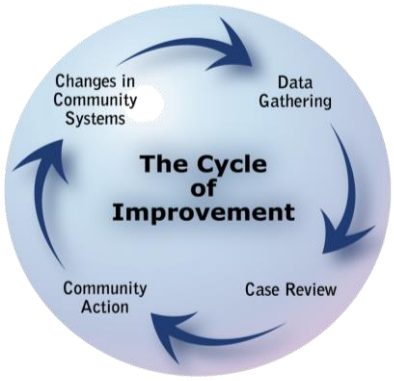
DOUGLAS COUNTY
Fetal and Infant Mortality Review (FIMR)
2011 Annual Report

To address feto- infant mortality in Douglas County, the Baby Blossoms Collaborative (BBC) initiated the FIMR process in 2006. The FIMR process brings a community team together to examine confidential, de-identified cases of feto- infant deaths. The purpose of these reviews 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 the 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.

Douglas County Health Department uses the FIMR Cycle of Improvement, which is recognized nationally as best practice (illustrated on the right).



Key steps of the FIMR process include the following:

- Information about the feto- infant death is gathered. Sources include public health and medical records.
- An interview with the mother who has suffered the loss is conducted, provided the mother agrees. Professionals with training in grief counseling assess the needs of the family and refer to bereavement support and community resources.
- The Case Review Team, comprised of health, social service, other experts and interested citizens from the community review the summary of case information and the interview, identify contributing factors and make recommendations for community change, if appropriate.
- The Community Action Team, a diverse group of community leaders, review Case Review Team recommendations, prioritize identified issues, then design and implement interventions to improve service systems and resources.

Thus, 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.

HIGHLIGHTS OF 1st COMPONENT OR DATA GATHERING:

In Douglas County, the three components of 1.) population-based data, 2.) vital statistics and 3.) PRAMS data are matched with research to help define critical community issues. This process assists with case selection and enhances the knowledge of what women experience in our community. The following information is taken primarily from 2010 population-based data and vital statistics information.

- Overall, in Douglas County the feto-infant mortality rate has decreased from 10.7 in 1993-96 to 8.3 in 2007-10.
- In 2007-10 Black mothers continue to experience higher death rates than white mothers, especially in maternal and infant health periods, at a rate of 15.9 compared to 7.2 respectively.
- Population-based data shows that cases where mothers have experienced feto-infant death from prematurity-related complications, SIDS or Sudden Unexpected Infant Death regularly 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 now available and, in 2007-2010, the rate of 6.8 for the Hispanic population remains below both their black & white counterparts. However, as the total numbers for this population is small, the rates are deemed less stable.

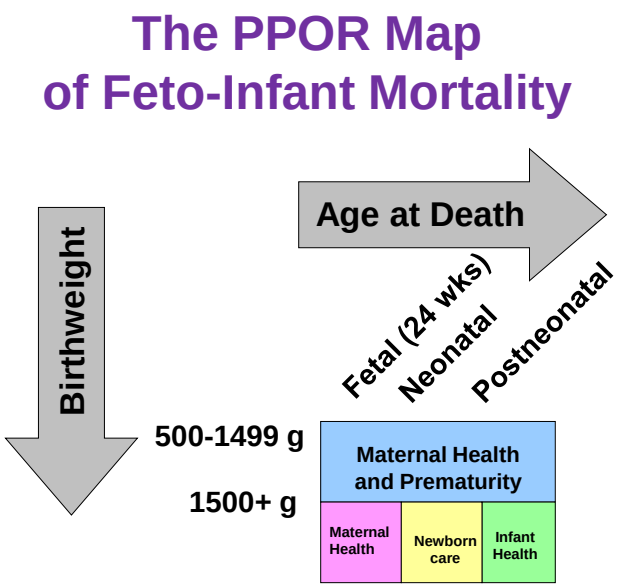
HIGHLIGHTS OF 2nd COMPONENT OR CASE REVIEW[i]:

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.) medical criteria of prematurity (< 37 wks.) and/or SIDS/SUID.

- Based on PPOR data, infant death cases with a diagnosis of prematurity (< 37 weeks) or SIDS/ SUID were prioritized for review. [i]
- 27 cases were reviewed from January 1, 2011 to December 31, 2011(18 fetal/ 9 infant) for a total of 160 cases since 2006. [ii]
- 37% of cases were reviewed less than 3 months after death, while 52% were reviewed less than 6 months after death.
- 44% of mothers participated in the home interview.

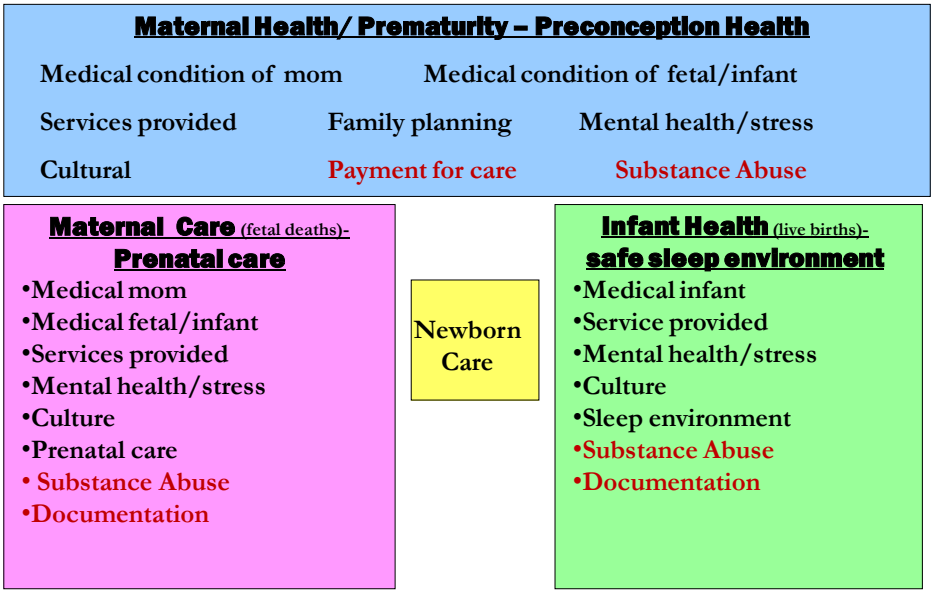
Perinatal Periods of Risk (PPOR):

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 of 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. More specific information can be found at: http://www.citymatch.org/



Utilizing data gained from vital statistics, PRAMS, and research, community stakeholders have identified the 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. The chart below compartmentalizes feto-infant death case review finding within the PPOR framework.

CRT findings related to PPOR Map of Fetal-Infant Deaths (2011)



Red denotes new finding specific to 2011

These finding help shape the community response to the feto-infants deaths in Douglas County. Based on an analysis of 2010 data, "Maternal Prematurity – Preconception Health", Maternal Care and the "Infant Health" periods of risk areas comprise the greatest contribution to the overall feto- infant mortality rates in Douglas County.

HIGHLIGHTS OF 3rd and 4th COMPONENTS (COMMUNITY ACTION AND SYSTEM CHANGE):

Douglas County Health Department engages a range of community partners through the Baby Blossoms Collaborative to address the contributing factors and recommendations identified in the data and case review process. The year 2010 began a two year cycle to ensure that the systems changes implemented by BBC are substantial and sustainable. 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.

Below are the components of the Community Action Plan (CAP) established in January 2010 and the progress associated with executing it. Since CAP has been implemented over a two year time frame, the achievements listed below reflect the major accomplishments obtained for the entire two year period.

Priority Recommendations: **Preconception Health**
2011 Goal

- Integrate Life Course Health Development Model and **preconception health messages** into existing youth development curricula and interactions with adolescents' ages 9-18 years in after school and human service agencies. Include topics such as healthy weight, reproductive life plan, STIs, mental health (depression), substance use, social chaos and money concerns.

Themes/ issues	Implementations	Accomplishments
• *Lack of birth control* • *Unintended pregnancy* • *1st PG before age 18* • *Single parent* • *Lack of partner support* • *Multiple life stressors* • *Financial concerns* • *Depression/ Mental illness (pre-existing)* *Pregnancy spacing <18 months*	Preconception Health Work Group worked to raise awareness of *Life Course Model* to a variety of audiences, including, but not limited to, community-based professionals, youth, parents of adolescents, and health professionals at the postsecondary educational level.	Developed Life Course Perspective training for community based, after school, service providers (ex. youth serving agencies). Established Institutions of Higher Learning (postsecondary education) Student Health Contact List Trained 65 health care providers at the postsecondary educational level with the Life Course/Preconception Health Messaging Model Inplemented an evidence-based youth development program in Douglas County that focuses on health (Wyman's Teen Outreach Program-TOPs)

Priority Recommendation: Prenatal
2011 Goal

- Develop consistent and ongoing screening process for preterm labor, maternal depression and smoking throughout the prenatal period that results in a tiered response by Health Professionals to generate a greater awareness of the risk factors and to create the best possible response for women of childbearing age, the community and community stakeholders in Douglas County.

Themes/ issues	Implementation	Accomplishments
• *Entry to prenatal care* • *Tobacco/substance use* • *Infections* • *Preterm labor* • *Unrecognized or delayed response to preterm labor* • *Prematurity* • *Extremely low birth weight* • *Previous fetal loss*	Prenatal Care Work Group worked with health care professionals and the public to address 1) preterm labor signs and 2) ongoing screening practices to promote timely entry to care. Douglas County Health Department served as a host site for a HRSA MCH intern	Identified model of care(a best practice) for perinatal depression services (NICE clinical guidelines) Revised the Nebraska Perinatal Depression Provider Education Curriculum http://www.hhs.state.ne.us/perinataldepression Identified referral sources for individuals who experience perinatal depression http://ppsupportomaha.webs.com/ Integrated the use of the Edinburgh Postnatal Depression Scale (EPDS) into every FIMR home visit

Priority Recommendation: Safe Sleep
2011 Goal

- Develop consistent messaging strategy regarding safe sleep environment with a specific focus on breastfeeding components.

Themes/ issues	Implementation	Accomplishments
• *Co-sleeping/ soft bedding* • *Non back sleep position* • *Tobacco/substance use* • *Little or no breastfeeding*	Utilizing expertise of BBC members, Metro Omaha Medical Society, NE Breastfeeding Coalition, clinical practice groups and the UNMC College of Public Health, a training and dissemination strategy regarding safe sleep dialogs between physicians and mothers patients was developed.	Created a portal for information distribution amongst community organizations and community stakeholders: Promoted the American Academy of Pediatric Recommendation on Safe Sleep Environments www.healthychildren.org Promoted the Nebraska Death Review Team Recommendation to prevent child death • Communities should expand and intensify their efforts to convince parents of the dangers of unsafe sleeping environments for infants

Priority Recommendation: Medical Home
2011 Goal

- Investigate the concept of Medical Home within Douglas County as it pertains to the priority areas of preconception health, prenatal care and safe sleep.

Themes/ issues	Implementation	Accomplishments
• *Lack of continuity of care for pregnant women and infants residing in Douglas County*	Utilized the FIMR process and Case Review Team to capture the relevance of the usage of a medical home model in maternal child health	Defined the medical home model for MCH community in Douglas County as the Joint Commission's Primary Care Medical Home (PCMH) Model which is based on the Agency for Healthcare Research and Quality's (AHRQ) definition of a medical home. This definition describes a medical home as a model of primary health care that has the following core functions and attributes: • Patient-centered care • Comprehensive care • Coordinated care • Superb access to care • A systems-based approach to quality and safety Created a recommendation by Case Review Team for BBC Community Action Team consideration as it pertaining to medical home concept.

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

[ii] The goal for 2012 is to increase the number of cases reviewed to 40.