



Six Recommendations for **Reducing** Infant Mortality in Hamilton County

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Why is infant mortality important in Hamilton County?

Since mothers and infants are among the most vulnerable members of society, infant mortality is a measure of a population's health. In addition, disparities in infant mortality by race/ethnicity and socioeconomic status are an important measure of the inequalities in a society.

Despite numerous attempts at addressing this complex issue here in Hamilton County, Cincinnati ranks low among cities of comparable population sizes.

City	IMR
Cincinnati	12.9
Pittsburgh	10.5
Kansas City	9.9
Indianapolis	9.2
San Antonio	7.2
Portland	5.5

Source: *MMWR Weekly*(2002)
60 Largest Cities

The current method of tracking and analyzing infant mortality data utilizes the linkage of birth and death records. This is a national standard and while effective it results in a delay in identification of incidences which results in a significant delay of potentially actionable data.

Over the past decade, the federal Maternal and Child Health Bureau (MCHB) and the American College of Obstetricians and Gynecologists (ACOG) have worked together as partners in the National Fetal and Infant Mortality (NFIMR) Program. NFIMR is a national resource center for states and localities that are implementing the fetal and infant mortality review (FIMR) process. NFIMR's goal has been to refine and promote FIMR and to provide technical assistance and training.

The following is a review of National Fetal and Infant Mortality Review Program (FIMR) and recommendations on its implementation including an examination of the Pregnancy Risk Assessment Monitoring System (PRAMS).

Current FIMR Models

FIMR Programs have always said that no written instructions about FIMR can substitute for the ongoing communication and collaboration among the communities implementing the process. Across the country today, there are approximately 200 local FIMR programs. Each has a specific contact person. Some programs are just starting out, while others have been in operation for ten years or more. All have valuable ideas about FIMR and welcome a call. Indianapolis, Louisville, and Cleveland are cities locally that have implemented FIMR. The following is an overview of three FIMR models (See Appendix I for detailed information).

	Carroll Co. Maryland Health Dept.*	Miami-Dade Co. Florida FIMR Program	Houston FIMR Program
FIMR Structure	<ol style="list-style-type: none"> 1. Nurse-FIMR Coordinator 2. Data Abstractor 	<ol style="list-style-type: none"> 1. Nurse-FIMR Coordinator 2. Data Abstractor 3. Home Interviewer 	<ol style="list-style-type: none"> 1. Nurse-FIMR Coordinator 2. Data abstractor 3. Home Interviewer- pt retired psychiatrist
Funding	Partially funded by Title X and the health dept.	Nurse and data abstractor are paid for by grants. Interviewers volunteer through partnership w/ AARP	Nurse funded by health dept. Data abstractors are coding students. Psychiatrist paid for by a mental health grant
Data Collection	Case is initiated with receipt of death certificate. Interview is requested. Data is collected once release forms are signed.	Coroners Office notifies Coordinator. Records are requested. Interview requested. Follow up on additional sources.	Monthly report captures deaths. Records requested. Interview requested. Additional records requested if needed.
Data Analysis	FIMR Software	FIMR Software	Stat students use SPSS
Program Measures	# of cases reviewed # of programs implemented # of outreach programs conducted	Decrease in cases # of programs implemented # of families enrolled	Health Services Mother Behaviors and Practices Fetal and Infant Health Outcomes
Programs Implemented	9 programs implemented	5 programs implemented	0 programs- new program

* See Appendix II for details on Carroll County Initiatives

**CAT – Community Action Team

**CRT – Case Review Team

FIMR Implementation Tools (www.acog.org)

The American College of Obstetricians and Gynecologists (ACOG) has provided tools for those cities interested in implementing the FIMR program via www.acog.com. Many FIMR programs and coordinators suggest using the following resources when implementing FIMR.

1. Sustaining the FIMR Program: Provides directors and coordinators responsible for managing fetal and infant mortality review programs with the information to help sustain their program. The document provides information on the following topics: Sustaining the FIMR Program, Marketing and Communication, Funding and Development, FIMR Models, Changing Data to information and a directory of FIMR programs.
2. Data Abstraction Forms: Guide to developing appropriate data collection tools.
3. NFIMR Software: Associated with the data abstraction forms – used for data analysis and interpretation.
4. A Guide for Home Interviewers: Training tool for the home interviewer.

Hamilton County Programs Addressing Infant Mortality

Fetal and infant mortality has been an issue that many citizens in Hamilton County deem as highly important. This has resulted in the development of numerous programs that focus on not only fetal and infant mortality, but the issues surrounding it. Listed are 17 such programs that are driving the community to focus on this issue including Every Child Succeeds, which is a nationally recognized program.

Hamilton County Infant Mortality Programs			
Program	Goals & Objectives	Funding	Contact
AWHONN: The Association of Women's Health, Obstetric and Neonatal Nurses	Provides financial support to initiatives that improve the health of mothers and newborns including: grassroots lobbying and advocacy work, research programs, educational and outreach programs	AWHONN membership dues and donations	Susan Johnson
Child Policy Research Center	To foster evidence-based child policy by providing data analysis and interpretation to community leaders and policy makers interested in the physical, emotional, and social well-being of children	Supported through a variety of internal and external sources	Ed Donovan
Children's Defense Fund	To ensure every child a healthy start, a head start, a fair start, a safe start, and a moral start in life and a successful passage to adulthood with the help of caring families and communities	Supported through a variety of public and private sources	Nicole Glover
Cincinnati Health Department	Responsible for the distribution of WIC services	Public Sources	Pat Handel
Closing the Gap	Concentrate efforts on eliminating racial and ethnic disparities in Greater Cincinnati through advocacy, education, and community outreach	Public and private sources	Dwight Tillery
Community Health Worker Program Planning Workgroup	Provide outreach, education, referral, and follow-up, case management, advocacy, and home visiting services to women who are at highest risk for poor birth outcomes		Mary Kappesser
Council on Child Abuse of Southern Ohio, Inc.	Committed to child abuse prevention	Funded by private donations	Eve S. Pearl
Every Child Succeeds	Offers first time mothers and their families support to help ensure an optimal start for their children	Supported through a variety of public and private sources	Judith Van Ginkle
Family & Children First Council	A partnership of government agencies and community organizations committed to improving the well-being of children and families.	Ohio governmental grants	Patty Eber
Health Improvement Collaborative/Low Birthweight Initiative	Provide an effective incubator for specific health improvement initiatives; including low birth weight analysis.	Funded by major insurers and tobacco settlement.	Margaret Shank
Healthy Moms and Babes	To support planning activities for the development of an organizational strategic plan for a five county region in southwest ohio	Federal Grants	Kay Brogle
Lighthouse Youth Services	To advance the dignity and well-being of children, youth and families	Public and private sources	Cynthia Heinrich
March of Dimes	To improve the health of babies by preventing birth defects, premature birth, and infant mortality	Public and private sources	Lisa Holloway
Perinatal Data Use Consortium	Provides access to regional perinatal outcome data; performs analysis on fetal and infant mortality rates.	Funded by the Ohio Department of Health	Kathy Hill
Start Healthy Coalition	Focus on increasing Medicaid enrollment of eligible families	Funded by federal and state grants	Nancy Steinberg Warren
Success by 6	Focus on improving school readiness through community change	Support from local United Way Resources	Stephanie W. Byrd
UC College of Nursing Ethnographic Study	Focus on health disparities in prenatal infant care		Christine Savage

End Users of an Infant Mortality Surveillance System

There are multiple end users of an infant mortality surveillance system. A surveillance system would increase community awareness of Hamilton County's infant mortality rates giving the community a better understanding of the FIMR program's purpose. Following are the major end users of the program with the entire community as a whole being the ultimate end user.

1. Community programs addressing infant mortality (as seen above)
2. Cincinnati Hospitals
3. City of Cincinnati
4. Hamilton County
5. City and County Health Departments
6. State of Ohio
7. U.S. Government

Barriers associated with the development of a surveillance system in Hamilton County

To successfully implement a FIMR program, there must be a commitment between all parties involved and a willingness to work and participate together. In looking at the current programs and agencies in Hamilton County, it is obvious that there may be some barriers in developing such a system including the following:

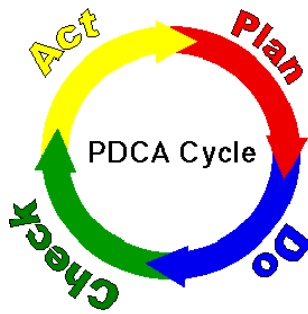
1. Lack of communication between programs
2. Lack of financial support
3. Disconnect between government agencies
4. No connection with the Coroner's Office – would provide consistent and timely data
5. Lack of community partnerships

Implementing FIMR in Hamilton County: 3 Levels of Commitment

Key Element	Commitment Levels		
	Low Level	Mid Level	High Level
Data Collection	<p>Dedicated FTE responsible for data collection.</p> <p>Recommendation to develop a multifaceted plan to facilitate the funneling of infant mortality data through this individual.</p> <p>Suggested that this individual work out of the coroner's office.</p> <p>Develop and implement a campaign designed to work with all Hamilton County Hospitals, the Cincinnati Police, and the Hamilton County Sheriff's Office with the goal of ensuring all infant deaths are reported to this individual.</p>	<p>Dedicated FTE responsible for data collection.</p> <p>Recommendation to develop a multifaceted plan to facilitate the funneling of infant mortality data through this individual.</p> <p>Suggested that this individual work out of the coroner's office.</p> <p>Develop and implement a campaign designed to work with all Hamilton County Hospitals, the Cincinnati Police, and the Hamilton County Sheriff's Office with the goal of ensuring all infant deaths are reported to this individual.</p>	<p>Dedicated FTE responsible for data collection.</p> <p>Recommendation to develop a multifaceted plan to facilitate the funneling of infant mortality data through this individual.</p> <p>Suggested that this individual work out of the coroner's office.</p> <p>Develop and implement a campaign designed to work with all Hamilton County Hospitals, the Cincinnati Police, and the Hamilton County Sheriff's Office with the goal of ensuring all infant deaths are reported to this individual.</p>
Data Analysis	<p>Basic analysis including key metrics identified by the Infant Mortality Task Force.</p>	<p>Implementation of a FIMR Case Review Team (CRT) responsible for identifying the factors associated with individual cases of fetal and infant mortality within the community, as well as the development of appropriate recommendations for addressing deficiencies within the community and perinatal health care system that contribute to such deaths.</p>	<p>Implementation of a FIMR Case Review Team (CRT) responsible for identifying the factors associated with individual cases of fetal and infant mortality within the community, as well as the development of appropriate recommendations for addressing deficiencies within the community and perinatal health care system that contribute to such deaths.</p> <p>Dedicated 0.5 FTE for statistical analyst.</p>

Data Interpretation	Previously identified key metric data distributed to key stakeholders for individual interpretation.	Utilization of the CRT to interpret extrapolated data and develop recommendations based on this data.	Implementation of a Community Action Team (Infant Mortality Task Force) responsible for implementing strategies to improve the systems of care available to women, infants, and families as outlined in recommendations resulting from the case review process.
Outcome Measures	Outcomes measured strictly through the Hamilton County IMR statistics.	Tracking outcome measures would be the responsibility of interested stakeholders.	Monthly surveillance of IMR statistics as well as interventional program reviews using PDCA model* allowing for constant program evaluations and strategic planning.

*PDCA Model:



(Bold from Deming p.132, Plain from BPC p.52)

Plan - a change or a test, aimed at improvement.

In this phase, analyze what you intend to improve, looking for areas that hold opportunities for change. The first step is to choose areas that offer the most return for the effort you put in - the biggest bang for your buck.

Do - Carry out the change or test (preferably on a small scale).

Implement the change you decided on in the plan phase.

Check or Study - the results. What was learned? What went wrong?

This is a crucial step in the PDCA cycle. After you have implemented the change for a short time, you must determine how well it is working. Is it really leading to improvement in the way you had hoped?

Act - Adopt the change, abandon it, or run through the cycle again.

After planning a change, implementing and then monitoring it, you must decide whether it is worth continuing that particular change. If it consumed too much of your time, was difficult to adhere to, or even led to no improvement, you may consider aborting the change and planning a new one. However, if the change led to a desirable improvement or outcome, you may consider expanding the trial to a different area, or slightly increasing your complexity. This sends you back into the Plan phase and can be the beginning of an improvement ramp-up.

RECOMMENDATION

1

Conduct a comprehensive review of every fetal and infant death in Hamilton County.

FIMR (Fetal Infant Mortality Review) is a system developed by the American College of Obstetricians and Gynecologists which is currently in use in many communities across the country. The FIMR process begins when a fetal or infant death is identified. FIMR staff collect data about the death and the services the woman and her family receive from a variety of sources such as the death certificate, the physician and medical records. FIMR staff also interview the parents and review records related to home visits, WIC and additional social services. The findings are used to develop a community action plan so that services delivered can be effectively targeted to fill identified needs.

Action Steps	Start Date	Intended Impact	Agencies Responsible
Redeploy Infant Mortality Task Force (IMTF)	8/2006	Congregate a panel of experts to oversee implementation of efforts to reduce infant mortality.	Todd Portune
Complete a thorough analysis of the FIMR process.	9/2006	Identify the resources needed to implement the process and the fiscal resources needed.	Infant Mortality Task Force
Implement a FIMR pilot program and document lessons learned.	1/2007	Identify the tools necessary to implement on a broad scale.	Infant Mortality Task Force
Secure funding for the Infant Mortality Task Force	3/2007	The IMFT will be the lead agency driving change in the IMR improvement program.	Hamilton County and Cincinnati Departments of Public Health
Establish infrastructure under IMTF in collaboration with the Hamilton County and Cincinnati Departments of Public Health. This includes oversight, coordination training, issuing contracts,	5/2007	Facilitate a FIMR program to provide improved and timely data collection.	Infant Mortality Task Force

building partnerships, and establishing an advisory committee, case review teams and community action groups.			
Initiate FIMR case reviews.	1/2008	Facilitate improved and timely data collection.	Infant Mortality Task Force

RECOMMENDATION

2

Create a monitoring system to increase understanding of the risks faced by pregnant mothers in Hamilton County

Pregnancy Risk Assessment Monitoring System (PRAMS) can provide data that will give a more complete understanding of issues affecting women before, during and after pregnancy. This understanding will contribute to improved delivery of care and improved programs to reduce infant mortality.

Action Steps	Start Date	Intended Impact	Agencies Responsible
Work with CDC to determine if funding assistance is available in Hamilton County.	9/2006	Acquire funding sources for PRAMS implementation.	Infant Mortality Task Force PRAMS subcommittee
Design questionnaire and protocol for data collection and analysis.	11/2006	Development of a viable and effective data collection tool. Determine an effective data extraction method	Infant Mortality Task Force PRAMS subcommittee
Implement survey tool.	1/2007	Improved infant mortality data collection for analysis.	Infant Mortality Task Force PRAMS subcommittee
Over an extended time, capture data to evaluate racial and demographic trends.	2007	Improved infant mortality data bank.	Infant Mortality Task Force PRAMS subcommittee

RECOMMENDATION

3

Improve access to care for populations disproportionately impacted by infant mortality.

Research indicates that some populations have significant barriers to timely healthcare. Unless access to care is improved, improvements in rates of infant mortality are likely to continue.

Action Steps	Start Date	Intended Impact	Agencies Responsible
Identify and remove barriers to timely enrollment in Medicaid for women of childbearing age	1/07	Increase enrollment of childbearing-age women in Medicaid.	Infant Mortality Task Force Access Subcommittee
Provide access to care for pregnant women currently eligible only for emergency services	1/07	Increase enrollment of childbearing-age women in Medicaid.	Infant Mortality Task Force Access Subcommittee

RECOMMENDATION

4

Provide access to preconception care for all women of childbearing age with a history of poor birth outcomes.

Women who have had a previous poor birth outcome are at extremely high risk with subsequent pregnancies unless there is intervention. The best way to quickly reduce the IMR is represented by addressing the needs of this group of women.

Action Steps	Start Date	Intended Impact	Agencies Responsible
Build a registry of all women with a history of poor birth outcomes	1/07	Identification of high risk women.	Infant Mortality Task Force Access Subcommittee
Provide access to preconception care for all Medicaid-eligible women who have had a poor birth outcome in the previous two years	1/07	Ensure that these high risk women have early prenatal care available should they conceive in the future.	Infant Mortality Task Force Access Subcommittee
Work with employers, especially of low wage earners, to encourage access to preconception care	1/07	Increase pressure on employers to ensure identified high risk women have limited barriers to health care.	Infant Mortality Task Force Access Subcommittee

RECOMMENDATION

5

Evaluate effectiveness of local not-for-profit agencies in an effort to identify best practices which can be demonstrated through data driven outcomes.

The reality is that every scarce resource must be allocated as effectively and efficiently as possible. Prerequisites must be created to ensure that governmental funding is carefully allocated to organizations demonstrating effective outcomes and have the data to prove their claims.

Action Steps	Start Date	Intended Impact	Agencies Responsible
Evaluate and identify best practices among the not-for-profit organizations operating in the county in order to begin widespread implementation.	10/06	Identification of evidence based interventions and practices which are positively impacting IMR.	Infant Mortality Task Force Resource Allocation subcommittee
Identify evidence based organizations which are demonstrating positive outcomes.	11/06	Identify which	Infant Mortality Task Force Resource Allocation subcommittee
Work with identified agencies to identify funding sources and to assist in securing this funding.	1/07	Work to funnel scarce resources to organizations which have proven results, thereby infusing competition into the not-for-profit infant mortality sector.	Infant Mortality Task Force Resource Allocation subcommittee

RECOMMENDATION

6

Maintaining a system of quality improvement to evaluate effectiveness of interventions.

Implementation of an effective continuous quality improvement (CQI) tool is essential to assure optimal resource allocation and interventional analysis. One of these tools, the PDCA, or PDSA model may be ideal for changes implemented in the approach to addressing infant mortality in Hamilton County.

Action Steps	Start Date	Intended Impact	Agencies Responsible
Determine CQI methodology to be implemented in conjunction with intervention development.	10/2006	Optimize resources and maintain governance on interventions implemented.	Infant Mortality Task Force
Implementation of identified methodology.	1/2007	Optimize resources and maintain governance on interventions implemented.	Infant Mortality Task Force

FIMR Contacts

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5. Mary Ann Hamilton – Child Policy Research Center
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6. Beverly Nichols – Houston FIMR Coordinator
Beverly.Nichols@cityofhouston.net
7. Thomas Shelton – New York City Head Start Analyst
tshelton@nyc.gov
8. Hamilton County Coroner’s Office – several contacts with multiple individuals.
www.hamilton-co.org/coroner/CONTACT.htm