Dear Colleague:

It is my pleasure to present the first 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 has declined by 33 percent since 1990, to reach a record low of 7.2 deaths per 1,000 live births in 2002. As a result of these efforts, Illinois’ ranking in infant mortality among the states has risen from 44th in 1990 to 30th in 2002.

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 integrated maternal and child health program 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, immunization, 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. This pattern of success has been sustained for six years in a row.

These results were achieved through the efforts of hundreds of dedicated people in local health departments and other community-based organizations across the state who serve the women and children who come to them for help. This report acknowledges their hard work.

I am committed to integrating and improving the services that the Department of Human Services provides to improve the lives of all Illinoisians. The achievements of the WIC and Family Case Management programs illustrate the benefits that this strategy can achieve.

Sincerely,

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

Annual Report for SFY 2004
“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 SFY 2004

Illinois Department of Human Services
Division of Community Health and Prevention
Office of Family Health

February 2005
# 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 SFY 2004

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Executive Summary

Illinois' infant mortality rate fell to 7.2 deaths for every 1,000 live births in 2002, the lowest level in the state's history.

The Illinois Department of Human Services is helping to reduce the state's infant mortality rate through the integrated delivery of two programs - the Special Supplemental Nutrition Program for Women, Infants and Children (WIC) and Family Case Management (FCM). These programs serve more than 40 percent of all infants born in Illinois each year and nearly 90 percent of the Medicaid-eligible infants. The Department supplements these statewide programs with targeted initiatives for women who have a greater-than-average chance of giving birth prematurely.

The Department uses a "performance management" approach in operating these programs. Data on program participants and service delivery are collected through the Cornerstone management information system. Quarterly reports from Cornerstone are used by local grantees and by Department staff to identify and address needs for training and technical assistance to improve program performance.

This report discusses each of the performance measures that the Department uses to ensure that these programs are operating efficiently and working effectively to improve the health of women and young children across the state. The current performance of these programs can be summarized as follows:

- The proportion of WIC-eligible children with health insurance is up to 89.9%
- The proportion of fully-immunized one-year-olds in WIC is up to 86.8%
- The proportion of fully-immunized two-year-olds in WIC is up to 76.4%
- The proportion of infants in WIC who are breastfed is up to 61.4%
- The proportion of infants in WIC who continue to breastfeed through six months-of-age is up to 30.5%.
- The proportion of children in FCM who received at least 3 well childcare visits during the first year of life is up to 57.9%.

For six years in a row, infants born to Medicaid-eligible pregnant women who participated in WIC or FCM are in better health that those born to Medicaid-eligible women who did not participate in either program:
- The rate of premature birth is 60 to 70 percent lower;
- The rate of infant mortality is 50 to 70 percent lower;
- Medicaid expenditures for health care in the first year of life are 30 to 50 percent lower.
- Participation in WIC and FCM saves Illinois an average of $200 million each year in Medicaid expenses.
Introduction

"The infant mortality rate is the most sensitive index of the status of economic and social development of any country." -- Helen M. Wallace, M.D., M.P.H.¹

This report describes the accomplishments of the Illinois Department of Human Services’ Maternal and Child Health programs to reduce infant mortality and improve maternal and child health in Illinois.

Illinois' infant mortality rate reached a record low of 7.4 deaths for every 1,000 live birth in 2002.² Illinois ranked 30th in infant mortality among the 50 states and the District of Columbia that year. Several other large states -- notably, Florida (7.5), Michigan (8.1), Ohio (7.9) and Pennsylvania (7.6) -- had infant mortality rates that were comparable to, but slightly higher than, Illinois. Southern states -- including Alabama (9.1), Georgia (8.9), Louisiana (10.3) and Mississippi (10.3) -- usually have high infant mortality rates.³

Illinois’ ranking among the states has improved dramatically over the past two decades, with most of the progress occurring since 1990. In 1980, Illinois’ infant mortality rate ranked 47th among the states and the District of Columbia. By 1990, the state had moved up to 44th.

There are many factors that contribute to an improvement in the state's infant mortality rate, just as there are many factors that contribute to the problem of infant mortality itself. There have been dramatic improvements in medical and pharmacological treatments for the conditions that take the lives of infants who were born prematurely. Illinois has maintained one of the best systems of hospital-based perinatal care services in the nation. The work that the Illinois Department of Public Health and, since its establishment in 1997, the Illinois Department of Human Services have done through the maternal and child health program has also contributed to that success. A new program evaluation - discussed more fully in this report -- has shown that these programs add a 24 percent reduction in the very low birth weight rate among Medicaid-eligible program participants to the improvements that are due to medical prenatal care alone. This reduction contributes to an estimated annual savings of $200 million

² According to the National Center for Health Statistics. Their published rate, while different than the rate reported by the Illinois Department of Public Health (7.2 deaths per 1,000 live births), is used to compare Illinois to other states.
in Medicaid expenditures for the care of premature infants during the first year of life, in addition to further savings in avoided special education, disability and rehabilitation costs that may extend over a lifetime.

Illinois also has a significant disparity in infant mortality rates between African-American and Caucasian infants. In 2002, an African-American infant in Illinois was 2.9 times more likely than a Caucasian infant to die before his or her first birthday.

**A Success Story**

*Several years ago when my husband and I were just starting out in our marriage, my mother referred me to the health department. My son was three years old and I was pregnant with my second child at the time. What a blessing their help came to be for me and my children. The WIC staff determined during my intake that my current pregnancy was potentially high risk due to my son’s premature birth three years earlier. They gave me a referral to a neonatal specialist who was willing to see low income patients. The staff also arranged for a public health nurse from Family Case Management to make home visits during my pregnancy. She offered me education about my pregnancy as well as information pertinent for a newborn*. 
Program Descriptions

The Illinois Department of Human Services has developed a comprehensive Maternal and Child Health 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, Targeted Intensive Prenatal Case Management and Closing the Gap 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.

Integration of these programs allows them to operate more efficiently. For example, families enter the Chicago Healthy Start Initiative through the outreach efforts conducted by the Family Case Management program. Staffs in many downstate local health departments have been “cross-trained” to provide both WIC and FCM services.

The integration of these programs is enhanced by the shared use of the Department’s Maternal and Child Health management information system, Cornerstone. This system collects and reports all of the information necessary for the operation of the WIC, FCM, Healthy Start and Targeted Intensive Prenatal Case Management programs, as well as other MCH services. Cornerstone provides an integrated record of the services provided to each participant, as well as a service plan that identifies the services that the family requires. Cornerstone is also 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). Staffs within and across agencies have 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.

This comprehensive strategy also blends state and federal funds. WIC is supported entirely by funds from the United States Department of Agriculture. Family Case Management and Targeted Intensive Prenatal Case Management are state funded and these funds are used to leverage federal matching funds through the Medicaid program. The Chicago Healthy Start Initiative and Closing the Gap are supported by discretionary grants from the federal Maternal and Child Health Bureau. A description of each program is presented 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 as well as 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 99 local agencies to provide WIC services, including local health departments, not-for-profit health care agencies and social service agencies.

Family Case Management (FCM) is a statewide program that provides comprehensive service coordination to pregnant women, infants, and high-risk children. The Department funds 116 Family Case Management agencies, including local health departments, community-based organizations and Federally Qualified Health Centers. Family assessments are conducted and care plans developed on a wide range of needs including health care, mental health, education, vocation, 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 (MPE) applications for pregnant women and children and are KidCare Application Agents.

WIC and FCM is the base of this integrated Maternal and Child Health strategy for reducing infant mortality and improving child health. The targeted components of this strategy are described below.

The Department also operates three targeted case management programs to reduce the infant mortality rate in high-need communities. These include the Chicago Healthy Start Initiative, Targeted Intensive Prenatal Case Management and Closing the Gap. These programs target women who have medical conditions or social circumstances that increase their chances of giving birth prematurely.

The Chicago Healthy Start Initiative Services are provided through four Chicago Healthy Start Family Centers (CHSFCs) which 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 childcare and transportation, to remove common barriers to care. The Chicago Healthy Start Initiative 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. This program’s goal is to reduce the rates of premature birth and low birth weight. Several communities in Chicago, suburban Cook County, and downstate Illinois with higher-than-average Medicaid expenditures were selected as target areas.

This program enhances Family Case Management by:

- Adding community-based outreach and retention strategies (including practical incentives for women),
- Lowering caseloads and increasing the frequency of contact between case managers and clients;
- Using public health nurses or licensed social workers as case managers;
- Developing explicit linkages to medical care, substance abuse treatment, mental health care and smoking cessation services; and
- Adding access-related services such as transportation, translation and childcare.

This service is available in the Auburn-Gresham, Austin, North Lawndale, South Chicago, South Shore and Woodlawn Community Areas in the City of Chicago; Bellwood, Harvey and Maywood in suburban Cook County; and Macon, Peoria, St. Clair, Vermilion and Winnebago counties downstate.

Closing the Gap is addressing racial disparities in infant mortality by targeting four Chicago Community Areas with the highest number and rate of African-American infant deaths in the state. The project will focus on reducing premature birth and deaths due to Sudden Infant Death Syndrome, the two leading causes of infant mortality in these communities. These communities -- Austin, Englewood, West Englewood and Auburn Gresham -- have a wide array of federally-, state- and city-funded health and human services. Rather than create another case management program, Closing the Gap will use several community-level interventions. Education programs on premature birth and Sudden Infant Death Syndrome will be offered to community residents in a variety of settings. Current service providers will be brought together to better coordinate the delivery of care. The Department will work with the Illinois Department of Public Aid and the University of Illinois to improve the quality of medical care provided to pregnant women. Closing the Gap is supported by a grant from the federal Maternal and Child Health Bureau. Illinois is one of four states targeted by this federal initiative.
Service Delivery System

At the community level, these services are provided by grantees of the IDHS. Most often, these are local health departments. Community Health Centers and social service agencies also play an integral role in the delivery of primary and preventive care to pregnant women, mothers, infants, children and adolescents.

Local health departments. Local health departments have a unique responsibility to assess needs, develop policy to address community problems and assure that services are delivered to address those problems. Local health departments are also uniquely accountable to the public for the health of the entire community. Consequently, local health departments are best positioned to provide Maternal and Child Health services in their jurisdictions.

Community Health Centers. There are 40 organizations operating 180 community health centers (funded under Section 330 of the Public Health Service Act) across the state. Of those 40 organizations, 20 are located in Chicago and operate 75 centers in the city. Several of the centers are receiving program grants from IDHS and three Community Health Centers in the Healthy Start Project Area are the "health care partner" in a Chicago Healthy Start Family Center. The Department is collaborating with Access Community Health Network, a federally-funded Community Health Center and the Chicago Department of Public Health, a federally-qualified health center, to implement the Closing the Gap project. Community Health Centers provide a complete array of primary health care services in medically under-served communities.

Several prominent community-based organizations in Chicago and suburban Cook County have participated in the Family Case Management program and its predecessors, as well as the WIC program, since the mid-1980s. These organizations bring an extensive knowledge of the communities they serve, familiarity with the cultural diversity of their communities and staff who are sensitive to the needs, beliefs and cultures in these communities.
Caseload

The number of persons served in WIC and FCM in SFY’04 are presented in Table 1. FCM does not keep a separate count of the number of participating “post partum or breastfeeding women.” However, under USDA guidelines, these women comprise a separate category of eligibility for the WIC program.

<table>
<thead>
<tr>
<th>Type of Client</th>
<th>Program</th>
<th>WIC</th>
<th>FCM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pregnant Women</td>
<td></td>
<td>111,819</td>
<td>115,007</td>
</tr>
<tr>
<td>Post Partum or Breastfeeding Women</td>
<td></td>
<td>46,098</td>
<td>---</td>
</tr>
<tr>
<td>Infants</td>
<td></td>
<td>179,230</td>
<td>165,962</td>
</tr>
<tr>
<td>Children</td>
<td></td>
<td>171,103</td>
<td>89,317</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>508,250</td>
<td>370,286</td>
</tr>
</tbody>
</table>

The caseload of both programs has grown steadily over the last four years, as illustrated in Table 2.

<table>
<thead>
<tr>
<th>Program</th>
<th>Fiscal Year</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>FCM</td>
<td></td>
<td>338,905</td>
<td>352,710</td>
<td>366,675</td>
<td>370,286</td>
</tr>
<tr>
<td>WIC</td>
<td></td>
<td>471,333</td>
<td>485,800</td>
<td>503,425</td>
<td>508,250</td>
</tr>
</tbody>
</table>

The WIC and FCM programs combined reach more than 40 percent of all infants and more than 88 percent of Medicaid-eligible infants born in Illinois each year. Women who are at greatest risk for giving birth prematurely or having a baby with other health problems are over-represented in the caseload of the WIC and FCM programs. More than two-thirds of African-American women who give birth in Illinois each year, as well as two-thirds of Hispanic and Latino women, three-fourths of unmarried mothers and four-fifths of teen-aged mothers participate in the WIC or Family Case Management programs each year. This indicates that these programs are reaching their intended audience. Refer to Table 3.

**WIC and FCM serve more than 40 percent of all infants born in Illinois and more than 88 percent of all Medicaid eligible infants.**
<table>
<thead>
<tr>
<th>Group</th>
<th>Live Births</th>
<th></th>
<th>WIC or FCM Participants</th>
<th></th>
<th>Percent of Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All</td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>White</td>
<td>142,277</td>
<td>77.3</td>
<td>52,142</td>
<td>68.0</td>
<td>36.6</td>
</tr>
<tr>
<td>Black</td>
<td>33,162</td>
<td>18.0</td>
<td>22,588</td>
<td>29.5</td>
<td>68.1</td>
</tr>
<tr>
<td>Asian and Native American</td>
<td>8,583</td>
<td>4.7</td>
<td>1,897</td>
<td>2.5</td>
<td>22.1</td>
</tr>
<tr>
<td>Hispanic</td>
<td>40,943</td>
<td>22.2</td>
<td>27,637</td>
<td>36.1</td>
<td>67.5</td>
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<tr>
<td>Single</td>
<td>63,426</td>
<td>34.5</td>
<td>47,073</td>
<td>61.4</td>
<td>74.2</td>
</tr>
<tr>
<td>Teen</td>
<td>20,092</td>
<td>10.9</td>
<td>16,064</td>
<td>21.0</td>
<td>80.0</td>
</tr>
<tr>
<td>All</td>
<td>184,022</td>
<td>100.0</td>
<td>76,627</td>
<td>100.0</td>
<td>41.6</td>
</tr>
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</table>
Performance

The Department of Human Services uses a "performance management" approach in the operation of these programs. Through this approach, Department staff give local service providers regular feedback on their performance. This information is coupled with extensive training and technical assistance to improve the quality and cultural competence of service delivery at the community level. This approach has paid dividends both to state government and to women and children throughout the state. Without an increase in state or federal resources, the Department has made large strides in the reduction of infant mortality and the improvement of maternal and child health.

The performance measures are:

- the number and percent of women who enroll in both WIC and FCM;
- the number and percent of women who enroll in FCM and WIC in the first trimester of pregnancy;
- the number and percent of women in WIC who gain an appropriate amount of weight during pregnancy;
- the number and percent of infants in WIC ever breastfed;
- the number and percent of infants in FCM with three or more well-child visits before one year of age;
- the proportion of fully immunized one- and two-year-olds in the WIC program;
- the number and percent of infants and children in the WIC program who are covered by public (KidCare) or private health insurance; and
- the number and percent of infants and children in the WIC and FCM programs who have been screened for developmental delay.

The Department uses its Maternal and Child Health management information system, Cornerstone, to generate quarterly reports that rank all of the agencies on these performance measures. Agency performance provides the basis for ongoing technical assistance. The Department also provides administrative and financial rewards to high performing agencies. The top 2/3 of the agencies on the ranking report will receive a WIC/FCM certification visit every two years, whereas the lower 1/3 may receive an annual evaluation visit in addition to the certification visit. Regional staff will focus technical assistance activities on the agencies in the bottom 1/3. In the Spring of each year, the Office of Family Health uses performance data from the first three quarters of the fiscal year to determine which agencies will require more frequent visits. The proportion of agencies that will be exempted from annual review will be re-evaluated annually.

Trend data on each performance indicator, its interpretation and its significance for improving the health of women and children are presented below.
Integrated service delivery

An evaluation of the WIC and Family Case Management programs in 1998 found that Medicaid-eligible women who participated in WIC and FCM during pregnancy in 1996 had substantially lower rates of premature birth and infant mortality. Armed with this knowledge, the Department launched a concerted effort to integrate the delivery of these two programs across the state. Department staff helped local grantees to redesign the flow of patients through clinics, cross-trained staff and took other steps to ensure that patients were enrolled in both programs.

The graph displays the proportion of clients in one program who are also enrolled in the other program. For example, the line labeled, “WIC” shows the proportion of WIC clients who were also enrolled in FCM.

More than 90 percent of the women and infants active in either WIC or FCM are also enrolled in the other program.

In September 2004, 98 percent of downstate WIC clients and FCM clients were receiving integrated services. Program integration has been more challenging in Cook County, since WIC and FCM use different providers to serve this part of the state. As of September 2004, 90 percent of WIC clients and 92 percent of FCM clients in suburban Cook County, as well as 85 percent of WIC clients and 89 percent of FCM clients in the city of Chicago were receiving integrated services.
Enrollment in services during the first trimester of pregnancy is essential for WIC and FCM to have their maximum impact on the health of the mother and the newborn infant.

The graph shows that there has been a slight upward trend in the proportion of WIC and FCM program participants who enrolled in each program during the first trimester of pregnancy.

Local WIC and FCM agencies use a variety of strategies in reaching out to low-income families in the communities they serve. These may include door-to-door canvassing, distribution of printed materials and use of mass media, as well as nontraditional methods that may be necessary to identify potential participants in hard-to-reach populations, such as persons who abuse drugs or engage in prostitution.

The Department also takes advantage of its computer technology to increase the proportion of Medicaid-eligible pregnant women who enroll in WIC and FCM,
and to improve the proportion of women who enroll in the first trimester of pregnancy. Local WIC and FCM service providers are indirectly linked to the Department’s Family Community Resource Centers through an electronic data exchange. Each month, information about pregnant women who have enrolled in the Medicaid program is transferred from the Client Information System used by the Family Community Resource Centers to the Cornerstone system. It is then distributed to local service providers. The information is then used to conduct targeted outreach efforts. The Department’s performance on these two measures is included in the performance management reports provided to the Governor’s Office of Management and Budget.
Women require additional calories during pregnancy in order to adequately nourish the developing fetus. The Institute of Medicine has identified ideal weight gain ranges based on a woman’s prepregnancy weight status. These guidelines are used by the WIC Program. Clients are encouraged to gain an appropriate amount of weight at an appropriate rate. WIC’s core strategy for the improvement of birthweight and the reduction of infant mortality is 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.

The chart displays the proportion of pregnant women who were active in the WIC program during pregnancy and gained less than the ideal amount of weight while pregnant. A decline in this proportion indicates that the program is reaching its goal. There are minor differences in performance between agencies in Chicago and those downstate.

**Most women who participate in WIC during pregnancy gain an appropriate amount of weight, reducing the risk of low birth weight.**
Initiation and Duration of Breastfeeding

The graph displays the proportion of women who participated in the WIC program during pregnancy and began to breastfeed their infants right after giving birth. The graph displays the proportions statewide, in Region 1 (Cook county) and downstate.

The rate of breastfeeding at hospital discharge has increased among WIC participants from 26 percent in 1992 to 61 percent in the first quarter of SFY’05. The rate of breastfeeding among WIC-eligible women has more than doubled since 1992.

WIC program activities to promote and support breastfeeding include:

- Providing technical assistance and consultation on breastfeeding promotion, support, and management for health departments and other agencies administering the WIC program;
- Providing items for local agency use in promoting breastfeeding within their local communities, for use during World Breastfeeding Week, Illinois Breastfeeding Month, and throughout the year;
- Promoting and supporting the activities of the State and Regional Breastfeeding Task Forces throughout the state, including support for regional...
Task Force Conferences and activities such as Breastfeeding Walks, Breastfeeding in the Park, Breastfeeding is an Art, and the “Mobile Nursery”;

- Developing and distributing educational materials on breastfeeding for local agencies, health professionals, and others involved with breastfeeding promotion, support and management, i.e., breastfeeding education cards on *Preventing Sore Nipples*;

- Promoting and supporting the activities of the Physicians’ Breastfeeding Network of Illinois as they promote breastfeeding education for physicians and in medical schools;

- Administering a state breast pump distribution program through local agencies, including ongoing education;

- Supporting the activities of local agency breastfeeding coordinators statewide through technical assistance, training, and educational materials;

- Providing breastfeeding training and educational opportunities to all health department staff on a regional basis, utilizing local agency staff specially trained in lactation education to train staff in other agency programs, i.e., Family Case Management, Immunizations, TPS, HFI, and others;

- Collecting data on breastfeeding practices through the Cornerstone Information System for CDC’s Nutrition Surveillance Systems;

- Developing and implementing breastfeeding training based on documented educational needs for Family Case Management, WIC and other MCH providers; and

- Participating in USDA’s Breastfeeding Peer Counselor program.
Immunization

For many years, the American Academy of Pediatrics and the U.S. Centers for Disease Control and Prevention have recommended that young children receive immunizations against nine infectious diseases, including measles, mumps, rubella (German measles), diphtheria, pertussis ("whooping cough"), tetanus, polio, hepatitis B and Haemophilus influenzae type B vaccine.

The graph displays two performance measures and groups of children:

- The line labeled “3:2:2” shows the proportion of children between 12 and 24 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; and
  - 3 doses of Haemophilus influenzae type B vaccine.

The Surgeon General of the United States made childhood immunization a national health objective in 1990 and selected it as one of the leading indicators of child health. The current national goal is 90 percent by the year 2010.

Then President Clinton launched a national initiative for the U.S. Department of Agriculture and the U.S. Centers for Disease Control and Prevention to increase
the proportion of WIC-eligible children who were fully immunized. In response, the Illinois Department of Human Services and the Illinois Department of Public Health launched the WIC Immunization campaign in 2002. In just three short years, the proportion of fully-immunized one-year-olds increased from 70 percent to 87 percent and the proportion of fully immunized two-year-olds increased from 56 percent to 76 percent.

National surveys conducted by the Centers for Disease Control and Prevention show that the statewide proportion of fully-immunized two-year-olds (regardless of WIC participation) began a steady upward trend following the inception of the WIC Immunization Campaign in 2002. Data for Illinois, Chicago and downstate are presented in the following graph:

*The WIC Immunization Initiative is improving the state’s performance in ensuring that all two-year-olds are fully immunized.*
Health insurance is essential for routine access to primary health care services. Virtually every child on WIC is, by definition, eligible for the State of Illinois' KidCare program. The Department has been working with the Illinois Department of Public Aid to increase the proportion of WIC-eligible children who are also enrolled in KidCare if they are not covered by their parents' health insurance.

Local WIC agencies have been trained and certified by the Illinois Department of Public Aid as "KidCare Application Agents." Local WIC program staff assist eligible families in applying for coverage through KidCare. The graph displays the proportion of children in the WIC program who were covered by public or private health insurance. The proportions statewide, in Region 1, and downstate are displayed separately.

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 KidCare or private insurance coverage. Due to the continued efforts of WIC local agency staff, this proportion has steadily increased. By September 2004, 86 percent of WIC-enrolled infants and children in Cook County and 93 percent of WIC-enrolled infants and children downstate were documented in the Cornerstone system as having enrolled in KidCare or private health insurance.
The American Academy of Pediatrics recommends that children receive routine "health supervision" or regular visits to a health care provider to monitor a child's growth and development, provide preventive health care services (such as immunization), screen for potentially serious health problems (such as lead poisoning or problems with vision or hearing) and inform parents through anticipatory guidance. The Academy recommends six such visits during the first year of life, to occur one month, two months, four months, six months, nine months and twelve months of age.

The Department monitors Family Case Management agencies to ensure that participating infants receive at least three such visits during the first year of life. The graph displays the proportion of infants who meet this standard statewide, in Region 1 and downstate.
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 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 twelve months.

The Department monitors the proportion of infants in the Family Case Management program who have been screened for problems with physical or cognitive development at least once every six months.
Outcomes

The Department is seeking to achieve four outcomes from this integrated Maternal and Child Health strategy:

- Reducing the very low birth weight rate
- Reducing the low birth weight rate
- Reducing Medicaid expenditures during the first year of life and
- Reducing the infant mortality rate.

These four outcomes are interrelated. Very-low birth weight infants (newborns who weigh less than 3 pounds 2 ounces or less) require intensive medical care. While these infants represent less than 2 percent of all live births, they also account for about two thirds of the infants who die in the first year of life. Interventions that reduce the very-low birth weight rate will also reduce Medicaid expenditures during the first year of life and reduce the infant mortality rate.

The integrated delivery of the FCM and WIC programs is having a significant impact on the state’s infant mortality rate and health care expenditures. Six consecutive annual program evaluations have shown that the health status of infants born to Medicaid-eligible women who participated in both WIC and Family Case Management has been substantially better than that of infants born to Medicaid-eligible women who did not participate in either program. In particular: the rate of premature birth is more than 60 percent lower among participants in both programs; the rate of low birth weight is more than 35 percent lower; the rate of infant mortality is more than 55 percent lower; and health care expenditures during the first year of life have been more than 40 percent lower.
Very Low Birth Weight

The very low birth weight rate among women who participated in both WIC and FCM was 1.3 percent in 2002, less than half of the rate (4.2 percent) observed among Medicaid-eligible women who did not participate in either program during pregnancy. The very low birth weight rate among all births that the Medicaid program pays for has been steadily decreasing and the gap in the very low birth weight rate between infants of Medicaid-eligible pregnant women and all infants has been steadily narrowing.

WIC and FCM are dramatically reducing the rate of premature birth.
Latest Results

The Department recently completed a more in-depth analysis of the difference that participation in WIC and FCM made in reducing very low birth weight. A simple examination of the difference in very low birth weight rates between infants born to program participants and infants whose mothers did not participate in WIC or FCM does not take into account several factors that may exaggerate the results. Therefore, the Department enlisted the assistance of epidemiologists with the U.S. Centers for Disease Control and Prevention to conduct a more sophisticated analysis.

The study controlled for differences in age, education, race, ethnicity, marital status, smoking, use of alcohol, parity and medical complications between women who did and did not participate in WIC and FCM during pregnancy. The analysis also excluded women who began prenatal medical care after the fifth month of pregnancy. The study found that women who participated in WIC and FCM were 24 percent less likely to give birth during the fifth or sixth month of pregnancy than women who either entered the program after the sixth month of pregnancy or did not enroll in either program before giving birth. This result was statistically significant. Participation in WIC, FCM and medical prenatal care have a greater effect on reducing premature births than medical prenatal care alone.
Medicaid Expenditures During 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 Illinois Department of Public Health and the Medicaid Management Information System maintained by the Illinois Department of Public Aid. 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 Family Case Management, through the reduction in very low birth weight, contribute to a significant reduction in Medicaid expenditures during the first year of life.

Participation in WIC and FCM reduces Medicaid expenditures.
Infant Mortality

This report began with Dr. Helen Wallace’s observation that "the infant mortality rate is the most sensitive index of the status of economic and social development of any country.

The state has made steady progress in reducing its infant mortality rate. The rate is more than 50 percent lower when infants born to Medicaid-eligible women who participated in WIC and FCM during pregnancy are compared to infants whose mothers did not participate in this integrated MCH program.

Participation in WIC and FCM saves lives.
Financing

This integrated Maternal and Child Health program for the reduction of infant mortality is supported by a combination of state and federal resources. The SFY’04 and SFY’05 budgets by program component is presented in Table 5.

<table>
<thead>
<tr>
<th>Program</th>
<th>SFY’04</th>
<th>SFY’05</th>
</tr>
</thead>
<tbody>
<tr>
<td>WIC (all sources)</td>
<td>$248,000.0</td>
<td>$252,000.0</td>
</tr>
<tr>
<td>Family Case Management</td>
<td>$44,472.8</td>
<td>$42,910.1</td>
</tr>
<tr>
<td>Targeted Intensive Prenatal Case Management</td>
<td>$2,500.0</td>
<td>$3,086.0</td>
</tr>
<tr>
<td>Chicago Healthy Start Initiative</td>
<td>$1,775.0</td>
<td>$1,775.0</td>
</tr>
<tr>
<td>Closing the Gap</td>
<td>-0-</td>
<td>$562.5</td>
</tr>
<tr>
<td>Total</td>
<td>$296,751.8</td>
<td>$300,388.6</td>
</tr>
</tbody>
</table>

The WIC budget includes funds for both program operations at the state and local level (referred to as “Nutrition Services Administration,” or NSA) and funds for the purchase of food. The food funds include both an award from the U.S. Department of Agriculture (USDA) and rebates on the purchase of infant formula from Ross Laboratories. Rebates add an average of $65 million to the program’s food budget each year. Grant awards to local agencies are based on estimated caseload. Local agencies then receive $118.00 per case per year from NSA for program administration and $690.00 per case per year for the purchase of food.

Due in part to the effectiveness of the Department’s integrated Maternal and Child Health program for the reduction of infant mortality, Illinois’ WIC grew steadily in SFY’04. In contrast, many other states have experienced a decrease in WIC caseload at the same time. This trend in caseload growth has resulted in an increase in the state’s WIC award from the USDA.

The Family Case Management program is supported from two General Revenue Fund appropriations: “Infant Mortality Reduction Initiative” and “IMRI Medicaid.” The Department also uses federal Title V (Maternal and Child Health Services Block Grant) and Title XX (Social Services Block Grant) funds to support the program. Local health departments also add their own funds for the operation of the program.

The Department has worked closely with the Illinois Department of Public Aid since 1990 to obtain federal matching funds through the Medicaid program for Family Case Management expenditures. The IDPA and the federal Center for Medicare and Medicaid Services have agreed that Family Case Management expenditures can be considered as administrative costs to the Medicaid program, since Family Case Management helps participants obtain medical care and other services covered by the Medicaid program.
Prior to SFY’05, the Department only used funds appropriated through the “IMRI Medicaid” line item to obtain federal matching funds, even though claimable expenditures exceeded this amount. In order to increase federal revenue through the Medicaid program, the Department began claiming the maximum amount possible through the Family Case Management program.

The Department recently helped local health departments negotiate agreements with the Illinois Department of Public Aid that allow them, as agents of local government, to receive federal match for the local funds they expend in support of the Family Case Management program. This increased the total amount of funds available for the Family Case Management program by about $8 million per year without an increase in the Department’s appropriation for the FCM program.

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 are $26.25 per month (or $315 per year) for a family with a pregnant woman or an infant and $12.50 (or $150 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 $16.75 per month, or $201 per year.) These rates have not been increased since they were originally set.

Targeted, Intensive Prenatal Case Management began in SFY’01 with an appropriation of $2.5 million. The Department also claims federal matching funds through the Medicaid program for these expenditures.

The Chicago Healthy Start Initiative and Closing The Gap in Infant Mortality are supported by federal discretionary grants. The Department was one of 15 agencies in the nation to receive a federal Healthy Start grant in 1990, and (at that time, the Illinois Department of Public Health) was the only state agency to receive such an award.
History

Family Case Management has its roots in the Prenatal Care Program and the state's Infant Mortality Reduction Initiative, *Families with a Future*. The Department implemented the Prenatal Care program in 1981, beginning with grants to 10 local health departments and other community-based agencies. The program provided health education, prenatal care services (including physical examinations, prenatal vitamins, laboratory services and other procedures) and referrals to other appropriate supportive services in the community. The program was expanded to an additional 20 sites in 1983 as a part of the Parents Too Soon initiative, and was expanded statewide in 1985 as a part of the Infant Mortality Reduction Initiative.

*Families with a Future* was created by the "Infant Mortality Reduction Act" (Ill.Rev.Stat.1989 ch. 111-1/2 par 7001 et seq.), which was enacted on December 2, 1985. The Act implemented the Department’s “9 By '90 Plan” to help Illinois reach the U.S. Surgeon General's goal of no more than nine infant deaths per thousand live births by 1990. The plan provided for the establishment of comprehensive, community-based service networks that would provide case management and assure that high-risk pregnant women and their infants had access to specific set of services. This innovative and comprehensive approach to service delivery in high-risk targeted areas resulted in Families with a Future being designated a semifinalist for the Innovations in State and Local Government award of the Ford Foundation and the John F. Kennedy School of Government at Harvard University.

The federal Omnibus Budget Reconciliation Act of 1989 amended Title XIX of the Social Security Act to allow states to cover targeted case management and health education activities for low-income pregnant women and infants through the Medicaid program. After many months of planning with the Illinois Department of Public Aid, the Department implemented procedures in the FWF and Prenatal Care Programs to obtain federal matching funds by considering the outreach and case management activities in these programs as part of the cost of administering the Medicaid program in Illinois. These procedures have added millions of dollars to both programs without an increase in state spending.

The Edgar Administration’s maternal and child health initiative, Healthy Moms / Healthy Kids replaced Families with a Future in 1993. In addition to case management services, Healthy Moms / Healthy Kids introduced managed care for Medicaid-eligible pregnant women and young children in Chicago. The program budget for case management was expanded to provide sufficient resources for serving all Medicaid-eligible pregnant women and children under three years of age statewide. This expansion, in addition to the Department’s existing resources for the Infant Mortality Reduction Initiative, brought the resources for this component to its present total, in excess of $40 million.
The managed care, outreach and case management components of the Healthy Moms/Healthy Kids program in Chicago were placed under the auspices of First Health, Inc., a managed-care intermediary with previous experience in several states. Downstate, the case management and outreach components of Healthy Moms/Healthy Kids continued to be provided by the network of local health departments and other community-based organizations that had provided these services for the Families with a Future and Prenatal Care programs. The program model was changed to focus exclusively on outreach and case management; the maintenance of service provider networks was de-emphasized.

The managed care component of Healthy Moms/Healthy Kids was discontinued in June 1995. The case management component of the program was continued in SFY’96 under joint administration of the Illinois Department of Public Health and the Illinois Department of Public Aid. In SFY’97, all of the resources for outreach and case management were transferred to the IDPH and the program was renamed “Family Case Management.” The program was transferred to the Illinois Department of Human Services on July 1, 1997.

The Illinois WIC program began in 1974, serving a caseload of 12,000 low income pregnant, breastfeeding and postpartum women and infants and children up to 5 years of age. At that time the program was offered through eight local agencies serving nine counties. Today, WIC provides nutrition education, health care referral, breastfeeding support and supplemental nutritious foods to over 275,000 women, infants and children through 220 clinics statewide. Nearly 40 percent of all infants born in Illinois receive WIC benefits.