



## **Novant Health Pender Medical Center**

**Community Health Needs Assessment**

**Pender County, North Carolina**

**2022-2024**

**Approved by the Pender Memorial Hospital Board of Trustees on December 14, 2022**

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## I. Introduction

Novant Health Pender Medical Center (NHPEMC), in partnership with Kulik Strategic Advisers (dba, KSA) conducted the 2022 NHPEMC Community Health Needs Assessment (CHNA) to identify the most pressing health needs in our community. Novant Health Pender Medical Center will enhance the community's health by offering health programs, clinical services, and financial support in response to the specific health needs identified.

Members of the Pender County Health Department served as part of the Novant Health Pender Medical Center steering committee and Ruth Glaser, President of Novant Health Pender Medical Center, participated as part of the Pender County Health Department steering committee.

### ***a) Organizational Overview***

Novant Health is an integrated network of hospitals, physician clinics, and outpatient facilities that delivers a seamless and convenient healthcare experience to communities in North Carolina, South Carolina, and Georgia. The Novant Health network consists of more than 1,800 physicians and over 35,000 team members who provide care at more than 800 locations, including 15 hospitals and hundreds of outpatient facilities and physician clinics. *Diversity MBA Magazine* ranked Novant Health first in the nation on its 2021 list of "Best Places for Women & Diverse Managers to Work." In 2021, Novant Health provided more than \$1.1 billion in community benefits including financial assistance and services.

### ***Mission***

Novant Health exists to improve the health of our communities, one person at a time.

Our team members and physician partners strive every day to bring our mission, vision, and values to life. We demonstrate this commitment to our patients in many ways. For example, our organization:

- Maintains an active community health outreach program.
- Demonstrates superior outcomes for many health conditions as indicated by our state and national quality scores.
- Creates innovative programs that address important health issues, with many of our programs and services being recognized nationally.
- Believes in its role as a socially responsible organization, working with community agencies and organizations to make our communities better places to live and work.

**Novant Health Pender Medical Center (NHPEMC)** is a 43-bed critical access hospital with an additional 43 skilled nursing home beds in Burgaw (86 licensed beds total). The hospital offers residents of Pender County and surrounding communities a convenient and friendly place to receive care and treatment. It offers a range of services including emergency care, surgery, imaging, infusion therapy, and skilled nursing. New Hanover Regional Medical Center manages NHPEMC and has invested in the hospital's continued growth.

**b) Our Defined Community**

**Primary and Secondary Service Areas**

The Primary Service Area for Novant Health Pender Medical Center is defined by the zip codes that represent at least 75% of the hospital’s in-patient population as outlined below. For Novant Health Pender Medical Center, the Primary Service Area is 75.4% of inpatient discharges.

Novant Health Pender Medical Center				
Zip Code	IP Discharges	% Cases	County	Service Area
28425	78	18.1%	PENDER	Primary
28457	46	10.7%	PENDER	Primary
28478	39	9.0%	PENDER	Primary
28466	34	7.9%	DUPLIN	Primary
28421	17	3.9%	PENDER	Primary
28405	16	3.7%	NEW HANOVER	Primary
28435	15	3.5%	PENDER	Primary
28521	12	2.8%	DUPLIN	Primary
28401	11	2.6%	NEW HANOVER	Primary
28451	10	2.3%	BRUNSWICK	Primary
28411	10	2.3%	NEW HANOVER	Primary
28444	10	2.3%	SAMPSON	Primary
28458	9	2.1%	DUPLIN	Primary
28443	9	2.1%	PENDER	Primary
28412	9	2.1%	NEW HANOVER	Primary
28454	9	2.1%	PENDER	Secondary
28546	5	1.2%	ONSLow	Secondary
28518	5	1.2%	DUPLIN	Secondary
28461	5	1.2%	BRUNSWICK	Secondary
28436	5	1.2%	COLUMBUS	Secondary
28403	5	1.2%	NEW HANOVER	Secondary
28429	5	1.2%	NEW HANOVER	Secondary
28540	4	0.9%	ONSLow	Secondary
28358	4	0.9%	ROBESON	Secondary
28464	4	0.9%	DUPLIN	Secondary
28447	4	0.9%	SAMPSON	Secondary
28460	4	0.9%	ONSLow	Secondary
28445	3	0.7%	ONSLow	Secondary
28433	3	0.7%	BLADEN	Secondary

Although there are five counties in the Novant Health Pender Medical Center Primary Service Area, 47.3% of the patients in the Primary Service Area reside in Pender County, 12.8% in Duplin County, 10.7% in New Hanover County, and 2.4% each in Brunswick and Sampson Counties. The NHPMC secondary service area accounts for 15.1% of inpatient discharges and is populated by eight counties:

Pender, New Hanover, Duplin, Onslow, Robeson, Sampson, Bladen, and Columbus.

Most patients reside in Pender County, and it represents the highest population of potentially underserved, low-income, and minority individuals. Therefore, NHPEMC service areas will be the focus of demographic, health, and social indicators.

### **Pender County Population: Demographics**

Pender County covers Burgaw, the County seat.



PRIMARY: Burgaw, Rocky Point, Watha, Atkinson, Hampstead. *East of ROUTE 17 separates 'rest' of Pender (not NHPEMC area).*

SECONDARY: Point Caswell, Long Creek, parts of Wallace & Castle Hayne (Duplin & New Hanover Counties, respectively).

***Pender County's total population was 61,891 in 2020 and 62,815 in June 2022. NHPEMC's primary and secondary service area has 21,863 residents or approximately 35% of the County's population.***

Pender County, North Carolina is a very rural community, with 68% of the County still considered rural by the United States Census Bureau definition of fewer than 1,000 persons per square mile. Pender County has 69.1 persons per square mile compared to North Carolina which is 33% rural, with 98 persons per square mile. The land area of Pender County (871.30 square miles), makes it the 5<sup>th</sup> largest County in North Carolina in geographic mass, contributing to transportation and access issues.

The rural nature of Pender County results in issues with social isolation, transportation, and access to health and human services.

<b>PENDER COUNTY, NORTH CAROLINA DEMOGRAPHICS (COUNTY &amp; SERVICE AREA)</b>				
	<b>PENDER COUNTY</b>		<b>SERVICE AREA</b>	
<b>DEMOGRAPHIC</b>	<b>TOTAL #</b>	<b>TOTAL %</b>	<b>TOTAL #</b>	<b>TOTAL %</b>
<i>Age</i>				
0-5 years	3,528	5.7%	3,432	5.7%
6-18 years	13,864	22.4%	13,365	22.2%
19-64	33,112	53.5%	32,209	53.5%
65+	11,388	18.4%	11,198	18.6%
<i>Gender</i>				
Male	31,069	50.2%	30,222	50.2%
Female	30,822	49.8%	29,981	49.8%
<i>Race/Ethnicity</i>				
White (non-Hispanic)	47,347	76.5%	16,485	75.4%
Black (non-Hispanic)	8,912	13.7%	3,214	14.7%
Asian Pacific	495	0.8%	175	0.8%
Native American	619	1.0%	131	0.6%
Hispanic	4,952	8.0%	1,858	8.5%
<i>Poverty Level</i>	7,613	12.3%	7,405	12.3%
<i>Language other than English</i>	4,580	7.4%	4,335	7.2%
<i>Uninsured</i>	5,558	8.98%	8,067	13.6%* Adults
<i>Towns</i>				
Burgaw			4,449	20.3%
Rocky Point			1,792	8.2%
Watha			241	1.1%
Atkinson			1,419	6.5%
Hampstead			5,876	26.9%
<b>PRIMARY</b>			<b>13,777</b>	<b>63.0%</b>
Point Caswell			300	1.3%
Long Creek			2,448	11.2%
Part of Wallace			3,916	18.0%
Part of Castle Hayne			1,422	6.5%
<b>SECONDARY</b>			<b>6,664</b>	<b>30.5%</b>
<b>TOTAL</b>	<b>61,891</b>	<b>100%</b>	<b>21,863</b>	<b>100%</b>

Source: U.S. Census Bureau, American Community Survey, 2021 with Service Area computed by Towns.

The population of Pender County and the Service Area is older than that of North Carolina, in which 16.8% of the population is aged 65 or older. This older profile results in a higher chronic disease burden, with the Service Area with a slightly higher elderly population than all of Pender County.

The race/ethnic mix of the NHP EMC Service Area is close to that of Pender County, with slightly higher fractions of Blacks and Hispanics. The Black fraction for both Pender County and the NHP EMC Service

Area is slightly higher than North Carolina's percentage of 13.6% but much lower than the Hispanic representation of 18.9%.

### Poverty

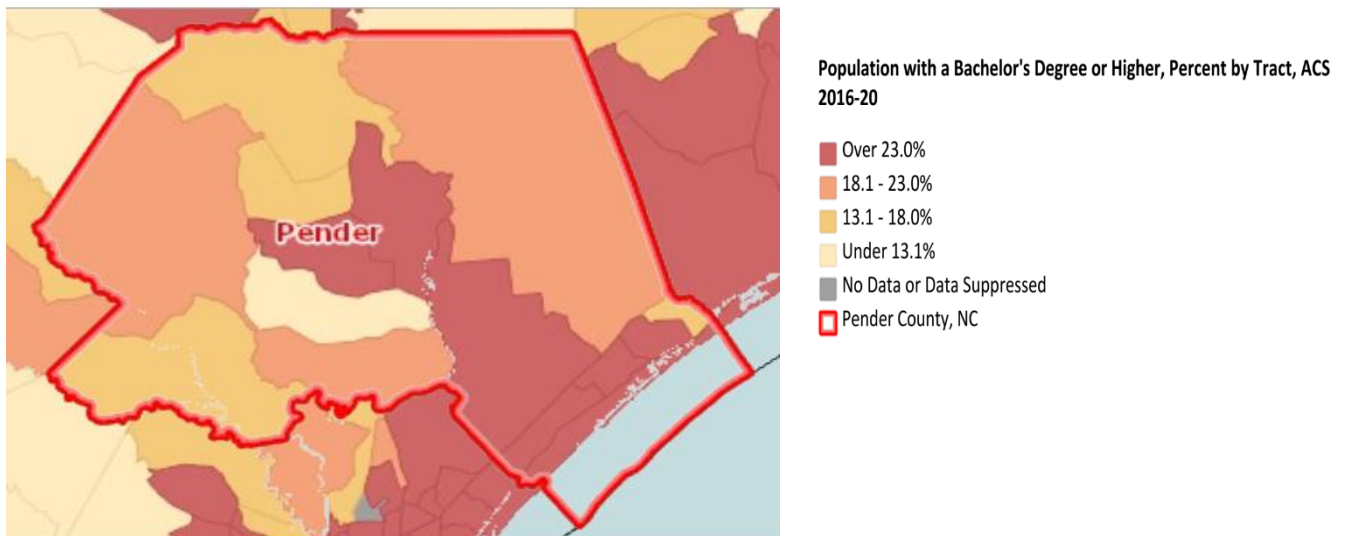
Poverty rates for Pender County are 12.3% for those living at or below 100% of the Federal Poverty Level ('dire poverty') with 19.9% of children living at or below 100% of the FPL. Pender County residents living at or below 200% of the Federal Poverty Level are 29.2% of the population.

Source: [U.S. Census Bureau American Community Survey 5-Year Estimates Subject Tables \(S1701\)](#).

### Educational Attainment

Almost a third (28.9%) of Pender County residents have achieved educational attainment at a Bachelor's degree or higher compared to 32.0% of North Carolina residents and 32.9% of United States residents.

The percentage of Pender County residents with a Bachelor's Degree or higher is displayed in the map below.



Source: U.S. Census Bureau, American Community Survey, 2016-2020.

## Pender County Population: Health Indicators

This section will explore health indicators starting with downstream metrics such as deaths and diagnosed diseases. Priority populations experiencing disproportionate impact or disparities will be highlighted. Upstream measures such as preventive screenings will be referenced. Both secondary research and primary data from the Community Health Opinion Survey will inform this narrative.

Pender County's leading causes of death in 2019 were heart disease and cancer. In addition to health indicators such as leading causes of death for the Pender County population, NHP EMC also considers how to impact root causes with analysis of social determinants of health, social risk, and social needs.

Pender County's leading causes of death in 2019 are displayed below with a comparison to the five-year death trend showing mortality rates per 100,000 population and age-adjusted rates.

RANK	TYPE	#	Rate-2019	# 2015-2019	Rate/100,000	Age-Adjusted
1	HEART DISEASE	128	203.0	589	195.0	157.7
2	CANCER	115	182.4	662	219.2	166.1
3	CEREBROVASCULAR DISEASE	43	68.2*	191	63.2	53.5
4	CHRONIC LOWER RESPIRATORY DISEASE	39	61.8*	145	48.0	36.0
5	CANCER-TRACHEA/BRONCHUS	31	49.2*	201	66.6	48.2
6	UNINTENTIONAL INJURY OR ACCIDENT	25	39.6*	132	43.7	43.4
7	DIABETES	23	36.5*	97	32.1	23.9
8	POISONING	19	30.7*	211	40.6	
9	MOTOR VEHICLE ACCIDENTS	18	28.5*	73	24.2	24.4
10	PNEUMONIA & INFLUENZA	18	28.5*	56	18.5	14.8
11	SUICIDE	17	27.0*	67	22.2	22.9
12	ALZHEIMER'S DISEASE	16	25.4*	91	30.1	26.4
13	NEPHRITIS, NEPHROTIC SYNDROME AND NEPHROSIS	15	23.8*	75	24.8	19.8
14	SEPTICEMIA	13	20.6*	60	19.9	15.5
15	DRUG OVERDOSE DEATHS	12	19.4*	55	17.8	16.2
16	CANCER-BREAST	6	19.0*	38	25.1*	18.0*
17	CANCER-PROSTATE	5	15.9*	38	25.9*	25.7*
18	CANCER-COLON, RECTUM & ANUS	5	7.9*	49	16.2*	13.0*
19	CHRONIC LIVER DISEASE & CIRRHOSIS	5	7.9*	32	10.6*	8.0*
20	INFANT DEATHS	2	3.2*	24	7.6*	
21	HOMICIDE	2	3.2*	12	4.0*	4.3*
	ALL OTHER	94	151.8	128	41.4	
	<b>TOTAL</b>	<b>632</b>	<b>1,002.2</b>	<b>2,971</b>	<b>983.8</b>	<b>807.6</b>



Source: [North Carolina Vital Statistics 2019 Volume 2: Leading Causes of Death \(ncdhhs.gov\)](https://www.ncdhhs.gov/vital-statistics/2019-volume-2-leading-causes-of-death); published January 2021 and accessed November 4, 2022.

\* Death rates with a small number (<50 deaths) should be interpreted with caution.

The areas that are gold-highlighted indicate disparities.

Pender County, North Carolina Disparities – Deaths in 2019								
DEATHS	TOTAL		WHITE Non-Hispanic		BLACK Non-Hispanic		HISPANIC	
	#	Rate	#	Rate	#	Rate	#	Rate
<b>Total</b>	632	10.0	512	10.6	109	11.6	11	2.1
Males	350	11.1	285	11.9	57	12.5	8	3.2
Females	282	8.9	227	9.4	52	10.8	3	0.9
<b>Age</b>								
0-4	2	0.6	0	0.0	1	1.9	1	1.7
5-14	3	0.4	1	0.2	2	1.8	0	0.0
15-24	10	1.5	4	0.8	4	3.5	2	2.8
25-34	10	1.4	6	1.2	2	1.8	2	3.3
35-44	22	2.7	15	2.4	5	5.1	2	2.7
45-54	43	4.9	37	5.3	6	5.2	0	0.0
55-64	108	11.5	96	12.7	11	7.4	1	4.1
65+	434	37.0	353	36.8	78	42.2	3	10.9
<b>Place</b>								
Hospital	187	29.6	142	27.7	42	38.5	4	30.0
Other Facility	239	37.8	190	37.1	45	41.3	3	30.0
Home	206	32.6	180	35.2	22	20.2	4	40.0

Source: Vital Statistics, 2019: North Carolina Department of Health and Human Services, Accessed November 4, 2022

### Disparities in Deaths

Disparities for deaths in Pender County by Gender, Age, and Race/Ethnicity are indicated in the shaded areas.

- Males have a higher death rate than females, 11.1 per 100,000 population compared to 8.9 for females.
- Blacks have the highest overall death rate at 11.6 per 100,000 with higher rates for males (12.5 per 100,000) compared to females. Hispanic have the lowest rates of death among the three comparison groups.
- By age, the disparities are pronounced for Blacks at all age groups except for the 25-34 and 55-64 age bands.
- The place of death is most frequently listed as ‘other facility’ than hospitals, followed by home, then hospitals. This holds true except for Hispanics, with the most frequent place of death in the Hospital or at Home.

## Chronic Diseases and Specialty Care

The chronic diseases presented in the next few pages illustrate secondary research (epidemiology rates) comparing Pender County to North Carolina and the United States. Gold-highlighted boxes and **bold font** indicate disparities, either by gender, age, or race/ethnicity, and where Pender County has a higher rate of disease burden compared to the State or Nation.

- **Heart** – This disease type is the #1 cause of death in Pender County in 2019 and #2 for the five-year preceding period (015-2019) following Cancer of all types. In the Community Health Opinion Survey (CHOS), 36.1 % of CHOS respondents cited heart disease as an issue of importance, ranking #8 among 16 health issues of importance. In the chart below, coronary heart disease is significantly higher in Pender County for those stating that they were ‘ever diagnosed with coronary heart disease’ compared to North Carolina or the United States.
- **The Coronary Heart Disease (CHD):** crude death rate and age-adjusted death rate are higher than that of the State or Nation, with **disparities for males and for Blacks in Pender County.**

Coronary Heart Disease (CHD) Deaths, 2016-2020	PENDER COUNTY, NC		NORTH CAROLINA		UNITED STATES	
Ever diagnosed with CHD	9.1%		6.6%		6.2%	
CHD Hospitalizations/Medicare Beneficiaries	44,345		1,870,475		55,969,031	
CHD Hospitalizations/Medicare Beneficiaries/ Rate per 1,000	11.3		12.2		11.8	
Five-year total deaths from CHD	1,018		51,983		1,838,830	
CHD Crude Death Rate (per 100,000)	147.6		100.2		112.5	
CHD Age-Adjusted Death Rate (per 100,000)	83.0		82.9		91.5	
<b>Gender Disparity, CHD</b>	<b>Males</b>	<b>Females</b>	<b>Males</b>	<b>Females</b>	<b>Males</b>	<b>Females</b>
CHD Age-Adjusted Death Rate (per 100,000)	113.9	56.5	116.9	56.8	125.3	64.6
<b>Race/Ethnic Disparity, CHD</b>	<b>White</b>	<b>Black</b>	<b>White</b>	<b>Black</b>	<b>White</b>	<b>Black</b>
Age-Adjusted CHD Deaths, By Race/Ethnicity	83.4	97.4	83.6	89.0	93.8	108.1

Source: Centers for Disease Control and Prevention, CDC-National Vital Statistics System, 2016-2020 & Behavioral Risk Factor Surveillance Study, 2019

- **Hypertension (High Blood Pressure)** – The percentage of individuals in Pender County with diagnosed high blood pressure or hypertension is significantly higher at all ages, with the most striking disparity for those 65 years of age and older.
- **Disparities:** Prevalence is higher among older adults and is notably higher among certain racial and ethnic groups, especially non-Hispanic Black people. Psychosocial and socioeconomic stressors—such as low socioeconomic status, depression, job stress, financial stress, segregated neighborhoods, and neighborhood poverty level—also contribute to the risk of hypertension.

Hypertension	PENDER COUNTY, NC	NORTH CAROLINA	UNITED STATES
Medicare Beneficiaries with Hypertension	5,826	697,259	19,162,770
Percent of Hypertensive/Medicare Beneficiaries	63.8%	60.0%	59.8%
DISPARITY BY AGE			
% Diagnosed Hypertension: 65 years and older	<b>66.6%</b>	62.5%	59.8%
% Diagnosed Hypertension: Less than 65 years	<b>49.4%</b>	48.0%	42.4%

Source: Centers for Medicare and Medicaid Services, Chronic Conditions Warehouse, 2018

- **Cancer** – Cancer was the 2<sup>nd</sup> leading cause of death in 2019 in Pender County, although for the preceding five-year period (2015-2019) was the leading cause of death. The incidence rate for new cancer cases is higher in Pender County than North Carolina or the United States, with **higher rates for Whites than any other race/ethnicity.**

Cancer Incidence (new cases) 2014-2018	PENDER COUNTY, NC	NORTH CAROLINA	UNITED STATES
New Cases	1,082	56,784	1,703,249
Cancer Incidence Rate (per 100,000 population)	<b>473.0</b>	468.9	448.6
White: New Cancer cases	<b>471.6</b>	465.6	451
Black: New Cancer cases	432.4	460.7	444.9

By top five Cancer types: Pender County slightly differs from the top 5 types of cancer compared to North Carolina, with **Cancer of the Lung or Bronchus leading over Breast Cancer.** The remaining three types are consistent with North Carolina incidence.

Cancer Incidence (new cases) by Type 2014-2018	Pender County, NC	Cancer incidence rate per 100,000	Cancer Incidence (new cases) by Type 2014-2018	North Carolina	Cancer incidence rate per 100,000
1. Lung & Bronchus (all stages)	163	65.3	1. Breast (all Stages)	8,713	136.5

2. Breast (all Stages)	154	134.3	2. Lung & Bronchus (all stages)	8,252	66.3
3. Prostate (all stages)	142	104.9	3. Prostate (all stages)	7,140	119.3
4. Colon & Rectum (all stages)	81	38.6	4. Colon & Rectum (all stages)	4,391	36.8
5. Melanoma of the Skin (all stages)	80	33.8	5. Melanoma of the Skin (all stages)	3,044	26.0

Source: North Carolina: State Cancer Profiles, 2014-2018

Cancer is a top concern of Community Health Opinion Survey (CHOS) respondents, with 41.2% of residents citing this as a Health Issue of Importance, ranking #5 of 16 issues.

In addition, respiratory issues were referred to in many key informant interviews, with pneumonia as the 5<sup>th</sup> highest diagnosis resulting in inpatient admission and acute respiratory infection, unspecified as the 2<sup>nd</sup> highest diagnosis among Emergency Department visits in 2021.

It should be noted that while this chronic disease is the 2<sup>nd</sup> leading cause of death in 2019, and the leading cause of death for the past five years, these cases are transferred to Novant Health New Hanover Medical Center for care.

- **Stroke** – Stroke was the 3<sup>rd</sup> leading cause of death in 2019 and in the preceding five-year period (2015-2019) in Pender County.

As seen in the secondary research below, the crude death and age-adjusted death rates for Stroke in Pender County are significantly higher than that of North Carolina or the United States. Some of this difference is due to the higher percentage of the elderly population in Pender County (18.4%) and the Service Area (18.6%) compared to North Carolina (17%) and the United States (16.8%) though this is a much higher rate of cerebrovascular accidents than expected.

Cerebrovascular Accident Deaths (Stroke)	PENDER COUNTY, NC	NORTH CAROLINA	UNITED STATES
Total Population, 2016-2020 average	61,988	10,378,547	326,747,554
Five-year Total Deaths, 2016-2020	201	26,022	746,604
Crude death rate per 100,000 population	<b>64.8</b>	50.1	45.7
Age-adjusted death rate per 100,000	<b>53.9</b>	42.6	37.6

Source: Centers for Disease Control and Prevention, National Vital Statistics System, Access via CDC Wonder, 2016-2020. Accessed November 4, 2022.

Risk Factors for Stroke or Cerebrovascular Accident (CVA) include many of the preventable health behaviors or risks reported in the Community Health Opinion Survey (CHOS) by residents.

- Overweight or Obese

- Sedentary life
- Binge Drinking
- Diabetes
- Smoking
- High blood pressure
- High cholesterol
- Family history of stroke
- Cardiovascular diseases
- Age - people above age 55 are at higher risk
- Gender - men are at high risk of stroke than women

**Diabetes** – Diabetes is an issue of importance for Health Concerns per CHOS respondents. It ranked at 26.9% or #9 for Residents in the 2022 CHNA survey. The results are positive when comparing Pender County to North Carolina and the United States, with lower percentages of adults, 20 years and higher, with chronic diabetes and lower rates for the elderly (Medicare beneficiaries). The typical higher rate for males than females is consistent for Pender County, but still lower for both genders compared to the State and Nation.

Diabetes	PENDER COUNTY, NC	NORTH CAROLINA	UNITED STATES
<b>Adults (20 years and up)</b>			
Adults with Diagnosed Diabetes (Age 20+)	4,864	812,564	239,919,249
% of Adults with Chronic Diabetes	8.3%	9.0%	9.0%
<b>Elderly (65 years and higher)</b>			
Medicare Beneficiaries with Diabetes	8,203	331,308	9,029,582
% Medicare Beneficiaries with Diabetes	24.2%	28.5%	27.0%
<b>DISPARITY: GENDER</b>			
Males with Diabetes	7,158	394,075	12,120,715
Males: Diabetes %	8.6%	9.4%	9.5%
Females with Diabetes	7,159	418,485	12,068,861
Female: Diabetes %	7.8%	8.8%	8.5%

Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, 2019

**A high percentage of Pender County residents diagnosed with diabetes, especially those 65 years of age and older, were compliant with annual exams and A1c blood test monitoring.**

A1c Annual Monitoring	PENDER COUNTY, NC	NORTH CAROLINA	UNITED STATES
% Medicare enrollees with diabetes with an annual exam	<b>90.9%</b>	<b>90.5%</b>	<b>87.5%</b>

Source: Dartmouth College Institute for Health Policy and Clinical Practice, Dartmouth Atlas of Health Care, 2019.

**Risk Factors for Diabetes and Other Chronic Diseases** – Physical Inactivity resulting in being overweight and/or obesity are risk factors for multiple chronic diseases, especially diabetes. Weight loss support was listed as a Personal Health Issue of Importance by 45.8% of CHOS respondents and ranked #4 among 16 issues.

Physical Inactivity	PENDER COUNTY, NC	NORTH CAROLINA	UNITED STATES
Adults with no leisure time physical activity	16,422	1,775,644	54,200,862
% Of adults with no leisure time physical activity	20.1%	21.8%	22.0%
<b>Gender Disparity</b>			
Males with no leisure time physical activity	11,780	794,551	24,675,186
Males: % with no leisure time physical activity	19.4%	20.6%	20.8%
Females with no leisure time physical activity	14,642	981,102	29,525,666
Female: % with no leisure time physical activity	20.7%	22.9%	23.1%

Obesity	PENDER COUNTY, NC			NORTH CAROLINA			UNITED STATES		
Adult Obesity (20+)	26.0%			28.7%			29.0%		
Overweight and Obese Adolescents (10-17)	24.2%			30.7%			19.7%		
Obesity Disparity by Child/Adolescents and by Age <sup>2</sup>							2-5 years	6-11	12-18
	20.2%			22.4%			12.7%	20.7%	22.2%
Obesity Disparity by Child/Adolescents and Race/Ethnicity	White	Black	Hispanic	White	Black	Hispanic	White	Black	Hispanic
	17.2%	26.9%	28.3%	18.1%	29.2%	28.6%	16.6%	24.8%	26.2%

**Definition:** Abnormal or excessive fat accumulation diagnosed by calculating Body Mass Index (BMI) and waist-hip circumference. A BMI of over 30 is considered obese, with 25-29 defined as overweight. A waist measurement higher than 35 inches for women and for men 40 inches is considered obese.

Sources: Centers for Disease Control & Prevention, Behavioral Risk Factor Surveillance System, 2019  
Centers for Disease Control & Prevention, National Center for Health Statistics, 2020

- **Respiratory** – Asthma is the only respiratory issue of concern, with asthma the leading health issue after Cancer of the Lung/Bronchus.

A smaller amount of Medicare beneficiaries (elderly) has diagnosed asthma compared to the State or Nation. This is similar, but close to the State levels for adults under 65 years of age in Pender County.

Asthma	PENDER COUNTY, NC		NORTH CAROLINA		UNITED STATES	
Medicare FFS Beneficiaries with Asthma	1,411		55,316		1,665,694	
Asthma Rate	4.2%		4.8%		5.0%	
<b>Asthma Disparity by Age</b>	<b>Below 65</b>	<b>65 years+</b>	<b>Below 65</b>	<b>65 years+</b>	<b>Below 65</b>	<b>65 years+</b>
	7.2%	3.9%	7.6%	4.2%	7.5%	4.5%

**Chronic Disease Prevention**

Risk Factors for Stroke or Cerebrovascular Accident (CVA) include many of the preventable health behaviors or risks reported in the Community Health Opinion Survey (CHOS) by residents.

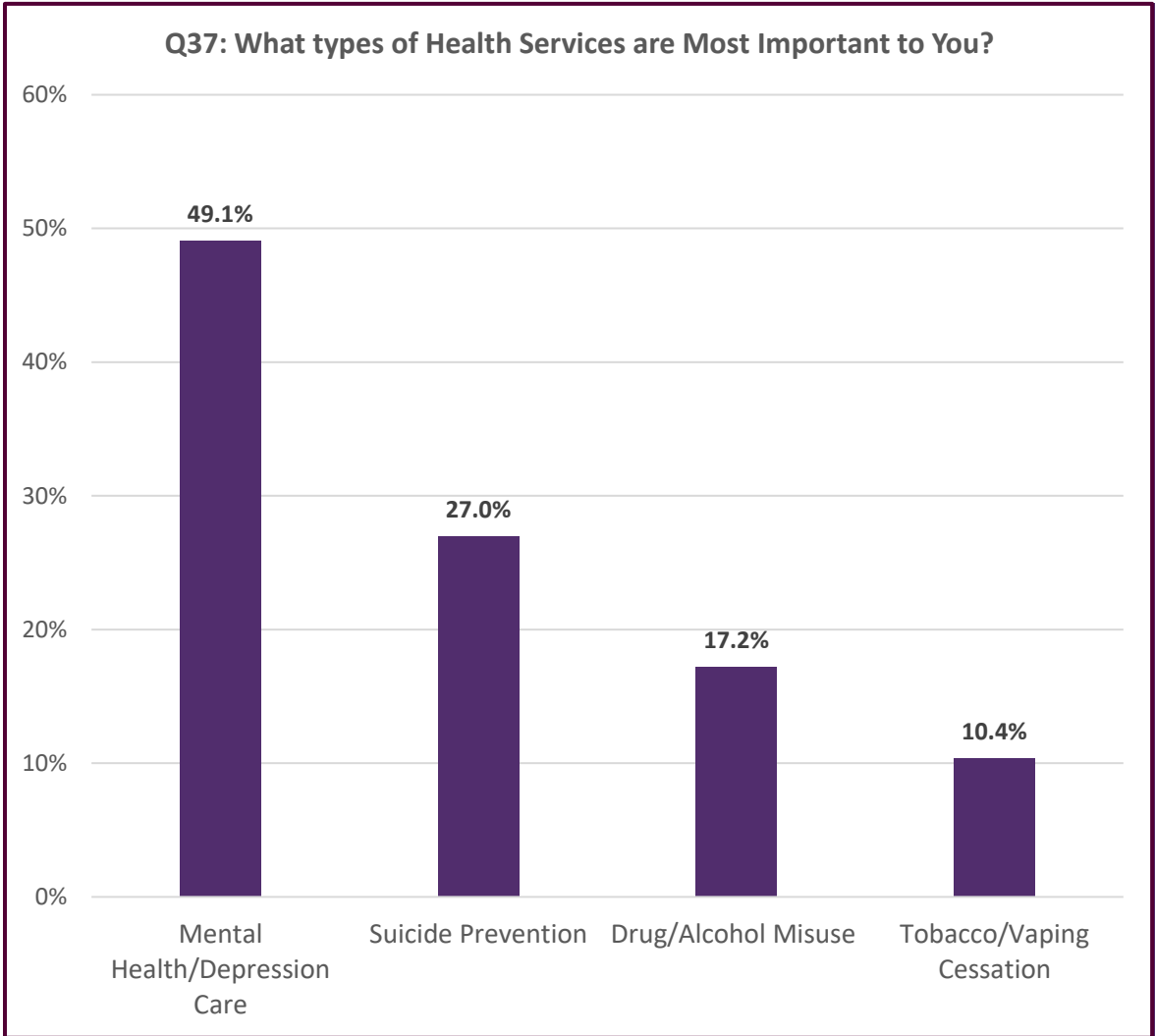
- Overweight or Obese
- Sedentary life
- Binge Drinking
- Diabetes
- Smoking
- High blood pressure
- High cholesterol
- Family history of stroke
- Cardiovascular diseases
- Age - people above age 55 are at higher risk
- Gender - men are at high risk of stroke than women

**Priority Populations for Chronic Disease in Pender County**

1. Elderly – Coronary Heart Disease, Hypertension, Stroke, Diabetes
2. Blacks in Pender County for Coronary Heart Disease and Hypertension
3. Males for Diabetes

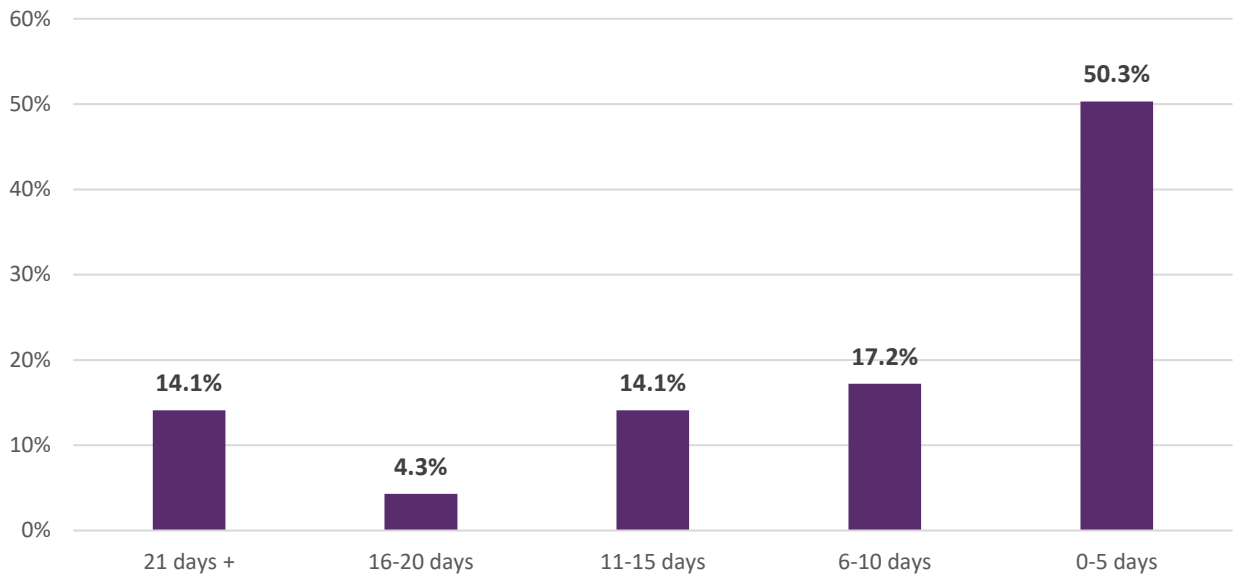
**Behavioral Health**

- **Mental Health** – from the Community Health Opinion Survey (CHOS) completed by 163 residents, the types of mental health services most important include 1) Depression Care at 49.1% 2) Suicide Prevention at 27% 3) Drug/Alcohol Misuse at 17.2% and Tobacco Use/ Vaping and related efforts to cease use at 10.4%.

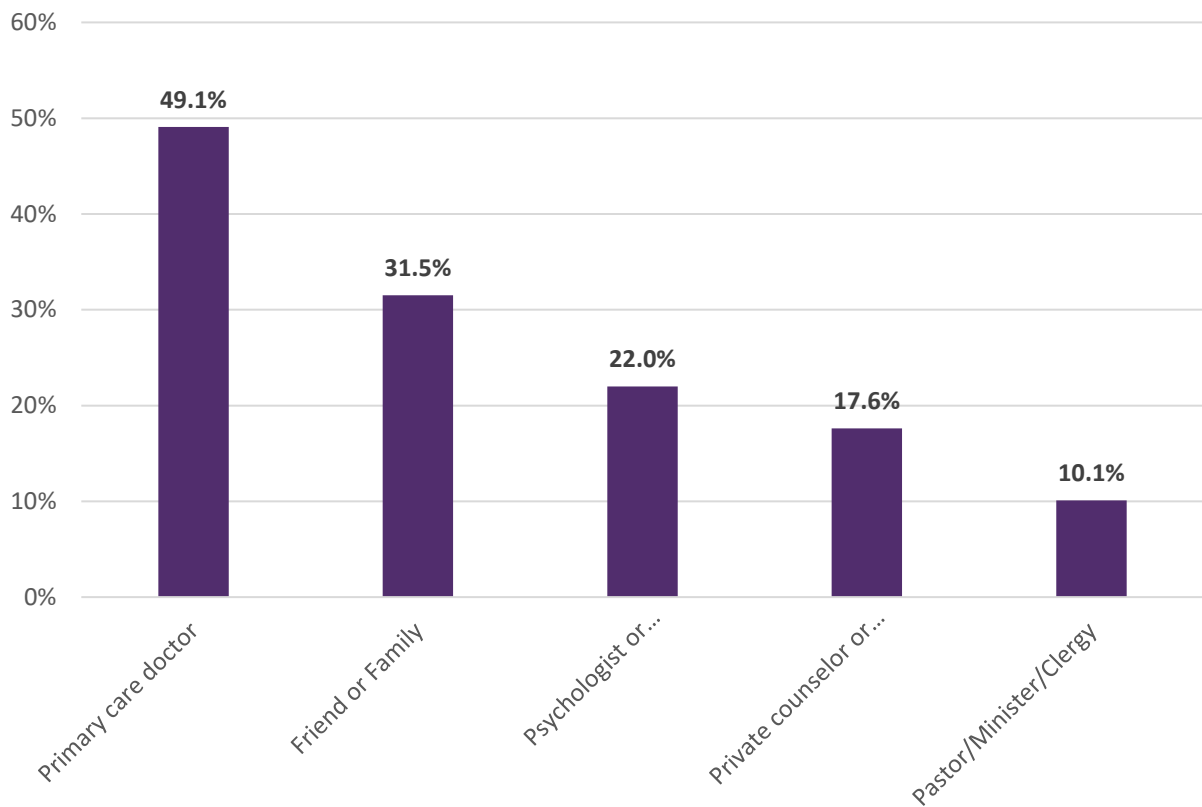




**Q40: Thinking about your mental health, which include stress, depression, anxiety and problems managing your emotions, how many days in the past month was your mental health 'NOT GOOD'?**



**Q45: Where would you go if you needed help for your mental health and wellness?**



- Based on the CHOS, 18.4% of respondents felt that their mental health was ‘not good’ for over 2 weeks in the past month.
- The major resource that Pender County residents would use is their Primary Care doctor (49.1%) despite national issues with primary care physician discomfort with mental health concerns. Almost a third would access family or friends and almost 40% would use a psychologist, specialist, or private counselor.

Mental Health/Substance Use	PENDER COUNTY, NC	NORTH CAROLINA	UNITED STATES
MH/Substance Use ER Visits per 100,000 population	1,880.9	1,902.3	1,900.0
Age-Adjusted Suicide Rates	22.5	13.3	13.8
Opiate Poisoning Deaths	23.2	15.3	11.8

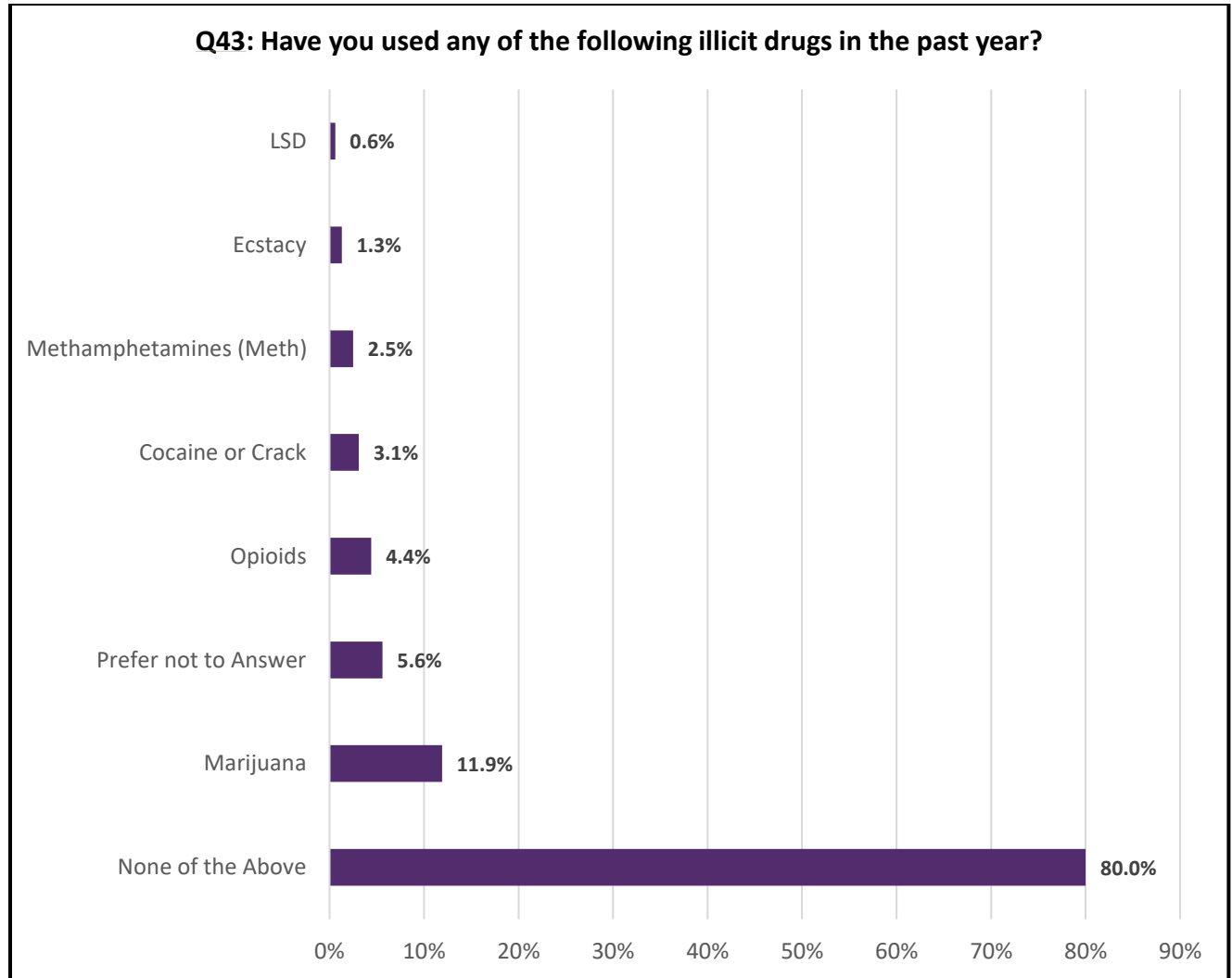
Sources: NC Hospital Association, Special Data Request (ER visits) and North Carolina Public Health, North Carolina Trends Report, 2019, [Pender.pdf \(ncdhhs.gov\)](#)  
<https://injuryfreenc.ncdhhs.gov/DataSurveillance/poisoning/DEATHUnintentionalOpioidPoisoningsbyCounty-2008-2017.pdf>

### **Depression**

Rates of Depression	PENDER COUNTY, NC	NORTH CAROLINA	UNITED STATES
Rates of Depression per 100,000 population (Adults, 18+)	21.2%	20.8%	19.5%

Source: America's Health Rankings analysis of CDC, Behavioral Risk Factor Surveillance System, United Health Foundation, [AmericasHealthRankings.org](https://www.americashealthrankings.org), accessed October 2022.

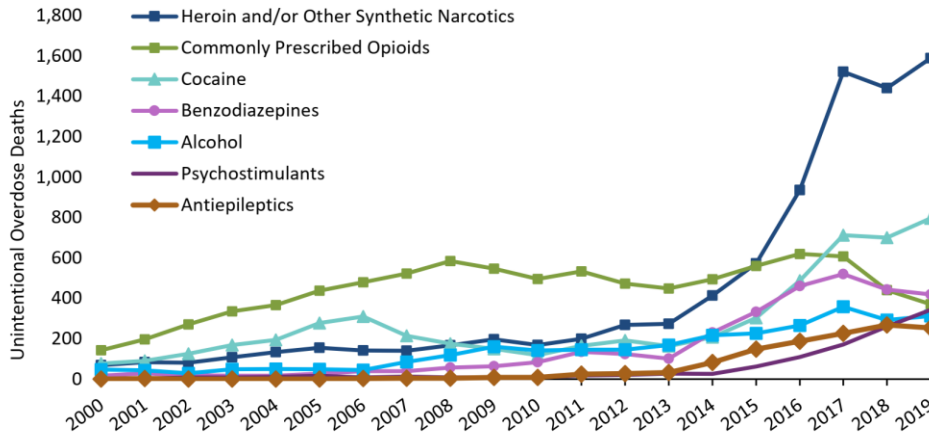
- Substance Use
  - Opioid Use



- The majority of CHOS respondents (80%) stated that they had not used illicit drugs in the past year.
- Marijuana was the most reported substance (11.9%) followed by Opioids at 4.4%, then Cocaine at 3.1%, and Meth at 2.5%.

- **Opioid Use**

### Substances Contributing to Unintentional Overdose Deaths: NC Residents, 2000-2019

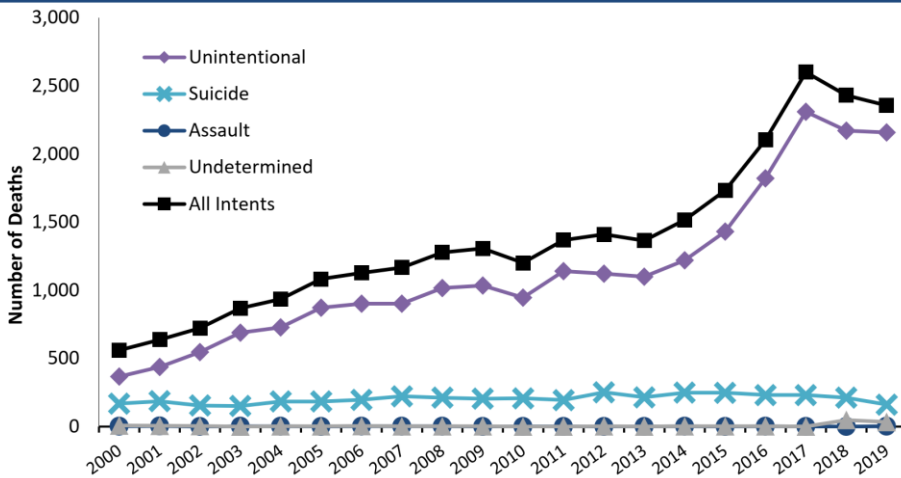


Illicit opioids, like heroin or fentanyl, are the largest contributors to unintentional overdose death, and increased in 2019. Overdose deaths involving cocaine, alcohol, psychostimulants or multiple substances also increased.

Please note: If a death involved multiple substances it can be included on more than one line.

Source: NC State Center for Health Statistics, Vital Statistics-Deaths, 2000-2019

### Medication and Drug Overdose Deaths by Intent: NC Residents, 2000-2019



Unintentional medication and drug overdose deaths continue to make up the majority of all medication and drug overdose deaths, at 83% in 2019.

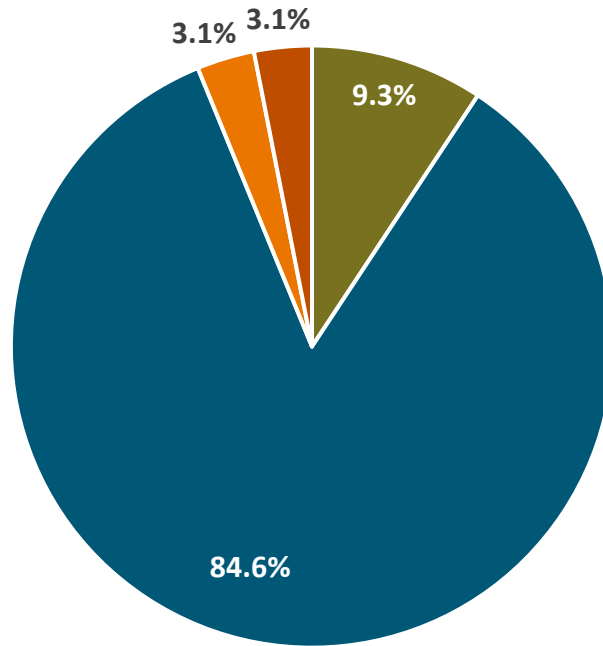
Source: NC State Center for Health Statistics, Vital Statistics-Deaths, 2000-2019

## Unintentional Medication & Drug Overdose Deaths by Selected Demographics: NC Residents, 2015-2019

	Number	Percent	Rate	
<b>Sex</b>				<b>Males</b> continue to die from unintentional overdose at higher rates (28.1 per 100,000 N.C. residents) than females (13.6 per 100,000 N.C. residents).
Female	3,594	33.9%	13.6	
Male	7,022	66.1%	28.1	
<b>Race/Ethnicity</b>				<b>American Indians</b> and <b>whites</b> have the highest rates of unintentional overdose deaths (29 and 26.3 per 100,000 N.C. residents, respectively) among state residents.
Hispanic	242	2.3%	5.0	
White*	8,648	81.7%	26.3	
Black*	1,430	13.5%	12.6	Unintentional overdose death rates are highest among ages <b>25-34</b> (43.6 per 100,000 N.C. residents) and ages <b>35-44</b> (40.6 per 100,000 N.C. residents).
American Indian*	178	1.7%	29.0	
Asian/Pacific Islander*	37	0.3%	2.3	
Other*	46	0.4%	--	
<b>Age Group</b>				Please note: Demographic overdose rates vary across type of substance involved.
0-14	12	0.1%	0.1	
15-24	958	9.0%	13.9	<i>*Non-Hispanic; *Other* includes other and multiple races, and unknown (population value not available, rate not calculated)</i> <i>**Rates not reported for &lt;5 deaths</i> <i>^Rates unstable for 5-9 deaths; interpret with caution</i> <i>Rates are per 100,000 NC residents</i> <i>Source: NC State Center for Health Statistics, 2018-2019, unintentional medication/drug overdose (X40-X44)</i>
25-34	2,973	28.0%	43.6	
35-44	2,630	24.8%	40.6	
45-54	2,353	22.2%	34.2	
55-64	1,345	12.7%	20.4	
65-84	311	2.9%	4.3	
85+	34	0.3%	3.7	

**Prescription drug use** - This question probed use of illegal or non-prescribed use of prescription drugs. Almost 10% (9.3%) reported use with 3.1% preferring not to answer and 3.1% unsure for a possible total of 15.4%.

**Q44: Have you taken medication not prescribed to you or in a way other than it was prescribed in the past year?**



■ YES ■ NO ■ Prefer Not to Answer ■ Unsure

- **Vaping or any Tobacco Use**

Current Tobacco Use (18 years+)	PENDER COUNTY, NC	NORTH CAROLINA	UNITED STATES
Adults reporting current tobacco use (crude rate)	16.90%	18.15%	15.30%
% Of adults reporting Current tobacco use (age-adjusted rate)	18.70%	18.65%	15.70%

- (1) In 2018, 5.1% of adults in North Carolina used e-cigarettes, and 4.7% used smokeless tobacco.
- (2) In 2019, 35.5% of high school students in North Carolina used electronic vapor products on at least one day in the past 30 days. Nationally, the rate was 32.7%.

Source: Centers for Disease Control & Prevention, Behavioral Risk Factor Surveillance System, 2019

- **Alcohol Use** – Indicators of concern related to alcohol use are the percent of adults reporting excessive drinking in Pender County, the age-adjusted death rate per 100,000 population from ‘deaths of despair’ – suicide and/or drug-alcohol related, and alcohol-involved motor vehicle crash deaths per 100,000 population.

Alcohol Use (18 years+)	PENDER COUNTY, NC	NORTH CAROLINA	UNITED STATES
Adults reporting excessive drinking	22,233	1,353,411	50,612,058
% Of adults reporting excessive drinking	18.92%	16.54%	19.79%
Percent of Adults Binge Drinking in the Past 30 days	12.80%	15.44%	16.70%
Alcohol Use Disorder in Medicare Population	641	23,767	696,555
% Medicare Population with Alcohol Use Disorder	1.9%	2.0%	2.1%
Deaths of Despair (Suicide + Drug/Alcohol Poisoning)	379	25,603	806,246
Age-Adjusted Death Rate per 100,000 population of ‘Deaths of Despair’	61.0	47.3	47.0
Motor-Vehicle Crash – Alcohol Related deaths	36	1,951	49,522
Alcohol-Involved Crash deaths/100,000 population	5.1	3.4	2.6

**Definitions:**

- Excessive drinking: Percentage of men who report more than two drinks per day or more than one per day for women.
- Binge drinking: Percentage of the population who report at least one binge drinking episode involving five or more drinks for men or four or more for women in a 2-hour period over the past 30 days.

Sources: Centers for Disease Control & Prevention, Behavioral Risk Factor Surveillance System, 2019 Centers for Medicare and Medicaid Services, Administrative Claims, CMS Chronic Conditions Warehouse, 2018 US Department of Transportation, National Highway Traffic Safety Administration, Fatality Analysis Reporting System, 2015-2019

**UTILIZATION OF BEHAVIORAL HEALTH SERVICES**

**Q47 - Please tell us whether you 'strongly agree', 'agree', 'disagree' or 'strongly disagree' with the next few statements about substance use services.**

STATEMENT	STRONGLY AGREE	AGREE	NEUTRAL	DISAGREE	STRONGLY DISAGREE
In Pender County, substance use services are affordable	8.2%	10.1%	28.9%	10.7%	10.1%
In Pender County, substance use services are accessible and easy to find	8.2%	11.4%	22.2%	16.5%	12.7%
In Pender County, substance use services are high quality	6.7%	10.1%	27.9%	13.9%	8.9%

**Q46 - In the past year, what prevented you from getting mental health care or substance use treatment?**

STATEMENT	PERCENTAGE
No health insurance	32.0%
Guilt or shame	21.1%
Don't know where to go	17.2%
Cost too high (copay, deductible)	15.6%
Work interferes with appointment times	13.3%
Not enough providers	10.2%
No transportation to services	9.4%
Not ready to face the problem	7.8%
Don't believe treatment will help	7.0%
Provider doesn't accept my insurance	7.0%
Culture/personal beliefs	3.1%



**Prevention**

- Distribute Naloxone (Narcan) to law enforcement, school system.
- Consider developing a Syringe Services Program aimed at harm reduction.
- Train providers on clinical issues related to the opioid epidemic, including safe prescribing of opioids and pain treatment.

**Priority Populations in Pender County related to substance use:**

- 1) Males
- 2) Whites
- 3) Ages 25-34 and 35-44

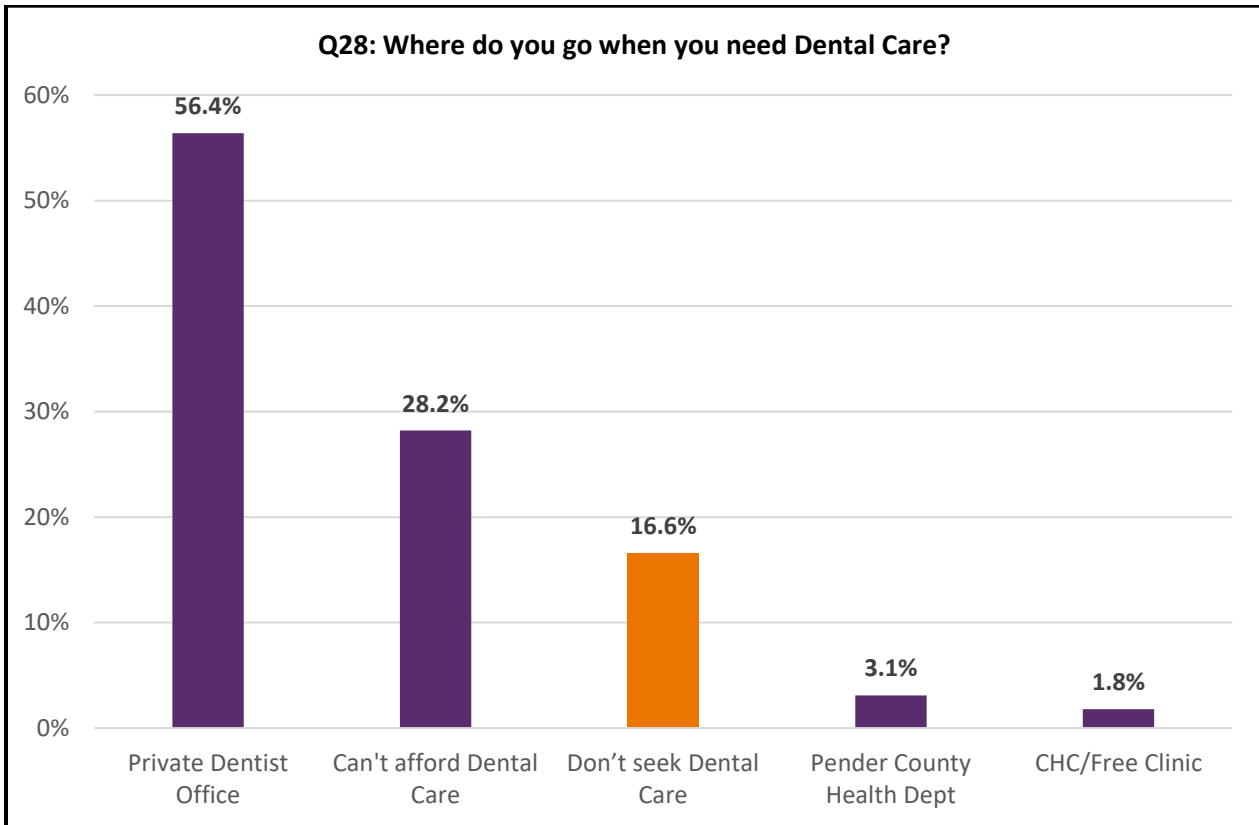
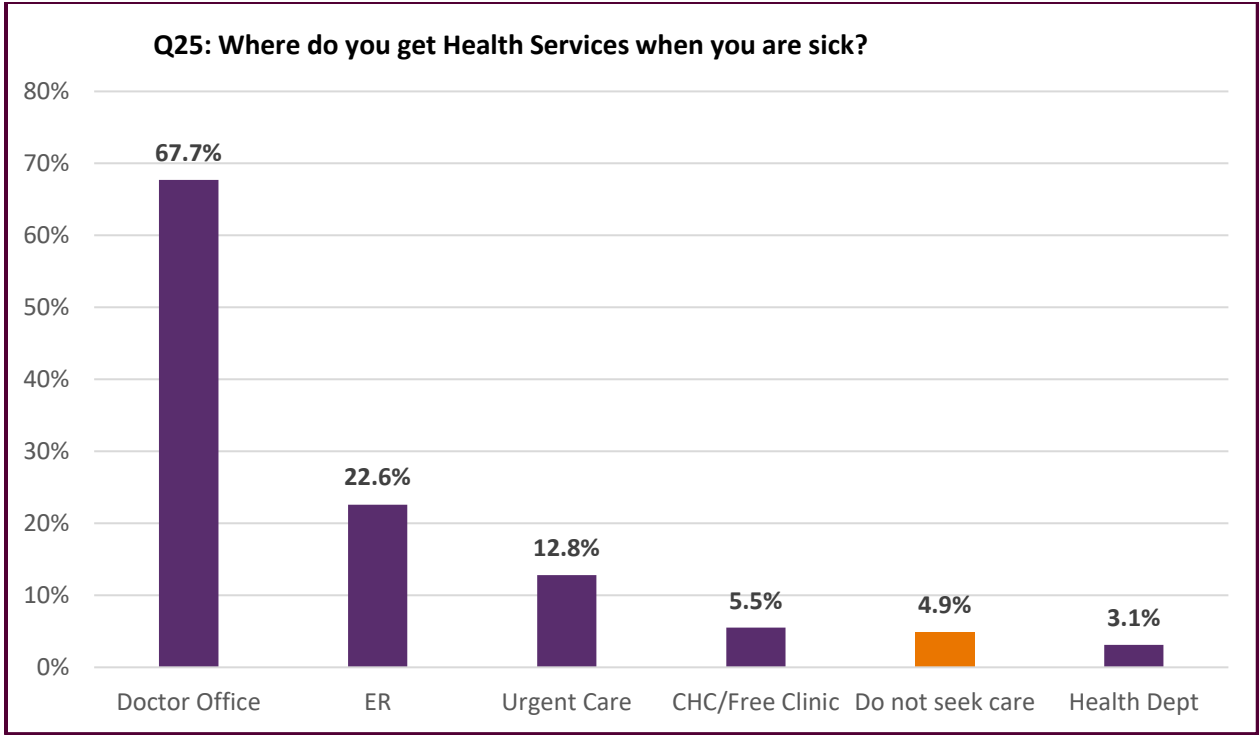
**OVERALL GAPS IN HEALTH INDICATORS:**

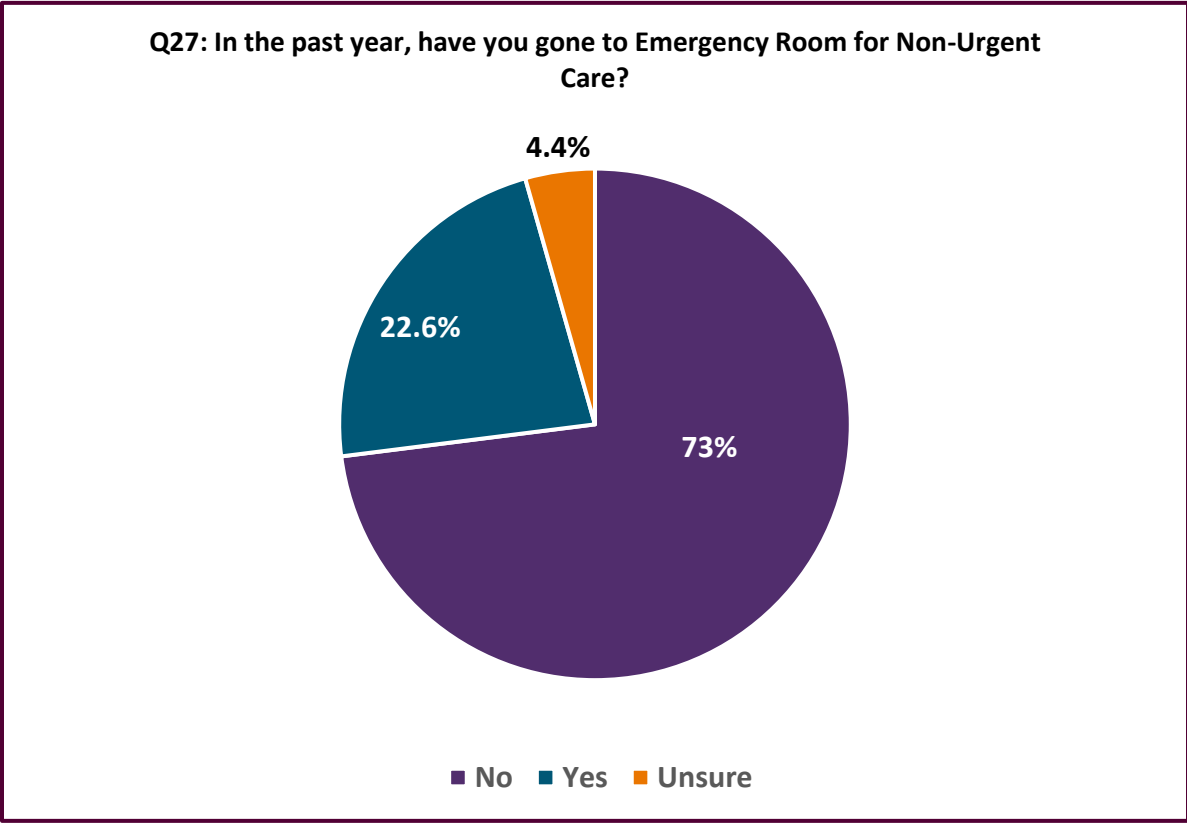
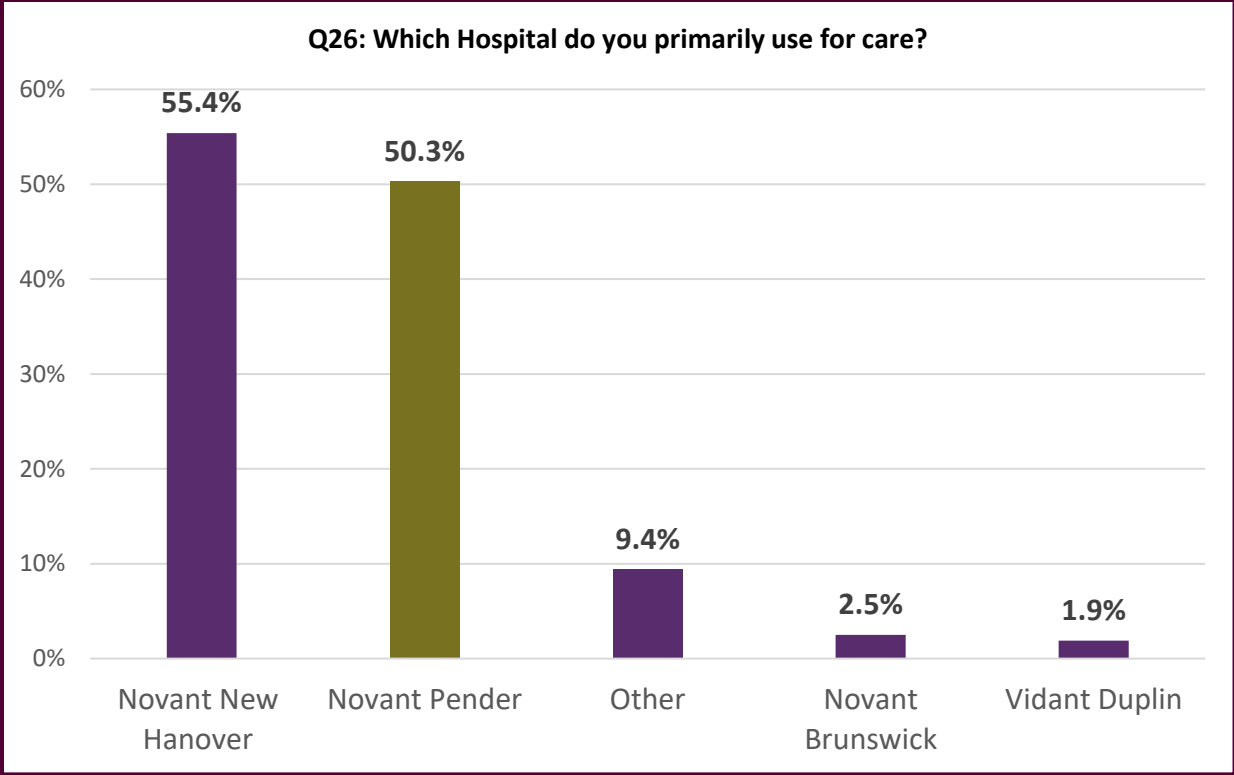
- 1) Primary Care
- 2) Specialty Care (cardiology, pulmonology, gastroenterology, and Infectious Disease)
- 3) Mental Health providers
- 4) Western part of Pender County

**CHOS input on Health Care Utilization**

The following data from the Community Health Opinion Survey (CHOS) conducted in by NHPEMC from July through mid-September is specific to health care utilization. The survey asked:

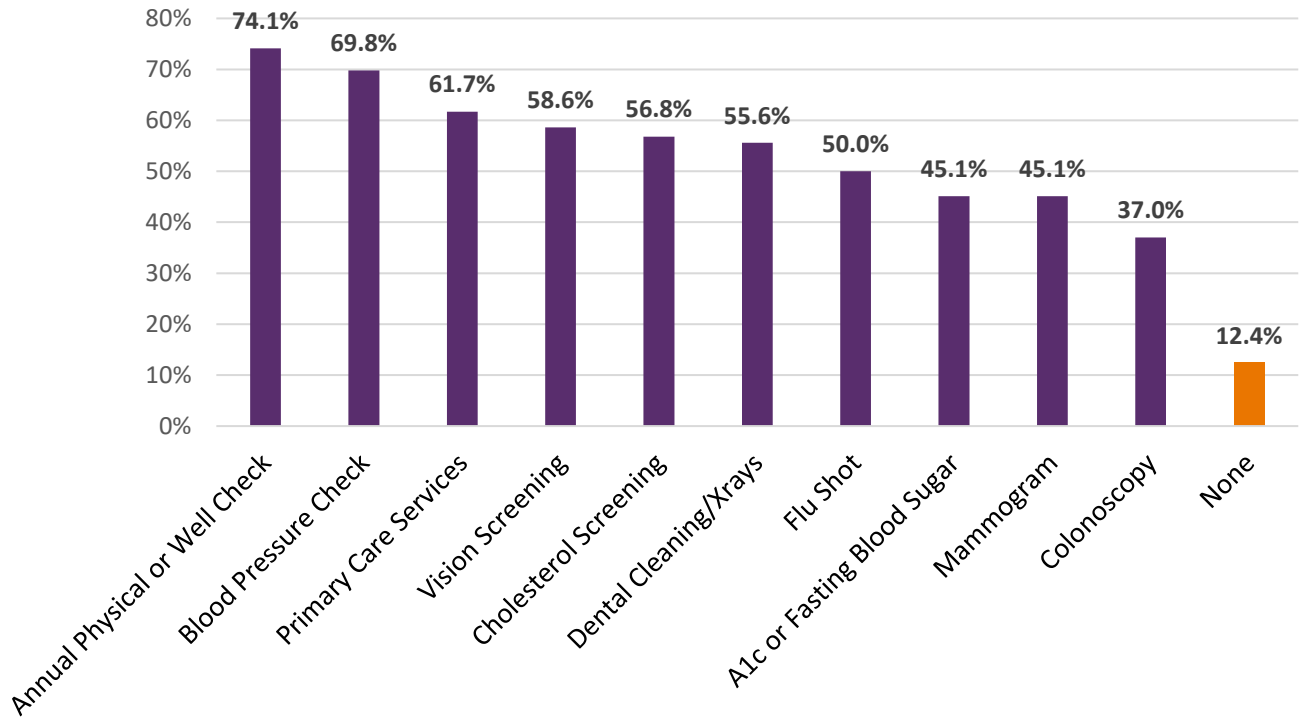
- Where resident respondents go to get primary care,
- Where they accessed dental services,
- Which hospital they used,
- If they have used the Emergency Department for routine, non-urgent care, and
- What preventive screenings they have used





Other: VA in Wilmington, Naval Hospital

**Q29: Which of the following tests/screenings do you include in your health care?**



## Pender County Population: Social Indicators

**Social Determinants of Health (SDOH)** are the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health functioning, and quality-of-life outcomes and risks.

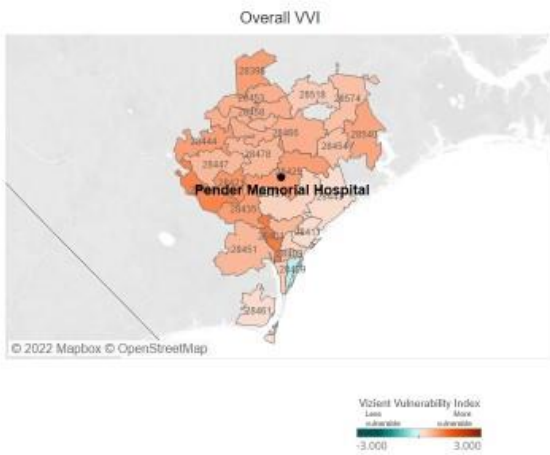
**Social Risk** is adverse social conditions associated with poor health outcomes, such as food insecurity and housing instability.

**Social Needs** are the nonclinical needs that individuals identify as essential to their well-being.

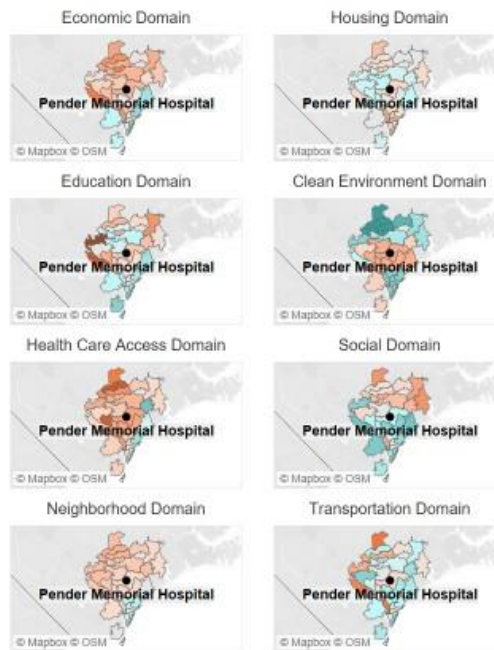
*Source for definitions: Healthy People 2030, Health Affairs, The Milbank Quarterly*

## Domains and Components: Pender Memorial Hospital

Each of these maps illustrates the regional variation in the overall VVI, the eight specific domain vulnerabilities, and three selected components that will be referenced in the clinical outcomes and utilization section.

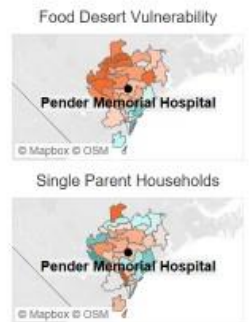


Data source: CDB distinct patients of any age seen in this hospital in any setting 2019-2020, identified by zip code. Zip codes representing less than 0.5% of all hospital patients are omitted from map.



In addition to the domains, two specific components were identified for inclusion in this analysis due to their reliable relationships with specific metrics across member hospitals.

In particular, the Food Desert component shows a relationship with Diabetes metrics, while the Single Parents component shows a relationship with ED metrics and Maternal Care metrics.



vizient

According to the Vizient Vulnerability Index (screenshot provided above) released in January 2022, patients admitted to NHP EMC experience the most profound social risks if they live in 28401, 28448, 28421, 28435, 28425, 28540, 28444, 28398. These zip codes experience disproportionately high social risks when compared to their counterparts in neighborhoods. Areas of particular concern include access to healthcare, transportation, poverty, access to early childhood education, and food insecurity.

When segmented by race and ethnicity, Native American and Black patients tend to skew more vulnerable than other groups. More data on these concerns are highlighted below.

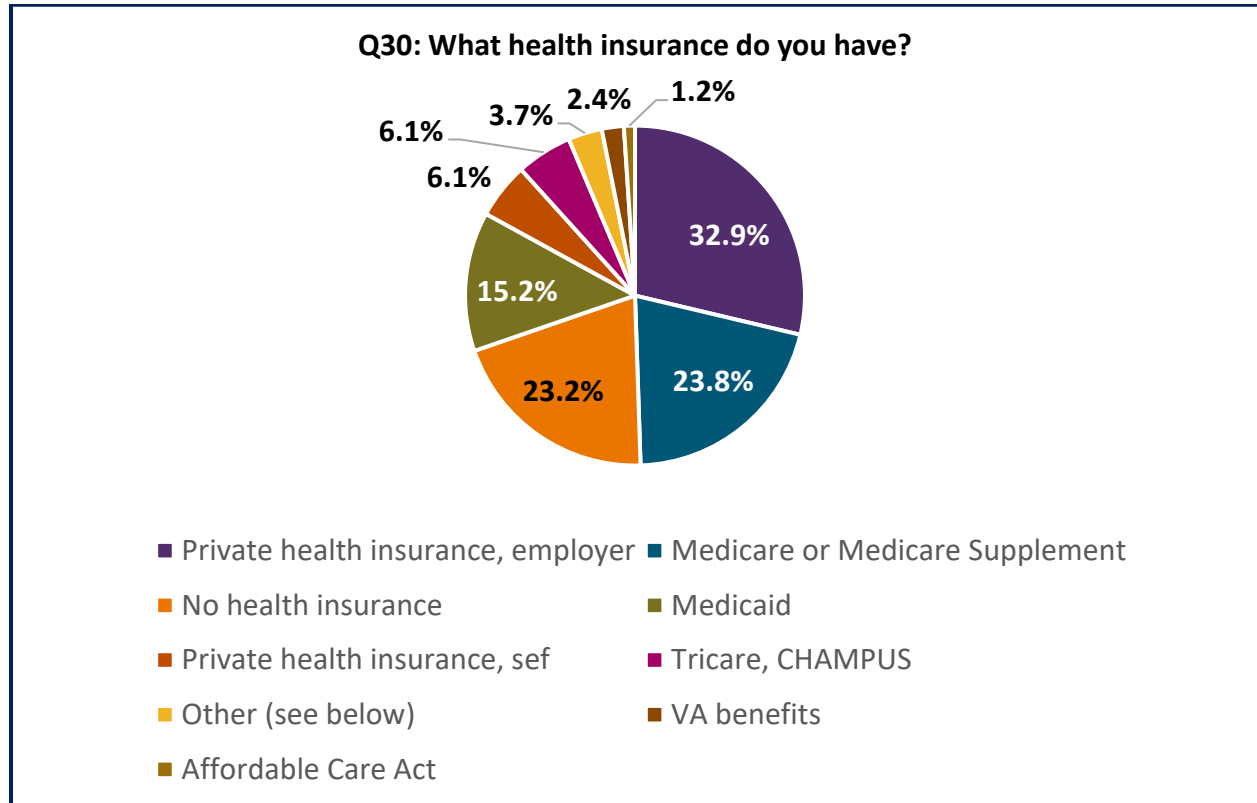
**Access to Care**

The rate of uninsured individuals in Pender County is 8.98% for Pender County with an uninsured rate of 13.6% for adults and 4.2% for children (ages 0-18). This compares to 10.7% for all North Carolina residents with an uninsured rate of 15.5% for adults in the State of North Carolina and 5.3% for children. The target for Healthy North Carolina 2030 for Pender County and North Carolina is 8% for residents under the age of 65. An increase in Pender County members having health insurance will allow more of the community’s needs to be met, although Pender County is below the North Carolina rate overall, and for adults and children.

ACCESS: UNINSURED	PENDER COUNTY, NC	NORTH CAROLINA	UNITED STATES
Uninsured Adults (18-64 years)-2019	15.7%	15.5%	14.5%
Uninsured Children (0-17 years)-2019	6.6%	5.4%	5.7%
Population receiving Medicaid, 2016-2020	16.6%	20.1%	22.0%

Source: U.S. Census Bureau, Small Area Health Insurance Estimates, 2020

From Primary Research, Community Health Opinion Survey:



## Workforce Development

The overall unemployment rate in Pender County is 3.6% compared to the North Carolina average of 3.9%, near that of the United States rate of 3.8%. Employment is correlated to the financial means to afford health services, urgent health care, and prescriptions required to address health needs.

The largest industries in Pender County, North Carolina are Retail Trade (3,558 people), Health Care & Social Assistance (3,365 people), and Construction (2,838 people), and the highest paying industries are Utilities (\$109,797), Transportation & Warehousing, (\$70,799), and Construction (\$56,375).

Source: U.S. Department of Labor, Bureau of Labor statistics, August 2022

## Workforce

Pender County, North Carolina: Health Workforce Data, 2021				
Category of Health Worker	#	Pender County ratio (HC professional/10,000 population)	North Carolina ratio	Variance
Primary Care Physicians	21	3.25 physicians	27.7	24.45
Mental Health	8	1.24 psychiatrists & psychologists	2.2	0.96
Dental Health	33	5.1 dentists	5.4	0.30
Birth Attendants	1	.15 birth attendants	0.34	0.19

Source: <https://nhealthworkforce.unc.edu/supply/>

## Narrative:

- All four healthcare workforce categories show a negative disparity in comparison to the North Carolina ratios.
- The most striking disparity in ratio of health care worker to population is with primary care physicians (24.45 variance of primary care physicians per 10,000 population). This is enforced by the CHOS, key informant interview and focus group input that they use Novant Health Pender Medical Center’s Emergency Department for routine, non-urgent medical care. Recent partnerships with the Black River Health Services Federally Qualified Health Center and the Family Medicine residency are a step to improve this gap.
- The area with the second disparity is Mental Health. This ratio includes psychiatrists and psychologists but not social workers or counselors. The variance of 0.96 is striking given the issues related with depression, anxiety, PTSD, and the alarming rise in mental health issues with key priority populations including youth and the elderly.
- Birth attendants are not as significant an issue since deliveries are transferred to Novant Health New Hanover Medical Center. Routine OB/GYN care in the prenatal and postnatal period are important, however, with the need for providers to see the patient prior to, and after, delivery. An increased influx of younger residents is accelerating.

## Food Insecurity

Pender County is currently ranked 88<sup>th</sup> on the food hardship scale in North Carolina out of 100 total counties. This statistic is based on the Cape Fear Collective-North Carolina Food Hardship Index. It measures the percentage of people who are low-income that are not near a grocery store.

Source: Healthy Communities NC

Other indicators of food insecurity show that disparities in food access exist for Blacks in Pender County, like those for residents of North Carolina. These are summarized in the following table, with data provided for:

- **Food deserts** (defined by the U.S. Department of Agriculture as “parts of the country without access to fresh fruit, vegetables, and other healthful whole foods, usually found in impoverished areas. This is largely due to a lack of grocery stores, farmers’ markets, and healthy food providers.”)
- **Grocery stores** per 100,000 population
- **Fast Food restaurants** per 100,000 population; and
- **Supplemental Nutrition Assistance Program or SNAP-authorized food stores** per 100,000 population



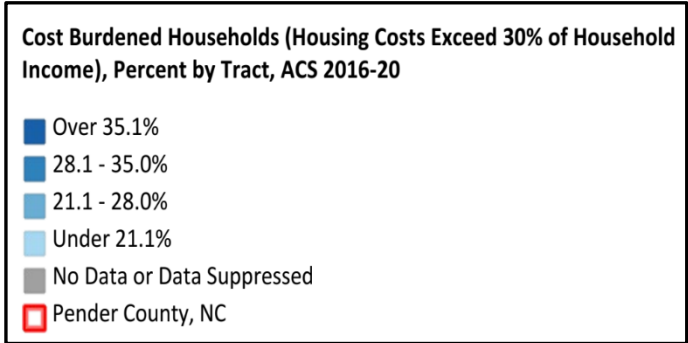
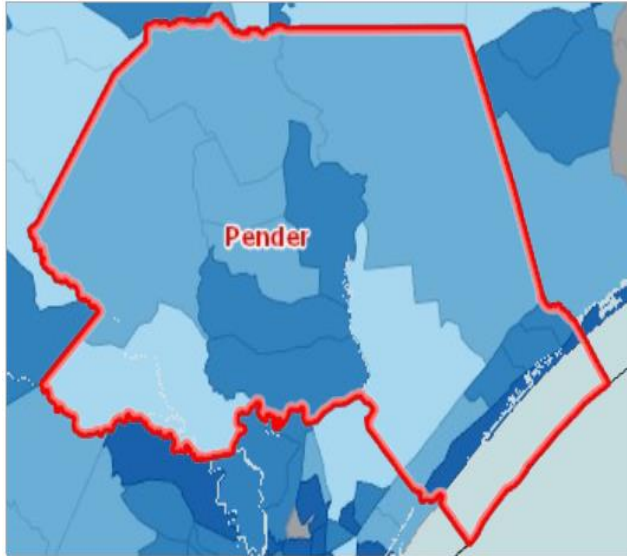
<b>FOOD INSECURITY</b>	<b>PENDER COUNTY, NC</b>			<b>NORTH CAROLINA</b>			<b>UNITED STATES</b>		
Estimated Population that is Food Insecure, 2016	8,480			1,565,910			33,365,240		
% Population that is Food Insecure, 2016	13.7%			15.4%			10.5%		
<b>DISPARITY</b>									
<b>RACE/ ETHNICITY</b>	<b>W</b>	<b>B</b>	<b>H</b>	<b>W</b>	<b>B</b>	<b>H</b>	<b>W</b>	<b>B</b>	<b>H</b>
% Of the Population that is Food Insecure by Racial/Ethnic Group	5.6%	20.1%	16.2%	7.8%	22.1%	15.0%	7.9%	19.1%	15.6%
<b>Food Desert Population</b>	4,633			1,593,822			39,074,974		
<i>Source:</i> US Department of Agriculture, Food Research Atlas, 2019	1 census tract			353 census tracts			9,293 census tracts		
<b>Grocery Stores</b>	11			1,959			62,268		
Grocery Store establishments per 100,000 population <i>Source:</i> U.S. Census Bureau, County Business Patterns, 2020	18.27			18.77			18.79		
<b>Fast Food Restaurants</b>	38			8,083			251,533		
Fast Food establishments per 100,000 population <i>Source:</i> U.S. Census Bureau, County Business Patterns, 2020	63.12			76.95			75.89		
<b>SNAP Authorized Food Stores</b>	55			8,986			248,526		
SNAP Authorized Food Store establishments per 100,000 population <i>Source:</i> U.S. Department of Agriculture, Food and Nutrition Service, USDA_ SNAP Retail Locations, 2021	8.51			8.48			7.47		

## Housing Hardships

Pender County has a slightly lower rate of cost-burdened households (defined as 30% or more of annual income allocated to housing expenses) than North Carolina or the United States. The breakdown of cost-burdened is 2,007 rental (33%), 3,123 owner-occupied with a mortgage (5,2%), and 927 or 15% among owner-occupied housing without a mortgage. Housing was listed as the 2<sup>nd</sup> highest Environmental Health issues of concern by 67% of CHOS respondents.

HOUSING	PENDER COUNTY, NC	NORTH CAROLINA	UNITED STATES
Households			
<i>Source:</i> US Census Bureau, American Community Survey, 2016-2020	22,812	4,031,592	122,354,219
Substandard Housing with 1 or more conditions	6,048	1,124,108	38,476,032
Percent of Substandard Housing <i>Source:</i> U US Census Bureau, American Community Survey, 2016-2020	26.5%	27.9%	31.5%
Cost-Burdened Households (30%+ of annual income to housing expenses)	6,057	1,099,976	37,128,748
Percent of Cost-Burdened Households <i>Source:</i> US Census Bureau, American Community Survey, 2016-2020	26.6%	27.3%	30.4%
Evictions (of Renter-Occupied Housing)	2.2%	4.6%	2.3%
<i>Source:</i> Eviction Lab, 2019			

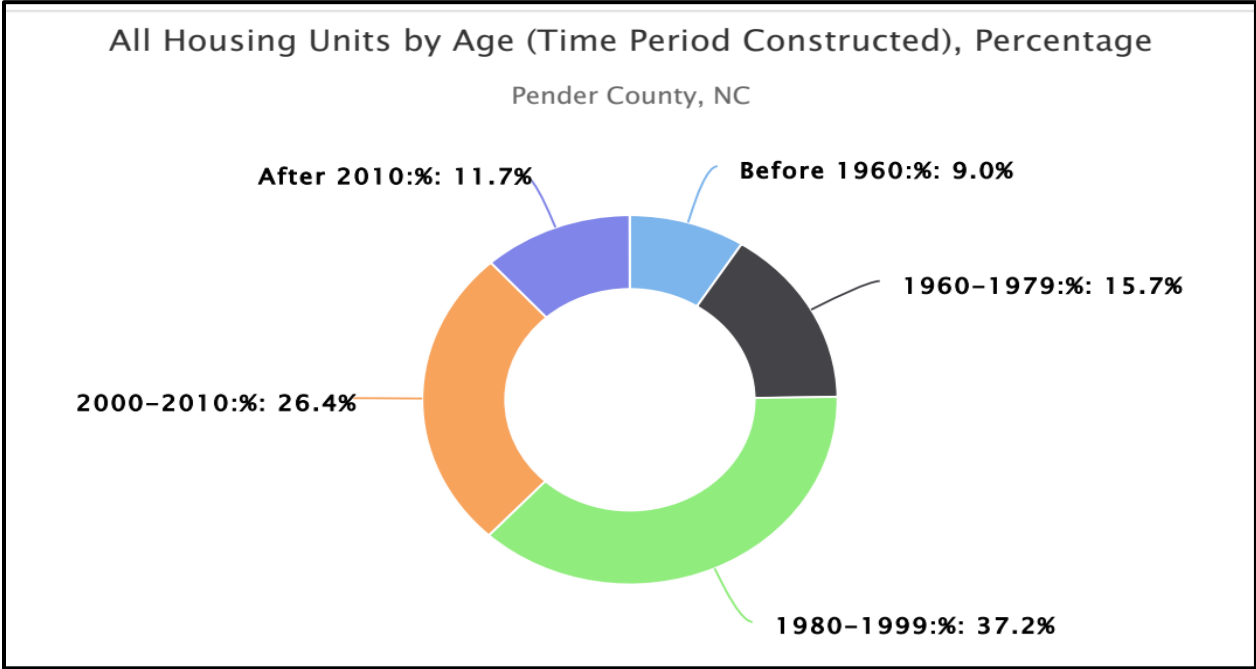
Issues with housing, however, were cited in the Community Health Opinion Survey (CHOS), 44 or 27% of respondents worried about losing their housing in the past year. Areas of housing concern are in the central portion of Pender County, as shown by the map below.

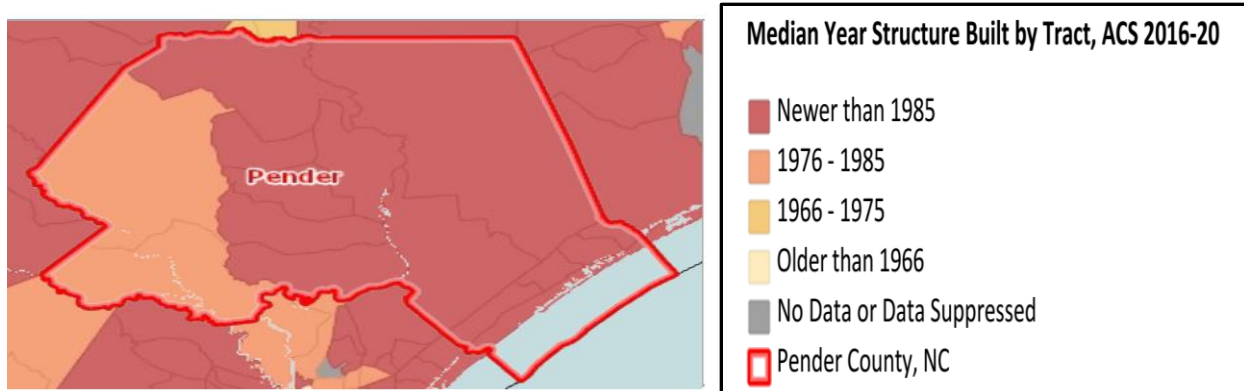


**Housing Stock**

Repeated references in the key informant interviews and the Community Health Opinion Survey (CHOS) were made to inadequate and dated housing stock, with further erosion in safe and affordable housing post-Hurricane Florence (2018). The chart below shows the percentage of housing in Pender County by age, with 24.7% built prior to 1979 (43 years or older) and 61.9% built before 1999 (23 years of age or older).

Most of the older housing stock is in the far Western part of Pender County.





Source: U.S. Census Bureau, American Community Survey, 2016-2020

### Life expectancy

Life expectancy in Pender County ranked 36<sup>th</sup> out of 100 counties in North Carolina with an average life span of 77.3 years compared to 78.1 for the State for 2017-2019. This statistic does not account for the negative impact of COVID-19 on life expectancy tables. In 2020, the United States experienced the biggest one-year drop in life expectancy since World War II, mostly due to the pandemic. All 50 states had declines in life expectancy that year. NCHS released new estimates for 2021, showing life expectancy dropped nearly one more year for the country from the 2020 level.

There were some significant differences between the declines that took place in 2020 and those which occurred in 2021, particularly among different race/ethnic groups. Between 2020 and 2021, national life expectancy decreased by 1.9 years for the non-Hispanic AI/AN or American Indian/American Native population (67.1 to 65.2). It decreased by 1.0 year for the non-Hispanic White population (77.4 to 76.4), by 0.7 year for the non-Hispanic Black population (71.5 to 70.8), by 0.2 year for the Hispanic population (77.9 to 77.7), and by 0.1 year for the non-Hispanic Asian population (83.6 to 83.5)

Sources:

(1) [Centers for Disease Control & Prevention National Center for Health Statistics \(U.S. Small-Area Life Expectancy Estimates Project Files\)](#).

(2) Arias E, Tejada-Vera B, Kochanek KD, Ahmad FB. Provisional life expectancy estimates for 2021. Vital Statistics Rapid Release; no 23. Hyattsville, MD: National Center for Health Statistics. August 2022. DOI: <https://dx.doi.org/10.15620/cdc:118999>

## Transportation

The percentage of Pender County residents with no motor vehicle is significantly lower than that of North Carolina or the United States at 3.4%

HOUSEHOLDS WITH NO MOTOR VEHICLE	PENDER COUNTY, NC	NORTH CAROLINA	UNITED STATES
Total Households	22,812	4,031,592	122,354,219
Households with no motor vehicle	774	223,909	10,344,521
Percent of households with no motor vehicle	3.39%	5.55%	8.45%

Source: U.S. Census Bureau, American Community Survey, 2016-2020

This statistic does not illustrate the entire story, as the rural nature of Pender County results in a high value placed on transportation. Transportation ranked 13<sup>th</sup> in Community Issues of Importance by CHOS respondents, at 64.1%. Respondents further elaborated that they used a personally owned vehicle 84.7% of the time, followed by borrowing a family member or friends vehicle 14.7% of the time, with minimal (0.6%) public transportation and no Uber/LYFT or concierge driver service.

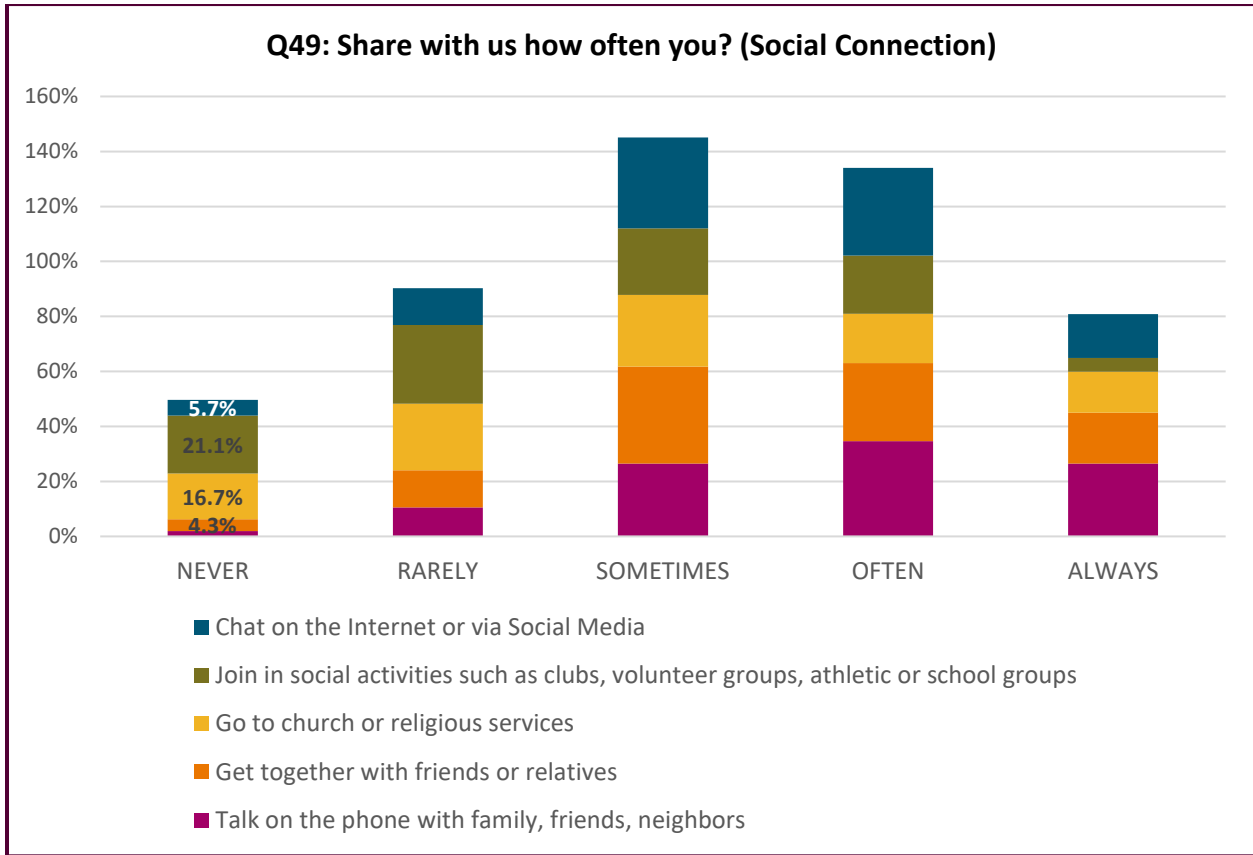
Q17. What form of transportation do you use most often?	
Personally owned/family vehicle	84.7%
Family member/friend's vehicle	14.7%
Public transportation	0.6%
Uber/LYFT/Concierge driver services	0%

The #7 reason given for not accessing mental health or substance use services (QA #46) was lack of transportation.

Q. 46 In the past year, what prevented you from getting mental health care or substance use treatment?	
STATEMENT	PERCENTAGE
No health insurance	32.0%
Guilt or shame	21.1%
Don't know where to go	17.2%
Cost too high (copay, deductible)	15.6%
Work interferes with appointment times	13.3%
Not enough providers	10.2%
<b>No transportation to services</b>	<b>9.4%</b>

GAPS: 1) Transportation 2) Housing Stock 3) Isolation 4) Food

## Social Isolation



<b>Q 49: Share with us how often you?</b>					
<b>Share how often you:</b>	<b>NEVER</b>	<b>RARELY</b>	<b>SOMETIMES</b>	<b>OFTEN</b>	<b>ALWAYS</b>
Talk on the phone with family, friends, neighbors	1.9%	10.5%	26.52%	34.6%	26.5%
Get together with friends or relatives	4.3%	13.6%	35.2%	28.4%	18.5%
Go to church or religious services	16.7%	24.2%	26.1%	18.0%	14.9%
Join in social activities such as clubs, volunteer groups, athletic or school groups	21.1%	28.6%	24.2%	21.1%	5.0%
Chat on the Internet or via Social Media	5.7%	13.4%	33.1%	31.9%	15.9%

## II. Assessment process

### **COVID-19 impact on the CHNA assessment process:**

The COVID-19 pandemic has been a global public health emergency, requiring the diversion of significant resources from hospital systems, public health departments, clinical healthcare providers, community organizations, and local, state, and national government agencies. In each of the communities we serve, Novant Health has worked tirelessly to keep our patients, team members, and community members safe and healthy, delivering free/accessible COVID-19 education, masks, and vaccines.

The pandemic further exposed health inequities and other problems associated with Social Determinants of Health, including those experienced by the medically underserved, low-income, and minority populations. In its COVID-19 response, Novant Health conducted targeted outreach and education to build trust with—and increase access to—these particularly vulnerable communities and individuals, as well as with the community organizations that serve them.

As it relates to the CHNA process, significant COVID-19 impact and interruption were in the areas of the Community Health Opinion Survey (CHOS) distribution and input solicitation as well as the availability of collaborating community partners to be involved in the planning and prioritization process. Every effort was made to engage with and solicit input from individuals and organizations serving or representing the interests of medically underserved, low-income, and minority populations, but these efforts were sometimes hindered by limited resources and capacity because of the COVID-19 pandemic response and heightened safety precautions. While this CHNA cycle process was impacted by COVID-19, Novant Health will continue to inclusively incorporate and serve the interests of all community members in our community response and community benefit work, including those of the medically underserved, low-income, and minority populations.

### ***a) Collaborative community partners***

Local Health Departments in North Carolina are required to conduct a comprehensive Community Health Assessment (CHA) every four years to maintain local health department accreditation. As part of the Patient Protection and Affordable Care Act of 2010, not-for-profit hospitals are also now required to conduct a Community Health Needs Assessment (CHNA) once every three years.

The Novant Health Pender Medical Center (NHPEMC) 2022 Community Health Needs Assessment (CHNA) was led by NHPEMC, with support from a Kulik Strategic Advisers Inc. (dba KSA). The Leadership Team consisted of the Chief Executive Officer of NHPEMC, the Director of Community Engagement for the Novant Health Coastal Market with input from the Steering Committee of local stakeholders (see Appendix for full listing). Pender County Health Department was invited to collaborate as part of the Novant Health Pender Medical Center steering committee but declined to participate. However, Ruth Glaser, President of Novant Health Pender Medical Center, participated as part of the Pender County Health Department steering committee for the Pender County Health Department 2022 Community Health Needs Assessment (with anticipated completion in March 2023). Despite other efforts to collaborate with the Pender County Health Department specifically on the Community Health Opinion Survey (CHOS), the county's longer timeline was not workable with our cycle's end-of-year deadline. Therefore, with support from KSA and our diverse steering committee, NHPEMC conducted its own CHOS.

The NHPEMC CHNA formally launched with an overview of the Statistical Sample Frame and Objectives of the Community Health Needs Assessment on July 18, 2022. The CHNA questionnaire was drafted and finalized by the leadership team, with input from KSA. The data was collected and analyzed by KSA with presentation of progress in receiving resident input to the Community Health Opinion Survey and insights from the Key Informant Interviews and focus group (see Appendix for a summary of themes). Project status reports outlining actual response compared to the sample frame were provided monthly.

The Steering Committee received an overview of secondary data in the form of a Demographic, Socioeconomic and Health Status profile on October 24<sup>th</sup>. An overview of primary data from the Community Health Opinion Survey (or CHOS) was presented on November 4<sup>th</sup>. As part of this assessment process, special attention was paid to the needs of the underserved. The process emphasized collaboration and distribution of the survey among community partners to improve the overall health of the community.

### ***b) Solicitation***

The CHNA, which is both a process and a document, investigates and describes the current health status of the community, what has changed since the last assessment, and what indicators need to change to improve the health of the community. The *process* involves the collection and analysis of a large range of data, including demographic, socioeconomic and health statistics, environmental data, hospital data, and professional and public opinion. The completed CHNA serves as the basis for prioritizing the community's health needs and culminates in planning to meet those needs.

The 2022 Novant Health Pender Medical Center Community Health Needs Assessment solicited input from persons who represent broad interests, with emphasis on the western part of the County comprising the Primary and Secondary Service Area, through broad distribution of the survey including outreach through organizations and community groups across the county, including those who represent the interests of members of the medically underserved, low-income, and minority populations:

- Pender County Christian Center – In-person & Online Marketing
- Share the Table – In-person & Online Marketing
- Coastal Horizon – Burgaw – In-person focus group and survey collection
- Multiple online platforms – Novant Health Pender Medical Center internal website, Facebook – Rocky Point page

### ***c) Data collection and analysis***

#### **Primary Data**

The Novant Health Pender Medical Center (NHPEMC) Community Health Needs Assessment (CHNA) is a collaboration among local organizations with common goal of bringing to light the gaps and areas of need as they related to the overall health of Pender County residents. Initiated in June 2022, the CHNA process began swiftly, and the Community Health Needs Survey was distributed widely beginning in July 2022. The CHNA Leadership Team worked to carefully craft a questionnaire that would capture a broad range of information without being a burden to the survey respondent. The questionnaire consisted of 32 required questions with an additional 17 questions, concluding with a comment box for respondents to provide additional thoughts. The survey had 163 responses with 9 participants in a focus group at Coastal Horizons in Burgaw and 23 key informant interviews.



On November 4, 2022, the results of the Community Health Needs Survey were presented to the CHNA Steering Committee who then unanimously voted to identify the health priorities. In the weeks and months following, the CHNA report was developed as well as an accompanying presentation that will be introduced to key community stakeholders in January 2023.

Demographic data collected from the sample of survey participants is illustrated through the statistical sample frame developed to ensure that the Community Health Opinion Survey reflected the demographics of the residents of Pender County, North Carolina.

This sample frame targeted 125 residents at a 95% confidence level and a 5-point margin of error. The actual response was 163 surveys, exceeding the pre-defined target.

**The total population of Pender County was 61,891 in 2020 and 62,815 in 2022.**

Source: U.S. Census Bureau, 2020 and 2022

SAMPLE FRAME FOR NOVANT HEALTH PENDER MEDICAL CENTER, NC							
DEMOGRAPHIC	TOTAL #	TOTAL %	SAMPLE n=125/Actual=163			SURVEY RESPONSE	
			SAMPLE FRAME #				
<i>Age</i>							
0-5 years	3,432	5.7%	7	9	5.7%		
6-18 years	13,365	22.2%	28	36	22.2%		
19-64	32,209	53.5%	67	87	53.5%	125	76%
65+	11,198	18.6%	23	301	18.6%	39	24%
<i>Gender</i>							
Male	29,981	49.8%	62	81	49.8%	41	25%
Female	30,222	50.2%	63	82	50.2%	120	75%
<i>Race/Ethnicity</i>							
White	45,393	75.4%	94	123	75.4%	108	72%
Black	8,850	14.7%	18	24	14.7%	17	11%
Asian Pacific	482	0.8%	1	1	0.8%		
Native American	1,264	2.1%	3	3	2.1%		
Hispanic	4,515	7.5%	9	12	7.5%	26	17%
<i>Poverty Level</i>							
	7,405	12.3%	15	20	12.3%	22	12.3%
<i>Language other than English</i>							
	4,335	7.2%	9	12	7.2%	13	7.9%
<i>Uninsured</i>							
	8,067	13.4%	17	22	13.4%	26	15.7%

**Secondary Data**

In addition to the primary data collected through the CHOS, secondary data was collected from state and national sources, including the American Community Survey from the United States Census Bureau, the U.S. Department of Housing and Urban Development, and the U.S. Department of Labor. Other federal sources include the Behavioral Risk Factors Surveillance System (BRFSS) and National Center for Health Statistics from the Centers for Disease Control and Prevention (CDC). State sources referenced were the North Carolina Center for Health Statistics, North Carolina Vital Statistics, and the North Carolina Department of Health and Human Services. The Robert Wood Johnson Foundation supplied County Health Rankings.

### III. Identification & Prioritization of Health Needs

#### a) Identified Significant Health Needs

Utilizing the Community Health Opinion Survey (CHOS), residents from the Novant Health Pender Medical Center primary and secondary service areas were asked to rank 15 health issues from very important to least important. Health disparities and social determinants of health are not called out specifically as health issues but rather incorporated within each issue. The following 15 health issues are identified and ranked from very important to least important:

1. Access to Healthcare (87.3%)
2. Health Insurance (84.7%)
3. Mental Health (82.8%)
4. Cancer (80.4%)
5. Health Resource Information (79.5%)
6. Chronic Disease (79.0%)
7. Elder Care Options (78.4%)
8. Counseling/Support Groups for Mental Health (77.5%)
9. Teen Births (76.8%)
10. Pregnancy and Infant Wellness (75.8%)
11. Dental Health (73.6%)
12. Infant Mortality (72.8%)
13. Child & Adult Immunizations (72.2%)
14. Asthma/Lung Disease (71.6%)
15. Low Birth Weight Infants (71.0%)

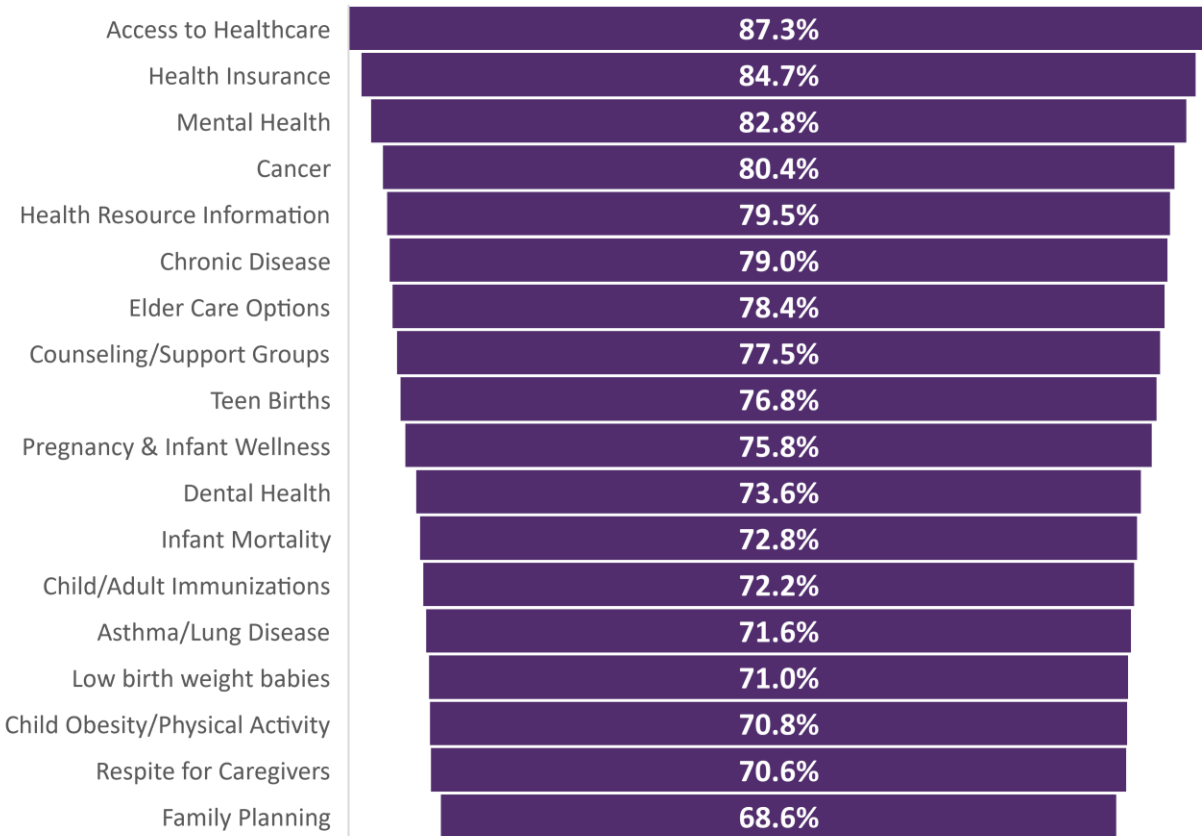
These 15 ranked health issues are categorized into the following broader categories, and represent the top identified significant health needs for NHPPMC's 2022-2024 CHNA.

- Access to healthcare
- Mental health
- Chronic disease
- Dental health
- Elder care options
- Family planning
- Pregnancy & infant wellness

These categories informed the prioritized needs discussed below. See Appendix B & C for additional supporting information.

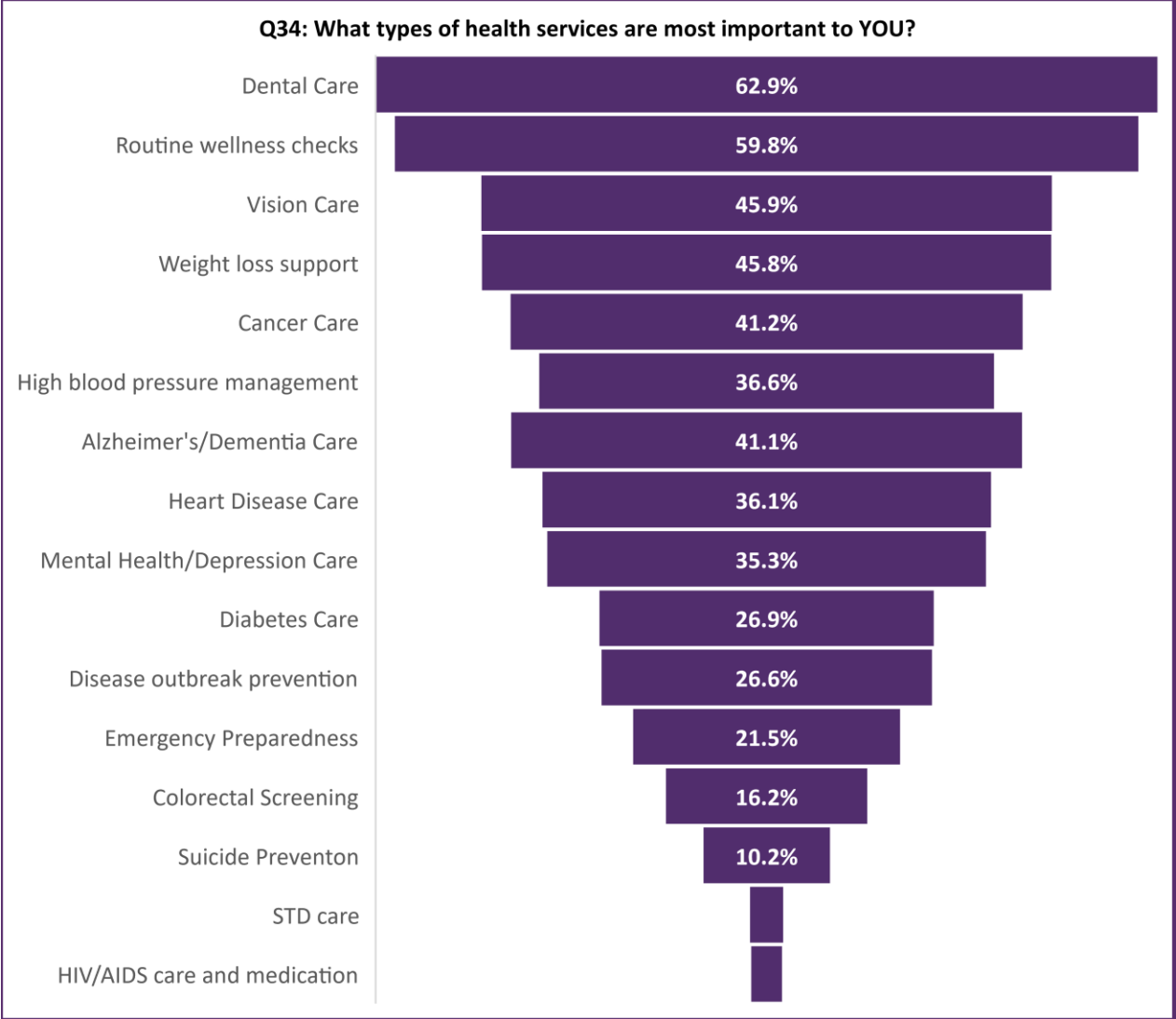
Pender County Health Department is in the process of completing its own Community Health Needs Assessment with an estimated completion time of March 2023.

**Q22: How do you rate the importance of the following HEALTH issues for Pender County?**



The following is a list of identified health issues that are of personal importance to survey respondents. This list helped influence the overall health needs of the community.

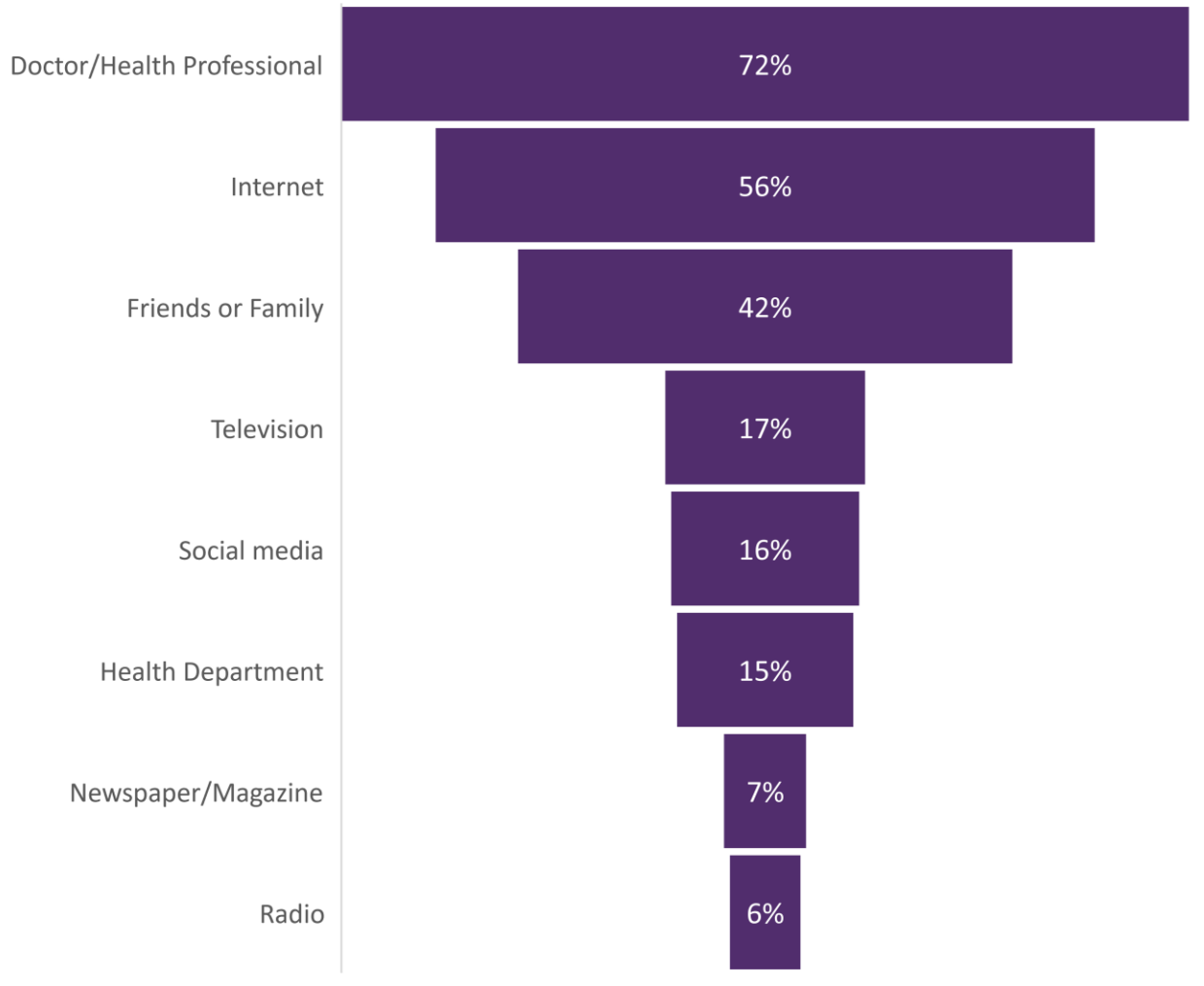
1. Dental Care (62.9%)
2. Routine/Wellness checks (59.8%)
3. Vision Care (45.9%)
4. Weight Loss Support (45.8%)
5. Cancer Care (41.2%)
6. High Blood Pressure management (36.6%)
7. Alzheimer's/Dementia Care (41.1%)
8. Heart Disease Care (36.1%)
9. Mental Health/Depression Care (35.3%)
10. Diabetes Care (26.9%)
11. Disease Outbreak Prevention (26.6%)
12. Emergency Preparedness (21.5%)
13. Colorectal Screening (16.2%)
14. Suicide Prevention (10.2%)
15. Sexually Transmitted Diseases (2.7%)
16. HIV/AIDS care and medication (2.5%)



Based on the CHOS, the list below demonstrates where survey respondents obtain health information:

1. Doctor/Health Professional (72%)
2. Internet (56%)
3. Friends or Family (42%)
4. Television (17%)
5. Social Media (16%)
6. Health Department (15%)
7. Newspaper/Magazine (7%)
8. Radio (6%)

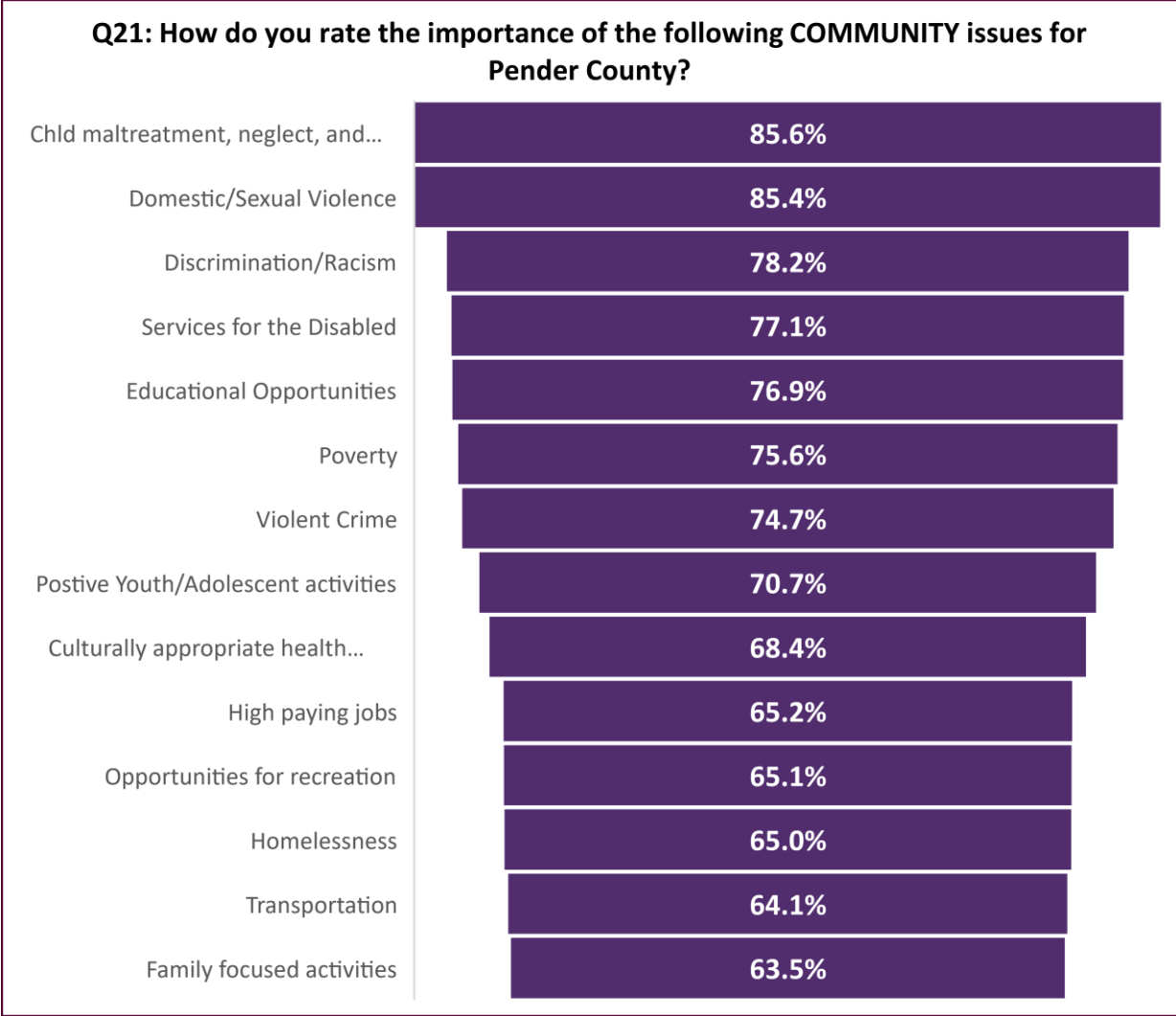
**Q38: Where do you get your Health Information?**



Based on the CHOS responses the following list identified the most important community issues by CHOS survey respondents:

- 1.** Domestic/Sexual Violence (85.4%)
- 2.** Discrimination/Racism (78.2%)
- 3.** Services for the Disabled (77.1%)
- 4.** Educational Opportunities (76.9%)
- 5.** Poverty (75.6%)
- 6.** Violent Crime (74.7%)
- 7.** Child maltreatment, neglect, and abuse (74.4%)
- 8.** Positive Youth/Adolescent Activities (70.7%)
- 9.** Culturally appropriate health services (68.4%)
- 10.** High paying jobs (65.2%)
- 11.** Opportunities for recreation (65.1%)
- 12.** Homelessness (65.0%)
- 13.** Transportation (64.1%)
- 14.** Family focused activities (63.5%)

Issues listed above influenced the final priorities.



Based on CHOS survey responses, the following list identified the environmental issues of importance:

1. Safe drinking water – 71%
2. Housing – 67%
3. Water Pollution – 64%
4. Over-development – 63%
5. Accidents – 61%
6. Violence – 60%



**b) Analysis and Prioritization**

**County Prioritized Health Outcomes**

Pender County Health Department is in the process of completing its own Community Health Needs Assessment with an estimated completion time of March 2023.

**Facility Prioritization**

In addition to the primary and secondary data described above, NHPEMC leadership reviewed the Top 5 diagnosis codes for inpatient and outpatient hospital emergency department visits from July 2021 to June 2022.

Novant Health Pender Medical Center Emergency Department  
Top 5 Diagnoses July 2021-June 2022

The top 5 Diagnoses from July 2021 to June 2022 were impacted by the COVID-19 Pandemic in the outpatient and inpatient settings. As a result of COVID-19 and encouraging virtual visits for patient safety, the inpatient diagnosis trend was more serious, including heart and kidney failure. Outpatient trending diagnoses were severe symptoms and side effects of COVID-19.

<b>Novant Health Pender Medical Center Top 5 Diagnoses for Inpatient Admissions and Emergency Department Visits from July 2021 - June 2022</b>			
<b>Inpatient</b>		<b>Emergency**</b>	
<b>Diagnosis</b>	<b>Volume</b>	<b>Diagnosis</b>	<b>Volume</b>
R53.81-Other malaise	34	U07.1-COVID-19	1,231
Z48.812-Encounter for surgical aftercare following surgery on the circulatory system	22	J06.9-Acute upper respiratory infection, unspecified	643
A41.9-Sepsis, unspecified organism	15	R07.89-Other chest pain	363
I13.0-Hypertensive heart and chronic kidney disease with heart failure and stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease	14	B34.9-Viral infection, unspecified	362
J18.9-Pneumonia, unspecified organism	13	R07.9-Chest pain, unspecified	302

\*\*Emergency diagnosis only include those patients discharged as emergency patients (not admitted to Inpatient from Emergency Department) and excludes LWOBs (Left Without Being Seen).

Upon a comprehensive review of the primary and secondary data and NHP EMC's ED top 5 diagnosis codes, the leadership team and Pender Memorial Hospital Board of Trustees evaluated this information based on the scope, severity, health disparities associated with the need, and the estimated feasibility and effectiveness of possible interventions. Through this thorough evaluation, the team agreed on the following health priorities for NHP EMC:

1. Chronic Disease: with a focus on Hypertension and Diabetes
2. Mental Health and Substance Use: with a focus on depression and opioid use
3. Social Determinant of Health: Transportation

Further information on prioritized health outcomes is summarized below:

- **Substance misuse:** In 2017, the North Carolina Department of Health and Human Services (NC DHHS) released the North Carolina Opioid Action Plan (OAP), a detailed plan to combat the opioid crisis. Since 2017, the OAP has been updated three times and now the Opioid and Substance Use Action Plan (OSUAP) captures polysubstance use and encompasses a greater focus on equity and lived experiences. The OSUAP outlines strategies that are proven to be effective and focus on equity, prevention, harm reduction, and connection. The action plan also identifies metrics that allow for tracking progress and transparency of data. Routine updates from local health department and other agencies across North Carolina allow for progress to be measured at the county level and reflected in a dashboard on the NC DHHS website.
- **Mental health:** Mental health was identified as a top priority in the Pender Memorial Hospital CHNA for 2019-2021, before it became Novant Health Pender Medical Center.
- **Chronic disease:** Cardiac issues, including coronary heart disease (CHD) and Hypertension, were the leading cause of death in Pender County in 2019 and the 2<sup>nd</sup> leading cause in the preceding five-year period (2015-2019). Diabetes is one of the leading causes of preventable disease in Pender County and ranks #7 for cause of death in 2019. Rates of diabetes related death have consistently increased over time, not only in Pender County and across North Carolina. Data from the US Diabetes Surveillance System shows that there is a higher prevalence of diabetes among men than women.
- **Transportation:** Transportation was consistently referenced as an issue in accessing health and human services, exacerbated by the rural nature of Pender County, large geographic distances, and the need to use many services out-of-county. Rural and Western Pender County referenced these concerns more than Eastern Pender County residents.

#### IV. Addressing needs

Novant Health Pender Medical Center is committed to working to address each of the identified areas of need through resource allocation and support of the following programs and actions:

Priority Need:	Program:	Action:	Intended Outcome:
Mental Health and Substance Use: focus on Depression & Opioid Use	Mental Health First Aid	Provide information and train individuals from various sectors including the nonprofit, faith community and our own team members	Awareness of ways to access resources and increased number of individuals connected to appropriate treatment and services within the community
	Opioid Stewardship Task Force	Alignment of system regarding treatment of those with Opioid Use Disorder to include education on stigma reduction, monitoring metrics related to use of opioids, and development of pathways for treatment with community partners	50 Individuals trained in Mental Health First Aid
	Outpatient Peer Support Program	Implementation of outpatient peer support program in partnership with Behavioral Health Institute leaders and Emergency Services	Community based teams (Home Health, Community Paramedics, CHWs, and other outreach workers) trained on use of Narcan
	Psychiatric Residency Program	Establishment of psychiatric residency program in partnership with UNC School of Medicine	Increase in number of patients treated for opioid use disorder in the acute and ambulatory settings
	Screening, Brief Intervention and Referral to Treatment in Primary Care (SBIRT using PHQ-9 or Patient Health Questionnaire – 9 questions)	Utilize Community Care Cruiser in Pender County to engage with residents for primary care and screening for substance use disorder	Reduction in adverse drug events related to opioids Reduction in readmission for those with mental health diagnosis recently discharged from hospital

<p>Chronic Disease: focus on Hypertension and Diabetes</p>	<p>Wellness Education Health Screenings Rural residency program</p>	<p>Host screenings and provide related referrals, and assessment of resources via Community Care Cruiser</p> <p>Support community organizations and events aligned with this work</p> <p>Establishment of a rural residency program in partnership with Black River Health Services</p>	<p>Increased number of community stakeholders connected to a primary medical home and appropriate care</p> <p>Decrease emergency department use for those connected to health screening events and mobile health</p> <p>Improve health outcomes for those connected to Community Engagement team as it relates to A1c, BMI, and Blood Pressure</p> <p>Increased availability of primary care in areas of most need</p>
<p>Social Determinant of Health: Transportation</p>	<p>Ride Health Program Social responsibility/Charitable contributions SDOH Screening</p>	<p>Support community organizations and events aligned with this work through capacity building and charitable contributions</p> <p>Creation of continuing education opportunities for team members regarding social determinants of health in our health system and our community</p> <p>Train staff and implement social determinant of health screening at Pender primary care offices</p>	<p>Decrease number of Pender county residents missing appointments due to transportation barriers</p> <p>Increase contributions to Pender county service providers offering transportation to residents</p>

Again, NHPEMC will focus resource allocation on these prioritized needs based on careful consideration of estimated feasibility and effectiveness of possible interventions. While NHPEMC will not prioritize the remaining significant health needs (listed above in Section III), it will support and collaborate with community partners as appropriate for the purpose of improving outcomes for identified needs that are better aligned with their scope of service.

In addition to the programs and services offered to the community through Novant Health Pender Medical Center, there are existing community assets available throughout the Pender County community that have additional programs and resources tailored to meet the identified health needs. The following is a list of community agencies that address those prioritized and non-prioritized needs:

Identified Significant Health Needs	Local Community Resources Addressing Needs
Access to healthcare Chronic disease Dental health	Pender County Health Department Cape Fear Healthnet Black River Health Services Mt. Calvary Center for Leadership Development
Mental health	Coastal Horizons June 10-Roots to Recovery
Pregnancy and infant wellness Family planning	Pender County Health Department NC Catholic Charities
Elder care options	Pender Adult Services Lower Cape Fear Lifecare

**For all community resources, visit [www.novanthealth.org/mycommunity](http://www.novanthealth.org/mycommunity)**

## V. Impact Evaluation of the 2019-2021 Community Health Needs Assessment

**No written comments were received from the 2019-2021 CHNA and implementation strategy.**

Based on the previously reported health data from the 2019-2021 Community Health Needs Assessment, the Novant Health Pender Memorial Hospital Board of Trustees did a collective review of community feedback and prioritization and determined the top health priorities for NHP EMC as the following: improve general wellness, mental/behavioral health, and access to care for the elderly.

The specific commitments, objectives, measurements, and successes for Novant Health Pender Medical Center addressing their 2019-2021 priorities are described in the table below.

Of note, in 2020 and 2021, the COVID-19 pandemic diverted our focused response on priority needs to meet new, unexpected, and urgent priorities in our community. Our COVID-19 response, including education, free mask distribution, and vaccines, addressed issues of access to care and chronic disease by targeting vulnerable communities. While intended outcomes identified in 2019 weren't always able to be met, Novant Health provided access to critical and life-saving services to all our communities through dedicated COVID-19 response efforts.

**Pender 2019-2021 Priorities and Outcomes:**

Priority	Program/Actions	Anticipated Impact	Actual Outcome
<p>Improve general wellness</p>	<ul style="list-style-type: none"> <li>• Farmer’s markets at Novant Health Pender Medical Center campus</li> <li>• Food drives</li> <li>• Diabetes Empowerment Education Program</li> <li>• Career fairs</li> <li>• Sports physicals for public school children</li> </ul>	<ul style="list-style-type: none"> <li>• Increased # of individuals accessing healthy food</li> <li>• Increased # of individuals accessing screenings</li> <li>• Increased access to opportunity, resources, tools, education, and information to improve health outcomes and quality of life</li> </ul>	<ul style="list-style-type: none"> <li>• Food Pharmacy launched in Jan of 2020 at our acute care facility and our cancer center.</li> <li>• In 2020 (89) and 2021 (116) food boxes provided to Pender county residents that were admitted to our hospital.</li> <li>• In 2020, two Diabetes Empowerment Education (DEEP) classes were held in Pender county serving a total of 14 individuals with education and health screenings.</li> <li>• In 2021, two DEEP classes were hosted in Pender county serving a total of 11 individuals.</li> <li>• A free middle school sports physical event was hosted at Heide Trask High School on August 10, 2021 serving nearly 100 students.</li> <li>• A free high school sports physical event was hosted at Pender Primary Care June 22, 2021 serving 87 students.</li> </ul>
<p>Mental / Behavioral Health</p>	<ul style="list-style-type: none"> <li>• Healthy Conversations Podcast</li> <li>• Trainings for Community Resilience Model and</li> </ul>	<ul style="list-style-type: none"> <li>• Increased awareness of mental health issues</li> <li>• Increased knowledge of resources to achieve mental health and how to access</li> </ul>	<ul style="list-style-type: none"> <li>• There were permanent medication drop boxes placed at Pender Memorial Hospital in 2018. In 2019, 245 lbs of medication were</li> </ul>

	<p>Reconnect for Resilience</p> <ul style="list-style-type: none"> <li>• Medication drop-off events</li> </ul>	<ul style="list-style-type: none"> <li>• Increased tools/skills to build resiliency</li> <li>• Reduction in health risks/substance abuse from improper use of medication</li> </ul>	<p>collected. In 2020, 213 lbs and in 2021, 190 lbs were collected.</p> <ul style="list-style-type: none"> <li>• Dr. Kathleen Young, our Director of Behavioral Medicine, provided a “Healthy Conversations” Podcast in April of 2021 focused on mental health and resiliency.</li> <li>• Dr. Ashley Kopa, our hospital psychologist, hosted another “Healthy Conversations” podcast during Mental Health Awareness Month in May of 2021 on mental health.</li> <li>• Our hospital staff were offered training on Mental Health First Aid in May of 2021.</li> <li>• An education session was provided to the public on Psychiatric Advance Directives in September 2021.</li> <li>• We partnered with the NC Harm Reduction Coalition to provide education on overdose in September 2021.</li> </ul>
<p>Access to care for the elderly</p>	<ul style="list-style-type: none"> <li>• Faith Health Network virtual education session</li> <li>• COVID masking &amp; education</li> <li>• Breast cancer awareness event</li> <li>• Fall prevention education event</li> </ul>	<ul style="list-style-type: none"> <li>• Increased access to health resources and screenings, particularly for the aging population</li> <li>• Increased awareness of health risks for the aging population and prevention tools/methods</li> </ul>	<ul style="list-style-type: none"> <li>• We partnered with key stakeholders in Pender County at Mt Calvary Center for Leadership Development to host a Breast Cancer Awareness Event in Oct 2021 and have our mobile mammography unit on site to offer mammograms.</li> </ul>



			<ul style="list-style-type: none"><li>• Our Faith Health Network officially launched in 2020, and we certified two nurses from Pender county churches as Faith Community Nurses in 2021. These nurses are routinely given tools to provide education to their congregations on health risks such as COVID and the flu.</li></ul>
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## VI. Appendices

<b>Appendix A: Novant Health Pender Medical Center Steering Committee</b>	
<b>Name</b>	<b>Organization</b>
Dawn Ellis	Share the Table
Vanessa Lacer	Pender County Government
Amy Feath	Carousel Center
Jessica Biel	Pender County Schools
Dr. Lisa Robinson	Mt. Calvary Center for Leadership
Kenny House	Coastal Horizons
Lori Kirkpatrick	Save Haven
Wes Davis	Pender Adult Services
Sandy Harris	Pender Christian Services
Emily Baker	Burgaw Area Chamber of Commerce
Sandy Rowe	Pender Alliance for Teen Health
Velva Jenkins	Lower Cape Fear YWCA
Dr. Steven Hill (or designee)	Pender County Schools
O. Wesley Stewart	Department of Social Services
Judith Bullart	Woodbury Wellness
Bishop James Malloy	Town of Burgaw Commissioners
Edelmira Segovia	UNC-Wilmington
Chief Jim Hocke	Burgaw Police Department
Mostofa Rezk	Medical Director, NHP EMC
Mark Seitz	Pender County Cooperative Extension
Heather Davis	Novant Health Pender Medical Center (NHP EMC)
Cynthia Faulkner	Novant Health Pender Medical Center (NHP EMC)
Ruth Glaser	Novant Health Pender Medical Center (NHP EMC)
Sarah Arthur	Novant Health
Michele Bennett	Novant Health

For list of agencies involved in the Pender County CHA process, please see the Pender County Health Department’s full report, with anticipated completion in March 2023. Please note that Novant Health’s leadership is in the Pender County CHA steering committee.



**Novant Health Pender Medical Center**  
Key informant Interview Summary

Novant Health Pender Medical Center completed the 2022 Community Health Needs Assessment or CHNA. As part of this process, Key Informant Interviews were conducted to gain a deeper understanding of community needs.

Kulik Strategic Advisers (dba KSA) contacted the following list of 25 community partners and organizations to schedule meetings:

Novant Health Pender Medical Center Partner and Organizations	
Dawn Ellis - Share the Table	Wes Davis – Pender Adult Services
Vanessa Lacer - Pender County Government	Sandy Harris – Pender Christian Services
Amy Feath – Carousel Center	Emily Baker – Burgaw Area Chamber of Commerce
Jessica Biel – Pender County Schools	Velva Jenkins – Lower Cape Fear YWCA
Dr. Lisa Robinson – Mt. Calvary Center for Leadership	Dr. Steven Hill (or Designee) – Pender County Schools
Kenny House – Coastal Horizons	Judith Bullard – Woodbury Wellness
Kim Morgan – Coastal Horizons	Edelmira Segovia – UNC-W
Rakhee Patel – Coastal Horizons	Chief Jim Hocke – Burgaw PD
Lori Kirkpatrick – Safe Haven	Mark Seitz – NC Agriculture
Heather Davis – Novant Health Pender Medical Center	Cynthia Faulkner – Novant Health Pender Medical Center
Ruth Glaser – Novant Health Pender Medical Center	Angelica Santibanez – Black River Health Services
Leslie Smiley – Cape Fear Healthnet	Jordyn Appel-Hughes – Feast Down East
Caroline Morin – LGBTQ Center of Cape Fear	

23 out of 25 or 92% of identified Key Informant Interviews were completed between July and October 2022. One individual was a no-show, and one did not respond to the multiple emails asking for their participation (see Appendix B for a detailed report of findings).

**THEMES**

Based on the discussions, the main themes and subthemes are as followed ranked based on the number of times identified:

Health Issues	Barriers
<p>#1 – Mental Health</p> <ul style="list-style-type: none"> <li>• Depression – seen across the spectrum with an increase among the elder population</li> <li>• Anxiety</li> <li>• Suicidal Ideation – among youth</li> </ul> <p>#2 – Chronic Diseases</p> <ul style="list-style-type: none"> <li>• Diabetes               <ul style="list-style-type: none"> <li>○ Obesity as a leading cause of diabetes</li> <li>○ Limited access to healthy affordable foods</li> </ul> </li> <li>• Cancer</li> <li>• High Blood Presume/ Hypertension</li> <li>• HIV/AIDS</li> </ul> <p>#3 – Substance Use or Misuse</p> <ul style="list-style-type: none"> <li>• Opioids – Increase an overdoses</li> <li>• Alcohol</li> </ul> <p>#4 – Vaping/Smoking</p> <p>#5 – Thyroid Problems</p>	<p>#1 – Transportation</p> <ul style="list-style-type: none"> <li>• No reliable public transportation services</li> <li>• Available by appointment only for older individuals, mostly used for medical appointments.</li> <li>• Individuals cannot rely on it to get to and from work</li> <li>• Does not connect the entire county</li> </ul> <p>#2 – Housing</p> <ul style="list-style-type: none"> <li>• Affordable Housing</li> <li>• Quality Housing</li> <li>• Shelter               <ul style="list-style-type: none"> <li>○ No shelter for homeless individuals</li> </ul> </li> </ul> <p>#3 – Access to Care</p> <ul style="list-style-type: none"> <li>• Primary Care Services               <ul style="list-style-type: none"> <li>○ Preventive Services</li> <li>○ OB/GYN care</li> <li>○ Pediatric care</li> </ul> </li> <li>• Specialty Care               <ul style="list-style-type: none"> <li>○ Infectious Disease                   <ul style="list-style-type: none"> <li>▪ STD</li> <li>▪ HIV/AIDS</li> </ul> </li> <li>○ Cancer</li> <li>○ Cardiology</li> <li>○ Pulmonology</li> </ul> </li> <li>• Substance Use treatment</li> </ul> <p>#4 – Infrastructure</p> <ul style="list-style-type: none"> <li>• Telecommunications               <ul style="list-style-type: none"> <li>○ Internet access – affordability and accessibility</li> <li>○ Cellphone service – affordability and accessibility</li> </ul> </li> <li>• Technology               <ul style="list-style-type: none"> <li>○ Expensive to get</li> <li>○ Older individuals may not know how to use it to access services</li> </ul> </li> </ul> <p>#5 – Employment</p> <ul style="list-style-type: none"> <li>• Low Income – limits access to services, in particular the west site of the county.</li> <li>• Employment options</li> </ul>

Kimberly Morgan  
Program Director in Pender County  
Coastal Horizons  
Tuesday, July 26, 2022 – 8:30 am

Health issues:

- The 2021 data demonstrate an increase in opioid overdoses. It is higher in Pender County compared to North Carolina.
- Mental Health Services: Depression due to isolation because of the COVID-19 pandemic

Barriers that make it hard for community members to stay healthy:

- Transportation is a big barrier and significant issue – the clear distinction between the haves and have-nots creates a social problem within the county. The County is spread out. Transportation is mostly available on the East side of the county.
- Substance misuse services are being expanded due to the increase in need.
- Affordable quality housing is an issue, especially since Hurricane Florence. This has been prevalent for the past three years.
- Housing issues have been compounded by the COVID-19 pandemic. Housing conditions have not improved since Hurricane Florence in 2018, people are still trying to recuperate from that devastating moment.

COVID-19 Impact

- Rural communities are used to isolation; however, the problem has been dealing with grief or the loss of a loved one. There is a need for resources to help families deal with grief.
- The inability to bounce back after the death of a family member due to grief and sadness has had an impact on families' well-being.
- The stigma around mental health is still present for individuals seeking mental health services.

Ideas to reduce barriers:

- It takes a lot of work from the community to be informed and act to address transportation creatively. A potential way to address transportation is by seeking support from the faith community, funding, and further inclusion from the civic community.

What can Novant Health Pender Medical Center do:

- Partner with community organizations such as churches, schools, and police departments and provide training to better identify an individual in need of mental health services.
- Bring services into the community to better identify and address social determinants of health.
- Disseminate information to the community via health fairs or community forums.

Lori Kirkpatrick  
Outreach Coordinator  
Safe Haven of Pender – Domestic Violence Shelter  
Wednesday, July 27, 2022

The domestic violence shelter is set up to assist an individual for up to 60 days. Safe Haven also offers offer a 24-hour crisis hotline.

Health issues:

- Mental Health: Anxiety, Post-traumatic stress disorder or PTSD, depression, sleeping, and eating disorders. Individuals report encountering long waitlists when trying to access a mental health professional.
- Diabetes: Lack of access to healthy affordable foods.

Barriers that make it hard for community members to stay healthy:

- Childcare: There is not enough available affordable quality childcare in the area.
- Transportation: No reliable public transportation system that can be utilized by residents living in rural parts of the county, in particular the west part of the county. With the increase in gas prices, individuals are finding themselves making tough financial decisions.
- Housing: Limited affordable quality housing. This has been exacerbated by the fact people are still recuperating from Hurricane Florence.
- Primary care services: There are not enough available healthcare providers in the area. A lot of people she works with report utilizing the emergency room as a source of primary care.
- Specialty Care: People must travel outside of the area for specialty care, in particular Gastroenterologist or ENT.

COVID-19 Impact:

- As it relates to domestic violence, the shelter saw a delay in cases as individuals stayed at home with their abuser rather than seeking assistance.

Ideas to reduce barriers:

- Have a series of speakers talk in English and Spanish about healthy eating.
- Offer healthy cooking classes.

What can Novant Health Pender Medical Center do:

- With the change in population, services for the aging population such as Gastroenterology and Cardiology.
- Need for OB/GYN services. She reported that people who have gone to Novant Health Pender Medical Center to deliver a baby get transferred to Novant Health New Hanover Regional Medical Center.

Vanessa Lacer  
Pender County: Planning and Development Department  
Wednesday, July 27, 2022

Vanessa works for the Planning and Development Pender County Department. They cover general residential and commercial permits. She is responsible for all short-term planning (building a house and business) and long-term planning (comprehensive, growth studies, biking/pedestrian plans). Her department is responsible for producing the 20-year comprehensive plan.

Health issues:

- Substance misuse: Opioid utilization has increased in the area.
- Mental Health: There is a lot of historical traumas reported by the African American community due to slavery.

Barriers that make it hard for community members to stay healthy:

- Housing: From a county perspective, housing is a critical crisis. They have a housing authority with a few units with a long waitlist. Housing demand has increased, but there is not enough housing stock to meet the demand for affordable housing.
- Access to Care: There is a need for an increase in substance use services. Currently, they are limited and difficult to access. There is no detox center in Pender County.
- Transportation: Public transportation is limited. Current transportation services are available to seniors by appointment only, it is not a system that the general community can rely on.
- Employment: There is a need for higher-paying jobs and more employment options.
- Infrastructure: There is a lack of reliable and affordable internet for residents in rural areas. Access to reliable cellphone service for rural residents was reported as a need.

COVID-19 Impact:

- Due to the pandemic, affordable housing has become even more limited. There is a growing need for affordable housing either for purchase and/or for rent.

Ideas to reduce barriers:

- Community education regarding the limited public transportation services. Even though the existing public transportation service is limited to seniors, it is available to the rest of the community.

What can Novant Health Pender Medical Center do:

- 1) Help address the substance use treatment service need.
- 2) Try to attract more specialty care, even if for certain days per week.



Leslie Smiley  
Cape Fear Healthnet  
Wednesday, July 27, 2022

Cape Fear Healthnet is an organization that connects low-income/uninsured individuals to medical care. They provide patient navigation services to individuals under 200% of the Federal Poverty Level. They provide financial case management at the Black River Family Medicine in Pender. Healthnet is a Novant Health Pender Medical Center partner, NHP EMC provides access to specialty care to patients who are part of the Black River Family Medicine Clinic.

Health issues:

- Diabetes: Lack of access to healthy affordable foods.
- Hypertension: Undiagnosed and/or untreated high blood pressure resulting in strokes, heart disease and with diabetes, dialysis, and renal hypertension.

Barriers that make it hard for community members to stay healthy:

- Access to primary care providers: Securing a primary care provider is a challenge for residents in Pender County, for residents on the west side of the county. Residents living in the Hampstead area have access to more services.
- Affordable Housing: Securing affordable quality housing is a challenge for individuals in the area.
- Transportation: There is a significant lack of reliable transportation services in the county. The current transportation system is designed for the elderly population and 's not accessible to the public.
- Limited Services: Residents in rural areas of the county have fewer services compared to urban areas. Due to the rural nature of the area, residents are required to travel extensively to access services.

COVID-19 Impact:

- During the COVID-19 pandemic, Cape Fear Healthnet was closed for almost one year, enrollment dropped by 25% as it was done by mail.
- No community outreach was possible during COVID-19.

Ideas to reduce barriers:

- Utilize Community Health Workers (CHWs) as enrollment navigators.
- Working on developing an online portal for an electronic filing to be rolled out in December 2022.

What can Novant Health Pender Medical Center do:

- 1) Help promote use of Cape Fear Healthnet and their Community Health Workers to enroll eligible Pender County residents
- 2) Work to promote the online portal for electronic filing.

Rakhee Patel  
Regional Director of Adult Services  
Coastal Horizons  
Thursday, July 28, 2022

She provides oversight of adult services offered by Coastal Horizons in Burgaw and Rocky Point.

Health issues:

- Substance Use: There is an increase in substance use, particularly opioid use. With the COVID-19 pandemic, alcohol use increased. The utilization of prescription medication has also escalated in the area.
- Mental Health: Reported cases of depression and anxiety have exponentially grown during the pandemic.

Barriers that make it hard for community members to stay healthy:

- Transportation: The existing public transportation system is limited in reach and service. It is reported that the current system is designed for the senior community. It is not a system designed for the average commuter as it tends to be inconsistent.
- Housing: Affordable quality housing is limited and hard to secure. Housing is difficult, as individuals are still rebuilding after Hurricane Florence.
- Infrastructure: Access to affordable and reliable internet/technology. Affordable and reliable internet is reported by many as a barrier to accessing information and services.
- Limited resources: Individuals accessing services at Coastal Horizon report having limited transportation options, receiving a ride from a friend or family member who usually waits for them.

COVID-19 Impact:

- COVID-19 has impacted behavioral health, with an increase in depression, substance use, and suicide ideation among children and youth. Coastal Horizons works with all elementary, middle, and high schools in Pender County at completing mental health screenings.

Ideas to reduce barriers:

- All schools in Pender County have telemedicine equipment, it would be great if mental health services could be provided to children and youth in schools.

What can Novant Health Pender Medical Center do:

- Continue the current relationship with Novant Health Pender Medical Center for urgent immediate treatment.

Judith Bullard  
Woodbury Wellness in Hampstead  
Monday, August 1, 2022

This is her first time participating in a Community Health Needs Assessment. She is a long-term administrator at Woodbury Wellness located in the Hampstead area of Pender County. Woodbury Wellness Center is an organization with a 200-bed campus that offers short and long-term care.

Health issues:

- Mental Health: Depression and anxiety are the top mental health needs.
- Obesity & Diabetes: Lack of access to healthy foods and education plays a role in the current obesity crisis. Fast food places play a significant role in the increasing cases of diabetes and obesity.
- Substance Use: Increased rates of opioid and prescription drug abuse.

Barriers that make it hard for community members to stay healthy:

- Access to Healthcare: Residents in the Hampstead area have more services compared to the rest of the County. Those services are still limited, however, when compared to other parts of the State. Primary and specialty care is in growing need, particularly specialists that serve the aging-in-place community.
- Low Income/ Financial Capabilities: Low-income individuals cannot afford to live in the areas they work.
- Transportation: Pender County does not have public transportation covering the entire County. The existing public transportation system is available to the senior population by appointment only. Individuals outside of the senior community struggle to access reliable transportation.

COVID-19 Impact:

- Isolation due to the pandemic led to mental health and substance use issues.
- The pandemic has changed the community's perspective regarding rules and social norms.
- COVID-19 led to significant staffing challenges in all industries resulting in businesses closing.

Ideas to reduce barriers:

- Explore the possibility of a potential partnership with existing organizations that can assist in providing transportation to providers (primary or specialty care) outside of the Novant system.

What can Novant Health Pender Medical Center do:

- Specialty Care: Novant Health Pender Medical Center could use 'circuit riding' specialists to provide specialty clinics on given days/week or month.
- Transportation: Novant Health Pender Medical Center could potentially partner with other local/regional businesses to enhance the transportation system for health care (physical, mental and substance use) services.

Jordyn Appel-Hughes  
Executive Director  
Feast Down East  
Wednesday, August 3, 2022

Jordyn is the Executive Director of a not-for-profit organization in Burgaw, NC. Feast Down East works with 30 different farmers to sell their products wholesale. They work with local farmers to supply farm-to-table restaurants. In addition, they have a mobile farming option.

Health issues:

- Diabetes: Pender County is the 5<sup>th</sup> largest County geographically in North Carolina making food access to quality food difficult for individuals to secure. Not having safe drinking water leads individuals to consume larger amounts of soft drinks or high-sugar drinks.
- Cancer: Screenings decreased during the pandemic.
- Thyroid Problems

Barriers that make it hard for community members to stay healthy:

- Transportation: Individuals seeking food access must travel long distances to get healthy foods. Individuals without a private car, rely on others for transportation.
- Shelter: There is no safe shelter available where individuals can go during a hurricane. Since Hurricane Florence, a lot of residents are living in homes with mold.
- Technology
- Income: Individuals
- Access to Physicians: Individuals living in the Hampstead area of the county have better access to physicians compared to residents on the west side of the county.

COVID-19 Impact:

- COVID-19 has impacted all community members, with low-income individuals most affected. With no or limited public transportation, it was difficult for individuals to access healthy foods.
- Due to COVID-19 social distancing guidelines, Farmer's Markets were closed, and grocery stores had limited inventory.

Ideas to reduce barriers:

- Create a food prescription program to address food insecurity.
- Allow for food stamps to be used at Farmer's Markets.

What can Novant Pender Medical Center do:

- Create a food prescription program at Novant Health Pender Medical Center in concert with North Carolina Medicaid.

Lisa Robinson, Executive Director, and Anthony Thomas Program Manager/ CHW Supervisor  
Mt. Calvary Center for Leadership Development  
Wednesday, August 3, 2022

**Description of Mt. Cavalry services:** Cover nine (9) counties in North Carolina including Healthy Opportunities and a Pallet Program, using Community Health Workers.

**Needs in this rural area:**

- 1) Isolation exacerbated during COVID, depression, mental health issues with underlying health conditions
- 2) High rates of hypertension and diabetes mellitus (Type II)
- 3) Food insecurity – Mt. Cavalry makes referrals to local food banks. Mt. Cavalry has holiday related food drives and there are long wait lines with food running out within minutes. Elderly often don't qualify financially for food but need help.
- 4) Transportation and lack of it is critical in this rural area.
- 5) Affordable, safe, and adequate housing especially for the disabled/handicapped at risk of falls.
  - a. Not much rental property or housing stock available, not safe if they can afford it.
- 6) Lack of education about health/health literacy is an issue – Community Health Workers fill an important role of outreach as trusted advisor in these communities. CHWs staff a community help desk and conduct outreach in neighborhoods and at Walmart and Food Lion to provide information on resources. Their major focus is with minorities and the elderly.
  - a. Belief that diabetes, hypertension or cardiac issues are generational inheritance, not diseases or conditions that can be prevented with proper diet/exercise.
  - b. Need for preventive screening especially via a mobile van. They already provide diabetes, and hypertension screening (healthy eating, exercise, nutrition if at cardiac risk). For youth, they try to promote activities so that they are physically fit and safe, help residents access screenings for cancer –both mammograms and dermatology/ skin checks.
  - c. Dire need for dental health.
  - d. Mental health through telehealth is difficult due to broadband issues, often use Town Halls to reach residents.
  - e. CHWs partners with local organizations, assess needs, provide activities for youth, help with vocational training, employment, and recreation.
  - f. Specifically guide clients discharged from the hospital that are homeless or live in unsafe situations (mold, disabled) with transportation and housing.
- 7) Access
  - a. Need information on Medicaid and Managed Medicaid, also information for seniors on Medicare coverage.
  - b. How to select a plan, and awareness that they are auto enrolled if they don't select.

What can Novant Health Pender Medical Center do:

- Residents and Providers want to hear back on the results of this survey. Mt. Cavalry would be happy to host a Town Hall to hear findings, recommendations, and Novant Health Pender Medical Center plans.

Dawn Ellis  
Executive Director  
Share the Table  
Thursday, August 4, 2022

Share the Table is a Food Pantry located in North Hamstead. They provide food assistance to anyone in Pender County who needs food. They focus their efforts on ensuring that individuals receive as much fresh food as possible. Share the Table is part of the Pender County Food Coalition.

Health issues:

- Diabetes
- Heart Disease

Barriers that make it hard for community members to stay healthy:

- Access to healthy foods: Low-income individuals struggle to afford healthy food.
- Affordable housing: Low-income individuals report having multiple families per household.
- Transportation: Individuals who seek services usually travel in groups.
- Navigating the Health System: At the food pantry, individuals who seek services reported that navigating the healthcare system is frustrating due to the cost to access services. She believes that individuals use the emergency room as a source of routine primary care services.

COVID-19 Impact:

- Share the Table saw an increase of almost 50% in people seeking food assistance.
- Due to the pandemic and the social distancing guidelines, services were canceled for a limited time, and they had to change their service delivery model to meet the community's needs.

Ideas to reduce barriers:

- A new larger and more efficient food distribution center. They are in the middle of a fundraising campaign to raise money for a new building.

What can Novant Health Pender Medical Center do:

- Consider integrating the Food Pantry with diabetes prevention programs.

Dr. Edelmira Segovia  
Director of Centro Hispano/Latino Alliance  
University of North Carolina Wilmington  
Monday, August 8, 2022

Centro Hispano/ Latino Alliance is a large network of organizations that work together to address inequalities in Pender County.

Health issues:

- Increased drug use, especially opioids in the mid-20 age group leading to overdose deaths.

Barriers that make it hard for community members to stay healthy:

- Transportation: Lack of reliable transportation is an issue that affects women, particularly the undocumented community.
- Access to Affordable Healthcare: They have a lot of uninsured & undocumented individuals living in the area. With the increase of migrant workers, they don't have access to preventative care. There's a gap between culturally literate and bilingual providers.
- Housing: Securing affordable quality housing is an issue for a large portion of the Hispanic population, in particular the migrant workers who are transient members of the community.
- Food Deserts: Pender County is the 5<sup>th</sup> largest county in North Carolina, due to its size and rural nature, they are large areas that don't have access to a grocery store.
- Low Income: A lot of the undocumented community live in a low-income household.

COVID-19 Impact:

- The COVID-19 pandemic disproportionately impacted the Hispanic community living in Pender County.
- A lot of the Hispanic community work in areas where they were considered "Essential Employees" leading to a larger number of infections.
- Hispanic community members reported struggling to get access to COVID-19 vaccinations. They reported receiving information regarding available vaccinations once all vaccines had been given out.
- Information provided to the Spanish-speaking community was left with gaps in information and significant questions.

Ideas to reduce barriers:

- Utilize Facebook live to provide education and disseminate information to the community in English and Spanish to try and eliminate disinformation.

What can Novant Health Pender Medical Center do:

- El Centro Hispano/ Latino alliance has a great working relationship with Novant Health Pender Medical Center, and they would like for this to continue.
- They would like to see more individuals working at Novant Health Pender Medical Center who speak Spanish.

Emily Baker  
Burgaw Chamber of Commerce  
Wednesday, August 24, 2022

Ms. Baker is the Executive Director for the Burgaw Chamber of Commerce. She expressed that Pender County is the 5<sup>th</sup> largest county in North Carolina with a growing elderly population.

Health issues:

- Cancer: Increase in cancer among the elder community.
- Heart Disease: Affecting aging population the most, individuals must travel outside Pender County to access a specialist.

Barriers that make it hard for community members to stay healthy:

- Insurance: Elder community members are on a fixed income and unable to afford supplemental insurance.
- Travel: Due to the rural nature of the county, individuals must travel long distances to access services.
- Knowledge: Accessibility of information is difficult for individuals who are unable to travel. Affordable and reliable internet is a challenge in rural areas, plus use of technology is challenging for individuals to learn and utilize.
- Information Dissemination: With most information available online, individuals with limited to no internet access find themselves without the ability to secure information.
- Primary Care: There are not enough healthcare providers in the area that focus on the aging population. Individuals who are aging in place require more healthcare, however they don't know how to navigate the healthcare system. Migrant workers also have issues securing access to primary care providers.
- Specialty Care: Individuals seeking specialty care must travel to Wilmington or other parts of the State to access services.

COVID-19 Impact:

- Due to the isolation created by the pandemic, individuals were hesitant to get vaccinated. This was due to the lack of accessible information and transportation.
- Isolation increases mental health problems depression and anxiety. It led to further problems of alienation and isolation.

Ideas to reduce barriers:

- Having a mobile van that can be utilized for x-rays and other ancillary medical services would increase access.

What can Novant Health Pender Medical Center do:

- Expand utilization of X-Ray, Laboratory and diagnostic services including expanding Mammography capability in the area.
- Consider using a mobile van to increase screening, defray use of the ED for routine care.



Cynthia Avery  
Pender School District  
Friday, August 26, 2022

She is the lead nurse for the Pender School District, she is responsible for developing procedures, staff, and other school nurses.

Health issues:

- Mental Health: Suicidal ideation numbers among kids has increased to the level that it can require hospitalization.
- Vaping & Smoking: Vaping has increased among the youth population.
- Nutrition: Stores have limited options for healthy foods.
- Overweight/ Obesity: This might stem from poor quality food due to unhealthy nutrition.

Barriers that make it hard for community members to stay healthy:

- Literacy & Health Literacy: need to increase resident education and specifically, health education.
- Transportation: This is a significant issue affecting individuals throughout the County, impacting availability to access services.
- Internet accessibility: Affordable and reliable internet is a barrier to accessing accurate information. Residents have limited cell phone or internet access in rural areas.
- Food Options: Accessing affordable healthy foods is a challenge for individuals in rural parts of the County.

COVID-19 Impact:

- Being at home negatively affected the ability to learn, it has set back children who benefit from a classroom setting who had previously progressed.
- Children entering Pre-K or elementary schools have been negatively affected by the isolation created by the pandemic and struggle relating to others.

Ideas to reduce barriers:

- Telemedicine: All schools in Pender County are equipped with telehealth equipment, she would like to see them utilized for Mental Health Services.
- Possibly utilize the telemedicine equipment available in all schools to access primary care services and potentially, specialty care.

What can Novant Health Pender Medical Center do:

- Would like assistance with specialized services, for kids with autism or behavioral issues.
- Potential partnership with schools to deliver mental health and specialty care via telemedicine.

Ruth Glaser  
President and CEO of Novant Health Pender Medical Center  
Friday, August 26, 2022

She is the President and CEO of Novant Health Pender Medical Center. She expressed that the hospital and its staff go above and beyond to serve the community. She provided an example of herself dropping off a portable oxygen tank to a community member in need. Novant Health Pender Medical Center is active in the community, participating in health fairs, partnering with community-based organizations to expand services, and recently entering a partnership with a local Federally Qualified Health Center to develop a Rural Family Medicine Residency Program.

Health issues:

- Diabetes: Accessing healthy foods is a challenge for residents living in the most rural parts of the county.
- Chronic Obstructive Pulmonary Disease (COPD): is a significant disease type that should be preventable.
- Mental Health: There is a significant need for mental health services, but there are not enough professionals to provide services.
- Substance Use: There is limited access to substance use services in the area.

Barriers that make it hard for community members to stay healthy:

- Transportation: Pender County is large in land mass and diverse in population and services. The existing public transportation service is mostly available for the elder population when accessing services. It is by appointment only and has limited hours of operation. Residents living in rural parts of the County are adversely impacted by this gap.
- Access to Primary Care services: There are not enough primary care services. NHPEMC is working with a local Federally Qualified Health Center to expand primary care services.
- Deliveries: Novant Health Pender Medical Center delivers around 5 babies per year. They normally stabilize patients and transfer them to Novant Health New Hanover.

COVID-19 Impact:

- Novant Health Pender Medical Center had to significantly reduce surgical schedules to follow COVID regulations.
- The hospital itself was not affected like other facilities, they did a good job at planning and triaging individuals in the Emergency Department.

Ideas to reduce barriers:

- New Family Medicine residency program with the Black River Health Services Federally Qualified Health Center.
- Wish list: Availability of Cardiology, Pulmonary, and Infectious Disease specialists, if only for certain days per week or month.

Dr. Steven Hill/ Beth Gardner/ Kevin Taylor  
Pender County Public Schools  
Tuesday, August 30, 2022

They have 19 schools, 26 counselors, and 7 social workers dedicated to serving 11,142 students from Pre-K programs through High School. They describe Pender County as two counties in one.

Health issues:

- Mental Health: There has been an increase in mental health disorders presented among youth. Depression and anxiety are most reported as issues with alarming increases.
- Obesity – significant increases in even younger age groups impacted by COVID-19
- Diabetes

Barriers that make it hard for community members to stay healthy:

- Access to healthcare: specifically request more options for primary care and screening.
- Transportation: School buses provide transportation to schools. When individuals need to get to other place, however, there are no reliable public transportation services.
- Knowledge: This refers to knowledge about available services and provides. They expressed that parents do not have centralized options to access information.
- Lack of urgency: belief that some diseases or risk factors are unavoidable (i.e., diabetes, hypertension).

COVID-19 Impact:

- The COVID-19 pandemic has set children behind intellectually.
- Misinformation played a big role in preventing the safe return of children back to school.
- During the pandemic, not all students had reliable internet and technology to access school curriculum/classes.

Ideas to reduce barriers:

- Telemedicine: All schools in Pender County schools have telemedicine equipment available to students and staff. This could be a potential way to expand primary care services.
- Working with the school nurse to identify problems before they become more significant ones.
- Provide Health Education to parents regarding nutrition, exercise, and healthy foods.

What can Novant Health Pender Medical Center do:

- They have a limited working relationship with the hospital.
- They would like to partner with Novant Health Pender Medical Center to develop the following:
  - A staff wellness program.
  - A Nursing education program for hospital nurses to work with school nurses.
  - More mobile screening to increase the prevention of chronic disease and elevate education.

Caroline Morin  
Executive Director  
LGBTQ Cape Fear Coast  
Wednesday, August 31, 2022

Caroline Morin is the Executive Director of the LGBTQ Center of the Cape Fear Coast. She is responsible for covering an 11-county region including Pender County. HIV+ infections among the LGBTQ community in Pender County are among the highest in the nation with no treatment centers available. Individuals living with HIV/AIDS must travel to Wilmington for services.

Health issues:

- Access to affirmative care: Transgender individuals seeking services must travel outside of the County for services. There is a waitlist for individuals seeking hormone/ gender reassignment therapy in the area.
- HIV/AIDS: There are no Infectious Disease providers in Pender County, individuals seeking HIV/AIDS treatment travel to Wilmington for services.

Barriers that make it hard for community members to stay healthy:

- Housing: Due to discrimination, affordable housing is difficult for the LGBTQ community to secure, with the most disparity for transgender individuals.
- Transportation: The County does not have a reliable public transportation system, with disproportionate impact due to the requirement to travel to Wilmington for services.
- No Treatment Centers: There are no treatment centers in Pender County, even for outpatient care.

COVID-19 Impact:

- Struggle with isolation: The COVID-19 social distancing regulations made an already isolated community feel even more isolated.
- Struggle with identity: During the pandemic, individuals did not have the ability to congregate or have a support network.

Ideas to reduce barriers:

- Physician education
- Offer Infectious Disease services at Novant Health Pender County Medical Center.

What can Novant Health Pender Medical Center do:

- Collaborate with ID providers in Wilmington to offer services in Pender County at least once per month.

Wes Davis  
Executive Director  
Pender Adult Services  
Monday, September 26, 2022

Pender Adult Services is an agency dedicated to the needs of the aging population. They have Meals On Wheels program. They offer a wellness program for the aging-in-place community, providing counseling and a medication assistance program.

Health issues/ Areas of need:

- Stable funding has been an issue for Meals On Wheels.
- Behavioral Health: Anxiety is the primary diagnoses with no mental health provider to provide services.

Barriers that make it hard for community members to stay healthy:

- Transportation: No public transportation services available for the general community. Residents living on the western side of the county are more vulnerable compared to the rest of the community.

COVID-19 Impact:

- Services were discontinued during the pandemic leaving the vulnerable population without services.

Ideas to reduce barriers:

- Transportation: He would like for transportation services to be expanded for residents living on the western side of the county.

What can Novant Health Pender Medical Center do:

- Improve the facility to accommodate a rapidly aging population
- Expand the network of specialty care physicians from Wilmington to Pender County.
- Expand surgical facilities

Cynthia Faulkner  
Chief of Nursing  
Novant Health Pender Medical Center  
Monday, October 3, 2022

She is the Chief Nursing Officer at Pender Hospital. She expressed how important the hospital is to the community and how much residents rely on Novant Health Pender Medical Center for services including emergency services.

Health issues/ Community Needs:

- COPD (Chronic Obstructive Pulmonary Disease)
- Diabetes
- Pulmonary & Cardiac Rehabilitation
- Limited Specialist availability

Barriers that make it hard for community members to stay healthy:

- Transportation: Lack of reliable transportation
- Housing: There are a lot of Pender County residents still recuperating from Hurricane Florence living in mold-infested houses. There are not enough housing options for middle- and low-income individuals and families.

COVID-19 Impact:

- Around 20% of Novant Health Pender Medical Center employees filed for an anti-vaccine medical extension indicating vaccine resistance.

Ideas to reduce barriers:

- Novant Health Pender Medical Center has a social worker available to work with the schools to assist with connecting disconnected youth to services.

What can Novant Pender Medical Center do:

- Add surgical services
- Pulmonary Rehabilitation
- Specialty Care

Jim Hock  
Chief of Police  
Tuesday, October 4, 2022

Each year they lose support from the County, State, and Federal government despite a persistent increase in mental health-related calls. They see 4 to 5 psychiatric calls requiring a mental health specialist. They have a mobile crisis unit that is stretched thin. The police department relies on Novant Health Pender Medical Center for involuntary commitments, where they can stabilize patients and transfer them to Novant Health New Hanover Medical Center.

Health issues:

- Mental Health: Depression
- Substance Abuse: Alcohol, opioids. The County has a significant problem with opioid overdoses.

Barriers that make it hard for community members to stay healthy:

- Pender Emergency room does not have a specific behavioral health unit or provide on-call providers that can complete mental health or substance use assessments.
- All inpatient treatment facilities are in Wilmington.
- There are no homeless shelters available in the area. Homeless individuals must travel to Wilmington and struggle when accessing a shelter due to not having a state ID or if they have a history of violence.

COVID-19 Impact:

- During the pandemic they saw an increase in domestic violence cases. Increases also occurred in alcohol consumption and related issues.

Ideas to reduce barriers:

- More "Narcan" need to be available to treat opioid overdoses in the field. All officers are given two Narcan to have available.

What can Novant Pender Medical Center do:

- One of the things that he would love to see is for Novant Health to hire and have its own police staff.
- Assistance to facilitate involuntary commitments around 2:00 or 3:00 am.

Heather Davis  
Inpatient Hospitalist  
Novant Health Pender Medical Center  
Wednesday, October 5, 2022

Ms. Davis is the Chief Medical Director for Pender Hospital. She is a faculty member in Family Medicine rotating at Pender Hospital. She discussed a shift in the population where younger families are moving to the area, with a related need for pediatric and OB/GYN services.

Health issues:

- Chronic Disease – Moderate to Severe: Getting resources is a challenge.
- Access to Primary Care services: There are not enough primary care services in the area, individuals report using the Emergency Department for routine, urgent care due to the lack of primary care.
- Mental Health: Depression and anxiety has been reported, during the COVID pandemic

Barriers that make it hard for community members to stay healthy:

- Not enough access to resources for nutrition or substance use.
  - Access to Healthy Foods
- Technology: Need to enhance telemedicine.
- Infrastructure: Reliable and affordable internet/ cellphone service.
- Transportation: No public transportation services are available in the county. The existing transportation services are designed for the elder community.

COVID-19 Impact:

- The Emergency Department was overwhelmed with COVID-19 cases—both for testing and treatment.

Ideas to reduce barriers:

- Would like to see telehealth used for telepsychiatry.

What can Novant Health Pender Medical Center do:

- She would like to see an extension of services from other Novant Hospitals in:
  - Pediatric Care
  - OB/GYN – Prenatal care
  - Psychiatry
  - Specialty Care



Velva Jenkins  
CEO  
YWCA – Lower Cape Fear  
Wednesday, October 5, 2022

Ms. Jenkins is the CEO of the YWCA in Lower Cape Fear. They provide services to underserved communities, in particular women of color. They work with residents in the community who are unemployed, single parents, and people who suffer from domestic violence. They provide workforce development and job-seeking skills. Novant Health Pender Medical Center is a community partner, supplying health education to the community.

Health issues:

- OB/GYN Service: There are limited OB/GYN providers in Pender County overall, with a disparity for women of color.
- Mental Health: There has been an increase in the number of older individuals seeking mental health services.

Barriers that make it hard for community members to stay healthy:

- Funding: There's not enough funding available to expand services in general.
- Transportation: Existing transportation services are limited in scope and service. They are not available to the public. Residents living in the west side of the county have the most health inequities.
- Housing: People are still recuperating from Hurricane Florence and are living in homes with low quality standards.
- Economic Development: Due to unemployment, people put off going to the doctor.

COVID-19 Impact:

- Women who suffer from domestic violence were forced to live with their abuser without having a place to seek refuge.

Ideas to reduce barriers:

- Medical Case Management: Offering medical case management at a women's domestic shelter.

What can Novant Health Pender Medical Center do:

- Would like for Novant to take a bigger role in addressing access to care for Pender County.
- Would like case management or social workers to work with grandparents raising grandchildren.



**Novant Health Pender Medical Center**  
Focus Group Themes

Novant Health Pender Medical Center conducted this focus group, facilitated by Kulik Strategic Advisers, Inc. (dba KSA) as part of their 2022-2024 Community Health Needs Assessment.

Coastal Horizons  
August 11, 2022  
Burgaw, NC

9 total participants (2 females & 7 males)

Pender County residents rely on services in New Hanover County. Pender County is described as two counties in one, residents in the east side of the county having more resources in terms of money and opportunities compared to residents in the west side of the county who have fewer resources and lower incomes.

- **Transportation**
  - There is no public transportation system available to individuals without a vehicle.
  - The existing public transportation system is for the elderly community, and it is by appointment only to pick and drop off individuals to medical appointments.
  - An individual provided an example of having to walk from downtown Wilmington to Burgaw for almost three days after being denied access to a homeless shelter.
  
- **Housing**
  - Lots of abandoned properties are in Pender County after Hurricane Florence.
  - Securing affordable housing is a challenge, with limited housing opportunities available and existing housing stock that is inadequate and expensive.
  - An individual reported that the Pender County Housing Authority has a waiting list of almost two years.
  - There is no homeless shelter in Pender County. Individuals seeking shelter must travel to Wilmington to get a bed. When asked where a good place for a shelter would be, individuals reported that Rocky Point would be good as it is centrally located.
  
- **Access to healthcare**
  - There is limited access to primary care providers in the area, especially for residents living in the west side of the county.
  - A few individuals stated that they use the Emergency Department at Novant Health Pender Medical Center and receive great care. Others reported going directly to New Hanover versus waiting to be transferred by the hospital.
  - No labor and delivery services exist at Novant Pender Medical Center, they are stabilized and transferred to Novant Health New Hanover Regional Hospital.
  - Very limited access exists to Mental Health professionals, for individuals dealing with grief due to the loss of a family member.
  
- **Food: Lack of health food options, need for education about prevention of overweight, obesity and diabetes and its health risk.**
  - Grocery stores are far and difficult to get to for individuals with limited transportation. Individuals living in rural parts of the county must travel over 10 miles to the nearest grocery store.