

Incorporating Life Course Theory into the Fetal & Infant Mortality Review: Strategies from local FIMR programs

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INTRODUCTION

Fetal and Infant Mortality Review (FIMR) is a strategy to examine systems of care and identify gaps. Life course theory (LCT) concepts are a natural complement to the work being done in FIMR case reviews and an outgrowth of local FIMR advocacy for underserved families in the community.

It is well documented that FIMR is an effective, evidence-based perinatal systems intervention that has been shown to significantly improve a community’s performance of public health functions.¹ FIMR programs also enhance the existing perinatal care systems’ goals, components, and communication mechanisms. LCT provides a perspective on health disparities that can inform the FIMR process in local communities.

LCT is a conceptual framework that helps explain health and disease patterns—particularly health disparities—across populations over time.² Instead of focusing on differences in health patterns one disease or condition at a time, LCT points to broad social, economic, and environmental factors as underlying causes of persistent inequalities in health for a wide range of diseases and conditions across population groups.³ LCT is population focused, and firmly rooted in social determinants and social equity models. Though not often explicitly stated, LCT is also *community* (or “place”) focused, since social, economic, and environmental patterns are closely linked to community and neighborhood settings. While LCT has developed in large part from efforts to better understand and address disparities in health and disease patterns, it is also applied more universally to understand factors that can help everyone attain optimal health and developmental trajectories over a lifetime and across generations.

¹ McDonnell, K. A., PhD, Strobino, D. M., PhD, Baldwin, K. M., MSW, Grason, H., MA, & Misra, D. P., PhD. (2004). Comparison of FIMR Programs With Other Perinatal Systems Initiatives. *Maternal and Child Health Journal*, 4(8), 231-238. Retrieved from http://www.jhsph.edu/research/centers-and-institutes/womens-and-childrens-health-policy-center/publications/FIMR_MCH_Journal_Issue/McDonnell.pdf, PhD. (2004).

² Halfon, N., Larson, K., Lu, M., Tullis, E., & Russ, S. (2013, August 22). Lifecourse Health Development: Past, Present and Future. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3890560/>

³ Koontz, A. M., Buckley, K. A., & Ruderman, M. (2004). The evolution of fetal and infant mortality review as a public health strategy. *Matern Child Health J*, 8(4), 195–203.

Table 1: FIMR Program Listing

FIMR Program	Title	Location
Baltimore City FIMR	Evaluating the Effectiveness of Neighborhood Action Teams in incorporating LCT into the FIMR process	Baltimore, Maryland
Healthy Mothers, Healthy Babies Coalition of Broward County, Inc.	Broward County FIMR's LCT Initiative	Fort Lauderdale, Florida
Contra Costa County FIMR	Promoting Health Equity: Reducing African American Fetal & Infant Mortality in Contra Costa, California	Martinez, California
Dallas FIMR	Transforming Wellness Across the Generations	Dallas, Texas
Delaware FIMR: Child Death, Near Death and Stillbirth Commission	Using LCT as a Framework for Case Review and Reporting	Wilmington, Delaware
Douglas County Health Department	Leveraging Integration for Life (LIFE): Applying LCT and FIMR in Douglas County, Nebraska	Omaha, Nebraska
Michigan Department of Community Health (MDCH)	Integrating LCT into Michigan's FIMR Projects	Lansing, Michigan
Milwaukee FIMR	Integrating LCT and Fathers' Perspectives into the FIMR Assessment, Review, and Training Process	Milwaukee, Wisconsin
Tulsa FIMR	Integrating LCT into Tulsa FIMR	Tulsa, Oklahoma

The seventh national FIMR conference in June 2012 acknowledged and built upon concepts of health equity and LCT principles. To continue that work, National Fetal and Infant Mortality Review (NFIMR) had a one-time opportunity to award one-year small grants through a request for application process to nine projects to develop successful model FIMR/LCT programs. FIMR projects were required to develop successful, sustainable model FIMR/LCT programs that other FIMR programs may wish to emulate and be available to discuss their work with interested FIMR projects.

GENERAL RECOMMENDATIONS

In summary, the nine FIMR programs successfully incorporated LCT into their process. Generally, educating colleagues and community members about life course theory was needed. Using a community driven process, FIMR programs held community meetings to obtain suggestions for incorporating life course theory into the existing Case Review Teams (CRT) & Community Action Teams (CAT) meetings. These discussions resulted in the expansion of the CRT to include non-traditional members such as the faith community, the justice system, and consumers. By broadening the perspective of the FIMR team, they increased their appreciation of the parents' situation and possible improvements in the care delivery system. These diverse community members provide a new view of solutions to system gaps and equity issues. Father/partner involvement is identified as a key protective factor for families and programs devised strategies to remove barriers to this involvement. The LCT perspective resulted in the realization that health services across the lifespan, not just during pregnancy, are an important contributor to the health of pregnant women and infants. FIMR CRT and CAT teams identified and now advocate to improve health services across the life-span because ultimately it will improve the general health of community members.

This report presents summaries of the nine FIMR programs and general recommendations for incorporating LCT into local FIMR programs. Additional details on these nine FIMR programs are available online at www.NFIMR.org. The nine FIMR sites funded to develop a model of FIMR/LCT programs are listed in Table 1.

STRATEGIES TO INCORPORATE LCT INTO FIMR

Most of the nine funded communities were not initially knowledgeable about LCT and education was therefore provided. These trainings provided the opportunity for CRT and CAT members to rethink their perspective on a family's situation and consider system issues beyond the period of pregnancy and birth. The seven overall recommendations listed here are based on the experiences reported by the FIMR/LCT programs as they incorporate LCT into their work.

1 Communicate with a broad-based, representative sample of community members to gain their perspectives on risk factors for poor maternal and infant health outcomes and use this information to incorporate LCT into the FIMR process.

Baltimore City (BC) FIMR used information from Neighborhood Action Team (NAT) focus groups to prepare for LCT implementation. Representative cases based on neighborhood-level profiles were discussed. The community identified their major issues as related to FIMR recommendations. BC FIMR plans to use findings from these NAT focus groups and from CAT focus groups to strengthen systems to more effectively address infant mortality disparities in the city.

Broward County conducted three focus groups with parents of varied ethnic groups using a specifically tailored questionnaire. Maternal and child health organizations in Broward County were contacted to refer bereaved families and a total of 13

⁴ Vital Statistics. (2008). Encyclopedia of Public Health, 1446-1446. doi:10.1007/978-1-4020-5614-7_3694

individuals participated. In addition to how to prevent infant deaths and have healthy pregnancies, participants were asked about approaches the government and corporate practices can use to ensure healthy spaces for everyone. The discussion raised questions on how to have a healthy pregnancy, reasons for prematurity and death, how to increase infant mortality awareness, and ways to distribute resources to grieving families in the community.

The Milwaukee FIMR team conducted two focus groups aimed at educating team members and partners on the importance of paternal involvement and engagement in LCT and ongoing efforts to improve birth outcomes. Participating fathers indicated that they want to be more involved but certain policies and social conditions make it difficult to be engaged. They identified a number of barriers to involvement in prenatal care, and discussed dimensions of involvement not frequently addressed, such as adapting to new roles and tasks that come with pregnancy. Milwaukee FIMR plans to use this information to identify strategies that can be adopted in the maternal interview and case review processes.

2 The depth of the case review is expanded when it includes information about the mother's and family's life experiences. This expansion of the maternal interview process provides a better understanding of the mother's and father's life history and current circumstances that may impact maternal and child health outcomes.

In Delaware, the maternal interview now includes components of LCT. As per protocol in Delaware, the mother and father's history from Child Protective Service and criminal records are obtained. Mothers discuss their life experiences before and after the pregnancy.

Broward County's maternal interview tool was revised to reflect the LCT and capture social protective and risk factors in each mother's life. These questions range from early childhood dietary practices, health practices and education throughout the lifespan, stressors, childhood poverty, racism, and support systems throughout their lives.

Douglas County FIMR focused its work on LCT protective factors in infant mortality. The team convened a stakeholder group that performed a literature search to identify protective factors. The group determined how many of the protective factors were being addressed by existing maternal interview questions, and added new questions to capture any protective factors that were not addressed.

Milwaukee FIMR has begun reviewing and revising their maternal interview to identify existing life course measures and to adapt or add new measures. Examples of these new measures include questions about pregnancy outcomes of the maternal grandmother, as well as the conditions of the neighborhood where the mother grew up and whether she stills lives in that particular neighborhood. In addition, the mother is asked to rate environmental elements of her current neighborhood. Questions about paternal involvement and engagement have also been added to the revised questionnaire.



In Michigan, maternal interviewers are now more in tune with probing the childhood experiences of mothers and fathers, including their childhood environment and any encounters with systems of care where they felt they may have been treated differently based on their race or socioeconomic status.

3 Incorporate LCT into the case review process to account for social, economic, and environmental factors across the life span that may underlie persistent inequalities in health. Modify the CRT forms to address the protective and risk factors that affect maternal and infant outcomes.

Because Milwaukee's FIMR team has become more informed about LCT, data abstraction and case review are becoming more inclusive of LCT including paternal involvement and engagement issues. Ensuring available information regarding family history, education, life stressors, and support is included in the review of a case has become an important part of data abstraction to inform the case review process and recommendations. Case review deliberations now include attention to maternal health, the family's social situation, economic and personal stressors, paternal involvement, and other factors that play a part in the life and death of the infant. Team members are more comfortable with LCT concepts and their ability to discuss these concepts with colleagues on the CRT. The process has also magnified areas where the team needs to identify and collect additional LCT data elements.

Michigan FIMR CRTs have begun to incorporate information about the mother and her extended family's medical, social, and child welfare history. One Michigan FIMR director has started to use LCT concepts in their community's annual FIMR report. This same Michigan team is also using the Life Course 12-Point Plan to frame its recommendations and the actions taken by the Community Action Team.

Baltimore City's FIMR program has implemented a new case form that enables it to present the abstracted data that relates to LCT. This form is now standard for case reviews. BC FIMR tracks



examine team members' perceptions about whether the mother was treated fairly or unfairly. As a result, team members integrate more resilience and protective factors into the review process and developed a list of protective factors for the CRT to consider. These factors will be presented at all meetings, for all cases.

Broward County's FIMR process has incorporated the concept of social justice into the review process to identify factors that affect health outcomes. The goal is to ensure that the CRT recognizes these elements during the review in order to implement action through the Broward County Children's Strategic Plan which is under the Black Infant Health Practice Initiative.

The Douglas County Health Department's work toward improving community health has had a strong health equity focus. Its efforts have led to meaningful impact in such areas as increasing healthy and affordable food options in neighborhood stores; mapping routes for families to walk or ride a bike to school, the libraries, and community centers; and establishing thriving community and school gardens.

5 Expand the membership in CRTs and CATs to include non-traditional service system members such as mental health professionals, faith-based groups, and criminal justice system personnel. These members can add new perspectives on social factors that may impact maternal and infant health outcomes and offer additional resources to promote positive health outcomes.

The Broward County FIMR CRT reviews its membership to ensure that appropriate stakeholders are involved and engaged to help identify gaps in services and develop a plan to enhance the service delivery process. The FIMR CRT primarily consisted of health professionals and identified a need of diverse professional fields. They recruited a mental health professional, a member of the Child Protective Team staff, a substance-abuse counselor, and a faith-based member who provided a broad range of services and resources for women, children, and families.

Contra Costa believes it is necessary for FIMR programs to align with traditional and non-traditional partners. Historically, many non-traditional partners such as the coroner's office and school districts do not intersect with fetal and infant mortality interventions. However, through presentations about FIMR LCT, a number of opportunities to work with non-traditional partners have emerged. One such partnership is an alignment of prenatal care and early childhood development providers. The FIMR program has been asked to collaborate on the issue of racism that infuses the provision and quality of care. In addition, the FIMR program has an opportunity to deepen its work in faith-based and paternal involvement communities through resource and program development and by linking these institutions with traditional perinatal partners.

Baltimore City FIMR has taken steps to revitalize its team membership. The CRT analyzed gaps in membership and added

whether the CRT determined that life course factors played a role in the mother's health and fetal or infant death. BC FIMR will aggregate that data over time to inform their recommendations and report to the community on trends impacting fetal and infant mortality. Finally, BC FIMR has changed its case selection criteria to highlight cases that present significant psychosocial systems issues in areas such as mental health, substance abuse, history of abuse, and poverty.

Tulsa FIMR's assessment tool was used to determine the mother's current interconceptual health status and risk factors. Depending on the identified risk factors, the mother is provided health specific information and a referral to a local community resource that is skilled in working with families at turning a specific risk factor into a protective factor. Three or more reported risk factors resulted in an automatic referral to Healthy Start, Tulsa Health Department's MCH Initiative Outreach Worker and another community agency able to provide more intensive case management for the family.

4 During case reviews, consider the issue of life course from the perspectives of fairness and equity.

Some Michigan FIMRs obtained data indicating that community members delayed seeking health care because they were treated poorly due to their race and socio-economic status. One community obtained outside funding to increase healthcare providers' and community leaders' knowledge and awareness of racism as it relates to health disparities.

Milwaukee FIMR has also been looking at life course issues through the lenses of fairness and equity. Its review process now includes additional discussions at the end of each case to

⁵ Delaware Health Statistics Center. (2014, March 11). Retrieved September 23, 2015, from <http://www.dhss.delaware.gov/dhss/dph/hp/2011.html>

⁶ Douglas County Health Department Fetal and Infant Mortality Review (FIMR) Annual Report. 10.7 (1993–96), 2013. Retrieved from http://www.douglascounty-ne.gov/health/images/stories/stats/FIMR%20annual%20report%202013_community%20report%20REVISED%203%2019%2014%20W%20CONTACT.pdf

new team members, including faith-based community leaders, a consumer voice, and health equity leaders.

6 Educate communities about the role of fathers in maternal and child health outcomes and the importance of paternal involvement in prenatal, birth, and post-delivery care. Work with mothers and fathers to identify and address barriers to father involvement. Include information about the father's life course in parent interviews and case reviews to understand maternal risk and protective factors.

Contra Costa's FIMR program and the Comprehensive Perinatal Services Programs (CPSP) sponsored the "Increase Resilience and Paternal Involvement" workshop 2013. A panel of diverse fathers presented the opportunities and challenges of men and identified successful interventions. Providers developed interactive "theory to practice strategies" to increase paternal involvement, and participants created personal commitment statements. As part of this work, a goal is to expand paternal involvement by augmenting existing "new pregnant client" assessment tools, individualized care plans, educational interventions, and referrals to resources. In addition, FIMR LCT's content has been integrated into the local perinatal systems of care. Providers are aware of the FIMR program, know how to refer clients, and understand FIMR's process of linking clients with grief and bereavement services. The perinatal providers are now capturing paternal involvement through assessment questions, distributing "father-friendly" brochures, and encouraging fathers to attend prenatal care visits. Public health nurses are also integrating paternal involvement into their work.

Through its bereavement support services and working one-on-one with bereaved fathers, the Broward County FIMR learned that fathers often feel they are left out and their grief is overlooked. Fathers said they want to be acknowledged and treated equally when something this tragic occurs. A new paternal interview tool was created to engage the fathers in the interview process. FIMR has also added relevant LCT questions to its maternal/paternal interview tool, and is pursuing new ways to improve the maternal/paternal interview rate, including conducting home visits to those who cannot be reached by telephone.

As part of its work to incorporate LCT into its maternal interview process, Milwaukee FIMR has added questions on paternal involvement and engagement to the revised questionnaire. Mothers are asked how satisfied they are with the financial and emotional support they received from the father both during and after pregnancy, and are invited to describe the level of involvement of their child's father before and after the baby was born. The case review process is also becoming more inclusive of the LCT and paternal involvement and engagement issues. FIMR has added more life course and paternal involvement questions and deliberations to the review process and to its recommendation. They are also having more conversations about how fathers are involved or could be involved in the family. As a result of incorporating LCT into the review process and recommendations, some of the providers have become more

aware of the importance of including fathers during prenatal visits and during labor and delivery.

7 Drawing on LCT principles, work to improve women's health and quality of care across the lifespan.

Milwaukee's most recent set of FIMR recommendations asks for improvement in women's health and the quality of care across the lifespan. Another recommendation places emphasis on improving reproductive health services in the city, beginning with girls and boys. This recommendation recognizes the importance of intendedness, preconception care, contraception, and quality inter-conceptual care.

In Broward County, LCT strengthens the FIMR process by allowing for the collection of more qualitative data that documents the individual's protective and risk factors, throughout the mother and father's life. CRT members who have volunteered their time to review and deliberate on the cases abstracted are becoming more sensitive to the individual's life issues that may have contributed to the loss.

A Michigan FIMR has addressed LCT concepts in the community's annual FIMR report. An excerpt from the report states:

The Life Course Perspective (LCP) looks at the bigger picture and not the narrow view of nine months of pregnancy. The LCP involves expanding our focus to look at a person's life as a continuum, with each stage affecting the next. Throughout a person's life, he or she is exposed to risk factors (e.g., tobacco, alcohol, drugs, lack of education, no transportation, poor nutrition, poverty, domestic violence and stress) and to protective factors (e.g., education, social support, access to care, food, transportation). Some people have more risk factors than protective factors, while others have more protective factors than risk factors. The more protective factors a person is exposed to across his or her life span, the better his or her health and well-being, while the opposite is true for those exposed to more risk factors across their life span. We need to build on the protective factors and lessen the effects of the risk factors for all women, children and families if we are truly to see any changes in infant mortality and especially a decrease in the disparities in infant mortality.

FIMR PROGRAMS AND LCT ACTIVITIES

Baltimore City, Maryland

The mortality rate for Baltimore babies was among the worst in the nation.⁴ Up until 2009, the year in which the city launched "B'more Healthy Babies" (BHB) to reduce infant mortality, the city had the fourth-highest infant mortality rate in the United States. Although the rate fell 28 percent from 2009 to 2012, there remains alarming disparities in birth outcomes. Black infants in Baltimore die at a rate nearly four times that of White infants, and Black mothers experience more than twice the rate of fetal deaths experienced by White mothers.

⁷ Matthews, T. J., MS, & MacDorman, M. F., PhD. (2013). National Vital Statistics Reports. 33(4), I-1. doi:10.1111/1467-9256.033c4



and its correlation with the demographic, socioeconomic, environmental, and psychosocial profiles of their communities.

In addition, Healthy Mothers, Healthy Babies of Broward County and community partners conducted three focus groups with parents from varied ethnic backgrounds. Parents were asked their view on how to have a healthy pregnancy, why some babies are born prematurely or die, ways to get resources and information to the community and how to get resources to grieving families. Subsequent work focused on discussing solutions for moving forward and summarizing the solutions into an action plan to improve outcomes.

Contra Costa County, California

The FIMR program in Contra Costa County used multiple approaches to incorporate LCT into their review process. These activities included discussions with local staff, families, and the community in general.

The FIMR program and the Comprehensive Perinatal Services Programs (CPSP) sponsored an “Increase Resilience and Paternal Involvement” workshop in 2013. The purpose of the day was to promote health equity and change organizational practices to close the black-white gap in birth outcomes. LCT, history of racism, poverty, and social determinants of health and trauma were outlined and dialogue was encouraged. Resource sharing, group dialogue, and providers created interactive “Theory to Practice Strategies” to increase paternal involvement. Personal commitment statements were developed, submitted, and returned to participants.

The FIMR program is an essential partner in the East County African American Community Baby Shower, an annual one-day event. This event focused on ways to encourage breastfeeding and promote health equity among African American families. More than 300 participants, including pregnant women and expectant fathers, attended. Breakout groups were held for teens, grandmothers, women, and men.

The African American Health Empowerment Collaborative (AAHEC) is a community-based collaboration designed to inform, educate, and promote individual and community health of African American residents in East Contra Costa County. Starting in 2012, the FIMR program participated on the AAHEC East County collaborative to promote interventions for fetal and infant mortality from a life course perspective (LCP). In September 2013, FIMR LTC worked with AAHEC to hold the “African American Health Empowerment Expo: A Call to Action!” This free expo held weight-control presentations, provided information about the Affordable Care Act, provided healthy cooking demonstrations and other health promotion activities. More than 50 community resources and information booths were available to participants who attended the expo.

Other FIMR actions that specifically address health disparities include collaboration between the Contra Costa SIDS Program and Contra Costa Black Infant Health Program; a Contra Costa crisis center that provides grief and bereavement support for FIMR parents; coordination with two of the largest delivery hospitals in the area, including one that serves low-income

Baltimore City (BC) FIMR and BHB piloted the Neighborhood Action Team (NAT) process to reach Baltimore neighborhoods with the greatest disparities in maternal and infant health. NATs take action at the neighborhood level to reduce chronic stress and improve services and resources for women, infants, and families. Since late 2011, NATs have developed creative interventions to improve services and resources to families based on BC FIMR recommendations. For example, “Barber Baby Days” targeted men at local barber shops and focused on health messages such as safe sleep. Community Education was another opportunity identified by the Baltimore City FIMR. A town hall meeting was held showing *Unnatural Causes*, an acclaimed documentary series broadcasted by PBS, which reported on findings that link social circumstances at birth and socioeconomic and racial inequities in health. The showing provided the opportunity to educate the community about disparities in infant mortality and strategies to address this issue. Health-promoting literature that is distributed at NAT meetings can also be seen posted in local agencies and businesses.

Broward County, Florida

In an effort to engage the community in understanding LCT, in 2012, Broward County held a training for residents using the life course game, developed by CityMatCH. This board game is an interactive experience that illustrates key concepts of the life course framework. Participants receive a birth certificate at the start of the game and work their way through the game board. A roll of the dice determines risk or protective factors as life progresses as a healthy or shortened life span. The training provides a framework for the Life Course Symposium held in June 2013. Symposium speakers addressed the urgency of addressing health disparities, and provided a local perspective on the health status of minority woman and their children

women; and FIMR LCT trainings on racism, socioeconomic status, and paternal involvement.

Dallas, Texas

Through the guidance of the social ecological model, the Dallas County Case Review Team was able to identify multiple trends and sentinel events that affected mothers. Increasing care coordination for at-risk and high-risk pregnant women was chosen for its frequency of occurrence, along with its association with perinatal periods of risk recommendations, to focus towards maternal health and prematurity. To fully understand this concept, recognition of pregnant women who present as at-risk or high-risk was the first step.

The FIMR case review process has revealed that the necessary areas of service and intervention to address high risk factors among women in Dallas County are functioning within their own domain, but are operating in silos and not coordinated to address the needs of the pregnant woman as a whole. Cases reviewed in the pilot period demonstrate that these care coordination gaps are present for the majority of FIMR mothers and most likely, many other mothers in Dallas County.

The recommendations developed in the inaugural year of the FIMR program will be disseminated through traditional and non-traditional means to reach community organizations, key stakeholders, and individuals throughout the community. The primary responsibility will be placed on the Dallas Healthy Start Community Action Network (CAN) to produce a plan of action for the entire community to ensure that planned interventions work from the individual, systems and policy level. Special care was taken to partner with the State of Texas in order to collaborate with established programs and initiate the process of policy change. The Dallas Healthy Start CAN and key stakeholders plan to implement interventions that address the recommendations produced through case review. These interventions will work with existing systems. Possible interventions for the Dallas County community consist of a county-wide re-launch of Text4Baby and engagement of priority populations to promote and increase the visibility of the Healthy Texas Babies “Someday Starts Now” campaign, with special consideration regarding creative exploration and education of the life course theory.

Delaware

The infant mortality rate in Delaware is declining but remained above the national average at 8.3 deaths per 1,000 live births for the period 2005–2009.⁵ During that period, the infant mortality rate was substantially higher for Black infants, as was the perinatal mortality rate for Black women.

Due to the state’s small size, there are two FIMR case review teams (CRTs), served by one FIMR coordinator and one FIMR social worker. This structure enables FIMR to efficiently take a statewide approach to the case-review process. The CRTs are able to obtain a broader picture of the issues affecting the maternal-child population, which fosters state ownership of the identified issues. Having one coordinator and one social worker facilitates a cohesive team approach to the day-to-day workings of the FIMR team in the state, and enables timely and streamlined communication between the CRTs.

In September 2012, FIMR staff introduced LCT theory to the CRTs and presented the new maternal interview (MI) summary checklist and case discussion guide forms to team members. For the June and July 2013 CRT meetings, FIMR cases were grouped and prioritized by geographic areas identified as high-risk zones for poor maternal and child health outcomes. The purpose was to help CRTs consider community-level factors that may be contributing to fetal or infant deaths and/or mothers’ experiences. The MI summary checklist was used to identify risk and protective factors affecting maternal and child health and document suggestions from the team. As more cases use the new MI tools that incorporate the LCT format, this in-depth, multifactorial approach will provide additional data to analyze and track trends over time among Black and White mothers.

Douglas County, Nebraska

While the overall fetal/infant mortality rate decreased from 10.7 in 1993–1996 to 7.7 in 2008–2011, Black and Hispanic mothers continued to experience higher fetal and infant death rates than their White counterparts.⁶ The data further show that prematurity-related complications, sudden infant death syndrome/sudden unexpected infant death (SIDS/SUID), and very low birth weight (VLBW) regularly lead all other single causes of the county’s fetal/infant mortality and have been prioritized for further attention.

These social justice and health disparity issues are addressed in Douglas County’s community-wide action plan. The overall goal is to reduce preterm labor by educating the community. One objective is to reach vulnerable communities in the county. Action steps included identifying target communities, with a focus on those groups with the highest preterm labor rates; collecting information about the most effective education strategies from community members and stakeholders; and defining and implementing the strategies. Additionally, the team identified key protective factors to consider for each case.

A second objective is to develop and implement appropriate social marketing avenues targeting vulnerable communities in the county. Action steps included engaging community members and stakeholders in the development of a social marketing campaign, developing an evaluation plan, and implementing the plan.

Michigan

In Michigan, a statewide network of FIMR coordinators meets monthly to review cases, share data, and serve as a sounding board for Michigan Department of Community Health (MDCH) infant mortality initiatives. These meetings are also used for in-services and continuing education for FIMR coordinators, and serve to connect the coordinators to other perinatal initiatives in the state. The monthly FIMR network meetings start with an equity exercise that helps raise awareness of unjust differences in health and wellness.

One of the counties with an active FIMR program is looking to invest significant resources into building a larger jail. FIMR data highly correlates involvement with the criminal justice system with poor birth outcomes. The FIMR coordinator and Maternal Child Health (MCH) supervisor have both received training on conducting health impact assessments (HIAs). The FIMR coordinator submitted a proposal to the health officer to

request that the public health department dedicate resources to conduct a HIA on the new jail. The plan during the assessment and recommendation calls for a profile of existing conditions, evaluation of potential health impacts, and creation of evidence-based recommendations to mitigate negative health impacts. The FIMR coordinator and the MCH supervisor recognized that the data-gathering stage is critical to the assessment. The data being gathered includes topics such as infant mortality, racial inequities and disparities with incarceration rates, education, poverty, stress, suicide rates, child abuse, staff health, disease transmission, and environmental factors.

FIMR reviews in another Michigan community revealed that mothers delay entry to prenatal care because they feel they were treated poorly in the past when seeking medical care, and believe the poor treatment was due to their race and socioeconomic status. This community's FIMR obtained a three-year grant from MDCH from Kellogg-funded "Practices to Reduce Infant Mortality through Equity" project. This project enabled them to hold a community event aimed at raising awareness among medical professionals and community leaders about the issue of health disparities. Attendees engaged in rich discussion about the role of racism in poor health outcomes for African American mothers.

In 2010, the infant mortality rate for Native American infants in Michigan was 10.5 per 1,000 live births, compared to 7.1 overall for the state.⁷ The Intertribal Council in Michigan uses FIMR data for Domain 3 of their federal Healthy Start grant, 'Accurate Tracking and Analysis of American Indian Data.' FIMR aids the project by implementing the comprehensive collection of health data for minority populations to accurately assess and monitor health status and health disparities.

Milwaukee, Wisconsin

Milwaukee FIMR's first aim was to establish a common understanding of LCT among team members by holding a training session on key LCT concepts and the use of LCT in review and community action work. The second aim was to educate FIMR team members and partners on paternal involvement and engagement in LCT and efforts to improve birth outcomes in Milwaukee. This was accomplished by holding two focus groups in the inner city. Themes that emerged from these discussions included the importance of paternal perspectives in birth outcomes discussions, the importance of engaging fathers early in prenatal care and delivery, addressing barriers to early and sustained father involvement, and fathers' desire to leave a legacy of their existence by having a child.

Milwaukee FIMR's third aim was to develop adopt LCT and paternal involvement and engagement measures to be incorporated and tracked through the FIMR review process. The goal is to use the information from the focus groups and a brief survey to inform the review process and help identify strategies that can be adopted in the maternal interviews and case review process.

Tulsa, Oklahoma

Tulsa County FIMR project's "Partnership to Improve Newborn Health and Beyond" incorporated LCT principles into an assessment tool that evaluated women's current health and the impact of contributing social, economic and environmental factors. The purpose of the project was to help women prepare for better birth outcomes and to identify socioeconomic, environmental, and health patterns that could affect them for the rest of their lives, as well as provide empowerment to live healthier lives in the future. The project consisted of distributing surveys that assessed maternal health on multiple determinant levels.

An initial survey was conducted with a follow-up survey at three months. Participants were recruited through three different sources: women who participated in the FIMR home interview process; women whose children were in the NICU; and women enrolled in the Supplemental Nutrition for Women, Infants, and Children (WIC) program at Tulsa Health Department. Participants received an informational incentive bag. The bags included:

- Interconceptual health information, keepsake calendar and premie stickers
- A bottle of folic acid
- A travel toothbrush/toothpaste kit
- Foaming hand sanitizer
- Fever scan thermometer
- An invitation to participate in an online interconceptual well-being assessment

The initial and three month follow-up surveys were collected. Participants calculated their body mass index (BMI) category based on a height and weight chart in the survey. The results depict a community where the majority of the participant population falls under the category of "at risk" based on certain determinants of health.

SUMMARY

In summary, the nine FIMR programs successfully incorporated LCT into their processes. Generally, the first step was educating their colleagues and community members about LCT. Many programs held community meetings to obtain suggestions for incorporating LCT into their existing FIMR program. These discussions resulted in expansion of the CRT to include non-traditional members. As a result of broadening the perspective of the FIMR members, they had an in-depth appreciation of the parents' situation and possible improvements in the care delivery system. Discussion with colleagues and community members also revealed that the father's involvement is one component of maternal protective factors. The view of health services across the life span was identified as an important goal for mothers and fathers. Finally, increasing protective factors across the life span is the ultimate goal that can improve individual families and communities.