

Chapter 010 Perinatal Care

100 Background

Effective July 1, 2006, the Child Death Review Panel replaced Mississippi's Task Force on Infant Mortality. The Panel is a part of the State Medical Examiner's Office. Its purpose is to foster the reduction of infant and child mortality and morbidity in Mississippi.

For many years, Mississippi has had one of the highest infant mortality rates in the nation. For 2004, the rate decreased to 9.7 from 10.7 in 2003. The number of infant deaths decreased by 36, from 453 in 2003 to 417 in 2004; and the number of live births to Mississippi residents decreased by 488, from 42,321 in 2003 to 42,809 in 2004.

Table X-1 presents Mississippi's infant mortality rates from 1994 to 2004, along with the rates for Region IV and for the United States. The non-white infant mortality rate of 14.2 represents a decrease from the 2003 rate of 15.4 percent. The white infant mortality rate has declined to 6.1 percent. Map X-1 shows the five-year average infant mortality rate by county for 2000-2004. Chapter III provides additional information on infant mortality by cause, by county, and by race.

Many factors contribute to Mississippi's high infant mortality rate: the high incidence of teenage pregnancy, low birthweight, low levels of acquired education, low socioeconomic status, lack of access for planned delivery services, and lack of acute medical care. The state is also experiencing a growing non-English speaking, uninsured population, which adds to an increase of uncompensated care and delivery. High malpractice insurance rates and the threat of litigation continue to force physicians out of the practice of delivering babies, increasing problems of access to appropriate levels of perinatal care. Mississippi had 314 obstetricians, 26 certified nurse midwives, and 11 OB-GYN nurse practitioners serving in obstetrical practices during 2005.

The most notable advances made during the past decade include:

- Medicaid enhancements, including extended hospital days and increased physician reimbursement;
- Access to new antepartum and newborn technology;
- Outreach education for perinatal professionals; and
- Implementation of the Children's Health Insurance Program (CHIP).

The state must continue to provide the current basic health services and should attempt to improve access to prenatal care, delivery, and infant care; expand Medicaid services to children with special health care needs; expand perinatal regionalization; implement infant mortality/morbidity reviews; and reduce future unintended pregnancies.

Births to Mississippi teenagers decreased from 6,769 in 2003 to 6,716 in 2004 — 15.7 percent of the state's 42,809 total live births. Teen pregnancy is one of the major reasons for school drop-out. Teenage mothers are (a) more likely to be unmarried; (b) less likely to get prenatal care before the second trimester; (c) at higher risk of having low birthweight babies; (d) more likely to receive public assistance; (e) at greater risk for abuse or neglect; and (f) more likely to have children who will themselves become teen parents. Table X-2 presents the top ten counties in 2002, 2003, and 2004 with the highest percentage of total live births to teenagers.

Table X-1
Infant Mortality Rates
Mississippi, Region IV and USA – All Races
 1994 – 2004

Year	Mississippi	Region IV	USA
2004	9.7	N/A	N/A
2003	10.7	8.2	6.9
2002	10.4	8.4	7.0
2001	10.4	8.2	6.8
2000	10.5	8.3	6.9
1999	10.2	8.4	7.1
1998	10.2	8.5	7.2
1997	10.6	12.1	10.6
1996	11.0	8.7	7.3
1995	10.5	8.9	7.6
1994	10.9	9.2	8.0

N/A – Not Available

Source: Office of Health Informatics, Mississippi Department of Health, 2004

RNDMU – Region IV Network for Utilization Data Management and Utilization – September 2005

Table X-2
Top Ten Counties with the Highest Percentage of Total
Live Births to Teenagers
 2004, 2003, 2002

County	2004	County	2003	County	2002
Tallahatchie	25.1	Issaquena	36.8	Issaquena	33.3
Jeff Davis	24.0	Quitman	27.8	Humphreys	30.7
Sunflower	23.5	Sunflower	26.0	Tallahatchie	26.5
Chickasaw	23.2	Jefferson	25.7	Sunflower	26.4
Yazoo	22.6	Coahoma	24.2	Coahoma	26.3
Bolivar	22.4	Humphreys	24.1	Quitman	25.8
Coahoma	22.3	Leflore	24.1	Calhoun	25.5
Yalobusha	22.0	Bolivar	23.9	Holmes	24.2
Washington	21.8	Webster	22.7	Chickasaw	24.1
Humphreys	21.6	Tallahatchie	22.2	Yazoo	24.0
Mississippi	15.7	Mississippi	16.0	Mississippi	17.2

Source: *Vital Statistics Mississippi, 2002, 2003, 2004*, Mississippi Department of Health, Bureau of Public Health Statistics

101 Mississippi Department of Health

The Mississippi Department of Health provided statewide maternity services to 7,750 pregnant women whose incomes were at or below 185 percent of the federal poverty level in FY 2005. The MDH uses the Hollister Maternity Record, with risk status updated at each visit and referral to obstetricians and appropriate hospitals as indicated. A multidisciplinary team at the county health department, including physicians, nurse practitioners, nurses, nutritionists, and social workers, provides ambulatory care throughout pregnancy and the postpartum period. Following birth, the team emphasizes family planning services for the mother and well-child care for the infant and places a high priority on close follow-up for 12 months after delivery. The Supplemental Food Program for Women, Infants, and Children (WIC) provides essential nutritional counseling and supplemental foods to pregnant and breastfeeding women, as well as infants and children.

Each county health department offers family planning services targeted toward sexually active teens and women 20-44 years of age with incomes at or below 150 percent of the poverty level. In FY 2005, 70,867 Mississippians received family planning services; 20,295 of these patients were age 19 or under. Federal support for family planning services had steadily decreased since the 1980s; however, it has recently begun to increase slightly. The family planning program receives very few state dollars.

Inappropriate pregnancies often have a detrimental impact on individuals, families, and society. No practical means exists to accumulate data that would measure the incidence of unintended pregnancy. However, when compared to the nation, Mississippi's high fertility rate (68.3), high birth rate (14.7), high percent of births to teens (15.7), high percent of unwed parents (48.3), and high percent of mothers without a high school education (24.2) would lead to the assumption that the state has a high rate of unintentional pregnancies.

The MDH is involved in several special maternity/perinatal service initiatives:

Perinatal Regionalization: MDH conducted a study of perinatal regionalization among very low birthweight infants born instate and in-hospital to Mississippi residents from 1997-1999. The purposes of the study were to: (1) determine the population of these infants that were born in each level hospital; and (2) assess the effects of hospital level on neonate mortality while controlling for maternal risk factors. Hospitals were categorized as level A to level D, with level A hospitals having the highest level of perinatal services. The findings were:

- Forty percent of very low birthweight infants, born of Mississippi residents who delivered instate, were born in a level A hospital;
- As hospitals levels decrease, mortality significantly increased even when controlled for less than 1,000 gram infants (exception: large volume, level B hospitals);
- Among infants less than 1,000 grams, mortality incrementally increased as the hospital level decreased.

The ***Perinatal High Risk Management/Infant Services System (PHRM/ISS)*** is a multi-disciplinary, family oriented, risk reduction program administered statewide by the Mississippi Department of Health for high risk pregnant and postpartum women and infants. The program is designed to reduce low birthweight and infant mortality by providing a comprehensive array of enhanced services such as nutrition and psychosocial assessments, counseling, home visiting, transportation assistance, and health education. Case management is provided to high risk clients by nurses, nutritionists, and social workers. In FY 2005, the program served 24,546 high-risk mothers, infants, and post-partum women.

The Mississippi Infant Mortality Task Force assisted the MDH in obtaining a Special Project of Regional and National Significance (SPRANS) grant from the Bureau of Maternal and Child Health to conduct a three-year Fetal and Infant Mortality Review (FIMR) study. The project operated in five counties in Public Health District I and three counties in District III. The MDH plans to incorporate the FIMR project into the statewide Maternal and Infant Mortality Surveillance program. In this surveillance system, information is collected to analyze factors associated with the death of a pregnant woman or a woman who has recently experienced the death of an infant. This information leads to improved services, resources, and community support for pregnant women, infants, and their families.

The MDH has received funding to implement a statewide **Pregnancy Risk Assessment Monitoring System (PRAMS)** project, as part of a Centers for Disease Control and Prevention (CDC) initiative to reduce infant mortality and low birthweight. PRAMS is an ongoing, state-specific, population-based surveillance system designed to identify and monitor selected behavior and experiences before, during, and after pregnancy. The overall goal of PRAMS is to reduce infant morbidity and mortality by influencing maternal behavior during and immediately after pregnancy.

Four specific objectives to achieve PRAMS' goals are to:

- Collect maternity-related population-based data;
- Conduct comprehensive data analysis to better understand the relationship between behavior, attitudes, and experiences before, during, and immediately after pregnancy and their relationship to health outcomes;
- Translate results from analyses into information for planning and evaluating public health programs and policy; and
- Build the capacity of states to collect, analyze, and translate data to address relevant public health services.

102 Physical Facilities for Perinatal Care

The 53 hospitals that experienced live birth reported 39,832 deliveries. Three of these hospitals reported more than 2,000 obstetrical deliveries in Fiscal Year 2005, accounting for 7,884 deliveries or 19.8 percent of the state's total hospital deliveries. These three hospitals were the University Hospital and Clinics, with 3,348 deliveries; North Mississippi Medical Center, with 2,365; and Forrest General Hospital, with 2,171 deliveries.

Eighteen hospitals had between 800 and 2,000 hospital deliveries, for 51.9 percent (20,673) of the total hospital deliveries. An additional 32 hospitals had fewer than 800 deliveries each, for a total of 11,275 (28.3 percent of the total hospital deliveries). Table X-3 presents all of the hospitals in the state reporting deliveries in FY 2005.

Table X-3
Utilization Data for Hospitals with Obstetrical Deliveries
 FY 2005

Facility	County	Number of Deliveries	Number of Reported OB Beds
University Hospital & Clinics	Hinds	3,348	62
North Mississippi Medical Center	Lee	2,365	72
Forrest General Hospital	Forrest	2,171	35
Baptist Memorial Hospital-DeSoto	DeSoto	1,805	0
River Oaks Hospital	Rankin	1,694	10
Wesley Medical Center	Lamar	1,496	0
Woman's Hospital at River Oaks	Rankin	1,454	18
Central Mississippi Medical Center	Hinds	1,325	0
Memorial Hospital at Gulfport	Harrison	1,257	20
Mississippi Baptist Medical Center	Hinds	1,148	56
South Central Regional Medical Center	Jones	1,135	19
Oktibbeha County Hospital	Oktibbeha	1,101	0
Jeff Anderson Regional Medical Center	Lauderdale	1,070	30
River Region Health System	Warren	1,050	28
Baptist Memorial Hospital - Union County	Union	961	0
Baptist Memorial Hospital - North Miss	Lafayette	948	0
Southwest Mississippi Regional Medical Center	Pike	893	9
St. Dominic-Jackson Memorial Hospital	Hinds	862	0
Baptist Memorial Hospital-Golden Triangle	Lowndes	835	17
Northwest Mississippi Regional Medical Center	Coahoma	835	0
Rush Foundation Hospital	Lauderdale	804	20
Delta Regional Medical Center	Washington	785	15
Gilmore Memorial Hospital	Monroe	771	15
Ocean Springs Hospital	Jackson	728	10
Greenwood Leflore Hospital	Leflore	706	16
Singing River Hospital	Jackson	651	22
Grenada Lake Medical Center	Grenada	643	7
Biloxi Regional Medical Center	Harrison	636	17
Bolivar Medical Center	Bolivar	604	20
Riley Memorial Hospital	Lauderdale	554	5
King's Daughters Medical Center - Brookhaven	Lincoln	552	7
Garden Park Medical Center	Harrison	547	9
Natchez Regional Medical Center	Adams	547	16
Magnolia Regional Health Center	Alcorn	495	9
Natchez Community Hospital	Adams	454	0
North Miss Medical Center-West Point	Clay	317	6
Madison County Medical Center	Madison	309	0

Table X-3 (continued)
Utilization Data for Hospitals with Obstetrical Deliveries
 FY 2005

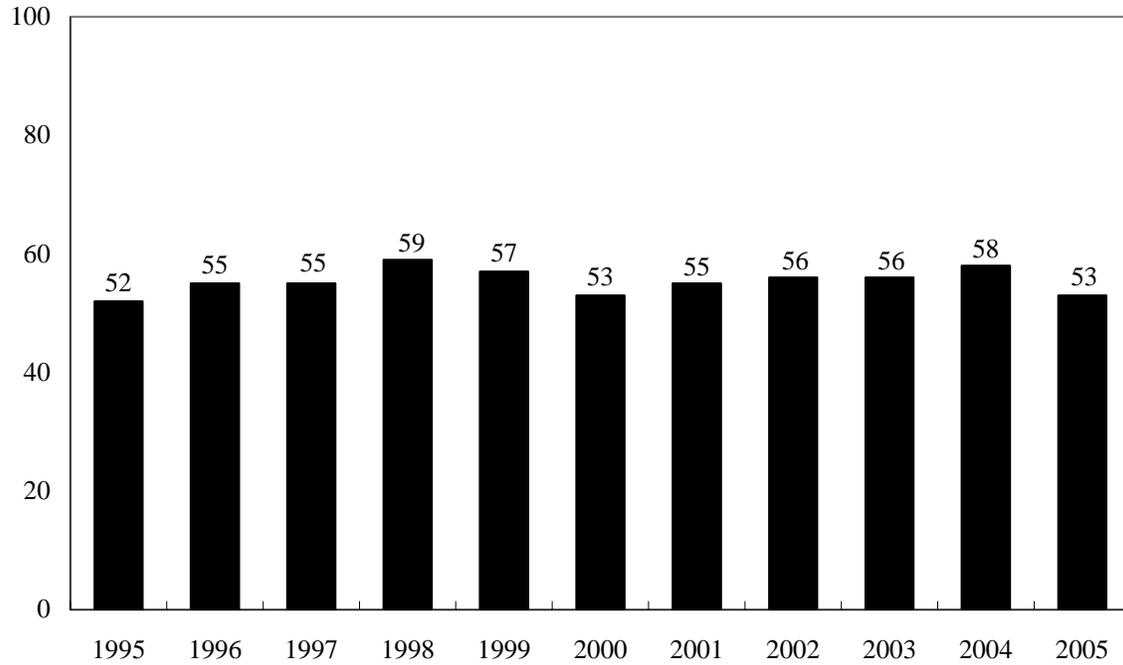
Facility	County	Number of Deliveries	Number of Reported OB Beds
Hancock Medical Center	Hancock	288	0
L.O. Crosby Memorial Hospital	Pearl River	270	14
South Sunflower County Hospital	Sunflower	248	0
Gulf Coast Medical Center	Harrison	236	4
Wayne General Hospital	Wayne	208	7
George County Hospital	George	186	0
Tri-Lakes Medical Center	Panola	163	0
Hardy Wilson Memorial Hospital	Copiah	136	6
Magee General Hospital	Simpson	107	2
Covington County Hospital	Covington	64	0
Field Memorial Community Hospital	Wilkinson	23	0
King's Daughters Hospital - Yazoo City	Yazoo	22	0
Alliance Healthcare System	Marshall	20	0
Baptist Memorial Hospital - Booneville	Prentiss	2	0
S.E. Lackey Memorial Hospital	Scott	2	0
Scott Regional Hospital	Scott	1	0
Total		39,832	603

Sources: Applications for Renewal of Hospital License for Calendar Year 2006 and Fiscal Year 2005 Annual Hospital Report, Mississippi State Department of Health

The number of hospitals reporting obstetrical services has remained fairly constant since 1995, as shown in Figure X-1. Map X-2 depicts all Mississippi hospitals providing the various levels of obstetrical and newborn services. Perinatal facilities are maldistributed as to structure, equipment, and staffing, with the greatest deficiencies in the Delta region. The Task Force on Infant Mortality has recommended identifying and licensing OB services in hospitals using the levels of care designation.

In recent years Mississippi has experienced major changes in its health care systems. These changes have greatly impacted perinatal regionalization, moving the system from a statewide structure to multiple inter and intra state systems. Multiple overlapping regional systems have resulted. However, the University of Mississippi Medical Center in Jackson is still the state's only tertiary perinatal center. Several Mississippi health care systems refer patients to out-of-state facilities. This practice is not new, but is expanding.

Figure X-1
**Mississippi Hospitals with
Newborn Deliveries
1995-2005**



Sources: Applications for Renewal of Hospital License for Calendar Year 2006 and Fiscal Year 2005 Annual Hospital Report, Mississippi State Department of Health

**Certificate of Need
Criteria and Standards
for
Obstetrical Services**

Should the Mississippi 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 Department of Health.

103 Policy Statement Regarding Certificate of Need Applications for the Offering of Obstetrical Services

1. An applicant is required to provide a reasonable amount of indigent/charity care as described in Chapter I of this *Plan*.
2. Perinatal Planning Areas (PPA): The MDH shall determine the need for obstetrical services using the Perinatal Planning Areas as outlined on Map X-3 at the end of this chapter.
3. Optimum Utilization: For planning and CON purposes, optimum utilization is defined as 60 percent occupancy per annum for all existing OB beds in an OB unit.
4. Travel Time: Obstetrical services should be available within one (1) hour normal travel time of 95 percent of the population in rural areas and within 30 minutes normal travel time in urban areas.
5. Dedicated Beds: An applicant proposing to offer obstetrical services shall dedicate a minimum of six (6) beds.
6. Preference in CON Decisions: The MDH shall give preference in CON decisions to applications that propose to improve existing services and to reduce costs through consolidation of two basic obstetrical services into a larger, more efficient service over the addition of new services or the expansion of single service providers.
7. Patient Education: Obstetrical service providers shall offer an array of family planning and related maternal and child health education programs that are readily accessible to current and prospective patients.
8. Levels of Care:
 - Basic Perinatal Centers – provide basic inpatient care for pregnant women and newborns without complications.
 - Specialty Perinatal Centers – provide management for certain high-risk pregnancies, including maternal referrals from basic care centers as well as basic perinatal services.
 - Subspecialty Perinatal Centers – provide inpatient care for maternal and fetal complications as well as basic and specialty care.
9. An applicant proposing to offer obstetrical services shall be equipped to provide basic perinatal services in accordance with the guidelines contained in the *Minimum Standards of Operation for Mississippi Hospitals*.
10. An applicant proposing to offer obstetrical services shall agree to provide an amount of care to Medicaid mothers/babies comparable to the average percentage of Medicaid care offered by other providers of the requested service within the same, or most proximate, geographic area.

104 Certificate of Need Criteria and Standards for Obstetrical Services

The Mississippi Department of Health will review applications for a Certificate of Need to establish "new" obstetric services under the statutory requirements of Sections 41-7-173, 41-7-191, and 41-7-193, Mississippi Code of 1972, as amended. The MDH 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 Department of Health; and the specific criteria and standards listed below.

The establishment of obstetrical services or the expansion of the existing service shall require approval under the Certificate of Need statute if the \$2,000,000 capital expenditure threshold is crossed.

Provision for individual units should be consistent with the regionalized perinatal care system involved. Those facilities desiring to provide obstetric services shall meet the Basic facility minimum standards as listed under *Guidelines for the Operation of Perinatal Units* found in Section D of this *Plan*.

1. Need Criterion:

- a. **the application shall demonstrate how the applicant can reasonably expect to deliver a minimum of 150 babies the first full year of operation and 250 babies by the second full year; and**
 - b. **the applicant shall demonstrate, subject to verification by the Mississippi Department of Health, that all existing OB beds within the proposed Perinatal Planning Area have maintained an optimum utilization rate of 60 percent for the most recent 12-month reporting period.**
2. Any facility offering obstetrical services shall have designated obstetrical beds.
 3. The application shall document that the facility will provide one of the three types of perinatal services: Basic, Specialty, or Subspecialty.
 4. The facility shall provide full-time nursing staff in the labor and delivery area on all shifts. Nursing personnel assigned to nursery areas in Basic Perinatal Centers shall be under the direct supervision of a qualified professional nurse.
 5. Any facility proposing the offering of obstetrical services shall have written policies delineating responsibility for immediate newborn care, resuscitation, selection and maintenance of necessary equipment, and training of personnel in proper techniques.
 6. The application shall document that the nurse, anesthesia, neonatal resuscitation, and obstetric personnel required for emergency cesarean delivery shall be in the hospital or readily available at all times.
 7. The application shall document that the proposed services will be available within one (1) hour normal driving time of 95 percent of the population in rural areas and within 30 minutes normal driving time in urban areas.

8. The applicant shall affirm that the hospital will have protocols for the transfer of medical care of the neonate in both routine and emergency circumstances.
9. The application shall affirm that the applicant will record and maintain, at a minimum, the following information regarding charity care and care to the medically indigent and make it available to the Mississippi Department of Health within 15 business days of request:
 - a. source of patient referral;
 - b. utilization data e.g., number of indigent admissions, number of charity admissions, and inpatient days of care;
 - c. demographic/patient origin data;
 - d. cost/charges data; and
 - e. any other data pertaining directly or indirectly to the utilization of services by medically indigent or charity patients which the Department may request.
10. The applicant shall document that within the scope of its available services, neither the facility nor its participating staff shall have policies or procedures which would exclude patients because of race, age, sex, ethnicity, or ability to pay.

**Certificate of Need
Criteria and Standards
for
Neonatal Special Care Services**

Should the Mississippi 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 Department of Health.

105 Policy Statement Regarding Certificate of Need Applications for the Offering of Neonatal Special Care Services

1. An applicant is required to provide a reasonable amount of indigent/charity care as described in Chapter I of this *Plan*.
2. Perinatal Planning Areas (PPA): The MDH shall determine the need for obstetrical services using the Perinatal Planning Areas as outlined on Map X-3 at the end of this chapter.
3. Bed Limit: The total number of neonatal special care beds should not exceed four (4) per 1,000 live births in a specified PPA as defined below:
 - a. one (1) intensive care bed per 1,000 live births; and
 - b. three (3) intermediate care beds per 1,000 live births.
4. Size of Facility: A single neonatal special care unit (Specialty or Subspecialty) should contain a minimum of 15 beds.
5. Optimum Utilization: For planning and CON purposes, optimum utilization is defined as 75 percent occupancy per annum for all existing providers of neonatal special care services within an applicant's proposed Perinatal Planning Area.
6. Levels of Care: Basic – Units provide uncomplicated care.

Specialty – Units provide basic, intermediate, and recovery care as well as specialized services.

Subspecialty – Units are staffed and equipped for the most intensive care of newborns as well as intermediate and recovery care.
7. An applicant proposing to offer neonatal special care services shall agree to provide an amount of care to Medicaid babies comparable to the average percentage of Medicaid care offered by the other providers of the requested services.

106 Certificate of Need Criteria and Standards for Neonatal Special Care Services

The Mississippi Department of Health will review applications for a Certificate of Need to establish neonatal special care services under the statutory requirements of Sections 41-7-173, 41-7-191, and 41-7-193, Mississippi Code of 1972, as amended. The MDH 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 Department of Health; and the specific criteria and standards listed below.

Neonatal special care services are reviewable under Certificate of Need when either the establishment or expansion of the services involves a capital expenditure in excess of \$2,000,000.

Those facilities desiring to provide neonatal special care services shall meet the minimum standards for the specified facility (Specialty or Subspecialty) as previously listed under *Minimum Standards of Care for Neonatal Special Care Services*.

1. **Need Criterion: The application shall demonstrate that the Perinatal Planning Area (PPA) wherein the proposed services are to be offered had a minimum of 3,600 deliveries for the most recent 12-month reporting period and that each existing provider of neonatal special care services within the proposed PPA maintained an optimum utilization rate of 75 percent for the most recent 12-month period. The MDH shall determine the need for neonatal special care services based upon the following:**
 - a. **one (1) neonatal intensive care bed per 1,000 live births in a specified Perinatal Planning Area for the most recent 12-month reporting period; and**
 - b. **three (3) neonatal intermediate care beds per 1,000 live births in a specified Perinatal Planning Area for the most recent 12-month reporting period.**
2. A single neonatal special care unit (Specialty or Subspecialty) should contain a minimum of 15 beds (neonatal intensive care and/or neonatal intermediate care). An adjustment downward may be considered for a specialty unit when travel time to an alternate unit is a serious hardship due to geographic remoteness.
3. The application shall document that the proposed services will be available within one (1) hour normal driving time of 95 percent of the population in rural areas and within 30 minutes normal driving time in urban areas.
4. The application shall document that the applicant has established referral networks to transfer infants requiring more sophisticated care than is available in less specialized facilities.
5. The application shall affirm that the applicant will record and maintain, at a minimum, the following information regarding charity care and care to the medically indigent and make it available to the Mississippi Department of Health within 15 business days of request:
 - a. source of patient referral;
 - b. utilization data e.g., number of indigent admissions, number of charity admissions, and inpatient days of care;
 - c. demographic/patient origin data;
 - d. cost/charges data; and
 - e. any other data pertaining directly or indirectly to the utilization of services by medically indigent or charity patients which the Department may request.
6. The applicant shall document that within the scope of its available services, neither the facility nor its participating staff shall have policies or procedures which would exclude patients because of race, age, sex, ethnicity, or ability to pay.

107 Neonatal Special Care Services Bed Need Methodology

The determination of need for neonatal special care beds/services in each Perinatal Planning Area will be based on four (4) beds per 1,000 live births as defined below.

1. One (1) neonatal intensive care bed per 1,000 live births in the most recent 12-month reporting period.
2. Three (3) neonatal intermediate care beds per 1,000 live births in the most recent 12-month reporting period.

Table X-4
**Neonatal Special Care Bed Need
 2004**

PPA	Number Live Births	Neonatal Intensive Care Bed Need	Neonatal Intermediate Care Bed Need
Region I	4,436	4	13
Region II	4,731	5	14
Region III	3,673	4	11
Region IV	3,505	4	11
Region V	9,375	9	28
Region VI	3,728	4	11
Region VII	2,433	2	7
Region VIII	4,282	4	13
Region IX	6,646	7	20
State Total	42,809	43	128

Source: Office of Health Informatics, Mississippi Department of Health

Map X - 3 Perinatal Planning Areas

