



# The Reduction of Infant Mortality in Illinois





**The Reduction of Infant Mortality in Illinois  
Annual Report  
State Fiscal Year 2017**

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## EXECUTIVE SUMMARY

Illinois' infant mortality rate for calendar year 2016 was 6.4 deaths for every 1,000 live births. In calendar year 2017, the rate was 6.1. In calendar year 2016 the absolute number of infant deaths was 985. In calendar year 2017 it was 912.

The Illinois Department of Human Services (IDHS) helps to reduce this loss through the integrated delivery of the Family Case Management (FCM) program and Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). These programs combined served an average of 19.95 percent of all infants in calendar year 2016 and 57.99 percent of Medicaid-eligible infants. In calendar year 2017 FCM and WIC served 21.45 percent of all infants and 57.66 percent of Medicaid-eligible infants. IDHS supplements these statewide programs with targeted services such as Better Birth Outcomes (BBO) for women whose chances of giving birth prematurely are greater than average and, as a result, their infants have a higher risk of dying before their first birthday.<sup>1</sup>

Program Success - IDHS monitors the performance of the FCM and WIC programs on several short-term health status indicators. At the end of the State Fiscal Year 2017 (SFY2017), the performance on each indicator included the following: 1) eligible children up to age 13 months who received FCM and had health insurance was 88.2 percent; 2) fully-immunized one-year-olds who received FCM was 85.3 percent; 3) infants who received WIC and were breastfed exclusively at 12 weeks was 9.6 percent; 4) children who received FCM and who received at least three well-child healthcare visits from a medical professional during the first year of life was 88.7 percent; 5) infants and children receiving developmental screening from a FCM nurse was 91.9 percent; and 6) women and infants who received FCM and WIC was approximately 93 percent.

Racial Disparities in Infant Mortality – The overall infant mortality rate in Illinois has declined by 24 percent since the inception of IDHS in 1997. Despite this, a significant and continued disparity in infant mortality rates persists between African American and Caucasian infants. IDHS and various organizations have created interventions designed specifically to reduce racial disparities in healthcare and health outcomes. The interventions include an increased focus on care of highest-risk pregnant women through the Better Birth Outcomes (BBO) program; a campaign to reduce elective late preterm deliveries; and an improved Perinatal Health Care system, which includes hospitals with the capacity to serve high-risk deliveries. Breastfeeding is a significant determinant of infant health. Illinois is in the forefront of promoting breastfeeding initiation and exclusivity via WIC's Peer Counselors who help women initiate and continue breastfeeding. Enhancement of services directed to preventing very low birth-weight, such as Better Birth Outcomes, holds significant potential for lowering the disparity between African American and Caucasian infant mortality rates and Illinois' overall infant mortality rate.

Improved Health Status – For the past 20 consecutive years [since calendar year (CY) 1997], infants born to Medicaid-eligible pregnant women who participated in both FCM and WIC are in better health than those born to Medicaid-eligible women who did not participate in either program. In CY2016, the rate of very low birth-weight was 25 percent lower than that among non-clients and the rate of premature birth was over 18.4 percent lower. In CY2017, the rate of very low birth-weight was over 33 percent lower than that among non-clients and the rate of premature birth was almost 13.7 percent lower. For both years, the very low birth-weight rate was also significantly lower (i.e., 37.5 percent and 32 percent respectively) than the general population who received no Medicaid and/or Family and Community Services (FCS) assistance.

<sup>1</sup> Birth data typically is reported at least 12 months after the end of a calendar year. The information provided is the most current available for CY2017.

Fiscal Savings - In addition to the improved health statuses listed above (health benefits afforded by FCM and WIC), Illinois' investment in these programs for calendar years 2016 and 2017 have saved the state an average \$54 million each year in Medicaid expenditures for VLBW and LBW births. In calendar year 2017, Illinois saved \$74 million in Medicaid expenditures. The expenses for these two birth outcomes were 17 percent lower among dual-program clients than among non-clients in CY2016, and in CY2017 expenses were over 34 percent lower. The numbers of births in Illinois was 19% lower in calendar year 2017 than it was in CY2000.

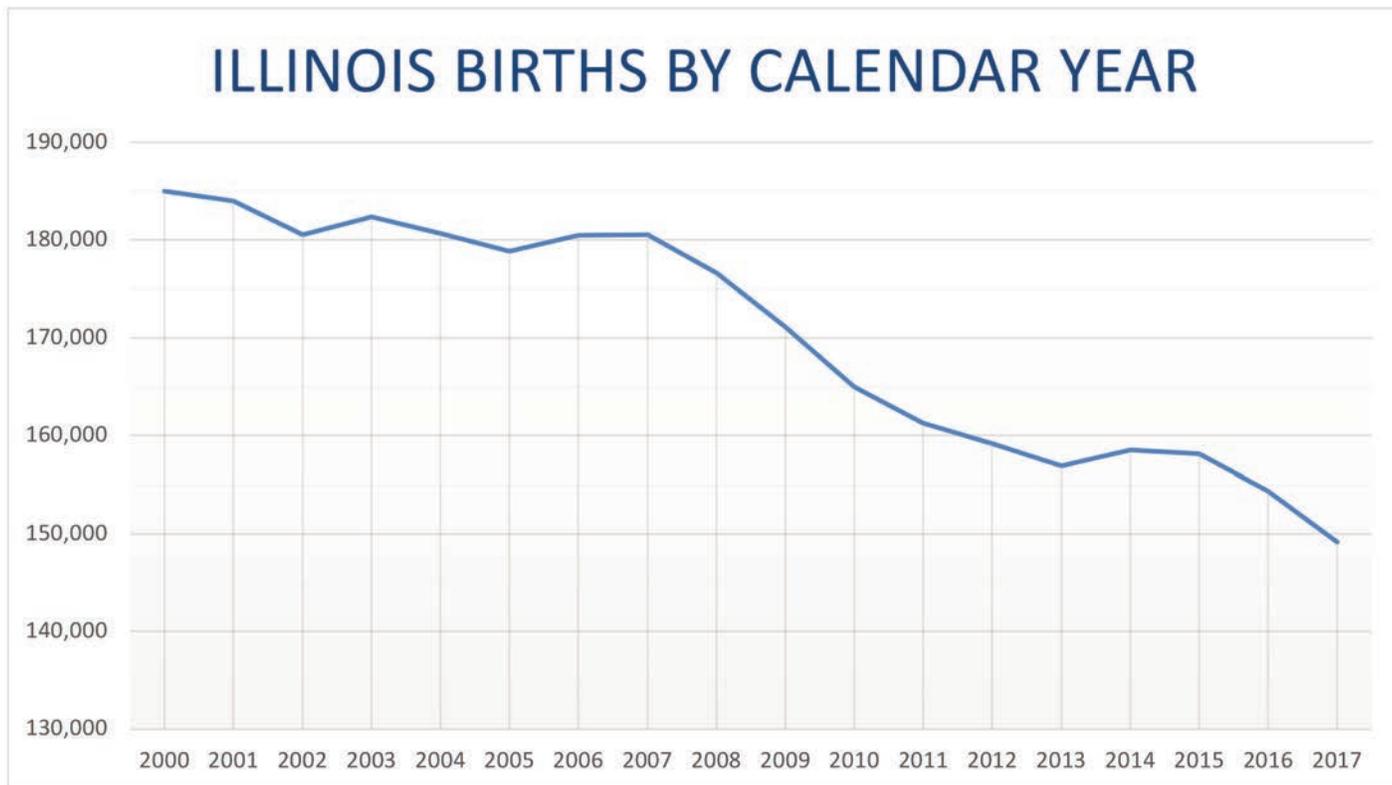


Figure 1. Illinois Births by Calendar Year  
 Source: <http://dph.illinois.gov/data-statistics/vital-statistics/birth-statistics>



## INTRODUCTION

For purposes of this report, the recipients of Family Case Management (FCM), BBO (Better Birth Outcomes), and Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) services will be referred to as clients.

Illinois' infant mortality rate for calendar year 2017 was 6.1 deaths for every 1,000 live births. In calendar year 2016, the rate was 6.4 deaths for every 1,000 live births. In calendar year 2016, the absolute number of infant deaths was 985. In calendar year 2017, it was 912.

Calendar Year	Number of Illinois Infant Deaths	Infant Mortality Rate
2013	942	6.0
2014	1,044	6.6
2015	952	6.0
2016	985	6.4
2017	912	6.1

Source: <http://dph.illinois.gov/data-statistics/vital-statistics/infant-mortality-statistics>

Many factors contribute to lowering the state's infant mortality rate. Medical and pharmacological treatments, such as antibiotics and newborn genetic testing, are available to diagnose and treat conditions that used to take the lives of infants who were born prematurely. Additionally, Illinois' ability to offer increasing maternal and child health services is due in part to the Illinois Department of Human Services' ongoing collaborative efforts with both the Illinois Department of Public Health (IDPH) and Illinois Department of Healthcare and Family Services (IDHFS).

Consecutive *Reduction in Infant Mortality* reports demonstrate that participation in both the FCM and WIC programs during pregnancy substantially improves infant health. According to the American Academy of Pediatrics, common conditions that occur in premature infants include infection, hernias, Respiratory Distress Syndrome (RDS), Chronic Lung Disease, Retinopathy of Prematurity (blindness), Jaundice, and heart murmurs.<sup>2</sup> A lower occurrence of these conditions leads to additional savings from avoided special education, disability, and rehabilitation support service costs over the lifetime of these children.

<sup>2</sup> "Health Issues of Premature Babies" HealthyChildren.org American Academy of Pediatrics. February 2016.

## PROGRAM DESCRIPTIONS

IDHS administers a Maternal and Child Health (MCH) strategy for the reduction of infant mortality. The strategy integrates two large-scale programs, the Family Case Management (FCM) program and Special Supplemental Nutrition Program for Women, Infants, and Children, more commonly known as WIC. Under FCM is another element of the MCH strategy; the Better Birth Outcomes (BBO) program.

Pregnant women deemed at risk of having an adverse outcome at birth as assessed by nutritionists, nurses and licensed clinical social workers are encouraged to enroll in the BBO program, which ultimately may decrease costs, improve health outcomes, and decrease morbidity and mortality in pregnant women and infants.

The integration of these programs is supported and enhanced by the shared use of Cornerstone, IDHS' Maternal and Child Health management information system. This system collects and reports all information necessary for the operation of the FCM, BBO, and WIC programs. Cornerstone provides an integrated record of the services provided to each client and a comprehensive care plan that identifies the services the family requires.

This avoids the problem of duplicative data collection and recording. The analysis of Cornerstone information enables IDHS to promote integration and streamlines the delivery of MCH services.

Family Case Management (FCM) is a statewide program that provides comprehensive Maternal and Child Health services. The IDHS funds 98 agencies, including local health departments, community-based organizations, and Federally Qualified Health Centers (FQHCs) to conduct FCM activities. Assessments are conducted and care plans developed to address a wide range of needs including: healthcare, mental health, educational, vocational, childcare, transportation, psychosocial, nutritional, environmental, and developmental. Contacts with mothers or guardians and their infant/child include home and office visits at a frequency determined by program-required minimum standards, case managers' clinical judgment, and expertise and knowledge of the clients' identified needs and situation.

Better Birth Outcomes (BBO) is a more intensive care coordination program directed exclusively to the needs of high-risk pregnant women enrolled in Family Case Management. For the purpose of the report, unless specifically mentioned, BBO clients are included in the FCM counts and percentages. During January 2013, the Better Birth Outcomes program began in 22 communities throughout Illinois. The program distinguishes high-risk women from those of lower-risk with the use of a standard risk screening tool. A Registered Nurse or master's trained Social Worker provide each client with standardized prenatal education utilizing the March of Dimes' Becoming a Mom curriculum. Care coordination among medical and social service providers is the hallmark of the program. Communication mechanisms between prenatal care providers and BBO care coordinators are in place. Interfaces among the state's large information systems (i.e., Medicaid Claims, Vital Statistics, and Cornerstone) alert care coordinators of at-risk women, inform the care providers and coordinators of the services delivered, and report performance in terms of services delivered and pregnancy outcomes.

The Special Supplemental Nutrition Program for Women, Infants and Children (WIC) seeks to improve the health of women, infants, and children; reduce the incidence of infant mortality, premature births, and low birth weight; promote breastfeeding; and aid in the growth and development of children. The program serves income-eligible (up to 185% of the federal poverty level) pregnant, breastfeeding, and postpartum-women, infants, and children up to five years of age who have a nutritional risk factor as defined by the USDA guidelines.

Clients receive nutrition education, counseling, referrals to healthcare, and supplemental foods. The food "prescriptions" are based on nutritional needs and include fruits and vegetables, whole grains, milk, cheese, eggs, adult and infant cereal and juice, peanut butter, beans, tuna, salmon, and infant formula. The tailored food prescriptions are printed on food instruments on-site for eligible women at WIC clinics statewide. Clients obtain their WIC foods by redeeming the food instruments at program-approved grocery stores throughout the state and at WIC Food and Nutrition Centers in certain areas of Chicago. The IDHS authorizes funds to 96 local

agencies to provide WIC services, including local health departments, not-for-profit healthcare agencies, and social service agencies. All WIC staff members are trained to support and promote breastfeeding. Over half of WIC agencies have additional funding for the WIC Breastfeeding Peer Counselor Program (BPCP). The use of Breastfeeding Peer Counselors adds a critical dimension to WIC’s efforts to help women initiate and continue breastfeeding. These counselors provide a valuable service to their communities, addressing the barriers to breastfeeding by offering breastfeeding education, support, and role modeling. Breastfeeding Peer Counselors are familiar with the resources available to women enrolled in WIC, have familiarity with the questions a new breastfeeding mother may ask, and recognize when to refer mothers to other resources during critical periods when mothers experience difficulties.

## FINANCING

Illinois’ integrated Maternal and Child Health program for the reduction of infant mortality is supported by a combination of state and federal resources.

Table 2				
Budget for Integrated Infant Mortality Reduction Strategy by Program Component and State Fiscal Year				
Program	WIC (all sources)	FCM	BBO	Total
SFY2013	\$310,000,000	\$38,470,680	\$2,880,000	\$351,350,680
SFY2014	\$316,543,820	\$34,019,650	\$4,463,000	\$355,026,470
SFY2015	\$292,350,000	\$32,493,330	\$6,201,000	\$331,044,330
SFY2016	\$260,292,160	\$28,724,250	\$6,111,000	\$295,127,410
SFY2017	\$276,648,529	\$38,664,965	\$11,067,157	\$326,380,651

Note: IDHS initiated Better Birth Outcomes (BBO) in 22 communities in January 2013. In 2017 there are still 22 communities involved in the BBO program.  
Funding for the program as presented in Table 2 for calendar year 2013 reflects one half year’s support.

The FCM program was supported by several funding sources that include 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. 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. Each year this increases the total amount of funds available for the FCM program without an increase in IDHS’ appropriation for FCM.

WIC is funded by the U.S. Department of Agriculture (USDA) with both food funds and Nutrition Services Administration (NSA) dollars, which provide for WIC nutrition assessment, education, counseling, and referrals. NSA funds are granted to local WIC providers based on an estimated caseload. An infant formula rebate contract is required by the USDA, which supplements the WIC food funds. Rebates added over \$65.2 million to the WIC program’s food budget for SFY2017.

## SERVICE DELIVERY SYSTEM

Family Case Management. WIC and BBO are delivered at the community level by grantees of IDHS. Most often these are local health departments, although 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, and children.

Local Health Departments. There are 97 certified Local Health Departments (LHDs) in Illinois. LHDs have a unique responsibility and are accountable to the public for the health of the entire community to assess needs, develop policy and address problems. Local health departments provide Maternal and Child Health services within their jurisdictions.

Community Health Centers. CHCs provide a complete array of primary health care services in medically under-served communities. Several CHC's are IDHS grantees for Family Case Management, WIC and other programs such as substance abuse and addiction services, crisis intervention and primary care physicians. Examples of CHCs include Erie Family Health Center, Near North Health Services Corporation, Aunt Martha's Youth Services, Chicago Family Health Center, and VNA (Visiting Nurse Association) of Fox Valley. These entities have been partners in the Better Birth Outcomes program as well as FCM and WIC.

Community-Based Organizations (CBOs) and Social Service Agencies. A Community-Based Organization is one that is driven by community residents in all aspects. Local residents may staff and govern the organization, and they are often located in the center of the community they serve. Collaborating with Community-Based Organizations enables IDHS to educate and heighten awareness about FCM and WIC. The CBOs and Social Service Agencies bring an extensive knowledge of the communities they serve, are familiar with the cultural diversity of their communities, and employ staff who remain sensitive to community needs, beliefs, and cultures.

Community Health Centers (CHCs) is a term used to describe health centers, due to their community-based nature. It encompasses several types of health centers. <https://www.ruralhealthinfo.org/topics/>

Federal Qualified Health Centers (FQHCs) are outpatient clinics that qualify for specific reimbursement systems under Medicare and Medicaid. FQHCs include federally-supported health centers. <https://www.ruralhealthinfo.org/topics/>. Federal Qualified Health Centers (FQHCs) and Community Health Centers (CHCs) data can be found at <https://data.hrsa.gov/>



## CASELOAD

The number of clients served by the FCM and WIC programs between SFY2013 and SFY2017 is presented in Table 3. The WIC and FCM caseloads have declined in recent years. This decrease is due in part to lower birth rates for FY 2016 and FY2017. See Figure 1 on page 4.

Table 3					
Total Number of Clients Served in FCM and WIC Programs by Program and SFY					
SFY	2013	2014	2015	2016	2017
FCM	252,234	233,694	222,098	192,189	156,070
WIC	503,237	488,400	469,265	430,028	407,676

Source: Cornerstone

Table 4 represents a breakdown of WIC and FCM clients served in SFY2017. FCM does not keep a separate count of the number of participating postpartum or breastfeeding women. Under USDA guidelines, however, these women comprise a separate category of eligibility for the WIC program.

Table 4		
Number of Clients Served in FCM and WIC Programs by Type of Client and Program – SFY2017		
Type of Client	Program	
	FCM	WIC
Pregnant Women	54,696	73,575
Postpartum and Breastfeeding Women	NA (*)	50,736
Infants (up to 12 months of age)	86,256	136,732
Children (1 to 5 years of age)	15,118	146,633
Total	156,070	407,676

Source: Cornerstone

\*FCM does not have a category of postpartum or breastfeeding women

In FY17 the FCM and WIC programs together reached 22.7 percent of all infants and over 44 percent of Medicaid-eligible infants born in Illinois. Women who are at high-risk for giving birth prematurely or having a baby with other health problems are receiving benefits from these programs as these programs are intended to function.

As shown in Tables 5a and 5b, the FCM and WIC programs are having an impact on different demographic groups. For example, African-American infants made up 19% of the live births in calendar year 2017, however, 40% of all the African American infants born in Illinois in calendar year 2017 were covered by the FCM or WIC programs. Given that there is a racial disparity in the infant mortality rate, serving a higher percentage of African American clients in the two programs than is represented by the community helps to address that disparity.

Teenagers (age 10-19) had 3% of all the live births in Illinois for calendar year 2017, but 72% of all infants born to teenage moms in Illinois were covered by the FCM and WIC programs in 2017. Teenage pregnancy and birth are high-risk events by definition of the FCM and WIC programs. The FCM and WIC programs are designed to reduce that risk.

Table 5a					
Number and Percent of All Live Births and Live Births to FCM or WIC Clients by Demographic Group Illinois, Calendar Year 2016					
Demographic Group	Live Births				
	All		FCM or WIC Clients		
	Number	Percent	Number	Percent	Percent of Group
Caucasian	114,750	73%	23,350	62%	20%
African American	28,406	18%	11,993	32%	42%
Asian American, Native American, & all others	14,035	9%	2,523	6%	16%
All Live Births *	157,191	100.0%	37,866	100.0%	24%
Hispanic/Latino	33,596	21%	11,330	30%	34%
Single	33,294	21%	26,000	69%	78%
Teenage	5,514	4%	4,140	11%	75%

Source: IDPH Vital Records and IDHS Cornerstone via the IDHFS Enterprise Data Warehouse (EDW)

Table 5b					
Number and Percent of All Live Births and Live Births to FCM or WIC Clients by Demographic Group Illinois, Calendar Year 2017					
Demographic Group	Live Births				
	All		FCM or WIC Clients		
	Number	Percent	Number	Percent	Percent of Group
Caucasian	110,822	73%	21,053	61%	19%
African American	28,391	19%	11,407	33%	40%
Asian American, Native American, & all others	12,212	8%	1,925	6%	16%
All Live Births *	151,425	100.00%	34,385	100.00%	23%
Hispanic/Latino	32,062	21%	9,936	29%	31%
Single	37,141	25%	24,053	70%	65%
Teenage (Age 10-19)	5,070	3%	3,669	11%	72%

Source: IDPH Vital Records and IDHS Cornerstone via the IDHFS Enterprise Data Warehouse (EDW)

\*Where Ethnicity of the Mother was reported.

# PERFORMANCE

Program performance is measured against several short-term health status indicators among women, infants, and children enrolled in FCM, WIC, or both programs, which include:

1. Enrollment in both FCM and WIC
2. Enrollment in FCM within first trimester
3. Achievement of breastfeeding exclusivity in the first 12 weeks in WIC
4. Contact by a Breastfeeding Peer Counselor (BFPC) in the first week of life by BFPC-funded agencies
5. Completion of three or more well-child visits with a medical professional to FCM infants before age one
6. Determination of full immunization of infants in FCM
7. Assessment of developmental screening status of infants and children in FCM

IDHS uses its management information system, Cornerstone, to analyze and generate quarterly reports on these performance measures. Agency performance provides the basis for ongoing technical assistance. These reports can be found at <http://www.dhs.state.il.us/page.aspx?item=31152> for provider and public access.

## 1. Enrollment in Both FCM and WIC

Since 1998, IDHS has promoted the integration of FCM and WIC services. Continuing evaluations have shown that Medicaid-eligible women who participated in FCM and WIC during their pregnancies have had substantially lower rates of premature birth and infant mortality.

Figure 3, “Program Integration of WIC and FCM SFY2012 to SFY2017,” displays the proportion of clients in one program that are also enrolled in the other program or “integrated into both programs”. This allows the client to receive more services than would be available from only one program. For example, the line labeled ‘WIC’ shows the proportion of WIC clients also enrolled in FCM. At the end of Fiscal Year 2017, 90.44 percent of WIC clients were receiving FCM services and 95.21 percent of FCM clients were receiving WIC services.

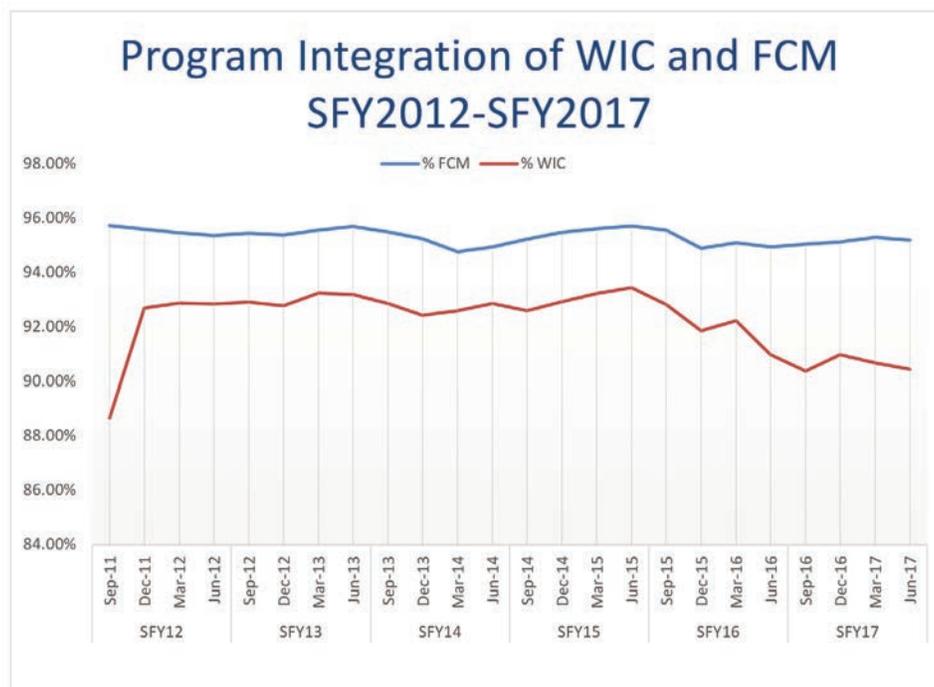


Figure 3. Program Integration of WIC and FCM, SFY2012 thru SFY2017. Source: Cornerstone

## 2. First Trimester Enrollment in FCM

Enrollment in FCM services during the first trimester of pregnancy is essential to ensure maximum impact on the health of the mother and newborn infant. Figure 4, “Prenatal Clients’ First Trimester Enrollment in FCM” SFY2013 - 2017 shows there has been a relatively steady rate over the last several years in the proportion of program clients who enrolled in the programs during the first trimester of pregnancy.

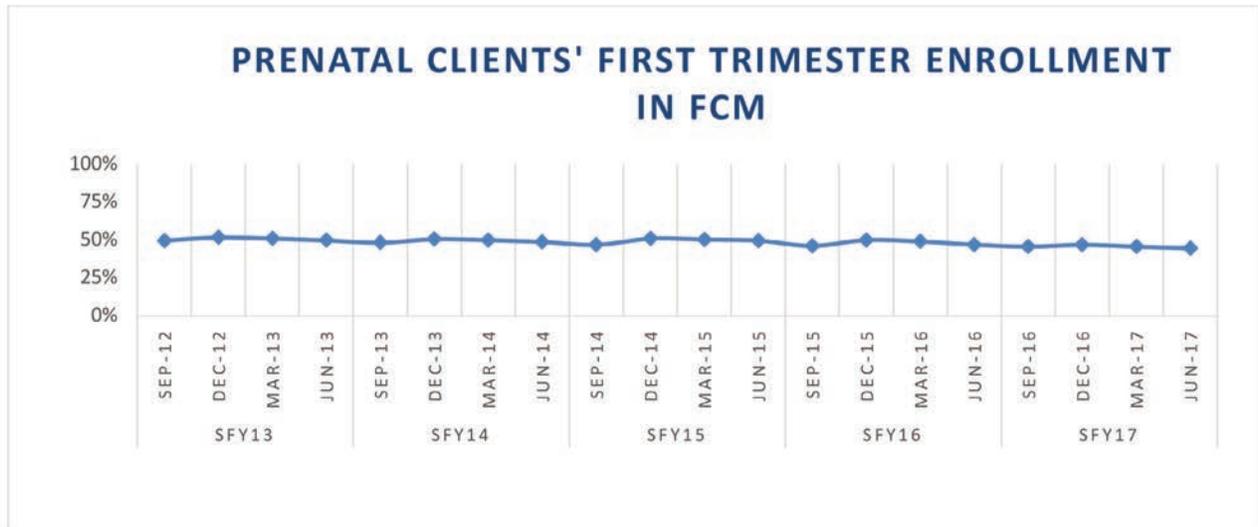


Figure 4. Prenatal Clients’ First Trimester Enrollment in FCM SFY2013 - SFY2017.  
Source: Cornerstone

Local FCM agencies use a variety of strategies to reach low-income families in the communities they serve. The Better Birth Outcomes program, which is part of FCM services, places strong emphasis on first trimester enrollment in the program. BBO agencies are required to develop and implement formal outreach plans and maintain monthly logs of their outreach activities. These activities 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 clients in hard-to-reach populations (e.g., persons who abuse drugs or engage in prostitution). BBO agencies are expected to have linkage agreements for referrals from all medical providers within their target services areas.

IDHS also takes advantage of its computer technology to increase the proportion of Medicaid-eligible pregnant women who enroll in FCM and improve the proportion of women who enroll in the first trimester of pregnancy. For instance, local FCM service providers are linked to IDHS’ Family Community Resource Centers (FCRCs) 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. The information is then distributed to local service providers and is ultimately used to conduct targeted outreach efforts.

### 3. Breastfeeding Exclusivity in WIC

Breastfeeding is a significant determinant of infant health. Illinois is in the forefront of promoting breastfeeding initiation, exclusivity, and duration. Effective January 2013, the Hospital Infant Feeding Act (HIFA) made Illinois the first state in the nation to require that all birthing hospitals adopt a policy promoting breastfeeding.

The American Academy of Pediatrics (AAP) recommends exclusive breastfeeding for the first 3 months (12 weeks) of life and continued breastfeeding with the introduction of complementary food for one year or longer as mutually desired by mother and infant. Figure 5 below, entitled “WIC Clients’ 12 Week Breastfeeding Exclusivity SFY2014 - SFY2017,” displays the proportion of women who participated in the WIC program during pregnancy and exclusively breastfed their infants for 12 weeks after giving birth. The rate of breastfeeding exclusively among WIC clients slightly declined in SFY2017 compared to the previous state fiscal years in part due to the lower number of births in Illinois for SFY2017.

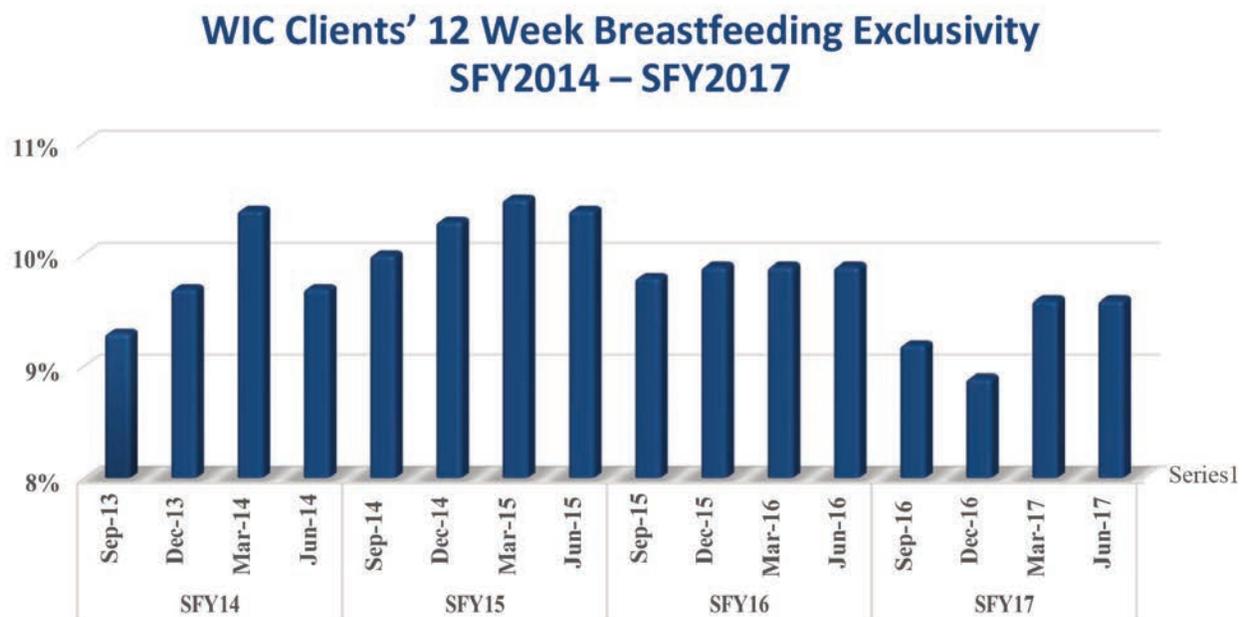


Figure 5. WIC Clients' 12 Week Breastfeeding Exclusivity SFY2014 - SFY2017.  
Source: Cornerstone

#### 4. Contact by a Breastfeeding Peer Counselor

In the WIC program, Breastfeeding Peer Counselors (BFPCs) help women initiate and continue breastfeeding. BFPCs are mothers who have personal experience with breastfeeding and are trained to provide basic breastfeeding information and encouragement to new mothers. BFPCs are familiar with the resources available to WIC clients, have familiarity with the questions a new breastfeeding mother may ask, and recognize when to refer mothers to other resources during critical periods when mothers may experience difficulty.

BFPCs are recruited and hired from WIC's target population of low-income women and undergo training to provide mother-to-mother support in group settings and one-to-one counseling through telephone calls or visits in the home, clinic, or hospital. Representing diverse cultural backgrounds, they offer encouragement, information, and support to other WIC mothers. Most women stop breastfeeding in the early weeks. To move the exclusivity of breastfeeding goal forward, BFPCs are responsible for making contact at least twice in the infant's first week of life, either in person or via telephone, to provide support and encouragement in this critical period. Tracking this measure began in 2015 as depicted below.

### WIC Breastfeeding Peer Counselor Women With 2 Peer Counseling Contacts the First Week

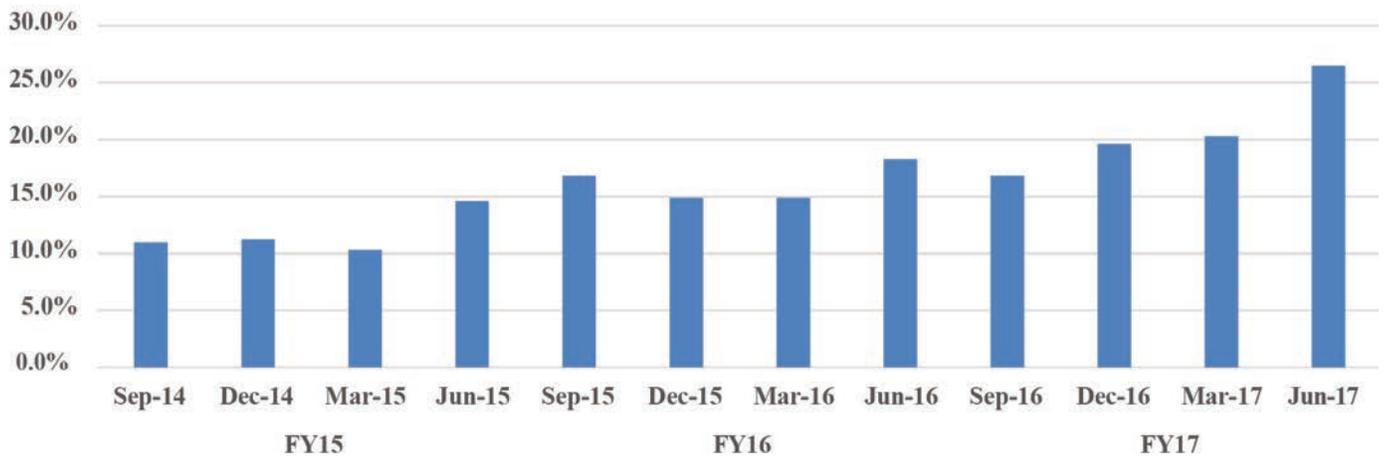


Figure 6. WIC Breastfeeding Peer Counselor Women With 2 PC Contacts the First Week. Source: Cornerstone.

### 5. Three or more Well-Child Visits to FCM Infants before Age One

The American Academy of Pediatrics (AAP) and Healthy People 2020<sup>4</sup> recommend routine FCM well-child visits with a medical professional. FCM providers monitor a child's growth and development, provide preventive healthcare services (i.e., immunizations), screen for potentially serious health problems (i.e., lead poisoning or problems with vision or hearing), and inform parents through anticipatory guidance. AAP and Healthy People 2020 recommend six such visits during the first year of life, to occur at one month, two months, four months, six months, nine months, and twelve months of age.

IDHS monitors FCM providers to ensure that participating infants receive at least three well-child visits during the first year of life. Figure 7 below displays the percentage of infants who had at least three or more well-child visits during their first year of life. In SFY2017, 88.7% of FCM infants met this standard.

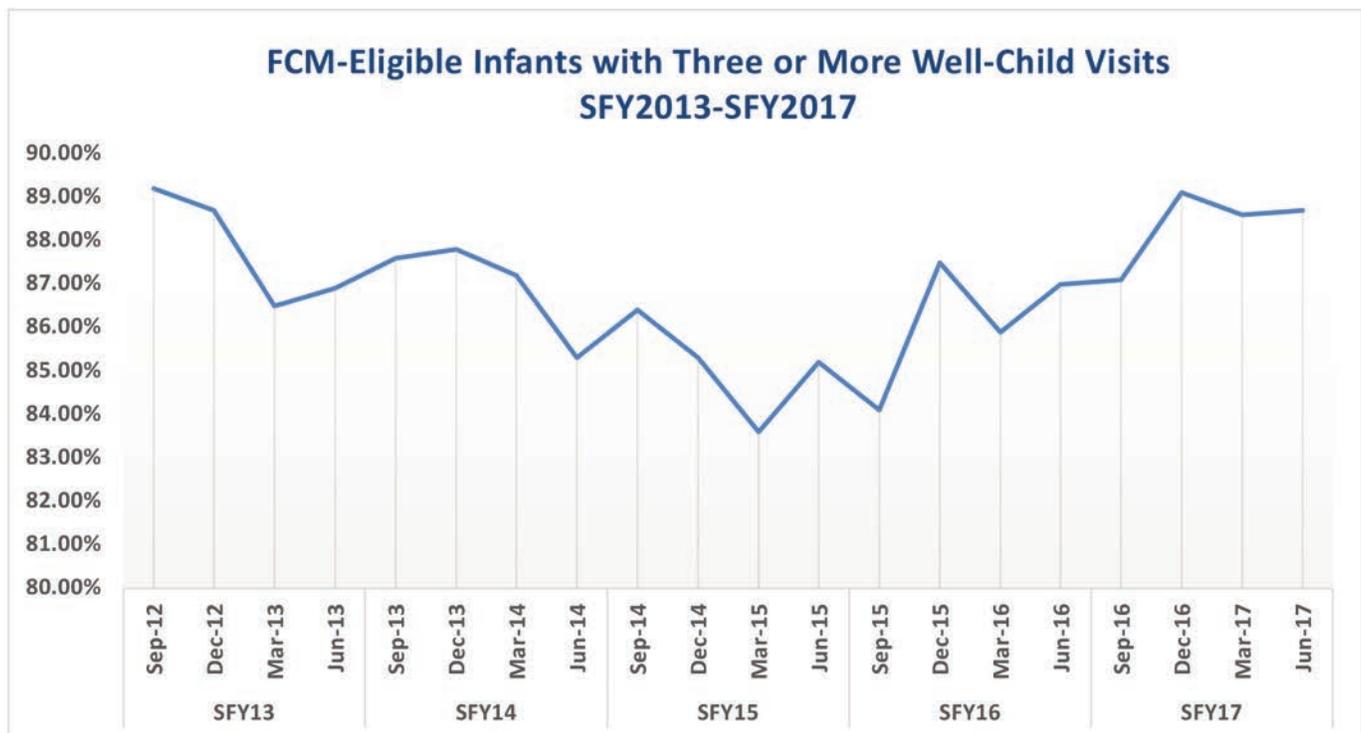


Figure 7. FCM-Eligible Infants with Three or More Well-Child Visits with a Medical Professional. SFY2013 - SFY2017. Source: Cornerstone.

<sup>4</sup> Healthy People 2020 (managed by the U.S. Department of Health and Human Services) provide science-based, 10-year national objectives for improving the health of all Americans. Healthy People 2020 was launched in 2010. [www.healthypeople.gov](http://www.healthypeople.gov)

## 6. Fully Immunized Infants in FCM

According to Healthy People 2020, vaccines are the most cost-efficient and effective way to prevent childhood disease and mortality. For SFY2017, 85.3% of FCM children between 12 and 18 months had received their immunizations.

Figure 8 shows the proportion of children between 12 and 18 months of age who were active in FCM services and had received:

- 3 doses of diphtheria, pertussis, and tetanus vaccine;
- 2 doses of oral polio vaccine; and
- 2 doses of Hemophilus influenza type B vaccine.

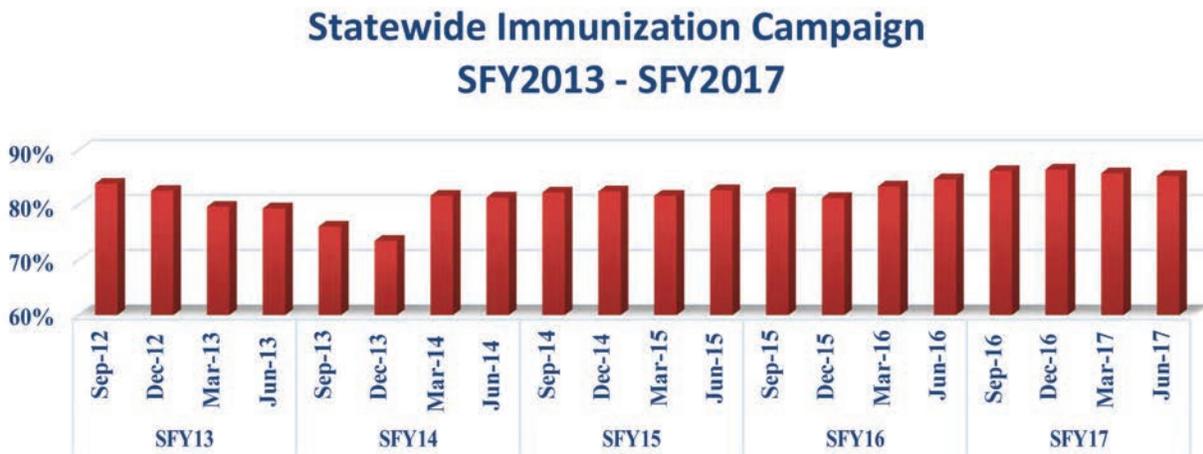


Figure 8. Statewide Immunization Campaign SFY2013 - SFY2017. Source: Cornerstone



## 7. Developmental Screening of Infants and Children in FCM

HealthyChildren.org (in association with the American Academy of Pediatrics) states that infants and young children (i.e., ages 0 to 4) should be screened routinely for evidence of delays in cognitive, linguistic, motor, social, and emotional development. Through routine screenings developmental delays can be promptly identified and therapy initiated for the infant or child.

IDHS monitors the proportion of infants in the FCM program who have been screened for issues associated with physical and/or cognitive developmental delays at least once a year. This is a measured performance standard that is required to be at least 80%.

Figure 10 below, entitled “FCM Developmental Assessment at 12 Months of Age SFY2013 – SFY2017”, displays the proportion of 12-month-old children in FCM screened for developmental delays at least once since birth. For SFY2017, 91.9% of all FCM children were screened for developmental delay at least once since birth.

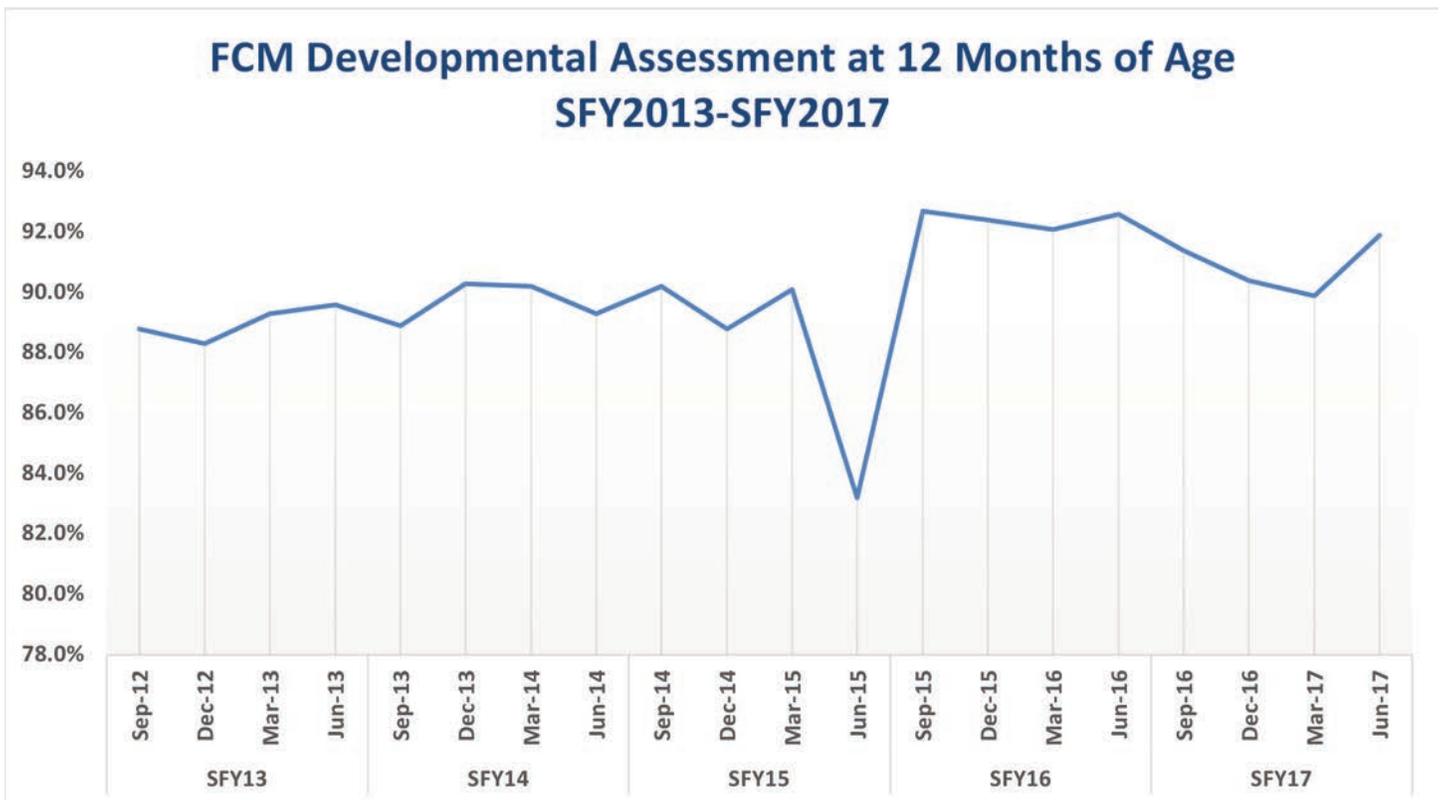


Figure 10. FCM Developmental Assessment at 12 Months of Age SFY 2013 - SFY 2017. Source: Cornerstone



## OUTCOMES

Illinois' integrated strategy for improving maternal and child health focuses on four outcomes that reduce:

- Very low birth-weight rate (VLBW)
- Premature birth rate (Prior to 36 weeks gestation)
- Medicaid expenditures during the first year of life
- Infant mortality rate

Very low birth-weight infants (i.e., newborns who weigh less than 3 pounds 2 ounces) require intensive medical care. While these infants represent less than two percent of all live births, they also account for 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 FCM, BBO, and WIC affects the state's infant mortality rate and health care expenditures. The health status of infants born to Medicaid-eligible women who participated in both FCM and WIC has been substantially better than that of infants born to Medicaid-eligible women who did not participate in either program. In CY2017, 131 infants born with VLBW died during their first year of life. Only 21 of those deaths were infants enrolled in FCM and WIC. Of the 131 infants who died in their first year of life with a VLBW, 44% of them were on Medicaid. In CY2017, 59.6% of all premature births in Illinois had a mother enrolled in FCM or WIC. Of those 3749 premature infants, 84.2% of them were on Medicaid.

**Very Low Birth-Weight (newborns who weigh less than 3 pounds 2 ounces)**

The very low birth-weight (VLBW) rate of infants for women who were in Medicaid, FCM and WIC was 1.4 percent in CY2016, while women who received only Medicaid services during pregnancy was 1.9 percent. For 2017 these numbers were 1.2 and 1.8 percent respectively. The rate of VLBW of infants within the general population who received no services was 2.4 percent in CY2016 and 2.1 percent in CY2017.

Even more remarkable is the fact that the VLBW rate of infants for those women receiving Medicaid, FCM and WIC in CY2016 was 33 percent lower and 27 percent lower in CY2017 than the women who were not enrolled in FCM and WIC.

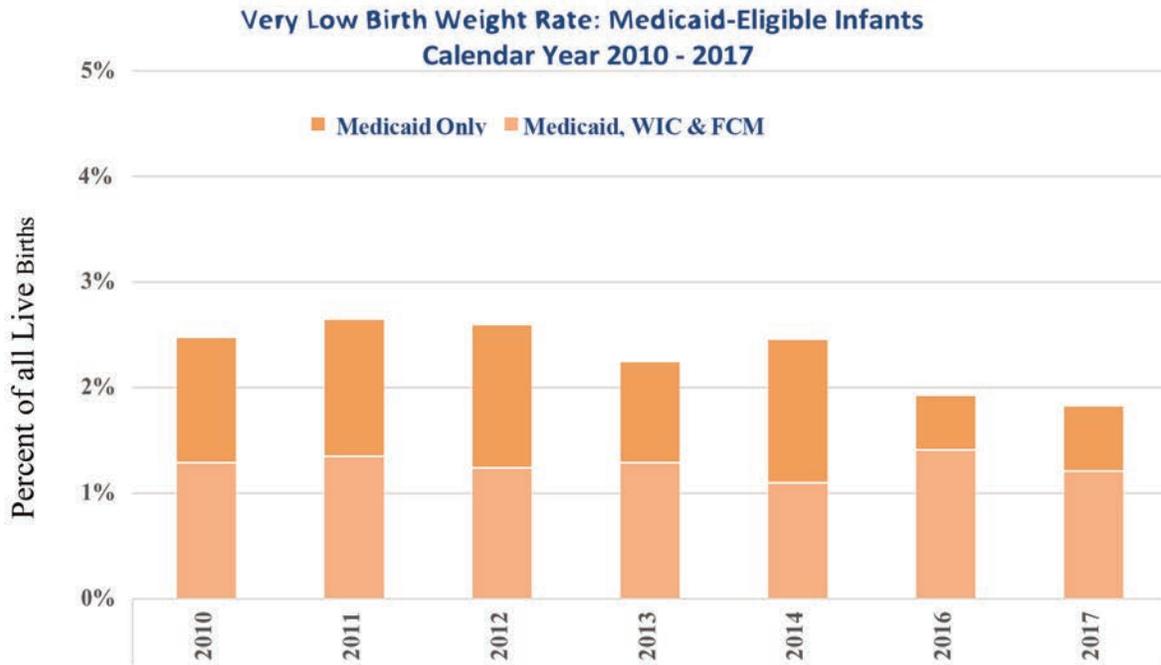


Figure 11. Very Low Birth Weight Rate: Medicaid-Eligible Infants Calendar Year 2010 – 2017. Source: IDPH Vital Records and IDHS Cornerstone via the IDHFS EDW

Category	VLBW Births by CY		Percentage of VLBW to Total Illinois Births for each Category	
	2016	2017	2016	2017
Medicaid only	356	378	1.8%	1.9%
FCM, WIC and Medicaid	498	817	1.2%	1.4%
General Population with no Medicaid or FCM/WIC	2463	2215	2.4%	2.1%

## Infant Mortality

As reflected in Figure 12 below, entitled “Infant Mortality Rate”, Illinois has made steady progress in reducing its infant mortality rate, in part due to the improvement of birth outcomes of high-risk women participating in the FCM and WIC programs. In CY2017, there were 4.6 deaths per thousand less than in CY1990. In CY1990, there were 2,090 infants who died in their first year of life, or 10.7 per thousand compared to 912 in CY2017 or 6.1 per thousand. While there is a significant decrease in deaths per 1,000 when comparing CY1990 to CY 2017, the rate has remained relatively stable over the last several years.

## Infant Mortality Rate

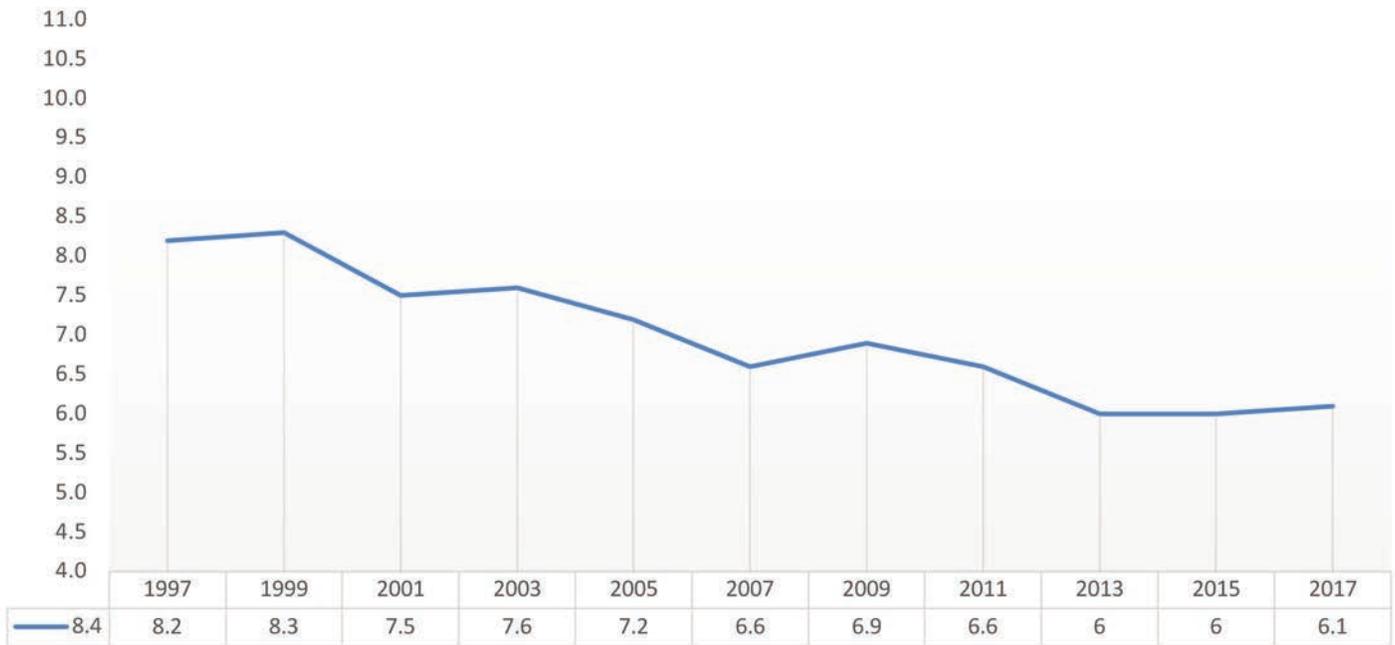


Figure 12. Infant Mortality Rate. Source: <http://www.dph.illinois.gov/data-statistics/vital-statistics/infant-mortality-statistics>



## Racial Disparities in Infant Mortality: The Persistent Challenge

Figure 13 below, entitled “Infant Mortality by Race in Illinois”, presents the CY2017 infant mortality rates of African American, Caucasian, and Illinois’ entire population. The rate among African Americans continues to be at an unacceptably high level of 13.2 deaths per 1,000 live births.

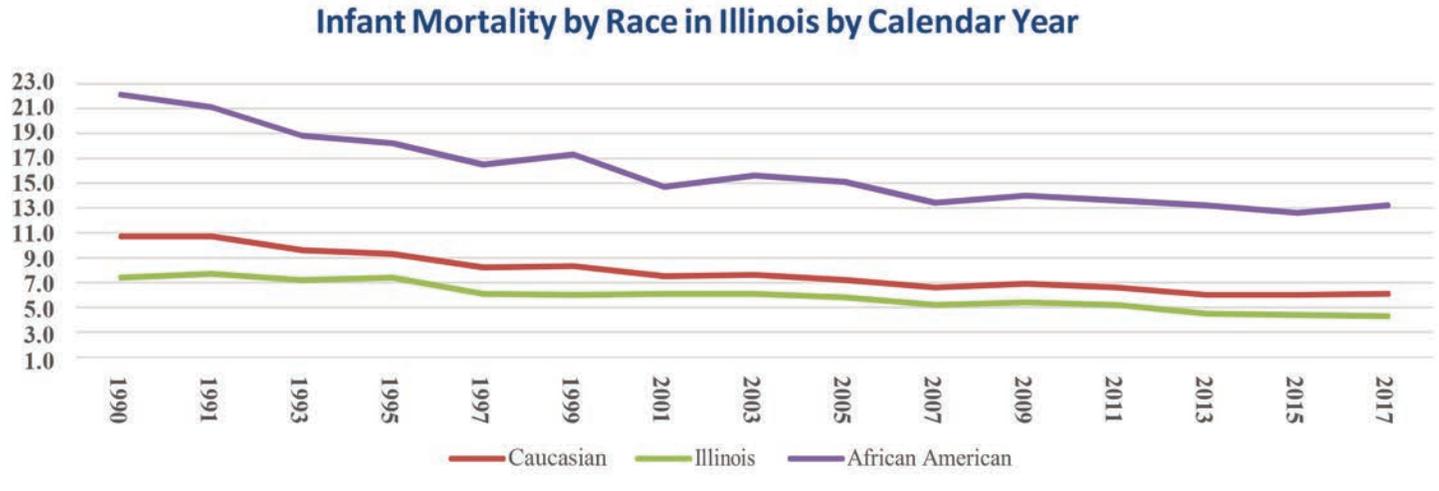


Figure 13. Infant Mortality by Race in Illinois Calendar Year 1990 - 2017  
 Source: <http://www.dph.illinois.gov/data-statistics/vital-statistics/infant-mortality-statistics>

A significant disparity in infant mortality rates persists between African American and Caucasian infants (See Figure 13). An African American infant born in Illinois during calendar year 2017 was 2.16 times more likely to die before reaching his/her first birthday compared to a Caucasian infant. As shown in Figure 14.

This disparity is not acceptable and IDHS Office of Family Wellness/Bureau of Maternal and Child Health is partnering with the Illinois Perinatal Quality Collaborative (ILPQC) to determine effective strategies around Opioid addiction/ Neonatal Abstinence Syndrome, prenatal hypertension and pregnancy spacing. IDHS is also partnering with the Illinois Department of Children and Family Services to improve service engagement and address safe sleep awareness, education and assessment.

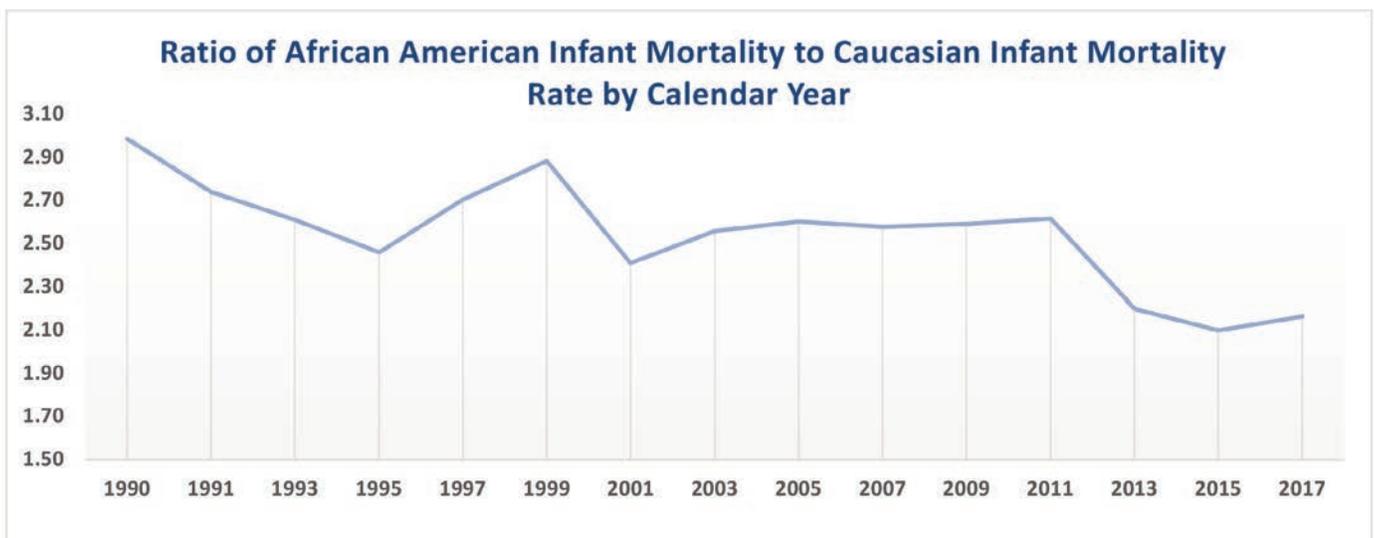


Figure 14. Ratio of the African American Infant Mortality rate to the Caucasian Infant Mortality Rate

## CONCLUSION

As reflected in the SFY2017 Infant Mortality Annual Report, IDHS is working to improve outcomes for low income families. Mothers, infants, and children on Medicaid who participate in FCM and WIC present better birth outcomes than those receiving Medicaid only. Prevention programming is targeted at both individuals and communities by educating families while conserving limited resources. Health service indicators such as immunization rates, well-child visits, and breastfeeding exclusivity are rising due to the concerted efforts of FCM and WIC clients, providers, and administrators. IDHS and other health and human services agencies will continue to strive to improve outcomes with particular focus on the African American infant mortality rate by engaging families in available services to ensure the best outcomes for all.





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