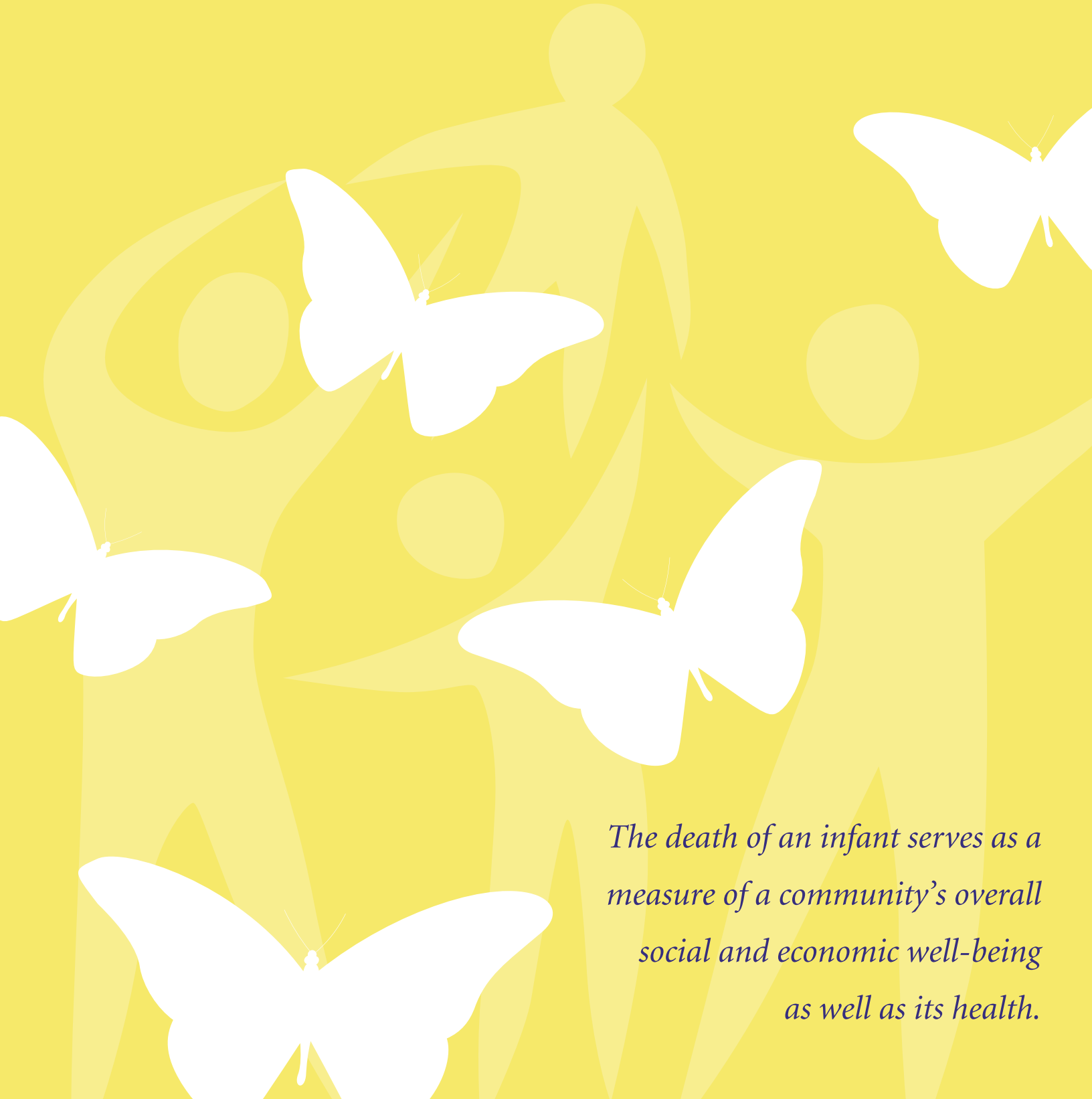
St. Louis Fetal Infant Mortality Review (FIMR) Program

2006 ANNUAL REPORT



The death of an infant serves as a measure of a community's overall social and economic well-being as well as its health.

The Maternal, Child and Family Health Coalition (MCFHC) is proud to host the St. Louis Fetal Infant Mortality Review program. And I personally am gratified to have been part of bringing this important program to the area. Prior to accepting the executive director position, I served as co-chair of the committee that implemented FIMR. Many volunteers dedicated several years to see this program become successful in St. Louis. Their resolve has been steadfast and it has been rewarded with the promise of improvements to the systems of care for women and babies.

The FIMR program is the embodiment of the MCFHC mission and values. The mission of the MCFHC is to unite and mobilize key stakeholders to improve maternal, child and family health in the St. Louis region. Formed in 1999 as a result of the St. Louis Children's Agenda, the MCFHC has focused on two priorities: decreasing infant deaths and increasing access to health care. The MCFHC seeks to improve the quality and effectiveness of maternal and child health care by jointly examining issues affecting the health of women and children and developing and promoting valuable best practices to address these issues. The FIMR program helps the MCFHC accomplish this mission and is integrated into the other programs and initiatives sponsored by the MCFHC.

The MCFHC has grown from early participation of 106 individuals to over 250 individuals representing over 100 community agencies, social service organizations and health care systems. Collectively, the members of the MCFHC can achieve improved health outcomes for the community that no one organization can achieve alone, as demonstrated so clearly through the FIMR program.

Thank you for taking a few minutes to review this annual report and to learn more about this valuable program. I hope it inspires you to engage in collective efforts to improve the health and survival of mothers and babies. For more information about the MCFHC and its programs, please visit www.stl-mcfhc.org or call 314-289-5682.

Warmest regards,

Kendra Copanas
Executive Director
Maternal, Child and Family Health Coalition

The St. Louis Fetal Infant Mortality Review (FIMR) program of the Maternal, Child and Family Health Coalition (MCFHC) is pleased to present the first FIMR Annual Report to the St. Louis community.

Infants in our community are dying; and these deaths serve as a measure of our community's overall social and economic well-being, as well as its health status. FIMR provides a voice for local families who have suffered the loss of an infant by working to improve the quality and scope of services for women and infants. FIMR gathers timely and valuable information about changing health care systems and how they affect real families, promotes greater understanding of community needs, reduces gaps in care, empowers and inspires communities to create local, collaborative solutions, and concentrates community resources by pinpointing and avoiding duplication of services. In addition, FIMR ensures that the use of funds is informed by a broad understanding of community needs and improves communication among health and human service providers.

On behalf of the St. Louis FIMR program, the Maternal, Child and Family Health Coalition of Metropolitan St. Louis extends our sincere thanks to our funders, constituents and collaborative partners. Your continued support is needed to sustain and expand the FIMR program as we work together toward a healthier community for mothers, children and families.

Lastly, we would like to dedicate this report to the bereaved families whose lives have been impacted by the loss of an infant. Through their grief and loss experiences, the St. Louis FIMR Program is committed to ensuring that infants in our communities are born healthy.

For more information, please contact the St. Louis FIMR staff:

Rochelle Dean
FIMR Manager
Maternal, Child and Family Health Coalition
539 North Grand Blvd., Suite 403
St. Louis, MO 63113
P: (314) 289-5683
F: (314) 289-5681
E-mail: rdean@stl-mcfhc.org
www.stl-mcfhc.org

Thi Miller
FIMR Assistant
Maternal, Child and Family Health Coalition
539 North Grand Blvd., Suite 403
St. Louis, MO 63113
P: (314) 289-5688
F: (314) 289-5681
E-mail: tmiller@stl-mcfhc.org

History of FIMR

"Infant mortality is the most sensitive index we possess in social welfare" (Julia Lathrop, Children's Bureau, 1913). The rate of infant mortality in a community is a strong indicator of that community's social and economic well-being. In addition, it is a measure of the adequacy and ability of the community's health and human services resources.

Infant mortality is associated with a variety of factors, including prenatal and pediatric health care, the strength of community resources and service systems and socioeconomic conditions. Understanding these factors (e.g., birth defects, low birth weight/preterm births and sudden infant death syndrome) provides the opportunity for a community to provide the necessary services and resources for its families.

In 1990, the National Fetal Infant Mortality Review (NFIMR) program was established as a collaboration between the American College of Obstetricians and Gynecologists and the Maternal and Child Health Bureau (MCHB) to facilitate the understanding of fetal and infant mortality as well as to systematically develop strategies at the local level to address the issue. From 1991 to 1993, NFIMR provided funding support for several local initiatives with additional funding from MCHB, the March of Dimes Birth Defect Foundation, Carnation Nutritional Products and the Centers for Disease Control and Prevention. Today, there are approximately 220 state and local FIMR programs in 40 states.

Why FIMR Exists

FIMR provides a community-based, action-oriented, systematic way for diverse community members to come together and examine social, economic, health, educational, environmental and safety factors associated with fetal and infant loss in St. Louis. Through FIMR, the community becomes an expert in planning locally appropriate policies and interventions to improve community resources and service delivery systems and enhance the health of women, infants and families.

The goals of FIMR:

1. Examine factors associated with fetal and infant mortality through case review.
2. Plan interventions and policies to address factors and improve service systems and community resources.
3. Participate in implementation of community-based interventions and policies.
4. Assess the progress of interventions.

The FIMR Process

The FIMR process begins when a fetal or infant death occurs. FIMR collects and abstracts data from vital, medical and social service records. An extensive home interview is also conducted to record the mother's and family's experiences with the support services available to them and the care received during the prenatal, obstetric and postnatal period. All case information is kept confidential.

Case information is then summarized and presented to FIMR's Case Review Team (CRT). After reviewing the case summaries, the CRT begins to identify health system and community factors that may have contributed to the death and make recommendations for community change. Finally, FIMR's Community Action Team (CAT) translates those recommendations into action and participates in implementing interventions designed to address the identified problem. Refer to *Figure 1*.

Figure 1

St. Louis FIMR

Over the last decade, more than 3,400 fetal and infant deaths occurred in St. Louis City and County alone. Missouri's infant mortality rate (8.3/1,000 live births) is higher than the national average (7.0/1,000 live births), and in some areas of St. Louis City and County, the infant mortality rate is double that of the state of Missouri (St. Louis Healthy Start Grant, 1999).

One of the first FIMR programs in the state, the St. Louis Fetal Infant Mortality Review program was established in 2003 by the Infant Mortality Workgroup of the Maternal, Child and Family Health Coalition of Metropolitan St. Louis (MCFHC), a non-profit organization dedicated to uniting and mobilizing key members of the community in an effort to improve maternal and child health in the St. Louis region. After reviewing infant mortality data and risk factors in the St. Louis region and national best practices, the Infant Mortality Workgroup planned and piloted a FIMR program in three zip codes (63113, 63120 and 63136) in North St. Louis City and County. These areas were chosen based on a combination of need and community capacity. Refer to *Table 1*.

Table 1

A Comparison between Missouri and the High-risk Zip Codes on Pertinent Infant Mortality Factors

Problem	State of Missouri	63113	63120	63136
Infant Mortality Rate	8.3/1,000	17.4/1,000	15.9/1,000	13.2/1,000
Households with Incomes Below $24,999	32.1%	51.7%	36.6%	22%
Female-headed Households	7.1%	17.2%	23.7%	21.7%
Number Births to Medicaid Consumers	39.3%	72%	76%	64%
Low Birth Weight	8%	14.5%	12.6%	12.4%
Preterm Births	8%	14.5%	12.6%	12.4%
Received Inadequate Prenatal Care	32.1%	51.7%	36.6%	22%

Demographics

According to the 2000 U.S. Census data, St. Louis City has a population of 348,189. Of this total population, 43.8 percent are "white alone," 51.2 percent are "African-American," 3.1 percent are "Other" (e.g., Asian, American Indian, other race) and 1.9 percent are "two or more races"[1].

The St. Louis City Department of Health's 2006 Public Health Report notes that there is a positive correlation with a city's economic strength and positive public health and health outcomes. St. Louis City residents have an average annual household income of $37,455 – 50 percent lower than the national average. For the three high-risk zip codes of 63113, 63120 and 63136, the average annual household income is approximately $29,500.

Additionally, St. Louis City has a poverty level twice as high as that of the United States and Missouri. For the three high-risk zip codes, the percentage of residents living below the poverty level is approximately 34.3 percent. This percentage is one-third higher than St. Louis City whose poverty level is 24.5 percent.

The percentage of St. Louis City residents who have completed high school falls 12 percent lower than that of the United States and Missouri. The high-risk zip codes share an average of 60 percent compared to 70 percent of St. Louis City.

Infant Mortality Surveillance Data Component

The St. Louis FIMR works in collaboration with Louise H. Flick, DrPH, of Southern Illinois University-Edwardsville, School of Nursing, and Terry L. Leet, Ph.D., of Saint Louis University, School of Public Health. Drs. Flick and Leet monitor infant mortality in St. Louis City and County as well as create maps of neighborhood-specific distributions of infant mortality and key risk factors using geographic information system codes. These maps will identify areas that can be targeted for intervention in St. Louis City and County.

Continual collaboration with Flick and Leet will provide updates pertinent to surveillance data for infant deaths occurring among residents of St. Louis City and County, based on information from Missouri live birth and death certificates. The updates add data from linked births and deaths for births occurring from 2000 to 2005, and track intermediate outcomes and risk factors from birth certificates alone through 2005 (and possibly 2006). The purpose is to identify modifiable risk factors and to track trends over time that are important for public health policy and practices related to the risks of infant death.

1 2006 Public Health Report, St. Louis City Department of Health

Issues associated with fetal and infant deaths and factors present in case summaries of cases reviewed by FIMR CRT July 2004 to April 2006

Medical – Mother

54% obesity
43% preterm labor
40% poor nutrition
15% cord problem
30% diabetes
30% infection
30% premature rupture of membranes
33% previous fetal or infant loss
22% STD
18% previous preterm delivery

Problems with Prenatal Care

30% no prenatal care
15% late entry
22% missed appointments

Substance Abuse

40% tobacco
22% illicit drugs
15% alcohol

Prenatal Risk Assessment

22% not done
22% unknown

Social Support

18% negative influence of friends/family

Mental Health/Stress

58% multiple stresses during pregnancy

Family Violence/Neglect

15% partner abuse
25% unknown

Poverty

65% present

Provision/Design of Services

36% unknown
18% fear of/dissatisfied with system
15% inadequate patient education

Environment/Occupation/Safety

10% secondhand smoke

Homeless

15% living on street
10% frequent moves

Other Issues

79% no placental pathology in record

St. Louis Fetal and Infant Mortality

Fetal mortality is defined as the death of a fetus at 20+ weeks gestation or 350 grams (MDHSS, 2004). Infant mortality is defined as the death of a live birth infant before his or her first birthday[2].

The fetal and infant mortality rates in St. Louis City from 1988-2004 have been consistently higher than that of Missouri and St. Louis County (See *Figures 2* and *3*). The fetal mortality rate in St. Louis City increased from 9.6/1,000 live births in 2001-02 to 11.7/1,000 live births in 2003-04, and is at its highest level in the 15-year period. In contrast, the infant mortality rate in St. Louis City appears to be declining with a rate of 11/1,000 live births for 2003-04, compared to the consistent average of 14.2 for periods 1997-98, 1999-2000 and 2001-02. This rate of 11/1,000 live births, however, is still approximately 30 percent higher than the rates of Missouri and St. Louis County for 2003-04.

Figure 2

Fetal Mortality Rates for Missouri, St. Louis County and St. Louis City

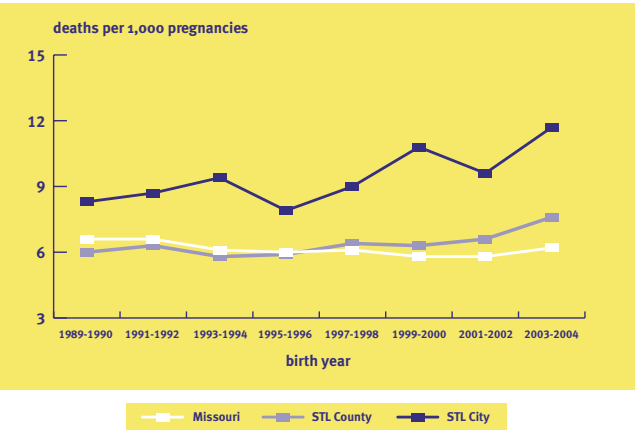


Figure 3

Infant Mortality Rates for Missouri, St. Louis County and St. Louis City

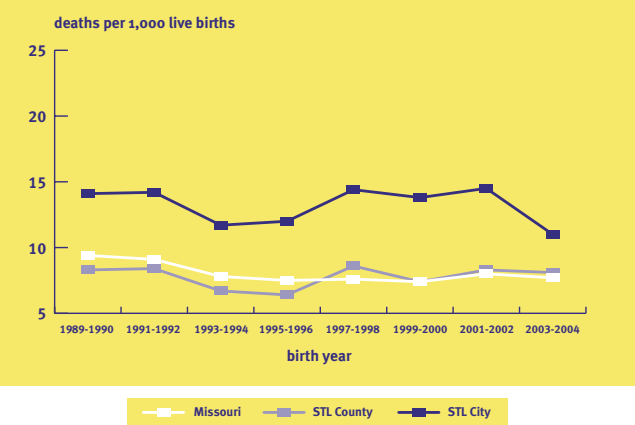
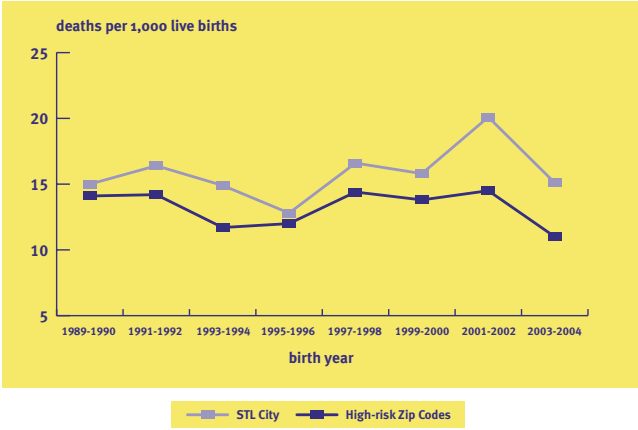


Figure 5

Infant Mortality Rates for St. Louis City and High-risk Zip Codes

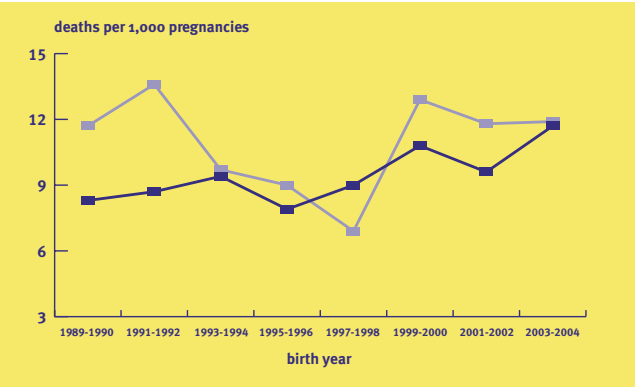


Additionally, whereas the mortality rates for Missouri and St. Louis County have remained fairly stable during the 15-year period, the rates for St. Louis City have been shown to ebb and rise, with rates for fetal mortality ranging from 7.9/1,000 prenatal deaths (1995-96) to 11.7/1,000 prenatal deaths (2003-04) and infant mortality at 11/1,000 live births (2003-04) to 14.5/1,000 live births (2001-02).

The St. Louis FIMR program has concentrated its efforts primarily on three high-risk zip codes in St. Louis City: 63113, 63120 and 63136. *Figures 4 and 5* reflect the comparison of fetal and infant deaths rates for St. Louis City and the listed high-risk zip codes. As indicated by these figures, mortality rates for the high-risk zip codes have been consistently higher for all two-year periods than the mortality rates of St. Louis City, with the exception of years 1997-98 for fetal mortality.

Figure 4

Fetal Mortality Rates for St. Louis City and High-risk Zip Codes



St. Louis FIMR Teams and Committees

St. Louis FIMR Case Review Team (CRT)

The Case Review Team (CRT) is a committee of community and health professionals responsible for identifying the contributing factors associated with cases of fetal and infant death within a community. This committee is also responsible for developing appropriate recommendations to address deficiencies within the community and health care systems contributing to fetal and infant mortality.

The St. Louis CRT consists of approximately 15-20 professionals with a broad range of backgrounds from public and private agencies. These individuals meet bi-monthly to review case summaries and make the necessary recommendations for community improvement.

St. Louis FIMR Community Action Team (CAT)

The Community Action Team (CAT) is a committee of community advocates responsible for implementing the recommendations outlined by the CRT in an ongoing effort to improve the systems of care, access to services, and the resources available to women, children and families. The St. Louis FIMR CAT consists of approximately 40-45 professionals who represent a vast and diverse group of community advocates. These professionals represent two types of individuals relevant to the FIMR mission: those with the political will and fiscal resources to create large-scale system change and those who can define a community perspective on how best to realize that change in a community.

The CAT meets quarterly to discuss and facilitate the FIMR progress. Five subcommittees exist within the

Community Action Team, each carrying out a specific CRT recommendation. Each CAT subcommittee consists of approximately 8 to 10 individuals each and meet monthly to discuss and advance their specific objectives.

CAT subcommittees:

1. Education
2. Postpartum
3. Prenatal
4. Transportation and Cultural Competency
5. Placental Pathology and Autopsy

CAT Education Subcommittee

The CAT Education subcommittee currently focuses on addressing smoking during pregnancy. Missouri has one of the highest rates of smoking among pregnant mothers in the United States at 18.2 percent compared to the national level of 11.4 percent[3]. Cigarette smoking during pregnancy is one of the leading, most preventable causes of low birth weight in infants. It also increases the risk of stillbirths and is associated with an increase in sudden infant death syndrome (SIDS). Infants exposed to cigarette smoke also face higher risks of respiratory infection and hospitalization. In a study of seven initial FIMR demonstration projects conducted by the National FIMR program, three important conclusions were made:

- Smoking cessation should be a high priority intervention.
- Prenatal patients should be screened and referred to smoking cessation programs.
- Families with infants should be made aware of smoking's dangerous effects on infants.

Of the 29 cases reviewed by the CRT, 40 percent of mothers reported smoking during pregnancy and 10 percent reported exposure to secondhand smoke.

To address this issue, the CAT Education subcommittee has carried out a thorough review of existing smoking cessation resources for pregnant women in the St. Louis community. The subcommittee has determined two priorities: 1. To ensure women and families are educated on the risks of smoking and the dangers of secondhand smoke through community awareness; and 2. To ensure providers counsel women on the risks of smoking and the dangers of secondhand smoke. The subcommittee will also be working closely with SIDS Resources and the Tobacco Prevention Center at the 2006 Healthy Baby Forum to promote the risks of first- and secondhand smoking during and after pregnancy. Other objectives include researching the effects of alternative smoking cessation therapies (e.g., auricular therapy, acupuncture) on pregnant women in an effort to foster collaboration between these therapeutic agencies and other providers. The subcommittee will also continue to build relationships with surrounding organizations and contribute to other smoking cessation initiatives.

CAT Postpartum Subcommittee

The CAT Postpartum subcommittee examines whether professionals providing services and education to mothers are communicating appropriate, consistent messages either through verbal directives or modeling. Ensuring that mothers are aware of and educated on quality of care for their infant may help decrease the rate of infant mortality. Case reviews by the CRT indicated that 33 percent of mothers had previously experienced a fetal or infant loss.

More specifically, this subcommittee is concerned with highlighting the recommendations made by the American Association of Pediatrics and the issues of safe sleep (e.g., "Back to Sleep" and bed sharing). To address these concerns, the CAT Postpartum subcommittee is currently developing a training curriculum for Obstetric physicians and nurses working in clinics and other settings. Working closely with SIDS Resources, further collaboration regarding safe sleep issues will be addressed with the SIDS Safe Sleep Task Force.

CAT Prenatal Subcommittee

Currently, the CAT Prenatal subcommittee is focused on addressing the issue of discontinuity of care during the prenatal period. Through the review of case summaries, the CRT has learned that pregnant women are making multiple visits to different emergency rooms during the prenatal period with no follow-up to their prenatal or primary care physician regarding the visit, medical condition, outcomes and services provided by the emergency room staff. According to the review, 30 percent of mothers received no prenatal care, 22 percent had missed appointments and 15 percent were entering prenatal care late in their pregnancy.

To address this concern, the Prenatal subcommittee began by focusing specifically on two issues related to continuity of care:

1. The number of women utilizing the emergency room (ER)
2. The number and type of inappropriate ER visits that are made

3 Missouri Department of Health and Senior Services (2003)

Relevant data statistics obtained from several federally qualified health clinics (FQHCs), HMOs and service agencies were reviewed and discussed by the subcommittee. The data statistics span approximately 29 counties and cover information gathered from March 2005 through March 2006.

The CAT Prenatal subcommittee will generate a report of findings and set of recommendations based on the data review to the Maternal Child and Family Health Coalition as well as to surrounding obstetric hospitals and clinics by summer 2006.

CAT Transportation and Cultural Competency Subcommittee

The CAT Transportation and Cultural Competency subcommittee addresses issues on behalf of clients and providers in the area of transportation, communication, rights and responsibilities, and patient respect.

The Transportation and Cultural Competency subcommittee was the first St. Louis FIMR CAT subcommittee to be developed. Its formation facilitated the St. Louis FIMR program by providing a template for the structural foundation of the subsequent subcommittees. The subcommittee approached the issue of transportation and cultural competency by first understanding the community's needs of these two issues in its health and social services resources through review of best practices and initiatives addressing cultural competency in the health community. A training curriculum proposal detailing the subcommittee's recommendations was developed and will be reviewed for implementation. The subcommittee has also continued to track the progress of and make contributions to existing, local initiative efforts (e.g., Regional Health Commission and Saint Louis University).

To address the issue of transportation, the subcommittee works toward establishing a collaborative partnership with transportation organizations such as Medical Transportation Management (MTM) to optimize the existing transportation mechanisms to better meet clients' needs. More specifically, the subcommittee aims to understand the need of transportation in the community and how to best address these concerns through review of pertinent data information gathered from transportation agencies.

CAT Placental Pathology and Autopsy Subcommittee

The present goal of the CAT Placental Pathology and Autopsy subcommittee is to develop an implementation strategy targeted toward ensuring that exams of the infant's placenta are ordered, completed, and exam results are documented in the medical record following the infant death.

In addition to social and environmental contributors, the causes of fetal death could be attributed to maternal, fetal or placental disease or pathology. Therefore, placental pathology results are beneficial for abstraction documentation from medical records and FIMR case summaries presented to the CRT. Unfortunately, of the 29 cases reviewed by the CRT, 79 percent of medical records contained no documentation of placental exams. Furthermore, guidelines for visual inspection of the placenta by a pathologist and further histological examination vary by hospitals.

Currently, the CAT Placental Pathology and Autopsy subcommittee is exploring this issue. It has reviewed placental pathology policies of all obstetric hospitals in the St. Louis metropolitan area and compared how each hospital system regulates its placental pathology procedures. After review, the subcommittee drafted a recommended policy regarding procedures and conditions under which placental examinations should take place. The subcommittee will present its placental pathology policy to the pertinent departments of each obstetric hospital by summer 2006. The purpose of this task is to recommend that all St. Louis hospitals incorporate conditions and guidelines into their existing policies the subcommittee feels are significant to the placental pathology process.

Additionally, autopsy results are useful for the CRT in determining the physical factors associated with fetal and infant death. However, autopsies should not be performed unless requested by the family. CRT recommends families be made aware that an autopsy is an option and that any request or offer be documented in the medical charts. The Placental Pathology and Autopsy subcommittee will begin addressing this issue once the implementation of a recommended placental pathology policy has been carried out.

Future Goals of St. Louis FIMR Program

In December 2005, the St. Louis FIMR was granted approval from the Missouri Department of Health and Senior Services (MDHSS) Internal Review Board (IRB) to expand its review of fetal and infant deaths to include all zip codes in St. Louis City and County. This expansion now allows for a more thorough understanding of the contributing factors of fetal and infant deaths, as well as a larger engagement of community health professionals and institutions to improve maternal and child health.

St. Louis FIMR Team Members and Community Partners

Potential and Active

Disciplines

- Obstetricians
- Pediatricians
- Perinatologists
- Neonatologists
- Nurses
- Social Workers
- Health Department Representatives
- Nutritionists
- Medical Examiners
- Pathologists
- Substance Abuse Service Representatives
- Mental Health Service Representatives
- Child Welfare Agencies
- Bereaved Parents
- Elected Officials
- Religious Leaders
- Business Leaders
- Bereavement Professionals
- Parent Support Group Facilitators
- Probation and Parole Representatives
- Media Representatives
- Minority Rights Groups
- Children's Rights Groups

Organizations

- BJC Health System/Barnes-Jewish Hospital
- Behavioral Health Response
- Cardinal Glennon Children's Hospital
- Child Fatality Review
- Deaconness Foundation
- Family Support Network
- Grace Hill Neighborhood Health Centers, Inc.
- Greater St. Louis Regional Empowerment Zone
- HealthCare USA
- Queen of Peace Center
- Lutheran Family and Children Services
- March of Dimes
- Maryville University, Department of Nursing
- Medical Transportation Management
- Mercy Health Plans
- Missouri Department of Health and Senior Services
- Missouri Foundation for Health
- National Council for Alcoholism and Drug Abuse
- North Central Community Health Center
- Nurses for Newborns Foundation
- Region Wise
- SIDS Resources, Inc.
- SSM Health Care System/St. Mary's Health Center
- St. Louis Children's Hospital
- St. Louis City Department of Health
- St. Louis County Department of Health
- St. Louis Department of Family Services
- St. Louis Healthy Start
- St. Louis Regional Health Commission
- Saint Louis University, School of Nursing
- Saint Louis University, School of Public Health
- Saint Louis University, Tobacco Prevention Center
- Vision for Children at Risk
- Washington University
- YWCA HeadStart

Appendix

Table 2

St. Louis FIMR Case Demographics July 2004 to April 2006

Vital Stats Information Received	Case Summaries Reviewed by CRT	Infant Deaths	Fetal Deaths	Race African-American	Race Other	Marital Status Single	Marital Status Married	Age 16-35	Age 35+	Maternal Interviews Completed Per Mom's Consent
38 Death Certificates	29 Reviewed	55%	45%	99%	1%	97%	3%	97%	3%	19% Completed

Table 3

Infant Deaths and Births for Missouri, St. Louis County and City, and High-risk Zip Codes, 1988-2004

	1989-1990		1991-1992		1993-1994		1995-1996		1997-1998		1999-2000		2001-2002		2003-2004	
	deaths	births	deaths	births	deaths	births	deaths	births	deaths	births	deaths	births	deaths	births	deaths	births
Missouri	1,435	152,109	1,373	150,433	1,133	144,650	1,063	142,555	1,103	144,645	1,087	146,621	1,154	144,931	1,150	148,852
STL County	239	28,833	239	285,539	185	27,809	169	26,260	221	25,623	189	25,382	204	24,434	197	24,327
STL City	233	16,556	227	15,971	164	14,058	141	11,736	162	11,260	150	10,875	145	10,379	120	10,466
High-risk Zip Codes	65	4,291	69	4,203	55	3,681	38	2,960	50	3,014	46	2,910	54	2,688	40	2,646

Table 4

Fetal Deaths and Births for Missouri, St. Louis County and City, and High-risk Zip Codes, 1988-2004

	1989-1990		1991-1992		1993-1994		1995-1996		1997-1998		1999-2000		2001-2002		2003-2004	
	deaths	preg	deaths	preg	deaths	preg	deaths	preg	deaths	preg	deaths	preg	deaths	preg	deaths	preg
Missouri	1,005	153,114	999	151,432	889	145,539	855	143,410	883	145,528	857	147,478	847	145,778	927	149,779
STL County	174	29,007	182	28,721	162	27,971	157	26,417	166	25,789	162	25,544	163	24,567	186	24,513
STL City	141	16,697	140	16,111	133	14,191	94	11,830	102	11,362	119	10,994	101	10,480	124	10,590
High-risk Zip Codes	51	4,342	58	4,261	36	3,717	27	2,987	21	3,035	38	2,948	32	2,720	32	2,678

*pregnancies at least 20 weeks gestation or 350 grams birth weight;
*preg = pregnancies

FIMR Staff Biographical Sketchs

Rochelle Dean, B.S.W., M.Ed.

Rochelle Dean serves as the FIMR manager for the St. Louis Fetal Infant Mortality Review (FIMR) program. Ms. Dean is responsible for the overall management, program operations and coordination of the FIMR program, which includes examining the social, economic, cultural, safety and health system factors associated with fetal and infant mortality. Additional responsibilities include promoting and enhancing the health and wellness of women, infants and families; raising awareness; expanding community resources; and organizing and evaluating the implementation of community-based interventions and policies. Ms. Dean possesses over 23 years of experience in public, private and non-profit health care and social service settings, within the areas of maternal, child and family health; children, youth and families; gerontology; and mental health. Educational achievements include a BSW, M.Ed. and an MSW (anticipated 2007 from Washington University, St. Louis, George Warren Brown School of Social Work).

Thi Miller, B.A., M.S.

Thi Miller serves as the FIMR Assistant for the St. Louis Fetal Infant Mortality Review (FIMR) program. Ms. Miller is responsible for assisting with the coordination of the FIMR program, with special emphasis directed toward maternal interviews and community action components. Ms. Miller possesses over 10 years of experience in public and non-profit health care and social service settings, within the areas of mental health, children, youth and families. Educational achievements include a BA, MS and a Ph.D. in developmental psychology (anticipated 2008 from Saint Louis University, Department of Psychology).

Investigator Biographical Sketchs

Louise H. Flick, M.S.N., DrP.H., M.P.E.
(Graduate degrees from: University of Illinois at the Medical Center, University of North Carolina at Chapel Hill, Washington University)

Professor
School of Nursing
Southern Illinois University Edwardsville

Adjunct Professor
School of Public Health
Saint Louis University

Dr. Flick's training and expertise is in public health nursing and maternal child health epidemiology. She teaches undergraduate and graduate public health nursing, research methods, maternal child health epidemiology, and health promotion research. Her research has been funded by NIH, other federal agencies and private foundations. Interests include the health of vulnerable populations of mothers and children. Particular areas of study include maternal child epidemiology, surveillance of infant mortality and evaluation of community programs. Past projects have addressed service needs for homeless, substance-abusing women with children and prevention of drug abuse in federally qualified neighborhood health centers. Current projects include studies of adolescent parenting, risk factors for and trends in infant mortality in the St. Louis region, evaluation of prenatal services to Hispanic immigrants and studying the impact of prenatal psychiatric illness on the fetus and child.

Terry L. Leet, Ph.D.
(University of Washington)

Associate Professor of Community Health in Epidemiology
Saint Louis University

Associate Professor of Obstetrics, Gynecology and Women's Health (secondary appointment)

Dr. Leet's interests and training includes perinatal epidemiology and evidence-based public health. In addition to his publications and presentations, he is a co-author of the book Evidence Based Public Health. He teaches Principles of Epidemiology, Epidemiology Methods I, and Applied Epidemiology Methods. Dr. Leet is also the 2001 recipient of the St. Martin de Porres Teacher of the Year Award. He is a co-coordinator of the "Evidence Based Public Health" workshop, which is a course designed to provide practical guidance on how to choose, carry out, and evaluate evidence-based program and policies in public health settings. This course has been presented to public health professionals and clinicians from Europe, and North and South America. He is also a member of the Society for Epidemiologic Research, the Society for Pediatric and Perinatal Epidemiologic Research, and the American Public Health Association.

Maternal, Child and Family Health Coalition

Funding to pilot the FIMR program in the 63113, 63120 and 63136 zip codes and expansion to include the entire St. Louis City and County area has been received from the U.S. Department of Health and Human Services, Public Health Service, Health Resources and Services Administration, Maternal Child Health Bureau, Division of Healthy Start, the Missouri Department of Health and Senior Services, and the Missouri Foundation for Health.