COMMENTS IN OPPOSITION TO PETITION BY
SENTARA ALBEMARLE MEDICAL CENTER TO REMOVE THE
FIXED MRI NEED DETERMINATION IN THE
PASQUOTANK/CAMDEN/CURRITUCK/PERQUIMANS SERVICE AREA
IN THE PROPOSED 2022 STATE MEDICAL FACILITIES PLAN

August 11, 2021

TO THE STATE HEALTH COORDINATING COUNCIL:

Chesapeake Regional Healthcare ("Chesapeake") hereby submits these comments in opposition to the Petition filed by Sentara Albemarle Medical Center ("Sentara") to remove the need determination for one fixed magnetic resonance imaging scanner ("MRI Scanner") in the Pasquotank/Camden/Currituck/Perquimans Service Area (the "Pasquotank Service Area") that was included in the Proposed 2022 State Medical Facilities Plan ("SMFP") (the "Petition"). Sentara's self-serving Petition seeks only to artificially suppress competition and allow Sentara to maintain its decades-long monopoly of MRI services in this underserved region of North Carolina.

A History of Suppression of Need and Competition

While presented as a petition "due to the impact of COVID-19," Sentara has, in fact, filed a petition to remove the fixed MRI need determination in the Pasquotank Service Area **every year** that such need determination has been in a proposed SMFP since at least 2007.

In 2017, 2018 and 2020, Sentara filed petitions to remove the fixed MRI need determination in the proposed SMFPs for the subsequent planning year. Each of these years, Sentara made essentially the same claims—that it was the sole provider of MRI services in the Pasquotank Service Area; that there were negative or low volume growth trends; that there was a small population base with minimal growth; sufficient capacity existed with Sentara's equipment; and if a need determination remained in the plan, a new provider might try to enter the market. Each of these years, Sentara's petitions were approved, and the need determinations were removed from the final plans. Thus, for each of the last three need determinations, as calculated based upon the approved, standard need methodology used for planning in the entire State, Sentara has successfully petitioned for the removal of a need determination for a fixed MRI Scanner. The result of the successful petitions has been the elimination of any possibility of competition in the Pasquotank Service Area by suppressing the need.

In addition to successfully petitioning to remove three recent need determinations, as noted in its previous petitions, Sentara was awarded a second fixed MRI Scanner for the Elizabeth City hospital based on a need determination in the 2006 SMFP. However, that project was never

developed. Instead, years later, Sentara finally relinquished the undeveloped CON.[1] During this nearly ten-year period of time, the MRI need in the Pasquotank Service Area was further depressed by the inclusion of a second approved but non-operational scanner in the planning inventory. Because the second MRI Scanner appeared in the SMFP from 2009 through 2015, the SMFP reported two fixed MRI Scanners in the Pasquotank Service Area, thus affecting the fixed MRI Scanner need methodology and artificially depressing the need.

Moreover, despite Sentara's claims in each of its recent petitions regarding low population growth and decreased trends in utilization, Sentara's own needs assessment of the Pasquotank Service Area draws other conclusions. In its most recent Community Health Needs Assessment from 2019, attached hereto as <u>Exhibit A</u>, Sentara focuses on the demographics of this rural population, including population growth. *See* Exhibit A at p. 4.[2] Sentara specifically highlights the high population growth rate in Currituck County, where growth in many zip codes exceeded 12% growth from 2018 to 2023. *See* Exhibit A at pp. 4-5. Sentara also notes that the proportion of residents age 65+ is proportionally higher in the Pasquotank Service Area than in the State as a whole. *See* Exhibit A at p. 6. Poverty, poverty by race, high unemployment and high disease rates are other factors that Sentara notes to be high compared to North Carolina as a whole. See Exhibit A at pp. 10-13.

In Camden and Currituck Counties, community members reported the number of healthcare providers being among the top two services needing the most improvement. *See* Exhibit A at p. 27. This same concern was in the list of top four concerns by Perquimans' residents, with the availability of affordable healthcare being close behind in every county. The same is true for Pasquotank County residents who ranked the number of healthcare providers among the top five needed improvements. *See* Exhibit A at pp. 28-29. In summary, the top significant health needs ranked by residents of each of the four Pasquotank Service Area counties was access to health services. *See* Exhibit A at p. 3.

Thus, Sentara's own assessment and the voices from its own communities have made it clear that this rural, underserved area is starved for greater access to healthcare services. *See* Exhibit A at p. 2. While access is not defined, it may readily include geographic access, choice of provider, choice of location and the number of services available. This service area is heavily strained by the lack of access to healthcare providers. Yet, despite its own conclusions, Sentara persists in its continued, multi-year efforts to stymie competition and solidify its dominant standing in the Pasquotank Service Area. This attempt is completely contrary to the basic tenants of the certificate of need law (the "CON Law"), which are to prevent the maldistribution of healthcare services, ensure appropriate care is accessible to rural North Carolinians, and to foster competition and its positive impacts on cost effectiveness, quality and access. *See* N.C. Gen. Stat.

[1] Sentara states the hospital in Elizabeth City was not part of the Sentara network at that time.
[2] The Community Needs Assessment also looks at need in Gates County with similar findings.

§§ 131E-175, 183. Sentara's repeated attempts to use the planning process to artificially suppress competition in the Pasquotank Service Area should not be permitted.

Lack of Access and Choice

The Pasquotank Service Area is a primarily rural, four-county service area on the Eastern Coast of North Carolina. It is designated as a Health Professional Shortage Area ("HPSA") by the North Carolina Office of Rural Health for primary care. As this designation reflects, the Pasquotank Service Area does not currently have enough healthcare providers and resources to serve its population. The Pasquotank Service Area is also designated as an HSPA for dental and mental health services.

As noted in its petition, "for more than a decade, [Sentara] has been the sole provider of MRI services in the four-county service area with one fixed and one mobile MRI scanner." Petition at p. 1. Since the mid-2000s, the *only* site where a Pasquotank County Service Area resident could receive an MRI scan was at Sentara—a full-service, 182 bed acute care hospital located in Elizabeth City, Pasquotank County. Prior to that time, there were also two locations where mobile MRI services were provided, but the provider was still Sentara (or its predecessor). Now, however, in addition to being the only choice of provider for patients needing MRI services, Sentara only gives patients one choice for the geographic location of their MRI services—a hospital-based setting in Elizabeth City, Pasquotank County.

The financial implications of the hospital-based outpatient services provided by Sentara should not be overlooked. The same outpatient services can be provided at a lower cost to patients at a freestanding facility. Allowing the opportunity for another potential provider to enter the Pasquotank Service Area market would, therefore, not only increase patient choice, but would offer the opportunity for an applicant with a lower cost option to patients who, according to Sentara's own Community Health Needs Assessment, in addition to access, crave lower cost healthcare. A potential new entrant for MRI services would give patients a choice of provider, a choice of new location that may be much more convenient and accessible to their current physical location, and a lower cost choice. It will enhance competition which has been known to lead to increased quality care and improved technology and service renderings. All of these factors support the denial of the Sentara Petition.

Historical MRI Utilization in the Pasquotank Service Area

Sentara claims that COVID has impacted its utilization and as a result, there should be a finding of no need in the 2022 SMFP. Sentara's claims are completely contradicted by the actual utilization of the Sentara MRI units. Sentara's utilization has been increasing year-after-year with need calculated for the Pasquotank Service Area for now the fifth straight year. Sentara's MRI utilization has increased steadily year after year from Fiscal Year ("FY") 2015 through FY2020 as shown below.

Sentara Historical Trend in MRI Utilization

	2018 SMFP FY2016	2019 SMFP FY2017	2020 SMFP FY2018	2021 SMFP FY2019	2022 SMFP FY2020	CAGR 2015-2020
Inpatient Contrast	112	123	198	162	154	8.3%
Inpatient No Contrast	271	245	410	500	456	13.9%
Total Inpatient	383	368	608	662	610	12.3%
Outpatient Contrast	688	760	1,046	1,057	1,012	10.1%
Outpatient No Contrast	2,246	2,493	2,867	3,026	3,179	9.1%
Total Outpatient	2,934	3,253	3,913	4,083	4,191	9.3%
Total	3,317	3,621	4,521	4,745	4,801	9.7%

Source: 2018-Draft 2022 SMFPs

Despite this longstanding trend in MRI growth, Sentara year after year persists in its petitions to suppress this need and limit competition in the Pasquotank Service Area.

Sentara claims that COVID has created challenges. In reality, as its own numbers show, Sentara has maintained high volumes despite COVID. Utilization during the first six months of FY2020 exceeded FY2019 utilization, despite COVID. FY2020 data demonstrates that any disruption due to COVID was balanced by significantly higher volume from the first half of FY2020. *See* Petition (chart) at p. 2.

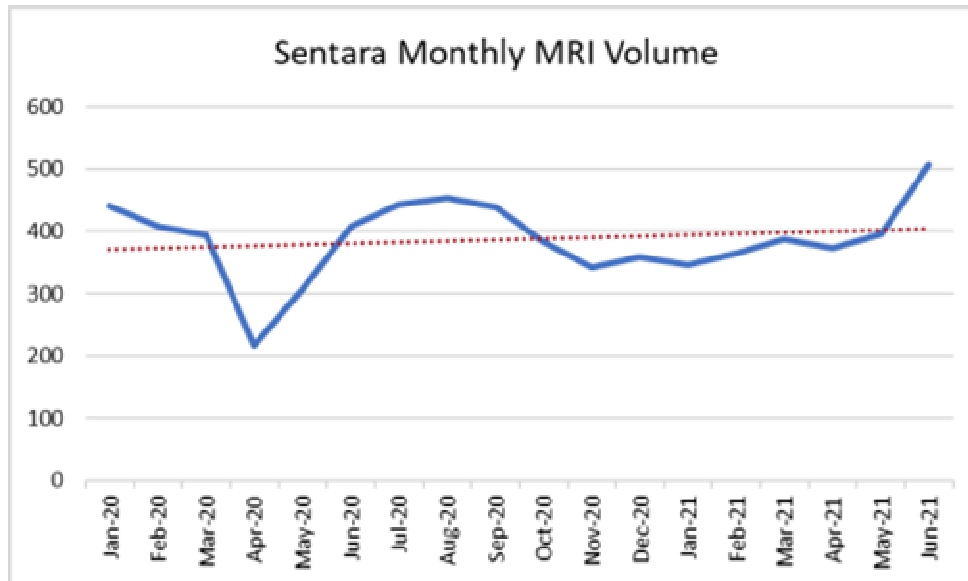
Data provided in the Petition shows that there has been substantial recovery from COVID and that utilization for calendar year 2021 is on track to exceed calendar year 2020. *See* Petition at p. 2. As shown below, when calendar year 2021 is annualized, it is expected to exceed CY 2020 volumes:

Sentara CY 2020 v. Annualized 2021 MRI Utilization

	CY2020	CY2021 Annualized
Inpatient	609	740
Outpatient	3,987	4,010
Total	4,596	4,750

Source: Petition p. 2.

The expected, and short-term dips in utilization due to early COVID restrictions as shown by Sentara's own data have been more than surpassed by utilization in the recovery period. Sentara states in its Petition that "through June 2021, total MRI volume never reached pre-pandemic levels." *See* Petition at p. 2. This statement is false and contradicted by the preceding chart in the Petition. In fact, June 2021 utilization far exceeds any period during the last 18 months including pre-pandemic months in early 2020. A linear regression trend demonstrates that even with the COVID variation in utilization, the trend in MRI utilization at Sentara is increasing.



Source: SAMC Petition page 2.

Actual utilization of Sentara's MRI Scanners clearly documents that MRI utilization remains strong and, consistent with the need determination in the Proposed 2022 SMFP, that an additional fixed MRI Scanner in the Pasquotank Service Area is clearly needed.

Following its multi-year trend in suppressing need, Sentara's claims of COVID impacting need is simply an attempt to link its petition to the SMFP's methodology intended to specifically address the impact of COVID on acute care beds or other limited services. It is not intended to be used as a short-hand approach to make the same argument that a provider has made for years to suppress a need that appears repeatedly in the proposed plans yet continues to go unmet.

Moreover, Sentara's claims are completely contradictory to the finding of the Acute Care Committee. Sentara is taking advantage of the State Health Coordinating Council's ("SHCC") indicated willingness to entertain Special Summer Petitions for **segments of the health care industry that have been uniquely impacted by the COVID pandemic.** The need for acute care beds, for example, has been "adjusted" upward due to low utilization during COVID. The MRI trend in the Pasquotank Service Area, by contrast, shows that FY2020 MRI utilization is higher than the prior year. If adjusted for one low quarter of data, the need for an additional MRI Scanner would be even higher than shown in the draft 2022 SMFP.

Using a similar theory to the adjusted acute care bed need methodology to alter the MRI Scanner need calculation for the Pasquotank Service Area would result in an even greater need than identified in the plan as shown below.

Service Area MRI Need Adjusted Under Acute Care Theory

	Actual FY 2020	Adjusted FY 2020
Q1 FY2020	1,290	1,290
Q2 FY2020	1,243	1,243
Q3 FY 2020	932	1,074
Q4 FY 2020	1,336	1,336
Total MRI	4,801	4,943
Weighting Factor	1.15	1.15
Weighted Scans	5,511	5,674
Units	1.31	1.31
Wtd Scans per Unit	4,207	4,332
Threshold	3,775	3,775

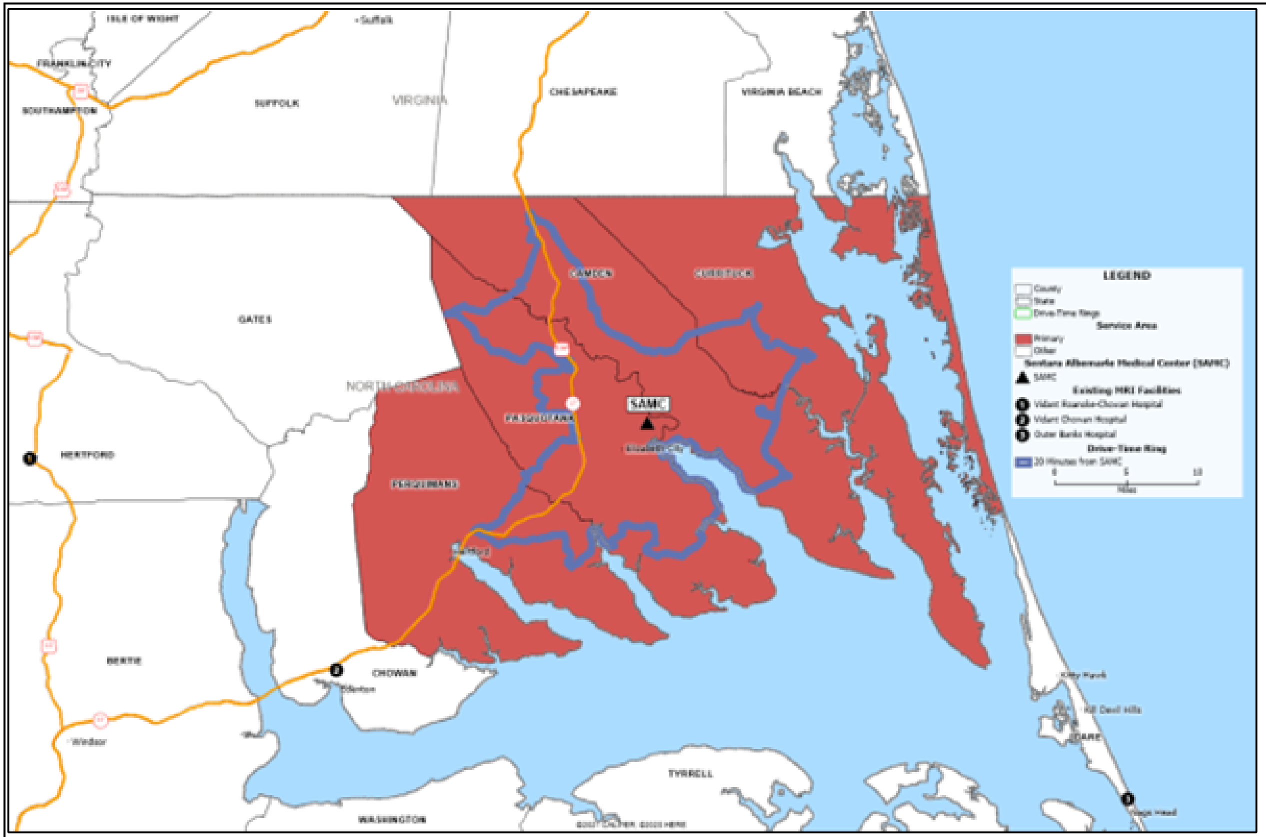
Avg. Quarterly Scan Volume:	
2017	*905*
2018	*1,130*
2019	*1,186*
2017-2019 Average:	*1,074*

Quarter 3 of FY 2020 was adjusted for the impact of COVID based on the average of the three prior year average quarterly utilization.

<u>Geographic Limitations of Access to MRI</u>

Sentara's continued suppression of MRI need in the Pasquotank Service Area limits the development of another MRI service location, which would increase geographic access to patients. The four-county Pasquotank Service Area is geographically broad, and travel is limited by numerous waterways and few bridges. There is only one MRI service location – Sentara— in the broad, rural four-county Pasquotank Service Area. MRI Scanners located in other surrounding service areas are spaced at sizable distances so as not to meaningfully increase geographic access to Pasquotank Service Area residents. As shown on the map of the Pasquotank Service Area below, which depicts some of the large waterways breaking up this service area as well as other MRI providers outside of the Pasquotank Service Area, large portions of the service area do not have access to MRI services within a 20-minute travel time.

Service Area with Existing MRI Units and 20-Minute Travel Time



The lack of geographic access is further confirmed by the fact that the vast majority of Sentara MRI patients originate from only Pasquotank County based on Sentara's LRA patient origin data as summarized below. Five times more MRI patients come from Pasquotank than Camden and Currituck Counties. Almost four times more MRI patients come from Pasquotank Counties than Perquimans County. Thus, Sentara is not truly serving all four counties of the Pasquotank Service Area but is serving the more affluent county of Pasquotank where its facility is located.

Sentara MRI Volume by Service Area County - 2020

Pasquotank	Camden	Perquimans	Currituck
2,321	439	599	408

Source: 2021 LRAs

In addition, the other MRI Scanners located in counties surrounding the Pasquotank Service Area, are not meaningfully serving these residents due to their geographic distance as shown below.

MRI Patient Outmigration to Surrounding NC Providers by Service Area County - 2020

	Pasquotank	Camden	Perquimans	Currituck
Vidant Chowan Hospital	5	7	65	203
Vidan Roanoke-Chowan Hospital	2	1	12	6
The Outer Banks Hospital	2	123	2	2
Total of Regional Hospitals	9	131	79	211

Source: 2021 LRAs

Thus, the only provider in North Carolina serving the vast majority of residents from the Pasquotank Service Area, is Sentara. It is no surprise that, for many years, Sentara has actively lobbied to keep out other potential competitors.

Outmigration of Pasquotank Service Area Patients

Chesapeake is a regional healthcare system based in Chesapeake, Virginia, less than 15 miles from the North Carolina (Currituck County) border. Chesapeake routinely serves North Carolina residents who leave the State for care, and includes Pasquotank County as part of its Primary Service Area. Chesapeake offers both hospital-based and freestanding MRI services that serve a significant number of Pasquotank Service Area residents. Due to the limited access to MRI services in North Carolina, however, **nearly two-thirds as many Pasquotank Service Area residents (2,253 patients)**[3] **that received MRI services at Sentara are choosing to leave the State altogether and travel to Virginia** to obtain access to needed MRI services at Chesapeake facilities that are otherwise not available in the Pasquotank Service Area. This does not account for the number of residents leaving for care at other Virginia-based MRI providers.

As shown above, very few patients are utilizing MRI services at North Carolina hospitals surrounding the Pasquotank Service Area, such as Vidant's facilities or The Outer Banks Hospital. Rather, there are significant volumes of Pasquotank Service Area residents leaving the service area entirely for MRI services in southeastern Virginia. According to its internal data, there were 3,526 North Carolina residents that received non-emergent, outpatient MRIs within the Chesapeake system in 2019.[4] This includes **2,253 non-emergent, outpatients from the Pasquotank Service Area** who could be better served closer to home if there were more MRI Scanners and more available locations within their home service area. These numbers do *not* include patients who are utilizing MRI services within other Hampton Roads-based health systems.

[3] As noted in the chart below, this number includes only non-emergent, outpatient Pasquotank Service Area residents receiving care at a Chesapeake facility. It does not account for inpatients, emergent outpatients, or providers other than Chesapeake.

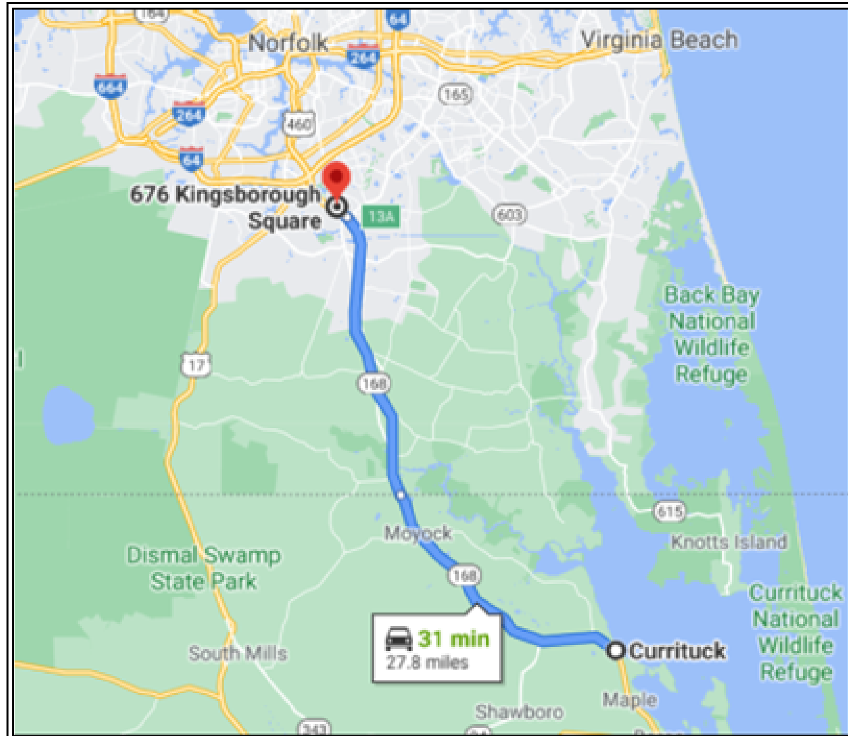
[4] No inpatients were included in this value.

2019 Outpatient, Non-Emergent MRI Patients	
Camden	323
Currituck	1,128
Pasquotank	611
Perquimans	191
Total	**2,253**

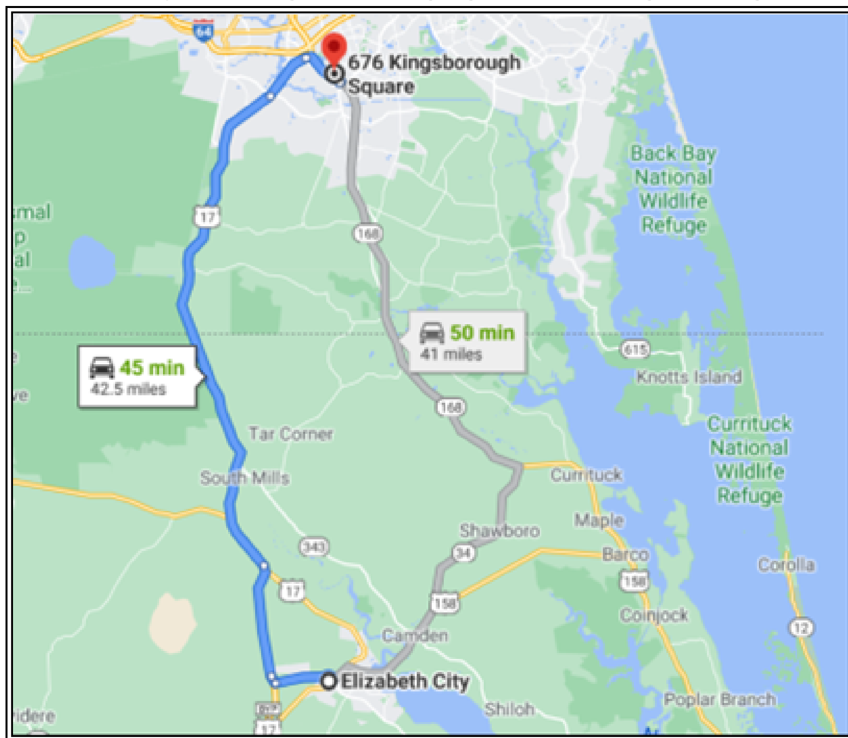
Contrary to Sentara's assertions, and consistent with the Proposed 2022 SMFP, there is substantial need in the Pasquotank Service Area for an additional MRI Scanner. Those patients are just not choosing Sentara for that service and are instead traveling out-of-state at alarming numbers to receive basic, outpatient, non-emergent imaging services because they have no other accessible, in-state choice. This is consistent with Sentara's own Healthcare Needs Assessment and the responses from that community. Moreover, given the volume of patients from the Pasquotank Service Area seeking care at Chesapeake alone, not to mention the number of North Carolina patients from outside that service area, a new provider such as Chesapeake will be more than able to show need and exceed the regulatory performance standards for MRI Scanners without duplicating any service provided by Sentara, relying upon its own existing market share for this vital service.

The outmigration to Chesapeake locations includes a significant number of patients who are accessing MRI services in a non-hospital based, freestanding setting, which is significantly more cost-effective for patients. However, to access such services, patients from the Pasquotank Service Area are traveling significantly long distances. For example, patients traveling from Currituck to the southernmost Chesapeake Regional Imaging Center-Kingsborough Square ("CRIC-Kingsborough") are driving 27.8 miles and spending 31 minutes travel time (without traffic). The distance from Elizabeth City in the Pasquotank Service Area to CRIC-Kingsborough is over 40 miles and nearly 50 minutes travel time to drive.

Travel from Currituck to
Chesapeake Regional Imaging Center - Kingsborough



Travel from Elizabeth City to
Chesapeake Regional Imaging Center - Kingsborough



Other locations in Camden and Perquimans Counties are even further in distance and require additional travel time to reach Norfolk and many patients are traveling to Chesapeake imaging facilities even further north of Kingsborough. Overall, the significant outmigration to Virginia indicates that MRI services are not sufficiently available in the Pasquotank Service Area.

Sentara does not claim, nor has it ever in its many petitions, that the calculations in the standard MRI need methodology adopted by the SHCC and utilized in the SMFP each year, are erroneous, nor could it. While Sentara claims that it "could" perform additional scans on its mobile scanner by adding additional sites, it does not and has not done so since the mid-2000s. Sentara has chosen to make MRI services of any type available only at its hospital location and has shown no effort to reach other geographic areas of the four-county Pasquotank Service Area in the decades that it has had the opportunity to do so. Moreover, its statements fail to acknowledge and account for the many residents choosing to leave the State and choosing other providers such as Chesapeake for their MRI Services. These residents choose to travel distances much farther than Sentara's fixed and mobile scanners in Elizabeth City to receive this service—for many, it is not the fact that there is not a Sentara mobile that has capacity or even possibly located closer, it is that these residents do not choose Sentara as their provider. There is no indication that these residents would choose a mobile service from Sentara when they have already chosen another provider and have been willing to travel for that service. It does indicate, however, if that provider of choice was located more conveniently to them, the residents would utilize that service. One of the fundamental tenants of the CON Law is to foster competition and choice such that patients have the opportunity to make their own decisions about who will be their healthcare provider. Allowing only one fixed MRI Scanner to continue to be the only option for an entire four-county service area, is not supported by the underlying principles of the CON Law.

Thus, Pasquotank Service Area residents are demonstrating that the need for MRI services exists—they are just not choosing Sentara. The answer is not to continuing to restrict their choice and not offering any alternative, as Sentara advocates. The answer is to allow competition to exist where none currently does so that the service is brought *to* those residents.

<u>Demographic Impact on Need</u>

This limited geographic access is even more concerning given the age and demographic characteristics of the Pasquotank Service Area. Travel limitations and access to services such as MRI are compounded by factors such as age, poverty levels, and minority populations. As shown below, Perquimans County has a substantial elderly population with 10% more residents age 65 and older than North Carolina and the rest of the Pasquotank Service Area. Both Pasquotank and Perquimans Counties have high percentages of persons living in poverty. Finally, Pasquotank County has a very high percentage of minority (non-white) population compared to North Carolina as a whole. Each of these factors make access to services such as MRI vitally important to the underserved population.

Service Area Demographic Characteristics

County	Total Population	65 + Population	% of Population Age 65 and Older	% Persons in Poverty	% Minority
Pasquotank	39,824	6,850	17.2%	14.3%	41.5%
Camden	10,867	1,837	16.9%	7.6%	17.3%
Currituck	27,763	4,553	16.4%	8.8%	9.5%
Perquimans	13,463	3,675	27.3%	15.0%	25.4%
North Carolina	**10,488,084**	**1,751,510**	16.7%	**13.6%**	**29.4%**

Source: United States Census QuickFacts

Note: Population is estimate for 2019

Moreover, the Pasquotank Service Area includes three Medically Underserved Areas ("MUAs") according to the Federal Health Services and Resource Administration. Camden, Currituck, and Perquimans Counties, each of which do not have an MRI unit, are all federally designated MUAs.

Conclusion

Given the significant evidence of demonstrated need in the Pasquotank Service Area and the lack of geographic access to care, there is no rational basis to allow Sentara to again suppress the need for MRI services in the 2022 SMFP. Given the rural, low-income, elderly, and medically underserved demographics of the Pasquotank Service Area, another low cost, accessible MRI provider is desperately needed. This was further confirmed by comments submitted in support of the need determination in the Proposed 2022 SMFP on July 28, 2021. Chesapeake respectfully requests that the SHCC deny Sentara's Petition.

EXHIBIT A

Sentara Albemarle Medical Center

Community Health Needs Assessment 2019

SENTARA®

Sentara Albemarle Medical Center

Community Health Needs Assessment (CHNA)

2019

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Introduction

Sentara Albemarle Medical Center (SAMC) has conducted a community health needs assessment of the area that we serve. The assessment provides us with a picture of the health status of the residents in our communities and provides us with information about health and health-related problems that impact health status.

This assessment was carried out in partnership with Albemarle Regional Health Services (ARHS), Health ENC[1], and Conduent Healthy Communities Institute in the area that we serve, including Camden, Currituck, Gates, Pasquotank, and Perquimans Counties. County level data and community findings for each county were provided by Conduent Healthy Communities Institute, with The Duke Endowment as the fiscal sponsor. During the assessment process, these data and findings were explored to better understand the unique sociodemographic and health issues relevant to each county.

Our assessment includes a review of population characteristics such as age, educational level, and racial and ethnic composition because social factors are important determinants of health. The assessment also looks at risk factors like obesity and smoking and at health indicators such as infant mortality and cancer incidence rates. Community input is important so the assessment also includes survey results from a community survey, as well as findings from focus groups with community members on health issues and barriers to achieving good health.

The needs assessment identifies numerous health issues that our communities face. Considering factors such as size and scope of the health problem, the severity and intensity of the problem, the feasibility and effectiveness of possible interventions, health disparities associated with the need, the importance the community places on addressing the need, and consistency with our mission "to improve health every day", we have identified a number of priority health problems in our area to address in our implementation strategy:

- **Lifestyle and Healthy Behaviors**
- **Access to Healthcare**
- **Chronic Care Management, including Mental Health**

Our previous Community Health Needs Assessment also identified a number of health issues. An implementation strategy was developed to address these problems. The hospital has tracked progress on the implementation activities in order to evaluate the impact of these actions. The implementation progress report is available at the end of this report.

Sentara Albemarle Medical Center works with a number of community partners to address health needs. Information on available resources is available from sources like Sentara.com and ahrs-nc.org. Together, we will work to improve the health of the communities we serve.

Your input is important to us so that we can incorporate your feedback into our assessments. You may use our online feedback form available on the Sentara.com website. Thanks!

[1] Information on Health ENC, including a full listing of coalition members can be found in the Appendix.

On behalf of Health ENC, Conduent Healthy Communities Institute synthesized all primary and secondary data included in the county level CHNA reports and identified top health needs for each county. This information is summarized below and was utilized as an important piece of the prioritization in the SAMC CHNA.

Significant Health Needs by County

Camden County
- Access to Health Services
- Diabetes
- Economy
- Exercise, Nutrition & Weight
- Heart Disease & Stoke
- Mental Health & Mental Disorders
- Substance Abuse

Currituck County
- Access to Health Services
- Cancer
- Economy
- Exercise, Nutrition & Weight
- Respiratory Diseases
- Substance Abuse
- Transportation

Gates County
- Access to Health Services
- Diabetes
- Economy
- Environment
- Exercise, Nutrition & Weight
- Maternal, Fetal & Infant Health
- Occupational & Environmental Health

Pasquotank County
- Access to Health Services
- Cancer
- Diabetes
- Economy
- Exercise, Nutrition & Weight
- Heart Disease & Stroke
- Mental Health & Mental Disorders

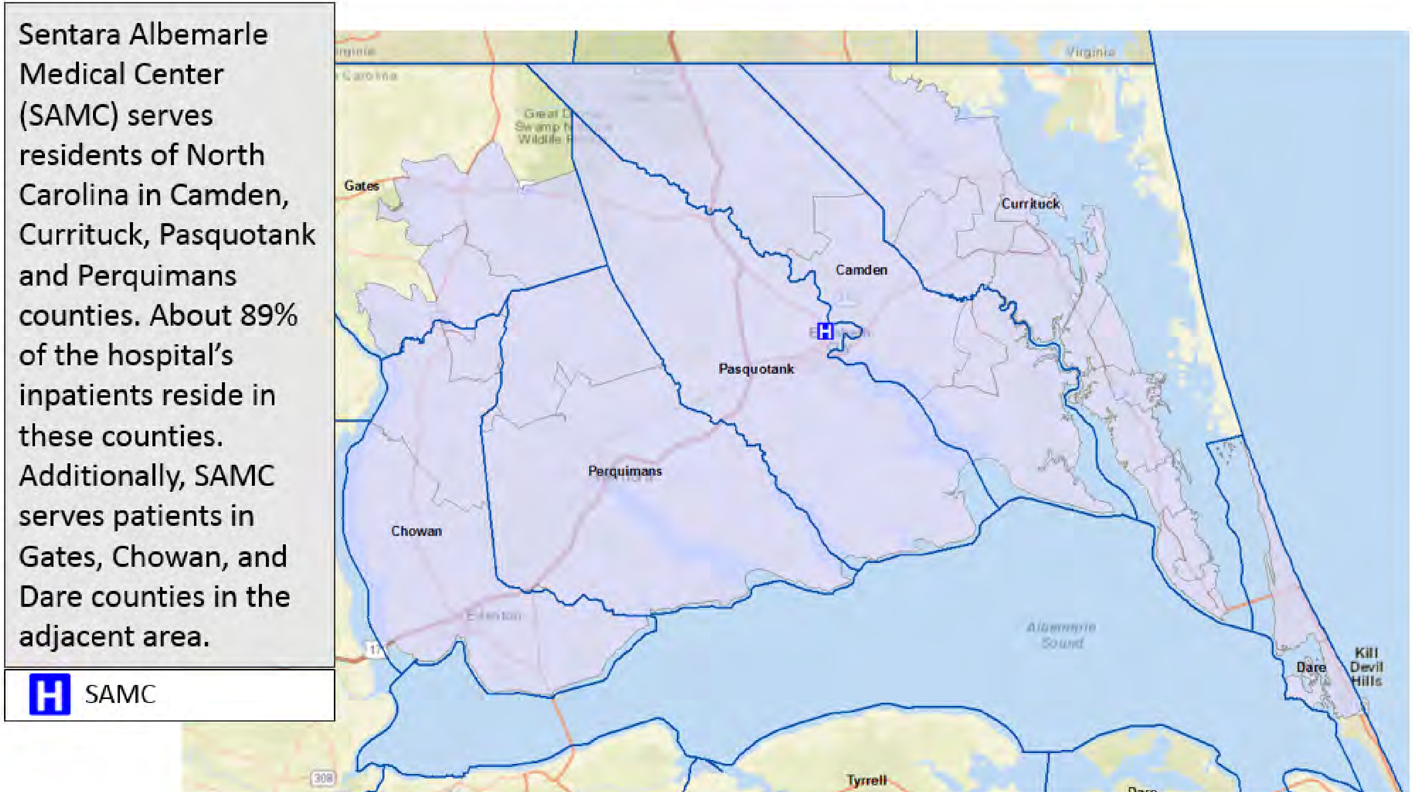
Perquimans County
- Access to Health Services
- Diabetes
- Economy
- Exercise, Nutrition & Weight
- Heart Disease & Stroke
- Substance Abuse
- Transportation

Demographic Information

Population

Highlight Population: The combined population of the Sentara Albemarle Medical Center (SAMC) service area numbers over 123,000 people. The service area of SAMC is comprised of Dare, Currituck, Camden, Pasquotank, Perquiman's, Chowan, and Gates Counties in northeastern North Carolina. The entire service area is rural, with population centers throughout, but is well traveled as its coastal communities draw vacationers in the summer.

The Sentara Albemarle Medical Center (SAMC) Service Area:



Population and Projected Change 2018 - 2023		
	Population	% Change
Service Area	123,084	2.5%
North Carolina	10,323,018	5.5%

Unless Otherwise Stated for Specific Indicators: Source: Data provided by Advisory Board Demographic Profiler, 2018.

Highlight Population Change: Currituck County is predicted to experience the highest rate of overall population growth between now and 2023, with some zip codes exceeding 12% growth. Dare, Gates and Perquimans Counties are all expected to experience a slight decrease in population, with Belvidere losing 81 individuals, representing 7.3% of the population.

Population by Zip Code

Population and Projected Change					
			2018	2023	
Zip Code	County	Area	Total Population	Total Population	% Change
27909	Pasquotank	Elizabeth City	39,688	40,498	2%
27916	Currituck	Aydlett	812	920	13%
27917	Currituck	Barco	1,052	1,168	11%
27919	Perquimans	Belvidere	1,122	1,041	-7.3%
27921	Camden	Camden	4,844	5,088	5%
27923	Currituck	Coinjock	596	671	12.6%
27929	Currituck	Currituck	1,572	1,737	10.5%
27932	Chowan	Edenton	12,138	12,152	0%
27939	Currituck	Grandy	2,616	2,951	12.8%
27941	Currituck	Harbinger	579	651	12.4%
27944	Perquimans	Hertford	12,153	11,716	-4%
27946	Gates	Hobbsville	927	907	-2.2%
27947	Currituck	Jarvisburg	1,363	1,535	12.6%
27948	Dare	Kill Devil Hills	11,748	11,263	-4.2%
27949	Dare	Kitty Hawk	7,290	7,292	0.0%
27956	Currituck	Maple	340	379	11.5%
27958	Currituck	Moyock	11,541	12,749	10.4%
27964	Currituck	Point Harbor	585	657	12.3%
27965	Currituck	Poplar Branch	594	673	13.3%
27966	Currituck	Powells Point	1,150	1,293	12.4%
27973	Currituck	Shawboro	1,612	1,748	8.4%
27974	Camden	Shiloh	1,203	1,246	3.6%
27976	Camden	South Mills	3,869	4,105	6.1%
27979	Gates	Sunbury	1,641	1,611	-1.9%
27980	Chowan	Tyner	2,049	2,068	1%
Total			123,084	126,119	2.5%

Population by Age and Zip Code

Highlight Population and Age: The median age in the service area is 42 years and is projected to remain constant through 2023, while North Carolina's median age is 38 years, projected to increase to 39 during that 5-year span. The service area has a lower percent of females of child bearing age (15 – 44 years) than the state of North Carolina, at 34.5% vs. 38.1%. That gap narrows slightly by 2023, a gap of 3.2% vs. the current 3.6%. The proportion of residents aged 65+ is higher in the service area than in the state as a whole, at 19.4% vs. 16% throughout the state. This age segment will grow by 3% in the service area, while the state rate will increase by 2.3%. The current population of residents aged 85+ in the service area is 2.1%, and will increase by .7% by 2023 to 2.8%, while the rate for North Carolina as a whole is currently 1.8% and will grow to 2.3% in that time.

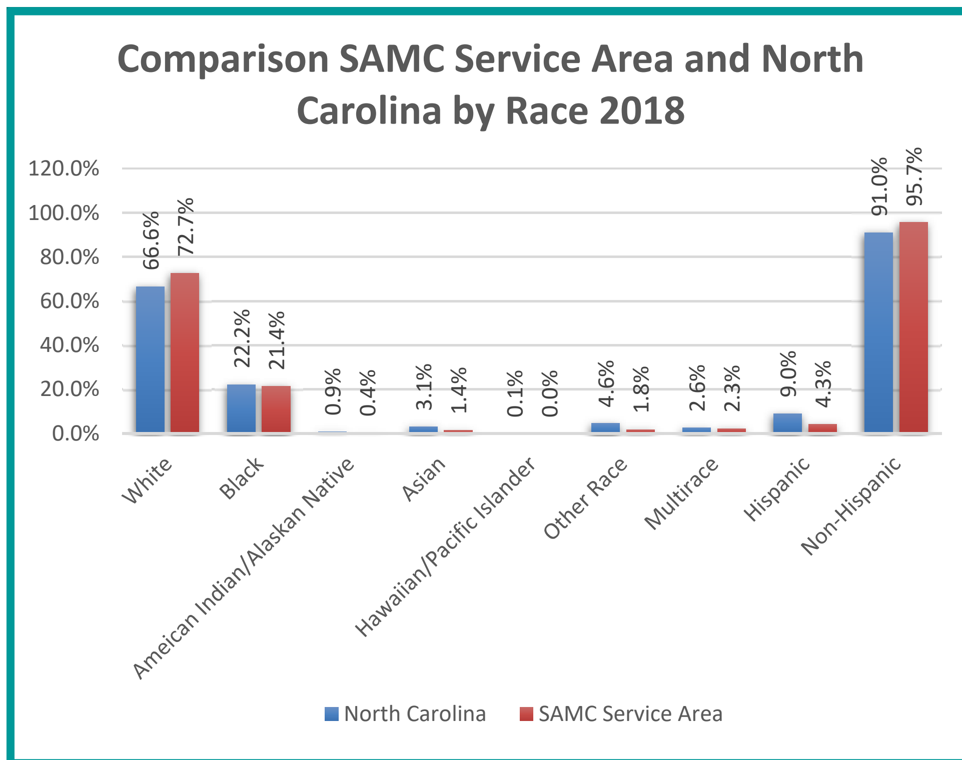
Median Age by Zip Code			
Zip Code	Male Population Count	Female Population Count	Median Age
27909	19,762	20,736	38
27916	447	473	47
27917	578	590	43
27919	508	533	45
27921	2,537	2,551	43
27923	328	343	46
27929	860	877	46
27932	5,703	6,449	44
27939	1,483	1,467	47
27941	323	329	47
27944	5,573	6,142	48
27946	438	469	50
27947	760	774	46
27948	5,629	5,633	41
27949	3,499	3,793	56
27956	187	192	43
27958	6,296	6,453	40
27964	321	337	44
27965	328	344	47
27966	628	665	43
27973	859	889	44
27974	630	616	44
27976	2,044	2,061	41
27979	763	848	46
27980	1,021	1,047	42

See next page for a chart of the service area population segmented by age.

Current Age Segmentation 2018		
Population Segments	**SAMC Service Area**	**North Carolina**
Pop age 0-4	5.4%	6.0%
Pop age 5-9	5.8%	6.2%
Pop age 10-14	6.2%	6.4%
Pop age 15-19	6.1%	6.5%
Pop age 20-24	5.7%	6.7%
Pop age 25-29	5.8%	7.0%
Pop age 30-34	5.9%	6.4%
Pop age 35-39	6.0%	6.4%
Pop age 40-44	5.6%	6.2%
Pop age 45-49	6.3%	6.7%
Pop age 50-54	6.9%	6.7%
Pop age 55-59	7.6%	6.7%
Pop age 60-64	7.4%	6.2%
Pop age 65-69	6.4%	5.4%
Pop age 70-74	5.3%	4.2%
Pop age 75-79	3.5%	2.8%
Pop age 80-84	2.2%	1.8%
Pop age 85+	2.1%	1.8%

Population by Race and Ethnicity

Highlight Population and Race: The population of the service area is overwhelmingly white, with just over 20% black and very small representation of other races. This mirrors the population of North Carolina as a whole, and is less diverse than the metropolitan areas of the state such as Charlotte and the Raleigh-Durham corridor. The western counties of Pasquotank, Perquimans, Chowan and Gates have the highest concentration of black residents, with the following zip codes having the highest percent of black residents: 27909 at 36.6%, 27932 at 35%, 27944 at 23.7%, 27946 at 35.1%, 27979 at 34.9%, and 27980 at 26.1%.
Highlight Population Ethnicity: Ethnicity is reported separately from race in the table below. The service area is home to a small Hispanic population at 4.3%, less than half the concentration of the state as a whole. In the SAMC service area 95.7% of residents are non-Hispanic, while that number is 91% throughout the state. Dare County has the highest concentration of Hispanic residents, at 8%.



Population and Education

Highlight Education: Education is the basis for stable employment, and financial stability is the foundation for a sustainable household, which provides for the health needs of family members. Collectively, the SAMC service area has a lower proportion of the adult population (aged 25 and over) who have not achieved a high school diploma than the state as a whole. The service area has a substantially less educated population than the state though, with a 5 percent difference between the service area and the state in the population with a Bachelor's degree, and a 3.5% lower rate of advanced degrees than the state as a whole.

Comparison SAMC and North Carolina Population by Education

Population Segmentation by Education	SAMC Service Area	North Carolina
Pop 25+	87,212	7,045,879
Pop 25+ less than 9th grade	3.8%	4.6%
Pop 25+ 9th-12th grade no diploma	8.3%	8.0%
Pop 25+ HS graduate	30.3%	25.8%
Pop 25+ college no diploma	25.6%	21.5%
Pop 25+ Associate degree	10.0%	9.5%
Pop 25+ Bachelor's degree	14.7%	19.6%
Pop 25+ graduate or prof school degree	7.4%	10.9%

Income and Poverty

Highlight Income and Poverty: The median income for each county in the service area is displayed below. The disparity in income among counties in the service area is more than $26,000 (between Camden and Chowan Counties), more than 50% of Chowan County's median income. The disparity in poverty level, see next page, demonstrates the same gap in income.

Comparison: Median Income for Service Area and North Carolina, United States 2017

Locality	Median Income		Locality	Median Income
Camden County	$68,327		Pasquotank County	$47,264
Chowan County	$41,979		Perquimans County	$44,039
Currituck County	$65,785		North Carolina	$50,320
Dare County	$55,640		United States	$57,652
Gates County	$52,481			

US Census Bureau, American Community Survey, American Factfinder 2017 5-Year Estimates

Highlight Poverty Calculation: Each year the federal government calculates the income required to provide the absolute, bare necessities to sustain a household in the United States. Because each additional family member does not increase the cost of a household to the same extent (for instance, the cost of housing 4 family members is not 1.3 times higher than the cost of housing 3 family members), the government publishes the federal poverty guidelines (FPG) for families with up to 8 members with a calculation for larger households. The table below presents the poverty level for up to 6 members. For more information, google "federal poverty guidelines" or visit https://aspe.hhs.gov/poverty-guidelines.
Highlight Poverty: Poverty is perhaps the most impactful of the social determinants of health, affecting the ability to have stable housing, healthy food, the ability to maintain steady employment, and the ability to access health care when needed. The table below presents the percent of individuals residing in the localities who live in acute (100% FPG) or less acute, but equally debilitating over the long term poverty (200% and 300%). Inclusion in each category is cumulative, that is, individuals who live under 100% of the FPG by definition also live under 200% and are counted in that number. Individuals living over 400% of the FPG are generally considered to have sufficient income and are not considered eligible for government services. Note the disparities in poverty by race.

2018 Federal Poverty Guidelines		
Household Size: 1	$	12,140
Household Size: 2	$	16,460
Household Size: 3	$	20,780
Household Size: 4	$	25,100
Household Size: 5	$	29,420
Household Size: 6	$	33,740

Poverty and Race 2017

	Percent Below Selected Poverty Level			White Below	Black Below	Hispanic Below
Locality	100%	200%	300%	100% Pverty Level	100% Pverty Level	100% Pverty Level
North Carolina	16.1	36.5%	54.0%	12.5	24.9	30.1
United States	14.6	32.8%	49.2%	12	25.2	22.2

US Census Bureau, American Community Survey, American Factfinder 2017 5-Year Estimates

Poverty and Race 2017

	Percent Below Selected Poverty Lev			White Below	Black Below	Hispanic Below
Locality	100%	200%	300%	100% Pverty Level	100% Pverty Level	100% Pverty Level
Camden County	9.0	27.1%	45.2%	8.9	10.4	6.1
Chowan County	22.8	46.4%	62.4%	11.3	43.3	35.7
Currituck County	9.1	26.3%	45.4%	8.8	10.0	16.4
Dare County	8.9	31.5%	48.1%	7.8	29.1	17.1
Gates County	12.4	32.1%	50.9%	9.6	19.3	0.0
Pasquotank County	18.1	37.7%	53.9%	12.7	25.9	26.0
Perquimans County	18.8	41.4%	59.4%	10.5	44.0	31.8

US Census Bureau, American Community Survey, American Factfinder 2017 5-Year Estimates

Employment

Highlight Employment: Central to a healthy community is an economy that supports individuals in their efforts to live well. Unemployment is a key measure of the state of the local economy and the rate for the service area is slightly higher than that of the state as a whole, not surprising in this rural region. While Currituck County had a lower than expected unemployment rate in 2018, at 3.6%, Dare County, where much of employment is seasonal, had unemployment more than a full point higher than North Carolina (3.8%) or the United States (3.9%).

Unemployment Rate by County 2018	
Camden County	3.7%
Chowan County	4.4%
Currituck County	3.6%
Dare County	5.1%
Gates County	4.0%
Pasquotank County	4.8%
Perquimans County	4.8%
North Carolina	3.8%
United States	3.9%

US Bureau of Labor Statistics, Annual State Employment Status Reports 2018

Highlight Employers: The largest employers (in number of employees) in the region reflect the rural nature of the region, with the county public schools and administrative services employing the largest number of individuals. This is common throughout any rural region and is not unique to this area.

Three Largest Employers (by Number of Employees) by County 2019		
Camden		
Board of Education	County Administration	Caci Technology Inc.
Chowan		
Edenton-Chowan Schools	Vidant Medical Center	Micherrin Agricultural & Chem Co.
Currituck		
Currituck County Board of Education	Currituck County Finance Office	Academi Training Center LLC
Dare		
Dare County Public Schools	Dare County Administration	Carolina Designs Realty Inc
Gates		
Gates County Board of Education	Gates County Administration	Ashton Lewis Lumber Co Inc
Pasquotank		
Pasquotank Board of Education	Sentara Albemarle Medical Center	US Dept of Homeland Security
Perquimans		
Perquimans County Public Schools	Perquimans County Administration	Guest Services Inc

Accessnc.nccommerce.com/EDIS/EDISviewer/dem_bus/business_employer_characteristics.html

Health Status Indicators

Below are key health status indicators for the cities representing the **Sentara Albemarle Medical Center (SAMC)** Service Area*: Camden, Currituck, Gates, Pasquotank, and Perquimans Counties.

The key health status indicators are organized in the following data profiles:

A. Mortality Profile
B. Access to Health Services Profile
C. Heart Disease and Stroke Profile
D. Diabetes Profile
E. Cancer Profile
F. Healthy Lifestyle Profile
G. Behavioral Health Profile
H. Maternal and Infant Health Profile

The indicators for each county are compared to the North Carolina values, when available. Data are displayed in **green font when better** than the North Carolina measure and **red font when worse** than the North Carolina measure.

The main source of data was HealthENC.org, a web-based community health platform developed by Conduent Healthy Communities Institute. The HealthENC dashboard brought data together from numerous resources, including those displayed in the sources table at the end of this section of the report. Conduent queried the HealthENC dashboard in July 2018 for the data on the following pages. Additional data and other indicators are available on HealthENC.org.

*Note about the service area: 89% of SAMC inpatients are from 4 main counties: Pasquotank, Perquimans, Currituck and Camden. Additionally, SAMC serves patients in Gates, Chowan, and Dare counties in the adjacent area. Two of these counties have hospitals located within the counties that primarily service the county population; the third, Gates County does not. As such, we have included all 6 counties in the demographic section of the report and focused the quantitative health status indicators and more qualitative community insight sections of this report on the 4 main counties plus Gates.

A. Mortality Profile

Highlights: Leading causes of death in the counties of the SAMC service area were examined. Heart disease, cancer, stroke, and unintentional injuries were the top causes of death in the area. The age-adjusted rate of deaths due to heart disease was higher in all counties of the service area than the state rate; Pasquotank County had the highest rate. The age-adjusted death rate due to cancer was higher in Pasquotank and Currituck compared to the state rate. Rates due to stroke were highest in Perquimans and Pasquotank compared to the state rate. Rates due to unintentional injuries, which includes overdoses, was higher in Camden, Currituck, and Gates Counties compared to the state.

Leading Causes of Death for the Sentara Albemarle Medical Center Service Area, 2012-2016

CAUSE OF DEATH (Deaths/100,000 population)	CAMDEN	CURRITUCK	GATES	PASQUOTANK	PERQUIMANS	NORTH CAROLINA	U.S.
Age-Adjusted Rates per 100,000 Population							
Heart Disease	204.2	208.0	165.1	250.6	189.1	161.3	
Cancer	155.5	199.7	165.6	199.7	156.3	172.0	166.1
Cerebrovascular Disease (Stroke)	33.1	28.7	31.3	45.1	48.9	43.1	36.9
Unintentional Injuries	33.0	36.1	35.8	23.7	31.4	31.9	41.4
Alzheimer's Disease	31.5	26.2	38.6	32.5	18.3	31.9	26.6
Diabetes	20.4	13.5	36.4	23.7	18.1	23.0	21.1
Motor Vehicle Collisions	10.1	9.9	31.7	10.9	28.5	14.1	
Influenza and Pneumonia	23.7	87.9	16.1	18.8	23.1	17.8	14.8
Suicide	--	17.5	8.1	13.3	16.2	12.9	13.0
Homicide	2.3	1.0	3.6	6.0	12.5	6.2	5.5
HIV	0.0	0.0	4.9	1.7	4.5	2.2	2.0

Data Source: North Carolina State Center for Health Statistics, Vital Statistics

GREEN = Rates are better compared to North Carolina, **RED** = Rates are worse compared to North Carolina

B. Access to Health Services Profile

Access to quality and affordable health care is important to an individual's health. Health insurance and local care resources can ensure access to care. The indicators below offer insight into access to health services in the Counties of the SAMC service area, including provider rates, percentage of people with health insurance. The preventable hospital stay rate among the Medicare population is also included; preventable hospitalizations illustrate the quality and accessibility of primary care and outpatient services available in a community. If outpatient care in a community is poor, then people may be more likely to overuse the hospital as their main source of care, resulting in unnecessary hospital stays. Typically, areas with higher densities of primary care have lower rates of hospitalizations for these ambulatory care sensitive conditions. Increasing access to primary care is key solution to reducing these unnecessary and costly hospital stays and improving the health of the community.

Highlights: The rate of primary care and non-physician primary care provider rates were examined; all counties except for Pasquotank had lower rates compared to the North Carolina rate (data was not available for Camden County non-physician primary care). The rates of mental health providers and dentists were lower than state and national rates for all localities (except the Dentist rate was not available for Camden). This suggests that there may be access to health care issues, particularly for mental health and oral health throughout the service area. The percentage of people with health insurance was higher than the state rate in all counties except Perquimans. The preventable hospital stay rate among Medicare beneficiaries was high in Gates County, followed by Currituck and Perquimans Counties, which suggest that there may be access to primary and outpatient care challenges.

Access to Health Services Indicators for the Sentara Albemarle Medical Center Service Area

INDICATOR	PERIOD	UNITS	CAMDEN	CURRITUCK	GATES	PASQUOTANK	PERQUIMANS	NORTH CAROLINA	U.S.
Primary Care Provider Rate	2015	providers/ 100,000 population	19.4	23.8	8.6	77.8	22.3	71	--
Non-Physician Primary Care Provider Rate	2017	providers/ 100,000 population	--	11.6	52.3	125.4	22.5	102.5	81.2
Mental Health Provider Rate	2017	providers/ 100,000 population	38.4	34.9	17.4	173.1	45.0	215.5	214.3
Dentist Rate	2016	dentists/ 100,000 population	--	19.4	8.7	47.7	15.0	54.7	67.4
Clinical Care Ranking	2018	ranking	40.0	67.0	61.0	29.0	49.0	--	--
Persons with Health Insurance	2016	percent	89.7	88.3	88.7	88.0	87.6	87.8	--
Preventable Hospital Stays: Medicare Population	2014	discharges/ 1,000 Medicare enrollees	46.4	64.3	68.5	48.4	49.2	49	49.9

Data Sources: County Health Rankings; Small Area Health Insurance Estimates; The Dartmouth Atlas of Health Care

GREEN = Rates are better compared to North Carolina, **RED** = Rates are worse compared to North Carolina

C. Heart Disease and Stroke Profile

Heart disease and stroke are leading causes of death in the United States and North Carolina. Other cardiac indicators were examined among the Medicare beneficiaries.

Highlights: As previously noted in the Mortality Profile, heart disease is the leading cause of death in the region; all counties in the SAMC service area have rates higher than the state rate. Camden, Pasquotank, and Perquimans counties have high rates and percentages of the cardiac and stroke indicators examined compared to the North Carolina Rates.

Heart Disease and Stroke Indicators for the Sentara Albemarle Medical Center Service Area

INDICATOR	PERIOD	UNITS	CAMDEN	CURRITUCK	GATES	PASQUOTANK	PERQUIMANS	NORTH CAROLINA	U.S.
Age-Adjusted Death Rate due to Cerebrovascular Disease (Stroke)	2012-2016	deaths/ 100,000 population	33.1	28.7	31.3	45.1	48.9	43.1	36.9
Age-Adjusted Death Rate due to Heart Disease	2012-2016	deaths/ 100,000 population	204.2	208.0	165.1	250.6	189.1	161.3	--
Atrial Fibrillation: Medicare Population	2015	percent	9.4	7.7	7.5	7.7	9.6	7.7	8.1
Heart Failure: Medicare Population	2015	percent	13.2	10.0	14.3	12.8	12.5	12.5	13.5
Hyperlipidemia: Medicare Population	2015	percent	54.9	43.8	44.0	49.1	40.8	46.3	44.6
Hypertension: Medicare Population	2015	percent	67.4	56.4	65.8	65.9	60.6	58.0	55.0
Ischemic Heart Disease: Medicare Population	2015	percent	26.4	23.9	23.6	23.8	24.1	24.0	26.5
Stroke: Medicare Population	2015	percent	4.4	3.4	4.4	4.1	3.0	3.9	4.0

Data Sources: North Carolina State Center for Health Statistics, Vital Statistics; Centers for Medicare & Medicaid Services

GREEN = Rates are better compared to North Carolina, **RED** = Rates are worse compared to North Carolina

D. Diabetes Profile

According to the Centers for Disease Control and Prevention, the prevalence of type 2 diabetes increased sixfold in the second half of the 20th century. Risk factors like obesity and physical inactivity have played a significant role in this increase, but age and race/ethnicity also remain key risk factors. Earlier in this report, the death rate due to diabetes was included for the SAMC service area. Diabetes is a top cause of death in the service area. Here we examine additional related indicators.

Highlights: The percentage of adults with diabetes was higher in each county compared to the state rate; the percentage was highest in Perquimans, followed by Gates and Pasquotank counties. The percentage of Medicare beneficiaries who were treated for diabetes was high for Camden, Gates, and Pasquotank counties. The diabetic monitoring indicator shows the percentage of Medicare patients who had an A1c blood sugar test in the past year; Gates and Camden counties had higher percentages of monitoring in this population compared to the percentage for North Carolina and the other counties had lower monitoring levels. Regular A1c screenings help to assess whether a patient is managing their condition and is considered the gold standard of care.

Diabetes Indicators for the Sentara Albemarle Medical Center Service Area

INDICATOR	PERIOD	UNITS	CAMDEN	CURRITUCK	GATES	PASQUOTANK	PERQUIMANS	NORTH CAROLINA	U.S.
Adults 20+ with Diabetes	2014	percent	11.8	11.2	13.3	12.7	14.2	11.1	10.0
Age-Adjusted Death Rate due to Diabetes	2012-2016	deaths/ 100,000 population	20.4	13.5	36.4	23.7	18.1	23.0	21.1
Diabetes: Medicare Population	2015	percent	34.7	27.6	35.0	34.7	28.0	28.4	26.5
Diabetic Monitoring: Medicare Population	2014	percent	89.4	85.2	91.3	85.1	86.2	88.8	85.2

Data Sources: County Health Rankings; North Carolina State Center for Health Statistics, Vital Statistics; Centers for Medicare & Medicaid Services; The Dartmouth Atlas of Health Care

GREEN = Rates are better compared to North Carolina, **RED** = Rates are worse compared to North Carolina

E. Cancer Profile

Cancer is the second leading cause of death for the SAMC service area. Death and incidence rates for a variety of cancer types were examined.

Highlights: Mortality rates were highest among lung, breast, and prostate cancers. These death rates were consistently higher in the localities vs. the state overall (where data were available). Breast followed by prostate and then lung cancer had the highest new or incident case rates across the localities in the SAMC service area.

Cancer Mortality and Incidence for the Sentara Albemarle Medical Center Service Area

INDICATOR	PERIOD	UNITS	CAMDEN	CURRITUCK	GATES	PASQUOTANK	PERQUIMANS	NORTH CAROLINA	U.S.
Death Rates due to Cancer									
Age-Adjusted Death Rate due to Cancer	2010-2014	deaths/ 100,000 population	155.5	199.7	165.6	199.7	156.3	172.0	166.1
Age-Adjusted Death Rate due to Breast Cancer	2010-2014	deaths/ 100,000 females	--	23.3	--	30.7	--	21.6	21.2
Age-Adjusted Death Rate due to Colorectal Cancer	2010-2014	deaths/ 100,000 population	--	18.4	--	20.5	16.5	14.1	14.8
Age-Adjusted Death Rate due to Lung Cancer	2010-2014	deaths/ 100,000 population	34.5	63.4	55.7	56.6	43.7	50.7	44.7
Age-Adjusted Death Rate due to Pancreatic Cancer	2010-2014	deaths/ 100,000 population	--	--	--	10.7	--	10.8	10.9
Age-Adjusted Death Rate due to Prostate Cancer	2010-2014	deaths/ 100,000 males	--	--	--	32.1	--	21.6	20.1
Cancer Incidence Rates									
All Cancer Incidence Rate	2010-2014	cases/ 100,000 population	450.4	423.8	353.8	461.1	409.1	457.0	443.6
Bladder Cancer Incidence Rate	2010-2014	cases/ 100,000 population	--	18.8	--	23.2	14.0	20.1	20.5
Breast Cancer Incidence Rate	2010-2014	cases/ 100,000 females	132.8	118.6	83.9	128.1	118.1	129.4	123.5
Colorectal Cancer Incidence Rate	2010-2014	cases/ 100,000 population	32.4	32.7	35.9	47.8	38.5	37.7	39.8
Lung and Bronchus Cancer Incidence Rate	2010-2014	cases/ 100,000 population	53.9	77.2	51.0	73.3	60.1	70.0	61.2
Oral Cavity and Pharynx Cancer Incidence Rate	2010-2014	cases/ 100,000 population	--	18.5	--	16.7	--	12.2	11.5
Pancreatic Cancer Incidence Rate	2010-2014	cases/ 100,000 population	--	--	--	12.7	--	12.0	12.5
Prostate Cancer Incidence Rate	2010-2014	cases/ 100,000 males	161.9	100.1	110.5	147.1	129.1	125.0	114.8

Data Sources: National Cancer Institute

GREEN = Rates are better compared to North Carolina, **RED** = Rates are worse compared to North Carolina

F. Healthy Lifestyles Profile

The environment where individuals live, work, learn, and play impact access to healthy food and physical activity opportunities. This, along with genetics and behavior choices, affect the risk of overweight and obesity and overall health. As such, a variety of exercise and nutrition indicators were examined.

Notably, poor nutrition influences the onset, management, and outcome of diabetes, heart disease, stroke, obesity, certain cancers, and other health conditions.

Highlights: Obesity among adults was higher for all counties except Currituck compared to the state rate. Adults who are sedentary was higher for Gates and Pasquotank counties. For all counties, the percentage of adults with adequate access to locations for physical activity was lower than the percentage for North Carolina overall. Food insecurity overall and among children was high in Pasquotank and Perquimans counties. Many of the other indicators did not have North Carolina or United States comparison measures; however, the paint a picture of access challenges to grocery stores, Farmers markets, SNAP certified stores, and recreation/fitness facilities.

Healthy Lifestyles Indicators for the Sentara Albemarle Medical Center Service Area

INDICATOR	PERIOD	UNITS	CAMDEN	CURRITUCK	GATES	PASQUOTANK	PERQUIMANS	NORTH CAROLINA	U.S.
Access to Exercise Opportunities	2018	percent	38.1	70.9	28.9	65.7	56.3	76.1	83.1
Adults 20+ who are Obese	2014	percent	31.1	27.6	32.6	36.6	32.2	29.6	28.0
Adults 20+ who are Sedentary	2014	percent	23.1	22.4	30.5	27.9	23.7	24.3	23.0
Child Food Insecurity Rate	2016	percent	20.1	18.7	20.5	22.5	23.7	20.9	17.9
Children with Low Access to a Grocery Store	2015	percent	1.1	2.8	0.0	5.9	0.6	--	--
Farmers Market Density	2016	markets/ 1,000 population	0.0	0.0	0.0	0.0	0.0	--	--
Fast Food Restaurant Density	2014	restaurants/ 1,000 population	0.1	0.8	0.0	0.8	0.4	--	--
Food Insecurity Rate	2016	percent	12.1	10.6	15.4	19.1	16.3	15.4	12.9
Grocery Store Density	2014	stores/ 1,000 population	0.0	0.4	0.3	0.2	0.1	--	--
Health Behaviors Ranking	2018	ranking	11.0	17.0	41.0	76.0	36.0	--	--
Households with No Car and Low Access to a Grocery Store	2015	percent	3.1	2.4	3.2	7.6	8.4	--	--
Low-Income and Low Access to a Grocery Store	2015	percent	0.9	2.8	0.0	12.5	1.1	--	--
People 65+ with Low Access to a Grocery Store	2015	percent	0.5	1.8	0.0	3.5	0.7	--	--
Recreation and Fitness Facilities	2014	facilities/ 1,000 population	0.0	0.1	0.0	0.1	0.0	--	--
SNAP Certified Stores	2016	stores/ 1,000 population	0.6	0.8	0.8	1.1	0.9	--	--
Workers who Walk to Work	2012-2016	percent	0.0	1.7	0.8	2.7	1.8	1.8	2.8

Data Sources: County Health Rankings; Feeding America; U.S. Department of Agriculture - Food Environment Atlas; U.S. Census - American Community Survey

GREEN = Rates are better compared to North Carolina, **RED** = Rates are worse compared to North Carolina

G. Behavioral Health Profile

Highlights: Diagnoses of depression among Medicare beneficiaries were lower in the service area than for North Carolina overall. The 'Poor Mental Health' and 'Frequent Mental Distress' indicators are from County Health Rankings and shows the average number of days adults reported their mental health was not good in the past 30 days and shows the percentage of adults who indicated their mental health was not good for 14 or more of the past 30 days, respectively. These two indicators were high in Pasquotank and Perquimans counties.

The age-adjusted death rate due to suicide was higher for Currituck, Pasquotank and Perquimans counties compared to the state rate. Death rates for drug poisonings was highest in Currituck County. The percentage of adults who reported they drink excessively were highest in Camden and Currituck, while smoking was highest in Pasquotank and Perquimans.

Behavioral Health Indicators for the Sentara Albemarle Medical Center Service Area

INDICATOR	PERIOD	UNITS	CAMDEN	CURRITUCK	GATES	PASQUOTANK	PERQUIMANS	NORTH CAROLINA	U.S.
Age-Adjusted Death Rate due to Alzheimer's Disease	2012-2016	deaths/ 100,000 population	31.5	26.2	38.6	32.5	18.3	31.9	26.6
Alzheimer's Disease or Dementia: Medicare Population	2015	percent	9.2	6.5	9.7	11.3	7.3	9.8	9.9
Depression: Medicare Population	2015	percent	12.8	15.2	13.2	15.8	12.8	17.5	16.7
Frequent Mental Distress	2016	percent	11.1	11.6	11.7	12.9	13.4	12.3	15.0
Poor Mental Health: Average Number of Days	2016	days	3.8	3.9	3.8	4.2	4.3	3.9	3.8
Age-Adjusted Death Rate due to Suicide	2012-2016	deaths/ 100,000 population	--	17.5	8.1	13.3	16.2	12.9	13.0
Death Rate due to Drug Poisoning	2014-2016	deaths/ 100,000 population	14.6	18.4	--	11.7	--	16.2	16.9
Alcohol-Impaired Driving Deaths	2012-2016	percent	0.0	20.8	31.6	42.9	25.0	31.4	29.3
Adults who Drink Excessively	2016	percent	18.1	18.9	16.4	16.6	13.7	16.7	18.0
Adults who Smoke	2016	percent	16.1	17.3	17.1	19.0	18.7	17.9	17.0
Liquor Store Density	2015	stores/ 100,000 population	19.4	27.7	8.7	5.0	14.9	5.8	10.5

Data Sources: North Carolina State Center for Health Statistics, Vital Statistics; Centers for Medicare & Medicaid Services; County Health Rankings; U.S. Census - County Business Patterns

GREEN = Rates are better compared to North Carolina, **RED** = Rates are worse compared to North Carolina

H. Maternal & Infant Health Profile

Highlights: Of the counties in the SAMC service area, Gates and Pasquotank had high percentages of babies born with a low birth weight compared to US and North Carolina values with the Gates having the highest. Pasquotank and Perquimans counties had high percentages of babies born with very low birth weights. The infant mortality rate was only higher in Perquimans County compared to North Carolina. The percentage of preterm births was higher in Camden, Gates, and Perquimans counties. Teen pregnancy rates were also examined; only Perquimans had a higher rate than the state value.

Maternal and Infant Health Indicators for the Sentara Albemarle Medical Center Service Area

INDICATOR	PERIOD	UNITS	CAMDEN	CURRITUCK	GATES	PASQUOTANK	PERQUIMANS	NORTH CAROLINA	U.S.
Babies with Low Birth Weight	2012-2016	percent	7.2	6.3	10.4	9.4	7.7	9.0	8.1
Babies with Very Low Birth Weight	2012-2016	percent	1.3	0.6	1.3	1.9	1.8	1.7	1.4
Infant Mortality Rate	2012-2016	deaths/ 1,000 live births	--	4.8	5.5	6.1	7.8	7.3	6.1
Preterm Births	2016	percent	11.1	9.9	15.3	9.0	11.5	10.4	9.8
Teen Pregnancy Rate	2012-2016	pregnancies/ 1,000 females aged 15-17	--	11.0	15.4	15.7	17.0	15.7	--

Data Sources: North Carolina State Center for Health Statistics

GREEN = Rates are better compared to North Carolina, **RED** = Rates are worse compared to North Carolina

Sources

The main source of data was HealthENC.org, a web-based community health platform developed by Conduent Healthy Communities Institute. The HealthENC dashboard brought data together from numerous resources, including those identified below for the data included in the Health Status Indicators section of the report. Conduent queried the HealthENC dashboard in July 2018 for the data. Additional data and other indicators are available on HealthENC.org.

Sources
U.S. Census - American Community Survey
Centers for Medicare & Medicaid Services
County Health Rankings
Feeding America
National Cancer Institute
North Carolina State Center for Health Statistics
North Carolina State Center for Health Statistics, Vital Statistics
Small Area Health Insurance Estimates
The Dartmouth Atlas of Health Care
U.S. Census - County Business Patterns
U.S. Department of Agriculture - Food Environment Atlas

Community Insight

The community insight component of this CHNA consisted of two methodologies: a Community Survey and a series of more in-depth Community Focus Groups carried out by the hospital, health department, and community partners.

The Community Survey was conducted by Health ENC and analyzed by Conduent Health Communities Institute. The 57-question online and paper survey was made available in both English and Spanish. Survey Monkey was the tool used to distribute and collect responses for the community survey. Completed paper surveys were entered into the Survey Monkey tool. The community survey was distributed across Health ENC's entire survey area from April 18, 2018 – June 30, 2018.

Community Focus Group Sessions were carried out by the hospital, health department and community partners to gain more in-depth insight from community stakeholders. The results of the focus groups are presented after the survey results.

Full community survey results and focus group summaries, including quotations, are available for download at HealthENC.org.

Community Survey Results

Surveys Collected

The table below summarizes the number of survey respondents. A total of 18,917 responses were collected across all 33 counties in Eastern North Carolina, with a survey completion rate of 86.5%, resulting in 16,358 complete responses across the entire survey area. The number of respondents in each of the counties in the SAMC service area are displayed below. There were a total of 1,458 surveys for this region. The survey analysis included in this CHNA report is based on complete responses.

Survey Respondents

	Number of Respondents*		
Service Area	**English Survey**	**Spanish Survey**	**Total**
All Health ENC Counties	15,917	441	16,358
Camden County	188	0	188
Currituck County	237	1	238
Gates County	255	0	255
Perquimans County	347	0	347
Pasquotank County	425	5	430

*Based on complete responses

Survey participants were asked a range of questions related – but not limited – to: what populations are most negatively affected by poor health outcomes in their community, what their personal health challenges are, and what the most critical health needs are for their community. Highlights of the survey are summarized by county below. Full survey results (all 57 questions) is available on HealthENC.org, including complete results by county.

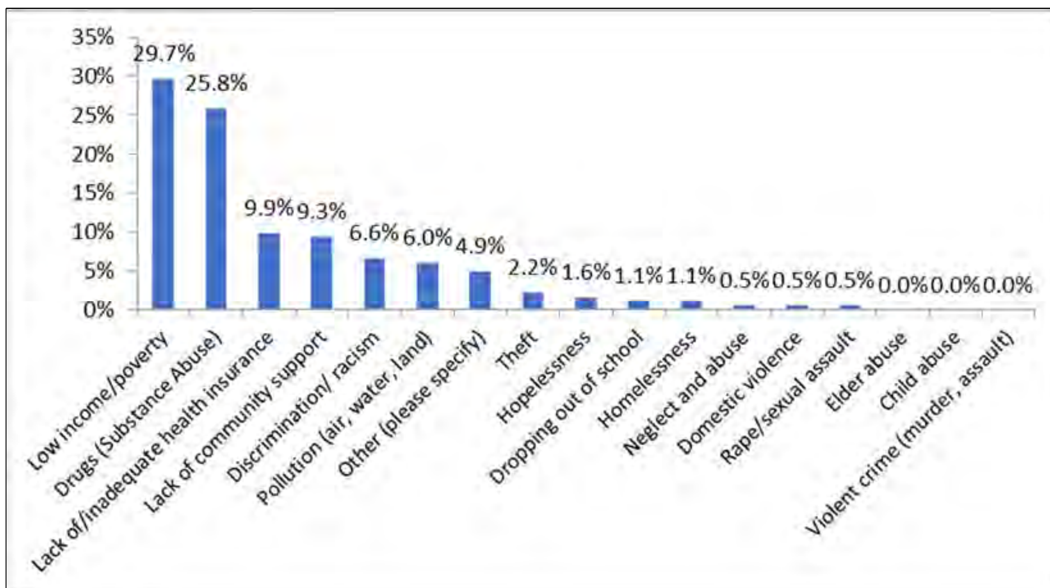
Demographics of Survey Respondents

Overall, the community survey participant population consisted of white, educated women with varying levels of income. The survey was a convenience sample survey, and thus the results are not representative of the community population as a whole.

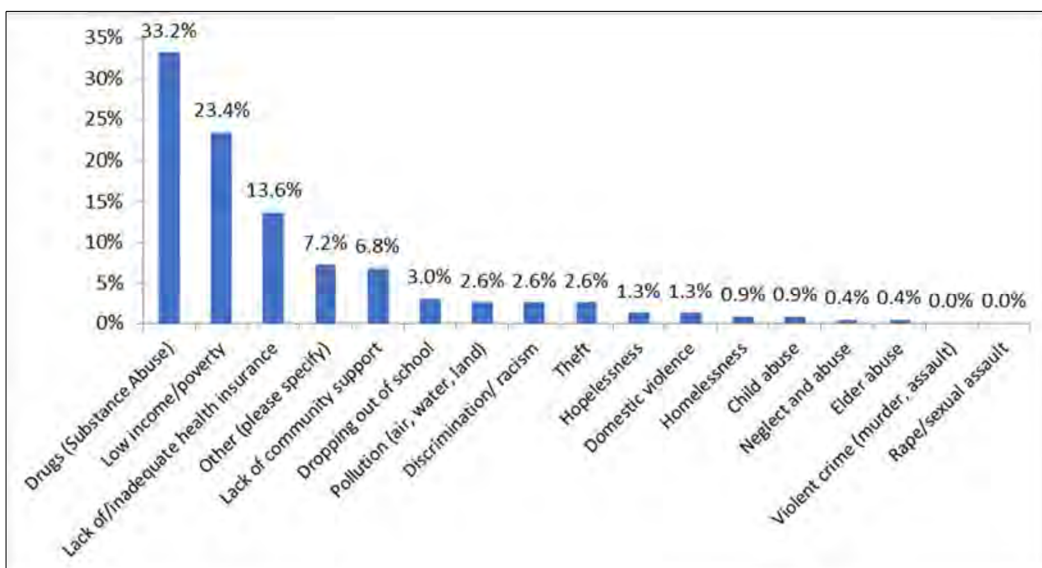
Top Community Issues Reported

For each county in the SAMC service area, the figures below display the list of community issues that were ranked by residents as most affecting the quality of life in their county. For all counties, low income/poverty was most frequently selected except for Currituck where drugs/substance abuse was most frequently selected. Drugs/substance abuse was the second most frequent selection in the counties, except for Currituck where low income/poverty was selected.

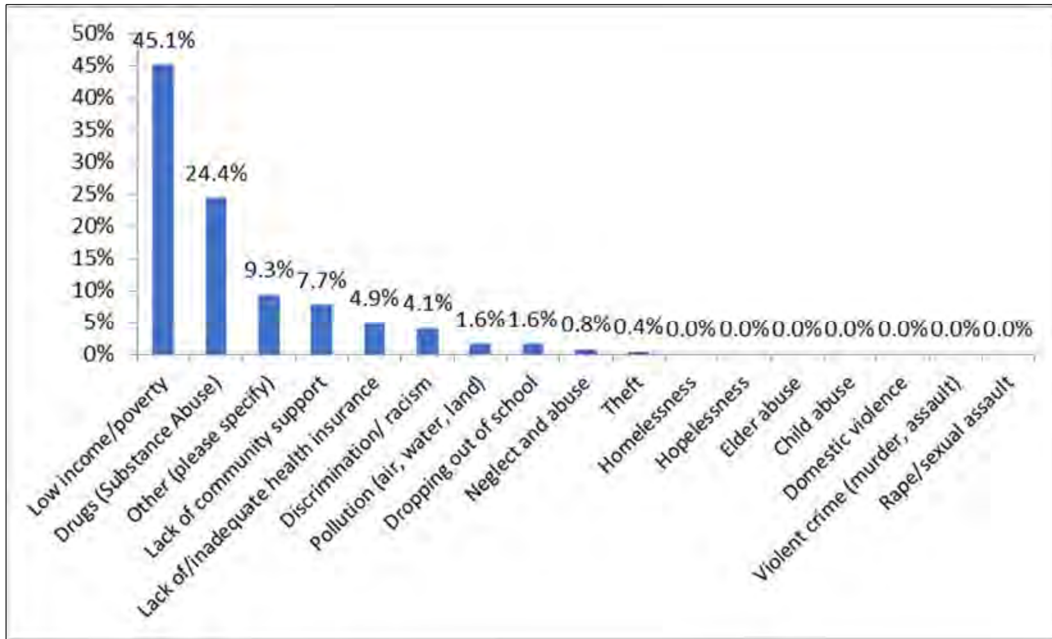
Top Reported Community Issues that Affect Quality of Life in Camden County



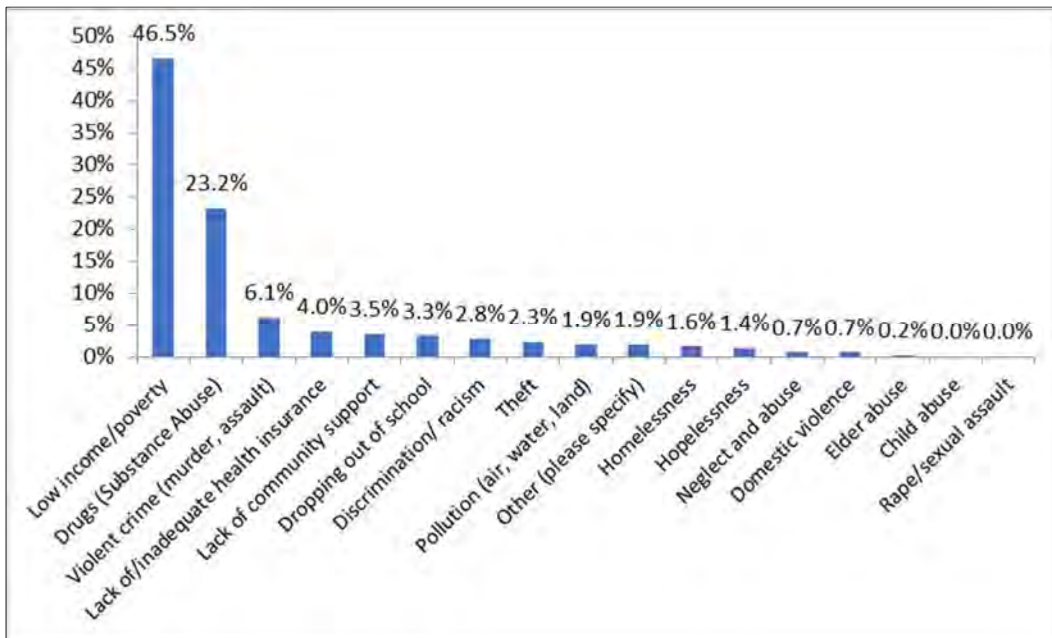
Top Reported Community Issues that Affect Quality of Life in Currituck County



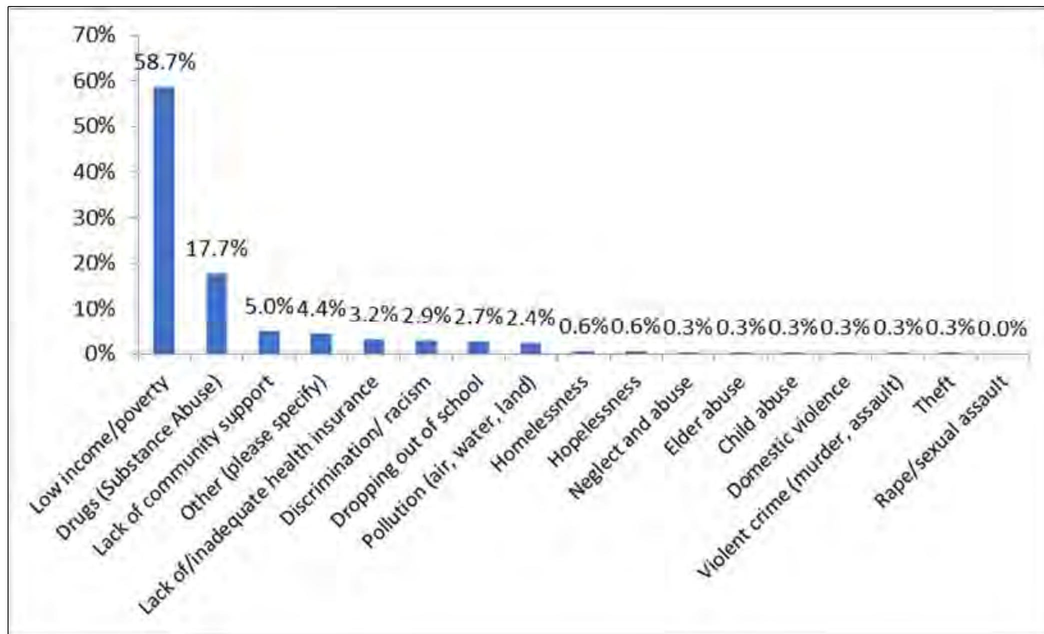
Top Reported Community Issues that Affect Quality of Life in Gates County



Top Reported Community Issues that Affect Quality of Life in Pasquotank County



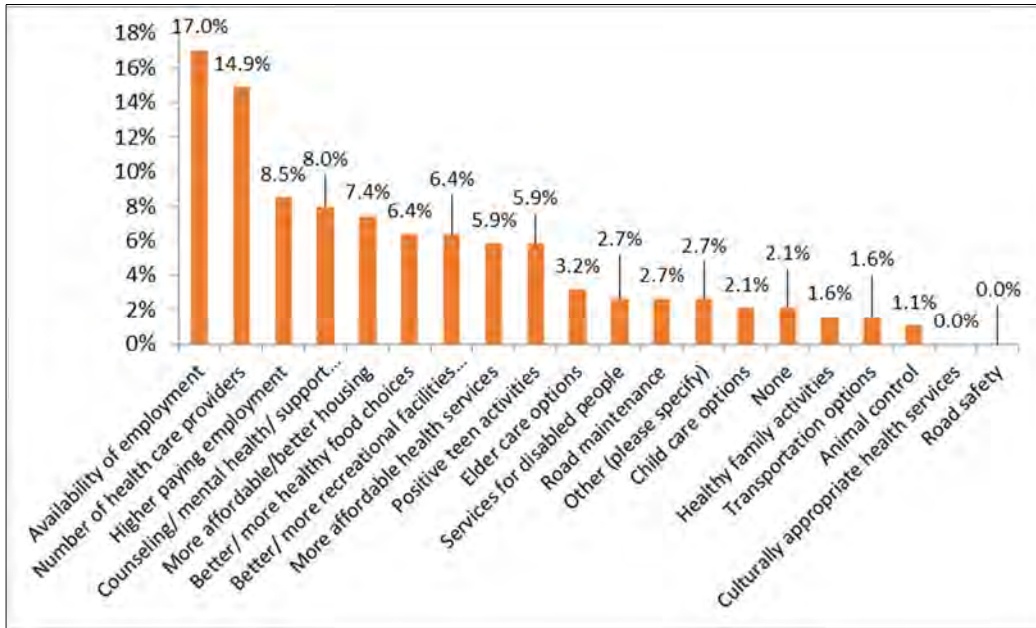
Top Reported Community Issues that Affect Quality of Life in Perquimans County



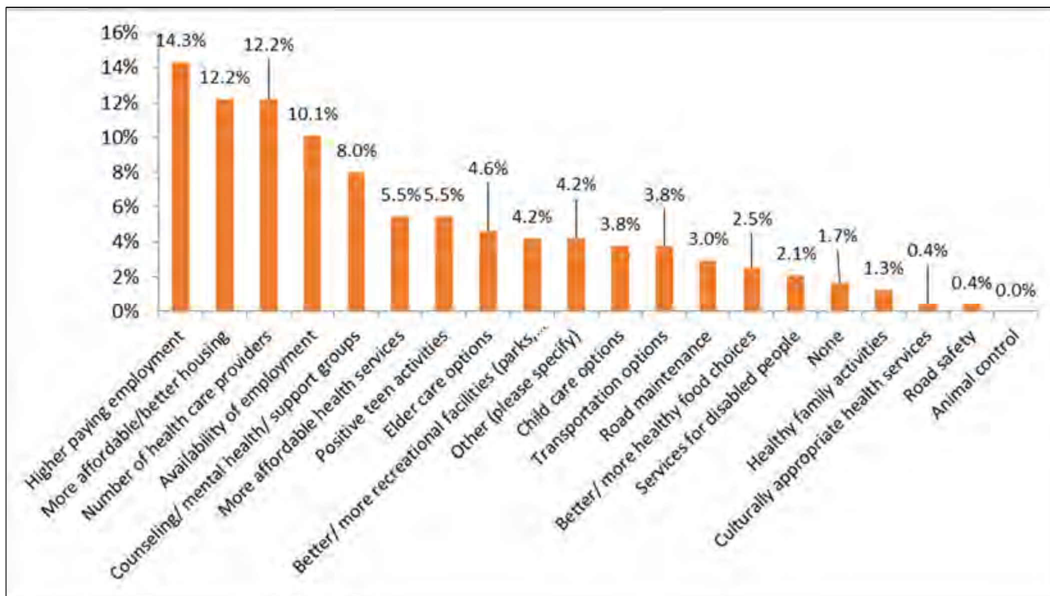
Top Services that Need Strengthening Reported

For each county in the SAMC service area, the figures that follow display the list of community services that were ranked by residents as needing the most improvement in their county. For all counties, the top services reported to most need strengthening were related to employment – availability or higher paying. The number of health care providers were also frequently reported for many counties.

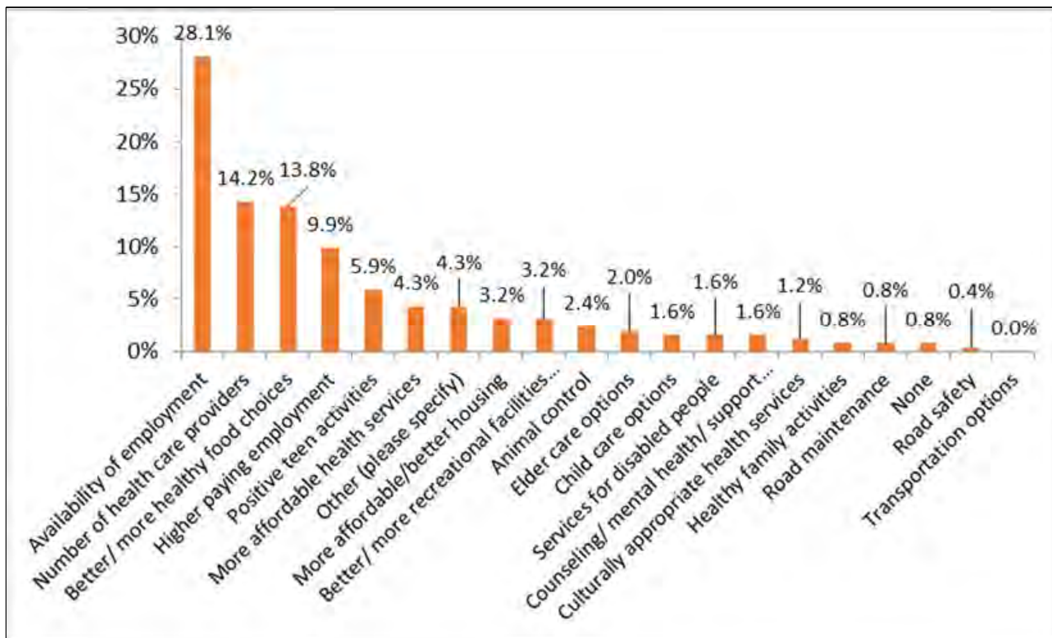
Top Reported Services Needing the Most Improvement in Camden County



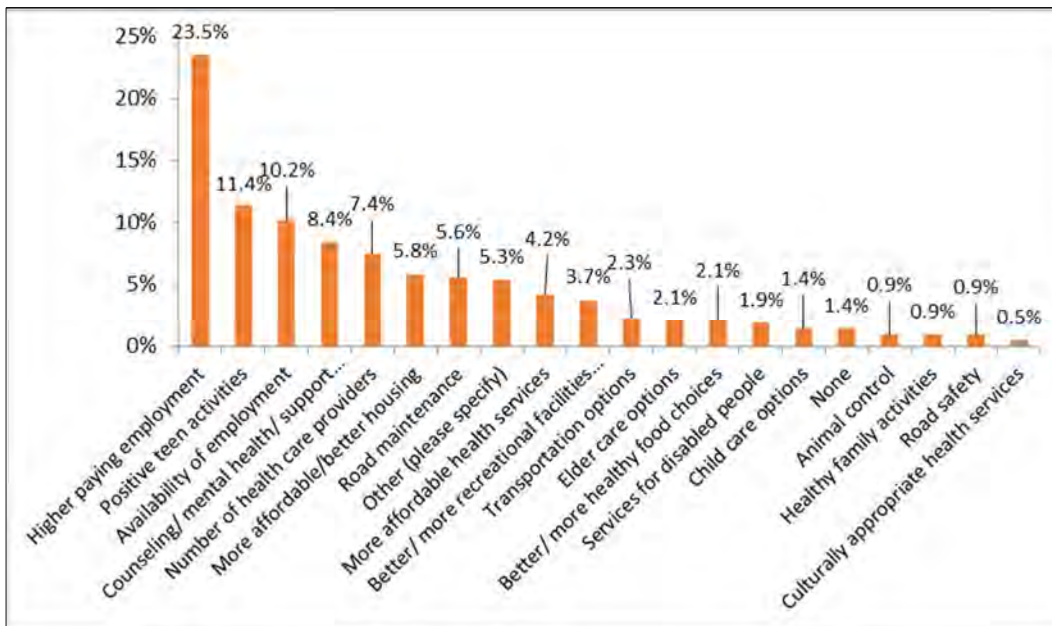
Top Reported Services Needing the Most Improvement in Currituck County



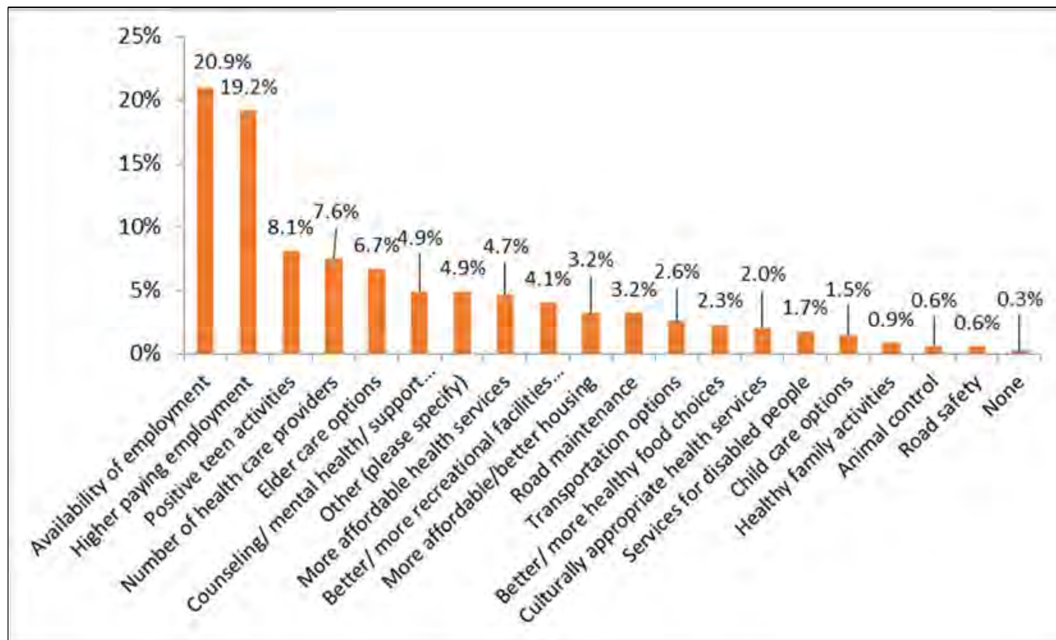
Top Reported Services Needing the Most Improvement in Gates County



Top Reported Services Needing the Most Improvement in Pasquotank County



Top Reported Services Needing the Most Improvement in Perquimans County



Key Findings by County and Topic

Highlights of the survey for each county are included below for key health areas.

Camden County

Access to Health Services

More than half of community survey respondents have health insurance through an employer (53.2%) followed by Medicare (15.1%). Participants were asked where they most often go to seek medical treatment, many sought care at a doctor's office (66.3%) followed by an urgent care center (19.25%). The majority of participants did not report any problems getting the health care they needed in the past 12 months (84.3%). For those who reported have difficulties accessing health care services, the most common reported providers that they had trouble getting services from were a general practitioner (24.1%), other (24.1%) or a dentist (24.1%). The top reasons participants reported not being able to get the necessary health care they needed were they couldn't get an appointment (28.6%), insurance didn't cover what they needed (28.6%) or the share of the cost was too high (28.6%). 7.2% of participants reported being able to see the medical provider they needed within Camden County while most sought care in Pasquotank County (70.7%).

Heart Disease and Stroke

37.2% of survey participant reported being told by a health care professional that they had high blood pressure and 29.9% had been told they have high cholesterol.

Exercise, Nutrition and Weight

Among community survey respondents, 43% rated their health is good and 30% rated their health as very good. However, 50% of respondents reported being told by a health professional that they were overweight and/or obese. Additionally, data from the community survey participants show that 42.2% of community members do not engage in any physical activity or exercise during the week that lasts at least 30 minutes. Among individuals that do not exercise, respondents reported primary reasons as not having enough time (33%), being too tired (33%) and their job is physical labor (24%). For those individuals that do exercise, 74% reported exercising or engaging in physical activity at home, while 19% do so at a park followed by a private gym (19%).

Mental Health and Substance Use

17.6% of survey participants, of those who responded to the question, have been told by a health professional that they have depression, anxiety or post-traumatic stress disorder. When asked what services need the most improvement in the community, counseling /mental health/support groups was the 4th highest ranked choice. 8.8% selected suicide prevention as the health behavior the community needs more information about. 14.8% of community survey respondents reported wanting to learn more about substance abuse prevention. 16% of survey participants reported currently use tobacco products. Of those who reported tobacco product use, 34% would go to a doctor if they wanted to quit and 26% stated that they did not want to quit. 48% of survey participants reported having been exposed to secondhand smoke in the last year. Most participants (79%) reported that in the past 30 days, there were zero times where they drank more than 4/5 drinks on a single occasion and 8% had one time. Reported illicit drug use amongst survey participants in the past 30-days was low, 98% reported no illegal drug use and 99% reported no use of prescription drugs they did not have a prescription for.

Currituck County

Access to Health Services

Almost half of community survey respondents have health insurance through an employer (46.4%) followed by Medicare (19.8%). Participants were asked where they most often go to seek medical treatment, the majority sought care at a doctor's office 62.9% and 23.2% sought care at an urgent care center. The majority of participants did not report any problems getting the health care they needed in the past 12 months (78%). For those who reported have difficulties accessing health care services, the most common reported providers that they had

trouble getting services from were a dentist (46%) and general practitioner (44%). The top reasons participants reported not being able to get the necessary health care they needed were their share of the cost was too high (34.7%) and they did not have health insurance (32.7%). 27.5% of participants reported being able to see the medical provider they needed within Currituck County while some sought care in other places such as Dare County (24.5%) and the State of Virginia (29.2%).

Cancer

Community Survey participants were asked whether they had been told by a health care provider if they had a number of health conditions and 15.1% of respondents reported that they had been told they had cancer. Participants were also asked if they had had a number of preventative screenings and 4.7% reported having a prostate cancer screening, 19.1% reported having a skin cancer screening, 13.6% reported having a colon/rectal exam, 31.8% reported having a pap smear and 39.8% reported having a mammogram.

Exercise, Nutrition, and Weight

Among community survey respondents, 42.4% rated their health is good and 32.2% rated their health as very good. However, 48% of respondents reported being told by a health professional that they were overweight and/or obese. Additionally, data from the community survey participants show that 44.5% of community members do not engage in any physical activity or exercise during the week that lasts at least 30 minutes. Among individuals that do not exercise, respondents reported not having enough time and being too tired to exercise as the most common reasons they do not exercise. For those individuals that do exercise, 65% reported exercising or engaging in physical activity at home while 27.6% do so at a YMCA and others exercise at a park (20.3%).

Substance Use

Community survey participants ranked substance abuse (33.2%) as a top issue affecting quality of life in Currituck County. Additionally, 23.6% of community survey respondents reported wanting to learn more about substance abuse prevention. 18.2% of survey participants reported currently use tobacco products. Of those who reported tobacco product use, 28.6% reported that they would go to a doctor if they wanted to quit, 28.6% said they didn’t know where to go and 23.8% reported that they did not want to quit. 46.6% of survey participants reported having been exposed to secondhand smoke in the last year. Most participants (68.1%) reported that in the past 30 days, there were zero times where they drank more than 4/5 drinks on a single occasion and 11.1% had one time. Reported illicit drug use amongst survey participants in the past 30-days was low, 94.4% reported no illegal drug use and 97% reported no use of prescription drugs they did not have a prescription for.

Gates County

Access to Health Services

The majority of community survey respondents have health insurance through an employer (54.4%) followed by Medicare (19.8%). Participants were asked where they most often go to seek medical treatment, the majority sought care at a doctor's office 73.1% and 17% sought care at an urgent care center. The majority of participants did not report any problems getting the health care they needed in the past 12 months (87.7%). For those who reported have difficulties accessing health care services, the most common reported providers that they had trouble getting services from were a dentist (31%), general practitioner (27.6%), specialist (20.7%), other (20.7%) or pharmacy/prescriptions (17.2%). The top reasons participants reported not being able to get the necessary health care they needed were insurance did not cover services (27.6%), couldn't get an appointment (24.1%) or the wait was too long (24.1%). 7.6% of participants reported being able to see the medical provider they needed within Gates County while the majority sought care in other places such as the state of Virginia (43.7%), Hertford County (19.3%) and Pasquotank County (17.2%).

Exercise, Nutrition and Weight

Among community survey respondents, 46.5% rated their health is good and 33.9% rated their health as very good. However, 48.6% of respondents reported being told by a health professional that they were overweight and/or obese. This was closely followed by high reports of high blood pressure (44.6%), high cholesterol (33.9%) and diabetes (13.6%). Data from the community survey participants show that 40.9% of community members do not engage in any physical activity or exercise during the week that lasts at least 30 minutes. Among individuals that do not exercise, respondents reported reasons of not having enough time (36.5%) being too tired (31.8%), and I don't like to exercise (30.8%). For those individuals that do exercise, 81.3% reported exercising or engaging in physical activity at home while 11.8% do so at a public park followed by a public recreation center (11.1%) or work site/employer (11.1%).

Substance Use

Community survey participants ranked substance abuse (24.4%) as a top issue affecting quality of life in Gates County. Additionally, 27.6% of community survey respondents reported wanting to learn more about substance abuse prevention. 10.7% of survey participants reported currently use tobacco products. Of those who reported tobacco product use, 25.9% would go to a doctor if they wanted to quit and 25.9% stated that they did not want to quit. 43.1% of survey participants reported having been exposed to secondhand smoke in the last year. Most participants (77%) reported that in the past 30 days, there were zero times where they drank more than 4/5 drinks on a single occasion and 9.1% had one time. Reported illicit drug use amongst survey participants in the past 30-days was low, 99.2% reported no illegal drug use and 98.4% reported no use of prescription drugs they did not have a prescription for.

Pasquotank County

Access to Health Services

Most of community survey respondents have health insurance through an employer (63.6%) followed by insurance through their spouse's employer (10.9%). Participants were asked where they most often go to seek medical treatment, the majority sought care at a doctor's office 68%. The majority of participants did not report any problems getting the health care they needed in the past 12 months (85%). For those who reported have difficulties accessing health care services, the most common reported providers that they had trouble getting services from were a general practitioner (46%), specialist (29%) and a dentist (29%). The top reasons participants reported not being able to get the necessary health care they needed were not being able to get an appointment (41%), not having health insurance (33%) or insurance didn't cover what they needed (28%). 86% of participants reported being able to see the medical provider they needed within Pasquotank County while some sought care in the State of Virginia (6%).

Heart Disease & Stroke

38% of survey participants reported being told by a health care professional that they had high blood pressure and 31% had been told they have high cholesterol.

Cancer

Community Survey participants were asked whether they had been told by a health care provider if they had a number of health conditions and 7% of respondents reported that they had been told they had cancer. Participants were also asked if they had had a number of preventative screenings and 4% reported having a prostate cancer screening, 15% reported having a skin cancer screening, 13% reported having a colon/rectal exam, 42% reported having a pap smear and 44% reported having a mammogram.

Exercise, Nutrition & Weight

Among community survey respondents, 43% rated their health is good and 34% rated their health as very good. However, 42% of respondents reported being told by a health professional that they were overweight and/or obese. Additionally, data from the community survey participants show that 33% of community members do not engage in any physical activity or exercise during the week that lasts at least 30 minutes. Among individuals that do not exercise, respondents reported being too tired to exercise (38%), not having enough time (37%) and not liking exercise (19%). For those individuals that do exercise, 65% reported exercising or engaging in physical activity at home while 24% do so at a private gym followed by a YMCA (19%).

Mental Health and Substance Use

35% of survey participants who responded to this question have been told by a health professional that they have depression, anxiety or post-traumatic stress disorder. When asked what services need the most improvement in the community, counseling /mental health/support groups was the fourth highest ranked choice. 4.9% of participants selected stress management as a health behavior the community needs more information about. 27.6% of community survey respondents reported wanting to learn more about substance abuse prevention. 10% of survey participants reported currently use tobacco products. Of those who reported tobacco product use, 28% reported that they would go to a doctor to get help quitting, 20% reported that they didn't know where to go and 28% reported that they did not want to quit. 35% of survey participants reported having been exposed to secondhand smoke in the last year. Most participants (73%) reported that in the past 30 days, there were zero times where they drank more than 4/5 drinks on a single occasion and 10% had one time. Reported illicit drug use amongst survey participants in the past 30-days was low, 99% reported no illegal drug use and 99% reported no use of prescription drugs they did not have a prescription for.

Perquimans County

Access to Health Services

Half of community survey respondents have health insurance through an employer (51.5%) followed by Medicare (38.2%). Participants were asked where they most often go to seek medical treatment, the majority sought care at a doctor's office 82.6%. The majority of participants did not report any problems getting the health care they needed in the past 12 months (85.4%). For those who reported have difficulties accessing health care services, the most common reported providers that they had trouble getting services from were a specialist (37.3%), general practitioner (35.3%), dentist (25.5%) or eye care (15.7%). The top reasons participants reported not being able to get the necessary health care they needed were insurance not covering what they needed (36%), they couldn't get an appointment (32%) or their share of the cost was too high (26%). 18.1% of participants reported being able to see the medical provider they needed within Perquimans County while the majority sought care in other places such as Pasquotank County (46.7%), Chowan County (21.9%) and Perquimans County (18.1%).

Heart Disease and Stroke

45% of survey participant reported being told by a health care professional that they had high blood pressure and 45% had been told they have high cholesterol.

Exercise, Nutrition, and Weight

Among community survey respondents, 41.7% rated their health is good and 33.9% rated their health as very good. However, 41.3% of respondents reported being told by a health professional that they were overweight and/or obese. This was closely followed by high reports of high blood pressure (45%), high cholesterol (45.2%) and diabetes (18.6%). Additionally, data from the community survey participants show that 36.3% of community members do not engage in any physical activity or exercise during the week that lasts at least 30 minutes. Among individuals that do not exercise, respondents reported not having enough time (41.4%), being too tired (25.6%) and not liking exercise (23.3%). For those individuals that do exercise, 67% reported exercising or engaging in physical activity at home while 22.2% do so at a private gym followed by a ‘other’ locations (21.7%) such as walking outside and golfing.

Substance Use

Community survey participants ranked substance abuse (17.7%) as a top issue affecting quality of life in Perquimans County. Additionally, 13.8% of community survey respondents reported wanting to learn more about substance abuse prevention. 11.3% of survey participants reported currently use tobacco products. Of those who reported tobacco product use, 34.2% would go to a doctor if they wanted to quit, 34.2% do not know where they would go and 25.9% stated that they did not want to quit. 36.4% of survey participants reported having been exposed to secondhand smoke in the last year. Most participants (75.7%) reported that in the past 30 days, there were zero times where they drank more than 4/5 drinks on a single occasion and 7.6% had one time. Reported illicit drug use amongst survey participants in the past 30-days was low, 98% reported no illegal drug use and 99.7% reported no use of prescription drugs they did not have a prescription for.

Focus Group Results

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

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

Conduent HCI consultants developed a Focus Group Guide and led training webinars for Health ENC members. Topics included facilitation techniques, moderator and note taker roles, as well as tips and expectations for documenting focus group discussions. The list of focus group questions was reviewed and a transcript was provided for documentation purposes.

Focus Group Questions

The following main questions were asked during each focus group.

- What do people in this community do to stay healthy?
- In your opinion, what are the serious health related problems in your community? What are some of the causes of these problems?
- What keeps people in your community from being healthy? What challenges do you face that keep you from being healthy? What barriers exist to being healthy?
- What could be done to solve these problems? What could be done to make your community healthier? Additional services or changes to existing services?
- Is there any group not receiving enough health care? If so, what group? And why?
- Is there anything else you would like us to know?

Supplemental questions from the list below were asked during some sessions.

- How do people in this community get information about health? How do you get information about health?
- What are the strengths related to health in your community?
- If you had $100,000 to spend on a healthcare project in the county, how would you spend it?
- What is the major environmental issue in the county?

Focus Group Descriptions

Twenty-three focus group discussions were completed within service area between July 6, 2018 – July 26, 2018 with a total of 169 individuals. Participants included members of the community of various ages and backgrounds. The table below provides information on the participants of each focus group.

List of Focus Group Discussions by County

County	Date Conducted	Focus Group Location	Number of Participants
Camden	7/06/2018	Camden Senior Center	6
Camden	7/20/2018	Church in South Mills	7
Camden	7/23/2018	Church in Sawyers Creek	5
Camden	7/23/2018	Church in Sawyers Creek	5
Currituck	7/13/2018	Currituck County Senior Center	9
Currituck	7/10/2018	Currituck Cooperative Extension	5
Currituck	7/16/2018	Currituck YMCA	5
Currituck	7/19/2018	Currituck Cooperative Extension	7
Gates	7/18/2018	Employee Housing near Roduco, NC	7
Gates	7/26/2018	Gates County Rescue and EMS	7
Gates	7/25/2018	Gates County Agricultural Ext. Agency	10
Gates	7/11/2018	Gate County Community Center, Room C	11
Gates	7/11/2018	Gates County Community Center, Room C	3
Gates	7/18/2018	New Middle Swamp MBC Fellowship Hall	15
Gates	7/26/2018	Ahoskie, NC / Ahoskie Comprehensive Care	7
Pasquotank	7/24/2018	Mt. Carmel Church	9
Pasquotank	7/26/2018	PORT	8
Pasquotank	7/25/2018	Community Care Clinic	11
Pasquotank	7/26/2018	YMCA	6
Perquimans	7/12/2018	Perquimans County Health Department	6
Perquimans	7/12/2018	Perquimans County Senior Center	8
Perquimans	7/23/2018	Chapel on the Sound Church	3
Perquimans	7/26/2018	Perquimans County Senior Center	9

Key Findings

Question	Key Findings
What do people in this community do to stay healthy?	Eat healthier; Fresh vegetables in summer Healthy eating options are plentiful with roadside markets/produce stands Run/Walk/Exercise/Bicycle Variety of outdoor activities, including certain geographies allow for surfing, etc. Healthy options included in many events/activities Youth recreation leagues, Skate Board Park YMCA, Planet Fitness, Knobbs Creek, Track at Grandy Primary Senior Center Community Center –small satellite Vidant gym in Gates Gardening/yard work Fishing Employee wellness program Decrease in tobacco use

In your opinion, what are the serious health related problems in your community? What are some of the causes of these problems?	Mental health/Depression/Suicide Substance Abuse – increasing drug use Autism Diabetes/Juvenile Diabetes High Blood Pressure/ Stroke Cardiovascular disease /Heart Disease Cancer Obesity Flooding Causes: Agricultural applications could impact water quality/environment Too much screen time Restaurant/food choices Unhealthy, boxed foods cheaper Low access to grocery stores Cooking preps; too much fried foods Drive everywhere, lack of walkable communities/resources Mental health due to isolated geographic regions Lack of transportation leads to low health compliance Education Low health literacy Lifestyle, sedentary activities, Lack of exercise among children Financial barriers
What keeps people in your community from being healthy? What challenges do you face that keep you from being healthy? What barriers exist to being healthy?	Lack of access to medical care, including pharmacies Limited access to primary care physicians, general specialties and dentists Most healthcare options are out of state Travel barriers to Greenville or Virginia Lack of multiple walkable communities throughout the counties No adult organized sports league No variety in supermarket shopping Reactionary to mental health issues versus preventative Culture and traditions Doctors not focusing on health behaviors High cost of healthy foods Families aren't teaching healthy meal preps Lack of time to prepare healthy meals Geographic distribution of county can impose barriers, such as parks at opposite ends Lack of education Lack of communication about healthy living opportunities Low health literacy Lack of prevention programs Financial barriers Poverty Unable to access/afford prescriptions Difficult to make lifestyle changes later in life upon a diagnosis Transportation barriers/Lack of public transportation Limited resources Schedules/commuting for work Health Department stigma

What could be done to solve these problems? What could be done to make your community healthier? Additional services or changes to existing services?	Addition of primary care and dentists Additional services to aging populations Build an Urgent Care Access to assisted living facilities Implement preventative mental health programs in schools Increased mental health services (general and schools) Conflict resolution Increased mental health funding Higher paying jobs More affordable housing and better housing choices/better shelters Additional fitness facilities Addition of walkable communities, bike trails More community activities besides bars or restaurants More adult league sports Yoga, tai-chi Offer nutrition programs Increase access to healthier foods, farmer markets, food pantries Limit food stamps to healthier choices Grocery stores offer smaller amounts and packaging Offer cooking programs Weekend backpack program Increase funding to schools Additional education and patient advocates Encourage education to take medications Collaborative engagement of schools, faith-based communities and recreation department Education at a younger age Services for kids in need Better children care options and free after school programs Add prayer to school Silver Sneakers (more classes for seniors) Offer health fairs Build awareness
Is there any group not receiving enough health care? If so, what group? And why?	Elderly (transportation issues, lack of home care, cost of prescriptions/home care) Senior citizens with low income Transportation available through ICPTA is not efficient and can take an entire day to reach one healthcare appointment Low income/uninsured Poverty is hidden due to perceptions of median incomes Low socio-economic groups due to lack of resources to afford a healthy lifestyle Young adults (20s to 30s) Under/Uninsured Medicare gaps, can't always afford prescriptions Middle aged population Single with no dependents (<65 aged)
How do people in this community get information about health? How do you get information about health?	Social media/Internet Word of Mouth Newspaper Newsletter from housing authority Focus on Currituck newsletter Churches Senior Centers/AARP meetings Emergency alerts Physicians

What are the strengths related to health in your community?	Churches, blessing boxes Food banks Roadside markets Several locations of senior centers that provide meals Less pollution than urban areas Lack of fast food
If you had $100,000 to spend on a healthcare project in the county, how would you spend it?	Keep the CCC prediabetes program going Engage children in physical activity Invest in youth (skating rink, other activities to occupy time) Healthy activities for younger people at the community center like dance After school remediation program 5 days a week Mentor young adults from ages 17-25 Education for parents and children Health and prevention classes New senior center /Expand Senior Center to make it diverse, activities for other ages Add a central Camden park Walking paths/trails, connecting neighborhoods, parks, fitness facilities Hire second EMS crew/second ambulance (Gates) Buy property and build a transitional home like the “Serenity House”. Build a Crisis Response Facility (Pasquotank) Resume writing Invest in entrepreneurs and young people who have ideas to solve problems Hire more physicians
What is the major environmental issue in the county?	NCDOT spray harming vegetation/water ways Pesticide application to farm land/ farming chemicals/ crop spraying Weed killer, chemicals getting into water ways Transient populations don’t always understand wildlife habitats Mosquitos Swamp mold
Is there anything else you would like us to know?	Lack of assisted living facilities Most healthcare outside of some primary and dental requires travel to Virginia Barriers to accessing health care (Split between EC/VA) Need additional dental and primary care access Lack of dental services Population is growing Centralizing park access is needed Need access to Opioid rehabilitation options; more programs for drug treatment/detox houses The county needs a hospital (Currituck) Freestanding ED request for Gates The county needs a hotel (Currituck) Corolla receives a disproportionate number of resources in the county More schools are needed for growing population More education to increase health concerns Residents seem to be making intentional food choices to eat healthier Senior center needs bigger space and is a good venue for information sharing YMCA is still unaffordable for some people Need things for younger people to do; summer programs needed; parents need help Request for community gardens

Key Themes	• Community based prevention/education programs are needed. • Community resources need to consider the aging population. • Resources/activities also needed for younger/teen populations to stay occupied/out of trouble (drug use increasing). • Residents would like to see additional primary care and access to Urgent Care. • Increased mental health services are needed in the school and community. • The community has plentiful green space and water access. Participants are proud of the community they live in and the school systems. • Walkable communities are largely non-existent. Residents must drive and dependence upon ICPTA is not an efficient transportation resource. • There seems to be a lack of communication outlets about healthy living opportunities and services that are available. • Lifestyle choices/behaviors often difficult to change due to cultural influences. Families aren't receiving appropriate support services early on from providers. Need education. • Improved access to healthy food.

More detailed results by County are available for download at HealthENC.org.

Sentara Community Health Needs Assessment Implementation Strategy

<u>2018 Year-End Progress Report</u>

Hospital: <u>Sentara Albemarle Medical Center</u>

Quarter (please indicate): ☐First Quarter ☐Second Quarter ☐Third Quarter ✓Year End

Health Problem	Three Year Implementation Strategies	Progress
Chronic Disease Management/ Lifestyle Modification	Strategy: Creating Growth Increase the capacity of primary care in the SAMC service region through provider recruitment and retention. • Deploy population health management best practices in APS/SMG. • Provide education opportunities and resources that support physician practices to include disease registries, tobacco cessation, and Advance Care Planning. Strategy: Caring for Defined Populations • Collaborate to reduce unnecessary readmissions, avoidable hospitalizations, and inappropriate Emergency Department utilization. • Provide case management services for patients at high risk of avoidable hospitalizations and/or readmissions for key chronic diseases through the SAMC Care Transitions program. Care Coordination and Transitions: • Leverage technology capabilities to manage targeted populations. • Explore screening/assessment and/or predictive analytics tools to help identify and manage fall risk.	• Implemented psychosocial distress screenings for local oncology patients. Screenings result in referrals to address social determinants of health. • Opened Wound Care and Hyperbaric Center in Q1. • Received ELT funding to partner with the Food Bank to launch a Food Rx program to reduce CHF and Diabetic related readmissions. • Monthly Readmission Committee meetings Interdisciplinary committee meetings to review high utilizers Enhancements to EHR to add clinical data for managing provider to review • Launched Health Ambassadors program with area clergy • Hosted Heart Fair in Q1. Provided screenings and regional access to community resources and organizations.
Behavioral Health	Strategy: Caring for Defined Populations Improve health outcomes, continuity of care and value by applying population management competencies to defined populations. • Further integrate behavioral health into primary care at our SMG/APS NC clinics. Strategy: Caring for Defined Populations Collaborate to reduce unnecessary readmissions and find appropriate resources for behavioral health patients.	• Ongoing collaboration with regional Ombudsman, CI supervisor to discuss BH • Quarterly meetings with EMS to increase communication to direction of appropriate services. December meeting included Dare and Washington counties. • Launched Epic Care in all community practices in Q3.

Health Problem	Three Year Implementation Strategies	Progress
	• Utilize psychiatric emergency response services (PERS) social worker to better navigate patients to appropriate services.	
Access to Healthcare	Strategy: Caring for Defined Populations Collaborate to reduce unnecessary readmissions and inappropriate Emergency Department utilization. • Work with community organizations and providers to achieve goals within key chronic populations. • Link patients with community resources to manage the chronic disease needs. Strategy**:** Creating Growth Increase access to needed primary care and specialty care for uninsured and underinsured patients. • Collaborate with community safety net providers to navigate patients through community resources and safety net healthcare services. Strategy: Caring for Defined Populations Improve health outcomes, continuity of care and value by applying population management competencies to defined populations. • Offer health screenings and education programs for chronic disease management. • Tobacco Use - Discuss Cessation medications and strategies with patients. • Advance Care Planning – Standardize guidelines Advance Care Planning conversations for providers and patients in SAMC setting.	• Provided community screenings with the City, Chamber, COA, ECSU, Faith Based communities and schools. Also provided vascular/stroke risk assessments and consult with NP. • Obtained Primary Stroke designation through enhance partnerships with regional EMS teams. • Recruited 2 additional female Ob/GYNs. One is permanent, the second is a long-term locum. • Provided education to COA Nursing Assessments about palliative care services. • Provided healthcare information at the annual USCG Day. • Hosted ortho-reunion lunches • Launched Mommy and Me classes for new moms in Perquimans and Camden counties. • Provided over 700 physicals to student athletes in the region. • Structured regional training with EMS, Sports Med, and Nightingale team to facility care pathways. • Partnered with library to provide newborn books. • Provide ACP program at Knobbs Creek Senior Center. • Sponsored survivor walk at Relay for Life and distributed healthcare resources. • Partnered with local school system to provide an orientation to SAMC services for new employees. • Partnered with Walmart to provide screenings. • Partnered with the CCC to provide OTC MedAssist event serving >600 people. • Introduced Health Science careers and simulation programs for more than 100 middle and high school students.

Appendix – About Health ENC

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

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

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

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

Upon receipt of generous funding support provided by The Duke Endowment, the Office of Health Access at ECU's Brody School of Medicine transferred administrative and operational responsibility for Health ENC to the Foundation for Health Leadership and Innovation in 2018. The project continues to be guided by a steering committee representing local health departments, hospitals and other stakeholders committed to improving the health of the people of eastern North Carolina.

Member Organizations

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

Partner Organizations

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

Hospitals and Health Systems

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

Health Departments and Health Districts

- Albemarle Regional Health Services
- Beaufort County Health Department
- Bladen County Health Department
- Carteret County Health Department
- Cumberland County Health Department
- Dare County Department of Health and Human Services
- Duplin County Health Department
- Edgecombe County Health Department
- Franklin County Health Department
- Greene County Department of Public Health
- Halifax County Public Health System
- Hoke County Health Department
- Hyde County Health Department
- Johnston County Public Health Department
- Lenoir County Health Department
- Martin-Tyrrell-Washington District Health Department
- Nash County Health Department
- Onslow County Health Department
- Pamlico County Health Department
- Pitt County Health Department
- Sampson County Health Department
- Wayne County Health Department

- Wilson County Health Department

Steering Committee

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

Health ENC Program Manager

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

Health ENC Steering Committee Members

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

Consultants

Health ENC commissioned Conduent Healthy Communities Institute (HCI) to assist with its Community Health Needs Assessment.

Conduent Healthy Communities Institute is a multi-disciplinary team of public health experts, including healthcare information technology veterans, academicians and former senior government officials, all committed to help health-influencing organizations be successful with their projects. Conduent HCI uses collaborative approaches to improve community health and provides web-based information systems to public health, hospital and community development sectors, to help them assess population health.

Conduent HCI works with clients across 38 states to drive improved community health outcomes by assessing needs, developing focused strategies, identifying appropriate intervention programs, establishing progress monitoring systems, and implementing performance evaluation processes. Working with diverse clients nationwide has contributed to Conduent HCI's national knowledge base of population health solutions. In addition, by engaging directly with clients and communities through the primary data collection process and final workshops, Conduent HCI works on behalf of our clients to build trust between and among organizations and their communities.