

**2014
Pamlico County
Community Health Assessment
(CHA)**

Prepared by:
Pamlico County Health Department
Management Team

Acknowledgements

The 2014 Community Health Assessment report was prepared by the Community Health Assessment Steering Committee, Pamlico County Health Department's Management Team and members of the Community Health Assessment (CHA) Work Group. The Pamlico County Health Department would like to thank the following individuals and groups for their assistance during the course of this assessment:

- The Community Health Assessment Project Facilitators who were responsible for coordinating and leading the CHA process.
- The Advisory Group and community member agencies for their dedication and guidance in making this assessment a collaborative effort to collect local data in an effort to discover the community's viewpoint and concerns about life in the community, health concerns, and other issues important to the residents of Pamlico County.
- The Community Health Assessment Work Group, which had a broad representation of Pamlico County residents and representatives from strategic agencies and organizations. They committed time and effort necessary to make the assessment a success.

The Community Health Assessment Work Group was comprised of agency representatives from Craven, Jones and Pamlico counties. The work group team consisted of:

- Rachel Ward, Craven County Smart Start
- Kelly Beasley, Craven County Cooperative Extension Office
- Belinda Barnhill, Craven Community College
- Caroline Jones, Craven Community College
- Tonya Cedar, Eastern Carolina Council on Government
- Kim Grissom, Craven County Senior Services
- Shanae Godley, Public Health Preparedness & Response, Department of Health & Human Services
- Becky Johnson, Pamlico Community Health Center
- John Eddie, Jones County Board of Health
- Lisa Davis, Jones County Health Department
- Angelica Hall, Jones County Health Department
- Violet Ollison, Pamlico County Senior Services
- Richard Baldwin, Pamlico Partnership for Children
- Maree Minor, Pamlico County Schools
- Susan Husson, Interfaith Refugee Ministry
- Lisa Mayo, Craven County Health Department
- Denise Powell, New Bern Police Department
- Debbie Hodges, Craven County Schools
- Jennifer East, Craven County Schools
- Adrienne Payton, Twin Rivers YMCA
- Debi Grzeslo, Oral Health Section, Department of Health & Human Services
- Eileen Bress, Monarch
- Shirin Scotten, Coastal Coalition for Substance Abuse Prevention
- Eddie Games, Craven County Parks & Recreation
- Amy Crompton, Jones County Health Department
- Megan McGarvey, CarolinaEast Health System
- Jennifer Blackmon, Craven County Health Department
- Debra Yarbrough, Craven County Health Department
- Elizabeth Junak, Craven County Health Department

- A special “thank you” to Sarah Gibbs of Pamlico County Health Department. Sarah work vigorously to distribute health opinion surveys at community events, area churches and to various organizations throughout the county.

Purpose

The North Carolina Department of Health and Human Services require Local Health Departments to conduct a Community Health Assessment (CHA) every three-four years. Community health assessments are used to identify priority health issues and to plan interventions to build healthier communities with the ultimate goal of improving the health of our community.

A State-of-the-County's Health (SOTCH) Report is required for local health departments during each of the interim years. The SOTCH updates leaders, partners and community on the progress towards the public health goals identified in the CHA.

The CHA is required of all public health departments in the consolidated agreement between the North Carolina Division of Public Health and local public health departments. Furthermore, it is also required for local public health accreditation through the North Carolina Local Health Department Accreditation Board.

The Affordable Care Act requires all not-for-profit hospitals to complete a Community Health Needs Assessment (CHNA) which is similar to, though not identical, to the Community Health Assessment that each North Carolina health department is currently required to conduct. The North Carolina Division of Public Health has allowed counties to sync with local hospitals for a three year cycle in order to avoid duplication of efforts and to pool resources, which Craven, Jones and Pamlico County Health Departments all did.

There are 8 phases in the CHA process:

1. Establish a community health assessment team
2. Collect primary data
3. Collect secondary data
4. Analyze & interpret county data
5. Determine health priorities
6. Create the CHA document
7. Disseminate CHA document
8. Develop community health action plans

Executive Summary

The Community Health Assessment advisory team held their first meeting on February 14, 2014. A decision was made between health departments in Craven, Pamlico and Jones counties and the CarolinaEast Health System to form a partnership to gather information on each community that would be used by each health department to complete their own Community Health Assessment. CarolinaEast would use the three documents to complete their Community Health Needs Assessment. Using the same survey questionnaire would allow all to identify common issues and leverage existing resources to coordinate initiatives and avoid duplicate efforts.

The CHA advisory team met monthly to provide feedback to the CHA process, review statistics, survey data and other forms of information about the county. Those involved decided to create a digital basic questionnaire that could be used by each county with a portion of the assessment that would address each county. Filters would be used to extract information. They also provided support for data collection and ensured community engagement.

The advisory team consisted of Tamara Jones from Pamlico County Health Department; Elizabeth Junak, Jennifer Blackmon and Debra Yarbrough from the Craven County Health Department; Amy Crompton of Jones County Health Department and Megan McGarvey from CarolinaEast Health System.

A Community Health Assessment Steering Committee was formed in March 2014 and consisted of 25 dedicated community members and representatives from various agencies throughout Craven, Jones and Pamlico County. It consisted of representatives from the following groups:

- County and city government
- Educational Institutions
- Faith-based organizations, including refugee ministry
- Health care providers
- Public service providers
- Oral health
- Substance prevention
- Mental health

The steering committee had its first meeting on March 27, 2014 in the auditorium of CarolinaEast Health System. An orientation was provided to the community partners by the advisory team. The orientation included the concept and purpose of the Community Health Assessment, steps to a successful CHA, a proposed timeline, and the CHA/State of the County Health Report cycle.

The steering committee developed a survey questionnaire over the course of five months using the Healthy Carolinians template as a guide. The tool explored Healthy North Carolina 2020 focus areas which include tobacco, physical activity, nutrition, injury, STD/unintended pregnancy, maternal/infant health, substance abuse, mental health, infectious disease/foodborne illnesses, oral health, social determinants of health, environmental health, chronic disease and cross-cutting issues. We added several questions to address local issues.

Pamlico County chose to utilize three methodologies to collect surveys:

- The survey was placed on the Health Department's website using Survey Monkey and promoted throughout the county for voluntary completion.
- Surveys were available in the waiting rooms at the health department, Carolina East Health System and Pamlico Community Health Center. Surveys were also available at Pamlico County Public Library and Pamlico Community College's library.
- The survey was administered to residents at churches, community events and community meetings. The hospital, CarolinaEast Health System, purchased first aid kits with community health assessment logo on them to give out to survey participants as an incentive.

Assessment Document and Process

This Community Health Assessment report was created over the course of six months and is based on both primary and secondary data sources. The report was created by community partners with various backgrounds. The secondary data was gathered from many sources and are cited throughout the document and the appendices. The process included members of the community in every phase in an effort to identify true needs of Pamlico County.

The health department management team met to analyze and analyze data focusing on data changes, trends and emerging issues. Data was compared to previous years and peer counties. Camden, Currituck, Perquimans and Polk counties were chosen as peer counties because of their similarity in population.

Discussion were held to determine what the data meant to the community. Community members were invited to Goose Creek Island Community Center on January 29, 2015 to assist with identifying priorities. Once all of this data was carefully analyzed the groups chose the top three health priorities for our community to target over the next three years:

- **Substance Abuse**
- **Obesity**
- **Behavioral/Mental Health**

What's Next?

This document will be shared with the community. It will be publicized on Pamlico County website and available at the Pamlico County Public Library and the library at Pamlico Community College. A hard copy of this document will also be sent to the North Carolina Division of Public Health.

Community Health Action Plans will be created using evidence-based interventions and Healthy North Carolina 2020 objectives. These plans will address priority health issues.

During the two interim years between community health assessments, Pamlico County Health Department will create a State of the County Health (SOTCH) Report. The report will also include a review of major morbidity and mortality data for the county, a review of the three health concerns selected as priorities, progress made in the last year on these priorities, a review of any changes in the data that guided the selection of these priorities, other changes in our county that affect health concerns (such as economic and/or political changes, new funds or grants available to address health problems), new and emerging issues that affect health status and ways community members can get involved with ongoing efforts.

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Community Profile

Historical Information

Pamlico County was formed from a part of Craven County in 1872. Parts of Beaufort County were added in 1874 and 1875. The first permanent European settlers arrived in the early 1700's. Pamlico County was inhabited by the Pampticoe Indians, from whom Pamlico got its name. The Pampticoe Indians were part of the Algonquin Indian Nation. These Indians referred to the area "Tatakua" or where the land and sea meet the sky. After the Tuscarora War in 1711, Scotch and English colonist came to the area.

Geographical Information

Pamlico County is located in Eastern North Carolina with a population of 12,953 in 2013, according to the US Census Bureau. The county is relatively flat, with rich soils ideal for growing tobacco, soybean and cotton. The county is bounded by the Goose Creek and the Pamlico River on the north. The upper Broad Creek and Craven County forms the county's western boundary. The Pamlico Sound lies to the east. The Neuse River lies to the South. The nearest metropolitan area is Greenville, located 55 miles northwest. The county is 130 miles east of Raleigh and 112 northeast of Wilmington.

Adjacent Counties

- Beaufort County – North
- Hyde County – Northeast
- Carteret County – Southeast
- Craven County – Southwest

Environmental Rankings

The 2014 County Health Rankings ranked the physical environments in Pamlico County as 9th out of the 100 counties in Pamlico County. This is the highest ranking received by Pamlico County and is up from 29th in 2013. The physical environment measures change each year, and in 2014 included:

- Air pollution – particulate matter in micrograms per cubic meter
- Drinking water violations
- Severe housing problems
- Driving alone to work
- Long Commute – driving alone

Demographic Information

According to the US Census Bureau, the 2013 population of Pamlico County is 12,953. The population has decreased 1.5% since the 2010 census. Pamlico County is comprised of 10 incorporated towns (Alliance, Arapahoe, Bayboro, Grantsboro, Hobucken, Mesic, Minnesott Beach, Oriental, Stonewall and Vandemere). Bayboro is the county seat.

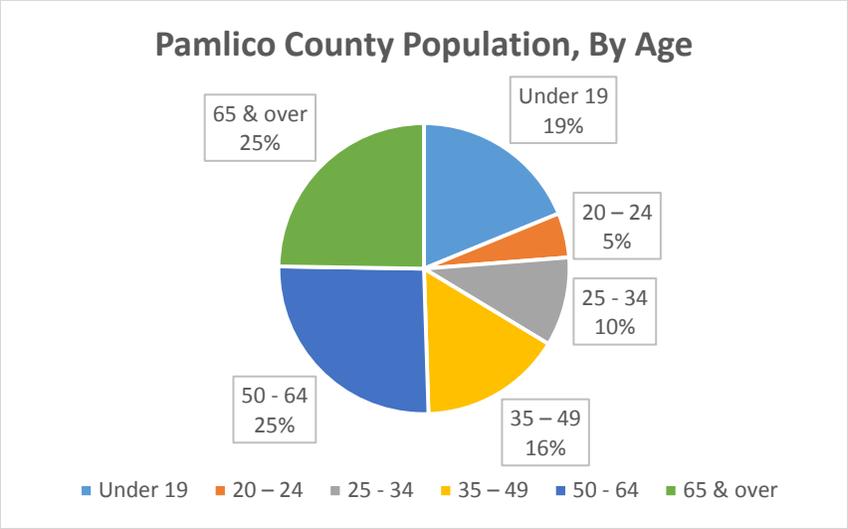
Pamlico County has 7, 522 housing units with 5,146 households. There are on average 2.42 persons per household and the average home ownership rate is 81.6%.

The following table and pie chart outlines the Pamlico County population, by age:

Age	By Percent
Under 19	19
20 – 24	5
25 - 34	10
35 – 49	16
50 - 64	26
65 & over	25

Source: US Census, 2013

The population is spread out with 19% under 19, 5% 20 to 24, 52% from 25 to 64 and 25% who were 65 years of age or older. 51.2% of the population in Pamlico County are males; 48.8% are females.



Source: US Census, 2013

The following table outlines the racial composition of Pamlico County:

Race	Percent
White	75
African-American	21
Hispanic/Latino	4
Other Non-Hispanic	Less than 1

Source: US Census, 2013

Minorities accounted for 25% of the population in Pamlico County.

Socioeconomic Information

The median household income in Pamlico County is \$43,853 and the percentage of persons living below poverty is 17.3%. The poverty level for the state of North Carolina is 17.9%; it is 14.5% nationally (US Census Bureau, 2013).

Pamlico County has a total work force of 4,915, which is 38% of the total population. The unemployment rate in December 2014 was 6%. The table on the next page provides a list of the major employers in Pamlico County (NC Department of Commerce, 2014).

Major Employers in Pamlico County	
Camp Sea Gull For Boys	250-499
YMCA	250-499
Pamlico Correctional Facility	100-249
Pamlico Community College	100-249
Garland Fulcher Seafood Company	50-99
Grantsbrook Nursing & Rehab	50-99
Pamlico County High School	50-99
Hospice Thrift Shop	50-99
Camp Don Lee	50-99
Pamlico Middle School	50-99

Source: North Carolina Works, 2014

According to the 2014 Community Health Opinion survey, most of Pamlico County residents overwhelmingly think Pamlico County need 1) more employment opportunities and 2) higher paying jobs for improvement in their neighborhood or community.

Health Insurance

Number			Rate per 100,000	
Year	Pamlico County	Peer Average	Pamlico County	Peer Average
2010-2011	2,000	2,500	17.2	16.3%
2008-2009	1,961	2,644	20.3	19.3%

Source: North Carolina Institute of Medicine
Peer Counties: Camden, Currituck, Perquimans, Polk

This rate has decreased from 2008-2009 to 2010-2011. Along with changes to the health insurance system that guarantee access coverage to everyone regardless of pre-existing health conditions, the Affordable Care Act includes a requirement that most Americans obtain health insurance or pay a tax penalty. Health insurance itself does not ensure access to care however uninsured individuals are less likely to receive preventive and diagnostic health care services and in turn are diagnosed at a late stage of the disease. There are often factors such as whether the provider accepts the individual's insurance, lack of transportation, long waits to get an appointment, inability to pay the high deductible or copay for receiving treatment.

Education

Pamlico County is served by two public school system, Pamlico County Schools and Arapahoe Charter School and one private, Pamlico Christian School. The 2014 graduation rate for Pamlico County was 92.9%. In North Carolina, the four-year high school graduation rate increased to 83.8%, up from 82.5% in 2012-13. Unfortunately, certain groups of students such as special education, low-income and minority students continue to lag behind.

Childcare

According to the 2014 Community Health Opinion survey, most of Pamlico County residents overwhelmingly think Pamlico County is a good place to raise children with 10% saying “strongly agree” and 49% saying agree when asked, “How do you feel about this statement , “My County is a good place to raise children”?.

Services for childcare in Pamlico County are administered through Pamlico Partnership for Children. Smart Start strives to assure that all children in North Carolina enter school healthy and ready to succeed. Smart Start serves children 0 – 5 through a variety of programs that help to provide access to high quality and affordable childcare, health care and other critical services. For Pamlico County, there are 10 licensed child care facilities. For Pamlico County parents seeking childcare, affordability of child care services is the main problem they face. As of March 2015, there were 90 kids on a waiting list for child care assistance program administered by the Department of Social Services; however, the number changes from week to week.

Crime

The Pamlico County Sheriff’s Office is responsible to enforce North Carolina laws in Pamlico County. The responsibilities include county patrols, investigating crime and apprehending suspects. Within the Town of Oriental, that responsibility is shared with the Oriental Police Department.

In 2013, the index crime rate in Pamlico County, 2.886.2 per 100,000 people, is much lower than state average, 3,506.2 per 100,000. Crime Index includes the total number of murders, rapes, robberies, aggravated assaults, burglaries, larcenies, and motor vehicle thefts.

Faith Community

Faith and spirituality play a significant role in the health and well-being of many Pamlico County individuals and families. There are approximately one hundred Christian churches of all denominations in Pamlico County. Religions with the most number of churches in Pamlico County include United Methodists and Free Will Baptist. These also have the largest congregations.

Recreation

Pamlico County is located in Coastal Plains section of North Carolina at the confluence of the Neuse and Trent Rivers. The easy access to water, the terrain, as well as the temperate climate lends itself to a plethora of outdoor recreation including sailing, boating, fishing, hunting and golf, and a host of other activities. Pamlico County Parks & Recreation has site control of 5 parks, 3 of which are located within the Bayboro Vicinity. The town of Oriental has three parks. For more information about Pamlico County Parks & Recreation Department, visit, www.pamlicocounty.org.

Air and Water Quality

The environment in which individuals live and work affects their health. According to North Carolina Department of Environment and Natural Resources, ozone levels have risen in recent years due to increased traffic, industry, and warmer weather. Residents can now visit www.airnow.gov to receive Greenville's air quality forecast.

The two biggest air quality problems in North Carolina are ground-level ozone and particle pollution. Both pollutants are caused mainly by emissions from cars and trucks, and from the coal-burning power plants that support most of our electricity. In Pamlico County, safety inspections are required for cars and trucks; emissions systems test are not required.

Water pollution has been linked to both acute poisonings and chronic effects. The local Health Department's division of Environmental Health is responsible for monitoring the private wells and septic system in the county. The Pamlico County Waster System (PCWS) routinely monitors for over 150 contaminants in customers' drinking water. Pamlico County Water System supplies clean, safe drinking water to the citizens of Pamlico County. The source of the water supply is currently from ground water that is pumped from the Castle Hayne aquifer. The water is then treated from five water treatment facilities and distributed county-wide to customers through approximately 300 plus miles of water distribution lines. PCWS currently provides service to more than 6000 homes and businesses.

Transportation

Transportation is a key element in providing health care. So many people do not have private transportation or family that can provide it. Pamlico County is part of the Regional Transportation System with Craven and Jones County. Elderly/disabled ride for free; rural and general public passenger only pays \$2.00 per one-way trip.

Health Factors/Clinical Care Services

The following table outlines a snapshot of clinical care health factors for Pamlico County:

MATCH Pamlico County	Pamlico Value	NC Value	Top US Performers
Clinical Care NC County Rank: 56			
Uninsured Adults	19%	19%	11%
Primary care providers ratio	2639:1	1,462:1	1,051:1
Preventable hospital stays rate per 1,000 Medicare enrollees	39	60	46
Diabetic screening	92%	88%	71%
Mammography screening	76%	68%	71%

Source: <http://www.countyhealthrankings.org/app/north-carolina/2014/rankings/pamlico/county/outcomes/overall/snapshot>

Existing Health Care Resources

Access to care continues to be a health issue for Pamlico County residents. Information provided in this section gives a brief overview of health care professional currently available in the county compared with surrounding counties and the comparable (peer) counties of Camden, Currituck, Perquimans and Polk.

This is followed by a listing of key resources related to Community Health Assessment priority findings. It is by no means a comprehensive listing of resources, rather a snapshot of services and resources available.

Comparative Data

Information in the following tables shows how Pamlico County compares with the state and surrounding counties as it relates to health care providers. The data is quite comprehensive; therefore, only specific items were selected that were more in line with the CHA findings.

According to the 2014 Community Health Opinion survey, the opinions of surveyed Pamlico County residents were split about when asked about healthcare in this county with 27.91% saying “agree” and 27.91% saying “disagree” when asked, “How do you feel about this statement , “There is good healthcare in my County”?.

2012 Health Professionals per 10,000 Population Pamlico and Surrounding Counties					
Health Professionals	Pamlico	State	Craven*	Beaufort	Carteret
Physicians	5.3	22.3	22.1	11.9	17.7
Primary Care Providers	4.5	7.6	6.8	5.4	5.9
Dentists	3.8	4.5	4.2	3.5	6.9
Dental Hygienists	5.3	5.6	5.4	5.2	6.7
Pharmacies	6.1	10.1	7.5	9.2	11.6
Registered Nurses	38.7	103.8	96.9	85.4	79.7
Physician Assistants	2.3	4.1	3.2	2.3	3.9
Licensed Practical Nurses	11.4	18.5	21.2	19.2	19.6
Psychologists	0.8	2.2	1.3	0.2	1.6
Psychological Associates	0.0	0.9	1.1	1.3	0.4

Source: North Carolina Health Professions Data System

- In comparing Pamlico County with neighboring counties, Pamlico County has a much lower number of providers excluding dental hygienists. Studies have shown direct link between oral infections and other conditions, such as diabetes, heart disease, stroke and poor pregnancy outcomes.
- Pamlico County is below the state's average in all categories.
- Pamlico County is home to 5 pharmacies, 3 veterinary offices, 2 dental offices, 2 primary care practices, 1 community health center and 1 urgent care agency.
- Eastern Carolina Behavioral Health is the regional Local Mental Health Managing Entity for nineteen counties. Although people with private insurance coverage are not eligible for routine services funded by State or Federal dollars, ECBH does respond to all behavioral health crisis calls.
- According to the 2014 Community Health Opinion survey, Behavioral/Mental Health was an identified priority to residents. Individuals with poor mental health may have difficulties with interpersonal relationships, productivity in school or the workplace, and their overall sense of well-being. Depression is linked to lower productivity in the workplace, is a leading cause of suicide, and has been associated with increased use of health care services
- HOPE Clinic located in the Pamlico County Health Department is a non-profit community clinic staffed primarily by volunteers. They provide free healthcare services for adults that are medically uninsured and whose income is less than 200% of poverty level.

2012 Health Professionals per 10,000
Peer Counties: Camden, Currituck, Perquimans and Polk

Health Professionals	Pamlico	State	Camden	Currituck	Perquimans	Polk
Physicians	5.3	22.3	0.0	4.2	2.2	13.8
Primary Care Providers	4.5	7.6	0.0	1.7	2.2	6.4
Dentists	3.8	4.5	0.0	1.7	1.5	4.4
Dental Hygienists	5.3	5.6	3.0	0.8	4.4	4.9
Pharmacists	6.1	10.1	0.0	1.3	2.9	6.9
Registered Nurses	38.7	103.8	17.1	26.5	21.2	68.1
Licensed Practical Nurses	11.4	4.1	3.0	15.1	13.2	25.7
Physician Assistants	2.3	18.5	0.0	1.7	1.5	3.0
Psychologists	0.8	2.2	0.0	0.0	0.0	3.0
Psychological Associates	0.0	0.9	0.0	0.4	0.7	0.02

In comparing Pamlico County with peer counties, Pamlico County has only more dental hygienists. Polk County has more physician, primary care providers, dentists, pharmacists, twice as many nurses (both registered nurses and licensed practical), physician assistants, mental health resources than Pamlico County.

Health-Related Resources

This directory, which is located in the Appendix, was received by East Carolina Behavioral Health's NC 2-1-1 system. This document is offered strictly as a resource and should not be considered a recommendation, referral or endorsement to any particular provider. To access to information and referral line, call 2-1-1 or 1-888-892-1162. Any agencies or individuals wishing to make a revision, addition or deletion to this document should visit www.nc211.org.

Health Indicators

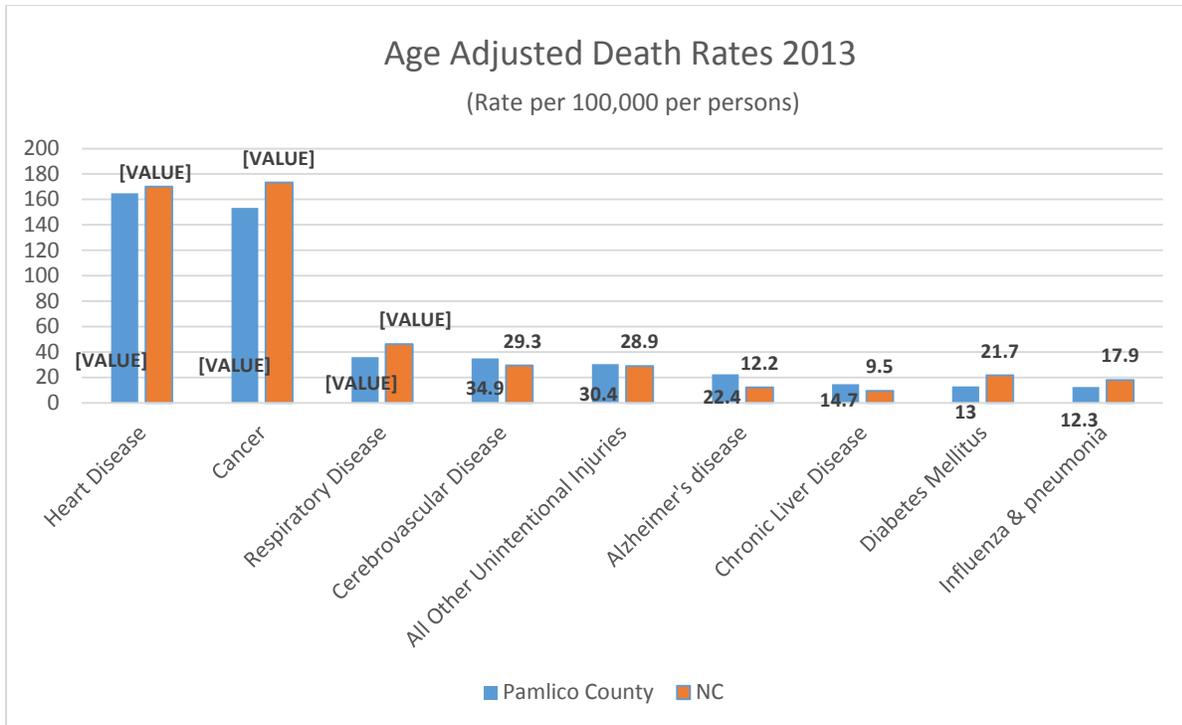
Deaths

The 2013 age adjusted death rate for Pamlico County is 720.6 per 100,000 persons, which is lower than the NC state rate of 790.9 per 100,000 persons.

Leading Causes of Death

According to the State Center for Health Statistics, the top leading causes of death in Pamlico County were:

1. Heart Disease
2. Cancer
3. Chronic Lower Respiratory Diseases
4. Cerebrovascular diseases
5. All Other Unintentional Injuries
6. Alzheimer's Disease
7. Chronic liver disease & cirrhosis
8. Hypertension & Renal Disease
9. Diabetes
10. Influenza & Pneumonia



Pamlico County's death rates in the following areas are lower than the state's average: Heart Disease, Cancer, Respiratory Disease, Diabetes and Influenza & Pneumonia.

Pamlico County's death rates in the following areas are higher than the state's average: Cerebrovascular disease, All Other Unintentional injury, Alzheimer's disease, Chronic Liver Disease.

Trends, Five Leading Causes of Death In Pamlico County, Rate, by Year 2008-2013 per 100,000

Rank	Cause of Death	2008	2009	2010	2011	2012	2013
1	Heart Disease	155.5	155.2	165.4	163.6	168.4	164.8
2	Cancer	194.4	190.1	181.3	174.4	160.5	153.4
3	Respiratory Disease	42.6	40.5	37.0	41.4	34.5	36.0
4	Cerebrovascular Disease	42.6	40.5	37.0	41.4	34.5	39.8
5	All Other Unintentional Injuries	23.7	29.0	29.9	32.9	34.8	34.9

Source: NC State Center for Health Statistics

Disparities: 5 Leading Causes of Death in Pamlico County

Heart Disease have higher death rate in the minority versus the white population. Health disparities between the white and minority populations is a public health concern of the utmost importance at the local, state and national levels. Closing this gap is one of the Healthy People 2020 goals. Below is a table illustrating these disparities in Pamlico County from 2009-2013 per 100,000 persons.

Age-Adjusted Death Rates 2009-2013 per 100,000						
	Whites	African-American	American Indian	Other Races, non-Hispanic	Hispanic	Overall
Heart Disease	153.2	219.2	N/A	N/A	N/A	164.8
Cancer	159.8	139.0	N/A	N/A	N/A	153.4
Respiratory Disease	41.3	N/A	N/A	N/A	N/A	36.0
Cerebrovascular Disease	38.4	N/A	N/A	N/A	N/A	39.8
All Other Unintentional Injuries	34.6	N/A	N/A	N/A	N/A	34.9

Technical Note: Rates based on fewer than 20 cases (indicated by N/A)

Current Rates of Mortality in Pamlico

Heart Disease

Heart disease is the leading cause of death in Pamlico County and the United States. Heart disease is the leading cause of death for people of most ethnicities in the United States, including African Americans, Hispanics, and whites. The table below displays data showing the heart disease deaths per 100,000 persons over the last five years for Pamlico County, North Carolina and a group of peer counties of similar population to Pamlico County. The age-adjusted rate for 2013 indicate we are making improvements again to our numbers related to heart disease related deaths, however further work is needed to ensure continued progress.

**Heart Disease Age-Adjusted Death Rates per 100,000 Population
Comparing Pamlico County to NC and Peer Counties**

Year	Indicator Raw Values			Age Adjusted Rate		
	Pamlico	Peer Avg.	State	Pamlico County	Peer	State
2009	40	37	17,133	155.2	176.4	197.7
2010	34	43	17,090	165.4	182	184.9
2011	29	40	16,959	163.6	177.5	179.3
2012	36	33	17,291	168.4	173.7	174.4
2013	30	45	17,812	164.8	172.5	170.0

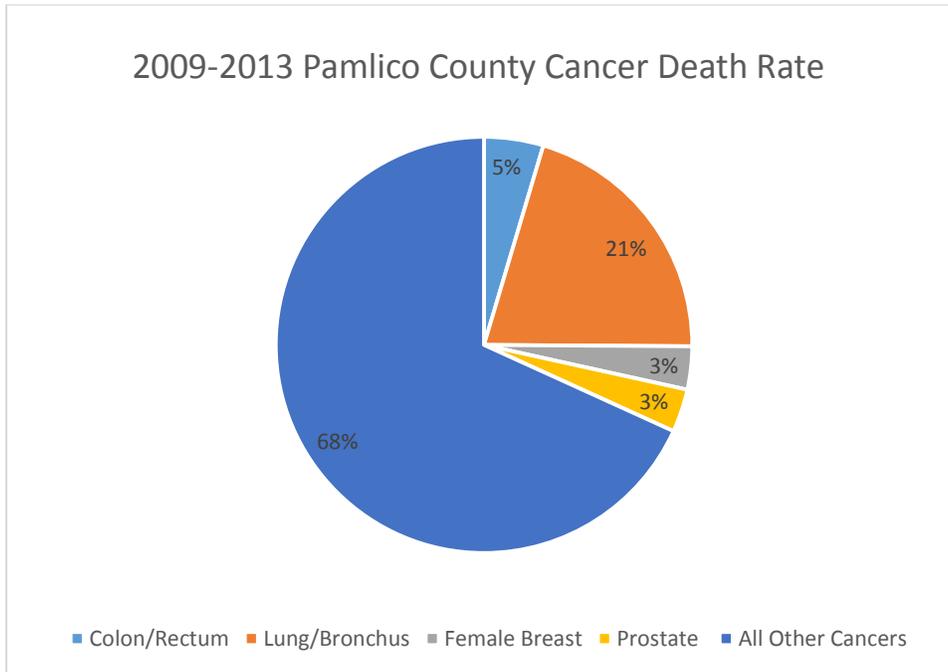
Source: NC State Center for Health Statistics

Peer Counties: Camden, Currituck, Perquimans and Polk

Cancer

Cancer is the leading cause of death in Pamlico. Cancer is expected to surpass Heart Disease as the leading cause of death nationally by the year of 2015. The major of cancer deaths occur in four sites: lung, colon, female breast and breast. The chart below illustrate the leading causes of cancer death in Pamlico County by site and the table compares cancer death rates in Pamlico County to the state rates and the rate our peers.

2009-2013 Pamlico County Cancer Death Rate



**Cancer Age-Adjusted Death Rates per 100,000 Population
Comparing Pamlico County to NC and Peer Counties**

Age Adjusted Cancer Death Rates			
Year	Pamlico County	Peer Avg.	NC
2009	190.1	181.3	188.8
2010	181.3	180	183.1
2011	174.4	177.4	179.7
2012	160.5	163.8	175.9
2013	153.4	162.7	173.3

Source: State Center for Health Statistics
Peer Counties: Camden, Currituck, Perquimans and Polk

The data above suggested that death rates caused by cancer has continuously declined in Pamlico County and North Carolina.

In 2010, 89 cancer cases were reported for Pamlico County residents. These numbers are expected to increase as the population ages. According to the Surgeon General’s Report, it is estimated that more than 85% of lung cancer result from smoking. Lung cancer is one of the most preventable cancers. Pamlico County is known for being a retirement area and our percentage of residents over 65 is growing. Below is a chart with the projected number of new cancer cases for Pamlico County in 2014.

2014 Projected Number of New Cases in Pamlico County	
Lung/Bronchus	19
Colon/Rectum	10
Female Breast	17
Prostate	19
All Cancer	115

Source: NC Cancer Registry

According to Center for Disease Control & Prevention, the leading cause of deaths for men versus women are as follows:

Leading Causes of Cancer Deaths, 2013			
Men		Women	
Lung	34	Lung	33
Prostate	12	Breast	15
Colon	6	Colon	4

Source: NC Cancer Registry

Cancer Disparities

Although cancer deaths have declined for both whites and African Americans in the United States, African-Americans continue to suffer the greatest burden for each of the most common types of cancer (National Cancer Institute). American white women have a higher incidence rate for breast cancer, although African-American women are most likely to die from the disease. African-American men have the highest incidence rate for prostate cancer in the United States and are more than twice as likely as white men to die of the disease (National Cancer Institute).

North Carolina 2011 Cancer Incidence Mortality, by Race				
	Incidence		Mortality	
	White	Minority	White	Minority
Lung	69.4	63.4	52.4	51.4
Prostate	123.8	195.5	17.9	46.5
Breast	84.5	91.4	11.4	15.9
Colon	36.2	43.7	12.7	19.8

Source: NC State Center for Health Statistics

Respiratory Diseases

Chronic lower respiratory disease refers to chronic (on-going) diseases that affect the airway and lungs. The most common disease of the lung is Chronic Pulmonary Disease (COPD) commonly known as emphysema or chronic bronchitis.

Emphysema is usually caused by smoking. Having emphysema means some of the air sacs in the lungs are damaged, making it hard for the body to get the oxygen it needs. Chronic bronchitis occurs when the cells lining inside of the lungs' airways are red and swollen. The airways in the lungs have become narrow and partly clogged with mucus that cannot be cleared. COPD develops over time and has no cure. At the onset, there is minimal shortness of breath, but overtime, people with COPD need oxygen treatment to help with shortness of breath. Cigarette smoking is the main cause of COPD. Emphysema and chronic bronchitis also are associated with lung cancer.

The table below shows and compares the rate of data caused by chronic lower respiratory disease during 2009 – 2013 for Pamlico County, peer county averages, and North Carolina. The data explain that death rates for chronic lower respiratory deaths steadily fluctuates. In North Carolina, from 2009 – 2013, the death rate for the respiratory disease declined 2 percent.

**Chronic Lower Respiratory Disease Age-Adjusted Death Rates per 100,000
Population Comparing Pamlico County to NC and Peer Counties**

Age Adjusted Chronic Lower Respiratory Death Rates			
Year	Pamlico County	Peer Avg.	NC
2009	40.5	36.2	48.0
2010	37.0	42.3	46.4
2011	41.4	40.7	46.6
2012	34.5	38.4	46.6
2013	36.0	44.4	46.1

Source: State Center for Health Statistics
Peer Counties: Camden, Currituck, Perquimans and Polk

Cerebrovascular Disease

According to the National Stroke Association, cerebrovascular disease is a group of brain dysfunctions related to disease of the blood vessels supplying the brain. A stroke is an interruption of the blood supply to any part of the brain. A stroke is sometime called a “brain attack”. During a stroke, blood flow to a part of the brain is interrupted because of a blood vessel in the brain is blocked or bursts. If blood flow is stopped for longer than a few seconds, the brain cannot get blood and oxygen.

High blood pressure is the number one risk factor for strokes. The following also increases one’s risk for stroke: diabetes, family history of stroke, heart disease, high cholesterol, and increasing age. Men have more strokes than women, but women have a risk of stroke during pregnancy and the weeks immediately after pregnancy. The following factors can increase risk of bleeding in the brain, which make you more likely to have a stroke: alcohol use, bleeding disorders, cocaine use, and head injury. The most common stroke signs and symptoms are: (1) sudden numbness or weakness to the face, arm, or leg, (2) sudden confusion or trouble speaking and understanding others, (3) sudden trouble seeing in one or both eyes, (4) sudden dizziness, trouble walking or loss of balance and coordination, and (5) sudden severe headache with no known cause. Knowing what to look for and reacting quickly could save one’s life.

The table below shows and compares the rates of deaths caused by cerebrovascular disease during 2009-2013 for Pamlico County, peer county averages, and North Carolina. Since 2011, the death rate for cerebrovascular disease has been declining in Pamlico County and NC. Still, the death rate in Pamlico County is higher than North Carolina's and much higher than peer county averages.

**Cerebrovascular Disease Age-Adjusted Death Rates per 100,000 Population
Comparing Pamlico County to NC and Peer Counties**

Age Adjusted Cerebrovascular Disease Death Rates			
Year	Pamlico County	Peer Avg.	NC
2009	53.5	40.5	51.3
2010	47.0	39.4	47.8
2011	54.7	37.1	46.0
2012	47.9	37.5	45.1
2013	39.8	37.1	43.7

Source: State Center for Health Statistics
Peer Counties: Camden, Currituck, Perquimans and Polk

All Other (Non-motor) Unintentional Injuries

As stated by the National Academy of Sciences in the 1988 report *Injury Control*, "Injury is probably the most under-recognized major public health problem facing the nation today," Unintentional non-motor vehicle accident (MVA) injuries include deaths that results from falls, fire, poisonings, drowning, suffocations, choking, recreational and sports-related activities. Among children (ages 1-19) unintentional injury is the number one cause of death. In 2013, 2,764 North Carolinians died from other unintentional injuries.

The table below shows and compares the rates of deaths caused by all other unintentional injuries during 2009-2013 for Pamlico County, peer county averages, and North Carolina. Since 2009, the death rate for unintentional injuries has been increased by 5% in Pamlico County. The death rate in Pamlico County is higher than North Carolina's and the peer county averages.

All Other Unintentional Injuries Death Rates per 100,000 Population Comparing Pamlico County to NC and Peer Counties

Age Adjusted All Other Unintentional Injuries Death Rates			
Year	Pamlico County	Peer Avg.	NC
2009	29.0	33.6	28.7
2010	29.9	32.0	28.6
2011	32.9	30.5	29.2
2012	34.8	31.6	29.4
2013	34.9	29.3	29.3

Source: State Center for Health Statistics

Peer Counties: Camden, Currituck, Perquimans and Polk

Live Births

The Pamlico County live birth rate for 2013 is 7.3 per 1,000 women compared to 12.6 per 1,000 women for the state of North Carolina and 13 per 1,000 women nationally. The Hispanic birth rate in Pamlico County is twice that of whites and Blacks. The large population of seniors residing Pamlico County is one reason for a low birth rate in the county.

Infant Health

In Pamlico County, our percent of low birth weight babies, 8.1 per 1,000 population is lower than the state percentage, 9.0 per 1,000 population. Of concern is the disparity of low birth weight babies between the white and minority populations. The following tables compare the low birth weight and very low birth rates of Pamlico County and North Carolina.

2013 Low Birth Weight per 1,000 (=2500 grams)

	White	Minority	Total
Pamlico County	7.6%	10.7%	8.1%
North Carolina	7.5%	13.9%	9.0%

Source: NC State Center for Health Statistics & Center for Disease Control

2013 Very Low Birth Weight per 1,000 (=1500 grams)

	White	Minority	Total
Pamlico County	2.0%	3.6%	2.1%
North Carolina	1.3%	3.3%	1.8%

Source: NC State Center for Health Statistics & Center for Disease Control

Maternal Health

According to the NC Baby Book, there were 79 births in Pamlico County in 2013. 50 percent of babies delivered were to moms aged 25 -34 years old. The table below shows and compares the rates of teen pregnancy rates per 1,000 population during 2009-2013 for Pamlico County, peer county averages, and North Carolina. The teen pregnancy rate has been drastically declining in Pamlico County since 2010; however, it is still higher than the peer county average. The table also shows the state's teen pregnancy rate has dropped by almost 35% since 2009.

Teen Pregnancy Rate per 1,000 15-19 year-old girls

Indicator Raw Value			Indicator Rate			
Year	Pamlico County	Peer Avg.	State	Pamlico County	Peer Avg.	State
2009	23	22	18,142	64.1	42.5	74.3
2010	29	23	15,957	82.2	43.7	49.7
2011	20	19	13,909	59.3	31.2	43.8
2012	14	16	12,535	41.8	35	39.6

Source: NC State Center for Health Statistics

Peer Counties: Camden, Currituck, Perquimans, and Polk

An area of concern still is number of pregnant moms that smoke in Pamlico County. Statistics show that twice as many pregnant moms smoke in Pamlico County.

Infectious Diseases

Many infectious diseases, such as chicken pox, measles, influenza, and hepatitis B can be prevented through immunizations. The 2014 immunization rate for children appropriately immunized by age 24 months in Pamlico County was 77% which far exceeds the state rate of 69%. The 2014 immunization rate for children appropriately immunized by age 24 months seen by Pamlico County Health Department was 85% which slightly lower than the state rate of 86%. This is an area that Pamlico County has consistently excelled.

Foodborne illnesses are among the most common of infectious disease. They can lead to acute illnesses, hospitalizations, and even deaths. Foodborne illnesses are not vaccine preventable but nonetheless are potentially preventable through safe food preparation and storage tactics.

HIV and AIDS

The graph below shows the number of new HIV infection cases in Pamlico County over the past five years. Pamlico County is ranked number 36th in the state when it comes the number of HIV cases; 43rd when it comes to AIDS cases. Although we have done well at managing the virus, there is work to be done in controlling the spread of the disease.

Year	2009	2010	2011	2012	2013
HIV	1	1	0	3	1
AIDS	1	0	1	0	1

Source: NC Dept. of Public Health, Communicable Disease Branch

Sexually Transmitted Infection Cases

The numbers of Sexually Transmitted Infection (STI) cases in Pamlico County have remained high over the last five years. Chlamydia continues to be our most prevalent STI, but **gonorrhea is also on the rise**. The graph below shows the number of STI cases for Pamlico County over the last five years.

Year	2010	2011	2012	2013	2014
Chlamydia	36	37	34	37	41
Gonorrhea	13	17	8	5	16
P/S Syphilis	1	0	0	1	0
L Syphilis	1	0	0	1	0

Source: NC Dept. of Public Health, Communicable Disease Branch

Obesity

North Carolina now has the 25th highest adult obesity rate in the nation, according to The State of Obesity: Better Policies for a Healthier America. In Eastern North Carolina, two thirds of all adults 69.3% reported they are overweight or obese (2013 BRFSS). Obesity is alarming because it may increase the risk for health problems, including some chronic diseases, and it is associated with excess morbidity and mortality. Four of the ten leading causes of death in the United States are related to obesity, including coronary heart disease, type II diabetes, stroke, and several forms of cancer. Obesity can also increase the severity of disease associated with hypertension, arthritis and other musculoskeletal problems. In 2011-2012, the prevalence of obesity in the United States was one-third of adults at 34.9% and 17% of children. The prevalence of obesity among adults and children remains high and therefore public health efforts and surveillance is important.

Adults who have a body mass index greater than 25.00 (Overweight or Obese)		
Year	Eastern NC	NC
2013	69.3%	66.1%
2012	67.8%	65.8%
2011	68.4	65.1
2010	70.2%	65.3%
2009	69.6%	65.4%

Source: NC State Center for Health Statistics

Tobacco Use

Tobacco use continues to be the single leading cause of preventable illness and death in the United States. Smoking harms nearly every organ of the body and causes many diseases. According to the 2013 Behavioral Risk Factor Surveillance Survey, 20.9% of respondents in Eastern North Carolina (ages 18+) reported they currently smoke compared to 20.2% for North Carolina. Across the nation in 2014, the prevalence of cigarette smoking among adults ranged from 11.8% to 29.0%. North Carolina ranked 29th among the states for cigarette smoking and 36th for smokeless tobacco use. (Behavioral Risk Factor Surveillance System 2011)

Adults who Currently Smoke		
Year	Eastern NC	NC
2013	20.9%	20.2%
2012	22.2%	20.9%
2011	23.9%	21.8%
2010	20.8%	19.8%

Source: Behavioral Risk Factor Surveillance System

Suicide

In 2008, suicide was the fourth leading cause of injury death in North Carolina and was among the top five leading cause of injury death for North Carolinians aged 10 years and older. Depression, which is the second leading cause of life lived with a disability in the state, is a leading cause of suicide.

According to the North Carolina State Center for Health Statistics, the age-adjusted suicide rate for Pamlico County was 22.4 per 100,000 residents from 2009-2013 compared to North Carolina's 12.2 rate. There has been 13 suicides in Pamlico County from 2009 – 2013, ranging from 0 - 6.

Age-Adjusted Suicide Death Rate per 100,000 Comparing Pamlico County to NC and Peer Counties

Indicator Raw Value			Indicator Rate			
Year	Pamlico County	Peer Avg.	State	Pamlico County	Peer Avg.	State
2009	4	2	1,161	27.1	13.5	11.9
2010	6	3	1,160	34.5	13.8	12.1
2011	2	2	1,196	28.0	13.2	12.1
2012	0	2	1,281	23.1	11	12.2
2013	3	4	1,272	22.4	11.8	12.2

Source: NC State Center for Health Statistics

Peer Counties: Camden, Currituck, Perquimans, and Polk

Substance Abuse

From 1999 to 2012, deaths involving opioid pain medications such as methadone, oxycodone, and hydrocodone increased by over 400% in North Carolina (Department of Health and Human Services). Here at the Health Department we know that we are seeing a growing number of patients in the clinics with substance abuse issues. Access to outpatient treatment for substance abuse is difficult as there are limited numbers of providers. There are support groups available in the county such as Al-Anon and Alcoholics Anonymous.

Unintentional poisoning has escalated over the last four years. The unintentional poisoning related to medication more than doubled from 2011 until 2013. Unintentional deaths are not limited to North Carolina. Rates are increasing nationally. According to the CDC 9 out of 10 poisoning deaths are caused by drugs.

Substance Abuse Prevention

Pride surveys were conducted in 2013 to assess youth perception and use of alcohol and prescription drugs. Pride Surveys were completed in Craven, Jones, Carteret, Onslow and Pamlico County Schools. Pride Surveys are a helpful resource which assists local schools in measuring the number of students who participate in alcohol, tobacco and other drug use. Additionally, Pride Surveys can measure behavior on many crucial issues that can affect learning: family, discipline, safety, activities, gangs, and more. (NC Centers for Prevention Resources)

% of 9-12th Graders Reporting 30-Day Drug Use By County In Pride Surveys 2013

Location	Cigarettes	Alcohol	Marijuana	Prescriptions
Carteret	20.8	32.4	23.7	8.4
Craven	14.6	28.0	17.3	7.9
Jones	7.8	6.3	4.6	3.0
Pamlico	27.5	36.3	17.5	8.8

Health Priorities

All of the information in this report was presented to the Community Health Assessment Task Force and the Pamlico County Board of Health in a Power Point presentation. Based on the information presented they were asked to choose the top three health concerns they felt should be addressed for the next three to four years by both the Health Department and our community partners.

The results are as follows:

1. Substance Abuse
2. Obesity
3. Behavioral / Mental Health

Other issues that were not selected but will be addressed with existing Health Department initiatives are:

1. Suicide
2. Sexually Transmitted Disease & Unintended Pregnancy
3. Other Unintentional Injuries

Health Disparities and Challenges

Health disparities refer to the unequal distribution of health, illness, disease, suffering and death by social status, where social status includes race/ethnicity, sex/gender, socioeconomic status, geographical region, and other factors. Health in Eastern North Carolina is significantly poorer than health in the rest of North Carolina according to ECU Center for Health Disparities. Rates and outcomes of diseases are poorer for the economically disadvantaged, rural populations and minorities.

Populations at Risk

Minorities

For just about every health indicator mentioned in this report the statistics for the minority population are higher than those for the white population. There are many reasons for these results; higher numbers of minorities living at or below poverty level, cultural factors and access to health care are just a few. The Pamlico County Health Department and its partners continue to be dedicated to closing the gap. The health department offers access to those who are unable to pay due to income and utilize Language Services language line for those who are not English proficient considering cultural sensitivity and customer service. Pamlico County Health Department maintains a strong relationship with our African American Churches and hope to expand the numbers of health promotion/health education activities offered to their memberships.

Uninsured/Underinsured:

With the current state of the economy, the cost of health care, the cost of health insurance and unemployment at very high levels the numbers of uninsured in Pamlico County will continue to grow over the next four years. Access to health care for this population is limited. Many are denied access due to an inability to pay a medical bill in full. Often a diagnosis is made too late; therefore, resulting in a poor prognosis. Pamlico County Health Department works closely with HOPE Clinic, a non-profit clinic providing free medical, dental, and mental health services as well Pamlico Community Health Center, a community based health services center to reach this population.

Education

According to the North Carolina Institute of Medicine Task Force, higher levels of education are positively associated with higher income; thus people with

less education are more likely to live in poverty. The community survey revealed 84.4 % listed low income/poverty as number one of the top five issues which most affects quality of life in Pamlico County.

Pamlico County Health Department will continue to counsel parents and children about the importance of school and youth about taking responsibility for school work. Pamlico County is extremely fortunate to have Pamlico Community College for residents to further their education. Though the college is very small, programs really have a wonderful reputation.

Address

Where you live can be a critical factor for health and longevity. A set of maps produced by the Robert Wood Johnson Foundation's Commission to Build a Healthier America dramatically illustrates that your zip code may shed as much light on your life expectancy as your genetic code. The results showed the South East also known as the "Stroke Belt" is the most unhealthy region. The junk food prone areas with fewer grocery stores had lower life expectancies. Access to healthy food choices and physical activity is a big factor in improving health.

Summary

The community assessment process was a great collaboration of work by the Health Department, CarolinaEast Medical Center, Pamlico and Jones County Health Department and many of our community partners. The surveys also served as an excellent exercise to improve our skills with the incident command process. The use of GIS technology to randomly select and identify households for our door to door surveys has proved itself a very valuable tool.

Since our last community assessment in 2011 Pamlico County showed improvements in Cancer with a decrease from 174.4 per 100,000 to 153.4 per 100,000 persons in 2013. We also showed improvements in teen pregnancy with a decrease from 50.3 per 1,000 women in 2011 to 41.8 per 1,000 women in 2013. In addition we saw a decrease in infant mortality rates from 7.0 per 1,000 live births to 6.6 per 1,000 live births in 2013.

Although we have shown improvements in some areas there are others that will need continued work. Our rates of obesity continue to rise both at the local level and nationally. Heart diseases continues to be our leading cause of death with little change in our rates over the last five years

Surveys were completed both electronic and face-to-face to ask our residents what they felt were the most important health issues we should be addressing. All survey results and all of our county health data was presented to our community health assessment task force and to our other stakeholders. Once all of this data was carefully analyzed the groups chose the following three health issues to for our community to target over the next three years:

- Substance Abuse
- Obesity
- Behavioral / Mental Health

Now the real work begins. Many meetings will take place over the next few months with our community partners to formulate action plans to address each of our target areas. Each year in December, the Pamlico County Health Department will develop a State-of-the-County Report to inform our citizens where we are with our health data and what progress we have made toward our action plans. In 2017, another full assessment will be conducted and we will continue to work with our community stakeholders in an effort to make Pamlico a healthier place to live.

Through strong community partnerships, a strategic plan will be formulated based on these issues and an effort will be made to address each priority with at least one initiative in the next three years. The issues identified in this report will serve as a guide for the future course of Pamlico County Health Department and our community partners.

A special thanks goes out to all of those groups and individuals whose team efforts made this document a successful report.

