

PETITION

**Petition to the State Health Coordinating Council
Adjustment to Need Determination for Shared Cardiac Catheterization for Brunswick County
2023 State Medical Facilities Plan**

1. Name, address, email address and phone number of the petitioner.

Date: July 27, 2022
Name: Novant Health Brunswick Medical Center
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 Bolivia, NC 28422
County: Brunswick

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2. A statement of the requested adjustment, citing the provision of need determination within the Proposed SMFP for which the adjustment is proposed.

It should be noted that this adjustment to need determination petition is being submitted in conjunction with an adjustment to need determination petition to eliminate the cardiac catheterization equipment need determination in New Hanover County included in the *Proposed 2023 State Medical Facilities Plan ("SMFP")*.

Novant Health Brunswick Medical Center ("NH Brunswick") requests the following adjustment to the *Proposed 2023 SMFP* to address a special need for shared fixed cardiac catheterization equipment in Brunswick County.

NH Brunswick proposes the following wording:

**Table 17A-5: Shared Fixed Cardiac Catheterization Need Determination*
(Scheduled for Certificate of Need Review Commencing in 2023)**

Service Areas	Shared Cardiac Catheterization Equipment Need Determination	Certificate of Need Application Deadline**	Certificate of Need Beginning Review Date
Brunswick ***	1	To be determined	To be determined

* Any person can apply for a CON to meet the need, not just the health service facility or facilities that generated the need.

** Application deadlines are absolute, pursuant to 10A NCAC 14C.0203(b). The filing deadline is 5:00 p.m. on the application deadline date.

*** In response to a petition, The State Health Coordinating Council approved an adjusted need determination for one additional unit of Shared Fixed Cardiac Catheterization Equipment designated for Novant Health Brunswick Medical Center.

3. Reasons for the proposed adjustment, including:

The *SMFP* Cardiac Catheterization Equipment Methodology 2 states the following:

Methodology 2 (Table 17A-2)

For cardiac catheterization equipment in a service area that does not have a unit of fixed cardiac catheterization equipment, a need determination exists for one unit of shared cardiac catheterization equipment (i.e., fixed equipment that is used to perform both cardiac catheterization procedures and angiography procedures) when:

1. The number of cardiac catheterization procedures as defined in 10A NCAC 14C .1601(5) performed at any mobile site in the service area exceeds 240 (300 procedures X 80%) procedures per year for each eight hours per week the mobile equipment is operated at the site during the current reporting year (Table 17A-2); and
2. No other fixed or mobile cardiac catheterization service is provided in the same service area

Unless otherwise specified by the methodology, calculations do not use rounded values. However, fractional values are rounded automatically when displayed.

Brunswick County has two acute care hospitals, NH Brunswick and J. Arthur Doshier Memorial Hospital. Neither of these hospitals operates fixed cardiac catheterization equipment. DLP Cardiac Partners has operated mobile cardiac catheterization equipment on a limited bases (approximately 1 hour per week) over the past twelve years at NHBMC as the following table indicates:

**DLP Cardiac Partners
Mobile Cardiac Catheterization Procedures**

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Procedures	76	72	40	46	10	0	0	0	0	8	32	35

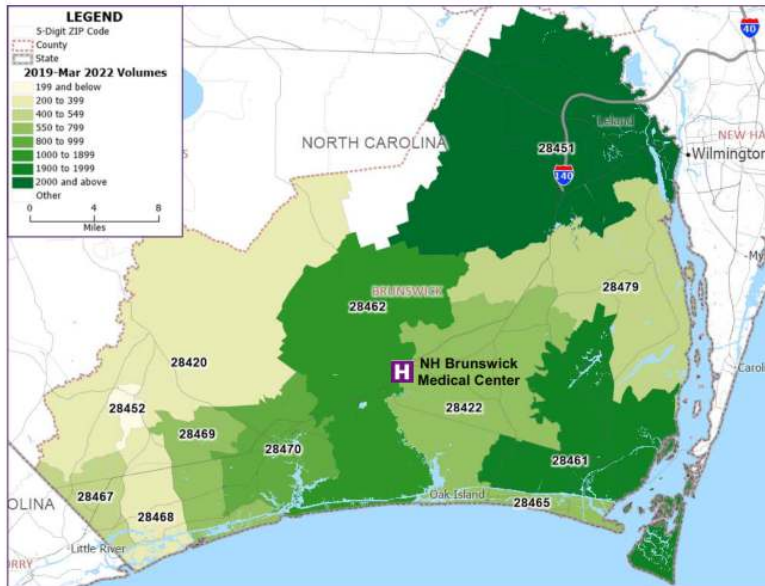
Source: 2012 SMFP through Proposed 2023 SMFP.

The primary concern with mobile cardiac catheterization equipment is that based on NH New Hanover experience, nearly 50 percent of diagnostic cardiac catheterizations require a cardiac intervention and mobile cardiac catheterization equipment is not the preferred location to perform the cardiac intervention as the cardiac intervention is immediately performed after diagnosis and transferring delays treatment, which could be life threatening. Contracting for mobile cardiac catheterization services is also extremely expensive.

As such, essentially all Brunswick County cardiac catheterization patients are referred to and receive their cardiac catheterization procedure at Novant Health New Hanover Regional Medical Center (“NH New Hanover”). As the following graphic illustrates, patients from the eastern regions of Brunswick County seek cardiac catheterization services at NH New Hanover at a greater rate than those from the western regions due to travel distance and time. As an example, travelling from Carolina Shores in the 28467 Zip

Code to NH New Hanover in Wilmington takes one hour to drive the 50 miles. This causes western region Brunswick County residents to seek treatment at South Carolina hospitals.

NHRMC Cath Lab Patient Origin: Brunswick Co. patients only



Zip Code	2019	2020	2021	2022A
28451	551	536	546	580
28461	332	377	398	308
28462	239	201	225	188
28470	156	140	126	176
28422	119	121	114	84
28465	99	104	128	176
28469	114	121	120	72
28479	92	81	87	100
28467	77	79	110	76
28468	50	52	45	72
28420	51	42	29	36
28452	5	8	2	0
Grand Total	1885	1862	1930	1868

Notes:

- The map and table reflect NHRMC cath lab patients from 2019-Mar 2022 with a Brunswick Co. zip code
- Leland zip code 28451 is the clear top Brunswick Co. zip code for cath lab patients at NHRMC
- However, there are more than enough cath lab volumes in Brunswick Co. (even if you exclude zip code 28451) to possibly trigger a need in the SMFP (see next slide for Need Determination)



Source: NH-NHRMC data

As the following table indicates, the number of Brunswick County patients receiving cardiac catheterization procedures at NH New Hanover has continued to increase annually since 2016, with only a 1.2 percent decrease in 2020 due to lingering COVID-19 pandemic issues.

NH Brunswick Medical Center

Brunswick County historical data

- The table below shows the number of patients from Brunswick County who had a cath lab procedure performed at NHRMC:

Case Type	2016	2017	2018	2019	2020	2021	2022 (through March)	2022A
Diagnostic Cath	980	1,086	1,180	1,290	1,238	1,297	297	1,188
Interventional Cath	141	344	512	595	624	633	170	680
Grand Total	1,121	1,430	1,692	1,885	1,862	1,930	467	1,868
Growth Rate:		27.6%	18.3%	11.4%	-1.2%	3.7%		

For 2021-2026, Sg2 is projecting a 6% growth rate for inpatient diagnostic and interventional catheterization

As the following table highlights, in 2021, 52.7 percent $[(1,297 / 2,462) \times 100]$ of diagnostic cardiac catheterization procedures at NH New Hanover were performed on Brunswick County residents, while 23.3 percent $[(633 / 2,719) \times 100]$ of interventional cardiac catheterization procedures were performed on Brunswick County residents.

Hospital	Cardiac Cath Procedure	2016	2017	2018	2019	2020	2021
NH Brunswick	Diagnostic	0	0	0	8	32	35
NH New Hanover	Diagnostic	2,772	2,863	2,841	3,242	2,723	2,462
	Interventional	1,838	1,870	2,098	2,461	2,004	2,719

NH Brunswick Heart and Vascular Services

Recently, NH Brunswick introduced Tele-ICU at the medical center, allowing heart and vascular providers immediate access to the patient’s bedside, leveraging technology, expertise, and intense collaboration to the benefit of Brunswick County residents. Novant Health has increased the number of cardiac interventionalists at NH New Hanover and plans to increase the number of heart and vascular providers at NH Brunswick, which can include cardiac interventionalists in Brunswick County in the next year.

NH Brunswick will also continue to increase the presence of heart and vascular providers in Brunswick County with the planned 5,000 square foot expansion of cardiac rehab services in January 2023.

Brunswick County Health Status

Evidence supports continued community need for cardiac catheterization. The 2022 County Health Rankings¹ indicate that Brunswick County residents are in the top 25th percentile in health but still experienced 8,400 years of potential life lost including 423 deaths due to diseases of the heart, additionally:

- 19% of adults are smokers
- 32% of adults are obese
- 25% of residents are physically inactive
- 29% of residents lack access to exercise opportunities
- 19% of residents are excessive drinkers

County Health Rankings is a national, statistically uniform, county health status database developed and maintained by the University of Wisconsin Population Health Institute supported with funds provided by the Robert Wood Johnson Foundation.

Brunswick County Population

As reported in the Wilmington StarNews, the latest U.S. Census Bureau population estimates for April 2020 through July 2021, Brunswick County as a whole saw a 4.4% increase, bringing its population to 144,215. It was the second fastest growing county in the state behind Currituck County, which grew by 4.5% to 29,653 residents.²

¹ <https://www.countyhealthrankings.org/app/north-carolina/2022/rankings/brunswick/county/outcomes/overall/snapshot>

² <https://www.starnewsonline.com/story/news/2022/06/02/brunswick-county-growth-since-pandemic-among-best-state/9966510002/>

The towns of Northwest (9.7%), Navassa (8.9%), Leland and Calabash (7.6%) give Brunswick County four of the top six fastest growing towns in the state.

Between April 2020 and July 2021, Brunswick County had the fastest growing housing stock, with units increasing by 4.2% or 3,743 units. Only Wake County and Mecklenburg County built more total homes, adding more than 12,000 and 10,000 units, respectively.

a. A statement of the adverse effects on the population of the affected area that are likely to ensue if the adjustment is not made, and

Without approval of this adjustment to need determination petition, NH Brunswick will continue to offer minimal cardiac catheterization services in Brunswick County through DLP Cardiac Partners but will never achieve the necessary cardiac catheterization procedure volume to generate a need for cardiac catheterization equipment in Brunswick County.

Brunswick County residents will travel to Wilmington or to South Carolina for their cardiac catheterization procedures, continuing the inconvenience of traveling for a procedure that could safely be performed within the county, if appropriate cardiac catheterization equipment were available in Brunswick County.

The purpose of a diagnostic cardiac catheterization is to rule out any blockage and the need for an intervention. At a fixed cardiac catheterization lab when a blockage is found during a diagnostic cardiac catheterization, the physician can immediately begin the interventional procedure and remove the blockage. However, at a mobile cardiac catheterization unit (like at NH Brunswick) when a blockage is found during a diagnostic cardiac catheterization, the physician ends the procedure to have the patient transferred to a fixed cardiac catheterization lab (such as NH New Hanover). This transfer often requiring emergency transportation, delays definitive care risking movement of the blockage, and requiring the patient to have the same procedure performed a second time and experiencing the inherent risks for a second time including accessing femoral and/or radial artery through catheterization and/or infection.

b. A statement of alternatives to the proposed adjustment that were considered and found not feasible.

NH Brunswick does not believe an alternative exists to submitting this adjustment to need determination petition.

As previously discussed, DLP Cardiac Partners has operated mobile cardiac catheterization equipment on a limited basis (approximately 1 hour per week) over the past twelve years at NHBMC. The primary concern with mobile cardiac catheterization equipment is that nearly 50 percent of diagnostic cardiac catheterizations require a cardiac intervention and mobile cardiac catheterization equipment is not the preferred location to perform the cardiac intervention. NH Brunswick does not believe that providing cardiac catheterization procedures through DLP Cardiac Partners will never be able to achieve the necessary cardiac catheterization procedure volume to generate a need for cardiac catheterization equipment in Brunswick County. Requesting more days or hours of service from DLP, assuming they are even available, is not a solution to the problem presented in this adjustment to need determination petition. Nor is continuing to send hundreds of patients annually away to other providers a solution. This imposes unreasonable travel, time delays and expenses on patients and families, especially at a time of rapid inflation and gas prices above \$5.00 per gallon.

4. Evidence that health service development permitted by the proposed adjustment would not result in unnecessary duplication of health resources in the area: and

NH Brunswick does not believe that approving this adjustment to need determination petition will result in unnecessary duplication of health resources.

As previously discussed, Brunswick County has two acute care hospitals, NH Brunswick and J. Arthur Doshier Memorial Hospital. Neither of these hospitals operate fixed cardiac catheterization equipment and DLP Cardiac Partners offer very limited access to mobile cardiac catheterization equipment. Brunswick County residents travel up to an hour to receive their cardiac catheterization procedure at NH New Hanover or have to travel out of state to South Carolina.

5. Evidence that the requested adjustment is consistent with the three Basic Principles governing the development of the SMFP: safety and quality, access and value.

Safety and Quality Basic Principle

NH Brunswick's cardiac and vascular service's goal is to provide the same level of care within Brunswick County and county residents receive when they must travel outside of Brunswick County to receive necessary and at times lifesaving treatment. The same cardiac interventionalists who provide care at NH New Hanover will be providing services at NH Brunswick to the benefit of Brunswick County patients.

Access Basic Principle

NH Brunswick does not discriminate based on income, insurance coverage, disability, age, race, ethnicity, culture, language, or education and health literacy. In fact, NH Brunswick has several programs that specifically target these patient categories to assure that they receive the necessary health care services. The approval of this adjustment to need determination petition will address the geographic issue that many residents in Brunswick County face to receive a cardiac catheterization procedure. Locating shared fixed cardiac catheterization equipment at NH Brunswick in Bolivia will cut the travel time in half from Carolina Shores, which will encourage Brunswick County residents to remain not only within the county but within the state for their cardiac catheterization procedure.

NH Brunswick's charity care and related programs are also significant. For example, a family with income at or below 300% of the federal poverty level qualifies for a complete write off of all charges, including physician charges from Novant Health-employed providers, simply by filling out a one-page form.

Value Basic Principle

Offering cardiac catheterization procedures at NH Brunswick will support the permanent increase and relocation of cardiac and vascular providers in Brunswick County. This increase in cardiac services provided at NH Brunswick may also support the increased presence of additional medical specialists at the medical center.

Locating cardiac catheterization services at NH Brunswick will also decrease patient travel time and expenses, directly increasing the cost-effectiveness of the service to Brunswick County residents. Even factoring in the acquisition costs and annual maintenance of the shared fixed cardiac catheterization unit, NH Brunswick will also be able to save by not having to pay DLP for use of the mobile cardiac catheterization unit. As a non-profit institution, any savings are invested back into the community instead of paying dividends to shareholders.

Conclusion

NH Brunswick believes that approving this adjustment to need determination petition will increase access to cardiac catheterization services in Brunswick County and strengthen the Novant Health goal to locate more healthcare specialty services in community hospitals, decreasing the necessity to travel to tertiary care facilities for those services. The State Health Coordinating Council recognizes the importance of this life saving treatment as it has approved two special need determinations in 2021 for Iredell County (shared/fixed) and Mecklenburg County (fixed).