Of all the health disparities in the United States, perhaps none causes more long-term challenges than premature birth, which occurs far more frequently among African-Americans and other racial minorities.

An Institute of Medicine (IOM) report, *Preterm Birth: Causes, Consequences, and Prevention*, cites a long list of complications that can accompany premature birth, including respiratory, gastrointestinal, nervous system, hearing, and vision problems. Many premature infants also will bear the long-term consequences of cerebral palsy, developmental disabilities, learning difficulties, and other conditions.

From an economic standpoint, IOM estimates that the annual costs associated with preterm birth in the United States totaled $26.2 billion in 2005. Except for the lifetime medical costs associated with four specific conditions—cerebral palsy, developmental disabilities, vision impairment, and hearing loss—that figure does not include the added lifetime health expenses of those born prematurely.

Consequently, an increasing number of state health officials are targeting infant mortality and premature births as a major part of their health equity efforts. At the Association of State and Territorial Health Officials (ASTHO), President David Lakey, MD, the commissioner of the Texas Department of State Health Services (DSHS), issued his President's Challenge: the Healthy Babies Initiative.

In addition to working with his colleagues in HHS Regions IV and VI to develop a regional quality-improvement project focused on reducing infant mortality and prematurity, Lakey has asked state health officials to implement strategies based on successful national, regional, and state models. ASTHO also is collaborating with the Maternal and Child Health Bureau of HRSA, the Association of Maternal and Child Health Programs, March of Dimes, CDC, and other partners to develop a national strategy to reduce infant mortality and prematurity across the United States.

What are the programs’ essential features? The following case studies on Texas and Louisiana show some of the innovative approaches that states are employing to ensure that more children get the healthy start they need for happy and productive lives.

**Texas: A Champion for Healthy Babies**

As commissioner of the Texas Department of State Health Services, Lakey chose reducing premature births as one of his primary goals—a decision that was informed by his expertise in internal and pediatric medicine and knowledge of preterm birth’s devastating effects. His department then began an energetic campaign to rally a host of collaborators toward the goal of an 8 percent reduction in premature births by 2013.
Responding to Lakey’s challenge in 2010, DSHS staff examined state birth outcomes data, as well as data from CDC, CMS, and other sources on the impact and costs of premature births. Among the findings: Texas’ preterm birth rate in 2009 was 13.6 percent; the national rate was 12.7 percent. Medicaid paid for more than half (55 percent) of all Texas births, totaling more than $2.2 billion per year in birth and delivery-related services. Hospital diagnostic related group (DRG) costs for a healthy infant were estimated at $404, while costs for preterm infants rose dramatically to $63,124.

In addition, data showed significant health disparities. In 2007, the infant mortality rate in Texas among African-Americans was 11.8, more than double the rate for whites. The percentage of infants born preterm was 18.2 percent for African-Americans versus 13.5 percent for Hispanics and 12.5 percent for whites. And just 52.2 percent of African-American expectant mothers began prenatal care in the first trimester of their pregnancy compared to 70.5 percent for whites.

In Search of What Works

In addition to analyzing data, DSHS reviewed best practices for reducing prematurity from models across the country, including a successful program in Kentucky called Healthy Babies are Worth the Wait, a collaboration involving the Kentucky Department of Public Health, the March of Dimes, and Johnson & Johnson. At the same time, DSHS maternal and child health staff were forging collaborations with a wide range of partners, including the March of Dimes, the federal Health Resources and Services Administration, medical societies, hospitals, clinicians, insurance companies, and faith and community leaders. Representatives from many of these groups, including members of the Texas Association of OB-GYNs, the Texas Medical Association, and the Texas Hospital Association, joined DSHS staff in a 40-member expert panel that met for the first time in January 2011. The wide range of partners provides better access to communities at-risk for premature birth.

“We really wanted to reach out to a wide range of pertinent stakeholders and provide them with key data, as well as information on what other states were doing,” says Sam Cooper, director of the DSHS Title V and Family Health Programs office. “We used our own Title V funding to bring this group together, which was no easy task in a state this vast.” Among the expert presenters at the meeting: Mario Drummonds, MSW, director of the Northern Manhattan Perinatal Partnership, and Dr. Rebekah Gee, who heads Louisiana’s new Birth Outcomes Initiative.
“This preliminary work prepared us to go to the legislature with ideas on how we could make a difference if we had their support,” recalls Cooper. “Our proposal was that if we could reduce preterm births by 8 percent over a two-year period, we could save $7.2 million in Medicaid expenditures.”

The legislature responded with $4.1 million in funding over two years for its new Healthy Texas Babies initiative. Among its key goals:

- **Better Communications.** Says Cooper: “There was a realization that we needed a consistent message across all stakeholders for reducing preterm births.” One result was a robust Healthy Texas Babies website that was designed to reach multiple user categories, such as expecting parents, the public, healthcare providers, members of the expert panel, and local coalitions formed to address pressing birth-related concerns. Other communications vehicles included a new “text4baby” messaging service, which sends child development advice to pregnant women and new mothers. Live online seminars also deal with healthcare topics related to the Healthy Texas Babies initiative and offer opportunities for continuing education credits.

- **System change.** Expert panel members identified key ideas and practices that needed to be promoted consistently throughout the healthcare delivery system, such as early access to prenatal care, breastfeeding, and other aspects of postnatal care.

- **Sustainability.** “There was a commitment among members of the expert panel that the issue of premature birth cannot be addressed by any single entity,” says Cooper. “It requires continuing involvement by a broad range of stakeholders.”

“The expert panel in particular is essential to our goal of communicating with everybody that we need to reach,” adds Aisling McGuckin, MSN, MPH, the project manager for Healthy Texas Babies. “When we put out messages, newsletters, and web links, these stakeholders in turn are passing that information along to their organizations.”

**From Ideas to Action**

DSHS staff and expert panel members have charted the initiative’s work plan. In June 2011, three work groups made specific recommendations for adoption. Those recommendations were:

- Plan for development of a statewide maternal mortality review committee.
- Develop an online continuing education module on the importance of the 39-week pregnancy standard.
• Form a mortality review committee for the state.
• Develop protocols for transferring high-risk mothers between medical facilities.
• Create a baby’s first-year tool kit for new parents.
• Prepare new educational materials on reproductive life planning and preconception care.
• Develop/acquire new resources to encourage fathers to become more involved in perinatal health.
• Establish a Healthy Texas Babies hospital designation, which would recognize a hospital’s adherence to model birth and delivery criteria, such as protocols to reduce birth trauma and rates of Caesarean section.

Cooper says that more than half of the $4.1 million allocated for Healthy Texas Babies goes to support 11 targeted programs designed by local coalitions. These coalitions revolve around a government entity, such as county or state university, but include such diverse stakeholders as community and faith groups, hospitals, clinicians, and businesses. To cite just a few examples of coalition programs:

• The Tarrant County Infant Mortality Network is implementing “Young Dads,” an evidence-based program that targets African-American adolescent fathers to encourage competent and responsible fatherhood.
• Dallas Healthy Start through Parkland Hospital is developing a board to review cases of fetal and infant mortality and to do outreach work in the community to educate and sensitize the public on infant mortality prevention.
• Healthy Family Network of Greater San Antonio and Bexar County is launching an “Interconception Health Promotion Initiative,” which employs a nurse and social-worker for home visits to women with history of previous preterm birth.
• The Nueces County Preconception & Interconception Health Program screens Hispanic women of childbearing age who have diabetic conditions at preconception and refers them to care.

McGuckin explains that the coalitions have been chosen from 23 counties that have shown the worst birth outcomes and the highest rates of Medicaid births. “We gave the coalitions a menu of possible interventions, as well as our analysis of the most critical problems in their areas, whether it is maternal health, preconception needs, or other issues.” Serving these high-need communities will address and reduce the health disparities in these areas.
How will DSHS know if all these efforts are yielding the desired results? “The key metric that we must demonstrate to the legislature is whether we can achieve the targeted Medicaid savings and whether we can tie the work we’ve done to that,” says Cooper.

At the same time, the Texas legislature has added cost control measures of its own on premature birth. It directed the Texas Health and Human Services Commission to develop quality initiatives and implement cost-cutting measures to reduce the number of elective or nonmedically-indicated induced deliveries. Providers billing Medicaid for labor and delivery must now include a modifier on claims to indicate whether deliveries were nonmedically-indicated and less than 39 weeks, medically-indicated and less than 39 weeks, or greater than 39 weeks. Bills without a modifier and those not medically-indicated will be denied payment. Those that were medically-indicated but took place at fewer than 39 weeks may be audited by the Texas Office of the Inspector General.

Meanwhile, DSHS staff involved with the Healthy Texas Babies initiative will be monitoring the performance of the local coalitions and internal efforts, such as how effectively the communications program raises awareness through the website, online webinars, and expert panel network. “While it’s too soon to report hard data on our progress, we are closely watching how well our activities are being received,” says Cooper.

Louisiana: An Investment in the Future

Louisiana is determined to change its record on preterm birth and infant mortality. In 2011, March of Dimes gave Louisiana an “F” based on the state’s premature birth record. According to the National Center for Health Statistics, the state ranks 48th in the nation for infant mortality and preterm birth and 49th in low- or very-low birth weight babies.

Since then, the Louisiana Department of Health and Hospitals (DHH) has stepped up efforts to improve its infant and maternal health. In 2010, it launched the Birth Outcomes Initiative (BOI), an ambitious project that mobilizes a wide range of partners, including professional associations, hospitals, universities, and community leaders. Then in 2012, Louisiana became one of the first states to accept the March of Dimes and ASTHO’s challenge to reduce the state’s prematurity rate 8 percent by 2014.

“There’s nothing more important for a state than its future generations and a high rate of premature births has a real impact in terms of educational attainment, learning disabilities, even heart disease and violent crime,” says Rebekah Gee, MD, MPH, who directs the BOI effort. “The mantra of public health is
‘prevention is better than treatment’ and if we can prevent prematurity, society is going to be better off in the long run.”

Gee adds that improving birth outcomes will also significantly advance health equity in the state. The infant mortality and prematurity rates among African-American women in Louisiana are more than double that of whites in some parts of the state. Birth outcomes are particularly dire in the northern part of Louisiana.

The costs to the state of failing to improve the issue are also staggering. Louisiana’s high prematurity rates result in staggering hospital costs for premature infants averaging $33,000 versus a national average of $4,000 for newborns delivered at term. With approximately 7,000 premature births in Louisiana covered each year by the Medicaid program, the excess costs to the state exceed $200 million annually.

Facing those costs and with a modest $1 million in state general funds, the BOI seeks to:

- Create a culture of continuous quality improvement and safety in birthing hospitals.
- Bolster DHH data capacity and performance measurement of maternity care and increase accountability for clinical outcomes.
- Assess and improve the behavioral health of Louisiana’s pregnant women.
- Improve preconception and interconception care coordination to improve women’s health.

**Focus on Collaboration**

The BOI team began preliminary work in the summer of 2010 by reviewing successful models employed throughout the country to reduce premature births and infant mortality. It also began consulting with 80 key quality and measurement stakeholders, who formed action teams focusing on five priorities: care coordination, data and measurement, patient safety and quality, health disparities, and behavioral health. For example, members of the Governor’s Perinatal Commission, which continues to advise BOI, serve on these teams.

Michelle Alletto, deputy director of BOI, notes that this stakeholder process involved strong partnerships with many organizations, such as the Louisiana Hospital Association, the state chapter of the American College of Obstetricians and Gynecologists, and March of Dimes. Universities, most notably Louisiana State University and Tulane University, also provided clinical expertise and shared
their community connections. DHH Secretary Bruce Greenstein and Assistant Secretary J.T. Lane, who heads the Office of Public Health, serve as key BOI champions and help build vital public-private partnerships.

“Secretary Greenstein made it clear that plenty of time had been spent studying the problem,” recalls Alletto. “And now was the time for action.”

In November 2010, the BOI action teams convened to discuss program strategies. Among them were the BOI team’s recommendations based on its review of evidence-based programs and maternity care models from such respected organizations as the New York-based Childbirth Connection.

In April 2011, based on strong input from the stakeholder groups, BOI finalized its strategic plan. Among major components now being implemented:

39-Week Initiative: To achieve greater patient safety, hospitals must implement evidence-based best practices. One of the most essential is ending medically unnecessary deliveries prior to 39 weeks. In July 2011, Secretary Greenstein asked all delivering hospitals to end these deliveries. Through the Institute of Healthcare Improvement, BOI created a perinatal quality collaborative that engages the state’s leading maternity care hospitals to improve labor, delivery, and neonatal intensive care unit quality.

Participating hospitals have also received a toolkit that includes:

- A step-by-step guide to assist hospital leaders with implementation efforts.
- A guide for measuring and tracking quality improvement (QI) effectiveness over time.
- Educational tools for clinicians and staff about early elective delivery’s consequences.
- Information for patients about the importance of the last weeks of pregnancy.
- Sample forms, hospital case studies, and QI implementation methodologies.

This collaborative, which began in July 2011 with 15 major maternity hospitals, will expand to include more hospitals in its second year.

Birth Score Cards. The birth score cards’ purpose is for the state, hospitals, and providers to establish transparent performance measurement systems that demonstrate whether their new birth outcomes efforts are successful. The state is creating a special web portal that will include data on birth outcomes and other important metrics. One important metric that the portal will eventually include is the recently added 39-week elective delivery measure, which has been captured in Louisiana’s electronic birth
certificate since March 2012. Perhaps as early as mid-2013, the state will release an annual perinatal report card to the public. If so, families will be able to go online and compare birth outcomes data on a hospital-by-hospital basis. Better data collection will also help physicians who deal with high-risk patients.

In this effort, BOI worked closely with obstetrician Elliott Main, medical director of the California Maternal Quality Care Collaborative and one of the pioneers in perinatal quality measurement. “This is a very complex area and DHH is putting a lot of investment and energy into how to get better data and measurement with the aim of enhancing our ability to manage perinatal quality, state programs, and population health,” says Alletto.

**Behavioral Health Screening.** As part of the state’s Medicaid managed care reform, providers will be reimbursed for performing behavioral health screening and brief intervention counseling for pregnant woman supported by Medicaid. DHH has developed an online submission mechanism for the screening tool. This will allow DHH to collect better data on behavioral health needs of pregnant women on Medicaid and track behavioral health outcomes. The Office of Public Health is also assisting with medical and nonmedical community outreach on the tool and referral mechanisms.

**Interconception Care:** Finally, BOI seeks to improve preconception and interconception health for women who are at high risk for poor birth outcomes. BOI is launching an interconception care program in the greater New Orleans area. The Greater New Orleans Community Health Connection Section 1115 Research and Demonstration Waiver preserves primary and behavioral healthcare access to the uninsured that was restored and expanded in the Greater New Orleans area after Hurricane Katrina with the primary care access and stabilization grant (PCASG) that HHS awarded the state. The Interpregnancy Care Program (IPC) is a component of the waiver and will provide enhanced case management through healthy start caseworkers to women who have previously delivered a premature, stillbirth, or low-birth-weight infant.

Although it is too soon to assess the overall impact of these BOI components, hospitals in Louisiana have already reported marked reduction in neonatal ICU admissions as a result of the 39-week initiative.

DHH hopes to replicate the BOI experience. “The BOI effort can serve as a clear model for future public health initiatives in other critical areas, such as obesity and smoking, both from the careful stakeholder process and the success in building public-private partnerships,” says DHH Assistant Secretary Lane. “We know when we lead with a focused agenda through collaboration and stakeholder input, we can make
significant progress.”

You can learn more about the targeted health equity initiatives in states profiled in these case studies by consulting these sources:

ASTHO President’s Challenge: The Healthy Babies Project
http://www.astho.org/t/pres_chal.aspx?id=6484

Healthy Babies Initiative Case Studies
http://www.astho.org/t/list.aspx?id=6904

Texas Department of State Health Services (DSHS)
http://www.dshs.state.tx.us/

Texas Health and Human Services Commission
http://www.hhsc.state.tx.us/

Healthy Texas Babies Initiative
http://www.dshs.state.tx.us/HealthyTexasBabies/

Louisiana Department of Health and Hospitals (DHH)
http://new.dhh.louisiana.gov/

Louisiana DHH Center for Community and Preventive Health (Maternal & Child Health)
http://new.dhh.louisiana.gov/index.cfm/page/936

Louisiana DHH Birth Outcomes Initiative

March of Dimes Premature Births Report Card

Childbirth Connection
http://www.childbirthconnection.org/
Texas and Louisiana: Healthy Start for More Infants

California Maternal Quality Care Collaborative
http://www.cmqcc.org/