

Alabama Perinatal Health Act
Annual Progress Report for FY 2008
Plan for FY 2009

*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 21, 2009

Dear Senators and Representatives:

It is my pleasure to provide you the current perinatal annual report. It is available at www.adph.org/perinatal. The report describes the activities of the State Perinatal Program during fiscal year 2008.

Alabama's infant mortality rate for 2007 increased from 9.0 to 10.0 deaths per 1,000 live births, the highest rate since 1999. This disappointing increase 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 2008 to guide the State Perinatal Program. I am pleased with the initiatives under development which will yield long-term benefits as infants grow into healthier children and adults.

I want to thank you for your continued support of the State Perinatal Program. Because of your support, Alabama will continue to address the many challenges that prevent us from achieving our goal of all babies surviving their first year of life.

Sincerely,

A handwritten signature in black ink, appearing to read "D. Williamson", with a long horizontal flourish extending to the right.

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

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2008-2009**

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Table of Contents

Introduction.....	1
History.....	1
Current Status of Alabama’s Births	2
Birth Rate	2
Infant Mortality Rate.....	2
Issues That Need Continued Effort.....	3
Low Birthweight	3
Unintended Pregnancy	3
Teenage Pregnancy	4
Preconceptional and Interconceptional Health Status.....	4
Prenatal Care	4
Substance Abuse	4
Insurance Status	5
Programs Contributing to Improved Perinatal Outcomes.....	6
Alabama Abstinence-Only Education Program (AAEP).....	6
Alabama Children’s Health Insurance Program (CHIP).....	6
Alabama Newborn Screening Program.....	6
“Alabama’s Listening” Universal Newborn Hearing Screening Program.....	7
Breastfeeding Promotion.....	8
Child Death Review	8
Family Planning	9
Healthy Child Care Alabama (HCCA)	9
Pregnancy Risk Assessment Monitoring System (PRAMS)	9
Perinatal Program Activities	10
Assessment of the Maternal/Infant Population	11
FY 2009 Goals	12
FY 2009 Objectives	12
Appendices:	
Appendix A – Alabama Perinatal Healthcare Act (1980)	
Appendix B – Public Health Areas Map	
Appendix C – Perinatal Regions Map	

Introduction

Infant mortality is an indicator used to characterize the health status of communities and states. In 2007 a total of 641 infants died in Alabama before their first birthday. The 2007 infant mortality rate (IMR) increased from 9.0 in 2006 to 10.0 infant deaths per 1,000 live births. The percent of births with adequate prenatal care continued to decrease to an all time low of 72.8 percent, from 75.3 percent in 2006. At the same time, the number of births with no prenatal care increased to 1,496 in 2007, from 1, 246 in 2006. Consequently, Alabama's IMR continues to remain among the highest in the nation. The national 2006 provisional IMR rate was 6.6 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 drug abuse. Low birthweight (LBW) infants accounted for 67.5 percent of the 2007 infant deaths; however, survivability of these small infants has greatly improved in the past decade. In 2007, 17.4 percent of the births in Alabama were premature. A comparison to the national percentage of 12.7 in 2005 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 43.5 percent more likely to have a premature birth than white mothers. The 2007 rate of prematurity for black infants is 22.1 compared to 15.4 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. The 2007 NICU admissions increased to 5,988, compared to 5,492 in 2006.

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 (Appendix B) 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 C). 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 2008, 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 2007 was 13.9 per 1,000 total population, a total of 64,180 births; the 2006 rate was 13.7 (62,915 births); the 2005 rate was 13.2 (60,262 births); the 2004 rate was 13.0 (59,170 births); and the 2003 rate was 13.2 (59,356 births) per 1,000 total population. The 2007 birth rate for white infants was 13.1 (42,986) per 1,000 white population, while the birth rate for the black population was 15.8 (21,194) per 1,000.

Infant Mortality Rate¹

Alabama's 2007 IMR of 10.0 (641) infant deaths per 1,000 live births is an increase from the 2006 rate of 9.0 (569), and an increase when compared to the historical low 2004 rate of 8.7 (516).

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

The highest IMR in 2007 was found in Macon County with a rate of 23.2 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 14.6, the IMR for blacks increased from the 14.3 rate of 2006; however, this is 82.5 percent higher than the rate for white infants. The IMR for white infants, 8.0, increased from the 2006 rate of 6.7.

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 331 of the 641 infant deaths in 2007. 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 (2006 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 13.7 percent of births to teens in 2007 is less than the 13.8 percent in 2006. Live births to teens in Alabama were 13.1 percent in 2005, 14.0 percent in 2004, 13.9 percent in 2003, and 14.6 percent in 2002. Focus on efforts to reduce teen childbearing will only serve to positively impact Alabama's IMR. Of the adolescent births, 44.2 percent (3,877) were to black and other teen mothers, and 75.7 percent (6,641) 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 13.8 per 1,000 live births and lowest for adults at 9.4 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 2007, only 72.8 percent of the births were to women who had adequate prenatal care, an all time low. In addition, there were 1,496 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 2007 Alabama's statistics indicate babies of mothers who smoke are 32.6 percent more likely to die than infants of nonsmoking mothers, with the rate for smokers being 12.6 per 1,000 live births compared to 9.5 for babies of nonsmokers.

The percentage of births to teenage women who used tobacco decreased to 12.7 in 2007, compared to 13.0 in 2006. There was an increase over the year in tobacco use among women aged

20 or more to 11.9 percent from 11.6 percent. In 2007 white teenage mothers were 7.8 times more likely to smoke than black teen mothers. Smoking is associated with low birthweight, 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 2006 data from the Pregnancy Risk Assessment Monitoring System (PRAMS)² survey indicated that 42.0 percent of all new mothers indicated they drank in the three months before pregnancy. In the last three months of pregnancy, only 5.1 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 3,273 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.

In July 2008, the Perinatal Drug Task Force conducted a maternal blind drug study. The study was approved by the Institutional Review Boards of the University of Alabama at Birmingham and ADPH, and by the Alabama Medicaid Agency. The purpose of the study was to ascertain the prevalence of drug use among pregnant women and to raise awareness of the issue. The study population consisted of pregnant women making routine prenatal care visits to 15 participating clinics. Five hundred pregnant women were included anonymously (100 from each perinatal region). Urine samples were tested for marijuana, cocaine, opiates, benzodiazepines, amphetamines, methamphetamines and barbiturates. Results indicated that 13 percent of the women in the study used illicit substances which suggests that this issue must be addressed with pregnant women through assessment, counseling, and referral as needed.

Insurance Status

Uninsured pregnant women are less likely than insured women to receive proper health and preventive care. Poor 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 2007 infants of mothers with no insurance coverage and who did not qualify for Medicaid had the highest infant mortality rate at 18.3 percent per 1,000 live births. Medicaid babies had a rate of 11.0 percent and those whose mothers had private insurance had the lowest infant mortality rate at 7.7 percent. During 2007 Medicaid paid for 48.5 percent of births.

²Obtained from the "PRAMS Surveillance Report" by CHS, ADPH 2006

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. 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 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.

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 covers children whose family income is too high to qualify for Medicaid and is below 200 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 (4.4 percent of children living below 200 percent of the federal poverty level, U.S. Census Bureau, Current Population Survey, 3 year average, 2005-2007), means increased access to health care 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.

ADPH is exploring an option to add coverage for unborn children through a CHIP expansion. This would mean that an uninsured pregnant woman who is not eligible for SOBRA Medicaid, whose child when born would be eligible for Medicaid or CHIP, could receive comprehensive prenatal care. This initiative has great potential for better birth outcomes (see "Prenatal Care," page 4).

Alabama Newborn Screening Program

The Alabama Newborn Screening (NBS) Program is required by state law to test every Alabama newborn for the presence of certain metabolic and other inherited disorders. Early detection and treatment of these disorders may save a young life or provide for a much better quality

and/or length of life. Since Alabama has well over 60,000 births each year, there are at least that many initial NBS tests accomplished every year.

In January 2008, an important milestone occurred. At the time, the State Committee of Public Health (SCPH) rules were amended to make tests for hearing loss and cystic fibrosis required parts of the state's expanded Newborn Screening panel of tests. When this amendment became effective, tests for infant hearing loss changed from a "voluntary" test to one that was required at all Alabama delivery hospitals. At the time of the rule change, cystic fibrosis, a very complicated and challenging test, was not being done in any fashion in Alabama. Through the dedicated work of the Alabama NBS Program, an effective protocol was soon devised and, in April 2008, cystic fibrosis took its place within Alabama's NBS Program.

On December 31, 2008, the NBS Program collected its last umbilical cord blood sample for use in NBS. After that date, all NBS related hemoglobinopathy blood tests are conducted via the use of the same filter paper used in all other NBS blood tests. This will further improve and simplify NBS procedures at the delivery hospitals and in the NBS Lab.

Since January 2007, the Alabama NBS Program has added eight new tests to its expanded panel. This is a very unusual and noteworthy accomplishment and clearly demonstrates the importance Alabama places on NBS. Alabama now tests for 28 of the 29 primary disorders recommended by the American College of Medical Genetics (ACMG) and the March of Dimes. The 29th test was voluntarily removed from the Alabama panel when the national protocol was found to be ineffective. Hopefully, a new protocol will be approved to enable the 29th primary test to be added back to the Alabama panel by the end of the year.

As identified last year, the unsatisfactory NBS blood collection rate continues to be a concern. Through intense training and follow-up the NBS Program has been successful in cutting the state-wide rate in half and, in some cases, has reduced the rate to well below the state goal of <5 percent. A hospital report card has been developed that allows each hospital to track their progress. Through continued intense initial and continuation training plus the use of an effective, visible tracking tool, Alabama's NBS Program intends to reach its goal.

The program has also made significant strides in the area of state-wide education. Through a completely re-worked web site and through new educational brochures, which are available in English and in Spanish, the message about NBS and, specifically Alabama NBS, is being told.

"Alabama's Listening" Universal Newborn Hearing Screening Program

The change in Alabama Newborn Hearing Screening status from "voluntary" to "mandatory" has greatly enhanced the comprehensive system of hearing screening for all newborns in Alabama. As a result of this SCPH mandate, "Alabama's Listening" has revised the guidelines for the program. The new guidelines require participants to follow the principles outlined in the Joint Committee on Infant Hearing (JCIH) 2007 Position Statement. Hospitals are now reviewing procedures and equipment to insure that JCIH requirements are being met. Concurrently, the NBS Program is also reviewing the services provided to ensure that the hospitals in the Alabama system have the right hearing screening equipment to screen all of Alabama's infants. "Alabama's Listening" is also exploring new ways to ensure all infants who do not pass their initial hearing screening are re-screened and diagnosed in a timely manner.

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 has indicated 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.

In January 2008, WIC expanded the Breastfeeding Peer Counseling Program with funding from USDA. Dallas, Lee, Pike and Jefferson Counties were selected as expansion sites. Currently, there are 10 peer counseling sites. The program employs present or former WIC participants who have breastfed their infants for at least six months. The peer counselors provide support to pregnant and postpartum mothers regarding basic breastfeeding information. Research indicates that Breastfeeding Peer Counselor Programs help to increase breastfeeding initiation and duration rates. Alabama WIC breastfeeding rates have consistently increased.

The ADPH and the WIC Program celebrated August as Breastfeeding Awareness Month. The theme chosen this year by the World Alliance for Breastfeeding Action is "Mother Support: Going for the Gold." In conjunction with the Olympics, World Breastfeeding Week 2008 called for greater support for mothers in achieving the gold standard of infant feeding: breastfeeding exclusively for six months and providing appropriate complementary foods with continued breastfeeding. 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.

The State Breastfeeding Coordinator was one of the speakers at breastfeeding workshops that were held in Montgomery and Dothan. Nutritionists and nurses from local hospitals and physicians' offices attended the workshops. The Alabama Lactation Consultant Association (ALCA) held an advanced practice workshop on ethics in August. This one day conference was part of the Annual Perinatal Conference.

Child Death Review

The Alabama Child Death Review System (ACDRS) 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 advocacy groups, including the Children First Trust Fund, Gift of Life, Voices for Alabama's Children and the Alabama Suicide Prevention Task Force. The ACDRS continued to develop public education and awareness strategies to prevent child deaths and injuries, and a new Medicaid-reimbursement agreement now provides additional funding for targeted outreach and education efforts. The innovative Cribs for Kids program and hospital-based Shaken Baby Syndrome Prevention programs piloted by the ACDRS continued to expand in 2008. ACDRS also partnered with the Alabama Department of Forensic Sciences to form the Alabama CDC Sudden Unexplained Infant Death Investigation (SUIDI) Team and prepare a team of trainers to teach the SUIDI curriculum throughout the state in the coming year.

The operational efficiency of ACDRS was also improved in 2008. After experiencing a complete staff turnover, a significant challenge for any program, the ACDRS central office is now fully staffed and actively pursuing program goals. A third statewide training conference, held in July of 2008, was an unqualified success. Training was also conducted on a brand new, web-based data collection system that will be implemented at the beginning of 2009. The year ended with all 28 State CDR Team positions filled.

Family Planning

Direct patient services were provided to approximately 109,000 family planning clients in FY 2008. Plan *first*, a joint venture between the Alabama Medicaid Agency and ADPH, is an 1115 (A) Medicaid Research and Demonstration Waiver expanding Medicaid eligibility for family planning services to women age 19-44 at or below 133 percent of the federal poverty level. The program completed its eighth year of implementation and, because of its overall success, was granted a second three-year renewal. With the renewal as of October 2008, the age for eligibility was expanded to cover women through age 55. Plan *first* services include a psychosocial assessment to determine one's risk for an unplanned pregnancy. Care coordination services were offered by a social worker or a nurse to those who were identified as "high risk" for an unplanned pregnancy. As of September 2008, approximately 67,000 women statewide were enrolled in Plan *first*. Also, ADPH continued the toll-free hotline, receiving 4,795 calls regarding Plan *first*.

Healthy Child Care Alabama (HCCA)

Healthy Child Care Alabama is a collaborative effort between ADPH and the Alabama Department of Human Resources (ADHR). During FY 2008, the Healthy Child Care Alabama (HCCA) Program received funding to continue services provided in 61 counties by ten registered nurse consultants. 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).

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 Centers for Disease Control 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 2008 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 the 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 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. Administrative rules were approved for final adoption by the SCPH in November 2008. The rules provide administrative procedures for review of all fetal and infant deaths and maternal/family interviews. Cases will be reviewed after the rules' effective date of January 21, 2009. 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.

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. More recently the number of live births to Hispanic residents more than doubled over a five-year period, from 2,651 in 2002 to 5,342 in 2007. The rise in Hispanic population is impacting the services being provided to families by the ADPH. Translators, bilingual staff and appropriate written literature are factors that must be addressed. The BFHS continues to assess the ever-changing needs of Alabama's population and develop strategies to address it. In December 2007, the Maternal and Child Epidemiology Branch produced maternal and infant profiles, which are available upon request, for the state and each perinatal region. The branch is currently beginning 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 2009 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 2009 OBJECTIVES

1. Identify factors that contribute to fetal and infant deaths in 2009 by reviewing 50 percent of the records of fetal deaths of 20 weeks gestation or greater and infant deaths 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: 1,496 births with no prenatal care in 2007; 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: 14.6 per 1,000 live births in 2007; source ADPH, Center for Health Statistics).
4. Decrease the incidence of low birthweight births to no more than 9.4 per 1,000 live births (AL & HP Objective, Alabama Baseline: 10.4 per 1,000 live births in 2007; 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: 12.6 percent in 2007; 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: 12.7 percent in 2007; source ADPH, Center for Health Statistics).
7. Decrease pregnancies among adolescents age 10 – 19 to no more than 13.0 per 1,000 live births (AL Objective, Alabama Baseline: 13.7 per 1,000 live births in 2007; 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: 72.8 percent in 2007; 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: 59.7 percent in 2006 source ADPH, Center for Health Statistics).

10. Increase the percent of mothers who initiate breastfeeding to 70 percent (AL Objective, Alabama Baseline: 64.7 in 2006; source ADPH, Center for Health Statistics).

APPENDICES

APPENDIX A

Alabama Perinatal Healthcare Act (1980)

**CHAPTER 12A.
PERINATAL HEALTHCARE.**

Sec.

22-12A-1. Short title.

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

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

22-12A-4. Bureau of maternal and child

Sec.

health to develop priorities, guidelines, etc.

22.12A-5. Bureau to present report to legislative committee; public health funds not to be used.

22.12A-6. Use of funds generally.

§22-12A-1. 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:

(1) 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.

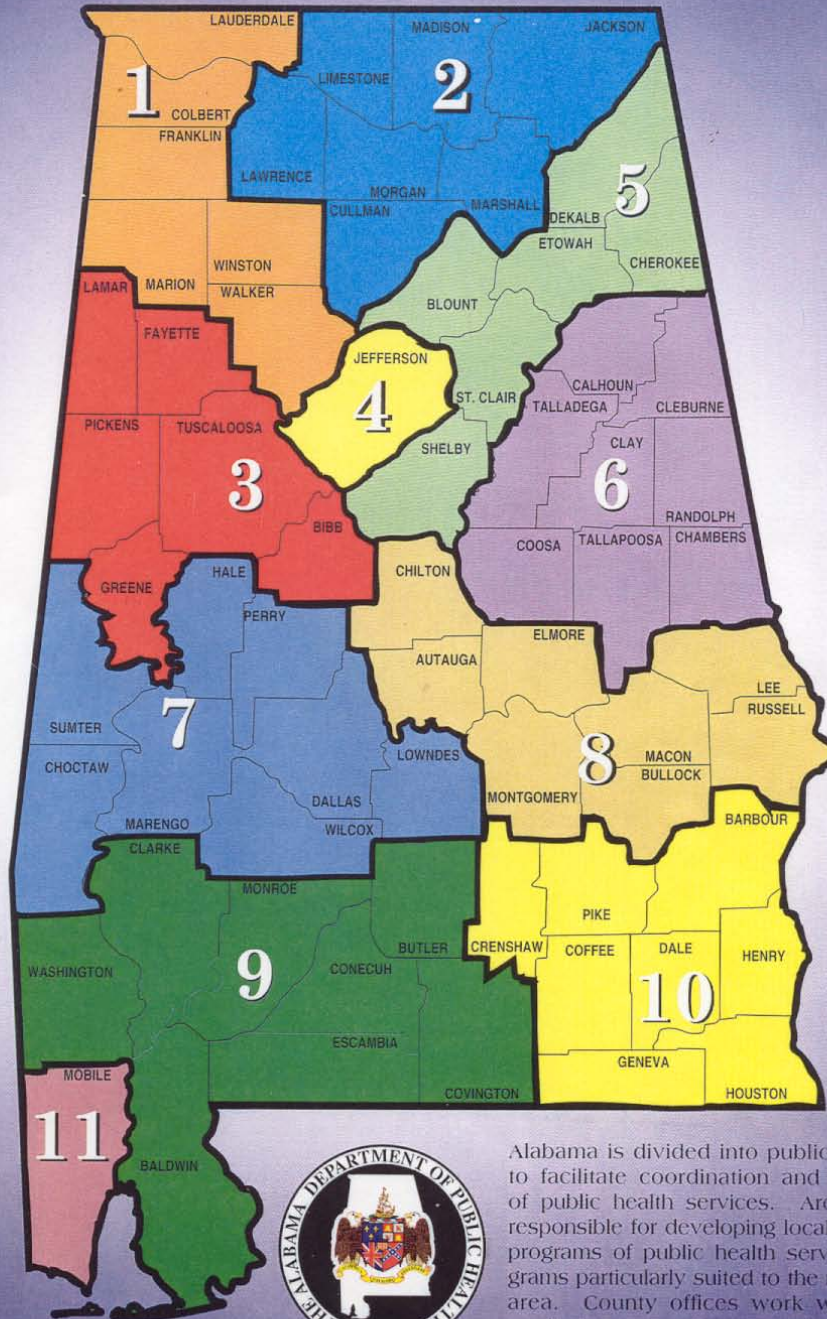
Available funds will be expended in each geographic area based on provisions within the plan developed in accordance with section 22- 12A-3. Funds when available will be used to support medical care and transportation for women and infants at high risk for infant mortality or major handicapping conditions 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

Alabama Public Health Areas Map

Alabama Department of Public Health

Public Health Areas

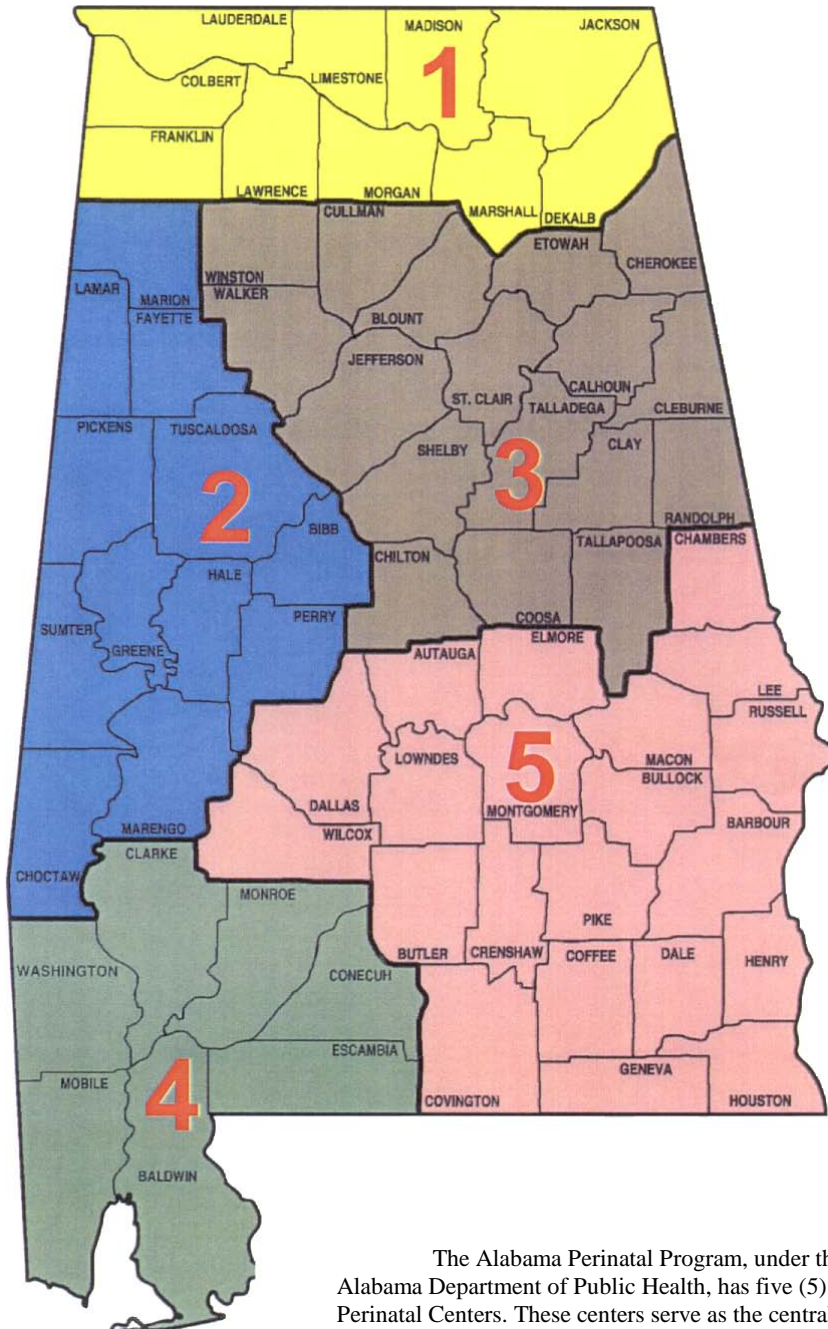


Alabama is divided into public health areas to facilitate coordination and development of public health services. Area offices are responsible for developing local management programs of public health services and programs particularly suited to the needs of each area. County offices work with the local medical community to maximize services.

APPENDIX C

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