Alabama Perinatal Health Act

Annual Progress Report for FY 2009

Plan for FY 2010

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

January 4, 2010

Dear Senators and Representatives:

It is my pleasure to provide you the opportunity to read the current perinatal annual report available at www.adph.org/perinatal. The report describes the activities of the State Perinatal Program during fiscal year 2009.

Alabama's infant mortality rate decreased from 10.0 deaths per 1,000 live births in 2007 to 9.5 deaths per 1,000 live births in 2008. However, this rate continues to be unacceptably high and is evidence that continued support for the State Perinatal Program is needed. Most importantly, we must address the increasing number of low birthweight births in Alabama and subsequent infant morbidities that have long-term consequences for families and society. To this end, the State Perinatal Program developed strategies to address these adverse outcomes of pregnancy. These strategies and the problems they address are described in detail in this report.

The leading perinatal providers in our state met throughout 2009 to guide the State Perinatal Program. I am pleased with the initiatives under development which will yield long-term benefits as infants grow into healthy children and contributing adults.

I want to thank you for your continued support of the State Perinatal Program. Because of this support, Alabama's families can look toward the future with enthusiasm.

Sincerely,

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

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Table of Contents

Introduction

Infant mortality is an indicator used to characterize the health status of communities and states. In 2008 a total of 612 infants died in Alabama before their first birthday. The 2008 infant mortality rate (IMR) decreased from 10.0 in 2007 to 9.5 infant deaths per 1,000 live births. The percent of births with adequate prenatal care continued to decrease to 74.2 percent, from 74.6 percent in 2007. At the same time, the number of births with no prenatal care decreased to 1,390 in 2008, from 1,496 in 2007. Consequently, Alabama's IMR continues to remain among the highest in the nation. The national 2008 provisional IMR rate was 6.5 infant deaths per 1,000 live births.

Factors contributing to infant mortality included maternal chronic health conditions existing prior to pregnancy, short pregnancy intervals, teen pregnancies, previous preterm births and unhealthy lifestyles and behaviors. Low birthweight (LBW) infants accounted for 70.0 percent of the 2008 infant deaths; however, survivability of these small infants has greatly improved in the past decade. In 2008, 16.2 percent of the births in Alabama were premature. A comparison to the national percentage of 12.8 in 2006 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 50.4 percent more likely to have a premature birth than white mothers. The 2008 rate of prematurity for black infants is 21.2 compared to 14.1 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 2008 NICU admissions decreased, the first time since 2001, to 5,666, compared to 5,988 in 2007.

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 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 directed the organization of the 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 Perinatal 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. 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 2009, 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 2008 was 13.8 per 1,000 total population, a total of 64,345 births; the 2007 rate was 13.9 (64,180 births); the 2006 rate was 13.7 (62,915 births); the 2005 rate was 13.2 (60,262 births); and the 2004 rate was 13.0 (59,170 births) per 1,000 total population. The 2008 birth rate for white infants was 13.0 (42,897) per 1,000 white population, while the birth rate for the black population was 15.9 (21,448) per 1,000.

Infant Mortality Rate[1]

Alabama's 2008 IMR of 9.5 (612) infant deaths per 1,000 live births is a decrease from the 2007 rate of 10.0 (641), and an increase when compared to the historical low 2004 rate of 8.7 (516).

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

The highest IMR in 2008 was found in Conecuh County with a rate of 20.7 deaths per 1,000 live births.

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 14.1, the IMR for blacks decreased from the 14.6 rate of 2007; however, this is 85.5 percent higher than the rate for white infants. The IMR for white infants, 7.6, decreased from the 2007 rate of 8.0.

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 334 of the 612 infant deaths in 2008. 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 (2007 data) showed that almost half (48.3 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 13.5 percent of births to teens in 2008 is less than the 13.7 percent in 2007. Live births to teens in Alabama were 13.8 percent in 2006, 13.1 percent in 2005, 14.0 percent in 2004, and 13.9 percent in 2003. Focus on efforts to reduce teen childbearing will only serve to positively impact Alabama's IMR. Of the adolescent births, 44.6 percent (3,825) were to black and other teen mothers, and 78.2 percent (6,699) were to unmarried mothers.

Adolescent 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. Infant mortality rates are highest for babies of teen mothers at 11.8 per 1,000 live births and lowest for adults at 9.3 per 1,000 live births. Additionally, the low breastfeeding rate among adolescent 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. The consequences of obesity, 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 2008, only 74.2 percent of the births were to women who had adequate prenatal care. In addition, there were 1,390 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 2008 Alabama's statistics indicate babies of mothers who smoke are 48.3 percent more likely to die than infants of nonsmoking mothers, with the rate for smokers being 13.2 per 1,000 live births compared to 8.9 for babies of nonsmokers.

The percentage of births to teenage women who used tobacco increased to 12.8 in 2008,

compared to 12.7 in 2007. There was a decrease over the year in tobacco use among women aged 20 or more to 11.8 percent from 11.9 percent. In 2008 white teenage mothers were 6.4 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 2007 data from the Pregnancy Risk Assessment Monitoring System (PRAMS)[2] survey indicated that 40.2 percent of all new mothers indicated they drank in the three months before pregnancy. In the last three months of pregnancy, only 6.9 percent of mothers reported drinking, a decrease of almost 90 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 4,428 babies continued to use alcohol.

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 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 2008 infants of mothers with no insurance coverage and who did not qualify for Medicaid had the highest infant mortality rate at 20.1 infant deaths per 1,000 live births. Medicaid babies had a rate of 10.8 infant deaths per 1,000 live births and those whose mothers had private insurance had the lowest infant mortality rate at 6.9 infant deaths per 1,000 live births. During 2008 Medicaid paid for 49.5 percent of births.

PROGRAMS CONTRIBUTING TO IMPROVED PERINATAL OUTCOMES

Alabama Abstinence – Only Education (AAEP)

AAEP is a program funded from Fiscal Year (FY) 1998-2008 through Section 510 of Title V of the Social Security Act. In 2009 the program was only funded through the third quarter. Seven community-based projects (CBP's) provided abstinence-until-marriage education to approximately 41,500 participants 10-19 years of age or younger in 39 counties in a school and community based setting. Title V funds have as its exclusive purpose, teaching the social, psychological and health gains to be realized by abstaining from sexual activity until marriage. Project activities were conducted in private healthcare settings, educational facilities and social services organizations. Funds were used to provide direct services and to offer educational, recreational and peer or adult

[2]Obtained from the "PRAMS Surveillance Report by CHS, ADPH 2009

mentor programs. A statewide media campaign used billboards, newspaper advertisements, and a web site provided current statistical information, parental guidance and information about the CBPs. A comprehensive, longitudinal evaluation of the CBPs has been conducted over the duration of the grant period. In FY 2008 President Bush signed into law H.R.3668, a bill entitled the "TMA, Abstinence Education, and QI Programs Extension Act of 2007," which extended the Section 510 Abstinence Education Program through December 31, 2007. Thereafter, program continuation is solely contingent upon Congressional re-authorization and funding of the Section 510 Abstinence Education Program or Congressional extension of the aforementioned bill. Due to lack of re-authorization and funding for this program after June 30, 2009, all abstinence-only education programs funded under this act have ended.

Alabama Children's Health Insurance Program (CHIP)

The State 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 ADPH. The program historically covered children whose family income is too high to qualify for Medicaid and is up to 200 percent of the Federal Poverty Level (FPL). As of October 1, 2009, ALL Kids expanded the income eligibility up to 300 percent FPL. 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 (6.6 percent of children living in Alabama, U.S. Census Bureau, Current Population Survey, 3 year average, report years 2007-2009), 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. CHIP Reauthorization Act legislation has reauthorized ALL Kids through 2013 and provides new opportunities to improve the quality of healthcare services and promotes the use of simplified processes that reduce enrollment barriers.

Alabama Newborn Screening Program (NSP)

The Alabama Newborn Screening Program, in collaboration with birthing hospitals and other health-care providers, screens for 28 of 29 disorders recommended by the March of Dimes for approximately 64,000 babies born annually. The final test, Tyrosinemia I, is expected to be added to the panel in January of 2010. The NSP began testing newborns for cystic fibrosis in April 2008 and has identified 24 infants who will benefit from early diagnosis and treatment. Each year, approximately 100-120 infants are identified with certain metabolic or other inherited disorders that are not otherwise apparent at birth. 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. A satisfactory or valid newborn screening specimen is most important. The NSP has implemented measures to address concerns and issues surrounding unsatisfactory samples. Along with the Alabama Hospital Association, the NSP has encouraged hospitals to designate a newborn screening coordinator, a primary contact for newborn screening issues at their facility. The NSP also provided a detailed quarterly report that allows hospitals to monitor their unsatisfactory rates. In addition, the NSP held a one-day conference in August 2009

for hospital coordinators to convene and discuss best practices regarding collection, storage and handling of specimens. Attendees were able to tour the state laboratory and hear presentations on follow-up, metabolic disorders and hearing screening. Forty-nine of 54 birthing hospitals attended. Three hospitals received awards for meeting the state standard of a five percent or below unsatisfactory rate over a six month period for their facility.

The NSP maintains an active advisory board whose members include health care professionals, public health professionals, and a parent advocate. This group has most recently addressed issues related to the timing of specimen collections for infants in the neonatal intensive care unit.

"Alabama's Listening" Universal Newborn Hearing Screening Program

Largely because hearing loss was added to the Alabama mandated list of Newborn Screening tests, the Alabama Newborn Hearing Screening Program has made great strides in reducing the number of infants not screened prior to discharge. Currently, all 54 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 infants 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. In the following 2009-2010 grant year, additional grant money was sought and funding was obtained. The additional funds will provide even more equipment and service upgrades.

The Alabama's Listening staff held statewide regional update meetings regarding hearing screening and reporting requirements. These regional meetings were designed to assist participating hospitals with meeting HIPAA compliance requirements and to assist them with useful techniques in providing screening results in the timeliest manner. Representatives from 40 of the 54 birthing facilities were present and attendees gained some very valuable knowledge. The Alabama Listening Program is constantly exploring new ways to ensure that all infants born in this state receive appropriate hearing screening at birth and diagnosis and intervention when needed.

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 2010. Healthy People Objectives are that at least 75 percent of women will initiate breastfeeding, 50 percent of those will breastfeed until the infant is six months old, and at least 25 percent will continue breastfeeding for one year. 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. Studies have shown that infants who are breastfed are less likely to develop diabetes mellitus, obesity, Celiac Disease, asthma, allergies, and 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. Currently, there are seven peer counseling sites. Research indicates that Breastfeeding Peer Counselor Programs help increase breastfeeding rates. Alabama WIC Program breastfeeding rates have consistently increased.

ADPH and WIC celebrated August as Breastfeeding Awareness Month. The theme chosen this year by the World Alliance for Breastfeeding Action is "Breastfeeding: A Vital Emergency Response: Are You Ready?" The theme focuses on the importance of supporting breastfeeding before, during and after an emergency happens. Many clinics held special receptions for their prenatal and breastfeeding mothers. Additionally, incentive items with breastfeeding messages were provided statewide to promote and encourage breastfeeding in WIC.

Alabama Child Death Review System (ACDRS)

The Alabama Child Death Review System continued to strive to prevent unexpected, unexplained and unnecessary 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 Trust Fund, Alabama Medicaid Agency, Voices for Alabama's Children, and several others. ACDRS continued to develop public education and awareness strategies to prevent child deaths and injuries, and the State Child Death Review Team issued a formal set of recommendations to the Governor. ACDRS, with the Alabama Department of Forensic Sciences as an essential partner, continued to offer Centers for Disease Control and Prevention (CDC) Sudden Unexplained Infant Death Investigation training to first-responders throughout the state. The innovative Cribs for Kids programs and hospital-based Shaken Baby Syndrome Prevention programs piloted by ACDRS continued in 2009, and a new Infant Vitality Initiative led to an injury-death-prevention pilot project in Jefferson County aimed at the zero to three year old population. The operational efficiency of ACDRS was also improved in 2009 as a new web-based data reporting system was implemented. This system was not only an improvement over older proprietary systems, but was also integrated into national data-collection efforts. ACDRS completed greater than 95 percent of all 2006 cases that qualified for review, a program record, by the submission deadline. ACDRS also received a few more cases after the deadline that will not be reflected in the Annual Report. To date, only five qualifying 2006 cases have not been completely reviewed and closed by ACDRS.

Family Planning (FP)

One of the major goals of the Alabama Family Planning Program is to decrease unintended pregnancies. The FP Program provides education and counseling, medical examinations, laboratory tests, and contraceptive supplies for any person 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. In FY 2009, direct patient services

were provided to 111,264 family planning clients through local health department clinics. This is an increase in caseload of two percent from 2008. Approximately 94 percent of the caseload served was below 150 percent of the Federal Poverty Level.

Five supplemental Title X FP projects were funded during the year in select counties. These included two HIV/Aids Projects, a Short Birth Interval Project, a Special Populations (Hispanic) Project and a Clinic Efficiency Project. Plan First, a joint venture between the Alabama Medicaid Agency and ADPH, continued into its ninth year after being granted a three-year renewal that began in October 2008. With this renewal, the age range for eligibility was expanded to women age 19-55 at or below 133 percent of the Federal Poverty Level. This program is an 1115 Medicaid Research and Demonstration Waiver expanding Medicaid eligibility for family planning services. As of September 2009, 76,395 women statewide were enrolled in Plan First. The department's Plan First toll-free hotline received 4,536 calls regarding Plan First during 2009.

Alabama has made significant improvement in reducing unintended births among low income women (Medicaid) since implementation of Plan First. In 2007, 60.1 percent of Medicaid births were unintended compared to 68.9 percent in 2001. This is a decrease of almost 13 percent.

Healthy Child Care Alabama (HCCA)

Healthy Child Care Alabama is a collaborative effort between ADPH and the Alabama Department of Human Resources. Services offered by the HCCA Program include child development, health and safety classes, coordinating community services for special needs children, identifying community resources to promote child health and safety and encouraging routine visits for children to their health care providers (medical homes). During FY 2009, HCCA's funding was decreased. The reduction in funding impacted the HCCA Program by decreased travel and the discontinuation of services to 19 counties by the nine registered nurse consultants.

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 2009 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 birthweight, 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.

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. The State Perinatal Program has partnered with March of Dimes since 2004 to address the problem of premature births. The perinatal staff has provided education to physicians and their office staff, in addition to maternity hospital staff, regarding preconception, prenatal and infant care patient education to improve perinatal outcomes. Included in these trainings were: smoking cessation counseling, importance of preconception ideal body weight, effects of alcohol and substance abuse on pregnancy, importance of folic acid supplementation for all women of childbearing age, breastfeeding promotion and support, safe infant sleep environment and newborn screening. Collateral functions of the perinatal staff included managing the respective RPAC activities and implementing policies and guidelines of the SPAC.

The Fetal and Infant Mortality Review (FIMR) Program was implemented in 2009 as a statewide initiative to address the state's high infant mortality rate. The 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. Training was provided to the perinatal staff by the National FIMR trainers. Administrative rules were approved for final adoption by the State Committee of Public Health in November 2008. The rules provide administrative procedures for review of all fetal and infant deaths and maternal/family interviews.

The perinatal staff began collecting data on all fetal and infant deaths that occurred in 2009; however, due to the large number of fetal and infant deaths and the inability to review all of the deaths, the FIMR program focused on a cohort of infant deaths for review. Neonatal deaths, the death of a live-born neonate before the neonate becomes 28 days old, were chosen as the deaths that would be reviewed in 2009. The perinatal staff abstracted all data and conducted the maternal interview. The de-identified case summaries were presented to the Case Review Team (CRT) by the perinatal staff. The RPACs assumed the role of the CRT. The RPACs met monthly, instead of quarterly, in an effort to review the large number of case summaries in a timely manner. Community Action Teams were created in each region to implement the CRT recommendations.

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. Comparing 2008 to 2003, the number of live births to Hispanic residents increased by a factor of 1.8: from

2,972 in 2003 to 5,258 in 2008. The rise in the Hispanic population is impacting 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. In December 2007, the Maternal and Child Health Epidemiology Branch produced maternal and infant profiles, which are available upon request, for the state and each perinatal region. The branch is currently spearheading the statewide five-year maternal and child health needs assessment that will be reported to the federal Maternal and Child Health Bureau in July 2010.

FY 2010 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 2010 OBJECTIVES

1. Identify factors that contribute to fetal and infant deaths by reviewing 100 percent of the postneonatal deaths that occur in 2010 through the FIMR Program.

2. Decrease the number of births to mothers who had no prenatal care by 50 percent through an expansion of the State Children's Health Insurance Program to cover unborn infants (Alabama Baseline: 1,390 births with no prenatal care in 2008; source ADPH, Center for Health Statistics).

3. Decrease the infant mortality rate among blacks to no more than 13.6 per 1,000 live births (AL & Healthy People [HP] Objective, Alabama Baseline: 14.1 per 1,000 live births in 2008; source ADPH, Center for Health Statistics).

4. Decrease the incidence of low birthweight births to no more than 9.6 per 1,000 live births (AL & HP Objective, Alabama Baseline: 10.6 per 1,000 live births in 2008; source ADPH, Center for Health Statistics).

5. Decrease the percent of women who smoke during pregnancy to 11.5 percent (AL & HP Objective, Alabama Baseline: 12.0 percent in 2008; source ADPH, Center for Health Statistics).

6. Decrease the percent of adolescents age 10 – 19 who smoke during pregnancy to 11.5 percent (AL & HP Objective, Alabama Baseline: 12.8 percent in 2008; source ADPH, Center for Health Statistics).

7. Decrease pregnancies among adolescents age 10 – 19 to no more than 13.0 percent of live births (AL Objective, Alabama Baseline: 13.5 percent of live births in 2008; source ADPH, Center for Health Statistics).

8. Increase the percent of births with adequate prenatal care to 76.0 percent, adequacy of care measured using the Kessner index (AL & HP Objective, Alabama Baseline: 74.2 percent in 2008; source ADPH, Center for Health Statistics).

9. Increase the percent of mothers who place their infants on their backs for sleeping to 70 percent (AL Objective, Alabama Baseline: 60.4 percent in 2007; source ADPH, Center for

Health Statistics).

10. Increase the percent of mothers who initiate breastfeeding to 70 percent (AL Objective, Alabama Baseline: 63.7 percent in 2007; 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.)

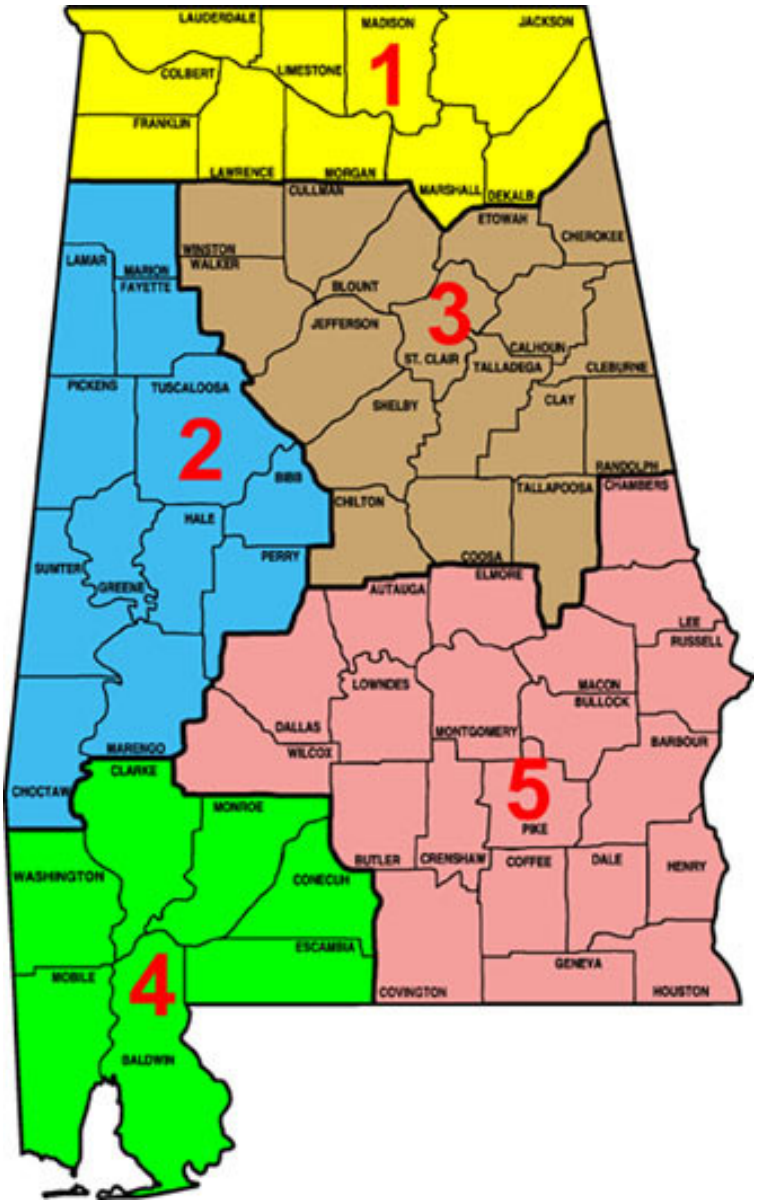
§ 22-12A-6. Use of funds generally.

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 (NICUs) are:

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

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