OUR BABIES’ FUTURES ARE IN OUR HANDS

SIX YEAR PROGRESS REPORT AND CALL TO ACTION
2005 - 2011

DELAWARE HEALTHY MOTHER AND INFANT CONSORTIUM
SO ALL OF OUR BABIES MAY THRIVE
The Healthy Baby Growth Chart: Charting Our Way to Better Outcomes

This simple visual is a reminder that it takes healthy people, healthy places, and a healthy society to raise healthy babies. We strive for access to good healthcare, and we work to address the role that maternal, community, and societal determinants play. We invite your help in making Delaware a place where every healthy growth milestone is achieved, and where every baby has the opportunity to thrive.
HEALTHY PEOPLE AND HEALTHY PLACES NURTURE HEALTHY BABIES
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We are pleased to share the 2005-2011 progress report of the Delaware Healthy Mother and Infant Consortium with you. This report tells the story of how we have progressed and accomplished many of the goals of the original recommendations that formed the basis of the work of the Delaware Healthy Mother and Infant Consortium for the last six years.

Fewer infants are dying in Delaware today than six years ago. In that time, our infant mortality rate has fallen from 9.3 to 8.3 deaths per 1,000 live births. We have seen a 13 percent reduction in our prematurity rate and achieved significant cost savings.

We have merged our preconception and prenatal programs using a life course perspective to address the individual, family, provider and system levels of care and wellbeing.

The Association of maternal & child health programs has recognized the Delaware Healthy Mother and Infant Consortium and its efforts in instituting the Healthy Women Healthy Babies program as worthy of note. The maternal & child health community is looking forward to reviewing our detailed evaluation for program impacts and implications to see how it can be implemented on a larger scale and in more states.

Our surveillance is more robust because of a revamped birth defects registry and our Pregnancy Risk Assessment Monitoring System. To improve the standards of care, we have led the development of a perinatal cooperative and strengthened our mental health focus by integrating it into our programming.

We have developed and sustained multiple partnerships and collaborations to implement our programs and initiatives throughout the state.

We have expanded our statewide media campaign to promote education and outreach, including the launch of the Delaware Healthy Mother and Infant Consortium website and the development and distribution of reproductive life plan education materials.

We have been successful in lowering Delaware’s infant mortality rate, but challenges remain in identifying women who are at increased risk of poor birth outcomes and closing gaps in access to care and racial disparities.

Infant mortality is the result of multiple factors and needs to be addressed with comprehensive efforts. By integrating a life course perspective into our efforts, continuing to engage our community partners, and investing in prevention, we are confident that our infant mortality rate will continue to decline and the disparity will be eliminated once and for all.

Sincerely,

David A. Paul, MD
Co-Chair
Delaware Healthy Mother and Infant Consortium

Jacquelyne Gorum, DSW
Co-Chair
Delaware Healthy Mother and Infant Consortium
WE START WITH THE HEALTH OF MOM AND BABY
Infant Mortality in Delaware

DHMIC Background

The year was 2005. Our infant mortality rate stood at 9.3 deaths per 1,000 live births. The governor had issued Executive Order 56 establishing the Infant Mortality task force (IMTF). To continue the work of saving Delaware’s babies, they recommended a successor organization to oversee the implementation of their recommendations.

After much deliberation, stakeholder meetings, research and consultation with some of the nation’s best experts on infant mortality, the task force presented its report with 20 recommendations. To continue the work of saving Delaware’s babies, they included in their report, a recommendation for a successor organization to oversee the implementation of their recommendations.

The Delaware Healthy Mother and Infant Consortium (DHMIC) was established under Title 16 of Delaware Code by House Bill Number 202, which passed the House on July 1, 2005. On January 26, 2006 the governor signed the legislation. The legislation called for a permanent membership of the DHMIC, which includes two representatives of the House of Representatives and two representatives of the Senate (one selected by each caucus); one representative of the governor’s Office, the Secretary of the Department of Health and Social Services, and fifteen additional members approved by the governor who shall represent the medical, social service, professional communities and the general public. The legislation required the membership to include a balance across disciplines, races, ethnicities and counties.

The IMTF did more; it left a clear record of findings on the factors that were driving infant mortality in Delaware. These factors have been the focus of the interventions to address the infant mortality challenge in Delaware for the past six years.

Infant Mortality: Drivers and Risk Factors

The infant mortality rate (IMR) is a public health indicator of a complex societal problem. Numerous frameworks have been used to help understand the multiple determinants of infant mortality in a community and to identify interventions to reduce infant mortality. While the root social causes of infant mortality – persistent poverty, pervasive and subtle racism, and the chronic stresses associated with them – may not be easy to address, it is still possible to understand the risks of infant death by examining the biological pathways through which these societal forces act.
Causes of Infant Mortality

Infant mortality is understood as the product of two major chains of events that begin with:

• A sequence of socioeconomic and biological forces on the mother’s health that influence the outcome of her pregnancy; the adverse outcome of this sequence of events is usually the delivery of a premature, low birth weight or sick neonate.

The second component of infant mortality is:

• The likelihood that the infant will survive given their health status at birth. This latter component often reflects the medical care provided to high risk pregnant women and their infants.

Maternal Risk Factors that Contribute to Poor Pregnancy Outcomes

We know that multiple factors before and during pregnancy can contribute to poor birth outcomes such as premature birth and infant mortality.

Maternal age:
The risk of an adverse pregnancy outcome increases at either end of the maternal age spectrum. Although adolescent pregnancy has been long recognized as a risk for poor outcomes, the rates of teen pregnancy and birth have declined dramatically in the last decade. In contrast, many women are now delaying pregnancy into their later 30s and 40s, resulting in high-risk pregnancies among older mothers.

Chronic illness:
Chronic conditions, such as hypertension and other cardiovascular diseases, preexisting or gestational diabetes, and asthma and other chronic lung conditions, increase the risk of an adverse pregnancy outcome and maternal complications. Older mothers and black women may be at particular risk of such conditions.

Nutrition:
Both malnutrition and obesity may place pregnant women at increased risk of an adverse pregnancy outcome. Low folate levels in the preconceptional period and very early pregnancy are now recognized as a risk factor for neural tube defect among infants. The levels of obesity in the U.S. population are rising dramatically and place mothers and their children at additional risk.
Infection:  
Sexually transmitted infections, cervical and uterine infections, and asymptomatic bacterial vaginosis are now all recognized as increasing the risk of preterm delivery and may be important factors in explaining higher preterm birth rates.

Stress:  
Chronic persistent stress associated with poverty and racial discrimination is an important cause of adverse pregnancy outcome. Stress has both direct and indirect effects on birth outcomes through biological and behavioral pathways.

Unplanned pregnancy:  
Unplanned and mistimed pregnancies are at higher risk of resulting in a preterm or low birth weight newborn. Women who have unwanted pregnancies are more likely to be malnourished, abuse substances, and delay prenatal care.

Smoking and other drug use:  
Smoking, heavy alcohol consumption, and the use of illicit substances all increase risk of adverse perinatal outcomes. Of these, smoking during pregnancy and secondhand exposure after birth is most common and may carry added risk for low birth weight and newborn health problems.

Prenatal care:  
Women who receive no prenatal care or who initiate prenatal care late in pregnancy are at increased risk of an adverse pregnancy outcome. High-quality, comprehensive prenatal care may have some role in recognizing risks during pregnancy and addressing these through preventive interventions.

Infant Risk Factors that Contribute to Birth-Weight-Specific Mortality  
There are many factors that decrease the likelihood of infant survival.

Low Birth Weight:  
A good predictor of infant survival is the infant's size at birth. Birth weight is a product of the gestational age at delivery and the fetal growth rate. In the U.S. and other developed countries, preterm delivery is the leading component of low birth weight (LBW). About 70 percent of LBW, and virtually all very low birth weight (VLBW) babies, are born prematurely (less than 37 weeks' gestation). Most of the recent national increase in infant mortality rate (IMR) can be attributed to an increasing number of preterm, VLBW infants.
Multiple births:
Twins and higher order multiple births are more often delivered at earlier gestational ages than single births, resulting in a greater risk of mortality. Multiple births have increased substantially in recent years due to increasing use of assisted reproductive technology (ART). Women who use ART and other fertility treatments have greater rates of preterm birth and LBW, among both multiple and single births.

Congenital anomalies:
Congenital malformations, deformations and chromosomal abnormalities are some of the leading causes of infant death in the U.S. Of these, neural tube defect is known to be preventable through preconceptional and prenatal folate supplementation. However, prevention is generally difficult since the causes of approximately 70 percent of defects are not known. Universal neonatal screening is performed for several rare abnormalities that can be fatal if not detected and treated promptly.

Sudden Unexpected Infant Death (SUID):
While the exact causes of SUID (Sudden Unexpected Infant Death) are unknown, the American Academy of Pediatrics’ SUID campaign to promote safe sleeping environments from the stomach to the back, corresponded with substantial declines in SUID-related death rates.

Respiratory distress syndrome:
Preterm infants frequently experience respiratory distress because of incomplete lung maturation. Deaths due to respiratory distress syndrome decreased substantially after widespread use of medical treatments including surfactant and prenatal steroids. Despite medical progress, it remains among the leading causes of infant mortality.

Strategies to Reduce Infant Mortality Rate
In practical terms, infant mortality can be addressed by focusing on critical periods in the health of women and their infants and adopting a series of interventions that target specific risks. Because the factors that underlie infant death are multiple and complex, there is no single “magic bullet” to reduce infant mortality. It is important to note that while most interventions focus on women, we must also recognize the critical role of male partners in supporting the health of women and their infants. Further, the focus on the biological and medical pathways should not be interpreted as relieving society of the need to address underlying social inequalities. Finally, reducing infant mortality requires the life course perspective approach to the health of women.

To reduce infant mortality, we must:
• Target risks during specific stages in women’s lives;
• Involve life partners and husbands in education and support tactics;
• Engage communities in a meaningful way to support women’s and children’s health;
• Continue to address social issues that contribute to the problem;
• Adopt the Life Course Perspective approach to women’s health based on specific life stages.
DHMIC BRINGS THE COMMUNITY TOGETHER

HEALTHY COMMUNITIES NURTURE HEALTHY BABIES

DHMIC BRINGS THE COMMUNITY TOGETHER
The DHMIC’s work is organized through five standing committees. Each committee is led by two members of the DHMIC but draws membership from partner organizations, health care providers and other stakeholders.

**Data & Science Committee**

The Data and Science Committee focuses on establishing and leading a research agenda. Among the committee’s many accomplishments since 2006 are the following:

- Implemented PRAMS. Revised PRAMS questionnaire and published the 2008 PRAMS analysis, and continues to monitor the Delaware PRAMS program;
- Examined data to establish a statewide birth defects registry that now provides active surveillance with over 2,800 cases reviewed since 2009;
- Helped shape the state’s FIMR program which reviews all infant deaths;
- Presented Delaware APGAR score analysis to the Delaware Academy of Pediatrics meeting;
- Presented “The Costs of Prematurity in Delaware” to legislators. The document included background and key findings to support the work of the Healthy Women Healthy Babies program and other DHMIC initiatives to continue present level funding.

**Future Goals**

- Explore risk factors for unsafe sleeping practices - looking at data from FIMR and PRAMS, and increase parental education;
- Analyze the relationship between birth defects and infant mortality; and seek out further opportunities to publish results;
- Focus on how health disparities continue to be reflected in the data.
Standards of Care Committee

The Standards of Care Committee focuses on identifying and promoting standards that define quality healthcare and social service delivery. The committee assesses the healthcare and practice environment of providers, hospitals, insurers, and other actors and promotes best practices and identifies areas for innovation and improvement. They coordinate with other committees of the DHMIC to define and promote best healthcare practices and community health messages that focus on infant mortality reduction. Among the committee’s many accomplishments since 2006 are the following:

- Developed and promoted hospital use of an admission order set for preterm labor to support appropriate administration of steroids to enhance fetal pulmonary maturity;
- Promoted and supported the DHMIC program providing access for progesterone administration for select women with a history of premature birth;
- Developed and promoted “Kicks Count” materials to educate clients and providers about the importance of fetal movement and obtaining care when movement is decreased;
- Promoted and assisted in establishment of a perinatal cooperative to share best practices and ensure all Delaware women receive high quality perinatal care to improve birth outcomes.

Future Goals

- Study health disparities and their possible impact on standards of care;
- Promote full participation in the perinatal cooperative to share best practices and facilitate the delivery of high quality perinatal care to all Delaware women to improve birth outcomes;
- Promote and monitor hospital use of an admission order set for preterm labor;
- Promote and monitor standards for appropriate administration of steroids to enhance fetal pulmonary maturity;
- Promote and monitor the DHMIC program providing access for progesterone administration for select women with a history of premature birth;
- Promote and monitor standards for control/oversight of infertility management;
- Promote and monitor standards for appropriate use of cerclage;
- Promote and monitor standards for avoiding elective deliveries for pregnancies at less than 39 weeks;
- Promote and monitor provider community understanding and best practice related to safe sleep and abusive head trauma.
Health Disparities Committee
The Health Disparities Committee focuses on reducing racial disparities in birth outcomes by lowering barriers to care and promoting health for racial and ethnic minority communities. The committee advocates for policies and programs such as cultural competence training for providers, the implementation of culturally and linguistically appropriate service (CLAS) standards and the training and deployment of community health workers. PRAMS, FIMR and the birth defects registry continue to show race as a factor in birth outcomes; which is why beginning with 2011 all committees have had a health disparities focus. Among the committee’s many accomplishments since 2006 are the following:

• Developed an instrument to survey client impressions of how race and ethnicity affect the level and quality of services received;
• Initiated a memorandum of understanding between the DPH and Delaware State University’s Department of Nursing for graduate nursing students to administer a satisfaction survey at federally qualified health centers;
• Contracted with the Altarum Institute to review current cultural competency programs, provider awareness, service perceptions, barriers to implementation of CLAS and consumer opinions and perception of health care services;
• Conducted a series of focus groups to determine the best ways to implement CLAS standards in Delaware;
• Completed Patient Survey FY2009. The study surveyed females who accessed prenatal care at an urban health center to determine perceptions of barriers to early initiation of services. A report on findings was released and accepted for publication in the Journal of Prenatal and Perinatal Psychology and Health.

Future Goals
Improve birth outcomes among racial and ethnic minority women by promoting good health practices, health awareness and access to care through partnerships with community-based organizations.

• Partner with two racial and ethnic minority community-based organizations on a pilot to train staff to refer clients to available well woman care and resources;
• Partner with two racial and ethnic minority community-based organizations on a pilot to recruit and train two healthy woman coordinators (HWC);
• Identify a contractor to train Healthy Woman Coordinators (HWC) using a curriculum approved by the Health Disparities Committee;
• Task Healthy Woman Coordinators (HWC) to train at least 75 percent of the client-services staff of the partnering minority community-based organizations.

Improve the effectiveness of health providers and staff in cross-cultural encounters.

• Collaborate with the Medical Society of Delaware, National Medical Association, Delaware Academy of Pediatrics, Delaware Academy of Family Physicians and engage opinion leaders in the provider community to promote cultural competency training;
• Develop health equity awards to be presented annually to clinical practices or groups that achieve a certain level of cultural competence training each year;
• Provide 30-day free advertising annually recognizing and congratulating health equity awardees on their achievement.
Systems of Care Committee
The Systems of Care Committee focuses on community development-enhanced support systems, reducing social stress in the environment for pregnant women and their families, developing a sense of community and support groups, improving access to case managed care, and advocating for universal health care for children and increased coverage for women up to 650 percent of the poverty level. Among the committee’s many accomplishments since 2006 are the following:
• Notified health care providers that women aged 15 to 50 who are closed in Medicaid are automatically eligible for family planning services for up to 24 months after their Medicaid closing;
• Notified women deemed to be no longer eligible for full Medicaid that they automatically remain eligible for family planning services for up to 24 months;
• Recommended that Delaware apply for a Medicaid family planning waiver that increases the pool of eligible men and women and enhances program services;
• Gathered information on the screening efforts across the state, the capacity issues that exist and the modules that integrate mental health services in a primary care setting;
• Provided education and workshops on perinatal mental health at several of the DHMIC annual summits, including featuring Dr. Jennifer Payne, director of the Women’s Mood Disorders Center at John Hopkins School of Medicine. Dr. Payne spoke on the importance of continuing medicine during pregnancy for depression and/or a mood disorder. She also discussed universal maternal depression screening and resources.

Future Goals
• Make depression screening (PHQ-9) a standard of care;
• Develop referral/resource algorithm;
• Work with insurance companies on reimbursement for depression screening;
• Seek to understand the impact of maternal depression and mental health/behavioral health disorders on maternal and child health;
• Seek to identify the best practices for the treatment of mood disorders among women during and after pregnancy;
• Address health disparities and its possible impact in current health practices.

For Greater Impact:
The Systems of Care and Health Disparities Committee will merge into a new Health Equity Systems Committee to address the social determinants of health.
Education & Prevention Committee

The Education and Prevention Committee’s services targeting high-risk populations, and programs aimed at birth spacing and reproductive life planning. Among the committee’s many accomplishments since 2006 are the following:

- Developed reproductive life plans for teens;
- Developed the adult plan “Set Your Mind, Set Your Goals”, which helps women set their personal health goals based on values. The tool helps women reach optimal health, which will contribute to healthy pregnancies if or when, desired. The adult reproductive life plan campaign reaches young women through an interactive website - [http://mylifeplan.healthywomende.com](http://mylifeplan.healthywomende.com), print materials and web banner ads;
- Developed the teen plan “My Life, My Plan”, which is a user friendly guide that encourages teens to establish and maintain healthy habits and life-affirming goals. The tool was adopted by the Department of Education for use in the statewide health curriculum for middle and high school students. The teen reproductive life plan uses social networking through Facebook at [www.facebook.com/MyLife.MyPlan](http://www.facebook.com/MyLife.MyPlan). Web banner ads and blogs are also tools to engage teen boys and girls in life planning;
- Developed a male reproductive plan called “Man Up. Plan Up” to engage young men in developing life plan goals that may or may not include having children. The “Man Up. Plan Up” website ([http://www.manupplanup.com](http://www.manupplanup.com)) won a Web Marketing Association's international advertising award for its unique functionality;
- Developed the Kicks Count campaign to educate clients and providers about the importance of fetal movement tracking as a strategy to reduce stillbirth;
- Published education materials in English and Spanish;
- Developed the [www.healthywomende.com](http://www.healthywomende.com) website with the following components: Delaware Healthy Mother & Infant Consortium, adult life plan, teen life plan, and prenatal/post partum;
- Supported development of the health ambassador and peer educator programs to promote community awareness;
- Collaborated with the March of Dimes to hire a statewide health educator to promote messages and disseminate the tools developed by the DHMIC to reduce infant mortality.

Future Goals

- Evaluate the impact of all reproductive life plans and other education campaigns;
- Develop a safe sleep campaign for providers and consumers;
- Share tools within Delaware and with other partners outside of the state;
- Continue to monitor the DHMIC’s mission and revise and/or develop new educational tools as needed;
- Ensure all educational tools and messages are culturally appropriate and help address health disparities;
- Coordinate life course training for providers and community members;
- Expand the peer educator program statewide;
- Support health ambassadors statewide to educate and inform community members about health promotion and disease prevention;
- Engage consumers through a variety of venues; traditional media, social marketing and summit events.
OUR
ACCOMPLISHMENTS
OUR ACCOMPLISHMENTS

Decrease in Infant Mortality
Data from the Delaware’s Division of Public Health (DPH) show that our initiatives are proving successful in reducing our infant mortality rate. Delaware’s infant mortality rate has decreased for the fourth consecutive reporting period, dropping by 10 percent from 9.3 deaths for every 1,000 live births in 2000-2004 to 8.3 deaths for every 1,000 live births in 2005-2009.

This decrease is due in part to our focus on creating systemic change which is the only way to sustain our progress.

Decrease in Premature Infants
The decrease in infant mortality can be attributed in part to a 13 percent decrease in premature births in Delaware since 2005. Prematurity and low birth weight are the leading causes of infant mortality in Delaware; the two account for 25 percent of the infant deaths between 2005 and 2009. Consequently, our programmatic efforts have focused on preventing premature births and low birth weight births. Several risk factors are associated with premature birth including a maternal history of preterm birth, plurality (e.g. twins, triplets, etc.), and uterine and/or cervical abnormalities. Additional environmental and health risk factors include alcohol use, heart disease, smoking, and lack of or delayed prenatal care.
Reduction in Costs

Preventing babies from being born too soon or too small directly saves lives. Hospital costs as well as lifetime costs for other health and social services, make prematurity a financial drain on society, with some estimates putting the yearly cost to the U.S. at $26.2 billion, or approximately $51,600 per infant.3 These costs are broken down into six categories. (See 1.4)

In 2008, we estimated the 1,556 premature births in Delaware cost Medicaid–covered births $40 million and privately–insured births $31 million. Preventing preterm births could save Medicaid and private insurance an average of $44,500 per infant or $71 million annually. Thus, the projected benefits of Delaware’s programs and initiatives provide a substantial return on investment for both the lives of families and Delaware’s economy.
**FISCAL YEAR 2007**

In FY 2007, the infant mortality initiative was awarded an additional $2 million to focus programs and interventions on women with a history of poor birth outcomes who are again pregnant or intend to become pregnant. With the funding, we established new clinic sites. We assembled the Registry for Improved Birth Outcomes to identify prenatal risks that most needed to be addressed— and learned that women in the high-risk group exhibited certain behaviors such as smoking, weight gain and inadequate spacing between pregnancies. We also defined baseline participation rates and data collection protocols for our programs for monitoring and future analysis. We identified two new goals from the gathered data— to increase access to prenatal care and to educate women statewide through media campaigns.

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**FISCAL YEAR 2006**

In FY 2006, the Office of the Governor prioritized eight recommendations as principal to decreasing infant mortality rates and then targeted five for immediate implementation; approximately $1 million was allocated to the infant mortality initiative. The five recommendations focused on supporting capacity building for collaboration, partnership development, research and direct services.

We assembled the infrastructure to begin the implementation of the recommendations, including the DHMIC and the Center for Excellence on Maternal Child Health and Epidemiology.* The Center was tasked to provide scientific expertise and technical support to the DHMIC and DPH.

We began a pilot study for the Pregnancy Risk Assessment Monitoring System (PRAMS) program with the goal of improving our surveillance of the perinatal population. Working in collaboration with the Child Death, Near Death and Stillbirth Commission (CDNDSC) we piloted a Fetal and Infant Mortality Review (FIMR) regime that committed us to a comprehensive review of every fetal and infant death in Delaware.

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*The Center for Excellence is now referred to as The Center for Family Health Research & Epidemiology*
FISCAL YEAR 2008
In FY 2008, we focused on expanding partnerships, programs and initiatives throughout the state and increased the number of women served. Our family practice team model of care (FPTM) reached 20 percent of all pregnancies in Delaware and increased the number of participants from 1,292 women in FY 2007 to 2,449 – an increase of 90 percent. The number of participants receiving preconception care increased from 4,768 women in FY 2007 to 14,839 – an increase of 211 percent.

We successfully implemented statewide media campaigns on four topics: HIV perinatal prevention, safe-sleeping, breastfeeding and preconception health. We also partnered with the University of Delaware to begin analyzing our FPTM and Preconception Care programs. This included creating a patient satisfaction survey tool for the programs and analyzing data from the Registry for Improved Birth Outcomes.

FISCAL YEAR 2009
In FY 2009, our goals were to further focus on data collection and evaluation of programs and initiatives to measure progress and for quality improvement.

We expanded the birth defects registry and began active surveillance. We broadened monitoring to include early intervention and prevention programming. We created a linked database system to meet data analysis and program assessment goals, and improve health care and services provided to the public. We invested resources in our maternal and child health case management system which enabled us to start linking newborn metabolic and hearing screening data, FPTM data and the birth defects registry data. In FY 2009, the FPTM served 11,382 women across the state. Of those women served who were pregnant, 95 percent did not have a pregnancy complication.

We continued to focus on improving access to care for populations that were disproportionately affected by infant mortality.

Our programs and initiatives provided bilingual services to more than 500 Spanish-speaking clients. We developed cultural competency curricula for providers. We also developed educational materials in English and Spanish for women and teens on improving lifestyle choices for healthier living, pregnancies and birth outcomes.
FISCAL YEAR 2010
In FY 2010, we maintained our emphasis on program expansion and data collection. We provided resources for Westside Family Healthcare and La Red Health Center to expand their perinatal clinic services to include dental services in order to promote oral health care for their patients. We implemented a comprehensive statewide education campaign – using all media, including websites, text messaging campaigns, billboards and public transportation advertisement to increase awareness and build support for the initiative. In FY 2010, we transitioned our FPTM and preconception programs into one model – the Healthy Women Healthy Babies (HWHB) program, which served 3,080 women. We also transitioned into a new data collection system to utilize our newborn hearing and screening data platform in combination with the provider databases to begin capturing HWHB bundle services. The bundles of services include: preconception care, mental health, prenatal/interconception and nutrition services.

FISCAL YEAR 2011
In FY 2011, we continued to expand the statewide education campaign with the development of new educational tools and we launched the DHMIC website (www.healthywomende.com). The website provides access to our initiatives, educational materials, reports and updates.

We also began offering enhanced services for the HWHB program, which included prenatal and multi-vitamins, nutrition counseling services, vaccines, intrauterine (contraception) devices and genetics testing and counseling services. A total of 7,260 women took advantage of all the HWHB services in FY2011, accounting for approximately 24,660 HWHB-related visits.

All told, the combination of all programs from FPTM, Preconception Care and Healthy Women Healthy Babies have now provided over 52,000 units of care. These services have made a dramatic impact on the health of Delaware families in the last six years.
Program Accomplishments
Healthy Women Healthy Babies Program
The key initiative in our effort to address the health of women across the life span is the Healthy Women Healthy Babies (HWHB) program. DPH staff developed the model based on the life course perspective. The interventions draw heavily on the American Academy of Pediatrics (AAP), the American College of Obstetricians and Gynecologists (ACOG), Centers for Disease Control (CDC) and the United States Preventive Services Task Force (USPSTF) guidelines, and serve thousands of women at risk for poor birth outcomes such as an infant death, a premature baby or a baby born with a birth defect. (See 1.5)

A perinatal periods of risk (PPOR) analysis on the fetal and infant deaths that occurred in Delaware in the 2002-2006 period indicated that the infant mortality rate was particularly driven by African-American women delivering very low birth weight babies (VLBW). A perinatal periods of risk (PPOR) analysis on the fetal and infant deaths that occurred in Delaware in the 2002-2006 period indicated that the infant mortality rate was particularly driven by African-American women delivering very low birth weight babies (VLBW).
Based on these results, the PPOR protocol suggests an increased emphasis on mitigating the behavioral, economic, health, and social disparities of mothers in these communities. Given the inclusion criteria above, the HWHB program aligns well with this recommendation.

**Background**
The Healthy Women Healthy Babies (HWHB) program provides preconception and prenatal care for women who are at risk for poor birth outcomes. The program targets African-American women as well as women whose most recent pregnancy resulted in a poor birth outcome. In addition to these risk factors, a woman can be enrolled in the program if she presents with at least two out of a specified list of health or socioeconomic conditions, such as a BMI greater than or equal to 30 or with income at a federal poverty level at or below 300 percent. (See 1.6) The intent of the program is to improve the health of at-risk women of reproductive age particularly prior to conception, which has been shown to improve pregnancy-related outcomes.5

Through the HWHB framework, enrolled women receive a broad set of recommended preconception and prenatal care services at participating clinic sites. (See 1.7) The Division of Public Health reimburses the sites based on the four bundled service options available to women in the program.

**Qualifications for HWHB initiative:**
- BMI greater than or equal to 30;
- Chronic disease (patient has a history of/or presents with asthma, cancer, COPD, diabetes and/or hypertension);
- Federal poverty level at or below 300 percent;
- High stress (based on a self-reported perceived stress scale);
- Late entry into prenatal care (after first trimester);
- Maternal age under 18 or over 35;
- Mental illness (based on clinical diagnosis and/or self reported patient health questionnaire);
- Risk for birth defects (based on environmental toxins, family history, and/or personal history).

**HWHB Program Services**

**Bundle Service A: Preconception Care**
**Bundle Service B: Psychosocial Care**
**Bundle Service C: Prenatal Care**
**Bundle Service D: Nutrition Care**

The HWHB program services in each of these bundles align with current best and recommended practices as outlined by the American Academy of Pediatrics (AAP), the American College of Obstetricians and Gynecologists (ACOG), the Centers for Disease Control (CDC), and the United States Preventive Services Task Force (USPSTF).
At each patient visit, the participating clinic site enters the diagnostic and screening results of the services into an online data collection module. In addition to amassing these results, the data collection module also reminds the sites of the frequency by which each of these services should be performed. Through effective use of this data collection module, the HWHB program helps measure the risk factors associated with poor birth outcomes in the population of at-risk women over a period of time.

**Target Population**
The targeted population groups for the HWHB program are as follows:

- African-American women;
- Women whose most recent pregnancy resulted in a poor birth outcome such as infant death, low birth weight delivery, premature birth, or stillbirth.

Given the need to reduce poor birth outcomes, the recognized target populations and the available resources and stakeholders, the HWHB program was implemented by DPH with the following four fundamental principles in mind.
1. We believe that women’s wellness through preconception care is not simply a new “visit type”. Rather, it is a way of looking at how care is delivered to women of reproductive age.

2. We will capitalize on the work of existing DPH programs that already address many areas important for preconception health. These areas include comprehensive cancer screening, diabetes management, family planning, immunizations, newborn screening, home visiting and Healthy Homes, STD/HIV prevention, tobacco prevention and WIC.

3. We are committed to developing strategies to view every encounter with a woman of childbearing age as an opportunity for health promotion and risk reduction through the life course.

4. Whenever feasible, we will align funding and resources to decrease duplication and enhance mutually reinforcing systems and messages.

Through extensive discussion with an array of stakeholders, the HWHB program was designed with four bundled service options, each set up for the particular needs of an enrolled woman at the time of visit.

In addition to measureable outcomes, one of the noteworthy features of the HWHB program is its alignment with the life course perspective, a model that conceptualizes birth outcomes as the end product of the entire life course of the mother leading up to the pregnancy and not simply the nine months of pregnancy.6-7

The life course perspective recognizes that a multifaceted interaction of behavioral, biological, environmental, psychological, and social factors contribute to health outcomes throughout the course of an individual’s life.8 Recent public health and social science literature suggests this model to be a robust indicator of individual and community health and encourages its application in the health care field.9,10

Prematurity Prevention Program
In 2008, the Data and Science and Standards of Care Committees of the DHMIC reviewed the available evidence and recommended the use of 17 alpha-hydroxyprogesterone caproate for pregnant women with history of premature births. Delaware became one of the first states in the nation to offer 17 alpha-hydroxyprogesterone caproate to women at risk of premature birth.

The drug is provided free to women who are uninsured or underinsured. Progesterone is a naturally occurring hormone during pregnancy. When begun early in the pregnancy, 17 alpha-hydroxyprogesterone caproate has been proven to reduce recurrent premature birth in women who have previously delivered a premature infant. These injections begin between 16 and 20 weeks gestation and continue until delivery or 36 weeks gestation. The use of progesterone is also recommended by the American College of Obstetricians and Gynecologists (ACOG) for these cases. Since the program’s inception, 80 percent of the patients who have been treated have delivered after 34 weeks gestation. Since the beginning of FY 2012, 108 women have delivered at 34 weeks or later – establishing that the program is on track for improving our rate of full term births for this fiscal year.
The evidence shows that multiple programs and initiatives, in a comprehensive effort to tackle the various preconception and prenatal issues, will have the greatest effect on reducing infant mortality. Our programs and initiatives were designed to intervene at many levels: girl/woman, family, provider and community. (See 1.8)
Statewide Education Campaign—
Materials and Tools

Education plays a large role in prevention efforts. In 2010, we developed reproductive health education tools that reached over 100,000 people in the first year of distribution. All DHMIC education materials and posters are published in English and Spanish, with custom made materials for low literacy patients.

Kicks Count Campaign

Our Kicks Count campaign is both a provider and patient education campaign to promote fetal movement tracking. Based on a recommendation from our Standards of Care Committee, the Education and Prevention Committee developed materials for education and for tracking. Kicks Count encourages women to take control to track their baby’s movements in order to identify potential problems and prevent stillbirth. The American College of Obstetricians and Gynecologists (ACOG) recommends that women time how long it takes to feel 10 kicks, flutters, swishes, or rolls. Ideally, women want to feel at least 10 movements within two hours. Keeping track of the movements and time will help mothers observe patterns and discover how long it normally takes for their baby to move 10 times. While this is strongly recommended for women with high risk pregnancies, counting fetal movements beginning at 28 weeks may be beneficial for all pregnancies.
Reproductive Life Plans

A reproductive life plan (RLP) is one of the recommendations from the CDC to improve preconception health and health care in the United States. A RLP helps one set personal goals about having (or not having) children based on personal values and resources and a plan to achieve those goals. We developed and distributed more than 35,000 copies of reproductive life plans targeted towards teenagers and adult women in 2011 and are launching the reproductive life plan for males this year.

The teen plan has been adopted for use by the Delaware Department of Education. The U.S. Department of Health and Human Services Office of Population Affairs has adopted it for national dissemination.

DHMIC Website

In January 2011, the DHMIC website was launched to serve as a link to information and resources for health professionals and advocates:

http://healthywomende.com/

A recent analysis of the website indicated that the users who visit the site are engaged and absorbing the information that is available to them.
Social Networking
In the digital age of media, it is important to reach out to the population by any means necessary. The DHMIC website is being integrated with social networking sites and text messaging campaigns to help provide women with the tools and information they need to make healthy choices. Examples include:

- Teen Life Plan Facebook Page
- Teen Life Plan Blog
- Text4Her
- Text4Baby
- Web banner ads

Surveillance and Efforts Provide Insight Into Disparities
The DHMIC conducts program participant interviews and research to understand the issues women in Delaware are facing to plan for future programs.

FIMR
We have used the case reviews from the Fetal and Infant Mortality Review (FIMR) since 2006 to continuously assess, plan, improve and monitor the health service systems and broaden community resources that support our initiatives. Our FIMR program is lead by the Child Death Near Death and Stillbirth Commission. (CDNDSC). The work of CDNDSC is coordinated by the Administrative Office of the Courts within the judicial branch. DHMIC collaborates with FIMR as one of the two community action teams to help carry out recommendations.

PRAMS
The Pregnancy Risk Assessment Monitoring System (PRAMS) is a surveillance program of the Centers for Disease Control and Prevention (CDC) and state health departments. PRAMS utilizes a questionnaire to collect state-specific, population-based data on maternal attitudes and experiences prior to, during and immediately following pregnancy.

The Delaware PRAMS pilot study began in 2006 and data collection started in August of 2007. In 2008, 1,576 women, who were 2-4 months post-partum were surveyed with a 79 percent response rate. The results showed that women who were in older age groups, who were married, and who had more years of education had a higher socioeconomic status and were in better health before, during, and after pregnancy. White non-Hispanics were frequently in significantly better health than black non-Hispanics and Hispanics with the notable exceptions of alcohol and tobacco use.
The 2008 PRAMS responses shed some light on disparities when broken down by race:

### 2008 PRAMS QUESTIONS

<table>
<thead>
<tr>
<th>Tried to get pregnant at the time of pregnancy?</th>
<th>Down, depressed, or sad since baby born?</th>
</tr>
</thead>
<tbody>
<tr>
<td>49% White women</td>
<td>11% White women</td>
</tr>
<tr>
<td>28% Black women</td>
<td>14% Black women</td>
</tr>
<tr>
<td>38% Hispanic women</td>
<td>11% Hispanic women</td>
</tr>
</tbody>
</table>

Other highlights include:

### PRAMS PROJECT HIGHLIGHTS

- **60%** of women did NOT take a daily multi-vitamin the month before pregnancy. Of those in the 20 – 24 year age group **79 percent did not take a multi-vitamin**.
- **27%** of the 20 – 24 year age group were trying to be pregnant at the time.
- **68%** of women did NOT go to a dentist or dental clinic.
- **43%** of women had their prenatal care covered by Medicaid.
- **92%** of women had at least 1 serving of fruits or vegetables on average each day during the last three months of their pregnancy.
- **72%** of women breastfed or pumped breast milk to feed their baby after delivery. However, for black non-hispanic women although **88.5 percent knew of breastfeeding, only 57.8 percent ever breastfed after delivery.**
“We have made concerted efforts to find innovative strategies for healthy mothers and babies. It’s gratifying to see progress on this public health issue. Having said that, we need to continue to work helping more young women deliver healthier babies.”
-David Paul, MD, Co-Chair of the Delaware Healthy Mother and Infant Consortium

Review of Progress and Implementing the 20 Recommendations
As of 2012, 18 of the 20 recommendations have been fully implemented or are in progress.

**KEY**

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Conduct a comprehensive review of every fetal and infant death in Delaware.</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2. Create a monitoring system to increase understanding of the risks faced by pregnant mothers in Delaware.</td>
<td>Done</td>
</tr>
<tr>
<td>3. Establish the Delaware Healthy Mother and Infant Consortium (DHMIC) as successor to the current Perinatal Board.</td>
<td>Done</td>
</tr>
<tr>
<td>4. Create the Center for Excellence in Maternal and Child Health Epidemiology within the Division of Public Health.</td>
<td>Done</td>
</tr>
<tr>
<td>5. Improve access to care for populations disproportionately impacted by infant mortality.</td>
<td>Ongoing</td>
</tr>
<tr>
<td>6. Provide access to preconception care for all women of childbearing age with history of poor birth outcomes.</td>
<td>Ongoing</td>
</tr>
<tr>
<td>7. Require that insurers cover services included in standards of care for preconception, prenatal and interconception care.</td>
<td>Ongoing</td>
</tr>
<tr>
<td>8. Implement a comprehensive (holistic) family practice team model to provide continuous comprehensive care and comprehensive case management services to pregnant women and their infants up to two years post partum. Services will include comprehensive case management, trained resource mothers, outreach workers, nurses, social workers and nutritionists.</td>
<td>Done</td>
</tr>
<tr>
<td>Recommendation</td>
<td>Status</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>9. Implement federal standards for culturally and linguistically appropriate services (CLAS).</td>
<td>Ongoing</td>
</tr>
<tr>
<td>10. Create a cultural competence curriculum for providers.</td>
<td>Done</td>
</tr>
<tr>
<td>11. Improve comprehensive reproductive health services for all uninsured and underinsured Delawareans up to 650 percent of poverty.</td>
<td>Pending</td>
</tr>
<tr>
<td>12. Fund an in-depth analysis of programs in Delaware that mitigate infant mortality and create and implement an ongoing process for continuous quality improvement for services and programs developed to eliminate infant mortality.</td>
<td>Ongoing</td>
</tr>
<tr>
<td>13. Create an epidemiological surveillance system to evaluate and investigate trends and factors underlying infant mortality and disparity.</td>
<td>Ongoing</td>
</tr>
<tr>
<td>14. Create a linked database system to meet data analysis and program assessment goals and improve health care and services provided to the public.</td>
<td>Done</td>
</tr>
<tr>
<td>15. Conduct a statewide education campaign on infant mortality targeted at high-risk populations.</td>
<td>Done</td>
</tr>
<tr>
<td>16. Expand the birth defect registry surveillance and make it proactive by broadening monitoring, early intervention and prevention programs.</td>
<td>Done</td>
</tr>
<tr>
<td>17. Continue to improve the statewide neonatal transport program.</td>
<td>Ongoing</td>
</tr>
<tr>
<td>18. Evaluate environmental risk factors for poor birth outcomes.</td>
<td>Pending</td>
</tr>
<tr>
<td>19. Promote oral health care, particularly the prevention and treatment of periodontal disease, as a component of comprehensive perinatal programs.</td>
<td>Ongoing</td>
</tr>
<tr>
<td>20. Provide an annual report to the governor on current and future factors impacting the availability of obstetrical practitioners. Include recommendations to remedy systems capacity issues.</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>
Today and the future—where do we go from here?
We have made good progress over the past six years but much remains to be done to reach our goal of eliminating the racial disparity and dropping our infant mortality rate to meet the Healthy People 2010 goal of 4.5 infant deaths per 1,000 live births. We continue to enhance the performance of the consortium by developing mechanisms to address specific challenges as they are unearthed by our data analysis.

Perinatal Cooperative
In 2011, we established the Delaware Perinatal Cooperative under the umbrella of the DHMIC. The Perinatal Cooperative Board (Advisory Board) is composed of representatives from birth hospitals and community partners such as March of Dimes and professional organizations. Member organizations collect and report specific data elements relevant to the clinical priorities selected by the Board such as the use of antenatal steroids for those at risk of preterm delivery.

The Division of Public Health receives, compiles, and analyzes data by site. From this data, the advisory board will determine perinatal standards, intervention strategies and performance improvement measures to be uniformly applied throughout Delaware and implement continuous quality improvement initiatives to increase adherence to perinatal best practices.

Peer Educator Program
The preconception peer education program was implemented by the Education and Disparities Committees of the DHMIC, the University of Delaware, Delaware State University, and Wilmington Consortium and is part of the national “A Healthy Baby Begins with You” campaign, which was launched in 2007 by the Department of Health and Human Services’ Office of Minority Health (OMH). The campaign focuses on raising infant mortality awareness among the African-American community, as part of the OMH’s effort to end health disparities among racial and ethnic minorities. The program educates college students on preconception health/life course approach, and in turn trains them to educate their peers as well as teach high school students.11

“Our targeted efforts are making a profound difference in addressing women’s risk factors for poor birth outcomes. We must stay the course.”
– David Paul, MD, Co-Chair of the Delaware Healthy Mother and Infant Consortium
Addressing the Continuing Disparities
Although we are happy to report the decline in the infant mortality rate, we still have a long way to go.

Black children are seven times more likely to be persistently poor than white children and 69 percent of black children who are born poor are persistently poor compared to 31 percent of white children. Years of childhood poverty correlates with adult poverty, education, employment, teen pregnancy and infant mortality.

The infant mortality rate for blacks remains 2-3 times higher than the rate for whites. The mortality rate for black infants for the period 2005-2009 is 12.9 deaths per 1,000 live births, compared to 5.7/1,000 for whites and 7.6/1,000 for all races. (See 1.9)

“We are committed to working on the goal of eliminating racial disparity in the next 10 years”

- Jacquelyne Gorum, DSW, Co-Chair

Source: Delaware Health Statistics Center: Delaware Vital Statistics Annual Report 2009
DESTINATION
POSTCARD
AND CONCLUSION
WELCOME TO DELAWARE
First in the health of mothers and infants.

WE ALL HAVE A ROLE TO PLAY.
EACH OF US CAN DO SOMETHING TO CREATE HEALTHIER PEOPLE AND HEALTHIER PLACES. AND WHEN THAT HAPPENS, ALL OF OUR BABIES WILL THRIVE, AND OUR LIVES AND OUR COMMUNITIES WILL THRIVE WITH THEM.
Destination Postcard
All journeys are easier to make when we have a motivating picture of our destination. The destination postcard is a simple way for visualizing where we want to end up. Our destination postcard shares our vision for Delaware to lead the nation in promoting the health of mothers and infants. Our bold goal is for every baby to be born healthy and to have an opportunity to thrive. We recognize that this is an ambitious aim. Yet, we also recognize that each milestone we pass along the way means more mothers and babies are better off. And, when one mother and baby are better off, we are all better off.

Our roadmap for change is clear, and you are part of the journey. Specifically, our consortium, our committees, our colleagues and collaborators will work on the following key milestones over the next five years, amplifying the major achievements of the past six years:

WHERE WE ARE GOING IN THE NEXT FIVE YEARS:
- GROWING a dedicated corps of COMMUNITY HEALTH ADVOCATES
- PROMOTING access to MENTAL HEALTH
- ENSURING every baby’s SLEEP SAFETY
- ENCOURAGING healthful BREAST-FEEDING
- ADOPTING statewide LIFE COURSE PERSPECTIVE

WE WILL DO THIS WITH A FOCUS ON:
- Individual Level Education and Intervention
- Partnering with Medical and Social Service Providers
- Supporting Strong Communities to Address Social Determinants of Health.

We invite you to learn more by visiting us online at healthywomende.com and to stay with us on the road to healthy change.
Each of us can help create healthier people and healthier places. And when that happens, all of our babies will thrive, and our lives and our communities will thrive with them. Together, we must:

- Ensure access to the right care, at the right time in the right place
- Ensure that mom is healthy and lives a healthy pregnancy
- Ensure that families and home are ready for baby
- Ensure that communities provide appropriate social and economic support
- Ensure that society provides a healthy environment and appropriate opportunity

By working together on these clinical and social determinants of mother and infant health, we will continue to achieve statewide reduction in infant mortality. We will help more babies get off on the right foot, and rise above the challenges to a healthy birth.

CONCLUSION.
“We are grateful to all who have served and continue to contribute their time, expertise and energies to our efforts these last six years—without whom these programs and services may not have succeeded to their present levels.”

– Jacquelyne Gorum, DSW, Co-Chair
DHMIC MEMBERS
We are grateful to all who have served and continued to contribute their time, expertise and energies to our efforts these last six years- without whom these programs and services may not have succeeded to their present levels. Current and past DPH staff is in italics.

### Appointed Members

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Midge Barrett  
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Tiffany Chalk  
Garrett Colmorgen, MD  
Carol DeSantis  
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Rev. John Holden  
Kathy Kanefsky  
Lolita Lopez  
The Honorable Pam Maier, Former State Representative  
MaryKate McLaughlin  
Susan Noyes  
Brian Olson  
Anthony Policastro, MD  
Marian Powell  
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Rosa Rivera  
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Alvin Snyder  
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*Heather* Ryan  
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Norma Everett
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Meaghan Jerman
Kristin Joyce
Ruth Kelly
Vicky Kelly, PsyD
Emily Knearl
Jim Lafferty
Willa Langdon
Lolita Lopez
Kelly Shaughnessy
Crystal Sherman
Beverly Turney
Fred Tolbert
Janet Umble
Kristi Walters
GLOSSARY OF TERMS
AAP— American Academy of Pediatrics

ACOG— American College of Obstetricians and Gynecologists

ART— Assisted reproductive technology. ART increases the chances of multiple births. ART and other fertility treatments also put women at risk of preterm labor and LBW.

CDC— Centers for Disease Control

CDE— Certified Diabetes Educator

CDNDSC— Child Death, Near Death and Stillbirth Commission

CLAS— Culturally and Linguistically Appropriate Services

CRT’s— Case review teams

DAFP— Delaware Academy of Family Physicians

DAP— Delaware Academy of Pediatrics

DHMIC— Delaware Healthy Mother and Infant Consortium

DPH— Delaware Division of Public Health

Fetal Death— Defined in Delaware as a fetus of at least 350 grams, or in the absence of weight, 20 weeks gestation, born without a heartbeat, spontaneous respirations or purposeful movement.

Fetal Mortality Rate— The number of fetal deaths divided by the number of live births plus fetal deaths, per 1000 live births plus fetal deaths.

FIMR— Fetal and Infant Mortality Review. A process used by many states and localities to learn more about infant deaths than can be found on birth and death certificates. The FIMR process begins when a fetal or infant death is identified. FIMR staff collect data about the death and the services the woman and her family receive from a variety of sources, such as the death certificate, the physician and hospital records. FIMR staff also interview the parents and review records related to home visits, WIC (Special Supplemental Nutrition Program for Women, Infants and Children) and additional social services. During the course of these interviews, important public health services can be offered to the family. To be successful, the findings of FIMR must be used in a community action plan to make differences in the way services are delivered.

FPTM— Family practice team model

HWC— Healthy woman coordinators

HWHB— Health Women Health Babies program

IMTF— Infant Mortality Task Force. The force convened by the Governor in 2004 as a response to the nation’s trend of decreasing infant mortality rates, versus the increasing rate in Delaware.
**IMR**—Infant Mortality Rate. The number of infant deaths under one year of age per 1000 live births.

**LBW**—low birth weight. Births less than 2500 grams.

**MSD**—Medical Society of Delaware

**NMA**—National Medical Association

**NMR**—Neonatal mortality rate. The number of infant deaths under 28 days of age per 1000 live births.

**OMH**—Office of Minority Health

**PMR**—Perinatal mortality rate. The sum of late—more than 28 weeks’ gestation—fetal deaths plus infant deaths within 7 days of birth per 1000 live births plus late fetal deaths.

**PNMR**—Post-neonatal Mortality Rate. The number of infant deaths between 28 days and 11 months of age per 1000 live births.

**PPOR**—Perinatal periods of risk. PPOR is an analysis of vital records data to determine areas of focus for intervention prior to, during, or following pregnancy or delivery. The goals are to identify gaps in community services, communicate findings to local partners and prioritize prevention efforts aimed at reducing infant mortality.

**PRAMS**—Pregnancy Risk Assessment Monitoring System is a surveillance project of the Centers for Disease Control and Prevention (CDC) and state health departments collects data on maternal attitudes and experiences before, during and immediately following pregnancy. Research has indicated that maternal behaviors during pregnancy may influence infant birth weight and mortality rates. PRAMS provides data for planning and assessing health programs and for describing maternal experiences that may contribute to maternal and infant health. PRAMS provides data not available from other sources about pregnancy and the first few months after birth and is used to identify women and children at high risk for health problems, to monitor changes in health status and to measure progress toward goals.

**RLP**—Reproductive life plan

**SIDS**—Sudden Infant Death Syndrome. Sudden Infant Death Syndrome is the sudden, unexplained death of an infant younger than one year old. SIDS is the leading cause of death in children between one month and one year old. Most SIDS deaths occur when babies are between two months and four months old. SIDS is only diagnosed after every other possible cause has been considered.

**USPSTF**—U.S. Preventive Services Task Force

**VLBW**—Very low birth weight. Births less than 1500 grams.

**WIC**—Women Infants and Children. Special supplemental program for women, infants and children.
REFERENCES


In the decade ahead we will focus on the social, emotional, economic and environmental determinants that promote the health of mothers and infants. We invite your help in making Delaware a place where every baby has the opportunity to thrive.
GROWING
A HEALTHY
DELAWARE
HEALTHY
BABIES
GROW UP TO
BECOME HEALTHY
ADULTS.
AND THAT GROWS
A HEALTHY
DELAWARE

HEALTHY COMMUNITIES
NURTURE
HEALTHY
BABIES

HEALTHY SOCIETIES
NURTURE
HEALTHY
BABIES