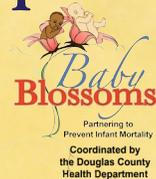




Douglas County Health Department
Fetal and Infant Mortality Review (FIMR)
2015 Community Annual Report



Douglas County 2015 Annual FIMR Report

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“Being a member of the FIMR CRT is an honor I do not take lightly. Hearing the stories of families who have seen the loss of a pregnancy or death of a child is a humbling experience and the committee takes its role very seriously. In the committee, with input from many different perspectives, a deep and rich understanding of these tragedies can be crafted. This understanding can then be used to help define public policy. I believe the information and recommendations from FIMR has a direct impact in defining how the community can address issues which contribute to fetal and infant deaths and is an invaluable component of our goal to improve the public’s health.”

Howard Needelman, MD

Associate Professor of Pediatrics UNMC

Board certified in Pediatrics/Neonatal Perinatal Medicine/Developmental Behavioral Pediatrics
Nebraska Child and Maternal Death Review Team Member

Douglas County 2015 Annual FIMR Report

Overview

Infant mortality rate

has
decreased
from

7.0 (2013)
to **4.9** (2014)

Source: 2014 Douglas County population-based infant only data

Data Gathering

Infant mortality rates have improved for both African American and Caucasian mothers,

however,
the health disparity has
increased from

1.3 to **1.8**

Source: 2014 Douglas County population-based infant only data

Case Review

Hispanic mothers

(6.1)

have a **higher**
infant mortality rate
than Caucasian mothers

(4.0)

Source: 2014 Douglas County population-based infant only data

Community Action

Top 4 single causes
of infant mortality

1. Congenital Anomalies
2. SIDS/SUID
3. Prematurity/
extreme prematurity
4. Other Perinatal Causes

Source: 2014 Douglas County Vital Statistics information using ICD-10 codes.

Changes in Community System

Background

Infant mortality serves as a measure of a community's general health status as well as its social and economic well-being. Even though the national infant mortality rate has decreased over the last decade, racial and ethnic disparities continue to persist. Fetal and Infant Mortality Review (FIMR) is a best practice model aimed at improving systems and resources for women, infants and families of all races and ethnicities.

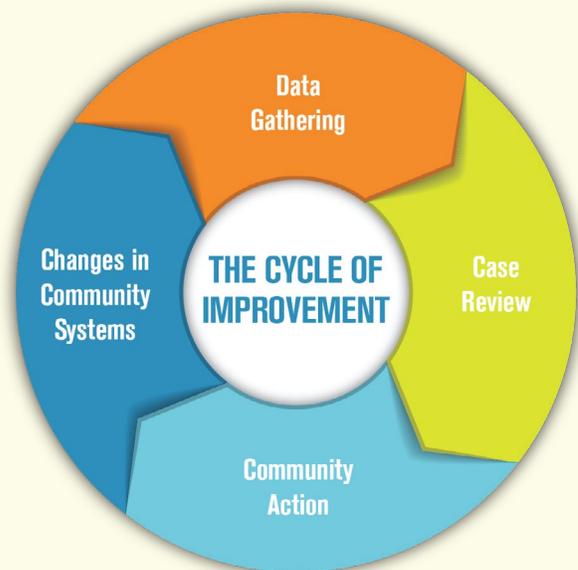
A national evaluation of FIMR has systematically documented that the presence of FIMR appears to significantly improve a community's performance of public health functions as well as enhance the existing perinatal care system's goals, components and communication mechanisms. In addition, the focus of FIMR on systems of care and identifying gaps in services results in action being taken in a way that interpretation of vital statistics data alone does not necessarily promote.

FIMR is used at the local level for assessing, planning, improving and monitoring the service systems and broad community resources that support and promote the health and well-being of women, infants and families. Information from reviews is used to guide program and policy development, while defining and maintaining quality services and resources.

The Douglas County Health Department (DCHD) implemented the FIMR model in 2006. Prior to implementation, a 40 agency coalition composed of elected officials, providers, agencies, advocates and consumers, known as the Baby Blossoms Collaborative (BBC), was addressing infant mortality from a population-based, community perspective. Once FIMR was implemented, an interdisciplinary team of medical and community experts was able to convene and review confidential, de-identified cases of feto-infant death, with a goal of understanding how a wide array of local, social, economic, environmental and medical issues relate to the tragedy of feto-infant loss. Having gained a comprehensive understanding of contributing factors to infant mortality from data analysis and case reviews, BBC works together to develop an ongoing community action plan to improve services for mothers and families in Douglas County.

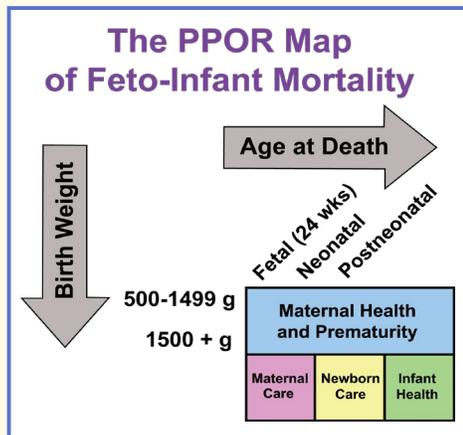
The Douglas County Health Department (DCHD) uses a nationally recognized best practice model known as the FIMR Cycle of Improvement to reduce the impact of infant mortality. Key steps of the FIMR process include:

- Gathering information about the infant death from medical and public health records.
- Conducting voluntary interviews with the mother of loss by a Public Health Nurse (PHN) who is trained in grief counseling, assessment and community resources.
- Utilizing Case Review Team (a diverse group of medical and community experts) to review summaries of case information, identify risk and protective factors present in the case, and make recommendations for community change.
- Employing the Community Action Team/ BBC membership through the review of CRT recommendations and population-based data to prioritize identified issues and design/ implement interventions to improve service systems and resources.



Perinatal Periods of Risk (PPOR)

PPOR is an approach used by CityMatCH, the national organization of urban MCH leaders, and the Centers for Disease Control and Prevention (CDC), for analyzing feto-infant mortality at the local level. It divides mortality into four periods of risk based on age at death and birth weight.



These four periods of risk are:

- Maternal health and prematurity (blue box which represents fetal and infant deaths with very low birth weights)
- Maternal care (pink box which represents larger fetal deaths or stillbirths)
- Newborn care (yellow box which represents larger neonatal infant deaths)
- Infant health (green box which represents larger post-neonatal infant deaths including most SIDS/SUID)

The diagram to the left shows the periods of risk in addition to 1) birth weight (represented on the y-axis) and 2) age at death (represented on the x-axis).

Over the years, BBC has used the Perinatal Periods of Risk (PPOR) model to assist with data review and analysis, while CRT has used PPOR data in selecting the medical criteria utilized for case review. This selection is driven by determining where excess deaths are occurring in infant mortality. From 2011 to 2015, the medical criteria for referral to the FIMR Program has included a birth weight of < 1500 grams (blue box) and a diagnosis of SIDS/SUID (green box).

Since 2014, the DCHD FIMR program has been reviewing infant cases only, based on a directive from the Nebraska Child and Maternal Death Review Team (NCMDRT). This directive came when a change in interpretation of legislative statutes governing fetal/infant death occurred. The NCMDRT determined that they did not have the authority to issue subpoenas for fetal death records, and therefore, could not extend this authority to the Douglas County FIMR Program. Since initiating infant review only in 2014, the blue box, representing very low birth weight (VLBW) infant deaths, and the green box, representing SIDS/SUID cases, are the primary boxes used by the Douglas County FIMR Program. In addition, DCHD starts review of infant cases at 20 weeks gestation (<20 weeks, considered miscarriage) as opposed to 24 weeks by PPOR, and reviews cases with a birthweight < 500 grams to 1500 grams, while the range for PPOR is 500 grams to 1500+ grams.

The chart below compartmentalizes the contributing factors most frequently noted in infant mortality case review within the PPOR framework for 2015.

CRT Findings Related to PPOR Map of Infant Deaths (2015)

Maternal Health/Prematurity – Preconception Health

- Medical Infant – Prematurity
- Medical Infant – Congenital Anomaly
- Medical Mother – Incompetent Cervix
- Medical Mother – Obesity
- Medical Mother – Preterm Labor
- Medical Mother – Pre-eclampsia

Maternal Care (fetal deaths) Prenatal Care

No fetal cases reviewed

- Medical Infant – Prematurity
- Medical Mother – Incompetent Cervix
- Medical Infant – Congenital Anomaly
- Medical Mother – Preterm Labor
- Medical Mother – Pre-eclampsia

Newborn Care

Infant Health (live births) Safe Sleep Environment

- Environment – Infant sleeping with others
- Environment – Soft bedding
- Environment – Non-back sleep position
- Documentation – Missing Data
- Environment – Second Hand Smoke
- Environment – Infant in non-bed

2015 Infant Case Review

Below is a summary of infant case review, completed in 2015, using the following selection criteria: 1) Douglas County resident, 2) infant loss occurring from 20 weeks of pregnancy through one year of age, and 3) a goal of reviewing infant cases with extreme prematurity, specifically those of a very low birth weight (VLBW) and/or SIDS/SUID:

- Based on Perinatal Periods of Risk (PPOR) data, infant death cases of prematurity with a VLW and/or SIDS/SUID were prioritized for review
- 26 infant cases reviewed from January 1, 2015 to December 31, 2015, including one twin case
- 15% of cases reviewed less than three months after death, with 54% of cases reviewed less than six months after death, and 31% reviewed less than nine months after death
- Phone contact achieved with 13 out of 26 total cases (50%) with four of these cases (15%) resulting in a maternal interview

The top five contributing factors to infant mortality (identified during 2015 case review) were: 1) prematurity, 2) congenital anomaly, 3) incompetent cervix, 4) preterm labor, and 5) infant sleeping with others. The factors are determined by CRT members, following case review at each meeting. Members “vote” on which factor(s) they feel contribute most to the infant death in that specific case. These factors are then documented following each meeting, with all of the factors reviewed and prioritized at the end of the year.

The 2015 top five contributing factors seem to mirror the 2014 population based data, which lists the top four single causes of infant mortality as congenital anomalies, SIDS/SUID, prematurity/extreme maturity and other perinatal causes. In addition, the 2015 top contributing factors are consistent with the 2014 top contributing factors, which were prematurity, congenital anomaly, incompetent cervix, second hand smoke and infant in non-bed.

“As the FIMR Interviewer, I never forget that I have the unique opportunity to be the voice of the mother to the rest of the community. I consider this responsibility a profound privilege!”

Carol Isaac, MA, BSN, RN
Douglas County FIMR Coordinator
Douglas County Health Department



2015 CRT Recommendations

During case review, the top contributing factors are also used as a guide to develop recommendations with the assistance of a gap analysis process. This process allows findings to be linked with the appropriate recommendations and adjusted as needed. This process is completed at each CRT meeting, with recommendations presented to BBC every two years. BBC, functioning in the role of the Community Action Team within our FIMR Cycle of Improvement, then prioritizes the recommendations and crafts an extensive two year Community Action Plan.

The current CRT recommendations are listed below:

Preconception Health:

Comprehensive preconception health education shall be offered at an early age that addresses four umbrella concepts:

1) Need for consistent medical home, 2) lifestyle issues, 3) need for a culturally and religiously sensitive reproductive plan, 4) education/management of chronic conditions including mental health, *substance abuse**, obesity and previous fetal loss, *emphasizing that these conditions may put women of childbearing age at increased risk of negative pregnancy outcomes**.

*revised in 2015

Prenatal Care (1):

Throughout the prenatal period of all women, “consistent and ongoing” screening for medical and nonmedical risk factors shall occur; noting any red flags in order to signal a tiered, multi-disciplinary response to include appropriate referrals.

Prenatal Care (2):

Intergenerational and multi-cultural education shall be provided by medical, social work and other community health providers in the areas of preterm labor (warning signs during pregnancy) and prematurity (*undesired outcome*)* in addition to the healthy signs of pregnancy.

*revised in 2015

Infant Health:

All infants should have a medical home as defined as an environment in which care is accessible, continuous, comprehensive (*including appropriate referrals, ex: agencies i.e. CPS*)*, family-centered coordinated, compassionate and culturally effective. (AAP)

*revised in 2015

Safe Sleep:

Safe sleep messages shall be repeated at every medical home visit (wellness and illness) for parents and other child care providers.

Other:

All relevant medical, psychosocial, and *SUID crime scene investigation** data, *from all locations (ex. home, childcare, hospital)**, will be gathered *through best practice methods** and available for review by CRT.

*revised in 2015

Community Action Plan

The 2015 CRT Recommendations were brought forth to BBC (the Community Action Team) and a new community plan was developed utilizing the following steps, 1) population-based data review (Vital Statistics, PPOR data and PRAMS data), 2) research/literature search, and 3) an in-depth planning meeting which occurred in October, 2015. The Community Action Plan (CAP) was finalized in January, 2016 and will be utilized from 2016-2018. A snapshot of the goals and objectives from the current plan are listed below:

PRECONCEPTION HEALTH

Goal: All adolescents and young adults will have access to culturally and developmentally-appropriate healthy lifestyle/behavioral health education.

Objective: Define adolescent and young adult health needs for Douglas County, Nebraska.

Objective: Investigate and identify evidence-based practices that promote healthy lifestyles that include developmentally appropriate education on subjects such as relationships, weight, intercourse, etc.

Objective: Increase awareness and educate target adolescent healthcare providers concerning evidence-based practices around developmentally appropriate healthy lifestyles.

PRENATAL CARE (1)

Goal: To ensure all pregnant women have access to prenatal care within first trimester.

Objective: Identify women who test positive for pregnancy early.

Objective: Match pregnant women with healthcare providers.

PRENATAL CARE (2)

Goal: To reduce prematurity and fetal death by 50% through education.

Objective: Awareness by media campaign targeting community and providers.

Objective: Promote “Count the Kicks” to community and providers.

INFANT HEALTH

Goal: At least 95% of infants in Douglas County are connected to a quality medical home at birth.

Objective: Investigate and identify quality (evidence-based patient centered) medical homes models.

Objective: Awareness of return on investment (ROI) of having infants connected to medical homes with healthcare systems, providers, parents and community.

SAFE SLEEP

Goal: To decrease occurrence of SID/SUID in Douglas County.

Objective: To create a safe sleep plan for birthing hospitals/providers and the community at large.

Objective: To integrate a safe sleep plan into birthing hospitals/provider and the community.

“Through FIMR, the community becomes the expert in the knowledge of the entire local service delivery systems and community resources for women, children and families.”

Jodi Shaefer, PhD, RN

Director

National Fetal Infant Mortality Review



Upon the Horizon

In addition to developing the Community Action Plan, BBC has expanded its focus. At Quarterly Meetings, we are “connecting the dots” for members, by inviting keynote speakers whose organizations have community plans in place, and can offer potential partnership and funding opportunities to interested members.

In addition, we are identifying emerging MCH issues that may or may not be impacting our community at a local level. These emerging issues are labeled “hot topics” and provide opportunities for BBC participants to join committees focused on emerging issues. If the committee determines that the “hot topic” is having a significant impact on the community, a mechanism is in place to integrate the emerging issue into the existing community action plan (CAP). If the “hot topic” is not impacting the local community, then a simple surveillance plan is put in place to monitor the emerging issue. Examples of “hot topics” that have been integrated into the CAP include:

- The “Count the Kicks” Program, which aims to reduce preventable stillbirths by teaching expectant parents the importance of, and method for, self-monitoring and tracking babies’ daily movements during the third trimester. Recent research shows this simple, no-cost practice significantly decreases stillbirths. BBC implemented the Count the Kicks Program in Douglas County, utilizing home visitation agencies and health care providers. The Nebraska Perinatal Quality Improvement Collaborative has also championed the Program, getting Program information into the hands of birthing hospitals and OB providers across the State. Further dissemination of Program information and Program evaluation will continue according to the goals and objectives of the new CAP.
- A safe sleep media campaign implemented during SIDS Awareness Month (10/15) in response to a significant increase in the number of SIDS/SUID deaths in Douglas County. Following a press release, all local TV stations (Channels 3, 6, 7 and Fox 42) and the Omaha World Herald did stories focused on safe sleep. This media campaign provides a platform for a more extensive community safe sleep campaign, which will be implemented in accordance with the goals and objectives of the new CAP.

Lastly, Douglas County FIMR will be celebrating its 10 year anniversary in 2016. Please join us as we mark 10 years of saving lives!

*FIMR is public health practice in its finest form! It allows us to create futures (for the many lives we can save) by learning from the trials and tribulations of the past (the few lives we lost).
It continues to impact our community in an immeasurable way!”*

Stephen B. Jackson, MPH
Supervisor, Health Promotion Section
Douglas County Health Department