

Trillium Health Resources LME-MCO

GAPS & NEEDS ASSESSMENT SFY2016 REPORT





Table of Contents

Table of Figures.....	11
Executive Summary.....	15
<i>Introduction</i>	<i>15</i>
<i>Synopsis.....</i>	<i>15</i>
<i>Recommendations for Future Planning</i>	<i>16</i>
Emergency Department Utilization Recommendations	17
Opioid Crisis Recommendations	18
24-County Catchment Area -The Big Picture.....	19
<i>Demographics</i>	<i>19</i>
<i>Regional Snapshots.....</i>	<i>20</i>
<i>Constituent Input & Feedback.....</i>	<i>21</i>
<i>Emergency Department Overutilization.....</i>	<i>22</i>
<i>Opioid Crisis</i>	<i>22</i>
Demographics, Special Populations, Significant Health Indicators	23
<i>Race.....</i>	<i>23</i>
<i>Economy.....</i>	<i>29</i>
<i>Education</i>	<i>30</i>
Dropouts	30
Graduation Percentages	31
School Violence	31
Criminal Justice	31
Crime Rates	32
Domestic Violence	32
Juvenile Justice.....	33
<i>Special Populations.....</i>	<i>33</i>
Traumatic Brain Injury	33
Veterans.....	34
Sexually Aggressive	34
Older Adults	34
The Older Adult and Behavioral Health Issues	35
Older Adults Receiving Services.....	36
<i>Significant Health Indicators</i>	<i>39</i>
Integrated Care	39
Health Rankings	41
Performance, Prevalence and Funding.....	43
Provider Network and Workforce Capabilities	47

<i>Types of Providers</i>	47
<i>Consumer Locations and Population</i>	49
<i>Licensed Professionals</i>	51
<i>Psychiatrists</i>	53
<i>NC START</i>	55
<i>Emergency and Crisis Facilities</i>	55
<i>Advanced Access Agencies</i>	57
<i>Child-Specific Evidence-Based Practices</i>	58
Access & Choice	60
<i>Services Not Meeting NC Divisions' Access Standards</i>	60
Emergency Department Overutilization - In-Depth Review	61
<i>Demographic Profile of Consumers Utilizing Emergency Department Service</i>	62
<i>Funding of Services and Cost of Care</i>	65
<i>Utilization of Services by Diagnosis</i>	67
<i>Considerations and Recommendations</i>	69
Opioid Crisis - In-Depth Review	71
<i>What Are Opioids?</i>	72
<i>Prescription Opioids</i>	72
<i>Heroin</i>	76
<i>Fentanyl</i>	78
<i>When the Prescription Becomes the Problem</i>	79
<i>Impact</i>	82
<i>What is Trillium Doing?</i>	84
<i>Recommendations</i>	87
<i>Citations</i>	87
Supplemental Trillium Charts & Maps	90
<i>Geographic and Demographic</i>	90
Population and Geographic Size	90
Population by Race/Ethnicity.....	91
Population by Age	92
Population Median Age	93
Population by Sex.....	94
Education Dropout & Graduation Rates	95
Unemployment	96
Persons in Poverty	97
Median Household Income.....	98
Economic Tiers.....	99

Percent Medicaid Eligible.....	100
Medicaid Eligible Children and Adults	101
Non-Elderly Adult Uninsured	102
<i>Unique Populations and Characteristics</i>	<i>103</i>
Veteran Population	103
Traumatic Brain Injury (TBI)	104
<i>Consumer Prevalence</i>	<i>105</i>
Medicaid Prevalence 65+	105
Adult SPMI Prevalence.....	106
Adult & Child MH Prevalence.....	107
Adult & Child I/DD Prevalence	111
Adult & Child SA Prevalence	115
<i>Significant Health Indicators</i>	<i>119</i>
Medical Facilities.....	119
Federally Qualified Health Centers and Community Care Centers	119
Medical Provider Resources	121
Smoking.....	122
Teen Pregnancy.....	123
Sexually Transmitted Infections.....	124
HIV/AIDS.....	126
Leading Causes of Death	128
Unintentional Injury	129
Unintentional Poisoning.....	130
Overdose Deaths.....	131
Suicide	132
Infant Mortality.....	133
Mortality Rates.....	134
Health Ranking	135
<i>Behavioral Health Hospitalization.....</i>	<i>136</i>
N.C. State Alcohol and Drug Abuse Treatment Centers	136
N.C. State Psychiatric Hospitals	137
<i>Criminal Justice</i>	<i>138</i>
Crime Rate.....	138
DWI Arrests	139
DUI Arrest Comparisons.....	140
Domestic Violence	140
Sexual Assault	141
Sex Offense Convictions.....	142
Juvenile Justice.....	143

Alcohol-Related Crashes	146
Teen Motor Vehicle Data	147
Motor Vehicle Fatality Trends.....	148
Appendix A: Northern Region Charts & Profiles	149
<i>County Profiles</i>	<i>149</i>
<i>Geographic and Demographic</i>	<i>162</i>
Population and Geographic Size	162
Population by Race/Ethnicity.....	163
Population by Age	164
Population Median Age	164
Population by Sex.....	165
Education Dropout & Graduation Rates	166
Unemployment	167
Persons in Poverty	168
Median Household Income.....	169
Economic Tiers	169
Percent Medicaid Eligible.....	170
Medicaid Eligible Children and Adults	170
Non-Elderly Adult Uninsured	171
<i>Unique Populations and Characteristics</i>	<i>172</i>
Veteran Population	172
Traumatic Brain Injury (TBI).....	172
<i>Health Indicators</i>	<i>173</i>
Medical Facilities.....	173
Federally Qualified Health Centers and Community Care Centers	173
Medical Provider Resources	174
Smoking.....	175
Teen Pregnancy.....	176
Sexually Transmitted Infections.....	177
HIV/AIDS.....	178
Leading Causes of Death	179
Unintentional Injury	179
Unintentional Poisoning.....	180
Overdose Deaths.....	181
Suicide	183
Infant Mortality.....	183
Mortality Rates.....	184
Health Ranking.....	184
<i>Behavioral Health Hospitalization.....</i>	<i>185</i>

N.C. State Alcohol and Drug Abuse Treatment Centers	185
N.C. State Psychiatric Hospitals	186
<i>Criminal Justice</i>	<i>187</i>
Crime Rate.....	187
DWI Arrests	188
DUI Arrest Comparisons.....	188
Domestic Violence	189
Sexual Assault	189
Sex Offense Convictions.....	190
Juvenile Justice.....	190
Alcohol-Related Crashes	192
Teen Motor Vehicle Data	192
Motor Vehicle Fatality Trends.....	193
Appendix B: Central Region Charts & Profiles	194
<i>County Profiles</i>	<i>194</i>
<i>Geographic and Demographic</i>	<i>205</i>
Population and Geographic Size	205
Population by Race/Ethnicity.....	205
Population by Age	206
Population Median Age	206
Population by Sex.....	207
Education Dropout & Graduation Rates	207
Unemployment	208
Persons in Poverty	208
Median Household Income.....	209
Economic Tiers	209
Percent Medicaid Eligible.....	210
Medicaid Eligible Children and Adults	210
Non-Elderly Adult Uninsured	211
<i>Unique Populations and Characteristics</i>	<i>212</i>
Veteran Population	212
Traumatic Brain Injury (TBI).....	212
<i>Health Indicators</i>	<i>213</i>
Medical Facilities.....	213
Federally Qualified Health Centers and Community Care Centers	213
Medical Provider Resources	214
Smoking.....	214
Teen Pregnancy.....	215
Sexually Transmitted Infections.....	216

HIV/AIDS.....	217
Leading Causes of Death.....	218
Unintentional Injury.....	218
Unintentional Poisoning.....	219
Overdose Deaths.....	220
Suicide.....	222
Infant Mortality.....	222
Mortality Rates.....	223
Health Ranking.....	223
<i>Behavioral Health Hospitalization.....</i>	<i>224</i>
N.C. State Alcohol and Drug Abuse Treatment Centers.....	224
N.C. State Psychiatric Hospitals.....	224
<i>Criminal Justice.....</i>	<i>225</i>
Crime Rate.....	225
DWI Arrests.....	225
DUI Arrest Comparisons.....	226
Domestic Violence.....	226
Sexual Assault.....	227
Sex Offense Convictions.....	227
Juvenile Justice.....	228
Alcohol-Related Crashes.....	229
Teen Motor Vehicle Data.....	229
Motor Vehicle Fatality Trends.....	230
Appendix C: Southern Region Charts & Profiles.....	231
<i>County Profiles.....</i>	<i>231</i>
<i>Geographic and Demographic.....</i>	<i>239</i>
Population and Geographic Size.....	239
Population by Race/Ethnicity.....	239
Population by Age.....	240
Population Median Age.....	240
Population by Sex.....	241
Education Dropout & Graduation Rates.....	241
Unemployment.....	242
Persons in Poverty.....	242
Median Household Income.....	243
Economic Tiers.....	243
Percent Medicaid Eligible.....	244
Medicaid Eligible Children and Adults.....	244
Non-Elderly Adult Uninsured.....	245

<i>Unique Populations and Characteristics</i>	245
Veteran Population	245
Traumatic Brain Injury (TBI)	246
<i>Health Indicators</i>	246
Medical Facilities.....	246
Federally Qualified Health Centers and Community Care Centers	247
Medical Provider Resources	247
Smoking.....	248
Teen Pregnancy.....	248
Sexually Transmitted Infections.....	249
HIV/AIDS.....	250
Leading Causes of Death	251
Unintentional Injury	251
Unintentional Poisoning.....	252
Overdose Deaths.....	252
Suicide	253
Infant Mortality.....	254
Mortality Rates.....	254
Health Ranking	255
<i>Behavioral Health Hospitalization</i>	255
N.C. State Alcohol and Drug Abuse Treatment Centers	255
N.C. State Psychiatric Hospitals	256
<i>Criminal Justice</i>	256
Crime Rate.....	256
DWI Arrests	257
DUI Arrest Comparisons.....	257
Domestic Violence	258
Sexual Assault	258
Sex Offense Convictions.....	259
Juvenile Justice.....	259
Alcohol-Related Crashes	260
Teen Motor Vehicle Data	261
Motor Vehicle Fatality Trends.....	261
Appendix D: Constituent Survey Summaries	262
<i>Summary</i>	262
Stakeholders.....	263
Consumers & Families.....	263
Committee Members.....	264
<i>Consumer and Family Survey Summary</i>	265

Stakeholder Survey Summary.....	289
Committee Member Survey Summary	303
Appendix E: Opioid Crisis - Supplemental Charts	306
Overdose Deaths Comparison	306
Overdose Deaths Percentage of Change.....	307
Opioid Poisoning Death Rates	308
Opioid-Related ED Visits	310
Opioid Prescription Poisoning Death Rates	311
Heroin Poisoning Death Rates.....	314
Methadone Poisoning Death Rates.....	317
Medication and Drug Poisoning Death Rates	320
NC Cities in U.S. Top 25 for Opioid Abuse	323
NC Cities Among U.S. Top 25 Opioid Prescription Abuse.....	324
Prescription Rate by County	325
CSRS Utilization by County.....	326
Appendix F: ED Crisis - Supplemental Charts	328
Emergency Department, Mobile Crisis and Inpatient Admissions by Provider Name	328
ED Visits by Provider	328
Mobile Crisis Visits by Provider	335
Inpatient Visits by Provider	339
Appendix F: Trillium Maps.....	344
White Consumers and Locations	344
Ratio Black/African American Consumers and Locations.....	345
Ratio Hispanic Consumers and Locations	346
Ratio Other Race Consumers and Locations	347
Ratio Asian Consumers and Locations	348
Trillium Consumers - US.....	349
Trillium Consumers - NC and Neighboring States	350
Consumer Density with Provider Locations.....	351
Psychiatrist and Telepsychiatry Locations	352
MST - With and Without Medicaid	353
CPP/Child First Providers	354
IAFT and TFC Providers	355
Opioid Treatment Services.....	356
Buprenorphine Providers	357
ED and Mobile Crisis Management Locations	358

Appendix G: Glossary of Clinical Licenses 359
Appendix H: References 360

Table of Figures

Figure 1: Trillium Demographic Infographic	19
Figure 2: Trillium Northern Region Infographic	20
Figure 3: Trillium Central Region Infographic.....	20
Figure 4: Trillium Southern Regional Infographic	20
Figure 5: Constituent Input & Feedback Infographic	21
Figure 6: Emergency Department Overutilization Infographic	22
Figure 7: Opioid Crisis Infographic.....	22
Figure 8: Trillium Catchment Racial/Ethnic Makeup 2016.....	23
Figure 9: Trillium Consumers Served in SFY2016 - Racial Analysis.....	24
Figure 10: 2016 Racial Makeup of Consumers Served Compared to Racial Makeup of Service Area	24
Figure 11: Map-Ratio of White Population to Total Population by Census Tract and Locations of White Consumers in Trillium Health Resources SFY2016	25
Figure 12: Map-Ratio of Black/African American Population by Census Tract and Locations of Black/African American Consumers in Trillium Health Resources SFY2016	26
Figure 13: Map-Ratio of Hispanic Population by Census Tract and Locations of Hispanic Consumers in Trillium Health Resources SFY2016.....	27
Figure 14: Map-Ratio of Other Race Population to Total Population by Census Tract and Locations of Other Race Consumers in Trillium Health Resources SFY2016.....	28
Figure 15: Map-Ration of Asian Population to Total Population by Census Tract and Locations of Asian Consumers in Trillium Health Resources SFY2016	29
Figure 16: Trillium Population 65 Years and Older 3-Year Trend.....	35
Figure 17: Adults Age 65+ Served by Trillium - 2016	37
Figure 18: Type of Services Provided Ages 65+	38
Figure 19: Adults Age 65+ Receiving Medicaid Benefits - June 30, 2016	39
Figure 20: Trillium Counties at or Above State Rates for Notable Health Indicators	41
Figure 21: Trillium Catchment Health Outcome Rankings by County	42
Figure 22: Trillium Medicaid and State-Funded by Age/Disability SFY2016 Prevalence & Penetration and Gap Summary.....	44
Figure 23: Trillium SPMI Prevalence SFY16.....	45
Figure 24: Trillium Medicaid & State-Funded Adult & Child Prevalence Summary SFY2016	46
Figure 26: Trillium Catchment SFY2016 - Types of Providers	47
Figure 27: Trillium Catchment SFY2016 - Consumer-Specific Agreements by Service Category.....	48
Figure 28: Trillium Catchment SFY2016 Number of Provider Sites by County	49
Figure 29: Trillium Health Resources Consumers Nationwide SFY2016	50
Figure 30: Trillium Health Resources Consumers NC & Neighboring States SFY2016	50
Figure 31: Trillium Health Resources Consumer Density with Provider Locations In-Catchment Area SFY2016	51
Figure 32: Trillium Licensed Professionals by Type and County - SFY2016	52
Figure 33: Trillium Psychiatrists / Telepsychiatry Availability by County - SFY2016.....	54
Figure 34: Locations of Psychiatrists and Telepsychiatrists in Trillium catchment SFY2016	54

Figure 35: Trillium SFY2016 Quarterly NC START Caseloads.....	55
Figure 36: Trillium SFY2016 - Emergency and Crisis Facilities by County.....	56
Figure 37: Trillium SFY2016 - Advanced Access Agencies by County.....	58
Figure 38: Map-Trillium Health Resources Multisystemic Therapy Services With and Without Medicaid Funding SFY2016.....	58
Figure 39: Map-CPP/Child First Providers in Trillium Health Resources Catchment Area SFY2016.....	59
Figure 40:Map- IAFT and TFC Providers in Trillium Health Resources Catchment Area SFY2016.....	59
Figure 41: Demographic Characteristics of ED Utilizers in Trillium Catchment Area - SFY2016.....	62
Figure 42: Diagnostic Category for ED Utilizers in Trillium Catchment Area in SFY2016.....	63
Figure 43: Total Visits, Unique Consumers and Total Cost by County of Residence in SFY2016.....	64
Figure 44: Map-Emergency Department and MCM Locations in Trillium Health Resources Catchment Area SFY2016.....	65
Figure 45: Funding Source Utilized by Consumers Within Trillium Catchment Area in SFY2016.....	65
Figure 46: Consumers by First Interaction Service, Total Visits and Cost of Care for SFY2016.....	66
Figure 47: Range and Average Length of Service for Select Services.....	67
Figure 48: Unique Visits by Diagnosis Category - SFY2016.....	68
Figure 49: Select Services (Visits) Utilized by Primary Diagnosis Category - SFY2016.....	68
Figure 50: Cost of Care by Primary Diagnosis - SFY2016.....	69
Figure 51: Statistically Significant Changes In Drug Overdose Death Rates US 2014-2015.....	71
Figure 52: Comparative Description of Prescription Opioids, Heroin and Fentanyl.....	72
Figure 53: Trillium Catchment 3-Year Overdose Death Comparison.....	74
Figure 54: Number of People in Trillium Network Estimated to be Using.....	75
Figure 55: Top 25 Cities in U.S. for Opioid Abuse Rates and Percentage of Opioid Prescription Abuse.....	76
Figure 56: NC Cities Among Top 25 in U.S. for Opioid Abuse and Percentage of Opioid Prescription Abuse....	76
Figure 57: Deaths Involving Heroin in North Carolina 2010-2016.....	77
Figure 58: Trillium Heroin Poisoning Deaths 2013-2015.....	77
Figure 59: Deaths Involving Fentanyl and/or Analogues in North Carolina 2010-2016.....	79
Figure 60: U.S. Opioid Prescription Rates Comparison by State.....	79
Figure 61: Ranking of Number of Prescriptions Written by NC Counties.....	81
Figure 62: Trillium LME-MCO Prescription Information by County - 2016.....	82
Figure 63: NC Overdose Rates Relative to Rx Dispensing Rates by County.....	82
Figure 64: Trillium Catchment ED Visits - 3 Year Comparison.....	84
Figure 65: Current Trillium Contracted Opioid Treatment Providers & Locations.....	85
Figure 66: Map-Trillium Health Resources Opioid Treatment Services SFY2016.....	86
Figure 67: Map-Buprenorphine Providers in Trillium Health Resources Catchment Area SFY2016.....	86
Figure 68: Trillium Population and Geographic Size SFY2016.....	90
Figure 69: Trillium Race/Ethnicity of Service Area.....	91
Figure 70: Trillium Population by Age, July, 2016.....	92
Figure 71: Trillium Median Age - 2016.....	93
Figure 72: Trillium Population by Sex.....	94
Figure 73: Trillium Catchment Education Rates Comparison Dropout , Crime & Violence, Graduation.....	95
Figure 74: Trillium Unemployment Rate Comparison.....	96
Figure 75: Trillium Persons in Poverty.....	97

Figure 76: Trillium Median Household Income.....	98
Figure 77: Trillium Economic Tier Designations.....	99
Figure 78: Trillium Percent of Medicaid Eligible - June 30, 2016	100
Figure 79: Trillium Medicaid Eligible Adults & Children - June 30, 2016.....	101
Figure 80: Trillium Non-Elderly Adult Uninsured.....	102
Figure 81: Trillium Veteran Population - 3-Year Trend	103
Figure 82: Trillium Catchment Traumatic Brain Injury SFY2016	104
Figure 83: Trillium Medicaid Prevalence 65 and Over - SFY2016.....	105
Figure 84: Trillium Medicaid Prevalence - Penetration & Gap 65 and Over - SFY2016.....	105
Figure 85: Trillium Adult SPMI SFY2016.....	106
Figure 86: Trillium Adult SPMI SFY2016 - Penetration & Gap	106
Figure 87: Trillium Catchment Adult & Child MH Prevalence SFY2016.....	108
Figure 88: Trillium Catchment Adult & Child MH Gap SFY2016	110
Figure 89: Trillium Catchment Adult & Child I/DD Prevalence SFY2016	112
Figure 90: Trillium Catchment Adult & Child I/DD Gap SFY2016	114
Figure 91: Trillium Catchment Adult & Child SA Prevalence SFY2016	116
Figure 92: Trillium Catchment Adult & Child SA Gap SFY2016.....	118
Figure 93: Trillium Medical Facilities	119
Figure 94: Federally Qualified Health Centers and Community Care Centers Trillium Catchment	120
Figure 95: Trillium Medical Service Provider Resources	121
Figure 96: Adult Smoking - Trillium Catchment >18 Years of Age.....	122
Figure 97: Trillium Catchment - Teen Pregnancy Rates Comparison Ages 15-19 Rates per 1,000.....	123
Figure 98: Newly Diagnosed Chlamydia & Gonorrhea Cases Trillium Catchment Rates per 100,000.....	124
Figure 99: Newly Diagnosed Syphilis Cases Trillium Catchment Rates per 100,000	125
Figure 100: HIV Cases by County of Diagnosis Rates per 100,000	126
Figure 101: AIDS Cases by County of Diagnosis Rates per 100,000	127
Figure 102: Trillium Catchment Leading Causes of Death 2015	128
Figure 103: Trillium Unintentional Injuries Comparison Rates per 100,000	129
Figure 104: Trillium Unintentional Poisoning Death Comparison.....	130
Figure 105: Trillium Catchment Overdose Death - Percentage of Change	131
Figure 106: Trillium Suicide Statistics Comparison Rate per 100,000.....	132
Figure 107: N.C. Infant Death Rates - Four Year Comparison per 1,000 Live Births	133
Figure 108: Trillium Mortality Rate Comparison Rates per 100,000.....	134
Figure 109: Trillium Health Outcome Rankings	135
Figure 110: Persons Served by N.C. State Alcohol and Drug Abuse Treatment Centers (ADATC) Comparison.....	136
Figure 111: Persons Served by N.C. State Psychiatric Hospitals Comparison - Trillium Catchment.....	137
Figure 112: Trillium Crime Rate of Service Area - SFY2015 (Rate per 100,000)	138
Figure 113: Trillium Catchment DWI Arrests - SFY2016.....	139
Figure 114: Driving Under the Influence Arrests 2012-2016	140
Figure 115: Trillium Domestic Violence Comparison	141
Figure 116: Trillium Sexual Assault Comparison	142
Figure 117: Persons Convicted of a Sex Offense or Offense Against a Minor	143
Figure 118: Trillium Juvenile Justice Data 2015 Table A	144

Figure 119: Trillium Juvenile Justice Data 2015 Table B	145
Figure 120: Trillium Alcohol-Related Crash Comparison	146
Figure 121: Trillium Teen Motor Vehicle Data Ages 15-19	147
Figure 122: Trillium Motor Vehicle Crash Fatalities: 5-Year Trend	148

Executive Summary

Introduction

This report is the second Gaps and Needs Report completed for Trillium Health Resources, the LME-MCO that is the result of the consolidation of the former East Carolina Behavioral Health (ECBH) and CoastalCare organizations. This report is a review of data from SFY2016 when Trillium was comprised of 24 counties encompassing the entire eastern seaboard of North Carolina, between its borders with Virginia and South Carolina. Trillium Health Resources contracted with ACT Associates, LLC to conduct the SFY2016 Needs Assessment Report. The report will look a bit different this year as we are attempting to provide you with different health and social determinant trends that are occurring throughout the 24-county area as well as an in-depth look into two subject areas pertinent to real time issues for the Trillium network: utilization of emergency rooms by Trillium members and the nature of the opioid crisis that is occurring throughout the network area.

This report will include the following detailed sections:

- The Executive Summary will highlight the significant investments Trillium has made in its member counties, provide the context for the consequences of recent legislative actions that occurred during this past year, and provide recommendations based upon the analysis of data and trends covered in the report.
- An overview of the unique demographic and geographic characteristics of the 24-county area;
- The report for SFY2016 reflects casting a much wider net to gain consumer and family input as well as stakeholder input. The three Trillium Regional CFACs were instrumental in helping develop survey questions and most importantly with distributing and collecting the survey results. Trillium saw an increase of 35% in consumer/family response and an increase of 23% in stakeholder responses during this report year.
- A summary of the access and choice analysis presented to the NC DMH/DMA to meet its annual needs and gaps report;
- A selection of maps, which illustrate the location of services, consumers and urban and rural travel times with regional boundaries as well as the entire catchment area highlighted.

Ideally, this report provides a snapshot of the Trillium Health Resources network during SFY2016. The report can be used to guide the Board and staff during its strategic decision making and planning processes throughout the year.

Synopsis

Trillium has unique challenges and is especially capable of creating very unique solutions to the challenges it faces, especially with its expansive geographic area having some of the most remote and rural counties in the state. A year ago, Trillium was able to fulfill the challenge for which LME-MCOs were created; to manage the high-risk Medicaid MHDDSA population efficiently and effectively, to create a savings, and then to re-invest that savings back into the network. A year ago, Trillium committed to reinvest over \$63 million dollars of Medicaid savings into programs for communities in the 24-county area that included:

-
1. Child First/Child Parent Psychotherapy
 2. Illness Self-Management and Integrated Dual Diagnosis Treatment
 3. Direct Course Workforce Development
 4. Compassion Reaction
 5. Inclusive Child I/DD Programs
 6. Play Together Inclusive Accessible Playgrounds
 7. Bridge Funding for Group Homes
 8. Replication of the Healing Transitions Program in two locations
 9. Oxford House 20 by 2020
 10. Smart Home Demonstration
 11. Access Point Kiosk
 12. Choose Independence Project
 13. Population Health Management
 14. Naloxone Support for Opioid Overdoses

However, during its last session, the North Carolina Legislature made the unfortunate decision to require the Medicaid savings be returned to the State rather than allow reinvestment in the LME-MCO communities. As a result, this has all but eliminated Trillium's ability to use its Medicaid savings for programs and services that it determined important to its 24-county area. Consequently, the plans to replicate the Healing Place, expand the Oxford Houses, and expand its array of evidence-based practices has been limited. As the prevalence indicates, the problems facing the public MHDDSA system are growing and the funding level to support these issues is not large enough to adequately provide access to services or effectively serve the need. The challenges of creating solutions to improve the public mental health, intellectual/developmental disability and substance abuse system and tailor it to meet the unique needs of this 24-county area was severely curtailed by the actions of the Legislature.

As evidenced by the data, maps, and consumer and stakeholder input included in the report, Trillium, by its very nature and responsiveness, stands out as a leader among the LME-MCOs. It is on the forefront of changing the face of how MHDDSA services are delivered at the local level and there is no doubt it will continue to strive for excellence, in spite of the financial limitations imposed by the NC Legislature. The strength of the Trillium organization lies in the competency, skill and vision of its staff; the commitment of its organization to fulfill its mission to transform the lives of people in need by providing them with ready access to quality care; and its leadership's investment to bring quality clinical services for mental health, developmental disability and substance use disorders to the citizens of eastern North Carolina.

Recommendations for Future Planning

1. The data generated within the Trillium system needs to be accurate, and the Trillium staff need to sharpen their skills for determining the data they need to ask for to review; how to take a critical look at the data the system already collects, determine which data is missing and figure out how to collect and analyze new information as the system changes.
2. Trillium needs to develop a much better method for collecting data on psychiatric services in its 24 county area. Four (4) counties have telepsychiatry sites only. Five (5) counties have no face-to-face or telepsychiatry service sites located within county borders.

-
3. Care that is integrated between the physical and behavioral health systems is a key strategy quickly becoming a reality for Trillium. The Trillium network needs to educate its staff, its providers' staff and its enrollees about the importance of integration and how care becomes much more effective when medical and behavioral health works hand-in-hand to assist enrollees' recovery.
 4. Trillium should consider conducting an in-depth review of all services--medical, social service and behavioral health--to which enrollees lack access. As mentioned above, success in addressing mental health, intellectual/development disabilities or substance use disorders are frequently dependent upon factors outside the control of solely those services offered in the MHDDSA system
 5. Trillium should develop a visionary five-year plan targeting the top social determinants among its enrollees and intentionally develop strategies to intervene in those most significantly impacting the MHDDSA population within its network.
 6. A system as complex as the one Trillium manages relies upon good, clean data and the ability of its data specialists to pull information from its MIS system. The data specialists could use basic training in Trillium processes and data needs and uses; the clinical and network staff could use training on how to request data reports, particularly data reports that are tailored for a particular need or purpose. Both sides need to develop an understanding and an awareness of each other's systems and work to develop a common understanding and language to make response to special requests more efficient and cost effective. The Trillium system needs to build its capacity for translational analysis of its data (theory- or problem-driven) and presenting its data in ways both its staff, clinicians and providers can use to improve the system's services.

Emergency Department Utilization Recommendations

7. Emergency Department data presented in this report should be considered as baseline information on which to track and trend utilization and patterns of utilization in the coming years. Analysis and review of ED data, costs compared to capacity variables, and cost estimates to create services in rural areas should be considered on a routine basis to identify how to accommodate adequate services for those enrollees who have crises severe enough to require hospitalization.
8. It would be important to risk-adjust the enrollees utilizing Emergency Departments by provider and/or other relevant social and demographic characteristics before any comparisons and quality judgment can be made.
9. Data shows a high proportion of children, youth and young adults utilizing the Emergency Department. Over 42% of ED utilizers were 29 years of age or under. This could be isolating a potential area of need for additional services and resources.
10. Accessing care through the ED could be symptomatic of a lack of timely access to community-based care or continuity of care. This issue needs to be explored in more depth and monitored on a regular basis.
11. While Substance Abuse was the primary diagnosis in 12.3% of all ED visits, there were only three instances of Detox provided as a service. Every individual with a diagnosis of Substance Abuse does not require Detox, but the low utilization of Detox as a service may be worth some additional inquiry.

-
12. Moving forward, it is important for each provider to be evaluated through service-specific, benchmarked metrics, risk-adjusted for consumer volume, demographics and severity.
 13. An in-depth analysis of MHDDSAS providers, services and resources available in each county within the context of that county's demographic profile is needed to understand the cause of the variation and identify specific gaps in services and resources.
 14. An essential next step would be the development of a series of evidence-based, service-specific, benchmarked metrics that can be evaluated at the provider level. In conjunction with the Trillium clinical leadership, develop and refine performance benchmarks for the service system which are research-based and allow quality of care comparisons between service providers.
(<http://www.ihl.org/Engage/Initiatives/TripleAim/Pages/MeasuresResults.aspx>)

Opioid Crisis Recommendations

15. Use one-time SAMHSA Opioid funds to strengthen and add to the existing continuum of care to create responsive intervention, referral into outpatient, residential, long term residential and follow up services in the 24-county area.
16. Develop benchmark measurements for providers offering Medication Assisted Treatment Services (MAT) that insist on psychotherapeutic services and peer and recovery supports, in addition to the medications used to treat opioid dependencies.
17. Develop community education messages regarding the dangers and warning signs of prescription opioid abuse and dependency
18. Expand the base of peer recovery specialists who have a solid track record of recovery from opioid and prescription medications.

24-County Catchment Area - The Big Picture

Demographics

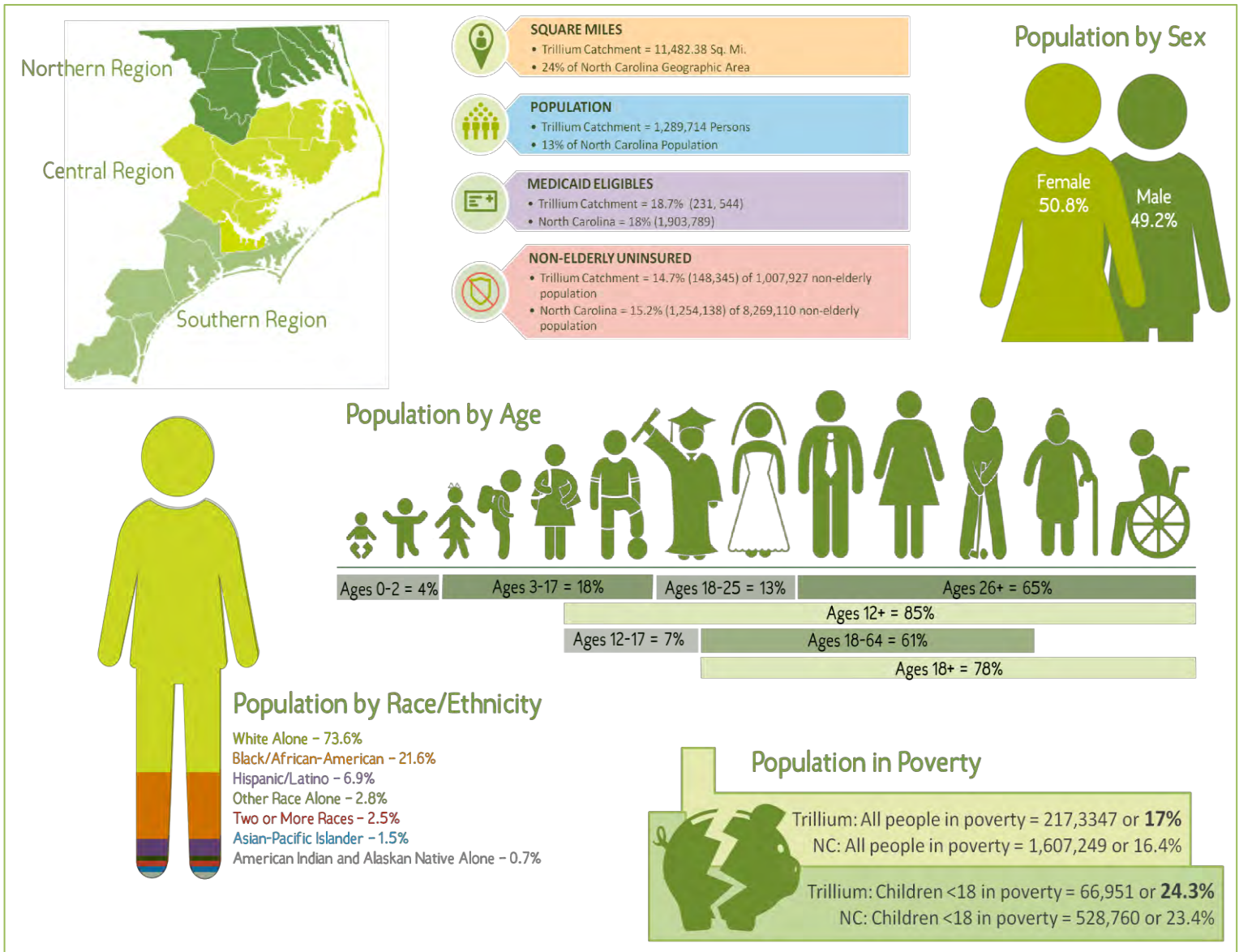


Figure 1: Trillium Demographic Infographic

Regional Snapshots

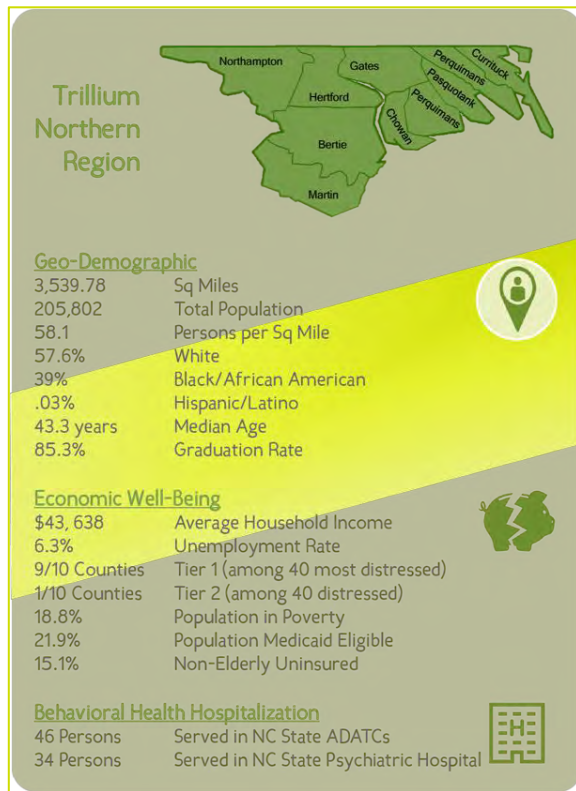


Figure 2: Trillium Northern Region Infographic

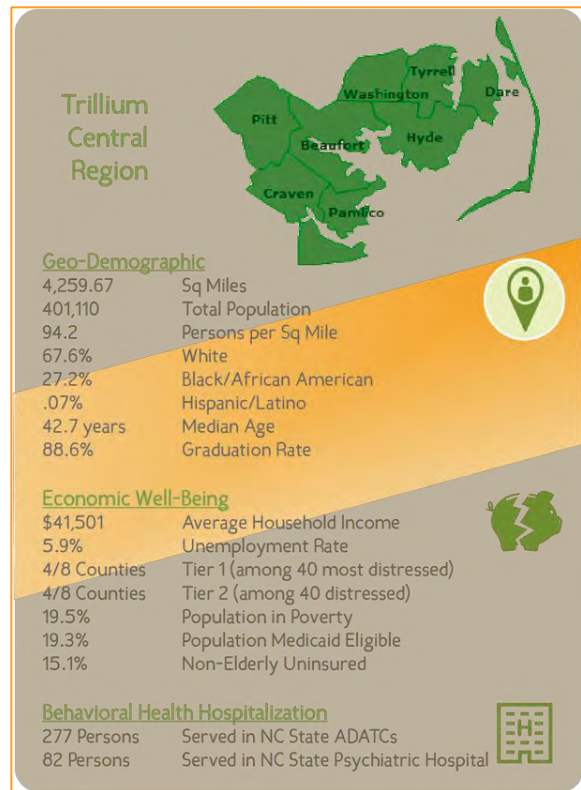


Figure 3: Trillium Central Region Infographic

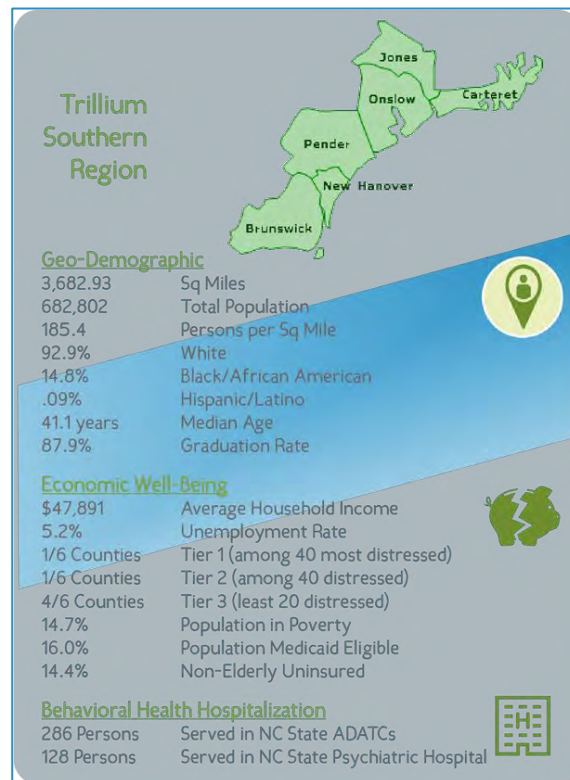


Figure 4: Trillium Southern Regional Infographic

Constituent Input & Feedback

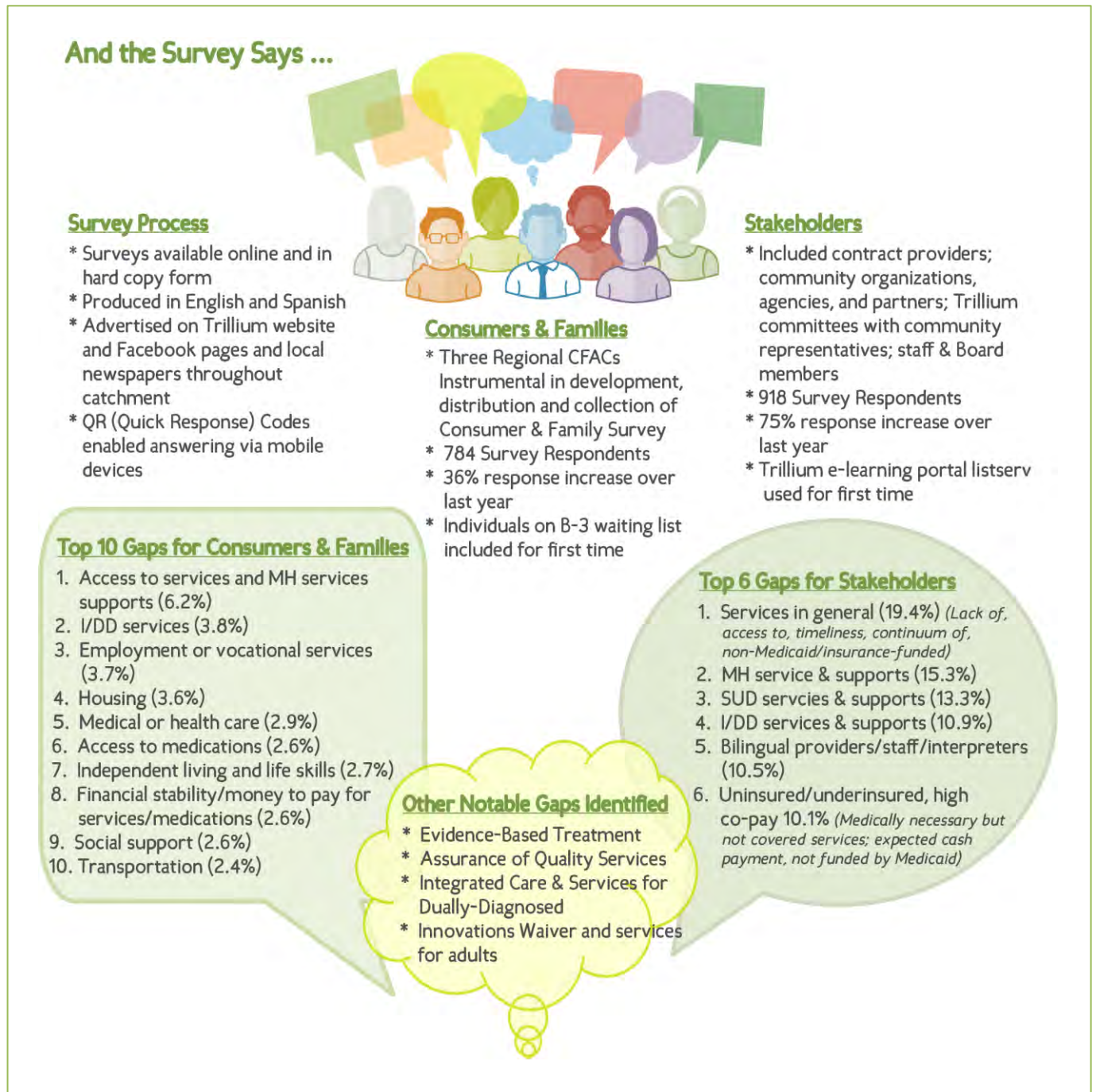


Figure 5: Constituent Input & Feedback Infographic

Emergency Department Overutilization

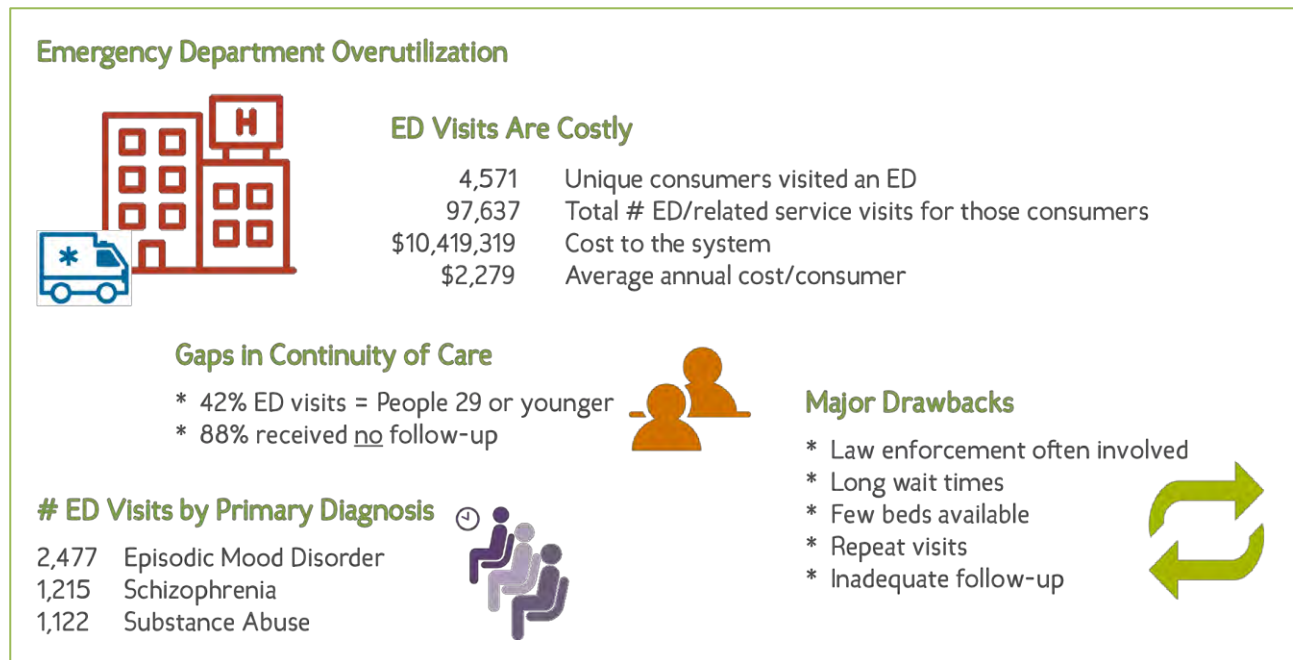


Figure 6: Emergency Department Overutilization Infographic

Opioid Crisis

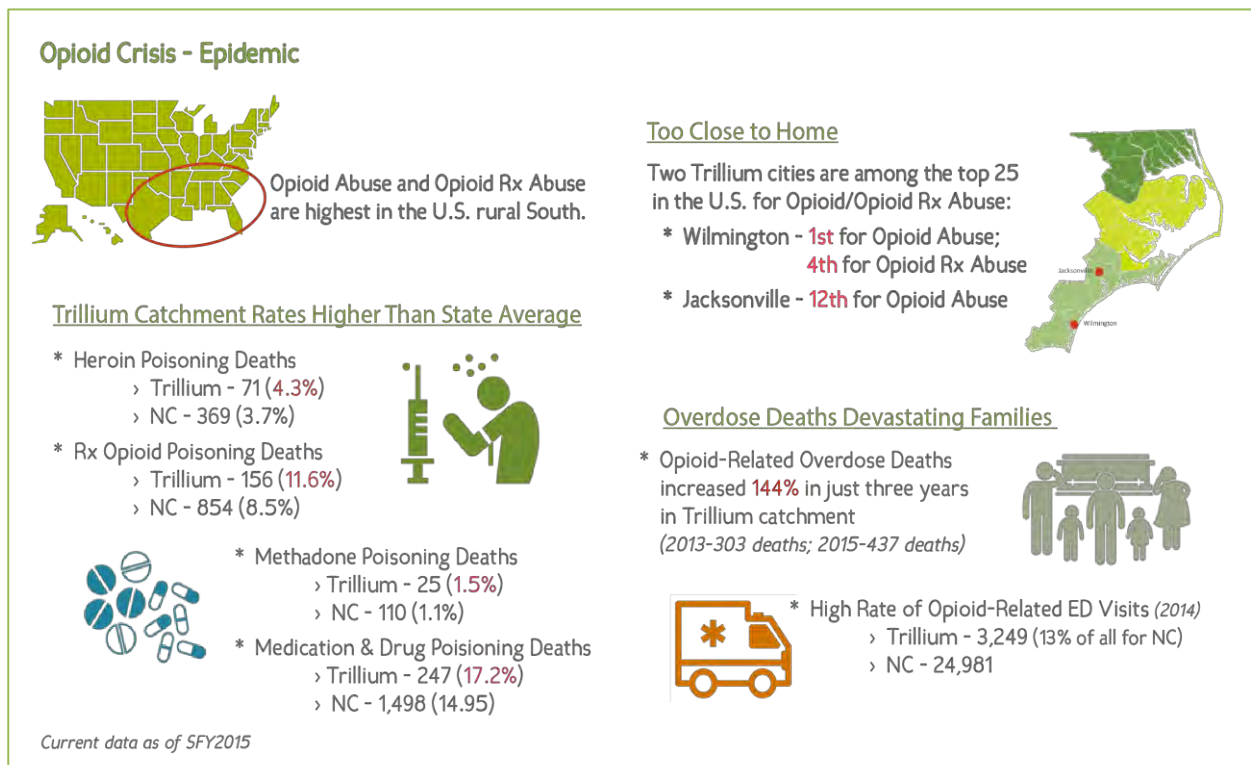


Figure 7: Opioid Crisis Infographic

Demographics, Special Populations, Significant Health Indicators

In 2016, Trillium’s 24-county population was estimated to be 1,289,714, which is 11,041 more than 2015. According to the N.C. Office of State Budget and Management, 12.7% of the population of North Carolina resides in the Trillium catchment area. The median age of the catchment is 42.6 years compared to the North Carolina median age of 38.4 years. The percentage of females (50.8%) is just slightly higher than males (49.2%). Additional demographic information is available in the Supplemental Trillium Charts and Maps section beginning on page 90.

Race

The analysis of the population by race and ethnicity based on 2016 U.S. Census projections for the Trillium catchment area (Figure 8) indicates approximately 70.5% (950,049) identified as white, 20.7% (279,041) African American, 6.6% (89,509) as Hispanic/Latino. American Indians, Alaskan Natives and Asian-Pacific Islanders make up a little more than 2 percent.

Trillium Catchment Racial/Ethnic Makeup 2016

2016	White Alone	Black or African-American	American Indian and Alaskan Native Alone	Asian - Pacific Islander	Other Race Alone	Two or More Races	Hispanic/Latino
Trillium Catchment Totals	950,049	279,041	9,454	19,823	35,506	32,049	89,509
Trillium Catchment Percentages	70.5%	20.7%	0.7%	1.5%	2.6%	2.4%	6.6%

Figure 8: Trillium Catchment Racial/Ethnic Makeup 2016

Significant findings regarding the racial makeup of the MCO’s service area include:

- The vast majority of the catchment is white at 70.5% reflecting an increase from 69.0% in 2015.
- In 2016, 6.6% of the Trillium catchment identified as Hispanic/Latino compared with 6.3% in 2015. The Hispanic/Latino numbers only represent individuals in the population who are legal residents in the U.S. Census. There is no accurate way to provide a count of undocumented or illegal residents.

Trillium Consumers Served in SFY2016 - Racial Analysis

2016	White Alone	Black or African-American	American Indian and Alaskan Native Alone	Asian - Pacific Islander	Other Race Alone	Hispanic/Latino
Consumers Served	29,519	15,310	195	191	823	702
% of Population Served	63.16%	32.75%	0.42%	0.41%	1.76%	1.50%

Figure 9: Trillium Consumers Served in SFY2016 - Racial Analysis

Looking at the racial makeup of those served by Trillium during SFY2016 (Figure 10), the following observations can be made:

- Of those served by Trillium, 63.16% identify as white and 32.75% as Black or African-American.
- Of those served by Trillium, less than 2% identify as Hispanic/Latino.
- The number of consumers served reflects the racial make-up of the Trillium catchment counties, even with a higher percentage of Black or African-Americans being served than the percentage of population.

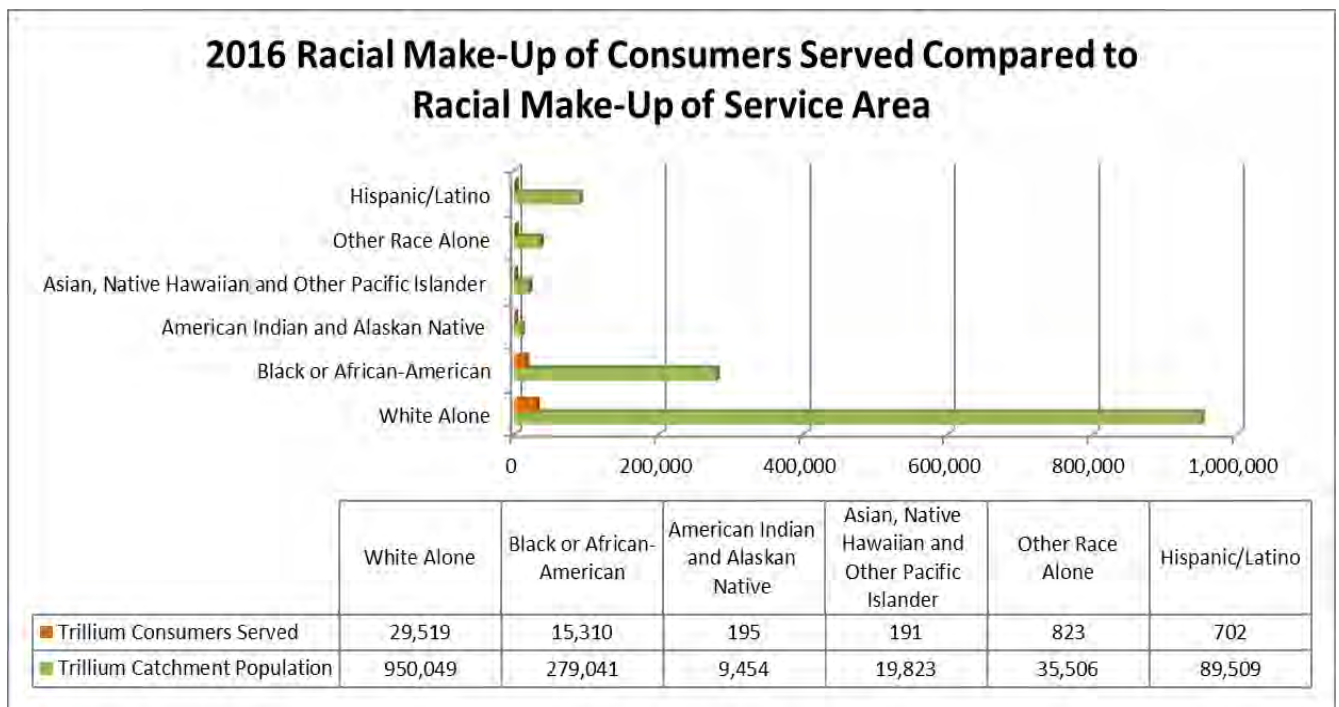
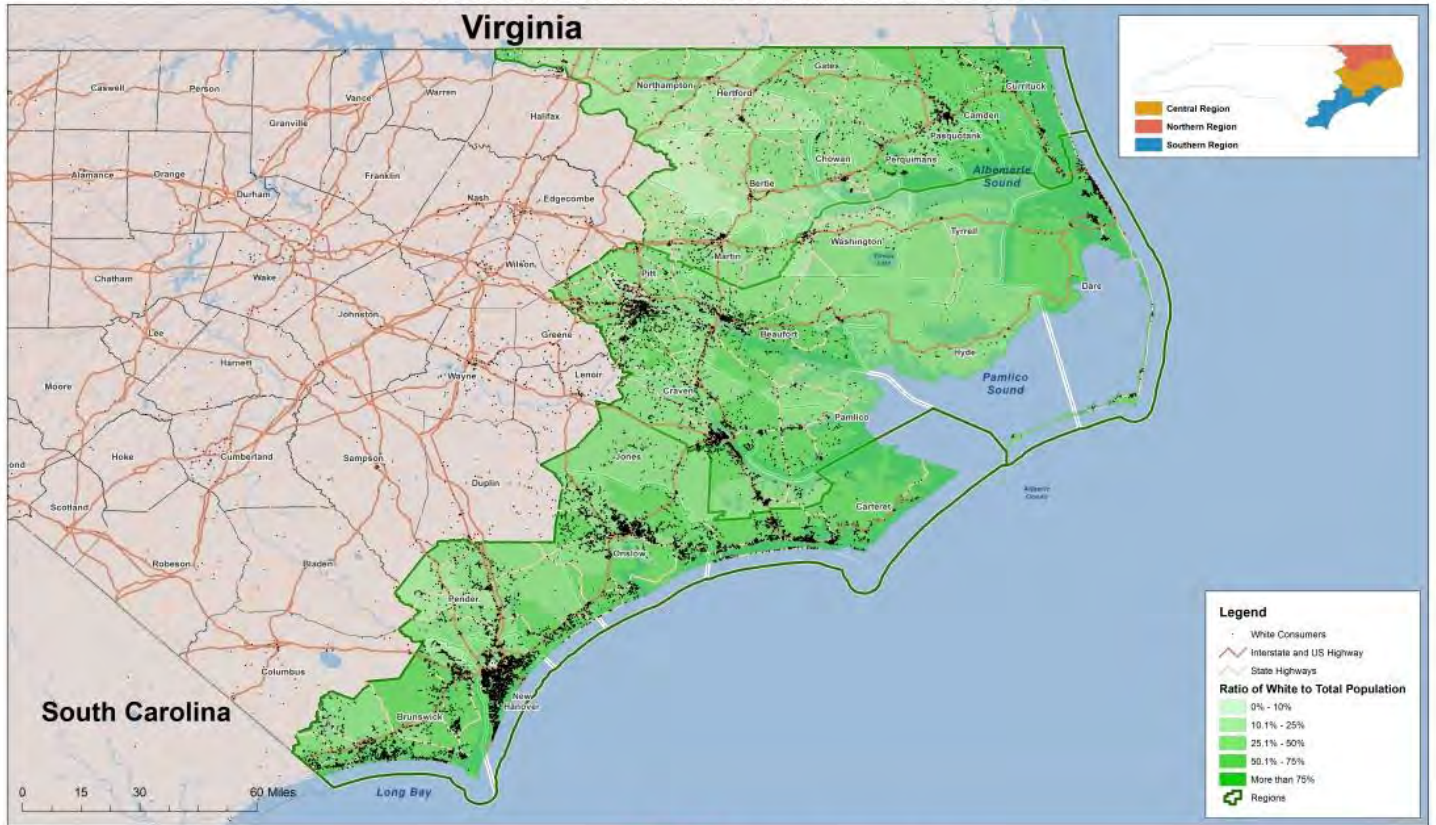


Figure 10: 2016 Racial Makeup of Consumers Served Compared to Racial Makeup of Service Area

The following map (Figure 12) reflects the ratio of the white population in the Trillium Catchment area to the white consumers receiving services. Of note, 73.7% percent (950,049) of the catchment population is white and Trillium served 63.16% (29,519).

Ratio of White Population to Total Population by Census Tract and Locations of White Consumers in Trillium Health Resources SFY16



ACT ADDICTION & Training
Consulting ASSOCIATES

Figure 11: Map-Ratio of White Population to Total Population by Census Tract and Locations of White Consumers in Trillium Health Resources SFY2016

The following map (Figure 12) reflects the ratio of the Black/African-American population in the Trillium Catchment area to the Black/African-American consumers receiving services. Of note, 21.64% (279,041) of the catchment population is Black/African-American and Trillium served 32.76% (15,310).

Ratio of Black/African American Population to Total Population by Census Tract and Locations of Black/African American Consumers in Trillium Health Resources SFY16

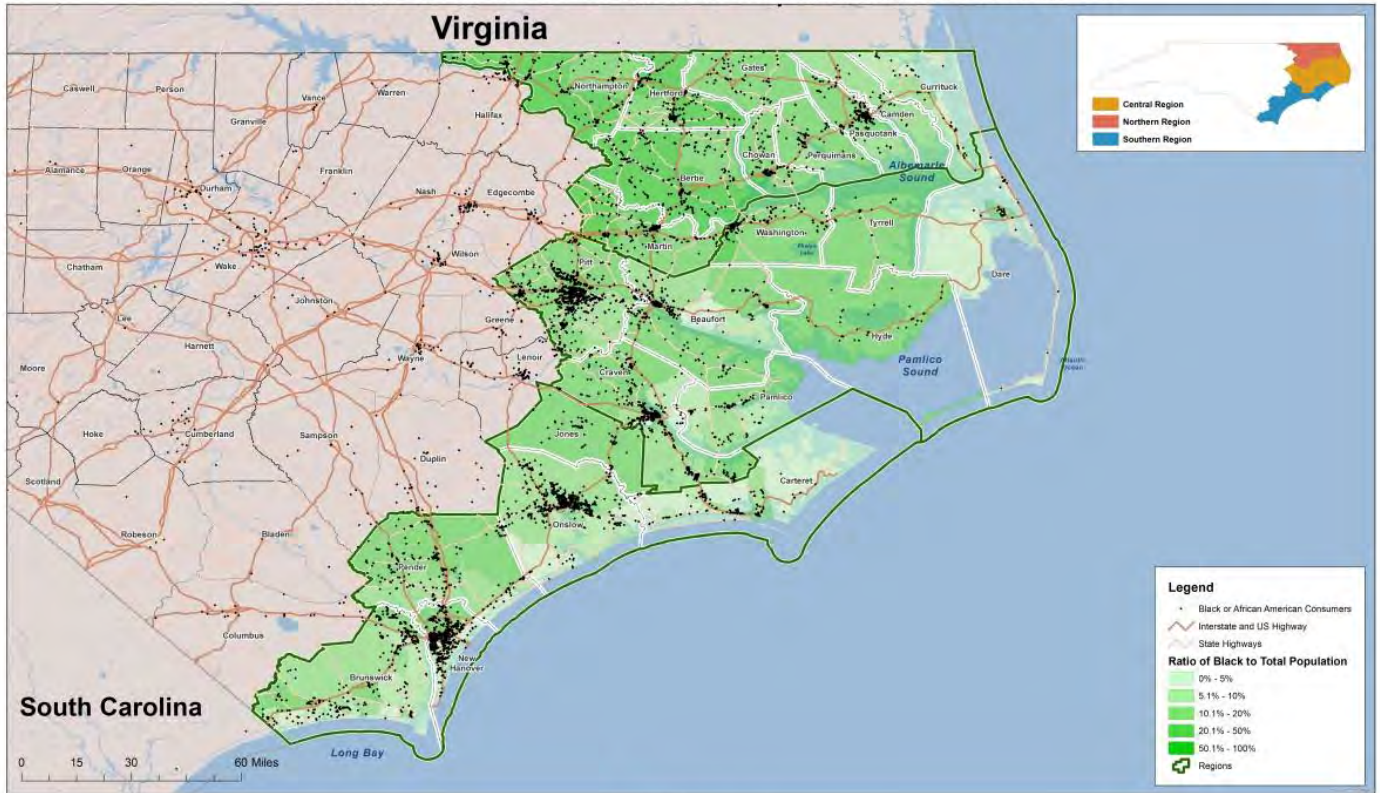


Figure 12: Map-Ratio of Black/African American Population by Census Tract and Locations of Black/African American Consumers in Trillium Health Resources SFY2016

The following map (Figure 13) reflects the ratio of the Hispanic-Latino population in the Trillium counties to the Hispanic-Latino consumers receiving services. Of note, 6.94% (89,509) of the population is Hispanic-Latino and Trillium served 1.5% (702).

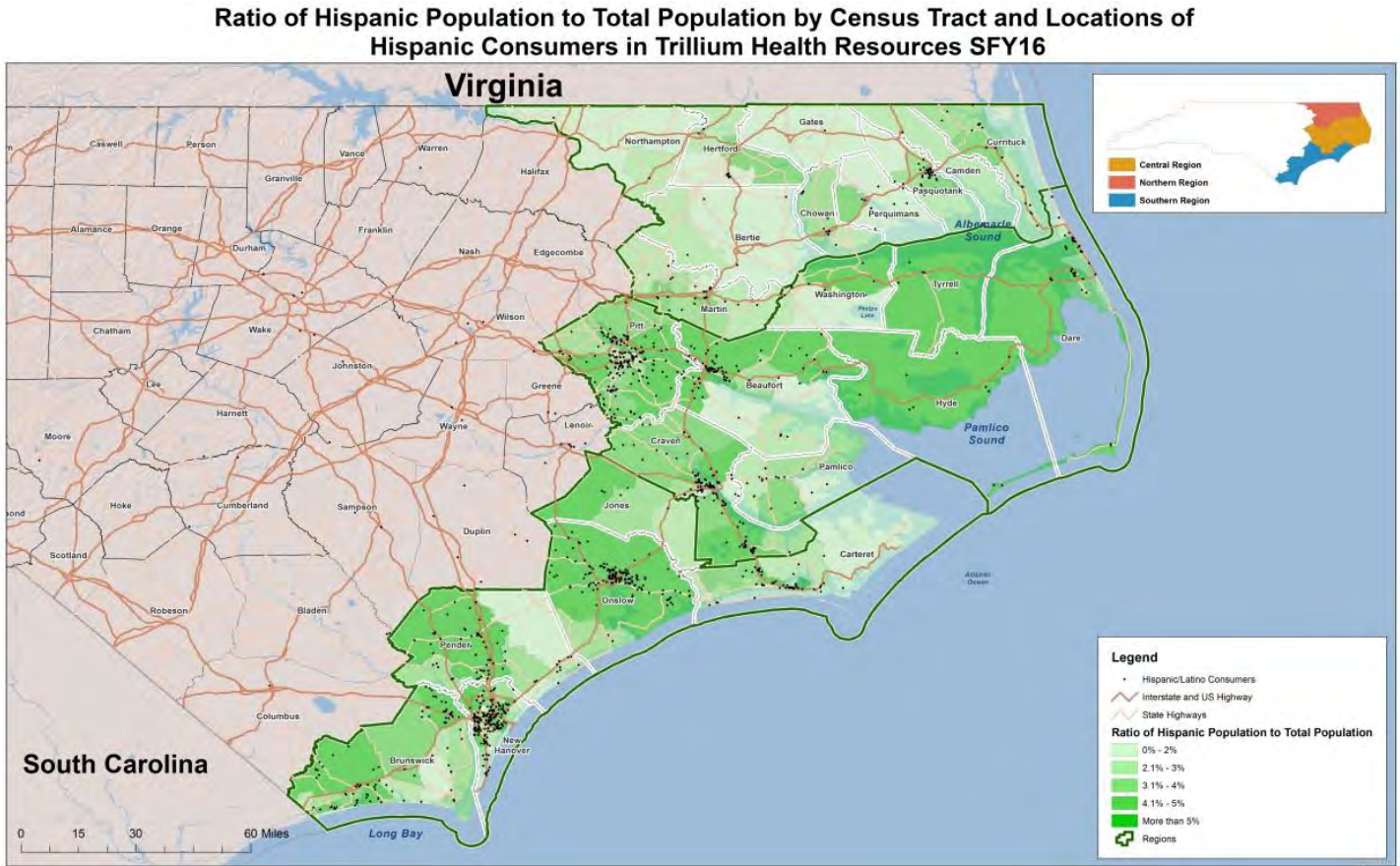


Figure 13: Map-Ratio of Hispanic Population by Census Tract and Locations of Hispanic Consumers in Trillium Health Resources SFY2016

The map below (Figure 14) reflects the ratio of other populations and locations of Other Race consumers in the Trillium counties to consumers receiving services. Of note, 0.73% (9,454) of the population is American Indian and Alaskan Native and Trillium served 0.42% (195); 1.54% (19,823) of the population is Asian and Pacific Islander and Trillium served 0.41% (191); and 2.75% (35,506) of the population identified as Other Race Alone and Trillium served 1.76% (823).

Ratio of Other Population to Total Population by Census Tract and Locations of Other Race Consumers in Trillium Health Resources SFY16

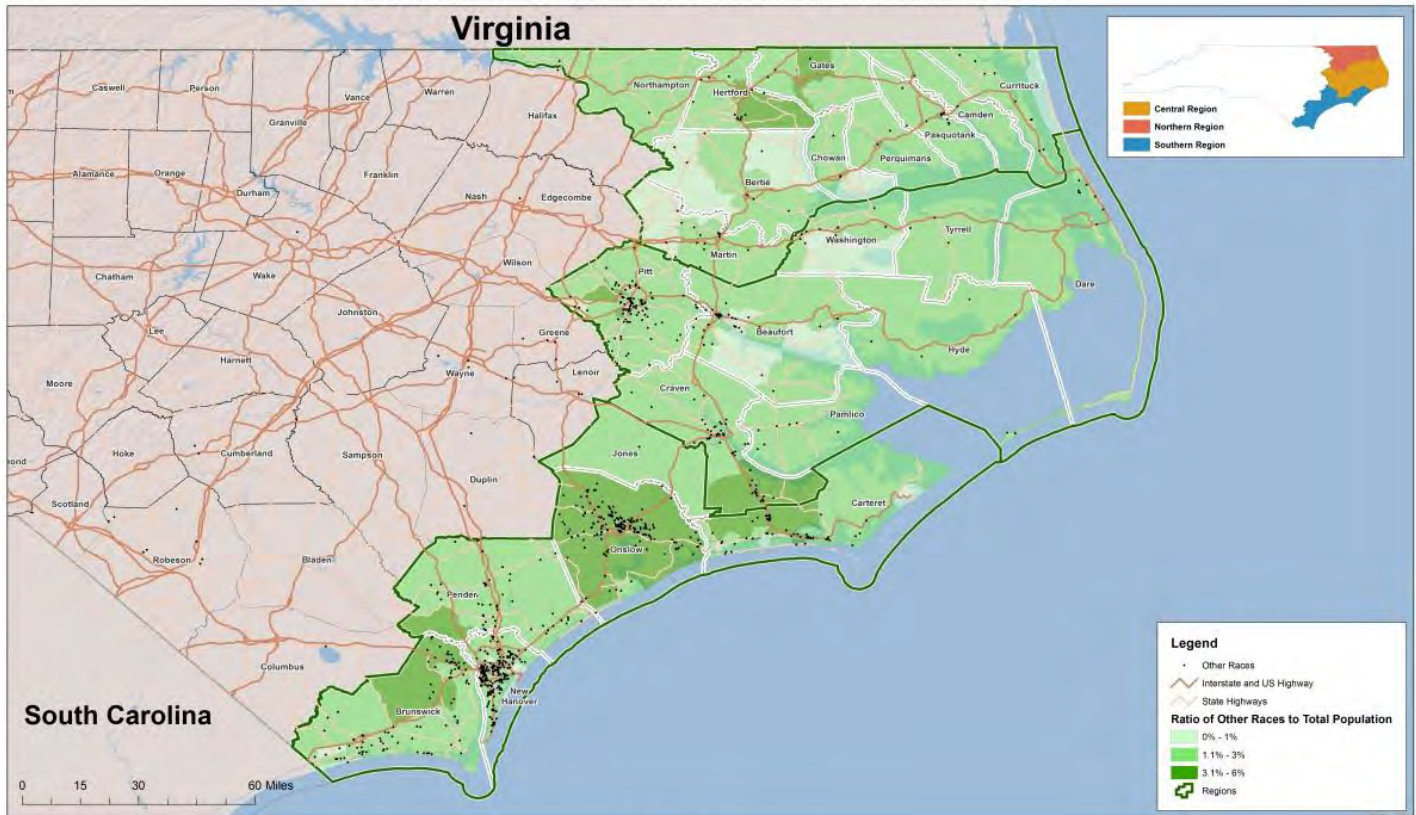
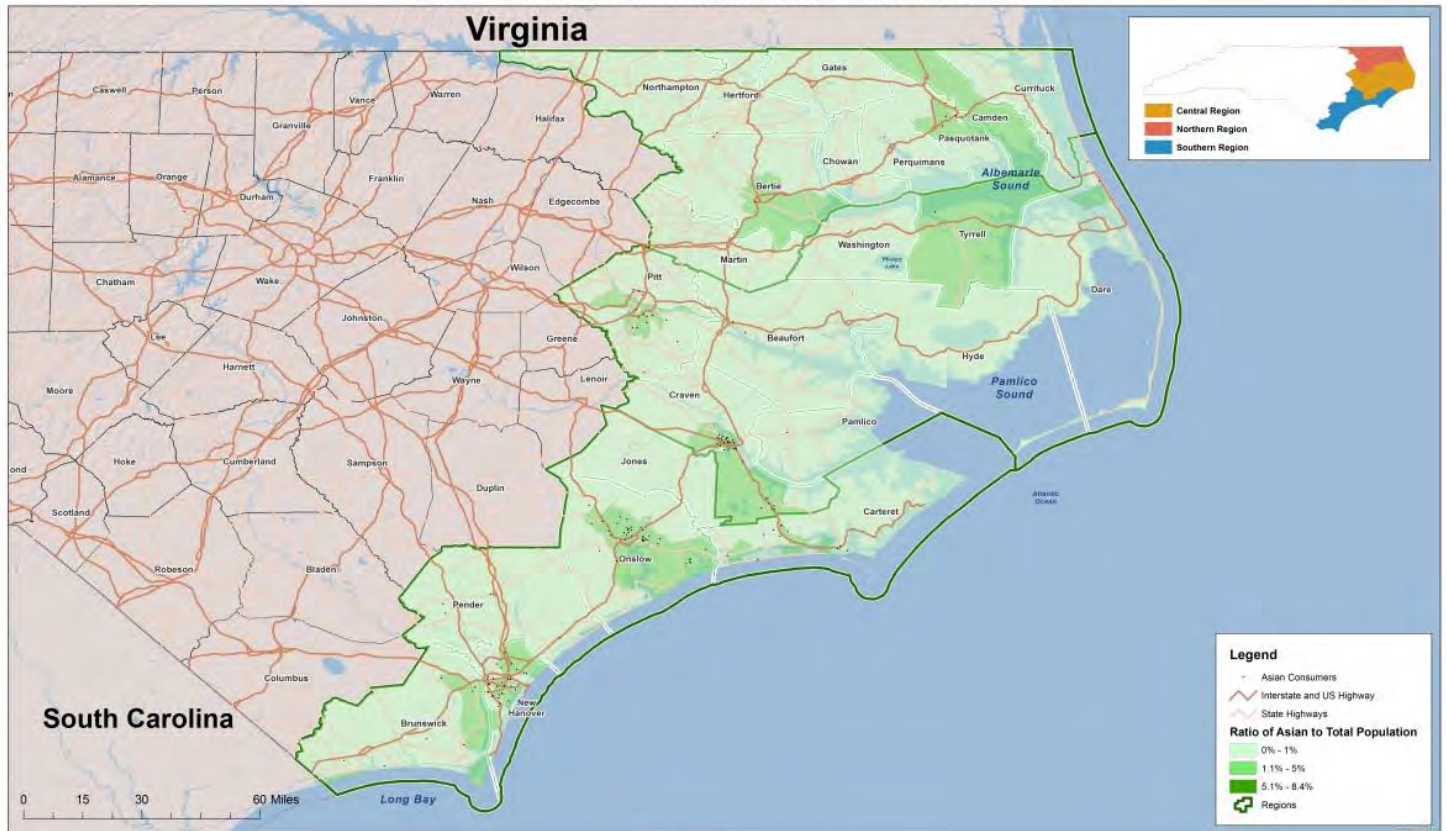


Figure 14: Map-Ratio of Other Race Population to Total Population by Census Tract and Locations of Other Race Consumers in Trillium Health Resources SFY2016

There was an increase noted in the catchment’s Asian population (Figure 15) from 17,345 in 2015 to 19,823 with the number served up from 38 (0.08%) in 2015 to 191 (0.41%) in 2016.

Ratio of Asian Population to Total Population by Census Tract and Locations of Asian Consumers in Trillium Health Resources SFY16



ACT ADDICTION & Training
CONSULTING ASSOCIATES

Figure 15: Map-Ration of Asian Population to Total Population by Census Tract and Locations of Asian Consumers in Trillium Health Resources SFY2016

Economy

The relationship between low economic status and elevated incidence and prevalence of mental illness has become increasingly apparent. Poverty and social inequality have direct and indirect effects on the social, mental and physical well-being of an individual. Poverty is associated with many long-term problems, such as poor health and increased mortality, school failure, crime and substance misuse.

The median income for North Carolina citizens in 2015 was \$47,884. Seventeen Trillium counties fall below the North Carolina level, with Bertie County the lowest at \$31,967 and Currituck County the highest at \$66,426. The unemployment rates declined both nationally and on a state-wide basis again in 2016. Twenty-

three Trillium counties did reflect a lower unemployment rate than the previous year, with Hyde County remaining the same with 7.0%. Only five counties were at or below the North Carolina rate of 5.1.

The N.C. Department of Commerce annually ranks the State's 100 counties based on economic well-being and assigns each a Tier designation. The 40 most distressed counties are designated as Tier 1, the next 40 as Tier 2 and the 20 least distressed as Tier 3. This Tier system is incorporated into various State programs to encourage economic activity in the less prosperous areas of the state.

County Tiers are calculated using four factors, including the average unemployment rate, median household income, percentage growth in population, and adjusted property tax base per capita.

The 24-county catchment includes 14 Tier 1, six Tier 2, and four Tier 3 designations in the 2016 report. The Tier 1 counties include Beaufort, Bertie, Camden, Chowan, Gates, Hertford, Hyde, Jones, Martin, Northampton, Pasquotank, Perquimans, Tyrrell, and Washington Counties. There were no changes in the Tier designations from 2015.

Fifteen of the catchment's 24 counties had a higher percentage of poverty than the North Carolina benchmark of 16.4%. The poverty rate in the United States for the same time period was 14.7%.

The combined poverty rate for all people in the Trillium catchment (17.0%) is higher than the North Carolina rate of 16.4%. Poverty rates for children from birth to age 17 (24.3%) are also higher than the state rate (23.4%).

Specific county economic information can be found in the Supplemental Trillium Charts and Maps section beginning on page 90.

Education

For too many children, the interrelationship between mental health problems and poor academic outcomes is reflected in limited educational progress from their entry into school through their secondary school years. According to a national study conducted by the Yale Child Study Center, mental health and behavior difficulties emerge early with rates of expulsion from pre-school exceeding those of children in Grades 1-12.

Dropouts

Dropouts are reported for each Local Educational Agency (LEA) and charter school in the state. A dropout is defined by State Board policy (HSP-Q-001) as "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."

The statewide dropout rate rose slightly from 2.28 per 1,000 in 2015 to 2.29 per 1,000 students in 2016. Twelve of the 24 catchment counties had a higher dropout rate than the North Carolina rate of 2.29, including Beaufort (3.05), Bertie (3.28), Brunswick (3.28), Camden (3.05), Chowan (3.63), Craven (2.47), Hertford (2.66), Hyde (3.14), Martin (3.94), Northampton (3.30), Perquimans (2.75) and Washington (2.47).

Graduation Percentages

The North Carolina Four-Year Cohort Graduation Rate reflects the percentage of ninth graders (their cohort) who graduated from high school four years later. The state's graduation percentage increased slightly from 85.6% in the 2014-2015 school year to 85.9% in the 2015-2016 school year. Sixteen of the 24 county's graduation percentages were equal or greater than the North Carolina rate, including Camden (89.5%), Carteret (87.3%), Chowan (90.5%), Currituck (91.3%), Dare (95.4%), Gates (87.1%), Hertford (85.9%), Hyde (91.3%), Jones (93.2%), Onslow (90.2%), Pamlico 90.2%), Pasquotank (86.4%), Pender (90.3%), Perquimans (90.5%), Pitt (93.0%), and Tyrrell (91.9%).

School Violence

The N.C. General Assembly requires Local Educational Agencies (LEAs) to report specified acts of crime and violence to the State Board of Education (SBE). General Statute 115C-288(g) describes the school principal's responsibility "to report certain acts to law enforcement" and lists a number of acts to be reported. The SBE has defined 16 criminal acts to be included in its annual report. Nine of the 16 are considered dangerous and violent. The acts of crime and violence include:

- 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
- Taking indecent liberties with a minor
- 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 state rate of reported crime and violent acts dropped dramatically from 12.37 per 1,000 students for the 2014-2015 school year to 6.62 per 1,000 students for the 2015-2016 school year. Only four counties had lower rates, including Bertie (1.29), Jones (0.0), Tyrrell (6.25), and Washington (0.0). The Trillium catchment average rate was 10.95 acts per 1,000 students. Additional county rates can be found in the Supplemental Trillium Charts and Maps section beginning on page 90.

Criminal Justice

Criminal justice issues among individuals with mental health and substance use conditions continue to be a growing problem. After the wide deinstitutionalization of State hospitals, jails and prisons have seen an increase in the number and percentage of individuals with mental health and substance use conditions who come through their doors.

According to a State survey by the Treatment Advocacy Center, approximately 20% of inmates in jails and 15% of inmates in State prisons have a serious mental illness. Based on the total number of inmates, this means there are approximately 356,000 inmates with serious mental illness in jails and State prisons. This is 10 times more than the approximate 35,000 individuals with serious mental illness remaining in State hospitals.

Crime Rates

The North Carolina Uniform Crime Reporting (UCR) Program is part of a nationwide, cooperative, statistical effort administered by the Federal Bureau of Investigation. While the program's primary objective is to generate a reliable set of criminal statistics for use in law enforcement administration, operation and management, its data have over the years become one of the country's leading social indicators. Since 1973, law enforcement agencies throughout North Carolina have voluntarily submitted data to the State Bureau of Investigation on specific crimes committed in their areas of jurisdiction.

Highlighted areas reflecting county activity higher than North Carolina rates include: *(the highest rated county in bold)*

- Six of 13 reporting counties had higher rates for murder than the N.C. rate of 5.8, including Beaufort (8.5), Craven (6.0), Hertford (12.6), New Hanover (7.9), **Pamlico (16.3)** and Pitt (9.3).
- Rape rates were higher than N.C. rates (19.5) in eight of 19 counties reporting with Brunswick (20.7), Camden (29.4), **Dare (45.2)**, Martin (29.5), New Hanover (34.9), Onslow (25.4), Pender (28.3) and Pitt (31.5) counties the highest.
- Assault rates were higher than the state rate of 239.2 in four of the 19 reporting counties, including Beaufort (264.8), **Martin (379.5)**, New Hanover (307.2), and Pitt (300.8).
- Arson rates continue to increase with eight counties having higher rates than the N.C. rate of 15.1, including Beaufort (19.1), Bertie (34.9), Currituck (16.0), Dare (19.8), Hertford (21.0), **Martin (50.6)**, Onslow (18.5) and Perquimans (23.0).

There are ten correctional facilities located in the Trillium Catchment Counties. As of December 31, 2016, there were 4,521 people incarcerated and 14,625 persons in the Community Corrections population according to the NC Department of Public Safety. These numbers reflect the county of residence for inmates. Community Corrections includes offenders on probation, parole or post-release supervision. Trillium has contracted with a provider in Wilmington for Jail Diversion services in New Hanover County. This is a direct service provided in county jails, detention facilities, and various environments such as court and community settings to assist persons with serious mental illness with the goal of diverting from jail to treatment. It includes telephone time and collateral contact with persons who assist the recipient in meeting their goals. The service staff evaluates an inmate for eligibility to participate in the jail diversion service; and negotiates with the district attorney, judge and defense attorney for the inmate's release from jail. When a release plan is agreed upon by all relevant parties, the jail diversion staff arrange for the inmate to receive the services and supports needed for success in the community.

Domestic Violence

North Carolina General Statute §50B-1 defines domestic violence as attempting to cause bodily injury or placing a victim or a member of the victim's family in fear of serious bodily injury or continued harassment resulting in significant emotional distress. The definition includes stalking, rape and sexual offenses.

The North Carolina rate of Domestic Violence decreased from 57.0 in 2015 to 48.4 in 2016. Seventeen counties saw a decrease in their rate from 2015, but 13 of the 24 Trillium counties still reported rates higher than the State rate, including Bertie (196.5), Camden (70.8), Chowan (75.7), Dare (66.5), Gates (82.2), Hertford (94.7), **Hyde (233.4)**, Jones (93.9), New Hanover (61.7), Northampton (95.5), Pamlico (55.6), Pasquotank (95.4), and Perquimans (69.9).

Juvenile Justice

In North Carolina, if a youth is 15 years old or younger and commits a crime, his or her case will be brought to the attention of the juvenile justice staff within the N.C. Department of Public Safety, Division of Adult Correction and Juvenile Justice. Court counselors determine whether the complaint is serious enough to warrant court action. If court referral is not necessary, juveniles obtain assistance from community resources. Within two to four weeks, the court counselor must decide whether or not to approve the complaint for court action. Serious felonies such as murder, rape and burglary must be approved for court. If it is found there is no need for court action or referral to a community resource, the juvenile's case may be closed. If the court counselor believes the youth may benefit from a community resource, a diversion plan or contract may be created with the youth and his or her parents. Court counselors also work with undisciplined juveniles who are placed under protective supervision and with delinquent juveniles who are placed under court supervision. In each case, a juvenile's need for treatment and service is identified and local resources are mobilized.

There were 3,479 juvenile complaints received from the 24 Trillium catchment counties in 2015. The Undisciplined Rate (offenses that are not crimes if committed by adults, i.e., truancy, running away from home, ungovernable) for ages six to 17 in the catchment counties was 1.63 per 1,000 youth, higher than the N.C. rate of 1.49 per 1,000 youth. The Delinquency Rate (juvenile crime rate) or rate of delinquent offenses per 1,000 youth was 23.24, higher than the state rate of 20.78 per 1,000 youth.

Juvenile Facility Operations manage two types of secure commitment centers for youth in North Carolina: juvenile detention centers and youth development centers. There were 284 youth from Trillium's catchment area placed in detention, with 32 youth committed to a youth development center for a period of at least six months in 2016. There were 3,745 youth served in programs supported by the Juvenile Crime Prevention Councils (JCPC) and 28 served in community-based and residential programs, while 64 individuals received therapeutic/skill building programs in group homes. Trillium contracts with four providers to offer Multisystemic Therapy (MST) services to youth and families across the catchment area. They also contract with a provider in Pitt County who administers Comprehensive Assessments to juveniles admitted to the Pitt County Youth Detention Center, in addition to a wide array of office and community-based services (Intensive In-Home Services, Outpatient Therapy, Medication Management, etc.) Trillium also contracts with a provider in New Hanover, Pender, and Brunswick Counties for a similar array of services. Specific adult and juvenile justice information for each of the 24 counties can be found in the Supplemental Trillium Charts and Maps section beginning on page 90.

Special Populations

Traumatic Brain Injury

Traumatic Brain Injury, often referred to as TBI, is most often an acute event similar to other injuries. That is where the similarity between traumatic brain injury and other injuries ends. One moment the person is normal and the next moment life has abruptly changed. In most other aspects, a traumatic brain injury is very different. Since our brain defines who we are, the consequences of a brain injury can affect all aspects of our lives, including our personality. A brain injury is different from a broken limb or punctured lung. An injury

in these areas limits the use of a specific part of your body, but your personality and mental abilities remain unchanged. Most often, these body structures heal and regain their previous function.

Brain injuries do not heal like other injuries. Recovery is a functional recovery, based on mechanisms that remain uncertain. No two brain injuries are alike and the consequences of two similar injuries may be very different. Symptoms may appear right away or may not be present for days or weeks after the injury.

In North Carolina, traumatic brain injury is considered a developmental disability and Trillium Health Resources works to connect those in need to services. In SFY2016, 13 distinct individuals were served throughout the 24 counties. Those served ranged from 35 to 64 years of age. The most common causes of TBI were falls, motor vehicle crash, and bicycle/motorcycle incidents. There were no veteran TBIs noted.

Veterans

The combined 24 counties of Trillium Health Resources saw an increase in veterans from 132,666 in 2015 to 134,034 in 2016. Onslow County has the highest population within the catchment with 31,458 persons, followed by New Hanover County (17,564), Craven County (14,955), and Brunswick County (13,759).

Trillium works to connect veterans to housing and homelessness programs, domestic violence support and employment opportunities. Staff now offer Mental Health First Aid–Veterans, focusing on the unique experiences and needs of the military, veteran and service family populations. Trillium also provides opportunities in local communities throughout the 24-county area to enlist mental health professionals to learn about and become part of the Give an Hour network. This program is designed to offer free mental health and counseling support to post 9/11 military veterans and their families through volunteer clinical time.

Sexually Aggressive

As of December 31, 2016 there were 2,088 persons living in the 24 Trillium catchment counties convicted of a sexual offense or offense against a minor. This number does not include those incarcerated or out of the state. This is an approximate number as the accuracy of these statistics may be impacted by certain limitations, such as delays or errors in processing information or delay or errors in the system's operation. Trillium contracts with Alexander Youth Network to provide Multisystemic Therapy for Youth with Problem Sexual Behaviors (MST-PSB), a clinical adaptation of MST that has been specifically designed and developed to treat youth and their families for problematic sexual behavior. For a county-by-county breakdown, please see the Criminal Justice information found in the Supplemental Trillium Charts and Maps section beginning on page 90.

Older Adults

Adults age 65 and older represent an ever-growing portion of the United States population. This is also reflected in both North Carolina and Trillium's population figures. Trillium saw an increase of 7,051 persons or 3.2% in the 24 counties they serve between 2015 and 2016. Over the past 3 years, the population for those ages 65 and older has increased 6.46% in the Trillium catchment area.

Trillium Population 65 Years and Older 3-Year Trend

County	2014 Population Ages 65+	2015 Population Ages 65+	2016 Population Ages 65+	3-Year Trend
Beaufort	10,308	10,692	10,973	+ 665
Bertie	3,743	3,811	3,859	+ 116
Brunswick	31,429	33,307	35,087	+ 3,658
Camden	1,526	1,575	1,636	+ 110
Carteret	15,258	15,760	16,200	+ 942
Chowan	3,238	3,300	3,348	+ 110
Craven	17,144	17,481	17,783	+ 639
Currituck	3,629	3,791	3,982	+ 353
Dare	6,515	6,787	7,121	+ 606
Gates	2,045	2,125	2,168	+ 123
Hertford	4,268	4,340	4,441	+ 173
Hyde	993	1,008	1,049	+ 56
Jones	2,025	2,036	2,070	+ 45
Martin	4,757	4,874	4,956	+ 199
New Hanover	34,141	35,306	36,663	+ 2,522
Northampton	4,590	4,688	4,724	+ 134
Onslow	16,584	16,908	17,464	+ 880
Pamlico	3,379	3,508	3,606	+ 227
Pasquotank	5,736	5,920	6,067	+ 331
Pender	9,561	10,122	10,344	+ 783
Perquimans	3,479	3,474	3,532	+ 53
Pitt	19,906	20,649	21,376	+ 1,470
Tyrrell	774	794	796	+ 22
Washington	2,648	2,712	2,774	+ 126
Trillium Total	207,676	214,968	222,019	+ 14,343
North Carolina Total	1,454,008	1,507,231	1,558,037	+ 104,029

Source: N.C. Office of State Budget and Management. Accessed 6/5/17.

Figure 16: Trillium Population 65 Years and Older 3-Year Trend

Adults 65 and older make up 17.2% of the population in the 24 Trillium counties. Each region is similar in their age distribution with the Northern Region at 18.8%, Central Region 16.3%, and Southern Region reflecting 17.3% of those 65 and older.

The Older Adult and Behavioral Health Issues

The Centers for Disease Control and Prevention (CDC) estimates that 20% of people age 65 years or older experience some type of mental health concern. The most common conditions include anxiety, severe cognitive impairment, and mood disorders such as depression or bipolar disorder. Mental health issues are often implicated as a factor in cases of suicide. Older men have the highest suicide rate of any age group.

Men aged 85 years or older have a suicide rate of 45.23 per 100,000 compared to an overall rate of 11.01 per 100,000 for all ages.

The U.S. Department of Health and Human Services recently reported many physical health conditions may accompany a behavioral health diagnosis in the older adult population. Many of these physical health conditions prove to be very acute and limit the mobility of those affected. Clinically significant depression in late life has been shown to run concurrently with physical health conditions, such as ischemic heart disease, diabetes, stroke, cancer, chronic lung disease, arthritis, Alzheimer's disease, and Parkinson's disease.

In addition to the increasing rate of mental health issues among the older adult population, substance abuse rates for this population are also on the rise. Illicit drug use generally declines as individuals move through young adulthood and into middle adulthood but research suggests that substance use is an emerging public health issue among the nation's older adults. Illicit drug use among adults aged 50 or older is projected to increase from 2.2 percent to 3.1 percent between 2001 and 2020. For example, the number of older Americans with SUD is expected to rise from 2.8 million in 2002–2006 to 5.7 million by 2020. The emergence of SUD as a public health concern among older adults reflects, in part, the relatively higher drug use rates of the baby boom generation (people born between 1946 and 1964) compared with previous generations. Thus, there is a cohort of older adults who may experience the negative consequences of substance use, including physical and mental health issues, social and family problems, involvement with the criminal justice system, and death from drug overdose. Older adults are more likely than people in other age groups to have chronic health conditions and to take prescription medication, which may further complicate adverse effects of substance use.

According to the Substance Abuse and Mental Health Services Administration (SAMHSA) and the National Council for Older Adults (NCOA), one in five older adults may be affected by combined difficulties with alcohol and medication misuse. This results in substance abuse, particularly of alcohol and prescription drugs, among adults aged 60 and older as one of the fastest growing health problems facing the country. Diagnosis may be difficult because symptoms of substance abuse in older individuals sometimes mimic symptoms of other medical and behavioral disorders common among this population, such as diabetes, dementia, and depression. The reality is that misuse and abuse of alcohol and other drugs take a greater toll on affected older adults than on younger adults. In addition to the psychosocial issues that are unique to older adults, aging also ushers in biomedical changes that influence the effects that alcohol and drugs have on the body.

In older adults, these issues may be disregarded as frailty, or it may be viewed as an inevitable result of life changes, chronic illness, and disability. Recognizing the signs and seeking a health practitioner is the first step to getting treatment, which can make a real difference in someone's quality of life.

Older Adults Receiving Services

During 2016, Trillium served a total of 1,486 consumers aged 65 and older, including 1,277 Medicaid and 209 State-Funded persons. This represents about 4.5% of the total population served by Trillium during this year.

Adults Age 65+ Served by Trillium - 2016

County	Population Ages 65+	Number of Persons 65+ Served	# of Medicaid Served	# of Non-Medicaid Served
Beaufort	10,973	87	70	17
Bertie	3,859	45	39	6
Brunswick	35,087	88	68	20
Camden	1,636	3	3	0
Carteret	16,200	42	34	8
Chowan	3,348	29	27	2
Craven	17,783	104	85	19
Currituck	3,982	10	8	2
Dare	7,121	30	21	9
Gates	2,168	8	5	3
Hertford	4,441	55	47	8
Hyde	1,049	15	14	1
Jones	2,070	15	14	1
Martin	4,956	42	42	0
New Hanover	36,663	269	231	38
Northampton	4,724	34	32	2
Onslow	17,464	118	107	11
Pamlico	3,606	13	9	4
Pasquotank	6,067	49	34	15
Pender	10,344	75	70	5
Perquimans	3,532	15	13	2
Pitt	21,376	172	152	20
Tyrrell	796	8	7	1
Washington	2,774	37	29	8
Out of Catchment		123	116	7
Trillium Catchment Total	222,019	1,486	1,277	209

Figure 17: Adults Age 65+ Served by Trillium - 2016

The distribution of services by diagnosis for those 65 years and older included Mental Health (1,265), Intellectual and Developmental Disabilities (196) and Substance Use Disorder (138). The chart below (Figure 18) reflects the types of services utilized.

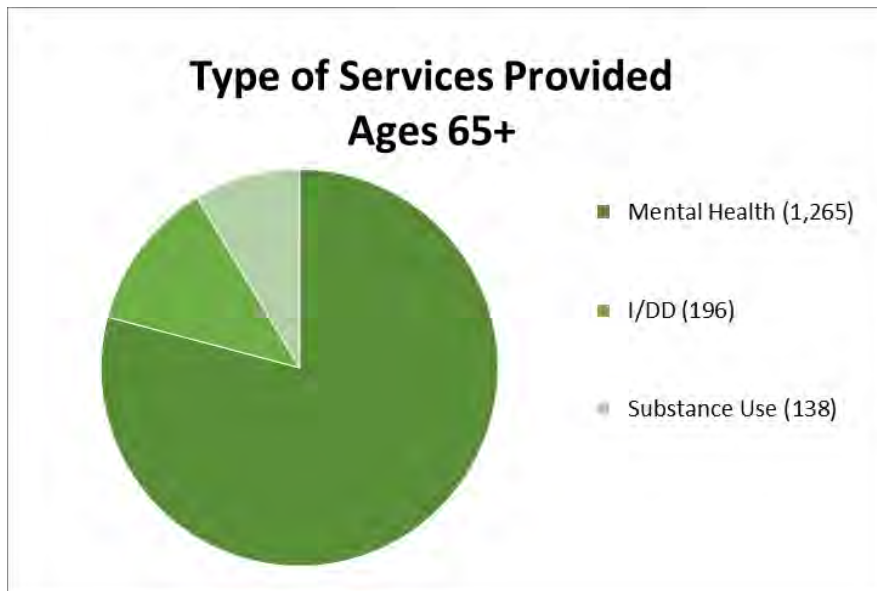


Figure 18: Type of Services Provided Ages 65+

From the perspective of healthcare payment utilization and payor sources, we tend to think of older adults being covered by the Medicare Program. However, as noted in the chart below (Figure 19), there are a number of older adults that are eligible and receive both Medicaid and Medicare benefits – thus the importance to Trillium as a managed care organization.

Adults Age 65+ Receiving Medicaid Benefits - June 30, 2016

County	Ages 65+ Medicaid	MQB-Q* Comprehensive Medicare Savings Program	MQB-B* Limited Medicare Savings Program	MQB-E* Limited Medicare Savings Program (Capped)	TOTAL
Beaufort	926	43	309	168	1,446
Bertie	666	44	246	114	1,070
Brunswick	1,213	89	483	287	2,072
Camden	72	12	24	14	122
Carteret	766	100	330	189	1,385
Chowan	357	17	93	42	509
Craven	1,160	88	372	201	1,821
Currituck	149	13	53	44	259
Dare	219	22	100	61	402
Gates	182	13	54	22	271
Hertford	726	33	195	111	1,065
Hyde	167	5	45	24	241

County	Ages 65+ Medicaid	MQB-Q* Comprehensive Medicare Savings Program	MQB-B* Limited Medicare Savings Program	MQB-E* Limited Medicare Savings Program (Capped)	TOTAL
Jones	286	4	79	38	407
Martin	612	41	178	68	899
New Hanover	2,012	134	715	405	3,266
Northampton	678	25	196	83	982
Onslow	1,351	107	415	249	2,122
Pamlico	231	7	66	23	327
Pasquotank	592	48	194	95	929
Pender	773	49	301	158	1,281
Perquimans	226	18	84	68	396
Pitt	2,232	117	633	330	3,312
Tyrrell	118	6	34	15	173
Washington	321	23	80	43	467
Trillium Catchment Total	16,035	1,058	5,279	2,852	25,224
North Carolina Total	124,257	8,123	43,619	23,438	199,437

Source: N.C. DMA Medicaid Enrollment Reports - June 30, 2016. Accessed 9/16/16.

* "Dual eligible beneficiaries" is the general term that describes individuals who are enrolled in both Medicare and Medicaid. The term includes individuals who are enrolled in Medicare Part A and/or Part B and receive full Medicaid benefits and/or assistance with Medicare premiums or cost sharing through one of these "Medicare Savings Program" (MSP) categories. Medicare Savings Programs are special Medicaid programs for people receiving Medicare who have limited income and resources. They are free programs which assist in paying Medicare premiums and cost sharing amounts.

Based on income and resources, someone may be able to receive both a Medicare Savings Program and Medicaid. Receiving both gives additional coverage for services not covered by Medicare.

Figure 19: Adults Age 65+ Receiving Medicaid Benefits - June 30, 2016

Significant Health Indicators

Integrated Care

A clear distinction is often made between 'mind' and 'body'. But when considering mental health and physical health, the two should not be thought of as separate. Poor physical health can lead to an increased risk of developing mental health problems. Similarly, poor mental health can negatively impact physical health, leading to an increased risk of some conditions.

According to the Agency for Healthcare Research and Quality, individuals with mood disorders or schizophrenia and other psychotic disorders represented the top two most common diagnoses for rehospitalizations among Medicaid beneficiaries. Individuals with mental health needs often have comorbid physical health conditions that require medical attention; more than half of the Medicaid enrollees in the top five percent of expenditures who had asthma or diabetes also had a behavioral health condition. Furthermore, individuals with comorbid physical and behavioral health conditions often have worse health

outcomes. Although individuals with mental health conditions have some of the greatest healthcare needs (including complex polypharmacy regimens), the healthcare system is often too fragmented to effectively and efficiently serve them. Behavioral health needs often go undiagnosed or untreated in the primary care setting, and primary care physicians also have a more difficult time referring their patients to mental health services compared to other specialty services.

Given the prevalence of mental health conditions in the Medicaid population, the high level of Medicaid spending on behavioral healthcare, and the adverse impact uncoordinated care can have on people’s health, initiatives to integrate physical and mental health are a top priority for Trillium and other Medicaid agencies. Integrated care approaches have been shown to improve health outcomes for individuals with behavioral health conditions. Effective integrated care can also enhance recipient engagement and activation, which has been shown to be associated with increased treatment adherence, improved recipient satisfaction, better quality of life, and increased mental and physical health.

The purpose of collecting physical health data is to provide information about health status, health risks and health outcomes in order to support planning, identifying priorities, targeting resources, and tracking progress toward strategic objectives.

The health indicators chosen in the following chart (Figure 20) reflect both the chronic and acute health of the counties of the Trillium Health Resources MCO. Additional and detailed information is provided in the Supplemental Trillium Charts and Maps section beginning on page 90.

Trillium Counties at or Above State Rates for Notable Health Indicators

Notable Health Indicators	At or Above State Rates	
Infant Mortality Rate	Beaufort	Bertie
	Chowan	Gates
	Hertford	Hyde
	Onslow	Pamlico
	Pasquotank	Pender
	Pitt	Washington
Teen Pregnancy Rate	Beaufort	Bertie
	Brunswick	Craven
	Hertford	Martin
	Northampton	Onslow
Chlamydia Rate	Bertie	Chowan
	Craven	Hertford
	Northampton	Onslow
	Pasquotank	Pitt
	Washington	
Gonorrhea Rate	Bertie	Hertford
	Jones	New Hanover
	Pitt	
Syphilis Rate	Martin	Pitt
	Washington	

Notable Health Indicators	At or Above State Rates	
HIV Cases	Bertie	Martin
	Northampton	Perquimans
	Pitt	
AIDS Cases	Beaufort	Bertie
	Camden	Hertford
	Martin	Northampton
Smoking Rate	Bertie	Chowan
	Gates	Hertford
	Hyde	Jones
	Martin	Northampton
	Onslow	Pasquotank
	Pender	Perquimans
	Pitt	Tyrrell
	Washington	
	Mortality Rate	Beaufort
Brunswick		Carteret
Chowan		Craven
Gates		Hertford
Hyde		Jones
Martin		Northampton
Pamlico		Pasquotank
Pender		Perquimans
Tyrrell		Washington
Unintentional Injury Rate	Beaufort	Camden
	Carteret	Chowan
	Craven	Dare
	Gates	Hyde
	Jones	Martin
	New Hanover	Pamlico
	Pender	Perquimans
	Tyrrell	Washington
	Suicide Rate	Beaufort
Camden		Carteret
Chowan		Craven
Currituck		Dare
Martin		Onslow
Pamlico		Pasquotank
Pender		Perquimans
Tyrrell		

Figure 20: Trillium Counties at or Above State Rates for Notable Health Indicators

Health Rankings

The University of Wisconsin Population Health Institute in collaboration with the Robert Wood Johnson Foundation publishes the County Health Rankings data annually. The County Health Rankings measure the health of nearly all counties in the nation and rank them within states. The rankings are compiled using county-level measures from a variety of national and state data sources. These measures are standardized and combined using scientifically-informed weights.

Trillium Catchment Health Outcome Rankings by County

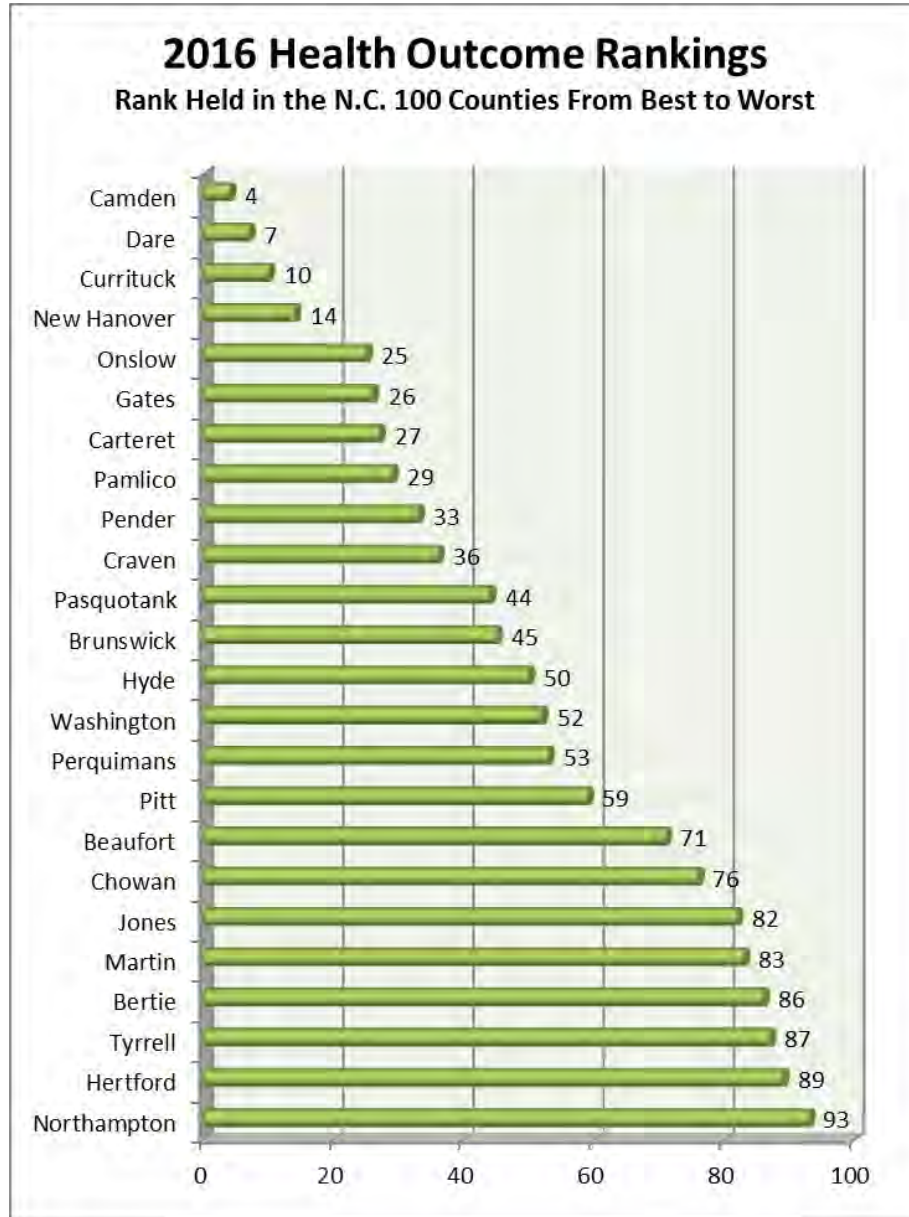


Figure 21: Trillium Catchment Health Outcome Rankings by County

Of the 24 Trillium catchment counties, 13 were in the top 50 of North Carolina’s 100 counties. Eleven counties are ranked in the bottom 50, with Northampton remaining in the bottom 10% of all North Carolina Counties. Camden County held the highest ranking at fourth among 100 counties and three catchment counties were in the top ten (Camden, Dare and Currituck). Of note, two of these counties are in Trillium's Northern Region and one (Dare) is in the Central Region. Additional information and comparisons to last year are available in the Supplemental Trillium Charts and Maps section beginning on page 90.

Performance, Prevalence and Funding

The LME-MCO must meet the state and federal requirements pertaining to issues of consumer access, choice and travel distance to services it provides. Therefore, the ability to predict the number of individuals in a given area who will need the services measured against the reality of those who have been served is equally important to the LME-MCO for effective funding, planning and delivery of services. The detailed calculations used to determine the prevalence for MH, I/DD and SUD conditions in Trillium's 24 counties can be found in the Supplemental Trillium Charts & Maps section beginning on page 90.

When estimating the need of behavioral health and intellectual/developmental disability conditions, it is important to understand the concepts of prevalence, penetration and any resulting gaps in order to conduct effective strategic planning for the Trillium system. The charts below illustrate those concepts for the 24-county Trillium catchment area. Because the LME-MCO is only responsible for serving the behavioral health Medicaid consumers and those consumers who are indigent or uninsured, prevalence rates for those conditions have built-in calculations taking the catchment area's Medicaid and indigent/uninsured numbers into account. The Prevalence & Penetration chart below lifts those numbers from the calculations and illustrates the total number of people in the population affected (**Prevalence Estimate**), the number served (**Penetration**), the number of those affected who are covered by Medicaid insurance and those affected who are uninsured, subtracting those served by funding source. The difference presents the potential **gap** between those receiving services and the potential need of individuals of all ages with MH, I/DD and SUD conditions in the 24-county area. As the chart below illustrates, there are significant gaps in all the disability groups served by Trillium in both adult and child/adolescent age groups. Refer to the Trillium Supplemental Charts and Maps section starting on page 90 for the calculations used in the chart below (Figure 22) and the respective regional appendices for charts pertaining to the rates within each region of the catchment area.

The Substance Abuse Mental Health Services Administration (SAMHSA) calculates the prevalence for the Medicaid and uninsured populations. Likewise, the Center for Disease Control (CDC) recently began tracking and calculating the prevalence rates for intellectual and development disabilities in the United States. In years past, prevalence rates were usually as many as five years behind the current year. Since 2014, both SAMHSA and the CDC have published prevalence rates in a more timely manner. Both federal entities are now able to publish very detailed rates, which are only two years behind. For this needs assessment, it is important to note that because adult and child SUD prevalence rates were not available from SAMHSA for SFY16, the SFY15 prevalence rates were used.

**Trillium Medicaid and State-Funded by Age/Disability SFY2016
Prevalence & Penetration and Gap Summary**

Disability Populations	Prevalence in the 24 Counties	Prevalence among the Medicaid + Non-Medicaid in the 24 Counties	Penetration			Gap	
	Estimated Number of Persons Affected	Estimated Number Needing Services	Medicaid Served	Non-Medicaid Served	Total Served	Difference between Need and Served	Percent
Adult MH	153,796	58,447	14,316	6,989	21,305	37,142	64%
Adult I/DD	15,790	6,000	1,694	768	2,462	3,538	59%
Adult SA	66,476	25,263	3,521	5,504	9,025	16,238	64%
Total	236,062	89,710	19,531	13,261	32,792	56,918	63%
Disability Populations	Prevalence in the 24 Counties	Prevalence among the Medicaid + Non-Medicaid in the 24 Counties	Penetration			Gap	
	Estimated Number of Persons Affected	Estimated Number Needing Services	Medicaid Served	Non-Medicaid Served	Total Served	Difference between Need and Served	Percent
Child MH	46,304	14,758	13,399	438	13,837	921	6%
Child I/DD	39,127	12,470	1,255	296	1,551	10,919	88%
Child SA (Ages 12-17)	4,562	1,480	183	69	252	1,228	83%
Total	89,993	28,708	14,837	803	15,640	13,068	46%

Figure 22: Trillium Medicaid and State-Funded by Age/Disability SFY2016 Prevalence & Penetration and Gap Summary

It is important to understand that, while funding streams are often combined for these three disability groups, the prevalence, penetration and gaps identified in the chart above (Figure 22) are calculated by separate diagnosis groups to illustrate the differences for each of these three populations. This presents a significant challenge for the LME-MCO as it has to ensure adequate and clinically-effective specific services are offered to serve each of these specialized conditions throughout the catchment area.

All six of the disability/age groups have significant gaps between the need and those served. It is important to note that a public system will never serve everyone who is *estimated* to have a need. However,

it is also important that Trillium review the populations that are most significantly underserved and develop strategies to accommodate the needs as they arise.

The funding base for services reimbursed by Medicaid is significantly higher than those services funded by non-Medicaid dollars. Consequently, the gap in services for consumers who have to rely upon non-Medicaid funding support is greater as well.

Children with Intellectual/Developmental Disabilities also rank as being significantly underserved by the estimated gap percentage at 88%. With the diagnostic categories of Intellectual and Developmental Disabilities expanding, the LME-MCO needs to be mindful of this population. It is also important to note that, while every child with an I/DD condition needs some level of support, most receive the support they need from the school system. So the underserved group here is a bit misleading in that children served by the LME-MCO system are only those for whom services are a medical necessity and there is no logical way to estimate that number.

The third population identified as a significant gap at 83% is Adolescent Substance Use Disorders - Ages 12-17. The vast majority of the need in the Adult Substance Use Disorder category above is between the ages of 18-25 at a prevalence rate of close to 17%, so it would make sense that adolescents who begin their substance use as teenagers also comprise a significantly underserved population.

The North Carolina Legislature mandates the Severe and Persistent Mentally Ill (SPMI) population, as well as all MH/IDD/SA Crises and Veterans and their families be target populations served with State funds. SAMHSA estimates the SPMI population is as high as 4.67% of the adult population. The chart below (Figure 23) illustrates the prevalence, number served and gap in services for the SPMI population found in the Trillium catchment area.

Trillium SPMI Prevalence SFY2016

Disability Populations	Prevalence in the 24 Counties	Prevalence in the Medicaid + Non-Medicaid in the 24 Counties	Penetration			Gap	
	Estimated Number of Persons Affected	Estimated Number Needing Services	Medicaid Served	Non-Medicaid Served	Total Served	Difference between need and served	Percent
Adult SPMI	36,870	14,011	6,101	2,337	8,438	5,573	40%

Figure 23: Trillium SPMI Prevalence SFY16

Trillium Medicaid & State-Funded Adult & Child Prevalence Summary SFY2016

Adult Populations	SFY2016 Prevalence % Estimated for NC	SFY2016 Estimated Total Adult Population for Trillium Counties	Estimated # of Consumers by Age and Disability Group ¹	SFY2016 Estimated Medicaid Eligibles for Trillium Catchment Area ²	SFY2016 Estimated # of Medicaid Eligibles by Age/ Disability Group ³	SFY2016 Actual # of Medicaid Eligibles Served by Age/ Disability Group ⁴	SFY2016 Estimated Non-Medicaid for Trillium Catchment Area ⁵	SFY2016 Estimated # of Non-Medicaid Residents by Age/ Disability Group ⁶	SFY2016 Actual # of Non-Medicaid Consumers Served by Age/ Disability Group ⁷
Adult MH	19.48%*	789,507	153,796	183,713	35,787	14,316	116,322	22,660	6,989
Adult I/DD	2.00%**	789,507	15,790	183,713	3,674	1,694	116,322	2,326	768
Adult SA	8.42%***	789,507	66,476	183,713	15,469	3,521	116,322	9,794	5,504
Total	N/A	N/A	236,063	N/A	54,930	19,531	N/A	34,780	13,261
Child Populations	SFY2016 Prevalence % Estimated for NC	SFY2016 Estimated Total Child Population for Trillium Counties	Estimated # of Consumers by Age /Disability Group ¹	SFY2016 Estimated Medicaid Eligibles for Trillium Catchment Area ²	SFY2016 Estimated # of Medicaid Eligibles by Age/ Disability Group ³	SFY2016 Actual # of Medicaid Eligibles Served by Age/ Disability Group ⁴	SFY2016 Estimated Non-Medicaid for Trillium Catchment Area ⁵	SFY2016 Estimated # of Non-Medicaid Residents by Age/Disability Group ⁶	SFY2016 Actual # of Non-Medicaid Consumers Served by Age/ Disability Group ⁷
Child MH	20.00%****	231,522	46,304	40,033	8,007	13,399	33,754	6,751	438
Child I/DD	16.90%*****	231,522	39,127	40,033	6,766	1,255	33,754	5,704	296
Child SA (12-17)	5.20%***	87,737	4,562	15,497	806	183	12,970	674	69
Total	N/A	N/A	89,993	N/A	15,579	14,837	N/A	13,129	803

*Adult MH Prevalence: SAMHSA, 2017 (19.48%); **Adult I/DD: Boyle, et al., 2010 (2.00%); ***Adult and Child SA: SAMHSA, 2015 (8.42%, 5.20%)

****Child MH: NIMH, 2010; Merikangas, et al., 2010 (20.00%); *****Child I/DD: Center for Disease Control and Prevention, 2016 (16.90%)

Adult and Child SA prevalence percentages was not available from SAMHSA for SFY2016. SFY15 prevalence percentages are used in the chart above.

1 Total number of estimated residents by age and disability in the Trillium LME-MCO catchment area includes privately insured as well as Medicaid, Medicare, and Non-Medicaid groups. Number is derived by multiplying prevalence by the estimated populations.

2 The Medicaid eligible number fluctuates by month. Source: N.C. Division of Medical Assistance. June 30, 2016

3 Number is derived from multiplying prevalence by the estimated number of Medicaid.

4 Trillium LME-MCO served a total of 34,368 Medicaid Consumers during SFY2016. The totals in this category represent a total of 34,368 Medicaid individuals who could be classified into the three disability-specific populations of MH, I/DD, SA. This group does not include those individuals who were served in screening and assessment services due to the duplicative nature of this group.

5 The Non-Medicaid numbers are reported from the U.S Census Bureau, 2014 Small Area Health Insurance Estimates as of 9/16/2016

6 Number is derived from multiplying prevalence by the estimated number of Non-Medicaid.

7 Trillium LME-MCO served a total of 14,064 Non-Medicaid Consumers in SFY2016. The totals in this category represent a total of 14,064 Non-Medicaid individuals who could be classified into the three disability-specific populations of MH, I/DD, SA. This group does not include those individuals who were served in screening and assessment services due to the duplicative nature of this group.

It is important to note that there were two children under the age of 12 (age 10 and age 8) that were received substance abuse services through Medicaid.

Figure 24: Trillium Medicaid & State-Funded Adult & Child Prevalence Summary SFY2016

Provider Network and Workforce Capabilities

The Trillium Health Resources Provider Network is made up of 633 contracted providers. This number includes providers with full contracts and 47 providers who have both full contracts and consumer-specific agreements. In addition, there are 62 providers with only consumer-specific agreements. Most providers have multiple sites, both in and out of the 24-county catchment area.

Types of Providers

There are 226 Agencies, 175 Licensed Independent Practices, 75 Group Licensed Independent Practices, two ADATCs, 145 Hospitals, and ten State Facilities (including psychiatric hospitals, neuro-medical treatment centers, and developmental centers). These numbers are shown in the chart below (Figure 26). As this represents the provider organizations only and not all of their sites, these numbers are unduplicated.

There are 62 providers with Consumer-Specific Agreements (CSA) only, some of which include multiple sites providing two service types. Additionally, there are 47 distinct CSA providers with both a full contract and a CSA (these are also included in both charts below). The second table below (Figure 27) shows the breakdown of types of service category with CSAs.

SFY2016 shows an increase in number of fully contracted providers and a decrease in the number of providers with CSAs from SFY2015.

Trillium Catchment SFY2016 - Types of Providers

Type of Providers	# of Providers
Agency	226
Licensed Independent Practitioner (LIP)	175
Licensed Independent Practitioner Group (LIP Group)	75
Hospital	145
State Facilities	10
Alcohol and Drug Abuse Treatment Center (ADATC)	2
Total Contracted Providers	633

Figure 25: Trillium Catchment SFY2016 - Types of Providers

Trillium Catchment SFY2016 - Consumer-Specific Agreements by Service Category

Type of CSA Service Category	# of Providers with CSAs Only	# of Providers with Full Contracts as Well as CSAs <i>(They are also counted in the previous table)</i>
Enhanced	47	38
IDD/Innovations	4	3
Outpatient	11	6
Residential	0	0
Total CSA Providers	62	47

Figure 26: Trillium Catchment SFY2016 - Consumer-Specific Agreements by Service Category

In total, there are 2,535 sites:

- 1,375 of these are in catchment and 1,160 are out of the catchment area.
- SFY2016 shows an increase in provider sites, both inside and outside of the catchment area.

Below is a chart (Figure 28) with the breakdown of the number of provider sites by county.

**Trillium Catchment SFY2016
Number of Provider Sites by County**

County	# of Provider Sites
Beaufort	53
Bertie	31
Brunswick	73
Camden	3
Carteret	53
Chowan	27
Craven	167
Currituck	5
Dare	26
Gates	7
Hertford	25
Hyde	9
Jones	17
Martin	29
New Hanover	249
Northampton	12
Onslow	139
Pamlico	18
Pasquotank	78

County	# of Provider Sites
Pender	67
Perquimans	7
Pitt	261
Tyrrell	4
Washington	15
Out of Catchment Total	1,160
In Catchment Total	1,375
Trillium Network Total	2,535

Figure 27: Trillium Catchment SFY2016 Number of Provider Sites by County

Consumer Locations and Population

The most urban counties tend to have the most providers and the most provider sites, which would be expected. However, some of the urban counties have very few providers and few consumers. Some of the counties considered urban for the purposes of this report are considered by NC DMHDDSAS and NC DMA to be Metropolitan Outlying Counties. This means they do not have the population density to be considered urban on their own but they meet requirements of commuting to or from central urban counties.

For comparison, below are maps of the consumer locations.

- First is a map of Trillium consumers nationwide (Figure 29).
- Second is the same map but only shows the close up view of NC and the surrounding states (Figure 30). These Metropolitan Central urban counties tend to have the largest number of consumers as well.
- The third map shows consumer density by census tract for the Trillium area with provider locations overlaid (Figure 31).

While the spread of both providers and consumers is large, the majority of providers tend to cluster around the most densely consumer-populated areas, even though there is an increase in the number of areas considered to hold urban status.

Trillium Health Resources Consumers Nationwide SFY16

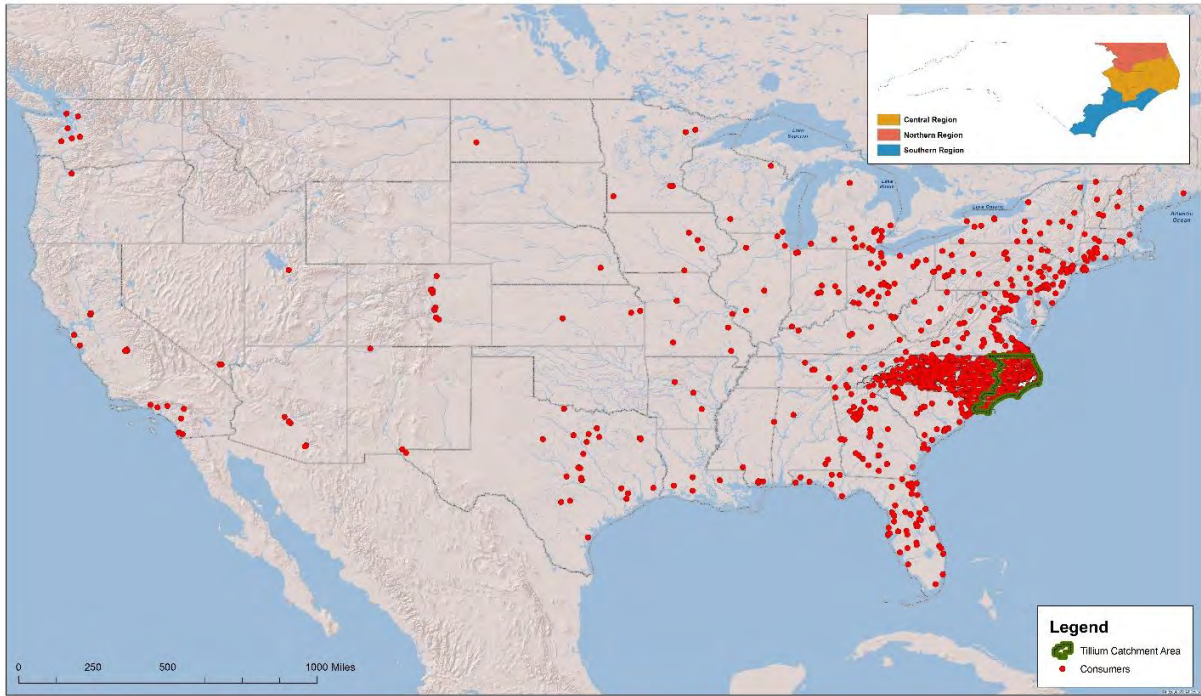


Figure 28: Trillium Health Resources Consumers Nationwide SFY2016

Trillium Health Resources Consumers NC & Neighboring States SFY16

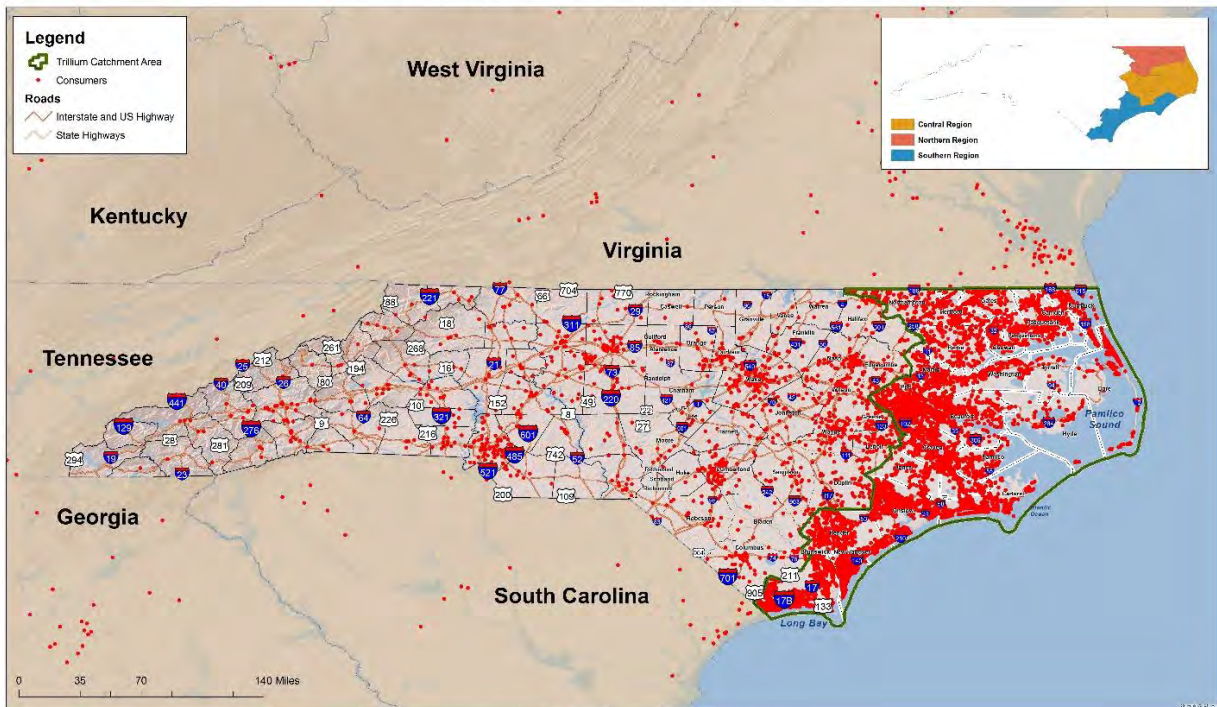


Figure 29: Trillium Health Resources Consumers NC & Neighboring States SFY2016

Trillium Health Resources Consumer Density with Provider Locations In-Catchment Area SFY16

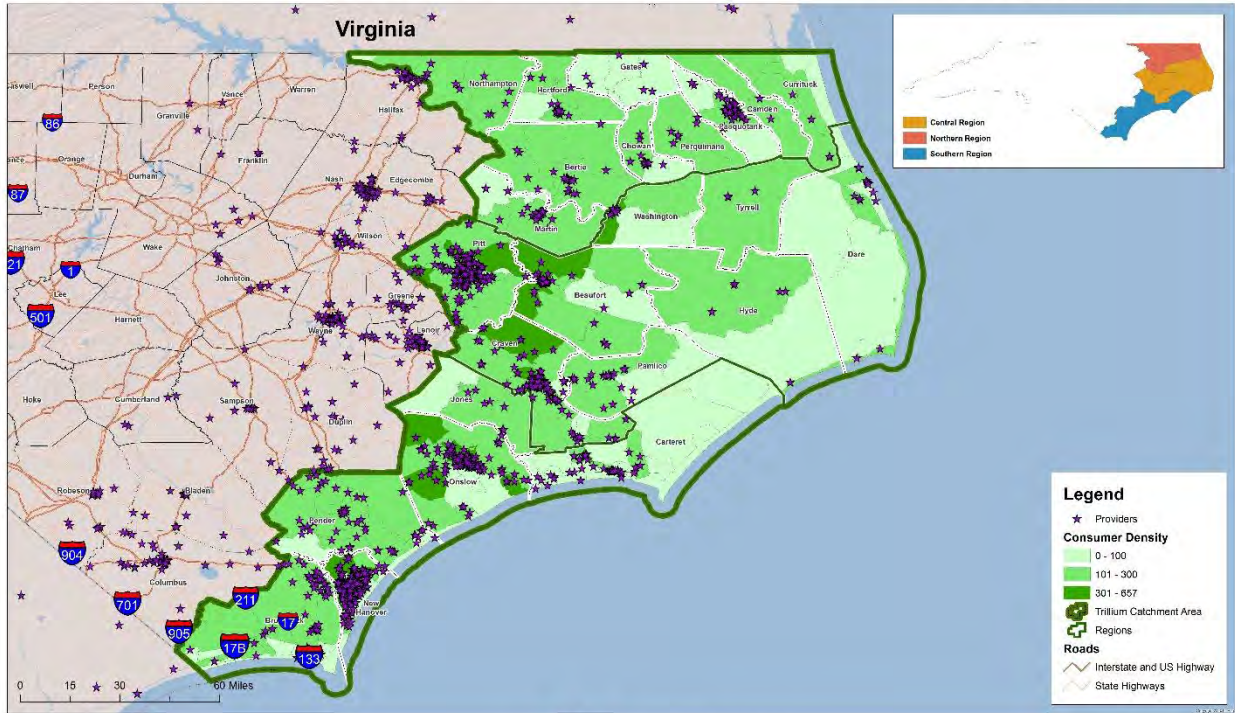


Figure 30: Trillium Health Resources Consumer Density with Provider Locations In-Catchment Area SFY2016

Licensed Professionals

The chart below (Figure 32) shows the number of licensed professionals by type of license and county. This is a duplicated count as many professionals have sites in multiple counties; have more than one license; are licensed clinicians within a hospital or agency as well as licensed independent practitioners; or practice independently as well as part of a group. This chart indicates the availability of each type of license in each county.

- The largest numbers of licensed professionals are DEAs, Medical Doctors (MD), Licensed Clinical Social Workers (LCSW), and Licensed Professional Counselors (LPC), in that order.
- The county with the most access to Licensed Professionals is Pitt and the county with the least access to Licensed Professionals is Perquimans.

Trillium Licensed Professionals by Type and County - SFY2016

County Served	LCSW	LCSWA	LPC	LPCS	LPCbe or LPCA	LMFT	MFTA	LP/PhD	LPA	CCS	CCIP	LCAS	LCAS-P	CSAC	BCBA	PMHCNS-BC	PMHNP-BC	RN	MD	NP	PA	DEA	APNCNS	Total Credentialed LPs	
Beaufort	11	0	9	0	8	2	0	0	4	2	0	12	8	0	0	0	0	0	55	17	17	61	0	206	
Bertie	1	0	3	0	2	0	0	0	0	2	0	4	1	0	0	0	0	0	12	3	1	18	0	47	
Brunswick	51	0	43	1	15	3	1	4	6	0	0	25	17	0	0	1	2	1	13	9	10	19	0	221	
Carteret	43	0	37	2	11	3	1	8	1	1	0	20	12	1	0	0	4	5	8	16	10	33	0	216	
Chowan	3	0	2	0	0	0	0	0	0	0	0	2	1	0	0	1	0	1	19	7	5	35	0	76	
Craven	87	0	54	3	21	7	8	11	5	1	0	43	26	0	0	1	4	8	32	24	14	44	0	393	
Dare	9	0	3	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	39	8	4	53	0	119	
Hertford	20	0	7	0	3	0	1	1	2	0	0	17	7	0	0	0	1	2	29	20	16	75	0	201	
Hyde	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	6	6	16	0	30	
Jones	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	4	0	9	
Martin	11	0	13	0	4	0	0	2	0	3	0	7	6	0	0	0	0	0	28	8	7	23	0	112	
New Hanover	139	0	86	5	40	10	2	34	25	2	0	67	40	1	1	1	8	2	28	29	18	60	0	598	
Northampton	1	0	1	0	2	0	0	0	1	0	0	1	0	0	0	0	0	1	0	1	0	1	0	9	
Onslow	54	0	52	2	12	4	2	8	0	0	0	33	14	0	0	0	4	6	12	22	8	32	0	265	
Pamlico	2	0	2	0	1	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	9	
Pasquotank	17	0	7	1	3	1	0	2	2	0	0	8	2	0	0	0	0	1	27	8	11	12	0	102	
Pender	34	0	9	0	6	0	0	2	5	0	0	22	9	0	0	0	1	0	3	8	3	17	0	119	
Perquimans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pitt	94	0	42	6	23	18	4	16	9	7	0	60	30	0	1	0	1	6	558	65	50	352	0	1342	
Tyrrell	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	6	15	0	27	
Washington	4	0	1	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0	4	10	10	21	0	53	
Total	584	0	372	20	151	49	21	89	60	18	0	325	175	2	2	4	26	33	867	267	197	892	0	4154	

Note: Chart indicates the number of each license available in each county. This is not an FTE measure; rather it is a measure of the accessibility of persons with these licenses. It is likely to be a duplicated count since many licensed persons have locations in multiple counties.

Figure 31: Trillium Licensed Professionals by Type and County - SFY2016

Psychiatrists

Services provided by psychiatrists include assessment and diagnosis, testing, referral, treatment, and medication management. These services are mainly for adults and children with mental health issues, but some psychiatrists also serve enrollees with substance use issues.

The Trillium provider network includes 112 psychiatrists (unduplicated count) many of whom practice outside of the 24-county area. Many of the psychiatrists practice at multiple locations and at a combination of hospitals, agencies, LIPs, and LIP Groups.

There are four counties that have telepsychiatry originating sites only where a consumer can access a psychiatrist using digital technology. However, there are five counties that have neither face-to-face nor telepsychiatry access. Some consumers in these counties, however, may have reasonable access to psychiatry services through the presence of a psychiatrist in a neighboring county. Due to the nature of this data, this chart (Figure 33) represents sites that have a psychiatrist or telepsychiatry originating site located in them. However, data presented here does not represent full time equivalent access because one psychiatrist may serve multiple sites in multiple counties. Trillium should consider devising a way to track actual psychiatry time available. This would be especially important in remote areas or counties who share psychiatrist time. The chart below (Figure 33) indicates the number of psychiatry and telepsychiatry sites located in each county.

**Trillium Psychiatrists / Telepsychiatry
Availability by County - SFY2016**

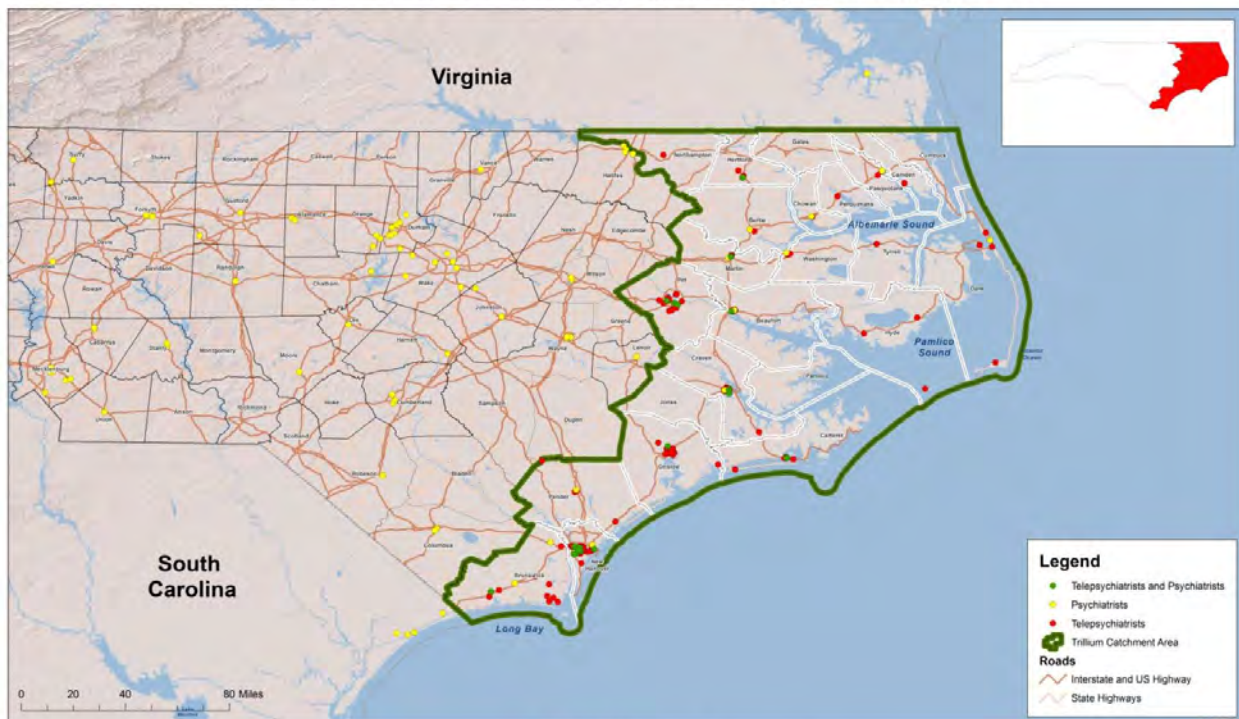
County	# of Psychiatrists	# of Telepsychiatry Sites
Beaufort	2	7
Bertie	1	2
Brunswick	3	11
Camden	0	0
Carteret	2	11
Chowan	1	2
Craven	5	8
Currituck	0	0
Dare	1	5
Gates	0	0
Hertford	1	4
Hyde	0	3
Jones	0	0
Martin	2	4
New Hanover	11	50
Northampton	0	1
Onslow	1	16

County	# of Psychiatrists	# of Telepsychiatry Sites
Pamlico	0	0
Pasquotank	1	4
Pender	1	6
Perquimans	0	1
Pitt	5	22
Tyrrell	0	1
Washington	1	2
Out of Catchment	81	0
Total	119	160

Figure 32: Trillium Psychiatrists / Telepsychiatry Availability by County - SFY2016

The map below (Figure 34) shows the sites where psychiatrists are located in the catchment area with whom Trillium contracts. This map also shows telepsychiatry originating site locations. These are locations at which a consumer can access a psychiatrist using digital technology. As a result, the psychiatrist may not necessarily be in the same location but can interact with the consumer through audio and video conferencing technology.

Locations of Psychiatrists and Telepsychiatrists in Trillium Catchment SFY16



ACT ADDICTION & Training Consulting & ASSOCIATES

Figure 33: Locations of Psychiatrists and Telepsychiatrists in Trillium catchment SFY2016

NC START

NC START (Systematic, Therapeutic, Assessment, Respite, and Treatment) is a prevention and intervention service for adults with intellectual and/or developmental disabilities and complex behavioral health needs. This service also provides training, consultation and support to family members and caregivers.

Below is a chart (Figure 35) of the number of Trillium consumers on active and inactive START caseloads by quarter (numbers reported are as of the end of the quarter).

**Trillium SFY2016
Quarterly NC START Caseloads**

Quarter	Active NC START Caseload	Inactive NC START Caseload
1	74	7
2	76	1
3	77	3
4	77	0

Figure 34: Trillium SFY2016 Quarterly NC START Caseloads

Emergency and Crisis Facilities

Emergency and Crisis Facilities consist of hospitals and facility-based crisis centers, all of which are in-network.

There are 17 hospital emergency departments and 62 hospitals with inpatient beds in the Trillium catchment area. There are seven facility-based crisis centers in the Trillium catchment area. Additionally, there are many sites in the Trillium network that fall outside of the Trillium catchment area:

- One hundred fifty-nine hospitals with inpatient beds
- One hundred twenty-two hospital emergency departments
- Four facility-based crisis centers

Below is a listing of the number of hospitals and crisis facilities by county (Figure 36).

Trillium SFY2016 - Emergency and Crisis Facilities by County

County	Hospital Inpatient	Hospital ED	Facility-Based Crisis
Beaufort	6	1	2
Bertie	1	1	0
Brunswick	3	2	0
Camden	0	0	0
Carteret	2	1	0
Chowan	6	1	0
Craven	8	1	1
Currituck	0	0	0
Dare	1	1	0
Gates	0	0	0
Hertford	3	2	1
Hyde	0	0	0
Jones	0	0	0
Martin	2	1	0
New Hanover	9	1	1
Northampton	0	0	0
Onslow	6	1	0
Pamlico	0	0	0
Pasquotank	1	1	1
Pender	0	1	0
Perquimans	0	0	0
Pitt	10	1	1
Tyrrell	0	0	0
Washington	4	1	0
Total Out of Catchment Sites	159	122	4
Total Trillium Contracted Provider Sites	221	139	11

Figure 35: Trillium SFY2016 - Emergency and Crisis Facilities by County

Advanced Access Agencies

Advanced Access Agencies offer access points within the same or next day as well as walk-in appointments. Below is a listing of the number of Advanced Access sites by County (Figure 37).

Trillium SFY2016 - Advanced Access Agencies by County

County	Advanced Access Sites	Agencies
Beaufort	1	DREAM Provider Care Service
Bertie	0	
Brunswick	0	
Camden	0	
Carteret	3	Integrated Family Services Port Human Services RHA
Chowan	0	
Craven	3	Access Family Services Port Human Services RHA
Currituck	0	
Dare	1	Port Human Services
Gates	0	
Hertford	2	Integrated Family Services Port Human Services
Hyde	0	
Jones	0	
Martin	0	
New Hanover	4	Access Family Services Port Human Services Pride in North Carolina, Inc. RHA
Northampton	0	
Onslow	4	Integrated Family Services Port Human Services Pride in North Carolina, Inc RHA
Pamlico	0	
Pasquotank	3	Integrated Family Services Port Human Services Pride in North Carolina Inc
Pender	0	
Perquimans	1	Port Human Services

County	Advanced Access Sites	Agencies
Pitt	4	Integrated Family Services Port Human Services (Greenville) Port Human Services (Winterville) Pride in North Carolina, Inc
Tyrrell	0	
Washington	0	
Trillium Network Total	26	

Figure 36: Trillium SFY2016 - Advanced Access Agencies by County

Child-Specific Evidence-Based Practices

As part of its 2020 Child Vision Initiative, Trillium has implemented a number of evidence-based practices in an effort to redesign and expand the available behavioral health services and providers who specialize in children’s services in eastern NC. Three of these services are Multisystemic Therapy (MST), Child First, and Intensive Alternative Family Treatment (IAFT).

The maps below show MST providers (Figure 38); Child First and Child Parent Psychotherapy providers (Figure 39); and IAFT and Therapeutic Foster Care providers (Figure 40) in the Trillium Network.

Trillium Health Resources Multi-systemic Therapy Services with and without Medicaid Funding SFY16



ACT ADDICTION & Training
Consulting & ASSOCIATES

Figure 37: Map-Trillium Health Resources Multisystemic Therapy Services With and Without Medicaid Funding SFY2016

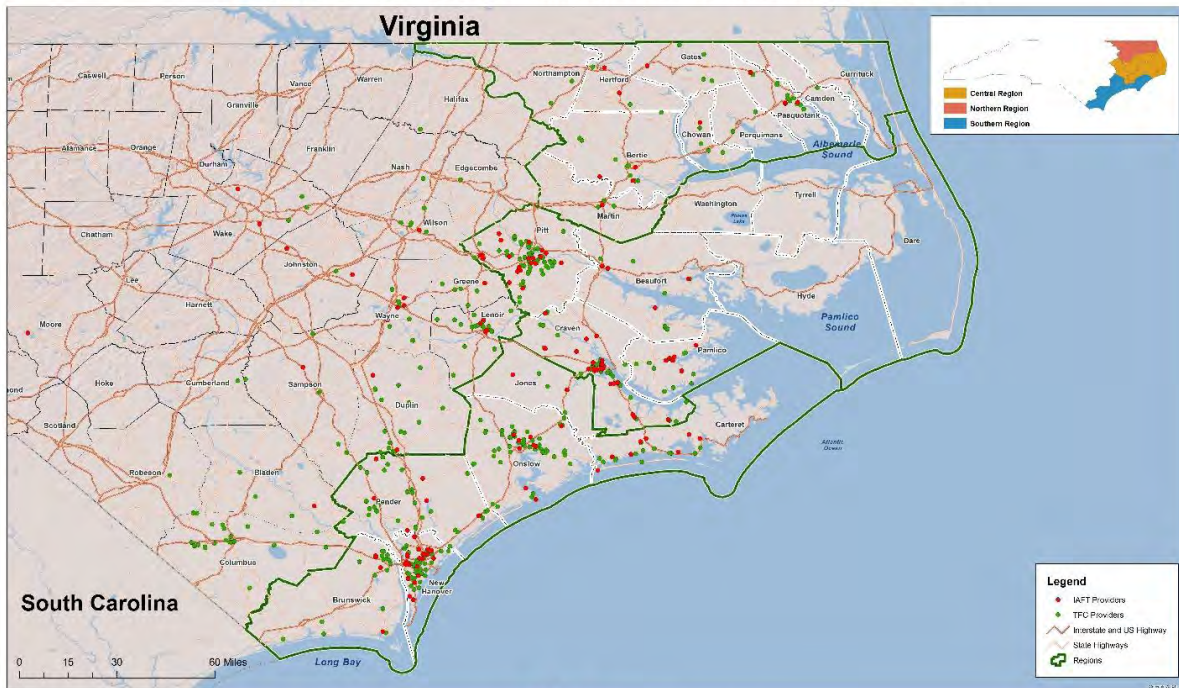
CPP/Child First Providers in Trillium Health Resources Catchment Area SFY16



ACT ADDICTION & Training Consulting & ASSOCIATES

Figure 38: Map- CPP/Child First Providers in Trillium Health Resources Catchment Area SFY2016

IAFT and TFC Providers in Trillium Health Resources Catchment Area SFY16



ACT ADDICTION & Training Consulting & ASSOCIATES

Figure 39: Map- IAFT and TFC Providers in Trillium Health Resources Catchment Area SFY2016

Access & Choice

This year, the NC DMHDDSAS and the NC DMA asked the LME/MCOs to report on access standards for 91 services. Two of the services were for informational purposes only. Of the remaining 89, Trillium met the access standards on 67 services. The 22 services for which Trillium did not meet the access standard and the two informational services are listed below by service group. They show their percentage of access; the percentage access for SFY2015 is listed in parentheses for comparison purposes.

Services Not Meeting NC Divisions' Access Standards

Outpatient Services

- Non-Medicaid: 99.93% (99.96% in SFY15)

Location Based Services

- PSR Medicaid: 95.52% (95.96% in SFY15)
- PSR Non-Medicaid: 78.12% (87.22% in SFY15)
- Child and Adolescent Day Treatment Medicaid: 97.49% (98.69% in SFY15)
- Child and Adolescent Day Treatment Non-Medicaid: 90.08% (84.62% in SFY15)
- SACOT Medicaid: 37.88% (40.64% in SFY15)
- SACOT Non-Medicaid: 57.00% (48.20% in SFY15)
- SA IOP Medicaid: 97.94% (98.63% in SFY15)
- SA IOP Non-Medicaid: 99.65% (99.84% in SFY15)
- Opioid Treatment Medicaid: 7.51% (7.27% in SFY15)
- Opioid Treatment Non-Medicaid: 87.95% (87.95% in SFY15)
- Day Supports Non-Medicaid: 97.54% (96.72% in SFY15)

Crisis Services

- Facility Based Respite Medicaid: 0% (No comparable service in SFY15)
- Facility Based Crisis—Children Medicaid (For Info Purposes only): 0% (No comparable service in SFY15)
- Facility Based Crisis—Children Non-Medicaid (For Info Purposes only): 0% (No comparable service in SFY15)

Specialized Services

- Partial Hospitalization Non-Medicaid: 0% (1 provider listed in SFY15 so 100% access)
- PRTF Non-Medicaid: 0% (Same in SFY15)
- Residential Treatment Level 2: Other than TFC Non-Medicaid: 0% (Same in SFY15)
- Child MH Out-of-Home Respite Non-Medicaid: 0% (6 providers listed in SFY15 so 100%)
- SA Nonmedical Community Residential Treatment Medicaid: 0% (Same in SFY15)
- SA Nonmedical Community Residential Treatment Non-Medicaid: 0% (Same in SFY15)
- SA Medically Monitored Community Residential Treatment Medicaid: 0% (Same in SFY15)
- SA Medically Monitored Community Residential Treatment Non-Medicaid: 0% (Same in SFY15)
- (b)(3) I/DD Facility-based respite Medicaid: 0% (No comparable service in SFY15)

Emergency Department Overutilization - In-Depth Review

Consumers with behavioral health disorders (BHDs) use the emergency department (ED) for acute psychiatric emergencies, for injuries and illnesses complicated by or related to their condition, or when psychiatric or primary-care options are often inaccessible or unavailable^(1,2). Excessive utilization of services through the emergency department is often an indication of lack of timely access to necessary and continuous community-based care. While good behavioral health services require a system of care that includes EDs, hospitals, and ambulatory-care clinics that are adequately resourced, this should not be the primary source of care. It is critical that an ED admission, when it happens, is followed by adequate outpatient services so repeat admissions are avoided. Routine surveillance and review of emergency department admissions are core components of any health systems quality management processes.

This report provides a detailed analysis of utilization of emergency department and related services within the Trillium catchment area, 24 counties in the eastern part of the State. The data utilized in this analysis was extracted from Trillium's claims management system, Cardinal Innovations Enterprise (CIE), for SFY2016. The report provides analysis of one year's emergency department claims and should thus be considered as baseline information on which to track and trend future years' data. Through the synthesis of data, the report offers recommendations for consideration.

In SFY2016, there were 4,571 unique consumers who utilized emergency department services at some point during the year for their care. The emergency department care, along with all other services these individuals received during the year within the Trillium system, included 97,637 visits and cost the system \$10,419,319. This amounts to an annual average cost per consumer of \$2,279.

The Trillium Gaps and Needs Assessment SFY2016 Report estimates approximately 118,427 Medicaid, non-Medicaid and uninsured consumers (adults and children) as potentially needing services for mental health (MH), substance abuse (SA) and intellectual and developmental disabilities (I/DD). From among those who needed services, approximately 40% received some kind of service in 2016. While 4,571 is a relatively small proportion of those consumers, receipt of services at the emergency department is contradictory to the principles of the Institute of Health Improvement (IHI) triple aim and identifies clear opportunities for the improvement of care. The IHI triple aim is a framework that describes an approach to optimizing a health system's performance. This requires the health system to simultaneously pursue three dimensions, improving patient experience of care (quality and satisfaction), improving health of the population, and reducing the per capita cost of care⁽³⁾.

The tables in this section provide details on the characteristics and patterns of utilization of care among this select group of consumers.

Demographic Profile of Consumers Utilizing Emergency Department Service

The table below (Figure 41) provides the demographic breakdown for consumers who utilized an emergency department and related services within the Trillium catchment area. Fifty-nine percent were Whites, followed closely by Black or African American consumers at 39%. Utilizers were also primarily women (59%). At 2%, Hispanic consumers made up a very small component of service utilizers, though Hispanic consumers were 6.32% of the population in eastern North Carolina. The majority of consumers (98.4%) were English-speaking.

Over 18% of consumers were under the age of 18 years and 23% between 19-29 years. The age distribution of consumers, with over 61% under the age of 40 years, identifies a potential area of need for targeted services, or continuity of services for children and young adults.

Demographic Characteristics of ED Utilizers in Trillium Catchment Area - SFY2016

Race	Count	%
White	2682	59%
Black or African American	1780	39%
Other Race(s)	109	2%
Ethnicity*		
Non-Hispanic	4402	96.3%
Hispanic	104	2.2%
Gender		
Female	2727	59%
Male	1844	40%
Age Categories		
4-10 yrs.	91	1.9%
11-15 yrs.	360	7.8%
16-18 yrs.	411	8.9%
19-29 yrs.	1031	23%
30-39 yrs.	867	19%
40-65 yrs.	1560	34%
>65 yrs.	253	5%
Trillium Catchment Total		
	4571	

*Note: People of Hispanic ethnicity included Cubans

Figure 40: Demographic Characteristics of ED Utilizers in Trillium Catchment Area - SFY2016

The table below (Figure 42) shows the diagnostic categories for the consumers. While the majority had a mental health diagnosis, these are not mutually exclusive categories. Individuals can have multiple diagnoses, which could potentially include all three of the disability groups.

**Diagnostic Category for ED Utilizers
in Trillium Catchment Area in SFY2016**

Diagnostic Category	Consumer Count
Mental Health	4,008
Substance Abuse	1,344
I/DD	247

Figure 41: Diagnostic Category for ED Utilizers in Trillium Catchment Area in SFY2016

The table below (Figure 43) lists the 24 Trillium counties with the number of unique consumers, the total visits they had for all types of services, and the cost of all services they had received within the Trillium system. While most of the consumers and costs were from the 24 counties, there were an additional 109 counties outside the Trillium catchment area where consumers had received care. In addition, there were 19 consumers for whom county of residence was not listed. Consumers from the non-Trillium counties accounted for 8,089 visits for a total cost of \$823,641. The Trillium counties, listed in alphabetical order, show a wide variation in both utilization and associated costs. An in-depth analysis of providers and services in these counties, within the context of the demography of each of these counties, may be necessary to understand the reason behind the higher than average utilization of services in some counties.

Total Visits, Unique Consumers and Total Cost by County of Residence in SFY2016

County	Prevalence (Adult and Child) *	Unique Consumers	Total Visits for All Services	Total Cost
Beaufort	5,258	244	4,399	\$500,554.98
Bertie	2,465	137	2,326	\$213,024.67
Brunswick	11,221	396	8,036	\$789,744.51
Camden	708	15	395	\$47,973.38
Carteret	6,156	173	4,171	\$391,678.23
Chowan	1,628	83	1,870	\$182,831.67
Craven	9,490	405	9,641	\$885,579.19
Currituck	1,882	32	669	\$61,061.03
Dare	2,915	86	1,740	\$180,504.37
Gates	1,023	23	342	\$55,270.56
Hertford	2,973	125	2,216	\$194,210.49
Hyde	616	13	207	\$19,619.73
Jones	1,093	39	616	\$44,016.04

County	Prevalence (Adult and Child) *	Unique Consumers	Total Visits for All Services	Total Cost
Martin	2,703	98	1,644	\$189,327.28
New Hanover	18,304	795	18,273	\$2,057,999.48
Northampton	2,561	94	962	\$135,083.81
Onslow	15,143	355	8,085	\$677,809.29
Pamlico	1,239	32	568	\$58,837.14
Pasquotank	4,322	110	2,091	\$226,824.68
Pender	5,935	174	3,452	\$335,894.28
Perquimans	1,273	40	1,195	\$123,000.66
Pitt	17,444	667	15,235	\$2,067,459.14
Tyrrell	497	12	201	\$23,802.88
Washington	1,578	63	1,214	\$133,570.52
Out of Catchment	NA	360	8,089	\$823,641.33
Trillium Catchment Total	118,427	4,571	97,637	\$10,419,319.34

Note: This represents prevalence among Medicaid and uninsured individuals in each of the Trillium counties. County specific adult and child prevalence for MH, IDD and SA is available in the appendix of Trillium Health Resources Gaps and Needs Assessment, SFY2016 Report.

Figure 42: Total Visits, Unique Consumers and Total Cost by County of Residence in SFY2016

The map below (Figure 44) shows the intensity of utilization of emergency room services in relationship to the physical location of Emergency Departments and Mobile Crisis Management sites within the Trillium catchment area. It should be noted that the Mobile Crisis location shows the availability of the service within a county, where the teams travel to the person in need and meet them at locations that are convenient to the consumer. Therefore, a Mobile Crisis site may be capable of responding to consumers in neighboring counties as well. As indicated earlier, further analysis is required to understand the variation in patterns of utilization within the region.

Emergency Department and MCM Locations in Trillium Health Resources Catchment Area SFY16

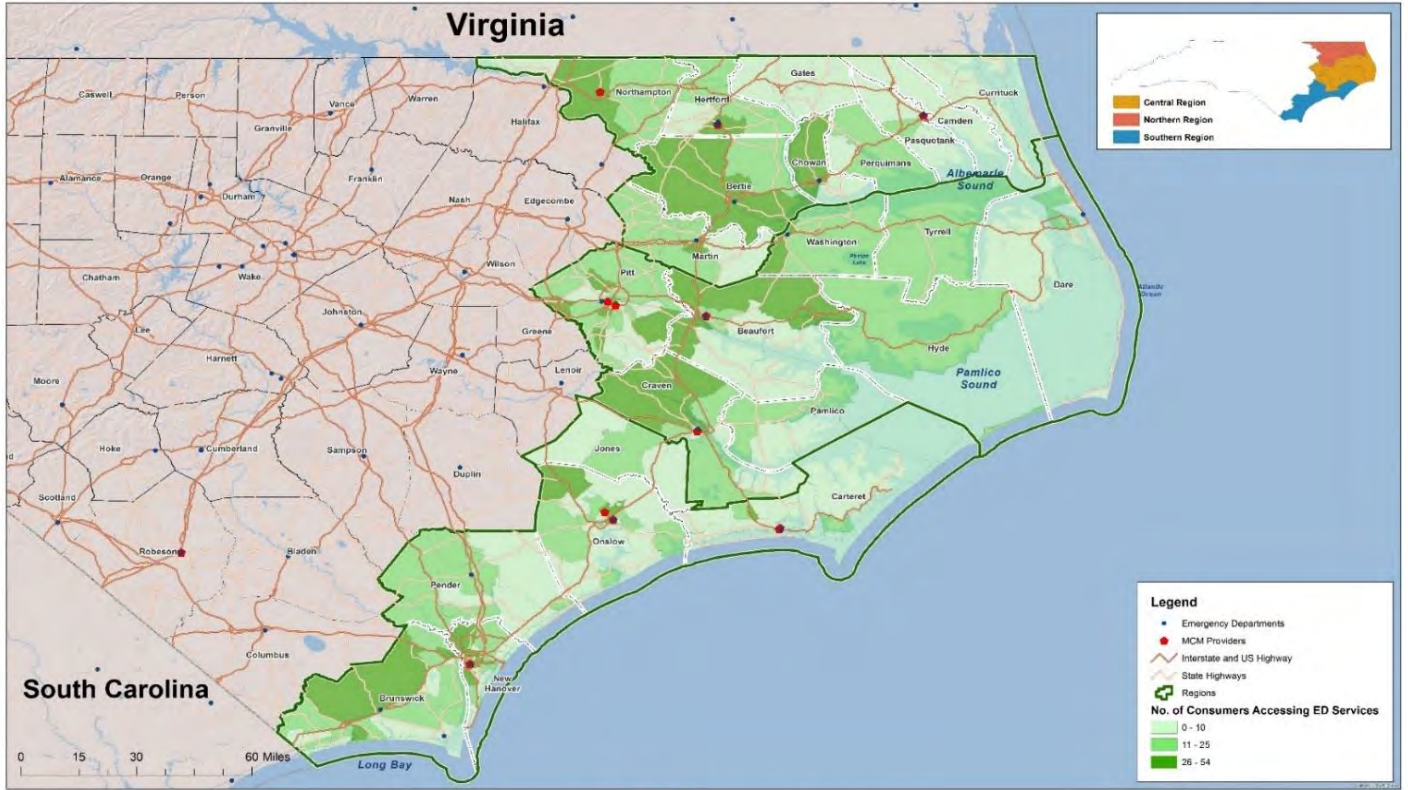


Figure 43: Map-Emergency Department and MCM Locations in Trillium Health Resources Catchment Area SFY2016

Funding of Services and Cost of Care

Data suggests the majority of consumers (4,526) utilized some Medicaid funds for their care with approximately half using both State and Medicaid funding. Over \$10 million of the total costs was paid by Medicaid with only the balance coming from State funds.

Funding Source Utilized by Consumers Within Trillium Catchment Area in SFY2016

Funding Source*	Consumer Count
Medicaid	4,526
State Funds	2,365
Both Sources	2,166

**Note: Clients can have access to both State and Medicaid funds*

Figure 44: Funding Source Utilized by Consumers Within Trillium Catchment Area in SFY2016

As mentioned earlier in the report, this analysis presents information for a single year, SFY2016. The table below presents the number of unique consumers by the service category they *first interacted* with during the fiscal year. This does not imply said individual never received a service in prior years from Trillium, East Carolina Behavioral Health, CoastalCare, or another LME-MCO.

In 2016, 338 individuals had their first interaction with the system through the Emergency Department; four through ICFMR, 63 with mobile crisis, 487 with outpatient behavioral health, 48 other behavioral health services and 3,457 through a variety of other medical and mental health services. This speaks specifically about the first service they received in the given fiscal year, 2016. It is possible that these consumers received or have been receiving other services through the LME-MCO in previous years. Any of these individuals could also have had multiple interactions with any of the other services during the year after their first interaction service.

Of the individuals who presented themselves in an emergency department during the 2016 fiscal year, 333 individuals received an outpatient or other behavioral health service *prior* to the ED admission; 89 individuals who had Mobile Crisis Service *previously* received outpatient or other BH services. Of those who had an inpatient admission, 539 individuals received outpatient services *prior* to the hospital admission. These services were not received by the individual within any prescribed period; it could have been at any time during the fiscal year.

Of those individuals who had an emergency department interaction, only 536 (11.3%) individuals received a *follow-up* outpatient behavioral health visit *within 30 days* of the ED admission.

Consumers by First Interaction Service, Total Visits and Cost of Care for SFY2016

Service Categories	First Interaction Service in SFY2016	Total Visits by Category	Units Billed	Cost of Service
Detox	-	3	3	\$1,452.9
ICFMR	4	50	50	\$13,072.7
Other Behavioral Health Services	48	1,012	2,070	\$95,991.2
Mobile Crisis	63	1,303	11,198	\$953,890.1
Inpatient (med and psych)	174	3,524	5,486	\$1,788,406.5
Emergency Department	338	6,439	7,047	\$1,246,382.9
Outpatient Behavioral Health Services	487	10,595	50,612	\$858,340.6
All Else	3,457	74,681	197,073	\$5,461,782.2
Trillium Catchment Total	4,571	97637	273,539	\$10,419,319.3

Note: Other Behavioral Health Services include services such as supported employment, supervised living, Family and Group living etc.

Figure 45: Consumers by First Interaction Service, Total Visits and Cost of Care for SFY2016

The table below (figure 47) shows the range of length of service and the average length of service for the specific services of emergency department, mobile crisis and inpatient admission. All three averaged over two days. When all given services are considered, the average length of stay was 21.4 days.

Range and Average Length of Service for Select Services

Service Category	Range of Length of Service (min.-max.)	Average Length of Service
All Services	1-473 days	21.36 days
Emergency Department	1-25 days	2.69 days
Inpatient Admission	1-29 days	2.44 days
Mobile Crisis	1-18 days	2.27 days

Note: Range and average length of service calculated based on unique 'dates of service' not unique individuals.

Figure 46: Range and Average Length of Service for Select Services

Utilization of Services by Diagnosis

The diagnostic categories for the 4,571 individuals who had an emergency department interaction one or more times in 2016 are presented in the following table. For the ease of categorization and comparison, the diagnosis codes have been grouped into 11 broad areas, as shown below. Forty-one percent of the visits in the data file lacked a secondary diagnosis, thus this information was excluded from all analysis.

Individuals are often given multiple diagnoses as they navigate the system from emergency departments to inpatient admission and outpatient treatment. Of consumers who received multiple services, 1,945 or 45.5% of consumers had a consistent diagnosis from when they were seen at the ED and when receiving subsequent outpatient behavioral health treatment. This analysis excluded all individuals who only had a single interaction or only received one service within the system during the fiscal year. There were 4,271 individuals who had more than one service within the system. It is possible that the primary diagnosis for which a person is seen within an acute care setting changes as the individual transitions to outpatient care.

The following two tables offer two perspectives of the data: first, the number of visits with the diagnostic category (Figure 48); and second, the type of service utilized by each diagnosis category. Episodic Mood Disorder (37.6%), Schizophrenia (20.3%) and Substance Abuse (12.7%) were the most common primary diagnoses (Figure 49).

Unique Visits by Diagnosis Category - SFY2016

Diagnosis Category	Total Visits (%)
Episodic Mood Disorder	36,742 (37.6%)
Schizophrenia	19,859 (20.3%)
Substance Abuse	17,037 (17.4%)
Anxiety Disorders	11,203 (11.5%)
Mental Health Diagnosed in Childhood	3,693 (3.7%)
IDD	3,263 (3.3%)
Other Adult Onset	3,142 (3.2%)
Psychosis	1,131(1.1%)
Medical	989 (1.0%)
Personality Disorders	578 (0.6%)
Trillium Catchment Total	97,637

41.4% of the cases were missing a secondary diagnosis and thus was not used in any analysis. It is possible

Figure 47: Unique Visits by Diagnosis Category - SFY2016

Episodic Mood Disorder was the most frequently used primary diagnosis, thus the most common diagnosis at the ED as well as for inpatient admissions and in most other service categories. There is no clear pattern evident from this table (Figure 49).

Select Services (Visits) Utilized by Primary Diagnosis Category - SFY2016

Primary Diagnosis Category	Emergency Department	Mobile Crisis	Inpatient Admission	Outpatient Behavioral Health	Other Behavioral Health
Episodic Mood Disorder	2,477	526	1,345	3,753	262
Schizophrenia	1,215	214	730	2,254	263
Substance Abuse	1,122	233	678	2,003	254
Anxiety Disorders	816	152	401	1,200	108
Mental Health Diagnosed in Childhood	290	45	147	350	29
Intellectual Developmental Disabilities	182	43	102	407	27
Other Adult Onset conditions	190	40	134	326	24
Psychosis	76	14	34	135	8
Medical	69	18	34	111	17
Personality Disorders	32	18	19	56	20
Trillium Catchment Total	6,469	1,303	3,524	10,595	1,012

Note: Detox and ICFMR are excluded from this table due to low counts and category of 'all else' has also been excluded. This table presents visits and not consumers.

Figure 48: Select Services (Visits) Utilized by Primary Diagnosis Category - SFY2016

The table below (Figure 50) shows the cost of care by the primary diagnosis category. Schizophrenia, Episodic Mood Disorder, Anxiety Disorder and Substance Abuse were the highest cost categories of diagnoses. This is only a function of the higher numbers of these diagnoses in this population.

Cost of Care by Primary Diagnosis - SFY2016

Primary Diagnosis	Cost of Care
Episodic Mood Disorder	\$4,211,818.30
Schizophrenia	\$2,017,885.30
Substance Abuse	\$1,613,285.80
Anxiety Disorders	\$1,108,987.70
Mental Health Conditions Diagnosed in Childhood	\$596,522.60
Other Adult Onset Conditions	\$351,455.30
PDD_IDD	\$299,366.80
Psychosis	\$90,583.30
Medical	\$67,233.90
Personality Disorders	\$62,180.40
Total	\$10,419,319.30

Figure 49: Cost of Care by Primary Diagnosis - SFY2016

Considerations and Recommendations

1. The analysis and information presented in this report is for SFY2016, the first full year after the consolidation of two former MCOs (East Carolina Behavioral Health [ECBH] and CoastalCare) to form Trillium, a single entity covering 24 counties. This data should be considered as baseline information on which to track and trend utilization and patterns of utilization in the coming years. Analysis and review of ED data, costs compared to capacity variables, and cost estimates to create services in rural areas should be considered on a routine basis to identify how to accommodate adequate services for those enrollees who have crises severe enough to require hospitalization.
2. The report does not attempt to make any conclusions. No statistical testing or significance has been assigned. It would be important to risk-adjust the consumers by provider and/or other relevant social and demographic characteristics before any comparisons and quality judgment can be made.
3. Data shows a high proportion of children, youth and young adults utilizing the Emergency Department. Over 42% of ED utilizers were 29 years of age or under. This could be isolating a potential area of need for additional services and resources.
4. Accessing care through the ED could be symptomatic of a lack of timely access to community-based care or continuity of care. Data pinpoints a few glaring issues. Only 11.3% of those consumers who presented in an ED received follow-up care within 30 days of the event. Adequate continuity of care must be available as an individual transitions from a tertiary care facility back to the

community. It may be necessary to develop a Transition of Care (TOC) program available within the Trillium system. All TOC efforts must be built on a foundation of real time data, which will primarily be gleaned from an Electronic Medical record (EMR), Admission Discharge and Treatment data (ADT) and through predictive analytics. An adequacy assessment and evaluation of Trillium's current data systems and sources is recommended.

5. While Substance Abuse was the primary diagnosis in 12.3% of all visits, there were only three instances of Detox provided as a service. Every individual with a diagnosis of Substance Abuse does not require Detox, but the low utilization of Detox as a service may be worth some additional inquiry.
6. There are many providers offering a myriad of services with varying caseloads within the Trillium system. It is difficult to assess appropriateness of an ED admission, or the quality of care provided by an outpatient behavioral health provider in the absence of clear metrics. It is important for each provider to be evaluated through service-specific benchmarked metrics, risk-adjusted for consumer volume, demographics and severity.
7. Use of evidence-based practice models can help prevent the need for services accessed through the Emergency Department. Research-derived benchmarks should be applied to practice models and monitored to ensure both fidelity and goodness of fit between the specific model and the needs of the individual consumer. Data shows a wide variation between the 24 counties in the Trillium catchment area in utilization of the ED and other services. An in-depth analysis of MHDDSAS providers, services and resources available in each county within the context of that county's demographic profile is needed to understand the cause of the variation and identify specific gaps in services and resources.
8. The Institute of Health Improvement (IHI) has put together a series of standard metrics that help operationalize its triple aim. These evidence-based, standardized metrics are equally applicable to the physical as well as the behavioral health world. Standard metrics, such as avoidable Emergency Department admissions and readmissions, should be considered while assigning quality ratings for behavioral health providers. An essential next step would be the development of a series of evidence-based, service-specific, benchmarked metrics that can be evaluated at the provider level. In conjunction with the Trillium clinical leadership, develop and refine performance benchmarks for the service system which are research-based and allow quality of care comparisons between service providers. (<http://www.ihl.org/Engage/Initiatives/TripleAim/Pages/MeasuresResults.aspx>)

Opioid Crisis - In-Depth Review

We read the headlines, we see and hear the news reports - drug overdose deaths and opioid-involved deaths continue to increase in the United States. The majority of drug overdose deaths (more than six out of ten) involve an opioid.¹ Since 1999, the number of overdose deaths involving opioids (including prescription opioids and heroin) quadrupled.² From 2000 to 2015 more than half a million people died from drug overdoses. The Center for Disease Control and Prevention (CDC) reports that 91 Americans die every day from an opioid overdose.

The CDC has also reported North Carolina experienced a “statistically significant change in drug overdose death rates, 2014-2015” as shown below (Figure 51).

Statistically Significant Changes In Drug Overdose Death Rates US 2014-2015

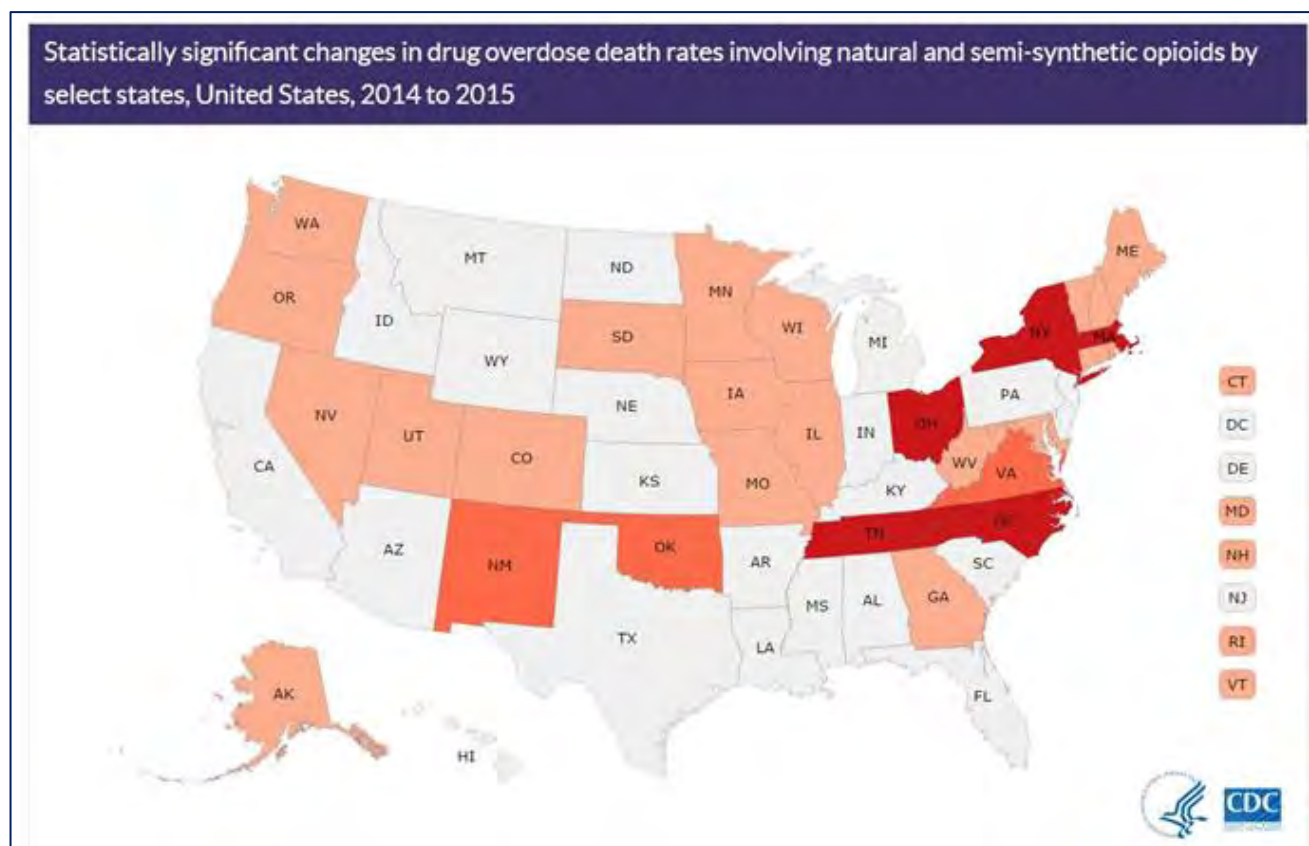


Figure 50: Statistically Significant Changes In Drug Overdose Death Rates US 2014-2015

We now know that overdoses from prescription opioids are a driving factor in the 15-year increase in opioid overdose deaths. Since 1999, the amount of prescription opioids sold in the U.S. nearly quadrupled,² yet there has not been an overall change in the amount of pain that Americans report.^{3,4} Deaths from prescription opioids—drugs like oxycodone, hydrocodone, and methadone—have more than quadrupled since 1999.⁵

This section is meant to provide basic and foundational information about opioids, what they are, how they work, why they can be so deadly and the impact on our friends, neighbors and communities. It will provide data, including national, state and county-level statistics.

What Are Opioids?

Opioids are a class of drugs used to reduce pain.

Comparative Description of Prescription Opioids, Heroin and Fentanyl

Prescription Opioids	Heroin	Fentanyl
<ul style="list-style-type: none"> • Prescription opioids can be prescribed by doctors to treat moderate to severe pain, but can also have serious risks and side effects. • Common types are oxycodone (OxyContin), hydrocodone (Vicodin), morphine, and methadone. 	<ul style="list-style-type: none"> • Heroin is an illegal, highly addictive opioid drug. • Heroin is typically injected, but is also smoked and snorted. • Heroin use has increased across the U.S. among men and women, most age groups, and all income levels. 	<ul style="list-style-type: none"> • Fentanyl is a synthetic opioid pain reliever. It is many times more powerful than other opioids and is approved for treating severe pain, typically advanced cancer pain. • Illegally made and distributed, fentanyl has been on the rise in several states.

Figure 51: Comparative Description of Prescription Opioids, Heroin and Fentanyl

Opioids are a class of drugs that include the illegal drug heroin, synthetic opioids such as fentanyl, and pain relievers available legally by prescription, such as oxycodone (OxyContin®), hydrocodone (Vicodin®), codeine, morphine, and many others. These drugs are chemically related and interact with opioid receptors on nerve cells in the body and brain.

Prescription Opioids

Prescription opioid pain relievers are generally safe when taken for a short time and as prescribed by a doctor, but because they produce euphoria in addition to pain relief, they can be misused (taken in a different way or in a larger quantity than prescribed, or taken without a doctor’s prescription). Regular use—even as prescribed by a doctor—can lead to dependence and, when misused, opioid pain relievers can lead to overdose incidents and deaths.

Opioids act on opioid receptors in both the spinal cord and brain to reduce the intensity of pain-signal perception. They also affect brain areas that control emotion, which can further diminish the effects of painful stimuli. They have been used for centuries to treat pain, cough, and diarrhea.⁶ The most common modern use of opioids is to treat acute pain. However, since the 1990s, they have been increasingly used to treat chronic pain, despite sparse evidence for their effectiveness when used long term.⁷

Healthcare providers have wrestled with how best to treat the more than 100 million Americans who suffer from chronic pain.²⁰ Estimates of the rate of opioid addiction among chronic pain patients vary from about three percent up to 26 percent. This variability is the result of differences in treatment duration, insufficient research on long-term outcomes, and disparate study populations and measures used to assess nonmedical use or addiction.²¹

Prescription opioid use varies according to age, gender and ethnicity:

- Older adults (aged 40 years and older) are more likely to use prescription opioids than adults aged 20 to 39.
- Women are more likely to use prescription opioids than men.
- Non-Hispanic whites are more likely to use prescription opioids than Hispanics. There are no significant differences in prescription opioid use between non-Hispanic whites and non-Hispanic blacks.^{10,19}

When properly managed, short-term medical use of opioid pain relievers—taken for a few days following oral surgery, for instance—rarely leads to an opioid use disorder or addiction. But regular (e.g., several times a day, for several weeks or more) or longer-term use of opioids can lead to dependence (physical discomfort when not taking the drug), tolerance (diminished effect from the original dose, leading to increasing the amount taken), and, in some cases, addiction (compulsive drug seeking and use). It is important to remember a single large dose of an opioid can cause severe respiratory depression (slowing or stopping of breathing), which can be fatal; taking opioids with alcohol or sedatives increases this risk.^{10, 11}

The first chart below (Figure 53) reflects a three-year comparison between 2013 and 2015 of opioid and prescription medication/drug deaths in the 24 Trillium counties; the second chart (Figure 54) shows the amount of change between 2014 and 2015.

Trillium Catchment 3-Year Overdose Death Comparison*

County (County is based on county of residence of the decedent)	Medication & Drug Poisoning Deaths (Any mention of a medication and/or drug poisoning as primary cause of death; includes prescription, over-the-counter, and illicit drugs)			Prescription Opioid Deaths** (Any mention of other opioids, methadone, and/or other synthetic opioids in the multiple cause of death fields on the death certificate)			Heroin Poisoning Deaths (Any mention of heroin in the multiple cause of death fields on the death certificate)		
	2013	2014	2015	2013	2014	2015	2013	2014	2015
Beaufort	10	7	8	1	2	4	1	1	1
Bertie	2	0	2	2	0	1	0	0	1
Brunswick	31	22	29	18	15	20	10	5	10
Camden	0	0	4	0	0	3	0	0	1
Carteret	13	19	18	6	13	12	1	1	4
Chowan	6	0	3	2	0	3	0	0	1
Craven	17	18	28	13	9	17	1	2	5
Currituck	0	3	5	0	1	3	0	1	2
Dare	4	10	5	3	6	3	0	3	0
Hertford	1	1	1	1	0	0	0	0	0
Hyde	0	0	0	0	0	0	0	0	0
Jones	0	1	3	0	0	3	0	0	0
Martin	3	2	3	1	1	1	0	0	0
New Hanover	38	41	52	19	14	32	9	11	23
Northampton	1	2	2	1	2	0	0	0	1
Onslow	19	20	20	13	13	13	1	1	3
Pamlico	2	4	4	0	3	3	0	0	1
Pasquotank	4	3	3	2	2	2	1	1	1
Pender	7	5	17	7	1	10	0	1	7
Perquimans	1	2	2	0	1	1	0	1	0
Pitt	18	30	17	11	17	10	2	3	4
Tyrrell	0	1	0	0	1	0	0	0	0
Washington	0	1	1	0	0	1	0	0	0
Trillium Catchment Total	177	193	228	100	101	143	26	31	66
North Carolina Total	1,215	1,306	1,498	624	728	854	183	253	369

* Note the numbers in the categories above are not mutually exclusive. Those included in Deaths by Prescription Opioids and/or Heroin may also be included in Medication and Drug Poisoning data. **The 'Prescription Opioid' category currently includes 'other synthetic narcotics' like tramadol and fentanyl. With the rise of illicitly manufactured fentanyl, the 'Prescription Opioid' category will likely exclude 'other synthetic narcotics' in the future.

Source: N.C. DHHS, Injury Epidemiology and Surveillance Unit, Injury and Violence Prevention Branch, Chronic Disease and Injury Section, Division of Public Health. Accessed 11/15/16.

Figure 52: Trillium Catchment 3-Year Overdose Death Comparison

Research shows some risk factors make people particularly vulnerable to prescription opioid abuse and overdose, including:

- Obtaining overlapping prescriptions from multiple providers and pharmacies^{28,29,30,31}
- Taking high daily dosages of prescription pain relievers^{29,32,33,34}
- Having mental illness or a history of alcohol or other substance abuse³⁵
- Living in rural areas and having low income³⁶

Trillium’s population is estimated to be approximately 1,289,714 individuals with approximately 232,148 being eligible for Medicaid and an additional 193,457 uninsured for a potential estimated population of 425,605. The most recent prevalence estimates from the Substance Abuse and Mental Health Services Administration (SAMHSA) were used to estimate the number of people in the Trillium network using nonmedical pain-relieving medications. See the chart below (Figure 53).

Number of People in Trillium Network Estimated to be Using Nonmedical Pain-Relieving Medications

Category	12-17 years	18+ years
Prevalence Rate percentage	4.86%	4.21%
Trillium population in each age group	87,373	1,011,526
Estimated number of people in each age group used nonmedical pain relievers (entire population, insured, Medicaid and uninsured)	4,246	42,585
Estimated Trillium Medicaid eligible (18%)	764	7,665
Estimated Trillium Uninsured (15%)	637	6,388
Total Estimate of prevalence in the Trillium catchment area using nonmedical pain-relieving drugs for sfy16	1,401	14,053
Number of individuals treated by Trillium providers for opioid dependence sfy16	0	818
Difference, which is the gap	1,401	13,235

Figure 53: Number of People in Trillium Network Estimated to be Using Nonmedical Pain-Relieving Medications

Based on the SAMHSA prevalence data, it is estimated there are over 14,000 people, ages 12+ likely to need treatment for opioid dependency in the Trillium catchment area.

In April, 2016, Castlight Health published a report titled, “The Opioid Crisis in America’s Workforce”, in which it named four North Carolina cities in the top 25 cities in the US for opioid abuse rates and the percentage of opioid prescriptions abused. Based on what Castlight Health states in the report, they conducted research on opioid abuse based on aggregated reporting from medical- and pharmacy-based claims. For the purposes of this analysis, opioid abuse was defined as meeting the following two conditions:

- 1) Receiving greater than a cumulative 90-day supply of opioids; and

- 2) Receiving an opioid prescription from four or more providers over the five-year period between 2011 and 2015.

Top 25 Cities in U.S. for Opioid Abuse Rates and Percentage of Opioid Prescription Abuse

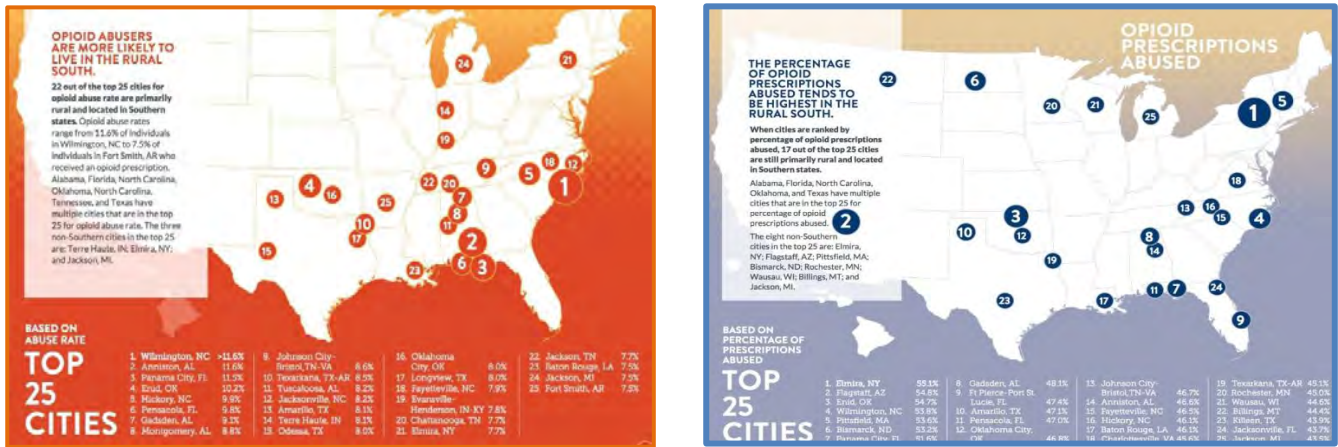


Figure 54: Top 25 Cities in U.S. for Opioid Abuse Rates and Percentage of Opioid Prescription Abuse

NC Cities Among Top 25 in U.S. for Opioid Abuse

Rank	City	Percentage
1	Wilmington	11.60%
2	Hickory	9.90%
12	Jacksonville	8.20%
18	Fayetteville	7.90%

NC Cities Among Top 25 in U.S. for Percentage of Opioid Prescription Abuse

Rank	City	Percentage
4	Wilmington	53.8%
15	Fayetteville	46.5%
16	Hickory	46.1%

Source: *The Opioid Crisis in America's Workforce*, April, 2016.

Figure 55: NC Cities Among Top 25 in U.S. for Opioid Abuse and Percentage of Opioid Prescription Abuse

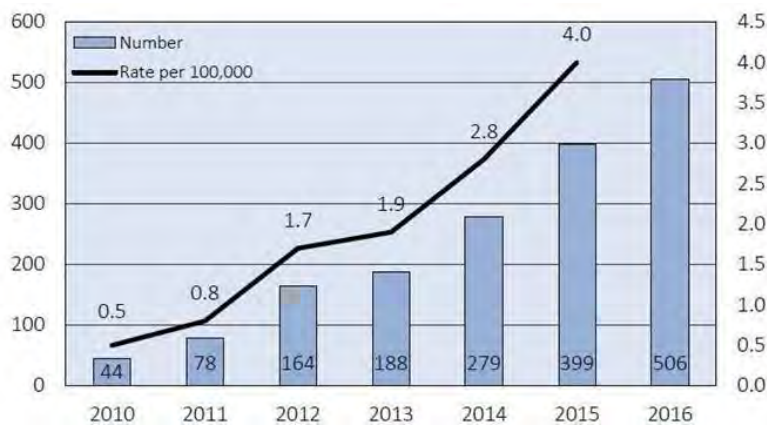
Chemically, prescription opioids are very similar to heroin, which was originally synthesized from morphine as a pharmaceutical in the late 19th century.⁹ These properties confer an increased risk of addiction and overdose, even in patients who take their medication as prescribed.⁷ Misuse of prescription opioids is also a risk factor for transitioning to heroin use.

Heroin

Heroin is a powerful opiate drug. Heroin looks like a white or brownish powder, or as the black sticky substance known on the streets as “black tar heroin.” It is diluted with other drugs or with sugar, starch, powdered milk, or quinine before injecting, smoking, or snorting. Some of the physical symptoms of heroin are euphoria, drowsiness, respiratory depression, constricted pupils, nausea and dry mouth.

From 2002–2013, past-month heroin use, past-year heroin use, and heroin addiction have all increased among 18-25 year olds.¹² The number of people who started to use heroin in the past year is also trending up. Among new heroin users, approximately three out of four report abusing prescription opioids prior to using heroin.¹³ The increased availability, lower price and increased purity of heroin in the U.S. have been identified as possible contributors to rising rates of heroin use.^{14,15}

Deaths Involving Heroin in North Carolina 2010-2016*



*2016 is considered provisional and current as of March 29, 2017.

The number of poisoning deaths may increase as cases are finalized.

Source: N.C. Medical Examiner. Office of Chief Medical Examiner

Figure 56: Deaths Involving Heroin in North Carolina 2010-2016

Deaths involving heroin in North Carolina increased by 43.0% from 2014 to 2015. Based on provisional data, deaths involving heroin increased by 26.8% from 2015 to 2016 and 1,050.0% from 2010-2016. In the 24 Trillium counties, there was a 153.8% increase in deaths involving heroin from 2013 to 2015. The largest increases were noted in New Hanover, Pender, Carteret, Brunswick and Craven Counties. Of note, four of these five counties are located in Trillium's Southern Region.

Trillium Heroin Poisoning Deaths 2013-2015

County	Heroin Poisoning Deaths			County	Heroin Poisoning Deaths		
	2013	2014	2015		2013	2014	2015
Beaufort	1	1	1	Jones	0	0	0
Bertie	0	0	1	Martin	0	0	0
Brunswick	10	5	10	New Hanover	9	11	23
Camden	0	0	1	Northampton	0	0	1
Carteret	1	1	4	Onslow	1	1	3
Chowan	0	0	1	Pamlico	0	0	1
Craven	1	2	5	Pasquotank	1	1	1
Currituck	0	1	2	Pender	0	1	7
Dare	0	3	0	Perquimans	0	1	0
Gates	0	0	1	Pitt	2	3	4
Hertford	0	0	0	Tyrrell	0	0	0
Hyde	0	0	0	Washington	0	0	0

Catchment	2013	2014	2015
Trillium Catchment Total	26	31	66

Source: N.C. DHHS, Injury Epidemiology and Surveillance Unit, Injury and Violence Prevention Branch, Chronic Disease and Injury Section, Division of Public Health. Received 11/15/16.

Figure 57: Trillium Heroin Poisoning Deaths 2013-2015

Pooling data from 2002 to 2012, the incidence of heroin initiation was 19 times higher among those who reported prior nonmedical pain reliever use than among those who did not (0.39 vs. 0.02 percent).¹³ (Note the use of the word ‘nonmedical’ – as in, using prescribed opioids but not for a prescribed medical reason/diagnosis.) Initiation into nonmedical use was characterized by three main sources of opioids: family, friends, or personal prescriptions.¹⁶ This is a shift from historical trends. Of people entering treatment for heroin addiction who began abusing opioids in the 1960s, more than 80 percent started with heroin. Of those who began abusing opioids in the 2000s, 75 percent reported their first opioid was a prescription drug.¹⁴ Examining national-level general population heroin data (including those in and not in treatment), nearly 80 percent of heroin users reported using prescription opioids prior to heroin.^{13,15}

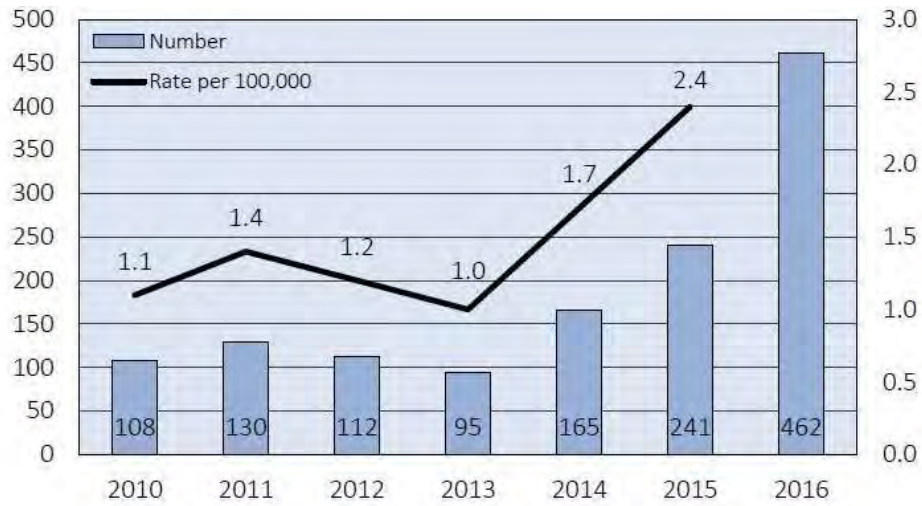
One main factor that contributes to the popularity of a drug is availability. One key to prevention is reducing exposure. While efforts to reduce the availability of prescription opioid analgesics have begun to show success, the supply of heroin has been increasing. It is not clear whether the increased availability of heroin is causing the upsurge in use or if the increased accessibility of heroin has been caused by increased demand. A number of studies have suggested people transitioning from abuse of prescription opioids to heroin cite heroin is cheaper, more available and provides a better high. Notably, the street price of heroin has been much lower in recent years than in past decades.¹⁶ In a recent survey of people in treatment for opioid addiction, almost all—94 percent—said they chose to use heroin because prescription opioids were "far more expensive and harder to obtain".¹⁴

Fentanyl

One of the biggest dangers with heroin is the unknown quality or quantity of additives. Fentanyl has become very popular as an additive in many states, including North Carolina. Pharmaceutical fentanyl is a synthetic opioid pain reliever, approved for treating severe pain, typically advanced cancer pain.¹⁷ It is 50 to 100 times more potent than morphine. It is prescribed in the form of transdermal patches or lozenges and can be easily diverted for misuse and abuse in the United States.

Most recent cases of fentanyl-related harm, overdose and death in the U.S. are linked to illegally made fentanyl.¹⁸ These are known as analogues. Analogues are drugs with the main structural features of Fentanyl that have been modified to bypass current U.S. drug laws and/or change the pharmacological profile of the drug. Fentanyl and its analogues can be produced in a moderately equipped home-based laboratory (like a meth lab) but are primarily produced in large manufacturing facilities in China and Mexico. It is sold through illegal drug markets for its heroin-like effect. It is often mixed with heroin and/or cocaine as a combination product—with or without the user’s knowledge—to increase its euphoric effects.

Deaths Involving Fentanyl and/or Analogues in North Carolina 2010-2016*



*2016 is considered provisional and current as of March 29, 2017.
 The number of poisoning deaths may increase as cases are finalized.
 Source: N.C. Medical Examiner, Office of Chief Medical Examiner

Figure 58: Deaths Involving Fentanyl and/or Analogues in North Carolina 2010-2016

Deaths involving Fentanyl or analogues in North Carolina increased by 46.1% from 2014 to 2015. Based on provisional data, deaths involving heroin increased by 91.7% from 2015 to 2016 and 327.8% from 2010-2016.

When the Prescription Becomes the Problem

U.S. Opioid Prescription Rates Comparison by State

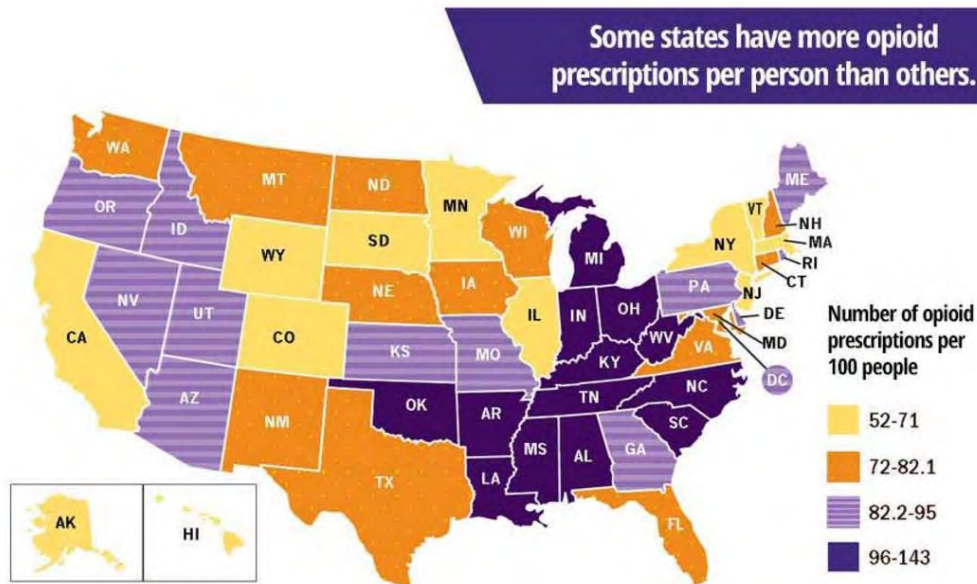


Figure 59: U.S. Opioid Prescription Rates Comparison by State

Providers wrote nearly a quarter of a billion opioid prescriptions in 2013—with wide variation across states. This is enough for every American adult to have their own bottle of pills.²⁵ Note in the chart above, North Carolina is ranked as having one of the highest prescription rates. Studies suggest regional variation in use of prescription opioids cannot be explained by the underlying health status of the population.²⁶ The most common drugs involved in prescription opioid overdose deaths include:

- Methadone
- Oxycodone (such as OxyContin®)
- Hydrocodone (such as Vicodin®)²⁷

An important point to note is inappropriate prescribing practices and opioid prescribing rates are substantially higher among Medicaid patients than among privately insured patients. In one study based on 2010 data, 40% of Medicaid enrollees with prescriptions for pain relievers had at least one indicator of potentially inappropriate use or prescribing:³⁰

- overlapping prescriptions for pain relievers;
- overlapping pain reliever and benzodiazepine prescriptions;
- long-acting or extended release prescription pain relievers for acute pain; and
- high daily doses.

While prescription opioids play an important role in managing some types of pain, some healthcare providers are overprescribing these drugs. The number of prescriptions for opioids (like hydrocodone and oxycodone products) have escalated from around 76 million in 1991 to nearly 207 million in 2013, with the United States their biggest consumer globally accounting for almost 100 percent of the world total for hydrocodone (e.g., Vicodin) and 81 percent for oxycodone (e.g., Percocet).²³ An analysis of national prescribing patterns shows more than half of patients who received an opioid prescription in 2009 had filled another opioid prescription within the previous 30 days. Improving the way opioids are prescribed through clinical practice guidelines can ensure patients have access to safer, more effective chronic pain treatment while reducing the number of people who misuse, abuse, or overdose from these drugs.

The N.C. Division of Mental Health, Developmental Disabilities and Substance Abuse Services, working with the N.C. Controlled Substances Reporting System (CSRS) is able to provide a more accurate number of prescriptions written in each county. The map below (Figure 61) provides a ranking of the number of prescriptions written; the higher ranking meaning fewer pills per consumer.

Ranking of Number of Prescriptions Written by NC Counties

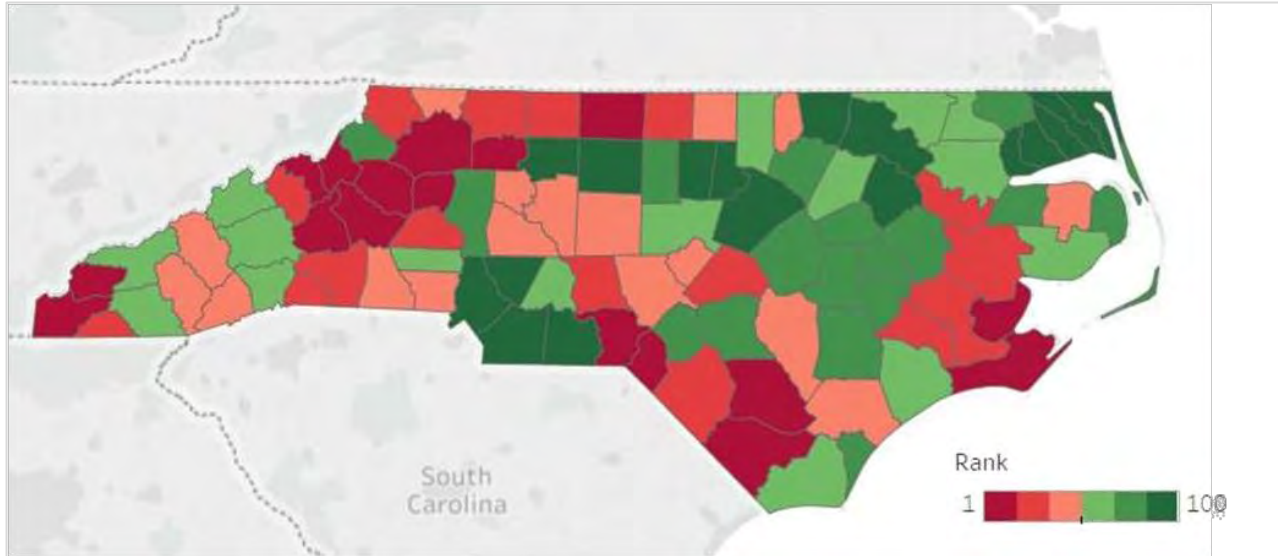


Figure 60: Ranking of Number of Prescriptions Written by NC Counties

The chart below (Figure 62) details prescribing information for the 24 Trillium Counties.

Trillium LME-MCO Prescription Information by County - 2016

County	Population	Pills Per Residence	Rx Per Residence	Total Pills	Total Rx
Beaufort	47,651	105.0	1.383	5,001,298	65,889
Bertie	20,199	79.1	1.092	1,597,173	22,060
Brunswick	122,765	93.1	1.333	11,432,891	163,670
Camden	10,309	52.3	0.734	539,627	7,566
Carteret	68,879	101.4	1.272	6,982,768	87,620
Chowan	14,394	64.7	0.970	931,959	13,955
Craven	103,451	92.5	1.179	9,566,265	121,967
Currituck	25,263	44.3	0.680	1,118,261	17,174
Dare	35,663	71.8	1.080	2,559,387	38,512
Gates	11,431	39.7	0.569	453,853	6,502
Hertford	24,184	57.8	0.805	1,398,890	19,466
Hyde	5,526	62.5	0.798	345,514	4,410
Jones	10,013	59.9	0.792	599,914	7,932
Martin	23,357	97.8	1.317	2,285,093	30,757
New Hanover	220,358	69.7	1.009	15,355,173	222,355
Northampton	20,426	62.5	0.844	1,276,448	17,240
Onslow	186,311	58.1	0.821	10,827,136	153,014
Pamlico	12,781	89.3	1.107	1,140,921	14,145
Pasquotank	39,829	56.9	0.912	2,265,164	36,336

County	Population	Pills Per Residence	Rx Per Residence	Total Pills	Total Rx
Pender	57,611	79.8	1.105	4,597,058	63,672
Perquimans	13,440	57.9	0.885	777,682	11,893
Pitt	175,842	60.5	0.871	10,641,769	153,111
Tyrrell	4,070	67.5	0.882	274,623	3,588
Washington	12,385	78.5	1.071	972,566	13,262

Source: N.C. Department of Health & Human Services, NC Controlled Substances Reporting System (CSRS).
<https://www.ncdhhs.gov/divisions/mhddsas/ncdcu/prescription-rates-by-county>

Figure 61: Trillium LME-MCO Prescription Information by County - 2016

The map below (Figure 63) reflects overdoses are more common in counties where the higher numbers of prescriptions are written. There are 82.9 prescriptions for every 100 people in North Carolina.

NC Overdose Rates Relative to Rx Dispensing Rates by County

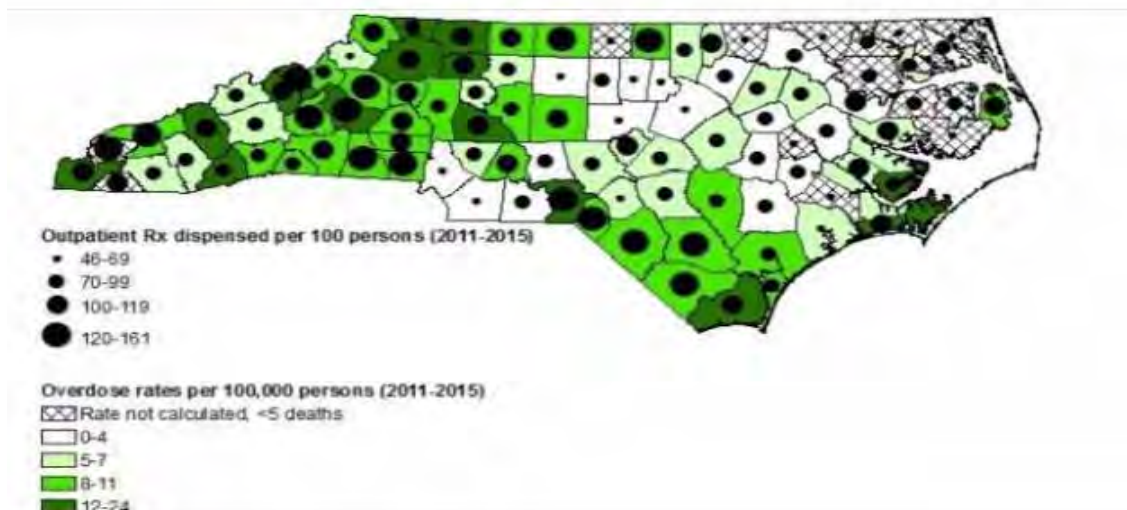


Figure 62: NC Overdose Rates Relative to Rx Dispensing Rates by County

The CDC Guideline for Prescribing Opioids for Chronic Pain was published in March 2016. It provides recommendations about the appropriate prescribing of opioid pain relievers and other treatment options to improve pain management and patient safety.

Impact

The greater availability of opioids has been accompanied by alarming increases in the negative consequences related to their abuse. Individual and societal consequences range from the loss of employment, criminal justice issues, destruction of the family unit, domestic violence, child abuse and loss of child custody to infectious diseases such as HIV, AIDS, Hepatitis B and C, failing health and, as we know, death.

Law enforcement has become the center of the opioid crisis in many communities. For example, in 2016, the Jacksonville Police Department recorded over 900 mental health calls reflecting over a 300% increase. Utilizing the local Mobile Crisis Management team (MCM), 115 of the 133 adults seen by MCM were referred for an Involuntary Commitment (IVC) assessment. In the State of North Carolina, IVC is the judicial procedure for compelling persons to receive mental health and/or substance abuse treatment, either on an inpatient or outpatient basis.

There were 3,051 IVCs in Carteret and Onslow Counties in 2016. The majority of dispositions for the IVC initial examinations in these two counties are the emergency departments of their local hospitals. The Jacksonville PD data reflected 57.4% of their 2,518 IVCs in 2016 were transported to the hospital. In 2015, it was estimated there were 2,238 admissions with a primary mental health diagnosis at Onslow Memorial Hospital's Emergency Department.

In turn, hospitals have seen a tremendous increase in persons needing assistance in their emergency departments. The impact to their human and financial resources has forced changes even to their acute, inpatient processes due to the sharing and spreading of personnel and facility space. The chart below (Figure 64) reflects the use of Trillium's area emergency departments:

Trillium Catchment ED Visits - 3 Year Comparison**

County	Medication-Drug Poisoning <small>(Any mention of a medication and/or drug poisoning in the first six diagnostic codes or E-code; includes prescription, over-the-counter, and illicit drugs)</small>			Prescription Opioid Poisoning*** <small>(Any mention of other opioids, methadone, and/or other synthetic opioids in the first six diagnostic codes or E-codes)</small>			Heroin Poisoning <small>(Any mention of heroin in the first six diagnostic codes or E-codes)</small>		
	2012	2013	2014	2012	2013	2014	2012	2013	2014
Beaufort	121	99	122	17	*	17	0	*	11
Bertie	42	28	29	0	*	*	0	0	*
Brunswick	272	289	293	44	38	45	12	19	17
Camden	10	14	13	*	0	0	0	0	*
Carteret	204	212	205	41	35	26	*	0	11
Chowan	31	30	41	*	*	*	0	*	0
Craven	287	308	320	32	46	44	*	*	12
Currituck	30	18	37	*	0	*	*	0	*
Dare	79	74	72	*	*	*	*	*	*
Gates	12	13	*	*	*	*	0	0	0
Hertford	46	36	31	*	*	*	0	*	0
Hyde	10	12	*	0	*	0	0	0	0
Jones	30	26	32	*	*	*	0	0	*
Martin	33	48	43	*	*	*	0	0	*
New Hanover	354	351	486	40	35	43	46	68	64
Northampton	57	56	42	*	*	0	0	0	0
Onslow	378	369	409	31	32	29	*	*	11
Pamlico	24	29	41	*	*	*	0	0	*
Pasquotank	63	74	84	*	*	*	*	0	*

County	Medication-Drug Poisoning (Any mention of a medication and/or drug poisoning in the first six diagnostic codes or E-code; includes prescription, over-the-counter, and illicit drugs)			Prescription Opioid Poisoning*** (Any mention of other opioids, methadone, and/or other synthetic opioids in the first six diagnostic codes or E-codes)			Heroin Poisoning (Any mention of heroin in the first six diagnostic codes or E-codes)		
	2012	2013	2014	2012	2013	2014	2012	2013	2014
Pender	106	89	101	17	*	*	*	*	15
Perquimans	18	22	23	*	*	0	0	0	0
Pitt	402	348	410	40	29	33	*	16	18
Tyrrell	*	*	*	*	*	0	0	0	0
Washington	22	18	19	0	*	0	0	0	0
Trillium Catchment Total	2,631	2,563	2,853	262	215	237	58	103	159
North Carolina Total	20,981	20,371	21,835	2,237	2,036	2,019	474	643	1,127

* data suppressed using state convention >0 and <10

** Note the numbers in the categories above are not mutually exclusive. Those included in Prescription Opioids and/or Heroin may also be included in Medication and Drug Poisoning data. Also note that this is the most current data available as of 6/9/17.

***The 'Prescription Opioid' category currently includes 'other synthetic narcotics' like tramadol and fentanyl. With the rise of illicitly manufactured fentanyl, the 'Prescription Opioid' category will likely exclude 'other synthetic narcotics' in the future.

Source: N.C. DHHS, Injury Epidemiology and Surveillance Unit, Injury and Violence Prevention Branch, Chronic Disease and Injury Section, Division of Public Health. Accessed 11/15/16.

Figure 63: Trillium Catchment ED Visits - 3 Year Comparison

Total U.S. societal costs of prescription opioid abuse were estimated at \$55.7 billion in 2009. Workplace costs accounted for \$25.6 billion (46%), healthcare costs accounted for \$25.0 billion (45%), and criminal justice costs accounted for \$5.1 billion (9%). Workplace costs were driven by lost earnings from premature death (\$11.2 billion) and reduced compensation/lost employment (\$7.9 billion). Healthcare costs consisted primarily of excess medical and prescription costs (\$23.7 billion). Criminal justice costs were largely comprised of correctional facility (\$2.3 billion) and police costs (\$1.5 billion).²⁴

The costs of prescription opioid abuse represent a substantial and growing economic burden for the society. The increasing prevalence of abuse suggests an even greater societal burden in the future.

What is Trillium Doing?

During the past year, Trillium has been increasingly concerned about the growing opioid drug problems evident in all 24 of its network counties. Trillium is convinced one solution to combat this epidemic is to develop a continuum of intervention points, assessment, treatment and follow-up care that can effectively intervene in an individual's cycle of drug addiction. In May, 2017 North Carolina was awarded a 2-year \$31 million grant from the federal Substance Abuse Mental Health Services Administration (SAMHSA) specifically to treat the opioid crisis throughout the state. The allocation to the LME-MCOs has not been decided. However, Trillium has formed a workgroup to develop a plan which will provide quick response teams, early intervention, expand detoxification and treatment services and expand peer support and follow-up services in an effort to create recovery options, which are currently not available in the existing Trillium or North Carolina service array.

An overview of current services, projects and activities is provided below:

Naloxone distribution initiatives

- Trillium has donated a total of \$115,000 to the NC Harm Reduction Coalition (NHRC) to purchase and distribute Naloxone nasal injector kits for the Trillium network area law enforcement organizations. It was estimated this would purchase about 650 kits to be available approximately through 2019.
- In addition, Trillium donated Naloxone kits to the Jacksonville and Manteo police departments.

Current Trillium Contracted Opioid Treatment Providers & Locations

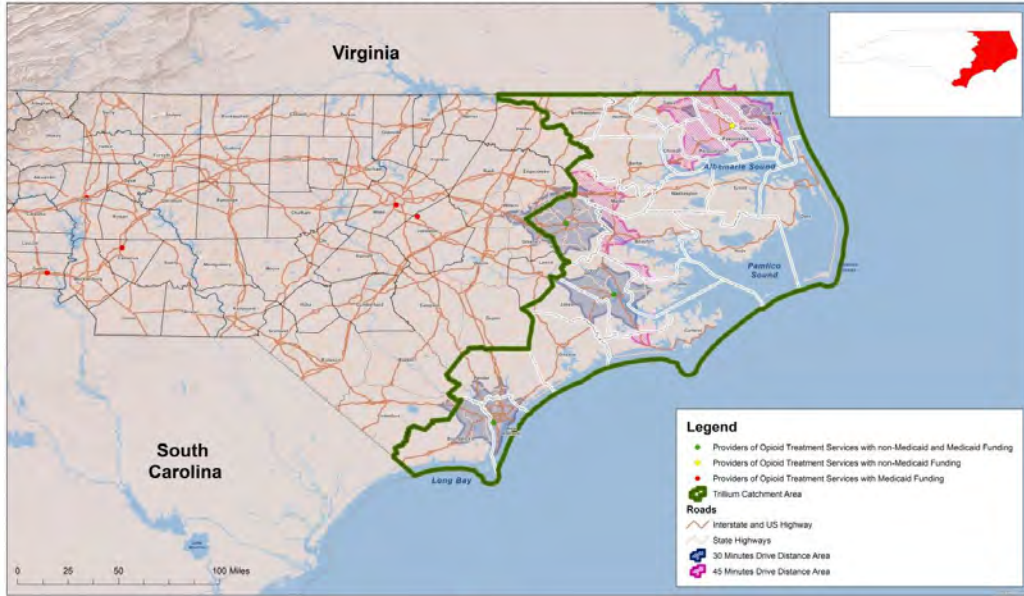
Site Name	Consumers	County	Insurance
PORT Health Services		Craven	State
PORT Health Services		Craven	Medicaid
PORT Health Services		Pitt	State
PORT Health Services		Pitt	Medicaid
PORT Health Services		Pasquotank	State
Southlight Garner Road SAIOP	SCA	Wake	Medicaid
Coastal Horizons Center, Inc.		New Hanover	State
Coastal Horizons Center, Inc.		New Hanover	Medicaid
McLeod	CSA	Cabarrus	Medicaid
McLeod	CSA	Iredell	Medicaid
McLeod	CSA	Gaston	Medicaid
Johnston Recovery Services	CSA	Johnston	Medicaid

Figure 64: Current Trillium Contracted Opioid Treatment Providers & Locations

In addition to their current methadone maintenance clinics, PORT will be opening two additional sites in Elizabeth City (about 7/1/17) and Jacksonville (about 10/1/17)

See the following maps for locations of Methadone providers (Figure 66) and Buprenorphine providers (Figure 67) currently offering treatment services for Opioid Dependencies throughout the 24-county area.

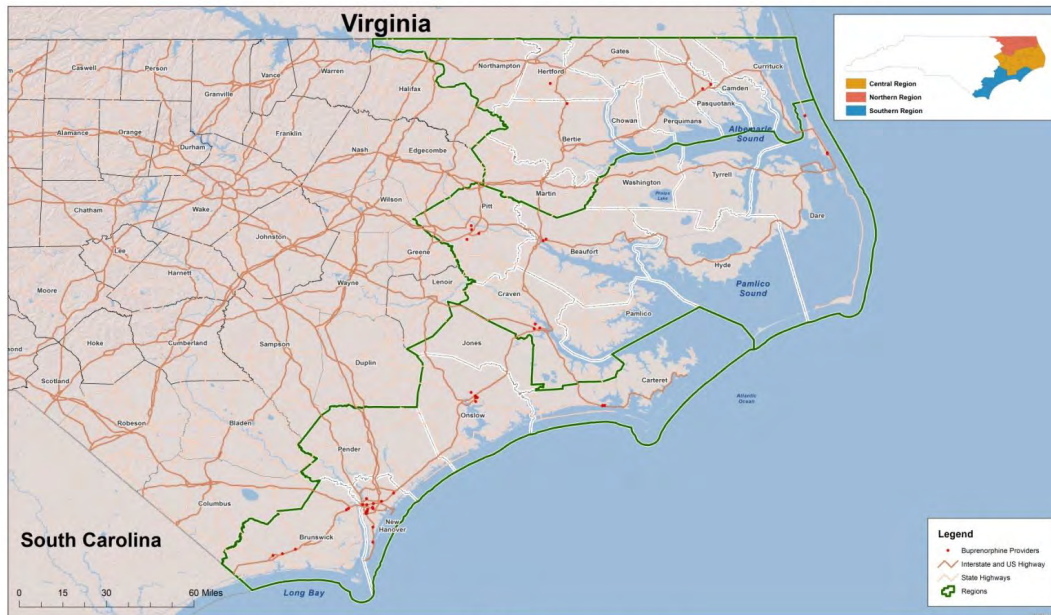
Trillium Health Resources Opioid Treatment Services SFY16



ACT ADDICTION & Training Consulting & ASSOCIATES

Figure 65: Map-Trillium Health Resources Opioid Treatment Services SFY2016

Buprenorphine Providers in Trillium Health Resources Catchment Area SFY16



ACT ADDICTION & Training Consulting & ASSOCIATES

Figure 66: Map-Buprenorphine Providers in Trillium Health Resources Catchment Area SFY2016

Recommendations

- Use one-time SAMHSA Opioid funds to strengthen and add to the existing continuum of care to create responsive intervention, referral into outpatient, residential, long term residential and follow up services in the 24-county area.
- Develop benchmark measurements for providers offering Medication Assisted Treatment Services (MAT) that insist on psychotherapeutic services, peer and recovery supports in addition to the medications used to treat opioid dependencies.
- Develop community education messages regarding the dangers and warning signs of prescription opioid abuse and dependency
- Expand the base of peer recovery specialists who have a solid track record of recovery from opioid and prescription medications.

Citations

1. Rudd RA, Seth P, David F, Scholl L. Increases in Drug and Opioid-Involved Overdose Deaths — United States, 2010–2015. *MMWR Morb Mortal Wkly Rep.* ePub: 16 December 2016. DOI: <http://dx.doi.org/10.15585/mmwr.mm6550e1>.
2. CDC. Wide-ranging online data for epidemiologic research (WONDER). Atlanta, GA: CDC, National Center for Health Statistics; 2016. Available at <http://wonder.cdc.gov>.
3. Chang H, Daubresse M, Kruszewski S, et al. Prevalence and treatment of pain in emergency departments in the United States, 2000 – 2010. *Amer J of Emergency Med* 2014; 32(5): 421-31.
4. Daubresse M, Chang H, Yu Y, Viswanathan S, et al. Ambulatory diagnosis and treatment of nonmalignant pain in the United States, 2000 – 2010. *Medical Care* 2013; 51(10): 870-878.
5. CDC. Wide-ranging online data for epidemiologic research (WONDER). Atlanta, GA: CDC, National Center for Health Statistics; 2016. Available at <http://wonder.cdc.gov>
6. Gutstein H, Akil H. Opioid Analgesics. In: Goodman & Gilman’s the Pharmacological Basis of Therapeutics. 11th ed. McGraw-Hill; 2006:547-590.
7. Dowell D, Haegerich TM, Chou R. CDC Guideline for Prescribing Opioids for Chronic Pain - United States, 2016. *MMWR Recomm Rep Morb Mortal Wkly Rep Recomm Rep Cent Dis Control.* 2016;65(1):1-49. doi:10.15585/mmwr.rr6501e1.
8. Lee M, Silverman SM, Hansen H, Patel VB, Manchikanti L. A comprehensive review of opioid-induced hyperalgesia. *Pain Physician.* 2011;14(2):145-161.
9. Hart CL, Ksir C. *Drugs, Society & Human Behavior.* 15th ed. New York, NY: McGraw-Hill; 2013.
10. Jones CM, McAninch JK. Emergency Department Visits and Overdose Deaths From Combined Use of Opioids and Benzodiazepines. *Am J Prev Med.* 2015;49(4):493-501. doi:10.1016/j.amepre.2015.03.040.
11. Jones CM, Paulozzi LJ, Mack KA, Centers for Disease Control and Prevention (CDC). Alcohol involvement in opioid pain reliever and benzodiazepine drug abuse-related emergency department visits and drug-related deaths - United States, 2010. *MMWR Morb Mortal Wkly Rep.* 2014;63(40):881-885.

-
12. Centers for Disease Control and Prevention. Demographic and Substance Use Trends Among Heroin Users — United States, 2002–2013. *MMWR* 2015; 64(26):719-725
 13. Muhuri PK, Gfroerer JC, Davies C. Associations of nonmedical pain reliever use and initiation of heroin use in the United States. *CBHSQ Data Review*, 2013.
 14. Cicero TJ, Ellis MS, Surratt HL, Kurtz SP. The changing face of heroin use in the United States: a retrospective analysis of the past fifty years. *JAMA Psychiatry* 2014;71:821–6.
 15. Jones CM. Heroin use and heroin use risk behaviors among nonmedical users of prescription opioid pain relievers — United States, 2002–2004 and 2008–2010. *Drug Alcohol Depend* 2013;132:95-100.
 16. Unick G, Rosenblum D, Mars S, Ciccarone D. The relationship between US heroin market dynamics and heroin-related overdose, 1992-2008. *Addiction*. 2014;109(11):1889-1898.
 17. Algren D, Monteilh C, Rubin C, et al. Fentanyl-associated fatalities among illicit drug users in Wayne County, Michigan (July 2005-May 2006). *Journal Of Medical Toxicology: Official Journal of the American College Of Medical Toxicology* [serial online]. March 2013; 9(1):106-115.
 18. U. S. Department of Justice, Drug Enforcement Administration, DEA Investigative Reporting, January 2015.
 19. Rudd RA, Aleshire N, Zibbell JE, Gladden RM. Increases in Drug and Opioid Overdose Deaths - United States, 2000-2014. *MMWR Morb Mortal Wkly Rep*. 2016;64(50-51):1378-1382. doi:10.15585/mmwr.mm6450a3.
 20. Institute of Medicine (U.S.), ed. *Relieving Pain in America: A Blueprint for Transforming Prevention, Care, Education, and Research*. Washington, D.C: National Academies Press; 2011.
 21. Chou R, Turner JA, Devine EB, et al. The Effectiveness and Risks of Long-Term Opioid Therapy for Chronic Pain: A Systematic Review for a National Institutes of Health Pathways to Prevention Workshop. *Ann Intern Med*. 2015;162(4):276. doi:10.7326/M14-2559.
 22. IMS’s National Prescription Audit (NPA) & Vector One ®: National (VONA).
 23. International Narcotics Control Board Report 2008.. United Nations Pubns. 2009. p. 20
 24. Societal Costs of Prescription Opioid Abuse, Dependence, and Misuse in the United Statespme_1075 657..667 Howard G. Birnbaum, PhD,* Alan G. White, PhD,* Matt Schiller, BA,* Tracy Waldman, BA,* Jody M. Cleveland, MS,† and Carl L. Roland, PharmD. *Pain Medicine* 2011; 12: 657–667 Wiley Periodicals, Inc.
 25. IMS Health, National Prescription Audit (NPATM). Cited in internal document: Preliminary Update on Opioid Pain Reliever (OPR) Prescription Rates Nationally and by State: 2010-2013.
 26. Centers for Disease Control and Prevention. Vital Signs: Variation Among States in Prescribing of Opioid Pain Relievers and Benzodiazepines — United States, 2012. *MMWR* 2014; 63(26);563-568.
 27. Ossiander EM. Using textual cause-of-death data to study drug poisoning deaths. *Am J Epidemiol* 2014 Apr 1;179(7):884-94.
 28. White AG, Birnbaum HG, Schiller M, Tang J, Katz NP. Analytic models to identify patients at risk for prescription opioid abuse. *Am J of Managed Care* 2009;15(12):897-906.
 29. Hall AJ, Logan JE, Toblin RL, Kaplan JA, Kraner JC, Bixler D, et al. Patterns of abuse among unintentional pharmaceutical overdose fatalities. *JAMA* 2008;300(22):2613-20.

-
30. Peirce GL, Smith MJ, Abate MA, Halverson J. Doctor and Pharmacy Shopping for Controlled Substances. *Med Care* 2012 Jun;50(6):494-500.
 31. Yang Z, Wilsey B, Bohm M, Soulsby M, Roy K, Ritley D, et al. Defining Risk for Prescription Opioid Overdose: Pharmacy Shopping and Overlapping Prescriptions among Long-Term Opioid Users in Medicaid. *J Pain* 2015; doi: 10.1016/j.jpain.2015.01.475. [Epub ahead of print]
 32. Green TC, Graub LE, Carver HW, Kinzly M, Heimer R. Epidemiologic trends and geographic patterns of fatal opioid intoxications in Connecticut, USA: 1997–2007. *Drug and Alcohol Dependence* 2011;115:221-8.
 33. Paulozzi LJ, Logan JE, Hall AJ, McKinstry E, Kaplan JA, Crosby AE. A comparison of drug overdose deaths involving methadone and other opioid analgesics in West Virginia. *Addiction* 2009;104(9):1541-8.
 34. Dunn KM, Saunders KW, Rutter CM, Banta-Green CJ, Merrill JO, Sullivan MD, et al. Opioid prescriptions for chronic pain and overdose: a cohort study. *Ann Intern Med.* 2010;152(2):85-92.
 35. Bohnert AS, Valenstein M, Bair MJ, Ganoczy D, McCarthy JF, Ilgen MA, et al. Association between opioid prescribing patterns and opioid overdose-related deaths. *JAMA* 2011;305(13):1315-1321.
 36. Mack KA, Zhang K, Paulozzi L, Jones C. Prescription Practices involving Opioid Analgesics among Americans with Medicaid, 2010. *J Healthcare Poor Underserved* 2015;26(1):182-98.

Supplemental Trillium Charts & Maps

Geographic and Demographic

Population and Geographic Size

Trillium Population and Geographic Size SFY2016

County	Total Population	Square Miles	Persons per Square Mile
Beaufort	47,717	827.97	57.6
Bertie	20,100	699.19	28.7
Brunswick	124,668	854.79	145.8
Camden	10,431	240.68	43.3
Carteret	69,706	519.84	134.1
Chowan	14,669	172.64	85.0
Craven	105,773	708.43	149.3
Currituck	26,160	261.7	100.0
Dare	35,727	383.58	93.1
Gates	11,914	340.61	35.0
Hertford	24,423	353.26	69.1
Hyde	5,720	612.8	9.3
Jones	10,518	471.88	22.3
Martin	23,494	461.17	50.9
New Hanover	223,260	198.93	1,122.3
Northampton	20,960	536.48	39.1
Onslow	195,835	766.82	255.4
Pamlico	13,184	336.94	39.1
Pasquotank	40,112	226.88	176.8
Pender	58,815	870.67	67.6
Perquimans	13,539	247.17	54.8
Pitt	176,269	651.58	270.5
Tyrrell	4,141	389.91	10.6
Washington	12,579	348.46	36.1
Trillium Catchment Total	1,289,714	11,482.38	112.3
North Carolina Total	10,157,928	48,710.88	208.5

Source: N.C. Office of State Budget and Management. Accessed 9/16/16.

https://ncosbm.s3.amazonaws.com/s3fs-public/demog/countytotals_2010_2019.html

Figure 67: Trillium Population and Geographic Size SFY2016

Population by Race/Ethnicity

Trillium Race/Ethnicity of Service Area

County	White Alone	Black or African-American	American Indian and Alaskan Native Alone	Asian - Pacific Islander	Other Race Alone	Two or More Races	Hispanic/Latino
Beaufort	34,769	11,424	591	271	2,444	772	4,177
Bertie	7,316	12,577	95	169	122	256	306
Brunswick	107,112	14,152	1,160	997	3,046	2,291	7,199
Camden	8,345	1,342	39	218	98	279	278
Carteret	63,217	3,991	393	859	1,054	1,655	3,076
Chowan	9,300	4,750	62	108	338	198	600
Craven	73,375	23,327	613	2,856	2,758	3,085	7,718
Currituck	23,645	1,545	141	260	300	603	1,118
Dare	34,092	951	253	334	1,056	781	3,293
Gates	7,452	3,868	79	28	105	274	229
Hertford	9,047	14,562	267	199	309	327	841
Hyde	3,807	1,724	48	14	161	85	563
Jones	6,960	3,050	96	42	199	276	452
Martin	12,963	10,210	116	120	498	240	949
New Hanover	181,667	31,313	1,630	3,504	5,792	5,038	14,580
Northampton	8,315	12,292	132	61	242	237	391
Onslow	153,406	28,159	1,602	4,860	7,064	8,803	24,152
Pamlico	10,374	2,452	89	63	204	199	544
Pasquotank	22,361	15,795	207	601	935	995	2,047
Pender	47,672	9,100	619	396	2,022	1,318	4,322
Perquimans	9,987	3,386	54	69	199	203	419
Pitt	106,712	61,058	1,034	3,661	6,007	3,846	11,440
Tyrrell	2,429	1,577	41	98	184	70	229
Washington	5,726	6,436	93	35	369	218	586
Trillium Catchment Total	950,049	279,041	9,454	19,823	35,506	32,049	89,509
North Carolina Total	7,214,220	2,244,294	171,761	288,048	482,054	240,152	1,036,037

Source: N.C. Office of State Budget and Management. Accessed 10/20/16.

The race and Hispanic origin categories used by the Census Bureau are mandated by Office of Management and Budget Directive No. 15, which requires all federal record keeping and data presentation to use four race categories (White, Black, American Indian and Alaska Native, Asian and Pacific Islander) and two ethnicity categories (Hispanic, non-Hispanic). These classifications are not intended to be scientific in nature, but are designed to promote consistency in federal record keeping and data presentation.

http://www.osbm.state.nc.us/ncosbm/facts_and_figures/socioeconomic_data/population_estimates/county_estimates.shtm/

Figure 68: Trillium Race/Ethnicity of Service Area

Population by Age

Trillium Population by Age - July, 2016

County	Population Ages 0-2	Population Ages 3-17	Population Ages 18+	Population Ages 12-17	Population Ages 18-25	Population Ages 26+	Population Ages 12+	Population Ages 18-64	Population Ages 65+	Total Population
Beaufort	1,394	8,509	37,814	3,672	4,059	33,755	41,486	26,841	10,973	47,717
Bertie	555	3,320	16,225	1,354	1,779	14,446	17,579	12,366	3,859	20,100
Brunswick	3,246	18,450	102,972	7,553	8,308	94,664	110,525	67,885	35,087	124,668
Camden	306	1,928	8,197	895	993	7,204	9,092	6,561	1,636	10,431
Carteret	1,829	10,480	57,397	4,439	5,963	51,434	61,836	41,197	16,200	69,706
Chowan	439	2,615	11,615	1,088	1,275	10,340	12,703	8,267	3,348	14,669
Craven	4,511	21,922	79,340	7,770	13,856	65,484	87,110	61,557	17,783	105,773
Currituck	808	4,729	20,623	2,156	2,355	18,268	22,779	16,641	3,982	26,160
Dare	1,107	5,767	28,853	2,326	2,564	26,289	31,179	21,732	7,121	35,727
Gates	326	2,039	9,549	883	1,355	8,194	10,432	7,381	2,168	11,914
Hertford	672	4,142	19,609	1,688	2,731	16,878	21,297	15,168	4,441	24,423
Hyde	136	841	4,743	325	519	4,224	5,068	3,694	1,049	5,720
Jones	326	1,789	8,403	730	880	7,523	9,133	6,333	2,070	10,518
Martin	732	4,151	18,611	1,782	2,012	16,599	20,393	13,655	4,956	23,494
New Hanover	6,757	35,610	180,893	14,301	30,815	150,078	195,194	144,230	36,663	223,260
Northampton	550	3,402	17,008	1,401	1,806	15,202	18,409	12,284	4,724	20,960
Onslow	12,364	44,167	139,304	12,542	40,334	98,970	151,846	121,840	17,464	195,835
Pamlico	296	1,815	11,073	778	911	10,162	11,851	7,467	3,606	13,184
Pasquotank	1,457	7,706	30,949	2,952	5,597	25,352	33,901	24,882	6,067	40,112
Pender	1,859	10,415	46,541	4,460	6,049	40,492	51,001	36,197	10,344	58,815
Perquimans	400	2,198	10,941	895	1,120	9,821	11,836	7,409	3,532	13,539
Pitt	6,070	32,557	137,642	12,553	35,317	102,325	150,195	116,266	21,376	176,269
Tyrrell	123	642	3,376	248	341	3,035	3,624	2,580	796	4,141
Washington	403	2,328	9,848	946	1,056	8,792	10,794	7,074	2,774	12,579
Trillium Catchment Total	46,666	231,522	1,011,526	87,737	171,995	839,531	1,099,263	789,507	222,019	1,289,714
North Carolina Total	358,925	1,947,064	7,851,939	800,415	1,140,743	6,711,196	8,652,354	6,293,902	1,558,037	10,157,928

Source: N.C. Office of State Budget and Management. Accessed 9/16/16.

Figure 69: Trillium Population by Age, July, 2016

Population Median Age

Trillium Median Age - 2016

County	Median Age
Beaufort	45.61
Bertie	42.42
Brunswick	49.92
Camden	42.28
Carteret	47.52
Chowan	44.55
Craven	36.00
Currituck	43.05
Dare	45.34
Gates	43.55
Hertford	41.63
Hyde	43.50
Jones	43.33
Martin	45.52
New Hanover	38.10
Northampton	45.52
Onslow	26.27
Pamlico	50.36
Pasquotank	36.86
Pender	41.63
Perquimans	47.96
Pitt	32.61
Tyrrell	42.86
Washington	45.54
Trillium Median Age	42.58
North Carolina Median Age	38.44

Source: N.C. Office of State Budget and Management. Accessed 10/17/16.

Figure 70: Trillium Median Age - 2016

Population by Sex

Trillium Population by Sex

County	Male		Female	
	Count	Percentage	Count	Percentage
Beaufort	23,145	48.4%	24,682	51.6%
Bertie	10,090	49.4%	10,323	50.6%
Brunswick	62,479	49.7%	63,233	50.3%
Camden	5,095	49.8%	5,128	50.2%
Carteret	34,719	49.5%	35,396	50.5%
Chowan	6,902	47.9%	7,516	52.1%
Craven	50,503	48.9%	52,753	51.1%
Currituck	13,014	49.7%	13,180	50.3%
Dare	18,099	49.7%	18,312	50.3%
Gates	5,711	48.8%	5,990	51.2%
Hertford	12,315	50.5%	12,087	49.5%
Hyde	3,154	55.5%	2,524	44.5%
Jones	5,036	48.3%	5,388	51.7%
Martin	11,078	46.8%	12,571	53.2%
New Hanover	108,057	48.4%	115,095	51.6%
Northampton	10,171	48.3%	10,866	51.7%
Onslow	102,602	52.1%	94,228	47.9%
Pamlico	6,793	51.6%	6,384	48.4%
Pasquotank	19,622	49.1%	20,337	50.9%
Pender	29,537	50.0%	29,568	50.0%
Perquimans	6,578	48.0%	7,121	52.0%
Pitt	82,526	46.8%	93,785	53.2%
Tyrrell	2,332	55.3%	1,883	44.7%
Washington	5,858	46.8%	6,650	53.2%
Trillium Catchment Total	635,416	49.2%	655,000	50.8%
North Carolina Total	4,937,585	48.6%	5,220,890	51.4%

Source: N.C. Office of State Budget and Management. Accessed 10/20/16.

Figure 71: Trillium Population by Sex

Education Dropout & Graduation Rates

**Trillium Catchment Education Rates
Comparison Dropout , Crime & Violence, Graduation**

County	Dropout Rates /1,000 2013-2014	Dropout Rates /1,000 2015-2016	Trend: Up, Down, Steady	Crime & Violence Rates/ 1,000 2013-2014	Crime & Violence Rates/ 1,000 2015-2016	Trend: Up, Down, Steady	Graduation Rate (Percent) 2014-2015*	Graduation Rate (Percent) 2015-2016*	Trend: Up, Down, Steady
Beaufort	2.24	3.05	U	14.37	13.91	D	84.3%	81.3%	D
Bertie	2.99	3.28	U	11.46	1.29	D	84.6%	81.0%	D
Brunswick	3.20	3.28	U	15.81	9.71	D	83.2%	82.8%	D
Camden	1.96	3.05	U	13.63	23.55	U	89.2%	89.5%	U
Carteret	2.29	1.84	D	5.08	12.52	U	85.6%	87.3%	U
Chowan	3.08	3.63	U	13.95	8.55	D	82.2%	90.5%	U
Craven	2.56	2.47	D	7.96	6.81	D	85.4%	85.7%	U
Currituck	2.10	1.89	D	20.70	13.38	D	90.1%	91.3%	U
Dare	1.21	1.28	U	6.32	11.20	U	93.8%	95.4%	U
Gates	2.86	1.89	D	9.36	12.00	U	86.2%	87.1%	U
Hertford	1.11	2.66	U	9.31	20.29	U	86.0%	85.9%	D
Hyde	0.00	3.14	U	0.00	11.05	U	94.7%	91.3%	D
Jones	1.35	0.32	D	0.00	0.00	S	89.9%	93.2%	U
Martin	3.12	3.94	U	16.57	11.72	D	75.5%	75.0%	D
New Hanover	2.88	1.65	D	14.49	15.99	U	81.6%	83.3%	U
Northampton	3.26	3.30	U	20.92	20.49	D	84.7%	73.2%	D
Onslow	1.44	1.81	U	9.66	10.49	U	89.2%	90.2%	U
Pamlico	2.82	1.75	D	12.63	6.85	D	84.4%	90.2%	U
Pasquotank	1.03	1.23	U	13.22	10.96	D	83.9%	86.4%	U
Pender	2.48	1.50	D	20.71	14.93	D	90.2%	90.3%	U
Perquimans	1.34	2.75	U	15.59	11.72	D	90.6%	90.5%	D
Pitt	2.13	2.01	D	10.02	9.14	D	80.8%	93.0%	U
Tyrrell	0.00	1.23	U	0.00	6.25	U	83.9%	91.9%	U
Washington	0.20	2.47	U	0.00	0.00	S	88.4%	80.3%	D
Trillium Catchment Average Rate/Percentage	1.99	2.31	U	10.91	10.95	U	86.2%	86.9%	U
North Carolina Average Rate/Percentage	2.28	2.29	U	12.37	6.62	D	85.6%	85.9%	U

Source: N.C. State Board of Education/Department of Public Instruction. Accessed 2/8/17.

*The North Carolina Four-Year Cohort Graduation Rate reflects the percentage of ninth graders (their cohort) who graduated from high school four years later.

Figure 72: Trillium Catchment Education Rates Comparison Dropout , Crime & Violence, Graduation

Unemployment

Trillium Unemployment Rate Comparison

County	Rate as of June 30, 2014	Rate as of June 30, 2015	Rate as of June 30, 2016
Beaufort	7.5%	7.0%	5.7%
Bertie	7.9%	7.6%	6.6%
Brunswick	7.4%	7.1%	5.8%
Camden	6.0%	6.3%	5.6%
Carteret	5.7%	6.0%	4.8%
Chowan	7.8%	7.4%	6.6%
Craven	7.0%	6.5%	5.2%
Currituck	5.6%	5.7%	4.8%
Dare	5.8%	5.3%	4.6%
Gates	5.9%	5.9%	5.2%
Hertford	7.5%	7.4%	6.7%
Hyde	6.3%	7.0%	7.0%
Jones	6.3%	6.1%	5.1%
Martin	7.8%	8.4%	7.0%
New Hanover	6.0%	5.6%	4.7%
Northampton	8.0%	8.4%	7.3%
Onslow	6.1%	6.2%	5.5%
Pamlico	6.6%	6.5%	5.2%
Pasquotank	8.2%	7.9%	6.4%
Pender	7.1%	6.3%	5.3%
Perquimans	7.6%	7.6%	6.3%
Pitt	6.9%	6.9%	5.9%
Tyrrell	7.6%	8.2%	6.6%
Washington	9.5%	8.9%	7.2%
Trillium Catchment Average Rate	7.0%	6.9%	5.9%
North Carolina Average Rate	6.4%	6.1%	5.1%

Source: N.C. Department of Commerce, Labor & Economic Analysis Division.
 Accessed 12/1/16. <http://d4.nccommerce.com/LausSelection.aspx>

Figure 73: Trillium Unemployment Rate Comparison

Persons in Poverty

Trillium Persons in Poverty

County	Number of All People in Poverty	Percentage of All People	Number of Children Under Age 18 in Poverty	Percentage of Children Under Age 18 in Poverty
Beaufort	9,062	19.2%	3,286	33.3%
Bertie	4,605	24.8%	1,294	35.9%
Brunswick	17,399	14.3%	4,950	24.5%
Camden	994	9.7%	328	13.7%
Carteret	9,370	13.8%	2,801	22.7%
Chowan	2,741	19.4%	962	33.0%
Craven	14,792	15.0%	5,480	24.2%
Currituck	2,607	10.4%	936	17.0%
Dare	3,663	10.3%	1,213	17.8%
Gates	1,889	16.7%	551	23.5%
Hertford	5,810	26.9%	1,757	37.6%
Hyde	1,096	23.0%	288	30.7%
Jones	2,115	21.4%	671	36.5%
Martin	5,213	22.5%	1,701	36.3%
New Hanover	36,967	17.3%	9,205	22.1%
Northampton	5,270	26.8%	1,714	45.3%
Onslow	26,437	15.3%	9,991	21.5%
Pamlico	1,756	14.6%	647	32.3%
Pasquotank	7,132	19.1%	2,553	29.5%
Pender	8,375	14.8%	2,765	21.9%
Perquimans	2,352	17.6%	827	31.6%
Pitt	43,954	25.9%	11,714	30.6%
Tyrrell	887	25.0%	273	36.2%
Washington	2,861	23.4%	1,044	40.9%
Trillium Catchment Total	217,347	17.0%	66,951	24.3%
North Carolina Total	1,607,249	16.4%	528,760	23.4%

Source: U.S. Census Bureau, Small Area Income and Poverty Estimates (SAIPE) Program. Released 12/16 for CY2015. Accessed 12/14/16.

http://www.census.gov/did/www/saie/data/interactive/saie.html?s_appName=saie&map_yearSelector=2015&map_geoSelector=aa_c&state=37&year=2015&menu=grid_proxy

Percent of people who were in poverty in a calendar year. Annual poverty rates are calculated using the sum of family income over the year divided by the sum of poverty thresholds that can change from month to month if one's family composition changes.

Figure 74: Trillium Persons in Poverty

Median Household Income

Trillium Median Household Income

County	Median Household Income
Beaufort	\$41,725
Bertie	\$31,967
Brunswick	\$48,831
Camden	\$62,000
Carteret	\$50,837
Chowan	\$40,794
Craven	\$47,805
Currituck	\$66,426
Dare	\$53,585
Gates	\$46,387
Hertford	\$34,453
Hyde	\$37,074
Jones	\$39,688
Martin	\$36,543
New Hanover	\$52,456
Northampton	\$33,301
Onslow	\$46,144
Pamlico	\$41,004
Pasquotank	\$42,171
Pender	\$49,390
Perquimans	\$42,337
Pitt	\$41,909
Tyrrell	\$33,759
Washington	\$35,146
Trillium Catchment Average	\$43,989
North Carolina Average	\$47,884

Source: U.S. Census. Small Area Income and Poverty Estimates (SAIPE). Released 12/16 for CY2015. Accessed 12/14/16.

http://www.census.gov/did/www/saie/data/interactive/saie.html?s_appName=saie&map_yearSelector=2015&map_geoSelector=aa_c&s_state=37&s_year=2015&menu=grid_proxy

Figure 75: Trillium Median Household Income

Trillium Economic Tier Designations

County	2014 Tier	2015 Tier	2016 Tier
Beaufort	1	1	1
Bertie	1	1	1
Brunswick	3	3	3
Camden	1	1	1
Carteret	3	3	3
Chowan	1	1	1
Craven	2	2	2
Currituck	2	2	2
Dare	2	2	2
Gates	1	1	1
Hertford	1	1	1
Hyde	1	1	1
Jones	1	1	1
Martin	1	1	1
New Hanover	3	3	3
Northampton	1	1	1
Onslow	2	2	2
Pamlico	2	2	2
Pasquotank	1	1	1
Pender	3	3	3
Perquimans	1	1	1
Pitt	2	2	2
Tyrell	1	1	1
Washington	1	1	1

Source: N.C. Department of Commerce. Accessed 11/1/16.

<https://edpnc.com/incentives/county-development-tier-designations/>

Figure 76: Trillium Economic Tier Designations

Percent Medicaid Eligible

Trillium Percent of Medicaid Eligible June 30, 2016

County	Total Medicaid Eligible	Total Population	% Medicaid Eligible
Beaufort	11,368	47,717	23.8%
Bertie	5,731	20,100	28.5%
Brunswick	21,031	124,668	16.9%
Camden	1,130	10,431	10.8%
Carteret	11,386	69,706	16.3%
Chowan	3,462	14,669	23.6%
Craven	18,400	105,773	17.4%
Currituck	2,779	26,160	10.6%
Dare	4,592	35,727	12.9%
Gates	1,941	11,914	16.3%
Hertford	6,600	24,423	27.0%
Hyde	1,208	5,720	21.1%
Jones	2,137	10,518	20.3%
Martin	6,037	23,494	25.7%
New Hanover	32,894	223,260	14.7%
Northampton	6,008	20,960	28.7%
Onslow	30,096	195,835	15.4%
Pamlico	2,486	13,184	18.9%
Pasquotank	8,826	40,112	22.0%
Pender	11,445	58,815	19.5%
Perquimans	2,623	13,539	19.4%
Pitt	34,795	176,269	19.7%
Tyrrell	866	4,141	20.9%
Washington	3,703	12,579	29.4%
Trillium Catchment Total	231,544	1,289,714	18.0%
North Carolina Total	1,903,789	10,157,928	18.7%

Source: N.C. DMA Medicaid Enrollment Reports- June 30, 2016. Accessed 9/16/16.

<http://dma.ncdhhs.gov/document/medicaid-and-health-choice-enrollment-reports>

Figure 77: Trillium Percent of Medicaid Eligible - June 30, 2016

Medicaid Eligible Children and Adults

Trillium Medicaid Eligible Adults & Children June 30, 2016

County	Infants-Children	Adults	Total Eligibles
Beaufort	2,309	9,059	11,368
Bertie	901	4,830	5,731
Brunswick	4,519	16,512	21,031
Camden	240	890	1,130
Carteret	2,241	9,145	11,386
Chowan	666	2,796	3,462
Craven	3,865	14,535	18,400
Currituck	706	2,073	2,779
Dare	1,282	3,310	4,592
Gates	316	1,625	1,941
Hertford	1,117	5,483	6,600
Hyde	181	1,027	1,208
Jones	406	1,731	2,137
Martin	1,057	4,980	6,037
New Hanover	7,029	25,865	32,894
Northampton	792	5,216	6,008
Onslow	6,645	23,451	30,096
Pamlico	471	2,015	2,486
Pasquotank	1,986	6,840	8,826
Pender	2,556	8,889	11,445
Perquimans	477	2,146	2,623
Pitt	7,234	27,561	34,795
Tyrrell	212	654	866
Washington	623	3,080	3,703
Trillium Catchment Total	47,831	183,713	231,544
North Carolina Total	430,681	1,473,108	1,903,789

The number of people who have received a Medicaid or Health Choice identification card for the upcoming month and are authorized to receive Medicaid or Health Choice services for the upcoming month. Source: N.C. Division of Medical Assistance. June 30, 2016. Accessed 9/16/16.

Figure 78: Trillium Medicaid Eligible Adults & Children - June 30, 2016

Non-Elderly Adult Uninsured

Trillium Non-Elderly* Adult Uninsured

County	Number of Non-Elderly Uninsured	Population of Non-Elderly	Percentage of Non-Elderly Uninsured
Beaufort	5,791	37,150	15.6%
Bertie	2,157	14,983	14.4%
Brunswick	15,005	86,243	17.4%
Camden	1,170	8,775	13.3%
Carteret	8,664	53,197	16.3%
Chowan	1,831	11,212	16.3%
Craven	11,884	82,074	14.5%
Currituck	3,154	21,046	15.0%
Dare	4,882	28,427	17.2%
Gates	1,351	9,473	14.3%
Hertford	2,786	17,872	15.6%
Hyde	694	3,982	17.4%
Jones	1,339	7,855	17.0%
Martin	2,805	18,559	15.1%
New Hanover	25,641	176,751	14.5%
Northampton	2,244	15,298	14.7%
Onslow	17,953	156,737	11.5%
Pamlico	1,450	8,938	16.2%
Pasquotank	4,864	31,248	15.6%
Pender	7,440	45,718	16.3%
Perquimans	1,567	10,158	15.4%
Pitt	21,566	149,541	14.4%
Tyrrell	633	2,803	22.6%
Washington	1,474	9,887	14.9%
Trillium Catchment Total	148,345	1,007,927	14.7%
North Carolina Total	1,254,138	8,269,110	15.2%

* Non-elderly are those 0-64 years of age .

Source: U.S. Census Bureau, 2014 Small Area Health Insurance Estimates. Released 5/12/16. Current as of 12/10/16.

http://www.census.gov/did/www/sahie/data/interactive/sahie.html?s_appName=sahie&s_statefips=37&map_yearSelector=&menu=grid_proxy

Figure 79: Trillium Non-Elderly Adult Uninsured

Unique Populations and Characteristics

Veteran Population

Trillium Veteran Population - 3-Year Trend

County	9/30/2014	9/30/2015	9/30/2016
Beaufort	3,890	3,827	3,761
Bertie	1,168	1,146	1,124
Brunswick	13,450	13,612	13,759
Camden	1,064	1,083	1,101
Carteret	8,472	8,439	8,403
Chowan	1,635	1,628	1,620
Craven	14,531	14,748	14,955
Currituck	3,128	3,163	3,197
Dare	3,246	3,209	3,170
Gates	1,124	1,136	1,147
Hertford	1,850	1,848	1,845
Hyde	392	386	381
Jones	1,134	1,129	1,124
Martin	1,645	1,631	1,617
New Hanover	17,703	17,638	17,564
Northampton	1,507	1,500	1,491
Onslow	29,203	30,329	31,458
Pamlico	1,367	1,350	1,333
Pasquotank	4,702	4,775	4,845
Pender	6,058	6,092	6,119
Perquimans	1,549	1,545	1,540
Pitt	11,091	11,138	11,180
Tyrrell	402	401	400
Washington	926	913	900
Trillium Catchment Total	131,237	132,666	134,034
North Carolina Total	775,022	773,881	772,424

Source: National Center for Veterans Analysis and Statistics. Accessed 11/21/16.

http://www.va.gov/vetdata/Veteran_Population.asp.

The Veteran Population Projection Model 2014 (VetPop2014) provides the latest official Veteran population projection from the Department of Veterans Affairs (VA). VetPop2014 is an actuarial projection model developed by the Office of the Actuary (OACT) for Veteran population projection from Fiscal Year (FY) 2014 to FY2043. Using the best available Veteran data by the end of FY2013, VetPop2014 provides living Veteran counts by key demographic characteristics such as age, gender, period of service, and race/ethnicity at various geographic levels.

Figure 80: Trillium Veteran Population - 3-Year Trend

Traumatic Brain Injury (TBI)

Trillium Catchment Traumatic Brain Injury SFY2016

Number of Quarters Served	County of Residence	Date of Birth	Veteran Yes/No	Cause of TBI
Q2, Q3	Carteret	4/16/1982	No	Fall
Q2, Q3	Chowan	11/27/1976	No	Fall
Q2, Q3	Craven	7/22/1958	No	Motor Vehicle Crash
Q2, Q3	Dare	8/2/1953	No	Fall
Q2, Q3	Gates	5/12/1973	No	Bicycle/Motorcycle
*	New Hanover	12/13/1960	No	Bicycle/Motorcycle
*	New Hanover	1/12/1958	No	Fall
Q2, Q3	New Hanover	8/16/1967	No	Motor Vehicle Crash
*	New Hanover	2/5/1980	No	Sport/Recreation
Q2, Q3	Pasquotank	5/8/1965	No	Fall
Q2, Q3	Pitt	12/16/1972	No	Motor Vehicle Crash
Q2, Q3	Pitt	4/8/1963	No	Assault
Q2, Q3	Pitt	7/9/1976	No	Bicycle/Motorcycle

* Received a TBI service that had to be funded from other state funds - not Medicaid funds.

Source: Provided by Trillium Health Resources - Reports to N.C. Division of Mental Health, Developmental Disabilities and Substance Abuse Services. Accessed 4/25/17.

Figure 81: Trillium Catchment Traumatic Brain Injury SFY2016

Consumer Prevalence

Medicaid Prevalence 65+

Trillium Medicaid Prevalence 65 and Over - SFY2016

Population	SFY2016 Prevalence % of 65+ Mentally Unhealthy Estimated for NC *	SFY2016 Estimated Total 65+ Population for Trillium Counties	Estimated # of 65+ Mentally Unhealthy Consumers 1	SFY2016 Estimated Medicaid Eligibles for 65+ Trillium Catchment Area 2	SFY2016 Estimated # of Medicaid 65+ Mentally Unhealthy Consumers 3	SFY2016 Actual # of Medicaid Served 65+ Consumers 4	SFY2016 Estimated Non-Medicaid for 65+ Trillium Catchment Area 5	SFY2016 Estimated # of Non-Medicaid Residents of 65+ Mentally Unhealthy Consumers 6	SFY2016 Actual # of Non-Medicaid Consumers Served 65+ Consumers 7
65 and Over	15.60%	222,019	34,635	25,224	3,935	1,277	3,108	485	209

*Mentally Unhealthy 65+: National Center on Birth Defects and Developmental Disabilities, Center for Disease Control and Prevention, last Updated 2016 (15.6%)

This percentage represents the mentally unhealthy rates for the elderly, 65 years old and up, who have reported experiencing mental health situations and/or mental health issues at least 14 days out of 30 days.

1 Total number of estimated residents by age and disability in the Trillium MCO catchment area. Number is derived by multiplying prevalence by the estimated population.

2 The Medicaid eligible number fluctuates by month and includes Dual eligible beneficiaries. Source: N.C. Division of Medical Assistance. June 30, 2016

**Dual eligible beneficiaries is the general term that describes individuals who are enrolled in both Medicare and Medicaid. The term includes individuals who are enrolled in Medicare Part A and/or Part B and receive full Medicaid benefits and/or assistance with Medicare premiums or cost sharing through one of these "Medicare Savings Program" (MSP) categories. This includes Comprehensive Medicare Savings Program (MQB-Q), Limited Medicare Savings Program (MQB-Q) and Limited Medicare Savings Program (Capped) (MQB-E).

3 Number is derived from multiplying prevalence by the estimated number of Medicaid.

4 Trillium LME-MCO served a total of 1,277 Medicaid 65+ Consumers in SFY2016.

5 The Non-Medicaid uninsured rate (1.4% in 2014) is reported from the Medicare Coverage and Reporting: A Comparison of the Current Population Survey and Administrative Records Center for Administrative Records Research and Applications, U.S Census Bureau Released 12/9/2016

6 Number is derived from multiplying prevalence by the estimated number of Non-Medicaid.

7 Trillium LME-MCO served a total of 209 Non-Medicaid 65+ Consumers in SFY2016.

Figure 82: Trillium Medicaid Prevalence 65 and Over - SFY2016

Trillium Medicaid Prevalence - Penetration & Gap 65 and Over - SFY2016

Disability Populations	Prevalence in the 24 Counties	Prevalence in the Medicaid + Non-Medicaid in the 24 Counties	Penetration			Gap	
			Estimated Number of Persons Affected	Estimated Number Needing Services	Medicaid Served	Non-Medicaid Served	Total Served
65 and Over	34,635	4,420	1,277	209	1,486	-2,934	-66%

Figure 83: Trillium Medicaid Prevalence - Penetration & Gap 65 and Over - SFY2016

Adult SPMI Prevalence

Trillium Adult SPMI SFY2016

Population	SFY2016 Prevalence % Estimated for NC *	SFY2016 Estimated Total Adult Population for Trillium Counties	Estimated # of SPMI Consumers 1	SFY2016 Estimated Medicaid Eligibles for Trillium Catchment Area 2	SFY2016 Estimated # of Medicaid Eligibles of SPMI Consumers 3	SFY2016 Actual # of Medicaid Served SPMI Consumers 4	SFY2016 Estimated Non-Medicaid for Trillium Catchment Area 5	SFY2016 Estimated # of Non-Medicaid Residents of SPMI Consumers 6	SFY2016 Actual # of Non-Medicaid Consumers Served SPMI Consumers 7
Adult SPMI	4.67%	789,507	36,870	183,713	8,579	6,101	116,322	5,432	2,337

* Adult SPMI: SAMHSA, 2017 (4.67%)

1 Total number of estimated residents by age and disability in the Trillium MCO catchment area includes privately insured as well as Medicaid, Medicare, and uninsured groups. Number is derived by multiplying prevalence by the estimated population.

2 The Medicaid eligible number fluctuates by month. Source: N.C. Division of Medical Assistance. June 30, 2016.

3 Number is derived from multiplying prevalence by the estimated number of Medicaid.

4 Trillium LME-MCO served a total of 6,101 Medicaid consumers with a potential SPMI diagnoses in SFY2016

5 The Non-Medicaid numbers are reported from the U.S Census Bureau, 2014 Small Area Health Insurance Estimates as of 9/16/2016.

6 Number is derived from multiplying prevalence by the estimated number of Non-Medicaid.

7 Trillium LME-MCO served a total of 2,337 Non-Medicaid consumers with a potential SPMI diagnoses in SFY2016.

Figure 84: Trillium Adult SPMI SFY2016

Trillium Adult SPMI SFY2016 - Penetration & Gap

Disability Populations	Prevalence in the 24 Counties	Prevalence in the Medicaid + Non-Medicaid in the 24 Counties	Penetration			Gap	
	Estimated Number of Persons Affected	Estimated Number Needing Services	Medicaid Served	Non-Medicaid Served	Total Served	Difference Between Need and Served	Percent
Adult MH	36,870	14,011	6,101	2,337	8,438	-5,573	-40%

Figure 85: Trillium Adult SPMI SFY2016 - Penetration & Gap

Adult & Child MH Prevalence

Trillium Catchment Adult & Child MH Prevalence SFY2016

Population	County	SFY2016 Prevalence % Estimated for NC is 19.48% *	SFY2016 Estimated Total Adult Populatio n for Trillium by County	Estimated # of Adult MH Consumers 1	SFY2016 Estimated Medicaid Eligibles for Trillium Catchment Area 2	SFY2016 Estimated # of Medicaid Eligibles of Adult MH Consumers 3	SFY2016 Actual # of Medicaid Eligibles Served of Adult MH Consumers 4	SFY2016 Estimated Non- Medicaid for Trillium Catchment Area 5	SFY2016 Estimated # of Non- Medicaid Residents of Adult MH Consumers 6	SFY2016 Actual # of Non- Medicaid Adult MH Consumers Served 7
Adult MH	Beaufort	19.48%	26,841	5,229	9,059	1,765	883	4,187	816	598
	Bertie	19.48%	12,366	2,409	4,830	941	341	1,781	347	136
	Brunswick	19.48%	67,885	13,224	16,512	3,217	1,215	11,812	2,301	694
	Camden	19.48%	6,561	1,278	890	173	58	873	170	48
	Carteret	19.48%	41,197	8,025	9,145	1,781	767	6,715	1,308	600
	Chowan	19.48%	8,267	1,610	2,796	545	214	1,348	263	78
	Craven	19.48%	61,557	11,991	14,535	2,831	1,300	8,926	1,739	1,086
	Currituck	19.48%	16,641	3,242	2,073	404	160	2,496	486	206
	Dare	19.48%	21,732	4,233	3,310	645	227	3,738	728	386
	Gates	19.48%	7,381	1,438	1,625	317	90	1,055	206	64
	Hertford	19.48%	15,168	2,955	5,483	1,068	347	2,366	461	176
	Hyde	19.48%	3,694	720	1,027	200	67	643	125	36
	Jones	19.48%	6,333	1,234	1,731	337	191	1,077	210	84
	Martin	19.48%	13,655	2,660	4,980	970	401	2,062	402	220
	New Hanover	19.48%	144,230	28,096	25,865	5,039	2,468	20,913	4,074	1,893
	Northampton	19.48%	12,284	2,393	5,216	1,016	331	1,806	352	116
	Onslow	19.48%	121,840	23,734	23,451	4,568	2,320	14,012	2,730	1,096
	Pamlico	19.48%	7,467	1,455	2,015	393	130	1,210	236	105
	Pasquotank	19.48%	24,882	4,847	6,840	1,332	528	3,882	756	379
	Pender	19.48%	36,197	7,051	8,889	1,732	720	5,900	1,149	401
	Perquimans	19.48%	7,409	1,443	2,146	418	152	1,141	222	108
Pitt	19.48%	116,266	22,649	27,561	5,369	2,051	16,742	3,261	1,294	
Tyrrell	19.48%	2,580	503	654	127	43	583	114	32	
Washington	19.48%	7,074	1,378	3,080	600	234	1,054	205	111	
Out of Catchment							1,014			371
Unknown							7			4

Population	County	SFY2016 Prevalence % Estimated for NC 20.00% **	SFY2016 Estimated Total Child Population for Trillium by County	Estimated # of Child MH Consumers 1	SFY2016 Estimated Medicaid Eligibles for Trillium Catchment Area 2	SFY2016 Estimated # of Medicaid Eligibles of Child MH Consumers 3	SFY2016 Actual # of Medicaid Eligibles Served of Child MH Consumers 4	SFY2016 Estimated Non-Medicaid for Trillium Catchment Area 5	SFY2016 Estimated # of Non-Medicaid Residents of Child MH Consumers 6	SFY2016 Actual # of Non-Medicaid Child MH Consumers Served 7
Child MH	Beaufort	20.00%	8,509	1,702	1,984	397	712	1,327	265	25
	Bertie	20.00%	3,320	664	772	154	246	478	96	6
	Brunswick	20.00%	18,450	3,690	3,843	769	1,218	3,210	642	33
	Camden	20.00%	1,928	386	207	41	74	256	51	4
	Carteret	20.00%	10,480	2,096	1,908	382	729	1,708	342	26
	Chowan	20.00%	2,615	523	570	114	163	426	85	2
	Craven	20.00%	21,922	4,384	3,205	641	1,107	3,179	636	83
	Currituck	20.00%	4,729	946	603	121	168	709	142	38
	Dare	20.00%	5,767	1,153	1,076	215	287	992	198	32
	Gates	20.00%	2,039	408	272	54	62	292	58	3
	Hertford	20.00%	4,142	828	961	192	215	646	129	4
	Hyde	20.00%	841	168	156	31	52	146	29	10
	Jones	20.00%	1,789	358	343	69	147	304	61	3
	Martin	20.00%	4,151	830	899	180	333	627	125	13
	New Hanover	20.00%	35,610	7,122	5,908	1,182	2,358	5,163	1,033	136
	Northampton	20.00%	3,402	680	682	136	271	500	100	2
	Onslow	20.00%	44,167	8,833	5,190	1,038	1,701	5,079	1,016	55
	Pamlico	20.00%	1,815	363	405	81	169	294	59	6
	Pasquotank	20.00%	7,706	1,541	1,670	334	450	1,202	240	19
	Pender	20.00%	10,415	2,083	2,168	434	606	1,698	340	18
	Perquimans	20.00%	2,198	440	404	81	131	338	68	4
Pitt	20.00%	32,557	6,511	6,098	1,220	1,967	4,688	938	107	
Tyrrell	20.00%	642	128	178	36	32	145	29	3	
Washington	20.00%	2,328	466	531	106	141	347	69	4	
Out of Catchment							659			37
Unknown							3			0

*Adult MH Prevalence: SAMHSA, 2017 (19.48%); **Child MH: NIMH, 2010; Merikangas, et al., 2010 (20.00%)

Some numbers are duplicated because services received are paid for by more than one funding source in more than one age/disability.

1 Total number of estimated residents for adult and child MH by age and disability in the Trillium LME-MCO catchment area includes privately insured as well as Medicaid, Medicare, and uninsured groups. Number is derived by multiplying prevalence by the estimated populations.

2 The Medicaid eligible number fluctuates by month. Source: N.C. Division of Medical Assistance. June 30, 2016

3 Number is derived from multiplying prevalence by the estimated number of Medicaid.

4 The total number that Trillium LME-MCO served for adult and child MH Medicaid consumers during SFY2016 for each county. This group does not include those individuals who were served in screening and assessment services due to the duplicative nature of this group.

5 The Non-Medicaid numbers are reported from the U.S Census Bureau, 2014 Small Area Health Insurance Estimates as of 9/16/2016

6 Number is derived from multiplying prevalence by the estimated number of Non-Medicaid.

7 The total number that Trillium LME-MCO served for adult and child MH Non-Medicaid consumers in SFY2016 for each county. This group does not include those individuals who were served in screening and assessment services due to the duplicative nature of this group.

Figure 86: Trillium Catchment Adult & Child MH Prevalence SFY2016

**Trillium Catchment Adult & Child MH
Gap SFY2016**

Disability Population	County	Prevalence in the 24 Counties	Prevalence in the Medicaid + Non-Medicaid in the 24 Counties	Penetration			Gap	
		Estimated Number of Persons Affected	Estimated Number Needing Services	Medicaid Served	Non-Medicaid Served	Total Served	Difference Between Need and Served	Percent
Adult MH	Beaufort	5,229	2,581	883	598	1,481	-1,100	-43%
	Bertie	2,409	1,288	341	136	477	-811	-63%
	Brunswick	13,224	5,518	1,215	694	1,909	-3,609	-65%
	Camden	1,278	343	58	48	106	-237	-69%
	Carteret	8,025	3,089	767	600	1,367	-1,722	-56%
	Chowan	1,610	808	214	78	292	-516	-64%
	Craven	11,991	4,570	1,300	1,086	2,386	-2,184	-48%
	Currituck	3,242	890	160	206	366	-524	-59%
	Dare	4,233	1,373	227	386	613	-760	-55%
	Gates	1,438	523	90	64	154	-369	-71%
	Hertford	2,955	1,529	347	176	523	-1,006	-66%
	Hyde	720	325	67	36	103	-222	-68%
	Jones	1,234	547	191	84	275	-272	-50%
	Martin	2,660	1,372	401	220	621	-751	-55%
	New Hanover	28,096	9,113	2,468	1,893	4,361	-4,752	-52%
	Northampton	2,393	1,368	331	116	447	-921	-67%
	Onslow	23,734	7,298	2,320	1,096	3,416	-3,882	-53%
	Pamlico	1,455	629	130	105	235	-394	-63%
	Pasquotank	4,847	2,088	528	379	907	-1,181	-57%
	Pender	7,051	2,881	720	401	1,121	-1,760	-61%
Perquimans	1,443	640	152	108	260	-380	-59%	
Pitt	22,649	8,630	2,051	1,294	3,345	-5,285	-61%	
Tyrrell	503	241	43	32	75	-166	-69%	
Washington	1,378	805	234	111	345	-460	-57%	

Disability Population	County	Prevalence in the 24 Counties	Prevalence in the Medicaid + Non-Medicaid in the 24 Counties	Penetration			Gap	
		Estimated Number of Persons Affected	Estimated Number Needing Services	Medicaid Served	Non-Medicaid Served	Total Served	Difference Between Need and Served	Percent
Child MH	Beaufort	1,702	662	712	25	737	75	11%
	Bertie	664	250	246	6	252	2	1%
	Brunswick	3,690	1,411	1,218	33	1251	-160	-11%
	Camden	386	92	74	4	78	-14	-15%
	Carteret	2,096	724	729	26	755	31	4%
	Chowan	523	199	163	2	165	-34	-17%
	Craven	4,384	1,277	1,107	83	1190	-87	-7%
	Currituck	946	263	168	38	206	-57	-22%
	Dare	1,153	413	287	32	319	-94	-23%
	Gates	408	112	62	3	65	-47	-42%
	Hertford	828	321	215	4	219	-102	-32%
	Hyde	168	60	52	10	62	2	3%
	Jones	358	130	147	3	150	20	15%
	Martin	830	305	333	13	346	41	13%
	New Hanover	7,122	2,215	2,358	136	2494	279	13%
	Northampton	680	236	271	2	273	37	16%
	Onslow	8,833	2,054	1,701	55	1756	-298	-15%
	Pamlico	363	140	169	6	175	35	25%
	Pasquotank	1,541	574	450	19	469	-105	-18%
	Pender	2,083	774	606	18	624	-150	-19%
Perquimans	440	149	131	4	135	-14	-9%	
Pitt	6,511	2,158	1,967	107	2074	-84	-4%	
Tyrrell	128	65	32	3	35	-30	-46%	
Washington	466	175	141	4	145	-30	-17%	

*Some numbers are duplicated because services received are paid for by more than one funding source in more than one age/disability.

**Out of Catchment and Unknown are not included.

Figure 87: Trillium Catchment Adult & Child MH Gap SFY2016

Adult & Child I/DD Prevalence

Trillium Catchment Adult & Child I/DD Prevalence SFY2016

Population	County	SFY2016 Prevalence % Estimated for NC 2.00% *	SFY2016 Estimated Total Adult Population for Trillium by County	Estimated # of Adult I/DD Consumers 1	SFY2016 Estimated Medicaid Eligibles for Trillium Catchment Area 2	SFY2016 Estimated # of Medicaid Eligibles of Adult I/DD Consumers 3	SFY2016 Actual # of Medicaid Eligibles Served of Adult I/DD Consumers 4	SFY2016 Estimated Non- Medicaid for Trillium Catchment Area 5	SFY2016 Estimated # of Non- Medicaid Residents of Adult I/DD Consumers 6	SFY2016 Actual # of Non- Medicaid Adult I/DD Consumers Served 7
Adult I/DD	Beaufort	2.00%	26,841	537	9,059	181	110	4,187	84	49
	Bertie	2.00%	12,366	247	4,830	97	44	1,781	36	19
	Brunswick	2.00%	67,885	1,358	16,512	330	126	11,812	236	67
	Camden	2.00%	6,561	131	890	18	13	873	17	3
	Carteret	2.00%	41,197	824	9,145	183	78	6,715	134	25
	Chowan	2.00%	8,267	165	2,796	56	53	1,348	27	11
	Craven	2.00%	61,557	1,231	14,535	291	209	8,926	179	45
	Currituck	2.00%	16,641	333	2,073	41	43	2,496	50	14
	Dare	2.00%	21,732	435	3,310	66	32	3,738	75	14
	Gates	2.00%	7,381	148	1,625	33	20	1,055	21	8
	Hertford	2.00%	15,168	303	5,483	110	38	2,366	47	45
	Hyde	2.00%	3,694	74	1,027	21	3	643	13	11
	Jones	2.00%	6,333	127	1,731	35	31	1,077	22	9
	Martin	2.00%	13,655	273	4,980	100	47	2,062	41	21
	New Hanover	2.00%	144,230	2,885	25,865	517	315	20,913	418	203
	Northampton	2.00%	12,284	246	5,216	104	54	1,806	36	6
	Onslow	2.00%	121,840	2,437	23,451	469	197	14,012	280	49
	Pamlico	2.00%	7,467	149	2,015	40	18	1,210	24	1
	Pasquotank	2.00%	24,882	498	6,840	137	87	3,882	78	41
	Pender	2.00%	36,197	724	8,889	178	69	5,900	118	32
	Perquimans	2.00%	7,409	148	2,146	43	41	1,141	23	9
Pitt	2.00%	116,266	2,325	27,561	551	277	16,742	335	70	
Tyrrell	2.00%	2,580	52	654	13	8	583	12	4	
Washington	2.00%	7,074	141	3,080	62	20	1,054	21	38	
Out of Catchment							233			19
Unknown							1			0

Population	County	SFY2016 Prevalence % Estimated for NC is 16.90% **	SFY2016 Estimated Total Child Population for Trillium by County	Estimated # of Child I/DD Consumers 1	SFY2016 Estimated Medicaid Eligibles for Trillium Catchment Area 2	SFY2016 Estimated # of Medicaid Eligibles of Child I/DD Consumers 3	SFY2016 Actual # of Medicaid Eligibles Served of Child I/DD Consumers 4	SFY2016 Estimated Non-Medicaid for Trillium Catchment Area 5	SFY2016 Estimated # of Non-Medicaid Residents of Child I/DD Consumers 6	SFY2016 Actual # of Non-Medicaid Child I/DD Consumers Served 7
Child I/DD	Beaufort	16.90%	8,509	1,438	1,984	335	66	1,327	224	20
	Bertie	16.90%	3,320	561	772	130	16	478	81	0
	Brunswick	16.90%	18,450	3,118	3,843	649	98	3,210	542	15
	Camden	16.90%	1,928	326	207	35	14	256	43	0
	Carteret	16.90%	10,480	1,771	1,908	322	59	1,708	289	4
	Chowan	16.90%	2,615	442	570	96	13	426	72	0
	Craven	16.90%	21,922	3,705	3,205	542	132	3,179	537	29
	Currituck	16.90%	4,729	799	603	102	21	709	120	5
	Dare	16.90%	5,767	975	1,076	182	26	992	168	10
	Gates	16.90%	2,039	345	272	46	11	292	49	1
	Hertford	16.90%	4,142	700	961	162	21	646	109	0
	Hyde	16.90%	841	142	156	26	3	146	25	0
	Jones	16.90%	1,789	302	343	58	9	304	51	2
	Martin	16.90%	4,151	702	899	152	24	627	106	9
	New Hanover	16.90%	35,610	6,018	5,908	998	174	5,163	873	71
	Northampton	16.90%	3,402	575	682	115	15	500	85	0
	Onslow	16.90%	44,167	7,464	5,190	877	175	5,079	858	21
	Pamlico	16.90%	1,815	307	405	68	10	294	50	0
	Pasquotank	16.90%	7,706	1,302	1,670	282	52	1,202	203	8
	Pender	16.90%	10,415	1,760	2,168	366	37	1,698	287	5
	Perquimans	16.90%	2,198	371	404	68	12	338	57	1
Pitt	16.90%	32,557	5,502	6,098	1,031	254	4,688	792	72	
Tyrrell	16.90%	642	108	178	30	0	145	25	1	
Washington	16.90%	2,328	393	531	90	18	347	59	0	
Out of Catchment						0			4	
Unknown						61			0	

*Adult I/DD: Boyle, et al., 2010 (2.00%); **Child I/DD: Center for Disease Control and Prevention, 2016 (16.90%)

Some numbers are duplicated because services received are paid for by more than one funding source in more than one age/disability.

1 Total number of estimated residents of adult and child I/DD by age and disability in the Trillium LME-MCO catchment area includes privately insured as well as Medicaid, Medicare, and uninsured groups. Number is derived by multiplying prevalence by the estimated populations.

2 The Medicaid eligible number fluctuates by month. Source: N.C. Division of Medical Assistance. June 30, 2016

3 Number is derived from multiplying prevalence by the estimated number of Medicaid.

4 The total number that Trillium LME-MCO served for adult and child IDD Medicaid consumers during SFY2016 for each county. This group does not include those individuals who were served in screening and assessment services due to the duplicative nature of this group.

5 The Non-Medicaid numbers are reported from the U.S Census Bureau, 2014 Small Area Health Insurance Estimates as of 9/16/2016

6 Number is derived from multiplying prevalence by the estimated number of Non-Medicaid.

7 The total number that Trillium LME-MCO served for adult and child IDD Non-Medicaid consumers in SFY2016 for each county. This group does not include those individuals who were served in screening and assessment services due to the duplicative nature of this group.

Figure 88: Trillium Catchment Adult & Child I/DD Prevalence SFY2016

**Trillium Catchment Adult & Child I/DD
Gap SFY2016**

Disability Population	County	Prevalence in the 24 Counties	Prevalence in the Medicaid + Non-Medicaid in the 24 Counties	Penetration			Gap	
		Estimated Number of Persons Affected	Estimated Number Needing Services	Medicaid Served	Non-Medicaid Served	Total Served	Difference Between Need and Served	Percent
Adult I/DD	Beaufort	537	265	110	49	159	-106	-40%
	Bertie	247	133	44	19	63	-70	-53%
	Brunswick	1,358	566	126	67	193	-373	-66%
	Camden	131	35	13	3	16	-19	-54%
	Carteret	824	317	78	25	103	-214	-68%
	Chowan	165	83	53	11	64	-19	-23%
	Craven	1,231	470	209	45	254	-216	-46%
	Currituck	333	91	43	14	57	-34	-37%
	Dare	435	141	32	14	46	-95	-67%
	Gates	148	54	20	8	28	-26	-48%
	Hertford	303	157	38	45	83	-74	-47%
	Hyde	74	34	3	11	14	-20	-59%
	Jones	127	57	31	9	40	-17	-30%
	Martin	273	141	47	21	68	-73	-52%
	New Hanover	2,885	935	315	203	518	-417	-45%
	Northampton	246	140	54	6	60	-80	-57%
	Onslow	2,437	749	197	49	246	-503	-67%
	Pamlico	149	64	18	1	19	-45	-70%
	Pasquotank	498	215	87	41	128	-87	-40%
	Pender	724	296	69	32	101	-195	-66%
Perquimans	148	66	41	9	50	-16	-24%	
Pitt	2,325	886	277	70	347	-539	-61%	
Tyrrell	52	25	8	4	12	-13	-52%	
Washington	141	83	20	38	58	-25	-30%	

Disability Population	County	Prevalence in the 24 Counties	Prevalence in the Medicaid + Non-Medicaid in the 24 Counties	Penetration			Gap	
		Estimated Number of Persons Affected	Estimated Number Needing Services	Medicaid Served	Non-Medicaid Served	Total Served	Difference between need and served	Percent
Child I/DD	Beaufort	1438	559	66	20	86	-473	-85%
	Bertie	561	211	16	0	16	-195	-92%
	Brunswick	3,118	1,191	98	15	113	-1078	-91%
	Camden	326	78	14	0	14	-64	-82%
	Carteret	1,771	611	59	4	63	-548	-90%
	Chowan	442	168	13	0	13	-155	-92%
	Craven	3,705	1,079	132	29	161	-918	-85%
	Currituck	799	222	21	5	26	-196	-88%
	Dare	975	350	26	10	36	-314	-90%
	Gates	345	95	11	1	12	-83	-87%
	Hertford	700	271	21	0	21	-250	-92%
	Hyde	142	51	3	0	3	-48	-94%
	Jones	302	109	9	2	11	-98	-90%
	Martin	702	258	24	9	33	-225	-87%
	New Hanover	6,018	1,871	174	71	245	-1626	-87%
	Northampton	575	200	15	0	15	-185	-93%
	Onslow	7,464	1,735	175	21	196	-1539	-89%
	Pamlico	307	118	10	0	10	-108	-92%
	Pasquotank	1,302	485	52	8	60	-425	-88%
	Pender	1,760	653	37	5	42	-611	-94%
Perquimans	371	125	12	1	13	-112	-90%	
Pitt	5,502	1,823	254	72	326	-1497	-82%	
Tyrrell	108	55	0	1	1	-54	-98%	
Washington	393	149	18	0	18	-131	-88%	

*Some numbers are duplicated because services received are paid for by more than one funding source in more than one age/disability.

**Out of Catchment and Unknown are not included.

Figure 89: Trillium Catchment Adult & Child I/DD Gap SFY2016

Adult & Child SA Prevalence

Trillium Catchment Adult & Child SA Prevalence SFY2016

Population	County	SFY2016 Prevalence % Estimated for NC is 8.42% *	SFY2016 Estimated Total Adult Population for Trillium by County	Estimated # of Adult SA Consumers 1	SFY2016 Estimated Medicaid Eligibles for Trillium Catchment Area 2	SFY2016 Estimated # of Medicaid Eligibles of Adult SA Consumers 3	SFY2016 Actual # of Medicaid Served of Adult SA Consumers 4	SFY2016 Estimated Non- Medicaid for Trillium Catchment Area 5	SFY2016 Estimated # of Non- Medicaid Residents of Adult SA Consumers 6	SFY2016 Actual # of Non- Medicaid Adult SA Consumers Served 7
Adult SA	Beaufort	8.42%	26,841	2,260	9,059	763	268	4,187	353	423
	Bertie	8.42%	12,366	1,041	4,830	407	56	1,781	150	90
	Brunswick	8.42%	67,885	5,716	16,512	1,390	340	11,812	995	523
	Camden	8.42%	6,561	552	890	75	13	873	74	30
	Carteret	8.42%	41,197	3,469	9,145	770	209	6,715	565	332
	Chowan	8.42%	8,267	696	2,796	235	102	1,348	114	50
	Craven	8.42%	61,557	5,183	14,535	1,224	302	8,926	752	568
	Currituck	8.42%	16,641	1,401	2,073	175	43	2,496	210	144
	Dare	8.42%	21,732	1,830	3,310	279	73	3,738	315	304
	Gates	8.42%	7,381	621	1,625	137	14	1,055	89	33
	Hertford	8.42%	15,168	1,277	5,483	462	75	2,366	199	84
	Hyde	8.42%	3,694	311	1,027	86	9	643	54	14
	Jones	8.42%	6,333	533	1,731	146	18	1,077	91	53
	Martin	8.42%	13,655	1,150	4,980	419	101	2,062	174	150
	New Hanover	8.42%	144,230	12,144	25,865	2,178	575	20,913	1,761	1443
	Northampton	8.42%	12,284	1,034	5,216	439	48	1,806	152	49
	Onslow	8.42%	121,840	10,259	23,451	1,975	283	14,012	1,180	687
	Pamlico	8.42%	7,467	629	2,015	170	49	1,210	102	55
	Pasquotank	8.42%	24,882	2,095	6,840	576	91	3,882	327	179
	Pender	8.42%	36,197	3,048	8,889	748	146	5,900	497	213
	Perquimans	8.42%	7,409	624	2,146	181	22	1,141	96	53
	Pitt	8.42%	116,266	9,790	27,561	2,321	562	16,742	1,410	967
Tyrrell	8.42%	2,580	217	654	55	13	583	49	21	
Washington	8.42%	7,074	596	3,080	259	114	1,054	89	59	
Out of Catchment							210			419
Unknown							2			4

Population	County	SFY2016 Prevalence % Estimated for NC is 5.20% *	SFY2016 Estimated Total Child SA Population for Trillium by County	Estimated # of Child SA Consumers 1	SFY2016 Estimated Medicaid Eligibles for Trillium Catchment Area 2	SFY2016 Estimated # of Medicaid Eligibles of Child SA Consumers 3	SFY2016 Actual # of Medicaid Eligibles Served of Child SA Consumers 4	SFY2016 Estimated Non-Medicaid for Trillium Catchment Area 5	SFY2016 Estimated # of Non-Medicaid Residents of Child SA Consumers 6	SFY2016 Actual # of Non-Medicaid Child SA Consumers Served 7
Child SA (12-17)	Beaufort	5.20%	3,672	191	856	45	26	573	30	2
	Bertie	5.20%	1,354	70	315	16	1	195	10	2
	Brunswick	5.20%	7,553	393	1,573	82	25	1,314	68	3
	Camden	5.20%	895	47	96	5	1	119	6	0
	Carteret	5.20%	4,439	231	808	42	5	724	38	4
	Chowan	5.20%	1,088	57	237	12	2	177	9	0
	Craven	5.20%	7,770	404	1,136	59	9	1,127	59	4
	Currituck	5.20%	2,156	112	275	14	3	323	17	1
	Dare	5.20%	2,326	121	434	23	1	400	21	4
	Gates	5.20%	883	46	118	6	0	126	7	0
	Hertford	5.20%	1,688	88	392	20	1	263	14	0
	Hyde	5.20%	325	17	60	3	0	57	3	0
	Jones	5.20%	730	38	140	7	0	124	6	1
	Martin	5.20%	1,782	93	386	20	3	269	14	1
	New Hanover	5.20%	14,301	744	2,373	123	31	2,074	108	12
	Northampton	5.20%	1,401	73	281	15	3	206	11	0
	Onslow	5.20%	12,542	652	1,474	77	5	1,442	75	6
	Pamlico	5.20%	778	40	174	9	2	126	7	1
	Pasquotank	5.20%	2,952	154	640	33	2	461	24	2
	Pender	5.20%	4,460	232	929	48	7	727	38	3
Perquimans	5.20%	895	47	164	9	1	138	7	0	
Pitt	5.20%	12,553	653	2,351	122	39	1,808	94	12	
Tyrrell	5.20%	248	13	69	4	1	56	3	0	
Washington	5.20%	946	49	216	11	1	141	7	0	
Out of Catchment						5			27	
Unknown						0			0	

*Adult and Child SA: SAMHSA, 2015 (8.42%, 5.20%)

Some numbers are duplicated because services received are paid for by more than one funding source in more than one age/disability.

1 Total number of estimated residents of adult and child SA by age and disability in the Trillium LME-MCO catchment area includes privately insured as well as Medicaid, Medicare, and uninsured groups. Number is derived by multiplying prevalence by the estimated populations.

2 The Medicaid eligible number fluctuates by month. Source: N.C. Division of Medical Assistance. June 30, 2016

3 Number is derived from multiplying prevalence by the estimated number of Medicaid.

4 The total number that Trillium LME-MCO served for adult and child SA Medicaid consumers during SFY2016 for each county. This group does not include those individuals who were served in screening and assessment services due to the duplicative nature of this group.

5 The Non-Medicaid numbers are reported from the U.S Census Bureau, 2014 Small Area Health Insurance Estimates as of 9/16/2016

6 Number is derived from multiplying prevalence by the estimated number of Non-Medicaid.

7 The total number that Trillium LME-MCO served for adult and child SA Non-Medicaid consumers in SFY2016 for each county. This group does not include those individuals who were served in screening and assessment services due to the duplicative nature of this group.

Figure 90: Trillium Catchment Adult & Child SA Prevalence SFY2016

**Trillium Catchment Adult & Child SA
Gap SFY2016**

Disability Population	County	Prevalence in the 24 Counties	Prevalence in the Medicaid + Non-Medicaid in the 24 Counties	Penetration			Gap	
		Estimated Number of Persons Affected	Estimated Number Needing Services	Medicaid Served	Non-Medicaid Served	Total Served	Difference Between Need and Served	Percent
Adult SA	Beaufort	2,260	1116	268	423	691	-425	-38%
	Bertie	1,041	557	56	90	146	-411	-74%
	Brunswick	5,716	2,385	340	523	863	-1,522	-64%
	Camden	552	149	13	30	43	-106	-71%
	Carteret	3,469	1,335	209	332	541	-794	-59%
	Chowan	696	349	102	50	152	-197	-56%
	Craven	5,183	1,976	302	568	870	-1,106	-56%
	Currituck	1,401	385	43	144	187	-198	-51%
	Dare	1,830	594	73	304	377	-217	-37%
	Gates	621	226	14	33	47	-179	-79%
	Hertford	1,277	661	75	84	159	-502	-76%
	Hyde	311	140	9	14	23	-117	-84%
	Jones	533	237	18	53	71	-166	-70%
	Martin	1,150	593	101	150	251	-342	-58%
	New Hanover	12,144	3,939	575	1,443	2,018	-1,921	-49%
	Northampton	1,034	591	48	49	97	-494	-84%
	Onslow	10,259	3,155	283	687	970	-2,185	-69%
	Pamlico	629	272	49	55	104	-168	-62%
	Pasquotank	2,095	903	91	179	270	-633	-70%
	Pender	3,048	1,245	146	213	359	-886	-71%
	Perquimans	624	277	22	53	75	-202	-73%
	Pitt	9,790	3,731	562	967	1,529	-2,202	-59%
Tyrrell	217	104	13	21	34	-70	-67%	
Washington	596	348	114	59	173	-175	-50%	

Disability Population	County	Prevalence in the 24 Counties	Prevalence in the Medicaid + Non-Medicaid in the 24 Counties	Penetration			Gap	
		Estimated Number of Persons Affected	Estimated Number Needing Services	Medicaid Served	Non-Medicaid Served	Total Served	Difference Between Need and Served	Percent
Child SA (Ages 12-17)	Beaufort	191	75	26	2	28	-47	-63%
	Bertie	70	26	1	2	3	-23	-88%
	Brunswick	393	150	25	3	28	-122	-81%
	Camden	47	11	1	0	1	-10	-91%
	Carteret	231	80	5	4	9	-71	-89%
	Chowan	57	21	2	0	2	-19	-90%
	Craven	404	118	9	4	13	-105	-89%
	Currituck	112	31	3	1	4	-27	-87%
	Dare	121	44	1	4	5	-39	-89%
	Gates	46	13	0	0	0	-13	-100%
	Hertford	88	34	1	0	1	-33	-97%
	Hyde	17	6	0	0	0	-6	-100%
	Jones	38	13	0	1	1	-12	-92%
	Martin	93	34	3	1	4	-30	-88%
	New Hanover	744	231	31	12	43	-188	-81%
	Northampton	73	26	3	0	3	-23	-88%
	Onslow	652	152	5	6	11	-141	-93%
	Pamlico	40	16	2	1	3	-13	-81%
	Pasquotank	154	57	2	2	4	-53	-93%
	Pender	232	86	7	3	10	-76	-88%
Perquimans	47	16	1	0	1	-15	-94%	
Pitt	653	216	39	12	51	-165	-76%	
Tyrrell	13	7	1	0	1	-6	-86%	
Washington	49	18	1	0	1	-17	-94%	

*Some numbers are duplicated because services received are paid for by more than one funding source in more than one age/disability.

**Out of Catchment and Unknown are not included.

Figure 91: Trillium Catchment Adult & Child SA Gap SFY2016

Significant Health Indicators

Medical Facilities

Trillium Medical Facilities

County	Town	Hospital
Beaufort	Washington	Vidant Beaufort
Bertie	Windsor	Vidant Bertie
Brunswick	Bolivia	Novant Health Brunswick Medical Center
Brunswick	Southport	J. Arthur Doshier Memorial Hospital
Carteret	Morehead City	Carteret General Hospital
Chowan	Edenton	Vidant Chowan
Craven	New Bern	CarolinaEast Medical Center
Dare	Nags Head	The Outer Banks Hospital
Hertford	Ahoskie	Vidant Roanoke-Chowan
Martin	Williamston	Martin General Hospital
New Hanover	Wilmington	New Hanover Regional Medical Center
Onslow	Jacksonville	Onslow Memorial Hospital
Pasquotank	Elizabeth City	Sentara-Albemarle Medical Center
Pender	Burgaw	Pender Memorial Hospital
Pitt	Greenville	Vidant Medical Center
Washington	Plymouth	Washington County Hospital

Source: N.C. DHHS. N.C.DHSR. As of 1-6-17.

Figure 92: Trillium Medical Facilities

Federally Qualified Health Centers and Community Care Centers

Federally Qualified Health Centers and Community Care Centers Trillium Catchment

County	# of Locations	Town/City	OB/GYN	Behavioral Health	Dental	Discounted Pharmacy
Beaufort	2	Washington (1)	-	Yes	-	Yes
		Washington (2)	-	-	Yes	Yes
Bertie	3	Windsor	Yes	No	No	No
		Lewiston	Yes	No	No	Yes
		Colerain	GYN Only	Yes	No	Yes
Brunswick	2	Shalotte	GYN Only	Yes	No	Yes
		Supply	No	No	Yes	Yes
Chowan	1	Tyner	GYN Only	-	-	Yes
Craven	2	New Bern (1)	No	No	Yes	Yes
		New Bern (2)	GYN Only	No	No	No

County	# of Locations	Town/City	OB/GYN	Behavioral Health	Dental	Discounted Pharmacy
Gates	2	Gatesville (1)	School-Based	No	No	Yes
		Gatesville (2)	GYN Only	No	No	Yes
Hertford	3	Ahoskie	GYN Only	Yes	No	Yes
		Murfreesboro (1)	School Based	Yes	No	No
		Murfreesboro (2)	GYN Only	Yes	No	Yes
Hyde	2	Englehard	-	-	-	-
		Ocracoke	-	-	-	-
Jones	1	Trenton	GYN Only	No	No	No
Martin	1	Williamston	Yes	No	Yes	Yes
New Hanover	1	Wilmington	Yes	No	Yes	Yes
Northampton	2	Jackson	No	Yes	Yes	Yes
		Rich Square	No	Yes	No	Yes
Onslow	1	Jacksonville	GYN Only	No	No	No
Pamlico	1	Alliance	No	Yes	No	Yes
Pender	1	Willard	GYN Only	Yes	Yes	Yes
Pitt	4	Greenville (1)	No	No	Yes	Yes
		Greenville (2)	Yes	Yes	No	Yes
		Grimesland	No	Yes	No	Yes
		Grifton	No	Yes	No	Yes

Source: North Carolina Community Health Center Association. (-) means not reported. Accessed 1/18/17.

Figure 93: Federally Qualified Health Centers and Community Care Centers Trillium Catchment

Medical Provider Resources

Trillium Medical Service Provider Resources

County	Total Physicians per 10,000 persons	Primary Care Physicians per 10,000 persons	Dentists per 10,000 persons	Pharmacists per 10,000 persons
Beaufort	10.90	6.71	3.77	9.01
Bertie	4.37	2.91	0.49	3.40
Brunswick	10.69	5.52	3.31	6.70
Camden	0.00	0.00	0.00	0.98
Carteret	15.72	6.78	7.21	12.55
Chowan	19.81	9.57	2.73	8.88
Craven	24.30	8.23	4.31	8.04
Currituck	3.19	2.39	2.79	1.20
Dare	16.38	8.19	5.65	9.88
Gates	1.68	1.68	0.84	1.68
Hertford	18.31	9.36	2.03	9.36
Hyde	3.49	1.74	0.00	0.00
Jones	15.28	8.60	1.91	3.82
Martin	8.43	4.64	1.27	6.33
New Hanover	32.03	11.62	7.37	13.27
Northampton	2.83	2.35	0.47	2.83
Onslow	9.37	4.04	3.16	5.18
Pamlico	6.09	3.81	3.04	9.13
Pasquotank	26.71	8.82	3.02	9.83
Pender	3.40	2.70	3.54	4.78
Perquimans	2.93	2.20	1.47	4.40
Pitt	47.53	14.73	5.68	14.28
Tyrrell	0.00	0.00	0.00	7.24
Washington	6.31	3.94	1.58	5.52
Trillium Catchment Rates	12.07	5.44	2.74	6.60
North Carolina Rates	23.17	8.58	4.70	10.60

Source: 2014 N.C. Health Professions Data Book. Released April, 2016. The Cecil G. Sheps Center for Health Services Research. University of North Carolina at Chapel Hill.

Beginning with 2014 data, primary care physicians are those who have indicated their primary area of practice as family practice, general practice, geriatrics, internal medicine, pediatrics, obstetrics gynecology, adolescent medicine, medicine/pediatrics, family practice-geriatric, family practice-sports medicine, pediatric sports medicine, family medicine/hospice & palliative, geriatric medicine/internal medicine, medicine/OBGYN, hospitalist, urgent care, integrative medicine, or student health. Primary care physicians are included in total counts of physicians per 10,000 population.

Figure 94: Trillium Medical Service Provider Resources

**Adult Smoking - Trillium Catchment
>18 Years of Age**

Percent of Adults that Report Smoking Greater than 100 Cigarettes and Currently Smoking		
County	2015	2016
Beaufort	28%	18%
Bertie	19%	23%
Brunswick	21%	17%
Camden	17%	16%
Carteret	21%	17%
Chowan	30%	20%
Craven	22%	18%
Currituck	26%	18%
Dare	31%	17%
Gates	*	19%
Hertford	27%	22%
Hyde	*	19%
Jones	44%	19%
Martin	12%	22%
New Hanover	18%	16%
Northampton	22%	21%
Onslow	25%	20%
Pamlico	*	17%
Pasquotank	35%	19%
Pender	28%	19%
Perquimans	21%	19%
Pitt	19%	21%
Tyrrell	*	21%
Washington	*	21%
Trillium Catchment Percentage	25%	19%
North Carolina Percentage	20%	19%

Source: CDC Behavioral Risk Factor Surveillance System (BRFSS).
Robert Wood Johnson, 2016 County Health Rankings. Accessed 11/21/16.

Figure 95: Adult Smoking - Trillium Catchment >18 Years of Age

Teen Pregnancy

Trillium Catchment - Teen Pregnancy Rates Comparison Ages 15-19 Rates per 1,000

County	Number of Pregnancies 2012	Rate 2012	Number of Pregnancies 2013	Rate 2013	Number of Pregnancies 2014	Rate 2014	Number of Pregnancies 2015	Rate 2015	Trend: Up, Down, Steady
Beaufort	67	52.0	49	39.6	48	36.8	42	31.4	D
Bertie	26	41.9	35	59.3	18	*	21	41.7	U
Brunswick	106	42.3	112	45.7	89	35.3	93	36.2	U
Camden	7	*	8	*	7	*	5	*	D
Carteret	51	30.0	51	30.0	47	27.6	42	24.3	D
Chowan	27	64.6	19	*	12	*	15	*	D
Craven	160	56.3	146	52.2	139	49.5	113	40	D
Currituck	31	39.5	18	*	20	26.5	14	*	D
Dare	38	46.1	28	33.9	25	30.0	22	25.2	D
Gates	20	53.5	10	*	6	*	7	*	D
Hertford	30	35.3	34	40.8	32	38.7	25	30.4	D
Hyde	8	*	4	*	0	*	6	*	D
Jones	7	*	6	*	12	*	12	*	S
Martin	30	44.4	28	43.2	27	40.2	27	40.1	D
New Hanover	212	29.7	162	22.4	172	24.0	148	20.1	D
Northampton	36	60.6	33	58.4	24	44.5	21	40.1	D
Onslow	342	74.6	317	67.5	314	65.5	262	56.6	D
Pamlico	14	*	9	*	11	*	7	*	D
Pasquotank	43	30.0	51	35.9	35	26.2	34	25.7	D
Pender	53	32.7	56	33.3	50	29.0	44	25.3	D
Perquimans	10	*	19	*	13	*	15	*	U
Pitt	245	32.9	225	29.8	181	23.9	179	23.4	D
Tyrrell	6	*	2	*	4	*	3	*	D
Washington	7	*	22	55.8	16	*	19	*	U
Trillium Catchment Total	1,576	45.1	1,444	43.2	1,302	35.6	1,176	32.9	D
North Carolina Total	12,535	39.6	11,178	35.2	10,328	32.3	9,802	30.2	D

* indicates rates that were unstable and therefore not reported. Data for calendar years.

Source: N.C. DHHS - State Center for Health Statistics. Accessed 1/10/17.

<http://www.schs.state.nc.us/data/vital/pregnancies/2015/preg1519.pdf>

Figure 96: Trillium Catchment - Teen Pregnancy Rates Comparison Ages 15-19 Rates per 1,000

Sexually Transmitted Infections

Newly Diagnosed Chlamydia Cases Trillium Catchment Rates per 100,000

County	2014 Number	2015 Number	2014 Rate	2015 Rate
Beaufort	231	230	485.4	482.7
Bertie	123	161	611.8	797.1
Brunswick	250	316	210.4	257.4
Camden	29	21	280.7	203.7
Carteret	186	227	270.3	329.6
Chowan	90	80	617.6	555.8
Craven	642	702	614.3	678.6
Currituck	68	73	272.3	289.0
Dare	88	98	250.7	274.8
Gates	41	44	354.5	384.9
Hertford	186	209	765.2	864.2
Hyde	8	23	140.9	416.2
Jones	27	37	268.0	369.5
Martin	114	124	486.1	530.9
New Hanover	1001	1,113	462.8	505.1
Northampton	144	128	703.7	626.7
Onslow	1244	1,520	663.2	815.8
Pamlico	42	19	324.4	148.7
Pasquotank	233	275	585.6	690.5
Pender	153	151	272.0	262.1
Perquimans	48	38	356.5	282.7
Pitt	1611	1,703	918.7	968.5
Tyrrell	17	9	413.1	221.1
Washington	66	81	525.1	654.0
Trillium Catchment Total	6,642	7,382	521.8	572.4
North Carolina Total	49,904	54,383	501.9	541.5

Data provided by calendar year.

Source: N.C. DHHS – Department of Public Health, Communicable Disease Branch, N.C. HIV/STD 2015 Annual Report, Released August, 2016.

Newly Diagnosed Gonorrhea Cases Trillium Catchment Rates per 100,000

County	2014 Number	2015 Number	2014 Rate	2015 Rate
Beaufort	42	59	88.3	123.8
Bertie	41	59	203.9	292.1
Brunswick	82	112	69.0	91.2
Camden	4	3	38.7	29.1
Carteret	23	40	33.4	58.1
Chowan	20	7	137.2	48.6
Craven	128	169	122.5	163.4
Currituck	7	8	28.0	31.7
Dare	8	28	22.8	78.5
Gates	6	12	51.9	105.0
Hertford	38	48	156.3	198.5
Hyde	0	4	0.0	72.4
Jones	12	20	119.1	199.7
Martin	31	25	132.2	107.0
New Hanover	357	360	165.1	163.4
Northampton	41	43	200.4	210.5
Onslow	239	224	127.4	120.2
Pamlico	12	5	92.7	39.1
Pasquotank	60	62	150.8	155.7
Pender	56	53	99.6	92.0
Perquimans	19	8	141.1	59.5
Pitt	402	565	229.3	321.3
Tyrrell	2	1	48.6	24.6
Washington	21	16	167.1	129.2
Trillium Catchment Total	1,651	1,931	129.7	149.7
North Carolina Total	14,952	17,047	150.4	169.7

Data provided by calendar year.

Source: N.C. DHHS – Department of Public Health, Communicable Disease Branch, N.C. HIV/STD 2015 Annual Report, Released August, 2016.

Figure 97: Newly Diagnosed Chlamydia & Gonorrhea Cases Trillium Catchment Rates per 100,000

Newly Diagnosed Syphilis Cases*
Trillium Catchment
Rates per 100,000

County	2014 Number	2015 Number	2014 Rate	2015 Rate
Beaufort	9	4	18.9	8.4
Bertie	1	0	5.0	0.0
Brunswick	4	8	3.4	6.5
Camden	0	0	0.0	0.0
Carteret	4	3	5.8	4.4
Chowan	0	1	0.0	6.9
Craven	18	18	17.2	17.4
Currituck	0	0	0.0	0.0
Dare	0	2	0.0	5.6
Gates	2	0	17.3	0.0
Hertford	11	0	45.3	0.0
Hyde	1	0	17.6	0.0
Jones	1	0	9.9	0.0
Martin	5	6	21.3	25.7
New Hanover	34	32	15.7	14.5
Northampton	3	0	14.7	0.0
Onslow	19	16	10.1	8.6
Pamlico	0	1	0.0	7.8
Pasquotank	4	3	10.1	7.5
Pender	3	9	5.3	15.6
Perquimans	0	0	0.0	0.0
Pitt	50	51	28.5	29
Tyrrell	0	0	0.0	0.0
Washington	2	3	15.9	24.2
Trillium Catchment Total	171	157	13.4	12.2
North Carolina Total	1,792	1,866	18.0	18.6

Data provided by calendar year. *Includes Primary, Secondary and Early Latent Syphilis.

Source: N.C. DHHS – Department of Public Health, Communicable Disease Branch, N.C. HIV/STD 2015 Annual Report, Released August, 2016.

Figure 98: Newly Diagnosed Syphilis Cases Trillium Catchment Rates per 100,000

**HIV Cases by County of Diagnosis
Rates per 100,000**

County	Number of Cases 2014	Number of Cases 2015	Rate 2014	Rate 2015
Beaufort	6	2	12.7	4.2
Bertie	6	8	29.4	39.6
Brunswick	9	5	7.8	4.1
Camden	0	1	0.0	9.7
Carteret	5	4	7.3	5.8
Chowan	1	1	6.8	6.9
Craven	8	9	7.7	8.7
Currituck	0	0	0.0	0.0
Dare	1	4	2.9	11.2
Gates	0	0	0.0	0.0
Hertford	3	2	12.3	8.3
Hyde	0	0	0.0	0.0
Jones	1	0	9.8	0.0
Martin	0	4	0.0	17.1
New Hanover	15	27	7.0	12.3
Northampton	5	4	24.0	19.6
Onslow	23	24	12.4	12.9
Pamlico	2	0	15.4	0.0
Pasquotank	4	2	10.0	5.0
Pender	7	3	12.7	5.2
Perquimans	2	2	14.7	14.9
Pitt	38	32	21.8	18.2
Tyrrell	0	0	0.0	0.0
Washington	5	0	39.3	0.0
Trillium Catchment Total	141	134	11.1	10.4
North Carolina Total	1,351	1,345	13.6	13.4

Source: N.C. DHHS – Department of Public Health, Communicable Disease Branch, N.C. HIV/STD 2015 Annual Report, Released August, 2016.

Figure 99: HIV Cases by County of Diagnosis Rates per 100,000

AIDS Cases by County of Diagnosis
Rates per 100,000

County	Number of Cases 2014	Number of Cases 2015	Rate 2014	Rate 2015
Beaufort	4	4	8.4	8.4
Bertie	4	2	19.6	9.9
Brunswick	5	0	4.3	0.0
Camden	0	1	0.0	9.7
Carteret	5	2	7.3	2.9
Chowan	1	1	6.8	6.9
Craven	6	6	5.7	5.8
Currituck	0	0	0.0	0.0
Dare	0	2	0.0	5.6
Gates	0	0	0.0	0.0
Hertford	2	2	8.2	8.3
Hyde	0	0	0.0	0.0
Jones	1	0	9.8	0.0
Martin	1	3	4.2	12.8
New Hanover	7	8	3.3	3.6
Northampton	3	3	14.4	14.7
Onslow	7	7	3.8	3.8
Pamlico	1	0	7.7	0.0
Pasquotank	1	2	2.5	5.0
Pender	4	1	7.3	1.7
Perquimans	1	0	7.4	0.0
Pitt	9	9	5.2	5.1
Tyrrell	0	0	0.0	0.0
Washington	3	0	23.5	0.0
Trillium Catchment Total	65	53	5.1	4.1
North Carolina Total	706	738	7.2	7.3

Source: N.C. DHHS – Department of Public Health, Communicable Disease Branch, N.C. HIV/STD 2015 Annual Report, Released August, 2016.

Figure 100: AIDS Cases by County of Diagnosis Rates per 100,000

Leading Causes of Death

Trillium Catchment Leading Causes of Death 2015

Rank	Cause of Death	Total Deaths	Percentage
1	Cancer	2,740	23.1%
2	Diseases of heart	2,523	21.3%
3	Cerebrovascular diseases	764	6.4%
4	Chronic lower respiratory diseases	648	5.5%
5	All other unintentional injuries	460	3.9%
6	Alzheimer's disease	391	3.3%
7	Diabetes mellitus	368	3.1%
8	Influenza and pneumonia	220	1.9%
9	Nephritis, nephrotic syndrome, nephrosis	211	1.8%
10	Intentional self-harm (suicide)	207	1.7%
	All other causes (Residual)	3,336	28.0%
Trillium Catchment Totals		11,868	100%

Source: N.C. State Center for Health Statistics. Accessed 6/5/17.

Figure 101: Trillium Catchment Leading Causes of Death 2015

Unintentional Injury

Trillium Unintentional Injuries Comparison Rates per 100,000

County	SFY2014 Number of Deaths	SFY2014 Death Rate	SFY2015 Number of Deaths	SFY2015 Death Rate
Beaufort	27	56.7	25	52.5
Bertie	7	34.8	5	24.8
Brunswick	45	37.9	41	33.4
Camden	1	9.7	7	67.9
Carteret	28	40.7	33	47.9
Chowan	2	13.7	7	48.6
Craven	39	37.3	43	41.6
Currituck	6	24	8	31.7
Dare	13	37	13	36.5
Gates	5	43.2	8	70
Hertford	10	41.1	8	33.1
Hyde	0	0.0	2	36.2
Jones	3	29.8	7	69.9
Martin	9	38.4	9	38.5
New Hanover	71	32.8	80	36.3
Northampton	3	14.7	5	24.5
Onslow	31	16.5	48	25.8
Pamlico	8	61.8	9	70.4
Pasquotank	9	22.6	8	20.1
Pender	14	24.9	26	45.1
Perquimans	2	14.9	7	52.1
Pitt	52	29.7	54	30.7
Tyrrell	0	0.0	2	49.1
Washington	9	71.6	5	40.4
Trillium Catchment Total	394	30.6	460	42.8
North Carolina Total	3,152	31.7	3,470	34.6

Source: NC DHHS, Department of Public Health, North Carolina State Center for Health Statistics. Accessed 12/8/16.
<http://www.schs.state.nc.us/data/vital/lcd/2015/otherinjuries.html>

Figure 102: Trillium Unintentional Injuries Comparison Rates per 100,000

Unintentional Poisoning

Trillium Unintentional Poisoning Death Comparison

County	2011	2012	2013	2014	2015
Beaufort	3	8	9	7	5
Bertie	0	1	2	0	1
Brunswick	30	26	30	22	25
Camden	0	0	0	0	3
Carteret	18	10	11	15	16
Chowan	0	0	6	0	3
Craven	9	12	18	12	21
Currituck	3	3	0	1	3
Dare	10	5	4	8	4
Gates	0	1	0	1	1
Hertford	0	3	1	2	1
Hyde	0	1	0	0	0
Jones	0	0	0	0	3
Martin	2	3	1	4	5
New Hanover	39	32	38	39	49
Northampton	2	0	1	1	2
Onslow	23	20	15	15	16
Pamlico	2	1	1	5	4
Pasquotank	4	3	4	3	2
Pender	6	5	6	3	17
Perquimans	1	1	0	1	2
Pitt	8	18	14	22	14
Tyrrell	0	1	0	0	0
Washington	1	0	0	2	1
Trillium Catchment Total	161	154	161	163	198
North Carolina Total	1,140	1,101	1,085	1,178	1,370

* Data Suppressed using state convention.

Source: N.C. DHHS, Injury Epidemiology and Surveillance Unit, Injury and Violence Prevention Branch, Chronic Disease and Injury Section, Division of Public Health. Received 12/3/16.

Figure 103: Trillium Unintentional Poisoning Death Comparison

Overdose Deaths

Trillium Catchment Overdose Death - Percentage of Change*

County (County is based on county of residence of the decedent)	Medication & Drug Poisoning Deaths (Any mention of a medication and/or drug poisoning as primary cause of death; includes prescription, over-the-counter, and illicit drugs)			Prescription Opioid Deaths** (Any mention of other opioids, methadone, and/or other synthetic opioids in the multiple cause of death fields on the death certificate)			Heroin Poisoning Deaths (Any mention of heroin in the multiple cause of death fields on the death certificate)		
	2014	2015	Change	2014	2015	Change	2014	2015	Change
Beaufort	7	8	14.3%	2	4	50.0%	1	1	0.0%
Bertie	0	2	200.0%	0	1	100.0%	0	1	100.0%
Brunswick	22	29	32.0%	15	20	33.3%	5	10	100.0%
Camden	0	4	400.0%	0	3	300.0%	0	1	100.0%
Carteret	19	18	-5.3%	13	12	-7.7%	1	4	300.0%
Chowan	0	3	300.0%	0	3	300.0%	0	1	100.0%
Craven	18	28	55.6%	9	17	89.0%	2	5	150.0%
Currituck	3	5	66.7%	1	3	200.0%	1	2	100.0%
Dare	10	5	-50.0%	6	3	-50.00%	3	0	-100.0%
Gates	1	1	0.0%	0	1	100.0%	0	1	100.0%
Hertford	1	1	0.0%	0	0	0.0%	0	0	0.0%
Hyde	0	0	0.0%	0	0	0.0%	0	0	0.0%
Jones	1	3	200.0%	0	3	300.0%	0	0	0.0%
Martin	2	3	50.0%	1	1	0.0%	0	0	0.0%
New Hanover	41	52	27.0%	14	32	129.0%	11	23	109.1%
Northampton	2	2	0.0%	2	0	-100.0%	0	1	100.0%
Onslow	20	20	0.0%	13	13	0.0%	1	3	200.0%
Pamlico	4	4	0.0%	3	3	0.0%	0	1	100.0%
Pasquotank	3	3	0.0%	2	2	0.0%	1	1	0.0%
Pender	5	17	240.0%	1	10	900.0%	1	7	600.0%
Perquimans	2	2	0.0%	1	1	0.0%	1	0	-100.0%
Pitt	30	17	-43.3%	17	10	-41.0%	3	4	33.3%
Tyrrell	1	0	-100.0%	1	0	-100.0%	0	0	0.0%
Washington	1	1	0.0%	0	1	100.0%	0	0	0.0%
Trillium Catchment Total	193	228	18.1%	101	143	42.0%	31	66	113.0%
North Carolina Total	1,306	1,498	15.0%	728	854	17.3%	253	369	46.0%

* Note the numbers in the categories above are not mutually exclusive. Those included in Deaths by Prescription Opioids and/or Heroin may also be included in Medication and Drug Poisoning data. **The 'Prescription Opioid' category currently includes 'other synthetic narcotics' like tramadol and fentanyl. With the rise of illicitly manufactured fentanyl, the 'Prescription Opioid' category will likely exclude 'other synthetic narcotics' in the future. Source: N.C. DHHS, Injury Epidemiology and Surveillance Unit, Injury and Violence Prevention Branch, Chronic Disease and Injury Section, Division of Public Health. Accessed 11/15/16.

Figure 104: Trillium Catchment Overdose Death - Percentage of Change

Suicide

Trillium Suicide Statistics Comparison Rate per 100,000

County	Death Rate 2012	Death Rate 2013	Death Rate 2014	Number of Deaths 2015	Death Rate 2015
Beaufort	14.7	21.1	23.1	11	23.1
Bertie	14.5	0.0	5.0	5	24.8
Brunswick	22.3	16.5	16.8	17	13.8
Camden	29.7	19.6	38.7	3	29.1
Carteret	19.2	14.6	20.3	17	24.7
Chowan	6.8	13.6	13.7	4	27.8
Craven	15.3	9.6	15.3	17	16.4
Currituck	12.5	20.5	24.0	8	31.7
Dare	28.9	14.3	19.9	7	19.6
Gates	8.4	8.6	8.6	1	8.7
Hertford	20.5	12.3	16.5	0	0.0
Hyde	0.0	0.0	17.6	0	0.0
Jones	19.5	9.8	29.8	0	0.0
Martin	20.9	4.2	21.3	4	17.1
New Hanover	18.2	10.8	18.5	29	13.2
Northampton	23.3	9.6	14.7	2	9.8
Onslow	16.4	20.0	19.2	34	18.2
Pamlico	0.0	23.2	15.4	6	46.9
Pasquotank	4.9	12.5	15.1	8	20.1
Pender	14.8	18.1	21.3	10	17.4
Perquimans	7.4	22.1	22.3	3	22.3
Pitt	8.1	9.8	14.8	20	11.4
Tyrrell	0.0	0.0	0.0	1	24.6
Washington	0.0	15.7	15.9	0	0.0
Trillium Catchment Rate	13.6	12.8	17.8	207	17.5
North Carolina Rate	13.1	12.9	13.5	1,406	14.0

Source: N.C. Resident Mortality Statistics Summary for FY 2015, N.C. DHHS, Division of Public Health, State Center for Health Statistics. Accessed 1/21/17.

<http://www.schs.state.nc.us/data/vital/lcd/2015/suicide.html>

Figure 105: Trillium Suicide Statistics Comparison Rate per 100,000

Infant Mortality

N.C. Infant Death Rates - Four Year Comparison (per 1,000 Live Births)

County	2012 Infant Deaths	2012 Rate	2013 Infant Deaths	2013 Rate	2014 Infant Deaths	2014 Rate	2015 Infant Deaths	2015 Rate
Beaufort	4	7.9	5	10.2	8	17.9	8	16.5
Bertie	3	16.8	2	10.8	2	12.2	4	23.7
Brunswick	10	9.7	8	8.0	4	3.6	2	1.9
Camden	0	0.0	0	0.0	0	0.0	0	0.0
Carteret	5	8.3	6	9.1	3	5.2	4	6.5
Chowan	1	6.9	1	6.0	1	8.1	2	12.0
Craven	15	9.2	10	6.6	7	4.7	10	6.9
Currituck	2	9.6	0	0.0	4	15.4	0	0.0
Dare	2	5.1	2	5.9	2	5.7	1	2.9
Gates	0	0.0	0	0.0	1	9.6	1	9.2
Hertford	3	12.9	5	20.7	7	31.4	4	16.7
Hyde	0	0.0	1	17.2	0	0.0	1	20.4
Jones	0	0.0	1	10.4	0	0.0	0	0.0
Martin	1	4.3	2	8.0	1	4.3	1	3.8
New Hanover	9	4.0	12	5.4	3	1.3	8	3.5
Northampton	2	9.5	2	11.4	3	18.2	0	0.0
Onslow	34	7.7	29	6.7	30	6.9	32	7.7
Pamlico	2	20.4	1	12.7	2	22	1	11.9
Pasquotank	2	4.2	2	4.1	3	5.6	5	10.1
Pender	3	5.1	5	8.7	4	6.3	6	9.8
Perquimans	1	7.9	1	7.0	0	0.0	0	0.0
Pitt	25	11.5	21	9.9	28	13.2	21	9.7
Tyrrell	0	0.0	1	22.2	1	24.4	0	0.0
Washington	0	0.0	0	0.0	0	0.0	2	16.8
Trillium Catchment Total	124	6.7*	117	8.4*	114	9.0*	113	7.9*
North Carolina Total	883	7.4	832	7.0	860	7.1	884	7.3

Note: Rates based on less than 10 deaths are unreliable and should be interpreted with caution. *Trillium Catchment and Regional rates are the average rate of the county rates.

Source: N.C. Department of Health & Human Services State Center for Health Statistics, Accessed 1-21-16.

Figure 106: N.C. Infant Death Rates - Four Year Comparison per 1,000 Live Births

Mortality Rates

Trillium Mortality Rate Comparison Rates per 100,000

County	Number of Deaths 2014	Death Rate* 2014	Number of Deaths 2015	Death Rate* 2015
Beaufort	592	1,244	620	1,301.1
Bertie	265	1,318	241	1,193.1
Brunswick	1,290	1,086	1,336	1,088.3
Camden	84	813	89	863.3
Carteret	755	1,097	795	1,154.2
Chowan	167	1,146	197	1,368.6
Craven	1,027	983	1,090	1,053.6
Currituck	220	881	217	859.0
Dare	302	860	295	827.2
Gates	118	1,020	127	1,111.0
Hertford	278	1,144	257	1,062.7
Hyde	58	1,022	63	1,140.1
Jones	136	1,350	117	1,168.5
Martin	313	1,335	307	1,314.4
New Hanover	1,828	845	1,927	874.5
Northampton	262	1,280	279	1,365.9
Onslow	1,024	546	1,103	592.0
Pamlico	175	1,352	173	1,353.6
Pasquotank	383	963	419	1,052.0
Pender	510	907	551	956.4
Perquimans	152	1,129	162	1,205.4
Pitt	1,225	699	1,293	735.3
Tyrrell	35	851	50	1,228.5
Washington	137	1,090	160	1,291.9
Trillium Catchment Totals	11,336	891.1	11,868	928.1
North Carolina Totals	85,212	856.9	89,130	887.5

Source: State Center for Health Statistics Division of Public Health North Carolina Department of Health and Human Service. Accessed 12/8/16.

Figure 107: Trillium Mortality Rate Comparison Rates per 100,000

Trillium Health Outcome Rankings

County	2015 Health Outcomes	2016 Health Outcomes
Beaufort	63	71
Bertie	82	86
Brunswick	36	45
Camden	19	4
Carteret	35	27
Chowan	61	76
Craven	23	36
Currituck	26	10
Dare	15	7
Gates	66	26
Hertford	74	89
Hyde	64	50
Jones	89	82
Martin	80	83
New Hanover	8	14
Northampton	91	93
Onslow	22	25
Pamlico	21	29
Pasquotank	43	44
Pender	20	33
Perquimans	60	53
Pitt	39	59
Tyrrell	93	87
Washington	37	52

Source: 2016 County Health Rankings. Accessed 12/7/16.
www.countyhealthrankings.org

Figure 108: Trillium Health Outcome Rankings

Behavioral Health Hospitalization

N.C. State Alcohol and Drug Abuse Treatment Centers

Persons Served by N.C. State Alcohol and Drug Abuse Treatment Centers (ADATC) Comparison - Trillium Catchment

County	Persons Served in 2014	2014 Rate Persons Served Per 100,000	Persons Served in 2015	2015 Rate Persons Served Per 100,000	Persons Served in 2016	2016 Rate Persons Served Per 100,000	TREND: Up, Down, Steady
Beaufort	8	16.7	14	29.3	22	46.1	U
Bertie	6	29.2	5	24.5	2	10.0	D
Brunswick	78	65.7	57	46.9	52	41.7	D
Camden	2	19.8	0	0.0	0	0.0	S
Carteret	31	44.2	22	31.6	20	28.7	D
Chowan	6	40.4	4	27.3	4	27.3	S
Craven	60	57.5	70	66.6	68	64.3	D
Currituck	12	49.9	2	7.9	8	30.6	U
Dare	42	118.4	26	73.2	15	42.0	D
Gates	4	35.5	1	8.4	2	16.8	U
Hertford	9	36.7	2	8.2	2	8.2	S
Hyde	1	17.1	1	17.4	2	35.0	U
Jones	7	66.2	3	28.6	1	9.5	D
Martin	12	50.8	5	21.2	11	46.8	U
New Hanover	243	111.5	234	106.3	173	77.5	D
Northampton	5	23.9	2	9.5	0	0	D
Onslow	24	12.1	21	10.8	23	11.7	U
Pamlico	9	68.9	9	68.4	10	75.8	U
Pasquotank	20	51.4	16	40.1	15	37.4	D
Pender	25	44.2	28	48.5	17	28.9	D
Perquimans	5	36.2	5	36.9	2	14.8	D
Pitt	277	157.9	214	122.0	155	87.9	D
Tyrrell	1	24.3	0	0.0	3	72.4	U
Washington	2	15.7	5	39.5	2	15.9	D
Trillium Catchment Total	889	79.7	746	58.3	609	47.2	D
North Carolina Total	4,479	44.9	3,701	36.8	3,412	33.6	D

Source: NC DHHS, NC Division of MH/SA/DD. Report received 8/1/16.

Figure 109: Persons Served by N.C. State Alcohol and Drug Abuse Treatment Centers (ADATC) Comparison

N.C. State Psychiatric Hospitals

Persons Served by N.C. State Psychiatric Hospitals Comparison - Trillium Catchment

County	Persons Served 2014	2014 Rate Persons Served Per 100,000 pop.	Persons Served 2015	2015 Rate Persons Served Per 100,000 pop.	Persons Served 2016	2016 Rate Persons Served Per 100,000 pop.	Trend: Up, Down, Steady
Beaufort	14	29.3	16	33.5	9	18.9	D
Bertie	5	24.3	8	39.3	5	24.9	D
Brunswick	71	59.9	47	38.7	23	18.4	D
Camden	0	0.0	1	9.7	0	0.0	S
Carteret	15	21.4	11	15.8	7	10.0	D
Chowan	5	33.7	5	34.1	3	20.5	D
Craven	30	28.8	25	23.8	20	18.9	D
Currituck	3	12.5	3	11.8	0	0.0	D
Dare	12	33.8	5	14.1	4	11.2	D
Gates	2	17.8	0	0.0	0	0.0	S
Hertford	5	20.4	12	48.9	10	40.9	D
Hyde	0	0.0	0	0.0	0	0.0	S
Jones	5	47.3	3	28.6	2	19.0	D
Martin	11	46.6	10	42.4	4	17.0	D
New Hanover	64	29.4	92	41.8	66	29.6	D
Northampton	10	47.7	7	33.2	2	9.5	D
Onslow	28	14.2	30	15.4	15	7.7	D
Pamlico	4	30.6	4	30.4	1	7.6	D
Pasquotank	13	33.4	11	27.6	8	19.9	D
Pender	22	38.9	9	15.6	15	25.5	D
Perquimans	4	28.9	7	51.7	2	14.8	D
Pitt	69	39.3	64	36.5	46	26.1	D
Tyrrell	1	24.3	0	0.0	0	0.0	S
Washington	8	62.7	6	47.4	2	15.9	D
Trillium Catchment Total	401	31.5	376	29.4	244	18.9	D
North Carolina Total	3,529	35.4	3,289	32.7	2,253	22.2	D

Source: NC DHHS, NC Division of MH/SA/DD. Report received 8/1/16.

Figure 110: Persons Served by N.C. State Psychiatric Hospitals Comparison - Trillium Catchment

Criminal Justice

Crime Rate

Trillium Crime Rate of Service Area - SFY2015 (Rate per 100,000)

County	Index Rate	Violent	Property	Murder	Rape	Robbery	Assault	Burglary	Larceny	MVT	Arson
Beaufort	2,616.0	332.6	2,283.4	8.5	12.7	46.6	264.8	764.7	1,440.4	78.4	19.1
Bertie	2,280.3	129.4	2,150.9	*	14.9	19.9	94.6	985.8	1,070.5	94.6	34.9
Brunswick	1,815.2	131.5	1,683.8	0.0	20.7	24.3	86.4	655.5	979.7	48.6	3.6
Camden	744.7	68.6	676.1	*	29.4	9.8	29.4	293.9	382.1	*	*
Carteret	2,869.5	243.7	2,625.8	1.4	18.7	18.7	204.8	651.8	1,891.9	82.2	11.5
Chowan	2,124.9	198.1	1,926.8	*	6.8	20.5	170.8	580.8	1,291.3	54.7	13.7
Craven	2,472.7	212.6	2,260.1	6.0	16.0	37.1	153.4	694.9	1,493.1	72.2	6.0
Currituck	1,683.2	147.6	1,535.6	*	4.0	12.0	131.6	398.9	1,112.8	23.9	16.0
Dare	4,063.3	220.2	3,843.0	5.6	45.2	8.5	160.9	1,417.5	2,374.7	50.8	19.8
Gates	*	*	*	*	*	*	*	*	*	*	*
Hertford	2,806.3	230.7	2,575.6	12.6	12.6	71.3	134.2	1,019.3	1,464.0	92.3	21.0
Hyde	*	*	*	*	*	*	*	*	*	*	*
Jones	784.3	98.0	686.3	*	0.0	98.0	*	98.0	490.2	98.0	*
Martin	4,119.9	506.0	3,613.9	4.2	29.5	92.8	379.5	1,505.4	1,994.6	113.9	50.6
New Hanover	4,140.1	501.3	3,638.8	7.9	34.9	151.3	307.2	969.6	2,494.1	175.0	6.5
Northampton	*	*	*	*	*	*	*	*	*	*	*
Onslow	2,887.7	184.1	2,703.7	4.6	25.4	38.1	116.0	701.7	1,916.5	85.4	18.5
Pamlico	1,912.7	106.3	1,806.4	16.3	8.2	16.3	65.4	269.7	1,463.1	73.6	8.2
Pasquotank	2,818.6	332.2	2,486.4	5.0	17.6	78.0	231.5	817.9	1,610.6	57.9	7.5
Pender	2,374.2	161.2	2,213.0	1.8	28.3	23.0	108.1	629.0	1,506.1	78.0	5.3
Perquimans	1,427.0	191.8	1,235.2	*	15.3	23.0	153.4	537.1	675.2	23.0	23.0
Pitt	3,307.7	441.9	2,865.9	9.3	31.5	100.3	300.8	706.0	2,083.5	76.4	4.7
Tyrrell	1,549.0	159.5	1,389.5	*	*	22.8	136.7	159.5	1,207.3	22.8	*
Washington	*	*	*	*	*	*	*	*	*	*	*
Trillium Catchment Average Rate	2,439.9	229.9	2,210.0	6.4	19.6	45.6	170.0	692.9	1,447.1	73.8	15.9
North Carolina Rate	3,169.3	355.8	2,813.5	5.8	19.5	91.4	239.2	766.8	1,911.1	135.6	15.1

* 2015 Crime Rate not reported

N.C. Department of Justice, Accessed 2/16/17.

Seven offenses were chosen to serve as an index for gauging fluctuations in the overall volume and rate of crime. Known collectively as the Crime Index, these offenses included the violent crimes of murder and non-negligent manslaughter, forcible rape, robbery, and aggravated assault and the property crimes of burglary, larceny-theft, and major vehicle theft. By Congressional mandate, arson was added as the eighth Index Offense in 1979.

Figure 111: Trillium Crime Rate of Service Area - SFY2015 (Rate per 100,000)

Trillium Catchment DWI Arrests - SFY2016

County	Number of Arrests	Rate of Arrests per 10,000
Beaufort	353	74.0
Bertie	76	37.8
Brunswick	950	76.2
Camden	46	44.1
Carteret	606	86.9
Chowan	34	23.2
Craven	470	44.4
Currituck	185	70.7
Dare	393	110.0
Gates	65	54.6
Hertford	126	51.6
Hyde	28	49.0
Jones	55	52.3
Martin	109	46.4
New Hanover	1,457	65.3
Northampton	66	31.5
Onslow	884	45.1
Pamlico	92	69.8
Pasquotank	200	49.9
Pender	361	61.4
Perquimans	44	32.5
Pitt	553	31.4
Tyrrell	42	101.4
Washington	44	35.0
Trillium Catchment Total	7,239	56.1
North Carolina Total	45,064	44.4

Source: NC Judicial Department, Accessed 2/4/17.

<http://www.nccourts.org/Citizens/SRPlanning/Documents/ratfy2015-2016.pdf>

Figure 112: Trillium Catchment DWI Arrests - SFY2016

DUI Arrest Comparisons

Driving Under the Influence Arrests 2012-2016

County	Number of Arrests				Trend: Up, Down, Steady
	2012-2013	2013-2014	2014-2015	2015-2016	
Beaufort	342	380	378	353	D
Bertie	100	57	72	76	U
Brunswick	1,197	1,140	1,033	950	D
Camden	94	41	25	46	U
Carteret	1,061	842	698	606	D
Chowan	43	41	36	34	D
Craven	390	369	493	470	D
Currituck	262	224	214	185	D
Dare	497	430	413	393	D
Gates	58	49	52	65	U
Hertford	125	142	114	126	U
Hyde	57	47	32	28	D
Jones	94	80	82	55	D
Martin	130	143	124	109	D
New Hanover	1,921	1,688	1,588	1,457	D
Northampton	57	65	46	66	U
Onslow	1,046	897	845	884	U
Pamlico	75	62	72	92	U
Pasquotank	227	212	222	200	D
Pender	475	427	396	361	D
Perquimans	65	48	44	44	S
Pitt	826	689	653	553	D
Tyrrell	54	71	50	42	D
Washington	68	60	66	44	D
Trillium Catchment Total	9,264	8,204	7,748	7,239	D
North Carolina Total	49,585	48,713	46,840	45,064	D

Source: NC Judicial Department, Accessed 2/4/17.

Figure 113: Driving Under the Influence Arrests 2012-2016

Domestic Violence

Trillium Domestic Violence Comparison

County	SFY2014 Number of Cases	SFY2014 Rate per 10,000	SFY2015 Number of Cases	SFY2015 Rate per 10,000	SFY2016 Number of Cases	SFY2016 Rate per 10,000	Trend: Up, Down, Steady
Beaufort	167	34.8	183	38.5	132	27.7	D
Bertie	453	218.1	398	198.0	397	196.5	D
Brunswick	499	44.3	298	25.1	454	37.0	U
Camden	120	119.1	125	121.0	73	70.8	D
Carteret	205	30.1	221	32.1	182	26.4	D
Chowan	194	130.8	293	201.1	109	75.7	D
Craven	247	23.5	223	21.3	295	28.5	U
Currituck	283	117.1	225	90.1	102	40.4	D
Dare	507	145.6	324	92.3	237	66.5	D
Gates	85	71.1	126	108.9	94	82.2	D
Hertford	327	132.8	399	164.1	229	94.7	D
Hyde	121	211.6	130	229.0	129	233.4	U
Jones	35	33.0	89	88.3	94	93.9	U
Martin	94	38.9	69	29.4	62	26.5	D
New Hanover	2,122	101.1	1,851	85.6	1,359	61.7	D
Northampton	192	89.2	217	106.0	195	95.5	D
Onslow	270	14.2	293	15.6	217	11.6	D
Pamlico	30	22.7	88	68.0	71	55.6	D
Pasquotank	697	173.5	974	244.8	380	95.4	D
Pender	295	54.4	345	61.3	145	25.2	D
Perquimans	122	89.1	155	115.1	94	69.9	D
Pitt	419	24.3	350	20.0	469	26.7	U
Tyrrell	16	38.2	14	34.0	17	41.8	U
Washington	47	36.4	41	32.6	46	37.1	U
Trillium Catchment Total	7,547	59.3	7,431	59.0	5,582	44.1	D
North Carolina Total	57,345	58.7	56,664	57.0	48,601	48.4	D

Source: N.C. Dept. of Administration, Council for Women, Accessed 2/10/17.

Figure 114: Trillium Domestic Violence Comparison

Sexual Assault

Trillium Sexual Assault Comparison

County	SFY2014 Number of Cases	SFY2014 Rate per 10,000	SFY2015 Number of Cases	SFY2015 Rate per 10,000	SFY2016 Number of Cases	SFY2016 Rate per 10,000	Trend: Up, Down, Steady
Beaufort	15	3.1	15	3.2	26	5.5	U
Bertie	19	9.2	11	5.5	13	6.4	U
Brunswick	129	11.1	131	11.0	156	12.7	U
Camden	31	30.5	27	26.1	15	14.6	D
Carteret	151	21.8	179	26.0	204	29.6	U
Chowan	69	46.6	38	26.1	12	8.3	D
Craven	228	21.8	227	21.7	185	17.9	D
Currituck	134	54.7	111	44.4	30	11.9	D
Dare	19	5.4	20	5.7	23	6.4	U
Gates	10	8.4	25	21.6	9	7.9	D
Hertford	45	18.3	49	20.2	56	23.2	U
Hyde	53	91.3	96	169.1	93	168.3	D
Jones	*	*	*	*	*	*	*
Martin	14	5.9	16	6.8	11	4.7	D
New Hanover	332	15.5	322	14.9	347	15.7	U
Northampton	45	21.2	23	11.2	14	6.9	D
Onslow	12	0.6	26	1.4	17	0.9	D
Pamlico	30	23.0	30	23.2	29	22.7	D
Pasquotank	211	53.5	187	47.0	82	20.6	D
Pender	41	7.4	40	7.1	42	7.3	U
Perquimans	25	18.2	22	16.3	26	19.3	U
Pitt	200	11.5	268	15.3	257	14.6	D
Tyrrell	27	65.2	14	34.0	17	41.8	U
Washington	2	1.6	4	3.2	3	2.4	D
Trillium Catchment Total	1,842	15.3	1,881	15.1	1,667	13.2	D
North Carolina Total	13,736	14.2	13,655	13.7	10,981	10.9	D

* Denotes no report.

Source: N.C. Dept. of Administration, Council for Women, Accessed 2/8/17.

Figure 115: Trillium Sexual Assault Comparison

Sex Offense Convictions

Persons Convicted of a Sex Offense or Offense Against a Minor

County	Total Offenders 2015	Total Offenders 2016	Trend: Up, Down, Steady
Beaufort	104	98	D
Bertie	49	55	U
Brunswick	201	206	U
Camden	15	16	U
Carteret	99	101	U
Chowan	31	30	D
Craven	170	155	D
Currituck	41	42	U
Dare	43	42	D
Gates	25	27	U
Hertford	56	53	D
Hyde	9	9	S
Jones	26	28	U
Martin	75	79	U
New Hanover	246	251	U
Northampton	49	49	S
Onslow	278	286	U
Pamlico	25	29	U
Pasquotank	68	72	U
Pender	115	111	D
Perquimans	37	36	D
Pitt	283	266	D
Tyrrell	8	8	S
Washington	38	39	U
Trillium Catchment Total	2,091	2,088	D
North Carolina Total	14,416	12,597	D

Source: N.C. Department of Public Safety. Accessed 2/3/17. <http://sexoffender.ncsbi.gov/stats.aspx>

Figure 116: Persons Convicted of a Sex Offense or Offense Against a Minor

Juvenile Justice

Trillium Juvenile Justice Data 2015 Table A

County	POPULATION AGE GROUPS			COMPLAINTS RECEIVED			RATES		SUPERIOR COURT TRANSFERS
	Juvenile Population Ages 6-15	Juvenile Population Ages 6-17	Juvenile Population Ages 10-17	Violent Class A - E	Serious Class F - I, A1	Minor Class 1 - 3	Undisciplined Rate per 1,000 Age 6-17	Delinquent Rate per 1,000 Age 6-15	Number of Juveniles Transferred to Superior Court
Beaufort	5,905	7,056	4,805	5	33	100	0.99	23.54	1
Bertie	2,333	2,826	1,883	3	12	39	0.00	23.15	0
Brunswick	12,166	14,478	9,507	12	70	367	1.04	37.07	0
Camden	1,416	1,700	1,176	0	1	6	2.94	4.94	0
Carteret	7,148	8,669	5,887	1	17	60	1.50	11.05	0
Chowan	1,785	2,146	1,438	2	9	60	6.99	39.78	0
Craven	13,670	16,097	10,187	8	25	188	1.49	16.17	0
Currituck	3,241	3,926	2,719	0	19	63	3.57	25.30	0
Dare	3,873	4,645	3,082	10	16	47	4.95	18.85	0
Gates	1,466	1,783	1,207	0	0	10	0.00	6.82	0
Hertford	2,901	3,438	2,238	7	16	27	0.00	17.92	0
Hyde	572	693	443	2	3	1	1.44	10.49	0
Jones	1,234	1,479	982	1	10	25	0.68	29.17	0
Martin	2,936	3,508	2,365	8	21	107	2.00	46.32	3
New Hanover	23,541	28,031	18,473	12	114	243	0.46	15.67	0
Northampton	2,419	2,872	1,899	2	11	46	0.00	24.39	0
Onslow	24,471	28,494	16,875	6	71	332	4.07	16.80	0
Pamlico	1,288	1,576	1,065	0	1	20	1.27	16.30	0
Pasquotank	5,114	6,028	3,848	5	23	118	3.32	28.55	0
Pender	6,876	8,339	5,702	6	48	141	0.36	28.36	0
Perquimans	1,562	1,860	1,227	0	8	22	1.08	19.21	0
Pitt	21,461	25,516	16,577	44	209	542	0.55	37.09	0
Tyrrell	434	501	314	0	1	19	0.00	46.08	0
Washington	1,624	1,939	1,278	0	4	20	0.52	14.78	0
Trillium Catchment Total	149,436	177,600	115,177	134	742	2,603	1.63	23.24	4
North Carolina Total	1,309,177	1,564,195	1,044,293	927	6,760	19,418	1.49	20.78	19
Notes:									

Figure 117: Trillium Juvenile Justice Data 2015 Table A

Trillium Juvenile Justice Data 2015 Table B

County	DETENTION			YDC COMMITMENTS	COMMUNITY PROGRAMS				
	Distinct Juveniles Detained *	Detention Admissions **	Detention Rate per 1,000	YDC Commitments	JCPC Youth Served	Alternatives to Commitment Youth Served	JCPC Endorsed Level II Programs Youth Served	Residential Contractual Services for Level II Youth Served	Non-Residential Contractual Programs Youth Served
Beaufort	10	10	1.42	3	91	11	0	5	1
Bertie	10	12	4.25	0	22	0	0	2	0
Brunswick	18	26	1.80	0	292	16	0	2	0
Camden	1	1	0.59	0	84	0	0	0	0
Carteret	8	12	1.38	1	328	1	0	0	0
Chowan	4	4	1.86	1	104	5	0	2	0
Craven	16	18	1.12	0	300	8	0	4	0
Currituck	4	5	1.27	0	75	1	0	2	0
Dare	5	5	1.08	0	108	2	9	4	0
Gates	0	0	0.00	0	39	0	0	0	0
Hertford	4	6	1.75	0	5	1	0	7	0
Hyde	3	4	5.77	0	27	0	0	0	0
Jones	1	1	0.68	0	49	3	0	1	0
Martin	14	16	4.56	1	339	6	0	6	1
New Hanover	42	65	2.32	8	382	27	0	5	54
Northampton	3	3	1.04	0	26	1	0	5	0
Onslow	43	62	2.18	5	254	33	19	6	0
Pamlico	2	2	1.27	0	234	3	0	0	0
Pasquotank	9	10	1.66	1	130	8	0	5	0
Pender	11	13	1.56	0	154	7	0	1	0
Perquimans	2	3	1.61	0	56	0	0	1	0
Pitt	73	99	3.88	12	446	13	0	6	45
Tyrrell	0	0	0.00	0	142	0	0	0	0
Washington	1	3	1.55	0	58	0	0	0	0
Trillium Catchment Total	284	380	1.86	32	3,745	146	28	64	101
North Carolina Total	2,162	3,211	2.05	217	22,470	619	111	410	296

DETENTION:

*"Distinct" in the County Databook is determined by county counts. For juveniles who were admitted to detention with secure custody orders from different counties, they are counted in all counties where secure custody orders originated.

**Admissions are the number of times all juveniles were admitted to detention from each respective county. This data does not include transfers between centers (within the detention system).

COMMUNITY PROGRAMS:

All Community Programs data are defined as "youth served", not admissions during the 2014 - 15 school/fiscal year.

Source: N.C. Department of Public Safety, Released 6/16. Accessed 2/9/17.

Figure 118: Trillium Juvenile Justice Data 2015 Table B

Alcohol-Related Crashes

Trillium Alcohol-Related Crash Comparison

County	2012 Fatal Crashes	2012 Non- Fatal Injury Crashes	2013 Fatal Crashes	2013 Non- Fatal Injury Crashes	2014 Fatal Crashes	2014 Non- Fatal Injury Crashes	2015 Fatal Crashes	2015 Non- Fatal Injury Crashes	Trend: Up, Down, Steady
Beaufort	3	14	5	23	3	16	0	32	U
Bertie	1	14	0	7	3	11	2	16	U
Brunswick	9	85	3	62	3	100	4	52	D
Camden	0	4	0	4	0	3	0	6	U
Carteret	6	34	1	29	0	21	1	32	U
Chowan	0	3	0	5	1	5	0	9	U
Craven	4	39	8	39	2	37	4	47	U
Currituck	2	10	0	8	3	14	1	16	U
Dare	2	25	0	17	1	14	0	16	U
Gates	2	5	0	4	1	4	1	9	U
Hertford	1	9	1	10	1	15	1	20	U
Hyde	0	5	0	5	0	3	1	2	D
Jones	0	14	0	10	0	8	0	8	S
Martin	2	16	1	18	0	23	2	10	D
New Hanover	9	103	5	108	12	101	7	100	D
Northampton	2	11	2	14	2	19	1	15	D
Onslow	11	144	8	111	8	110	15	99	D
Pamlico	1	11	0	7	0	2	1	11	U
Pasquotank	1	18	0	13	2	18	1	12	D
Pender	2	43	5	29	5	36	2	36	S
Perquimans	0	2	1	6	0	6	1	4	D
Pitt	10	104	6	122	4	96	9	119	U
Tyrrell	0	3	0	2	0	2	0	3	U
Washington	2	10	0	3	0	0	0	4	U
Trillium Catchment Total	70	726	46	656	51	664	54	678	U
North Carolina Total	402	5,710	324	5306	344	5,297	372	5,499	U

Source: N.C. Division of Motor Vehicles, Traffic Records Branch, N.C. Department of Transportation. Accessed 2/10/16.

Figure 119: Trillium Alcohol-Related Crash Comparison

Teen Motor Vehicle Data

Trillium Teen Motor Vehicle Data Ages 15-19

County	2014 Crashes	2015 Crashes	Trend: Up Down, Steady	2014 Fatalities	2015 Fatalities	Trend: Up Down, Steady	2014 Injuries	2015 Injuries	Trend: Up Down, Steady
Beaufort	180	175	D	0	0	S	41	54	U
Bertie	61	57	D	1	0	D	20	21	U
Brunswick	347	404	U	2	0	D	103	110	U
Camden	31	31	S	0	0	S	10	11	U
Carteret	233	259	U	0	0	S	46	44	D
Chowan	46	32	D	0	0	S	13	14	U
Craven	303	349	U	2	0	D	60	99	U
Currituck	65	88	U	0	0	S	18	23	U
Dare	184	168	D	0	0	S	25	31	U
Gates	39	31	D	0	0	S	18	8	D
Hertford	86	88	U	0	1	U	37	33	D
Hyde	12	10	D	0	0	S	1	2	U
Jones	29	50	U	0	0	S	6	21	U
Martin	87	74	D	0	0	S	35	29	D
New Hanover	1025	1,172	U	0	0	S	200	240	U
Northampton	46	59	U	1	0	D	16	25	U
Onslow	664	748	U	3	0	D	185	168	D
Pamlico	33	39	U	0	0	S	11	14	U
Pasquotank	151	134	D	0	0	S	42	26	D
Pender	200	268	U	0	2	U	58	66	U
Perquimans	42	25	D	0	0	S	26	7	D
Pitt	972	1,190	U	0	3	U	223	301	U
Tyrrell	16	14	D	0	0	S	0	1	U
Washington	24	28	U	0	0	S	8	9	U
Trillium Catchment Total	4,876	5,493	U	9	6	D	1,202	1,357	U
North Carolina Total	40,650	45,590	U	95	81	D	10,491	11,653	U

Source: N.C. Division of Motor Vehicles, Traffic Records Branch, N.C. Department of Transportation. Accessed 2/6/17.

Figure 120: Trillium Teen Motor Vehicle Data Ages 15-19

Motor Vehicle Fatality Trends

Trillium Motor Vehicle Crash Fatalities: 5-Year Trend

County	2011	2012	2013	2014	2015	5-Year Average
Beaufort	9	14	13	6	5	9.4
Bertie	4	5	5	12	6	6.4
Brunswick	22	28	13	14	12	17.8
Camden	0	4	1	3	0	1.6
Carteret	8	12	7	3	4	6.8
Chowan	2	1	0	3	1	1.4
Craven	25	13	17	12	16	16.6
Currituck	5	3	4	4	4	4
Dare	7	4	7	2	2	4.4
Gates	1	4	3	5	4	3.4
Hertford	6	3	3	1	4	3.4
Hyde	4	0	0	1	1	1.2
Jones	1	2	2	2	1	1.6
Martin	6	7	5	3	2	4.6
New Hanover	17	29	17	19	21	20.6
Northampton	3	8	7	7	5	6
Onslow	19	22	24	21	24	22
Pamlico	2	1	2	3	4	2.4
Pasquotank	8	3	0	3	4	3.6
Pender	13	9	15	19	13	13.8
Perquimans	2	0	5	2	2	2.2
Pitt	18	24	19	17	32	22
Tyrrell	1	2	0	0	0	0.6
Washington	1	4	0	0	3	1.6
Trillium Catchment Total	184	202	169	162	170	177.4
North Carolina Total	1,208	1,262	1,260	1,277	1,380	1,277

Source: N.C. Division of Motor Vehicles, Traffic Records Branch, N.C. Department of Transportation. Accessed 2/9/17.

Figure 121: Trillium Motor Vehicle Crash Fatalities: 5-Year Trend

Appendix A: Northern Region Charts & Profiles

County Profiles

Bertie County

Category	County	North Carolina
Total Population (1)	20,100	10,157,928
0-2 years (1)	555	358,925
3-17 years (1)	3,320	1,947,064
18+ (1)	16,225	7,851,939
65 & Older (1)	3,859	1,558,037
Median Age (1)	42.20	38.44
Income and Poverty		
Poverty Percentage(2)	24.8%	16.4%
Median Household Income (2)	\$31,967	\$47,884
Unemployment Percentage(3)	6.6%	5.1%
Education (4)		
Graduation Percentage	81.0%	85.9%
Dropout Rate ⁺	3.28	2.29
Crime and Violence (per 1,000)	1.29	6.62
Health		
HIV (per 100,000) (5)	39.6	13.4
AIDS (per 100,000) (5)	9.9	7.3
Chlamydia (per 100,000) (5)	797.1	541.5
Gonorrhea (per 100,000) (5)	292.1	169.7
Syphilis (per 100,000) (5)	0.0	18.6
Teen Pregnancy (per 1,000) (6)	41.7	30.2
Infant Mortality (per 1,000) (6)	23.7	7.3
Uninsured % Ages 0-64 (7)	14.4%	15.2%
Medicaid % (8)	28.5%	18.7%
Domestic Violence (per 10,000) (9)	196.5	48.4
Primary Care Physicians (per 10,000) (10)	2.91	8.58
Crime (per 100,000) (11)		
Index Rate	2,280.3	3,169.3
Violent Rate	129.4	355.8
Property Rate	2,150.9	2,813.5
Murder Rate	**	5.8

Rape Rate	14.9	19.5
Robbery Rate	19.9	91.4
Assault Rate	94.6	239.2
Burglary Rate	985.8	766.8
Larceny Rate	1,070.5	1,911.1
MVT Rate	94.6	135.6
Arson Rate	34.9	15.1
Motor Vehicle (12)		
% of Alcohol Related Crashes/1 or more fatalities ^	33.3%	29.2%
% of Alcohol Involved Crashes	5.9%	4.6%
Other Mortality		
Suicide Deaths (per 100,000) (13)	24.8	14.0
Unintentional Injury Deaths (per 100,000) (14)	24.8	34.6

**Crime rate not reported.

Data provided is the most current available at the time of this report.

Camden County

Category	County	North Carolina
Total Population (1)	10,431	10,157,928
0-2 years (1)	306	358,925
3-17 years (1)	1,928	1,947,064
18+ (1)	8,197	7,851,939
65 & Older (1)	1,636	1,558,037
Median Age (1)	42.28	38.44
Income and Poverty		
Poverty Percentage(2)	9.7%	16.4%
Median Household Income (2)	\$62,000	\$47,884
Unemployment Percentage(3)	5.6%	5.1%
Education (4)		
Graduation Percentage	89.5%	85.9%
Dropout Rate ⁺	3.05	2.29
Crime and Violence (per 1,000)	23.55	6.62
Health		
HIV (per 100,000) (5)	9.7	13.4
AIDS (per 100,000) (5)	9.7	7.3
Chlamydia (per 100,000) (5)	203.7	541.5
Gonorrhea (per 100,000) (5)	29.1	169.7

Syphilis (per 100,000) (5)	0.0	18.6
Teen Pregnancy (per 1,000) (6)	*	30.2
Infant Mortality (per 1,000) (6)	0.0	7.3
Uninsured % Ages 0-64 (7)	13.3%	15.2%
Medicaid % (8)	10.8%	18.7%
Domestic Violence (per 10,000) (9)	70.8	48.4
Primary Care Physicians (per 10,000) (10)	0.0	8.58
Crime (per 100,000) (11)		
Index Rate	744.7	3,169.3
Violent Rate	68.6	355.8
Property Rate	676.1	2,813.5
Murder Rate	**	5.8
Rape Rate	29.4	19.5
Robbery Rate	9.8	91.4
Assault Rate	29.4	239.2
Burglary Rate	293.9	766.8
Larceny Rate	382.1	1,911.1
MVT Rate	**	135.6
Arson Rate	**	15.1
Motor Vehicle (12)		
% of Alcohol Related Crashes/1 or more fatalities ^	0.0%	29.2%
% of Alcohol Involved Crashes	9.0%	4.6%
Other Mortality		
Suicide Deaths (per 100,000) (13)	29.1	14.0
Unintentional Injury Deaths (per 100,000) (14)	67.9	34.6

* Indicates rates that were unstable and not reported. **Crime rate not reported.

Data provided is the most current available at the time of this report.

Chowan County

Category	County	North Carolina
Total Population (1)	14,669	10,157,928
0-2 years (1)	439	358,925
3-17 years (1)	2,615	1,947,064
18+ (1)	11,615	7,851,939
65 & Older (1)	3,348	1,558,037
Median Age (1)	44.55	38.44
Income and Poverty		

Poverty Percentage ⁽²⁾	19.4%	16.4%
Median Household Income ⁽²⁾	\$40,794	\$47,884
Unemployment Percentage ⁽³⁾	6.6%	5.1%
Education ⁽⁴⁾		
Graduation Percentage	90.5%	85.9%
Dropout Rate ⁺	3.63	2.29
Crime and Violence (per 1,000)	8.55	6.62
Health		
HIV (per 100,000) ⁽⁵⁾	6.9	13.4
AIDS (per 100,000) ⁽⁵⁾	6.9	7.3
Chlamydia (per 100,000) ⁽⁵⁾	555.8	541.5
Gonorrhea (per 100,000) ⁽⁵⁾	48.6	169.7
Syphilis (per 100,000) ⁽⁵⁾	6.9	18.6
Teen Pregnancy (per 1,000) ⁽⁶⁾	*	30.2
Infant Mortality (per 1,000) ⁽⁶⁾	12	7.3
Uninsured % Ages 0-64 ⁽⁷⁾	16.3%	15.2%
Medicaid % ⁽⁸⁾	23.6%	18.7%
Domestic Violence (per 10,000) ⁽⁹⁾	75.7	48.4
Primary Care Physicians (per 10,000) ⁽¹⁰⁾	9.57	8.58
Crime (per 100,000) ⁽¹¹⁾		
Index Rate	2,124.9	3,169.3
Violent Rate	198.1	355.8
Property Rate	1,926.8	2,813.5
Murder Rate	**	5.8
Rape Rate	6.8	19.5
Robbery Rate	20.5	91.4
Assault Rate	170.8	239.2
Burglary Rate	580.8	766.8
Larceny Rate	1,291.3	1,911.1
MVT Rate	54.7	135.6
Arson Rate	13.7	15.1
Motor Vehicle ⁽¹²⁾		
% of Alcohol Related Crashes/1 or more fatalities [^]	0.0%	29.2%
% of Alcohol Involved Crashes	5.8%	4.6%
Other Mortality		
Suicide Deaths (per 100,000) ⁽¹³⁾	27.8	14.0
Unintentional Injury Deaths (per 100,000) ⁽¹⁴⁾	48.6	34.6

* Indicates rates that were unstable and not reported. **Crime rate not reported.

Data provided is the most current available at the time of this report.

Currituck County

Category	County	North Carolina
Total Population (1)	26,160	10,157,928
0-2 years (1)	808	358,925
3-17 years (1)	4,729	1,947,064
18+ (1)	20,623	7,851,939
65 & Older (1)	3,982	1,558,037
Median Age (1)	43.05	38.44
Income and Poverty		
Poverty Percentage(2)	10.4%	16.4%
Median Household Income (2)	\$66,426	\$47,884
Unemployment Percentage(3)	4.8%	5.1%
Education (4)		
Graduation Percentage	91.3%	85.9%
Dropout Rate [†]	1.89	2.29
Crime and Violence (per 1,000)	13.38	6.62
Health		
HIV (per 100,000) (5)	0.0	13.4
AIDS (per 100,000) (5)	0.0	7.3
Chlamydia (per 100,000) (5)	289.0	541.5
Gonorrhea (per 100,000) (5)	31.7	169.7
Syphilis (per 100,000) (5)	0.0	18.6
Teen Pregnancy (per 1,000) (6)	*	30.2
Infant Mortality (per 1,000) (6)	0.0	7.3
Uninsured % Ages 0-64 (7)	15.0%	15.2%
Medicaid % (8)	10.6%	18.7%
Domestic Violence (per 10,000) (9)	40.4	48.4
Primary Care Physicians (per 10,000) (10)	2.39	8.58
Crime (per 100,000) (11)		
Index Rate	1,683.2	3,169.3
Violent Rate	147.6	355.8
Property Rate	1,535.6	2,813.5
Murder Rate	**	5.8
Rape Rate	4.0	19.5
Robbery Rate	12.0	91.4
Assault Rate	131.6	239.2
Burglary Rate	398.9	766.8

Larceny Rate	1,112.8	1,911.1
MVT Rate	23.9	135.6
Arson Rate	16.0	15.1
Motor Vehicle (12)		
% of Alcohol Related Crashes/1 or more fatalities ^	25.0%	29.2%
% of Alcohol Involved Crashes	9.4%	4.6%
Other Mortality		
Suicide Deaths (per 100,000) (13)	31.7	14.0
Unintentional Injury Deaths (per 100,000) (14)	31.7	34.6

* Indicates rates that were unstable and not reported. **Crime rate not reported.

Data provided is the most current available at the time of this report.

Gates County

Category	County	North Carolina
Total Population (1)	11,914	10,157,928
0-2 years (1)	326	358,925
3-17 years (1)	2,039	1,947,064
18+ (1)	9,549	7,851,939
65 & Older (1)	2,168	1,558,037
Median Age (1)	43.55	38.44
Income and Poverty		
Poverty Percentage(2)	16.7%	16.4%
Median Household Income (2)	\$46,387	\$47,884
Unemployment Percentage(3)	5.2%	5.1%
Education (4)		
Graduation Percentage	87.1%	85.9%
Dropout Rate ⁺	1.89	2.29
Crime and Violence (per 1,000)	12.00	6.62
Health		
HIV (per 100,000) (5)	0.0	13.4
AIDS (per 100,000) (5)	0.0	7.3
Chlamydia (per 100,000) (5)	384.9	541.5
Gonorrhea (per 100,000) (5)	105.0	169.7
Syphilis (per 100,000) (5)	0.0	18.6
Teen Pregnancy (per 1,000) (6)	*	30.2
Infant Mortality (per 1,000) (6)	9.2	7.3
Uninsured % Ages 0-64 (7)	14.3%	15.2%

Medicaid % (8)	16.3%	18.7%
Domestic Violence (per 10,000) (9)	82.2	48.4
Primary Care Physicians (per 10,000) (10)	1.68	8.58
Crime (per 100,000) (11)		
Index Rate	**	3,169.3
Violent Rate	**	355.8
Property Rate	**	2,813.5
Murder Rate	**	5.8
Rape Rate	**	19.5
Robbery Rate	**	91.4
Assault Rate	**	239.2
Burglary Rate	**	766.8
Larceny Rate	**	1,911.1
MVT Rate	**	135.6
Arson Rate	**	15.1
Motor Vehicle (12)		
% of Alcohol Related Crashes/1 or more fatalities ^	25.0%	29.2%
% of Alcohol Involved Crashes	8.2%	4.6%
Other Mortality		
Suicide Deaths (per 100,000) (13)	8.7	14.0
Unintentional Injury Deaths (per 100,000) (14)	70.0	34.6

*Indicates rates that were unstable and not reported. ** Crime rate not reported.

Data provided is the most current available at the time of this report.

Hertford County

Category	County	North Carolina
Total Population (1)	24,423	10,157,928
0-2 years (1)	672	358,925
3-17 years (1)	4,142	1,947,064
18+ (1)	19,609	7,851,939
65 & Older (1)	4,441	1,558,037
Median Age (1)	41.63	38.44
Income and Poverty		
Poverty Percentage(2)	26.9%	16.4%
Median Household Income (2)	\$34,453	\$47,884
Unemployment Percentage(3)	6.7%	5.1%

Education (4)		
Graduation Percentage	85.9%	85.9%
Dropout Rate [†]	2.66	2.29
Crime and Violence (per 1,000)	20.29	6.62
Health		
HIV (per 100,000) (5)	8.3	13.4
AIDS (per 100,000) (5)	8.3	7.3
Chlamydia (per 100,000) (5)	864.2	541.5
Gonorrhea (per 100,000) (5)	198.5	169.7
Syphilis (per 100,000) (5)	0.0	18.6
Teen Pregnancy (per 1,000) (6)	30.4	30.2
Infant Mortality (per 1,000) (6)	16.7	7.3
Uninsured % Ages 0-64 (7)	15.6%	15.2%
Medicaid % (8)	27.0%	18.7%
Domestic Violence (per 10,000) (9)	94.7	48.4
Primary Care Physicians (per 10,000) (10)	9.36	8.58
Crime (per 100,000) (11)		
Index Rate	2,806.3	3,169.3
Violent Rate	230.7	355.8
Property Rate	2,575.6	2,813.5
Murder Rate	12.6	5.8
Rape Rate	12.6	19.5
Robbery Rate	71.3	91.4
Assault Rate	134.2	239.2
Burglary Rate	1,019.3	766.8
Larceny Rate	1,464.0	1,911.1
MVT Rate	92.3	135.6
Arson Rate	21.0	15.1
Motor Vehicle (12)		
% of Alcohol Related Crashes/1 or more fatalities [^]	25.0%	29.2%
% of Alcohol Involved Crashes	7.2%	4.6%
Other Mortality		
Suicide Deaths (per 100,000) (13)	0.0	14.0
Unintentional Injury Deaths (per 100,000) (14)	33.1	34.6

Data provided is the most current available at the time of this report.

Martin County

Category	County	North Carolina
Total Population (1)	23,494	10,157,928
0-2 years (1)	732	358,925
3-17 years (1)	4,151	1,947,064
18+ (1)	18,611	7,851,939
65 & Older (1)	4,956	1,558,037
Median Age (1)	45.52	38.44
Income and Poverty		
Poverty Percentage(2)	22.5%	16.4%
Median Household Income (2)	\$36,543	\$47,884
Unemployment Percentage(3)	7.0%	5.1%
Education (4)		
Graduation Percentage	75.0%	85.9%
Dropout Rate [†]	3.94	2.29
Crime and Violence (per 1,000)	11.72	6.62
Health		
HIV (per 100,000) (5)	17.1	13.4
AIDS (per 100,000) (5)	12.8	7.3
Chlamydia (per 100,000) (5)	530.9	541.5
Gonorrhea (per 100,000) (5)	107.0	169.7
Syphilis (per 100,000) (5)	25.7	18.6
Teen Pregnancy (per 1,000) (6)	40.1	30.2
Infant Mortality (per 1,000) (6)	3.8	7.3
Uninsured % Ages 0-64 (7)	15.1%	15.2%
Medicaid % (8)	25.7%	18.7%
Domestic Violence (per 10,000) (9)	26.5	48.4
Primary Care Physicians (per 10,000) (10)	4.64	8.58
Crime (per 100,000) (11)		
Index Rate	4,119.9	3,169.3
Violent Rate	506.0	355.8
Property Rate	3,613.9	2,813.5
Murder Rate	4.2	5.8
Rape Rate	29.5	19.5
Robbery Rate	92.8	91.4
Assault Rate	379.5	239.2
Burglary Rate	1,505.4	766.8

Larceny Rate	1,994.6	1,911.1
MVT Rate	113.9	135.6
Arson Rate	50.6	15.1
Motor Vehicle (12)		
% of Alcohol Related Crashes/1 or more fatalities ^	100.0%	29.2%
% of Alcohol Involved Crashes	4.8%	4.6%
Other Mortality		
Suicide Deaths (per 100,000) (13)	17.1	14.0
Unintentional Injury Deaths (per 100,000) (14)	38.5	34.6

Data provided is the most current available at the time of this report.

Northampton County

Category	County	North Carolina
Total Population (1)	20,960	10,157,928
0-2 years (1)	550	358,925
3-17 years (1)	3,402	1,947,064
18+ (1)	17,008	7,851,939
65 & Older (1)	4,724	1,558,037
Median Age (1)	45.52	38.44
Income and Poverty		
Poverty Percentage(2)	26.8%	16.4%
Median Household Income (2)	\$33,301	\$47,884
Unemployment Percentage(3)	7.3%	5.1%
Education (4)		
Graduation Percentage	73.2%	85.9%
Dropout Rate ⁺	3.3	2.29
Crime and Violence (per 1,000)	20.49	6.62
Health		
HIV (per 100,000) (5)	19.6	13.4
AIDS (per 100,000) (5)	14.7	7.3
Chlamydia (per 100,000) (5)	626.7	541.5
Gonorrhea (per 100,000) (5)	210.5	169.7
Syphilis (per 100,000) (5)	0.0	18.6
Teen Pregnancy (per 1,000) (6)	40.1	30.2
Infant Mortality (per 1,000) (6)	0.0	7.3
Uninsured % Ages 0-64 (7)	14.7%	15.2%
Medicaid % (8)	28.7%	18.7%

Domestic Violence (per 10,000) (9)	95.5	48.4
Primary Care Physicians (per 10,000) (10)	2.35	8.58
Crime (per 100,000) (11)		
Index Rate	**	3,169.3
Violent Rate	**	355.8
Property Rate	**	2,813.5
Murder Rate	**	5.8
Rape Rate	**	19.5
Robbery Rate	**	91.4
Assault Rate	**	239.2
Burglary Rate	**	766.8
Larceny Rate	**	1,911.1
MVT Rate	**	135.6
Arson Rate	**	15.1
Motor Vehicle (12)		
% of Alcohol Related Crashes/1 or more fatalities ^	20.0%	29.2%
% of Alcohol Involved Crashes	5.1%	4.6%
Other Mortality		
Suicide Deaths (per 100,000) (13)	9.8	14.0
Unintentional Injury Deaths (per 100,000) (14)	24.5	34.6

** Crime rate not reported.

Data provided is the most current available at the time of this report.

Pasquotank County

Category	County	North Carolina
Total Population (1)	40,112	10,157,928
0-2 years (1)	1,457	358,925
3-17 years (1)	7,706	1,947,064
18+ (1)	30,949	7,851,939
65 & Older (1)	6,067	1,558,037
Median Age (1)	36.86	38.44
Income and Poverty		
Poverty Percentage(2)	19.1%	16.4%
Median Household Income (2)	\$42,171	\$47,884
Unemployment Percentage(3)	6.4%	5.1%

Education (4)		
Graduation Percentage	86.4%	85.9%
Dropout Rate [†]	1.23	2.29
Crime and Violence (per 1,000)	10.96	6.62
Health		
HIV (per 100,000) (5)	5.0	13.4
AIDS (per 100,000) (5)	5.0	7.3
Chlamydia (per 100,000) (5)	690.5	541.5
Gonorrhea (per 100,000) (5)	155.7	169.7
Syphilis (per 100,000) (5)	7.5	18.6
Teen Pregnancy (per 1,000) (6)	25.7	30.2
Infant Mortality (per 1,000) (6)	10.1	7.3
Uninsured % Ages 0-64 (7)	15.6%	15.2%
Medicaid % (8)	22.0%	18.7%
Domestic Violence (per 10,000) (9)	95.4	48.4
Primary Care Physicians (per 10,000) (10)	8.82	8.58
Crime (per 100,000) (11)		
Index Rate	2,818.6	3,169.3
Violent Rate	332.2	355.8
Property Rate	2,486.4	2,813.5
Murder Rate	5.0	5.8
Rape Rate	17.6	19.5
Robbery Rate	78.0	91.4
Assault Rate	231.5	239.2
Burglary Rate	817.9	766.8
Larceny Rate	1,610.6	1,911.1
MVT Rate	57.9	135.6
Arson Rate	7.5	15.1
Motor Vehicle (12)		
% of Alcohol Related Crashes/1 or more fatalities ^	25.0%	29.2%
% of Alcohol Involved Crashes	4.0%	4.6%
Other Mortality		
Suicide Deaths (per 100,000) (13)	20.1	14.0
Unintentional Injury Deaths (per 100,000) (14)	20.1	34.6

Data provided is the most current available at the time of this report.

Perquimans County

Category	County	North Carolina
Total Population (1)	13,539	10,157,928
0-2 years (1)	400	358,925
3-17 years (1)	2,198	1,947,064
18+ (1)	10,941	7,851,939
65 & Older (1)	3,532	1,558,037
Median Age (1)	47.96	38.44
Income and Poverty		
Poverty Percentage(2)	17.6%	16.4%
Median Household Income (2)	\$42,337	\$47,884
Unemployment Percentage(3)	6.3%	5.1%
Education (4)		
Graduation Percentage	90.5%	85.9%
Dropout Rate [†]	2.75	2.29
Crime and Violence (per 1,000)	11.72	6.62
Health		
HIV (per 100,000) (5)	14.9	13.4
AIDS (per 100,000) (5)	0.0	7.3
Chlamydia (per 100,000) (5)	282.7	541.5
Gonorrhea (per 100,000) (5)	59.5	169.7
Syphilis (per 100,000) (5)	0.0	18.6
Teen Pregnancy (per 1,000) (6)	*	30.2
Infant Mortality (per 1,000) (6)	0.0	7.3
Uninsured % Ages 0-64 (7)	15.4%	15.2%
Medicaid % (8)	19.4%	18.7%
Domestic Violence (per 10,000) (9)	69.9	48.4
Primary Care Physicians (per 10,000) (10)	2.2	8.58
Crime (per 100,000) (11)		
Index Rate	1,427.0	3,169.3
Violent Rate	191.8	355.8
Property Rate	1,235.2	2,813.5
Murder Rate	**	5.8
Rape Rate	15.3	19.5
Robbery Rate	23.0	91.4
Assault Rate	153.4	239.2
Burglary Rate	537.1	766.8

Larceny Rate	675.2	1,911.1
MVT Rate	23.0	135.6
Arson Rate	23.0	15.1
Motor Vehicle (12)		
% of Alcohol Related Crashes/1 or more fatalities ^	50.0%	29.2%
% of Alcohol Involved Crashes	4.9%	4.6%
Other Mortality		
Suicide Deaths (per 100,000) (13)	22.3	14.0
Unintentional Injury Deaths (per 100,000) (14)	52.1	34.6

*Indicates rates that were unstable and not reported. ** Crime rate not reported.

Data provided is the most current available at the time of this report.

Geographic and Demographic

Population and Geographic Size

Trillium Northern Region Population and Geographic Size

County	Total Population	Square Miles	Persons per Square Mile
Bertie	20,100	699.19	29.1
Camden	10,431	240.68	42.9
Chowan	14,669	172.64	85.0
Currituck	26,160	261.7	97.0
Gates	11,914	340.61	35.1
Hertford	24,423	353.26	69.4
Martin	23,494	461.17	51.2
Northampton	20,960	536.48	39.3
Pasquotank	40,112	226.88	175.8
Perquimans	13,539	247.17	54.8
Northern Region Total	205,802	3,539.78	58.1
Trillium Catchment Total	1,289,714	11,482.38	112.3
North Carolina Total	10,157,928	48,710.88	208.5

Source: N.C. Office of State Budget and Management. Accessed 9/16/16.

https://ncosbm.s3.amazonaws.com/s3fs-public/demog/countytotals_2010_2019.html

Population by Race/Ethnicity

Trillium Northern Region Race/Ethnicity of Service Area

County	White Alone	Black or African-American	American Indian and Alaskan Native	Asian - Pacific Islander	Other Race Alone	Two or More Races	Hispanic/Latino
Bertie	7,316	12,577	95	169	122	256	306
Camden	8,345	1,342	39	218	98	279	278
Chowan	9,300	4,750	62	108	338	198	600
Currituck	23,645	1,545	141	260	300	603	1,118
Gates	7,452	3,868	79	28	105	274	229
Hertford	9,047	14,562	267	199	309	327	841
Martin	12,963	10,210	116	120	498	240	949
Northampton	8,315	12,292	132	61	242	237	391
Pasquotank	22,361	15,795	207	601	935	995	2,047
Perquimans	9,987	3,386	54	69	199	203	419
Northern Region Total	42,731,18,731	80,327	1,192	1,833	3,146	3,612	7,178
Trillium Catchment Total	950,049	279,041	9,454	19,823	35,506	32,049	89,509
North Carolina Total	7,214,220	2,244,294	171,761	288,048	482,054	240,152	1,036,037

Source: N.C. Office of State Budget and Management. Accessed 10/20/16.

The race and Hispanic origin categories used by the Census Bureau are mandated by Office of Management and Budget Directive No. 15, which requires all federal record keeping and data presentation to use four race categories (White, Black, American Indian and Alaska Native, Asian and Pacific Islander) and two ethnicity categories (Hispanic, non-Hispanic). These classifications are not intended to be scientific in nature, but are designed to promote consistency in federal record keeping and data presentation.

http://www.osbm.state.nc.us/ncosbm/facts_and_figures/socioeconomic_data/population_estimates/county_estimates.shtml/

Population by Age

Trillium Northern Region Population by Age - July, 2016

County	Population Ages 0-2	Population Ages 3-17	Population Ages 18+	Population Ages 12-17	Population Ages 18-25	Population Ages 26+	Population Ages 12+	Population Ages 18-64	Population Ages 65+	Total Population
Bertie	555	3,320	16,225	1,354	1,779	14,446	17,579	12,366	3,859	20,100
Camden	306	1,928	8,197	895	993	7,204	9,092	6,561	1,636	10,431
Chowan	439	2,615	11,615	1,088	1,275	10,340	12,703	8,267	3,348	14,669
Currituck	808	4,729	20,623	2,156	2,355	18,268	22,779	16,641	3,982	26,160
Gates	326	2,039	9,549	883	1,355	8,194	10,432	7,381	2,168	11,914
Hertford	672	4,142	19,609	1,688	2,731	16,878	21,297	15,168	4,441	24,423
Martin	732	4,151	18,611	1,782	2,012	16,599	20,393	13,655	4,956	23,494
Northampton	550	3,402	17,008	1,401	1,806	15,202	18,409	12,284	4,724	20,960
Pasquotank	1,457	7,706	30,949	2,952	5,597	25,352	33,901	24,882	6,067	40,112
Perquimans	400	2,198	10,941	895	1,120	9,821	11,836	7,409	3,532	13,539
Northern Region Total	6,245	36,230	163,327	15,094	21,023	142,304	178,421	124,614	38,713	205,802
Trillium Catchment Total	46,666	231,522	1,011,526	87,737	171,995	839,531	1,099,263	789,507	222,019	1,289,714
North Carolina Total	358,925	1,947,064	7,851,939	800,415	1,140,743	6,711,196	8,652,354	6,293,902	1,558,037	10,157,928

Source: N.C. Office of State Budget and Management. Accessed 9/16/16.

Population Median Age

Trillium Northern Region Median Age - 2016

County	Median Age
Bertie	42.42
Camden	42.28
Chowan	44.55
Currituck	43.05
Gates	43.55
Hertford	41.63
Martin	45.52
Northampton	45.52
Pasquotank	36.86
Perquimans	47.96
Northern Region Median Age	43.33
Trillium Median Age	42.58
North Carolina Median Age	38.44

Source: N.C. Office of State Budget and Management. Accessed 10/17/16.

Population by Sex

Trillium Northern Region Population by Sex

County	Male		Female	
Bertie	10,090	49.4%	10,323	50.6%
Camden	5,095	49.8%	5,128	50.2%
Chowan	6,902	47.9%	7,516	52.1%
Currituck	13,014	49.7%	13,180	50.3%
Gates	5,711	48.8%	5,990	51.2%
Hertford	12,315	50.5%	12,087	49.5%
Martin	11,078	46.8%	12,571	53.2%
Northampton	10,171	48.3%	10,866	51.7%
Pasquotank	19,622	49.1%	20,337	50.9%
Perquimans	6,578	48.0%	7,121	52.0%
Northern Region Total	100,576	48.9%	105,119	51.1%
Trillium Catchment Total	635,416	49.2%	655,000	50.8%
North Carolina Total	4,937,585	48.6%	5,220,890	51.4%

Source: N.C. Office of State Budget and Management. Accessed 10/20/16.

Education Dropout & Graduation Rates

Trillium Northern Region - Education Rates Comparison Dropout , Crime & Violence, Graduation

County	Dropout Rates /1,000 2013-2014	Dropout Rates /1,000 2015-2016	Trend: Up, Down, Steady	Crime & Violence Rates/1,000 2013-2014	Crime & Violence Rates/1,000 2015-2016	Trend: Up, Down, Steady	Graduation Rate (Percent) 2014-2015*	Graduation Rate (Percent) 2015-2016*	Trend: Up, Down, Steady
Bertie	2.99	3.28	U	11.46	1.29	D	84.6%	81.0%	D
Camden	1.96	3.05	U	13.63	23.55	U	89.2%	89.5%	U
Chowan	3.08	3.63	U	13.95	8.55	D	82.2%	90.5%	U
Currituck	2.10	1.89	D	20.70	13.38	D	90.1%	91.3%	U
Gates	2.86	1.89	D	9.36	12.00	U	86.2%	87.1%	U
Hertford	1.11	2.66	U	9.31	20.29	U	86.0%	85.9%	D
Martin	3.12	3.94	U	16.57	11.72	D	75.5%	75.0%	D
Northampton	3.26	3.30	U	20.92	20.49	D	84.7%	73.2%	D
Pasquotank	1.03	1.23	U	13.22	10.96	D	83.9%	86.4%	U
Perquimans	1.34	2.75	U	15.59	11.72	D	90.6%	90.5%	D
Northern Region Rate/Percentage	2.29	2.76	U	14.47	13.40	D	85.3%	85.0%	D
Trillium Catchment Average Rate/Percentage	1.99	2.31	U	10.91	10.95	U	86.2%	86.9%	U
North Carolina Rate/Percentage	2.28	2.29	U	12.37	6.62	D	85.6%	85.9%	U

Source: N.C. State Board of Education/Department of Public Instruction. Accessed 2/8/17.

*The North Carolina Four-Year Cohort Graduation Rate reflects the percentage of ninth graders (their cohort) who graduated from high school four years later.

Unemployment

Trillium Northern Region Unemployment Rate Comparison

County	Rate as of June 30, 2014	Rate as of June 30, 2015	Rate as of June 30, 2016
Bertie	7.9%	7.6%	6.6%
Camden	6.0%	6.3%	5.6%
Chowan	7.8%	7.4%	6.6%
Currituck	5.6%	5.7%	4.8%
Gates	5.9%	5.9%	5.2%
Hertford	7.5%	7.4%	6.7%
Martin	7.8%	8.4%	7.0%
Northampton	8.0%	8.4%	7.3%
Pasquotank	8.2%	7.9%	6.4%
Perquimans	7.6%	7.6%	6.3%
Northern Region Average Rate	7.2%	7.3%	6.3%
Trillium Catchment Average Rate	7.0%	6.9%	5.9%
North Carolina Average Rate	6.4%	6.1%	5.1%

Source: N.C. Department of Commerce, Labor & Economic Analysis Division.
 Accessed 12/1/16. <http://d4.nccommerce.com/LausSelection.aspx>

Persons in Poverty

Trillium Northern Region Persons in Poverty

County	Number of All People in Poverty	Percentage of All People	Number of Children Under Age 18 in Poverty	Percentage of Children Under Age 18 in Poverty
Bertie	4,605	24.8%	1,294	35.9%
Camden	994	9.7%	328	13.7%
Chowan	2,741	19.4%	962	33.0%
Currituck	2,607	10.4%	936	17.0%
Gates	1,889	16.7%	551	23.5%
Hertford	5,810	26.9%	1,757	37.6%
Martin	5,213	22.5%	1,701	36.3%
Northampton	5,270	26.8%	1,714	45.3%
Pasquotank	7,132	19.1%	2,553	29.5%
Perquimans	2,352	17.6%	827	31.6%
Northern Region Total	38,613	18.8%	12,623	29.7%
Trillium Catchment Total	217,347	17.0%	66,951	24.3%
North Carolina Total	1,607,249	16.4%	528,760	23.4%

Source: U.S. Census Bureau, Small Area Income and Poverty Estimates (SAIPE) Program. Released 12/16 for CY2015. Accessed 12/14/16.

http://www.census.gov/did/www/saipe/data/interactive/saipe.html?s_appName=saipe&map_yearSelector=2015&map_geoSelector=aa_c&s_state=37&s_year=2015&menu=grid_proxy

Percent of people who were in poverty in a calendar year. Annual poverty rates are calculated using the sum of family income over the year divided by the sum of poverty thresholds that can change from month to month if one's family composition changes.

Median Household Income

Trillium Northern Region Median Household Income

County	Median Household Income
Bertie	\$31,967
Camden	\$62,000
Chowan	\$40,794
Currituck	\$66,426
Gates	\$46,387
Hertford	\$34,453
Martin	\$36,543
Northampton	\$33,301
Pasquotank	\$42,171
Perquimans	\$42,337
Northern Region Average	\$43,638
Trillium Catchment Average	\$43,989
North Carolina Average	\$47,884

Source: U.S. Census. Small Area Income and Poverty Estimates (SAIPE). Released 12/16 for CY2015. Accessed 12/14/16.

http://www.census.gov/did/www/saie/data/interactive/saie.html?s_appName=saie&map_yearSelector=2015&map_geoSelector=aa_c&s_state=37&s_year=2015&menu=grid_proxy

Economic Tiers

Trillium Northern Region Economic Tier Designations

County	2014 Tier	2015 Tier	2016 Tier
Bertie	1	1	1
Camden	1	1	1
Chowan	1	1	1
Currituck	2	2	2
Gates	1	1	1
Hertford	1	1	1
Martin	1	1	1
Northampton	1	1	1
Pasquotank	1	1	1
Perquimans	1	1	1

Source: N.C. Department of Commerce. Accessed 11/1/16.

<https://edpnc.com/incentives/county-development-tier-designations/>

Percent Medicaid Eligible

Trillium Northern Region Percent of Medicaid Eligible June 30, 2016

County	Total Medicaid Eligible	Total Population	% Medicaid Eligible
Bertie	5,731	20,100	28.5%
Camden	1,130	10,431	10.8%
Chowan	3,462	14,669	23.6%
Currituck	2,779	26,160	10.6%
Gates	1,941	11,914	16.3%
Hertford	6,600	24,423	27.0%
Martin	6,037	23,494	25.7%
Northampton	6,008	20,960	28.7%
Pasquotank	8,826	40,112	22.0%
Perquimans	2,623	13,539	19.4%
Northern Region Total	45,137	205,802	21.9%
Trillium Catchment Total	231,544	1,289,714	18.0%
North Carolina Total	1,903,789	10,157,928	18.7%

Source: N.C. DMA Medicaid Enrollment Reports- June 30, 2016. Accessed 9/16/16.

<http://dma.ncdhhs.gov/document/medicaid-and-health-choice-enrollment-reports>

Medicaid Eligible Children and Adults

Trillium Northern Region Medicaid Eligible Adults & Children- June 30, 2016

County	Infants-Children	Adults	Total Eligibles
Bertie	901	4,830	5,731
Camden	240	890	1,130
Chowan	666	2,796	3,462
Currituck	706	2,073	2,779
Gates	316	1,625	1,941
Hertford	1,117	5,483	6,600
Martin	1,057	4,980	6,037
Northampton	792	5,216	6,008
Pasquotank	1,986	6,840	8,826
Perquimans	477	2,146	2,623
Northern Region Total	8,258	36,879	45,137
Trillium Catchment Total	47,831	183,713	231,544
North Carolina Total	430,681	1,473,108	1,903,789

The number of people who have received a Medicaid or Health Choice identification card for the upcoming month and are authorized to receive Medicaid or Health Choice services for the upcoming month. Source: N.C. Division of Medical Assistance. June 30, 2016. Accessed 9/16/16.

Non-Elderly Adult Uninsured

Trillium Northern Region Non-Elderly* Adult Uninsured

County	Number of Non-Elderly Uninsured	Population of Non-Elderly	Percentage of Non-Elderly Uninsured
Bertie	2,157	14,983	14.4%
Camden	1,170	8,775	13.3%
Chowan	1,831	11,212	16.3%
Currituck	3,154	21,046	15.0%
Gates	1,351	9,473	14.3%
Hertford	2,786	17,872	15.6%
Martin	2,805	18,559	15.1%
Northampton	2,244	15,298	14.7%
Pasquotank	4,864	31,248	15.6%
Perquimans	1,567	10,158	15.4%
Northern Region Total	23,929	158,624	15.1%
Trillium Catchment Total	148,345	1,007,927	14.7%
North Carolina Total	1,254,138	8,269,110	15.2%

* Non-Elderly are those 0-64 years of age.

Source: U.S. Census Bureau, 2014 Small Area Health Insurance Estimates. Released 5/12/16. Current as of 12/10/16.

http://www.census.gov/did/www/sahie/data/interactive/sahie.html?s_appName=sahie&s_statefips=37&map_yearS_elector=&menu=grid_proxy

Unique Populations and Characteristics

Veteran Population

Trillium Northern Region Veteran Population - 3-Year Trend

County	9/30/2014	9/30/2015	9/30/2016
Bertie	1,168	1,146	1,124
Camden	1,064	1,083	1,101
Chowan	1,635	1,628	1,620
Currituck	3,128	3,163	3,197
Gates	1,124	1,136	1,147
Hertford	1,850	1,848	1,845
Martin	1,645	1,631	1,617
Northampton	1,507	1,500	1,491
Pasquotank	4,702	4,775	4,845
Perquimans	1,549	1,545	1,540
Northern Region Total	19,372	19,455	19,527
Trillium Catchment Total	131,237	132,666	134,034
North Carolina Total	775,022	773,881	772,424

Source: National Center for Veterans Analysis and Statistics. Accessed 11/21/16.

http://www.va.gov/vetdata/Veteran_Population.asp.

The Veteran Population Projection Model 2014 (VetPop2014) provides the latest official Veteran population projection from the Department of Veterans Affairs (VA). VetPop2014 is an actuarial projection model developed by the Office of the Actuary (OACT) for Veteran population projection from Fiscal Year (FY) 2014 to FY2043. Using the best available Veteran data by the end of FY2013, VetPop2014 provides living Veteran counts by key demographic characteristics such as age, gender, period of service, and race/ethnicity at various geographic levels.

Traumatic Brain Injury (TBI)

Trillium Northern Region - Traumatic Brain Injury SFY2016

Number of Quarters Served	County of Residence	Date of Birth	Veteran Yes/No	Cause of TBI
Q2, Q3	Chowan	11/27/1976	No	Fall
Q2, Q3	Gates	5/12/1973	No	Bicycle/Motorcycle
Q2, Q3	Pasquotank	5/8/1965	No	Fall

* Received a TBI service that had to be funded from other state funds - not Medicaid funds.

Source: Provided by Trillium Health Resources - Reports to N.C. Division of Mental Health, Developmental Disabilities and Substance Abuse Services. Accessed 4/25/17.

Health Indicators

Medical Facilities

Medical Facilities - Northern Region

County	Town	Hospital
Bertie	Windsor	Vidant Bertie
Chowan	Edenton	Vidant Chowan
Hertford	Ahoskie	Vidant Roanoke-Chowan
Martin	Williamston	Martin General Hospital
Pasquotank	Elizabeth City	Sentara-Albemarle Medical Center

Source: N.C. DHHS. N.C.DHSR. As of 1-6-17.

Federally Qualified Health Centers and Community Care Centers

Federally Qualified Health Centers and Community Care Centers Trillium - Northern Region

County	# of Locations	Town/City	OB/GYN	Behavioral Health	Dental	Discounted Pharmacy
Bertie	3	Windsor	Yes	No	No	No
		Lewiston	Yes	No	No	Yes
		Colerain	GYN Only	Yes	No	Yes
Chowan	1	Tyner	GYN Only	-	-	Yes
Gates	2	Gatesville (1)	School-Based	No	No	Yes
		Gatesville (2)	GYN Only	No	No	Yes
Hertford	3	Ahoskie	GYN Only	Yes	No	Yes
		Murfreesboro (1)	School-Based	Yes	No	No
		Murfreesboro (2)	GYN Only	Yes	No	Yes
Martin	1	Williamston	Yes	No	Yes	Yes
Northampton	2	Jackson	No	Yes	Yes	Yes
		Rich Square	No	Yes	No	Yes

Source: North Carolina Community Health Center Association. (-) means not reported. Accessed 1/18/17.

Medical Provider Resources

Medical Service Provider Resources - Northern Region

County	Total Physicians per 10,000 persons	Primary Care Physicians per 10,000 persons	Dentists per 10,000 persons	Pharmacists per 10,000 persons
Bertie	4.37	2.91	0.49	3.40
Camden	0.00	0.00	0.00	0.98
Chowan	19.81	9.57	2.73	8.88
Currituck	3.19	2.39	2.79	1.20
Gates	1.68	1.68	0.84	1.68
Hertford	18.31	9.36	2.03	9.36
Martin	8.43	4.64	1.27	6.33
Northampton	2.83	2.35	0.47	2.83
Pasquotank	26.71	8.82	3.02	9.83
Perquimans	2.93	2.20	1.47	4.40
Northern Region Rates	8.83	4.39	1.51	4.89
Trillium Catchment Rates	12.07	5.44	2.74	6.60
North Carolina Rates	23.17	8.58	4.70	10.60

Source: 2014 N.C. Health Professions Data Book. Released April, 2016. The Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill.

Beginning with 2014 data, primary care physicians are those who have indicated their primary area of practice as family practice, general practice, geriatrics, internal medicine, pediatrics, obstetrics gynecology, adolescent medicine, medicine/pediatrics, family practice-geriatric, family practice-sports medicine, pediatric sports medicine, family medicine/hospice & palliative, geriatric medicine/internal medicine, medicine/OBGYN, hospitalist, urgent care, integrative medicine, or student health. Primary care physicians are included in total counts of physicians per 10,000 population.

Smoking

Adult Smoking - Northern Region >18 years of age

Percent of Adults that Report Smoking Greater than 100 Cigarettes and Currently Smoking		
County	2015	2016
Bertie	19%	23%
Camden	17%	16%
Chowan	30%	20%
Currituck	26%	18%
Gates	*	19%
Hertford	27%	22%
Martin	12%	22%
Northampton	22%	21%
Pasquotank	35%	19%
Perquimans	21%	19%
Northern Region Percentage	23%	20%
Trillium Catchment Percentage	25%	19%
North Carolina Percentage	20%	19%

Source: CDC Behavioral Risk Factor Surveillance System (BRFSS).
Robert Wood Johnson, 2016 County Health Rankings. Accessed 11/21/16.

Teen Pregnancy

Northern Region - Teen Pregnancy Rates Comparison Ages 15-19 Rates per 1,000

County	Number of Pregnancies 2012	Rate 2012	Number of Pregnancies 2013	Rate 2013	Number of Pregnancies 2014	Rate 2014	Number of Pregnancies 2015	Rate 2015	Trend: Up, Down, Steady
Bertie	26	41.9	35	59.3	18	*	21	41.7	U
Camden	7	*	8	*	7	*	5	*	D
Chowan	27	64.6	19	*	12	*	15	*	D
Currituck	31	39.5	18	*	20	27.0	14	*	D
Gates	20	53.5	10	*	6	*	7	*	D
Hertford	30	35.3	34	40.8	32	39.0	25	30.4	D
Martin	30	44.4	28	43.2	27	40.0	27	40.1	D
Northampton	36	60.6	33	58.4	24	45.0	21	40.1	D
Pasquotank	43	30.0	51	35.9	35	26.0	34	25.7	D
Perquimans	10	*	19	*	13	*	15	*	U
Northern Region Total	260	46.2	255	47.5	194	35.4	184	35.6	D
Trillium Catchment Total	1,576	45.1	1,444	43.2	1,302	35.6	1,176	32.9	D
North Carolina Total	12,535	39.6	11,178	35.2	10,328	32.3	9,802	30.2	D

* indicates rates that were unstable and therefore not reported. Data for calendar years.

Source: N.C. DHHS - State Center for Health Statistics. Accessed 1/10/17.

<http://www.schs.state.nc.us/data/vital/pregnancies/2015/preg1519.pdf>

Sexually Transmitted Infections

Newly Diagnosed Chlamydia Cases Northern Region Rates per 100,000

County	2014 Number	2015 Number	2014 Rate	2015 Rate
Bertie	123	161	611.8	797.1
Camden	29	21	280.7	203.7
Chowan	90	80	617.6	555.8
Currituck	68	73	272.3	289.0
Gates	41	44	354.5	384.9
Hertford	186	209	765.2	864.2
Martin	114	124	486.1	530.9
Northampton	144	128	703.7	626.7
Pasquotank	233	275	585.6	690.5
Perquimans	48	38	356.5	282.7
Northern Region Total	1,076	1,153	524.0	560.2
Trillium Catchment Total	6,642	7,382	521.8	572.4
North Carolina Total	49,904	54,383	501.9	541.5

Data provided by calendar year.

Source: N.C. DHHS – Department of Public Health, Communicable Disease Branch, N.C. HIV/STD 2015 Annual Report, Released August, 2016.

Newly Diagnosed Gonorrhea Cases Northern Region Rates per 100,000

County	2014 Number	2015 Number	2014 Rate	2015 Rate
Bertie	41	59	203.9	292.1
Camden	4	3	38.7	29.1
Chowan	20	7	137.2	48.6
Currituck	7	8	28.0	31.7
Gates	6	12	51.9	105.0
Hertford	38	48	156.3	198.5
Martin	31	25	132.2	107.0
Northampton	41	43	200.4	210.5
Pasquotank	60	62	150.8	155.7
Perquimans	19	8	141.1	59.5
Northern Region Total	267	275	130.0	133.6
Trillium Catchment Total	1,651	1,931	129.7	149.7
North Carolina Total	14,952	17,047	150.4	169.7

Data provided by calendar year.

Source: N.C. DHHS – Department of Public Health, Communicable Disease Branch, N.C. HIV/STD 2015 Annual Report, Released August, 2016.

Newly Diagnosed Syphilis Cases* Northern Region Rates per 100,000

County	2014 Number	2015 Number	2014 Rate	2015 Rate
Bertie	1	0	5.0	0.0
Camden	0	0	0.0	0.0
Chowan	0	1	0.0	6.9
Currituck	0	0	0.0	0.0
Gates	2	0	17.3	0.0
Hertford	11	0	45.3	0.0
Martin	5	6	21.3	25.7
Northampton	3	0	14.7	0.0
Pasquotank	4	3	10.1	7.5
Perquimans	0	0	0.0	0.0
Northern Region Total	26	10	13.1	4.9
Trillium Catchment Total	171	157	13.4	12.2
North Carolina Total	1,792	1,866	18.0	18.6

Data provided by calendar year. *Includes Primary, Secondary and Early Latent Syphilis.

Source: N.C. DHHS – Department of Public Health, Communicable Disease Branch, N.C. HIV/STD 2015 Annual Report, Released August, 2016.

**HIV Cases by County of Diagnosis
Northern Region
Rates per 100,000**

County	Number of Cases 2014	Number of Cases 2015	Rate 2014	Rate 2015
Bertie	6	8	29.4	39.6
Camden	0	1	0.0	9.7
Chowan	1	1	6.8	6.9
Currituck	0	0	0.0	0.0
Gates	0	0	0.0	0.0
Hertford	3	2	12.3	8.3
Martin	0	4	0.0	17.1
Northampton	5	4	24.0	19.6
Pasquotank	4	2	10.0	5.0
Perquimans	2	2	14.7	14.9
Northern Region Total	21	24	10.2	11.7
Trillium Catchment Total	141	134	11.1	10.4
North Carolina Total	1,351	1,345	13.6	13.4

Source: N.C. DHHS – Department of Public Health, Communicable Disease Branch, N.C. HIV/STD 2015 Annual Report, Released August, 2016.

**AIDS Cases by County of Diagnosis
Northern Region
Rates per 100,000**

County	Number of Cases 2014	Number of Cases 2015	Rate 2014	Rate 2015
Bertie	4	2	19.6	9.9
Camden	0	1	0.0	9.7
Chowan	1	1	6.8	6.9
Currituck	0	0	0.0	0.0
Gates	0	0	0.0	0.0
Hertford	2	2	8.2	8.3
Martin	1	3	4.2	12.8
Northampton	3	3	14.4	14.7
Pasquotank	1	2	2.5	5.0
Perquimans	1	0	7.4	0.0
Northern Region Total	13	14	6.3	6.8
Trillium Catchment Total	65	53	5.1	4.1
North Carolina Total	706	738	7.2	7.3

Source: N.C. DHHS – Department of Public Health, Communicable Disease Branch, N.C. HIV/STD 2015 Annual Report, Released August, 2016.

Leading Causes of Death

Leading Causes of Death 2015 Northern Region

Rank	Cause of Death	Total Deaths	Percentage
1	Diseases of heart	566	24.7
2	Cancer	505	22
3	Cerebrovascular diseases	111	4.8
4	Chronic lower respiratory diseases	106	4.6
5	Diabetes mellitus	101	4.4
6	Alzheimer's disease	92	4
7	All other unintentional injuries	72	3.1
8	Influenza and pneumonia	67	2.9
9	Essential (primary) hypertension and hypertensive renal disease	41	1.8
10	Intentional self-harm (suicide)	38	1.7
	All other causes (Residual)	596	26
Northern Region Totals		2,295	100%
Trillium Catchment Totals		11,868	100%

Source: N.C. State Center for Health Statistics. Accessed 6/5/17.

Unintentional Injury

Unintentional Injuries Comparison - Northern Region Rates per 100,000

County	SFY2014 Number of Deaths	SFY2014 Death Rate	SFY2015 Number of Deaths	SFY2015 Death Rate
Bertie	7	34.8	5	24.8
Camden	1	9.7	7	67.9
Chowan	2	13.7	7	48.6
Currituck	6	24	8	31.7
Gates	5	43.2	8	70
Hertford	10	41.1	8	33.1
Martin	9	38.4	9	38.5
Northampton	3	14.7	5	24.5
Pasquotank	9	22.6	8	20.1
Perquimans	2	14.9	7	52.1
Northern Region Rate	54	25.7	72	41.1
Trillium Catchment Rate	394	30.6	460	42.8
North Carolina Rate	3,152	31.7	3,470	34.6

Source: NC DHHS, Department of Public Health, North Carolina State Center for Health Statistics. Accessed 12/8/16.
<http://www.schs.state.nc.us/data/vital/lcd/2015/otherinjuries.html>

Unintentional Poisoning

Unintentional Poisoning Deaths Northern Region Comparison

County	2011	2012	2013	2014	2015
Bertie	0	1	2	0	1
Camden	0	0	0	0	3
Chowan	0	0	6	0	3
Currituck	3	3	0	1	3
Gates	0	1	0	1	1
Hertford	0	3	1	2	1
Martin	2	3	1	4	5
Northampton	2	0	1	1	2
Pasquotank	4	3	4	3	2
Perquimans	1	1	0	1	2
Northern Region Total	12	15	15	13	23
Trillium Catchment Total	161	154	161	163	198
North Carolina Total	1,140	1,101	1,085	1,178	1,370

* Data Suppressed using state convention.

Source: N.C. DHHS, Injury Epidemiology and Surveillance Unit, Injury and Violence Prevention Branch, Chronic Disease and Injury Section, Division of Public Health. Received 12/3/16.

Overdose Deaths

Trillium Northern Region Overdose Death Comparison*

County (County is based on county of residence of the decedent)	Medication & Drug Poisoning Deaths (Any mention of a medication and/or drug poisoning as primary cause of death - includes prescription, over-the-counter, and illicit drugs)			Prescription Opioid Deaths** (Any mention of other opioids, methadone, and/or other synthetic opioids in the multiple cause of death fields on the death certificate)			Heroin Poisoning Deaths (Any mention of heroin in the multiple cause of death fields on the death certificate)		
	2013	2014	2015	2013	2014	2015	2013	2014	2015
Bertie	2	0	2	2	0	1	0	0	1
Camden	0	0	4	0	0	3	0	0	1
Chowan	6	0	3	2	0	3	0	0	1
Currituck	0	3	5	0	1	3	0	1	2
Gates	0	1	1	0	0	1	0	0	1
Hertford	1	1	1	1	0	0	0	0	0
Martin	3	2	3	1	1	1	0	0	0
Northampton	1	2	2	1	2	0	0	0	1
Pasquotank	4	3	3	2	2	2	1	1	1
Perquimans	1	2	2	0	1	1	0	1	0
Northern Region Total	18	14	26	9	7	15	1	3	8
Trillium Catchment Total	177	193	228	100	101	143	26	31	66
North Carolina Total	1,215	1,306	1,498	624	728	854	183	253	369

* Note the numbers in the categories above are not mutually exclusive. Those included in Deaths by Prescription Opioids and/or Heroin may also be included in Medication and Drug Poisoning data. **The 'Prescription Opioid' category currently includes 'other synthetic narcotics' like tramadol and fentanyl. With the rise of illicitly manufactured fentanyl, the 'Prescription Opioid' category will likely exclude 'other synthetic narcotics' in the future.

Source: N.C. DHHS, Injury Epidemiology and Surveillance Unit, Injury and Violence Prevention Branch, Chronic Disease and Injury Section, Division of Public Health. Accessed 11/15/16.

Northern Region Overdose Deaths - Percentage of Change*

County (County is based on county of residence of the decedent)	Medication & Drug Poisoning Deaths (Any mention of a medication and/or drug poisoning as primary cause of death; includes prescription, over-the-counter, and illicit drugs)			Prescription Opioid Deaths** (Any mention of other opioids, methadone, and/or other synthetic opioids in the multiple cause of death fields on the death certificate)			Heroin Poisoning Deaths (Any mention of heroin in the multiple cause of death fields on the death certificate)		
	2014	2015	Change	2014	2015	Change	2014	2015	Change
Bertie	0	2	200.0%	0	1	100.0%	0	1	100.0%
Camden	0	4	400.0%	0	3	300.0%	0	1	100.0%
Chowan	0	3	300.0%	0	3	300.0%	0	1	100.0%
Currituck	3	5	66.7%	1	3	200.0%	1	2	100.0%
Gates	1	1	0.0%	0	1	100.0%	0	1	100.0%
Hertford	1	1	0.0%	0	0	0.0%	0	0	0.0%
Martin	2	3	50.0%	1	1	0.0%	0	0	0.0%
Northampton	2	2	0.0%	2	0	-100.0%	0	1	100.0%
Pasquotank	3	3	0.0%	2	2	0.0%	1	1	0.0%
Perquimans	2	2	0.0%	1	1	0.0%	1	0	-100.0%
Northern Region Total	14	26	85.7%	7	15	114.3%	3	8	167.0%
Trillium Catchment Total	193	228	18.1%	101	143	42.0%	31	66	113.0%
North Carolina Total	1,306	1,498	15.0%	728	854	17.3%	253	369	46.0%

* Note the numbers in the categories above are not mutually exclusive. Those included in Deaths by Prescription Opioids and/or Heroin may also be included in Medication and Drug Poisoning data.

**The 'Prescription Opioid' category currently includes 'other synthetic narcotics' like tramadol and fentanyl. With the rise of illicitly manufactured fentanyl, the 'Prescription Opioid' category will likely exclude 'other synthetic narcotics' in the future.

Source: N.C. DHHS, Injury Epidemiology and Surveillance Unit, Injury and Violence Prevention Branch, Chronic Disease and Injury Section, Division of Public Health. Accessed 11/15/16.

Suicide

Suicide Statistics Comparison - Northern Region Rate per 100,000

County	Death Rate 2012	Death Rate 2013	Death Rate 2014	Death Rate 2015
Bertie	14.5	0.0	5.0	24.8
Camden	29.7	19.6	38.7	29.1
Chowan	6.8	13.6	13.7	27.8
Currituck	12.5	20.5	24.0	31.7
Gates	8.4	8.6	8.6	8.7
Hertford	20.5	12.3	16.5	0.0
Martin	20.9	4.2	21.3	17.1
Northampton	23.3	9.6	14.7	9.8
Pasquotank	4.9	12.5	15.1	20.1
Perquimans	7.4	22.1	22.3	22.3
Northern Region Rate	14.9	12.3	18.0	19.1
Trillium Catchment Rate	13.6	12.8	17.8	17.5
North Carolina Rate	13.1	12.9	13.5	14.0

Source: N.C. Resident Mortality Statistics Summary for FY 2015, N.C. DHHS, Division of Public Health, State Center for Health Statistics. Accessed 1/21/17.

<http://www.schs.state.nc.us/data/vital/lcd/2015/suicide.html>

Infant Mortality

Northern Region - N.C. Infant Death Rates - Four Year Comparison (per 1,000 Live Births)

County	2012 Infant Deaths	2012 Rate	2013 Infant Deaths	2013 Rate	2014 Infant Deaths	2014 Rate	2015 Infant Deaths	2015 Rate
Bertie	3	16.8	2	10.8	2	12.2	4	23.7
Camden	0	0	0	0.0	0	0.0	0	0.0
Chowan	1	6.9	1	6.0	1	8.1	2	12.0
Currituck	2	9.6	0	0.0	4	15.4	0	0.0
Gates	0	0	0	0.0	1	9.6	1	9.2
Hertford	3	12.9	5	20.7	7	31.4	4	16.7
Martin	1	4.3	2	8.0	1	4.3	1	3.8
Northampton	2	9.5	2	11.4	3	18.2	0	0.0
Pasquotank	2	4.2	2	4.1	3	5.6	5	10.1
Perquimans	1	7.9	1	7.0	0	0.0	0	0.0
Northern Region Total	15	7.2	15	6.8	22	10.5	17	7.6*
Trillium Catchment Total	124	6.7	117	8.4	114	9.0	113	7.9*
North Carolina Total	883	7.4	832	7.0	860	7.1	884	7.3

Note: Rates based on less than 10 deaths are unreliable and should be interpreted with caution. *Trillium Catchment and Regional rates are the average rate of the county rates.

Source: N.C. Department of Health & Human Services State Center for Health Statistics, Accessed 1-21-16.

Mortality Rates

Mortality Rate Comparison Northern Region Rates per 100,000

County	Number of Deaths 2014	Death Rate* 2014	Number of Deaths 2015	Death Rate* 2015
Bertie	265	1,318	241	1,193.1
Camden	84	813	89	863.3
Chowan	167	1,146	197	1,368.6
Currituck	220	881	217	859.0
Gates	118	1,020	127	1,111.0
Hertford	278	1,144	257	1,062.7
Martin	313	1,335	307	1,314.4
Northampton	262	1,280	279	1,365.9
Pasquotank	383	963	419	1,052.0
Perquimans	152	1,129	162	1,205.4
Northern Region Total	2,242	1,106.3	2,295	1,117.7
Trillium Catchment Total	11,336	891.1	11,868	928.1
North Carolina Total	85,212	856.9	89,130	887.5

Source: State Center for Health Statistics Division of Public Health North Carolina Department of Health and Human Service. Accessed 12/8/16.

Health Ranking

Health Outcome Rankings - Trillium Northern Region

County	2015 Health Outcomes	2016 Health Outcomes
Bertie	82	86
Camden	19	4
Chowan	61	76
Currituck	26	10
Gates	66	26
Hertford	74	89
Martin	80	83
Northampton	91	93
Pasquotank	43	44
Perquimans	60	53

Source: 2016 County Health Rankings. Accessed 12/7/16.
www.countyhealthrankings.org

Behavioral Health Hospitalization

N.C. State Alcohol and Drug Abuse Treatment Centers

Persons Served By N.C. State Alcohol and Drug Abuse Treatment Centers (ADATC) Comparison - Northern Region

County	Persons Served in 2014	2014 Rate Persons Served Per 100,000	Persons Served in 2015	2015 Rate Persons Served Per 100,000	Persons Served in 2016	2016 Rate Persons Served Per 100,000	TREND: Up, Down, Steady
Bertie	6	29.2	5	24.5	2	10.0	D
Camden	2	19.8	0	0.0	0	0.0	S
Chowan	6	40.4	4	27.3	4	27.3	S
Currituck	12	49.9	2	7.9	8	30.6	U
Gates	4	35.5	1	8.4	2	16.8	U
Hertford	9	36.7	2	8.2	2	8.2	S
Martin	12	50.8	5	21.2	11	46.8	U
Northampton	5	23.9	2	9.5	0	0.0	D
Pasquotank	20	51.4	16	40.1	15	37.4	D
Perquimans	5	36.2	5	36.9	2	14.8	D
Northern Region Total	81	40.0	42	20.5	46	22.4	U
Trillium Catchment Total	889	79.7	746	58.3	609	47.2	D
North Carolina Total	4,479	44.9	3,701	36.8	3,412	33.6	D

Source: NC DHHS, NC Division of MH/SA/DD. Report received 8/1/16.

N.C. State Psychiatric Hospitals

Persons Served By N.C. State Psychiatric Hospitals Comparison - Northern Region

County	Persons Served 2014	2014 Rate Persons Served Per 100,000 pop.	Persons Served 2015	2015 Rate Persons Served Per 100,000 pop.	Persons Served 2016	2016 Rate Persons Served Per 100,000 pop.	Trend: Up, Down, Steady
Bertie	5	24.3	8	39.3	5	24.9	D
Camden	0	0.0	1	9.7	0	0.0	D
Chowan	5	33.7	5	34.1	3	20.5	D
Currituck	3	12.5	3	11.8	0	0.0	S
Gates	2	17.8	0	0.0	0	0.0	S
Hertford	5	20.4	12	48.9	10	40.9	D
Martin	11	46.6	10	42.4	4	17.0	D
Northampton	10	47.7	7	33.2	2	9.5	D
Pasquotank	13	33.4	11	27.6	8	19.9	D
Perquimans	4	28.9	7	51.7	2	14.8	D
Northern Region Total	58	28.6	64	31.2	34	16.5	D
Trillium Catchment Total	401	31.5	376	29.4	244	18.9	D
North Carolina Total	3,529	35.4	3,289	32.7	2,253	22.2	D

Source: NC DHHS, NC Division of MH/SA/DD. Report received 8/1/16.

Criminal Justice

Crime Rate

Northern Region Crime Rate of Service Area - SFY2015 (Rate per 100,000)

County	Index Rate	Violent	Property	Murder	Rape	Robbery	Assault	Burglary	Larceny	MVT	Arson
Bertie	2,280.3	129.4	2,150.9	*	14.9	19.9	94.6	985.8	1,070.5	94.6	34.9
Camden	744.7	68.6	676.1	*	29.4	9.8	29.4	293.9	382.1	*	*
Chowan	2,124.9	198.1	1,926.8	*	6.8	20.5	170.8	580.8	1,291.3	54.7	13.7
Currituck	1,683.2	147.6	1,535.6	*	4.0	12.0	131.6	398.9	1,112.8	23.9	16.0
Gates	*	*	*	*	*	*	*	*	*	*	*
Hertford	2,806.3	230.7	2,575.6	12.6	12.6	71.3	134.2	1,019.3	1,464.0	92.3	21.0
Martin	4,119.9	506.0	3,613.9	4.2	29.5	92.8	379.5	1,505.4	1,994.6	113.9	50.6
Northampton	*	*	*	*	*	*	*	*	*	*	*
Pasquotank	2,818.6	332.2	2,486.4	5.0	17.6	78.0	231.5	817.9	1,610.6	57.9	7.5
Perquimans	1,427.0	191.8	1,235.2	*	15.3	23.0	153.4	537.1	675.2	23.0	23.0
Northern Region Average Rate	2,250.6	225.6	2,025.1	7.3	16.3	40.9	165.6	767.4	1,200.1	65.8	23.8
Trillium Catchment Average Rate	2,439.9	229.9	2,210.0	6.4	19.6	45.6	170.0	692.9	1,447.1	73.8	15.9
North Carolina Rate	3,169.3	355.8	2,813.5	5.8	19.5	91.4	239.2	766.8	1,911.1	135.6	15.1

* 2015 Crime Rate not reported

N.C. Department of Justice, Accessed 2/16/17.

Seven offenses were chosen to serve as an index for gauging fluctuations in the overall volume and rate of crime. Known collectively as the Crime Index, these offenses included the violent crimes of murder and non-negligent manslaughter, forcible rape, robbery, and aggravated assault and the property crimes of burglary, larceny-theft, and major vehicle theft. By Congressional mandate, arson was added as the eighth Index Offense in 1979.

DWI Arrests

Northern Region - DWI Arrests - FY 2016

County	Number of Arrests	Rate of Arrests per 10,000
Bertie	76	37.8
Camden	46	44.1
Chowan	34	23.2
Currituck	185	70.7
Gates	65	54.6
Hertford	126	51.6
Martin	109	46.4
Northampton	66	31.5
Pasquotank	200	49.9
Perquimans	44	32.5
Northern Region Total	951	46.2
Trillium Catchment Total	7,239	56.1
North Carolina Total	45,064	44.4

Source: NC Judicial Department, Accessed 2/4/17.

DUI Arrest Comparisons

Northern Region - Driving Under the Influence Arrests 2012-2016

County	Number of Arrests				Trend: Up, Down, Steady
	2012-2013	2013-2014	2014-2015	2015-2016	
Bertie	100	57	72	76	U
Camden	94	41	25	46	U
Chowan	43	41	36	34	D
Currituck	262	224	214	185	D
Gates	58	49	52	65	U
Hertford	125	142	114	126	U
Martin	130	143	124	109	D
Northampton	57	65	46	66	U
Pasquotank	227	212	222	200	D
Perquimans	65	48	44	44	S
Northern Region Total	1,161	1,022	949	951	U
Trillium Catchment Total	9,264	8,204	7,748	7,239	D
North Carolina Total	49,585	48,713	46,840	45,064	D

Source: NC Judicial Department, Accessed 2/4/17.

Domestic Violence

Northern Region Domestic Violence Comparison

County	SFY2014 Number of Cases	SFY2014 Rate per 10,000	SFY2015 Number of Cases	SFY2015 Rate per 10,000	SFY2016 Number of Cases	SFY2016 Rate per 10,000	Trend: Up, Down, Steady
Bertie	453	218.1	398	198.0	397	196.5	D
Camden	120	119.1	125	121.0	73	70.8	D
Chowan	194	130.8	293	201.1	109	75.7	D
Currituck	283	117.1	225	90.1	102	40.4	D
Gates	85	71.1	126	108.9	94	82.2	D
Hertford	327	132.8	399	164.1	229	94.7	D
Martin	94	38.9	69	29.4	62	26.5	D
Northampton	192	89.2	217	106.0	195	95.5	D
Pasquotank	697	173.5	974	244.8	380	95.4	D
Perquimans	122	89.1	155	115.1	94	69.9	D
Northern Region Total	2,567	125.0	2,981	147.1	1,735	85.5	D
Trillium Catchment Total	7,547	59.3	7,431	59.0	5,582	44.1	D
North Carolina Total	57,345	58.7	56,664	57.0	48,601	48.4	D

Source: N.C. Dept. of Administration, Council for Women, Accessed 2/10/17.

Sexual Assault

Northern Region Sexual Assault Comparison

County	SFY2014 Number of Cases	SFY2014 Rate per 10,000	SFY2015 Number of Cases	SFY2015 Rate per 10,000	SFY2016 Number of Cases	SFY2016 Rate per 10,000	Trend: Up, Down, Steady
Bertie	19	9.2	11	5.5	13	6.4	U
Camden	31	30.5	27	26.1	15	14.6	D
Chowan	69	46.6	38	26.1	12	8.3	D
Currituck	134	54.7	111	44.4	30	11.9	D
Gates	10	8.4	25	21.6	9	7.9	D
Hertford	45	18.3	49	20.2	56	23.2	U
Martin	14	5.9	16	6.8	11	4.7	D
Northampton	45	21.2	23	11.2	14	6.9	D
Pasquotank	211	53.5	187	47.0	82	20.6	D
Perquimans	25	18.2	22	16.3	26	19.3	U
Northern Region Total	603	26.6	509	22.5	268	12.4	D
Trillium Catchment Total	1,842	15.3	1,881	15.1	1,667	13.2	D
North Carolina Total	13,736	14.2	13,655	13.7	10,981	10.9	D

Source: N.C. Dept. of Administration, Council for Women, Accessed 2/8/17.

Sex Offense Convictions

Persons Convicted of a Sex Offense or Offense Against a Minor

County	Total Offenders 2015	Total Offenders 2016	Trend: Up, Down, Steady
Bertie	49	55	U
Camden	15	16	U
Chowan	31	30	D
Currituck	41	42	U
Gates	25	27	U
Hertford	56	53	D
Martin	75	79	U
Northampton	49	49	S
Pasquotank	68	72	U
Perquimans	37	36	D
Northern Region Total	446	459	U
Trillium Catchment Total	2,091	2,088	D
North Carolina Total	14,416	12,597	D

Source: N.C. Department of Public Safety. Accessed 2/3/17. <http://sexoffender.ncsbi.gov/stats.aspx>

Juvenile Justice

County	POPULATION AGE GROUPS			COMPLAINTS RECEIVED			RATES		SUPERIOR COURT TRANSFERS
	Juvenile Population Ages 6-15	Juvenile Population Ages 6-17	Juvenile Population Ages 10-17	Violent Class A - E	Serious Class F - I, A1	Minor Class 1 - 3	Undisciplined Rate per 1,000 Age 6-17	Delinquent Rate per 1,000 Age 6-15	Number of Juveniles Transferred to Superior Court
Bertie	2,333	2,826	1,883	3	12	39	0.00	23.15	0
Camden	1,416	1,700	1,176	0	1	6	2.94	4.94	0
Chowan	1,785	2,146	1,438	2	9	60	6.99	39.78	0
Currituck	3,241	3,926	2,719	0	19	63	3.57	25.30	0
Gates	1,466	1,783	1,207	0	0	10	0.00	6.82	0
Hertford	2,901	3,438	2,238	7	16	27	0.00	17.92	0
Martin	2,936	3,508	2,365	8	21	107	2.00	46.32	3
Northampton	2,419	2,872	1,899	2	11	46	0.00	24.39	0
Pasquotank	5,114	6,028	3,848	5	23	118	3.32	28.55	0
Perquimans	1,562	1,860	1,227	0	8	22	1.08	19.21	0
Northern Region Total	25,173	30,087	20,000	27	120	498	1.99	23.64	3
Trillium Catchment Total	149,436	177,600	115,177	134	742	2,603	1.63	23.24	4
North Carolina Total	1,309,177	1,564,195	1,044,293	927	6,760	19,418	1.49	20.78	19

County	DETENTION			YDC COMMITMENTS	COMMUNITY PROGRAMS				
	Distinct Juveniles Detained *	Detention Admissions **	Detention Rate per 1,000	YDC Commitments	JCPC Youth Served	Alternatives to Commitment Youth Served	JCPC Endorsed Level II Programs Youth Served	Residential Contractual Services for Level II Youth Served	Non-Residential Contractual Programs Youth Served
Bertie	10	12	4.25	0	22	0	0	2	0
Camden	1	1	0.59	0	84	0	0	0	0
Chowan	4	4	1.86	1	104	5	0	2	0
Currituck	4	5	1.27	0	75	1	0	2	0
Gates	0	0	0.00	0	39	0	0	0	0
Hertford	4	6	1.75	0	5	1	0	7	0
Martin	14	16	4.56	1	339	6	0	6	1
Northampton	3	3	1.04	0	26	1	0	5	0
Pasquotank	9	10	1.66	1	130	8	0	5	0
Perquimans	2	3	1.61	0	56	0	0	1	0
Northern Region Total	51	60	1.86	3	880	22	0	30	1
Trillium Catchment Total	284	380	1.86	32	3,745	146	28	64	101
North Carolina Total	2,162	3,211	2.05	217	22,470	619	111	410	296

Notes:

DETENTION:

*"Distinct" in the County Databook is determined by county counts. For juveniles who were admitted to detention with secure custody orders from different counties, they are counted in all counties where secure custody orders originated.

**Admissions are the number of times all juveniles were admitted to detention from each respective county. This data does not include transfers between centers (within the detention system).

COMMUNITY PROGRAMS:

All Community Programs data are defined as "youth served", not admissions during the 2014 - 15 school/fiscal year.

Source: N.C. Department of Public Safety, Released 6/16. Accessed 2/9/17.

Alcohol-Related Crashes

Northern Region Alcohol Related Crash Comparison

County	2012 Fatal Crashes	2012 Non-Fatal Injury Crashes	2013 Fatal Crashes	2013 Non-Fatal Injury Crashes	2014 Fatal Crashes	2014 Non-Fatal Injury Crashes	2015 Fatal Crashes	2015 Non-Fatal Injury Crashes	Trend: Up, Down, Steady
Bertie	1	14	0	7	3	11	2	16	U
Camden	0	4	0	4	0	3	0	6	U
Chowan	0	3	0	5	1	5	0	9	U
Currituck	2	10	0	8	3	14	1	16	U
Gates	2	5	0	4	1	4	1	9	U
Hertford	1	9	1	10	1	15	1	20	U
Martin	2	16	1	18	0	23	2	10	D
Northampton	2	11	2	14	2	19	1	15	D
Pasquotank	1	18	0	13	2	18	1	12	D
Perquimans	0	2	1	6	0	6	1	4	D
Northern Region Total	11	92	5	89	13	118	10	117	D
Trillium Catchment Total	70	726	46	656	51	664	54	678	U
North Carolina Total	402	5,710	324	5,306	344	5,297	372	5,499	U

Source: N.C. Division of Motor Vehicles, Traffic Records Branch, N.C. Department of Transportation. Accessed 2/10/16.

Teen Motor Vehicle Data

Northern Region Teen Motor Vehicle Data Ages 15-19

County	2014 Crashes	2015 Crashes	Trend: Up, Down, Steady	2014 Fatalities	2015 Fatalities	Trend: Up, Down, Steady	2014 Injuries	2015 Injuries	Trend: Up, Down, Steady
Bertie	61	57	D	1	0	D	20	21	U
Camden	31	31	S	0	0	S	10	11	U
Chowan	46	32	D	0	0	S	13	14	U
Currituck	65	88	U	0	0	S	18	23	U
Gates	39	31	D	0	0	S	18	8	D
Hertford	86	88	U	0	1	D	37	33	D
Martin	87	74	D	0	0	S	35	29	D
Northampton	46	59	U	1	0	D	16	25	U
Pasquotank	151	134	D	0	0	S	42	26	D
Perquimans	42	25	D	0	0	S	26	7	D
Northern Region Total	654	619	D	2	1	D	235	197	D
Trillium Catchment Total	4,876	5,493	U	9	6	D	1,202	1,357	U
North Carolina Total	40,650	45,590	U	95	81	D	10,491	11,653	U

Source: N.C. Division of Motor Vehicles, Traffic Records Branch, N.C. Department of Transportation. Accessed 2/6/17.

Motor Vehicle Fatality Trends

Northern Region Motor Vehicle Crash Fatalities: 5-Year Trend

County	2011	2012	2013	2014	2015	5-Year Average
Bertie	4	5	5	12	6	6.4
Camden	0	4	1	3	0	1.6
Chowan	2	1	0	3	1	1.4
Currituck	5	3	4	4	4	4
Gates	1	4	3	5	4	3.4
Hertford	6	3	3	1	4	3.4
Martin	6	7	5	3	2	4.6
Northampton	3	8	7	7	5	6
Pasquotank	8	3	0	3	4	3.6
Perquimans	2	0	5	2	2	2.2
Northern Region Total	37	38	33	43	32	36.6
Trillium Catchment Total	184	202	169	162	170	177.4
North Carolina Total	1,208	1,262	1,260	1,277	1,380	1,277

Source: N.C. Division of Motor Vehicles, Traffic Records Branch, N.C. Department of Transportation. Accessed 2/9/17.

Appendix B: Central Region Charts & Profiles

County Profiles

Beaufort County

Category	County	North Carolina
Total Population (1)	47,717	10,157,928
0-2 years (1)	1,394	358,925
3-17 years (1)	8,509	1,947,064
18+ (1)	37,814	7,851,939
65 & Older (1)	10,973	1,558,037
Median Age (1)	45.61	38.44
Income and Poverty		
Poverty Percentage(2)	19.2%	16.4%
Median Household Income (2)	\$41,725	\$47,884
Unemployment Percentage(3)	5.7%	5.1%
Education (4)		
Graduation Percentage	81.3%	85.9%
Dropout Rate ⁺	3.05	2.29
Crime and Violence (per 1,000)	13.91	6.62
Health		
HIV (per 100,000) (5)	4.2	13.4
AIDS (per 100,000) (5)	8.4	7.3
Chlamydia (per 100,000) (5)	482.7	541.5
Gonorrhea (per 100,000) (5)	123.8	169.7
Syphilis (per 100,000) (5)	8.4	18.6
Teen Pregnancy (per 1,000) (6)	31.4	30.2
Infant Mortality (per 1,000) (6)	16.5	7.3
Uninsured % Ages 0-64 (7)	15.6%	15.2%
Medicaid % (8)	23.8%	18.7%
Domestic Violence (per 10,000) (9)	27.7	48.4
Primary Care Physicians (per 10,000) (10)	6.71	8.58
Crime (per 100,000) (11)		
Index Rate	2,616.0	3,169.3
Violent Rate	332.6	355.8
Property Rate	2,283.4	2,813.5
Murder Rate	8.5	5.8

Rape Rate	12.7	19.5
Robbery Rate	46.6	91.4
Assault Rate	264.8	239.2
Burglary Rate	764.7	766.8
Larceny Rate	1,440.4	1,911.1
MVT Rate	78.4	135.6
Arson Rate	19.1	15.1
Motor Vehicle (12)		
% of Alcohol Related Crashes/1 or more fatalities ^	0.0%	29.2%
% of Alcohol Involved Crashes	5.9%	4.6%
Other Mortality		
Suicide Deaths (per 100,000) (13)	23.1	14.0
Unintentional Injury Deaths (per 100,000) (14)	52.5	34.6

Data provided is the most current available at the time of this report.

Craven County

Category	County	North Carolina
Total Population (1)	105,773	10,157,928
0-2 years (1)	4,511	358,925
3-17 years (1)	21,922	1,947,064
18+ (1)	79,340	7,851,939
65 & Older (1)	17,783	1,558,037
Median Age (1)	36.00	38.44
Income and Poverty		
Poverty Percentage(2)	15.0%	16.4%
Median Household Income (2)	\$47,805	\$47,884
Unemployment Percentage(3)	5.2%	5.1%
Education (4)		
Graduation Percentage	85.7%	85.9%
Dropout Rate ⁺	2.47	2.29
Crime and Violence (per 1,000)	6.81	6.62
Health		
HIV (per 100,000) (5)	8.7	13.4
AIDS (per 100,000) (5)	5.8	7.3
Chlamydia (per 100,000) (5)	678.6	541.5
Gonorrhea (per 100,000) (5)	163.4	169.7

Syphilis (per 100,000) (5)	17.4	18.6
Teen Pregnancy (per 1,000) (6)	40.0	30.2
Infant Mortality (per 1,000) (6)	6.9	7.3
Uninsured % Ages 0-64 (7)	14.5%	15.2%
Medicaid % (8)	17.4%	18.7%
Domestic Violence (per 10,000) (9)	28.5	48.4
Primary Care Physicians (per 10,000) (10)	8.23	8.58
Crime (per 100,000) (11)		
Index Rate	2,472.7	3,169.3
Violent Rate	212.6	355.8
Property Rate	2,260.1	2,813.5
Murder Rate	6.0	5.8
Rape Rate	16.0	19.5
Robbery Rate	37.1	91.4
Assault Rate	153.4	239.2
Burglary Rate	694.9	766.8
Larceny Rate	1,493.1	1,911.1
MVT Rate	72.2	135.6
Arson Rate	6.0	15.1
Motor Vehicle (12)		
% of Alcohol Related Crashes/1 or more fatalities ^	26.7%	29.2%
% of Alcohol Involved Crashes	4.9%	4.6%
Other Mortality		
Suicide Deaths (per 100,000) (13)	16.4	14.0
Unintentional Injury Deaths (per 100,000) (14)	41.6	34.6

Data provided is the most current available at the time of this report.

Dare County

Category	County	North Carolina
Total Population (1)	35,727	10,157,928
0-2 years (1)	1,107	358,925
3-17 years (1)	5,767	1,947,064
18+ (1)	28,853	7,851,939
65 & Older (1)	7,121	1,558,037
Median Age (1)	45.34	38.44

Income and Poverty		
Poverty Percentage(2)	10.3%	16.4%
Median Household Income (2)	\$53,585	\$47,884
Unemployment Percentage(3)	4.6%	5.1%
Education (4)		
Graduation Percentage	95.4%	85.9%
Dropout Rate ⁺	1.28	2.29
Crime and Violence (per 1,000)	11.20	6.62
Health		
HIV (per 100,000) (5)	11.2	13.4
AIDS (per 100,000) (5)	5.6	7.3
Chlamydia (per 100,000) (5)	274.8	541.5
Gonorrhea (per 100,000) (5)	78.5	169.7
Syphilis (per 100,000) (5)	5.6	18.6
Teen Pregnancy (per 1,000) (6)	25.2	30.2
Infant Mortality (per 1,000) (6)	2.9	7.3
Uninsured % Ages 0-64 (7)	17.2%	15.2%
Medicaid % (8)	12.9%	18.7%
Domestic Violence (per 10,000) (9)	66.5	48.4
Primary Care Physicians (per 10,000) (10)	8.19	8.58
Crime (per 100,000) (11)		
Index Rate	4,063.3	3,169.3
Violent Rate	220.2	355.8
Property Rate	3,843.0	2,813.5
Murder Rate	5.6	5.8
Rape Rate	45.2	19.5
Robbery Rate	8.5	91.4
Assault Rate	160.9	239.2
Burglary Rate	1,417.5	766.8
Larceny Rate	2,374.7	1,911.1
MVT Rate	50.8	135.6
Arson Rate	19.8	15.1
Motor Vehicle (12)		
% of Alcohol Related Crashes/1 or more fatalities ^	0.0%	29.2%
% of Alcohol Involved Crashes	4.7%	4.6%
Other Mortality		
Suicide Deaths (per 100,000) (13)	19.6	14.0
Unintentional Injury Deaths (per 100,000) (14)	36.5	34.6

Data provided is the most current available at the time of this report.

Hyde County

Category	County	North Carolina
Total Population (1)	5,720	10,157,928
0-2 years (1)	136	358,925
3-17 years (1)	841	1,947,064
18+ (1)	4,743	7,851,939
65 & Older (1)	1,049	1,558,037
Median Age (1)	43.50	38.44
Income and Poverty		
Poverty Percentage(2)	23.0%	16.4%
Median Household Income (2)	\$37,074	\$47,884
Unemployment Percentage(3)	7.0%	5.1%
Education (4)		
Graduation Percentage	91.3%	85.9%
Dropout Rate ⁺	3.14	2.29
Crime and Violence (per 1,000)	11.05	6.62
Health		
HIV (per 100,000) (5)	0.0	13.4
AIDS (per 100,000) (5)	0.0	7.3
Chlamydia (per 100,000) (5)	416.2	541.5
Gonorrhea (per 100,000) (5)	72.4	169.7
Syphilis (per 100,000) (5)	0.0	18.6
Teen Pregnancy (per 1,000) (6)	*	30.2
Infant Mortality (per 1,000) (6)	20.4	7.3
Uninsured % Ages 0-64 (7)	17.4%	15.2%
Medicaid % (8)	21.1%	18.7%
Domestic Violence (per 10,000) (9)	233.4	48.4
Primary Care Physicians (per 10,000) (10)	1.74	8.58
Crime (per 100,000) (11)		
Index Rate	**	3,169.3
Violent Rate	**	355.8
Property Rate	**	2,813.5
Murder Rate	**	5.8
Rape Rate	**	19.5
Robbery Rate	**	91.4
Assault Rate	**	239.2
Burglary Rate	**	766.8

Larceny Rate	**	1,911.1
MVT Rate	**	135.6
Arson Rate	**	15.1
Motor Vehicle (12)		
% of Alcohol Related Crashes/1 or more fatalities ^	100.0%	29.2%
% of Alcohol Involved Crashes	6.2%	4.6%
Other Mortality		
Suicide Deaths (per 100,000) (13)	0.0	14.0
Unintentional Injury Deaths (per 100,000) (14)	36.2	34.6

*Indicates rates that were unstable and not reported. ** Crime rate not reported.

Data provided is the most current available at the time of this report.

Pamlico County

Category	County	North Carolina
Total Population (1)	13,184	10,157,928
0-2 years (1)	296	358,925
3-17 years (1)	1,815	1,947,064
18+ (1)	11,073	7,851,939
65 & Older (1)	3,606	1,558,037
Median Age (1)	50.36	38.44
Income and Poverty		
Poverty Percentage(2)	14.6%	16.4%
Median Household Income (2)	\$41,004	\$47,884
Unemployment Percentage(3)	5.2%	5.1%
Education (4)		
Graduation Percentage	90.2%	85.9%
Dropout Rate ⁺	1.75	2.29
Crime and Violence (per 1,000)	6.85	6.62
Health		
HIV (per 100,000) (5)	0.0	13.4
AIDS (per 100,000) (5)	0.0	7.3
Chlamydia (per 100,000) (5)	148.7	541.5
Gonorrhea (per 100,000) (5)	39.1	169.7
Syphilis (per 100,000) (5)	7.8	18.6
Teen Pregnancy (per 1,000) (6)	*	30.2
Infant Mortality (per 1,000) (6)	11.9	7.3

Uninsured % Ages 0-64 (7)	16.2%	15.2%
Medicaid % (8)	18.9%	18.7%
Domestic Violence (per 10,000) (9)	55.6	48.4
Primary Care Physicians (per 10,000) (10)	3.81	8.58
Crime (per 100,000) (11)		
Index Rate	1,912.7	3,169.3
Violent Rate	106.3	355.8
Property Rate	1,806.4	2,813.5
Murder Rate	16.3	5.8
Rape Rate	8.2	19.5
Robbery Rate	16.3	91.4
Assault Rate	65.4	239.2
Burglary Rate	269.7	766.8
Larceny Rate	1,463.1	1,911.1
MVT Rate	73.6	135.6
Arson Rate	8.2	15.1
Motor Vehicle (12)		
% of Alcohol Related Crashes/1 or more fatalities ^	25.0%	29.2%
% of Alcohol Involved Crashes	8.1%	4.6%
Other Mortality		
Suicide Deaths (per 100,000) (13)	46.9	14.0
Unintentional Injury Deaths (per 100,000) (14)	70.4	34.6

*Indicates rates that were unstable and not reported.

Data provided is the most current available at the time of this report.

Pitt County

Category	County	North Carolina
Total Population (1)	176,269	10,157,928
0-2 years (1)	6,070	358,925
3-17 years (1)	32,557	1,947,064
18+ (1)	137,642	7,851,939
65 & Older (1)	21,376	1,558,037
Median Age (1)	32.61	38.44
Income and Poverty		
Poverty Percentage(2)	25.9%	16.4%
Median Household Income (2)	\$41,909	\$47,884
Unemployment Percentage(3)	5.9%	5.1%

Education (4)		
Graduation Percentage	93.0%	85.9%
Dropout Rate ⁺	2.01	2.29
Crime and Violence (per 1,000)	9.14	6.62
Health		
HIV (per 100,000) (5)	18.2	13.4
AIDS (per 100,000) (5)	5.1	7.3
Chlamydia (per 100,000) (5)	968.5	541.5
Gonorrhea (per 100,000) (5)	321.3	169.7
Syphilis (per 100,000) (5)	29.0	18.6
Teen Pregnancy (per 1,000) (6)	23.4	30.2
Infant Mortality (per 1,000) (6)	9.7	7.3
Uninsured % Ages 0-64 (7)	14.4%	15.2%
Medicaid % (8)	19.7%	18.7%
Domestic Violence (per 10,000) (9)	26.7	48.4
Primary Care Physicians (per 10,000) (10)	14.73	8.58
Crime (per 100,000) (11)		
Index Rate	3,307.7	3,169.3
Violent Rate	441.9	355.8
Property Rate	2,865.9	2,813.5
Murder Rate	9.3	5.8
Rape Rate	31.5	19.5
Robbery Rate	100.3	91.4
Assault Rate	300.8	239.2
Burglary Rate	706.0	766.8
Larceny Rate	2,083.5	1,911.1
MVT Rate	76.4	135.6
Arson Rate	4.7	15.1
Motor Vehicle (12)		
% of Alcohol Related Crashes/1 or more fatalities ^	30.0%	29.2%
% of Alcohol Involved Crashes	4.5%	4.6%
Other Mortality		
Suicide Deaths (per 100,000) (13)	11.4	14.0
Unintentional Injury Deaths (per 100,000) (14)	30.7	34.6

Data provided is the most current available at the time of this report.

Tyrrell County

Category	County	North Carolina
Total Population (1)	4,141	10,157,928
0-2 years (1)	123	358,925
3-17 years (1)	642	1,947,064
18+ (1)	3,376	7,851,939
65 & Older (1)	796	1,558,037
Median Age (1)	42.86	38.44
Income and Poverty		
Poverty Percentage(2)	25.0%	16.4%
Median Household Income (2)	\$33,759	\$47,884
Unemployment Percentage(3)	6.6%	5.1%
Education (4)		
Graduation Percentage	91.9%	85.9%
Dropout Rate ⁺	1.23	2.29
Crime and Violence (per 1,000)	6.25	6.62
Health		
HIV (per 100,000) (5)	0.0	13.4
AIDS (per 100,000) (5)	0.0	7.3
Chlamydia (per 100,000) (5)	221.1	541.5
Gonorrhea (per 100,000) (5)	24.6	169.7
Syphilis (per 100,000) (5)	0.0	18.6
Teen Pregnancy (per 1,000) (6)	*	30.2
Infant Mortality (per 1,000) (6)	0.0	7.3
Uninsured % Ages 0-64 (7)	22.6%	15.2%
Medicaid % (8)	20.9%	18.7%
Domestic Violence (per 10,000) (9)	41.8	48.4
Primary Care Physicians (per 10,000) (10)	0.00	8.58
Crime (per 100,000) (11)		
Index Rate	1,549.0	3,169.3
Violent Rate	159.5	355.8
Property Rate	1,389.5	2,813.5
Murder Rate	**	5.8
Rape Rate	**	19.5
Robbery Rate	22.8	91.4
Assault Rate	136.7	239.2
Burglary Rate	159.5	766.8

Larceny Rate	1,207.3	1,911.1
MVT Rate	22.8	135.6
Arson Rate	**	15.1
Motor Vehicle (12)		
% of Alcohol Related Crashes/1 or more fatalities ^	0.0%	29.2%
% of Alcohol Involved Crashes	5.3%	4.6%
Other Mortality		
Suicide Deaths (per 100,000) (13)	24.6	14.0
Unintentional Injury Deaths (per 100,000) (14)	49.1	34.6

*Indicates rates that were unstable and not reported. ** Crime rate not reported.

Data provided is the most current available at the time of this report.

Washington County

Category	County	North Carolina
Total Population (1)	12,579	10,157,928
0-2 years (1)	403	358,925
3-17 years (1)	2,328	1,947,064
18+ (1)	9,848	7,851,939
65 & Older (1)	2,774	1,558,037
Median Age (1)	45.54	38.44
Income and Poverty		
Poverty Percentage(2)	23.4%	16.4%
Median Household Income (2)	\$35,146	\$47,884
Unemployment Percentage(3)	7.2%	5.1%
Education (4)		
Graduation Percentage	80.3%	85.9%
Dropout Rate ⁺	2.47	2.29
Crime and Violence (per 1,000)	0.00	6.62
Health		
HIV (per 100,000) (5)	0.0	13.4
AIDS (per 100,000) (5)	0.0	7.3
Chlamydia (per 100,000) (5)	654.0	541.5
Gonorrhea (per 100,000) (5)	129.2	169.7
Syphilis (per 100,000) (5)	24.2	18.6
Teen Pregnancy (per 1,000) (6)	*	30.2
Infant Mortality (per 1,000) (6)	16.8	7.3

Uninsured % Ages 0-64 (7)	14.9%	15.2%
Medicaid % (8)	29.4%	18.7%
Domestic Violence (per 10,000) (9)	37.1	48.4
Primary Care Physicians (per 10,000) (10)	3.94	8.58
Crime (per 100,000) (11)		
Index Rate	**	3,169.3
Violent Rate	**	355.8
Property Rate	**	2,813.5
Murder Rate	**	5.8
Rape Rate	**	19.5
Robbery Rate	**	91.4
Assault Rate	**	239.2
Burglary Rate	**	766.8
Larceny Rate	**	1,911.1
MVT Rate	**	135.6
Arson Rate	**	15.1
Motor Vehicle (12)		
% of Alcohol Related Crashes/1 or more fatalities ^	0.0%	29.2%
% of Alcohol Involved Crashes	3.3%	4.6%
Other Mortality		
Suicide Deaths (per 100,000) (13)	0.0	14.0
Unintentional Injury Deaths (per 100,000) (14)	40.4	34.6

*Indicates rates that were unstable and not reported. ** Crime rate not reported.

Data provided is the most current available at the time of this report.

Geographic and Demographic

Population and Geographic Size

Trillium Central Region Population and Geographic Size

County	Total Population	Square Miles	Persons per Square Mile
Beaufort	47,717	827.97	57.6
Craven	105,773	708.43	148.3
Dare	35,727	383.58	92.5
Hyde	5,720	612.8	9.4
Pamlico	13,184	336.94	39.1
Pitt	176,269	651.58	269.2
Tyrrell	4,141	389.91	10.6
Washington	12,579	348.46	36.3
Central Region Total	401,110	4,259.67	94.2
Trillium Catchment Total	1,278,673	11,482.38	112.3
North Carolina Total	10,157,928	48,710.88	208.5

Source: N.C. Office of State Budget and Management. Accessed 9/16/16.

https://ncosbm.s3.amazonaws.com/s3fs-public/demog/countytotals_2010_2019.html

Population by Race/Ethnicity

Trillium Central Region Race/Ethnicity of Service Area

County	White Alone	Black or African-American	American Indian and Alaskan Native	Asian - Pacific Islander	Other Race Alone	Two or More Races	Hispanic/Latino
Beaufort	34,769	11,424	591	271	2,444	772	4,177
Craven	73,375	23,327	613	2,856	2,758	3,085	7,718
Dare	34,092	951	253	334	1,056	781	3,293
Hyde	3,807	1,724	48	14	161	85	563
Pamlico	10,374	2,452	89	63	204	199	544
Pitt	106,712	61,058	1,034	3,661	6,007	3,846	11,440
Tyrrell	2,429	1,577	41	98	184	70	229
Washington	5,726	6,436	93	35	369	218	586
Central Region Total	271,284	108,949	2,762	7,332	13,183	9,056	28,550
Trillium Catchment Total	950,049	279,041	9,454	19,823	35,506	32,049	89,509
North Carolina Total	7,214,220	2,244,294	171,761	288,048	482,054	240,152	1,036,037

Source: N.C. Office of State Budget and Management. Accessed 10/20/16.

The race and Hispanic origin categories used by the Census Bureau are mandated by Office of Management and Budget Directive No. 15, which requires all federal record keeping and data presentation to use four race categories (White, Black, American Indian and Alaska Native, Asian and Pacific Islander) and two ethnicity categories (Hispanic, non-Hispanic). These classifications are not intended to be scientific in nature, but are designed to promote consistency in federal record keeping and data presentation.

http://www.osbm.state.nc.us/ncosbm/facts_and_figures/socioeconomic_data/population_estimates/county_estimates.shtm/

Population by Age

Trillium Central Region Population by Age - July, 2016

County	Population Ages 0-2	Population Ages 3-17	Population Ages 18+	Population Ages 12-17	Population Ages 18-25	Population Ages 26+	Population Ages 12+	Population Ages 18-64	Population Ages 65+	Total Population
Beaufort	1,394	8,509	37,814	3,672	4,059	33,755	41,486	26,841	10,973	47,717
Craven	4,511	21,922	79,340	7,770	13,856	65,484	87,110	61,557	17,783	105,773
Dare	1,107	5,767	28,853	2,326	2,564	26,289	31,179	21,732	7,121	35,727
Hyde	136	841	4,743	325	519	4,224	5,068	3,694	1,049	5,720
Pamlico	296	1,815	11,073	778	911	10,162	11,851	7,467	3,606	13,184
Pitt	6,070	32,557	137,642	12,553	35,317	102,325	150,195	116,266	21,376	176,269
Tyrrell	123	642	3,376	248	341	3,035	3,624	2,580	796	4,141
Washington	403	2,328	9,848	946	1,056	8,792	10,794	7,074	2,774	12,579
Central Region Total	14,040	74,381	312,689	28,618	58,623	254,066	341,307	247,211	65,478	401,110
Trillium Catchment Total	46,666	231,522	1,011,526	87,737	171,995	839,531	1,099,263	789,507	222,019	1,289,714
North Carolina Total	358,925	1,947,064	7,851,939	800,415	1,140,743	6,711,196	8,652,354	6,293,902	1,558,037	10,157,928

Source: N.C. Office of State Budget and Management. Accessed 9/16/16.

Population Median Age

Trillium Central Region Median Age - 2016

County	Median Age
Beaufort	45.61
Craven	36.00
Dare	45.34
Hyde	43.50
Pamlico	50.36
Pitt	32.61
Tyrrell	42.86
Washington	45.54
Central Region Median Age	42.73
Trillium Median Age	42.58
North Carolina Median Age	38.44

Source: N.C. Office of State Budget and Management. Accessed 10/17/16.

Population by Sex

Trillium Central Region Population by Sex

County	Male		Female	
Beaufort	23,145	48.4%	24,682	51.6%
Craven	50,503	48.9%	52,753	51.1%
Dare	18,099	49.7%	18,312	50.3%
Hyde	3,154	55.5%	2,524	44.5%
Pamlico	6,793	51.6%	6,384	48.4%
Pitt	82,526	46.8%	93,785	53.2%
Tyrrell	2,332	55.3%	1,883	44.7%
Washington	5,858	46.8%	6,650	53.2%
Central Region Total	192,410	48.2%	206,973	51.8%
Trillium Catchment Total	635,416	49.2%	655,000	50.8%
North Carolina Total	4,937,585	48.6%	5,220,890	51.4%

Source: N.C. Office of State Budget and Management. Accessed 10/20/16.

Education Dropout & Graduation Rates

Trillium Central Region - Education Rates Comparison Dropout , Crime & Violence, Graduation

County	Dropout Rates /1,000 2013-2014	Dropout Rates /1,000 2015-2016	Trend: Up, Down, Steady	Crime & Violence Rates/ 1,000 2013-2014	Crime & Violence Rates/ 1,000 2015-2016	Trend: Up, Down, Steady	Graduation Rate (Percent) 2014-2015*	Graduation Rate (Percent) 2015-2016*	Trend: Up, Down, Steady
Beaufort	2.24	3.05	U	14.37	13.91	D	84.3%	81.3%	D
Craven	2.56	2.47	D	7.96	6.81	D	85.4%	85.7%	U
Dare	1.21	1.28	U	6.32	11.20	U	93.8%	95.4%	U
Hyde	0.00	3.14	U	0.00	11.05	U	94.7%	91.3%	D
Pamlico	2.82	1.75	D	12.63	6.85	D	84.4%	90.2%	U
Pitt	2.13	2.01	D	10.02	9.14	D	80.8%	93.0%	U
Tyrrell	0.00	1.23	U	0.00	6.25	U	83.9%	91.9%	U
Washington	0.20	2.47	U	0.00	0.00	S	88.4%	80.3%	D
Central Region Rate/Percentage	1.40	2.18	U	6.41	8.15	U	87.0%	88.6%	U
Trillium Catchment Average Rate/Percentage	1.99	2.31	U	10.91	10.95	U	86.2%	86.9%	U
North Carolina Rate/Percentage	2.28	2.29	U	12.37	6.62	D	85.6%	85.98.6	U

Source: N.C. State Board of Education/Department of Public Instruction. Accessed 2/8/17.

*The North Carolina Four-Year Cohort Graduation Rate reflects the percentage of ninth graders (their cohort) who graduated from high school four years later.

Unemployment

Trillium Central Region Unemployment Rate Comparison

County	Rate as of June 30, 2014	Rate as of June 30, 2015	Rate as of June 30, 2016
Beaufort	7.5%	7.0%	5.7%
Craven	7.0%	6.5%	5.2%
Dare	5.8%	5.3%	4.6%
Hyde	6.3%	7.0%	7.0%
Pamlico	6.6%	6.5%	5.2%
Pitt	6.9%	6.9%	5.9%
Tyrrell	7.6%	8.2%	6.6%
Washington	9.5%	8.9%	7.2%
Central Region Average Rate	7.2%	7.0%	5.9%
Trillium Catchment Average Rate	7.0%	6.9%	5.9%
North Carolina Average Rate	6.4%	6.1%	5.1%

Source: N.C. Department of Commerce, Labor & Economic Analysis Division.
 Accessed 12/1/16. <http://d4.nccommerce.com/LausSelection.aspx>

Persons in Poverty

Trillium Central Region Persons in Poverty

County	Number of All People in Poverty	Percentage of All People	Number of Children Under Age 18 in Poverty	Percentage of Children Under Age 18 in Poverty
Beaufort	9,062	19.2%	3,286	33.3%
Craven	14,792	15.0%	5,480	24.2%
Dare	3,663	10.3%	1,213	17.8%
Hyde	1,096	23.0%	288	30.7%
Pamlico	1,756	14.6%	647	32.3%
Pitt	43,954	25.9%	11,714	30.6%
Tyrrell	887	25.0%	273	36.2%
Washington	2,861	23.4%	1,044	40.9%
Central Region Total	78,071	19.5%	23,945	27.1%
Trillium Catchment Total	217,347	17.0%	66,951	24.3%
North Carolina Total	1,607,249	16.4%	528,760	23.4%

Source: U.S. Census Bureau, Small Area Income and Poverty Estimates (SAIPE) Program. Released 12/16 for CY2015.
 Accessed 12/14/16.

http://www.census.gov/did/www/saie/data/interactive/saie.html?s_appName=saie&map_yearSelector=2015&map_geoSelector=aa_c&s_state=37&s_year=2015&menu=grid_proxy

Percent of people who were in poverty in a calendar year. Annual poverty rates are calculated using the sum of family income over the year divided by the sum of poverty thresholds that can change from month to month if one's family composition changes.

Median Household Income

Trillium Central Region Median Household Income

County	Median Household Income
Beaufort	\$41,725
Craven	\$47,805
Dare	\$53,585
Hyde	\$37,074
Pamlico	\$41,004
Pitt	\$41,909
Tyrrell	\$33,759
Washington	\$35,146
Central Region Average	\$41,501
Trillium Catchment Average	\$43,989
North Carolina Average	\$47,884

Source: U.S. Census. Small Area Income and Poverty Estimates (SAIPE). Released 12/16 for CY2015. Accessed 12/14/16.

http://www.census.gov/did/www/saipe/data/interactive/saipe.html?s_appName=saipe&map_yearSelector=2015&map_geoSelector=aa_c&s_state=37&s_year=2015&menu=grid_proxy

Economic Tiers

Trillium Central Region Economic Tier Designations

County	2014 Tier	2015 Tier	2016 Tier
Beaufort	1	1	1
Craven	2	2	2
Dare	2	2	2
Hyde	1	1	1
Pamlico	2	2	2
Pitt	2	2	2
Tyrrell	1	1	1
Washington	1	1	1

Source: N.C. Department of Commerce. Accessed 11/1/16.

<https://edpnc.com/incentives/county-development-tier-designations/>

Percent Medicaid Eligible

Trillium Central Region Percent of Medicaid Eligible June 30, 2016

County	Total Medicaid Eligible	Total Population	% Medicaid Eligible
Beaufort	11,368	47,717	23.8%
Craven	18,400	105,773	17.4%
Dare	4,592	35,727	12.9%
Hyde	1,208	5,720	21.1%
Pamlico	2,486	13,184	18.9%
Pitt	34,795	176,269	19.7%
Tyrrell	866	4,141	20.9%
Washington	3,703	12,579	29.4%
Central Region Total	77,418	401,110	19.3%
Trillium Catchment Total	231,544	1,289,714	18.0%
North Carolina Total	1,903,789	10,157,928	18.7%

Source: N.C. DMA Medicaid Enrollment Reports- June 30, 2016. Accessed 9/16/16.

<http://dma.ncdhhs.gov/document/medicaid-and-health-choice-enrollment-reports>

Medicaid Eligible Children and Adults

Trillium Central Region Medicaid Eligible Adults & Children June 30, 2016

County	Infants-Children	Adults	Total Eligibles
Beaufort	2,309	9,059	11,368
Craven	3,865	14,535	18,400
Dare	1,282	3,310	4,592
Hyde	181	1,027	1,208
Pamlico	471	2,015	2,486
Pitt	7,234	27,561	34,795
Tyrrell	212	654	866
Washington	623	3,080	3,703
Central Region Total	16,177	61,241	77,418
Trillium Catchment Total	47,831	183,713	231,544
North Carolina Total	430,681	1,473,108	1,903,789

The number of people who have received a Medicaid or Health Choice identification card for the upcoming month and are authorized to receive Medicaid or Health Choice services for the upcoming month. Source: N.C. Division of Medical Assistance. June 30, 2016. Accessed 9/16/16.

Non-Elderly Adult Uninsured

Trillium Central Region Non-Elderly* Adult Uninsured

County	Number of Non-Elderly Uninsured	Population of Non-Elderly	Percentage of Non-Elderly Uninsured
Beaufort	5,791	37,150	15.6%
Craven	11,884	82,074	14.5%
Dare	4,882	28,427	17.2%
Hyde	694	3,982	17.4%
Pamlico	1,450	8,938	16.2%
Pitt	21,566	149,541	14.4%
Tyrrell	633	2,803	22.6%
Washington	1,474	9,887	14.9%
Central Region Total	48,374	322,802	15.1%
Trillium Catchment Total	148,345	1,007,927	14.7%
North Carolina Total	1,254,138	8,269,110	15.2%

* Non-Elderly are those 0-64 years of age.

Source: U.S. Census Bureau, 2014 Small Area Health Insurance Estimates. Released 5/12/16. Current as of 12/10/16.

http://www.census.gov/did/www/sahie/data/interactive/sahie.html?s_appName=sahie&s_statefips=37&map_yearSelect=&menu=grid_proxy

Unique Populations and Characteristics

Veteran Population

Trillium Central Region Veteran Population - 3-Year Trend

County	9/30/2014	9/30/2015	9/30/2016
Beaufort	3,890	3,827	3,761
Craven	14,531	14,748	14,955
Dare	3,246	3,209	3,170
Hyde	392	386	381
Pamlico	1,367	1,350	1,333
Pitt	11,091	11,138	11,180
Tyrrell	402	401	400
Washington	926	913	900
Central Region Total	35,845	35,972	36,080
Trillium Catchment Total	131,237	132,666	134,034
North Carolina Total	775,022	773,881	772,424

Source: National Center for Veterans Analysis and Statistics. Accessed 11/21/16.

http://www.va.gov/vetdata/Veteran_Population.asp

The Veteran Population Projection Model 2014 (VetPop2014) provides the latest official Veteran population projection from the Department of Veterans Affairs (VA). VetPop2014 is an actuarial projection model developed by the Office of the Actuary (OACT) for Veteran population projection from Fiscal Year (FY) 2014 to FY2043. Using the best available Veteran data by the end of FY2013, VetPop2014 provides living Veteran counts by key demographic characteristics such as age, gender, period of service, and race/ethnicity at various geographic levels.

Traumatic Brain Injury (TBI)

Trillium Central Region -Traumatic Brain Injury SFY2016

Number of Quarters Served	County of Residence	Date of Birth	Veteran Yes/No	Cause of TBI
Q2, Q3	Craven	7/22/1958	No	Motor Vehicle Crash
Q2, Q3	Dare	8/2/1953	No	Fall
Q2, Q3	Pitt	12/16/1972	No	Motor Vehicle Crash
Q2, Q3	Pitt	4/8/1963	No	Assault
Q2, Q3	Pitt	7/9/1976	No	Bicycle/Motorcycle

* Received a TBI service that had to be funded from other state funds - not Medicaid funds.

Source: Provided by Trillium Health Resources - Reports to N.C. Division of Mental Health, Developmental Disabilities and Substance Abuse Services. Accessed 4/25/17.

Health Indicators

Medical Facilities

Medical Facilities - Central Region

County	Town	Hospital
Beaufort	Washington	Vidant Beaufort
Craven	New Bern	CarolinaEast Medical Center
Dare	Nags Head	The Outer Banks Hospital
Pitt	Greenville	Vidant Medical Center
Washington	Plymouth	Washington County Hospital

Source: N.C. DHHS. N.C.DHSR. As of 1-6-17.

Federally Qualified Health Centers and Community Care Centers

Federally Qualified Health Centers and Community Care Centers Trillium Central Region

County	# of Locations	Town/City	OB/GYN	Behavioral Health	Dental	Discounted Pharmacy
Beaufort	2	Washington (1)	-	Yes	-	Yes
		Washington (2)	-	-	Yes	Yes
Craven	2	New Bern (1)	No	No	Yes	Yes
		New Bern (2)	GYN Only	No	No	No
Hyde	2	Englehard	-	-	-	-
		Ocracoke	-	-	-	-
Pamlico	1	Alliance	No	Yes	No	Yes
Pitt	4	Greenville (1)	No	No	Yes	Yes
		Greenville (2)	Yes	Yes	No	Yes
		Grimesland	No	Yes	No	Yes
		Grifton	No	Yes	No	Yes

Source: North Carolina Community Health Center Association. (-) means not reported. Accessed 1/18/17.

Medical Provider Resources

Medical Service Provider Resources - Central Region

County	Total Physicians per 10,000 persons	Primary Care Physicians per 10,000 persons	Dentists per 10,000 persons	Pharmacists per 10,000 persons
Beaufort	10.90	6.71	3.77	9.01
Craven	24.30	8.23	4.31	8.04
Dare	16.38	8.19	5.65	9.88
Hyde	3.49	1.74	0.00	0.00
Pamlico	6.09	3.81	3.04	9.13
Pitt	47.53	14.73	5.68	14.28
Tyrrell	0.00	0.00	0.00	7.24
Washington	6.31	3.94	1.58	5.52
Central Region Rates	14.38	5.92	3.00	7.89
Trillium Catchment Rates	12.07	5.44	2.74	6.60
North Carolina Rates	23.17	8.58	4.70	10.60

Source: 2014 N.C. Health Professions Data Book. Released April, 2016. The Cecil G. Sheps Center for Health Services Research. University of North Carolina at Chapel Hill.

Beginning with 2014 data, primary care physicians are those who have indicated their primary area of practice as family practice, general practice, geriatrics, internal medicine, pediatrics, obstetrics gynecology, adolescent medicine, medicine/pediatrics, family practice-geriatric, family practice-sports medicine, pediatric sports medicine, family medicine/hospice & palliative, geriatric medicine/internal medicine, medicine/OBGYN, hospitalist, urgent care, integrative medicine, or student health. Primary care physicians are included in total counts of physicians per 10,000 population.

Smoking

Adult Smoking - Central Region >18 Years of Age

Percent of Adults that Report Smoking Greater than 100 Cigarettes and Currently Smoking		
County	2015	2016
Beaufort	28%	18%
Craven	22%	18%
Dare	31%	17%
Hyde	*	19%
Pamlico	*	17%
Pitt	19%	21%
Tyrrell	*	21%
Washington	*	21%
Central Region Percentage	25%	19%
Trillium Catchment Percentage	25%	19%
North Carolina Percentage	20%	19%

Source: CDC Behavioral Risk Factor Surveillance System (BRFSS). Robert Wood Johnson, 2016 County Health Rankings. Accessed 11/21/16.

Teen Pregnancy

Central Region - Teen Pregnancy Rates Comparison Ages 15-19 Rates per 1,000

County	Number of Pregnancies 2012	Rate 2012	Number of Pregnancies 2013	Rate 2013	Number of Pregnancies 2014	Rate 2014	Number of Pregnancies 2015	Rate 2015	Trend: Up, Down, Steady
Beaufort	67	52.0	49	42.3	48	37.0	42	31.4	D
Craven	160	56.3	146	52.2	139	50.0	113	40	D
Dare	38	46.1	28	33.9	25	30.0	22	25.2	D
Hyde	8	*	4	*	0	*	6	*	D
Pamlico	14	*	9	*	11	*	7	*	D
Pitt	245	32.9	225	29.8	181	24.0	179	23.4	D
Tyrrell	6	*	2	*	4	*	3	*	D
Washington	7	*	22	55.8	16	*	19	*	U
Central Region Total	545	46.8	485	42.8	424	35.3	391	30.0	D
Trillium Catchment Total	1,576	45.1	1,444	43.2	1,302	35.6	1,176	32.9	D
North Carolina Total	12,535	39.6	11,178	35.2	10,328	32.3	9,802	30.2	D

* indicates rates that were unstable and therefore not reported. Data for calendar years.

Source: N.C. DHHS - State Center for Health Statistics. Accessed 1/10/17.

<http://www.schs.state.nc.us/data/vital/pregnancies/2015/preg1519.pdf>

Sexually Transmitted Infections

Newly Diagnosed Chlamydia Cases Central Region Rates per 100,000

County	2014 Number	2015 Number	2014 Rate	2015 Rate
Beaufort	231	230	485.4	482.7
Craven	642	702	614.3	678.6
Dare	88	98	250.7	274.8
Hyde	8	23	140.9	416.2
Pamlico	42	19	324.4	148.7
Pitt	1,611	1,703	918.7	968.5
Tyrrell	17	9	413.1	221.1
Washington	66	81	525.1	654.0
Central Region Total	2,705	2,865	677.4	714.3
Trillium Catchment Total	6,642	7,382	521.8	572.4
North Carolina Total	49,904	54,383	501.9	541.5

Data provided by calendar year.

Source: N.C. DHHS – Department of Public Health, Communicable Disease Branch, N.C. HIV/STD 2015 Annual Report, Released August, 2016.

Newly Diagnosed Gonorrhea Cases Central Region Rates per 100,000

County	2014 Number	2015 Number	2014 Rate	2015 Rate
Beaufort	42	59	88.3	123.8
Craven	128	169	122.5	163.4
Dare	8	28	22.8	78.5
Hyde	0	4	0.0	72.4
Pamlico	12	5	92.7	39.1
Pitt	402	565	229.3	321.3
Tyrrell	2	1	48.6	24.6
Washington	21	16	167.1	129.2
Central Region Total	615	847	154.0	211.2
Trillium Catchment Total	1,651	1,931	129.7	149.7
North Carolina Total	14,952	17,047	150.4	169.7

Data provided by calendar year.

Source: N.C. DHHS – Department of Public Health, Communicable Disease Branch, N.C. HIV/STD 2015 Annual Report, Released August, 2016.

Newly Diagnosed Syphilis Cases* Central Region Rates per 100,000

County	2014 Number	2015 Number	2014 Rate	2015 Rate
Beaufort	9	4	18.9	8.4
Craven	18	18	17.2	17.4
Dare	0	2	0.0	5.6
Hyde	1	0	17.6	0.0
Pamlico	0	1	0.0	7.8
Pitt	50	51	28.5	29
Tyrrell	0	0	0.0	0.0
Washington	2	3	15.9	24.2
Central Region Total	80	79	20.0	19.7
Trillium Catchment Total	171	157	13.4	12.2
North Carolina Total	1,792	1,866	18.0	18.6

Data provided by calendar year. *Includes Primary, Secondary and Early Latent Syphilis.

Source: N.C. DHHS – Department of Public Health, Communicable Disease Branch, N.C. HIV/STD 2015 Annual Report, Released August, 2016.

HIV Cases by County of Diagnosis
Central Region
 Rates per 100,000

County	Number of Cases 2014	Number of Cases 2015	Rate 2014	Rate 2015
Beaufort	6	2	12.7	4.2
Craven	8	9	7.7	8.7
Dare	1	4	2.9	11.2
Hyde	0	0	0.0	0.0
Pamlico	2	0	15.4	0.0
Pitt	38	32	21.8	18.2
Tyrrell	0	0	0.0	0.0
Washington	5	0	39.3	0.0
Central Region Total	60	47	15.0	11.7
Trillium Catchment Total	141	134	11.1	10.4
North Carolina Total	1,351	1,345	13.6	13.4

Source: N.C. DHHS – Department of Public Health, Communicable Disease Branch, N.C. HIV/STD 2015 Annual Report, Released August, 2016.

AIDS Cases by County of Diagnosis
Central Region
 Rates per 100,000

County	Number of Cases 2014	Number of Cases 2015	Rate 2014	Rate 2015
Beaufort	4	4	8.4	8.4
Craven	6	6	5.7	5.8
Dare	0	2	0.0	5.6
Hyde	0	0	0.0	0.0
Pamlico	1	0	7.7	0.0
Pitt	9	9	5.2	5.1
Tyrrell	0	0	0.0	0.0
Washington	3	0	23.5	0.0
Central Region Total	23	21	5.8	5.2
Trillium Catchment Total	65	53	5.1	4.1
North Carolina Total	706	738	7.2	7.3

Source: N.C. DHHS – Department of Public Health, Communicable Disease Branch, N.C. HIV/STD 2015 Annual Report, Released August, 2016.

Leading Causes of Death

Leading Causes of Death 2015 Central Region

Rank	Cause of Death	Total Deaths	Percentage
1	Cancer	873	23.3
2	Diseases of heart	781	20.9
3	Cerebrovascular diseases	209	5.6
4	Chronic lower respiratory diseases	196	5.2
5	All other unintentional injuries	153	4.1
6	Diabetes mellitus	129	3.4
7	Alzheimer's disease	123	3.3
8	Septicemia	82	2.2
9	Motor vehicle injuries	69	1.8
10	Intentional self-harm (suicide)	62	1.7
	All other causes (Residual)	1,067	28.5
Central Region Totals		3,744	100%
Trillium Catchment Totals		11,868	100%

Source: N.C. State Center for Health Statistics. Accessed 6/5/17.

Unintentional Injury

Unintentional Injuries Comparison - Central Region Rates per 100,000

County	SFY2014 Number of Deaths	SFY2014 Death Rate	SFY2015 Number of Deaths	SFY2015 Death Rate
Beaufort	27	56.7	25	52.5
Craven	39	37.3	43	41.6
Dare	13	37	13	36.5
Hyde	0	0.0	2	36.2
Pamlico	8	61.8	9	70.4
Pitt	52	29.7	54	30.7
Tyrrell	0	0.0	2	49.1
Washington	9	71.6	5	40.4
Central Region Rate	148	36.8	153	44.7
Trillium Catchment Rate	394	30.6	460	42.8
North Carolina Rate	3,152	31.7	3,470	34.6

Source: NC DHHS, Department of Public Health, North Carolina State Center for Health Statistics. Accessed 12/8/16.
<http://www.schs.state.nc.us/data/vital/lcd/2015/otherinjuries.html>

Unintentional Poisoning

Unintentional Poisoning Deaths Central Region Comparison

County	2011	2012	2013	2014	2015
Beaufort	3	8	9	7	5
Craven	9	12	18	12	21
Dare	10	5	4	8	4
Hyde	0	1	0	0	0
Pamlico	2	1	1	5	4
Pitt	8	18	14	22	14
Tyrrell	0	1	0	0	0
Washington	1	0	0	2	1
Central Region Total	33	46	46	56	49
Trillium Catchment Total	161	154	161	163	198
North Carolina Total	1,140	1,101	1,085	1,178	1,370

* Data Suppressed using state convention.

Source: N.C. DHHS, Injury Epidemiology and Surveillance Unit, Injury and Violence Prevention Branch, Chronic Disease and Injury Section, Division of Public Health. Received 12/3/16.

Overdose Deaths

Trillium Central Region Overdose Death Comparison*

County (County is based on county of residence of the decedent)	Medication & Drug Poisoning Deaths (Any mention of a medication and/or drug poisoning as primary cause of death - includes prescription, over-the-counter, and illicit drugs)			Prescription Opioid Deaths** (Any mention of other opioids, methadone, and/or other synthetic opioids in the multiple cause of death fields on the death certificate)			Heroin Poisoning Deaths (Any mention of heroin in the multiple cause of death fields on the death certificate)		
	2013	2014	2015	2013	2014	2015	2013	2014	2015
Beaufort	10	7	8	1	2	4	1	1	1
Craven	17	18	28	13	9	17	1	2	5
Dare	4	10	5	3	6	3	0	3	0
Hyde	0	0	0	0	0	0	0	0	0
Pamlico	2	4	4	0	3	3	0	0	1
Pitt	18	30	17	11	17	10	2	3	4
Tyrrell	0	1	0	0	1	0	0	0	0
Washington	0	1	1	0	0	1	0	0	0
Central Region Total	51	71	63	28	38	38	4	9	11
Trillium Catchment Total	177	193	228	100	101	143	26	31	66
North Carolina Total	1,215	1,306	1,498	624	728	854	183	253	369

* Note the numbers in the categories above are not mutually exclusive. Those included in Deaths by Prescription Opioids and/or Heroin may also be included in Medication and Drug Poisoning data. **The 'Prescription Opioid' category currently includes 'other synthetic narcotics' like tramadol and fentanyl. With the rise of illicitly manufactured fentanyl, the 'Prescription Opioid' category will likely exclude 'other synthetic narcotics' in the future.

Source: N.C. DHHS, Injury Epidemiology and Surveillance Unit, Injury and Violence Prevention Branch, Chronic Disease and Injury Section, Division of Public Health. Accessed 11/15/16.

Central Region Overdose Deaths - Percentage of Change*

County (County is based on county of residence of the decedent)	Medication & Drug Poisoning Deaths (Any mention of a medication and/or drug poisoning as primary cause of death; includes prescription, over-the-counter, and illicit drugs)			Prescription Opioid Deaths** (Any mention of other opioids, methadone, and/or other synthetic opioids in the multiple cause of death fields on the death certificate)			Heroin Poisoning Deaths (Any mention of heroin in the multiple cause of death fields on the death certificate)		
	2014	2015	Change	2014	2015	Change	2014	2015	Change
Beaufort	7	8	14.3%	2	4	50.0%	1	1	0.0%
Craven	18	28	55.6%	9	17	89.0%	2	5	150.0%
Dare	10	5	-50.0%	6	3	-50.00%	3	0	-100.0%
Hyde	0	0	0.0%	0	0	0.0%	0	0	0.0%
Pamlico	4	4	0.0%	3	3	0.0%	0	1	100.0%
Pitt	30	17	-43.3%	17	10	-41.0%	3	4	33.3%
Tyrrell	1	0	-100.0%	1	0	-100.0%	0	0	0.0%
Washington	1	1	0.0%	0	1	100.0%	0	0	0.0%
Central Region Total	71	63	-11.3%	38	38	0.0%	9	11	22.2%
Trillium Catchment Total	193	228	18.1%	101	143	42.0%	31	66	113.0%
North Carolina Total	1,306	1,498	15.0%	728	854	17.3%	253	369	46.0%

* Note the numbers in the categories above are not mutually exclusive. Those included in Deaths by Prescription Opioids and/or Heroin may also be included in Medication and Drug Poisoning data.

**The 'Prescription Opioid' category currently includes 'other synthetic narcotics' like tramadol and fentanyl. With the rise of illicitly manufactured fentanyl, the 'Prescription Opioid' category will likely exclude 'other synthetic narcotics' in the future.

Source: N.C. DHHS, Injury Epidemiology and Surveillance Unit, Injury and Violence Prevention Branch, Chronic Disease and Injury Section, Division of Public Health. Accessed 11/15/16.

Suicide

Suicide Statistics Comparison - Central Region Rate per 100,000

County	Death Rate 2012	Death Rate 2013	Death Rate 2014	Death Rate 2015
Beaufort	14.7	21.1	23.1	23.1
Craven	15.3	9.6	15.3	16.4
Dare	28.9	14.3	19.9	19.6
Hyde	0.0	0.0	17.6	0.0
Pamlico	0.0	23.2	15.4	46.9
Pitt	8.1	9.8	14.8	11.4
Tyrrell	0.0	0.0	0.0	24.6
Washington	0.0	15.7	15.9	0.0
Central Region Rate	8.4	11.7	15.3	17.8
Trillium Catchment Rate	13.6	12.8	17.8	17.5
North Carolina Rate	13.1	12.9	13.5	14.0

Source: N.C. Resident Mortality Statistics Summary for FY 2015, N.C. DHHS, Division of Public Health, State Center for Health Statistics. Accessed 1/21/17.
<http://www.schs.state.nc.us/data/vital/lcd/2015/suicide.html>

Infant Mortality

Central Region - N.C. Infant Death Rates - Four Year Comparison (per 1,000 Live Births)

County	2012 Infant Deaths	2012 Rate	2013 Infant Deaths	2013 Rate	2014 Infant Deaths	2014 Rate	2015 Infant Deaths	2015 Rate
Beaufort	4	7.9	5	10.2	8	17.9	8	16.5
Craven	15	9.2	10	6.6	7	4.7	10	6.9
Dare	2	5.1	2	5.9	2	5.7	1	2.9
Hyde	0	0	1	17.2	0	0.0	1	20.4
Pamlico	2	20.4	1	12.7	2	22	1	11.9
Pitt	25	11.5	21	9.9	28	13.2	21	9.7
Tyrrell	0	0	1	22.2	1	24.4	0	0.0
Washington	0	0	0	0.0	0	0.0	2	16.8
Central Region Total	48	6.8	41	10.6	48	11.0	44	10.6*
Trillium Catchment Total	124	6.7	117	8.4	114	9.0	113	7.9*
North Carolina Total	883	7.4	832	7.0	860	7.1	884	7.3

Note: Rates based on less than 10 deaths are unreliable and should be interpreted with caution. *Trillium Catchment and Regional rates are the average rate of the county rates.

Source: N.C. Department of Health & Human Services State Center for Health Statistics, Accessed 1-21-16.

Mortality Rates

Mortality Rate Comparison Central Region Rates per 100,000

County	Number of Deaths 2014	Death Rate* 2014	Number of Deaths 2015	Death Rate* 2015
Beaufort	592	1,244	620	1,301.1
Craven	1,027	983	1,090	1,053.6
Dare	302	860	295	827.2
Hyde	58	1,022	63	1,140.1
Pamlico	175	1,352	173	1,353.6
Pitt	1,225	699	1,293	735.3
Tyrrell	35	851	50	1,228.5
Washington	137	1,090	160	1,291.9
Central Region Total	3,551	890.5	3,744	937.6
Trillium Catchment Total	11,336	891.1	11,868	928.1
North Carolina Total	85,212	856.9	89,130	887.5

Source: State Center for Health Statistics Division of Public Health North Carolina Department of Health and Human Service. Accessed 12/8/16.

Health Ranking

Health Outcome Rankings Trillium Central Region

County	2015 Health Outcomes	2016 Health Outcomes
Beaufort	63	71
Craven	23	36
Dare	15	7
Hyde	64	50
Pamlico	21	29
Pitt	39	59
Tyrrell	93	87
Washington	37	52

Source: 2016 County Health Rankings. Accessed 12/7/16.
www.countyhealthrankings.org

Behavioral Health Hospitalization

N.C. State Alcohol and Drug Abuse Treatment Centers

Persons Served By N.C. State Alcohol and Drug Abuse Treatment Centers (ADATC) Comparison - Central Region

County	Persons Served in 2014	2014 Rate Persons Served Per 100,000	Persons Served in 2015	2015 Rate Persons Served Per 100,000	Persons Served in 2016	2016 Rate Persons Served Per 100,000	TREND: Up, Down, Steady
Beaufort	8	16.7	14	29.3	22	46.1	U
Craven	60	57.5	70	66.6	68	64.3	D
Dare	42	118.4	26	73.2	15	42.0	D
Hyde	1	17.1	1	17.4	2	35.0	U
Pamlico	9	68.9	9	68.4	10	75.8	U
Pitt	277	157.9	214	122.0	155	87.9	D
Tyrrell	1	24.3	0	0.0	3	72.4	U
Washington	2	15.7	5	39.5	2	15.9	D
Central Region Total	400	85.0	339	84.9	277	69.1	D
Trillium Catchment Total	889	79.7	746	58.3	609	47.2	D
North Carolina Total	4,479	44.9	3,701	36.8	3,412	33.6	D

Source: NC DHHS, NC Division of MH/SA/DD. Report received 8/1/16.

N.C. State Psychiatric Hospitals

Persons Served By N.C. State Psychiatric Hospitals Comparison - Central Region

County	Persons Served 2014	2014 Rate Persons Served Per 100,000 pop.	Persons Served 2015	2015 Rate Persons Served Per 100,000 pop.	Persons Served 2016	2016 Rate Persons Served Per 100,000 pop.	Trend: Up, Down, Steady
Beaufort	14	29.3	16	33.5	9	18.9	D
Craven	30	28.8	25	23.8	20	18.9	D
Dare	12	33.8	5	14.1	4	11.2	D
Hyde	0	0.0	0	0.0	0	0.0	S
Pamlico	4	30.6	4	30.4	1	7.6	D
Pitt	69	39.3	64	36.5	46	26.1	D
Tyrrell	1	24.3	0	0.0	0	0.0	S
Washington	8	62.7	6	47.4	2	15.9	D
Central Region Total	138	34.6	120	30.1	82	20.4	D
Trillium Catchment Total	401	31.5	376	29.4	244	18.9	D
North Carolina Total	3,529	35.4	3,289	32.7	2,253	22.2	D

Source: NC DHHS, NC Division of MH/SA/DD. Report received 8/1/16.

Criminal Justice

Crime Rate

Central Region Crime Rate of Service Area - SFY15 (Rate per 100,000)

County	Index Rate	Violent	Property	Murder	Rape	Robbery	Assault	Burglary	Larceny	MVT	Arson
Beaufort	2,616.0	332.6	2,283.4	8.5	12.7	46.6	264.8	764.7	1,440.4	78.4	19.1
Craven	2,472.7	212.6	2,260.1	6.0	16.0	37.1	153.4	694.9	1,493.1	72.2	6.0
Dare	4,063.3	220.2	3,843.0	5.6	45.2	8.5	160.9	1,417.5	2,374.7	50.8	19.8
Hyde	*	*	*	*	*	*	*	*	*	*	*
Pamlico	1,912.7	106.3	1,806.4	16.3	8.2	16.3	65.4	269.7	1,463.1	73.6	8.2
Pitt	3,307.7	441.9	2,865.9	9.3	31.5	100.3	300.8	706.0	2,083.5	76.4	4.7
Tyrrell	1,549.0	159.5	1,389.5	*	*	22.8	136.7	159.5	1,207.3	22.8	*
Washington	*	*	*	*	*	*	*	*	*	*	*
Central Region Average Rate	2,653.6	245.5	2,408.1	9.1	22.7	38.6	180.3	668.7	1,677.0	62.4	11.6
Trillium Catchment Average Rate	2,439.9	229.9	2,210.0	6.4	19.6	45.6	170.0	692.9	1,447.1	73.8	15.9
North Carolina Rate	3,169.3	355.8	2,813.5	5.8	19.5	91.4	239.2	766.8	1,911.1	135.6	15.1

* 2015 Crime Rate not reported

N.C. Department of Justice, Accessed 2/16/17.

Seven offenses were chosen to serve as an index for gauging fluctuations in the overall volume and rate of crime. Known collectively as the Crime Index, these offenses included the violent crimes of murder and non-negligent manslaughter, forcible rape, robbery, and aggravated assault and the property crimes of burglary, larceny-theft, and major vehicle theft. By Congressional mandate, arson was added as the eighth Index Offense in 1979.

DWI Arrests

Central Region - DWI Arrests - FY 2016

County	Number of Arrests	Rate of Arrests per 10,000
Beaufort	353	74.0
Craven	470	44.4
Dare	393	110.0
Hyde	28	49.0
Pamlico	92	69.8
Pitt	553	31.4
Tyrrell	42	101.4
Washington	44	35.0
Central Region Total	1,975	49.2
Trillium Catchment Total	7,239	56.1
North Carolina Total	45,064	44.4

Source: NC Judicial Department, Accessed 2/4/17.

DUI Arrest Comparisons

Central Region Driving Under the Influence Arrests 2012-2016

County	Number of Arrests				Trend: Up, Down, Steady
	2012-2013	2013-2014	2014-2015	2015-2016	
Beaufort	342	380	378	353	D
Craven	390	369	493	470	D
Dare	497	430	413	393	D
Hyde	57	47	32	28	D
Pamlico	75	62	72	92	U
Pitt	826	689	653	553	D
Tyrrell	54	71	50	42	D
Washington	68	60	66	44	D
Central Region Total	2,309	2,108	2,157	1,975	D
Trillium Catchment Total	9,264	8,204	7,748	7,239	D
North Carolina Total	49,585	48,713	46,840	45,064	D

Source: NC Judicial Department, Accessed 2/4/17.

Domestic Violence

Central Region Domestic Violence Comparison

County	SFY2014 Number of Cases	SFY2014 Rate per 10,000	SFY2015 Number of Cases	SFY2015 Rate per 10,000	SFY2016 Number of Cases	SFY2016 Rate per 10,000	Trend: Up, Down, Steady
Beaufort	167	34.8	183	38.5	132	27.7	D
Craven	247	23.5	223	21.3	295	28.5	U
Dare	507	145.6	324	92.3	237	66.5	D
Hyde	121	211.6	130	229.0	129	233.4	U
Pamlico	30	22.7	88	68.0	71	55.6	D
Pitt	419	24.3	350	20.0	469	26.7	U
Tyrrell	16	38.2	14	34.0	17	41.8	U
Washington	47	36.4	41	32.6	46	37.1	U
Central Region Total	1,554	38.9	1,353	34.0	1,396	35.1	U
Trillium Catchment Total	7,547	59.3	7,431	59.0	5,582	44.1	D
North Carolina Total	57,345	58.7	56,664	57.0	48,601	48.4	D

Source: N.C. Dept. of Administration, Council for Women, Accessed 2/10/17.

Sexual Assault

Central Region Sexual Assault Comparison

County	SFY2014 Number of Cases	SFY2014 Rate per 10,000	SFY2015 Number of Cases	SFY2015 Rate per 10,000	SFY2016 Number of Cases	SFY2016 Rate per 10,000	Trend: Up, Down, Steady
Beaufort	15	3.1	15	3.2	26	5.5	U
Craven	228	21.8	227	21.7	185	17.9	D
Dare	19	5.4	20	5.7	23	6.4	U
Hyde	53	91.3	96	169.1	93	168.3	D
Pamlico	30	23.0	30	23.2	29	22.7	D
Pitt	200	11.5	268	15.3	257	14.6	D
Tyrrell	27	65.2	14	34.0	17	41.8	U
Washington	2	1.6	4	3.2	3	2.4	D
Central Region Total	574	14.4	674	16.9	633	15.9	D
Trillium Catchment Total	1,842	15.3	1,881	15.1	1,667	13.2	D
North Carolina Total	13,736	14.2	13,655	13.7	10,981	10.9	D

Source: N.C. Dept. of Administration, Council for Women, Accessed 2/8/17.

Sex Offense Convictions

Persons Convicted of a Sex Offense or Offense Against a Minor

County	Total Offenders 2015	Total Offenders 2016	Trend: Up, Down, Steady
Beaufort	104	98	D
Craven	170	155	D
Dare	43	42	D
Hyde	9	9	S
Pamlico	25	29	U
Pitt	283	266	D
Tyrrell	8	8	S
Washington	38	39	U
Central Region Total	680	646	D
Trillium Catchment Total	2,091	2,088	D
North Carolina Total	14,416	12,597	D

Source: N.C. Department of Public Safety. Accessed 2/3/17. <http://sexoffender.ncsbi.gov/stats.aspx>

Juvenile Justice

Central Region Juvenile Justice Data 2015 Table A

County	POPULATION AGE GROUPS			COMPLAINTS RECEIVED			RATES		SUPERIOR COURT TRANSFERS
	Juvenile Population Ages 6-15	Juvenile Population Ages 6-17	Juvenile Population Ages 10-17	Violent Class A - E	Serious Class F - I, A1	Minor Class 1 - 3	Undisciplined Rate per 1,000 Age 6-17	Delinquent Rate per 1,000 Age 6-15	Number of Juveniles Transferred to Superior Court
Beaufort	5,905	7,056	4,805	5	33	100	0.99	23.54	1
Craven	13,670	16,097	10,187	8	25	188	1.49	16.17	0
Dare	3,873	4,645	3,082	10	16	47	4.95	18.85	0
Hyde	572	693	443	2	3	1	1.44	10.49	0
Pamlico	1,288	1,576	1,065	0	1	20	1.27	16.30	0
Pitt	21,461	25,516	16,577	44	209	542	0.55	37.09	0
Tyrrell	434	501	314	0	1	19	0.00	46.08	0
Washington	1,624	1,939	1,278	0	4	20	0.52	14.78	0
Central Region Total	48,827	58,023	37,751	69	292	937	1.40	22.91	1
Trillium Catchment Total	149,436	177,600	115,177	134	742	2,603	1.63	23.24	4
North Carolina Total	1,309,177	1,564,195	1,044,293	927	6,760	19,418	1.49	20.78	19

Central Region Juvenile Justice Data 2015 Table B

County	DETENTION			YDC COMMITMENTS	COMMUNITY PROGRAMS				
	Distinct Juveniles Detained *	Detention Admissions **	Detention Rate per 1,000	YDC Commitments	JCPC Youth Served	Alternatives to Commitment Youth Served	JCPC Endorsed Level II Programs Youth Served	Residential Contractual Services for Level II Youth Served	Non-Residential Contractual Programs Youth Served
Beaufort	10	10	1.42	3	91	11	0	5	1
Craven	16	18	1.12	0	300	8	0	4	0
Dare	5	5	1.08	0	108	2	9	4	0
Hyde	3	4	5.77	0	27	0	0	0	0
Pamlico	2	2	1.27	0	234	3	0	0	0
Pitt	73	99	3.88	12	446	13	0	6	45
Tyrrell	0	0	0.00	0	142	0	0	0	0
Washington	1	3	1.55	0	58	0	0	0	0
Central Region Total	110	141	2.01	15	1406	37	9	19	46
Trillium Catchment Total	284	380	1.86	32	3,745	146	28	64	101
North Carolina Total	2,162	3,211	2.05	217	22,470	619	111	410	296

Notes:

DETENTION:

*"Distinct" in the County Databook is determined by county counts. For juveniles who were admitted to detention with secure custody orders from different counties, they are counted in all counties where secure custody orders originated.

**Admissions are the number of times all juveniles were admitted to detention from each respective county. This data does not include transfers between centers (within the detention system).

COMMUNITY PROGRAMS:

All Community Programs data are defined as "youth served", not admissions during the 2014 - 15 school/fiscal year.

Source: N.C. Department of Public Safety, Released 6/16. Accessed 2/9/17.

Alcohol-Related Crashes

Central Region Alcohol Related Crash Comparison

County	2012 Fatal Crashes	2012 Non-Fatal Injury Crashes	2013 Fatal Crashes	2013 Non-Fatal Injury Crashes	2014 Fatal Crashes	2014 Non-Fatal Injury Crashes	2015 Fatal Crashes	2015 Non-Fatal Injury Crashes	Trend: Up, Down, Steady
Beaufort	3	14	5	23	3	16	0	32	U
Craven	4	39	8	39	2	37	4	47	U
Dare	2	25	0	17	1	14	0	16	U
Hyde	0	5	0	5	0	3	1	2	D
Pamlico	1	11	0	7	0	2	1	11	U
Pitt	10	104	6	122	4	96	9	119	U
Tyrrell	0	3	0	2	0	2	0	3	U
Washington	2	10	0	3	0	0	0	4	U
Central Region Total	22	211	19	218	10	170	15	234	U
Trillium Catchment Total	70	726	46	656	51	664	54	678	U
North Carolina Total	402	5,710	324	5,306	344	5,297	372	5,499	U

Source: N.C. Division of Motor Vehicles, Traffic Records Branch, N.C. Department of Transportation. Accessed 2/10/16.

Teen Motor Vehicle Data

Central Region Teen Motor Vehicle Data Ages 15-19

County	2014 Crashes	2015 Crashes	Trend: Up, Down, Steady	2014 Fatalities	2015 Fatalities	Trend: Up, Down, Steady	2014 Injuries	2015 Injuries	Trend: Up, Down, Steady
Beaufort	180	175	D	0	0	S	41	54	U
Craven	303	349	U	2	0	D	60	99	U
Dare	184	168	D	0	0	S	25	31	U
Hyde	12	10	D	0	0	S	1	2	U
Pamlico	33	39	U	0	0	S	11	14	U
Pitt	972	1,190	U	0	3	U	223	301	U
Tyrrell	16	14	D	0	0	S	0	1	U
Washington	24	28	U	0	0	S	8	9	U
Central Region Total	1,724	1,973	U	2	3	U	369	511	U
Trillium Catchment Total	4,876	5,493	U	9	6	D	1,202	1,357	U
North Carolina Total	40,650	45,590	U	95	81	U	10,491	11,653	U

Source: N.C. Division of Motor Vehicles, Traffic Records Branch, N.C. Department of Transportation. Accessed 2/6/17.

Motor Vehicle Fatality Trends

Central Region Motor Vehicle Crash Fatalities: 5-Year Trend

County	2011	2012	2013	2014	2015	5-Year Average
Beaufort	9	14	13	6	5	9.4
Craven	25	13	17	12	16	16.6
Dare	7	4	7	2	2	4.4
Hyde	4	0	0	1	1	1.2
Pamlico	2	1	2	3	4	2.4
Pitt	18	24	19	17	32	22
Tyrrell	1	2	0	0	0	0.6
Washington	1	4	0	0	3	1.6
Central Region Total	67	62	58	41	63	58.2
Trillium Catchment Total	184	202	169	162	170	177.4
North Carolina Total	1,208	1,262	1,260	1,277	1,380	1,277

Source: N.C. Division of Motor Vehicles, Traffic Records Branch, N.C. Department of Transportation. Accessed 2/9/17.

Appendix C: Southern Region Charts & Profiles

County Profiles

Brunswick County

Category	County	North Carolina
Total Population (1)	124,668	10,157,928
0-2 years (1)	32.46	358,925
3-17 years (1)	18,450	1,947,064
18+ (1)	102,972	7,851,939
65 & Older (1)	35,087	1,558,037
Median Age (1)	49.92	38.44
Income and Poverty		
Poverty Percentage(2)	14.3%	16.4%
Median Household Income (2)	\$48,831	\$47,884
Unemployment Percentage(3)	5.8%	5.1%
Education (4)		
Graduation Percentage	82.8%	85.9%
Dropout Rate ⁺	3.28	2.29
Crime and Violence (per 1,000)	9.71	6.62
Health		
HIV (per 100,000) (5)	4.1	13.4
AIDS (per 100,000) (5)	0.0	7.3
Chlamydia (per 100,000) (5)	257.4	541.5
Gonorrhea (per 100,000) (5)	91.2	169.7
Syphilis (per 100,000) (5)	6.5	18.6
Teen Pregnancy (per 1,000) (6)	36.2	30.2
Infant Mortality (per 1,000) (6)	1.9	7.3
Uninsured % Ages 0-64 (7)	17.4%	15.2%
Medicaid % (8)	16.9%	18.7%
Domestic Violence (per 10,000) (9)	37.0	48.4
Primary Care Physicians (per 10,000) (10)	5.52	8.58
Crime (per 100,000) (11)		
Index Rate	1,815.2	3,169.3
Violent Rate	131.5	355.8
Property Rate	1,683.8	2,813.5
Murder Rate	0.0	5.8
Rape Rate	20.7	19.5

Robbery Rate	24.3	91.4
Assault Rate	86.4	239.2
Burglary Rate	655.5	766.8
Larceny Rate	979.7	1,911.1
MVT Rate	48.6	135.6
Arson Rate	3.6	15.1
Motor Vehicle (12)		
% of Alcohol Related Crashes/1 or more fatalities ^	40.0%	29.2%
% of Alcohol Involved Crashes	4.4%	4.6%
Other Mortality		
Suicide Deaths (per 100,000) (13)	13.8	14.0
Unintentional Injury Deaths (per 100,000) (14)	33.4	34.6

Data provided is the most current available at the time of this report.

Carteret County

Category	County	North Carolina
Total Population (1)	69,706	10,157,928
0-2 years (1)	1,829	358,925
3-17 years (1)	10,480	1,947,064
18+ (1)	57,397	7,851,939
65 & Older (1)	16,200	1,558,037
Median Age (1)	47.52	38.44
Income and Poverty		
Poverty Percentage(2)	13.8%	16.4%
Median Household Income (2)	\$50,837	\$47,884
Unemployment Percentage(3)	4.8%	5.1%
Education (4)		
Graduation Percentage	87.3%	85.9%
Dropout Rate ⁺	1.84	2.29
Crime and Violence (per 1,000)	12.52	6.62
Health		
HIV (per 100,000) (5)	5.8	13.4
AIDS (per 100,000) (5)	2.9	7.3
Chlamydia (per 100,000) (5)	329.6	541.5
Gonorrhea (per 100,000) (5)	58.1	169.7
Syphilis (per 100,000) (5)	4.4	18.6
Teen Pregnancy (per 1,000) (6)	24.3	30.2

Infant Mortality (per 1,000) (6)	6.5	7.3
Uninsured % Ages 0-64 (7)	16.3%	15.2%
Medicaid % (8)	16.3%	18.7%
Domestic Violence (per 10,000) (9)	26.4	48.4
Primary Care Physicians (per 10,000) (10)	6.78	8.58
Crime (per 100,000) (11)		
Index Rate	2,869.5	3,169.3
Violent Rate	243.7	355.8
Property Rate	2,625.8	2,813.5
Murder Rate	1.4	5.8
Rape Rate	18.7	19.5
Robbery Rate	18.7	91.4
Assault Rate	204.8	239.2
Burglary Rate	651.8	766.8
Larceny Rate	1,891.9	1,911.1
MVT Rate	82.2	135.6
Arson Rate	11.5	15.1
Motor Vehicle (12)		
% of Alcohol Related Crashes/1 or more fatalities ^	25.0%	29.2%
% of Alcohol Involved Crashes	5.3%	4.6%
Other Mortality		
Suicide Deaths (per 100,000) (13)	24.7	14.0
Unintentional Injury Deaths (per 100,000) (14)	47.9	34.6

Data provided is the most current available at the time of this report.

Jones County

Category	County	North Carolina
Total Population (1)	10,518	10,157,928
0-2 years (1)	326	358,925
3-17 years (1)	1,789	1,947,064
18+ (1)	8,403	7,851,939
65 & Older (1)	2,070	1,558,037
Median Age (1)	43.33	38.44
Income and Poverty		
Poverty Percentage(2)	21.4%	16.4%
Median Household Income (2)	\$39,688	\$47,884
Unemployment Percentage(3)	5.1%	5.1%

Education (4)		
Graduation Percentage	93.2%	85.9%
Dropout Rate ⁺	0.32	2.29
Crime and Violence (per 1,000)	0.00	6.62
Health		
HIV (per 100,000) (5)	0.0	13.4
AIDS (per 100,000) (5)	0.0	7.3
Chlamydia (per 100,000) (5)	369.5	541.5
Gonorrhea (per 100,000) (5)	199.7	169.7
Syphilis (per 100,000) (5)	0.0	18.6
Teen Pregnancy (per 1,000) (6)	*	30.2
Infant Mortality (per 1,000) (6)	0.0	7.3
Uninsured % Ages 0-64 (7)	17.0%	15.2%
Medicaid % (8)	20.3%	18.7%
Domestic Violence (per 10,000) (9)	93.9	48.4
Primary Care Physicians (per 10,000) (10)	8.6	8.58
Crime (per 100,000) (11)		
Index Rate	784.3	3,169.3
Violent Rate	98.0	355.8
Property Rate	686.3	2,813.5
Murder Rate	**	5.8
Rape Rate	0.0	19.5
Robbery Rate	98.0	91.4
Assault Rate	**	239.2
Burglary Rate	98.0	766.8
Larceny Rate	490.2	1,911.1
MVT Rate	98.0	135.6
Arson Rate	**	15.1
Motor Vehicle (12)		
% of Alcohol Related Crashes/1 or more fatalities ^	0.0%	29.2%
% of Alcohol Involved Crashes	4.9%	4.6%
Other Mortality		
Suicide Deaths (per 100,000) (13)	0.0	14.0
Unintentional Injury Deaths (per 100,000) (14)	69.9	34.6

*Indicates rates that were unstable and not reported. ** Crime rate not reported.

Data provided is the most current available at the time of this report.

New Hanover County

Category	County	North Carolina
Total Population (1)	223,260	10,157,928
0-2 years (1)	6,757	358,925
3-17 years (1)	35,610	1,947,064
18+ (1)	180,893	7,851,939
65 & Older (1)	36,663	1,558,037
Median Age (1)	38.10	38.44
Income and Poverty		
Poverty Percentage(2)	17.3%	16.4%
Median Household Income (2)	\$52,456	\$47,884
Unemployment Percentage(3)	4.7%	5.1%
Education (4)		
Graduation Percentage	83.3%	85.9%
Dropout Rate ⁺	1.65	2.29
Crime and Violence (per 1,000)	15.99	6.62
Health		
HIV (per 100,000) (5)	12.3	13.4
AIDS (per 100,000) (5)	3.6	7.3
Chlamydia (per 100,000) (5)	505.1	541.5
Gonorrhea (per 100,000) (5)	163.4	169.7
Syphilis (per 100,000) (5)	14.5	18.6
Teen Pregnancy (per 1,000) (6)	20.1	30.2
Infant Mortality (per 1,000) (6)	3.5	7.3
Uninsured % Ages 0-64 (7)	14.5%	15.2%
Medicaid % (8)	14.7%	18.7%
Domestic Violence (per 10,000) (9)	61.7	48.4
Primary Care Physicians (per 10,000) (10)	11.62	8.58
Crime (per 100,000) (11)		
Index Rate	4,140.1	3,169.3
Violent Rate	501.3	355.8
Property Rate	3,638.8	2,813.5
Murder Rate	7.9	5.8
Rape Rate	34.9	19.5
Robbery Rate	151.3	91.4
Assault Rate	307.2	239.2
Burglary Rate	969.6	766.8

Larceny Rate	2,494.1	1,911.1
MVT Rate	175.0	135.6
Arson Rate	6.5	15.1
Motor Vehicle (12)		
% of Alcohol Related Crashes/1 or more fatalities ^	33.3%	29.2%
% of Alcohol Involved Crashes	4.7%	4.6%
Other Mortality		
Suicide Deaths (per 100,000) (13)	13.2	14.0
Unintentional Injury Deaths (per 100,000) (14)	36.3	34.6

Data provided is the most current available at the time of this report.

Onslow County

Category	County	North Carolina
Total Population (1)	195,835	10,157,928
0-2 years (1)	12,364	358,925
3-17 years (1)	44,167	1,947,064
18+ (1)	139,304	7,851,939
65 & Older (1)	17,464	1,558,037
Median Age (1)	26.27	38.44
Income and Poverty		
Poverty Percentage(2)	15.3%	16.4%
Median Household Income (2)	\$46,144	\$47,884
Unemployment Percentage(3)	5.5%	5.1%
Education (4)		
Graduation Percentage	90.2%	85.9%
Dropout Rate ⁺	1.81	2.29
Crime and Violence (per 1,000)	10.49	6.62
Health		
HIV (per 100,000) (5)	12.9	13.4
AIDS (per 100,000) (5)	3.8	7.3
Chlamydia (per 100,000) (5)	815.8	541.5
Gonorrhea (per 100,000) (5)	120.2	169.7
Syphilis (per 100,000) (5)	8.6	18.6
Teen Pregnancy (per 1,000) (6)	56.6	30.2
Infant Mortality (per 1,000) (6)	7.7	7.3
Uninsured % Ages 0-64 (7)	11.5%	15.2%
Medicaid % (8)	15.4%	18.7%

Domestic Violence (per 10,000) (9)	11.6	48.4
Primary Care Physicians (per 10,000) (10)	4.04	8.58
Crime (per 100,000) (11)		
Index Rate	2,887.7	3,169.3
Violent Rate	184.1	355.8
Property Rate	2,703.7	2,813.5
Murder Rate	4.6	5.8
Rape Rate	25.4	19.5
Robbery Rate	38.1	91.4
Assault Rate	116.0	239.2
Burglary Rate	701.7	766.8
Larceny Rate	1,916.5	1,911.1
MVT Rate	85.4	135.6
Arson Rate	18.5	15.1
Motor Vehicle (12)		
% of Alcohol Related Crashes/1 or more fatalities ^	65.2%	29.2%
% of Alcohol Involved Crashes	5.8%	4.6%
Other Mortality		
Suicide Deaths (per 100,000) (13)	18.2	14.0
Unintentional Injury Deaths (per 100,000) (14)	25.8	34.6

Data provided is the most current available at the time of this report.

Pender County

Category	County	North Carolina
Total Population (1)	58,815	10,157,928
0-2 years (1)	1,859	358,925
3-17 years (1)	10,415	1,947,064
18+ (1)	46,541	7,851,939
65 & Older (1)	10,344	1,558,037
Median Age (1)	41.63	38.44
Income and Poverty		
Poverty Percentage(2)	14.8%	16.4%
Median Household Income (2)	\$49,390	\$47,884
Unemployment Percentage(3)	5.3%	5.1%
Education (4)		
Graduation Percentage	90.3%	85.9%

Dropout Rate ⁺	1.50	2.29
Crime and Violence (per 1,000)	14.93	6.62
Health		
HIV (per 100,000) (5)	5.2	13.4
AIDS (per 100,000) (5)	1.7	7.3
Chlamydia (per 100,000) (5)	262.1	541.5
Gonorrhea (per 100,000) (5)	92.0	169.7
Syphilis (per 100,000) (5)	15.6	18.6
Teen Pregnancy (per 1,000) (6)	25.3	30.2
Infant Mortality (per 1,000) (6)	9.8	7.3
Uninsured % Ages 0-64 (7)	16.3%	15.2%
Medicaid % (8)	19.5%	18.7%
Domestic Violence (per 10,000) (9)	25.2	48.4
Primary Care Physicians (per 10,000) (10)	2.70	8.58
Crime (per 100,000) (11)		
Index Rate	2,374.2	3,169.3
Violent Rate	161.2	355.8
Property Rate	2,213.0	2,813.5
Murder Rate	1.8	5.8
Rape Rate	28.3	19.5
Robbery Rate	23.0	91.4
Assault Rate	108.1	239.2
Burglary Rate	629.0	766.8
Larceny Rate	1,506.1	1,911.1
MVT Rate	78.0	135.6
Arson Rate	5.3	15.1
Motor Vehicle (12)		
% of Alcohol Related Crashes/1 or more fatalities ^	16.7%	29.2%
% of Alcohol Involved Crashes	5.2%	4.6%
Other Mortality		
Suicide Deaths (per 100,000) (13)	17.4	14.0
Unintentional Injury Deaths (per 100,000) (14)	45.1	34.6

Data provided is the most current available at the time of this report.

Geographic and Demographic

Population and Geographic Size

Trillium Southern Region Population and Geographic Size

County	Total Population	Square Miles	Persons per Square Mile
Brunswick	124,668	854.79	145.8
Carteret	69,706	519.84	134.1
Jones	10,518	471.88	22.3
New Hanover	223,260	198.93	1,122.3
Onslow	195,835	766.82	255.4
Pender	58,815	870.67	67.6
Southern Region Total	682,802	3,682.93	185.4
Trillium Catchment Total	1,289,714	11,482.38	112.3
North Carolina Total	10,157,928	48,710.88	208.5

Source: N.C. Office of State Budget and Management. Accessed 9/16/16.

https://ncosbm.s3.amazonaws.com/s3fs-public/demog/countytotals_2010_2019.html

Population by Race/Ethnicity

Trillium Southern Region Race/Ethnicity of Service Area

County	White alone	Black or African-America	American Indian and Alaskan Native	Asian - Pacific Islander	Other Race Alone	Two or more Races	Hispanic/Latino
Brunswick	107,112	14,152	1,160	997	3,046	2,291	7,199
Carteret	63,217	3,991	393	859	1,054	1,655	3,076
Jones	6,960	3,050	96	42	199	276	452
New Hanover	181,667	31,313	1,630	3,504	5,792	5,038	14,580
Onslow	153,406	28,159	1,602	4,860	7,064	8,803	24,152
Pender	47,672	9,100	619	396	2,022	1,318	4,322
Southern Region Total	560,034	89,765	5,500	10,658	19,177	19,381	53,781
Trillium Catchment Total	950,049	279,041	9,454	19,823	35,506	32,049	89,509
North Carolina Total	7,214,220	2,244,294	171,761	288,048	482,054	240,152	1,036,037

Source: N.C. Office of State Budget and Management. Accessed 10/20/16.

The race and Hispanic origin categories used by the Census Bureau are mandated by Office of Management and Budget Directive No. 15, which requires all federal record keeping and data presentation to use four race categories (White, Black, American Indian and Alaska Native, Asian and Pacific Islander) and two ethnicity categories (Hispanic, non-Hispanic). These classifications are not intended to be scientific in nature, but are designed to promote consistency in federal record keeping and data presentation.

http://www.osbm.state.nc.us/ncosbm/facts_and_figures/socioeconomic_data/population_estimates/county_estimates.shtm/

Population by Age

Trillium Southern Region Population by Age - July, 2016

County	Population Ages 0-2	Population Ages 3-17	Population Ages 18+	Population Ages 12-17	Population Ages 18-25	Population Ages 26+	Population Ages 12+	Population Ages 18-64	Population Ages 65+	Total Population
Brunswick	3,246	18,450	102,972	7,553	8,308	94,664	110,525	67,885	35,087	124,668
Carteret	1,829	10,480	57,397	4,439	5,963	51,434	61,836	41,197	16,200	69,706
Jones	326	1,789	8,403	730	880	7,523	9,133	6,333	2,070	10,518
New Hanover	6,757	35,610	180,893	14,301	30,815	150,078	195,194	144,230	36,663	223,260
Onslow	12,364	44,167	139,304	12,542	40,334	98,970	151,846	121,840	17,464	195,835
Pender	1,859	10,415	46,541	4,460	6,049	40,492	51,001	36,197	10,344	58,815
Southern Region Total	26,381	120,911	535,510	44,025	92,349	443,161	579,535	417,682	117,828	682,802
Trillium Catchment Total	46,666	231,522	1,011,526	87,737	171,995	839,531	1,099,263	789,507	222,019	1,289,714
North Carolina Total	358,925	1,947,064	7,851,939	800,415	1,140,743	6,711,196	8,652,354	6,293,902	1,558,037	10,157,928

Source: N.C. Office of State Budget and Management. Accessed 9/16/16.

Population Median Age

Trillium Southern Region Median Age - 2016

County	Median Age
Brunswick	49.92
Carteret	47.52
Jones	43.33
New Hanover	38.10
Onslow	26.27
Pender	41.63
Southern Region Median Age	41.13
Trillium Median Age	42.58
North Carolina Median Age	38.44

Source: N.C. Office of State Budget and Management. Accessed 10/17/16.

Population by Sex

Trillium Southern Region Population by Sex

County	Male		Female	
Brunswick	62,479	49.7%	63,233	50.3%
Carteret	34,719	49.5%	35,396	50.5%
Jones	5,036	48.3%	5,388	51.7%
New Hanover	108,057	48.4%	115,095	51.6%
Onslow	102,602	52.1%	94,228	47.9%
Pender	29,537	50.0%	29,568	50.0%
Southern Region Total	342,430	50.0%	342,908	50.0%
Trillium Catchment Total	635,416	49.2%	655,000	50.8%
North Carolina Total	4,937,585	48.6%	5,220,890	51.4%

Source: N.C. Office of State Budget and Management. Accessed 10/20/16.

Education Dropout & Graduation Rates

Trillium Central Region - Education Rates Comparison Dropout , Crime & Violence, Graduation

County	Dropout Rates /1,000 2013-2014	Dropout Rates /1,000 2015-2016	Trend: Up, Down, Steady	Crime & Violence Rates/ 1,000 2013-2014	Crime & Violence Rates/ 1,000 2015-2016	Trend: Up, Down, Steady	Graduation Rate (Percent) 2014-2015*	Graduation Rate (Percent) 2015-2016*	Trend: Up, Down, Steady
Brunswick	3.20	3.28	U	15.81	9.71	D	83.2%	82.8%	D
Carteret	2.29	1.84	D	5.08	12.52	U	85.6%	87.3%	U
Jones	1.35	0.32	D	0.00	0.00	S	89.9%	93.2%	U
New Hanover	2.88	1.65	D	14.49	15.99	U	81.6%	83.3%	U
Onslow	1.44	1.81	U	9.66	10.49	U	89.2%	90.2%	U
Pender	2.48	1.50	D	20.71	14.93	D	90.2%	90.3%	U
Southern Region Rate/Percentage	2.27	1.73	D	10.96	10.61	D	86.6%	87.9%	U
Trillium Catchment Average Rate/Percentage	1.99	2.31	U	10.91	10.95	U	86.2%	86.9%	U
North Carolina Rate/Percentage	2.28	2.29	U	12.37	6.62	D	85.6%	85.9%	U

Source: N.C. State Board of Education/Department of Public Instruction. Accessed 2/8/17.

*The North Carolina Four-Year Cohort Graduation Rate reflects the percentage of ninth graders (their cohort) who graduated from high school four years later.

Unemployment

Trillium Southern Region Unemployment Rate Comparison

County	Rate as of June 30, 2014	Rate as of June 30, 2015	Rate as of June 30, 2016
Brunswick	7.4%	7.1%	5.8%
Carteret	5.7%	6.0%	4.8%
Jones	6.3%	6.1%	5.1%
New Hanover	6.0%	5.6%	4.7%
Onslow	6.1%	6.2%	5.5%
Pender	7.1%	6.3%	5.3%
Southern Region Average Rate	6.4%	6.2%	5.2%
Trillium Catchment Average Rate	7.0%	6.9%	5.9%
North Carolina Average Rate	6.4%	6.1%	5.1%

Source: N.C. Department of Commerce, Labor & Economic Analysis Division.
 Accessed 12/1/16. <http://d4.nccommerce.com/LausSelection.aspx>

Persons in Poverty

Trillium Southern Region Persons in Poverty

County	Number of All People in Poverty	Percentage of All People	Number of Children Under Age 18 in Poverty	Percentage of Children Under Age 18 in Poverty
Brunswick	17,399	14.3%	4,950	24.5%
Carteret	9,370	13.8%	2,801	22.7%
Jones	2,115	21.4%	671	36.5%
New Hanover	36,967	17.3%	9,205	22.1%
Onslow	26,437	15.3%	9,991	21.5%
Pender	8,375	14.8%	2,765	21.9%
Southern Region Total	100,663	14.7%	30,383	20.6%
Trillium Catchment Total	217,347	17.0%	66,951	24.3%
North Carolina Total	1,607,249	16.4%	528,760	23.4%

Source: U.S. Census Bureau, Small Area Income and Poverty Estimates (SAIPE) Program. Released 12/16 for CY2015. Accessed 12/14/16.

http://www.census.gov/did/www/saie/data/interactive/saie.html?s_appName=saie&map_yearSelector=2015&map_geoSelector=aa_c&s_state=37&s_year=2015&menu=grid_proxy

Percent of people who were in poverty in a calendar year. Annual poverty rates are calculated using the sum of family income over the year divided by the sum of poverty thresholds that can change from month to month if one's family composition changes.

Median Household Income

Trillium Southern Region Median Household Income

County	Median Household Income
Brunswick	\$48,831
Carteret	\$50,837
Jones	\$39,688
New Hanover	\$52,456
Onslow	\$46,144
Pender	\$49,390
Southern Region Average	\$47,891
Trillium Catchment Average	\$43,989
North Carolina Average	\$47,884

Source: U.S. Census. Small Area Income and Poverty Estimates (SAIPE). Released 12/16 for CY2015. Accessed 12/14/16.

http://www.census.gov/did/www/saibe/data/interactive/saibe.html?s_appName=saibe&map_yearSelector=2015&map_geoSelector=aa_c&s_state=37&s_year=2015&menu=grid_proxy

Economic Tiers

Trillium Southern Region Economic Tier Designations

County	2014 Tier	2015 Tier	2016 Tier
Brunswick	3	3	3
Carteret	3	3	3
Jones	1	1	1
New Hanover	3	3	3
Onslow	2	2	2
Pender	3	3	3

Source: N.C. Department of Commerce. Accessed 11/1/16.

<https://edpnc.com/incentives/county-development-tier-designations/>

Percent Medicaid Eligible

Trillium Southern Region Percent of Medicaid Eligible June 30, 2016

County	Total Medicaid Eligible	Total Population	% Medicaid Eligible
Brunswick	21,031	124,668	16.9%
Carteret	11,386	69,706	16.3%
Jones	2,137	10,518	20.3%
New Hanover	32,894	223,260	14.7%
Onslow	30,096	195,835	15.4%
Pender	11,445	58,815	19.5%
Southern Region Total	108,989	682,802	16.0%
Trillium Catchment Total	231,544	1,289,714	18.0%
North Carolina Total	1,903,789	10,157,928	18.7%

Source: N.C. DMA Medicaid Enrollment Reports- June 30, 2016. Accessed 9/16/16.

<http://dma.ncdhhs.gov/document/medicaid-and-health-choice-enrollment-reports>

Medicaid Eligible Children and Adults

Southern Region Medicaid Eligible Adults & Children June 30, 2016

County	Infants-Children	Adults	Total Eligibles
Brunswick	4,519	16,512	21,031
Carteret	2,241	9,145	11,386
Jones	406	1,731	2,137
New Hanover	7,029	25,865	32,894
Onslow	6,645	23,451	30,096
Pender	2,556	8,889	11,445
Southern Region Total	23,396	85,593	108,989
Trillium Catchment Total	47,831	183,713	231,544
North Carolina Total	430,681	1,473,108	1,903,789

The number of people who have received a Medicaid or Health Choice identification card for the upcoming month and are authorized to receive Medicaid or Health Choice services for the upcoming month. Source: N.C. Division of Medical Assistance. June 30, 2016. Accessed 9/16/16.

Non-Elderly Adult Uninsured

Trillium Southern Region Non-Elderly* Adult Uninsured

County	Number of Non-Elderly Uninsured	Population of Non-Elderly	Percentage of Non-Elderly Uninsured
Brunswick	15,005	86,243	17.4%
Carteret	8,664	53,197	16.3%
Jones	1,339	7,855	17.0%
New Hanover	25,641	176,751	14.5%
Onslow	17,953	156,737	11.5%
Pender	7,440	45,718	16.3%
Southern Region Total	76,042	526,501	14.4%
Trillium Catchment Total	148,345	1,007,927	14.7%
North Carolina Total	1,254,138	8,269,110	15.2%

* Non-Elderly are those 0-64 years of age.

Source: U.S. Census Bureau, 2014 Small Area Health Insurance Estimates. Released 5/12/16. Current as of 12/10/16.

http://www.census.gov/did/www/sahie/data/interactive/sahie.html?s_appName=sahie&s_statefips=37&map_yearSelector=&menu=grid_proxy

Unique Populations and Characteristics

Veteran Population

Trillium Southern Veteran Population - 3-Year Trend

County	9/30/2014	9/30/2015	9/30/2016
Brunswick	13,450	13,612	13,759
Carteret	8,472	8,439	8,403
Jones	1,134	1,129	1,124
New Hanover	17,703	17,638	17,564
Onslow	29,203	30,329	31,458
Pender	6,058	6,092	6,119
Southern Region Total	76,020	77,239	78,427
Trillium Catchment Total	131,237	132,666	134,034
North Carolina Total	775,022	773,881	772,424

Source: National Center for Veterans Analysis and Statistics. Accessed 11/21/16.

http://www.va.gov/vetdata/Veteran_Population.asp

The Veteran Population Projection Model 2014 (VetPop2014) provides the latest official Veteran population projection from the Department of Veterans Affairs (VA). VetPop2014 is an actuarial projection model developed by the Office of the Actuary (OACT) for Veteran population projection from Fiscal Year (FY) 2014 to FY2043. Using the best available Veteran data by the end of FY2013, VetPop2014 provides living Veteran counts by key demographic characteristics such as age, gender, period of service, and race/ethnicity at various geographic levels.

Traumatic Brain Injury (TBI)

Trillium Southern Region - Traumatic Brain Injury SFY2016

Number of Quarters Served	County of Residence	Date of Birth	Veteran Yes/No	Cause of TBI
Q2, Q3	Carteret	4/16/1982	No	Fall
*	New Hanover	12/13/1960	No	Bicycle/Motorcycle
*	New Hanover	1/12/1958	No	Fall
Q2, Q3	New Hanover	8/16/1967	No	Motor Vehicle Crash
*	New Hanover	2/5/1980	No	Sport/Recreation

* Received a TBI service that had to be funded from other state funds - not Medicaid funds.

Source: Provided by Trillium Health Resources - Reports to N.C. Division of Mental Health, Developmental Disabilities and Substance Abuse Services. Accessed 4/25/17.

Health Indicators

Medical Facilities

Medical Facilities - Southern Region

County	Town	Hospital
Brunswick	Bolivia	Novant Health Brunswick Medical Center
Brunswick	Southport	J. Arthur Doshier Memorial Hospital
Carteret	Morehead City	Carteret General Hospital
New Hanover	Wilmington	New Hanover Regional Medical Center
Onslow	Jacksonville	Onslow Memorial Hospital
Pender	Burgaw	Pender Memorial Hospital

Source: N.C. DHHS. N.C.DHSR. As of 1-6-17.

Federally Qualified Health Centers and Community Care Centers

Federally Qualified Health Centers and Community Care Centers Trillium Southern Region

County	# of Locations	Town/City	OB/GYN	Behavioral Health	Dental	Discounted Pharmacy
Brunswick	2	Shalotte	GYN Only	Yes	No	Yes
		Supply	No	No	Yes	Yes
Jones	1	Trenton	GYN Only	No	No	No
New Hanover	1	Wilmington	Yes	No	Yes	Yes
Onslow	1	Jacksonville	GYN Only	No	No	No
Pender	1	Willard	GYN Only	Yes	Yes	Yes

Source: North Carolina Community Health Center Association. (-) means not reported. Accessed 1/18/17.

Medical Provider Resources

Medical Service Provider Resources - Southern Region

County	Total Physicians per 10,000 persons	Primary Care Physicians per 10,000 persons	Dentists per 10,000 persons	Pharmacists per 10,000 persons
Brunswick	10.69	5.52	3.31	6.70
Carteret	15.72	6.78	7.21	12.55
Jones	15.28	8.60	1.91	3.82
New Hanover	32.03	11.62	7.37	13.27
Onslow	9.37	4.04	3.16	5.18
Pender	3.40	2.70	3.54	4.78
Southern Region Rates	14.42	6.54	4.42	7.72
Trillium Catchment Rates	12.07	5.44	2.74	6.60
North Carolina Rates	23.17	8.58	4.70	10.60

Source: 2014 N.C. Health Professions Data Book. Released April, 2016. The Cecil G. Sheps Center for Health Services Research. University of North Carolina at Chapel Hill.

Beginning with 2014 data, primary care physicians are those who have indicated their primary area of practice as family practice, general practice, geriatrics, internal medicine, pediatrics, obstetrics gynecology, adolescent medicine, medicine/pediatrics, family practice-geriatric, family practice-sports medicine, pediatric sports medicine, family medicine/hospice & palliative, geriatric medicine/internal medicine, medicine/OBGYN, hospitalist, urgent care, integrative medicine, or student health. Primary care physicians are included in total counts of physicians per 10,000 population.

Smoking

Adult Smoking - Southern Region >18 years of age

Percent of Adults that Report Smoking Greater than 100 Cigarettes and Currently Smoking		
County	2015	2016
Brunswick	21%	17%
Carteret	21%	17%
Jones	44%	19%
New Hanover	18%	16%
Onslow	25%	20%
Pender	28%	19%
Southern Region Percentage	26%	18%
Trillium Catchment Percentage	25%	19%
North Carolina Percentage	20%	19%

Source: CDC Behavioral Risk Factor Surveillance System (BRFSS).
Robert Wood Johnson, 2016 County Health Rankings. Accessed 11/21/16.

Teen Pregnancy

Southern Region Teen Pregnancy Rates Comparison Ages 15-19 Rates per 1,000

County	Number of Pregnancies 2012	Rate 2012	Number of Pregnancies 2013	Rate 2013	Number of Pregnancies 2014	Rate 2014	Number of Pregnancies 2015	Rate 2015	Trend: Up, Down, Steady
Brunswick	106	42.3	112	45.7	89	35.0	93	36.2	U
Carteret	51	30.0	51	30.0	47	28.0	42	24.3	D
Jones	7	*	6	*	12	*	12	*	S
New Hanover	212	29.7	162	22.4	172	24.0	148	20.1	D
Onslow	342	74.6	317	67.5	314	66.0	262	56.6	D
Pender	53	32.7	56	33.3	50	29.0	44	25.3	D
Southern Region Total	771	41.9	704	39.8	684	36.4	601	32.5	D
Trillium Catchment Total	1,576	45.1	1,444	43.2	1,302	35.6	1,176	32.9	D
North Carolina Total	12,535	39.6	11,178	35.2	10,328	32.3	9,802	30.2	D

* indicates rates that were unstable and therefore not reported. Data for calendar years.

Source: N.C. DHHS - State Center for Health Statistics. Accessed 1/10/17.
<http://www.schs.state.nc.us/data/vital/pregnancies/2015/preg1519.pdf>

Sexually Transmitted Infections

Newly Diagnosed Chlamydia Cases Southern Region Rates per 100,000

County	2014 Number	2015 Number	2014 Rate	2015 Rate
Brunswick	250	316	210.4	257.4
Carteret	186	227	270.3	329.6
Jones	27	37	268.0	369.5
New Hanover	1,001	1,113	462.8	505.1
Onslow	1,244	1,520	663.2	815.8
Pender	153	19	272.0	148.7
Southern Region Total	2,861	3,232	425.0	473.3
Trillium Catchment Total	6,642	7,382	521.8	572.4
North Carolina Total	49,904	54,383	501.9	541.5

Data provided by calendar year.

Source: N.C. DHHS – Department of Public Health, Communicable Disease Branch, N.C. HIV/STD 2015 Annual Report, Released August, 2016.

Newly Diagnosed Gonorrhea Cases Southern Region Rates per 100,000

County	2014 Number	2015 Number	2014 Rate	2015 Rate
Brunswick	82	112	69.0	91.2
Carteret	23	40	33.4	58.1
Jones	12	20	119.1	199.7
New Hanover	357	360	165.1	163.4
Onslow	239	224	127.4	120.2
Pender	56	53	99.6	92.0
Southern Region Total	769	809	114.1	118.5
Trillium Catchment Total	1,651	1,931	129.7	149.7
North Carolina Total	14,952	17,047	150.4	169.7

Data provided by calendar year.

Source: N.C. DHHS – Department of Public Health, Communicable Disease Branch, N.C. HIV/STD 2015 Annual Report, Released August, 2016.

Newly Diagnosed Syphilis Cases* Southern Region Rates per 100,000

County	2014 Number	2015 Number	2014 Rate	2015 Rate
Brunswick	4	8	3.4	6.5
Carteret	4	3	5.8	4.4
Jones	1	0	9.9	0.0
New Hanover	34	32	15.7	14.5
Onslow	19	16	10.1	8.6
Pender	3	9	5.3	15.6
Southern Region Total	65	68	9.6	10.0
Trillium Catchment Total	171	157	13.4	12.2
North Carolina Total	1,792	1,866	18.0	18.6

Data provided by calendar year. *Includes Primary, Secondary and Early Latent Syphilis.

Source: N.C. DHHS – Department of Public Health, Communicable Disease Branch, N.C. HIV/STD 2015 Annual Report, Released August, 2016.

**HIV Cases by County of Diagnosis
Southern Region
Rates per 100,000**

County	Number of Cases 2014	Number of Cases 2015	Rate 2014	Rate 2015
Brunswick	9	5	7.8	4.1
Carteret	5	4	7.3	5.8
Jones	1	0	9.8	0.0
New Hanover	15	27	7.0	12.3
Onslow	23	24	12.4	12.9
Pender	7	3	12.7	5.2
Southern Region Total	60	63	8.9	9.2
Trillium Catchment Total	141	134	11.1	10.4
North Carolina Total	1,351	1,345	13.6	13.4

Source: N.C. DHHS – Department of Public Health, Communicable Disease Branch, N.C. HIV/STD 2015 Annual Report, Released August, 2016.

**AIDS Cases by County of Diagnosis
Southern Region
Rates per 100,000**

County	Number of Cases 2014	Number of Cases 2015	Rate 2014	Rate 2015
Brunswick	5	0	4.3	0.0
Carteret	5	2	7.3	2.9
Jones	1	0	9.8	0.0
New Hanover	7	8	3.3	3.6
Onslow	7	7	3.8	3.8
Pender	4	1	7.3	1.7
Southern Region Total	29	18	4.3	2.6
Trillium Catchment Total	65	53	5.1	4.1
North Carolina Total	706	738	7.2	7.3

Source: N.C. DHHS – Department of Public Health, Communicable Disease Branch, N.C. HIV/STD 2015 Annual Report, Released August, 2016.

Leading Causes of Death

Leading Causes of Death 2015 Southern Region

Rank	Cause of Death	Total Deaths	Percentage
1	Cancer	1,362	23.4
2	Diseases of heart	1,176	20.2
3	Cerebrovascular diseases	444	7.6
4	Chronic lower respiratory diseases	346	5.9
5	All other unintentional injuries	235	4
6	Alzheimer's disease	176	3
7	Diabetes mellitus	138	2.4
8	Nephritis, nephrotic syndrome, nephrosis	124	2.1
9	Intentional self-harm (suicide)	107	1.8
10	Influenza and pneumonia	99	1.7
	All other causes (Residual)	1,622	27.9
Southern Region Totals		5,829	100%
Trillium Catchment Totals		11,868	100%

Source: N.C. State Center for Health Statistics. Accessed 6/5/17.

Unintentional Injury

Unintentional Injuries Comparison - Southern Region Rates per 100,000

County	SFY2014 Number of Deaths	SFY2014 Death Rate	SFY2015 Number of Deaths	SFY2015 Death Rate
Brunswick	45	37.9	41	33.4
Carteret	28	40.7	33	47.9
Jones	3	29.8	7	69.9
New Hanover	71	32.8	80	36.3
Onslow	31	16.5	48	25.8
Pender	14	24.9	26	45.1
Southern Region Rate	192	30.4	235	43.1
Trillium Catchment Rate	394	30.6	460	42.8
North Carolina Rate	3,152	31.7	3,470	34.6

Source: NC DHHS, Department of Public Health, North Carolina State Center for Health Statistics. Accessed 12/8/16.
<http://www.schs.state.nc.us/data/vital/lcd/2015/otherinjuries.html>

Unintentional Poisoning

Unintentional Poisoning Deaths Southern Region Comparison

County	2011	2012	2013	2014	2015
Brunswick	30	26	30	22	25
Carteret	18	10	11	15	16
Jones	0	0	0	0	3
New Hanover	39	32	38	39	49
Onslow	23	20	15	15	16
Pender	6	5	6	3	17
Southern Region Total	116	93	100	94	126
Trillium Catchment Total	161	154	161	163	198
North Carolina Total	1,140	1,101	1,085	1,178	1,370

* Data Suppressed using state convention.

Source: N.C. DHHS, Injury Epidemiology and Surveillance Unit, Injury and Violence Prevention Branch, Chronic Disease and Injury Section, Division of Public Health. Received 12/3/16.

Overdose Deaths

Trillium Southern Region Overdose Death Comparison*

County (County is based on county of residence of the decedent)	Medication & Drug Poisoning Deaths (Any mention of a medication and/or drug poisoning as primary cause of death - includes prescription, over-the-counter, and illicit drugs)			Prescription Opioid Deaths** (Any mention of other opioids, methadone, and/or other synthetic opioids in the multiple cause of death fields on the death certificate)			Heroin Poisoning Deaths (Any mention of heroin in the multiple cause of death fields on the death certificate)		
	2013	2014	2015	2013	2014	2015	2013	2014	2015
Brunswick	31	22	29	18	15	20	10	5	10
Carteret	13	19	18	6	13	12	1	1	4
Jones	0	1	3	0	0	3	0	0	0
New Hanover	38	41	52	19	14	32	9	11	23
Onslow	19	20	20	13	13	13	1	1	3
Pender	7	5	17	7	1	10	0	1	7
Southern Region Total	108	108	139	63	56	90	21	19	47
Trillium Catchment Total	177	193	228	100	101	143	26	31	66
North Carolina Total	1,215	1,306	1,498	624	728	854	183	253	369

* Note the numbers in the categories above are not mutually exclusive. Those included in Deaths by Prescription Opioids and/or Heroin may also be included in Medication and Drug Poisoning data. **The 'Prescription Opioid' category currently includes 'other synthetic narcotics' like tramadol and fentanyl. With the rise of illicitly manufactured fentanyl, the 'Prescription Opioid' category will likely exclude 'other synthetic narcotics' in the future.

Source: N.C. DHHS, Injury Epidemiology and Surveillance Unit, Injury and Violence Prevention Branch, Chronic Disease and Injury Section, Division of Public Health. Accessed 11/15/16.

Southern Region Overdose Deaths - Percentage of Change*

County (County is based on county of residence of the decedent)	Medication & Drug Poisoning Deaths (Any mention of a medication and/or drug poisoning as primary cause of death; includes prescription, over-the-counter, and illicit drugs)			Prescription Opioid Deaths** (Any mention of other opioids, methadone, and/or other synthetic opioids in the multiple cause of death fields on the death certificate)			Heroin Poisoning Deaths (Any mention of heroin in the multiple cause of death fields on the death certificate)		
	2014	2015	Change	2014	2015	Change	2014	2015	Change
Brunswick	22	29	32.0%	15	20	33.3%	5	10	100.0%
Carteret	19	18	-5.3%	13	12	-7.7%	1	4	300.0%
Jones	1	3	200.0%	0	3	300.0%	0	0	0.0%
New Hanover	41	52	27.0%	14	32	129.0%	11	23	109.1%
Onslow	20	20	0.0%	13	13	0.0%	1	3	200.0%
Pender	5	17	240.0%	1	10	900.0%	1	7	600.0%
Southern Region Total	108	139	29.0%	56	90	61.0%	19	47	147.3%
Trillium Catchment Total	193	228	18.1%	101	143	42.0%	31	66	113.0%
North Carolina Total	1,306	1,498	15.0%	728	854	17.3%	253	369	46.0%

* Note the numbers in the categories above are not mutually exclusive. Those included in Deaths by Prescription Opioids and/or Heroin may also be included in Medication and Drug Poisoning data.

**The 'Prescription Opioid' category currently includes 'other synthetic narcotics' like tramadol and fentanyl. With the rise of illicitly manufactured fentanyl, the 'Prescription Opioid' category will likely exclude 'other synthetic narcotics' in the future.

Source: N.C. DHHS, Injury Epidemiology and Surveillance Unit, Injury and Violence Prevention Branch, Chronic Disease and Injury Section, Division of Public Health. Accessed 11/15/16.

Suicide

Suicide Statistics Comparison - Southern Region Rate per 100,000

County	Death Rate 2012	Death Rate 2013	Death Rate 2014	Death Rate 2015
Brunswick	22.3	16.5	16.8	13.8
Carteret	19.2	14.6	20.3	24.7
Jones	19.5	9.8	29.8	0.0
New Hanover	18.2	10.8	18.5	13.2
Onslow	16.4	20.0	19.2	18.2
Pender	14.8	18.1	21.3	17.4
Southern Region Rate	18.4	15.0	21.0	14.6
Trillium Catchment Rate	13.6	12.8	17.8	17.5
North Carolina Rate	13.1	12.9	13.5	14.0

Source: N.C. Resident Mortality Statistics Summary for FY 2015, N.C. DHHS, Division of Public Health, State Center for Health Statistics. Accessed 1/21/17.

<http://www.schs.state.nc.us/data/vital/lcd/2015/suicide.html>

Infant Mortality

Southern Region N.C. Infant Death Rates - Four Year Comparison (per 1,000 Live Births)

County	2012 Infant Deaths	2012 Rate	2013 Infant Deaths	2013 Rate	2014 Infant Deaths	2014 Rate	2015 Infant Deaths	2015 Rate
Brunswick	10	9.7	8	8.0	4	3.6	2	1.9
Carteret	5	8.3	6	9.1	3	5.2	4	6.5
Jones	0	0	1	10.4	0	0.0	0	0.0
New Hanover	9	4	12	5.4	3	1.3	8	3.5
Onslow	34	7.7	29	6.7	30	6.9	32	7.7
Pender	3	5.1	5	8.7	4	6.3	6	9.8
Southern Region Total	61	5.8	61	8.1	44	3.9	52	4.9*
Trillium Catchment Total	124	6.7	117	8.4	114	9.0	113	7.9*
North Carolina Total	883	7.4	832	7.0	860	7.1	884	7.3

Note: Rates based on less than 10 deaths are unreliable and should be interpreted with caution. *Trillium Catchment and Regional rates are the average rate of the county rates.

Source: N.C. Department of Health & Human Services State Center for Health Statistics, Accessed 1-21-16.

Mortality Rates

Mortality Rate Comparison Southern Region Rates per 100,000

County	Number of Deaths 2014	Death Rate* 2014	Number of Deaths 2015	Death Rate* 2015
Brunswick	1,290	1,086	1,336	1,088.3
Carteret	755	1,097	795	1,154.2
Jones	136	1,350	117	1,168.5
New Hanover	1,828	845	1,927	874.5
Onslow	1,024	546	1,103	592.0
Pender	510	907	551	956.4
Southern Region Total	5,543	825.5	5,829	864.8
Trillium Catchment Total	11,336	891.1	11,868	928.1
North Carolina Total	85,212	856.9	89,130	887.5

Source: State Center for Health Statistics Division of Public Health North Carolina Department of Health and Human Service. Accessed 12/8/16.

Health Ranking

Health Outcome Rankings Trillium Southern Region

County	2015 Health Outcomes	2016 Health Outcomes
Brunswick	36	45
Carteret	35	27
Jones	89	82
New Hanover	8	14
Onslow	22	25
Pender	20	33

Source: 2016 County Health Rankings. Accessed 12/7/16.
www.countyhealthrankings.org

Behavioral Health Hospitalization

N.C. State Alcohol and Drug Abuse Treatment Centers

Persons Served By N.C. State Alcohol and Drug Abuse Treatment Centers (ADATC) Comparison - Southern Region

County	Persons Served in 2014	2014 Rate Persons Served Per 100,000	Persons Served in 2015	2015 Rate Persons Served Per 100,000	Persons Served in 2016	2016 Rate Persons Served Per 100,000	TREND: Up, Down, Steady
Brunswick	78	65.7	57	46.9	52	41.7	D
Carteret	31	44.2	22	31.6	20	28.7	D
Jones	7	66.2	3	28.6	1	9.5	D
New Hanover	243	111.5	234	106.3	173	77.5	D
Onslow	24	12.1	21	10.8	23	11.7	U
Pender	25	44.2	28	48.5	17	28.9	D
Southern Region Total	408	60.8	365	54.2	286	41.9	D
Trillium Catchment Total	889	79.7	746	58.3	609	47.2	D
North Carolina Total	4,479	44.9	3,701	36.8	3,412	33.6	D

Source: NC DHHS, NC Division of MH/SA/DD. Report received 8/1/16.

N.C. State Psychiatric Hospitals

Persons Served By N.C. State Psychiatric Hospitals Comparison - Southern Region

County	Persons Served 2014	2014 Rate Persons Served Per 100,000 pop.	Persons Served 2015	2015 Rate Persons Served Per 100,000 pop.	Persons Served 2016	2016 Rate Persons Served Per 100,000 pop.	Trend: Up, Down, Steady
Brunswick	71	59.9	47	38.7	23	18.4	D
Carteret	15	21.4	11	15.8	7	10.0	D
Jones	5	47.3	3	28.6	2	19.0	D
New Hanover	64	29.4	92	41.8	66	29.6	D
Onslow	28	14.2	30	15.4	15	7.7	D
Pender	22	38.9	9	15.6	15	25.5	D
Southern Region Total	205	30.5	192	28.5	128	18.7	D
Trillium Catchment Total	401	31.5	376	29.4	244	18.9	D
North Carolina Total	3,529	35.4	3,289	32.7	2,253	22.2	D

Source: NC DHHS, NC Division of MH/SA/DD. Report received 8/1/16.

Criminal Justice

Crime Rate

Southern Region Crime Rate of Service Area - SFY2015 (Rate per 100,000)

County	Index Rate	Violent	Property	Murder	Rape	Robbery	Assault	Burglary	Larceny	MVT	Arson
Brunswick	1,815.2	131.5	1,683.8	0.0	20.7	24.3	86.4	655.5	979.7	48.6	3.6
Carteret	2,869.5	243.7	2,625.8	1.4	18.7	18.7	204.8	651.8	1,891.9	82.2	11.5
Jones	784.3	98.0	686.3	*	0.0	98.0	*	98.0	490.2	98.0	*
New Hanover	4,140.1	501.3	3,638.8	7.9	34.9	151.3	307.2	969.6	2,494.1	175.0	6.5
Onslow	2,887.7	184.1	2,703.7	4.6	25.4	38.1	116.0	701.7	1,916.5	85.4	18.5
Pender	2,374.2	161.2	2,213.0	1.8	28.3	23.0	108.1	629.0	1,506.1	78.0	5.3
Southern Region Average Rate	2,478.5	220.0	2,258.6	3.1	21.3	58.9	164.5	617.6	1,546.4	94.5	9.1
Trillium Catchment Average Rate	2,439.9	229.9	2,210.0	6.4	19.6	45.6	170.0	692.9	1,447.1	73.8	15.9
North Carolina Rate	3,169.3	355.8	2,813.5	5.8	19.5	91.4	239.2	766.8	1,911.1	135.6	15.1

* 2015 Crime Rate not reported

N.C. Department of Justice, Accessed 2/16/17.

Seven offenses were chosen to serve as an index for gauging fluctuations in the overall volume and rate of crime. Known collectively as the Crime Index, these offenses included the violent crimes of murder and non-negligent manslaughter, forcible rape, robbery, and aggravated assault and the property crimes of burglary, larceny-theft, and major vehicle theft. By Congressional mandate, arson was added as the eighth Index Offense in 1979.

DWI Arrests

Southern Region - DWI Arrests - FY 2016

County	Number of Arrests	Rate of Arrests per 10,000
Brunswick	950	76.2
Carteret	606	86.9
Jones	55	52.3
New Hanover	1,457	65.3
Onslow	884	45.1
Pender	361	61.4
Southern Region Total	4,313	63.2
Trillium Catchment Total	7,239	56.1
North Carolina Total	45,064	44.4

Source: NC Judicial Department, Accessed 2/4/17.

DUI Arrest Comparisons

Southern Region - Driving Under the Influence Arrests 2012-2016

County	Number of Arrests				Trend: Up, Down, Steady
	2012-2013	2013-2014	2014-2015	2015-2016	
Brunswick	1,197	1,140	1,033	950	D
Carteret	1,061	842	698	606	D
Jones	94	80	82	55	D
New Hanover	1,921	1,688	1,588	1,457	D
Onslow	1,046	897	845	884	U
Pender	475	427	396	361	D
Southern Region Total	5,794	5,074	4,642	4,313	D
Trillium Catchment Total	9,264	8,204	7,748	7,239	D
North Carolina Total	49,585	48,713	46,840	45,064	D

Source: NC Judicial Department, Accessed 2/4/17.

Domestic Violence

Southern Region Domestic Violence Comparison

County	SFY2014 Number of Cases	SFY2014 Rate per 10,000	SFY2015 Number of Cases	SFY2015 Rate per 10,000	SFY2016 Number of Cases	SFY2016 Rate per 10,000	Trend: Up, Down, Steady
Brunswick	499	44.3	298	25.1	454	37.0	U
Carteret	205	30.1	221	32.1	182	26.4	D
Jones	35	33.0	89	88.3	94	93.9	U
New Hanover	2,122	101.1	1,851	85.6	1,359	61.7	D
Onslow	270	14.2	293	15.6	217	11.6	D
Pender	295	54.4	345	61.3	145	25.2	D
Southern Region Total	3,426	50.8	3,097	47.1	2,451	36.8	D
Trillium Catchment Total	7,547	59.3	7,431	59.0	5,582	44.1	D
North Carolina Total	57,345	58.7	56,664	57.0	48,601	48.4	D

Source: N.C. Dept. of Administration, Council for Women, Accessed 2/10/17.

Sexual Assault

Southern Region Sexual Assault Comparison

County	SFY2014 Number of Cases	SFY2014 Rate per 10,000	SFY2015 Number of Cases	SFY2015 Rate per 10,000	SFY2016 Number of Cases	SFY2016 Rate per 10,000	Trend: Up, Down, Steady
Brunswick	129	11.1	131	11.0	156	12.7	U
Carteret	151	21.8	179	26.0	204	29.6	U
Jones	*	*	*	*	*	*	*
New Hanover	332	15.5	322	14.9	347	15.7	U
Onslow	12	0.6	26	1.4	17	0.9	D
Pender	41	7.4	40	7.1	42	7.3	U
Southern Region Total	665	9.9	698	10.8	766	11.5	U
Trillium Catchment Total	1,842	15.3	1,881	15.1	1,667	13.2	D
North Carolina Total	13,736	14.2	13,655	13.7	10,981	10.9	D

* Denotes no report

Source: N.C. Dept. of Administration, Council for Women, Accessed 2/8/17.

Sex Offense Convictions

Persons Convicted of a Sex Offense or Offense Against a Minor

County	Total Offenders 2015	Total Offenders 2016	Trend: Up, Down, Steady
Brunswick	201	206	U
Carteret	99	101	U
Jones	26	28	U
New Hanover	246	251	D
Onslow	278	286	U
Pender	115	111	D
Southern Region Total	965	983	U
Trillium Catchment Total	2,091	2,088	D
North Carolina Total	14,416	12,597	D

Source: N.C. Department of Public Safety. Accessed 2/3/17. <http://sexoffender.ncsbi.gov/stats.aspx>

Juvenile Justice

Southern Region Juvenile Justice Data 2015 Table A

County	POPULATION AGE GROUPS			COMPLAINTS RECEIVED			RATES		SUPERIOR COURT TRANSFERS
	Juvenile Population Ages 6-15	Juvenile Population Ages 6-17	Juvenile Population Ages 10-17	Violent Class A - E	Serious Class F - I, A1	Minor Class 1 - 3	Undisciplined Rate per 1,000 Age 6 to 17	Delinquent Rate per 1,000 Age 6 to 15	Number of Juveniles Transferred to Superior Court
Brunswick	12,166	14,478	9,507	12	70	367	1.04	37.07	0
Carteret	7,148	8,669	5,887	1	17	60	1.50	11.05	0
Jones	1,234	1,479	982	1	10	25	0.68	29.17	0
New Hanover	23,541	28,031	18,473	12	114	243	0.46	15.67	0
Onslow	24,471	28,494	16,875	6	71	332	4.07	16.80	0
Pender	6,876	8,339	5,702	6	48	141	0.36	28.36	0
Southern Region Total	75,436	89,490	57,426	38	330	1,168	1.35	23.02	0
Trillium Catchment Total	149,436	177,600	115,177	134	742	2,603	1.63	23.24	4
North Carolina Total	1,309,177	1,564,195	1,044,293	927	6,760	19,418	1.49	20.78	19

Southern Region Juvenile Justice Data 2015 Table B

County	DETENTION			YDC COMMITMENTS	COMMUNITY PROGRAMS				
	Distinct Juveniles Detained *	Detention Admissions **	Detention Rate per 1,000	YDC Commitments	JCPC Youth Served	Alternatives to Commitment Youth Served	JCPC Endorsed Level II Programs Youth Served	Residential Contractual Services for Level II Youth Served	Non-Residential Contractual Programs Youth Served
Brunswick	18	26	1.80	0	292	16	0	2	0
Carteret	8	12	1.38	1	328	1	0	0	0
Jones	1	1	0.68	0	49	3	0	1	0
New Hanover	42	65	2.32	8	382	27	0	5	54
Onslow	43	62	2.18	5	254	33	19	6	0
Pender	11	13	1.56	0	154	7	0	1	0
Southern Region Total	123	179	1.65	14	1459	87	19	15	54
Trillium Catchment Total	284	380	1.86	32	3,745	146	28	64	101
North Carolina Total	2,162	3,211	2.05	217	22,470	619	111	410	296

Notes:

DETENTION:

*"Distinct" in the County Databook is determined by county counts. For juveniles who were admitted to detention with secure custody orders from different counties, they are counted in all counties where secure custody orders originated.

**Admissions are the number of times all juveniles were admitted to detention from each respective county. This data does not include transfers between centers (within the detention system).

COMMUNITY PROGRAMS:

All Community Programs data are defined as "youth served", not admissions during the 2014 - 15 school/fiscal year.

Source: N.C. Department of Public Safety, Released 6/16. Accessed 2/9/17.

Alcohol-Related Crashes

Southern Region Alcohol Related Crash Comparison

County	2012 Fatal Crashes	2012 Non-Fatal Injury Crashes	2013 Fatal Crashes	2013 Non-Fatal Injury Crashes	2014 Fatal Crashes	2014 Non-Fatal Injury Crashes	2015 Fatal Crashes	2015 Non-Fatal Injury Crashes	Trend: Up, Down, Steady
Brunswick	9	85	3	62	3	100	4	52	D
Carteret	6	34	1	29	0	21	1	32	U
Jones	0	14	0	10	0	8	0	8	S
New Hanover	9	103	5	108	12	101	7	100	D
Onslow	11	144	8	111	8	110	15	99	D
Pender	2	43	5	29	5	36	2	36	S
Southern Region Total	37	423	22	349	28	376	29	327	D
Trillium Catchment Total	70	726	46	656	51	664	54	678	U
North Carolina Total	402	5,710	324	5306	344	5,297	372	5,499	U

Source: N.C. Division of Motor Vehicles, Traffic Records Branch, N.C. Department of Transportation. Accessed 2/10/16.

Teen Motor Vehicle Data

Southern Region Teen Motor Vehicle Data Ages 15-19

County	2014 Crashes	2015 Crashes	Trend: Up, Down, Steady	2014 Fatalities	2015 Fatalities	Trend: Up, Down, Steady	2014 Injuries	2015 Injuries	Trend: Up, Down, Steady
Brunswick	347	404	U	2	0	D	103	110	U
Carteret	233	259	U	0	0	S	46	44	D
Jones	29	50	U	0	0	S	6	21	U
New Hanover	1025	1,172	U	0	0	S	200	240	U
Onslow	664	748	U	3	0	D	185	168	D
Pender	200	268	U	0	2	U	58	66	U
Southern Region Total	2,498	2,901	U	5	2	D	598	649	U
Trillium Catchment Total	4,876	5,493	U	9	6	D	1,202	1,357	U
North Carolina Total	40,650	45,590	U	95	81	D	10,491	11,653	U

Source: N.C. Division of Motor Vehicles, Traffic Records Branch, N.C. Department of Transportation. Accessed 2/6/17.

Motor Vehicle Fatality Trends

Southern Region Motor Vehicle Crash Fatalities: 5-Year Trend

County	2011	2012	2013	2014	2015	5-Year Average
Brunswick	22	28	13	14	12	17.8
Carteret	8	12	7	3	4	6.8
Jones	1	2	2	2	1	1.6
New Hanover	17	29	17	19	21	20.6
Onslow	19	22	24	21	24	22
Pender	13	9	15	19	13	13.8
Southern Region Total	80	102	78	78	75	82.6
Trillium Catchment Total	184	202	169	162	170	177.4
North Carolina Total	1,208	1,262	1,260	1,277	1,380	1,277

Source: N.C. Division of Motor Vehicles, Traffic Records Branch, N.C. Department of Transportation. Accessed 2/9/17.

Appendix D: Constituent Survey Summaries

Summary

Surveys and focus groups are two of the best known and most popular methods of assessing an organization's strengths and weaknesses. An effective survey can reveal a wealth of useful and easily quantifiable information. Reaching out to stakeholders, consumers and families as well as committee members also helps identify and prioritize needs and opportunities; it has long been a value of the Trillium LME-MCO since it has been doing needs assessments. The Trillium LME-MCO has maintained and strengthened its commitment to learn vital information from the people and families who access, deliver and need the Medicaid and non-Medicaid services offered by the public system. It uses that information to craft a system that is responsive to the needs and fills the gaps in behavioral health services that exist in its 24-county area.

The Gaps & Needs Analysis Report is an annual study of the service system and the people who live within the Trillium LME-MCO 24-county catchment area. The report explores where the services are available and how people use them. Ultimately, the analysis functions as a roadmap for determining future growth based on current capacity and identified gaps and needs.

The three Trillium Regional CFACs were instrumental this year in developing the Consumer and Family Survey. They took the distribution of the surveys very seriously and worked tirelessly to ensure consumers who were not able to access the online survey were given a hard copy survey. The CAFACs did an incredible job collecting the hard copy surveys. Also included this year for the first time were individuals who were listed on the Trillium B3 waiting list. Over 400 people are listed on the B3 waiting list with 274 of them never having received any service. Of the 274, 74 did respond to survey questions via telephone interviews.

In addition to being available online, Trillium surveys were available through a new Quick Response (QR) code developed specifically for each survey audience, which allowed the instruments to be answered via tablets or smart phones. Hard copies of the surveys were also available in English and Spanish. Surveys were advertised through the Trillium website, Trillium Facebook pages, and newspapers throughout the Trillium 24-county catchment area.

Trillium's e-learning training portal email listserv was used to distribute surveys to all participants who had taken any online training courses through the Trillium portal. Focus groups were held with Trillium LME-MCO Committees having external stakeholder members, including the Human Rights Committee, Clinical Advisory Committee and Provider Council. Hard copies as well as electronic surveys, were sent to the membership of all said committees. The Northern, Central and Southern Trillium Regional Consumer and Family Advisory Committees were vital in distributing hard copies of the surveys in the communities, assisting consumers in filling out and completing the surveys, and collecting the completed surveys.

Trillium LME-MCO made a concerted effort to distribute surveys and collect results as evidenced by the increase in the number of participants for the Stakeholder survey as well as the Consumer and

Family Survey from SFY2015 to SFY2016. The chart below shows a comparison of the number of respondents who took the surveys each year as well as the percentage increase from SFY2015 to SFY2016.

	SFY2015 Number of Respondents	SFY2016 Number of Respondents	% Increase from SFY2015 to SFY2016
Stakeholder Surveys	524	918	75%
Consumer & Family Surveys	578	784	36%
Total Survey Respondents	1,102	1,702	64.7%

Stakeholders

Mental health, developmental disabilities and substance use disorder service gaps identified by stakeholders included evidence-based treatment which was identified for all three disabilities. Also, both LME-MCO staff and providers wanted assurance that, if they referred consumers to a treatment agency, it provided quality services. For mental health, stakeholders spoke about the need for more crisis beds so consumers would not have to go to emergency rooms and jails. For I/DD services, stakeholders reported they wanted more Innovations Waivers, transitional services, residential programs, respite, and day programs that included treatment, social support, and activities. Stakeholders called for detox facilities, residential treatment, outpatient services, and follow-up services where substance use disorder services were concerned. Stakeholders also saw the need for integrated care and for services for individuals who are dually diagnosed. They all wanted more local services, more providers, and for the network of providers to be expanded.

The following gaps were the most frequently named by stakeholders:

- Services (*Lack of, access to, timeliness, continuum of, non-Medicaid/insurance funded*) Specific disability was not noted. (48 or 19.4%)
- Mental health services and supports (38 or 15.3%)
- SUD services and supports (33 or 13.3%)
- I/DD services and supports (27 or 10.9%)
- Bilingual providers/staff/interpreters (26 or 10.5%)
- Uninsured/underinsured, high co-pay (*Medically necessary but not covered services; expected cash payment, not funded by Medicaid*) (25 or 10.1%)

Consumers & Families

Access to services was by far the issue identified more often than any other issue by consumers and families. Over 5% of consumers and families wanted more education or information on how to find out what services are available. They also reported they particularly wanted information on the benefits of different programs and how they or their children could acquire skills to enhance or promote independent living (43 or 5.5%). Consumers and families also noted there were either no or few local providers.

The following needs were reported as the greatest unmet needs by consumers and families:

- Access to services and mental health services and supports (49 or 6.2% for both needs)
- Services for individuals with intellectual or developmental disabilities (30 or 3.8%)
- Employment or vocational services (29 or 3.7%)

- Housing (28 or 3.6%)
- Medical or healthcare (23 or 2.9%)
- Access to medications (21 or 2.7%)
- Independent living and life skills (21 or 2.7%)
- Financial stability or money to pay for services and/or medications (20 or 2.6%)
- Social support (20 or 2.6%)
- Transportation (19 or 2.4%)
- Day programs/treatment, including after school services and summer programs (17 or 2.2%)
- Respite services (14 or 1.8%)

There were 48 or 6.1% of consumers or families that specifically stated the need for services, particularly the Innovations Waiver and services for adults. Some of the consumers and families who wanted the Innovations Waiver reported they had waited as long as 8 years on the waiting list and still had not received the services. Several consumer and families were concerned and worried they would reach the age of transition and still not receive the Innovations Waiver.

Of 683 consumers and families, 615 or 90.0% reported they understood the survey questions. Of 706 consumers and families, 278 or 39.4% reported the survey asked questions that were important to them, while 355 or 50.3% indicated only some of the survey questions asked were important to them. Over 700 consumers or 55.2% were interested in knowing the survey results.

Committee Members

There was also a Trillium Committee Survey completed by 13 committee members who were also stakeholders. The following chart reflects the overall identified gaps by all respondents for mental health, intellectual-developmental disability and substance use disorders:

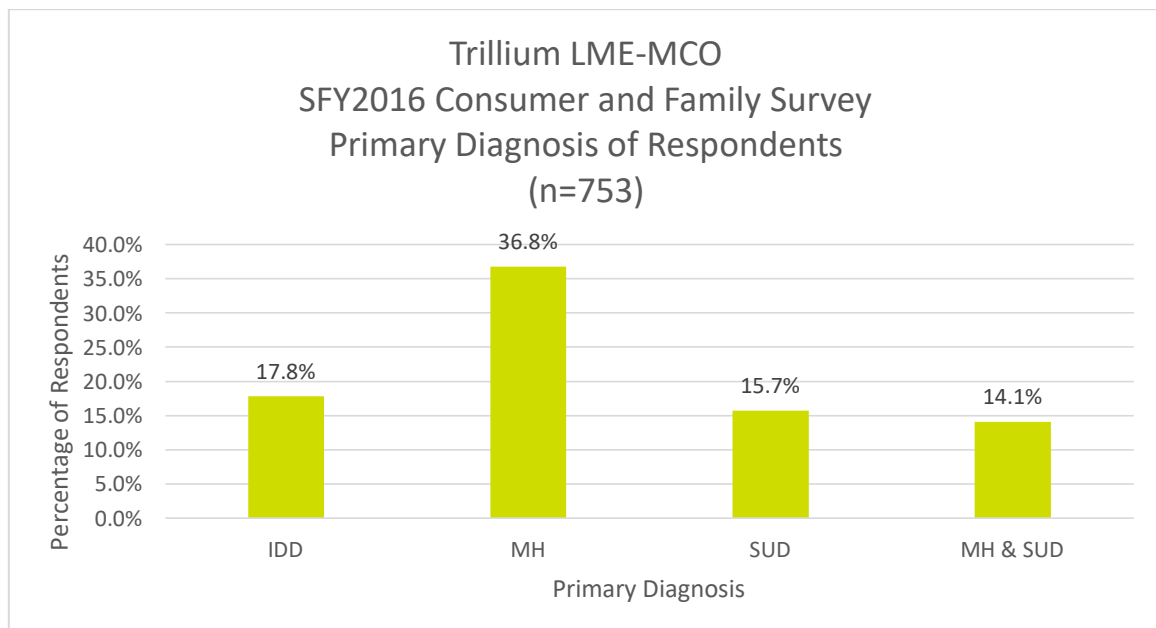
Mental Health Gaps	Intellectual-Developmental Disability Gaps	Substance Use Disorder Gaps
<ul style="list-style-type: none"> • Crisis services • Inpatient Services • Outpatient Plan and Services • Day Treatment • Medication Management • Psychiatric and Psychological Services • Trauma Services • Opioid Use Disorder Services • Case Management • Assertive Outreach 	<ul style="list-style-type: none"> • Dually Diagnosed I/DD and Mental Health • Inpatient Services • Outpatient Services • Opioid Use Disorder Services • Housing Supports 	<ul style="list-style-type: none"> • Detoxification Services • Inpatient Services • Outpatient Services • Opioid Use Disorder Services Prevention

Consumer and Family Survey Summary

A Consumer and Family Survey instrument was developed in conjunction with the three Trillium Regional Consumer and Family Advisory Committees (CFAC). The survey was made available in hard copy, in Spanish and posted online between January 5, 2017 and April 24, 2017. A total of 784 unique respondents took the survey and a total of 753 completed it. The vast majority of the hard copy surveys were dispatched and collected by the Trillium CFACs. Over half of the responses collected from consumers and families were hard copy responses. A special attempt was made to include consumers and their family members and potential consumers who were listed on the IDD Innovations Waiver Waiting List. The Trillium waiting list for IDD Innovations Waiver services in January, 2017 had 406 individuals listed, about half of whom were receiving B3 or other services from Trillium. Those individuals who were receiving B3 services were sent the survey. Additionally, telephone contact with over 200 of the individuals who are on the waiting list but have never received services resulted in 79 telephone surveys being completed. Trillium Consumer and Family Surveys collected for the SFY2016 report increased 36% over the number collected last year.

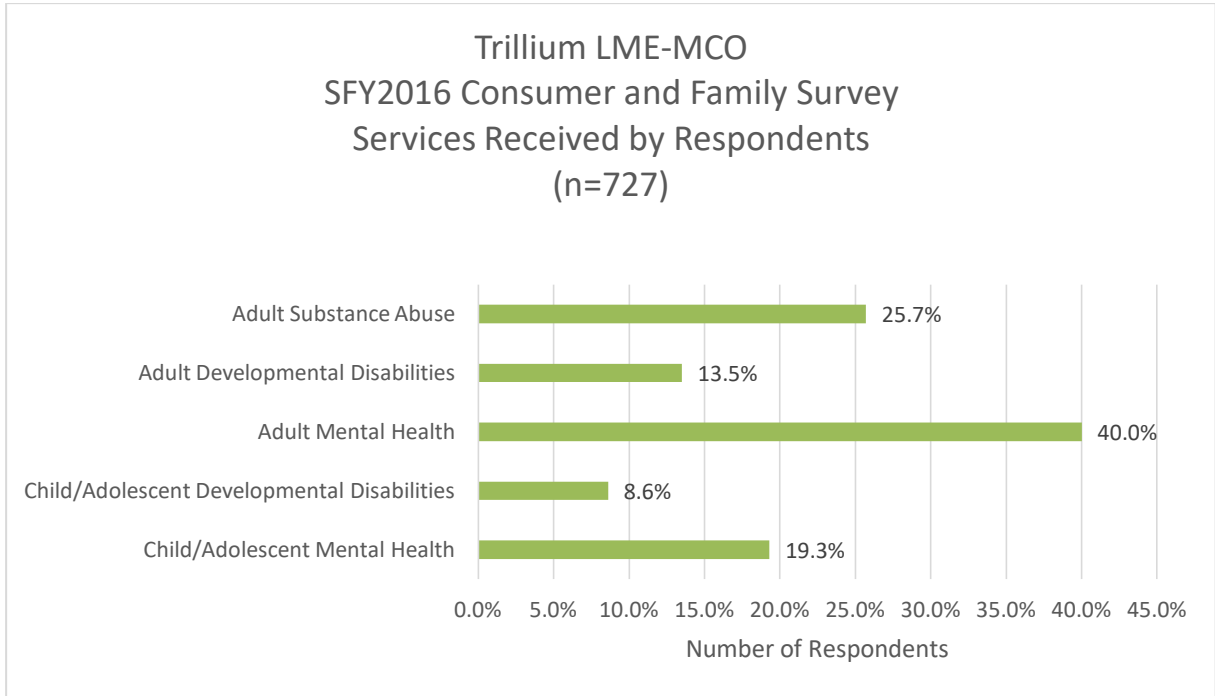
Trillium LME-MCO consumers and families were made aware of the survey through the Trillium website, Trillium Facebook pages and newspaper advertisements throughout the Trillium 24-county catchment area. The Northern, Central and Southern Trillium Regional Consumer and Family Advisory Committees were vital in distributing hard copies of the surveys in the community, assisting consumers in filling out and completing the surveys and collecting the completed surveys.

The following graph shows the percentage of respondents who identified their primary diagnosis as intellectual-developmental disability (IDD), mental health (MH), substance use disorder (SUD) or dual diagnosis (MH and SUD) at the time of this survey.



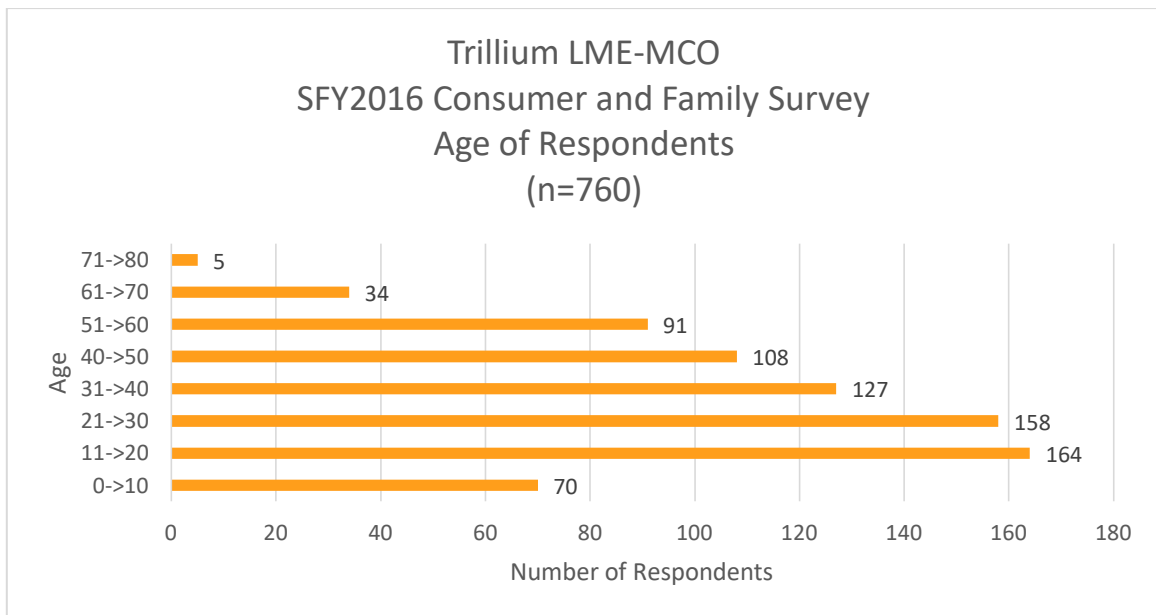
* Survey responses with fewer than 15 respondents were not included because they represented less than 2.0% of the total 784 survey respondents.

The following chart reflects the services and number of respondents who reported they received those services at the time of this survey. Respondents had the ability to select all services that applied to them.

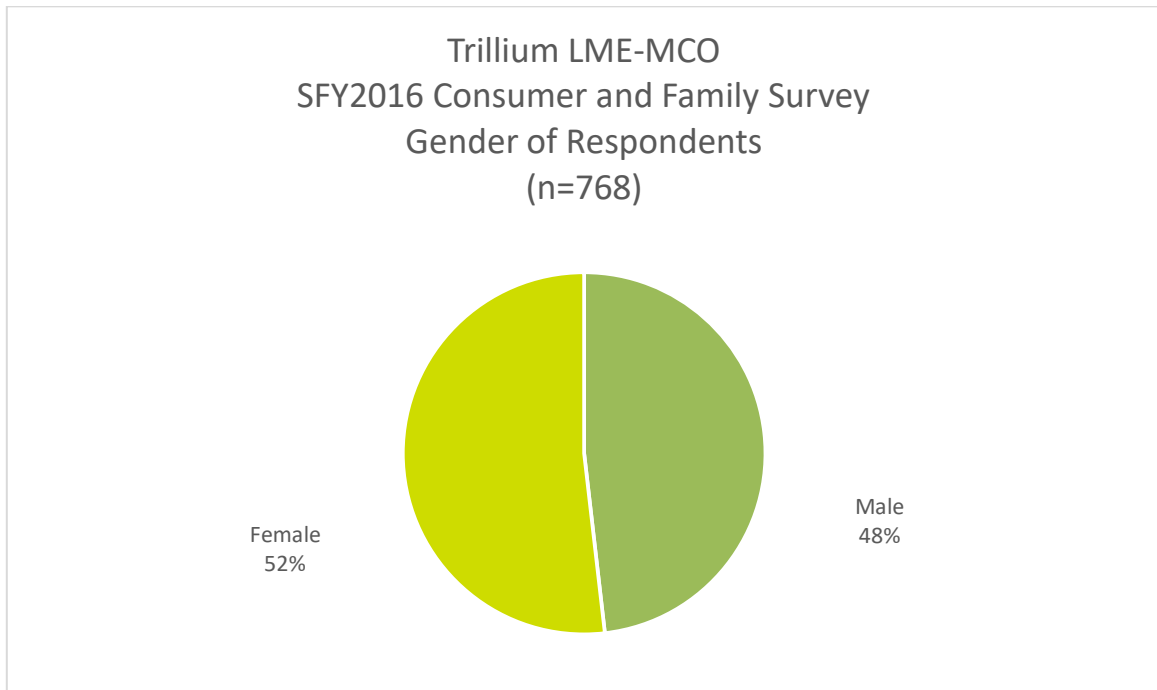


**Survey responses with fewer than 15 respondents were not included in the summary because they represented less than 2.0% of the total 784 survey respondents.*

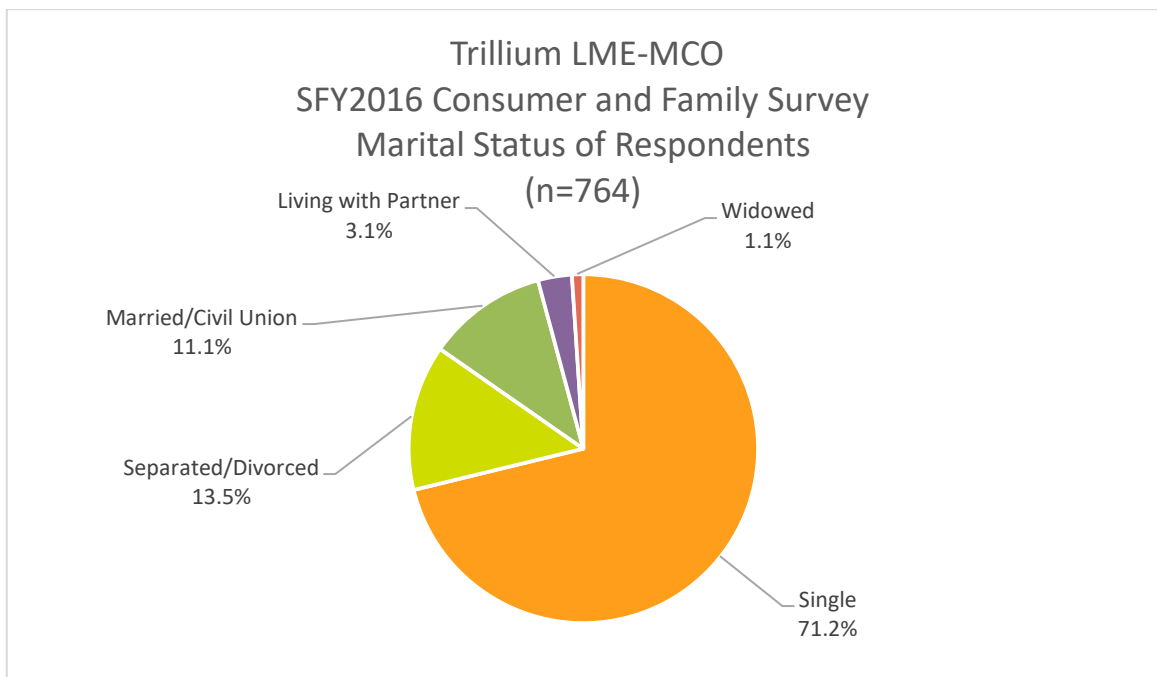
The average age of the respondents was 31.8 years old; ages ranged from 2-80 years old (n=760). The following chart represents the age of the respondents at the time of the survey and how many respondents reported their age.



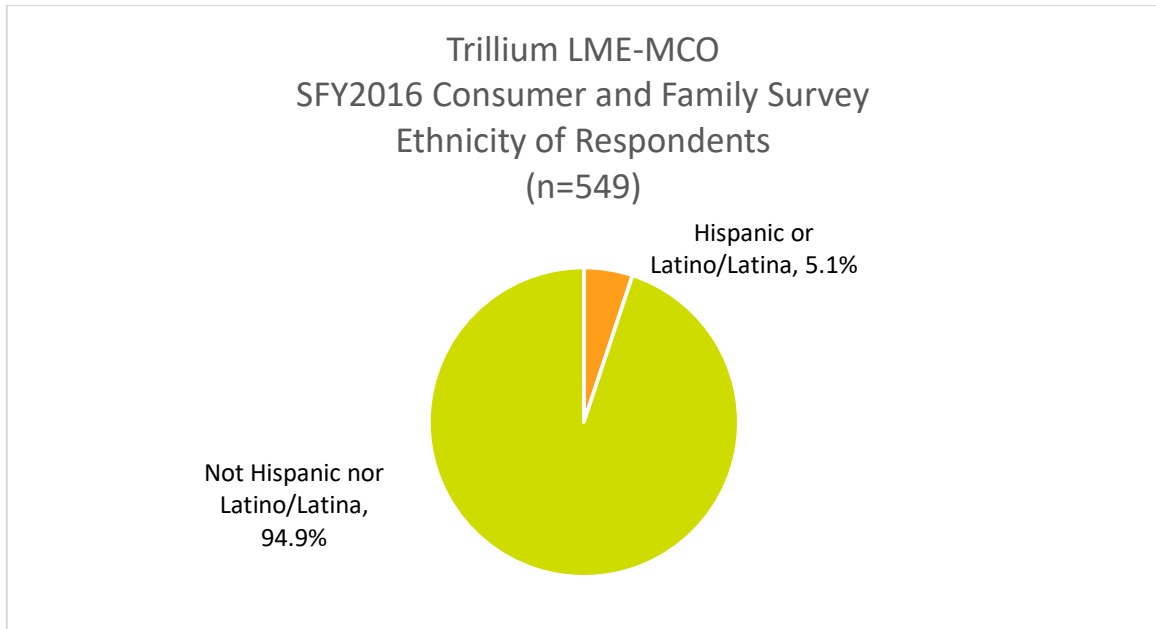
The following chart represents the percentage of respondents who reported they were either male or female. There were 2 (0.3%) respondents that indicated 'Other' when asked about their gender and 'Other' is not represented in the chart below because it represents less than 1% of the total 784 survey respondents.



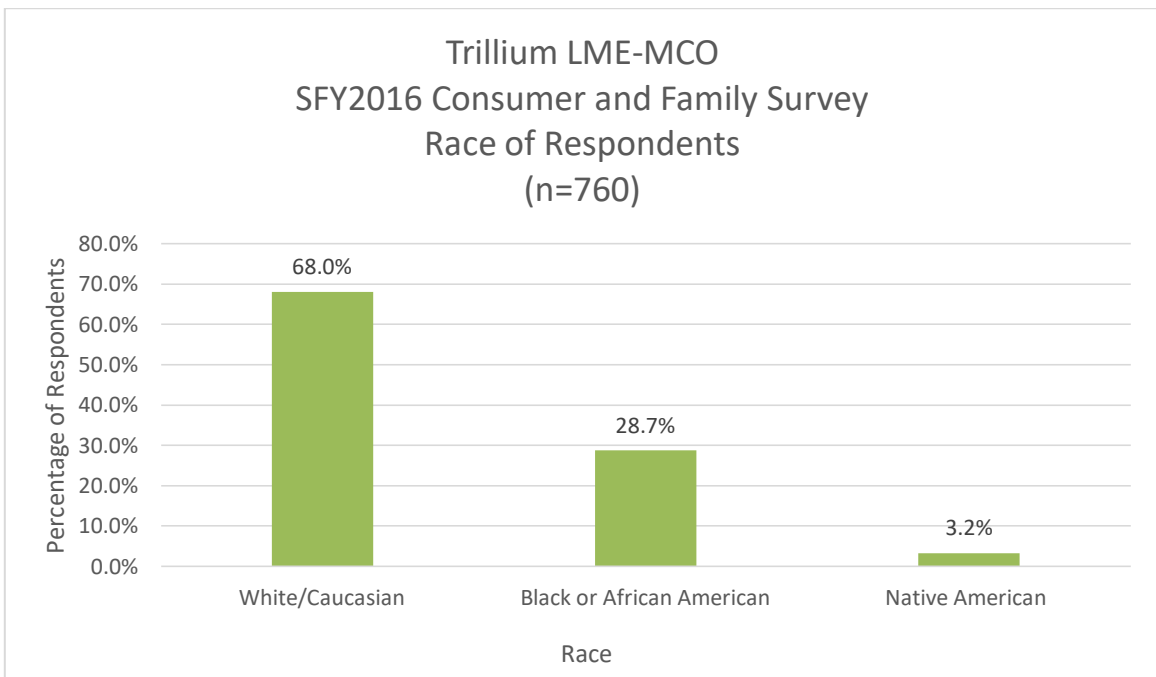
The following graph represents the percentage of respondents that reported what their marital status was at the time of the survey.



Respondents reported on their ethnicity and out of the 549 respondents that answered this survey question, 28 or 5.1% of respondents reported that they were Hispanic or Latino/Latina while 521 or 94.9% of respondents reported that they were not Hispanic or Latino/Latina.

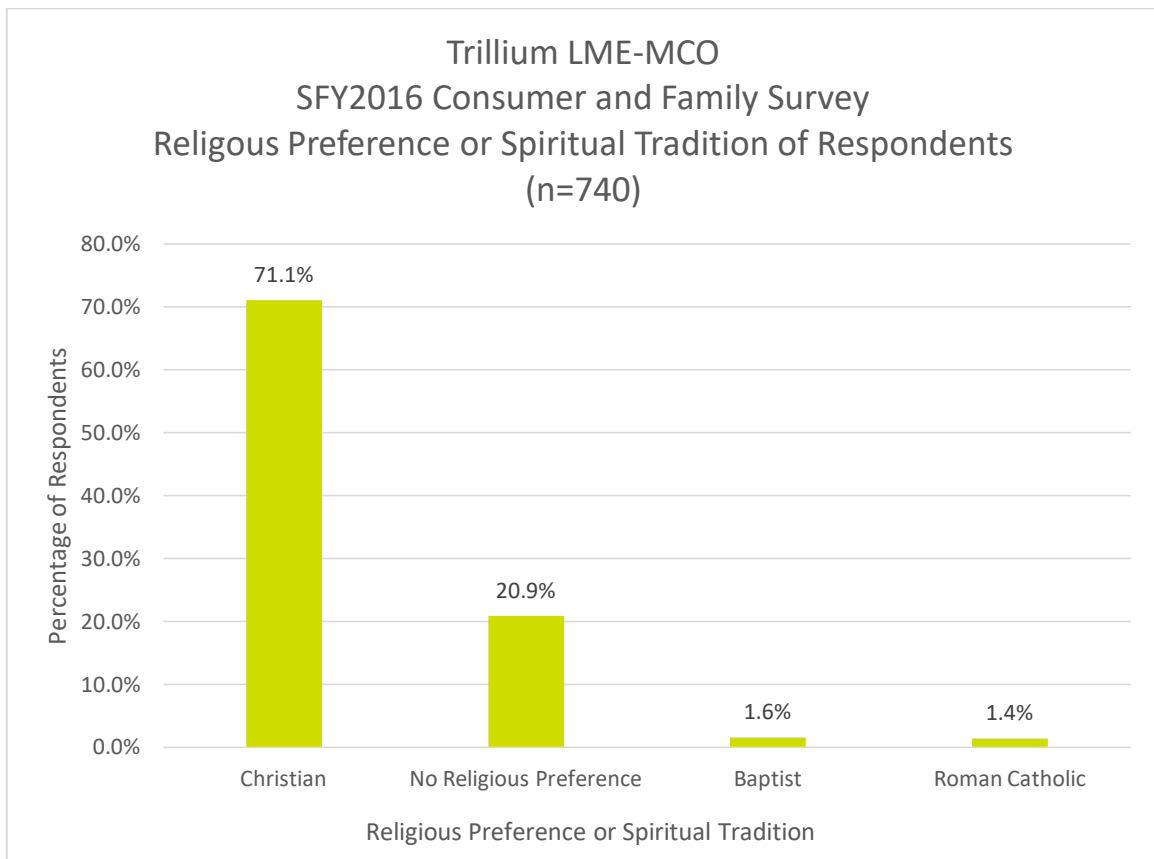


Respondents were asked what their race was and 517 or 68.0% of respondents reported their race as White/Caucasian. Respondents were able to select all races that applied to them. The following graph shows the percentage of each race as reported by the respondents.



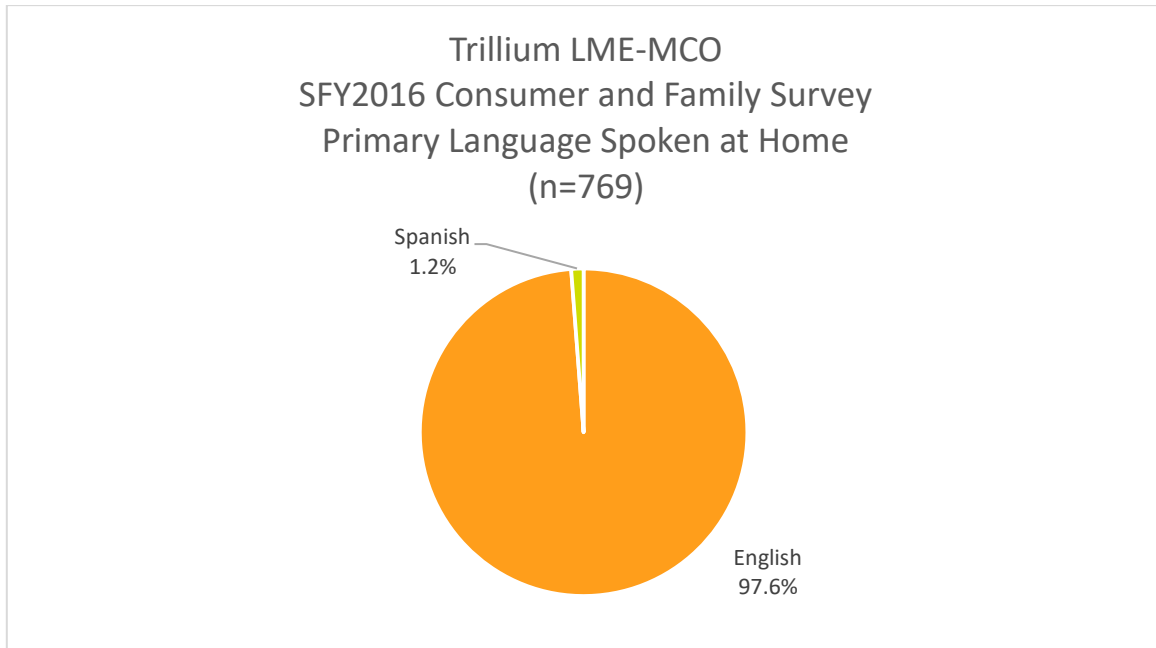
**Survey responses with fewer than 15 respondents were not included in the summary because they represented less than 2.0% of the total 784 survey respondents.*

In terms of religious preference or spiritual tradition, 526 or 71.1% of respondents reported they were Christian and 155 or 20.7% of respondents reported no religious preference or spiritual tradition. The chart below represents the percentage of respondent's and their religious preference or spiritual tradition.



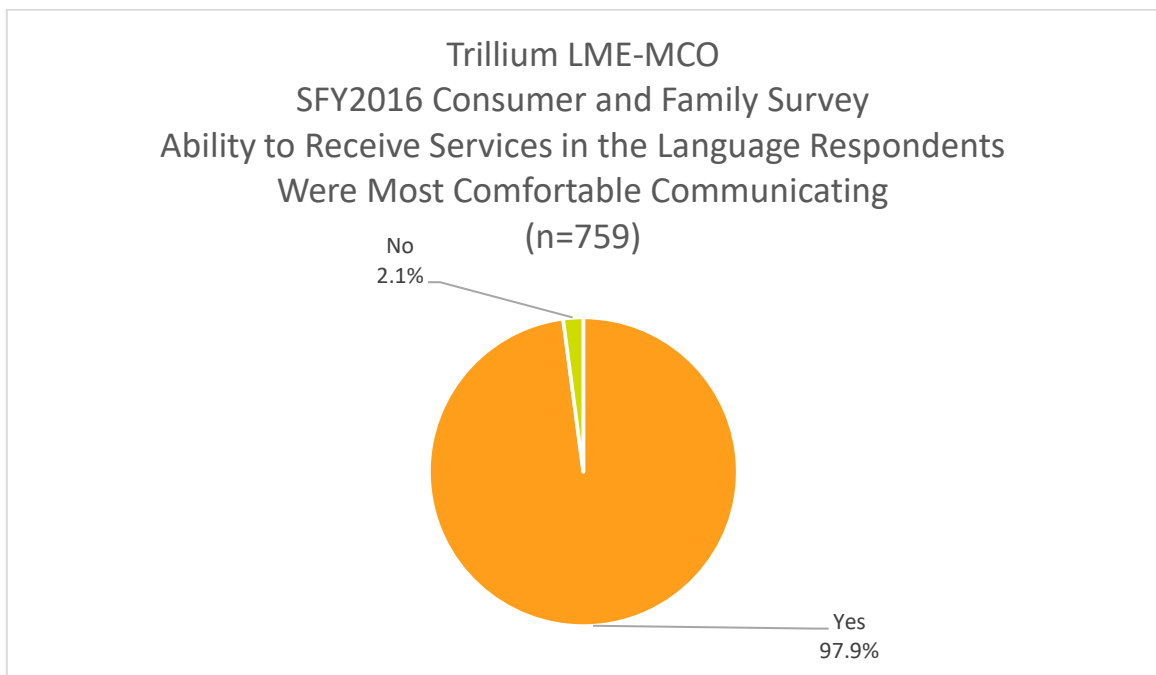
**Survey responses with fewer than 7 respondents were not included in the summary because they represented less than 1.0% of the total 784 survey respondents.*

There were 751 or 97.7% respondents that reported their primary language spoken at home was English, while 9 or 1.2% reported that Spanish was the primary language spoken at home. The following chart represents the percentage of respondents and their reported primary language spoken at home.

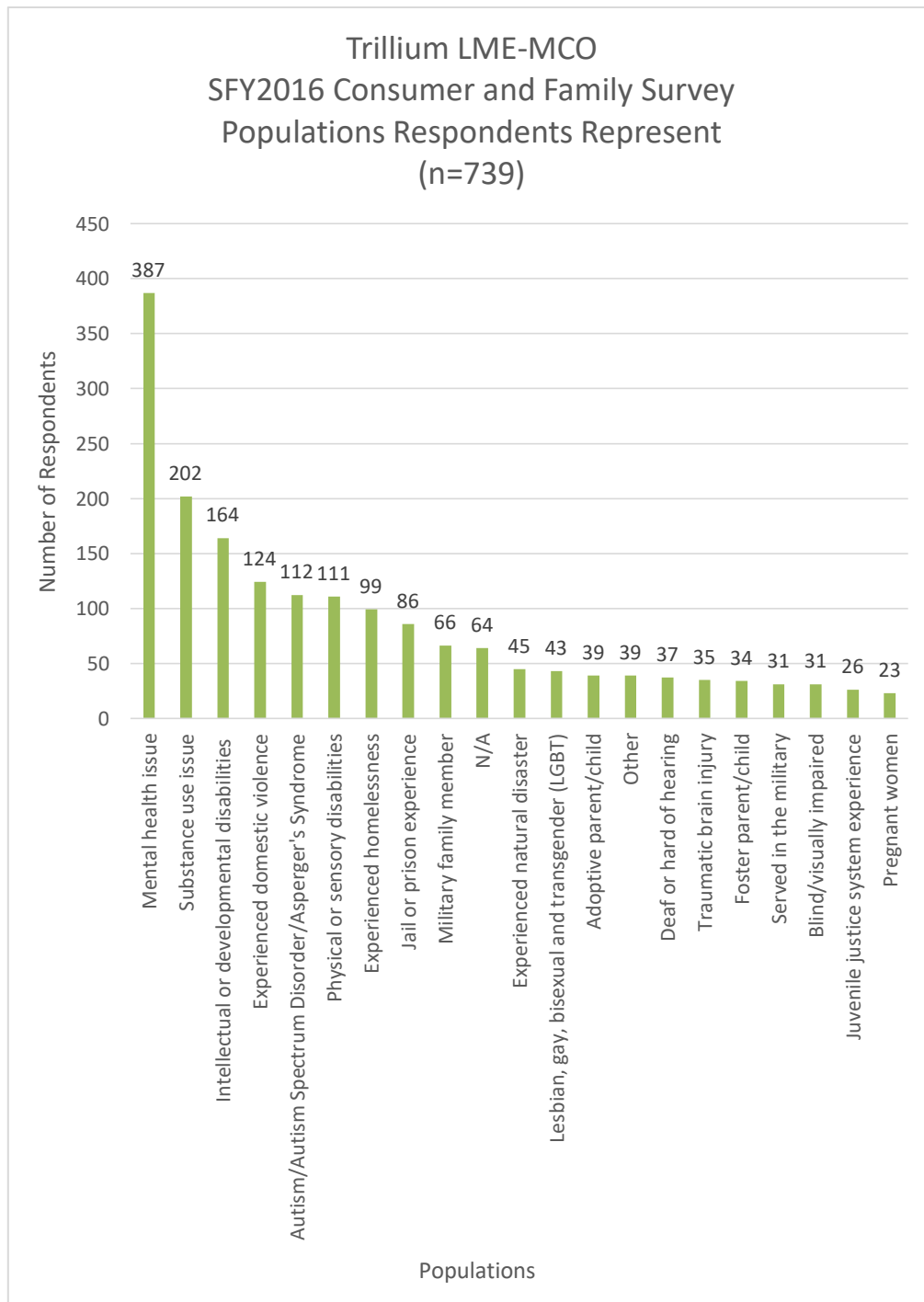


**Survey responses with fewer than 7 respondents were not included in the summary because they represented less than 1.0% of the total 784 survey respondents.*

The following chart shows 743 or 97.9% of respondents reported they were able to receive services in the language in which they were most comfortable communicating.



The following chart shows the number of people who identified with each population. Respondents had the ability to choose all that applied to them as well as check N/A if none of the categories applied.

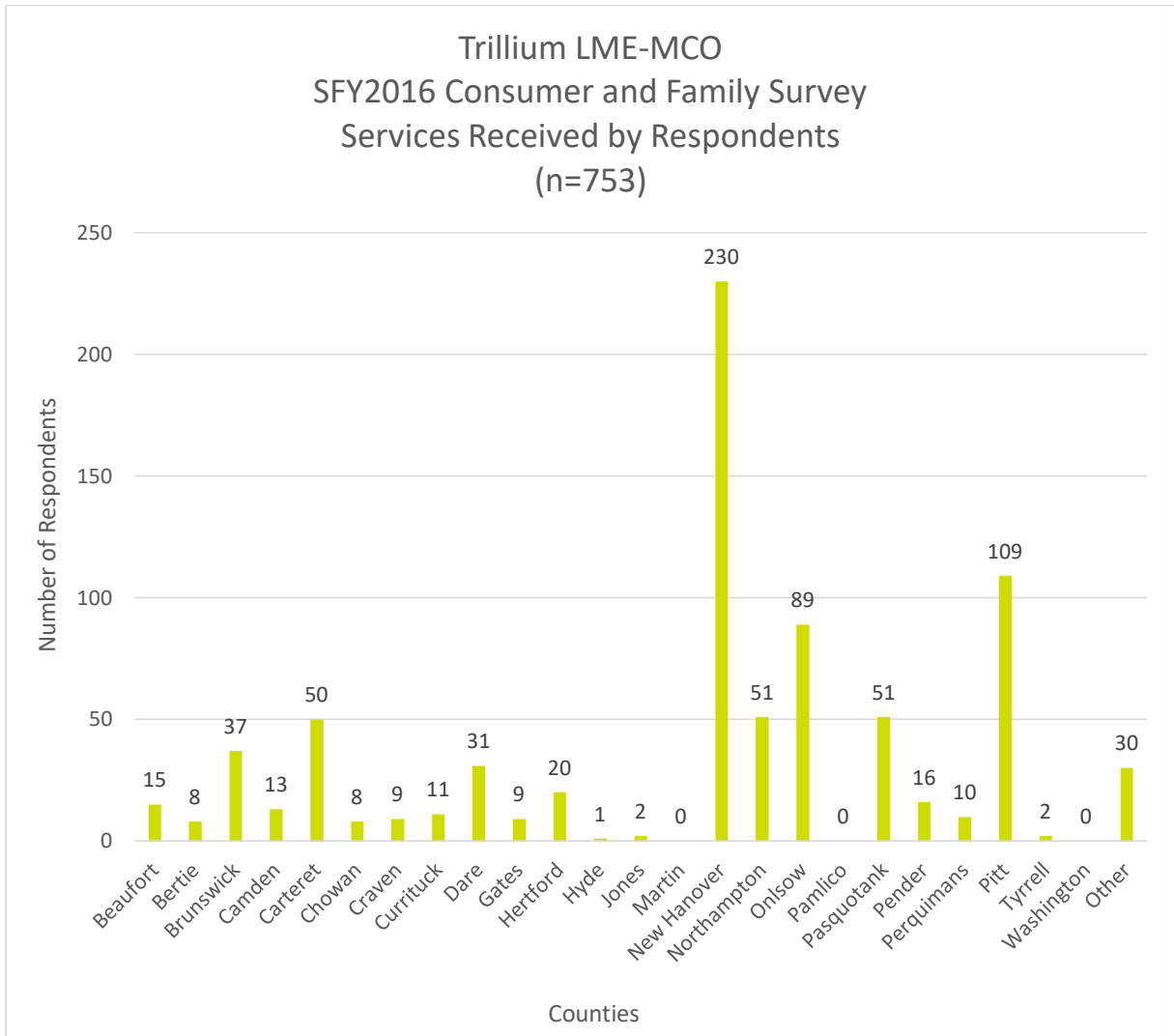


*Survey responses with fewer than 15 respondents were not included in the summary because they represented less than 2.0% of the total 784 survey respondents.

*Served in the military includes examples of Air Force, Army, Coast Guard, Marine, Navy, National Guard, and Reserve.

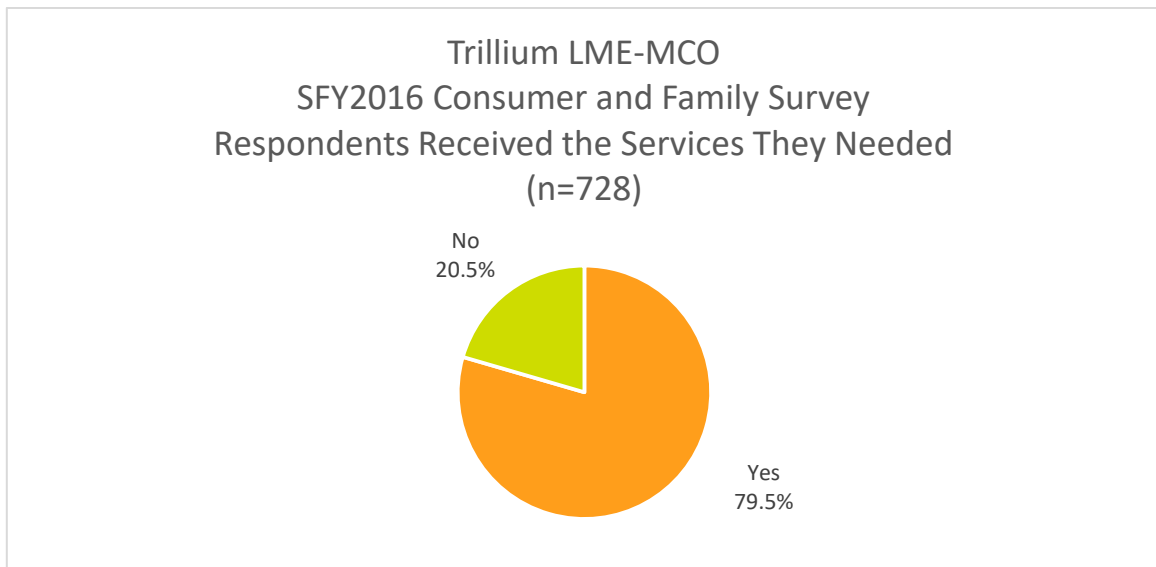
*Military family members includes examples of children, siblings and parents.

The following graph represents the Trillium LME-MCO 24-county catchment area in which respondents reported they received services at the time of this survey. The top three counties represented are New Hanover (230 or 30.5%), Pitt (109 or 14.5%), and Onslow (89 or 11.8%).

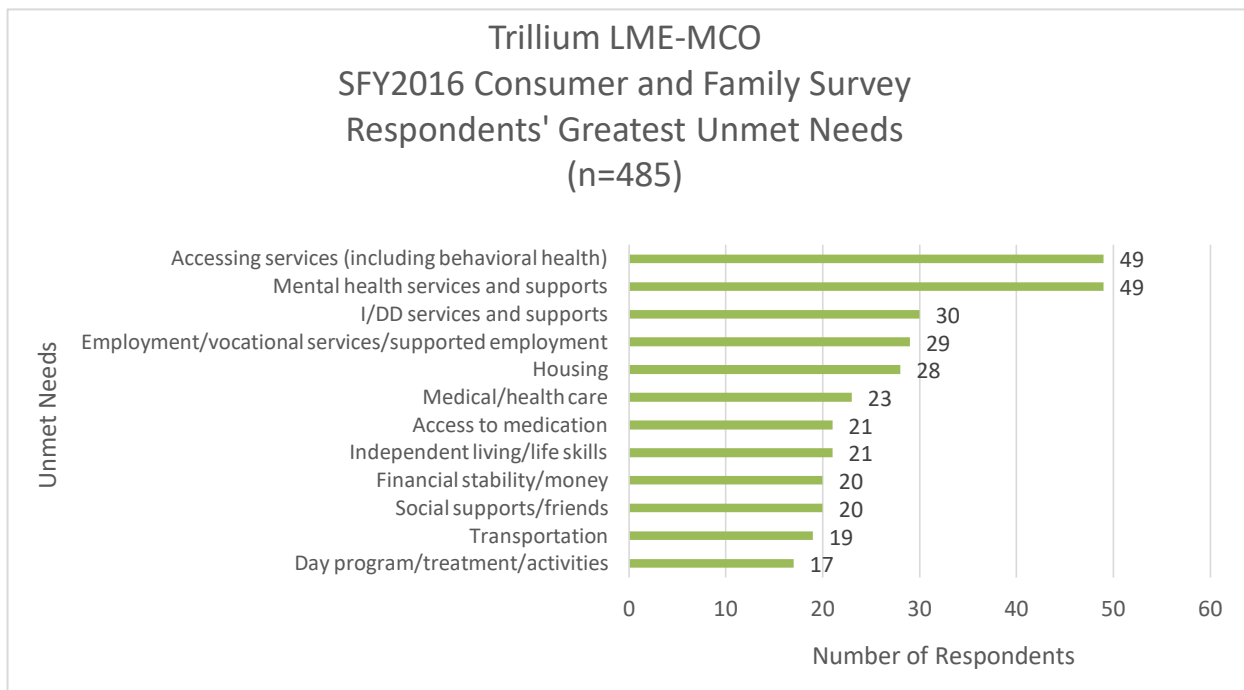


"Other" included respondents that reported they received services outside of the Trillium LME-MCO 24-county catchment area, respondents not receiving services at all, and respondents that reported "not applicable" (N/A).

The next chart reflects the percentage of respondents who reported they were getting the services they needed at the time of this survey.



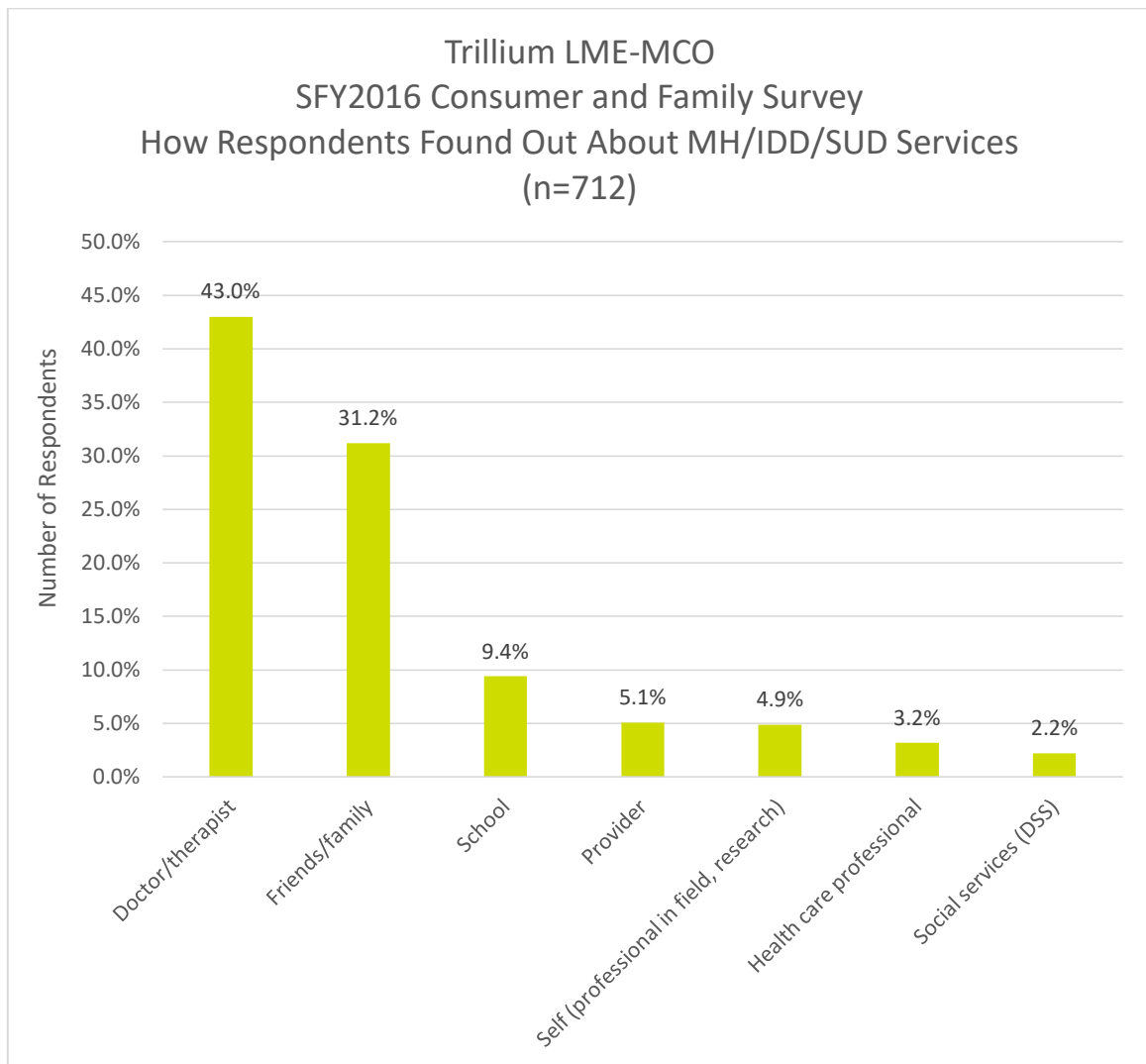
Respondents were asked if they were not getting the services they needed, what services did they need and the top response was accessing services (25 or 3.2%). The top three greatest unmet needs reported were accessing services (46), mental health services and supports (46) and I/DD services and supports (30). The following graph reflects the respondents' answers when asked what their greatest unmet needs were.



*Survey responses with fewer than 15 respondents were not included in the summary because they represented less than 2.0% of the total 784 survey respondents.

*Day program/treatment/activities including after school services and summer programs.

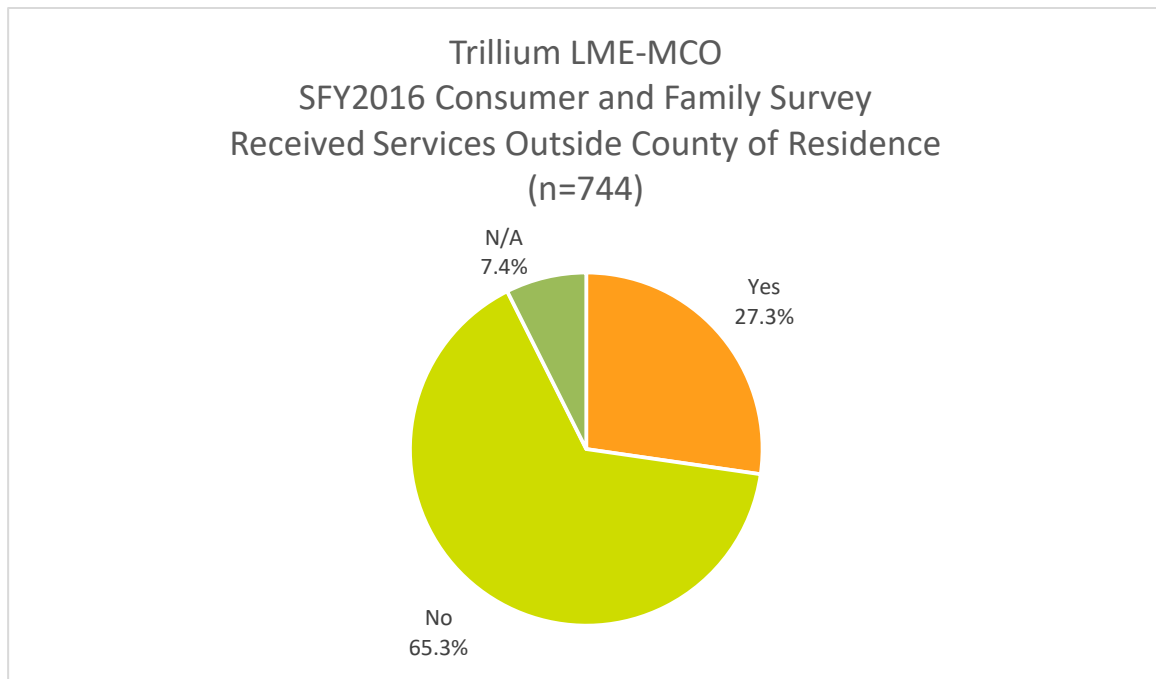
The top two ways respondents reported they found out about mental health, intellectual-developmental disability or substance use disorder services were by doctor/therapist (306 or 43.0%) and friends/family (222 or 31.2%). The following graph reflects the number of respondents and how they found out about services.



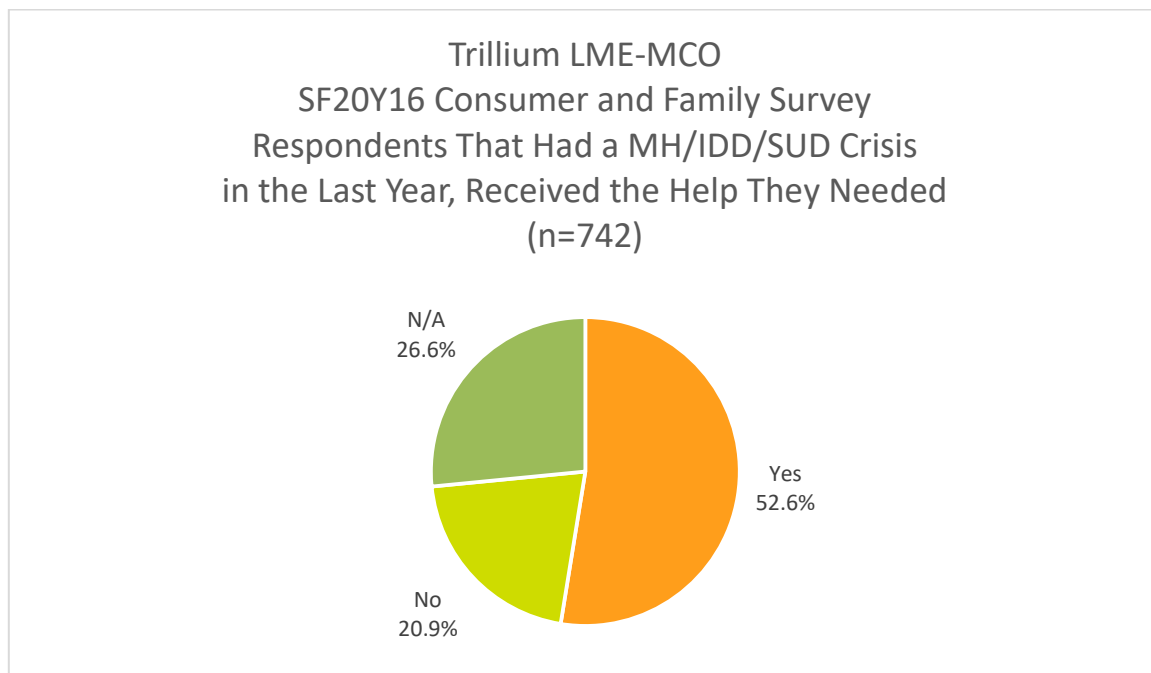
**Survey responses with fewer than 15 respondents were not included in the summary because they represented less than 2.0% of the total 784 survey respondents.*

**Healthcare professional examples include physician, nurse, emergency room, hospital and health department)*

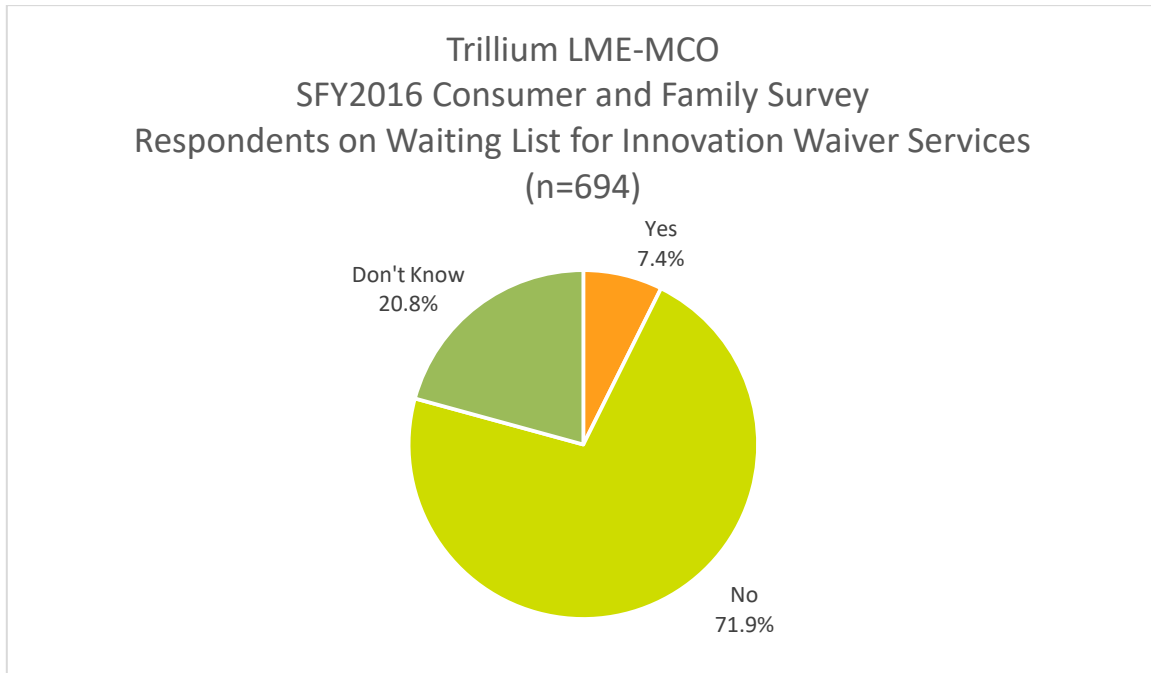
Of the 744 respondents, 203 (27.3%) reported they had to go outside the county they lived in for mental health, intellectual-developmental disability or substance use disorder services in the past year.



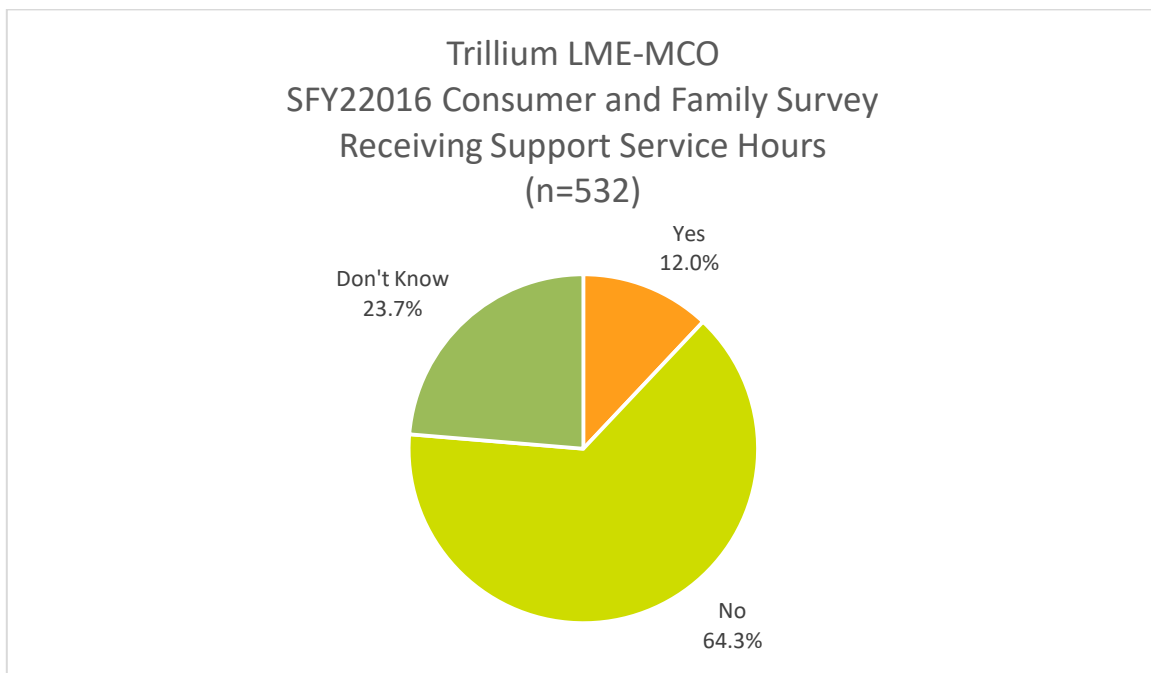
The following chart represents the percentage of respondents that reported they had a mental health, intellectual-developmental disability or substance use disorder crisis in the past year and either received or did not receive the help they needed.



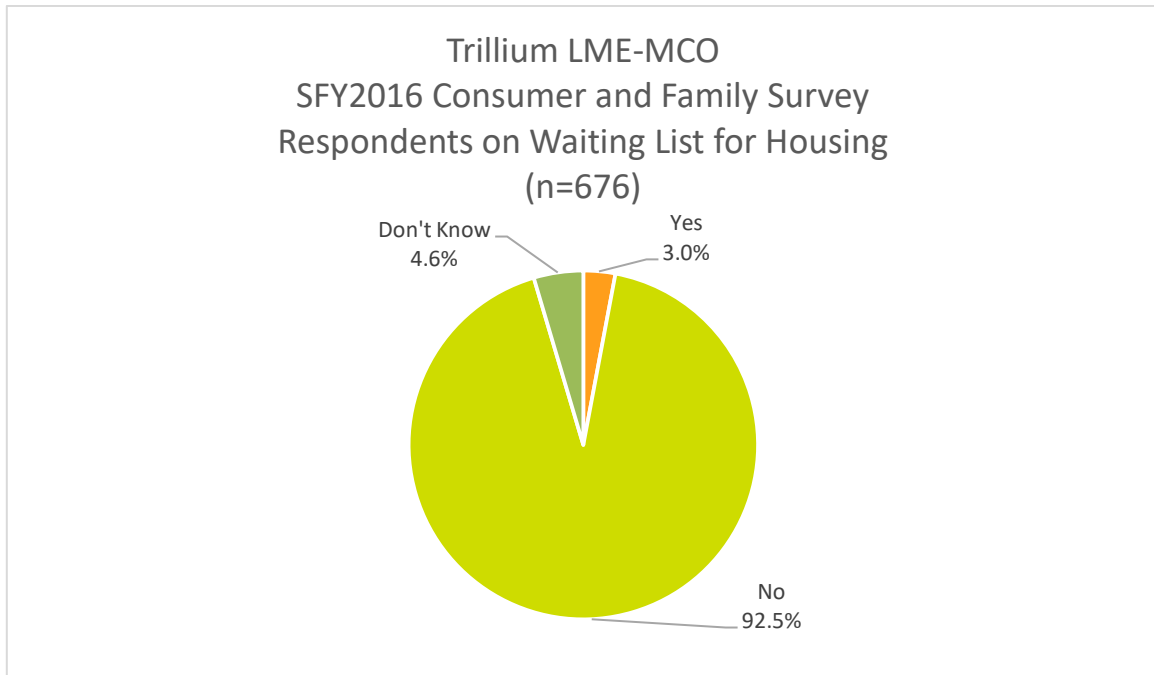
Of 694 respondents, 499 (71.9%) reported they were not on a waiting list for Innovation Waiver services. The following chart shows the percentage of respondents that reported they were, were not, or did not know if they were or were not on the waiting list for Innovation Waiver services.



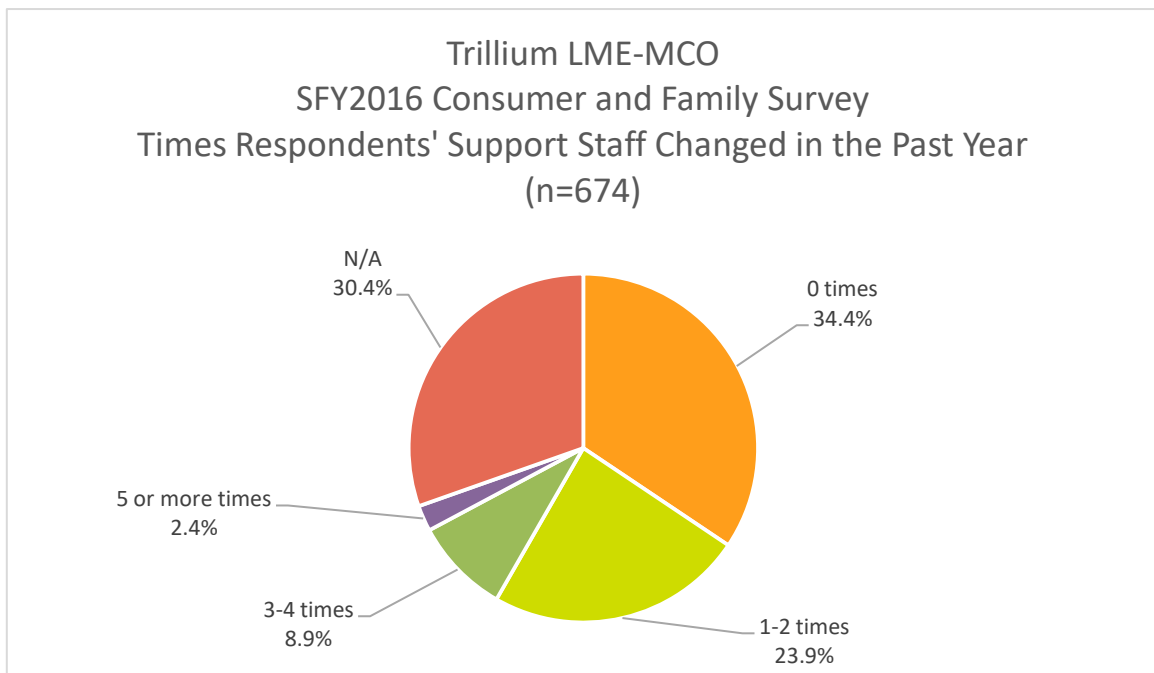
For those respondents that reported they were on the waiting list for Innovation Waiver services, 64 (12.0%) reported they were receiving support service hours. The following chart represents the percentage of respondents who reported they were receiving support service hours while they were on the waiting list for Innovation Waiver services.



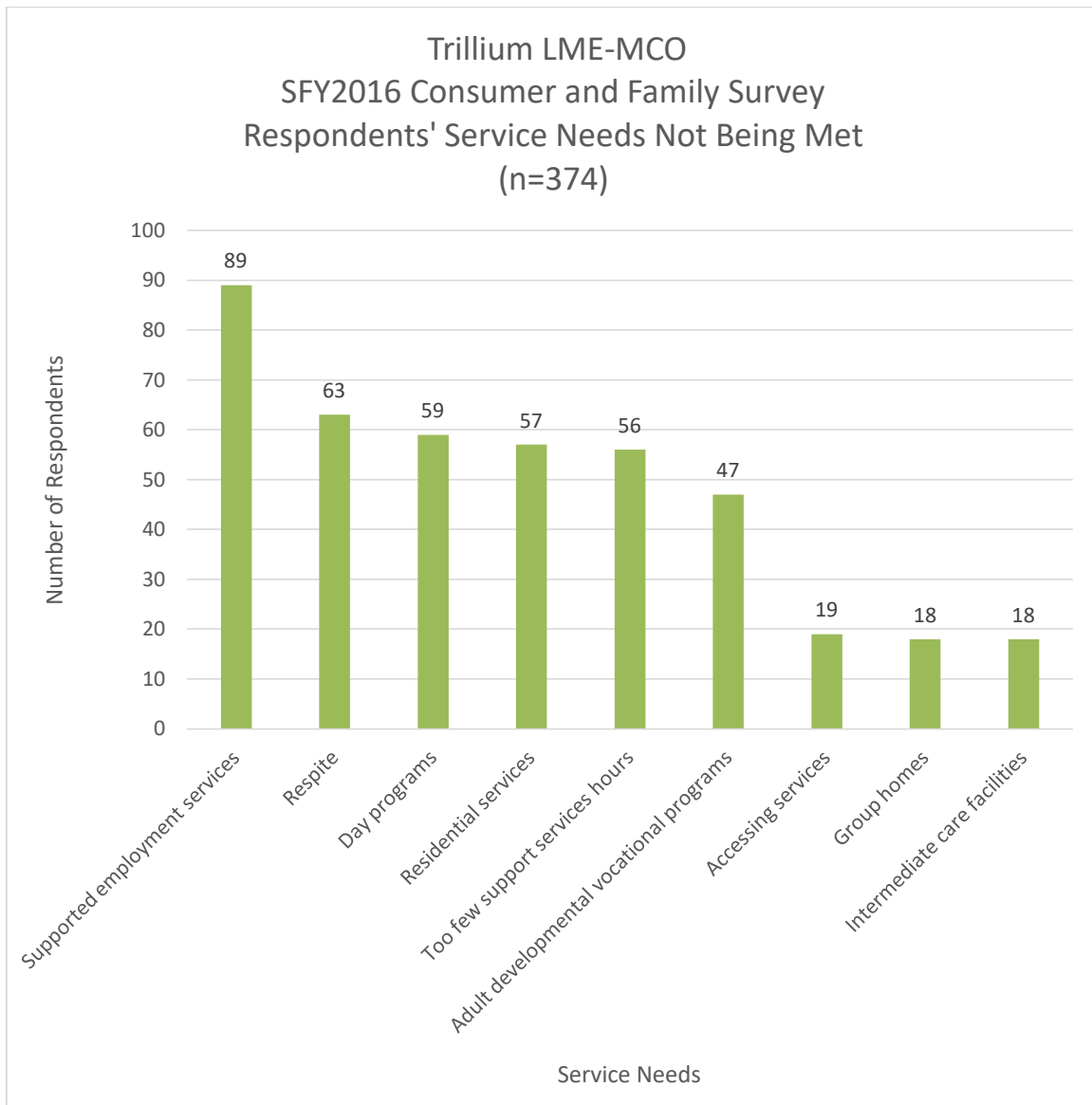
The following chart reflects the percentage of respondents who reported they were on a waiting list for housing such as group homes or intermediate care facilities.



The next chart represents the percentage of respondents who reported the number of times in the past year their support staff had changed. Of 674 respondents, 205 (30.4%) respondents reported not applicable.

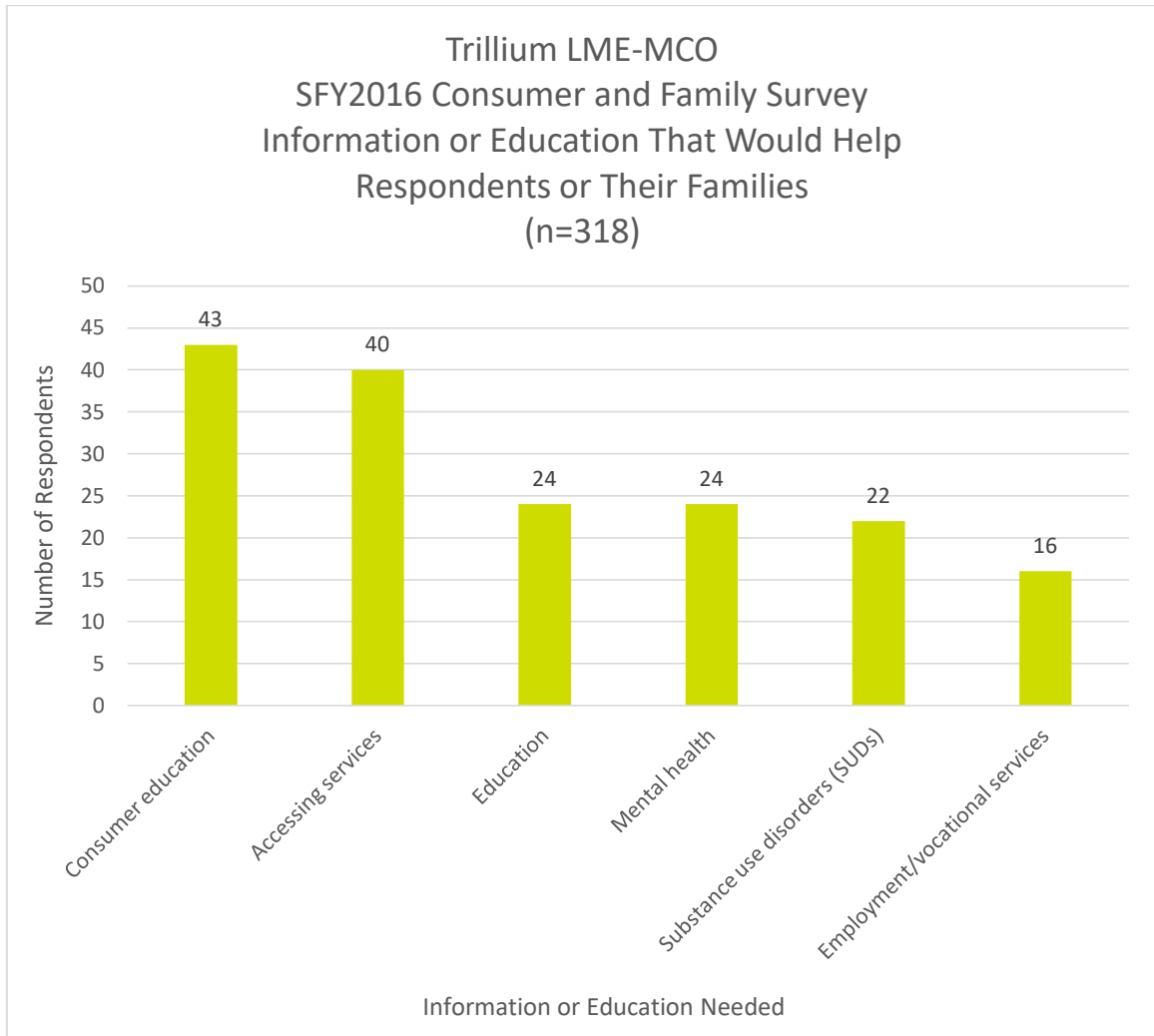


The following graph represents the number of respondents and what service needs they reported were not being met at the time of the survey. Respondents were able to check all service needs that applied to them.



*Survey responses with fewer than 15 respondents were not included in the summary because they represented less than 2.0% of the total 784 survey respondents.

The next question asked the respondents what information or education would help them or their families. Respondents had the ability to write their answers. The graph below reflects responses from the respondents as well as the number of respondents who reported the same responses.



*Survey responses with fewer than 15 respondents were not included in the summary because they represented less than 2.0% of the total 784 survey respondents.

*Consumer education examples include benefits of different program, guardianship, Medicare, Social Security Income (SSI) and independent living.

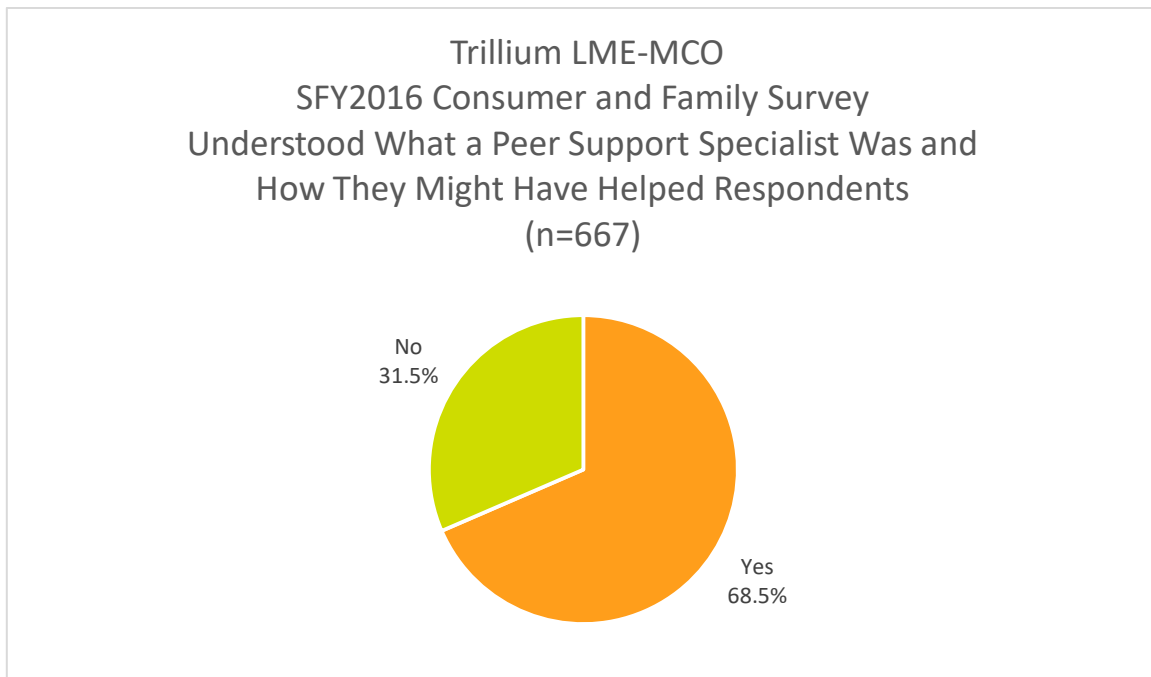
*Accessing services examples include what services are available.

*Education examples include returning to school, general equivalency diploma (GED), college, certifications.

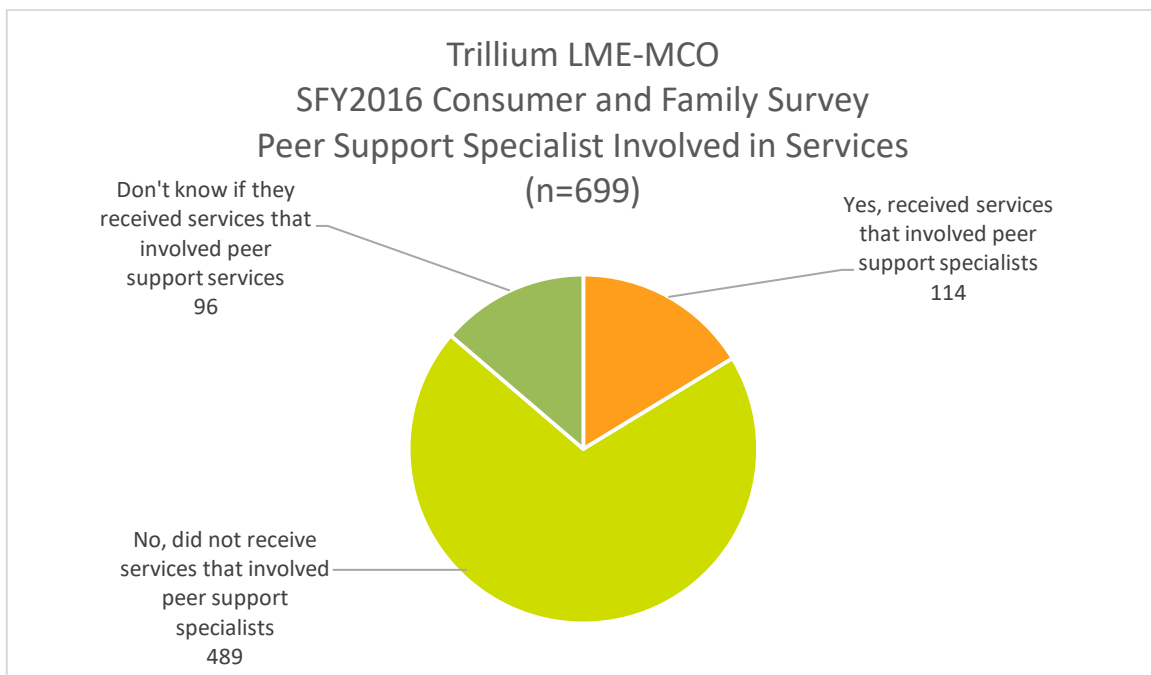
*Substance use disorder examples include information about addiction.

*Mental health including depression and anxiety.

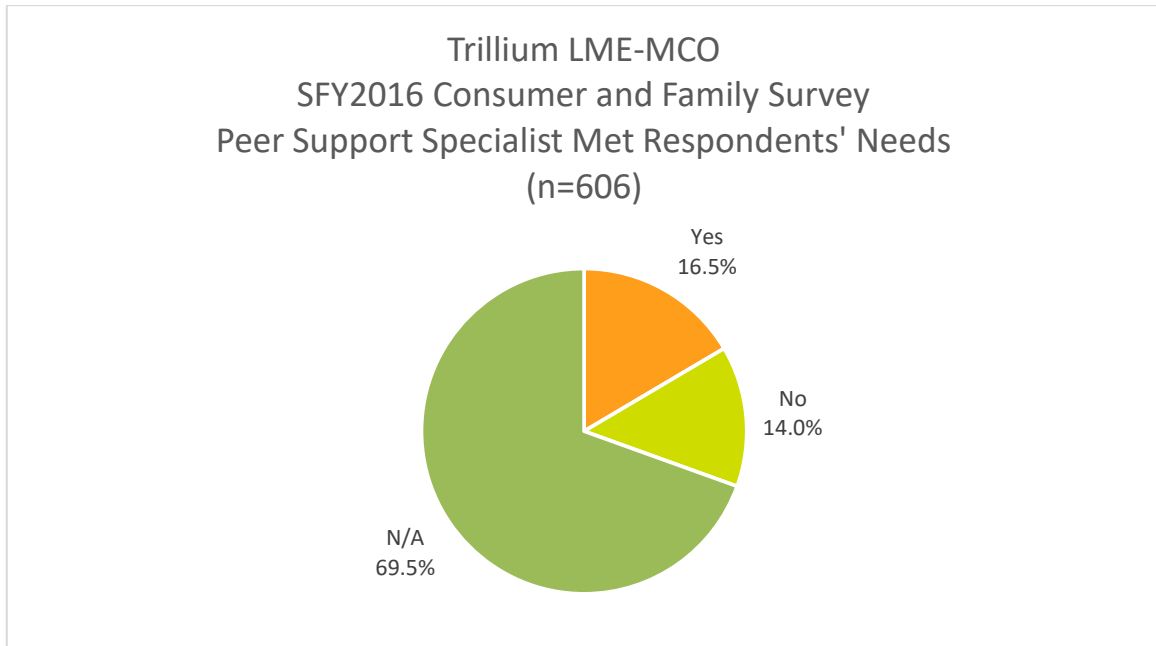
The following chart represents the percentage of respondents that understood what a peer support specialist was and how a peer specialist might have helped them.



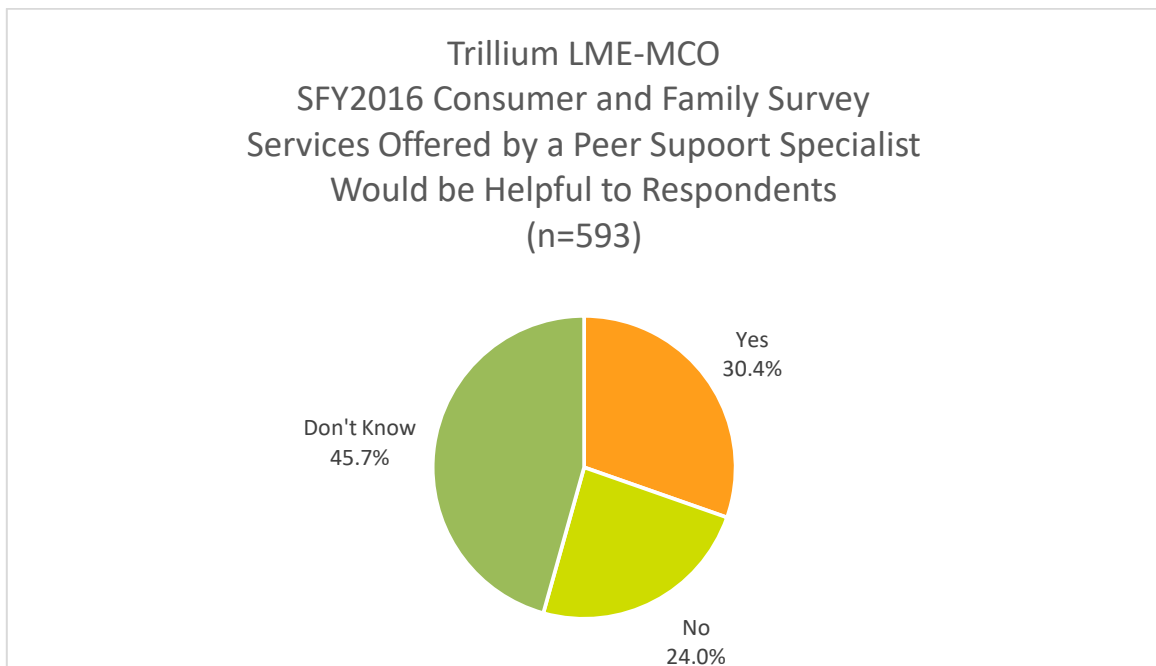
The following chart represents the number of respondents who had received, had not received or did not know if they had received any service that involved a peer support specialist.



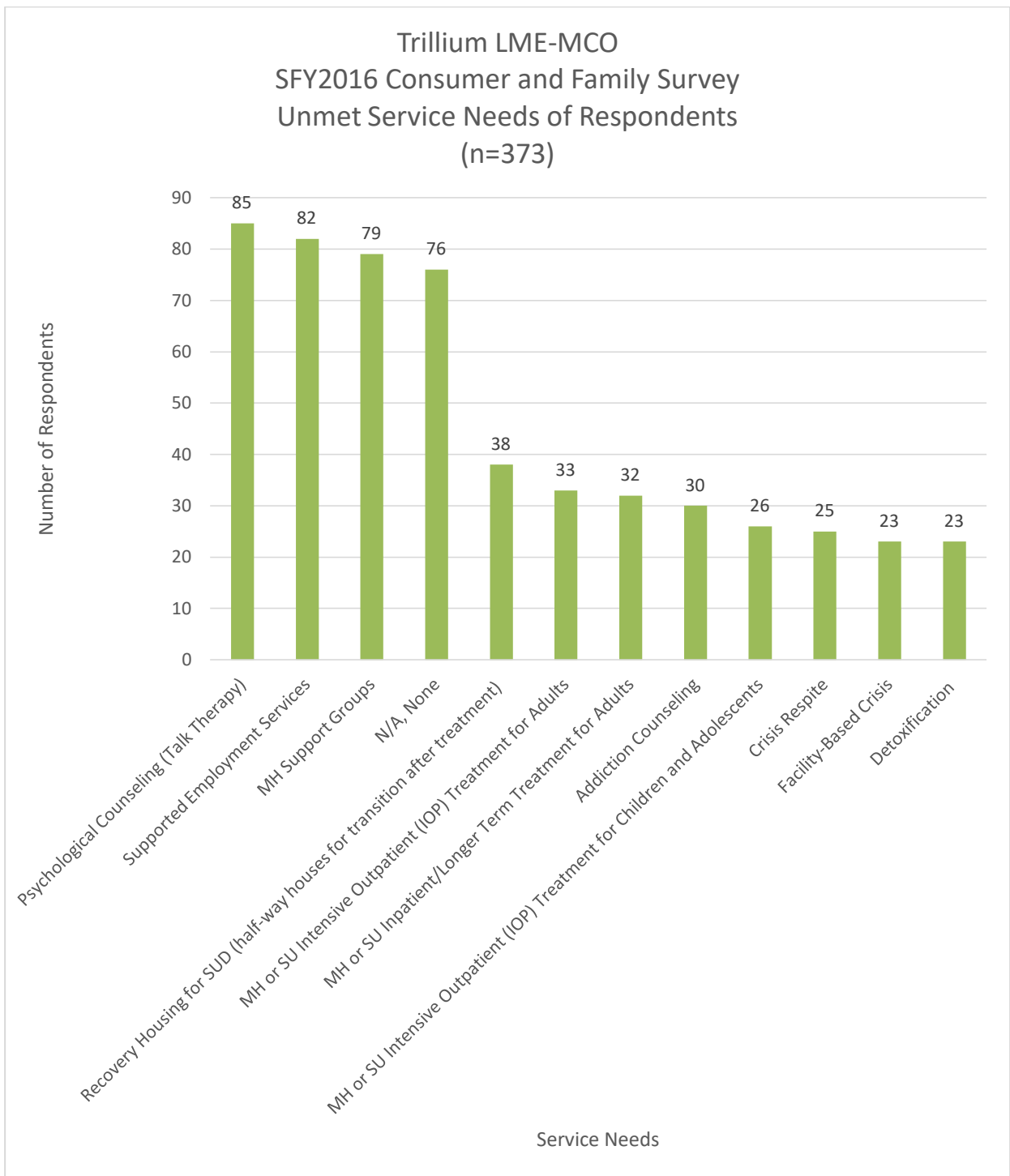
Of the respondents that reported they received services that involved a peer support specialist, 100 (16.5%) respondents reported the peer specialist met their needs. The following chart shows the percentage of respondents that felt the peer support specialist met their needs.



For those respondents that reported they did not receive services that involved a peer support specialist, 180 (30.4%) thought services offered by a peer support specialist would be helpful to them in their situation, 142 (24.0%) reported they did not think a peer support specialist would be helpful to them in their situation and 271 (45.7%) reported they did not know if services offered by a peer support specialist would be helpful to them.

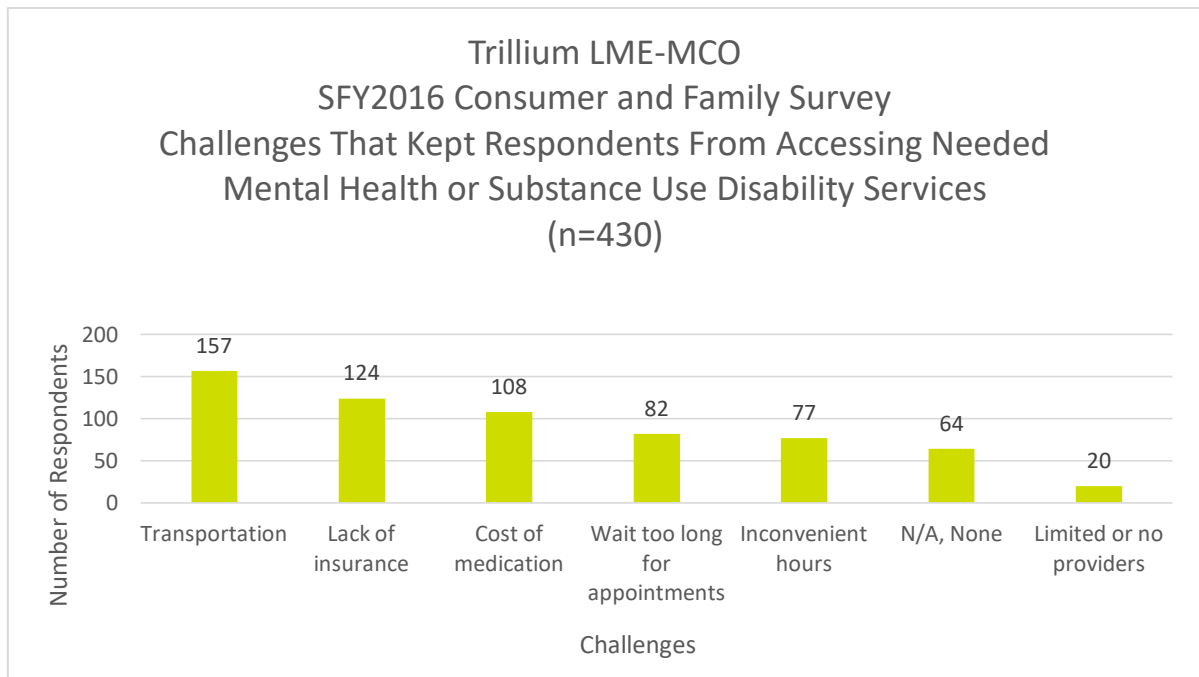


The following graph reflects what service needs respondents reported were not being met at the time of this survey. The top three unmet service needs were psychological counseling (85 or 22.8%), supported employment services (82 or 22.0%), and mental health support groups (79 or 21.2%). Respondents had the ability to check as many service needs as applied to them.



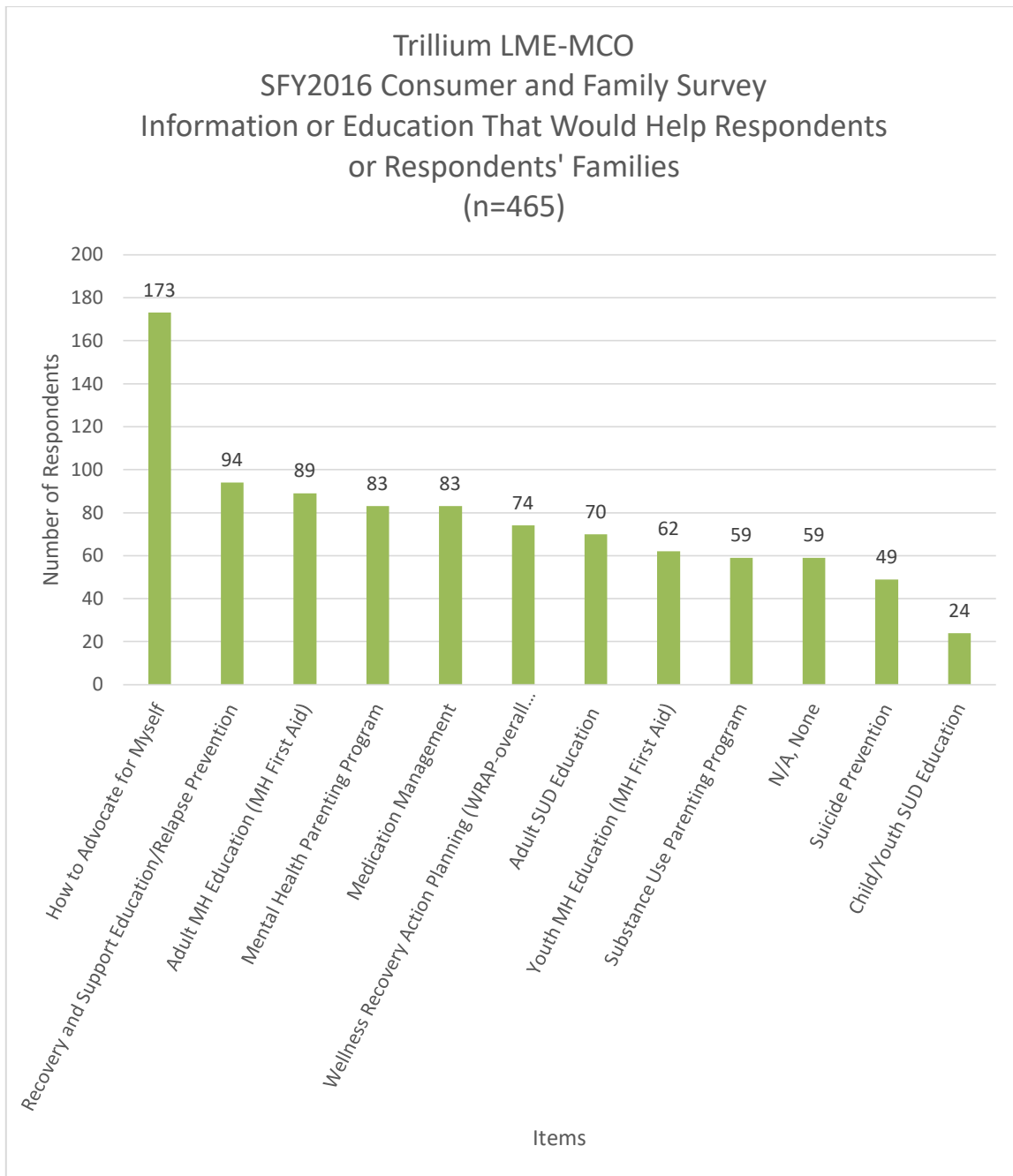
*Survey responses with fewer than 15 respondents were not included in the summary because they represented less than 2.0% of the total 784 survey respondents.

Challenges respondents identified that kept them from accessing mental health or substance use disability services they needed are reflected in the graph below.



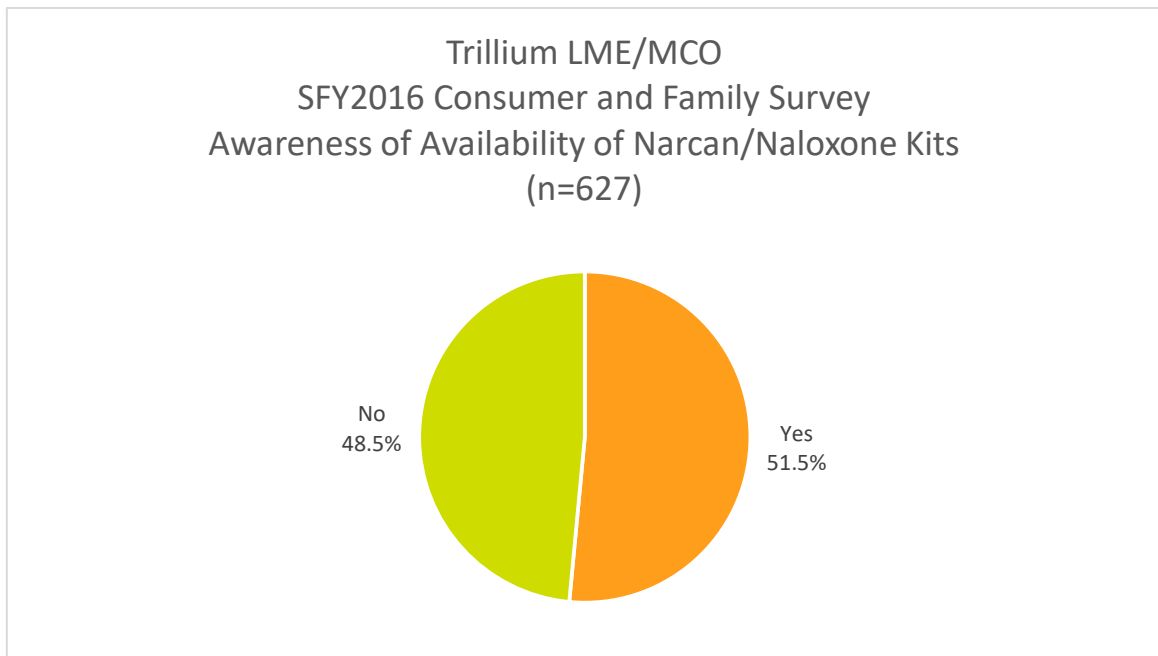
**Survey responses with fewer than 15 respondents were not included in the summary because they represented less than 2.0% of the total 784 survey respondents.*

The following graph represents information or education that respondents reported would be helpful to them or their families. Respondents had the ability to check off all items that applied to them or respondents could list any items that were not already listed.

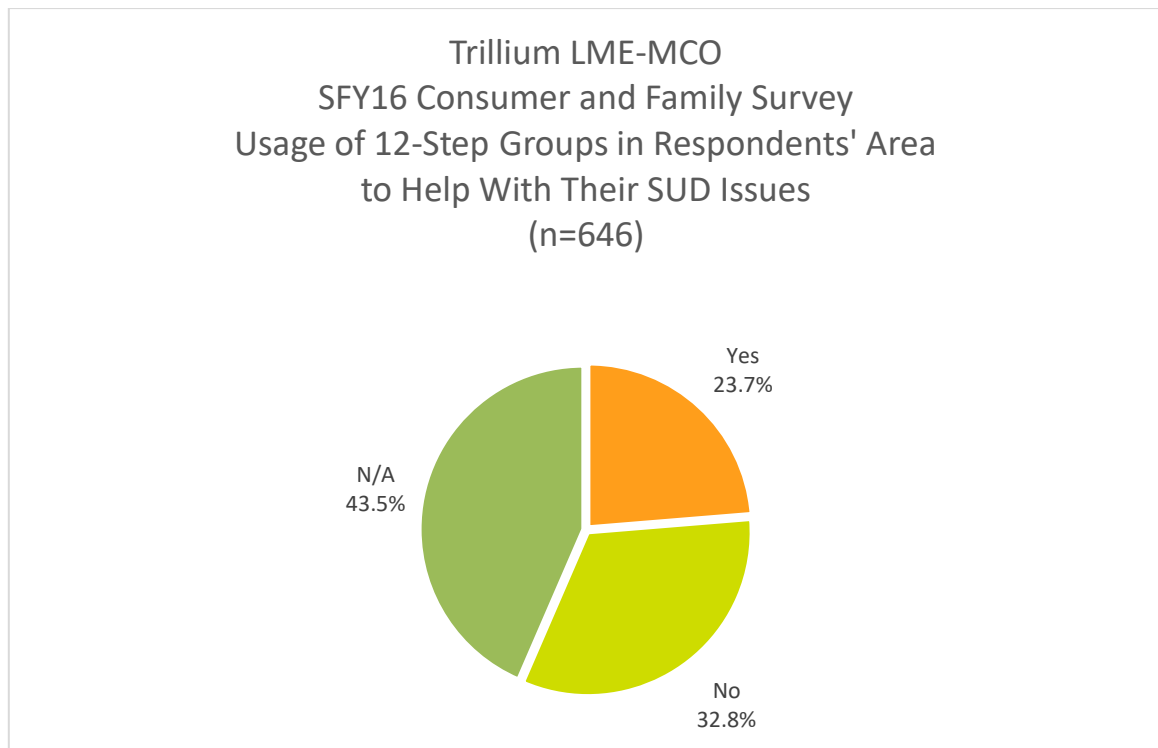


*Survey responses with fewer than 15 respondents were not included in the summary because they represented less than 2.0% of the total 784 survey respondents.

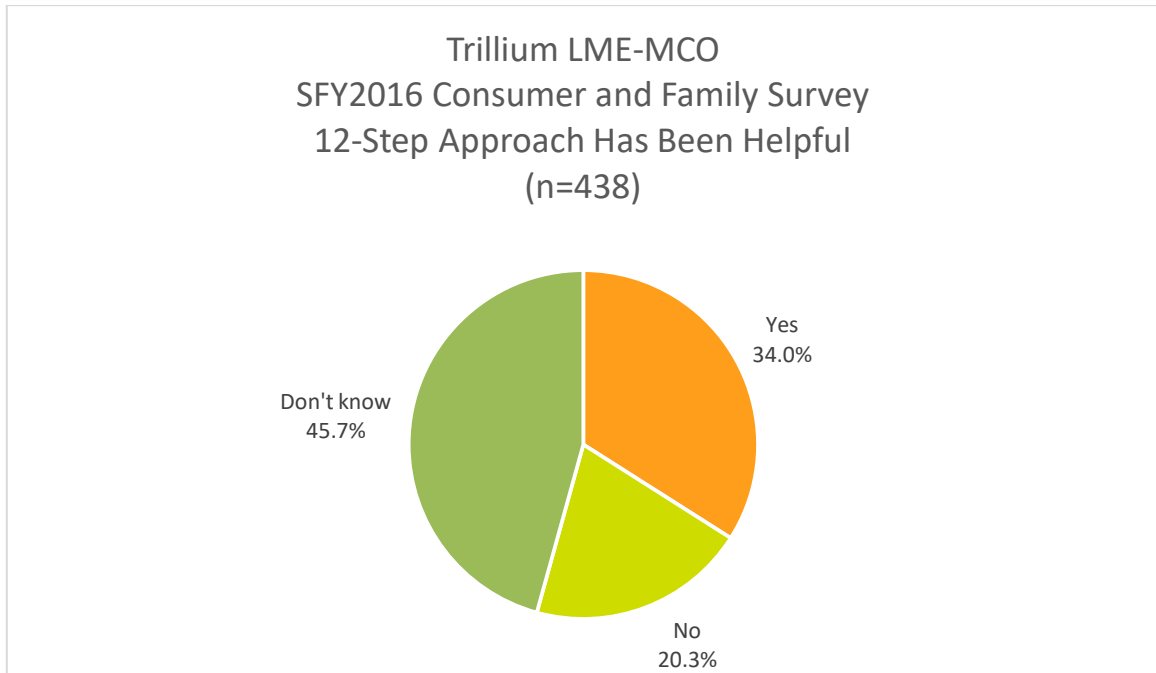
The next chart reflects the percentage of respondents that were or were not aware of the availability of Narcan/Naloxone kits to save lives from opiate (Heroin, Oxycodone, etc.) overdoses.



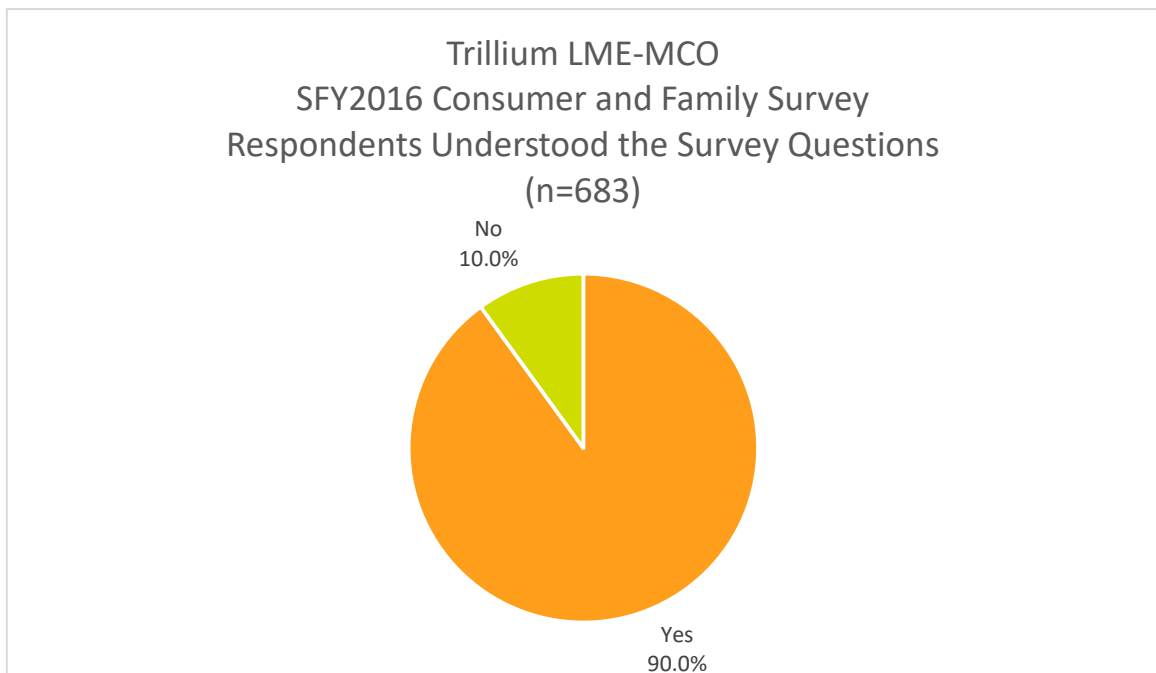
The chart below represents the percentage of respondents that were or were not using a 12-step group in their area to help with their SUD issues.



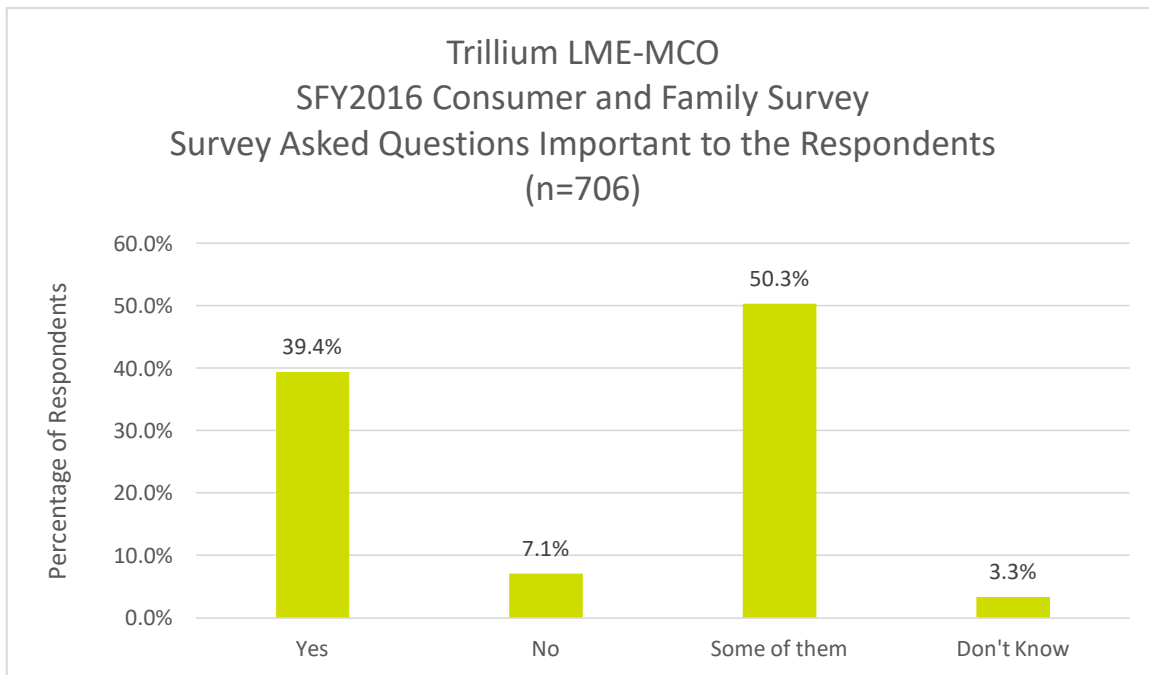
Of the respondents that reported they used 12-step groups in their areas to help with their SUD issues, 149 (34.0%) respondents reported the 12-step approach was helpful. The following chart shows the percentage of respondents that reported the 12-step approach was or was not helpful to them.



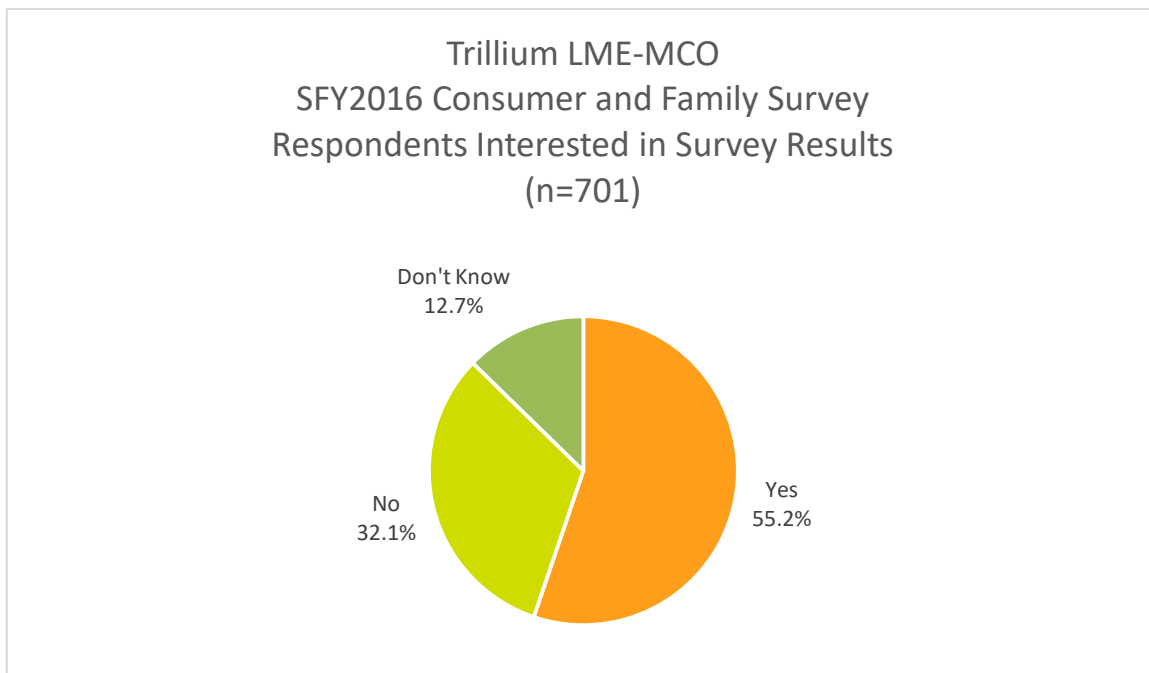
There were 615 or 90.0% of respondents that reported they understood the survey questions while 68 or 10.0% reported they did not understand the survey questions.



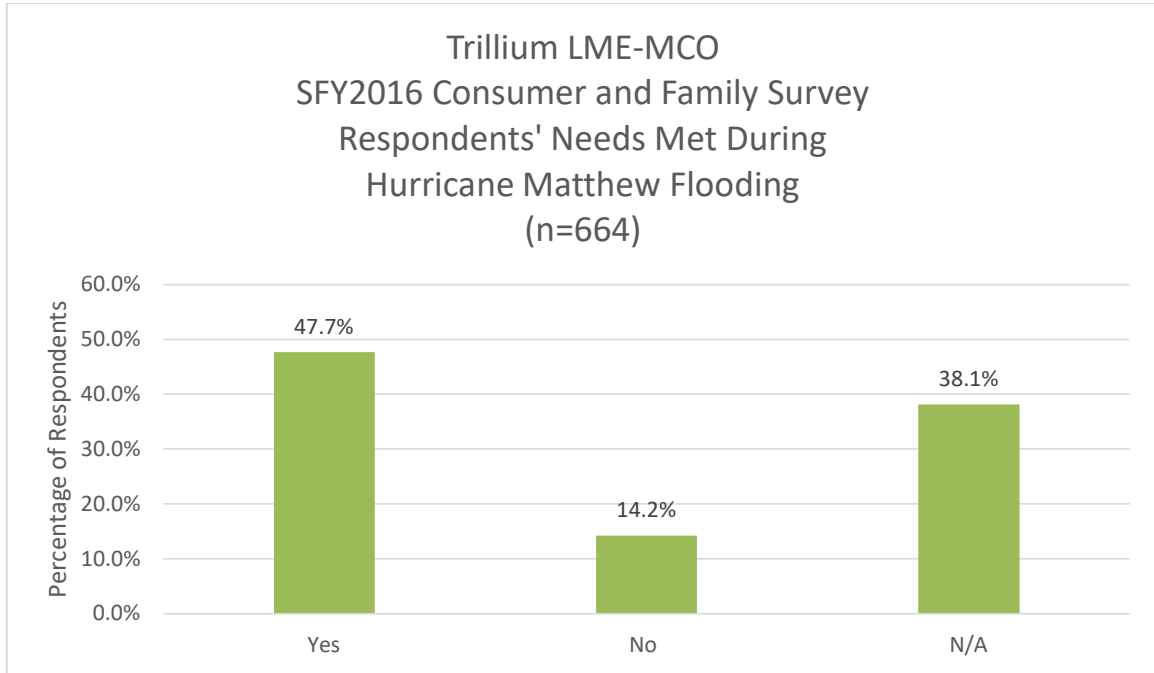
The following graph represents the percentage of respondents that indicated the survey asked questions that were important to them.



Over half of the respondents reported they would be interested in the results of this survey. The chart below represents the percentage of respondents who indicated they would be interested in the results of this survey.



Of the 664 respondents, 317 (47.7%) reported their needs were met during the recent Hurricane Matthew flooding. The chart below reflects the percentage of respondents who reported their needs were met during the recent Hurricane Matthew flooding.



Respondents were asked to provide any additional feedback or comments which include the following:

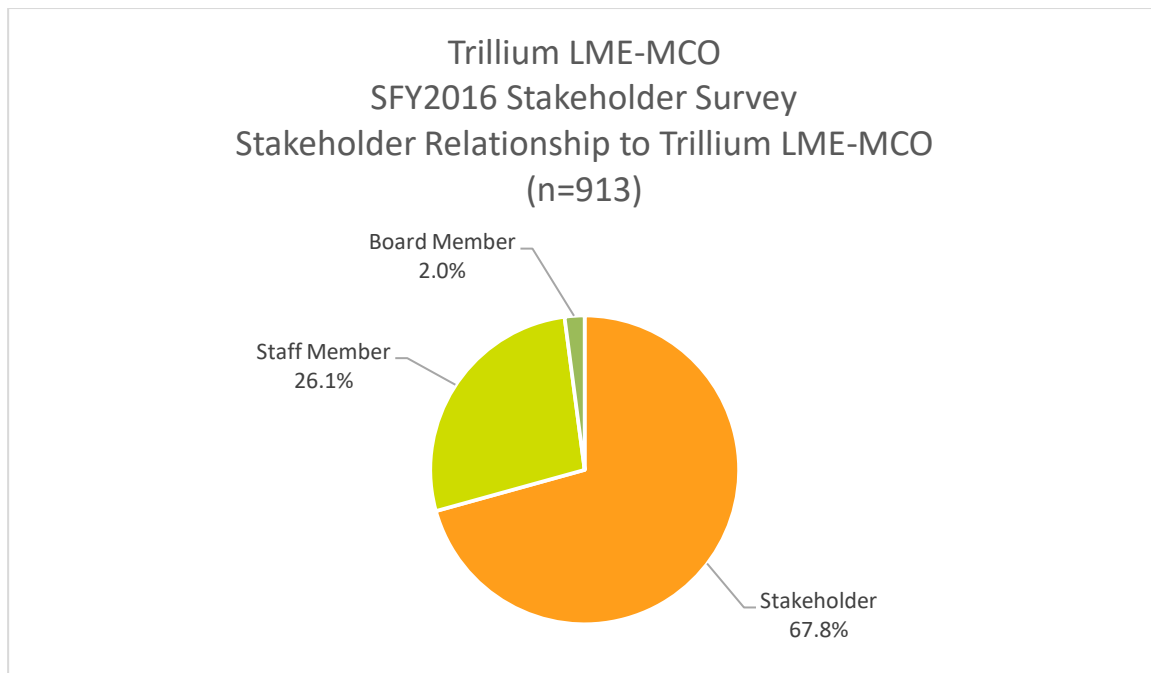
- Need for services (48) , especially Innovations Waiver (11) and services for adult (10)
- N/A, None (25)
- Positive comments about providers (19)

Stakeholder Survey Summary

A Stakeholder Survey instrument was developed and distributed online between January 4, 2017 and April 25, 2017. A total of 918 unique stakeholders completed the survey. Trillium Stakeholder Surveys were available with a new stakeholder-specific QR code. Hard copies were available in English and Spanish. Additionally, Trillium committees with external stakeholder members were involved in the survey process this year. The Clinical Advisory Committee, Human Rights Committee and Provider Council were introduced to the gaps and needs process and encouraged to participate in focus group discussions. The members of the committees were sent links to the survey following the focus group discussions. Many external stakeholders had completed the survey online via the stakeholder process but for those that did not, the committee member responses are represented in the Committee Survey section below. The Trillium Stakeholder surveys collected for the SFY2016 report increased 75% over the number collected for last year's gaps and needs process.

Trillium LME-MCO stakeholders were made aware of the survey through the Trillium website, Trillium Facebook pages, and via advertisements in the newspapers throughout the Trillium 24-county catchment area. Trillium's email listserv of all participants who have taken any online training courses through the Trillium portal was used to distribute Stakeholder Surveys as well. There were 918 stakeholders that took the Trillium LME-MCO Stakeholder Survey and 907 stakeholders that completed it (n=918).

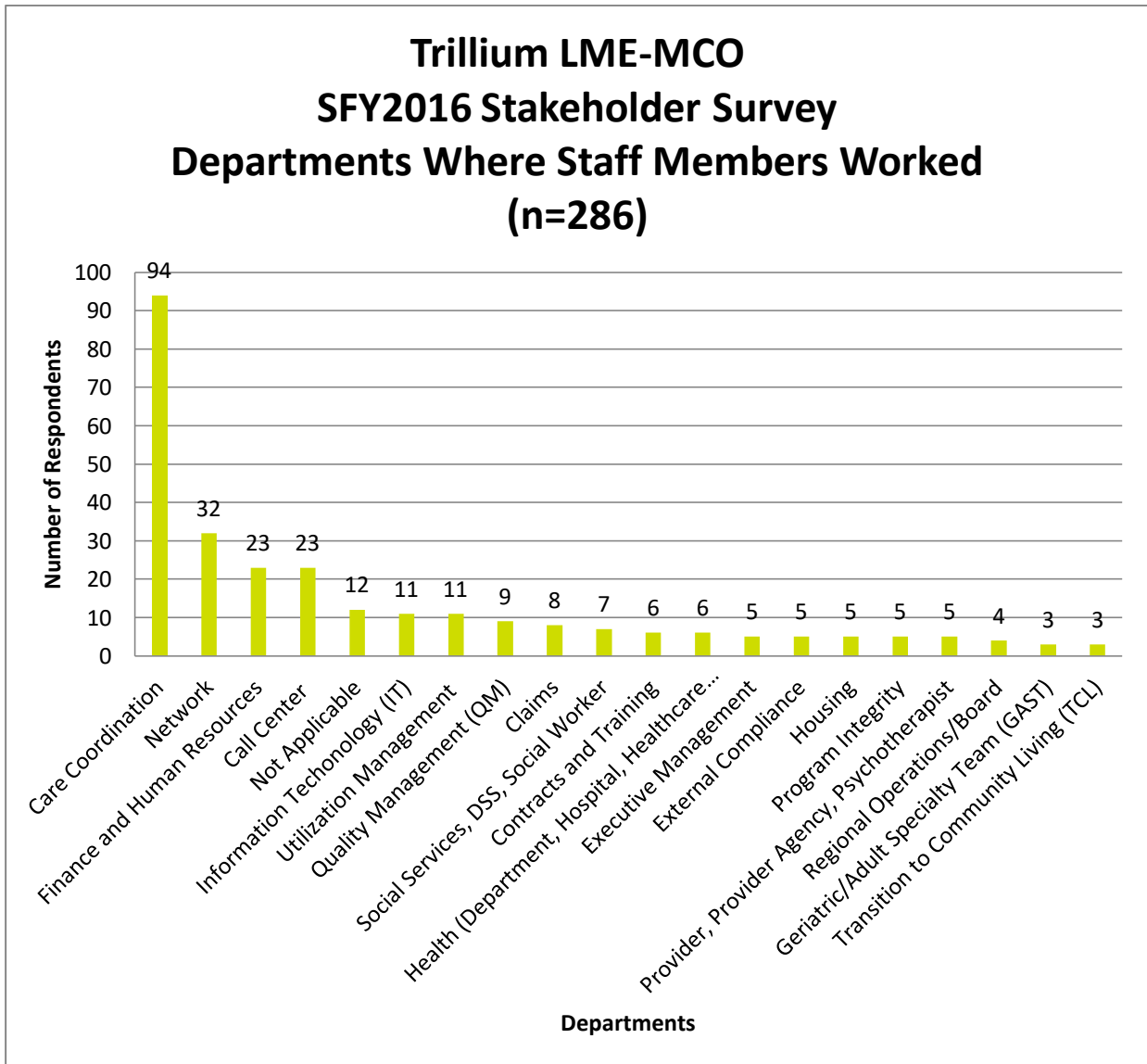
Respondents were asked what their relationship to Trillium LME-MCO was at the time of the survey; their responses are reflected in the pie chart below. The top two relationships were staff member (238 or 26.1%) and stakeholder, which included treatment providers, staff of hospitals, social services, law enforcement, schools, and other healthcare providers, etc. (619 or 67.8%).



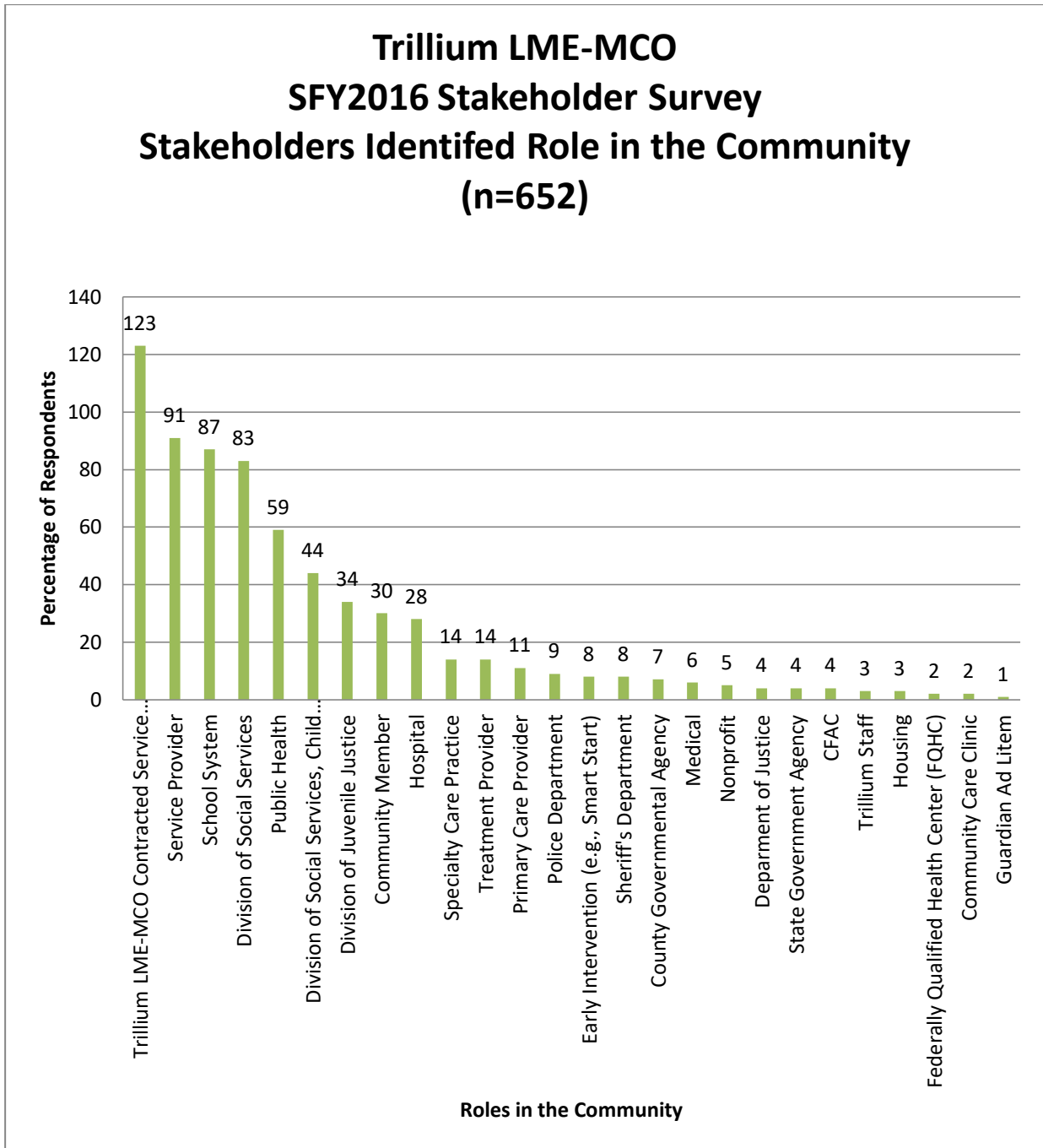
Respondents who reported 'Other' specified the following relationship to Trillium LME-MCO:

- Community and Family Advisory Committee (CFAC) (10 or 1.1%)
- Parent (7 or 0.8%)
- Community member (6 or 0.75%)
- School personnel (3 or 0.3%)
- Juvenile justice (3 or 0.3%)
- System of Care (SOC) Community Collaborative (3 or 0.3%)
- Health department (2 or 0.2%)

Respondents that selected "Staff Member," as their relationship to Trillium LME-MCO, were then asked to identify in which Trillium LME-MCO Department they worked at the time of this survey. The graph below shows the number of respondents and their respective department.



Respondents that selected “Stakeholder,” as their relationship to Trillium LME-MCO, were then asked to identify their role in the community at the time of this survey. The graph below shows number of respondents and their reported role in the community.



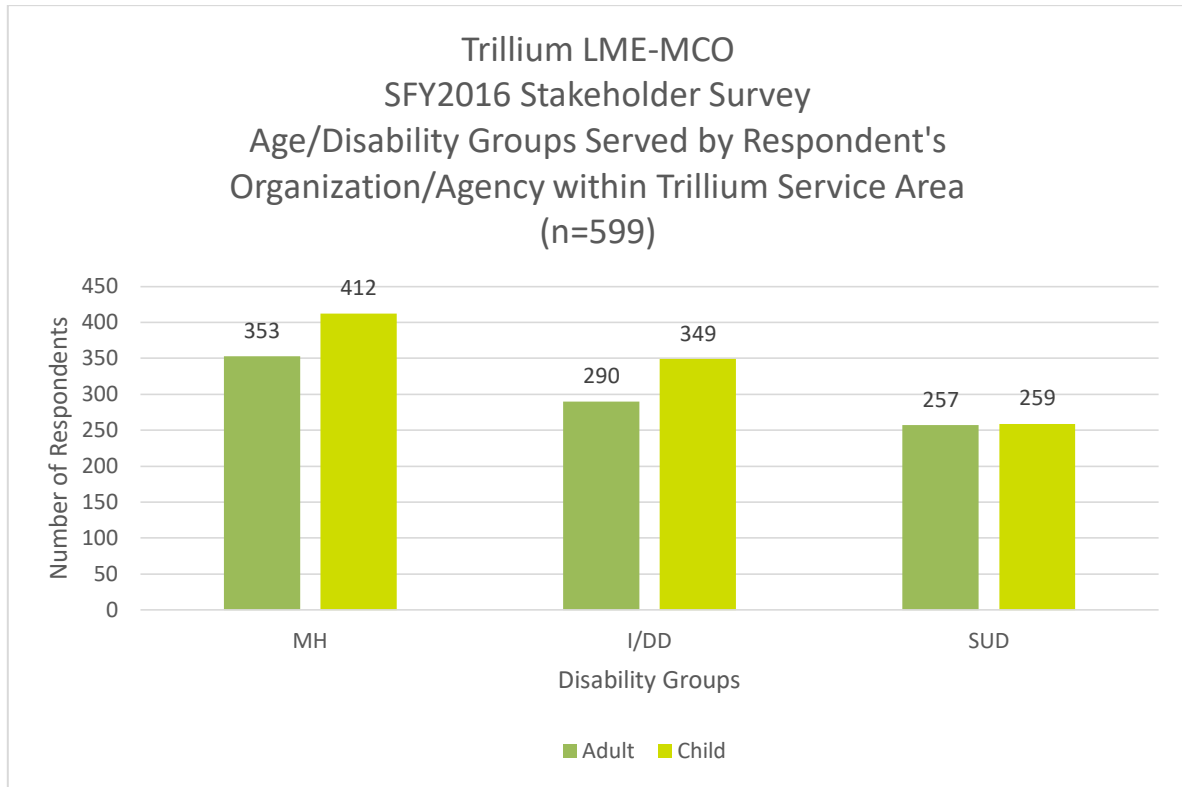
The following chart indicates in which counties respondents reported their organization had offices as well as outside the Trillium 24-county catchment area (n=779).

Within Trillium LME-MCO 24 Counties	Number of Responses	All North Carolina Counties or Other Counties and Areas Represented Outside the Trillium LME-MCO 24 Counties	Number of Responses
Beaufort	67	All North Carolina Counties	9
Bertie	49	Lenoir	8
Brunswick	92	Nash	7
Camden	84	Wayne	5
Carteret	124	Guilford	4
Chowan	55	Cumberland	3
Craven	89	Halifax	3
Currituck	51	Duplin	3
Dare	61	Wilson	3
Gates	48	Total	45
Hertford	102		
Hyde	30		
Jones	40		
Martin	59		
New Hanover	302		
Northampton	38		
Onslow	191		
Pamlico	43		
Pasquotank	82		
Pender	70		
Perquimans	46		
Pitt	189		
Tyrrell	46		
Washington	48		
TOTAL	2,006		

The following chart represents the number of respondents who took the survey and the counties in which they lived (n=872). It is important to note that stakeholders living in all 24 counties of the Trillium LME-MCO catchment area were surveyed.

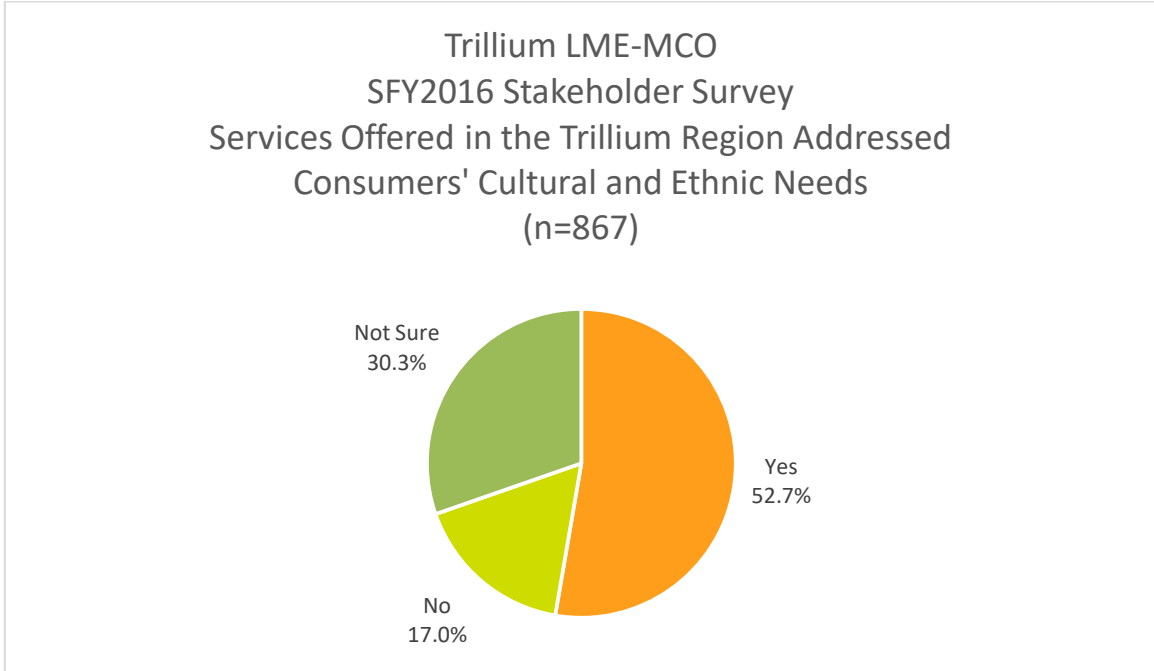
Trillium LME-MCO 24 Counties	Number of Respondents		Counties Outside Trillium Catchment	Number of Responses
Beaufort	30		Lenoir	9
Bertie	11		Wake	8
Brunswick	54		Wayne	6
Camden	11		Duplin	4
Carteret	56		Edgecombe	4
Chowan	15		Guilford	4
Craven	51		Nash	4
Currituck	5		Burke	3
Dare	18		Columbus	3
Gates	7		Halifax	3
Hertford	30		Total	48
Hyde	2			
Jones	3			
Martin	14			
New Hanover	185			
Northampton	11			
Onslow	85			
Pamlico	4			
Pasquotank	27			
Pender	28			
Perquimans	12			
Pitt	135			
Tyrrell	3			
Washington	8			
Total	805			

The following graph represents age/disability groups that respondent's organization/agency served within the Trillium LME-MCO service area. The disability groups include mental health (MH), intellectual-developmental disability (I/DD) and substance use disorder (SUD).

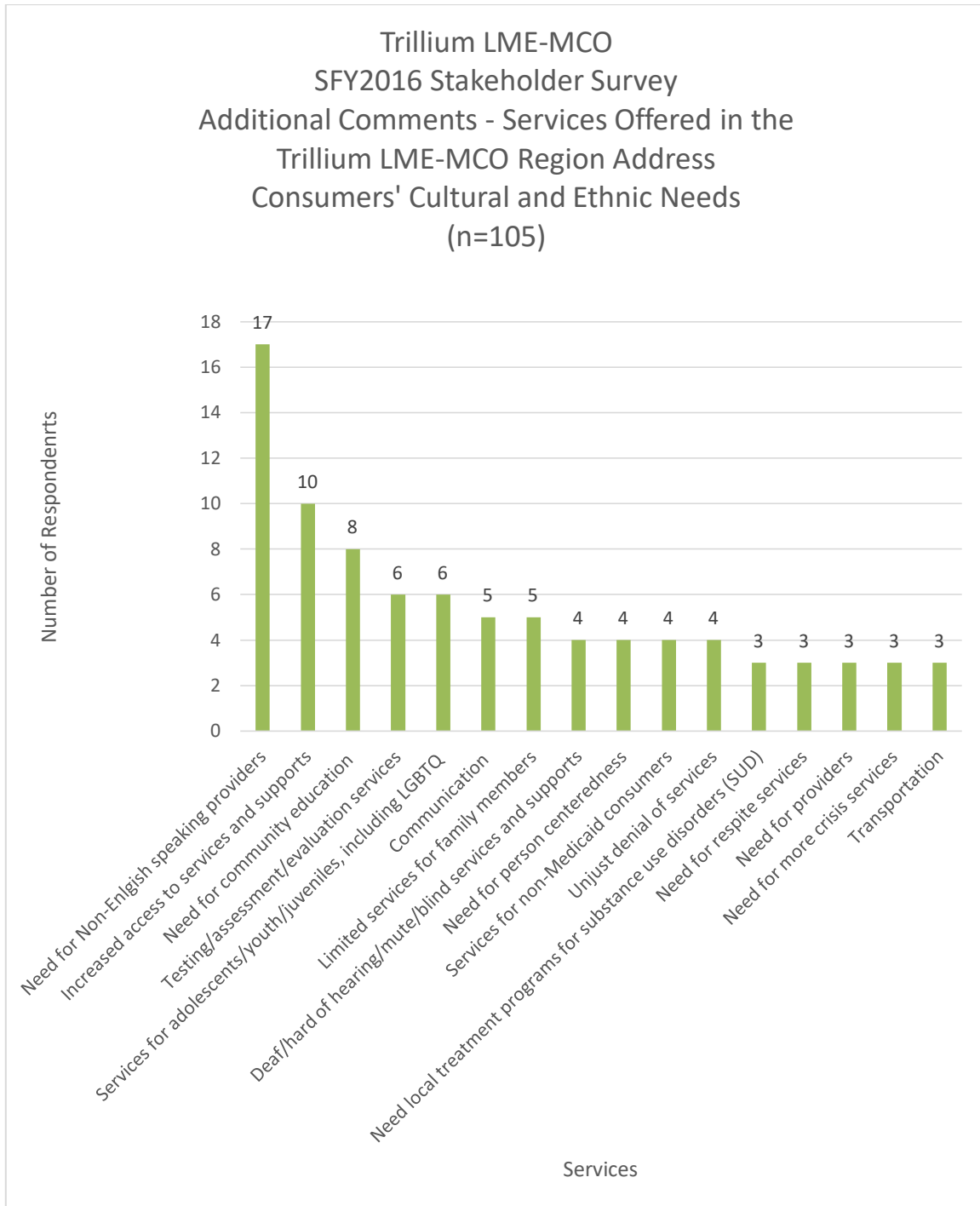


The number of years that respondents reported having a working relationship with Trillium LME-MCO ranged from 0 through 35 years. The average number of years respondents reported having a working relationship with Trillium LME-MCO was 5.4 years (n=580).

The chart below reflects the percentage of respondents that felt the services offered in the Trillium LME-MCO region addressed their consumers' cultural and ethnic needs.



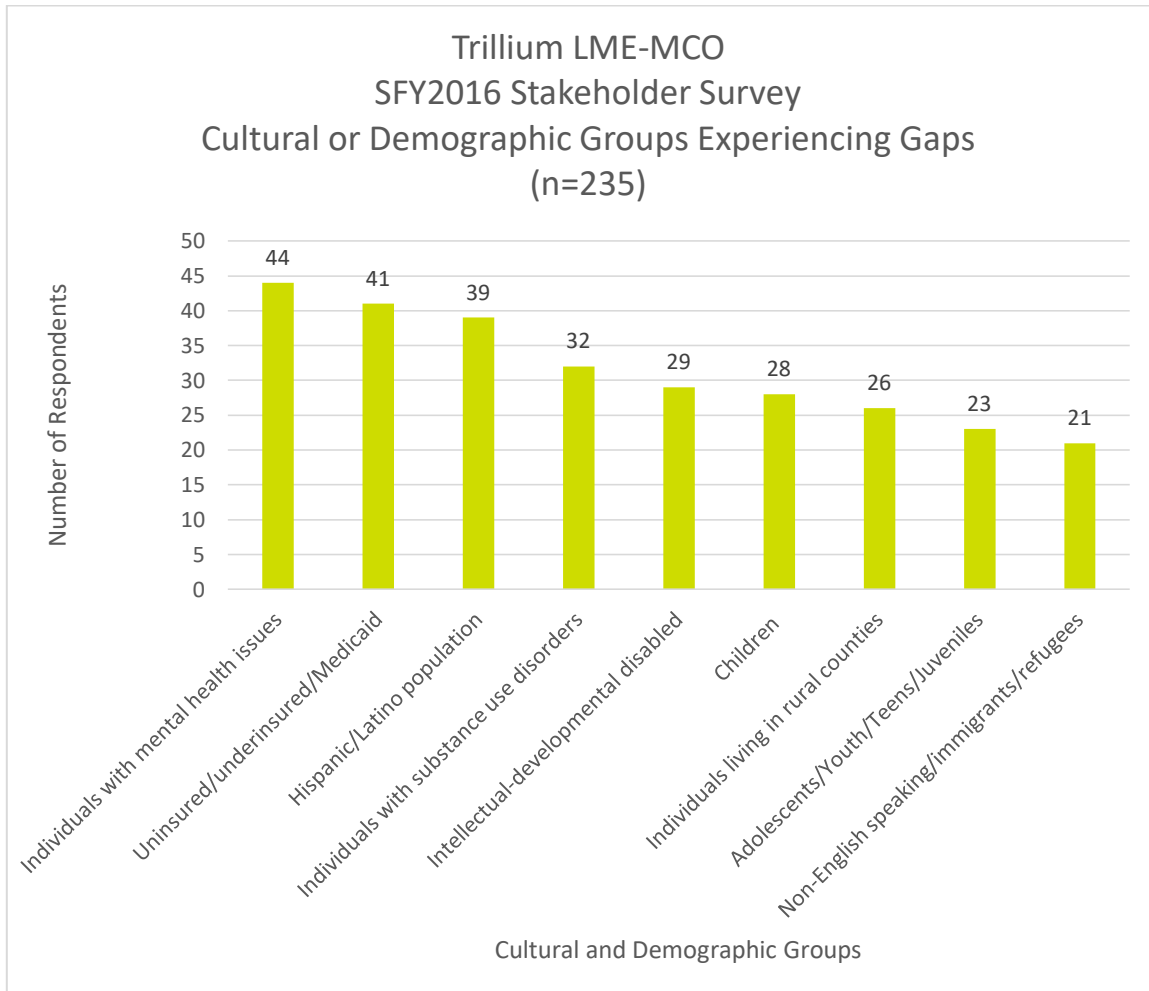
Respondents reported many additional comments referring to whether they felt the services offered in the Trillium LME-MCO catchment addressed their consumers' cultural and ethnic needs. The following graph identifies the additional comments and the number of respondents that indicated the needs.



*LGBTQ means lesbian, gay, bisexual, transgender and queer.

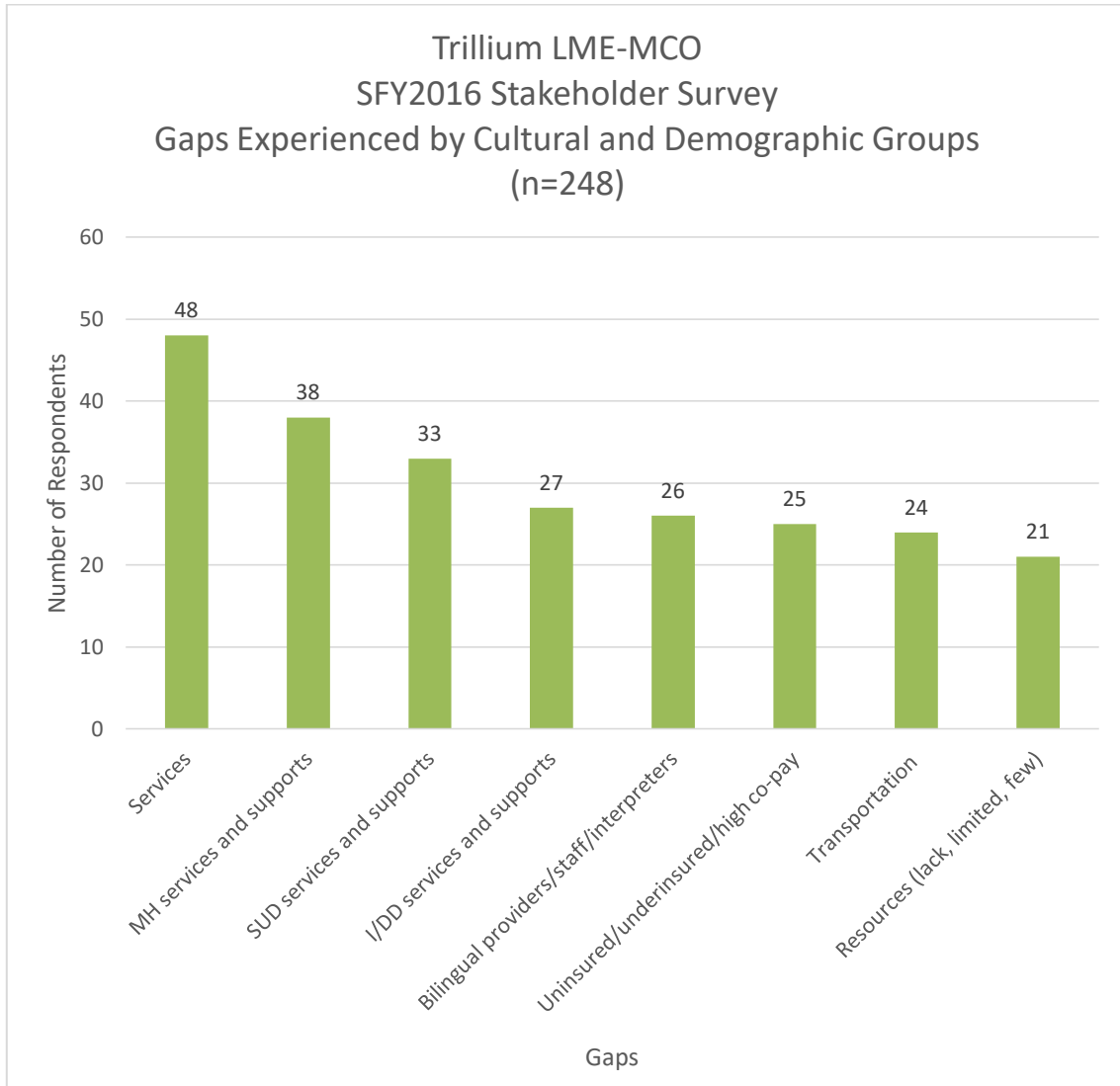
For the remainder of the charts and graphs, survey questions with fewer than 20 respondents were not included in the summary because they represented less than 2.2% of the total 918 respondents.

Respondents who reported services offered in the Trillium LME-MCO catchment were not addressing their consumers' cultural and ethnic needs, identified the following cultural or demographic groups that were experiencing gaps.



*Uninsured/underinsured/Medicaid includes the consumers who are either uninsured, underinsured, have high co-pays or their insurance will not cover the services, etc.

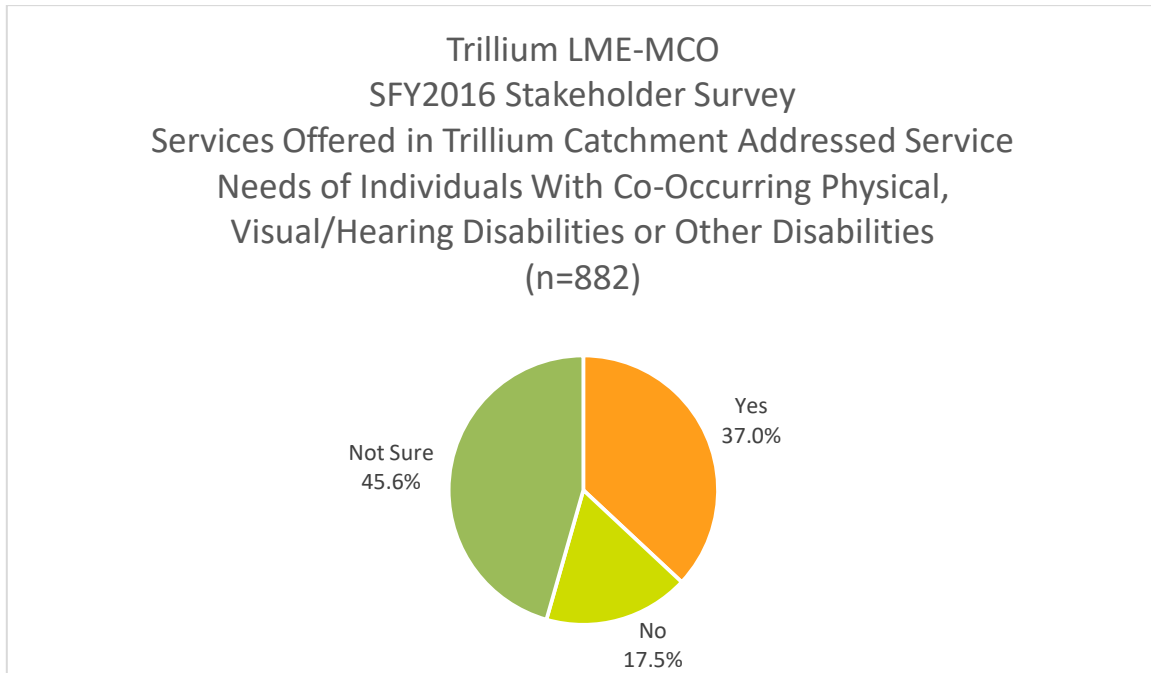
The following graph represents the number of cultural and demographic gaps that respondents, in their opinion, reported cultural and demographic groups were experiencing. The top gap respondents reported was Services (48 or 19.4%) that in their opinion cultural or demographic groups were experiencing. Services included lack of services, access to services, timeliness of services, continuum of services and non-Medicaid/insurance-funded services.



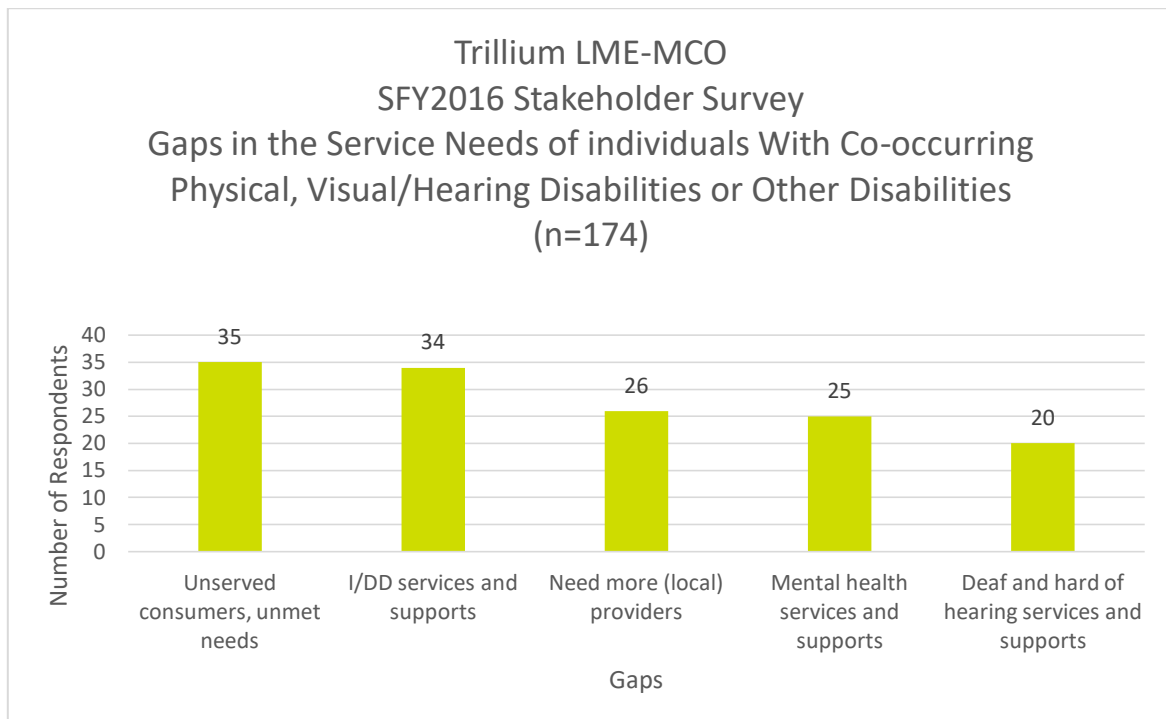
**Services includes lack of services, access to services, timeliness of services, the continuum, of services and non-Medicaid funded services.*

**Uninsured/underinsured/high co-pays includes medically necessary but not covered services, expected cash payment and services not funded by Medicaid.*

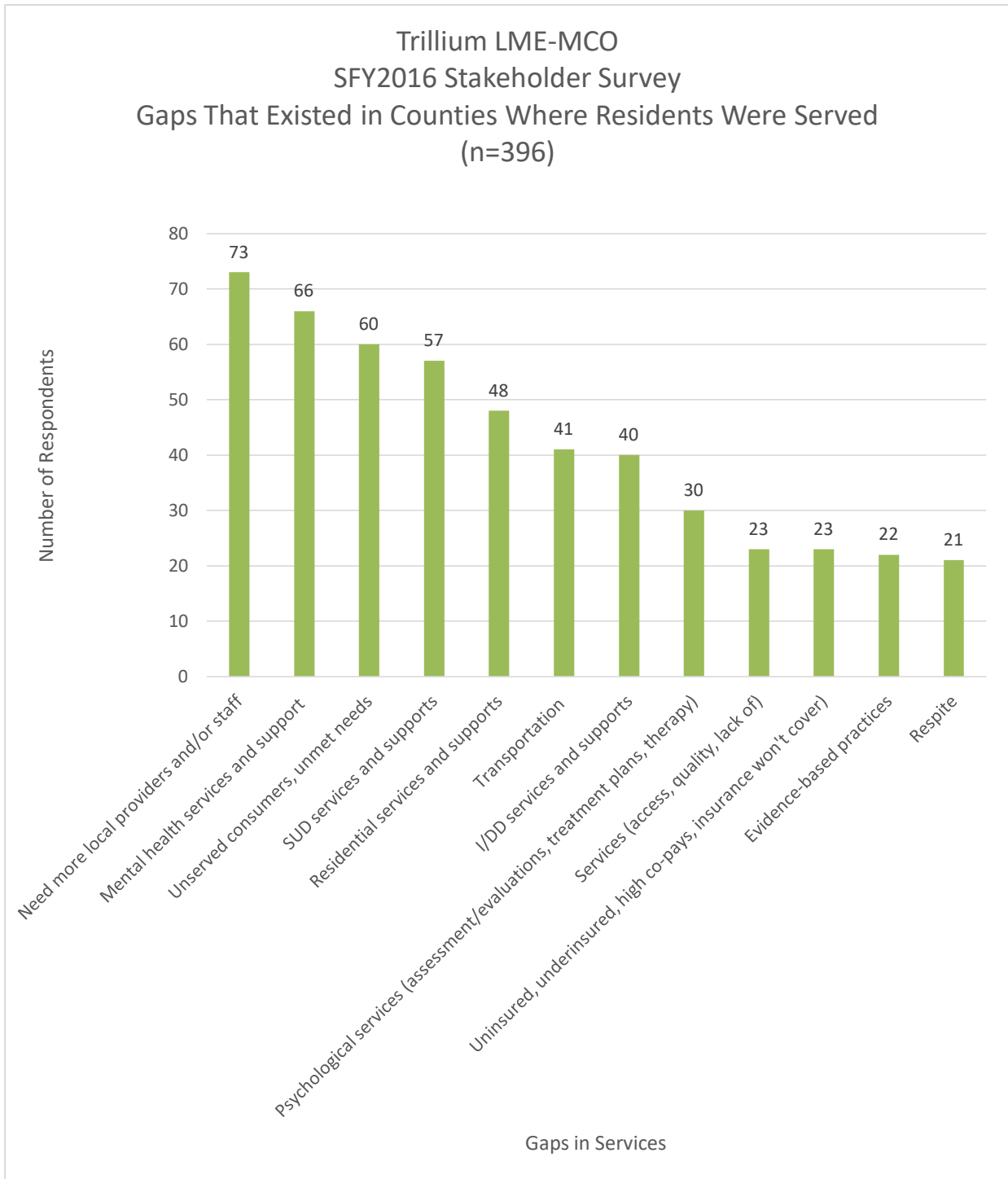
The following chart shows the percentage of respondents that felt services offered in the Trillium LME-MCO catchment addressed the service needs of individuals with co-occurring physical, visual/hearing disabilities or other disabilities.



Respondents who reported that services offered in the Trillium LME-MCO catchment were not addressing the service needs of individuals with co-occurring physical, visual/hearing disabilities or other disabilities, reported the following top five gaps.



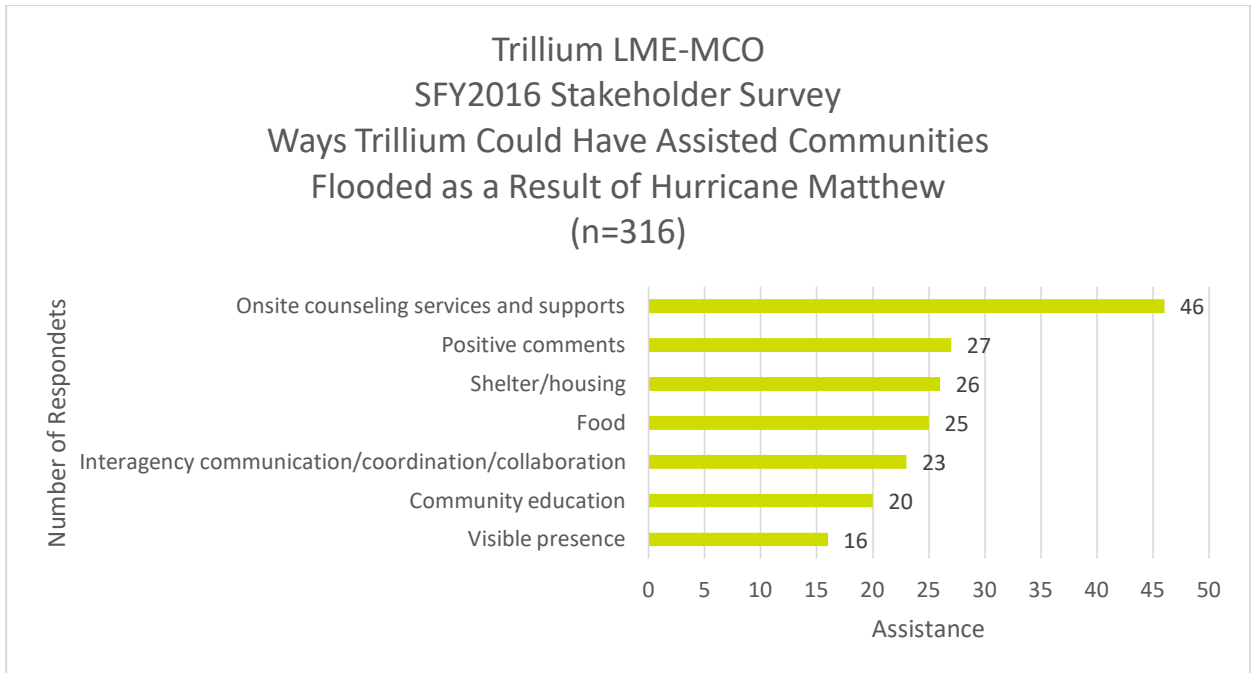
Respondents were asked to identify the gaps in services that existed in the counties they served. The top 12 identified gaps are reflected in the graph below.



**Psychological services includes assessment/evaluations, treatment plans and therapy.*

**Services include access to services, quality of services and lack of services.*

The following graph reflects the number of respondents and ways they identified that Trillium LME-MCO could have assisted communities in the catchment area who experienced the flooding disaster as a result of Hurricane Mathew.

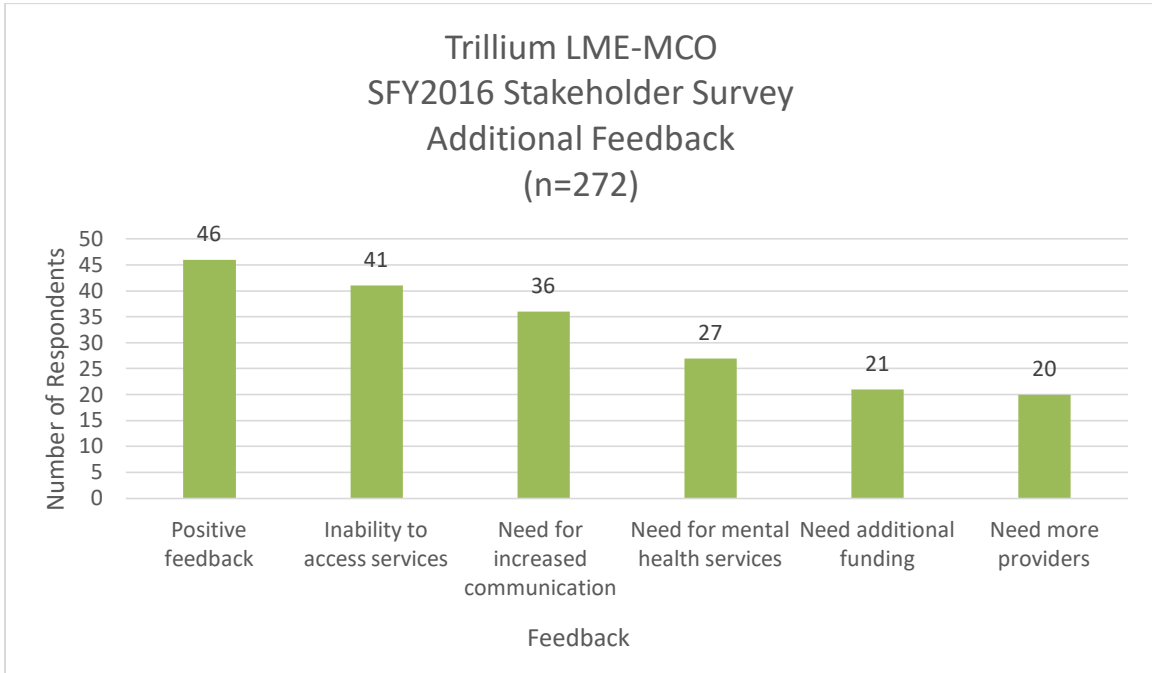


**Shelter/housing includes shelter, food, water and clothing.*

**Visible presence examples include checking on consumers, ensuring safety of staff, communicating with residents.*

Although visible presence was reported by only 16 respondents, it is important to note because Trillium LME-MCO could send staff out to check on consumers to see how they and staff are doing and what they may need.

In terms of additional feedback that stakeholders wanted to give to Trillium LME-MCO, 46 respondents reported positive feedback and 41 respondents reported their inability to access services. The following graph shows the top six additional feedback issues from respondents.



**Need for increased communication includes increased communication between staff and consumers, staff and managers and providers and Trillium using a direct line instead of the Call Center.*

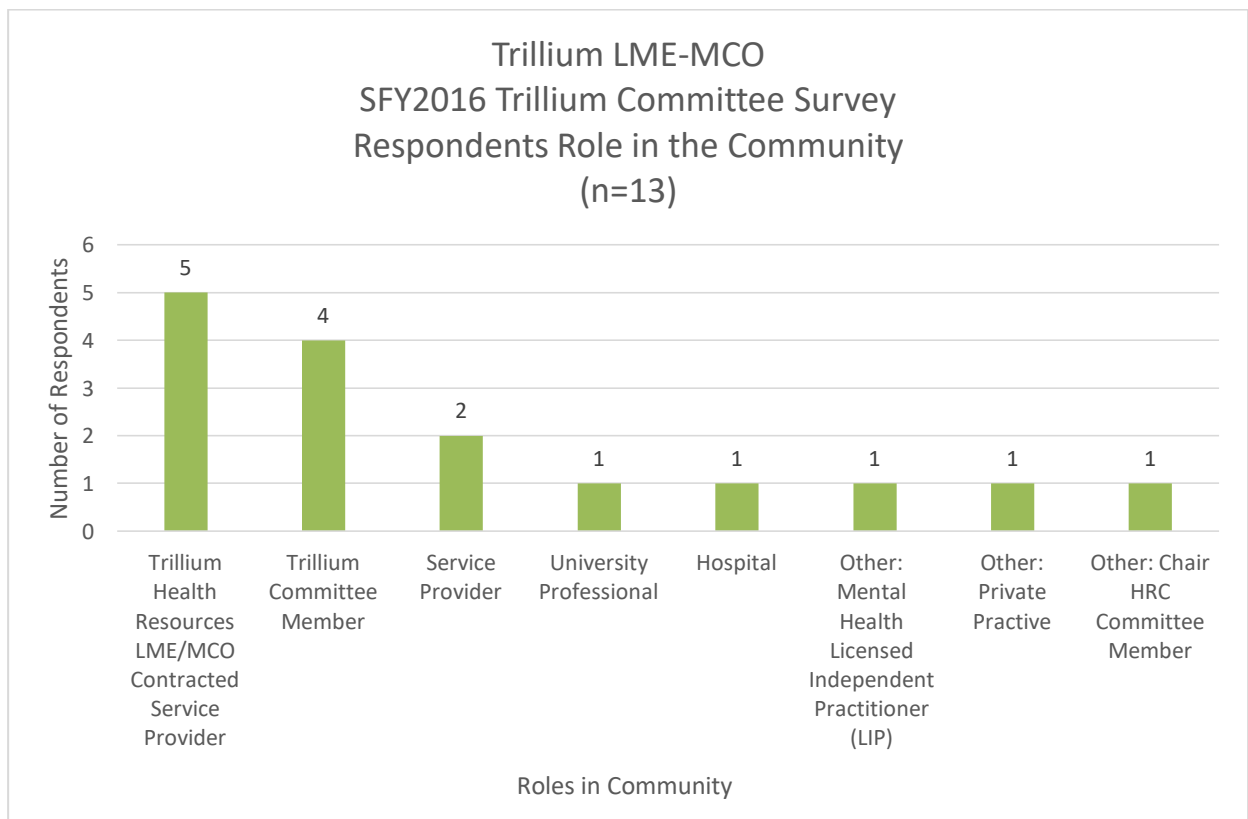
Committee Member Survey Summary

The Clinical Advisory Committee, Human Rights Committee and the Trillium Provider Council were all provided with an overview of the gaps and needs process. As focus groups, they discussed the system's gaps and needs as a committee. Committee members were strongly encouraged to complete either the stakeholder survey or the committee survey. A specific online survey was developed for the committees of the Trillium LME-MCO. The survey was developed, reviewed and approved with the collaboration of Trillium LME-MCO and ACT Associates. Trillium Committee Surveys were available with a new Committee Survey-specific QR code.

Hard copies of the survey and electronic surveys were sent to the membership of all the above listed Trillium committees. The Committee Survey was made available online between March 20, 2017 and May 1, 2017. There were a total of 13 Trillium Committee Surveys completed. During the focus groups many of the committee members noted having already completed the stakeholder survey. Remaining Committee members were encouraged to complete either the Committee or Stakeholder Survey.

All 13 respondents reported their relationship to Trillium LME-MCO as stakeholder. Stakeholder includes Trillium committee members, treatment providers, medical, university, social services, law enforcement, schools or other healthcare providers, etc.

The 13 respondents that selected stakeholder as their relationship to Trillium LME-MCO were then asked to identify their role in the community. The following chart shows the number of respondents and their role in the community. Respondents had the ability to check all roles that applied to them.



One of the 13 respondents answered the question concerning if in the respondents opinion, did the services Trillium providers offered address the cultural needs of the consumer in the LME-MCO geographic service area. The complaint expressed here and on the stakeholder surveys as well, is a serious one in that authorization decisions are based on the budget, not for clinical reasons. There were some survey respondents who also noted that evidence-based practices sometimes call for long-term solutions, but services are not often authorized to take the treatment to the recommended number of sessions. Respondents reported this occurs even when the service is considered medically necessary; requests are still denied.

For residents of the 24-county area who had intellectual-developmental disabilities, respondents reported, in general, more services were needed when asked to identify gaps in services. Services needed included:

- Dually diagnosed (I/DD and mental health)
- Inpatient services
- Outpatient services
- Opioid use disorder services
- Housing supports

Respondents were asked to identify gaps in services offered to those residents of the 24 county area who had mental health conditions. Respondents identified the following needed services:

- Crisis services
- Inpatient services
- Outpatient plan and services
- Day treatment
- Medication management
- Psychiatric and psychological services
- Trauma services
- Opioid use disorder services
- Case management
- Assertive Outreach

In terms of identified gaps in services offered to those residents of the 24 county area who have substance use disorders, respondents indicated the following substance use disorder needed services:

- Detoxification services
- Inpatient services
- Outpatient services
- Opioid use disorder services
- Prevention

It is important to note that one respondent reported that the criteria for substance use disorder services are too restrictive.

Respondents were asked to give any additional feedback to Trillium LME-MCO and 7 respondents provided feedback on specific issues. The specific issues include:

- Funding to hire qualified staff and to ensure salaries are competitive with the marketplace
- Authorization for services that are in line with evidence-based practices

-
- The need to provide training and continued support of providers on evidence-based practices
 - Integrated care
 - Mental health services
 - Increasing staff communication and collaboration

While only one Committee Survey respondent thought money for playgrounds could be better used elsewhere (for mental health services), there were several stakeholders who reiterated this same idea, stating the money would be better utilized for services for the disabilities.

Appendix E: Opioid Crisis - Supplemental Charts

Overdose Deaths Comparison

Trillium Catchment 3-Year Overdose Death Comparison*

County (County is based on county of residence of the decedent)	Medication & Drug Poisoning Deaths (Any mention of a medication and/or drug poisoning as primary cause of death; includes prescription, over-the-counter, and illicit drugs)			Prescription Opioid Deaths** (Any mention of other opioids, methadone, and/or other synthetic opioids in the multiple cause of death fields on the death certificate)			Heroin Poisoning Deaths (Any mention of heroin in the multiple cause of death fields on the death certificate)		
	2013	2014	2015	2013	2014	2015	2013	2014	2015
Beaufort	10	7	8	1	2	4	1	1	1
Bertie	2	0	2	2	0	1	0	0	1
Brunswick	31	22	29	18	15	20	10	5	10
Camden	0	0	4	0	0	3	0	0	1
Carteret	13	19	18	6	13	12	1	1	4
Chowan	6	0	3	2	0	3	0	0	1
Craven	17	18	28	13	9	17	1	2	5
Currituck	0	3	5	0	1	3	0	1	2
Dare	4	10	5	3	6	3	0	3	0
Gates	0	1	1	0	0	1	0	0	1
Hertford	1	1	1	1	0	0	0	0	0
Hyde	0	0	0	0	0	0	0	0	0
Jones	0	1	3	0	0	3	0	0	0
Martin	3	2	3	1	1	1	0	0	0
New Hanover	38	41	52	19	14	32	9	11	23
Northampton	1	2	2	1	2	0	0	0	1
Onslow	19	20	20	13	13	13	1	1	3
Pamlico	2	4	4	0	3	3	0	0	1
Pasquotank	4	3	3	2	2	2	1	1	1
Pender	7	5	17	7	1	10	0	1	7
Perquimans	1	2	2	0	1	1	0	1	0
Pitt	18	30	17	11	17	10	2	3	4
Tyrrell	0	1	0	0	1	0	0	0	0
Washington	0	1	1	0	0	1	0	0	0
Trillium Catchment Total	177	193	228	100	101	143	26	31	66
North Carolina Total	1,215	1,306	1,498	624	728	854	183	253	369

* Note the numbers in the categories above are not mutually exclusive. Those included in Deaths by Prescription Opioids and/or Heroin may also be included in Medication and Drug Poisoning data. **The 'Prescription Opioid' category currently includes 'other synthetic narcotics' like tramadol and fentanyl. With the rise of illicitly manufactured fentanyl, the 'Prescription Opioid' category will likely exclude 'other synthetic narcotics' in the future.

Source: N.C. DHHS, Injury Epidemiology and Surveillance Unit, Injury and Violence Prevention Branch, Chronic Disease and Injury Section, Division of Public Health. Accessed 11/15/16.

Overdose Deaths Percentage of Change

Trillium Catchment Overdose Death - Percentage of Change*

County (County is based on county of residence of the decedent)	Medication & Drug Poisoning Deaths (Any mention of a medication and/or drug poisoning as primary cause of death; includes prescription, over-the-counter, and illicit drugs)			Prescription Opioid Deaths** (Any mention of other opioids, methadone, and/or other synthetic opioids in the multiple cause of death fields on the death certificate)			Heroin Poisoning Deaths (Any mention of heroin in the multiple cause of death fields on the death certificate)		
	2014	2015	Change	2014	2015	Change	2014	2015	Change
Beaufort	7	8	14.3%	2	4	50.0%	1	1	0.0%
Bertie	0	2	200.0%	0	1	100.0%	0	1	100.0%
Brunswick	22	29	32.0%	15	20	33.3%	5	10	100.0%
Camden	0	4	400.0%	0	3	300.0%	0	1	100.0%
Carteret	19	18	-5.3%	13	12	-7.7%	1	4	300.0%
Chowan	0	3	300.0%	0	3	300.0%	0	1	100.0%
Craven	18	28	55.6%	9	17	89.0%	2	5	150.0%
Currituck	3	5	66.7%	1	3	200.0%	1	2	100.0%
Dare	10	5	-50.0%	6	3	-50.0%	3	0	-100.0%
Gates	1	1	0.0%	0	1	100.0%	0	1	100.0%
Hertford	1	1	0.0%	0	0	0.0%	0	0	0.0%
Hyde	0	0	0.0%	0	0	0.0%	0	0	0.0%
Jones	1	3	200.0%	0	3	300.0%	0	0	0.0%
Martin	2	3	50.0%	1	1	0.0%	0	0	0.0%
New Hanover	41	52	27.0%	14	32	129.0%	11	23	109.1%
Northampton	2	2	0.0%	2	0	-100.0%	0	1	100.0%
Onslow	20	20	0.0%	13	13	0.0%	1	3	200.0%
Pamlico	4	4	0.0%	3	3	0.0%	0	1	100.0%
Pasquotank	3	3	0.0%	2	2	0.0%	1	1	0.0%
Pender	5	17	240.0%	1	10	900.0%	1	7	600.0%
Perquimans	2	2	0.0%	1	1	0.0%	1	0	-100.0%
Pitt	30	17	-43.3%	17	10	-41.0%	3	4	33.3%
Tyrrell	1	0	-100.0%	1	0	-100.0%	0	0	0.0%
Washington	1	1	0.0%	0	1	100.0%	0	0	0.0%
Trillium Catchment Total	193	228	18.1%	101	143	42.0%	31	66	113.0%
North Carolina Total	1,306	1,498	15.0%	728	854	17.3%	253	369	46.0%

* Note the numbers in the categories above are not mutually exclusive. Those included in Deaths by Prescription Opioids and/or Heroin may also be included in Medication and Drug Poisoning data.

**The 'Prescription Opioid' category currently includes 'other synthetic narcotics' like tramadol and fentanyl. With the rise of illicitly manufactured fentanyl, the 'Prescription Opioid' category will likely exclude 'other synthetic narcotics' in the future.

Source: N.C. DHHS, Injury Epidemiology and Surveillance Unit, Injury and Violence Prevention Branch, Chronic Disease and Injury Section, Division of Public Health. Accessed 11/15/16.

Opioid Poisoning Death Rates

2015 Prescription Opioid Poisoning Death Rates

Ranked Highest to Lowest

County	Number of Deaths	Rate of Death per 100,000 Persons
Camden	3	29.0
Jones	3	28.6
Martin	6	25.4
Pamlico	3	22.8
Chowan	3	20.4
Pender	10	17.3
Carteret	12	17.3
Brunswick	20	16.4
Craven	17	16.2
New Hanover	32	14.5
Currituck	3	11.8
Dare	3	8.5
Nash	8	8.5
Beaufort	4	8.4
Gates	1	8.4
Washington	1	7.9
Perquimans	1	7.4
Onslow	13	6.7
Pitt	10	5.7
Pasquotank	2	5.0
Bertie	1	4.9
Hertford	0	0.0
Hyde	0	0.0
Northampton	0	0.0
Tyrrell	0	0.0
North Carolina	854	8.5

Source: N.C. DHHS, Injury Epidemiology and Surveillance Unit, Injury and Violence Prevention Branch, Chronic Disease and Injury Section, Division of Public Health. Received 11/15/16.

2015 Heroin Poisoning Death Rates

Ranked Highest to Lowest

County	Number of Deaths	Rate of Death per 100,000 Persons
Pender	7	12.1
New Hanover	23	10.4
Camden	1	9.7
Gates	1	8.4
Brunswick	10	8.2
Currituck	2	7.9
Pamlico	1	7.6
Chowan	1	6.8
Carteret	4	5.8
Bertie	1	4.9
Craven	5	4.8
Northampton	1	4.7
Martin	1	4.2
Nash	4	4.2
Pasquotank	1	2.5
Pitt	4	2.3
Beaufort	1	2.1
Onslow	3	1.5
Dare	0	0.0
Hertford	0	0.0
Hyde	0	0.0
Jones	0	0.0
Perquimans	0	0.0
Tyrrell	0	0.0
Washington	0	0.0
North Carolina	369	3.7

Source: N.C. DHHS, Injury Epidemiology and Surveillance Unit, Injury and Violence Prevention Branch, Chronic Disease and Injury Section, Division of Public Health. Received 11/15/16.

**2015 Methadone Poisoning
Death Rates
Ranked Highest to Lowest**

County	Number of Deaths	Rate of Death per 100,000 Persons
Martin	3	12.7
Chowan	1	6.8
Pender	3	5.2
Brunswick	4	3.3
Nash	3	3.2
Craven	2	1.9
New Hanover	4	1.8
Carteret	1	1.4
Pitt	2	1.1
Onslow	2	1.0
Beaufort	0	0.0
Bertie	0	0.0
Camden	0	0.0
Currituck	0	0.0
Dare	0	0.0
Gates	0	0.0
Hertford	0	0.0
Hyde	0	0.0
Jones	0	0.0
Northampton	0	0.0
Pamlico	0	0.0
Pasquotank	0	0.0
Perquimans	0	0.0
Tyrrell	0	0.0
Washington	0	0.0
North Carolina	110	1.1

Source: N.C. DHHS, Injury Epidemiology and Surveillance Unit, Injury and Violence Prevention Branch, Chronic Disease and Injury Section, Division of Public Health. Received 11/15/16.

**2015 Medication and Drug Poisoning
Death Rates
Ranked Highest to Lowest**

County	Number of Deaths	Rate of Death per 100,000 Persons
Camden	4	38.7
Martin	8	33.9
Pamlico	4	30.4
Pender	17	29.5
Jones	3	28.6
Craven	28	26.7
Carteret	18	25.9
Brunswick	29	23.9
New Hanover	52	23.6
Chowan	3	20.4
Currituck	5	19.7
Beaufort	8	16.8
Nash	14	14.8
Perquimans	2	14.8
Dare	5	14.1
Onslow	20	10.3
Bertie	2	9.8
Pitt	17	9.7
Northampton	2	9.5
Gates	1	8.4
Washington	1	7.9
Pasquotank	3	7.5
Hertford	1	4.1
Hyde	0	0.0
Tyrrell	0	0.0
North Carolina	1,498	14.9

Source: N.C. DHHS, Injury Epidemiology and Surveillance Unit, Injury and Violence Prevention Branch, Chronic Disease and Injury Section, Division of Public Health. Received 11/15/16.

Opioid-Related ED Visits

Trillium Catchment ED Visits - 3 Year Comparison**

County	Medication-Drug Poisoning (Any mention of a medication and/or drug poisoning in the first six diagnostic codes or E-code; includes prescription, over-the-counter, and illicit drugs)			Prescription Opioid Poisoning*** (Any mention of other opioids, methadone, and/or other synthetic opioids in the first six diagnostic codes or E-codes)			Heroin Poisoning (Any mention of heroin in the first six diagnostic codes or E-codes)		
	2012	2013	2014	2012	2013	2014	2012	2013	2014
Beaufort	121	99	122	17	*	17	0	*	11
Bertie	42	28	29	0	*	*	0	0	*
Brunswick	272	289	293	44	38	45	12	19	17
Camden	10	14	13	*	0	0	0	0	*
Carteret	204	212	205	41	35	26	*	0	11
Chowan	31	30	41	*	*	*	0	*	0
Craven	287	308	320	32	46	44	*	*	12
Currituck	30	18	37	*	0	*	*	0	*
Dare	79	74	72	*	*	*	*	*	*
Gates	12	13	*	*	*	*	0	0	0
Hertford	46	36	31	*	*	*	0	*	0
Hyde	10	12	*	0	*	0	0	0	0
Jones	30	26	32	*	*	*	0	0	*
Martin	33	48	43	*	*	*	0	0	*
New Hanover	354	351	486	40	35	43	46	68	64
Northampton	57	56	42	*	*	0	0	0	0
Onslow	378	369	409	31	32	29	*	*	11
Pamlico	24	29	41	*	*	*	0	0	*
Pasquotank	63	74	84	*	*	*	*	0	*
Pender	106	89	101	17	*	*	*	*	15
Perquimans	18	22	23	*	*	0	0	0	0
Pitt	402	348	410	40	29	33	*	16	18
Tyrrell	*	*	*	*	*	0	0	0	0
Washington	22	18	19	0	*	0	0	0	0
Trillium Catchment Total	2,631	2,563	2,853	262	215	237	58	103	159
North Carolina Total	20,981	20,371	21,835	2,237	2,036	2,019	474	643	1,127

* data suppressed using state convention >0 and <10

** Note the numbers in the categories above are not mutually exclusive. Those included in Prescription Opioids and/or Heroin may also be included in Medication and Drug Poisoning data. Also note that this is the most current data available as of 6/9/17.

***The 'Prescription Opioid' category currently includes 'other synthetic narcotics' like tramadol and fentanyl. With the rise of illicitly manufactured fentanyl, the 'Prescription Opioid' category will likely exclude 'other synthetic narcotics' in the future.

Source: N.C. DHHS, Injury Epidemiology and Surveillance Unit, Injury and Violence Prevention Branch, Chronic Disease and Injury Section, Division of Public Health. Accessed 11/15/16.

Opioid Prescription Poisoning Death Rates

Prescription Opioid Poisoning Death Rates

All 100 North Carolina Counties Ranked Highest to Lowest

County	Number of Deaths	Rate of Death per 100,000 persons
Burke	30	33.6
Wilkes	23	32.9
Camden	3	29.0
Jones	3	28.6
Yancey	5	27.9
Martin	6	25.4
Mitchell	4	25.3
Caldwell	20	24.3
Pamlico	3	22.8
Graham	2	22.5
Stokes	10	21.4
Chowan	3	20.4
Macon	7	20.1
Richmond	9	19.8
Rutherford	13	19.3
Madison	4	18.4
Stanly	11	18.0
Pender	10	17.3
Carteret	12	17.3
Avery	3	16.8
Brunswick	20	16.4
Craven	17	16.2
Alexander	6	15.7
Columbus	9	15.6
Cleveland	15	15.3
Rowan	21	15.1
Randolph	21	14.6
New Hanover	32	14.5
Bladen	5	14.2
Scotland	5	14.0
Haywood	8	13.3
Transylvania	4	11.9
Currituck	3	11.8
Henderson	13	11.6
Vance	5	11.1
Edgecombe	6	10.8

County	Number of Deaths	Rate of Death per 100,000 persons
Rockingham	10	10.8
Moore	10	10.6
Gaston	22	10.4
Catawba	16	10.2
Polk	2	9.6
Halifax	5	9.5
Cumberland	31	9.4
Johnston	17	9.3
Davidson	15	9.1
Forsyth	33	9.0
Alleghany	1	9.0
Lenoir	5	8.5
Nash	8	8.5
Caswell	2	8.5
Dare	3	8.5
Lee	5	8.4
Beaufort	4	8.4
Gates	1	8.4
Robeson	11	8.3
Surry	6	8.1
Yadkin	3	8.0
Washington	1	7.9
Franklin	5	7.8
Harnett	10	7.8
Sampson	5	7.7
Cabarrus	15	7.7
Person	3	7.6
Buncombe	19	7.5
Perquimans	1	7.4
Ashe	2	7.3
Jackson	3	7.3
Montgomery	2	7.2
Onslow	13	6.7
Swain	1	6.7
Iredell	10	5.9
Union	13	5.9
Pitt	10	5.7
Watauga	3	5.6
Guilford	29	5.6
Granville	3	5.1
Pasquotank	2	5.0

County	Number of Deaths	Rate of Death per 100,000 persons
Duplin	3	5.0
Bertie	1	4.9
Davie	2	4.8
Wayne	6	4.8
Durham	13	4.4
Hoke	2	3.9
Wake	38	3.8
Anson	1	3.8
Mecklenburg	39	3.8
Lincoln	3	3.7
Wilson	3	3.7
Cherokee	1	3.7
Alamance	5	3.2
Orange	4	2.8
McDowell	1	2.2
Chatham	1	1.4
Clay	0	0.0
Greene	0	0.0
Hertford	0	0.0
Hyde	0	0.0
Northampton	0	0.0
Tyrrell	0	0.0
Warren	0	0.0
North Carolina	854	8.5

Source: N.C. DHHS, Injury Epidemiology and Surveillance Unit, Injury and Violence Prevention Branch, Chronic Disease and Injury Section, Division of Public Health. Received 11/15/16.

Heroin Poisoning Death Rates

Heroin Poisoning Death Rates

All 100 North Carolina Counties Ranked Highest to Lowest
Trillium Counties Highlighted in Green

County	Number of Deaths	Rate of Death per 100,000 persons
Pender	7	12.1
Halifax	6	11.3
New Hanover	23	10.4
Camden	1	9.7
Greene	2	9.4
Alleghany	1	9.0
Stokes	4	8.5
Lee	5	8.4
Gates	1	8.4
Randolph	12	8.4
Brunswick	10	8.2
Currituck	2	7.9
Pamlico	1	7.6
Watauga	4	7.5
Davie	3	7.2
Rowan	10	7.2
Chowan	1	6.8
Cumberland	22	6.6
Franklin	4	6.3
Forsyth	23	6.3
Carteret	4	5.8
Yancey	1	5.6
Buncombe	14	5.5
Yadkin	2	5.3
Bertie	1	4.9
Caldwell	4	4.9
Wayne	6	4.8
Craven	5	4.8
Northampton	1	4.7
Gaston	10	4.7
Guilford	23	4.5
Vance	2	4.4
Richmond	2	4.4
Nash	4	4.2
Martin	1	4.2
Alamance	6	3.8

County	Number of Deaths	Rate of Death per 100,000 persons
Wilson	3	3.7
Edgecombe	2	3.6
Montgomery	1	3.6
Iredell	6	3.5
Granville	2	3.4
Lenoir	2	3.4
Johnston	6	3.3
Stanly	2	3.3
Union	7	3.2
Cleveland	3	3.1
Davidson	5	3.0
Durham	9	3.0
Mecklenburg	31	3.0
Wake	30	3.0
Rutherford	2	3.0
Macon	1	2.9
Catawba	4	2.6
Pasquotank	1	2.5
Lincoln	2	2.5
Pitt	4	2.3
Burke	2	2.2
Beaufort	1	2.1
Columbus	1	1.7
Onslow	3	1.5
Cabarrus	3	1.5
Wilkes	1	1.4
Orange	2	1.4
Surry	1	1.4
Rockingham	1	1.1
Moore	1	1.1
Harnett	1	0.8
Robeson	1	0.8
Alexander	0	0.0
Anson	0	0.0
Ashe	0	0.0
Avery	0	0.0
Bladen	0	0.0
Caswell	0	0.0
Chatham	0	0.0
Cherokee	0	0.0
Clay	0	0.0

County	Number of Deaths	Rate of Death per 100,000 persons
Dare	0	0.0
Duplin	0	0.0
Graham	0	0.0
Haywood	0	0.0
Henderson	0	0.0
Hertford	0	0.0
Hoke	0	0.0
Hyde	0	0.0
Jackson	0	0.0
Jones	0	0.0
Madison	0	0.0
McDowell	0	0.0
Mitchell	0	0.0
Perquimans	0	0.0
Person	0	0.0
Polk	0	0.0
Sampson	0	0.0
Scotland	0	0.0
Swain	0	0.0
Transylvania	0	0.0
Tyrrell	0	0.0
Warren	0	0.0
Washington	0	0.0
North Carolina	369	3.7

Source: N.C. DHHS, Injury Epidemiology and Surveillance Unit, Injury and Violence Prevention Branch, Chronic Disease and Injury Section, Division of Public Health. Received 11/15/16.

Methadone Poisoning Death Rates

Methadone Poisoning Death Rates

All 100 North Carolina Counties Ranked Highest to Lowest

County	Number of Deaths	Rate of Death per 100,000 persons
Mitchell	3	18.9
Martin	3	12.7
Graham	1	11.2
Yancey	2	11.2
Macon	3	8.6
Person	3	7.6
Chowan	1	6.8
Stokes	3	6.4
Pender	3	5.2
Madison	1	4.6
Richmond	2	4.4
Caldwell	3	3.6
Rowan	5	3.6
Columbus	2	3.5
Lenoir	2	3.4
Burke	3	3.4
Brunswick	4	3.3
Stanly	2	3.3
Nash	3	3.2
Cleveland	3	3.1
Rutherford	2	3.0
Wilkes	2	2.9
Bladen	1	2.8
Scotland	1	2.8
Jackson	1	2.4
Robeson	3	2.3
McDowell	1	2.2
Rockingham	2	2.2
Craven	2	1.9
New Hanover	4	1.8
Granville	1	1.7
Haywood	1	1.7
Buncombe	4	1.6
Franklin	1	1.6
Carteret	1	1.4
Randolph	2	1.4

County	Number of Deaths	Rate of Death per 100,000 persons
Surry	1	1.4
Catawba	2	1.3
Davidson	2	1.2
Pitt	2	1.1
Forsyth	4	1.1
Onslow	2	1.0
Harnett	1	0.8
Guilford	4	0.8
Cumberland	2	0.6
Johnston	1	0.5
Cabarrus	1	0.5
Gaston	1	0.5
Union	1	0.5
Durham	1	0.3
Mecklenburg	3	0.3
Wake	1	0.1
Alamance	0	0.0
Alexander	0	0.0
Alleghany	0	0.0
Anson	0	0.0
Ashe	0	0.0
Avery	0	0.0
Beaufort	0	0.0
Bertie	0	0.0
Camden	0	0.0
Caswell	0	0.0
Chatham	0	0.0
Cherokee	0	0.0
Clay	0	0.0
Currituck	0	0.0
Dare	0	0.0
Davie	0	0.0
Duplin	0	0.0
Edgecombe	0	0.0
Gates	0	0.0
Greene	0	0.0
Halifax	0	0.0
Henderson	0	0.0
Hertford	0	0.0
Hoke	0	0.0
Hyde	0	0.0

County	Number of Deaths	Rate of Death per 100,000 persons
Iredell	0	0.0
Jones	0	0.0
Lee	0	0.0
Lincoln	0	0.0
Montgomery	0	0.0
Moore	0	0.0
Northampton	0	0.0
Orange	0	0.0
Pamlico	0	0.0
Pasquotank	0	0.0
Perquimans	0	0.0
Polk	0	0.0
Sampson	0	0.0
Swain	0	0.0
Transylvania	0	0.0
Tyrrell	0	0.0
Vance	0	0.0
Warren	0	0.0
Washington	0	0.0
Watauga	0	0.0
Wayne	0	0.0
Wilson	0	0.0
Yadkin	0	0.0
North Carolina	110	1.1

Source: N.C. DHHS, Injury Epidemiology and Surveillance Unit, Injury and Violence Prevention Branch, Chronic Disease and Injury Section, Division of Public Health. Received 11/15/16.

Medication and Drug Poisoning Death Rates

Medication and Drug Poisoning Death Rates

All 100 North Carolina Counties Ranked Highest to Lowest

County	Number of Deaths	Rate of Death per 100,000 persons
Burke	36	40.4
Wilkes	28	40.0
Camden	4	38.7
Mitchell	6	37.9
Alexander	14	36.6
Caldwell	29	35.2
Martin	8	33.9
Rutherford	21	31.1
Pamlico	4	30.4
Stokes	14	29.9
Cleveland	29	29.5
Pender	17	29.5
Jones	3	28.6
Richmond	13	28.6
Yancey	5	27.9
Madison	6	27.6
Alleghany	3	26.9
Craven	28	26.7
Rowan	36	26.0
Carteret	18	25.9
Randolph	37	25.8
Scotland	9	25.1
Halifax	13	24.6
Stanly	15	24.5
Brunswick	29	23.9
New Hanover	52	23.6
Macon	8	23.0
Graham	2	22.5
Avery	4	22.3
Chowan	3	20.4
Haywood	12	19.9
Gaston	42	19.8
Currituck	5	19.7
Henderson	22	19.6
Lenoir	11	18.7
Forsyth	67	18.2

County	Number of Deaths	Rate of Death per 100,000 persons
Catawba	28	17.9
Bladen	6	17.1
Lee	10	16.9
Beaufort	8	16.8
Surry	12	16.3
Johnston	29	15.8
Davidson	26	15.8
Vance	7	15.5
Cumberland	51	15.4
Cabarrus	30	15.3
Rockingham	14	15.1
Buncombe	38	14.9
Nash	14	14.8
Transylvania	5	14.8
Perquimans	2	14.8
Ashe	4	14.6
Polk	3	14.4
Dare	5	14.1
Harnett	18	14.1
Sampson	9	13.9
Columbus	8	13.9
Moore	13	13.8
Iredell	23	13.6
Yadkin	5	13.3
Watauga	7	13.1
Person	5	12.7
Edgecombe	7	12.6
Guilford	63	12.2
Robeson	16	12.0
Anson	3	11.3
Lincoln	9	11.1
Wilson	9	11.0
Cherokee	3	11.0
Franklin	7	11.0
Montgomery	3	10.8
Union	23	10.4
Wayne	13	10.3
Granville	6	10.3
Onslow	20	10.3
Alamance	16	10.2
Bertie	2	9.8

County	Number of Deaths	Rate of Death per 100,000 persons
Pitt	17	9.7
Jackson	4	9.7
Davie	4	9.6
Northampton	2	9.5
Mecklenburg	98	9.5
Greene	2	9.4
Caswell	2	8.5
Gates	1	8.4
Duplin	5	8.3
Wake	83	8.3
Washington	1	7.9
Hoke	4	7.8
Pasquotank	3	7.5
Durham	22	7.4
Orange	10	7.1
Swain	1	6.7
McDowell	3	6.6
Warren	1	4.9
Hertford	1	4.1
Chatham	1	1.4
Clay	0	0.0
Hyde	0	0.0
Tyrrell	0	0.0
North Carolina	1,498	14.9

Source: N.C. DHHS, Injury Epidemiology and Surveillance Unit, Injury and Violence Prevention Branch, Chronic Disease and Injury Section, Division of Public Health. Received 11/15/16.

NC Cities in U.S. Top 25 for Opioid Abuse

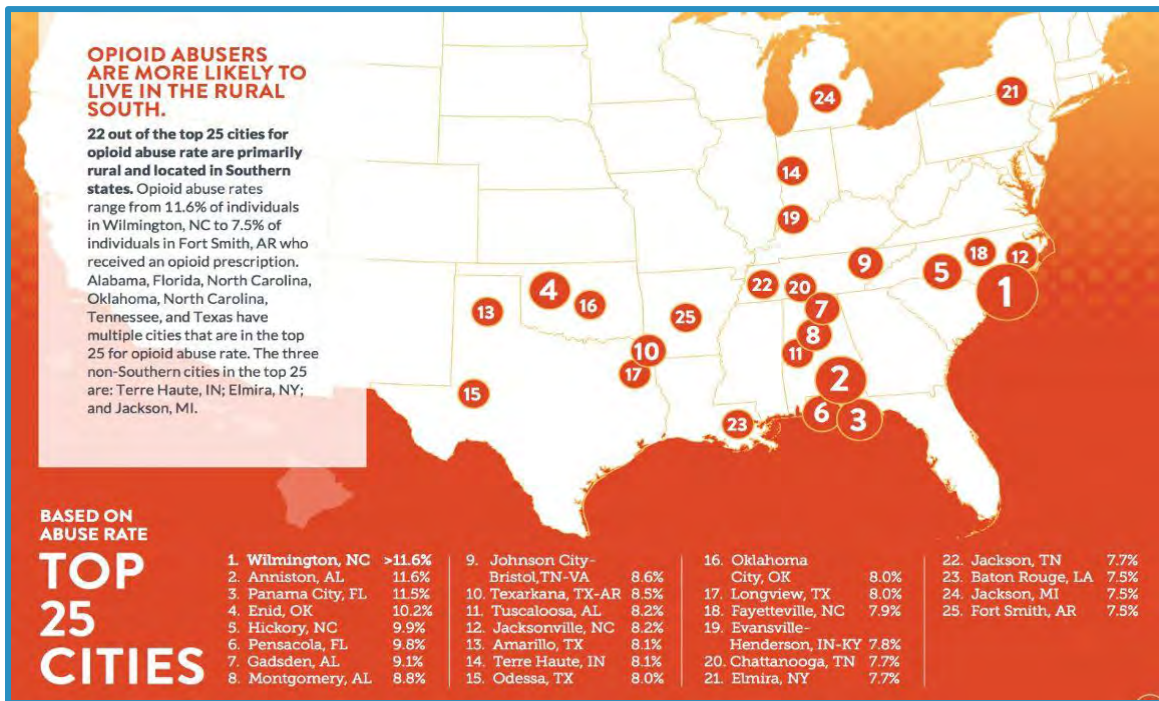
NC Cities Among U.S. Top for Opioid Abuse

Trillium Cities Highlighted in Green

Rank	City	Percentage
1	Wilmington	11.60%
2	Hickory	9.90%
12	Jacksonville	8.20%
18	Fayetteville	7.90%

The Opioid Crisis in America's Workforce, April, 2016.

<http://www.castlighthhealth.com/pdf/Castlight-Report-Opioid-Crisis-In-Workforce-web.pdf>



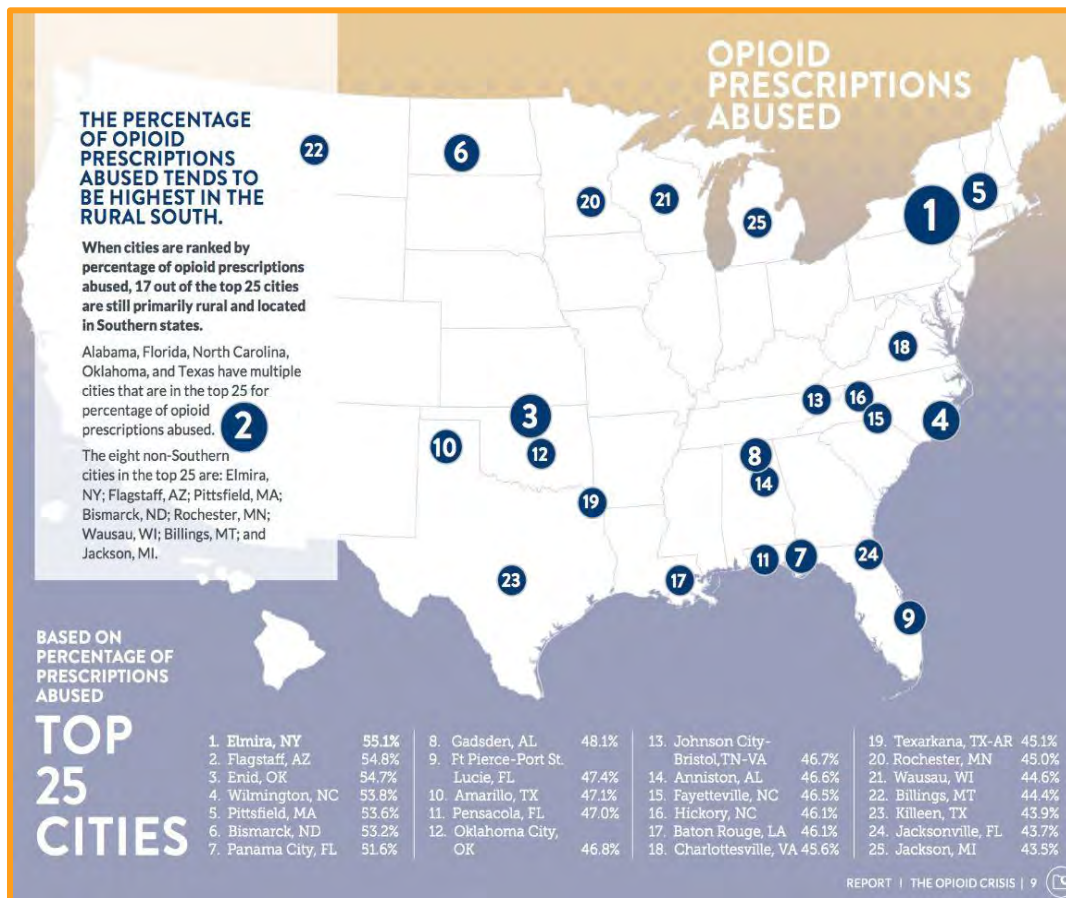
NC Cities Among U.S. Top 25 Opioid Prescription Abuse

NC Cities Among U.S. Top 25 for Percentage of Opioid Prescription Abuse Trillium Cities Highlighted in Green

Rank	City	Percentage
4	Wilmington	53.8%
15	Fayetteville	46.5%
16	Hickory	46.1%

The Opioid Crisis in America's Workforce, April, 2016.

<http://www.castlighthealth.com/pdf/Castlight-Report-Opioid-Crisis-In-Workforce-web.pdf>



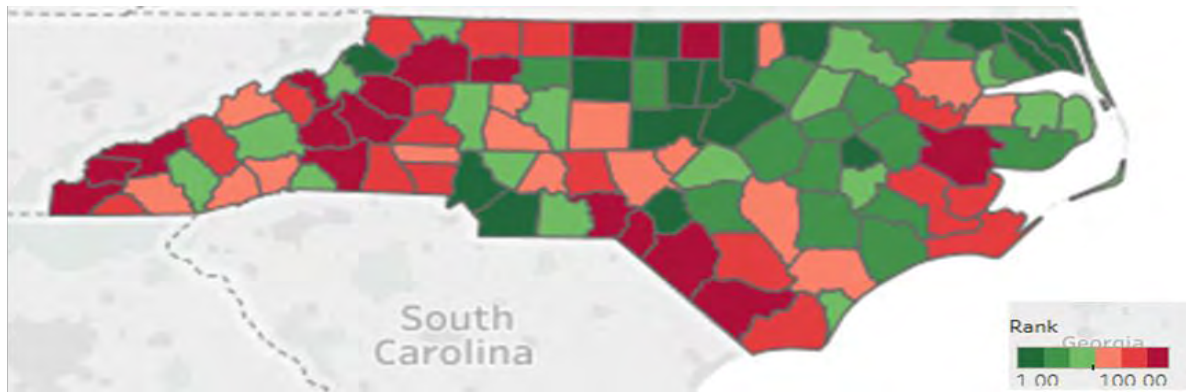
Prescription Rate by County

Trillium Catchment Prescription Rates - 2016

County	Population	Pills Per Residence	Rx Per Residence	Total Pills	Total Rx
Beaufort	47,651	105.0	1.383	5,001,298	65,889
Bertie	20,199	79.1	1.092	1,597,173	22,060
Brunswick	122,765	93.1	1.333	11,432,891	163,670
Camden	10,309	52.3	0.734	539,627	7,566
Carteret	68,879	101.4	1.272	6,982,768	87,620
Chowan	14,394	64.7	0.970	931,959	13,955
Craven	103,451	92.5	1.179	9,566,265	121,967
Currituck	25,263	44.3	0.680	1,118,261	17,174
Dare	35,663	71.8	1.080	2,559,387	38,512
Gates	11,431	39.7	0.569	453,853	6,502
Hertford	24,184	57.8	0.805	1,398,890	19,466
Hyde	5,526	62.5	0.798	345,514	4,410
Jones	10,013	59.9	0.792	599,914	7,932
Martin	23,357	97.8	1.317	2,285,093	30,757
New Hanover	220,358	69.7	1.009	15,355,173	222,355
Northampton	20,426	62.5	0.844	1,276,448	17,240
Onslow	186,311	58.1	0.821	10,827,136	153,014
Pamlico	12,781	89.3	1.107	1,140,921	14,145
Pasquotank	39,829	56.9	0.912	2,265,164	36,336
Pender	57,611	79.8	1.105	4,597,058	63,672
Perquimans	13,440	57.9	0.885	777,682	11,893
Pitt	175,842	60.5	0.871	10,641,769	153,111
Tyrrell	4,070	67.5	0.882	274,623	3,588
Washington	12,385	78.5	1.071	972,566	13,262
Trillium Catchment Totals	1,266,138			92,941,433	1,296,096
Trillium Averages		70.9	0.979625		

N.C. Department of Health & Human Services, NC Controlled Substances Reporting System (CSRS).

<https://www.ncdhhs.gov/divisions/mhddsas/ncdcu/prescription-rates-by-county>



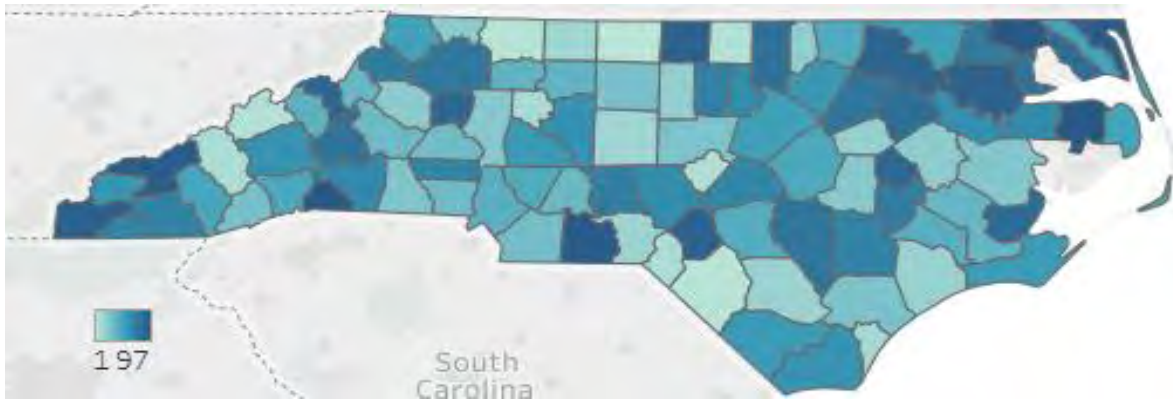
CSRS Utilization by County

NC Controlled Substances Reporting System (CSRS) Trillium Catchment Utilization 2016

All License Classes - Pharmacist, Prescriber, Delegate Account

County	Population	User Count	Queries	Queries per User
Beaufort	47,651	51	634	12.43
Bertie	20,199	0	188	0
Brunswick	122,765	173	2,376	13.72
Camden	10,309	0	47	0
Carteret	68,879	123	2,001	16.27
Chowan	14,394	0	155	0
Craven	103,451	203	4,212	20.75
Currituck	25,263	0	218	0
Dare	35,663	66	635	9.61
Gates	11,431	0	0	0
Hertford	24,184	0	297	0
Hyde	5,526	0	3	0
Jones	10,013	0	74	0
Martin	23,357	0	116	0
New Hanover	220,358	555	11,694	21.06
Northampton	20,426	0	161	0
Onslow	186,311	203	6,165	30.37
Pamlico	12,781	0	25	0
Pasquotank	39,829	53	1,067	20.12
Pender	57,611	59	996	16.87
Perquimans	13,440	0	16	0
Pitt	175,842	431	6,327	14.68
Tyrrell	4,070	0	0	0
Washington	12,385	0	114	0
Trillium Catchment Totals	1,266,138	1917	37,521	17.588

N.C. Department of Health & Human Services, NC Controlled Substances Reporting System (CSRS).
<https://www.ncdhs.gov/divisions/mhddsa/ncdhu/csrs-utilization-by-county>



Appendix F: ED Crisis - Supplemental Charts

Emergency Department, Mobile Crisis and Inpatient Admissions by Provider Name

The following tables list the Emergency Department, Mobile Crisis and Inpatient Admissions by name of provider. This does not represent unique individuals; a single individual could have had multiple visits. This information *should be* evaluated within the context of a specific provider's behavioral health patient load and risk pool or case mix.

ED Visits by Provider

Trillium Catchment Emergency Department Visits by Provider SFY2016

Trillium Provider	Emergency Department Visits (Count)
A BETTER PLACE BEHAVIORAL HEALTH	9
A CARING HEART CM INC	11
A HELPING HAND OF WILMINGTON	42
A PLUS RESULTS INDEPENDENT LIVING INC.	24
ABREE RYANS DBA O-ASYIST, PLLC	1
ACCESS FAMILY SERVICES INC	131
ACI SUPPORT SPECIALISTS INC	24
ALAMANCE REGIONAL MEDICAL CENTER	3
ALEXANDER YOUTH NETWORK	10
ALLIED BEHAVIORAL MANAGEMENT INCORPORATED	1
ALPHA MANAGEMENT COMMUNITY SERVICES	2
ALPHA MANAGEMENT SERVICES INC	1
AMANI RESIDENTIAL HUMAN SERVICES INC	1
AMBLECARE INC	2
AMBLESIDE INC	6
ANNA'S CARE	3
ARC OF NORTH CAROLINA THE	5
ASPIRATION & MIRACLES COMMUNITY SUPPORT, LLC	8
AUTISM SOCIETY OF NC INC	9
AUTISM SUPPORT AND PROGRAMS, INC.	4
BAILEY'S RESPITE CARE INC	2
BARKER JAMES T MD	1
BAYADA HOME HEALTH CARE INC	8
BEAUFORT CO DEVELOPMENTAL CENTER INC	1

Trillium Provider	Emergency Department Visits (Count)
BEHAVIORAL RANDOLPH	1
BETSY JOHNSON REGIONAL HOSPITAL	1
BETTER CONNECTIONS INC	18
BEVERLY CLARK WILLIAMS DBA ALL AMERICAN HEALTH COUNSELING	1
BEVERLY N. JONES III, MD PA	1
BLUE RIDGE HEALTHCARE HOSPITALS INC DBA CHS BLUE RIDGE	1
BOWENS WILLIAM C M.D.	1
BRYNN MARR HOSPITAL INC	4
C W COUNSELING SERVICES INC	3
CARDINALE RHONDA M. LPA	2
CAREER FULFILLMENT SERVICES PLLC	1
CARENET INC DBA BAPTIST HOSPITAL CARENET COUNSELING CENTERS	2
CAROBELL INC	6
CAROLINA HEALTHCARE ASSOCIATES, INC DBA CHA DIVISION OF PSYCHIATRY	253
CAROLINA SUPPORT SERVICES INC.	4
CAROLINAEAST MEDICAL CENTER	285
CAROLINAEAST PHYSICIANS	2
CAROLINAS HOME CARE AGENCY, INC.	1
CARROLL JOHN E LPC	3
CARTERET CLINIC FOR ADOLESCENTS & CHILDREN	1
CARTERET COUNSELING SERVICES, INC	3
CARTERET GENERAL HOSPITAL	89
CHARLES A CANNON JR MEMORIAL HOSPITAL	1
CHARLES MOOREHEAD, LCSW	1
CHESAPEAKE EMERGENCY PHYSICIANS	1
CHESAPEAKE GENERAL HOSPITAL	7
CHILDRENS HOSPITAL KINGS DAUGHTER	3
CHILDREN'S SPECIALTY GROUP PLLC	1
CHRISTIAN'S HOUSE OF HOPE, INC.	28
CMC FACULTY PHYSICIANS	1
CNC/ACCESS INC DBA RESCARE HOMECARE	3
COASTAL CAROLINA NEUROPSYCHIATRIC CENTER	205
COASTAL ENTERPRISES OF WILMINGTON	7
COASTAL HORIZONS CENTER, INC.	135
COASTAL SOUTHEASTERN UNITED CARE	46
COLUMBUS REGIONAL HEALTH SYSTEM	8
COMMUNITY SUPPORT AGENCY LLC	6
COMMUNITY SUPPORT PROFESSIONALS, LLC	12

Trillium Provider	Emergency Department Visits (Count)
COMPREHENSIVE INTERVENTIONS INC.	11
CREEF LISA LCSW PC	1
CUMBERLAND COUNTY HOSPITAL SYSTEM INC DBA CAPE FEAR VALLEY MEDICAL CENTER	2
DELTA BEHAVIORAL HEALTH	5
DIANNE B. BROWN, LPC	1
DIXON SOCIAL INTERACTIVE SERVICES INC	11
DLP RUTHERFORD REGIONAL HEALTH SYSTEM LLC DBA	1
DREAM PROVIDER CARE SERVICES INC	18
DSOHF FACILITY-CENTRAL REGIONAL HOSPITAL	1
DSOHF FACILITY-CHERRY HOSPITAL	4
DUKE UNIVERSITY HEALTH SYSTEM INC	3
DUPLIN GENERAL HOSPITAL INC DBA VIDANT DUPLIN HOSPITAL	31
EAST CAROLINA HEALTH DBA VIDANT ROANOKE-CHOWAN HOSPITAL	188
EAST CAROLINA HEALTH-BEAUFORT INC. DBA VIDANT BEAUFORT HOSPITAL	167
EAST CAROLINA HEALTH-BERTIE DBA VIDANT BERTIE HOSPITAL	65
EAST CAROLINA HEALTH-CHOWAN INC DBA VIDANT CHOWAN HOSPITAL	167
EAST CAROLINA HEALTH-HERITAGE DBA VIDANT EDGECOMBE HOSPITAL	5
EAST CAROLINA PSYCHIATRIC CONSULTANTS PLLC	2
EAST CAROLINA UNIVERSITY	308
EASTER SEALS UCP NC AND VA INC	92
EASTERN CAROLINA PSYCHIATRIC SERVICES	131
EASTERN PSYCHIATRIC & BEHAVIORAL SPECIALISTS PLLC	3
ELIADA HOMES, INC.	1
ELITE CARE INC	12
EMERGENCY COVERAGE CORP DBA	11
EMERGENCY MEDICINE PHYSICIANS (EMP) OF CARTERET CO PLLC	14
EMERGENCY MEDICINE PHYSICIANS (EMP) OF CRAVEN CO PLLC	31
EMERGENCY PHYSICIANS ASSOCIATION OF NC PC	2
ERIC HARTMAN PSYD	1
ERIKA MCCULLOUGH-SIMPSON, MA, LPA	1
FAITH WORKS COMMUNITY SERVICES, INC.	4
FAMILY ADVANTAGE, LLC	1
FAMILY CARE PRACTICE, PLLC	1
FAMILY WORKS PSYCHOLOGICAL CENTER, PLLC	4
FIRSTHEALTH OF THE CAROLINAS, INC.	1
FORSYTH MEMORIAL HOSPITAL, INC.	4
GOLDSBORO EMERGENCY MEDICAL SPECIALISTS	2
GOOD HOPE HOSPITAL INC	2

Trillium Provider	Emergency Department Visits (Count)
GREATER VISIONS BEHAVIORAL HEALTH	7
HALIFAX EMERGENCY GROUP	1
HALIFAX REGIONAL MEDICAL CENTER	6
HHC-SOUTH CAROLINA, INC DBA LIGHTHOUSE CARE CENTER OF CONWAY	3
HOFFMIER ELIZABETH G LCSW	2
HOLLY HILL HOSPITAL LLC	11
HOMECARE MANAGEMENT CORPORATION	1
INTEGRATED FAMILY SERVICES PLLC	94
J B CHILDERS MD PLLC	27
JOANNE M. SCHAFFER, MSW, LCSW, PA	1
JOHNSTON COUNTY PUBLIC HEALTH DEPARTMENT	7
JOHNSTON HEALTH SERVICES CORPORATION	17
KEYSTONE WSNC, LLC DBA OLD VINEYARD BEHAVIORAL HEALTH SERVICES	7
KIDSPACE NATIONAL CENTERS OF NORTH AMERICA, INC.	1
LAUREN LANGLEY	2
LECHRIS ADULT DAY CARE OF ROCKY MOUNT, INC. DBA LECHRIS BEHAVIORAL HEALTH SERVICES	4
LECHRIS COUNSELING SERVICES, INC.	33
LECHRIS HEALTH SYSTEMS OF GREENVILLE	59
LECHRIS HEALTH SYSTEMS OF NEW BERN INC	3
LENOIR MEMORIAL HOSPITAL	24
LEWIS GALE MEDICAL CTR	1
LIFE INC	4
LIFEQUEST DISABILITIES SERVICES, INC.	1
LIFEQUEST INC	14
LIFESOURCE OF NORTH CAROLINA	5
LINDLEY HABILITATION SERVICES INC.	7
LISA BENTZ DBA BENTZ THERAPEUTIC SERVICES INC	3
LONG ISLAND JEWISH MEDICAL CENTER	1
LUTHERAN FAMILY SERVICES IN THE CAROLINAS	9
MARCELO ENRIQUE LOPEZ-CLAROS	1
MARIA PARHAM MEDICAL CENTER	1
MARTIN GENERAL HOSPITAL	45
MARTIN PATRICK D DBA PATRICK D MARTIN MD	14
MAXIM HEALTHCARE SERVICES INC	2
MCCULLUM JEAN LPC	1
MCLEOD LORIS SEACOAST HOSPITAL	5
MEADS LORETTA LCSW	2
MELISSA DAVIS DBA SUPERIOR INNOVATIVE SERVICES, LLC	1

Trillium Provider	Emergency Department Visits (Count)
METHODIST HOME FOR CHILDREN INC	1
MICHAEL DOUGHTIE CHILD & FAMILY SERVICES	7
MISSION HOSPITAL INC	2
MONARCH	36
MOSES CONE HEALTH SYSTEM	2
MUHAMMAD U. SAEED DBA PAVE BEHAVIOR HEALTH SERVICES, CORP	1
NASH HOSPITALS INC DBA COASTAL PLAIN HOSPITAL	23
NATIONAL MENTOR HEALTHCARE LLC DBA NC MENTOR	1
NEW BERN PROFESSIONAL HEALTH SERVICES, PC	22
NEW DIMENSION GROUP, LLC	1
NEW HANOVER REGIONAL MEDICAL CENTER	535
NEW HOPE CAROLINAS INC	6
NORTH CAROLINA EM-I	1
NORTH CAROLINA SOLUTIONS	10
NORTHERN HOSPITAL OF SURRY CO	2
NOVA INC	1
NOVANT HEALTH BRUNSWICK MEDICAL CENTER	163
NOVANT HEALTH THOMASVILLE MEDICAL CENTER DBA COMMUNITY GENERAL HEALTH PARTNERS, INC	2
NUVIZIONS LLC	8
ONECARE INC DBA ONECARE BEHAVIORAL HEALTH SYSTEM	27
ONSLOW MEMORIAL HOSPITAL	327
PAMLICO COUNSELING PLLC	1
PARADIGM INC	14
PATHWAYS BEHAVIORAL HEALTH SERVICES, INC.	3
PATHWAYS COUNSELING CENTER	2
PATHWAYS TO LIFE INC	24
PENDER MEMORIAL HOSPITAL	26
PHYSICIAN ALLIANCE FOR MENTAL HEALTH	121
PIEDMONT BEHAVIORAL SERVICES, PC	16
PINNACLE HOME CARE INC-GREENVILLE	11
PITT COUNSELING PLLC	3
PITT COUNTY MEMORIAL HOSPITAL INC DBA VIDANT MEDICAL CENTER	438
PORT HEALTH SERVICES	235
PRESBYTERIAN HOSPITAL THE DBA NOVANT	1
PRIDE IN NORTH CAROLINA, LLC	135
PRIVATE DIAGNOSTIC CLINIC, PLLC	1
PSYCHOLOGICAL & EDUCATIONAL RESOURCES	2
RACHEL'S HOUSE	22

Trillium Provider	Emergency Department Visits (Count)
RECOVERY INNOVATIONS, INC.	2
REED ELIZABETH DAWN	1
REX HOSPITAL INC DBA REX HEALTHCARE (UNC)	1
RHA HEALTH SERVICES	156
RHA HEALTH SERVICES NC LLC	17
RIVERSIDE EMERGENCY PHYSICIANS LLP	3
ROBERT M. ADAMS, MD, PC	1
ROBERTS CHRISTOPHER JAMES	1
ROBESON HEALTH CARE CORPORATION INC	2
ROSENKE DOROTHY H PSYD	1
ROWAN REGIONAL MEDICAL CENTER	1
RUBICON	2
SADAF LLC	4
SAMPSON REGIONAL MEDICAL CENTER	3
SBH CHARLOTTE LLC DBA STRATEGIC BEHAVIORAL CENTER CHARLOTTE	2
SBH WILMINGTON LLC DBA STRATEGIC BEHAVIORAL CENTER	152
SBH-RALEIGH, LLC DBA STRATEGIC BEHAVIORAL CENTER	10
SE EMERGENCY PHYSICIANS	1
SENIOR HEALTH AND EDUCATION PARTNERS, PLLC	1
SENTARA ALBEMARLE REGIONAL MEDICAL CENTER	102
SENTARA NORFOLK GENERAL HOSPITAL	3
SENTARA OBICI HOSPITAL	2
SERVING HANDS, LLC	1
SHERRY M. WATERS DBA PLAY SOLUTIONS, INC.	1
SHINELIGHT, INC.	10
SOLID FOUNDATION FACILITIES INC	11
SOUTHCARE COMMUNITY SERVICE, INC	16
SOUTHEASTERN REGIONAL MEDICAL CENTER	6
SPIRIT OF EXCELLENCE COMMUNITY OUTREACH, INC.	3
ST FRANCIS HOSPITAL AND MEDICAL CENTER	1
STORY DEBORAH L PSYD	1
STRAIGHT WALK FAMILY SERVICES, INC	2
STRAND PHYSICIANS SPECIALISTS, PA	11
STRATEGIC INTERVENTIONS, INC.	2
THE BAIR FOUNDATION	3
THE CAROUSEL CENTER, INC.	1
THE FAMILY WELLNESS CENTER, PLLC	3
THE OUTER BANKS HOSPITAL, INC	66

Trillium Provider	Emergency Department Visits (Count)
THOMAS P CORNWALL MD PA	6
THOMPSON WARREN CHRISTOPHER LPC LCAS	3
TOUCHSTONE RESIDENTIAL SERVICES	5
TRILLIUM HEALTH RESOURCES	1
TURNING POINT SERVICES INC	4
UNC CHAPEL HILL DBA UNC FACULTY PHYSICIANS	17
UNC PHYSICIANS NETWORK, LLC	5
UNIVERSITY OF NORTH CAROLINA HOSPITALS	8
UPLIFT COMPREHENSIVE SERVICES INC.	12
UPRISING HOMES, INC.	3
VALLEY CENTER FOR LIFE ENRICHMENT PLLC	1
VIDANT MEDICAL GROUP LLC DBA VIDANT MEDICAL GROUP	253
VISIONS IN VIEW INC	10
VOCA CORPORATION OF NORTH CAROLINA DBA NEW HORIZONS	1
WAKEMED	9
WASHINGTON COUNTY HOSPITAL	22
WATERWAY EMERGENCY PHYSICIANS	6
WAYNE HEALTH PHYSICIANS DBA WAYNE HEALTH PSYCHIATRIC SVCS	2
WAYNE MEMORIAL HOSPITAL INC	9
WE CARE RESIDENTIAL FACILITY, INC.	2
WILKES REGIONAL MEDICAL CENTER	1
WILMINGTON HEALTH ACCESS FOR TEENS, INC.	3
WILSON MEDICAL CENTER	8
WINSTON CLINICAL ASSOCIATES	6
WINSTON PSYCHIATRIC ASSOCIATES PA	33
YOUNG ALISA PSYD	1
YOUTH VILLAGES	6
Trillium Catchment Total	6,469

Mobile Crisis Visits by Provider

Trillium Catchment Mobile Crisis Visits by Provider SFY2016

Provider	Mobile Crisis Visits (Count)
A BETTER PLACE BEHAVIORAL HEALTH	3
A CARING HEART CM INC	1
A HELPING HAND OF WILMINGTON	6
A PLUS RESULTS INDEPENDENT LIVING INC.	1
ACCESS FAMILY SERVICES INC	18
ACI SUPPORT SPECIALISTS INC	1
ALEXANDER YOUTH NETWORK	2
ALPHA MANAGEMENT SERVICES INC	1
AMBLECARE INC	6
ANNA'S CARE, INC.	1
ARC OF NORTH CAROLINA THE	1
ASPIRATION & MIRACLES COMMUNITY SUPPORT, LLC	1
AUTISM SOCIETY OF NC INC	4
AUTISM SUPPORT AND PROGRAMS, INC.	1
BARKER JAMES T MD	2
BAYADA HOME HEALTH CARE INC	1
BETTER CONNECTIONS INC	5
BRYNN MARR HOSPITAL INC	1
CAROBELL INC	10
CAROLINA HEALTHCARE ASSOCIATES, INC DBA CHA DIVISION OF PSYCHIATRY	24
CAROLINAEAST MEDICAL CENTER	55
CARTERET COUNSELING SERVICES, INC	1
CARTERET GENERAL HOSPITAL	12
CHESAPEAKE GENERAL HOSPITAL	1
CHILDRENS HOSPITAL KINGS DAUGHTER	2
CHRISTIAN'S HOUSE OF HOPE, INC.	4
COASTAL CAROLINA NEUROPSYCHIATRIC CENTER	43
COASTAL ENTERPRISES OF WILMINGTON	2
COASTAL HORIZONS CENTER, INC.	19
COASTAL SOUTHEASTERN UNITED CARE	10
COLUMBUS REGIONAL HEALTH SYSTEM	4
COMMUNITY SUPPORT PROFESSIONALS, LLC	3
COMPREHENSIVE INTERVENTIONS INC.	11
DELTA BEHAVIORAL HEALTH	1

Provider	Mobile Crisis Visits (Count)
DIXON SOCIAL INTERACTIVE SERVICES INC	4
DREAM PROVIDER CARE SERVICES INC	8
DUPLIN GENERAL HOSPITAL INC DBA VIDANT DUPLIN HOSPITAL	4
EAST CAROLINA HEALTH DBA VIDANT ROANOKE-CHOWAN HOSPITAL	49
EAST CAROLINA HEALTH-BEAUFORT INC. DBA VIDANT BEAUFORT HOSPITAL	36
EAST CAROLINA HEALTH-BERTIE DBA VIDANT BERTIE HOSPITAL	7
EAST CAROLINA HEALTH-CHOWAN INC DBA VIDANT CHOWAN HOSPITAL	35
EAST CAROLINA HEALTH-HERITAGE DBA VIDANT EDGEcombe HOSPITAL	1
EAST CAROLINA PSYCHIATRIC CONSULTANTS PLLC	2
EAST CAROLINA UNIVERSITY	79
EASTER SEALS UCP NC AND VA INC	22
EASTERN CAROLINA PSYCHIATRIC SERVICES	31
EASTERN PSYCHIATRIC & BEHAVIORAL SPECIALISTS PLLC	2
EMERGENCY COVERAGE CORP DBA	2
EMERGENCY MEDICINE PHYSICIANS (EMP) OF CARTERET CO PLLC	3
EMERGENCY MEDICINE PHYSICIANS (EMP) OF CRAVEN CO PLLC	5
FAITH WORKS COMMUNITY SERVICES, INC.	1
FORSYTH MEMORIAL HOSPITAL, INC.	3
GOLDSBORO EMERGENCY MEDICAL SPECIALISTS	1
HALIFAX REGIONAL MEDICAL CENTER	5
HOLLY HILL HOSPITAL LLC	2
INTEGRATED FAMILY SERVICES PLLC	22
J B CHILDERS MD PLLC	5
JOHNSTON HEALTH SERVICES CORPORATION	1
KEYSTONE WSNC, LLC DBA OLD VINEYARD BEHAVIORAL HEALTH SERVICES	1
KIMBERLY SIMMONS, MA, LPC	1
KINSTON PHYSICIANS GROUP PLLC	1
LAUREN LANGLEY	1
LECHRIS COUNSELING SERVICES, INC.	5
LECHRIS HEALTH SYSTEMS OF GREENVILLE	26
LECHRIS HEALTH SYSTEMS OF NEW BERN INC	1
LENOIR MEMORIAL HOSPITAL	3
LIFEQUEST DISABILITIES SERVICES, INC.	1
LIFEQUEST INC	2
LIFESOURCE OF NORTH CAROLINA	2
MARCELO ENRIQUE LOPEZ-CLAROS	1
MARIA PARHAM MEDICAL CENTER	1
MARTIN GENERAL HOSPITAL	3
MARTIN PATRICK D DBA PATRICK D MARTIN MD	1

Provider	Mobile Crisis Visits (Count)
MCLEOD LORIS SEACOAST HOSPITAL	2
METHODIST HOME FOR CHILDREN INC	1
MISSION HOSPITAL INC	2
MONARCH	8
NASH HOSPITALS INC DBA COASTAL PLAIN HOSPITAL	4
NEW BERN PROFESSIONAL HEALTH SERVICES, PC	5
NEW HANOVER COUNTY HEALTH DEPARTMENT	1
NEW HANOVER REGIONAL MEDICAL CENTER	66
NORTHERN HOSPITAL OF SURRY CO	1
NOVA INC	1
NOVANT HEALTH BRUNSWICK MEDICAL CENTER	16
NOVANT HEALTH THOMASVILLE MEDICAL CENTER DBA COMMUNITY GENERAL HEALTH PARTNERS, INC	3
NOVANT MEDICAL GROUP INC DBA NOVANT HEALTH PSYCHIATRIC MEDICINE	1
NUVIZIONS LLC	5
ONECARE INC DBA ONECARE BEHAVIORAL HEALTH SYSTEM	21
ONslow MEMORIAL HOSPITAL	64
PARADIGM INC	3
PATHWAYS TO LIFE INC	2
PENDER MEMORIAL HOSPITAL	4
PHYSICIAN ALLIANCE FOR MENTAL HEALTH	19
PIEDMONT BEHAVIORAL SERVICES, PC	2
PINNACLE HOME CARE INC-GREENVILLE	6
PITT COUNTY MEMORIAL HOSPITAL INC DBA VIDANT MEDICAL CENTER	107
PORT HEALTH SERVICES	42
PRIDE IN NORTH CAROLINA, LLC	30
RACHEL'S HOUSE	3
RECOVERY INNOVATIONS, INC.	1
RHA HEALTH SERVICES	40
RHA HEALTH SERVICES NC LLC	3
ROANOKE VALLEY PSYCHIATRIC ASSOCIATES PA	1
SAMPSON REGIONAL MEDICAL CENTER	4
SBH WILMINGTON LLC DBA STRATEGIC BEHAVIORAL CENTER	32
SBH-RALEIGH, LLC DBA STRATEGIC BEHAVIORAL CENTER	1
SE EMERGENCY PHYSICIANS	1
SENTARA ALBEMARLE REGIONAL MEDICAL CENTER	34
SOLID FOUNDATION FACILITIES INC	4
SOUTHCARE COMMUNITY SERVICE, INC	2
SOUTHEASTERN REGIONAL MEDICAL CENTER	1
STRAND PHYSICIANS SPECIALISTS, PA	2

Provider	Mobile Crisis Visits (Count)
THE FAMILY WELLNESS CENTER, PLLC	2
THE OUTER BANKS HOSPITAL, INC	16
THOMAS P CORNWALL MD PA	1
TOUCHSTONE RESIDENTIAL SERVICES	1
TURNING POINT SERVICES INC	1
UNC CHAPEL HILL DBA UNC FACULTY PHYSICIANS	2
UNC PHYSICIANS NETWORK, LLC	3
UNIVERSITY OF NORTH CAROLINA HOSPITALS	7
UPLIFT COMPREHENSIVE SERVICES INC.	1
UPRISING HOMES, INC.	1
VIDANT MEDICAL GROUP LLC DBA VIDANT MEDICAL GROUP	48
VISIONS IN VIEW INC	1
WAKEMED	4
WASHINGTON COUNTY HOSPITAL	3
WATERWAY EMERGENCY PHYSICIANS	3
WAYNE HEALTH PHYSICIANS DBA WAYNE HEALTH PSYCHIATRIC SVCS	3
WAYNE MEMORIAL HOSPITAL INC	12
WE CARE RESIDENTIAL FACILITY, INC.	1
WILKES REGIONAL MEDICAL CENTER	1
WILSON MEDICAL CENTER	2
WINSTON CLINICAL ASSOCIATES	1
WINSTON PSYCHIATRIC ASSOCIATES PA	6
Trillium Catchment Total	1,303

Inpatient Visits by Provider

Trillium Catchment Inpatient Admissions by Provider SFY2016

PROVIDER NAME	Inpatient Admissions (Count)
A BETTER PLACE BEHAVIORAL HEALTH	5
A CARING HEART CM INC	6
A HELPING HAND OF WILMINGTON	16
A PLUS RESULTS INDEPENDENT LIVING INC.	10
ABREE RYANS DBA O-ASYIST, PLLC	1
ACCESS FAMILY SERVICES INC	64
ACI SUPPORT SPECIALISTS INC	7
AGAPE SERVICES INC	2
ALAMANCE REGIONAL MEDICAL CENTER	2
ALEXANDER YOUTH NETWORK	3
ALPHA MANAGEMENT SERVICES INC	4
AMANI RESIDENTIAL HUMAN SERVICES INC	1
AMBLECARE INC	11
AMBLESIDE INC	4
ANNA'S CARE, INC.	1
ARC OF NORTH CAROLINA THE	1
ASPIRATION & MIRACLES COMMUNITY SUPPORT, LLC	10
AUTISM SOCIETY OF NC INC	10
AUTISM SUPPORT AND PROGRAMS, INC.	1
BAYADA HOME HEALTH CARE INC	2
BEHAVIORAL RANDOLPH	1
BETSY JOHNSON REGIONAL HOSPITAL	1
BETTER CONNECTIONS INC	18
BEVERLY CLARK WILLIAMS DBA ALL AMERICAN HEALTH COUNSELING	3
BEVERLY N. JONES III, MD PA	1
BLUE RIDGE HEALTHCARE HOSPITALS INC DBA CHS BLUE RIDGE	1
BRYNN MARR HOSPITAL INC	7
C W COUNSELING SERVICES INC	5
CAREER FULFILLMENT SERVICES PLLC	1
CARENET INC DBA BAPTIST HOSPITAL CARENET COUNSELING CENTERS	1
CAROBELL INC	3
CAROLINA HEALTHCARE ASSOCIATES, INC DBA CHA DIVISION OF PSYCHIATRY	130
CAROLINAEAST MEDICAL CENTER	148
CAROLINAS HOME CARE AGENCY, INC.	2
CAROLYN HEWETT, LCSW	1

PROVIDER NAME	Inpatient Admissions (Count)
CARTERET COUNSELING SERVICES, INC	6
CARTERET GENERAL HOSPITAL	42
CHAMBERS SHELLEY LCSW PC	1
CHESAPEAKE EMERGENCY PHYSICIANS	1
CHESAPEAKE GENERAL HOSPITAL	1
CHILDREN AND FAMILY COUNSELING SERVICES	2
CHILDRENS HOSPITAL KINGS DAUGHTER	4
CHILDREN'S SPECIALTY GROUP PLLC	1
CHRISTIAN'S HOUSE OF HOPE, INC.	29
COASTAL CAROLINA NEUROPSYCHIATRIC CENTER	137
COASTAL ENTERPRISES OF WILMINGTON	5
COASTAL HORIZONS CENTER, INC.	66
COASTAL SOUTHEASTERN UNITED CARE	28
COLUMBUS REGIONAL HEALTH SYSTEM	6
COMMUNITY SUPPORT AGENCY LLC	4
COMMUNITY SUPPORT PROFESSIONALS, LLC	10
COMPREHENSIVE INTERVENTIONS INC.	7
CREEF LISA LCSW PC	1
CUMBERLAND COUNTY HOSPITAL SYSTEM INC DBA CAPE FEAR VALLEY MEDICAL CENTER	4
DANVILLE REGIONAL MEDICAL CENTER	1
DELTA BEHAVIORAL HEALTH	7
DIANNE B. BROWN, LPC	1
DIXON SOCIAL INTERACTIVE SERVICES INC	17
DLP RUTHERFORD REGIONAL HEALTH SYSTEM LLC DBA	3
DREAM PROVIDER CARE SERVICES INC	11
DSOHF FACILITY-CHERRY HOSPITAL	2
DUKE UNIVERSITY HEALTH SYSTEM INC	10
DUPLIN GENERAL HOSPITAL INC DBA VIDANT DUPLIN HOSPITAL	16
EAST CAROLINA HEALTH DBA VIDANT ROANOKE-CHOWAN HOSPITAL	110
EAST CAROLINA HEALTH-BEAUFORT INC. DBA VIDANT BEAUFORT HOSPITAL	44
EAST CAROLINA HEALTH-BERTIE DBA VIDANT BERTIE HOSPITAL	26
EAST CAROLINA HEALTH-CHOWAN INC DBA VIDANT CHOWAN HOSPITAL	61
EAST CAROLINA HEALTH-HERITAGE DBA VIDANT EDGECOMBE HOSPITAL	1
EAST CAROLINA PSYCHIATRIC CONSULTANTS PLLC	2
EAST CAROLINA UNIVERSITY	168
EASTER SEALS UCP NC AND VA INC	27
EASTERN CAROLINA PSYCHIATRIC SERVICES	74
EASTERN PSYCHIATRIC & BEHAVIORAL SPECIALISTS PLLC	1
ELITE CARE INC	6

PROVIDER NAME	Inpatient Admissions (Count)
EMERGENCY COVERAGE CORP DBA	6
EMERGENCY MEDICINE PHYSICIANS (EMP) OF CARTERET CO PLLC	7
EMERGENCY MEDICINE PHYSICIANS (EMP) OF CRAVEN CO PLLC	12
ENC PSYCHOLOGICAL SERVICES PLLC	1
FAMILY WORKS PSYCHOLOGICAL CENTER, PLLC	2
GOOD HOPE HOSPITAL INC	1
GREATER VISIONS BEHAVIORAL HEALTH	1
GRIFFIN SUTTON DBA TIDAL NEUROPSYCHOLOGY, PLLC	1
HALIFAX REGIONAL MEDICAL CENTER	4
HAVEN	2
HHC-SOUTH CAROLINA, INC DBA LIGHTHOUSE CARE CENTER OF CONWAY	1
HOLLY HILL HOSPITAL LLC	5
INTEGRATED FAMILY SERVICES PLLC	53
J B CHILDERS MD PLLC	9
JOHNSTON COUNTY PUBLIC HEALTH DEPARTMENT	3
JOHNSTON HEALTH SERVICES CORPORATION	9
KEYSTONE WSNC, LLC DBA OLD VINEYARD BEHAVIORAL HEALTH SERVICES	1
KINSTON PHYSICIANS GROUP PLLC	1
LECHRIS ADULT DAY CARE OF ROCKY MOUNT, INC. DBA LECHRIS BEHAVIORAL HEALTH SERVICES	1
LECHRIS COUNSELING SERVICES, INC.	13
LECHRIS HEALTH SYSTEMS OF GREENVILLE	22
LECHRIS HEALTH SYSTEMS OF NEW BERN INC	2
LENOIR MEMORIAL HOSPITAL	9
LICIA W. ROGERS	1
LIFEQUEST INC	13
LIFESOURCE OF NORTH CAROLINA	6
LINDLEY HABILITATION SERVICES INC.	2
LISA BENTZ DBA BENTZ THERAPEUTIC SERVICES INC	1
LUTHERAN FAMILY SERVICES IN THE CAROLINAS	3
LYNCHBURG GENERAL HOSPITAL	1
MARIA PARHAM MEDICAL CENTER	3
MARTIN GENERAL HOSPITAL	27
MARTIN PATRICK D DBA PATRICK D MARTIN MD	10
MAXIM HEALTHCARE SERVICES INC	1
MCLEOD LORIS SEACOAST HOSPITAL	1
MELVIN THOMAS/DBA MIND OF HOPE COMMUNITY LIVING	1
METHODIST HOME FOR CHILDREN INC	2
MISSION HOSPITAL INC	1
MISSION MEDICAL ASSOCIATES, INC.	1

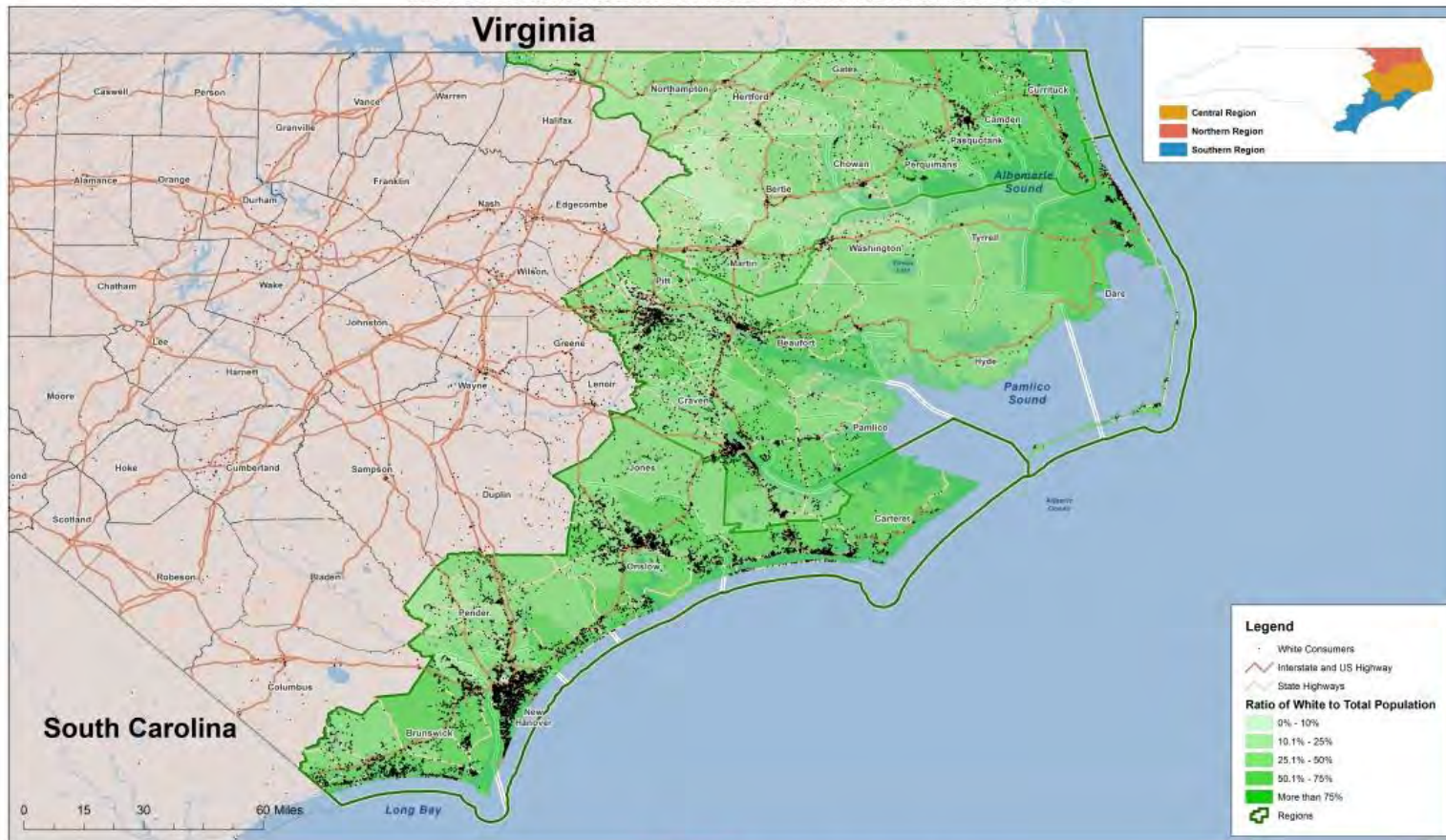
PROVIDER NAME	Inpatient Admissions (Count)
MONARCH	26
NASH HOSPITALS INC DBA COASTAL PLAIN HOSPITAL	11
NEW BERN PROFESSIONAL HEALTH SERVICES, PC	21
NEW HANOVER REGIONAL MEDICAL CENTER	353
NORTH CAROLINA EM-I	1
NORTH CAROLINA SOLUTIONS	5
NOVANT HEALTH BRUNSWICK MEDICAL CENTER	76
NOVANT HEALTH THOMASVILLE MEDICAL CENTER DBA COMMUNITY GENERAL HEALTH PARTNERS, INC	2
NUVIZIONS LLC	3
ONECARE INC DBA ONECARE BEHAVIORAL HEALTH SYSTEM	5
ONslow MEMORIAL HOSPITAL	169
PAMLICO COUNSELING PLLC	3
PARADIGM INC	10
PATHWAYS COUNSELING CENTER	1
PATHWAYS TO LIFE INC	12
PENDER MEMORIAL HOSPITAL	25
PHYSICIAN ALLIANCE FOR MENTAL HEALTH	99
PIEDMONT BEHAVIORAL SERVICES, PC	13
PINNACLE HOME CARE INC-GREENVILLE	9
PITT COUNSELING PLLC	4
PITT COUNTY MEMORIAL HOSPITAL INC DBA VIDANT MEDICAL CENTER	219
PORT HEALTH SERVICES	145
PREMIER HEALTHCARE SERVICES INC	1
PRESBYTERIAN HOSPITAL THE DBA NOVANT	1
PRIDE IN NORTH CAROLINA, LLC	59
RACHEL'S HOUSE	11
RECOVERY INNOVATIONS, INC.	15
RHA HEALTH SERVICES	127
RHA HEALTH SERVICES NC LLC	7
RIVERSIDE EMERGENCY PHYSICIANS LLP	1
ROBERTS CHRISTOPHER JAMES	2
ROBESON HEALTH CARE CORPORATION INC	1
ROWAN REGIONAL MEDICAL CENTER	2
RUBICON	1
SADAF LLC	1
SAMPSON REGIONAL MEDICAL CENTER	3
SAPIA PSYCHOLOGICAL ASSOCIATES, INC.	1
SBH WILMINGTON LLC DBA STRATEGIC BEHAVIORAL CENTER	82
SBH-RALEIGH, LLC DBA STRATEGIC BEHAVIORAL CENTER	5

PROVIDER NAME	Inpatient Admissions (Count)
SE EMERGENCY PHYSICIANS	2
SENTARA ALBEMARLE REGIONAL MEDICAL CENTER	46
SHINELIGHT, INC.	9
SOLID FOUNDATION FACILITIES INC	4
SOUTHCARE COMMUNITY SERVICE, INC	6
SOUTHEASTERN REGIONAL MEDICAL CENTER	3
SOUTHLIGHT HEALTHCARE	1
SPIRIT OF EXCELLENCE COMMUNITY OUTREACH, INC.	2
STRAND PHYSICIANS SPECIALISTS, PA	6
THE BAIR FOUNDATION	2
THE CAROLINAS EMERGENCY GROUP	1
THE FAMILY WELLNESS CENTER, PLLC	1
THE OUTER BANKS HOSPITAL, INC	32
THOMAS P CORNWALL MD PA	2
TOUCHSTONE RESIDENTIAL SERVICES	9
TURNING POINT SERVICES INC	6
UNC CHAPEL HILL DBA UNC FACULTY PHYSICIANS	8
UNC PHYSICIANS NETWORK, LLC	4
UNIVERSITY OF NORTH CAROLINA HOSPITALS	3
UPLIFT COMPREHENSIVE SERVICES INC.	1
UPRISING HOMES INC	1
UPRISING HOMES, INC.	3
VIDANT MEDICAL GROUP LLC DBA VIDANT MEDICAL GROUP	109
VISIONS IN VIEW INC	3
VOCA CORPORATION OF NORTH CAROLINA DBA NEW HORIZONS	4
WAKEMED	4
WASHINGTON COUNTY HOSPITAL	10
WATERWAY EMERGENCY PHYSICIANS	2
WAYNE HEALTH PHYSICIANS DBA WAYNE HEALTH PSYCHIATRIC SVCS	4
WAYNE MEMORIAL HOSPITAL INC	12
WE CARE RESIDENTIAL FACILITY, INC.	1
WILMINGTON HEALTH ACCESS FOR TEENS, INC.	3
WILSON MEDICAL CENTER	3
WINSTON CLINICAL ASSOCIATES	3
WINSTON PSYCHIATRIC ASSOCIATES PA	12
YOUNG ALISA PSYD	2
YOUTH VILLAGES	1
Trillium Catchment Total	3,524

Appendix F: Trillium Maps

White Consumers and Locations

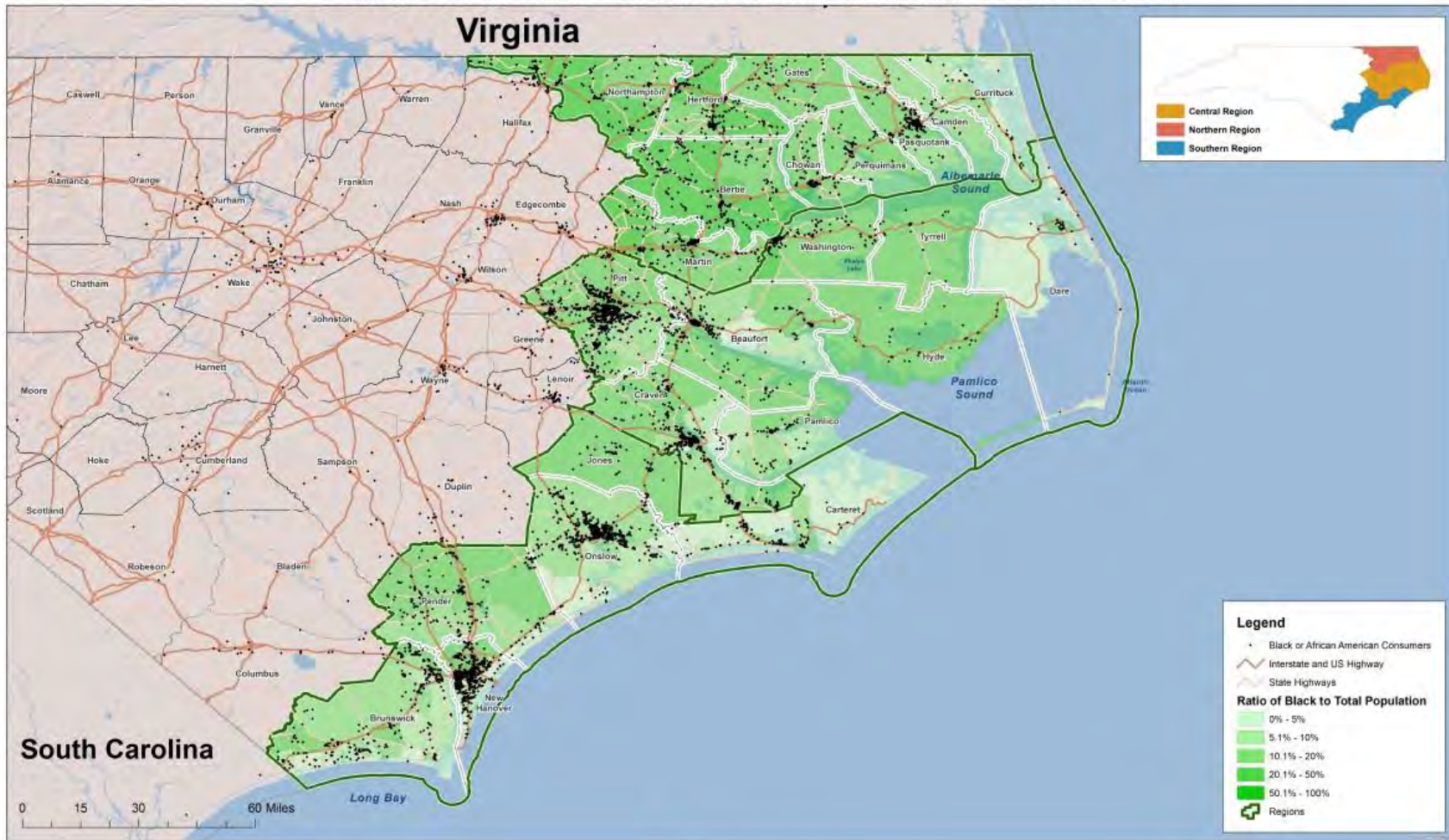
Ratio of White Population to Total Population by Census Tract and Locations of White Consumers in Trillium Health Resources SFY16



ACT ADDICTION & Training
Consulting ASSOCIATES

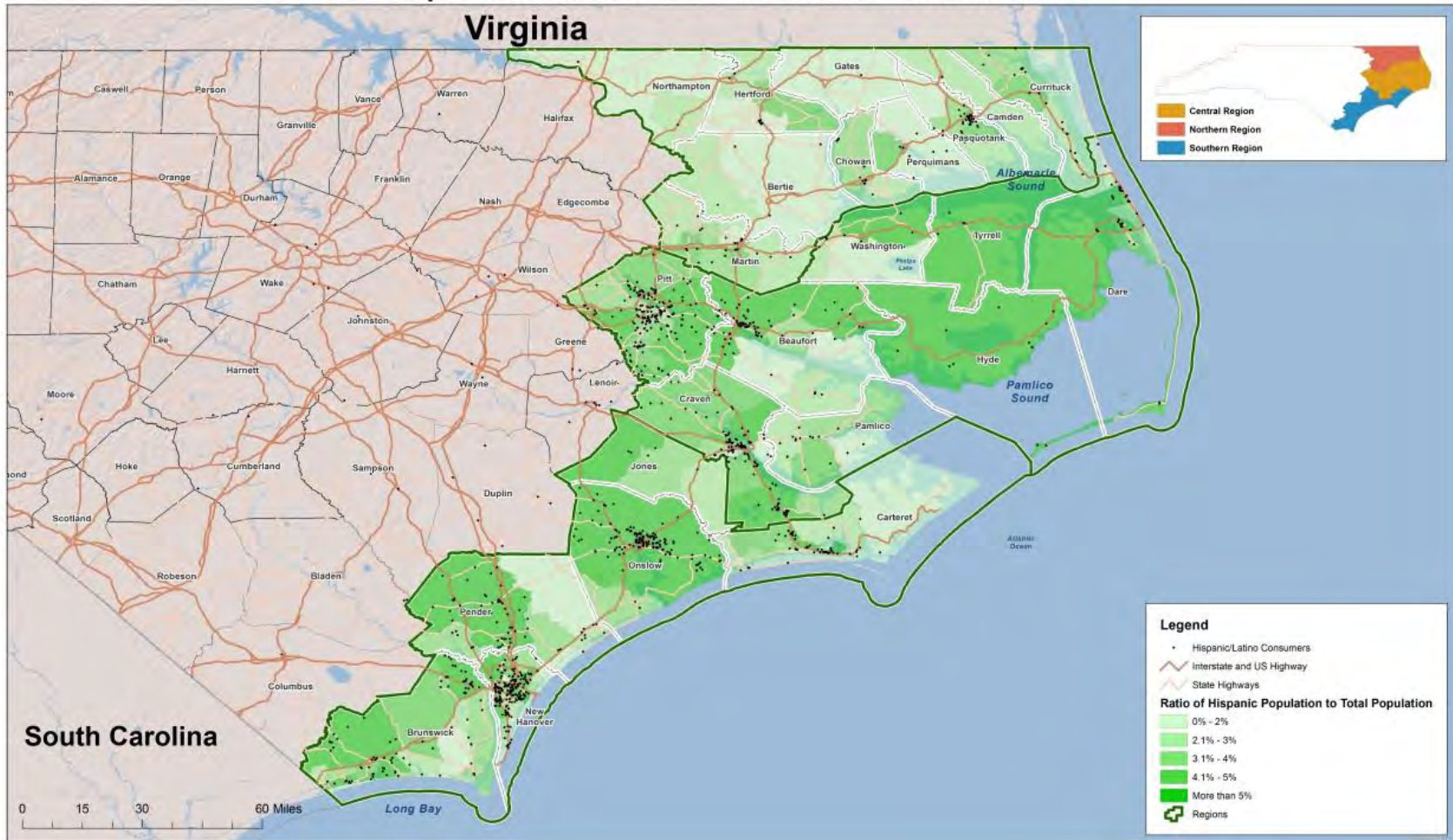
Ratio Black/African American Consumers and Locations

Ratio of Black/African American Population to Total Population by Census Tract and Locations of Black/African American Consumers in Trillium Health Resources SFY16



Ratio Hispanic Consumers and Locations

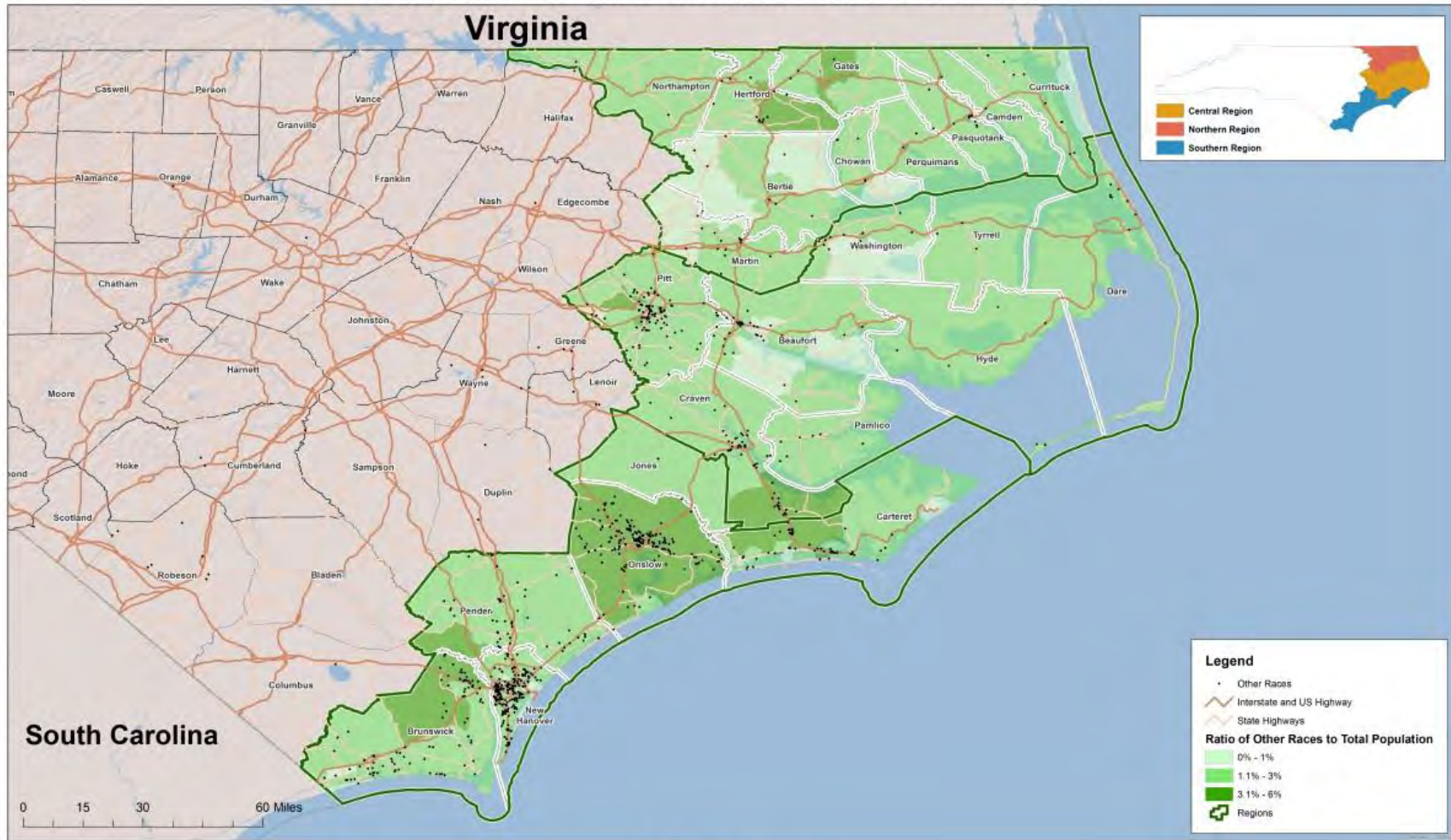
Ratio of Hispanic Population to Total Population by Census Tract and Locations of Hispanic Consumers in Trillium Health Resources SFY16



ACT ADDICTION & Training
CONSULTING & ASSOCIATES

Ratio Other Race Consumers and Locations

Ratio of Other Population to Total Population by Census Tract and Locations of Other Race Consumers in Trillium Health Resources SFY16



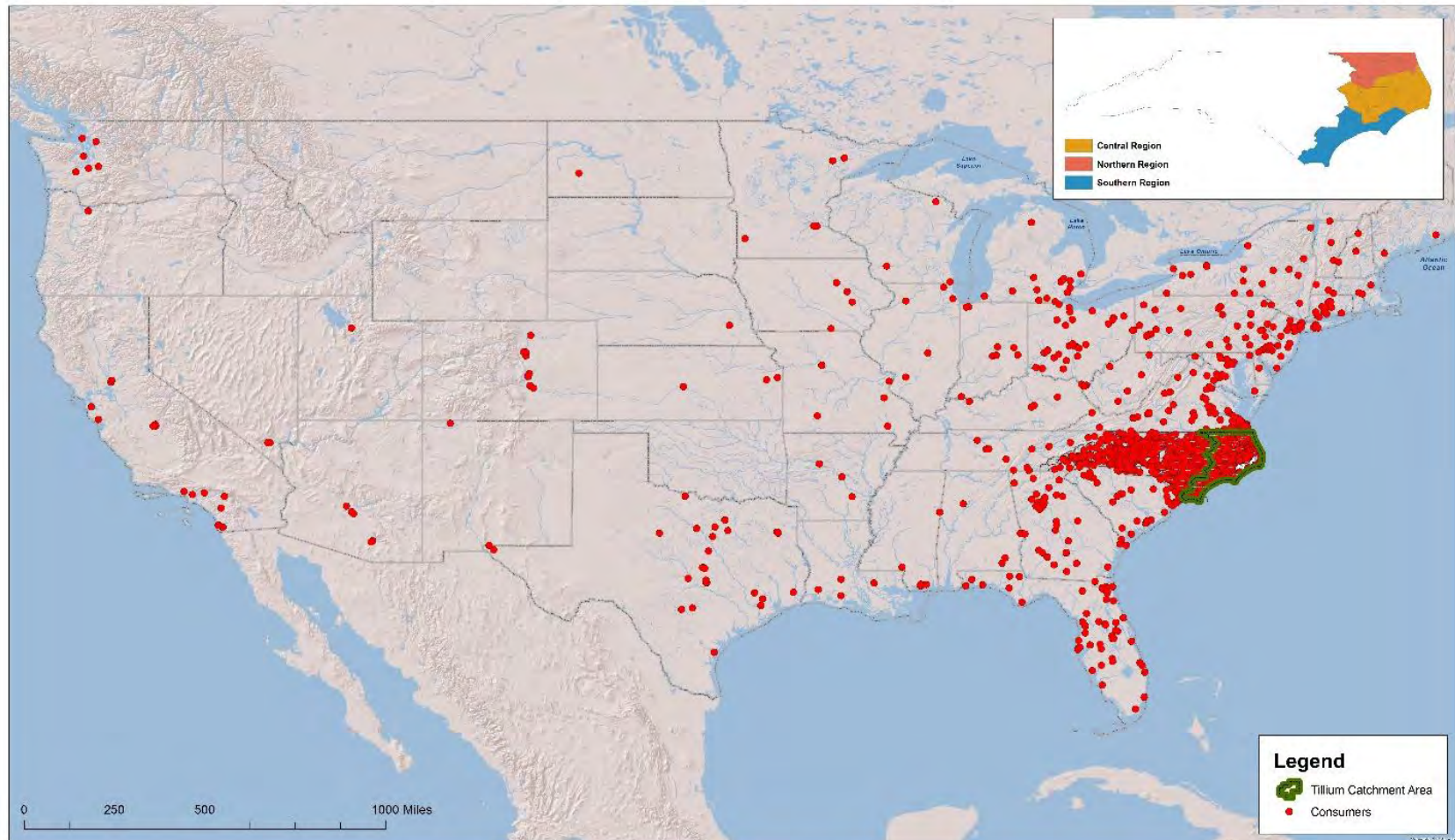
Ratio Asian Consumers and Locations

Ratio of Asian Population to Total Population by Census Tract and Locations of Asian Consumers in Trillium Health Resources SFY16



Trillium Consumers - US

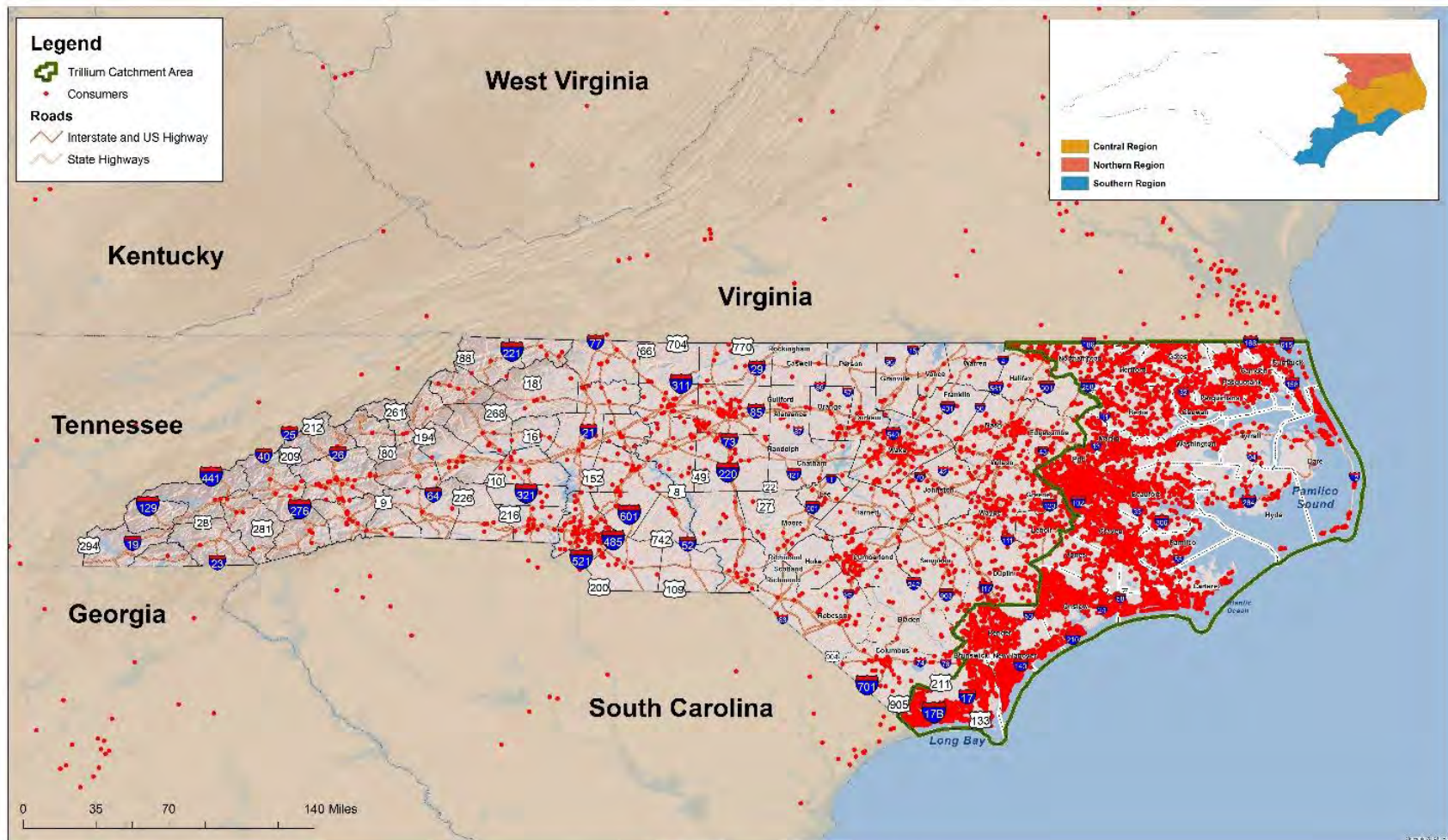
Trillium Health Resources Consumers Nationwide SFY16



ACT ADDICTION & Training
Consulting & ASSOCIATES

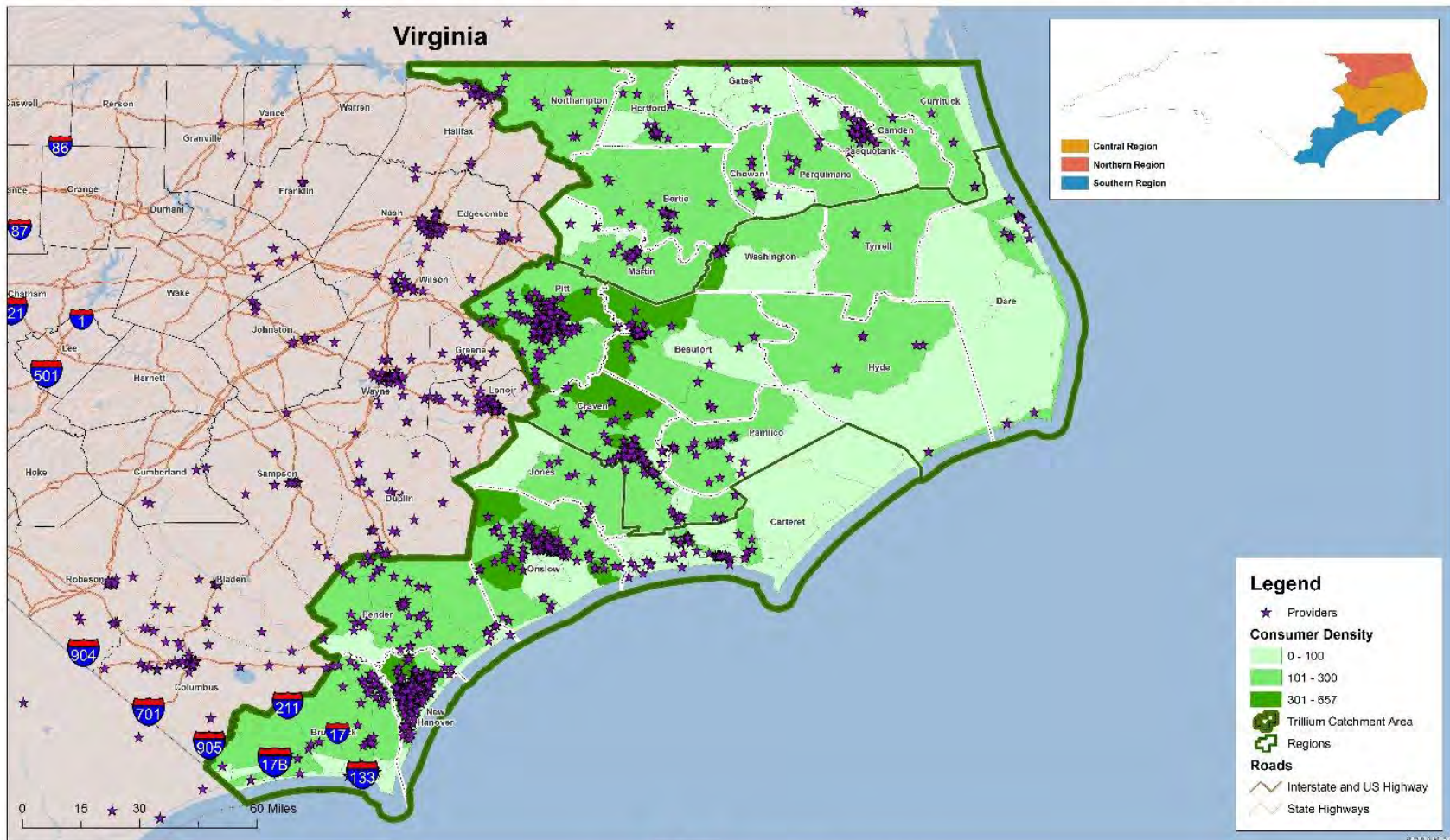
Trillium Consumers - NC and Neighboring States

Trillium Health Resources Consumers NC & Neighboring States SFY16



Consumer Density with Provider Locations

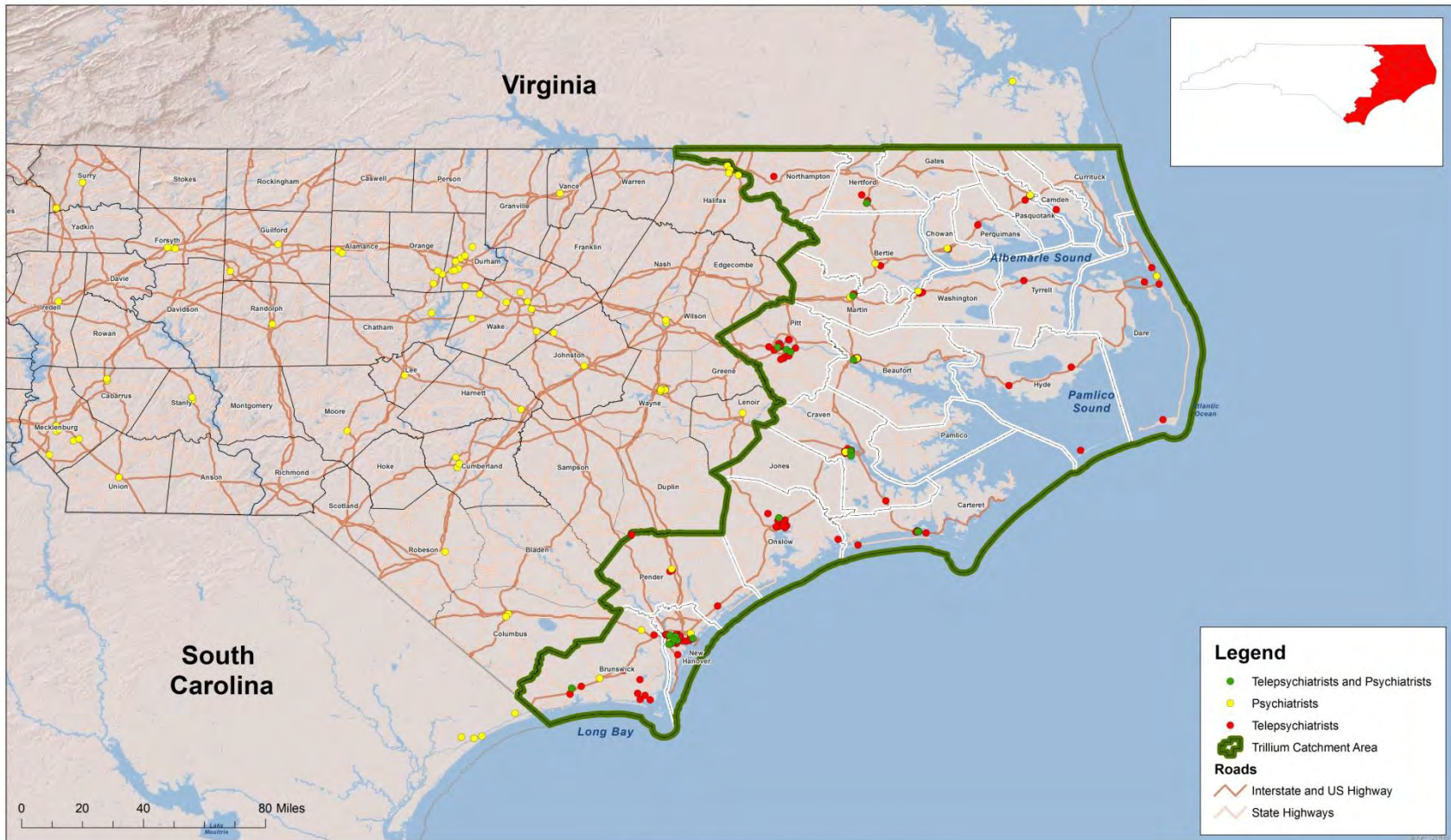
Trillium Health Resources Consumer Density with Provider Locations In-Catchment Area SFY16



ACT ADDICTION & Training
Consulting & ASSOCIATES

Psychiatrist and Telepsychiatry Locations

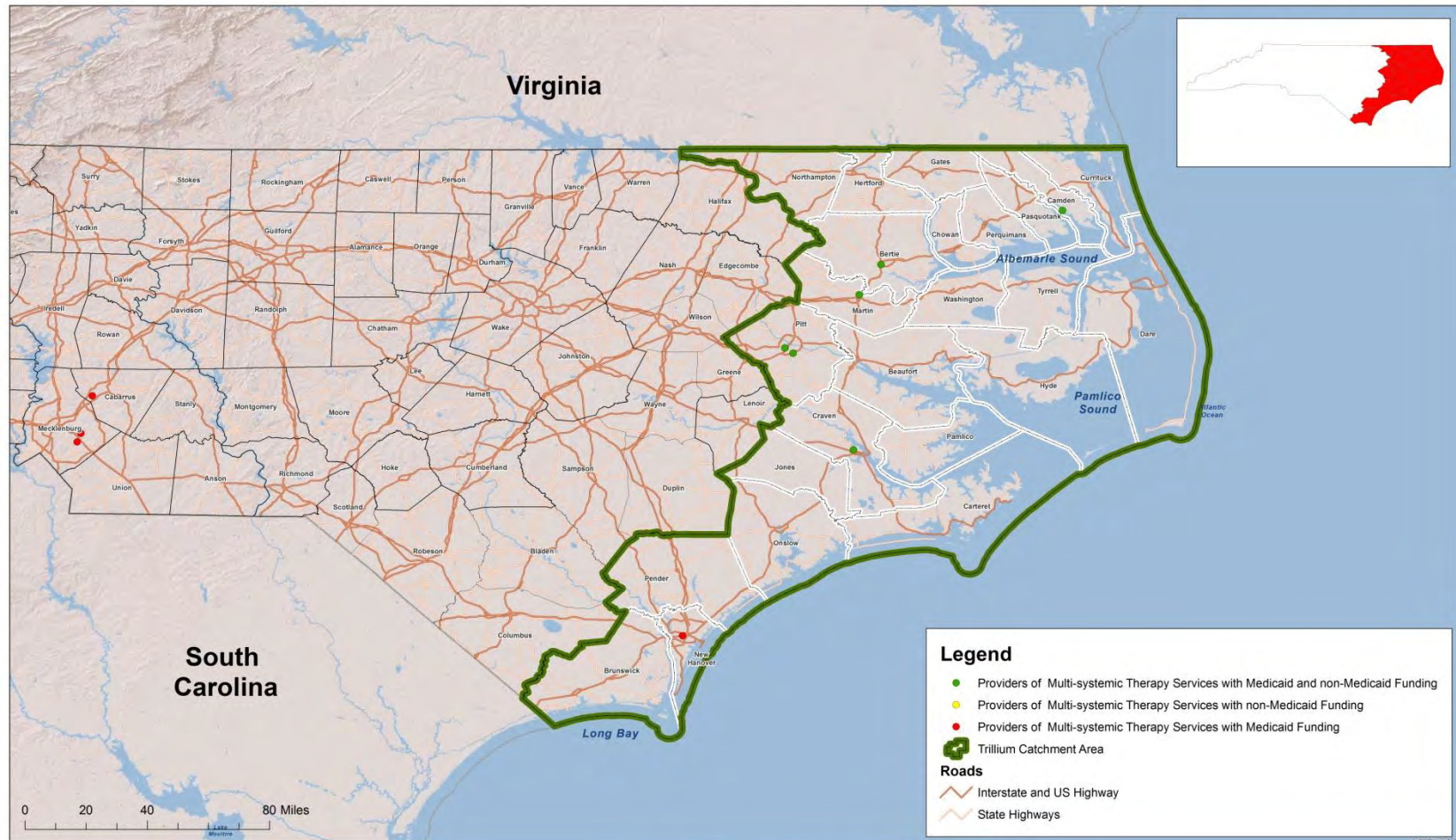
Locations of Psychiatrists and Telepsychiatrists in Trillium Catchment SFY16



ACT ADDICTION & Training
Consulting ASSOCIATES

MST - With and Without Medicaid

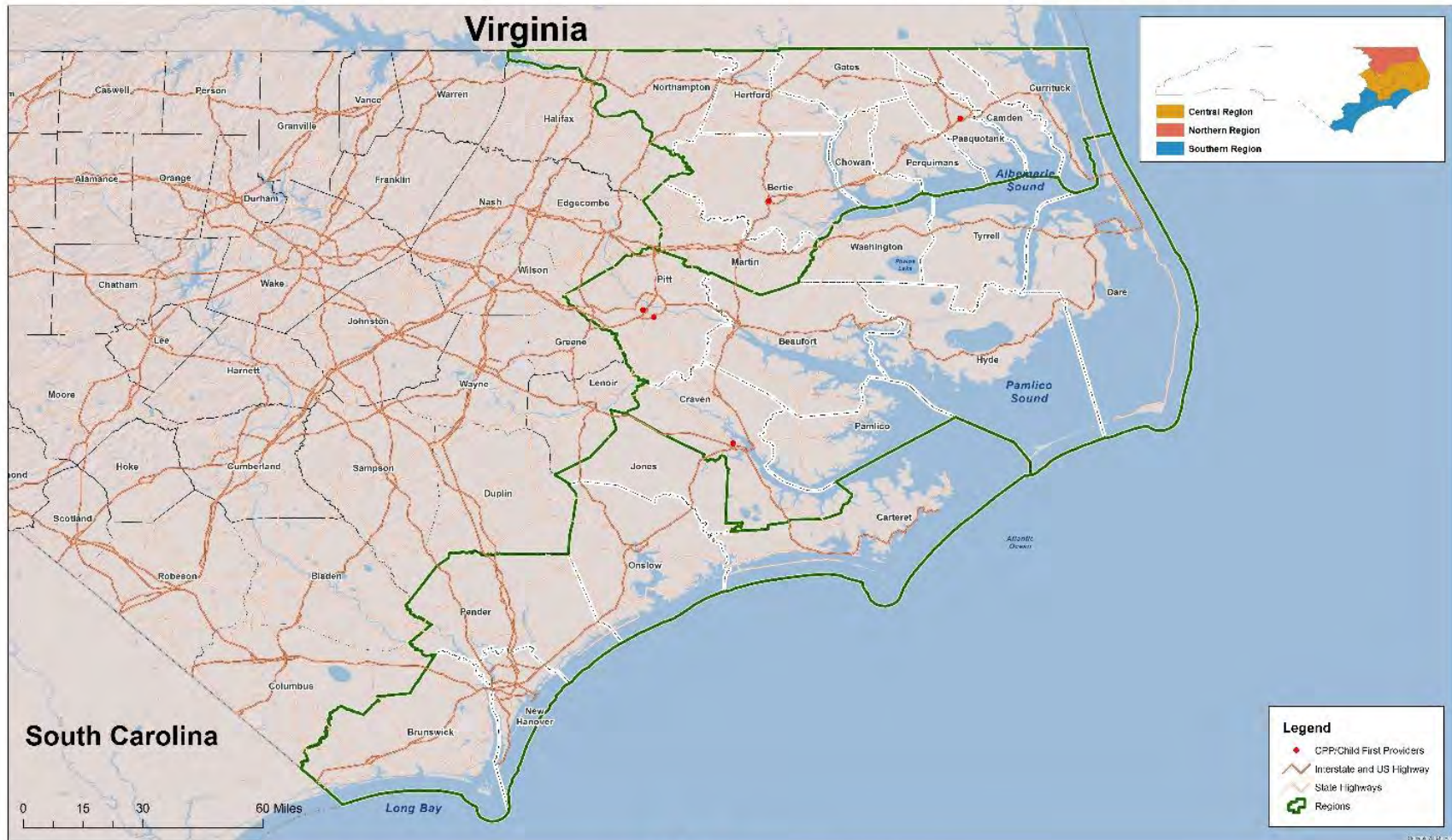
Trillium Health Resources Multi-systemic Therapy Services with and without Medicaid Funding SFY16



ACT ADDICTION & Training
Consulting & ASSOCIATES

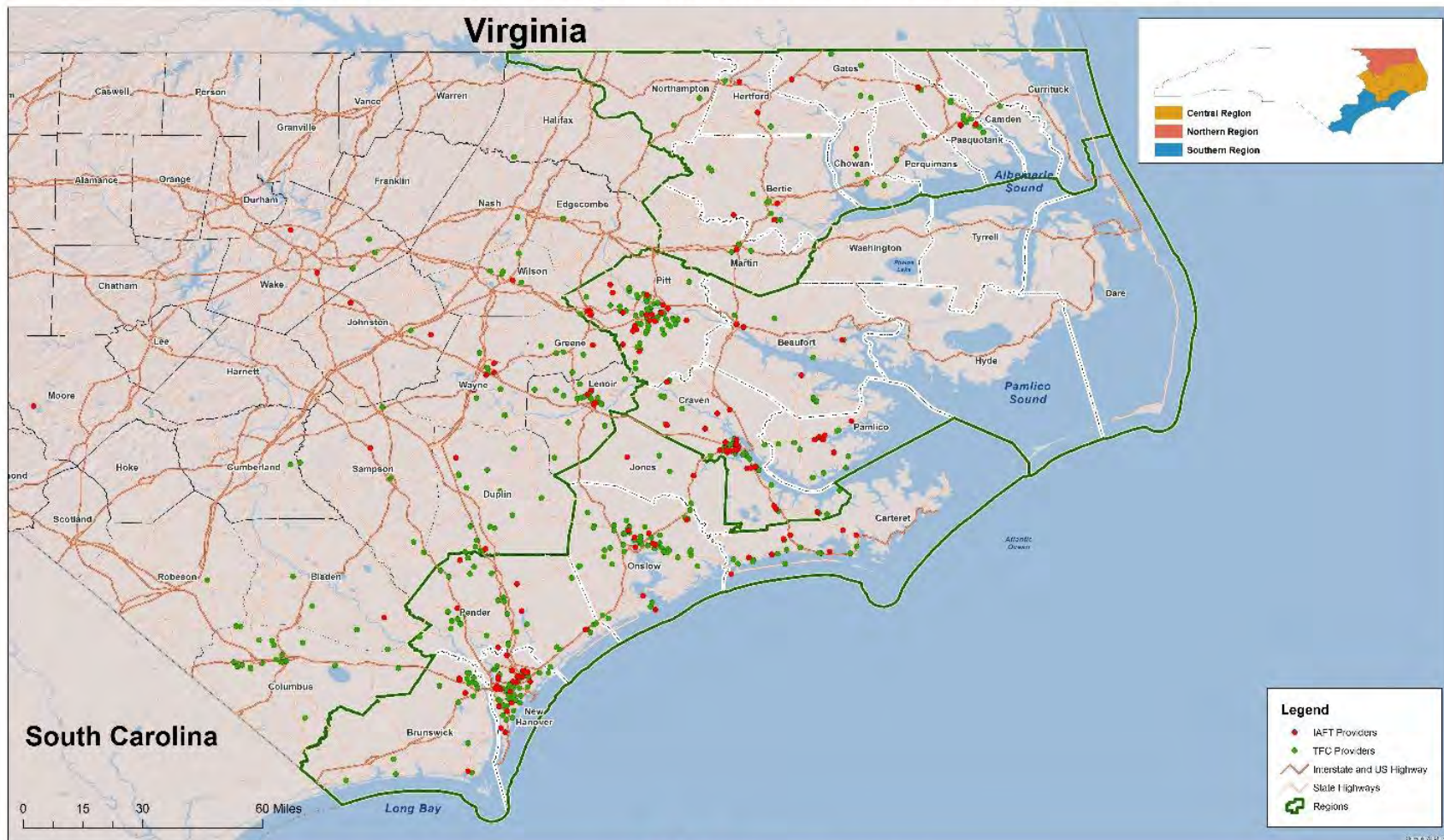
CPP/Child First Providers

CPP/Child First Providers in Trillium Health Resources Catchment Area SFY16



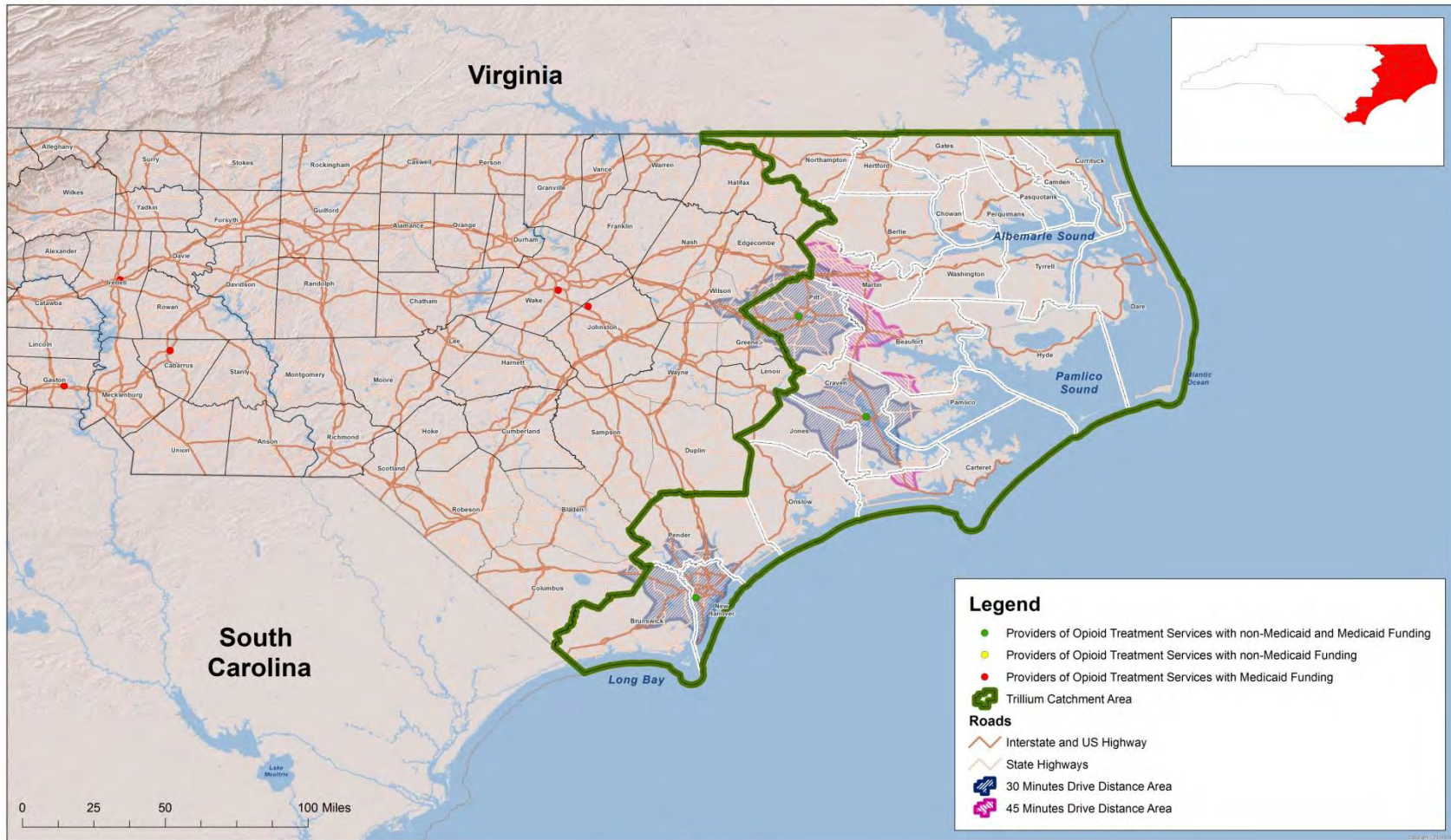
IAFT and TFC Providers

IAFT and TFC Providers in Trillium Health Resources Catchment Area SFY16



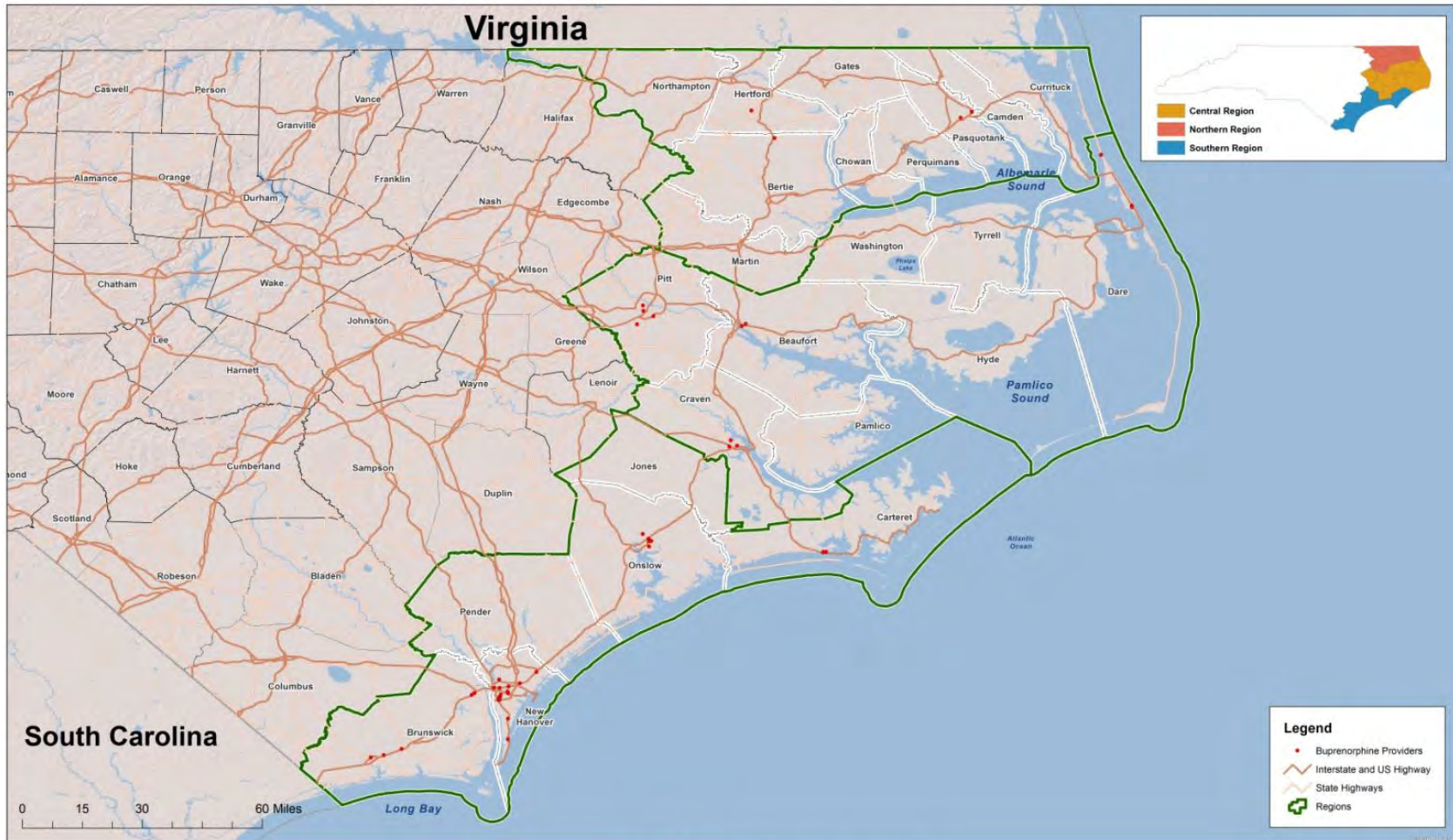
Opioid Treatment Services

Trillium Health Resources Opioid Treatment Services SFY16



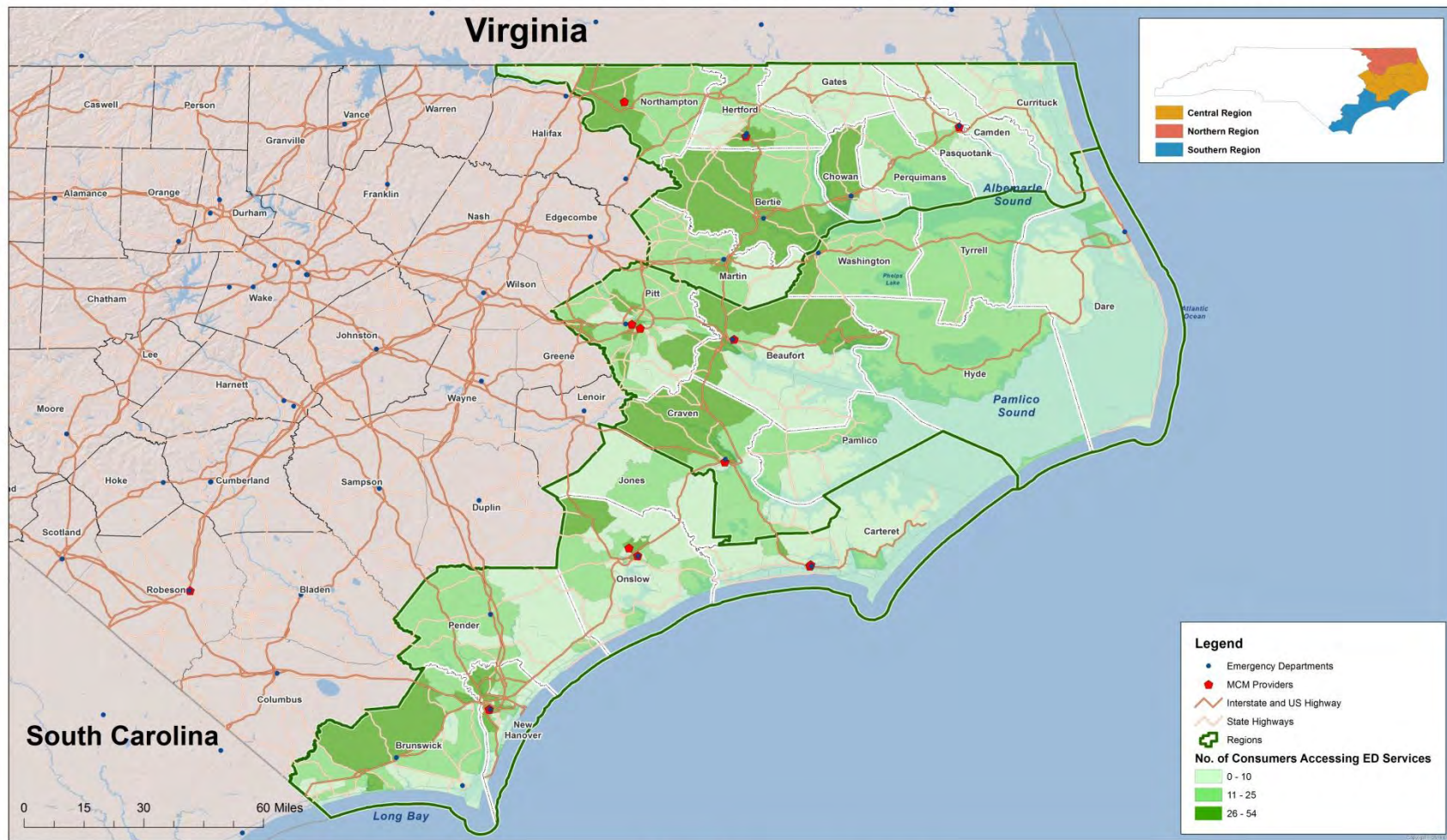
Buprenorphine Providers

Buprenorphine Providers in Trillium Health Resources Catchment Area SFY16



ED and Mobile Crisis Management Locations

Emergency Department and MCM Locations in Trillium Health Resources Catchment Area SFY16



Appendix G: Glossary of Clinical Licenses

Abbreviation	License Name
APN-CNS	Advance Practice Nurse-Clinical Nurse Specialist
BCBA	Board Certified Behavior Analyst
CCAS	Certified Clinical Addiction Specialist
CCS	Certified Clinical Supervisor
CSAC	Certified Substance Abuse Counselor
DEA	Dispensing License
LCAS	Licensed Clinical Addiction Specialist
LCAS-P	Licensed Clinical Addiction Specialist-Provisional
LCSW	Licensed Clinical Social Worker
LCSWA	Licensed Clinical Social Worker Associate
LDN	Licensed Dietician/Nutritionist
LMFT	Licensed Marriage and Family Therapist
LP/PhD	Licensed Psychologist
LPA	Licensed Psychological Associate
LPC	Licensed Professional Counselor
LPCA	Licensed Professional Counselor Associate
LPCS	Licensed Professional Counselor Supervisor
MD	Medical Doctor
MFTA	Marriage and Family Therapist Associate
NP	Nurse Practitioner
PA	Physician's Assistant
PMHCNS-BC	Psychiatric Mental Health Clinical Nurse Specialist (Adult or Child/Adolescent)
PMHNP-MH	Psychiatric-Mental Health Nurse Practitioner (across life span)
RN	Registered Nurse

Appendix H: References

NOTES:

- + The North Carolina Four-Year Cohort Graduation Rate reflects the percentage of ninth graders (their cohort) who graduated from high school four years later.
- ^ Calculated as the percentage of Alcohol involved crashes in the State/County that had at least one fatality

SOURCES:

- (1) Algren D, Monteilh C, Rubin C, et al. Fentanyl-associated fatalities among illicit drug users in Wayne County, Michigan (July 2005-May 2006). *Journal Of Medical Toxicology: Official Journal of the American College Of Medical Toxicology* [serial online]. March 2013; 9(1):106-115.
- (2) Bohnert AS, Valenstein M, Bair MJ, Ganoczy D, McCarthy JF, Ilgen MA, et al. Association between opioid prescribing patterns and opioid overdose-related deaths. *JAMA* 2011;305(13):1315-1321.
- (3) Boyle, C. A., Boulet, S., Schieve, L.A., Cohen, R.A., Blumberg, S.J., Yeargin-Allsopp, M. & Kogan, M. D. (2011). Trends in the Prevalence of Developmental Disabilities in U.S. Children, 1997-2008. *Pediatrics*, 127, 1034-1042. <http://pediatrics.aapublications.org/content/127/6/1034.long>
- (4) CDC. Wide-ranging online data for epidemiologic research (WONDER). Atlanta, GA: CDC, National Center for Health Statistics; 2016. Available at <http://wonder.cdc.gov>.
- (5) Centers for Disease Control and Prevention, Children’s Mental Health Report. (Accessed 2/21/2017). <https://www.cdc.gov/childrensmentalhealth/research.html>
- (6) Centers for Disease Control and Prevention. (2016). Community Report on Autism. (Accessed 2/20/2017). http://www.cdc.gov/ncbddd/autism/documents/community_report_autism.pdf
- (7) Centers for Disease Control and Prevention. Demographic and Substance Use Trends Among Heroin Users — United States, 2002–2013. *MMWR* 2015; 64(26):719-725
- (8) Centers for Disease Control and Prevention. Vital Signs: Variation Among States in Prescribing of Opioid Pain Relievers and Benzodiazepines — United States, 2012. *MMWR* 2014; 63(26):563-568.
- (9) Chang H, Daubresse M, Kruszewski S, et al. Prevalence and treatment of pain in emergency departments in the United States, 2000 – 2010. *Amer J of Emergency Med* 2014; 32(5): 421-31.
- (10) Chou R, Turner JA, Devine EB, et al. The Effectiveness and Risks of Long-Term Opioid Therapy for Chronic Pain: A Systematic Review for a National Institutes of Health Pathways to Prevention Workshop. *Ann Intern Med*. 2015;162(4):276. doi:10.7326/M14-2559.
- (11) Cicero TJ, Ellis MS, Surratt HL, Kurtz SP. The changing face of heroin use in the United States: a retrospective analysis of the past fifty years. *JAMA Psychiatry* 2014;71:821–6.
- (12) Daubresse M, Chang H, Yu Y, Viswanathan S, et al. Ambulatory diagnosis and treatment of nonmalignant pain in the United States, 2000 – 2010. *Medical Care* 2013; 51(10): 870-878.
- (13) Dowell D, Haegerich TM, Chou R. CDC Guideline for Prescribing Opioids for Chronic Pain - United States, 2016. *MMWR Recomm Rep Morb Mortal Wkly Rep Recomm Rep Cent Dis Control*. 2016;65(1):1-49. doi:10.15585/mmwr.rr6501e1.
- (14) Downey LV, Zun LS, Gonzales SJ. Utilization of emergency department by psychiatric patients. *Primary Psychiatry* 2009; 16:60–4.

-
- (15) Dunn KM, Saunders KW, Rutter CM, Banta-Green CJ, Merrill JO, Sullivan MD, et al. Opioid prescriptions for chronic pain and overdose: a cohort study. *Ann Intern Med.* 2010;152(2):85-92.
 - (16) Freeman EJ, Colpe LJ, Strine TW, et al. Public health surveillance for mental health. *Prev Chronic Dis* 2010;7:A17.
 - (17) Green TC, Graub LE, Carver HW, Kinzly M, Heimer R. Epidemiologic trends and geographic patterns of fatal opioid intoxications in Connecticut, USA: 1997–2007. *Drug and Alcohol Dependence* 2011;115:221-8.
 - (18) Gutstein H, Akil H. Opioid Analgesics. In: Goodman & Gilman's the Pharmacological Basis of Therapeutics. 11th ed. McGraw-Hill; 2006:547-590.
 - (19) Hall AJ, Logan JE, Toblin RL, Kaplan JA, Kraner JC, Bixler D, et al. Patterns of abuse among unintentional pharmaceutical overdose fatalities. *JAMA* 2008;300(22):2613-20.
 - (20) Hart CL, Ksir C. *Drugs, Society & Human Behavior*. 15th ed. New York, NY: McGraw-Hill; 2013.
 - (21) IMS Health, National Prescription Audit (NPATM). Cited in internal document: Preliminary Update on Opioid Pain Reliever (OPR) Prescription Rates Nationally and by State: 2010-2013.
 - (22) IMS's National Prescription Audit (NPA) & Vector One ®: National (VONA).
 - (23) Institute of Health Improvement. Framework for Systematic Improvement of Health Systems. <http://www.ihl.org/engage/initiatives/TripleAim/Pages/default.aspx>. Retrieved June 12, 2017
 - (24) Institute of Medicine (U.S.), ed. *Relieving Pain in America: A Blueprint for Transforming Prevention, Care, Education, and Research*. Washington, D.C: National Academies Press; 2011.
 - (25) International Narcotics Control Board Report 2008.. United Nations Pubns. 2009. p. 20
 - (26) Jones CM. Heroin use and heroin use risk behaviors among nonmedical users of prescription opioid pain relievers — United States, 2002–2004 and 2008–2010. *Drug Alcohol Depend* 2013;132:95-100.
 - (27) Jones CM, McAninch JK. Emergency Department Visits and Overdose Deaths From Combined Use of Opioids and Benzodiazepines. *Am J Prev Med.* 2015;49(4):493-501. doi:10.1016/j.amepre.2015.03.040.
 - (28) Jones CM, Paulozzi LJ, Mack KA, Centers for Disease Control and Prevention (CDC). Alcohol involvement in opioid pain reliever and benzodiazepine drug abuse-related emergency department visits and drug-related deaths - United States, 2010. *MMWR Morb Mortal Wkly Rep.* 2014;63(40):881-885.
 - (29) Lee M, Silverman SM, Hansen H, Patel VB, Manchikanti L. A comprehensive review of opioid-induced hyperalgesia. *Pain Physician.* 2011;14(2):145-161.
 - (30) Mack KA, Zhang K, Paulozzi L, Jones C. Prescription Practices involving Opioid Analgesics among Americans with Medicaid, 2010. *J Health Care Poor Underserved* 2015;26(1):182-98.
 - (31) Medicare Coverage and Reporting: A Comparison of the Current Population Survey and Administrative Records Center for Administrative Records Research and Application, U.S. Census Bureau. (Released 12/9/2016).
 - (32) Merikangas, K.R., He, J., Burstein, M., Swanson, S.A., Avenevoli, S., Cui, L., Benjet, C., Gerogiades, K., & Swendsen, J. (2010). Lifetime prevalence of mental disorders in U.S. adolescents: Results from the National Comorbidity Study-Adolescent supplement (NCS-A). *Journal of the American academy of Child and Adolescent Psychiatry*, 49, 90-989.

-
- (33) Muhuri PK, Gfroerer JC, Davies C. Associations of nonmedical pain reliever use and initiation of heroin use in the United States. CBHSQ Data Review, 2013.
 - (34) National Center on Birth Defects and Developmental Disabilities, Center for Disease Control and Prevention, Mental and Emotional Health- Mentally Unhealthy Days in Past 30 Days – 14 Days – Among Adults with Disability and 65+, Data comes from 2014, last updated July 1, 2016. (Accessed 5/7/2017). <https://dhds.cdc.gov/dataviews/tabular?viewId=1566&geoid=1&subsetId=&z=1>
 - (35) National Institute of Mental Health. What is Prevalence? Any Disorder Among Children. (Accessed 2/21/2017). <http://www.nimh.nih.gov/health/statistics/prevalence/any-disorder-among-children.shtml>
 - (36) N.C. Department of Administration, Council for Women. FY 2016 County Statistics. (Accessed 2/10/17). <http://www.councilforwomen.nc.gov/stats.aspx>
 - (37) N.C. Department of Commerce. Labor & Economic Analysis Division. (Accessed 12/1/16). <http://d4.nccommerce.com/LausSelection.aspx>
 - (38) N.C. Department of Justice. 2015 Crime Statistics in Detailed Reports. (Accessed 2/16/17). <http://crimereporting.ncsbi.gov/Reports.aspx>
 - (39) N.C. Department of Transportation, Division of Motor Vehicles, Traffic Records Branch. North Carolina 2015 Traffic Crash Facts. Released 8/16. (Accessed 12/10/16). <https://connect.ncdot.gov/business/DMV/DMV%20Documents/2015%20Crash%20Facts.pdf>
 - (40) N.C. DHHS, Division of Medical Assistance. CCNC/CA Monthly Enrollment Reports. June 30, 2016. (Accessed 9/16/16). <http://dma.ncdhhs.gov/about/statistics-and-reports>
 - (41) N.C. DHHS, Division of Public Health, Communicable Disease Branch. N.C. HIV/STD 2015 Annual Report. (Released August, 2016 – Accessed 12/5/16). http://epi.publichealth.nc.gov/cd/stds/figures/std15rpt_rev10112016.pdf
 - (42) N.C. DHHS, Division of Public Health, North Carolina State Center for Health Statistics. (Accessed 12/8/16). <http://www.schs.state.nc.us/data/vital/lcd/2015/otherinjuries.html>
 - (43) N.C. DHHS, Division of Public Health, North Carolina State Center for Health Statistics. N.C. Resident Mortality Statistics Summary for FY 2015. (Accessed 1/21/17). <http://www.schs.state.nc.us/data/vital/lcd/2015/suicide.html>
 - (44) N.C. DHHS, State Center for Health Statistics. (Accessed 1/10/17). <http://www.schs.state.nc.us/data/vital/pregnancies/2015/preg1519.pdf>
 - (45) N.C. Division of Medical Assistance Medicaid Eligible – June 30, 2016. (Accessed 9/16/2016).
 - (46) N.C. Office of State Budget and Management. July 2016 Single Age Projections. Accessed 9/16/16.
 - (47) N.C. Office of State Budget and Management . https://ncosbm.s3.amazonaws.com/s3fs-public/demog/countytotals_2010_2019.html. (Accessed 9/16/2016).
 - (48) Ossiander EM. Using textual cause-of-death data to study drug poisoning deaths. Am J Epidemiol 2014 Apr 1;179(7):884-94.
 - (49) Paulozzi LJ, Logan JE, Hall AJ, McKinstry E, Kaplan JA, Crosby AE. A comparison of drug overdose deaths involving methadone and other opioid analgesics in West Virginia. Addiction 2009;104(9):1541-8.
 - (50) Peirce GL, Smith MJ, Abate MA, Halverson J. Doctor and Pharmacy Shopping for Controlled Substances. Med Care 2012 Jun;50(6):494-500.

-
- (51) Rudd RA, Aleshire N, Zibbell JE, Gladden RM. Increases in Drug and Opioid Overdose Deaths - United States, 2000-2014. *MMWR Morb Mortal Wkly Rep.* 2016;64(50-51):1378-1382. doi:10.15585/mmwr.mm6450a3.
- (52) Rudd RA, Seth P, David F, Scholl L. Increases in Drug and Opioid-Involved Overdose Deaths — United States, 2010–2015. *MMWR Morb Mortal Wkly Rep.* ePub: 16 December 2016. DOI: <http://dx.doi.org/10.15585/mmwr.mm6550e1>.
- (53) SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2014 and 2015, published 1/24/2017, Table 12, North Carolina, Any Mental Illness in the Past Year, by Age Group and State: Percentages, Annual Averages Based on 2014 and 2015 NSDUHs. <http://www.samhsa.gov/data/sites/default/files/NSDUHsaePercents2015.pdf>
- (54) SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health 2014 and 2015, Published 1/24/2017, Table 13, North Carolina, Any Mental Illness in the Past Year, by Age Group and State: Percentages, Annual Averages based on 2014 and 2015 NSDUHs. <http://www.samhsa.gov/data/sites/default/files/NSDUHsaePercents2015.pdf>
- (55) SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2013 and 2014, published 12/16/2015, Table 20, North Carolina, Dependence or Abuse of Illicit Drugs or Alcohol in the Past Year, by Age Group and State: Percentages, Annual Averages Based on 2013 and 2014 NSDUHs. <http://www.samhsa.gov/data/sites/default/files/NSDUHsaePercents2014.pdf>
- (56) Societal Costs of Prescription Opioid Abuse, Dependence, and Misuse in the United States *pme_1075 657..667* Howard G. Birnbaum, PhD,* Alan G. White, PhD,* Matt Schiller, BA,* Tracy Waldman, BA,* Jody M. Cleveland, MS,† and Carl L. Roland, PharmD. *Pain Medicine* 2011; 12: 657–667 Wiley Periodicals, Inc.
- (57) UNC Sheps Center for Health Services Research. 2014 N.C. Health Professions Data Book. Released April, 2016. (Accessed 12/6/16). http://www.shepscenter.unc.edu/workforce_product/2014-north-carolina-health-professions-data-book/
- (58) Unick G, Rosenblum D, Mars S, Ciccarone D. The relationship between U.S. heroin market dynamics and heroin-related overdose, 1992-2008. *Addiction.* 2014;109(11):1889-1898.
- (59) U.S. Census Bureau, Small Area Income and Poverty Estimates (SAIPE) Program. (Released 12/16 for CY 2015. Accessed 12/14/16). http://www.census.gov/did/www/saipe/data/interactive/saipe.html?s_appName=saipe&map_yearSelector=2015&map_geoSelector=aa_c&s_state=37&s_year=2015&menu=grid_proxy
- (60) U.S. Census Bureau, 2014 Small Area Health Insurance Estimates. (Current as of 9/16/2016. Accessed 12/10/16). http://www.census.gov/did/www/sahie/data/interactive/sahie.html?s_appName=sahie&s_statefips=37&map_yearSelector=&menu=grid_proxy
- (61) U. S. Department of Justice, Drug Enforcement Administration, DEA Investigative Reporting, January 2015.
- (62) White AG, Birnbaum HG, Schiller M, Tang J, Katz NP. Analytic models to identify patients at risk for prescription opioid abuse. *Am J of Managed Care* 2009;15(12):897-906.
- (63) Yang Z, Wilsey B, Bohm M, Soulsby M, Roy K, Ritley D, et al. Defining Risk for Prescription Opioid Overdose: Pharmacy Shopping and Overlapping Prescriptions among Long-Term Opioid Users in Medicaid. *J Pain* 2015; doi: 10.1016/j.jpain.2015.01.475. [Epub ahead of print]