

**Attachment 2**  
**Mississippi State Department of Health**  
**Division of Health Planning and Resource Development**

**Comparative Analysis**  
**Offering of Diagnostic Cardiac Catheterization Services**

The Department received two applications requesting certificate of need (CON) authority for the offering of diagnostic cardiac catheterization ("Cardiac Cath") services in Natchez, Adams County, Mississippi. The applicants are:

- CON Review HG-NIS-1209-037  
Natchez Community Hospital, LLC  
Establishment of Diagnostic Cardiac Catheterization Lab and  
Offering of Diagnostic Cardiac Catheterization Services  
Capital Expenditure: \$796,055  
**Submitted December 18, 2009**
  
- CON Review HG-NIS-0110-002  
Natchez Regional Medical Center  
Re-Establishment of Diagnostic Cardiac Catheterization and  
Digital Subtraction Angiography Services  
Capital Expenditure: \$0  
**Submitted January 13, 2010**

The Certificate of Need Review Manual requires that projects for cardiac catheterization services be batched within a review cycle. As both projects were submitted after the December 1, 2009, filing deadline for projects to be entered into the January – March Review Cycle, both applications were deemed complete on April 1, 2010, and entered into the April – June Review Cycle as competing applications.

In the case of competing applications, the Department must make a determination that the entity approved is the most appropriate applicant for providing the proposed health care facility or service. Additional consideration may be given to how well each of the applicants can meet the criteria of need, access, relationship to existing health care system, availability of resources, and financial feasibility. In addition, the Department may use a variety of statistical methodologies, including but not limited to market share analysis, patient origin data and state agency reports.

**Need for the Project**

Natchez is located in General Hospital Service Area (GHSA) 7, which has a 2010 population projection of 176,215. The only cardiac catheterization provider in GHSA 7 is Southwest Mississippi Regional Medical Center ("Southwest"), McComb, Mississippi, which is located over 45 miles from the proposed providers. In addition, there are no other Mississippi facilities offering cardiac catheterization services within a 45-mile radius of the proposed facilities. Therefore, staff determined that there is an unmet need for diagnostic cardiac cath services in Natchez, Adams County, Mississippi.

Approximately 43,756 diagnostic cardiac cath procedures were performed in Mississippi in fiscal year 2008. Based on Mississippi's 2010 Population Projection of 2,975,550, Mississippi facilities performed an average of 14.7 cardiac cath procedures per 1,000 residents. Based on the

statewide utilization rate of 14.7/1,000, and the 2010 population projection for Adams County (30,497), there is an unmet need of 441 procedures in Adams County.

### **Access to Care**

Both applicants certified that they serve all residents of the health planning service area, hospital service area or patient service area, including Medicaid recipients, charity/medically indigent patients, racial and ethnic minorities, women, handicapped persons, and the elderly and will continue to serve these populations.

As stated above, the only provider of cardiac cath services in GHSA 7 is located an excess of 45 miles away. Therefore, as provided in Policy Statement 7 of the *2010 State Health Plan*, the Department did not rely upon market share analysis to determine applicants' compliance with the population projections as it was found to be inadequate to address access to care concerns.

Natchez Regional Medical Center provided .08% care to medically indigent and 1.52% charity care in 2009. This amounts to \$128,189 of gross patient revenue for medically indigent and \$2,435,587 for charity care. The applicant's percentage of care for medically indigent and charity care appears to be low. However, the applicant does not appear to have policies that would prohibit provision of care to the underserved population. In addition, Natchez estimates that approximately 11% of care will be offered to Medicaid patients, and slightly over 80% will be provided to Medicare patients and approximately 8% of care will be provided for uncompensated charity care with 2% provided to medically indigent patients.

Natchez Community Hospital provided 5.8% care to medically indigent patients in FY 2009 and 2.0% for charity care, yielding \$15,066,576.84 of patient revenues for medically indigent and \$307,481.16 for charity care patients. The applicant projects similar results for the first and second years after completion of the project.

### **Relationship to Existing Healthcare System**

There are currently no providers of diagnostic cardiac cath services in Natchez or within 45 miles from the proposed applicants. The only provider of cardiac cath services located in the applicants' service area is Southwest Mississippi Regional Medical Center located in McComb, Mississippi. Southwest, located in excess of 45 miles away, performed 1,748 cardiac cath procedures in 2007 and 1,576 in 2008. Approximately 43,756 diagnostic cardiac cath procedures were performed in Mississippi as a whole in fiscal year 2008, utilizing 59 labs, for an average of 742 procedures per lab.

Staff reviewed Patient Origin Studies submitted by the applicants to determine how many patients were served by each facility from the service area during the period October 2008 to September 2009. Table 1 below shows the total number of patients reported by the applicants compared with the 2010 population projections for each county of residence. In addition, staff reviewed the 2008 Report on Hospitals to determine how many patients from the Service Area used the facilities, including Southwest Mississippi Regional Medical Center, for the four quarters ending July 2009, to determine if the service area of the applicants overlapped with that of the existing provider in the service area. Table 2 below indicates the percentages of patients from each county that used Natchez Regional Medical Center, Natchez Community Hospital, or Southwest Mississippi Regional Medical Center for the defined period.

Table 1 below reveals that Natchez Regional Medical Center served 56% of the total patients identified from GHSA 7 and the four Louisiana Parishes during the period October 2008 to September 2009. Natchez Community Hospital served approximately 44% of the total patients from the service area.

As shown in Table 2, Southwest Mississippi Regional Medical Center serves an entirely different population base than Natchez Regional Medical Center and Natchez Community Hospital.

**Table 1  
 Comparison of Hospital Patients with  
 Population Projection of each County**

County	Population	Total Patients	Natchez Regional Med Ctr.			Natchez Community Hospital		
			% Total Patients	Market Share	NRMC Patients	% Total Patients	Market Share	NCH Patients
Adams	30,497	35,903	55.93%	17,057	20,080	44.07%	13,440	15,823
Amite	13,303	378	42.59%	5,666	161	57.41%	7,637	217
Franklin	8,460	2,213	59.51%	5,035	1,317	40.49%	3,425	896
Jefferson	9,299	3,694	50.70%	4,715	1,873	49.30%	4,584	1,821
Lawrence	13,936			*			*	
Lincoln	34,904			*			*	
Pike	40,619			*			*	
Walthall	14,944			*			*	
Wilkinson	10,253	1,100	75.09%	7,699	826	24.91%	2,554	274
Catahoula, LA	10,522	1,749	56.66%	5,962	991	43.34%	4,560	758
Concordia, LA	19,064	10,695	53.42%	10,184	5,713	46.58%	8,880	4,982
Franklin, LA	20,006	157	38.22%	7,646	60	61.78%	12,360	97
Tensas, LA	5,694	837	67.14%	3,823	562	32.86%	1,871	275
<b>Totals</b>	<b>246,504</b>	<b>56,726</b>		<b>67,786</b>	<b>31,583</b>		<b>59,312</b>	<b>25,143</b>

Source: Patient Origin information submitted by Natchez Regional Medical Center and Natchez Community Hospital for period October 2008 – September 2009

\*Number of total patients deemed insufficient to include in service area.

**Table 2**  
**Percentage of Patients Using Facilities in GHSA 7**

	NRMC	NCH	SWMMC
Adams	55.07	51.30%	0.00%
Amite	0.00	0.00%	9.86%
Franklin	2.33	2.89%	0.00%
Jefferson	7.26	6.65%	0.00%
Lawrence	0.00	0.00%	1.85%
Lincoln	0.00	0.00%	9.63%
Pike	0.00	0.00%	59.63%
Walthall	0.00	0.00%	7.94%
Wilkinson	4.11	6.79%	0.00%
Louisiana	29.45	29.05%	2.70%
Other	1.78	3.32%	8.40%

**Source:** Division of Health Facilities Licensure & Certification  
 2008 Report on Hospitals, MSDH and 2010 State Health Plan

### **Availability of Resources**

Natchez Community Hospital proposes to assume a lease agreement from Riverpark Community Cath Lab, LLC ("Riverpark") for a Philips Healthcare ("Phillips") Allura FD10 Ceiling System from GE Financial to establish the cath lab at its facility. Riverpark will close its cath lab in Louisiana upon relocation of the lab to Natchez Community Hospital, where it will manage the lab at Natchez Community Hospital.

Riverpark Community Cath Lab, LLC has transfer agreements with Central Mississippi Medical Center, for the transfer of patients for emergency care. Central Mississippi Medical Center submitted a letter for the application indicating that it will sign a similar agreement with Natchez Community Hospital should the CON be approved.

Natchez Regional Medical Center purchased a Goldseal Engineering Bay LCV+ Combo Cath Lab with a new Mac Lab 7000, Acist injector and accessories in 2003. The applicant states that the cath lab and equipment are completely paid for. The applicant has a contractual agreement with Jackson Heart Clinic, P.A. for management of the Cath Lab.

In addition, Natchez Regional Medical Center has a transfer agreement with St. Dominic-Jackson Memorial Hospital for the transfer of patients for emergency care. Dr. Brad LeMay, cardiologist, submitted a letter indicating that his intent to move to Natchez and begin seeing patients in the area on April 12, 2010.

### **Financial Feasibility**

Both applicants project to perform an excess of 400 procedures by the end of the third year of operation. Southwest, the only provider located in the applicants' service area, performed 1,176

diagnostic cardiac cath procedures in 2008. According to the 2009 State Health Plan, Natchez Regional performed 457 diagnostic cardiac cath procedures in 2006. Therefore, both applicants' projections appear to be reasonable.

Natchez Regional Medical Center projects gross patient revenues of \$9,697,455 for the first year of operation. The applicant projects to perform 1,853 procedures in the Cath Lab the first year of operation. According to Natchez Regional, this number includes 350 diagnostic cardiac cath procedures in addition to DSA and all other procedures associated with the addition of diagnostic cardiac cath services. Natchez Regional estimates that the cost of diagnostic cardiac cath procedures will be \$965 per procedure and the charge will be \$5,233. See Table Below.

Natchez Community Hospital projects gross patient revenues of \$1,333,080 the first year of operation and 315 procedures at a cost of \$2,094 per procedure and a charge of \$4,232 per procedure.

**Comparison of Natchez Community and Natchez Regional  
 First Year Projected Operating Statements**

	<b>Natchez Regional</b>	<b>Natchez Community</b>
Inpatient Revenue	\$5,333,600	\$533,232
Outpatient Revenue	4,363,855	799,848
Total Revenue	\$9,697,455	\$1,333,080
Charity Care	0	566,692
Total Deductions	\$7,480,375	\$566,692
Salaries	\$796,871	\$109,979
Benefits	237,845	
Supplies	250,674	219,958
Services		43,992
Lease	503,674	10,200
Depreciation	-	132,000
Interest	-	33,600
Other	-	109,979
Total Operating Expenses	\$1,788,592	\$659,708
Income (Loss)	\$428,486	\$106,680
Procedures*	1,895	315
Cost/Procedure	\$965	\$2,094
Charge/Procedure	\$5,233	\$4,232

\*NRMHC states these procedures include ER visits and all procedures that will occur due to the re-instatement of the diagnostic cardiac cath lab.

### **Other Considerations**

Natchez Regional Medical Center received CON authority in 2001 to establish diagnostic cardiac catheterization and digital subtraction angiography services. The facility purchased a Goldseal Engineering Bay LCV+ Combo Cath Lab with a new Mac Lab 7000, Acist injector and accessories in which applicant states is completely paid for. The facility initiated the services in 2003 but was forced to cease providing services in 2007 due to loss of its cardiologist.

Natchez Regional Medical Center received in excess of 30 letters of support/comment from physicians, sheriff's office, police department, banks, universities, politicians, and other community organizations.

Natchez Community Hospital received CON authority to establish diagnostic cardiac catheterization services in 1997 and commenced offering the service in July 1998 utilizing a mobile facility but also ceased operating the services in February 1999 due to loss of its cardiologist. Natchez Community Hospital stated that the cost of the mobile unit was very high and determined that it was necessary to return the unit until such time as they recruited another cardiologist.

Natchez Community Hospital received approximately 17 letters of support/comment from physicians and other community organizations.

### **Conclusion/Recommendation**

Both applicants are located in GHSA 7 which has a population projection in excess of 100,000. Each applicant projects to perform a minimum of 300 diagnostic cardiac cath procedures by its third year of operation. Both applicants were once providers of diagnostic cardiac cath services and both ceased to offer the service due to loss of a cardiologist.

Because there is not a provider of cardiac cath services within 45 miles of the proposed services, staff did not rely upon market share analysis for determination of need for diagnostic cardiac cath services in Natchez, Adams County. However, staff did perform a market share analysis to determine each applicant's share of the existing patient population shared in the service area. Based on staff's analysis, Natchez Regional Medical Center has a market share of 56% of the patients from GHSA 7 that use a facility in Natchez while Natchez Community Hospital has a share of 44% of the patients. These percentages include patients coming to the facilities from parishes in Louisiana.

Staff finds that each facility is equally capable of providing diagnostic cardiac cath services. However, staff contends that a patient population of 57,000 to 60,000 can only support one cardiac cath program. Staff further contends that Natchez Regional Medical Center is the most appropriate applicant to provide diagnostic cardiac cath services at this time for the following reasons:

- Natchez Regional Medical Center already has a Diagnostic Cardiac Catheterization Laboratory and cardiac cath equipment which it states is fully paid for. Natchez Regional also has the capacity to perform digital subtraction angiography services upon approval of

the CON. Natchez Community will need to expend \$796,055 to purchase equipment and is not requesting to provide digital subtraction angiography services.

- Natchez Regional Medical Center has the backing of Jackson Heart Clinic and a transfer agreement with St. Dominic-Jackson Memorial Hospital. While Natchez Community Hospital has a transfer agreement with Central Mississippi Medical Center, in staff's opinion the cardiologist support does not appear to be as strong as that obtained by Natchez Regional.
- Finally, Natchez Regional Medical Center has a larger community support for the project, receiving over 30 letters of support from physicians and business, educational, and community leaders. Staff contends that support for the Natchez Community Hospital project is significantly less than the support expressed for Natchez Regional Medical Center.

Therefore, the Division of Health Planning and Resource Development recommends approval of the application submitted by Natchez Regional Medical Center for the re-establishment of diagnostic cardiac catheterization and digital subtraction angiography services. The approval of the application by Natchez Regional Medical Center precludes the approval of any other application in the area.