

2016 PERQUIMANS COUNTY COMMUNITY HEALTH ASSESSMENT

Albemarle Regional Health Services, Vidant Bertie, Vidant Chowan, and Vidant Roanoke-Chowan Hospitals, The Outer Banks Hospital, Sentara Albemarle Medical Center, Three Rivers Healthy Carolinians, Gates Partners for Health, and Healthy Carolinians of the Albemarle

*Comprehensive
Secondary Data
Report with
Primary Data
Summary*

March, 2017

Dear Community Member,

Your partnership in the Community Health Assessment process is important to the health of our residents. Albemarle Regional Health Services, Sentara Albemarle Medical Center, and Vidant Bertie and Chowan Hospitals continue to work together to provide this comprehensive report which illustrates the health status, health needs and improvements, as well as health resources in our communities. This document represents much time and effort by local health department staff, hospital staff, Healthy Carolinians members, and community members like you.

Factors such as the rural landscape of our counties and the diversity of our population continue to make the Albemarle region an exciting place to live, work, and learn, as well as create challenges in our systems of service delivery which drive the need for a continuum of programs. Through the Community Health Assessment process, we are allowed to analyze and prioritize our community's needs and strengths with the people of the seven counties.

Strategies are implemented to target needs identified in the 2016 Community Health Assessment priority health rankings selection in order to create increased opportunities for healthier outcomes in our communities. Relationships will continue to be formed and strengthened as we join together to address the needs. This document provides data and steps to ensure we empower our communities to seek available and potential resources.

Thank you for your continued interest in the health of our communities.

Sincerely yours,



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The Community Health Assessment (CHA) process requires much work and dedication from those who are committed to identifying and solving health problems within our communities to improve the quality of life for our residents. The first phase of this process is forming a CHA Leadership Team. It is essential that the CHA Team involve people who have significant influence in the county, as well as the people who are most affected by health problems. People from throughout the county must be mobilized during this process, therefore a broad representation of county residents, agencies, and organizations were invited to be a part of this team.

This document was developed by Albemarle Regional Health Services, in partnership with Sentara Albemarle Medical Center, Vidant Bertie Hospital, Vidant Chowan Hospital, Vidant Roanoke Chowan Hospital, and The Outer Banks Hospital as part of a local community health assessment process. We would like to thank and acknowledge several agencies for their contributions and support in conducting this health assessment:

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TABLE OF CONTENTS

Acknowledgments	1
List of Tables and Figures	12
Introduction	18
Assessment Methodology	20
Chapter One: Demographic Data	22
Geography	22
History	23
Population Characteristics	25
General Population Characteristics	25
Population by Township	25
Population Growth	26
Birth Rate	26
Population Density	27
Race and Ethnicity	27
Race and Ethnicity by Township	28
Age	29
Age by Township	31
Elderly Population	32
Demographic Characteristics of the Elderly Population	33
Non-English Speaking Population	34
Linguistic Isolation	35
Age Distribution of the Latino Population	35
Special Populations	36
Military Veterans	36
Blind and Visually-Impaired Persons	37
Special Needs Registry	37
Civic Engagement	39
Electoral Process	39
Registered Voters	39
Voter Turnout	39
Religious Life	40
Community Services and Organizations	41
Law Enforcement	41
Fire and Rescue Departments	41
Public Libraries	41

Perquimans County Senior Center.....	41
Activities	41
Services	42
Elderly Nutrition Program	42
Other Community Services and Organizations.....	42
Perquimans County Community Resource Directories and Guides	42
Perquimans County Chamber of Commerce.....	42
Perquimans County Government Website	42
Albemarle Alliance for Children and Families	42
NC 2-1-1 for Perquimans County	43
Chapter Two: Socioeconomic Data	44
Economic Climate	44
Tier Designation.....	44
County Revenue Indicators.....	44
Income.....	45
Employment.....	46
Employment by Sector	47
Largest Employers	49
Travel for Employment	49
Modes of Transportation to Work.....	50
Public Transportation in Perquimans County	51
Unemployment.....	52
Poverty	52
Children Receiving Free or Reduced-price School Meals	57
County Economic Service Utilization	58
Housing	58
Affordable Housing	60
Homelessness	60
Households	61
Family Households	61
Grandparents Responsible for Minor Children	62
Child Care	63
Child Care Facilities	63
Education	65
Higher Education	65
College of the Albemarle	65

Roanoke-Chowan Community College	65
Chowan University	66
Martin Community College	66
Elizabeth City State University.....	66
East Carolina University	67
Primary and Secondary Education	67
Schools and Enrollment.....	67
Educational Attainment.....	68
Educational Expenditures.....	69
High School Drop-Out Rate	69
Graduation Rate	70
School Crime and Violence.....	70
Crime and Safety.....	73
Crime Rates.....	73
Other Criminal Activities.....	75
Juvenile Crime	76
Sexual Assault	78
Domestic Violence	79
Albemarle Hopeline	80
Child Maltreatment.....	81
Adult Maltreatment.....	82
Chapter Three: Health Resources.....	83
Medical Insurance	83
North Carolina Health Choice	84
Medicaid	85
HealthCheck Early Periodic Screening, Diagnosis and Treatment.....	86
Medicaid Managed Care	86
Overview.....	86
Participating Plans, Plan Selection, and Rate Setting	87
Quality and Performance Incentives	87
Health Care Providers	88
Practitioners.....	88
Hospitals	90
Hospital Utilization.....	91
Emergency Department (ED) Utilization.....	91
Inpatient (IP) Hospital Utilization	93

County Emergency Medical Services.....	95
Public Health Department: Albemarle Regional Health Services.....	95
Perquimans County Health Department	95
AgriSafe of the Albemarle	95
Clinical Services	96
Women, Infants, and Children (WIC)	97
Albemarle Regional Diabetes Care	97
Health Education and Promotion.....	97
Environmental Health.....	97
Preparedness and Response.....	97
Inter-County Public Transportation Authority.....	98
Children’s Developmental Service Agency.....	98
Perquimans-Chowan-Gates (PCG) Landfill and Convenience Sites	98
Albemarle Regional Solid Waste Authority	98
Health Department Utilization Data.....	98
Federally-Qualified Health Centers	99
School Health	100
Student-to-School Nurse Ratio	100
School Nurse Reports	100
Long-Term Care Facilities.....	101
Nursing Homes.....	102
Adult Care Homes	102
Alternatives to Institutional Care	103
Adult Day Care/Adult Day Health Centers.....	104
Mental Health Services and Facilities.....	105
Local LME/MCO	105
In-County Mental Health Facilities	106
Other Healthcare Resources.....	106
Dialysis Centers	107
Urgent Care Centers	107
Other Perquimans County Medical Practitioners	107
Recreational Facilities	108
Chapter Four: Health Statistics	109
Methodology.....	109
Understanding Health Statistics	109
Mortality.....	109

Age-adjustment	109
Aggregate Data	110
Morbidity.....	110
Prevalence	110
Incidence.....	110
Trends.....	110
Small Numbers.....	111
Describing Difference and Change.....	111
Behavioral Risk Factor Surveillance System (BRFSS)	111
Final Health Data Caveat	112
Health Rankings	113
America’s Health Rankings	113
County Health Rankings	113
Maternal and Infant Health	116
Pregnancy.....	116
Pregnancy, Fertility and Abortion Rates, Women Age 15-44	116
Pregnancy, Fertility and Abortion Rates, Women Age 15-19.....	118
Pregnancies among Teens (age 15-19) and Adolescents (under age 15).....	119
Pregnancy Risk Factors	120
High Parity and Short Interval Births.....	120
Smoking during Pregnancy.....	121
Early Prenatal Care	121
Pregnancy Outcomes	122
Low Birth Weight and Very Low Birth Weight	122
Cesarean Section Delivery	125
Birth Complications	125
Infant Mortality.....	126
Life Expectancy	128
Mortality.....	129
Leading Causes of Death.....	129
Hospital Discharges Associated with Leading Causes of Death	131
Gender Disparities in Leading Causes of Death	133
Racial Disparities in Leading Causes of Death	134
Age Disparities in Leading Causes of Death.....	134
Diseases of the Heart	138
Heart Disease Hospitalizations.....	138

Heart Disease Mortality Rate Trend.....	139
Racial Disparities in Heart Disease Mortality	139
Gender Disparities in Heart Disease Mortality	140
Cancer	141
Total Cancer.....	141
Malignant Neoplasm Hospitalizations.....	141
Total Cancer Mortality Rate Trend	142
Racial Disparities in Total Cancer Mortality	142
Gender Disparities in Total Cancer Mortality	143
Total Cancer Incidence	143
Lung Cancer.....	146
Lung, Trachea and Bronchus Cancer Hospitalizations.....	146
Lung Cancer Mortality Rate Trend	146
Racial Disparities in Lung Cancer Mortality	147
Gender Disparities in Lung Cancer Mortality	147
Lung Cancer Incidence	148
Colon Cancer	148
Colon Cancer Hospitalizations	148
Colon Cancer Mortality Rate Trend.....	149
Racial Disparities in Colon Cancer Mortality.....	149
Gender Disparities in Colon Cancer Mortality.....	150
Colon Cancer Incidence.....	150
Prostate Cancer	151
Prostate Cancer Hospitalizations	151
Prostate Cancer Mortality Rate Trend.....	152
Racial Disparities in Prostate Cancer Mortality.....	152
Prostate Cancer Incidence.....	153
Female Breast Cancer.....	153
Breast Cancer Hospitalizations	153
Breast Cancer Mortality Rate Trend.....	154
Racial Disparities in Breast Cancer Mortality.....	154
Breast Cancer Incidence.....	155
Cerebrovascular Disease	156
Cerebrovascular Disease Hospitalizations.....	156
Cerebrovascular Disease Mortality Rate Trend	157
Racial Disparities in Cerebrovascular Disease Mortality	157

Gender Disparities in Cerebrovascular Disease Mortality	158
Chronic Lower Respiratory Disease (CLRD)	159
CLRD Mortality Rate Trend	160
Racial Disparities in CLRD Mortality	160
All Other Unintentional Injury.....	162
All Other Unintentional Injury Hospitalizations	162
All Other Unintentional Injury Mortality Rate Trend	163
Racial Disparities in All Other Unintentional Injury Mortality.....	163
Gender Disparities in All Other Unintentional Injury Mortality.....	164
Alzheimer’s Disease	165
Alzheimer’s Disease Hospitalizations	165
Alzheimer’s Disease Mortality Rate Trend.....	165
Racial Disparities in Alzheimer’s Disease Mortality.....	166
Gender Disparities in Alzheimer’s Disease Mortality.....	166
Unintentional Motor Vehicle Injury.....	167
Unintentional Motor Vehicle Injury Hospitalizations	167
Unintentional Motor Vehicle Injury Mortality Rate Trend	167
Racial Disparities in Unintentional Motor Vehicle Injury Mortality.....	168
Gender Disparities in Unintentional Motor Vehicle Injury Mortality.....	168
Age Disparities in Motor Vehicle Injury Mortality.....	169
Alcohol-Related Traffic Crashes	170
Pneumonia and Influenza	172
Pneumonia and Influenza Hospitalizations	172
Pneumonia and Influenza Mortality Rate Trend.....	173
Racial Disparities in Pneumonia and Influenza Mortality.....	174
Gender Disparities in Pneumonia and Influenza Mortality.....	174
Septicemia.....	175
Septicemia Hospitalizations.....	175
Septicemia Mortality Rate Trend.....	176
Racial Disparities in Septicemia Mortality	176
Gender Disparities in Septicemia Mortality	177
Suicide.....	178
Suicide Hospitalizations.....	178
Suicide Mortality Rate Trend	178
Racial Disparities in Suicide Mortality	179
Gender Disparities in Suicide Mortality	179

Nephritis, Nephrotic Syndrome, and Nephrosis.....	181
Nephritis, Nephrotic Syndrome and Nephrosis Hospitalizations	181
Nephritis, Nephrotic Syndrome and Nephrosis Mortality Rate Trend	181
Racial Disparities in Nephritis, Nephrotic Syndrome and Nephrosis Mortality	182
Gender Disparities in Nephritis, Nephrotic Syndrome and Nephrosis Mortality	182
Diabetes Mellitus.....	184
Diabetes Mellitus Hospitalizations	184
Diabetes Mellitus Mortality Rate Trend	185
Racial Disparities in Diabetes Mellitus Mortality	185
Gender Disparities in Diabetes Mellitus Mortality	186
Homicide.....	187
Homicide Hospitalizations	187
Homicide Mortality Rate Trend	187
Racial Disparities in Homicide Mortality	188
Gender Disparities in Homicide Mortality	188
Acquired Immune Deficiency Syndrome (AIDS).....	189
AIDS Hospitalizations	189
AIDS Mortality Rate Trend.....	189
Racial Disparities in AIDS Mortality	190
Gender Disparities in AIDS Mortality	190
Chronic Liver Disease and Cirrhosis	192
Chronic Liver Disease and Cirrhosis Hospitalizations	192
Chronic Liver Disease and Cirrhosis Mortality Rate Trend.....	192
Racial Disparities in Chronic Liver Disease and Cirrhosis Mortality	193
Gender Disparities in Chronic Liver Disease and Cirrhosis Mortality	193
Morbidity.....	195
Communicable Disease	195
Sexually Transmitted Infections	195
Chlamydia.....	195
Gonorrhea	196
Human Immune Deficiency Virus (HIV).....	198
Asthma	198
Diabetes	200
Obesity	201
Obesity in Adults	201
Obesity in Children	202

Oral Health.....	203
Adult Oral Health	203
Child Oral Health	204
Mental Health.....	205
Mental Health Service Utilization	206
Developmental Disabilities Service Utilization.....	207
Substance Abuse Service Utilization	208
Alcohol and Drugs.....	208
Utilization of the Hospital for Mental Health Services.....	208
Chapter Five: Environmental Data	210
Air Quality.....	210
Air Quality Index.....	210
Toxic Releases	210
Water Quality.....	210
Drinking Water Systems.....	210
Municipal Water Systems	211
Perquimans County Water System	211
Perquimans County does operate a municipal water system (see table above), but provides no information in the public domain describing its facilities.	211
Hertford Water System	211
Wastewater Systems	211
NPDES Permits	212
Solid Waste	212
Solid Waste Disposal	212
East Carolina Regional Landfill.....	213
Convenience Centers	214
Municipal Solid Waste Programs	214
Town of Hertford Solid Waste Management	214
Town of Winfall Solid Waste Management	214
Hazardous Waste Generation	214
Lead.....	215
Food-, Water-, and Vector-Borne Hazards	217
Food-, Water-, and Vector-Borne Diseases.....	217
Vector Control	217
Animal Control in Perquimans County.....	218
Animal Shelters Serving Perquimans County.....	218
Built Environment	219

Access to Grocery Stores and Farmers' Markets	219
Access to Fast Food Restaurants	220
Access to Recreational Facilities.....	220
Chapter Six: Community Input	222
Small Group Discussions Summary	222
Methodology	222
Results.....	223
Chapter Seven: Priorities Identification	227
Priorities-Setting Process	Error! Bookmark not defined.
Health Priorities	Error! Bookmark not defined.
Next Steps.....	229
Dissemination Plan.....	229
References	230
Appendices	234

LIST OF TABLES AND FIGURES

Figure 1. Map of Perquimans County	22
Table 1. General Demographic Characteristics	25
Table 2. Population by Township, Perquimans County	26
Table 3. Decadal Population Growth	26
Figure 2. Birth Rate Trend, Live Births per 1,000 Total Population	27
Table 4. Decadal Population Density	27
Table 5. Population Distribution by Race/Ethnicity	28
Table 6. Population by Race/Ethnicity, by Township, Perquimans County	29
Table 7. Population Distribution by Age and Gender, Number and Percent	30
Figure 3. Population Distribution by Age, Perquimans County, ARHS Region and NC.....	31
Table 8. Population by Age, by Township, Perquimans County	31
Table 9. Growth Trend for the Elderly (Age 65 and Older) Population, by Decade	32
Table 10. Demographic Characteristics of the Population Age 65+	34
Table 11. Growth of the Foreign-Born Population	34
Table 12. Household Language by Linguistic Isolation.....	35
Figure 4. Age Distribution of Overall and Latino Populations in Perquimans County, Percent ...	36
Table 13. Veteran Status of Population	37
Table 14. Blind and Visually-Impaired Persons	37
Table 15. Registered Voters, by Race/Ethnicity, Number and Percent	39
Table 16. Voter Turnout in General Elections.....	39
Table 17. Religious Bodies in Perquimans County	40
Table 18. Fire Departments in Perquimans County	41
Table 19. NC State Sales and Use Tax Gross Collections	44
Table 20. Local Revenue Indicators, Perquimans County	45
Table 21. Income Measures	46
Table 22. Median Earnings, by Gender	46
Table 23. Insured Employment and Wages by Sector.....	48
Table 24. Largest 25 Employers in Perquimans County	49
Table 25. Place of Work for Resident Workers Age 16 and Older	50
Table 26. Modes of Transportation to Work	50
Table 27. ICPTA Ridership Statistics	51
Figure 5. Annual Unemployment Rate	52
Table 28. 100%-Level Poverty Rate.....	53
Table 29. Persons in Poverty (100%-Level) by Race, by Decade.....	53
Figure 6. Poverty Rate by Race, Perquimans County	54
Figure 7. Poverty Rate by Race, ARHS Region	54
Figure 8. Poverty Rate by Race, North Carolina.....	55
Table 30. Persons in Poverty (100%-Level) by Age, by Decade	55
Figure 9. Poverty Rate by Age, Perquimans County	56
Figure 10. Poverty Rate by Age, ARHS Region	56
Figure 11. Poverty Rate by Age, North Carolina.....	56
Table 31. Percent of Students Eligible for Free or Reduced price School Meals	57
Table 32. Number of Students Receiving Free or Reduced-price School Meals.....	57
Table 33. Housing by Type	58
Table 34. Estimated Housing Cost.....	59
Table 35. Household Characteristics.....	61
Table 36. Family Households, by Type of Head of Household	62
Table 37. Grandparents with Responsibility for Minor Children	62

Table 38. NC-Licensed Child Care Facilities in Perquimans County	64
Table 39. Children Enrolled in NC-Regulated Child Care	64
Table 40. Number of Children Receiving WorkFirst Child Care Subsidy	65
Table 41. Number of Schools.....	67
Table 42. Perquimans County Public Schools (Not Including Charter Schools).....	68
Table 43. K-12 Public School Enrollment	68
Table 44. Educational Attainment	69
Table 45. Educational Expenditures.....	69
Table 46. High School Drop-Out Rate.....	70
Table 47. Four Year Cohort Graduation Rate.....	70
Table 48. School Crime and Violence Trend	71
Table 49 School Crime and Violence in Perquimans County Schools, by Type of Offense	72
Table 50. School Disciplinary Activity.....	72
Table 51. Crime Rates, Crimes per 100,000 Population.....	73
Figure 12. Index Crime Rate Trend.....	74
Figure 13. Violent Crime Rate Trend.....	74
Figure 14. Property Crime Rate Trend	74
Table 52. Types of Crimes Reported in Perquimans County	75
Table 53. Other Criminal Activity	76
Table 54. Complaints and Rates of Undisciplined and Delinquent Youth	77
Table 55. Juvenile Justice Outcomes.....	77
Table 56. Sexual Assault Complaint Trend	78
Table 57. Types of Sexual Assaults	78
Table 58. Types of Offenders in Sexual Assaults	79
Table 59. Domestic Violence Complaint Trend.....	79
Table 60. Services Received by Domestic Violence Complainants	80
Table 61. Reports of Child Abuse and Neglect, Perquimans County.....	81
Table 62. Demographic Detail of Child Abuse Cases, Perquimans County	82
Table 63. NC Adult Protective Services Survey Results.....	82
Table 64. Percent of Population without Health Insurance, by Age Group.....	83
Table 65. Health Insurance Coverage.....	84
Table 66. NC Health Choice Enrollment.....	85
Table 67. Perquimans County Medicaid Eligibles, by Program Area	85
Table 68. Participation in HealthCheck (EPSDT)	86
Table 69. Community Care of NC/Carolina ACCESS Enrollment.....	87
Table 70. Active Health Professionals per 10,000 Population	88
Table 71. Number of Active Health Professionals, by Specialty	89
Table 72. Licensed Hospitals in Northeastern NC	90
Table 73. Hospitals in Southeastern Virginia.....	91
Table 74. ED Discharges by Gender and Age Group	92
Table 75. ED Discharges by Racial/Ethnic Group	92
Table 76. ED Discharges by Payor Group.....	93
Table 77. IP Discharges by Gender and Age Group	93
Table 78. IP Discharges by Racial/Ethnic Group.....	94
Table 79. IP Discharges by Payor Group	94
Table 80. Perquimans County Health Department Service Utilization, by Program	99
Table 81. Student to School Nurse Ratio	100
Table 82. School Nurse Activities, Perquimans County Schools	101
Table 83. NC-Licensed Long-Term Care Facilities in Perquimans County	102
Table 84. Number of Nursing Facility Beds	102

Table 85. NC-Licensed Home Care, Home Health and Hospice Service Providers in the ARHS Region	104
Table 86. NC-Licensed Mental Health Facilities (G.S. 122C) in Perquimans County	106
Table 87. Mental Health Providers Accepting Medicaid or NC Health Choice Patients, Perquimans County	106
Table 88. Other NC Licensed Healthcare Facilities in the Albemarle Region	107
Table 89. Dialysis Centers in the Albemarle Region.....	107
Table 90. Public Recreational Facilities in Perquimans County	108
Table 91. Rank of North Carolina in America’s Health Rankings.....	113
Table 92. County Health Rankings.....	114
Table 93. County Health Rankings Details	115
Table 94. Total Pregnancy, Fertility and Abortion Rates, Ages 15-44.....	117
Figure 12. Overall Pregnancy Rate Trend, Age 15-44.....	117
Table 95. Total Pregnancy, Fertility and Abortion Rates, Ages 15-19.....	118
Figure 13. Overall Pregnancy Rate Trend, Age 15-19.....	119
Table 96. Number of Teen Pregnancies (Ages 15-19)	119
Table 97. Number of Adolescent Pregnancies (Under Age 15)	120
Table 98. High Parity and Short Interval Births.....	120
Table 99. Smoking during Pregnancy Trend	121
Table 100. Early Prenatal Care Trend.....	121
Figure 14. Percent of Perquimans County Women Receiving Prenatal Care in the First Trimester, by Race.....	122
Figure 15. Low Birth-Weight Births.....	123
Figure 16. Very Low Birth-Weight Births.....	123
Figure 17. Low Birth-Weight Births, Perquimans County, by Race	124
Figure 18. Very-Low Birth-Weight Births, Perquimans County, by Race.....	124
Table 101. Cesarean Section Deliveries.	125
Table 102. Discharges of Newborn Infants, Perquimans County Resident Mothers	125
Table 103. Total Infant Deaths	126
Figure 19. Infant Mortality Rate	127
Figure 20. Infant Mortality Rate, Perquimans County, by Race	127
Table 104. Life Expectancy at Birth, by Gender and Race	128
Table 105. Comparison of Leading Causes of Death, Perquimans County and NC	129
Table 106. Overall Age-Adjusted Mortality Rates for the 15 Leading Causes of Death, Perquimans County and Comparators	130
Table 107. Emergency Department Discharges for Leading Causes of Death	132
Table 108. Inpatient Hospitalization Discharges for Leading Causes of Death	132
Table 109. Sex-Specific Age-Adjusted Death Rates for the 15 Leading Causes of Death, Perquimans County and Comparators	133
Table 110. Race-Specific Age-Adjusted Death Rates for the 15 Leading Causes of Death, Perquimans County	134
Table 111. Three Leading Causes of Death by Age Group, by Unadjusted Death Rates, Perquimans County and Comparators	135
Table 112. Short-Term Changes in Leading Causes of Death, Perquimans County	136
Table 113. Long-Term Changes in Leading Causes of Death, Perquimans County	137
Table 114. Heart Disease Hospital Discharge Rate Trend	138
Table 115. Hospital Discharges, Perquimans County Residents: Heart Disease.....	138
Figure 21. Overall Heart Disease Mortality Rate Trend	139
Table 116. Race/Ethnicity-Specific Heart Disease Mortality	139
Figure 22. Sex-Specific Heart Disease Mortality Rate Trend, Perquimans County.....	140
Table 117. All Malignant Neoplasms Hospital Discharge Rate Trend.....	141

Table 118. Hospital Discharges, Perquimans County Residents: All Malignant Neoplasms	141
Figure 23. Overall Total Cancer Mortality Rate Trend	142
Table 119. Race/Ethnicity-Specific Total Cancer Mortality	142
Figure 24. Sex-Specific Total Cancer Mortality Rate Trend, Perquimans County	143
Figure 25. Overall Total Cancer Incidence Rate Trend.....	144
Figure 26. Mortality Rates for Four Major Site-Specific Cancers	145
Figure 27. Incidence Rates for Four Major Site-Specific Cancers	145
Table 120. Malignant Trachea, Bronchus, Lung Neoplasms Hospital Discharge Rate Trend ..	146
Figure 28. Overall Lung Cancer Mortality Rate Trend	146
Table 121. Race/Ethnicity-Specific Lung Cancer Mortality	147
Figure 29. Sex-Specific Lung Cancer Mortality Rate Trend, Perquimans County	147
Figure 30. Lung Cancer Incidence Rate Trend.....	148
Table 122. Malignant Colon, Rectum and Anus Neoplasms Hospital Discharge Rate Trend...	149
Figure 31. Overall Colon Cancer Mortality Rate Trend	149
Table 123. Race/Ethnicity-Specific Colon Cancer Mortality	150
Figure 32. Sex-Specific Colorectal Cancer Mortality Rate Trend, Perquimans County	150
Figure 33. Colon Cancer Incidence Rate Trend	151
Table 124. Malignant Prostate Neoplasms Hospital Discharge Rate Trend.....	151
Figure 34. Overall Prostate Cancer Mortality Rate Trend	152
Table 125. Race/Ethnicity-Specific Prostate Cancer Mortality Rate.....	152
Figure 35. Prostate Cancer Incidence Rate Trend	153
Table 126. Malignant Female Breast Neoplasms Hospital Discharge Rate Trend.....	154
Figure 36. Overall Female Breast Cancer Mortality Rate Trend	154
Table 127. Race/Ethnicity-Specific Female Breast Cancer Mortality	155
Figure 37. Breast Cancer Incidence Rate Trend	155
Table 128. Cerebrovascular Disease Hospital Discharge Rate Trend	156
Table 129. Hospital Discharges, Perquimans County Residents: Cerebrovascular Disease ...	156
Figure 38. Overall Cerebrovascular Disease Mortality Rate Trend	157
Table 130. Race/Ethnicity-Specific Cerebrovascular Disease Mortality	158
Figure 39. Sex-Specific Cerebrovascular Disease Mortality Rate Trend, Perquimans County.	158
Table 131. COPD Hospital Discharge Rate Trend	159
Table 132. Hospital Discharges, Perquimans County Residents: COPD and Allied Conditions	160
Figure 40. Overall CLRD Mortality Rate Trend.....	160
Table 133. Race/Ethnicity-Specific CLRD Mortality	161
Figure 41. Sex-Specific CLRD Mortality Rate Trend, Perquimans County.....	161
Table 134. Injury and Poisoning Hospital Discharge Rate Trend.....	162
Table 135. Hospital Discharges, Perquimans County Residents: All Injury and Poisoning	163
Figure 42. Overall All Other Unintentional Injury Mortality Rate Trend.....	163
Table 136. Race/Ethnicity-Specific All Other Unintentional Injury Mortality.....	164
Figure 43. Sex-Specific All Other Unintentional Injury Mortality Rate Trend, Perquimans County	164
Figure 44. Overall Alzheimer’s Disease Mortality Rate Trend.....	165
Table 137. Race/Ethnicity-Specific Alzheimer’s Disease Mortality.....	166
Figure 45. Sex-Specific Alzheimer’s Disease Mortality Rate Trend, Perquimans County	166
Figure 46. Unintentional Motor Vehicle Injury Mortality Rate Trend	167
Table 138. Race/Ethnicity-Specific Unintentional Motor Vehicle Injury Mortality	168
Figure 47. Sex-Specific Unintentional Motor Vehicle Injury Mortality Rate Trend, Perquimans County	169
Table 139. Motor Vehicle Injury Mortality, Numbers and Rates, by Age	169
Table 140. Alcohol-Related Traffic Crashes Trend.....	170

Table 141. Outcomes of Alcohol-Related Traffic Crashes	171
Table 142. Pneumonia and Influenza Hospital Discharge Rate Trend.....	172
Table 143. Hospital Discharges, Perquimans County Residents: Pneumonia and Influenza ...	173
Figure 48. Overall Pneumonia and Influenza Mortality Rate Trend.....	173
Table 144. Race/Ethnicity-Specific Pneumonia and Influenza Mortality	174
Figure 49. Sex-Specific Pneumonia and Influenza Mortality Rate Trend, Perquimans County	174
Table 145. Septicemia Hospital Discharge Rate Trend	175
Table 146. Hospital Discharges, Perquimans County Residents: Septicemia	175
Figure 50. Overall Septicemia Mortality Rate Trend	176
Table 147. Race/Ethnicity-Specific Septicemia Mortality	177
Figure 51. Sex-Specific Septicemia Mortality Rate Trend, Perquimans County.....	177
Table 148. Hospital Discharges, Perquimans County Residents: Suicide Ideation.....	178
Figure 52. Overall Suicide Mortality Rate Trend.....	179
Table 149. Race/Ethnicity-Specific Suicide Mortality.....	179
Figure 53. Sex-Specific Suicide Mortality Rate Trend, Perquimans County.....	180
Table 150. Nephritis, Nephrosis, Nephrotic Syndrome Hospital Discharge Rate Trend.....	181
Figure 54. Overall Nephritis, Nephrotic Syndrome and Nephrosis Mortality Rate Trend.....	182
Table 151. Race/Ethnicity-Specific Nephritis, Nephrotic Syndrome and Nephrosis Mortality ...	182
Figure 55. Sex-Specific Nephritis, Nephrotic Syndrome, Nephrosis Mortality Rate Trend, Perquimans County	183
Table 152. Diabetes Hospital Discharge Rate Trend.....	184
Table 153. Hospital Discharges, Perquimans County Residents: Diabetes Mellitus	184
Figure 56. Overall Diabetes Mellitus Mortality Rate Trend.....	185
Table 154. Race/Ethnicity-Specific Diabetes Mellitus Mortality.....	186
Figure 57. Sex-Specific Diabetes Mellitus Mortality Rate Trend, Perquimans County	186
Figure 58. Overall Homicide Mortality Rate Trend.....	187
Table 155. Race/Ethnicity-Specific Homicide Mortality.....	188
Figure 59. Sex-Specific Homicide Mortality Rate Trend, Perquimans County	188
Table 156. AIDS Hospital Discharge Rate Trend	189
Figure 60. Overall AIDS Mortality Rate Trend	190
Table 157. Race/Ethnicity-Specific AIDS Mortality	190
Figure 61. Sex-Specific AIDS Mortality Rate Trend, Perquimans County.....	191
Table 158. Chronic Liver Disease and Cirrhosis Hospital Discharge Rate Trend	192
Figure 62. Overall Chronic Liver Disease and Cirrhosis Mortality Rate Trend	193
Table 159. Race/Ethnicity-Specific Chronic Liver Disease and Cirrhosis Mortality	193
Figure 63. Sex-Specific Chronic Liver Disease and Cirrhosis Mortality Rate Trend, Perquimans County	194
Figure 64. Chlamydia Infection Incidence Trend	196
Figure 65. Gonorrhea Infection Incidence Trend	197
Table 160. Gonorrhea Infection Incidence Rate, Stratified by Race/Ethnicity	197
Table 161. HIV Prevalence: HIV and AIDS Cases Living as of December 31, 2014.....	198
Table 162. NC Hospital Discharges with a Primary Diagnosis of Asthma, Numbers and Rates per 100,000.....	199
Table 163. Hospital Discharges, Perquimans County Residents, by Race and Age: Asthma .	199
Figure 66. Adult Diagnosed Diabetes Prevalence Estimate Trend	201
Figure 67. Adult Diagnosed Obesity Prevalence Estimate Trend	202
Table 164. Prevalence of Obesity and Overweight in Children, Ages 2-4, NC NPASS.....	203
Table 165. Emergency Department Admissions of Perquimans County Residents for Dental Conditions.....	204
Table 166. Dental Service Utilization by Medicaid Recipients, by Age Group.....	204
Table 167. Child Dental Screening Summary.....	205

Table 168. Persons Served by Mental Health Area Programs/Local Management Entities	206
Table 169. Persons Served in NC State Psychiatric Hospitals	207
Table 170. Persons Served in NC State Developmental Centers	208
Table 171. Persons Served in NC Alcohol and Drug Abuse Treatment Centers.....	208
Table 172. ED and IP Discharges of Perquimans County Residents with Mental Health Diagnoses.....	209
Table 173. Detailed ED Discharges of Perquimans County Residents with Mental Health Diagnoses.....	209
Table 174. Active Water Systems in Perquimans County.....	211
Table 175. National Pollutant Discharge Elimination System (NPDES) Permitted Dischargers, Perquimans County	212
Table 176. Solid Waste Disposal	213
Table 177. County Waste Disposal Report, Perquimans County.....	213
Table 178. Landfill Capacity	213
Table 179. Hazardous Waste Generators, Perquimans County	215
Table 180. Blood Lead Assessment Results	216
Table 181. Food-, Water-, and Vector-Borne Diseases, North Carolina	217
Table 182. Animal Rabies Cases	218
Table 183. Availability of Grocery Stores.....	219
Table 184. Availability of Farmers' Markets.....	220
Table 185. Availability of Fast Food Restaurants	220
Table 186. Availability of Recreation and Fitness Facilities	221
Table 187. Participants in Perquimans County Small-Group Discussions	222
Table 188. Participant-Identified Health Problems in Perquimans County.....	224
Table 189. Home Remedies.....	225

INTRODUCTION

Local public health agencies in North Carolina (NC) are required to conduct a comprehensive Community Health Assessment (CHA) at least once every four years. The CHA is required of public health departments in the consolidated agreement between the NC Division of Public Health (NC DPH) and the local public health agency. Furthermore, a CHA is required for local public health department accreditation through the NC Local Health Department Accreditation Board (G.S. § 130A-34.1). As part of the US Affordable Care Act of 2011, non-profit hospitals are also 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, local health departments (LHDs) and non-profit hospitals across the state are developing models for collaboratively conducting the community health assessment process. For the Albemarle region, a partnership between Albemarle Regional Health Services and local hospitals has been a long-standing tradition, and the hospitals have helped fund and participate in previous community health assessments. This health assessment report is the culmination of the most recent partnership between Albemarle Regional Health Services (ARHS) and five regional hospitals: Vidant Bertie Hospital (VBER), Vidant Chowan Hospital (VCHO), Vidant Roanoke-Chowan Hospital (VROA), The Outer Banks Hospital (TOBH), and Sentara Albemarle Medical Center (SAMC).

In communities where there is an active Healthy Carolinians partnership, the CHA activity also usually includes that entity. Healthy Carolinians is “a network of public-private partnerships across North Carolina that shares the common goal of helping all North Carolinians to be healthy.” The members of local partnerships are representatives of the agencies and organizations that serve the health and human service needs of the local population, as well as representatives from businesses, communities of faith, schools and civic groups. In Perquimans County, the local Healthy Carolinians coalition is Healthy Carolinians of the Albemarle, which also includes Camden, Currituck, and Pasquotank counties.

The community health assessment, which is both a process and a document, investigates and describes the current health status of the community, the social factors impacting health, what has changed since the last assessment, and what still needs to change to improve the health of the community. The *process* involves the collection and analysis of a large range of data, including demographic, socioeconomic and health statistics, environmental data, and professional and public opinion. The *document* is a summary of all the available evidence and serves as a resource until the next assessment. The completed CHA serves as the basis for prioritizing the community’s health needs, and culminates in planning to meet those needs.

Albemarle Regional Health Services contracted with Sheila S. Pfaender, Public Health Consultant, and her team to assist in conducting the 2016 CHNA for the seven counties of the ARHS region, following the guidance provided by the *Community Assessment Guidebook: North Carolina Community Health Assessment Process*, published by the NC Office of Healthy Carolinians/Health Education and the NC State Center for Health Statistics (June 2014 revision). The assessment also adheres to the 2014 standards for community assessment stipulated by the NC Local Health Department Accreditation (NCLHDA) Program. An additional goal for this project was to meet the US Affordable Care Act/Internal Revenue Service Form 990 Schedule H requirements for not-for-profit hospitals in conducting a CHNA as cited in the December, 2014 Final Rule.

The ARHS Lead Regional CHA Coordinator worked with the consultant to develop a multi-phase plan for conducting the assessment. The phases included: (1) a research phase to identify, collect and analyze secondary demographic, socioeconomic, health and environmental data; (2) a data synthesis and analysis phase; (3) a period of data reporting and discussion among the project partners. In addition to this work, ARHS contracted with another vendor to assist with (4) a community input phase to elicit opinion and ideas regarding the assessment outcomes among community stakeholders. ARHS and its partners, particularly the Healthy Carolinians coalitions within the region worked on a final step: (5) a prioritization and decision-making phase. Upon completion of this work the CHNA partners and the community will have the tools they need to develop plans and activities that will improve the health and well-being of the people living in Perquimans County.

ASSESSMENT METHODOLOGY

In order to learn about the specific factors affecting the health and quality of life of Perquimans County residents, the CHNA data consultant tapped numerous readily available secondary data sources. For data on Perquimans County demographic, economic and social characteristics sources included: the US Census Bureau; Log Into North Carolina (LINC); NC Office of State Budget and Management; NC Department of Commerce; Employment Security Commission of NC; NC Division of Aging and Adult Services; NC Department of Public Instruction; NC Department of Justice; NC Department of Juvenile Justice and Delinquency Prevention; NC Department of Administration; NC Division of Medical Assistance; NC Division of Child Development; NC State Board of Elections; NC Division of Health Services Regulation; the Cecil B. Sheps Center for Health Services Research; and the Annie E. Casey Foundation *Kids Count Data Center*. Local sources for socioeconomic data included: the Perquimans County Department of Social Services; Perquimans County Schools; and other Perquimans County agencies and organizations. The consultant made every effort to obtain the most current data available at the time the report was prepared.

The primary source of health data for this report was the NC State Center for Health Statistics, including its County Health Data Books, Vital Statistics, and Cancer Registry units. Other health data sources included: US Centers for Disease Control and Prevention; NC DPH Epidemiology Section; NC Division of Mental Health, Developmental Disabilities and Substance Abuse Services; National Center for Health Statistics; Healthy North Carolina 2020; NC DPH Nutrition Services Branch; UNC Highway Safety Research Center; NC Department of Transportation; and the NC DPH Oral Health Section, as well as other *public domain* sources. *Local* health data from the county Health Department, county schools and emergency management services department were also accessed. Through the current ARHS partnership with the region's five hospitals, the consultant accessed de-identified hospital utilization data (primarily emergency department discharges and in-patient hospitalization discharges) that contributed greatly to the understanding of health issues in Perquimans County.

Because in any community health assessment it is instructive to relate local data to similar data in other jurisdictions, Perquimans County data is compared to like data describing the state of NC as a whole, as well as to data from Pamlico County, a state-recommended "peer county". Also used for comparison is data for the average measure of each parameter in the seven counties in the ARHS jurisdiction: Bertie County, Camden County, Chowan County, Currituck County, Gates County, Pasquotank County and Perquimans County. In some cases Perquimans County data is compared to US-level data, or to Healthy People 2020 goals or other standardized measures. Where appropriate, trend data has been used to show changes in indicators over time, at least since the 2013 Gates County CHA, but sometimes further back than that.

Environmental data were gathered from sources including: US Environmental Protection Agency; NC Department of Environment and Natural Resources Divisions of Air Quality, Waste Management, and Environmental Health; and NC State Laboratory of Public Health.

As an additional part of the CHNA process, ARHS and its partners its partners also conducted community listening sessions (i.e., *primary data* collection) among members of the public and community leaders. A brief summary of listening session results is provided in this document, but since the listening sessions are not the work of the secondary data consultant, the full

description of the methodologies and results of the listening sessions are presented in a separate document.

This report represents a topical synthesis of all the *secondary data* researched in connection with the 2016 ARHS CHNA project. It is intended to serve as the master secondary data resource for guiding community deliberations about the most important health issues in Perquimans County and how to solve them.

It should be noted at the onset that the secondary data consultant thoroughly cites and personally vouches for all data sources in the public domain. Local data cites the name of the provider of the information, and readers should judge for themselves the authority of those sources. Finally, as is typical in all time-limited activities such as community health assessment, all data were mined at a point in time in the recent past, and may not represent present conditions. Website URLs, numbers, entity names, program titles, etc. that appear in the data may no longer be current.

This comprehensive report is available on-line in PDF format on the ARHS website at: <http://www.arhs-nc.org>.

CHAPTER ONE: DEMOGRAPHIC DATA

GEOGRAPHY

Perquimans County is located in the Coastal Plain region of NC, in the northeastern part of the state. Flat plains and shallow stream valleys characterize the county. Covering a total area of 329 square miles, Perquimans consists of 247 square miles of land, with the remaining 82 square miles covering water. The county contains miles of waterfront along the Perquimans River, the Little River, and the Albemarle Sound. Perquimans County is adjacent to Pasquotank County on the east, Chowan County on the southwest, and Gates County on the northwest (1,2).

The major town in the county is Hertford, which is also the county seat. Perquimans County is located 52 miles southwest of metropolitan Norfolk, VA, 152 miles east of Raleigh, NC, 195 miles northeast of Wilmington, NC, and is roughly 40 miles west of the Outer Banks of NC (2).

US Highway 17 runs through Hertford northeast (toward the Outer Banks) and southwest (towards Wilmington, NC), joining US 64. NC Highway 37 runs northwest and leads towards the state of VA. The nearest major interstate to the county is I-95, which is 60 miles to the west (3).

Norfolk International Airport is located 65 miles from Hertford in Norfolk, VA. Also within 100 miles from Hertford are: Pitt-Greenville Airport (Greenville, NC), and the Newport News/Williamsburg International Airport (Newport News, VA). The Coastal Carolina Regional Airport in New Bern, NC is 106 miles from Hertford. Also, US Highway 64 provides access to the Raleigh-Durham International Airport 165 miles to the west. There are three Amtrak stations within a 100 miles radius of Hertford; the closest is in Norfolk, VA (46 miles), followed by Newport News, VA (58 miles) and Williamsburg, VA (76 miles). Greyhound has two bus stations nearby, both in NC. The Edenton station is the closest, followed by the one in Elizabeth City (4,5,6).

Perquimans County gets approximately 49 inches of rain and three inches of snow per year, and has an annual average of 213 sunny days. The average high temperature in July is 89 degrees and the average low in January is 31 degrees (7).

Figure 1. Map of Perquimans County



HISTORY

The earliest inhabitants of what is now Perquimans County were the Yeopim Indians. It is from them that Perquimans got its name, meaning "Land of Beautiful Women". Kilcocanen, King of the Yeopim, deeded Perquimans County to George Durant, one of the first settlers in what is present-day Perquimans County, in 1661. Although Englishmen began permanent settlements in this region about 1650, Perquimans County was not formed until 1668. Today Perquimans County covers lowland between the Albemarle Sound and the Dismal Swamp. Communities and townships within the region include Hertford, Winfall, Chapanoke, Belvidere, Durants Neck and Snug Harbor. By the early 1700s farming, livestock and fur trade had become major industries in the region (8,9,10).

Early on, the Quakers were a strong influence in Perquimans County and early colonial politics. George and Edmundson Fox traveled to the Carolinas during the 1670s and were responsible for establishing several churches in the state. In 1672, the Fox brothers organized the first religious meeting that residents in the county had ever experienced. The brothers were not happy about the lack of civility and religion they encountered among the people at Hertford, and Edmundson later met with the governor and other regional officials. The result was that most of the politicians converted to Quakerism and the first church in the state was built not long after. The influence of the Quakers remained evident throughout Perquimans County until the end of the Cary Rebellion (the result of a power struggle among the southern precincts because they all sought equal representation along with Cary's main cause to protect the fur trade in Bath county) in the early 1700s (9,10). Other politically-inspired rebellions followed.

Hertford, one of the oldest towns in NC, was established as the county seat of Perquimans County in 1758. It dates back to a 1669 land grant and was originally known as Phelps Point, as the land was owned by Jonathan Phelps. It was named Hertford for the NC governor's political patron, the Earl of Hertford. In the 1900s, Hertford was a busy lumber town. This was largely due to the Perquimans River, which provided a direct link between the railroads, lumber barges and commercial ships that traversed the Albemarle Sound and nearby Intracoastal Waterway. During World War II, Hertford was bustling with activity from the nearby Harvey Point Naval Air Station. Agriculture remains one of the principal industries of the area today with corn, peanuts, and soybeans as major crops (9).

The county boasts four National Register Historic Districts: Hertford National Register Historic District, Belvidere National Register Rural Historic District, Old Neck National Register Rural Historic District, and Winfall National Register Historic District. In Hertford, a picturesque and well-preserved quintessential small town with antique shops, cafes and friendly people, seventy-five percent of the buildings contribute to the town's historic district designation. The handsome Queen Anne and Colonial Revival style homes are a reflection of the prosperity of the region during the late 19th century. A tour book of the Downtown Historic Tour and the Rural Tour of Plantations is available at the Visitor's Center and includes maps of self-guided walking and driving tours. Belvidere offers a pristine agricultural setting and is rich in Quaker heritage and history. The Piney Woods Meetinghouse is found there and is a successor to the first Friends Meeting, making it the oldest religious congregation in North Carolina. Belvidere remains predominantly Quaker today. Old Neck has rural landscape reminiscent of the antebellum south. Dating back to 1663, the Old Neck Historic District is one of America's earliest English settlements. Today, it is primarily open farmland, but is still home to five major plantation homes and numerous smaller houses and farms. Lastly, Winfall was the busiest crossroads in

Perquimans County before the bridge crossed the Perquimans River and was the commercial center for those on the north side of the river, even before the Civil War (9).

In addition to the Historic Districts and the offerings of the town of Hertford, the county is noted for nearly 100 miles of shoreline which attracts hunters, fishermen, and boaters to Perquimans. Also offered annually are The Perquimans County Indian Summer Festival, the Spring Fling and Old-Timers Game, and the Hearth and Harvest Festival (9).

POPULATION CHARACTERISTICS

General Population Characteristics

The following general population characteristics of Perquimans County and its peer county were based on 2014 US Census data presented in the table below.

- As of the 2014 US Census estimate, the population of Perquimans County was 13,466.
- The population of Perquimans County has a slightly higher proportion of females than of males.
- The overall median age in Perquimans County was 47.8, 4.2 years older than the median age for the seven-county ARHS region but 2.9 years younger than Pamlico County, an assigned peer county. The median age in Perquimans County was 9.6 years older than the median age for NC as a whole.

**Table 1. General Demographic Characteristics
(2014 US Census Bureau Estimate)**

Location	Total Population	Number Males	% Population Male	Median Age Males	Number Females	% Population Female	Median Age Females	Overall Median Age
Perquimans County	13,466	6,475	48.1	46.3	6,991	51.9	49.0	47.8
Regional Average	19,258	9,467	49.2	42.0	9,791	50.9	45.1	43.6
Pamlico County	12,948	6,641	51.3	48.5	6,307	48.7	52.6	50.7
State of NC	9,943,964	4,844,593	48.7	36.7	5,099,371	51.3	39.7	38.2

Note: percentages by gender are calculated.

Source: US Census Bureau, American Fact Finder, 2014 Population Estimates. PEPAGESEX: Annual Estimates of the Resident Population for Selected Age Groups by Sex for the United States, States, Counties, and Puerto Rico Commonwealth and Municipios: April 1, 2010 to July 1, 2014. (Geographies as noted) <http://factfinder.census.gov>.

Population by Township

Perquimans County is divided into five townships: Belvidere Township, Bethel Township, Hertford Township, New Hope Township and Parkville Township. The following population information was derived from 2014 US Census data presented in the following table.

- Bethel Township was the largest township by population in Perquimans County, accounting for approximately 28% of the county's population.
- Belvidere Township was the smallest township in Perquimans County, and was home to only about 7% of the overall county population.
- Hertford Township was the "youngest" township in the county in terms of median age: 39.4 years.
- Bethel Township was the "oldest" township in the county, with a median age of 58.1 years.

**Table 2. Population by Township, Perquimans County
(US Census Bureau 5-Year Estimate, 2010-2014)**

Township	No. of Persons	% of County Population	Median Age
Belvidere Township	924	6.8	52.1
Bethel Township	3,744	27.7	58.1
Hertford Township	3,006	22.3	39.4
New Hope Township	3,533	26.2	41.4
Parkville Township	2,300	17.0	43.9
Perquimans County Total	13,507	100.0	47.2

Source: US Census Bureau, American Fact Finder, 2014 ACS 5-year estimates, Table S0101: Age and Sex. Geographies as noted. <http://factfinder.census.gov>.

Population Growth

The next table presents historical population counts and population projections from 1980 through 2030. From this data, it appears that the Perquimans County population, which increased significantly from 1990 through 2010, is predicted to grow at a much slower pace in the coming decades.

**Table 3. Decadal Population Growth
(1980-2030 [Projected])**

Location	Number of Persons and Percent Change										
	1980	1990	% Change 1980-1990	2000	% Change 1990-2000	2010	% Change 2000-2010	2020 (Projection)	% Change 2010-2020	2030 (Projection)	% Change 2020-2030
Perquimans County	9,486	10,447	10.1	11,368	8.8	13,453	18.3	13,645	1.4	14,646	7.3
<i>Regional Average</i>	13,908	14,941	7.4	16,550	10.8	19,416	17.3	19,673	1.3	20,377	3.6
Pamlico County	10,398	11,368	9.3	12,934	13.8	13,144	1.6	13,293	1.1	13,561	2.0
State of NC	5,880,095	6,632,448	12.8	8,046,485	21.3	9,535,483	18.5	10,573,611	10.9	11,609,883	9.8

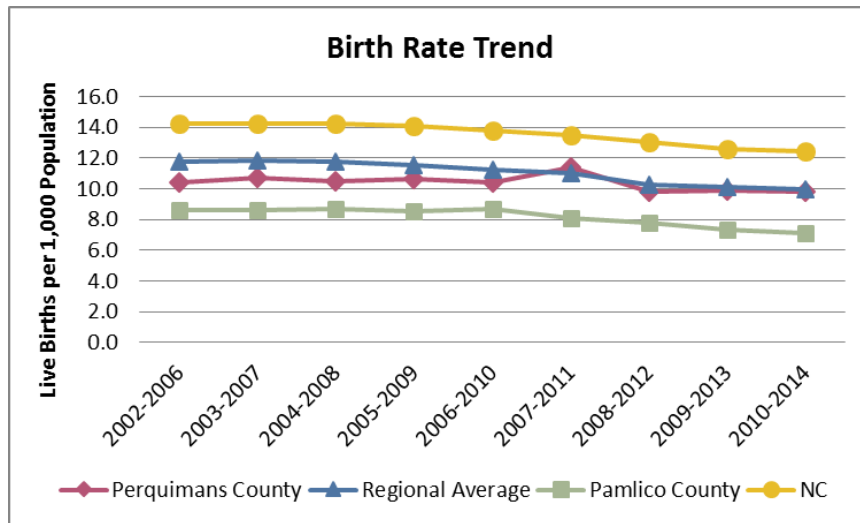
Note: percentage change is calculated.

Source: Log Into North Carolina (LINC) Database, Topic Group Population and Housing, Total Population, Population (Data Item 5001); http://data.osbm.state.nc/pls/linc/dyn_linc_main.show.

Birth Rate

Overall population growth is a function both of increase (via births and in-migration) and decrease (via deaths and out-migration). The following figure illustrates that the birth rate is declining in NC and all three other jurisdictions in the comparison. In Perquimans County, the birth rate decreased from 10.4 live births per 1,000 population in the 2002-2006 aggregate period to 9.8 live births per 1,000 population in the 2010-2014 aggregate period, a decrease of 6%. The birth rate for NC exceeded the comparable rates in the other jurisdictions for every period cited.

Figure 2. Birth Rate Trend, Live Births per 1,000 Total Population (US Census Bureau Five-Year Aggregates, 2002-2006 through 2010-2014)



Source: NC State Center for Health Statistics, Health Data, County Level Data, County Health Databooks 2008 through 2016. <http://www.schs.state.nc.us/schs/data/databook/>.

Population Density

The Perquimans County population has increased overall in density since 1980, although it is projected to decrease in the next two decades. In every period cited in the table below, Pamlico County was the least densely populated jurisdiction among those being compared.

Table 4. Decadal Population Density (1980-2030 [Projected])

Location	Persons per Square Mile					
	1980	1990	2000	2010 (Estimate)	2020 (Projection)	2030 (Projection)
Perquimans County	38.50	42.26	45.99	51.83	41.48	44.52
<i>Regional Average</i>	<i>50.91</i>	<i>55.99</i>	<i>62.72</i>	<i>75.55</i>	<i>55.73</i>	<i>57.50</i>
Pamlico County	30.52	33.74	38.39	39.82	23.45	23.93
<i>State of NC</i>	<i>120.39</i>	<i>136.14</i>	<i>165.19</i>	<i>191.93</i>	<i>196.47</i>	<i>215.72</i>

Source: Log Into North Carolina (LINC) Database, Topic Group Population and Housing, Total Population, Population Density (Data Item 5004); http://data.osbm.state.nc.us/pls/linc/dyn_linc_main.show.

Race and Ethnicity

The population of Perquimans County is less racially diverse than the ARHS region and NC as a whole. For example, according to 2014 data from the US Census Bureau cited below, the non-white population in Perquimans County was approximately 27% of the total population, somewhat lower than the comparable proportion in NC as a whole (30%) and significantly lower than the comparable proportion for the region (35%). The non-white population in Perquimans County was higher in proportion than the non-white population in Pamlico County (23%).

According to data in the following table, in Perquimans County:

- Whites composed 72.6% of the total population; regionally the comparable figure was 64.8% and statewide the figure was 69.6%.
- Blacks/African Americans composed 24.7% of the total population; regionally the comparable figure was 31.8% and statewide the figure was 21.5%.
- American Indians and Alaskan Natives composed 0.1% of the total population; regionally the comparable figure was 0.3% and statewide the figure was 1.2%.
- Asians, Native Hawaiians and Other Pacific Islanders composed essentially 0.0% of the total population; regionally the comparable figure was 1.0% and statewide the figure was 2.4%.
- Hispanics/Latinos of any race composed 2.2% of the total population; regionally the comparable figure was 3.0% and statewide the figure was 8.7%.

**Table 5. Population Distribution by Race/Ethnicity
(US Census Bureau 5-Year Estimate, 2010-2014)**

Location	Total	Number and Percent													
		White		Black or African-American		American Indian and Alaskan Native		Asian, Native Hawaiian and Other Pacific Islander		Some Other Race		Two or More Races		Hispanic or Latino of Any Race	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Perquimans County	13,507	9,803	72.6	3,331	24.7	16	0.1	2	0.0	58	0.4	297	2.2	298	2.2
<i>Regional Average</i>	19,334	12,534	64.8	6,146	31.8	64	0.3	192	1.0	92	0.5	306	1.6	584	3.0
Pamlico County	13,062	10,036	76.8	2,497	19.1	132	1.0	108	0.8	36	0.3	253	1.9	428	3.3
<i>State of NC</i>	9,750,405	6,784,901	69.6	2,093,389	21.5	113,798	1.2	237,913	2.4	293,865	3.0	226,539	2.3	848,597	8.7

Source a a b a b a b a b a b a b a b c b

a - US Census Bureau, American Fact Finder, 2014 ACS 5-year estimates. Table B02001: Race. (Geographies as noted).

<http://factfinder.census.gov>

b - Percentages were calculated

c - US Census Bureau, American Fact Finder, 2014 ACS 5-year estimates. Table B03003: Hispanic or Latino Origin. (Geographies as noted). <http://factfinder.census.gov>.

Race and Ethnicity by Township

The following information about racial and ethnic population diversity at the township level in Perquimans County was derived from 2014 US Census data presented in the table below.

- All townships in Perquimans County were predominately white.
- New Hope Township was the township with the largest number of whites, 3,029; this figure represented 22.4% of the total county population and 30.9% of all the white persons in the county.
- Hertford Township was the township with the largest number of Black/African Americans, 1,046; this figure represented 7.7% of the total county population and 31.4% of all Black/African American persons in the county.
- Hertford Township was the township with the largest number of Hispanics/Latinos, 101; this figure represented 0.7% of the total county population and 33.9% of all Hispanic/Latino persons in the county.

**Table 6. Population by Race/Ethnicity, by Township, Perquimans County
(US Census Bureau 5-Year Estimate, 2010-2014)**

Township	Persons Self-Identifying as of One Race												Two or More Races		Hispanic or Latino (of any race)	
	Total Population	White		Black or African American		American Indian and Alaska Native		Asian, Native Hawaiian or Other Pacific Islander		Some Other Race						
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
Belvidere Township	924	632	4.7	292	2.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	
Bethel Township	3,744	2,999	22.2	718	5.3	0	0.0	0	0.0	12	0.1	15	0.1	71	0.5	
Hertford Township	3,006	1,873	13.9	1,046	7.7	0	0.0	0	0.0	0	0.0	18	0.1	101	0.7	
New Hope Township	3,533	3,029	22.4	330	2.4	14	0.1	0	0.0	28	0.2	132	1.0	93	0.7	
Parkville Township	2,300	1,270	9.4	945	7.0	2	0.0	2	0.0	0	0.0	81	0.6	33	0.2	
Perquimans County Total	13,507	9,803	72.6	3,331	24.7	16	0.1	2	0.0	40	0.3	246	1.8	298	2.2	

Note: percentages are calculated from population figures. Percentage figures describe a racial or ethnic group as a proportion of the overall county population.

Sources: US Census Bureau, American Fact Finder, 2014 ACS 5-year estimates. Table B02001: Race. (Geographies as noted). <http://factfinder.census.gov>, and US Census Bureau, American Fact Finder, 2014 ACS 5-year estimates. Table B03003: Hispanic or Latino Origin. (Geographies as noted). <http://factfinder.census.gov>.

Age

The following information about the age (and gender) distribution of the Perquimans County population was derived from 2014 US Census Bureau estimates presented in the next table. Generally, these data demonstrate that Perquimans County had a population distribution skewed *older* than the distribution for the state as a whole.

- In terms of both numbers (1,081) and percent (8.0%), the largest segment of the population in Perquimans County was the age group 55-59. This differed from NC as a whole, where the segment composing the largest number and percent (7.2%) of the state's population was age group, 20-24.
- Persons 65 years of age or older composed 24.4% of the population in Perquimans County, but 14.6% of the population of NC.
- Persons 19 years of age and younger composed 21.9% of the population in Perquimans County, but 25.8% of the population of NC.

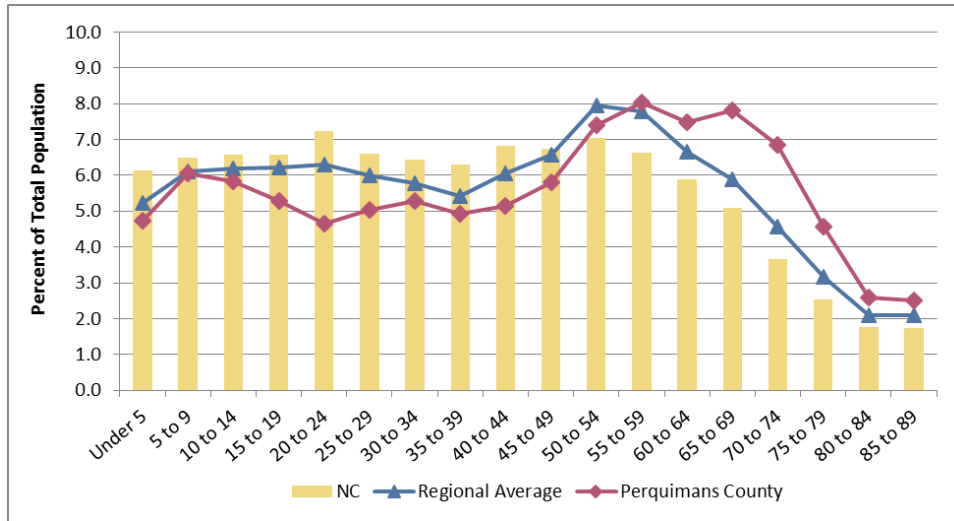
**Table 7. Population Distribution by Age and Gender, Number and Percent
(US Census Bureau Estimate, 2014)**

Age Group	Perquimans County						North Carolina					
	No. in Population			% of Total Population			No. in Population			% of Total Population		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
All ages	13,466	6,475	6,991	100.0	48.1	51.9	9,943,964	4,844,593	5,099,371	100.0	48.7	51.3
Under 5	637	327	310	4.7	2.4	2.3	607,476	310,355	297,121	6.1	3.1	3.0
5 to 9	815	387	428	6.1	2.9	3.2	644,895	328,815	316,080	6.5	3.3	3.2
10 to 14	787	401	386	5.8	3.0	2.9	651,864	332,271	319,593	6.6	3.3	3.2
15 to 19	710	362	348	5.3	2.7	2.6	652,941	333,645	319,296	6.6	3.4	3.2
20 to 24	628	328	300	4.7	2.4	2.2	718,261	376,049	342,212	7.2	3.8	3.4
25 to 29	679	330	349	5.0	2.5	2.6	654,475	324,122	330,353	6.6	3.3	3.3
30 to 34	713	352	361	5.3	2.6	2.7	637,775	312,509	325,266	6.4	3.1	3.3
35 to 39	662	315	347	4.9	2.3	2.6	625,513	305,953	319,560	6.3	3.1	3.2
40 to 44	694	340	354	5.2	2.5	2.6	677,245	331,038	346,207	6.8	3.3	3.5
45 to 49	783	373	410	5.8	2.8	3.0	668,371	327,819	340,552	6.7	3.3	3.4
50 to 54	995	460	535	7.4	3.4	4.0	699,194	338,657	360,537	7.0	3.4	3.6
55 to 59	1,081	530	551	8.0	3.9	4.1	658,373	314,339	344,034	6.6	3.2	3.5
60 to 64	1,007	470	537	7.5	3.5	4.0	584,219	273,695	310,524	5.9	2.8	3.1
65 to 69	1,052	482	570	7.8	3.6	4.2	505,469	236,107	269,362	5.1	2.4	2.7
70 to 74	923	437	486	6.9	3.2	3.6	362,314	165,643	196,671	3.6	1.7	2.0
75 to 79	617	300	317	4.6	2.2	2.4	251,577	109,253	142,324	2.5	1.1	1.4
80 to 84	347	156	191	2.6	1.2	1.4	173,620	69,325	104,295	1.7	0.7	1.0
85 and older	336	125	211	2.5	0.9	1.6	170,382	54,998	115,384	1.7	0.6	1.2

Source: US Census Bureau, American Fact Finder, 2014 Population Estimates. PEPAGESEX: Annual Estimates of the Resident Population for Selected Age Groups by Sex for the United States, States, Counties, and Puerto Rico Commonwealth and Municipios: April 1, 2010 to July 1, 2014. <http://factfinder.census.gov>. (Geographies as noted) <http://factfinder2.census.gov>. Percentages are calculated.

The following figure compares the age distribution of the Perquimans County population to the age distribution of the populations in the ARHS Region and the state of NC. In both Perquimans County and the region, there was a smaller proportion of young persons and a larger proportion of older persons than demonstrated in the state age distribution profile.

Figure 3. Population Distribution by Age, Perquimans County, ARHS Region and NC (US Census Bureau Estimate, 2014)



Source: US Census Bureau, American Fact Finder, 2014 Population Estimates. PEPAGESEX: Annual Estimates of the Resident Population for Selected Age Groups by Sex for the United States, States, Counties, and Puerto Rico Commonwealth and Municipios: April 1, 2010 to July 1, 2014. <http://factfinder.census.gov>. (Geographies as noted) <http://factfinder2.census.gov>.

Age by Township

The discussion below is based on the 2014 US Census Bureau estimates presented in the table below:

- Hertford Township was the township with the highest proportion of persons under the age of 18 (26.2%).
- Bethel Township had the highest proportion of persons ages 65 and older (35.5%).

Table 8. Population by Age, by Township, Perquimans County (US Census Bureau 5-Year Estimate, 2010-2014)

Township	Percent of Total Population						
	<18	18-24 Years	25-34 Years	35-44 Years	45-54 Years	55-64 Years	65 Years and Over
Belvidere Township	13.7	5.8	3.7	15.1	19.6	22.4	19.7
Bethel Township	14.4	4.5	6.0	8.8	11.2	19.7	35.5
Hertford Township	26.2	7.5	10.5	11.1	8.8	17.1	18.9
New Hope Township	20.5	9.7	14.0	10.7	17.3	12.0	15.9
Parkville Township	24.0	7.0	7.7	12.3	18.3	9.8	20.7
Perquimans County Total	20.1	7.0	9.2	10.8	14.1	15.6	23.1

Source: US Census Bureau, American FactFinder, 2014 ACS 5-year Estimates. Table S0101 Age and Sex (geographies as listed); <http://factfinder2.census.gov>. Some age groups calculated.

Elderly Population

Because the proportion of the Perquimans County population age 65 and older is larger than the proportion of that age group statewide, it merits closer examination. The population segment age 65 and older often requires more and different health and social services than the rest of the population, and understanding how that population will change in coming years will be an important consideration in planning to meet the future health and human service needs of the community.

The following information regarding the elderly population in Perquimans County was extracted from the multi-part table below, which was developed from 2000 and 2010 US Census figures and current projections for the years 2020 and 2030 from the NC Office of State Budget and Management.

- The proportion of every age group in Perquimans County age 65 and older will increase through the year 2030.
- Though all segments of the elderly population will grow, the segment expected to grow by the largest percentage in the twenty years between 2010 and 2030 is the age group 85 and older, which is predicted to grow by 126% over that period, from 2.3% to 5.2% of the total county population.
- The segment of the population expected to grow by the second largest percentage between 2010 and 2030 is the group aged 75-84, which is predicted to grow by 77% over that period, from 6.1% to 10.8% of the total county population.
- The segment of the Perquimans County population age 65 and older is projected to total 4,447 persons by 2030.

Table 9. Growth Trend for the Elderly (Age 65 and Older) Population, by Decade (2000 through 2030)

Location	2000 Census Data								
	Total Population (2000)	# Population Age 65 and Older	% Population Age 65 and Older	# Age 65-74	% Age 65-74	# Age 75-84	% Age 75-84	# Age 85+	% Age 85+
Perquimans County	11,368	2,192	19.3	1,205	10.6	751	6.6	236	2.1
<i>Regional Total</i>	116,155	17,502	15.1	9,504	8.2	6,011	5.2	1,987	1.7
<i>Regional Average</i>	16,594	2,500	15.3	1,358	8.4	859	5.2	284	1.7
Pamlico County	12,934	2,429	18.8	1,455	11.2	722	5.6	252	1.9
State of NC	8,049,313	969,048	12.0	533,777	6.6	329,810	4.1	105,461	1.3
Source	1	1	1	1	5	1	5	1	5

Location	2010 Census Data								
	Total Population (2010)	# Population Age 65 and Older	% Population Age 65 and Older	# Age 65-74	% Age 65-74	# Age 75-84	% Age 75-84	# Age 85+	% Age 85+
Perquimans County	13,453	2,887	21.5	1,763	13.1	815	6.1	309	2.3
<i>Regional Total</i>	135,913	21,119	15.5	12,006	8.8	6,579	4.8	2,534	1.9
<i>Regional Average</i>	19,416	3,017	16.1	1,715	9.3	940	4.9	362	1.9
Pamlico County	13,144	2,857	21.7	1,655	12.6	929	7.1	273	2.1
State of NC	9,535,483	1,234,079	12.9	697,567	7.3	389,051	4.1	147,461	1.5
Source	2	2	2	2	5	2	5	2	5

**Table 9. Growth Trend for the Elderly (Age 65 and Older) Population, by Decade
(2000 through 2030)
Continued**

Location	2020 (Projected)								
	Total Projected Population	# Population Age 65 and Older	% Population Age 65 and Older	# Age 65-74	% Age 65-74	# Age 75-84	% Age 75-84	# Age 85+	% Age 85+
Perquimans County	13,698	3,825	27.9	1,971	14.4	1,394	10.2	460	3.4
<i>Regional Total</i>	<i>138,650</i>	<i>27,070</i>	<i>19.5</i>	<i>15,597</i>	<i>11.2</i>	<i>8,460</i>	<i>6.1</i>	<i>3,013</i>	<i>2.2</i>
<i>Regional Average</i>	<i>19,807</i>	<i>3,867</i>	<i>20.6</i>	<i>2,228</i>	<i>11.7</i>	<i>1,209</i>	<i>6.6</i>	<i>430</i>	<i>2.4</i>
Pamlico County	13,293	3,955	29.8	2,168	16.3	1,286	9.7	501	3.8
<i>State of NC</i>	<i>10,574,718</i>	<i>1,778,807</i>	<i>16.8</i>	<i>1,056,828</i>	<i>10.0</i>	<i>530,540</i>	<i>5.0</i>	<i>191,439</i>	<i>1.8</i>
Source	3	3	5	3	5	3	5	3	5

Location	2030 (Projected)								
	Total Projected Population	# Population Age 65 and Older	% Population Age 65 and Older	# Age 65-74	% Age 65-74	# Age 75-84	% Age 75-84	# Age 85+	% Age 85+
Perquimans County	14,646	4,447	30.4	2,103	14.4	1,576	10.8	768	5.2
<i>Regional Total</i>	<i>142,641</i>	<i>33,125</i>	<i>23.2</i>	<i>18,048</i>	<i>12.7</i>	<i>11,082</i>	<i>7.8</i>	<i>3,995</i>	<i>2.8</i>
<i>Regional Average</i>	<i>20,377</i>	<i>4,732</i>	<i>24.4</i>	<i>2,578</i>	<i>13.0</i>	<i>1,583</i>	<i>8.3</i>	<i>571</i>	<i>3.2</i>
Pamlico County	13,561	4,442	32.8	2,072	15.3	1,678	12.4	692	5.1
<i>State of NC</i>	<i>11,609,883</i>	<i>2,314,948</i>	<i>19.9</i>	<i>1,256,441</i>	<i>10.8</i>	<i>792,733</i>	<i>6.8</i>	<i>265,774</i>	<i>2.3</i>
Source	4	4	5	4	5	4	5	4	5

1 - US Census Bureau, American FactFinder. Profile of General Demographic Characteristics: 2000 (DP-1), SF1;

<http://factfinder2.census.gov>.

2 - US Census Bureau, American FactFinder. Profile of General Population and Housing Characteristics: 2010 (DP-1); website:

<http://factfinder2.census.gov>.

3 - NC Office of State Budget and Management, Facts and Figures, County Projections. Age, Race and Sex Projections. Age Groups - Total: July 2020 - Totals. http://www.osbm.nc.gov/demog/countytotals_standardagegroups.

4 - NC Office of State Budget and Management, Facts and Figures, County Projections. Age, Race and Sex Projections. Age Groups - Total: July 2030 - Totals. http://www.osbm.nc.gov/demog/countytotals_standardagegroups.

5 – Percentages are calculated using age group population as numerator and total population as denominator.

Demographic Characteristics of the Elderly Population

The next table summarizes a variety of data describing the educational and financial status of the population age 65 and older. Among the jurisdictions presented for comparison in the table, the elderly population in Perquimans County had:

- the second-lowest proportion with less than a high school diploma or GED (20.2%);
- the second-lowest proportion with a graduate or professional degree (17.4%);
- the second-lowest proportion living below 100% poverty (7.8%);
- the second-highest proportion living between 100% and 199% poverty (20.0%);
- the lowest proportion living alone (19.2%);
- the lowest proportion in the labor force (13.2%); and
- the highest median household income (\$45,039), \$10,015 higher than the NC average.

In addition, according to US Census Bureau estimates, 36.5% of the Perquimans County population age 65 or older had some sort of disability (11).

Table 10. Demographic Characteristics of the Population Age 65+ (US Census Bureau Year Estimate, 2014)

Location	% with less than HS Diploma	% with Graduate or Professional Degree	% Below Poverty Level	% in 100%-199% Poverty Level	% Homeowners	% Living Alone	% Persons Age 65+ in Labor Force	Median Household Income Householders Age 65+
Perquimans County	20.2	17.4	7.8	20.0	89.1	19.2	13.2	\$45,039
<i>Regional Average</i>	28.0	15.0	11.5	26.9	87.3	25.2	14.2	\$36,210
Pamlico County	19.2	21.4	5.9	18.4	88.9	22.3	14.4	\$39,917
<i>State of NC</i>	22.3	21.6	9.9	24.4	81.7	28.0	15.7	\$35,024

Source: NC Division of Aging and Adult Services. Data Reports. County Aging Profiles. https://ncdhhs.s3.amazonaws.com/s3fs-public/documents/files/county-aging-profiles_0.pdf.

Non-English Speaking Population

The foreign-born population in a community is one that potentially does not speak English, and so is of concern to service providers.

In NC, the greatest proportion of the increase in foreign-born persons is represented by immigrants of Hispanic origin; however, statewide there has also been an influx of foreign-born immigrants from Southeast Asia.

According to US Census Bureau estimates summarized in the table below:

- There were 357 foreign-born residents residing in Perquimans County in 2014. Using a base 2014 county population figure of 13,466, foreign-born residents made up 2.7% of the total county population at that time.
- Since 1990, the largest influx of foreign-born persons in Perquimans County—242 people, or 68% of the total foreign born population in 2014—arrived before 1990.

Table 11. Growth of the Foreign-Born Population (Before 1990 through 2014)

Location	Number of Persons Arriving				
	Total	Before 1990	1990-1999	2000-2009	After 2010
Perquimans County	357	242	46	58	11
<i>Regional Total</i>	4,680	2,125	831	1,577	147
<i>Regional Average</i>	669	304	119	225	21
Pamlico County	653	209	198	199	47
<i>State of NC</i>	834,327	225,160	241,832	324,570	42,765

Source: US Census Bureau, American Fact Finder, 2014 ACS 5-Year Estimates, Table B05005: Year of Entry by Citizenship Status in the United States. <http://factfinder2.census.gov>.

Linguistic Isolation

“Linguistic isolation”, reflected as an inability to communicate because of a lack of language skills, can be a barrier preventing foreign-born residents from accessing needed services. The US Census Bureau tracks linguistically isolated households according to the following definition:

A linguistically isolated household is one in which no member 14 years and over (1) speaks only English, or (2) speaks a non-English language and speaks English “very well”. In other words, all members 14 years old and over have at least some difficulty with English.

The following information about linguistically isolated households is derived from the 2010-2014 five-year US Census Bureau estimates presented in the table below.

- Of the 12,853 persons five years old and older in Perquimans County in the period cited, an estimated 3.2% (411 persons) spoke a language other than English. Of these, an estimated 37.2% (153 persons) were linguistically isolated.
- The largest *number* of linguistically isolated persons in Perquimans County in the period cited occurred within the Spanish-speaking population (n=140), but the highest *proportion* of linguistically isolated persons in the county was noted in the population speaking “Other” languages (100.0%).

**Table 12. Household Language by Linguistic Isolation
(US Census Bureau 5-Year Estimate, 2010-2014)**

Location	Total Population 5 Years and Older	Spanish Speakers			Other Indo-European Languages			Asian & Pacific Island Languages			Other Languages		
		% of Population	% Speaking English Very Well	% Speaking English less than Very Well	% of Population	% Speaking English Very Well	% Speaking English less than Very Well	% of Population	% Speaking English Very Well	% Speaking English less than Very Well	% of Population	% Speaking English Very Well	% Speaking English less than Very Well
Perquimans County	12,853	2.0	45.7	54.3	1.1	100.0	0.0	0.0	0.0	0.0	0.1	0.0	100.0
<i>Regional Average</i>	<i>18,095</i>	<i>1.8</i>	<i>47.8</i>	<i>50.8</i>	<i>0.8</i>	<i>87.3</i>	<i>12.7</i>	<i>0.7</i>	<i>33.6</i>	<i>37.9</i>	<i>0.1</i>	<i>57.1</i>	<i>14.3</i>
Pamlico County	12,525	3.8	50.4	49.6	0.9	54.5	45.5	1.0	88.5	11.5	0.3	78.4	21.6
<i>State of NC</i>	<i>9,132,159</i>	<i>7.4</i>	<i>56.5</i>	<i>43.5</i>	<i>1.6</i>	<i>75.6</i>	<i>24.4</i>	<i>1.5</i>	<i>56.7</i>	<i>43.3</i>	<i>0.5</i>	<i>71.8</i>	<i>28.2</i>

Source: US Census Bureau, American Fact Finder, Table B16002: Household Language by Linguistic Isolation, 2014 American Community Survey 5-Year Estimates. <http://factfinder.census.gov>.

Age Distribution of the Latino Population

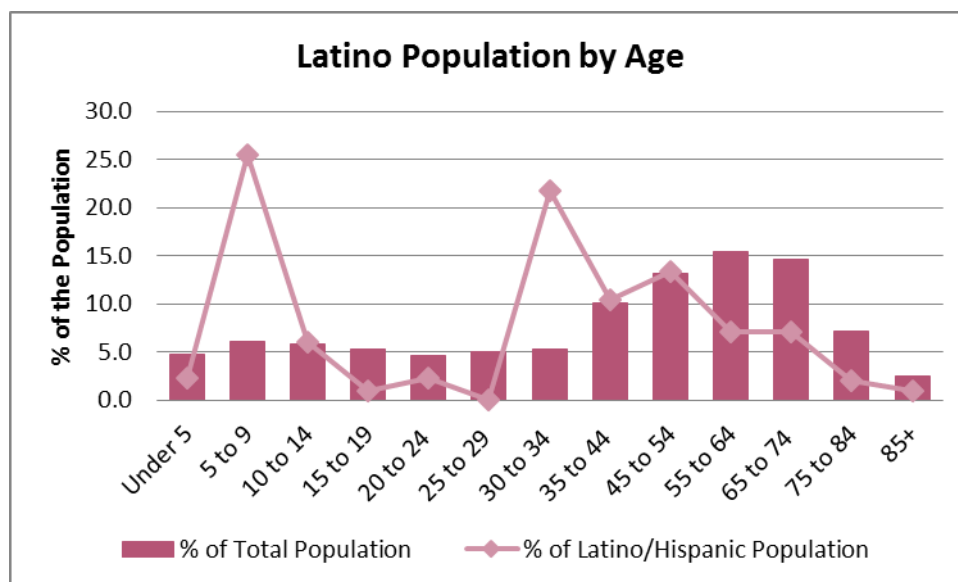
Since the Hispanic/Latino population is the principal linguistically-isolated group in Perquimans County, further knowledge of the characteristics of this group is helpful in anticipating service needs.

In Perquimans County, as in other counties in NC, a major impetus for immigration—at least until the economic downturn that began in 2008—was the prospect of employment opportunities. One would expect then that the age groups predominant in this population would be those in their “prime” for work, especially the physical labor-type jobs in construction, agricultural, and fishing industries available to them in the coastal region of the state. The spouses of these workers would be in the midst of their childbearing years, so it might also be expected that this population would have children.

The following figure presents a graphic profile of the 2010-2014 US Census Bureau estimates for population by age group for the total Perquimans County population compared to the same profile for the Hispanic/Latino population.

- The age profile of the Hispanic/Latino population in Perquimans County displays peaks in the age groups 5-9 and 30-34, in proportions significantly higher than in the overall county population. There were lower proportions for Hispanics/Latinos than for the general population in most of the other age groups.

Figure 4. Age Distribution of Overall and Latino Populations in Perquimans County, Percent (US Census Bureau 5-Year Estimate, 2010-2014)



Source: US Census Bureau, American Fact Finder, 2014 ACS 5-Year Estimates. Table B010011: Sex by Age (Hispanic or Latino) (geographies as noted); <http://factfinder2.census.gov>. Percentages are calculated

Special Populations

Military Veterans

A population group that sometimes needs special health services is military veterans. The following table summarizes information about that population for the aggregate period 2010-2014.

The population in Perquimans County had the *largest* proportion of military veterans among the NC jurisdictions under comparison. Veterans composed 13.8% of Perquimans County’s overall adult civilian population in the period cited.

Pamlico County was home to the *oldest* veteran population among its peer, region and state comparators: 57.7% of the veterans in Perquimans County were age 65 or older, but the second-largest proportion of veterans age 65 and older (54.4%) lived in Perquimans County. Comparable proportions were 40.9% in the region, and 40.6% statewide. Nationally, 45.1% of the veteran population was age 65 or older.

**Table 13. Veteran Status of Population
(US Census Bureau 5-Year Estimate, 2010-2014)**

Location	Civilian Population 18 years and over					% Veterans by Age				
	Total	# Non-Veterans	% Non-Veterans	# Veterans	% Veterans	18 to 34 years	35 to 54 years	55 to 64 years	65 to 74 years	75 years and over
Perquimans County	10,751	9,271	86.2	1,480	13.8	2.6	20.3	22.7	26.3	28.1
<i>Regional Total</i>	104,388	91,634	87.8	12,754	12.2	n/a	n/a	n/a	n/a	n/a
<i>Regional Average</i>	14,913	13,091	87.5	1,822	12.5	6.4	30.6	22.0	22.8	18.1
Pamlico County	10,810	9,441	87.3	1,369	12.7	3.3	19.6	19.4	30.0	27.7
<i>State of NC</i>	7,380,446	6,670,975	90.4	709,471	9.6	9.0	28.0	22.4	21.7	18.9
<i>National Total</i>	239,305,217	218,604,506	91.3	20,700,711	8.7	8.4	24.7	21.9	22.4	22.7

Source: US Census Bureau, American Fact Finder. Veteran Status, 2014 American Community Survey 5-Year Estimate. Table S2101: Veteran Status; <http://factfinder2.census.gov>.

Blind and Visually-Impaired Persons

The table below presents data on the number of blind or visually-impaired persons in the jurisdictions being compared. In 2011, there were 49 blind or visually-impaired persons living in Perquimans County, and a total of 463 persons with those disabilities region-wide. Note that no update to this data was available.

**Table 14. Blind and Visually-Impaired Persons
(2011)**

Location	Number Blind/Visually Impaired (2011)
Perquimans County	49
<i>Regional Total</i>	463
<i>Regional Average</i>	66
Pamlico County	36
State of NC	20,972

Source: Log into North Carolina (LINC) Database, Topic Group Vital Statistics and Health (Data Item 520); http://data.osbm.state.nc.us/pls/linc/dyn_linc_main.show.

Special Needs Registry

The Perquimans County Emergency Management Office works with local agencies to ensure the preparedness of Perquimans County in the event of a natural or man-made disaster. Emergency Management coordinates the response and relief activities within the county due to a disaster. The department works with the community to identify, analyze and develop emergency plans for hazards that may have an impact on the county. Emergency plans are developed through management of preparedness, response, recovery and mitigation programs (12).

Perquimans County Emergency Management has advertised and disseminated a “Perquimans County Voluntary Special Needs Registration Form” via various sources including Perquimans

County Social Services, Perquimans County Senior Center, The Albemarle Commission and various civic organizations. All completed and returned forms are sent back to the Emergency Services Director who evaluates the information identified on the form and places each candidate into a Risk Level of Impairment of I to III. The Risk Levels of Impairment are as follows:

Level I – (Low) Basic transportation needs. Some examples include severe arthritis, hearing impairment, oxygen dependency, and mobility impairment.

Level II – (Medium) Need caregiver. Some examples include sight impairment, hearing impairment, walker/wheelchair dependent, slight to moderate dementia, severe respiratory problems and need medicine(s) administered.

Level III – (High) Need specialized care. Some examples include legally blind, on feeding tube, bedridden, electricity dependent, hearing/speech impairment, on dialysis, and on life support.

After a risk level of impairment has been assigned to each form they are filed in the Perquimans County Emergency Management office and essential information listed in the county's master list. The fire department in whose fire district the impaired person resides receives a copy of this essential information. A complete county-wide listing of this information is maintained by Perquimans County Emergency Services and given to Albemarle Regional Health Services, Perquimans County Social Services, Perquimans County Sheriff's Office, the Hertford Police Department, the Winfall Police Department and The Albemarle Commission so that if and when a situation occurs involving a Perquimans County Special Needs Registrant, first responders are aware of the special needs of citizens. The Perquimans County Special Needs Register is continually updated as new information comes to the attention of Perquimans County Emergency management (13).

CIVIC ENGAGEMENT

Electoral Process

One measure of a population's engagement in community affairs is its participation in the electoral process. The following two tables summarize current voter registration and historical voter turnout data. Note that turnout in any particular election is at least partially determined by the voters' interest and investment in the particular issues on the ballot at that time.

Registered Voters

- According to the State Board of Elections, the proportion of the voting age population registered to vote in Perquimans County in 2016 was 89.3% (see the footnote to the table, below).
- Approximately 22% of the registered voters in Perquimans County were Black/African American, a percentage lower than the proportion this racial group represented in the overall county population (24.7%) in 2014.

**Table 15. Registered Voters, by Race/Ethnicity, Number and Percent
(As of 1/9/16)**

Location	Estimated Voting Age Population (2015)	Number and Percent of Voting Age Population Registered to Vote ¹											
		Total		White		Black		American Indian		Other		Hispanic	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Perquimans County	10,941	9,774	89.3	7,245	66.2	2,365	21.6	14	0.1	150	1.4	39	0.4
<i>Regional Average</i>	15,357	13,476	87.8	8,765	58.7	4,220	26.2	24	0.1	466	2.8	64	0.4
Pamlico County	11,023	9,375	85.0	7,304	66.3	1,772	16.1	29	0.3	270	2.4	51	0.5
<i>State of NC</i>	7,752,543	6,436,922	83.0	4,539,092	58.5	1,443,414	18.6	52,540	0.7	401,876	5.2	130,982	1.7

Source:

¹ The total number of registered voters reported by the NC State Board of Elections is based on the sum of registrations by party affiliation, and does not necessarily equal the sum of registrations by race. Therefore, the sum of the percentages does not equal 100%.

a - Log Into North Carolina (LINC) Database, Topic Group Government, Voters and Elections, Voting Age Population (Data Item 1714), 2012; http://data.osbm.state.nc.us/pls/linc/dyn_linc_main.show.

b - NC State Board of Elections, Data and Statistics, Voter Registration Statistics, By Date;

http://www.ncsbe.gov/webapps/voter_stats/.

c - Percentages are calculated

Voter Turnout

It is apparent from the data below that voter turnout was higher in every jurisdiction cited in elections that included a presidential race (2004 and every four-years). (Note that this data is no longer available at the source.)

**Table 16. Voter Turnout in General Elections
(2004-2012)**

Location	% Registered Voters that Voted				
	2004	2006	2008	2010	2012
Perquimans County	62.00	32.00	70.39	44.12	67.41
<i>Regional Average</i>	58.57	35.29	68.67	44.37	65.81
Pamlico County	62.00	44.00	71.66	51.59	71.20
<i>State of NC</i>	64.00	37.00	69.93	43.75	68.42

Source: NC State Board of Elections, Elections Central, Elections Results Data (years as noted), General Elections; <http://www.sboe.state.nc.us/content.aspx?id=69>.

RELIGIOUS LIFE

The fabric of a community is often maintained and repaired through its citizens' participation in organized religion. Increasingly, health and human service providers have come to realize that the faith community can be an important partner in assuring the health and well-being of at least its members if not larger segments of the population.

The following table lists the religious bodies in Perquimans County as of 2010 (no more recent data was available at the source.) These data, gathered in January 2016, show that in 2010 there was a range of options for exploring faith and religion within the county.

**Table 17. Religious Bodies in Perquimans County
(2010)**

Religious Bodies	Number of Congregations	Number of Adherents
African Methodist Episcopal Zion Church	7	831
Assemblies of God	2	131
Bahai	0	2
Christian Church (Disciples of Christ)	1	0
Christian Churches and Churches of Christ	2	176
Episcopal Church	1	125
Friends United Meeting	2	207
International Pentecostal Church of Christ	1	34
International Pentecostal Holiness Church	2	95
Jehovah's Witness	1	n/a
National Baptist Convention USA, Inc.	1	0
Non-denominational	3	612
Southern Baptist Convention	8	1,747
United Methodist Church	8	1,579
Wesleyan Church, The	1	179
TOTAL	40	5,718

Source: Association of Religious Data Archives (ARDA), US Congregational Membership: Reports, County Membership Report, Browse Reports, Counties;
<http://www.thearda.com/rcms2010/>.

COMMUNITY SERVICES AND ORGANIZATIONS

Law Enforcement

There are two municipalities listed for Perquimans County that have their own police departments: Bethel and Hertford (14). The rest of the county is covered by the Perquimans County Sheriff's Office, headquartered in Hertford.

Fire and Rescue Departments

The six fire departments that serve Perquimans County are listed in the table below.

**Table 18. Fire Departments in Perquimans County
(October, 2016)**

Department Name	Location
Belvidere-Chappell Hill Fire Department	Belvidere
Bethel Volunteer Fire Department	Hertford
Durants Neck Volunteer Fire Department	Hertford
Hertford Fire Department	Hertford
Inter-County Volunteer Fire Department	Hertford
Winfall Volunteer Fire Department	Winfall

Source: Perquimans County, NC. Perquimans County Fire Departments.

http://www.Perquimanscounty.gov/office2.com/index.asp?Type=B_BASIC&SEC=%7BD2B7E7EC-15CE-4AEB-AC66-117EA5E59711%7D

Public Libraries

There is one public library that serves the people of Perquimans County. The Perquimans County Public Library, an affiliate of Pettigrew Regional Library, is located in Hertford (15).

Perquimans County Senior Center

The Perquimans County Senior Citizens Center, located in Hertford, opened in 1979. It is where senior persons can meet, receive services and participate in activities that will affirm the dignity and self-worth of the senior adult. The Center serves residents of Perquimans County who are age 55 or older, and their spouse, if age 55 or older. There is no membership fee. Hours of operation are 8 am until 5 pm daily Monday through Friday.

Activities

The Senior Center offers many classes and workshops. Some meet weekly or monthly and others at specially-scheduled times. Programs include: arts and crafts, flower arranging, basket weaving, cooking classes, mixed media painting, computer classes, card playing, bingo, line dance, bowling, billiards, and luncheons. Other opportunities include day trips, health fairs, and Senior Games.

Services

Services available at the Center include: telephone reassurance, health promotion, Operation Heat Relief, Seniors' Health Insurance Information Program (SHIIP), and referral to service agencies.

Elderly Nutrition Program

Congregate Meals. The Elderly Nutrition Program is designed for persons 60 years of age and older and their spouses, regardless of age. A hot meal providing 1/3 of the Recommended Daily Dietary Allowance is served five days a week. The purpose of the Congregate Program is to promote the health and well-being of older people by providing a meal and opportunities for health education, social interaction and recreation. Meals are served at 12 congregate settings in a 10-county region of eastern NC.

Home-Delivered Meals. The Home Delivered Meals Program is designed to improve the health of impaired older persons by providing a nutritionally balanced meal served in their homes by volunteers (16).

Other Community Services and Organizations

It is a nearly impossible task to create a print catalogue or listing of community resources that is current beyond its print date. Therefore, this CHNA document provides instead *links* to on-line or telephone resources that provide information on community organizations and services available to Perquimans County residents. These particular community resource directories and guides have been included because they are sponsored and/or maintained by entities likely to remain in existence, and because they cover a range of community resources.

[Note that Health and Health Care Resources, while included in some of the directories and guides cited below, are listed separately in an appendix to this CHA.]

Perquimans County Community Resource Directories and Guides

Perquimans County Chamber of Commerce

Limited lists of businesses and services in Perquimans County.
Portal - <http://www.visitperquimans.com/>.

Perquimans County Government Website

Descriptions and contact information for county government offices and services provided by the county; links to tourism sites in the county.
Portal: <http://www.perquimanscountync.gov/>.

Albemarle Alliance for Children and Families

Maintains links to support services targeted to families of children throughout the Albemarle Region.
Portal - <http://albemarleacf.org/links.php>.

NC 2-1-1 for Perquimans County

The United Way sponsors a telephone and/or on-line referral program via which the public can find assistance with housing, food, healthcare, utility payments, and more. Inquiries involve entering the area of need and the target county, city, and/or zip code into the search categories at the website listed below.

For telephone assistance, information seekers can simply call 2-1-1 24 hours a day, 7 days a week to speak with a trained specialist.

Portal - <http://www.unitedwaync.org/nc211>.

CHAPTER TWO: SOCIOECONOMIC DATA

ECONOMIC CLIMATE

Tier Designation

The NC Department of Commerce annually ranks the state's 100 counties based on economic well-being and assigns a Tier Designation. The parameters included in the assignment include unemployment rate, median household income, population growth, and assessed property value per capita. The 40 most distressed counties are designated as Tier 1, the next 40 as Tier 2, and the 20 least distressed as Tier 3. The Tier system is incorporated into various state programs, including a system of tax credits (Article 3J Tax Credits) that encourage economic activity and business investment in less prosperous areas of NC. In 2016, Perquimans County was assigned Tier 1 designation and Pamlico County was assigned a Tier 2 designation (17).

County Revenue Indicators

The state of NC monitors gross collections of state sales and use taxes in counties. While the majority of these taxes go to the state, these collections do provide some of the money available to the county to fund public services. Changes in these collections point to changes in overall economic activity and fiscal confidence in a county, as depicted in the time series of figures presented in the table below.

- For the period covering FY2005-06 through FY2014-15, gross collections of state sales and use taxes in Perquimans County were only about 4.2% of the average for all NC counties.
- Perquimans County collections fell between FY2007-08 and FY2008-09 but recovered immediately and grew significantly in most years since FYFY2009-10. Perquimans County collections in FY2014-15 were the county's highest in the 10-year period cited.

**Table 19. NC State Sales and Use Tax Gross Collections
(FY2005-06 through FY2014-15)**

Location	FY2005-06	FY2006-07	FY2007-08	FY2008-09	FY2009-10	FY2010-11	FY2011-12	FY2012-13	FY2013-14	FY2014-15
Perquimans County	1,573,459	1,915,625	1,959,246	1,600,048	2,187,504	2,383,814	2,063,349	2,238,662	2,414,230	2,553,004
<i>Regional Average</i>	5,235,545	5,294,336	5,066,629	4,936,479	6,981,295	7,998,729	7,314,849	7,651,788	7,379,530	7,730,478
<i>NC County Average</i>	45,605,858	46,004,427	46,029,546	43,169,210	50,252,290	55,679,535	49,906,563	50,164,100	52,548,980	57,312,401

Source: NC Department of Revenue, Tax Publications and Reports, State Sales and Use Tax Reports by Fiscal Year, by County Summary (years as noted); <http://www.dornrc.com/publications/fiscalyearsales.html>.

Perquimans County government made the following table of local economic data available to the assessment team.

- The total value of new dwelling permits, land transfer tax collections and occupancy tax collections decreased in FY2013-2014, but recovered in FY2014-2015.

**Table 20. Local Revenue Indicators, Perquimans County
FY2011-2012 through FY2014-2015**

Indicator	FY2011-2012	FY2012-2013	FY2013-2014	FY2014-2015
New Dwelling Permits				
<i>Number of Permits</i>	28	38	26	28
<i>Dollar Value</i>	\$7,407,294	\$7,901,574	\$5,344,016	\$7,555,593
Land Transfer Tax Collections	\$341,779	\$257,388	\$210,972	\$278,116
Occupancy Tax Collections	\$8,089	\$4,983	\$4,574	\$5,046

Source: Personal communication, Tracy Matthews, Perquimans County Finance Office, to Dana Hamill, Public Health Educator, Albemarle Regional Health Services, November 2, 2015.

Income

While revenue indicators give us some idea of economic health from the community economic development standpoint, income measures tell us about the economic well-being of individuals in the community. Among the more useful income measures are personal income, family income, and household income. For comparison purposes, personal income is calculated on a per capita basis; family income and household income are viewed as a median value for a target population. The following are definitions of each of the three income categories:

- *Per capita personal income* is the income earned per person 15 years of age or older in the reference population.
- *Median household income* pertains to the incomes of all the people 15 years of age or older living in the same household (i.e., occupying the same housing unit) regardless of relationship. For example, two roommates sharing an apartment would be a household, but not a family.
- *Median family income* pertains to the income of all the people 15 years of age or older living in the same household who are related either through marriage or bloodline. For example, in the case of a married couple who rent out a room in their house to a non-relative, the household would include all three people, but the family would be just the couple.

The table below summarizes recent income data for Perquimans County and its typical comparators. (Note: although US data is included in the table, no comparisons with that data are highlighted here.) Among the NC comparator jurisdictions:

- Median household income was second-lowest in Perquimans County, where the figure was more than \$1,300 lower than the state figure; it was lowest in Pamlico County.
- Median family income was highest in Pamlico County and lowest in Perquimans County. Median family income in Perquimans County was over \$5,300 less than the NC average.
- Per capita personal income statewide was highest and region-wide was lowest. Per capita personal income was second-lowest in Perquimans County, where the figure was more than \$2,300 less than the NC average.
- Mean retirement income was highest in Perquimans County, where the figure was almost \$7,900 more than the state average and over \$7,200 more than the regional figure.

**Table 21. Income Measures
(US Census Bureau 5-Year Estimate, 2010-2014)**

Location	Household Income		Family Income		Per Capita Income		Retirement Income	
	Median Household Income	Difference from State	Median Family Income	Difference from State	Per Capita Income	Difference from State	Mean Retirement Income	Difference from State
Perquimans County	\$45,391	-\$1,302	\$51,996	-\$5,332	\$23,260	-\$2,348	\$29,726	\$7,886
<i>Regional Average</i>	\$46,909	\$216	\$55,155	-\$2,173	\$22,680	-\$2,928	\$22,488	\$648
Pamlico County	\$44,762	-\$1,931	\$57,513	\$185	\$24,854	-\$754	\$27,382	\$5,542
State of NC ¹	\$46,693	-\$6,789	\$57,328	-\$8,115	\$25,608	-\$2,947	\$21,840	-\$2,255
United States	\$53,482	n/a	\$65,443	n/a	\$28,555	n/a	\$24,095	n/a

Source: US Census Bureau, American Fact Finder, 2014 American Community Survey 5-Year Estimate. Table DP03: Selected Economic Characteristics; <http://factfinder2.census.gov>.

¹ The calculation in the "Difference from State" cell for NC reflects the difference between the State and the Nation.

The next table shows gender-based differences in median earnings.

- Male full-time, year-round workers in all comparator jurisdictions earn significantly more than their female counterparts, but the difference is *smallest* in Perquimans County.

**Table 22. Median Earnings, by Gender
(US Census Bureau 5-Year Estimate, 2010-2014)**

Location	Median Earnings				
	Male full-time, year-round workers	Difference from State	Female full-time, year-round workers	Difference from State	Difference between Male and Female
Perquimans County	\$44,080	\$643	\$37,708	\$2,236	-\$6,372
<i>Regional Average</i>	\$43,748	\$311	\$34,502	-\$970	-\$9,246
Pamlico County	\$43,280	-\$157	\$31,385	-\$4,087	-\$11,895
State of NC ¹	\$43,437	-\$6,263	\$35,472	-\$3,615	-\$7,965
United States	\$49,700	n/a	\$39,087	n/a	-\$10,613

Source: US Census Bureau, American Fact Finder, 2014 American Community Survey 5-Year Estimate. Table DP03: Selected Economic Characteristics; <http://factfinder2.census.gov>.

¹ The calculation in the "Difference from State" cell for NC reflects the difference between the State and the Nation.

Employment

The following definitions will be useful in understanding the data in this section.

- *Labor force*: includes all persons over the age of 16 who, during the week, are employed, unemployed or in the armed services.
- *Unemployed*: civilians who are not currently employed but are available for work and have actively looked for a job within the four weeks prior to the date of analysis; also, laid-off civilians waiting to be called back to their jobs, as well as those who will be starting new jobs in the next 30 days.

- *Unemployment rate*: calculated by dividing the number of unemployed persons by the number of people in the civilian labor force.

Employment by Sector

The following table details the various categories of industry by sector in Perquimans County and its three jurisdictional comparators for the 2nd Quarter of 2015, showing the number employed in each sector, the percentage of all employment that that number represents, and the average weekly wage for people employed in each sector.

- The industry in Perquimans County that employed the largest percentage of the workforce (18.0%) was Educational Services, with an average weekly wage per employee of \$634.
- Accommodation and Food Services accounted for the second largest percentage of the Perquimans County workforce, at 16.8% (\$545), followed in third place by Public Administration, at 15.6% (\$552). Only one other single sector (Retail Trade) accounted for as much as 10% of the total workforce in Perquimans County.
- Statewide, the sector employing the largest percentage of the workforce was Health Care & Social Assistance (14.1%), followed by Retail Trade (11.7%) and Manufacturing (11.0%).

**Table 23. Insured Employment and Wages by Sector
(2nd Quarter, 2015)**

Sector	Perquimans County			Pamlico County			Regional Average			North Carolina		
	Avg. No. Employed	% Total Employment in Sector ¹	Average Weekly Wage per Employee	Avg. No. Employed	% Total Employment in Sector	Average Weekly Wage per Employee	Avg. No. Employed	% Total Employment in Sector	Average Weekly Wage per Employee	Avg. No. Employed	% Total Employment in Sector	Average Weekly Wage per Employee
Agriculture, Forestry, Fishing & Hunting	83	4.2	\$712	63	1.8	\$743	1,166	3.3	\$615	28,946	0.7	\$597
Mining	*	n/a	*	*	n/a	*	0	0.0	n/a	2,780	0.1	\$1,069
Utilities	*	n/a	*	*	n/a	*	0	0.0	n/a	15,238	0.4	\$1,572
Construction	81	4.1	\$604	142	4.1	\$652	1,199	3.4	\$10,542	188,858	4.5	\$890
Manufacturing	35	1.8	\$789	132	3.8	\$630	1,314	3.7	\$779	460,067	11.0	\$1,036
Wholesale Trade	107	5.5	\$724	13	0.4	\$887	1,192	3.3	\$787	178,902	4.3	\$1,342
Retail Trade	201	10.3	\$421	639	18.5	\$387	5,017	14.0	\$447	487,995	11.7	\$504
Transportation & Warehousing	113	5.8	\$713	68	2.0	\$644	1,304	3.7	\$901	137,793	3.3	\$880
Information	*	n/a	*	28	0.8	\$345	217	0.6	\$986	76,944	1.8	\$1,344
Finance & Insurance	36	1.8	\$829	42	1.2	\$653	745	2.1	\$890	157,807	3.8	\$1,486
Real Estate & Rental & Leasing	4	0.2	\$497	35	1.0	\$367	704	2.0	\$548	54,949	1.3	\$817
Professional, Scientific & Technical Services	47	2.4	\$875	48	1.4	\$957	1,075	3.0	\$915	219,166	5.3	\$1,338
Management of Companies & Enterprises	*	n/a	*	*	n/a	*	35	0.1	\$863	81,596	2.0	\$178
Administrative & Waste Services	39	2.0	\$330	41	1.2	\$805	2,001	5.6	\$552	289,504	6.9	\$630
Educational Services	351	18.0	\$634	488	14.1	\$666	5,475	15.3	\$798	380,457	9.1	\$796
Health Care & Social Assistance	94	4.8	\$692	560	16.2	\$502	5,176	14.5	\$710	587,137	14.1	\$862
Arts, Entertainment & Recreation	62	3.2	\$357	296	8.6	\$364	499	1.4	\$455	70,577	1.7	\$553
Accommodation & Food Services	328	16.8	\$545	271	7.8	\$231	3,396	9.5	\$291	401,515	9.6	\$306
Other Services	67	3.4	\$428	158	4.6	\$472	1,420	4.0	\$479	106,428	2.6	\$590
Public Administration	305	15.6	\$552	437	12.6	\$599	3,776	10.6	\$638	240,222	5.8	\$830
Unclassified	*	n/a	*	*	n/a	*	0	0.0	n/a	534	0.0	\$746
TOTAL/AVERAGE ALL SECTORS	1,953	100.0	\$606	3,461	100.0	\$583	35,711	100.0	\$1,233	4,167,415	100.0	\$875

¹ Percent Total Employment in Sector values were calculated by dividing the Avg. Number of Employed within a sector by the total employees in All Sectors.

* Disclosure suppressed

Source - Quarterly Census Employment and Wages (QCEW), 2015. NC Employment Security Commission, Labor & Economic Analysis Division (LEAD), 4D:
<http://d4.nccommerce.com/>.

Largest Employers

The table below lists the largest 25 employers in Perquimans County as of the end of the 2nd Quarter, 2015.

- Only one employer listed—Perquimans County Schools—employed more than 250 people.
- The second largest employer was Perquimans County government, followed by Guest Services, Inc.

**Table 24. Largest 25 Employers in Perquimans County
(2nd Quarter, 2015)**

Rank	Employer	Industry	No. Employed
1	Perquimans County Schools	Education & Health Services	250-499
2	Perquimans County	Public Administration	100-249
3	Guest Services Inc.	Leisure & Hospitality	100-249
4	Albemarle Plantation	Leisure & Hospitality	50-99
5	Food Lion	Trade, Transportation & Utilities	50-99
6	NC Department Of Transportation	Public Administration	50-99
7	Ssc Hertford Operating Company LLC	Education & Health Services	50-99
8	Hardee's	Leisure & Hospitality	Below 50
9	Albemarle Commission	Public Administration	Below 50
10	Tandem Inc. DbA McDonalds	Leisure & Hospitality	Below 50
11	Albemarle Electric Membership Corp	Trade, Transportation & Utilities	Below 50
12	Parkway Ag Supply	Trade, Transportation & Utilities	Below 50
13	US Postal Service	Trade, Transportation & Utilities	Below 50
14	Armada Ltd	Professional & Business Services	Below 50
15	Captain Bobs	Leisure & Hospitality	Below 50
16	Town of Hertford	Public Administration	Below 50
17	Tommy's Pizza	Leisure & Hospitality	Below 50
18	Reed Oil Co	Natural Resources & Mining	Below 50
19	R & S Logging Inc.	Natural Resources & Mining	Below 50
20	Inner Banks Inn LLC	Leisure & Hospitality	Below 50
21	RPS Inc. Inc.	Trade, Transportation & Utilities	Below 50
22	Healthcare Services Group Inc.	Professional & Business Services	Below 50
23	Coastal Carolina Family Practice PA	Education & Health Services	Below 50
24	252 Grill Inc.	Construction	Below 50
25	Woodard's Pharmacy Inc.	Trade, Transportation & Utilities	Below 50

Source: NC Department of Commerce, Economic Intelligence Development System (EDIS), Business Data, Top Employers, by County; <http://accessnc.commerce.state.nc.us/EDIS/business.html>.

Travel for Employment

Data gathered by the US Census Bureau on how many resident workers travel outside the county for employment can help demonstrate whether or not a county provides adequate employment opportunities for its own citizens. The economic impact of out-of-state employment is that those workers may pay taxes and spend part of their income out of state. The following table summarizes 2010-2014 estimated travel for employment data for Perquimans County and its comparator jurisdictions.

- A minority—35%—of Perquimans County resident workers were employed within the county.
- Of the nearly 65% of Perquimans County resident workers who left the county for work, most worked elsewhere in NC, but a significant proportion worked out-of-state.
- Statewide, roughly 72% of resident workers worked in their county of residence; 26% worked in another county, and less than 3% worked out-of-state.

**Table 25. Place of Work for Resident Workers Age 16 and Older
(US Census Bureau 5-Year Estimate, 2010-2014)**

Location	Percent of Residents					
	Total # Workers Over 16	% Working in NC	% Working in County	% Leaving County for Work	% Working out of County	% Working out of State
Perquimans County	4,801	87.8	35.1	64.9	52.7	12.2
<i>Regional Average</i>	7,979	75.1	43.2	56.8	31.9	24.9
Pamlico County	5,152	98.7	53.1	46.9	45.6	1.3
<i>State of NC</i>	4,280,414	97.5	71.8	28.2	25.7	2.5

Note: percentages are calculated and may include some rounding error.

Source: US Census Bureau, American Fact Finder, 2014 ACS 5-Year Estimate, Table S0801 Commuting Characteristics by Sex. <http://factfinder.census.gov>.

Modes of Transportation to Work

Besides serving as an indicator of environmentalism, the mode of transportation workers use to get to their places of employment can also point to the relative convenience of local workplaces and the extent of the local public transportation system. The next table compares data on modes of transportation to work from the 2000 US Census and a 2010-2014 US Census Bureau estimate.

- Less than 1% Perquimans County workers used public transportation to get to work in either 2000 or 2010-2014. Use of public transportation for getting to work was not common in any of the jurisdictions being compared.
- The proportion of workers who carpooled decreased in all jurisdictions between 2000 and 2010-2014.
- The proportion of Perquimans County workers who worked at home increased by 30% between 2000 and 2010-2014. Working-at-home increased by 67% statewide in the same period.

**Table 26. Modes of Transportation to Work
(US Census Bureau, 2000, and 5 -Year Estimate, 2010-2014)**

Location	Percent of Workers over 16											
	Total Workers over 16		Drove Alone		Carpooled		Used Public Transportation		Walked		Worked at Home	
	2000	2010-2014	2000	2010-2014	2000	2010-2014	2000	2010-2014	2000	2010-2014	2000	2010-2014
Perquimans County	4,434	4,801	76.2	77.6	15.6	13.4	0.7	0.8	2.3	0.6	4.4	5.7
<i>Regional Average</i>	6,879	7,979	76.3	82.3	17.1	11.6	0.5	0.3	2.3	1.1	2.7	3.0
Pamlico County	4,939	5,152	74.3	75.9	16.5	13.6	0.7	0.1	3.1	2.8	3.5	5.0
<i>State of NC</i>	3,837,773	4,280,414	79.4	81.2	14.0	10.2	0.9	1.1	1.9	1.8	2.7	4.5

Source: a - US Census Bureau, American Fact Finder, Data Sets, Summary File 3 for 2000, Detailed Tables, Means of Transportation to Work for Workers 16 Years and Over; <http://factfinder.census.gov>.

b - US Census Bureau, American Fact Finder, 2014 ACS 5-Year Estimate, Table S0801: Commuting Characteristics by Sex. <http://factfinder.census.gov>.

Public Transportation in Perquimans County

Public transportation in Perquimans County is provided by the Inter-County Public Transportation Authority (ICPTA), operated by Albemarle Regional Health Services, which serves the five-county area of Camden, Chowan, Currituck, Pasquotank and Perquimans counties.

ICPTA’s demand-response and subscription services are intended to assist the general public in accessing health and social services such as medical appointments and nutrition sites or attending activities related to daily living such as shopping, education, employment and recreation. Hours of operation are from 4:30 am - 7:30 pm, Monday through Friday, although it is possible to schedule transportation outside of this time frame with approval of management. While much travel is within the region, the service also transports passengers to other locations in NC and the Hampton Roads region of VA.

The ICPTA fleet of buses and vans are equipped with special features to transport the handicapped and the elderly; for example, vehicles are equipped with wheelchair lifts mounted at the rear and at the side for easy and safe loading and off- loading. Drivers are required to participate in road training, on-the-job training, emergency operating training, and periodic safety meetings (18).

The table below presents annual trip data for the ICPTA system for FY 2012 through FY2015.

- The largest number of trips each year cited represented travel for senior services.
- Travel for mental health services composed the second-largest ridership in FY2012-2014. Travel on account of DSS Medicaid composed the largest ridership in FY2015.

**Table 27. ICPTA Ridership Statistics
(FY2012 through FY2015)**

Category of Service	Number Trips Served			
	FY2012	FY2013	FY2014	FY2015
Total Human Service/Community Organization Trips	38,995	41,842	39,694	39,146
Senior Services	17,546	17,611	16,311	15,568
Mental Health	10,938	11,607	11,101	10,046
Department of Social Services - Medicaid	6,317	8,749	9,693	10,627
Department of Social Services – Work First	832	169	47	25
Department of Social Services - Other	0	0	29	4
Vocational Workshop (or equivalent)	2,247	1,868	2,310	2,851
Vocational Rehabilitation	0	9	64	1
Parks and Recreation	811	831	118	7
Nursing Home/Assisted Living Facility	195	122	0	0
Other	109	876	21	17

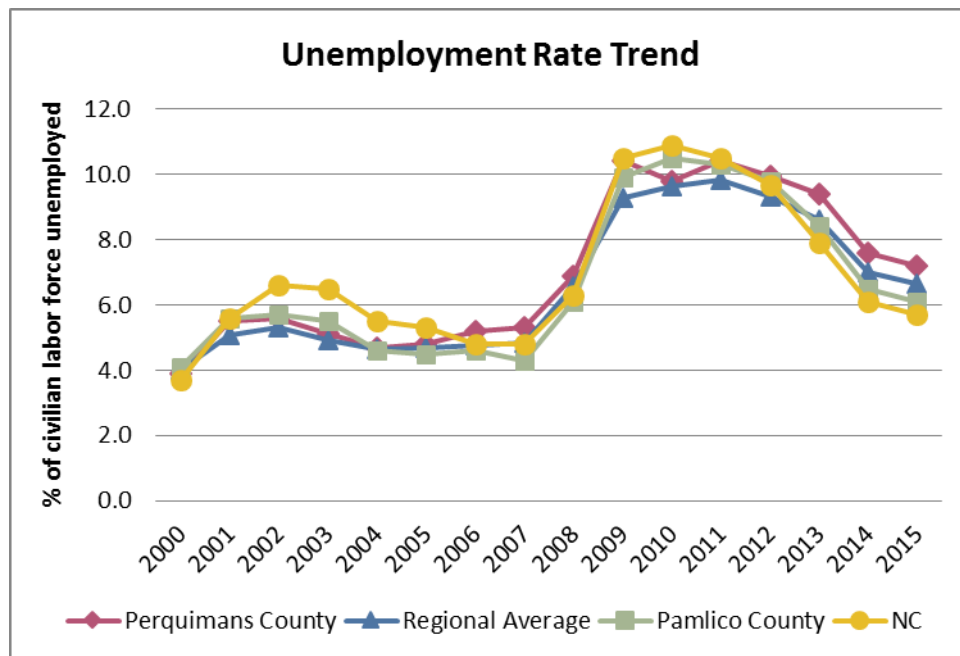
Source: Personal communication from Herb Mullen, Director of Transportation, Inter-County Public Transportation Authority to Dana Hamill, Public Health Educator, Albemarle Regional Health Services, September 1, 2015.

Unemployment

The following figure plots the unemployment rate in Perquimans County and its jurisdictional comparators for the period 2000 through 2015.

- Beginning with 2008 data, the unemployment rate began to rise sharply in all four jurisdictions, mirroring the onset of the national recession. Unemployment decreased briefly in Perquimans County in 2010, but rose again the following year. Sustained decreases in Perquimans County and the region began in 2012. The decrease statewide began in 2011.
- Although post-recession unemployment figures have improved, none have returned to pre-recession levels.
- The unemployment rate in Perquimans County was the highest among the four jurisdictions from 2012 through 2015.

Figure 5. Annual Unemployment Rate (2000-2015)



Source: North Carolina Department of Commerce, Labor and Economic Analysis Division (LEAD), D4 - Demand Driven Data Delivery System. Local Area Unemployment Statistics (LAUS) - Unemployment Rate, Unadjusted. <http://d4.nccommerce.com/LausSelection.aspx>. The unemployment rate is calculated by dividing the number of unemployed by the civilian labor force. The civilian labor force is the total employed plus the unemployed. Note: 2015 figures represent the average monthly rate from January through November

Poverty

The poverty rate is the percent of the population (both individuals and families) whose money income (which includes job earnings, unemployment compensation, social security income, public assistance, pension/retirement, royalties, child support, etc.) is below a federally established threshold; this is the “100%-level” figure.

The following table shows the decadal poverty rate for the period from 1970-2000 and the estimated poverty rate for five, five-year periods: 2006-2010 through 2010-2014. The data in this table describe an overall rate, representing the entire population in each geographic entity. As subsequent data will show, poverty may have strong racial and age components that are not discernible in these numbers.

- In all jurisdictions cited the poverty rate fell each decade from 1970 through 2000.
- From 2006-2010 through 2010-2014, the poverty rate in Perquimans County has fluctuated, averaging 19.2% per period.
- Perquimans County had the highest poverty rate among the four jurisdictions in every period cited.

**Table 28. 100%-Level Poverty Rate
(US Census Bureau, Decades 1970-2000; and 5-Year Estimates, 2006-2010 through 2010-2014)**

Location	Percent of All People in Poverty								
	1970	1980	1990	2000	2006-2010	2007-2011	2008-2012	2009-2013	2010-2014
Perquimans County	40.6	24.4	21.6	17.9	18.0	20.6	18.6	20.2	18.8
<i>Regional Average</i>	31.8	21.5	18.1	16.5	16.4	17.5	17.3	18.1	17.7
Pamlico County	31.2	20.6	18.9	15.3	10.7	12.2	13.8	13.8	13.3
<i>State of NC</i>	20.3	14.8	13.0	12.3	15.5	16.1	16.8	17.5	17.6

Source: a a a a b b b b b

a - Log Into North Carolina (LINC) Database, Topic Group Employment and Income (Data Item 6094); http://data.osbm.state.nc.us/pls/linc/dyn_linc_main.show.

b - US Census Bureau, American Fact Finder, American Community Survey 5-Year Estimates (2010 through 2014). Table DP03: Selected Economic Characteristics, County (Geographies as listed); <http://factfinder2.census.gov>.

The next table expands the topic of poverty by presenting decadal poverty data stratified by broad racial group (white/black). It is clear from these data that Blacks/African Americans have much higher poverty rates than whites.

- Across all time periods and in all jurisdictions cited in the table, the poverty rate among blacks was significantly higher than the poverty rate among whites.
- In Perquimans County over the three decades cited, the poverty rate among blacks was from 2.8 to 4.1 times the comparable rate for whites.

**Table 29. Persons in Poverty (100%-Level) by Race, by Decade
(1980-2000)**

Location	1980				1990				2000			
	Total No. in Poverty	Total % in Poverty	% White in Poverty	% Black in Poverty	Total No. in Poverty	Total % in Poverty	% White in Poverty	% Black in Poverty	Total No. in Poverty	Total % in Poverty	% White in Poverty	% Black in Poverty
Perquimans County	2,280	24.4	14.3	40.8	2,214	21.6	10.6	43.9	1,997	17.9	10.8	35.7
<i>Regional Average</i>	2,985	21.5	12.1	37.1	2,775	18.1	10.6	31.6	2,769	16.5	8.9	29.7
Pamlico County	2,142	20.6	13.5	34.9	2,119	18.9	13.7	34.0	1,885	15.3	11.0	29.4
<i>State of NC</i>	839,950	14.8	10.0	30.4	829,858	13.0	8.7	27.1	958,667	12.3	8.5	22.9

a - Log Into North Carolina (LINC) Database, Topic Group Employment and Income (Data Items 6094, 6096, 6098); http://data.osbm.state.nc.us/pls/linc/dyn_linc_main.show.

The three figures that follow present similar racially-stratified 100%-level poverty data, but as five-year estimates and for an expanded scope of racial groups that includes Hispanics.

- Region-wide and statewide, poverty rates among both minority groups shown were higher compared to white residents.
- In Perquimans County, poverty rates for African Americans exceeded comparable rates for whites in all aggregate periods; rates among Hispanics were higher than among whites in all periods cited except 2006-2010 and 2008-2012.

Figure 6. Poverty Rate by Race, Perquimans County
(US Census Bureau 5-Year Estimates, 2006-2010 through 2010-2014)

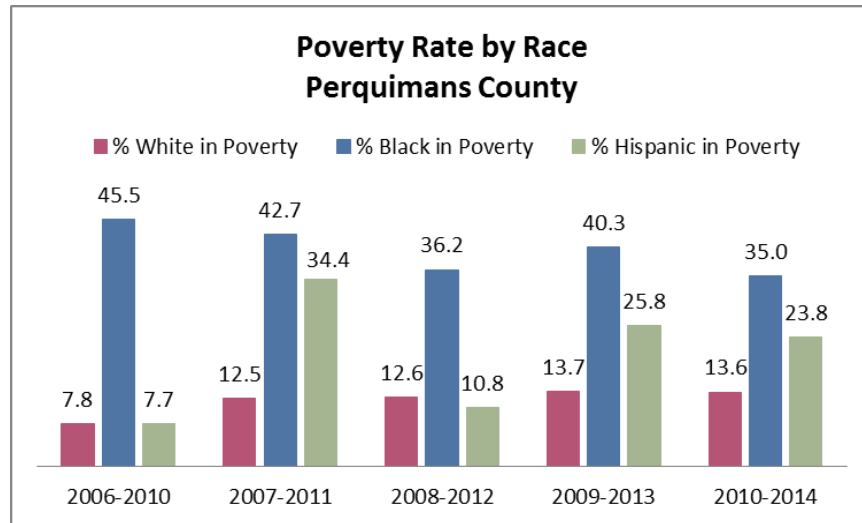
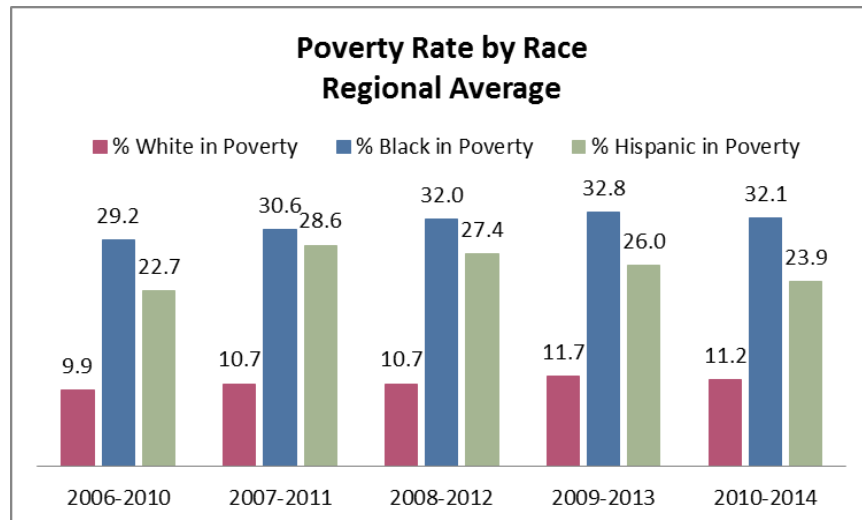
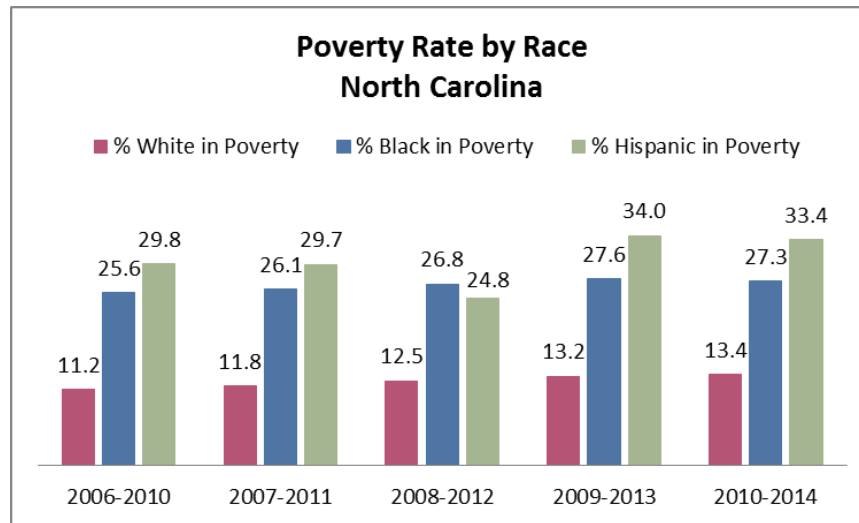


Figure 7. Poverty Rate by Race, ARHS Region
(US Census Bureau 5-Year Estimates, 2006-2010 through 2010-2014)



**Figure 8. Poverty Rate by Race, North Carolina
(US Census Bureau 5-Year Estimates, 2006-2010 through 2010-2014)**



Source: US Census Bureau, American Fact Finder, ACS 5-Year Estimates, 2010 through 2014, Table S1701 Poverty Status in the Past 12 Months. <http://factfinder.census.gov/>

The table below further expands the topic of poverty by presenting decadal poverty data stratified by age group. It is clear from these data that children, and especially very young children, suffer disproportionately from poverty.

- In all four jurisdictions in every time period cited in the table, the poverty rate for children under the age of 18 exceeded the overall poverty rate. The variance was greatest for children under six.

Table 30. Persons in Poverty (100%-Level) by Age, by Decade (1980-2000)

Location	1980				1990				2000			
	Total % in Poverty	% Children Under 18 in Poverty	% Children Under 6 in Poverty	% Adults 65 or Older in Poverty	Total % in Poverty	% Children Under 18 in Poverty	% Children Under 6 in Poverty	% Adults 65 or Older in Poverty	Total % in Poverty	% Children Under 18 in Poverty	% Children Under 6 in Poverty	% Adults 65 or Older in Poverty
Perquimans County	24.4	31.0	37.1	31.0	21.6	33.7	38.6	21.6	17.9	27.2	22.4	15.8
Regional Average	21.5	26.1	29.8	29.9	18.1	24.7	28.4	21.6	16.5	22.2	24.7	19.2
Pamlico County	20.6	24.5	23.9	35.7	18.9	22.1	27.4	23.3	15.3	24.2	25.7	13.4
State of NC	14.8	18.3	19.7	23.9	13.0	16.9	19.1	19.5	12.3	15.7	17.8	13.2
Source:	a	a	a	a	a	a	a	a	a	a	a	a

Source: Log Into North Carolina (LINC) Database, Topic Group Employment and Income (Data Items 6094, 6100, 6102, 6104); http://data.osbm.state.nc.us/pls/linc/dyn_linc_main.show.

The three figures that follow present similar age-stratified 100%-level poverty data, but as more recent five-year estimates.

- In Perquimans County, region-wide and statewide, poverty rates among children are higher compared to the overall rate.
- In Perquimans County over the period cited, the poverty rate among children was from 51% to 70% higher than the total poverty rate.

Figure 9. Poverty Rate by Age, Perquimans County
 (US Census Bureau 5-Year Estimates, 2006-2010 through 2010-2014)

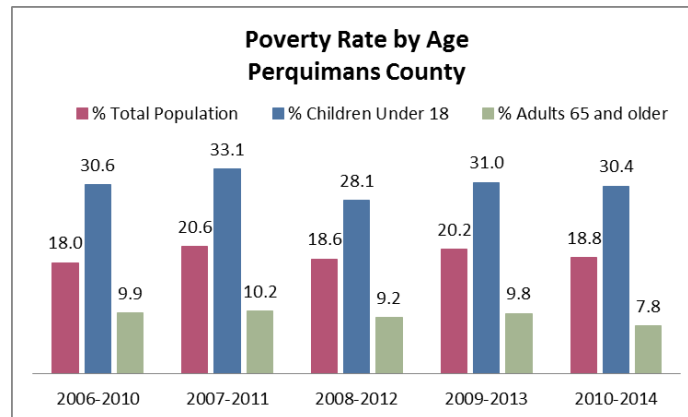


Figure 10. Poverty Rate by Age, ARHS Region
 (US Census Bureau 5-Year Estimates, 2006-2010 through 2010-2014)

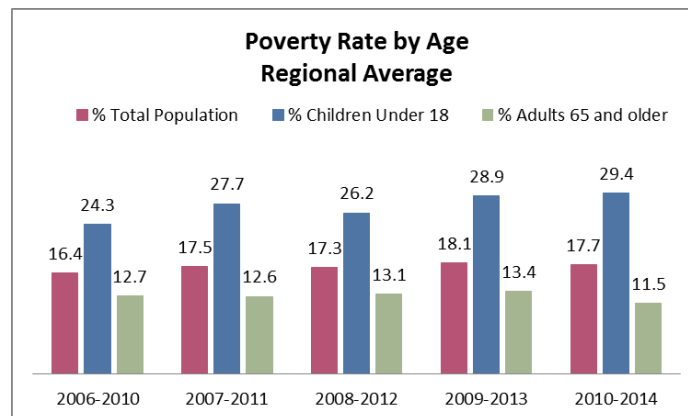
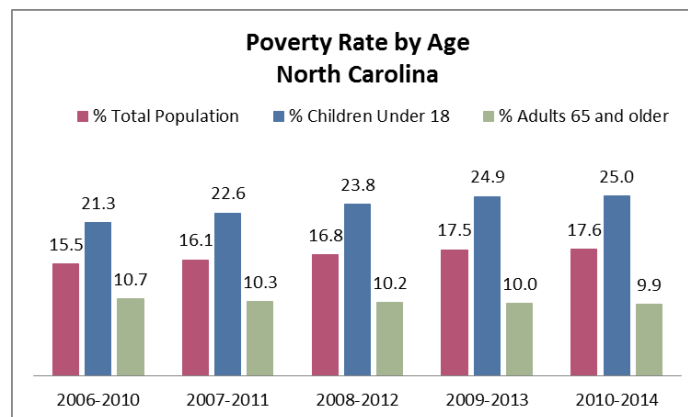


Figure 11. Poverty Rate by Age, North Carolina
 (US Census Bureau 5-Year Estimates, 2006-2010 through 2010-2014)



Source: US Census Bureau, American Fact Finder, 2010 through 2014 ACS 5-Year Estimate, Table S1701: Poverty Status in the Past 12 Months. <http://factfinder.census.gov>.
 Note that the 5-Year Estimates do not present figures for the 5/6 year-old age group.

Children Receiving Free or Reduced-price School Meals

Other data corroborate the impression that children, especially the very young, bear a disproportionate burden of poverty, and that their burden is increasing. One measure of poverty among children is the number and/or percent of school-age children who are eligible for and receive free or reduced-price school meals.

Students have to be eligible to receive meals; not everyone who is eligible will choose to enroll in the program and receive meals. To be eligible for *free* lunch under the National School Lunch Act students must live in households earning at or below 130 percent of the Federal poverty guidelines. To be eligible for *reduced-price* lunch students must live in households earning at or below 185 percent of the Federal poverty guidelines.

The following table presents data from the NC Department of Public Instruction showing the *percentage* of students in the named school jurisdiction who have been determined to be “*needy*”, the currently-preferred term describing children who are *eligible* for free-or reduced-price meals.

- The percentage of students in Perquimans County eligible for free or reduced-price school lunch has varied over time, but rose between SY2008-09 and SY2011-12 before falling and stabilizing at approximately 63%.

Table 31. Percent of Students Eligible for Free or Reduced price School Meals (SY2006-07 through SY2014-15)

Location	% of Students Determined to be "Needy" (% Eligible for Free- or Reduced-Price Meals)								
	SY2006-07	SY2007-08	SY2008-09	SY2009-10	SY2010-11	SY2011-12	SY2012-13	SY2013-14	SY2014-15
Perquimans County	69.32	70.78	65.72	67.21	67.73	69.20	63.59	63.30	63.50
<i>Regional Average</i>	<i>53.02</i>	<i>51.97</i>	<i>52.47</i>	<i>55.93</i>	<i>54.82</i>	<i>58.65</i>	<i>58.91</i>	<i>60.22</i>	<i>57.23</i>
Pamlico County	52.58	58.84	53.14	62.00	64.13	64.23	64.20	65.43	44.46
State of NC	48.46	48.39	49.85	53.68	53.86	55.94	56.14	57.56	52.83

Source: NC Department of Instruction, Data & Statistics, Other Education Data: Select Financial Data, Free and Reduced Meals Application Data (by school year). <http://www.ncpublicschools.org/fbs/resources/data/>.

To help readers grasp the numbers behind the percentages cited above, the following table, also based on data from the NC Department of Public Instruction, shows the *number* of students who *received* either free or reduced-price school lunch in several recent school years.

- The number of students in Perquimans County receiving free or reduced-price meals rose in most years from SY2009-10 through SY2011-12 before falling again.

Table 32. Number of Students Receiving Free or Reduced-price School Meals (SY2006-07 through SY2014-15)

Location	No. Students RECEIVING Free or Reduced-Price Meals								
	SY2006-07	SY2007-08	SY2008-09	SY2009-10	SY2010-11	SY2011-12	SY2012-13	SY2013-14	SY2014-15
Perquimans County	1,193	1,240	1,129	1,160	1,165	1,182	1,137	1,121	1,091
<i>Regional Average</i>	<i>1,624</i>	<i>1,557</i>	<i>1,563</i>	<i>1,627</i>	<i>1,574</i>	<i>1,777</i>	<i>1,664</i>	<i>1,680</i>	<i>1,586</i>
Pamlico County	794	862	745	855	892	878	816	831	566
State of NC	671,831	679,877	703,887	752,708	759,361	793,893	803,302	820,009	753,817

Source: NC Department of Instruction, Data & Statistics, Other Education Data: Select Financial Data, Free and Reduced Meals Application Data (by school year). <http://www.ncpublicschools.org/fbs/resources/data/>.

County Economic Service Utilization

The Perquimans County Department of Social Services (DSS) manages a number of programs that provide assistance to low-income people.

The *Food and Nutrition Services* program (formerly known as Food Stamps) helps eligible households buy the food they need for a nutritionally adequate diet. Benefits may be used to purchase most foods at participating stores; they may not be used to purchase tobacco, pet food, paper products, soap products, or alcoholic beverages (19).

Medicaid is a health insurance program for eligible low-income individuals and families who cannot afford health care costs. Medicaid may help pay for certain medical expenses including doctor bills, hospital bills, vision care, dental care, Medicare premiums, nursing home care, Personal Care Services (PCS), medical equipment, and other Home Health Services, in-home care under the Community Alternatives Program (CAP), mental health care, and most medically necessary services for children under age 21 (20).

WorkFirst is North Carolina's Temporary Assistance for Needy Families (TANF) program, through which parents can get short-term training and other services, including cash supports, to help them become employed and self-sufficient (21).

Perquimans County DSS did not provide program utilization data for this CHA project.

HOUSING

The following table presents US Census Bureau data on housing by type.

- While approximately 23% of housing units in Perquimans County were vacant in 2000, 20% were vacant in 2006-2010 and 22% were vacant in 2010-2014.
- The percentage of owner-occupied housing units in Perquimans County remained about the same in all periods cited (~77%).
- The proportion of mobile homes in Perquimans County was significantly higher than the comparable figure for the region and the state in every period cited.

**Table 33. Housing by Type
(US Census Bureau, 2000, and 5-Year Estimates, 2006-2010 and 2010-2014)**

Location	2000										
	Total Housing Units	Vacant Housing Units		Occupied Housing Units		Owner Occupied Units		Renter Occupied Units		Mobile Home Units	
	No.	No.	%	No.	%	No.	%	No.	%	No.	%
Perquimans County	6,043	1,398	23.1	4,645	76.9	3,649	78.6	996	21.4	1,741	28.8
<i>Regional Average</i>	7,696	1,362	16.8	6,334	83.2	4,715	76.9	1,619	23.1	1,781	24.3
Pamlico County	6,781	1,603	23.6	5,178	76.4	4,256	82.2	922	17.8	2,117	31.2
<i>State of NC</i>	3,523,944	391,931	11.1	3,132,013	88.9	2,172,355	69.4	959,658	30.6	577,323	16.4
Source:	a	a	a	a	a	a	a	a	a	b	b

a - US Census Bureau, American FactFinder, 2000 US Census, Summary File 1 (SF-1), 2000 Demographic Profile Data, DP-1, Profile of General Population and Housing Characteristics: 2000 (geographies as listed); <http://factfinder2.census.gov>.

b - US Census Bureau, American FactFinder, 2000 US Census, Summary File 1 (SF-3), 2000 Demographic Profile Data, DP-4, Profile of Selected Housing Characteristics: 2000 (geographies as listed); <http://factfinder2.census.gov>.

**Table 33. Housing by Type
(US Census Bureau, 2000, and 5-Year Estimates, 2006-2010 and 2010-2014)
(Continued)**

Location	2006-2010 Estimate										
	Total Housing Units	Vacant Housing Units		Occupied Housing Units		Owner Occupied Units		Renter Occupied Units		Mobile Home Units	
	No.	No.	%	No.	%	No.	%	No.	%	No.	%
Perquimans County	6,986	1,388	19.9	5,598	80.1	4,238	75.7	1,360	24.3	1,949	28.3
<i>Regional Average</i>	9,242	1,786	17.5	7,456	82.5	5,467	75.3	1,989	24.7	1,972	22.9
Pamlico County	7,534	2,044	27.1	5,490	72.9	4,337	79.0	1,153	21.0	2,486	33.4
<i>State of NC</i>	4,327,528	582,373	13.5	3,745,155	86.5	2,497,900	66.7	1,247,255	33.3	605,418	14.3

Source: US Census Bureau, American Fact Finder, 2010 ACS 5-Year Estimates, Table DP04: Selected Housing Characteristics (geographies as listed). <http://factfinder2.census.gov>.

Location	2010-2014 Estimate										
	Total Housing Units	Vacant Housing Units		Occupied Housing Units		Owner Occupied Units		Renter Occupied Units		Mobile Home Units	
	No.	No.	%	No.	%	No.	%	No.	%	No.	%
Perquimans County	7,018	1,545	22.0	5,473	78.0	4,213	77.0	1,260	23.0	1,877	26.7
<i>Regional Average</i>	9,285	1,996	19.7	7,289	80.3	5,317	75.3	1,972	24.7	1,773	20.5
Pamlico County	7,561	2,416	32.0	5,145	68.0	4,088	79.5	1,057	20.5	2,333	30.9
<i>State of NC</i>	4,385,668	643,154	14.7	3,742,514	85.3	2,461,741	65.8	1,280,773	34.2	592,859	13.5

Source: US Census Bureau, American Fact Finder, 2014 ACS 5-Year Estimates, Table DP04: Selected Housing Characteristics (geographies as listed). <http://factfinder2.census.gov>.

The next table presents data on housing costs.

- In both time periods cited, the percentage of *renter-occupied* housing units costing more than 30% of household income was highest or second-highest among comparators in Perquimans County, and the county's percentage decreased by 23% from the first period to the second.
- In Perquimans County the percentage of *mortgaged* housing units costing more than 30% of household income was highest among comparators in both periods cited. The percentage of mortgaged units in Perquimans County costing more than 30% of household income increased only slightly (3%) between intervals.

**Table 34. Estimated Housing Cost
(US Census Bureau 5-Year Estimates, 2005-2009 and 2010-2014)**

Location	Renter Occupied Units							
	Total Units	2005-2009			2010-2014			
		Units Spending >30% Household Income on Housing		Median Gross Rent	Total Units	Units Spending >30% Household Income on Housing		Median Gross Rent
		#	%			#	%	
Perquimans County	936	683	73.0	\$575	1,002	564	56.3	\$722
<i>Regional Average</i>	1,562	856	54.3	\$671	1,693	969	58.3	\$825
Pamlico County	751	391	52.1	\$655	761	398	52.3	\$739
<i>State of NC</i>	1,015,891	486,934	47.9	\$702	1,158,320	590,756	51.0	\$790
Source	1	1	1	1	2	2	2	2

**Table 34. Estimated Housing Cost
(US Census Bureau 5-Year Estimates, 2005-2009 and 2010-2014)
(Continued)**

Location	Mortgaged Housing Units							
	2005-2009				2010-2014			
	Total Units	Units Spending >30% Household Income on Housing		Median Mortgage Cost	Total Units	Units Spending >30% Household Income on Housing		Median Mortgage Cost
		#	%			#	%	
Perquimans County	2,164	883	40.8	\$1,143	2,470	1,037	42.0	\$1,356
<i>Regional Average</i>	3,285	1,299	37.7	\$1,180	3,301	1,313	38.5	\$1,390
Pamlico County	2,343	902	38.5	\$1,218	2,162	848	39.3	\$1,233
<i>State of NC</i>	1,626,652	713,340	31.5	\$1,216	1,617,586	503,743	31.2	\$1,272
Source	1	1	1	1	2	2	2	2

1 - US Census Bureau, American FactFinder. 2009 ACS 5-Year Estimates. Table DP04: Selected Housing Characteristics (geographies as listed). <http://factfinder2.census.gov>.

2 - US Census Bureau, American FactFinder. 2014 ACS 5-Year Estimates. Table DP04: Selected Housing Characteristics (geographies as listed). <http://factfinder2.census.gov>.

The numbers here reflect the housing units for which the GRAPI (gross rent as percentage of household income) or SMOCAPI (selected monthly owner costs as a percentage of household income) can be computed. It does not necessarily include ALL rented or owned housing units.

Affordable Housing

According to information from the NC Rural Economic Development Center based on 2006-2010 US Census data estimates, 34% of housing in Perquimans County was classified as “unaffordable”, compared to 29% in Pamlico County, and averages of 35% region-wide and 32% statewide (22). This data is at least partially reflective of the population living in households that pay more than 30% of the household income for housing costs.

The US Department of Housing and Urban Development (HUD) maintains a system for tracking “affordable” housing for its low-income clients, to whom it provides housing subsidies. HUD services are delivered through Public and Indian Housing Authority (PHA) offices throughout NC.

There is a PHA office located in Perquimans County, in Hertford, to assist residents in accessing HUD services (23). In January, 2017 there were no HUD-subsidized single-family homes available in Perquimans County (24), and only three low-rent apartment facilities: an ARC group home in Hertford for developmentally disabled persons, and two apartment complexes also located in Hertford (25).

The US Department of Agriculture (USDA) catalogues information about rental properties available in rural areas. The agency’s Multi-Family Housing (MFH) Rental website provides an online guide to Government assisted rental projects. In January, 2017 the MFH website listed four qualifying rental properties in Perquimans County, all of them in Hertford (26).

Homelessness

The NC Coalition to End Homelessness coordinates a statewide *Point-in-Time Count*, an unduplicated count of homeless people, held on one night in the last week of January each

year. It is not clear which of the counties in the Albemarle region do or do not participate in this count, but results are available only for Pasquotank County (27).

There is no homeless shelter physically located in Perquimans County.

HOUSEHOLDS

The table below describes some of the characteristics of households in the four comparator jurisdictions.

- The average number of persons per household in Perquimans County—2.45—was lower than the regional and state averages, but slightly higher than the figure for Pamlico County.
- The percent of one-person households in Perquimans County—23.1%—was the lowest proportion among the comparator jurisdictions.
- The percent of households where the resident lived alone *and* was age 65 or older was second-lowest among comparators in Perquimans County.

**Table 35. Household Characteristics
(US Census Bureau 5-Year Estimate, 2010-2014)**

Location	Total No. Households ¹	Persons per Household	% Households One-person	% Households One-person and Age ≥65
Perquimans County	5,473	2.45	23.1	10.8
<i>Regional Average</i>	<i>7,289</i>	<i>2.64</i>	<i>24.2</i>	<i>11.0</i>
Pamlico County	5,145	2.41	25.9	13.2
<i>State of NC</i>	<i>3,742,514</i>	<i>2.54</i>	<i>27.9</i>	<i>9.7</i>

1 - A household includes all the persons who occupy a housing unit. A housing unit is a house, an apartment, a mobile home, a group of rooms, or a single room that is occupied (or if vacant, is intended for occupancy) as separate living quarters. Separate living quarters are those in which the occupants live and eat separately from any other persons in the building and which have direct access from the outside of the building or through a common hall. The occupants may be a single family, one person living alone, two or more families living together, or any other group of related or unrelated persons who share living arrangements. (People not living in households are classified as living in group quarters.)

Source: US Census Bureau, American FactFinder, 2014 ACS 5-year estimates. Table S1101: Households and Families (geographies as noted); <http://factfinder2.census.gov>.

Family Households

The following table describes some characteristics of family households by type of head of household. Note that percentages were calculated from the counts in the table.

- In Perquimans County in the period cited, 36% of all households (1,408 of 3,963) included children under the age of 18.
- Of the 1,408 Perquimans County households with minor children, 913 (65%) were headed by a married couple. Another 149 (11%) were headed by a male householder, and 346 (25%) were headed by a female householder.

**Table 36. Family Households, by Type of Head of Household
(US Census Bureau 5-Year Estimate, 2010-2014)**

Location	Total Families	Total Households	Households w/Children <18	Housholds w/Children <6 only	Married-couple Households	Married-couple w/ children <18	Male Householder	Male Householder w/ children <18	Female Householder	Female Householder w/ children <18
	Number	Number	Number	Percent	Number	Number	Number	Number	Number	Number
Perquimans County	5,473	3,963	1,408	10.8	2,981	913	371	149	611	346
<i>Regional Average</i>	7,289	5,158	1,970	21.8	3,741	1,251	334	147	1,083	571
Pamlico County	5,145	3,695	1,021	13.5	2,978	632	187	103	530	286
<i>State of NC</i>	3,742,514	2,484,973	1,077,906	22.9	1,803,981	699,864	166,170	84,965	514,822	293,077

Source: US Census Bureau, American FactFinder, 2014 American Community Survey 5-Year Estimates. Table: S1101: Households and Families. <http://factfinder2.census.gov>

Grandparents Responsible for Minor Children

The table below presents data on grandparents with responsibility for minor children. Data on grandparents as primary caregivers were derived from US Census Bureau American Community Survey questions. Data were collected on whether a grandchild lives with a grandparent in the household, whether the grandparent has responsibility for the basic needs of the grandchild, and the duration of that responsibility. Responsibility of basic needs determines if the grandparent is financially responsible for food, shelter, clothing, day care, etc., for any or all grandchildren living in the household. Percent is derived with the number of grandparents responsible for grandchildren (under 18 years) as the numerator and number of grandparents living with own grandchildren (under 18 years) as the denominator.

- In Perquimans County for the period cited, an estimated 65% of grandparents living with their minor grandchildren were also responsible for their care, the second-highest figure among comparators.
- In Perquimans County, 34% of grandparents financially responsible for minor grandchildren were over the age of 60, 21% were disabled, and 16% lived below the poverty level.

**Table 37. Grandparents with Responsibility for Minor Children
(US Census Bureau 5-Year Estimate, 2010-2014)**

Location	Grandparents Living with Own Grandchildren Under 18	Grandparents Responsible for Grandchildren under 18							
		Number	Percent	# Over 60	% Over 60	% White	% African American	% Disabled	% Below Poverty Level
Perquimans County	682	443	65.0	152	34.3	53.7	46.3	20.8	16.0
<i>Regional Average</i>	561	293	49.1	114	37.6	67.0	33.0	21.8	29.0
Pamlico County	296	222	75.0	79	35.6	70.7	18.9	25.2	27.0
<i>State of NC</i>	209,835	100,472	47.9	34,797	34.6	56.2	36.3	27.6	26.2

Source: US Census Bureau, American FactFinder, 2014 American Community Survey 5-Year Estimates. Table: S1002: Grandparents. <http://factfinder2.census.gov>

CHILD CARE

Child Care Facilities

The NC Division of Child Development is the state agency charged with overseeing the child care industry in the state, including the regulation of child day care programs. The Division licenses child care facilities that keep more than two unrelated children for more than four hours a day. In NC, regulated child day care facilities are divided into two categories—Child Care Centers and Family Child Care Homes—with the categories delineated on the basis of enrollment. A *child care center* is a larger program providing care for three or more children, but not in a residential setting. The number of children in care is based upon the size of individual classrooms and having sufficient staff, equipment and materials. A *family child care home* is a smaller program offered in the provider's residence where three to five preschool children are in care. A family child care home may also provide care for three school-age children (28).

In 1999, the NC Division of Child Development began issuing “star rated” licenses to all eligible Child Care Centers and Family Child Care Homes. NC’s Star Rated License System gave from one to five stars to child care programs based on how well they were doing in providing quality child care. A rating of one star meant that a child care program met the state’s minimum licensing standards for child care. Programs that chose to voluntarily meet higher standards could apply for a two to five star license. (Note: Religious-sponsored child care programs could opt to continue to operate with a notice of compliance and not receive a star rating.)

Three areas of child care provider performance were assessed in the star system: program standards, staff education, and compliance history. Each area had a range of one through five points. The star rating was based on the total points earned for all three areas.

Then, in 2005, the way facilities were evaluated was changed in order to give parents better information about a program’s quality. The new rules made a 75% “compliance history” a minimum standard for any licensed facility. Because it is now a minimum requirement, all programs earn their star rating based only on the two components that give parents the best indication of quality: staff education and program standards. In addition, programs having a two component license can earn a “quality point” for enhanced standards in staff education and program standards.

According to data in the table that follows:

- Of the five licensed child care centers in Perquimans County at the time of this report, two (40%) were five-star facilities and two (40%) were four-star facilities.
- Of the four licensed family child care homes in Perquimans County, none was a five-star facility but three (75%) were four-star facilities.

**Table 38. NC-Licensed Child Care Facilities in Perquimans County
(February, 2016)**

Type of Facility	Number
Child Care Centers (5)	
Five-star	2
Four-star	2
Three-star	1
Two-star	0
One-star	0
GS 110-106 (Church-affiliated)	0
Temporary	0
Family Child Care Homes (4)	
Five-star	0
Four-star	3
Three-star	1
Two-star	0
One-star	0

Source: NC Department of Health and Human Services, Division of Child Development, Child Care Facility Search Site: <http://ncchildcaresearch.dhhs.state.nc.us/search.asp>.

The table below presents total enrollment summaries for child care facilities. This data is old, but had not been updated at the source by the time of this report.

**Table 39. Children Enrolled in NC-Regulated Child Care
(2008-2011)**

Location	No. Children (0-5) Enrolled in Child Care Centers				No. Children (0-12) Enrolled in Family Care Homes			
	2008	2009	2010	2011	2008	2009	2010	2011
Perquimans County	182	136	184	193	20	23	25	20
<i>Regional Average</i>	<i>347</i>	<i>355</i>	<i>351</i>	<i>428</i>	<i>45</i>	<i>45</i>	<i>45</i>	<i>41</i>
Pamlico County	158	186	174	141	37	33	43	45
<i>State of NC</i>	<i>172,717</i>	<i>168,953</i>	<i>169,852</i>	<i>194,632</i>	<i>15,354</i>	<i>14,936</i>	<i>14,384</i>	<i>13,321</i>

Source: Annie E. Casey Foundation, Kids Count Data Center, Community Level Data, North Carolina Indicators; <http://datacenter.kidscount.org/data/bystate/StateLanding.aspx?state=NC>.

The WorkFirst Employment Program discussed previously includes child care subsidies for families that qualify. The following table also contains old data on the number of children in each jurisdiction that received WorkFirst Working Connections Child Care Subsidies.

- The number of children in Perquimans County that received a WorkFirst child care subsidy fluctuated but decreased overall over the period cited, as for the most part did the comparable figures for the region.
- In each jurisdiction, including the state of NC, the figures were their lowest of the entire period in 2010.

Table 40. Number of Children Receiving WorkFirst Child Care Subsidy (2007-2010)

Location	2007	2008	2009	2010
Perquimans County	66	71	64	50
<i>Regional Average</i>	110	118	91	77
Pamlico County	70	68	46	33
State of NC	41,075	43,124	42,944	39,341

Note: the number of children is based on the number of children under 18 receiving Work First benefits for the month of December for a particular year.
 Source: Annie E. Casey Foundation, Kids Count Data Center, Community Level Data, North Carolina Indicators;
<http://datacenter.kidscount.org/data/bystate/chooseindicator.aspx?state=NC>.

EDUCATION

Higher Education

There are no four-year colleges or universities physically located in Perquimans County, but several institutions of higher education in the ARHS region are accessible to Perquimans County residents, as are colleges and universities in southern-tier VA.

College of the Albemarle

The College of The Albemarle (COA) is a community college that serves northeastern NC with sites in several locations throughout the region, including a campus in Edenton, one in Elizabeth City, and a third in Manteo. A comprehensive community college, COA offers two-year degrees in college transfer and career programs, basic skills programs, continuing education classes for personal enrichment as well as credit, customized business and industry training, and cultural enrichment opportunities including an annual summer program called College for Kids. The COA is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award associate degrees.

The college's Chowan County campus opened in 1989 as an Adult Education Center with a primary mission to improve literacy. Since that time the COA has significantly expanded its offerings in Chowan County to include not only basic skills instruction in reading, math, GED preparation and English as a Second Language, but also curriculum courses, a culinary technology program, and a variety of corporate and continuing education courses. COA presently offers a number of certificate and diploma programs as well as college transfer courses (29).

Roanoke-Chowan Community College

Roanoke-Chowan Community College (RCCC) is a regional community college located in Ahoskie, NC (Hertford County). The College currently has about 20 curricular programs in which students may seek degrees, diplomas and short term skills-based certificates. RCCC recently added an Associate of Fine Arts Degree in Visual Arts, in addition to diplomas in high demand occupational training in Building Construction, Plumbing and other construction-related technologies. The College offers a Lateral Entry Teacher Certificate tailored to meet the need of public schools within the region to fully credential educators who have entered the classroom without the advantage of full unrestricted licensure.

RCCC has established formal transfer agreements with the 16-member University of North Carolina System and several private colleges to provide transfer opportunities for students to pursue higher-level degrees. RCCC has expanded its distance learning studies to include Internet-based courses, and has increased efforts with area school systems to provide more opportunities for high school students to take college courses, either on the RCCC campus or at their respective high schools.

The RCCC Continuing Education and Workforce Development Division meets business needs by establishing basic or occupation-related classes within local industries and by developing Focused Industrial Training (FIT) opportunities. Its Small Business component works on a one-on-one basis with individuals and small companies wanting to start and or enhance a small business enterprise. The Hertford County JobLink Career Center is also located on the RCCC Campus (30).

Chowan University

Chowan University is a small (~1,300 students) four-year liberal arts university located in Murfreesboro, NC (Hertford County). Chowan University is affiliated with the Southern Baptist Association. The university offers over 63 academic programs and the recently-opened School of Graduate Studies provides students the opportunity to earn Masters Degrees. Currently, Chowan offers the Master of Education (M.Ed.) degree with advanced teacher license.

Chowan University enrolls about 30 adult students in the Adult Degree Completion Program. Through this program, adult students take classes at Halifax Community College in Weldon, NC, at the main campus in Murfreesboro, NC, and online.

The Chowan University student/faculty ratio is 16:1, with an average class size of 15. The university has a campus-wide fiber-optic network and Blackboard communication system, computer labs, "smart" multimedia classrooms, hardware and software discounts, in-house technical support, and 24/7 high-speed Internet access (31).

Martin Community College

Martin Community College (MCC) is a regional community college located in Williamston, NC (Martin County) with a satellite campus located in Windsor. MCC provides adult basic education, adult high school education, extension classes, and selected curriculum courses in 20 vocational and technical areas. MCC also offers an Associate in Arts College Transfer Program and a Transfer Core Diploma. The college offers online curricular and continuing education classes via a system called *ed2go* (32).

Elizabeth City State University

Elizabeth City State University (ECSU) is a four-year state university located in Elizabeth City, NC (Pasquotank County). Originally an institution for African-American students, the university now has an increasingly multicultural student body. In the fall of 2012, ECSU had a total enrollment of 2878. A constituent institution of The University of North Carolina System, ECSU offers 37 baccalaureate degrees and four master's degrees in four academic schools: Arts and Humanities; Business and Economics; Education and Psychology; and Mathematics, Science and Technology. The university has academic programs that appeal to various interests and

fields of study, including the honors program, military science, study abroad, Viking Fellows for education majors, and “signature” programs in aviation and pharmacy (33).

East Carolina University

East Carolina University (ECU) is a large, four-year state university located in Greenville, NC (Pitt County). ECU is a constituent member of the UNC System founded in 1907 to alleviate the desperate shortage of teachers in the eastern part of NC. Since then, the ECU College of Education has been joined by programs of high distinction in health care and the fine and performing arts. Today the university offers over 100 bachelor’s degree programs, more than 70 master’s degree programs, four specialist degree programs, an MD program, and 16 doctoral programs. The university is the largest educator of nurses in NC, and its Brody School of Medicine is consistently ranked among the top medical schools in the nation that emphasize primary care. The school was recently ranked second in the nation by the American Academy of Family Physicians for productivity of family physicians.

ECU is the state’s leader in distance education, offering more than 60 degrees and certificate programs in subjects such as business, education, health care, and technology. Two of the top distance-education programs in the nation are run by ECU’s colleges of nursing and education (34).

Primary and Secondary Education

Schools and Enrollment

The following several tables focus on data pertaining to primary and secondary (mostly public) schools in Perquimans County (as well as its comparator jurisdictions where appropriate).

- There are four public schools in the Perquimans County school district: two elementary schools, one middle school, and one secondary school. There are no private schools in the county.

**Table 41. Number of Schools
(SY2012-13 or as Noted)**

Location	Public (SY2012-13)				Private (SY2014-15)			
	Elementary (PK-8)	Middle (4-8)	Secondary (9-12)	Combined	K-10/11/12	Middle School	K-5	Other
Perquimans County Schools	2	1	1	0	0	0	0	0
<i>Regional Total</i>	25	10	12	1	6	3	1	2
Source:	a	a	a	a	b	b	b	b

a - NC Department of Public Instruction, NC School Report Cards, Search by School District. <http://www.ncreportcards.org/src/>.

b - NC Division of Non-Public Education, Resources and Statistics, NC Directory of Non-Public Schools. <http://www.ncdnpe.org/documents/14-15-CS-Directory.pdf>.

- Perquimans County High School in Hertford was the largest school in the district, with a SY2012-13 enrollment of 502. Perquimans Central School, in Winfall, was the second largest school in the district, with a SY2012-13 enrollment of 459.

**Table 42. Perquimans County Public Schools (Not Including Charter Schools)
(SY2012-13)**

School	Location	School Type/Calendar	Grade Range	Enrollment SY2012-13
Hertford Grammar	Hertford	Regular School, Traditional Calendar	3-5	401
Perquimans Central	Winfall	Regular School, Traditional Calendar	PK-2	459
Perquimans County High	Hertford	Regular School, Traditional Calendar	9-12	502
Perquimans County Middle	Winfall	Regular School, Traditional Calendar	6-8	426

Source: NC Department of Public Instruction, Data and Statistics, Education Data, NC School Report Cards, School Year 2009-10; <http://www.ncschoolreportcards.org/src>.

- K-12 public school enrollment in Perquimans County has fluctuated since SY2007-08, and was only 1% less in SY2014-15 than in SY2007-08.

**Table 43. K-12 Public School Enrollment
(SY2007-08 through SY2014-15)**

Location	Number of Students							
	SY2007-08	SY2008-09	SY2009-10	SY2010-11	SY2011-12	SY2012-13	SY2013-14	SY2014-15
Perquimans County Schools	1,831	1,785	1,795	1,799	1,888	1,831	1,882	1,809
<i>Regional Average</i>	3,150	3,101	3,038	3,017	3,122	2,933	2,905	2,902
<i>State of NC</i>	1,458,156	1,456,558	1,446,650	1,450,435	1,458,572	1,467,297	1,493,980	1,498,654

Note: this data excludes charter school enrollment.

Source: NC Department of Public Instruction, Data and Statistics, Education Data: NC Statistical Profile. NC Statistical Profile Online: Local Education Agencies Information, Pupil Accounting. Table A1: Final Pupils by Year and Grade. <http://apps.schools.nc.gov/pls/apex/f?p=1:1:497147721913602>.

Educational Attainment

The following table presents data on several measures of educational attainment.

Compared to the NC average, in 2014 or SY2014-15 Perquimans County had:

- A 2% lower proportion of residents with *less than* a high school education;
- A 40% lower proportion of residents with a bachelor's degree or higher;
- Lower proficiency on reading EOG tests among 3rd graders and significantly lower proficiency in math EOG tests among 8th graders. Third-graders in Perquimans County had higher proficiency on EOG math tests than 3rd graders statewide; EOG reading proficiency among 8th graders was the same in the county and the state.
- A lower rate of participation in the SAT and lower average scores.

**Table 44. Educational Attainment
(Years as Noted)**

Location	% Population High School Graduate or Higher	% Population Bachelor's Degree or Higher	% 3rd Graders Grade Level Proficient, EOG Reading Test	% 3rd Graders Grade Level Proficient, EOG Math Test	% 8th Graders Grade Level Proficient, EOG Reading Test	% 8th Graders Grade Level Proficient, EOG Math Test	SAT Participation Rate	Average Total SAT Scores
	2014	2014	SY2014-15	SY2014-15	SY2014-15	SY2014-15	SY2014-15	SY2014-15
Perquimans County	83.9	16.7	53.7	77.2	53.4	21.3	41%	938
<i>Regional Average</i>	82.8	16.9	55.3	64.8	51.5	35.6	60%	918
Pamlico County	86.7	19.9	55.8	58.4	45.3	45.3	60%	963
<i>State of NC</i>	85.4	27.8	59.0	61.7	53.4	43.2	54%	989

Source:

a

a

b

b

b

b

b

b

a - US Census Bureau, American Fact Finder, 2014 ACS 5-Year Estimate. Table S1501: Educational Attainment (Geographies as noted). <http://factfinder.census.gov>.

b - NC Department of Public Instruction, Data and Statistics, Education Data, NC School Report Cards. District Profile. <http://www.ncpublicschools.org/src/>.

Educational Expenditures

The next table presents data on local, state and federal expenditures on public education.

- In SY2014-15 the total per pupil expenditure (the sum of Federal, state and local investments) in Perquimans County (\$10,636) was 4% higher than the average for the ARHS region (\$10,208), and 22% higher than the average for the state as a whole (\$8,734).
- In all jurisdictions, the state contributed the highest proportion to the total per-pupil expenditure: 69% in Perquimans County, an average of 69% region-wide, and an average of 64% statewide.

**Table 45. Educational Expenditures
(SY2014-15)**

Location	Per-Pupil Expenditure			
	Local	State	Federal	Total
Perquimans County Schools	\$1,916	\$7,355	\$1,365	\$10,636
<i>Regional Average</i>	\$2,064	\$7,020	\$1,124	\$10,208
<i>State of NC</i>	\$2,137	\$5,624	\$973	\$8,734

Source: NC Department of Public Instruction, Data and Statistics, Education Data, NC School Report Cards. District Profile. <http://www.ncpublicschools.org/src/>.

High School Drop-Out Rate

The following table presents data on the high school (grades 9-12) drop-out rate. According to the NC Department of Public Instruction, a "drop-out" is any student who leaves school for any reason before graduation or completion of a program of studies without transferring to another elementary or secondary school. For reporting purposes, a drop-out is a student who was enrolled at some time during the previous school year, but who was not enrolled (and who does not meet reporting exclusions) on day 20 of the current school year. The data below is specific to high school students.

- The high school drop-out rate in Perquimans County fluctuated over the period cited in the table, but was highest (5.39) in SY2007-08 and lowest (1.34) in SY2013-14.

- In the most recent period the drop-out rate in Perquimans County was lower than either the regional or state averages.
- According to SY2014-15 data provided by Perquimans County Schools, the high school drop-out rate that year had rebounded to 2.25% (35).

**Table 46. High School Drop-Out Rate
(SY2006-07 through SY2013-14)**

Location	Drop-Out Rate							
	SY2006-07	SY2007-08	SY2008-09	SY2009-10	SY2010-11	SY2011-12	SY2012-13	SY2013-14
Perquimans County Schools	5.23	5.39	3.56	3.21	3.39	3.88	2.08	1.34
<i>Regional Average</i>	4.38	4.78	3.65	3.42	3.53	2.70	2.18	2.19
<i>State of NC</i>	5.27	4.97	4.27	3.75	3.43	3.01	2.45	2.28

Source: NC Department of Public Instruction, Research and Evaluation, Dropout Data and Collection Process, Annual Dropout Reports. Consolidated Report: Table D5: high School Dropout Counts and Rates; <http://www.ncpublicschools.org/research/dropout/reports/>.

Graduation Rate

The four-year cohort graduation rates for subpopulations of 9th graders entering high school in SY2011-12 and graduating in SY2014-15 are presented in the table below.

- Among comparators, the graduation rates for all subpopulations shown were highest in Perquimans County Schools.

**Table 47. Four Year Cohort Graduation Rate
(9th Graders Entering SY2011-12 and Graduating SY2014-15 or Earlier)**

Location	All Students			Male			Female			Economically Disadvantaged		
	Total Students	# Students Graduating	% Students Graduating	Total Students	# Students Graduating	% Students Graduating	Total Students	# Students Graduating	% Students Graduating	Total Students	# Students Graduating	% Students Graduating
Perquimans County Schools	117	106	90.6	61	55	90.2	56	51	91.1	58	51	87.9
<i>Regional Average</i>	218	188	86.7	110	90	83.1	109	98	90.3	91	75	83.9
<i>State of NC</i>	110,473	94,544	85.6	56,294	46,288	82.2	54,179	48,256	89.1	44,047	35,076	79.6

Note: subgroup information is based on data collected when a student is last seen in the cohort
Source: Public Schools of North Carolina, Cohort Graduation Rate. 4-Year Cohort Graduation Rate Report, 2011-12 Entering 9th Graders Graduating in 2014-15 or Earlier. <http://www.ncpublicschools.org/accountability/reporting/cohortgradrate>.

School Crime and Violence

Along with test scores and dropout rates, schools also track and report acts of crime and violence that occur on school property.

The NC State Board of Education has defined 17 criminal acts that are to be monitored and reported, ten of which are considered dangerous and violent:

- Homicide
- Assault resulting in serious bodily injury
- Assault involving the use of a weapon
- Rape
- Sexual offense
- Sexual assault
- Kidnapping
- Robbery with a dangerous weapon

- Robbery without a dangerous weapon
- Taking indecent liberties with a minor

The other seven criminal acts are:

- Assault on school personnel
- Bomb threat
- Burning of a school building
- Possession of alcoholic beverage
- Possession of controlled substance in violation of law
- Possession of a firearm or powerful explosive
- Possession of a weapon

The next table summarizes acts of school crime and violence catalogued by the NC Department of Public Instruction.

- The number and rate of acts of school crime and violence in Perquimans County Schools and the other jurisdictions fluctuated dramatically over the period cited. Only the statewide average showed any stability, likely due to the large size of the sample. The state rate decreased in the three most recent school years cited.

Table 48. School Crime and Violence Trend (SY2006-07 through SY2013-14)

Location	SY2006-07		SY2007-08		SY2008-09		SY2009-10		SY2010-11		SY2011-12		SY2012-13		SY2013-14	
	No. Acts	Rate	No. Acts	Rate	No. Acts	Rate	No. Acts	Rate	No. Acts	Rate	No. Acts	Rate	No. Acts	Rate	No. Acts	Rate
Perquimans County Schools	11	6.4	14	8.0	12	7.0	14	8.1	3	1.7	15	8.8	14	7.8	15	8.5
<i>Regional Average</i>	17	5.5	21	7.6	19	6.0	14	5.0	16	4.6	16.7	6.3	15.3	4.9	15.9	5.8
Pamlico County Schools	33	21.9	20	14.3	12	8.6	7	5.1	6	4.3	13	9.5	15	11.8	9	7.1
State of NC	11,013	7.8	11,276	7.9	11,116	7.6	11,608	8.0	11,657	8.0	11,161	7.6	10,630	7.2	10,132	6.8
Source	a	a	b	b	b	b	b	b	b	b	b	b	b	b	b	b

¹ For list of reportable acts see accompanying text

² Rate is number of acts per 1,000 students

a - NC Department of Public Instruction, Research and Evaluation, Discipline Data, Annual Reports, Annual Reports of School Crime and Violence (years as noted); <http://www.ncpublicschools.org/research/discipline/reports/#consolidated>.

b - NC Department of Public Instruction, Research and Evaluation, Discipline Data, Consolidated Data Reports. Crime & Violence Table C-5. <http://www.ncpublicschools.org/research/discipline/reports/#consolidated>.

The following table displays detail on the acts of crime and violence committed in Perquimans County Schools in SY2011-12 through SY2013-14.

- According to this data, the most common offense in Perquimans County Schools was possession of a weapon, accounting for 59% (26 of 44) of reportable acts over the three years cited.
- The second most common offense was possession of a controlled substance, accounting for 32% (14 of 44) of reportable acts over the same period.

Table 49 School Crime and Violence in Perquimans County Schools, by Type of Offense (SY2011-12 through SY2013-14)

Offense	Number of Acts		
	SY2011-12	SY2012-13	SY2013-14
Assault resulting in serious injury	0	0	0
Assault involving use of weapon	0	0	0
Assault of school personnel	0	0	0
Bomb threat	0	0	0
Burning of school building	0	0	0
Death by other natural causes	0	0	0
Kidnapping	0	0	0
Possession of alcoholic beverage	3	0	1
Possession of controlled substance	7	2	5
Possession of firearm	0	0	0
Possession of weapon	5	12	9
Rape	0	0	0
Robbery with a dangerous weapon	0	0	0
Sexual assault	0	0	0
Sexual offense	0	0	0
Taking liberties with a minor	0	0	0
Total Reportable Acts	15	14	15
Average Daily Membership	1,708	1,788	1,771
Acts per 1,000 Students	8.8	7.8	8.5

Source: NC Department of Public Instruction, Research and Evaluation, Discipline Data, Consolidated Data Reports. Crime & Violence Table C-5, years as noted. <http://www.ncpublicschools.org/research/discipline/reports/#consolidated>.

The final table in this section presents data summarizing disciplinary activity in the public schools. Since the data represent counts of activity of school systems of different sizes, direct comparisons are problematic.

- In all the school systems under comparison the most common disciplinary activity was the short-term suspension, and expulsions were rare.

Table 50. School Disciplinary Activity (SY2010-11 through SY2013-14)

School System	SY2010-11			SY2011-12			SY2012-13			SY2013-14		
	No. Short-Term Suspensions	No. Long-Term Suspensions	No. Expulsions	No. Short-Term Suspensions	No. Long-Term Suspensions	No. Expulsions	No. Short-Term Suspensions	No. Long-Term Suspensions	No. Expulsions	No. Short-Term Suspensions	No. Long-Term Suspensions	No. Expulsions
Perquimans County Schools	193	1	0	160	0	0	188	0	0	195	1	0
<i>Regional Average</i>	570	6	0	615	2	0	590	4	0	450	2	0
Pamlico County Schools	286	1	0	316	1	0	229	3	0	288	2	0
<i>State of NC</i>	<i>262,858</i>	<i>2,586</i>	<i>59</i>	<i>258,197</i>	<i>1,609</i>	<i>30</i>	<i>247,919</i>	<i>1,423</i>	<i>37</i>	<i>198,254</i>	<i>1,088</i>	<i>37</i>

¹ A short-term suspension is up to 10 days.

² A long term suspension is 11 or more days.

Source: NC Department of Public Instruction, Research and Evaluation, Discipline Data, Consolidated Data Reports (years as noted); <http://www.ncpublicschools.org/research/discipline/reports/#consolidated>.

CRIME AND SAFETY

Crime Rates

All crime statistics reported below were obtained from the NC Department of Justice, State Bureau of Investigation unless otherwise noted.

Index crime is composed of *violent crime* and *property crime*. Violent crime includes murder, forcible rape, robbery, and aggravated assault; property crime includes burglary, larceny, arson, and motor vehicle theft.

The table below presents the rates for index crime, violent crime, and property crime for the period from 2010 through 2014.

- The largest component of index crime in all four jurisdictions was property crime.
- The index crime rate in Perquimans County was the lowest among the comparators in every period cited.

Table 51. Crime Rates, Crimes per 100,000 Population (2010-2014)

Location	Crimes per 100,000 Population														
	2010			2011			2012			2013			2014		
	Index Crime	Violent Crime	Property Crime	Index Crime	Violent Crime	Property Crime	Index Crime	Violent Crime	Property Crime	Index Crime	Violent Crime	Property Crime	Index Crime	Violent Crime	Property Crime
Perquimans County	1,527.9	113.2	1,414.7	1,846.2	116.4	1,729.9	1,939.7	193.2	1,746.5	1,627.2	152.8	1,474.4	1,329.7	159.6	1,170.1
<i>Regional Average</i>	2,191.1	211.0	1,980.1	2,512.8	196.6	2,316.2	2,326.2	229.9	2,096.4	2,108.7	197.8	1,909.5	2,006.2	214.5	1,808.4
Pamlico County	2,320.3	166.9	2,153.4	2,296.5	220.7	2,075.8	2,632.2	219.4	2,412.9	2,829.3	374.0	2,455.3	2,423.6	304.0	2,119.6
State of NC	3,955.7	374.4	3,581.4	3,919.8	354.6	3,565.2	3,770.6	358.9	3,411.7	3,518.7	340.4	3,178.3	3,287.2	333.0	2,954.1

* - Indicates incomplete or missing data.

Source: NC Department of Justice, State Bureau of Investigation, Crime, View Crime Statistics, Crime Statistics (by Year). County Rates Ten Year Trend and Statewide Offenses and Rates, Ten Year Trend; <http://crimereporting.ncsbi.gov/Reports.aspx>.

The following three figures present long-term (2006-2014) trend data for index, violent and property crime. Note that figures for Pamlico County are not presented because some of the parent data was missing at the source.

- The index crime rate in Perquimans County was lower than the comparable regional rate and state rates in every year cited except 2006, when the local rate exceeded the regional rate. In 2014 the Perquimans County index crime rate was 1,329.7 crimes committed per 100,000 population, compared to 3,287.2 in NC and 2,006.2 in the ARHS region.
- The violent crime rate in Perquimans County has been lower than the comparable rates region-wide and statewide for the entire period cited. In 2014 the Perquimans County violent crime rate was 159.6 compared to a state rate of 333.0 and a Regional rate of 214.5.
- The property crime rate in Perquimans County was lower than the comparable rates region-wide and statewide in all years cited except 2006 when the local rate exceeded the regional rate. In 2014 the property crime rate in Perquimans County was 1,170.1, compared to 2,954.1 statewide and 1,808.4 Region wide.

Figure 12. Index Crime Rate Trend

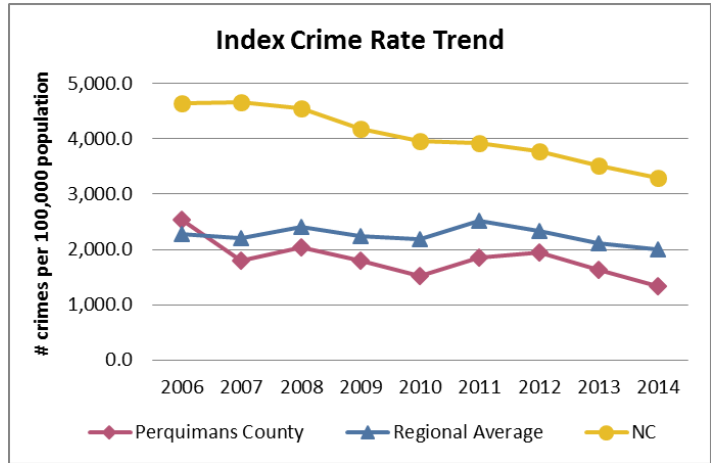


Figure 13. Violent Crime Rate Trend

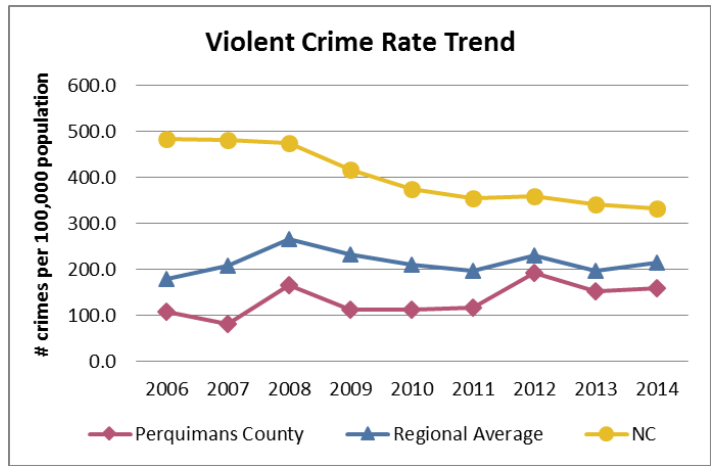
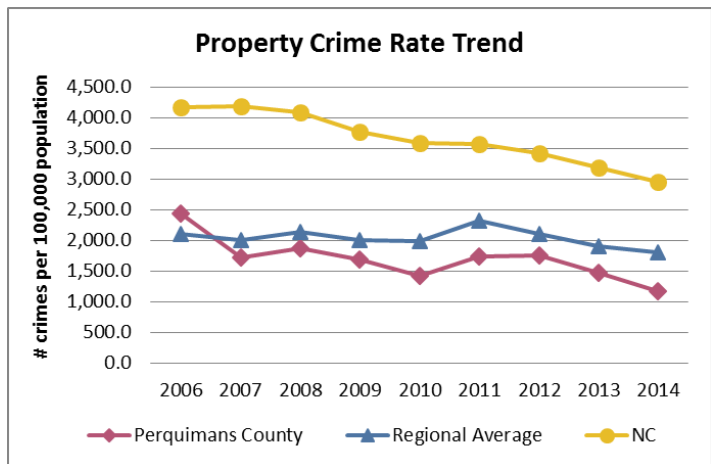


Figure 14. Property Crime Rate Trend



Source: NC Department of Justice, State Bureau of Investigation, Crime, View Crime Statistics, Crime Statistics (by Year). County Rates Ten Year Trend and Statewide Offenses and Rates, Ten Year Trend; <http://crimereporting.ncsbi.gov/Reports.aspx>.

The next table presents detail on index crime committed in Perquimans County from 2006 through 2014. Note the following definitions:

Robbery: larceny by the threat of violence;

Aggravated assault: a physical attack on another person which results in serious bodily harm and/or is made with a deadly or dangerous weapon such as a gun, knife, sword, ax or blunt instrument;

Burglary: unlawful breaking and entering into the premises of another with the intent to commit a felony;

Larceny: the theft of property without use of force; and

Motor vehicle theft: the theft or attempted theft of a motor vehicle

- The predominant violent crime reported in Perquimans County every year cited except 2006 was aggravated assault.
- Larceny was the predominant property crime reported in every year except 2006, 2008, 2009 and 2012 when burglary was the predominant property crime reported.

Table 52. Types of Crimes Reported in Perquimans County (2006-2014)

Type of Crime	Number of Crimes								
	2006	2007	2008	2009	2010	2011	2012	2013	2014
Violent Crime									
<i>Murder</i>	1	1	1	1	0	0	2	0	0
<i>Rape</i>	2	0	3	3	2	2	2	2	2
<i>Robbery</i>	6	2	5	2	3	5	7	7	3
<i>Aggravated Assault</i>	4	7	11	8	9	8	14	11	16
Property Crime									
<i>Burglary</i>	152	79	119	102	83	95	118	89	72
<i>Larceny</i>	115	126	102	98	83	111	100	91	74
<i>Motor Vehicle Theft</i>	29	9	6	7	9	17	8	13	8
Total Index Crimes	309	224	247	221	189	238	251	213	175

Source: NC State Bureau of Investigation, Crime in North Carolina, North Carolina Crime Statistics, Crime Statistics in Detailed Reports (By Year), Annual Reports, County Offenses Ten Year Trend, <http://crimereporting.ncsbi.gov/Reports.aspx>.

Other Criminal Activities

The following table summarizes data on other types of criminal activities.

- As of February 4, 2016 there were 36 registered sex offenders in Perquimans County, compared to 25 in Pamlico County. The average for counties in the region was 38.
- According to the NC Governor's Crime Commission, in 2013 there were no gangs in Perquimans County or Pamlico County. The same year, the Crime Commission sited a total of 982 gangs statewide.
- According to the NC State Bureau of Investigation, there were no methamphetamine drug lab busts in Perquimans County during the period from 2005 through 2013. Over the same period, 2,685 meth lab busts were recorded statewide.

Table 53. Other Criminal Activity

Location	No. Registered Sex Offenders (2/4/16)	No. Gangs	No. Methamphetamine Lab Busts								
			2013	2005	2006	2007	2008	2009	2010	2011	2012
Perquimans County	36	0	0	0	0	0	0	0	0	0	0
<i>Regional Average</i>	38	2	<1	<1	<1	<1	<1	<1	<1	<1	<1
Pamlico County	25	0	0	0	1	0	0	0	0	0	0
State of NC	n/a	982	328	197	157	197	206	235	344	460	561

Source: a b c c c c c c c c c c

a - NC Department of Justice, Sex Offender Statistics, Offender Statistics; <http://sexoffender.ncsbi.gov/>.

b - NC Department of Crime Control and Public Safety, Governor's Crime Commission, Publications. Gangs in North Carolina 2013 (March 2013). Appendix 2. <https://www.ncdps.gov/div/GCC/PDFs/Pubs/Gangs2013.pdf>.

c - NC Department of Justice, State Bureau of Investigation, Crime, Enforce Drug Laws, Meth Focus, Meth Lab Busts; <http://www.ncdoj.gov/getdoc/b1f6f30e-df89-4679-9889-53a3f185c849/Meth-Lab-Busts.aspx>.

Juvenile Crime

The following definitions will be useful in understanding the subsequent data and discussion.

Complaint: A formal allegation that a juvenile committed an offense, which will be reviewed by a counselor who decides whether to approve or not approve the complaint. If approved, it will be heard in juvenile court.

Undisciplined: Describes a juvenile between the ages of six and 16, who is unlawfully absent from school, or regularly disobedient and beyond disciplinary control of parent/guardian, or is regularly found where it is unlawful for juveniles to be, or has run away from home for more than 24 hours. It also includes 16-17 year olds who have done any of the above except being absent from school.

Delinquent: Describes a juvenile between the ages of six and not yet 16 who commits an offense that would be a crime under state or local law if committed by an adult.

Diversion: If a complaint is not approved, it may be diverted to a community resource or placed on a diversion contract or plan that lays out stipulations for the juvenile (like community service) to keep the juvenile out of court.

Non-divertible: Non-divertible offenses include offenses like: murder, rape, sexual offense, arson, first degree burglary, crime against nature, willful infliction of serious bodily harm, assault with deadly weapon, etc.

Transfer to Superior Court: A juvenile who is 13, 14 or 15 who is alleged to have committed a felony may be transferred to Superior Court and tried and sentenced as an adult. If a juvenile is over 13 and charged with first degree murder, the judge must transfer the case to Superior Court if probable cause is found.

Rate: The number per 1,000 persons that are aged 6 to 17 in the county.

The following table presents a summary of juvenile justice complaints and rates:

- Between 2010 and 2014 the *number* of complaints of *undisciplined* youth in Perquimans County decreased from 5 to 3 (40%), and the *rate* of *undisciplined* youth decreased from 2.87 to 1.61 (44%).
- Over the same period the *number* of complaints of *delinquent* youth in Perquimans County decreased from 28 to 23 (18%), and the *rate* of *delinquent* youth decreased from 19.66 to 14.53 (26%).

**Table 54. Complaints and Rates of Undisciplined and Delinquent Youth
(2010 through 2014)**

Location	Complaints									
	No. Undisciplined					Rate Undisciplined (Complaints per 1,000 Ages 6 to 17)				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Perquimans County	5	7	6	7	3	2.87	3.78	3.26	3.80	1.61
<i>Regional Average</i>	10	9	8	6	5	2.92	2.89	2.73	1.95	1.78
Pamlico County	4	3	2	0	2	2.64	1.86	1.23	0.00	1.28
State of NC	4,285	3,603	3,194	2,556	2,277	2.94	2.34	2.50	1.66	1.47

Location	Complaints									
	No. Delinquent					Rate Delinquent (Complaints per 1,000 Age 6 to 15)				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Perquimans County	28	43	21	36	23	19.66	27.94	13.73	22.99	14.53
<i>Regional Average</i>	83	66	52	58	77	29.06	24.99	19.54	20.69	27.05
Pamlico County	31	28	41	21	28	24.8	21.18	30.8	15.84	21.57
State of NC	33,299	33,556	31,575	29,535	29,288	27.55	26.08	24.70	22.91	22.52

Source: NC Department of Public Safety. Juvenile Justice, Data/Statistics/Reports, County Databooks (Search by Year); <https://www.ncdps.gov/Index2.cfm?a=000003.002476.002487>.

The next table summarizes the outcomes of complaints of undisciplined and delinquent youth.

- Over the five-year period cited a total of 17 Perquimans County juveniles were sent to secure detention.
- No Perquimans County juveniles were sent to youth development centers over the period cited, and none were transferred to Superior Court.

**Table 55. Juvenile Justice Outcomes
(2010 through 2014)**

Location	Outcomes														
	No. Sent to Secure Detention					No. Sent to Youth Development Center					No. Transferred to Superior Court				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Perquimans County	4	5	2	2	4	0	0	0	0	0	0	0	0	0	0
<i>Regional Average</i>	9	10	6	6	7	0	0	0	0	0	0	0	0	0	0
Pamlico County	5	3	2	1	5	0	0	0	0	0	0	0	0	0	0
State of NC	4,297	3,558	2,767	2,352	2,244	357	307	216	219	202	30	28	36	28	14

Source: NC Department of Public Safety. Juvenile Justice, Data/Statistics/Reports, County Databooks (Search by Year); <https://www.ncdps.gov/Index2.cfm?a=000003.002476.002487>

Sexual Assault

The following table summarizes data from the Domestic Violence Commission of the NC Council for Women on the number of individuals who filed complaints of sexual assault. (See Perquimans County Sociodemographic Data Workbook for an explanation of the NC Council for Women's data collection methodology.)

- Since the figures are counts and not rates, they cannot be definitively compared from one jurisdiction to another.
- The annual number of complaints varied without a clear pattern in all four jurisdictions over the period covered.

**Table 56. Sexual Assault Complaint Trend
(FY2007-08 through FY2014-15)**

Location	No. of Individuals Filing Complaints ("Clients")							
	FY2007-08	FY2008-09	FY2009-10	FY2010-11	FY2011-12	FY2012-13	FY2013-14	FY2014-15
Perquimans County	n/a	n/a	24	24	37	18	25	22
<i>Regional Average</i>	17	58	66	51	64	54	71	60
Pamlico County	n/a	n/a	n/a	n/a	n/a	n/a	30	30*
State of NC	6,527	8,494	13,392	13,881	13,214	12,971	13,736	13,655

Source: NC Department of Administration, Council for Women, Domestic Violence Commission, Statistics, County Statistics (years as noted); <http://www.doa.state.nc.us/cfw/stats.htm>.

* Pamlico County data includes Jones County

The next table presents details on the types of sexual assaults reported in FY2014-15.

- In FY2014-15 in Perquimans County, the highest proportion of sexual assaults (40.9%) involved complaints from adult survivors of child sexual assault.
- Region-wide the largest proportion of sexual assault complaints (38.6%) was by adult survivors of child sexual assault, and the second highest proportion (26.9%) was for adult rape.
- Statewide the largest proportion of sexual assault complaints (27.3%) involved child sexual offense; the second largest proportion (21.5%) involved adult rape.

**Table 57. Types of Sexual Assaults
(FY2014-15)**

Location	Total Assault Clients	Type of Assault													
		Adult Rape		Date Rape		Adult Survivor of Child Sexual Assault		Marital Rape		Child Sexual Offense		Incest		Other	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Perquimans County	22	3	13.6	0	0.0	9	40.9	3	13.6	0	0.0	0	0.0	7	31.8
<i>Regional Average</i>	60	11	26.9	1	1.3	26	38.6	8	13.6	4	4.8	0	0.3	9	14.3
Pamlico County**	30	5	16.7	2	6.7	7	23.3	4	13.3	4	13.3	3	10.0	5	16.7
State of NC	13,655	2,940	21.5	892	6.5	2,194	16.1	824	6.0	3,721	27.3	782	5.7	2,302	16.9

Source: NC Department of Administration, Council for Women, Domestic Violence Commission, Statistics, 2014-2015 County Statistics; <http://www.doa.state.nc.us/cfw/stats.htm>.

** Pamlico County data includes Jones County

The following table details the types of offenders involved in sexual assaults in FY2014-15.

- In Perquimans County in the period cited the most common offender in sexual assault complaints was a relative (68.2%), followed by an acquaintance (27.3%).
- Region-wide, the most common offender was a relative (52.7%), followed by an acquaintance (20.4%).
- Statewide the most common offender was a relative (32.6%), followed by an acquaintance (27.9%).

Table 58. Types of Offenders in Sexual Assaults (FY2014-15)

Location	Total Offenders	Type of Offender											
		Relative		Acquaintance		Boy/Girl Friend		Stranger		Unknown		Other	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Perquimans County	22	15	68.2	6	27.3	0	0.0	0	0.0	1	4.5	0	0.0
<i>Regional Average</i>	60	34	52.7	13	20.4	5	5.4	3	11.8	5	9.7	0	0.0
Pamlico County**	20	8	40.0	7	35.0	2	10.0	2	10.0	1	5.0	0	0.0
<i>State of NC</i>	13,720	4,474	32.6	3,823	27.9	1,604	11.7	655	4.8	3,119	22.7	45	0.3

Source: NC Department of Administration, Council for Women, Domestic Violence Commission, Statistics, 2014-2015 County Statistics; <http://www.doa.state.nc.us/cfw/stats.htm>.

Domestic Violence

The table below summarizes data from the Domestic Violence Commission of the NC Council for Women on the number of individuals who filed complaints of domestic violence. (See Perquimans County Sociodemographic Data Workbook for an explanation of the NC Council for Women's data collection methodology.)

- Since the figures are counts and not rates, they are difficult to compare from one jurisdiction to another.
- In Perquimans County the annual numbers of complaints fluctuated over the period cited without a clear pattern.

Table 59. Domestic Violence Complaint Trend (FY2007-08 through FY2014-15)

Location	No. of Individuals Filing Complaints ("Clients")							
	FY2007-08	FY2008-09	FY2009-10	FY2010-11	FY2011-12	FY2012-13	FY2013-14	FY2014-15
Perquimans County	82	102	148	114	114	122	187	155
<i>Regional Average</i>	134	163	252	216	209	279	372	328
Pamlico County	301	93	86	50	35	30	32	88
<i>State of NC</i>	41,787	51,873	66,320	61,283	51,563	57,345	55,274	53,875

Source: NC Department of Administration, Council for Women, Domestic Violence Commission, Statistics, County Statistics (years as noted); <http://www.doa.state.nc.us/cfw/stats.htm>.

The table below provides details on the services received by domestic violence complainants.

- The 155 clients complaining of domestic violence in Perquimans County in FY2014-15 were provided a total of 2,917 services.
- The largest numbers of services received by domestic violence complainants in Perquimans County were advocacy (1,701) followed by counseling (438) and information (346).
- There is no domestic violence shelter physically located in Perquimans County at the present time. The county Department of Social Services can work with Albemarle Hopeline (see below) and other regional shelters to provide shelter for Perquimans County domestic violence clients.

Table 60. Services Received by Domestic Violence Complainants (FY2014-15)

Location	Total Domestic Violence Clients	Services Received									Days Local Shelter was Full
		Total	Information	Advocacy	Referral	Transport	Counseling	Hospital	Court	Other	
Perquimans County	155	2,917	346	1,701	205	127	438	0	100	0	32
<i>Regional Average</i>	328	2,929	814	890	400	62	528	1	228	6	27
Pamlico County	88	933	385	122	218	16	116	6	50	20	0
<i>State of NC</i>	53,875	480,730	148,363	86,475	73,979	34,413	47,942	844	37,247	51,467	8,281

Source: NC Department of Administration, Council for Women, Domestic Violence Commission, Statistics, 2014-15 County Statistics; <http://www.doa.state.nc.us/cfw/stats.htm>.

Albemarle Hopeline

This agency serves victims of family violence, sexual assault and teen dating violence in Camden, Chowan, Currituck, Gates, Perquimans and Pasquotank counties. Hopeline offers free individual and group counseling and emergency shelter, a 24-hour crisis counseling telephone line, and educational programs, courtroom advocacy and volunteer training. All services are provided free of charge (36).

Main telephone: (252) 338-5335

24-Hour Crisis Line: (252) 338-3011

Address: PO Box 2064, Elizabeth City, NC 27906

Albemarle Hopeline provided the following service utilization statistics for the period July 1, 2014 through June 30, 2015. These data are specific to services provided to Perquimans County clients (37).

- Victims served – 177
- Shelter nights – 717
- Counseling sessions – 507
- Advocacy services – 1,737
- Court services – 118
- Crisis calls – 238
- Prevention education and outreach programs conducted - 66

Child Maltreatment

The responsibility for identifying and reporting cases of child abuse, neglect and exploitation falls to the child protective services program within a county's department of social services. Generally speaking, such a unit will have sufficient staff to handle intake of all reports. However, an agency's ability to investigate and monitor reported cases may vary from year to year, depending on the number of properly trained staff available to it; hence, follow-up on reports may vary independently of the number of reports.

The table below presents child protective services data from the state's Child Welfare website for the period from FY2007-08 through FY2014-15.

- The total number of findings of child abuse, neglect or dependency in Perquimans County fluctuated annually without a clear pattern. For the period cited, the highest number of findings was 86 in FY2009-10, and the lowest was 50 in FY2010-11. The average number of findings of child abuse, neglect or dependency per year throughout the period cited was 71.
- Abuse cases composed the most common type of substantiated child maltreatment in Perquimans County in most years. In 2014-15 all of the five substantiated cases involved abuse or neglect and abuse.

Table 61. Reports of Child Abuse and Neglect, Perquimans County (FY2007-08 through FY2014-15)

Category	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Total No. of Findings of Abuse, Neglect, Dependency	84	76	86	50	70	63	74	65
No. Substantiated ¹ Findings of Abuse and Neglect	0	0	0	0	3	0	3	1
No. Substantiated Findings of Abuse	2	2	0	1	1	0	0	4
No. Substantiated Findings of Neglect	0	0	0	2	0	0	0	0
Services Recommended	29	24	16	9	16	12	10	16
No. Unsubstantiated Findings	17	4	22	5	2	7	1	2
Services Not Recommended	21	43	30	22	38	39	59	39

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

Source: Child Welfare, Reports of Abuse and Neglect section, Reports of Abuse and Neglect Type of Finding/Decision (Not Exclusive) (Longitudinal Data); http://sasweb.unc.edu/cqi-bin/broker?_service=default&_program=cwweb.tbReport.sas&county=Perquimans&label=County&format=html&entry=10&type=CHILD&fn=FRST&vtype=xfind.

The next table presents demographic detail from the same source as above on the cases in Perquimans County described for FY2014-15.

- Four of the five substantiated cases of abuse or abuse and neglect involved white children.
- Four of the five substantiated cases of maltreatment involved female children.
- None of the five cases involved children age 5 and younger; one case involved a child age 6-12, and four involved teenagers.

Table 62. Demographic Detail of Child Abuse Cases, Perquimans County (FY2014-15)

Finding	Total	White	African-American	American Indian/Alaskan	Other Races	Hispanic	Non-Hispanic	Male	Female	Ages 0-5	Ages 6-12	Ages 13-17	Missing Age Information
Abuse and Neglect	1	1	0	0	0	0	1	0	1	0	0	1	0
Abuse	4	3	1	0	0	0	4	1	3	0	1	3	0
Services Needed	3	3	0	0	0	0	3	2	1	2	1	0	0
Services Recommended	16	7	7	0	2	0	16	7	9	4	7	5	0
Unsubstantiated	2	0	2	0	0	0	2	1	1	1	1	0	0
Services Not Recommended	39	13	23	0	3	0	39	21	18	19	16	4	0

Source: Child Welfare, Reports of Abuse and Neglect section, Table of Summary Data: Type of Finding by Category (Longitudinal). http://sasweb.unc.edu/cgi-bin/broker?_service=default&_program=cwweb.icans.sas&county=North%20Carolina&label=&entry=10.

Adult Maltreatment

Adults who are elderly, frail, or mentally challenged are also subject to abuse, neglect and exploitation. County DSS Adult Protective Services units screen, investigate and evaluate reports of what may broadly be referred to as adult maltreatment. The table below presents state-cataloged adult protective service survey data for 2009 and 2011. Note that no update to this old data is available at the source.

- Note that reports “screened out” do not meet the legal definition of potential maltreatment and are not investigated further.
- In Perquimans County the proportion of reports screened in for further investigation and services was 33% in 2009 and 39% in 2011.
- Services most frequently provided to Perquimans County adult maltreatment victims were outreach and information and referral.

Table 63. NC Adult Protective Services Survey Results (2009 and 2011)

Location	2009										
	Reports Received	Reports Screened In	Reports Screened Out	Information and Referral	Outreach	Law Enforcement	DHSR or Home Specialist	District Attorney	Veterans Admin	Division of Medical Assistance	Social Security
Perquimans County	40	13	27	2	19	1	1	0	0	0	0
<i>Regional Average</i>	31	16	14	4	6	1	1	1	0	0	0
Pamlico County	27	9	18	1	9	0	0	0	0	0	0
State of NC	17,073	9,835	7,239	2,443	2,640	471	568	488	34	42	134

Location	2011										
	Reports Received	Reports Screened In	Reports Screened Out	Information and Referral	Outreach	Law Enforcement	DHSR or Home Specialist	District Attorney	Veterans Admin	Division of Medical Assistance	Social Security
Perquimans County	36	14	22	8	14	1	1	2	0	0	0
<i>Regional Average</i>	35	21	14	3	7	1	1	1	0	0	0
Pamlico County	11	4	7	4	4	0	0	0	0	0	0
State of NC	19,635	10,929	8,706	2,665	2,736	725	475	651	33	30	152

Source: NC DHHS. Division of Aging and Adult Services. Adult Protective Services. APS Survey Data, 2009 and 2011; http://www.ncdhhs.gov/aging/adultsvcs/afs_aps.htm

CHAPTER THREE: HEALTH RESOURCES

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

MEDICAL INSURANCE

Medically Indigent Population

In most communities, citizens' utilization of health care services is related to their ability to pay for those services, either directly or through private or government health insurance plans/programs. People without these supports are called “medically indigent”, and theirs is often the segment of the population least likely to seek and/or to be able to access necessary health care.

The next table presents data on the proportion of the population (by age group) without health insurance of any kind. (Note that the age distribution presented stops at age 65, when persons become eligible for Medicare.) Prior to the adoption of the Affordable Care Act (ACA) the health insurance system in the US was built largely upon employer-based insurance coverage, so an increase in the number of unemployed people usually resulted in an increase in the number of uninsured. This may change due to activity in the ACA Insurance Marketplace; time will tell.

- The percent of the total Perquimans County population (age 0-64) without health insurance fluctuated some over the period cited, but was 3% lower in 2013 than in 2009.
- Children (age <19) tend to have a lower percentage of uninsured than the adult population age (18-64) due primarily to coverage of children through NC Health Choice. In Perquimans County the average percent uninsured among children during the five-year period cited was 8.7%; the comparable average for adults age 18-64 was 21.3%.
- The percent of uninsured children in Perquimans County decreased from 9.7% in 2009 to 7.3% in 2013, a 25% improvement.

Table 64. Percent of Population without Health Insurance, by Age Group (2009-2013)

Location	2009			2010			2011			2012			2013		
	<19	18-64	<65	<19	18-64	<65	<19	18-64	<65	<19	18-64	<65	<19	18-64	<65
Perquimans County	9.7	21.3	18.2	8.8	21.5	18.1	8.5	21.1	17.8	9.2	21.8	18.5	7.3	20.7	17.1
Regional Avg.	9.2	21.5	17.9	8.1	21.5	17.7	8.2	21.0	17.4	8.0	21.2	17.6	7.4	20.7	17.1
Pamlico County	10.0	21.8	18.9	10.0	22.8	19.6	10.3	21.5	18.7	10.2	22.4	19.3	10.8	22.9	19.9
State of NC	8.7	21.9	18.0	8.3	23.5	19.1	7.9	23.0	18.7	7.9	23.4	19.0	6.9	22.5	18.1

Source: *Small Area Health Insurance Estimates, 2009 [and other years as noted]* U.S. Census Bureau, Small Area Health Insurance Estimate (SAHIE) Interactive Data Tool. Geographies and age groups as noted. www.census.gov/did/www/sahie/data/interactive.

Note on Source: The Small Area Health Insurance Estimates (SAHIE) program was created to develop model-based estimates of health insurance coverage for counties and states. The SAHIE program models health insurance coverage by combining survey data from several sources, including the American Community Survey (ACS), demographic population estimates, aggregated federal tax returns, participation in SNAP, County Business Patterns, Medicaid, CHIP and Census 2010 (<http://www.census.gov/did/www/sahie/about/index.html>).

The table below presents different US Census Bureau data on health insurance coverage for the single aggregate period 2010-2014. This data reflects the civilian, non-institutionalized population only.

- According to this data, 17.5 percent of the total defined population in Perquimans County lacked health insurance over the five-year period cited.

**Table 65. Health Insurance Coverage
(US Census Bureau 5-Year Estimate, 2010-2014)**

Location	With Health Insurance						With No Health Insurance			
	Total		With Private Insurance		With Public Coverage		Total		Under 18	
	#	%	#	%	#	%	#	%	#	%
Perquimans County	11,055	82.5	7,814	58.3	6,108	45.6	2,343	17.5	228	8.4
<i>Regional Average</i>	<i>15,891</i>	<i>85</i>	<i>11,667</i>	<i>63</i>	<i>6,871</i>	<i>37</i>	<i>2,905</i>	<i>15</i>	<i>289</i>	<i>6</i>
Pamlico County	10,386	83.4	7,761	62.4	5,307	42.6	2,060	16.6	306	13.6
State of NC ¹	8,072,475	84.5	6,131,516	64.2	3,039,062	31.8	1,479,285	15.5	155,453	6.8
United States	265,204,127	85.8	203,328,517	65.8	96,075,708	31.1	43,878,131	14.2	5,217,055	7.1

Source: US Census Bureau, American Fact Finder. 2014 American Community Survey 5-Year Estimate. Table DP03: Selected Economic Characteristics; <http://factfinder2.census.gov>

North Carolina Health Choice

In 1997, the Federal government created the *State Children's Health Insurance Program* (SCHI)—later known more simply as the *Children's Health Insurance Program* (CHIP)—that provides matching funds to states for health insurance for families with children. The program covers uninsured children in low-income families who earn too much to qualify for Medicaid (38).

States are given flexibility in designing their CHIP eligibility requirements and policies within broad Federal guidelines. The NC CHIP program is called NC Health Choice for Children (NCHC). This plan, which took effect in October 1998, includes the same benefits as the State Health Plan, plus vision, hearing and dental benefits (following the same guidelines as Medicaid). Children enrolled in NCHC are eligible for benefits including sick visits, check-ups, hospital care, counseling, prescriptions, dental care, eye exams and glasses, hearing exams, hearing aids, and more (39).

The following table presents enrollment figures for NCHC in January, 2010 through 2013. It should be noted that enrollment is directly related to the funding available, which may change at either the Federal or state level.

- In Perquimans County the *number* of children eligible for the program grew slightly every year during the period cited, and the percent of eligible children actually enrolled climbed every year as well, to a high of 95.4% as of January, 2013. This represents an overall increase of 47% over the period cited.
- Statewide, the percent of eligible children enrolled in the program increased 16% over the same period, and consistently exceeded the percent achieved in Perquimans County.

**Table 66. NC Health Choice Enrollment
(As of January, 2010 through 2013)**

Location	January, 2010			January, 2011			January, 2012			January, 2013		
	# Children Eligible	# Eligibles Enrolled	% Eligibles Enrolled	# Children Eligible	# Eligibles Enrolled	% Eligibles Enrolled	# Children Eligible	# Eligibles Enrolled	% Eligibles Enrolled	# Children Eligible	# Eligibles Enrolled	% Eligibles Enrolled
Perquimans County	179	116	65.0	181	148	81.8	193	174	90.2	197	188	95.4
<i>Regional Average</i>	261	216	77.0	255	258	79.8	267	236	85.3	266	237	86.4
Pamlico County	167	147	88.0	180	158	87.8	196	190	96.9	193	193	100.0
<i>State of NC</i>	131,499	108,533	83.0	137,825	122,536	88.9	1,455,992	135,076	92.5	151,262	145,363	96.1

Source: NC Division of Medical Assistance, Statistics and Reports, N.C. Health Choice Monthly Enrollment/Exemption Reports, 2010-2013; <http://www.ncdhhs.gov/dmA/ca/nchcenroll/index.htm>.

Medicaid

Medicaid is a health insurance program for low-income individuals and families who cannot afford health care costs. It serves low-income parents, children, seniors, and people with disabilities. Both coverage and eligibility requirements are different for people with different kinds of needs. Chief among these requirements is low income, which depending on service can range from 51% to 200% of the Federal Poverty Guideline.

The following table summarizes the number of Perquimans County residents eligible for Medicaid, by program area, for the period 2008 through October 2015.

- Using the estimated population figure for the county of 13,466, it appears that 19% of Perquimans County residents were eligible for Medicaid in 2014.
- The total number of people in Perquimans County eligible for Medicaid increased by 291 between 2008 and 2014.
- The Medicaid programs for which the largest numbers of Perquimans County residents were eligible were (1) Infants and Children, (2) AFDC, and (3) Disabled.

**Table 67. Perquimans County Medicaid Eligibles, by Program Area
(2008 through October 2015)**

Year	Number of Eligibles, as of December 31 each year													
	Aged	Blind	Disabled	AFDC	Foster Care	Pregnant Women	Family Planning Waiver	Infants & Children	Medicaid CHIP	Medicare Catastrophic	Comprehensive Medicare-Aid (MQBQ-B-E)	Refugees Aliens	BCC	Total Eligibles
2008	264	2	399	542	0	44	n/a	897	66	98	n/a	0	1	2,316
2009	251	2	419	597	0	46	n/a	929	59	107	n/a	0	1	2,411
2010	255	2	433	526	0	35	n/a	902	53	121	n/a	1	0	2,328
2011	263	3	416	470	1	44	n/a	973	54	127	n/a	0	0	2,351
2012	253	3	417	446	0	48	n/a	1,044	47	143	n/a	1	0	2,402
2013	258	3	439	417	0	36	n/a	1,044	54	139	n/a	1	0	2,391
2014	243	3	434	535	0	20	117	938	158	n/a	157	2	0	2,607
Oct-15	226	3	456	913	0	24	140	492	151	n/a	168	1	0	2,574

Sources: NC Division of Medical Assistance, Statistics and Reports, Medicaid Data: Authorized Eligibles by County and Program Aid Category. Title XIX Authorized Medicaid Eligibles (years as noted) and NC Division of Medical Assistance, Statistics and Reports, Medicaid Data: Authorized Eligibles by County and Program Aid Category. State Fiscal Year Reports: SFY 2015 Monthly Medicaid/Health Choice Enrollees -- County Totals. <http://www2.ncdhhs.gov/dmA/elig/index.htm>.
AFDC - Medicaid Aid to Families with Dependent Children
BCC - Breast and Cervical Cancer Program

HealthCheck Early Periodic Screening, Diagnosis and Treatment

Federal law requires that Medicaid-eligible children under the age of 21 receive any medically necessary health care service covered by the federal Medicaid law, even if the service is not normally included in the NC State Medicaid Plan. This requirement is called Early Periodic Screening, Diagnosis and Treatment (EPSDT). In NC, HealthCheck EPSDT covers complete medical and dental check-ups, provides vision and hearing screenings, and referrals for treatment (40).

The following table presents a four-year summary of the participation of eligible children in the NC HealthCheck program.

- The HealthCheck *participation ratio* for Perquimans County children in FY2011-12 was 32% lower than the participation ratio in FY2008-09. During this same time interval the *number* of eligible Perquimans County children decreased by only 3%.
- The HealthCheck participation ratio in Perquimans County was below the comparable state ratio during each fiscal year cited.

**Table 68. Participation in HealthCheck (EPSDT)
(FY2008-09 through FY2011-12)**

Location	FY2008-09			FY2009-10			FY2010-11			FY2011-12		
	No. Eligible	No. Eligibles Due Initial or Periodic Service	Participation Ratio	No. Eligible	No. Eligibles Due Initial or Periodic Service	Participation Ratio	No. Eligible	No. Eligibles Due Initial or Periodic Service	Participation Ratio	No. Eligible	No. Eligibles Due Initial or Periodic Service	Participation Ratio
Perquimans County	1,597	859	75.0	1,628	1,400	46.4	1,590	1,301	44.2	1,550	1,304	50.8
<i>Regional Average</i>	2,235	1,211	71.8	2,282	1,955	47.2	2,296	1,896	46.1	2,264	1,922	52.1
Pamlico County	1,413	747	96.9	1,487	1,278	60.6	1,492	1,269	55.2	1,398	1,219	59.6
State of NC	n/a	594,043	80.0	1,185,510	963,619	53.8	1,146,716	961,381	54.7	1,161,170	999,141	57.1

Note: the participation ratio is calculated by dividing the number of eligibles receiving at least one initial screening service by the number of eligibles who should receive at least 1 initial or period screenings (not shown in the table).

Source: NC Division of Medical Assistance, Statistics and Reports, Health Check Participation Data;

<http://www.ncdhhs.gov/dma/healthcheck/participationdata.htm>.

Medicaid Managed Care

The goal of Medicaid managed care is to create community health networks to achieve long-term quality, cost, access, and utilization objectives.

Overview

As of July 2011, over 80 percent of Medicaid beneficiaries were enrolled in some form of managed care. North Carolina operated a small risk-based, capitated managed care program called Health Care Connection, which began in 1986 in one county, but that program was terminated in 2006. The state currently operates managed care only through a primary care case management (PCCM) model. The state's PCCM program, called Carolina ACCESS (CA), began in 1991 in five counties and provided beneficiaries with a designated medical home and primary care provider to coordinate care. Children, non-elderly individuals with disabilities and low-income caretaker adults are enrolled on a mandatory basis, while older adults, American Indian/Alaska Natives, Foster Care Children, dual eligibles, pregnant women, and special needs children have the option to enroll. By 1997, the program expanded statewide. In 1998, the state developed an enhanced case management program to support Carolina ACCESS primary care practices. It was originally called Access II and III but now referred to as Community Care of North Carolina (CCNC), which pays 14 community health networks a monthly fee to provide case management, data analysis, and quality improvement and training activities for primary

care practices participating in CCNC/Carolina Access. In 2008, CCNC’s care management model was expanded to Medicare-Medicaid dual enrollees and to Medicaid-only individuals with long-term care needs.

Since 2005, North Carolina has operated a limited benefit, pre-paid program under its 1915(b)/(c) Waiver for Mental Health (MH), Developmental Disability (DD), and Substance Abuse (SA) Services. The program began as a five-county pilot in the Piedmont region but was scheduled to be adopted statewide in 2013. The 1915(b)/(c) waiver uses public Local Management Entities (LMEs) to manage behavioral health and developmental disabilities services for most Medicaid beneficiaries with behavioral health needs on a mandatory basis. North Carolina also offers a Program for All-Inclusive Care for the Elderly (PACE), which provides all Medicare and Medicaid services to individuals over age 55 that require a nursing home level of care.

Participating Plans, Plan Selection, and Rate Setting

Under the CCNC program, North Carolina contracts with 14 community networks, which are each paid a per-member per-month fee to coordinate patient care. Networks are paid a higher fee to coordinate the needs of aged, blind, and disabled beneficiaries. All medical services delivered to beneficiaries are still reimbursed on a fee-for-service basis. For the 1915(b)/(c) waiver program, North Carolina contracts with three local, non-profit LMEs (Piedmont Behavioral Health, Highlands, and East Carolina Behavioral Health) to provide behavioral health services on a capitated basis.

Quality and Performance Incentives

CCNC/CA uses an elaborate Quality Measurement and Feedback (QMAF) program that collects a variety of chart review measures and claims-based measures, including HEDIS. Quality measures are reported to the primary care practices in order to encourage improvement relative to CCNC and NCQA, HEDIS and IPIP benchmarks. CCNC also conducts a CAHPS survey every three years for both adults and children. The MH/DD/SAS waiver does not collect quality measures but instead uses a variety performance measures to oversee the program (41).

The following table summarizes CCNC/CA enrollment data for a period as of December, 2010-2013.

- The percent of Medicaid eligible persons in Perquimans County enrolled in CCNC/CA increased 14% over the period cited, from 77.24% in 2010 to 87.90% in 2013.
- Statewide, the percent of Medicaid eligible persons enrolled in CCNC/CA increased 11% over the same period, from 82.99% in 2010 to 92.00% in 2013.

Table 69. Community Care of NC/Carolina ACCESS Enrollment (2010-2013)

Location	December, 2010			December, 2011			December, 2012			December, 2013		
	Managed Care Eligibles	Managed Care Enrollment	% of Eligibles Enrolled	Managed Care Eligibles	Managed Care Enrollment	% of Eligibles Enrolled	Managed Care Eligibles	Managed Care Enrollment	% of Eligibles Enrolled	Managed Care Eligibles	Managed Care Enrollment	% of Eligibles Enrolled
Perquimans County	2,100	1,622	77.24	2,113	1,689	79.93	2,180	1,877	86.40	2,148	1,888	87.90
<i>Regional Average</i>	<i>3,013</i>	<i>2,495</i>	<i>80.10</i>	<i>3,057</i>	<i>2,605</i>	<i>82.96</i>	<i>3,078</i>	<i>2,755</i>	<i>87.57</i>	<i>3,030</i>	<i>2,742</i>	<i>88.64</i>
Pamlico County	2,008	1,561	77.74	1,906	1,630	85.52	1,913	1,769	92.47	1,912	1,799	94.10
<i>State of NC</i>	<i>1,362,207</i>	<i>1,130,474</i>	<i>82.99</i>	<i>1,427,273</i>	<i>1,236,638</i>	<i>86.64</i>	<i>1,475,108</i>	<i>1,335,393</i>	<i>90.53</i>	<i>1,473,219</i>	<i>1,355,483</i>	<i>92.00</i>

Source: NC Division of Medical Assistance, Statistics and Reports, CCNA/CA: Medicaid Monthly Enrollment Reports. Years as Noted. <https://www2.ncdhs.gov/dma/ca/enroll/index.htm>

HEALTH CARE PROVIDERS

Practitioners

One way to judge the supply of health professionals in a jurisdiction is to calculate the ratio of the number of health care providers to the number of persons in the population of that jurisdiction. In NC, there is data on the ratio of active health professionals per 10,000 population calculated at the county level. The table below presents those data (which for simplicity's sake will be referred to simply as the "ratio") for Perquimans County, Pamlico County, the Albemarle Region, the state of NC and the US for five key categories of health care professionals: physicians, primary care physicians, registered nurses, dentists and pharmacists.

- 2012 ratios of active health professionals per 10,000 population were *lower* in Perquimans County than in all the other jurisdictions for all categories of providers cited in the table.
- The Perquimans County ratios for all categories of practitioners except registered nurses were particularly low (≤ 3.0) and did not improve over the period shown in the table.

Table 70. Active Health Professionals per 10,000 Population (2010-2012)

Location	2010					2011					2012				
	MDs	Primary Care MDs	DDSs	RNs	Pharms	MDs	Primary Care MDs	DDS	RNs	Pharms	MDs	Primary Care MDs	DDS	RNs	Pharms
Perquimans County	2.2	1.5	2.2	17.8	3.0	2.2	1.5	1.5	22.2	3.0	2.2	2.2	1.5	21.2	2.9
<i>Regional Average</i>	8.6	4.6	1.6	49.7	4.2	8.6	3.9	1.7	49.4	4.0	8.3	3.7	1.6	50.3	4.3
Pamlico County	4.6	3.8	3.8	34.2	5.3	6.1	4.5	3.8	38.6	6.1	5.3	4.6	3.8	38.7	6.1
State of NC	21.7	9.4	4.4	97.3	9.2	22.1	7.8	4.4	98.6	9.5	22.3	7.6	4.5	99.6	10.1
United States	22.7 ²	8.2 ²	5.7 ³	92.0 ³	8.3 ³	22.7 ²	8.2 ²	5.7 ³	92.0 ³	8.3 ³	22.7	8.2	5.7	92.0	8.3

Abbreviations used: MDs (Physicians), RNs (Registered Nurses), DDSs (Dentists), Pharms (Pharmacists)

¹ Primary Care Physicians are those who report their primary specialty as family practice, general practice, internal medicine, pediatrics, or obstetrics/gynecology

² US ratio from US Census Bureau estimates. Comparison data is for date two years previous.

³ US ratio from Bureau of Labor Statistics. Comparison data matches.

Source for NC Data: Cecil G. Sheps Center for Health Services Research, North Carolina Health Professions Data System, North Carolina Health Professions Data Books, Table 14 (2010, 2011, 2012); <http://www.shepscenter.unc.edu/hp/publications.htm>.

The following table lists the number of active health professionals in Perquimans County and the ARHS region, by specialty, for 2012:

- As of 2012, there were 3 primary care physicians (no General Practice physicians, no Obstetrician/Gynecologists, no Pediatricians) and no other specialists in Perquimans County.
- In 2012, 2 dentists and 6 hygienists were practicing in Perquimans County.
- The 2012 count of 29 nurses in the county included zero nurse practitioners. An additional 18 LPNs were located in Perquimans County.
- Among other health professionals, Perquimans County is lacking the following: chiropractors, optometrists, podiatrists, practicing psychologists, and respiratory therapists.
- At the *regional* level there were no general practitioners and only one podiatrist listed in 2012.

Table 71. Number of Active Health Professionals, by Specialty (2012)

Category of Professionals	Perquimans County	Regional Total
Physicians		
Primary Care Physicians	3	63
<i>Family Practice</i>	2	23
<i>General Practice</i>	0	0
<i>Internal Medicine</i>	1	19
<i>Obstetrics/Gynecology</i>	0	8
<i>Pediatrics</i>	0	13
Other Specialities	0	94
Dentists and Dental Hygienists		
Dentists	2	25
Dental Hygienists	6	32
Nurses		
Registered Nurses	29	835
<i>Nurse Practitioners</i>	0	29
<i>Certified Nurse Midwives</i>	0	3
Licensed Practical Nurses	18	299
Other Health Professionals		
Chiropractors	0	11
Occupational Therapists	1	20
Occupational Therapy Assistants	3	14
Optometrists	0	6
Pharmacists	4	72
Physical Therapists	1	37
Physical Therapy Assistants	1	40
Physician Assistants	2	36
Podiatrists	0	1
Practicing Psychologists	0	12
Psychological Assistants	1	8
Respiratory Therapists	0	32

¹ Numbers reported include those active within the profession and those newly licensed in 2009 with unknown activity status; inactives are excluded.

Source: Cecil G. Sheps Center for Health Services Research, North Carolina Health Professions Data System. Publications. 2012 North Carolina Health Professions Databook; http://www.shepscenter.unc.edu/hp/publications/2012_HPDS_DataBook.pdf.

Because there are so few dentists in Perquimans County, it is worth exploring if either of them accept Medicaid or HealthChoice clients. According to data from the NC Division of Medical Assistance, there was one dentist in the county, practicing in Hertford, who was accepting Medicaid clients as of February, 2016; he was not currently accepting HealthChoice clients (42).

Hospitals

There is no hospital physically located in Perquimans County.

The following table lists the eight hospitals in northeastern NC that may be accessed by Perquimans County residents. Of these, only Vidant Medical Center in Greenville offers a Trauma Center (rated for Level I care).

**Table 72. Licensed Hospitals in Northeastern NC
(February, 2016)**

Facility Name	Location	No. Beds	Operating Rooms
Bertie County			
Vidant Bertie Hospital	Windsor	General - 6	Shared inpatient/ambulatory surgery - 2
Chowan County			
Vidant Chowan Hospital	Edenton	General - 49	Shared inpatient/ambulatory surgery - 3
		Nursing Home - 40	Endoscopy - 1
Dare County			
The Outer Banks Hospital, Inc.	Nags Head	General - 21	C-section - 1
			Shared inpatient/ambulatory surgery - 2
			Endoscopy - 2
Hertford County			
Vidant Roanoke-Chowan Hospital	Ahoskie	General - 86	C-section - 1
		Psychiatric - 28	Shared inpatient/ambulatory surgery - 5
			Endoscopy - 1
Martin County			
Martin General Hospital	Williamston	General - 49	Shared inpatient/ambulatory surgery - 2
			Endoscopy - 1
Pasquotank County			
Albemarle Hospital	Elizabeth City	General - 182	C-section - 2
			Shared inpatient/ambulatory surgery - 8
			Endoscopy - 3
Pitt County			
Vidant Medical Center	Greenville	General - 782	C-section - 4
		Rehabilitation - 75	Shared inpatient/ambulatory surgery - 26
		Psychiatric - 52	Endoscopy - 2
			Other inpatient - 3
Washington County			
Washington County Hospital	Plymouth	General - 49	Shared inpatient/ambulatory surgery - 2

Source - NC Department of Health and Human Services, Division of Health Services Regulation (DHSR), Licensed Facilities, Hospitals (by County); <http://www.ncdhhs.gov/dhsr/reports.htm>.

Residents of Perquimans County also may seek medical services at hospitals in southeastern Virginia, such as Southampton Memorial Hospital (Franklin, VA) or any of several hospitals located in the area referred to as the *Tidewater Region*. The following table lists hospitals in the cities in this region.

**Table 73. Hospitals in Southeastern Virginia
(February, 2013)**

Hospital	Location
Chesapeake General Hospital	Chesapeake
Hampton VA Medical Center	Hampton
Riverside Behavioral Health Center	Hampton
Sentara Careplex Hospital	Hampton
Mary Immaculate Hospital	Newport News
Riverside Memorial Medical Center	Newport News
Riverside Rehabilitation Institute	Newport News
Children's Hospital of the Kings Daughters	Norfolk
DePaul Medical Center	Norfolk
Lake Taylor Hospital	Norfolk
Sentara Heart Hospital	Norfolk
Sentara Leigh Hospital	Norfolk
Sentara Norfolk General Hospital	Norfolk
Tidewater Psychiatric Institute	Norfolk
Maryview Medical Center	Portsmouth
Naval Medical Center	Portsmouth
Sentara Obici Hospital	Suffolk
Sentara Bayside Hospital	Virginia Beach
Sentara Princess Anne Hospital	Virginia Beach
Sentara Virginia Beach General Hospital	Virginia Beach
Virginia Beach Psychiatric Center	Virginia Beach

Source: The Agape Center, Virginia Hospitals;
<http://www.theagapecenter.com/Hospitals/Virginia.htm>.

Hospital Utilization

The five hospitals partnering in the development of this CHA—Vidant Bertie Hospital (VBER), Vidant Chowan Hospital (VCHO), Vidant Roanoke-Chowan Hospital (VROA), The Outer Banks Hospital (TOBH) and Sentara Albemarle Medical Center (SAMC)—have made available extensive utilization data, some of which will be examined in conjunction with health statistics in a later section of this report. Detailed hospital utilization data is available in a county-specific Excel workbook available as a companion to this report.

Presented below are hospital utilization summaries for the population of Perquimans County residents who (1) were patients in the emergency department, and (2) were hospitalized as inpatients at any of the five hospitals in 2013 and 2014. The data are stratified demographically by gender, age group and race/ethnicity; in addition, data also is categorized according to the primary payor groups associated with the utilization records.

By convention, the analyst included patient counts from a hospital only in cases where the total number of patients at that hospital over the two-year period cited exceeded a threshold of 20. For that reason, data from fewer than five hospitals are included in some tables.

Notes relevant for the discussion of each table appear *after* the table.

Emergency Department (ED) Utilization

The emergency departments (EDs) of hospitals have become providers of convenience, urgency, or last resort for many healthcare consumers, and an examination of ED utilization patterns can reveal much about the healthcare resource status of a community.

Table 74. ED Discharges by Gender and Age Group

Fiscal Year	No. by Gender		No. by Age Group			Total No. Discharges
	Female	Male	< 18	18-64	≥ 65	
2013	4,165	2,979	1,228	4,560	1,356	7,144
2014	4,264	3,096	1,477	4,552	1,331	7,360
Total	8,429	6,075	2,705	9,112	2,687	14,504

- The hospitals qualifying for inclusion in the table on the basis of more than 20 ED discharges over the period cited are: Vidant Bertie, Chowan, and Roanoke-Chowan Hospitals, The Outer Banks Hospital, and Sentara Albemarle Medical Center.
- Females accounted for 58% of all ED discharges over the two-year period cited. Females compose 52% of the total Perquimans County population
- Males accounted for 42% of all ED discharges over the same period. Males compose 48% of the total Perquimans County population.
- Minors under the age of 18 (“pediatric” patients) accounted for 19% of all ED discharges over the two-year period cited. This age group composes a total of 20% of the total Perquimans County population.
- Persons between the ages of 18 and 64 (“adult” patients) accounted for 63% of all ED discharges over the same period. This age group composes a total of 57% of the total Perquimans County population.
- Persons age 65 and older (“geriatric” patients) accounted for 18% of all ED discharges over the same three-year period. This age group composes a total of 23% of the total Perquimans County population.

Table 75. ED Discharges by Racial/Ethnic Group

Fiscal Year	Am Ind/ Alaskan	Asian	Black	Hispanic	Other	Unknown	White	Total No. Discharges
2013	7	6	2,616	77	48	8	4,382	7,144
2014	4	1	2,727	95	47	13	4,473	7,360
Total	11	7	5,343	172	95	21	8,855	4,777

- The hospitals qualifying for inclusion in the table on the basis of more than 20 ED discharges over the period cited are: Vidant Bertie, Chowan, and Roanoke-Chowan Hospitals, The Outer Banks Hospital, and Sentara Albemarle Medical Center.
- Blacks accounted for 37% of all ED discharges over the two-year period cited. Blacks compose 25% of the total Perquimans County population
- Whites accounted for 61% of all ED discharges over the same period. Whites compose 73% of the total Perquimans County population.
- Hispanics accounted for 1.2% of all ED discharges over the same period. Hispanics compose 2.2% of the total Perquimans County population. (Keep in mind that in US Census terms, persons of Hispanic/Latino ethnicity may also be of any race. The hospitals tend to consider Hispanic ethnicity to be a separate racial category.)

Table 76. ED Discharges by Payor Group

Fiscal Year	Comm	M-aid	M-aid Mgd Care	M-care	M-care Mgd Care	Self-Pay	Military	Other	Total No. Discharges
2013	861	863	1,193	1,685	51	1,680	270	541	7,144
2014	970	1,054	1,167	1,647	82	1,645	251	544	7,360
Total	1,831	1,917	2,360	3,332	133	3,325	521	1,085	4,777
Group as % of Total	12.6	13.2	16.3	23.0	0.9	22.9	3.6	7.5	100% ⁴

- The hospitals qualifying for inclusion in the table on the basis of more than 20 ED discharges over the period cited are: Vidant Bertie, Chowan, and Roanoke-Chowan Hospitals, The Outer Banks Hospital, and Sentara Albemarle Medical Center.
- Note that Sentara Albemarle Medical Center categorizes payor groups differently than do the Vidant Hospitals. For that reason, in order to allow direct comparisons payor groups have been compressed to Commercial, Medicaid, Medicaid Managed Care, Medicare, Medicare Managed Care, Self-Pay, Military, and the broad category “Other”. The category “Other” includes (but is not limited to) Medcost, other managed care payors, Workers Compensation, and other less frequent payors.
- The most common ED payor groups, in descending order, were:
 - Medicare (23.0%)
 - Self-Pay (22.9%)
 - Medicaid Managed Care (16.3%)
 - Medicaid (13.2%)
 - Commercial (12.6%)

Inpatient (IP) Hospital Utilization

Inpatient hospitalizations may be the result of illness, injury, or sometimes elective procedure.

Table 77. IP Discharges by Gender and Age Group

Fiscal Year	No. by Gender		No. by Age Group			Total No. Discharges
	Female	Male	< 18	18-64	≥ 65	
2013	608	457	120	411	534	1,065
2014	583	441	103	412	509	1,024
Total	1,191	898	223	823	1,043	2,089

- The hospitals qualifying for inclusion in the table on the basis of more than 20 IP discharges over the period cited are: Vidant Chowan and Roanoke-Chowan Hospitals and Sentara Albemarle Medical Center.
- Females accounted for 57% of all IP discharges over the two-year period cited. Females compose 52% of the total Perquimans County population
- Males accounted for 43% of all IP discharges over the same period. Males compose 48% of the total Perquimans County population.
- Minors under the age of 18 (“pediatric” patients) accounted for 11% of all IP discharges over the three-year period cited. This age group composes a total of 20% of the total Perquimans County population.
- Persons between the ages of 18 and 64 (“adult” patients) accounted for 39% of all IP discharges over the same period. This age group composes a total of 57% of the total Perquimans County population.

- Persons age 65 and older (“geriatric” patients) accounted for 50% of all IP discharges over the same three-year period. This age group composes a total of 23% of the total Perquimans County population. Note that the proportion of geriatric (≥ 65) IP discharges is more than twice the proportion of persons ≥ 65 in the Perquimans County population.

Table 78. IP Discharges by Racial/Ethnic Group

Fiscal Year	Am Ind/ Alaskan	Asian	Black	Hispanic	Other	Unknown	White	Total No. Discharges
2013	0	4	310	7	8	4	732	1,065
2014	0	1	270	7	10	2	734	1,024
Total	0	5	580	14	18	6	1,466	2,089

- The hospitals qualifying for inclusion in the table on the basis of more than 20 IP discharges over the period cited are: Vidant Chowan and Roanoke-Chowan Hospitals and Sentara Albemarle Medical Center.
- Blacks accounted for 28% of all IP discharges over the two-year period cited. Blacks compose 25% of the total Perquimans County population
- Whites accounted for 70% of all IP discharges over the same period. Whites compose 73% of the total Perquimans County population.
- Hispanics accounted for 0.7% of all IP discharges over the same period. Hispanics compose 2.2% of the total Perquimans County population. (Keep in mind that in US Census terms, persons of Hispanic/Latino ethnicity may also be of any race. The hospitals tend to consider Hispanic ethnicity to be a separate racial category.)

Table 79. IP Discharges by Payor Group

Fiscal Year	Comm	M-aid	M-aid Mgd Care	M-care	M-care Mgd Care	Self-Pay	Military	Other	Total No. Discharges
2013	128	149	52	582	9	72	25	48	1,065
2014	92	145	52	551	30	50	33	71	1,024
Total	220	294	104	1,133	39	122	58	119	2,089
Group as % of Total	10.5	14.1	5.0	54.2	1.9	5.8	2.8	5.7	100%

- The hospitals qualifying for inclusion in the table on the basis of more than 20 IP discharges over the period cited are: Vidant Chowan and Roanoke-Chowan Hospitals, and Sentara Albemarle Medical Center.
- Note that Sentara Albemarle Medical Center categorizes payor groups differently than do the Vidant Hospitals. For that reason, in order to allow direct comparisons payor groups have been compressed to Commercial, Medicaid, Medicaid Managed Care, Medicare, Medicare Managed Care, Self-Pay, Military, and the broad category “Other”. The category “Other” includes (but is not limited to) Medcost, other managed care payors, Workers Compensation, and other less frequent payors.
- The most common IP payor groups, in descending order, were:
 - Medicare (54.2%)
 - Medicaid (14.1%)
 - Commercial (10.5%)
 - Self-Pay (5.8%)
 - “Other” (5.7%)

County Emergency Medical Services

Perquimans County EMS (PCEMS), a county owned and operated service, is headquartered in Hertford, NC. The Perquimans County Emergency Management Director provided this project annual fiscal year data on the total volume of EMS calls:

- FY2012-13: 2,021
- FY2013-14: 2,120
- FY2014-15: 2,029

When categorized by chief complaint, the vast majority of calls fell outside the diagnoses provided: although 19 specific categories of complaint were listed, more than 75% of all calls fell into the category “Other”. The largest specific medical diagnosis each year (<10%) was “chest pain” (43).

Public Health Department: Albemarle Regional Health Services

Albemarle Regional Health Services (ARHS) is a regional Public Health agency in rural, northeastern NC serving the seven counties of Bertie, Camden, Chowan, Currituck, Gates, Pasquotank and Perquimans.

ARHS programs include children's developmental services, home care and hospice, adult day health, clinical services, immunizations, women, infants, and children, diabetes management, health promotion and health education, disaster planning and response, transportation, environmental health, and waste management. Specific services may vary from county-to-county within the service region.

Regionally, ARHS administers the Children's Developmental Service Agency (CDSA), the Albemarle Regional Solid Waste Management Authority, the Inter-County Public Transportation Authority (ICPTA), and the Perquimans-Chowan-Perquimans (PCG) Landfill and Convenience Sites (44).

Perquimans County Health Department

The Perquimans County Health Department is physically located in the town of Hertford. ARHS programs offered in Perquimans County include:

AgriSafe of the Albemarle

AgriSafe is a program designed to make life on the farm safer and healthier by making healthcare more accessible for farmers, their families and workers. The program strives to provide health and safety resources to increase access to preventive services for farm families and the agricultural community. Services are provided on the farm, at agricultural events, and other locations convenient to farm families. Health screenings and farm health/safety information are currently provided at no cost. Screenings include respirator fit testing, blood pressure checks, blood sugar monitoring, pulmonary function testing (spirometry), and hearing and vision screenings.

Clinical Services

- **Child Health Services** - Primary child health services are provided in an effort to detect problems so that appropriate interventions can begin as early as possible. The focus of child health is the total well-being of the child; emotional, social, health, and environmental. Local agencies work as a team to ensure that optimal level of care for the child is achieved. An additional program goal is to guarantee that Medicaid-eligible children receive all recommended child health services.
- **Immunizations**. Immunizations are provided to children and adults in an effort to prevent communicable diseases such as: polio, pertussis, tetanus, mumps, measles, rubella, diphtheria, and hepatitis. The goal is to have all children fully immunized by two years of age and then to receive recommended booster doses. Adult immunizations include the annual influenza and pneumonia campaign, in addition to all recommended adult immunizations.
- **WIC/Nutrition**. Women, Infants, and Children (WIC) is a nutrition education and food supplement program for children birth to five and women who are pregnant or breastfeeding. All clients must meet medical and financial eligibility requirements.
- **General Communicable Disease Control**. Surveillance of various communicable diseases including educational counseling for individuals is accomplished. Bioterrorism educational materials are available to communities related to preparedness. Presentations and overviews of potential biological, chemical, and nuclear agents can be given by the ARHS Team.
- **Sexually Transmitted Diseases**. STD and HIV diagnosis, treatment, and counseling is available. An appointment may be required. There are no fees associated with STD services.
- **Women's Preventive Health**. Family Planning helps women and men maintain optimal reproductive health and assists families in determining the number, timing, and spacing of their children.
- **Maternal Health**. Primary Prenatal Health Care services are provided in an effort to reduce infant mortality and ensure that all pregnant women receive the highest level of health care. The health department maintains a close working relationship with the area's private physicians and local hospitals for the provision of deliveries, emergency and specialized care. High Risk Perinatal Clinic was established to improve the pregnancy outcomes of women with pregnancy complications. In addition to comprehensive health care, patients receive nutrition education, medical social work intervention, and childbirth preparation and parenting education. Case management services are also offered and are an integral component of the maternal patient's health care services to ensure that all health, social, mental, and environmental needs are met.
- **Adult Health**. Comprehensive physical assessments and clinical services are provided for all adults in an effort to detect and prevent chronic diseases, which may cause disability or premature mortality. The Breast and Cervical Cancer Control Program (BCCCP) provides access to screening services for financially and medically eligible women.
- **Diabetes Care Program**. Due to the prevalence of diabetes within the region, ARHS provides a comprehensive Diabetes Care Center for individuals living with diabetes and their families. Individualized counseling, follow-up, nutrition education, and disease management are integral components.

Women, Infants, and Children (WIC)

WIC is a federal program designed to provide food to low-income pregnant, postpartum and breastfeeding women, infants and children until the age of five. The program provides a combination of nutrition education, supplemental foods, breastfeeding promotion and support, and referrals for health care. WIC has proven effective in preventing and improving nutrition related health problems within its population.

Albemarle Regional Diabetes Care

Dedicated to providing education and support to individuals living with diabetes, the Albemarle Regional Diabetes Care Program works to council patients on blood sugar monitoring, physical activity, and proper nutrition. This program incorporates a team approach to diabetes care, working collaboratively with regional referring physicians and medical providers and focusing on medical care, education, and health promotion. The Albemarle Regional Diabetes Care Program is recognized by the American Diabetes Association for Quality Self-Management Education.

Health Education and Promotion

- **Health Education.** The Health Education Team begins with the assessment and identification of community health issues and problems. While identifying diseases as significant health problems that cause disability, mortality, premature death, and morbidity. Health Education Specialists utilize tools and expertise to analyze demographics and socioeconomic status data of the individual client within the community.
- **Healthy Communities.** Health promotion programming increases opportunities for healthy eating and physical activity opportunities in the schools, worksites, and communities. The environmental and policy changes promote a healthy lifestyle for all community members in the region and works to make it easier for people to eat healthy food and be physically active.

Environmental Health

ARHS Environmental Health ensures the health and safety of residents while reducing the threat of the spread of communicable diseases through evaluation and education of environmental health policies and regulations. EH activities include:

- Private Drinking Well Inspections
- Swimming Pool Inspections
- Communicable Disease Investigations
- Food & Lodging Inspections
- Management Entity
- Lead Investigations
- On-Site Wastewater

Preparedness and Response

The ARHS Public Health Preparedness and Response (PHP&R) program works with the communities in the region and local emergency management partners and response agencies to keep everyone safe and prepared for any disaster, but especially the hurricanes that frequent the region.

Inter-County Public Transportation Authority

The intent of ICPTA is to provide high quality transportation services to the people who live in or visit the five-county service area of: Pasquotank, Perquimans, Camden, Chowan and Currituck. ICPTA services are intended to transport the general public to nutrition sites, medical appointments and other locations in order to access services or attend activities related to daily living, while promoting improved quality of life.

Children's Developmental Service Agency

The catchment area for this program includes 10 counties in the northeastern corner of the state. Program personnel are physically housed in the counties of Dare, Hertford, Washington and Pasquotank. The CDSA serves children age birth to three years of age suspected of having developmental delays, and their families. Evaluations for the purpose of determining eligibility and planning, assurance of quality service provision and case management services are provided in partnerships with parents and community providers.

Perquimans-Chowan-Gates (PCG) Landfill and Convenience Sites

The PCG landfill is located in Belvidere (Perquimans County). The PCG Landfill operates four convenience (trash drop-off) sites in Chowan County: Hancock, Evans Church, Ryland Road, and Southside. The following items are accepted at the Convenience Sites: recyclables, yard waste, scrap metals, appliances, furnishings, household waste, motor oil, oil filters, and antifreeze. Tires are not accepted at the convenience centers; they must be taken to the Landfill.

Albemarle Regional Solid Waste Authority

The Albemarle Regional Solid Waste Authority is a county-level legal entity serving the Counties of Perquimans, Chowan, Gates, Dare, Currituck, Hyde, Tyrrell and Washington. It also serves the towns within these counties. The Authority members have a long-term waste disposal and transportation contract with Republic Services of NC, LLC, to use East Carolina Environmental Landfill in Bertie County, NC. Waste is primarily sent to the East Carolina Environmental Landfill through the three transfer stations located in Dare County, Currituck County, and Perquimans County. Some waste is hauled to the landfill directly from the site of origin.

The towns and counties individually operate their solid waste management and recycling programs or contract for those services. The Authority conducts centralized solid waste billing, data collection and reporting, hauler licensing and technical assistance for its members. It also assists its members with market research, special waste management program development, legislative updates, grant writing and educational services. The Authority works under the administration of Albemarle Regional Health Services based in Elizabeth City, NC (45).

Health Department Utilization Data

ARHS has provided data on the utilization of agency services at the county level. The following table summarizes the number of unduplicated patients and total visits at the Perquimans County Health Department, by program area.

- The programs with the largest number of patient visits at the Perquimans County Health Department in Hertford over the three years cited were, in descending order, adult health, family planning, and immunization.

Table 80. Perquimans County Health Department Service Utilization, by Program (FY2013-FY2015)

Program	Unduplicated Patient Count							
	FY2013		FY2014		FY2015		Total	
	Patients	Visits	Patients	Visits	Patients	Visits	Patients	Visits
Adult Health	413	617	411	549	328	556	1,152	1,722
Child Health	32	49	24	27	61	69	117	145
Communicable Disease	0	0	0	0	0	0	0	0
Dental Health	0	0	0	0	0	0	0	0
Family Planning	211	539	216	464	210	462	637	1,465
Health Check Child Health Physicals	81	82	69	71	66	67	216	220
High Risk	0	0	0	0	0	0	0	0
Immunization	394	436	278	302	639	701	1,311	1,439
Maternal Health	35	125	24	110	28	134	87	369
Other Services	88	94	46	47	35	37	169	178
STD	78	104	79	95	55	70	212	269
Tuberculosis	9	9	9	15	11	11	29	35
TOTAL	1,341	2,055	1,156	1,680	1,433	2,107	3,930	5,842

Source: Albemarle Regional Health Services

Federally-Qualified Health Centers

The Federally-Qualified Health Center (FQHC) benefit under Medicare was added effective October 1, 1991, when the Social Security Act was amended to qualify “safety net” providers such as community health centers, public housing centers, outpatient health programs funded by the Indian Health Service, and programs serving migrants and the homeless to receive enhanced reimbursement from Medicare and Medicaid, as well as other benefits.

The main purpose of the FQHC Program is to enhance the provision of primary care services in underserved urban and rural communities. FQHCs must serve an underserved area or population, offer a sliding fee scale, provide comprehensive services, have an ongoing quality assurance program, and have a governing board of directors. Certain tribal organizations and FQHC Look-Alikes (an organization that meets PHS Section 330 eligibility requirements, but does not receive grant funding) also may receive special Medicare and Medicaid reimbursement (46).

As of October 10, 2016 the US Health Resources and Services Administration (HRSA) lists eight FQHC facilities within 25 miles of Hertford, the county seat of Perquimans County (47):

- Gateway Community Health Centers, Inc. (Gatesville, Gates County; Elizabeth City, Pasquotank County; and Tyner, Chowan County)
- Colerain Primary Care (Colerain, Bertie County)
(This center is a satellite facility of the Roanoke-Chowan Community Health Center, based in Ahoskie, Hertford County)
- Ahoskie Comprehensive Care (Ahoskie, Hertford County)
- Roanoke-Chowan Community Health Center (Ahoskie, Hertford County).
- Murfreesboro Primary Care (Murfreesboro, Hertford County)
- Hertford County Student Wellness Center (Murfreesboro, Hertford County)
- Franklin Community Health Center (Franklin, VA)
- Main Street Physicians (Suffolk, VA)

School Health

School nurses facilitate health services such as immunizations, follow-up, communicable disease control, vision and hearing screening and follow-up, health assessments and referrals, health counseling and information for students and families. School nurses actively collaborate with school personnel, students and parents to create health plans and to administer medication. In addition, they provide prevention, crisis, and conflict resolution.

Student-to-School Nurse Ratio

The following table presents student to school nurse ratios for the four jurisdictions being compared.

- The average student-to-school nurse ratio in Perquimans County for the most recent-period cited was 596:1, better than the recommended maximum of 750:1.

**Table 81. Student to School Nurse Ratio
(SY2009-10 through SY2012-13)**

Location	Student to School Nurse Ratio			
	SY2009-2010	SY2010-2011	SY2011-2012	SY2012-2013
Perquimans County	863	860	860	596
<i>Regional Average</i>	713	712	712	652
Pamlico County	272	316	316	318
State of NC	1,185	1,201	1,179	1,177

Source - NC DHHS, DPH, Women's and Children's Health, Facts & Figures, Data Reports & Publications. Annual School Health Services Reports, End-of-Year-Reports, years as listed. <http://www.ncdhhs.gov/dph/wch/stats/>.

School Nurse Reports

The table on the following page offers excerpts from the SY2014-2015 End-of-Year School Health Nursing Survey and Program Summary for Perquimans County Schools.

- The health conditions identified most frequently among Perquimans County students included asthma, ADD/ADHD, and severe allergies.

**Table 82. School Nurse Activities, Perquimans County Schools
(SY2014-2015)**

Nature of Activity	Services Provided/ Students Served	Nature of Activity	Services Provided/ Students Served
Health Counseling - Individual Session		Identified Health Conditions Among Students	
ADD/ADHD	9	ADD/ADHD	28
Asthma	34	Allergies (severe)	24
Child abuse/neglect	3	Asthma	133
Chronic illness not otherwise listed	1	Autistic disorders, including Asperger's Syndrome	5
Depression (situational or chronic)	2	Blood disorders not listed elsewhere	0
Diabetes	4	Cancer (including leukemia)	0
Hygiene	12	Cardiac condition	0
Mental health issues not otherwise listed	0	Cerebral palsy	4
Nutrition	4	Chromosomal/genetic conditions not otherwise listed	2
Pregnancy	1	Chronic encopresis	0
Puberty, reproductive health	1	Concussion	1
Seizure disorders	4	Chronic infectious disease (including tuberculosis, hepatitis)	0
Severe allergies	1	Cystic fibrosis	0
Substance abuse (including tobacco, prescription drugs, etc.)	3	Diabetes Type I	7
Suicidal ideation	3	Diabetes Type II	1
Violence/bullying	0	Eating disorders (including anorexia, bulimia)	1
Student Medications		Emotional/behavioral/psychiatric disorder not otherwise listed	8
Students on long-term medications	26	Fetal alcohol syndrome	0
Students on short-term medications	12	Gastrointestinal disorders (Crohn's, celiac disease, IBS, etc.)	3
Students on PRN (non-emergency) medications	21	Hearing loss	1
Students on emergency medications	156	Hemophilia	0
Health Care Procedures Administered		Hydrocephalus	0
Blood glucose monitoring	7	Hypertension	4
Clean intermittent catheterization	1	Hypo/Hyperthyroidism	0
Central venous line monitoring	0	Metabolic conditions or endocrine disorders not otherwise listed	1
Dressing change/wound care	0	Migraine headache	9
Insulin injection	2	Multiple Sclerosis	0
Insulin pump	5	Muscular Dystrophy	0
Nebulizer treatment	9	Obesity >95 th ile BMI	3
Oxygen therapy	0	Orthopedic disability (permanent)	2
Pulse oximeter	0	Other neurological condition not otherwise listed	1
Respirator care	0	Other neuromuscular condition not otherwise listed	0
Shunt care	0	Renal/adrenal/kidney conditions including Addison's disease	2
Tracheal suctioning (including tracheostomy care)	0	Rheumatological conditions (including Lupus, JRA)	1
Stoma care (other than tracheal)	0	Seizure disorder/epilepsy	6
Tube feeding	2	Sickle Cell Anemia	0
Reinsertion of feeding tube	0	Sickle Cell Trait (only)	2
Vagal nerve stimulator	0	Spina Bifida (myelomeningocele)	0
		Traumatic Brain Injury	0
		Visually impaired (uncorrectable)	0

Source: 2014-15 End of Year School Health Report, Section 2; Source: Personal communication, Claudia Bunch, Perquimans County Schools, to Dana Hamill, Public Health Educator, Albemarle Regional Health Services, September 23, 2015.

Long-Term Care Facilities

The NC Division of Aging and Adult Services is the state agency responsible for planning, monitoring and regulating services, benefits and protections to support older adults, persons with disabilities, and their families. Among the facilities under the agency's regulatory jurisdiction are nursing homes, family care homes, and adult care homes. Each category of long-term care is discussed subsequently, but the following table lists all the county facilities by name.

- There was a total of 119 long-term beds in Perquimans County as of February, 2016. Using the 2014 US Census estimate of the population age 65 and older (3,275) the ratio of long term care beds to the population age 65 and older was 1:28

**Table 83. NC-Licensed Long-Term Care Facilities in Perquimans County
(February, 2016)**

Facility Type/Name	Location	# Beds SNF (ACH) ¹	Star Rating (If applicable)
Adult Care Homes/Homes for the Aged			
Hertford Manor	Hertford	24	3
Family Care Homes			
Lillian Brothers Family Care Home	Hertford	6	4
Winfall Manor	Winfall	5	4
Woodville Manor	Hertford	6	4
Nursing Homes/Homes for the Aged			
Brian Center Health and Rehabilitation - Hertford	Hertford	78 (0)	n/a

¹ – SNF (ACH) = Maximum number of nursing or adult care home beds for which the facility is licensed.

Source - NC Department of Health and Human Services, Division of Health Services Regulation (DHSR), Licensed Facilities, Adult Care Homes, Family Care Homes, Nursing Facilities (by County); <http://www.ncdhhs.gov/dhsr/reports.htm>.

Nursing Homes

Nursing homes are facilities that provide nursing or convalescent care for three or more persons unrelated to the licensee. A nursing home provides long term care of chronic conditions or short term convalescent or rehabilitative care of remedial ailments, for which medical and nursing care are indicated. All nursing homes must be licensed in accordance with state law by the NC Division of Health Service Regulation Licensure Section (48).

The table below presents the number of nursing facility beds in the jurisdictions being compared. Note that the county figures have not changed in 11 years.

- At the time this report was prepared, there was one nursing home in Perquimans County offering a total of 78 beds: Brian Center Health and Rehabilitation, in Hertford.

**Table 84. Number of Nursing Facility Beds
(2005-2015)**

Location	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Perquimans County	78	78	78	78	78	78	78	78	78	78	78
<i>Regional Average</i>	118	118	118	118	118	118	118	112	112	112	111
Pamlico County	96	96	96	96	96	96	96	96	96	96	96
<i>State of NC</i>	43,987	44,248	44,210	44,234	44,315	45,143	45,382	43,470	43,606	43,955	43,857

Note: this count includes beds licensed as nursing facility beds, meaning those offering a level of care less than that offered in an acute care hospital, but providing licensed nursing coverage 24 hours a day, seven days a week.

Source: Log Into North Carolina (LINC) Database, Topic Group Vital Statistics and Health (Data Item 513);

http://data.osbm.state.nc/pls/linc/dyn_linc_main.show.

Adult Care Homes

Adult care homes are residences for aged and disabled adults who may require 24-hour supervision and assistance with personal care needs. People in adult care homes typically need a place to live, some help with personal care (such as dressing, grooming and keeping up with medications), and some limited supervision. Medical care may be provided on occasion but is not routinely needed. Medication may be given by designated, trained staff. These homes vary in size from *family care homes* of two to six residents to *adult care homes* of more than 100 residents. These homes were previously called "domiciliary homes," or "rest homes."

The smaller homes, with two to six residents, are still referred to as family care homes. In addition, there are Group Homes for Developmentally Disabled Adults, which are licensed to house two to nine developmentally disabled adult residents (49).

Adult care homes are different from nursing homes in the level of care and qualifications of staff. They are licensed by the state Division of Health Service Regulation (Group Care Section) under State regulations and are monitored by Adult Home Specialists within county departments of social services. Facilities that violate licensure rules can be subject to sanctions, including fines.

- As cited previously, at the time this report was prepared there was one state-licensed adult care home in Perquimans County: Hertford Manor (24 beds), located in Hertford.
- There were three state-licensed family care homes in Perquimans County at the time this report was prepared, offering a total of 17 beds.

In January, 2009, NC Division of Health Services Regulation introduced a “Star Rated Certificate” program to provide consumers with more information about the quality of care offered by the state’s adult care homes and family care homes. The Star Rated Certificate program is based on an inspections-related point scale, and ratings range from zero to four stars (50).

- The adult care home in Perquimans County was rated three stars, and the three family care homes were each rated four stars.

Alternatives to Institutional Care

An alternative to institutional care preferred by many disabled and senior citizens is to remain at home and use community in-home health and/or home aide services. The table below lists the home care, home health, and hospice providers in the ARHS Region, including those serving Perquimans County. Note that there may be additional providers that refer to themselves as “home health service (or care) providers”; the table below lists only those licensed by the state.

Table 85. NC-Licensed Home Care, Home Health and Hospice Service Providers in the ARHS Region (As of December, 2016)

Facility Name	County	City	Licensed for	Accredited
Albemarle Home Care and Hospice	Bertie	Windsor	Home Care, Home Health	yes
Definitive Touch Home Care	Bertie	Aulander	Home Care	no
Home Life Care Inc	Bertie	Windsor	Home Care	no
Positive Step Home Care Agency	Bertie	Windsor	Home Care	no
Quality Home Staffing, Inc	Bertie	Windsor	Home Care	no
Sure Care Health Services	Bertie	Kelford	Home Care	no
Vidant Home Health and Hospice	Bertie	Windsor	Home Care, Home Health	yes
Albemarle Home Care and Hospice	Camden	Camden	Home Care, Home Health	yes
Albemarle Home Care and Hospice	Chowan	Edenton	Home Care, Home Health	yes
Continuum Home Care of Edenton	Chowan	Edenton	Home Care	no
Continuum Home Care and Hospice of Edenton	Chowan	Edenton	Hospice facilities	no
Health Care Options	Chowan	Edenton	Home Care	no
Home Life Care Inc	Chowan	Edenton	Home Care	no
Albemarle Home Care and Hospice	Currituck	Poplar Branch	Home Care, Home Health	yes
Outer Banks Home Care	Currituck	Harbinger	Home Care	no
Hertford-Gates Home Health Agency	Gates	Gatesville	Home Care, Home Health	no
Albemarle Home Care and Hospice	Pasquotank	Elizabeth City	Home Care, Home Health, Hospice facilities	yes
Carolina East Home Care Agency	Pasquotank	Elizabeth City	Home Care	no
Coastal Rehabilitation, Inc	Pasquotank	Elizabeth City	Home Care	no
Community Home Care and Hospice	Pasquotank	Elizabeth City	Hospice facilities	yes
East Carolina Home Care Inc	Pasquotank	Elizabeth City	Home Care	no
Home Life Care Inc	Pasquotank	Elizabeth City	Home Care	no
Lincare, Inc	Pasquotank	Elizabeth City	Home Care	no
Quality Home Staffing, Inc	Pasquotank	Elizabeth City	Home Care	no
ResCare HomeCare	Pasquotank	Elizabeth City	Home Care	no
Sentara Home Care Services	Pasquotank	Elizabeth City	Home Care, Home Health	yes
Albemarle Home Care and Hospice	Perquimans	Hertford	Home Care, Home Health	yes

Source - NC Department of Health and Human Services, Division of Health Services Regulation (DHSR), Licensed Facilities, Home Care, Home Health and Hospice listings (by County); <http://www.ncdhhs.gov/dhsr/reports.htm>.

Adult Day Care/Adult Day Health Centers

Adult day care provides an organized program of services during the day in a community group setting for the purpose of supporting the personal independence of older adults and promoting their social, physical and emotional well-being. Also included in the service, when supported by funding from the Division of Aging and Adult Services (NCDAAS), are no-cost medical examinations required for admission to the program. Nutritional meals and snacks, as appropriate, are also expected. Providers of adult day care must meet State Standards for Certification, which are administrative rules set by the state Social Services Commission. These standards are enforced by the office of the Adult Day Care Consultant within the NCDAAS. Routine monitoring of compliance is performed by Adult Day Care Coordinators located at county departments of social services. Costs to consumers vary, and there is limited funding for adult day care from state and federal sources (51).

Adult day health services are similar programs to adult day care programs in that they provide an organized program of services during the day in a community group setting to support the personal independence of older adults and promote their social, physical, and emotional well-being. In addition, providers of adult day health services, as the name implies, offer health care services to meet the needs of individual participants. Programs must also offer referral to and assistance in using other community resources, and transportation to and from the program may be provided or arranged when needed and not otherwise available. Also included in the service, when supported by funding from the NCDAAS, are medical examinations required for

individual participants for admission to day health care services and thereafter when not otherwise available without cost. Food and services to provide a nutritional meal and snacks as appropriate are expected as well (52).

The NCDAAS did not list any adult day care/adult day health centers for Perquimans County at the time this report was developed. However, *DayBreak Adult Day Health Center*, a program of Albemarle Home Care, provides care and support for adults who, due to frailty or physical disability, require assistance during the day. Daybreak provides a range of activities designed to promote social, physical, and emotional well-being. The agency's facility is located in Elizabeth City (53).

Mental Health Services and Facilities

Local LME/MCO

The unit of NC government responsible for overseeing mental health services is the Division of Mental Health, Developmental Disabilities and Substance Abuse Services (DMH/DD/SAS). In NC, the mental health system is built on a system of governmental Local Management Entities/Managed Care Organizations (LME/MCOs). LME/MCOs are responsible for managing, coordinating, facilitating and monitoring the provision of mental health, developmental disabilities and substance abuse services in the catchment area served. LME/MCO responsibilities also include offering consumers 24/7/365 access to services, developing and overseeing providers, and handling consumer complaints and grievances.

At the time this report was prepared, the LME/MCO for Perquimans County was Trillium Health Resources (THR). THR serves a total of 24 counties in eastern NC, including all seven counties served by ARHS (54). THR's responsibility is to connect individuals and families to the help they need when they need it. It also is responsible for managing state and federally funded services for people who receive Medicaid, are uninsured or cannot afford services.

Trillium does not provide direct care. Instead, partnering with agencies and licensed therapists in its Provider Network to offer services and supports to people in need in or near their own communities. It also works collaboratively with local non-profits, other governmental agencies, medical providers, and hospitals to create a holistic system of total patient care that recognizes all needs of an individual (55).

Services offered include: diagnostic assessment, outpatient therapy, multi-systemic therapy, psychosocial rehabilitation, developmental therapy, intensive in-home services, medication management, substance abuse residential care, day treatment, community respite, group living, supportive living, supportive employment, substance abuse treatment (outpatient and residential), day activity and vocational program for the developmentally disabled, personal assistance, and targeted case management.

THR provides an on-line "Find a Provider" tool on its website (<http://www.trilliumhealthresources.org/en/For-Providers/Provider-Directory/>) that consumers can use to find agencies and group practices, hospitals or licensed independent practitioners who contract with this LME/MCO. The THR Network Provider Directory is updated on a regular basis. THR can also assist clients with services and supports through direct contact with the Trillium Health Resources Call Center at 1-877-685-2415. Since it is subject to change, the list of Perquimans County mental health providers in the THR network is not presented in this document.

In-County Mental Health Facilities

There is a list of NC-licensed mental health facilities (not providers) physically located in Perquimans County, as shown in the following table. The listed facilities, all located in Hertford, each provide supervised living services for up to six developmentally disabled persons.

Table 86. NC-Licensed Mental Health Facilities (G.S. 122C) in Perquimans County (February, 2016)

Operator/Name of Facility	Location	Category	Capacity
Christian Court	Hertford	Supervised living, developmentally disabled adult	4
Perquimans County Group Home	Hertford	Supervised living, developmentally disabled adult	6
TLC on the Water	Hertford	Supervised living, developmentally disabled adult	6

Source - NC Department of Health and Human Services, Division of Health Services Regulation (DHSR), Licensed Facilities, Mental Health Facilities (G.S. 122C) (by County); <http://www.ncdhhs.gov/dhsr/reports.htm>.

Accessing mental health services is sometimes a significant problem for patients whose medical insurance is provided by Medicaid or NC Health Choice. To help them, the NC Division of Medical Assistance maintains a list of mental health *providers* who accept patients with Medicaid or NC Health Choice. A recent listing for Perquimans County is shown below.

- At the time this list was assembled, there were two such providers in Perquimans County.

Table 87. Mental Health Providers Accepting Medicaid or NC Health Choice Patients, Perquimans County (September 2015)

Provider Name	Provider Type	Specialty	Location
Catholic Charities	Group Provider	Mental Health Multi-Speciality Group	Hertford
Intensive Rehab Health Services	Community Support Intervention Service Agencies	Psychosocial Rehabilitation	Hertford

Source: NC Division of Medical Assistance, Medicaid, Find a Doctor, NC Mental Health Providers; <http://dma.ncdhhs.gov/find-a-doctor/mental-health-providers>.

Other Healthcare Resources

The following table lists other healthcare facilities in the Albemarle Region that are licensed by the state of NC. Note that none were physically located in Perquimans County.

- As of February, 2016 there were no NC-licensed ambulatory surgical facilities or nursing pools in the Albemarle Region.
- There were two NC-licensed cardiac rehabilitation facilities in the region: the Cardiopulmonary Rehabilitation Program at Sentara Albemarle Medical Center in Elizabeth City, and HealthSteps in Edenton.

**Table 88. Other NC Licensed Healthcare Facilities in the Albemarle Region
(As of February, 2016)**

Type and Name of Facility	County	Location
Licensed Ambulatory Surgical Facilities		
None		
Licensed Cardiac Rehabilitation Facilities		
Sentara Albemarle Medical Center	Pasquotank	Elizabeth City
HealthSteps (East Carolina Health - Chowan Inc)	Chowan	Edenton
Licensed Nursing Pools		
None		

Source - NC Department of Health and Human Services, Division of Health Services Regulation (DHSR), Licensed Facilities, Hospitals (by County); <http://www.ncdhhs.gov/dhsr/reports.htm>.

Dialysis Centers

The table below lists dialysis centers in the Albemarle Region, none of which is physically located in Perquimans County.

**Table 89. Dialysis Centers in the Albemarle Region
(2012)**

Name of Facility	County	Location	Features
BMA of Windsor	Bertie	Windsor	20 hemodialysis stations, no evening hours
Edenton Dialysis	Chowan	Edenton	17 hemodialysis stations; no evening hours
Elizabeth City Dialysis	Pasquotank	Elizabeth City	24 hemodialysis stations; no evening hours

Source: Dialysis Facility Compare, <http://www.Medicare.gov/Dialysis/Include/DataSection/Questions>.

Urgent Care Centers

There are no free-standing urgent care centers listed for Perquimans County, but Internet searches identify urgent care centers in Washington, NC and Elizabeth City, NC, as well as Suffolk, VA. Perquimans County residents with urgent (and evening, weekend and holiday) health issues are most likely to seek assistance at the nearest hospital.

Other Perquimans County Medical Practitioners

It is possible to search NC Medical Board records to identify board-licensed physicians and physician assistants in NC counties. As of January 9, 2017, there were five active licensed physicians (MDs) in Perquimans County, four practicing in Hertford and one practicing in Winfall. In addition, there were four active physician assistants in Perquimans County at the time of the search, all of whom were practicing in Hertford (56).

Recreational Facilities

The table below lists some of the public parks, recreational centers and cultural opportunities in Perquimans County.

Table 90. Public Recreational Facilities in Perquimans County

Category/Name	Location	Facilities/Programs
Recreational Facilities and Opportunities		
Perquimans County Community Center	Hertford	Fitness and art classes, youth programs, sports teams
Perquimans County Tennis Courts	Hertford	Tennis
Perquimans County Basketball Courts	Hertford	Youth sports teams; free-play
Perquimans County Athletic Fields	Hertford	Youth sports teams; free-play
Camping Platforms	Bear Garden, Cypress Woods, Mill Creek	Camping platforms at various sites on the Perquimans River
Perquimans County Walking Trail	Hertford	20 walking trails throughout the county
Paddling Trails	Various access points	40 miles of river and creek trails
Missing Mill Park	Hertford	on the Perquimans River, nature boardwalk, picnic tables, boat launch, fishing pier
Biking Trails	Hertford	4 trails
Birding Trails	Various access points	For exploration by canoe or kayak
Cultural and Arts Opportunities		
Historic Hertford	Hertford	Historical/interpretive museum
Newbold-White House	Hertford	Historical/interpretive museum
Perquimans Arts Gallery	Hertford	exhibits and sells work of over 100 local artists and craftspeople
Summer Breeze Concert Series	Hertford	Seasonal concerts

Sources: Perquimans County, NC, Departments, Recreation; <http://www.co.perquimans.nc.us/departments/recreation.html>; <http://www.visitperquimans.com/attractions.html>; Perquimans Arts League, <http://www.perquimansarts.org>.

For a broader listing of community resources, including health resources, please consult the Appendix to this report.

CHAPTER FOUR: HEALTH STATISTICS

METHODOLOGY

Routinely collected mortality and morbidity surveillance data and behavior survey data can be used to describe—and compare—the health status of communities. Briefly speaking, mortality refers to death; morbidity refers to illness or disability among the living. These data, which are readily available in the public domain, typically use standardized definitions, thus allowing comparisons among county, state and national figures. There is, however, some error associated with each of these data sources. Surveillance systems designed to track morbidity, for communicable diseases and cancer diagnoses, for instance, rely on reports submitted by health care facilities across the state and are likely to miss a number of cases, and mortality statistics are dependent on the primary cause of death listed on death certificates without consideration of co-occurring conditions.

Understanding Health Statistics

Mortality

Mortality, or the rate of death, is calculated by dividing the number of deaths due to a specific disease in a given period of time by the population size in the same period. Mortality typically is described as a rate, usually presented as a number of deaths per 100,000 residents. Mortality rates are readily available since the underlying (or primary) cause of death is routinely reported on death certificates, the submission of which is more or less universal. However, some error can be associated with cause-of-death classification, since it is sometimes difficult to choose a single underlying cause of death from potentially many co-occurring conditions.

Mortality rate by cause is calculated according to the following formula:

$$\text{(number of deaths due to a cause/population)} \times 100,000 = \text{deaths per 100,000 people.}$$

Age-adjustment

Many factors can affect the risk of death, including race, gender, occupation, education and income. The most significant factor is age, because the risk of death inevitably increases with age; that is, as a population ages, its collective risk of death increases. Therefore, an older population will automatically have a higher overall death rate just because of its age distribution. At any one time some communities have higher proportions of “younger” people, and others have a higher proportion of “older” people. In order to compare mortality data from one community with the same kind of data from another, it is necessary first to control for differences in the age composition of the communities being compared. This is accomplished by *age-adjusting* the data. Age-adjustment is a statistical manipulation usually performed by the professionals responsible for collecting and cataloging health data, such as the staff of the NC State Center for Health Statistics (NCSCHS). It is not necessary to understand the nuances of age-adjustment to use this report. Suffice it to know that age-adjusted data are preferred for comparing health data from one population or community to another and have been used in this report whenever available.

Aggregate Data

Another convention typically used in the presentation of health statistics is *aggregate data*, which combines annual data gathered over a multi-year period, usually three or five years. The practice of presenting data that are aggregated avoids the instability typically associated with using highly variable year-by-year data consisting of relatively few cases or deaths. The calculation is performed by dividing the number of cases or deaths due to a particular disease over a period of years by the sum of the population size for each of the years in the same period.

Morbidity

Morbidity as used in this report refers generally to the presence of injury, sickness or disease (and sometimes the symptoms and/or disability resulting from those conditions) in the population. Morbidity data usually is presented as a percentage, or a count, but not a rate.

Prevalence

Prevalence, which describes the extent of morbidity, refers to the number of existing cases of a disease or health condition in a population at a defined point in time or during a period. Prevalence expresses a proportion, not a rate. Prevalence is often estimated by consulting hospital records; for instance, hospital discharge records available from NCSCHS show the number of residents within a county who use hospital in-patient services for given diseases during a specific period. Typically, these data underestimate the true prevalence of the given disease in the population, since individuals who do not seek medical care or who are diagnosed outside of the hospital in-patient setting are not captured by the measure. Note also that decreasing hospital discharge rates do not necessarily indicate decreasing prevalence; rather they may be a result of a lack of access to hospital care.

Incidence

Incidence is the population-based rate at which *new cases* of a disease occur and are diagnosed. It is calculated by dividing the number of newly diagnosed cases of a disease or condition during a given period by the population size during that period. Typically, the resultant value is multiplied by 100,000 and is expressed as cases per 100,000; sometimes the multiplier is a smaller number, such as 10,000.

Incidence rate is calculated according to the following formula:

$$\text{(number of new cases/population)} \times 100,000 = \text{new cases per 100,000 people}$$

The incidence rates for certain diseases, such as cancer, are simple to obtain, since data on newly discovered cases is routinely collected by the NC Central Cancer Registry. However, diagnoses of other conditions, such as diabetes or heart disease, are not normally reported to central data-collecting agencies, so accurate incidence data on these conditions is rare.

Trends

Data for multiple years is included in this report wherever possible. Since comparing data on a year-by-year basis can yield very unstable trends due to the often small number of cases, events or deaths per year (see below), the preferred method for reporting incidence and mortality data is long-term trends using the age-adjusted, multi-year aggregate format. Most trend data used in this report is of that type.

Small Numbers

Year-to-year variance in small numbers of events can make dramatic differences in rates that can be misleading. For instance, an increase from two events one year to four the next could be statistically insignificant in a population sense but result in a calculated rate increase of 100%. Aggregating annual counts over a five year period before calculating a rate is one method used to ameliorate the effect of small numbers. Sometimes even aggregating data is not sufficient, so the NCSCHS recommends that all rates based on fewer than 20 events—whether covering an aggregate period or not—be considered “unstable”, and interpreted only with caution. In recent years, NCSCHS has suppressed reporting data (e.g., mortality rates) based on fewer than 20 events in a five-year aggregate period. (Other state entities that report health statistics may use their own minimum reporting thresholds.) In an effort to assure that unstable health data do not become the basis for local decision-making, this author makes every effort to highlight and discuss primarily rates based on 20 or more events in a five-year aggregate period and on 10 or more events in a single year. However, in smaller jurisdictions it may be necessary to use unstable figures in order to have any data at all to report. Where these exceptions occur, the narrative will highlight the potential instability of the data being discussed.

Describing Difference and Change

In describing differences in data of the same type from two populations or locations, or changes over time in the same kind of data from one population or location—both of which appear frequently in this report—it is useful to apply the concept of percent difference or change. While it is always possible to describe difference or change by the simple subtraction of a smaller number from a larger number, the result often is inadequate for describing and understanding the scope or significance of the difference or change. Converting the amount of difference or change to a *percent* takes into account the relative size of the numbers that are changing in a way that simple subtraction does not, and makes it easier to grasp the meaning of the change.

For example, there may be a rate for a type of event (e.g., death) that is one number one year and another number five years later. Suppose the earlier figure is 12.0 and the latter figure is 18.0. The simple mathematical difference between these rates is 6.0. Suppose also there is another set of rates that are 212.0 in one year and 218.0 five years later. The simple mathematical difference between these rates also is 6.0. Although the same, these simple numerical differences are not of the same significance in both instances. In the first example, converting the 6 point difference to a percent yields a relative change factor of 50%; that is, the smaller number increased by half, a large fraction. In the second example, converting the 6-point difference to a percent yields a relative change factor of 2.8%; that is, the smaller number in the comparison increased by a relatively small fraction. In these examples the application of percent makes it very clear that the difference in the first example is of far greater degree than the difference in the second example. This document uses percentage almost exclusively to describe and highlight degrees of difference and change, both positive (e.g., increase, larger than, etc.) and negative (e.g., decrease, smaller than, etc.)

Behavioral Risk Factor Surveillance System (BRFSS)

Perquimans County residents, as well as those living in the other six counties of the ARHS region, participate in the state’s annual Behavioral Risk Factor Surveillance System (BRFSS) Survey, as part of an aggregate 41-county sample that encompasses the entire eastern third of the state (“Eastern North Carolina”). It is not possible to isolate survey responses from any ARHS county’s BRFSS participants without oversampling the county, which rarely occurs.

Since the aggregate regional data covers such a diverse area, the results cannot responsibly be interpolated to describe health in any one of the ARHS counties. As a result, BRFSS data will not be used in this document *except* for local BRFSS data manipulated by the CDC to yield a county-level *estimate*.

Final Health Data Caveat

Some data that is used in this report may have inherent limitations, due to sample size, or a sampling date far in the past, for example, but is used nevertheless because there is no better alternative. Whenever this kind of data is used, it will be accompanied by a warning about its limitations.

HEALTH RANKINGS

America’s Health Rankings

Each year for more than 20 years, America’s Health Rankings™, a project of United Health Foundation, has tracked the health of the nation and provided a comprehensive perspective on how the nation—and each state—measures up. America’s Health Rankings is the longest running state-by-state analysis of health in the US.

America’s Health Rankings are based on several kinds of measures. Together the metrics for those measures help calculate an overall rank. The table below shows where North Carolina stood in the 2014 overall rankings relative to the “best” and “worst” states, where number one is “best”.

- North Carolina was ranked 37th overall in the US. Hawaii was ranked 1st and Mississippi was ranked 50th (last).

Table 91. Rank of North Carolina in America’s Health Rankings (2014)

Location	National Rank (Out of 50) ¹		
	Overall	Determinants	Outcomes
Hawaii	1	3	1
North Carolina	37	36	40
Mississippi	50	50	50

Source: United Health Foundation. America’s Health Rankings. Our Reports, 2014 Annual Report.
<http://cdnfiles.americashealthrankings.org/SiteFiles/Reports/Americas%20Health%20Rankings%202014%20Edition.pdf>.

County Health Rankings

Building on the work of *America’s Health Rankings*, the Robert Wood Johnson Foundation, collaborating with the University of Wisconsin Population Health Institute, undertook a project to develop health rankings for the counties in all 50 states. In this project, each state’s counties are ranked according to health outcomes and the multiple health factors that determine a county’s health. Each county receives a summary rank for its health outcomes and health factors and also for the four different types of health factors: health behaviors, clinical care, social and economic factors, and the physical environment.

The following table presents the 2015 county rankings for Perquimans County, the ARHS regional average and Pamlico County in terms of health outcomes and health factors.

- Perquimans County ranked 68th overall in NC, chiefly due to low rankings for length of life (70th) and social and economic factors (68th).
- The best Perquimans County rankings were in the health factors of quality of physical environment (9th) and health behaviors (37th).

It should be noted that the County Health Rankings serve a limited purpose, since the data on which they are based in some cases is very old and different parameters are measured in different time periods.

**Table 92. County Health Rankings
(2015)**

Location	County Rank (Out of 100) ¹						Overall
	Health Outcomes		Health Factors				
	Length of Life	Quality of Life	Health Behaviors	Clinical Care	Social & Economic Factors	Physical Environment	
Perquimans County	70	44	37	41	68	9	68
<i>Regional Average</i>	<i>46</i>	<i>58</i>	<i>61</i>	<i>40</i>	<i>49</i>	<i>30</i>	<i>48</i>
Pamlico County	30	22	35	9	63	89	21

County Health Rankings and Roadmaps, 2015. University of Wisconsin Population Health Institute;
<http://www.countyhealthrankings.org/app/north-carolina/2013/rankings/outcomes/overall/by-rank>.

The table below presents additional detail for these jurisdictions as well as the average for NC and national benchmarks.

**Table 93. County Health Rankings Details
(2015)**

Health Factor	Perquimans County	ARHS Regional Average	Pamlico County	NC County Average	National Median
Health Outcomes	60	51	21		
<i>Length of Life</i>	70	46	30		
Premature deaths	8,813	7,856	7,279	7,212	7,681
<i>Quality of Life</i>	44	58	22		
Poor or fair health	20%	22%		18%	17%
Poor physical health days	4.9	4.2	2.1	3.6	3.7
Poor mental health days	2.0	2.9		3.4	3.5
Low birthweight	9.1%	9.9%	8.8%	9.1%	8.0%
Health Factors	41	49	35		
<i>Health Behaviors</i>	37	61	35		
Adult smoking	21%	25%		20%	21%
Adult obesity	34%	33%	30%	29%	31%
Food environment index	7%	7%	7.5	6.6	7.3
Physical inactivity	27%	28%	27%	25%	27%
Access to exercise opportunities		53%	31%	76%	65%
Excessive drinking		21%		13%	16%
Alcohol-impaired driving deaths	25%	27%	15%	33%	31%
Sexually transmitted infections	428	468	260	519	291
Teen birth rate	40	40	49	42	41
<i>Clinical Care</i>	41	40	9		
Uninsured	19%	18%	19%	19%	17%
Primary Care physicians (ratio:1)	4,521	5,510	2,615	1,448	2,015
Dentists (ratio:1)	13,601	7,616	3,238	1,970	2,670
Mental health providers (ratio:1)	2,267	3,094	1,850	472	1,128
Preventable hospital stays	50	56	34	57	65.3
Diabetic monitoring	84%	86%	92%	89%	85%
Mammography screening	75%	69%	78.9%	68.2%	61%
<i>Social & Economic Factors</i>	68	49	63		
High school graduation	83%	83%	88%	81%	85%
Some college	55%	55%	54%	64%	56%
Unemployment	9.2%	8.7%	8.9%	8.0%	7.0%
Children in poverty	35%	29%	35%	25%	24%
Income inequality	5.1	467%	4.4	4.8	4.4
Children in single-parent households	36%	36%	37%	36%	31%
Social associations	11.1	14.5	9.2%	11.7%	12.6%
Violent crime rate	133	198	186	355	199
Injury deaths	66	67	104	64	73.8
<i>Physical Environment</i>	9	30	89		
Air pollution - particulate matter	11.6	12	11.6	12.3	11.9
Drinking water violations	1%	0%	47%	4%	1%
Severe housing problems	17%	0	17%	16%	14
Driving alone to work	80%	82%	79%	81%	80%
Long commute - driving alone	39%	45%	42%	30%	29%
Source	1	1	1	2	2

1 - County Health Rankings and Roadmaps, 2015. University of Wisconsin Population Health Institute;

<http://www.countyhealthrankings.org/app/north-carolina/2015/rankings/outcomes/overall>.

2 - State Health Gap Reports, 2015. University of Wisconsin Population Health Institute;
http://www.countyhealthrankings.org/sites/default/files/state/downloads/CHR2015_NC_0.pdf.

Note: Blank values ("n/a") reflect unreliable or missing data.

MATERNAL AND INFANT HEALTH

Pregnancy

The following definitions and statistical conventions will be helpful in understanding the data on pregnancy:

- Reproductive age = 15-44
- Total pregnancies = live births + induced abortions + fetal death at 20+ weeks gestation
- Pregnancy rate = number of pregnancies per 1,000 women of reproductive age
- Fertility rate = number of live births per 1,000 women of reproductive age
- Abortion rate = number of induced abortions per 1,000 women of reproductive age
- Birth rate = number of live births per 1,000 *population* (Note that in the birth rate calculation the denominator includes the entire population, both men and women, not just women of reproductive age.) Since the birth rate is a measure of population growth, it was presented among the demographic data in Chapter One of this report.

Pregnancy, Fertility and Abortion Rates, Women Age 15-44

The following table presents total annual pregnancy, fertility and abortion rates for women age 15-44 for the period from 2010-2014.

- The 2014 pregnancy rate was 66.1 in Perquimans County, compared to 66.3 in the Region and 72.1 in NC.
- The Perquimans County abortion rate among women aged 15-44 has fluctuated over time and was suppressed in 2012, 2013 and 2014 due to instability. In 2011, the last year for which a Perquimans County rate was released, overall Perquimans County abortion rate was 8.4 compared to 10.2 in the Region and 11.4 in NC.
- Discussion of racially stratified pregnancy and abortion rate trends is complicated by numerous unstable and suppressed rates as well as changes over time in the way the SCHS has handled racial identity.

Table 94. Total Pregnancy, Fertility and Abortion Rates, Ages 15-44 (Single Years, 2010-2014)

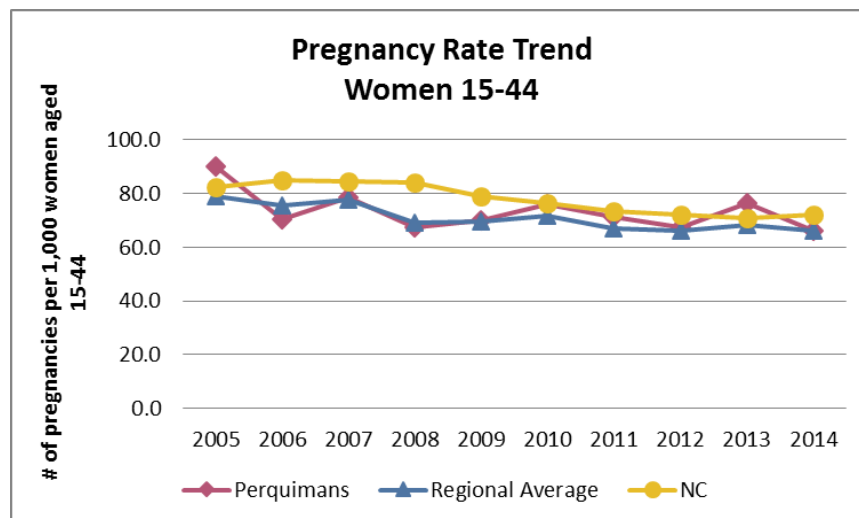
Location	Females Ages 15-44														
	2010			2011			2012			2013			2014		
	Pregnancy Rate	Fertility Rate	Abortion Rate	Pregnancy Rate	Fertility Rate	Abortion Rate	Pregnancy Rate	Fertility Rate	Abortion Rate	Pregnancy Rate	Fertility Rate	Abortion Rate	Pregnancy Rate	Fertility Rate	Abortion Rate
Perquimans County Total	75.8	61.9	13.9	71.2	62.3	8.4	67.4	59.0	*	76.3	66.9	*	66.1	60.2	*
White, Non-Hispanic	74.1	63.8	10.3	71.5	65.3	5.6	71.2	65.6	*	80.0	73.7	*	65.2	62.3	*
African American, Non-Hispanic	85.2	62.7	22.5	67.0	50.3	16.8	62.4	49.3	*	62.6	44.0	*	62.8	52.1	*
American Indian, Non-Hispanic															
Other, Non-Hispanic	111.1	111.1	0.0	47.6	47.6	0.0	*	*	*	*	*	*	*	*	*
Hispanic	0.0	0.0	0.0	102.6	102.6	0.0	*	*	*	*	*	*	*	*	*
Regional Average Total	71.5	57.9	13.3	67.2	56.7	10.2	66.3	55.9	20.6	68.2	58.7	9.6	66.3	57.0	10.7
White, Non-Hispanic	67.1	58.0	8.5	61.3	54.5	6.6	62.5	55.9	9.5	67.4	59.3	7.2	63.6	57.3	7.6
African American, Non-Hispanic	79.8	58.1	21.5	70.8	54.7	15.7	74.4	57.2	18.4	68.3	61.4	14.3	69.9	55.0	15.8
American Indian, Non-Hispanic															
Other, Non-Hispanic	61.3	60.4	0.9	73.2	63.8	9.4	*	*	*	*	*	*	*	*	*
Hispanic	65.6	52.1	13.1	82.1	76.2	5.9	78.0	71.3	*	121.8	113.2	*	56.0	54.0	*
Pamlico County Total	71.5	57.6	11.7	59.3	49.3	10.0	63.0	55.6	*	52.6	45.6	*	61.9	52.2	*
White, Non-Hispanic	69.1	55.8	11.8	59.3	48.9	10.4	59.0	54.4	*	49.0	45.1	*	61.9	54.1	*
African American, Non-Hispanic	80.2	61.7	15.4	38.2	32.4	5.9	73.6	*	*	*	*	*	62.7	*	*
American Indian, Non-Hispanic															
Other, Non-Hispanic	0.0	0.0	0.0	69.0	69.0	0.0	*	*	*	*	*	*	*	*	*
Hispanic	98.8	86.4	0.0	141.2	117.6	23.5	*	*	*	*	*	*	*	*	*
State of NC Total	76.4	62.7	13.2	73.3	61.5	11.4	72.1	61.0	10.7	70.8	60.3	10.1	72.1	61.0	10.7
White, Non-Hispanic	65.6	57.1	8.2	63.6	56.4	7.0	63.0	56.1	6.6	61.8	55.4	6.1	63.5	56.5	6.6
African American, Non-Hispanic	86.1	61.0	24.4	81.5	59.7	21.1	79.6	59.1	19.8	79.0	59.7	18.6	79.5	59.4	19.4
American Indian, Non-Hispanic										71.5	62.9	8.2	69.9	61.1	8.5
Other, Non-Hispanic	84.5	71.3	12.8	80.6	69.4	10.9	79.7	69.7	9.5	79.4	69.5	9.5	82.4	72.0	10.1
Hispanic	114.0	99.0	14.7	106.6	94.0	12.2	102.6	91.4	10.8	98.6	87.9	10.3	98.4	87.0	10.9

Note: Bold type indicates an unstable rate based on a small number (fewer than 10 cases). An asterisk signifies a suppressed rate. Source: NC Center for Health Statistics, Vital Statistics. Reported Pregnancies. Years as noted. Pregnancy, Fertility, and Abortion Rates per 1,000 Population, by Race, by Age; <http://www.schs.state.nc.us/data/vital/pregnancies/>.

The following figure plots the overall pregnancy rate for the comparators (minus Pamlico County) for a period that spans 2005 through 2014.

- The total pregnancy rate in Perquimans County demonstrated a general decline between 2005 and 2012, and has fluctuated since then.
- The total pregnancy rates in both the ARHS Region and NC have fallen overall since 2007.

Figure 12. Overall Pregnancy Rate Trend, Age 15-44 (2005-2014)



Source: NC Center for Health Statistics, Vital Statistics. Reported Pregnancies. Years as noted. Pregnancy, Fertility, and Abortion Rates per 1,000 Population, by Race, by Age; <http://www.schs.state.nc.us/data/vital/pregnancies/>

Pregnancy, Fertility and Abortion Rates, Women Age 15-19

The table below presents total annual pregnancy, fertility and abortion rates for women age 15-19 (“teens”) for the period from 2010-2014.

- In 2011 (the last year in which a stable rate is available) the teen pregnancy rate was 21.0 in Perquimans County, compared to 41.5 for the Region and 43.8 for the state.
- Among Perquimans County teens, the pregnancy rates over time appear quite variable and have become unstable for all racially stratified groups. The pregnancy rate among both white and African American non-Hispanic teens (although unstable) decreased between 2010 and 2011.
- Among teenage women the abortion rate in Perquimans County was unstable or suppressed over the period cited in the table.

Table 95. Total Pregnancy, Fertility and Abortion Rates, Ages 15-19 (Single Years, 2010-2014)

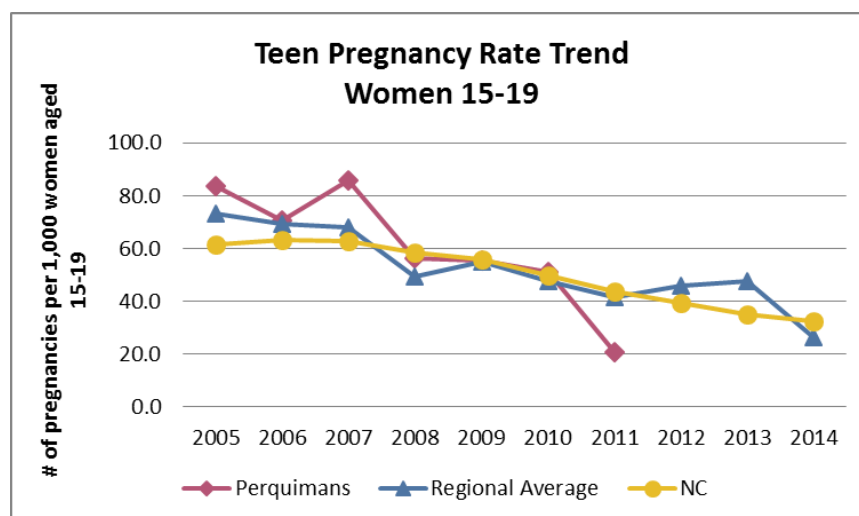
Location	Females Ages 15-19														
	2010			2011			2012			2013			2014		
	Pregnancy Rate	Fertility Rate	Abortion Rate	Pregnancy Rate	Fertility Rate	Abortion Rate	Pregnancy Rate	Fertility Rate	Abortion Rate	Pregnancy Rate	Fertility Rate	Abortion Rate	Pregnancy Rate	Fertility Rate	Abortion Rate
Perquimans County Total	51.3	43.6	7.7	21.0	15.7	5.2	*	*	*	*	*	*	*	*	*
White, Non-Hispanic	51.7	43.1	8.6	4.3	4.3	0.0	*	*	*	*	*	*	*	*	*
African American, Non-Hispanic	55.6	48.6	6.9	45.5	30.3	15.2	*	*	*	*	*	*	*	*	*
American Indian, Non-Hispanic															
Other, Non-Hispanic	0.0	0.0	0.0	0.0	0.0	0.0	*	*	*	*	*	*	*	*	*
Hispanic	0.0	0.0	0.0	71.4	71.4	0.0	*	*	*	*	*	*	*	*	*
Regional Average Total	47.7	37.9	11.4	41.5	30.7	9.7	45.9	35.6	*	47.6	40.6	6.6	26.4	21.7	6.2
White, Non-Hispanic	44.6	34.3	9.7	29.2	21.6	7.6	40.2	*	*	37.7	34.3	4.2	23.1	19.0	4.0
African American, Non-Hispanic	60.8	44.0	16.4	51.1	38.0	12.8	40.7	*	*	52.8	44.4	11.5	30.2	23.1	10.5
American Indian, Non-Hispanic															
Other, Non-Hispanic	8.4	0.0	8.4	20.4	20.4	0.0	*	*	*	*	*	*	*	*	*
Hispanic	0.0	0.0	0.0	55.2	49.8	5.4	*	*	*	*	*	*	*	*	*
Pamlico County Total	82.2	62.3	17.0	59.3	41.5	17.8	*	*	*	*	*	*	*	*	*
White, Non-Hispanic	77.8	55.6	18.5	61.0	40.7	20.3	*	*	*	*	*	*	*	*	*
African American, Non-Hispanic	92.3	76.9	15.4	41.1	41.1	0.0	*	*	*	*	*	*	*	*	*
American Indian, Non-Hispanic															
Other, Non-Hispanic	0.0	0.0	0.0	0.0	0.0	0.0	*	*	*	*	*	*	*	*	*
Hispanic	125.0	125.0	0.0	125.0	62.5	62.5	*	*	*	*	*	*	*	*	*
State of NC Total	49.7	38.3	11.0	43.8	34.8	8.7	39.6	31.8	7.6	35.2	28.4	6.6	32.3	25.9	6.2
White, Non-Hispanic	34.4	27.2	7.0	30.8	25.2	5.5	28.3	23.1	5.1	24.7	20.3	4.2	23.1	19.0	4.0
African American, Non-Hispanic	70.2	50.9	18.7	61.6	45.5	15.6	55.0	41.4	13.1	49.2	37.3	11.5	44.0	33.1	10.5
American Indian, Non-Hispanic															
Other, Non-Hispanic	48.9	38.8	9.5	39.4	32.9	6.4	36.4	29.8	6.3	19.9	14.3	5.4	19.0	14.3	4.7
Hispanic	82.7	70.6	11.7	71.1	62.7	8.2	62.0	55.7	6.2	57.9	51.2	6.2	52.8	45.9	6.5

Note: Bold type indicates an unstable rate based on a small number (fewer than 10 cases). An asterisk signifies a suppressed rate. Source: NC Center for Health Statistics, Vital Statistics. Reported Pregnancies. Years as noted. Pregnancy, Fertility, and Abortion Rates per 1,000 Population, by Race, by Age. ; <http://www.schs.state.nc.us/data/vital/pregnancies/>.

The figure below plots the overall teen pregnancy rate for the comparators (minus Pamlico County) for a period that spans 2005 through 2014.

- Teen pregnancy rates in Perquimans County, though variable and unstable, appear to have decreased significantly overall since 2005.

Figure 13. Overall Pregnancy Rate Trend, Age 15-19 (2005-2014)



Source: NC Center for Health Statistics, Vital Statistics. Reported Pregnancies. Years as noted. Pregnancy, Fertility, & Abortion Rates per 1,000 Population, by Race, by Age; <http://www.schs.state.nc.us/data/vital/pregnancies/2014/>.

Pregnancies among Teens (age 15-19) and Adolescents (under age 15)

The table below presents trend data on the number of teen pregnancies in each jurisdiction from 2003-2013.

- The number of teen (women aged 15-19) pregnancies in Perquimans County varied without pattern throughout the period cited, but has been lower since 2008 than before 2008. The largest number (30) occurred in 2005 and 2007, and the lowest number (8) occurred in 2011.

Table 96. Number of Teen Pregnancies (Ages 15-19) (Single Years, 2003-2013)

Location	Number of Pregnancies, Ages 15-19										
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Perquimans County	25	23	30	26	30	24	22	20	8	10	19
<i>Regional Average</i>	36	38	47	46	43	37	38	31	28	23	23
Pamlico County	21	24	26	23	18	29	23	29	20	14	9
State of NC	17,390	18,143	18,259	19,192	19,615	19,398	18,142	15,957	13,909	12,535	11,178

Source: NC State Center for Health Statistics, North Carolina health Data Query System. Pregnancy Data. North Carolina Reported Pregnancy Data. Year: 2003-2013. (Counties and age groups as indicated); <http://www.schs.state.nc.us/SCHS/data/preg/preg.cfm>.

The following table presents trend data on the number of adolescent pregnancies in each jurisdiction from 2003-2013.

- Between 2003 and 2010 there were six pregnancies among Perquimans County adolescent girls (age 14 and younger), but none after 2010.

**Table 97. Number of Adolescent Pregnancies (Under Age 15)
(Single Years, 2003-2013)**

Location	Number of Pregnancies, Age 14 and Younger										
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Perquimans County	1	1	0	2	1	0	0	1	0	0	0
Pamlico County	0	0	1	0	0	1	0	0	0	0	0
State of NC	443	472	468	405	404	376	324	282	255	214	182

Source: NC State Center for Health Statistics, North Carolina health Data Query System. Pregnancy Data. North Carolina Reported Pregnancy Data. Year: 2003-2013. (Counties and age groups as indicated); <http://www.schs.state.nc.us/SCHS/data/preg/preg.cfm>.

Pregnancy Risk Factors

High Parity and Short Interval Births

According to the NC SCHS, a birth is *high parity* if the mother is younger than 18 when she has had one or more births, or aged 18 or 19 and has had two or more births, or is 20-24 and has had four or more births, etc. A *short-interval birth* involves a pregnancy occurring less than six months since the last birth. High-parity and short-interval pregnancies can be a physical strain on the mother and sometimes contribute to complicated pregnancies and/or poor birth outcomes.

The next table presents data on high-parity and short interval births for the aggregate period 2010-2014.

- The percentage of high-parity births among women under age 30 in Perquimans County (12.5%) was lower than the comparable average for the region (14.8%) and the state (15.2%). Among women age 30 or older the rate in Perquimans County (18.1%) was slightly lower than the regional rate (21.0%) and the state average (21.9%).
- The percentage of short-interval births in Perquimans County (11.7%) was lower than the regional rate (13.3%) as well as the state rate (12.3%).

**Table 98. High Parity and Short Interval Births
(Single Five-Year Aggregate Period, 2010-2014)**

Location	High Parity Births				Short Interval Births	
	Mothers < 30		Mothers ≥ 30		No. ³ % ⁴	
	No. ¹	% ²	No. ¹	% ²		
Perquimans County	59	12.5	34	18.1	50	11.7
<i>Regional Average</i>	<i>107</i>	<i>14.8</i>	<i>65</i>	<i>21.0</i>	<i>84</i>	<i>13.3</i>
Pamlico County	57	17.5	30	22.2	30	10.0
State of NC	27,216	15.2	49,588	21.9	48,837	12.3
Source:	a	a	a	a	b	b

¹ Number at risk due to high parity

² Percent of all births with age of mother in category indicated

³ Number with interval from last delivery to conception of six months or less

⁴ Percent of all births excluding 1st pregnancies

a - NC State Center for Health Statistics, County-level Data, County Health Data Book (2016), Pregnancy and Births, 2010-2014 Number At Risk NC Live Births due to High Parity by County of Residence; <http://www.schs.state.nc.us/SCHS/data/data>.

b - NC State Center for Health Statistics, County-level Data, County Health Data Book (2016), Pregnancy and Births, 2010-2014 NC Live Births by County of Residence, Number with Interval from Last Delivery to Conception of Six Months or Less; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Smoking during Pregnancy

Smoking during pregnancy is an unhealthy behavior that may have negative effects on both the mother and the fetus. Smoking can lead to fetal and newborn death, and contribute to low birth weight and pre-term delivery. In pregnant women, smoking can increase the rate of placental problems, and contribute to premature rupture of membranes and heavy bleeding during delivery (57).

The table below presents trend data on smoking during pregnancy for 2011 through 2014.

- The percentage of Perquimans County women who smoked during pregnancy increased from 12.8% in 2012 to 16.1% in 2014, and was higher than the state rate in every year cited.

Table 99. Smoking during Pregnancy Trend (2011-2014)

Location	Number and Percent of Births to Mothers Who Smoked Prenatally							
	2011		2012		2013		2014	
	No.	%	No.	%	No.	%	No.	%
Perquimans County	17	12.8	17	13.5	16	11.3	20	16.1
<i>Regional Average</i>	23	11.3	18	10.4	21	10.6	26	13.6
Pamlico County	23	25.8	18	18.4	14	17.7	12	13.2
<i>State of NC</i>	13,159	10.9	12,727	10.6	12,242	10.3	11,896	9.8

Source: NC State Center for Health Statistics, Vital Statistics: North Carolina Vital Statistics, Volume 1 (years as noted). <http://www.schs.state.nc.us/data/vital/volume1/>

Early Prenatal Care

Good pre-conception health and early prenatal care can help assure women the healthiest pregnancies possible. The next table presents trend data on the percent of all women receiving prenatal care in the first trimester for the four jurisdictions included in this report.

- The percentage of women receiving early prenatal care was lower in Perquimans County compared to the state for three of the four years cited below.
- The percentage of Perquimans County women receiving prenatal care in the first trimester increased from 66.9% in 2011 to 73.4% in 2014.

Table 100. Early Prenatal Care Trend (2011-2014)

Location	Percent Women Receiving Prenatal care in the First Trimester			
	2011	2012	2013	2014
Perquimans County	66.9	61.9	62.0	73.4
Regional Average	53.5	49.0	55.6	70.5
Pamlico County	69.7	75.5	63.3	63.7
State of NC	71.2	71.3	70.3	68.2

Source: NC State Center for Health Statistics, Vital Statistics, Basic Automated Birth Yearbook (BABYBOOK) 2011-2014. Calculated from numbers in Table 6. <http://www.schs.state.nc.us/data/vital.cfm>.

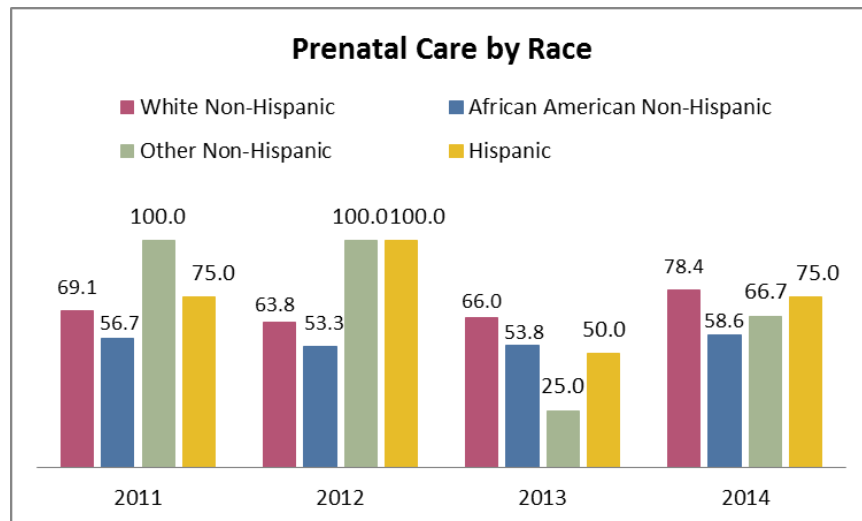
The data presented in the table above was collected from a brief questionnaire presented in the hospital to women who have just given birth. It is worth noting that in 2011-2013, the answer to

this question was “Not Stated” for approximately 60% of Gates County births. In 2014, only 1% of the answers were “Not Stated”. Currituck County saw similar proportions of “Not Stated” and low prenatal care rates. Most other ARHS counties had less than 11% “Not Stated”. So the low rates of prenatal care could be more a matter of this question not being answered than a matter of women not getting the recommended care.

The following figure plots the prenatal care trend, stratified by race, for Perquimans County women for the same period covered in the table above.

- Among racial groups in Perquimans County it appears that African American non-Hispanic women received early prenatal care in lower proportions compared to other racial groups in most years. Note, however, that percentages for racial groups except Hispanics and “Other” were stable.

Figure 14. Percent of Perquimans County Women Receiving Prenatal Care in the First Trimester, by Race (2011-2014)



Source: NC State Center for Health Statistics, Vital Statistics, Basic Automated Birth Yearbook (BABYBOOK) 2011-2014. Calculated from numbers in Table 6. <http://www.schs.state.nc.us/data/vital.cfm>.

Pregnancy Outcomes

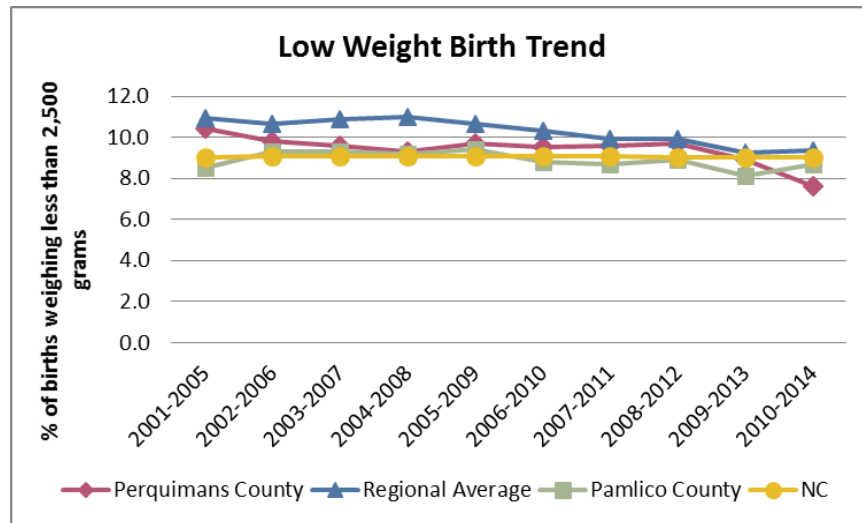
Low Birth Weight and Very Low Birth Weight

Low birth weight can result in serious health problems in newborns (e.g., respiratory distress, bleeding in the brain, and heart, intestinal and eye problems), and cause lasting disabilities (mental retardation, cerebral palsy, and vision and hearing loss) or even death (58).

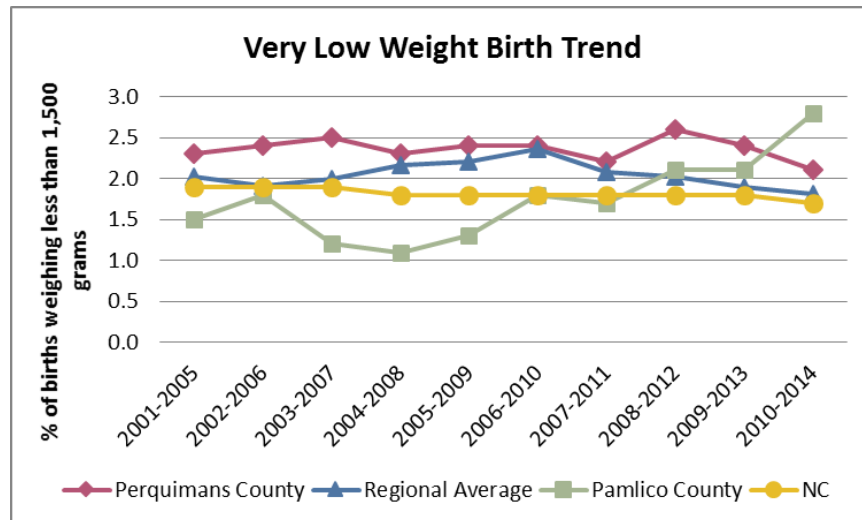
The two figures that follow plot data for low birth-weight births: infants weighing 2,500 grams (5.5 pounds) or less, and very low birth-weight births: infants weighing 1,500 grams (3.3 pounds) or less.

- In Perquimans County the percentage of low birth-weight births exceeded the state average throughout the period 2001-05 through 2009-2013, and the percentage of very low birth-weight births exceeded state and regional averages throughout the entire period.
- The percentage of low birth-weight births in Perquimans County decreased slightly overall between 2001-2005 and 2010-2014.
- The percentage of very low birth-weight births in Perquimans County increased between 2001-2005 and 2008-2012 before decreasing through 2010-2014.

**Figure 15. Low Birth-Weight Births
(2001-2005 through 2010-2014)**



**Figure 16. Very Low Birth-Weight Births
(2001-2005 through 2010-2014)**



Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2016), Pregnancy and Births, Low and Very Low Weight Births, Black Births; <http://www.schs.state.nc.us/SCHS/data/databook/>.

The following two figures plot data on low- and very-low birth-weight births in Perquimans County stratified by race.

- The highest percentages of low birth-weight births in Perquimans County occurred among African American non-Hispanics or Hispanics throughout the period cited. It should be noted, however, that all figures presented for Hispanics and the group “Other” were *unstable*.
- All racially-stratified percentages of very-low birth-weight births in Perquimans County were unstable, but those unstable figures were highest among African American non-Hispanics.

Figure 17. Low Birth-Weight Births, Perquimans County, by Race (2006-2010 through 2010-2014)

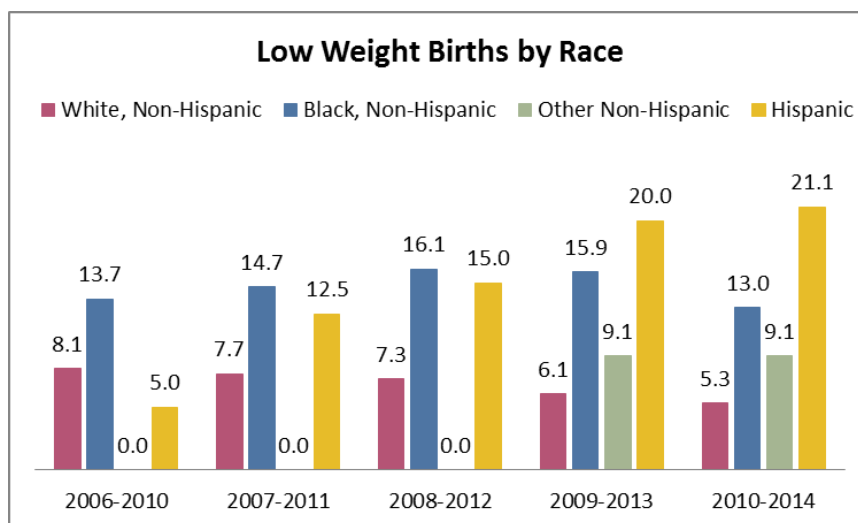
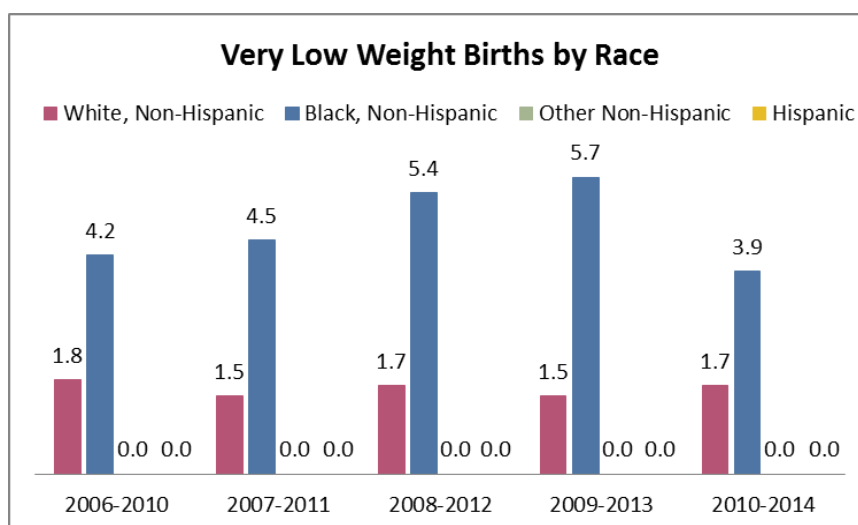


Figure 18. Very-Low Birth-Weight Births, Perquimans County, by Race (2006-2010 through 2010-2014)



Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2012-2016), Pregnancy and Births, Low and Very Low Weight Births, Black Births; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Cesarean Section Delivery

The following table presents data on the percent of births delivered by Cesarean section.

- As elsewhere in the US, the percentage of Cesarean section delivery in all four of the jurisdictions cited has risen over time. From the beginning to the end of the period cited in the table, Cesarean deliveries rose by 12% in Perquimans County, 16% in the ARHS region, 1% in Pamlico County, and 10% statewide.

**Table 101. Cesarean Section Deliveries.
(Aggregate Periods 2001-2005 through 2010-2014)**

Location	Percent of Resident Births Delivered by Cesarean Section									
	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011	2008-2012	2009-2013	2010-2014
Perquimans County	31.4	31.3	30.8	31.4	29.3	29.3	31.7	31.9	32.6	35.1
<i>Regional Average</i>	28.6	29.5	30.3	30.8	31.3	31.8	32.2	33.0	32.9	33.1
Pamlico County	27.5	28.3	28.1	28.9	28.8	30.5	28.9	30.0	29.3	27.8
State of NC	27.7	28.7	29.6	30.3	30.9	31.2	31.2	31.1	30.9	30.5

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2016), Pregnancy and Births, Births Delivered by Primary Caesarian Section; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Birth Complications

The Diagnosis Related Group (DRG) method of coding diagnoses associated with inpatient hospitalizations offers a series of codes describing newborns and neonates having certain conditions originating in the perinatal period. The table below summarizes inpatient discharges associated with these codes for Perquimans County residents delivering infants at the three hospitals participating in this CHNA that saw over 20 inpatients in the two years cited.

- Among Perquimans County residents the number of discharges at the cited hospitals associated with newborns or neonates with prematurity or some kind of problem originating in the perinatal period totaled 30% of all newborns over the period cited.

**Table 102. Discharges of Newborn Infants, Perquimans County Resident Mothers
(2013 and 2014)**

Year	Number of Hospital Discharges by DRG (Diagnosis Related Group) Diagnosis					
	Normal Newborns	Extreme Immaturity or Respiratory Distress	Prematurity with Major Problems	Prematurity without Major Problems	Full-Term Neonate with Major Problems	Neonate with Other Significant Problems
2013	86	0	0	6	1	17
2014	70	1	2	6	2	12
Total	156	1	2	12	3	29

Source: Vidant Chowan and Roanoke-Chowan Hospitals and Sentara Albemarle Medical Center.

Infant Mortality

Infant mortality is the number of infant (under one year of age) deaths per 1,000 live births. The following table presents infant mortality data for Perquimans County, the ARHS region, Pamlico County and the state of NC.

- All of the Perquimans County infant mortality rates are unstable, so the trend presented should be interpreted with caution.
- The total infant mortality rate in Perquimans County has decreased from 15.1 in 2006-2010 to 10.6 in 2010-2014.
- Note that according to the CDC the 2013 infant mortality rate in NC was the 10th highest in the nation.

**Table 103. Total Infant Deaths
(2006-2010 through 2010-2014)**

Location	Infant Deaths									
	2006-2010		2007-2011		2008-2012		2009-2013		2010-2014	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Perquimans County	10	15.1	10	14.8	11	16.7	9	13.5	7	10.6
Total	10	15.1	10	14.8	11	16.7	9	13.5	7	10.6
White, Non-Hispanic	5	11.2	5	10.8	6	13.0	4	n/a	3	n/a
African American, Non-Hispanic	4	21.1	4	22.6	4	23.8	4	n/a	3	n/a
Other, Non-Hispanic	0	0.0	0	0.0	0	0.0	0	n/a	0	n/a
Hispanic	1	50.0	1	41.7	1	50.0	1	n/a	1	n/a
<i>Regional Average</i>										
Total	13	11.9	13	11.4	11	10.6	8	8.0	8	7.7
White, Non-Hispanic	5	8.0	5	7.5	5	7.6	3	n/a	3	n/a
African American, Non-Hispanic	7	18.3	7	18.1	6	11.1	5	n/a	4	n/a
Other, Non-Hispanic	0	7.5	0	0.0	0	0.0	0	n/a	0	n/a
Hispanic	1	33.9	1	20.6	1	21.1	0	n/a	1	n/a
Pamlico County	5	9.2	5	9.7	7	13.6	7	14.6	7	15.2
Total	5	9.2	5	9.7	7	13.6	7	14.6	7	15.2
White, Non-Hispanic	3	7.3	3	7.8	5	13.2	6	n/a	5	n/a
African American, Non-Hispanic	2	19.4	2	21.3	2	21.5	1	n/a	2	n/a
Other, Non-Hispanic	0	0.0	0	0.0	0	0.0	0	n/a	0	n/a
Hispanic	0	0.0	0	0.0	0	0.0	0	n/a	0	n/a
State of NC	5,066	7.9	4,899	7.8	4,675	7.5	4,441	7.3	4,295	7.1
Total	5,066	7.9	4,899	7.8	4,675	7.5	4,441	7.3	4,295	7.1
White, Non-Hispanic	2,074	5.9	2,001	5.7	1,918	5.6	1,850	5.4	1,811	5.4
African American, Non-Hispanic	2,208	14.7	2,129	14.3	2,064	14.0	1,967	13.6	1,858	12.9
Other, Non-Hispanic	187	6.3	188	6.2	181	5.9	178	5.7	185	5.8
Hispanic	597	5.8	581	5.8	512	5.3	446	4.8	441	4.9

Source:

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

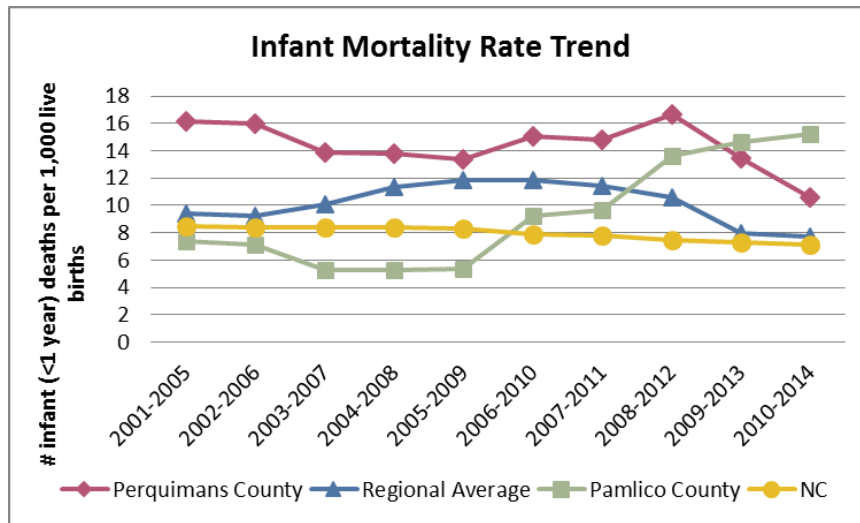
a - NC Center for Health Statistics, County-level Data, County Health Data Books (2007-2014), Mortality, Infant Death Rates per 1,000 Live Births; <http://www.schs.state.nc.us/SCHS/data/databook/>.

b - NC Center for Health Statistics, Vital Statistics, Infant Mortality Statistics (2013 and 2014). Infant Death Rates by Perinatal Care Regions and County of Residence. <http://www.schs.state.nc.us/data/vital.cfm>.

The following figure plots the infant mortality trend for a longer period than shown in the table above.

- The Perquimans County infant mortality rate was higher than the state rate throughout the period cited.
- The infant mortality rate in Perquimans County has decreased recently after a period of increase.

Figure 19. Infant Mortality Rate (2001-2005 through 2010-2014)

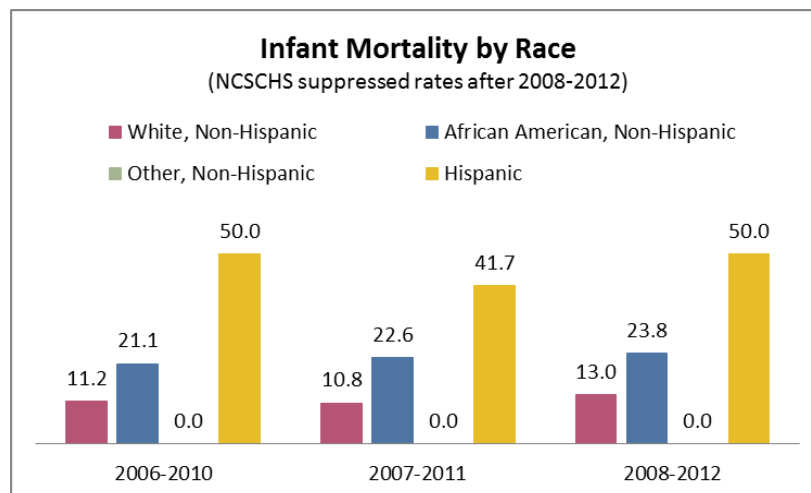


Sources: NC Center for Health Statistics, County-level Data, County Health Data Books (2007-2014), Mortality, Infant Death Rates per 1,000 Live Births; <http://www.schs.state.nc.us/SCHS/data/databook/>, and NC Center for Health Statistics, Vital Statistics, Infant Mortality Statistics (2013 and 2014). Infant Death Rates by Perinatal Care Regions and County of Residence. <http://www.schs.state.nc.us/data/vital.cfm>.

The figure below plots infant mortality rates in Perquimans County, stratified by race.

- No stable minority infant mortality rates are available for any racial group in Perquimans County; all minority rates were suppressed after 2008-2012.
- Of the seven infant deaths that occurred in Perquimans County in 2010-2014, three were white non-Hispanic, three were African American non-Hispanic, and one was Hispanic.

Figure 20. Infant Mortality Rate, Perquimans County, by Race (2006-2010 through 2008-2012)



Source: NC Center for Health Statistics, County-level Data, County Health Data Books (2012-2014), Mortality, Infant Death Rates per 1,000 Live Births; <http://www.schs.state.nc.us/SCHS/data/databook/>.

LIFE EXPECTANCY

Life expectancy is the average number of additional years that someone at a given age would be expected to live if he/she were to experience throughout life the age-specific death rates observed in a specified reference period. Life expectancies in terms of years of life remaining can be calculated for any age. Because life expectancy is an average, however, a particular person may well die many years before or many years after their "expected" survival, due to life experiences, environment, and personal genetic characteristics.

Life expectancy from birth is a frequently utilized and analyzed component of demographic data. It represents the average life span of a newborn and is considered an indicator of the overall health of a population or community.

Life expectancy rose rapidly in the twentieth century due to improvements in public health, nutrition and medicine, and continued progress in these areas can be expected to have further positive impact on life expectancy in the future. Decreases in life expectancy are also possible, influenced mostly by epidemic disease (e.g. plagues of history and AIDS in the modern era), and natural and man-made disasters. One of the most significant influences on life expectancy in populations is infant mortality, since life expectancy at birth is highly sensitive to the rate of death in the first few years of life.

The following table presents gender- and race-stratified life expectancy at birth data for comparator jurisdictions.

- Life expectancy has improved over time among all groups presented. In Perquimans County the largest increase (5.3 years) occurred among males; the smallest increase (0.7 years) occurred among African Americans.
- For persons born in 2012-2014 life expectancy among comparators was highest overall, for females and for whites in Perquimans County.

Table 104. Life Expectancy at Birth, by Gender and Race (1990-1992 and 2012-2014)

Location	Life Expectancy in Years									
	Person Born in 1990-1992					Person Born in 2012-2014				
	Overall	Male	Female	White	African-American	Overall	Male	Female	White	African-American
Perquimans County	74.6	69.8	80.2	74.8	74.3	78.6	75.1	82.5	79.9	75.0
<i>Regional Average</i>	<i>73.7</i>	<i>69.8</i>	<i>77.7</i>	<i>75.1</i>	<i>70.3</i>	<i>78.3</i>	<i>75.8</i>	<i>81.0</i>	<i>79.0</i>	<i>76.5</i>
Pamlico County	75.1	71.5	78.7	76.7	70.7	77.5	75.2	80.3	77.2	77.6
<i>State of NC</i>	<i>74.9</i>	<i>71.0</i>	<i>78.7</i>	<i>76.4</i>	<i>69.8</i>	<i>78.3</i>	<i>75.8</i>	<i>80.7</i>	<i>79.1</i>	<i>75.9</i>

Source: NC State Center for Health Statistics, County-level Data, Life Expectancy, State and County Estimates, Life Expectancy: North Carolina 1990-1992 and 2012-2014, State and County; <http://www.schs.state.nc.us/schs/data/lifexpectancy/>.

MORTALITY

Leading Causes of Death

This section describes mortality for the 15 leading causes of death, as well as mortality due to major site-specific cancers. The list of topics and the accompanying data was retrieved from the NC SCHS *County Health Databook*. Unless otherwise noted, the numerical data are age-adjusted and represent five-year aggregate periods.

The table on the following page compares mortality rates for the 15 leading causes of death in Perquimans County, the ARHS region, Pamlico County, NC and the US for the five-year aggregate period 2010-2014 (or as otherwise noted). The causes of death are listed in descending order of rank in Perquimans County.

The table directly below highlights differences in mortality for the 15 leading causes of death (LCDs) between Perquimans County and NC. LCDs for which the mortality rate in Perquimans County is *higher* than the NC rate are highlighted in **red**; county rates *lower* than the NC rate are highlighted in **green**. Rates represented in **blue** are unstable.

Table 105. Comparison of Leading Causes of Death, Perquimans County and NC (Aggregate Period 2010-2014)

Age-Adjusted Rates (2010-2014)	Perquimans County No. of Deaths	Perquimans County Mortality Rate	Perquimans Rate Difference from NC
1. Heart Diseases	198	194.5	+17.2%
2. Total Cancer	168	155.3	-9.6%
3. Cerebrovascular Disease	45	42.2	-1.9%
4. Chronic Lower Respiratory Diseases	29	26.8	-41.7%
5. All Other Unintentional Injuries	21	25.1	-15.2%
6. Alzheimer's Disease	25	23.5	-19.5%
7. Unintentional Motor Vehicle Injuries	14	19.4	+43.7%
8. Pneumonia and Influenza	17	17.0	-3.4%
9. Septicemia	13	14.5	+11.5%
10. Suicide	9	12.1	-2.4%
11. Nephritis, Nephrotic Syndrome, and Nephrosis	13	11.8	-30.4%
12. Diabetes Mellitus	12	11.0	-50.2%
13. Homicide	4	7.9	+38.6%
14. Acquired Immune Deficiency Syndrome	3	4.3	+65.4%
15. Chronic Liver Disease and Cirrhosis	4	3.5	-63.9%

Source: NC State Center for Health Statistics, County Health Data Book (see source detail at following table.)

Table 106. Overall Age-Adjusted Mortality Rates for the 15 Leading Causes of Death, Perquimans County and Comparators (Aggregate Period 2010-2014 or as Noted)¹

Cause of Death	Perquimans County			<i>Regional Average</i>			Pamlico County			State of NC			United States (2013)	
	Number	Rate	Rank	Number	Rate	Rank	Number	Rate	Rank	Number	Rate	Rank	Rate	Rank
Diseases of the Heart	198	194.5	1	235	189.9	1	173	166.6	1	86,699	165.9	2	169.8	1
Total Cancer	168	155.3	2	225	175.1	2	166	153.1	2	92,542	171.8	1	163.2	2
Cerebrovascular Disease	45	42.2	3	50	40.0	4	44	41.0	3	22,116	43.0	4	36.2	5
Chronic Lower Respiratory Disease	29	26.8	4	52	43.2	3	44	39.4	4	24,042	46.0	3	42.1	3
All Other Unintentional Injuries	21	25.1	5	29	25.3	8	31	37.2	5	14,791	29.6	5	39.4	4
Alzheimer's Disease	25	23.5	6	34	27.3	6	31	30.0	6	14,595	29.2	6	23.5	6
Unintentional Motor Vehicle Injuries	14	19.4	7	14	16.1	9	11	16.3	9	6,679	13.5	10	10.9	11
Pneumonia and Influenza	17	17.0	8	32	28.2	5	11	12.0	11	9,011	17.6	8	15.9	8
Septicemia	13	14.5	9	15	13.3	11	10	8.7	13	6,798	13.0	11	10.7	12
Suicide	9	12.1	10	11	11.4	12	13	19.7	8	6,256	12.4	12	12.6	10
Nephritis, Nephrotic Syndrome, and Nephrosis	13	11.8	11	17	14.2	10	14	14.1	10	8,813	17.0	9	13.2	9
Diabetes Mellitus	12	11.0	12	34	26.5	7	24	20.0	7	11,798	22.1	7	21.2	7
Homicide	4	7.9	13	4	4.0	14	4	7.6	14	2,728	5.7	14	5.2	14
Acquired Immune Deficiency Syndrome	3	4.3	14	3	2.8	15	3	6.1	15	1,331	2.6	15	2.1	15
Chronic Liver Disease and Cirrhosis	4	3.5	15	10	7.2	13	9	10.7	12	5,378	9.7	13	10.2	13
Total Deaths All Causes (Some causes are not listed above)	740	731.8		987	803.7		742	747.4		408,611	785.2		731.9	
Source:	a	b	c	c	c	c	a	b	c	a	a	b	d	c

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

a - NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race-Sex-Specific Age-Adjusted Death Rates by County;

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

b - NC State Center for Health Statistics, Vital Statistics, NC Vital Statistics, Volume 2: Leading Causes of Death, 2014. <http://www.schs.state.nc.us/data/vital.cfm>.

c - Calculated

d - National Center for Health Statistics, National Vital Statistics System, Mortality Data. Deaths: Final Data for 2013 Volume 64, Number 2, Tables 9 and 16.

http://www.cdc.gov/nchs/data/nvsr/nvsr64/nvsr64_02.pdf.

The overall mortality rate in Perquimans County (731.8) was 7% *lower* than the overall NC mortality rate (785.2). Individual mortality rates were *higher* in Perquimans County than statewide for 5 of the 15 leading causes of death (*note that some of the Perquimans County mortality rates were unstable*):

- Heart disease
- Unintentional motor vehicle injuries
- Septicemia
- Homicide
- Acquired immune deficiency syndrome (AIDS)

The overall mortality rate in Perquimans County was 9% *lower* than the regional average overall mortality rate (803.7). Individual mortality rates were higher in Perquimans County than region-wide for 7 of the 15 LCDs (*note that some of the Perquimans County mortality rates were unstable*):

- Heart disease
- Cerebrovascular disease (stroke)
- Unintentional motor vehicle injuries
- Septicemia
- Suicide
- Homicide
- AIDS

The overall mortality rate in Perquimans County was essentially the same as the overall US mortality rate (731.9). Individual mortality rates in Perquimans County were higher than US rates for 7 of the 15 LCDs (*note that some of the Perquimans County mortality rates were unstable*):

- Heart disease
- Cerebrovascular disease
- Unintentional motor vehicle injuries
- Pneumonia and influenza
- Septicemia
- Homicide
- AIDS

Hospital Discharges Associated with Leading Causes of Death

Below is data on *emergency department* (ED) discharges of Perquimans County residents from the five hospitals in the study region seeing more than 20 Perquimans County patients in the ED over the two years cited. The diagnoses referenced match the NC State Center for Health Statistics' ICD-9 case definitions for several Leading Causes of Death (LCD).

- The largest number of ED discharges in the table below are associated with injuries and poisoning, followed by heart disease and COPD.

Table 107. Emergency Department Discharges for Leading Causes of Death

Year	Number of Emergency Department Discharges (by SCHS ICD-9 Case Definitions for LCD)						
	Heart Disease	Total Cancer	Stroke	COPD (Bronchitis & Emphysema)	Injuries/ Poisoning	Alzheimer's Disease	Pneumonia/ Influenza
2013	94	17	41	88	1,434	0	47/51
2014	94	14	34	97	1,353	0	55/46
Total	188	31	75	185	2,787	0	102/97

The hospitals qualifying for inclusion in the table on the basis of more than 20 ED discharges over the period cited are: Vidant Bertie, Chowan and Roanoke-Chowan Hospitals, The Outer Banks Hospital, and Sentara Albemarle Medical Center.

Note that the ICD-9 category "Injury and Poisoning" is used here as a surrogate for the NC Leading Cause of Death category "All Other Unintentional Injuries". This LCD category does not include motor vehicle injury, but the ICD category does. Some leading causes of death (such as Nephritis, Nephrotic Syndrome, and Nephrosis) have been excluded from this table.

The ICD-9 Code Categories referenced are as follows: Heart disease [Rheumatic heart disease (390-398xx), Hypertensive heart disease (402xx), and All other heart disease (404-429xx)], Total cancer [All neoplasms (140-239xx)], Stroke [Cerebrovascular disease (430-438xx)], COPD [Bronchitis and emphysema (490-492xx)], Injury and poisoning [All injuries and poisonings (800-999xx)], Alzheimer's disease [Alzheimer's dementia (331.0)], and Pneumonia and influenza [Pneumonia (480—486xx), Influenza (487-488xx)].

The next table presents data on *inpatient* (IP) hospitalization discharges of Perquimans County residents from the three hospitals in the study region seeing more than 20 Perquimans County inpatients over the two years cited. Again, the diagnoses referenced match the NC State Center for Health Statistics' ICD-9 case definitions for several Leading Causes of Death. Note the addition of septicemia to this table; the associated counts refer to DRG Codes 870-872.

- The largest number of IP discharges in the table below are associated with heart disease, followed by injury and poisoning and septicemia.

Table 108. Inpatient Hospitalization Discharges for Leading Causes of Death

Year	Number of Inpatient Hospitalization Discharges (by SCHS ICD-9 Case Definitions for LCD)							
	Heart Disease	Total Cancer	Stroke	COPD (Bronchitis & Emphysema)	Injuries/ Poisoning	Alzheimer's Disease	Pneumonia/ Influenza	Septicemia
2013	159	18	40	45	59	0	35/0	59
2014	152	19	36	51	55	0	34/0	43
Total	311	37	76	96	114	0	69/0	102

The hospitals qualifying for inclusion in the table on the basis of more than 20 IP discharges over the period cited are: Vidant Chowan and Roanoke-Chowan Hospitals and Sentara Albemarle Medical Center.

Gender Disparities in Leading Causes of Death

In the past, NC CHAs have demonstrated some significant differences in mortality rates between men and women. The following table compares gender stratified rates for the 15 leading causes of death in Perquimans County and its comparator jurisdictions. The usefulness of the table is hampered somewhat by numerous suppressed rates.

In Perquimans County the overall mortality rate for males (946.7) was 71% higher than the overall mortality rate for females (553.1).

In Perquimans County, mortality rates for males were *higher* than comparable rates for females for:

- Heart disease (by 91%)
- Total cancer (by 63%)
- Cerebrovascular disease (stroke) (by 12%)

These local figures reiterate a long-term, statewide trend: males suffer mortality disproportionately. In NC as a whole, mortality rates for males traditionally have been higher than comparable rates for females for every leading cause of death except Alzheimer's disease. Statewide in the 2010-2014 period the overall mortality rate for males (931.0) was 39% higher than the overall mortality rate for females (669.6).

Table 109. Sex-Specific Age-Adjusted Death Rates for the 15 Leading Causes of Death, Perquimans County and Comparators (Aggregate Period 2010-2014)

Cause of Death	Perquimans County				Pamlico County Rate		Regional Average Rate		State of NC Rate	
	Males		Females		Males	Females	Males	Females	Males	Females
	Number	Rate	Number	Rate						
Diseases of the Heart	117	263.6	81	137.7	206.6	129.3	240.3	148.6	212.3	130.4
Total Cancer	97	195.4	71	119.9	191.0	121.6	218.0	143.4	214.4	142.1
Cerebrovascular Disease	21	45.5	24	40.5	39.6	37.5	67.3	36.7	26.4	18.7
Chronic Lower Respiratory Disease	16	n/a	13	n/a	n/a	56.0	47.1	43.0	43.6	41.7
All Other Unintentional Injuries	17	n/a	4	n/a	n/a	n/a	88.3	61.2	22.9	32.5
Alzheimer's Disease	11	n/a	14	n/a	n/a	39.7	31.4	35.1	39.1	21.4
Unintentional Motor Vehicle Injuries	9	n/a	5	n/a	n/a	n/a	54.1	36.6	52.3	42.2
Pneumonia and Influenza	9	n/a	8	n/a	n/a	n/a	41.4	31.2	20.6	14.6
Septicemia	4	n/a	9	n/a	n/a	n/a	n/a	n/a	20.0	7.5
Suicide	7	n/a	2	n/a	56.6	n/a	n/a	n/a	20.2	15.9
Nephritis, Nephrotic Syndrome, and Nephrosis	7	n/a	6	n/a	n/a	n/a	n/a	n/a	13.4	6.5
Diabetes Mellitus	8	n/a	4	n/a	n/a	n/a	30.7	n/a	14.5	12.0
Homicide	4	n/a	0	n/a	n/a	n/a	n/a	n/a	19.7	5.9
Acquired Immune Deficiency Syndrome	1	n/a	2	n/a	n/a	n/a	n/a	n/a	3.7	1.5
Chronic Liver Disease and Cirrhosis	4	n/a	0	n/a	n/a	n/a	n/a	n/a	9.0	2.4
Total Deaths All Causes	420	946.7	320	553.1	850.4	639.6	962.2	676.1	931.0	669.6

Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases. Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Racial Disparities in Leading Causes of Death

Because of below-threshold numbers of deaths during the period, 2010-2014, age-adjusted racially-stratified mortality rates for Perquimans County are available only for white and African American non-Hispanics, and for only two causes of death.

According to data in the table below:

- In Perquimans County the overall mortality rate for African American non-Hispanics (921.9) was approximately 36% *higher* than the overall mortality rate for white non-Hispanics (676.6).
- In Perquimans County individual mortality rates were *higher* for African American non-Hispanics than for white non-Hispanics for heart disease (by 33%) and for total cancer (by 24%). All other rates for minorities were suppressed.

Racial differences in mortality will be described in detail as each cause of death is discussed separately in subsequent sections of this report.

Table 110. Race-Specific Age-Adjusted Death Rates for the 15 Leading Causes of Death, Perquimans County (Aggregate Period 2010-2014)

Cause of Death	Perquimans County											
	White, non-Hispanic		African-American, non-Hispanic		American Indian, non-Hispanic		Other Races, non-Hispanic		Hispanic		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Diseases of the Heart	149	183.1	47	243.2	0	n/a	0	n/a	2	n/a	198	194.5
Total Cancer	128	146.6	39	181.3	0	n/a	1	n/a	0	n/a	168	155.3
Cerebrovascular Disease	35	38.5	9	n/a	0	n/a	1	n/a	0	n/a	45	42.2
Chronic Lower Respiratory Disease	23	26.8	5	n/a	1	n/a	0	n/a	0	n/a	29	26.8
All Other Unintentional Injuries	20	33.0	1	n/a	0	n/a	0	n/a	0	n/a	21	25.1
Alzheimer's Disease	16	n/a	9	n/a	0	n/a	0	n/a	0	n/a	25	23.5
Unintentional Motor Vehicle Injuries	11	n/a	3	n/a	0	n/a	0	n/a	0	n/a	14	19.4
Pneumonia and Influenza	14	n/a	2	n/a	0	n/a	0	n/a	1	n/a	17	17.0
Septicemia	9	n/a	4	n/a	0	n/a	0	n/a	0	n/a	13	14.5
Suicide	8	n/a	1	n/a	0	n/a	0	n/a	0	n/a	9	12.1
Nephritis, Nephrotic Syndrome, and Nephrosis	8	n/a	5	n/a	0	n/a	0	n/a	0	n/a	13	11.8
Diabetes Mellitus	7	n/a	5	n/a	0	n/a	0	n/a	0	n/a	12	11.0
Homicide	1	n/a	3	n/a	0	n/a	0	n/a	0	n/a	4	7.9
Acquired Immune Deficiency Syndrome	0	n/a	3	n/a	0	n/a	0	n/a	0	n/a	3	4.3
Chronic Liver Disease and Cirrhosis	3	n/a	1	n/a	0	n/a	0	n/a	0	n/a	4	3.5
Total Deaths All Causes	550	676.6	181	921.9	2	n/a	3	n/a	4	n/a	740	731.8

Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
 Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Age Disparities in Leading Causes of Death

Each age group tends to have its own leading causes of death. The following table lists the three leading causes of death by age group for the five-year aggregate period from 2010-2014. (Note that for this purpose it is important to use *non-age adjusted* death rates.)

The leading cause(s) of death in each of the age groups in Perquimans County were:

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

It is notable that in Perquimans County heart disease and homicide ranked among the leading causes of death in the 20-39 age group, and that cerebrovascular disease (stroke) was a leading cause of death in the 40-64 age group.

Table 111. Three Leading Causes of Death by Age Group, by Unadjusted Death Rates, Perquimans County and Comparators (Aggregate Period 2010-2014)

Age Group	Rank	Cause of Death		
		Perquimans	Pamlico County	State of NC
00-19	1	Conditions originating in the perinatal period	Conditions originating in the perinatal period	Conditions originating in the perinatal period
	2	Other unintentional injuries	<i>Suicide</i>	Congenital anomalies (birth defects)
	3	<i>Motor vehicle injuries</i>	<i>HIV Disease</i>	Motor vehicle injuries
		<i>Homicide</i>	<i>Congenital anomalies (birth defects)</i>	
			<i>Homicide</i>	
20-39	1	Diseases of the heart	Other unintentional injuries	Other unintentional injuries
		Motor vehicle injuries		
	2	<i>Homicide</i>	<i>Diseases of the heart</i>	Motor vehicle injuries
			<i>Suicide</i>	
	3	<i>Other unintentional injuries</i>	<i>Homicide</i>	Suicide
40-64	1	Cancer-all sites	Cancer - all sites	Cancer - all sites
	2	Diseases of the heart	Diseases of the heart	Diseases of the heart
	3	Cerebrovascular disease	Diabetes mellitus	Other unintentional injuries
			Motor vehicle injuries	
			Other unintentional injuries	
65-84	1	Cancer-all sites	Cancer - all sites	Cancer - all sites
	2	Diseases of the heart	Diseases of the heart	Diseases of the heart
	3	Chronic lower respiratory diseases	Cerebrovascular disease	Chronic lower respiratory diseases
85+	1	Diseases of the heart	Diseases of the heart	Diseases of the heart
	2	Cancer-all sites	Cancer - all sites	Cancer - all sites

Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, Death Counts and Crude Death Rates per 100,000 for Leading Causes of Death, by Age Groups, NC, 2010-2014; <http://www.schs.state.nc.us/SCHS/data/databook/>.

The next table summarizes changes in the leading causes of death between the last CHA (2007-2011 aggregate period) and the present CHNA (2010-2014 aggregate period), an interval of three years.

- In Perquimans County, mortality rates **decreased** for **6 of the 15** leading causes of death between the last CHA and the present effort. The county mortality rate **increased** for **8 of the 15** leading causes of death, and the mortality rate for pneumonia and

influenza was essentially unchanged. (Note that some of the rates and corresponding rate differences should be deemed unstable, as indicated by blue type.)

Table 112. Short-Term Changes in Leading Causes of Death, Perquimans County (Between 2007-2011 and 2010-2014)

Perquimans County Rank by Descending Overall Age-Adjusted Rate (2010-2014)	Rate in 2007-2011	Rate in 2010-2014	Percent Difference
1. Heart Disease	196.8	194.5	-1.2%
2. Total Cancer	188.1	155.3	-17.4%
3. Cerebrovascular Disease	38.0	42.2	+11.1%
4. Chronic Lower Respiratory Disease	25.3	26.8	+5.9%
5. All Other Unintentional Injuries	24.6	25.1	+2.0%
6. Alzheimer's Disease	26.6	23.5	-11.7%
7. Unintentional Motor Vehicle Injuries	8.5	19.4	+128.2%
8. Pneumonia and Influenza	17.0	17.0	No change
9. Septicemia	12.5	14.5	+16.0%
10. Suicide	6.4	12.1	+89.1%
11. Nephritis, Nephrotic Syndrome, and Nephrosis	16.3	11.8	-27.6%
12. Diabetes Mellitus	15.2	11.0	-27.6%
13. Homicide	3.9	7.9	+102.6%
14. Acquired Immune Deficiency Syndrome	1.4	4.3	+207.1%
15. Chronic Liver Disease and Cirrhosis	6.4	3.5	-45.3%

Source: Sheila S. Pfaender, Public Health Consultant, via data from the NC State Center for Health Statistics, County Health Data Books.

The table below follows the same format to summarize the *long-term* change in leading causes of death. The data described in this table covers aggregate periods beginning in 2000-2004 and continuing through 2010-2014. The table displays a directional arrow for each cause of death. Each of these *overall trend direction* arrows describes the direction of the overall slope of the regression line calculated by MS Excel from the mortality rate data for each cause of death. The arrows are describing mortality rate changes: a **red/upward arrow** signifies an increasing rate trend, and a **green/downward arrow** signifies a decreasing rate trend.

- Over the 11-year period cited, Perquimans County mortality rates **decreased** overall for **10 of the 15** leading causes of death: Meanwhile, county mortality rates **increased** for **5 of the 15** LCDs: all other unintentional injuries, Alzheimer's Disease, septicemia, kidney diseases, and homicide.

**Table 113. Long-Term Changes in Leading Causes of Death, Perquimans County
(Between 2000-2004 and 2010-2014)**

Perquimans County Rank by Descending Overall Age-Adjusted Rate (2010-2014)	Overall Trend Direction <i>(determined by Excel trendline)</i>
1. Heart Disease	▼
2. Total Cancer	▼
3. Cerebrovascular Disease	▼
4. Chronic Lower Respiratory Disease	▼
5. All Other Unintentional Injuries	▲
6. Alzheimer's Disease	▲
7. Unintentional Motor Vehicle Injuries	▼
8. Pneumonia and Influenza	▼
9. Septicemia	▲
10. Suicide	▼
11. Nephritis, Nephrotic Syndrome, and Nephrosis	▲
12. Diabetes Mellitus	▼
13. Homicide	▲
14. Acquired Immune Deficiency Syndrome	▼
15. Chronic Liver Disease and Cirrhosis	▼

Source: Sheila S. Pfaender, Public Health Consultant, via data from the NC State Center for Health Statistics, County Health Data Books.

Differences in mortality statistics will be covered as each cause of death is discussed separately below, in the order of highest Perquimans County rank to lowest, beginning with heart disease. It is important to emphasize once more that because of below-threshold numbers of deaths there will be no stable county rates for some causes of death, especially among racially stratified groups. Some unstable data will be presented in this document, but always accompanied by cautions regarding its use.

*While data from participating NC hospitals will be cited frequently in this section, it should be noted that those hospitals may **not** serve all Perquimans County residents; some may have sought care in non-participating southern tier Virginia hospitals.*

Note that all health data--however briefly it may be referenced in subsequent sections of this report--is available in detailed format in one or more of the following supporting document files: the 2016 Perquimans County Health Data Workbook, the 2016 Perquimans County CHA Presentation, or the 2016 Perquimans County Hospital Data Summary Workbook.

Diseases of the Heart

Heart disease is an abnormal organic condition of the heart or of the heart and circulation. Heart disease is the number one killer in the US and a major cause of disability. The most common cause of heart disease, coronary artery disease, is a narrowing or blockage of the coronary arteries, the blood vessels that supply blood to the heart itself. Coronary artery disease is the major reason people have heart attacks, but other kinds of heart problems may originate in the valves in the heart, or the heart may not pump well and cause heart failure (59).

Heart disease was the leading cause of death in Perquimans County in the 2010-2014 period (cited previously).

Heart Disease Hospitalizations

The table below presents inpatient hospital discharge rate trend data for several years. According to this data from NC SCHS, heart disease has been cause for high rates of inpatient hospitalization among Perquimans County residents, in all years at a rate significantly higher than the comparable state and regional averages.

Table 114. Heart Disease Hospital Discharge Rate Trend (2005-2014)

Location	Rate (Discharges per 1,000 Population)									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Perquimans County	15.2	14.5	12.7	14.3	12.8	12.0	12.0	15.2	14.9	15.3
<i>Regional Average</i>	11.4	11.9	11.1	10.6	9.7	9.7	9.9	11.1	10.8	11.1
Pamlico County	16.5	16.3	15.6	16.2	14.1	15.5	12.4	13.5	12.8	13.1
<i>State of NC</i>	13.1	12.7	12.2	11.8	11.4	11.3	10.9	10.7	10.3	10.1

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2016), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; <http://www.schs.state.nc.us/SCHS/data/databook/>.

The table below presents data on 2013 and 2014 hospital discharges at qualifying area hospitals for Perquimans County residents with diagnoses of chronic rheumatic heart disease (ICD-9 Codes 393-398), hypertensive heart disease (ICD-9 Code 402), and other forms of heart disease (ICD-9 Codes 420-429). Note that while significant, these categories do *not* include all forms of heart disease.

- Over the period cited, 1.3% of all ED discharges and 14.9% of all IP discharges of Perquimans County residents at qualifying hospitals involved a primary diagnosis of heart disease.

Table 115. Hospital Discharges, Perquimans County Residents: Heart Disease (2013-2014)

Service	Number and Percent of All Discharges					
	2013		2014		Total	
	#	%	#	%	#	%
ED	94	1.3	94	1.3	188	1.3
IP	159	14.9	152	14.8	311	14.9

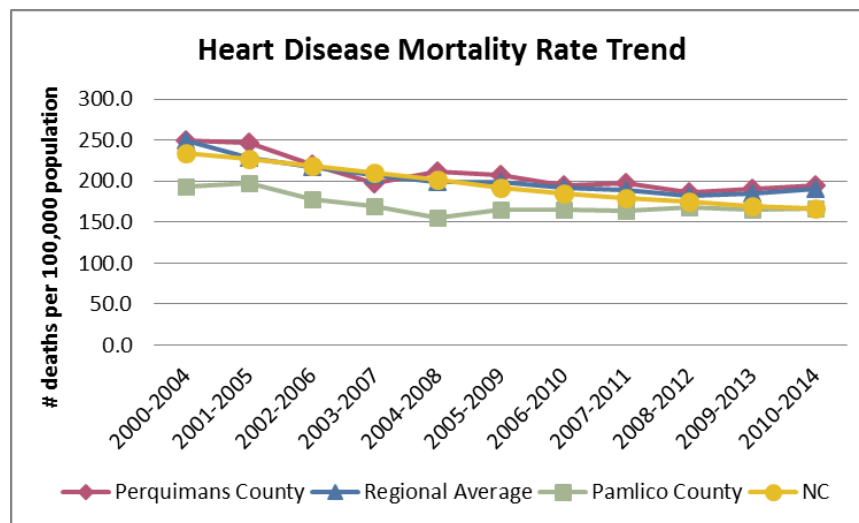
The hospitals qualifying for inclusion on the basis of more than 20 ED discharges over the period cited were: Vidant Bertie, Chowan and Roanoke-Chowan Hospitals, The Outer Banks Hospital, and Sentara Albemarle Medical Center. The hospitals qualifying on the basis of more than 20 IP discharges over the period cited are: Vidant Chowan and Roanoke-Chowan Hospitals and Sentara Albemarle Medical Center.

Heart Disease Mortality Rate Trend

The figure below displays the heart disease mortality rate trend over time.

- The heart disease mortality rate fell in all four jurisdictions over the period cited. The heart disease mortality rate for Perquimans County fell by 22% overall (from 249.4 to 194.5) between 2002-2004 and 2010-2014. At the state level, the heart disease mortality rate fell 29% overall in the same period.

Figure 21. Overall Heart Disease Mortality Rate Trend (Aggregate Periods 2000-2004 through 2010-2014)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2016), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Racial Disparities in Heart Disease Mortality

The following table presents heart disease mortality data for 2010-2014, stratified by race.

- Due to below-threshold numbers of heart disease deaths among some minority populations at the county-level, mortality rates were suppressed for these groups.
- In Perquimans County the heart disease mortality rate among African American non-Hispanics (243.2) was 33% *higher* than the comparable rate among white non-Hispanics (183.1).

Table 116. Race/Ethnicity-Specific Heart Disease Mortality (Aggregate Period 2010-2014)

Location	Deaths, Number and Rate (Deaths per 100,000 Population)											
	White, Non-Hispanic		African American, Non-Hispanic		American Indian, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Perquimans County	149	183.1	47	243.2	0	n/a	0	n/a	2	n/a	198	194.5
Regional Average	159	188.7	74	229.8	0	n/a	1	n/a	1	n/a	235	189.9
Pamlico County	128	158.7	43	205.2	1	n/a	1	n/a	0	n/a	173	166.6
State of NC	67,699	163.8	17,190	190.0	863	190.4	397	70.5	550	52.7	86,699	165.9

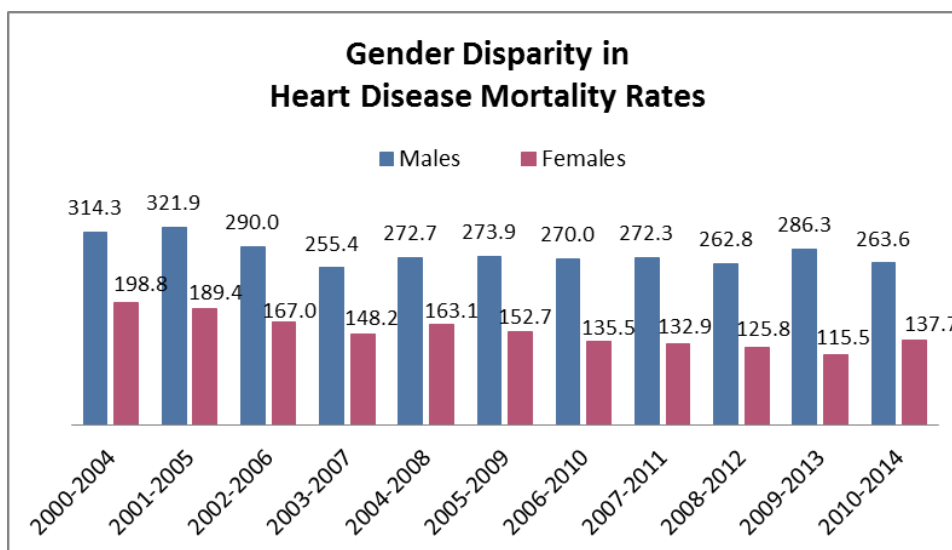
Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases. Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Gender Disparities in Heart Disease Mortality

The figure below presents gender-stratified heart disease mortality rates in Perquimans County for the aggregate periods 2000-2004 through 2010-2014.

- It appears that there is a long-standing gender difference in heart disease mortality in Perquimans County. The mortality rate among males was higher than the mortality rate among females in every aggregate period cited.
- The heart disease mortality rate among both men and women in Perquimans County has decreased overall since 2000-2004.

Figure 22. Sex-Specific Heart Disease Mortality Rate Trend, Perquimans County (Aggregate Periods 2000-2004 through 2010-2014)



Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2006-2016), Mortality, NC Resident Race-Specific and Sex-Specific Age-Adjusted Death Rates, by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Cancer

Cancer is a term for diseases in which abnormal cells divide without control and can invade nearby tissues. Cancer cells also can spread to other parts of the body through the blood and lymph systems. If the disease remains unchecked, it can result in death (60).

Total Cancer

Total cancer (cancers of all types) was the second-leading cause of death in Perquimans County in the 2010-2014 period (cited previously).

Malignant Neoplasm Hospitalizations

The table below presents the inpatient hospital discharge rate trend for malignant neoplasms.

- The malignant neoplasm discharge rate in Perquimans County was higher than the regional rate comparators in every year cited. The county rate was higher than the comparable state rate in from 2005 through 2009. Statewide, hospitalizations for this diagnosis decreased over time; there was a similar pattern in Perquimans County.

Table 117. All Malignant Neoplasms Hospital Discharge Rate Trend (2005-2014)

Location	Rate (Discharges per 1,000 Population)									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Perquimans County	4.8	4.3	5.3	3.7	3.8	3.3	2.7	2.7	2.5	2.5
<i>Regional Average</i>	3.6	3.4	3.5	2.9	2.9	2.4	2.4	2.4	2.2	2.4
Pamlico County	6.2	5.3	5.5	6.0	5.2	3.6	3.8	4.4	3.2	3.5
State of NC	3.9	3.9	3.9	3.6	3.4	3.3	3.2	3.0	2.9	2.8

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2016), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; <http://www.schs.state.nc.us/SCHS/data/databook/>.

The table below presents data on 2013 and 2014 hospital discharges at qualifying area hospitals for Perquimans County residents with diagnoses of neoplasm (ICD-9 Codes 140-239).

- Over the period cited, 0.2% of all ED discharges and 1.8% of all IP discharges of Perquimans County residents at qualifying hospitals involved a primary diagnosis of neoplasm (cancer).

Table 118. Hospital Discharges, Perquimans County Residents: All Malignant Neoplasms (2013-2014)

Service	Number and Percent of All Discharges					
	2013		2014		Total	
	#	%	#	%	#	%
ED	17	0.2	14	0.2	31	0.2
IP	18	1.7	19	1.9	37	1.8

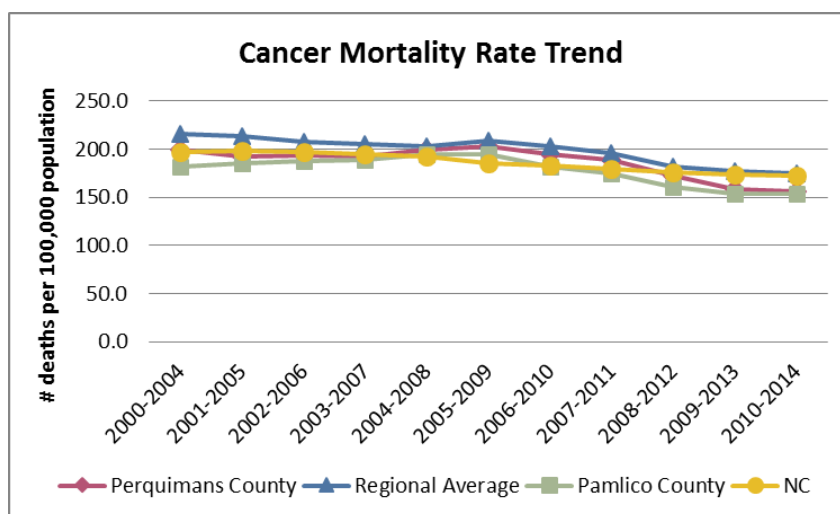
The hospitals qualifying for inclusion on the basis of more than 20 ED discharges over the period cited were: Vidant Bertie, Chowan and Roanoke-Chowan Hospitals, The Outer Banks Hospital, and Sentara Albemarle Medical Center. The hospitals qualifying on the basis of more than 20 IP discharges over the period cited are: Vidant Chowan and Roanoke-Chowan Hospitals and Sentara Albemarle Medical Center.

Total Cancer Mortality Rate Trend

The figure below displays total cancer mortality rate trend over time.

- Throughout much of the period cited the total cancer mortality rate in Perquimans County was always lower than the comparable rate for the region and sometimes for the state as well.
- The total cancer mortality rate for Perquimans County fell by 22% overall (from 198.7 to 155.3) between 2000-2004 and 2010-2014. At the state level, the total cancer mortality rate fell 13% overall in the same period.

Figure 23. Overall Total Cancer Mortality Rate Trend (Aggregate Periods 2000-2004 through 2010-2014)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2016), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Racial Disparities in Total Cancer Mortality

The next table presents total cancer mortality data stratified by race.

- Due to below-threshold numbers of total cancer deaths among some minority populations at the county-level, mortality rates were suppressed for these groups.
- In Perquimans County the total cancer mortality rate among African American non-Hispanics (181.3) was 24% *higher* than the comparable rate among white non-Hispanics (146.6).

Table 119. Race/Ethnicity-Specific Total Cancer Mortality (Aggregate Period 2010-2014)

Location	Deaths, Number and Rate (Deaths per 100,000 Population)											
	White, Non-Hispanic		African American, Non-Hispanic		American Indian, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Perquimans County	128	146.6	39	181.3	0	n/a	1	n/a	0	n/a	168	155.3
Regional Average	156	174.2	68	187.6	0	n/a	0	n/a	1	n/a	225	175.1
Pamlico County	141	165.7	25	122.0	0	n/a	0	n/a	0	n/a	166	153.1
State of NC	71,216	169.9	18,985	199.4	798	159.7	681	97.8	862	67.1	92,542	171.8

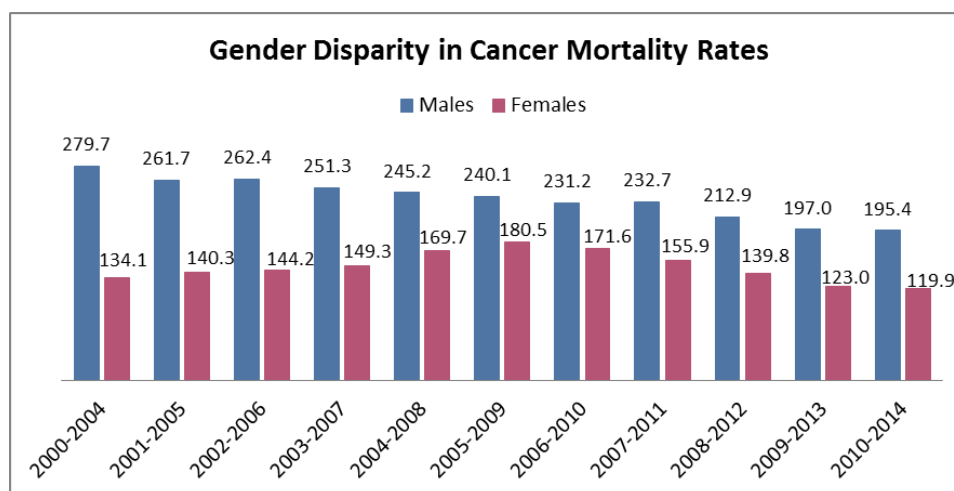
Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases. Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Gender Disparities in Total Cancer Mortality

The table below depicts gender-stratified total cancer mortality rates in Perquimans County for the aggregate periods 2000-2004 through 2010-2014.

- It appears that there is a long-standing gender difference in total cancer mortality in Perquimans County, where the mortality rate among males has been consistently higher than the mortality rate among females.
- The total cancer mortality rates for both males and females have decreased over the period cited although the rates for females increased in the middle of the total period cited.

Figure 24. Sex-Specific Total Cancer Mortality Rate Trend, Perquimans County (Aggregate Periods 2000-2004 through 2010-2014)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2016), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Total Cancer Incidence

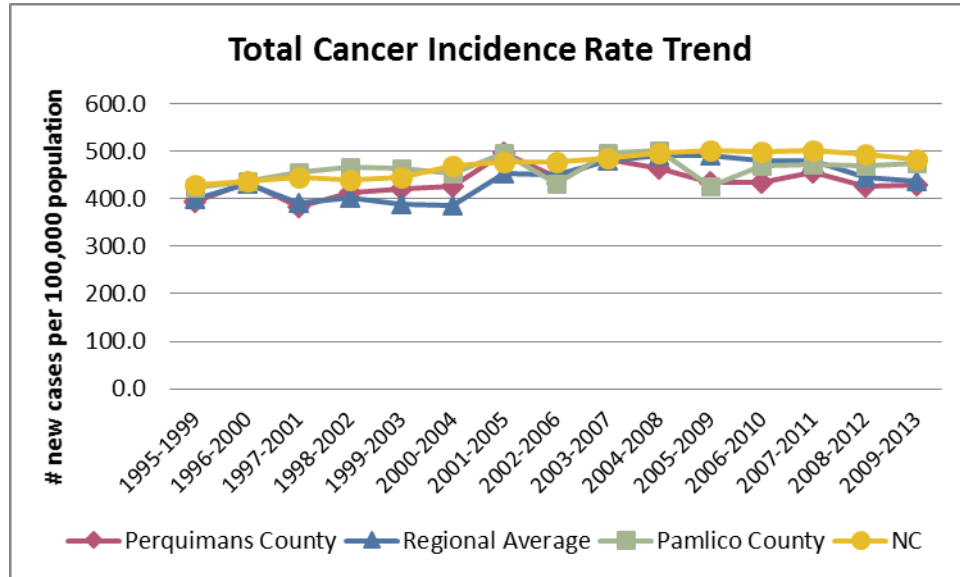
Since total cancer is a significant cause of death, it is useful to examine patterns in the development of new cases. The statistic important to understanding the growth of a health problem is *incidence*, the population-based rate at which new cases of a disease occur and are diagnosed (methodology for which was described previously). Cancer incidence rates used in this report were obtained from the NC Cancer Registry, which collects data on newly diagnosed cases from NC clinics and hospitals as well as on NC residents whose cancers were diagnosed at medical facilities in bordering states.

The following figure plots the incidence rate trend for total cancer.

- The total cancer incidence rate in Perquimans County fluctuated over time, increasing until 2001-2005, after which it decreased gradually, but not enough to overcome the increases. An irregular pattern of incidence such as that noted in Perquimans County raises questions about the possible effect of periodic cancer screening initiatives.
- The county incidence rate *increased* by 9% overall (from 392.7 to 427.6) over the entire time period cited.

- The total cancer incidence rate region-wide *increased* 9% over the same time period, from 398.8 to 435.5.
- The total cancer incidence rate for the state of NC increased gradually over the period cited, and was 13% higher in 2009-2013 (483.4) than in 1995-1999 (429.4).

**Figure 25. Overall Total Cancer Incidence Rate Trend
(Aggregate Periods 1995-1999 through 2009-2013)**



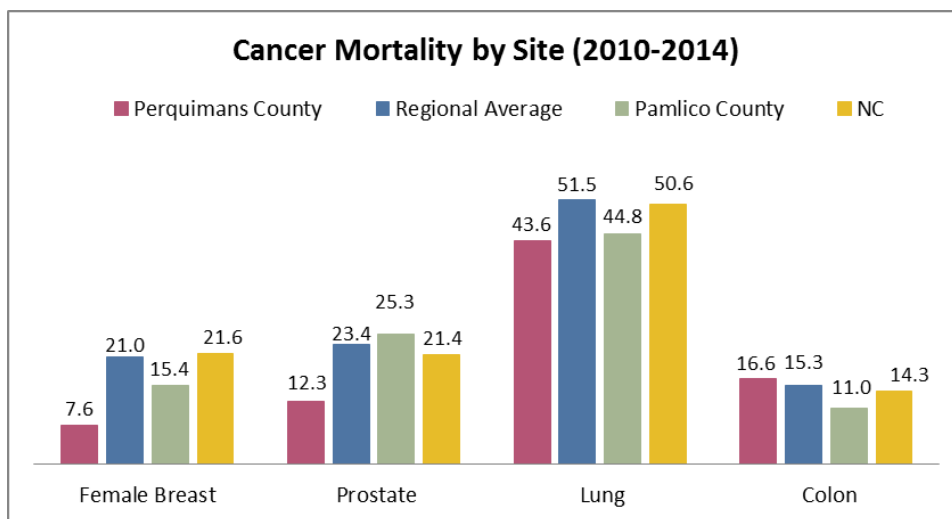
Source: NC State Center for Health Statistics, Health Data, Cancer, Cancer Data Available from SCHS, Annual Reports, NC Cancer Incidence Rates for All Counties by Specified Site (Years as noted); <http://www.schs.state.us.nc/SCHS/CCR/reports.html>.

To this point the discussions of cancer mortality and incidence have focused on figures for total cancer. In Perquimans County, as throughout the state of NC, there are four (or five) site-specific cancers that cause most cancer deaths: breast cancer, colon cancer, lung cancer, prostate cancer, and, sometimes, pancreas cancer. It should be noted that males also can have breast cancer, but since the number of cases tends to be small, the mortality rates for breast cancer (and prostate cancer) used here are gender-specific.

The following two figures present age-adjusted *mortality rate* data and *incidence rate* data for the four major site-specific cancers for the most recent aggregate periods.

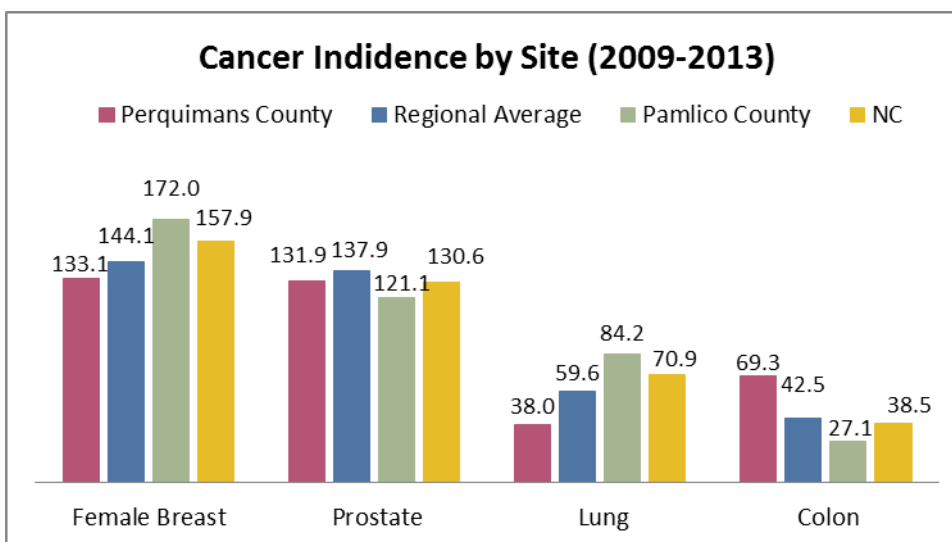
- In Perquimans County, in 2010-2014 the site-specific cancer with the highest *mortality rate* was lung cancer, followed by colon cancer, prostate cancer, and female breast cancer.
- In Perquimans County, in 2009-2013 the site specific cancer with the highest *incidence rate* was female breast cancer, followed closely by prostate cancer, then colon cancer and lung cancer.

Figure 26. Mortality Rates for Four Major Site-Specific Cancers (Aggregate Period, 2010-2014)



Source: NC State Center for Health Statistics, County-level Data, County Health Data Book (2016). 2010-2014 NC Resident Race/Ethnicity and Sex-Specific Age-Adjusted Death Rates (counties and cancer sites as indicated); <http://www.schs.state.nc.us/schs/data/databook/>.

Figure 27. Incidence Rates for Four Major Site-Specific Cancers (Aggregate Period 2009-2013)



Source: NC State Center for Health Statistics, Cancer Data, Annual Reports. NC Cancer Incidence Rates 2009-2013, All Counties by Specified Site. http://www.schs.state.nc.us/data/cancer/incidence_rates.htm.

Multi-year mortality and incidence rate trends for these site-specific cancers will be presented subsequently, as each cancer type is discussed separately. The cancer topics are presented in decreasing order of site-specific cancer mortality rates in Perquimans County: lung cancer, colon cancer, prostate cancer, and female breast cancer.

Lung Cancer

The category of cancer referred to as lung cancer traditionally *also* includes cancers of the trachea and bronchus.

Lung, Trachea and Bronchus Cancer Hospitalizations

The table below summarizes hospital discharge rate data for malignant trachea, bronchus and lung neoplasms. Note that only inpatient data from the NC State Center for Health Statistics is used here; local hospital data revealed too few cases to report. Note that the hospital discharge rates for lung cancer in Perquimans County and Pamlico County were unstable throughout much of the period cited. The state rate fell 33% over the period 2005 through 2014.

Table 120. Malignant Trachea, Bronchus, Lung Neoplasms Hospital Discharge Rate Trend (2005-2014)

Location	Rate (Discharges per 1,000 Population)									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Perquimans County	0.4	0.4	1.5	0.8	0.8	1.0	0.6	0.6	0.2	0.5
<i>Regional Average</i>	0.5	0.5	0.7	0.5	0.4	0.5	0.4	0.5	0.3	0.5
Pamlico County	0.4	0.6	1.5	0.7	1.2	0.5	0.7	1.2	0.5	0.8
State of NC	0.6	0.6	0.6	0.5	0.5	0.5	0.4	0.4	0.4	0.4

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

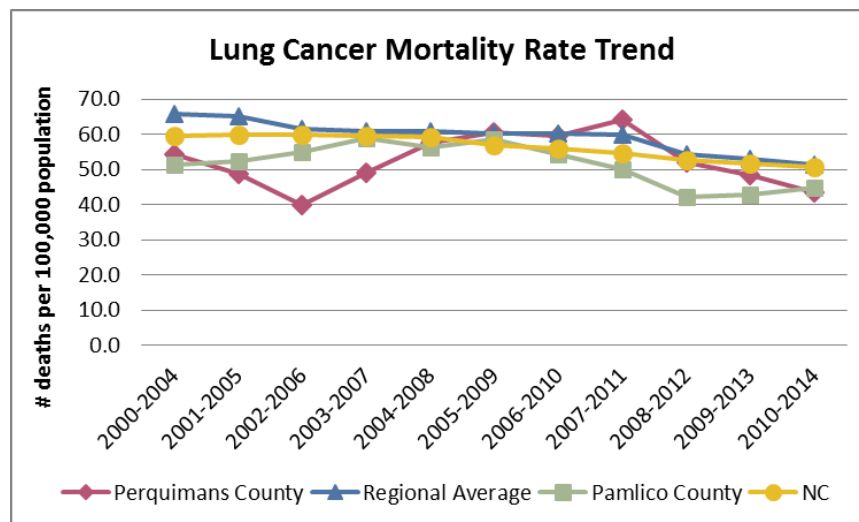
Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2016), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Lung Cancer Mortality Rate Trend

The following figure plots the lung cancer mortality rate trend over time.

- Lung cancer mortality rates fell overall in all jurisdictions shown. The lung cancer mortality rate for Perquimans County decreased by 20% overall (from 54.3 to 43.6) between 2002-2004 and 2010-2014; the decrease at the state level was 15%.

Figure 28. Overall Lung Cancer Mortality Rate Trend (Aggregate Periods 2000-2004 through 2010-2014)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2016), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Racial Disparities in Lung Cancer Mortality

The following table presents lung cancer mortality data for the 2010-2014 aggregate period, stratified by race.

- Due to below-threshold numbers of lung cancer deaths among minority populations at the county-level, mortality rates were suppressed for these groups.
- Statewide the lung cancer mortality rate was highest among American Indian non-Hispanics, followed by white non-Hispanics and African American non-Hispanics.

Table 121. Race/Ethnicity-Specific Lung Cancer Mortality (Aggregate Period 2010-2014)

Location	Deaths, Number and Rate (Deaths per 100,000 Population)											
	White, Non-Hispanic		African American, Non-Hispanic		American Indian, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Perquimans County	41	44.7	8	n/a	0	n/a	0	n/a	0	n/a	49	43.6
Regional Average	51	59.4	17	44.2	0	n/a	0	n/a	0	n/a	67	51.5
Pamlico County	46	53.3	3	n/a	0	n/a	0	n/a	0	n/a	49	44.8
State of NC	22,161	52.0	4,888	50.9	273.0	53.0	157	22.7	112	10.3	27,591	50.6

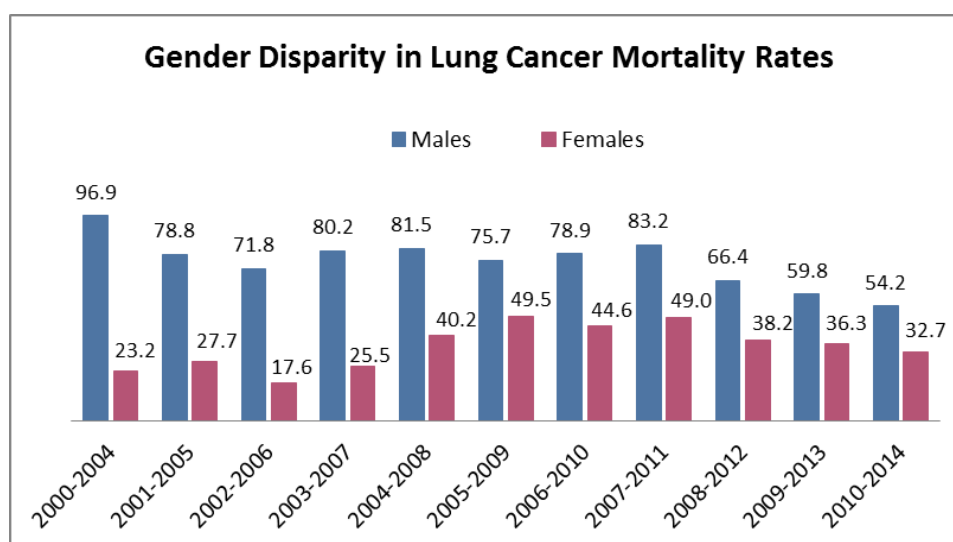
Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
 Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Gender Disparities in Lung Cancer Mortality

The following figure plots gender-stratified lung cancer mortality rates in Perquimans County for the aggregate periods 2000-2004 through 2010-2014.

- The lung cancer mortality rate for Perquimans County males traditionally has been much higher than the comparable rate for females. The rate for males has fallen significantly.
- All lung cancer mortality rates presented for Perquimans County males were stable; the comparable rates for females were unstable in the first four aggregate periods only.

Figure 29. Sex-Specific Lung Cancer Mortality Rate Trend, Perquimans County (Aggregate Periods 2000-2004 through 2010-2014)



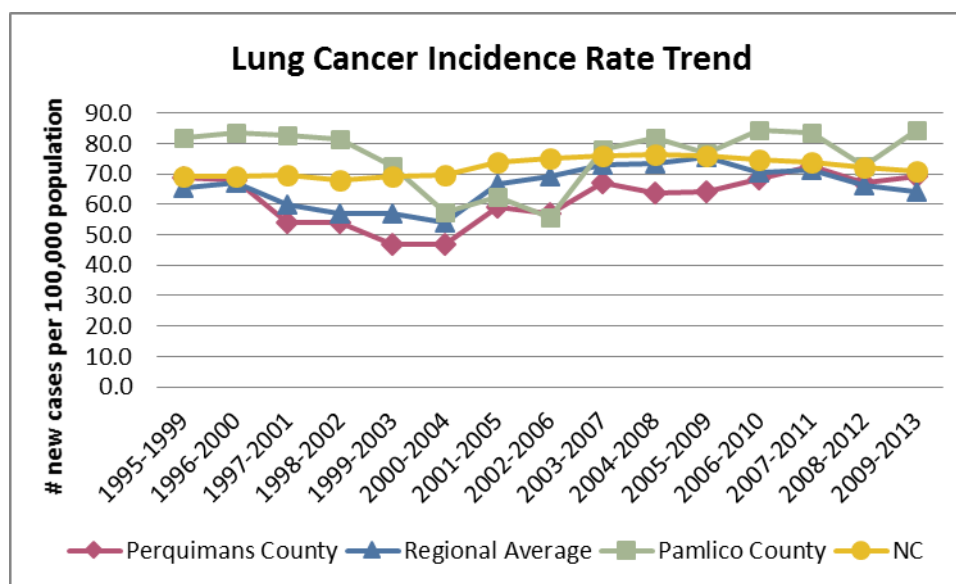
Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2006-2016), Mortality, NC Resident Race-Specific and Sex-Specific Age-Adjusted Death Rates, by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Lung Cancer Incidence

The following figure plots the incidence rate trend for lung cancer.

- Following a period of decrease, the lung cancer incidence rate in Perquimans County increased again through the latest aggregate period. The lung cancer incidence rate in the county increased overall by less than 1% between 1995-1999 and 2009-2013.
- Sometimes increases in incidence are noted after major screening campaigns. It is not known whether or not increased screening activity played a role in the lung cancer incidence changes in Perquimans County, especially since screenings for breast, prostate and colon cancer are more common than screenings for lung cancer.

**Figure 30. Lung Cancer Incidence Rate Trend
(Aggregate Periods 1995-1999 through 2009-2013)**



Source: NC State Center for Health Statistics, Health Data, Cancer, Cancer Data Available from SCHS, Annual Reports, NC Cancer Incidence Rates for All Counties by Specified Site (Years as noted); <http://www.schs.state.us.nc/SCHS/CCR/reports.html>.

Colon Cancer

The category of cancer referred to as colon cancer (sometimes referred to as *colorectal cancer*) traditionally *also* includes cancers of the rectum and anus.

Colon Cancer Hospitalizations

The table below summarizes hospital discharge rate data for malignant neoplasms of the colon, rectum and anus. Note that only inpatient data from the NC State Center for Health Statistics is used here; local hospital data revealed too few cases to report.

- The hospital discharge rate for colorectal cancer in Perquimans County was variable and unstable over most of the period cited, but was lower in 2014 than in 2005. The NC rate has been static at 0.4 for several years.

Table 122. Malignant Colon, Rectum and Anus Neoplasms Hospital Discharge Rate Trend (2005-2014)

Location	Rate (Discharges per 1,000 Population)									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Perquimans County	0.7	1.0	1.1	0.7	0.5	0.5	0.5	0.4	0.4	0.4
<i>Regional Average</i>	0.5	0.7	0.6	0.5	0.5	0.3	0.4	0.4	0.4	0.4
Pamlico County	0.4	0.6	0.5	0.6	0.4	0.4	0.5	0.2	0.3	0.5
State of NC	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4

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

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2016), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence;

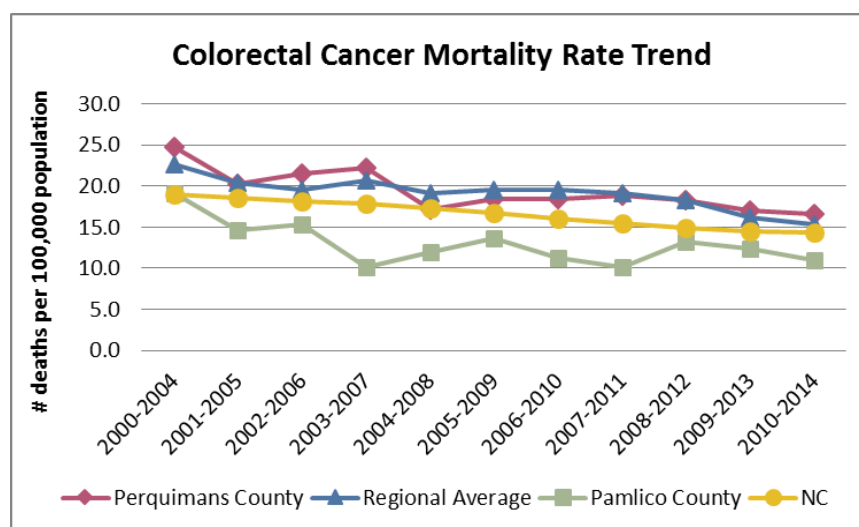
<http://www.schs.state.nc.us/SCHS/data/databook/>.

Colon Cancer Mortality Rate Trend

The following figure plots the colon cancer mortality rate trend over time.

- The colorectal cancer mortality rates in the region and the state fell gradually overall over the period cited. In Perquimans County the comparable rate increased between 2001-2005 and 2003-2007 before falling again. It should be noted that all mortality rates presented for Perquimans County were unstable.
- The colorectal cancer mortality rate for Perquimans County decreased by 33% overall (from 24.7 to 16.6) between 2000-2004 and 2010-2014. Nevertheless, the mortality rate in Perquimans County was the highest among the comparators in 2010-2014.
- At the state level, the colorectal cancer mortality rate fell 25% overall in the same period.

Figure 31. Overall Colon Cancer Mortality Rate Trend (Aggregate Periods 2000-2004 through 2010-2014)



Source: NC State Center for Health Statistics, Vital Statistics, Volume 2: Leading Causes of Death (2004 through 2014), <http://www.schs.state.nc.us/data/vital.cfm>.

Racial Disparities in Colon Cancer Mortality

The next table presents colorectal cancer mortality rates for the 2010-2014 aggregate period, stratified by race.

- Due to below-threshold numbers of colon cancer deaths among racially stratified populations at the county level, mortality rates for those groups were suppressed.
- Statewide, the colon cancer mortality rate for African American non-Hispanics was 51% *higher* than the comparable rate for white non-Hispanics.

Table 123. Race/Ethnicity-Specific Colon Cancer Mortality (Aggregate Period 2010-2014)

Location	Deaths, Number and Rate (Deaths per 100,000 Population)											
	White, Non-Hispanic		African American, Non-Hispanic		American Indian, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Perquimans County	12	n/a	5	n/a	0	n/a	0	n/a	0	n/a	17	16.6
Regional Average	13	19.1	7	26.0	0	n/a	0	n/a	0	n/a	20	15.3
Pamlico County	9	n/a	1	n/a	0	n/a	0	n/a	0	n/a	10	11.0
State of NC	5,550	13.4	1,907	20.3	65	12.9	48	6.2	62	4.8	7,632	14.3

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

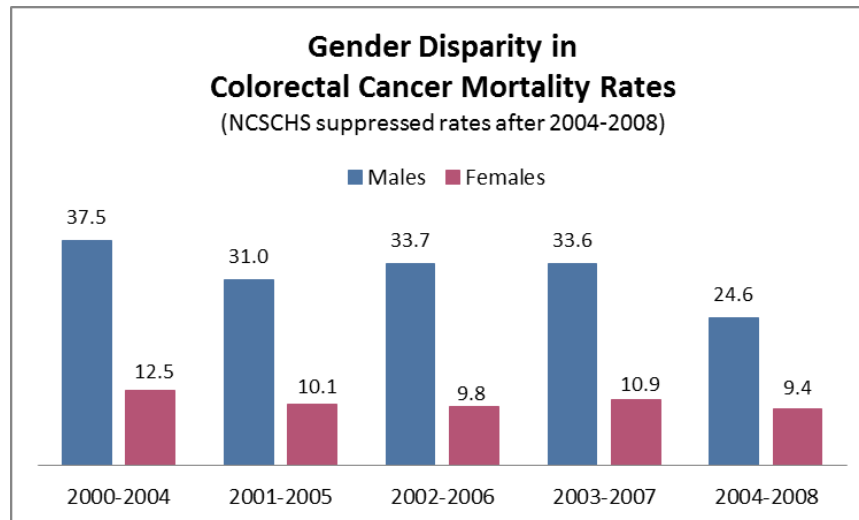
Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Gender Disparities in Colon Cancer Mortality

The following figure plots gender-stratified colon cancer mortality rates in Perquimans County for the period 2000-2004 through 2004-2008. Note that all subsequent gender-stratified mortality rates were suppressed.

- The colorectal cancer mortality rate for Perquimans County males was higher than the comparable rate for females throughout the period cited. Note that all cited rates were unstable.

Figure 32. Sex-Specific Colorectal Cancer Mortality Rate Trend, Perquimans County (Aggregate Periods 2000-2004 through 2004-2008)



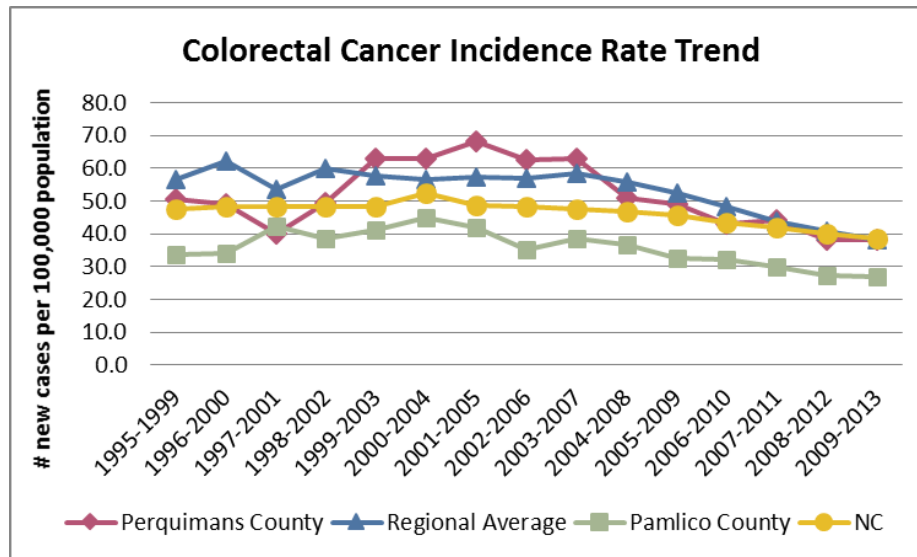
Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2006-2010), Mortality, NC Resident Race-Specific and Sex-Specific Age-Adjusted Death Rates, by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Colon Cancer Incidence

The following figure plots the incidence rate trend for colon cancer.

- Colorectal cancer incidence rates decreased in all four jurisdictions over the period cited.
- In Perquimans County the colorectal cancer incidence rate rose significantly from 1997-2001 through 2001-2005 before falling again. Overall, the Perquimans County rate fell from 50.4 in 1995-1999 to 38.0 in 2009-2013, a decrease of 25%.
- At the state level, the colon cancer incidence rate fell from 47.4 in 1995-1999 to 38.5 in 2009-2013, an overall decrease of 19%.

**Figure 33. Colon Cancer Incidence Rate Trend
(Aggregate Periods 1995-1999 through 2009-2013)**



Source: NC State Center for Health Statistics, Health Data, Cancer, Cancer Data Available from SCHS, Annual Reports, NC Cancer Incidence Rates for All Counties by Specified Site (Years as noted); <http://www.schs.state.us.nc/SCHS/CCR/reports.html>.

Prostate Cancer

Prostate Cancer Hospitalizations

The table below summarizes hospital discharge rate data for malignant neoplasms of the prostate. Note that only inpatient data from the NC State Center for Health Statistics is used here; local hospital data revealed too few cases to report.

- All the hospital discharge rates for prostate cancer in Perquimans and Pamlico Counties were unstable. At the state level the discharge rate was 0.3 for years before decreasing recently to 0.2.

**Table 124. Malignant Prostate Neoplasms Hospital Discharge Rate Trend
(2005-2014)**

Location	Rate (Discharges per 1,000 Population)										
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Perquimans County	0.9	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	
Regional Average	0.3	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	
Pamlico County	0.3	0.4	0.3	0.7	0.5	0.5	0.3	0.3	0.1	0.2	
State of NC	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	

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

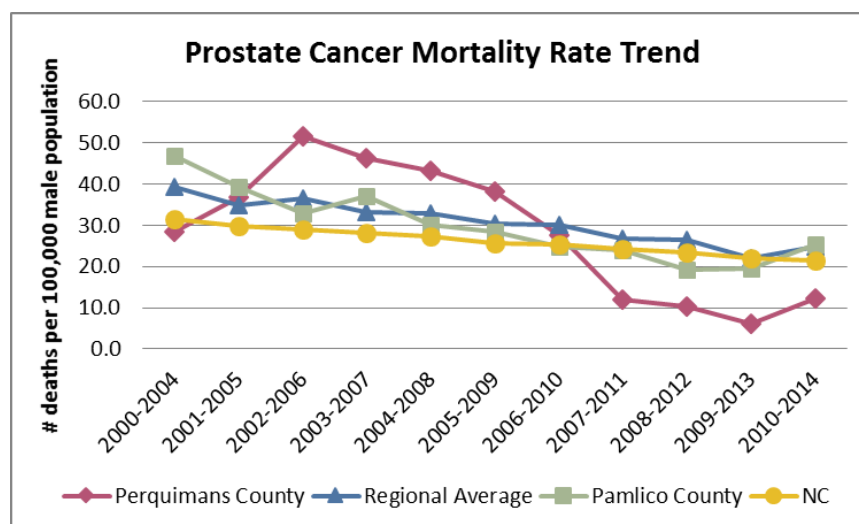
Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2016), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Prostate Cancer Mortality Rate Trend

The following figure plots the prostate cancer mortality rate trend over time

- The prostate cancer mortality rate in Perquimans County rose dramatically between 2000-2004 and 2002-2006 before decreasing steadily until the most recent aggregate period. The overall decrease between 2000-2004 (25.8) and 2010-2014 (12.3) was 52%. (Note that all the rates shown for Perquimans County were unstable.)
- The NC prostate cancer mortality rate decreased by 32% over the period cited, from 31.6 in 2000-2004 to 21.4 in 2010-2014.

Figure 34. Overall Prostate Cancer Mortality Rate Trend (Aggregate Periods 2000-2004 through 2010-2014)



Source: NC State Center for Health Statistics, Vital Statistics, Volume 2: Leading Causes of Death (2004 through 2014), <http://www.schs.state.nc.us/data/vital.cfm>.

Racial Disparities in Prostate Cancer Mortality

The table below presents prostate cancer mortality rate data for the aggregate period 2010-2014, stratified by race.

- Due to below-threshold numbers of prostate cancer deaths among racially-stratified county populations, mortality rates for those groups were suppressed.
- Statewide, the prostate cancer mortality rate for African American non-Hispanic males (44.2) was 2.5 *times* the comparable rate for white non-Hispanic males (17.9).

Table 125. Race/Ethnicity-Specific Prostate Cancer Mortality Rate (Aggregate Period 2010-2014)

Location	Deaths, Number and Rate (Deaths per 100,000 Male Population)											
	White, Non-Hispanic		African American, Non-Hispanic		American Indian, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Perquimans County	4	n/a	2	n/a	0	n/a	0	n/a	0	n/a	6	12.3
Regional Average	7	n/a	6	n/a	0	n/a	0	n/a	0	n/a	13	24.8
Pamlico County	8	n/a	2	n/a	0	n/a	0	n/a	0	n/a	10	25.3
State of NC	2,939	17.9	1,305	44.2	50	32.8	11	n/a	33	9.6	4,338	21.4

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

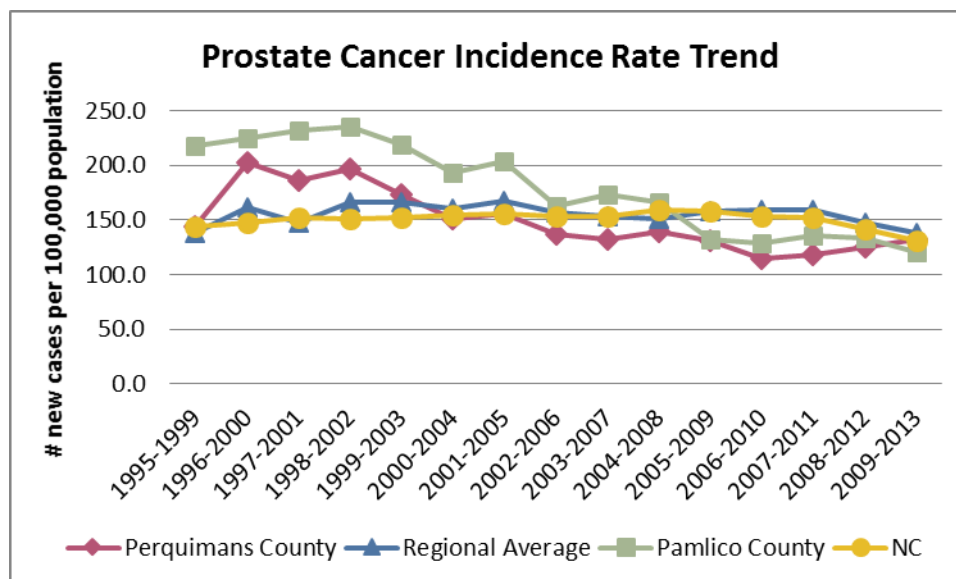
Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Prostate Cancer Incidence

The following figure plots the incidence rate trend for prostate cancer.

- The prostate cancer incidence rate in Perquimans County was the lowest among comparators from 2002-2006 through 2008-2012.
- The prostate cancer incidence rate in Perquimans County fell by 8% overall (from 144.0 to 131.9) between 1995-1999 and 2009-2013.

Figure 35. Prostate Cancer Incidence Rate Trend (Aggregate Periods 1995-1999 through 2009-2013)



Source: NC State Center for Health Statistics, Health Data, Cancer, Cancer Data Available from SCHS, Annual Reports, NC Cancer Incidence Rates for All Counties by Specified Site (Years as noted); <http://www.schs.state.us.nc/SCHS/CCR/reports.html>.

Female Breast Cancer

For purposes of this report, breast cancer pertains exclusively to women, although males can and do contract the disease. There were no breast cancer deaths among males in Perquimans County in the 2010-2014 period; there also were no breast cancer deaths among males statewide. Note that only inpatient data from the NC State Center for Health Statistics is used here; local hospital data revealed too few cases to report.

Breast Cancer Hospitalizations

The following table summarizes inpatient hospital discharge rate data for female breast cancer.

- Hospital discharge rates for breast cancer in the two counties were unstable due to small numbers of hospitalizations.
- Statewide, the discharge rate for female breast cancer was steady at 0.2 until 2011 when it fell to (and remained at) 0.1.

Table 126. Malignant Female Breast Neoplasms Hospital Discharge Rate Trend (2005-2014)

Location	Rate (Discharges per 1,000 Population)									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Perquimans County	0.5	0.1	0.3	0.3	0.2	n/a	0.2	n/a	0.3	0.1
Regional Average	0.2	0.2	0.3	0.2	0.2	0.2	0.1	0.1	0.2	0.1
Pamlico County	0.5	0.2	n/a	0.2	0.3	n/a	0.1	n/a	0.1	0.1
State of NC	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1

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

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2016), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence;

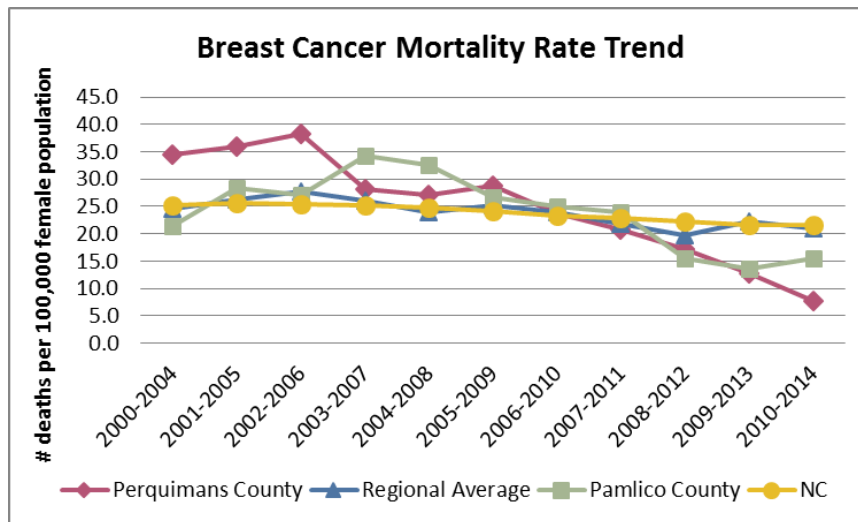
<http://www.schs.state.nc.us/SCHS/data/databook/>.

Breast Cancer Mortality Rate Trend

The following figure displays the female breast cancer mortality rate trend over time.

- The breast cancer mortality rate in Perquimans County increased from 2000-2004 through 2002-2006 before falling steadily over the rest of the period cited. The Perquimans County rate was higher than the NC and regional rates in the first six and lower in the last four of the eleven aggregate periods presented. (Note however that all the county-level rates were unstable.)
- The Perquimans County breast cancer mortality rate in 2010-2014 (7.6) was 78% lower than the rate in 2000-2004 (34.5).
- The NC breast cancer mortality rate declined 14% over the period cited, from 25.2 to 21.6.

Figure 36. Overall Female Breast Cancer Mortality Rate Trend (Aggregate Periods 2000-2004 through 2010-2014)



Source: NC State Center for Health Statistics, Vital Statistics, Volume 2: Leading Causes of Death (2004 through 2014), <http://www.schs.state.nc.us/data/vital.cfm>.

Racial Disparities in Breast Cancer Mortality

The next table presents breast cancer mortality rate data for the 2010-2014 aggregate period, stratified by race.

- Due to below-threshold numbers of female breast cancer deaths among racially-stratified populations in all jurisdictions except NC, mortality rates for those groups were suppressed.
- Statewide, the breast cancer mortality rate for African American non-Hispanic females (29.0) was 43% higher than the comparable rate for white non-Hispanic females (20.3).

Table 127. Race/Ethnicity-Specific Female Breast Cancer Mortality (Aggregate Period 2010-2014)

Location	Deaths, Number and Rate (Deaths per 100,000 Female Population)											
	White, Non-Hispanic		African American, Non-Hispanic		American Indian, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Overall	
	Number	Rate	Number	Rate			Number	Rate	Number	Rate	Number	Rate
Perquimans County	4	n/a	1	n/a	0	n/a	0	n/a	0	n/a	5	7.6
Regional Average	10	25.7	6	n/a	0	n/a	0	n/a	0	n/a	15	21.0
Pamlico County	8	n/a	2	n/a	0	n/a	0	n/a	0	n/a	10	15.4
State of NC	4,645	20.3	1,678	29.0	43.0	15.0	15	11.6	74	9.1	6,491	21.6

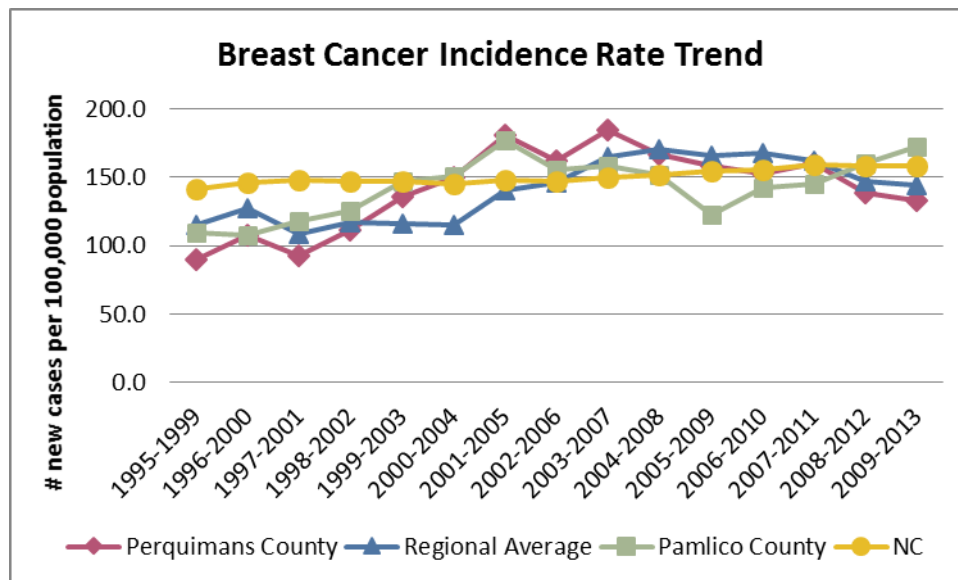
Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
 Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Breast Cancer Incidence

The figure below plots the incidence rate trend for breast cancer.

- Breast cancer incidence rates increased overall over the period cited in all four jurisdictions. In Perquimans County the incidence rate increased 49%, from 89.6 in 1995-1999 to 133.1 in 2009-2013. The increase statewide in the same period was 12%.

Figure 37. Breast Cancer Incidence Rate Trend (Aggregate Periods 1995-1999 through 2009-2013)



Source: NC State Center for Health Statistics, Health Data, Cancer, Cancer Data Available from SCHS, Annual Reports, NC Cancer Incidence Rates for All Counties by Specified Site (Years as noted); <http://www.schs.state.us.nc/SCHS/CCR/reports.html>.

Cerebrovascular Disease

Cerebrovascular disease describes the physiological conditions that lead to stroke. Strokes happen when blood flow to the brain stops and brain cells begin to die. There are two types of stroke. Ischemic stroke (the more common type) is caused by a blood clot that blocks or plugs a blood vessel in the brain. The other kind, called hemorrhagic stroke, is caused by a blood vessel that breaks and bleeds into the brain (61).

Cerebrovascular disease was the third leading cause of death in Perquimans County in the 2010-2014 period (cited previously).

Cerebrovascular Disease Hospitalizations

The table below presents the inpatient hospital discharge rate trend data for cerebrovascular disease. According to this data, cerebrovascular disease caused a highly variable and sometimes unstable proportion of illness-related hospitalizations among Perquimans County residents over time, at lower rates than in the other jurisdictions.

Table 128. Cerebrovascular Disease Hospital Discharge Rate Trend (2005-2014)

Location	Rate (Discharges per 1,000 Population)									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Gates County	1.8	2.2	1.3	1.8	1.6	1.2	0.9	1.6	0.9	1.0
<i>Regional Average</i>	3.1	3.0	2.8	2.5	2.4	2.8	2.2	2.4	2.7	2.7
Jones County	4.6	4.6	5.6	5.7	6.7	6.9	6.3	5.1	5.6	4.6
<i>State of NC</i>	3.2	3.1	3.1	3.0	3.1	3.1	3.0	3.0	2.9	2.8

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2016), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; <http://www.schs.state.nc.us/SCHS/data/databook/>.

In the ICD-9 system, cerebrovascular disease is in the category Diseases of the Circulatory System, within the specific ICD-9 Code range of 430-438. The table below presents data on 2013 and 2014 hospital discharges at qualifying area hospitals for Perquimans County residents with a diagnosis of cerebrovascular disease (ICD-9 430-438xx).

- Over the period cited, 0.5% of all ED discharges and 3.6% of all IP discharges of Perquimans County residents at qualifying hospitals involved a primary diagnosis of cerebrovascular disease.

Table 129. Hospital Discharges, Perquimans County Residents: Cerebrovascular Disease (2013-2014)

Service	Number and Percent of All Discharges					
	2013		2014		Total	
	#	%	#	%	#	%
ED	41	0.6	34	0.5	75	0.5
IP	40	3.8	36	3.5	76	3.6

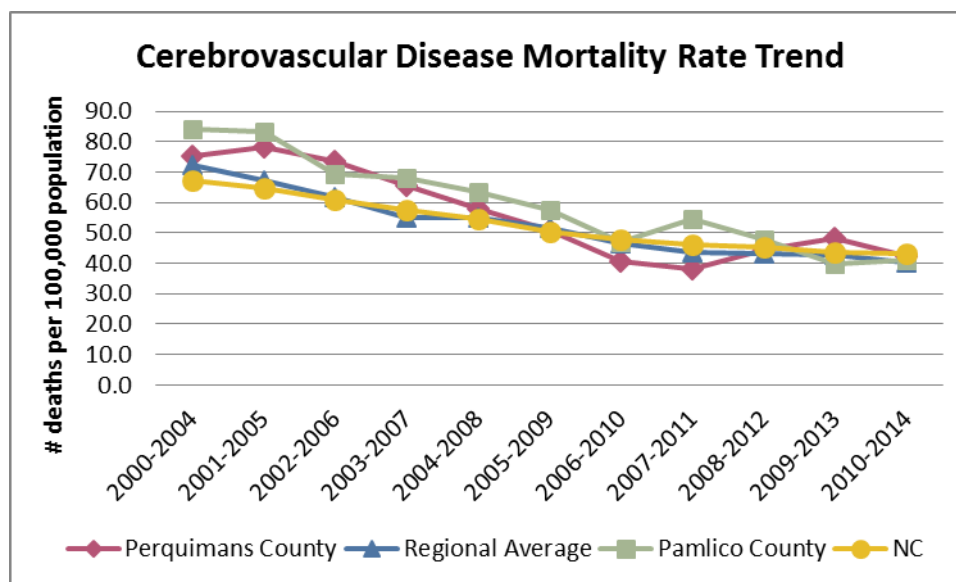
The hospitals qualifying for inclusion on the basis of more than 20 ED discharges over the period cited were: Vidant Bertie, Chowan and Roanoke-Chowan Hospitals, The Outer Banks Hospital, and Sentara Albemarle Medical Center. The hospitals qualifying on the basis of more than 20 IP discharges over the period cited are: Vidant Chowan and Roanoke-Chowan Hospitals and Sentara Albemarle Medical Center.

Cerebrovascular Disease Mortality Rate Trend

The figure below plots the cerebrovascular disease mortality rate trend over time.

- The stroke mortality rate in Perquimans County varied around the average state and regional rates throughout the period cited.
- Stroke mortality rates in every jurisdiction fell over the period cited.
- The Perquimans County stroke mortality rate in 2010-2014 was 42.2, 44% lower than the rate in 2000-2004 (75.4).
- The stroke mortality rate for NC as a whole decreased 25% over the period cited.

Figure 38. Overall Cerebrovascular Disease Mortality Rate Trend (Aggregate Periods 2000-2004 through 2010-2014)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2016), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Racial Disparities in Cerebrovascular Disease Mortality

The table below presents CVD mortality data for the aggregate period 2010-2014, stratified by race.

- Note that due to below-threshold numbers of CVD disease deaths among some racially-stratified populations in Perquimans County and elsewhere, mortality rates were suppressed for those groups.
- Statewide the CVD mortality rate for African American non-Hispanic persons (55.8) was 37% higher than the rate for white non-Hispanic persons (40.6).

Table 130. Race/Ethnicity-Specific Cerebrovascular Disease Mortality (Aggregate Period 2010-2014)

Location	Deaths, Number and Rate (Deaths per 100,000 Population)											
	White, Non-Hispanic		African American, Non-Hispanic		American Indian, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Perquimans County	35	38.5	9	n/a	0	n/a	1	n/a	0	n/a	45	42.2
<i>Regional Average</i>	32	41.6	18	56	0	n/a	0	n/a	0	n/a	50	40.9
Pamlico County	34	39.7	10	n/a	0	n/a	0	n/a	0	n/a	44	41.0
<i>State of NC</i>	16,713	40.6	4,870	55.8	158	37.2	167	30.9	208	19.3	22,116	43.0

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

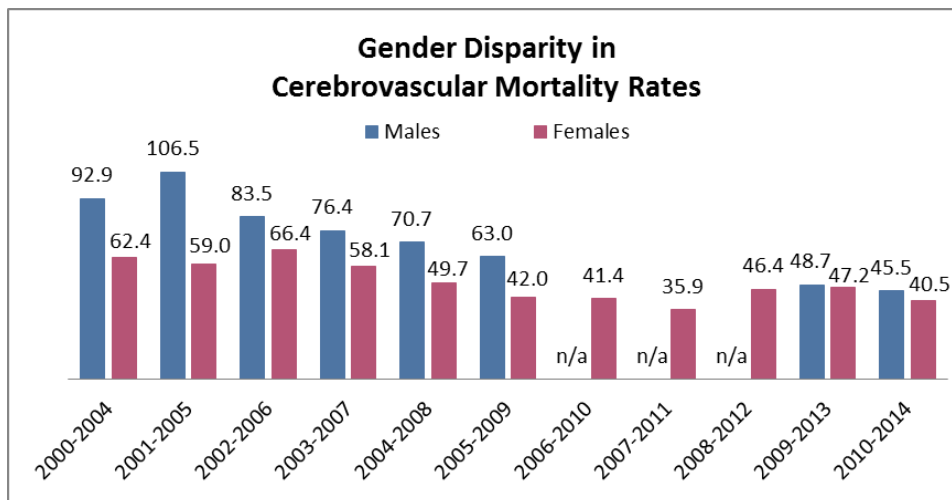
Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Gender Disparities in Cerebrovascular Disease Mortality

The figure below plots gender-stratified cerebrovascular disease mortality rates in Perquimans County for the aggregate periods 2000-2004 through 2010-2014.

- The graph demonstrates that size of the gender difference in the stroke mortality rate in Perquimans County has varied over time, but that rates for males were usually higher than the rates for females. Note that due to below threshold numbers of deaths among males from 2006-2010 through 2008-2012, the corresponding rates were suppressed.
- Stroke mortality rates in both gender groups decreased over time.

Figure 39. Sex-Specific Cerebrovascular Disease Mortality Rate Trend, Perquimans County (Aggregate Periods 2000-2004 through 2010-2014)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2016), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Chronic Lower Respiratory Disease (CLRD)

Chronic lower respiratory disease (CLRD) is composed of three major diseases, chronic bronchitis, emphysema, and asthma, all of which are characterized by shortness of breath caused by airway obstruction and sometimes lung tissue destruction. The obstruction is irreversible in chronic bronchitis and emphysema, reversible in asthma. Before 1999, CLRD was called *chronic obstructive pulmonary disease (COPD)*. Some in the field still use the designation COPD, but limit it to mean chronic bronchitis and emphysema only. In the US, tobacco use is a key factor in the development and progression of CLRD/COPD, but exposure to air pollutants in the home and workplace, genetic factors, and respiratory infections also play a role (62).

CLRD was the fourth leading cause of death in Perquimans County in the 2010-2014 period (cited previously).

The following table presents the inpatient hospital discharge rate trend data for COPD (the term still used by some data-compiling organizations). According to this data, COPD caused a variable proportion of illness-related hospitalizations among Perquimans County residents over time, usually at the highest rate among comparators.

Table 131. COPD Hospital Discharge Rate Trend (2005-2014)

Location	Rate (Discharges per 1,000 Population)									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Perquimans County	5.8	4.7	6.1	6.9	3.1	4.1	3.9	2.7	3.1	3.2
<i>Regional Average</i>	4.3	3.8	4.0	4.3	3.3	3.3	3.7	2.2	2.1	1.8
Pamlico County	2.2	3.7	4.2	4.0	4.4	2.7	1.7	0.7	1.2	2.3
State of NC	3.5	3.2	3.1	3.4	3.4	3.2	3.2	2.1	2.0	1.8

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2016), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; <http://www.schs.state.nc.us/SCHS/data/databook/>.

In the ICD-9 system, Chronic Obstructive Pulmonary Disease and Allied Conditions appear in the code range of 490-496. This category includes chronic bronchitis, emphysema, asthma, and other forms of chronic airway obstruction. The table below presents data on 2013 and 2014 hospital discharges at qualifying area hospitals for Perquimans County residents with a primary diagnosis of COPD and Allied Conditions (ICD-9 490-496xx).

- Over the period cited, 3.2% of all ED discharges and 4.6% of all IP discharges of Perquimans County residents at qualifying hospitals involved a primary diagnosis of COPD and Allied Conditions.

Table 132. Hospital Discharges, Perquimans County Residents: COPD and Allied Conditions (2013-2014)

Service	Number and Percent of All Discharges					
	2013		2014		Total	
	#	%	#	%	#	%
ED	225	3.1	239	3.2	464	3.2
IP	45	4.2	51	5.0	96	4.6

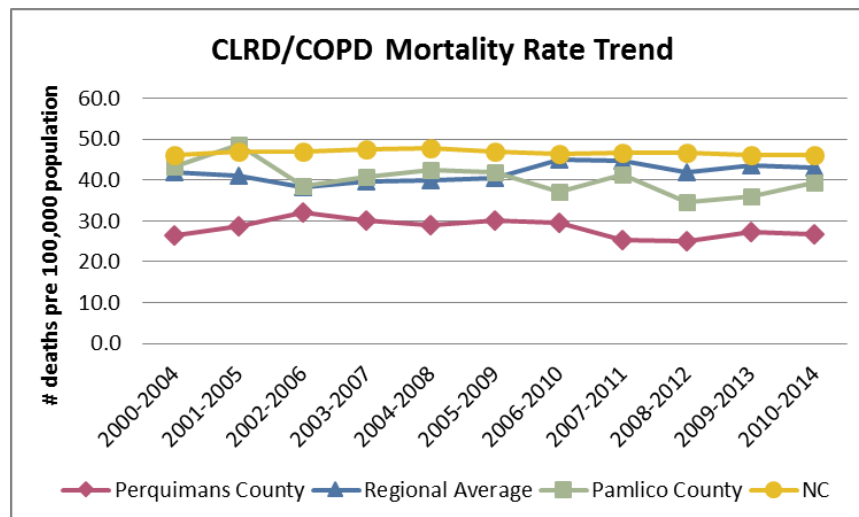
The hospitals qualifying for inclusion on the basis of more than 20 ED discharges over the period cited were: Vidant Bertie, Chowan and Roanoke-Chowan Hospitals, The Outer Banks Hospital, and Sentara Albemarle Medical Center. The hospitals qualifying on the basis of more than 20 IP discharges over the period cited are: Vidant Chowan and Roanoke-Chowan Hospitals and Sentara Albemarle Medical Center.

CLRD Mortality Rate Trend

The figure below plots the CLRD mortality rate trend over time.

- The CLRD mortality rate in Perquimans County, lower than the rates for the comparator jurisdictions throughout the period cited, changed little overall, increasing from 26.5 in 2000-2004 to 26.8 in 2010-2014. Note that all Perquimans County mortality rates cited were *stable*.
- At the state level, the CLRD mortality rate was essentially unchanged over the period.

Figure 40. Overall CLRD Mortality Rate Trend (Aggregate Periods 2000-2004 through 2010-2014)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2016), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Racial Disparities in CLRD Mortality

The following table presents CLRD mortality data for the aggregate period 2010-2014, stratified by race.

- Note that due to below-threshold numbers of CLRD disease deaths among some stratified populations at the county level, mortality rates were suppressed for those groups.
- Statewide the CLRD mortality rate was highest for white non-Hispanics followed by American Indian non-Hispanics and African American non-Hispanics.

Table 133. Race/Ethnicity-Specific CLRD Mortality (Aggregate Period 2010-2014)

Location	Deaths, Number and Rate (Deaths per 100,000 Population)											
	White, Non-Hispanic		African American, Non-Hispanic		American Indian, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Perquimans County	23	26.8	5	n/a	1	n/a	0	n/a	0	n/a	29	26.8
<i>Regional Average</i>	44	51.2	8	28.3	0	n/a	0	n/a	0	n/a	52	43.2
Pamlico County	39	44.9	5	n/a	0	n/a	0	n/a	0	n/a	44	39.4
State of NC	21,274	51.0	2,466	27.9	175.0	40.8	56	11.3	71	8.7	24,042	46.0

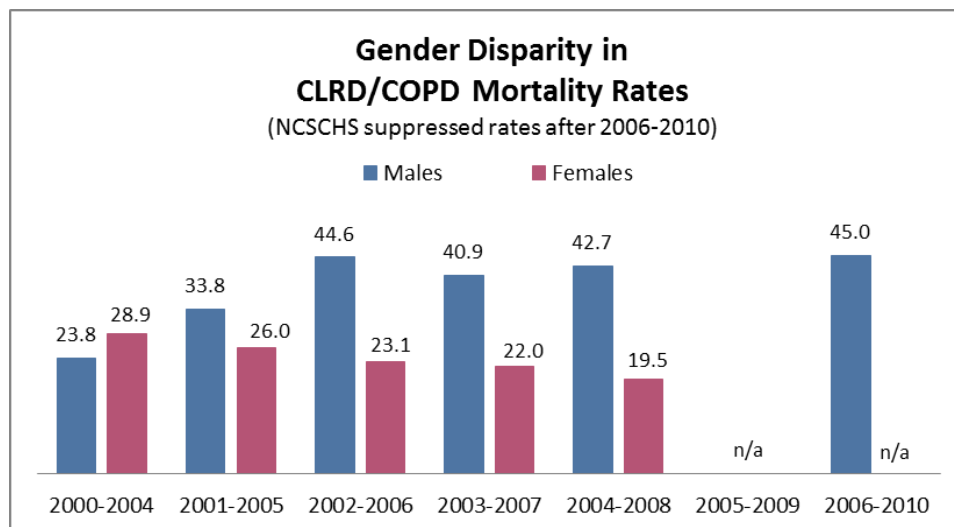
Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.

Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

The figure below plots gender-stratified CLRD mortality rates in Perquimans County for the aggregate periods 2000-2004 through 2010-2014. (Note that rates were suppressed after 2006-2010.)

- It appears that there has been a long-standing gender difference in CLRD mortality rates noted in Perquimans County. While in 2000-2004 the CLRD mortality rate among Perquimans County females exceeded the rate for males, the rate for males was higher in all the other aggregate periods cited. Note that all the CLRD mortality rates cited were unstable or suppressed.

Figure 41. Sex-Specific CLRD Mortality Rate Trend, Perquimans County (Aggregate Periods 2000-2004 through 2010-2014)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2016), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

All Other Unintentional Injury

This category includes death without purposeful intent due to poisoning, falls, burns, choking, animal bites, drowning, and occupational or recreational injuries; it expressly excludes unintentional injury due to motor vehicle crashes. (Death due to injury involving motor vehicles is a separate cause of death and was covered previously.)

All other unintentional injury was the fifth leading cause of death in Perquimans County in the 2010-2014 period (cited previously).

All Other Unintentional Injury Hospitalizations

In its customary reports in the public domain the NC State Center for Health Statistics separates mortality from injury due to unintentional motor vehicle crashes (“unintentional motor vehicle injury”) from injury due to unintentional *non*-motor vehicle events (“all other unintentional injury”). At the present time the Center does not provide inpatient hospitalization data specific to motor vehicle injury, but it *does* report hospitalization data for the broad category “injury and poisoning”. The table below presents trend data on inpatient hospitalization discharges for injury and poisoning hospitalizations.

- The inpatient hospitalization discharge rate for injury and poisoning in Perquimans County was lower than the NC rate throughout the period cited, but usually was higher—sometimes significantly so—than the comparable rate in the region.

Table 134. Injury and Poisoning Hospital Discharge Rate Trend (2005-2014)

Location	Rate (Discharges per 1,000 Population)									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Perquimans County	8.0	7.1	8.4	6.5	5.2	7.0	5.6	7.2	7.1	6.0
<i>Regional Average</i>	6.6	6.3	6.3	5.6	5.3	5.6	5.2	5.8	5.6	4.8
Pamlico County	9.5	11.8	9.9	11.9	8.7	9.3	8.6	9.4	7.5	7.8
State of NC	8.5	8.6	8.6	8.5	8.3	8.2	8.2	8.1	7.7	7.6

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2016), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; <http://www.schs.state.nc.us/SCHS/data/databook/>.

The large ICD-9 code category called *all injuries and poisonings* (ICD-9 Codes 800-999) includes injuries resulting from motor vehicle crashes as well as all other injuries. This category also covers poisoning from all sources, including drug overdoses.

The table below presents data on 2013 and 2014 hospital discharges at qualifying area hospitals for Perquimans County residents with a primary diagnosis of Injury and Poisoning (ICD-9 800-999xx).

- Over the period cited, 21.0% of all ED discharges and 5.4% of all IP discharges of Perquimans County residents at qualifying hospitals involved a primary diagnosis of injury and poisoning.

Table 135. Hospital Discharges, Perquimans County Residents: All Injury and Poisoning (2013-2014)

Service	Number and Percent of All Discharges					
	2013		2014		Total	
	#	%	#	%	#	%
ED	538	22.2	466	19.8	1,004	21.0
IP	24	5.7	23	5.2	47	5.4

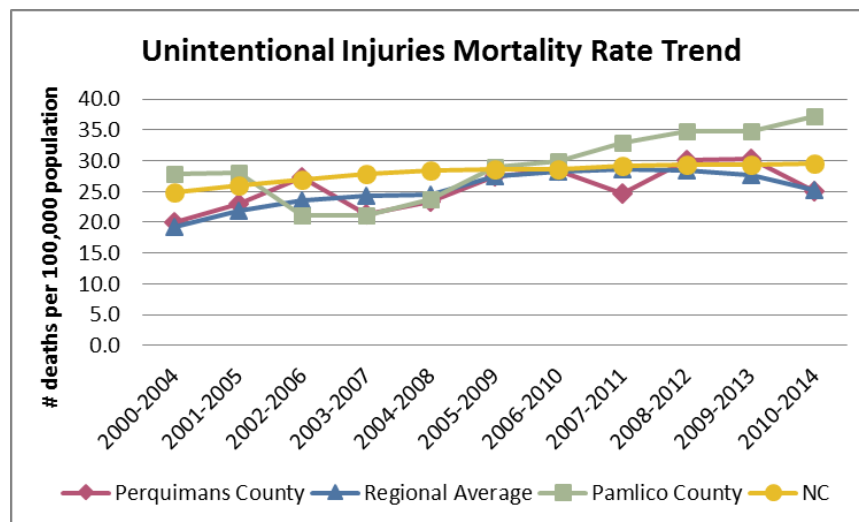
The hospitals qualifying for inclusion on the basis of more than 20 ED discharges over the period cited were: Vidant Bertie, Chowan and Roanoke-Chowan Hospitals, The Outer Banks Hospital, and Sentara Albemarle Medical Center. The hospitals qualifying on the basis of more than 20 IP discharges over the period cited are: Vidant Chowan and Roanoke-Chowan Hospitals and Sentara Albemarle Medical Center.

All Other Unintentional Injury Mortality Rate Trend

The figure below plots the all other unintentional injury mortality rate trend over time.

- The Perquimans County rate was somewhat variable over the period cited, but was 26% higher in 2010-2014 (25.1) than in 2000-2004 (20.0).
- At the state level, the all other unintentional injury mortality rate rose 19% over the period cited.

Figure 42. Overall All Other Unintentional Injury Mortality Rate Trend (Aggregate Periods 2000-2004 through 2010-2014)



Source: NC State Center for Health Statistics, Vital Statistics, Volume 2: Leading Causes of Death (2004 through 2014), <http://www.schs.state.nc.us/data/vital.cfm>

Racial Disparities in All Other Unintentional Injury Mortality

The following table presents all other unintentional injury mortality data for the aggregate period 2010-2014, stratified by race.

- Note that due to below-threshold numbers of all other unintentional injury deaths among some stratified populations, mortality rates were suppressed for those groups.
- At the state level, the all other unintentional injury mortality rate is highest among American Indian non-Hispanics, followed by white non-Hispanics and African American non-Hispanics.

Table 136. Race/Ethnicity-Specific All Other Unintentional Injury Mortality (Aggregate Period 2010-2014)

Location	Deaths, Number and Rate (Deaths per 100,000 Population)											
	White, Non-Hispanic		African American, Non-Hispanic		American Indian, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Perquimans County	20	33.0	1	n/a	0	n/a	0	n/a	0	n/a	21	25.1
Regional Average	22	32.7	7	28.5	0	n/a	0	n/a	0	n/a	29	25.3
Pamlico County	26	42.3	5	n/a	0	n/a	0	n/a	0	n/a	31	37.2
State of NC	12,247	34.3	1,963	19.9	217	41.0	86	11.7	278	11.9	14,791	29.6

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

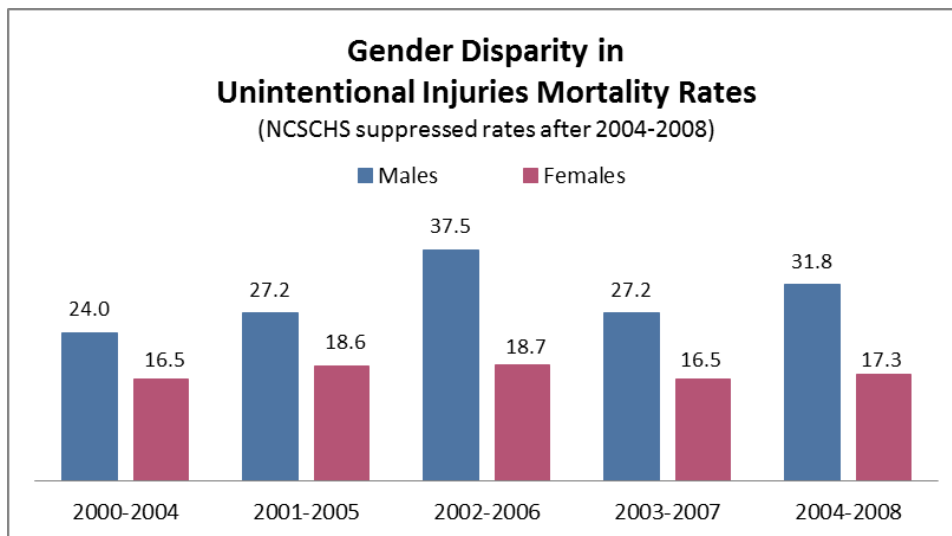
Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Gender Disparities in All Other Unintentional Injury Mortality

The figure below plots gender-stratified all other unintentional injury mortality rates in Perquimans County for the aggregate periods 2000-2004 through 2004-2008. All subsequent gender-stratified rates were suppressed.

- This data appears to indicate a significant gender disparity in mortality, with males experiencing the higher rate. Note that all rates shown were technically unstable.

Figure 43. Sex-Specific All Other Unintentional Injury Mortality Rate Trend, Perquimans County (Aggregate Periods 2000-2004 through 2004-2008)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2016), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Alzheimer's Disease

Alzheimer's disease is a progressive neurodegenerative disease affecting mental abilities including memory, cognition and language. Alzheimer's disease is characterized by memory loss and dementia. The risk of developing Alzheimer's disease increases with age (e.g., almost half of those 85 years and older suffer from Alzheimer's disease). Early-onset Alzheimer's has been shown to be genetic in origin, but a relationship between genetics and the late-onset form of the disease has not been demonstrated. No other definitive causes have been identified (63).

Alzheimer's disease was the sixth leading cause of death in Perquimans County in 2010-2014.

Alzheimer's Disease Hospitalizations

At the present time the NC SCHS does not track Alzheimer's disease-related hospitalizations.

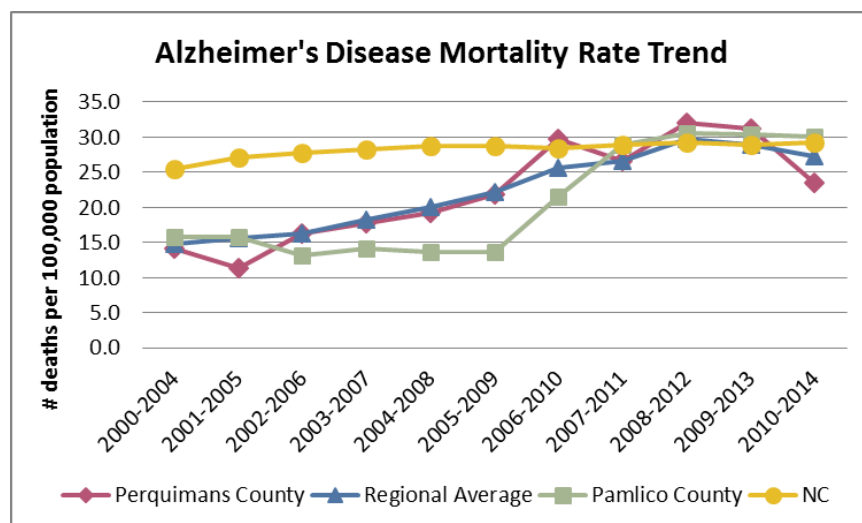
Alzheimer's disease is coded 331.0 in the ICD-9 system; however, it can be difficult to diagnose and may first be identified as another form of dementia. There were no ED or IP discharges of Perquimans County residents from area hospitals coded with that primary diagnosis in 2013 or 2014.

Alzheimer's Disease Mortality Rate Trend

The figure below plots the Alzheimer's disease mortality rate trend over time.

- The Alzheimer's disease mortality rate in Perquimans County was lower than the NC rate until 2006-2010, when it began to fluctuate around that norm. Note that the first five local rates were unstable; the last six were stable.
- The Perquimans County rate rose 67% overall, from 14.1 in 2000-2004 to 23.5 in 2010-2014. The NC rate rose 15% overall over the same period.

Figure 44. Overall Alzheimer's Disease Mortality Rate Trend (Aggregate Periods 2000-2004 through 2010-2014)



Source: NC State Center for Health Statistics, Vital Statistics, Volume 2: Leading Causes of Death (2004 through 2014), <http://www.schs.state.nc.us/data/vital.cfm>.

Racial Disparities in Alzheimer's Disease Mortality

The table below presents Alzheimer's disease mortality data for the aggregate period 2010-2014, stratified by race.

- Note that due to below-threshold numbers of Alzheimer's disease deaths among many stratified populations, mortality rates were suppressed for those groups.
- Statewide, the Alzheimer's disease mortality rate was highest among American Indian non-Hispanics, followed by white non-Hispanics and African American non-Hispanics.

Table 137. Race/Ethnicity-Specific Alzheimer's Disease Mortality (Aggregate Period 2010-2014)

Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		American Indian, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Overall			
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate		
Perquimans County	16	n/a	9	n/a	0	n/a	0	n/a	0	n/a	0	n/a	25	23.5
<i>Regional Average</i>	22	32.1	12	33.8	0	n/a	0	n/a	0	n/a	0	n/a	34	27.3
Pamlico County	23	29.0	8	n/a	0	n/a	0	n/a	0	n/a	0	n/a	31	30.0
State of NC	12,318	30.1	2,017	26.5	134	41.0	39	9.9	87	13.2	14,595	29.2		

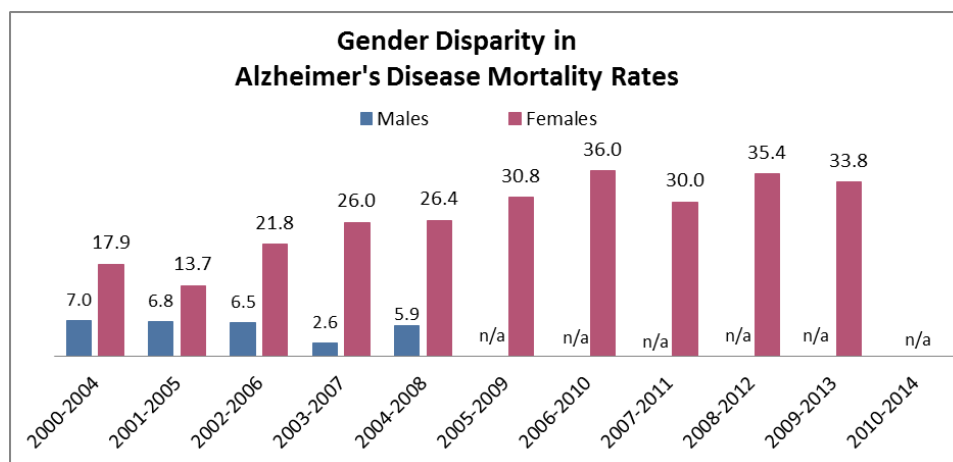
Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases. Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Gender Disparities in Alzheimer's Disease Mortality

The following figure plots gender-stratified Alzheimer's disease mortality rates in Perquimans County for the aggregate periods 2000-2004 through 2010-2014.

- According to data in the graph, the Alzheimer's disease mortality rate among Perquimans County females was higher than the comparable mortality rate among males throughout the period cited. Note the inexorable rise in mortality rates among females. It should be noted, however, that all the rates for males were either unstable or suppressed.

Figure 45. Sex-Specific Alzheimer's Disease Mortality Rate Trend, Perquimans County (Aggregate Periods 2000-2004 through 2010-2014)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2016), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Unintentional Motor Vehicle Injury

In its customary reports in the public domain the NC State Center for Health Statistics separates mortality from unintentional motor vehicle crashes (“unintentional motor vehicle injury”) from “all other unintentional injury”. At the present time the Center does not provide inpatient hospitalization data specific to motor vehicle injury.

Mortality attributable to unintentional motor vehicle injury was the seventh leading cause of death in Perquimans County in the aggregate period 2010-2014 (cited previously).

Unintentional Motor Vehicle Injury Hospitalizations

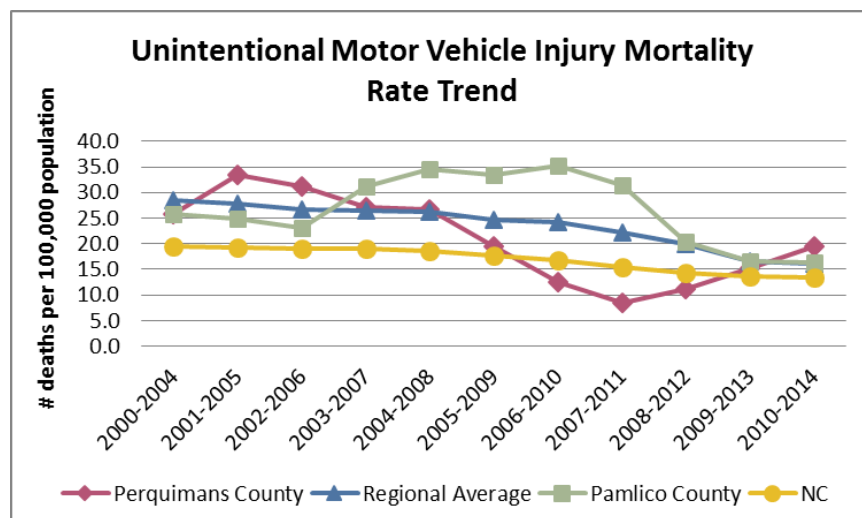
Neither the NC State Center for Health Statistics nor the hospitals participating in this assessment use a *diagnosis* code specific for hospitalizations caused by motor vehicle injury. The hospitals do code *causation* for injury, but that data is not included in this report.

Unintentional Motor Vehicle Injury Mortality Rate Trend

The figure below plots the unintentional motor vehicle injury mortality rate trend over time.

- The unintentional motor vehicle injury mortality rate in Perquimans County fluctuated around the comparable rates in the region and the state throughout the period cited. (Note that all of Perquimans County rates were unstable.)
- The unintentional motor vehicle injury mortality rate in Perquimans County fell 25% overall between 2000-2004 and 2010-2014, from 25.7 to 19.4.
- At the state level, the unintentional motor vehicle injury mortality rate fell 31% over the period cited.

Figure 46. Unintentional Motor Vehicle Injury Mortality Rate Trend (Aggregate Periods 2000-2004 through 2010-2014)



Source: NC State Center for Health Statistics, Vital Statistics, Volume 2: Leading Causes of Death (2009 through 2014), <http://www.schs.state.nc.us/data/vital.cfm>.

Racial Disparities in Unintentional Motor Vehicle Injury Mortality

The next table presents unintentional motor vehicle injury mortality data for the aggregate period 2010-2014, stratified by race.

- Note that due to below-threshold numbers of unintentional motor vehicle injury deaths among racially stratified populations in Perquimans County and elsewhere, mortality rates for those groups were suppressed.
- Statewide the unintentional motor vehicle injury mortality rate was highest for American Indian non-Hispanics, followed by African American non-Hispanics and white non-Hispanics.

Table 138. Race/Ethnicity-Specific Unintentional Motor Vehicle Injury Mortality (Aggregate Period 2010-2014)

Location	Deaths, Number and Rate (Deaths per 100,000 Population)											
	White, Non-Hispanic		African American, Non-Hispanic		American Indian, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Perquimans County	11	n/a	3	n/a	0	n/a	0	n/a	0	n/a	14	19.4
<i>Regional Average</i>	8	n/a	6	n/a	0	n/a	0	n/a	0	n/a	14	16.1
Pamlico County	10	n/a	1	n/a	0	n/a	0	n/a	0	n/a	11	16.3
State of NC	4,513	13.6	1,512	14.2	150	25.8	74	6.0	430	9.9	6,679	13.5

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

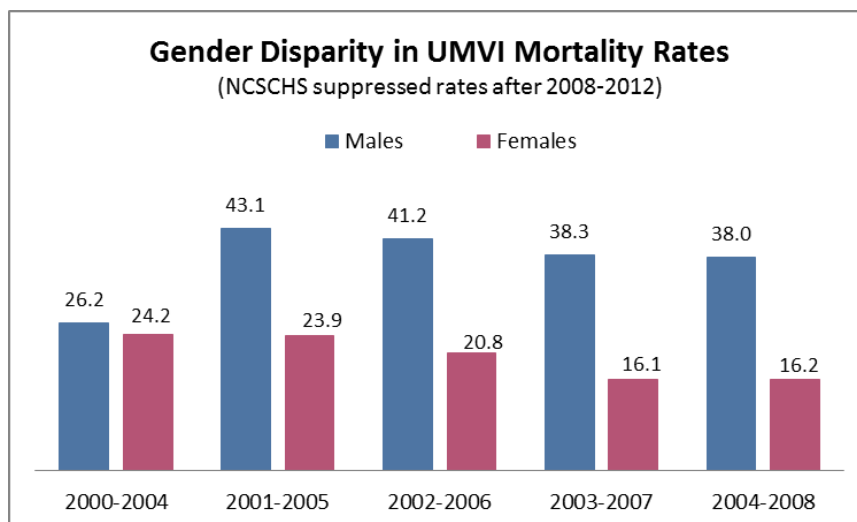
Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Gender Disparities in Unintentional Motor Vehicle Injury Mortality

The figure below plots gender-stratified unintentional motor vehicle injury mortality rates in Perquimans County for the aggregate periods 2000-2004 through 2004-2008.

- Rates for both males and females were suppressed after 2004-2008.
- Over the period cited, the unintentional motor vehicle injury mortality rate among males in the county usually was significantly higher than the comparable rate for females. Note, however, that all of the rates were either unstable or suppressed.

Figure 47. Sex-Specific Unintentional Motor Vehicle Injury Mortality Rate Trend, Perquimans County (Aggregate Periods 2000-2004 through 2004-2008)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2014), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Age Disparities in Motor Vehicle Injury Mortality

The unintentional motor vehicle injury mortality rate has a strong age component.

The table below presents unintentional motor vehicle injury mortality data, stratified by age group, for the aggregate period 2010-2014. Note that this data is *not* age-adjusted.

- In Perquimans County, the 20-39 age group has the highest motor vehicle injury mortality rate (29.9). Note, however, that this rate is based on a small number of events and should be considered unstable.
- Statewide, the 20-39 age group has the highest motor vehicle injury mortality rate (18.1), followed by the 40-64 age group (14.5).

Table 139. Motor Vehicle Injury Mortality, Numbers and Rates, by Age (Aggregate Period 2010-2014)

Location	Number of Deaths and Unadjusted Death Rates per 100,000 Population							
	All Ages		0-19		20-39		40-64	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Perquimans County	14	20.7	1	6.7	4	29.9	3	12.7
<i>Regional Average</i>	17	22.6	2	10.9	6	26.5	4	13.4
Pamlico County	n/a	n/a	n/a	n/a	1	7.8	9	36.9
State of NC	n/a	n/a	794	6.2	2,354	18.1	2,357	14.5

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

Source: NC State Center for Health Statistics, 2016 County Health Databook, Death Counts and Crude Death Rates per 100,000 Population for Leading Causes of Death, by Age Groups, NC 2010-2014; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Alcohol-Related Traffic Crashes

The table below presents several years of data on the proportion of traffic crashes that were alcohol-related.

- The percent of alcohol-related crashes varied over time without a clear pattern in all the jurisdictions.
- In Perquimans County the six-year average of alcohol-related traffic crashes was 5.9%. Region-wide the comparable average was 5.8%, in Pamlico County it was 7.8%, and in NC it was 5.2%

Table 140. Alcohol-Related Traffic Crashes Trend (2008-2013)

Location	2008			2009			2010			2011			2012			2013		
	Total Crashes			Total Crashes			Total Crashes			Total Crashes			Total Crashes			Total Crashes		
	# Reportable Crashes	# Alcohol-Related Crashes	% Alcohol-Related Crashes	# Reportable Crashes	# Alcohol-Related Crashes	% Alcohol-Related Crashes	# Reportable Crashes	# Alcohol-Related Crashes	% Alcohol-Related Crashes	# Reportable Crashes	# Alcohol-Related Crashes	% Alcohol-Related Crashes	# Reportable Crashes	# Alcohol-Related Crashes	% Alcohol-Related Crashes	# Reportable Crashes	# Alcohol-Related Crashes	% Alcohol-Related Crashes
Perquimans County	216	10	4.6	246	16	6.5	224	17	7.6	243	14	5.8	227	9	4.0	192	13	6.8
<i>Regional Average</i>	345	18	5.3	367	21	6.2	348	20	6.0	347	18	5.0	333	21	6.0	329	19	6.0
Pamlico County	224	18	8.0	200	10	5.0	213	14	6.6	180	15	8.3	169	19	11.2	170	13	7.7
State of NC	214,358	11,982	5.6	209,695	11,384	5.4	213,573	10,696	5.0	208,509	10,708	5.1	213,641	11,274	5.3	220,309	10,802	4.9

Note: statistical information for North Carolina Alcohol Facts was obtained from the NC Administrative Office of the Courts (AOC) and the NC Division of Motor Vehicles (DMV) for the years 2000 through 2013 (single years).

Note: Percentages appearing in **bold** type are based on fewer than 10 alcohol-related crashes per year. Such figures are likely unstable and should be interpreted with caution.

1 - UNC Chapel Hill, Highway Safety Research Center. North Carolina Alcohol Facts (2008-2013); <http://www.hsrb.unc.edu/ncaf/crashes.cfm>.

2 - Calculated (% alcohol related crashes is calculated by dividing # alcohol-related crashes by # reportable crashes)

The next table presents detail on the outcomes of alcohol-related crashes in 2013.

- In 2013 in Perquimans County 6.8% of all crashes, 4.4% of all property damage only crashes, 11.1% of non-fatal crashes, and one-third of the fatal crashes were alcohol-related. Note, however, that many of these frequencies were based on small numbers of events and should be considered unstable.
- Statewide in 2013, 4.9% of all crashes, 3.5% of all property damage only crashes, 7.6% of all non-fatal crashes, and 28.0% of fatal crashes were alcohol-related.

Table 141. Outcomes of Alcohol-Related Traffic Crashes (2013)

Location	Total Crashes			Property Damage Only Crashes			Non-Fatal Crashes			Fatal Crashes		
	# Reportable Crashes	# Alcohol-Related Crashes	% Alcohol-Related Crashes	# Reportable Crashes	# Alcohol-Related Crashes	% Alcohol-Related Crashes	# Reportable Crashes	# Alcohol-Related Crashes	% Alcohol-Related Crashes	# Reportable Crashes	# Alcohol-Related Crashes	% Alcohol-Related Crashes
Perquimans County	192	13	6.8	135	6	4.4	54	6	11.1	3	1	33.3
<i>Regional Average</i>	329	19	6.0	236	12	5.0	91	9	11.8	2	0	4.8
Pamlico County	170	13	7.6	120	6	5.0	48	7	14.6	2	0	0.0
State of NC	220,309	10,802	4.9	149,604	5,172	3.5	69,547	5,306	7.6	1,158	324	28.0
Source	1	1	2	1	1	2	1	1	2	1	1	2

Note: statistical information for North Carolina Alcohol Facts was obtained from the NC Administrative Office of the Courts (AOC) and the NC Division of Motor Vehicles (DMV) for the year 2011.

Note: Percentages appearing in bold type are based on fewer than 10 alcohol-related crashes per year. Such figures are likely unstable and should be interpreted with caution.

Note: Regional arithmetic mean percentages appearing in italic type include unstable county percentages. Such mean figures likely are unstable and should be interpreted with caution.

1 - Source: UNC Chapel Hill, Highway Safety Research Center. North Carolina Alcohol Facts, 2013;

<http://www.hsrrc.unc.edu/ncafi/crashes.cfm>.

2 - Calculated (% alcohol related crashes is calculated by dividing # alcohol-related crashes by # reportable crashes)

Pneumonia and Influenza

Pneumonia and influenza are diseases of the lungs. Pneumonia is an inflammation of the lungs caused by either bacteria or viruses. Bacterial pneumonia is the most common and serious form of pneumonia and among individuals with suppressed immune systems it may follow influenza or the common cold. Influenza (the “flu”) is a contagious infection of the throat, mouth and lungs caused by an airborne virus (64).

Pneumonia/influenza was the eighth-ranked cause of death in Perquimans County in 2010-2014.

Pneumonia and Influenza Hospitalizations

The table below presents hospital discharge rate trend data. According to this data, the pneumonia/influenza discharge rate in Perquimans County has been quite variable.

Table 142. Pneumonia and Influenza Hospital Discharge Rate Trend (2005-2014)

Location	Rate (Discharges per 1,000 Population)									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Perquimans County	5.1	3.5	2.6	3.2	4.0	3.1	2.8	2.3	3.2	2.3
<i>Regional Average</i>	4.1	3.5	2.6	3.0	2.9	2.7	2.8	2.6	2.7	2.1
Pamlico County	4.8	3.7	3.7	2.6	2.7	2.6	2.0	3.3	3.1	3.0
<i>State of NC</i>	4.1	3.7	3.4	3.3	3.5	3.1	3.2	3.2	3.1	2.8

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2016), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; <http://www.schs.state.nc.us/SCHS/data/databook/>.

The ICD-9 codes for pneumonia are 480-487 and the code for influenza is 488. The next table presents data on 2013 and 2014 hospital discharges at qualifying area hospitals for Perquimans County residents with a primary diagnosis of pneumonia (ICD-9 Codes 480-487xx) or influenza (ICD-9 Code 488xx).

- Over the period cited, 0.7% of all ED discharges and 3.3% of all IP discharges of Perquimans County residents at qualifying hospitals involved a primary diagnosis of pneumonia.
- Over the period cited, 0.7% of all ED discharges and 0.0% of all IP discharges of Perquimans County residents at qualifying hospitals involved a primary diagnosis of influenza.

Table 143. Hospital Discharges, Perquimans County Residents: Pneumonia and Influenza (2013-2014)

Service	Number and Percent of All Discharges					
	2013		2014		Total	
	#	%	#	%	#	%
Pneumonia						
ED	47	0.7	55	0.7	102	0.7
IP	35	3.3	34	3.3	69	3.3
Influenza						
ED	51	0.7	46	0.6	97	0.7
IP	0	0.0	0	0.0	0	0.0

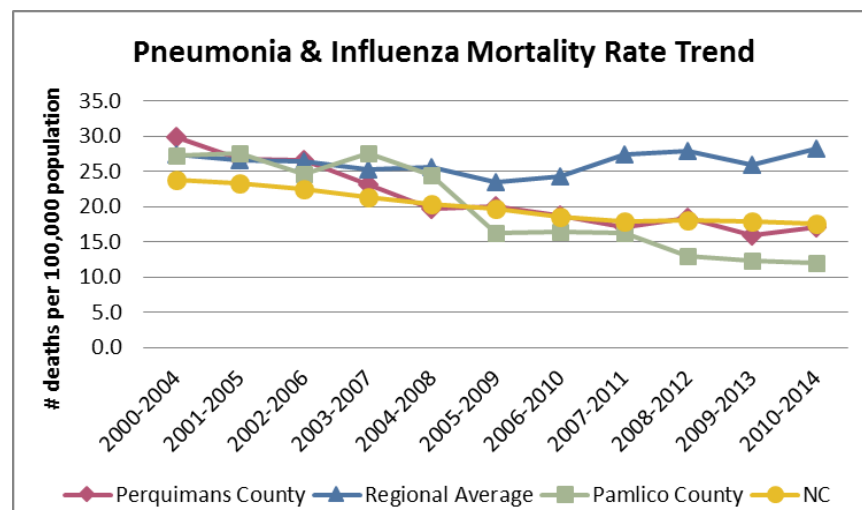
The hospitals qualifying for inclusion on the basis of more than 20 ED discharges over the period cited were: Vidant Bertie, Chowan and Roanoke-Chowan Hospitals, The Outer Banks Hospital, and Sentara Albemarle Medical Center. The hospitals qualifying on the basis of more than 20 IP discharges over the period cited are: Vidant Chowan and Roanoke-Chowan Hospitals and Sentara Albemarle Medical Center.

Pneumonia and Influenza Mortality Rate Trend

The following figure plots the pneumonia/influenza mortality rate trend over time.

- The pneumonia/influenza mortality rate in Perquimans County was lower than the rate for the region throughout most of the period cited. The county rate was approximately the same as the rate for NC as a whole in the last seven periods cited.
- Between 2000-2004 and 2010-2014 the pneumonia/influenza mortality rate in Perquimans County decreased by 43%, falling from 29.8 to 17.0. Note, however, that all of the local county rates after 2003-2007 were technically unstable.
- At the state level, the pneumonia/influenza mortality rate fell gradually to a current low 17.6.

Figure 48. Overall Pneumonia and Influenza Mortality Rate Trend (Aggregate Periods 2000-2004 through 2010-2014)



Source: NC State Center for Health Statistics, Vital Statistics, Volume 2: Leading Causes of Death (2004 through 2014), <http://www.schs.state.nc.us/data/vital.cfm>.

Racial Disparities in Pneumonia and Influenza Mortality

The next table presents pneumonia/influenza mortality data for the aggregate period 2010-2014, stratified by race.

- Due to below-threshold numbers of pneumonia/influenza deaths among racially-stratified populations in Perquimans County and elsewhere, mortality rates were suppressed for those groups.
- At the state level the highest pneumonia/influenza mortality rates occurred among white non-Hispanic persons followed by African American non-Hispanic persons and American Indian non-Hispanic persons.

Table 144. Race/Ethnicity-Specific Pneumonia and Influenza Mortality (Aggregate Period 2010-2014)

Location	Deaths, Number and Rate (Deaths per 100,000 Population)											
	White, Non-Hispanic		African American, Non-Hispanic		American Indian, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Perquimans County	14	n/a	2	n/a	0	n/a	0	n/a	1	n/a	17	17.0
Regional Average	26	58.6	6	n/a	0	n/a	0	n/a	0	n/a	32	28.2
Pamlico County	8	n/a	3	n/a	0	n/a	0	n/a	0	n/a	11	12.0
State of NC	7,421	18.1	1,412	16.2	57	13.2	50	10.9	71	6.2	9,011	17.6

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

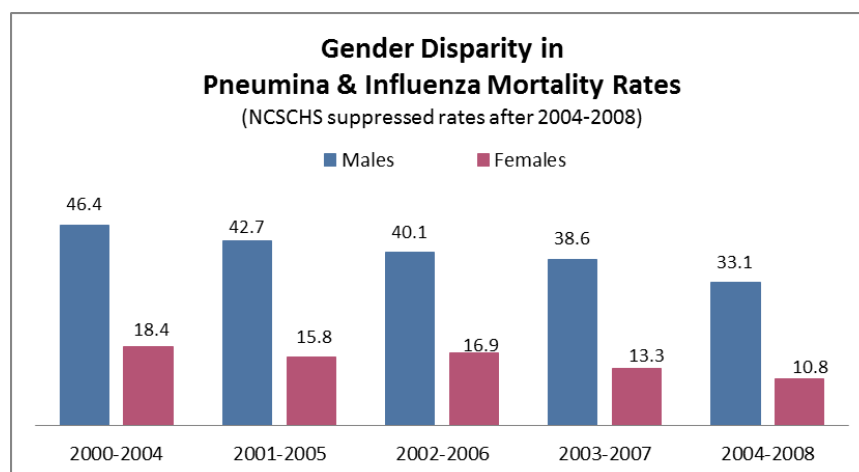
Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Gender Disparities in Pneumonia and Influenza Mortality

The next figure depicts gender-stratified pneumonia/influenza mortality rates in Perquimans County for the aggregate periods 2000-2004 through 2004-2008. (Later rates were suppressed.)

- Over the period cited below, all rates for males were higher than the rates for females. (Note that all rates were unstable.)

Figure 49. Sex-Specific Pneumonia and Influenza Mortality Rate Trend, Perquimans County (Aggregate Periods 2000-2004 through 2004-2008)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2010), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Septicemia

Septicemia is a rapidly progressing infection resulting from the presence of bacteria in the blood. The disease often arises from other infections throughout the body, such as meningitis, burns, and wound infections. Septicemia can lead to septic shock in which case low blood pressure and low blood flow cause organ failure (65). While septicemia can be community-acquired, some cases are acquired by patients hospitalized initially for other conditions; these are referred to as nosocomial infections. Sepsis is now a preferred term for septicemia, but NC SCHS continues to use the older term.

Septicemia was the ninth-ranked cause of death in Perquimans County in 2010-2014.

Septicemia Hospitalizations

According to the data cited below, septicemia caused an increasing proportion of illness-related hospitalizations among Perquimans County residents over the past 10 years, especially in the last three.

Table 145. Septicemia Hospital Discharge Rate Trend (2005-2014)

Location	Rate (Discharges per 1,000 Population)									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Perquimans County	0.7	1.9	1.3	1.7	1.6	1.6	2.5	4.4	4.8	4.2
<i>Regional Average</i>	1.4	1.7	1.5	1.5	1.4	1.9	3.0	3.4	4.3	4.1
Pamlico County	1.5	1.7	2.2	1.9	2.2	3.2	3.6	6.3	4.7	4.8
State of NC	1.6	1.8	2.0	2.3	2.5	2.9	3.4	3.7	4.2	4.8

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

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2016), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; <http://www.schs.state.nc.us/SCHS/data/databook/>.

In the case of septicemia, it is more convenient to use the DRG (Diagnosis-Related Group) diagnosis code rather than the ICD-9 diagnosis code, despite the fact that DRG codes apply only to inpatient hospitalizations. The table below presents data on 2013 and 2014 inpatient hospital discharges at qualifying area hospitals for Perquimans County residents with a primary diagnosis of septicemia (DRG Codes 870-872xx).

- Over the period cited, 4.9% of all IP discharges of Perquimans County residents at qualifying hospitals involved a primary diagnosis of septicemia.

Table 146. Hospital Discharges, Perquimans County Residents: Septicemia (2013-2014)

Service	Number and Percent of All Discharges					
	2013		2014		Total	
	#	%	#	%	#	%
IP	59	5.5	43	4.2	102	4.9

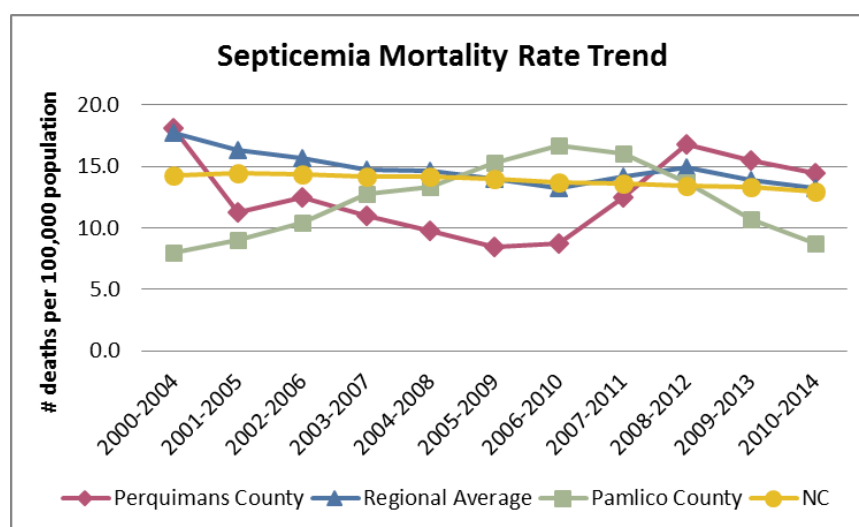
The hospitals qualifying on the basis of more than 20 IP discharges over the period cited are: Vidant Chowan and Roanoke-Chowan Hospitals and Sentara Albemarle Medical Center.

Septicemia Mortality Rate Trend

The following figure plots the septicemia mortality rate trend over time.

- Perquimans County had the highest septicemia mortality rate among comparators in the three most recent aggregate periods.
- The Perquimans County septicemia mortality rate in Perquimans County fluctuated over the period cited but was lower in 2010-2014 than in 2000-2004. The local county rate decreased by 20% overall, from 18.1 in 2000-2004 to 14.5 in 2010-2014. Note that all county rates were unstable.
- The septicemia mortality rate for NC as a whole decreased 9% overall between 2000-2004 and 2010-2014.

Figure 50. Overall Septicemia Mortality Rate Trend (Aggregate Periods 2000-2004 through 2010-2014)



Source: NC State Center for Health Statistics, Vital Statistics, Volume 2: Leading Causes of Death (2009 through 2014), <http://www.schs.state.nc.us/data/vital.cfm>.

Racial Disparities in Septicemia Mortality

The following table presents septicemia mortality data for the aggregate period 2010-2014, stratified by race.

- Note that due to below-threshold numbers of septicemia disease deaths among stratified populations in Perquimans County and elsewhere, mortality rates were suppressed for those groups.
- Statewide, the septicemia mortality rate was highest among African American non-Hispanic persons, followed by American Indian non-Hispanics and white non-Hispanics.

**Table 147. Race/Ethnicity-Specific Septicemia Mortality
(Aggregate Period 2010-2014)**

Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		American Indian, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Overall			
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate		
Perquimans County	9	n/a	4	n/a	0	n/a	0	n/a	0	n/a	13	14.5		
<i>Regional Average</i>	10	15.1	5	n/a	0	n/a	0	n/a	0	n/a	15	13.3		
Pamlico County	6	n/a	4	n/a	0	n/a	0	n/a	0	n/a	10	8.7		
State of NC	4,974	12.1	1,664	18.6	58	13.3	33	5.5	69	5.5	6,798	13.0		

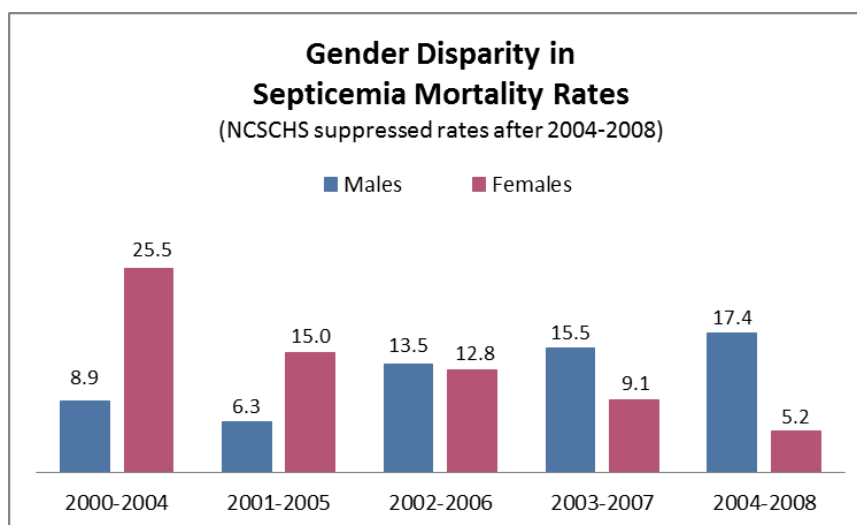
Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
 Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Gender Disparities in Septicemia Mortality

The next figure depicts gender-stratified septicemia mortality rates in Perquimans County for the aggregate periods 2000-2004 through 2004-2008. Note that rates in subsequent periods were suppressed.

- According to the graph, the septicemia mortality rate in Perquimans County was sometimes higher among females and other times higher among males. It should be noted that all the gender-stratified septicemia mortality rates in the graph were unstable.

**Figure 51. Sex-Specific Septicemia Mortality Rate Trend, Perquimans County
(Aggregate Periods 2000-2004 through 2004-2008)**



Source: NC State Center for Health Statistics, County Health Data Books (2006-2010), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Suicide

Suicide was the tenth-ranked cause of death in Perquimans County in 2010-2014.

Suicide Hospitalizations

At the present time the NC State Center for Health Statistics does not track hospitalizations related to suicide or attempted suicide.

Hospitals do, however, track a diagnosis called Suicide Ideation, which is coded V62.84 in the ICD-9 system. As shown in the table below, there was only one inpatient hospitalization of a Perquimans County resident with that ICD-9 code at any of the qualifying hospitals in 2013 or 2014. There were, however, 15 emergency department visits by Perquimans County residents coded for suicide ideation in the same period.

- Over the period cited, 0.1% of all ED discharges of Perquimans County residents at qualifying hospitals involved a primary diagnosis of suicide ideation.

Table 148. Hospital Discharges, Perquimans County Residents: Suicide Ideation (2013-2014)

Service	Number and Percent of All Discharges					
	2013		2014		Total	
	#	%	#	%	#	%
ED	4	0.06	11	1.0	15	0.1
IP	0	0.0	1	0.1	1	0.05

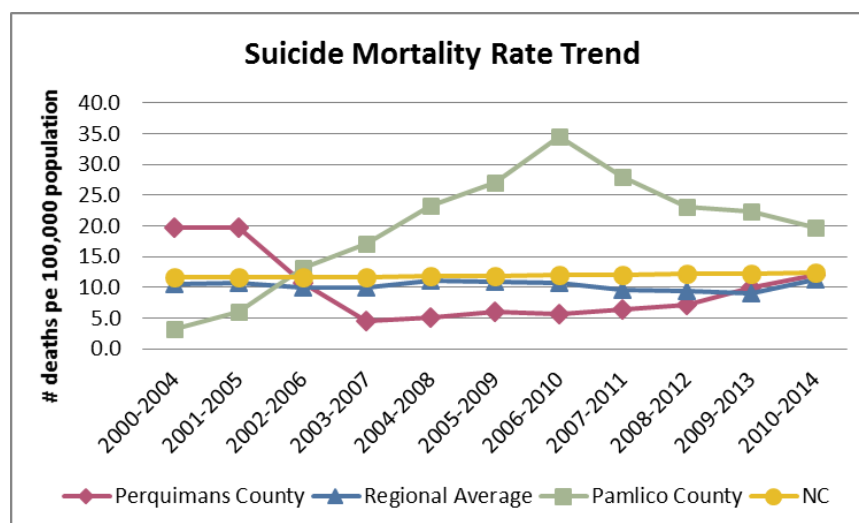
The hospitals qualifying for inclusion on the basis of more than 20 ED discharges over the period cited were: Vidant Bertie, Chowan and Roanoke-Chowan Hospitals, The Outer Banks Hospital, and Sentara Albemarle Medical Center. The hospitals qualifying on the basis of more than 20 IP discharges over the period cited are: Vidant Chowan and Roanoke-Chowan Hospitals and Sentara Albemarle Medical Center.

Suicide Mortality Rate Trend

The following figure plots the suicide mortality rate trend over time.

- The suicide mortality rate for Perquimans County was the lowest among the comparators from 2003-2007 through 2008-2012. The local rate has been increasing lately.
- The Perquimans County rate decreased by 64% overall, falling from 19.8 in 2000-2004 to 12.1 in 2010-2014.
- The state suicide rate was relatively static over the period cited. The rate in 2010-2014 (12.4) was 7% higher than the rate in 2000-2004 (11.6).

**Figure 52. Overall Suicide Mortality Rate Trend
(Aggregate Periods 2000-2004 through 2010-2014)**



Source: NC State Center for Health Statistics, Vital Statistics, Volume 2: Leading Causes of Death (2004 through 2014), <http://www.schs.state.nc.us/data/vital.cfm>.

Racial Disparities in Suicide Mortality

The following table presents suicide mortality data for the aggregate period 2010-2014, stratified by race.

- Note that due to below-threshold numbers of suicide deaths among stratified populations in Perquimans County and elsewhere, mortality rates were suppressed for those groups.
- Statewide the highest suicide rate occurred among white non-Hispanics, followed by American Indian non-Hispanics and Other races non-Hispanic.

**Table 149. Race/Ethnicity-Specific Suicide Mortality
(Aggregate Period 2010-2014)**

Location	Deaths, Number and Rate (Deaths per 100,000 Population)											
	White, Non-Hispanic		African American, Non-Hispanic		American Indian, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Perquimans County	8	n/a	1	n/a	0	n/a	0	n/a	0	n/a	9	12.1
Regional Average	11	18.2	1	n/a	0	n/a	0	n/a	0	n/a	11	11.4
Pamlico County	12	n/a	1	n/a	0	n/a	0	n/a	0	n/a	13	19.7
State of NC	5,466	15.9	518	4.9	66	11.4	78	5.9	128	3.5	6,256	12.4

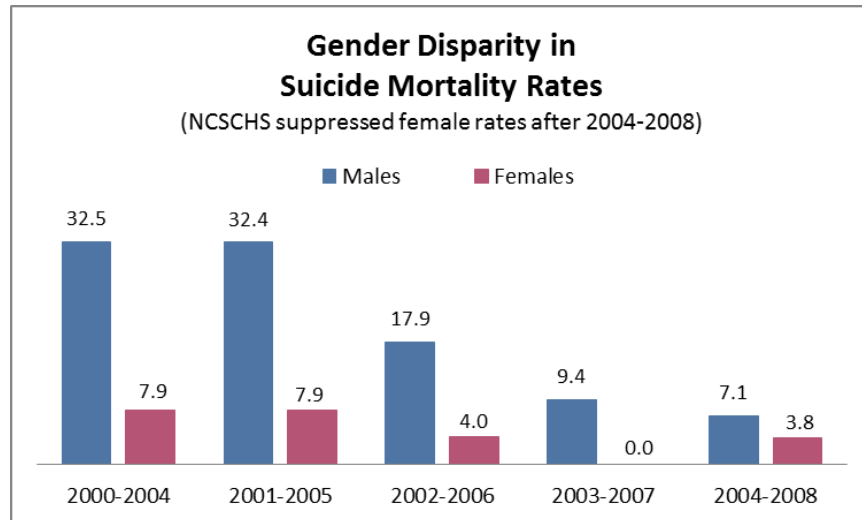
Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Gender Disparities in Suicide Mortality

The following figure plots gender-stratified suicide mortality rates in Perquimans County for the aggregate periods 2000-2004 through 2004-2008. (Suicide rates in subsequent aggregate periods were suppressed.)

- The suicide rate among Perquimans County males was significantly higher than the comparable rate among females in all periods cited. This disproportionate-pattern of gender-based suicide mortality is common throughout NC.

Figure 53. Sex-Specific Suicide Mortality Rate Trend, Perquimans County (Aggregate Periods 2000-2004 through 2004-2008)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2010), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Nephritis, Nephrotic Syndrome, and Nephrosis

Nephritis refers to inflammation of the kidney, which causes impaired kidney function. Nephritis can be due to a variety of causes, including kidney disease, autoimmune disease, and infection. Nephrotic syndrome refers to a group of symptoms that include protein in the urine, low blood protein levels, high cholesterol levels, high triglyceride levels, and swelling. Nephrosis refers to any degenerative disease of the kidney tubules, the tiny canals that make up much of the substance of the kidney. Nephrosis can be caused by kidney disease, or it may be a complication of another disorder, particularly diabetes (66,67).

This composite set of kidney disorders was the eleventh leading cause of death in Perquimans County in 2010-2014 (cited previously).

Nephritis, Nephrotic Syndrome and Nephrosis Hospitalizations

The table below presents the hospital discharge rate trend data for the composite of kidney disorders. According to this data, kidney disease caused a highly variable rate of hospitalizations in Perquimans County over the time period cited. Note that most of the local rates were *stable*.

Table 150. Nephritis, Nephrosis, Nephrotic Syndrome Hospital Discharge Rate Trend (2005-2014)

Location	Rate (Discharges per 1,000 Population)									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Perquimans County	1.5	1.8	1.1	0.5	0.9	1.6	1.6	1.3	2.1	2.2
<i>Regional Average</i>	1.3	1.4	1.3	1.0	1.0	1.2	1.3	1.6	1.7	2.0
Pamlico County	1.0	1.5	1.7	1.6	1.8	2.1	2.7	1.8	2.5	2.2
State of NC	1.2	1.3	1.7	1.6	1.4	1.5	1.8	1.8	1.8	1.9

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

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2016), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; <http://www.schs.state.nc.us/SCHS/data/databook/>.

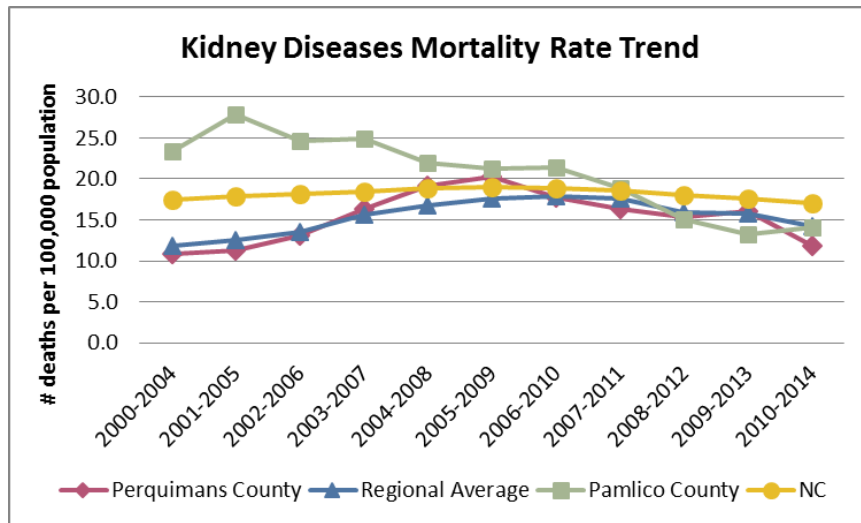
Diagnoses of nephritis, nephrotic syndrome and nephrosis are coded 580-589 in the ICD-9 system. However there were very few hospital discharges at qualifying area hospitals for Perquimans County residents with a primary diagnosis of any of the above listed kidney diseases (ICD-9 Codes 580-589xx).

Nephritis, Nephrotic Syndrome and Nephrosis Mortality Rate Trend

The figure below plots the kidney disease mortality rate trend over time.

- The kidney disease mortality rate in Perquimans County, which was lower than the NC rates for most of the period cited, increased 9% overall (from 10.8 to 11.8) between 2000-2004 and 2010-2014. Note that all but one of the Perquimans County rates were unstable.
- The kidney disease mortality rate for NC as a whole rose 7% overall between 2000-2004 and 2010-2014.

Figure 54. Overall Nephritis, Nephrotic Syndrome and Nephrosis Mortality Rate Trend (Aggregate Periods 2000-2004 through 2010-2014)



Source: NC State Center for Health Statistics, Vital Statistics, Volume 2: Leading Causes of Death (2004 through 2014), <http://www.schs.state.nc.us/data/vital.cfm>.

Racial Disparities in Nephritis, Nephrotic Syndrome and Nephrosis Mortality

The following table presents kidney disease mortality data for the aggregate period 2010-2014, stratified by race.

- Note that due to below-threshold numbers of kidney disease deaths among stratified populations in Perquimans County and elsewhere, mortality rates were suppressed for those groups.
- Statewide the kidney disease mortality rate among African American non-Hispanic persons was more than twice the rate for white non-Hispanic persons.

Table 151. Race/Ethnicity-Specific Nephritis, Nephrotic Syndrome and Nephrosis Mortality (Aggregate Period 2010-2014)

Location	Deaths, Number and Rate (Deaths per 100,000 Population)											
	White, Non-Hispanic		African American, Non-Hispanic		American Indian, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Perquimans County	8	n/a	5	n/a	0	n/a	0	n/a	0	n/a	13	11.8
Regional Average	10	n/a	7	25.7	0	n/a	0	n/a	0	n/a	17	14.2
Pamlico County	8	n/a	6	n/a	0	n/a	0	n/a	0	n/a	14	14.1
State of NC	5,667	13.8	2,910	32.9	100	24.5	48	8.8	88	9.1	8,813	17.0

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

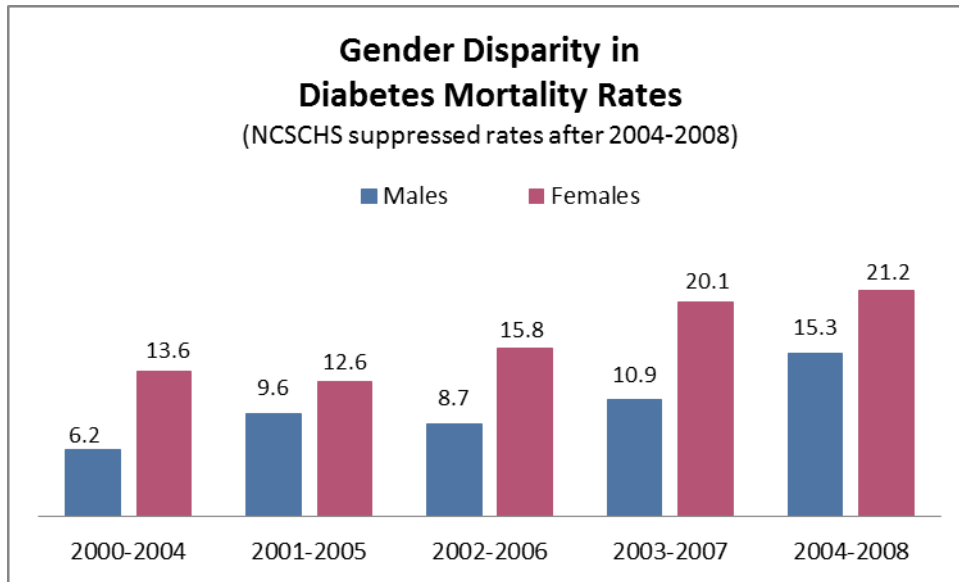
Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Gender Disparities in Nephritis, Nephrotic Syndrome and Nephrosis Mortality

The figure below depicts gender-stratified kidney disease mortality rates in Perquimans County for the aggregate periods 2000-2004 through 2004-2008. Subsequent gender-stratified rates were suppressed.

- According to the graph, the kidney disease mortality rates among Perquimans County females appeared to be significantly higher than the comparable rates among Perquimans County males for the entire period shown. Note that rates for both males and females have risen over time. It should be noted, however, that all the gender-stratified kidney disease mortality rates in the graph were technically unstable.

Figure 55. Sex-Specific Nephritis, Nephrotic Syndrome, Nephrosis Mortality Rate Trend, Perquimans County (Aggregate Periods 2000-2004 through 2004-2008)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2010), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Diabetes Mellitus

Diabetes is a disease in which the body's blood glucose levels are too high due to problems with insulin production and/or utilization. Insulin is a hormone that helps glucose get to cells where it is used to produce energy. With Type 1 diabetes, the body does not make insulin. With Type 2 diabetes, the more common type, the body does not make or use insulin well. Without enough insulin, glucose stays in the blood. Over time, having too much glucose in the blood can damage the eyes, kidneys, and nerves. Diabetes can also lead to heart disease, stroke and even the need to remove a limb (68).

Diabetes was the twelfth leading cause of death in Perquimans County in 2010-2014 (cited previously).

Diabetes Mellitus Hospitalizations

The table below presents inpatient hospitalization discharge rate trend data for diabetes. The rates for Perquimans County were highly variable and the last three were technically unstable.

Table 152. Diabetes Hospital Discharge Rate Trend (2005-2014)

Location	Rate (Discharges per 1,000 Population)									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Perquimans County	2.5	1.8	2.4	2.1	1.2	2.8	1.5	0.9	1.4	1.4
<i>Regional Average</i>	1.9	1.7	1.5	1.7	1.2	1.6	1.5	1.5	1.5	1.3
Pamlico County	1.3	1.9	1.9	2.0	1.3	2.2	2.3	2.1	1.3	1.5
State of NC	1.8	1.8	1.9	1.8	1.8	1.9	2.0	1.9	1.9	1.9

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

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2016), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; <http://www.schs.state.nc.us/SCHS/data/databook/>.

In ICD-9 coding, diabetes falls in the category Endocrine and Metabolic Diseases (ICD-9 Codes 240-279), with a specific ICD-9 Code of 250 for diabetes mellitus. The table below presents data on 2013 and 2014 hospital discharges at qualifying area hospitals for Perquimans County residents with a diagnosis of diabetes (ICD-9 250xx).

- Over the period cited, 0.6% of all ED discharges and 1.6% of all IP discharges of Perquimans County residents at qualifying hospitals involved a primary diagnosis of diabetes.

Table 153. Hospital Discharges, Perquimans County Residents: Diabetes Mellitus (2013-2014)

Service	Number and Percent of All Discharges					
	2013		2014		Total	
	#	%	#	%	#	%
ED	36	0.5	47	0.6	83	0.6
IP	16	1.5	17	1.7	33	1.6

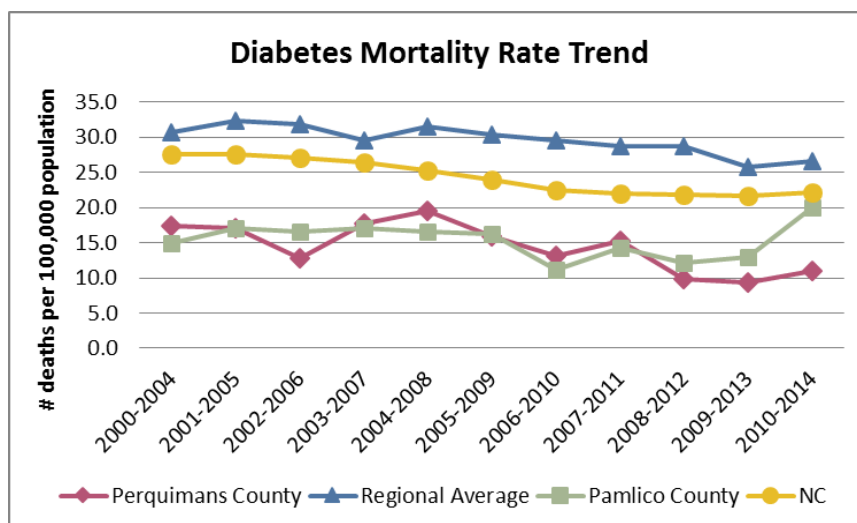
The hospitals qualifying for inclusion on the basis of more than 20 ED discharges over the period cited were: Vidant Bertie, Chowan and Roanoke-Chowan Hospitals, The Outer Banks Hospital, and Sentara Albemarle Medical Center. The hospitals qualifying on the basis of more than 20 IP discharges over the period cited are: Vidant Chowan and Roanoke-Chowan Hospitals, and Sentara Albemarle Medical Center.

Diabetes Mellitus Mortality Rate Trend

The figure below plots the diabetes mortality rate trend over time.

- The diabetes mortality rate in Perquimans County was significantly lower than the regional and state rates throughout the period cited.
- The Perquimans County diabetes mortality rate fluctuated over time, and decreased slightly overall. In 2010-2014 the Perquimans county rate was 11.0, 37% lower than the rate of 17.4 in 2000-2004.
- The diabetes mortality rate for NC as a whole decreased 20% over the period cited.

Figure 56. Overall Diabetes Mellitus Mortality Rate Trend (Aggregate Periods 2000-2004 through 2010-2014)



Source: NC State Center for Health Statistics, Vital Statistics, Volume 2: Leading Causes of Death (2004 through 2014), <http://www.schs.state.nc.us/data/vital.cfm>.

Racial Disparities in Diabetes Mellitus Mortality

The following table presents diabetes mortality data for the aggregate period 2010-2014, stratified by race.

- Due to below-threshold numbers of diabetes deaths among some minority populations at the county-level, mortality rates were suppressed for these groups.
- Statewide the diabetes mortality rate was highest among American Indian non-Hispanics, followed by African American non-Hispanics; diabetes mortality rates for both of these minority groups were almost 2½ times the comparable rate for white non-Hispanics.

Table 154. Race/Ethnicity-Specific Diabetes Mellitus Mortality (Aggregate Period 2010-2014)

Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		American Indian, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Overall			
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate		
Perquimans County	7	n/a	5	n/a	0	n/a	0	n/a	0	n/a	12	11.0		
Regional Average	16	28.2	18	53.1	0	n/a	0	n/a	0	n/a	34	26.5		
Pamlico County	17	n/a	7	n/a	0	n/a	0	n/a	0	n/a	24	20.0		
State of NC	7,432	17.9	3,961	43.3	219	46.0	69	11.9	117	9.3	11,798	22.1		

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

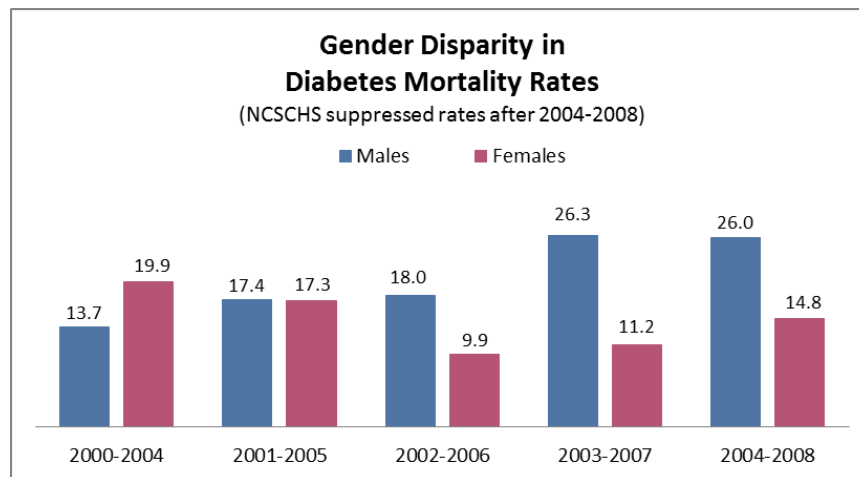
Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Gender Disparities in Diabetes Mellitus Mortality

The figure below plots gender-stratified diabetes mortality rates in Perquimans County for the aggregate periods 2000-2004 through 2004-2008. (Note that subsequent rates were suppressed.)

- The data below appear to show that early in the period cited the diabetes mortality rate for females was either higher than or the same as the rate for males. Beginning in 2002-2006 the rate for males became (and remained) higher than the rate for females. Note, however, that all the rates presented are unstable.

Figure 57. Sex-Specific Diabetes Mellitus Mortality Rate Trend, Perquimans County (Aggregate Periods 2000-2004 through 2004-2008)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2016), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Homicide

Homicide was the thirteenth-ranked cause of death in Perquimans County in 2010-2014 (cited previously).

Homicide Hospitalizations

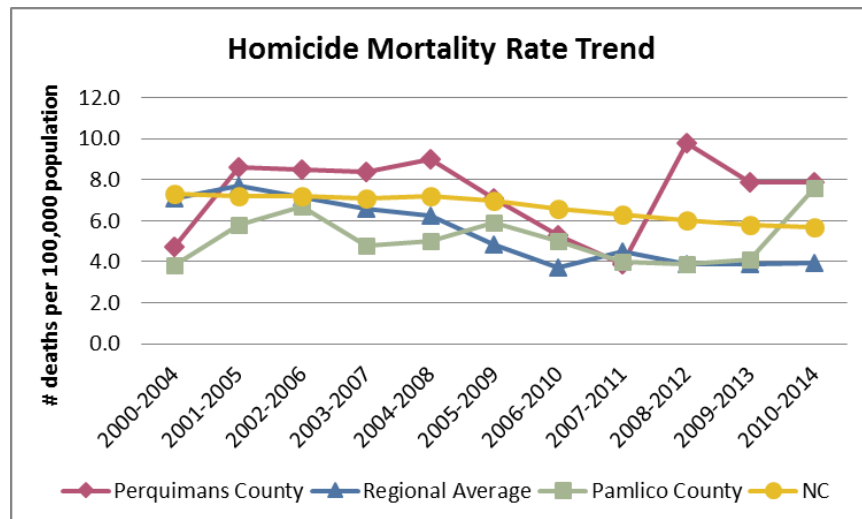
At the present time the NC SCHS does not track hospitalizations related to homicide or attempted homicide. There is an ICD-9 code descriptive of Homicidal Ideation (V62.85), but it has not been pursued for inclusion in this report.

Homicide Mortality Rate Trend

The figure below plots the homicide mortality rate trend over time.

- Over the period shown in the graph below, the homicide mortality rate in Perquimans County was frequently the highest among comparators, including in the most recent aggregate period. The local rate increased overall from 4.7 in 2000-2004 to 7.9 in 2010-2014. It should be noted, however, that all the county-level homicide rates were unstable.
- At the state level, the homicide rate decreased 22% over the period cited.

Figure 58. Overall Homicide Mortality Rate Trend (Aggregate Periods 2000-2004 through 2010-2014)



Source: NC State Center for Health Statistics, Vital Statistics, Volume 2: Leading Causes of Death (2009 through 2014), <http://www.schs.state.nc.us/data/vital.cfm>.

Racial Disparities in Homicide Mortality

The next table presents homicide mortality data for the period 2010-2014, stratified by race.

- Due to below-threshold numbers of homicides among racially-stratified populations at the county-level, mortality rates were suppressed for these groups.
- Statewide, the homicide mortality rate was highest for American Indian non-Hispanics, followed by African American non-Hispanics and Hispanics.

Table 155. Race/Ethnicity-Specific Homicide Mortality (Aggregate Period 2010-2014)

Location	Deaths, Number and Rate (Deaths per 100,000 Population)											
	White, Non-Hispanic		African American, Non-Hispanic		American Indian, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Perquimans County	1	n/a	3	n/a	0	n/a	0	n/a	0	n/a	4	7.9
Regional Average	2	n/a	2	n/a	0	n/a	0	n/a	0	n/a	4	4.0
Pamlico County	2	n/a	1	n/a	0	n/a	0	n/a	1	n/a	4	7.6
State of NC	997	3.1	1,416	13.0	88	15.0	40	3.2	187	4.3	2,728	5.7

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

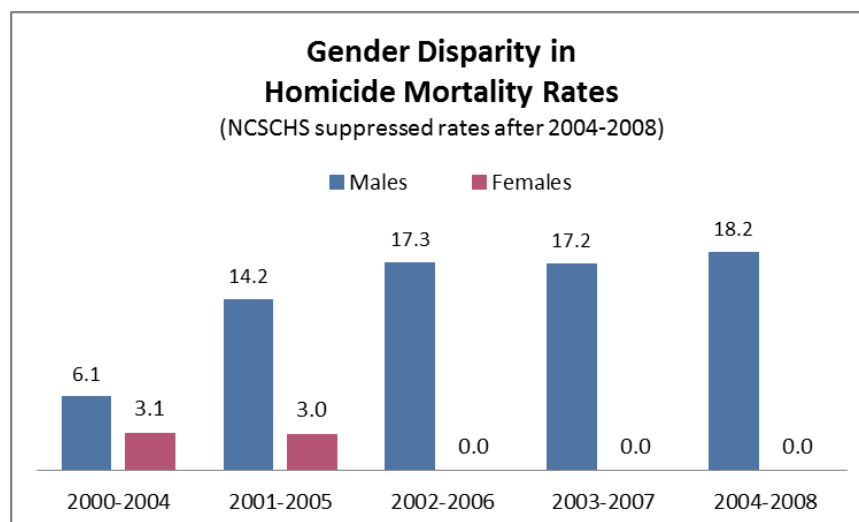
Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Gender Disparities in Homicide Mortality

The figure below plots gender-stratified homicide mortality rates in Perquimans County for 2000-2004 through 2004-2008. Rates for subsequent aggregate periods were suppressed.

- Although all the rates for both sexes were unstable, the disproportional gender-based pattern of homicide mortality depicted in the graph—a mortality rate much higher among males—is common throughout NC.

Figure 59. Sex-Specific Homicide Mortality Rate Trend, Perquimans County (Aggregate Periods 2000-2004 through 2004-2008)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2010), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Acquired Immune Deficiency Syndrome (AIDS)

The human immune deficiency virus (HIV) is the virus that causes AIDS. HIV attacks the immune system by destroying CD4 positive (CD4+) T cells, a type of white blood cell that is vital to fighting off infection. The destruction of these cells leaves people infected with HIV vulnerable to other infections, diseases and other complications. The acquired immune deficiency syndrome (AIDS) is the final stage of HIV infection. A person infected with HIV is diagnosed with AIDS when he or she has one or more opportunistic infections, such as pneumonia or tuberculosis, and has a dangerously low number of CD4+ T cells (less than 200 cells per cubic millimeter of blood) (69).

AIDS was the fourteenth-ranked cause of death in Perquimans County in 2010-2014 (cited previously).

AIDS Hospitalizations

The table below presents hospital discharge rate trend data for AIDS. All the rates for Perquimans County were unstable. Statewide, the AIDS hospital discharge was 0.2 for many years, but in 2011 it decreased to 0.1.

Table 156. AIDS Hospital Discharge Rate Trend (2005-2014)

Location	Rate (Discharges per 1,000 Population)									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Perquimans County	0.9	0.6	0.6	0.2	0.1	0.2	0.1	0.2	0.1	0.1
<i>Regional Average</i>	0.4	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2
Pamlico County	n/a	n/a	0.1	0.1	0.2	0.2	n/a	n/a	n/a	0.1
State of NC	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1

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

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2016), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; <http://www.schs.state.nc.us/SCHS/data/databook/>.

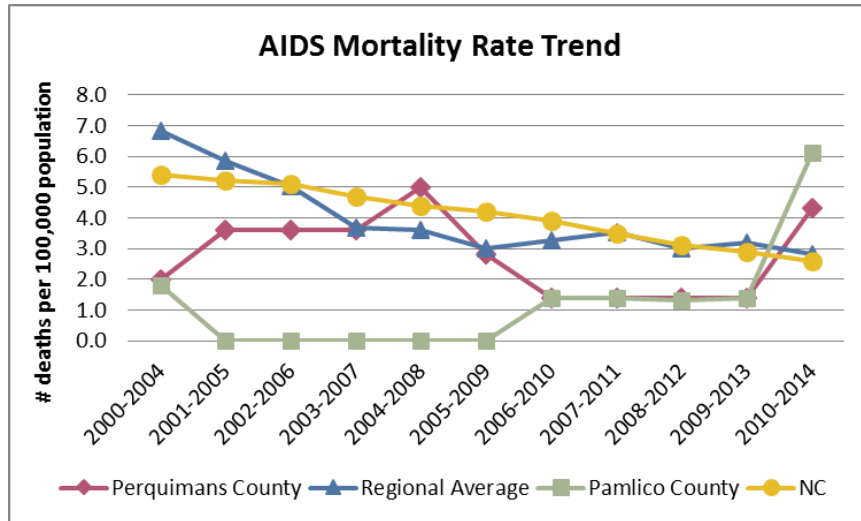
In the ICD-9 coding scheme, AIDS falls in the category Infectious and Parasitic Diseases, with the specific code of 042. There were too few discharges at any of the participating hospitals to warrant tabulation in this report.

AIDS Mortality Rate Trend

The following figure plots the AIDS mortality rate trend over time.

- The Perquimans County AIDS mortality rate was unstable and erratic for the entire period cited. The rate in 2010-2014 was higher than the rate in 2000-2004.
- The AIDS mortality rate for NC as a whole decreased 52%, falling steadily from 5.4 to 2.6 over the period cited.

**Figure 60. Overall AIDS Mortality Rate Trend
(Aggregate Periods 2000-2004 through 2010-2014)**



Source: NC State Center for Health Statistics, Vital Statistics, Volume 2: Leading Causes of Death (2004 through 2014), <http://www.schs.state.nc.us/data/vital.cfm>.

Racial Disparities in AIDS Mortality

The table below presents AIDS mortality data for the aggregate period 2010-2014, stratified by race.

- Note that due to below-threshold numbers of AIDS deaths among all stratified populations at the county- and regional level, mortality rates were suppressed for those groups.
- Statewide, the AIDS mortality rate was highest among African American non-Hispanics, followed by Hispanics and white non-Hispanics.

**Table 157. Race/Ethnicity-Specific AIDS Mortality
(Aggregate Period 2010-2014)**

Location	Deaths, Number and Rate (Deaths per 100,000 Population)											
	White, Non-Hispanic		African American, Non-Hispanic		American Indian, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Perquimans County	0	n/a	3	n/a	0	n/a	0	n/a	0	n/a	3	4.3
Regional Average	0	n/a	2	n/a	0	n/a	0	n/a	0	n/a	3	2.8
Pamlico County	2	n/a	1	n/a	0	n/a	0	n/a	0	n/a	3	6.1
State of NC	306	0.9	973	9.0	9	n/a	4	n/a	39	1.4	1,331	2.6

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

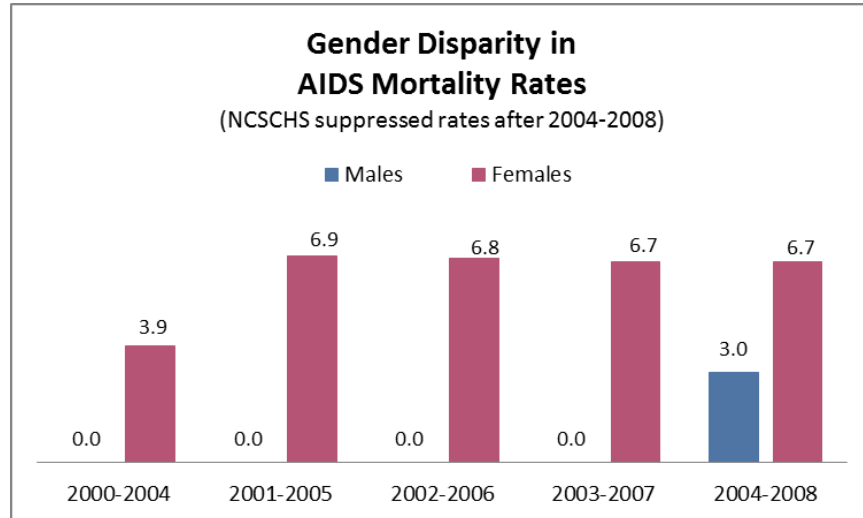
Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Gender Disparities in AIDS Mortality

The following figure plots gender-stratified AIDS mortality rates in Perquimans County for the aggregate periods 2000-2004 through 2004-2008. Mortality rates in subsequent aggregate periods were suppressed.

- All the AIDS mortality rates shown in the graph were unstable, but the pattern of higher rates for females than for males is the less common pattern. Note that all rates presented were unstable.

Figure 61. Sex-Specific AIDS Mortality Rate Trend, Perquimans County (Aggregate Periods 2000-2004 through 2004-2008)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2010), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Chronic Liver Disease and Cirrhosis

Chronic liver disease describes an ongoing disturbance of liver function that causes illness. Liver disease, also referred to as hepatic disease, is a broad term that covers all the potential problems that cause the liver to fail to perform its designated functions. Usually, more than 75% or three quarters of liver tissue needs to be affected before decrease in function occurs. Cirrhosis is a term that describes permanent scarring of the liver. In cirrhosis, the normal liver cells are replaced by scar tissue that cannot perform any liver function (70).

Chronic liver disease and cirrhosis was the fifteenth-ranked cause of death in Perquimans County in the 2010-2014 (cited previously).

Chronic Liver Disease and Cirrhosis Hospitalizations

The table below presents hospital discharge rate trend data for chronic liver disease and cirrhosis. Note that all of the county-level rates were unstable or suppressed.

Table 158. Chronic Liver Disease and Cirrhosis Hospital Discharge Rate Trend (2005-2014)

Location	Rate (Discharges per 1,000 Population)									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Perquimans County	0.1	0.3	0.2	0.3	0.2	n/a	0.4	n/a	n/a	0.1
Regional Average	0.3	0.3	0.2	0.3	0.2	0.1	0.2	0.2	0.2	0.2
Pamlico County	0.7	0.2	0.1	0.5	0.5	0.7	0.6	0.3	0.1	0.4
State of NC	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3

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

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2016), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence;
<http://www.schs.state.nc.us/SCHS/data/databook/>.

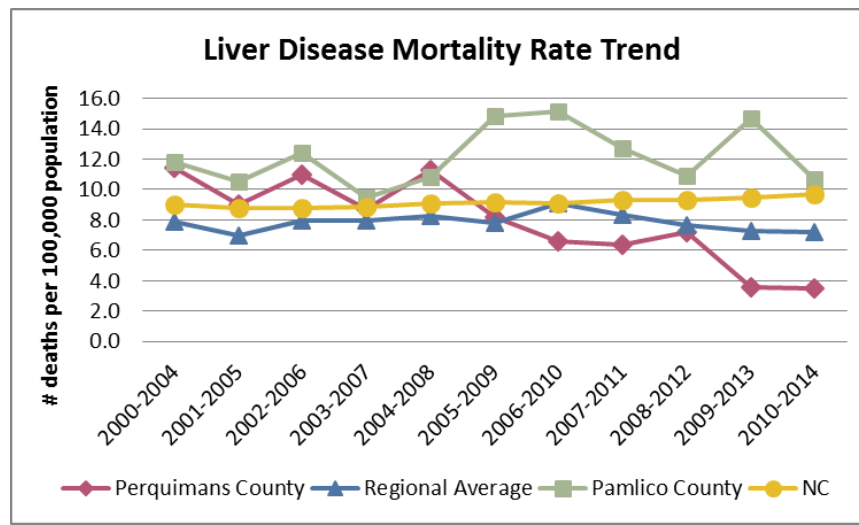
The ICD-9 Code for chronic liver disease and cirrhosis is 571xx, but there were too few discharges at any of the qualifying hospitals to warrant tabulation for this report.

Chronic Liver Disease and Cirrhosis Mortality Rate Trend

The following figure displays the chronic liver disease and cirrhosis mortality rate trend over time.

- The chronic liver disease and cirrhosis mortality rate for Perquimans County fluctuated widely over the period cited, due to small numbers of deaths and unstable rates. The local mortality rate was 11.4 in 2000-2004 and 3.5 in 2010-2014, a 69% decrease.
- The chronic liver disease and cirrhosis mortality rate for NC as a whole rose 8% over the period cited, from 9.0 in 2000-2004 to 9.7 in 2010-2014.

Figure 62. Overall Chronic Liver Disease and Cirrhosis Mortality Rate Trend (Aggregate Periods 2000-2004 through 2010-2014)



Source: NC State Center for Health Statistics, Vital Statistics, Volume 2: Leading Causes of Death (2004 through 2014), <http://www.schs.state.nc.us/data/vital.cfm>.

Racial Disparities in Chronic Liver Disease and Cirrhosis Mortality

The table below presents chronic liver disease and cirrhosis mortality data for the aggregate period 2010-2014, stratified by race.

- Note that due to below-threshold numbers of chronic liver disease and cirrhosis deaths among stratified populations in Perquimans County and elsewhere, mortality rates were suppressed for those groups.
- Statewide, the chronic liver disease and cirrhosis mortality rate was highest among American Indian non-Hispanics, followed by white non-Hispanics and African American non-Hispanics.

Table 159. Race/Ethnicity-Specific Chronic Liver Disease and Cirrhosis Mortality (Aggregate Period 2010-2014)

Location	Deaths, Number and Rate (Deaths per 100,000 Population)											
	White, Non-Hispanic		African American, Non-Hispanic		American Indian, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Perquimans County	3	n/a	1	n/a	0	n/a	0	n/a	0	n/a	13	3.5
Regional Average	8	n/a	2	n/a	0	n/a	0	n/a	0	n/a	11	7
Pamlico County	7	n/a	2	n/a	0	n/a	0	n/a	0	n/a	9	10.7
State of NC	4,404	10.8	798	7.3	65	11.2	28	3.4	83	4.4	5,378	9.7

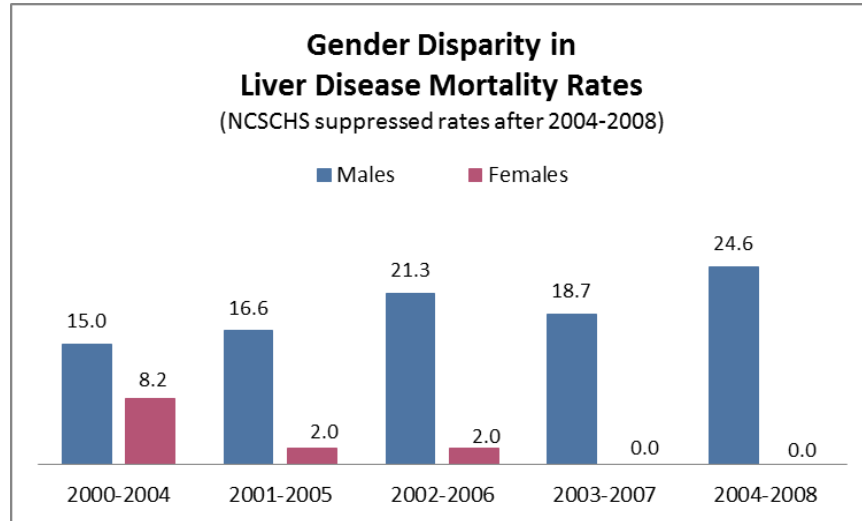
Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases. Source: NC State Center for Health Statistics, County Health Data Book (2016), Mortality, 2010-2014 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

Gender Disparities in Chronic Liver Disease and Cirrhosis Mortality

The following figure plots gender-stratified chronic liver disease and cirrhosis mortality rates in Perquimans County for the aggregate periods 2000-2004 through 2004-2008. Note that subsequent rates were suppressed.

- According to the graph, the chronic liver disease and cirrhosis mortality rate for males in Perquimans County was significantly higher than the comparable rate for females. However, it should be noted that all the gender-stratified mortality rates in the graph were unstable.

Figure 63. Sex-Specific Chronic Liver Disease and Cirrhosis Mortality Rate Trend, Perquimans County (Aggregate Periods 2000-2004 through 2004-2008)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2010), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; <http://www.schs.state.nc.us/SCHS/data/databook/>.

MORBIDITY

Morbidity refers generally to the current presence of injury, sickness or disease (and sometimes the symptoms and/or disability resulting from those conditions) in the living population. In this report, communicable disease (including sexually-transmitted infections), asthma, diabetes, obesity, oral health, and mental health conditions are the topics covered under morbidity.

The parameter most frequently used to describe the current extent of any condition of morbidity in a population is *prevalence*: the number of existing cases of a disease or health condition in a population at a defined point in time or during a period. Prevalence usually is expressed as a proportion, not a rate, and often represents an estimate rather than a direct count.

Communicable Disease

A communicable disease is a disease transmitted through direct contact with an infected individual or indirectly through a vector.

Sexually Transmitted Infections

The topic of communicable diseases includes sexually transmitted infections (STIs). The STIs of greatest regional interest are chlamydia and gonorrhea. HIV/AIDS is sometimes grouped with STIs, since sexual contact is one mode of HIV transmission. While AIDS, as the final stage of HIV infection, was discussed previously among the leading causes of death, HIV is discussed here as a communicable disease.

Chlamydia

Chlamydia is the most frequently reported bacterial STI in the US, with an estimated 2.8 million new cases reported in the US each year. Chlamydia cases frequently go undiagnosed and can cause serious problems in men and women, such as penile discharge and infertility respectively, as well as infections in newborn babies of infected mothers (71).

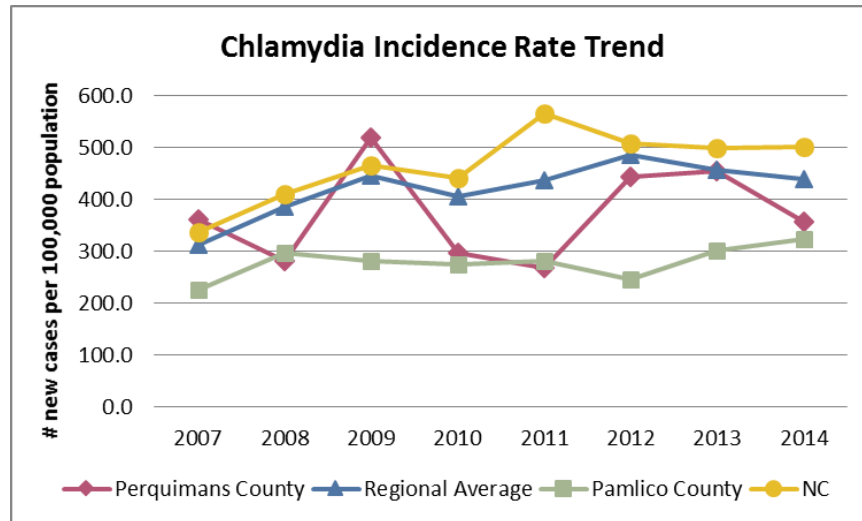
The following figure presents incidence data (i.e., new cases diagnosed) on chlamydia infections.

- There is considerable variability in the annual incidence rates for chlamydia at the county level, which is not uncommon for an infectious disease (see also disclaimer, below).
- The chlamydia incidence rate in Perquimans County was below the comparable NC and regional rate in every year cited except 2007 and 2009.
- The NC Communicable Disease Branch provides the following disclaimer to this chlamydia incidence data:

Note: chlamydia case reports represent persons who have a laboratory-confirmed Chlamydial infection. It is important to note that Chlamydial infection is often asymptomatic in both males and females and most cases are detected through screening. Changes in the number of reported cases may be due to changes in screening practices. The disease can cause serious complications in females and a number of screening programs are in place to detect infection in young women. There are no comparable screening programs for young men. For this reason, Chlamydia

case reports are always highly biased with respect to gender. The North Carolina STD Surveillance data system has undergone extensive changes since 2008 when North Carolina implemented North Carolina Electronic Disease Surveillance System (NC ESS). During this transition, Chlamydia morbidity counts for some counties may have been affected. Report totals for 2011 should be considered with this in mind. Reports are summarized by the date received in the Communicable Disease Surveillance Unit office rather than by date of diagnosis.

Figure 64. Chlamydia Infection Incidence Trend (2007-2014)



Source: NC DHHS, Division of Public Health, Epidemiology Section, Communicable Disease Branch. Facts and Figures. AIDS/HIV and STDs. Annual Reports. Years as noted. Table 13; <http://epi.publichealth.nc.gov/cd/stds/annualrpts.html>.

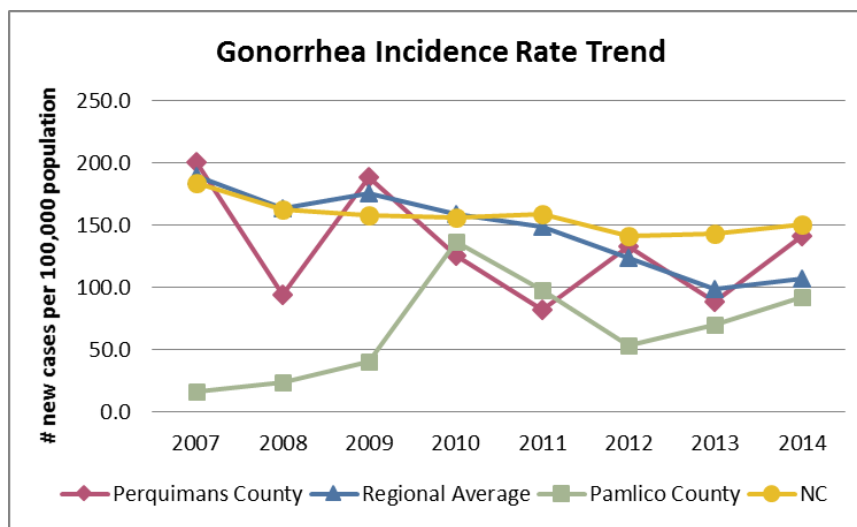
Gonorrhea

Gonorrhea is the second most commonly reported bacterial STI in the US. The highest rates of gonorrhea have been found in African Americans, people 20 to 24 years of age, and women, respectively. In women, gonorrhea can spread into the uterus and fallopian tubes, resulting in pelvic inflammatory disease (PID). PID affects more than one million women in the US every year and can cause tubal pregnancy and infertility in as many as 10 percent of infected women. In addition, some health researchers think gonorrhea adds to the risk of getting HIV infection (72).

The following figure presents incidence data (i.e., new cases diagnosed) for gonorrhea infections.

- The gonorrhea incidence rate in Perquimans County, though highly variable, was lower than the comparable state rate in every year except 2007 and 2009, and lower than the regional average rate in every year except 2007, 2009, 2012 and 2014.

Figure 65. Gonorrhea Infection Incidence Trend (2007-2014)



Source: NC DHHS, Division of Public Health, Epidemiology Section, Communicable Disease Branch. Facts and Figures. AIDS/HIV and STDs. Annual Reports. Years as noted. Table 8; <http://epi.publichealth.nc.gov/cd/stds/annualrpts.html>.

The table below presents the 2006-2010 racially/ethnically-stratified gonorrhea infection rates for the four comparator jurisdictions. Note that this is old data, but no update was available from the source at the time this report was developed.

- In every jurisdiction the highest gonorrhea incidence occurred among the African American non-Hispanic population, in which group the incidence rate was as many as 11 times the comparable rate among the white non-Hispanic population. Note however that the gonorrhea incidence rate in Perquimans County was unstable for all groups except white non-Hispanics and African American non-Hispanics.

Table 160. Gonorrhea Infection Incidence Rate, Stratified by Race/Ethnicity (Aggregate Period 2006-2010)

Location	Incidence, All Ages, Number and Rate (New cases per 100,000 population)									
	Total		White, Non-Hispanic		African American, Non-Hispanic		Other, Non-Hispanic		Hispanic	
	# Cases	Rate	# Cases	Rate	# Cases	Rate	# Cases	Rate	# Cases	Rate
Perquimans County	94	148.0	21	45.5	68	418.2	0	0.0	5	605.3
<i>Regional Average</i>	195	179.5	34	51.6	158	430.1	0	39.2	2	178.7
Pamlico County	33	52.5	18	38.2	15	107.0	0	0.0	0	0.0
<i>State Total</i>	77,867	168.9	16,488	52.9	58,041	581.6	1,485	96.7	1,853	54.2

Note: Rates for Perquimans appearing in **bold** type are based on fewer than 20 cases per five year period. Such rates are unstable and should be interpreted with caution.

Note: Regional arithmetic mean rates appearing in *italic* type include more than three unstable county rates. Such mean rates likely are unstable and should be interpreted with caution.

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

Human Immune Deficiency Virus (HIV)

From the standpoint of traditional incidence rates, the numbers of new HIV cases in less populated counties like Perquimans County tend to be low and yield extremely variable or suppressible rates. (For example, there were three new HIV cases in Perquimans County in the five-year period from 2010-2014.) Instead, the following table approximates a *prevalence* estimate for each jurisdiction on the basis of how many persons are living with HIV on a particular date.

- As of December 31, 2014 there were 28 persons with HIV/AIDS living in Perquimans County.

Table 161. HIV Prevalence: HIV and AIDS Cases Living as of December 31, 2014 (By County of Residence)

Location	Number of Living Cases
Perquimans County	28
<i>Regional Average</i>	36
Pamlico County	21
State of NC	28,526

Source: NC DHHS, Division of Public Health, Epidemiology Section, Communicable Disease Branch. Facts and Figures. AIDS/HIV and STDs. Annual Reports. 2014. Table 1. <http://epi.publichealth.nc.gov/cd/stds/figures/std14rpt.pdf>.

Asthma

Asthma, a disease that affects the lungs, is one of the most common long-term diseases of children, but adults also can have asthma. Asthma causes wheezing, breathlessness, chest tightness, and coughing at night, early in the morning, or upon exertion. The symptoms result because the sides of the airways in the lungs swell and the airways shrink. Less air gets in and out of the lungs, and mucous naturally produced by the body further clogs the airways. In most cases, the cause of asthma is unknown (although there likely is a hereditary component), and there is no known cure. Asthma can be hard to diagnose (73).

The table below presents hospital discharge data for asthma, stratified by age, for the period 2011-2014. (At the present time this is the best measure of asthma prevalence available from NC SCHS.)

- Among comparators, the overall asthma hospitalization rate in Perquimans County was the second lowest, after Pamlico County.
- County-level discharge rates for youth are all unstable, but at the state level the rates for youth (age 0-14) are half-agein higher than the overall rates.

Table 162. NC Hospital Discharges with a Primary Diagnosis of Asthma, Numbers and Rates per 100,000 (2011-2014)

Location	Discharges, Number and Rate (Discharges per 100,000 Population)															
	2011				2012				2013				2014			
	All Ages		Age 0-14		All Ages		Age 0-14		All Ages		Age 0-14		All Ages		Age 0-14	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Perquimans County	12	89.0	0	0.0	13	95.8	0	0.0	8	58.8	2	87.3	12	89.1	0	0.0
<i>Regional Average</i>	24	118.1	3	52.7	26	134.6	5	124.6	21	122.1	3	86.3	21	102.7	1	33.5
Pamlico County	8	60.6	0	0.0	11	84.1	2	107.8	3	23.2	0	0.0	14	108.1	5	291.7
State of NC	9,880	102.3	3,004	157.3	9,786	100.3	3,128	163.7	9,021	91.6	2,841	148.9	9,035	90.9	2,754	144.6

Note: Bold type indicates a likely unstable rate based on a small (fewer than 10) number of cases.

Source: NC State Center for Health Statistics, County-level Data, County Health Data Book (Years as noted), Morbidity, Asthma Hospital Discharges (Total and Age 10-14) per 100,000 Population (years and counties as noted);

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

Although according to NC SCHS, the inpatient hospital discharge rate for asthma in Perquimans County lately has been lower than the comparable state rate, it may be illustrative to examine local hospital discharge data for asthma (ICD-9 Code 493xx) because there is often a racial and/or age disparity. These ED data are from Sentara Albemarle Medical Center.

The table below presents ED data summarizing 2013 and 2014 discharges of Perquimans County residents associated with a primary diagnosis of asthma, stratified by race and age.

- There were 167 ED discharges of Perquimans County residents at Sentara Albemarle Medical Center in 2013 and 2014 associated with a primary diagnosis of asthma.
- Blacks accounted for 51% of all ED discharges of Perquimans County residents with this diagnosis, while composing 25% of the Perquimans County population.
- The total number of pediatric (age 0-14) discharges under this code represented 27% of all discharges of Perquimans County residents under the code for asthma. Children in this age group represent approximately 17% of the Perquimans County population.

Table 163. Hospital Discharges, Perquimans County Residents, by Race and Age: Asthma (2013-2014)

Fiscal Year	No. ED Discharges				
	Black	White	Age 0-14	Age >14	Total
2013	37	41	23	59	82
2014	48	37	22	63	85
Total	85	78	45	122	167

Source: Vidant Roanoke-Chowan Hospital

Diabetes

Diabetes mellitus, or simply, diabetes, is a group of diseases characterized by high blood glucose levels that result from defects in the body's ability to produce and/or use insulin. Diabetes can cause serious health complications including heart disease, blindness, kidney failure, and lower-extremity amputations. There are three major types of diabetes:

Type 1 diabetes results from the body's failure to produce insulin. This form was previously referred to as "insulin-dependent diabetes mellitus" or "juvenile diabetes". *Type 2 diabetes* results from insulin resistance, a condition in which cells fail to use insulin properly, sometimes combined with an absolute insulin deficiency. This form was previously referred to as "non-insulin-dependent diabetes mellitus" or "adult-onset diabetes". The third main form, *gestational diabetes*, occurs when pregnant women without a previous diagnosis of diabetes develop a high blood glucose level. Gestational diabetes is caused by the hormones of pregnancy or a shortage of insulin. Although this form of diabetes usually goes away after the baby is born, a woman who has had it is more likely to develop Type 2 diabetes later in life.

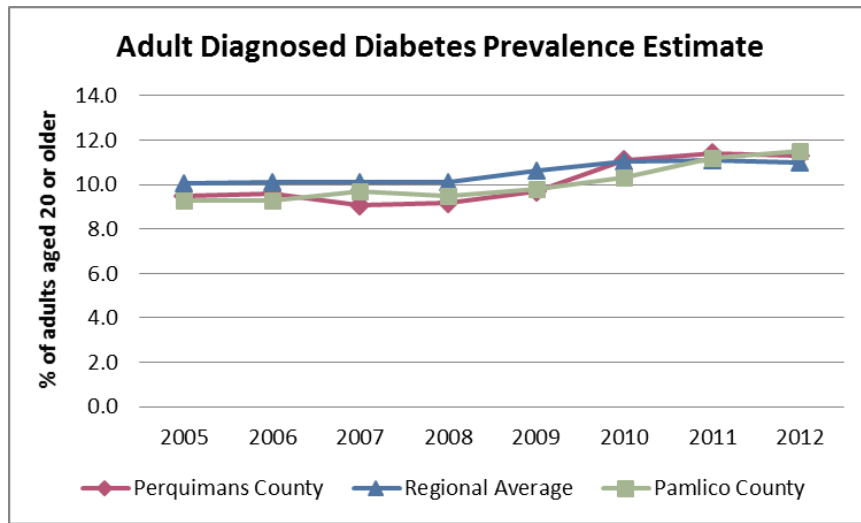
In recent years, medical professionals have begun to diagnose *prediabetes*, a condition in which blood glucose levels are higher than normal but not high enough for a diagnosis of diabetes. People with prediabetes are at increased risk for developing Type 2 diabetes and for heart disease and stroke (74).

As discussed previously in the mortality section of this report, diabetes was the 12th leading cause of death in Perquimans County for the 2010-2014 aggregate period, causing 12 deaths. However, diabetes is a chronic condition, and, as noted above can have multiple significant health effects on its sufferers long before it might cause death.

The following figure plots estimates of the prevalence of diagnosed diabetes in adults age 20 and older in Perquimans County and its local comparators (state-level data was not available).

- The annual estimated prevalence of diabetes among Perquimans County adults was lower than the Region except for the last two years.
- Over the 8-year period presented, the average annual estimated prevalence of adult diabetes in Perquimans County was 10.1%, compared to 10.5% Region-wide.

Figure 66. Adult Diagnosed Diabetes Prevalence Estimate Trend (2005-2012)



Note: The prevalence of diagnosed diabetes and selected risk factors by county was estimated using data from CDC's Behavioral Risk Factor Surveillance System (BRFSS) and data from the U.S. Census Bureau's Population Estimates Program. Three years of data were used to improve the precision of the year-specific county-level estimates of diagnosed diabetes and selected risk factors.

Source: Centers for Disease Control and Prevention, Diabetes. Data and Statistics. County Data: Maps and Data Tables. Indicator: Diagnosed Diabetes, Age Adjusted Percentage. Years as noted; <http://www.cdc.gov/diabetes/atlas/countydata/atlas.html>.

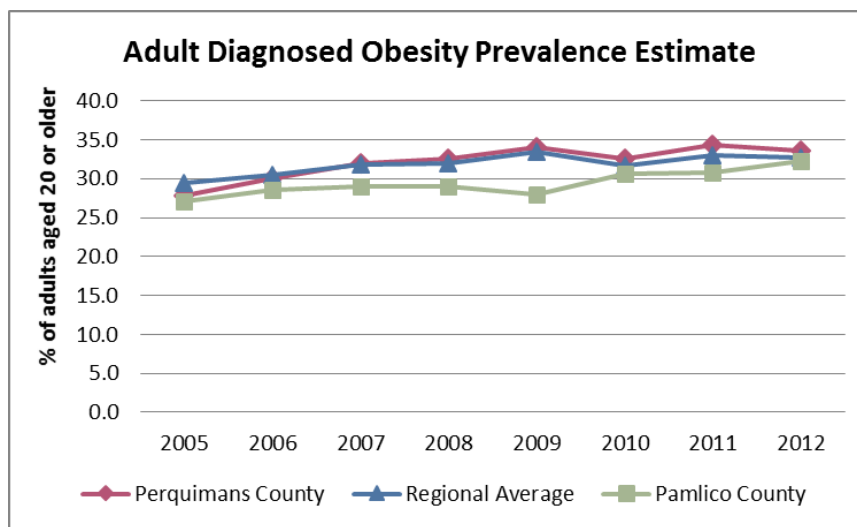
Obesity

Obesity in Adults

The figure below plots recent estimates of the prevalence of diagnosed obesity in adults age 20 and older in the three local jurisdictions being compared in this CHA. Comparable state-level data was not available.

- The annual estimated prevalence of adult obesity in Perquimans County was higher than in the Region for most of the period presented and increased slightly overall.
- The average annual estimated prevalence of adult obesity in Perquimans County was 32.1% in the period from 2005 through 2012, compared to 31.8% in the Region [State data is not available].

Figure 67. Adult Diagnosed Obesity Prevalence Estimate Trend (2005-2012)



Note: The prevalence of diagnosed diabetes and selected risk factors by county was estimated using data from CDC's Behavioral Risk Factor Surveillance System (BRFSS) and data from the U.S. Census Bureau's Population Estimates Program. Three years of data were used to improve the precision of the year-specific county-level estimates of diagnosed diabetes and selected risk factors.

Source: Centers for Disease Control and Prevention, Diabetes. Data and Statistics. County Data: Maps and Data Tables. Indicator: Diagnosed Diabetes, Age Adjusted Percentage. Years as noted; <http://www.cdc.gov/diabetes/atlas/countydata/atlas.html>

Obesity in Children

There is limited “measured” obesity data for children in Perquimans County. One source is the NC *Healthy Weight Initiative*, which via the NC Nutrition and Physical Activity Surveillance System (NC NPASS), collects height and weight measurements from children seen in NC DPH-sponsored WIC and Child Health Clinics, as well as some school-based Health Centers (75). (It is important to note that this data is not necessarily representative of the county-wide population of children.) This data is used to calculate Body Mass Indices (BMIs) in order to gain some insight into the prevalence of childhood obesity. BMI is a calculation relating weight to height by the following formula:

$$\text{BMI} = (\text{weight in kilograms}) / (\text{height in meters})$$

For children, a BMI in the 95th percentile or above is considered “obese” (formerly defined as “overweight”), while BMIs that are between the 85th and 94th percentiles are considered “overweight” (formerly defined as “at risk for overweight”).

The table below presents NC NPASS data for children ages 2-4 for the period 2008-2012. Data for other age groups in Perquimans County represented small numbers of children and too many unstable rates for inclusion here. Unfortunately, more recent data was not available from this source at the time this report was developed.

- In Perquimans County in 2012, 13.3% of the participating children age 2-4 were “overweight” and 16.7% were “obese” (total = 30.0%)

- In NC in the same period, 14.9% were overweight and 14.5% were obese (total = 29.4%)

Table 164. Prevalence of Obesity and Overweight in Children, Ages 2-4, NC NPASS (2008-2012)

Location	Prevalence of Overweight and Obesity in Children Ages 2-4, by Percent									
	2008		2009		2010		2011		2012	
	Overweight	Obese	Overweight	Obese	Overweight	Obese	Overweight	Obese	Overweight	Obese
Perquimans County	21.2	14.7	9.3	22.4	19.1	19.7	17.6	22.5	13.3	16.7
<i>Regional Average</i>	15.5	17.1	14.0	15.1	15.6	16.2	15.2	16.6	13.0	16.9
Pamlico County	18.8	9.8	22.6	18.9	29.4	n/a	16.8	16.8	15.7	12.2
State of NC	16.3	15.4	15.8	15.4	16.1	15.6	16.2	15.7	14.9	14.5

Note: Figures denoted in **bold** type indicate percentages based on fewer than 10 cases.

Note: NC-NPASS data for children ages 2 to 4 are reflective of the population at 185% of the federal poverty level. Approximately 85 to 95% of the children included in the NC-NPASS sample for ages 2 to 4 are WIC participants. Since children are not eligible to participate in WIC once they become 5 years old, the sample size for NC-NPASS data received from the child health clinics was not adequate to calculate county-specific rates for children age 5 and older.

Source: Eat Smart, Move More, Data on Children and Youth in NC, North Carolina Nutrition and Physical Activity Surveillance System (NC-NPASS), NC-NPASS Data (2008-2012), counties and age groups as noted; <http://www.eatsmartmovemorenc.com/Data/ChildAndYouthData.html>.

Oral Health

Adult Oral Health

Counties are expected to use data from the annual Behavioral Risk Factor Surveillance System (BRFSS) survey to describe dental problems in the community. In NC, the BRFSS survey results are compiled on the county level only for large jurisdictions or metropolitan areas. Perquimans County responses are combined among those of 40 other counties in an eastern NC region BRFSS data summary. Consequently, it is necessary to look elsewhere to adequately describe the dental needs of adults in Perquimans County.

As noted in the Health Resources section of this report the ratio of dentists-to-population in Perquimans County is very low, and with resources for dental care in such short supply, it might be expected that county residents would have some difficulty accessing needed dental care.

Sometimes an indicator of a dental care access problem is the frequency with which the local emergency department is used as a dental provider. The ICD-9 Codes 520-525, Diseases of Oral Cavity, Salivary Glands, and Jaws, include diagnoses typically associated with dentistry (e.g., dental caries, gingivitis, periodontitis, tooth loss, etc.) and ICD-9 Code 528, Diseases of the Oral Soft Tissue. The table below lists ED visits to the region's five qualifying hospitals in 2013-2014 by Perquimans County residents for conditions associated with these code categories.

- For the period 2013-2014, Perquimans County residents made a total of 348 visits to local EDs for attention to dental problems.

Table 165. Emergency Department Admissions of Perquimans County Residents for Dental Conditions (2013-2014)

ICD-9 Code	Diagnosis	Number of ED Discharges		
		2013	2014	Total
520-525xx	Diseases of the oral cavity	162	170	332
528xx	Diseases of the oral soft tissue	9	7	16
Total		171	177	348

Source: Vidant Bertie, Vidant Chowan and Vidant Roanoke-Chowan Hospitals, The Outer Banks Hospital, and Sentara Albemarle Medical Center.

Since cost of dental care can be daunting but is covered for Medicaid-eligible patients, it is interesting to examine the proportion of Medicaid clients who actually receive dental services. The following table presents dental service utilization figures for Medicaid clients for SFY2010. This data is very old, but the source has not added data any more recent.

- From this data it appears that Medicaid-eligible persons under the age of 21 in Perquimans County receive dental services at a 29% higher proportion than Medicaid-eligible persons age 21 and older. The direction, if not the proportion, of difference is the same in the other three jurisdictions.

Table 166. Dental Service Utilization by Medicaid Recipients, by Age Group (SFY2010)

Location	SFY2010					
	<21 Years Old			21+ Years Old		
	# Eligible for Services	# Receiving Services	% Eligibles Receiving Services	# Eligible for Services	# Receiving Services	% Eligibles Receiving Services
Perquimans County	1,598	579	36.2	1,244	349	28.1
<i>Regional Average</i>	2,256	773	34.6	1,716	464	26.5
Pamlico County	1,480	812	54.9	1,131	369	32.6
State Total	1,113,692	541,210	48.6	679,139	214,786	31.6

Source: NC DHHS, NC Division of Medical Assistance, Statistics and Reports, County Specific Snapshots for NC Medicaid Services (2008 and 2011); <http://www.ncdhhs.gov/dma/countyreports/index.htm>.

Child Oral Health

Each year about 200,000 NC elementary school children participate in dental screenings, also called assessments. Public health dental hygienists screen for tooth decay and other disease conditions in individuals. The hygienists refer children who have dental problems and need dental care to public or private practice dental care professionals (76).

The table below presents partial summaries of the screenings conducted in SY2009-2010 and SY2012-2013.

- In Perquimans County, the percentage of children at both grade levels with untreated decay *decreased* between SY2009-2010 and SY2012-2013. Even after the decrease, the percentage of kindergarteners with untreated decay in the county was almost 80%

higher than in the state as a whole, and the percentage of 5th graders in the county with untreated decay was the same as the state average.

**Table 167. Child Dental Screening Summary
(SY2009-2010 and SY2012-2013)**

Location	School Dental Screening Results							
	2009-2010				2012-2013			
	Kindergarten		5th Grade		Kindergarten		5th Grade	
	% Screened	% Untreated Decay	% Screened	% Untreated Decay	% Screened	% Untreated Decay	% Screened	% Untreated Decay
Perquimans County	98	27	96	5	97	23	99	2
<i>Regional Average</i>	95	23	95	5	93	19	94	3
Pamlico County	87	18	96	4	88	7	90	3
<i>State of NC</i>	74	15	69	3	58	13	51	2

Source: NC DHHS, Oral Health, References and Statistics, School Oral Health Assessments, NC County Level Oral Health Assessment Data by Year (years and counties as noted); <http://www.ncdhhs.gov/dph/oralhealth/stats/MeasuringOralHealth.htm>.

Mental Health

With the mental health system in the state—and Perquimans County—still coping with system reform growing pains, mental health merits a closer look.

As previously noted in the Mental Health Services and Facilities section of this report, the unit of NC government responsible for overseeing mental health services is the Division of Mental Health, Developmental Disabilities and Substance Abuse Services (DMH/DD/SAS).

In 2001, the NC General Assembly passed the Mental Health System Reform Act, which ended the previous system by which quasi-independent local entities such as counties and regional agencies delivered mental health services by directly employing the care providers. The new law essentially privatized mental health services by requiring the governmental local management entities (LMEs) to contract with other public or private providers or provider groups to serve area residents in need of mental health services. The local counties and regions no longer directly controlled the provision of services, but instead were responsible for managing provider contracts (77).

The status quo of the mental health system in NC did not remain static for long, since state government recognized that even with reorganization of the service system the budget for Medicaid-funded mental health services was not adequately managed and was growing at a high rate each year. In 2004 the state Division of Medical Assistance chose to implement the 1915(b)(c) Medicaid Waiver Program as a means to control and budget the costs of Medicaid-funded services. This program budgets and manages expenditures on the basis of a capitation formula and other fiscal adjustments that take into account the historical service costs associated with different Medicaid-eligible groups. Starting in 2005 the state established one LME (Piedmont Behavioral Health) as a pilot Medicaid managed care vendor via the waiver program. Expansions of the pilot program were undertaken in 2008 and 2010, and in 2011 NCDHHS was instructed to implement the 1915(b)(c) Waiver Program statewide by July 1, 2013 (78).

The state established a series of minimum requirements for LMEs to participate in the Waiver Program, and if an LME could not meet the minimum standards it was required to merge with another LME. As a result of standards enforcement, the state's original 23 LMEs had shrunk to 10 by December, 2013, at which time NCDHHS proposed to consolidate the remaining 10 into four agencies (79). The LME/MCO serving Perquimans County is Trillium Health Resources.

One goal of mental health reform in NC was to refocus mental health, developmental disabilities and substance abuse care in the community instead of in state mental health facilities. The data below clearly illustrates how utilization of some state-level services has diminished.

Mental Health Service Utilization

The following table presents an annual summary of the number of persons in each jurisdiction served by LMEs/Area Programs from 2005 through 2014.

- The number of Perquimans County residents served by the Area Mental Health Program has decreased overall, from 395 in 2005 to 354 in 2014.

Table 168. Persons Served by Mental Health Area Programs/Local Management Entities (2005-2014)

Location	Number of Persons Served									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Perquimans County	395	401	374	406	416	467	487	222	416	354
<i>Regional Average</i>	<i>758</i>	<i>724</i>	<i>730</i>	<i>730</i>	<i>733</i>	<i>706</i>	<i>765</i>	<i>382</i>	<i>611</i>	<i>511</i>
Pamlico County	341	312	324	427	515	454	497	438	276	457
State of NC	337,676	322,397	315,338	306,907	309,155	332,796	360,180	315,284	306,080	316,863

Note: The figures in the table represent all clients of a community-based Area Program for mental health, developmental disabilities, and drug and alcohol abuse active at the beginning of the state fiscal year plus all admissions during the year. Also included are persons served in three regional mental health facilities. Multiple admissions of the same client are counted multiple times. County of residence is reported at the time of admission. State figures include clients reported to reside out-of-state and sometimes contains individuals of Unknown County of residence.

Source: Log Into North Carolina (LINC) Database, Topic Group Vital Statistics and Health (Data Item 519); http://data.osbm.state.nc/pls/linc/dyn_linc_main.show.

Since mental health reform in NC, only the most seriously ill mental health patients qualify for treatment at state psychiatric hospitals. The individual must be assessed as meeting the diagnostic criteria for (1) acute schizophrenia and/or other psychotic disorders, (2) acute mood disorders or (3) the combination of both, with or without medical and/or physical complications that are within the parameters of what the state hospital can manage (80).

At the present time, there are three state-operated psychiatric hospitals in NC: Broughton Hospital (Morganton), Central Regional Hospital (Butner), and Cherry Hospital (Goldsboro).

The table below presents a summary of the number of persons in each comparator jurisdiction served in NC State Psychiatric Hospitals for the period from 2005 through 2014.

- Over the 10-year period cited the number of Perquimans County residents served by State Psychiatric Hospitals *decreased* by 92%. In 2014, two persons were served.

**Table 169. Persons Served in NC State Psychiatric Hospitals
(2005-2014)**

Location	Number of Persons Served									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Perquimans County	26	20	15	18	9	5	7	5	3	2
<i>Regional Average</i>	41	39	33	18	13	9	8	5	4	4
Pamlico County	31	18	19	5	4	2	0	4	4	1
State of NC	18,435	18,292	18,498	14,643	9,643	7,188	5,754	4,572	3,964	3,529

Note: Sometimes referred to as "episodes of care", these counts reflect the total number of persons who were active (or the resident population) at the start of the state fiscal year plus the total of first admissions, readmissions, and transfers-in which occurred during the fiscal year at the three state alcohol and drug treatment centers. Excluded are visiting patients and outpatients. Multiple admissions of the same client are counted multiple times. County of residence is reported at the time of admission. North Carolina data include clients reported to reside out-of-state.

Source: Log Into North Carolina (LINC) Database, Topic Group Vital Statistics and Health (Data Item 519);

http://data.osbm.state.nc/pls/linc/dyn_linc_main.show.

Developmental Disabilities Service Utilization

According to NC MH/DD/SAS, *developmental disability* means a severe, chronic disability of a person which:

- a. is attributable to a mental or physical impairment or combination of mental and physical impairments;
- b. is manifested before the person attains age 22, unless the disability is caused by a traumatic head injury and is manifested after age 22;
- c. is likely to continue indefinitely;
- d. results in substantial functional limitations in three or more of the following areas of major life activity: self-care, receptive and expressive language, capacity for independent living, learning, mobility, self-direction and economic self-sufficiency; and
- e. reflects the person's need for a combination and sequence of special interdisciplinary, or generic care, treatment, or other services which are of a lifelong or extended duration and are individually planned and coordinated; or
- f. when applied to children from birth through four years of age, may be evidenced as a developmental delay (81).

Although community care is preferred where available, the state currently operates three facilities serving the developmentally disabled: Caswell Developmental Center (Kinston), Murdoch Developmental Center (Butner), and J. Iverson Riddle Developmental Center (Morganton).

The next table presents a summary of the persons in each jurisdiction served in NC State Developmental Centers for the period from 2005 through 2014.

- The numbers of persons in the three local jurisdictions served in state developmental centers were small and variable, and demonstrated no definitive pattern.
- At the state level, the number of persons served decreased by 41% between 2005 and 2014.

**Table 170. Persons Served in NC State Developmental Centers
(2005-2014)**

Location	Number of Persons Served									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Perquimans County	3	3	1	0	3	3	2	0	2	6
<i>Regional Average</i>	6	6	1	1	6	6	5	0	5	5
Pamlico County	6	6	0	0	6	6	5	0	4	4
State of NC	2,172	1,690	1,713	1,409	1,404	1,375	1,355	1,340	1,331	1,282

Source: Log Into North Carolina (LINC) Database, Topic Group Vital Statistics and Health (Data Item 517); http://data.osbm.state.nc/pls/linc/dyn_linc_main.show.

Substance Abuse Service Utilization

Alcohol and Drugs

There are three state-operated residential alcohol and drug abuse treatment centers (ADATC): the Julian F. Keith ADATC (Black Mountain), the R.J. Blackley ADATC (Butner), and the Walter B. Jones ADATC (Greenville).

The following table presents a summary of the persons in each jurisdiction served in NC State ADATC for the period from 2005 through 2014.

- During the 10-year period from 2005 through 2014, a total of 85 Perquimans County residents were served by NC State Alcohol and Drug Abuse Treatment Centers (ADATCs), with the number varying from year to year. A high of 15 were served in 2005; 5 were served in 2014; the annual average number served was 9.

**Table 171. Persons Served in NC Alcohol and Drug Abuse Treatment Centers
(2005-2014)**

Location	Number of Persons Served									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Perquimans County	15	13	8	12	6	4	7	6	9	5
<i>Regional Average</i>	11	14	9	19	21	13	11	8	11	8
Pamlico County	12	16	10	8	11	13	9	13	3	9
State of NC	3,732	4,003	3,733	4,284	4,812	4,483	4,590	4,265	4,343	4,049

Sometimes referred to as "episodes of care", these counts reflect the total number of persons who were active (or the resident population) at the start of the state fiscal year plus the total of first admissions, readmissions, and transfers-in which occurred during the fiscal year at the three state alcohol and drug treatment centers. Excluded are visiting patients and outpatients. Multiple admissions of the same client are counted multiple times. County of residence is reported at the time of admission. North Carolina data include clients reported to reside out-of-state.

Source: Log Into North Carolina (LINC) Database, Topic Group Vital Statistics and Health (Data Item 518); http://data.osbm.state.nc/pls/linc/dyn_linc_main.show.

Utilization of the Hospital for Mental Health Services

It is unclear whether local mental health resources are actually meeting the need in Perquimans County, because the hospitals, especially the emergency departments in the region, are seeing many mental health patients.

The table below presents 2013-2014 data on ED and IP discharges of Perquimans County residents with diagnoses associated with mental health issues, or primary diagnosis of ICD-9 Codes 290-319xx. The data are from the ARHS Region hospitals seeing more than 20 Perquimans County patients in the two years cited. The ED data is from Vidant Bertie, Chowan

and Roanoke-Chowan Hospitals, The Outer Banks Hospital, and Sentara Albemarle Medical Center. The IP data is from Vidant Chowan and Roanoke-Chowan Hospitals and Sentara Albemarle Medical Center. (IP discharges for mental health diagnoses may be “skewed” because Vidant Roanoke-Chowan Hospital has a specialized inpatient mental health unit.)

- Over the two-year period cited, ED discharges related to all Mental, Behavioral and Neurological Disorder diagnoses composed an average of 2.3% of all ED discharges; IP discharges for mental health diagnoses composed an average of 2.4% of all IP discharges.
- Note that these diagnoses (ICD-9 290-319xx) include psychotic and non-psychotic disorders, and conditions associated with alcohol and drug abuse.

Table 172. ED and IP Discharges of Perquimans County Residents with Mental Health Diagnoses

Year	No. Emergency Department Discharges	No. In-Patient Hospitalization Discharges
2013	164 (2.3% of all ED discharges)	23 (2.2% of all IP discharges)
2014	179 (2.4%)	27 (2.6%)

The following table provides more detailed 2013-2014 hospital data for Perquimans County residents from the five ARHS region hospitals that saw more than 20 Perquimans County ED patients over the period cited. The diagnoses covered in this case include codes in the ICD-9 code category 290-319xx, Mental, Behavioral and Neurodevelopmental Disorders specific to drug- and alcohol-related conditions.

- In the period cited there was a total of 343 ED discharges at qualifying hospitals of Perquimans County residents diagnosed with mental or behavioral disorders.
- The most commonly-diagnosed drug- or alcohol-related mental health problem among this patient group was non-dependent use of drugs. There was a total of 53 discharges under this code, or 15% of all mental, behavioral and neurodevelopmental disorder discharges.

Table 173. Detailed ED Discharges of Perquimans County Residents with Mental Health Diagnoses (2013-2014)

ICD-9 Code	Diagnosis	Number of ED Discharges		
		2013	2014	Total
290-319xx	Mental, Behavioral and Neurodevelopmental Disorders	164	179	343
290-299.9	Psychosis	56	52	105
291	<i>Alcohol-induced mental disorders</i>	2	2	4
292	<i>Drug-induced mental disorders</i>	4	3	7
300	Neurotic, Personality Disorders, etc. (non-psychotic)	111	127	238
300.9	<i>Suicidal risk and tendencies</i>	1	2	3
303	<i>Alcohol dependence syndrome</i>	7	2	9
304	<i>Drug dependence</i>	3	2	5
305-305.99	<i>Non-dependent use of drugs (excluding 305.1)</i>	20	33	53
305.1	<i>Tobacco use disorder</i>	0	0	0

Source: Vidant Bertie, Chowan, and Roanoke Chowan Hospitals, The Outer Banks Hospital, and Sentara Albemarle Medical Center

CHAPTER FIVE: ENVIRONMENTAL DATA

AIR QUALITY

Air Quality Index

Nationally, outdoor air quality monitoring is the responsibility of the Environmental Protection Agency (EPA). In NC, the agency responsible for monitoring air quality is the Division of Air Quality (DAQ) in the NC Department of Environment and Natural Resources (NC DENR).

The impact of air pollutants in the environment is described on the basis of emissions, exposure, and health risks. A useful measure that combines these three parameters is the EPA's Air Quality Index (AQI). The EPA monitors and catalogues AQI measurements at the county level, but not in all counties. There is no AQI monitoring station in or near Perquimans County.

Toxic Releases

Over 4 billion pounds of toxic chemicals are released into the nation's environment each year. The US Toxic Releases Inventory (TRI) program, created in 1986 as part of the Emergency Planning and Community Right to Know Act, is the tool the EPA uses to track these releases. Approximately 20,000 industrial facilities are required to report estimates of their environmental releases and waste generation annually to the TRI program office. These reports do not cover all toxic chemicals, and they omit pollution from motor vehicles and small businesses (82).

There were no reported releases of TRI chemicals in Perquimans County in 2014.

WATER QUALITY

Drinking Water Systems

The EPA is responsible for monitoring the safety of drinking water and water system violations of the federal Safe Drinking Water Act (SDWA). The EPA's Safe Drinking Water Information System (SDWIS) contains information about public water systems and their violations of EPA's drinking water regulations, as reported to EPA by the states. These regulations establish maximum contaminant levels, treatment techniques, and monitoring and reporting requirements to ensure that water systems provide safe water to their customers (83).

As of February 14, 2016, SDWIS listed three active community water systems in Perquimans County, serving by an EPA *estimate* a total of 11,649 persons (87% of the population of the county). The three systems were: Hertford Water System, Minzie's Creek Sanitary District, and the Perquimans County Water System. A community water system is one that serves at least 15 service connections used by year-round residents or regularly serves 25 year-round residents. This category includes municipalities, subdivisions and mobile home parks.

SDWIS also lists non-transient/non-community and transient/non-community water systems. The former are public water systems that serve the same people, but not year-round (e.g. schools that have their own water system), and the latter are public water systems that provide

water in a place such as a gas station or campground where people do not remain for long periods of time. There was one non-transient/non-community water system (at the Harvey Point Defense Activity, serving 355 persons) and no transient/non-community water system listed for Perquimans County.

The EPA records in SDWIS violations of drinking water standards reported to it by states. It records violations as either *health-based* (contaminants exceeding safety standards or water not properly treated) or *monitoring- or reporting-based* (system failed to complete all samples or sample in a timely manner, or had another non-health related violation). The table below lists the active water systems in Perquimans County as of October 28, 2015. The table also includes any *health-based* violations for the period from 2005 through 2015.

- All water systems listed for Perquimans County rely on groundwater sources.
- One health violations for the Perquimans County Water System has been recorded in the past 10 years, in 2013.

Table 174. Active Water Systems in Perquimans County (2015)

Type of Water System	Total Population Served	Primary Water Source Type	Health Violations 2005-2015
Community Water Systems			
Hertford Water System	2,400	Groundwater	None
Minzie's Creek Sanitary District	249	Purchased groundwater	MCL average for trihalomethanes (2013)
Perquimans County Water System	9,000	Groundwater	None
Total	11,649		
Non-Transient, Non-Community Water Systems			
Harvey Point Defense Activity	355	Groundwater	None
Total	355		

Source: *Safe Drinking Water Search for the State of North Carolina*. US EPA Envirofacts Safe Drinking Water Information System (SDWIS) website: <http://www3.epa.gov/enviro/facts/sdwis/search.html>

Municipal Water Systems

Perquimans County Water System

Perquimans County does operate a municipal water system (see table above), but provides no information in the public domain describing its facilities.

Hertford Water System

The Town of Hertford Public Works Department is responsible for the town's utilities, which include the town water system. The town operates its own water treatment plant. Water service is available to all properties within the town's corporate limits and to some areas outside corporate limits (84).

Wastewater Systems

Municipalities operate jurisdiction-wide wastewater treatment systems. It appears that Perquimans County does not operate a wastewater treatment system, but the Town of Hertford, does operate its own sewage treatment system, available where municipal water is available.

NPDES Permits

Water pollution degrades surface waters making them unsafe for drinking, fishing, swimming, and other activities. As authorized by the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into US waters. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters.

The following table lists the NPDES-permitted dischargers in Perquimans County and the destinations and permitted volumes of their discharges. All three of the permitted dischargers are either water treatment or wastewater treatment plants operated by municipalities.

Table 175. National Pollutant Discharge Elimination System (NPDES) Permitted Dischargers, Perquimans County (September, 2015)

Owner	Facility	Type	Discharge Destination	Permitted Flow (Gal/Day)
Perquimans County	Bethel WTP	Water Treatment Plant	Bethel Creek	not limited
Town of Hertford	Hertford WWTP	Wastewater Treatment Plant, Municipal, <1MGD	Perquimans River	700,000
Perquimans County	Winfall WTP	Water Treatment Plant	Mill Creek	not limited

Source: NC Department of Environment and Natural Resources, Division of Water Quality, Surface Water. NPDES Wastewater Permitting and Compliance Program. Permit Info, List of Active Individual Permits as of 9/4/15; <http://portal.ncdenr.org/web/wq/swp/ps/npdes/>.

SOLID WASTE

Solid Waste Disposal

The next table presents figures summarizing tonnage of solid waste disposed for the period FY2009-10 through FY2013-14.

- In FY2013-14, Perquimans County managed 9,953 tons of municipal solid waste (MSW) for a rate of 0.72 tons per capita. This tonnage represented a decrease of 1% from the per capita rate for FY1991-92 (the period customarily used for the base rate).
- As a regional average, the per capita rate of waste disposed in FY2013-14 also fell by 1% from the rate for the base year.
- During the same FY2013-14 period the overall state per capita solid waste management rate was 12% less than the FY1991-92 base per capita rate.

**Table 176. Solid Waste Disposal
FY2009-10 through FY2013-14**

Location	MSW Tons Managed 1991-1992	MSW Tons Disposed					Base Year Per Capita (1991-1992)	Per Capita Rate 2013-14	%Change Base Year to 2013-14
		2009-2010	2010-2011	2011-12	2012-13	2013-14			
Perquimans County	7,519.55	10,797.22	10,674.64	10,996	9,711	9,953	0.73	0.72	-1
<i>Regional Total</i>	<i>90,272.93</i>	<i>112,837.00</i>	<i>116,918.14</i>	<i>111,229</i>	<i>109,034</i>	<i>118,565</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>
<i>Regional Average</i>	<i>12,896.13</i>	<i>16,119.57</i>	<i>16,702.59</i>	<i>15,890</i>	<i>15,576</i>	<i>16,938</i>	<i>0.78</i>	<i>0.78</i>	<i>-1</i>
Pamlico County	8,541.24	9,591.29	9,445.25	19,211	11,034	17,347	0.75	1.33	77
State of NC	7,257,428.09	9,395,457.19	9,467,044.71	9,443,380.00	9,149,130.00	9,273,571.00	1.07	0.94	-12

Source: NC Department of Environment and Natural Resources, Division of Waste Management, Solid Waste Program, NC Solid Waste Management Annual Report, Fiscal Years as noted. County Per Capita Report; <http://portal.ncdenr.org/web/wm/sw/swmar>.

The following table presents the FY2013-14 County Waste Disposal Report for Perquimans County.

- All of Perquimans County’s solid waste is landfilled outside the county, either directly or via transfer stations. The ultimate destination of the county’s solid waste is the East Carolina Regional Landfill, located in Bertie County.

**Table 177. County Waste Disposal Report, Perquimans County
(FY2013-14)**

Location	Facility Name	Facility Type	Tons Received	Tons Transferred
Perquimans County	East Carolina Regional Landfill	Municipal Solid Waste Landfill	18,834.47	0.00
	Perquimans-Chowan-Gates Transfer Station	Municipal Solid Waste Transfer Station	6,929.95	6,929.95

Source: NC Department of Environment and Natural Resources, Division of Waste Management, Solid Waste Section. Solid Waste Management Annual Reports, FY2013-2014; County Waste Disposal Report Fiscal Year 2013-2014. http://portal.ncdenr.org/c/document_library/get_file?p_l_id=4649434&folderId=4667253&name=DLFE-38490.pdf.

The table below describes the capacity of the landfill serving Perquimans County.

- Based on current fiscal year tons, the estimated remaining “life” capacity of the East Carolina Regional Landfill was approximately 23 years from FY2013-14.

**Table 178. Landfill Capacity
(FY2013-14)**

Location	Facility Name	Open Date	Volume Overall	Volume Overall Remaining	Volume Overall Remaining in Tons	Volume Overall Remaining in Years (Fiscal Year Tons)
Bertie County	East Carolina Regional Landfill	8/6/93	24,200,000	13,065,468	11,148,585	23.16

Source: NC Department of Environment and Natural Resources, Division of Waste Management, Solid Waste Section. Solid Waste Management Annual Reports, FY2013-2014; Landfill Capacity Report Fiscal Year 2010-2011. http://portal.ncdenr.org/c/document_library/get_file?p_l_id=4649434&folderId=4667253&name=DLFE-41641.pdf.

East Carolina Regional Landfill

The East Carolina Regional Landfill, located in Aulander (Bertie County) is one of fewer than 10 regional landfills statewide. An EPA-regulated facility, it serves all of northeastern NC. It has been in operation for more than a decade, and in that time has acquired a history of violations

for non-compliance with Clean Air Act standards (85). Most of those violations have had to do with control of gases released during the natural waste digestion process.

The company (the landfill is operated by Republic Services, Inc.) maintains a landfill gas collection and control system with gas-fired candlestick-type flares. Landfill gas typically is 60% methane; most of the remainder usually is carbon dioxide. Approximately 1% of landfill gas may be composed of nitrogen, oxygen, water vapor, hydrogen sulfide, and other contaminants, depending on the substrate being digested (86). Landfill gas control systems exist to assure the safety, system integrity, gas destruction and odor control of the landfill. As material continues to be deposited in the landfill over time, increasing amounts of landfill gas is generated, requiring additional control capacity as part of the permitting process. The operator of the landfill appears to acknowledge this need (87).

Convenience Centers

Through the auspices of the Pasquotank-Chowan-Perquimans Landfill Commission (overseen by Albemarle Regional Health Services) five convenience centers for waste collection are maintained in Perquimans County: one in Hertford, one in Belvidere, and three others dispersed throughout the county. Information about these centers in the public domain includes a description of the kinds of materials accepted (88).

Municipal Solid Waste Programs

In addition, the towns of Hertford and Winfall operate separate municipal solid waste collection programs.

Town of Hertford Solid Waste Management

The Town of Hertford provides garbage collection to its residents through a contractor, Waste Industries. Garbage is collected in a 90-gallon roll out container provided by the Town. The town also provides curbside recycling for all businesses and residences. The Town will provide upon request a 60 gallon blue roll out recycling can. The recyclables are collected once per week on Thursdays. All recyclables can be commingled in the recycling container; the collection company separates them off site (89).

Town of Winfall Solid Waste Management

According to the Perquimans County Recycling Brochure, available on the Perquimans County government website, the Town of Winfall provides its residents a solid waste and recycling program. No further information about this program appeared to be available in the public domain.

Hazardous Waste Generation

The EPA maintains a database that catalogs generators, transporters, and other handlers of hazardous wastes. The data, located in the Resource Conservation and Recovery Act Information (RCRAInfo) database, is accessed via EPA Envirofacts. The table below lists the hazardous waste generators in Perquimans County.

**Table 179. Hazardous Waste Generators, Perquimans County
(Accessed February, 2016)**

County	Generator Name	Location	Type of Business (NAICS Code/Description)	Type of Generator
Perquimans County	Benge Enterprise	Hertford	not available	unspecified
	Gregory Johnie Truck Bodies	Hertford	not available	unspecified
	Harvey Point Defense Testing Activity	Hertford	National Security	Small Quantity
	Luckie Cartwright	Hertford	private households	unspecified
	NC Dept of Transportation Hertford Shop #4401	Hertford	not available	Conditionally Exempt Small Quantity
	Perquimans County Weigh Station Transfer Station	Hertford	not available	unspecified
	Perquimans Gates Chowan County Transfer Station	Belvidere	not available	unspecified

Source: US EPA, Envirofacts, RCRAInfo, Search; <http://www.epa.gov/enviro/facts/rcrainfo/search.html>.

LEAD

Lead is a highly toxic natural metal found in the environment in soil, dust, air, and water. Historically it was used for many years in common household products such as paint, batteries, makeup, and ceramics, as an additive to gasoline, and as an ingredient in pesticides. Currently, it is used in lead-acid batteries, fishing weights, marine paint, lead shot, bullets, and in the manufacture of some plastics. Recently, the electronics industry is using more lead in magnetic imaging equipment, transistors, night vision equipment, and energy generation (90).

People can get lead in their body if they put their hands or other objects covered with lead dust in their mouths, ingest paint chips, soil, or water that contains lead, or breathe in lead dust, especially during renovations that disturb painted surfaces. Children are at greatest risk.

The Children's Environmental Health Branch of DENR, via its Lead Poisoning Prevention Program, catalogues data on the results of blood lead level monitoring among children. The table below presents blood lead monitoring data for 2006-2011. This site offers no data that is more recent.

The data for Ages 1 and 2 are routine screening results; the data for Ages 6 Months to 6 Years represents children who have been tested because a lead poisoning hazard had been identified in their residential housing unit or their child-occupied facility (e.g., daycare facility). All results at the county level likely are unstable due to small numbers of positive cases.

**Table 180. Blood Lead Assessment Results
(2006-2011)**

Location	Year	Ages 1 and 2					Ages 6 Months to 6 Years		
		Target Population	No. Tested	% Tested	No. ≥ 10µg/dL	% ≥ 10µg/dL	No. Tested	Confirmed 10-19 µg/dL	Confirmed ≥20 µg/dL
Perquimans County	2006	255	167	65.5	3	1.8	233	2	1
	2007	264	179	67.8	3	1.7	242	3	N/A
	2008	263	172	65.4	1	0.6	225	N/A	N/A
	2009	277	169	61.0	1	0.6	200	N/A	N/A
	2010	266	173	65.0	N/A	0.0	213	N/A	N/A
	2011	265	141	53.2	1	0.7	166	N/A	N/A
Pamlico County	2006	234	165	70.5	2	1.2	278	N/A	N/A
	2007	229	147	64.2	1	0.7	237	N/A	N/A
	2008	218	162	74.3	1	0.6	271	N/A	N/A
	2009	212	155	73.1	N/A	0.0	241	N/A	N/A
	2010	223	155	69.5	N/A	0.0	208	N/A	N/A
	2011	215	138	64.2	N/A	N/A	165	N/A	N/A
State of NC	2006	242,813	103,899	42.8	867	0.8	135,595	255	38
	2007	250,686	112,556	44.9	706	0.6	143,972	232	38
	2008	258,532	121,023	46.8	654	0.5	152,222	181	36
	2009	261,644	129,395	49.5	583	0.5	160,713	143	38
	2010	257,543	132,014	51.3	519	0.4	162,060	146	24
	2011	249,087	129,558	52	461	0.4	156,039	102	22

Source: NC DHHS, Division of Public Health, Environmental Health Section, Children's Environmental Health. NC Childhood Lead Poisoning Prevention Program (CLPPP). Resources: Surveillance Data.
<http://ehs.ncpublichealth.com/hhccehb/cehu/lead/resources.htm>.

FOOD-, WATER-, AND VECTOR-BORNE HAZARDS

Food-, Water-, and Vector-Borne Diseases

A number of human diseases and syndromes are caused or exacerbated by microbial contaminants or by animal vectors in the natural environment. Several of these conditions are among the illnesses that must be reported to health authorities. A number of food-, water-, and vector-borne diseases are of increasing importance because they are either rare but becoming more prevalent, or spreading in geographic range, or becoming more difficult to treat. Among these diseases are Shiga toxin producing *E. coli*, salmonellosis, Lyme disease, West Nile virus infection, Eastern equine encephalitis, and rabies.

The following table summarizes cases of food-, water-, and vector-borne disease statewide in the period 2009-2014.

- The most common food-, water-, and vector-borne disease statewide is salmonellosis, followed by campylobacter infection and Rocky Mountain spotted fever (spotted fever rickettsiosis).

Table 181. Food-, Water-, and Vector-Borne Diseases, North Carolina (2009-2014)

Disease/Organism	Number of Cases					
	2009	2010	2011	2012	2013	2014 ¹
Campylobacter infection	587	851	909	1,091	1,101	982
Cryptosporidiosis	160	94	115	88	126	167
E. Coli O157:H7 (or other STEC)	112	97	155	208	101	89
Ehrlichiosis	31	130	96	133	93	85
Encephalitis California Group (Lacrosse)	169	22	24	26	13	23
Hepatitis A	41	48	30	34	46	38
Listeriosis	27	22	21	14	23	30
Lyme Disease	252	89	75	124	180	171
Rocky Mountain Spotted Fever	325	292	305	594	428	500
Salmonellosis	1,806	2,352	2,516	2,208	1,926	2,115
Shigellosis	358	253	225	137	256	474

¹: 2014 data includes January - December but it is not presented in the source as a final number for the year.

Source: NC DHHS, Epidemiology Branch, Communicable Disease Section, Facts and Figures, NC Communicable Disease Reports (years as noted) <http://epi.publichealth.nc.gov/cd/figures.html>.

Vector Control

Bacterial, viral and parasitic diseases that are transmitted by mosquitoes, ticks and fleas are collectively called *vector-borne diseases* (the insects and arthropods are the *vectors* that carry the diseases). Although the term vector can also apply to other carriers of disease—such as mammals that can transmit rabies or rodents that can transmit Hantavirus—those diseases are generally called *zoonotic* (animal-borne) diseases.

The most common vector-borne diseases found in North Carolina are carried by ticks and mosquitoes. The tick-borne illnesses most often seen in the state are Rocky Mountain Spotted Fever, ehrlichiosis, Lyme disease and Southern Tick-Associated Rash Illness (STARI). The

most frequent mosquito-borne illnesses, or "arboviruses," in North Carolina include Lacrosse encephalitis, West Nile virus and Eastern equine encephalitis (91).

One way to prevent or limit the transmission of vector-borne illnesses is to control the vectors of the disease. In the case of mosquitoes, that is usually accomplished by improving cultural practices (e.g., emptying temporary water reservoirs like puddles, flowerpots and bird feeders or by people covering their skin or applying insect repellent when outdoors). In extreme cases, communities may sometimes resort to large-scale aerial spraying to destroy the insect or interfere with its reproductive cycle. Spraying initiatives can be controversial, however, since the typically broadcast application of the pesticide is non-selective and can affect humans and pets.

Rabies, a vector-borne disease, can be controlled among pets by having dogs and cats properly vaccinated. While pets can be protected that way, there is no practical way to control rabies in the wild, where it actually is more common.

The following table lists the total number of rabies cases detected in Perquimans County and its comparators for the period 2005-2014. There were nine rabies cases reported in Perquimans County in that period. First of all, rabies is not common in the region, with only 46 cases identified region-wide in 10 years. Secondly, rabies is more common in animals *other* than cats, dogs or bats. Statewide in 2013 54% of all rabies cases were in raccoons.

Table 182. Animal Rabies Cases (2005-2014)

Location	Total Number of Animal Rabies Cases									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Perquimans County	1	3	0	1	1	3	0	0	0	0
<i>Regional Total</i>	<i>3</i>	<i>5</i>	<i>3</i>	<i>7</i>	<i>10</i>	<i>10</i>	<i>0</i>	<i>2</i>	<i>5</i>	<i>1</i>
Pamlico County	2	1	0	0	0	0	0	1	0	1
State of NC	458	521	474	452	473	397	429	431	380	352

Source: NC Division of Public Health, Epidemiology. Rabies. Facts and Figures. Rabies by County, Tables by Year. <http://epi.publichealth.nc.gov/cd/rabies/figures.html>.

Animal Control in Perquimans County

Information gathered for a previous Perquimans County CHA indicated that The Perquimans County Animal Control Officer enforces the county and state ordinances, laws and resolutions related to animals. The Officer also answers citizen requests to pick up stray, sick, nuisance or confined animals, and responds and takes reports of animal bites, injured animals, animals displaying aggressive behavior and rabies suspects (92). This information could not be updates for the 2016 CHA report.

Animal Shelters Serving Perquimans County

The Tri-County Animal Shelter, serving Chowan, Gates and Perquimans counties, is located in Tyner. The shelter is open for adoptions Monday through Friday from 1-5 PM, and Saturdays from 10 AM to 1 PM (93).

BUILT ENVIRONMENT

The term *built environment* refers to the human-made surroundings that provide the setting for human activity, ranging in scale from buildings and parks or green space to neighborhoods and cities. As often used the term also includes supporting infrastructure for those settings, such as the water supply, or the energy grid. In recent years, public health research has expanded the definition of built environment to include healthy food access, community gardens, recreational facilities, and the ease of getting around on foot or on bicycle.

Access to Grocery Stores and Farmers' Markets

The following table presents data on the availability of grocery stores.

- The number of grocery stores in Perquimans County decreased from three to two between 2007 and 2012.
- In 2010, an estimated 249 Perquimans County households (~4%) had no car and therefore low access to grocery stores.
- In 2010 an estimated 72 persons in Perquimans County (>0.5%) had low income and low access to grocery stores.

**Table 183. Availability of Grocery Stores
(2007 and 2012; 2010)**

Location	Grocery Stores						2010			
	2007		2012		% Change (2007-2012)		Households with No Car and Low Access		Low Income & Low Access	
	#	# per 1,000 Population	#	# per 1,000 Population	#	# per 1,000 Population	#	%	#	%
Perquimans County	3	0.25	2	0.15	-33.33	-38.82	249	4.44	72	0.54
<i>Regional Total</i>	39	n/a	30	n/a	n/a	n/a	2,349	n/a	6,632	n/a
<i>Regional Average</i>	6	n/a	5	n/a	n/a	n/a	336	n/a	947	n/a
Pamlico County	3	0.25	4	0.31	33.34	26.72	215	3.91	307	2.34
State of NC	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Source	1	1	1	1	1	1	2	2	2	2

1 - Store Availability. U.S. Department of Agriculture Economic Research Service, Your Food Environment Atlas website:

<http://ers.usda.gov/FoodAtlas/>.

2 - Stores. U.S. Department of Agriculture Economic Research Service, Your Food Environment Atlas website:

<http://ers.usda.gov/FoodAtlas/>.

Low access = living more than 1 mile from a supermarket or large grocery store if in an urban area, or more than 10 miles from a supermarket or large grocery store if in a rural area

The next table presents data from the same source on the availability of farmers' markets.

- Despite the rural, agrarian nature of much of the ARHS region, according to the USDA there were very few farmers' markets anywhere in the region: two in 2009 and four in 2013, one of which was in Perquimans County.
- According to another source (NCFarmFresh.com) there were eight farms, roadside stands or farmer's markets in Perquimans County in 2015: six in Hertford, one in Tyner, and one in Belvidere (94).

**Table 184. Availability of Farmers' Markets
(2009 and 2013)**

Location	Farmers' Markets					
	2009		2013		% Change (2009-2013)	
	# Markets	# Markets per 1,000 Population	# Markets	# Markets per 1,000 Population	# Markets	# Markets per 1,000 Population
Perquimans County	0	0.000	1	0.070	0.0	0.0
<i>Regional Total</i>	2	n/a	4	n/a	100.0	n/a
Pamlico County	0	0.000	1	0.080	0.0	0.0
<i>State of NC</i>	n/a	n/a	n/a	n/a	n/a	n/a
Source	1	1	1	1	1	1

1 - *Local Foods: Farmers Markets*. U.S. Department of Agriculture Economic Research Service, Your Food Environment Atlas website: <http://ers.usda.gov/FoodAtlas/>.

Access to Fast Food Restaurants

The following table presents data on the availability of fast food restaurants.

- Perquimans County had three fast food restaurants in 2007 and five in 2012.

**Table 185. Availability of Fast Food Restaurants
(2007 and 2012)**

Location	Fast Food Restaurants					
	2007		2012		% Change (2007-2012)	
	#	# per 1,000 Population	#	# per 1,000 Population	#	# per 1,000 Population
Perquimans County	3	0.25	5	0.24	66.7	52.94
<i>Regional Total</i>	77	n/a	86	n/a	n/a	n/a
<i>Regional Average</i>	11	0.47	12	0.51	9.0	10.79
Pamlico County	9	0.72	11	0.74	22.2	16.16
<i>State of NC</i>	n/a	n/a	n/a	n/a	n/a	n/a
Source	1	1	1	1	1	1

Source: *Fast Food Restaurants*. U.S. Department of Agriculture Economic Research Service, Your Food Environment Atlas website: <http://ers.usda.gov/FoodAtlas/>.

Access to Recreational Facilities

The table below presents data on the availability of recreational and fitness facilities.

- There was one recreation/fitness facility listed for Perquimans County in 2007 but none in 2009. This source does not provide more recent data on recreation and fitness facilities.

**Table 186. Availability of Recreation and Fitness Facilities
(2007 and 2009)**

Location	Recreation and Fitness Facilities					
	2007		2009		% Change (2007-2009)	
	#	# per 1,000 Population	#	# per 1,000 Population	#	# per 1,000 Population
Perquimans County	1	0.09	0	0.00	-100.0	-100.0
<i>Regional Total</i>	9	n/a	7	n/a	n/a	n/a
Pamlico County	1	0.08	1	0.08	0	-4.96
<i>State of NC</i>	n/a	n/a	n/a	n/a	n/a	n/a
Source	1	1	1	1	1	1

Source: *Physical Activity Levels and Outlets*. U.S. Department of Agriculture Economic Research Service, Your Food Environment Atlas website: <http://ers.usda.gov/FoodAtlas>.

Note that this census apparently does not include the Perquimans County Community Center, located in Hertford, which offers a broad range of formal recreation programs and fitness classes.

CHAPTER SIX: COMMUNITY INPUT

SMALL GROUP DISCUSSIONS SUMMARY

The information in this section was summarized by the secondary data consultant team from a report of a primary data gathering activity facilitated by another vendor. The complete report for Perquimans County is appended to this document.

Methodology

ARHS partnered with Vidant Chowan Hospital and Sentara Albemarle Medical Center to collect primary data by conducting ten small-group discussions throughout Perquimans County. Discussions included listening sessions and focus groups were led by trained moderators to learn about the community's definitions and understandings of health, illness and services that affect health attitudes, beliefs and behaviors.

The Center for Survey Research at East Carolina University provided moderator trainings and an accompanying interview guide to ensure consistent and effective data collection methods.

Discussion questions were researched, selected and approved by the CHA Lead Team. Discussions were recorded and lasted around one hour. Results were then transcribed and analyzed.

A total of 100 Perquimans County residents participated in the small-group discussions, which were composed according to detail provided in the following table.

Table 187. Participants in Perquimans County Small-Group Discussions

Perquimans County Small-Group Discussions	Date	Participants
Perquimans BOE Office	1/21/15	1 Male; 3 Females
Perquimans Health Department	2/05/15	4 Females
Hertford United Methodist Church	3/09/15	5 Males; 3 Females
Perquimans Senior Center	3/23/15	2 Males; 7 Females
Albemarle Plantation	6/02/15	8 Females
New Bethel Missionary Baptist Church	6/25/15	6 Males; 9 Females
Snug Harbor	7/15/15	5 Males; 6 Females
Perquimans County Library	10/28/15	2 Males; 4 Females
Gregory & Associates	10/29/15	8 Females
Perquimans County Employees	11/05/15	2 Males; 5 Females

The following list describes the demographic profile of the small group discussion participants:

- 29% Black (compared to 25% in the county)
- 68% white (compared to 73% in the county)
- 0% Hispanic (compared to 2.2% in the county)
- 29% male (compared to 48% in the county)
- 3% unemployed (compared to 7.2% unemployment rate)

- 43% with bachelor's degree or higher (compared to 19% in the county)
- 6% currently without health insurance (compared to 17.5% in the county)
- 52% retired
- 56% earning more than \$50,000 household income

Results

No results in the following summary are quantifiable. The source document does not include any specific numbers with the responses, and terms like "most frequently" are not used with clarity of quantity. Therefore it is difficult to draw any conclusions regarding consensus or majority in response to any particular question.

Q 1: Tell us what you think is the best thing about living in this community.

- The people and the community support
 - Friendly and willing to help in times of need
- Natural environment
 - Climate and proximity to water
 - Beautiful surroundings
 - Little traffic
- Quiet, relaxing and safe
- History of the community
- Low crime rates
- Quality of life

Q2: What do people in this community do to stay healthy?

- Physical activity (walking, biking, dancing, golfing, sports)
- Water-based activities (boating, fishing, swimming, kayaking)
- Senior center, YMCA, recreation center, gyms
- Working outside and gardening
- Sponsored health events
 - Nutrition programs in school system
 - Health seminars offered locally
 - Exercise programs offered locally
- Preventative care like annual checkups and regular dental care

Q3: In your opinion, what are the serious health-related problems in your community?

The following table lists the health-related problems in the community

Table 188. Participant-Identified Health Problems in Perquimans County

Physical	Social	Mental
Diabetes	Lack of Preventative Care	Drug Abuse
Cancer	Lack of Transportation	Dementia
Obesity	Lack of Specialized Care	Suicide
High Blood Pressure	Lack of Health-related Education	Health-related Apathy
Stroke	Lack of Healthcare Insurance	Depression
Heart Disease	Inadequate Emergency Services	

Q4: What keeps people in your community from being healthy?

- Poor diet
 - Unhealthy fast foods are cheap and available
 - Lack of education about cooking and eating healthy
- Financial barriers to accessing healthcare
 - Lack of insurance, affordability of insurance
 - Affordability and access to transportation
- Lack of motivation to be healthy

Q5: What could be done to solve these problems?

- Education
 - Information about illness, diet and exercise
 - More awareness about available resources and how to access them
- Community support
 - Increase involvement of the community in health-related decision-making
- Health resources
 - Increase quality and quantity of available services
 - Improve doctor/patient relationships
 - Increase emergency services
 - More transportation
- Increase opportunities for children to be active

Q6: Have you or someone close to you ever experienced any challenges in trying to get healthcare services? If so, what happened?

- Difficult to establish Primary Care Provider
- Doctors not accepting new patients or are leaving the community
- Long wait times and overcrowding at hospital and ER
- Understaffed EMS
- Lack of specialists (dental, orthopedic, cardiovascular)
- Negative experiences with providers (long wait times, not receiving the necessary care)
- Lack of insurance and some facilities do not accept some kinds of insurance
- Young adults and students have a harder time accessing insurance, as do the poor

Q7. Are there any home remedies you use in place of traditional healthcare and/or medicine?

The table below summarizes participants' responses to this question.

Table 189. Home Remedies

Home Remedy	Targeted Ailment
Vinegar	High blood pressure
Castor oil	Colon cleansing, skin tags
Lemon, honey	Sore throat, congestion
Sweet oil	Ear aches
Bar of soap	Leg cramps
White potatoes	Burns
Kerosene	Colds
Alka-Seltzer	Indigestion, hangovers
Onion	Fever
Fatback meat	Cuts
Iodine	Poison Ivy
Local honey	Allergies
Peppermint	IBS, headaches, nausea
Horse Liniment	Aches and pains
Mustard	Cramps
Cherries	Gout
Vick's VapoRub	Cough, asthma, toe fungus
Tobacco	Stings
Oragel	Chiggers
Superglue	Cuts
Marijuana	Pain

Q8: What are the strengths related to health in your community?

- Strong community support
 - Makes dealing with stress easier
 - Encourages people to be healthy
 - Local support groups, churches, friends, neighbors
- Availability of certain healthcare services
 - Health department
 - Senior Center
 - Hospital
 - EMS, though it is under-resourced
- Access to facilities and the outdoors
 - Local rec department provides free access to equipment and classes
 - Tennis and basketball courts, sidewalks
 - Healthcare programs for children in the school system
 - Fresh air, space for gardens, low stress environment

Q9: Cancer and heart disease are the leading causes of death in your county. In your opinion, what makes these the leading causes of death in your county?

- Unhealthy behaviors and habits
 - Poor self-care, lack of exercise
 - Smoking
 - Drug abuse and alcohol consumption
 - Unhealthy diet
 - Not seeing the doctor regularly
- Use of harmful substances in food and farming
 - Hormones and chemicals used are detrimental
 - Local water contaminated
- Inadequate healthcare resources
 - Cost of health care and insurance prevent people from receiving needed care
 - Side-effects of medical treatments impact other areas of health and lead to the need for additional services

Q10: How does living in a rural area affect health?

- Positives:
 - Lower stress levels
 - Increased access to agriculture
 - Access to the outdoors
 - Less pollution
 - Relaxed lifestyle
 - Strong community support
- Negatives:
 - Limited healthcare resources
 - Fewer transportation options
 - Poverty
 - Lack of health insurance
 - Lack of healthy food options and specialty grocery stores

CHAPTER SEVEN: PRIORITIES IDENTIFICATION

PRIORITY SELECTION PROCESS BY HEALTHY CAROLINIANS OF THE ALBEMARLE

A vital phase of the Community Health Assessment (CHA) involves reporting out to the communities being served and to those residents who participated in the data gathering process. Community health presentations were held to provide the opportunity for community residents and key stakeholders to learn about the health-related primary and secondary data from the 2016 CHA process. The data was presented by Mrs. Sheila Pfaender, Public Health Consultant, during seven presentations conducted over a one-week period, geographically dispersed throughout the Albemarle Region.

The presentations were widely promoted through email invitations, newspaper announcements, the ARHS website, social media outlets, and by partnering organizations in an effort to bring the community together and strengthen an environment where the individuals were empowered in the decisions highlighted through the prioritization process. To maximize the potential audience reached by these presentations, each was live-streamed on Facebook in real time. In addition, each streamed presentation included a link to a web-based ballot via which the viewing community could indicate their choices for health priorities. Persons attending the presentations in-person completed the prioritization ballot immediately following each presentation.

Below is the list of presentations:

Monday, August 22, 2016:

Currituck County Cooperative Extension, Currituck County Center, Barco, NC
Camden County Public Library, Perquimans, NC

Tuesday, August 23, 2016:

Pasquotank County Health Department, Elizabeth City, NC

Wednesday, August 24, 2016:

Merchants Millpond State Park, Gatesville, NC (Gates County)

Thursday, August 25, 2016:

Perquimans County Recreation Department, Hertford, NC
Shepard Pruden Library, Edenton, NC (Chowan County)

Friday, August 26, 2016:

Bertie County Department of Social Services, Windsor, NC

As noted above, after reviewing the CHA presentation for each county, participants were asked to list what they thought were the three most important health issues for the county while utilizing the following criteria:

- ***Magnitude of the Problem:*** The size or extent of the problem as it relates to your county
- ***Consequences of the Problem:*** How the economic, social, cultural, and political issues within your county might be influenced by addressing this issue

- **Feasibility:** Are there enough resources in the county to address this issue and is the community ready to address this issue?
- **Duplication:** Is this issue already being addressed by other community stakeholders/programs?

A web-based ballot with the same directions was also used to gather additional input from the community. The survey was open to the public for ten days.

After the post-presentation ballot results and web-based surveys were collected, the top ten health issues were tallied. For Healthy Carolinians of the Albemarle (Camden, Currituck, Pasquotank and Perquimans Counties) those ten were, in no particular order:

- Heart disease
- Substance abuse/Mental Health access and resources
- Infant and maternal health/Smoking during pregnancy
- Lung disease
- Access to care (medical and dental)
- Obesity
- Diabetes
- Cancer
- Suicide
- Aging problems

On September 16, 2016, the Healthy Carolinians of the Albemarle (HCOTA) Partnership met to finalize the priority selections for Camden, Currituck, Pasquotank and Perquimans counties.

Members in attendance were: Amy Underhill, Pam Hurdle, Barbara Courtney, Amanda Betts, Rich Olson, Michael Barclift, Janet Jarrett, Amanda Meads, Leslie Otts, and Julie Tunney. During the HCOTA meeting, members participated in a facilitated discussion, answering the following questions:

1. To what degree does (health issue) have a significant impact on our community's health?
2. To what degree should (health issue) be a focus area for our community to address?

After discussions, participants were then asked to use the top ten list that was developed for each county to vote on their top three priority issues by placing a colored sticker next to their choices. The priority areas with the most votes were as follows:

- **Obesity**
- **Diabetes**
- **Heart Disease**

It is important to note that these three priorities have been selected for a diverse four-county coalition, so certain priorities may be more applicable to some counties than to others.

NEXT STEPS

The next step Healthy Carolinians of the Albemarle plans to take is the development of the Community Action Plans which are due in September 2017. The Action Plans will reflect the priority health issues, strategies, and steps to implement change along with our target populations, and resource networking with the various community partners. This is a critical component that the partnership must take in selecting activities that are reasonable and relatively easy to implement and align with the 2020 Healthy People Objectives in Perquimans, Pasquotank, Camden and Currituck counties. Healthy Carolinians of the Albemarle Partnership members will utilize the information gathered during the Community Health Assessment process and the prioritization process to clearly define our community's health priorities, actions, and expected results. All Partnership members will be involved in completing new action plans based on the prioritization of health needs. The completed action plans will include a description of each health issue/problem and will specify the proposed actions and community organizations that will provide and coordinate the interventions and activities. The Action Plans will be developed after carefully considering all the factors that cause and perpetuate the problem being addressed. The Action Plans will also identify how progress towards the outcome will be measured.

DISSEMINATION PLAN

Healthy Carolinians of the Albemarle plans to share results from the Community Health Assessment (CHA) during meetings with county and city governments, local civic groups, faith organizations, and business leaders and through other community outreach events. The CHA documents can be found on the Albemarle Regional Health Services website at www.arhs-nc.org. Efforts will be made with other agencies and local government, including county home pages, to provide links to the information. ARHS also plans to work with the local newspapers to provide news releases to the public about the findings made in each county. HCOTA members and the broader community will have access to the information found in the CHA to use at their discretion for activities such as seeking evidence-based strategies, developing grant proposals, and planning and implementing programs.

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APPENDICES

APPENDIX 1: CONSULTANT'S PRESENTATION

APPENDIX 2: PRIMARY DATA REPORT

APPENDIX 3: PRIORITIZATION TOOL

APPENDIX 4: COMMUNITY RESOURCE INVENTORY

2016

***PERQUIMANS COUNTY
COMMUNITY HEALTH ASSESSMENT***

***Secondary Data Summary
and Brief Primary Data Results Summary***

August, 2016

Sheila S. Pfaender, Public Health Consultant



PURPOSE OF THE COMMUNITY HEALTH ASSESSMENT

- Describe the health status of the community.
- Create a report that will serve as a resource for the Perquimans County Health Department, local Healthy Carolinians affiliates, area hospitals, and other community organizations.
- Provide direction for the planning of disease prevention and health promotion services and activities.



CONTRIBUTING VIEWPOINTS

Secondary Data	Hospital Data	Citizen Opinion
Demographic Socioeconomic Health Environmental	Emergency department discharges Inpatient hospitalization discharges	Community listening sessions



WE TAKE SPECIAL NOTICE WHEN...

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

DEFINITIONS AND SYMBOLS

○ **Arrows**

- Arrow up (▲) indicates an increase.
- Arrow down (▼) indicates a decrease.

○ **Color**

- **Red** indicates a “worse than” or negative difference
- **Green** indicates a “better than” or positive difference
- **Blue** indicates a likely unstable rate or difference based on a small number of events; figures in blue should be used with great caution.

○ **Bold Type**

- Indicates the higher value of a pair, or the highest value among several.



DATA CAVEATS

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



DEMOGRAPHIC DATA

Total Population, Birth Rate, Population Growth, Minority Populations, Age Groups, Elderly Population, Foreign-Born Populations, Veterans

GENERAL POPULATION CHARACTERISTICS

(2014 ESTIMATES)

- Perquimans County has a higher proportion of females than males (52% vs. 48%).
- The overall median age of the Perquimans County population is 9.6 years *older* than NC average and 4.2 years *older* than the regional average.

Location	Total Population	Total Males	Median Age Males	Total Females	Median Age Females	Overall Median Age
Perquimans County	13,466	6,475	46.3	6,991	49.0	47.8
Regional Avg.	19,258	9,467	42.0	9,791	45.1	43.6
Pamlico County	12,948	6,641	48.5	6,307	52.6	50.7
NC	9,943,964	4,844,593	36.7	5,099,371	39.7	38.2

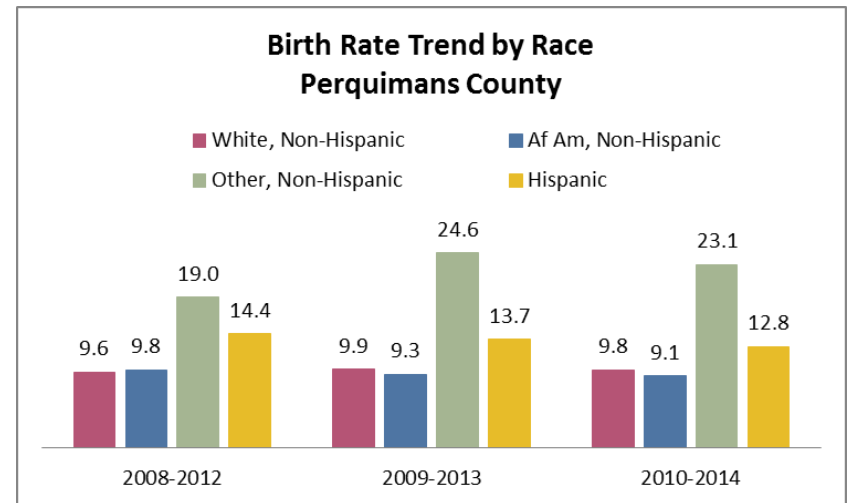
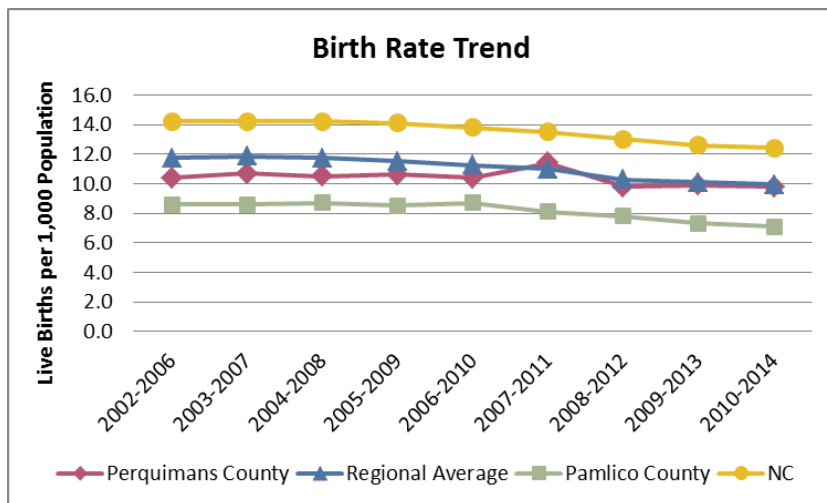
POPULATION GROWTH (PROJECTED)

- Perquimans County's recent modest population growth is predicted to slow over the coming decades.
- By 2030, the county population is predicted to total 14,646.

Decade	Perquimans County	Regional Average	Pamlico County	NC
1980-1990	10.1	7.4	9.3	12.8
1990-2000	8.8	10.8	13.8	21.3
2000-2010	18.3	17.3	1.6	18.5
2010-2020	1.4	1.3	1.1	10.9
2020-2030	7.3	3.6	2.0	9.8

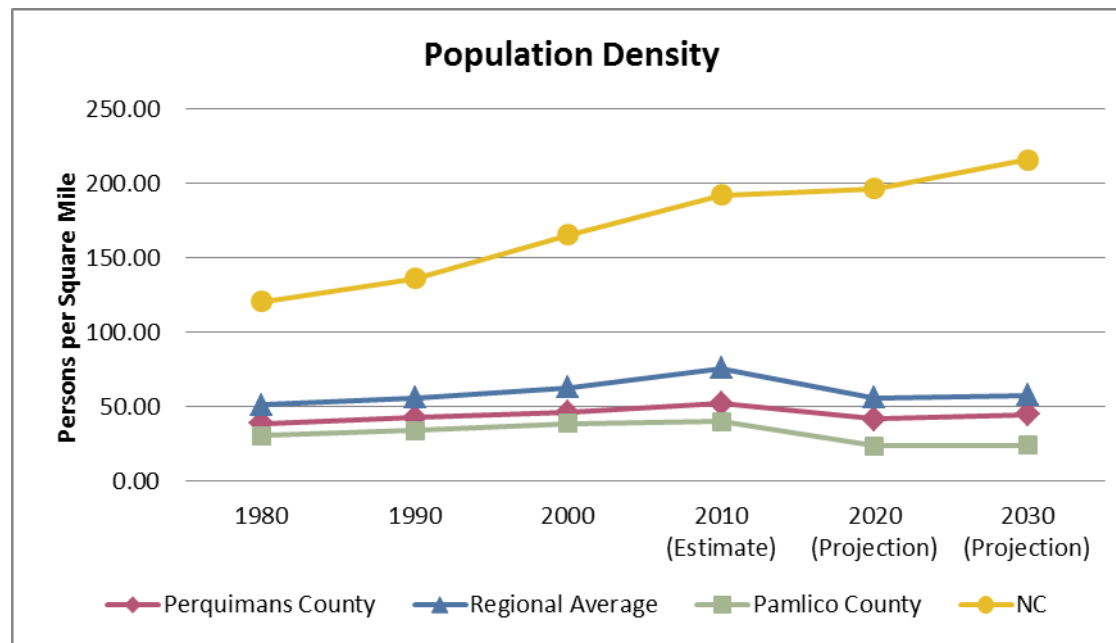
BIRTH RATE

- The Perquimans County birth rate demonstrated an overall slight decline over the period presented below, with a similar trend seen in the Region and the State.
- The birth rate has changed only slightly among white non-Hispanics and African American non-Hispanics. The birth rate among Other non-Hispanics increased over the period presented as the rate among Hispanics declined steadily.
- In 2010-2014, the highest birth rate in the county (23.1) occurred among Other non-Hispanics.



POPULATION DENSITY

- The population density of Perquimans County has increased slightly over the period presented; it remains lower than population density for the state and the Region.



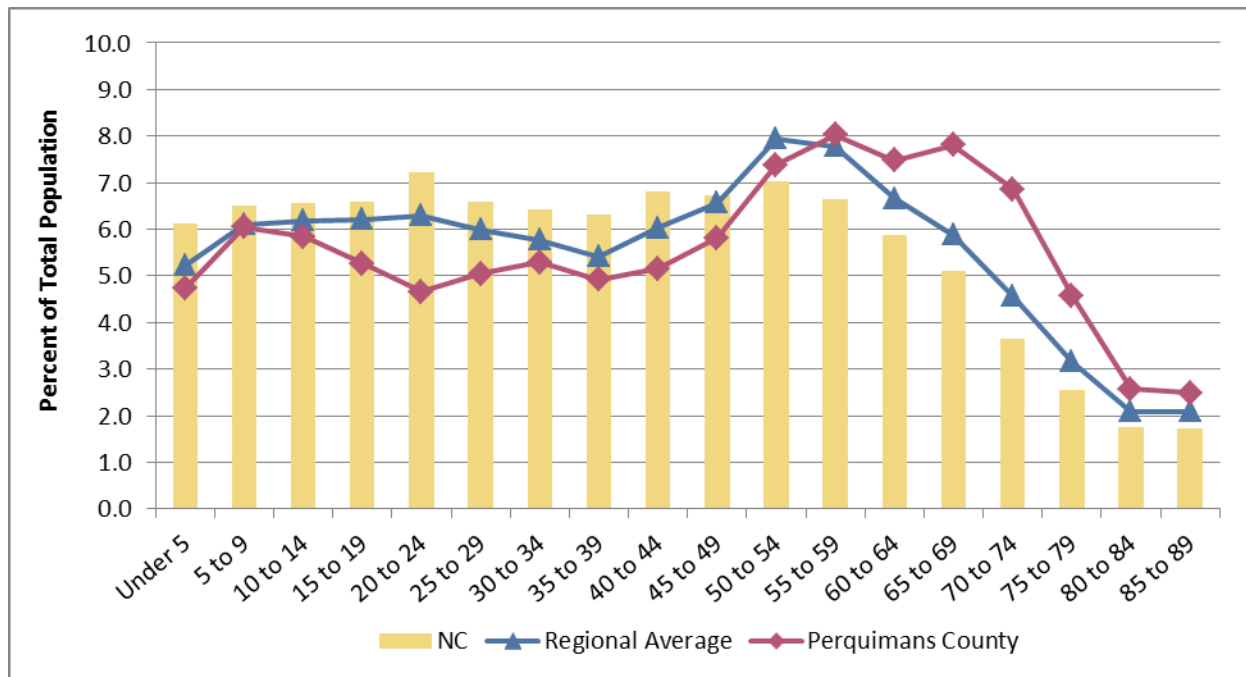
MINORITY POPULATIONS

- White residents compose the largest proportion of the Perquimans County population.
- Perquimans County has a higher proportion of black residents but lower proportions of all other minority groups compared to NC.

Location	Percent of Overall Population					
	White	Black	American Indian/Alaskan	Asian	Multiple Races	Hispanic
Perquimans County	72.6	24.7	0.1	0.0	2.2	2.2
Regional Average	64.8	31.8	0.3	1.0	1.6	3.0
Pamlico County	76.8	19.1	1.0	0.8	1.9	3.3
State of NC	69.6	21.5	1.2	2.4	2.3	8.7

POPULATION AGE DISTRIBUTION

- According to 2014 estimates, compared to NC as a whole Perquimans County has higher proportions of people age 50 and older and lower proportions of people age younger than 50.



GROWTH OF THE *ELDERLY* POPULATION

- The population in every major age group age 65 and older in Perquimans County is projected to increase between 2000 and 2030.
 - **Age 65-74:** by 36% (vs. **63%** in NC)
 - **Age 75-84:** by 64% (vs. **67%** in NC)
 - **Age 85+:** by **148%** (vs. 75% in NC)
 - **Overall Age 65+:** by 58% (vs. **66%** in NC)
- In 2014 there were an estimated 3,275 persons age 65 and older in Perquimans County, representing 23% of the total population.
- By 2030, with the total population predicted to continued to grow, 4,447 residents over the age of 65 will comprise 30% of the population.

CHARACTERISTICS OF THE ELDERLY POPULATION

(2014 AMERICAN COMMUNITY SURVEY ESTIMATES)

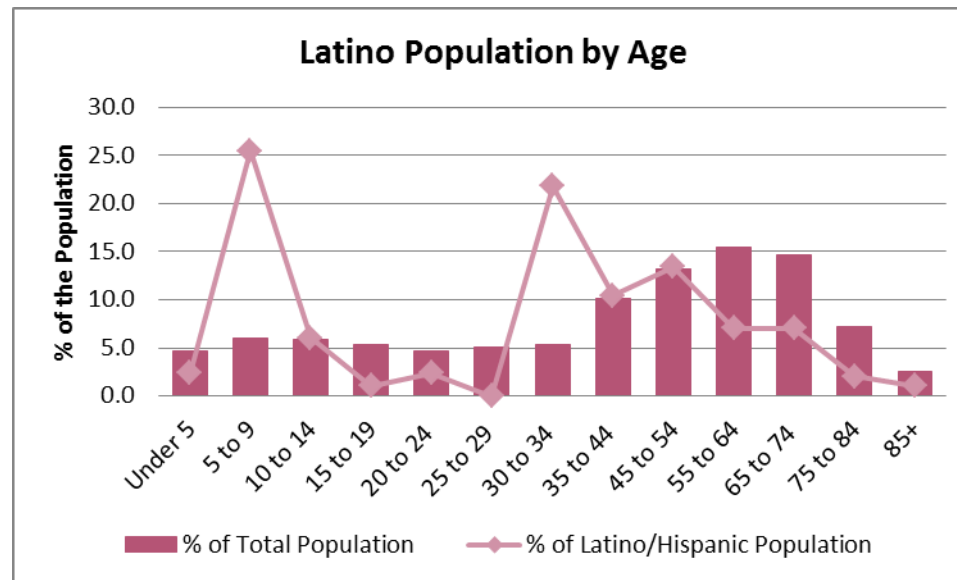
- Among the Perquimans County population over the age of 65:
 - 20% have less than a high school diploma (22% in NC)
 - 17% have a graduate or professional degree (22% in NC)
 - 8% are below the poverty level (10% in NC)
 - 20% are in the 100% to 199% poverty level (24% in NC)
 - **90%** are homeowners (82% in NC)
 - 19% live alone (28% in NC)
 - 13% are in the labor force (16% in NC)
 - Have a median household income of **\$45,039** (\$35,024 in NC)
- An estimated 37% of Perquimans County residents over the age of 65 have a disability (38% in NC).
 - The most common disabilities are ambulatory difficulty (25% vs. 25% in NC) and hearing difficulty (14% vs. 15% in NC).

FOREIGN-BORN POPULATION

- According to 2014 Estimates, 357 individuals living in Perquimans County were born outside the US.
 - 68% entered before 1990.
- Spanish speakers comprise 2.0% of the total population and 54% of them speak English “less than very well”.
- Other Indo-European Language speakers comprise 1.1% of the population and 100% speak English “very well”.
- While those speaking Other languages comprise only 0.1% of the population, 100% of them speak English “less than very well”.

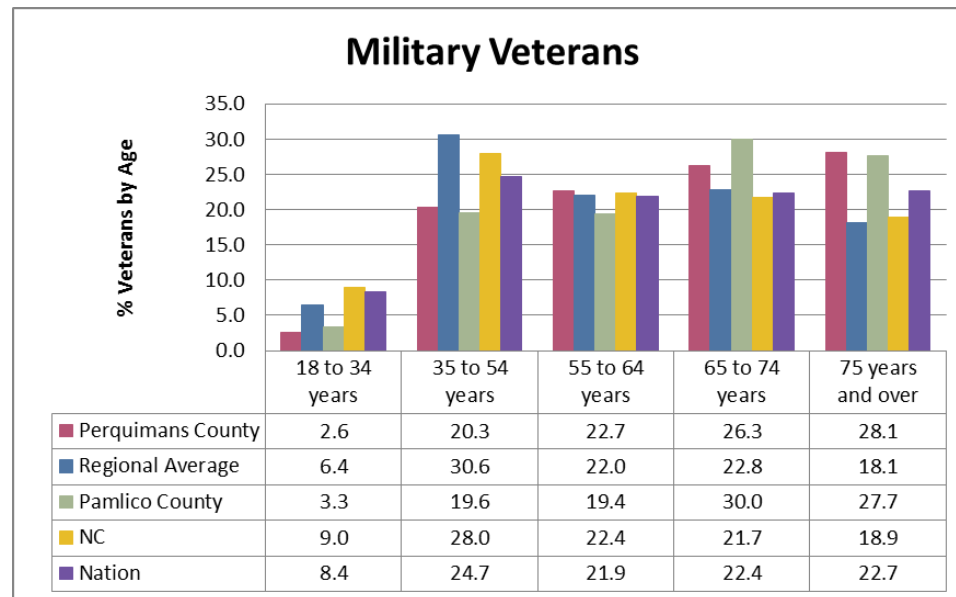
AGE DISTRIBUTION OF LATINO POPULATION

- Compared to the age distribution of the total Perquimans County population, the Latino population in the county has higher proportions of persons ages 5-9 and 30-34.
- Males represent 41% of the county's Latino population.



MILITARY VETERANS

- Approximately **14%** of the Perquimans County civilian population is a military veteran. [NC = 10% Region = 12%]
- Veterans over the age of 65 comprise **54%** of the county's veteran population. [NC = 41% Region = 41%]
- Perquimans County has a higher proportion of veterans in the 55-64 and 75 years and older age groups than any other jurisdiction presented.





SOCIOECONOMIC DATA

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

COUNTY ECONOMICS

- Total gross monetary collections in Perquimans County, as displayed in the table below, have risen each year since 2011-2012.

Location	FY2008-09	FY2009-10	FY2010-11	FY2011-12	FY2012-13	FY2013-14	FY2014-15
Perquimans County	1,600,048	2,187,504	2,383,814	2,063,349	2,238,662	2,414,230	2,553,004
<i>Regional Average</i>	4,936,479	6,981,295	7,998,729	7,314,849	7,651,788	7,379,530	7,730,478
<i>NC County Average</i>	43,169,210	50,252,290	55,679,535	49,906,563	50,164,100	52,548,980	57,312,401



INCOME (2014 ACS ESTIMATES)

In Perquimans County:

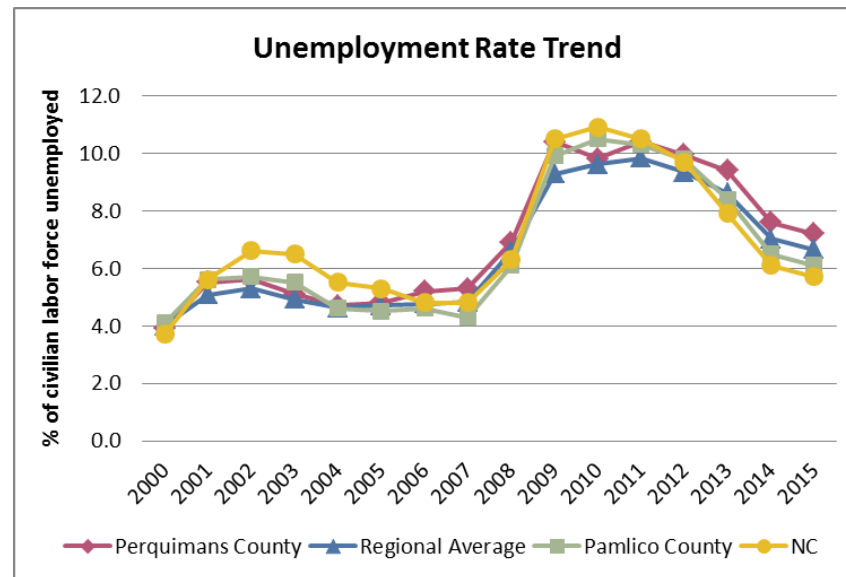
- 2014 Per Capita Income = \$23,260
 - \$2,345 **below** NC average
- 2014 Median Household Income = \$45,391
 - \$1,302 **below** NC average
- 2014 Median Family Income = \$51,996
 - \$5,332 **below** NC average
- 2014 Mean Retirement Income = \$29,726
 - \$7,886 **above** NC average

EMPLOYMENT (AS OF 2ND QUARTER 2015)

- The three employment sectors in Perquimans County with the largest workforce (and their average weekly wage) were:
 - Educational Services: 18.0% of workforce (\$634)
 - Statewide, Educational Services workers represent 9.1% of the workforce and earn \$796 a week.
 - Accommodation & Food Services: 16.8% of workforce (\$545)
 - Statewide, this sector represent 9.6% of the workforce and earn \$306 a week.
 - Public Administration: 15.6% of the workforce (\$552)
 - Statewide, Public Administration workers represent 5.8% of the workforce and earn an average of \$830 a week.

ANNUAL UNEMPLOYMENT RATE

- The unemployment rate in Perquimans County has followed a trend similar to that in the other jurisdictions presented but was the highest rate among them in the most recent four periods.
- In 2015 the unemployment rate was **7.2** in Perquimans County, 6.6 across the ARHS Region and 5.7 in NC.



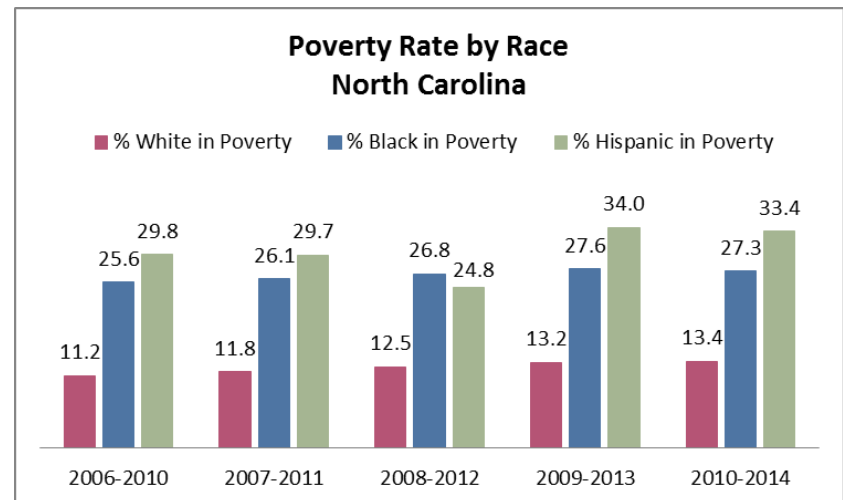
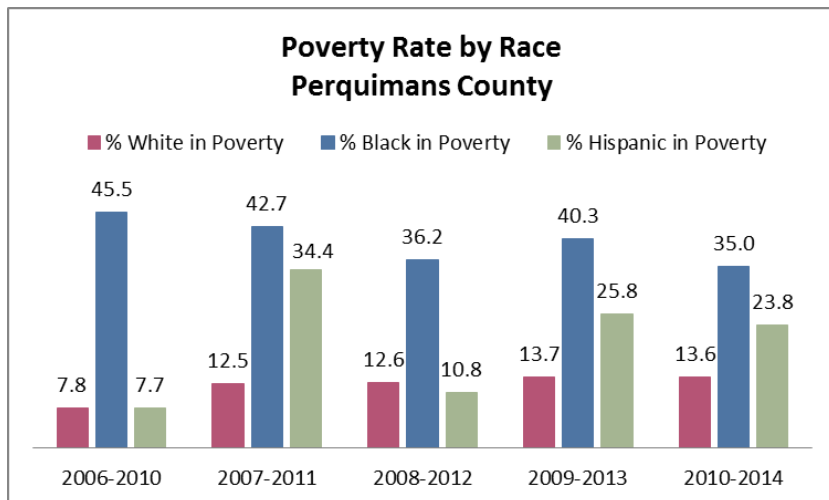
OVERALL POVERTY RATE TREND

- The overall poverty rate (describing the percentage of the total population below the Federally-defined 100% poverty level) in Perquimans County was higher than the comparable rates in any location and period shown in the table below.

	2006-2010	2007-2011	2008-2012	2009-2013	2010-2014
Perquimans County	18.0	20.6	18.6	20.2	18.8
Regional Average	16.4	17.5	17.3	18.1	17.7
Pamlico County	10.7	12.2	13.8	13.8	13.3
State of NC	15.5	16.1	16.8	17.5	17.6

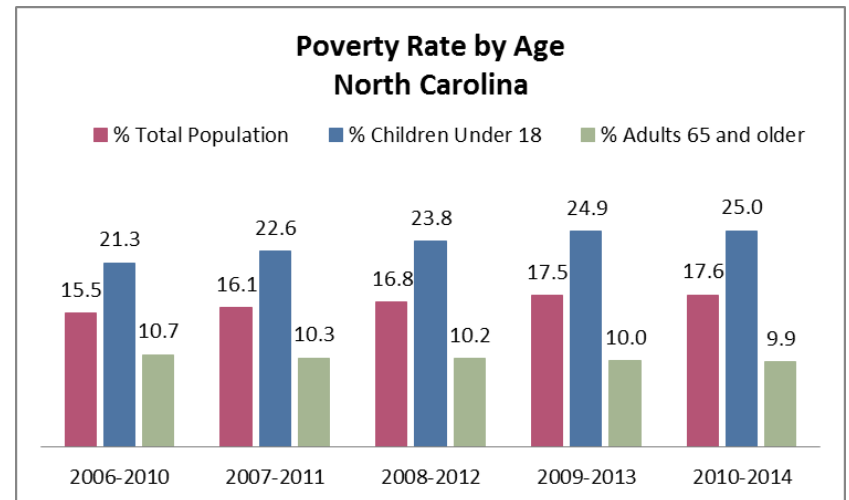
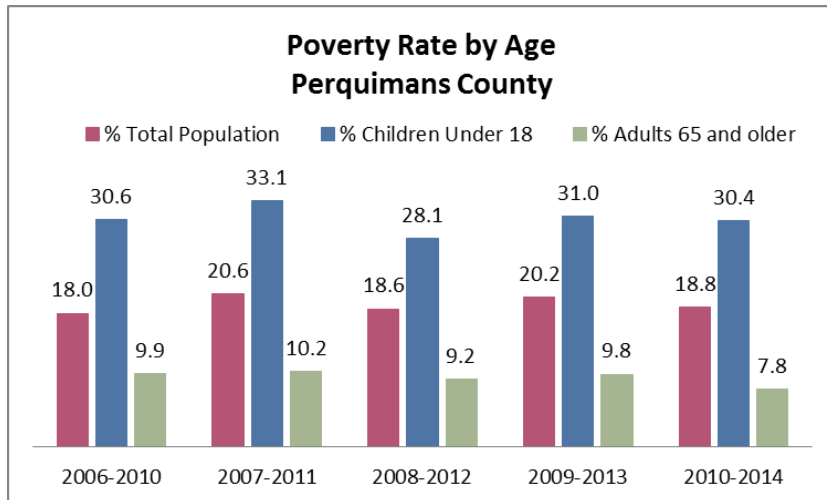
POVERTY AND RACE

- In Perquimans County over the period cited, the poverty rate among African Americans ranged from approximately 3 to 6 times the comparable rate for whites, though it has demonstrated an overall decrease over time.



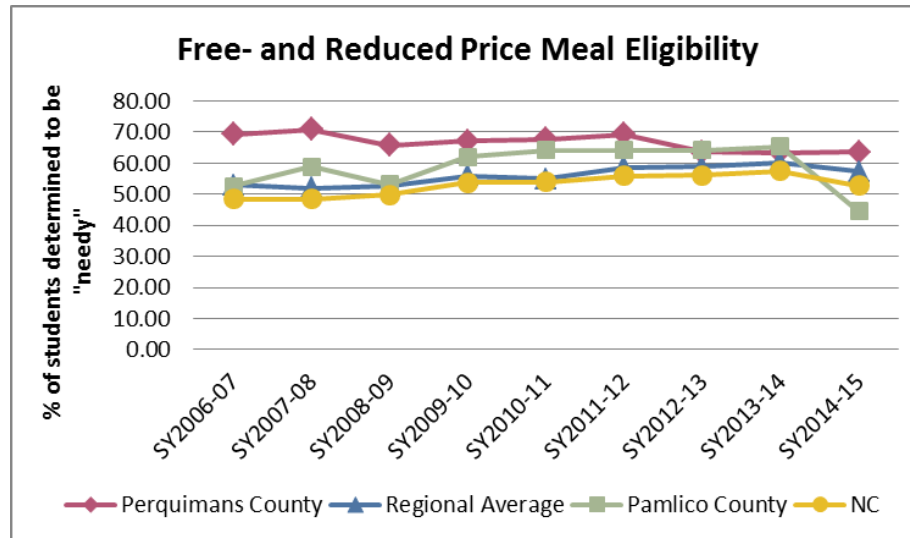
POVERTY AND AGE

- The poverty rates among children in Perquimans County were higher compared to the state in all periods cited below and have not demonstrated much change over time.
- The child poverty rate in the county was approximately 1.5 times the overall county poverty rate throughout the period cited.
- The poverty rate among seniors in Perquimans County decreased over the period presented.



FREE- AND REDUCED-PRICE MEALS

- Another measure of poverty, particularly among families with children, is the rate of participation in the free- and reduced-price meal programs in the public school system.
- In Perquimans County, a higher percentage of students have been identified as “needy”, compared to the State and the Region.
- For the 2014-15 school year, approximately **64%** of Perquimans County students were identified as needy, compared to 57% in the Region and 53% across the state.



HOUSING AND HOUSING COSTS

According to 2014 ACS estimates:

- 77% of Perquimans County housing units were owned and 23% were rented. Statewide, 66% of housing units were owned and 34% were rented.
- 27% of housing units in Perquimans County were mobile homes, compared to 13.5% statewide.
- The estimated median monthly mortgage cost among Perquimans County home owners **increased** from \$1,143 in 2005-2009 to
\$1,356 in 2010-2014, **\$84 more than the NC median**
- The estimated median gross monthly rent among Perquimans County renters **increased** from \$575 in 2005-2009 to
\$722 in 2014, **\$68 less than the NC median**
- In 2014, the percentage of Perquimans County mortgagees spending more than 30% of their monthly income on housing was 42%, compared to 31% statewide.
- In 2014, the percentage of Perquimans County renters spending more than 30% of their monthly income on housing was 56%, compared to 51% statewide.

HOMELESSNESS

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



CHILDREN AND FAMILIES (2014 ESTIMATES)

- There were 3,963 households in Perquimans County
 - 35% of households had children under 18 (NC = **43%**)
 - **75%** of households were married couples (NC = 73%)
 - **9%** of households were single male householders (NC = 7%)
 - 15% of households were single female householders (NC = **21%**)
 - 23% of households were married couples with minor children (NC = **28%**)
 - **4%** of households were single males with minor children (NC = 3%)
 - 9% of households were single females with minor children (NC = **12%**)

GRANDPARENTS (2014 ESTIMATES)

- An estimated 682 Perquimans County grandparents were living with their minor grandchildren
- **65%** were *also* financially responsible for those grandchildren
 - [NC = 48% Region = 49%]
 - 34% were over the age of 60 [NC = 35% Region = **38%**]
 - **46%** were African American [NC = 36% Region = 33%]
 - 21% were disabled [NC = **28%** Region = 22%]
 - 16% were below the poverty level [NC = 26% Region = **29%**]



EDUCATIONAL ACHIEVEMENT

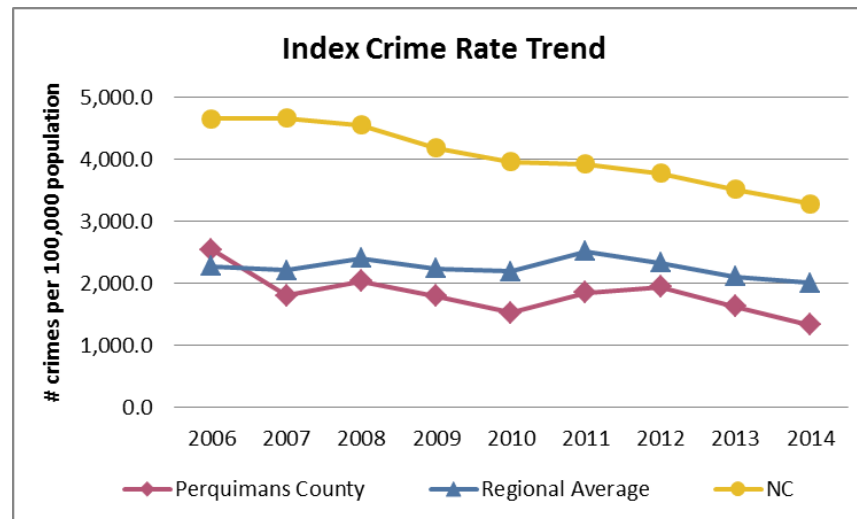
- Compared to the NC average, Perquimans County has:
 - A **higher** proportion of residents with less than a high school education: **16%** [NC = 15% Region = 17%]
 - A **lower** proportion of residents with a bachelor's degree or higher: 17% [NC = **28%** Region = 17%]
 - **Lower** proficiency compared to the state and the region on most math and reading EOG tests among 3rd and 8th graders (**higher** proportion of 3rd graders proficient in math).
 - **Lower** rate of participation in the SAT and **lower** average scores.
 - **Lower** local per-pupil expenditures but **higher** state and federal funding.
 - **Higher** graduation for rates for all groups.

EDUCATIONAL SYSTEM

- The number of students enrolled in Perquimans County Schools has changed little since SY2006-07, fluctuating by fewer than 100 students each year. In the 2014-15 school year 1,809 students were enrolled in Perquimans County public schools.
- While the county high school drop-out rate varies on a yearly basis, it has decreased overall from a high of 7.75 in SY2005-06 to 1.34 in SY2013-14 [when NC = 2.28]
- The high school reportable crime rate in Perquimans County is variable but has been higher compared to NC from SY2011-12 through SY2013-14.

CRIME AND SAFETY

- The “index crime rate” is the rate of the sum of violent crime and property crime. The majority of crimes committed are property crimes.
- Index, Violent and Property crime rates are historically **lower** in Perquimans County compared to State and Regional rates.
- In 2014 the Perquimans County **index** crime rate was 1,329.7 crimes committed per 100,000 population, compared to **3,287.2** in NC and 2,006.2 in the ARHS Region.
- In 2014 the Perquimans County **violent** crime rate rate was 159.6 compared to a state rate of **333.0** and a Regional rate of 214.5.
- The 2014 **property** crime rate was 1,170.1 in Perquimans County compared to **2,954.1** in NC and 1,808.4 in the Region.



JUVENILE CRIME

- Between 2010 and 2014 the *number* of individuals who were subjects of complaints of **undisciplined** youth (ages 6-17) was low in Perquimans County. A total of 28 juveniles were determined to be undisciplined over the five year period.
- Over the same period the *number* and *rate* of complaints of **delinquent** youth in the county fluctuated from a high of 43 and 27.94 respectively in 2011 to a low of 21 and 13.73 in 2012.
- 17 Perquimans County youths were sent to secure detention between 2010 and 2014.

DOMESTIC VIOLENCE

- The number of domestic violence clients seen by local agencies varies on a yearly basis. An average of 124 clients were seen each year between FY2004-05 and FY2014-15. In FY2014-15, 155 were seen.
- 2,917 services were provided to Perquimans County domestic violence clients in FY2014-15. The most common service was the provision of advocacy, followed by counseling.
- The domestic violence shelter serving Perquimans County was full on 32 days in FY2014-2015.

SEXUAL ASSAULT

- Data related to sexual assault clients in Perquimans County was not available before FY2009-10.
- The number of sexual assault clients seen by local agencies is variable in Perquimans County. An average of 25 clients were seen each year between FY2009-10 and FY2014-15. In FY 2014-15, 22 were seen.
- The most common type of assault in FY2014-15 was adult survivor of child sexual assault, accounting for 41% of the clients.
- The most common type of offender was a relative (68%).

CHILD MALTREATMENT

- The number of children subject to abuse, neglect, or abuse and neglect in Perquimans County fluctuates yearly.
- In most other counties examined for this process, neglect-only cases composed the most common type of child maltreatment. Abuse seems to be a component of more cases substantiated in Perquimans County.
- In Perquimans County in 2014-15, 80% of the substantiated cases of abuse/neglect were white children, 80% of the victims were female, and 80% were 13-17 years old.

Category	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Total No. of Findings of Abuse, Neglect, Dependency	90	66	112	84	76	86	50	70	63	74	65
No. Substantiated ¹ Findings of Abuse and Neglect	0	0	0	0	0	0	0	3	0	3	1
No. Substantiated Findings of Abuse	4	4	0	2	2	0	1	1	0	0	4
No. Substantiated Findings of Neglect	23	6	1	0	0	0	2	0	0	0	0
Services Recommended	0	6	54	29	24	16	9	16	12	10	16
No. Unsubstantiated Findings	63	33	21	17	4	22	5	2	7	1	2
Services Not Recommended	0	8	24	21	43	30	22	38	39	59	39

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



HEALTH RESOURCES

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

HEALTH INSURANCE

- The percent of uninsured adults (age 19-64) in Perquimans County rose and fell in the periods shown below but was lower than the comparable state figures in all years presented.
- The age group 0-18 tends to have a lower percentage of uninsured than the 19-64 age group, due partly at least to coverage of children through NC Health Choice.
- As of 2014 estimates, 17.5% of Perquimans County residents were without health insurance and 8.4% under 18 were uninsured. 46% of county residents were insured via public programs, compared to 32% statewide.

Location	2011			2012			2013		
	0-18	19-64	0-64	0-18	19-64	0-64	0-18	19-64	0-64
Perquimans County	8.5	21.1	17.8	9.2	21.8	18.5	7.3	20.7	17.1
Regional Average	8.2	21.0	17.4	8.0	21.2	17.6	7.4	20.7	17.1
Pamlico County	10.3	21.5	18.7	10.2	22.4	19.3	10.8	22.9	19.9
State of NC	7.9	23.0	18.7	7.9	23.4	19.0	6.9	22.5	18.1

MEDICAID ELIGIBILITY

- Approximately 19% of Perquimans County residents were eligible for Medicaid in 2014.
- The total number of people in Perquimans County eligible for Medicaid increased slightly over the period presented.
- As of January 2013, 95% of Perquimans County children who were eligible for NC Health Choice were enrolled.
- As of December 2013, 88% of those eligible for Carolina ACCESS were enrolled.

Year	Number of Eligibles, as of December 31 each year													
	Aged	Blind	Disabled	AFDC	Foster Care	Pregnant Women	Family Planning Waiver	Infants & Children	Medicaid CHIP	Medicare Catastrophic	Comprehensive Medicare-Aid (MQBQ-B-E)	Refugees Aliens	BCC	Total Eligibles
2008	264	2	399	542	0	44	n/a	897	66	98	n/a	0	1	2,316
2009	251	2	419	597	0	46	n/a	929	59	107	n/a	0	1	2,411
2010	255	2	433	526	0	35	n/a	902	53	121	n/a	1	0	2,328
2011	263	3	416	470	1	44	n/a	973	54	127	n/a	0	0	2,351
2012	253	3	417	446	0	48	n/a	1,044	47	143	n/a	1	0	2,402
2013	258	3	439	417	0	36	n/a	1,044	54	139	n/a	1	0	2,391
2014	243	3	434	535	0	20	117	938	158	n/a	157	2	0	2,607
Oct-15	226	3	456	913	0	24	140	492	151	n/a	168	1	0	2,574

HEALTH CARE PRACTITIONERS

- 2012 ratios of active health professionals per 10,000 population were **lower** in Perquimans County than in NC for:
 - MDs: 2.2 [NC=22.31 Region=8.38]
 - Primary Care MDs: 2.2 [NC=7.58 Region=3.53]
 - Dentists: 1.46 [NC=4.51 Region=1.72]
 - Registered Nurses: 21.23 [NC=98.56 Region=53.15]
 - Pharmacists: 2.93 [NC=10.06 Region=4.19]
- These ratios do not take into consideration medical practitioners in neighboring counties accessible to Perquimans County residents.

HEALTH CARE PRACTITIONERS

- As of 2012, there were 3 primary care physicians (no General Practice physicians, no Obstetrician/Gynecologists, no Pediatricians) and no specialists in Perquimans County.
- In 2012, 2 dentists and 6 hygienists were practicing in Perquimans County.
- The 2012 count of 29 nurses in the county included zero nurse practitioners. An additional 18 LPNs were located in Perquimans County.
- Among other health professionals, Perquimans County is lacking the following: chiropractors, optometrists, podiatrists, practicing psychologists, and respiratory therapists.

OTHER HEALTHCARE PROVIDERS

- As of February 2016, there was 1 dental provider in Perquimans County currently participating in Medicaid and NC Health Choice; at that time the provider was not accepting new Health Choice clients.
- As of September 2015 there were 2 mental health providers listed in Perquimans County accepting Medicaid/NC Health Choice clients.
- The student to school nurse ratio has decreased since SY2009-10 from 1:863 to 1 nurse for approximately 596 students. The recommended ratio is 1 nurse for every 750 students.

OTHER HEALTHCARE FACILITIES

- There is no hospital located in Perquimans County.
- There are no dialysis facilities in Perquimans County.
- As of February 2016 there were no licensed ambulatory care facilities, cardiac rehabilitation facilities or nursing pools in the county.
- As of February 2016 there were 3 mental health facilities in Perquimans County, all providing supervised living for developmentally disabled adults.

LONG-TERM CARE FACILITIES (AS OF FEBRUARY 2016)

- The number of beds in NC-licensed long-term care facilities in Perquimans County are:
 - Adult Care Homes/Homes for the Aged (1 facility): 24 beds
 - Family Care Homes (3 facilities): 17 beds
 - Nursing Homes/Homes for the Aged (1 facility): 70 beds.

Total = 111 beds, or 1 bed for every 30 persons age 65 and older in Perquimans County (3,275 persons \geq 65 in 2014)

HOSPITAL UTILIZATION SUMMARY: EMERGENCY DEPARTMENT

Below is the overall gender and age-group profile of ED utilization at the five hospitals in the study region seeing more than 20 Perquimans County ED patients over two years.

No. ED Discharges by Gender and Age Group						
Fiscal Year	No. by Gender		No. by Age Group			Total No. Discharges
	Females	Males	< 18	18-64	≥ 65	
2013	4,165	2,979	1,228	4,560	1,356	7,144
2014	4,264	3,096	1,477	4,552	1,331	7,360
Total	8,429	6,075	2,705	9,112	2,687	14,504



HOSPITAL UTILIZATION SUMMARY: EMERGENCY DEPARTMENT

Below is the overall racial and ethnic profile of ED utilization at the five hospitals in the study region seeing more than 20 Perquimans County ED patients over two years.

Fiscal Year	No. ED Discharges by Racial/Ethnic Group							Total No. Discharges
	Am. Indian/Alaskan	Asian	Black	Hispanic	Other	Unknown	White	
2013	7	6	2,616	77	48	8	4,382	7,144
2014	4	1	2,727	95	47	13	4,473	7,360
Total	11	7	5,343	172	95	21	8,855	14,504

HOSPITAL UTILIZATION SUMMARY: EMERGENCY DEPARTMENT

Below is the overall payor profile of ED utilization at the five hospitals in the study region seeing more than 20 Perquimans County ED patients over two years.

Fiscal Year	No. ED Discharges by Payor Group								Total No. Discharges
	Commercial	Medicaid	Medicaid Managed Care	Medicare	Medicare Managed Care	Self-Pay	Military	Other	
2013	861	863	1,193	1,685	51	1,680	270	541	7,144
2014	970	1,054	1,167	1,647	82	1,645	251	544	7,360
Total	1,831	1,917	2,360	3,332	133	3,325	521	1,085	14,504
Group % of Total	12.6	13.2	16.3	23.0	0.9	22.9	3.6	7.5	100%

HOSPITAL UTILIZATION SUMMARY:

INPATIENT HOSPITALIZATIONS

Below is the overall gender and age-group profile of IP utilization at the three hospitals in the study region seeing more than 20 Perquimans County IP patients over two years.

No. IP Discharges by Gender and Age Group						
Fiscal Year	No. by Gender		No. by Age Group			Total No. Discharges
	Females	Males	< 18	18-64	≥ 65	
2013	608	457	120	411	534	1,065
2014	583	441	103	412	509	1,024
Total	1,191	898	223	823	1,043	2,089



HOSPITAL UTILIZATION SUMMARY:

INPATIENT HOSPITALIZATIONS

Below is the overall racial and ethnic profile of IP utilization at the three hospitals in the study region seeing more than 20 Perquimans County IP patients over two years.

Fiscal Year	No. IP Discharges by Racial/Ethnic Group							Total No. Discharges
	Am. Indian/Alaskan	Asian	Black	Hispanic	Other	Unknown	White	
2013	0	4	310	7	8	4	732	1,065
2014	0	1	270	7	10	2	734	1,024
Total	0	5	580	14	18	6	1,466	2,089

HOSPITAL UTILIZATION SUMMARY:

INPATIENT HOSPITALIZATIONS

Below is the overall payor profile of IP utilization at the three hospitals in the study region seeing more than 20 Perquimans County IP patients over two years.

Fiscal Year	No. IP Discharges by Payor Group								Total No. Discharges
	Commercial	Medicaid	Medicaid Managed Care	Medicare	Medicare Managed Care	Self-Pay	Military	Other	
2013	128	149	52	582	9	72	25	48	1,065
2014	92	145	52	551	30	50	33	71	1,024
Total	220	294	104	1,133	39	122	58	119	2,089
Group % of Total	10.5	14.1	5.0	54.2	1.9	5.8	2.8	5.7	100%



HEALTH STATISTICS

Health Rankings

HEALTH RANKINGS

- According to *America's Health Rankings* (2014)
 - NC ranked 37th overall out of 50 (where 1 is “best”)
- According to *County Health Rankings* (2015) for NC, Perquimans County was ranked:
 - 60th overall out of 100 (where 1 is best) for **health outcomes**
 - 70th in length of life
 - 44th for quality of life
 - 41st overall out of 100 for **health factors**
 - 37th for health behaviors
 - 41st for clinical care
 - 68th for social and economic factors
 - 9th for physical environment



MATERNAL AND INFANT HEALTH

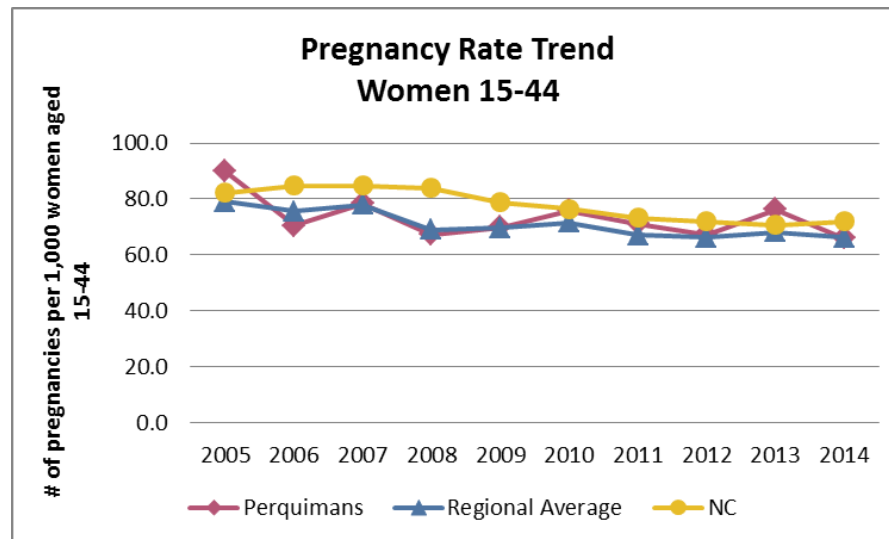
***Pregnancy Rate, Risk Factors,
Outcomes, Infant Mortality***

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

PREGNANCY RATE: WOMEN 15-44

Pregnancies per 1,000 Women Age 15-44

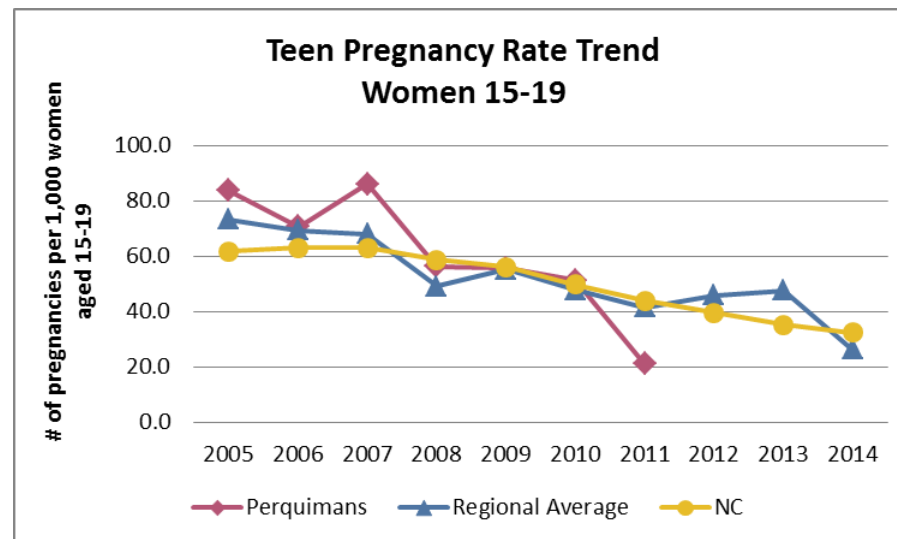
- The total pregnancy rate fluctuates in Perquimans County on a yearly basis but has demonstrated a decline over the period cited.
- Total pregnancy rates in the ARHS Region and NC have fallen overall since 2006.
- The 2014 pregnancy rate was 66.1 in Perquimans County, compared to 66.3 in the Region and **72.1** in NC.



PREGNANCY RATE: WOMEN 15-19

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

- The teen pregnancy rate in Perquimans County has decreased overall since 2006; it had fallen below the state rate by 2011.
- In 2011 (the last year in which the SCHS published unstable rates) the teen pregnancy rate was **21.0** in Perquimans County, compared to 41.5 for the Region and **43.8** for the state.



PREGNANCY RATE: BY RACE/ETHNICITY

- Discussion of racially stratified pregnancy rates is complicated by unstable and suppressed rates as well as changes in the way the SCHS has handled racial identity.
- Among women 15-44, the pregnancy rate was higher among white non-Hispanic women in 2012-2014. The rate among African American non-Hispanics was not vastly different .
- Among women aged 15-19, there are too few stable rates available in comparable racial categories over the periods published to present a meaningful analysis of pregnancy by race in Perquimans County.

TEEN AND ADOLESCENT PREGNANCIES

- The *number* of teen (women aged 15-19) pregnancies in Perquimans County was variable between 2003 and 2013. An average of 22 teen pregnancies occurred each year over that period.
- There were 6 pregnancies among Perquimans County adolescent girls (age 14 and younger) between 2003 and 2013. There were no adolescent pregnancies in the period from 2011 through 2013.

ABORTION TREND

- The Perquimans County abortion rate among women aged 15-44 fluctuates each year and has been unstable since 2011; it decreased overall since 2005.
 - In 2011, the Perquimans County rate was **8.4** compared to 10.2 in the Region and **11.4** in NC.
- Among teenage women the abortion rate fluctuates widely, likely due to unstable rates based on very low numbers, but has decreased overall since 2007.
 - In 2011 (the last year for which rates are available) the Perquimans County rate was **5.2**, compared to **9.7** across the Region and 8.7 for NC.

PREGNANCY RISK FACTORS: SMOKING DURING PREGNANCY

- The percentage of Perquimans County women who smoked during pregnancy increased from 11.3% in 2013 to 16.1% in 2014 and was then the highest rate among the comparators.

Location	Percent of Births to Mothers Who Smoked While Pregnant			
	2011	2012	2013	2014
Perquimans County	12.8	13.5	11.3	16.1
Regional Average	11.3	10.4	10.6	13.6
Pamlico County	25.8	18.4	17.7	13.2
State of NC	10.9	10.6	10.3	9.8

PREGNANCY RISK FACTORS: INADEQUATE PRENATAL CARE

- For much of the period cited below the percentage of women receiving early prenatal care was lower in Perquimans County than statewide.
- The percentage of Perquimans County women receiving prenatal care in the first trimester increased from 61.9% in 2012 to 73.4% in 2014.
- While rates of care are unstable and fluctuate among Other non-Hispanic and Hispanic mothers, a lower percentage of African American non-Hispanic women get prenatal care compared to other groups.

County	Percent of Pregnancies Receiving Prenatal Care in 1 st Trimester			
	2011	2012	2013	2014
Perquimans County	66.9	61.9	62.0	73.4
Regional Average	53.3	49.0	55.6	70.5
Pamlico County	69.7	75.5	63.3	63.7
State of NC	71.2	71.3	70.3	68.2

PREGNANCY OUTCOMES:

LOW WEIGHT BIRTHS

- **Low Weight Births (≤ 2500 grams/5.5 lbs.) in 2010-2014**
 - Overall Perquimans = 7.6% [NC = 9.0% Region = **9.4%**]
 - The rate declined overall since 2001-2005.
 - Highest (unstable) rate is among Hispanics (21.1%).
- **Very Low Weight Births (≤ 1500 grams/3.3 lbs.) in 2010-2014**
 - Overall Perquimans = **2.1%** [NC = 1.7% Region = 1.8%]
 - The variable rate has decreased overall since 2001-2005.
 - Highest (unstable) rate is among African American non-Hispanics (3.9%).

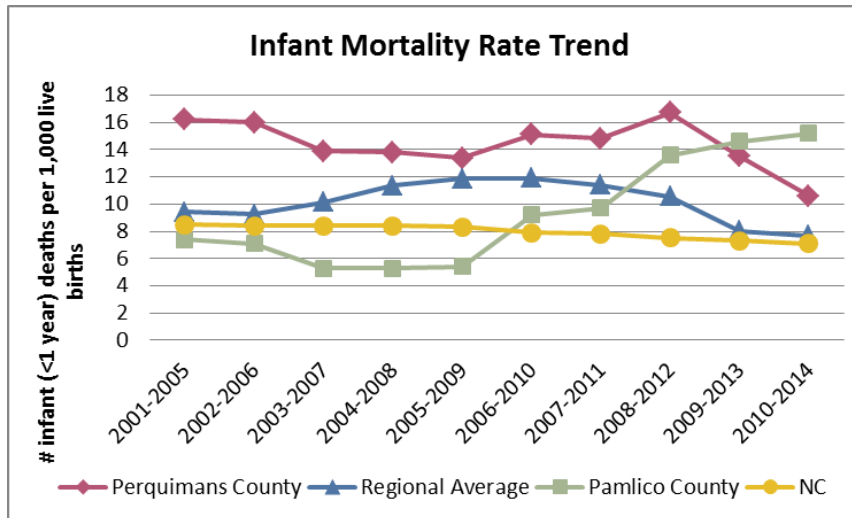
PREGNANCY OUTCOMES: HOSPITAL DISCHARGES FOR NEWBORNS AND NEONATES WITH CONDITIONS ORIGINATING IN THE PERINATAL PERIOD

According to data from the three hospitals in the study region seeing more than 20 Perquimans County inpatients over two years, the number of discharges associated with newborns or neonates with prematurity or some kind of problem originating in the perinatal period totaled 23% of all newborns over the period cited.

Year	Number of Hospital Discharges by DRG (Diagnosis Related Group) Diagnosis					
	Normal Newborns	Extreme Immaturity or Respiratory Distress	Prematurity with Major Problems	Prematurity without Major Problems	Full-Term Neonate with Major Problems	Neonate with Other Significant Problems
2013	86	0	0	6	1	17
2014	70	1	2	6	2	12
Total	156	1	2	12	3	29

PREGNANCY OUTCOMES: INFANT MORTALITY

- All of the Perquimans County infant mortality rates are unstable, so the trend presented should be interpreted with caution.
- The Perquimans County infant mortality rate was higher than both state and regional rates for the entire period shown.
- The total infant mortality rate in Perquimans County decreased from 16.7 in 2008-2012 to **10.6** in 2010-2014 [when NC = 7.1 and Region = 7.7].
- Note that according to the CDC the 2013 infant mortality rate in NC was the 10th highest in the nation.



PREGNANCY OUTCOMES: INFANT MORTALITY BY RACE

- No stable minority infant mortality rates are available for any racial group in Perquimans County.
- In 2008-2012, the infant mortality rate among African American non-Hispanics in Perquimans County was **23.8** compared to 11.1 in the Region and 14.0 in NC.





MORTALITY

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

LIFE EXPECTANCY

Life Expectancy for persons born in 2012-2014

- Life expectancy has improved over time among all groups presented.
- Compared to NC, males and African Americans in Perquimans County have shorter life expectancies.

Location	Life Expectancy in Years									
	Person Born in 1990-1992					Person Born in 2012-2014				
	Overall	Male	Female	White	African-American	Overall	Male	Female	White	African-American
Perquimans County	74.6	69.8	80.2	74.8	74.3	78.6	75.1	82.5	79.9	75.0
<i>Regional Average</i>	73.7	69.8	77.7	75.1	70.3	78.3	75.8	81.0	79.0	76.5
Pamlico County	75.1	71.5	78.7	76.7	70.7	77.5	75.2	80.3	77.2	77.6
State of NC	74.9	71.0	78.7	76.4	69.8	78.3	75.8	80.7	79.1	75.9



LEADING CAUSES OF DEATH: OVERALL

Age-Adjusted Rates (2010-2014)	Perquimans County No. of Deaths	Perquimans County Mortality Rate	Perquimans Rate Difference from NC
1. Heart Diseases	198	194.5	+17.2%
2. Total Cancer	168	155.3	-9.6%
3. Cerebrovascular Disease	45	42.2	-1.9%
4. Chronic Lower Respiratory Diseases	29	26.8	-41.7%
5. All Other Unintentional Injuries	21	25.1	-15.2%
6. Alzheimer's Disease	25	23.5	-19.5%
7. Unintentional Motor Vehicle Injuries	14	19.4	+43.7%
8. Pneumonia and Influenza	17	17.0	-3.4%
9. Septicemia	13	14.5	+11.5%
10. Suicide	9	12.1	-2.4%
11. Nephritis, Nephrotic Syndrome, and Nephrosis	13	11.8	-30.4%
12. Diabetes Mellitus	12	11.0	-50.2%
13. Homicide	4	7.9	+38.6%
14. Acquired Immune Deficiency Syndrome	3	4.3	+65.4%
15. Chronic Liver Disease and Cirrhosis	4	3.5	-63.9%

HOSPITAL ACTIVITY ASSOCIATED WITH LEADING CAUSES OF DEATH (LCD)

- Below is data on *emergency department* discharges from the five hospitals in the study region seeing more than 20 Perquimans County patients in the ED over the two years cited. For all but septicemia (for which a DRG code is used) the diagnoses referenced match the NC State Center for Health Statistics' ICD-9 case definitions for several Leading Causes of Death (LCD).
- The largest number of ED discharges in the table below are associated with injuries and poisoning, followed by pneumonia/influenza, heart disease and COPD.

Year	Number of Emergency Department Discharges (by SCHS ICD-9 Case Definitions for LCD)						
	Heart Disease	Total Cancer	Stroke	COPD (Bronchitis & Emphysema)	Injuries/Poisoning	Alzheimer's Disease	Pneumonia/Influenza
2013	94	17	41	88	1,434	0	47/51
2014	94	14	34	97	1,353	0	55/46
Total	188	31	75	185	2,787	0	102/97

HOSPITAL ACTIVITY ASSOCIATED WITH LEADING CAUSES OF DEATH (LCD)

- Below is data on *inpatient hospitalization* discharges from the three hospitals in the study region seeing more than 20 Perquimans County patients in the ED over the two years cited. For all but septicemia (for which a DRG code is used) the diagnoses referenced match the NC State Center for Health Statistics' ICD-9 case definitions for several Leading Causes of Death (LCD).
- The largest number of IP discharges in the table below are associated with heart disease, followed by injuries and poisoning and septicemia.

Year	Number of Inpatient Hospitalization Discharges (by SCHS ICD-9 Case Definitions for LCD)							
	Heart Disease	Total Cancer	Stroke	COPD (Bronchitis & Emphysema)	Injuries/Poisoning	Alzheimer's Disease	Pneumonia/Influenza	Septicemia
2013	159	18	40	45	59	0	35/0	59
2014	152	19	36	51	55	0	34/0	43
Total	311	37	76	96	114	0	69/0	102

LEADING CAUSES OF DEATH: GENDER COMPARISON

Perquimans County Rank by Descending Overall Age-Adjusted Rate (2010-2014)	Rank Among Males	Rank Among Females	% Male Rate Difference from Females
1. Heart Disease	1	1	+91%
2. Total Cancer	2	2	+63%
3. Cerebrovascular Disease	3	3	+12%
4. Chronic Lower Respiratory Disease	n/a	n/a	n/a
5. All Other Unintentional Injuries	n/a	n/a	n/a
6. Alzheimer's Disease	n/a	n/a	n/a
7. Unintentional Motor Vehicle Injuries	n/a	n/a	n/a
8. Pneumonia and Influenza	n/a	n/a	n/a
9. Septicemia	n/a	n/a	n/a
10. Suicide	n/a	n/a	n/a
11. Nephritis, Nephrotic Syndrome, and Nephrosis	n/a	n/a	n/a
12. Diabetes Mellitus	n/a	n/a	n/a
13. Homicide	n/a	n/a	n/a
14. Acquired Immune Deficiency Syndrome	n/a	n/a	n/a
15. Chronic Liver Disease and Cirrhosis	n/a	n/a	n/a

LEADING CAUSES OF DEATH: RACE COMPARISON

Perquimans County Rank by Descending Overall Age-Adjusted Rate (2010-2014)	Rank Among White Non-Hispanic	Rank Among Black non- Hispanic	% Blacks Rate Difference from Whites
1. Heart Disease	1	1	+33%
2. Total Cancer	2	2	+24%
3. Cerebrovascular Disease	3	n/a	n/a
4. Chronic Lower Respiratory Disease	5	n/a	n/a
5. All Other Unintentional Injuries	4	n/a	n/a
6. Alzheimer's Disease	n/a	n/a	n/a
7. Unintentional Motor Vehicle Injuries	n/a	n/a	n/a
8. Pneumonia and Influenza	n/a	n/a	n/a
9. Septicemia	n/a	n/a	n/a
10. Suicide	n/a	n/a	n/a
11. Nephritis, Nephrotic Syndrome, and Nephrosis	n/a	n/a	n/a
12. Diabetes Mellitus	n/a	n/a	n/a
13. Homicide	n/a	n/a	n/a
14. Acquired Immune Deficiency Syndrome	n/a	n/a	n/a
15. Chronic Liver Disease and Cirrhosis	n/a	n/a	n/a

LEADING CAUSES OF DEATH – BY AGE

Age Group	Rank	Cause of Death in Perquimans County (2010-2014)
00-19	1	Congenital anomalies
	2	Other unintentional injuries
	3	Motor vehicle injuries
		Homicide
20-39	1	Diseases of the heart
		Motor vehicle injuries
	2	Homicide
	3	Other unintentional injuries
40-64	1	Cancer (all sites)
	2	Diseases of the heart
	3	Cerebrovascular disease
65-84	1	Cancer (all sites)
	2	Diseases of the heart
	3	Chronic lower respiratory diseases
85+	1	Diseases of the heart
	2	Cancer (all sites)
	3	Alzheimer's disease



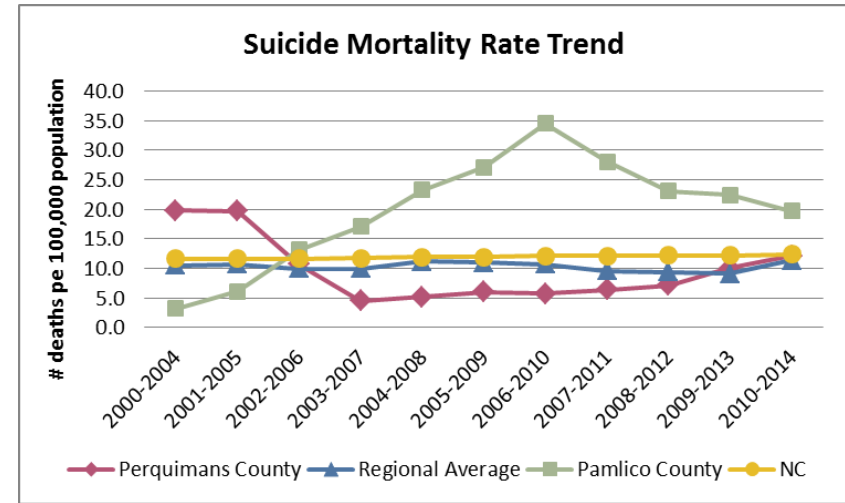
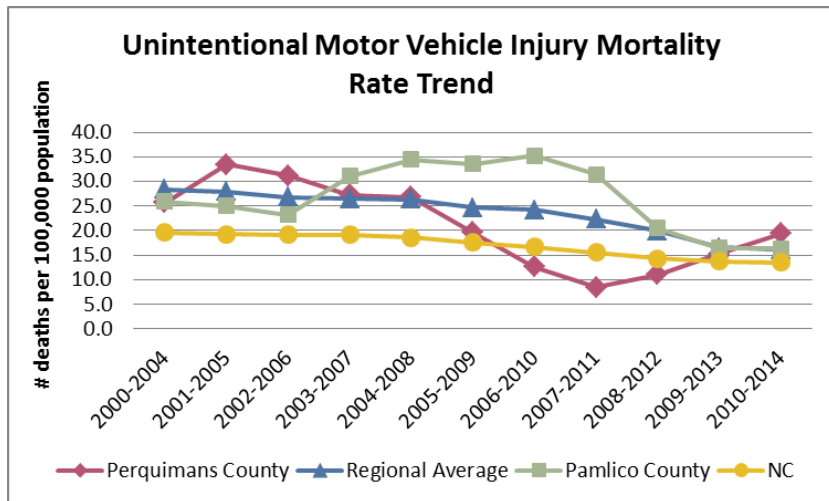
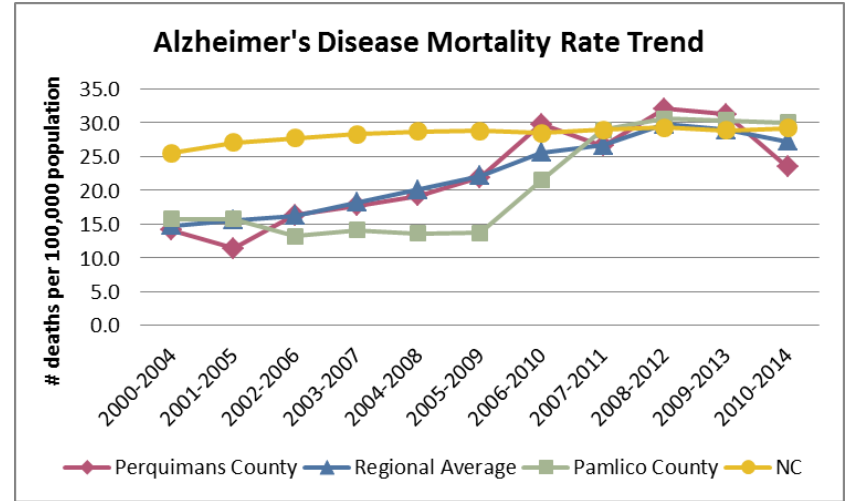
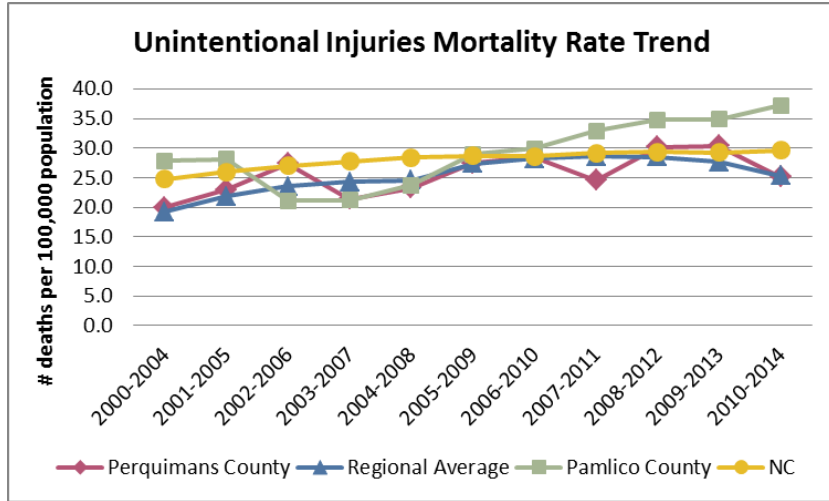
OVERALL SHORT-TERM MORTALITY RATE TRENDS: 2007-2011 AND 2010-2014

Perquimans County Rank by Descending Overall Age-Adjusted Rate (2010-2014)	Rate in 2007-2011	Rate in 2010-2014	Percent Difference
1. Heart Disease	196.8	194.5	-1.2%
2. Total Cancer	188.1	155.3	-17.4%
3. Cerebrovascular Disease	38.0	42.2	+11.1%
4. Chronic Lower Respiratory Disease	25.3	26.8	+5.9%
5. All Other Unintentional Injuries	24.6	25.1	+2.0%
6. Alzheimer's Disease	26.6	23.5	-11.7%
7. Unintentional Motor Vehicle Injuries	8.5	19.4	+128.2%
8. Pneumonia and Influenza	17.0	17.0	No change
9. Septicemia	12.5	14.5	+16.0%
10. Suicide	6.4	12.1	+89.1%
11. Nephritis, Nephrotic Syndrome, and Nephrosis	16.3	11.8	-27.6%
12. Diabetes Mellitus	15.2	11.0	-27.6%
13. Homicide	3.9	7.9	+102.6%
14. Acquired Immune Deficiency Syndrome	1.4	4.3	+207.1%
15. Chronic Liver Disease and Cirrhosis	6.4	3.5	-45.3%

OVERALL LONG-TERM MORTALITY RATE TRENDS: 2000-2004 TO 2010-2014

Perquimans County Rank by Descending Overall Age-Adjusted Rate (2010-2014)	Overall Trend Direction <i>(determined by Excel trendline)</i>
1. Heart Disease	▼
2. Total Cancer	▼
3. Cerebrovascular Disease	▼
4. Chronic Lower Respiratory Disease	▼
5. All Other Unintentional Injuries	▲
6. Alzheimer's Disease	▲
7. Unintentional Motor Vehicle Injuries	▼
8. Pneumonia and Influenza	▼
9. Septicemia	▲
10. Suicide	▼
11. Nephritis, Nephrotic Syndrome, and Nephrosis	▲
12. Diabetes Mellitus	▼
13. Homicide	▲
14. Acquired Immune Deficiency Syndrome	▼
15. Chronic Liver Disease and Cirrhosis	▼

MORTALITY RATE TRENDS OF CONCERN: INCREASING COUNTY RATES



TRENDS IN RACIAL DISPARITIES IN HOSPITAL DISCHARGES FOR INJURY AND POISONING

- Because both the short-term and long-term mortality rate trends for non-motor vehicle injuries in Perquimans County show increases, it may be illustrative to examine hospital discharges for injury and poisoning (ICD-9 Codes 800-999xx). The data are from Sentara Albemarle Medical Center.
- Discharges among blacks accounted for 30% of all ED discharges and 35% of all IP discharges under these codes. Blacks compose 25% of the Perquimans County population.

Fiscal Year	No. ED Discharges			No. IP Discharges		
	Black	White	Total	Black	White	Total
2013	286	666	964	38	66	104
2014	285	612	914	29	55	86
Total	571	1,278	1,878	67	121	190

TRENDS IN GENDER DISPARITIES IN HOSPITAL DISCHARGES FOR INJURY AND POISONING

- These data are for ICD-9 Codes 800-999xx. The data are from Sentara Albemarle Medical Center.
- Discharges among females accounted for 51% of all ED discharges and 47% of all IP discharges under these codes. Females compose 52% of the Perquimans County population.

Fiscal Year	No. ED Discharges			No. IP Discharges		
	Female	Male	Total	Female	Male	Total
2013	486	478	964	49	55	104
2014	480	434	914	40	46	86
Total	966	912	1,878	89	101	190

HOSPITAL DISCHARGES ASSOCIATED WITH SUICIDE IDEATION

- Because the short-term suicide mortality rate in Perquimans County appears to have risen, it may be illustrative to examine hospital discharges associated with suicide ideation (ICD-9 Code V62.84). The ED data are from all five area hospitals; the IP data are from three area hospitals. Note that the numbers in the table are too small to justify gender or racial/ethnic stratification.

Fiscal Year	No. ED Discharges	No. IP Discharges
2013	4	0
2014	7	1
Total	11	1

TRENDS IN RACIAL DISPARITIES IN HOSPITAL DISCHARGES FOR HEART DISEASE

- Because the current heart disease mortality rate in Perquimans County is higher than the NC rate and because stratified heart disease mortality rates in the county demonstrate gender and racial disparities, it may be illustrative to examine hospital discharges for heart disease (ICD-9 Codes 390-398xx, 402xx and 404-429xx). The data are from Sentara Albemarle Medical Center.
- Discharges among blacks accounted for 35% of all ED discharges and 26% of all IP discharges under these codes. Blacks compose 25% of the Perquimans County population.

Fiscal Year	No. ED Discharges			No. IP Discharges		
	Black	White	Total	Black	White	Total
2013	13	26	39	9	17	27
2014	13	23	36	10	35	45
Total	26	49	75	19	52	72

TRENDS IN GENDER DISPARITIES IN HOSPITAL DISCHARGES FOR HEART DISEASE

- These data are for ICD-9 Codes 390-398xx, 402xx, and 404-429xx. The data are from Sentara Albemarle Medical Center.
- Discharges among females accounted for 49% of all ED discharges and 53% of all IP discharges under these codes. Females compose 52% of the Perquimans County population.

Fiscal Year	No. ED Discharges			No. IP Discharges		
	Female	Male	Total	Female	Male	Total
2013	21	18	39	16	11	27
2014	16	20	36	22	13	45
Total	37	38	75	38	24	72

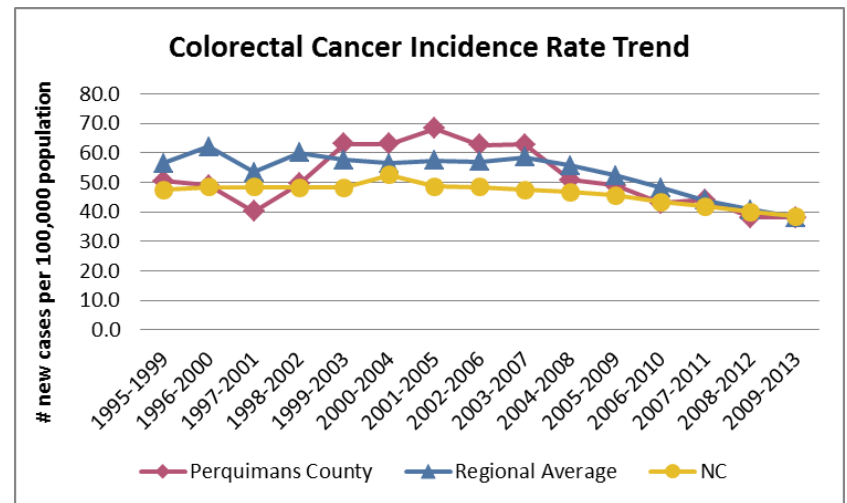
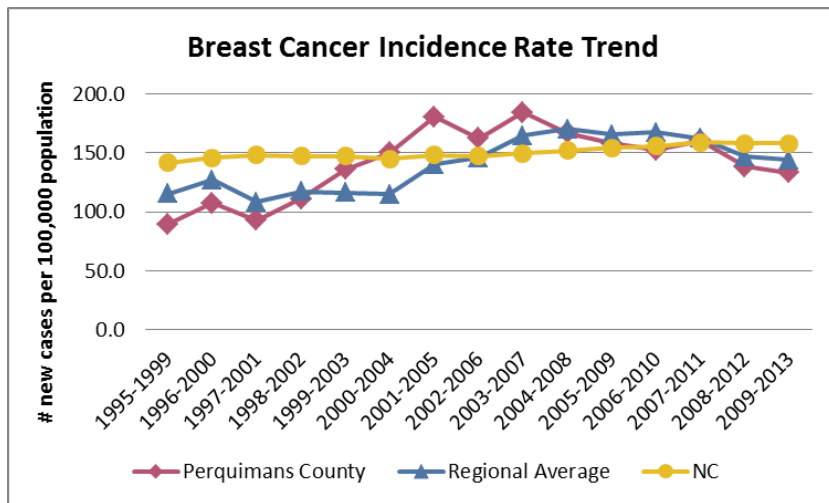
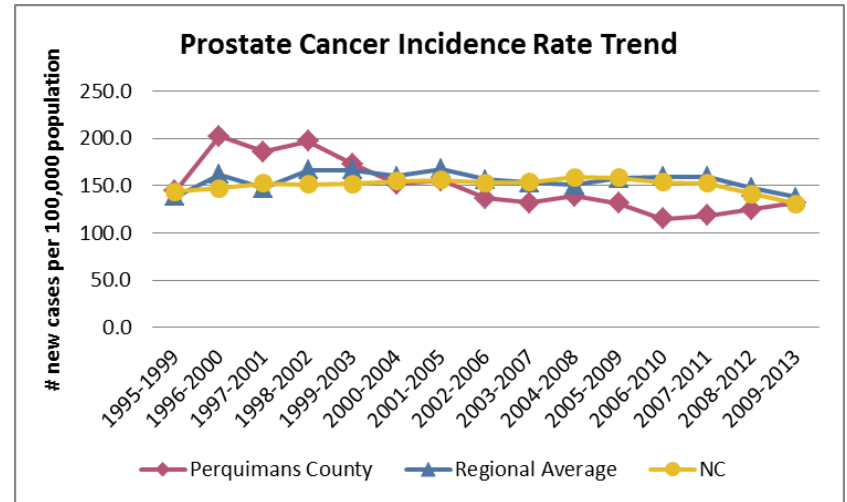
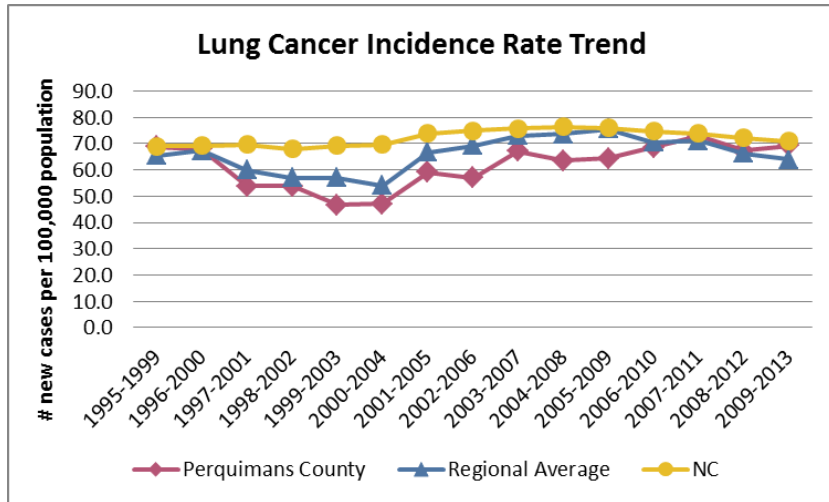
SITE-SPECIFIC CANCER TRENDS: INCIDENCE AND MORTALITY RATES

Incidence: 1995-1999 to 2009-2013

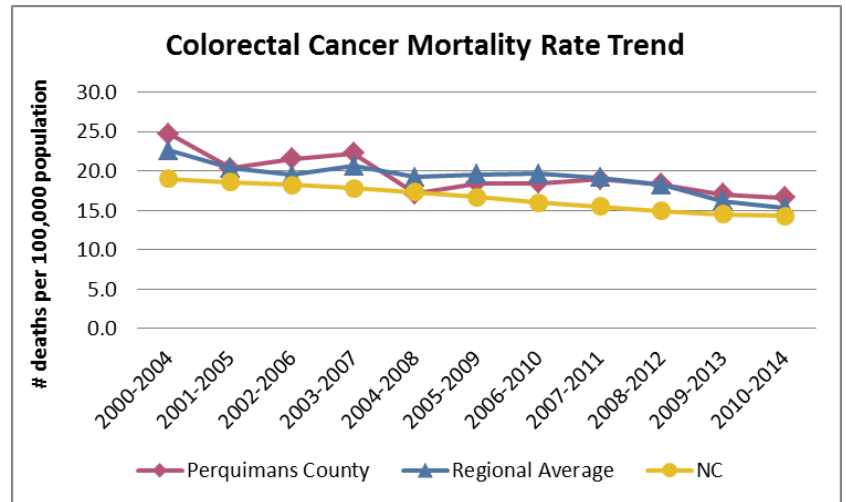
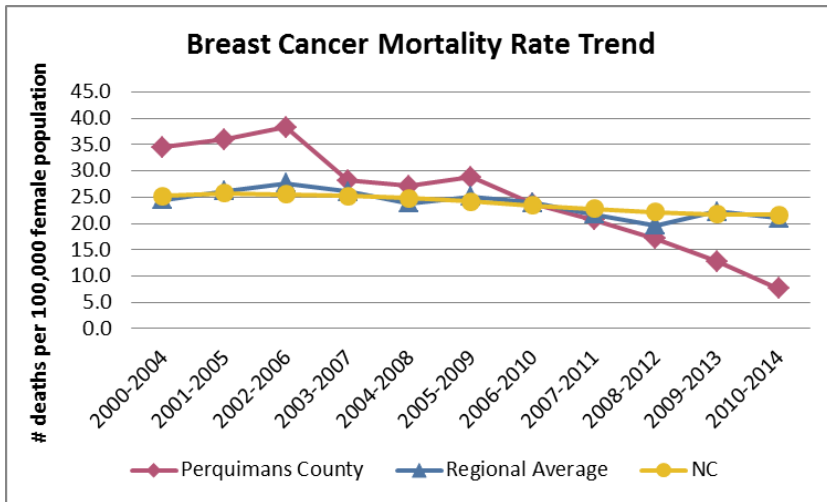
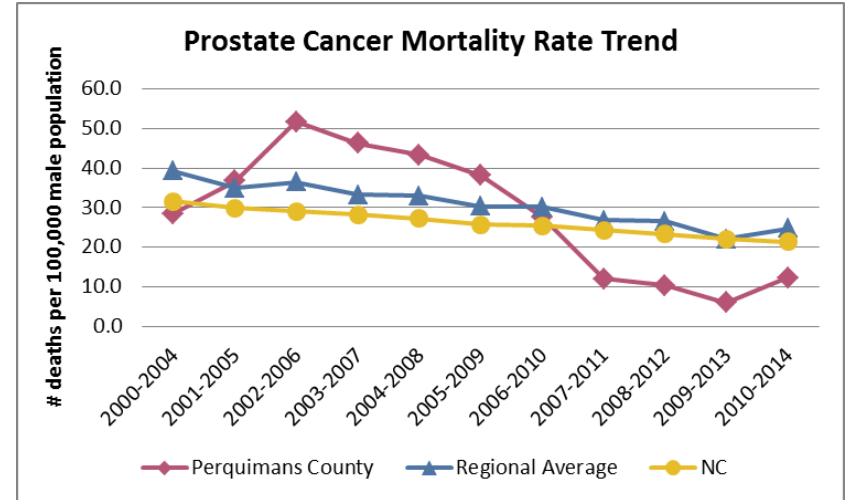
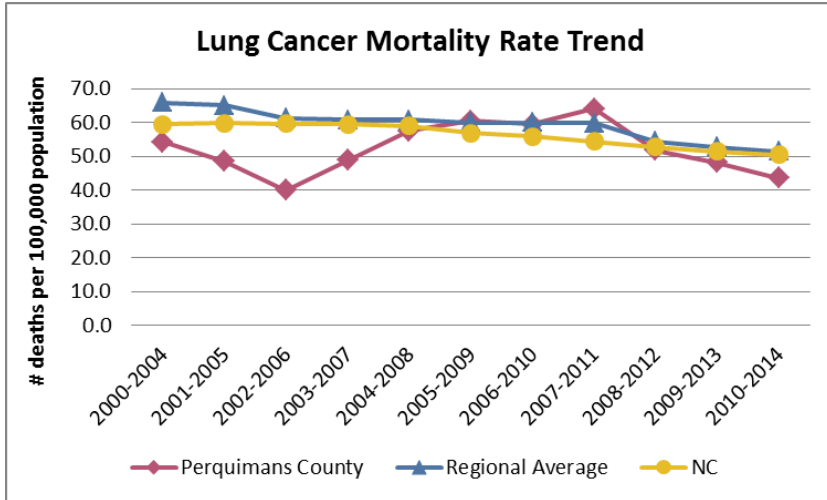
Mortality: 2000-2004 to 2010-2014

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

SITE-SPECIFIC CANCER INCIDENCE RATES



SITE-SPECIFIC CANCER MORTALITY RATES





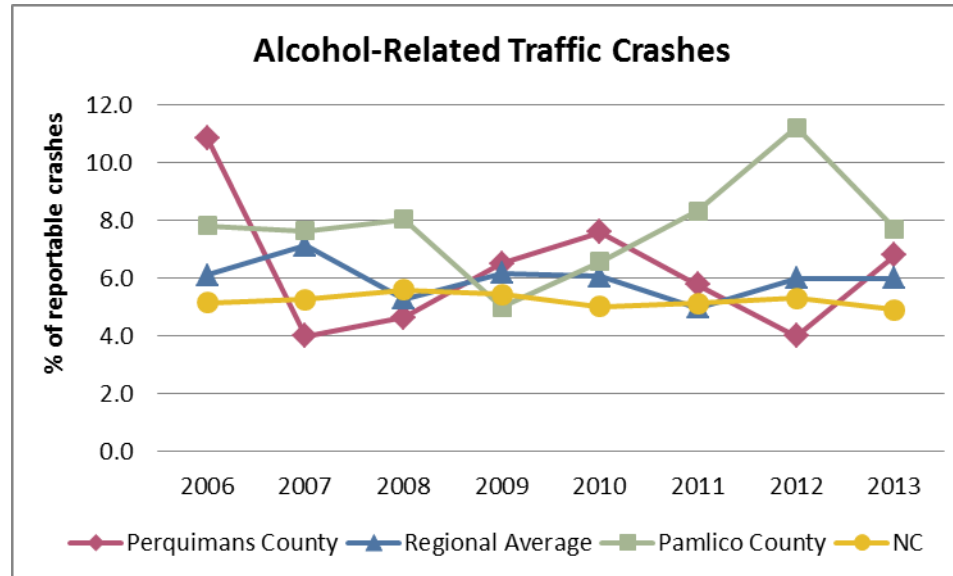
MORBIDITY

***Sexually Transmitted Infections, Diabetes,
Obesity, Mental Health***

VEHICULAR INJURY

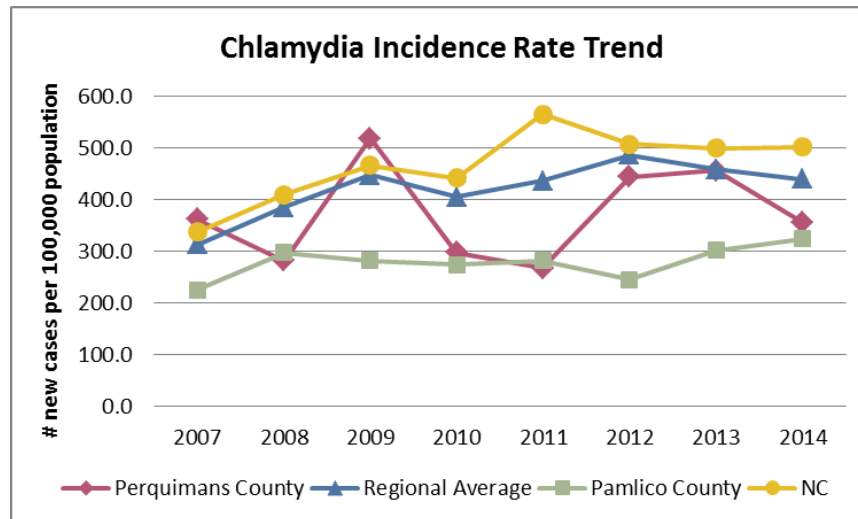
ALCOHOL-RELATED MOTOR VEHICLE CRASHES

- According to the NC Highway Safety Research Center, over the period from 2006 through 2013 an annual average of **6.3%** of all traffic crashes in Perquimans County were alcohol-related. Statewide the comparable figure was 5.2% and it was 6.0% across the ARHS Region.



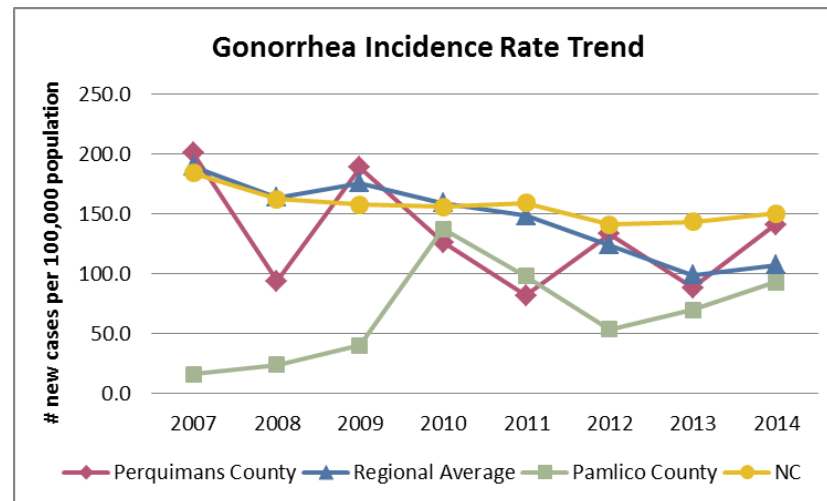
SEXUALLY TRANSMITTED INFECTIONS: CHLAMYDIA

- The chlamydia infection rate in Perquimans County is variable, though it was lower than the state and Regional rates for most of the period presented.
- In 2014, there were 48 new cases of chlamydia in Perquimans County, calculating to a rate of 356.5 compared to **501.9** statewide.



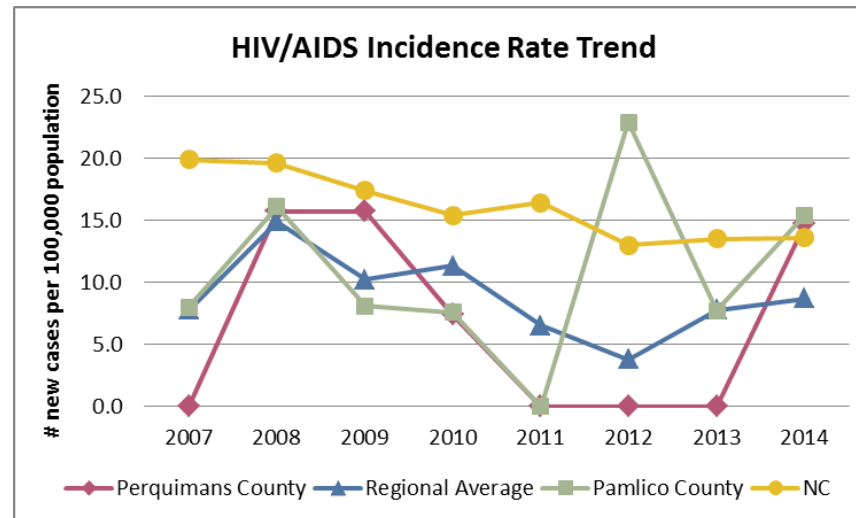
SEXUALLY TRANSMITTED INFECTIONS: GONORRHEA

- The gonorrhea infection rate in Perquimans County fluctuates without pattern and was lower than the state and Regional rates for much of the period cited.
- In 2014, there were 19 new cases of gonorrhea in Perquimans County, calculating to a rate of 141.1, compared to the state rate of **150.4**.
- The gonorrhea rate in the county was highest among African American non-Hispanics in 2006-2010 (the last year for which stratified data is available): **418.2** compared to 148.0 overall.



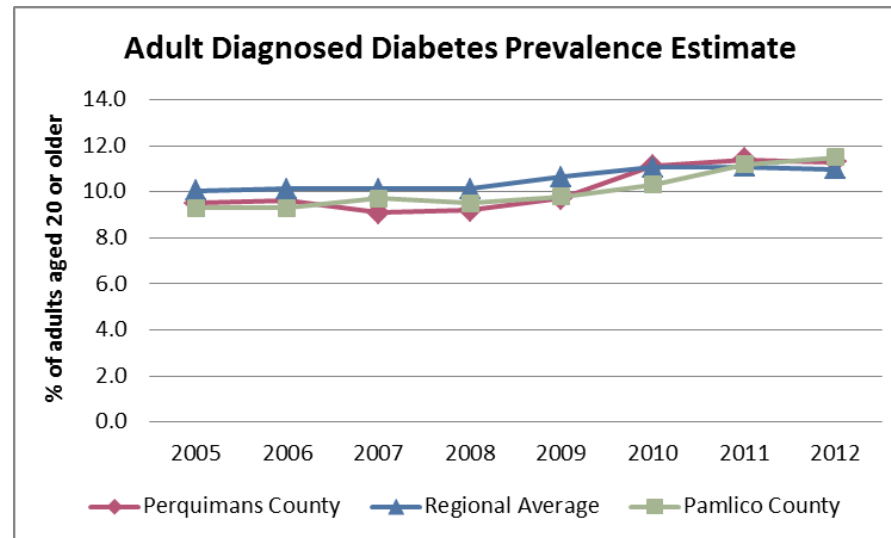
SEXUALLY TRANSMITTED INFECTIONS: HIV/AIDS

- The numbers of HIV cases in Perquimans County are too low to yield stable rates for newly diagnosed HIV infections.
- There was a total of 7 newly diagnosed cases over the entire period presented.
- At the end of 2014, 28 people in Perquimans County were living with HIV.



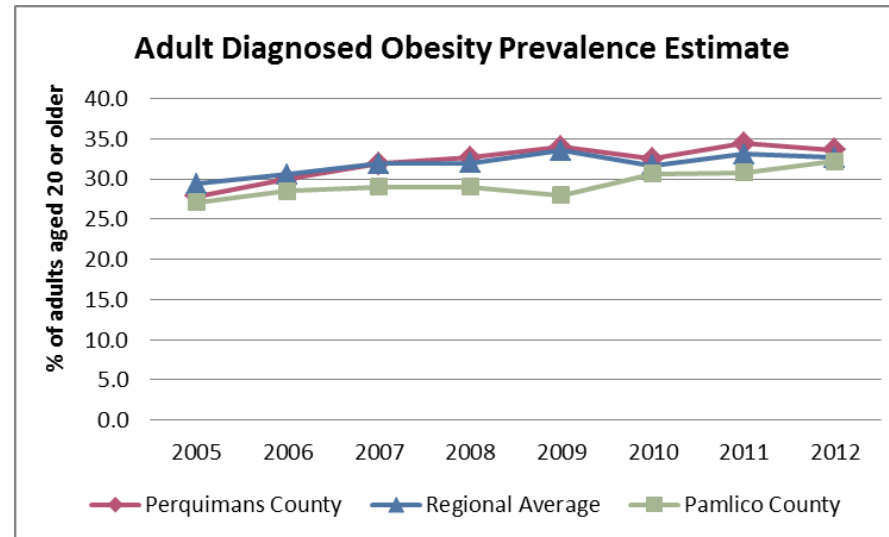
ADULT DIABETES

- The annual estimated prevalence of diabetes among Perquimans County adults has risen over time and was lower than the regional average before 2010. (Comparable state data is not available).
- Over the 8-year period presented, the average annual estimated prevalence of adult diabetes in Perquimans County was 10.1%, compared to **10.5%** Region-wide.



ADULT OBESITY

- The average annual estimated prevalence of adult obesity in Perquimans County was **32.1%** in the period from 2005 through 2012, compared to 31.8% in the Region. (Comparable state data is not available).
- The annual estimated prevalence of adult obesity in Perquimans County increased overall and was higher than the regional figure for most of the period presented.



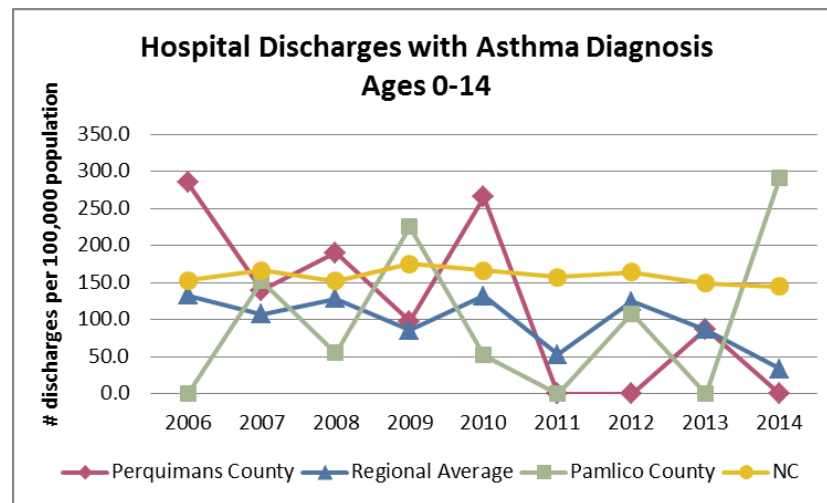
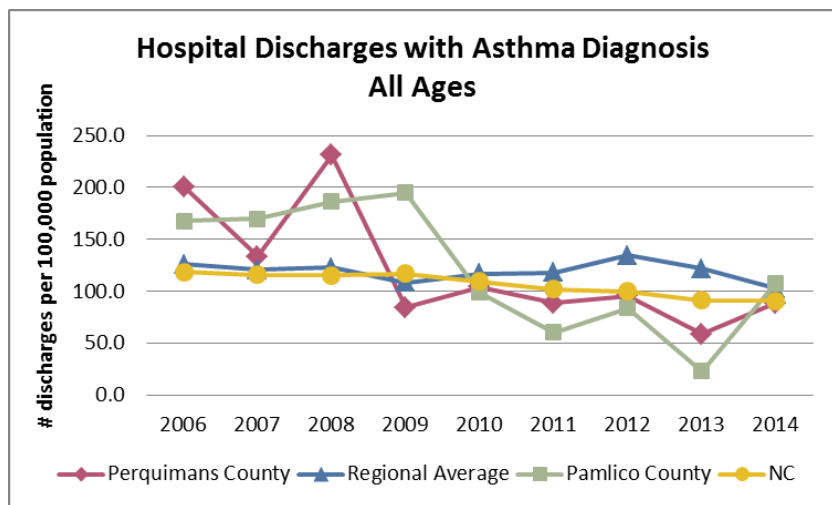
CHILD OBESITY (AGES 2-4)

- There is limited data on the prevalence of childhood obesity in Perquimans County. NC NPASS data is cataloged for three age groups (2-4, 5-11, 12-18) and covers only children seen in health department WIC and child health clinics and certain other facilities and programs. The most recent data available is for 2012.
- According to this NC-NPASS data, in Perquimans County in 2012
 - 13.3% of the participating children age 2-4 were “overweight” and 16.7% were “obese” (**total = 30.0%**)
 - For this period NC = 14.9% overweight and 14.5% obese (total = 29.4%)



ASTHMA

- The Perquimans County rate of hospital discharges with a primary diagnoses of asthma has decreased significantly from a high of 231.4 in 2008; the 2014 rate was 89.1 compared to a state rate of **90.9**.
- Among children aged 0-14, the hospital discharge rate is highly variable due to small numbers. In 2014 there were no hospital discharges due to asthma among 0-14 year olds.



TRENDS AND RACIAL AND AGE DISPARITIES IN HOSPITAL DISCHARGES FOR ASTHMA

- Because, according to NC SCHS, the hospital discharge rate for asthma in Perquimans County in the past has been higher than the NC rate, it may be illustrative to examine local hospital discharge data for asthma (ICD-9 Code 493xx). ED data from Sentara Albemarle Medical Center are shown. (IP discharges are not presented because there were only 3 IP discharges for asthma at that hospital during the period cited.)
- The total number of ED discharges under this code for blacks represented 51% of all asthma discharges. Blacks compose 25% of the county population.
- The total number of ED discharges under this code for children age 0-14 represented 27% of all asthma discharges. This age group composes 17% of the county population.

Fiscal Year	No. ED Discharges				
	Black	White	Age 0-14	Age >14	Total
2013	37	41	23	59	82
2014	48	37	22	63	85
Total	85	78	45	122	167

MENTAL HEALTH

- The number of Perquimans County residents served by the **Area Mental Health Program** has remained relatively steady since 2005, averaging 394 individuals each year. In 2014, 354 were served.
- Over the same 10-year period the number of Perquimans County residents served by **State Psychiatric Hospitals** *decreased* from 26 in 2005 to 2 in 2014.
- During the same 10-year period, a total of **85** Perquimans County residents were served by **NC State Alcohol and Drug Abuse Treatment Centers (ADATCs)**, with the number varying from year to year. A high of 15 were served in 2005; 5 were served in 2014.

TRENDS IN HOSPITAL DISCHARGES FOR MENTAL HEALTH DIAGNOSES

According to data from the ARHS Region hospitals seeing more than 20 Perquimans County patients in the two years cited:

- ED discharges related to all Mental, Behavioral and Neurological Disorder diagnoses compose an average of 2.3% of *all* ED discharges over the period cited; IP discharges for mental health diagnoses compose an average of 2.4% of all IP discharges.
- Note that these diagnoses (ICD-9 290-319xx) include psychotic and non-psychotic disorders, and conditions associated with alcohol and drug abuse.

Year	No. Emergency Department Discharges	No. In-Patient Hospitalization Discharges
2013	164 (2.3% of all ED discharges)	23 (2.2% of all IP discharges)
2014	179 (2.4%)	27 (2.6%)

PERQUIMANS COUNTY HEALTH PROBLEM

“WATCH LIST”

- **Heart disease** – although the short- and long-term mortality rate trends show decreased, the current county mortality rate is higher than NC rate and heart disease is disproportionately fatal among males and African Americans.
- **Lung diseases**
 - **CLRD** – the Perquimans County mortality rate has increased since the last CHA and the current rate is higher than the NC rate; COPD diagnoses account for a large number of ED discharges.
 - **Asthma** – accounts for a high number of ED discharges; frequency of hospital visits is disproportionately high among African Americans.

PERQUIMANS COUNTY HEALTH PROBLEM

“WATCH LIST”

- **Diabetes** – the mortality rate attributable to diabetes in the county currently is lower than the NC rate, and short- and long-term mortality rate trends show decreases; however, diabetes prevalence in Perquimans County has risen over time and may be increasing.
- **Cancer** – While the total cancer mortality rate in Perquimans County has decreased since the last CHA, and the long-term mortality rate trend demonstrates a decrease, mortality is disproportionately high among males and African Americans, and some site-specific cancers remain problems:
 - Long-term incidence rate trend for total cancer and lung and breast cancers demonstrate an increase.
 - Long-term mortality rate trend for lung cancer demonstrates an increase.

PERQUIMANS COUNTY HEALTH PROBLEM

“WATCH LIST”

- **Motor vehicle injuries** – the county mortality rate has more than doubled since the last CHA.
- **Non-motor vehicle injuries (all “other” unintentional injuries)** – while the current county mortality rate is lower than the NC rate, both short-term and long-term mortality rate trends show an increase.
- **Maternal and infant health** – the frequency of smoking during pregnancy currently is higher in the county than in NC as a whole, the frequency of very-low weight births in the county exceeds the frequency statewide, a significant proportion of infants are born with some sort of medical problem, and infant mortality in the county has long been higher than in NC.

POPULATIONS “AT RISK” FOR POOR HEALTH OUTCOMES IN PERQUIMANS COUNTY

- The uninsured and under-insured; people without a medical home
- Persons living in poverty
- Minorities
- Males, who generally have poorer health outcomes than female
- Persons with poor access to transportation, because travel outside the county may be necessary to reach certain healthcare providers
- The elderly, because healthcare services may not be sufficient to accommodate their needs as their population grows
- Newborns, many of whom are born with medical problems, and the county infant mortality rate historically been higher than the NC rate



PRIMARY DATA SUMMARY

**Small-Group Discussions
Conducted in 10 locations in 2015
100 participants**

METHODOLOGY

- ARHS partnered with Vidant Chowan Hospital and Sentara Albemarle Medical Center to collect primary data by conducting ten small-group discussions throughout Perquimans County. Discussions included listening sessions and focus groups were led by trained moderators to learn about the community's definitions and understandings of health, illness and services that affect health attitudes, beliefs and behaviors.
- The Center for Survey Research at East Carolina University provided moderator trainings and an accompanying interview guide to ensure consistent and effective data collection methods.
- Discussion questions were researched, selected and approved by the CHA Lead Team. Discussions were recorded and lasted around one hour. Results were then transcribed and analyzed. **A total of 100 Perquimans County residents participated in the small-group discussions.**

SMALL GROUP DISCUSSIONS

Perquimans County Small-Group Discussions	Date	Participants
Perquimans BOE Office	1/21/15	1 Male; 3 Females
Perquimans Health Department	2/05/15	4 Females
Hertford United Methodist Church	3/09/15	5 Males; 3 Females
Perquimans Senior Center	3/23/15	2 Males; 7 Females
Albemarle Plantation	6/02/15	8 Females
New Bethel Missionary Baptist Church	6/25/15	6 Males; 9 Females
Snug Harbor	7/15/15	5 Males; 6 Females
Perquimans County Library	10/28/15	2 Males; 4 Females
Gregory & Associates	10/29/15	8 Females
Perquimans County Employees	11/05/15	2 Males; 5 Females



PARTICIPANT DEMOGRAPHICS

- 29% Black (compared to 25% in the county)
- 68% white (compared to 73% in the county)
- 0% Hispanic (compared to 2.2% in the county)
- 29% male (compared to 48% in the county)
- 3% unemployed (compared to 7.2% unemployment rate)
- 43% with bachelor's degree or higher (compared to 19% in the county)
- 6% currently without health insurance (compared to 17.5% in the county)
- 52% retired
- 56% earning more than \$50,000 household income

Q1: TELL US WHAT YOU THINK IS THE BEST THING ABOUT LIVING IN THIS COMMUNITY.

- The people and the community support
 - Friendly and willing to help in times of need
- Natural environment
 - Climate and proximity to water
 - Beautiful surroundings
 - Little traffic
- Quiet, relaxing and safe
- History of the community
- Low crime rates
- Quality of life



Q2: WHAT DO PEOPLE IN THIS COMMUNITY DO TO STAY HEALTHY?

- Physical activity (walking, biking, dancing, golfing, sports)
- Water-based activities (boating, fishing, swimming, kayaking)
- Senior center, YMCA, recreation center, gyms
- Working outside and gardening
- Sponsored health events
 - Nutrition programs in school system
 - Health seminars offered locally
 - Exercise programs offered locally
- Preventative care like annual checkups and regular dental care

Q3: IN YOUR OPINION, WHAT ARE THE SERIOUS HEALTH-RELATED PROBLEMS IN YOUR COMMUNITY?

Physical	Social	Mental
Diabetes	Lack of Preventative Care	Drug Abuse
Cancer	Lack of Transportation	Dementia
Obesity	Lack of Specialized Care	Suicide
High Blood Pressure	Lack of Health-related Education	Health-related Apathy
Stroke	Lack of Healthcare Insurance	Depression
Heart Disease	Inadequate Emergency Services	

Q4: WHAT KEEPS PEOPLE IN YOUR COMMUNITY FROM BEING HEALTHY?

- Poor diet
 - Unhealthy fast foods are cheap and available
 - Lack of education about cooking and eating healthy
- Financial barriers to accessing healthcare
 - Lack of insurance, affordability of insurance
 - Affordability and access to transportation
- Lack of motivation to be healthy



Q5: WHAT COULD BE DONE TO SOLVE THESE PROBLEMS?

- Education
 - Information about illness, diet and exercise
 - More awareness about available resources and how to access them
- Community support
 - Increase involvement of the community in health-related decision-making
- Health resources
 - Increase quality and quantity of available services
 - Improve doctor/patient relationships
 - Increase emergency services
 - More transportation
- Increase opportunities for children to be active



Q6: HAVE YOU OR SOMEONE CLOSE TO YOU EVER EXPERIENCED ANY CHALLENGES IN TRYING TO GET HEALTHCARE SERVICES? IF SO, WHAT HAPPENED?

- Difficult to establish Primary Care Provider
- Doctors not accepting new patients or are leaving the community
- Long wait times and overcrowding at hospital and ER
- Understaffed EMS
- Lack of specialists (dental, orthopedic, cardiovascular)
- Negative experiences with providers (long wait times, not receiving the necessary care)
- Lack of insurance and some facilities do not accept some kinds of insurance
- Young adults and students have a harder time accessing insurance, as do the poor

Q7: ARE THERE ANY HOME REMEDIES YOU USE IN PLACE OF TRADITIONAL HEALTHCARE AND/OR MEDICINE?

Home Remedy	Targeted Ailment
Vinegar	High blood pressure
Castor oil	Colon cleansing, skin tags
Lemon, honey	Sore throat, congestion
Sweet oil	Ear aches
Bar of soap	Leg cramps
White potatoes	Burns
Kerosene	Colds
Alka-Seltzer	Indigestion, hangovers
Onion	Fever
Fatback meat	Cuts
Iodine	Poison Ivy
Local honey	Allergies
Peppermint	IBS, headaches, nausea
Horse Liniment	Aches and pains
Mustard	Cramps
Cherries	Gout
Vick's VapoRub	Cough, asthma, toe fungus
Tobacco	Stings
Oragel	Chiggers
Superglue	Cuts
Marijuana	Pain

Q8: WHAT ARE THE STRENGTHS RELATED TO HEALTH IN YOUR COMMUNITY?

- Strong community support
 - Makes dealing with stress easier
 - Encourages people to be healthy
 - Local support groups, churches, friends, neighbors
- Availability of certain healthcare services
 - Health department
 - Senior Center
 - Hospital
 - EMS, though it is under-resourced
- Access to facilities and the outdoors
 - Local rec department provides free access to equipment and classes
 - Tennis and basketball courts, sidewalks
 - Healthcare programs for children in the school system
 - Fresh air, space for gardens, low stress environment

Q9: CANCER AND HEART DISEASE ARE THE LEADING CAUSES OF DEATH IN YOUR COUNTY. IN YOUR OPINION, WHAT MAKES THESE THE LEADING CAUSES OF DEATH IN YOUR COUNTY?

- Unhealthy behaviors and habits
 - Poor self-care, lack of exercise
 - Smoking
 - Drug abuse and alcohol consumption
 - Unhealthy diet
 - Not seeing the doctor regularly
- Use of harmful substances in food and farming
 - Hormones and chemicals used are detrimental
 - Local water contaminated
- Inadequate healthcare resources
 - Cost of health care and insurance prevent people from receiving needed care
 - Side-effects of medical treatments impact other areas of health and lead to the need for additional services

Q10: HOW DOES LIVING IN A RURAL AREA AFFECT HEALTH?

○ Positives

- Lower stress levels
- Increased access to agriculture
- Access to the outdoors
- Less pollution
- Relaxed lifestyle
- Strong community support

○ Negatives

- Limited healthcare resources
- Fewer transportation options
- Poverty
- Lack of health insurance
- Lack of healthy food options and specialty grocery stores



2016

Perquimans County Primary Data Report



2016 CHA PRIMARY DATA COLLECTION PROCESS

Process Overview

ARHS partnered with Vidant Chowan Hospital and Sentara Albemarle Medical Center to collect primary data for the 2016 CHA process for Perquimans County. Data that are collected firsthand are known as primary data. For past CHA processes, surveys were conducted to collect primary data. However, the CHA Lead Team elected to collect primary data by conducting ten small-group discussions throughout Perquimans County for the 2016 CHA. Small-group discussions including listening sessions and focus groups were led by trained moderators to learn more about the community's definitions and understandings of health, illness, and services that affect health attitudes, beliefs, and behaviors. The CHA Lead Team collected data directly from county residents to better understand their health status, needs, and county resources. Data was collected from a wide variety of county residents to assure that the data represent all parts of the county population.

ARHS contracted with the Center for Survey Research at East Carolina University to provide two moderator trainings, and to conduct, transcribe, and analyze a portion of the discussions. The training sessions were conducted using a curriculum developed and approved by the CHA Lead Team. The training sessions and accompanying interview guide were provided to ensure moderators and assistant moderators used effective and consistent data collection methods. The CHA Lead Team assigned responsibility for completing discussions to each partnering agency according to their geographical area of service. Each partner designated staff to facilitate each discussion. Partners were also responsible for ensuring that their discussions were conducted and transcribed within established timelines. A complete list of team members from the Center for Survey Research is presented below.

Mandee F. Lancaster, MA
Randy Knebel

Justin M. Raines, MA
Tiffany Pires

Methods

The CHA Lead Team met in October 2014 for a Road Mapping Session led by Leah Mayo Acheson, MPH, and trained as a Strategic Planning Facilitator to (a) identify groups and organizations to participate in the discussions, (b) identify suitable locations for the discussions, and (c) set deadlines for the data collection process. Road Mapping Sessions are strategic, outcome-focused stakeholder meetings and provide a month-to-month agenda, basis for meeting planning, calendar for all partners, and helps maintain focus and pace.

A formal letter of invitation was prepared and distributed via e-mail and led by Healthy Carolinians Coordinators to participate in a discussion. Demographic characteristics of participants were considered to ensure that results portrayed an accurate representation of Perquimans County as a whole.

Discussion questions were researched and selected by the CHA Lead and approved by the CHA Lead Team. After the questions were established, ten small-group discussions with community members were scheduled at various locations throughout Perquimans County (see Table 1). At least two moderators facilitated each session by asking the predetermined series of questions (see Appendix A). Discussions were recorded and lasted approximately one hour. Results were then transcribed and analyzed.

Table 1. Small-Group Discussion Summary Table

Perquimans County Small-Group Discussions	Date	Participants
Perquimans BOE Office	1/21/15	1 Male; 3 Females
Perquimans Health Department	2/05/15	4 Females
Hertford United Methodist Church	3/09/15	5 Males; 3 Females
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Gregory & Associates	10/29/15	8 Females
Perquimans County Employees	11/05/15	2 Males; 5 Females

Primary Data Demographics and Results

Demographics

Discussion participants completed a demographic form at the beginning of each session. As shown in Table 2, the majority of participants were female (71 percent), White (68 percent), and married (73 percent). Furthermore, the majority of participants had a college degree (60 percent).

Table 2. Perquimans County Demographics

Race/Ethnicity	N	Percent
Asian	0	0
Black	23	29
Hispanic	0	0
Native American	2	2
Other	1	1
White	54	68

Gender/Sex	N	Percent
Male	23	29
Female	57	71

Marital Status	N	Percent
Divorced	7	9
Married	58	73
Never Married	3	4
No Response	0	0
Other	1	1
Separated	1	1
Widowed	10	12

Education	N	Percent
< 9 th Grade	2	2
High School – No Diploma	4	5
High School – Diploma	14	18
College – No Degree	12	15
Associate Degree	13	17
Bachelor’s Degree	20	26
Graduate or Professional Degree	13	17
No Response or Other	0	0

Most participants reported that they are retired (52 percent) or work full-time (35 percent; see Table 3). Moreover, annual household income was evenly distributed and the largest portion of participants reported an annual household income between \$50,000 and \$74,999 (25 percent). Additionally, nearly all participants reported that they currently possess health insurance (98 percent); however, a small portion of participants reported that they have spent time without insurance in the past 12 months (6 percent). Finally, nearly all participants reported that they have access to the Internet (90 percent).

Table 3. Perquimans County Demographics

Employment Status	N	Percent
Disabled; Unable to Work	5	6
Full-Time	28	35
Homemaker	0	0
Part-Time	3	4
No Response	0	0
Retired	41	52
Student	0	0
Unemployed	2	3

Household Income	N	Percent
< \$20,000	4	6
\$20,000 - \$29,999	3	5
\$30,000 - \$49,999	8	13
\$50,000 - \$74,999	15	25
\$75,000 - \$100,000	8	13
> \$100,000	11	18
Don't Know	3	5
No Response	9	15

Health Insurance/Health Coverage	N	Percent
Yes	65	98
No	1	2

Time Without Insurance (past 12 months)	N	Percent
Yes	4	6
No	61	94
Don't Know	0	0

Internet Access	N	Percent
Yes	60	90
No	5	8
No Response	1	2

Results

An aggregated report of results from Perquimans County discussions is presented below. As these data may be limited in various ways, results only aim to portray a snapshot of community perceptions.

What is the best thing about living in this community?

Participants were first asked to discuss the positive aspects of their community by reporting what they believe is the best thing about living in Perquimans County. Overall, participants stated that the people and community support are the best things about living in Perquimans County. Specifically, participants expressed that community members are friendly and willing to help others in times of need.

"Everyone gets along with everybody and the people are nice in this community and look out for each other."

"It's a small, loving community and I like the feeling of closeness and knowing people. The friendship is a big thing to me. I don't have family here, so this is my family."

Next, participants viewed the county's natural environment as one of the best things about living in the community. For example, participants stated that the climate and proximity to water allows community members to enjoy the outdoors and participate in a variety of outdoor activities. Participants also suggested that the county's environment provides community members with beautiful surroundings that are pleasant to live around.

"I think the aesthetics are pleasing and we have great waterways. Our natural environment is a great asset."

Additionally, participants stated that the county is both quiet and relaxing. Specifically, participants stated that the county has a peaceful environment with very little traffic or other distractions that may result in stress. Furthermore, participants stated that community members are able to enjoy the quiet and relaxed atmosphere by walking around the community without concerns regarding safety.

"It's quiet near the water. It's a very peaceful area. I have the freedom to walk and not worry about traffic."

Lastly, participants stated a variety of other characteristics that make Perquimans County a great place to live. For example, participants expressed that they enjoy the history of the community, low crime rates, and quality of life. A word cloud of responses is shown in Figure 1. Larger words represent words stated more frequently in small-group discussions.

Figure 1. The best things about living in this community



What do people in this community do to stay healthy?

Next, participants were asked to report what activities community members engage in to stay healthy. The majority of participants stated that community members engage in various types of physical activities in order to stay healthy. For example, participants stated that community members enjoy walking, biking, dancing, golfing, and playing sports. Participants also listed multiple water-based activities that are available to community members, such as boating, swimming, fishing, and kayaking. Furthermore, participants discussed both the outdoor resources in the county, such as local waterways, as well as indoor resources, such as the recreation center, senior center, YMCA, and local gyms. Lastly, participants stated that community members stay healthy by working outside and gardening.

"People are walking and using our recreation facility where there are classes offered. I personally like walking there on my lunch break."

"Sports for our young people...athletics are a big deal for our students in this community."

Participants also discussed a variety of sponsored health events that help community members stay healthy. For example, participants stated that the community hosts nutritional programs offered by the school system, health seminars offered by local doctors and insurance companies, and exercise programs offered by local health-related organizations (e.g., TOPS; Take Off Pounds Sensibly). Moreover, participants discussed classes and workshops that are offered by local churches as useful resources that promote community health.

"We will have seminars on different topics and doctors will come in to speak with people."

"Some churches offer quarterly workshops and bring in different individuals and companies to talk about ways to stay healthy."

Lastly, participants suggested that community members visit healthcare providers and engage in healthy habits in order to remain healthy. Specifically, participants stated that community members get annual physicals with doctors and utilize free dental services available in the county. Moreover, participants suggested that community members attempt to stay healthy by laughing, getting ample amounts of sleep, and spending time outdoors.

"For me, the mental aspect of staying healthy...is having that mental break, spending time outdoors and things of that nature."

Figure 2. Staying healthy in the community



What are the serious health-related problems in your community?

When asked to list the serious health-related problems in Perquimans County, the most frequently cited health problems were *diabetes*, *cancer*, *obesity*, and a *lack of health-related education*.

"Diabetes is probably most prevalent, and it doesn't get nearly as much attention that cancer or heart disease gets".

Overall, participants discussed problems related to physical health; however, problems associated with social issues and mental health were also reported. When discussing physical health, participants cited the aforementioned conditions, as well as *high blood pressure*, *stroke*, and *heart disease* as serious health-related problems in Perquimans County. Participants also suggested that the aging population may have a greater susceptibility to the health-related problems in the county than other groups of community members.

"It is a more aged community, so it has a greater need for physicians without having to drive an hour or an hour and a half."

Additionally, participants cited social health-related issues that accompany the physical health-related issues in the county. For example, participants reported a lack of health practitioners and medical specialists in the area. As a result, community members must travel outside of the county to seek medical services. Additionally, many participants stated that community members are unaware of how to lead healthy lifestyles, which contributes to the overall poor health of the community.

"We go to specialists in Virginia. We like our doctor and don't know where we will go after he retires. We need younger doctors."

"My husband had knee and orthopedic issues. We want specialists whose job it is to be able to deal with specific things like that."

"Parents need to be educated on feeding children and levels of sugar and sodium content."

Participants also cited a variety of mental health issues that affect the community. The most frequently cited mental health-related problems were *drug abuse*, *dementia*, *suicide*, and *depression*. Furthermore, participants stated that community members are simply apathetic about health maintenance and choose not to partake in health-related activities.

Physical	Social	Mental
Diabetes	Lack of Preventative Care	Drug Abuse
Cancer	Lack of Transportation	Dementia
Obesity	Lack of Specialized Care	Suicide
High Blood Pressure	Lack of Health-related Education	Health-related Apathy
Stroke	Lack of Healthcare Insurance	Depression
Heart Disease	Inadequate Emergency Services	

What keeps people in your community from being healthy?

Next, participants were asked to describe barriers that prevent community members from being healthy. Participants frequently discussed community members' poor diet and lack of health-related education as primary barriers to health in the community. Specifically, participants stated that community members' health is negatively affected by decisions to eat unhealthy fast foods.

"We are old school, we put fat in our food when preparing meals. And if you don't know any better and there is no one helping you to learn, it's kind of hard to make that transition."

"It's easy to go drive through McDonald's and get those McDoubles, because I don't feel like cooking."

Some participants attributed this behavior to a lack of education. Specifically, participants mentioned that older generations in the community might be uneducated about healthy behaviors. However, other participants suggested that community members eat unhealthy fast foods simply because it is affordable to do so.

"I think it's a lack of education about cooking and eating healthy. I don't think people understand the processed foods and stuff."

"Some people may not be educated on what to do to be healthy. We have older people that can't read, or they need someone to help them. It's hard for them."

"If you can go to McDonald's and feed your whole family for 10 dollars, why would you go somewhere like the grocery store and spend 50 dollars for one healthy meal?"

Additionally, participants discussed financial barriers related to seeking healthcare services. In particular, participants stated that many community members struggle to afford healthcare insurance, making it difficult to access the necessary services at an affordable cost. Moreover, participants suggested that some community members cannot afford their own form of transportation and that limited transportation services in the area also make accessing healthcare difficult.

"Some may not have insurance, because I know not everybody has it. Some folks may have insurance, but after paying the deductible, they might as well not have even had it in the first place."

"The general income for the community is one of the major restrictions. If there are no doctors and no facilities here, and you don't have the income which enables you to get yourself to point A or B, you're kind of stuck."

Finally, participants discussed community member motivation as a barrier to health in Perquimans County. Specifically, participants believed that many community members lack the motivation and support required to lead a healthy lifestyle, and as a result, do not seek consistent medical care or attempt to be healthy.

"A lot of times people don't want to go to the doctor and get checked out. Bad routines and habits, in general, make it difficult for us to get healthy."

What could be done to solve these problems?

In addition to describing Perquimans County's barriers to health, participants also provided potential solutions to the serious health-related problems in the county. Many of the provided solutions focused on education, community support, and health resources.

Specifically, participants stated that increasing the amount of health-related education, which provides information about illnesses, diet, and exercise, would be a key solution to the health-related problems in Perquimans County. Participants also expressed that the county should inform community members about the resources that are available, using outlets such as word of mouth, the newspaper, and local news channels.

"We need educational programs about illness, high blood pressure, causes of illness, what to eat, what not to eat, and what exercises to do."

"We do need to know what resources exist and how to access them. Sometimes things are there and you're talking with somebody and they didn't know that."

"More advertising maybe in the newspaper postings. I've spoken to some of my neighbors and they haven't heard of any of the programs available. They haven't seen them advertised or anything."

Furthermore, participants suggested that the county should work to increase community support and involvement by encouraging others to be healthy and involving the community in health-related decision-making.

"I would like for people to be more willing to motivate people to do something."

"If you want to find out how to help some of the folks we are talking about, you need to talk to them. They need to be part of the solution, they really know what they need and they need to be part of the decision making, as well."

Participants also suggested that community health could be improved by increasing the quality and quantity of healthcare services, improving doctor/patient relationships, and increasing the amount of emergency services in the area. Moreover, participants stated that a better transportation system would make accessing healthcare services easier.

"You want to have a rapport with your physicians. They need to take time to explain. [There is a] responsibility of both the doctor and patient to meet patient healthcare needs."

Lastly, participants suggested that an increase in youth programs, which provide children with the opportunity to be active, would improve the overall quality of health in the county.

"Nothing for kids to do in Perquimans or the town of Hertford."

Have you or someone close to you ever experienced any challenges in trying to get healthcare services? If so, what happened?

Participants were then asked to report any challenges they have experienced when accessing healthcare services in Perquimans County. Participants primarily reported challenges associated with a lack of *general healthcare services*, *specialty care*, and *insurance*. Furthermore, participants listed several groups of community members who may experience greater healthcare-related challenges than others.

Specifically, participants discussed challenges associated with a lack of general healthcare services in the county. For example, participants expressed that community members experience difficulties when attempting to establish a primary care physician. Participants stated that it is challenging to both find and retain primary care physicians in the county because many doctors do not accept new patients or may leave the community to practice elsewhere. Additionally, participants expressed dissatisfaction with long wait times and overcrowding at the hospital and emergency room, as well as with the availability and staffing of local emergency services.

"I've struggled to find a doctor because my doctor left the community and no other doctors were accepting new patients."

"There is overcrowding in the hospital...sometimes the doctors have to speak with you in the hallway because there aren't rooms available."

Participants also discussed challenges associated with a lack of specialty care in the area. Specifically, participants stated that they experience difficulties when seeking specialty care, including dental, orthopedic, and cardiovascular services. Furthermore, participants cited negative experiences when accessing the specialty services that are available in the county. For example, participants stated that they wait months before receiving an appointment with a specialist and must travel to multiple specialists before receiving the necessary care.

"My husband ended up in Baltimore, MD, because we needed a specialist that wasn't around here."

"My wife started to have problems and we were told to see a neurologist. After her second visit, the office closed...we went to the hospital, but were told there are no other neurologists."

Additionally, participants discussed challenges associated with a lack of insurance. In particular, participants expressed that community members are unable to receive the services they need because they lack insurance and that medical costs without insurance are unaffordable. Furthermore, participants stated that some facilities do not accept certain forms of insurance, such as Medicaid.

Finally, participants listed several groups of community members who may experience greater challenges than others. For example, participants stated that due to a lack of jobs in the area, *young adults* and *students* struggle to receive employer-provided health insurance or afford private health insurance. Additionally, participants expressed that *community members who are living in poverty*, as well as *senior citizens* also experience difficulty when seeking and affording healthcare services.

Are there any home remedies you use in place of traditional healthcare and medicine?

Participants were asked to provide examples of home remedies that they use in place of traditional healthcare. Overall, participants provided a diverse list of products and techniques used instead of conventional medicine. Furthermore, participants stated that they choose to use such products and techniques because they feel that traditional healthcare is expensive and unreliable and that home remedies are cheap, reliable, and easy to find in their household or local grocery store.

"People have to use other remedies because of money and not trusting doctors. They give you a lot of drugs and drugs cost a lot of money. Sometimes you can't afford it, honestly."

"People may go back to the old ways. A lot of medicines have so many side effects."

Specifically, participants stated that they use a number of natural home remedies, ranging from food products to herbs and teas (see Table 4). For example, participants stated that they use lemon and honey for sore throats, vinegar for high blood pressure, and peppermint tea for Irritable Bowel Syndrome. Additionally, participants listed multiple over-the-counter products that they use as alternatives to conventional medicine. For example, participants mentioned using Alka-Seltzer for indigestion and hangovers, Vick's VapoRub for cough, asthma, and toe fungus, and Iodine for poison ivy. Finally, participants listed a number of less traditional home remedies, including Kerosene for colds, fatback meat for cuts and scrapes, and horse liniment for aches and pains.

Table 4. Home remedies and Targeted Ailments

Home Remedy	Targeted Ailment
Vinegar	High blood pressure
Castor oil	Colon cleansing, skin tags
Lemon, honey	Sore throat, congestion
Sweet oil	Ear aches
Bar of soap	Leg cramps
White potatoes	Burns
Kerosene	Colds
Alka-Seltzer	Indigestion, hangovers
Onion	Fever
Fatback meat	Cuts
Iodine	Poison Ivy
Local honey	Allergies
Peppermint	IBS, headaches, nausea
Horse Liniment	Aches and pains
Mustard	Cramps
Cherries	Gout
Vick's VapoRub	Cough, asthma, toe fungus
Tobacco	Stings
Oragel	Chiggers
Superglue	Cuts
Marijuana	Pain

What are the strengths related to health in your community?

Next, participants were asked to discuss the strengths related to health in the community. Participants provided a variety of health-related strengths of Perquimans County, including the *presence of strong community support, availability of certain healthcare services, and access to health facilities and the outdoors.*

Participants frequently stated that the strong support system throughout the community is a strength of Perquimans County. Specifically, participants expressed that having a support system makes it easier for community members to deal with stress and encourages people to be healthy. Participants also discussed sources of community support, including clubs (i.e. Widow's Club Support Group), local churches, friends, and neighbors.

"When tragic experiences happen, you get over it faster with support from the community."

"Having been through death in my family, support from other people with similar experiences is key and very beneficial. That is good here."

Furthermore, participants discussed the benefits of the healthcare services that are available in Perquimans County. For example, participants expressed that the health department, senior center, hospital, and local emergency services have programs that assist community members in receiving healthcare.

"We have a wonderful ambulance service. They do a good job for having as few resources as they have."

Additionally, participants stated that community health is supported by various facilities that provide community members with opportunities to be active and learn about health. For example, participants stated that the local recreation department provides free access to exercise equipment and offers health-related classes to the community. Furthermore, participants stated that there are multiple basketball and tennis courts, as well as sidewalks throughout the county that community members can use to be active. Lastly, participants expressed that the local school system has healthcare programs for children and promotes healthy living by providing children with healthy meals.

"I like our recreational programs and our athletic departments at our middle school and high school."

"I think our child nutrition services work really hard to provide nutritional meals for our kids and making sure kids that need free and reduced meals have done their paperwork."

Finally, participants stated that access to the outdoors is a strength of the community, as it provides benefits, such as fresh air, the ability to grow your own garden, and a low stress environment.

"Most people have a small garden, flowers or something and I think anytime you play in the dirt it does you good."

Cancer and heart disease are the leading causes of death in your county. In your opinion, what makes these the leading causes of death in your county?

Next, participants were asked what makes cancer and heart disease the leading causes of death in Perquimans County. Participants provided multiple explanations regarding the leading causes of death, which included factors such as *unhealthy behaviors and habits, the use of harmful substances in food and farming, and inadequate healthcare resources.*

Participants listed a variety of unhealthy behaviors and habits that they believe contribute to the leading causes of death in Perquimans County. Specifically, participants suggested that cancer and heart disease are negatively affected by behaviors such as poor self-care, smoking, drug abuse, alcohol consumption, eating an unhealthy diet, visiting the doctor infrequently, and not exercising.

"Heart disease is a matter of diet and exercise and smoking. Many are not exercising at all."

"Some people will not go to the doctor because they don't want the answer. Some will stay sick for a while and that's why it does get so advanced."

Next, participants expressed their concern with environmental issues and the unhealthy processing of food. Participants stated that the hormones and chemicals used in farming have a harmful impact on health. Furthermore, participants discussed the quality of water in Perquimans County and suggested that is often contaminated with harmful farming chemicals.

"We've got to get a handle on our weight and just our lifestyle, along with how we're growing our produce and the meat that we eat (hormones and things). We've just got to do better."

Furthermore, participants stated that inadequate healthcare resources in the county influence the prevalence and mortality of cancer and heart disease. Specifically, participants stated that the costs of healthcare and insurance prevent many community members from receiving the care they need. In turn, participants suggested that many community members experience worsening conditions without the ability to seek medical treatment. Additionally, participants believed that the side-effects associated with some medical treatments may poorly impact other areas of health and lead to the need for additional healthcare services.

"Then the people who fall through the cracks, who need healthcare, but they can't afford it and they have conditions that worsen."

"Some of the chemicals used in cancer treatments also affect the heart. So the drugs you are taking for one thing can lead to another thing."

Lastly, participants discussed the lack of parental guidance of children, which was believed to create unhealthy habits at a young age and result in serious health-related conditions later in life.

"Kids are being sent to school with nothing. These parents need to be parents."

How does living in a rural area affect health?

Lastly, participants were asked to speak about how living in a rural area affects health. Participants discussed a variety of positive aspects associated with rural living, such as lower levels of stress, increased access to agriculture, and less pollution; as well as several negative aspects, such as limited healthcare resources, fewer transportation options, and poverty.

In addition to the above-mentioned positive aspects, participants also expressed that rural living is associated with a relaxed lifestyle and strong community support. Furthermore, participants stated that rural communities have less traffic and air pollution than more urban areas.

"You'd have a tendency to slow down and relax a bit living in a rural area...back to less stress."

Participants also stated that rural areas have more access to agriculture than urban areas, which allows community members to grow their own gardens and access fresh produce. Moreover, participants discussed the benefits associated with having access to the outdoors, which allows community members to participate in a variety of sports and activities.

"I think living in a rural area, people tend to have larger yards and an opportunity to grow vegetables and fruits...and all those antioxidants keep you healthy."

"There's a better opportunity here to do healthy things than in other areas. It's a good area to jog, ride a bike, and go swimming."

In contrast, participants expressed concern with the availability of healthcare services and resources in rural areas. Specifically, participants stated that the healthcare and exercise facilities that are available tend to be farther away from community members. Furthermore, participants stated that many community members in rural areas lack healthcare insurance, which makes accessing medical services even more difficult. Participants also felt that rural communities do not have enough healthcare providers, such as school nurses, to provide the necessary level of care to the area.

"There are not enough school nurses. The nurse comes to school one time a week since she is divided between four schools."

"Lack of general healthcare, but environment offsets it with low stress."

Lastly, participants stated that rural communities lack an abundance of health food options, such as grocery stores that carry organic or specialty food. Furthermore, despite some participants highlighting the presence of less pollution in rural areas, other participants expressed concern with the spraying of pesticides, which is commonly conducted by farmers in rural communities.

"There are not enough fresh produce stands. Healthy foods are not readily available."

Summary and Next Steps

There were many common, identifiable themes among the Perquimans County small-group discussions. When asked to discuss the **best things about living in the county**, participants frequently spoke about the *natural environment* and *friendly people* in Perquimans County. Furthermore, when speaking about the **health-related strengths of the community**, participants discussed the *strong community support*, *availability of healthcare services*, and *access to health facilities and the outdoors*.

When asked about **health-related weaknesses of the community**, participants discussed a variety of **serious health-related problems** in the community, such as *diabetes*, *cancer*, *obesity*, and a *lack of health-related education*. Participants also discussed **barriers to health** in Perquimans County and stated that *poor eating habits* and a *lack of health-related education* were keeping the community from being healthy. Moreover, participants reported that many community members do not have adequate financial resources and that poverty acts as a **barrier to health**. In particular, participants suggested that financial burdens not only affect quality food consumption, but also community members' ability to seek and afford healthcare services.

In turn, participants provided a variety of **solutions to the serious health-related problems** in Perquimans County, including solutions focused on *education*, *community support*, and *healthcare resources*. For example, participants stated that community members would benefit from an increased amount of *health-related education* in the area, which provides the community with information about illnesses, diet, and exercise.

At the conclusion of each discussion, the moderators explained the CHA would be available on ARHS's website in March 2017 and the website address was given, as well as the contact information for the CHA Lead.

Appendix A: Focus Group Script

GUIDELINES:

1. All cell phones need to be on silent or vibrate.
2. Be respectful to each other. Do not talk over each other or be dismissive of others' opinions.
3. Be open and honest in your responses.
4. Ask for clarification of questions if needed.
5. Share your opinion. Every participant brings a unique perspective and we want to hear from each person.
6. Refrain from using individual's names when sharing information during the session.
7. Refrain from sharing confidential information that may be discussed during the session.
8. Use appropriate language.

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?
3. In your opinion, what are the serious health-related problems in your community?
4. What keeps people in your community from being healthy?
5. What could be done to solve these problems?
6. Have you or someone close to you ever experienced any challenges in trying to get healthcare services? If so, what happened?
7. Are there any home remedies you use in place of traditional healthcare and/or medicine?
8. What are the strengths related to health in your community?
9. Cancer and heart disease are the leading causes of death in your county. In your opinion, what makes these the leading causes of death in your county?
10. How does living in a rural area affect health?

CONTACT INFORMATION:

Dana Hamill
Albemarle Regional CHA Lead
Email: dhamill@arhs-nc.org; Phone: 426-2115

2016 Community Health Assessment

Priority Selection Worksheet

County: _____

After reviewing the CHA Presentation, please tell us what you think are the three most important health issues for your county.

When choosing these issues, please consider the following:

- **Magnitude of the Problem:** The size or extent of the problem as it relates to your county
- **Consequences of the Problem:** How the economic, social, cultural, and political issues within your county might be influenced by addressing this issue
- **Feasibility:** Are there enough resources in the county to address this issue and is the community ready to address this issue?
- **Duplication:** Is this issue already being addressed by other community stakeholders/programs?

Top Health Issues	
1.	
2.	
3.	



Perquimans County Community Resource Inventory

Fire Departments

Belvidere-Chappell Hill Volunteer Fire Department

143 Drinking Hole Road, Belvidere, NC 27919
P.O. Box 55, Belvidere, NC 27919
Phone: (252) 297-2166

Bethel Volunteer Fire Department

462 Snug Harbor Road, Hertford, NC 27944
Phone (252) 426-5110

Durants Neck Volunteer Fire Department

2087 New Hope Road, Hertford, NC 27944
Phone (252) 264-2047

Hertford Volunteer Fire Department

328 West Grubb Street, Hertford, NC 27944
P.O. Box 32, Hertford, NC 27944
Phone (252) 426-8389

Inter-County Volunteer Fire Department

118 Woodville Road, Hertford, NC 27944
Phone (252) 264-4600

Winfall Volunteer Fire Department

341 Wiggins Road, Winfall, NC 27985
P.O. Box 25, Winfall, NC 27985
Phone (252) 426-1745

Perquimans County EMS (CCEMS)

P.O. Box 563 / 159 Creek Drive, Hertford NC 27944
Phone (252) 426-5646

Perquimans County Sherriff's Office

110 N Church St. / P.O. Box 31, Hertford, NC 27944
Phone (252)426-5615

Hertford Police Department

114B W. Grubb Street, Hertford, NC 27944
P. O. Box 275, Hertford, NC 27944
Phone 252-426-5587
Fax 252-426-8169

Perquimans County Recreation Department

P.O. Box 538 / 310 Granby Street, Hertford, NC 27944
Phone (252)426-5695
Fax (252)426-7684

NC Cooperative Extension – Perquimans County

PO Box 87 / 601A Edenton Road St, Hertford, NC 27944
Phone (252)426-5428
Fax (252)426-1646

Perquimans County Chamber of Commerce and Tourism Authority has a resource section with links to tourism and recreation opportunities, government agencies, churches, and local organizations. Portal - <http://www.visitperquimans.com>.

Perquimans County Government Directory of Services provided by the county.

Portal: <http://www.co.perquimans.nc.us/departments.html>.

Public Transportation in Perquimans County is provided by the Inter-County Public Transportation Authority (ICPTA), operated by Albemarle Regional Health Services, which serves the five county area of Camden, Chowan, Currituck, Pasquotank and Perquimans counties.

Childcare Centers

Referral Agency: Chowan/Perquimans Smart Start Partnership
Star Ratings on http://childcarecenter.us/county/perquimans_nc#.Vt2oodB7xYU

FAITH CHILD DEVELOPMENT CENTER

Hertford, NC 27944
(252) 426-1133

PERQUIMANS CENTRAL PRESCHOOL

Winfall, NC 27985
(252) 426-5332

PERQUIMANS COUNTY HEAD START

Winfall, NC 27985
(252) 426-5949

PRECIOUS GIFTS CHILD DEVELOPMENT CENTER

Hertford, NC 27944
(252) 426-1364

THE LEARNING CENTER OF PERQUIMANS COUNTY

Hertford, NC 27944
(252) 426-5014

Public Schools

Perquimans Central School

181 Winfall Blvd. Winfall, NC 27985
252.426.5332

Hertford Grammar

603 Dobbs Street
Hertford, NC 27944
252-426-7166

Perquimans County Middle School

312 W. Main Street
P.O. Box 39
Winfall, NC 27985
Phone: (252)426-7355

Perquimans County High School

305 Edenton Road St.
Hertford, NC 27944
(252) 426-5778
Phone: 252-482-8426
Website: <https://sites.google.com/a/ecps.k12.nc.us/john-a-holmes/home>

Institutions of Higher Education

Chowan University

One University Dr.
Murfreesboro, NC 27855

Phone: 252-398-6436
Toll-Free: 1-888-4-CHOWAN
Fax: 252-398-1190
Website: <https://www.chowan.edu/>

Martin Community College - Bertie Campus

409 West Granville St.
Windsor, NC 27983
Phone: 252-794-4861
Website: <http://www.martincc.edu/>

Martin Community College - Williamston Campus

1161 Kehukee Park Rd.
Williamston, NC 27892
Phone: 252-792-1521
Fax: 252-792-0826
Website: <http://www.martincc.edu/>

Roanoke Chowan Community College

109 Community College Rd.
Ahoskie, NC 27910
Phone: 252-862-1200
Website: <https://www.roanokechowan.edu/>

Elizabeth City State University

1704 Weeksville Rd.
Elizabeth City, NC 27909
252-335-3400
Website: <http://www.ecsu.edu/>

College of the Albemarle - Elizabeth City Campus

1208 N. Road St
PO Box 2327
Elizabeth City, NC 27909
Phone: 252-335-0821
Fax: 252-335-2011
Website: <http://www.albemarle.edu/about-coa/elizabeth-city-campus>

College of the Albemarle - [Dare County Campus](#)

132 Russell Twiford Road
Manteo, NC 27954
Phone: 252-473-2264
Fax: 252-473-5497
Website: <http://www.albemarle.edu/about-coa/dare-campus>

Commented [PR1]: College of the Albemarle

Elizabeth City Campus
1208 N. Road St
PO Box 2327
Elizabeth City, NC 27909
P: 252-335-0821
F: 252-335-2011

[Dare County Campus](#)

132 Russell Twiford Road
Manteo, NC 27954
P: 252-473-2264
F: 252-473-5497

Roanoke Island Campus

205 Highway 64 S.
Manteo, NC 27954
F: 252-473-6002

Edenton-Chowan Campus

800 N. Oakum St
Edenton, NC 27932
P: 252-482-7900
F: 252-482-7999

[Regional Aviation & Technical Training Center](#)

107 College Way
Barco, NC 27917
P: 252-453-3035
F: 252-453-3215

<http://www.albemarle.edu/>

College of the Albemarle - Roanoke Island Campus

205 Highway 64 S.
Manteo, NC 27954
Fax: 252-473-6002
Website: <http://www.albemarle.edu/>

College of the Albemarle - Edenton-Chowan Campus

800 N. Oakum St
Edenton, NC 27932
Phone: 252-482-7900
Fax: 252-482-7999
Website: <http://www.albemarle.edu/about-coa/edenton-chowan-campus>

Regional Aviation & Technical Training Center

107 College Way
Barco, NC 27917
Phone: 252-453-3035
Fax: 252-453-3215
Website: <http://www.albemarle.edu/currituck>

East Carolina University

East Fifth Street
Greenville, NC 27858
Phone: 252-328-6131
Website: <http://www.ecu.edu/>

Albemarle Hopeline, Inc.

Albemarle Hopeline, a private, non-profit organization founded in 1981, is the only program of its kind in the Albemarle region, with outreach through four satellite offices (Chowan, Currituck, Gates and Perquimans counties), a shelter/direct service facility, and a thrift store. The agency is guided by the mission of "providing comprehensive direct and preventive services to victims of family violence, sexual assault and teen dating violence" in the counties of Camden, Chowan, Currituck, Gates, Pasquotank and Perquimans.

Services include: 24-hour crisis line; emergency Hope House shelter; food, clothing and transportation; crisis intervention; court advocacy; individual and group counseling for adults and children; Displaced Homemaker Program; information and referral; outreach; and prevention through awareness and education to school, church and civic groups and the community-at-large. Since the opening of an enlarged 14,200 square foot Hope House facility in 2006, Hopeline has been able to consolidate services to both residential and non-residential victims, and improve coordination and effectiveness. All services are designed to meet basic safety needs of victims of domestic and sexual violence, empowering them to establish and maintain healthy, violence-free lives.

Mailing address:
PO Box 2064
Elizabeth City, NC 27906
Phone: 252-338-5338
24-hour crisis line: 252-338-3011
Fax: 252-338-2952
Website: www.albemarlehopeline.org

Community Care of North Carolina/Carolina ACCESS
Phone: 252-847-6430

Perquimans County Department of Social Services
Perquimans County Social Services
P.O. Box 107 / 103 Charles Street
Hertford, NC 27944
Phone (252)426-7373
Fax (252)426-1240

Tri-County Animal Shelter (Perquimans, Gates, Chowan)
138 Icaria Road
Tyner, NC 27980
252-221-8514
Fax: 252-221-4101
Hours:
Mon-Fri 1pm-5pm
Saturday 10am-1pm
Closed Sundays

Veterans Services
P.O. Box 133, Hertford, NC 27944
104 Dobbs Street, Hertford NC 27944
Phone (252)426-1796

Perquimans County Chamber of Commerce
118 W. Market Street
Hertford, NC 27944
Phone (252) 426-5657
Fax (252) 426-7542

Farmers Markets and Roadside Stands
<http://www.healthync.org/healthy-foods/markets-and-stands/#Perquimans-County>

Haven Acres Farms

107 Beech Springs Rd, Hertford, 27944
Phone (252) 209-1954

Jesse Byrum's Produce

Corner of Church and Grubbs St. Hertford, 27944
Phone (252) 312-5938

Produce Hut

Ocean Hwy and E. Bear Swamp Rd Hertford, 27944
Phone (252) 828-1716

Hertford Farmer's Market

Missing Mill Park, Hertford, 27944

Hospital/Medical Facilities**Vidant Chowan Hospital**

211 Virginia Road
P.O. Box 629
Edenton, NC 27932
252-482-8451

Coastal Carolina Family Practice

600 S Church St, Hertford, NC 27944
Phone (252) 426-5711

Vidant Family Medicine – Hertford

1124 Harvey Point Road
Hertford, NC 27944
Phone (252) 426-2946
Fax (252) 426-2924

Perquimans County Medical Center

333 Winfall Blvd, Winfall, NC 27985
Phone (252) 426-9172

Public Health Department:

Albemarle Regional Health Services Albemarle Regional Health Services (ARHS) is a regional Public Health agency in rural, northeastern NC serving the seven counties of Bertie, Camden, Chowan, Currituck, Gates, Pasquotank and Perquimans. ARHS has provided over 70 years of service to the Albemarle Region.

The regional Public Health agency provides the following healthcare services: immunizations, diabetes care and management, women's preventive health, maternal health, including high-risk perinatal services, child health, WIC and nutrition counseling,

pediatric asthma management, services for people with communicable diseases including STDs, adult day health care, children's developmental services, Public Health preparedness and response, public information, interpreter assistance, home health care, and hospice.

Albemarle Regional Health Services also administers the following programs: Environmental Health, Regional Landfill, Solid Waste Authority and Recycling, LifeQuest Worksite Wellness, and the Inter-County Public Transportation Authority. The more than 29 ARHS operational sites are completely networked by technology to increase the efficiency and effectiveness of service delivery across the agency.

Local Health Department

The Perquimans County Health Department is part of ARHS, a seven-county regional, accredited Public Health Department headquartered in Elizabeth City, NC. The local health department is located in Hertford at 103 ARPDC Street. Comprehensive clinical services include Women's Preventive Health, Adult Health, Communicable Disease programming, Immunizations, School and Community Health Education, Breast and Cervical Cancer Control Program, Diabetes Management, Child Health, WIC, Albemarle Hospice, Albemarle Home Care, Albemarle LifeQuest/Health Promotion, Environmental Health, Preparedness and Response Solid Waste Management Authority, and the Regional Landfill services.

Perquimans County Health Department

103 ArpdC St, Hertford, NC 27944
Phone :(252) 426-2100

Mental Health Services

Trillium Healthcare Resources

Manages mental health, substance use, and intellectual/development disability services in a 24-county area. Trillium partners with agencies and licensed therapists to offer services and support to people in need within their community.

Crisis Care & Service Enrollment: 1-877-685-2415

Email: info@trilliumnc.org

Website: <http://www.trilliumhealthresources.org/>

Trillium Access Point

Anonymous, evidence-based, self-conducted screenings online 24hrs a day for depression, bipolar disorder, post-traumatic stress disorder, eating disorders, and alcohol use disorders.

Available in English and Spanish, provides local referral information, and includes learning and resource section.

Website: <http://www.trilliumhealthresources.org/en/Community-Partnerships/Trillium-Initiatives/Access-Point/>

Quitline NC

Free, confidential, one-on-one support and in addition to new extended hours of 6am-3am, nicotine replacement therapy - patch, gum and lozenge - is now available for every person who enrolls.

1-800-QUIT-NOW

Resources for the Elderly and Disabled**Brian Center Health and Rehabilitation Center**

1300 Don Juan Rd, Hertford, NC 27944

Phone (252) 426-5391

Perquimans County Senior Center

P.O. Box 615 / 1072 Harvey Point Road

Hertford, NC 27944

Phone (252)426-5404

Fax (252)426-1296

Housing Resources**Chowan/Perquimans Habitat for Humanity**

P.O. Box 434

Edenton, NC 27932

252-482-2686

Section 8 Economic Improvement Council, Inc.

Section 2 Housing Choice Vouchers

712 Virginia Road

Edenton, NC 27932

252-482-4458

Adult Services, Perquimans County Department of Social Services

Supported Living Services for Adults with Disabilities, Representative Payee Services, Adult Day Programs, Adult Protective Intervention/Investigation, Public Guardianship/Conservatorship Programs

P.O. Box 107 / 103 Charles Street

Hertford, NC 27944

Phone (252)426-7373

Fax (252)426-1240

Dentists

Fang Yiping DDS

212 Ainsley Ave, Hertford, NC 27944
Phone (252) 426-5585

Douglas W Perry PA

181 Perry Long Rd., Hertford, NC 27944
Phone (252) 426-9140

Additional Organizations

- American Association of Poison Control Centers
1-800-222-1222
- Carolinas Poison Center
1-800-222-1222
- Children's Home Society of North Carolina
1-800-632-1400
- East Carolina Behavioral Health
1-877-685-2415
- Emergency Contraception
1-800-584-9911
- Healthy Start Foundation
1-800-FOR-BABY (367-2229)
- National Domestic Violence Hotline
1-800-799-SAFE (7233)
- National Sexual Assault Hotline
1-800-656-HOPE
- Planned Parenthood
1-800-230-7526
- National Alliance on Mental Illness
1-800-950-6264
- National Drug Abuse Hotline
1-800-662-HELP (4357)
- National Gay Task Force
(202) 393-5177
- National Mental Health Association
1-800-969-6642
- National Suicide Prevention Lifeline
1-800-784-2433
- Rape Crisis Center
1-800-656-4673
- Real Crisis Center
(252) 758-HELP (4357)