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POSITIVE BIRTH OUTCOMES FOR LOUISIANA FAMILIES

Photo by Sura Nualpradid

Louisiana Family Impact Seminar 2011

Conducted by:

CPPC

Louisiana Child Poverty Prevention Council

Sponsored by:

The W.K. Kellogg Foundation

LSU SCHOOL OF SOCIAL WORK

CONTENTS

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EXECUTIVE SUMMARY

This policy brief highlights the 2011 Family Impact Seminar, "Positive Birth Outcomes for Louisiana Families," held in Baton Rouge, Louisiana on March 3, 2011. The Seminar was sponsored by the W.K. Kellogg Foundation and the LSU School of Social Work and was conducted for the benefit of Louisiana Legislators and state policy makers, by the Louisiana Child Poverty Prevention Council. The seminar was held to promote awareness and initiate change regarding Louisiana's high rate of infant mortality, preterm birth, low birth rates and errors made by healthcare professionals.

Dr. Michael Lu, a nationally renowned expert in child and maternal health from the University of California in Los Angeles, discussed the importance of improving preconception health and women's healthcare in Louisiana. Dr. Lu presented an extraordinary picture of the effects of perinatal stress, smoking and obesity as they play an important role in determining the outcome of births in Louisiana.

Other featured speakers for the Seminar included Bruce Greenstein, Secretary of the Louisiana Department of Health and Hospitals; Knesha Rose, Director of Program Services for the Louisiana March of Dimes; Dr. Rodney Wise, Medicaid Medical Director for the Louisiana Department of Health and Hospitals; and Dr. Rebekah Gee, Director of the Louisiana Department of Health and Hospitals' Birth Outcomes Initiative. This policy brief summarizes presentations made by featured speakers and provides a thorough literature review of the benefits of investment in preconception health, prenatal health and women's health in Louisiana.

ACKNOWLEDGEMENTS

The Louisiana Child Poverty Prevention Council gratefully acknowledges the contributions of the following individuals:

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FAMILY IMPACT SEMINAR, FEATURED SPEAKERS AND FACILITATORS

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Michael C. Lu, M.D., MPH, Associate Professor of Obstetrics and Gynecology, David Geffen School of Medicine at the University of California, Los Angeles, and Department of Community Health Services, UCLA School of Public Health

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POSITIVE BIRTH OUTCOMES FOR LOUISIANA FAMILIES

CHALLENGES FACING LOUISIANA

Despite the high rankings for the percentage of women receiving prenatal care, Louisiana continues to rank poorly for its various birth-outcome measures. There are many challenges facing the state such as high rates of caesarian sections, poor prenatal nutrition, high obesity rates, substance abuse, and collection of accurate data to measure outcomes.

Higher Rate of Caesarian Sections Challenge

Louisiana's Medicaid Dollars used to pay for full term, vaginally delivered babies	**$4,000**
Louisiana's Medicaid Dollars used to pay for premature babies, primarily due to caesarian sections, NICU visits, and unnecessary elective inductions	**$33,000**

In Louisiana, there are 4.1 percent more cesarean sections performed than the national average. This vast financial disparity (shown above) greatly impacts the Louisiana budget because almost 70 percent of Louisiana's births are financed by Medicaid. This is the highest percentage of Medicaid financed births in the nation. The LaMOMS program will pay for pregnancy-related services, delivery and care up to 60 days after the pregnancy ends for pregnant women with incomes up to 200 percent of the Federal Poverty Level.

An elective induction uses drugs to artificially induce labor rather than waiting for labor to begin naturally. When labor is induced before 39 weeks gestation the baby is two to three times more likely to be admitted to NICU. The baby may have undeveloped lungs and breathing problems, and/or the baby may have problems maintaining body temperature. Any of these problems may cost the state additional dollars.

Data Challenges

Improving both data collection methods and statewide data sharing could be beneficial to mothers, babies and the financial status of the state. Currently, Louisiana depends on an inefficient vital records system that delays birth outcome statistics reporting by three years.

Also, hospitals are not required to report on many of the metrics by which we can reliably measure cost and quality.

Other Challenges

Overwhelming evidence points to negligence and lack of accountability by the health care system for additional costs to the state. A study by McGlynn and colleagues found recommended care guidelines were used less than 55 percent of the time by health care professionals. Failure to follow established recommendations added to the growing cost for healthcare due to patients being forced to return for services because they were not treated properly the first time. Annually, preventable medical errors cost United States taxpayers an additional $17-29 billion.

Obesity causes numerous complications in pregnancy for both mother and child. Obesity is a major issue in the state. In 2009, nationally 24.4 percent of women 18 – 44 were obese compared to Louisiana where 31.5 percent of women the same age were obese.

According to the March of Dimes, 22.1 percent of women in Louisiana (18 – 44) reported smoking compared to 19.6 percent nationwide. Some of the risk factors linked to smoking during pregnancy included: poverty, poor academic achievement, lack of social support, and mental illness. Smoking during pregnancy contributes to low-birth weight infants and increases the risk of premature delivery.

Alcohol use during pregnancy has been associated with different types of debilitating birth defects, learning disabilities, and psychomotor delays.

Children exposed to substances during pregnancy are at a higher risk of cognitive, behavioral, and emotional developmental delays. According to the March of Dimes, 13 percent of women (18 – 44) reported binge drinking in the past month.

Maternal depression also increases the risk for preterm births. According to the National Scientific Council on the Developing Child, children who experience maternal depression early in life may suffer lasting effects on their brain architecture and persistent disruptions of their stress response.

Louisiana Rankings

Indicator	Louisiana	US	Rank	Other
Infant mortality rate	6.69	9.92	49	HP 2010 ≤ 4.5 per 1,000
Infant mortality rate – African American	13.29	15.82	29 of 35	Not all states report these data
Infant mortality rate - Caucasian	5.56	6.21	39	HI does not report
Pre-term birth	12.8	16.4	47	HP 2010 ≤ 7.6%
Low birth-weight	8.3	11.4	49	HP 2010 ≤ 5.0%
Very low birth-weight	1.5	2.1	49	HP 2010 ≤ 0.9%
First trimester prenatal care entry	87		4 of 32	HP 2010 > 90%
Teen birth rate (15 – 19)	53.9	40		
Teen birth rate (15 – 17)	28.2	42		
Teen birth rate (18 – 19)	90.8	37		

R. GEE/LOUISIANA VITAL STATISTICS

STEPS TAKEN BY OTHER STATES TO ENSURE POSITIVE BIRTH OUTCOMES

Ascension Health, St. Louis, Missouri

Beginning in 2004 Ascension Health, the largest non-profit healthcare system in the United States, undertook an effort to eliminate preventable birth trauma in their hospital system, with a goal of reaching zero preventable injuries and deaths by July of 2008.

A change package of clinical processes that exhibit best practices was initiated by the participating hospitals. A goal was set to eliminate all elective inductions prior to 39 weeks gestation without medical indication, and to ensure assistive surgical devices such as forceps and vacuum extractors were used only according to guidelines set forth by

the American College of Obstetrics and Gynecology.

Communication was also identified as an issue, and a tool called SBAR (Situation, Background, Assessment, and Recommendation) was tailored for use in the labor and delivery arena.

Through these efforts, one facility reduced the incidence of birth trauma by 85 percent; another had zero birth traumas for 18 months through June 2006, two years prior to their goal.

Developing Families Birth Center, Washington DC

DFBC was founded in 2000 with a goal to decrease infant mortality in a region where rates were two times higher than the national average (Phuong, 2007). The center provides education and social services to the underserved. The result was to empower women to better care for themselves and their families, saving the DC region millions of dollars by keeping babies out of prenatal care.

The center provides health and social support services to young women and their families in the city's low-income neighborhoods. It houses three separate but collaborative programs – a birth center which offers maternity, well woman and pediatric care; a community based organization which offers Healthy Babies Project, Teen Empowerment, Home Visitation, Developing Dad's and Effective Black Parenting; and a child development organization which provides daycare for 48 children (six weeks through three years).

The Magnolia Project, Jacksonville, Florida

The mission of the Magnolia Project is to improve the health and well-being of women during their childbearing years by empowering communities to address medical, behavioral, cultural, and social service needs. The program is a federal Healthy Start program created to improve poor birth outcomes from low-income areas by providing women with heathcare coordination, education and support.

An evaluation of this program in 2007 revealed birth outcomes improved, as had repeat STD rates. The promotion of these types of programs is essential for the healthy development of children and the strengthening of families and communities. The health care system would realize significant savings from these programs.

Framework for Action to Eliminate Racial and Ethnic Disparities in Birth Outcomes, Wisconsin

The framework for action to eliminate racial and ethnic disparities in birth outcomes is a five year plan that develops strategies to address goals such as quality improvement, data monitoring, communication and outreach, and community and evidence-based practices (Wisconsin Division of Public Health, 2007).

Highlights of the plan include the creation of a website in order to share information and best practices, as well as the development of a smoking cessation program for women of color.

Life Course Initiative for Healthy Families, Wisconsin

A $10 million initiative launched in response to disparity outcomes in white and black births across Wisconsin was awarded to agencies in various cities to reduce African American health disparities with a goal to improve birth outcomes for all races. Funding was made available for two phases of the program: a community action planning phase and an implementation and evaluation phase.

The Life Course Model proposes a combination of biological, behavioral, psychological, and social factors, both protective and risk, impact health outcomes over the course of a women's life, especially in the area of healthy birth outcomes (Lu & Halfon, 2003).

Based on this model, the Initiative has implemented a 12-Point Plan to close the black-white gap in birth outcomes (Lu et al., 2009). The plan emphasizes improving healthcare services for at-risk populations, including communities of color and low-income families, strengthening families and communities, and addressing social and economic inequities.

LONG-TERM BENEFITS OF INVESTING IN WOMEN'S HEALTH

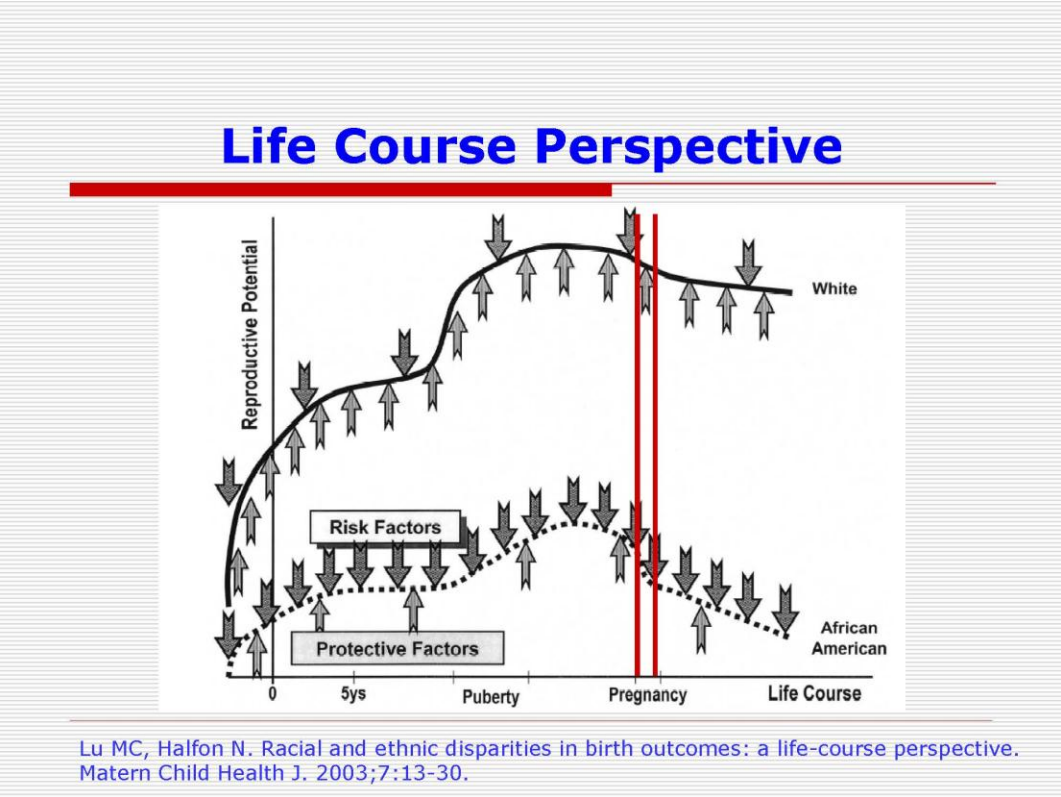
MICHAEL C. LU, MD, MPH

The current United States maternal and child health system underperforms against other developed nations on most standard measures. For example, among the 30 developed nations which make up the Organization for Economic Cooperation and Development (OECD), the United States ranks 25th in maternal mortality, and 22nd in infant mortality.

These international comparisons are often dismissed with the rationalization that our nation is more ethnically heterogeneous than nations at the top of the rankings, but even when the comparisons are limited to white women, we still place near the bottom of the rankings.

But the statistics on maternal mortality or infant mortality do not tell the whole story of maternal and child health in America. Behind the numbers, there are large and persistent gaps in the health status among American women of different racial-ethnic and socioeconomic groups. A black woman in America today is about four times as likely to die from pregnancy-related causes as a white woman, and a black baby born in America today is more than twice as likely to die within the first year of life as a white baby.

The life course perspective is a way of looking at life not as disconnected stages, but as an integrated continuum. It is a conceptual framework, some people might even call it a paradigm shift, which recognizes each stage of life is influenced by the stages that precede it, and it in turn influences the life stages that follow it.



For decades we have searched for maternal risk factors during pregnancy rather than looking at the mothers' cumulative life course experiences. The danger of focusing solely on risk factors during pregnancy is not only that it doesn't adequately explain the disparities, but more importantly it can misguide public health programs and policies. For two decades we thought if we could get women universal access to good quality prenatal care, then we can do something about reducing infant mortality and racial disparities in this country.

Many of us recognize now, that to expect prenatal care in less than nine months to reverse all the cumulative disadvantages and inequities over the life course of the woman, may be expecting too much of prenatal care. If we are serious about improving birth outcomes and reducing disparities, we have to start taking care of women and families not only during pregnancy, but before and between pregnancies and indeed, across their entire life course.

EARLY PROGRAMMING

Much of this originates from the work by David Barker and colleagues. Through a remarkable series of studies, Barker and his colleagues were able to show an association between low birth weight and coronary heart disease, hypertension, and diabetes later in life.

Now when we think of the risk factors for heart disease, we think of smoking and high blood pressure and cholesterol and obesity and so forth, but low birth weight? What does low birth weight have to do with heart disease forty to fifty years later in life?

Barker and his colleagues hypothesized there are critical periods in development during which the functions of an organ or system are being programmed, and if something goes wrong with fetal programming that organ or system may never function optimally over the entire life course. For example, if you were undernourished inside the womb, especially in the second trimester when your pancreas was developing, you end up with a smaller pancreas than the average adult, and a smaller pancreas might not be able to handle a sugar load as well, leading to increased susceptibility for the development of diabetes mellitus.

The Barker Hypothesis was met with a great deal of skepticism initially, but over the past decade a growing body of evidence from animal and epidemiological studies now support this whole idea of early programming.

Two areas in the fetal brain are particularly vulnerable to the neurotoxic effects of glucocorticoids *(stress hormones)*: the hippocampus and the amygdala. The hippocampus is a site of learning and memory formation; rat pups that are exposed to prenatal stress have a tougher time learning new tasks. The amygdala mediates anxiety and fear, and prenatally stressed rats showed more anxiety and fear in aversive situations.

More importantly, the hippocampus and the amygdala regulate the hypothalamic-pituitary-adrenal axis, which mediates our fight or flight response. Think of the hippocampus as a brake pedal on the hypothalamic-pituitary-adrenal axis (it brakes the HPA axis), and think of amygdala as the accelerator pedal (it accentuates the action of the HPA axis). Prenatal stress increases the release of glucocorticoids *(stress hormone)* from fetal adrenal glands, which can downregulate glucocorticoid receptors in the hippocampus, and at the same

time upregulate glucocorticoid receptors in the amygdala. So you are making the brake pedal less sensitive to negative feedback, and making the accelerator pedal more sensitive to positive feedback. What do you get? You end up with a fetus with a hyper-reactive HPA axis.

What is fascinating about all this fetal programming business is this phenomenon called epigenetics. Epigenetics is basically volume control for genes. You can turn up or down, or switch on or off gene expressions based on your prenatal exposures. And you can do that simply by putting a chemical group – in this case it's a simple methyl group – CH3 with one carbon and three hydrogen atoms – if you put a methyl group right in front of the DNA, which blocks the gene from ever being expressed. If you take away that methyl group, then the gene is allowed to freely express itself. Generally speaking, methylation turns off or silences gene expression, whereas de-methylation turns on gene expression.

Prenatal stress can determine the amount of glucocorticoid receptors that get expressed inside the brain simply by methylating or demethylating the DNA. This is fascinating because you can now have two people with the exact same genetic code, but they can have very different output of stress hormones depending on whether the genes are turned on or off, which has to do with whether or not their DNA is methylated or demethylated, which has to do with whether or not their moms were stressed out during pregnancy, attesting to the important and potentially lifelong impact of maternal stress during pregnancy on children's health and development.

Another example of epigenetics: What do the mice in the previous picture have in common, and how are they different? Obviously, some are brown and some are yellow. But would you guess that they have the identical gene that controls their coat color.

It turns out the brown mice were born to mothers who were fed a diet high in folic acid which is a methyl donor, and the gene that naturally expresses yellow fur is methylated or silenced so they were born brown instead. More importantly, they are also less susceptible to obesity, diabetes, and cancer compared to the yellow mice. So despite having the same gene as the yellow mice, the brown mice had different color and less obesity, diabetes, and cancer simply because their mothers ate a folate-rich diet during pregnancy. This is one of the first and best studies to show that early nutrition can influence DNA methylation, and that such epigenetic changes can have lifelong and even intergenerational impact on disease risk.

There is an epidemic of childhood obesity in the United States. Over the past three decades, the rate of obesity has doubled for Caucasian children and tripled for African American children. Research done by Dr. Lu and his students found a

link between childhood obesity and maternal diabetes, smoking, and poor nutrition.

The mechanisms are being mapped out in animal models. Maternal diabetes, especially if poorly controlled, leads to overproduction of insulin by the fetus. This fetal hyperinsulinemia leads to overgrowth of fat cells in the body and overproduction of leptin, resulting in downregulation of leptin receptors in the brain and the pancreas. Normally leptin tells your brain to stop eating. If you get leptin resistance in the brain you are going to keep eating. Normally leptin tells your pancreas to stop producing insulin. If you get leptin resistance in the pancreas you are going to keep producing excess insulin and laying down more fat cells. So before the child was ever born, she is already predisposed for a lifelong struggle with overweight and obesity due to relative insulin, leptin, and glucocorticoid resistance that was programmed in utero. Then add on top of that a fast food nation that supersizes everything, this may be partially what is driving this whole epidemic of childhood obesity and early onset type II diabetes in our nation.

If we want to prevent overweight children and obesity, what do we have to do? We probably have to do more than just talk about school lunches and physical activities. Not that those are unimportant. But by the time a baby is born, you've lost half of the battle already. So if we want to stem the tide of childhood obesity in our country, we have to start much earlier, beginning with prenatal care or, better yet, with preconception care by helping women achieve better glycemic control, better nutrition and quit smoking before they get pregnant.

Cumulative Pathways Model

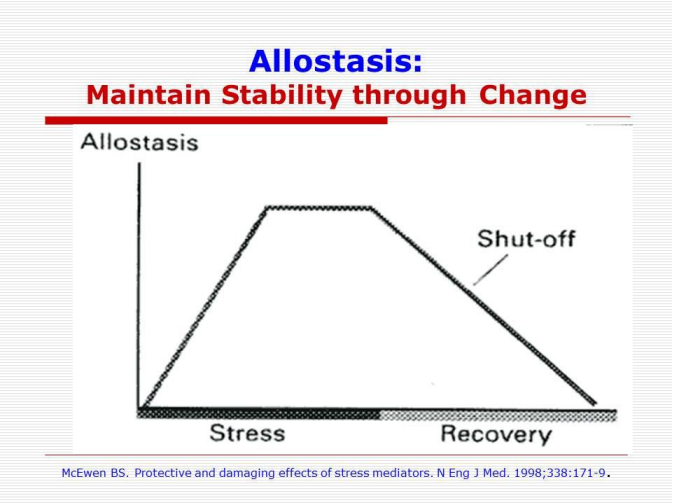
The second component of the life-course perspective is the cumulative pathways model, which posits that chronic stress creates wear and tear on your body's adaptive systems, leading to decline in health and function over time.

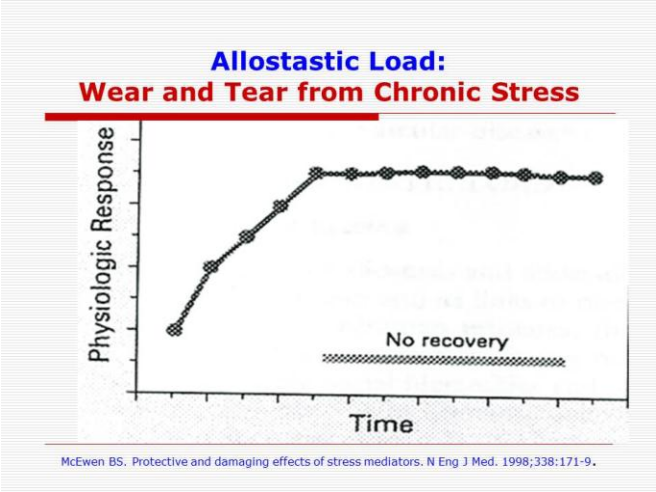
Let's take the example of stress again. This time mom doesn't have to be stressed out during pregnancy, but rather it's the chronic stress and strain, the daily wear and tear that women experience that cause them to have higher stress reactivity.

How does this happen? What happens when you are stressed? What happens when you see a saber tooth tiger? You run! Your body activates the fight-or-flight response - the hypothalamic-pituitary-adrenal system and the sympatho-adrenal-medullary system react to put out more stress hormones - CRH, ACTH, cortisol and catecholamines - to help you run faster.

But what happens after you got away? Your heart rate slows down, your blood pressure comes down, and your body calms down. The amazing thing about the human body is that it is self-regulating; it knows to shut itself off once the stressor has been removed. This is called allostasis – maintaining stability through change.

Allostasis works by a negative feedback mechanism, which is found common to many biological systems. It works very much like a thermostat. When the temperature falls below a preset point, it turns on the heat. Once the temperature reaches that preset point, the heat is turned off. In the stress response, the HPA axis produces cortisol. Cortisol, in turn, feeds back to the brain to shut off the HPA axis.





What happens when there is nowhere to run? In the face of repeated or chronic stress, the body loses the ability for self-regulation so you can turn it on, but you can't shut it off. Biologically speaking, tonically elevated levels of cortisol start to downregulate the glucocorticoid receptors in the brain leading to the loss of negative feedback. So we find in animals and humans who are chronically stressed that they walk around with higher circulating levels of stress hormones, and if they were to be exposed to some natural or experimental stressors, they put out much more CRH and cortisol that could increase their vulnerability to preterm labor during pregnancy.

What does stress do to your immune system? In general stress depresses the immune system. This may explain why women who are chronically stressed are more susceptible to infections like bacterial vaginosis, which could increase their risk for preterm labor during pregnancy.

It turns out this is only half the story. In the face of an infection, your body activates the immune system to fight off the infection. But as soon as the battle is being won, the body starts to shut off the immune response to avoid a potentially damaging inflammatory overshoot. This occurs largely through activation of the hypothalamic-pituitary-adrenal axis by inflammatory cytokines. Again, the amazing thing about the body is that it is self-regulating.

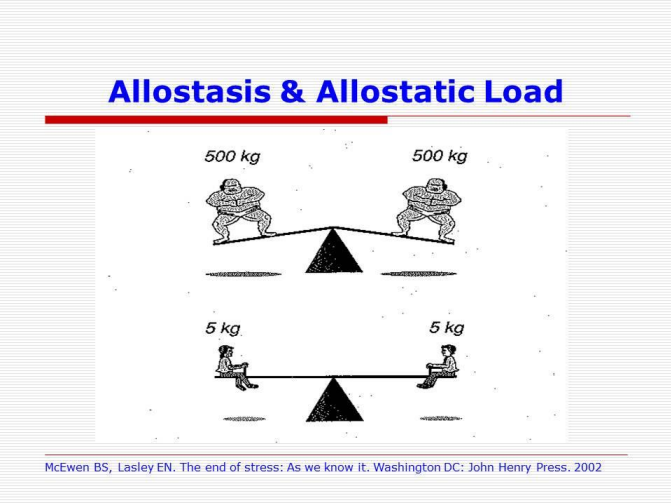
This is when you go from being stressed to being stressed out. When you are stressed, your body activates a sympathetic response which leads to increased cardiac output. When you are stressed out, you can't shut off the sympathetic response which in the long run leads to hypertension and cardiovascular diseases.

When you are stressed, your body activates the HPA axis to produce cortisol which increases blood glucose as fuel. When you are stressed out, your body can't shut off the HPA axis which in the long run leads to glucose intolerance and insulin resistance.

When you are stressed your immune functions are actually enhanced, but when you are stressed out

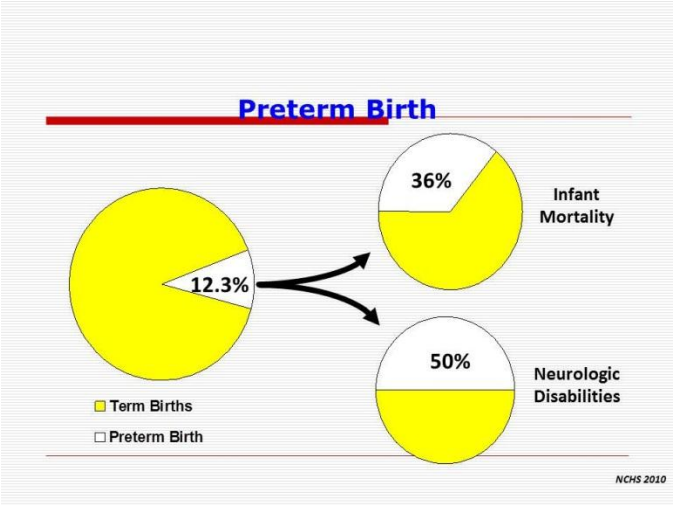
you become more susceptible to infection and inflammation.

When you are stressed, your hippocampus and prefrontal cortex actually grow in size. These are learning centers inside your brain that help you learn from your mistakes. But when you are stressed out, these neurons don't grow; they atrophy and die. So acute stress helps you learn; that's why we keep such vivid memories of a stressful event like when Kennedy was shot or 9/11. But chronic stress makes you forget and you start to lose your memory under chronic stress.



Bruce McEwen uses the above diagram to illustrate allostatic load. The lower image is an image of allostasis – maintaining stability through change. The upper image is one of allostatic load – if you put two 500 kilogram sumo wrestlers on a seesaw what is going to happen? It is going to break. And what would happen if you were to enter pregnancy carrying two 500 kilogram sumo wrestlers on your back? You will not have a healthy pregnancy or optimal fetal programming.

Preterm birth is a leading cause of infant mortality and childhood disabilities in this country. The 12 percent of preterm babies born each year account for about 75 percent of all perinatal mortality and half of all neurological disabilities in children.



An African American baby born today is twice as likely to die within the first year of life than a white baby and nearly twice as likely to be born premature, and three times as likely to be born very premature (prior to 32 weeks). We used to think the preterm birth is the result of some precipitating event like stress or infection occurring around time of the onset of labor. We now think the origin of preterm birth occurs much earlier, and the vulnerability to preterm delivery may be traced not only to exposure to stress and infection during pregnancy, but host response to stress and infection (e.g. stress reactivity and inflammatory dysregulation) patterned over the life course (early programming and cumulative allostatic load).

This is why prenatal care may be too little too late. By the time a woman starts prenatal care, there may be little her doctor can do to quickly get those 500 kilogram sumo wrestlers off her back. If we want to do something about preventing preterm birth in this country, we really need to start taking care of women's health long before they get pregnant.

The same stress reactivity and immune-inflammatory dysregulation that lead to preterm birth will persist over the next 15-20 years to wreak havoc in mom's blood vessels, heart, and other vital organs. Thus we can reframe preterm birth not only as a children's health issue, but as a women's health issue - preterm birth may be an early sign of things to come. It may herald the development of hypertension, heart disease, and other chronic diseases mediated by stress and inflammation.

"Maternal stress during pregnancy can have potentially lifelong effects on children."

Closing the Black-White Gap in Birth Outcomes:
A 12-Point Plan

1. **Provide interconception care to women with prior adverse pregnancy outcomes**
2. **Increase access to preconception care for African American women**
3. **Improve the quality of prenatal care**
4. **Expand healthcare access over the life course**
5. **Strengthen father involvement in African American families**
6. **Enhance service coordination and systems integration**
7. **Create reproductive social capital in African American communities**
8. **Invest in community building and urban renewal**
9. **Close the education gap**
10. **Reduce poverty among Black families**
11. **Support working mothers and families**
12. **Undo racism**

Lu MC, Kotelchuck M, Hogan V, Jones L, Jones C, Halfon N. Closing the Black-White gap in birth outcomes: A life-course approach. Ethnicity and Disease *Forthcoming in* 2009.

POLICY

If Louisiana is serious about improving pregnancy outcomes and reducing disparities, we must do more than prenatal care. Above is a 12-point plan Dr. Lu and colleagues have been working on to begin to close the black-white gap in birth outcomes from an ecological, life course approach.

The first four points move beyond our current focus on prenatal care and begin to address the healthcare needs of Black women before and between pregnancies and across their life course.

The next four points move beyond our current focus on individual risk behaviors and begin to address family and community systems.

The last four points move beyond our current focus on the biomedical model, and begin to address the social and economic inequities that are the root cause of much of our health disparities.

While this seems a huge undertaking, we must begin to chip away at the plan piece by piece. It is essential to provide the changes needed to make Louisiana move up in the ranks for child and maternal health.

BIRTH OUTCOMES INITIATIVE – IMPROVING PRECONCEPTION HEALTH AND HEALTHCARE IN LOUISIANA

REBEKAH E. GEE, MD,MPH, FACOG

Despite the high rankings for the percentage of women receiving prenatal care, Louisiana continues to rank poorly for its various birth-outcome measures. According to the 2010 United Health Foundation America's Health Rankings, the state ranks third in percentage of pregnant women receiving prenatal care and 49th in low birth weight babies and 48th in percentage of births under 37 weeks gestation.

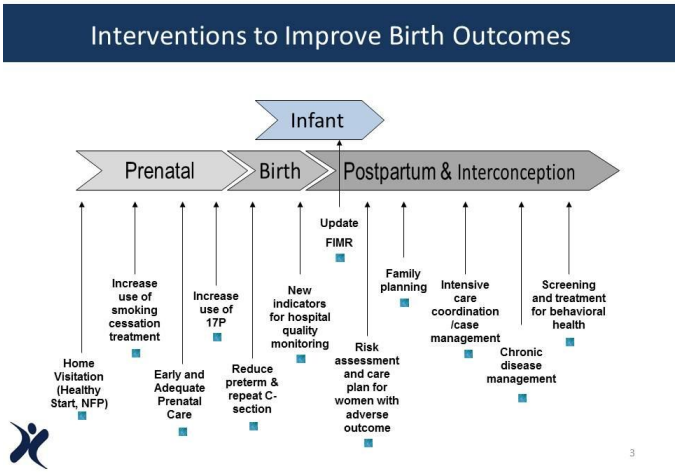
These poor outcomes relative to the rest of the United States have changed little over time. In fact, the state ranks 49th overall down two places from the previous rankings. All of this despite increasing access to prenatal care for Louisiana mothers and a child health insurance rate among the highest in the nation.

The state was recently recognized by the U. S. Department of Health and Human Services as a model state in administrative efficiency and maintenance of insurance for children. Louisiana was also ranked second in child immunization rates up from 44th, according to the U. S. Centers for Disease Control and Prevention.

The Louisiana Birth Outcomes Initiative was introduced in 2009 to take a focused and comprehensive approach to include prenatal care through postpartum and interconception. The Initiative will lead statewide action teams that include quality and measurement experts, hospitals and health systems, health plans, clinicians, consumers, and faith leaders committed to improving the health of women and infants in Louisiana.

Medicaid, the taxpayers, paid for 70 percent of the births in Louisiana. Changing the way payments are made to providers and reforming best practices should create a tremendous impact on birth outcomes.

The Birth Outcomes Initiative ultimately seeks to improve women and infant health outcomes in Louisiana. The success will be defined by more efficient and targeted investments of state funds in programs making positive impacts on birth outcome measures such as preterm birth, low birth weight, and hospital based maternity care. Along with these targeted investments, greater access to quality care and improved data collection have the potential to lead to significant cost savings in Medicaid and across DHH while creating a healthier generation of Louisianans.



Louisiana has consistently ranked at or near the bottom of the rankings in infant mortality, and premature births are a significant factor in infant deaths. The initiative will address improvement in birth outcomes and prematurity through four priorities:

- Care coordination and preconception health
- Patient safety and quality of care
- Women's behavioral health
- Data and measurement

Care Coordination and Preconception Health

Louisiana's Medicaid population will have the largest proportional expansion in the nation in 2014. Louisiana will move from a system where the majority of women lose coverage 60 days postpartum to one where they will receive ongoing care. Louisiana must prepare for this expansion through anticipating the health care needs for women in their reproductive years, a key component of achieving better birth outcomes.

The goal of care coordination is to reduce Louisiana's low birth weight rates, the number of unintended pregnancies and Medicaid costs, and to increase child spacing intervals by providing interconception care for women with a prior poor birth outcome.

The plan to get to completion:

- Begin program in Greater New Orleans area through opportunity of the Greater New Orleans Community Health Connection waiver
- Expand program to high risk women statewide
- Create data linkages to track eligibility, process and health indicators
- Implement enrollment, outreach and expansion strategies

What are the barriers to success:

- Lack of HMO penetration in Louisiana makes immediate statewide implementation challenging
- Currently, women are eligible for Medicaid only if they are very poor. The majority of women (73 percent) lose coverage 60 days after they deliver their baby

What is working well:

- Waiver timing and evidence based strategy with evaluation component
- Opportunity for expansion with Medicaid reform statewide

"If you want to grow healthier people, you start by improving women's health before pregnancy."

Patient Safety and Quality of Care

The goal of patient safety and quality of care is to avoid patient injuries and to provide effective services based on scientific knowledge to all who could benefit and refrain from providing services to those not likely to benefit. It would also create a culture of continuous quality improvement and safety in Louisiana's birthing hospitals.

The plan to get to completion:

- State tour of Birth Outcomes where letters of support for policy change are signed and hospitals receive invitation for and join Institute for Healthcare Improvement (IHI) collaborative
- LAMMICO (which serves more Louisiana physicians than any other medical professional liability carrier) gives a ten percent reduction in malpractice rates with physician participation
- March of Dimes and the Louisiana Department of Health and Hospitals (DHH)statewide patient and community education effort

What are the barriers to success:

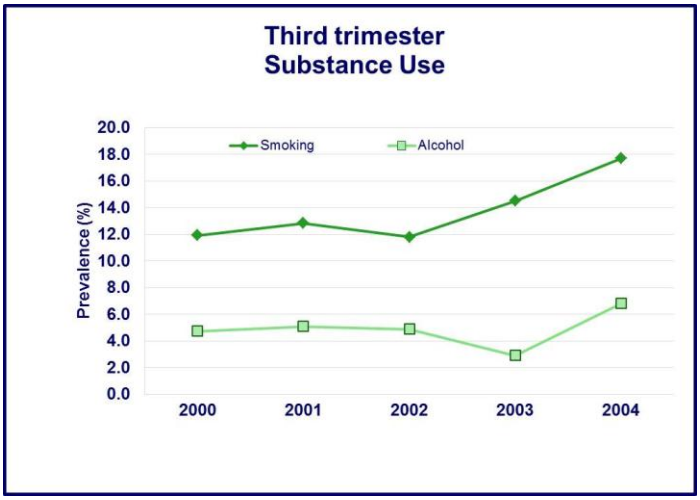
- Very few hospitals currently participating in IHI

What is working well:

- Almost all hospitals with deliveries over 1,000 annually have agreed to participate
- Louisiana will be the first state in the nation with a statewide policy when this problem has national recognition
- Linkages from DHH to Quality Forum, Louisiana Hospital Association, insurers and providers
- Partnership with the March of Dimes Healthy Babies are Worth the Wait

IHI is an independent not-for-profit organization based in Cambridge, Massachusetts focusing on motivating and building the will for change. It identifies and tests new models of care in partnership with both patients and healthcare professionals to ensure the broadest possible adoption of best practices and innovations. There is a long history with this organization as a trusted source for innovation and collaboration.

IHI's Perinatal Improvement Community provides results focused opportunities. Participants begin with in-depth diagnostic and goal setting processes and identify initial areas of focus, such as birth before 39 weeks and decreased c-section rates. The teams engage in rapid testing of changes shown to improve care, adapt them to their own settings, and continually measure outcomes.



Women's Behavioral Health

Louisiana's pregnant women with Medicaid are not screened, referred nor treated for alcohol, tobacco, substance abuse, and mental health needs in a comprehensive way. Systems of screening and treatment for pregnant women must be created to end our current system of neglect in these critical areas.

The goal of women's behavioral health is to institute a statewide comprehensive behavioral health screening and brief intervention for pregnant women receiving Medicaid services.

The plan to get to completion:

- Medicaid needs to activate payment codes (Potentially as an emergency rule)
- Provider outreach and education on the new screening tool
- Identify a data system or registry for high risk women

What are the barriers to success:

- Lack of comprehensive electronic records systems
- Limited network of available providers for intervention

What is working well:

- Coordination with Medicaid on provider reimbursement system
- Partnership with Louisiana's Tobacco Control Program

Data and Measurement

The goal of data and measurement is to identify data elements needed to show success on birth outcomes as well as solutions for barriers to collecting the data.

The plan to get to completion:

- Report card and registry must be created and populated with data from hospitals
- Draft meaningful use plan for Quality Forum and birth outcomes measures

What are the barriers to success:

- Lack of national perinatal care quality measures (Joint Commission on the Accreditation of Healthcare Organizations) lead us to create our own and sometimes more difficult to validate, measures and lack of a comprehensive hospital discharge database
- Building registry in a short amount of time

What is working well:

- The Louisiana Electronic Event Registration System (LEERS) Birth Certificate Data System is able to provide needed data to measure and identify preterm births
- DHH leadership are experts in Data Systems; DHH is in the midst of a data transformation that is informing the birth outcomes process

MARCH OF DIMES 2010 REPORT

KNESHA ROSE, MPH

In 2007, there were 546,602 preterm births in the United States, representing 12.7 percent of live births or, one in eight babies. Preterm births annually cost the United States more than $26 billion according to the Institute of Medicine. It is also the leading cause of new born death. The rate of preterm infants born in the nation increased by more than 11 percent between the years 1997 and 2007.

In Louisiana, there were 11,013 preterm births, representing 16.6 percent of live births or, one in six babies. During the fiscal year 2007, 6,247 preterm babies were born to Medicaid mothers, with an associated expenditure of $208,861,464.46. In fact, 14.5 percent is the preterm birth rate among the Medicaid population. The percentage of expenditure used by preterm babies is 60.9 percent.

On the following page is the 2010 March of Dimes Premature Birth Report Card for Louisiana. An overview of the report card:

- 17 states earned a "C"
- 20 received a "D"
- 13 states including Louisiana, the District of Columbia and Puerto Rico failed
- Grade states by comparing each state's rate of premature birth to the nation's 2010 objective of 7.6 percent

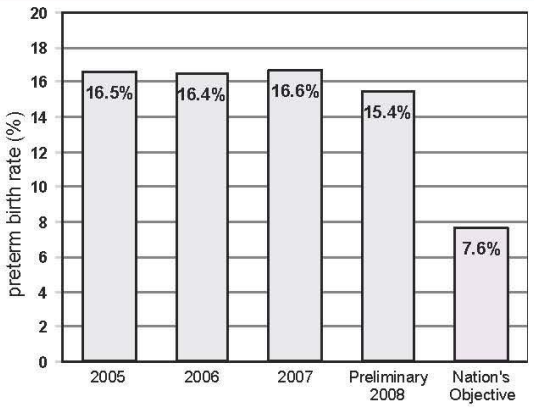
March of Dimes 2010 Premature Birth Report Card

The March of Dimes graded states by comparing each state's rate of premature birth to the nation's 2010 objective of 7.6 percent. Preterm birth is the leading cause of newborn death in the United States. We don't yet understand all the factors that contribute to premature birth. The nation must continue to make progress on research to identify causes and prevention strategies, and on interventions and quality improvement initiatives to improve outcomes.

Grade for Louisiana

Preterm Birth Rate: **15.4%**

F



Since last year's Report Card, the preterm birth rate in Louisiana improved, but not enough to increase the grade.

Status of Selected Contributing Factors

Factor	Previous Rate	Latest Rate	Status	Recommendation
Uninsured Women	25.6%	24.1%	★	Health care before and during pregnancy can help identify and manage conditions that contribute to premature birth. We urge federal and state policy makers to accelerate implementation of health reform by expanding coverage for women of childbearing age, and we urge employers to create workplaces that support maternal and infant health.
Women Smoking	20.1%	22.1%	✕	Smoking cessation programs can reduce the risk of premature birth. We urge federal and state policy makers to immediately implement comprehensive Medicaid coverage of smoking cessation coverage of provisions of health reform.
Late Preterm Birth	11.7%	10.6%	★	The rise in late preterm births (34-36 weeks) has been linked to rising rates of early induction of labor and c-sections. We call on hospitals and health care professionals to establish quality improvement programs that ensure consistency with professional guidelines regarding c-sections and inductions prior to 39 weeks gestation.

★ = moving in the right direction n/c = no change ✕ = moving in the wrong direction

State Actions:

For information on how we are working to reduce premature birth, contact the March of Dimes Louisiana Chapter at (225) 295-0655.

LOUISIANA CHILD POVERTY PREVENTION COUNCIL

In 2008, the Louisiana Legislature passed Act 559 to create the Louisiana Child Poverty Prevention Council. The mission of the Council is to pursue strategies to reduce child poverty in Louisiana by 50 percent over the next ten years. The Council submitted a Final Implementation Plan with detailed recommendations to the Joint Legislative Committee on Health and Welfare in March 2009, and then held a day-long Strategic Planning Session in October 2009 to prioritize these recommendations. The first Family Impact Seminar held as a cooperative endeavor to promote the goals of the Council, presented on February 25, 2010, helped legislators and policymakers further strategize their work to successfully accomplish their ultimate goal of reducing poverty in Louisiana.

As stated in Act 559, the Council is charged with the following:

- To have as its purpose the goal of pursuing programs which reduce child poverty in the state by 50 percent over the next ten years;
- Work to establish public-private partnerships and seek private-sector funding to be used with public funds to support solutions to poverty initiatives with the greatest potential for reducing child poverty;
- Seek funding for grant programs targeted at local government entities, non-profit organizations, faith-based organizations, and other qualified community-based organizations directly serving people in Louisiana; and
- Make, or cause to be made, all such studies, reviews, or analysis which it finds necessary to effect its purpose.
- Council membership, as mandated in Act 559, includes 19 members from various state agencies, non-profit organizations, business and labor organizations, children's advocacy groups, and Louisiana universities. The current roster of council members may be found at the end of this document.

"As states are under pressure to improve the efficient use of ever dwindling financial resources, any investment away from young children can be viewed as a diversion of resources from the most efficient use of these funds."

James Heckman
Nobel Laureate in Economics
University of Chicago

CHILD POVERTY PREVENTION COUNCIL PRIORITY RECOMMENDATIONS

2009 IMPLEMENTATION PLAN

The Council developed the following priority recommendations for reducing child poverty in Louisiana by 50 percent over the next ten years. The recommendations are organized under four major strategies:

Improve Birth Outcomes
Be a National Model for Comprehensive, Evidence-Based, Early Childhood Education Initiatives
Strengthen Disadvantaged Youth Connections to School and Work
Raise the State Earned Income Tax Credit (EITC)

Each strategy includes one or more specific recommendations. While a summary description of each recommendation is provided here, please refer to the Louisiana Child Poverty Prevention Plan Implementation Plan for a more detailed description and fiscal impact of each recommendation, please visit our website: (www.socialwork.lsu.edu/html/researchinitiatives/lpi.html).

Improve Birth Outcomes

As part of Louisiana's proposed health care reform initiative (Louisiana Health First), include health coverage for high-risk women before their pregnancy. The following high-risk women, with incomes up to 300 percent of the poverty level, should be the target group for increased eligibility for health coverage:

- Women who have had a previous adverse pregnancy outcome (e.g., prematurity, stillbirth, low birth weight, fetal death, or an infant with birth defects).

Be a National Model for Comprehensive, Evidence-Based, Early Childhood Education Initiatives

- Expand the Early Childhood Supports and Services (ECSS) program, a model program for addressing the social-emotional needs of children. The program currently provides services in 13 of the 64 Louisiana parishes. Expansion into each region of the state will allow Medicaid reimbursement for covered services.
- Expand the Nurse-Family Partnership (NFP), a nationally-recognized best practice program designed to serve first-time mothers who are below 200 percent of the poverty level, beginning in pregnancy and continuing until the baby reaches two years of age. The program currently serves 15 percent of Louisiana's eligible women. Specifically, we recommend the expansion plan submitted by the Department of Health and Hospitals to the Senate and House Health and Welfare Committees. This plan, in response to Senate Concurrent Resolution 70 of the 2008 Regular Legislative Session, calls for a phased-in expansion of NFP to serve 50 percent of eligible women in Louisiana by 2014-15.

- Improve the quality of parenting education in Louisiana by enhancing training, resources, and technical assistance for parenting educators through strengthening the newly-formed Louisiana Parenting Education Network (LAPEN).
- Expand income eligibility for Louisiana's Child Care Assistance Program from 200 percent of the poverty level (twice the poverty level) to 300 percent of the poverty level (three times the poverty level).
- Create a strong system of early education by integrating the successes of LA 4 pre-K and Louisiana's child care rating system. Specifically, we recommend state funding of the expansion and integration plan articulated in Act 876 of the 2008 Legislature that calls for a phased-in expansion of LA 4 – extending to all four-year-olds by fiscal year 2013-14 through an integrated and collaborative delivery model that includes public schools systems, Head Start, and private child care providers.

Strengthen Disadvantaged Youth Connections to School and Work

- Successfully pilot then implement a statewide build out of Louisiana's new EMPLoY (Educational Mission to Prepare Louisiana's Youth) Program. The goal is to totally replace Louisiana's current high school dropout program – the PreGED/Skills Options Program.
- Expand Louisiana's Jobs for America's Graduates (JAG) Program to all local school districts statewide.
- Successfully pilot then implement a statewide build out of job training and placement referral programs currently under development by Louisiana's Shared Youth Vision Team for two specific populations: youth aging out of foster care and older incarcerated/court supervised youth.

Raise the State Earned Income Tax Credit (EITC)

- Raise the State Earned Income Tax Credit (EITC) from 3.5 percent of the federal EITC amount to seven percent of the federal EITC amount. The EITC is a major benefit to low-income families who earn income from employment and is widely praised for reducing poverty among working families.

CHILD POVERTY PREVENTION COUNCIL

OCTOBER 2009 STRATEGIC PLANNING SESSION - SUMMARY OF RECOMMENDATIONS

The Child Poverty Prevention Council, in conjunction with the Louisiana Legislative Black Caucus, held a one-day Strategic Planning Meeting on October 9, 2009. The primary purpose of this meeting was to convene key anti-poverty stakeholders and policy-makers to advance the mission and policy agenda of the Child Poverty Prevention Council. Senator Sharon Weston Broome facilitated the discussion session to brainstorm potential policy recommendations.

As a result of this discussion, the following policy recommendations emerged to clarify and enhance the original recommendations of the Council:

- Evaluate the effectiveness of current anti-poverty programs; require and document accountability and stewardship of public funds. Analyze programs and policies against the backdrop of fiscal issues. Insist that the measurements and accountability system is equitable across all programs and departments.
- Require a poverty impact statement on all legislation. Show how the legislation impacts, eradicates, or unintentionally worsens poverty.
- Establish public/private partnerships; seek private sector funding to be used with public funds to support solutions to end poverty.
- Engage the business community. Convince business leaders that they have a stake in the conversation.
- Establish a clearinghouse of information on all anti-poverty initiatives in the state.
- Create, support and strengthen partnerships across all sectors, including the faith-based community and the non-profit sector, to develop and sustain solutions to poverty.
- Clarify a vision and mission for the state of Louisiana as it relates to poverty reduction. Craft a consistent message that is evidence driven.
- Address the issue of predatory lending. Fund the Financial Literacy Education Commission. Consider placing a cap on the amount of interest that could be charged to low to moderate income individuals.
- Invest in family strengthening programs, especially parenting and responsible fatherhood.
- Promote compliance with the federal mandate that schools have a wellness policy to bring attention to the issue of school nutrition and improving food in our schools.
- Address issues of teen pregnancy and pre-term births.
- Offer comprehensive support structures for positive youth development.

BUILDING ON THE WORK OF THE COUNCIL

2010 FAMILY IMPACT SEMINAR

With support and technical assistance from the Pew Charitable Trusts and the LSU School of Social Work, the Council embraced the opportunity to focus on several key recommendations of their report and strategic planning session through a dedicated Family Impact Seminar. The Family Impact Seminars are professional presentations, discussion sessions, and briefing reports designed to provide state policymakers with nonpartisan, solution-oriented research on important issues. The seminars began in the 1970s and were offered to the US Congress, then later moved to the state level. Currently 27 states and the District of Columbia are part of the Family Impact Seminars network, administered by policy professionals at the University of Wisconsin.

The day-long Family Impact Seminar was held on February 25, 2010 and included two presentation sessions by national policy experts with response from local professionals as well as participant discussion and interaction led by moderators. Over 75 participants and assembled experts focused on the Council's stated priority of linking business leaders to early childhood education as a strategy for reducing poverty in Louisiana. The seminar closed with an hour long debriefing and strategic planning session aimed primarily at members/ representatives of the Legislature and the Child Poverty Prevention Council. The following is a summary of the key points that surfaced:

- Promote the benefits of partnerships among all stakeholders – business, philanthropic, non-profit, faith-based, education, social service and health care.
- Engage, support, and leverage the business voice. Educate the business community on the benefits of making investments in early childhood.
- Involve LABI and Chambers of Commerce. Make the business case – show the business community that investments in early childhood can yield high returns.
- Host a Legislative Day at the capital to advocate for investments in early childhood and poverty reduction strategies. Meet with Legislators one on one; craft a message that illustrates how investments in early childhood benefit their constituents and local economy.
- Create a strategic public awareness campaign. Create a powerful message, e.g., "CEOs are made between 18 months and three years." Identify Legislators who will champion the cause. Write op-ed pieces and letters to the editor. Partner with LPB to create a documentary on poverty reduction and investments in early childhood.
- Create a state budget report card detailing where poverty reduction initiatives stand in the budget. Advocate for the implementation of a poverty impact statement on all legislation.

2011 FAMILY IMPACT SEMINAR

With support from the W.K. Kellogg Foundation and the LSU School of Social Work, the Council embraced the opportunity to focus on several key recommendations of their 2010 report and strategic planning session. This half-day Family Impact Seminar was held on March 3, 2011 and included several presentations by national healthcare and policy experts with response from local professionals as well as participant discussion and interaction led by moderators. Over 100 participants and assembled experts focused on the Council's stated priority of the importance of implementing strategies to improve birth outcomes by addressing the preconception healthcare needs of high-risk women.

The following is a summary of key points that were addressed in the Seminar:

- Louisiana is ranked 49th in the nation in regard to the infant mortality rate
- Louisiana is ranked 47th in the nation in pre-term births; over 60% of the Medicaid budget in Louisiana is used to deliver preterm babies
- Louisiana is ranked 49th in the nation in low and very low birth weights
- Louisiana faces many challenges to improve birth outcomes: improved care coordination and preconception health; improvements in the measurement of birth outcomes; improvements in patient safety and quality; addressing the maternal and infant health disparities in birth outcomes; and addressing the behavioral health needs of pregnant women
- Prenatal care is often too late to improve birth outcomes, including the prevention of birth defects and implantation errors; some of the most important vital events in the life of the developing embryo happen at 3-4 weeks post-conception, before most women even recognize that they are pregnant
- Experiences very early in life influence health and functioning across the individual's lifespan; chronic stress – whether environmental or biological – has a cumulative impact on the individual
- Preconception care is cost effective; teach all women to take care of themselves because we value them as individuals, but also to enhance positive birth outcomes should they choose to become moms
- Promote positive male involvement – as spouses/partners to the moms and as fathers to their children
- Legislators agreed that positive birth outcomes is a critical goal, and that addressing the issue of healthy birth outcomes contributes to growing healthy citizens
- DHH is asking hospitals to make it a matter of policy to avoid inducing the delivery of any infant prior to 39 weeks gestation unless medically necessary, thereby reducing NICU admissions and other early birth complications
- Louisiana has embarked upon the use of coordinated care networks to ensure that all medical personnel and facilities caring for our citizens coordinate with one another; Medicaid will set the standard for care in Louisiana

Louisiana is the only state in the nation with a Birth Outcomes Initiative that is comprehensive and state wide such as the one described herein. We have a window of opportunity in which to support the health of women and promote healthy birth outcomes.

2011 PANELISTS

DR. REBEKAH GEE, MD, MPH, FACOG is an Assistant Professor of Public Health and Obstetrics and Gynecology at Louisiana State University Health Sciences Center. She completed a Robert Wood Johnson Clinical Scholars program at the University of Pennsylvania then received a Master of Science in Health Policy Research. She studied history and obtained an MPH at Columbia University in Health Policy and Management, obtained her medical degree at Cornell, and trained in Obstetrics and Gynecology at Harvard at the Brigham and Women's and Massachusetts General Hospitals.

Since moving to Louisiana in October 2009, Dr. Gee served as the medical director for the maternity program of Title V, the state's maternal health federal block grant program. In 2010, Dr. Gee was named Director of the Birth Outcomes Initiative, an Assistant Secretary level position in Louisiana's Department of Health and Hospitals aimed at improving the health of Louisiana's women and children.

Dr. Gee has held many leadership roles in organized medicine and reproductive health including local and national leadership roles in the American College of Obstetricians and Gynecologists (ACOG). She served for six years on the Clinical Practice Guidelines for Gynecology Committee at ACOG which leads in setting standards for gynecology nationwide and has also served in state and district leadership roles for ACOG. Dr. Gee is a frequent commentator on national media sources and is the expert Gynecologist for Women's Health and Glamour magazines. Dr. Gee is on the Institute of Medicine's (IOM) Board of Health Care Services and is the inaugural recipient of a two year Gant fellowship at the IOM. She is currently staff for the IOM's committee on preventive services for women. Dr. Gee is clinically active and is caring for patients at LSU.

BRUCE D. GREENSTEIN is the secretary of the Louisiana Department of Health and Hospitals. Prior to his appointment, Greenstein led the development and execution of Microsoft's industry strategy focusing on the worldwide health and human services market. In this role, he worked with governments and health systems around the world as well as other companies to address market opportunities and focus on growth in the health information technology sector. Prior to Microsoft, Greenstein was the Vice President for Healthcare at CNSI in Washington, DC and served as President of the Institute for Healthcare Solution.

His appointment as DHH Secretary is not Greenstein's first venture in public service. Previously, he served as Associate Regional Administrator and as the Director of Waivers and Demonstrations in U.S. Department of Health and Human Services (HHS).

Mr. Greenstein has degrees in Economics and Public Policy.

MICHAEL C. LU, MD, MPH is an associate professor of obstetrics and gynecology and public health at UCLA. Dr. Lu received his bachelor's degrees from Stanford University, master's degrees from UC Berkeley, medical degree from UC San Francisco, and residency training in obstetrics and gynecology from UC Irvine. He is widely recognized for his research, teaching and clinical care. Dr. Lu received the 2003 Coalition for Excellence in MCH Epidemiology Young Professional Achievement Award, and the 2004 American Public Health Association Young Professional Award for his research on health disparities. He has served on the Institute of Medicine (IOM) Committee on Understanding Prematurity, and IOM Committee to Reexamine IOM Weight Guidelines. He is a member of the Centers for Disease Control and Prevention Select Panel on Preconception Care, and Study Location Principal Investigator for the National Children's Study in Los Angeles. Dr. Lu was recently appointed by Secretary of Health and Human Services Kathleen Sebelius to chair the Secretary's Advisory Committee on Infant Mortality.

Dr. Lu teaches obstetrics and gynecology at the David Geffen School of Medicine at UCLA, and maternal and child health at the UCLA School of Public Health. He has received numerous awards for his teaching, including Excellence in Teaching Awards from the Association of Professors of Gynecology and Obstetrics. Dr. Lu sees patients at the faculty group practice in obstetrics and gynecology at UCLA Medical Center. He is the Director of the UCLA Preconception Care Clinic, and is the author of a highly acclaimed book on preconception health entitled *Get Ready to Get Pregnant: Your Prepregnancy Guide to Making a Smart and Healthy Baby* (Harper 2009). Dr Lu has been voted one of the Best Doctors in America since 2005.

KNESHA ROSE, MPH is the State Director of Program Services for March of Dimes Louisiana Chapter. In this role she manages the March of Dimes NICU Family Support Program® in Baton Rouge and New Orleans; serves as the Lead Public Affairs staff, and is the Chapter Communications staff. In addition, she serves on several committees and coalitions including Consortium Chair for the Baton Rouge Healthy Start Program, and Chair of the Health Disparities Action Team with the Louisiana Birth Outcomes Initiative. Prior to coming to Louisiana she was Deputy Director in the Office of Community Health for the Healthcare Consortium of Illinois. During her tenure she addressed a variety of issues in public health on disparities in maternal and child health, breast cancer in African American Women, HIV/AIDS awareness, and faith based initiatives. She received both her Bachelors in Biological Sciences and Masters of Public Health from Northern Illinois University in DeKalb, IL. Currently she serves on the board of the Black Caucus of Health Workers of the American Public Health Association.

RODNEY WISE, MD is a Louisiana native. He earned his undergraduate degree from Northwestern State University in Natchitoches and completed his medical degree at Louisiana State University School of Medicine – Shreveport. After medical school, Dr. Wise completed residency training in Obstetrics and Gynecology and a fellowship in Clinical Genetics. The residency and fellowship training were also at LSU.

Dr. Wise has been the Medicaid Medical Director for the State of Louisiana since October 2009. He provides medical guidance for all aspects of the state Medicaid program. He is involved with the new Medicaid systems initiatives within Louisiana, moving to Coordinated Care Networks. Prior to joining Medicaid, Dr. Wise was a

faculty member at LSU Shreveport from 1985-2009, and Director of OB/GYN at LSU Monroe from 1989-2009. He has held the position of Professor of OB/GYN since 2005. He served as the Maternity Medical Director for the Louisiana Maternal Child Health Program from 2003-2009. Dr. Wise has been active in many aspects of local, regional, state, and national health initiatives, especially in improving pregnancy outcomes and improving systems of care. He has presented to professional and lay groups throughout his career. He has been active in regional, state and national organized medicine and has been actively involved with access, quality, and promoting efficient use of health care throughout his career.

RESOURCES AND REFERENCES

LSU School of Social Work Home Page. This site includes information regarding the Louisiana Poverty Initiative, the Louisiana Family Impact Seminars, and the Louisiana Child Poverty Prevention Council. Presentations from the Positive Birth Outcomes seminar, as well as from the 2010 Seminar, may be found at this site: http://www.socialwork.lsu.edu/html/researchinitiatives/lpi/fis.html/

Louisiana Department of Health and Hospitals. (2011). Maternal and Child Health programs. Retrieved from:

http://www.dhh.louisiana.gov/offices/page.asp?ID=267&Detail=9596

Louisiana Department of Health and Hospitals. (2010). 2010 MCH Needs Assessment Results

http://www.dhh.louisiana.gov/offices/publications.asp?ID=267&Detail=2116

Louisiana Department of Health and Hospitals: Bureau of Minority Health Access. (2009). Eliminating health disparities: From a grass roots perspective.

March of Dimes. (2009). Perinatal data snapshots: Louisiana maternal and infant health overview. Retrieved from http://www.marchofdimes.com/peristats/pdflib/999/pds22all.pdf

Albright, B. & Rayburn, W. (2009). Substance abuse among reproductive age women. *Obstetrics Gynecology Clinic in North America, 36*. 891-906. Retrieved from DOI: 10.1016/j.ogc.2009.10.008.

Asch, S. M., Adams, J., Keesey, J. Hicks, J., DeChristofaro, A. & Kerr, E. A. (2003). The quality of health care delivered to adults in the United States. *New England J. Medicine*, *348(26*):2635–2645.

Barker, D. J. P., Hales, C. N., Fall, C. H. D., Osmond, C., Phipps, K., & Clark, P. M. S. (1993). Type 2 (non-insulin-dependent) diabetes mellitus, hypertension and hyperlipidaemia (Syndrome X): Relation to reduced fetal growth. *Diabetologia, 36*, 62-67.

Center on the Developing Child at Harvard University (2009). Maternal depression can undermine the development of young children: Working Ppr#8. Retrieved from http://www.developingchild.harvard.edu

Elective induction- women & newborn services. (2010). Retrieved from http://intermountainhealthcare.org/services/womennewborn/pregnancy/la

Gibbs, W. W. (2003). The unseen genome: Beyond DNA. *Scientific American.* pp. 106-113.

Huang, J., Lee, T., & Lu, M. C. (2006). Prenatal programming of childhood overweight and obesity. *Journal of Maternal Child Health.* Retrieved from Lu power point presentation for the 3/3/11 Louisiana Family Impact Seminar.

Kohn, L. T., Corrigan, J. M., Donaldson, M. S. (eds.) (1999). To err is human. Building a safer health system. Retrieved from: http://books.nap.edu/html/to_err_is_human/exec_summ.html

Law, C. M., de Swiet, M., Osmond, C., Fayers, P.M., Barker, D. J. P., Cruddas, A. M., et al. (1993). Initiation of hypertension in utero and its amplification throughout life. *British Medical Journal, 306*, 24-27.

Lu, M. (2008). OECD Health Data. Retrieved from Lu power point presentation for the 3/3/11 Louisiana Family Impact Seminar.

Lu, M.C., & Halfon, N. (2003). Racial and ethnic disparities in birth outcomes: A life course perspective. *Maternal and Child Health, 7,* 13-30.

Lu, M.C., Kotelchuck, M., Hogan, V., Jones, L., Jones, C.A., & Halfon, N. (2009). Closing the black- white gap in birth outcomes: A life course approach. *Ethnicity and Disease*, *20*, S249-S261.

Mazza, F., Kitchens, J., Kerr, S., Markovich, A., Best, M., Sparkman, L. P. (2007). Eliminating birth trauma at Ascension Health. *Journal of Quality and Patient Safety, 33,* 15-24.

McEwen, B. S. (1998). Protective and damaging effects of stress mediators. *New England Journal of Medicine, 338,* 171-179.

McGlynn, E. A., McEwen BS, Lasley EN. (2002). The end of stress as we know it. Wash DC: John Henry Press.

Phuong, L. (2007). A labor without end. The Washington Post, May 27, 2007.

Rich-Edwards, J. W., Stampfer, M. J., Manson, J. E., Rosner, B., Hankinson, S. E., Colditz, G. A., et al. (1997). Birth weight and risk of cardiovascular disease in a cohort of women followed up since 1976. *British Medical Journal, 315*, 396-400.

Santoro, K. & Peabody, H. (2010). Identifying and treating maternal depression: Strategies and considerations for health plans. *National Institute for Health Care Management Issue Brief*, June 2010.

United Nations. Table 4. In: *United Nations Demographic Yearbook, 2004*. New York, NY: United Nations; 2007:73–93

Waterland, R.A. Jirtle, R. A. (2003). Transposable elements: targets for early nutritional effects on epigenetic gene regulation. *Mol Cell Biol*, *23*, 5293-300. Reprinted in the New Scientist 2004.

Welberg, L. A. M., Seck,l J. R.(2001). Prenatal stress, glucocorticoids and the programming of the brain. *J Neuroendocrinol, 13*, 113-28.

Wisconsin Division of Public Health. (August 2007). Initiatives to address racial and ethnic health disparities.