The Reduction of Infant Mortality in Illinois

The Family Case Management Program and Special Supplemental Nutrition Program for Women, Infants and Children

Annual Report for Fiscal Year 2008

Illinois Department of Human Services
Division of Community Health and Prevention

January 2009

Rod R. Blagojevich, *Governor*

Carol L. Adams, Ph.D., *Secretary*

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January 2009

Dear Governor Blagojevich and Members of the General Assembly:

It is my pleasure to present the third annual report on the Department's WIC and Family Case Management programs. These programs have contributed to a steady reduction in the state's infant mortality rate, which reached 7.2 deaths per 1,000 live births in 2005 - a rate that is tied with the lowest rate in the state's history. As a result of these efforts, Illinois' ranking in infant mortality among the states has risen from 44th in 1990 to 31st in 2005.

Illinois is unique in its effort to integrate the delivery of these two major programs for low-income women and children. The Department has been able to blend the delivery, financing, monitoring and evaluation of these programs through innovation and performance management. This comprehensive integration of maternal and child health programming is providing the foundation for future expansion and enhancement through the integration of additional services for this vulnerable population.

The Department has achieved uncommon results through this effort. Rates of prenatal weight gain, immunizations, breastfeeding, well child care and developmental screening have been steadily improving. Crude rates of premature birth and infant mortality among Medicaid-eligible pregnant women who participate in these programs are substantially better than those observed among similar women who did not participate in either program.

While we continue to make progress, there is a persistent racial disparity in infant mortality that must be eliminated. An African American infant born in Illinois is still more than two and a half times as likely than a Caucasian infant to die before reaching one year of age. Our current efforts are commendable, but they are not enough.

This tragic loss of life must not continue and its disparate impact on Illinois' minority communities must be addressed. I look forward to working with each of you to improve the health of all Illinoisans.

Sincerely,

Carol L. Adams

Carol L. Adams, Ph.D.
Secretary

The Reduction of Infant Mortality in Illinois
The Family Case Management Program
and Special Supplemental Nutrition Program for Women, Infants and Children (WIC)
Annual Report
Fiscal Year 2008

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While Illinois has made steady progress in the reduction of infant mortality, a significant disparity in infant mortality rates persists between African American and Caucasian infants. An African American infant born in Illinois during 2005 was 2.7 times more likely than a Caucasian infant to die before reaching its first birthday. This disparity has persisted for many years and must no longer be accepted. In addition, in the years since 1996 there appears to be an emerging disparity between the infant mortality rates for Puerto Ricans and all non-Hispanic Whites. Although this is due in part to the small number of births and deaths involved, there is cause for concern. The IDHS has made the reduction of racial disparities in health status a top priority, especially among society's most vulnerable members.

PROGRAM DESCRIPTIONS

The IDHS has developed a comprehensive maternal and child health (MCH) strategy for the reduction of infant mortality. This strategy integrates two large-scale programs, the Special Supplemental Nutrition Program for Women, Infants and Children, more commonly known as WIC, and the Family Case Management (FCM) program. The Department supplements these basic services with programs targeted to women who have a greater chance of giving birth prematurely. The Chicago Healthy Start Initiative (CHSI), Targeted Intensive Prenatal Case Management (TIPCM) and the pilot project Healthy Births for Healthy Communities (HBHC) serve areas of the state with high infant mortality rates or significant racial disparities in infant mortality. These programs work as an integrated whole to improve the health of women and infants.

The integration of these programs is supported and enhanced by the shared use of Cornerstone, the Department's maternal and child health management information system. This system collects and reports all of the information necessary for the operation of the WIC, FCM, Healthy Start and TIPCM programs, as well as other MCH services. Cornerstone provides an integrated record of the services provided to each participant and a service plan that identifies the services that the family requires. It is a distributed system, which means that much of the information collected by one MCH service provider can be retrieved by another service provider (with appropriate confidentiality safeguards). In this way, staff members within and among agencies have access to a comprehensive record of the services provided to participating families. This avoids the problem of duplicative data collection and recording. Cornerstone promotes the integration and streamlines the delivery of MCH services.

The WIC program provides referrals, supplemental foods and nutrition counseling; FCM links families to health and other services.

This comprehensive strategy also blends state and federal funds. WIC is supported entirely by funds from the United States Department of Agriculture (USDA). FCM and TIPCM are supported by state-funds as well as federal funds including those from Titles V and XX and matching funds through the Medicaid program. CHSI is supported by discretionary grants from

the federal Maternal and Child Health Bureau. HBHC is supported by a private foundation (Steans) and state funds. These programs are described below.

The Special Supplemental Nutrition Program for Women, Infants and Children (WIC) seeks to improve the health of women, infants, and children; to reduce the incidence of infant mortality, premature births and low birth weight; to promote breastfeeding; and to aid in the growth and development of children. The program serves income-eligible pregnant, breastfeeding and postpartum women, and infants and children up to five years of age who have a medical or nutritional risk factor.

Participants receive food "prescriptions" based on their nutritional needs. WIC foods include milk, cheese, eggs, adult and infant cereal and juice, peanut butter, tuna, carrots, beans, and infant formula. Food-specific vouchers are printed on site at WIC clinics statewide. Participants obtain their WIC foods by redeeming the vouchers at program-approved grocery stores throughout the state and at WIC Food Centers in certain parts of Chicago. The Department grants funds to 100 local agencies to provide WIC services, including local health departments, not-for-profit health care agencies and social service agencies.

Family Case Management is a statewide program that provides comprehensive service coordination to pregnant women, infants, and high-risk children. The Department funds 113 agencies, including local health departments, community-based organizations and Federally Qualified Health Centers, to conduct FCM activities. Assessments are conducted and care plans are developed to address a wide range of needs, including health care, mental health, educational, vocational, child care, transportation, psychosocial, nutritional, environmental, developmental, and other services. Contacts with clients include home and office visits at a frequency necessary to meet the client's needs. Most FCM providers are authorized to complete Medicaid Presumptive Eligibility applications for pregnant women and children and function as Application Agents for All Kids, Governor Blagojevich's health insurance program for children.

The Department supplements WIC and FCM with intensive services for high-risk women.

The Chicago Healthy Start Initiative provides services through four Chicago Healthy Start Family Centers that serve as "one-stop shopping centers" for intensive case management and linkage to prenatal care, pediatric primary care, family support, early intervention, substance abuse prevention, domestic violence prevention, and mental health counseling. The centers also provide two essential enabling services -- episodic child care and transportation -- to remove common barriers to care. CHSI targets the Near North Side, West Town, Near West Side, Near South Side, Douglas and Grand Boulevard Community Areas in the city of Chicago. This project is supported by a grant from the federal Maternal and Child Health Bureau.

Targeted Intensive Prenatal Case Management (TIPCM). This program's goal is to reduce the rates of premature birth and low birth weight. TIPCM enhances FCM by:

Table 1 Budget for Integrated Infant Mortality Reduction Strategy by Program Component and Fiscal Year *($000s)*		
Program	SFY'07	SFY'08
WIC (all sources)	$264,000.0	$283,300.0
FCM	$43,411.0	$44,579.1
TIPCM	$5,075.0	$5,047.0
CHSI	$1,775.0	$1,775.0
HBHC	$350.5	$574.1
Total	$314,611.5	$335,275.2

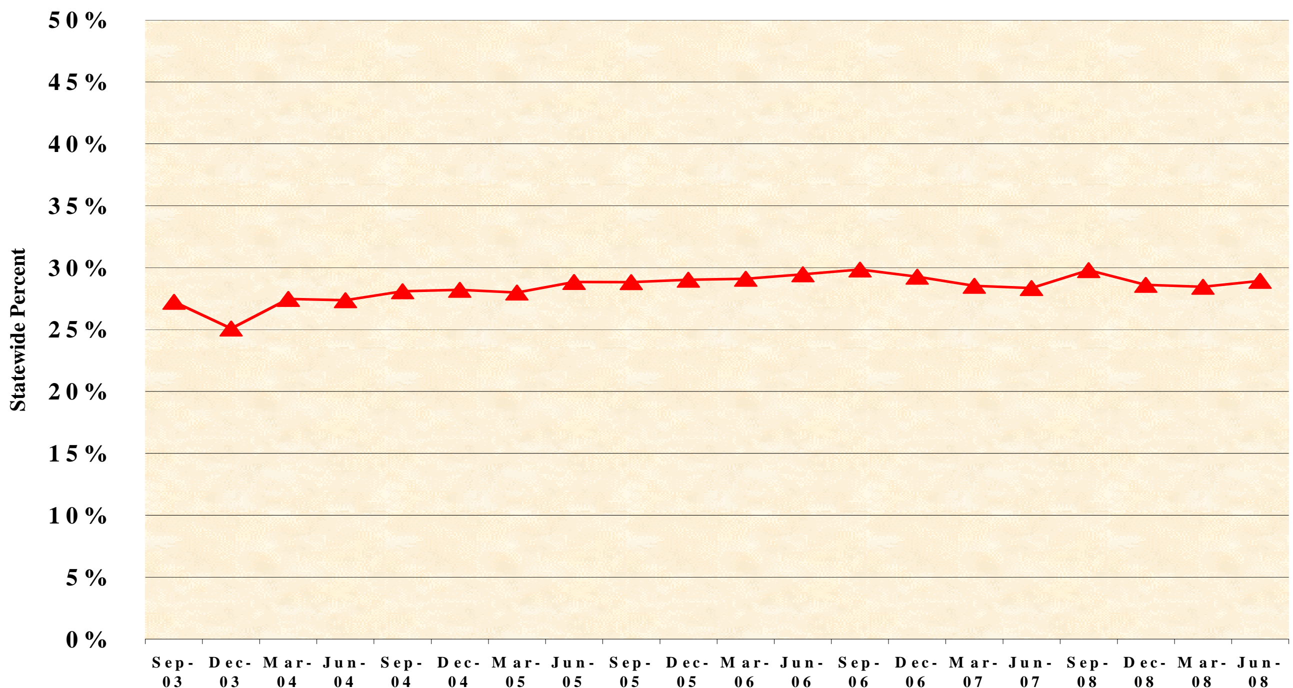
The WIC budget includes funds for both program operations at the state and local levels (referred to as Nutrition Services and Administration, or NSA) and the purchase of food. The food funds include an award from the USDA and rebates on the purchase of infant formula from Meade-Johnson. Rebates add an average of $75 million to the program's food budget each year. Grant awards to local agencies are based on estimated caseload.

The FCM program is supported by several funding sources: General Revenue Fund, Title V - Maternal and Child Health Services Block Grant, and Title XX -Social Services Block Grant. Local health departments also add their own funds for the operation of the program. Federal matching funds supplement the state and federal appropriations. The Department has worked closely with the IDHFS since 1990 to obtain federal matching funds through the Medicaid program for FCM expenditures. Further, as units of local government, local health departments may receive federal match for the local funds they expend in support of the FCM program. This has increased the total amount of funds available for the FCM program by about $4 million per year without an increase in the Department's appropriation for the FCM program. Finally, the Department budgets and reconciles FCM expenditures using per-family-per-month "rates" that were set on the basis of program expenditures and caseload in 1990. The rates were increased for the first time in Fiscal Year 2007, and are now $27.04 per month (or $324.48 per year) for a family with a pregnant woman or an infant and $12.88 (or $154.56 per year) for a family with a child over one year of age. (In Cook and St. Clair counties, the rate for families with an older child is $17.24 per month, or $207 per year.)

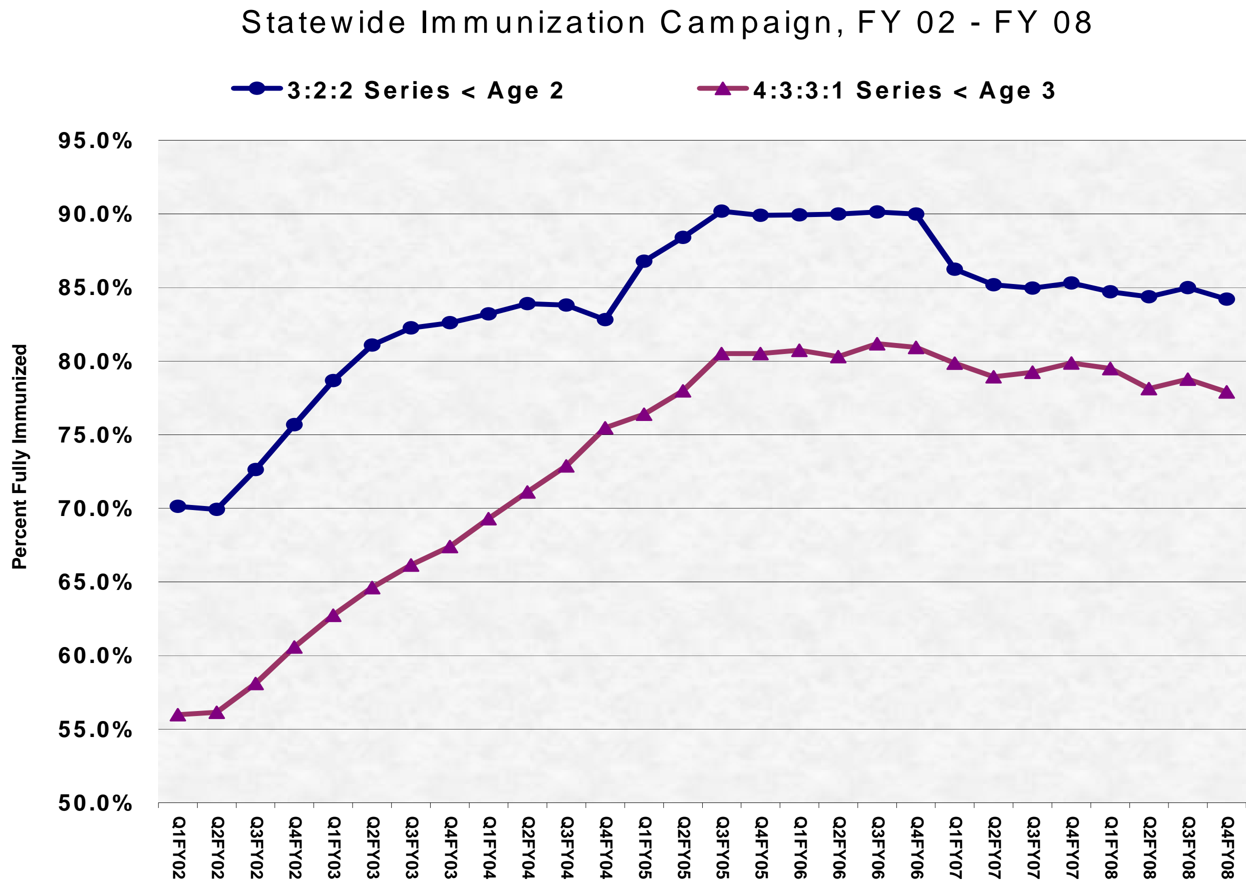
Targeted Intensive Prenatal Case Management began in Fiscal Year 2001 with an appropriation of $2.5 million. The Department also claims federal matching funds through the Medicaid program for these expenditures. The CHSI is supported by federal discretionary grants. HBHC is funded in part by DHS and private foundations.

Prenatal Weight Gain

The chart below displays the proportion of pregnant women who were active in the WIC program during pregnancy and gained the ideal amount of weight while pregnant. An increase in this proportion indicates that the program is reaching its goal.



Women require additional calories during pregnancy to adequately nourish the developing fetus. The Institute of Medicine has identified ideal weight gain ranges based on a woman's pre-pregnancy weight status. The WIC Program uses these guidelines. The CDC's Prenatal Nutrition Surveillance System clearly shows women who gain too little weight during pregnancy and smoke are at the greatest risk for delivering a low birth weight baby. New research is becoming available indicating increased risks to mother and baby if too much weight is gained during pregnancy as well. Staff training now focuses on working with clients to encourage appropriate amounts of total weight gain at an appropriate rate. WIC's core strategies for the improvement of birth weight and the reduction of infant mortality are nutrition education and food supplementation. Therefore, prenatal weight gain is a core performance measure for the WIC program. Illinois' WIC program has been making steady progress in the improvement of prenatal weight gain.



(Effective in the first quarter of 2007, the 3:2:2 report was modified to allow the WIC and FCM programs to use the same age range criteria of 12 to 18 months.)

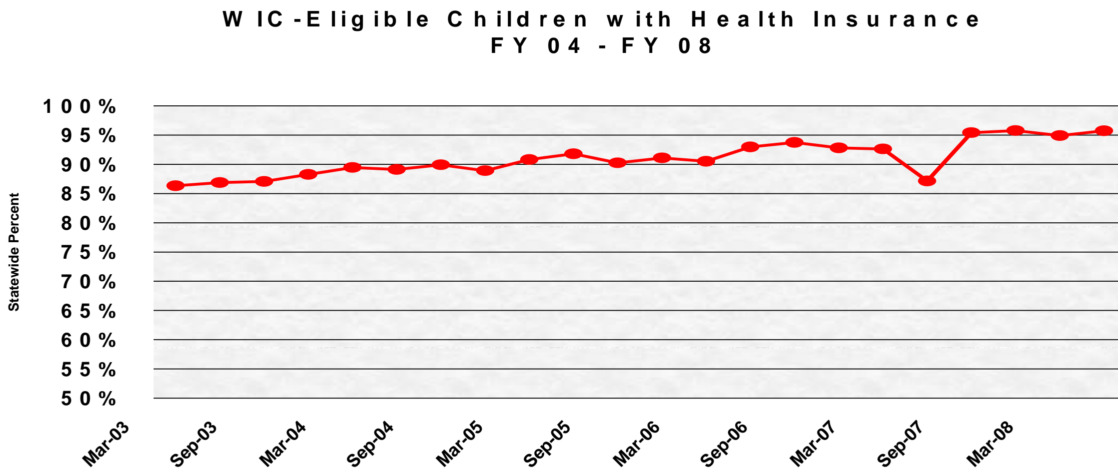
- The line labeled "3:2:2" shows the proportion of children between 12 and 18 months of age who were active in the WIC program and had received:
  - 3 doses of diphtheria, pertussis and tetanus vaccine;
  - 2 doses of oral polio vaccine; and
  - 2 doses of *Haemophilus influenzae* type B vaccine.

- The line labeled "4:3:3:1" shows the proportion of children between 24 and 36 months of age who had received:
  - 4 doses of diphtheria, pertussis and tetanus vaccine;
  - 3 doses of oral polio vaccine;
  - 3 doses of *Haemophilus influenzae* type B vaccine; and
  - 1 dose of measles, mumps and rubella vaccine.

Since 2000, the proportion of fully-immunized one-year-olds (3:2:2) increased from 70 percent to over 84 percent and the proportion of fully immunized two-year-olds (4:3:3:1) increased from 56 percent to almost 78 percent.

Insured Children

The graph displays the proportion of children in the WIC program who were covered by public or private health insurance.

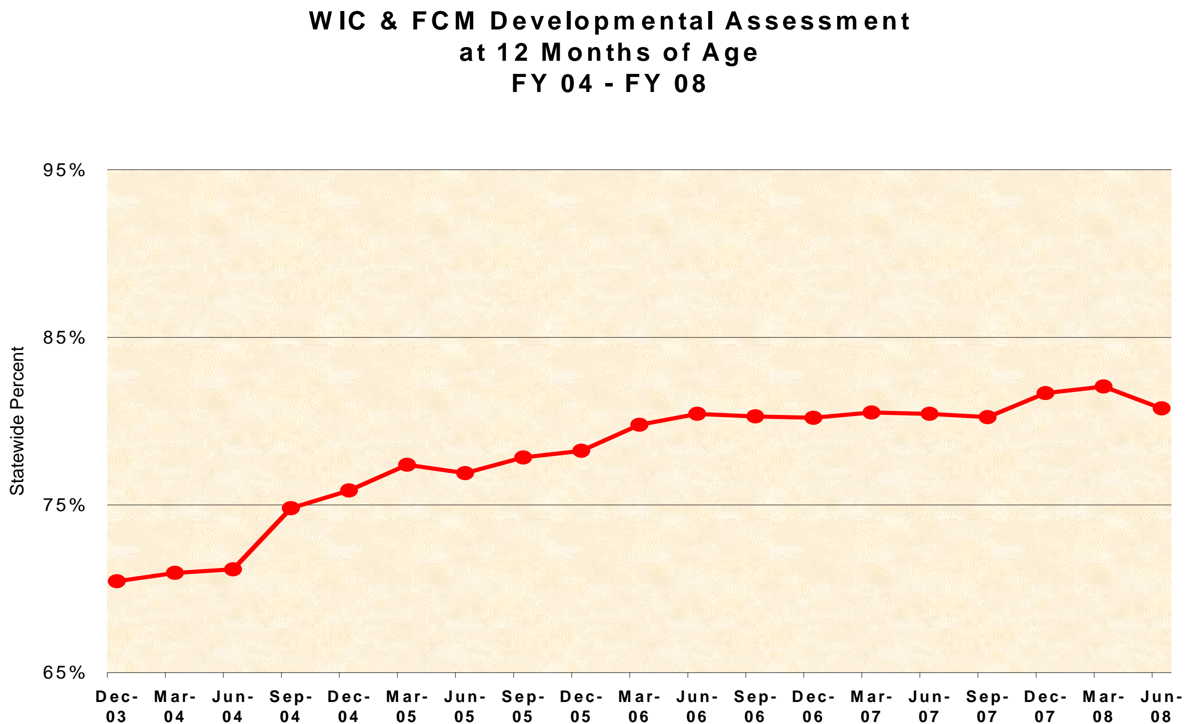


Health insurance is essential for access to health care services. Virtually every child on WIC is, by definition, eligible for the State of Illinois' All Kids program. The Department has been working with the IDHFS to increase the proportion of WIC-eligible children who also are enrolled in All Kids if they are not covered by their parents' health insurance. Local WIC/FCM agencies have been trained and certified by the IDHFS as "All Kids Application Agents." Local WIC program staff assist eligible families in applying for coverage through All Kids.

When this project began in September 2000, a total of 86 percent of WIC-enrolled infants and children were documented in the Cornerstone system as having All Kids or private insurance coverage. Due to the continued efforts of local WIC agency staff, this proportion has steadily increased; by June 2008, 95.7 percent were documented as having health insurance.

Developmental Screening

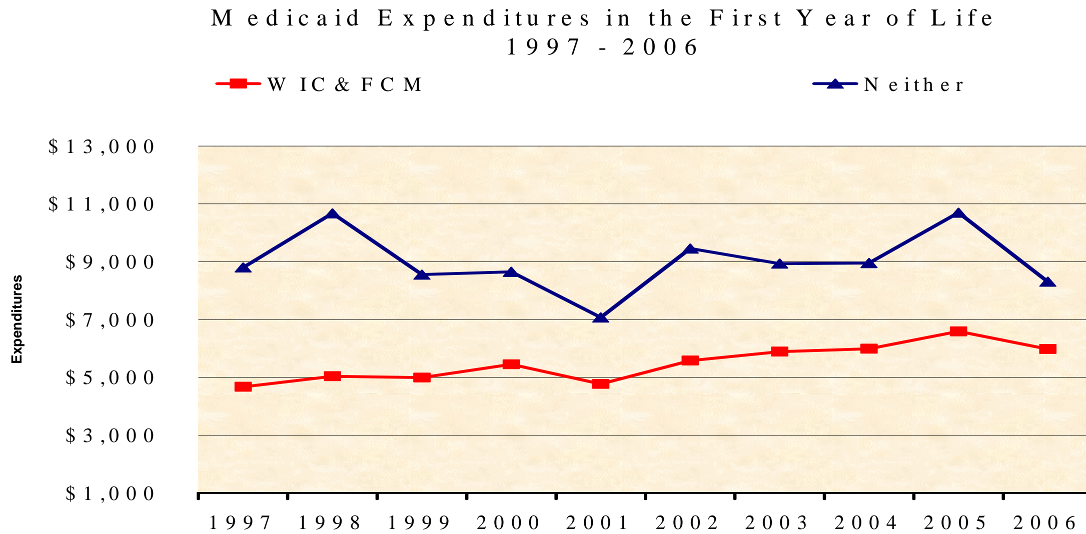
The graph displays the proportion of 12-month-old children in WIC or FCM who had been screened for developmental delay at least once in the prior 12 months.



Infants and young children should be screened routinely for evidence of delays in cognitive, linguistic, motor, social and emotional development. Through routine screening, developmental delays can be promptly identified and therapy initiated.

The Department monitors the proportion of infants in the FCM program who have been screened for problems with physical or cognitive development at least once every year.

Medicaid Expenditures in the First Year of Life



The Department is able to match information from its maternal and child health management information system, Cornerstone, with vital records maintained by the IDPH and the Medicaid Management Information System maintained by the IDHFS. This allows the Department to compare the perinatal health status of women and children who participate in several of its programs to Medicaid-eligible non-participants and the general population of pregnant women and newborns.

WIC and FCM, through the reduction in very low birth weight, contribute to a significant reduction in Medicaid expenditures during the first year of life.

Table 5 Infant Mortality Rate Ratios For Select Racial and Ethnic Groups 1980 - 2005			
	Non-Hispanic Black to Non-Hispanic White	Mexican to Non-Hispanic White	Puerto Rican to Non-Hispanic White
1980	2.2	0.6	0.6
1985	2.3	0.8	0.6
1990	3.0	1.1	1.0
1995	2.5	0.9	1.0
2000	2.6	1.2	1.7
2005	2.6	0.9	1.6

Table 6 Ratio of African American and Caucasian Infant Mortality Illinois: 1980 - 2005			
Year	Ratio	Year	Ratio
1980	2.1:1	1993	2.7:1
1981	2.1:1	1994	2.7:1
1982	2.2:1	1995	2.5:1
1983	2.3:1	1996	2.8:1
1984	2.3:1	1997	2.7:1
1985	2.3:1	1998	2.7:1
1986	2.3:1	1999	2.8:1
1987	2.2:1	2000	2.5:1
1988	2.3:1	2001	2.5:1
1989	2.5:1	2002	2.8:1
1990	2.9:1	2003	2.6:1
1991	2.7:1	2004	2.5:1
1992	2.6:1	2005	2.7:1