

J. Arthur Doshier Memorial Hospital 2021 Community Health Needs Assessment



Table of Contents

Acknowledgements	1
Executive Summary	2
Section 1: Introduction and Overview	5
Section 2: Demographics	6
Brunswick County	6
Growth of Brunswick County Municipalities	8
Dosher Memorial Hospital Service Area	8
Section 3: Assessing Community Health Needs	10
CHA Findings and Priorities	10
County Health Rankings	12
Community Input	13
Section 4: Conclusion	15
Implementation Plan Strategies	
Appendix A: Brunswick County Health Statistics	17
Appendix B: Resources	17

Acknowledgements

This report would not have been possible without the input of the community and stakeholders. Thank you to the staff of Doshier Memorial Hospital, Doshier Memorial Hospital Foundation, and Brunswick Wellness Coalition. Having a shared vision of improved health will drive service delivery, guide decisions, and promote wellbeing.

Executive Summary

Due to COVID, the formalized assessment and planning process was vastly different in the generation of the 2021 J. Arthur Doshier Memorial Hospital Community Health Needs Assessment (CHNA). It serves as a transition based on the 2018 report by J. Arthur Doshier Memorial Hospital (DMH). Not-for-profit hospitals are required under the United States Internal Revenue Service to undergo assessment every three years with the outcome being an implementation plan that serves the community and the hospital's primary service area.

Once priority areas are defined, the implementation plan is incorporated into the organizational strategic plan. The purpose of the strategic plan is to provide strategic, operational, and financial priorities to guide for a three year period. The 2021-2024 DMH Strategic Plan was developed through the collaborative efforts of board of directors, medical staff, community, and hospital staff & leadership. An anticipated goal by 2024 is to have a joint assessment for the hospitals and health department serving Brunswick County, North Carolina.

Community Served

Located in Southport, North Carolina, DMH primarily serves the following areas: Smithville Township which includes Southport, Oak Island, Caswell Beach, Boiling Spring Lakes, Bald Head Island, and Saint James as well as unincorporated areas of Brunswick County. The Smithville Township alone represents 21% of the county population.

Assessing Community Health Needs

The latest assessment was released in Spring 2020. Health concerns where Brunswick County statistics were unfavorable compared to *Healthy People 2020 goals and state/national benchmarks* are noted by the following nine areas identified for health improvement in Brunswick County:

- Aging
- Access to Healthcare
- Environmental Health
- Road Maintenance (unsafe driving)
- Substance Misuse
- Chronic Conditions
- Social Determinants of Health
- Infant & Maternal Health
- Healthy Eating & Physical Activity

Community Input

Input representing the broad interests of the community revealed the following findings. Three key areas were reported by the *survey's key informants and focus groups**:

1. Substance Misuse
2. Access to Healthcare
3. Chronic Conditions (cancers-lung 1; heart disease; unintended injuries; lung disease; stroke; alzheimer's disease; diabetes; motor vehicle injuries; kidney disease; pneumonia; and influenza)

**with the overarching focus on aging*

The data further indicated deaths as related to disease include:

- #1 Cancer (lung, trachea, bronchus)
- #2 Heart Disease
- #7 Diabetes

Additional sources of input revealed similar findings with an underlying theme of employee wellbeing, insurance coverage, and quality of life.

Addressing Significant Health Needs

The findings have been aligned with Healthy North Carolina 2030 and Healthy People 2030 priorities. Strategies to address these reported findings are integrated into the 2021-2024 implementation plan.

Not Addressing Significant Health Needs

In an effort to maximize resources available, leaders and staff at Doshier Hospital determined the following issues would not be explicitly included in the implementation plan:

- Alzheimer's Disease
- Maternal Health
- Oral Health
- Homelessness

CHNA Report Process

The assessment process includes information gathering from a variety of sources such as community residents (primary data) and data available about health statistics (secondary data) to identify the most pressing health issues. Data obtained and reviewed in the planning process included: market data, utilization data, reflection of the 2018 DMH CHNA and Community Improvement Plan, 2019 Brunswick County Community Health Assessment and Community Health Improvement Plan and patient survey feedback. Gathered information is used by leadership and stakeholders to develop an implementation plan using resources to address top issues. For the next three years, progression towards the overall goal of improving health and quality of life in Brunswick County will be a shared vision.

Implementation Strategy

The implementation plan identifies three key strategies to address identified needs and issues related to health. Each strategy is comprised of major actions, sub-actions, and outcomes. The details of each may be found in the implementation plan document available online at dosher.org.

<i>Access to Care Improvement Strategy</i>
J Arthur Doshier Memorial Hospital will enhance access to care in Smithville Township and surrounding communities by collaborating with other providers and directing patients to the most appropriate sites and types of care.
<i>Increasing Access to Mental Health Services Strategy</i>
J. Arthur Doshier Memorial Hospital will collaborate with existing area mental/behavioral health and telehealth providers to ensure patients with mental/behavioral needs are connected to appropriate supports.
<i>Increasing Wellness through Lifestyle Medicine</i>
J. Arthur Doshier Memorial Hospital will continue to contribute to ongoing community efforts to ensure families in Brunswick County have access to healthy lifestyle education and support.

Not-for-profit hospitals are required under the United States Internal Revenue Service to undergo assessment every three years with the outcome being an implementation plan that serves the community and the hospital's primary service area.

Due to COVID, the formalized assessment and planning process were vastly different in the generation of the 2021 J. Arthur Doshier Memorial Hospital Community Health Needs Assessment (CHNA). It serves as an update to the 2018 report by J. Arthur Doshier Memorial Hospital (DMH) as implementation of prior strategies moves forward.

The CHNA process consists of the following five steps:

1. Define the community served.
2. Assess the health needs of the community.
3. During assessment, solicit and take into account input received from persons who represent the broad interests of that community, including those with special knowledge of or expertise in public health.
4. Document the assessment in a written report that is adopted for the hospital facility by the hospital board of trustees.
5. Make the report widely available to the public.

Methodology

The CHNA process includes compiling and analyzing extensive public secondary data, proprietary hospital data, and primary data gathered via a community survey.

Secondary data describing the demographic, socioeconomic and health characteristics of the target community was collected from public domain sources including, but not limited to, the US Census Bureau, US Centers for Disease Control and Prevention, NC State Center for Health Statistics, NC Office of Budget and Management, NC Division of Medical Assistance, Brunswick County Community Health Assessment, Brunswick County Data Book, and Brunswick County Community Health Improvement Plan.

Doshier Memorial Hospital added certain de-identified data detailing demographic characteristics of the patient population, ensuring patient confidentiality.

Section 2: Demographics

Brunswick County

Overall, the county population is not especially diverse. Of the total, 84% were white, 11% were black/African American, and 4.7% were of Hispanic/Latino. For North Carolina, comparable population percentages were 69%, 22% and 9%, respectively.

Demographics: Survey Participants vs. U.S. Census

	Sample Percent	Brunswick County ^{1,2,3}
Gender (n=178) ¹		
Female	58.4%	52.2%
Age (n=135) ²		
Median Age	56.5	51.9
Race (n=178) ²		
White or Caucasian	86.5%	86.3%
Black or African American	8.4%	10.3%
American Indian or Alaska Native	1.1%	0.8%
Asian Indian	0.0%	n/a
Other Asian (including Japanese, Chinese, Korean, Vietnamese, and Filipino/a)	1.1%	0.8%
Other Pacific Island (including Native Hawaiian, Samoan, Guamanian/Chamorro)	0.0%	0.1%
Hispanic, Latino, or Spanish Origin	1.7%	4.9%
Other race not listed (please specify)	1.1%	n/a
Education (n=179) ³		
Less than 9th grade	0.0%	3.4%
9-12, no diploma	5.0%	7.5%
High School graduate (or GED/equivalent)	20.1%	27.4%
Associate's Degree or Vocational Training or Certificate	12.8%	10.2%
Some college (no degree)	18.4%	23.6%
Bachelor's Degree	19.6%	18.1%
Graduate or professional degree	23.5%	9.9%
Other (please specify)	0.6%	
Income (n=152) ²		
Less than \$10,000	3.9%	7.2%
\$10,000-\$14,999	2.6%	4.9%
\$15,000-\$24,999	9.2%	10.4%
\$25,000-\$34,999	5.9%	11.0%
\$35,000-\$49,999	12.5%	15.3%
\$50,000-\$74,999	26.3%	19.7%
\$75,000-\$99,999	18.4%	12.4%
\$100,000 or more	21.1%	19.10%

Sources: 1. U.S. Census Bureau Population Estimates Program, 2018 ; 2. U.S. Census Bureau, American Community Survey 2013-2017 (5-Year Estimates); 3. U.S. Census Bureau, American Community Survey 2013-2017 (25 years and older, 5-Year Estimates)

13

According to the NC Office of State Budget and Management, responsible for projecting population characteristics for use by state and local governments, the population aged 65 and older in the county is projected to grow to 58,509 persons by 2030, or 34% of the overall county population. Health and human services organizations will need to keep this at the forefront and purposeful when conducting long-range planning. This population group tends to require and utilize such services at levels higher than the general population.

Of interest, disability among the population is 17% with 70% of older adults 65 and over living with a disability in the area of hearing, vision, cognition, ambulation, self-care, or independent living.

The economic characteristics of Brunswick County are decidedly mixed. For example, although the county unemployment rate has been decreasing since 2010, the county rate exceeded the comparable NC rate in every year from 2008 through 2017. The Brunswick County data book offers the county's top employers.

Top 25 Employers in Brunswick County			
<i>Rank</i>	<i>Company Name</i>	<i>Industry</i>	<i>Employment Range</i>
1	Brunswick County Board of Education	Education & Health Services	1000+
2	County of Brunswick	Public Administration	1000+
3	Duke Energy Progress	Trade, Transportation & Utilities	1000+
4	Wal-Mart Associates Inc	Trade, Transportation & Utilities	500-999
5	Food Lion	Trade, Transportation & Utilities	500-999
6	Brunswick Novant Medical Center	Education & Health Services	500-999
7	Brunswick Community College	Education & Health Services	250-499
8	Lowes Foods LLC	Trade, Transportation & Utilities	250-499
9	Liberty Healthcare Group LLC	Education & Health Services	250-499
10	Lowes Home Centers Inc	Trade, Transportation & Utilities	250-499
11	McAndersons Inc	Leisure & Hospitality	250-499
12	SBH Wilmington LLC	Education & Health Services	250-499
13	Dosher Memorial Hospital	Education & Health Services	250-499
14	Department of Defense	Public Administration	250-499
15	Troon Golf LLC	Leisure & Hospitality	100-249
16	Charter Day School Inc	Education & Health Services	100-249
17	Novant Health Group	Education & Health Services	100-249
18	US Postal Service	Trade, Transportation & Utilities	100-249
19	Archer Daniels Midland Co	Manufacturing	100-249
20	Atlantic Telephone Membership Corp	Information	100-249
21	Carolina Staffing Solutions	Professional & Business Services	100-249
22	Portus Terminals LLC	Trade, Transportation & Utilities	100-249
23	Coating and Adhesive Corp	Manufacturing	100-249
24	BHI Energy Power Services LLC	Professional & Business Services	100-249
25	Tradition Golf Club at Carolina National	Leisure & Hospitality	100-249

Growth of Brunswick County Municipalities

Further indications by the United States Census Bureau reveal the municipalities in Brunswick County continue to experience high growth rates.

<u>Municipality</u>	<u>1990</u>	<u>2000</u>	<u>2010</u>	<u>2017</u>	<u>2010-2017</u> <u>% Growth</u>
Bald Head Island	78	173	158	177	12.03%
Belville	66	285	1,936	2,227	15.03%
Boiling Spring Lakes	1,650	2,972	5,372	6,719	25.07%
Bolivia	228	148	143	160	11.89%
Calabash	1,210	711	1,786	1,994	11.65%
Carolina Shores	1,031	1,482	3,048	3,681	20.77%
Caswell Beach	175	370	398	452	13.57%
Holden Beach	626	787	575	637	10.78%
Leland	1,801	1,938	13,527	18,893	39.67%
Navassa	445	479	1,505	1,867	24.05%
Northwest	N/A	671	735	840	14.29%
Oak Island	4,550	6,571	6,783	7,629	12.47%
Ocean Isle Beach	523	426	550	646	17.45%
Sandy Creek	243	246	260	294	13.08%
Shalotte	965	1,381	3,675	4,697	27.81%
Southport	2,369	2,351	2,833	3,481	22.87%
St. James	N/A	804	3,165	4,899	54.79%
Sunset Beach	311	1,824	3,572	4,206	17.75%
Varnamtown	404	481	541	641	18.48%

www.census.gov

Dosher Memorial Hospital Service Area

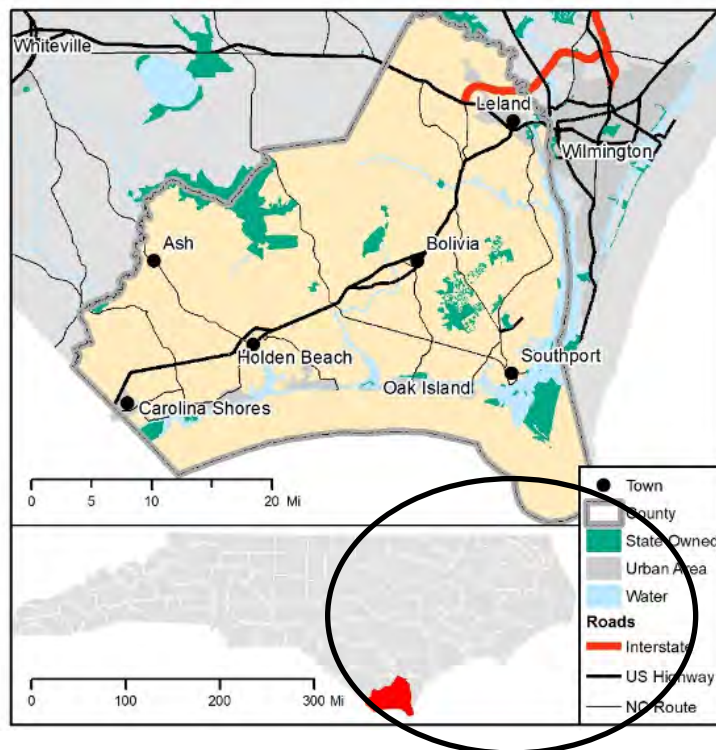
The geographic primary service areas of DMH's are Smithville Township which includes Southport, Oak Island, Caswell Beach, Boiling Spring Lakes, Bald Head Island, and Saint James as well as unincorporated areas of Brunswick County. The Smithville Township alone represents 21% of the county population and has experienced the highest growth among its' municipalities. While a mixed population exists in 21% of Brunswick County where the service areas are located, the

majority of the population is comprised of retirees. The patient utilization rate at DMH in the primary service areas is 79%.

Town and Zip Code Population

ZIP	% of County Population	Primary City	% of Patient Utilization by ZIP
28465 28461	6% 15%	Smithville Township Oak Island (Caswell Beach) Southport (Boiling Spring Lakes/Bald Head Island/Saint James)	19% 60%
28456	0.30%	Riegelwood/Northwest	<1%
28452	0.60%	Longwood	<1%
28420	4%	Ash	<1%
28468	4%	Sunset Beach	<1%
28469	5%	Ocean Isle Beach	<1%
28479	5%	Winnabow	1.4%
28422	6%	Bolivia	6%
28467	8%	Calabash	<1%
28470	10%	Shallotte	1.5%
28462	11%		
28451	25%		

Service Area Map

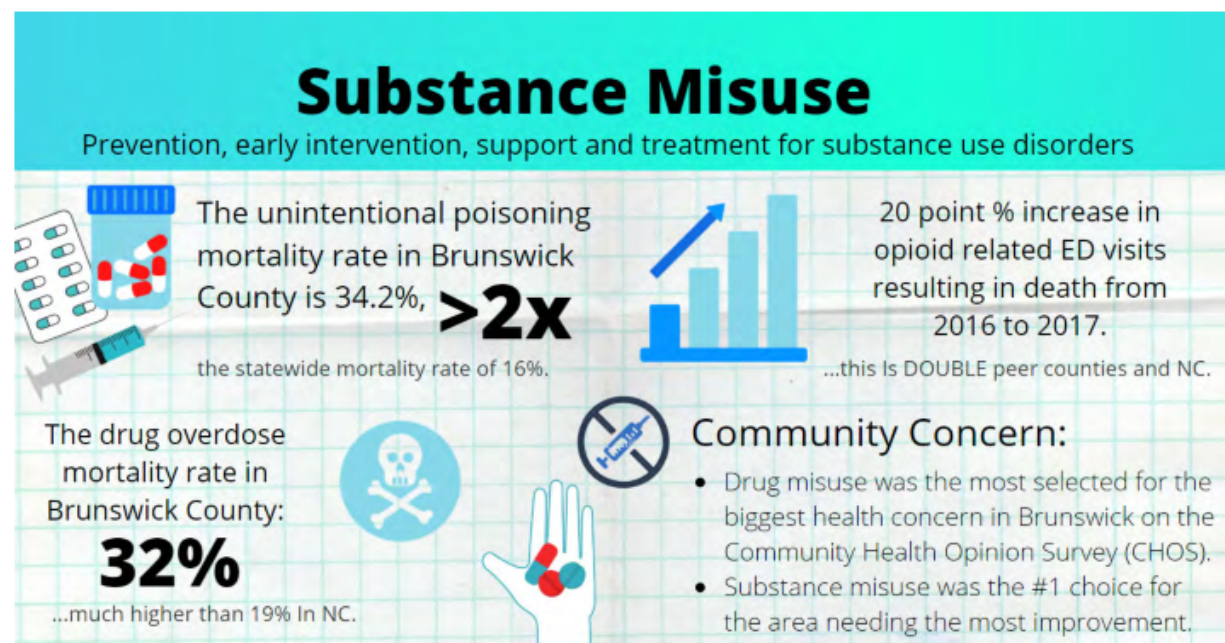


Section 3: Assessing Community Health Needs

CHA Findings and Priorities

The 2020 Brunswick County Health Assessment served as the basis for health findings along with strengths and areas of opportunity. The following four infographics visually represent the overall findings through a glance at priorities. The priorities included are substance misuse, access to health care, and chronic conditions with an overarching focus on aging. The detailed final report is available to the public.

Priorities at a Glance

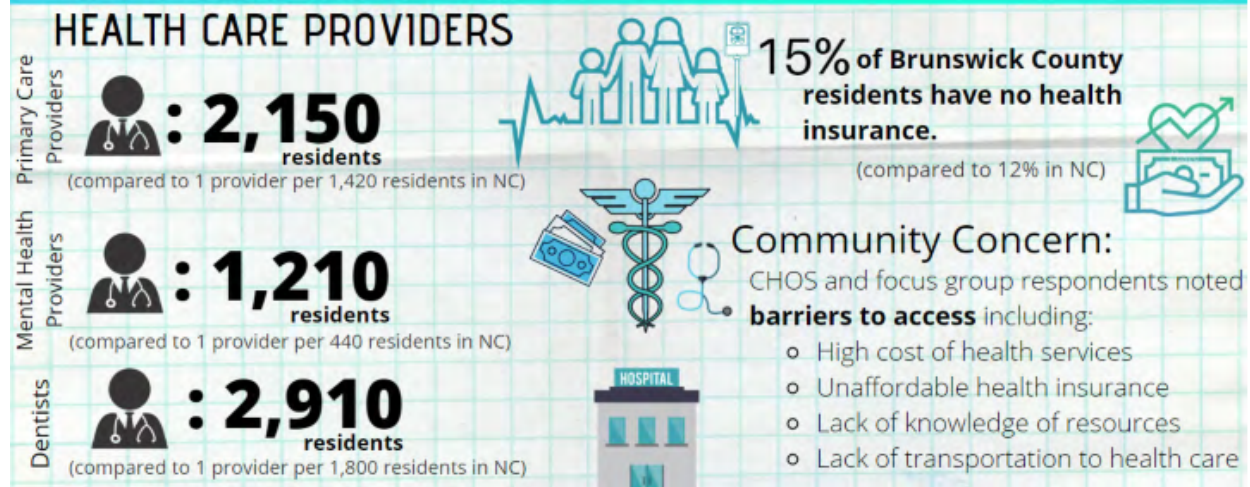


Sources: N.C. State Center for Health Statistics, County-level Data, County Health Data Book (2019), Unintentional Poisoning Mortality Rates; Centers for Disease Control and Prevention (CDC). Increases in Drug and Opioid Overdose Deaths — United States, 2000–2014. MMWR Morb Mortal Wkly Rep. 2016; 64(50):1378-82.; NC Department of Health and Human Services, NC Injury and Violence Prevention Branch, N.C. DETECT Emergency Department (ED) Data, All Opioid Poisoning ED Visits by County, 2008-2018; Brunswick County Community Health Opinion Survey, 2019

Note: While substance misuse is considered one of the county's top concerns, the most recent preliminary data shows a downward trend in opioid overdose deaths and ED visits. This data is available on the NC Opioid Action Plan Data Dashboard. The thirteen data metrics displayed on the dashboard are used to track and monitor state and county-level progress made on the opioid epidemic. Progress made in Brunswick County is attributed to programs and initiatives implemented in recent years. More information about these initiatives is available in Chapter 3 under substance misuse.

Access to Health Care

Basic, affordable health care for all residents

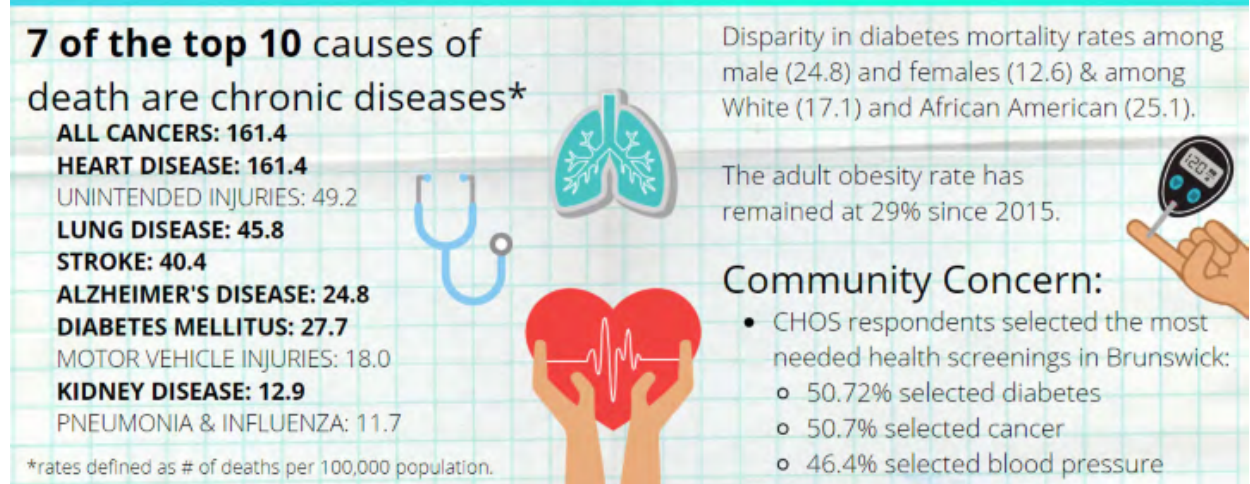


Source: County Health Rankings and Roadmaps, 2019; Brunswick County Community Health Opinion Survey, 2019; Brunswick County CHA Focus Groups, 2019

Note: Primary care provider data does not include physicians living on the edge of counties or who practice in multiple locations. This measure does not include nurse practitioners, physician assistants or other practitioners available for primary care services. Mental health provider data come from the National Provider Identification data file. Small providers who do not transmit electronic records may not have an identification number and are not included in this measure. Some providers may also be registered with an address in one county, while practicing in another county. More information on primary care and mental health providers is available in Chapter 3 under access to care.

Chronic Conditions

Prevention, treatment, and management of chronic diseases

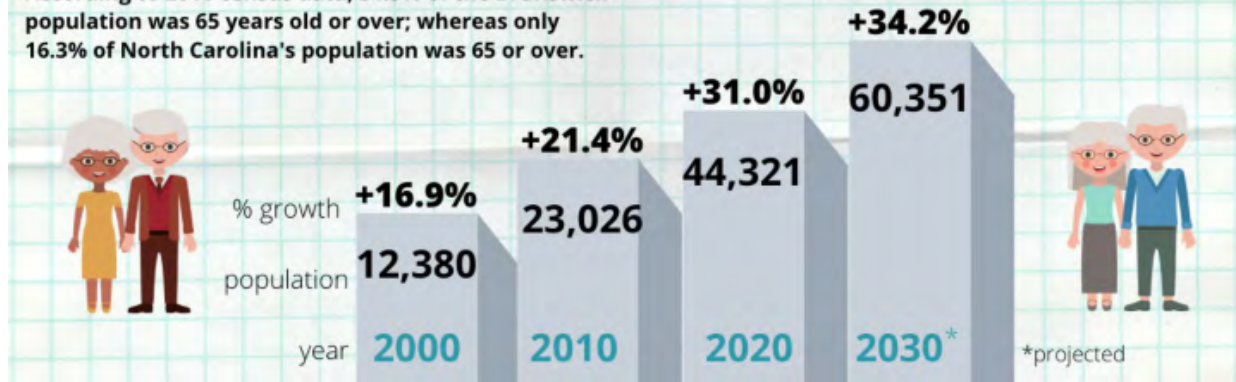


Sources: N.C. State Center for Health Statistics, County-level Data, County Health Data Book (2019), Mortality; N.C. State Center for Health Statistics, County-level Data, County Health Data Book (2019), Mortality, 2013-2017 Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; N.C. State Center for Health Statistics, County-level Data, County Health Data Book (2019), Mortality, 2013-2017 Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; Brunswick County Community Health Opinion Survey, 2019

An Aging Population

Population of residents age 65 years and older continues to grow

According to 2010 census data, 31.5% of the Brunswick population was 65 years old or over; whereas only 16.3% of North Carolina's population was 65 or over.



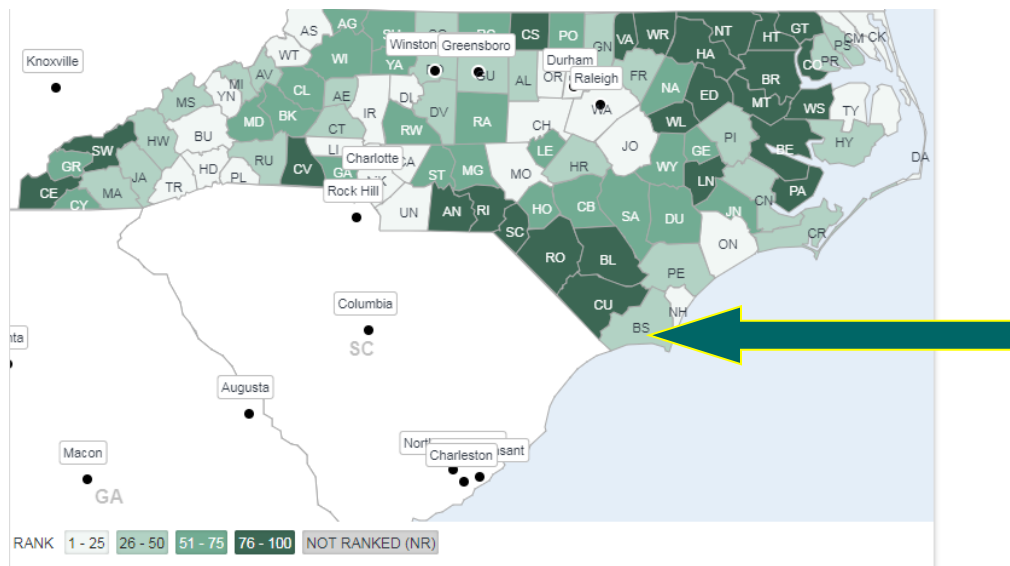
Sources: Log Into North Carolina (LINC) Database, Total Population; U.S. Census Bureau, American FactFinder, Table DP-1; NC Office of State Budget and Management, County/State Population Projections - Age, Race, and Sex Projections

County Healthy Rankings

The Robert Wood Johnson Foundation in partnership with the University of Wisconsin Population Health Institute publishes annual county health rankings. Brunswick County has experienced positive shifts in health outcomes and health factors.

Year	Health Outcomes	Health Factors
2019	34	25
2020	36	27
2021	28	28

Located in the **high-middle range** statewide, the health of the county has improved as indicated by rankings.

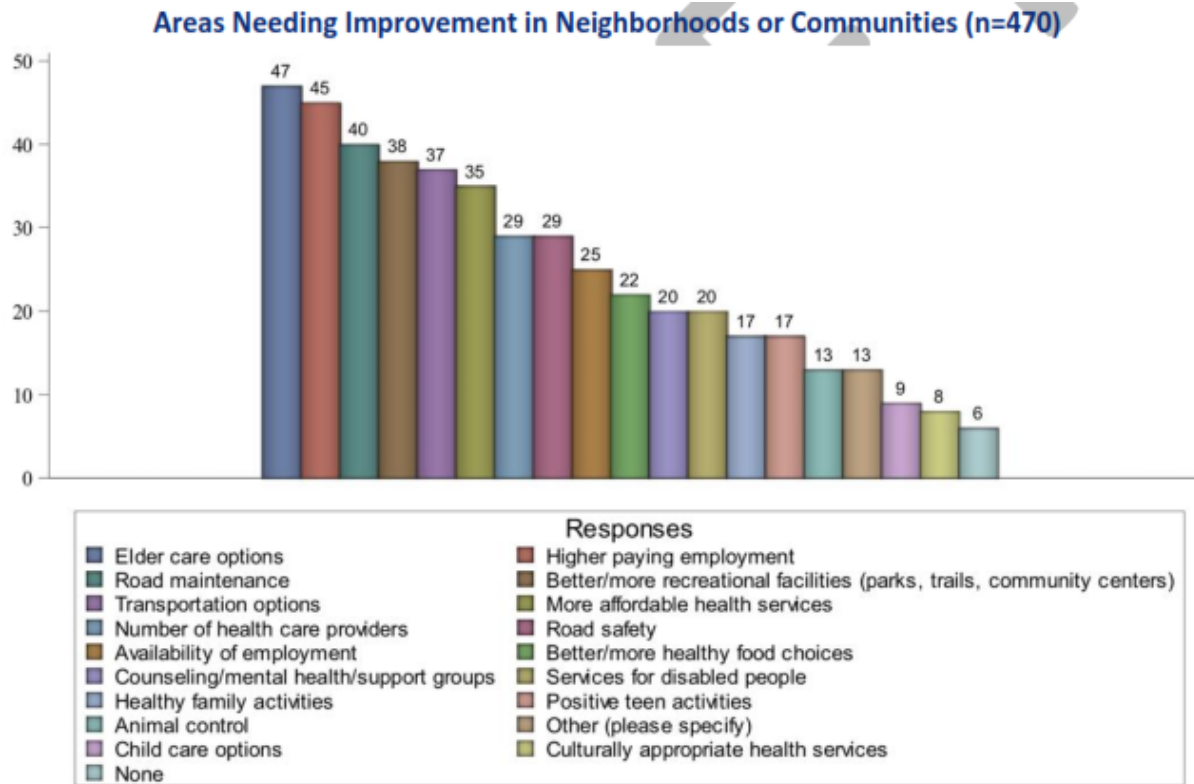


Community Input

Residents participating in several focus groups were asked about concerns they experienced and felt were important.

Areas Needing Improvement

Three main themes emerged including lack of elder care options, lack of high wage earning employment, and lack of road maintenance. The graph below represents all responses.



Top Health Concerns

When asked specifically about health concerns, responses indicated the top three concerns as drug misuse, chronic diseases, and cancer with the “other” category demonstrating the diverse opinions about health.

The following table, “Biggest Health Concern in Your Community” provides the breakdown of responses.

Biggest Health Concern in Your Community

In your opinion, what is the biggest health concern in your community? (select only one)

Given Answers	Count	% respondents (n=179)
Drug misuse	46	25.7%
Chronic Disease (Heart disease, High blood pressure, Diabetes, Stroke)	35	19.6%
Cancer	17	9.5%
Environmental health exposures	12	6.7%
Unsafe driving	12	6.7%
Obesity	8	4.5%
Mental Health	5	2.8%
Malnutrition/Lack of food	4	2.2%
Alcohol misuse	2	1.1%
Asthma/Lung Disease	1	0.6%
Dental health	1	0.6%
Gangs/Violence	1	0.6%
Prenatal care	1	0.6%
Tobacco use	1	0.6%
Other (please specify)	33	18.4%

Source: Brunswick CHOS, 2019

Dosher Memorial Hospital Engagement

Involvement in community health improvements is vital to DMH. With a growing population, engaging the community in health decisions empowers individuals to make informed healthy lifestyle and medicine choices. Patient satisfaction, quality and safety remain focus areas for all visits to the hospital and outlying medical offices. Accreditation and ISO were achieved in early 2021. MAKO robotic orthopedic procedures were added to existing services. An employee engagement committee was formed and has already experienced positive change. Finally, for the first time in 10 years, the hospital's financial picture is in the black.

With decisions to be made that are patient centered and business minded, an effort to maximize resources available, leaders and staff at Dosher Hospital determined the following issues would not be explicitly included in the strategic implementation plan:

- Alzheimer's Disease
- Maternal Health
- Oral Health
- Homelessness

Section 5: Conclusion

DMH is committed to equity in health care and improving the quality of health of the community served as indicated through the CHNA and strategic implementation plan. The improvement of health outcomes outlined in the plan is aligned with the Brunswick County Health Assessment, Community Health Improvement Plan, annual State of the County Health Report and 2030 Healthy North Carolina Report.

Implementation Plan Strategies

In the 2018 CHNA, DMH leadership developed implementation plan strategies in alignment with survey findings. *Three* major strategies were adopted containing actions, sub-actions and outcomes. While findings have not significantly changed between 2018 and 2021, additional sub-actions and outcomes were added to the implementation plan. Additional actions included in the strategies were:

1. Collaborate with local providers to reduce barriers to care.
2. Address frequent emergency department use among low income and chronic disease populations by improving access to appropriate care alternatives.
3. Sustain and enhance collaborations and referral relationships with local mental/behavioral health service providers.
4. Educational series to include the following as lifestyle medicine: Food, Exercise, and Stress Management.

Future Planning

The next step towards an integrated approach to health is through the Brunswick Wellness Coalition (BWC). BWC has started discussions with Doshier Memorial Hospital Brunswick County Health Services, and Brunswick Novant Medical Center to form a joint assessment. The goal is to establish a collaborative, comprehensive, and cost effective assessment process that drives shared health improvements benefitting the region's diverse populations to include *community benefits, positive health outcomes, and population health*.

Collaborative Objectives

- Reduce duplication.
- Increase replication.
- Improve sharing.
- Note benchmark improvements.
- Address health disparities.
- Invest in joint ventures.
- Improve ease of access to services and programs throughout the community.

Appendix A: Brunswick County Health Statistics

Top Three Leading Causes of Death

According to the county health assessment, the top three leading causes of death in Brunswick County (corresponding overall age-adjusted mortality rates per 100,000 population) are:

1. Cancer (163.1)
2. Heart disease (162.8)
3. Chronic lower respiratory disease (CLRD) (45.4); Suicide among age group 20-39

Health Indicators

Brunswick County health rankings through collaboration between the University of Wisconsin Population Health Institute and the Robert Wood Johnson Foundation describe health behaviors, health outcomes, and health provider ratios.

Health Behaviors: Prevention Opportunities

Mammography	54%
Adult Obesity	31%
Physical Inactivity	25%
Preventable Hospital Stays	3,243 per year
Premature Deaths	8,500 per year
Teen Births	28%
Diabetes Prevalence	14%

Health Outcomes: Quality of Life

Life Expectancy	78.9 years
Uninsured Rate	14%
Children Living in Poverty	21%

Health Care Provider Ratios (Provider to Population)

Primary Care Physicians	1:2,280
Dentists	1:2,600
Mental Health Providers	1:1,050

Appendix B: Resources

To capture the various data sets, a variety of resources were used.

Brunswick County Health Services

Brunswick County Community Health Assessment
Brunswick County Community Health Improvement Plan
Brunswick County State of the County Health Report

<https://www.brunswickcountync.gov/health/>

Brunswick County Planning Department

Our County Book of Statistical Facts, Data, & Maps for Brunswick County

<https://www.brunswickcountync.gov/planning/demographics/>

Dosher Memorial Hospital

Dosher Memorial Hospital Community Health Needs Assessment
Dosher Memorial Hospital Strategic Implementation Plan

<https://www.dosher.org/>

North Carolina Office of State Budget and Management

Facts and Figures

<https://www.osbm.nc.gov/>

North Carolina State Center for Health Statistics

County Level Data

<https://schs.dph.ncdhhs.gov/data/county.cfm>

United States Census Bureau

Census Data

<https://data.census.gov/cedsci/>

University of Wisconsin Population Health Institute / Robert Wood Johnson Foundation

County Health Rankings

<https://www.countyhealthrankings.org/>