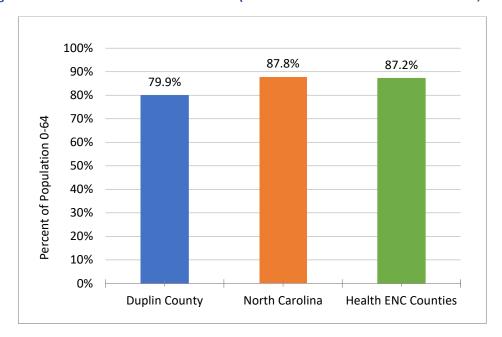


Figure 36. Persons with Health Insurance (Small Area Health Insurance Estimates, 2016)

Figure 37 shows the percent of the population only receiving health insurance through Medicaid, Medicare, or military healthcare (TRICARE). Duplin County has a higher percent of people receiving Medicaid (26.8%) than North Carolina (18.2%) and Health ENC counties (21.7%). The percent of people receiving military health insurance is lower in Duplin County (1.3%), as compared to North Carolina (2.1%) and Health ENC counties (6.6.%).

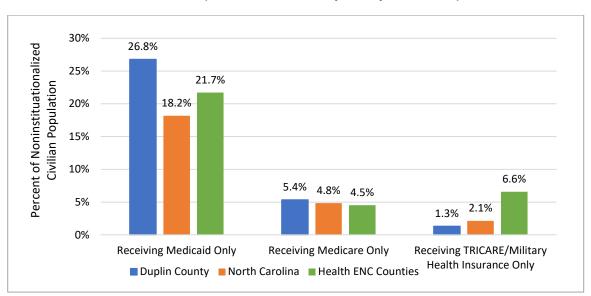


Figure 37. Persons Only Receiving Health Insurance through Medicaid, Medicare or Military Healthcare (American Community Survey, 2012-2016)

Health Resources

Listed below are the main medical practices within Duplin County. Due to limited resources many residents seek care and/or referred to specialists outside of the county. A complete list of current healthcare resources as of 2018 are available in Appendix D.

Vidant Duplin Hospital https://www.vidanthealth.com/Locations/Hospitals/Vidant-Duplin-Hospital
Provides various specialty clinics, see website.

Primary Care Offices

- Duplin County Health Department, Kenansville dchealth@duplincountync.com
- Vidant Medical, Wallace https://www.vidanthealth.com/Locations
- Goshen Medical Center, FQRHC http://www.goshenmedical.org/
- Rose Hill Medical, Rose Hill Community Health Center

Pediatric Offices

- Duplin County Health Department
- Vidant Pediatrics- Kenansville
- Goshen Medical Center- Faison
- Kinston Pediatrics- Beulaville
- Kids Care Wallace

Women's Health/ Maternity

- Duplin County Health Department
- Vidant Women's Health- Kenansville

Urgent Care

- MediQuick- Kenansville
- Wallace Urgent Care- Wallace

Civic Activity

Exercising the right to vote allows a community to choose elected officials and hold them accountable. Voting ensures that all citizens have the opportunity to voice their opinions on issues such as the use of tax dollars, civil rights and foreign policy. By voting, individuals shape their communities and influence the next generation of society. A high level of voter turnout indicates that citizens are involved and interested in who represents them in the political system.

Political Activity

Figure 38 shows the voting age population, or percent of the population aged 18 years and older. Duplin County has a lower percent of residents of voting age (75.5%) than North Carolina (77.3%) and Health ENC counties (76.7%).

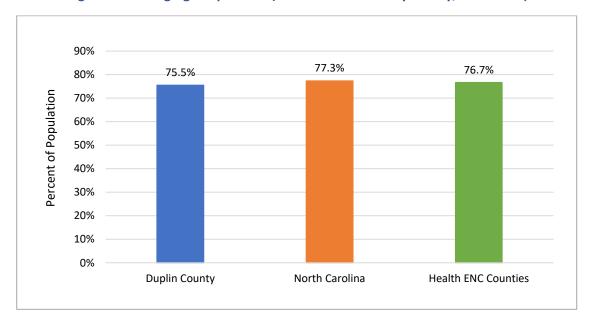


Figure 38. Voting Age Population (American Community Survey, 2012-2016)

Figure 39 shows the percent of registered voters who voted in the last presidential election. The rate in Duplin County was 68.2%, which is slightly higher than the state value (67.7%) and higher than Health ENC counties (64.3%).

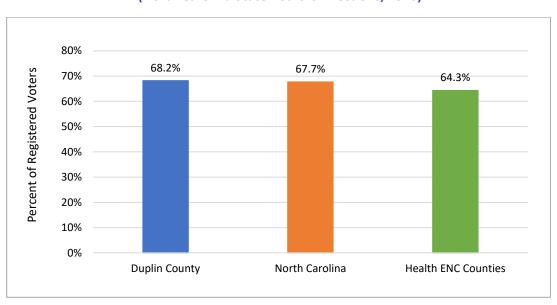


Figure 39. Voter Turnout in the Last Presidential Election (North Carolina State Board of Elections, 2016)

Governance

The county is governed by the five 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.

NC General Assembly

Representative - Jimmy Dixon Senator- Brent Jackson

US Senate and House of Representatives

Congressman 7th District – David Rouzer Senator Richard Burr Senator Tom Tillis

Findings

Secondary Data Scoring Results

Table 9 shows the data scoring results for Duplin County by topic area. Topics with higher scores indicate greater need. Access to Health Services is the poorest performing health topic for Duplin County, followed by Diabetes, Transportation, Education and Social Environment.

Table 10. Secondary Data Scoring Results by Topic Area

Health and Quality of Life Topics	Score
Access to Health Services	2.09
Diabetes	2.08
Transportation	2.07
Education	2.00
Social Environment	1.91

^{*}See Appendix B for additional details on the indicators within each topic area

Primary Data

Community Survey

Figure 40 shows the list of community issues that were ranked by residents as most affecting the quality of life in Duplin County. Low-income/Poverty was the most frequently selected issue and was ranked by 46.2% of survey respondents, followed by Drugs/Substance Abuse (19.8%). Survey respondents ranked Social Environment as the third issue most affecting quality of life in Duplin County. Topics associated with Social Environment included related issues such as Discrimination/Racism, Lack of Community Support, Domestic Violence, Neglect and Abuse, Child Abuse and Elder Abuse. For this survey question, English and Spanish survey responses were combined to identify the top significant needs in the community.

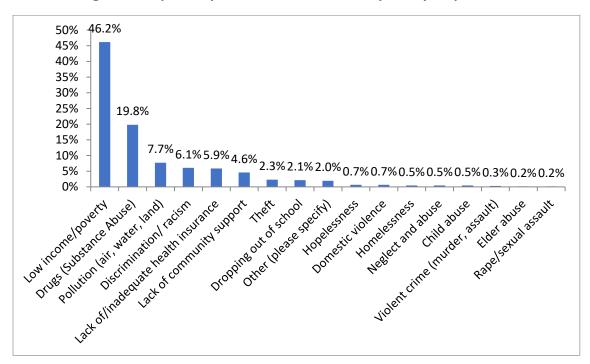


Figure 40. Top Quality of Life Issues, as Ranked by Survey Respondents

Figure 41 and 42 displays the level of agreement among Duplin County residents in response to nine statements about their community. More than half of English survey respondents agreed or strongly agreed that the county is a safe place to live, a good place to grow old, a good place to raise children and there is good health care. More than half of survey respondents disagreed (18%) or strongly disagreed (39%) that the county has plenty of economic opportunity. Figure 42 displays the Spanish survey respondents level of agreement in response to the same statements. Half or more of Spanish survey respondents agreed or strongly agreed that it easy to buy healthy foods in the county, there is affordable housing that meets their needs, there is plenty of help for people during times of need, the county is a safe place to live, it is a good place to grow old, it is a good place to raise kids and there is good health care.

Figure 41. Level of Agreement Among Duplin County Residents in Response to Nine Statements about their Community - English

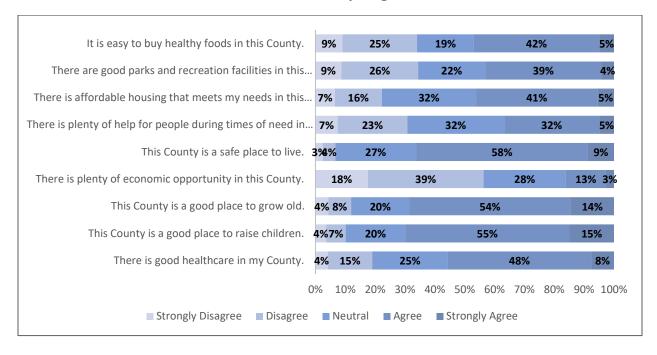


Figure 42. Level of Agreement Among Duplin County Residents in Response to Nine Statements about their Community - Spanish

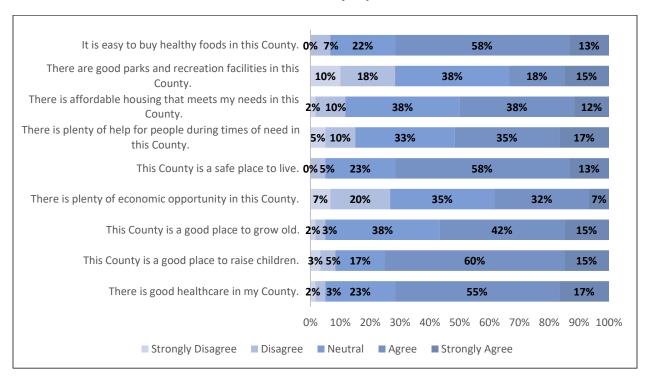


Figure 43 and 44 shows the list of services that were ranked by residents as needing the most improvement in Duplin County. Higher paying employment was the most frequently selected issue by both English and Spanish survey respondents.

30% 25.8% 25% 20% 11.1% 9.4% 7.3% 6.0% 5.6% 5.6% 5.1% 4.0% 8.8% 8.4% 2.7% 2.4% 1.8% 1.6% 1.5% 0.9% 0.9% 0.9% 0.7% 0.4% 15% 10% 5% Course the treat activities support in the course the contract of the course Selined mental health support in the string received in the string received in the second section of the second se Better | Role | Red thy took of the continue of the delivery of the delivery of the delivery of the continue of the delivery o CURUS HARD TO DE TESTE CONTROL OF THE CURTING THE SERVICE OF THE S I hope lected with the productive of More affordable health services Meatin distributed people Zenuces tot disatied people the housing. Higher Daying employment The Dayling of Endowhear. nearly love tring chinkes nate leaving that of the same Roadsafetty

Figure 43. Services Needing the Most Improvement, as Ranked by Survey Respondents-English

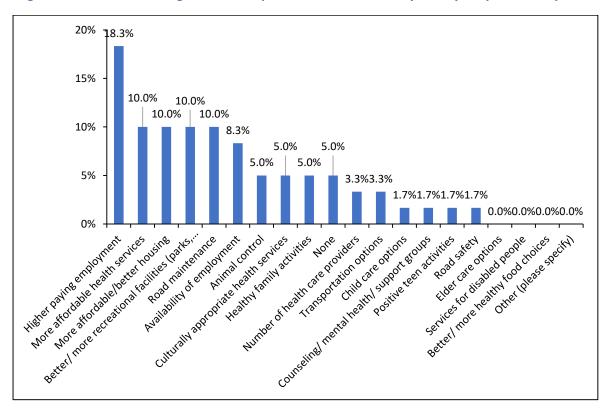
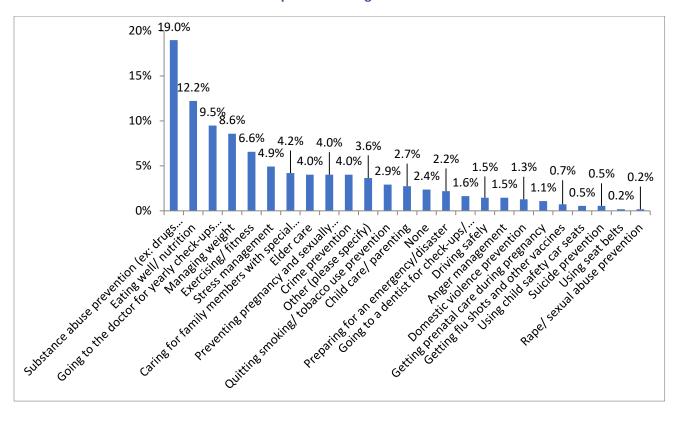


Figure 44. Services Needing the Most Improvement, as Ranked by Survey Respondents-Spanish

Figure 45 and 46 show a list of health behaviors that were ranked by residents as topics that Duplin County residents need more information about. Substance abuse prevention was the most frequently selected issue by English survey respondents (19%) followed by Eating Well/Nutrition (12.2%). Figure 47 shows that Spanish survey respondents selected Managing Weight as their first selection (20%) followed by Substance Abuse Prevention (18.3%).

Figure 45. Health Behaviors that Residents Need More Information About, As Ranked by Survey
Respondents - English



25% 0.0% 20% 18.3% 16.7% 15% 10.0% 10% 5.0% 6.7% 3.3% 5.0% 5.0% 1.7% 1.7% 5% 3.3% 0.0% 0.0% 0.0% 0.0% 0.0% 1.7% 1.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0% None Domestic violence prevention Going to a dentist for check-ups/ preventive.. Child care/ parenting Substance abuse prevention (ex: drugs and. Going to the doctor for yearly check-ups and. Eating well/nutrition Exercising/ fitness Stress management Quitting smoking/ tobacco use prevention Suicide prevention Crime prevention Using seat belts Managing weight **Driving safely** Jsing child safety car seats Elder care Getting prenatal care during pregnancy Getting flu shots and other vaccines Preparing for an emergency/disaster Caring for family members with special needs/ Preventing pregnancy and sexually Anger management Rape/sexual abuse prevention Other (please specify)

Figure 46. Health Behaviors that Residents Need More Information About, As Ranked by Survey Respondents - Spanish

Focus Group Discussions

Table 11 shows the focus group results for Duplin County by topic area or code. Topics with higher frequency (referring to the number of times a particular topic was mentioned in the context of needs/concerns or barriers/challenges to achieving health) indicate greater need. Access to Health Services was the most frequently discussed need among focus group participants, followed by Older Adults & Aging, Exercise, Nutrition, & Weight, Economy, Health Care Navigation/Literacy and Transportation. Topics that had a frequency more than ten were incorporated into the significant needs list.

Table 11. Focus Group Results by Topic Area

Topic Area (Code)	Frequency
Access to Health Services	28
Older Adults & Aging	17
Exercise, Nutrition & Weight	14
Economy	12
Health Care Navigation/Literacy	9
Transportation	7

Data Synthesis

All forms of data have strengths and limitations. In order to gain a comprehensive understanding of the significant health needs for Duplin County, findings from the secondary data, community survey and focus group discussions were compared and analyzed for areas of overlap. The top needs from each data source were identified using the criteria displayed in Table 12.

Table 12. Criteria for Identifying the Top Needs from each Data Source

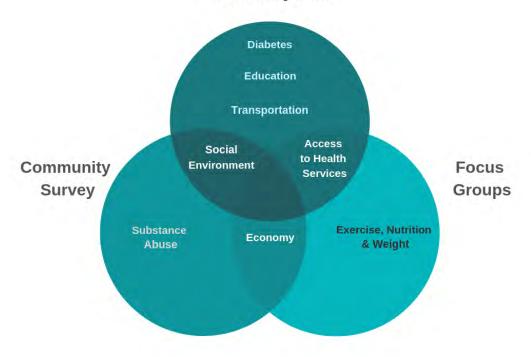
Data Source	Criteria for Top Need			
Secondary Data	Topics receiving highest data score			
Community Survey	Community issues ranked by survey respondents as most affecting the quality of life*			
Focus Group Discussions	Topics discussed most frequently by participants in context of needs/concerns or barriers/challenges to achieving health			

^{*}Community Survey Q4: Please look at this list of community issues. In your opinion, which one issue most affects the quality of life in this County?

The top needs from each data source were incorporated into a Venn Diagram (Figure 47). Community issues ranked by survey respondents were categorized to align with the health and quality of life topic areas displayed in Table 13. Figure 47 displays the top needs from each data source in the Venn diagram.

Figure 47. Data Synthesis

Secondary Data



Across all three data sources, there is strong evidence of need to address Access to Health Services, Economy and Social Environment. As seen in the survey results and focus group discussion analysis cultivated additional topics not ranked as top priorities in the secondary data findings. A mixed-methods approach is a strength when assessing a community as a whole. This process ensures robust findings through statistical analysis of health indicators and examination of constituent's perceptions of community health issues.

<u>Topic Areas Examined in This Report</u>

The topic areas with the highest secondary data scores are explored in-depth in this report.

Table 13. Topic Areas Examined In-Depth in this Report

Access to Health Services*

Diabetes*
Economy
Education*
Exercise, Nutrition & Weight
Social Environment*
Substance Abuse
Transportation*

Findings related to topics that were ranked high in the community, but did not surface in the secondary data findings, are addressed in this report in the section Other Significant Health Needs. These additional topics include Economy and Substance Abuse. Older Adults and Aging are discussed in the section Highly Impacted Populations.

Navigation Within Each Topic

Findings are organized by topic area. Within each topic, key issues are summarized followed by a review of secondary and primary data findings. Special emphasis is placed on populations that are highly impacted, such as older adults, race/ethnic groups or low-income populations. Figures, tables and extracts from quantitative and qualitative data substantiate findings. Each topic includes a table with key indicators from the secondary data scoring results. The value for Duplin County is displayed alongside relevant comparisons, gauges and icons which are color-coded with green indicating good, red indicating bad and blue indicating neutral. Table 13 describes the gauges and icons used to evaluate the secondary data.

Table 14. Description of Gauges and Icons used in Secondary Dara Scoring

Gauge or Icon	Description
~	Green represents the "best" 50th percentile.
	Yellow represents the 50th to 25th quartile
	Red represents the "worst" quartile.
	There has been a non-significant increase/decrease over time.
	There has been a significant increase/decrease over time.
	There has been neither a statistically significant increase nor decrease over time.

Diabetes

Key Issues

- Diabetes amongst adults over 20 years old is a top concern for Duplin County
- Diabetes amongst the Medicare population is higher in Duplin county than in the state and U.S.
- The age-adjusted death rate due to diabetes a poor performing indicator when compared to other counties in the state and U.S.

Secondary Data

The secondary data scoring results reveal Diabetes is a top need in Duplin County with a score of 2.08. Additional analysis is performed to find specific indicators that contribute to this topic area of concern, and the highest scoring indicators are shown in Table 14.

Table 15. Data Scoring Results for Diabetes

Score	Indicator (Year) (Units)	Duplin County	North Carolina	U.S.	North Carolina Counties	U.S. Counties	Trend
2.3	Diabetes: Medicare Population (2015) (percent)	34.9	28.4	26.5			
2.5	Adults 20+ with Diabetes (2014) (percent)	14.7	11.1	10			
2.33	Age-Adjusted Death Rate due to Diabetes (2012-2016) (deaths/ 100,000 population)	28.7	23	21.1			1

^{*}See Appendix B for full list of indicators included in each topic area

Diabetes is a clear area of concern for Duplin County based on the three highest scoring indicators within the topic area. The highest scoring indicator with in this topic area is adults over the age of 20 with diabetes. For Duplin County, 14.7% of the population in 2014 have diabetes, which is higher than in the North Carolina (11.1%) and the U.S. (10%). The age-adjusted death rate due to diabetes for Duplin County in 2012-2016 is 28.7 deaths per 100,000 populations, which is higher than the rate for North Carolina (23.0 deaths /100,000 population) and the U.S. overall (21.1 deaths /100,000 population). There been a significant increasing trend over time in the age-adjusted death rate due to diabetes indicator. Additionally, the indicator score for Diabetes within the Medicare Population for Duplin County is 2.3 with a value of 34.9% of the population in 2015. This is higher than the rate in both North Carolina (28.4% of the population) and the United States (26.5% of the population).

Primary Data

Although Diabetes is not explicitly listed in some of the community survey questions, results indicated that managing weight, eating well/nutrition and exercising/fitness were topics that people wanted more information about in the community. Eating well/nutrition, exercising/fitness and managing weight were high ranking health behaviors that people in both the English and Spanish surveys felt that they needed more information about in Duplin County.

"How important it is to take your diabetes medication. To stay on top of it."

-Focus Group Participant

During the focus group discussions, diabetes was raised seven time as a top health issue in the community. The most pressing area related to diabetes mentioned by focus group participants was the need for more education about managing diabetes and specifically the importance of taking prescribed medications.

Highly Impacted Populations

Secondary data indicates that populations at risk for poor outcomes are adults over 20 years old, the Medicare population and uninsured adults. Primary data reveals that 65.5% of Spanish survey respondents have no health insurance and have a lower education level. Literacy levels and health literacy are not necessarily the same thing but both have an impact on health. Adults living below the poverty level have lower health literacy than adults living above the poverty level. Literacy levels and health literacy have shown to translate into higher medical costs, increased ED visits and decrease access to care.

Access to Health Services

Key Issues

- Dentist, Primary Care and Mental Health provider rates are a top concern and lower than in the state and U.S.
- Duplin County does not meet the Healthy North Carolina 2020 goals for insurance coverage
- Preventable hospital stays are high for the Medicare population in the community

Secondary Data

Access to Health Services is the highest scoring topic in Duplin County with a data score of 2.09. This category includes indicators related to provider rates in relation to the population which impacts people's ability to access timely medical services as well as insurance coverage and preventable hospital stays. Some of the poorly performing indicators related to the health care access is displayed in Table . The highest scoring indicators, and of most concern, are the Primary Care Provider Rate (23.7 providers /100,000 population) with a score of 2.5, Dentist Provider Rate (23.7 providers /100,000 population) with a score of 2.3 and Mental Health Provider Rate (62.7 providers /100,000 population) with a score of 2.25. All three provider rates are lower in Duplin County are lower than in the state and U.S which likely have concerning impacts to access to health services in the community. 79.9% of the population in Duplin County have health insurance in 2016 which is lower than in the state (87.8%) and does not meet the Healthy North Carolina 2020 goal of 92% of the population. Finally, Preventable Hospital Stays within the Medicare population is 59.1 discharges per 1,000 Medicare enrollees which is also higher than in the state and U.S. However, there is a significant decreasing trend over time for this indicator representing that there is positive change occurring.

Table 16. Data Scoring Results for Access to Health Services

Score	Indicator (Year) (Units)	Duplin County	North Carolina	U.S.	North Carolina Counties	U.S. Counties	Trend	Healthy NC 2020	HP 2020
2.5	Primary Care Provider Rate (2015) (providers/ 100,000 population)	23.7	70.6	75.5				-	_
2	Preventable Hospital Stays: Medicare Population (2014) (discharges/ 1,000 Medicare enrollees)	59.1	49	49.9				-	-

2.25	Mental Health Provider Rate (2017) (providers/ 100,000 population)	62.7	215.5	214.3		=	-	-
2.03	Persons with Health Insurance (2016) (percent)	79.9	87.8	-			92	100
2.3	Dentist Rate (2016) (dentists/ 100,000 population)	23.7	54.7	67.4	A	x (1)	-	-

^{*}See Appendix B for full list of indicators included in each topic area

Primary Data

According to survey results, counseling/mental health/support groups was ranked fourth and number of health providers was ranked sixth amongst the highest ranked services needing improvement for English survey respondents. Spanish survey respondents selected more affordable health services as the second highest ranked service needing improvement in the community. 65.5% of Spanish survey respondents have no health insurance of any kind compared to 2.5% of English survey respondents. 5% of Spanish respondents selected culturally appropriate health services a service needing improvement in the community (<1% English Survey).

13% of English survey respondents and 10% of Spanish respondents reported having a problem getting the health care that they needed. Of those respondents who did experience a problem, English survey respondents reported having the most difficulty getting health care from a general practitioner (39%), a specialist (29%) or a dentist (26%). Spanish responds reported having the most difficult getting health care from a dentist (67%) or a general practitioner (50%). The top reasons preventing English survey respondents from getting the health care that they needed was insurance not covering what they needed (32%) and not being able to get an appointment (31%). 86% of Spanish survey respondents were unable to get the health care that they needed was due to not having health insurance. 54.1% of English survey respondents were able to see most of their medical providers in Duplin County while 13.9% sought care in New Hanover County and 13.6% sought care in Wayne County. 83.3% of Spanish survey respondents were able to see most of their medical providers in Duplin County while 11.7% sought care in Wayne County.

"Community outreach is tough. It's great when BP screening and such are offered to the community. But it's the homebound that don't get to experience these services.

Home health is important."

-Focus Group Participant

Focus group participants shared their struggles with accessing health services in the community. Some participants expressed that it is due to a lack of specialty providers in Duplin County. Participants described additional barriers to accessing health services including financial constraints, not having adequate or any health insurance, hours of operation of most clinics and difficulty with attaining transportation to get to medical facilities. Many participants felt that adding more clinic locations and adding hours of operation, improving urgent care centers and mobile health units could alleviate community issues related to access to health care services. Access to mental health and mental health providers was not discussed in the focus group sessions but secondary data demonstrates a gap in services

Highly Impacted Populations

Data scoring revealed that the Medicare population are a highly impacted population related to preventable hospital stays. Primary data sources identified highly impacted populations as the Hispanic/Latino population and senior citizens that are homebound or fixed income.

Transportation

Key Issues

- Workers do not commute to work via public transportation in the community
- The percentage of households that do not have access to a vehicle is lower in Duplin County than in the state and U.S.

Secondary Data

Transportation received a data score of 2.07 and is an area of concern for Duplin County. Some of the poorest performing indicators related to Transportation are displayed in Table 16, 0% of workers reported commuting to work via public transportation in 2012-2016 and 1.5% of workers walk to work in 2012-2016. Duplin County does not meet the Healthy People 2020 goals of 5.5% of workers commuting by public transportation and 3.1% of workers walking to work. There is an indication of a great need for addressing this issue in the community since 8.3% of households also do not have access to a vehicle. In addition, 5.7% of households do not have access to a car and also have low access to a grocery store. The mean travel time to work in Duplin County is 26.8 minutes 36.3% of solo drivers have a long commute to work which are both indicators that are higher than in the state and U.S.

Table 17. Data Scoring Results for Environment

Score	Indicator (Year) (Units)	Duplin County	North Carolina	U.S.	North Carolina Counties	U.S. Counties	Trend	Healthy NC 2020	HP 2020
2.1	Households without a Vehicle (2012-2016) (percent)	8.3	6.3	9				_	-
2.65	Workers Commuting by Public Transportation (2012-2016) (percent)	0	1.1	5.1				_	5.5
1.95	Households with No Car and Low Access to a Grocery Store (2015) (percent)	5.7	-	-				_	-
2.4	Mean Travel Time to Work (2012-2016) (minutes)	26.8	24.1	26.1			1	-	_
2.25	Solo Drivers with a Long Commute (2012-2016) (percent)	36.3	31.3	34.7			1	-	_
2.35	Workers who Walk to Work (2012-2016) (percent)	1.5	1.8	2.8			8	-	3.1

^{*}See Appendix B for full list of indicators included in each topic area

Primary Data

According to survey results, transportation did not rank as one of the top services individuals in Duplin County feel need the most improvement compared to other community issues in both English and Spanish survey results (<1% English survey, 3.3% Spanish survey).

Transportation was discussed ten times in the Focus Group sessions. Most participants raised transportation in context of senior citizens experiencing challenges getting to and from medical facilities. One participant felt that veterans are impacted by a lack of access to transportation.

"We have a lot of veterans in this area, but we not have any help such as transportation."

-Focus Group Participant

Highly Impacted Populations

Focus group participants identified senior citizens and veterans as groups highly impacted by Transportation. In a rural community transportation effects all residents. Common transportation barriers for residents of Duplin include long travel distances, lack of vehicle, transportation cost, inadequate infrastructure, and adverse policies affecting travel. Each of these obstacles can keep a patient from accessing the providers, which in turn could impair overall health. Lack of transportation can also exacerbate other social determinants of health. For example, individuals who cannot get from one place to another likely cannot easily access a grocery store, creating food insecurity, get to a job or to school.

Current County Transportation system is limited to the hours of 5am -5pm Monday through Friday. The office hours are 8-5p. There are no routine bus routes or bus stops. The policy is that the person needing a ride must call the office, at least 2 days before the ride is needed for in-county travel. For out-of-county travel to a medical appointment, it must be arranged at least 3 days before the scheduled appointment. There are set days when the buses are scheduled to go to Greenville, Raleigh etc. and this because an issue if the client has an appointment on an odd day. Though Medicaid/ Medicare may cover the cost of travel, those residents without insurance will have to pay cash at the time of the pick-up.

Education

Key Issues

- Fewer people have a high school degree or higher in Duplin County than in the state or U.S.
- Higher education attainment is lower in Duplin county than in the state and U.S.
- 4th grade math proficiency is an area of concern within the Education topic area

Secondary Data

The secondary data scoring results identified Education as a top need in Duplin County with a score of 2.00. Additional analysis is performed to find specific indicators that contribute to this area of concern, and these indicators are identified with high indicator data scores, shown in Table 17. 72% of people over the age of twenty-five have a high school degree or higher and 10.3% of those over age twenty-five have a bachelor's degree or higher in the community in 2012-2016. For both indicators, Duplin County performs poorer than the state or U.S. overall. In addition, 38.9% of Duplin County 4th graders are proficient in math compared to 58.6% in North Carolina.

Table 18. Data Scoring Results for Education

Score	Indicator (Year) (Units)	Duplin County	North Carolina	U.S.	North Carolina Counties	U.S. Counties	Trend	Healthy NC 2020	HP 2020
2.3	People 25+ with a High School Degree or Higher (2012-2016) (percent)	72	86.3	87	A		1	_	-
2.5	People 25+ with a Bachelor's Degree or Higher (2012-2016) (percent)	10.3	29	30.3				_	_
2	High School Graduation (2016-2017) (percent)	81.3	86.5	-			=	94.6	87
2.05	4th Grade Students Proficient in Math (2016-2017) (percent)	38.9	58.6	-				-	-

^{*}See Appendix B for full list of indicators included in each topic area

Primary Data

According to survey results, education did not rank as one of the top issues impacting quality of life in Duplin County compared to other issues in the community. Education was not discussed at length in the Focus Group sessions, however, two participants shared that they felt the education system was a problem in their community.

Highly Impacted Populations

Education level is critical to the social and economic development and impacts the population health. Education may also impact health literacy. Research demonstrates almost half of adults who did not graduate from high school had low health literacy. Some of the greatest disparities in health literacy occur among racial and ethnic minority groups from different cultural backgrounds and those who do not speak English as a first language.

Social Environment

Key Issues

- The percentage of the population below the poverty level is higher in Duplin County in than in North Carolina and the U.S.
- Children, Young Children and Adults over 65 are highly impacted populations within this topic area

Secondary Data

From the secondary data scoring results, Social Environment was identified to be a top need in Duplin County. Social Environment received a score of 1.91. Indicators within this topic area are related to income, poverty level, potential isolation due to living conditions and education attainment which relates to employment and potential job satisfaction. There are many high scoring indicators of concern which are highlighted in Table 18. Several indicators within this topic area overlap with other topic areas such as Transportation, Economy and Education. 27.6% of people within Duplin County live below the poverty level which is higher than in North Carolina (16.8%) and the U.S. (15.1%). In addition, 41.2% of children and 48.7% of young children live below the poverty level. Related to social isolation, 29.9% of people over the age of 65 live alone in Duplin County. Linguistic isolation within the county is higher in Duplin County (6.7%) than in North Carolina (2.5%) and the U.S. (4.5%). However, there is a significant decreasing trend for linguistic isolation over time. Mean travel time to work is significantly increasing over time in Duplin County (26.8 minutes) and is higher than the state and U.S. mean travel time to work.

Table 19. Data Scoring Results for Social Environment

Score	Indicator (Year) (Units)	Duplin County	North Carolina	U.S.	North Carolina Counties	U.S. Counties	Trend Healthy NC 2020	HP 2020
2.65	People Living Below Poverty Level (2012-2016) (percent)	27.6	16.8	15.1		A	12.5	-
2.4	Children Living Below Poverty Level (2012-2016) (percent)	41.2	23.9	21.2		A		-
2.55	Single-Parent Households (2012-2016) (percent)	41.7	35.7	33.6			_	-
2.3	Per Capita Income (2012-2016) (dollars)	17960	26779	29829				-

2.3	People 65+ Living Alone (2012-2016) (percent)	29.9	26.8	26.4		
2.5	Young Children Living Below Poverty Level (2012-2016) (percent)	48.7	27.3	23.6		
2.3	People 25+ with a High School Degree or Higher (2012-2016) (percent)	72	86.3	87		
2.5	People 25+ with a Bachelor's Degree or Higher (2012-2016) (percent)	10.3	29	30.3		
2.4	Mean Travel Time to Work (2012-2016) (minutes)	26.8	24.1	26.1		
2.1	Linguistic Isolation (2012-2016) (percent)	6.7	2.5	4.5		

*See Appendix B for full list of indicators included in each topic area

Primary Data

Amongst both English and Spanish survey respondents, 5.9% of survey participants felt that lack of community support was a top issue affecting the quality of life in the community. 30% of English survey respondents and 15% of Spanish survey respondents disagreed or strongly disagreed that there is help for people during times of need in their community.

Among community survey respondents, positive teen activities were ranked third and better or more recreational facilities was ranked fifth of the services needing improvement in the community by English survey respondents. Spanish survey respondents selected better or more recreational facilities fourth amongst services needing improvement in the community. A portion of both English and Spanish survey participants disagreed or strongly disagreed that there are good parks and recreation facilities in the community (35% English survey, 28% Spanish survey).

Highly Impacted Populations

The social environment refers to the immediate physical and social setting in which all people live. It includes the culture that the individual was educated or live sin and the people and institutions with whom they interact. The five key areas of social determinate so f health 1) Economic Stability, 2) Education, 3) Social and Community Context, 4) Health and Health Care, 5) Neighborhood and Built Environment.

Mortality

Knowledge about the leading causes of death in a population is critical to understanding how to target interventions to maximize population health. Table 20 shows the leading causes of mortality in Duplin County, North Carolina, and Health ENC Counties in 2014-2016, where the rate is age-adjusted to the 2000 U.S. standard population and is given as an age-adjusted death rate per 100,000 population.

Table 20. Leading Causes of Mortality in Duplin County, North Carolina, and Health ENC Counties (2014-2016, CDC WONDER)

	Dupli	in County		North C	Carolina		Health ENC Counties		
Rank	Cause	Deaths	Rate*	Cause	Deaths	Rate*	Cause	Deaths	Rate*
1	Heart Diseases	364	166.3	Cancer	58,187	165.1	Cancer	12,593	177.5
2	Cancer	358	158.7	Heart Diseases	54,332	159	Heart Diseases	12,171	178.8
3	Cerebrovascular Diseases	130	60.8	Chronic Lower Respiratory Diseases	15,555	45.1	Cerebrovascular Diseases	3,247	48.5
4	Accidental Injuries	99	51.9	Accidental Injuries	15,024	48.2	Accidental Injuries	3,136	50.1
5	Chronic Lower Respiratory Diseases	94	42.4	Cerebrovascular Diseases	14,675	43.6	Chronic Lower Respiratory Diseases	3,098	44.9
6	Diabetes	70	32.6	Alzheimer's Disease	11,202	34.2	Diabetes	2,088	29.9
7	Kidney Diseases	38	17.6	Diabetes	8,244	23.6	Alzheimer's Disease	1,751	27.3
8	Septicemia	37	17.7	Influenza and Pneumonia	5,885	17.5	Influenza and Pneumonia	1,148	17.2
9	Alzheimer's Disease	30	14.7	Kidney Diseases	5,614	16.5	Kidney Diseases	1,140	16.8
10	Hypertension	28	12.6	Septicemia	4,500	13.1	Septicemia	1,033	15.1

^{*}Age-adjusted death rate per 100,000 population

Other Significant Health Needs

Economy

Secondary Data

From the secondary data scoring results, Economy receives a score of 1.79 and was the seventh most pressing health need in Duplin County. Top related indicators include: People Living 200% Above Poverty Level (2.70), People Living Below Poverty Level (2.65), Families Living Below Poverty Level (2.50), Young Children Living Below Poverty Level (2.50), Children Living Below Poverty Level (2.40), Students Eligible for the Free Lunch Program (2.35), Child Food Insecurity Rate (2.30), Per Capita Income (2.30), Severe Housing Problems (2.25), Median Household Income (2.10), People 65+ Living Below Poverty Level (2.10), Median Housing Unit Value (2.08) and Food Insecurity Rate (2.00).

Primary Data

Community survey participants were asked to rank the issue that most negatively impacts their community's quality of life. Both poverty and the economy were the top issues identified in Duplin County that negatively impact quality of life, selected by 46.1% of survey participants.

Community survey participants were also asked to weigh-in on areas of community services that needed the most improvement. With the highest share of responses, higher paying employment ranked first (25.8% English survey, 18.3% Spanish survey). Availability of employment was selected by 11.1% of English survey respondents and 8.3% of Spanish survey respondents. In addition, 10% of Spanish survey respondents selected more affordable health services and 10% selected more affordable/better housing as services needing improvement.

"Help the middle class.

Just because they have jobs does not mean they can afford everything. People still struggle."

-Focus Group Participant

The top economic concern among focus group participants not being able to afford the cost of health services and medications. Participants shared personal stories about not being able to pay for co-pays and choose between paying for medications or other bills. One participant was concerned about being able to afford to fix their air conditioning which impacts their breathing issues. Another participant expressed that even those who may be employed may also be struggling but it may be less visible.

Substance Abuse

Secondary Data

From the secondary data scoring results, Substance Abuse received a score of 1.61 and was the thirteenth most pressing health need in Duplin County. Top related indicators include: Adults who Smoke (2.70) and Alcohol-Impaired Driving Deaths (2.50).

Primary Data

Community survey participants ranked substance abuse (19.8%) as the second most important issue affecting quality of life in Duplin County. Additionally, 19% of English survey respondents and 18.3% of Spanish survey respondents reported wanting to learn more about substance abuse prevention.

8% of English survey participants reported currently using tobacco products and 7% of Spanish respondents reported use. More English survey participants reported having been exposed to secondhand smoke in the last year than Spanish survey respondents (12% Spanish, 41% English). Of

those who indicated that they had been exposed to secondhand smoke, 57% of Spanish respondents were exposed at their workplace. English participants ranked home as the mostly likely place to be exposed to secondhand smoke (36%) followed closely by 'other' locations (35%). When examining the 'other' open-ended responses, most people listed other people's homes or outdoor events and venues as locations.

Over 80% of participants across both surveys reported zero incidences of having had 4/5 or more drinks on an occasion in the past 30 days. Reported illicit drug use amongst survey participants in the past 30-days was very low, the clear majority reporting no illegal drug use (100% English, 98% Spanish). 100% of Spanish respondents and 98% of English respondents reported no use of prescription drugs they did not have a prescription for.

Substance Abuse was not discussed at length in the focus group sessions. For those participants that did identify substance abuse as a problem in the community, they primarily felt that tobaccos and alcohol use were top issues. Two participants were concerned about adolescents and young adults access to substances.

In response to the increasing opioid overdose deaths in North Carolina, many counties formed a taskforce or coalition to gather the community together to address this epidemic. Duplin County formed a Substance Use Coalition in 2017. The coalition has been starting to educating community leaders, identifying current and needed resources, and looking at the local data on drug use. Though Duplin County has had few overdose deaths, the manufacturing of methamphetamine, misuse of prescription pain medications, and tobacco use remain high substance use issues. The use of drugs by adolescents including alcohol, tobacco, including e-cigs is a priority to area in the Coalition's strategic plan for 2019.

A Closer Look at Highly Impacted Populations

Several subpopulations emerged from the primary and secondary data for their disparities in access to care, risk factors, and health outcomes. This section focuses on these subpopulations and their unique needs.

Disparities by Age, Gender and Race/Ethnicity

Secondary data are further assessed to determine health disparities for race/ethnic, age, or gender groups. Table identifies indicators in which a specific population subgroup differs significantly and negatively from the overall population in Duplin County, with significance determined by non-overlapping confidence intervals.

Table 21. Indicators with Significant Race/Ethnic, Age, or Gender Disparities

Health Indicator	Group(s) Disparately Affected*
People Living Below Poverty Level	18-24, 6-11, <6, Hispanic or Latino, Other
Families Living Below Poverty Level	Hispanic or Latino, Other, Two or More Races
People 25+ with a Bachelor's Degree or Higher	Male, Black or African American, Other
Young Children Living Below Poverty Level	Black or African American
Children Living Below Poverty Level	Black or African American, Hispanic or Latino, Other
People 25+ with a High School Degree or Higher	25-34, Other
Per Capita Income	Asian, Black or African American, Hispanic or Latino, Other, Two or More Races
Median Household Income	Black or African American, Hispanic or Latino
People 65+ Living Below Poverty Level	Black or African American
Bladder Cancer Incidence Rate	Male
All Cancer Incidence Rate	Male
Workers who Drive Alone to Work	55-59, Female, White, non-Hispanic
Prostate Cancer Incidence Rate	Black

^{*}See <u>HealthENC.org</u> for indicator values for population subgroups

The list of indicators with significant disparities should be interpreted with caution. Indicators beyond those displayed in Table may also negatively impact a specific subgroup; however, not all data sources provide subpopulation data, so it is not possible to draw conclusions about every indicator used in the secondary data analysis.

Geographic Disparities

Geographic disparities are identified using the SocioNeeds Index®. Zip code 284533, with an index value of 96.8, has the highest socioeconomic need within Duplin County, potentially indicating poorer health outcomes for its residents. See the SocioNeeds Index® for more details, including a map of Duplin County zip codes and index values.

Conclusion

The Community Health Needs Assessment utilized a comprehensive set of secondary data indicators measuring the health and quality of life needs for Duplin County. The assessment was further informed with input from Duplin County residents through a community survey and focus group discussions that included participants from broad interests of the community. The data synthesis process identified eight significant health needs: Access to Health Services, Diabetes, Economy, Education, Exercise, Nutrition & Weight, Social Environment, Substance Abuse and Transportation.

Primary and Secondary data identifies the following groups as at-risk or populations with health disparities:

- The uninsured and under-insured
- Persons living in poverty
- Minorities
- Persons with poor access to transportation, because travel may be necessary to reach certain healthcare providers
- The elderly
- Children, rates of neglect and abuse increasing and increase in children placed in foster care due to parental drug use

The prioritization process identified four focus areas:

- 1. Chronic Disease Prevention & Management; Focus on Healthy Lifestyles and Weight Management; Nutrition Education; Dental Care with a focus on children and adolescents.
- 2. Access to Care Physical & Mental Health Care Services; Focus on After Hours Care; Primary Care & Specialty Care Available; Dental Care; Pediatric & Adolescent Care; and Transportation issues which impact access.
- 3. Disaster Recovery & Mitigation; Focus on recovery from previous hurricanes, as well as mitigating actions to prevent / minimize future damage from natural disasters. Focus on mental health issues, especially among youth.
- Substance Use Youth & Adult; Special focus on youth use of alcohol, tobacco and other drugs.
 Adult incarcerations related to substance use and providing treatment options instead of incarceration.

Following this process, Duplin County will outline how it plans to address these health needs in its implementation plan.

We hope to incorporate any feedback on this report into the next CHNA process. Please send your feedback and comments to Duplin County Health Department at 910-296-2130.

Appendix A. Impact Since Prior CHNA

The community health improvement process should be viewed as an iterative cycle. An important piece of that cycle is revisiting the progress made on priority health topics set forth in the preceding community health needs assessment. By reviewing the actions taken to address priority health issues and evaluating the impact those actions have made in the community, it is possible to better target resources and efforts during the next round of the CHNA cycle.

Vidant Duplin Hospital will be providing documentation on their improvement effort from 2016 after the Vidant Board of Directors meeting in late March 2019. Documentation to be added at a later date.

Appendix B. Secondary Data Scoring

Overview

Data scoring consists of three stages, which are summarized in Figure:

Comparison Score

For each indicator, Duplin County is assigned up to 7 comparison scores based on its comparison to other communities, whether health targets have been met, and the trend of the indicator value over time. Comparison scores range from 0-3, where 0 indicates the best outcome and 3 indicates the worst outcome (Figure).

Indicator Score

Indicator scores are calculated as a weighted average of comparison scores. Indicator scores range from 0-3, where 0 indicates the best outcome and 3 indicates the worst outcome (Figure).

Topic Score

Indicators are then categorized into topic areas. Topic scores are calculated by averaging all relevant indicator scores, with indicators equally weighted. Topic scores range from 0-3, where 0 indicates the best outcome and 3 indicates the worst outcome (Figure). Indicators may be categorized into more than one topic area.

Figure 48. Secondary Data Scoring Quantitatively Figure 49. Score Range Comparison score all possible Score Score Range comparisons Better = Worse 2 0 1 Summarize Indicator comparison scores for Score each indicator Summarize **Topic Score** indicator scores by topic area

Comparison Scores

Up to 7 comparison scores were used to assess the status of Duplin County. The possible comparisons are shown in Figure and include a comparison of Duplin County to North Carolina counties, all U.S. counties, the North Carolina state value, the U.S. value, Healthy People 2020 targets, Healthy North Carolina 2020 targets, and the trend over time. Availability of each type of comparison varies by indicator and is dependent upon the data source, comparability with data collected for other communities, and changes in methodology over time. The determination of comparison scores for each type of comparison is discussed in more detail below.

Figure 50. Comparisons used in Secondary

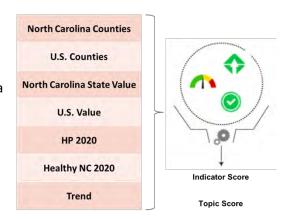


Figure 51. Compare to

Distribution Indicator

Comparison to a Distribution of North Carolina Counties and U.S. Counties

For ease of interpretation and analysis, indicator data on HealthENC.org is visually represented as a green-yellow-red gauge showing how Duplin County is faring against a distribution of counties in North Carolina or the U.S. (Figure).

A distribution is created by taking all county values within the state or nation, ordering them from low to high, and dividing them into four equally sized groups based on their order (Figure). The comparison score is determined by how Duplin County falls within these four groups or quartiles.

All County Values Ordered by Value Divided into Quartiles

Figure 52. Distribution of County Values

Comparison to North Carolina Value and U.S. Value

As shown in Figure, the diamond represents how Duplin County compares to the North Carolina state value and the national value. When comparing to a single value, the comparison score is determined by how much better or worse the county value is relative to the comparison value.

Figure 53. Comparison to Single Value



Comparison to Healthy People 2020 and Healthy North Carolina 2020 Targets

As shown in Figure, the circle represents how Duplin County compares to a target value. Two target values are taken into consideration for this analysis: Healthy People 2020 and Healthy North Carolina

2020. Healthy People 2020² goals are national objectives for improving the health of the nation set by the Department of Health and Human Services' (DHHS) Healthy People Initiative. Healthy North Carolina 2020³ objectives provide a common set of health indicators that the state can work to improve. The North Carolina Institute of Medicine, in collaboration with the Governor's Task Force for Healthy Carolinians; the Division of Public Health, North Carolina Department of Health and Human Services (NC DHHS); the Office of

Figure 54. Comparison to Target Value





Healthy Carolinians and Health Education, NC DHHS; and the State Center for Health Statistics, NC DHHS, helped lead the development of the Healthy NC 2020 objectives. When comparing to a target, the comparison score is determined by whether the target is met or unmet, and the percent difference between the indicator value and the target value.

Trend Over Time

As shown in Figure, the square represents the measured trend. The Mann-Kendall statistical test for trend is used to assess whether the value for Duplin County is increasing or decreasing over time and whether the trend is statistically significant. The trend comparison uses the four most recent comparable values for the county, and statistical significance is determined at the 90% confidence level. For each indicator with values available for four time periods, a comparison score is determined by the trend's direction and its statistical significance.

Figure 55. Trend Over Time







Missing Values

Indicator scores are calculated using the comparison scores, availability of which depends on the data source. If an indicator does not have data for a specific comparison type that is included for indicator score calculations, the missing comparison is substituted with a neutral score. When information is unknown due to lack of comparable data, the neutral value assumes that the missing comparison score is neither good nor bad and does not impact the indicator's weighted average.

Indicator Scoring

Indicator scores are calculated as a weighted average of all included comparison scores. If none of the included comparison types are possible for an indicator, no score is calculated, and the indicator is excluded from the data scoring results.

Topic Scoring

Indicator scores are averaged by topic area to calculate topic scores. Each indicator may be included in up to three topic areas if appropriate. Resulting scores range from 0-3, where a higher score indicates a greater level of need as evidenced by the data. A topic score is only calculated if it includes at least three indicators.

² For more information on Healthy People 2020, see https://www.healthypeople.gov/

³ For more Information on Healthy North Carolina 2020, see: https://publichealth.nc.gov/hnc2020/

Age, Gender and Race/Ethnicity Disparities

When a given indicator has data available for population subgroups – such as age, gender and race/ethnicity – and values for these subgroups include confidence intervals, we are able to determine if there is a significant difference between the subgroup's value and the overall value. A significant difference is defined as two values with non-overlapping confidence intervals. Confidence intervals are not available for all indicators. In these cases, disparities cannot be determined because there is not enough data to conclude whether two values are significantly different from each other.

Topic Scoring Table

Table shows the Topic Scores for Duplin County, with higher scores indicating a higher need.

Table 21. Topic Scores for Duplin County

Health and Quality of Life Topics	Score
Access to Health Services	2.09
Diabetes	2.08
Transportation	2.07
Education	2.00
Wellness & Lifestyle	2.00
Social Environment	1.91
Economy	1.79
Heart Disease & Stroke	1.76
Exercise, Nutrition, & Weight	1.71
Respiratory Diseases	1.69
Older Adults & Aging	1.68
Public Safety	1.65
Substance Abuse	1.61
Environmental & Occupational Health	1.61
County Health Rankings	1.61
Maternal, Fetal & Infant Health	1.59
Mental Health & Mental Disorders	1.59
Other Chronic Diseases	1.50
Environment	1.47
Mortality Data	1.46
Prevention & Safety	1.42
Immunizations & Infectious Diseases	1.41
Women's Health	1.37
Cancer	1.25
Men's Health	1.17

Indicator Scoring Table

Table (spanning multiple pages) presents the indicator data used in the quantitative data analysis. Indicators are grouped into topic areas and sorted by indicator score, with higher scores indicating a higher need. Duplin County values are displayed alongside various comparison values and the period of measurement. Additional data can be found on healthenc.org.

Table 22. Indicator Scores by Topic Area

SCORE	ACCESS TO HEALTH SERVICES	MEASUREMENT PERIOD	UNITS	DUPLIN COUNTY	NORTH CAROLINA	U.S.	HP2020	HEALTHY NC 2020	HIGH DISPARITY*	SOURCE
2.50	Primary Care Provider Rate	2015	providers/ 100,000 population	23.7	70.6	75.5				4
2.30	Dentist Rate	2016	dentists/ 100,000 population	23.7	54.7	67.4				4
2.25	Mental Health Provider Rate	2017	providers/ 100,000 population	62.7	215.5	214.3				4
2.03	Persons with Health Insurance	2016	percent	79.9	87.8		100	92		17
2.00	Preventable Hospital Stays: Medicare Population	2014	discharges/ 1,000 Medicare enrollees	59.1	49	49.9				18
1.80	Non-Physician Primary Care Provider Rate	2017	providers/ 100,000 population	54.3	102.5	81.2				4
1.73	Clinical Care Ranking	2018	ranking	91						4

SCORE	CANCER	MEASUREMENT PERIOD	UNITS	DUPLIN COUNTY	NORTH CAROLINA	U.S.	HP2020	HEALTHY NC 2020	HIGH DISPARITY*	SOURCE
2.50	Cancer: Medicare Population	2015	percent	8.7	7.7	7.8				3
2.23	Cervical Cancer Incidence Rate	2010-2014	cases/ 100,000 females	10.1	7.2	7.5	7.3			7
1.90	Mammography Screening: Medicare Population	2014	percent	62.3	67.9	63.1				18
1.60	Oral Cavity and Pharynx Cancer Incidence Rate	2010-2014	cases/ 100,000 population	12.4	12.2	11.5				7
1.50	Bladder Cancer Incidence Rate	2010-2014	cases/ 100,000 population	18.9	20.1	20.5			Male	7
1.45	Age-Adjusted Death Rate due to Colorectal Cancer	2010-2014	deaths/ 100,000 population	13.6	14.1	14.8	14.5	10.1		7

⁺High Disparity includes differences in which subgroups do significantly better or significantly worse than the overall county value. Subgroup values are given in parentheses.

1.45	Lung and Bronchus Cancer Incidence Rate	2010-2014	cases/ 100,000 population	66.9	70	61.2			7
1.35	Age-Adjusted Death Rate due to Lung Cancer	2010-2014	deaths/ 100,000 population	46.4	50.7	44.7	45.5		7
1.25	Age-Adjusted Death Rate due to Breast Cancer	2010-2014	deaths/ 100,000 females	19.8	21.6	21.2	20.7		7
1.20	Age-Adjusted Death Rate due to Cancer	2010-2014	deaths/ 100,000 population	163.3	172	166.1	161.4		7
1.15	All Cancer Incidence Rate	2010-2014	cases/ 100,000 population	422.6	457	443.6		Male	7
1.10	Age-Adjusted Death Rate due to Pancreatic Cancer	2010-2014	deaths/ 100,000 population	10.1	10.8	10.9			7
1.00	Age-Adjusted Death Rate due to Prostate Cancer	2010-2014	deaths/ 100,000 males	20.2	21.6	20.1	21.8		7
0.90	Colorectal Cancer Incidence Rate	2010-2014	cases/ 100,000 population	36.2	37.7	39.8	39.9		7
0.85	Breast Cancer Incidence Rate	2010-2014	cases/ 100,000 females	109.8	129.4	123.5			7
0.75	Liver and Bile Duct Cancer Incidence Rate	2010-2014	cases/ 100,000 population	6.2	7.7	7.8			7
0.75	Prostate Cancer Incidence Rate	2010-2014	cases/ 100,000 males	101.1	125	114.8		Black	7
0.50	Ovarian Cancer Incidence Rate	2010-2014	cases/ 100,000 females	9.4	10.9	11.4			7
0.30	Pancreatic Cancer Incidence Rate	2010-2014	cases/ 100,000 population	10.5	12	12.5			7

SCORE	COUNTY HEALTH RANKINGS	MEASUREMENT PERIOD	UNITS	DUPLIN COUNTY	NORTH CAROLINA	U.S.	HP2020	HEALTHY NC 2020	HIGH DISPARITY*	SOURCE
1.73	Clinical Care Ranking	2018	ranking	91						4
1.73	Health Behaviors Ranking	2018	ranking	90						4
1.73	Morbidity Ranking	2018	ranking	84						4
1.73	Social and Economic Factors Ranking	2018	ranking	78						4
1.43	Mortality Ranking	2018	ranking	39						4
1.28	Physical Environment Ranking	2018	ranking	23						4

SCORE	DIABETES	MEASUREMENT PERIOD	UNITS	DUPLIN COUNTY	NORTH CAROLINA	U.S.	HP2020	HEALTHY NC 2020	HIGH DISPARITY*	SOURCE	
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^{*}High Disparity includes differences in which subgroups do significantly better or significantly worse than the overall county value. Subgroup values are given in parentheses.

2	2.50	Adults 20+ with Diabetes	2014	percent	14.7	11.1	10	4
2	2.33	Age-Adjusted Death Rate due to Diabetes	2012-2016	deaths/ 100,000 population	28.7	23	21.1	16
2	2.30	Diabetes: Medicare Population	2015	percent	34.9	28.4	26.5	3
1	1.20	Diabetic Monitoring: Medicare Population	2014	percent	88.3	88.8	85.2	18

SCORE	ECONOMY	MEASUREMENT PERIOD	UNITS	DUPLIN COUNTY	NORTH CAROLINA	U.S.	HP2020	HEALTHY NC 2020	HIGH DISPARITY*	SOURCE
2.70	People Living 200% Above Poverty Level	2012-2016	percent	44.8	62.3	66.4				1
2.65	People Living Below Poverty Level	2012-2016	percent	27.6	16.8	15.1		12.5	18-24, 6-11, <6, Hispanic or Latino, Other	1
2.50	Families Living Below Poverty Level	2012-2016	percent	19.7	12.4	11			Hispanic or Latino, Other, Two or More Races	1
2.50	Young Children Living Below Poverty Level	2012-2016	percent	48.7	27.3	23.6			Black or African American	1
2.40	Children Living Below Poverty Level	2012-2016	percent	41.2	23.9	21.2			Black or African American, Hispanic or Latino, Other	1
2.35	Students Eligible for the Free Lunch Program	2015-2016	percent	66.4	52.6	42.6			·	8
2.30	Child Food Insecurity Rate	2016	percent	24.8	20.9	17.9				5
2.30	Per Capita Income	2012-2016	dollars	17960	26779	29829			Asian, Black or African American, Hispanic or Latino, Other, Two or More Races	1
2.25	Severe Housing Problems	2010-2014	percent	18.1	16.6	18.8				4
2.10	Median Household Income	2012-2016	dollars	35364	48256	55322			Black or African American, Hispanic or Latino	1
2.10	People 65+ Living Below Poverty Level	2012-2016	percent	15	9.7	9.3			Black or African American	1
2.08	Median Housing Unit Value	2012-2016	dollars	88200	157100	184700				1

^{*}High Disparity includes differences in which subgroups do significantly better or significantly worse than the overall county value. Subgroup values are given in parentheses.

2.00	Food Insecurity Rate	2016	percent	16.1	15.4	12.9		5
1.90	Female Population 16+ in Civilian Labor	2012-2016	percent	52.7	57.4	58.3		1
1.80	Force Households with Supplemental Security Income	2012-2016	percent	7.2	5	5.4		1
1.80	Unemployed Workers in Civilian Labor Force	April 2018	percent	4.1	3.7	3.7		19
1.73	Social and Economic Factors Ranking	2018	ranking	78				4
1.60	Population 16+ in Civilian Labor Force	2012-2016	percent	59.4	61.5	63.1		1
1.28	Persons with Disability Living in Poverty (5-year)	2012-2016	percent	26.9	29	27.6		1
1.23	Median Monthly Owner Costs for Households without a Mortgage	2012-2016	dollars	372	376	462		1
1.10	Homeownership	2012-2016	percent	60.1	55.5	55.9		1
1.10	Renters Spending 30% or More of Household Income on Rent	2012-2016	percent	42.2	49.4	47.3	36.1	1
1.10	SNAP Certified Stores	2016	stores/ 1,000 population	1.1				21
1.08	Median Household Gross Rent	2012-2016	dollars	637	816	949		1
1.08	Mortgaged Owners Median Monthly Household Costs	2012-2016	dollars	1044	1243	1491		1
1.05	Low-Income and Low Access to a Grocery Store	2015	percent	0.9				21
1.05	Total Employment Change	2014-2015	percent	3.1	3.1	2.5		20
0.95	Households with Cash Public Assistance Income	2012-2016	percent	1.9	1.9	2.7		1

SCORE	EDUCATION	MEASUREMENT PERIOD	UNITS	DUPLIN COUNTY	NORTH CAROLINA	U.S.	HP2020	HEALTHY NC 2020	HIGH DISPARITY*	SOURCE
2.50	People 25+ with a Bachelor's Degree or Higher	2012-2016	percent	10.3	29	30.3			Male, Black or African American, Other	1
2.30	People 25+ with a High School Degree or Higher	2012-2016	percent	72	86.3	87			25-34, Other	1
2.05	4th Grade Students Proficient in Math	2016-2017	percent	38.9	58.6					13
2.00	High School Graduation	2016-2017	percent	81.3	86.5		87	94.6		13
1.85	4th Grade Students Proficient in Reading	2016-2017	percent	39.4	57.7					13
1.85	8th Grade Students Proficient in Math	2016-2017	percent	31.5	45.8					13

^{*}High Disparity includes differences in which subgroups do significantly better or significantly worse than the overall county value. Subgroup values are given in parentheses.

1.85	8th Grade Students Proficient in Reading	2016-2017	percent	39	53.7		13
1.60	Student-to-Teacher Ratio	2015-2016	students/ teacher	15.8	15.6	17.7	8

SCORE	ENVIRONMENT	MEASUREMENT PERIOD	UNITS	DUPLIN COUNTY	NORTH CAROLINA	U.S.	HP2020	HEALTHY NC 2020	HIGH DISPARITY*	SOURCE
2.40	Access to Exercise Opportunities	2018	percent	44.8	76.1	83.1				4
2.25	Severe Housing Problems	2010-2014	percent	18.1	16.6	18.8				4
1.95	Households with No Car and Low Access to a Grocery Store	2015	percent	5.7						21
1.80	Farmers Market Density	2016	markets/ 1,000 population	0						21
1.80	Recreation and Fitness Facilities	2014	facilities/ 1,000 population	0.02						21
1.60	Fast Food Restaurant Density	2014	restaurants/ 1,000 population	0.6						21
1.60	Liquor Store Density	2015	stores/ 100,000 population	6.8	5.8	10.5				20
1.60	PBT Released	2016	pounds	0						22
1.60	Recognized Carcinogens Released into Air	2016	pounds	0						22
1.40	Houses Built Prior to 1950	2012-2016	percent	11.6	9.1	18.2				1
1.35	Grocery Store Density	2014	stores/ 1,000 population	0.2						21
1.28	Drinking Water Violations	FY 2013-14	percent	1.5	4			5		4
1.28	Physical Environment Ranking	2018	ranking	23						4
1.18	Annual Particle Pollution	2013-2015		А						2
1.10	SNAP Certified Stores	2016	stores/ 1,000 population	1.1						21
1.05	Children with Low Access to a Grocery Store	2015	percent	0.5						21
1.05	Low-Income and Low Access to a Grocery Store	2015	percent	0.9						21
1.05	People 65+ with Low Access to a Grocery Store	2015	percent	0.2						21
0.60	Food Environment Index	2018		7.8	6.4	7.7				4

SCORE	ENVIRONMENTAL & OCCUPATIONAL HEALTH	MEASUREMENT PERIOD	UNITS	DUPLIN COUNTY	NORTH CAROLINA	U.S.	HP2020	HEALTHY NC 2020	HIGH DISPARITY*	SOURCE
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^{*}High Disparity includes differences in which subgroups do significantly better or significantly worse than the overall county value. Subgroup values are given in parentheses.

1.90	Asthma: Medicare Population	2015	percent	8.8	8.4	8.2	3
1.65	Age-Adjusted Hospitalization Rate due to Asthma	2014	hospitalizations/ 10,000 population	96.9	90.9		10
1.28	Physical Environment Ranking	2018	ranking	23			4

SCORE	EXERCISE, NUTRITION, & WEIGHT	MEASUREMENT PERIOD	UNITS	DUPLIN COUNTY	NORTH CAROLINA	U.S.	HP2020	HEALTHY NC 2020	HIGH DISPARITY*	SOURCE
2.65	Adults 20+ who are Obese	2014	percent	35.6	29.6	28	30.5			4
2.40	Access to Exercise Opportunities	2018	percent	44.8	76.1	83.1				4
2.35	Adults 20+ who are Sedentary	2014	percent	31.5	24.3	23	32.6			4
2.35	Workers who Walk to Work	2012-2016	percent	1.5	1.8	2.8	3.1			1
2.30	Child Food Insecurity Rate	2016	percent	24.8	20.9	17.9				5
2.00	Food Insecurity Rate	2016	percent	16.1	15.4	12.9				5
1.95	Households with No Car and Low Access to a Grocery Store	2015	percent	5.7						21
1.80	Farmers Market Density	2016	markets/ 1,000 population	0						21
1.80	Recreation and Fitness Facilities	2014	facilities/ 1,000 population	0.02						21
1.73	Health Behaviors Ranking	2018	ranking	90						4
1.60	Fast Food Restaurant Density	2014	restaurants/ 1,000 population	0.6						21
1.35	Grocery Store Density	2014	stores/ 1,000 population	0.2						21
1.10	SNAP Certified Stores	2016	stores/ 1,000 population	1.1						21
1.05	Children with Low Access to a Grocery Store	2015	percent	0.5						21
1.05	Low-Income and Low Access to a Grocery Store	2015	percent	0.9						21
1.05	People 65+ with Low Access to a Grocery Store	2015	percent	0.2						21
0.60	Food Environment Index	2018		7.8	6.4	7.7				4

SCORE	HEART DISEASE & STROKE	MEASUREMENT PERIOD	UNITS	DUPLIN COUNTY	NORTH CAROLINA	U.S.	HP2020	HEALTHY NC 2020	HIGH DISPARITY*	SOURCE
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^{*}High Disparity includes differences in which subgroups do significantly better or significantly worse than the overall county value. Subgroup values are given in parentheses.

2.43	Age-Adjusted Death Rate due to Cerebrovascular Disease (Stroke)	2012-2016	deaths/ 100,000 population	54.2	43.1	36.9	34.8	16
2.30	Hyperlipidemia: Medicare Population	2015	percent	51.8	46.3	44.6		3
2.30	Hypertension: Medicare Population	2015	percent	66.4	58	55		3
2.10	Heart Failure: Medicare Population	2015	percent	16	12.5	13.5		3
1.85	Ischemic Heart Disease: Medicare Population	2015	percent	26.4	24	26.5		3
1.25	Age-Adjusted Death Rate due to Heart Disease	2012-2016	deaths/ 100,000 population	170	161.3		161.5	16
1.25	Stroke: Medicare Population	2015	percent	3.8	3.9	4		3
0.60	Atrial Fibrillation: Medicare Population	2015	percent	7	7.7	8.1		3

SCORE	IMMUNIZATIONS & INFECTIOUS DISEASES	MEASUREMENT PERIOD	UNITS	DUPLIN COUNTY	NORTH CAROLINA	U.S.	HP2020	HEALTHY NC 2020	HIGH DISPARITY*	SOURCE
2.43	Tuberculosis Incidence Rate	2014	cases/ 100,000 population	6.7	2	3	1			11
1.63	Age-Adjusted Death Rate due to HIV	2012-2016	deaths/ 100,000 population	2.3	2.2	2	3.3			16
1.53	Gonorrhea Incidence Rate	2016	cases/ 100,000 population	147.5	194.4	145.8				11
1.20	HIV Diagnosis Rate	2014-2016	cases/ 100,000 population	10.3	16.1			22.2		11
1.15	Syphilis Incidence Rate	2016	cases/ 100,000 population	3.4	10.8	8.7				9
1.13	Age-Adjusted Death Rate due to Influenza and Pneumonia	2012-2016	deaths/ 100,000 population	15.1	17.8	14.8		13.5		16
1.10	AIDS Diagnosis Rate	2016	cases/ 100,000 population	2.1	7					11
1.08	Chlamydia Incidence Rate	2016	cases/ 100,000 population	369.7	572.4	497.3				11

SCOR	E MATERNAL, FETAL & INFANT HEALTH	MEASUREMENT PERIOD	UNITS	DUPLIN COUNTY	NORTH CAROLINA	U.S.	HP2020	HEALTHY NC 2020	HIGH DISPARITY*	SOURCE
2.08	Infant Mortality Rate	2012-2016	deaths/ 1,000 live births	8.3	7.2	6	6	6.3		16
1.63	Babies with Very Low Birth Weight	2012-2016	percent	1.6	1.7	1.4	1.4			15
1.58	Babies with Low Birth Weight	2012-2016	percent	8.4	9	8.1	7.8			15

^{*}High Disparity includes differences in which subgroups do significantly better or significantly worse than the overall county value. Subgroup values are given in parentheses.

1.50	Teen Pregnancy Rate	2012-2016	pregnancies/ 1,000 females aged 15-17	22.7	15.7		36.2	16
1.18	Preterm Births	2016	percent	9.6	10.4	9.8	9.4	15

SCORE	MEN'S HEALTH	MEASUREMENT PERIOD	UNITS	DUPLIN COUNTY	NORTH CAROLINA	U.S.	HP2020	HEALTHY NC 2020	HIGH DISPARITY*	SOURCE
1.75	Life Expectancy for Males	2014	years	74.3	75.4	76.7		79.5		6
1.00	Age-Adjusted Death Rate due to Prostate Cancer	2010-2014	deaths/ 100,000 males	20.2	21.6	20.1	21.8			7
0.75	Prostate Cancer Incidence Rate	2010-2014	cases/ 100,000 males	101.1	125	114.8			Black	7

SCORE	MENTAL HEALTH & MENTAL DISORDERS	MEASUREMENT PERIOD	UNITS	DUPLIN COUNTY	NORTH CAROLINA	U.S.	HP2020	HEALTHY NC 2020	HIGH DISPARITY*	SOURCE
2.55	Poor Mental Health: Average Number of Days	2016	days	4.7	3.9	3.8		2.8		4
2.25	Frequent Mental Distress	2016	percent	15.2	12.3	15				4
2.25	Mental Health Provider Rate	2017	providers/ 100,000 population	62.7	215.5	214.3				4
1.35	Alzheimer's Disease or Dementia: Medicare Population	2015	percent	8.8	9.8	9.9				3
1.15	Depression: Medicare Population	2015	percent	15.4	17.5	16.7				3
0.83	Age-Adjusted Death Rate due to Suicide	2012-2016	deaths/ 100,000 population	9.8	12.9	13	10.2	8.3		16
0.73	Age-Adjusted Death Rate due to Alzheimer's Disease	2012-2016	deaths/ 100,000 population	13.2	31.9	26.6				16

SCORE	MORTALITY DATA	MEASUREMENT PERIOD	UNITS	DUPLIN COUNTY	NORTH CAROLINA	U.S.	HP2020	HEALTHY NC 2020	HIGH DISPARITY*	SOURCE
2.50	Alcohol-Impaired Driving Deaths	2012-2016	percent	34.8	31.4	29.3		4.7		4
2.43	Age-Adjusted Death Rate due to Cerebrovascular Disease (Stroke)	2012-2016	deaths/ 100,000 population	54.2	43.1	36.9	34.8			16
2.33	Age-Adjusted Death Rate due to Diabetes	2012-2016	deaths/ 100,000 population	28.7	23	21.1				16
2.08	Infant Mortality Rate	2012-2016	deaths/ 1,000 live births	8.3	7.2	6	6	6.3		16
1.95	Age-Adjusted Death Rate due to Motor Vehicle Collisions	2012-2016	deaths/ 100,000 population	24.1	14.1					16

^{*}High Disparity includes differences in which subgroups do significantly better or significantly worse than the overall county value. Subgroup values are given in parentheses.

1.93	Age-Adjusted Death Rate due to Homicide	2012-2016	deaths/ 100,000 population	6.2	6.2	5.5	5.5	6.7	16
1.65	Premature Death	2014-2016	years/ 100,000 population	7623.4	7281.1	6658.1			4
1.63	Age-Adjusted Death Rate due to HIV	2012-2016	deaths/ 100,000 population	2.3	2.2	2	3.3		16
1.45	Age-Adjusted Death Rate due to Colorectal Cancer	2010-2014	deaths/ 100,000 population	13.6	14.1	14.8	14.5	10.1	7
1.43	Mortality Ranking	2018	ranking	39					4
1.35	Age-Adjusted Death Rate due to Lung Cancer	2010-2014	deaths/ 100,000 population	46.4	50.7	44.7	45.5		7
1.25	Age-Adjusted Death Rate due to Breast Cancer	2010-2014	deaths/ 100,000 females	19.8	21.6	21.2	20.7		7
1.25	Age-Adjusted Death Rate due to Heart Disease	2012-2016	deaths/ 100,000 population	170	161.3			161.5	16
1.20	Age-Adjusted Death Rate due to Cancer	2010-2014	deaths/ 100,000 population	163.3	172	166.1	161.4		7
1.13	Age-Adjusted Death Rate due to Influenza and Pneumonia	2012-2016	deaths/ 100,000 population	15.1	17.8	14.8		13.5	16
1.10	Age-Adjusted Death Rate due to Pancreatic Cancer	2010-2014	deaths/ 100,000 population	10.1	10.8	10.9			7
1.00	Age-Adjusted Death Rate due to Prostate Cancer	2010-2014	deaths/ 100,000 males	20.2	21.6	20.1	21.8		7
0.83	Age-Adjusted Death Rate due to Suicide	2012-2016	deaths/ 100,000 population	9.8	12.9	13	10.2	8.3	16
0.78	Age-Adjusted Death Rate due to Unintentional Injuries	2012-2016	deaths/ 100,000 population	25.3	31.9	41.4	36.4		16
0.73	Age-Adjusted Death Rate due to Alzheimer's Disease	2012-2016	deaths/ 100,000 population	13.2	31.9	26.6			16
0.70	Death Rate due to Drug Poisoning	2014-2016	deaths/ 100,000 population	8.4	16.2	16.9			4

SCORE	OLDER ADULTS & AGING	MEASUREMENT PERIOD	UNITS	DUPLIN COUNTY	NORTH CAROLINA	U.S.	HP2020	HEALTHY NC 2020	HIGH DISPARITY*	SOURCE
2.70	Chronic Kidney Disease: Medicare Population	2015	percent	22.2	19	18.1				3
2.50	Cancer: Medicare Population	2015	percent	8.7	7.7	7.8				3
2.30	Diabetes: Medicare Population	2015	percent	34.9	28.4	26.5				3
2.30	Hyperlipidemia: Medicare Population	2015	percent	51.8	46.3	44.6				3
2.30	Hypertension: Medicare Population	2015	percent	66.4	58	55				3

^{*}High Disparity includes differences in which subgroups do significantly better or significantly worse than the overall county value. Subgroup values are given in parentheses.

2.30	People 65+ Living Alone	2012-2016	percent	29.9	26.8	26.4		1
2.10	Heart Failure: Medicare Population	2015	percent	16	12.5	13.5		3
2.10	People 65+ Living Below Poverty Level	2012-2016	percent	15	9.7	9.3	Black or African American	1
1.90	Asthma: Medicare Population	2015	percent	8.8	8.4	8.2		3
1.90	COPD: Medicare Population	2015	percent	12.5	11.9	11.2		3
1.90	Mammography Screening: Medicare Population	2014	percent	62.3	67.9	63.1		18
1.85	Ischemic Heart Disease: Medicare Population	2015	percent	26.4	24	26.5		3
1.35	Alzheimer's Disease or Dementia: Medicare Population	2015	percent	8.8	9.8	9.9		3
1.30	Rheumatoid Arthritis or Osteoarthritis: Medicare Population	2015	percent	29	29.1	30		3
1.25	Stroke: Medicare Population	2015	percent	3.8	3.9	4		3
1.20	Diabetic Monitoring: Medicare Population	2014	percent	88.3	88.8	85.2		18
1.15	Depression: Medicare Population	2015	percent	15.4	17.5	16.7		3
1.05	People 65+ with Low Access to a Grocery Store	2015	percent	0.2				21
0.73	Age-Adjusted Death Rate due to Alzheimer's Disease	2012-2016	deaths/ 100,000 population	13.2	31.9	26.6		16
0.60	Atrial Fibrillation: Medicare Population	2015	percent	7	7.7	8.1		3
0.50	Osteoporosis: Medicare Population	2015	percent	4	5.4	6		3

SCORE	OTHER CHRONIC DISEASES	MEASUREMENT PERIOD	UNITS	DUPLIN COUNTY	NORTH CAROLINA	U.S.	HP2020	HEALTHY NC 2020	HIGH DISPARITY*	SOURCE
2.70	Chronic Kidney Disease: Medicare Population	2015	percent	22.2	19	18.1				3
1.30	Rheumatoid Arthritis or Osteoarthritis: Medicare Population	2015	percent	29	29.1	30				3
0.50	Osteoporosis: Medicare Population	2015	percent	4	5.4	6				3

SCORE	PREVENTION & SAFETY	MEASUREMENT PERIOD	UNITS	DUPLIN COUNTY	NORTH CAROLINA	U.S.	HP2020	HEALTHY NC 2020	HIGH DISPARITY*	SOURCE
2.25	Severe Housing Problems	2010-2014	percent	18.1	16.6	18.8				4

^{*}High Disparity includes differences in which subgroups do significantly better or significantly worse than the overall county value. Subgroup values are given in parentheses.

1.95	Age-Adjusted Death Rate due to Motor Vehicle Collisions	2012-2016	deaths/ 100,000 population	24.1	14.1			16
0.78	Age-Adjusted Death Rate due to Unintentional Injuries	2012-2016	deaths/ 100,000 population	25.3	31.9	41.4	36.4	16
0.70	Death Rate due to Drug Poisoning	2014-2016	deaths/ 100,000 population	8.4	16.2	16.9		4

SCORE	PUBLIC SAFETY	MEASUREMENT PERIOD	UNITS	DUPLIN COUNTY	NORTH CAROLINA	U.S.	HP2020	HEALTHY NC 2020	HIGH DISPARITY*	SOURCE
2.50	Alcohol-Impaired Driving Deaths	2012-2016	percent	34.8	31.4	29.3		4.7		4
1.95	Age-Adjusted Death Rate due to Motor Vehicle Collisions	2012-2016	deaths/ 100,000 population	24.1	14.1					16
1.93	Age-Adjusted Death Rate due to Homicide	2012-2016	deaths/ 100,000 population	6.2	6.2	5.5	5.5	6.7		16
0.98	Violent Crime Rate	2016	crimes/ 100,000 population	215.8	374.9	386.3				12
0.90	Property Crime Rate	2016	crimes/ 100,000 population	1823	2779.7					12

SCORE	RESPIRATORY DISEASES	MEASUREMENT PERIOD	UNITS	DUPLIN COUNTY	NORTH CAROLINA	U.S.	HP2020	HEALTHY NC 2020	HIGH DISPARITY*	SOURCE
2.43	Tuberculosis Incidence Rate	2014	cases/ 100,000 population	6.7	2	3	1			11
1.90	Asthma: Medicare Population	2015	percent	8.8	8.4	8.2				3
1.90	COPD: Medicare Population	2015	percent	12.5	11.9	11.2				3
1.65	Age-Adjusted Hospitalization Rate due to Asthma	2014	hospitalizations/ 10,000 population	96.9	90.9					10
1.45	Lung and Bronchus Cancer Incidence Rate	2010-2014	cases/ 100,000 population	66.9	70	61.2				7
1.35	Age-Adjusted Death Rate due to Lung Cancer	2010-2014	deaths/ 100,000 population	46.4	50.7	44.7	45.5			7
1.13	Age-Adjusted Death Rate due to Influenza and Pneumonia	2012-2016	deaths/ 100,000 population	15.1	17.8	14.8		13.5		16

SCORE	SOCIAL ENVIRONMENT	MEASUREMENT PERIOD	UNITS	DUPLIN COUNTY	NORTH CAROLINA	U.S.	HP2020	HEALTHY NC 2020	HIGH DISPARITY*	SOURCE
2.65	People Living Below Poverty Level	2012-2016	percent	27.6	16.8	15.1		12.5	18-24, 6-11, <6, Hispanic or Latino, Other	1

⁺High Disparity includes differences in which subgroups do significantly better or significantly worse than the overall county value. Subgroup values are given in parentheses.

2.55	Single-Parent Households	2012-2016	percent	41.7	35.7	33.6				1
2.50	People 25+ with a Bachelor's Degree or Higher	2012-2016	percent	10.3	29	30.3			Male, Black or African American, Other	1
2.50	Young Children Living Below Poverty Level	2012-2016	percent	48.7	27.3	23.6			Black or African American	1
2.40	Children Living Below Poverty Level	2012-2016	percent	41.2	23.9	21.2			Black or African American, Hispanic or Latino, Other	1
2.40	Mean Travel Time to Work	2012-2016	minutes	26.8	24.1	26.1				1
2.30	People 25+ with a High School Degree or Higher	2012-2016	percent	72	86.3	87			25-34, Other	1
2.30	People 65+ Living Alone	2012-2016	percent	29.9	26.8	26.4				1
2.30	Per Capita Income	2012-2016	dollars	17960	26779	29829			Asian, Black or African American, Hispanic or Latino, Other, Two or More Races	1
2.10	Linguistic Isolation	2012-2016	percent	6.7	2.5	4.5				1
2.10	Median Household Income	2012-2016	dollars	35364	48256	55322			Black or African American, Hispanic or Latino	1
2.08	Median Housing Unit Value	2012-2016	dollars	88200	157100	184700				1
2.03	Persons with Health Insurance	2016	percent	79.9	87.8		100	92		17
1.90	Female Population 16+ in Civilian Labor Force	2012-2016	percent	52.7	57.4	58.3				1
1.73	Social and Economic Factors Ranking	2018	ranking	78						4
1.60	Population 16+ in Civilian Labor Force	2012-2016	percent	59.4	61.5	63.1				1
1.50	Voter Turnout: Presidential Election	2016	percent	68.2	67.7					14
1.40	Social Associations	2015	membership associations/ 10,000 population	10.7	11.5	9.3				4
1.23	Median Monthly Owner Costs for Households without a Mortgage	2012-2016	dollars	372	376	462				1
1.10	Homeownership	2012-2016	percent	60.1	55.5	55.9				1

^{*}High Disparity includes differences in which subgroups do significantly better or significantly worse than the overall county value. Subgroup values are given in parentheses.

1.08	Median Household Gross Rent	2012-2016	dollars	637	816	949	1
1.08	Mortgaged Owners Median Monthly Household Costs	2012-2016	dollars	1044	1243	1491	1
1.05	Total Employment Change	2014-2015	percent	3.1	3.1	2.5	20

SCORE	SUBSTANCE ABUSE	MEASUREMENT PERIOD	UNITS	DUPLIN COUNTY	NORTH CAROLINA	U.S.	HP2020	HEALTHY NC 2020	HIGH DISPARITY*	SOURCE
2.70	Adults who Smoke	2016	percent	22.2	17.9	17	12	13		4
2.50	Alcohol-Impaired Driving Deaths	2012-2016	percent	34.8	31.4	29.3		4.7		4
1.73	Health Behaviors Ranking	2018	ranking	90						4
1.60	Liquor Store Density	2015	stores/ 100,000 population	6.8	5.8	10.5				20
0.70	Death Rate due to Drug Poisoning	2014-2016	deaths/ 100,000 population	8.4	16.2	16.9				4
0.45	Adults who Drink Excessively	2016	percent	13.7	16.7	18	25.4			4

SCORE	TRANSPORTATION	MEASUREMENT PERIOD	UNITS	DUPLIN COUNTY	NORTH CAROLINA	U.S.	HP2020	HEALTHY NC 2020	HIGH DISPARITY*	SOURCE
2.65	Workers Commuting by Public Transportation	2012-2016	percent	0	1.1	5.1	5.5			1
2.40	Mean Travel Time to Work	2012-2016	minutes	26.8	24.1	26.1				1
2.35	Workers who Walk to Work	2012-2016	percent	1.5	1.8	2.8	3.1			1
2.25	Solo Drivers with a Long Commute	2012-2016	percent	36.3	31.3	34.7				4
2.10	Households without a Vehicle	2012-2016	percent	8.3	6.3	9				1
1.95	Households with No Car and Low Access to a Grocery Store	2015	percent	5.7						21
0.80	Workers who Drive Alone to Work	2012-2016	percent	76.2	81.1	76.4			55-59, Female, White, non- Hispanic	1

SCORE	WELLNESS & LIFESTYLE	MEASUREMENT PERIOD	UNITS	DUPLIN COUNTY	NORTH CAROLINA	U.S.	HP2020	HEALTHY NC 2020	HIGH DISPARITY*	SOURCE
2.55	Self-Reported General Health Assessment: Poor or Fair	2016	percent	27.6	17.6	16		9.9		4
2.40	Poor Physical Health: Average Number of Days	2016	days	4.7	3.6	3.7				4

^{*}High Disparity includes differences in which subgroups do significantly better or significantly worse than the overall county value. Subgroup values are given in parentheses.

2.25	Frequent Physical Distress	2016	percent	15.5	11.3	15		4
1.80	Insufficient Sleep	2016	percent	35.5	33.8	38		4
1.75	Life Expectancy for Males	2014	years	74.3	75.4	76.7	79.5	6
1.73	Morbidity Ranking	2018	ranking	84				4
1.50	Life Expectancy for Females	2014	years	80	80.2	81.5	79.5	6

SCORE	WOMEN'S HEALTH	MEASUREMENT PERIOD	UNITS	DUPLIN COUNTY	NORTH CAROLINA	U.S.	HP2020	HEALTHY NC 2020	HIGH DISPARITY*	SOURCE
2.23	Cervical Cancer Incidence Rate	2010-2014	cases/ 100,000 females	10.1	7.2	7.5	7.3			7
1.90	Mammography Screening: Medicare Population	2014	percent	62.3	67.9	63.1				18
1.50	Life Expectancy for Females	2014	years	80	80.2	81.5		79.5		6
1.25	Age-Adjusted Death Rate due to Breast Cancer	2010-2014	deaths/ 100,000 females	19.8	21.6	21.2	20.7			7
0.85	Breast Cancer Incidence Rate	2010-2014	cases/ 100,000 females	109.8	129.4	123.5				7
0.50	Ovarian Cancer Incidence Rate	2010-2014	cases/ 100,000 females	9.4	10.9	11.4				7

^{*}High Disparity includes differences in which subgroups do significantly better or significantly worse than the overall county value. Subgroup values are given in parentheses.

Sources

Table displays the list of sources used in secondary data scoring. Number keys are referenced alongside each indicator in the Indicator Scoring Table.

Table 23. Indicator Sources and Corresponding Number Keys

Number Key	Source
1	American Community Survey
2	American Lung Association
3	Centers for Medicare & Medicaid Services
4	County Health Rankings
5	Feeding America
6	Institute for Health Metrics and Evaluation
7	National Cancer Institute
8	National Center for Education Statistics
9	National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention
10	North Carolina Department of Health and Human Services
11	North Carolina Department of Health and Human Services, Communicable Disease Branch
12	North Carolina Department of Justice
13	North Carolina Department of Public Instruction
14	North Carolina State Board of Elections
15	North Carolina State Center for Health Statistics
16	North Carolina State Center for Health Statistics, Vital Statistics
17	Small Area Health Insurance Estimates
18	The Dartmouth Atlas of Health Care
19	U.S. Bureau of Labor Statistics
20	U.S. Census - County Business Patterns
21	U.S. Department of Agriculture - Food Environment Atlas
22	U.S. Environmental Protection Agency

Appendix C. Primary Data

Primary data used in this assessment was collected through a community survey and focus groups. The survey instruments and focus group questions are provided in this Appendix:

- English Survey
- Spanish Survey
- Focus Group Questions

Eastern North Carolina Community Health Survey 2018

Welcome to the Community Health Survey for Eastern North Carolina!

We are conducting a Community Health Assessment for your county. This assessment is being undertaken by a partnership of 33 counties, hospitals, health systems, and health departments in Eastern North Carolina. It allows these partners to better understand the health status and needs of the community they serve and use the knowledge gained to implement programs that will benefit the community.

We can better understand community needs by gathering voices from the community. This survey allows community members like you to tell us about what you feel are important issues for your community. We estimate that it will take about 20 minutes to complete this ~60 question survey. Your answers to these questions will be kept confidential and anonymous.

Thank you very much for your input and your time! If you have questions about this survey, please contact Will Broughton at will.broughton@foundationhli.org.

Part 1: Quality of Life

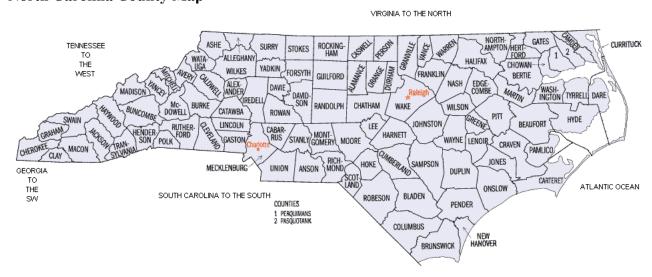
First, tell us a little bit about yourself...

1. Where do you o	currently live?
ZIP/Postal Code	

2. What county do you live in?

Beaufort	Franklin	Onslow
Bertie	Gates	Pamlico
Bladen	Greene	Pasquotank
Camden	Halifax	Pender
Carteret	Hertford	Perquimans
Chowan	Hoke	Pitt
Cumberland	Hyde	Sampson
Currituck	Johnston	Tyrrell
Dare	Lenoir	Washington
Duplin	Martin	Wayne
Edgecombe	Nash	Wilson

North Carolina County Map



3. Think about the county that you live in. Please tell us whether you "strongly disagree", "disagree", "neutral", "agree" or "strongly agree" with each of the next 9 statements.

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
There is good healthcare in my County.					
This County is a good place to raise children.					
This County is a good place to grow old.					
There is plenty of economic opportunity in this					
This County is a safe place to live.					
There is plenty of help for people during times					
There is affordable housing that meets my					
There are good parks and recreation facilities					
It is easy to buy healthy foods in this County.					

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.

4. Please look at this list of community issues. In your opinion, which <u>one</u> issue most affects the quality of life in this County? (<i>Please choose only one.</i>)					
	Pollution (air,		Discrimination/		Domestic violence
water, land)		racism			Violent crime
	Dropping out of		Lack of community	(murd	er, assault)
school		support			Theft
	Low		Drugs (Substance		Rape/sexual
income/poverty		Abuse)		assaul	t
	Homelessness		Neglect and abuse		
	Lack		Elder abuse		
of/ina	dequate health		Child abuse		
insurance					
	Hopelessness				
	Other (please specify)				

	your opinion, which <u>one</u> o borhood or community? (llowing services needs the choose only one.)	most in	nprovement in your
	Animal control		Number of health		Positive teen
	Child care options	care p	providers	activit	ies
	Elder care options		Culturally		Transportation
	Services for	appro	priate health	option	ns Availability
disab	led people	servic	res	of em	ployment
	More affordable		Counseling/		Higher paying
health	n services	ment	al health/ support	emplo	pyment
	Better/ more	group	os		Road maintenance
health	ny food choices		Better/ more		Road safety
	More	recrea	ational facilities		None
afford	dable/better housing	(park	s, trails, community		
		cente	rs)		
			Healthy family		
		activi	ties		
	Other (please specify)				

PART 3: Health Information

Now we'd like to hear more about where you get health information...

	your opinion, which <u>one</u> h mation about? <i>(Please sug</i>		ehavior do people in your ly one.)	own coi	mmunity need more
	Eating well/		Using child safety		Substance abuse
nutrit	ion	car se	eats	prevei	ntion (ex: drugs and
	Exercising/ fitness		Using seat belts	alcoho	ol)
	Managing weight		Driving safely		Suicide prevention
	Going to a dentist		Quitting smoking/		Stress
for ch	neck-ups/ preventive	tobac	cco use prevention	mana	gement
care			Child care/		Anger
	Going to the	parer	nting	mana	gement
docto	or for yearly check-		Elder care		Domestic violence
ups a	nd screenings		Caring for family	preve	ntion
	Getting prenatal	mem	bers with special		Crime prevention
care o	during pregnancy	need	s/ disabilities		Rape/ sexual
	Getting flu shots		Preventing	abuse	prevention
and c	other vaccines	pregr	nancy and sexually		None
	Preparing for an	transı	mitted disease (safe		
emer	gency/disaster	sex)			
	Other (please specify)				

7. Wh	nere do you get most of yo	our heal	th-related information?	(Please cl	hoose only one.)
	Friends and family		Internet		Employer
	Doctor/nurse		My child's school		Help lines
	Pharmacist		Hospital		Books/magazines
	Church		Health department		
	Other (please specify)				

8. WI	hat health topic(s)/ disease	e(s) wou	ld you like to learn more	about?	
	you provide care for an o	elderly r	elative at your residence	or at and	other residence?
	Yes				
	No				
	o you have children betw udes step-children, grand		_	•	
	Yes				
	No (if No, skip to qu	estion #1	12)		
	hich of the following hea mation about? (Check all	_	•	d/childre	n need(s) more
	Dental hygiene		Diabetes		Drug abuse
	Nutrition	mana	gement		Reckless
	Eating disorders		Tobacco	driving	g/speeding
	Fitness/Exercise		STDs (Sexually		Mental health
	Asthma	Trans	mitted Diseases)	issues	
mana	gement		Sexual intercourse		Suicide prevention
			Alcohol		
	Other (please specify)				

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.

12. W	ould you say that, in gener	ral, your health is	(Choose only one.)	
	Excellent			
	Very Good			
	Good			
	Fair			
	Poor			
	Don't know/not sure			
	ave you ever been told by a f the following health cond		ther health profession	Don't Know
Asth	ma			
Depr	ression or anxiety			
High	blood pressure			
High	cholesterol			
Diab	etes (not during			
preg	nancy)			
Oste	oporosis			
Over	weight/obesity			
Angi	na/heart disease			
Cano	er			

	hich of the following prevo at apply.)	entive s	services have you had in th	ie past l	12 months? (Check
	Mammogram		Bone density test		Vision screening
	Prostate cancer		Physical exam		Cardiovascular
screen	ning		Pap smear	screen	ning
	Colon/rectal exam		Flu shot		Dental cleaning/X-
	Blood sugar check		Blood pressure	rays	
	Cholesterol	check			None of the above
	Hearing screening		Skin cancer		
		screer	ning		
	oout how long has it been so 1? Include visits to dental	•			•
	Within the past year (any	time les	ss than 12 months ago)		
	Within the past 2 years (r	nore th	an 1 year but less than 2 y	ears ag	0)
	Within the past 5 years (r	nore th	an 2 years but less than 5	years ag	go)
	Don't know/not sure				
	Never				
	the past 30 days, have the going about your normal a			d or wo	orried kept you
	Yes				
	No				
	Don't know/not sure				

17. The next question is about alcohol. One drink is equivalent to a 12-ounce beer, a 5 ounce glass of wine, or a drink with one shot of liquor.

	dering all types (ave 5 or more dr		_	•	_	-	•
0		8	12	16	20	24	28
1	5	9	13	17	21	25	29
2	6	10	14	18	22	<u> </u>	30
3	7	11	15	<u> </u>	23	27	
	Don't know / no	t sure					
use of	ow we will ask a drugs are important on the drugs are important on is per	rtant for un	derstanding	health issue	es in the coul	nty. We kno	w that
includ	you used any ille les marijuana, co how many days	ocaine, crac	k cocaine, h	eroin, or any	y other illega	drug subst	_
0	4	8	12	<u> </u>	20	24	28
1	5	9	13	17	21	25	29
2	6	10	14	18	22	<u> </u>	30
3	7	11	15	19	23	27	
	Don'tknow/no	t sure					
(if you	ı responded 0, sk	ip to questio	n #20)				
19. Du	uring the past 30	days, which	h illegal drug	g did you us	e? (Check al	l that apply.)	
	Marijuana						
	Cocaine						
	Heroin						
	Other (please s	pecify)					

presc	ription times	for (such a during the	as Oxycont	in, Percocet, ys did you u	Demerol, A	Adderall, Rit	at you did n alin, or Xana nat you did n	ax)? How
) [4	8	12	16	20	24	28
1	[5	9	13	17	21	25	29
2	2 [6	10	14	18	22	26	30
3	} [7	11	15	<u> </u>	23	27	
	Don' t	know / not	t sure					
US A	rmed F	Forces (not noose only	including a	active duty o			d on active d Reserves or N	
	t y, or p Yes		_		•	u that you hase only one.)	ave depressio	on,
	No							

regul				ormal week, other than in your ercise that lasts at least a half an
	Yes			
	No (if No, skip to ques	etion #26)		
	Don't know/not sure	(if Don't know/n	ot sur	re, skip to question #26)
	ince you said yes, how many ng a normal week?	y times do you exerc	cise o	r engage in physical activity
25. W	here do you go to exercise	or engage in physic	al act	ivity? (Check all that apply.)
	YMCA] \	Worksite/Employer
	Park] 9	School Facility/Grounds
	Public Recreation Center]	Home
	Private Gym]	Place of Worship
	Other (please specify)			
26. Si	•	e the reasons you d	o not	exercise for at least a half hour
durin	g a normal week? You can	give as many of the	ese re	asons as you need to.
	My job is physical or hard	l labor		Exercise is not important to me.

	I don't have access to a facilit	y that		It costs too much to exercise.
has th	e things I need, like a pool, go	lf course,		There is no safe place to
or a tr	ack.		exerci	se.
	I don't have enough time to e	exercise.		I would need transportation and
	I would need child care and I	don't	I don'	t have it.
have i	t.			I'm too tired to exercise.
	I don't know how to find exer	cise		I'm physically disabled.
partne	ers.			I don't know
	I don't like to exercise.			
	Other (please specify)			
	ot counting lettuce salad or pot you eat fruits and vegetables in	-		rench fries, think about how
	many cups per week of fruits a carrots equal one cup.)	nd vegetables v	vould y	ou say you eat? (One apple or 12
Numb	per of Cups of Fruit			
Numb	per of Cups of Vegetables			
Numb	per of Cups of 100% Fruit Juice			

28. Ha	ever you ever been exposed to secondhand smoke in the past year? (Choose only one.)
	Yes
	No (if No, skip to question #30)
	Don't know/not sure (if Don't know/not sure, skip to question #30)
29. If y	yes, where do you think you are exposed to secondhand smoke most often? (Check ne.)
	Home
	Workplace
	Hospitals
	Restaurants
	School
	I am not exposed to secondhand smoke.
	Other (please specify)
	you currently use tobacco products? (This includes cigarettes, electronic cigarettes, ng tobacco and vaping.) (Choose only one.)
	Yes
	No (if No, skip to question #32)
31. If y	yes, where would you go for help if you wanted to quit? (Choose only one).
	Quit Line NC Doctor

	Pharmacy		I don't know
	Private counselor/therapist		Not applicable; I don't want to quit
	Health Department		
	Other (please specify)		
vaccii spray	ow we will ask you questions about you can be a "flu shot" injected into you ed into your nose. During the past 12 ose only one.)	our arm or s	oray like "FluMist" which is
vaccii spray	ne can be a "flu shot" injected into yo ed into your nose. During the past 12	our arm or s	oray like "FluMist" which is
vaccii spray	ne can be a "flu shot" injected into your ded into your nose. During the past 12 ose only one.)	our arm or s	oray like "FluMist" which is
vaccii spray	ne can be a "flu shot" injected into your dinto your nose. During the past 12 ose only one.) Yes, flu shot	our arm or s	oray like "FluMist" which is
vaccii spray	ne can be a "flu shot" injected into yo ed into your nose. During the past 12 ose only one.) Yes, flu shot Yes, flu spray	our arm or s	oray like "FluMist" which is

Part 5: Access to Care/Family Health

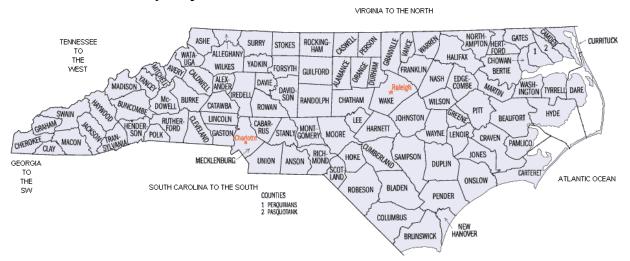
33. W	33. Where do you go most often when you are sick? (Choose only one.)					
	Doctor' s office		Medical clinic			
	Health department		Urgent care center			
	Hospital					
	Other (please specify)					
	o you have any of the following types of he age? (Choose all that apply.)	alth ins	urance or health care			
	Health insurance my employer provides					
	Health insurance my spouse's employer p	orovides				
	Health insurance my school provides					
	Health insurance my parent or my parent	's emplo	oyer provides			
	Health insurance I bought myself					
	Health insurance through Health Insurance	ce Mark	etplace (Obamacare)			
	The military, Tricare, or the VA					
	Medicaid					
	Medicare					
	No health insurance of any kind					

you p	the past 12 months, did you ersonally or for a family me macy, or other facility? (Cho	mber fi	rom any type of hea		•
	Yes				
	No (if No, skip to questi	ion #38)			
	Don't know/not sure				
	nce you said "yes," what typ trouble getting health care f				
	Dentist		Pharmacy/		Hospital
	General practitioner	presc	riptions		
	Eye care/		Pediatrician		Urgent Care Center
optor	metrist/		OB/GYN		Medical Clinic
ophth	nalmologist		Health		Specialist
		depai	rtment		
	Other (please specify)				
	Thich of these problems previous yeary health care? You can c	-			0 0
	No health insurance.				
	Insurance didn't cover wha	ıt I/we r	needed.		
	My/our share of the cost (o	deductil	ole/co-pay) was too	high.	
	Doctor would not take my	our ins	urance or Medicaid		

	Hospital would not take my/our insurance.
	Pharmacy would not take my/our insurance or Medicaid.
	Dentist would not take my/our insurance or Medicaid.
	No way to get there.
	Didn't know where to go.
	Couldn't get an appointment.
	The wait was too long.
	The provider denied me care or treated me in a discriminatory manner because of my
HIV st	atus, or because Lam an LGBT individual

38. In	what county a	re most	of the medical	provid	ers you visit loc	ated? (Choose only one.)
	Beaufort				Martin		Pitt
	Bertie	Edgec	ombe		Moore		Richmond
	Bladen		Franklin		Nash		Robeson
	Brunswick		Gates		New		Sampson
	Camden		Granville	Hanov	ver		Scotland
	Carteret		Greene				Tyrrell
	Chowan		Halifax	North	ampton		Vance
	Columbus		Harnett		Onslow		Wake
	Craven		Hertford		Pamlico		Warren
			Hoke				Washington
Cumb	erland		Hyde	Pasqu	otank		Wayne
	Currituck		Johnston		Pender		Wilson
	Dare		Jones				The State of
	Duplin		Lenoir	Perqu	imans	Virgin	ia
	Other (please	specify))				

North Carolina County Map



39. In the previous 12 months, were you ever worried about whether your family's food would run out before you got money to buy more? (Choose only one.)							
Yes							
No							
Don't know/not sure							
a friend or family member needed counse problem, who is the first person you wou							
Private counselor or therapist		Don't know					
Support group (e.g., AA. Al-Anon)		Doctor					
School counselor		Pastor/Minister/Clergy					
Other (please specify)							

Part 6: Emergency Preparedness

41. D	oes your household have working sm one.)	ioke and carb	oon monoxide detectors? (Choose
	Yes, smoke detectors only		
	Yes, both		
	Don't know/not sure		
	Yes, carbon monoxide detectors or	nly	
	No		
peris	oes your family have a basic emerge hable food, any necessary prescription electric can opener, blanket, etc.)		
	Yes		
	No		
	Don't know/not sure		
If yes	, how many days do you have supplie	es for? (Write	number of days)
	Vhat would be your main way of gett ter or emergency? (Check only one.)	ing informati	on from authorities in a large-scale
	Television		Social networking site
	Radio		Neighbors
	Internet		Family
	Telephone (landline)		Text message (emergency alert
	Cell Phone	syster	n)
	Print media (ex: newspaper)		Don't know/not sure

	Other (please specify)	
comm	public authorities announced a mandato nunity due to a large-scale disaster or em- ek only one.)	ory evacuation from your neighborhood or ergency, would you evacuate?
	Yes (if Yes, skip to question #46)	
	No	
	Don't know/not sure	
45. W one.)	hat would be the main reason you might	t not evacuate if asked to do so? (Check only
	Lack of transportation	Concern about leaving pets
	Lack of trust in public officials	Concern about traffic jams and
	Concern about leaving property	inability to get out
behin	d	Health problems (could not be
	Concern about personal safety	moved)
	Concern about family safety	Don't know/not sure
	Other (please specify)	

Part 7: Demographic Questions

The next set of questions are general questions about you, which will only be reported as a summary of all answers given by survey participants. Your answers will remain anonymous.

46. Ho	46. How old are you? (Choose only one.)						
	15-19		40-44		65-69		
	20-24		45-49		70-74		
	25-29		50-54		75-79		
	30-34		55-59		80-84		
	35-39		60-64		85 or older		
47. W	hat is your gender? <i>(Choo</i>	se only	one.)				
	Male						
	Female						
	Transgender						
	Gender non-conforming						
	Other						
48. Ar	e you of Hispanic, Latino	, or Spa	nish origin? (Choose only	one).			
	I am not of Hispanic, Lati	no or Sု	oanish origin				
	Mexican, Mexican Americ	can, or 0	Chicano				
	Puerto Rican						
	Cuban or Cuban America	n					
	Other Hispanic or Latino	(please	specify)				

49. W	hat is your race? (Choose only one).
	White or Caucasian
	Black or African American
	American Indian or Alaska Native
	Asian Indian
	Other Asian including Japanese, Chinese, Korean, Vietnamese, and Filipino/a
	Other Pacific Islander including Native Hawaiian, Samoan, Guamanian/Chamorro
	Other race not listed here (please specify)
50. Is	English the primary language spoken in your home? (Choose only one.)
	Yes
	No. If no, please specify the primary language spoken in your home.
51. W	hat is your marital status? (Choose only one.)
	Never married/single
	Married
	Unmarried partner
	Unmarried partner Divorced

	Other (please specify)

52. Se	52. Select the highest level of education you have achieved. (Choose only one.)				
	Less than 9th grade				
	9-12th grade, no diploma				
	High School graduate (or GED/equiv	ralent)			
	Associate's Degree or Vocational Tra	ining			
	Some college (no degree)				
	Bachelor's degree				
	Graduate or professional degree				
	Other (please specify)				
53. W	hat was your total household income	last year, be	fore taxes? (Choose 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		
54. Enter the number of individuals in your household (including yourself).					

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

	Employed full-time	
	Employed part-time	
	Retired	
	Armed forces	
	Disabled	
	Student	
	Homemaker	
	Self-employed	
	Unemployed for 1 year or less	
	Unemployed for more than 1 year 56. Do you have access to the Internet at home (included)	ding
broad	lband, wifi, dial-up or cellular data)? (Choose only one.)	
	Yes	
	No	
	Don't know/not sure	
	Optional) Is there anything else you would like us to know about your community? Please below.	e feel free to

Thank you for your time and participation!

If you have questions about this survey, please contact us at will.broughton@foundationhli.org.

Encuesta de salud de la comunidad del Este de Carolina del Norte 2018

¡Bienvenido a la encuesta de salud comunitaria para el Este de Carolina del Norte!

Estamos llevando a cabo una evaluación de salud comunitaria para su condado. Esta evaluación está siendo realizada por una asociación de 33 condados, hospitales, sistemas de salud y departamentos de salud en el Este de Carolina del Norte. Esta evaluación les permite a estos socios comprender mejor el estado de salud y las necesidades de la comunidad a la que sirven y utilizar el conocimiento adquirido para implementar programas que beneficiarán a esta comunidad.

Podemos entender mejor las necesidades de la comunidad reuniendo las voces de los miembros de su comunidad. Esta evaluación permite que los miembros de la comunidad como usted, nos cuente sobre lo que considera son asuntos importantes para su comunidad. De ante mano le agradecemos por los 20 minutos que tomará completar esta encuesta de 57 preguntas. Sus respuestas a estas preguntas se mantendrán confidenciales y anónimas.

¡Muchas gracias por su aporte y su tiempo! Si tiene preguntas sobre esta encuesta, puede enviar un correo electrónico a Will Broughton en will.broughton@foundationhli.org.

PARTE 1: Calidad de vida

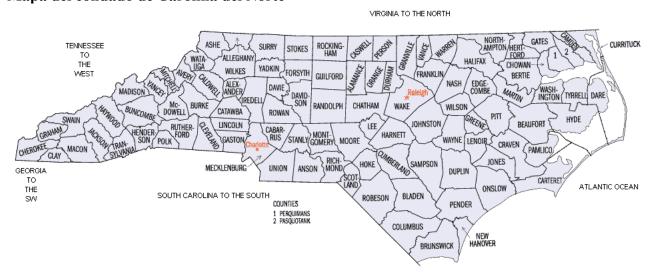
Primero, cuéntanos un poco sobre usted:

3. ¿Dónde vive actualmente?					
Código postal					

4. ¿En qué condado vive?

Beaufort	Franklin	Onslow
Bertie	Gates	Pamlico
Bladen	Greene	Pasquotank
Camden	Halifax	Pender
Carteret	Hertford	Perquimans
Chowan	Hoke	Pitt
Cumberland	Hyde	Sampson
Currituck	Johnston	Tyrrell
Dare	Lenoir	Washington
Duplin	Martin	Wayne
Edgecombe	Nash	Wilson

Mapa del condado de Carolina del Norte



3. Piense en el condado en el que vive. Por favor díganos si está "totalmente en desacuerdo", "en desacuerdo", "neutral", "de acuerdo" o "muy de acuerdo" con cada una de las siguientes 9 declaraciones.

Declaración	Muy en desacuerdo	En desacuerdo	Neutral	De acuerdo	Muy de acuerdo
Hay una buena atención médica en mi					
Este condado es un buen lugar para criar					
Este condado es un buen lugar para envejecer.					
Hay buenas oportunidades económicas en					
Este condado es un lugar seguro para vivir.					
Hay mucha ayuda para las personas durante					
Hay viviendas accesibles que satisfacen mis					
Hay buenos parques e instalaciones de					
Es fácil adquirir comidas saludables en este					

PARTE 2: Mejora de la comunidad

La siguiente serie de preguntas le preguntará sobre problemas y servicios de la comunidad que son importantes para usted. Recuerde que sus respuestas son privadas y no serán relacionadas con usted en ninguna manera.

4. Mire esta lista de problemas de la comunidad. En su opinión, ¿qué problema afecta más la calidad de vida en este condado? <i>(Elija solo una respuesta)</i>							
	Contaminación		Discriminación /		Violencia		
(aire, a	agua, tierra)	racism	10	doméstica			
	Abandono de la		Falta de apoyo de		Delito violento		
escue	la	la comunidad		(asesir	nato, asalto)		
	Bajos ingresos /		Drogas (Abuso de		Robo		
pobre	za	sustancias)			Violación /		
	Falta de hogar		Descuido y abuso	agresi	ón sexual		
	Falta de un seguro		Maltrato a				
de sal	ud adecuado	perso	nas mayores				
	Desesperación		Abuso infantil				
	Otros (especificar)						

	su opinión, ¿cuál de los sig dario o comunidad? <i>(Por f</i>	-		or mejo	ría en su
	Control Animal		Número de		Actividades
	Opciones de	prove	edores de atención	positiv	as para
cuidad	do infantil	médic	a	adoles	centes
	Opciones de		Servicios de salud		Opciones de
cuidad	do para ancianos	aprop	iados de acuerdo a	transp	orte
	Servicios para	su cul	tura		Disponibilidad de
perso	nas con		Consejería / salud	emple	o
discap	pacidad	menta	al / grupos de apoyo		Empleos mejor
	Servicios de salud		Mejores y más	pagad	os
más a	ccesibles	instala	aciones recreativas		Mantenimiento de
	Mejores y más	(parqı	ues, senderos,	carrete	eras
opcio	nes de alimentos	centro	os comunitarios)		Carreteras seguras
saluda	ables		Actividades		Ninguna
	Más accesibilidad /	familia	ares saludables		
mejor	es vivienda				
	Otros (especificar)				

PARTE 3: Información de salud

Ahora nos gustaría saber un poco más sobre dónde usted obtiene información de salud.

6. En su opinión, ¿sobre qué área de salud necesitan más información las personas de su comunidad? (Por favor sugiera solo uno) Comer bien / Usar asientos de transmisión sexual (sexo nutrición seguridad para niños seguro) **Ejercicio** Usar cinturones de Prevención del Manejo del peso seguridad abuso de sustancias (por Ir a un dentista Conducir ejemplo, drogas y para chequeos / cuidado cuidadosamente alcohol) preventivo Dejar de fumar / Prevención del suicidio Ir al médico para prevención del uso de chequeos y exámenes tabaco Manejo del estrés Control de la anuales Cuidado de niños / Obtener cuidado crianza ira/enojo prenatal durante el Cuidado de Prevención de violencia doméstica embarazo ancianos Recibir vacunas Cuidado de Prevención del miembros de familia con contra la gripe y otras crimen vacunas necesidades especiales o Violación / Prepararse para discapacidades prevención de abuso una emergencia / Prevención del sexual Ninguna desastre embarazo y

enfermedades de

	Otros (especificar)				
	dónde saca la mayor part olo una respuesta)	e de su	información relacionada	con la s	alud? (Por favor
	Amigos y familia		La escuela de mi		Líneas telefónicas
	Doctor /	hijo		de ayı	uda
enferr	mera		Hospital		Libros / revistas
	Farmacéutico		Departamento de		
	Iglesia	salud			
	Internet		Empleador		
	Otros (especificar)				
8. ¿De	e qué temas o enfermedado	es de sa	lud le gustaría aprender n	nás?	
0	vida da un navianta av da		agga a on otre sagga (Ell:	a a a l a	
9. ¿CI	_	o en su	casa o en otra casa? (Elijo	a solo U	nuj.
	Sí				
	No				

10. ¿Tiene hijos entre las edades de 9 y 19 de los cuales usted es el guardián? (Incluye hijastros, nietos u otros parientes). (Elija solo una).								
	Sí							
	No	(Si su respuesta es No, salte a la pregunta numero 12						

11. ¿Cuáles de los siguientes temas de salud cree que sus hijos necesitan más información? (Seleccione todas las opciones que corresponden).								
	Higiene dental		Manejo de la		Abuso de drogas			
	Nutrición	diabe	tes		Manejo			
	Trastornos de la		Tabaco	impru	dente / exceso de			
alimer	ntación	ETS		velocidad				
	Ejercicios	(enfermedades de			Problemas de			
	Manejo del asma	transr	nisión sexual)	salud mental				
			Relación sexual		Prevención del			
			Alcohol	suicid	io			
	Otros (especificar)							

PARTE 4: Salud personal

Las siguientes preguntas son sobre su salud personal. Recuerde, las respuestas que brinde para esta encuesta no serán ligadas con usted de ninguna manera.

12. E	12. En general, diría que su salud es (Elija solo una).							
	Excelente							
	Muy buena							
	Buena							
	Justa							
	Pobre							
	No sé / no estoy seguro							
	alguna vez un médico, enfo a de las siguientes condicio		esional de la salud le d	ijo que tiene No lo sé				
Asma	a							
Depr	esión o ansiedad							
Alta	presión sanguínea							
Coles	sterol alto							
	etes (no durante el urazo)							
Osteo	oporosis							
Sobre	epeso / obesidad							
Angi	na / enfermedad cardíaca							
Cánc	er							

•	Cuál de los siguientes servi cione todas las opciones qu	_	eventivos ha tenido usted e esponden).	en los úl	timos 12 meses?	
	Mamografía		Prueba de		Examen de la vista	
	Examen de cáncer	densi	dad de los huesos		Evaluación	
de pro	óstata		Examen físico	cardio	vascular (el	
	Examen de colon /		Prueba de	corazó	on)	
recto		Papan	icolaou		Limpieza dental /	
	Control de azúcar		Vacuna contra la	radiog	rafías	
en la s	sangre	gripe			Ninguna de las	
	Examen de		Control de la	anterio	ores	
Colest	terol	presió	on arterial			
	Examen de		Pruebas de cáncer			
audici	ón (escucha)	de pie	el			
•	-		na vez que visitó a un dent listas dentales, como ortod		-	
	En el último año (en los ú	ıltimos	12 meses)			
	Hace 2 (más de un año pero menos de dos años)					
	Hace más de 5 años (más	de 2 a	ños pero menos de 5 años)		
	No sé / no estoy seguro					
	Nunca					

	16. En los últimos 30 días, ¿ha habido algún día que se ha sentido triste o preocupado y le haya impedido realizar sus actividades normales? (Elija solo una).						
	Sí						
	No						
	No sé / no estoy seguro						
	siguiente preg ına copa de vi			0	-		za de 12
	erando todos l nó 5 o más be	-					
0	4	8	12	<u> </u>	20	24	28
1	5	9	13	17	21	25	29
2	6	10	14	18	22	26	30
3	7	11	15	19	23	27	
No	sé / no estoy	seguro					
18. Ahora le vamos a hacer una pregunta sobre el uso de drogas. Las respuestas que nos dan las personas sobre su uso de drogas son importantes para comprender los problemas de salud en el condado. Sabemos que esta información es personal, pero recuerde que sus respuestas se mantendrán confidenciales. ¿Has usado alguna droga ilegal en los últimos 30 días? Cuando decimos drogas, incluimos							
marihu	ana, cocaína, días has usac	crack, heroí	na o cualqui	er otra susta	ancia ilegal.		
0	4	8	12	<u> </u>	20	24	28
1	5	9	13	17	21	25	29
2	6	10	14	18	22	26	30
3	7	11	15	<u> </u>	23	27	
□ No	No sé / no estoy seguro						

(Si su respuesta es 0, salte a la pregunta numero 20)

	urante los último <i>ponden)</i> .	os 30 días, ¿	qué droga il	egal ha usad	lo? (Marque	todas las que	?
	Mariguana						
	Cocaína						
	Heroína						
	Otros (especifi	car)					
tenía ¿Cuái	urante los último una receta (por ntas veces durar una receta? <i>(Eli</i>	ejemplo, Ox ite los últim	xycontin, Per os 30 días us	cocet, Deme	erol, Addera	ll, Ritalin o 2	Xanax)?
O	4	8	12	<u> </u>	20	24	28
1	5	9	13	17	21	25	29
2	6	10	14	18	22	<u> </u>	30
3	7	11	15	19	23	27	
	lo sé / no estoy	seguro					
21. La siguiente pregunta se relaciona con la salud de una persona que ha servido en las fuerzas Armadas. ¿Alguna vez ha estado en servicio activo en las Fuerzas Armadas de los Estados Unidos (Sin incluir el servicio activo de solo entrenamientos en las Reservas o la Guardia Nacional)? (Elija solo una).							
	Sí						
	No (Si su re	espuesta es 1	No, salte a la	pregunta nu	ımero 23)		

U	ad o trastorno por estrés postraumático (TEPT)? (Elija solo una).
	Sí
	No
su tral	nora nos gustaría saber sobre su estado físico. Durante una semana normal, aparte de bajo habitual, ¿realiza alguna actividad física o ejercicio que dure al menos media (Elija solo una).
	Sí
	No (Si su respuesta es No, salte a la pregunta numero 26)
pregui	No sé / no estoy seguro (Si su respuesta es No se / no estoy seguro, salte a la numero 26)
	omo dijo que sí, ¿cuántas veces hace ejercicio o se involucra en alguna actividad física te una semana normal?

•	dónde va a hacer ejercicio o participa en ponden).	activida	d físicas? (Marque todas las que
	YMCA		Sitio de trabajo / Empleador
	Parque		Terrenos escolares / instalaciones
	Centro de Recreación Pública		Casa
	Gimnasio privado		Iglesia
	Otros (especificar)		
Como numer	su respuesta fue Si a la pregunta 23 (activid co 27	lad físice	a / ejercicio), salte a la pregunta
	que dijo "no", ¿cuáles son las razones po te una semana normal? Puedes dar tantos	-	
	Mi trabajo es trabajo físico o trabajo		Necesitaría cuidado de niños y
duro		no l	o tengo.
	El ejercicio no es importante para mí.		No sé cómo encontrar
	No tengo acceso a una instalación	com	pañeros de ejercicio.
que te	enga las cosas que necesito, como una		No me gusta hacer ejercicio
piscina	a, un campo de golf o una pista.		Me cuesta mucho hacer
	No tengo suficiente tiempo para hacer	ejer	cicio.
ejercic	io.		No hay un lugar seguro para
		hace	er ejercicio.

	Necesito transporte y no lo tengo	0.		Estoy físicamer	nte deshabilitado.
	Estoy demasiado cansado para h	acer		No lo sé.	
ejercio	cio.				
	Otros (especificar)				
	n contar ensalada de lechuga o pr encia con la que come frutas y ver				, piense en la
•	ntas tazas por semana de frutas y orias pequeñas equivalen a una ta:	0	rías que	e comes? (Una n	nanzana o 12
Cantic	lad de tazas de fruta				
Núme	ro de tazas de verduras				
Cantic	lad de tazas de jugo de fruta 100%				
	Alguna vez estuvo expuesto al hum ate el último año? <i>(Elija solo una)</i> .		o de alg	guien que fumó	cerca de usted
	Sí				
	No (Si su respuesta es No, sal	lte a la pregu	nta nur	nero 30)	
	No sé / no estoy seguro (Si s	su respuesta e	es No so	e / no estoy segu	ro, salte a la
pregu	nta numero 30)				

	n caso afirmativo, ¿donde cree que esta e r frecuencia? <i>(Marque solo uno)</i>	xpuesto a	n numo de segunda mano con				
	Casa						
	Lugar de trabajo						
	Hospitales						
	Restaurantes						
	Colegio						
	No estoy expuesto al humo de segunda	mano.					
	Otros (especificar)						
_	Actualmente usa algún producto que cont ónicos, masticar tabaco o cigarro de vapo						
	Sí						
	No (Si su respuesta es No, salte a la p	pregunta	numero 32)				
31. Ei	n caso afirmativo, ¿a dónde iría en busca (na).	de ayud:	a si quisiera dejar de fumar? (Elija				
	QUITLINE NC (ayuda por teléfono)		Departamento de salud				
	Doctor		No lo sé				
	Farmacia		No aplica; No quiero renunciar				
	Consejero / terapeuta privado						
	Otros (especificar)						

contra o tamb	nora le haremos preguntas sobre sus vacunas personales contra la gripe. Una vacuna la influenza / gripe puede ser una "inyección contra la gripe" inyectada en su brazo bién el espray "FluMist" que se rocía en su nariz. Durante los últimos 12 meses, ¿se ó contra la gripe o se puso el espray "FluMist? (Elija solo una).
	Sí, vacuna contra la gripe
	Sí, FluMist
	Si ambos
	No
	No sé / no estoy seguro

PARTE 5: Acceso a la atención / Salud familiar

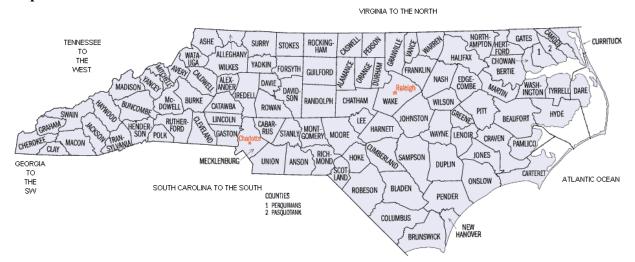
33. ¿A	33. ¿A dónde va más a menudo cuando está enfermo? (Elija solo uno)						
	Oficina del doctor		Clínica Médica				
	Departamento de salud		Centro de cuidado urgente				
	Hospital						
	Otros (especificar)						
•	iene alguno de los siguientes tipos de segu a? <i>(Elija todos los que aplique)</i>	ro de sa	alud o cobertura de atención				
	Seguro de salud que mi empleador propo	orciona					
	Seguro de salud que proporciona el empl	leador c	de mi cónyuge				
	Seguro de salud que mi escuela proporcio	ona					
	Seguro de salud que proporciona mi pad	re o el e	empleador de mis padres				
	Seguro de salud que compré						
	Seguro de salud a través del Mercado de	Seguro	s Médicos (Obamacare)				
	Seguro Militar, Tricare o él VA						
	Seguro de enfermedad						
	Seguro médico del estado						
	Sin plan de salud de ningún tipo						

neces	n los últimos 12 meses, ¿tuvo itaba para usted o para un i ca, dentista, farmacia u otro	familiaı	r de cualquier tipo de		<u>-</u>		
	Sí						
	No (Si su respuesta es No, salte a la pregunta numero 38)						
	No sé / no estoy seguro						
	ado que usted dijo "sí", ¿Co obtener atención médica? P				-		
	Dentista		Pediatra		Centro de atención		
	Médico general		Ginecologo	urgen	te		
	Cuidado de los ojos /		Departamento		Clínica Médica		
optor	metrista / oftalmólogo	de sa	lud		Especialista		
	Farmacia / recetas		Hospital				
médio	cas						
	Otros (especificar)						
•	Cuáles de estos problemas le ca necesaria? Puede elegir ta	-		miliar ob	otener la atención		
	No tiene seguro medico						
	El seguro no cubría lo que	necesit	aha				

	El costo del deducible del seguro era demasiado alto
	El doctor no aceptaba el seguro ni el Medicaid.
	El hospital no aceptaba el seguro.
	La farmacia no aceptaba el seguro ni el Medicaid.
	El dentista no aceptaba el seguro ni el Medicaid.
	No tengo ninguna manera de llegar allí.
	No sabía a dónde ir.
	No pude conseguir una cita.
	La espera fue demasiado larga.
	El proveedor me negó atención o me trató de manera discriminatoria debido a mi
estado	o de VIH, o porque soy lesbiana, gay, bisexual o trangenero.

solo u	_	se enci	ientra la mayol	ria de i	os proveedores	meaico	s que visita <i>? (Elija</i>
	Beaufort				Martin		Pitt
	Bertie	Edged	combe		Moore		Richmond
	Bladen		Franklin		Nash		Robeson
	Brunswick		Gates		New		Sampson
	Camden		Granville	Hano	ver		Scotland
	Carteret		Greene				Tyrrell
	Chowan		Halifax	North	nampton		Vance
	Columbus		Harnett		Onslow		Wake
	Craven		Hertford		Pamlico		Warren
			Hoke				Washington
Cumb	erland		Hyde	Pasqu	uotank		Wayne
	Currituck		Johnston		Pender		Wilson
	Dare		Jones				El Estado de
	Duplin		Lenoir	Perqu	ıimans	Virgin	ia
	Otros (especif	icar)					

Mapa del condado de Carolina del Norte



	39. En los últimos 12 meses, ¿alguna vez le preocupó saber si la comida de su familia se agotaría antes de obtener dinero para comprar más? (Elija solo uno)						
	Sí						
	No						
	No sé / no estoy seguro						
menta	un amigo o miembro de la familia necesit al o de abuso de drogas o alcohol, ¿quién e ablen? (Elija solo uno)						
	Consejero o terapeuta privado		No sé				
	Grupo de apoyo		Doctor				
	Consejero de la escuela		Pastor o funcionario religioso				
	Otros (especificar)						

PARTE 6: Preparación para emergencias

U	solo uno)
	Sí, solo detectores de humo
	Si ambos
	No sé / no estoy seguro
	Sí, sólo detectores de monóxido de carbono
	N0

alime		er receta necesaria, s	nergencia? (Estos kits incluyen agua, uministros de primeros auxilios,
	Sí		
	No		
	No sé / no estoy seguro		
En cas	so que sí, ¿cuántos días tiene	suministros? (Escriba	el número de días)
_	Cuál sería su forma principal tre o emergencia a gran escal		
	Televisión		Sitio de red social
	Radio		Vecinos
	Internet		Familia
	Línea de teléfono en casa		Mensaje de texto (sistema de alerta
	Teléfono celular	de em	nergencia)
	Medios impresos (periódico))	No sé / no estoy seguro
	Otros (especificar)		

comu		oridades públicas anunciaran una e lebido a un desastre a gran escala o ao)		S .
	Sí	(Si su respuesta es Sí, salte a la pre	gunta n	numero 46)
	No			
	No sé	/ no estoy seguro		
_	Cuál ser que solo	ría la razón principal por la que no o o uno)	evacuai	ría si le pidieran que lo hiciera?
	Falta	de transporte		Preocupación por la seguridad
	La falt	ta de confianza en los	familia	ar
funcio	onarios	públicos		Preocupación por dejar mascotas
	Preoc	upación por dejar atrás la		Preocupación por los atascos de
propie	edad		tráfico	y la imposibilidad de salir
	Preoc	upación por la seguridad		Problemas de salud (no se
perso	nal		pudie	ron mover)
				No sé / no estoy seguro
	Otros	(especificar)		

PARTE 7: Preguntas demográficas

La siguiente serie de preguntas son preguntas generales sobre usted, que solo se informarán como un resumen de todas las respuestas dadas por los participantes de la encuesta. Tus respuestas permanecerán en el anonimato.

46. ¿Q	Qué edad tiene? <i>(Elija solo</i>	uno)		
	15-19		40-44	65-69
	20-24		45-49	70-74
	25-29		50-54	75-79
	30-34		55-59	80-84
	35-39		60-64	85 o más
47. ¿C	Cuál es tu género? <i>(Elija so</i>	olo uno)		
	Masculino			
	Femenino			
	Transgénero			
	Género no conforme			
	Otro			
48. ¿E	eres de origen hispano, lat	ino o es	pañol? <i>(Elija solo uno)</i>	
	No soy de origen hispan	o, latino	o español	
	Mexicano, mexicoameric	ano o cl	hicano	
	Puertorriqueño			
	Cubano o cubano americ	ano		
	Otro - hispano o latino (p	oor favo	r especifique)	

49. ¿C	Cuál es su raza? <i>(Elija solo uno)</i>
	Blanco
	Negro o Afroamericano
	Indio Americano o nativo de Alaska
	Indio Asiático
	Otros- Asiáticos, incluidos Japonés, Chino, Coreano, Vietnamita y Filipino
	Otros isleños del Pacífico, incluidos los nativos de Hawaii, Samoa, Guamanian /
Cham	orro
	Otra raza no incluida aquí (especifique)
50. ¿E	l inglés es el idioma principal que se habla en su hogar? (Elija solo uno)
	Sí
	No. En caso negativo, especifique el idioma principal que se habla en su hogar.
51. ¿C	Cuál es tu estado civil? (Elija solo uno)
	Nunca casado / soltero
	Casado
	Pareja- soltera
	Divorciado

Viudo
Separado
Otros (especificar)

52. Sel	leccione el nivel más a	alto de	educación que	ha alca	anzad	lo. (Elija solo uno)
	Menos de 9no grado)				
	9-12 grado, sin diplo	ma				
	Graduado de secund	laria (o	GED / equival	ente)		
	Grado Asociado o Fo	rmació	n Profesional			
	Un poco de universid	dad (sin	título)			
	Licenciatura					
	Licenciado o título p	rofesio	nal			
	Otros (especificar)					
53. ¿C uno)	uál fue el ingreso tota	al de su	hogar el año	pasado,	ante	s de impuestos? (Elija solo
	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	0,000 o más
54. Ing	grese el número de pe	ersonas	en su hogar (i	incluyér	ıdose	a usted)
55. ¿C	uál es su estado labo	ral? <i>(Se</i>	eleccione todas	las opc	iones	que corresponden).
	Empleado de		Empleado a			Retirado
tiempo	o completo	tiempo	o parcial			Fuerzas Armadas

	Discapacitado			
	Estudiante			
	Ama de casa			
	Trabajadores por			
cuenta propia				
	Desempleado 1			
año o	menos			
	Desempleado por			
más d	e 1 año			

56. ¿Tiene acceso al internet es su casa (Esto incluye alta velocidad, wifi, acceso telefónico o datos móviles)? (Elija solo uno)			
	Sí		
	No		
	No sé / no estoy seguro		
	Opcional) ¿Hay algo más que le gustaría que sepamos sobre su comunidad? cirnos a continuación.	Por favor, siéntase libre	

¡Gracias por su tiempo y participación!
Si tiene preguntas sobre esta encuesta, envíenos un correo electrónico a will.broughton@foundationhli.org.

Focus Group Questions

Participants' Resident County(ies):
Focus Group Name / Number:
Date Conducted:
Location:
Start Time:
End Time:
Number of Participants:
Population Type (if applicable):
Moderator Name:
Moderator Email:
Note Taker Name:
Note Taker Email:
Core Questions
1. Introduce yourself and tell us what you think is the best thing about living in this community.
2. What do people in this community do to stay healthy? Prompt: What do you do to stay healthy?
3. In your opinion, what are the serious health related problems in your community? What are some of the causes of these problems?
4. What keeps people in your community from being healthy? Prompt: What challenges do you face that keep you from being healthy? What barriers exist to being healthy?
5. What could be done to solve these problems? Prompt: What could be done to make your community healthier? Additional services or changes to existing services?

6. Is there any group not receiving enough health care? If so, what group? And why?
7. Is there anything else you would like us to know?
Additional Questions
1. How do people in this community get information about health? How do you get information about health?
2. Have you or someone close to you ever experienced any challenges in trying to get healthcare services? If so, what happened?
3. What is the major environmental issue in the county?
4. Describe collaborative efforts in the community. How can we improve our level of collaboration?
5. What are the strengths related to health in your community? Prompt: Specific strengths related to healthcare? Prompt: Specific strengths to a healthy lifestyle?
6. If you had \$100,000 to spend on a healthcare project in the county, how would you spend it? Key Themes
Summarize the top 2-3 themes from this focus group discussion.
1.
2.
3.

Appendix D. Community Resources

Link to Community resources - NC 211

North Carolina Division of Workforce Solutions https://www.ncworks.gov/admin/gsipub/htmlarea/uploads/CRAG/Duplin County.pdf

Contact Duplin County Health Department at 910-296-2130 for a printed list.