Alabama Perinatal Health Act

Annual Progress Report for FY 2012

Plan for FY 2013

State and Regional Perinatal Advisory Councils and the
Bureau of Family Health Services, Alabama Department of Public Health

STATE OF ALABAMA DEPARTMENT OF
PUBLIC HEALTH
Donald E. Williamson, MD
State Health Officer

February 4, 2013

Dear Senators and Representatives:

In accordance with the Alabama Perinatal Health Act (Acts 1980, No. 80-761, p. 1586, Section 1), the annual Alabama Perinatal Progress Report is provided for your information at www.adph.org/perinatal. The report can be accessed via the link to "Annual Progress Report." The document describes the 2012 fiscal year accomplishments and activities of the State Perinatal Program as well as the program goals and objectives for 2013.

Alabama's infant mortality rate decreased from 8.7 to 8.1 deaths per 1,000 live births in 2011. This is the lowest rate ever recorded in Alabama. This historically low rate is encouraging; however, when compared to the provisional 2010 national rate of 6.1, we are reminded that the health status of mothers and infants in Alabama continues to be a challenge. Specifically, the high percentage of preterm and low birth weight births is producing an infant morbidity problem that has long-term consequences for families and society. In 2005 the average first-year medical costs, including both inpatient and outpatient care, were about 10 times greater for preterm ($32,325) than for term infants ($3,325). The cost of the 9,063 preterm births in Alabama in 2011 would be approximately $300M when calculated at the 2005 rate of $32,325 per infant.

If you would like a paper copy of the report, please contact Janice M. Smiley, State Perinatal Director, at 334-206-2928 or by email at Janice.Smiley@adph.state.al.us.

Thank you for your support of the State Perinatal Program.

Sincerely,

Donald E. Williamson, M.D.
State Health Officer

DEW/JMS/MCW

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INTRODUCTION

Infant mortality is an indicator used to characterize the health status of communities and states. In 2011, a total of 481 infants died in Alabama before their first birthday. The 2011 infant mortality rate (IMR) decreased from 8.7 in 2010 to 8.1 infant deaths per 1,000 live births. The percent of births with adequate prenatal care decreased to 71.5 percent, from 73.0 percent in 2010. At the same time, the number of births with no prenatal care decreased to 1,087 in 2011 from 1,162 in 2010. Alabama's IMR continues to remain among the highest in the nation. The national 2010 provisional IMR rate was 6.1 infant deaths per 1,000 live births.

Factors contributing to infant mortality included maternal chronic health conditions existing prior to pregnancy, short inter-pregnancy intervals, teen pregnancies, previous preterm births and unhealthy lifestyles and behaviors. Low birthweight (LBW) infants accounted for 68.4 percent of the 2011 infant deaths; however, survivability of these small infants has greatly improved in the past decade. In 2011, 15.3 percent of the births in Alabama were premature. A comparison to the national percentage of 12.2 in 2009 provides a picture of the severity of the problem. These small infants are at high risk for developing major long-term physical and cognitive problems with consequences that impact families and state resources. An additional concern is the significant racial disparity in premature and LBW births, a major contributor to infant mortality among the black population. Black mothers are 55.0 percent more likely to have a premature birth than white mothers. The 2011 percent of prematurity for black infants was 20.3 compared to 13.1 for whites.

An important indicator of infant morbidity is the number of newborns being admitted to neonatal intensive care units (NICU). Alabama has seen more than a ten-year trend of increased NICU admissions. In 2011, NICU admissions increased to 5,049 compared to 4,878 in 2010.

Long-term consequences of adverse outcomes of pregnancy include emotional and financial stress to families as well as the costs of special education and ongoing healthcare needs of children and adults with disabilities. The purpose of the Alabama Perinatal Program is to identify and recommend strategies that will effectively decrease infant morbidity and mortality.

The system of regionalized perinatal care needs strengthening in Alabama. Additionally, services must be available to address the entire perinatal continuum that includes the periods of preconception, antepartum, intrapartum, neonatal, postpartum, infancy and interconception. Promotion of healthy lifestyles and behaviors, along with disease prevention, are essential components of a plan that will improve the outcomes of pregnancy.

HISTORY OF ALABAMA'S PERINATAL SYSTEM

Neonatal intensive care and regionalization of perinatal care was developed in the late 1970s. In an effort to confront the state's high infant mortality rate, a group of physicians, other health providers and interested citizens came together and became the impetus behind the passage of the Alabama Perinatal Health Act in 1980 (Appendix A). This statute established the State Perinatal Program and the mechanism for its operation under the direction of the State Board of Health.

The program's functioning body is the State Perinatal Advisory Council (SPAC) which represents Regional Perinatal Advisory Councils (RPACs). The RPACs make recommendations to the SPAC regarding perinatal concerns and strategies to improve the health of mothers and

infants.

The State Perinatal Program is based on a concept of regionalization of care, a systems approach in which program components in a geographic area are defined and coordinated to ensure that pregnant women and their infants have access to appropriate care. Availability of neonatal intensive care served as the framework for the organization of regionalized care.

Initially, Alabama had neonatal intensive care capacity in Birmingham and Mobile. Additional capacity developed in Huntsville, Tuscaloosa and Montgomery. The state adopted a perinatal plan based on six regions which corresponded to the Health System Agency designations at the time of passage of the Alabama Perinatal Health Act. These regions were also the basis for the Public Health Areas. In 1988, Public Health changed to eight areas and the Perinatal Program followed. In 1995, Public Health reorganized to 11 areas and continues with this structure today; however, the perinatal system continued with the same eight regions that were designated in the 1988 reorganization.

In 1996 the perinatal program reorganized into the current five regions (Appendix B). The reorganization was based on each region's designated NICU. The five designated NICUs are: (1) Region I - Huntsville Hospital in Madison County; (2) Region II - DCH Regional Medical Center in Tuscaloosa County; (3) Region III - University of Alabama at Birmingham (UAB) in Jefferson County; (4) Region IV - University of South Alabama (USA) in Mobile County; and (5) Region V - Baptist Medical Center South in Montgomery County.

The 2002 SPAC designed a plan to enhance perinatal leadership within each of the five regions. The plan redirected outreach education funds for creation of an Alabama Department of Public Health (ADPH) nurse position in each perinatal region. The purpose of these positions is management of the RPACs and coordination of all regional perinatal activities, including outreach education. The SPAC voted to approve the plan and the regional perinatal nurse positions were filled by August 2002. In FY 2011, these regional perinatal nurses collaborated with perinatal providers and advocates across the state to strengthen each region's system of care for mothers and infants.

CURRENT STATUS OF ALABAMA'S BIRTHS

Birth Rate

The birth rate for 2011 was 12.4 per 1,000 total population, a total of 59,322 births; the 2010 rate was 12.4 (59,979 births); the 2009 rate was 13.3 (62,476 births); the 2008 rate was 13.8 (64,345 births); and the 2007 rate was 13.9 (64,180 births) per 1,000 total population. The 2011 birth rate for white infants was 11.8 (39,770) per 1,000 white population, while the birth rate for the black population was 13.6 (19,552) per 1,000.

Infant Mortality Rate[1]

Alabama's 2011 IMR of 8.1 (481) infant deaths per 1,000 live births is a decrease from the 2010 rate of 8.7 (522). It is the lowest IMR in the history of the state. The highest rate in 2011 was found in Coosa County with a rate of 39.6 deaths per 1,000 live births.

[1] Alabama statistics referred to in this report were obtained from the ADPH Center for Health Statistics.

The difference between Alabama's IMR for black infants and white infants continues to be significant. This disparity is evidence that concerted efforts are needed to address the factors that contribute to poor outcomes of pregnancy for many black mothers. At 13.0, the IMR for blacks decreased from the 13.7 rate of 2010; however, this is 113.1 percent higher than the rate for white infants. The IMR for white infants, 6.1, decreased from the 2010 rate of 6.6.

Infant deaths are sentinel events that indicate overall social, economic and health problems for families and communities. Continued efforts to aggressively identify, plan and target contributing factors are essential if the health of Alabama's mothers and babies is to be improved.

ISSUES THAT NEED CONTINUED EFFORT

Several factors contributing to Alabama's high rate of infant morbidity and death require continued attention from healthcare leaders and policymakers including: (1) low birthweight infants; (2) unintended pregnancies; (3) teen pregnancies; (4) preconception status of mothers; (5) smoking status of mothers; and (6) availability of health insurance coverage for the mothers at the time of pregnancy. These factors also have a direct impact on each other.

Low Birthweight

Birthweight is a significant factor directly related to infant morbidity and the infant mortality rate. Babies born too soon or too small involve significant risks of serious morbidity. Very low birthweight (under 3 lbs. 5 oz.) infants accounted for 251 of the 481 infant deaths in 2011. These very small babies are medically fragile at birth and many become critically ill. Those who survive usually require weeks of medical treatment for life-threatening conditions and/or infections. Medical care provided in the NICUs has had a positive impact on neonatal mortality (the first 28 days after birth); however, the very low and extremely low birthweight survivors are vulnerable to critical illness during the post-neonatal period and many require hospital readmission. Over one-third of the total infant deaths occur in the post-neonatal period (after 28 days).

The definitive cause(s) of prematurity remains unknown; however, the increasing magnitude of the problem has gained attention of medical researchers and scientists. Currently, the one measure that can reduce prematurity is prevention of unintended pregnancies in women who have experienced a previous preterm birth. The probability of preterm birth is 30 percent greater for a woman who has had one previous premature infant and the risk increases to 70 percent for two or more previous preterm births.

Unintended Pregnancy

The latest data on unintendedness (2010 data) showed that 49.1 percent of births in Alabama occurred to women who wanted a later pregnancy or to women who did not want to ever become pregnant. Unplanned pregnancies have serious consequences. Women who experienced an unwanted pregnancy were less likely to have adequate prenatal care and were more likely to have unhealthy lifestyles. Smoking and substance abuse were more likely in women who had an unplanned pregnancy. Additionally, unintendedness leads to inadequate spacing between pregnancies. Women who have birth intervals of less than two years are more

likely to have negative outcomes than mothers who space their pregnancies at longer intervals.

Teenage Pregnancy

The 11.3 percent of births to teens in 2011 is the lowest in Alabama's history and less than the 12.4 percent in 2010. Live births to teens in Alabama were 13.4 percent in 2009, 13.3 percent in 2008, 13.7 percent in 2007, and 13.8 percent in 2006. Focus on efforts to reduce teen childbearing will only serve to positively impact Alabama's IMR. Of the teen births, 43.3 percent (2,898) were to black and other teen mothers, and 82.9 percent (5,554) were to unmarried mothers.

Teen births produce multifaceted consequences that impact families and society. Teens are more likely to have very low or extremely low birthweight infants and birthweight is the factor most clearly related to infant death. Additionally, the low breastfeeding rate among teen mothers increases the morbidity risk for these infants.

Preconceptional and Interconceptional Health Status

Poor maternal health prior to pregnancy is a factor that must be taken into account. Pre-pregnancy weight affects the weight of the infant. Women who are underweight before pregnancy are more likely to have a low birthweight infant than are women who were normal weight before pregnancy. Obesity, along with chronic diseases such as diabetes and hypertension, are major causes of perinatal morbidity.

Prenatal Care

Early and adequate prenatal care to mothers remains a crucial factor in reducing infant mortality rates. The IMR among mothers who received no prenatal care or initiated care in the third trimester continues to be two times higher than the mothers who received prenatal care in the first trimester. In 2011, only 71.5 percent of the births were to women who had adequate prenatal care. In addition, there were 1,087 mothers who received no prenatal care. Coverage of the unborn through the expansion of the Alabama Children's Health Insurance Program (CHIP) could provide prenatal care to mothers whose children would be eligible for SOBRA Medicaid or CHIP at birth. The expansion would be a good opportunity to decrease the number of mothers who receive no prenatal care (see "Alabama Children's Health Insurance Program," page 6).

Substance Abuse

The use of nicotine, alcohol and drugs during pregnancy are other factors contributing to infant death and low birthweight. In 2011, Alabama's statistics indicate babies of mothers who smoke are 20.5 percent more likely to die than infants of nonsmoking mothers, with the rate for smokers being 9.4 per 1,000 live births compared to 7.8 for babies of nonsmokers.

The percentage of births to teenage women who used tobacco decreased to 10.8 in 2011, compared to 11.6 in 2010. There was a decrease over the year in tobacco use among women aged 20 or more to 10.6 percent from 11.2 percent. In 2011 white teenage mothers were 7.77 times more likely to smoke than black teen mothers. Smoking is associated with low birthweight, Sudden Infant Death Syndrome (SIDS) and respiratory causes of infant deaths.

Alcohol use during pregnancy can cause serious birth defects. Alcohol consumption during pregnancy is a leading cause of mental retardation and developmental delays. The 2010 data from the Pregnancy Risk Assessment Monitoring System (PRAMS)[2] survey indicated that 50.3 percent of all new mothers indicated they drank in the three months before pregnancy. In the last three months of pregnancy, only 9.8 percent of mothers reported drinking, a decrease of 80 percent. Although it appears most mothers realize that drinking during pregnancy can have detrimental effects on their babies and curtail their consumption of alcohol, mothers of approximately 5,814 babies continued to use alcohol while pregnant.

Illicit drug use during pregnancy can cause long-term health problems for the mother and child. Intravenous drug users and their offspring are at particular risk for contracting Hepatitis B, HIV and AIDS. Pregnant women who use cocaine are at risk of pre-term labor and their children are at an increased risk for compromised neurological development. Methamphetamine and methadone are the emerging drugs of choice for many women in Alabama. The fetal effects of these substances are creating serious challenges for perinatal providers.

Insurance Status

Uninsured pregnant women are less likely than insured women to receive proper health and preventive care. Low income families are most likely to be uninsured. Access to adequate early prenatal care may be determined by the availability of health insurance coverage for the pregnant mother. In 2011 infants of mothers with no insurance coverage and who did not qualify for Medicaid had the highest infant mortality rate at 17.0 infant deaths per 1,000 live births. Medicaid babies had a rate of 9.4 infant deaths per 1,000 live births and those whose mothers had private insurance had the lowest infant mortality rate at 5.7 infant deaths per 1,000 live births. During 2011 Medicaid paid for 53.1 percent of births.

STATE PERINATAL PROGRAM ACTIVITIES

Perinatal nurse coordinator positions were created by ADPH in 2002 for each of the perinatal regions across the state. The positions were designed to strengthen statewide efforts to maximize perinatal health by coordinating a regional system of perinatal care for improved access and quality of services for pregnant women, mothers and infants. Collateral functions of the perinatal program included administering the FIMR program, raising awareness of the importance of preconception and interconception care via the Get a Healthy Life campaign, coordinating the Collaborative Improvement and Innovation Network (COIIN) to Reduce Infant Mortality, performing various community activities, managing the respective Regional Perinatal Advisory Council (RPAC) activities and implementing the policies and guidelines of the State Perinatal Advisory Council (SPAC).

Fetal and Infant Mortality Review (FIMR) Program

FIMR was implemented in 2009 as a statewide initiative to address the state's high infant

[2] Obtained from the "PRAMS Surveillance Report by CHS, ADPH 2011

mortality rate. The program's purpose is to identify critical community strengths and weaknesses as well as unique health/social issues associated with poor outcomes of pregnancy. The FIMR Program is based on the national model developed by the American College of Obstetricians and Gynecologists in collaboration with the federal Maternal and Child Health Bureau.

The perinatal program director reviewed all fetal records and birth and death certificates of infant deaths that occurred in 2012. However, due to the large number of deaths the FIMR program focused on a select group of infant deaths for review, those born to mothers with previous poor birth outcomes. The perinatal staff abstracted data and conducted maternal interviews. The de-identified case summaries were presented to the Case Review Teams (CRTs) by the perinatal staff. The RPACs assumed the role of the CRTs. The RPACs met monthly, instead of quarterly, in an effort to review the large number of case summaries in a timely manner. More than 900 fetal and infant deaths have been reviewed since implementation of the FIMR program.

The CRTs provided recommendations to the Community Action Teams which then developed plans of action and implementation to address the identified contributing factors at the community level. One Community Action Team is in each perinatal region with some regions having more than one Community Action Team. Community Action Teams were active in Baldwin, Calhoun, Cleburne, Escambia, Jefferson, Madison, Mobile, Montgomery, Talladega, and Tuscaloosa Counties. The Community Action Teams continued to develop and implement plans that lead to positive changes within communities throughout the state. Actions implemented in 2012 were based on 2011 recommendations. Actions of the Community Action Teams included the following:

Region 1: Madison County Community Action Team: Held its second annual Pregnancy and Infant Loss Remembrance Day event to commemorate fetal and infant loss in the community. More than 100 people attended the event. Safe sleep education awareness was provided to the nurse managers and more than 600 safe sleep posters have been distributed within the region. Safe sleep behaviors were intentionally modeled by staff in the nursery of Huntsville Hospital. A "Safe Sleep Educational Module" with CE credit for hospital staff of Huntsville Hospital's RNICU was developed and is now a mandatory in-service for staff annually. The hospital also purchased the HALO Sleep Sack, which is a wearable blanket that replaces loose blankets in the crib that can cover the baby's face and interfere with breathing. The blanket is endorsed by First Candle/SIDS Alliance, Home Safely Council & Cribs for Kids. The NICU has purchased these blankets, is using them in the hospital to model behavior, and sends a blanket home with each baby upon discharge from the NICU.

Region 2: Community Action Team of Tuscaloosa: Held its second "Summer Food and Fun Program" in collaboration with a summer food program. The eight-week project was held at the McDonald Hughes Community Center in Tuscaloosa where healthy living and wellness education, physical activity, art and reading enrichment were provided to youth who participated in the program. Approximately 80 individuals volunteered for the community outreach program. The program provided studio art, reading sessions with remediation and instruction to the students, exercise, and health education that included fundamentals of nutrition, exercise, and wellness. More than 390 children participated in the program.

Region 3: Jefferson County Community Action Team: Distributed more than

500 Safe Sleep posters to physician offices, hospitals, and care coordinator offices in the region. The Community Action Team continued to work with the Children's Task Force on the Cribs for Kids programs in Jefferson County by providing contact information on accessing free cribs to physicians, social workers, care coordinators and nurses.

Calhoun County Community Action Team: Developed posters regarding signs and symptoms of PTL/PROM and kick counts to be distributed to hospitals, physicians, and care coordinators' offices.

Region 4: Babies and Moms (BAM) in Baldwin County Community Action Team: Created two Facebook pages, one to provide grief support and the second to provide information about the group. A second annual memorial service event was held with approximately 30 people in attendance.

Escambia County Community Action Team (created in January 2012): Developed and distributed, to health care providers, more than 75 Community Resource Guides that included brochures pertaining to the group's mission, a list of community service contact numbers and a list of faith and non-faith based grief support groups.

Region 5: Montgomery River Region Community Action Team: Provided a SIDS/SUIDI Conference for first responders and hospital staff in Montgomery with approximately 130 people in attendance. The first event to commemorate infant loss was held on October 15, on the National Perinatal and Infant Remembrance Loss Day with approximately 30 people attending the event. A Grief Resource Guide for the River Region was developed and disseminated to providers in the region.

Get a Healthy Life Campaign

The FIMR 2009 reviews identified preconception health as one of the leading contributing factors to infant death in Alabama. In September 2010, the program received a three year grant from the Health Resources and Services Administration to raise awareness statewide, through social media, of the importance of preconception and interconception care. The total amount of the award was $1.5 million over the grant period. The goal of the project is to inform the public of the importance of being healthy before pregnancy, promote positive birth outcomes, and ultimately to decrease infant mortality. The program launched a statewide social media campaign to increase awareness of preconception/interconception health, prenatal care, family support and parenting among first time mothers/new parents. The *Get a Healthy Life Campaign (GAL)* was implemented through multimedia projects and partnerships with community stakeholders.

The target population for the campaign was comprised of males and females ages 15 – 44 years. Five tools/materials have been selected and implemented statewide in the social media campaign. The messages for the tools/materials developed are: 1) avoid alcohol, tobacco, and drugs; 2) be fit both physically and nutritionally; 3) control/manage medical conditions; 4) wait at least 24 months between pregnancies, and 5) have a plan for life; plan your pregnancies, education etc.

Partnerships included: 1) the Communication and Health Marketing Division that developed the campaign's brand, marketing strategy, Facebook, and web page; 2) HIV /AIDS Division that provided the campaign opportunity to collaborate and exhibit at Historically Black Colleges and Universities where the division was providing free HIV testing; 3) the State Family Planning Program and Family Planning Clinics in Etowah and Calhoun counties where the campaign was

piloted. The clinics provided assessments, education, and care coordination to women that were high risk for having an unplanned pregnancy. Materials including educational brochures were created and made available to Family Planning Clinics statewide; 4) the FOCUS Program, a peer to peer education program that promotes school and community partnerships for the prevention of HIV/AIDS and other adolescent risk behaviors, provided the opportunity to provide education to high school students; 5) two pregnancy testing sites provided GAL materials and education regarding the importance of being healthy prior to becoming pregnant to mothers whose pregnancy tests were negative; 6) Medicaid Maternity Care Contractors were provided GAL educational materials to give to their mothers at their postpartum visit; and 7) WIC was provided educational materials to distribute to their clients.

The campaign participated in more than 90 events including health fairs, college sporting events, conferences, health department events, and other activities. Approximately 1,700 posters, 63,000 educational brochures and more than 26,000 other educational awareness materials were distributed during the campaign. The campaign ended August 2012 due to funds no longer being appropriated for the grant. For more information, please log on to www.adph.org/gal.

Text4baby

Text4baby is an education campaign of the National Healthy Mothers, Healthy Babies (HMHB) Coalition with more than 700 partners. The campaign helps pregnant women and new moms increase their knowledge about caring for their health and giving their babies the best possible start in life. Text4baby supports moms by providing accurate, text-length health information and resources in a format that is personal and timely, using a channel they know and use. Pregnant women and new mothers who text "BABY" (or "BEBE" for Spanish) to 511411 receive weekly text messages (timed to their due date or their baby's birth date) throughout pregnancy and up until baby's first birthday. The text messages provide information on a variety of topics critical to maternal and child health, including developmental milestones, immunization, nutrition, mental health, safety, and more. Text4baby messages also connect women to resources and national hotlines.

The Department and the Text4baby Campaign hosted a lunch-and-learn event Sept. 25 at the Central Alabama Farmers Cooperative in Selma. More than 40 pregnant women, mothers of infants, and others in Dallas and nearby counties attended the event. U.S. Rep. Terri A. Sewell and Mayor Evans joined representatives from sponsoring organizations, including Jackie Holliday, administrator of Public Health Area 7. In addition to bringing attention to the Text4baby service, a food demonstration of healthy foods that can be prepared from foods received through the WIC program was provided by Denise Pope, the WIC Area 7 Nutrition Director. The moms-to-be and mothers of infants were also informed about an array of resources and tools available through local agencies in the community. These included updates on physical activity opportunities, a presentation about safe cribs from Cribs for Kids, and educational information from other partners.

The Department is the state lead outreach agency for Text4baby in Alabama. As an outreach partner, the department spreads the word about text4baby in many different ways and encourages women to sign up for the service. The department collaborates with agencies and organizations within the state to promote enrollment into the program. Promotional materials to raise awareness of the campaign are provided by HMHB. As of December 7, 2012,

approximately 11,000 individuals in Alabama are enrolled in text4baby. More than 13,000 promotional materials have been distributed within the state.

March of Dimes Collaborative

The State Perinatal Program has partnered with March of Dimes (MOD) since 2004 to address the problem of premature births. The program was a recipient of a 2012 Community Grant from the Alabama Chapter MOD. The grant supported FIMR activities. In March 2012, Dr. Williamson signed an agreement with the MOD to commit to decreasing prematurity in Alabama by 8 percent by 2014 using the 2009 rate of 16.7 percent as a baseline. In 2011, the number of preterm births decreased to 9,063 yielding a percentage of 15.3 (9,063/59,322) for 2011. When comparing this to the 2009 baseline of 16.7 percent preterm births, there has been an 8.4 percent decrease from 2009 to 2011, signifying attainment of the MOD goal.

Collaborative Improvement & Innovation Network to Reduce Infant Mortality

The COIIN initiative was launched in July 2012 in U.S. Public Health Regions IV and VI by the federal Bureau of Maternal and Child Health. The initiative aims to facilitate collaborative learning and adoption of proven quality improvement principles and practices across 13 states to reduce infant mortality and improve birth outcomes. The initiative provides a platform for states to learn from one another as well as from national experts, to share best practices and lessons learned and to track progress. The initiative has five strategic action teams with expert leaders and a team member from each state. The five teams are:

- Reducing Non-Medically Indicated Elective Deliveries Prior To 39 Weeks
- Interconception Care Medicaid Waiver
- Smoking Cessation
- Safe Sleep
- Perinatal Regionalization

At least one representative from Alabama is on each of the strategic action teams. Alabama also created a state team for each of the five strategic action teams and has appointed a COIIN Director to coordinate all COIIN efforts both statewide and nationally.

Alabama 2012 Maternal Drug Study

State Perinatal Program and Bureau of Clinical Laboratory (Lab) staff, in partnership with staff from birthing hospitals throughout the state conducted a maternal drug study that began on August 20, 2012. More than 1,300 urine specimens were collected from 36 of the 52 birthing hospitals during the two-month study period that ended on October 20, 2012. The purpose of the initiative was to determine the prevalence of illicit substances among pregnant women in Alabama. The study will also help to raise awareness of the issue of illicit substance abuse among Alabama's pregnant population and aid in the development of strategies that will focus on how to best address this issue.

During the study, birthing hospitals were asked to provide excess urine from all pregnant women who were admitted to the hospital within the designated time period. The excess urine

was collected and sent to the ADPH lab for testing. The data collection form contained a randomly assigned identification number which was also placed on the collection tube. Demographic data collected from the medical record and the laboratory test results were sent to the principle investigator for entry into the study database. Summary statistics were then compiled and sent to UAB for final analysis. Final analysis of the data and a written report are pending from UAB.

PROGRAMS CONTRIBUTING TO IMPROVED PERINATAL OUTCOMES

Adolescent Pregnancy Prevention Branch

The Adolescent Pregnancy Prevention Branch within the Children's Health Division of the Family Health Services Bureau works to reduce the rate of pregnancies and sexually transmitted infections among teenagers living in Alabama through two federally funded programs.

The Alabama Abstinence Education Program, funded through the Abstinence Education Grant Program, was extended through Fiscal Year 2014 under the Patient Protection and Affordable Care Act of 2010. The purpose of this program is to support decisions to abstain from sexual activity by providing effective and medically accurate abstinence programs. Four community projects were funded through a competitive selection process and they provide programs in 22 counties focusing on middle school aged students in classroom settings. The projects have incorporated a "Positive Youth Development" approach which utilizes a strength-based rather than a problem-oriented approach to risk reduction activities. High school age youth who are trained as "teen leaders" deliver programming to 6th and 7th grade students.

The Alabama Personal Responsibility Education Program is funded through the Personal Responsibility Education Program, through Fiscal Year 2014 under the Patient Protection and Affordable Care Act of 2010. This statute stipulates that a program must educate adolescents on both abstinence and contraception for the prevention of pregnancy and sexually transmitted infections. The program must utilize evidence-based models that have been proven on the basis of scientific research to change behavior. The law also requires that adulthood preparation subjects be addressed. In Alabama, these include: healthy relationships, adolescent development, healthy life skills, and parent-child communications. Three community projects, funded through a competitive selection process, provided programming to high risk youth (ages 13-19) in community settings including juvenile detention facilities, group foster care homes, and community mentoring programs.

Alabama Children's Health Insurance Program (CHIP)

The Children's Health Insurance Program was established August 5, 1997 under a new Title XXI of the Social Security Act. Alabama's program, known as ALL Kids, in existence since 1998, is administered by the Alabama Department of Public Health. The program covers children whose family income is too high to qualify for Medicaid and up to 300 percent of the Federal Poverty Level. Alabama has been very successful in reducing the number of uninsured children in the state through coordinated efforts (outreach and simplified application processes) between ALL Kids and the Alabama Medicaid Agency. Alabama's low uninsured rate for

children (8.2 percent U.S. Census Bureau, Current Population Survey, 3 year average – 2009 - 2011 coverage years), means increased access to healthcare for thousands of children and adolescents in the state. Infants and pregnant teens having health coverage is a critical component for improving perinatal health in Alabama.

Alabama Newborn Screening Program (NSP)

The Alabama Newborn Screening Program, in collaboration with birthing hospitals and other healthcare providers, screens for 29 primary and 45 secondary disorders. These disorders include Endocrine (Congenital Hypothyroidism and Congenital Adrenal Hyperplasia), Cystic Fibrosis (CF), Sickle Cell Disease, Hearing Loss, and Metabolic Disorders (Amino, Fatty, and Organic Acid). Newborn screening is mandated by Statutory Authority Code of Alabama 1975, Section 22-20-3. Every hospital or facility providing delivery services is required to screen all infants for these potentially devastating disorders. In April 2012, ADPH implemented voluntary screening to detect Critical Congenital Heart Disease.

Through October 2012, there have been 73 infants identified with metabolic or other inherited disorders. All newborns identified with a disorder through the NSP have access to a diagnostic evaluation through medical specialists throughout the state. These consultants work closely with the primary care provider in determining needed tests and development of a treatment plan when necessary. The NSP maintains an active advisory board whose members include healthcare professionals, public health professionals, and a parent advocate.

"Alabama's Listening" Universal Newborn Hearing Screening Program

The Alabama Newborn Hearing Screening Program, *"Alabama's Listening,"* has made great strides in reducing the number of infants not screened prior to discharge. Currently, all 52 birthing facilities in the state offer hearing screening to all infants. The implementation of the guidelines from the Joint Committee on Infant Hearing 2007 Position Statement has helped in the reduction of numbers of infants considered lost to follow-up and needing rescreening. Using various existing federal grants, the Alabama system was able to replace outdated screening equipment and to increase services for several facilities in smaller, more rural areas. Reporting methods have also advanced through use of electronic transfer of hearing results. Through October 2012, 34 infants were identified with various forms of hearing loss. Alabama's Listening Program is constantly exploring new ways to ensure that all infants born in the state receive appropriate hearing screenings at birth, and diagnosis and intervention when indicated. In the upcoming year, efforts will include forging stronger reporting relationships with Early Intervention and other outpatient providers.

Breastfeeding Promotion

Breastfeeding is an important public health issue that affects the health of infants and mothers. The United States Department of Health and Human Services has identified breastfeeding as a high priority health objective for the nation for the Year 2020. Healthy People Objectives include that at least 81.9 percent of women will initiate breastfeeding, 60.6 percent of these women will breastfeed until the infant is six months old, and at least 34.1 percent will continue breastfeeding for one year. Objectives for exclusive breastfeeding through 3 months

and 6 months are 46.2 percent and 25.5 percent. According to the CDC "Breastfeeding Report Card" 2012, the United States national rate for breastfeeding initiation is 76.9 percent. Alabama's breastfeeding initiation rate is 57.2 percent. The American Academy of Pediatrics recommends breastfeeding for at least one year and beyond. The Alabama Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) supports and promotes breastfeeding as the preferred method of infant feeding.

Research indicates that there are multiple health benefits for babies and mothers. Human milk provides infants with immunological protection against a variety of chronic illnesses and changes to meet the growing infant's nutritional needs. Infants who are breastfed have reduced incidence and severity of ear infections, pneumonia, diarrhea, urinary tract infections, and necrotizing enterocolitis (NEC). Studies have shown that infants who are breastfed are less likely to develop diabetes mellitus, obesity, celiac disease, asthma, allergies, and Sudden Infant Death Syndrome (SIDS). Osteoporosis is reduced in mothers who breastfeed. Research indicates that breast, uterine and ovarian cancers are also reduced.

The WIC Breastfeeding Peer Counselor Program continues to provide support and breastfeeding information to pregnant and postpartum mothers. The program employs present or former WIC participants who have breastfed their infants for at least six months. Expansion of the Peer Counselor Program continues statewide. During FY2012 there were twenty-eight peer counseling sites. Research indicates that Breastfeeding Peer Counselor Programs help increase breastfeeding rates. Alabama WIC Program breastfeeding rates have consistently increased since the program was initiated.

The Alabama Department of Public Health and the Special Supplemental Nutrition Program for Women, Infants and Children (WIC) Program celebrated August as Breastfeeding Awareness Month. The theme chosen this year by the World Alliance for Breastfeeding Action was "Understanding the Past-Planning the Future: Celebrating 10 years of WHO/UNICEF's Global Strategy for Infant and Young Child Feeding." The first World Breastfeeding Week Campaign was launched 20 years ago. This year's theme focuses on the celebration of the achievements and successes. Many clinics held special receptions for their prenatal and breastfeeding mothers.

Alabama Child Death Review System (ACDRS)

The Alabama Child Death Review System continued its efforts to prevent unexpected and unexplained child deaths through the study and analysis of all preventable child deaths that occur in Alabama. Program effectiveness was strengthened by strategic partnerships and collaborative efforts with various organizations, including the Children First Foundation, the Alabama Medicaid Agency, and many others. ACDRS continued to develop public education and awareness strategies to prevent child deaths and injuries, especially those related to vehicular deaths and infant sleep-related deaths, the two leading categories of preventable child death in Alabama. ACDRS continued Teen Driving Safety campaigns in 2012 and collaborated with the Alabama AAP Chapter and other partners to develop a Teen Driving Safety Toolkit for Alabama pediatricians. Along with the Alabama Department of Forensic Sciences as an essential partner, ACDRS continues to provide Sudden Unexplained Infant Death Investigation (SUIDI) training to first-responders in Alabama. Operational efficiency of ACDRS continues to improve with the new online data collection system, and in 2012 all data from the old system were analyzed and cross-walked into the new system to create a comprehensive ACDRS database. In July of

2012, ACDRS conducted a statewide training conference for ACDRS coordinators and partners throughout the state.

Alabama Family Planning Program (FPP)

The Alabama Family Planning Program plays a critical role in ensuring access to family planning and related preventive health services. One of the major goals of the program is to decrease unintended pregnancies. In 2010, 49.1 percent of Alabama mothers reported their pregnancies as unintended. According to Alabama's Pregnancy Risk Assessment Monitoring System, from 2009 to 2010, there was an 8.2 percent decrease in unintended births in Alabama from 53.5 percent in 2009 to 49.1 percent in 2010. Unintended births among Medicaid women (61.7 percent) was higher than non-Medicaid births at 35.2 percent which indicates that poorer women are more likely to have unplanned births.

During fiscal year 2012, direct patient services were provided to an estimated 103,085 family planning clients through local health department clinics. Approximately 94 percent of the caseload served was below 150 percent of the federal poverty level. The FPP provides education and counseling, medical examinations, laboratory tests, and contraceptive supplies for individuals of reproductive age. It offers individuals opportunities to plan and space their pregnancies in order to achieve personal goals and self-sufficiency. Services are targeted to low income individuals.

Plan First, a joint venture between the Alabama Medicaid Agency and the department, continued into its 11th year after being granted a three-year renewal that began in October 2011. This program is an 1115 Medicaid Research and Demonstration Waiver expanding Medicaid eligibility for family planning services for women 19-55 years of age. The department's Plan First toll-free hotline received 3,832 calls during 2012.

Healthy Child Care Alabama

Healthy Child Care Alabama continues as a collaborative effort between the Alabama Department of Public Health and the Alabama Department of Human Resources. During fiscal year 2012, the Healthy Child Care Alabama Program continued to provide services in 52 counties through its nine registered nurse consultants. Services offered by the program included providing information on child development, conducting health and safety classes, coordinating community services for low-income and special-needs children, identifying community resources to promote child health and safety, and encouraging routine visits for children to their healthcare providers (medical homes).

The nurse consultants also worked with community agencies and organizations to reduce injuries and illnesses and promote quality child care. The nurse consultants performed health and safety assessments of child care facilities and, if a problem was identified, assisted the child care provider in developing a corrective action plan. During 2012, the nurse consultants documented 2,756 health and safety training and educational sessions for 9,434 providers; 3,265 incidents of technical assistance at child care sites; and 8,606 consultations requiring phone calls, letters, and/or e-mails responding to child care providers' questions and requests. The nurse consultants also provided health and safety programs for 25,302 children in the child care setting and developed 18 corrective action plans with providers.

Pregnancy Risk Assessment Monitoring System (PRAMS)

The Alabama Pregnancy Risk Assessment Monitoring System started collecting data in 1992. It is designed to help state health departments establish and maintain a surveillance system of selected maternal behaviors. The CDC collaborated with Alabama, other states and the District of Columbia to implement the system. PRAMS is an ongoing, population-based surveillance system designed to generate state-specific data for planning and assessing perinatal health programs. Maternal behavior and pregnancy outcomes have been strongly associated, thus the impetus for seeking to improve efforts to understand contributing factors to infant mortality and low birth weight. The information provided includes topics ranging from obstetrical history and prenatal care to maternal stress factors and pregnancy intentions.

In 2012, the project continues to operate as a population-based surveillance system. In an effort to increase response rates, the sampling scheme was modified in early 2007, excluding low birthweight as a stratification variable, and rewards are now offered to mothers for completing the survey. The goals of PRAMS include the following: (a) describe maternal behaviors during pregnancy and early infancy; (b) analyze relationships between behaviors, pregnancy outcomes (i.e., low birth weight, prematurity, growth retardation, etc.) and early infancy morbidity; (c) serve as a resource for the development and implementation of intervention programs, as well as effectively targeting existing programs; and (d) evaluate intervention efforts.

ASSESSMENT OF THE MATERNAL/INFANT POPULATION

ADPH, through the Bureau of Family Health Services (BFHS), continued as the lead agency for assessing needs pertaining to pregnant women, mothers and infants. The bureau's Maternal and Child Health Epidemiology Branch staff continued coordinating BFHS's needs assessment activities. One major change in the state's demographics has been an increase in Hispanic births. Based on birth certificate data, the number of live births to Hispanic residents increased more than 15-fold in 17 years, from 344 in 1990 to 5,342 in 2007. This number then declined to 5,258 in 2008 and 5,066 in 2009 and 4,831 in 2010 and 4,474 in 2011. Thus, after increasing for more than a decade, the number of live births to Hispanic residents has declined by 16.2 percent in recent years: from 5,342 in 2007 to 4,474 in 2011. Nevertheless, the previous rise in numbers of live births to Hispanics continues to impact the services being provided to families by ADPH. Translators, bilingual staff and appropriate written literature are factors that must be addressed. BFHS continues to assess the ever-changing needs of Alabama's population and develop strategies to address these needs. The Fiscal Years 2009-10 Statewide 5-Year Maternal and Child Health Needs Assessment was completed with the final report being submitted to the federal Maternal and Child Health Bureau in September 2010.

FY 2013 GOALS

1. Decrease infant morbidity and mortality by identifying the contributing factors and implementing steps to mitigate those factors.

2. Improve healthcare services for mothers and infants through facilitation of state, regional and local/community collaboration, interest and action regarding healthcare needs and services.

FY 2013 OBJECTIVES

1. Identify factors that contribute to fetal/infant deaths by reviewing 25 percent of fetal and infant deaths that occur in 2013 through the FIMR Program.

2. Decrease the number of Alabama's unintended births to 46.6 percent (Alabama Baseline: 49.1 percent in 2010; source ADPH, Center for Health Statistics).

3. Decrease the infant mortality rate among blacks to no more than 12.6 per 1,000 live births (AL & Healthy People [HP] Objective, Alabama Baseline: 13.0 per 1,000 live births in 2011; source ADPH, Center for Health Statistics).

4. Decrease the percent of low birthweight births to 9.7 percent (Alabama Baseline: 10.0 percent in 2011; source ADPH, Center for Health Statistics).

5. Decrease the percent of non-medically indicated singleton deliveries before 39 weeks to 10.0 percent (Alabama Baseline: 10.5 percent in 2011; source ADPH, Center for Health Statistics).

6. Decrease the percent of women who smoke during pregnancy to 10.3 percent (AL & HP Objective, Alabama Baseline: 10.6 percent in 2011; source ADPH, Center for Health Statistics).

7. Decrease the percent of adolescents age 10 – 19 who smoke during pregnancy to 10.5 percent (AL & HP Objective, Alabama Baseline: 10.8 percent in 2011; source ADPH, Center for Health Statistics).

8. Increase the percent of infants less than 32 weeks gestation and/or less than 1,500 grams being delivered at an appropriate facility to 88.2 percent (AL Objective, Alabama Baseline: 85.5 percent of live births in 2011; source ADPH, Center for Health Statistics).

9. Increase the percent of births with adequate prenatal care to 73.6 percent, adequacy of care measured using the Kotelchuck index (AL & HP Objective, Alabama Baseline: 71.5 percent in 2011; source ADPH, Center for Health Statistics).

10. Increase the percent of mothers who place their infants on their backs for sleeping to 70.0 percent (AL Objective, Alabama Baseline: 66.0 percent in 2010; source ADPH, Center for Health Statistics).

11. Increase the percent of mothers who initiate breastfeeding to 72.8 percent (AL Objective, Alabama Baseline 70.6 percent in 2010; source ADPH Center for Health Statistics).

APPENDICES

APPENDIX A

Alabama Perinatal Healthcare Act (1980)

CHAPTER 12A.
PERINATAL HEALTHCARE.

§22-12A-l. Short title.

This chapter may be cited as the Alabama Perinatal Health Act. (Acts 1980, No.80-761, p. 1586, § 1.)

§22-12A-2. Legislative intent; "perinatal" defined.

(a) It is the legislative intent to effect a program in this state of:

(I) Perinatal care in order to Decrease infant mortality and handicapping conditions:

(2) Administering such policy by supporting quality perinatal care at the most appropriate level in the closest proximity to the patients' residences and based on the levels of care concept of regionalization: and

(3) Encouraging the closest cooperation between various state and local agencies and private healthcare services in providing high quality, low cost prevention oriented perinatal care, including optional educational programs.

(b) For the purposes of this chapter, the word "perinatal" shall include that period from conception to one year post delivery. (Acts 1980, No.80-761, p. 1586,§ 2; Acts 1981, 3rd Ex. Sess., No.81-1140, p. 417, § 1.)

§ 22-12A-3. Plan to Decrease infant mortality and handicapping conditions; procedure, contents, etc.

The bureau of maternal and child health under the direction of the state board of health shall, in coordination with the state health planning and development agency, the state health coordinating council, the Alabama council on maternal and infant health and the regional and state perinatal advisory committees, annually prepare a plan, consistent with the legislative intent of section 22-12A-2, to Decrease infant mortality and handicapping conditions to be presented to legislative health and finance committees prior to each regular session of the legislature. Such a plan shall include: primary care, hospital and prenatal; secondary and tertiary levels of care both in hospital and on an out-patient basis: transportation of patients for medical services and care and follow-up and evaluation of infants through the first year of life; and optional educational programs, including pupils in schools at appropriate ages, for good perinatal care covered pursuant to the provisions of this chapter. All recommendations for expenditure of funds shall be in accord with provisions of this plan. (Acts 1980, No.80-761, p. 1586, § 3; Acts 1981, 3rd Ex. Sess., No.81-1140, p. 417, § I.)

§ 22-12A-4. Bureau of maternal and child health to develop priorities, guidelines, etc.

The bureau of maternal and child health under the direction of the state board of health, and the state perinatal advisory committee representing the regional perinatal advisory committees, shall develop priorities, guidelines and administrative procedures for the expenditures of funds therefore. Such priorities, guidelines and procedures shall be subject to the approval of the state board of health. (Acts 1980, No. 80-761, p. 1586, § 4.)

§ 22-12A-5. Bureau to present report to legislative committee; public health funds not to be used.

The bureau of maternal and child health under the direction of the state board of health shall annually present a progress report dealing with infant mortality and handicapping conditions to the legislative health and finance committees prior to each regular session of the legislature. No funds of the state department of public health shall be used for the cost of any reports or any function of any of the committees named in section 22-12A-3. (Acts 1980, No. 80-761, p. 1586, § 5.)

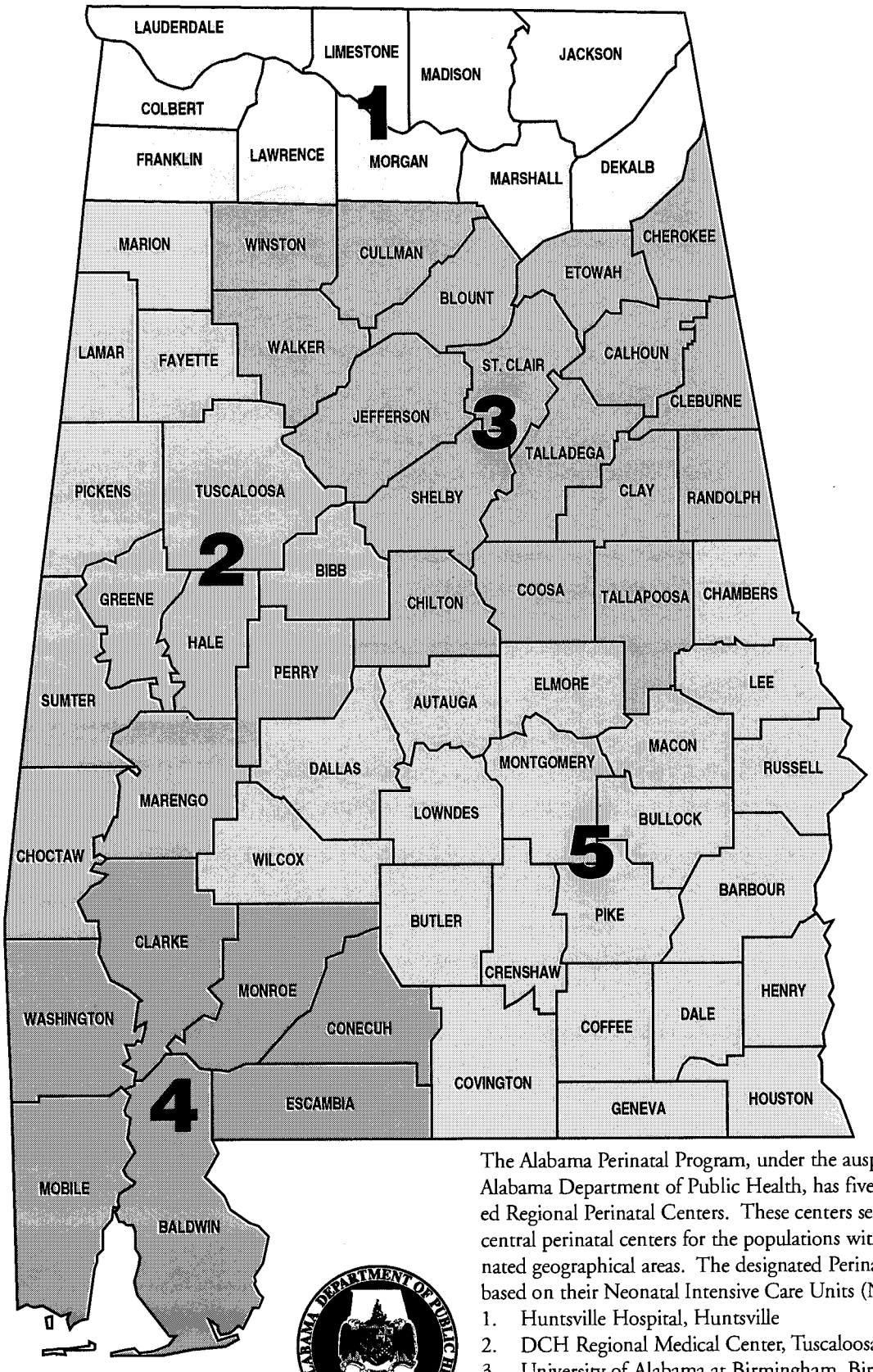
§ 22-12A-6. Use of funds generally.

Available funds will be expended in each geographic area based on provisions within the plan developed in accordance with section 22- 12A-3. Funds when available will be used to support medical care and transportation for women and infants at high risk for infant mortality or major handicapping conditions who are unable to pay for appropriate care. Funds will only be used to provide prenatal care, transportation, hospital care for high risk mothers and infants, outpatient care in the first year of life and educational services to improve such care, including optional educational programs, for pupils in schools at appropriate ages but subject to review and approval by the local school boards involved on an annual basis. (Acts 1980, No.80-761, p. 1586, § 6; Acts 1981, 3rd Ex. Sess., No.81-1140. p. 417, § I.)

APPENDIX B

Perinatal Regions Map

Perinatal Regions



The Alabama Perinatal Program, under the auspices of the Alabama Department of Public Health, has five (5) designated Regional Perinatal Centers. These centers serve as the central perinatal centers for the populations within the designated geographical areas. The designated Perinatal Regions based on their Neonatal Intensive Care Units (NICU's) are:

1. Huntsville Hospital, Huntsville
2. DCH Regional Medical Center, Tuscaloosa
3. University of Alabama at Birmingham, Birmingham
4. University of South Alabama, Mobile
5. Baptist Medical Center, Montgomery