CHAPTER 4
PERINATAL CARE

Chapter 4 Perinatal Care

100 Natality Statistics

Mississippi experienced 38,618 live births in 2012; 48.2 percent of these (18,611) were white non-Hispanic, 39.4 percent (15,232) were black non-Hispanic, 2.0 percent were other non-Hispanic and 3.1 percent (1,210) were Hispanic. A physician attended 97.3 percent of all in-hospital live births delivered in 2012 (37,569). Nurse midwife deliveries accounted for 811 live births.

More than 99 percent of the live births occurred to women 15 to 44 years age. Births to unmarried women made up 54.7 percent (21,128) of all live births in 2012; of these, 59.5 percent (12,580) were to black women and 30.3 percent (6,396) were to white women and 3.2 percent (670) were to Hispanic women. Mothers under the age of 15 gave birth to 90 children; 68.9 percent (62) were black and 31.1 percent (28) were white and one was Hispanic.

The birth rate in 2012 was 12.9 live births per 1,000 population; the fertility rate was 64.1 live births per 1,000 women aged 15-44 years.

Mississippi reported 376 fetal deaths in 2012. The black fetal death ratio, which is the number of deaths per live births to mothers in the specified age group, was more than two times that of whites, with a ratio of 14.0 per 1,000 live births compared to 6.5 for whites. Mothers aged 35-39, had the highest fetal death ratio at 20.7 per 1,000 live births, followed by mothers aged, 25-29 with a ratio of 15.9. The MSDH requires the reporting of fetal deaths with gestation of 20 or more weeks or fetal weight of 350 grams or more. The MSDH does not report fetal death rates for an age group if there are less than 100 births.

There were 16 maternal deaths reported during 2012. Maternal mortality refers to deaths resulting from complications of pregnancies, childbirth, or the puerperium within 42 days of delivery.

101 Infant Mortality

Infant mortality remains a critical concern in Mississippi. There was a slight decline in the infant mortality rate to 8.8 in 2012 from 9.4 in 2011. Table 4-1 shows the infant mortality rate, neonatal, and post-neonatal mortality for blacks all substantially above the rates for whites and Hispanics. (Note: 2012 vital statics data is the most recent currently available.)

Table 4-1
2012 Mortality Rates (deaths per 1,000 live births)

Category	Overall State Rate	White Rate	Black Rate	Hispanic Rate
Total Infant Mortality (age under one year)	8.8	5.4	12.4	0.0
Neonatal Mortality (age under 28 days)	5.5	3.2	17.2	0.0
Postneonatal Mortality (age 28 days to one year)	3.3	7.2	8.6	0.0

Table 4-2 presents Mississippi's infant mortality rates from 2001 to 2012, along with the rates for Region IV and for the United States. Map 4-1 shows the five-year average infant mortality rate by county for the period 2007 to 2012.

Table 4-2
Infant Mortality Rates
Mississippi, Region IV and USA – All Races
2001– 2012

Year	Mississippi	Region IV	USA
2011	9.4	N/A	N/A
2010	9.6	N/A	N/A
2009	10.0	N/A	N/A
2008	9.9	7.8	6.6
2007	10.0	8.0	6.8
2006	10.5	8.1	6.7
2005	11.4	8.1	6.9
2004	9.7	8.1	6.8
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

N/A – Not Available
Source: Office of Health Informatics, Mississippi State Department of Health, 2011
RNDMU – Region IV Network for Utilization Data Management and Utilization (no longer operational)

Many factors contribute to Mississippi's high infant mortality rate including: the high incidence of preterm birth, teenage pregnancy, low birthweight, low levels of acquired education, low socioeconomic status, lack of access for planned delivery services, and lack of adequate perinatal and acute medical care.

More than 98 percent of expectant mothers received some level of prenatal care in 2012. More than 84 percent (32,706) of the mothers who began prenatal care in the first trimester; 11.7 percent (4,532) began in the second trimester, and 1.8 percent (678) during the third trimester. Only one percent (233) of expectant mothers received no prenatal care prior to delivery; and it was unknown whether 141 mothers (0.4 percent) received any prenatal care. White mothers usually receive initial prenatal care much earlier in pregnancy than do black mothers.

In 2012, 11.9 percent of births were low birthweight (less than 5.5 pounds – 2,500 grams) and 17.1 percent were premature (gestational age less than 37 weeks). These indicators differ markedly by maternal race: 8.6 percent of white births were low birthweight compared to 16.2 percent for blacks. The low birthweight rate for Hispanics was 5.8 percent. The premature birth rate was 14.2 percent for Hispanics, 14.1 percent for whites and 20.6 percent for blacks.

A total of 4,868 Mississippi teenagers gave birth in 2012 — 12.6 percent of the state's 38,618 live births. Until 2008 births to teenagers have increased each year since 2005, and the 2012 number represents a 10.8 percent decrease from the 5,459 births to teenagers in 2011. Teen pregnancy is one of the major reasons for school drop-out. Teenage mothers are (a) more likely to be single parents; (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 to commit abuse or neglect; and (f) more likely to have children who will themselves become teen parents. In 2012, 13.1 percent of the births to teenagers were low birthweight, and 19.1 percent were premature.

Of the 38,618 total births in 2012, 29,801 were associated with "at risk" mothers (77.2 percent). “At risk" factors include mothers who are and/or have:

- under 17 years of age or above 35 years of age;
- unmarried;
- completed fewer than eight years of school;
- had fewer than five prenatal visits;
- begun prenatal care in the third trimester;
- had previous terminations of pregnancy; and/or
- a short inter-pregnancy interval (prior delivery within 11 months of conception for the current pregnancy).

102 Physical Facilities for Perinatal Care

The 46 hospitals that experienced live births reported 37,184 deliveries. Two of these hospitals reported more than 2,000 obstetrical deliveries each in Fiscal Year 2013, accounting for 4,542 deliveries or 12.2 percent of the state's total hospital deliveries: the University Hospital and Health Systems, with 2,343 deliveries and Forrest General Hospital, with 2,199. These hospitals with a large number of deliveries are strategically located in central and south Mississippi. Table 4-2 shows the Perinatal Planning Areas.

Map 4-1
Infant Mortality Rates by County of Residence
2008 to 2012 (Five – Year Average)

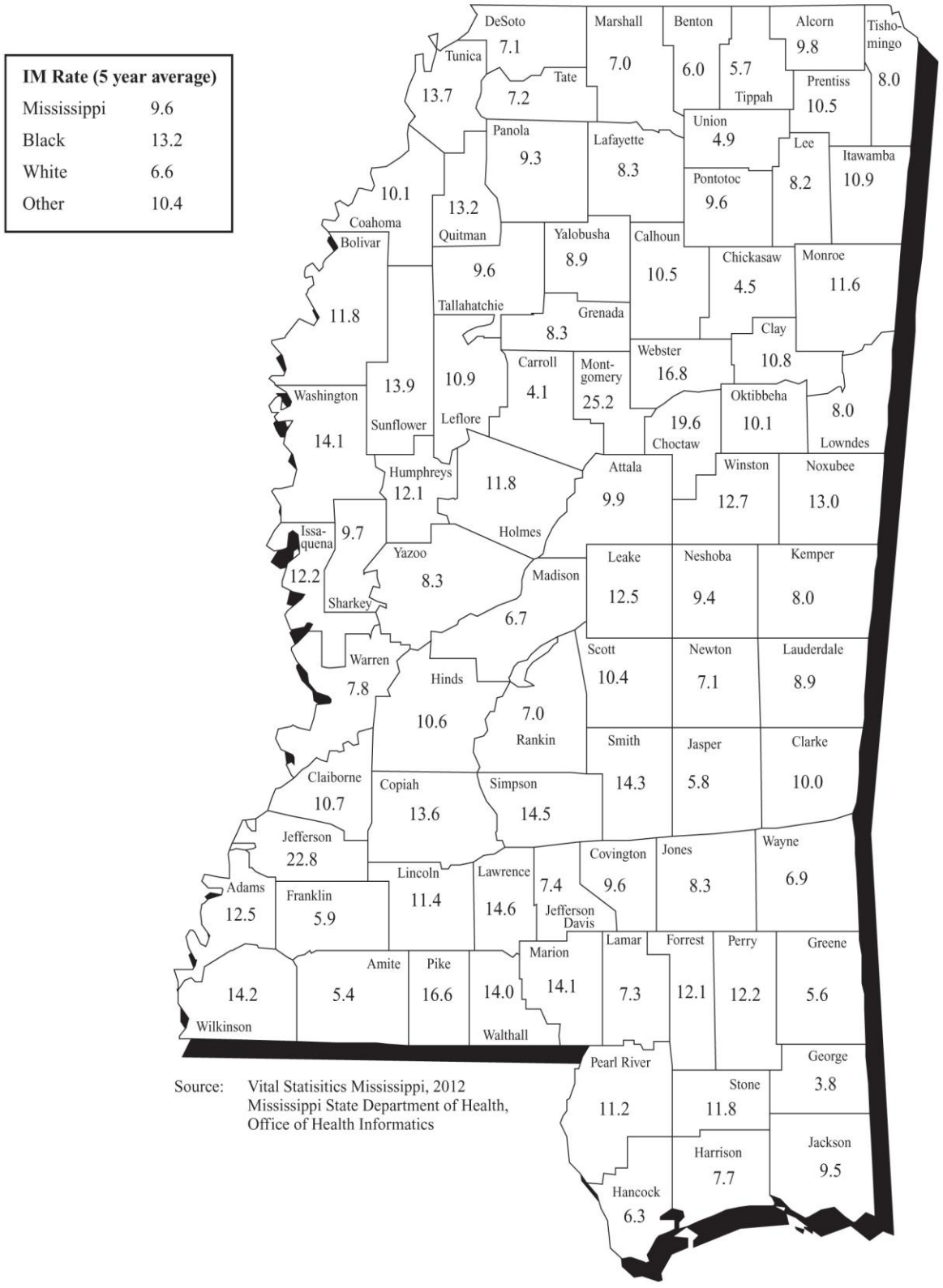


Table 4-3
Utilization Data for Hospitals with Obstetrical Deliveries
FY 2012 and FY 2013

Facility	County	Number of Deliveries 2012	Number of Deliveries 2013
University Hospital & Clinics	Hinds	2,476	2,343
Forrest General Hospital	Forrest	2,223	2,199
North Mississippi Medical Center	Lee	2,116	1,980
Baptist Memorial Hospital-DeSoto	DeSoto	2,050	1,891
River Oaks Hospital	Rankin	1,842	1,684
St. Dominic-Jackson Memorial Hospital	Hinds	1,345	1,507
Wesley Medical Center	Lamar	1,495	1,426
Woman's Hospital at River Oaks	Rankin	1,467	1,313
Memorial Hospital at Gulfport	Harrison	1,435	1,289
Anderson Regional Medical Center	Lauderdale	1,238	1,270
Baptist Memorial Hospital - Union County	Union	1,106	1,161
Mississippi Baptist Medical Center	Hinds	1,268	1,158
Rush Foundation Hospital	Lauderdale	853	1,050
Baptist Memorial Hospital-Golden Triangle	Lowndes	900	943
Oktibbeha County Hospital	Oktibbeha	958	929
Baptist Memorial Hospital - North Miss	Lafayette	893	917
South Central Regional Medical Center	Jones	837	893
Northwest Mississippi Regional Medical Center	Coahoma	852	836
Ocean Springs Hospital	Jackson	868	834
Delta Regional Medical Center-Main Campus	Washington	890	819
Biloxi Regional Medical Center	Harrison	757	814
Southwest Mississippi Regional Medical Center	Pike	879	743
River Region Health System	Warren	691	706
Central Mississippi Medical Center	Hinds	764	658
King's Daughters Medical Center-Brookhaven	Lincoln	643	648
Magnolia Regional Health Center	Alcorn	542	635
Singing River Hospital	Jackson	577	616
Greenwood Leflore Hospital	Leflore	627	589

Table 4-3 (continued)
Utilization Data for Hospitals with Obstetrical Deliveries
FY 2012 and FY 2013

Facility	County	Number of Deliveries 2012	Number of Deliveries 2013
Gilmore Memorial Regional Medical Center	Monroe	561	577
Garden Park Medical Center	Harrison	465	505
Natchez Community Hospital	Adams	499	483
Bolivar Medical Center	Bolivar	441	461
Madison River Oaks Medical Center	Madison	415	430
Natchez Regional Medical Center	Adams	459	425
University of MS Medical Center Grenada	Grenada	406	406
North Miss Medical Center-West Point	Clay	362	347
Highland Community Hospital	Pearl River	292	314
Magee General Hospital	Simpson	307	294
South Sunflower County Hospital	Sunflower	197	299
Tri-Lakes Medical Center	Panola	196	203
Hancock Medical Center	Hancock	189	201
Wayne General Hospital	Wayne	226	196
George County General Hospital	George	176	186
King's Daughters-Yazoo City	Yazoo	4	3
Baptist Medical Center Leake	Leake	2	2
John C Stennis Memorial Hospital	Kemper	0	1
Anderson Regional Medical Center South	Lauderdale	0	0
Marion General Hospital	Marion	0	0
Scott Regional Hospital	Scott	0	0
Leake Memorial Hospital	Leake	0	0
Laird Hospital	Newton	0	0
Covington County Hospital	Covington	0	0
Alliance Health Care System		0	0
Gulf Coast Medcial Center	Harrison	0	0
Holmes County Hospital and Clinics	Holmes	0	0
Baptist Memorial Hospital Booneville	Prentiss	0	0
Jefferson Davis Community Hospital	Jeff Davis	1	0
Neshoba County General Hospital	Neshoba	0	0
Newton Regional Hospital	Newton	0	0
Patients Choice Medical Center	Claiborne	0	0
S.E. Lackey Memorial Hospital	Scott	0	0
Stone County Hospital	Marion	0	0
Total		**37,790**	**37,184**

Sources: Applications for Renewal of Hospital License for Calendar Years 2013 and 2014 and Fiscal Years 2012 and 2013 Annual Hospital Report, Mississippi State Department of Health

CERTIFICATE OF NEED

CRITERIA AND STANDARDS FOR OBSTETRICAL SERVICES

103 Certificate of Need Criteria and Standards for Obstetrical 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.

103.01 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 1 of this *Plan*.

2. Perinatal Planning Areas (PPA): The MSDH shall determine the need for obstetrical services using the Perinatal Planning Areas as outlined on Map 4-2 at the end of this chapter.

3. 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.

4. Preference in CON Decisions: The MSDH 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.

5. 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.

Levels of Care: All hospitals providing obstetric and newborn services will be designated a perinatal level of care by MSDH, based upon its functional capabilities to provide risk-appropriate care for pregnant women and neonates. The levels of care will be divided into four levels defined in accordance with the 2012 policy statement by the American Academy of Pediatrics, (PEDIATRICS Vol. 130, No. 3, September, 2012) and maternal standards set forth by the American College of Obstetricians and Gynecologists with modifications approved by MSDH. The levels are:

Level I- Basic Care, Well newborn nursery
Level II- Specialty Care, Special care nursery
Level III- Sub-specialty Care, Neonatal Intensive Care Unit
Level IV- Regional Care

Details of the levels are outlined in section 105.03 of the State Health Plan.

6. An applicant proposing to offer obstetrical services shall be equipped to provide perinatal services in accordance with the guidelines contained in the *Minimum Standards of Operation for Mississippi Hospitals* § 130, Obstetrics and Newborn Nursery. All hospitals offering obstetric and newborn care shall conform to the practice guidelines of the American Academy of Pediatrics, Policy Statement, Levels of Care and professional standards established in the Guidelines for the Operations of Perinatal Units.

7. 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.

103.02 Certificate of Need Criteria and Standards for Obstetrical Services

The Mississippi State Department of Health will review applications for a Certificate of Need to establish 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 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 establishment or expansion of Level I- basic or Level II- specialty perinatal services shall require approval under the Certificate of Need statute if the $2,000,000 capital expenditure threshold is crossed. Any hospital proposing to establish or expand existing services to become a Level III-subspecialty or Level IV-regional perinatal center shall require approval under the Certificate of Need statute.

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 at the end of this chapter.

1. Need Criterion:

   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. In this demonstration, the applicant shall document the number of deliveries performed in the proposed perinatal planning area (as described in Section 103.01, policy statement 2, by hospital.

2. The application shall document that the facility will provide one of the three types of perinatal services: Basic, Specialty, or Subspecialty.

3. 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 registered nurse with extra training such as Neonatal Resuscitation Program (NRP) certification and the S.T.A.B.L.E program.

4. Any facility proposing the offering of obstetrical services shall have written policies delineating responsibility for immediate newborn care, resuscitation, transfer to higher-level of care, selection and maintenance of necessary equipment, and training of personnel in proper techniques.

5. 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.

6. 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.

7. 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.

8. 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 State 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.

9. 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

104 Certificate of Need Criteria and Standards for Neonatal Special Care 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.

104.01 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 1 of this *Plan*.

2. Perinatal Planning Areas (PPA): The MSDH shall determine the need for neonatal special care services using the Perinatal Planning Areas as outlined on Map 4-2 at the end of this chapter.

3. Bed Limit: The total number of neonatal special care beds is not to exceed eight (8) per 1,000 live births in a specified PPA as defined below:

    a. Two (2) intensive care beds per 1,000 live births; and

    b. Six (6) intermediate care beds per 1,000 live births.

4. Size of Facility: A single neonatal special care unit (Subspecialty) Level 3 or greater facility should contain a minimum of 15 beds.

5. Levels of Care: The MSDH shall determine the perinatal level of care designation of the facility based upon its functional capabilities to provide risk-appropriate care for pregnant women and neonates. Facilities shall be designated as one of four levels of care as outlined in Section 105.03 of the State Health Plan.

    Level I- Basic Care, Well newborn nursery
    Level II- Specialty Care, Special care nursery
    Level III- Sub-specialty Care, Neonatal Intensive Care Unit
    Level IV- Regional Care

6. 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.

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

The Mississippi State 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 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.

All neonatal intensive care units providing subspecialty care are reviewable under the Certificate of Need law based upon the addition/conversion of hospital beds required to establish such units.

Those facilities desiring to provide neonatal special care services shall meet the capacity and levels of neonatal care for the specified facility (Specialty, Subspecialty or Regional) as outlined by the American Academy of Pediatrics, Policy Statement, Levels of Neonatal Care (PEDIATRICS Vol. 130, No. 3, September, 2012).

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. The MSDH shall determine the need for neonatal special care services based upon the following:**

    a. **Two (2) neonatal intensive (subspecialty) care bed per 1,000 live births in a specified Perinatal Planning Area for the most recent 12-month reporting period; and**

    b. **Six (6) neonatal intermediate (specialty) care beds per 1,000 live births in a specified Perinatal Planning Area for the most recent 12-month reporting period.**

    Neonatal intensive care beds can only be housed within a hospital designated as a Level III facility. Neonatal intermediate or specialty care beds can be housed within either a Level II, Level III or Level IV facility.

    Projects for existing providers of neonatal special care services which seek to expand capacity by the addition or conversion of neonatal special care beds: The applicant shall document the need for the proposed project. The applicant shall demonstrate that the facility in question has maintained an occupancy rate for neonatal special care services of at least 70 percent for the most recent two (2) years or 80 percent neonatal special care services occupancy rate for the most recent year, notwithstanding the neonatal special care bed need outlined in Table 4-4 below. The applicant may be approved for such additional or conversion of neonatal special care beds to meet projected demand balanced with optimum utilization rate for the Perinatal Planning Area.

2. A single neonatal special care unit (Subspecialty or Regional) that is Level 3 or greater should contain 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 State 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.

104.03 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 eight (8) beds per 1,000 live births as defined below.

1. Two (2) neonatal intensive care beds per 1,000 live births in the most recent 12-month reporting period.

2. Six (6) neonatal intermediate care beds per 1,000 live births in the most recent 12-month reporting period.

Table 4-4
Neonatal Special Care Bed Need
2014

Perinatal Planning Areas	Number Live Births[1]	Neonatal Intensive Care Bed Need	Neonatal Intermediate Care Bed Need
PPA I	3,374	7	20
PPA II	4,725	9	28
PPA III	2,068	4	12
PPA IV	2,797	6	17
PPA V	10,197	20	61
PPA VI	2,241	4	13
PPA VII	2,418	5	15
PPA VIII	4,792	10	29
PPA IX	5,175	10	31
State Total	**37,787**	**76**	**227**

[1] 2012 Occurrence Data. Number of beds based upon births rounded to the nearest 1,000.
Sources: Mississippi State Department of Health, Division of Licensure and Certification; and Division of Health Planning and Resource Development Calculations, 2014

Source: Bureau of Public Health Statistics

GUIDELINES FOR THE

OPERATION OF PERINATAL UNITS

(OBSTETRICS AND NEWBORN NURSERY)

105 Guidelines for the Operation of Perinatal Units (Obstetrics and Newborn Nursery)

105.01 Organization

Obstetrics and newborn nursery services shall be under the direction of a member of the staff of physicians who has been duly appointed for this service and who has experience in maternity and newborn care.

There shall be a qualified professional registered nurse responsible at all times for the nursing care of maternity patients and newborn infants.

Provisions shall be made for pre-employment and annual health examinations for all personnel on this service.

Physical facilities for perinatal care in hospitals shall be conducive to care that meets the normal physiologic and psychosocial needs of mothers, neonates and their families. The facilities provide for deviations from the norm consistent with professionally recognized standards/guidelines.

The perinatal service should have facilities for the following components:

1. Antepartum care and testing
2. Fetal diagnostic services
3. Admission/observation/waiting
4. Labor
5. Delivery/cesarean birth
6. Newborn nursery
7. Newborn special care unit (Level II- Specialty)
8. Newborn Intensive Care Unit (Level III Subspecialty and Level IV –Regional care only
9. Recovery and postpartum care
10. Visitation

105.02 Staffing

The facility must be staffed to meet its patient care commitments based upon its designated level of care, consistent with the American Academy of Pediatrics, Policy Statement, Levels of Care and professional guidelines. Hospitals with Neonatal Intensive Care Units providing subspecialty care must include appropriately trained personnel (neonatologists, neonatal nurses, and respiratory therapists) and equipment to provide life support for as long as necessary.

105.03 Perinatal Levels of Care

Level 1- Basic Care, Well Newborn Nursery

Neonatal Guidelines

1. Provide neonatal resuscitation at every delivery.
2. Evaluate and provide postnatal care to stable term newborn infants.
3. Stabilize and provide care for infants born at 35-37 weeks gestation who remain physiologically stable.
4. Stabilize newborn infants who are ill and those born at <35 weeks gestation until transfer to the appropriate higher level of care.
5. Maintain a staff of providers including pediatricians, family physicians, nurse practitioners with newborn training, registered nurses with newborn training including being current with Neonatal Resuscitation Program Certification and S.T.A.B.L.E.

Maternal Guidelines

1. Surveillance and care of all patients admitted to the obstetric service, with an established triage system for identifying high-risk patients who should be transferred to a facility that provides specialty or sub-specialty care.
2. Capability to begin an emergency cesarean delivery within 30 minutes of the decision to do so.
3. Mothers that are stable and likely to deliver before 35 weeks gestation or have a fetus that is likely to require specialty services and mothers who themselves are likely to require specialty services should be transferred prior to delivery, when possible.
4. Proper detection and supportive care of known maternal conditions and unanticipated maternal-fetal problems that occur during labor and delivery.
5. Care of postpartum conditions.
6. Maintain a staff of providers certified to perform normal and operative vaginal deliveries and cesarean sections including obstetricians and family physicians with advanced training in obstetrics, providers certified to perform normal vaginal deliveries including certified nurse midwives, and registered nurses with training in labor and delivery, post partum care or inpatient obstetrics.

Hospital Resources

1. Availability of anesthesia, radiology, ultrasound, blood bank and laboratory services available on a 24-hour basis.
2. Consultation and transfer agreement with specialty and/or subspecialty perinatal centers.
3. Parent-sibling-neonate visitation.
4. Data collection and retrieval.

5. Quality improvement programs, maximizing patient safety.

Level II- Specialty Care, Special Care Nursery

Neonatal Guidelines

1. Performance of all basic care services as described above.
2. Provide care for infants born ≥ 32 weeks and weighing ≥ 1500g who have physiologic immaturity or who are moderately ill with problems that are expected to resolve rapidly and are not anticipated to need subspecialty services on an urgent basis.
3. Provide care for infants convalescing after intensive care.
4. Provide mechanical ventilation for brief duration (<24h) or continuous positive airway pressure or both.
5. Stabilize infants born before 32 wk gestation and weighing less than 1500g until transfer to a Level III or Level IV neonatal intensive care facility.
6. Maintain a staff of providers including those listed in Basic Care plus pediatric hospitalists, neonatologist, and neonatal nurse practitioners.
7. Referral to a higher level of care for all infants when needed for pediatric surgical or medical subspecialty intervention.
8. Level II nurseries must have equipment (eg, portable x-ray machine, blood gas analyzer) and personal (eg, physicians, specialized nurses, respiratory therapists, radiology technicians and laboratory technicians) to provide ongoing care of admitted infants as well as to address emergencies.

Maternal Guidelines

1. Perform all basic maternal services listed above.
2. Mothers that are stable and likely to deliver before 32 weeks gestation or have a neonate that is likely to require sub-specialty services, or mothers who themselves are likely to require sub-specialty services should be transferred prior to delivery, when possible.
3. Access to maternal fetal medicine consultation and antenatal diagnosis technology including fetal ultrasound.

Level III- Sub-specialty Care/Neonatal Intensive Care Unit

Neonatal Guidelines

1. Provision of all Level I and Level II services.
2. Level III NICUs are defined by having continuously available personnel (neonatologists, neonatal nurses, and respiratory therapists) and equipment to provide life support for as long as necessary.

3. Provide comprehensive care for infants born < 32 weeks gestation and weighing <1500 grams and infants born at all gestational ages and birth weights with critical illness.

4. Provide prompt and readily available access to a full range of pediatric medical subspecialists, pediatric surgical specialists, pediatric anesthesiologists or anesthesiologists with experience in neonatal surgical care and pediatric ophthalmologists, on site or by prearranged consultative agreements.

5. Provide a full range of respiratory support and physiologic monitoring that may include conventional and/or high-frequency ventilation and inhaled nitric oxide.

6. Perform advanced imaging with interpretation on an urgent basis, including computed tomography, MRI and echocardiography.

7. Social and family support including social services and pastoral care.

8. If geographic constraints for land transportation exist, the level III facility should ensure availability of rotor and fixed-wing transport services to transfer infants requiring subspecialty intervention from other regions and facilities.

9. Consultation and transfer agreements with both lower level referring hospitals and regional centers, including back-transport agreements.

10. Prompt diagnosis and appropriate referral of all conditions requiring surgical intervention. Major surgery should be performed by pediatric surgical specialists (including anesthesiologists with pediatric expertise) on–site within the hospital or at a closely related institution, ideally in close geographic proximity if possible. Level III facilities should be able to offer complete care, management, and evaluation for high risk neonates 24 hours a day. A neonatologist should be available either in-house or on-call with the capacity to be in-house in a timely manner, 24 hours a day.

11. Level III facilities should maintain a sufficient volume of infants <1500grams to meet professionally accepted guidelines to achieve adequate experience and expertise.

12. Enrollment in the Vermont Oxford Network to report and monitor data regarding outcomes of infants born <32 weeks and weighing <1500 grams.

13. Participation in and evaluation of quality improvement initiatives.

Maternal Guidelines

1. Manage complex maternal and fetal illnesses before, during and after delivery.

2. Maintain access to consultation and referral to Maternal-Fetal Medicine specialists

Level IV- Regional Care

Neonatal Guidelines

1. All level III capabilities listed above.

2. Located within an institution with the capability to provide surgical repair of complex congenital or acquired conditions.

3. Maintain a full range of pediatric medical subspecialists, pediatric surgical subspecialists and pediatric anesthesiologists at the site.

4. Facilitate transport and provide outreach education including community taught NRP and S.T.A.B.L.E. classes.

Maternal Guidelines

1. All level III capabilities listed above.

2. Maintain a full range of surgical and medical specialists including Maternal-Fetal Medicine specialists at the site.

3. Facilitate maternal transport and provide outreach education.

105.04 Perinatal Care Services

Antepartum Care

There should be policies for the care of pregnant patients with obstetric, medical, or surgical complications and for maternal transfer.

Intra-partum Services: Labor and Delivery

Intra-partum care should be both personalized and comprehensive for the mother and fetus. There should be written policies and procedures in regard to:

1. Assessment
2. Admission
3. Medical records (including complete prenatal history and physical)
4. Consent forms
5. Management of labor including assessment of fetal well-being:
    a. Term patient
    b. Preterm patients
    c. Premature rupture of membranes
    d. Preeclampsia/eclampsia
    e. Third trimester hemorrhage

f. Pregnancy Induced Hypertension (PIH)

6. Patient receiving oxytocics or tocolytics
7. Patients with stillbirths and miscarriages
8. Pain control during labor and delivery
9. Management of delivery
10. Emergency cesarean delivery (capability within 30 minutes)
11. Assessment of fetal maturity prior to repeat cesarean delivery or induction of labor
12. Vaginal birth after cesarean delivery
13. Assessment and care of neonate in the delivery room
14. Infection control in the obstetric and newborn areas
15. A delivery room shall be kept that will indicate:
    a. The name of the patient
    b. Date of delivery
    c. Sex of infant
    d. Apgar
    e. Weight
    f. Name of physician
    g. Name of person assisting
    h. What complications, if any, occurred
    i. Type of anesthesia used
    j. Name of person administering anesthesia
16. Maternal transfer
17. immediate postpartum/recovery care
18. Housekeeping

Newborn Care

There shall be policies and procedures for providing care of the neonate including:

1. Immediate stabilization period
2. Neonate identification and security
3. Assessment of neonatal risks
4. Cord blood, Coombs, and serology testing
5. Eye care
6. Subsequent care
7. Administration of Vitamin K
8. Neonatal screening

9. Circumcision
10. Parent education
11. Visitation
12. Admission of neonates born outside of facility
13. Housekeeping
14. Care of or stabilization and transfer of high-risk neonates

Postpartum Care

There shall be policies and procedures for postpartum care of mother:

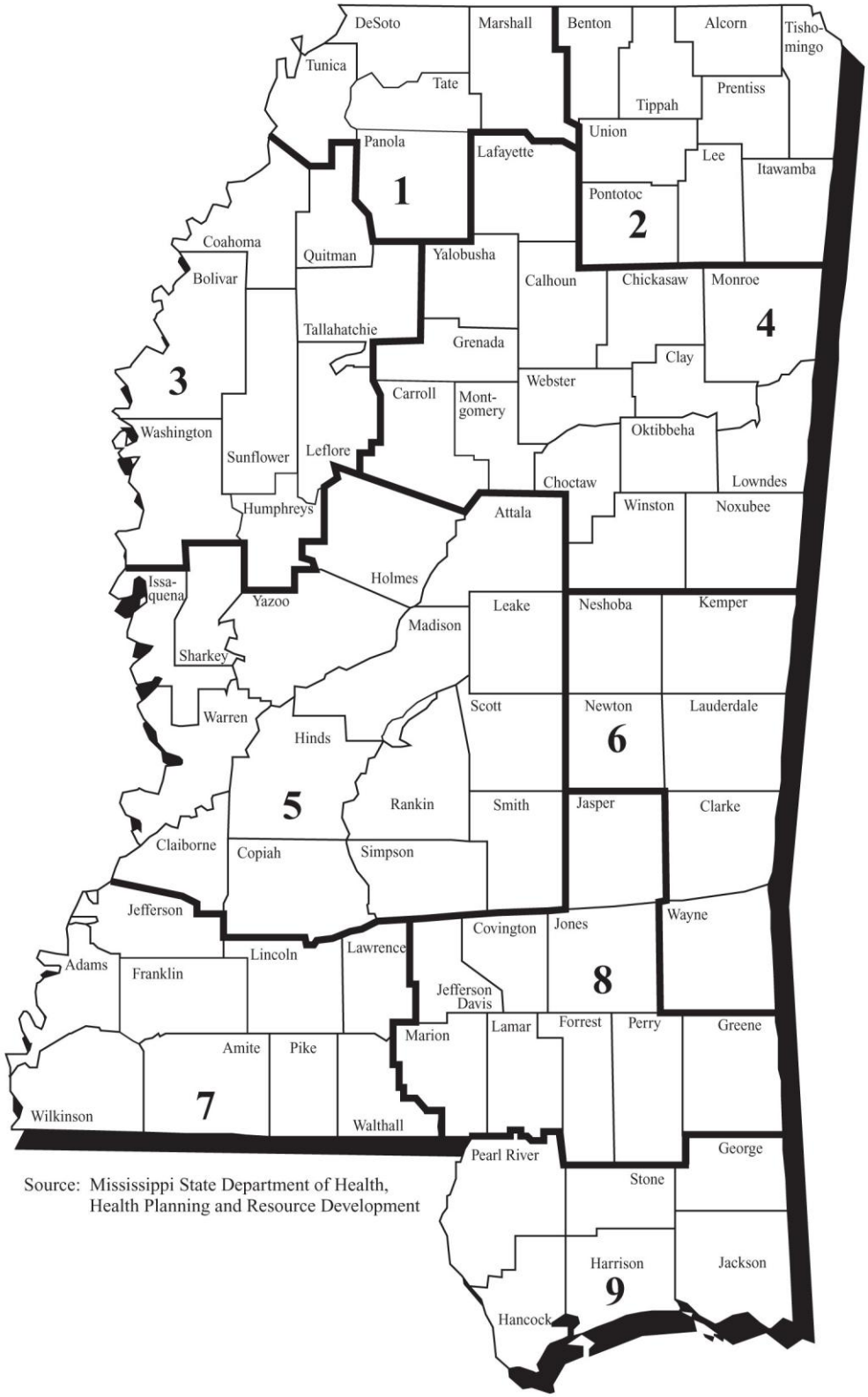
1. Assessment
2. Subsequent care (bed rest, ambulation, diet, care of the vulva, care of the bowel and bladder functions, bathing, care of the breasts, temperature elevation)
3. Postpartum sterilization
4. Immunization: RHIG and Rubella
5. Discharge planning

105.05 Hospital Evaluation and Level of Care Designation

All hospitals offering obstetric and newborn services will be evaluated at regular intervals and designated a level of care by the Mississippi State Health Department.

Source: Guidelines for Perinatal Care, Second, Fourth, and Sixth Editions, American Academy of Pediatrics and the American College of Obstetricians and Gynecologists, 1988, 1992, and 2007.

Map 4-2
Perinatal Planning Areas



Source: Mississippi State Department of Health,
Health Planning and Resource Development