SECTION B

HEALTH FACILITIES AND SERVICES/CERTIFICATE OF NEED CRITERIA AND STANDARDS

CHAPTER 8

LONG-TERM CARE

Chapter 08 Long-Term Care

Mississippi's long-term care (nursing home and home health) patients are primarily disabled elderly people, who make up 20 percent of the 2010 projected population above age 65. Projections place the number of people in this age group at approximately 441,945 by 2010, with more than 88,000 disabled in at least one essential activity of daily living.

The risk of becoming frail, disabled, and dependent rises dramatically with age. While the average length of life has increased; people are often living longer with some very disabling chronic conditions, which the present medical system can "manage" but not cure. So while the lives of many people have been prolonged through advances in medicine and public health, the quality of an older person's life often suffers. Aged individuals may become dependent on medical technology and professional care providers for years—not just weeks or months.

These trends pose tremendous challenges for society. Issues include ensuring an adequate supply of trained caregivers, protecting vulnerable groups, and financing expensive long-term care programs with limited resources. In many cases, the greatest needs of elderly people are not medical, but rather a need for help with the basic activities of daily living, such as bathing and dressing. Many have difficulty with activities that require walking—for example, shopping; yet with proper assistance, many people with disabilities are able to remain at home.

The U.S. Census' Profile of Selected Social Characteristics: 2000 estimates that of the 316,049 Mississippians aged 65 and over in 2000, 166,819 (52.78 percent) suffered from some form of disability. Drastic increases occur with advancing age in the number of people reporting difficulties and in the number reporting more than one problem and the severity of problems is likely to worsen as the years pass.

100 Options for Long-Term Care

"Long-term care" simply means assistance provided to a person who has chronic conditions that reduce their ability to function independently. Many people with severe limitations in their ability to care for themselves are able to remain at home or in supportive housing because they have sufficient assistance from family, friends, or community services.

Community services play a vital role in helping the elderly maintain some degree of independence and postpone or avoid institutionalization. Examples community-based elder-care include adult day care, senior centers, transportation, meals on wheels or meals at community locations, and home health services. The Older Americans Act, the Federal Social Services Block Grant, and state funds finance many of these services. The Mississippi Department of Human Services Division of Aging and Adult Services and the state's ten Area Agencies on Aging coordinate the funds and help people aged 60 and older to obtain services. These agencies work with state and local governments, foundations, and private sector businesses to expand funding at the local level and provide as many services as possible to elderly residents. More information pertaining to the home and community based services provided by the Division of Aging and Adult Services can be obtained by contacting the Mississippi Department of Human Services. .

The Division of Medicaid funds and directs a statewide program for home and community-based services under a federally granted Medicaid waiver. Under this program, eligible individuals can choose to receive supportive services in their own homes or in the community rather than enter a nursing home. Services include case management, homemaker assistance, home-delivered meals,

adult day care, institutional or in-home respite care, escort transportation, and expanded home health services. Information pertaining to the funding of home and community based services can be obtained through the Division of Medicaid, Office of the Governor, State of Mississippi.

101 Housing for the Elderly

Many elderly or infirmed people do not need skilled nursing care on a daily basis, but simply safe, affordable housing and some assistance with the activities of daily living. Such housing can take many forms.

"Board and care homes" are residences providing rooms (often semi-private), shared common areas, meals, protective oversight, and help with bathing, dressing, grooming, and other daily needs. In Mississippi, these facilities are licensed as personal care homes: Personal Care Home – Residential Living and Personal Care Home – Assisted Living. Both of these facilities provide residents a sheltered environment and assistance with the activities of daily living. Additionally, Personal Care Homes - Assisted Living may provide additional supplemental medical services that include the provision of certain routine health maintenance and emergency response services.

In 2007, the state had 178 licensed personal care homes, with a total of 5,054 licensed beds. The Mississippi Division of Medicaid operates an Assisted Living Waiver program which is piloted in seven counties: Bolivar, Sunflower, Lee, Hinds, Newton, Forrest, and Harrison. Participants in this waiver must be 21 years of age or older, meet nursing home level of care, need assistance with at least three activities of daily living, or have a diagnosis of Alzheimer's disease or other dementia and need assistance with two activities of daily living. Facilities must be licensed by the MSDH as a Personal Care Home - Assisted Living to become a Medicaid provider for participation in the waiver. Individuals are responsible for the cost of room and board and Medicaid pays a flat, daily rate for services received within the facility. Services include personal care services, homemaker, chore, attendant care, medication oversight, therapeutic social and recreational programming, medication administration, intermittent skilled nursing services, transportation specified in the plan of care, and attendant call systems.

"Retirement communities" or "senior housing facilities" have become common around the state. These communities usually provide apartments for independent living, with services such as transportation, weekly or bi-weekly housekeeping, and one to three meals daily in a common dining room. Many of these facilities include a licensed personal care home where the resident may move when he or she is no longer physically or mentally able to remain in their own apartment. Most facilities do not require an initial fee and do not sign a lifetime contract with their residents. They generally offer only independent living and personal care—most do not include a skilled nursing home as a part of the retirement community.

Another type of retirement center, called a "continuing care retirement community" (CCRC) includes three stages: independent living in a private apartment, a personal care facility, and a skilled nursing home. Residents of this type of facility enter into a contract whereby the residents pay a substantial fee upon entering the CCRC and the facility agrees to provide care for the remainder of the residents' lives.

102 Financing for Long-Term Care

Most Americans are astounded to learn of the scarcity of financial help available for long-term care. Many people assume that Medicare pays for these services; in fact, Medicare funds a maximum of 100 days in a Medicare-certified skilled nursing facility only after a hospital-stay of at least three days and only if the attending physician certifies the patient as needing skilled nursing or rehabilitative services. Even under these conditions, only the first 20 days are completely covered. For the remaining 80 days, the individual must make a co-payment. The number of nursing homes certified for Medicare has increased substantially in recent years, but many still do not choose to participate in the program.

Swing-beds provide a valuable transition from hospital care for many Medicare-eligible patients whose medical condition prohibits immediate home discharge and would benefit from an additional period of supervised recuperation. Without the extended care provided in a swing-bed, many of these patients would become nursing home residents. Fifty-four hospitals participated in the swing-bed program during FY 2007 and provided care equivalent to approximately 245 nursing home beds. However, federal law limits the swing bed program to rural hospitals of fewer than 100 beds. Chapter 11 offers additional information on swing bed services.

As of April 2008, Mississippi also has ten operational Medicare-certified long-term acute care hospitals, with two more just having received Certificate of Need (CON) authority for 67 additional licensed beds. These hospitals provide extended care to patients who require no more than three hours of rehabilitation per day but who have an average length of stay greater than 25 days. As with swing beds, these hospitals allow patients a longer period of recuperation to possibly avoid admission to a nursing home.

In addition, licensed acute care hospitals may designate a portion of their beds as a "distinct part skilled nursing facility." These hospitals may then receive Medicare certification as a skilled nursing facility for those apportioned beds if the beds are located in a physically identifiable, distinct part of the hospital and meet all the certification requirements of a skilled nursing facility. A total of nine hospitals with 161 beds are in operation.

Medicare also finances home health care when medically necessary and ordered by a physician. This care is more important than ever before as hospital stays become shorter and patients are discharged in a "sicker" condition. However, Medicare regulations require that the patient be home-bound, be under the care of a physician, and need skilled nursing care, physical therapy, or occupational therapy. Chapter 13 provides information on home health services in Mississippi.

Nationally, Medicare has become one of the largest funding sources for home health services, and Medicare funding for short stays in nursing homes is increasing. Nevertheless, Medicare remains a medical model intended to pay for short term acute care, not extended long-term care services.

102.01 Medicaid

Medicaid is the primary payor of long term skilled nursing care in the United States. Nursing home care totaled $593 million for Mississippi in FY 2006, with Federal funds making up over 75% of that amount. Over 20 percent of the Medicaid budget in Mississippi goes to long term care, with approximately 70 percent of the nursing home care funded by Medicaid. However, an individual's assets and income must be very low to qualify for the Medicaid program.

Nursing home care is very expensive, averaging $40,000 a year in Mississippi. Many people enter nursing homes as private pay patients and exhaust their assets after a short time. Then, they must rely on Medicaid to pay for their care. Patients or their families pay for approximately 11 percent (private pay) of the nursing home care in Mississippi.

102.02 Long-Term Care Insurance

Long-term care insurance is evolving to better meet consumers' needs. For some people, a long-term care insurance policy is an affordable and attractive option. For others, the high cost or the benefits they can afford are too small to make a policy worthwhile. According to the most recent Kaiser Family Foundation report on Long Term Care Insurance, there are only approximately 4 million Long Term Care policies nationwide. However the same report indicates that a new Federal Long Term Care Insurance program may increase the number of long term care policies by as much as 20 million in the next few years.

103 Nursing Facilities

Mississippi has 187 public or proprietary skilled nursing homes, with a total of 17,267 licensed beds. Nine entities have received CON approval for the construction of 500 additional nursing home beds, and 14 facilities have voluntarily de-licensed a total of 516 nursing home beds which are being held in abeyance by MSDH. This count excludes one nursing home operated by the Mississippi Band of Choctaw Indians, with a total of 120 beds; seven nursing homes operated by the Department of Mental Health, with a total of 707 licensed beds; a total of 229 beds in continuing care retirement communities (CCRCs); four nursing homes operated by the Mississippi State Veteran's Affairs Board, with a total of 600 beds; and one facility operated by the Mississippi Methodist Rehabilitation Center, with a total of 60 beds (which are dedicated to serving patients with special rehabilitative needs, including spinal cord and closed-head injuries). These beds are not subject to Certificate of Need review and are designated to serve specific populations.

Map 8-1 shows the general Long-Term Care Planning Districts and Table 8-1 presents the projected nursing home bed need by Planning District. Both the map and table appear in the criteria and standards section of this chapter

104 Long-Term Care Beds for Individuals with Mental Retardation and Other Developmental Disabilities

Mississippi had 2, 745 licensed beds classified as ICF/MR (intermediate care facility for the mentally retarded) in FY 2006. The Department of Mental Health (MDMH) operates five comprehensive regional centers that contain 2,055 active licensed and staffed beds. There are also five proprietary facilities operate the remaining 669 beds. The residents of the MDMH's regional centers, although they have mental retardation/developmental disabilities, also have severe physical disabilities that result in their requiring care at the nursing home level. Regular nursing facilities are not equipped to serve these individuals.

Map 8-2 shows the MR/DD Long-Term Care Planning Districts and Table 8-2 presents the MR/DD nursing home bed need by Planning District. Both the map and table appear in the criteria and standards section of this chapter.

Community Living

The Department of Mental Health has achieved significant progress in developing community living alternatives for persons with mental retardation and developmental disabilities. The prevailing philosophy on the national and state level is to shift emphasis from large institutions to small specialized facilities within the community. Individuals placed in these facilities need long-term treatment programs that may last for several years. In theory, ICF/MR facilities are transitional – individuals should eventually reach a level of functioning that would allow them to move to a less restrictive environment. Rehabilitative and habilitative training programs continue as long as the individual remains in the facility.

Information pertaining to community living alternatives in Mississippi consisting of either group homes or supervised apartments contact the Department of Mental Health, Office of Planning and Public Relations.

105 Alzheimer's Disease and Other Related Dementia

The National Institute on Aging estimates that up to 4.5 million are people are Americans with Alzheimer's disease. The disease usually begins after age 60, and the risk increases with age. While younger people also may develop Alzheimer's, it is much less common. About 5 percent of men and women ages 65 to 74 have Alzheimer's disease, and nearly half of those age 85 and older may have the disease. It is important to note, however, that Alzheimer's disease is not a normal part of aging. The National Institute on Aging also estimates that 1.8 million persons in the United States have Alzheimer's disease and other severe dementia. In addition, one to five million people is estimated to have mild or moderate dementia.

Increasing age is the greatest risk factor for Alzheimer's, and with 78 million baby boomers now in their 60s, the estimated prevalence is set to go up to 7.7 million by 2030. The Centers for Disease Control and Prevention (CDC) reports that Alzheimer's is now the seventh leading cause of death in the U.S. and the fifth leading cause of death for those over 65. One of the reasons the disease is on the rise is because of success in reducing deaths due to other diseases. According to the CDC, between 2000 and 2004 death rates have come down for heart disease by 8 percent, stroke by 10.4 percent, breast cancer by 2.6 percent, and prostate cancer by 6.3 percent. But deaths due to Alzheimer's have risen by 33 percent in the same period.

105.01 Alzheimer's/Dementia and Effects on Health Status

In general, health status declines with aging, as individuals become more frail and susceptible to multiple chronic illnesses. Cognitive losses become a leading cause of functional and physical decline. As the disease progresses, the individual begins to experience loss in performing personal care tasks and cognitive-dependent home management tasks. These activities are referred to as activities of daily living (ADL) and instrumental activities of daily living (IADL), respectively. Persons with dementia who need physical and behavioral intervention may include persons ranging from ambulatory individuals who are able to do some ADL tasks to individuals who need total care. Estimates of how many persons need both ADL and IADL services range from nine percent of persons who are 65 to 69 years old to 45 percent or above for those 85 and older.

Informal networks of families and other caregivers provide the bulk of the care and services for individuals with dementia. Often the caregivers, who endure their loved one's cognitive loss and assume heavy burdens of care over a prolonged period of time, become the less visible victims of

dementia. As time progresses, the caregivers may begin to experience stress-related illnesses and may become more susceptible to problems of advancing age. As the individual's illness worsens, the caregiver may require help from formal health services or a facility that offers long term residential services.

Events which precipitate an individual's move from a home environment to a nursing facility are usually related to circumstances, specific events, or symptoms that cause care-giving in the home setting to be too burdensome, stressful, or unsafe. This decision is usually entailed by sickness and/or death of a spouse or care-giver. The challenge for family and care-givers is to determine when home care becomes inappropriate and institutional care becomes a necessity, not a choice.

105.02 Alzheimer's/Dementia Facilities and Services in Mississippi

The moratorium on long term care beds has been lifted occasionally to provide Certificates of Need for nursing facility beds for individuals with Alzheimer's disease in the northern, central, and southern portions of each of the Long-Term Care Planning Districts. Mississippi has a total of 240 Medicaid eligible Alzheimer's beds. Additionally there are seven private facilities offering long term skilled nursing care with a total of 126 beds statewide. For less advanced stage Alzheimer's, there are six personal care/assisted living facilities offering Alzheimer's Units with 117 beds statewide.

The MDMH has established the Division of Alzheimer's Disease and Other Dementia, with the responsibility of developing and implementing state plans to assist with the care and treatment of persons with Alzheimer's disease and other dementia, including the development of community-based day programs and training needed by caregivers. Two adult day programs for individuals with Alzheimer's disease/Other Dementia are currently serving as pilot projects: Central Mississippi Residential Center operates Footprint Adult Day Services in Newton, and Region 6 Community Mental Health Center (Life Help) operates Garden Park Adult Day Center in Greenwood. Each program is presently serving 20 persons at a time, and running at full capacity.

CERTIFICATE OF NEED

CRITERIA AND STANDARDS FOR NURSING HOME BEDS

106 Certificate of Need Criteria and Standards for Nursing Home Beds

Note: Should the Mississippi State Department of Health receive a Certificate of Need application regarding the acquisition and/or otherwise control of major medical equipment or the provision of a service for which specific CON criteria and standards have not been adopted, the application shall be deferred until the Department of Health has developed and adopted CON criteria and standards. If the Department has not developed CON criteria and standards within 180 days of receiving a CON application, the application will be reviewed using the general CON review criteria and standards presented in the *Mississippi Certificate of Need Review Manual* and all adopted rules, procedures, and plans of the Mississippi State Department of Health.

106.01 Policy Statement Regarding Certificate of Need Applications for the Offering of Nursing Home Care Services

1. Legislation

   a. The 1990 Mississippi Legislature imposed a permanent moratorium which prohibits the MSDH from granting approval for or issuing a Certificate of Need to any person proposing the new construction of, addition to, expansion of, or conversion of vacant hospital beds to provide skilled or intermediate nursing home care, except as specifically authorized by statute.

   b. Effective July 1, 1990, any health care facility defined as a psychiatric hospital, skilled nursing facility, intermediate care facility, intermediate care facility for the mentally retarded, or psychiatric residential treatment facility that is owned by the State of Mississippi and under the direction and control of the State Department of Mental Health is exempted from the requirement of the issuance of a Certificate of Need under Section 41-7-171 et seq., for projects which involve new construction, renovation, expansion, addition of new beds, or conversion of beds from one category to another in any such defined health care facility.

   c. The 1999 Mississippi Legislature temporarily lifted the 1990 moratorium to allow a 60-bed nursing facility to be added to each of 26 counties with the greatest need between the years 2000 and 2003. The Legislature also permitted CONs for 60 nursing facility beds for individuals with Alzheimer's disease in the northern, central, and southern parts of each of the Long-Term Care Planning Districts, for a total of 240 additional beds.

   d. Effective April 12, 2002, no health care facility shall be authorized to add any beds or convert any beds to another category of beds without a Certificate of Need.

   e. Effective March 4, 2003, if a health care facility has voluntarily delicensed some of its existing bed complement, it may later relicense some or all of its delicensed beds without the necessity of having to acquire a Certificate of Need. The Department of Health shall maintain a record of the delicensing health care facility and its voluntarily delicensed beds and continue counting those beds as part of the state's total bed count for health care planning purposes.

2. Long-Term Care Planning Districts (LTCPD): The MSDH shall determine the need for additional nursing home care beds based on the LTCPDs as outlined on Map 4-1. The MSDH shall calculate the statistical need for beds in each LTCPD independently of all other LTCPDs.

3. Bed Need: The need for nursing home care beds is established at:

   0.5 beds per 1,000 population aged 64 and under
   10 beds per 1,000 population aged 65-74
   36 beds per 1,000 population aged 75-84
   135 beds per 1,000 population aged 85 and older

4. Population Projections: The MSDH shall use population projections as presented in Table 4-1 when calculating bed need. These population projections are the most recent projections prepared by the Center for Policy Research and Planning of the Institutions of Higher Learning (March 2005).

5. Bed Inventory: The MSDH shall review the need for additional nursing home beds using the most recent information available regarding the inventory of such beds.

6. Size of Facility: The MSDH shall not approve construction of a new or replacement nursing home care facility for less than 60 beds. However, the number of beds authorized to be licensed in a new or replacement facility may be less than 60 beds.

7. Definition of CCRC: The Glossary of this *Plan* presents the MSDH's definition of a "continuing care retirement community" for the purposes of planning and CON decisions.

8. Medicare Participation: The MSDH strongly encourages all nursing homes participating in the Medicaid program to also become certified for participation in the Medicare program.

9. Alzheimer's/Dementia Care Unit: The MSDH encourages all nursing home owners to consider the establishment of an Alzheimer's/Dementia Care Unit as an integral part of their nursing care program.

106.02 Certificate of Need Criteria and Standards for Nursing Home Care Beds

If the legislative moratorium were removed or partially lifted, the MSDH would review applications for the offering of nursing home care under the statutory requirements of Sections 41-7-173 (h) subparagraphs (iv) and (vi), 41-7-191, and 41-7-193, Mississippi Code of 1972, as amended. The MSDH will also review applications for Certificate of Need according to the applicable policy statements contained in this Plan; the general criteria listed in the *Mississippi Certificate of Need Review Manual*; all adopted rules, procedures, and plans of the MSDH; and the specific criteria and standards listed below.

Certificate of Need review is required for the offering of nursing home care services, as defined, if the capital expenditure exceeds $2,000,000; if the licensed bed capacity is increased through the conversion or addition of beds; or if nursing home care services have not been provided on a regular basis by the proposed provider of such services within the period of

twelve (12) months prior to the time such services would be offered. Certificate of Need review is required for the construction, development, or otherwise establishment of new nursing home care beds regardless of capital expenditure.

1. **Need Criterion: The applicant shall document a need for nursing home care beds using the need methodology as presented herein: The Long-Term Care Planning District wherein the proposed facility will be located must show a need using the following ratio:**

   0.5 beds per 1,000 population aged 64 and under
   10 beds per 1,000 population aged 65-74
   36 beds per 1,000 population aged 75-84
   135 beds per 1,000 population aged 85 and older

2. The applicant shall document the number of beds that will be constructed, converted, and/or licensed as offering nursing home care services.

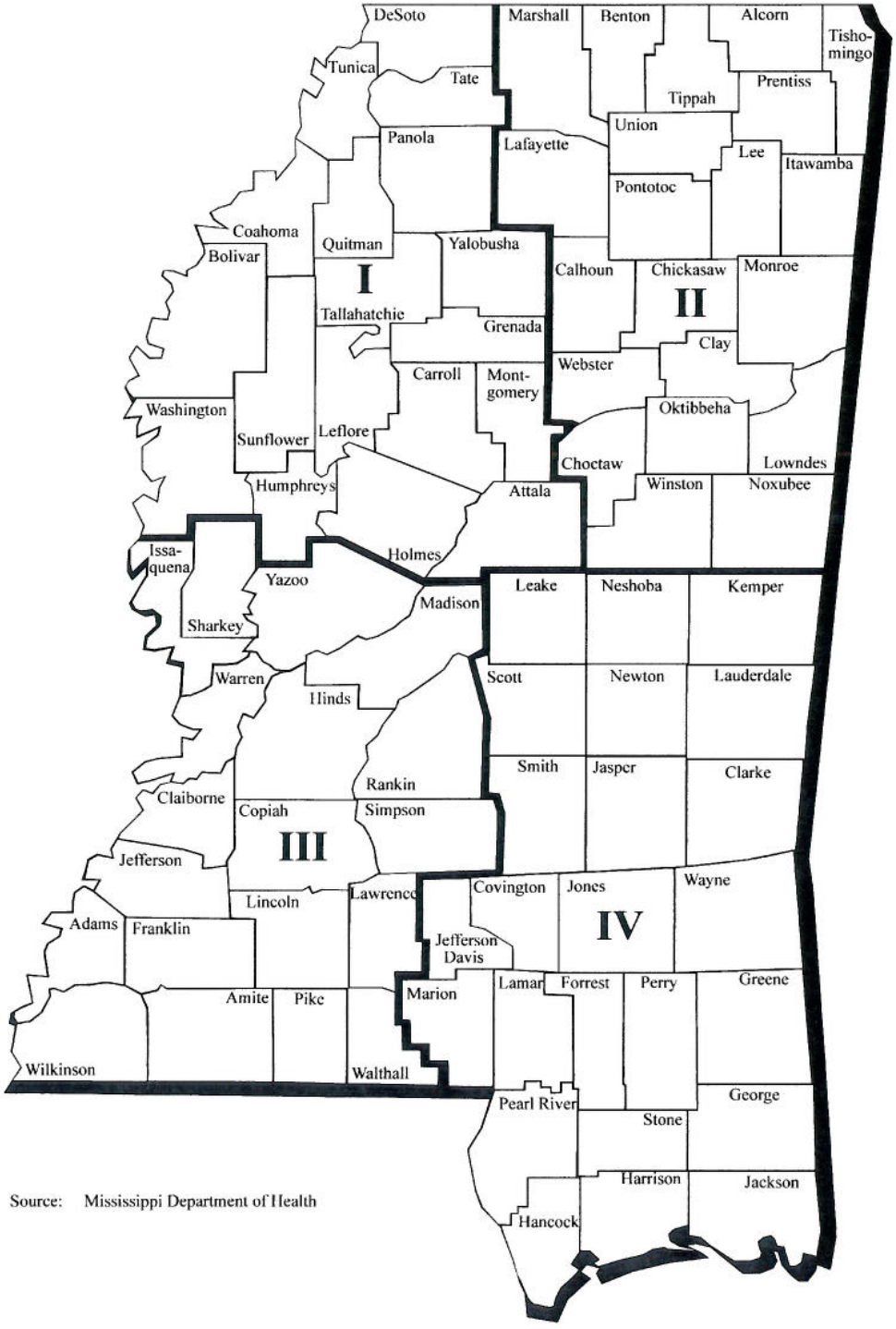
3. The MSDH should consider the area of statistical need as one criterion when awarding Certificates of Need in the case of competing applications.

4. Any applicant applying for nursing home beds who proposes to establish an Alzheimer's/Dementia Care Unit shall affirm that the applicant shall fully comply with all licensure regulations of the MSDH for said Alzheimer's/Dementia Care Unit.

106.03 Certificate of Need Criteria and Standards for Nursing Home Beds As Part of a Continuing Care Retirement Community (CCRC)

Entities desiring to establish nursing home beds as part of a CCRC shall meet all applicable requirements, as determined by the MSDH, of the policy statements and general CON criteria and standards in the *Mississippi Certificate of Need Review Manual* and the CON criteria and standards for nursing home beds established in this *State Health Plan*.

Map 4 - 1
Long-Term Care Planning Districts



Source: Mississippi Department of Health

Table 8 - 1
2008 Projected Nursing Home Bed Need[1]

State of Mississippi												
Long-Term Care Planning District	Population 0 - 64	Bed Need (0.5/1,000)	Population 65 - 74	Bed Need (10/1,000)	Population 75 - 84	Bed Need (36/1,000)	Population 85+	Bed Need (135/1,000)	Total Bed Need	# Beds in Abeyance	Licensed/CON-Approved Beds	Difference
District I	475,794	238	37,367	374	26,708	961	12,510	1,689	3,262	133	3,239 / 140	-250
District II	499,251	250	44,952	450	33,888	1,220	15,890	2,145	4,064	15	4,106 0	-57
District III	690,052	345	54,539	545	40,274	1,450	18,881	2,549	4,889	65	4,611 0	213
District IV	868,516	434	76,450	765	55,415	1,995	25,064	3,384	6,577	303	5,311 / 360	603
State Total	**2,533,613**	**1,267**	**213,308**	**2,133**	**156,285**	**5,626**	**72,345**	**9,767**	**18,793**	**516**	**17,267 / 500**	**510**

[1] Data may not equal totals due to rounding

Note: Licensed beds do not include 707 beds operated by the Department of Mental Health, 120 beds operated by the Mississippi Band of Choctaw Indians, 600 beds operated by the Mississippi Veteran's Affairs Board, 60 beds operated by the Mississippi Methodist Rehabilitation Center for the treatment of patients with special disabilities, including persons with spinal cord and closed-head injuries and ventilator-dependent patients, or 229 beds licensed to continuing care retirement communities.

Sources: Mississippi State Department of Health, Division of Licensure and Certification; and Division of Health Planning and Resource Development Calculations, 2007

Population Projections: *Mississippi Population Projections 2010, 2015, and 2020.* Center for Policy Research and Planning, Mississippi Institutions of Higher Learning, August 2005

Table 8-1 (continued)
2008 Projected Nursing Home Bed Need

District I												
County	Population 0 - 64	Bed Need (0.5/1,000)	Population 65 - 74	Bed Need (10/1,000)	Population 75 - 84	Bed Need (36/1,000)	Population 85+	Bed Need (135/1,000)	Total Bed Need	# Beds in Abeyance	Licensed/CON Approved Beds	Difference
Attala	15,757	7.88	1,662	16.62	1,505	54.18	734	99.09	178	0	120 / 60	-2
Bolivar	33,131	16.57	2,396	23.96	1,778	64.01	911	122.99	228	60	350 0	-182
Carroll	8,707	4.35	1,040	10.40	655	23.58	302	40.77	79	0	60 0	19
Coahoma	24,773	12.39	1,871	18.71	1,564	56.30	769	103.82	191	8	178 0	5
DeSoto	131,632	65.82	9,642	96.42	5,230	188.28	2,110	284.85	635	0	320 0	315
Grenada	19,177	9.59	1,797	17.97	1,465	52.74	718	96.93	177	0	257 0	-80
Holmes	17,918	8.96	1,342	13.42	1,070	38.52	536	72.36	133	0	148 0	-15
Humphreys	9,988	4.99	689	6.89	573	20.63	279	37.67	70	0	60 0	10
Leflore	30,809	15.40	2,115	21.15	1,728	62.21	870	117.45	216	0	410 0	-194
Montgomery	9,271	4.64	1,006	10.06	897	32.29	432	58.32	105	0	120 0	-15
Panola	31,246	15.62	2,570	25.70	1,920	69.12	870	117.45	228	0	190 / 20	18
Quitman	8,828	4.41	715	7.15	572	20.59	280	37.80	70	0	60 0	10
Sunflower	29,947	14.97	1,724	17.24	1,309	47.12	646	87.21	167	2	242 0	-77
Tallahatchie	11,685	5.84	1,103	11.03	853	30.71	417	56.30	104	0	68 / 60	-24
Tate	23,888	11.94	2,084	20.84	1,375	49.50	626	84.51	167	0	120 0	47
Tunica	9,015	4.51	676	6.76	418	15.05	195	26.33	53	0	60 0	-7
Washington	49,559	24.78	3,777	37.77	2,894	104.18	1,394	188.19	355	58	356	-59
Yalobusha	10,463	5.23	1,158	11.58	902	32.47	421	56.84	106	5	120	-19
District Total	**475,794**	**237.90**	**37,367**	**373.67**	**26,708**	**961.49**	**12,510**	**1,688.85**	**3,262**	**133**	**3,239 / 140**	**-250**

Table 8-1 (continued)
2008 Projected Nursing Home Bed Need

District II													
County	Population 0 - 64	Bed Need (0.5/1,000)	Population 65 - 74	Bed Need (10/1,000)	Population 75 - 84	Bed Need (36/1,000)	Population 85+	Bed Need (135/1,000)	Total Bed Need	# Beds in Abeyance	Licensed/CON - Approved Beds		Difference
Alcorn	28,263	14.13	3,241	32.41	2,370	85.32	1,109	149.72	282	0	264	0	18
Benton	6,104	3.05	653	6.53	542	19.51	246	33.21	62	0	60	0	2
Calhoun	10,976	5.49	1,234	12.34	1,093	39.35	540	72.90	130	0	155	0	-25
Chickasaw	14,767	7.38	1,440	14.40	1,132	40.75	524	70.74	133	0	139	0	-6
Choctaw	8,020	4.01	824	8.24	655	23.58	311	41.99	78	0	73	0	5
Clay	17,957	8.98	1,469	14.69	1,245	44.82	595	80.33	149	0	180	0	-31
Itawamba	19,678	9.84	2,150	21.50	1,523	54.83	708	95.58	182	0	196	0	-14
Lafayette	37,712	18.86	2,455	24.55	1,871	67.36	854	115.29	226	0	180	0	46
Lee	65,953	32.98	5,782	57.82	3,972	142.99	1,870	252.45	486	0	487	0	-1
Lowndes	50,618	25.31	4,078	40.78	3,057	110.05	1,410	190.35	366	0	380	0	-14
Marshall	31,792	15.90	2,755	27.55	1,814	65.30	768	103.68	212	0	180		32
Monroe	31,043	15.52	3,164	31.64	2,388	85.97	1,157	156.20	289	0	332	0	-43
Noxubee	9,795	4.90	792	7.92	648	23.33	301	40.64	77	0	60	0	17
Oktibbeha	40,040	20.02	2,408	24.08	1,701	61.24	773	104.36	210	0	179	0	31
Pontotoc	24,883	12.44	2,067	20.67	1,619	58.28	776	104.76	196	0	164	0	32
Prentiss	22,421	11.21	2,226	22.26	1,640	59.04	782	105.57	198	0	144	0	54
Tippah	17,657	8.83	1,804	18.04	1,380	49.68	661	89.24	166	0	240	0	-74
Tishomingo	14,840	7.42	1,906	19.06	1,484	53.42	704	95.04	175	15	178	0	-18
Union	22,578	11.29	2,095	20.95	1,661	59.80	796	107.46	199	0	180		19
Webster	7,909	3.95	838	8.38	735	26.46	351	47.39	86	0	155	0	-69
Winston	16,245	8.12	1,571	15.71	1,358	48.89	654	88.29	161	0	180	0	-19
District Total	**499,251**	**249.63**	**44,952**	**449.52**	**33,888**	**1,219.97**	**15,890**	**2,145.15**	**4,064**	**15**	**4,106**	**0**	**-57**

Table 8-1 (continued)
2008 Projected Nursing Home Bed Need

District III													
County	Population 0 - 64	Bed Need (0.5/1,000)	Population 65 - 74	Bed Need (10/1,000)	Population 75 - 84	Bed Need (36/1,000)	Population 85+	Bed Need (135/1,000)	Total Bed Need	# Beds in Abeyance	Licensed/CON Approved Beds		Difference
Adams	24,387	12.19	2,722	27.22	2,300	82.80	1,088	146.88	269	15	259	0	-5
Amite	10,711	5.36	1,251	12.51	920	33.12	421	56.84	108	0	80	0	28
Claiborne	10,816	5.41	665	6.65	526	18.94	256	34.56	66	0	77	0	-11
Copiah	25,962	12.98	2,092	20.92	1,647	59.29	765	103.28	196	0	180	0	16
Franklin	6,928	3.46	679	6.79	581	20.92	272	36.72	68	0	60	0	8
Hinds	206,884	103.44	14,996	149.96	11,382	409.75	5,609	757.22	1,420	19	1,408	0	-7
Issaquena	2,115	1.06	184	1.84	119	4.28	45	6.08	13	0	0	0	13
Jefferson	8,027	4.01	596	5.96	463	16.67	213	28.76	55	0	60	0	-5
Lawrence	11,621	5.81	1,121	11.21	829	29.84	365	49.28	96	0	60	0	36
Lincoln	29,112	14.56	2,616	26.16	2,150	77.40	1,026	138.51	257	0	320	0	-63
Madison	79,717	39.86	4,832	48.32	3,471	124.96	1,664	224.64	438	0	395	0	43
Pike	34,056	17.03	2,922	29.22	2,460	88.56	1,181	159.44	294	0	285	0	9
Rankin	124,530	62.27	9,869	98.69	5,837	210.13	2,393	323.06	694	0	350	0	344
Sharkey	4,986	2.49	387	3.87	301	10.84	154	20.79	38	0	54	0	-16
Simpson	24,215	12.11	2,192	21.92	1,668	60.05	759	102.47	197	0	180	0	17
Walthall	12,317	6.16	1,258	12.58	927	33.37	442	59.67	112	0	137	0	-25
Warren	40,133	20.07	3,573	35.73	2,532	91.15	1,190	160.65	308	31	380	0	-103
Wilkinson	8,619	4.31	725	7.25	610	21.96	299	40.37	74	0	105	0	-31
Yazoo	24,916	12.46	1,859	18.59	1,551	55.84	739	99.77	187	0	221	0	-34
District Total	**690,052**	**345.03**	**54,539**	**545.39**	**40,274**	**1,449.86**	**18,881**	**2,548.94**	**4,889**	**65**	**4,611**	**0**	**213**

Table 8-1 (continued)
2008 Projected Nursing Home Bed Need

District IV												
County	Population 0 - 64	Bed Need (0.5/1,000)	Population 65 - 74	Bed Need (10/1,000)	Population 75 - 84	Bed Need (36/1,000)	Population 85+	Bed Need (135/1,000)	Total Bed Need[1]	# Beds in Abeyance	Licensed/CON-Approved Beds	Difference
Clarke	13,892	6.95	1,455	14.55	1,180	42.48	562	75.87	140	0	135 / 0	5
Covington	17,250	8.63	1,609	16.09	1,173	42.23	534	72.09	139	0	60 / 60	19
Forrest	68,607	34.30	4,675	46.75	3,768	135.65	1,819	245.57	462	60	496 / 0	-94
George	18,445	9.22	1,682	16.82	1,002	36.07	443	59.81	122	0	60 / 60	2
Greene	13,642	6.82	1,003	10.03	636	22.90	292	39.42	79	0	120 / 0	-41
Hancock	40,615	20.31	4,626	46.26	3,003	108.11	1,304	176.04	351	99	132 / 20	100
Harrison	169,196	84.60	13,812	138.12	9,836	354.10	4,259	574.97	1,152	120	736 / 60	236
Jackson	120,720	60.36	10,805	108.05	6,568	236.45	2,739	369.77	775	0	528 / 0	247
Jasper	15,576	7.79	1,429	14.29	1,124	40.46	530	71.55	134	0	110 / 0	24
Jeff Davis	11,157	5.58	1,120	11.20	842	30.31	410	55.35	102	0	60 / 0	42
Jones	55,684	27.84	5,170	51.70	4,219	151.88	1,951	263.39	495	0	438 / 0	57
Kemper	9,192	4.60	820	8.20	685	24.66	336	45.36	83	21	60 / 0	2
Lamar	41,083	20.54	2,995	29.95	1,961	70.60	852	115.02	236	3	150 / 40	43
Lauderdale	64,102	32.05	5,682	56.82	4,840	174.24	2,431	328.19	591	0	572 / 0	19
Leake	18,272	9.14	1,639	16.39	1,382	49.75	649	87.62	163	0	143 / 0	20
Marion	21,271	10.64	1,845	18.45	1,637	58.93	761	102.74	191	0	297 / 0	-106
Neshoba	25,437	12.72	2,235	22.35	1,851	66.64	906	122.31	224	0	208	16
Newton	18,404	9.20	1,723	17.23	1,451	52.24	708	95.58	174	0	180	-6
Pearl River	46,173	23.09	4,716	47.16	3,117	112.21	1,296	174.96	357	0	246 / 120	-9
Perry	11,105	5.55	1,027	10.27	656	23.62	272	36.72	76	0	60 / 0	16
Scott	24,516	12.26	2,114	21.14	1,569	56.48	737	99.50	189	0	140 / 0	49
Smith	12,632	6.32	1,388	13.88	1,030	37.08	453	61.16	118	0	121 / 0	-3
Stone	13,333	6.67	1,206	12.06	747	26.89	319	43.07	89	0	169 / 0	-80
Wayne	18,212	9.11	1,674	16.74	1,138	40.97	501	67.64	134	0	90 / 0	44
District Total	**868,516**	**434.26**	**76,450**	**764.50**	**55,415**	**1,994.94**	**25,064**	**3,383.64**	**6,577**	**303**	**5,311 / 360**	**603**

107 Certificate of Need Criteria and Standards for Nursing Home Care Services for Mentally Retarded and other Developmentally Disabled Individuals

107.01 Policy Statement Regarding Certificate of Need Applications for the Offering of Nursing Home Care Services for Mentally Retarded and Other Developmentally Disabled Individuals

1. Legislation

   a. The 1990 Mississippi Legislature imposed a permanent moratorium which prohibits the MSDH from granting approval for or issuing a CON to any person proposing the new construction, addition to, or expansion of an intermediate care facility for the mentally retarded (ICF/MR).

   b. Effective July 1, 1990, any health care facility defined as a psychiatric hospital, skilled nursing facility, intermediate care facility, intermediate care facility for the mentally retarded, or psychiatric residential treatment facility which is owned by the State of Mississippi and under the direction and control of the State Department of Mental Health is exempted from the requirement of the issuance of a Certificate of Need under Section 41-7-171 et seq., for projects which involve new construction, renovation, expansion, addition of new beds, or conversion of beds from one category to another in any such defined health care facility.

   c. Effective April 12, 2001, no health care facility shall be authorized to add any beds or convert any beds to another category of beds without a Certificate of Need.

   d. Effective March 4, 2003, if a health care facility has voluntarily delicensed some of its existing bed complement, it may later relicense some or all of its delicensed beds without the necessity of having to acquire a Certificate of Need. The Department of Health shall maintain a record of the delicensing health care facility and its voluntarily delicensed beds and continue counting those beds as part of the state's total bed count for health care planning purposes.

2. MR/DD Long-Term Care Planning Districts (MR/DD LTCPD): The need for additional MR/DD nursing home care beds shall be based on the MR/DD LTCPDs as outlined in Map 4-2.

3. Bed Need: The need for MR/DD nursing home care beds is established at one bed per 1,000 population less than 65 years of age.

4. Population Projections: The MSDH shall use population projections as presented in Table 4-5 when calculating bed need.

5. Bed Limit: No MR/DD LTCPD shall be approved for more than its proportioned share of needed MR/DD nursing home care beds. No application shall be approved which would over-bed the state as a whole.

6. Bed Inventory: The MSDH shall review the need for additional MR/DD nursing home care beds utilizing the most recent information available regarding the inventory of such beds.

107.02 Certificate of Need Criteria and Standards for Nursing Home Beds for Mentally Retarded and Other Developmentally Disabled Individuals

If the legislative moratorium were removed or partially lifted, the Mississippi State Department of Health would review applications for MR/DD nursing home care beds under the statutory requirements of Sections 41-7-173 (h) subparagraph (viii), 41-7-191, and 41-7-193, Mississippi Code 1972, as amended. The MSDH will also review applications for Certificate of Need according to the applicable policy statements contained in this Plan; the general criteria as listed in the *Mississippi Certificate of Need Review Manual*; all adopted rules, procedures, and plans of the Mississippi State Department of Health; and the specific criteria and standards listed below.

Certificate of Need review is required for the offering of MR/DD nursing home care services, as defined, if the capital expenditure exceeds $2,000,000; if the licensed bed capacity is increased through the conversion or addition of beds; or if MR/DD nursing home care services have not been provided on a regular basis by the proposed provider of such services within the period of twelve (12) months prior to the time such services would be offered. Certificate of Need review is required for the construction, development, or otherwise establishment of new MR/DD nursing home care beds regardless of capital expenditure.

1. **Need Criterion: The applicant shall document a need for MR/DD nursing home care beds using the need methodology as presented below. The applicant shall document in the application the following:**

   a. **using the ratio of one bed per 1,000 population under 65 years of age, the state as a whole must show a need; and**

   b. **the MR/DD Long-Term Care Planning District (LTCPD) where the proposed facility/beds/services are to be located must show a need.**

2. The applicant shall document the number of beds that will be constructed/converted and/or licensed as offering MR/DD nursing home care services.

3. The MSDH shall give priority consideration to those CON applications proposing the offering of MR/DD nursing home care services in facilities which are 15 beds or less in size.

108 Policy Statement Regarding Certificate of Need Applications for a Pediatric Skilled Nursing Facility

1. The 1993 Mississippi Legislature authorized the Department of Health to issue a Certificate of Need for the construction of a pediatric skilled nursing facility not to exceed 60 new beds.

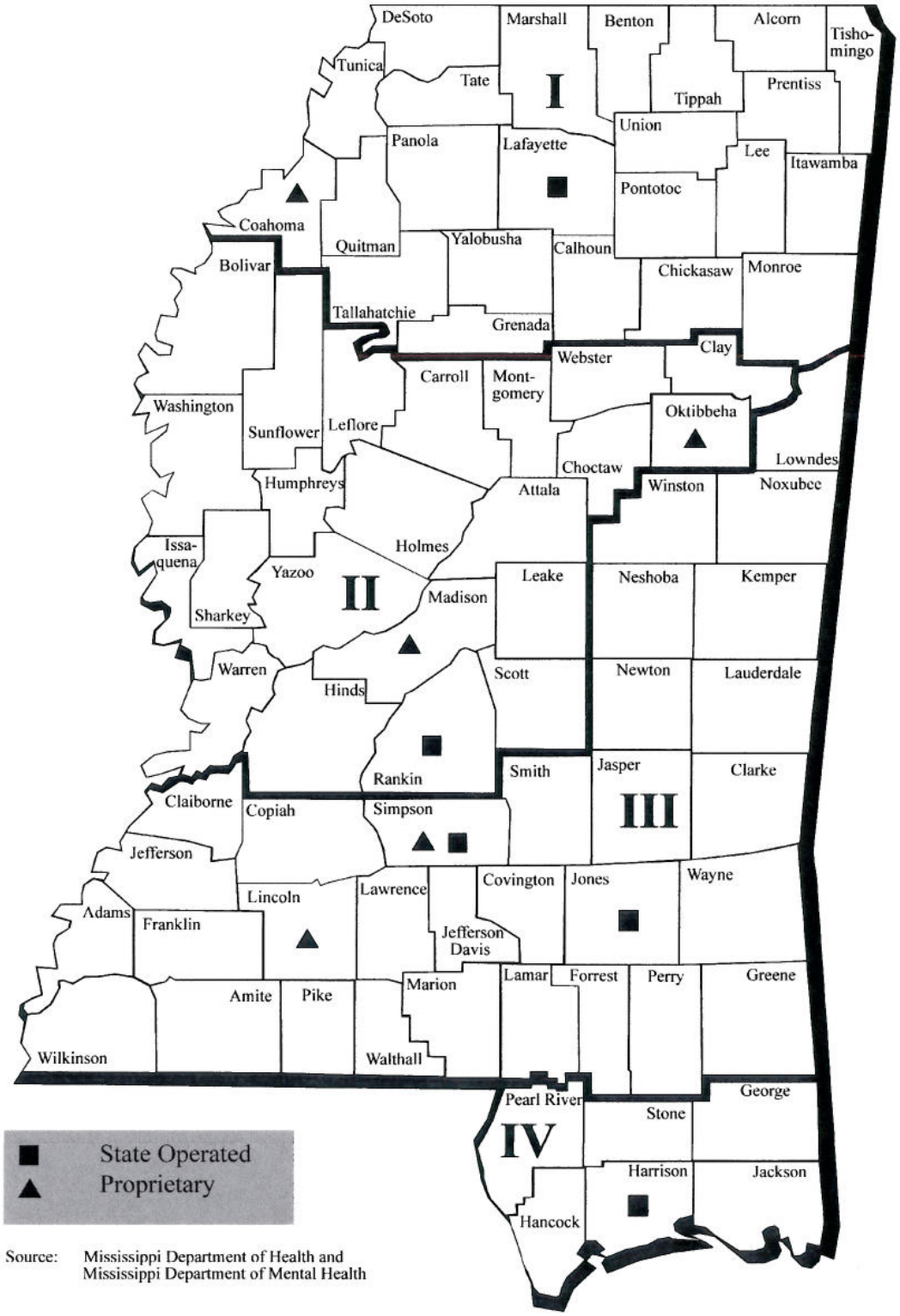
2. A pediatric skilled nursing facility is defined as an institution or a distinct part of an institution that is primarily engaged in providing to inpatients skilled nursing care and related services for persons under 21 years of age who require medical, nursing care, or rehabilitation services for the rehabilitation of injured, disabled, or sick persons.

3. The MSDH will review applications for the construction of pediatric skilled nursing facility beds using the general CON review criteria and standards contained in the *Mississippi Certificate of Need Review Manual*, criteria and standards for nursing homes and MR/DD facilities contained in the *State Health Plan*, and all adopted rules, procedures, and plans of the Mississippi State Department of Health.

4. Effective April 12, 2002, no health care facility shall be authorized to add any beds or convert any beds to another category of beds without a Certificate of Need under the authority of Section 41-7-191(1)(c).

5. Effective March 4, 2003, if a health care facility has voluntarily delicensed some of its existing bed complement, it may later relicense some or all of its delicensed beds without the necessity of having to acquire a Certificate of Need. The Department of Health shall maintain a record of the delicensing health care facility and its voluntarily delicensed beds and continue counting those beds as part of the state's total bed count for health care planning purposes.

Map 8 - 2
Mentally Retarded/Developmentally Disabled Long-Term Care
Planning Districts and Location of Existing Facilities
(ICF/MR – Licensed)



Source: Mississippi Department of Health and
Mississippi Department of Mental Health

Table 8 - 2
2008 Projected MR/DD Nursing Home Bed Need
(1 Bed per 1,000 Population <65)[1]

	2010 Projected Pop. <65	2006 Licensed Beds	Projected MR/DD Bed Need	Difference
Mississippi	**2,533,613**	**2,724**	**2,534**	**-190**
District I	**619,374**	**602**	**619**	**17**
Alcorn	28,263		28	28
Benton	6,104		6	6
Calhoun	10,976		11	11
Chickasaw	14,767		15	15
Coahoma	24,773	132	25	-107
DeSoto	131,632		132	132
Grenada	19,177		19	19
Itawamba	19,678		20	20
Lafayette	37,712	470	38	-432
Lee	65,953		66	66
Marshall	31,792		32	32
Monroe	31,043		31	31
Panola	31,246		31	31
Pontotoc	24,883		25	25
Prentiss	22,421		22	22
Quitman	8,828		9	9
Tallahatchie	11,685		12	12
Tate	23,888		24	24
Tippah	17,657		18	18
Tishomingo	14,840		15	15
Tunica	9,015		9	9
Union	22,578		23	23
Yalobusha	10,463		10	10

Table 8 - 2 (continued)
2008 Projected MR/DD Nursing Home Bed Need
(1 Bed per 1,000 Population <65)

	2010 Projected Pop. <65	2005 Licensed Beds	Projected MR/DD Bed Need	Difference
District II	**855,700**	**687**	**856**	**169**
Attala	15,757		16	16
Bolivar	33,131		33	33
Carroll	8,707		9	9
Choctaw	8,020		8	8
Clay	17,957		18	18
Hinds	206,884		207	207
Holmes	17,918		18	18
Humphreys	9,988		10	10
Issaquena	2,115		2	2
Leake	18,272		18	18
Leflore	30,809		31	31
Lowndes	50,618		51	51
Madison	79,717	132	80	-52
Montgomery	9,271		9	9
Oktibbeha	40,040	140	40	-100
Rankin	124,530	415	125	-290
Scott	24,516		25	25
Sharkey	4,986		5	5
Sunflower	29,947		30	30
Warren	40,133		40	40
Washington	49,559		50	50
Webster	7,909		8	8
Yazoo	24,916		25	25

Table 8 - 2 (continued)
2008 Projected MR/DD Nursing Home Bed Need
(1 Bed per 1,000 Population <65)

	2010 Projected Pop. <65	2004 Licensed Beds	Projected MR/DD Bed Need	Difference
District III	**650,057**	**1,175**	**650**	**-525**
Adams	24,387		24	24
Amite	10,711		11	11
Claiborne	10,816		11	11
Clarke	13,892		14	14
Copiah	25,962		26	26
Covington	17,250		17	17
Forrest	68,607		69	69
Franklin	6,928		7	7
Greene	13,642		14	14
Jasper	15,576		16	16
Jefferson	8,027		8	8
Jefferson Davis	11,157		11	11
Jones	55,684	712	56	-656
Kemper	9,192		9	9
Lamar	41,083		41	41
Lauderdale	64,102		64	64
Lawrence	11,621		12	12
Lincoln	29,112	140	29	-111
Marion	21,271		21	21
Neshoba	25,437		25	25
Newton	18,404		18	18
Noxubee	9,795		10	10
Perry	11,105		11	11
Pike	34,056		34	34
Simpson	24,215	323	24	-299
Smith	12,632		13	13
Walthall	12,317		12	12
Wayne	18,212		18	18
Wilkinson	8,619		9	9
Winston	16,245		16	16

Table 8 - 2 (continued)
2008 Projected MR/DD Nursing Home Bed Need
(1 Bed per 1,000 Population <65)

	2010 Projected Pop. <65	2005 Licensed Beds	Projected MR/DD Bed Need	Difference
District IV	**408,482**	**260**	**408**	**148**
George	18,445		18	18
Hancock	40,615		41	41
Harrison	169,196	260	169	-91
Jackson	120,720		121	121
Pearl River	46,173		46	46
Stone	13,333		13	13

[1] Data may not equal totals due to rounding.

CHAPTER 11
ACUTE CARE

Chapter 07 Acute Care

Mississippi had 98 non-federal medical/surgical hospitals in April 2008, with a total of 11,076 licensed acute care beds (plus 134 beds held in abeyance by the MSDH). This total also includes one rehabilitation hospital with acute care beds and one OB/GYN hospital. This total excludes long term acute care (LTAC), rehabilitation, psychiatric, chemical dependency, and other special purpose beds. In addition, numerous facilities provide specific health care services on an outpatient basis. Some of these facilities are freestanding; others are closely affiliated with hospitals. Such facilities offer an increasingly wider range of services, many of which were once available only in inpatient acute care settings. Examples include diagnostic imaging, therapeutic radiation, and ambulatory surgery.

100 General Medical/Surgical Hospitals

The 98 acute care medical/surgical hospitals reported 10,090 beds set up and staffed during 2007, or 91.1 percent of the total licensed bed capacity. Based on beds set up and staffed, the hospitals experienced an overall occupancy rate of 51.12 percent and an average length of stay of 4.93 days. When calculating the occupancy rate using total licensed bed capacity, the overall occupancy rate drops to 47.14 percent. Using these statistics and 2010 projected population totals, Mississippi had a licensed bed capacity to population ratio of 3.72 per 1,000 and an occupied bed to population ratio of 1.75 per 1,000. Table 11-1 shows the licensed hospital beds by service areas.

These statistics indicate an average daily census in Mississippi hospitals of 5,222, leaving approximately 5,854 unused licensed beds on any given day. Fifty-nine of the state's hospitals reported occupancy rates of less than 40 percent during FY 2007. Officials expect the low occupancy rates to continue because of cost-containment pressures and the increased use of outpatient services.

Mississippi requires Certificate of Need (CON) review for all projects that increase the bed complement of a health care facility or exceed a capital expenditure threshold of $2 million. The law requires CON review regardless of capital expenditure for the construction, development, or other establishment of a new health care facility, including a replacement facility; the relocation of a health care facility or any portion of the facility which does not involve a capital expenditure and is more than 5,280 feet from the main entrance of the facility; and a change of ownership of an existing health care facility, unless the MSDH receives proper notification at least 30 days in advance. A health care facility that has ceased to treat patients for a period of 60 months or more must receive CON approval prior to reopening. Finally, a CON is required for major medical equipment purchase if the capital expenditure exceeds $1.5 million and is not a replacement of existing medical equipment.

A statewide glut of licensed acute care beds complicates planning for community hospital services. There are far more hospital beds than needed. The average use of licensed beds has been less than 50 percent in recent years. With few exceptions, the surplus is statewide. The continued presence of surplus hospital beds in all planning districts, and in nearly all counties with acute care hospitals, raises a number of basic planning questions:

- Does the "carrying cost" of maintaining unused beds raise operating cost unnecessarily?
- Do the surpluses, and any associated economic burdens, retard the introduction of new and more cost effective practices and services?
- Do existing services providers maintain unwarranted surpluses to shield themselves from competition, as augured by some potential competitors?

- Should the space allocated to surplus beds be converted to other uses, particularly if doing so would avoid construction of new space, or facilities, to accommodate growing outpatient caseloads?
- Do the large surpluses mask need for additional services and capacity in some regions and reduce the sensitivity and responsiveness of planners and regulators to these legitimate community needs?
- Do the continuing surpluses, and the view of them by stakeholders and other interested parties, create an environment that invites policy intervention by legislators and other responsible parties?

These questions are unusually difficult to answer definitively. That they arise not infrequently suggest the importance of reducing excess capacity where it is possible to do so and is not likely to result in problematic consequences. The Department urges each hospital to voluntarily reduce the licensed bed capacity to equal its average daily census plus a confidence factor that will assure that an unused hospital bed will be available on any given day.

Table 11 - 1

Licensed Short-Term Acute Care Hospital Beds by Service Area

FY 2007

Facility	Licensed Beds	Abeyance Berds	Average Daily Census	Occupancy Rate	Average Length of Stay
General Hospital Service Area 1	**2,444**	**41**	**1,058.46**	**43.31**	**4.55**
Alliance Healthcare System	40	0	12.75	30.77	5.01
Baptist Memorial Hospital - Booneville	114	0	23.02	22.05	5.68
Baptist Memorial Hospital-Golden Triangle	285	0	110.50	38.77	5.09
Baptist Memorial Hospital - North Miss	204	0	122.74	57.76	4.95
Baptist Memorial Hospital - Union County	153	0	41.58	29.93	3.79
Calhoun Health Services	30	0	10.32	32.73	5.21
Choctaw County Medical Center	25	0	8.00	19.76	5.50
Gilmore Memorial Hospital, Inc.	95	0	36.32	37.16	3.85
Grenada Lake Medical Center	156	0	52.97	40.22	4.89
Iuka Hospital	48	0	18.44	34.93	4.04
Magnolia Regional Health Center	145	0	71.33	51.49	3.98
North Miss Medical Center	554	0	344.42	60.65	4.57
North Miss Medical Center-West Point	60	0	25.21	49.43	3.48
North Oak Regional Medical Center	76	0	18.52	25.85	4.50
Noxubee General Critical Access Hospital	25	0	7.24	20.12	3.29
Oktibbeha County Hospital	96	0	35.34	35.36	3.65
Pioneer Community Hospital of Aberdeen	35	0	7.84	21.39	7.37
Pontotoc Health Services	25	0	5.12	26.14	3.28
Tippah County Hospital	20	25	11.89	24.30	4.55
Trace Regional Hospital	84	0	15.80	17.03	4.83
Tri-Lakes Medical Center	77	0	35.40	87.76	5.38
Webster Health Services	38	0	20.95	61.32	4.64
Winston Medical Center	33	16	13.05	17.86	6.19
Yalobusha General Hospital	26	0	9.71	34.45	4.36
General Hospital Service Area 2	**1,360**	**46**	**635.79**	**46.75**	**4.65**
Baptist Memorial Hospital - DeSoto	309	0	172.78	85.83	4.77
Bolivar Medical Center	165	0	62.84	39.58	4.20
Delta Regional Medical Center-West Campus	57	40	8.05	12.84	11.47
Delta Regional Medical Center	221	6	103.80	54.36	4.86
Greenwood Leflore Hospital	188	0	122.18	59.58	4.92
Humphreys County Memorial Hospital	34	0	11.28	21.77	4.43
Kilmichael Hospital	19	0	5.99	33.99	3.28
North Sunflower County Hospital	35	0	13.10	33.29	6.30
Northwest Miss Regional Medical Center	181	0	80.53	43.83	4.64
Quitman County Hospital	33	0	12.81	36.18	4.93
South Sunflower County Hospital	49	0	19.96	34.12	2.85
Tallahatchie General Hospital & ECF	9	0	2.36	29.32	3.72
Tyler Holmes Memorial Hospital	25	0	8.53	28.89	3.85
University Hospital Clinics - Holmes County	35	0	0.00	39.84	1.00

Table 11 - 1 (continued)
Licensed Short-Term Acute Care Hospital Beds by Service Area
FY 2007

Facilities	Licensed Beds	Abeyance Beds	Average Daily Census	Occupancy Rate	Average Lengthy of Stay
General Hospital Service Area 3	**3,326**	**0**	**1,651.58**	**49.66**	**4.90**
Central Mississippi Medical Center	400	0	121.84	30.46	5.23
Claiborne County Hospital	32	0	10.32	32.25	5.57
Hardy Wilson Memorial Hospital	35	0	17.68	50.53	6.56
Jeff Davis Community Hospital	35	0	9.76	27.90	5.23
King's Daughters Hospital-Yazoo City	35	0	19.21	54.90	4.53
King's Daughters Medical Center	122	0	39.58	32.44	3.65
Lawrence County Hospital	25	0	6.01	24.05	3.23
Madison County Medical Center	67	0	31.38	46.84	4.22
Magee General Hospital	64	0	71.33	111.45	3.98
Mississippi Baptist Medical Center	541	0	282.75	52.26	5.09
Miss Methodist Rehabilitation Center	44	0	0.41	0.93	5.24
Montford Jones Memorial Hospital	71	0	26.84	37.80	4.62
Patients' Choice Medical Center	29	0	0.85	2.94	11.69
Rankin Medical Center	134	0	60.84	45.40	5.22
River Oaks Hospital	110	0	79.33	72.12	3.80
River Region Health System	261	0	142.56	54.62	4.64
Scott Regional Hospital	30	0	16.18	53.95	4.10
S.E. Lackey Memorial Hospital	35	0	21.79	62.25	3.60
Sharkey - Issaquena Community Hospital	29	0	7.37	25.40	5.55
Simpson General Hospital	35	0	11.83	33.80	4.33
St. Dominic-Jackson Memorial Hospital	417	0	273.04	65.48	4.54
University Hospital & Clinics	664	0	375.63	56.57	6.33
Woman's Hospital - River Oaks	111	0	25.88	23.31	3.41
General Hospital Service Area 4	**825**	**19**	**356.26**	**43.18**	**4.75**
Alliance Health Center	68	0	13.70	20.15	8.89
Alliance Laird Hospital	25	0	8.86	35.45	3.15
H.C. Watkins Memorial Hospital, Inc.	25	0	6.24	24.96	3.58
Jeff Anderson Regional Medical Center	260	0	160.30	61.65	5.38
Neshoba General Hospital	82	0	22.99	28.04	4.21
Newton Regional Hospital	30	19	13.82	46.08	3.98
Riley Memorial Hospital	120	0	39.44	32.87	4.25
Rush Foundation Hospital	215	0	90.89	42.27	4.37
General Hospital Service Area 5	**553**	**0**	**245.66**	**44.42**	**4.24**
Beacham Memorial Hospital	37	0	16.71	45.17	5.45
Field Memorial Community Hospital	25	0	7.76	31.04	3.58
Franklin County Memorial Hospital	36	0	14.36	39.90	5.38
Jefferson County Hospital	30	0	18.65	62.17	8.62
Natchez Community Hospital	101	0	45.11	44.67	4.08
Natchez Regional Medical Center	159	0	52.80	33.21	4.91
Southwest Miss Regional Medical Center	140	0	79.86	57.04	3.49
Walthall County General Hospital	25	0	10.41	41.63	3.33

Table 11 - 1 (continued)
Licensed Short-Term Acute Care Hospital Beds by Service Area
FY 2007

Facility	# Licensed Beds	# Beds in Abeyance	Average Daily Census	Occupancy Rate	Average Length of Stay
General Hospital Service Area 6	**1,073**	**28**	**606.17**	**56.49**	**4.88**
Covington County Hospital	35	0	14.69	41.98	5.16
Forrest General Hospital	400	0	282.22	70.55	5.11
Greene County Hospital	3	0	0.37	12.17	3.96
Jasper General Hospital	16	0	0.93	5.80	5.05
Marion General Hospital	23	28	29.89	58.61	4.48
Perry County General Hospital	30	0	9.30	30.99	5.46
South Central Regional Medical Center	275	0	151.34	55.03	5.65
Wayne General Hospital	80	0	33.56	41.95	4.25
Wesley Medical Center	211	0	138.39	65.59	5.16
General Hospital Service Area 7	**1,495**	**0**	**621.47**	**41.57**	**4.54**
Biloxi Regional Medical Center	153	0	88.52	57.85	4.96
Garden Park Medical Center	130	0	51.39	39.53	4.68
George County Hospital	53	0	24.37	45.98	3.67
Gulf Coast Medical Center	144	0	16.55	11.49	5.08
Hancock Medical Center	47	0	14.62	58.49	3.07
Highland Community Hospital	95	0	18.44	19.41	2.82
Memorial Hospital at Gulfport	303	0	205.48	67.82	5.42
Ocean Springs Hospital	136	0	96.46	70.93	4.47
Pearl River Hospital & Nursing Home	24	0	1.59	6.63	3.85
Singing River Hospital	385	0	98.54	25.59	4.51
Stone County Hospital	25	0	5.51	22.04	3.76
TOTAL	**11,076**	**134**	**5,221.76**	**47.14**	**4.93**

Note: Occupancy rate is calculated based on total number of licensed beds and beds in abeyance.
Source: Application for Renewal of Hospital License for Calendar Year 2007;
Division of Health Planning and Resource Development, Office of Health Policy and Planning

100.01 Long-Term Acute Care Hospitals

A long-term acute care (LTAC) hospital is a free-standing, Medicare-certified acute care hospital with an average length of inpatient stay greater than 25 days that is primarily engaged in providing chronic or long-term medical care to patients who do not require more than three hours of rehabilitation or comprehensive rehabilitation per day. As of April 2008, ten long-term acute care hospitals were in operation. Two additional facilities, Lee County Specialty Hospital-Tupelo and Delta Medical Center-Greenville, had received Certificate of Need authority for 67 additional LTAC beds. The following table lists the LTAC facilities by approved bed capacity, licensed bed capacity, percent occupancy rate (OR), number of discharges, and average length of stay (ALOS).

Table 11 - 2
Long-Term Acute Care Hospitals
2007

Facility	Location	Authorized Beds	Licensed Beds	OR%	Discharges	ALOS
General Hospital Service Area 1		**56**	**12**	**17.83**	**34**	**23.06**
Batesville Specialty Hospital	- Batesville	29	12	17.83	34	23.06
Lee County Specialty	- Tupelo	27	CON			
General Hospital Service Area 2		**80**	**40**	**69.23**	**433**	**23.08**
Greenwood Specialty Hospital	- Greenwood	40	40	69.23	433	23.08
Delta Regional Medical Center	Greenville	40	CON			
General Hospital Service Area 3		**149**	**149**	**72.85**	**1,429**	**28.33**
Miss Hospital for Restorative Care	- Jackson	25	25	71.43	189	38.71
Promise Specialty Hospital	- Vicksburg	35	35	69.51	353	24.98
Regency Hospital of Jackson	- Jackson	36	36	74.48	323	29.31
Select Specialty Hospital of Jackson	- Jackson	53	53	74.62	564	26.38
General Hospital Service Area 4		**89**	**89**	**140.50**	**977**	**158.97**
Regency Hospital of Meridian	- Meridian	40	40	81.05	461	25.67
Specialty Hospital of Meridian	- Meridian	49	49	80.94	516	26.16
General Hospital Service Area 6		**33**	**33**	**80.25**	**344**	349.63
Regency Hospital of Southern Mississipp	- Hattiesburg	33	33	80.25	344	28.21
General Hospital Service Area 7		**80**	**61**	**37.21**	**302**	**26.79**
Select Specialty Hospital-MS Gulf Coast	- Gulfport	80	61	37.21	302	26.79
TOTAL		**487**	**384**	**67.61**	**3,519**	**26.82**

Source: Application for Renewal of Hospital License for Calendar Year 2007

100.02 Rural Acute Care Hospitals

Currently, 71 of the 97 non-federal acute care hospitals in the state are in rural areas (located outside of Metropolitan Statistical Areas). These 71 hospitals represented 54 percent of the total number of licensed acute care beds in 200. Of these 71 hospitals, 51 (71.8 percent) have fewer than 100 beds, and 38 (53 percent) have fewer than 50 beds.

In 2006, 35 hospitals with fewer than 100 beds reported occupancy rates of less than 40 percent; six reported occupancy rates of under 20 percent.

The federal government has taken several actions to help rural hospitals, including the swing-bed program, the small Medicare-dependent hospitals provision, Rural Health Outreach grants, and Rural Health Network grants. These grants encourage hospitals to form consortia with other providers to deliver new services to unserved rural populations. Congress changed the Rural Health Clinic Act to encourage the establishment of freestanding or hospital-based clinics using mid-level practitioners, with services reimbursed on a cost basis for hospitals under 50 beds. Congress has also increased funding for the National Health Service Corps, which could increase inpatient physician referrals to hospitals located in Health Professional Shortage Areas.

In addition, the federal government established a new classification of small rural hospitals, called Critical Access Hospitals. The critical access hospital, or CAH, is eligible to receive cost-based reimbursement for services provided to Medicare patients. In return, the facility is limited in the number of inpatient beds that can be operated and the length of time that a patient can stay in that hospital.

100.03 Swing-Bed Programs and Extended Care Services

Federal law allows hospitals of up to 100 beds to use designated beds as "swing beds" to alternate between acute and extended care. Patients occupy swing-beds for a few days to several weeks. Hospitals must meet several requirements for certification as swing-beds under Medicare and Medicaid. Federal certification requirements focus on eligibility, skilled nursing facility services, and coverage requirements. Eligibility criteria include rural location, fewer than 100 beds, a Certificate of Need; and no waiver of the 24-hour nursing requirement.

In addition to meeting acute care standards, swing-bed hospitals must also meet six standards for nursing facility services. These standards involve patients' rights, dental services, specialized rehabilitative services, social services, patient activities, and discharge planning. Swing-bed hospitals have the same Medicare coverage requirements and coinsurance provisions as nursing facilities. Many patients, particularly elderly patients, no longer need acute hospital care but are not well enough to go home. Swing-beds enable the hospital to provide nursing care, rehabilitation, and social services with a goal of returning patients to their homes. Many of these patients would become nursing home residents without the extended period of care received in a swing-bed.

Swing-beds provide a link between inpatient acute care and home or community-based services in a continuum of care for the elderly and others with long-term needs. If return to the community is not possible, the swing-bed hospital assists the patient and family with nursing home placement. The swing-bed concept may help alleviate the problem of low utilization in small rural hospitals and provide a new source of revenue with few additional expenses. Additionally, swing-beds allow hospitals to better utilize staff during periods of low occupancy in acute care beds.

100.03.01 Swing-Bed Utilization

Fifty-four hospitals participated in the swing bed program in 2007. These hospitals reported 6,780 admissions to swing beds during Fiscal Year 2007, with 89,435 patient days of care and an average length of stay of 13.01 days. The number of days of care provided in swing beds was equivalent to approximately 245 nursing home beds.

The swing-bed program offers a viable alternative to placement in a nursing home for short-term convalescence. During the year, only about 15 percent of the patients who were discharged from a swing-bed went to a nursing home; 65 percent went to a personal care home; 33 percent were referred to home health, 8 percent were readmitted to acute care, and 2 percent went home. .

101 Trauma

Trauma is the leading cause of death for all age groups in Mississippi from birth to age 44. Serious injury and death resulting from trauma events such as vehicle crashes, falls, and firearms claim 2,000 lives and disable 6,000 Mississippians each year. Trauma victims require immediate, expert attention.

Following the recommendations of a Trauma Care Task Force, the Mississippi Legislature authorized the MSDH to develop a statewide trauma care system, develop a Mississippi Trauma Care Plan, and established a permanent trust fund to finance the system. The Trauma Care Trust Fund receives funding through a $5 assessment on all moving traffic violations. The fund provides administrative functions at both the state and regional levels.

101.01 Mississippi Trauma Care System

Through the Trauma Care Plan, MSDH has designated seven trauma care regions; each incorporated as a 501c-3 organization and contracts with the MSDH to develop and implement a Regional Trauma Plan. The Mississippi Trauma Care System Plan includes the seven regional plans, and allows for referral agreements between trauma facilities and for trauma patients to be transported to the "most appropriate" trauma facility for their injuries.

Trauma facility designation levels set specific criteria and standards of care that guide hospital and emergency personnel in determining the level of care a trauma victim needs and whether that hospital can care for the patient or transfer the patient to a Trauma Center that can administer more definitive care.

Level I Trauma Centers must have a full range of trauma capabilities, including an emergency department, a full-service surgical suite, intensive care unit, and diagnostic imaging. Level I centers must have a residency program, ongoing trauma research, and provide 24-hour trauma service. These hospitals provide a variety of other services to comprehensively care for both trauma patients and medical patients. Level I Trauma Centers act as referral facilities for Level II, III, and IV Trauma Centers. The University of Mississippi Medical Center (UMMC) in Jackson is the only Level 1 facility in the state.

Level II Trauma Centers must be able to provide initial care to the severely injured patient. These facilities must have a full range of trauma capabilities, including an emergency department, a full service surgical suite, an intensive care unit, and diagnostic imaging. Level II Trauma Centers act as referral facilities for Level III and IV Trauma Centers.

Level III Trauma Centers must offer continuous general surgical coverage and have the ability to manage the initial care of many injured patients. Level III Trauma Centers must also provide continuous orthopedic coverage. Transfer agreements must be in place with Level I and II Trauma Centers for patients that exceed the Level III Trauma Center's resources.

Level IV Trauma Centers provide initial evaluation and assessment of injured patients. Most patients will require transfer to facilities with more resources

dedicated to providing optimal care for the injured patients. Level IV Trauma Centers must have transfer agreements in place with Level I, II, and III Trauma Centers.

101.02 Current Status of Mississippi Trauma Care

Uncompensated medical services, staff shortages including both surgeons and nurses, and restrictions on resident hours have combined to create reductions in both the number of available trauma beds and the number of trauma centers in Mississippi (and nationally), despite the funding available from the Mississippi Trauma Care Trust Fund for hospitals participating in the Mississippi Trauma Care System. The state's only Level 1 trauma center, UMMC has had difficulties filling trauma positions and has been forced to reduce the number of trauma beds available because of the staff shortages. Nationally, there are increasing demands for federal funds to be designated toward trauma systems to offset these trends in hospitals facing staffing problems getting out of trauma care or reducing the number of trauma beds available. Until federal funds are provided, states are left to take up the slack in providing assistance to a growing problem in trauma care.

In response to concerns about the state of Mississippi's trauma care and the Mississippi Trauma Care System (and Plan), the 2007 Legislature authorized a Task Force to review the status of trauma and burn care in Mississippi and present a report to the Governor and the 2008 Legislature. The Task Force is working to conclude the review, determine funding requirements for trauma care, and make findings and recommendations based on the study by December 1, 2007. MSDH is providing staff support and a point of contact for the Task Force work. For more information on the Trauma Care System or trauma in general, please see the MSDH trauma website at: http://www.ems.doh.ms.gov/trauma/index.html

101.03 Emergency Medical Services

Emergency medical services (EMS) are health care services delivered under emergency conditions that occur as a result of the patient's condition, natural disasters, or other situations. Emergency medical services are provided by public, private, or non-profit entities with the authority and the resources to effectively administer the services.

Approximately 50 percent of the state's 82 counties presently participate in regional EMS programs. Counties not participating are left to provide services on an individual basis.

The four EMS districts and participating counties are as follows:

- North Mississippi EMS Authority (seven participating counties): Calhoun, , Itawamba, Lafayette, Lee, Pontotoc, Tishomingo, and Union;

- Central Mississippi EMS District (35 participating counties): Adams, Amite, Attala, Carroll, Chickasaw, Choctaw, Claiborne, Coahoma, Copiah, Greene, Holmes, Jefferson, Kemper, Lauderdale, Leflore, Marshall, Monroe, Montgomery, Neshoba, Newton, Noxubee, Panola, Pearl River, Pike, Scott, Simpson, Sunflower, Smith, Tallahatchie, Tunica, Warren, Washington, Wilkinson, Winston, and Yazoo;

- Southeast Mississippi Air Ambulance District (eight participating counties): Covington, Forrest, Jefferson Davis, Lamar, Marion, Perry, Stone, and Walthall. This district is the oldest continuing publicly supported air ambulance system in the United States.

- Harrison and Jackson counties have each formed EMS districts focusing on EMS training.

Mississippi has five helicopter air ambulance services based within the state in Hattiesburg, Tupelo, Jackson, Batesville, and Corinth. In addition, six out-of-state air ambulance services are licensed to serve Mississippi. In total, Mississippi has 94 licensed ambulance providers, including nine out-of-state providers: two in Alabama, two in Arkansas, two in Louisiana, and three in Tennessee. There were 519 permitted vehicles in 2006: 523 ground units, 3 fixed wing, and 15 rotary wing units.

102 Therapeutic Radiation Services

Therapeutic radiology (also called radiation oncology or radiation therapy) is the treatment of cancer and other diseases with radiation. Radiation therapy uses high energy light beams (x -ray or gamma rays) or charged particles (electron beams or proton beams) to damage critical biological molecules in tumor cells. Radiation in various forms is used to kill cancer cells by preventing them from multiplying. Therapeutic radiation may be used to cure or control cancer, or to alleviate some of the symptoms associated with cancer (palliative care).

In radiation therapy, a non-invasive treatment can be given repetitively over several weeks to months and can be aimed specifically at the area where treatment is needed, minimizing side effects for uninvolved normal tissues. This repetitive treatment is called fractionation because a small fraction of the total dose is given each treatment. Radiotherapy can only be performed with linear accelerator (linac) technology. Conventionally administrated external beam radiation therapy gives uniform dose of radiation to the entire region of the body affected by the tumor. Only a small variation of the dose is delivered to various parts of the tumor. Radiotherapy may not be as effective as stereotactic radiosurgery, which can give higher doses of radiation to the tumor itself.

Stereotactic radiosurgery is a highly precise form of radiation therapy used primarily to treat tumors and other abnormalities of the brain. Despite its name, stereotactic radiosurgery is a non-surgical procedure that uses highly focused x-rays (or in some cases, gamma rays) to treat certain types of tumors, inoperable lesions, and as a post-operative treatment to eliminate any leftover tumor tissue. Stereotactic radiosurgery treatment involves the delivery of a single high-dose– or in some cases, smaller multiple doses–of radiation beams that converge on the specific area of the brain where the tumor or other abnormality resides. Using a helmet-like device that keeps the head completely still and a three-dimensional computer-aided planning software, stereotactic radiosurgery minimizes the amount of radiation to healthy brain tissue.

Stereotactic radiosurgery is an important alternative to invasive surgery, especially for tumors and blood vessel abnormalities located deep within or close to vital areas of the brain. Radiosurgery is used to treat many types of brain tumors, benign or malignant, primary or metastasis. Additionally, radiosurgery is used to treat arteriovenous malformations, a tangle of expanding blood vessels that disrupts normal blood flow to the brain and is the leading cause of stroke in young people.

Three basic types of stereotactic radiosurgery are in common use, each of which uses different instruments and sources of radiation:

Gamma Knife, which uses 201 beams of highly focused gamma rays. Because of its incredible accuracy, the Gamma Knife is ideal for treating small to medium size lesions.

Linear accelerator (LINAC) machines, prevalent through the world, deliver high-energy x-ray protons or electrons in curving paths around the patient's head. The linear accelerator can perform radiosurgery on larger tumors in a single session or during multiple sessions (fractionated stereotactic radiotherapy). Multiple manufacturers make linear accelerator machines, which have names such as: Axess®, Clinac®, Cyberknife®, Novalis®, Peacock®, TomoTherapy®, Trilogy®, X-Knife®, etc.

Particle beam (proton) or cyclotron is in limited use in North America. Another type of radiation therapy used in Mississippi is brachytherapy. Unlike the external beam therapy, in which high-energy beams are generated by a machine and directed at a tumor from outside the body, brachytherapy involves placing a radioactive material directly into the body. Brachytherapy radiation implantation was performed on 2,155 patients in 14 of the state's hospitals during FY 2006.

~~Radiation therapy uses ionizing radiation to treat disease, primarily cancer. It may be used in combination with surgery and/or chemotherapy, depending on the characteristics of the tumor or neoplasm. Approximately 50 to 60 percent of new cancer patients undergo some type of radiation therapy, either alone or combined with other treatments.~~

~~There are two categories of radiation therapy: a) brachytherapy, which uses sealed radioactive sources to deliver radiations at short distances by interstitial, intracavitary, or surface applications; and b) external beam radiation therapy through the use of megavoltage x-ray therapy units, such as linear accelerators, or Cobalt-60 teletherapy units, such as Gamma Knife or heavy-ion accelerators.~~

~~"Gamma Knife or Gamma unit" means a specialized type of equipment used to perform stereotactic radiosurgery on small brain tumors and vascular malformations using multiple Cobalt-60 gamma radiation sources focused through a collimator helmet and arrayed in a semicircular arc so that they may be very precisely focused and the radiation dose may be very precisely distributed, permitting treatment in neurosurgical cases where the site is inaccessible or otherwise unsuitable for other invasive methods.~~

~~"Gamma knife procedure" means a single treatment of a patient using the unit. Usually only one procedure is performed per patient, but it is possible that the procedure could be repeated if deemed clinically necessary.~~

~~"Stereotactic radiosurgery" means a non-invasive therapeutic procedure in which narrow beams of radiant energy are directed at the treatment target in the head so as to produce tissue destruction, using computerized tomography (CT), radiography, magnetic resonance imaging (MRI), and angiography for localization. Central Mississippi Medical Center (CMMC), the only hospital within the state with a CON to provide Gamma Knife Stereotactic Radiosurgery, reported 64 procedures during 2006. Brachytherapy radiation implantation was performed on 2,155 patients in 14 of the state's hospitals.~~

~~Mississippi law requires Certificate of Need review for therapeutic radiation services regardless of the capital expenditure if the proposed provider has not offered these services on a regular basis within 12 months prior to the time the provider proposes to offer such services. The acquisition or otherwise control of therapeutic radiation equipment is reviewable if the equipment costs in excess of $1.5 million. For health planning and CON purposes, a Cobalt-60 unit (other than Gamma Knife), when operated in conjunction with therapeutic radiation modalities in a comprehensive cancer treatment center, will be counted as one-half equivalent to a linear accelerator. When a Cobalt-60 unit is the single modality of radiation therapy offered at a cancer treatment center, the Cobalt-60 equipment shall not be counted in the inventory relative to need determination.~~

~~Table 7-3 presents the facilities offering megavoltage therapeutic radiation therapy.~~

103 Diagnostic Imaging Services

Diagnostic imaging equipment and services, except for magnetic resonance imaging, positron emission tomography, and invasive digital angiography, are reviewable under the state's Certificate of Need law only when the capital expenditure for the acquisition of the equipment and related costs exceeds $1.5 million. The provision of invasive diagnostic imaging services, i.e., invasive digital angiography, positron emission tomography, and the provision of magnetic resonance imaging services require a Certificate of Need if the proposed provider has not offered the services on a regular basis within 12 months prior to the time the services would be offered, regardless of the capital expenditure.

Equipment in this category includes, but is not limited to: ultrasound, diagnostic nuclear medicine, digital radiography, angiography equipment, computed tomographic scanning equipment, magnetic resonance imaging equipment, and positron emission tomography.

Interventional Radiology

Interventional radiology is a subspecialty of radiology in which minimally invasive procedures are preformed using image guidance. Some of these procedures are done for purely diagnostic purposes (e.g., angiogram), while others are done for treatment purposes (e.g., angioplasty). Pictures (images) are used to direct these procedures, which are usually done with needles or other tiny instruments like small tubes called catheters. The images provide road maps that allow the Interventional Radiologist to guide these instruments through the body to areas of interest.

The advancements in the field of radiological imaging led to rapid development in interventional procedures in the 1970s. Cardiovascular procedures were found to be particularly well-suited for guided and minimally invasive operations, and catherization remains as one of the main applications for interventional radiology. Common interventional imagining methods include x-ray fluoroscopy, computer tomography, ultrasound, and magnetic resonance imaging. Fluoroscopy and computer tomography use ionizing radiation that may be potentially harmful to the patient and, in the case of fluoroscopy, the interventional radiologist. However, both methods have the advantage of being fast and geometrically accurate. Ultrasound suffers image quality and tissue contrast problems, but is also fast and inexpensive. Magnetic resonance provides superior tissue contrast, at the cost of being expensive and requiring specialized instruments that will not interact with the magnetic fields present in the imaging volume.

Table 11 - 3
Facilities Reporting Megavoltage Therapeutic Radiation Services
by General Hospital Service Area
FY 2005 and FY 2006

Facility	Number and Type of Unit	Number of Treatments (Visits)	
		2005	2006
General Hospital Service Area 1		**34,899**	**36,142**
Baptist Memorial Hospital - Golden Triangle	1 - Lin-Acc (6-18MV)	7,312	16,043
Baptist Memorial Hospital - North Miss	1 - Lin-Acc (6-18MV)	12,725	4,887
Magnolia Regional Health Center	1 - Lin-Acc (6-15MV)	3,715	3,457
North Miss Medical Center	2 - Lin-Acc (6MV & 18MV)	11,147	11,755
General Hospital Service Area 2		**21,716**	**19,007**
Baptist Memorial Hospital - DeSoto	2 - Lin-Acc (6-18MV)	6,375	7,061
Bethesda Regional Cancer Center of NW[1]	1 - Lin-Acc (6MV)	3,429	2,250
Delta Cancer Institute[1]	2 - Lin-Acc (6-18MV)	6,481	6,075
North Central Miss Cancer Center[1]	1 - Lin-Acc (6MV)	5,431	3,621
General Hospital Service Area 3		**50,831**	**49,634**
Cancer Center of Vicksburg[1]	1 - Lin-Acc (6-15MV)	5,320	5,134
Central Miss Medical Center	2 - Lin-Acc (6MV& 18MV)	11,823	14,043
Miss Baptist Medical Center	2 - Lin-Acc (6-18MV)	13,943	12,873
St. Dominic Hospital	2 - Lin-Acc (6-18MV)	8,872	9,641
University Hospital & Clinics	2 - Lin-Acc (6-18MV)	10,873	7,943
General Hospital Service Area 4		**10,615**	**9,824**
Anderson Cancer Center[1]	3 - Lin-Acc (6-25, 10, 6MV)	10,615	9,824
General Hospital Service Area 5		**8,833**	**8,084**
Cancer Care & Diagnostic Center[1]	1 - Lin-Acc (6MV)	5,710	4,127
Southwest Miss Regional Medical Center	1 - Lin-Acc (6-18MV)	3,123	3,957
General Hospital Service Area 6		**16,951**	15,824
Forrest General Hospital	2 - Lin-Acc (6MV)	13,505	13,194
South Central Miss Cancer Center[1]	2 - Lin-Acc (6 & 15MV)	3,446	2,630
General Hospital Service Area 7		**15,849**	13,013
Biloxi Radiation Oncology Center[1]	1 - Lin-Acc (6MV)	2,937	2,224
Memorial Hospital at Gulfport	2 - Lin-Acc (6-18 & 15MV)	8,309	6,495
Singing River Hospital	1 - Lin-Acc (6-18MV)	4,603	4,294
State Total		**159,694**	**151,528**

[1] Indicates freestanding clinics.
Sources: Applications for Renewal of Hospital License for Calendar Years 2006 and 2007; and Fiscal Years 2005 and 2006 Annual Hospital Reports

103.01 Computed Tomographic (CT) Scanning

Should the capital expenditure for the acquisition of fixed or mobile CT scanning services, equipment, and related costs exceed $1.5 million, the CON proposal will be reviewed under the general review criteria outlined in the most recent *Certificate of Need Review Manual* adopted by the Mississippi State Department of Health and the following utilization standards:

- A proposed unit must be able to generate a minimum of 2,000 HECTs (See Table 7-4 for HECT conversion table) by the second year of operation.
- Providers desiring CT capability must be properly utilizing 20,000 general radiographic imaging procedures per year.

Table 11- 4
Head Equivalent Conversion Table (HECT)

Type of Scan	Yearly Number of Patients	Conversion Factor	HECTs*
Head without Contrast	500	1.00	500
Head with Contrast	500	1.25	625
Head with and without Contrast	200	1.75	350
Body without Contrast	100	1.50	150
Body with Contrast	200	1.75	350
Body with and without Contrast	300	2.75	825

* Formula: Yearly Number of Patients X Conversion Factor = HECTs

103.02 Magnetic Resonance Imaging (MRI)

Magnetic resonance imaging (MRI) is a diagnostic imaging technique that employs magnetic and radio-frequency fields to produce images of the body non-invasively. Magnetic resonance imaging is similar to CT scanning in that it produces cross-sectional and sagittal images without potentially harmful ionizing radiation, producing an image not distorted by bone mass. The equipment and its operational specifications continue to be refined.

Eighty-six facilities (hospitals and free-standing) in Mississippi operated fixed or mobile based MRI units in FY 2006. These facilities performed a total of 238,782 MRI procedures during the year. Four additional facilities received Certificate of Need approval to provide MRI services. Table 7-5 presents the location, type (fixed or mobile and number of units per facility), and utilization of MRI equipment throughout the state in 2005 and 2006.

Table 11 - 5
Location and Number of MRI Procedures by General Hospital Service Area
FY 2005 and FY 2006

Facility	City	County	Type of Equipment	Number of MRI Procedures		Days of Operation
				2005	2,006	2006
General Hospital Service Area 1				**50,260**	**50,055**	
Baptist Memorial Hospital - Booneville	Booneville	Prentiss	F	846	812	M-F
Baptist Memorial Hospital - Golden Triangle	Columbus	Lowndes	F(2)	4,506	3,790	M-F
Baptist Memorial Hospital - North Miss	Oxford	Lafayette	F(2)	3,888	4,266	M-F
Baptist Memorial Hospital - Union County	New Albany	Union	F	2,094	1,739	M-F
Gilmore Memorial Hospital, Inc.	Amory	Monroe	M	1,460	1,374	M, W, F
Grenada Lake Medical Center	Grenada	Grenada	F	3,024	2,998	M-F
Imaging Center of Columbus	Columbus	Lowndes	F(2)	4,243	4,144	M-F
Imaging Ctr. of Excellence Institute - MSU	Starkville	Oktibbeha	F	CON	19	M-F
Imaging Center of Gloster Creek Village	Tupelo	Lee	F	3,908	3,718	M-F
Magnolia Regional Health Center	Corinth	Alcorn	F(2)	4,472	4,859	M-Sun
Medical Imaging at Barnes Crossing	Tupelo	Lee	M		CON	M-Thurs
Medical Imaging at Crossover Road	Tupelo	Lee	F		2,852	M-F
North Miss Medical Center	Tupelo	Lee	F(4)	16,009	14,769	M-F
North Miss Medical Center - Eupora (AI)	Eupora	Webster	M	CON	258	M,W,F
North Miss Medical Center - Iuka (AI)	Iuka	Tishomingo	M	915	858	M-F
North Miss Medical Center - West Point	West Point	Clay	M	778	906	M-F
North Mississippi Sports Medicine	Tupelo	Lee	F	181	607	M-F
Oktibbeha County Hospital	Starkville	Oktibbeha	F	1,687	2,260	M-F
Pioneer Community Hospital	Aberdeen	Monroe	M	-	173	M, F
P&L Contracting	Batesville	Panola	M	1,023	823	M,Tu,Th
Yalobusha Hospital (SMI)*	Water Valley	Yalobusha	M	463	403	W
Trace Regional Hospital (AI)	Houston	Chickasaw	M	225	273	Tu
Tri-Lakes Medical Center	Batesville	Panola	M	538	375	F
General Hospital Service Area 2				**19,094**	**21,135**	
Baptist Memorial Hospital - DeSoto	Southaven	DeSoto	F(2)	5,268	6,144	M-Su
Bolivar Medical Center	Cleveland	Bolivar	M	1,719	968	M-F
Carvel Diagnostic Imaging	Olive Branch	DeSoto	F	3,326	3,392	M-F
Delta Regional Med. Center	Greenville	Washington	F	2,294	3,121	M-F
Greenwood Leflore Hospital	Greenwood	Leflore	F	3,555	3,872	M-F
Northwest Miss Regional Medical Center	Clarksdale	Coahoma	M	1,781	1,986	M-F
Tyler Holmes Memorial Hospital (SMI)*	Winona	Montgomery	M	54	260	M
Southaven Diagnostic (dba Carvel Imaging)	Southaven	DeSoto	M	390	402	W
South Sunflower County Hospital (SMI)*	Indianola	Sunflower	M	367	452	W
University Hospital Clinics	Lexington	Holmes	M	340	538	W

Table 7-5 (continued)
Location and Number of MRI Procedures by General Hospital Service Area
FY 2005 and FY 2006

Facility	City	County	Type of Equipment	Number of MRI Procedures		Days of Operation
				2005	2006	2006
General Hospital Service Area 3				**67,546**	**72,163**	
Baptist Madison County Imaging Center	Madison	Madison	M	CON	CON	N/A
Central Miss Diagnostics	Jackson	Hinds	F	2,437	2,567	M-F
Central Miss Medical Center	Jackson	Hinds	F/M	4,715	6,712	M-F
Prentiss Regional Hospital (SMI)*	Prentiss	Jeff Davis	M	54	232	Th
King's Daughters Medical Center	Brookhaven	Lincoln	M	916	1,142	M-F
Kosciusko Medical Clinic	Kosciusko	Attala	F	2,383	2,211	M-F
Madison Imaging	Madison	Madison	F	CON	CON	N/A
Miss Baptist Medical Center	Jackson	Hinds	F(3)/M(1)	10,513	9,912	M-F
Miss Diagnostic Imaging Center	Flowood	Rankin	F(2)	7,792	6,421	M-F
Miss Sports Medicine & Orthopedic	Jackson	Hinds	F(2)	3,420	3,444	M-F
Monfort Jones Memorial Hospital	Kosciusko	Attala	F		305	M-F
Open MRI of Jackson	Flowood	Rankin	M	1,703	1,637	M-F
Open MRI - Hardy Wilson Hospital	Hazlehurst	Copiah	M	561	698	M & F
Rankin Medical Center	Brandon	Rankin	F	1,635	1,800	M-F
Ridgeland Diagnostic Center	Ridgeland	Madison	M	462	364	W, F
River Oaks Hospital	Flowood	Rankin	F	758	4,239	M-F
River Region Health System	Vicksburg	Warren	F	3,392	3,419	M-F
Scott Regional Hospital	Morton	Scott	M	230	296	M & F
SE Lackey Memorial Hospital	Forrest	Scott	M	336	417	W
Sharkey - Issaquena Hospital (SMI)*	Rolling Fork	Sharkey	M	161	173	Tu
Simpson General Hospital (SMI)*	Mendenhall	Simpson	M	155	3	W
Lawrence County Hospital (SMI)*	Monticello	Lawrence	M	409	192	Tu
Magee General Hospital (SMI)*	Magee	Simpson	M	782	937	Tu, Th
Southern Diagnostic Imaging	Flowood	Rankin	F	4,221	5,142	M-F
St. Dominic Hospital	Jackson	Hinds	F(2)/M(1)	9,607	10,600	Sun-Sat
University Hospital & Clinics	Jackson	Hinds	F(3)	10,247	8,510	M-F
Vicksburg Diagnostic Imaging	Vicksburg	Warren	M	657	790	Tu & Th
General Hospital Service Area 4				**16,744**	**18,251**	
H. C. Watkins Memorial Hospital	Quitman	Clarke	M	76	256	Th
Laird Hospital	Union	Newton	M	CON	574	M,W,F
Neshoba General Hospital	Philadelphia	Neshoba	M	1,698	1,745	Tu, Th, Sa
Orthopaedic Imaging Associates, LLC	Meredian	Lauderdale	M		988	Tu & Th
Newton Regional Hospital (SMI)*	Newton	Newton	M	382	299	M
Regional Medical Support Center, Inc.[1]	Meridian	Lauderdale	F(3)	7,011	7,021	M-F
Rush Medical Group[2]	Meridian	Lauderdale	F(2)	6,768	6,380	M-F
Rush Orthopaedic & Sports Med Clinic	Meridian	Lauderdale	M	809	988	Tu & Th
General Hospital Service Area 5				**6,451**	**7,011**	
Walthall County Hospital (SMI)*	Tylertown	Walthall	M	24	86	W
Natchez Community Hospital	Natchez	Adams	M	289	393	Tu & F
Open Air of Miss Lou-Natchez Regional	Natchez	Adams	F	3,138	3,247	M-F
Southwest Miss Regional Medical Center	McComb	Pike	F	3,000	3,285	M-F

Table 11-5 (continued)
Location and Number of MRI Procedures by General Hospital Service Area
FY 2005 and FY 2006

Facility	City	County	Type of Equipment	Number of MRI Procedures		Days of Operation
				2005	2006	2006
General Hospital Service Area 6				**32,188**	**36,620**	
Forrest General Hospital	Hattiesburg	Forrest	F(2)	6,975	7,008	M-Sa
Hattiesburg Clinic, P.A.	Hattiesburg	Forrest	F	7,550	8,998	M-Su
Marion General Hospital (SMI)*	Columbia	Marion	M	33	25	W
Open Air MRI of Laurel	Laurel	Jones	F	3,386	4,096	M-F
South Central Regional Medical Center	Laurel	Jones	F	3,564	3,193	M-F
Southern Bone & Joint Specialist, PA	Hattiesburg	Forrest	F(2)	5,306	6,295	M-Sa
Southern Medical Imaging	Hattiesburg	Forrest	F	1,781	2,126	M-F
Wayne County Hospital	Waynesboro	Wayne	M	CON	354	M & W
Wesley Medical Center	Hattiesburg	Lamar	F	3,582	4,525	M-F
Location and Number of MRI Procedures by Service Area - 2005-2006						
General Hospital Service Area 7				**33,407**	**34,483**	
Biloxi Regional Medical Center	Biloxi	Harrison	F	5,212	5,005	M-F
Coastal County Imaging Services	Gulfport	Harrison	F	CON	98	N/A
Garden Park Medical Center	Gulfport	Harrison	F	1,668	1,569	M-F
George County Hospital	Lucedale	George	F	614	727	M-F
Gulf Coast Medical Center	Biloxi	Harrison	F	1,532	1,051	M-F
Hancock Medical Center	Bay St. Louis	Hancock	F	1,943	64	M-Su
Highland Community Hospital	Picayune	Pearl River	M	901	370	M-F
Memorial Hospital at Gulfport	Gulfport	Harrison	F(2)	6,121	5,976	M-F
Memorial Hospital at Gulfport	Orange Grove	Harrison	F	CON	CON	N/A
Ocean Springs Hospital	Ocean Springs	Jackson	F	3,516	3,888	M-F
Open MRI - Cedar Lake	Gulfport	Harrison	F/M	3,373	4,909	M-F
Open MRI - Compass Site	Gulfport	Harrison	F	3,182	4,709	M-Sa
OMRI, Inc. dba Open MRI	Gulfport	Harrison	M(2)	1,485	2,195	M-Th
Singing River Hospital	Pascagoula	Jackson	F	3,860	3,922	M-F
State Total				**226,077**	**239,718**	

F – Fixed Unit
M – Mobile Unit

*Scott Medical Imaging
[1] Regional Medical Support Center, Inc. performs MRIs for Jeff Anderson Regional Medical Center, Riley Memorial Hospital, & Rush Foundation Hospital.
[2] Rush Medical Group performs MRIs for Rush Foundation Hospital.
Sources: Applications for Renewal of Hospital License for Calendar Years 2005 and 2006; Fiscal Year 2005 and 2006 Annual Hospital Reports; CY 2006 MRI Utilization Survey

103.03 Digital Subtraction Angiography (DSA)

Digital Subtraction Angiography (DSA) is a diagnostic imaging procedure that combines a digital processing unit with equipment similar to that used for standard fluoroscopic procedures. A radiopaque dye is injected into the patient; a computer then compares the pre-injection and post-injection images and subtracts any interfering bone and tissue structures obscuring the arteries. The X-ray pictures are converted to a digital form, which can be electronically manipulated and stored. Through the electronic manipulation, the images can be enhanced and further refined to give detailed information about the patient's vascular anatomy without additional X-ray exposure.

In some cases, the use of DSA may eliminate the need for arterial catheterization, which many times carries a higher risk factor. Because the digital method is more sensitive to contrast materials, a lesser amount is generally needed in a given area, and intravenous injection of contrast may be sufficient. When required, intra-arterial injection can be done using less contrast per study.

Due to its relative safety and good patient acceptance, DSA may be performed on a repeat basis in cases where risk and cost of conventional angiography might otherwise preclude a series of follow-up studies. Such studies can provide valuable information regarding the natural history of a variety of vascular diseases and the long-term results of various therapeutic interventions. DSA also allows safer screening of the elderly, who have a high risk of cerebrovascular disease.

Most DSA studies can be performed in less than one hour and are appropriate as an outpatient procedure, whereas conventional angiography usually requires a hospital stay of one or two days. Twenty-five hospitals in the state provide DSA and reported 46,442 procedures during 2006.

DSA equipment performs several types of procedures. These procedures include examination of the carotid arteries, intracranial arteries, renal arteries, aortic arch, and peripheral leg arteries. A variety of anatomical and functional studies of the heart and coronary arteries are also performed.

103.04 Positron Emission Tomography (PET)

Positron emission tomography (PET) is a minimally invasive imaging procedure in which positron-emitting radionuclides, produced either by a cyclotron or by a radio-pharmaceutical producing generator, and a gamma camera are used to create pictures of organ function rather than structure. PET scans provide physicians a crucial assessment of the ability of specific tissues to function normally.

PET can provide unique clinical information in an economically viable manner, resulting in a diagnostic accuracy that affects patient management. PET scans provide diagnostic and prognostic patient information regarding cognitive disorders; for example, identifying the differences between Alzheimer's, Parkinson's, dementia, depression, cerebral disorders, and mild memory loss. PET scans also provide information regarding psychiatric disease, brain

tumors, epilepsy, cardiovascular disease, movement disorders, and ataxia. Research shows that clinical PET may obviate the need for other imaging procedures.

PET installations generally take one of two forms: a scanner using only generator-produced tracers (basic PET unit) or a scanner with a cyclotron (enhanced PET unit). The rubidium-82 is the only generator approved by the FDA to produce radiopharmaceuticals. Rubidium limits PET services to cardiac perfusion imaging.

A PET scanner supported by a cyclotron can provide the capabilities for imaging a broader range of PET services, such as oncology, neurology, and cardiology. Manufacturers of PET equipment are providing more user-friendly cyclotrons, radiopharmaceutical delivery systems, and scanners which have drastically reduced personnel and maintenance requirements. These changes have made the cost of PET studies comparable to those of other high-technology studies.

Table 7-6 presents the location, type (fixed or mobile), and utilization of PET equipment throughout the state in 2006. Twenty-four hospitals and three free-standing clinics provided a total of 7,657 PET procedures during FY 2006.

104 Extracorporeal Shock Wave Lithotripsy (ESWL)

The lithotripter is a medical device which disintegrates kidney or biliary stones (gallstones) by using shock waves. ESWL treatment is noninvasive and therefore avoids surgical intervention. The FDA has approved ESWL for the treatment of kidney stones, but has not approved an ESWL machine for the treatment of biliary stones. Mississippi no longer requires a Certificate of Need for this service as of July 1, 2006.

Thirty-six Mississippi hospitals and three free-standing facilities doing 4,008 procedures provided renal ESWL services in Mississippi during FY 2007. Table 7-7 presents the location, type (fixed or mobile), and utilization of renal ESWL equipment by facility by hospital service areas.

105 Cardiac Catheterization

Cardiac catheterization, predominately a diagnostic tool that is an integral part of cardiac evaluation, brings together two disciplines: cardiac catheterization (the evaluation of cardiac function) and angiography (X-ray demonstration of cardiac anatomy). Cardiac catheterization includes various therapeutic interventions: dilation of coronary obstructions by percutaneous transluminal coronary angioplasty (PTCA), acute lysis of coronary clots in evolving myocardial infarctions by injection of intracoronary streptokinase, electrical ablation of abnormal conduction pathways, and closure of patent ductus arteriosus in infants.

Any facility performing diagnostic cardiac catheterizations without open-heart surgery capability must maintain formal referral agreements with a nearby facility to provide emergency cardiac services, including open-heart surgery. Such a facility must also delineate the steps it will take to ensure that high-risk or unstable patients are not catheterized in the facility. Additionally, a facility without open-heart surgery capability must document that more complex procedures are not performed in the facility. Such procedures include, but are not limited to: PTCA, transseptal puncture, transthoracic left ventricular puncture, and myocardial biopsy.

Note: Percutaneous Transluminal Coronary Angioplasty (PTCA) is an angiographic technique to improve myocardial blood flow by dilating focal atherosclerotic stenoses in coronary arteries. The technique consists of mechanically induced coronary vasodilation and recanalization. It is expected to result in the restoration of blood flow through segmentally diseased coronary arteries. PTCA involves the passage of a balloon-tipped flexible catheter into a site of arterial narrowing. The balloon is inflated in situ to dilate and recanalize the obstructed vessel. Specially trained physicians perform the procedure on hospitalized patients with symptomatic coronary artery disease (CAD) who meet the required patient selection criteria.

Section 41-7-191(1)(d), Mississippi Code of 1972, as amended, requires Certificate of Need review for the establishment and/or offering of cardiac catheterization services if the proposed provider has not offered such services on a regular basis within 12 months prior to the time the services would be offered. Table 7-8 presents the utilization of cardiac catheterization services in 2006.

106 Open-Heart Surgery

Open-heart surgery, defined as any surgical procedure in which a heart-lung machine is used to maintain cardiopulmonary functioning, involves a number of procedures, including valve replacement, repair of cardiac defects, coronary bypass, heart transplantation, and artificial heart implant.

Section 41-7-191(1)(d), Mississippi Code of 1972, as amended, requires Certificate of Need review for the establishment and/or offering of open-heart surgery services if the proposed provider has not offered such services on a regular basis within 12 months prior to the time the services would be offered.

Table 7-9 presents the utilization of existing facilities. Map 7-2 in the criteria and standards section of this chapter shows the Cardiac Catheterization/Open-Heart Surgery Planning Areas (CC/OHSPAs) and the location of existing services.

Table 11- 6
Location and Number of PET Procedures by General Hospital Service Area
FY 2006

Facility	Location	Type of Equipment	Number of PET Procedures
General Hospital Service Area 1			**2,802**
Baptist Memorial Hospital - Golden Triangle	Columbus	M	446
Baptist Memorial Hospital - North Miss	Oxford	F	473
Grenada Diagnostics Radiology, LLC	Grenada	M	247
Magnolia Regional Health Center	Corinth	M	349
North Miss Medical Center	Tupelo	M	1236
TIC at Gloster Creek Village	Tupelo	M	51
General Hospital Service Area 2			**322**
Baptist Memorial Hospital - DeSoto	Southhaven	M	192
Bolivar Medical Center	Cleveland	M	0
Delta Regional Medical Center	Greenville	M	0
Greenwood Leflore Hospital	Greenwood	M	130
General Hospital Service Area 3			**2356**
Central Miss Medical Center	Jackson	F	484
Miss Baptist Medical Center	Jackson	F	1077
River Region Health System	Vicksburg	M	0
St. Dominic Hospital	Jackson	F	428
University Hospital & Clinics	Jackson	F	367
General Hospital Service Area 4			**287**
Jeff Anderson Regional Medical Center	Meridan	M	283
Riley Hospital	Meridian	M	4
General Hospital Service Area 5			**158**
Natchez Regional Medical Center	Natchez	0	158
General Hospital Service Area 6			**932**
Hattiesburg Clinic, P.A.	Hattiesburg	M	668
South Central Regional Medical Center	Laurel	F	264
Wesley Medical Center	Hattiesburg	F	0
General Hospital Service Area 7			**800**
Biloxi Regional Medical Center	Biloxi	M	89
Garden Park Medical Center	Gulfport	M	7
Gulf Coast Medical Center	Biloxi	M	0
Memorial Hospital at Gulfport	Gulfport	M	289
Ocean Springs Hospital	Ocean Springs	M	68
Singing River Hospital	Pascagoula	M	347
State Total			**7,657**

F – Fixed Unit; M – Mobile Unit; Sources: Applications for Renewal of Hospital License for Calendar Year 2007 and Fiscal Year 2006 Annual Hospital Report

Table 7 - 7
Extracorporeal Shock Wave Lithotripsy Utilization
by General Hospital Service Area
FY 2006

Facility	County	Type of Equipment	Renal Procedures
General Hospital Service Area 1			**941**
Baptist Memorial Hospital - Booneville	Prentiss	M	2
Baptist Memorial Hospital - Golden Triangle	Lowndes	M	119
Baptist Memorial Hospital - North Miss	Lafayette	M	249
Baptist Memorial Hospital - Union County	Union	M	89
Magnolia Regional Health Center	Alcorn	M	11
North Miss Ambulitory Surgery Center	Lee	M	0
North Miss Medical Center	Lee	F	351
Oktibbeha County Hospital	Oktibbeha	M	119
Tri-Lakes Medical Center	Panola	M	1
General Hospital Service Area 2			**147**
Baptist Memorial Hospital - DeSoto	DeSoto	M	0
Bolivar Medical Center	Bolivar	M	30
Delta Regional Medical Center	Washington	M	53
Greenwood Leflore Hospital	Leflore	M	64
Northwest Miss Regional Medical Center	Coahoma	M	0
General Hospital Service Area 3			**1,330**
Central Miss Medical Center	Hinds	M	183
King's Daughters Medical Center - Brookhaven	Lincoln	M	341
Miss Baptist Medical Center	Hinds	M	314
River Oaks Hospital	Rankin	F	60
River Region Health System	Warren	M	327
St. Dominic Hospital	Hinds	M	92
University Hospital & Clinics	Hinds	M	13
General Hospital Service Area 4			**245**
Jeff Anderson Regional Medical Center	Lauderdale	M	133
Riley Memorial Hospital	Lauderdale	M	22
Rush Foundation Hospital	Lauderdale	M	90
General Hospital Service Area 5			**76**
Natchez Community Hospital	Adams	M	40
Natchez Regional Medical Center	Adams	M	0
Southwest Miss Regional Medical Center	Pike	F	36
General Hospital Service Area 6			**907**
Forrest General Hospital	Forrest	M	240
Hattiesburg Clinic, P.A.	Forrest	M	417
South Central Regional Medical Center	Jones	M	102
Wesley Medical Center	Lamar	F	148
General Hospital Service Area 7			**358**
Biloxi Regional Medical Center	Harrison	2M	42
Garden Park Medical Center	Harrison	M	0
Gulf Coast Medical Center	Harrison	M	0
Hancock Medical Center	Hancock	M	0
Memorial Hospital at Gulfport	Harrison	F/M	121
Miss Coast Endoscopy Center	Jackson	M	0
Ocean Springs Hospital	Jackson	M	86
Singing River Hospital	Jackson	M	109
State Total			**4,004**

Table 7 - 8

Cardiac Catheterizations by Facility and Type
by Cardiac Catherization/Open Heart Planning Area (CC/OHSPA)
FY 2005 and FY 2006

Facility	County	Total Adult Procedures		Total Pediatric Procedures		Total PTCA Procedures		# Labs
		2005	2006	2005	2006	2005	2006	2006
CC/OHSPA 1		**11,320**	**12,655**	**0**	**0**	**843**	**605**	**10**
BMH-Golden Triangle	Lowndes	980	2,022	0	0	154	0	1
BMH-North Mississippi	Lafayette	1,131	1,099	0	0	289	242	2
Grenada Lake Medical Center*	Grenada	323	243	0	0	0	0	1
Magnolia Regional Health Center*	Alcorn	1,401	1090	0	0	248	203	2
North Mississippi Medical Center	Lee	7,485	8,201	0	0	152	160	4
CC/OHSPA 2		**4,349**	**2,548**	**0**	**0**	**110**	**479**	**6**
BMH-DeSoto	DeSoto	1,583	997	0	0	28	440	2
Delta Regional Medical Center	Washington	961	858	0	0	82	39	2
Greenwood Leflore Hospital	Leflore	0	0	0	0	0	0	1
NW Mississippi Regional Med Center*	Coahoma	1,805	693	0	0	0	0	1
CC/OHSPA 3		**12,216**	**13,421**	**367**	**432**	**2,974**	**3,420**	**16**
Central Mississippi Medical Center	Hinds	659	658	0	0	182	269	2
Mississippi Baptist Medical Center	Hinds	4,310	5,378	0	0	1,418	1,683	3
Rankin Cardiology Center*•	Rankin	100	52	0	0	0	0	0
River Oaks Hospital	Rankin	478	332	0	0	0	0	1
River Region Health System	Warren	1,584	1,742	0	0	270	300	3
St. Dominic-Jackson Memorial Hospital	Hinds	2,433	2,269	0	0	756	747	4
University Hospital & Clinics	Hinds	2,652	2,990	367	432	348	421	3
CC/OHSPA 4		**2,139**	**1,531**	**0**	**0**	**656**	**912**	**5**
Jeff Anderson Medical Center	Lauderdale	1,224	1,268	0	0	416	637	3
Rush Foundation Hospital	Lauderdale	915	263	0	0	240	275	2
CC/OHSPA 5		**1,544**	**1,841**	**0**	**0**	**374**	**499**	**3**
Natchez Regional Medical Center*	Adams	337	457	0	0	0	0	1
SW Miss Regional Medical Center	Pike	1,207	1,384	0	0	374	499	2
CC/OHSPA 6		**4,047**	**3,848**	**0**	**0**	**1,306**	**1,473**	**7**
Forrest General Hospital	Forrest	2,628	2,261	0	0	979	1,075	3
Hattiesburg Professional Association*	Forrest	0	0	0	0	0	0	1
South Central Regional Medical Center*	Jones	551	570	0	0	0	0	1
Wesley Medical Center	Lamar	868	1,017	0	0	327	398	2
CC/OHSPA 7		**5,324**	**5,274**	**0**	**0**	**2,971**	**2,694**	**8**
Biloxi Regional Medical Center*	Harrison	194	122	0	0	0	0	1
Memorial Hospital at Gulfport	Harrison	3,237	2,975	0	0	2,161	2,137	4
Ocean Springs Hospital	Jackson	859	1,015	0	0	360	0	1
Singing River Hospital	Jackson	1,034	1,162	0	0	450	557	2
State Total		**40,939**	**41,118**	**367**	**432**	**9,234**	**10,082**	**55**

*Diagnostic Catheterizations only

•Provides Diagnostic Cardiac Catheterizations for Rankin Medical Center, Women's Hospital, and River Oaks Hospital patients, at River Oaks Hospital Campus

Sources: Applications for Renewal of Hospital License for Calendar Years 2006 and 2007, and Fiscal Years 2005 and 2006 Annual Hospital Reports

Table 7 - 9

Number of Open-Heart Surgeries by Facility and Type
By Cardiac Catheterization/Open Heart Surgery Planning Area (CC/OHSPA)
FY 2005 and FY 2006

Facility	County	Number of Adult Open-Heart Procedures		Number of Pediatric Open-Heart Procedures		Number of Pediatric Heart Procedures (Excluding Open Heart)	
		2005	2006	2005	2006	2005	2006
CC/OHSPA 1		**972**	**1,055**	**0**	**0**	**0**	**0**
BMH-Golden Triangle	Lowndes	72	54	0	0	0	0
BMH-North Mississippi	Lafayette	43	89	0	0	0	0
Magnolia Regional Medical Center	Alcorn		CON				
North Miss Medical Center	Lee	857	912	0	0	0	0
CC/OHSPA 2		**341**	**291**	**0**	**0**	**0**	**0**
Baptist Memorial Hospital - DeSoto	DeSoto	271	227	0	0	0	0
Delta Regional Medical Center	Washington	70	64	0	0	0	0
CC/OHSPA 3		**1,019**	**826**	**51**	**102**	**9**	**16**
Central Miss Medical Center	Hinds	95	88	0	0	0	0
Miss Baptist Medical Center	Hinds	278	257	0	0	0	0
River Region Health System	Warren	90	42	0	0	0	0
St. Dominic Hospital	Hinds	392	311	0	0	0	0
University Hospital & Clinics	Hinds	164	128	51	102	9	16
CC/OHSPA 4		**347**	**260**	**0**	**0**	**0**	**0**
Jeff Anderson Medical Center	Lauderdale	213	164	0	0	0	0
Rush Foundation Hospital	Lauderdale	134	96	0	0	0	0
CC/OHSPA 5		**355**	**205**	**0**	**0**	**0**	**0**
Southwest Miss Regional Medical Center	Pike	355	205	0	0	0	0
CC/OHSPA 6		**579**	**641**	**0**	**0**	**0**	**0**
Forrest General Hospital	Forrest	514	517	0	0	0	0
Wesley Medical Center	Lamar	65	124	0	0	0	0
CC/OHSPA 7		**423**	**360**	**0**	**0**	**0**	**0**
Memorial Hospital at Gulfport	Harrison	256	248	0	0	0	0
Ocean Springs Hospital	Jackson	82	52	0	0	0	0
Singing River Hospital	Jackson	85	60	0	0	0	0
State Total		**4,036**	**3,638**	**51**	**102**	**9**	**16**

Sources: Applications for Renewal of Hospital License for Calendar Years 2006 and 2007, and Fiscal Years 2005 and 2006 Annual Hospital Reports

CERTIFICATE OF NEED

CRITERIA AND STANDARDS FOR ACUTE CARE

107 Certificate of Need Criteria and Standards for General Acute Care

Note: Should the Mississippi State Department of Health receive a Certificate of Need application regarding the acquisition and/or otherwise control of major medical equipment or the provision of a service for which specific CON criteria and standards have not been adopted, the application shall be deferred until the Department of Health has developed and adopted CON criteria and standards. If the Department has not developed CON criteria and standards within 180 days of receiving a CON application, the application will be reviewed using the general CON review criteria and standards presented in the *Mississippi Certificate of Need Review Manual* and all adopted rules, procedures, and plans of the Mississippi State Department of Health.

107.01 Policy Statement Regarding Certificate of Need Applications for General Acute Care Hospitals and General Acute Care Beds

1. Acute Care Hospital Need Methodology: With the exception of psychiatric, chemical dependency, and rehabilitation hospitals, the Mississippi State Department of Health (MSDH) will use the following methodologies to project the need for general acute care hospitals:

a. **Counties Without a Hospital** - The MSDH shall determine hospital need by multiplying the state's average annual occupied beds (1.75 in FY 2006) per 1,000 population by the estimated 2010 county population to determine the number of beds the population could utilize. A hospital with a maximum of 100 beds may be considered for approval if: (a) the number of beds needed is 100 or more; (b) there is strong community support for a hospital; and (c) a hospital can be determined to be economically feasible.

b. **Counties With Existing Hospitals** - The MSDH shall use the following formula to determine the need for an additional hospital in a county with an existing hospital:

$$\mathbf{ADC + K(\sqrt{ADC})}$$

Where: ADC = Average Daily Census

K = Confidence Factor of 2.57

The formula is calculated for each facility within a given General Hospital Service Area (GHSA); then beds available and beds needed under the statistical application of the formula are totaled and subtracted to determine bed need or excess within each GHSA. Map 7-2 delineates the GHSAs. The MSDH may consider approval of a hospital with a maximum of 100 beds if: (a) the number of beds needed is 100 or more; (b) there is strong community support for a hospital; and (c) a hospital can be determined to be economically feasible.

2. Need in Counties Without a Hospital: Eight counties in Mississippi do not have a hospital: Amite, Benton, Carroll, Issaquena, Itawamba, Kemper, Smith, and Tunica. Most of these counties do not have a sufficient population base to

indicate a potential need for the establishment of a hospital, and all appear to receive sufficient inpatient acute care services from hospitals in adjoining counties.

3. Expedited Review: The MSDH may consider an expedited review for Certificate of Need applications that address only license code deficiencies, project cost overruns, and relocation of facilities or services.

4. Capital Expenditure: For the purposes of Certificate of Need review, transactions which are separated in time but planned to be undertaken within 12 months of each other and which are components of an overall long-range plan to meet patient care objectives shall be reviewed in their entirety without regard to their timing. For the purposes of this policy, the governing board of the facility must have duly adopted the long-range plan at least 12 months prior to the submission of the CON application.

5. No health care facility shall be authorized to add any beds or convert any beds to another category of beds without a Certificate of Need.

6. If a health care facility has voluntarily delicensed some of its existing bed complement, it may later relicense some or all of its delicensed beds without the necessity of having to acquire a Certificate of Need. The Department of Health shall maintain a record of the delicensing health care facility and its voluntarily delicensed beds and continue counting those beds as part of the state's total bed count for health care planning purposes.

107.02 Certificate of Need Criteria and Standards for the Establishment of a General Acute Care Hospital

The Mississippi State Department of Health (MSDH) will review applications for a Certificate of Need to construct, develop, or otherwise establish a new hospital under the applicable statutory requirements of Sections 41-7-173, 41-7-191, and 41-7-193, Mississippi Code of 1972, as amended. The MSDH will also review applications for Certificate of Need according to the general criteria listed in the *Mississippi Certificate of Need Review Manual*; all adopted rules, procedures, and plans of the MSDH; and the specific criteria and standards listed below.

1. **Need Criterion: The applicant shall document a need for a general acute care hospital using the appropriate need methodology as presented in this section of the *Plan*. In addition, the applicant must meet the other conditions set forth in the need methodology.**

2. The application shall document that the applicant will provide a "reasonable amount" of indigent/charity care as described in Chapter I of this *Plan*.

107.03 Certificate of Need Criteria and Standards for Construction, Renovation, Expansion, Capital Improvements, Replacement of Health Care Facilities, and Addition of Hospital Beds

The Mississippi State Department of Health (MSDH) will review applications for a Certificate of Need for the addition of beds to a health care facility and projects for construction, renovation, expansion, or capital improvement involving a capital expenditure in excess of $2,000,000 under the applicable statutory requirements of Sections 41-7-173, 41-7-191, and 41-7-193, Mississippi Code of 1972, as amended. The MSDH will also review applications for Certificate of Need according to the general criteria listed in the *Mississippi Certificate of Need Review Manual*; all adopted rules, procedures, and plans of the (MSDH); and the specific criteria and standards listed below.

The construction, development, or other establishment of a new health care facility; the replacement and/or relocation of a health care facility or portion thereof; and changes of ownership of existing health care facilities are reviewable regardless of capital expenditure.

1. Need Criterion:

a. **Projects which do not involve the addition of any acute care beds**: The applicant shall document the need for the proposed project. Documentation may consist of, but is not limited to, citing of licensure or regulatory code deficiencies, institutional long-term plans (duly adopted by the governing board), recommendations made by consultant firms, and deficiencies cited by accreditation agencies (JCAHO, CAP, etc.). In addition, for projects which involve construction, renovation, or expansion of emergency department facilities, the applicant shall include a statement indicating whether the hospital will participate in the statewide trauma system and describe the level of participation, if any.

b. **Projects which involve the addition of beds**: The applicant shall document the need for the proposed project. In addition to the documentation required as stated in Need Criterion (1)(a), the applicant shall document that the facility in question has maintained an occupancy rate of at least 70 percent for the most recent two (2) years.

2. Bed Service Transfer/Reallocation/Relocation: Applications proposing the transfer, reallocation, and/or relocation of a specific category or sub-category of bed/service from another facility as part of a renovation, expansion, or replacement project shall document that the applicant will meet all regulatory/licensure requirements for the type of bed/service being transferred/reallocated/relocated.

3. Charity/Indigent Care: The application shall affirm that the applicant will provide a "reasonable amount" of indigent/charity care as described in Chapter I of this *Plan*.

4. The application shall demonstrate that the cost of the proposed project, including equipment, is reasonable in comparison with the cost of similar projects in the state.

a. The applicant shall document that the cost per square foot (per bed if applicable) does not exceed the median construction costs, as determined by the MSDH, for similar projects in the state within the most recent 12-month period by more than 15 percent. The Glossary of this *Plan* provides the formulas to be used by MSDH staff in calculating the cost per square foot for construction and/or construction/renovation projects.

b. If equipment costs for the project exceed the median costs for equipment of similar quality by more than 15 percent, the applicant shall provide justification for the excessive costs. The median costs shall be based on projects submitted during the most recent six-month period and/or estimated prices provided by acceptable vendors.

5. The applicant shall specify the floor areas and space requirements, including the following factors:

a. The gross square footage of the proposed project in comparison to state and national norms for similar projects.

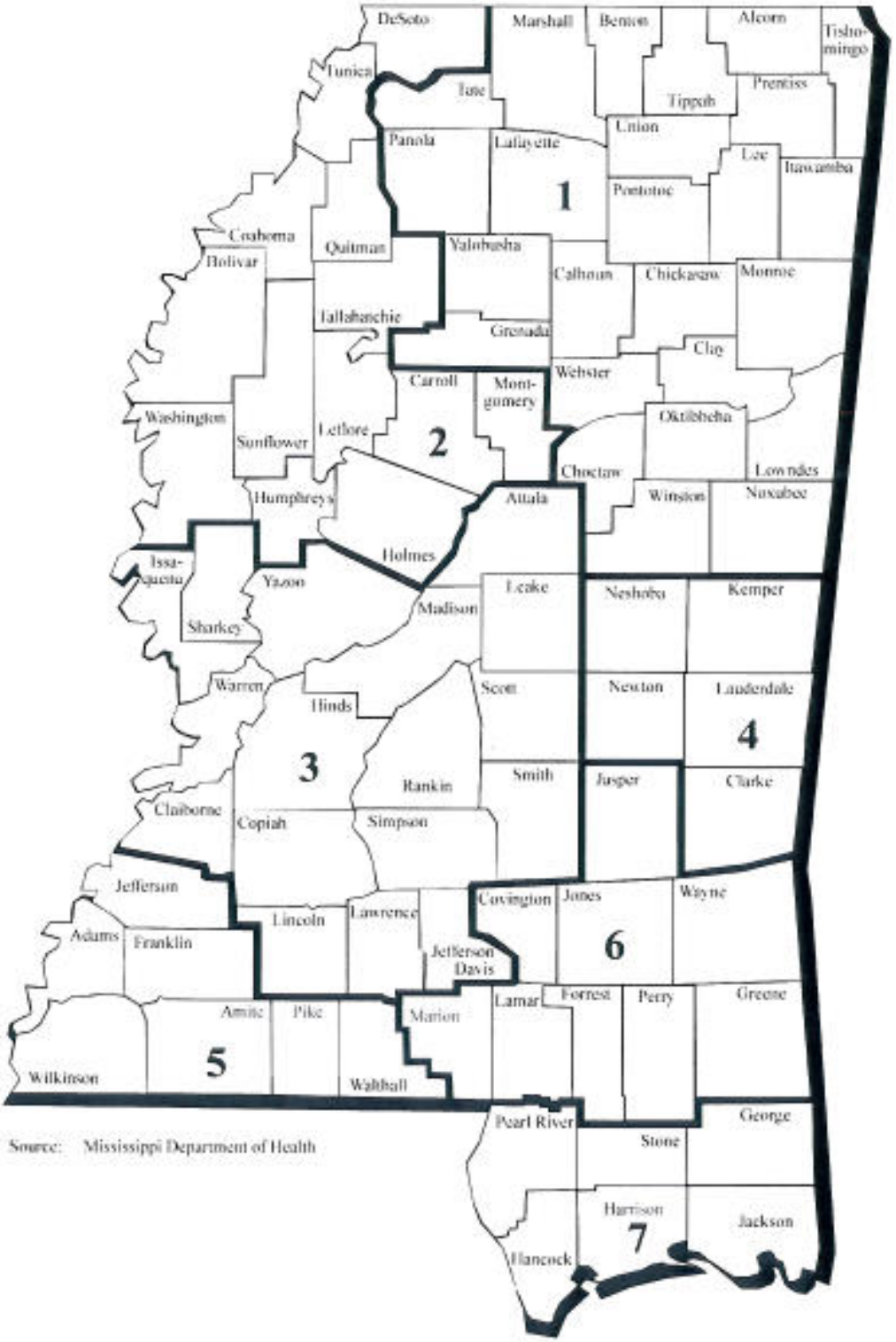
b. The architectural design of the existing facility if it places restraints on the proposed project.

c. Special considerations due to local conditions.

6. If the cost of the proposed renovation or expansion project exceeds 85 percent of the cost of a replacement facility, the applicant shall document their justification for rejecting the option of replacing said facility.

7. The applicant shall document the need for a specific service (i.e. perinatal, ambulatory care, psychiatric, etc.) using the appropriate service specific criteria as presented in this and other sections of the *Plan*.

Map 7- 1
General Hospital Service Areas



Source: Mississippi Department of Health

107.04 Certificate of Need Criteria and Standards for Swing-Bed Services

The Mississippi State Department of Health will review applications for a Certificate of Need to establish swing-bed services under the applicable statutory requirements of Sections 41-7-173, 41-7-191, and 41-7-193, Mississippi Code of 1972, as amended. The MSDH will also review applications for Certificate of Need according to the general criteria listed in the *Mississippi Certificate of Need Review Manual*; all adopted rules, procedures, and plans of the Mississippi State Department of Health; and the specific criteria and standards listed below.

1. **Need Criterion: The application shall document that the hospital will meet all federal regulations regarding the swing-bed concept**. However, a hospital may have more licensed beds or a higher average daily census (ADC) than the maximum number specified in federal regulations for participation in the swing-bed program.

2. The applicant shall provide a copy of the Resolution adopted by its governing board approving the proposed participation.

3. If the applicant proposes to operate and staff more than the maximum number of beds specified in federal regulations for participation in the swing-bed program, the application shall give written assurance that only private pay patients will receive swing-bed services.

4. The application shall affirm that upon receiving CON approval and meeting all federal requirements for participation in the swing-bed program, the applicant shall render services provided under the swing-bed concept to any patient eligible for Medicare (Title XVIII of the Social Security Act) who is certified by a physician to need such services.

5. The application shall affirm that upon receiving CON approval and meeting all federal requirements for participation in the swing-bed program, the applicant shall not permit any patient who is eligible for both Medicaid and Medicare or is eligible only for Medicaid to stay in the swing-beds of a hospital for more than 30 days per admission unless the hospital receives prior approval for such patient from the Division of Medicaid.

6. The application shall affirm that if the hospital has more licensed beds or a higher average daily census (ADC) than the maximum number specified in federal regulations for participation in the swing-bed program, the applicant will develop a procedure to ensure that, before a patient is allowed to stay in the swing-beds of the hospital, there are no vacant nursing home beds available for that patient within a 50-mile radius (geographic area) of the hospital. The applicant shall also affirm that if the hospital has a patient staying in the swing-beds of the hospital and the hospital receives notice from a nursing home located within a 50-mile radius that there is a vacant bed available for that patient, the hospital shall transfer the swing-bed patient to the nursing home within five days, exclusive of holidays and weekends, unless the patient's physician certifies that the transfer is not medically appropriate.

7. The applicant shall provide copies of transfer agreements entered into with each nursing facility within the applicant's geographic area.

8. An applicant subject to the conditions stated in Criterion #5 shall affirm in the application that they will be subject to suspension from participation in the swing-bed program for a reasonable period of time by the Department of Health if the Department, after a hearing complying with due process, determines that the hospital has failed to comply with any of those requirements.

CERTIFICATE OF NEED

CRITERIA AND STANDARDS FOR THERAPEUTIC RADIATION SERVICES

108 Certificate of Need Criteria and Standards for Therapeutic Radiation Services

Note: Should the Mississippi State Department of Health receive a Certificate of Need application regarding the acquisition and/or otherwise control of major medical equipment or the provision of a service for which specific CON criteria and standards have not been adopted, the application shall be deferred until the Department of Health has developed and adopted CON criteria and standards. If the Department has not developed CON criteria and standards within 180 days of receiving a CON application, the application will be reviewed using the general CON review criteria and standards presented in the *Mississippi Certificate of Need Review Manual* and all adopted rules, procedures, and plans of the Mississippi State Department of Health.

108.01 Policy Statement Regarding Certificate of Need Applications for the Acquisition or Otherwise Control of Therapeutic Radiation Equipment, and/or the Offering of Therapeutic Radiation Services (other than Gamma Knife)

1. Service Areas: The Mississippi State Department of Health shall determine the need for therapeutic radiation services/units/equipment by using the General Hospital Service Areas as presented in this chapter of the *Plan*. The MSDH shall determine the need for therapeutic radiation services/units/equipment within a given service area independently of all other service areas. Map 7-2 shows the General Hospital Service Areas.

2. Equipment to Population Ratio: The need for therapeutic radiation units (as defined) is determined to be one unit per 169,683 population (see methodology in this section of the Plan). The MSDH will consider out-of-state population in determining need only when the applicant submits adequate documentation acceptable to the Mississippi State Department of Health, such as valid patient origin studies.

3. Limitation of New Services: When the therapeutic radiation unit-to-population ratio reaches one to 169,683 in a given general hospital service area, no new therapeutic radiation services may be approved unless the utilization of all the existing machines in a given hospital service area averaged 8,000 treatment procedures or 320 patients per year for the two most recent consecutive years as reported on the "Renewal of Hospital License and Annual Hospital Report." For the purposes of this policy Cesium-137 teletherapy units, Cobalt-60 teletherapy units designed for use at less than 80 cm SSD (source to skin distance), old betatrons and van de Graaf Generators, unsuitable for modern clinical use, shall not be counted in the inventory of therapeutic radiation units located in a hospital service area.

4. Expansion of Existing Services: The MSDH may consider a CON application for the acquisition or otherwise control of an additional therapeutic radiation unit by an existing provider of such services when the applicant's existing equipment has exceeded the expected level of patient service, i.e., 320 patients per year or 8,000 treatments per year for the two most recent consecutive years

as reported on the facility's "Renewal of Hospital License and Annual Hospital Report."

5. The introduction and diffusion of stereotactic radiosurgery (SRS) will be controlled by favoring the replacement of obsolete conventional linear accelerators with multifunctional linear accelerators incorporating SRS capability.

6. For planning purposes, a CyberKnife® will be considered a multifunctional linear accelerator.

7. Equipment Designated for Backup: Therapeutic radiation equipment designated by an applicant as "backup" equipment shall not be counted in the inventory for CON purposes. Any procedures performed on the "backup" equipment shall be attributed to the primary equipment for CON purposes.

8. Definition of a Treatment Procedure: For health planning and CON purposes a patient "treatment" is defined as one individual receiving radiation therapy during a visit to a facility which provides megavoltage radiation therapy regardless of the complexity of the procedure or the number of "fields" treated during the visit.

9. Use of Equipment or Provision of Service: Before the equipment or service can be utilized or provided, the applicant desiring to provide the therapeutic radiation equipment or service shall have CON approval or written evidence that the equipment or service is exempt from CON approval, as determined by the Mississippi State Department of Health.

108.02 Certificate of Need Criteria and Standards for the Acquisition or Otherwise Control of Therapeutic Radiation Equipment and/or the Offering of Therapeutic Radiation Services (other than Gamma Knife)

The Mississippi State Department of Health will review Certificate of Need applications for the acquisition or otherwise control of therapeutic radiation equipment and/or the offering of therapeutic radiation services under the applicable statutory requirements of Sections 41-7-173, 41-7-191, and 41-7-193, Mississippi Code of 1972, as amended. The MSDH will also review applications for Certificate of Need according to the general criteria listed in the *Mississippi Certificate of Need Review Manual*; all adopted rules, procedures, and plans of the Mississippi State Department of Health; and the specific criteria and standards listed below.

The acquisition or otherwise control of therapeutic radiation equipment is reviewable if the equipment cost exceeds $1,500,000. The offering of therapeutic radiation services is reviewable if the proposed provider has not provided those services on a regular basis within the period of twelve (12) months prior to the time such services would be offered.

1. Need Criterion: The applicant shall document a need for therapeutic radiation equipment/service by complying with any one of the following methodologies:

a. the need methodology as presented in this section of the *Plan*;

b. demonstrating that all existing machines in the service area in question have averaged 8,000 procedures per year or all machines have treated an average of 320 patients per year for the two most recent consecutive years; or

c. demonstrating that the applicant's existing therapeutic equipment has exceeded the expected level of patients service, i.e. 320 patients per year/unit, or 8,000 treatments per year/unit for the most recent 24-month period; or

d. demonstrating to the satisfaction of the MSDH staff that the applicant (i) is a hospital having a minimum of 175 licensed acute care beds as of January 1, 2001; (ii) is located more than a forty (40) mile radius from an existing provider of therapeutic radiation services; and (iii) has the patient base needed to sustain a viable therapeutic radiation program, as defined by the Therapeutic Radiation Need Methodology. Policy Criterion # 3 does not apply to this Need Criterion #1 (d).

2. The applicant must document that access to diagnostic X-ray, CT scan, and ultrasound services is readily available within 15 minutes normal driving time of the therapeutic radiation unit's location.

3. An applicant shall document the following:

a. The service will have, at a minimum, the following full-time dedicated staff:

   i. One board-certified radiation oncologist-in-chief

   ii. One dosimetrist

   iii. One certified radiation therapy technologist certified by the American Registry of Radiation Technologists

   iv. One registered nurse

b. The service will have, at a minimum, access to a radiation physicist certified or eligible for certification by the American Board of Radiology.

Note: One individual may act in several capacities. However, the application shall affirm that when a staff person acts in more than one capacity, that staff person shall meet, at a minimum, the requirements for each of the positions they fill.

4. The applicant shall affirm that access will be available as needed to brachytherapy staff, treatment aides, social workers, dietitians, and physical therapists.

5. Applicants shall document that all physicians who are responsible for therapeutic radiation services in a facility, including the radiation oncologist-in-chief, shall reside within 60 minutes normal driving time of the facility.

6. The application shall affirm that the applicant will have access to a modern simulator capable of precisely producing the geometric relationships of the treatment equipment to a patient. This simulator must produce high quality

diagnostic radiographs. The applicant shall also affirm that the following conditions will be met as regards the use of the simulator:

a. If the simulator is located at a site other than where the therapeutic radiation equipment is located, protocols will be established which will guarantee that the radiation oncologist who performs the patient's simulation will also be the same radiation oncologist who performs the treatments on the patient.

b. If the simulator uses fluoroscopy, protocols will be established to ensure that the personnel performing the fluoroscopy have received appropriate training in the required techniques related to simulation procedures.

Note: X-rays produced by diagnostic X-ray equipment and photon beams produced by megavoltage therapy units are unsuitable for precise imaging of anatomic structures within the treatment volume and do not adequately substitute for a simulator.

7. The application shall affirm that the applicant will have access to a computerized treatment planning system with the capability of simulation of multiple external beams, display isodose distributions in more than one plane, and perform dose calculations for brachytherapy implants.

Note: It is highly desirable that the system have the capability of performing CT based treatment planning.

8. The applicant shall affirm that all treatments will be under the control of a board certified or board eligible radiation oncologist.

9. The applicant shall affirm that the proposed site, plans, and equipment shall receive approval from the Division of Radiological Health before service begins.

10. The application shall affirm that the applicant will establish a quality assurance program for the service, as follows:

a. The therapeutic radiation program shall meet, at a minimum, the physical aspects of quality assurance guidelines established by the American College of Radiology (ACR) within 12 months of initiation of the service.

b. The service shall establish a quality assurance program which meets, at a minimum, the standards established by the American College of Radiology.

11. The applicant shall affirm understanding and agreement that failure to comply with criterion #10 (a) and (b) may result in revocation of the CON (after due process) and subsequent termination of authority to provide therapeutic radiation services.

108.02.01 Therapeutic Radiation Equipment/Service Need Methodology

The methodology used to project the need for therapeutic radiation equipment/service is based, generally, upon recommendations of the 1990 Therapeutic Radiation Task Force and the guidelines contained in the publication Radiation Oncology in Integrated Cancer Management, a report of the Inter-Society Council for Radiation Oncology published in 1986. The publication is more commonly referred to as the "Blue Book."

1. Treatment/Patient Load: A realistic treatment/patient load for a therapeutic radiation unit is 8,000 treatments or 320 patients per year.

2. Incidence of Cancer: The American Cancer Society (ACS) estimates that Mississippi will experience 12,470 new cancer cases in 2007 (excluding basal and squamous cell skin cancers and in-situ carcinomas except urinary bladder cancer). This is a drastic change from the ACS estimate of 15,120 cases in 2006 due to change in the method of calculation. Based on a population of 2,975,551 (year 2010) as estimated by the Center for Policy Research and Planning, the cancer rate of Mississippi is 4.19 cases per 1,000 population.

3. Patients to Receive Treatment: The number of cancer patients expected to receive therapeutic radiation treatment is set at 45 percent.

4. Population to Equipment Ratio: Using the above stated data, a population of 100,000 will generate 419 new cancer cases each year. Assuming that 45 percent will receive radiation therapy, a population of 169,680 will generate approximately 320 patients who will require radiation therapy. Therefore, a population of 169,680 will generate a need for one therapeutic radiation unit.

108.02.02 Therapeutic Radiation Equipment Need Determination Formula

1. Project annual number of cancer patients.

$$\text{General Hospital Service Area Population} \times \frac{4.19 \text{ cases}^*}{1{,}000 \text{ population}} = \text{New Cancer Cases}$$

*Mississippi cancer incidence rate

2. Project the annual number of radiation therapy patients.

   New Cancer Cases X 45% = Patients Who Will Likely Require Radiation Therapy

3. Estimate number of treatments to be performed annually.

   Radiation Therapy Patients X 25 Treatments per Patient (Avg.) = Estimated Number of Treatments

4. Project number of megavoltage radiation therapy units needed.

$$\frac{\text{Est. \# of Treatments}}{\text{8,000 Treatments per Unit}} = \text{Projected Number of Units Needed}$$

5. Determine unmet need (if any)Projected Number of Units Needed — Number of Existing Units = Number of Units Required (Excess)

108.03 Policy Statement Regarding Certificate of Need Applications for the Acquisition or Otherwise Control of Gamma Knife Therapeutic Radiation Equipment and/or the Offering of Gamma Knife Therapeutic Radiation Services

1. Service Areas: The Mississippi State Department of Health shall determine the need for Gamma Knife intracranial stereotactic radiosurgery services/units/equipment by using the state as a whole as a single state Gamma Knife service area.

2. Equipment to Population Ratio: The need for Gamma Knife therapeutic radiation units is determined to be one unit per 2,800,000 population. The MSDH will consider out-of-state population in determining need only when the applicant submits adequate documentation acceptable to the Mississippi State Department of Health, such as valid patient origin studies. The Gamma Knife will not be included in the inventory of other therapeutic radiation treatment equipment, and the presence of a Gamma Knife will not be used in the determination of the need for other therapeutic radiation equipment, such as additional linear accelerators.

3. Accessibility: The state's population will limit the availability of Gamma Knives to one. The single Gamma Knife should be located in or near a Jackson hospital with close associations with the University of Mississippi School of Medicine and the University Medical Center. Nothing contained in these CON criteria and standards shall preclude the University of Mississippi School of Medicine from acquiring and operating Gamma Knife therapeutic radiation equipment, provided the acquisition and use of such equipment is justified by the School's teaching and/or research mission. However, the requirements listed under the section regarding the granting of "appropriate scope of privileges for access to the Gamma Knife equipment to any qualified physician" must be met.

4. Expansion of Existing Services: The MSDH may consider a CON application for the acquisition or otherwise control of an additional therapeutic radiation unit by an existing provider of such services when the applicant's existing equipment has exceeded the expected level of patient service, i.e., 200 patients per year for the two most recent consecutive years as reported on the facility's "Renewal of Hospital License and Annual Hospital Report."

5. Facilities requesting approval to add Gamma Knife services should have an established neurosurgery program and must be able to demonstrate previous radiosurgery service experience.

6. All Gamma Knife surgery services should have written procedures and policies for discharge planning and follow-up care for the patient and family as part of the institution's overall discharge planning program.

7. All Gamma Knife surgery services should have established protocols for referring physicians to assure adequate post-operative diagnostic evaluation for radiosurgery patients.

8. The total cost of providing Gamma Knife surgery services projected by prospective providers should be comparable to the cost of other similar services provided in the state.

9. The usual and customary charge to the patient for Gamma Knife surgery should be commensurate with cost.

108.04 Certificate of Need Criteria and Standards for the Acquisition or Otherwise Control of Gamma Knife Therapeutic Radiation Equipment and/or the Offering of Gamma Knife Radiosurgery

The Mississippi State Department of Health will review Certificate of Need applications for the acquisition or otherwise control of Gamma Knife radiosurgery equipment and/or the offering of Gamma Knife radiosurgery services under the applicable statutory requirements of Sections 41-7-173, 41-7-191, and 41-7-193, Mississippi Code of 1972, as amended. The MSDH will also review applications for Certificate of Need according to the general criteria listed in the *Mississippi Certificate of Need Review Manual*; all adopted rules, procedures, and plans of the Mississippi State Department of Health; and the specific criteria and standards listed below.

The acquisition or otherwise control of Gamma Knife radiosurgery equipment is reviewable if the equipment cost exceeds $1,500,000. The offering of Gamma Knife radiosurgery services is reviewable if the proposed provider has not provided those services on a regular basis within the period of twelve (12) months prior to the time such services would be offered.

1. **Need Criterion: The applicant shall document a need for Gamma Knife radiosurgery equipment/service by reasonably projecting that the proposed new service will perform at least 200 Gamma Knife surgeries in the third year of operation. No additional new Gamma Knife surgery services should be approved unless the number of surgeries performed with existing units in the state average more than 475 per year.**

2. Staffing:

a. The Gamma Knife surgery programs must be established under the medical direction of two co-directors, one with specialty training and board certification in neurosurgery and the other with specialty training and board certification in radiation oncology, with experience in all phases of Gamma Knife surgical procedures.

b. In addition to the medical co-directors, all Gamma Knife surgery programs should have a radiation physicist who is certified in radiology, or who holds an advanced degree in physics with two to three years experience working under the direction of a radiation oncologist, and a registered nurse present for each Gamma Knife surgery performed.

c. The applicant shall document that the governing body of the entity offering Gamma Knife therapeutic radiation services will grant an appropriate scope of privileges for access to the Gamma Knife therapeutic radiation equipment to any qualified physician who applies for privileges. For the purpose of this criterion, "Qualified Physician" means a doctor of medicine or osteopathic medicine licensed by the State of Mississippi who possesses training in Gamma Knife intracranial stereotactic radiosurgery and other qualifications established by the governing body.

3. Equipment:

a. Facilities providing Gamma Knife surgery services should have dosimetry and calibration equipment and a computer with the appropriate software for performing Gamma Knife surgery.

b. The facility providing Gamma Knife surgery services should also have access to magnetic resonance imaging, computed tomography, and angiography services.

CERTIFICATE OF NEED

CRITERIA AND STANDARDS FOR DIAGNOSTIC IMAGING SERVICES

109 Certificate of Need Criteria and Standards for Diagnostic Imaging Services

Note: Should the Mississippi State Department of Health receive a Certificate of Need application regarding the acquisition and/or otherwise control of major medical equipment or the provision of a service for which specific CON criteria and standards have not been adopted, the application shall be deferred until the Department of Health has developed and adopted CON criteria and standards. If the Department has not developed CON criteria and standards within 180 days of receiving a CON application, the application will be reviewed using the general CON review criteria and standards presented in the *Mississippi Certificate of Need Review Manual* and all adopted rules, procedures, and plans of the Mississippi State Department of Health.

109.01 Policy Statement Regarding Certificate of Need Applications for the Acquisition or Otherwise Control of Magnetic Resonance Imaging (MRI) Equipment and/or the Offering of MRI Services

1. CON Review Requirements: The Certificate of Need process regarding the acquisition or otherwise control of MRI equipment and/or the offering of MRI services involves separate requirements for CON review: (a) an entity proposing to acquire or otherwise control MRI equipment must obtain a CON to do so if the capital expenditure for the MRI unit and related equipment exceeds $1,500,000; and (b) an entity proposing to offer MRI services must obtain a CON before providing such services.

2. CON Approval Preference: The Mississippi State Department of Health shall give preference to those applicants proposing to enter into joint ventures utilizing mobile and/or shared equipment. However, the applicant must meet the applicable CON criteria and standards provided herein and the general criteria and standards contained in the currently approved *Mississippi Certificate of Need Review Manual*.

3. Metropolitan Statistical Areas (MSAs): The MSDH shall determine the need for fixed and/or mobile MRI using the Metropolitan Statistical Areas as outlined on Map __ at the end of this chapter.

4. The applicant shall indicate whether the proposed mobile or fixed MRI unit/service will be located in a rural or urban area. A mobile or fixed MRI unit in a rural area must perform a minimum of 3,500 procedures per year and a MRI unit in an urban area must perform 4,500 procedures per year.

5. For purposes of this Plan, a mobile MRI unit is defined as an MRI unit operating at two or more host sites and that has a central service coordinator. The mobile MRI unit shall operate under a contractual agreement for the provision of MRI services at each host site on a regularly scheduled basis.

For the purposes of this *Plan*, a rural area is defined as any place or county that is not designated as a Metropolitan Statistical Area (MSA) by the federal government. An

urban or urbanized area is defined as a population of 50,000 or more with a continuous population growth.[1]

[1] *The Geographic Areas Reference Manual (GARM) Issued November 1994* U.S. Department of Commerce Economics and Statistics Administration BUREAU OF THE CENSUS *Source: U.S. Census Bureau Geography Division*

6. No new MRI services shall be approved unless all existing MRI service in the planning district perform an average of 3,500 MRI procedures per existing and approved MRI scanner during the most recent 12 month reporting period and the proposed new services would not reduce the utilization of existing providers in the service area.

7. No new MRI capacity shall be added within 30 minutes driving time, one way, under normal driving conditions of any MRI service that is not yet operational.

8. Population-Based Formula: The MSDH shall use a population-based formula as presented at the end of this chapter when calculating MRI need. Also, the formula will use historical and projected use rates by planning district and patient origin data. The population-based formula is based on the most recent population projections prepapred by the Center for Policy Research and Planning of the Institutions of Higher Learning (March 2005).

9. The required minimum service volumes for the establishment of services and the addition of capacity for mobile services shall be prorated on a "site by site" basis based on the amount of time the mobile services will be operational at each site, using the following formula: [Prorated annual mobile volume (not to exceed the required full time volume) = Required full time annual volume * number of days the service will be on site each week * 0.2].

~~10. Procedures Estimation Methodology: The applicant shall use the procedures estimation methodology appearing in this section of the *Plan* to project the annual patient service volume for MRI services/equipment. The DRG disease classification system to be used for MRI is available from the Mississippi State Department of Health Division of Health Planning and Resource Development.~~

11. Addition of a Health Care Facility: An equipment vendor who proposes to add a health care facility to an existing or proposed route must obtain an amendment to the original Certificate of Need before providing such service. Additionally, an equipment vendor must inform the Department of any proposed changes, i.e. additional health care facilities or route deviations, from those presented in the Certificate of Need application prior to such change.

109.02 Certificate of Need Criteria and Standards for the Acquisition or Otherwise Control of Magnetic Resonance Imaging (MRI) Equipment and/or the Offering of MRI Services

The Mississippi State Department of Health will review applications for a Certificate of Need for the acquisition or otherwise control of MRI equipment and/or the offering of MRI services under the applicable statutory requirements of Sections 41-7-173, 41-7-191, and 41-7-193, Mississippi Code of 1972, as amended. The MSDH will also review applications for Certificate

of Need according to the general criteria listed in the *Mississippi Certificate of Need Review Manual*; all adopted rules, procedures, and plans of the Mississippi State Department of Health; and the specific criteria and standards listed below.

The acquisition or otherwise control of MRI equipment is reviewable if the equipment cost is in excess of $1,500,000; if the equipment and/or service is relocated; and if the proposed provider of MRI services has not provided such services on a regular basis within the period of twelve (12) months prior to the time such services would be offered.

109.02.01 Certificate of Need Criteria and Standards for the Acquisition or Otherwise Control of MRI Equipment

110 Need Criterion: The entity desiring to acquire or otherwise control the MRI equipment shall demonstrate a minimum of ~~1,700~~ 3,500 procedures per year by the end of the second year of operation if the facility proposing to acquire MRI equipment is located in a rural area. However, the applicant must document that the specified equipment shall perform a minimum of 4,500 procedures per year by the end of the second year of operation for a facility proposing to acquire MRI equipment in an urban area. This criterion includes both fixed and mobile MRI equipment. The applicant must show the methodology used for the projections.

~~Applicants for non-hospital based MRI facilities may submit affidavits from referring physicians in lieu of the estimation methodology required for hospital-based facilities. MRI procedures projected in affidavits shall be based on actual MRI procedures referred during the year.~~

The applicant shall document a minimum population of 45,000 in the rural area or 58,000 in the urban area to be served by each MRI unit.

110.01 The applicant shall demonstrate that all existing units within a 30-minute drive time of the proposed unit have performed an average of 3,500 procedures for the most recent 12-month period.

110.02 The applicant shall demonstrate that there are no CON approved but not yet operational units within a 30-minute drive time of the proposed unit. No new unit shall be approved within a 30-minute drive time of a CON approved but not yet operational unit.

It is recognized that an applicant desiring to acquire or otherwise control an MRI unit may make or propose to make the MRI unit available to more than one provider of MRI services; some of which may be located outside of Mississippi. In such cases all existing or proposed users of the MRI unit must jointly meet the required service volume of ~~1,700~~ 4,500 procedures annually. If the MRI unit in question is presently utilized by other providers of MRI services, the actual number of procedures performed by them during the most recent 12-month period may be used. instead of the population-based formula projections.

Certificate of Need Criteria and Standards for the Offering of fixed or mobile MRI Services

An entity proposing to offer MRI services shall obtain Certificate of Need (CON) approval before offering such services.

1. **Need Criterion:** The entity desiring to offer MRI services must document that the equipment shall perform a minimum of ~~1,700~~ **3,500 procedures by the end of the second year of operation if the proposed service is to be located in a predominantly rural area, or a minimum of 4,500 procedures by the end of the second year of operation for a proposed service in an urban area.** This criterion includes both fixed and mobile MRI equipment. The applicant must show methodology used for the projections.

   ~~Applicants for non-hospital based MRI facilities may submit affidavits from referring physicians in lieu of the estimation methodology required for hospital-based facilities. MRI procedures projected in affidavits shall be based on actual MRI procedures referred during the year.~~

   The applicant shall document a minimum population of 45,000 in the rural area or 58,000 in the urban area to be served by each MRI unit.

   a. The applicant shall demonstrate that all existing units within a 30-minute drive time of the proposed unit have performed an average of 3,500 procedures for the most recent 12-month period.

   b. The applicant shall demonstrate that there are no CON approved but not yet operational units within a 30-minute drive time of the proposed unit. No new unit shall be approved within a 30-minute drive time of a CON approved but not yet operational unit.

   It is recognized that a particular MRI unit may be utilized by more than one provider of MRI services; some of which may be located outside of Mississippi. In such cases all existing or proposed providers of MRI services must jointly meet the required service volume of ~~1,700~~ 3,500 procedures annually in rural areas or 4,500 procedures annually per unit/service in an urban area. If the MRI unit in question is presently utilized by other providers of MRI services, the actual number of procedures performed by them during the most recent 12-month period may be used instead of the formula projections.

2. An applicant desiring to offer MRI services must document that a full range of diagnostic imaging modalities for verification and complementary studies will be available at the time MRI services begin. These modalities shall include, but not be limited to, computed tomography (full body), ultrasound, angiography, nuclear medicine, and conventional radiology.

3. All applicants proposing to offer MRI services shall give written assurance that, within the scope of its available services, neither the facility where the service is

provided nor its participating medical personnel shall have policies or procedures which would exclude patients because of race, color, age, sex, ethnicity, or ability to pay.

4. An applicant desiring to offer MRI services must document that a full range of diagnostic imaging modalities for verification and complementary studies will be available at the time MRI services begin. These modalities shall include, but not be limited to, computed tomography (full body), ultrasound, angiography, nuclear medicine, and conventional radiology.

5. All applicants proposing to offer MRI services shall give written assurance that, within the scope of its available services, neither the facility where the service is provided nor its participating medical personnel shall have policies or procedures which would exclude patients because of race, color, age, sex, ethnicity, or ability to pay.

6. The applicant must document that the following staff will be available:

   a. Director - A full-time, board eligible radiologist or nuclear medicine imaging physician, or other board eligible licensed physician whose primary responsibility during the prior three years has been in the acquisition and interpretation of clinical images. The Director shall have knowledge of MRI through training, experience, or documented post-graduate education. The Director shall document a minimum of one week of full-time training with a functional MRI facility.

   b. One full-time MRI technologist-radiographer or a person who has had equivalent education, training, and experience, who shall be on-site at all times during operating hours. This individual must be experienced in computed tomography or other cross-sectional imaging methods, or must have equivalent training in MRI spectroscopy.

7. The applicant shall document that when an MRI unit is to be used for experimental procedures with formal/approved protocols, a full-time medical physicist or MRI scientist (see definition in Glossary) with at least one year of experience in diagnostic imaging shall be available in the facility.

8. The applicant shall provide assurances that the following data regarding its use of the MRI equipment will be kept and made available to the Mississippi State Department of Health upon request:

   a. Total number of procedures performed

   b. Number of inpatient procedures

   c. Number of outpatient procedures

   d. Average MRI scanning time per procedure

   e. Average cost per procedure

   f. Average charge per procedure

g. Demographic/patient origin data

h. Days of operation

In addition to the above data recording requirements, the facility should maintain the source of payment for procedures and the total amounts charged during the fiscal year when it is within the scope of the recording system.

9. Before the service can be provided, the CON applicant desiring to offer MRI services shall provide written evidence that the specified MRI equipment provider has received CON approval or is exempt from CON approval as determined by the Mississippi State Department of Health. Each specified piece of equipment must be exempt from or have CON approval.

110.02.01 Population-Based Formula for Projection of MRI Service Volume

X * Y ÷ 1,000 = V

Where, X = Service area population

Y = Use Rate

V = Expected Volume

110.02.02 ~~Procedures Estimation Methodology for MRI Equipment~~

~~MRI patient service volume shall be based on a DRG disease classification system of all inpatients of the hospital, other participating hospitals, and the number of outpatients in receipt of CT scans from the respective hospitals. Under this system, the DRGs are classified and ranked in relation to the expected applicability of MRI imaging. Diagnoses for which MRI imaging is not likely to be useful in current application fall into Category 1. Category 2 includes those diagnoses for which MRI imaging may be a useful secondary imaging modality in some cases. Category 3 encompasses diagnoses for which MRI is likely to be a useful secondary imaging modality. Category 4 includes those diagnoses for which MRI is expected to be the primary imaging modality. The listing of DRG categories to be used in establishing the need for MRI services may be obtained from the Mississippi State Department of Health Division of Health Planning and Resource Development.~~

~~First, the methodology classifies the total number of inpatient admissions into the four categories. The admission total for each category is zero, five, 15, and 50 percent, respectively. This derives the estimated number of inpatients most likely to benefit from MRI services. Secondly, the methodology identifies the total number of outpatients referred for CT scanning during the previous fiscal year. A 25 percent utilization factor is applied to that total in order to derive the number of outpatients most likely to benefit from MRI imaging. Inpatient and outpatient estimates are summed to derive the total MRI volume for~~

~~the first year of operation. The mathematical formula for calculating volume estimates is as follows:~~

$$EC = .50 (TN_4) + .15 (TN_3) + .05 (TN_2) + .25 (TN_{ct})$$

~~Where:~~

~~EC = Estimated MRI patient service volume for the first or next year of operation.~~

~~TN_4 = Total number of inpatient hospital admissions in DRG Category 4 for the preceding fiscal year.~~

~~TN_3 = Total number of inpatient hospital admissions in DRG Category 3 for the preceding fiscal year.~~

~~TN_2 = Total number of inpatient hospital admissions in DRG Category 2 for the preceding fiscal year.~~

~~TN_{ct} = Total number of outpatients who received CT scans for the preceding fiscal year.~~

~~If the hospital projects a greater number of procedures for the end of the second year than the formula estimates, this projection must be based on the actual increases in the number of diagnoses within each category over the past three years.~~

110.03 Certificate of Need Criteria and Standards for Digital Subtraction Angiography

The Mississippi State Department of Health will review applications for a Certificate of Need for the acquisition or otherwise control of Digital Subtraction Angiography (DSA) equipment and associated costs under the applicable statutory requirements of Sections 41-7-173, 41-7-191, and 41-7-193, Mississippi Code of 1972, as amended. The MSDH will also review applications for Certificate of Need according to the general criteria listed in the *Mississippi Certificate of Need Review Manual*; all adopted rules, procedures, and plans of the Mississippi State Department of Health; and the specific criteria and standards listed below.

Certificate of Need review is required when the capital expenditure for the purchase of Digital Subtraction Angiography equipment and associated costs exceed $1,500,000, or when the equipment is to be used for invasive procedures, i.e., the use of catheters. The offering of diagnostic imaging services of an invasive nature, i.e. invasive digital angiography, is reviewable if those services have not been provided on a regular basis by the proposed provider of such services within the period of twelve (12) months prior to the time such services would be offered.

1. **Need Criterion: The applicant for DSA services shall demonstrate that proper protocols for screening, consultation, and medical specialty backup are in place before services are rendered by personnel other than those with specialized training.**

For example, if a radiologist without specialized training in handling cardiac arrhythmia is to perform a procedure involving the heart, a cardiologist/cardiosurgeon must be available for consultation/backup.

The protocols shall include, but are not limited to, having prior arrangements for consultation/backup from:

a. a cardiologist/cardiosurgeon for procedures involving the heart;

b. a neurologist/neurosurgeon for procedures involving the brain; and

c. a vascular surgeon for interventional peripheral vascular procedures.

2. Before utilizing or providing the equipment or service, the applicant desiring to provide the digital subtraction angiography equipment or service shall have CON approval or written evidence that the equipment or service is exempt from CON approval as determined by the Mississippi State Department of Health.

110.04 Policy Statement Regarding Certificate of Need Applications for the Acquisition or Otherwise Control of a Positron Emission Tomography (PET) Scanner and Related Equipment

1. CON Review Requirements: Applicants proposing the acquisition or otherwise control of a PET scanner shall obtain a CON to do so if the capital expenditure for the scanner and related equipment exceeds $1,500,000.

2. Indigent/Charity Care: An applicant shall be required to provide a "reasonable amount" of indigent/charity care as described in Chapter I of this *Plan*.

3. Service Areas: The state as a whole shall serve as a single service area in determining the need for a PET scanner.

4. Equipment to Population Ratio: The need for a PET scanner is estimated to be one scanner per ~~300,000~~ 500,000 population. The MSDH will consider out-of-state population in determining need only when the applicant submits adequate documentation acceptable to the MSDH, such as valid patient origin studies.

5. Access to Supplies: Applicants must have direct access to appropriate radio-pharmaceuticals.

6. Services and Medical Specialties Required: The proposed PET unit must function as a component of a comprehensive inpatient or outpatient diagnostic service. The proposed PET unit must have the following modalities (and capabilities) on-site or through contractual arrangements:

   a. Computed tomography - (whole body)

   b. Magnetic resonance imaging - (brain and whole body)

c. Nuclear medicine - (cardiac, SPECT)

d. Conventional radiography

e. The following medical specialties during operational hours:

i. Cardiology

ii. Neurology

iii. Neurosurgery

iv. Oncology

v. Psychiatry

vi. Radiology

7. Hours of Operation: PET facilities should have adequate scheduled hours to avoid an excessive backlog of cases.

8. CON Approval Preference: The MSDH may approve applicants proposing to enter joint ventures utilizing mobile and/or shared equipment.

9. CON Requirements: The criteria and standards contained herein pertain to both fixed and/or mobile PET scanner equipment.

10. CON Exemption: Nothing contained in these CON criteria and standards shall preclude the University of Mississippi School of Medicine from acquiring and operating a PET scanner, provided the acquisition and use of such equipment is justified by the School's teaching and/or research mission. However, the requirements listed under the section regarding the granting of "appropriate scope of privileges for access to the scanner to any qualified physician" must be met. The MSDH shall not consider utilization of equipment/services at any hospital owned and operated by the state or its agencies when reviewing CON applications.

11. Addition to a Health Care Facility: An equipment vendor who proposes to add a health care facility to an existing or proposed route must amend the original Certificate of Need before providing such service. Additionally, an equipment vendor must inform the Department of any proposed changes from those presented in the Certificate of Need application prior to such change, i.e., additional health care facilities or route deviations.

12. Equipment Registration: The applicant must provide the Department with the registration/serial number of the CON-approved PET scanner.

13. Certification: If a mobile PET scanner, the applicant must certify that only the single authorized piece of equipment and related equipment vendor described in the CON application will be utilized for the PET service by the authorized facility/facilities.

Certificate of Need Criteria and Standards for the Acquisition or Otherwise Control of a Positron Emission Tomography (PET) Scanner and Related Equipment

The Mississippi State Department of Health will review applications for a Certificate of Need for the acquisition or otherwise control of a PET scanner and related equipment under the applicable statutory requirements of Sections 41-7-173, 41-7-191, and 41-7-193, Mississippi Code of 1972, as amended. The MSDH will also review applications for Certificate of Need according to the general review criteria listed in the *Mississippi Certificate of Need Review Manual*; all adopted rules, procedures, and plans of the Mississippi State Department of Health; and the specific criteria and standards listed below.

The acquisition or otherwise control of a PET scanner and related equipment is reviewable if the equipment cost is in excess of $1,500,000, or if the equipment is relocated. The offering of PET services is reviewable if the proposed provider has not provided those services on a regular basis within the period of twelve (12) months prior to the time such services would be offered.

14. Need Criterion:

a. The entity desiring to acquire or to otherwise control the PET scanner must project a minimum of ~~**750**~~ 1500 clinical procedures per year and must show the methodology used for the projection.

b. The applicant shall document a minimum population of ~~**300,000**~~ 500,000 per PET scanner unit. The Division of Health Planning and Resource Development population projections shall be used.

15. The entity desiring to acquire or otherwise control the PET equipment must be a registered entity authorized to do business in Mississippi.

16. The MSDH will approve additional PET equipment in an area with existing equipment only when it is demonstrated that the existing PET equipment is performing 1,500 clinical procedures per PET unit per year (six clinical procedures per day x 250 working days per year).

~~17. An applicant proposing to provide new or expanded PET services must include written assurances in the application that the service will be offered in a physical environment that conforms to federal standards, manufacturer's specifications, and licensing agencies' requirements. The following areas are to be addressed:~~

~~a. quality control and assurance of radiopharmaceutical production of generator or cyclotron-produced agents;~~

~~b. quality control and assurance of PET tomograph and associated instrumentation;~~

~~c. radiation protection and shielding; and~~

~~d. radioactive emissions to the environment~~.

18. The application shall affirm that the applicant shall receive approval from the Division of Radiological Health for the proposed site, plans, and equipment before service begins.

~~19. The applicant shall document provision of an on-site medical cyclotron for radionuclide production and a chemistry unit for labeling radiopharmaceuticals; or an on-site rubidium-82 generator; or access to a supply of cyclotron-produced radiopharmaceuticals from an off-site medical cyclotron and a radiopharmaceutical production facility within a two-hour air transport radius.~~

~~20. The applicant must provide evidence that the proposed PET equipment has been cleared for marketing by the U.S. Food and Drug Administration or will be operated under an institutional review board whose membership is consistent with U.S. Department of Health and Human Services regulations.~~

~~21. Applicants for PET shall document that the necessary qualified staff are available to operate the proposed unit. The applicant shall document the PET training and experience of the staff. The following minimum staff shall be available to the PET unit:~~

~~a. One or more nuclear medicine imaging physician(s) available to the PET unit on a full-time basis (e.g., radiologist, nuclear cardiologist) who have been licensed by the state for the handling of medical radionuclides and whose primary responsibility for at least a one-year period prior to submission of the Certificate of Need application has been in acquisition and interpretation of tomographic images. This individual shall have knowledge of PET through training, experience, or documented postgraduate education. The individual shall also have training with a functional PET facility.~~

~~b. If operating a cyclotron on site, a qualified PET radiochemist or radiopharmacist personnel, available to the facility during PET service hours, with at least one year of training and experience in the synthesis of short-lived positron emitting radiopharmaceuticals. The individual(s) shall have experience in the testing of chemical, radiochemical, and radionuclidic purity of PET radiopharmaceutical syntheses.~~

~~c. Qualified engineering and physics personnel, available to the facility during PET service hours, with training and experience in the operation and maintenance of the PET equipment.~~

~~d. Qualified radiation safety personnel, available to the facility at all times, with training and experience in the handling of short-lived positron emitting nuclides. If a medical cyclotron is operated on-site, personnel with expertise in radiopharmacy, radiochemistry, and medical physics would also be required.~~

~~e. Certified nuclear medicine technologists with expertise in computed tomographic nuclear medicine imaging procedures, at a staff level consistent with the proposed center's expected PET service volume.~~

f. Other appropriate physicians shall be available during PET service hours which may include certified nuclear medicine technologists, computer programmers, nurses, and radio-chemistry technicians.

22. The applicant shall demonstrate how medical emergencies within the PET unit will be managed in conformity with accepted medical practice.

23. The applicant shall affirm that, in addition to accepting patients from participating institutions, facilities performing clinical PET procedures shall accept appropriate referrals from other local providers. These patients shall be accommodated to the extent possible by extending the hours of service and by prioritizing patients according to standards of need and appropriateness rather than source of referral.

24. The applicant shall affirm that protocols will be established to assure that all clinical PET procedures performed are medically necessary and cannot be performed as well by other, less expensive, established modalities.

25. Applicants will be required to maintain current listings of appropriate PET procedures for use by referring physicians.

26. The applicant shall provide assurances that the following data regarding the PET equipment will be kept and made available to the Mississippi State Department of Health upon request:

    a. total number of procedures performed;

    b. total number of inpatient procedures (indicate type of procedure);

    c. total number of outpatient procedures (indicate type of procedure);

    d. average charge per specific procedure;

    e. hours of operation of the PET unit;

    f. days of operation per year; and

    g. total revenue and expense for the PET unit for the year.

27. The applicant shall provide a copy of the proposed contract and document that if the equipment is to be rented, leased, or otherwise used by other qualified providers on a contractual basis, no fixed/minimum volume contracts will be permitted.

28. Before the specified equipment can be utilized, the applicant desiring to provide the PET equipment shall have CON approval or written evidence that the equipment is exempt from CON approval as determined by the Mississippi State Department of Health. Each specified piece of equipment must be exempt from or have CON approval.

Certificate of Need Criteria and Standards for the Offering of Fixed or Mobile Positron Emission Tomography (PET) Services

The offering of fixed or mobile PET services is reviewable if the proposed provider has not provided those services on a regular basis within the period of twelve (12) months prior to the time such services would be offered.

29. Need Criterion: The entity desiring to offer PET services must document that the equipment shall perform a minimum of 1,500 clinical procedures per year and must show the methodology used for the projection.

30. It is recognized that a particular PET unit may be utilized by more than one provider of PET services; some of which may be located outside of Mississippi. In such cases all existing or proposed providers of PET services must jointly meet the required service volume of 1,500 procedures annually. If the PET unit in question is presently utilized by other providers of PET services, the actual number of procedures performed by them during the most recent 12-month period may be used.

31. An applicant proposing to provide new or expanded PET services must include written assurances in the application that the service will be offered in a physical environment that conforms to federal standards, manufacturer's specifications, and licensing agencies' requirements. The following areas are to be addressed:

    a. quality control and assurance of radiopharmaceutical production of generator or cyclotron-produced agents;

    b. quality control and assurance of PET tomograph and associated instrumentation;

    c. radiation protection and shielding; and

    d. radioactive emissions to the environment.

32. The application shall affirm that the applicant shall receive approval from the Division of Radiological Health for the proposed site, plans, and equipment before service begins.

33. The applicant shall document provision of an on-site medical cyclotron for radionuclide production and a chemistry unit for labeling radiopharmaceuticals; or an on-site rubidium-82 generator; or access to a supply of cyclotron-produced radiopharmaceuticals from an off-site medical cyclotron and a radiopharmaceutical production facility within a two-hour air transport radius.

34. Applicants for PET shall document that the necessary qualified staff are available to operate the proposed unit. The applicant shall document the PET training and experience of the staff. The following minimum staff shall be available to the PET unit:

    a. One or more nuclear medicine imaging physician(s) available to the PET unit on a full-time basis (e.g., radiologist, nuclear cardiologist) who have been licensed by the state for the handling of medical radionuclides and whose primary

responsibility for at least a one-year period prior to submission of the Certificate of Need application has been in acquisition and interpretation of tomographic images. This individual shall have knowledge of PET through training, experience, or documented postgraduate education. The individual shall also have training with a functional PET facility.

b. If operating a cyclotron on site, a qualified PET radiochemist or radiopharmacist personnel, available to the facility during PET service hours, with at least one year of training and experience in the synthesis of short-lived positron emitting radiopharmaceuticals. The individual(s) shall have experience in the testing of chemical, radiochemical, and radionuclidic purity of PET radiopharmaceutical syntheses.

c. Qualified engineering and physics personnel, available to the facility during PET service hours, with training and experience in the operation and maintenance of the PET equipment.

d. Qualified radiation safety personnel, available to the facility at all times, with training and experience in the handling of short-lived positron emitting nuclides. If a medical cyclotron is operated on-site, personnel with expertise in radiopharmacy, radiochemistry, and medical physics would also be required.

e. Certified nuclear medicine technologists with expertise in computed tomographic nuclear medicine imaging procedures, at a staff level consistent with the proposed center's expected PET service volume.

f. Other appropriate physicians shall be available during PET service hours which may include certified nuclear medicine technologists, computer programmers, nurses, and radio-chemistry technicians.

35. The applicant shall demonstrate how medical emergencies within the PET unit will be managed in conformity with accepted medical practice.

36. The applicant shall affirm that, in addition to accepting patients from participating institutions, facilities performing clinical PET procedures shall accept appropriate referrals from other local providers. These patients shall be accommodated to the extent possible by extending the hours of service and by prioritizing patients according to standards of need and appropriateness rather than source of referral.

37. The applicant shall affirm that protocols will be established to assure that all clinical PET procedures performed are medically necessary and cannot be performed as well by other, less expensive, established modalities.

38. Applicants will be required to maintain current listings of appropriate PET procedures for use by referring physicians.

39. The applicant shall provide assurances that the following data regarding the PET service will be kept and made available to the Mississippi State Department of Health upon request:

a. total number of procedures performed;total number of inpatient procedures (indicate type of procedure);
b. total number of outpatient procedures (indicate type of procedure);

c. average charge per specific procedure;

d. hours of operation of the PET unit;

e. days of operation per year; and

f. total revenue and expense for the PET unit for the year.

40. Before the specified service can be provided, the applicant desiring to offer the PET service shall provide written evidence that the specified PET equipment provider has CON approval or written evidence that the equipment is exempt from CON approval as determined by the Mississippi State Department of Health. Each specified piece of equipment must be exempt from or have CON approval.

CERTIFICATE OF NEED

CRITERIA AND STANDARDS FOR LONG-TERM ACUTE CARE HOSPITALS/BEDS

111 Certificate of Need Criteria and Standards for Long-Term Acute Care Hospitals/Beds

Note: Should the Mississippi State Department of Health receive a Certificate of Need application regarding the acquisition and/or otherwise control of major medical equipment or the provision of a service for which specific CON criteria and standards have not been adopted, the application shall be deferred until the Department of Health has developed and adopted CON criteria and standards. If the Department has not developed CON criteria and standards within 180 days of receiving a CON application, the application will be reviewed using the general CON review criteria and standards presented in the *Mississippi Certificate of Need Review Manual* and all adopted rules, procedures, and plans of the Mississippi State Department of Health.

111.01 Policy Statement Regarding Certificate of Need Applications for Long-Term Acute Care Hospitals and Long-Term Acute Care Hospital Beds

1. Restorative Care Admissions: Restorative care admissions shall be identified as patients with one or more of the following conditions or disabilities:

a. Neurological Disorders

i. Head Injury

ii. Spinal Cord Trauma

iii. Perinatal Central Nervous System Insult

iv. Neoplastic Compromise

v. Brain Stem Trauma

vi. Cerebral Vascular Accident

vii. Chemical Brain Injuries

b. Central Nervous System Disorders

i. Motor Neuron Diseases

ii. Post Polio Status

iii. Developmental Anomalies

iv. Neuromuscular Diseases (e.g. Multiple Sclerosis)

v. Phrenic Nerve Dysfunction

vi. Amyotrophic Lateral Sclerosis

c. Cardio-Pulmonary Disorders

i. Obstructive Diseases

ii. Adult Respiratory Distress Syndrome

iii. Congestive Heart Failure

iv. Respiratory Insufficiency

v. Respiratory Failure

vi. Restrictive Diseases

vii. Broncho-Pulmonary Dysplasia

viii. Post Myocardial Infarction

ix. Central Hypoventilation

d. Pulmonary Cases

i. Presently Ventilator-Dependent/Weanable

ii. Totally Ventilator-Dependent/Not Weanable

iii. Requires assisted or partial ventilator support

iv. Tracheostomy that requires supplemental oxygen and bronchial hygiene

2. Bed Licensure: All beds designated as long-term care hospital beds shall be licensed as general acute care.

3. Average Length of Stay: Patients' average length of stay in a long-term care hospital must be 25 days or more.

4. Size of Facility: Establishment of a long-term care hospital shall not be for less than 20 beds.

5. Long-Term Medical Care: A long-term acute care hospital shall provide chronic or long-term medical care to patients who do not require more than three (3) hours of rehabilitation or comprehensive rehabilitation per day.

6. Transfer Agreement: A long-term acute care hospital shall have a transfer agreement with an acute care medical center and a comprehensive medical rehabilitation facility.

7. Effective July 1, 1994, no health care facility shall be authorized to add any beds or convert any beds to another category of beds without a Certificate of Need under the authority of Section 41-7-191(1)(c), unless there is a projected need for such beds in the planning district in which the facility is located.

111.02 Certificate of Need Criteria and Standards for the Establishment of a Long-Term Acute Care Hospital and Addition of Long-Term Acute Care Hospital Beds

The Mississippi State Department of Health will review applications for a Certificate of Need for the construction, development, or otherwise establishment of a long-term acute care hospital and bed additions under the applicable statutory requirements of Sections 41-7-173, 41-7-191, and 41-7-193, Mississippi Code of 1972, as amended. The MSDH will also review applications for Certificate of Need according to the general criteria listed in the *Mississippi Certificate of Need Review Manual*; all adopted rules, procedures, and plans of the Mississippi State Department of Health; and the specific criteria and standards listed below.

1. **Need Criterion: The applicant shall document a need for the proposed project. Documentation shall consist of the following:**

a. minimum of 450 clinically appropriate restorative care admissions with an average length of stay of 25 days; and

b. a projection of financial feasibility by the end of the third year of operation.

2. The applicant shall document that any beds which are constructed/converted will be licensed as general acute care beds offering long-term acute care hospital services.

3. Applicants proposing the transfer/reallocation/relocation of a specific category or sub-category of bed/service from another facility as part of a renovation, expansion, or replacement project shall document that they will meet all regulatory and licensure requirements for the type of bed/service proposed for transfer/reallocation/relocation.

4. The application shall affirm that the applicant will provide a "reasonable amount" of indigent/charity care as described in Chapter 1 of this *Plan*.

5. The application shall demonstrate that the cost of the proposed project, including equipment, is reasonable in comparison with the cost of similar projects in the state. The applicant shall document that the cost per square foot (per bed if applicable) does not exceed the median construction costs, as determined by the MSDH, for similar projects in the state within the most recent 12-month period by more than 15 percent. The Glossary of this *Plan* provides the formulas MSDH staff shall use to calculate the cost per square foot of space for construction and/or construction-renovation projects.

6. The applicant shall specify the floor areas and space requirements, including the following factors:

a. The gross square footage of the proposed project in comparison to state and national norms for similar projects.

b. The architectural design of the existing facility if it places restraints on the proposed project.

c. Special considerations due to local conditions.

7. The applicant shall provide copies of transfer agreements entered into with an acute care medical center and a comprehensive medical rehabilitation facility.

CERTIFICATE OF NEED

CRITERIA AND STANDARDS
FOR
CARDIAC CATHETERIZATION SERVICES
AND
OPEN-HEART SURGERY SERVICES

112 Certificate of Need Criteria and Standards for Cardiac Catheterization Services and Open-Heart Surgery Services

Note: Should the Mississippi State Department of Health receive a Certificate of Need application regarding the acquisition and/or otherwise control of major medical equipment or the provision of a service for which specific CON criteria and standards have not been adopted, the application shall be deferred until the Department of Health has developed and adopted CON criteria and standards. If the Department has not developed CON criteria and standards within 180 days of receiving a CON application, the application will be reviewed using the general CON review criteria and standards presented in the *Mississippi Certificate of Need Review Manual* and all adopted rules, procedures, and plans of the Mississippi State Department of Health.

112.01 Joint Policy Statement Regarding Certificate of Need Applications for the Acquisition or Otherwise Control of Cardiac Catheterization Equipment and/or the Offering of Cardiac Catheterization Services and the Acquisition of Open-Heart Surgery Equipment and/or the Offering of Open-Heart Surgery Services

Mississippi ranks first in the nation in cardiovascular death rate. Heart disease remains the leading cause of death in the state as incidence rates continue to increase, particularly among the African-American population. Studies show that minorities have a higher cardiovascular death rate than whites and are less likely to receive cardiac catheterization and open-heart surgery services than are whites. The disproportionate impact on minorities' health status in general is recognized elsewhere in this *State Health Plan*.

Innovative approaches to address these problems in the cardiac area are needed. It has been shown that statistical methods, such as population base and optimum capacity at existing providers, are not accurate indicators of the needs of the underserved, nor do they address the accessibility of existing programs to the underserved. The goal of these revisions to the State Health Plan is to improve access to cardiac care and to encourage the establishment of additional cardiac catheterization and open-heart surgery programs within the state that can serve the poor, minorities, and the rural population in greater numbers.

To further this goal, the MSDH adopted the following standards:

1. A minimum population base standard of 100,000;

2. The establishment of diagnostic cardiac catheterization services with a caseload of 300 diagnostic catheterization procedures;

3. The establishment of therapeutic cardiac catheterization services with a caseload of 450 diagnostic and therapeutic catheterization procedures;

4. The establishment of open-heart surgery programs with a caseload of 150 open-heart surgeries; and,

5. A minimum utilization of equipment/services at existing providers of 450 cardiac catheterizations, diagnostic and therapeutic, and when applicable, 150 open-heart surgeries.

The MSDH also adopted a provision that it shall not consider utilization of equipment/services at any hospital owned and/or operated by the state or its agencies when reviewing CON applications. The MSDH further adopted standards requiring an applicant to report information regarding catheterization and open-heart programs so as to monitor the provision of care to the medically underserved and the quality of that care.

The MSDH shall interpret and implement all standards in this *Plan* in recognition of the stated findings and so as to achieve the stated goal.

112.02 Policy Statement Regarding Certificate of Need Applications for the Acquisition or Otherwise Control of Cardiac Catheterization Equipment and/or the Offering of Cardiac Catheterization Services

1. Cardiac Catheterization Services: For purposes of the following CON criteria and standards, the term "cardiac catheterization services" or "catheterization services" shall include diagnostic cardiac catheterization services and therapeutic cardiac catheterization services.

a. "Diagnostic cardiac catheterization" services are defined as, and refer to, cardiac catheterization services which are performed for the purpose of diagnosing, identifying, or evaluating cardiac related illness or disease. Diagnostic cardiac catheterization services include, but are not limited to, left heart catheterizations, right heart catheterizations, left ventricular angiography, coronary procedures, and other cardiac catheterization services of a diagnostic nature. Diagnostic cardiac catheterization services do not include percutaneous transluminal coronary angioplasty (PTCA), transseptal puncture, transthoracic left ventricular puncture, myocardial biopsy, and other cardiac catheterization procedures performed specifically for therapeutic, as opposed to diagnostic, purposes.

b. "Therapeutic cardiac catheterization" services are defined as, and refer to, cardiac catheterization services which are performed for the purpose of actively treating, as opposed to merely diagnosing, cardiac-related illness or disease. Therapeutic cardiac catheterization services include, but are not limited to, PTCA, transseptal puncture, transthoracic left ventricular puncture and myocardial biopsy.

2. Open-Heart Surgery Capability: The MSDH shall not approve CON applications for the establishment of therapeutic cardiac catheterization services at any facility that does not have open-heart surgery capability; i.e., new therapeutic cardiac catheterization services may not be established and existing therapeutic cardiac catheterization services may not be extended without approved and operational open-heart surgery services in place. However, the Department may approve a qualifying applicant for a waiver/demonstration program to perform primary percutaneous coronary intervention (PCI) services in a hospital without on-site cardiac surgery This policy does not preclude approval of a Certificate of Need application proposing the concurrent establishment of both therapeutic cardiac catheterization and open-heart surgery services.

3. Service Areas: The need for cardiac catheterization equipment/services shall be determined using the seven designated Cardiac Catheterization/Open-Heart

Surgery Planning Areas (CC/OHSPAs) presented in this chapter of the Plan. Map 7-2 shows the CC/OHSPAs.

4. CC/OHSPA Need Determination: The need for cardiac catheterization equipment/ services within a given CC/OHSPA shall be determined independently of all other CC/OHSPAs.

5. Pediatric Cardiac Catheterization: Because the number of pediatric patients requiring study is relatively small, the provision of cardiac catheterization for neonates, infants, and young children shall be restricted to those facilities currently providing the service. National standards indicate that a minimum of 150 cardiac catheterization cases should be done per year and that catheterization of infants should not be performed in facilities which do not have active pediatric cardiac-surgical programs.

6. Present Utilization of Cardiac Catheterization Equipment/Services: The MSDH shall consider utilization of existing equipment/services and the presence of valid CONs for equipment/services within a given CC/OHSPA when reviewing CON applications. The MSDH shall not consider utilization of equipment/services at any hospital owned and/or operated by the state or its agencies when reviewing CON applications. The Mississippi State Department of Health may collect and consider any additional information it deems essential, including information regarding access to care, to render a decision regarding any application.

7. CON Application Analysis: At its discretion, the Department of Health may use market share analysis and other methodologies in the analysis of a CON application for the acquisition or otherwise control of cardiac catheterization equipment and/or the offering of cardiac catheterization services. The Department shall not rely upon market share analysis or other statistical evaluations if they are found inadequate to address access to care concerns.

8. Minimum CC/OHSPA Population: A minimum population base of 100,000 is required for applications proposing the establishment of cardiac catheterization services. The total population within a given CC/OHSPA shall be used when determining the need for services. Population outside an applicant's CC/OHSPA will be considered in determining need only when the applicant submits adequate documentation acceptable to the Mississippi State Department of Health, such as valid patient origin studies.

9. Minimum Caseload: Applicants proposing to offer adult diagnostic cardiac catheterization services must be able to project a caseload of at least 300 diagnostic catheterizations per year. Applicants proposing to offer adult therapeutic cardiac catheterization services must be able to project a caseload of at least 450 catheterizations, diagnostic and therapeutic, per year.

10. Residence of Medical Staff: Cardiac catheterizations must be under the control of and performed by personnel living and working within the specific hospital area. No site shall be approved for the provision of services by traveling teams.

11. Hospital-Based: All cardiac catheterizations and open-heart surgery services shall be located in acute care hospitals. The MSDH shall not approve Certificate of Need applications proposing the establishment of cardiac catheterization/open-heart surgery services in freestanding facilities or in freestanding ambulatory surgery facilities.

112.03 Certificate of Need Criteria and Standards for the Acquisition or Otherwise Control of Diagnostic Cardiac Catheterization Equipment and/or the Offering of Diagnostic Cardiac Catheterization Services

The Mississippi State Department of Health will review applications for a Certificate of Need for the acquisition or otherwise control of diagnostic cardiac catheterization equipment and/or the offering of diagnostic cardiac catheterization services under the applicable statutory requirements of Sections 41-7-173, 41-7-191, and 41-7-193, Mississippi Code of 1972, as amended. The MSDH will also review applications for Certificate of Need according to the general criteria listed in the *Mississippi Certificate of Need Review Manual*; all adopted rules, procedures and plans of the Mississippi State Department of Health; and the specific criteria and standards listed below.

The acquisition or otherwise control of diagnostic cardiac catheterization equipment is reviewable if the equipment costs exceed $1,500,000. The offering of diagnostic cardiac catheterization services is reviewable if the proposed provider has not provided those services on a regular basis within the period of twelve (12) months prior to the time such services would be offered.

1. Need Criterion: The applicant shall document a minimum population base of 100,000 in the CC/OHSPA where the proposed diagnostic cardiac catheterization equipment/service is to be located. Division of Health Planning and Resource Development population projections shall be used.

2. Minimum Procedures: An applicant proposing the establishment of diagnostic cardiac catheterization services only shall demonstrate that the proposed equipment/service utilization will be a minimum of 300 diagnostic cardiac catheterizations per year by its third year of operation.

3. Impact on Existing Providers: An applicant proposing to acquire or otherwise control diagnostic cardiac catheterization equipment and/or offer diagnostic cardiac catheterization services shall document that each existing unit, which is (a) in the CC/OHSPA and (b) within forty-five (45) miles of the applicant, has been utilized for a minimum of 450 procedures (both diagnostic and therapeutic) per year for the two most recent years as reflected in data supplied to and/or verified by the Mississippi State Department of Health. No hospital owned and/or operated by the state or its agencies shall be considered an existing unit in the CC/OHSPA under this section. The Mississippi State Department of Health may collect and consider any additional information it deems essential, including information regarding access to care, to render a decision regarding any application.

4. Staffing Standards: The applicant shall document that it has, or can obtain, the ability to administer the proposed services, provide sufficiently trained and

experienced professional staff, and evaluate the performance of the programs. Mississippi State Department of Health staff shall use guidelines presented in *Optimal Resources for Examination of the Heart and Lungs: Cardiac Catheterization and Radiographic Facilities*, published under the auspices of the Inter-Society Commission for Heart Disease Resources, as resource materials when reviewing these items in an application.

5. Staff Residency: The applicant shall certify that medical staff performing diagnostic cardiac catheterization procedures shall reside within forty-five (45) minutes normal driving time of the facility.

6. Recording and Maintenance of Data: Applicants shall provide, as required under licensure standards, written assurance that they will record and maintain utilization data for diagnostic cardiac catheterization procedures (e.g., morbidity data, number of diagnostic cardiac catheterization procedures performed, and mortality data, all reported by race, sex, and payor status) and make such data available to the Mississippi State Department of Health annually.

7. Referral Agreement: An applicant proposing the establishment of diagnostic cardiac catheterization services only shall document that a formal referral agreement with a facility for the provision of emergency cardiac services (including open-heart surgery) will be in place and operational at the time of the inception of cardiac catheterization services.

8. Patient Selection: An applicant proposing to provide diagnostic cardiac catheterization services must (a) delineate the steps which will be taken to insure that high-risk or unstable patients are not catheterized in the facility, and (b) certify that therapeutic cardiac catheterization services will not be performed in the facility unless and until the applicant has received CON approval to provide therapeutic cardiac catheterization services.

9. Regulatory Approval: Before utilizing or providing the equipment or service, the applicant desiring to provide the diagnostic cardiac catheterization equipment or service shall have CON approval or written evidence that the equipment or service is exempt from CON approval as determined by the Mississippi State Department of Health. Each specified piece of equipment must be exempt from or have CON approval.

112.04 Certificate of Need Criteria and Standards for the Acquisition or Otherwise Control of Therapeutic Cardiac Catheterization Equipment and/or the Offering Of Therapeutic Cardiac Catheterization Services

The Mississippi State Department of Health will review applications for a Certificate of Need for the acquisition or otherwise control of therapeutic cardiac catheterization equipment and/or the offering of therapeutic cardiac catheterization services under the applicable statutory requirements of Sections 41-7-173, 41-7-191, and 41-7-193, Mississippi Code of 1972, as amended. The MSDH will also review applications for Certificate of Need according to the general criteria listed in the *Mississippi Certificate of Need Review Manual*; all adopted rules,

procedures and plans of the Mississippi State Department of Health; and the specific criteria and standards listed below.

The acquisition or otherwise control of therapeutic cardiac catheterization equipment is reviewable if the equipment costs exceed $1,500,000. The offering of therapeutic cardiac catheterization services is reviewable if the proposed provider has not provided those services on a regular basis within the period of twelve (12) months prior to the time such services would be offered.

1. **Need Criterion: The applicant shall document a minimum population base of 100,000 in the CC/OHSPA where the proposed therapeutic cardiac catheterization equipment/service is to be located. Division of Health Planning and Resource Development population projections shall be used.**

2. Minimum Procedures: An applicant proposing the establishment of therapeutic cardiac catheterization services shall demonstrate that the proposed equipment/service utilization will be a minimum of 450 cardiac catheterizations, both diagnostic and therapeutic, per year by its third year of operation. An applicant proposing the establishment of therapeutic cardiac catheterization services who presently offers only diagnostic cardiac catheterization may include in its demonstration of a minimum of 450 cardiac catheterizations per year the number of diagnostic catheterizations that it performs.

3. Impact on Existing Providers: An applicant proposing to acquire or otherwise control therapeutic cardiac catheterization equipment and/or offer therapeutic cardiac catheterization services shall document that each existing unit which is (a) in the CC/OHSPA and (b) within 45 miles of the applicant, has been utilized for a minimum of 450 procedures (both diagnostic and therapeutic) per year for the two most recent years as reflected in data supplied to and/or verified by the Mississippi State Department of Health. No hospital owned and/or operated by the state or its agencies shall be considered an existing unit in the CC/OHSPA under this section. The Mississippi State Department of Health may collect and consider any additional information it deems essential, including information regarding access to care, to render a decision regarding any application.

4. Staffing Standards: The applicant shall document that it has, or can obtain, the ability to administer the proposed services, provide sufficiently trained and experienced professional staff, and evaluate the performance of the programs. Mississippi State Department of Health staff shall use guidelines presented in *Optimal Resources for Examination of the Heart and Lungs: Cardiac Catheterization and Radiographic Facilities*, published under the auspices of the Inter-Society Commission for Heart Disease Resources, as resource materials when reviewing these items in an application.

5. Staff Residency: The applicant shall certify that medical staff performing therapeutic cardiac catheterization procedures shall reside within forty-five (45) minutes normal driving time of the facility.

6. Recording and Maintenance of Data: Applicants shall provide, as required under licensure standards, written assurance that they will record and maintain separate utilization data for diagnostic and therapeutic cardiac catheterization procedures (e.g., morbidity data, number of diagnostic and therapeutic cardiac catheterization procedures performed and mortality data, all reported by race, sex and payor status) and make that data available to the Mississippi State Department of Health annually.

7. Open-Heart Surgery: An applicant proposing the establishment of therapeutic cardiac catheterization services shall document that open-heart surgery services are available or will be available on-site where the proposed therapeutic cardiac catheterization services are to be offered before such procedures are performed. However, qualified applicants may submit application for a demonstration waiver program to perform primary percutaneous coronary intervention (PCI) services in a hospital without on-site cardiac surgery. To qualify for the waiver/demonstration program, the applicant must:

   a. Have a formal, written agreement with a tertiary institution that provides for unconditional transfer of patients for any required additional care, including emergent or elective cardiac surgery or PCI.

   b. Have a formal, written agreement with an advanced cardiac life support emergency medical services provider that guaranteed arrival of the air or ground ambulance within 30 minutes of a request for patient transport.

8. Regulatory Approval: Before utilizing or providing the equipment or service, the applicant desiring to provide the cardiac catheterization equipment or service shall have CON approval or written evidence that the equipment or service is exempt from CON approval as determined by the Mississippi State Department of Health. Each specified piece of equipment must be exempt from or have CON approval.

9. Applicants Providing Diagnostic Catheterization Services: An applicant proposing the establishment of therapeutic cardiac catheterization services, who is already an existing provider of diagnostic catheterization services, shall demonstrate that its diagnostic cardiac catheterization unit has been utilized for a minimum of 300 procedures per year for the two most recent years as reflected in the data supplied to and/or verified by the Mississippi State Department of Health.

112.05 Policy Statement Regarding Certificate of Need Applications for the Acquisition of Open-Heart Surgery Equipment and/or the Offering of Open-Heart Surgery Services

1. Service Areas: The need for open-heart surgery equipment/services shall be determined using the seven designated Cardiac Catheterization/Open-Heart Surgery Planning Areas (CC/OHSPAs) presented in this chapter of the Plan. Map 11-2 shows the CC/OHSPAs.