

There is  
no foot so small  
that it cannot  
leave an imprint  
on this world.

*Author Unknown*

Douglas County Health Department  
Fetal and Infant Mortality  
Review (FIMR)  
2013 Annual Report



# Douglas County 2013 Annual FIMR Report

## Overview

Feto-infant mortality rate has **decreased**

from

10.7 (1993-96)  
to **7.0** (2009-12)

Data Gathering

African-American mothers experience nearly twice as many feto-infant deaths as white mothers

**11.2** compared  
to **6.4**

Case Review

Hispanic mothers

**(6.1)**

have a lower

feto-infant mortality rate than white women

**(6.4)**

Community Action

Very low birth weight (VLBW) and Sudden Infant Death (SIDS)/ Sudden Unexplained Infant Death (SUID) lead all other single causes of feto-infant mortality.

Changes in  
Community Systems

# 2013 Annual FIMR Report Highlights

## Preconception Health

### Utilizing Life Course Theory, preconception health messaging was interfaced with youth development

- Wyman's Teen Outreach Program (TOP) was chosen as a point of integration for the Developmental Assets that relate to Preconception Health
  - 4 youth-serving organizations participated in the Wyman's TOP Program
    - *Collective for Youth* at Norris Middle School
    - *Nothing But Net* at Lewis & Clark Middle School
    - Child Saving Institute
    - Boys & Girls Club

## Safe Sleep

### 2013 educational resources update:

#### Existing Resources

- Baby Blossoms Collaborative (BBC) *Nothin' But Baby* campaign (<http://babyblossomsomaha.org/resources/safe-sleep>)
- State-wide safe sleep packet (<http://dhhs.ne.gov/publichealth/Pages/sids.aspx>)

#### Revised Resources

- American Academy of Pediatrics recommendations (<http://pediatrics.aappublications.org/content/128/5/e1341.full?sid=bd9574fb-4575-4d35-a46ea63394e68331>)
- National *Safe to Sleep* messaging (<http://www.nichd.nih.gov/sts/Pages/default.aspx>)

## Prenatal Care

A tiered, multi-disciplinary model of best practice intervention for perinatal depression was selected for Douglas County. The chosen model was the National Institute for Health and Clinical Excellence (NICE) Model.

### The components of a perinatal depression response plan were identified

- An electronic mental health perinatal depression provider resource directory was developed (<https://nrns.ne.gov/>)
- A link to the Nebraska Perinatal Depression Provider Curriculum (updated by DCHD staff) was incorporated (<http://dhhs.ne.gov/publichealth/Pages/perinataldepression.aspx>)

### Funds were secured from the March of Dimes to promote Healthy Babies are Worth the Wait

- Six agencies participated in "train the trainer sessions" for the above curriculum
  - Charles Drew Health Center/Omaha Healthy Start
  - DCHD Women, Infants and Children (WIC)
  - DCHD WIC Breastfeeding Support Workers
  - Fred LeRoy Health Center
  - One World Health Center
  - Nebraska Children's Home Society
  - 67 participants (physicians, nurses, dieticians, midwives, social workers, educators and peer support workers) were trained
  - Trainers then educated clients for a 3 month period

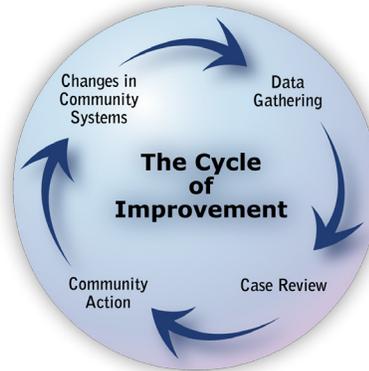
## **BACKGROUND**

The Baby Blossoms Collaborative (BBC) initiated the Fetal Infant Mortality Review (FIMR) process in 2006 to address feto-infant mortality in Douglas County. The FIMR process brings a community team together to examine confidential, de-identified cases of feto-infant deaths. The purpose of the review process is to understand how a wide array of local, social, economic, public health, educational, environmental and safety issues relate to the tragedy of feto-infant loss. Having gained a comprehensive understanding of these issues from data analysis and case reviews, a broad forum of interested community members—leaders, elected officials, providers, agencies, advocates and consumers are able to reason together and act to improve services.

The Douglas County Health Department (DCHD) uses a nationally recognized best practice model known as the FIMR Cycle of Improvement, (illustrated on the right).

Key steps of the FIMR process include the following:

- Information about the feto-infant death is gathered utilizing public health and medical records.
- A voluntary interview is conducted with the mother of loss. The FIMR Public Health Nurse, who is trained in grief counseling, assesses the needs of the family and refers to bereavement support and community resources.
- The Case Review Team (CRT), comprised of health, social service, community experts and interested citizens from the community, reviews the summary of case information (gathered from the medical record and maternal interview), identifies contributing factors and makes recommendations for community change.
- The Community Action Team (CAT), a diverse group of community leaders, reviews CRT recommendations, prioritizes identified issues, then designs and implements interventions to improve service systems and resources.



As a result, the FIMR structure and process creates a setting and activities where everyone has a contribution to make and everyone learns from the process.

**This report will highlight the four unique components of the FIMR Cycle of Improvement as experienced in Douglas County. In addition, each section will highlight recommendations to ensure fidelity to each component of the FIMR process.**

### **HIGHLIGHTS OF DATA GATHERING:**

In Douglas County, population-based data, i.e. vital statistics and PRAMS data are matched with research to help define critical community issues and assist with case selection. The following information is taken primarily from 2012 population-based data and vital statistics information.

This data becomes available to the Baby Blossoms Collaborative (BBC) in April of each year, and includes final numbers from two years previous, combined with preliminary numbers from the year that just ended. For that reason, the population based data in the Annual FIMR Report is typically one year behind the current reporting year.

## **FIMR CRT**

*is an excellent multi-disciplinary committee which has a unique opportunity to positively impact the lives of infants, families and all who directly or indirectly care for them in our community.*

**Deborah Perry, M.D.**  
Medical Director  
Dept. of Pathology  
Children's Hospital  
& Medical Center

- Overall, in Douglas County, the feto-infant mortality rate has decreased from 10.7 in 1993-96 to 7.0 in 2009-12.
- In 2009-12 black mothers continued to experience higher feto-infant death rates than white mothers, especially in maternal and infant health periods, at a rate of 11.2 compared to 6.4 respectively, nearly a 2-fold difference.
- Population-based data shows that cases where mothers have experienced feto-infant death from prematurity-related complications, specifically those with a very low birth weight (VLBW) of 1500 grams or less, and/or SIDS/ SUIDS, lead all other single causes of the county's feto-infant mortality and were, therefore, prioritized for further review.
- Hispanic feto-infant mortality rates are available and, in 2009-2012, the rate of 6.1 for the Hispanic population reflects a decrease over the 2008-11 rate of 7.5, and now places the Hispanic population at a lower feto-infant mortality rate than their white counterparts.

**DCHD Recommendation –**

**Maintain reliable data sources supported by valid (evidence-based) research.**

**HIGHLIGHTS OF CASE REVIEW:**

Below is a summary of cases reviewed over the last 12 months using the following selection criteria: 1.) Douglas County resident, 2.) feto-infant loss occurring after at least 20 weeks of pregnancy through one year of age, and 3.) extreme prematurity, specifically those of a VLBW and/or SIDS/SUID.

- Based on Perinatal Periods of Risk (PPOR) data, feto-infant death cases of prematurity with a VLBW and/or SIDS/SUID were prioritized for review.<sup>i</sup>
- 39 cases were reviewed from January 1, 2013 to December 31, 2013 (26 fetal/13 infant) for a total of 234 cases since 2006.
- 26% of cases were reviewed less than three months after death, while 59% were reviewed less than six months after death.
- We achieved phone contact with 25 out of 39 cases (64%). Of these 25 cases, 15 or 60% resulted in a home interview.

**Perinatal Periods of Risk (PPOR):**

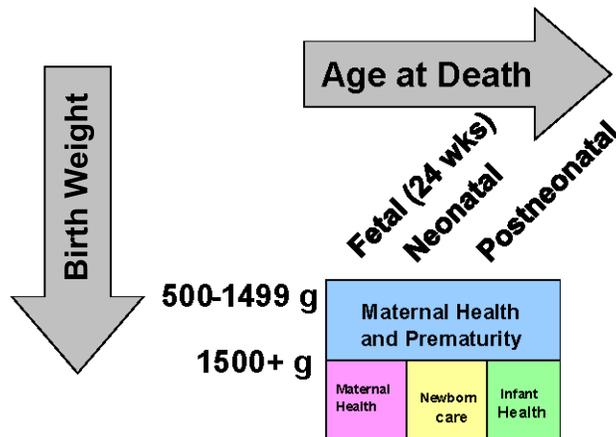
The Perinatal Periods of Risk (PPOR) is both a community approach and an analytic framework for investigating and addressing high infant mortality rates in urban settings. It is an effective way for communities to mobilize and prioritize actions based on the best evidence available.

The PPOR approach examines fetal and infant mortality in two dimensions. The first dimension is Birth Weight (represented on the y-axis) and the second dimension is Age at Death (represented on the x-axis). The four Perinatal Periods of Risk (maternal health/prematurity, maternal care, newborn care and infant health) are named to suggest prevention areas. Each period of risk is associated with its own set of risk and prevention factors. Please see the diagram on the next page. In addition, more specific information can be found at: <http://www.citymatch.org/>

*The FIMR CRT committee provides a thought-provoking, community approach for addressing infant mortality. The process is thorough, intense, heart-breaking and very much needed. The trends observed from FIMR are considered when educating our students on raising healthy children.*

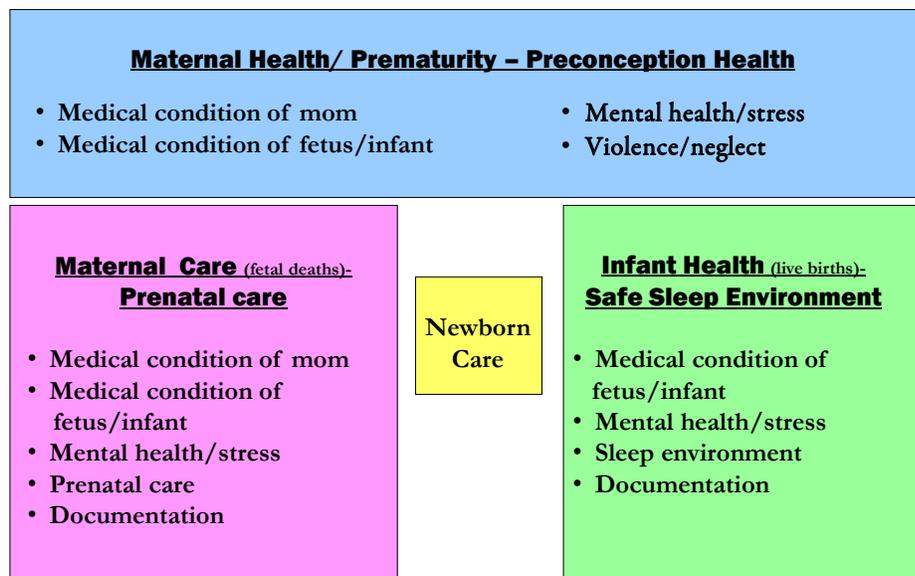
**Karen Spencer-May,  
PH.D.**  
Supervisor, Curriculum,  
Instruction and Assessment  
Omaha Public Schools

## The PPOR Map of Feto-Infant Mortality



Utilizing data gained from vital statistics, PRAMS, and research, community stakeholders have identified maternal health/prematurity (blue box), maternal care (pink box) and infant health (green box), as the areas that drive the Douglas County feto-infant mortality rates, with newborn care playing a lesser role. The chart below compartmentalizes the contributing factors most frequently noted in feto-infant death case review within the PPOR framework for 2013.

### CRT findings related to PPOR Map of Fetal-Infant Deaths (2013)



The frequency with which these contributing factors occur help shape the community response to the feto-infant deaths in Douglas County. For a complete list of contributing factors that are utilized during case summary review, please see Addendum 1 (*Summary of Issues Related to Fetal/Infant Mortality*). "Medical condition of mother" was the most frequently occurring contributing factor, followed by "environment", then "mental health/stress" and "prenatal care", followed by documentation" and "medical fetal/infant" and lastly "violence/neglect."

**FIMR CRT**  
*provides a place where the stories of loss can become more than statistics. They become means to community action that creates better outcomes for mothers and infants.*

**Rev. Dr. Damon Laaker**  
 Pastor, Grace Evangelical Lutheran Church  
 Omaha, NE

*FIMR has tremendous value, not just by improving birth outcomes and lives, but also as a means to nurture well-being, promote health equity, and reinforce communities.*

**Drissa Toure, MD., MPH.**  
 Community Clinical Research Coordinator  
 Center for Reducing Health Disparities  
 College of Public Health  
 UNMC

**DCHD Recommendations:**

1. Continue building the FIMR referral system in an effort to increase the review of cases < three months after death.
2. Increase community awareness by promoting FIMR.
3. Look at the feasibility of a telephone interview with mothers of loss, as opposed to home visit only, as a way to increase the percentage of maternal interviews.

**HIGHLIGHTS OF COMMUNITY ACTION AND SYSTEM CHANGE:**

Douglas County Health Department engages a range of community partners through the BBC to address the contributing factors and recommendations identified in the data and case review process. Utilizing the Fetal Infant Mortality Review (FIMR) process, major contributing factors of fetal/infant death are identified and used to influence programs and public policy through four established Affinity Groups. The Calendar of Community Improvement listed below identifies the activities implemented in even and odd years.

*Baby Blossoms Calendar of Community Improvement*

**ODD NUMBERED YEARS**

January	April	July	October
Present research and best practice activities	Present update in data including PPOR.	Present biannual recommendations from Case Review Team findings.	Develop Community Action Plan complete with milestones and actionable strategies.

**EVEN NUMBERED YEARS**

January	April	July	October
Unveil BBC Community Report and Community Action Plan	Present biannual data including PPOR.	Present Case Review Team findings of reoccurring themes.	Evaluate local capacity and need in relation to Case Review Team findings.

These components build on previous work with a specific focus in the following priority areas: preconception health, prenatal care, and safe sleep initiative.

**PRECONCEPTION HEALTH**

The **PRECONCEPTION HEALTH** Affinity Group focuses on the time period for women before pregnancy occurs. This period is recognized as the **PRECONCEPTION** period. It is well established that maternal and child health outcomes can be improved if adequate resources are devoted during the preconception time period. Douglas County Health Department and BBC attempt to increase positive birth outcomes by targeting preconception health. The Priority Recommendation highlighted in this section is: *Comprehensive preconception health education shall be offered at an early age that addresses four umbrella concepts: 1) The need for a consistent medical home, 2) Lifestyle issues, 3) The need for a culturally & religiously sensitive reproductive life plan and 4) Education/*

*I've had the honor of serving on the FIMR CRT for some years now. The indepth study of each of these tragedies has been tremendously useful in helping us truly understand risk factors and help attempt to fashion recommendations to decrease losses. The ability and input of multiple disciplines markedly adds to the richness of the discussions. I feel that the information that FIMR provides the Health Department is vitally important to the crafting of public policy.*

**Howard Needelman, MD**

Associate Professor of Pediatrics UNMC  
Board certified in Pediatrics/ Neonatal Perinatal Medicine/ Developmental Behavioral Pediatrics

<sup>i</sup> Results are based on a *non-random* sample of deaths, and thus cannot be attributed to the overall population of Douglas County infant deaths

management of chronic conditions including mental health and previous fetal loss. The Preconception Health Affinity Group's goal is "to provide access to information regarding the Life Course Model to Douglas County families to **ensure future positive birth outcomes across generations.**" This goal was accomplished by integrating the 10 key Developmental Assets that relate to Preconception Health into the current curriculum of a minimum of six youth-serving agencies. As a first step, local youth serving agencies were identified and assessed for suitability of Assets integration into their current curriculum (DCHD facilitates four of the six sites for the national Personal Responsibility Education Program (PREP) for Nebraska DHHS Teen Outreach Program). The six youth serving agencies that provide TOP® are:

- \*Collective for Youth (multi-agency organization) at Norris Middle School
- \*Nothing But Net at Lewis & Clark Middle School
- \*Child Saving Institute (CSI)
- \*Boys & Girls Club
- Completely Kids
- Nebraska Children's Home Society (NCHS)

\*Lead by DCHD Staff

The evidence based nature of the TOP® Program (Life Skills, Health Behaviors, & Sense of Purpose) expose youth to 10 key Developmental Assets that relate to Preconception Health through three areas: 1) Educational Peer Group Meetings 2) Positive Adult Guidance and Support and 3) Community Service Learning.

The choice of TOP®, as a point of integration for the 10 key Developmental Assets that relate to Preconception Health, was determined by a two-prong approach: 1) Implementing an analytical review of the TOP program and 40 Developmental assets and 2) Engaging the six youth-serving agencies that had previously participated in training re: Life Course Model & 40 Developmental Assets. These activities resulted in a synthesis of information that interfaced preconception health messaging with youth development.

#### **PRENATAL CARE**

Two additional Affinity Groups addressed **PRENATAL CARE** in Douglas County. The first recommendation highlighted in this section is "Throughout the prenatal period of all women, "consistent and ongoing" screening for medical and non-medical risk factors shall occur; noting any red flags in order to signal a tiered, multidisciplinary response to include appropriate referrals". The above recommendation addresses increased community awareness of maternal depression and anxiety. The goal of the Maternal Depression Affinity Group is "to **create a coordinated community response system** to perinatal depression which includes a tiered multi-disciplinary response for appropriate interventions." The Affinity Group began by selecting a tiered multi-disciplinary model of best practice intervention for perinatal depression for Douglas County. This best practice model of care is known as the National Institute for Health and Clinical Excellence (NICE) model, and all steps of the model continue to be evaluated and modified as needed to best meet the needs of the community. The group then went on to identify the components of a perinatal depression response plan that could be utilized to create a centralized community response.

Two accomplishments included: 1) developing an electronic mental health perinatal depression provider resource directory to help create a centralized community response. A "soft launch" is scheduled to identify any technical problems, with a community launch anticipated in 2014. 2) An additional accomplishment includes incorporating a link to the Nebraska Perinatal Depression Provider Curriculum, which was updated by DCHD staff, in the above resource directory: <http://www.hhs.state.ne.us/perinataldepression>.

The second recommendation states that "intergenerational and multicultural education, focused on preterm labor and healthy pregnancy signs, shall occur through medical, social work and other community providers". The Preterm Affinity Group goal is "to reduce

*FIMR is a diverse group of individuals who come together to evaluate the best ways to promote, educate and empower mothers and families to create safe and healthy environments for their children.*

**Nicole Pearsall, M.D.**  
Obstetrics & Gynecology  
Associates In Womens Health

**FIMR CRT**  
*allows me as a community member to be the eyes, ears, and a voice for the lifeless to the healthcare system, the community, and the governing/ law making body of Douglas County.*

**Gail A. Ross**  
Education Specialist  
Metropolitan Community  
College

preterm labor by **educating the community on prematurity and preterm labor** via the development and implementation of appropriate marketing avenues targeting various Douglas County communities.”

A key strategy included securing funds from the March of Dimes to promote “*Healthy Babies are Worth the Wait*”. Train the trainer sessions were conducted with \*six agencies participating including education, discussion and dissemination of materials regarding the benefits of full term pregnancy; with an emphasis on reducing preterm labor and supporting a hospital-based community-wide policy supporting a ‘hard stop’ of elective inductions or deliveries without a medical reason. A total of 67 participants (physicians, nurses, dietitians, midwives, social workers, educators and peer support workers) at ten sites participated. For a period of three months, the trainers then educated clients in the same manner.

\*Participating Agencies- Charles Drew Health Center/Omaha Healthy Start, DCHD- Women, Infants, and Children (WIC), DCHD- WIC Breastfeeding Support Workers, Fred LeRoy Health Center, One World Health Center, and NE Children’s Home Society

### **SAFE SLEEP INITIATIVE**

**The SAFE SLEEP Initiative** is the final Affinity Group created. The Safe Sleep Priority Recommendation is, “*Safe Sleep messages shall be repeated at every medical home visit (wellness and illness) for parents and other providers of care for the infant.*” Across the Nation, alarming rates of Sudden Unexpected Infant Deaths (SUID), including Sudden Infant Death Syndrome (SIDS), and especially accidental suffocation elevated Safe Sleep messaging to priority status among stakeholders. The goal of the Safe Sleep Affinity Group stakeholders is to “*increase awareness and access to resources to **promote safe sleep practices among care givers.***”

As a result, educational resources with all care givers of the infant are promoted through 1) established American Academy of Pediatrics safe sleep recommendations, 2) the National *Safe to Sleep* messaging (previously recognized as *Back to Sleep*), 3) the use of the safe sleep packet utilized state-wide among hospitals prior to discharge and 4) locally, BBC’s *Nothin’ But Baby* campaign aimed at creating a safe environment for all infants to sleep within Douglas County.

In addition, a strategy aimed at supporting child care providers has included monitoring current legal standards/policies for safe sleep education. BBC has supported the updating of regulations related to safe sleep environments for infants in childcare by giving testimony (BBC Coordinator) at the public hearing for Child Care Regulations.

For further information, please contact:

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*Being part of the  
FIMR CRT  
opens the eyes to  
realities that many  
are unaware of.  
The statistics provide  
us with valuable  
information, but  
being Latina gives  
me the opportunity to  
educate others through  
culturally relevant  
information about the  
infant mortality rate  
within the  
Hispanic community.  
I believe that  
experiences shared  
during our meetings  
increase awareness of  
the need to having  
in place appropriate  
interventions for  
every ethnic group.*

**Antonia Correa, MA**  
Outreach Project Specialist  
Center for Reducing  
Health Disparities  
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UNMC