



Novant Health Brunswick Medical Center

Community Benefit Implementation Plan

Brunswick County, North Carolina

2022-2024

Approved by the Novant Health Brunswick Medical Center Board of Directors on December 6, 2022

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I. Introduction

Novant Health Brunswick Medical Center (NHBMC), in partnership with Brunswick County Health Department and Kulik Strategic Advisers, Inc. (dba KSA), conducted a community health needs assessment in 2022 to identify the most pressing health needs in our community. Novant Health Brunswick Medical Center will enhance the community's health by offering health and wellness programming, clinical services, and financial support in response to the specific health needs identified.

a) Organization 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 Brunswick Medical Center (NHBMC) is a 74-bed hospital offering a wide range of services in emergency, medical, surgical, imaging, rehabilitative, and maternity.

b) Our Community

Primary and Secondary Service Areas

The Primary Service Area (PSA) for Novant Health Brunswick Medical Center is defined by the zip codes that represent at least 75% of the hospital’s in-patient population as outlined below:

Zip Code	City	County
28462	Supply	BRUNSWICK
28470	Shalotte	BRUNSWICK
28461	Southport	BRUNSWICK
28422	Bolivia	BRUNSWICK
28469	Ocean Isle Beach	BRUNSWICK
28451	Leland	BRUNSWICK
28467	Calabash	BRUNSWICK
28465	Oak Island	BRUNSWICK

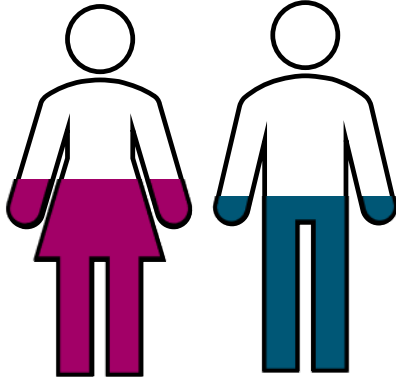
Brunswick County, NHBMC’s primary service area and defined community, includes the county seat of Bolivia.

NHBMC’s Primary Service Area (PSA) includes the cities of Bolivia, Leland, Shalotte, Southport, Supply, Calabash, Oak Island, and Ocean Isle Beach, which are all located in Brunswick County. 77% of patients reside in the PSA of Brunswick County and 90% of patients reside in the Primary and Secondary Service Areas of Brunswick County. Most patients reside in Brunswick County, it represents the highest population of potentially underserved, low-income, and minority individuals. Therefore, Brunswick County will be the focus of demographic, health, and social indicators.

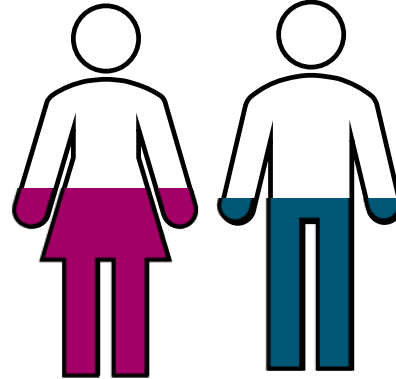
The Secondary Service Area for Novant Health Brunswick Medical Center includes Brunswick, Columbus, New Hanover, and Horry Counties.

Brunswick County Population: Demographics

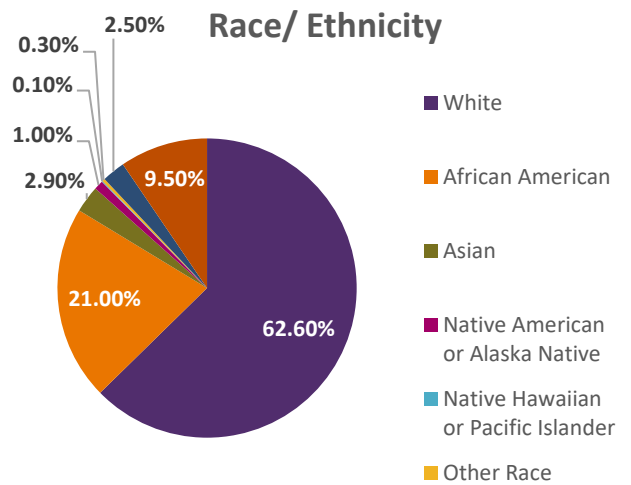
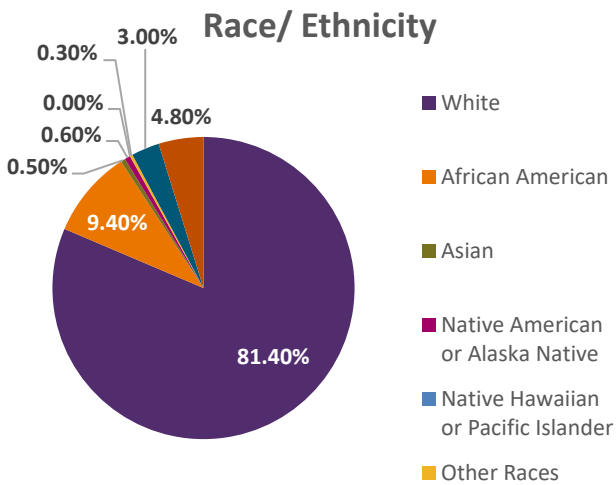
Brunswick County has a population of 144,215 (in 2020) compared to the total North Carolina population of 10,551,162.

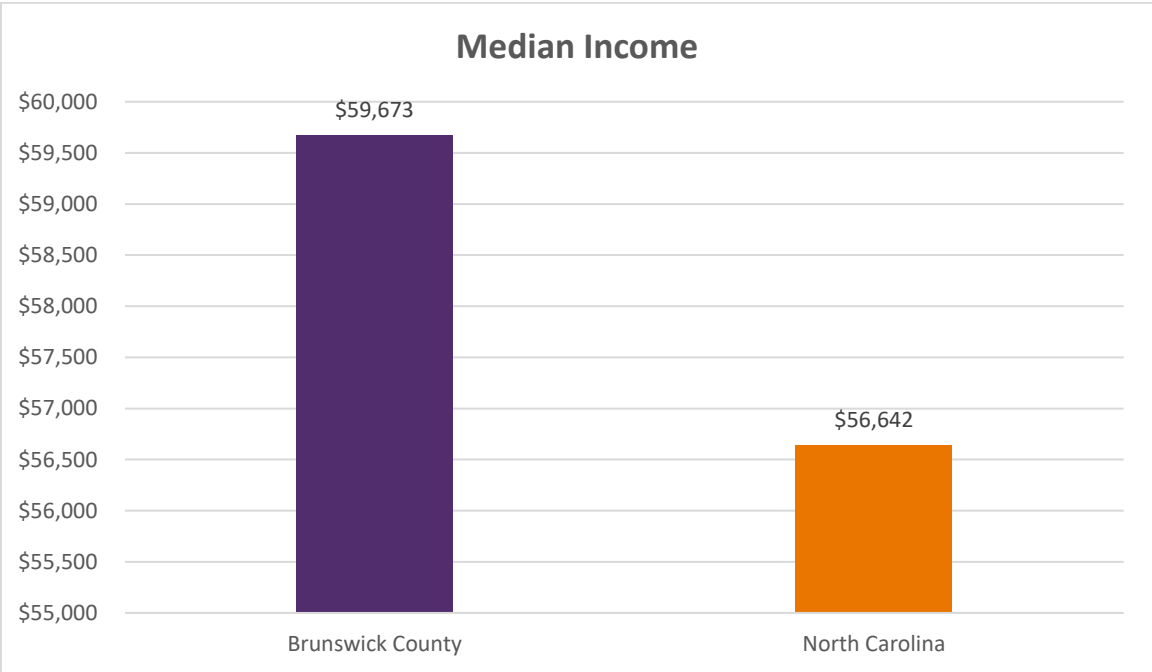
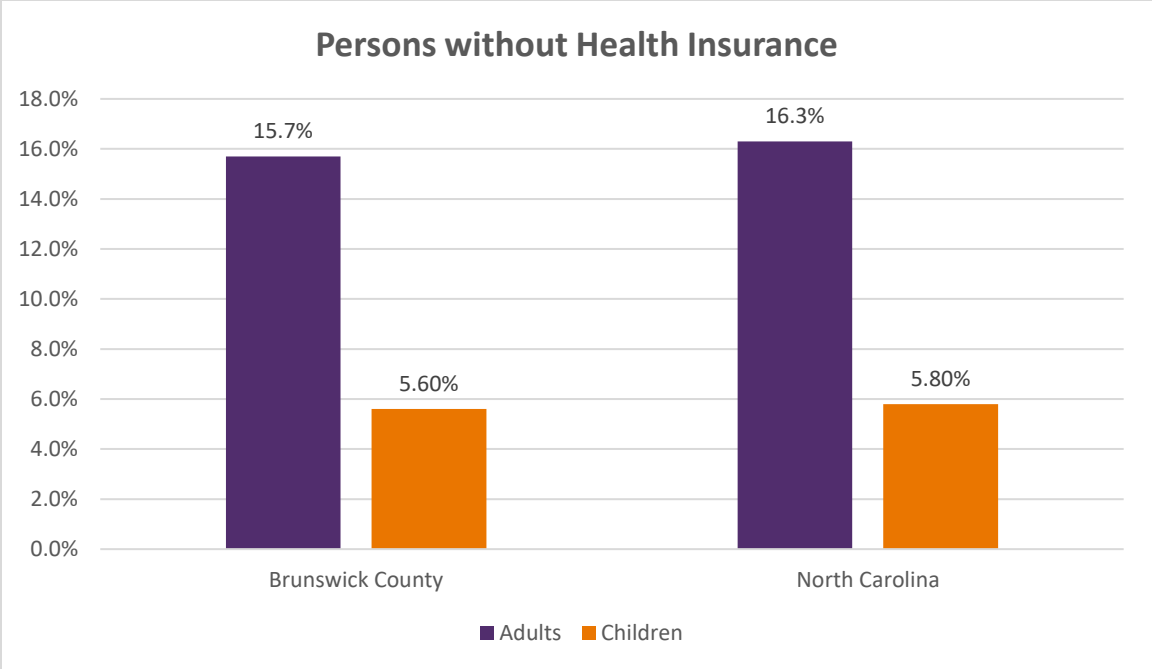


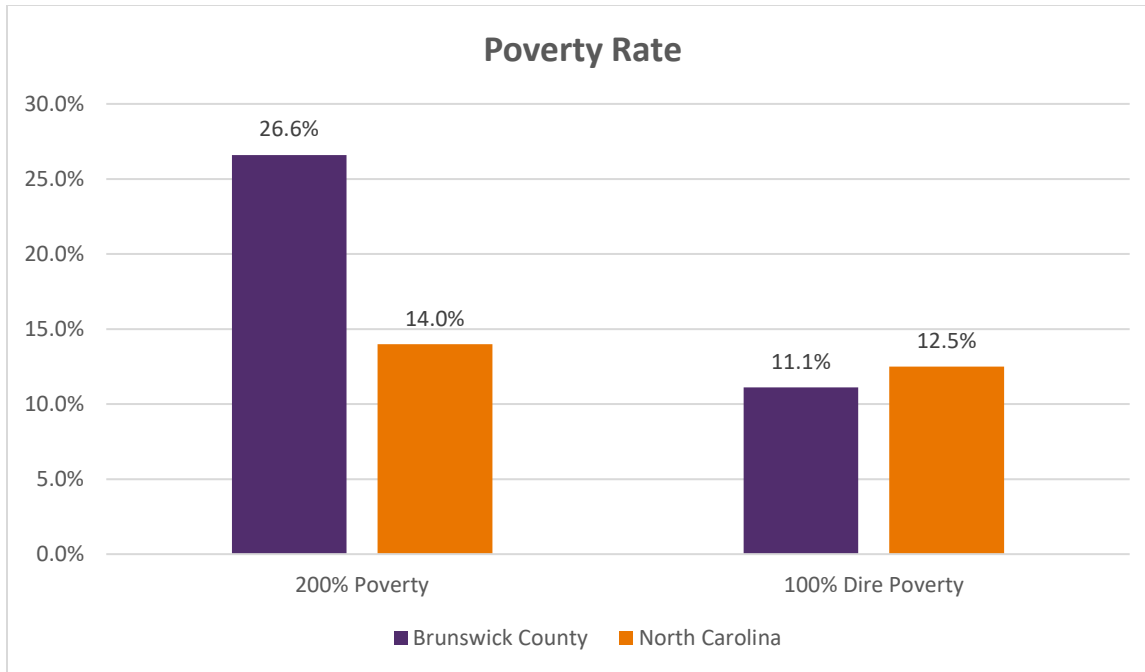
Brunswick County
Female – 52.0%
Male – 48%



North Carolina
Female – 51.4%
Male – 48.65%



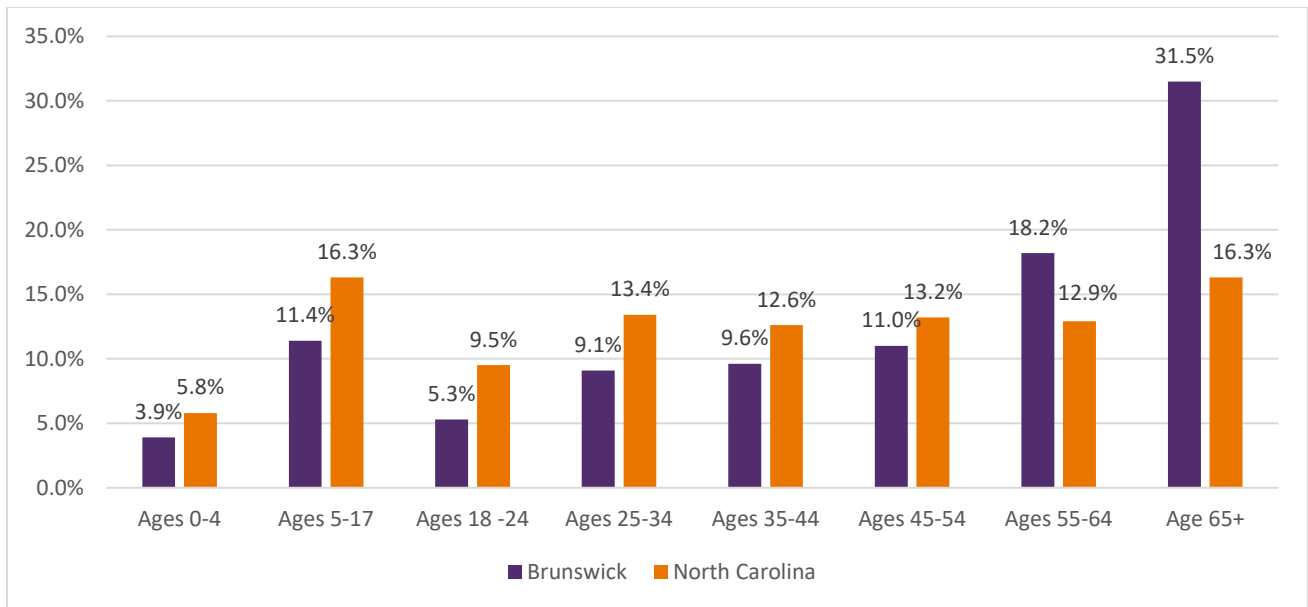




Educational attainment:

- Almost one-third (29.4%) of Brunswick County’s population holds a bachelor’s degree or higher compared to 34.9% in North Carolina. The distinction by educational attainment in Brunswick County is:
 - High School degree or equivalent – 29.1%
 - Some College, no degree – 21.9%
 - Associate’s degree – 11.6%
 - Bachelor’s degree – 18.9%
 - Graduate degree – 10.5%

Age mix:



A notable feature of Brunswick County is the higher age group representation. Almost 45% (44.8%) of the population is 60 years and above, a statistic that continues with significant in-migration of retirees to this coastal County. Between 2017 and 2018, North Carolina grew by nearly 87,000 new residents from net in-migration from other states and countries. Most people moving to North Carolina in 2017 moved here from elsewhere within the United States: 314,000 or 85% of all in-migrants to North Carolina. The top states were Florida (32K), Virginia (29K), South Carolina (29K), New York (29K), and California (20K). Brunswick County (6.6K) had the third largest population gains from net migration in 2017 of any North Carolina County, after Wake and Mecklenburg. While Brunswick is technically part of the Myrtle Beach metropolitan area—and borders on New Hanover County (Wilmington)—most of its growth is from its appeal as a retirement destination, not from suburban spillover. This influx displaced many local residents, particularly along coastal boundaries. This growth brings with it dramatic aging of the overall population, with many of new residents lacking family or social support. The social isolation manifest in loneliness, alcohol use, and a higher burden of chronic disease. This places a strain on the local healthcare systems related to chronic disease and behavioral health. As these retirees further age, the female fraction increases, and the potential dependence on social supports increases.

DEMOGRAPHICS	TOTAL #	TOTAL %
Age		
Under 5 years	4,940	3.4%
5-9 years	5,867	4.1%
10-14 years	5,478	3.8%
15-19 years	4,861	3.4%
20-24 years	7,668	5.3%
25-29 years	5,529	3.8%
30-34 years	6,261	4.3%
35-40 years	7,421	5.1%
40-44 years	6,146	4.3%
45-49 years	6,318	4.4%
50-54 years	9,324	6.5%
55-59 years	9,772	6.8%
60-64 years	15,695	10.9%
65+	48,935	33.9%
Gender		
Male	68,790	47.7%
Female	75,425	52.3%
Race/Ethnicity		
White	118,256	82%
Black	14,422	10%
Asian Pacific	1,154	0.8%
Native American	1,154	0.8%
Multi-Race	2,596	1.8%
Hispanic	7,067	4.9%
Poverty Level	16,152	11.2%
Language other than English	7,067	4.9%
Uninsured	19,469	13.5%
Township		
Lockwood Folly	35,018	24%
Northwest	16,014	11%
Shallotte	33,250	23%
Smithville	16,019	11%
Town Creek	40,215	28%
Waccamaw	3,699	3%
TOTAL	144,215	100%

Brunswick County Population: Health Indicators

Brunswick 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.

TYPE	#	Rate- 2019	# 2015-2019	Rate/100,000	Age-Adjusted
CANCER	379	265.4	1,820	276.1	149.0
HEART DISEASE	339	237.4	1,618	245.5	146.7
CANCER-TRACHEA/BRONCHUS	102	71.4	550	83.5	42.0
CHRONIC LOWER RESPIRATORY DISEASE	93	65.1	476	72.2	40.4
CEREBROVASCULAR DISEASE	93	65.1	440	66.8	39.4
UNINTENTIONAL INJURY OR ACCIDENT	69	48.3	325	49.3	50.8
ALZHEIMER'S DISEASE	60	42.0	243	36.9	24.0
DIABETES	55	38.5	197	29.9	18.1
POISONING	47	32.6	211	40.6	
DRUG OVERDOSE DEATHS	44	24.3			
CANCER-ANUS	39	27.3	148	22.5	13.1
MOTOR VEHICLE ACCIDENTS	31	21.7	113	17.1	19.1
SEPTICEMIA	27	18.9	99	15.0	8.6
SUICIDE	25	17.5	93	14.1	13.7
PNEUMONIA & INFLUENZA	25	17.5	112	17.0	10.4
CANCER-BREAST	23	20.8	111	32.4	17.5
NEPHRITIS, NEPHROTIC SYNDROME AND NEPHROSIS	23	16.1	129	19.6	11.6
CANCER-PROSTATE	22	32.3	90	28.5	18.0
CHRONIC LIVER DISEASE & CIRRHOSIS	17	11.9	89	13.5	9.1
HOMICIDE	11	7.7	29	4.4	5.0
INFANT DEATHS	5	4.9	32	6.3	
ALL OTHER	92				
TOTAL	1,621	1,135.0	7,401	1,122.9	707.8

Source: [North Carolina Vital Statistics 2019 Volume 2: Leading Causes of Death \(ncdhhs.gov\)](https://www.ncdhhs.gov/vital-statistics); published January 2021 and accessed October 12, 2022.

1. Health Services: Clinical Care

Secondary Research:

Publicly available data is provided with a comparison of Brunswick County to North Carolina and the United States. Data sources and date range are listed for each indicator, with disparities by gender, age, race/ethnicity provided, where applicable. Following this overview, a primary search from the resident or *Community Health Opinion Survey (CHOS)* and qualitative data from the key informant interviews and focus groups are provided to give insight into perceptions about community health status in Brunswick County as of June – September 2022.

- **Chronic Disease**
 - **Cancer**

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

Source: State Cancer Profiles, 2014-2018

Cancer cases by type:

Cancer Incidence (new cases) by Type 2014-2018	Brunswick County, NC	Cancer incidence rate per 100,000	Cancer Incidence (new cases) by Type 2014-2018	State of 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: State Cancer Profiles, 2014-2018

- **Diabetes**

Diabetes Incidence (new cases) 2014-2018	BRUNSWICK COUNTY, NC	NORTH CAROLINA	UNITED STATES
Adults with Diagnosed Diabetes (Age 20+)	14,317	812,564	24,189,620
Age-Adjusted Diabetes Rate	8.2%	9.0%	9.0%
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

▪ Heart disease

Coronary Heart Disease (CHD) Deaths, 2016-2020	BRUNSWICK COUNTY, NC		NORTH CAROLINA		UNITED STATES	
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	
Gender Disparity, CHD	Males	Females	Males	Females	Males	Females
CHD Age-Adjusted Death Rate (per 100,000)	113.9	56.5	116.9	56.8	125.3	64.6
Race/Ethnic Disparity, CHD	White	Black	White	Black	White	Black
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

Heart Disease Medicare Fee-For-Service Beneficiaries, 2018	BRUNSWICK COUNTY, NC	NORTH CAROLINA	UNITED STATES
Medicare FFS Beneficiaries with Heart Disease	8,319	284,907	8,979,902
Heart Disease Rate	24.5%	24.5%	26.8%

Source: Centers for Medicare & Medicaid Services, CMS-Chronic Conditions Warehouse, 2018

▪ Hypertension

Hypertension Medicare Fee-For-Service Beneficiaries, 2018	BRUNSWICK COUNTY, NC	NORTH CAROLINA	UNITED STATES
Medicare FFS Beneficiaries with High Blood Pressure	21,073	697,259	19,162,770
High Blood Pressure Rate	62.1%	60.0%	57.2%

Source: Centers for Medicare & Medicaid Services, CMS-Chronic Conditions Warehouse, 2018

▪ Asthma

Asthma	BRUNSWICK 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%	
Asthma Disparity by Age	Below 65	65 years+	Below 65	65 years+	Below 65	65 years+
	7.2%	3.9%	7.6%	4.2%	7.5%	4.5%

Source: Centers for Medicare & Medicaid Services, CMS-Chronic Conditions Warehouse, 2018

- Risk Factors for Chronic Disease

- Alcohol Use

Alcohol Use (18 years+)	BRUNSWICK 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%

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

Definitions: Excessive drinking: Percentage of men who report more than two drinks per day for men 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.

- Tobacco Use

Current Tobacco Use (18 years+)	BRUNSWICK 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%

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

- Physical Inactivity

Physical Inactivity	BRUNSWICK 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%
Gender Disparity			
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%

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

- Obesity

Obesity	BRUNSWICK COUNTY, NC	NORTH CAROLINA	UNITED STATES
Adult Overweight (18+)	36.1%	41.9%	38.6%
Adult Obesity (18+)	26.0%	27.8%	22.4%
Overweight Adolescents (10-17)	13.2%	14.6%	15.1%

Obese Adolescents (10-17)	14.2%	13.4%	19.7%
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Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, 2019 & Adolescent: CDC, Division of Adolescent and School Health.

Infant Mortality

Infant Deaths	BRUNSWICK COUNTY, NC			NORTH CAROLINA			UNITED STATES		
Infant deaths (within 1 year) per 1,000 live births.	9			803			19,582		
Infant Death rate	5.4			6.9			5.6		
DISPARITY	White	Black	Hispanic	White	Black	Hispanic	White	Black	Hispanic
Infant Deaths by Race/Ethnicity	3	5	1	297	366	112	8,603	5,821	5,770
Infant Death Rate	4.1	7.0	1.4	4.8	12.8	5.8	4.5	10.6	5.0

Source: North Carolina Vital Statistics System and Centers for Disease Control, National Vital Statistics, 2014-2020.

○ Pre-Term Births

Pre-Term Births	BRUNSWICK COUNTY, NC			NORTH CAROLINA			UNITED STATES		
% Live Births born Pre-term	4.5%			10.8%			5.6%		
DISPARITY	White	Black	Hispanic	White	Black	Hispanic	White	Black	Hispanic
Pre-Term Birth % by Race/Ethnicity	4.2%	6.3%	3.7%	9.4%	14.2%	9.5%	9.2%	14.2%	9.8%

Source: North Carolina Vital Statistics System and Centers for Disease Control and Prevention, National Vital Statistics System, 2014-2020

Definition: A pre-term birth is defined as a live birth before 37 completed weeks gestation.

○ Late Entry into Prenatal Care

Late Entry into Prenatal Care	BRUNSWICK COUNTY, NC			NORTH CAROLINA			UNITED STATES		
No or Late Prenatal Care (after first Trimester)	25.6			24%			19.3		
DISPARITY	White	Black	Hispanic	White	Black	Hispanic	White	Black	Hispanic
Teen births by Race/Ethnicity	24.3	23.5	37.8	14.6	27.2	28.2	13.5	28.2	29.6

Source: <https://schs.dph.ncdhs.gov/schs/births/babybook/2021/brunswick.pdf>

○ Teen Births

Teen Births (15-19)	BRUNSWICK COUNTY, NC			NORTH CAROLINA			UNITED STATES		
Teen Birth Rate (per 1,000 live births)	25.6			20.8			19.3		
DISPARITY	White	Black	Hispanic	White	Black	Hispanic	White	Black	Hispanic
Teen births by Race/Ethnicity	24.3	23.5	37.8	14.6	27.2	28.2	13.5	28.2	29.6

Source: Centers for Disease Control and Prevention, CDC-National Vital Statistics System, 2014-2020.

○ Birth Attendants

Birth Attendants	BRUNSWICK COUNTY, NC	NORTH CAROLINA	UNITED STATES
OBGYNs/family medicine physicians/Certified Nurse	7.7	4.2	8.8

Midwives per 10,000 population			
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Sources: <https://nhealthworkforce.sirs.nc.edu>, 2019 and <https://www.cesareanrates.org/>

○ Low Birth Weight Infants

Low Birth Weight Infants	BRUNSWICK COUNTY, NC	NORTH CAROLINA	UNITED STATES
Total Live Births	7,143	836,612	26,896,859
Low Birth Weight Births	661	77,245	2,203,029
LBW Rate, Percentage	9.3%	9.2%	8.2%
DISPARITY			
Non-Hispanic White	8.8%	7.5%	6.9%
Non-Hispanic Black	13.5%	14.4%	13.6%
Hispanic	8.0%	7.3%	7.3%

Source: University of Wisconsin Population Health Initiative, County Health Rankings, 2014-2020

Source: <https://schs.dph.ncdohhs.gov/schs/births/babybook/2021/brunswick.pdf>

Definition: Infant weighed less than 2,500 grams (5 lbs, 8 ounces) at birth.

● **Risk Factors:**

MATERNAL AGE

During 2018-2020 (average) in the United States, preterm birth rates were highest for women ages 40 and older (14.4%), followed by women under age 20 (10.4%), ages 30-39 (10.3%) and ages 20-29 (9.6%).

SMOKING

In 2020, 14.8% of women of childbearing age reported smoking in the United States. Smoking is a significant factor contributing to preterm births.

MULTIPLE BIRTHS

In the United States in 2020, 8.4% of singleton births were preterm, compared to 60.9% of multiple births. Multiple births represent 3.2% of live births in the United States. Current multifetal pregnancy is one of the most consistently identified risk factors for preterm birth.

BIRTH SPACING

Birth spacing, or inter-pregnancy interval, is the timing between live birth and the beginning of the next pregnancy. Birth spacing of less than 18 months increases the risk of preterm birth and other adverse outcomes. In United States, 31.5% of pregnancies with a prior live birth have a birth spacing of less than 18 months (2018-2020 average).

OBESITY

While obesity does not directly cause preterm birth, it does increase rates of medical complications (e.g., hypertension, diabetes) that contribute to preterm birth. In the United States, 31.1% of women of childbearing age were obese in 2020.

HEALTH INSURANCE COVERAGE

In 2020, about 1 in 9 women of childbearing age (11.6%) was uninsured in the United States. Health care before, during, and after pregnancy can help identify and manage conditions that contribute to preterm birth.

- **Behavioral Health**

- Mental Health and Substance Use, 2017

MH/Substance Use ER Visits	BRUNSWICK COUNTY, NC	NORTH CAROLINA	UNITED STATES
MH/Substance Use ER Visits per 100,000 population	1,880.9	1,902.3	26,896,859
Opiate Poisoning Deaths	23.2	15.3	11.8

Source: NC Hospital Association, Special Data Request (ER visits) and North Carolina Public Health, <https://injuryfreenc.ncdhhs.gov/DataSurveillance/poisoning/DEATH-3-UnintentionalOpioidPoisoningsbyCounty-2008-2017.pdf>

- Rates of Depression

Rates of Depression	BRUNSWICK 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, accessed 2022.

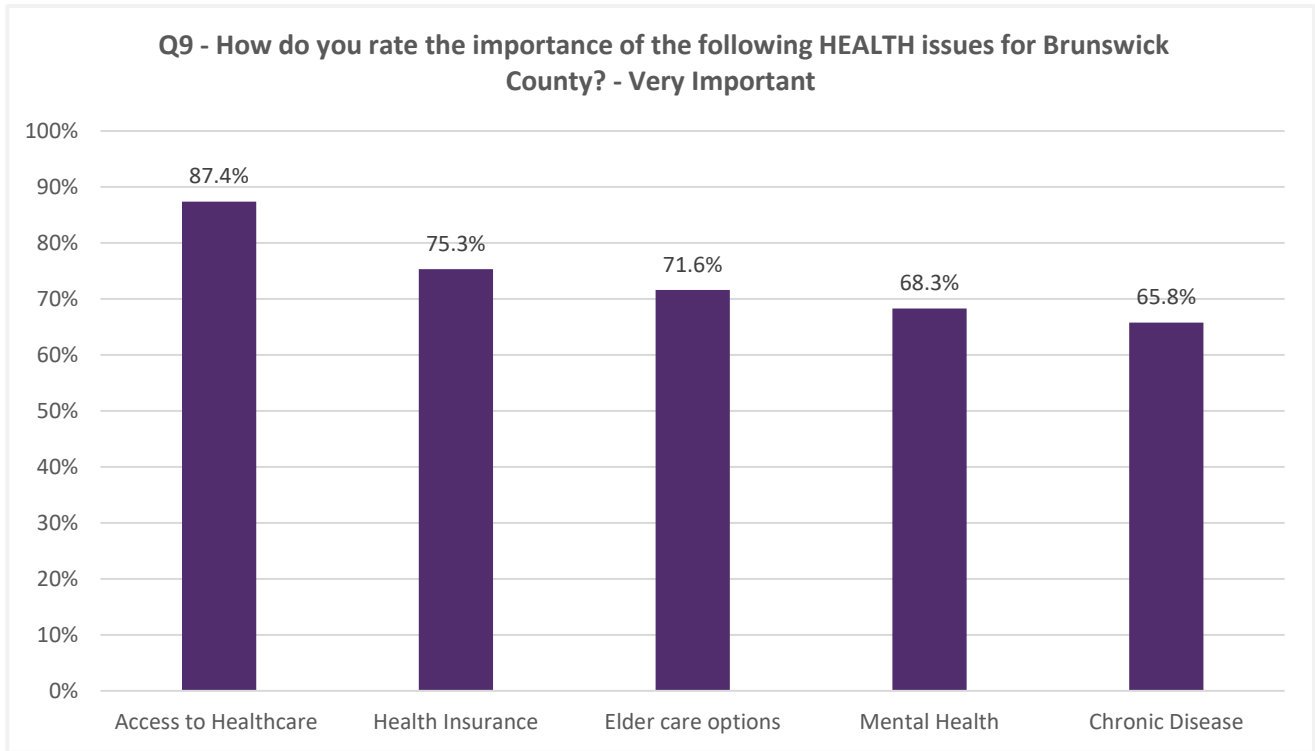
NHBMC will consider health indicators such as leading causes of death and disease incidence and prevalence in the Brunswick County population but will also consider how to impact root causes with an analysis of social determinants of health, social risks, and social needs.

II. Prioritized Health Needs

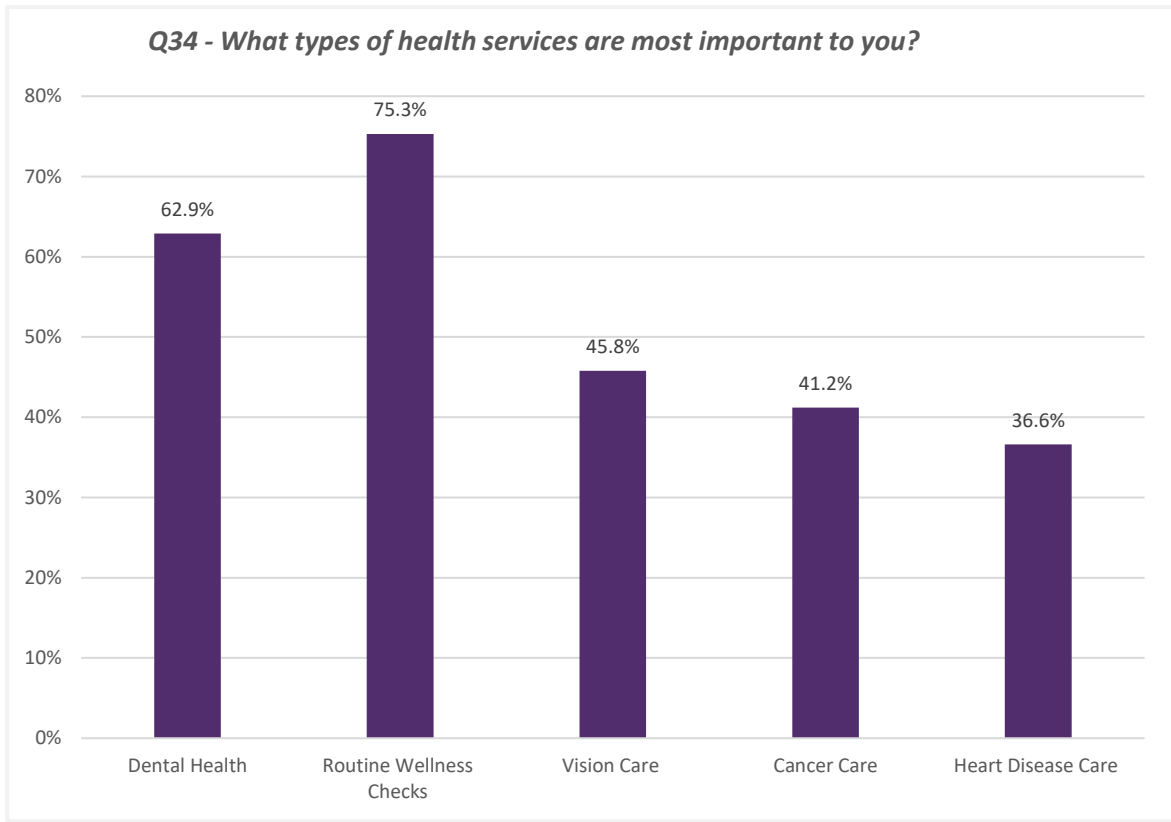
Identified Significant Health Needs

Utilizing the Community Health Opinion Survey (CHOS), residents from Brunswick County 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 ranked from very important to least important:

1. Access to Healthcare – 695 (87.4%)
2. Health Insurance – 599 (75.3%)
3. Elder care options – 569 (71.6%)
4. Mental Health (including Counseling/Support Groups) – 543 (68.3%)
5. Chronic Disease – 523 (65.8%)
6. Child/Adult Immunizations – 495 (62.3%)
7. Cancer – 493 (62.0%)
8. Health Resource Information – 472 (59.4%)
9. Respite for Caregivers – 450 (56.6%)
10. Dental health – 441 (55.5%)
11. Pregnancy & infant wellness – 439 (55.2%)
12. Teen Births – 438 (55.1%)
13. Infant mortality – 387 (48.7%)
14. Family planning – 381 (47.9%)
15. Child obesity/Physical Activity – 381 (47.9%)



The table below demonstrates the health services that CHOS respondents identified as most important at an individual level.



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

- Access to healthcare
- Mental health
- Chronic disease
- Dental health
- Elder care options
- Respite for caregivers
- Family planning
- Pregnancy & infant wellness
- Child obesity & physical activity

These categories informed the prioritized needs discussed below. See Appendix B in the Novant Health Brunswick Medical Center CHNA for all supporting data.

a) County Prioritization

A priority decision matrix was developed to summarize the extensive findings from the 2022 Community Health Needs Assessment. The secondary and primary research represented by quantitative data reflecting population profiles (secondary) and a statistically representative sample of current resident perceptions of their individual and community health (primary survey data: Community Health Opinion Survey) were illuminated by qualitative data in the form of key informant interviews and focus group response.

This data was then summarized into three (3) categories. The categories are:

- (1) Size and Seriousness of the issue including the Importance of Health & Community;
- (2) Ranking (Areas of Strength/ Areas to Explore);
- (3) Disparities or Inequities of Issue: Disproportionate impact by Age, Gender, Race/Ethnic group, or zip code of residence in Brunswick County.

The following issues were considered in 2022 for Brunswick County’s health priorities for the next CHNA cycle.

SIZE AND SERIOUSNESS OF ISSUE	RANKING	DISPARITIES
<p><i>Deaths: (Rate per 100,000 population in 2019)</i></p> <ol style="list-style-type: none"> 1. Cancer – 379 (265.4/100,000) 2. Heart Disease – 339 (237.4) 3. Cancer-Trachea/Bronchus – 102 (71.4) 4. Chronic Lower Resp. Disease – 93 (65.1) 5. Cerebrovascular Disease (Stroke) – 93 (65.1) 6. Unintentional Injury – 69 (48.3) 7. Alzheimer’ Disease – 60 (42.0) 8. Diabetes – 55 (38.5) 9. Poisoning – 47 (32.6) 10. Drug Overdose – 44 (24.3) <p><i>Hospitalizations:</i></p> <ol style="list-style-type: none"> 1. COVID-19 – 298 2. Sepsis, unspecified – 292 3. Hypertensive heart disease w heart failure – 102 4. Hypertensive heart and chronic kidney disease with heart failure – 100 5. Acute Kidney failure, unspecified - 85 <p><i>ER Visits:</i></p> <ol style="list-style-type: none"> 1. COVID-19 – 2,130 2. Other Chest Pain - 1,018 3. Acute Upper Respiratory Infection, unspecified - 695 4. Urinary tract infection, site not specified – 574 5. Nausea with vomiting, unspecified – 486 <p>COMMUNITY HEALTH OPINION SURVEY</p> <p><i>Perceived <u>Health</u> Issues of Importance:</i></p> <ol style="list-style-type: none"> 1. Access to Healthcare –87.4% 2. Health Insurance – 75.3% 3. Elder care options – 71.6% 4. Mental Health – 68.3% 5. Chronic Disease – 65.8% <p><i>Perceived <u>Community</u> Issues of Importance:</i></p> <ol style="list-style-type: none"> 1. Child maltreatment – 74.4% 2. Domestic/Sexual Violence – 70.0% 3. Violent Crime – 64.0% 4. Educational Opportunities – 62.4% 	<p>#26/100 Counties</p> <p>#11 – Clinical Care</p> <p>#11 – Physical Environment</p> <p>#20 – Quality of Care</p> <p>#21 – Health Behaviors</p> <p>#33 – Quality of Life</p> <p>#55 – Social Determinants</p> <p><u>Areas of Strength:</u></p> <p><i>Health Indicators</i></p> <ul style="list-style-type: none"> ○ Preventable Hospital Stays ○ Mammography Screening ○ Flu vaccinations <p><i>Social Determinants:</i></p> <ul style="list-style-type: none"> ○ H.S. Completion ○ Income Inequality <p><i>Environmental Health:</i></p> <ul style="list-style-type: none"> ○ Air pollution <p><u>Areas to Explore:</u></p> <p><i>Life Expectancy/ Years of Potential Life Lost</i></p> <ul style="list-style-type: none"> ○ Life Expectancy ○ Premature Death <p><i>Health Indicators</i></p> <ul style="list-style-type: none"> ○ Sexually Transmitted Infections ○ Low Birth Weight Infants ○ Teen Births ○ Mental Health ER Visits <p><i>Health Behaviors</i></p> <ul style="list-style-type: none"> ○ Adult Smoking ○ Excessive Drinking ○ Opiate Poisoning Deaths ○ Alcohol Impaired driving deaths ○ Injury deaths 	<p><i>Health Conditions</i></p> <ul style="list-style-type: none"> ○ Coronary Heart Disease: Male/Black ○ Hypertension – Black and over 65 years of age ○ Diabetes – Male/ Black and Hispanic ○ Asthma – Age (below 65) ○ Infant Mortality: Black ○ Opiate Poisoning Deaths: White, 16-29 years <p><i>Health Indicators</i></p> <ul style="list-style-type: none"> ○ Premature Birth: Black ○ Low Birth Weight Infants: Black ○ Teen Births: Hispanic <p><i>Health Behaviors</i></p> <ul style="list-style-type: none"> ○ Late Entry into Prenatal Care: Hispanic <p><i>Social Determinants</i></p> <ul style="list-style-type: none"> ○ Adults/Children living below 100% and 200% of FPL – Black and Hispanic ○ Food Insecure – Black & Hispanic ○ Disconnected Youth- 16-24, Black, Male

<p>5. Services for Disabled – 61.2%</p> <p><i>Perceived Environmental Issues of Importance:</i></p> <ol style="list-style-type: none"> 1. Safe drinking water – 79% 2. Water pollution – 68% 3. Over-development – 58% 4. Coastal climate change – 45% 5. Housing – 44% 	<p><i>Social Determinants:</i></p> <ul style="list-style-type: none"> ○ Uninsured (Adults & Children) ○ Unemployment ○ Social Associations ○ Child Care ○ Disconnected Youth 	
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The following issues were established in 2022 as Brunswick County’s health priorities for the next CHNA cycle. This prioritization occurred on November 11th with the Core Leadership, followed by Steering Committee validation at the December 2, 2022, session.

1. Chronic Disease (emphasis on hypertension and diabetes resulting in heart failure and kidney disease)
2. Behavioral Health (Mental Health with focus on Adult Depression)
3. Social Determinant of Health: Food Insecurity

b) Facility prioritization

In addition to the primary and secondary data, Novant Health Brunswick Medical Center reviewed the top five diagnosis codes for inpatient and outpatient hospital emergency room visits from July 2021 to June 2022.

Novant Health Brunswick Medical Center Emergency Department
Top 5 Diagnoses July 2021 to June 2022

Novant Health Brunswick Medical Center			
Top 5 ED Diagnoses July 2021 - June 2022			
Inpatient Diagnosis	Volume	Outpatient Diagnosis	Volume
COVID-19	298	COVID-19	2130
Sepsis, unspecified organism	292	Other Chest pain	1018
Hypertensive heart disease with heart failure	102	Acute upper respiratory infection, unspecified	695
Hypertensive heart and chronic kidney disease with heart failure and stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease	100	Urinary tract infection, site not specified	574
Acute Kidney Failure, unspecified	85	Nausea with vomiting, unspecified	486

The top 5 diagnoses from July 2021 to June 2022 were greatly 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, when possible, the inpatient diagnosis trend for adults was more serious diagnoses like heart and kidney failures. Outpatient trending diagnoses were severe symptoms and side effects of Covid-19.

Upon a comprehensive review of the primary and secondary data and NHBMC’s ED top 5 diagnosis codes,

the Novant Health Brunswick Medical Center leadership team and Board of Trustees evaluated this information based on the scope, severity, and 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 significant health priorities for Novant Health Brunswick Medical Center:

1. Chronic Disease: with a focus on Hypertension and Diabetes
2. Mental Health & Substance Use
3. Social Determinant of Health: Food Insecurity

III. Addressing needs

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

Priority Need:	Program:	Action:	Intended Outcome:
Chronic disease: focus on hypertension & diabetes	Health Screenings Faith Health Network Diabetes Empowerment Education Program (DEEP)	Host screenings and provide related referrals, and assessment of resources via Community Care Cruiser Support community organizations and events aligned with this work Leverage relationships within Novant Faith Health Network to utilize faith communities as venues for education as well as a voice for the community Provide no cost diabetes education throughout community taught by peers within the community	Increased number of Brunswick county community members connected to a primary medical home and appropriate care Decrease emergency department use for those connected to health screening events and mobile health Improve health outcomes for those connected to Community Engagement team as it relates to A1c, BMI, and Blood Pressure Provide 10 DEEP Classes within Brunswick County
Mental health & Substance use	Resiliency Training and Screenings Mental Health First Aid	Provide information and train individuals from various sectors including the nonprofit, faith community and our own team members Support community organizations and events	Awareness of Mental Health, impact of trauma and provision of tools/skills to build resiliency Awareness of ways to access resources and increased number of individuals

	<p>Opioid Stewardship Task Force</p> <p>Brunswick County School Crisis Support Program</p> <p>Psychiatric Residency Program</p>	<p>aligned with this work such as Brunswick Resiliency Task Force</p> <p>Alignment of health 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 in partnership with Brunswick County Substance Use Disorder Commission</p> <p>Provision of telehealth crisis management services for children in Brunswick County Schools</p> <p>Establishment of psychiatric residency program in partnership with UNC School of Medicine</p>	<p>connected to appropriate treatment and services within the community</p> <p>50 Individuals trained in Mental Health First Aid</p> <p>Community based teams (Home Health, Community Paramedics, CHWs, and other outreach workers) trained on use of Narcan</p> <p>Increase in number of patients treated for opioid use disorder in the acute and ambulatory settings</p> <p>Reduction in admission to Brunswick Medical Center of school age children for acute psychiatric crisis</p> <p>Increased provider base for psychiatric care in our region</p>
Food insecurity	<p>Education</p> <p>Novant Health Food Pharmacy</p> <p>Social Responsibility</p>	<p>Support community organizations and events aligned with this work through capacity building and charitable contributions</p> <p>Further expansion of Novant Health Food Pharmacy throughout health system</p> <p>Secure sustainable funding for Novant Health Food Pharmacy through public and private sector partners as well as NHRMC Foundation</p>	<p>Expansion of food insecurity screening and food box distribution to Brunswick Medical Center and 7 ambulatory care practices</p> <p>75% completion rate of Food Insecurity CEU</p> <p>Equitable funding towards community-based organizations supporting food insecurity and working to eradicate food deserts in our community</p>

		Creation of continuing education opportunities for team members regarding definition and face of food insecurity in our health system and our community	
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Again, NHBMC will focus resource allocation on these prioritized needs based on careful consideration the of estimated feasibility and effectiveness of possible interventions. While NHBMC will not prioritize the remaining significant health needs (listed above in Section II), 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 Brunswick Medical Center, there are various existing community assets available throughout the Brunswick County community that have additional programs and resources tailored to meet all the identified health needs. The following is a list of valued 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	Brunswick Wellness Coalition Brunswick County Health Department Cape Fear Healthnet New Hope Clinic YMCA of Southeastern North Carolina East Carolina University School of Dental Medicine-Brunswick County
Mental health	Brunswick County Sheriff's Office Christian Recovery Centers Coastal Horizons Carolina Dunes Behavioral Health Coastal Southeastern United Care
Pregnancy and infant wellness Family planning	Brunswick County Health Department Samara's Village
Child obesity/Physical activity	Brunswick County Schools, School Health Advisory Committee Brunswick County Communities in Schools Brunswick County Cooperative Extension
Respite for caregivers Elder care options	Brunswick Senior Resources Cedar Grove Community Health Association Lower Cape Fear LifeCare

For all community resources, visit www.novanthealth.org/mycommunity

IV. Role of the board and administration

The Novant Health Brunswick Medical Center Board of Directors and Novant Health Brunswick Medical Center administration are active participants in the community benefit process. Through strategic planning initiatives, leadership provides direction on actions and intended impact, and serves as the approving body for the community health needs assessment and community benefit implementation plan. Administrative leaders serve on the County assessment planning team and hospital board members participate and provide influence on the community benefit plans. All members are actively involved in the priority setting discussion and outreach planning process. Additionally, community benefit reports are provided to the board and facility leadership teams throughout the calendar year for ongoing education.

V. Appendix – Steering Committee Members

Steering Committee Members for the Brunswick County CHA

Steering Committee for Brunswick County CHA	
Agency	
1	Town of St. James
2	Shriner and Mason's
3	Coastal Horizons
4	Christian Recovery Centers Inc.
5	Clergy Community-SUA Commission
6	Brunswick County Social Services
7	Cedar Grove Community Center
8	Citizen at large Southport Area
9	Brunswick Senior Resources
10	Senior Resources
11	Brunswick County
12	Coastal Horizons
13	Brunswick Smart Start
14	Town of Shallotte
15	*Brunswick County Health Services
16	New Hope Clinic
17	Cape Fear Council of Government
18	North Carolina Cooperative Extension
19	North Carolina Project Lead
20	Brunswick County Schools
21	Town of Leland
22	Brunswick Transit System, Inc.

23	Brunswick County Parks & Recreation
24	CommWell Health
25	4-H Expanded Food and Nutrition Education Program (EFNEP)
26	NAACP Brunswick County
27	Trillium, Neighborhood Connections Team
28	Village of Bald Head Island
29	Town of Navassa
30	North Brunswick Chamber of Commerce
31	NAACP Healthier Together Regional Rep
32	Brunswick County Schools
33	Brunswick Wellness Coalition
34	City of Southport
35	Town of Oak Island
36	Dosher Memorial Hospital
37	Town of Caswell Beach
38	Novant Health Brunswick Medical Center
39	Southport Oak Island Chamber of Commerce
40	Brunswick Community College
41	Cape Fear Collective
42	Brunswick County Cooperative Extension
43	Town of Shallotte
44	Cape Fear Collective
45	Brunswick Housing Opportunities
46	Brunswick Family Assistance
47	Brunswick County Chamber of Commerce
48	Brunswick Senior Resources
49	North Brunswick Chamber of Commerce
50	Southport Lions Club
51	Kiwanis- Brunswick County
52	Southport-Oak Island Kiwanis

- *Representative of a state, local, tribal, or regional governmental public health department (or equivalent department or agency)
- For a full list of agencies involved in the CHA process, including those representing underserved, low-income, and minority populations, please see the Brunswick County 2022 CHA report.